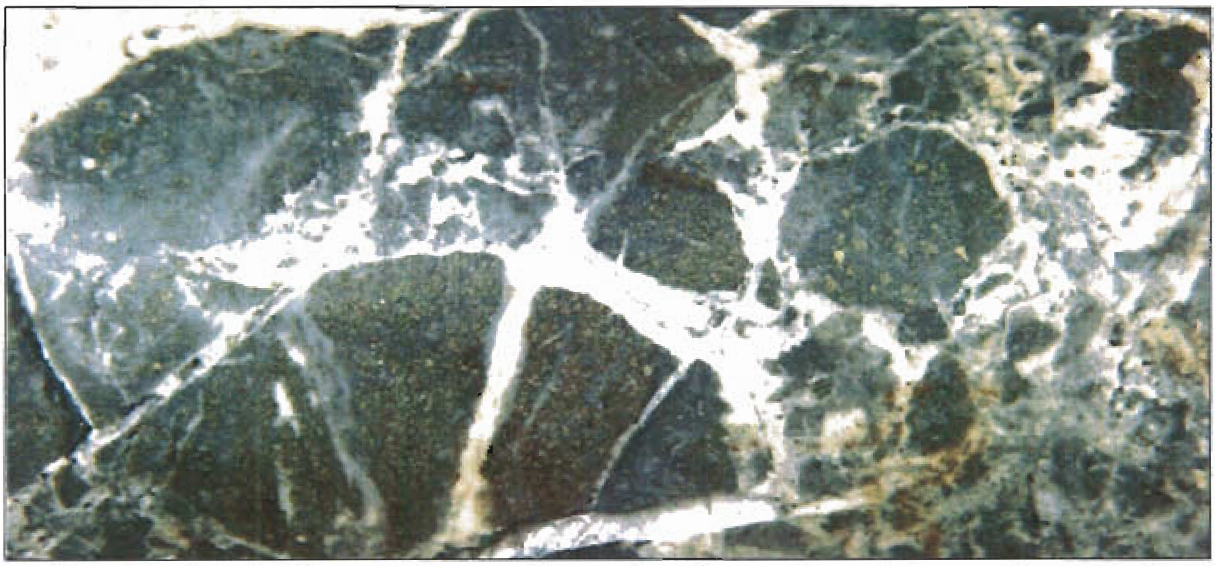


Technical Report on the Exploration Results and Mineral Resource Estimate of the Maco Gold Mine Located in Maco and Mabini Municipalities, Davao de Oro Province, Philippines

[MPSA-225-2005-XI]

June 2021

CP involved:

Darwin Edmund L. Riguer
BSc Geology, MAppSc Earth Science
Professional Geologist, Reg. No. 1684
CP Exploration Results/Mineral Resource Estimation, PMRC/GSP
CP Accreditation No. 20-12-02

Prepared for:

Apex Mining Co., Inc.
3304B West Tower, PSE Centre, Exchange Road, Ortigas Center, Pasig City, Philippines

2.0 CERTIFICATE AND CONSENT OF THE CP

2.1 Certification and Consent

I, ***Darwin Edmund L. Riguer***,

Confirm that I am the Competent Person for the Report entitled "Technical Report on the Exploration Results and Mineral Resource Estimate of the Maco Gold Mine Located in Maco and Mabini Municipalities, Davao de Oro Province, Philippines [MPSA-225-2005-XI]" dated June 2021, and:

- That I am a Geologist residing at 4226 Flora Vista Condominium, Peacock St., Fairview, Quezon City, Metro Manila, Philippines.
- I have read and understood the requirements of the 2007 Edition of the Philippine Mineral Reporting Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (PMRC 2007 Edition).
- I am a Competent Person (CP) as defined by the PMRC 2007 Edition, having a minimum of five years relevant experience in the style of mineralization or type of mineral deposit described in the Report and to the activity for which for which I am accepting responsibility.
- I am a Member of the Geological Society of the Philippines.
- I am a full-time employee as the Exploration Manager of Maco Mine – Apex Mining Co., Inc. (AMCI). I am not a holder of shares, options and/or warrant, tenement rights, and has no landlord-lessee relationship of land and/or infrastructure which has bearing on the disclosure.
- I have reviewed the Report to which this Consent Statement applies.
- I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issues that could be perceived by investors as a conflict of interest.
- I verify that the Report is based on. and fairly and accurately reflect in the form and context in which it appears, the information in my supporting documentation relating to Exploration Results and Mineral Resources.
- I have an undergraduate degree of BS Geology (2007) at the University of the Philippines and post-graduate degree of Master of Geo-Information Science and Earth Observation (Applied Earth Science) (2011) at the ITC, The Netherlands.
- That this Report is based on available data and information provided by Apex Mining Co., Inc. (AMCI) and hews as closely as possible to geological procedures and standards prescribed by the PMRC 2007 Edition. All professional opinions, interpretation and conclusions made in this Report were also done in accordance with geo-scientific principles and practice, and industry standards.
- That this Report is for the filing of the Technical Report with the Philippine Stock Exchange and any publication by them for regulatory and disclosure purposes, including electronic publication in the public company files on their websites accessible by the public of the Technical Report. Any disclosure for some other purpose(s) based on this report should obtain the consent of the CP and author(s) of this report.
- That this Report is not to be modified, published, or reproduced, either wholly or in part, without the CP's and authors' prior written consent. This Report shall be read as a whole, and sections should not be read or relied upon out of context. This certification, consent, and explanatory statement must accompany every copy of this report.
- The contents of this Report are valid from the date of signing by the undersigned. However, if any new geological information, exploration results and ore deposit models will arise that may have direct or indirect implication on the mineral resources inventory as declared in this Report, the said Inventory may be rendered inaccurate and should therefore be appreciated or treated with caution.
- Consequently, the Mineral Resources inventory in this Report should not be relied upon after elapsed period of one year without the professional review, technical verification and updating by the authors or another Competent Person(s).

2.2 Scope of Work

Darwin Edmund L. Riguer is the PMRC-accredited CP on Geology involved in the project. His scope of work was to review, audit. and if found in order, certify the work of the AMCI Technical Team who prepared this Technical Report. The CP was provided with information needed for preparation of the report. The criteria used in the resource estimation are compliant with the Philippine Mineral Reporting Code 2007 (PMRC) as required by the Philippine Stock Exchange.

2.3 Reliance on Other Experts Indicating Therein Objective, Nature and Coverage

The CP relied on the data gathered by the technical staff of AMCI. The CP certified report can only be as good as the data provided to the CP. The objective of this work is to present a PMRC-compliant Technical Report entitled "Technical Report on the Exploration Results and Mineral Resource Estimate of the Maco Gold Mine Located in Maco and Mabini Municipalities, Davao de Oro Province, Philippines [MPSA-225-2005-XI]" dated June 2021.

REPUBLIC OF THE PHILIPPINES
CITY OF TAGUM

SUBSCRIBED AND SWORN to before me this 29 JUN 2021 in CITY OF TAGUM, Philippines, affiant personally appeared to me and exhibited his PRC Registered Geologist License No. 1684 as proof of his identity.

Doc. No. 435;
Page No. 89;
Book No. I;
Series of 2021.
B.M. No. 3795
Sc En Banc Reso.-12.01.2020
Extended until June 30, 2021

IAN JOSEPH Z. UY
Notary Public
Until 31 December 2020
IBP No. 0102865 • 01-18-2020 • DC
PTR No. 2174593 • 01-10-2020 • TC
Notarial Compliance 727
MCLE Compliance VI-0009830
Roll No. 51568

2.4 Signature of the CP

Darwin Edmund L. Riguer
BSc Geology, MAppSc Earth Science
Professional Geologist, Reg. No. 1684
CP Exploration Results/Mineral Resource Estimation, PMRC/GSP
CP Accreditation No. 20-12-02

3.0 EXECUTIVE SUMMARY

Apex owns the mineral rights to **MPSA-225-2005-XI** and **MPSA-234-2007-XI**, both situated within barangays Masara and Teresa in the Municipality of Maco, Davao de Oro (Compostela Valley) in Mindanao Island in the Philippines. At the time of writing, operations at the Maco Mine are focused on the gold and silver production from the veins in **MPSA-225-2005-XI**.

The mineral property is situated in Eastern Mindanao copper-gold metallogenic belt, an area with known precious and base-metal mines, deposits, and occurrences. This region has one of the most significant epithermal and porphyry copper districts in the country, including gold and copper-gold deposits at Diwalwal, Co-O, Kingking, Amacan, Boyongan, Bayugo, Siana, and Placer.

The mineral property is located in the Southern Pacific Cordillera, a magmatic arc terrane bounded by the left-lateral Philippine Fault to the west, the Philippine Trench to the east, the Mati Fault to the south, and the Cateel Fault to the north. The geology of the tenement consists of a basement dominated by volcanic and volcaniclastic rocks of intermediate composition, locally identified as the Masara Formation, intruded by diorite and its facies of the Masara Intrusive Complex, and overlain by the intermediate volcanic and pyroclastic rocks of the Amacan Volcanic Complex. The Au-Ag-base metal veins in the property are hosted by the Masara Formation and the Masara Intrusive Complex. Mineralization is controlled by structures related to the Philippine Fault. Porphyry Cu-Au deposits and skarn mineralization have also been identified in places within the tenement.

Previous estimates by different workers have varied significantly, partly due to the differences in the methodologies applied, but mainly due to the coverage in terms of which veins were included in the estimate. In this report, mineral resource estimation was limited to the twenty-eight (28) veins delineated within **MPSA-225-2005-XI**. Resource estimates for the veins in **MPSA-234-2007-XI** as well as the known porphyry Cu-Au deposits were not included.

To ensure a suitable check, only data collected prior to 31st October 2020 were included in the final database. A geostatistical approach was adopted in estimation, using the ordinary kriging method for grade interpolation. Variogram models, although available in previous reports, were remodeled for all veins in consideration of the volume of additional data obtained. High grade cuts applied were statistically determined, considering the cumulative frequency distribution of the assay values.

Tonnage values were estimated using a global specific gravity and the volumes of the solids modelled for each vein, after removing the mined-out portions. Resource blocks were then classified based on the number and distance of available samples used to estimate each block. Measured blocks are those surrounded by samples from at least four sides, all within one-third of the variogram range. Blocks with at least two samples within two-thirds of the range are classified as Indicated, and those with at least two samples within the range are classified as Inferred. In cases where the interpreted solids extend beyond the range of the farthest sample, these portions were not included in the estimate.

The drilling program executed by AMCI in its respective vein-prospects resulted in a clearer understanding of the gold mineralization. The potential for defining further extension of the mineralization encountered by the drillholes looks very encouraging along the strikes and down dip. A systematic detailed exploration campaign through additional drilling should be able to identify more gold mineralization drilling target areas within the AMCI tenements.

At a cut-off grade of 1.5 g/t Au, the estimated mineral resource within **MPSA-225-2005-XI** as of October 2020 is **1.681 Moz of Au** (11,354,000 tons at 4.6 g/t Au), comprised of:

MINERAL RESOURCE (1.5 g/t Au cut-off)			
CLASSIFICATION	TONS (000 t)	GRADE (g/t)	OUNCES Au
Measured	3,195	4.8	493,000
Indicated	5,399	4.5	781,000
SUB-TOTAL	**8,594**	**4.6**	**1,274,000**
Inferred	2,760	4.5	407,000
TOTAL	**11,354**	**4.6**	**1,681,000**

Using a higher cut-off grade of 2.0 g/t Au the estimated resource is:

MINERAL RESOURCE (2.0 g/t Au cut-off)			
CLASSIFICATION	TONS (000 t)	GRADE (g/t)	OUNCES Au
Measured	2,859	5.2	471,000
Indicated	4,629	5	734,000
SUB-TOTAL	**7,488**	**5.1**	**1,205,000**
Inferred	2,310	5.1	379,000
TOTAL	**9,798**	**5.1**	**1,584,000**

4.0 CONTENTS

4.1 Table of Contents

4.2 List of Tables

4.3 List of Figures

5.0 INTRODUCTION

5.1 Who Commissioned the Report

Apex Mining Company, Inc. (Apex or the Company), a Philippine Company listed in the Philippine Stock Exchange (PSE) commissioned this report.

5.2 Purpose for which the Report was Prepared

This report was prepared in compliance with the requirement of the Philippine Stock Exchange (PSE) to submit a PMRC-compliant report on the mineral resources disclosed by the Company.

5.3 Scope of Work or Terms of Reference

Apex Mining Company, Inc. has title to several properties located in the municipalities of Maco and Mabini in Davao de Oro Province in southeastern Mindanao covered by **MPSA-225-2005-XI** and **MPSA-234-2007-XI**. The Mineral Resource Estimate presented in this report only covers the gold mineralization of twenty-eight (28) veins delimited within **MPSA-225-2005-XI**. To meet deadlines and ensure a suitable check, only data collected prior to October 31st of 2020 were considered.

5.4 Duration of the Report Preparation

The Maco Technical Services Team updates the geological database in real-time. Database validation was initiated October 2020, followed by wireframe modelling of the veins and mined out areas. The mineral resource estimate report became available in March 2020. The Apex technical team who carried out the estimation and report preparation include underground geologists, exploration geologists, and senior staff who have all worked for Apex for at least 3 years.

The Competent Person (CP) – Geology, Darwin Edmund L. Riguer, is the Exploration and Drilling Manager since November 2020 and previously as Senior Exploration Geologist since July 2015.

5.5 Members of the Technical Report Preparation Team

Table 5.5.1: Members of the Apex Technical Report Preparation Team

Name	Position
Fianza T. Lab-oyan	*Division Manager – Geology*
Darwin Edmund L. Riguer	*Exploration Manager*
Alex C. Diambrang	*Mine Geology Manager*
Isaac Norman R. Rivera	*Resource Geologist*
Josel P. Retardo	*Mine Engineering Manager*
Marivic U. Collado	*GIS Manager*
Edgar C. Biego	*GIS Administrator*
Marites R. Tuscano	*QA/QC Officer*

5.6 Host Company Representative

The host Company representative is Mr. Fianza T. Lab-oyan, Geology Division Manager.

5.7 Compliance of the Report with the PMRC

The report follows the format outlined in the PSE Implementing Rules and Regulations for the 2007 Philippine Mineral Reporting Code (PMRC). The mineral resource classification outlined in the PMRC was also adopted in the report.

6.0 RELIANCE ON OTHER EXPERTS

The preparation of this report benefited from the company's archived historical data and information, including the updated results from mine geology, mine operation and of the current exploration diamond drilling program in the mineral project. Contributions of professionals or experts in their own fields of experience are acknowledged as mentioned in relevant sections of this report. They are experienced persons in the styles of mineralization of AMCI's project and have verified the project database and assured proper sample handling procedures and assaying protocols were met.

The CP reviewed all technical information, the database, and was satisfied with the verification process. The CP, however, disclaims responsibility on all information incorporated in this report.

7.0 TENEMENT AND MINERAL RIGHTS

7.1 Description of Mineral Rights

7.1.1 Location of the Contract Areas (Barangay, Municipality, Province)

MPSA-225-2005-XI is in barangays Teresa and Masara, Maco, Davao de Oro Province. **MPSA-234-2007-XI** is composed of six parcels located within the following barangays in the Municipality of Maco, with some portions in the Municipality of Mabini: **Parcel-I** is located at Barangay Tagbaros and some portions at Barangay Mainit; **Parcel-II** is located entirely at Barangay Mainit; **Parcel-III** is located at Barangays Masara, Mainit, and New Leyte; while **Parcel-IV** is located at Barangay Teresa with small portions at barangays Elizalde and New Barili and some portions to the south is located within the Municipality of Mabini; **Parcel-V** is located entirely within the Municipality of Mabini; and **Parcel-VI**'s northern portion is within Barangay New Barili, Municipality of Maco with the southern portion at the Municipality of Mabini.

7.1.2 Coordinate Locations as Per MGB

MPSA 225-2005-XI is defined by the corner points with the technical descriptions below

Table 7.1.2.1: MPSA-225-2005-XI Corner Coordinates

Corner	Latitude	Longitude
1	7°23'00.81"	126°01'14.76"
2	7°23'10.58"	126°01'14.76"
3	7°23'10.58"	126°02'13.46"
4	7°23'00.81"	126°02'13.46"
5	7°23'00.81"	126°02'18.35"
6	7°23'11.16"	126°02'28.72"
7	7°22'22.82"	126°03'17.13"
8	7°22'21.48"	126°03'15.80"
9	7°22'21.48"	126°03'21.67"
10	7°21'42.41"	126°03'21.67"
11	7°21'42.41"	126°02'42.55"
12	7°21'48.41"	126°02'42.55"
13	7°22'17.36"	126°02'13.45"
14	7°21'32.92"	126°02'13.45"
15	7°21'32.92"	126°01'53.89"
16	7°21'42.69"	126°01'53.89"
17	7°21'42.69"	126°02'03.67"
18	7°22'02.22"	126°02'03.67"

19	7°22’02.22”	126°01’44.11”
20	7°22’31.52”	126°01’44.11”
21	7°22’31.52”	126°01’24.54”
22	7°23’00.81”	126°01’24.54”

The six (6) individual parcels of MPSA-234-2007-XI are bounded by the geographic coordinates with the technical descriptions given below

PARCEL- I

Table 7.1.2.2: MPSA-234-2007-XI Parcel-I Corner Coordinates

Corner	Latitude	Longitude
1	7° 24’ 00.00”	126° 00’ 30.00”
2	7° 24’ 30.00”	126° 00’ 30.00”
3	7° 24’ 30.00”	126° 01’ 00.00”
4	7° 24’ 00.00”	126° 01’ 00.00”

PARCEL- II

Table 7.1.2.3: MPSA-234-2007-XI Parcel-II Corner Coordinates

Corner	Latitude	Longitude
1	7° 24’ 00.00”	126° 01’ 17.28”
2	7° 24’ 19.53”	126° 01’ 17.28”
3	7° 24’ 19.49”	126° 01’ 33.56”
4	7° 24’ 01.80”	126° 01’ 33.56”
5	7° 24’ 00.00”	126° 01’ 30.00”

PARCEL- III

Table 7.1.2.4: MPSA-234-2007-XI Parcel-III Corner Coordinates

Corner	Latitude	Longitude
1	7° 23’ 10.58”	126° 01’ 55.33”
2	7° 23’ 32.51”	126° 01’ 33.50”
3	7° 23’ 42.27”	126° 01’ 33.52”
4	7° 23’ 42.25”	126° 01’ 43.30”
5	7° 23’ 32.48”	126° 01’ 43.28”
6	7° 23’ 15.71”	126° 02’ 00.00”
7	7° 24’ 01.74”	126° 02’ 00.00”
8	7° 24’ 01.71”	126° 02’ 12.69”
9	7° 24’ 21.24”	126° 02’ 12.74”
10	7° 24’ 21.23”	126° 02’ 19.45”
11	7° 23’ 30.00”	126° 02’ 19.33”
12	7° 23’ 30.00”	126° 03’ 00.00”
13	7° 23’ 14.34”	126° 03’ 00.00”
14	7° 22’ 57.28”	126° 02’ 42.84”
15	7° 23’ 11.16”	126° 02’ 28.72”
16	7° 23’ 00.81”	126° 02’ 18.35”
17	7° 23’ 00.81”	126° 02’ 13.46”
18	7° 23’ 10.58”	126° 02’ 13.46”

PARCEL- IV

Table 7.1.2.5: MPSA-234-2007-XI Parcel-IV Corner Coordinates

Corner	Latitude	Longitude
1	7° 22' 30.00"	126° 00' 00.00"
2	7° 23' 00.00"	126° 00' 00.00"
3	7° 23' 00.00"	126° 00' 34.73"
4	7° 23' 10.58"	126° 00' 34.75"
5	7° 23' 10.58"	126° 01' 14.76"
6	7° 23' 00.81"	126° 01' 14.76"
7	7° 23' 00.81"	126° 01' 24.54"
8	7° 22' 31.52"	126° 01' 24.54"
9	7° 22' 31.52"	126° 01' 44.11"
10	7° 22' 02.22"	126° 01' 44.11"
11	7° 22' 02.22"	126° 02' 03.67"
12	7° 21' 42.69"	126° 02' 03.67"
13	7° 21' 42.69"	126° 01' 53.89"
14	7° 21' 32.92"	126° 01' 53.89"
15	7° 21' 32.99"	126° 01' 44.20"
16	7° 21' 13.45"	126° 01' 44.15"
17	7° 21' 13.64"	126° 00' 25.91"
18	7° 22' 12.23"	126° 00' 26.04"
19	7° 22' 12.23"	126° 00' 30.00"
20	7° 22' 30.00"	126° 00' 30.00"

PARCEL- V

Table 7.1.2.6: MPSA-234-2007-XI Parcel-V Corner Coordinates

Corner	Latitude	Longitude
1	7° 20' 30.00"	126° 02' 42.68"
2	7° 21' 42.41"	126° 02' 42.55"
3	7° 21' 42.41"	126° 03' 21.67"
4	7° 21' 23.00"	126° 03' 21.95"
5	7° 21' 23.02"	126° 03' 12.20"
6	7° 21' 13.25"	126° 03' 12.18"
7	7° 21' 13.23"	126° 03' 21.96"
8	7° 20' 30.00"	126° 03' 21.80"

PARCEL- VI

Table 7.1.2.7: MPSA-234-2007-XI Parcel-VI Corner Coordinates

Corner	Latitude	Longitude
1	7° 20' 05.33"	126° 00' 00.00"
2	7° 22' 00.00"	126° 00' 00.00"
3	7° 22' 00.00"	126° 00' 06.46"
4	7° 20' 05.32"	126°00'06.204"

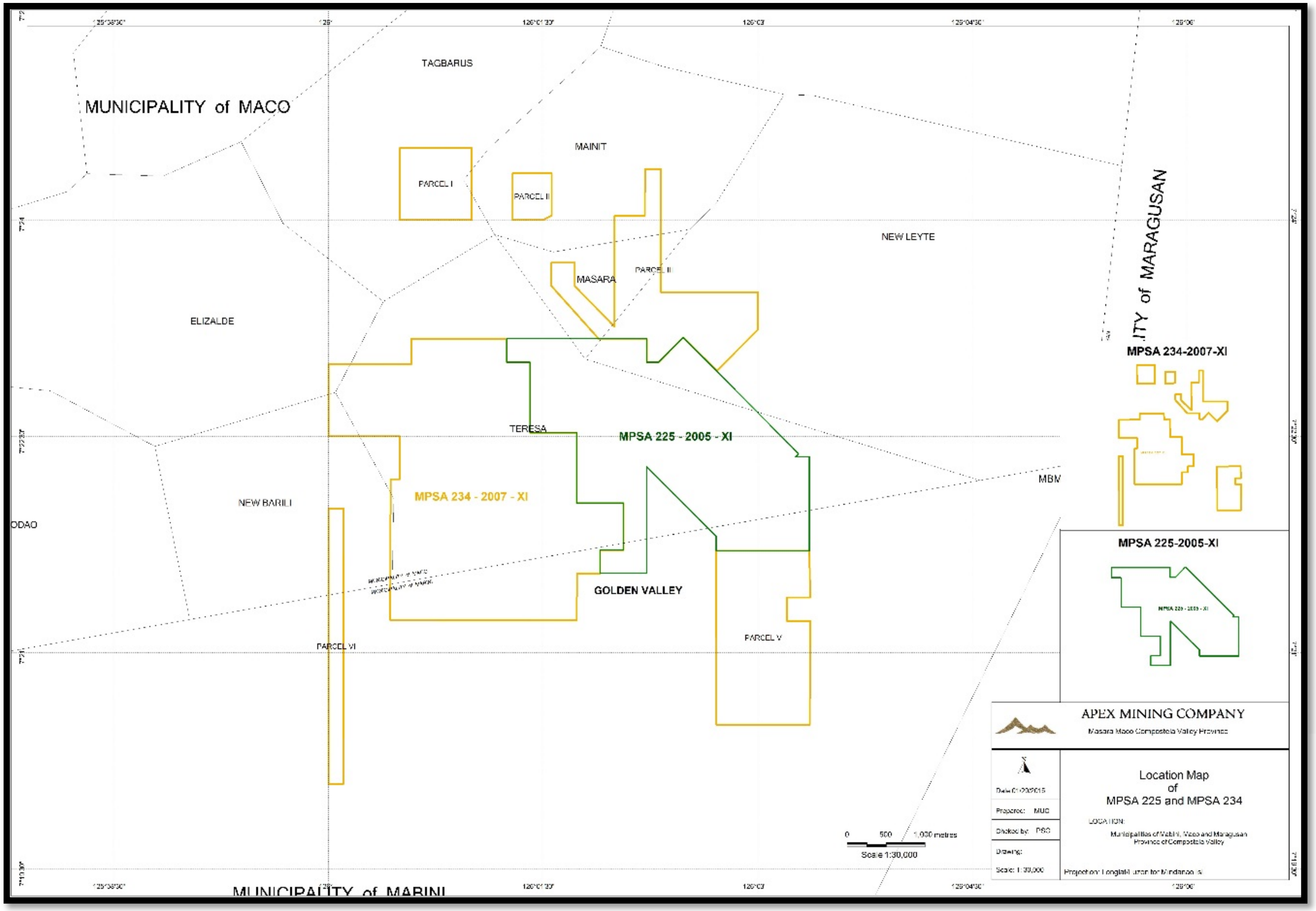


Figure 7.1.1: Tenement Map of Apex Mining Company, Inc.

7.1.3 Number of Claims and Hectares Covered

MPSA 225-2005-XI covers an area of **six hundred seventy-nine and two hundredths (679.02) hectares.** Most of **MPSA 234-2007-XI** is within the Municipality of Maco covering a total of 1,194.97 hectares, with some portions within the adjacent Municipality of Mabini with area coverage of 363.56 hectares. The total area of **MPSA 234-2007-XI** is **one thousand five hundred fifty-eight and fifty-three hundredths (1,558.53) hectares** and is comprised of six (6) individual parcels with the following areas:

Parcel 1 = 84.799 hectares
Parcel 2 = 29.625 hectares
Parcel 3 = 233.123 hectares
Parcel 4 = 883.681 hectares
Parcel 5 = 258.876 hectares
Parcel 6 = 68.423 hectares

TOTAL = 1,558.527 hectares

7.1.4 EP/MPSA/FTAA mode of agreement

Both tenements are under Mineral Production Sharing contract agreements.

7.1.5 Type of Permit or Agreement with the Government

Mineral Production Sharing Agreement (MPSA).

7.2 History of Mineral Rights

The property was originally comprised of contiguous load claims with 75 Declaration of Locations (DOLs) of nine hectares each and several claim fractions of various shapes and sizes with a total area of 679.02 hectares. The claims, named **ASA-24, et al.**, were originally staked for gold, silver, copper, and other metallic minerals under the Philippine Bill of 1902. Prior to the approval of the Mineral Production Sharing Agreement Contract, the area was covered by **Mining/Lode Lease Contracts (MLCs) Nos. V-83; V-95; V-96, V-97, V-124 and V-125** that were issued to Apex Mining Company, Inc. in 1994. Apex then applied the MLCs for a Mineral Production Sharing Agreement Contract in 1998, denominated as **APSA-242-XI**. An amendment was later filed for the same APSA in January 2005. The Philippine Government, represented by the Secretary of the Department of Environment and Natural Resources, approved the application on December 15, 2005, denominated as **MPSA-225-2005-XI**.

MPSA-234-XI-2007 was applied for in 2005, denominated as **APSA-248-XI**, composed of six individual parcels adjacent to and around **MPSA-225-2005-XI**. The application for MPSA was approved in June 2007.

7.3 Current Owners of Mineral Rights

Apex Mining Company, Inc. owns 100% of the mineral rights based on MPSA agreements with the Philippine Government.

7.4 Validity of Current Mineral Rights

The Mineral Production Sharing Agreement is valid for a 25 year term and is renewable for another 25 years. The leases are issued under the Mining Act of 1995 (Republic Act No. 7942). Surface rights are held with the government and the mining leases are issued as cooperative agreements between the Company and the Philippine Government.

MPSA No. 225-2005-XI expires in 2030 while **MPSA No. 234-2007-XI** expires in June 2032.

7.5 Agreements with Respect to Mineral Rights
Apex Mining Company, Inc. is a holder of two Mineral Production Sharing Agreements with the government, approved in 2005 and in 2007.

7.6 For clarification of the net revenue:
7.6.1 Royalties, Taxes, Advances and Similar Payments
- Excise Tax – 4%
- MOA with local people – 1% plus provision of scholarships, health programs, infrastructure, and other social programs

7.6.2 Receivables and Payable Sums to the Company and Mineral Rights Holder
There are no other receivables or payables as the company has 100% mineral rights on the property.

8.0 GEOGRAPHIC FEATURES

8.1 Location and Accessibility
The MPSA contract areas are bounded by longitudes 126° 00' 00" to 126° 03' 21.8" E and latitudes 7° 20' 05.33" to 7° 24' 30'N, about 950 aerial km south-southeast from Manila and about 53 aerial km from northeast of Davao City. The mine site can be accessed from Manila by taking one of the daily commercial flights to Davao City, the by land through the concrete-sealed Pan Philippine (Maharlika) Highway, driving 74 km north-northeast to the town of Mawab, Davao de Oro Province, and then 26 km heading east-southeast through a combination of concrete and gravel-paved road following the Hijo-Masara river valley upstream. The Maco mine site is located within the adjoining barangays of Masara and Teresa in the Municipality of Maco, Davao de Oro Province at the upper reaches of Masara River.

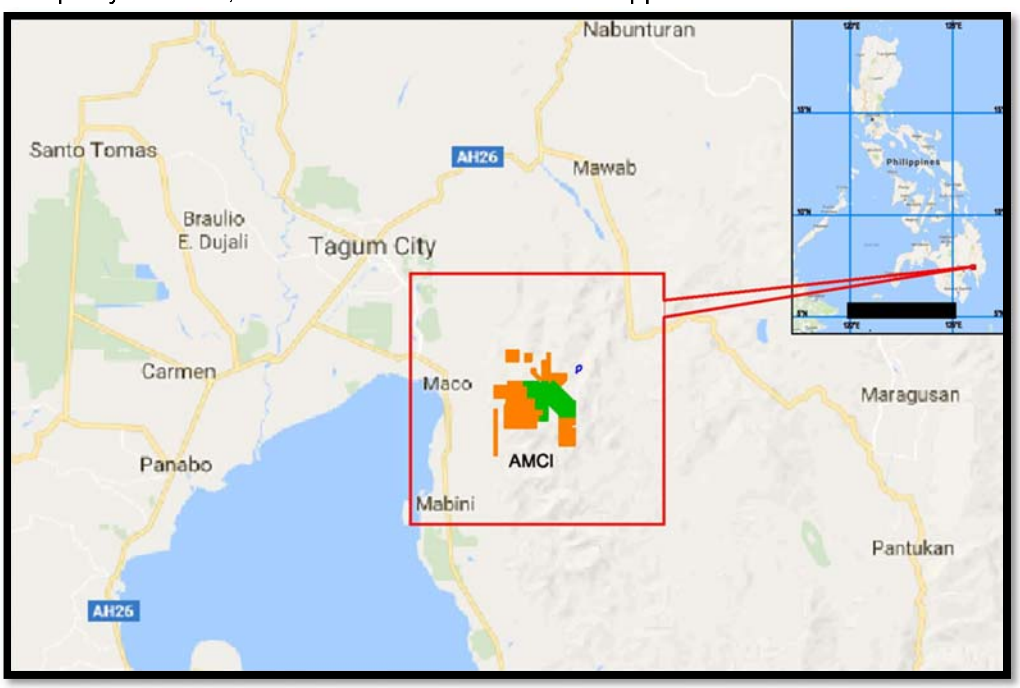


Figure 8.1.1: Location of the MPSA Contract Areas

8.2 Topography, Physiography, Drainage and Vegetation
The contract areas occupy a generally rugged terrain with elevations ranging from about 500 to around 1300 meters above sea level. The terrain is characterized by deeply incised, V-shaped river channels with dendritic to radial drainage patterns in an early mature stage of geomorphologic development. Some geomorphologic features in the area indicate some

structural controls. The active mining area is located at the headwater portions of Masara River, the most dominant drainage system in the Municipality of Maco.

Commercial timber operations were widespread in the past, with most of the hard wood species now gone. Vegetation cover on the mountain slopes is now characterized predominantly by secondary-growth trees, locally named as “buyo-buyo”, along with tropical shrubbery. The indigenous Mansaka tribe, along with migrants from the lowlands, practice traditional slash and burn farming. These resulted to scattered clearings along the slopes that are planted with rice, corn, coffee, coconut, bananas, and other seasoned crops.

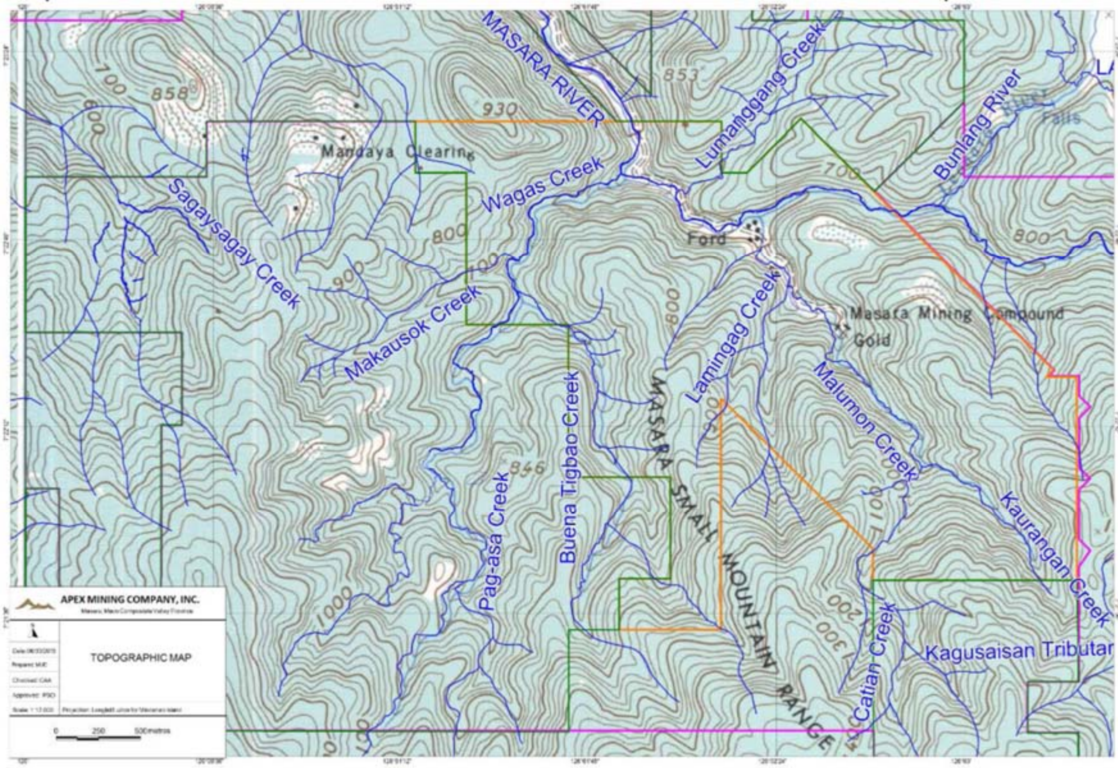


Figure 8.2.1: Topographic Map Showing the Tributaries in the Contract Area

8.3 Climate, Population

8.3.1 Climate

Davao de Oro is classified as Type IV in the Modified Corona’s Classification System used by the Philippine Atmospheric, Geophysical and Astronomical Administration. This type is characterized by no clearly- defined dry season with rains experienced almost throughout the year. The highest rainfall, equivalent to the monsoon season, is usually experienced from November to February, with the rest of the year relatively dry.

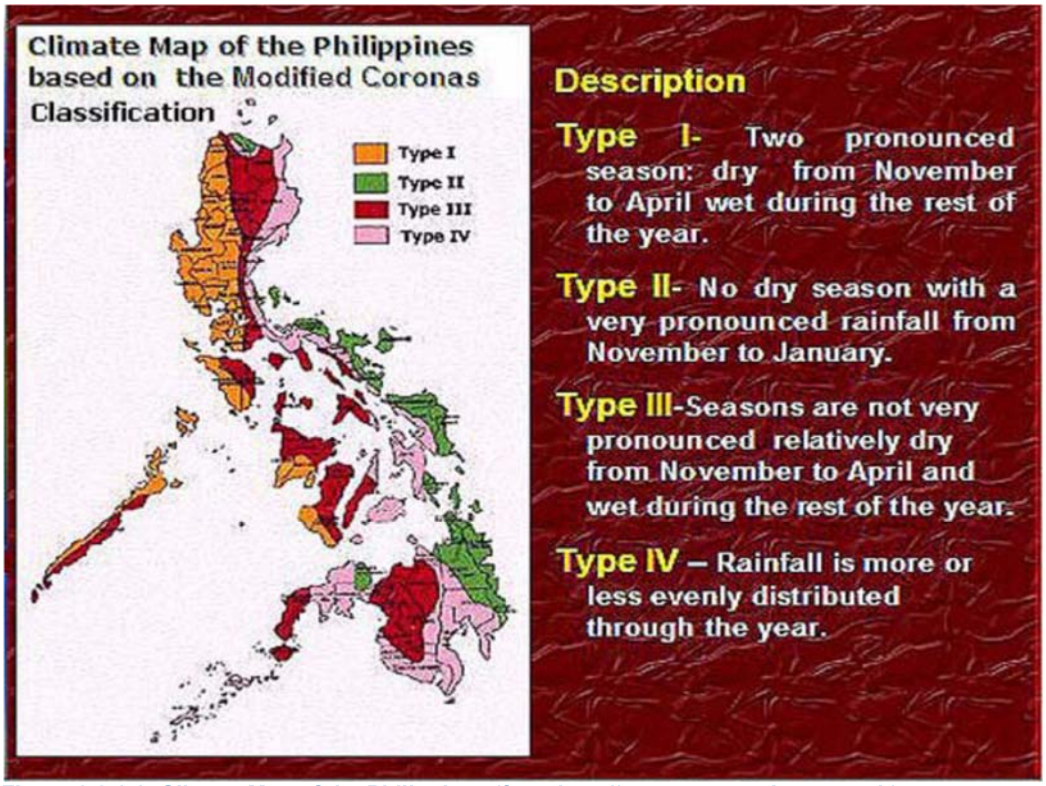


Figure 8.3.1.1: Climate Map of the Philippines (from http://www.pagasa.dost.gov.ph)

8.3.2 Population

Barangays Masara and Teresa have 1,233 and 2,207 residents, equivalent to gross population densities per hectare of 3.31% and 1.35%, respectively.

8.4 Land Use

The present land use of the Municipality of Maco is generally agricultural, with traditional subsistence farming and forest product-gathering being the main source of livelihood of the local inhabitants. Agricultural areas and forestland make up for 84% and 13%, while mining and quarrying only account for 1%.

8.5 Socio-Economic Environment

There are fifteen public schools offering purely primary courses, fifteen public elementary schools, three public secondary schools, and two private schools offering secondary courses. There are no private or public schools offering college courses except for vocational/technical courses on computer offered by the Maco Institute of Technology which is located in the Maco town proper. The computer courses are part of the TESDA-assisted educational program.

The Maco Municipality operates a Main Public Health Center located at Barangay Binuangan along with twelve satellite barangay health centers located at various barangays. The Local Government Unit (LGU) at present has a part-time physician holding clinic and medical consultations at Barangay Masara at certain days of each week. The clinic serves the fifteen upland barangays of Maco situated along the stretches of the Hijo and Masara river valley.

Probably because of its proximity to Tagum City, the capital of Davao del Norte which has several more advanced medical facilities, there are only a few private health clinics found in the town of Maco. There are only five private clinics (one with a 12-bed capacity) and one private dentist, nine medical practitioners, and nine nurses, all situated in the town proper.

8.6 Environmental Features

The Masara mineralization has been correlated with a caldera system which has been recognized to be an inherent geological and geo-morphological feature of the district. The most prominent is the Lake Leonard caldera located to the east of Masara near the boundary with the adjoining North Davao tenement, where a crater lake, called Lake Leonard remains one of the most unique geomorphological/environmental features in the generally rugged landscape that characterize most of the eastern Mindanao Cordillera.

Lake Leonard National Park is a water-filled caldera and is the only National Park close to the MPSA contract areas.

9.0 PREVIOUS WORK

9.1 Resource Estimates of Previous Workers

The table below presents a summary of resource estimates by various workers for the Maco Mine together with the methodology applied.

Table 9.1.1: Summary of Previous Resource Estimates

Year	Author(s)	Methodology	Tonnage (Mt)	Grade (g/t Au)	Ounces (koz Au)
2020	Ausa	Geostatistical	5.92	5.0	945
2017	Peña	Geostatistical	2.5	5.4	430
2015	Peña	Geostatistical	2.5	5.6	450
2012	Malihan & Flores	Geostatistical	6.6	5.9	1,250
2011	McManus	Inverse Distance	7.0	5.0	1,130
2010	Malihan	Long Section, Polygonal	3.1	5.9	590
2009	Apex	Long Section, Polygonal	2.8	5.7	510
2007	Crew	Long Section, Polygonal	10.4	6.1	2,040
2006	Snowden	Long Section, Polygonal	5.7	7.8	1,430
2004	MGB	Long Section, Polygonal	6.1	7.1	1,390
2002	Apex	Long Section, Polygonal	5.9	6.2	1,180
1995	Howe	Long Section, Polygonal	2.6	6.3	530

9.2 Brief Description of Previous Estimates

Previous workers have declared a wide range of resource estimates for the Maco Mine. This is in part due to the varying conditions through time, leading to the use of different cut-off grades, as well as the differences in the methodologies applied, such as the limitations for extrapolation. The greater root of the observed variance, however, is the coverage of the estimates, with some including all known veins within one particular or both contract areas, and some only covering those with active mining operations.

Starting in 2012, mineral resource estimates were done in-house by the Apex technical team using a geostatistical approach, using a cut-off grade of 1.5 g/t Au. These estimates were reviewed and certified by Competent Persons. **Malihan & Flores (2012)** estimated 1,250,000 oz Au in 41 veins within both **MPSA-225-2005-XI** and **MPSA-234-2007-XI**. The resource declaration by **Peña (2015)** that followed is significantly lower at 450,000 oz Au as this estimate only included the 12 veins that were actively producing at the time of reporting. An update by **Peña (2017)** presented an estimate of 430,000 oz Au with the same coverage, showing that the mine was able to replace the depleted ore blocks. The recent update by **Ausa (2020)** which adopted the same estimation parameters used in **Peña (2017)** declared an estimate of 945,000 oz Au for 18 veins, significantly higher than the previous declaration owing to the definition of new vein sources, splits, and extensions by exploration drilling and mine development. In comparison, the estimate presented in this report covers 28 veins.

10.0 HISTORY OF PRODUCTION

10.1 Production History of Apex Mines

- **1976-1989** – Apex extracted **573,022 oz Au** from over 3.5 Mt of mined ore.
- **1991** – The company was forced to stop operations due to labor disputes and prolonged depressed gold prices. Limited small scale mining operations were carried out by Apex until mining activities were finally suspended in 2000.
- **2003** – Apex entered into separate operating agreements with Goldridge Mining Corporation, Viclode Mining Corporation, and Mintricor Inc., with Apex obtaining a percentage of gold production as per the contracts.
- **2005** – Mining operations were revived under Crew Gold which managed the mine until October 2009, producing a total of **45,929 oz Au** and **150,707 oz Ag** during this period.
- **2009** – ASVI (Mindanao Gold) took over until Monte Oro acquired the mine in January 2013. Under ASVI, the mine produced a total of **79,570 oz Au** and **386,141 oz Ag**.
- **2013 – Present** – Apex, under the management of Monte Oro, produced a total of **344,355 oz Au** and **1,838,022 oz Ag** as of December 2019.

10.2 Areas Mined Within the Tenement Area

From the mid-1970s to 1980s, mining operations were concentrated on copper ore from the Kurayao and Wagas areas. Gold was also produced mostly from Hope, Dons, and Wagas-Masarita vein systems. In 2005, after Crew Gold took over, mining activities were focused on the areas near the Masara and Malumon creeks at the eastern portion of **MPSA-225-2005-XI**, wherein Bonanza, Masara, and Sandy veins became the major gold ore sources. At present, development and mining are still focused on these areas, with the addition of vein extensions and newly discovered veins and splits such as Masarita 2, SDN2, and Jessie veins as ore sources.

10.3 General Description of Mining and Ore Beneficiation

Mining in the area employed the conventional shrinkage method, before shifting to cut-and-fill during the late 2000s. In areas where the vein widths encountered are too narrow, conventional mining like the modified shrinkage was still carried out. By the middle of 2010, longhole mining was introduced to operations.

Broken underground ore is hauled by low profile trucks to the surface at the mine yards. Ore is then delivered to the mill where it goes through primary, secondary, and tertiary crushing, followed by grinding using ball mills. The ore then goes through thickeners before being fed to the CIL tanks where gold and silver are recovered through cyanide leaching followed by adsorption onto activated carbon. The loaded carbon then undergoes stripping, depositing the precious metals onto steel wools in the process. The sludge recovered is then refined by smelting, producing doré, usually containing 14-20% Au, 75-80% Ag, and 1-5% other elements.

10.4 Tonnage Mined and Metals Sold

Table 10.4.1: Production History of Apex Mines

Year	Mined		Milled			Bullion	
	Tons	Au, g/t	Tons	Au, g/t	Ag, g/t	Au, oz	Ag, oz
2006 (Dec)	13,129	4.07	79,508	4.29	18.72	134	439
2007	78,077	3.83	306,686	3.17	13.59	7,228	21,790
2008	166,971	4.59	252,613	4.59	20.99	21,618	60,179
2009	148,417	5.88	200,465	5.09	32.69	20,727	79,968
2010	214,650	5.24	332,328	4.92	30.78	25,659	113,007

2011	208,849	4.99	374,348	4.73	32.01	26,256	146,294
2012	234,033	3.9	373,873	3.8	22.4	23,877	116,071
2013	289,015	4.78	542,365	3.66	22.7	26,797	151,830
2014	258,596	6.01	544,878	3.89	21.85	26,521	151,203
2015	438,424	5.61	704,481	5.42	34.39	43,139	227,417
2016	514,327	6.06	717,438	4.68	29.98	54,681	309,623
2017	509,066	5.24	578,893	3.9	23.99	60,185	315,525
2018	655,797	4.94	609,604	4.25	25.56	70,564	328,797
2019	573,612	3.74	711,788	3.19	20.47	62,468	353,627
Total	**4,302,963**	**5.03**	**6,329,268**	**4.22**	**25.61**	**469,854**	**2,375,770**

11.0 REGIONAL AND DISTRICT GEOLOGY OF MASARA GOLD DISTRICT

11.1 Regional Tectono-Geologic Setting of the Masara Gold District

The Mindanao Pacific Cordillera (MPF) is a magmatic terrane with an ophiolitic segment in the north, subdivided into (1) Northern Pacific Cordillera, (2) Central Pacific Cordillera, and (3) Southern Pacific Cordillera (Peña, 2008). The MPF is bounded by two prominent structures, with the Philippine Fault to the west and the Philippine trench to the east. Intrusive and extrusive igneous rocks are associated with subduction of the Philippine Sea Plate to the east that dates back to Eocene time. Development of a Late Neogene Magmatic arc associated with the reactivation of subduction of the Philippine Sea Plate is indicated by the Pliocene-Holocene volcanic rocks in the north and south of the cordillera.

11.2 Stratigraphy

The project area is in the Southern Pacific Cordillera section of the MPF. The stratigraphy (Figure 11.1.1), is defined by Peña (2008) to be as follows:

- Cretaceous – Paleogene **Barcelona Formation** – consists mainly of andesitic volcanic flows and flow-breccias intercalated in places with greywacke, metaclastic rocks and tuff
- Eocene **Tagabakid Formation** – sedimentary sequence of clastic rocks with local lenses of limestone and intercalations of andesitic flows and tuff
- Early – Middle Miocene **Agtuuganon Limestone** – limestone that occurs with thin beds of shale, sandstone, and conglomerate
- Miocene **Cateel Quartz Diorite** – quartz diorite dikes which intrude Cretaceous – Paleogene rocks in the region
- **Amacan Volcanic Complex** – consists of andesitic to dacitic domes, plugs, flows, and pyroclastic rocks named after the Amacan Mine near Lake Leonard

11.3 Structural Geology

The Philippine Trench, to the east of the MPF, is the trace of the west verging subduction of the Philippine Sea Plate (PSP) during the Neogene. Subduction was induced by the collision of the Philippine Mobile Belt with the Palawan – Mindoro Microcontinental Block during the Late Miocene. To the west lies the Philippine Fault which extends all the way to northern Luzon. NW-SE splays of the Philippine Fault invade sections of the mountain ranges of MPF. Gold mineralization is controlled by strike-slip faults parallel to these structures related to the Philippine Fault. The Masara District appears to be situated in what appears to be a dilational jog within caldera structures.Thus, the present subduction of the PSP is a reactivation of an ancient process as a result of another collision-accretion.

11.3.1 Faults

Faults observed in the Masara Mine are all steeply dipping and are categorized into: (1) NNW, (2) NE, (3) E-W, and (4) N-S systems. The first two systems are classified as wrench faults, producing drag folds, slaty cleavage, and cataclasis, while the last two are gravity faults. NE faults are evidently right-lateral and tend to abut against the NNW faults.

11.3.2 Folds

Folding in the area involved pre-Tertiary to Miocene rocks with fold axes generally trending NE and N-S. The NE trending folds include the truncated SW plunging anticline and a small SW plunging syncline.

11.3.3 Dikes

The quartz diorite dikes in the area mostly trend NE, with a few trending NW. On the other hand, most of the andesite porphyry dikes strike NW and only a few trends NE. The two systems, being almost normal to each other, suggest that a set of fractures controlling emplacement.

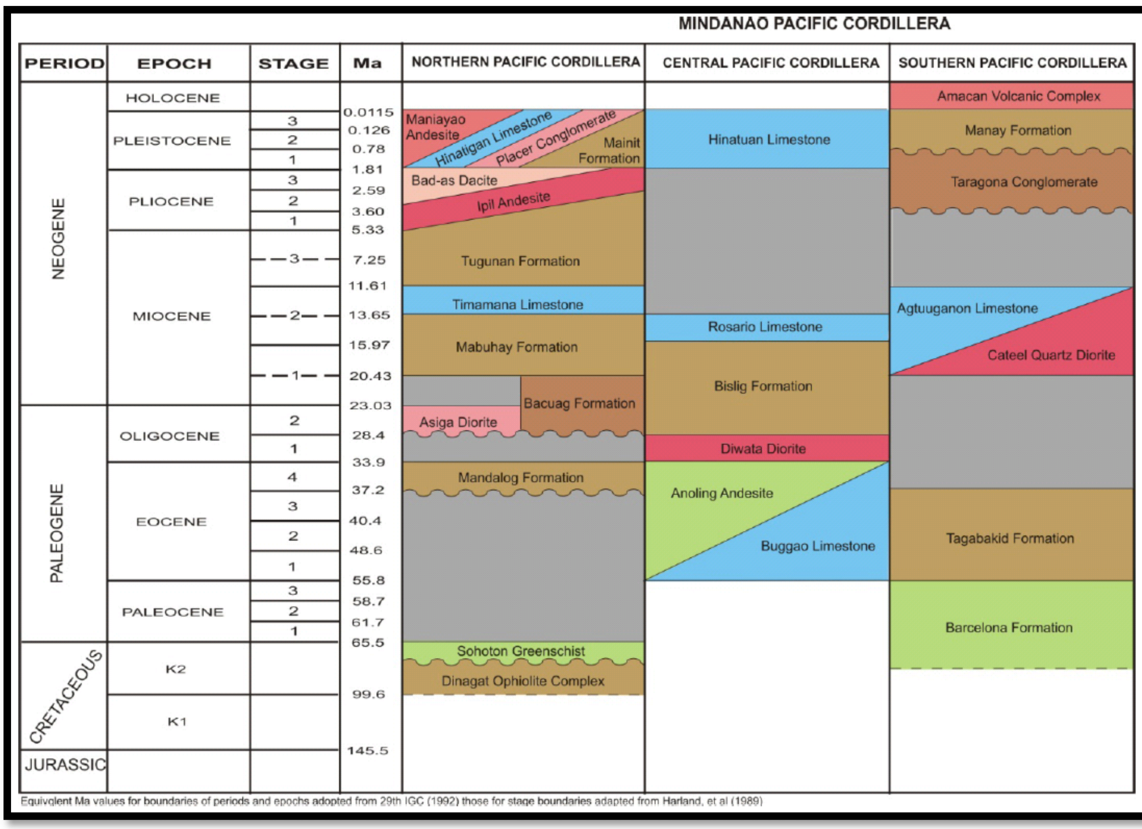


Figure 11.1.1: Stratigraphic Column of the Mindanao Pacific Cordillera adopted from Peña (2008)

12.0 MINERAL PROPERTY GEOLOGY

12.1 Geological Work Undertaken by the Company in the Property

Geological work undertaken by Apex includes detailed 1:1000 scale surface mapping, grid soil geochemical surveys, geophysical surveys, diamond drilling, and where there is active development, underground mapping.

12.2 Rock Types and Geological Relationships

The Maco geological setting is characterized by a suite of shallowly eroded volcanic, subvolcanic intrusive complex and sedimentary package. This regionally disposed dominantly massive andesitic, and volcaniclastic country rock package (**Masara Formation** or MF) is cut by high-level intrusive (**Masara Intrusive Complex** or MIC) and a later sub-volcanic intrusive complex (**Amacan Volcanics** or AV) (Figure 12.2.1). The multi-phase intrusive suite is comprised predominantly of diorite, with subordinate stock-like bodies of andesite porphyry. The sub-volcanic complex is equally multi-phase with stock-like bodies of dacitic and basaltic-andesitic composition extensively widespread towards north, and apparently emplaced at a later phase than the intrusions.

These volcanic, intrusive and sub-volcanic complexes that host various vein-style gold mineralization has once been subaerially emergent and shallowly eroded.

An apparent erosional unconformity or paleosurface can be found in the western part of tenement along the contact of MF and the overlying presumably younger basal conglomerate. This paleosurface is now represented by a thin layer of poorly consolidated dominantly carbonaceous mudstone which underlies thick limestone capping. Together, the limestone and its basal clastic sediment package forms part of the district wide **Tagbaros Formation** (TF).

The following are descriptions of lithologic units encountered as gleaned from surface mapping:

12.2.1 Masara Formation

12.2.1.1 Andesite (AND)

Andesite is the oldest rock unit known to occur in the area. It is massive in outcrop, basically a fine-grained hornblende andesite, generally aphanitic with embedded small (mm size) hornblende and plagioclase feldspar phenocrysts. It is hard and greyish in color when fresh. Darker coloured units have been observed and may be basaltic andesite in composition. This unit outcrops mostly within the tenement.

12.2.2 Masara Intrusive Complex

12.2.2.1 Diorite (DIO)

Diorite is a dominantly fine- to medium-grained equigranular phaneritic, occurring as small (a couple of hundred meters) bodies in outcrop. When unaltered, it is generally greyish in color, becoming darker when propylitized and lighter when argillized. It distinctively contains hornblende crystals unlike feldspar porphyry. Weathered and argillized diorite is generally soft and friable within all prospects. In some areas, mapped dioritic bodies texturally grade into coarser grained hornblende biotite diorite rock type.

12.2.2.2 Andesite Porphyry (ANY)

Andesite Porphyry is a textural variant of DIO, and thus both are possibly co-magmatic and co-eval. ANY has more than 30% of these (1 to 5mm in size) light-colored euhedral to subhedral phenocrysts lighter when argillized and greenish when chloritized. The notion that ANY and DIO are co-genetically one intrusion is substantiated by the difficulty in the field to identify which outcrop could be named ANY or DIO because they are visually similar and, in some places, phenocrystic contents vary slightly in just a few meters. A ballpark estimate is then used when complexities occur on which outcrop is to be named for which rock name. In previous drill cores, however, it is much easier to distinguish between the two but, as with outcrops, phenocrystic contents vary in minor terms. As with AND and DIO, ANY lithologies also exhibit variable intensities of argillization, and are also hosts to veins and mineralized structures in the area.

12.2.3 Amacan Volcanics

12.2.3.1 Feldspar Porphyry (PHY)

Feldspar Porphyry is still aphanitic but very distinctively porphyritic, with at least 30% phenocrysts, most of which are large euhedral feldspar crystals (greater than 5mm to as much as 15 mm in size). It may be regarded as another coarser textural variant of ANY, but its distinction in the field lies in the amount of larger feldspar phenocrysts, like the Mabuhay Andesite Porphyry or the Birds-Eye Porphyry in the Surigao district. There are a number of evidence that suggests PHY (Feldspar Porphyry) is a disparate and younger intrusive than the co-genetic DIO-ANY (diorite- andesite porphyry) bodies. Among these are those outcrops having PHY cut veins, lithologies exhibit very weak alteration to fresh rock. PHY is equivalent to “Alipao Andesite” as invoked by RWG-UP-NIGS.

12.2.3.2 Dacite Porphyry (DAP)

Dacite Porphyry appears to have a fine- to medium-grained phaneritic groundmass of hornblende, quartz and feldspar. Phenocryst is mainly euhedral to subhedral feldspar of up to 15 mm in size. Similar to PHY, DAP is quite altered to fresh.

12.3 Description of Geological Structures and Their Trends

The major structural features defined within Apex’s MPSA area and its general vicinity consist of: 1) NW-trending, steep NE-dipping left lateral strike slip faults correlated with and representing the local segments of the Philippine Fault System; 2) a large Valles-type caldera or volcanic center, the periphery of which is defined by a ring fracture zone; 3) a north-south system of gravity faults, and; 4) a less dominant set of second order northwest-northeast conjugate faults. Post-ore thrust faults are fairly well-distributed central to the area; toward the area’s perimeter, the thrust fault generally dips away from the volcanic center.

A few minor sub-parallel sets of folds with northerly to north-northwesterly axes are also found at Masara proper as well as west to southwest of the Apex tenement. The NW-trending fault system is most dominant near the caldera center and its structures are generally disposed in a parallel fashion, if not overprinted by an inner set of major auriferous quartz veins. Some of the gold-bearing veins and the known porphyry copper-gold deposits follow the conjugate northeasterly faults and the peripheral ring fracture system.

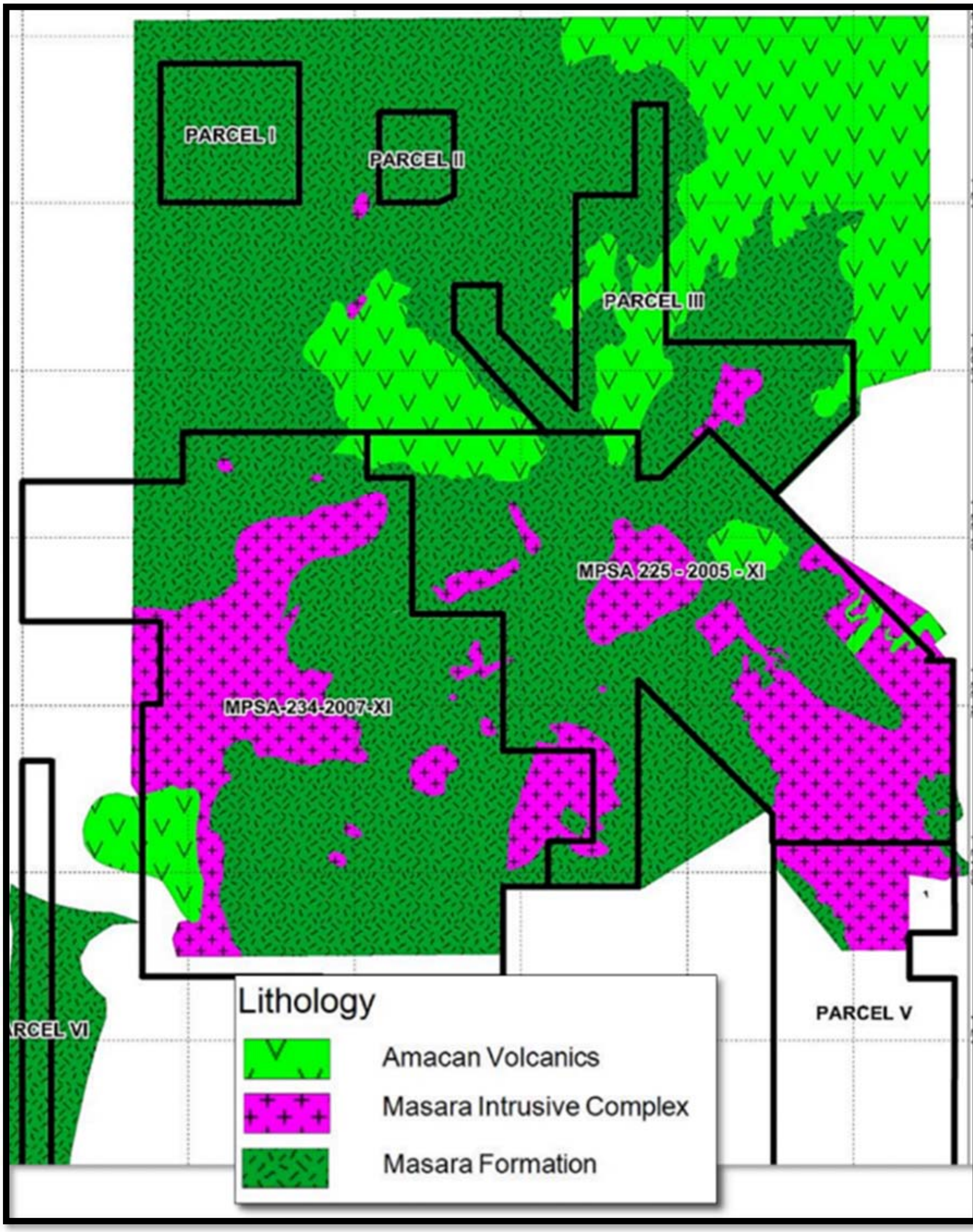


Figure 12.2.1: Geologic Map of the Tenement Area

13.0 MINERALIZATION IN THE PROPERTY

13.1 Overview of the Mineralization

At least three mineralization types have been identified within the Apex property. These are the (1) epithermal Au-base metal veins (2) porphyry-related Cu-Au mineralization; and (3) skarn mineralization.

13.2 Type of Mineralization as Mapped

13.2.1 Au-Ag-Base Metal Veins

At least ten of the known vein systems are classified as Au-base metal veins, namely, Bonanza-Bonanza Hanging Wall Split-Masara, Sandy-Sandy North, Manganese, Jessie, Maria Inez, St. Francis, Don Calixto, Fern, Masarita-Masarita 2 and Wagas. These are characterized by high base metal sulfide contents, at times reaching 30-80% in volume, and are associated with propylitic- and skarn-altered host rock as observed in the underground headings instead of the characteristic argillic alteration for low sulfidation mineralization.

Mineralization within the Masara Gold District is structurally controlled by series of faults interpreted to be directly associated with the Philippine Fault Zone. Vein mineralization is characterized as fault-controlled massive sulfide breccia which were later overprinted or bounded by quartz, carbonates and Mn-rich carbonate veins exhibiting crustiform-colloform, vuggy or cockade textures.

These veins strike NW to WSW and dip steeply to the northeast. Dip deflection however is also observed for the steeply dipping veins. Vein mineralization generally persists for several kilometres, with vein widths ranging in some high-grade portions from 1.0-5.0m.

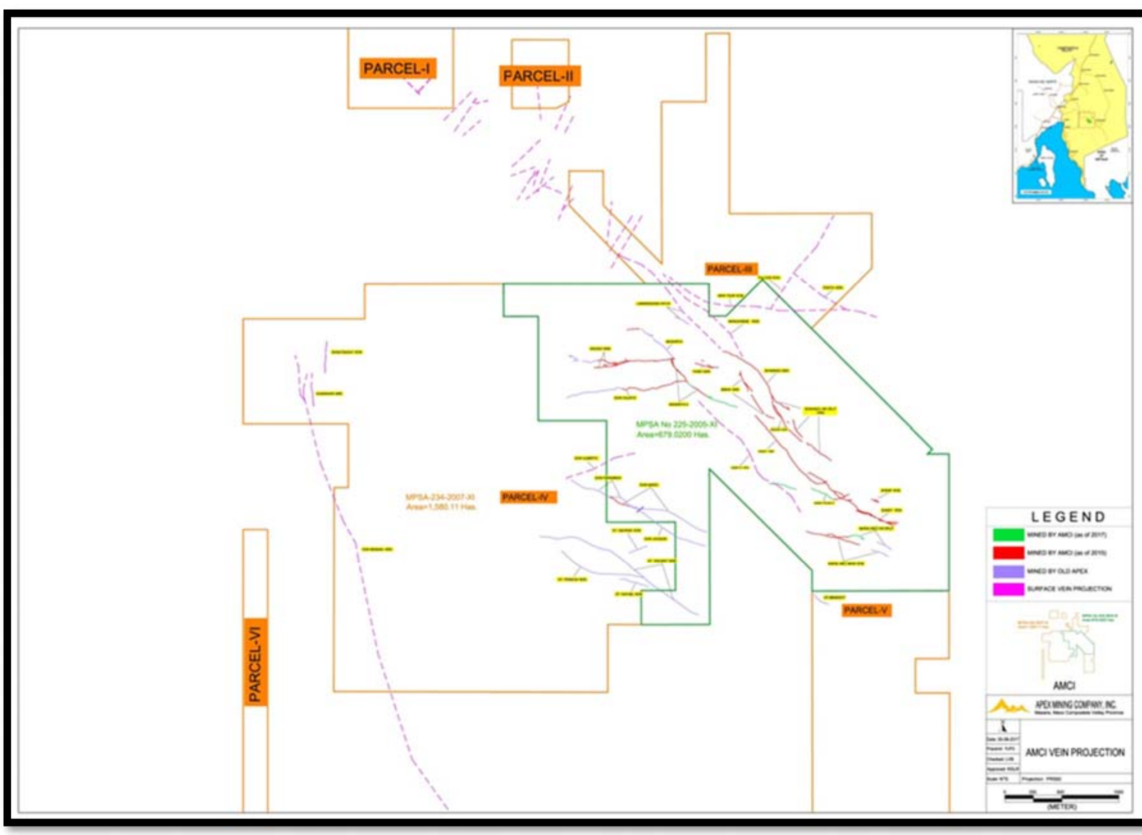


Figure 13.1.1.1: Tenement Map Showing the Surface Vein Projections

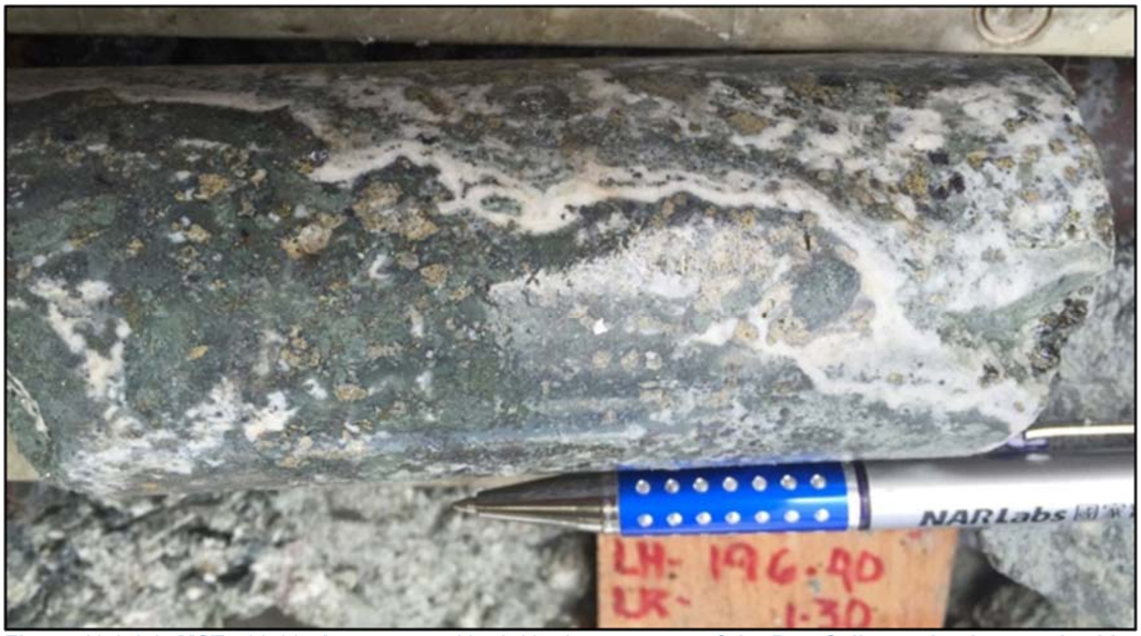


Figure 13.2.1.1: MST-590-005 Intercept at 194.1-195.1m – as part of the Don Calixto vein characterized by multiphase base metal-carbonate mineralization

Figure 13.2.1.2: ASA-785-012 Intercept at 330.7m – crustiform-colloform banded quartz+rhodonite+rhodochrosite+sulfide vein and late stage vuggy carbonate veins with bladed texture

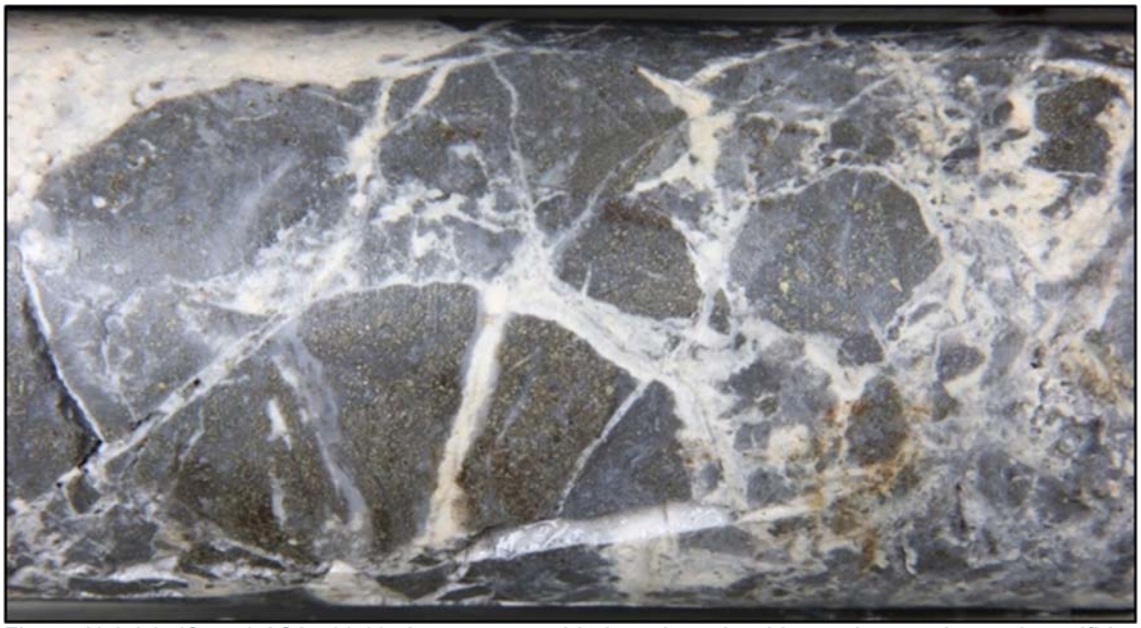


Figure 13.2.1.3: (Cover) ASA-590-004 Intercept – multi-phase breccia with angular to sub-angular sulfide-rich clasts and quartz-calcite-rhodochrosite veins

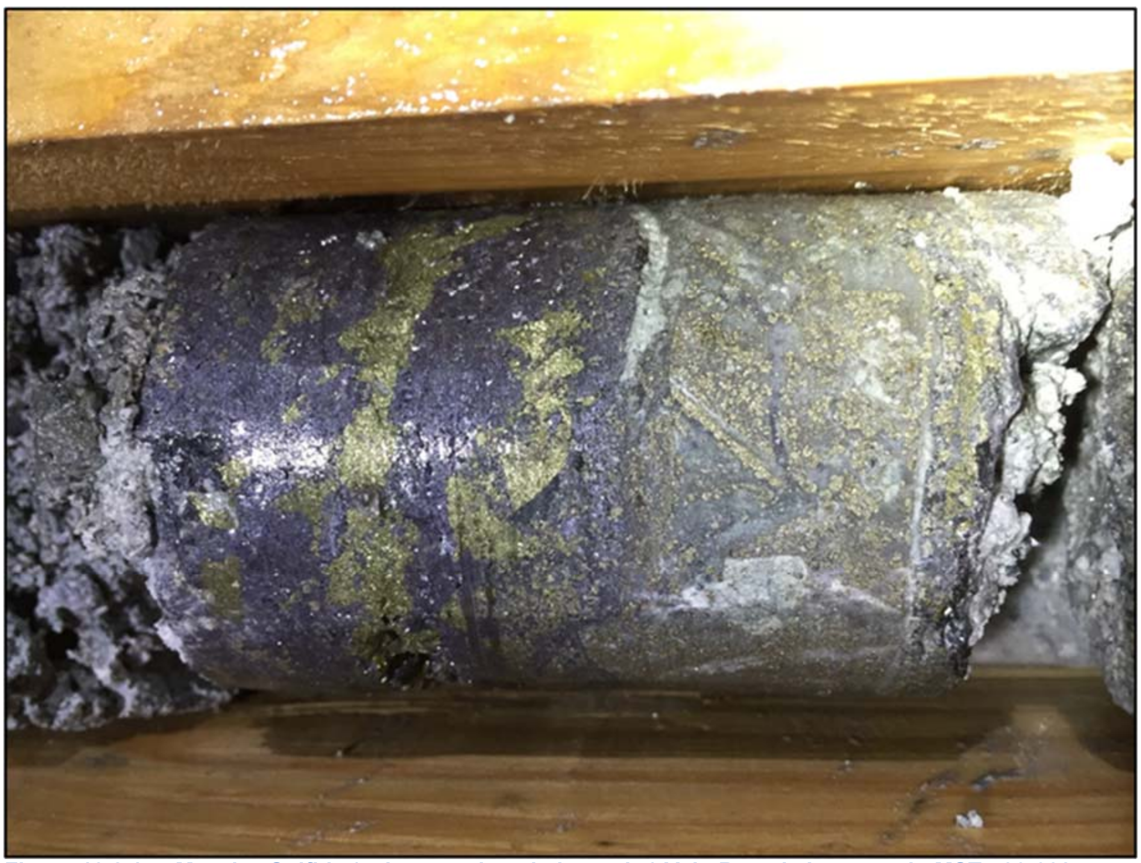


Figure 13.2.1.4: Massive Sulfide (galena+pyrite+chalcopyrite) Vein Breccia Intercept in MST-590-008

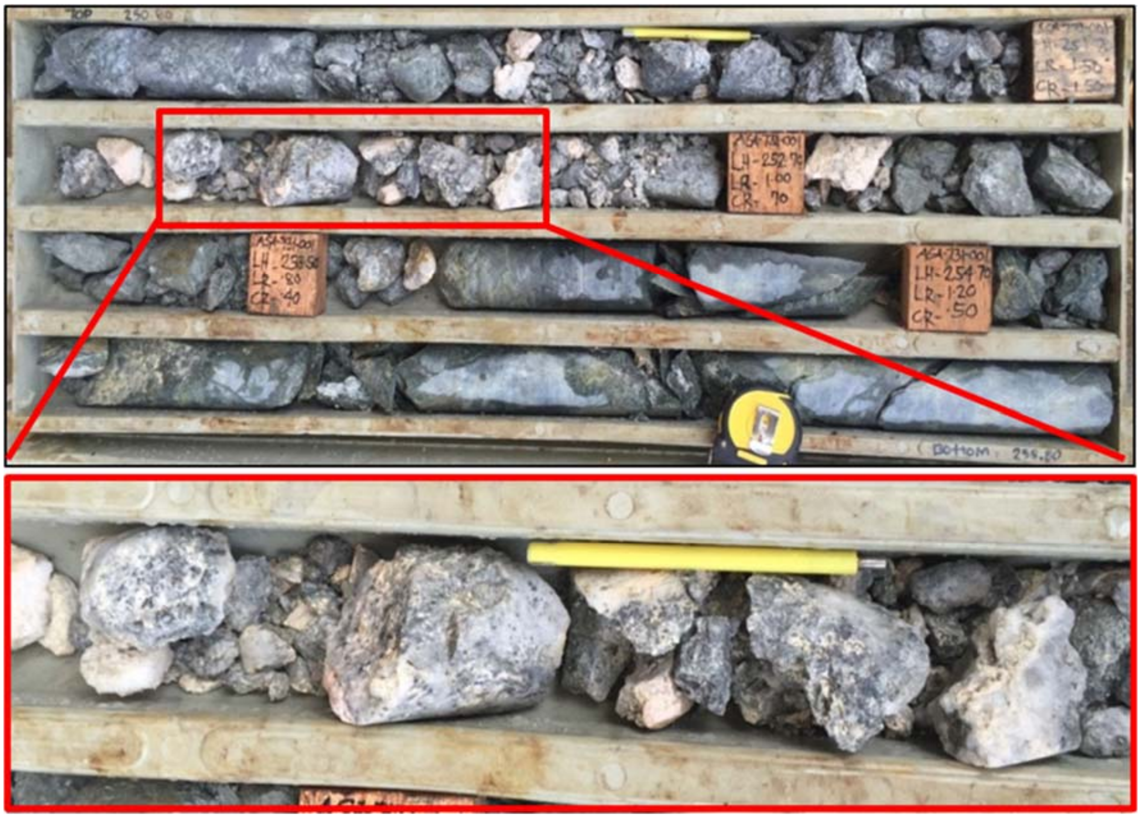


Figure 13.2.1.5: ASA-731-001 Intercept – vuggy, quartz-carbonate-rhodochrosite with sphalerite-galena-pyrite-chalcopyrite mineralization

Figure 13.2.1.6: MST-560-004 Intercept at 117.4-117.7m – quartz-carbonate vein breccia with carbonate veins displaying colloform-crustiform banding

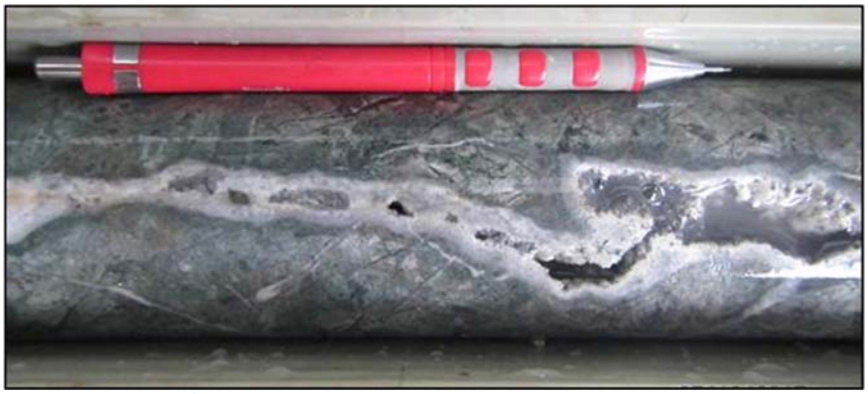


Figure 13.2.1.7: ASA-545-003 Intercept at 116.9-117.1m – vuggy quartz+carbonate vein

Figure 13.2.1.8: ASA-590-020 Intercept at 56.8-57.8m – vuggy quartz+pyrite+chalcopyrite vein with sulfides along vein selvages

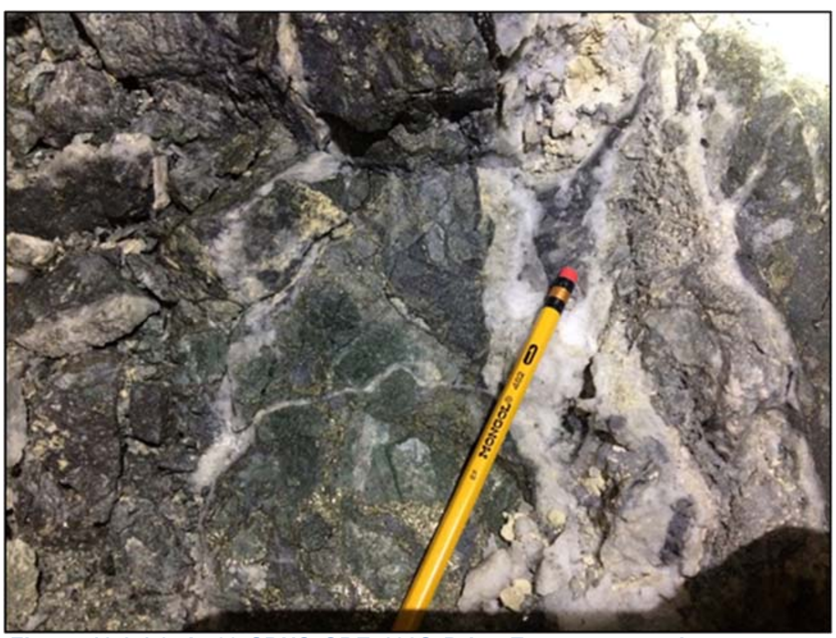


Figure 13.2.1.9: L560 SDNS ODE 102S Drive Exposure – carbonate+quartz vein breccia with pyrite+chalcopyrite disseminations and patches

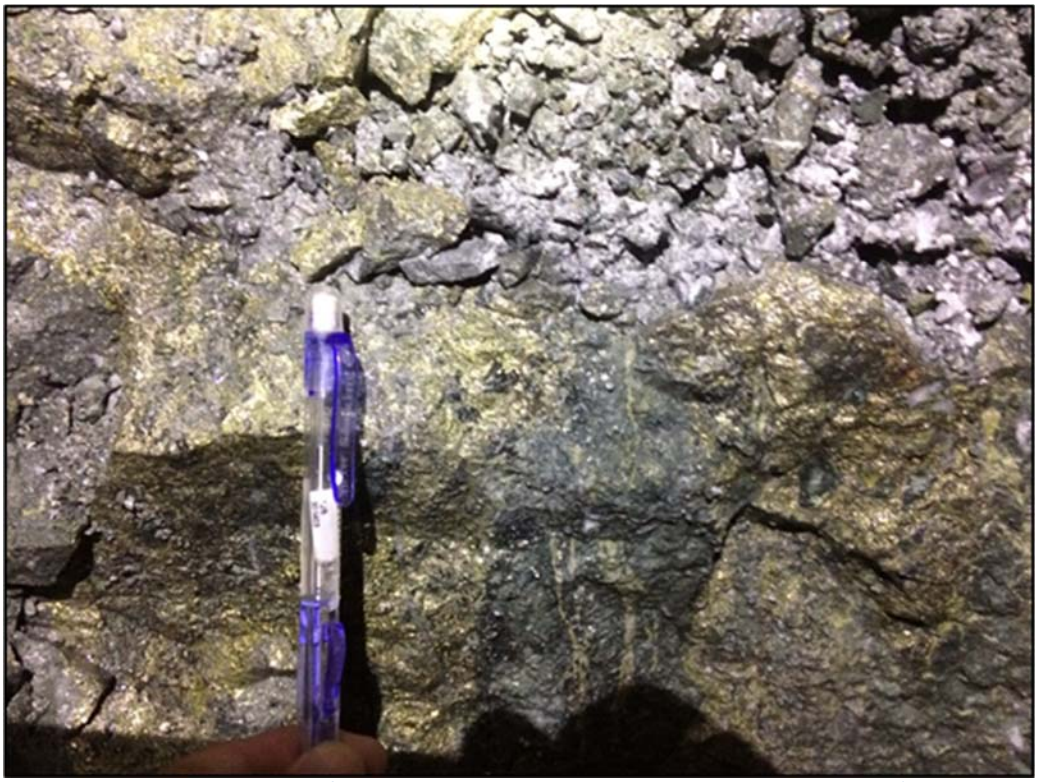


Figure 13.2.1.10: L490 BNZ ODE Drive Exposure – high Au grade massive sulfide (pyrite-chalcopyrite) vein hosted by propylitic-altered andesite

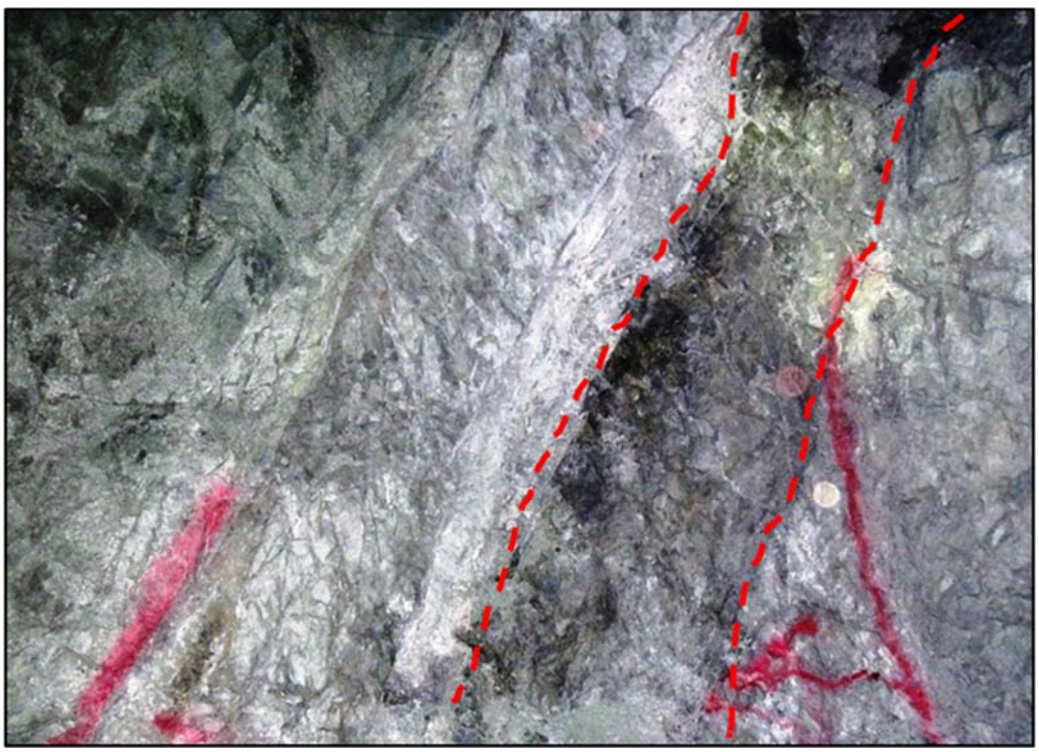


Figure 13.2.1.11: L680 SDN ODE Drive Exposure – massive sulfide (pyrite-chalcopyrite) vein with argillic alteration halo

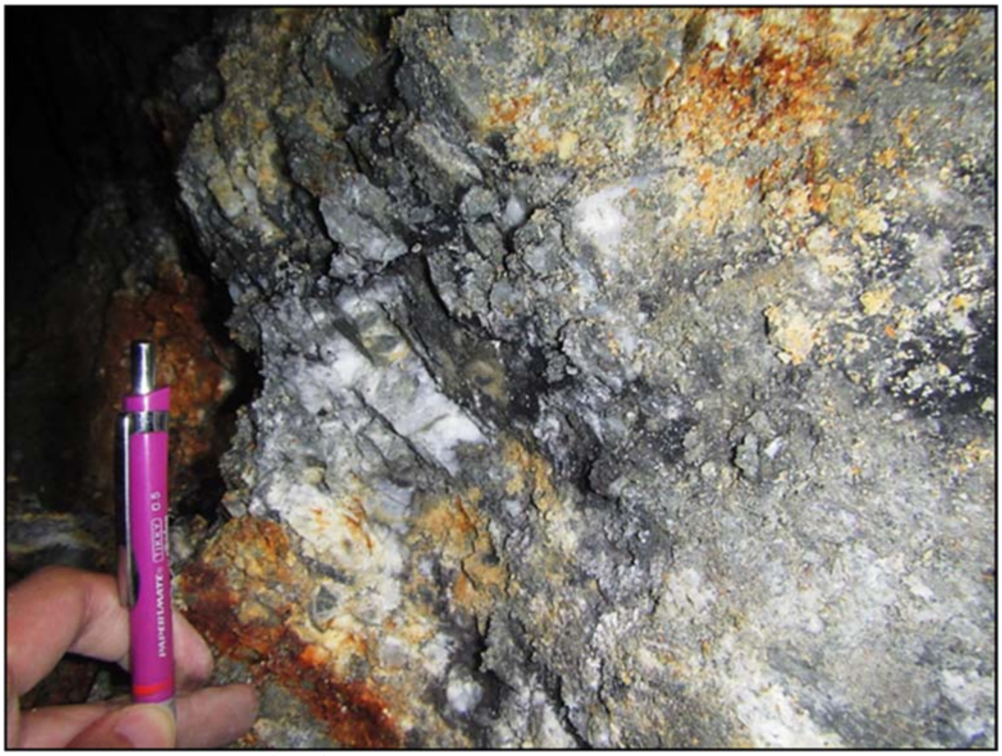


Figure 13.2.1.12: L545 MST2 ODW 52N Drive Exposure – grey and white chalcedonic quartz veins associated with black sulfide veinlets

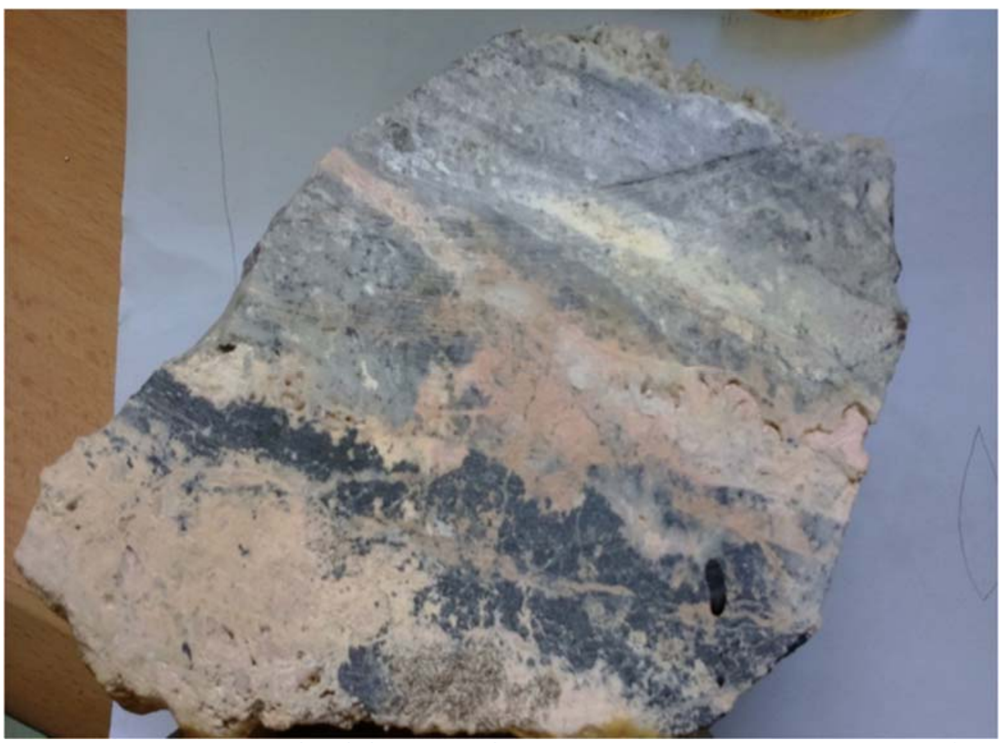


Figure 13.2.1.13: Level 590 SDNS ODW Hand Specimen – quartz-carbonate-galena crustiform-colloform bands with incorporated silicified diorite clasts with relict feldspar laths and disseminated cpy-py

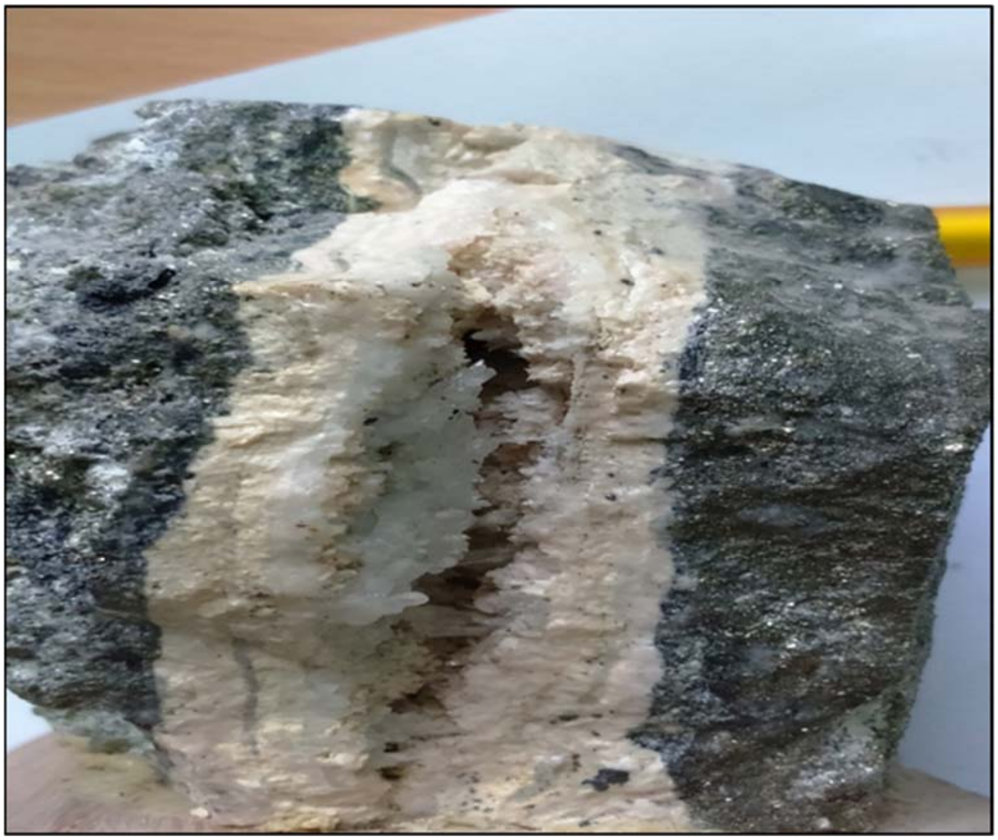


Figure 13.2.1.14: Level 635 SDN ODE Hand Specimen – drusy, vuggy quartz+carbonates in massive sulfide (pyrite-chalcopyrite-galena) vein

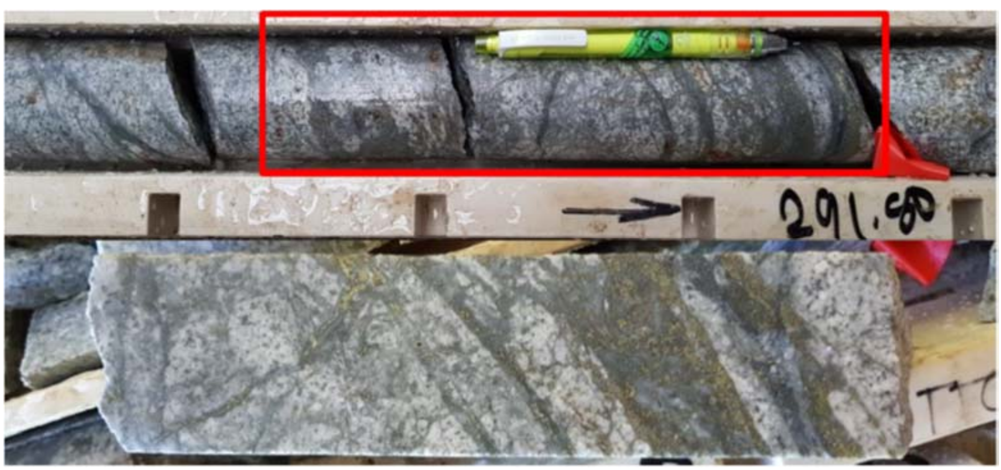


Figure 13.2.1.15: SDN2-605-002 Intercept at 297.8m – wallrock vein breccia with argillic-silicified diorite clasts in a quart+sulfide matrix

13.2.2 Porphyry Cu-Au Deposits

A cluster of Cu-Au porphyry prospects are situated within the central to western portion in Parcel IV of MPSA-234-2007-XI. The high grade Maco vein-type mineralization towards the east in MPSA-225-2005-XI were previously postulated to be spatially, temporally and genetically related to these porphyry deposits.

Currently identified prospects consist of (1) Pagasa, (2) Mapula, (3) Theresa, (4) Kurayao, (5) Kanarubi, and (6) Quiamonan. Vertical and lateral extents of these Cu-porphyry bodies were not well constrained due to the limited drilling campaigns targeting these areas. Out of the six prospects, only Mapula, Kurayao, Theresa and Pag-asa were previously drilled.

The porphyry-Cu mineralization in the tenement defines two arcuate belts which may be related to a collapsed caldera structure. These lineaments limit the western extent of the fault-controlled Au-bearing vein structures (Coller, 2011). The E-W fault-controlled veins (Don Alberto, Don Fernando, Don Mario, St. Francis and St. Vincent) however overlap with the porphyry-Cu mineralization.

Recent reprocessing and subsequent interpretation by CSRWG of magnetic data from the airborne survey by Thomson Aviation Pty. Ltd. over the AMCI tenement in 2012 revealed a broad magnetic low which encompasses majority of the abovementioned prospects. In addition, the delineated elliptical magnetic anomaly served to define the extent of the AMCI porphyry deposit down to a depth of 500 meters.

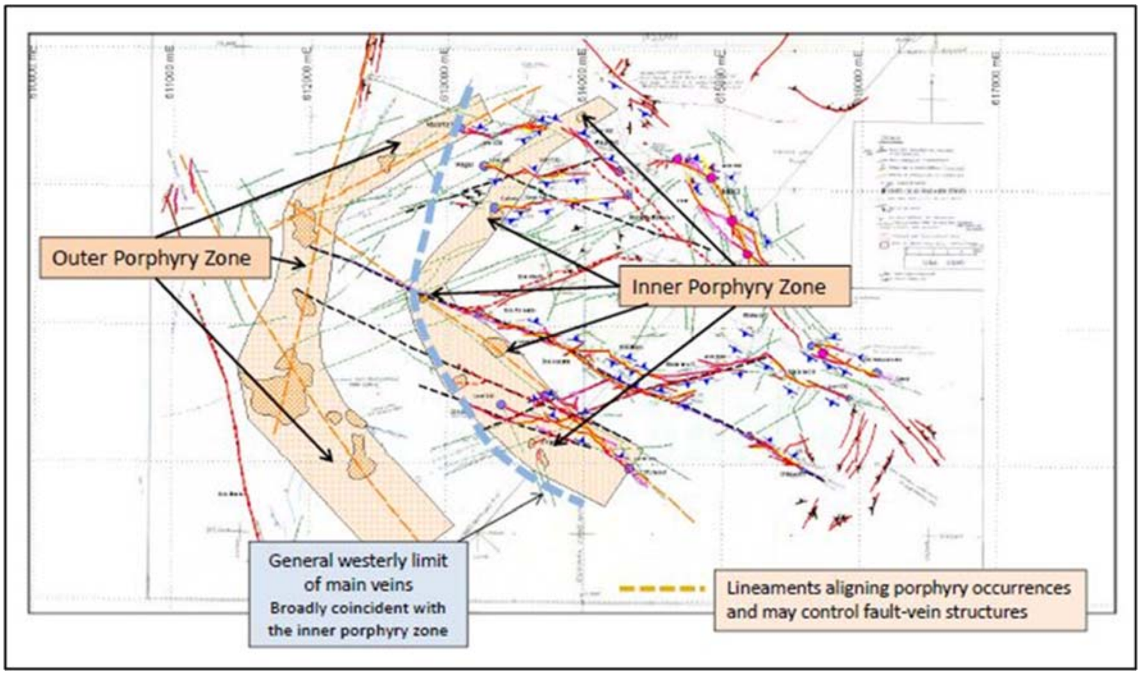


Figure 13.2.2.1: Porphyry Copper Gold Mineralization in the Contract Areas modified from Coller (2011)

13.2.3 Skarn Mineralization

Localized skarn mineralization occurrences were noted within the tenement from surface exposures, underground headings and diamond drill hole intercepts.

Recent studies identified a total of five skarn zones (Figure 13.2.3.1) observed to be in close proximity to the Au-bearing veins. Skarn assemblages identified were (1) garnet skarn: garnet - diopside ± epidote ± tremolite ± calcite ± pyrite (2) magnetite skarn: magnetite ± pyrite ± garnet ± chalcopyrite, (3) epidote skarn: epidote - tremolite ± garnet ± sulfides and (4) pyrite skarn: pyrite - epidote ± magnetite ± chalcopyrite ± calcite.

Based on the recent work, skarn mineralization, although widespread, are non-contiguous and are currently not considered potentially economic Au mineralization targets. Potential and economic viability of skarn mineralization within the AMCI tenement requires further evaluation.

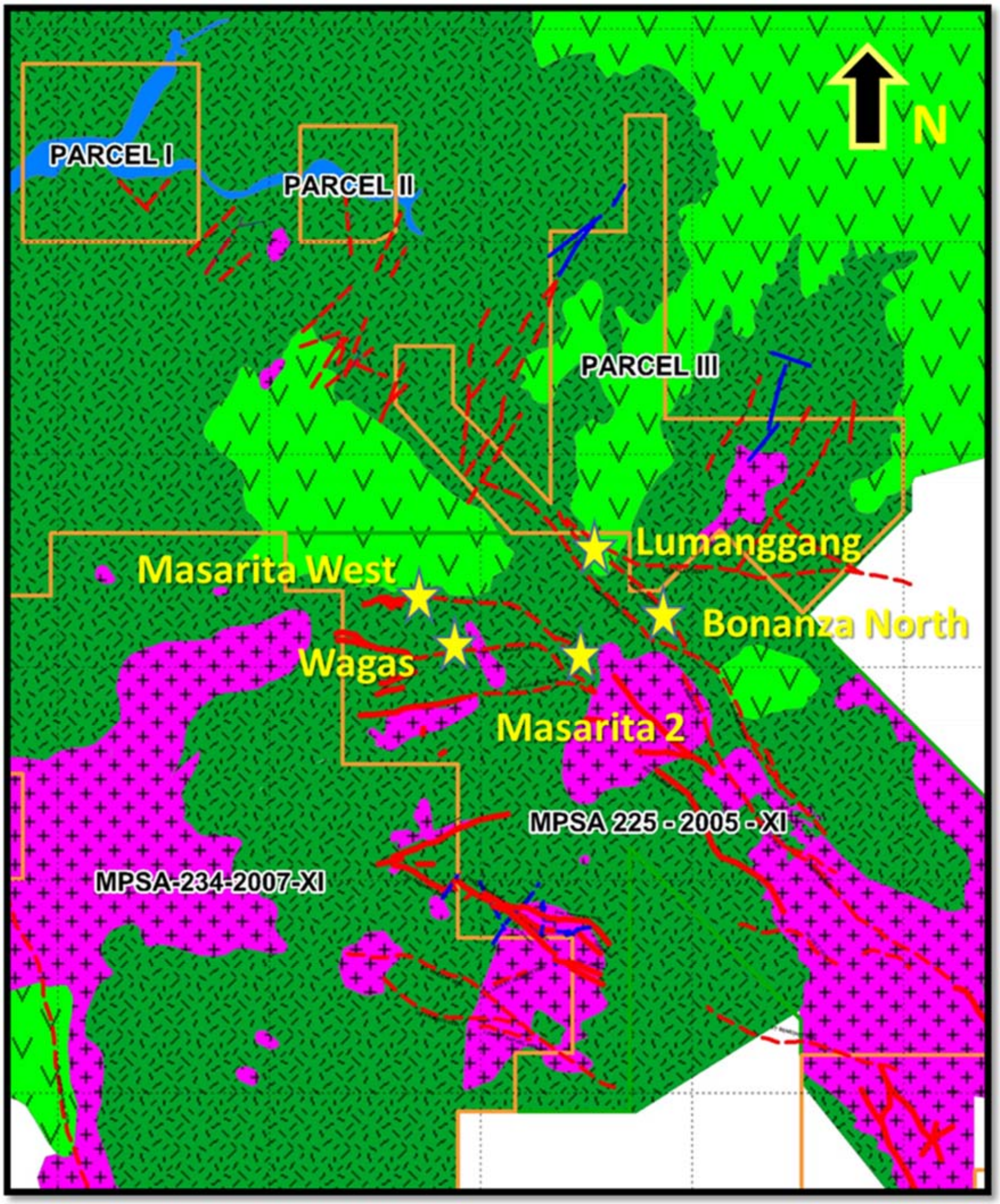


Figure 13.2.3.1: Geologic Map Showing the Spatial Distribution of Skarn Zones

Figure 13.2.3.2: DNC-530-104 Intercept at 85.4m – monomictic crackle breccia characterized by angular garnet skarn clasts set in vuggy, drussy quartz+calcite vein

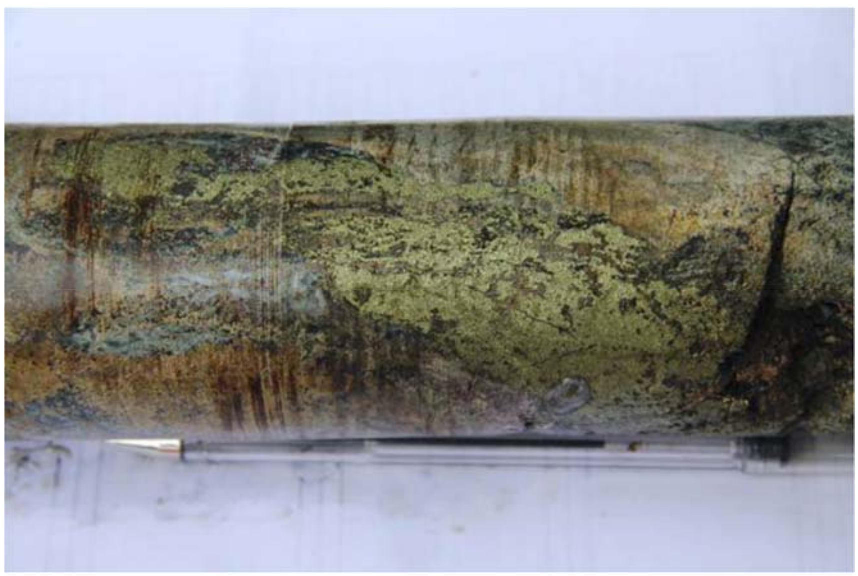


Figure 13.2.3.3: DNC-530-104 intercept at 86.4m – reddish brown garnet skarn with semi-massive chalcopyrite

13.3 General Style of Mineralization

Gold mineralization within the district is multiphasal and generally comprised of massive sulfides, suflide- and silica-rich breccias, plus quartz, carbonate and Mn-rich carbonates and silicates occurring either as stockworks or exhibiting drusy, vuggy, crustiform-colloform, cockade or colloidal textures.

High Au grade mineralization generally coincides with vein zones primarily composed of massive sulfides and sulfide-quartz breccias ranging from 1 to 3 meters in width. Sulfide content in terms of percent volume for these high grade zones is usually in the range of 30-80%. The sulfide mineral assemblages are comprised of pyrite, chalcopyrite, galena and sphalerite. Visual identification of bornite(?) and covellite(?) in hand specimens will have to be verified through ore microscopy. Gangue minerals are composed of quartz, carbonate and Mn-rich carbonates and silicates.

13.4 Length, Width, and Depth of Mineralization

The existing NW-WNW trending vein systems in the tenement area have already been developed approximately 1,500m along strike with vein splits at least 100m in length. Vein widths range from 1.0-1.5m with swells reaching greater than 4.0m. Current mine development has established a vertical depth of approximately 400m for the Sandy Vein (from Level 900 down to Level 515) and 250m for the Bonanza-BHWS Vein (from Level 725 down to Level 470. Recent exploration drilling campaigns undertaken by the Company have confirmed that economic mineralization persists further below these mining levels, with intercepts at 450 masl and 350 masl in Sandy and Bonanza-BHWS veins, respectively. Mineralization of all identified vein systems within the contract areas remains open at depth.

13.5 Element Grade Levels and Patterns

No recent comprehensive study was done on the grades of other elements and their possible relationship with each other. With regards to other base metals, galena appears to have a direct relationship with gold. Higher grade ore shoots are usually noted to contain appreciable galena within them. For the other base metals, the relationship with gold has not been clearly established.

13.6 Wall Rock Alteration and Paragenesis

Results from X-ray diffraction analysis by CSRWG of samples collected in 2015 from the underground identified 3 alteration mineral assemblages, namely; sericitic, chlorite-sericite and propylitic. Samples taken from Level 780 SDN MV, Level 780 SDNS, Level 605 and Level 560 BHWS, Level 785 MAI HWS, Level 785 MAI ODW DXC 155E and Level 560 WGS 68W SL exhibited chlorite-sericite alteration. Sample taken from the hanging wall at Level 780 SDN MV showed sericitic alteration while the hanging wall sample taken at Level 780 SDNS exhibited propylitic alteration. As observed in the underground, the chlorite-sericite and sericitic alteration commonly occurs as alteration halos immediately adjacent to the mineralized veins and structures and may persist for 2.0-5.0m into the host rock. These alteration assemblages however only overprint and are secondary to the propylitic alteration observed in the eastern part of the AMCI tenement area covering the existing mine development.

Figure 13.3.1: L590 SDN ODE MV 134S Drive Exposure – 1.2m wide carbonate+base metal sulfide vein composed of carbonates, galena-sphalerite stringers/lenses with minor rhodochrosite and disseminated sulfides (pyrite+chalcopyrite)

Figure 13.3.2: L605 BHWS ODW 62S Drive Exposure – massive sulfide (pyrite-chalcopyrite) quartz breccia trending N57W 60NE

Figure 13.3.3: L756 SDY ODE 142S Drive Exposure – 3.5m wide sulfide-quartz breccia with late carbonates; sulfides are comprised primarily of pyrite and chalcopyrite with minor galena and sphalerite

14.0 EXPLORATION

14.1 Geological Work Done

14.1.1 Geological Data generated from Mapping and Surface Sampling

Daily underground and surface exploration mapping activities generate valuable geological data useful for both mine planning and mine operations. The data consists of rock types, weathering, oxidation, color, grain size, structures, texture, alteration, veining, and mineralogy. All these data are plotted on plan maps and sections to show all relevant geologic features such as:

- Visible boundaries of ore and any other significant mineralization
- Boundaries of major lithological units
- Position and orientation of major structures such as folds, faults, prominent joint sets, and others
- Alteration patterns
- Major veins or vein sets
- Geotechnical data such as degree of fracturing, rock hardness, and others as required by the engineers

Channel cut samples are collected across the mineralized zone, vein and alteration from outcrop, surface trench, and underground working. The sampling dimension is dictated by the mapped geology, structure, and mineralogy and based on the individual geologic boundary that each feature would indicate to be a mineralization control. The usual sampling width, e.g., contact to contact of alteration zone or vein, is from at least 0.3m to maximum 1.5m continuous channel sampling from hanging wall to the footwall.

14.1.2 Geological Map and Sections

The following geologic maps and sections are being produced and/or worked daily or on an as-needed basis.

14.1.2.1 Underground Maps

Level Maps (Scales 1:250, 1:500m, 1:1000m)
Sections (Scales 1:250, 1:500m, 1:1000m)
Geologic Face Maps (Scale 1:100)
Vertical Longitudinal Plans (Scales 1:1000, 1:2000)

14.1.2.2 Surface Exploration Maps

Area Geologic Maps (Scales 1:500, 1:1000)
Area Geologic Sections (Scales 1:500, 1:1000)

14.1.3 Sample Location Map

The level, face, and surface maps serve practically as the location plan for the collected samples.

14.2 Surface Sampling

A 1:1,000-scale detailed geologic mapping exercise was initiated in 2015-2016 by the exploration group in MPSA 225 and MPSA 234. The explored areas possess varying styles of supergene and hypogene gold mineralization and are typical of intermediate-sulfidation epithermal gold system hosted in a volcanic, intrusive, and subvolcanic complex. The mineralization appears to display polyphasal mineralization style from massive, veins/veinlets/stockworks, base-metal rich breccias, and fault vein/breccia structures.

14.2.1 Outcrop Sampling

For outcrops, mostly measured channel cut sampling is conducted while grab sampling is seldom done, and if ever, the assay results are only treated as indicative values. The intervals for sampling are marked out on the exposed mineralized zone, vein, or rock exposure based on individually indicated geological boundaries which denote mineralization control. Where mineralized structures are steep dipping, the appropriate sample is a horizontal channel along the floor or wall (or if that is where the best outcrop is). Where there is no certainty as to the attitude of the mineralized zone, a sample consisting of both horizontal and vertical channels, composited over selected horizontal intervals, are used.

14.2.2 Trench Sampling

The procedure for trench sampling is the same as for sampling any continuous rock or mineralized exposure as that in outcrop sampling. Intervals for sampling are marked out on the exposed mineralized zone, vein, or rock exposure based on the geological boundaries considered as mineralization controls. Where mineralized structures are steep dipping, the appropriate sample is a horizontal channel along the trench wall. Where there is no certainty as to the attitude of the mineralized zone, a sampling consisting of both horizontal and vertical channels composited over selected horizontal intervals, is used.

14.3 Underground Sampling

Active development drives are mapped daily after every advance. Underground mapping is carried out through compass-and-tape traverse using surveyed stations as reference. The exposed faces are also mapped following the established face-mapping format which captures the vertical component of the vein geometry.

14.3.1 Face Sampling

Channel samples are taken according to the structural boundaries identified during face mapping. The samples are taken at breast-height or approximately 1m from the drive floor, with the channel oriented perpendicular to the identified structure. When taking samples from the vein, zones with distinct textures are segregated with a maximum channel length of 1m. Wall rock samples are similarly segregated in cases where drastic changes in the material (*e.g.*, intense alteration, presence of stockworks) are noted. The channel should span the entire width of the exposed face.

Figure 14.3.1.1: Markings for Sample Segregation at L575 SDN ODE

14.4 Drilling and Sampling

14.4.1 Type of Drilling Program

Apex in recent years initiated several drilling campaigns. The drilling campaign under Crew Gold covered the latter portion of 2005 up to 2007. This was followed by the drilling campaign under ASVI-Mindanao Gold which commenced during the latter portion of 2009 up to 2013. Drilling operations are sustained by the current Apex management using an in-house diamond drill rig fleet for underground holes and by engaging the services of contractors for surface holes. The current drilling program aims to define the lateral and vertical continuity of the veins actively being mined, to test the identified prospects within the tenement areas, and also to confirm mineralization in areas with old mine workings that are now inaccessible.

The 2005 campaign was a resource definition diamond drilling program implemented upon the approval of MPSA-225-2005-XI. The program concentrated on the delineation of the Masara-Bonanza-Sandy-Maria Inez veins following the NW-SE strike length approximately 2.5km extending along the Malumon River valley. Several other vein systems were also included, namely Don Fernando-Don Joaquin system, Bibak, Jessie, St.Benedict, Masarita, and St. Francis. The secondary objective for the St. Francis drilling campaign was to delimit the porphyry mineralization within the area. A total of 212 holes were drilled with an aggregated 43,760m drill core output. Most of the drilling campaign was surface drill holes with only five holes collared underground.

Surface holes normally started with PQ size which is reduced to HQ after about 100m. Further reduction to NQ size is also resorted to if necessary to reach the target depth.

Another drilling program was initiated late 2009 with an underground Kempe rig assigned to provide mine operations with advanced information for on-vein development. By January 2011, additional Kempe and LM55 rigs were deployed underground, and a surface rig was commissioned for surface drilling. Another LM55 underground rig was commissioned by early 2012.

In early 2014, the current Apex management continued with the underground drilling campaign proposed by ASVI-Mindanao Gold to define the near mine vein extensions. In addition to this, Apex contracted the services of Quest Exploration Drilling (QED) during mid-2015 to identify additional vein targets for intermediate and long-term mine development through surface exploration drilling.

Surface drilling by QED commenced on June 16, 2015, which covered both MPSA-234-2007-XI and MPSA-225-2005-XI. One-unit (1) CS1400 and one (1) CS1000 rig was deployed to prove the continuity and economic viability of identified vein systems within the tenement. The purpose of the drilling campaign during the third quarter of 2015 was to determine the vertical and lateral vein extensions of Don Fernando, Don Joaquin, Calixto-L, and Don Mario. Furthermore, the campaign also served to delimit the Cu-porphyry mineralization towards the west and determine its relationship to the Au-bearing veins. During the fourth quarter of 2015, the objective of the drilling program targeting the Wagas, Masarita and Lumanggang Hitch Vein was to prove the western extensions of the mentioned vein systems. During the latter portion of 2015 the goal of the drilling campaign in the northwest of the existing mine operation was to determine the extension of the high Au-grade Bonanza vein towards the northwest in addition to delineating the Manganese and New Year veins. The total meters of surface diamond drilling achieved for the year 2015 was 6,337.5 meters from 22 holes.

Conventionally, underground drilling (except for Kempe rigs which utilize AQ-sized drill rods) commenced with HQ collar and later reduced to NQ size upon necessity or depending upon circumstances downhole. Surface drilling however commence with PQ collar, which is later reduced 100m downhole to HQ and subsequently reduced to NQ 300m downhole.

From 2017 to 2020, Drillcorp Philippines Inc. (DCP) or “DrillCorp” provided contract drilling for the scout drill and resource evaluation drill testing programs. In the surface, there were up to four (4) modular Atlas Copco Copco (CS1000 and CS-1400) crawler-mounted rig that drilled. The rig can penetrate down to 300 meters of PQ core, 140 meters of HQ core, 600 meters of NQ core and 1000 meters of NQ core in good ground formation. Scout drilling – drilling to determine if mineralization exists has been undertaken – was conducted in Kaurangan and PJAC-St Benedict. Resource evaluation drilling – current drill hole spacing is deemed sufficiently close to define a resource – was conducted in Sagaysagay (including Kasaraan and Kasapa), Saint Francis, Saint Vincent, Don Calixto, Don Fernando, and Don Mario.

14.4.2 Drill Site Spacing, Depth of Drilling

Drill site spacing for the 2005 Resource Definition Core Drilling Program was initially at 100m interval which was later followed with in-fill drilling to reduce the drill spacing to 50m. Drilling depth was dependent upon the projected vein intercepts and ranged from about a hundred to three hundred meters.

During this drilling campaign, the following were some of the drilling statistics recorded:

- Lowest elevation reached by a drill hole (MS-01) was 328 ASL (MS-01)
- The deepest drill hole was recorded by SB-03 at 420.10 m
- Shallowest hole was 80.30m deep recorded by BV-03
- Average length per drill hole was 206.42 m
- Average dip/inclination is -58°

The drilling program is a combination of in-fill, resource definition, and production support drilling. Targets are relatively shallow and spacing is generally designed at 25m to 50m intervals. Exploratory holes are usually drilled deeper depending on target structures.

During the ASVI drilling campaign, drilling statistics was being recorded:

- Lowest elevation reached by a drill hole (BNZ – 019) was 110 ASL
- The deepest drill hole was recorded by MPDH – 002A at 916.70m
- Average length per drill hole was 166.95m
- Average dip/inclination is -51.5°

For the 2017-2020 drilling campaign, drill spacing and depth of drilling varied widely. In the scout drilling program, collar or hole to hole spacing are more than 50 m to less than 100 m while depth only reaches to not more than 150 meters-depth. In the resource evaluation drilling, spacing are not more than 100 m apart, and the depths reaches up to 500 drilling-meters. Whenever possible, drillhole dips -55°, and if a scissor is warranted then drill dips to -75°.

14.4.3 Core Logging

Drill cores are quick logged at the drill site for initial interpretation. Once delivered to the core house, the cores are photographed. The cores are then logged in detail with the lithology, mineralization, alteration, core recovery, and geotechnical characteristics recorded. The core log sheet is encoded together with the assay results and other drill hole data in a database for geological modelling and mine planning. The specific gravity is determined in the assay laboratory.

14.4.4 Drill Sample Method and Interval

The geologist determines the sample intervals after detailed logging. The sampling interval is determined by a lithological or stratigraphic boundary or when a significant change in mineralization or alteration style occurs. If a vein is to be sampled, the hanging wall and foot wall of the vein will also be sampled. The minimum sampling width for vein zones is 0.30m while the maximum width is 1.00m. For the wall rocks, the maximum sampling interval is 2.0m.

The sampled cores are cut into half, with one half left in the core box as a reference while the other half sent to the assay lab for analysis. The half-core intended for sampling is first split into two quarter-cores before being pulverized. One quarter-core sample will be sent to the assay lab for analysis while the other is stored as a duplicate sample for future reference. This is only applicable to PQ-, HQ-, and NQ- size cores. For AQ size drill cores, the whole core is pulverized and sent to the lab.

14.4.5 Drill Core Photographs

Drill cores are photographed upon arrival in the core house. The previous practice is to only take photos of the wet core. Starting early 2010, dry core photos were also taken. Photographs of dry cores aid the Engineering Group as significant fractures and veins may be hidden or obscured when cores are photographed wet. For geological purposes, however, wet core photographs bring out important geological features more clearly.

14.5 Exploration Geochemistry

14.5.1 Description of the Geochemical Survey Type

Crew Gold carried out a detailed grid soil sampling covering the Maligaya-Malumon area in 2006. Another soil sampling campaign was conducted in the middle of 2010 in MPSA-225 wherein 419 soil samples were collected in the area. Additional soil samples were also taken by ASVI in Parcels III and IV of MPSA-234.

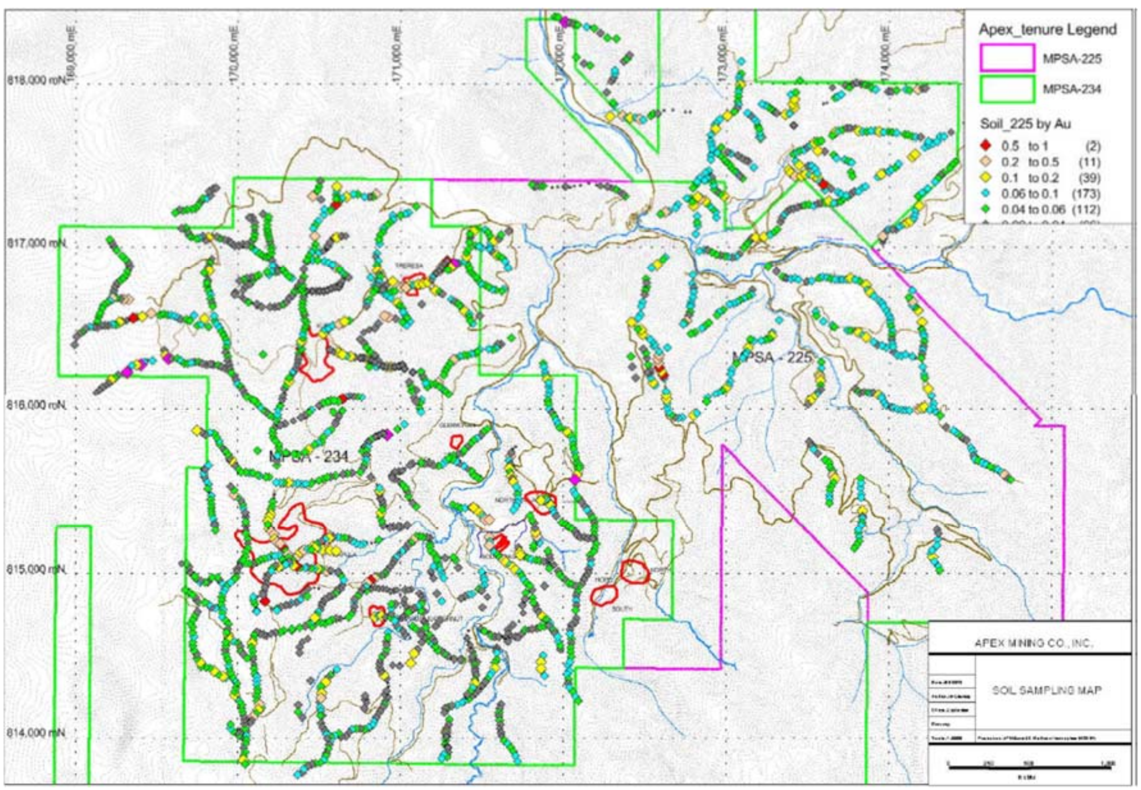


Figure 14.5.1.1: Soil Geochemistry Sample Map

14.5.2 Description of Sampling and Analytical Methods Employed

In conjunction with the IP Resistivity survey, the soil grid geochemical sampling method was simultaneously applied to also test the sulphide-quartz vein systems and splits that are concealed under the study area. The end objective was to delimit any significant gold spatial dispersion patterns that could indicate concealed gold-bearing veins or structures. Soil samples were collected at a 25m grid interval along the IP lines. All samples were assayed only for gold using the Fire Assay method. Geochemical results were plotted and compiled in a 1:2000 scale base map.

14.5.3 Definition of Background, Threshold and Anomaly Levels
There are no available records to determine whether or not the assay results were treated and computed to define the background, threshold, and anomaly levels for gold. The ranges of values are shown on the map (Figure 14.4.1.1).

14.5.4 Applied Synthesis and Interpretive Techniques
There were no indications whether or not statistical analysis was a preferred technique in the subsequent geochemical interpretation.

14.5.5 Description of Geochemical Anomalies Detected
Several spatial distribution trends of soil gold values were apparently indicated based on the geophysical and geochemical base map on a scale of 1:2000. There are no indications if multivariate statistical methods were employed.

14.5.6 Relation of Geochemical Findings to Geology and Mineralization
Several spatial dispersion patterns of gold were delineated in the available base map. Apparently, there are no available interpretations reported to relate the findings with geology and mineralization of the surveyed area.

14.6 Applied Geophysics
14.6.1 Description of the Geophysical Method Used and Survey Objective
Induced polarization (IP) and magnetic methods were used to detect and test the earlier known major sulphide quartz vein systems that are concealed under the Maligaya-Malumon area for further geologic mapping, sampling and evaluation.

14.6.2 Description on who conducted the Survey
The company contracted McPhar Geoservices Philippines Inc. to conduct the limited geophysical survey over the Maligaya-Malumon area in 2006 and then Thomson Aviation Pty Ltd to acquire airborne magnetic and radiometric data over the entire tenement areas in 2010.

14.6.3 Description of Equipment Used
The IP survey was carried out using the McPhar P660 unit with ~ 2.5 kva motor generator with the following survey specifications:

Electrode Array	: Dipole-Dipole
Electrode Interval	: 25m
Frequency	: AC1 = 0.125 Hz ?; AC2 = 2.50 Hz ?
Separation, N	: 1-5? (inclusive)

The airborne survey was flown with an Aerospatiale Squirrel, single-engine jet turbine helicopter (VH-TEQ) using north-south traverse lines to optimally intersect the predominantly NW-SE oriented structures. A forward-mounted ‘stinger’ was mounted on the aircraft to accommodate the GPS and magnetometer sensors. The spectrometer, radiometric-recording crystal sensors were mounted on the floor of the helicopter (Figure 14.5.3.1).

Figure 14.6.3.1: Thomson Aviation Survey Aircraft and Base Station Used

14.6.4 Description on how the Geophysical Survey was carried out

14.6.4.1 Induced Polarization Survey

Based on the available base map, the limited survey was undertaken covering two adjacent areas, namely, IP Area 1 over the Maligaya area and IP Area 2 over the Malumon area.

In IP Area 1, the grid lay-out was 100m by 25m consisting of three 700 m-gridlines with an aggregate of 87 stations at a 25m interval. In IP Area 2, the grid lay-out was 200m by 25m consisting of two 700m-gridlines, one 800m-gridline and one 1,125km-gridline with an aggregate of 137 stations at a 25m interval.

The grid lay-out followed the generally northwest strike trend of the major veins namely: Manganese, Masara and Bonanza in Maligaya area and Sandy, Jessie and Sandy main veins and splits in Malumon area.

14.6.4.2 High-Resolution Aeromagnetics

The survey read both aeromagnetic and radiometric data at a nominal elevation of 40m above the terrain. Flight lines were spaced at 60 meters and tie lines at 600 meters. Figure 14.5.4.2.1 displays the survey flight line coverage over **MPSA-225-2005-XI** and **MPSA-234-2007-XI**. A total of 974.8 line kilometers of flying cover the Apex tenement survey area.

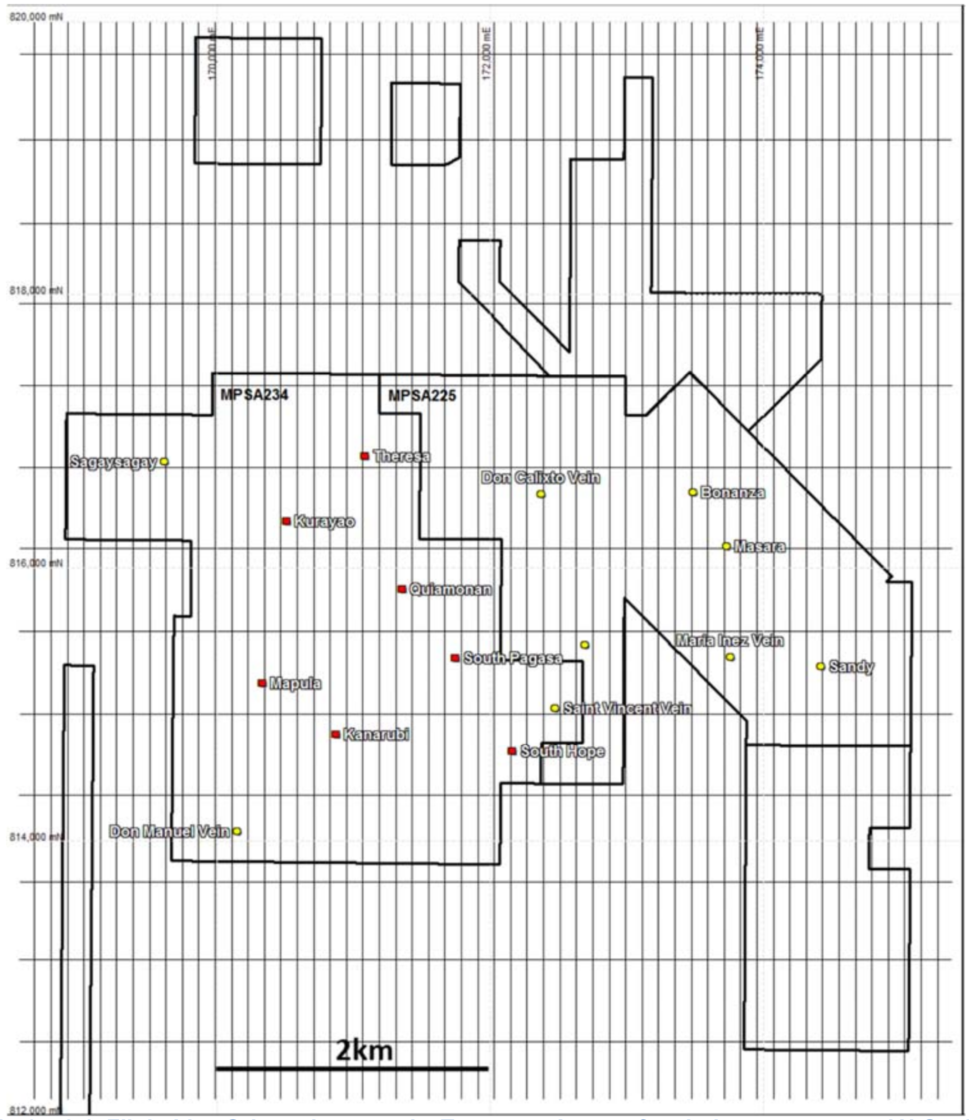


Figure 14.6.4.2.1: Flight Line Orientation over the Tenement Areas – for clarity, every second N-S orientated flight line is displayed above, a survey was completed on 60m survey spacing, with east-west tie lines flown on 600m spacing

14.6.5 Description of Interpretive Tools Used

14.6.5.1 Topographic Elevation Data

A detailed elevation model was generated from the survey recorded radar altimeter and GPS vertical DTM estimation. The airborne survey elevation model has a vertical accuracy of approximately 0.5m and a lateral precision of less than 25m. The terrain in the survey area can be described as rugged with steep mountainous areas, especially to the south. Lake Leonard lies at the NE corner of the survey area at about 900 meters ASL.

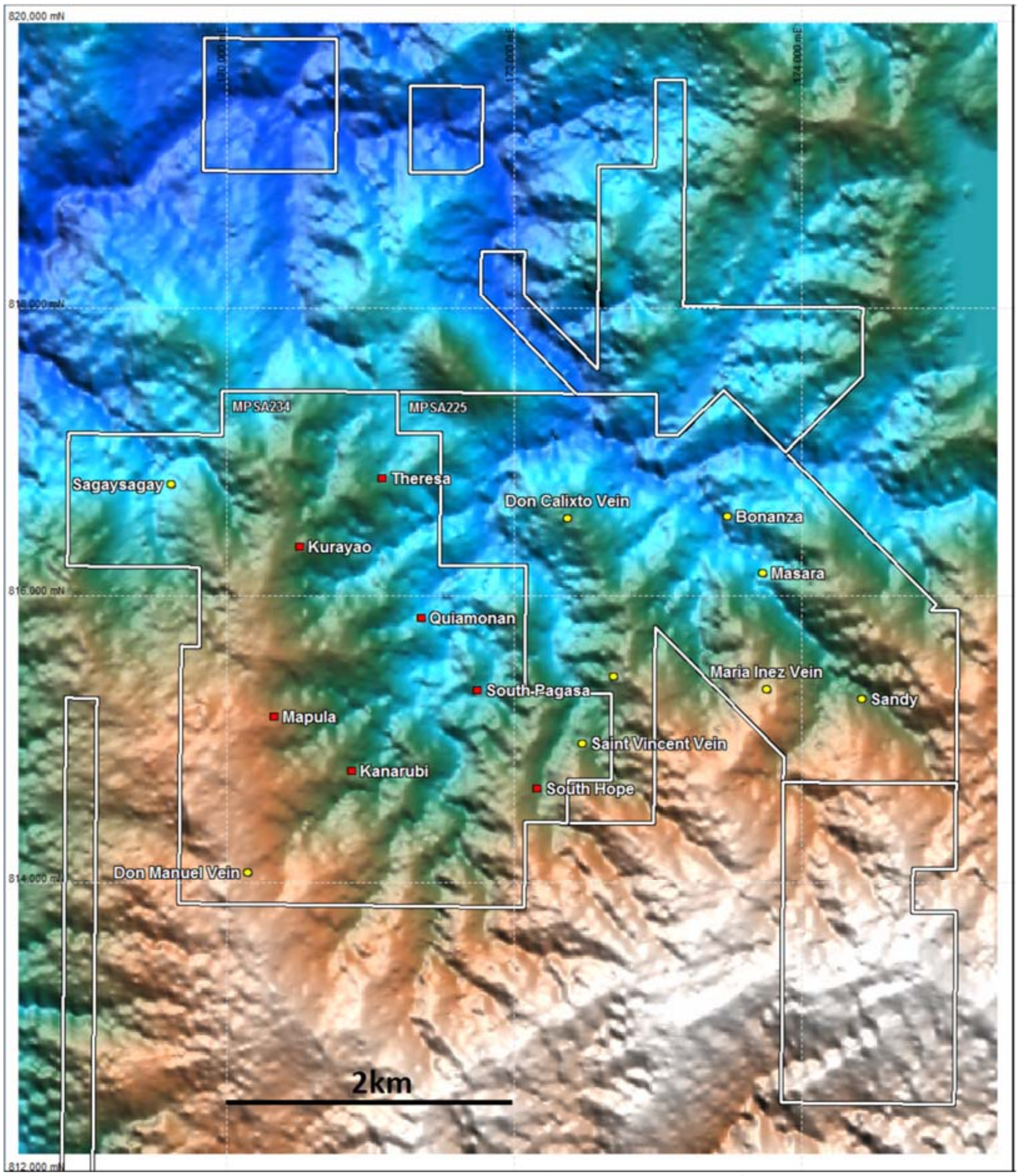


Figure 14.6.5.1.1: Topographic Elevation Model Derived from the Airborne Survey

14.6.5.2 Airborne Magnetic Data

Figure 14.6.5.2.1 displays the Total Magnetic Intensity (TMI) data acquired by the survey.

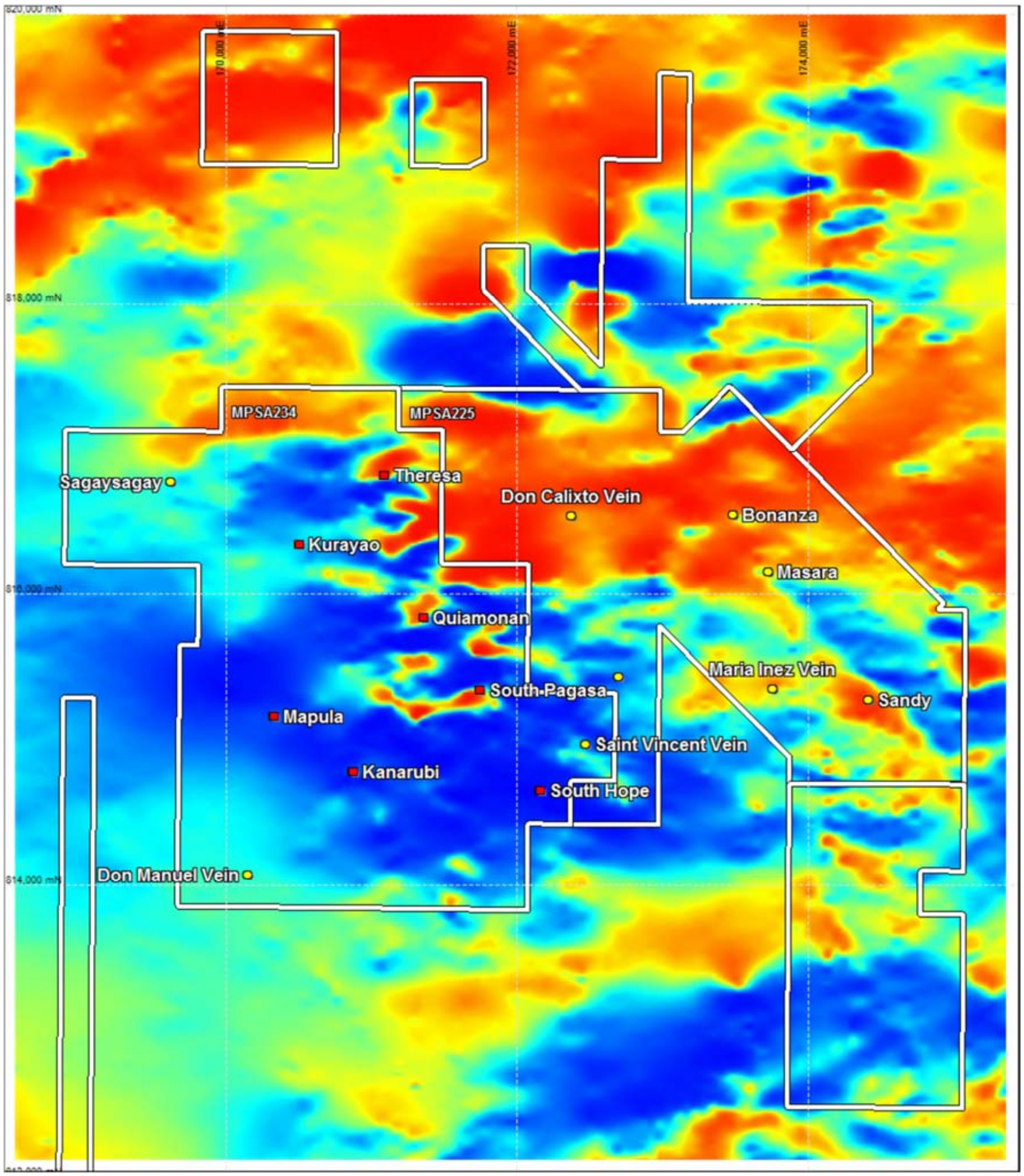


Figure 14.6.5.2.1: TMI (Total Magnetic Intensity) Map

Reduction to the pole (RTP) processing was undertaken to assist in defining the location of localized anomalies. This processing mathematically transforms the TMI data from the area recorded, to an artificial location centered as if recorded at the magnetic pole. The effect of this on the anomalies within the data is to migrate their positions to lie beneath imaged magnetic peaks (in the absence of remanence) whereas the TMI source locations will lie beneath the maximum gradients of the imaged TMI data. In addition, the polarity effect whereby a northern hemisphere negative anomaly (again, for a normally magnetized source without remanence), will be removed in the RTP processed data image.

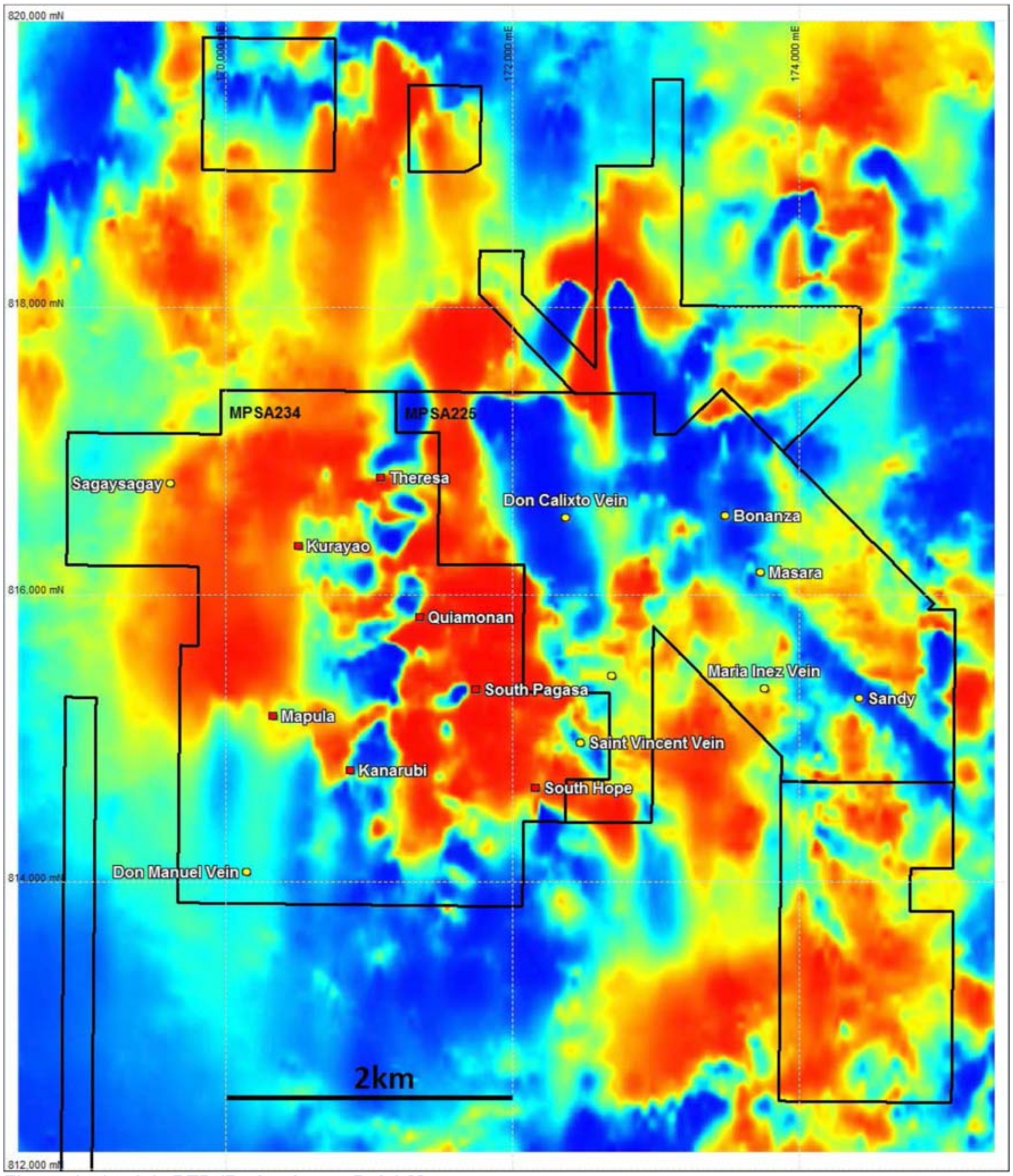


Figure 14.6.5.2.2: RTP (Reduction to Pole) Map

Several observations can be made from the magnetic data:

- The prominent NW-trending fault lineation extends from Sandy – Masara – Bonanza and persists further towards the northern portions of the tenement.
- Lineations and magnetic trend offsets throughout the majority of the survey area indicate a highly fractured and structurally complex faulted area. The major structural direction appears to be to NW, but lower angle (WNW trending) features are also present. NE and NNE lineations also exist.
- Although several prominent zones of elevated magnetic anomaly groupings lie adjacent and along obvious structural lineations (faults), other high magnetic response anomaly centers do not appear to be structurally bounded. Assuming such anomalies

are indicative of elevated magnetite content, they represent obvious locations of intrusive and potential association with volcanic margins and potential.

- In addition to these high magnetic anomalies however, there are also low magnetic response zones that are relatively isolated and in many cases with curvilinear or semi-circular margins. These areas are also prospective as being indicative of magnetite destruction, a consequence of potential fluid alteration of magnetite-bearing rocks that have been subjected to chemical change.

14.6.5.3 Airborne Radiometric Data

The radiometric survey specification required doubling the conventional crystal detector size which has been effective in increasing signal-to-noise for intrusive enhancement, porphyry detection and alteration effects in the survey coverage.

An image of the acquired potassium concentration (as a percentage of potassic mineral content) derived from the gamma-ray spectrometer for the area is presented in Figure 14.6.5.3.1.

Several observations can be made from the potassium data:

- The potassium radiometric data has zones of high count readings primarily in the north and NE parts of the survey area. Several zones are also located in the south and many of these are relatively linear and dendritic, suggesting a topographic correlation. When compared with the DTM in Figure 14.5.5.1.1, significant correlation is noted, especially in the southern areas. Note that this correlation is observed for high, linear trends of the potassium response, but also low counts of potassium in some areas. The inference therefore, is that the areas being drained by the various tributaries determine the potassium response where such correlation is seen.
- Lake Leonard has low to zero counts over the water

An image of the uranium concentration derived from the gamma-ray spectrometer is presented in Figure 14.6.5.3.2. Of note in the uranium data is:

- The uranium spectrometer data has strong count rates over the outcrops of the northern Miocene limestones. The data effectively maps the extent of these lithologies in the NW and western portions of the survey area.

An image of the thorium concentration derived from the gamma-ray spectrometer is presented in figure 14.6.5.3.3. Of note includes:

- The thorium data shows a moderate-high trend along the NW-fault between Sandy-Masara-Bonanza in the eastern part of the survey area.
- The thorium response over limestone occurrence is variable and not as definitive as the potassium or the uranium data channels.
- A central, broad, low thorium area is evident over the structurally complex zone indicated by magnetics.

An image of the total gamma-ray response for the survey is presented in Figure 14.6.5.3.4.

Many of the already described features from the various radiometric channels are evident in the total count data. Important points to note are:

- Many of the topographically-related anomalies evident in the potassium data are also apparent in the total count imagery. The strong spectrum response in and around the potassium spectrometric energy level results in the dendritic patterned anomalies.
- The NW-fault lineation is apparent between Sandy-Masara-Bonanza in the total count response, but in the NW, the trend is evident but subtle and apparent only because of the truncation of low or high zones of total count readings rather than a lineation with elevated counts itself.

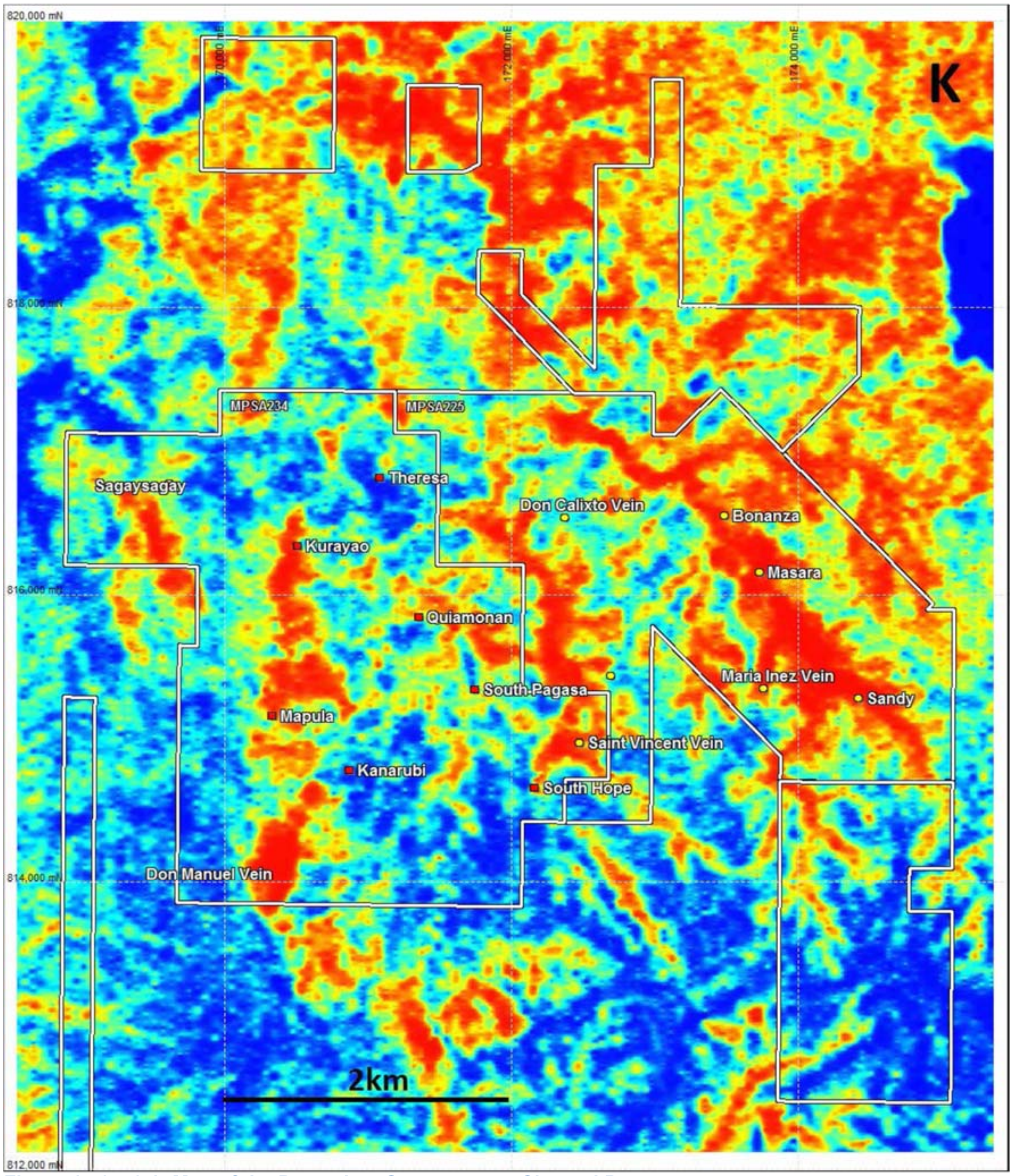


Figure 14.6.5.3.1: Map of the Potassium Spectrometer Channel Data

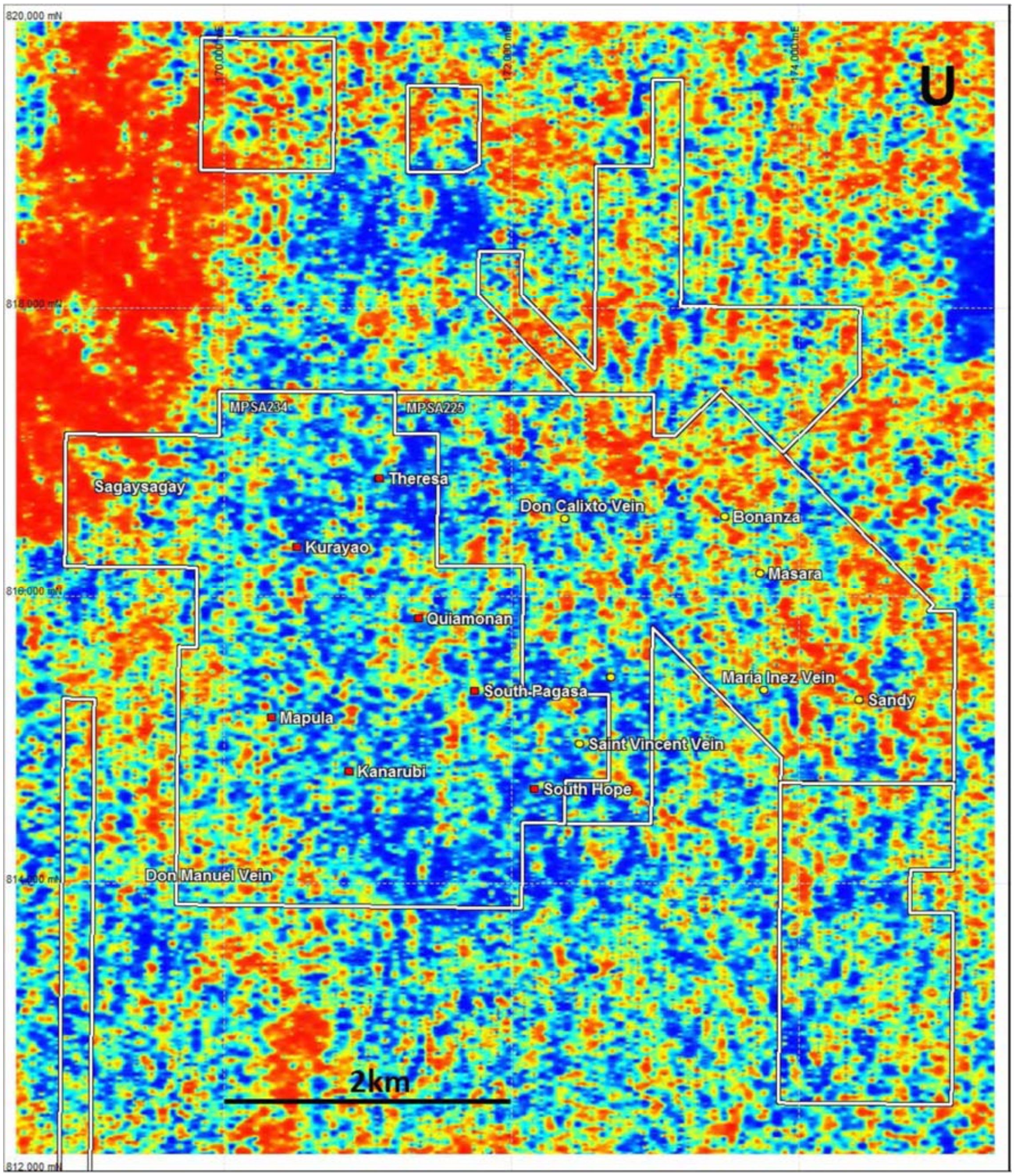


Figure 14.6.5.3.2: Map of the Uranium Spectrometer Channel Data

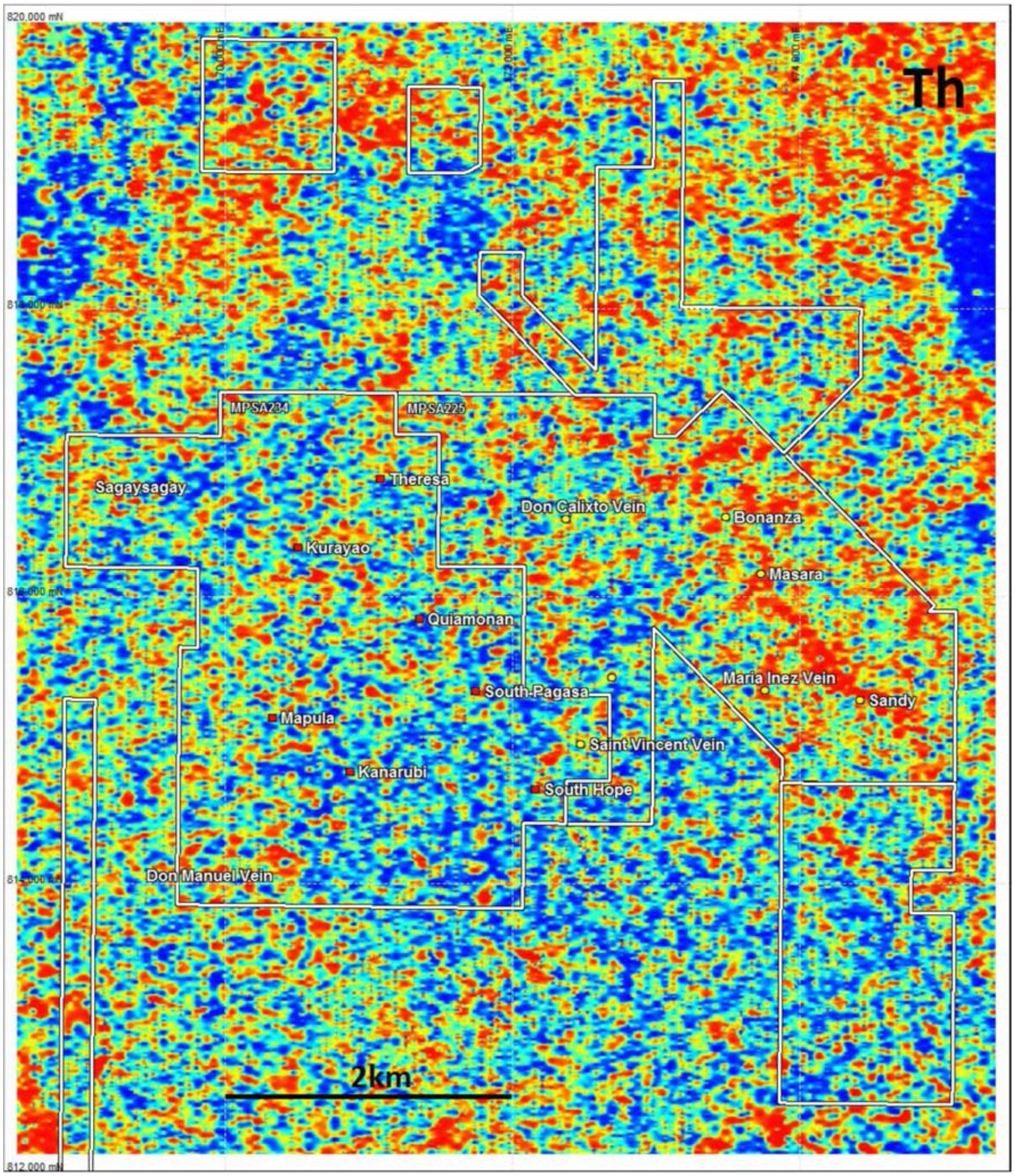


Figure 14.6.5.3.3: Map of the Thorium Spectrometer Channel Data

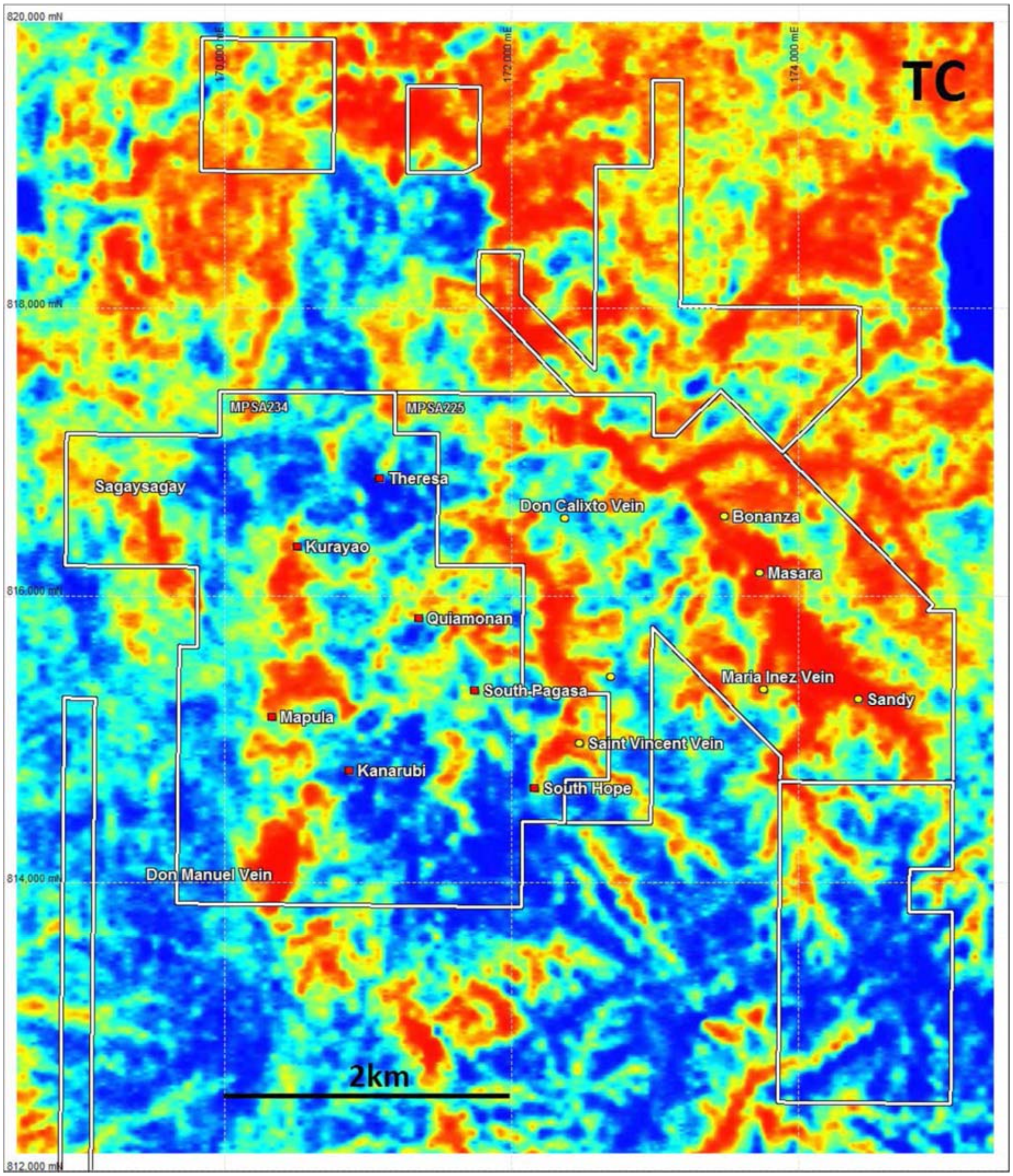


Figure 14.6.5.3.4: Map of the Total Count Spectrometer Channel Data

14.6.5.4 Structural Lineament Interpretation

Regional structural mapping of the magnetic and radiometric datasets was completed. A series of magnetically prominent domains becomes evident when examining the magnetic RTP dataset. The most significant of these includes:

- A central area of elevated, localized magnetic anomalism, defined by relatively high amplitude, short-wavelength anomalies. This zone and an extension to the SE reflect relatively near-surface or outcropping magnetite-bearing rock types (typically andesites and diorites).
- The NW-trending structural dislocation which dominates the eastern side magnetic data defines a significant structural trend between Sandy-Masara-Bonanza. The NW-

trending fault is evident, not only as a strong offsetting feature of anomalies in the data but also as a series of localized anomalism with decreased magnetic response indicative of fluid movement and alteration effects along its structure.

- Within the magnetic data centralized on MPSA-234, a series of large semi-circular trends outlining a zone of highly elevated magnetic response is likely to indicate the main zones of magnetite enrichment interpreted to be associated with the broad outline of intrusive events and porphyry boundaries.

Dominant structures typically in an NW orientation have been drawn in black with a heavier line weight to distinguish them from typically subordinate cross-cutting structures outlined using lighter lines. The dominant structural orientation is NW orientated, with NE, NNW, and E-W cross-cutting structures providing offset and structural complexity. The margins of the inferred intrusive centers located within MPSA-234 are mapped in bold red lines, showing circular caldera-shaped to arcuate-curvilinear trends.

None of the highlighted internal magnetite and caldera boundaries are completely outlined. Extensive interaction between volcanic centers, subsequent overprinting and disruption, plus extensive structural and fault deformation throughout geological history has produced a highly complex series of indicated intrusive centers that are evident in the magnetic data. Extensive faulting and structural disruption, in particular, is clearly visible and this has further produced offsets and truncations of trends which now are manifested only as parts of the porphyry and caldera margins.

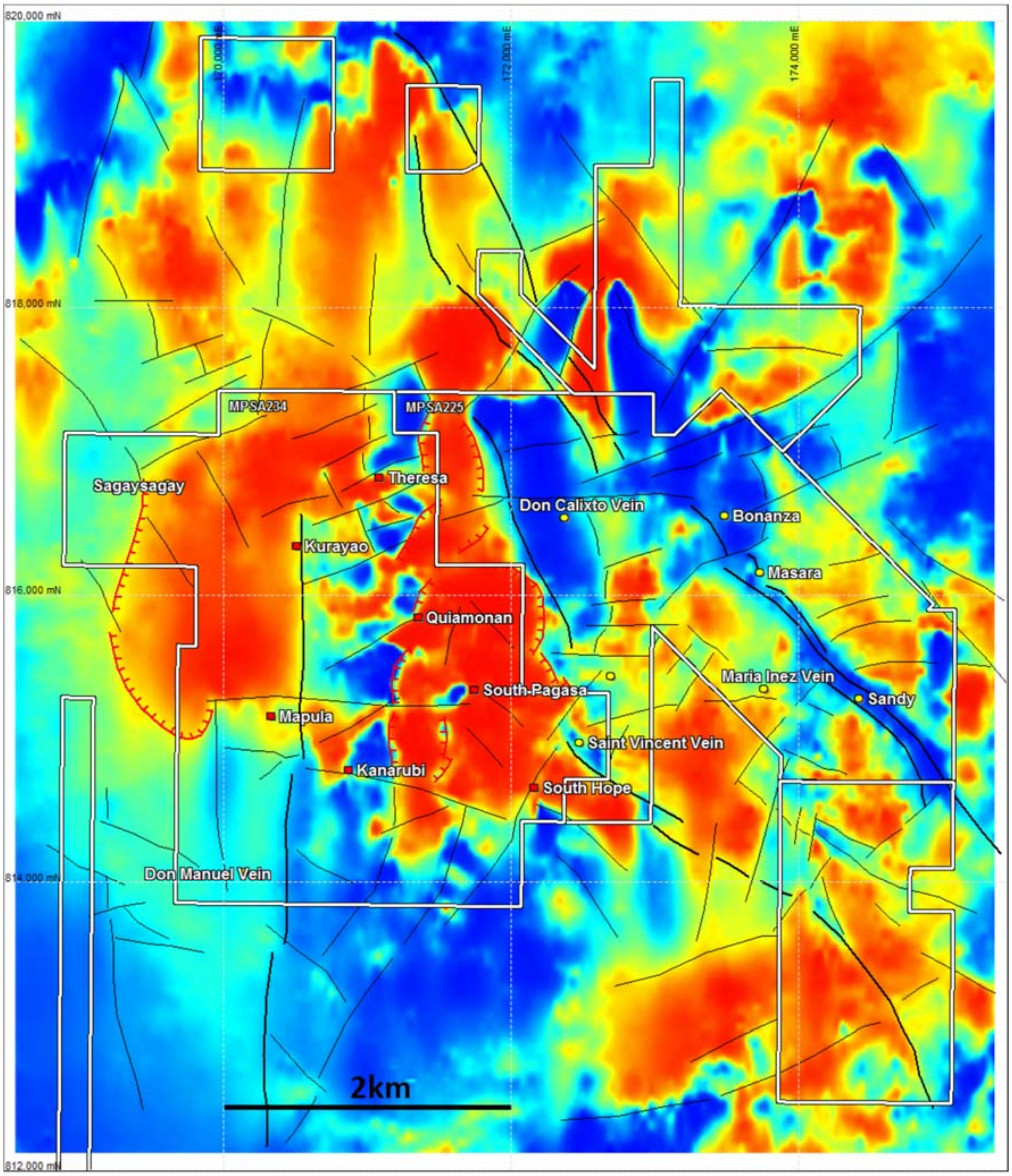


Figure 14.6.5.4.1: Regional Structural Lineament Mapping from Airborne Geophysical Data – structure linework is displayed over the RTP magnetic image

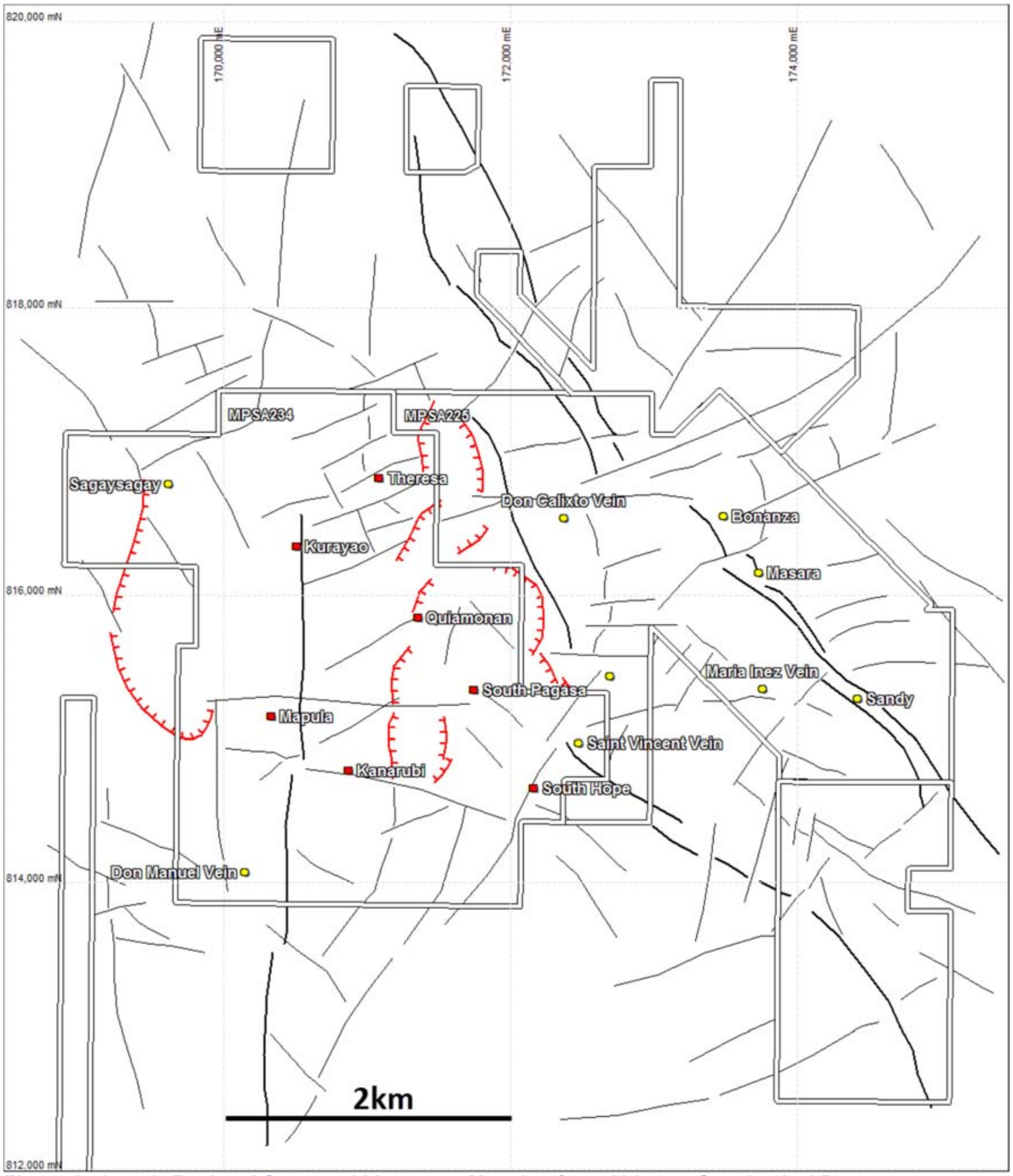


Figure 14.6.5.4.2: Regional Structural Lineament Mapping from Airborne Geophysical Data

14.7 SAMPLE PREPARATION, ANALYSES, AND SECURITY

14.7.1 Security and Chain of Custody of Samples

Sampling is always conducted under the supervision of a geologist. From the sampling area, the samples are delivered and turned over to the Maligaya Sample Preparation Laboratory, and eventually to the In-house Assay Laboratory. The transfer and storage of samples are monitored by the QA/QC Department through the use of transmittals submitted every time sample custody changes hands. The sample dispatching flowcharts for mine, exploration, and drilling samples are shown in the Figures 14.7.1.1 and 14.7.1.2. Rejects and unused duplicates of mine samples are stored for three months before these are retrieved and sent to the mill for processing while duplicates of exploration and drilling samples are permanently stored in the core house for future reference.

14.7.2 Sample Preparation and Assay Facility

Samples from the drilling campaign conducted by Crew Gold (2005-2009) were sent to the McPhar Laboratory in Manila for sample preparation and analyses. An in-house assay laboratory was later on established by Crew Gold in the mine site. Under the current Apex management a separate sample preparation laboratory was constructed and additional analytical equipment for the assay laboratory, such as a new Atomic Absorption Spectrophotometer, were acquired.

14.7.2.1 Sample Preparation Equipment

The Maligaya Sample Preparation Laboratory (MSPL) is equipped with the following:

1. **Drying Oven** – As metal contents are reported in dry weights, samples are dried before preparation.
   Drying process:
   a. The sample is loaded in a drying pan along with its sample tag.
   b. The pan is charged inside the oven at 160°C for mine samples and at 120°C for drill core samples.
   c. Mine samples are dried for 3-4 hours while exploration and drill core samples are dried for 6-8 hours.
   d. The drying pan is taken out using tongs or a trolley.
   e. After the sample is withdrawn, it is immediately sent for crushing to minimize moisture drawn from the atmosphere.

2. **Jaw Crusher** – A Jaw Crusher is used to rapidly reduce the size of samples prior to secondary crushing using the Boyd Crusher.
   Crushing process:
   a. The sample is fed to the top of the crusher.
   b. The moving jaw crushes the larger sample fragments into smaller sizes.
   c. The crushed sample materials are collected in a tray placed at the bottom of the crusher.
   d. The sample in the tray is transferred to the original pan.
   e. The crusher and the pan is cleaned using compressed air.

3. **Boyd Crusher** – The Boyd Crusher reduces the sample fragments to less than 2mm. It has two movable jaws, one top driven and one bottom driven, which allow for variation in output size and jaw wear.
   Crushing process:
   a. The sample is loaded to the opening at the top of the Boyd crusher.
   b. The Boyd crusher finely crushes the sample and then transfers the materials to the Rotating Sample Divider via a vibrator feeder.
   c. The Rotary Sample Divider then splits the material into portions adjusted by the operator, and then collects the splits using two trays at the bottom.

d. The portion for pulverizing is transferred to the original drying pan with the sample tag, while the other is kept as a duplicate.
e. A flushing sample (barren limestone) is fed to the Jaw Crusher, followed by cleaning using compressed air.

4. **Pulverizer** – A Rocklabs Ring Mill is used to pulverize the materials from the Boyd Crusher to a fine grind of 95% passing 200 mesh.
   Pulverizing process:
   a. The sample is loaded into the bowl (500g to a 1000g bowl).
   b. A pneumatic airbag then presses the bowl.
   c. The bowl rotates to grind the samples at a pre-set timer depending on the sample type (7 to 10 min.).
   d. The pulverized sample is transferred to the drying pan.
   e. Barren limestone samples are processed followed by cleaning using compressed air.

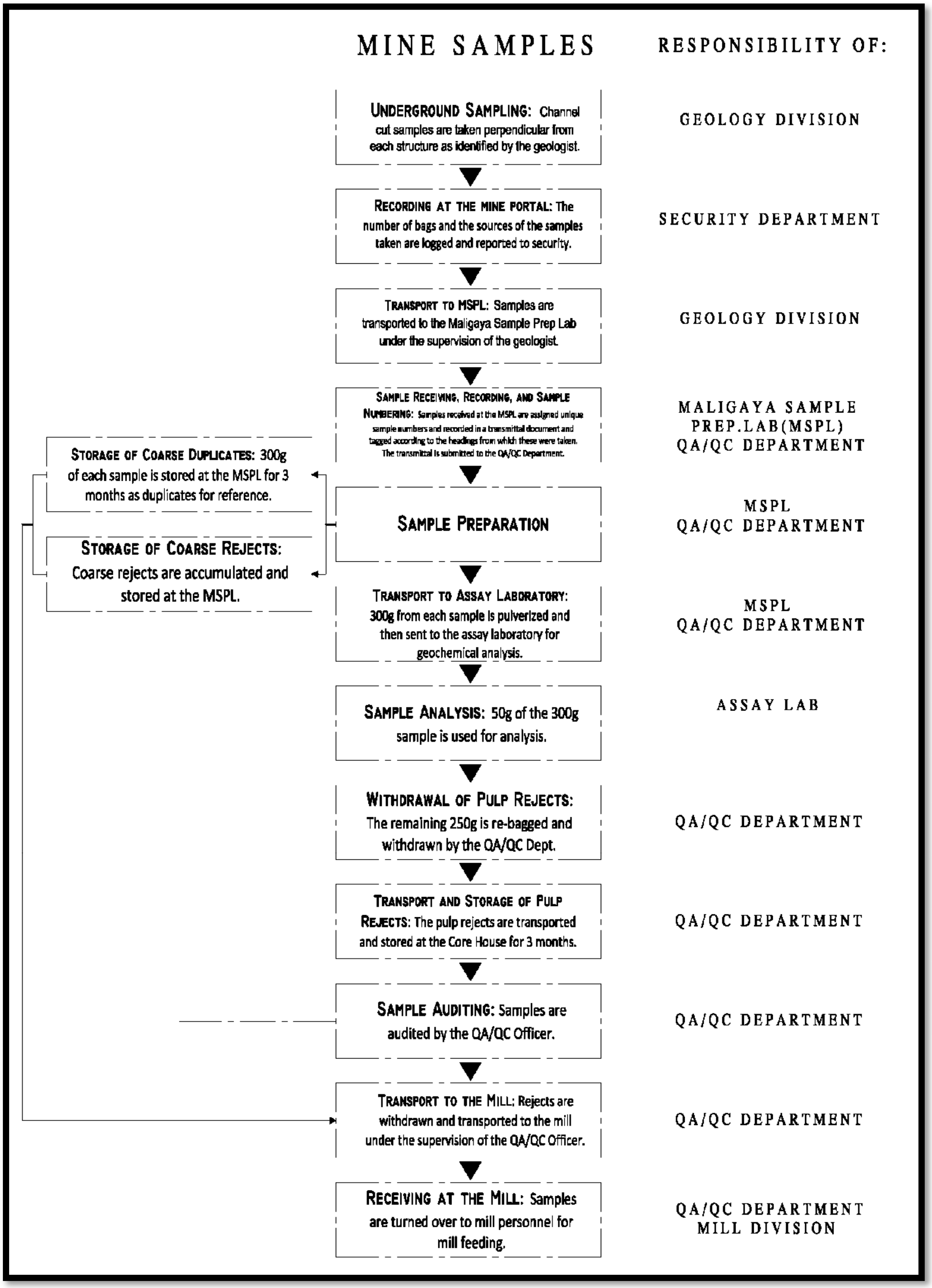


Figure 14.7.1.1: Sample Dispatching Flowchart for Mine Samples

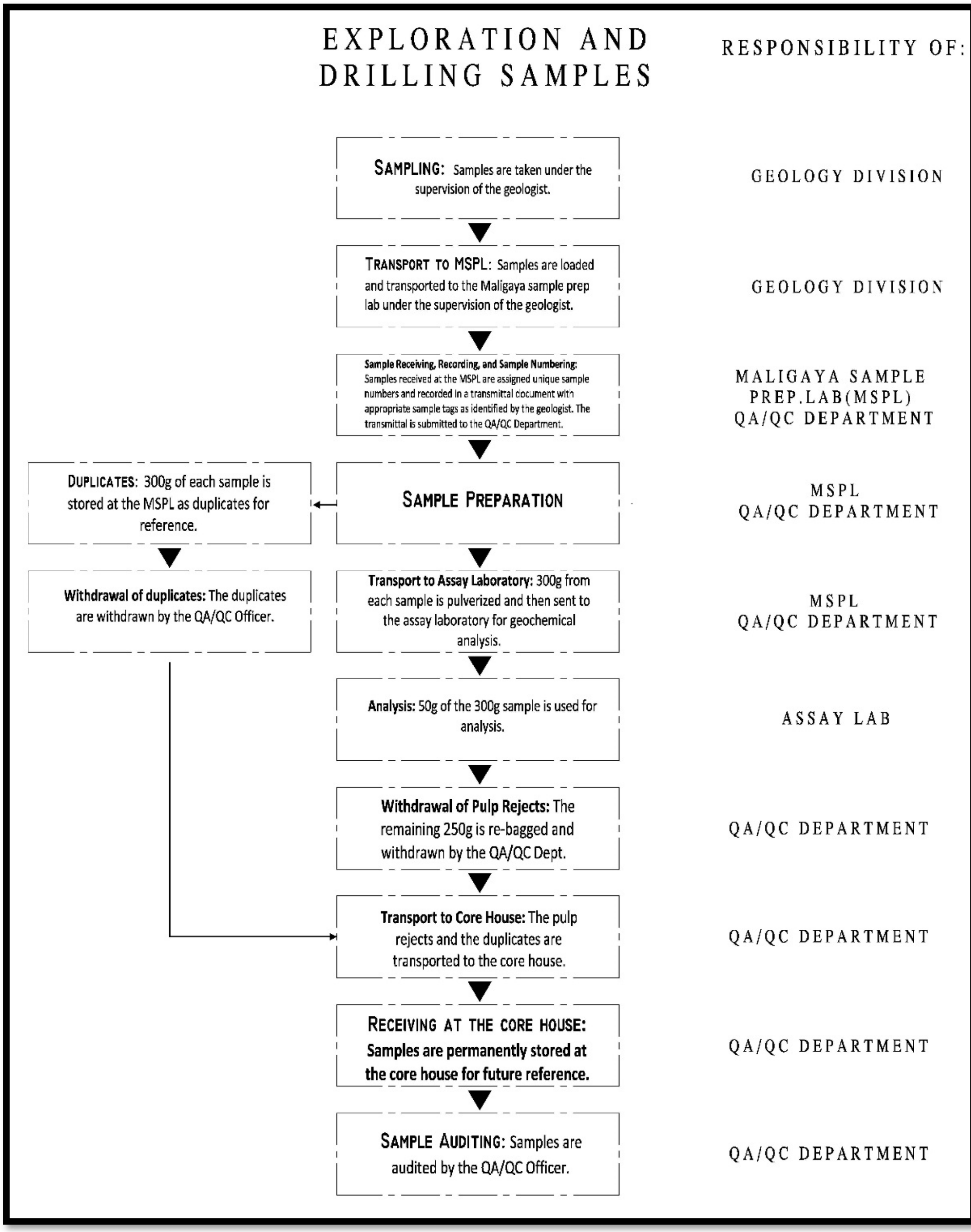


Figure 14.7.1.2: Sample Dispatching Flowchart for Exploration and Drilling Samples

Figure 14.7.2.1.1: Sample Preparation Equipment – (A) Drying Oven (B) Jaw Crusher (C) Boyd Crusher (D) Pulverizer

14.7.3 Sample Preparation

Figure 14.7.3.1 shows the sample preparation procedure followed by the Maligaya Sample Preparation Laboratory

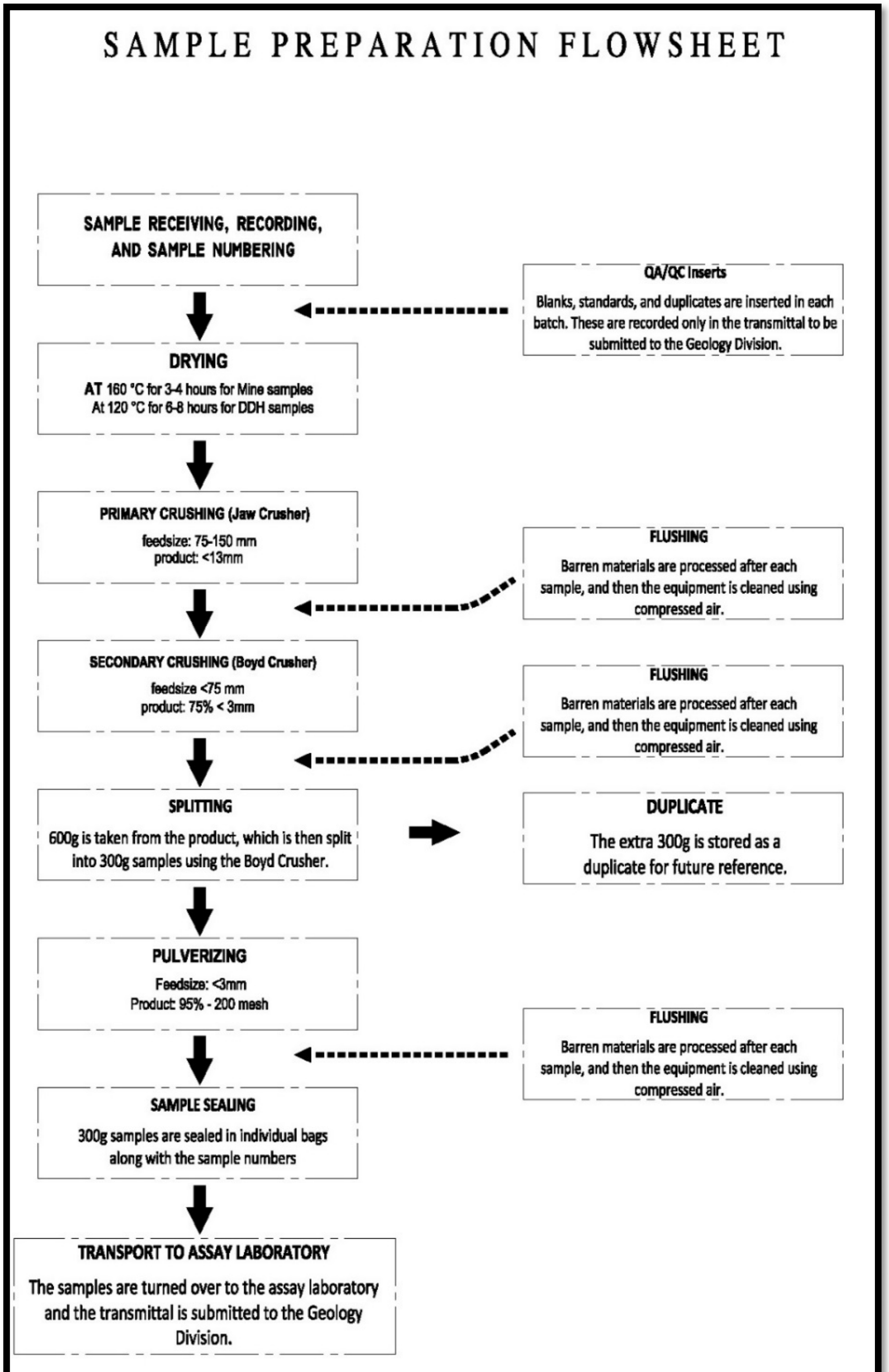


Figure 14.7.3.1: Sample Preparation Flowchart

14.7.4 Analytical Methods Used

The main analytical method used for gold is fire assay with a detection limit of 0.02 g/t. The other method utilized for base metals and low grade samples (Au and Ag less than 0.5 ppm) is AAS with a detection limit of 0.002 g/t for Au and 0.001% for base metals. The general procedure for fire assay is shown in Figure 14.7.4.1.

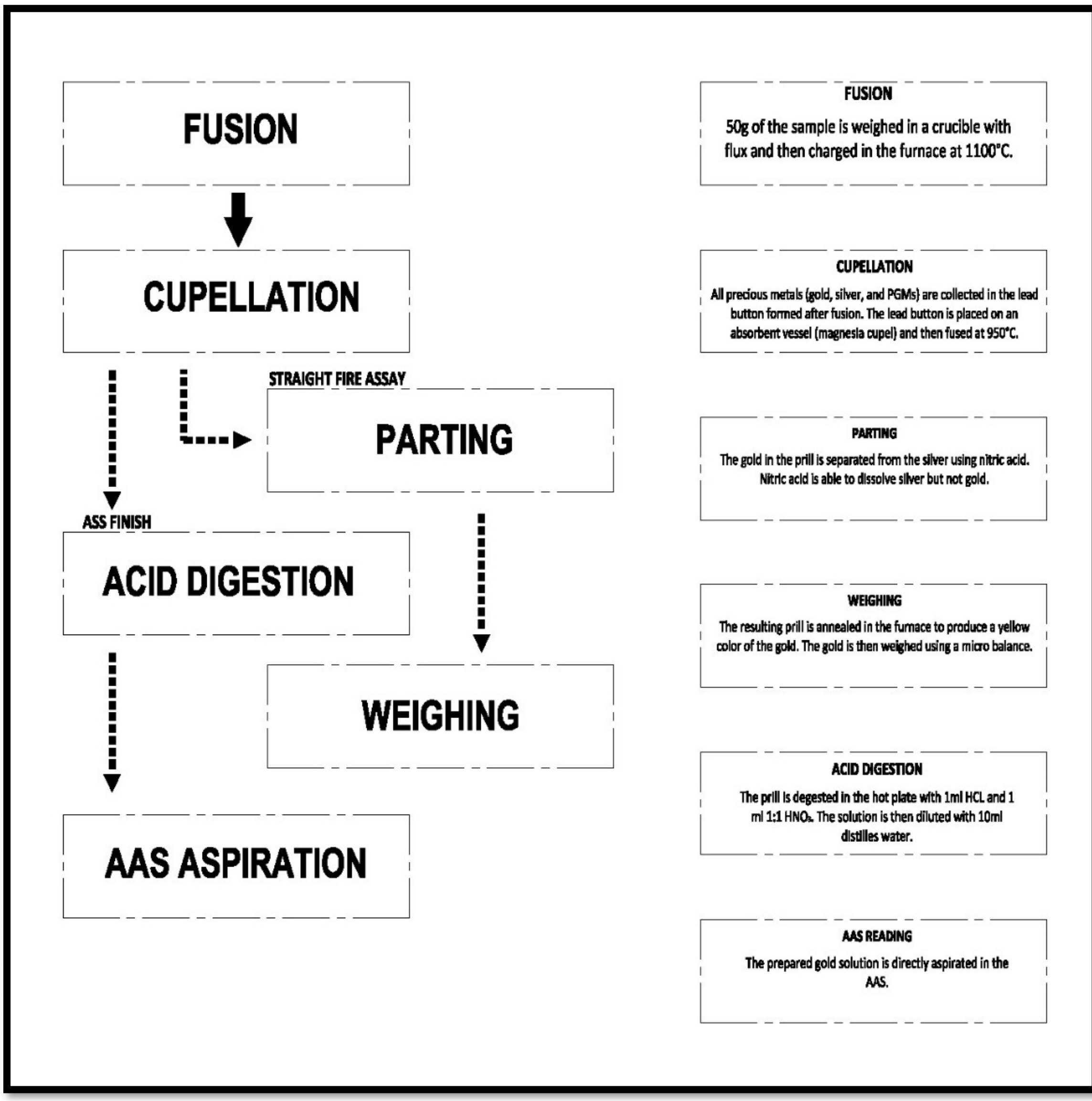


Figure 14.7.4.1: Fire Assay Procedure

The various stages in assaying are described as follows:

1. **Fusion –** The furnace is pre-heated for about 1 hour until the temperature of 1100ºC is attained. The sample is charged for about 60-90 minutes. The melt is poured into a mould and the lead which contains the precious metals (Au, Ag, PGMs) would sink to the bottom while the slag would form above. The product is then pounded to separate the slag from the lead. Once separated, the lead is shaped into a cube while the slag is treated as waste.

2. **Cupellation –** The lead button is placed on a magnesia cupel and then charged in the furnace at a temperature of 950 ºC for 45-60 minutes. The cupel absorbs the lead, leaving the precious metals called "prill/dore".

3. **Parting/Annealing –** The "prill/dore" obtained after cupellation is placed in a porcelain crucible. The dore is weighed in a microbalance. To separate silver from the gold, a parting solution with 1 part nitric acid and 3 parts water is added to the crucible. Nitric acid dissolves silver but not gold. The silver solution is decanted in the container and the gold is washed with distilled water 3 times. The gold is dried in the hot plate and annealed in the furnace for 15 minutes.

4. **Finishing Technique**
   a. **Gravimetric Method (Part and weigh method)** – This is a conventional method for determining gold. The lower detection limit is 0.02 g/t Au. Gold grades above 50 g/t Au are re-analyzed with sufficient addition of Ag inquartation in order to obtain an adequate ratio of Au:Ag for dissolution.
   b. **Atomic Absorption Spectrophotometer (AAS) Finish** – This method is used for (low to very low grade) exploration samples. The lower detection limit is 0.002 g/t Au. Gold grades above 2 g/t Au are re-analyzed using a gravimetric finish in order to check the results.
   c. **Two Acid Digestion AAS Finish** – This uses a combination of HNO_3 and HCL, and is currently applied to silver and base metal (Cu, Pb, Zn) grade determinations. The solution is analyzed using AAS after the digestion process. The detection limit is 0.001% for Ag, Cu, Pb, and Zn.

14.7.5 Quality Assurance and Quality Control

The AMCI Assay Laboratory has appointed an Analytical Chemist with the main task of implementing the internal QA/QC program of the laboratory. The Geology Division also implements its own QA/QC, acting as an external entity to the assay laboratory, through a department in-charge of monitoring proper sampling procedures, dispatches, and analytical results. The department is run by a QA/QC officer reporting to the Senior Geologists in-charge of Exploration and Mine Geology.

14.7.5.1 Quality Control Procedures

- **Certified Reference Materials (CRM)** – CRMs are purchased from reputable commercial laboratories. Each CRM has a certificate of analysis indicating the mean grade and the tolerance limits to be used for evaluating the performance of each analytical procedure. The matrices and the grades of the CRMs in use were selected in such a way that they are similar to the ore samples being analyzed. One CRM is inserted in every batch. To ensure that the analysts are blind to the mean grade, each CRM is assigned a unique control number recorded by the QA/QC officer and the name is erased. The results are then checked against the tolerance limits indicated in the certificates to check the accuracy of the analytical procedures.

- **Blanks** – The AMCI Assay Laboratory uses certified blanks purchased from reputable external laboratories, while the Geology Division uses both certified and in-house blanks. Limestone samples are pulverized, homogenized, and then split and sealed into 300g samples. One batch of 25 samples is sent to the AMCI Assay laboratory and another batch to Intertek, a laboratory based in Manila, for fire assay. The results from both laboratories certify that the samples are barren, and may be used as blanks for QA/QC. One certified blank is inserted in each batch of drilling and exploration samples, while internal blanks are used for mine samples. As the in-house blanks appear similar to regular samples, these are inserted at random locations within each batch to ensure that the analyst is not aware of which sample is barren. The sample number of the blank insert is reported in the transmittal submitted to the Geology Division. The assay results of the blank inserts are then used to monitor whether there are any cases of contamination.

- **Duplicates** – A duplicate of one randomly selected sample is also inserted in each batch. For the selected sample, 900g is taken instead of 600g. 300g is sealed as a duplicate, and the remaining 600g is pulverized and then split into two using the Rotary Sample Divider of the Boyd Crusher. The sample numbers of the original and the duplicate in each batch are recorded in the transmittal. Similar to blank inserts, the analysts are unaware of which samples are duplicates. The absolute relative deviations of the results of the duplicates are then used to evaluate precision.

- **Grind Checks** – In order to ensure reproducibility of assay results, the pulverized samples are checked if 95% passes 200 mesh.
  Two samples in every batch are screened using the procedure outlined below:
  a. Weigh 100g of dry pulp.
  b. Wet sieve the pulp through the 200 mesh screen.
  c. Dry the oversize.
  d. Weigh the oversize.
  e. Calculate the weight of the undersize by subtracting the weight of the oversize from the total.
  f. Calculate the percentage of the material passing 200 mesh by dividing the weight of the undersize with the total weight, multiplied by 100%.

- **Flux Test** – This test is performed to check if the chemicals to be used for analysis are contaminated with gold.
  One crucible in every batch is loaded with flux and then charged and treated as a normal sample.

14.7.5.2 Presentation and Analysis of Quality Control Data

The QA/QC results are statistically and graphically analyzed daily in order to identify outliers and notable trends. The results are communicated with all parties involved such that if peculiar results are identified, these may be properly investigated, and the causes of which resolved.

1. **Certified Reference Materials**
   The deviations of the assay results from the certified mean value are calculated in terms of the multiples of the certified standard deviation. Results with absolute differences below 2 SD are ideal, while those between 2 SD and 3 SD are still acceptable but may prompt investigation if consistently obtained. A fitted trend line, supported by visual inspection of the scatterplot, is used to detect for bias. Data is further sorted per CRM and similar analyses are made. As CRMs with low, medium, and high grades are used, the accuracy for all grade ranges can be evaluated.

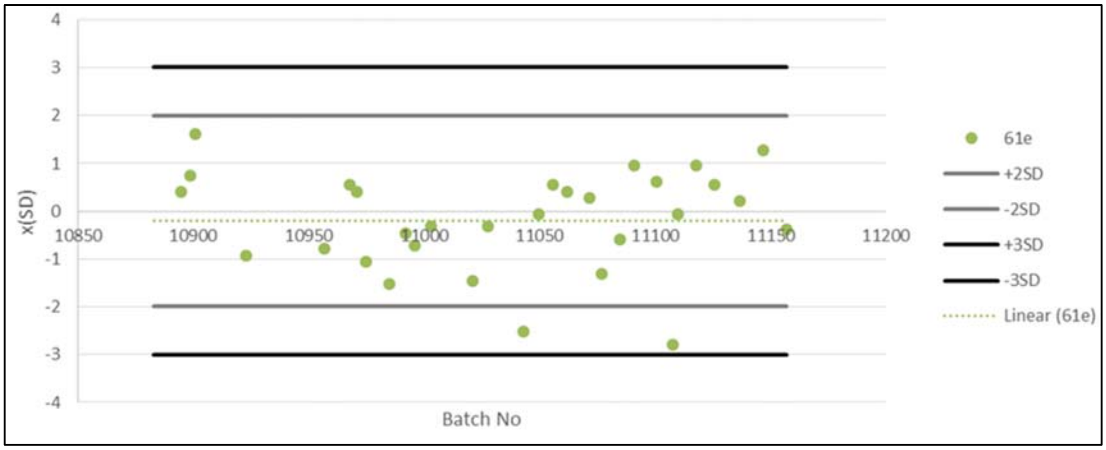


Figure 14.7.5.2.1: Scatterplot Used for the Analysis of CRM Assay Results

- The recommended value is the certified mean.
- The tolerance limits are calculated as ±2 and ±3 times the standard deviation indicated in the certificate provided by the supplier.

2. **Blanks**

   Assay results of the blank inserts are plotted in sequence to easily identify possible occurrences of contamination. The tolerance limit for blanks is set at 0.02 ppm Au.

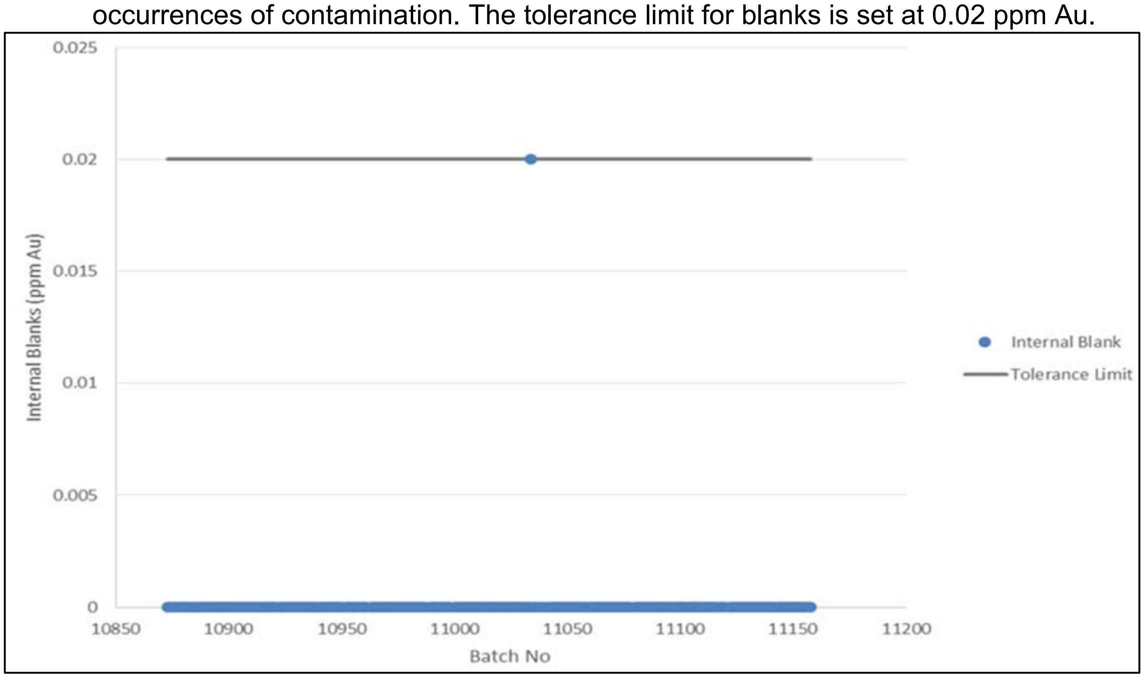


Figure 14.7.5.2.2: Scatterplot Used for the Analysis of Blank Inserts

3. **Duplicates**

   Considering the highly variable nature of gold, precision is evaluated using the Mean Percentage Relative Deviation (MPRD). MPRD is calculated by dividing the difference of the original and duplicate sample grades by the mean, multiplied by 100%. The tolerance limits is set at 30% MPRD for mine samples and 10% for exploration samples.

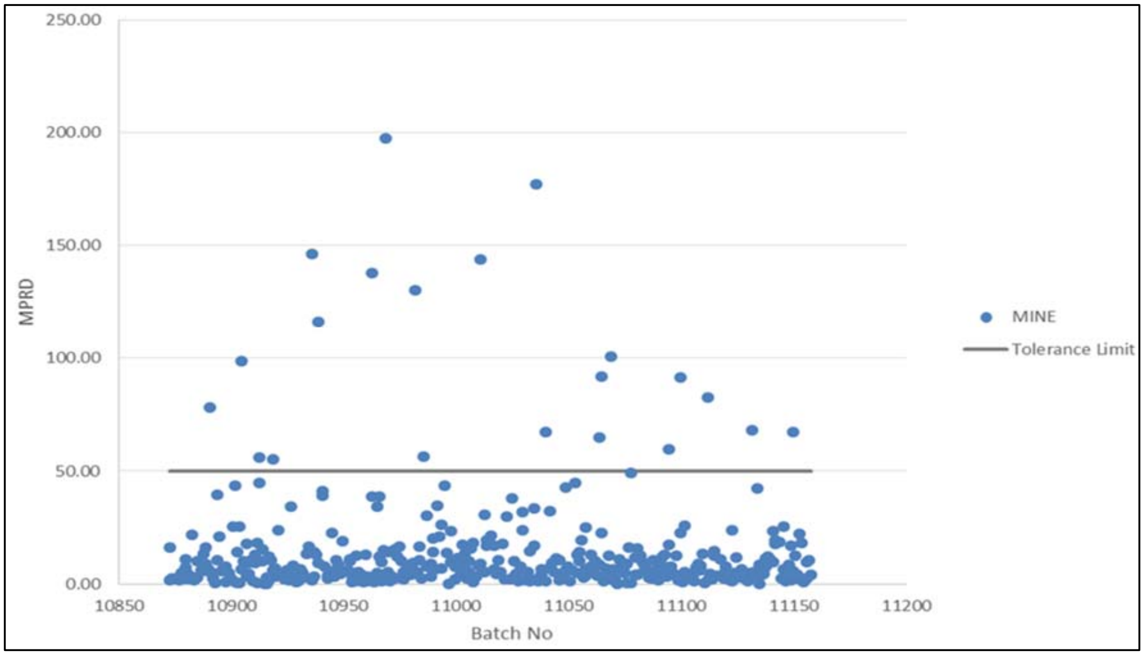


Figure 14.7.5.2.3: Scatterplot Used for the Analysis of Duplicate Pairs

14.7.5.3 Statement of the CP on Quality Assurance and Quality Control

The Company has demonstrated industry standard practices in safeguarding the quality of samples, preparation, and analysis, to come up with a valid and verifiable database appropriate for mineral resource estimation.

15.0 MINERAL RESOURCE ESTIMATE

15.1 Database Used

15.1.1 Underground Face Samples

A total of 53,104 channel samples from 24,504 development faces were included in the compiled database. These were taken along channel cuts averaging 1.05 m in length, oriented orthogonal to the vein. The samples are tagged according to the heading and also whether these were taken from the vein, hanging wall, or foot wall. Previous sampling protocols, however, only required channel cut samples to be taken from the main vein. Thus, only vein samples are available for the following veins: Don Fernando, Don Joaquin, and Don Mario. The locations recorded are based on surveys regularly conducted by the Engineering Group using a total station. Face samples are regularly assayed for gold, silver, copper, lead, and zinc in the in-house laboratory, with specific gravity measurements also taken.

15.1.2 Drill Data

Drill hole intervals are tagged according to the veins intercepted, as interpreted by the geologists. As drilling programs are almost always oriented perpendicular to the vein projection, drill hole intercepts may be taken as oriented orthogonal to the vein, similar to face samples. Core samples are similarly assayed for gold, silver, copper, lead, and zinc in the in-house laboratory. Specific gravity measurements are also taken. The compiled database includes 622 drill holes with a total meterage of 144,390.6m, from which 550 intervals were flagged, extracted, and incorporated into the database.

15.1.3 Data Verification and Validation

The database is a combination of the database used in the 2020 resource update for MPSA-225-2005-XI (Ausa, 2020) and the database used in the 2012 resource estimate covering both claims (Malihan and Flores, 2012), updated to include additional geologic data gathered from September 2019 to October 2020. Multiple GIS and QA/QC personnel were tasked with updating the database.

The database used in 2012 includes historical data from the inactive gold-veins in the Dons and Saints vein systems which were among the main ore sources from the mid-1970s to 1980s, when Apex was reportedly able to extract 573,022 ounces of Au from 3.5 million tons of ore. This includes underground channel cut samples from the Dons and Saints vein systems, which were only sampled for the vein au grades, unlike in the current practice where channel sampling is extended to define the grade of the HW and FW. Malihan and Flores (2012) reported that the historical data entries were manually verified for a period of three months by referring to the original certificates, printed reports, and assay plan maps. The Maco Geology and Technical Services Group initiated database reconstruction in August of 2014. Database validation took six months to complete. The database, which consists of drill and underground face sample data from the veins actively being mined in the Maligaya-Malumon areas, was then validated and physically verified by CP-Geologist R. E. Peña, and then eventually used to generate a PMRC-compliant resource estimate (Peña, 2015). The Maco Geology Team continues to maintain this database, whose updated versions were used in later resource declarations (Peña, 2017; Ausa, 2020). All data entries are manually verified by the mine and exploration geologists using the face mapping forms and sample ledgers.

15.1.3.1 Sample Validation

The compiled database was subjected to further validation and review using various visual and statistical checks. Samples were loaded in 3D together with the underground development drives and visually inspected per level to check the coordinates entered in the database (Figure 15.1.3.1.1). To ensure that all samples were correctly tagged with their respective veins/domains, the samples were displayed according to the rockcode assignments and then reviewed (Figure 15.1.3.1.2).

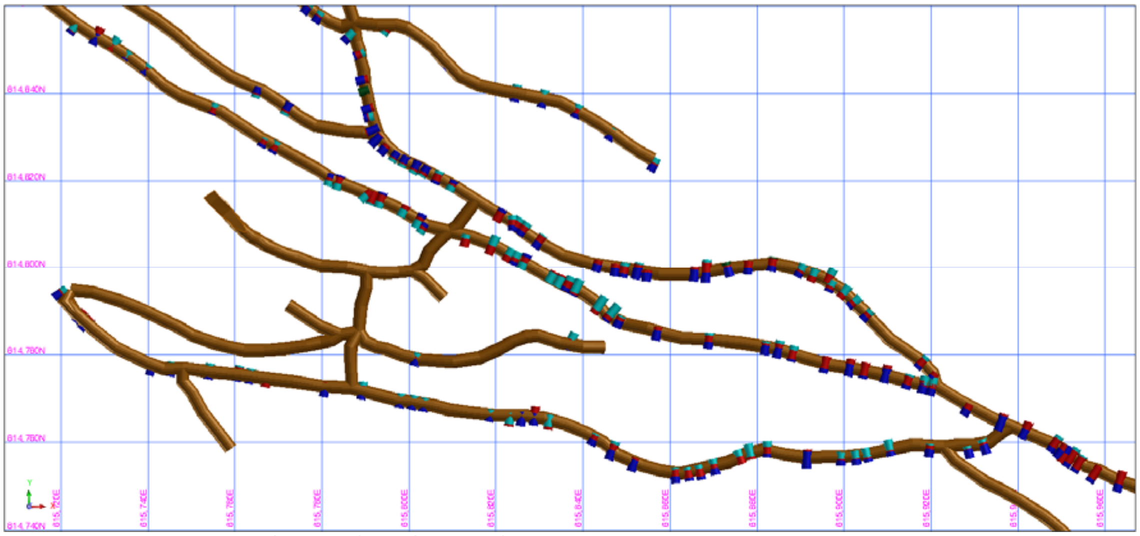


Figure 15.1.3.1.1: Visual Check of the Sample Coordinates

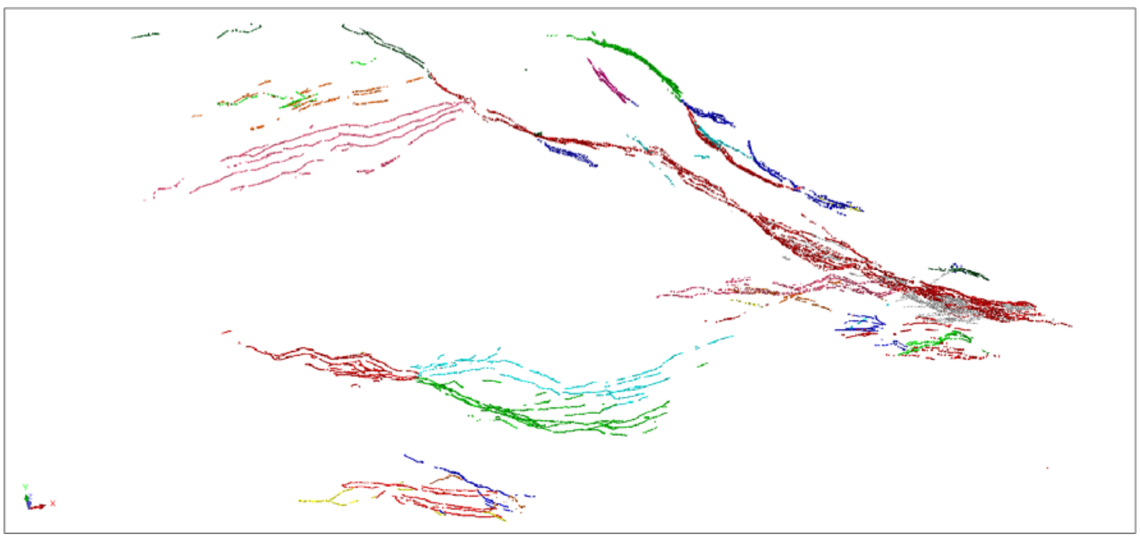


Figure 15.1.3.2.1: Visual Check of the Domain Tagging

15.1.3.2 Descriptive Statistics

Histograms and summary statistics were generated, first for the entire distribution of samples belonging to the veins or domains covered in this report, to check for anomalous values, and then for the global MV, HW, and FW domains to ensure that the high-grade samples from the vein (MV) have been adequately isolated from the wall rock samples. The summary statistics and percentiles are in Tables 15.1.3.2.1 and 15.1.3.2.2.

The global grade distribution (Figure 15.1.3.2.1) is skewed to the right with the highest number of samples within the range of 0 to 1 g/t Au. Segregating the samples according to the tagged domain reveals that this peak is due to the wall rock samples in the database. The summary statistics indicate that the domaining method applied to the database was able to isolate the high-grade vein samples from the low grade mineralized wall rock, with MV samples yielding a mean grade of 8.72 g/t Au compared to the HW and FW samples which averaged to 2.71 g/t Au and 3.13 g/t Au, respectively. The calculated percentiles further support this conclusion as it shows that only 10% of the MV samples have grades less than 0.8 g/t Au, while roughly half of HW and FW samples are below 1.0 g/t Au.

Table 15.1.3.2.1: Sample Database Au Grade Statistics

DOMAIN	Summary Statistics					
	Number	Mean	Median	Variance	Std Dev	CoV
ALL	52,888	6.16	2.16	514.43	22.68	3.68
MV	29,656	8.72	3.57	851.07	29.17	3.34
HW	13,014	2.71	1.06	54.79	7.40	2.73
FW	10,218	3.13	1.16	79.37	8.91	2.84

Table 15.1.3.2.2: Sample Database Au Grade Percentiles

DOMAIN	Percentiles					
	10	50	90	95	98	99
ALL	0.39	2.16	12.66	22.22	40.10	60.00
MV	0.78	3.57	17.79	30.33	51.85	79.72
HW	0.26	1.06	5.44	9.24	17.27	28.62
FW	0.27	1.16	6.25	10.85	23.06	35.88

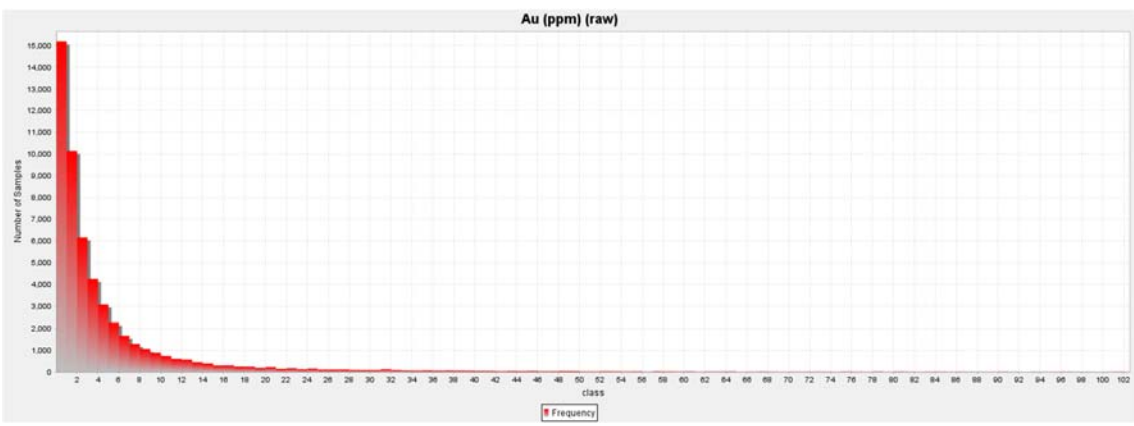


Figure 15.1.3.2.1: Au Grade Histogram of All Samples

The MV grade distribution (Figure 15.1.3.2.2) is skewed to the right with most of the values having grades between 1.0 and 3.0 g/t Au. Local maximums noted in the plot suggest the presence of sub-populations, supporting the decision to further subdivide the MV samples into different domains per vein. The statistics of these sub-domains are discussed in 15.3. The HW and FW histograms (Figures 15.1.3.2.3 and 15.1.3.2.4) both show that most wall rock sample grades are less than 1.0 g/t Au. The wall rock grade distributions are also skewed with some grades reaching over 10 g/t Au. Although field observations confirm the occasional presence of high grades in the wall rock, typically associated with stockworks, these high grades were treated and capped during estimation (details discussed in 15.3).

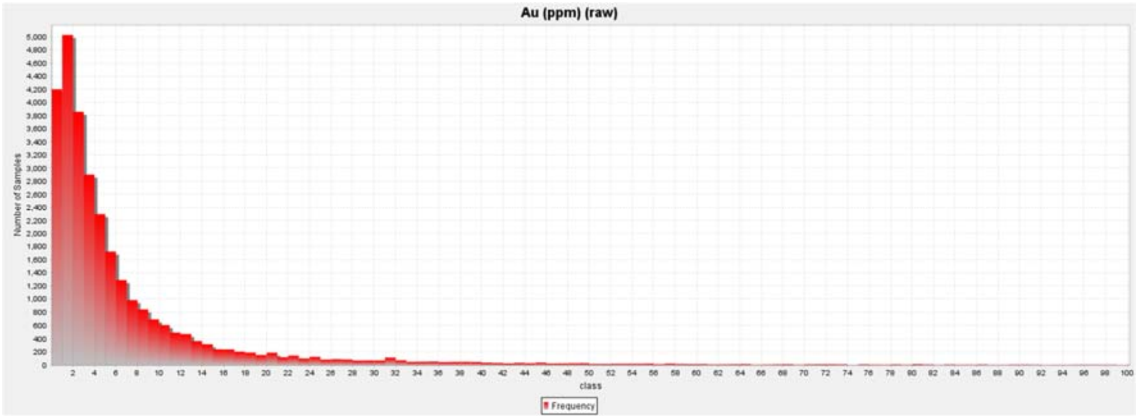


Figure 15.1.3.2.2: Au Grade Histogram of All MV Samples

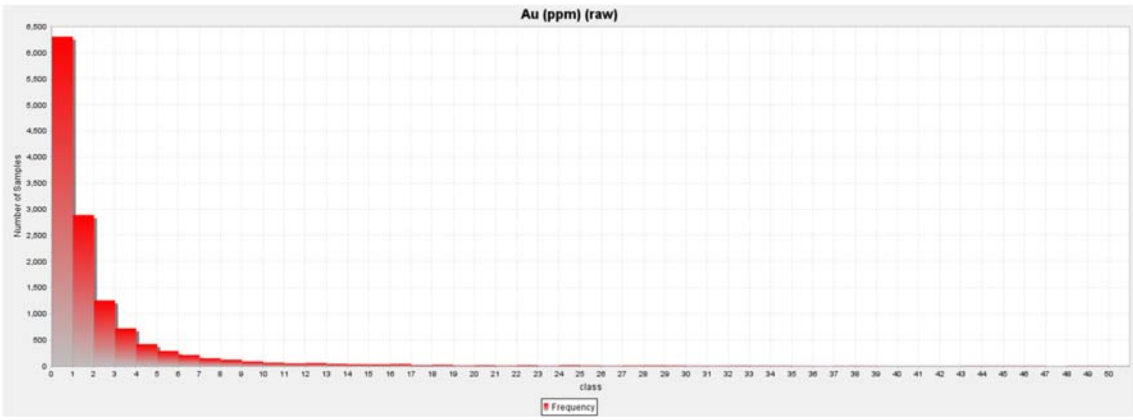


Figure 15.1.3.2.3: Au Grade Histogram of All HW Samples

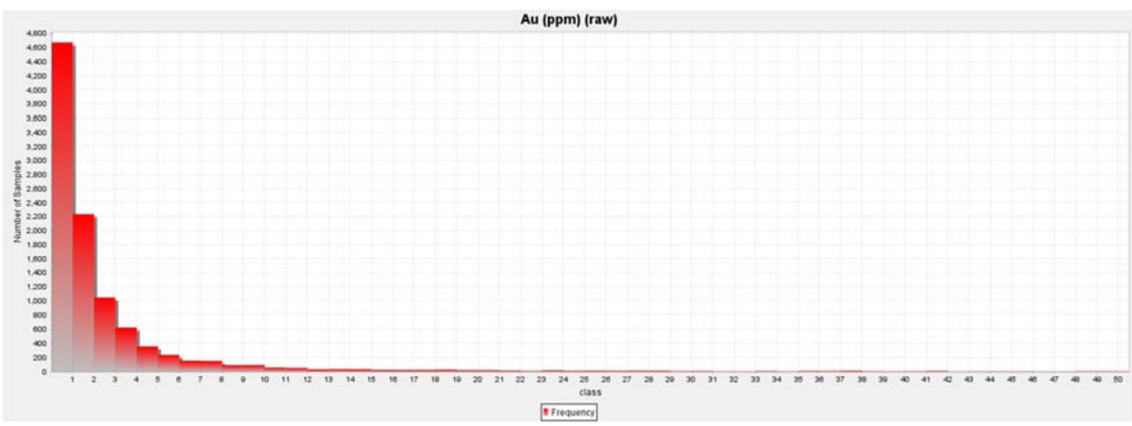


Figure 15.1.3.2.4: Au Grade Histogram of All FW Samples

15.1.4 Software Used

The primary software used to generate the resource estimate is Geovia Surpac 6.8.1.3 (https://www.3ds.com/products-services/geovia/products/surpac/). Table 15.1.4.1 lists the software used to accomplish various tasks in the study.

Table 15.1.4.1: List of Software Used

Database Management/Editing	Software Used
Reports, Journals	Microsoft Word
Drill Data, Face Samples	Microsoft Excel
2D drawings, Survey Data	Autodesk AutoCAD
Block Model	Geovia Surpac 6.8.1.3
Technical Tasks	
Statistical/ Visual Data Analysis	Geovia Surpac 6.8.1.3
Solid/Domain Creation	Geovia Surpac 6.8.1.3
Variography	Geovia Surpac 6.8.1.3
Kriging	Geovia Surpac 6.8.1.3
Validation/ Reporting	Geovia Surpac 6.8.1.3

15.1.5 Opinion on Database Integrity

The Apex Technical Team has demonstrated industry standard practices in safeguarding the quality of samples, preparation, and analysis. The state of the database is deemed appropriate for this report.

15.2 Geologic and Solid Modelling

15.2.1 Geological Interpretation and Domaining

The mineral resource estimated in this study includes 28 epithermal veins controlled by the steeply-dipping NW-trending Masara Fault and the associated WNW to EW structures delineated within the tenement boundary of MPSA-225-2005-XI. Underground development mapping has shown that these veins are usually over one meter wide, and that low grade mineralization also persists in the alteration haloes typically up to a meter away from the vein. Since low grade mineralization in the wall rocks are supported by assays from the channel samples, materials from the wall rocks are also included in this study. Three domains, namely the Main Vein (MV), Hanging Wall (HW), and Foot Wall (FW), were modelled for each vein, except for veins with not enough samples to establish the grade of the wall rocks. Only the Main Vein was modelled for the following veins: Don Fernando, Don Joaquin, and Don Mario.

15.2.2 Vein Modelling

Geologic interpretation of the veins was carried out using face sample and drilling data. The channel cut samples were loaded onto their respective locations based on underground mine survey. A similar procedure was followed for drill holes using downhole survey records. The geologist then digitized the interpreted vein boundaries on horizontal two-dimensional sections as lines, using the channel sample intervals to define the vein widths (Figure 15.2.2.1). Projections guided by drill hole and structural data were made to model the portions of the vein beyond the developed areas. Solids were then rendered from the interpreted outlines (Figure 15.2.2.2). The resulting vein models (Figure 15.2.2.3) were validated by the mine geologists to check if the final interpretation agrees with the field observations.

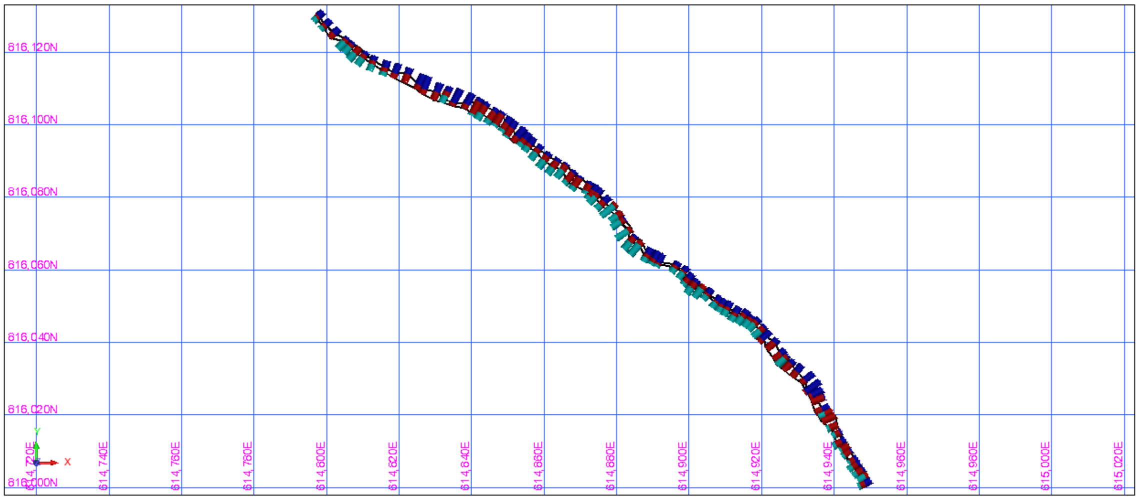


Figure 15.2.2.1: Vein Interpretation on Plan Sections

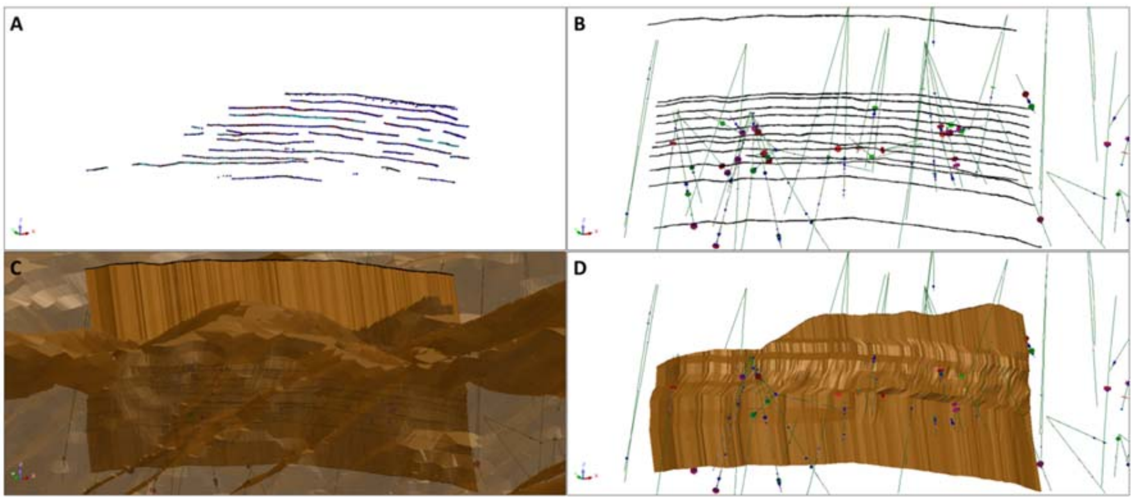


Figure 15.2.2.2: Vein Modelling Procedure: (A) UG channel samples used for modelling loaded in 3D (B) Interpreted vein outlines projected based on the structural interpretation and drill hole data (C) Vein solid rendered from the interpreted sections to be clipped using the surface DTM (D) Final vein solid

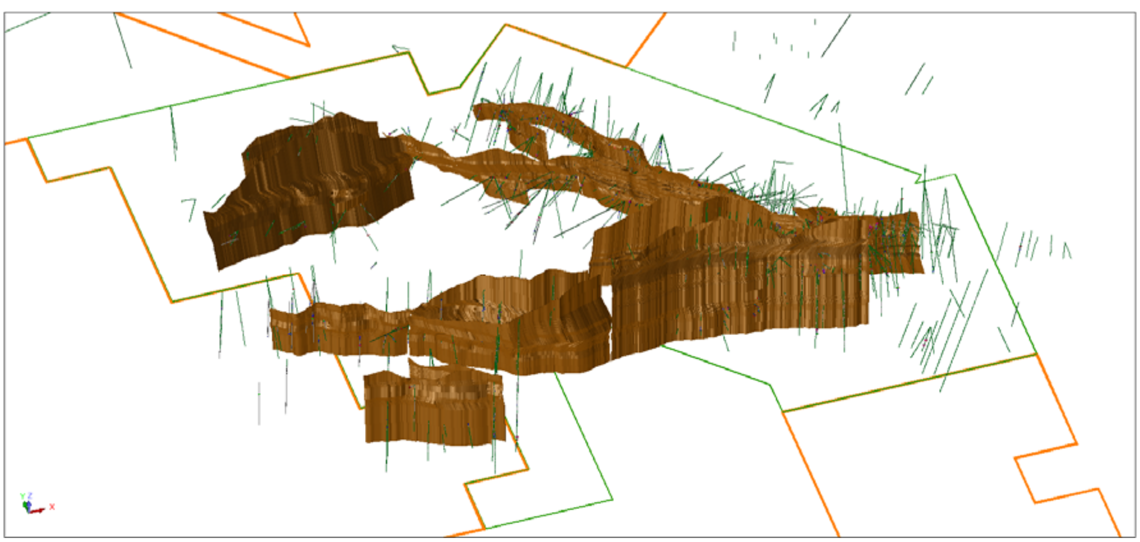


Figure 15.2.2.3: Final Vein Solids

15.2.3 Wall Rock Modelling

Development drives normally expose the entire width of the vein, but the same case does not apply for the hanging wall and foot wall due to limitations of the drive dimensions. Instead of modelling by means of the sample widths, a uniform thickness of 0.5m was used for the hanging wall and foot wall solids (Figure 15.2.3.1). This number may be regarded as conservative considering the observation that alteration and low-grade mineralization haloes usually persist up to 1m away from the vein. The summary statistics in 15.3.1 also show that the wall rock samples in the database have an average sample width of 1m. Wall rock models were not generated for Don Fernando, Don Joaquin, and Don Mario due to the lack of assay data to be able to define the grade of the HW and FW.

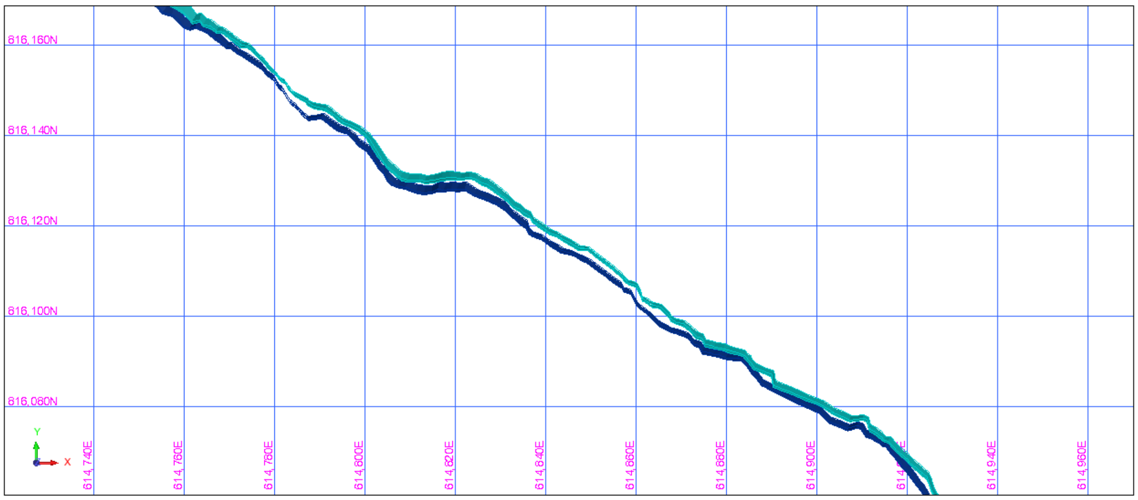


Figure 15.2.3.1: Plan Section Showing HW (cyan) and FW (blue) Solids

15.2.4 Void Solid Modelling

Solids which represent the mined-out portions of the vein were modelled using the vertical section plans from the Engineering Group. The sections were digitized as closed lines and then extruded to create three-dimensional solids. The intersections of the extruded solids and the vein and wall rock models were then used to generate the mined-out solids (Figure 15.2.4.1).

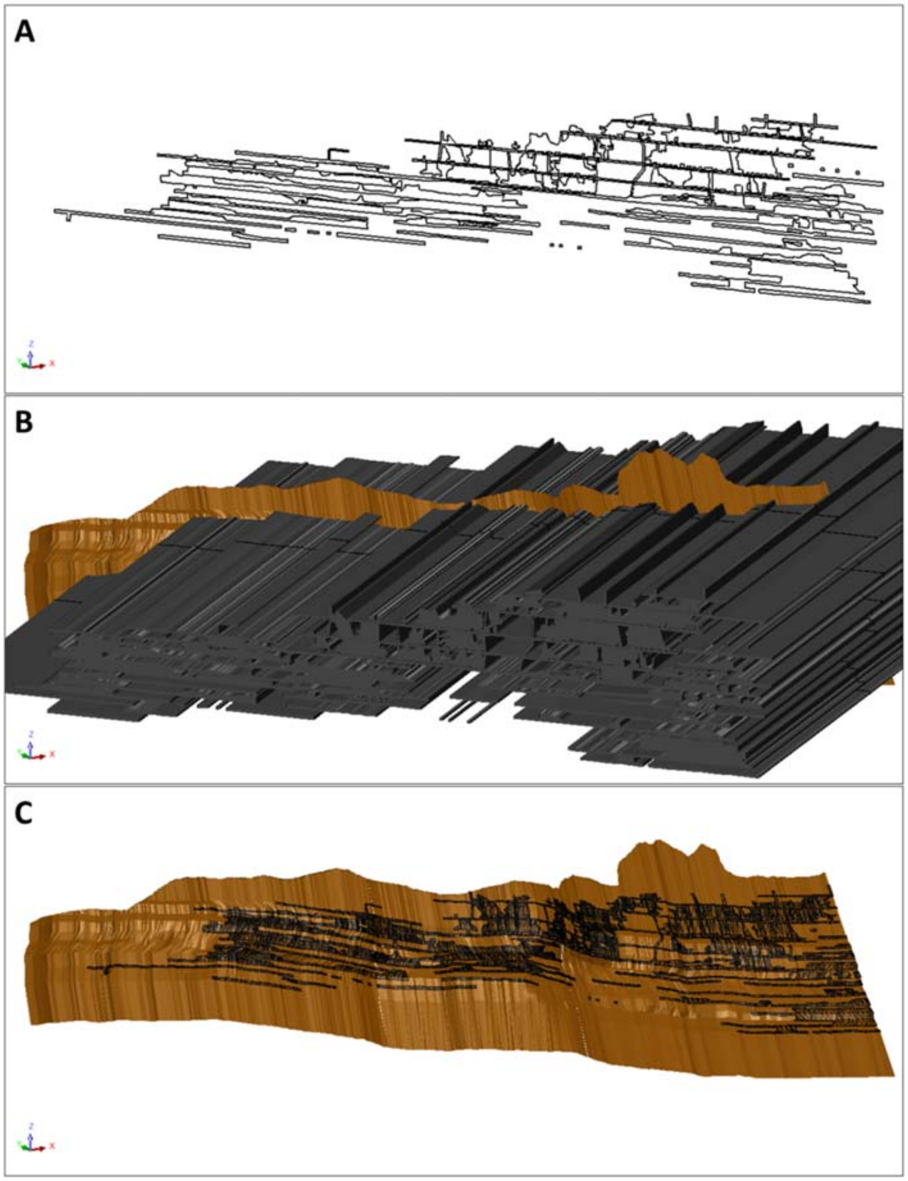


Figure 15.2.4.1: Mined Out Modelling Procedure: (A) Outlines of the mined out portions loaded onto the cutting plane in 3D (B) Solids extruded from the outlines to be intersected with the MV, HW, and FW solids (C) Mined out solid models

15.3 Summary Statistics and High Grade Cuts

15.3.1 Compositing

The current sampling protocol followed by the Apex Technical Team requires that the vein, and sometimes the wall rocks, be segregated into multiple samples if the vein width exceeds the maximum sampling interval of 1m, or if zones with distinct textures are identified. The sample width distribution in Figure 15.1.1.1 shows a sizeable peak at 1m resulting from this procedure. Most of the While this practice allows for a better understanding of the geology of the deposit, in resource estimation, this can induce bias since portions of the vein could be over-represented in cases where multiple samples are taken from one development face. To address this concern, the sample database was composited to generate a maximum of one MV, one HW, and one FW sample per channel or per face, using the recorded sample widths as the weighting factor. Drill hole intervals were similarly composited using the interval lengths as the weighting factor. The true vein widths were then calculated based on the strike of the vein and the orientation of the drill hole.

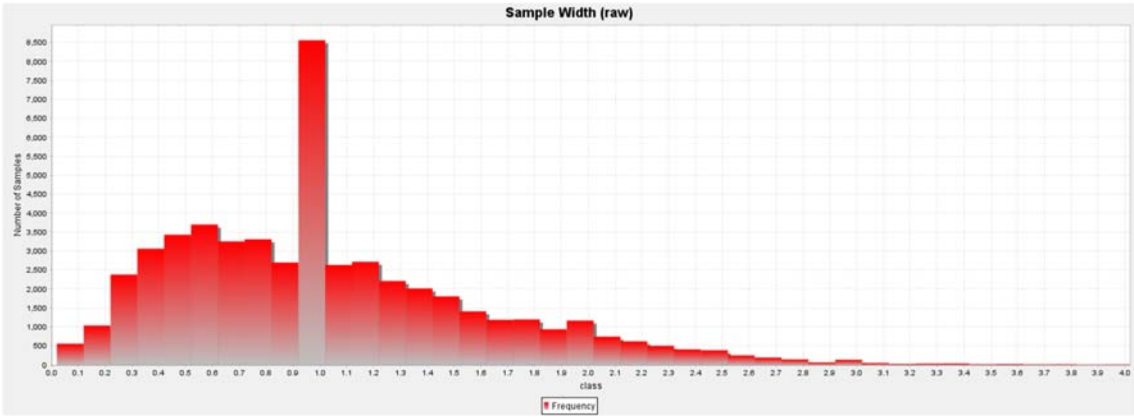


Figure 15.3.1.1: Sample Width Histogram

Table 15.3.1.1: Sample Width Statistics

DOMAIN	Summary Statistics					
	Number	Mean	Median	Variance	Std Dev	CoV
ALL	52,955	1.06	1.00	0.35	0.59	0.56
MV	29,665	1.06	1.00	0.41	0.64	0.60
HW	13,036	1.11	1.00	0.31	0.56	0.50
FW	10,254	0.97	0.90	0.25	0.50	0.51

15.3.2 Summary Statistics

Vein gold grade and vein width histograms of the composited samples were generated and inspected for all domains. The histogram generated from the Au grades of all composited MV samples is shown in Figure 15.3.2.1 while the rest of the histograms are in Appendix A. All of these distributions are positively skewed. Upon application of a log-transform on the x-axis, the histogram formed a bell-shaped curve, indicating that the grades follow a lognormal distribution (Figure 15.3.2.2).

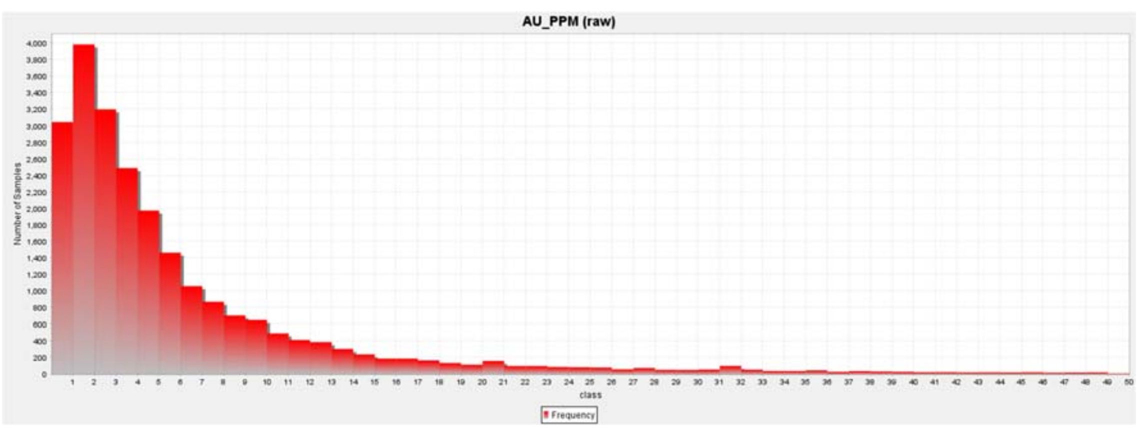


Figure 15.3.2.1: Au grade Histogram of Composited MV Samples

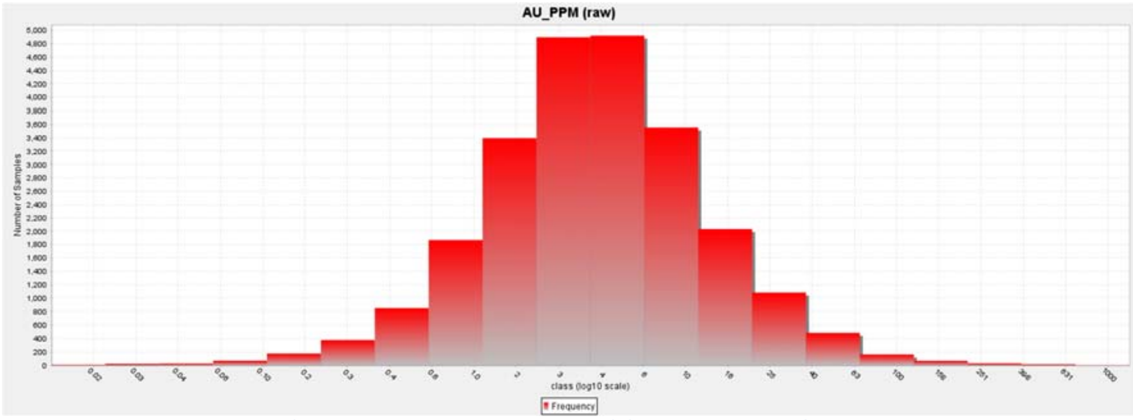


Figure 15.3.2.2: Log-transformed Au grade Histogram of Composited MV Samples

The composited database was subdivided according to the vein/structure. The resulting distributions were then further subdivided into the main vein (MV), hanging wall (HW), and foot wall (FW). The summary statistics calculated for the global and subdivided distributions shown below (Table 15.3.2.1) serve to validate the choice in domaining. These results indicate that there are enough samples in each domain and that the high-grade samples from the main vein were separated from the lower grade wall rock samples. This ensures that the relatively lower grade veins are not overestimated due to the presence of nearby samples from neighboring higher-grade veins, and vice versa. The variance within the final domains are also notably low, with CoV values of around 1 to 1.3, as compared to the original untreated raw database with a coefficient of variation of 3.68 (Table 15.1.3.2.1), thus supporting the choice of domains and data treatment applied.

Table 15.3.2.1: Summary Statistics of the Composited Au Grades per Domain

DOMAIN	Summary Statistics					
	Number	Mean	Median	Variance	Std Dev	CoV
ALL MV	23,559	6.23	3.60	57.07	7.55	1.21
ALL HW	7,959	2.19	1.16	8.56	2.93	1.33
ALL FW	9,506	1.93	1.07	5.72	2.39	1.24
BNZ MV	1,054	5.66	3.42	35.70	5.98	1.06
BHWS MV	713	7.48	4.30	72.33	8.50	1.14
MAS MV	606	9.47	5.77	123.84	11.13	1.18
BBK MV	216	10.86	5.25	257.32	16.04	1.48
SDN MV	3,605	6.38	3.68	55.64	7.46	1.17
SDN2 MV	662	7.18	4.60	60.17	7.76	1.08
JES MV	151	6.74	3.54	69.75	8.35	1.24
MAI MV	700	4.40	2.39	31.07	5.57	1.27
MAI HWS	694	5.59	3.27	51.70	7.19	1.29
WGS MV	469	3.31	2.41	10.26	3.20	0.97
DNC MV	2,388	5.75	3.57	39.88	6.32	1.10
MST2 MV	586	8.20	4.52	94.25	9.71	1.18
DNF MV	1,780	8.25	4.39	105.58	10.28	1.25
DNJ MV	3,324	5.34	3.17	40.46	6.36	1.19
DNM MV	1,552	4.74	3.15	24.78	4.98	1.05

Table 15.3.1.1: Summary Statistics of the Composited Vein Widths per Domain

DOMAIN	Summary Statistics					
	Number	Mean	Median	Variance	Std Dev	CoV
ALL MV	23,594	1.26	1.02	0.40	0.63	0.50
BNZ MV	1,055	1.51	1.40	0.56	0.75	0.49
BHWS	713	1.48	1.40	0.55	0.74	0.50
MAS MV	608	1.20	1.17	0.35	0.59	0.49
BBK MV	216	0.80	0.78	0.15	0.39	0.49
SDN MV	3,607	1.24	1.10	0.49	0.70	0.56
SDN2 MV	662	0.93	0.80	0.30	0.54	0.58
JES MV	151	1.66	1.40	1.09	1.05	0.63
MAI MV	700	1.40	1.10	0.56	0.75	0.54
MAI HWS	694	1.10	1.00	0.27	0.52	0.48
WGS MV	474	1.19	1.00	0.43	0.66	0.55
DNC MV	2,393	1	1.00	0.36	0.60	0.43
MST2 MV	587	0.61	0.50	0.15	0.39	0.63
DNF MV	1,783	1.34	1.05	0.27	0.52	0.38
DNJ MV	3,324	1.46	1.20	0.31	0.55	0.38
DNM MV	1,560	1.27	1.00	0.22	0.47	0.37

15.3.3 High Grade Cuts

Percentiles were determined for each domain. The results (Table 15.3.3.1) were used to determine the high-grade cut applied during grade estimation. In this estimate, a high grade cut of 25 g/t Au was applied for all MV domains, while a high grade cut of 5 g/t Au was applied for all HW and FW domains. These values roughly correspond to the 95th and 90th percentiles of the vein grade and wall rock grade distributions, respectively.

Table 15.3.2.1: Composited Au Grade Percentiles per Domain

DOMAIN	Percentiles					
	10	50	90	95	98	99
ALL MV	0.82	3.60	14.63	22.51	32.32	38.65
ALL HW	0.28	1.16	5.26	7.92	12.54	16.00
ALL FW	0.27	1.07	4.63	6.96	10.38	12.19
BNZ MV	0.87	3.42	13.83	19.02	24.05	27.96
BHWS	0.96	4.30	18.71	25.91	36.69	41.76
MAS MV	1.32	5.77	20.74	31.27	47.58	60.79
BBK MV	0.81	5.25	31.90	42.84	58.19	93.07
SDN MV	0.78	3.68	15.60	22.42	30.83	37.89
SDN2 MV	0.81	4.60	17.81	25.03	32.19	36.19
JES MV	0.52	3.54	18.46	28.71	35.07	35.53
MAI MV	0.68	2.39	10.74	15.94	24.19	28.19
MAI HWS	0.72	3.27	12.48	18.15	32.80	38.58
WGS MV	0.50	2.41	6.84	10.15	15.25	15.93
DNC MV	1.17	3.57	12.59	19.28	27.34	34.03
MST2 MV	0.64	4.52	21.20	29.72	41.39	46.67
DNF MV	1.09	4.39	22.46	32.19	41.90	47.90
DNJ MV	0.87	3.17	12.54	18.70	27.88	33.20
DNM MV	0.91	3.15	10.51	14.76	22.80	25.52

Table 15.3.2.2: Vein Width Percentiles per Domain

DOMAIN	Percentiles					
	10	50	90	95	98	99
ALL MV	0.50	1.02	2.20	2.43	2.70	2.80
BNZ MV	0.60	1.40	2.56	3.00	3.26	3.47
BHWS	0.57	1.40	2.50	2.89	3.20	3.40
MAS MV	0.49	1.17	2.00	2.30	2.70	2.80
BBK MV	0.35	0.78	1.33	1.70	1.90	1.90
SDN MV	0.40	1.10	2.20	2.60	3.00	3.19
SDN2 MV	0.30	0.80	1.80	2.00	2.30	2.35
JES MV	0.40	1.40	3.35	3.80	4.20	4.20
MAI MV	0.55	1.10	2.40	2.75	3.25	3.60
MAI HWS	0.40	1.00	1.90	2.00	2.20	2.30
WGS MV	0.40	1.00	2.13	2.40	2.70	2.80
DNC MV	1.00	1.00	2.35	2.55	2.70	2.80
MST2 MV	0.20	0.50	1.10	1.45	1.70	1.98
DNF MV	1.00	1.05	2.10	2.30	2.50	2.60
DNJ MV	1.00	1.20	2.30	2.50	2.63	2.70
DNM MV	1.00	1.00	2.00	2.20	2.35	2.40

15.4 Variography

Variograms have already been modelled in the previous estimates, including the latest update by Ausa (2020). Considering the volume of additional data acquired since then, however, the variograms were re-modelled in this study. The spherical variogram model (Figure 15.4.1) was selected for all domains, with all except for two veins and the wall rocks interpreted with nested structures. Omnivariograms were first calculated to determine the nugget effect in each domain. Directional variograms were then calculated to define the anisotropy. The relative variogram parameters are in Table 15.4.1 while the actual variogram models are in Appendix B.

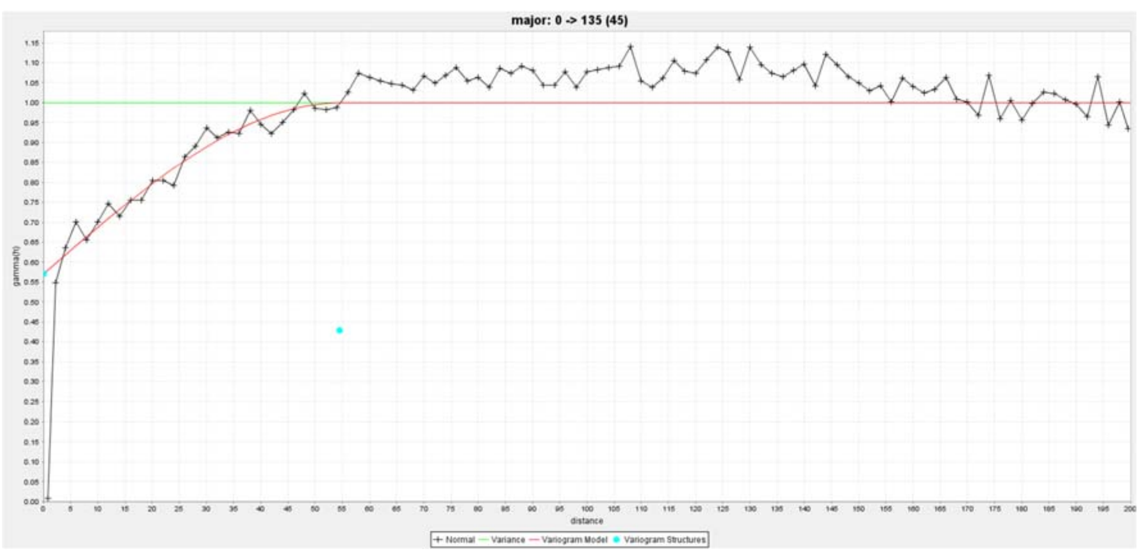


Figure 15.4.1: Experimental Variogram and Fitted Spherical Model for Bonanza MV 135 degrees

Table 15.4.1: Relative Variogram Parameters

DOMAIN	Relative Variogram Parameters						
	Sill 0	Sill 1	Range 1	Sill 2	Range 2	Major:Semi	Major:Minor
BNZ MV	0.35	0.16	15	0.49	51	2.6	5.0
BHWS	0.37	0.27	7	0.36	62	2.7	6.3
MAS MV	0.37	0.38	6	0.25	47	1.6	4.7
BBK MV	0.36	0.32	6	0.32	33	1.8	3.2
SDN MV	0.55	0.15	19	0.3	45	1.7	3.3
SDN2 MV	0.35	0.38	8	0.27	62	1.8	6.3
JES MV	0.34	0.66	25	-	-	1.1	2.6
MAI MV	0.57	0.33	16	0.1	58	2.1	5.9
MAI HWS	0.44	0.56	29	-	-	1.5	2.5
WGS MV	0.37	0.19	12	0.44	39	2.0	4.0
DNC MV	0.58	0.23	15	0.19	52	1.8	3.4
MST2 MV	0.51	0.14	18	0.35	58	2.7	3.8
DNF MV	0.48	0.18	12	0.34	64	3.1	3.8
DNJ MV	0.4	0.21	6	0.39	79	2.0	7.9
DNM MV	0.42	0.27	11	0.31	11	1.6	3.9
ALL HW	0.72	0.28	38	-	-	-	-
ALL FW	0.72	0.28	31	-	-	-	-

15.5 Cut-off Grade Used in Estimation

Based on the Company's 2019 reports, cash operating costs at 2,000 tpd totaled PhP 3,793 per ton, mill recovery averaged to 85%, while the average realized metal price and exchange rate were USD 1,393/oz Au and 51.71 Php/USD. Using these parameters and a 4% excise tax, the cut-off grade was calculated to be 2.11 g/t Au. Considering the recent metal price movements, with spot Au prices around USD 1,700 per oz at the time of writing, and 3-year and 5-year averages at USD 1,505 per oz and USD 1,410 per oz, respectively (Figure 15.5.1), a sensitivity analysis of the cut-off grade to the gold price and foreign exchange rate was generated (Table 15.5.1). Based on these results, resource estimates were reported at 2.0 g/t Au and 1.5 g/t Au cut-off grades. The higher cut-off represents the current operating parameters assuming a gold price of USD 1,500 per oz Au, while the lower cut-off considers the long term mine plan to increase production rate to 3,000 tpd which will potentially lower operating costs on a per ton basis due to a larger divisor for fixed costs.

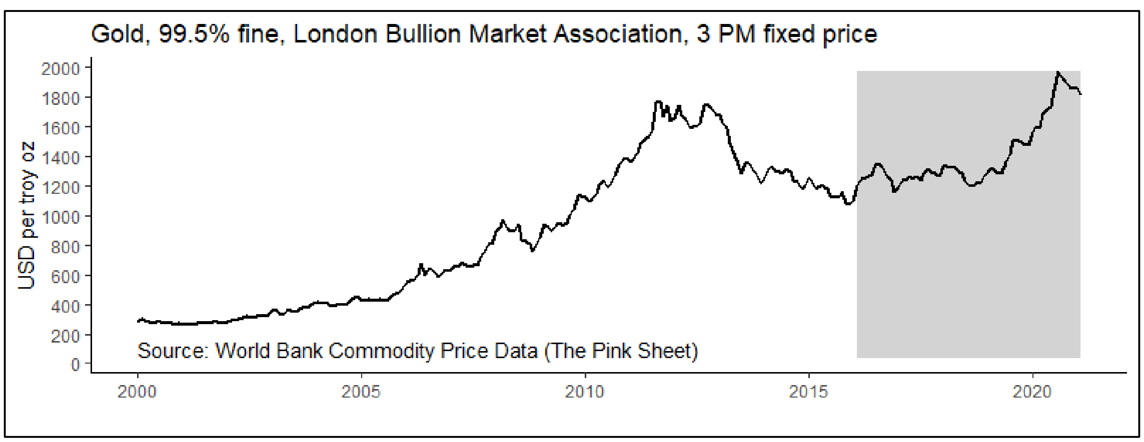


Figure 15.5.1: Gold Price Chart – 5-year period from reporting date highlighted in gray; monthly prices retrieved from https://www.worldbank.org

Table 15.5.1: Cut-off Grade Sensitivity Analysis

Price (USD/oz)	FOREX (PhP:USD)										
	42	43	44	45	46	47	48	49	50	51	52
2000	1.80	1.76	1.72	1.68	1.65	1.61	1.58	1.55	1.51	1.48	1.46
1900	1.90	1.85	1.81	1.77	1.73	1.70	1.66	1.63	1.59	1.56	1.53
1800	2.00	1.96	1.91	1.87	1.83	1.79	1.75	1.72	1.68	1.65	1.62
1700	2.12	2.07	2.02	1.98	1.94	1.90	1.86	1.82	1.78	1.75	1.71
1600	2.25	2.20	2.15	2.10	2.06	2.01	1.97	1.93	1.89	1.86	1.82
1500	2.40	2.35	2.29	2.24	2.19	2.15	2.10	2.06	2.02	1.98	1.94
1400	2.58	2.52	2.46	2.40	2.35	2.30	2.25	2.21	2.16	2.12	2.08
1300	2.77	2.71	2.65	2.59	2.53	2.48	2.43	2.38	2.33	2.28	2.24
1200	3.00	2.93	2.87	2.80	2.74	2.69	2.63	2.58	2.52	2.47	2.43
1100	3.28	3.20	3.13	3.06	2.99	2.93	2.87	2.81	2.75	2.70	2.65
1000	3.61	3.52	3.44	3.37	3.29	3.22	3.15	3.09	3.03	2.97	2.91

15.6 Resource Estimation and Block Modelling

15.6.1 Block Model Parameters

Three block models were used in estimation (Figures 15.6.1.1 to 15.6.1.3). The parameters of the block models are shown in Table 15.6.1.1. Block size dimensions were selected based on the size of the selective mining unit of the methods employed in the current operations.

Table 15.6.1.1: Block Model Parameters

		Origin				
	Rotation	x	y	z		
Maligaya	40.0	615,759	813,725	1,265		
Maria Inez	70.0	615,892	813,377	1,265		
Masarita	70.0	614,046	815,028	965		
	Number of Blocks			Block Size		
	column	row	level	column	row	level
Maligaya	224	340	60	5.0	10.0	15.0
Maria Inez	304	310	60	5.0	10.0	15.0
Masarita	304	130	40	5.0	10.0	15.0

Figure 15.6.1.1: Maligaya Block Model – Veins: Bonanza, BHWS, Masara, Bibak, Sandy, Jessie, and MST 2

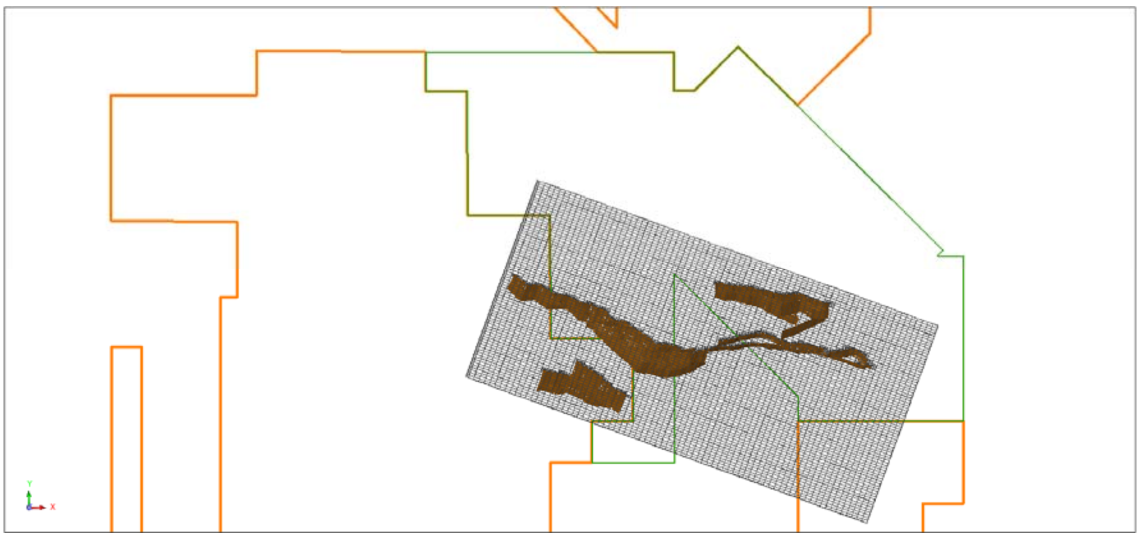


Figure 15.6.1.2: Maria Inez Block Model – Veins: SDN2, SDN3, SDN4, Maria Inez, Maria Inez HWS, Don Fernando, Don Joaquin, Don Mario, Saint Francis, and Saint Vincent

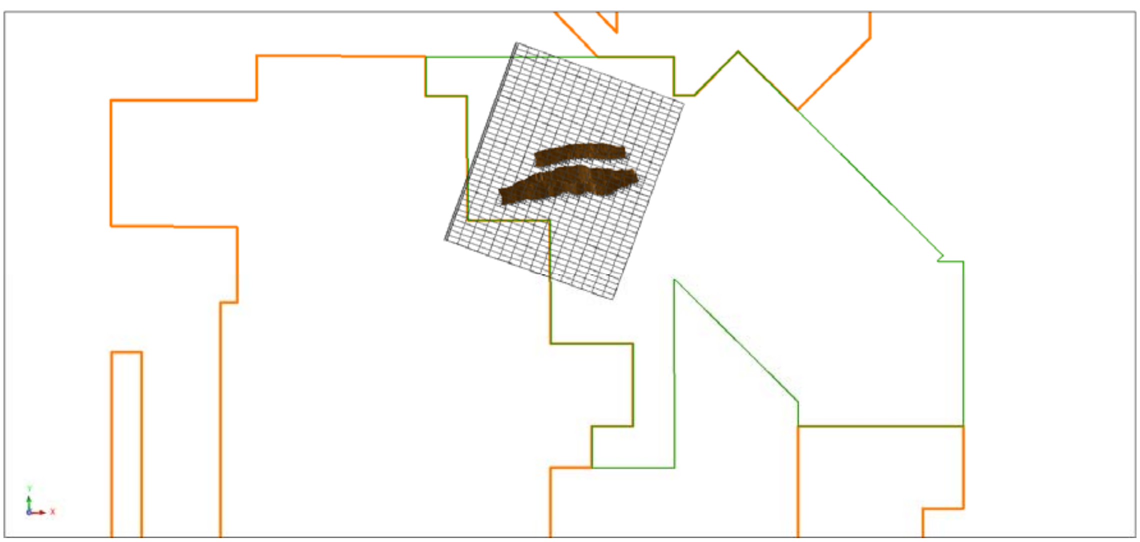


Figure 15.6.1.3: Masarita Block Model – Veins: Wagas and Don Calixto

Each individual block contains thirteen variables that were either estimated or assigned. These are the rock code, MV grade, HW grade, FW grade, MV volume, HW volume, FW volume, mined out volume, vein width, resource classification, block grade, tonnage, and tenement indicator. The last variable is used to identify which blocks are within the tenement boundary (Figure 15.6.1.4).

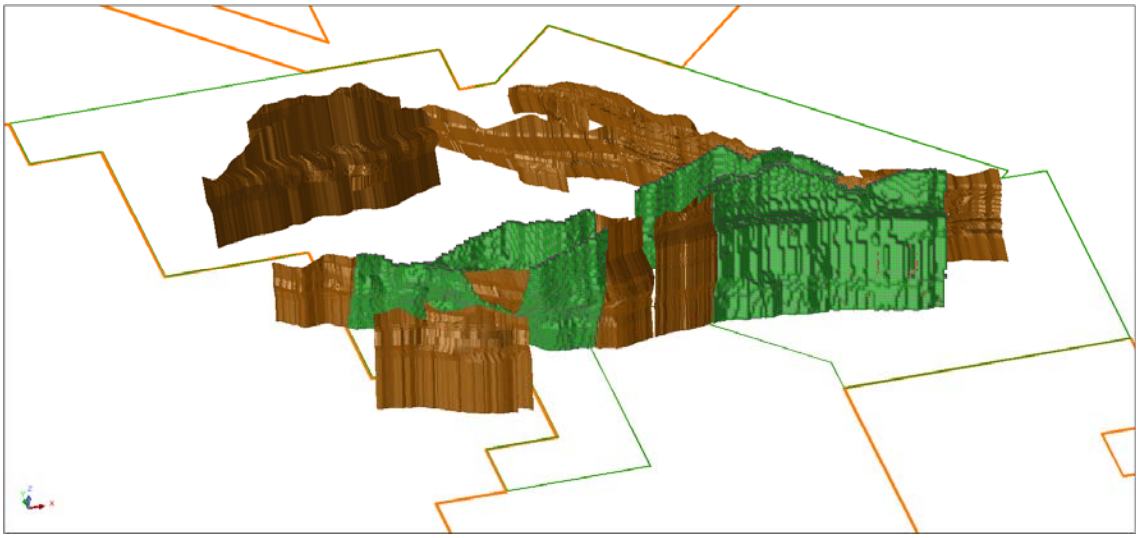


Figure 15.6.1.4: Maria Inez Blocks within MPSA-225-2005-XI (green)

15.6.2 Specific Gravity

Previous resource estimates were reported using a uniform specific gravity of 2.6. This uniform value was also adopted in this report. Specific gravity measurements taken by the in-house laboratory gave an average of 2.76 across 28,388 samples (Table 15.6.2.1), with vein samples averaging a bit higher at 2.79 compared to wall rock samples which averaged to 2.73, likely due to the abundance of sulfides in the vein material. The global average is 6% higher and hence indicates that the assumed specific gravity is a conservative value.

Table 15.6.2.1: Specific Gravity Statistics

DOMAIN	Summary Statistics					
	Number	Mean	Median	Variance	Std Dev	CoV
ALL	28,388	2.76	2.73	0.04	0.19	0.07
MV	11,706	2.79	2.76	0.05	0.21	0.08
HW	9,401	2.73	2.72	0.03	0.16	0.06
FW	7,281	2.73	2.72	0.03	0.16	0.06

Table 15.6.2.2: Specific Gravity Percentiles

DOMAIN	Percentiles					
	10	50	90	95	98	99
ALL	2.55	2.73	2.96	3.08	3.25	3.36
MV	2.56	2.76	3.05	3.17	3.36	3.48
HW	2.55	2.72	2.90	2.99	3.13	3.25
FW	2.55	2.72	2.90	2.99	3.13	3.25

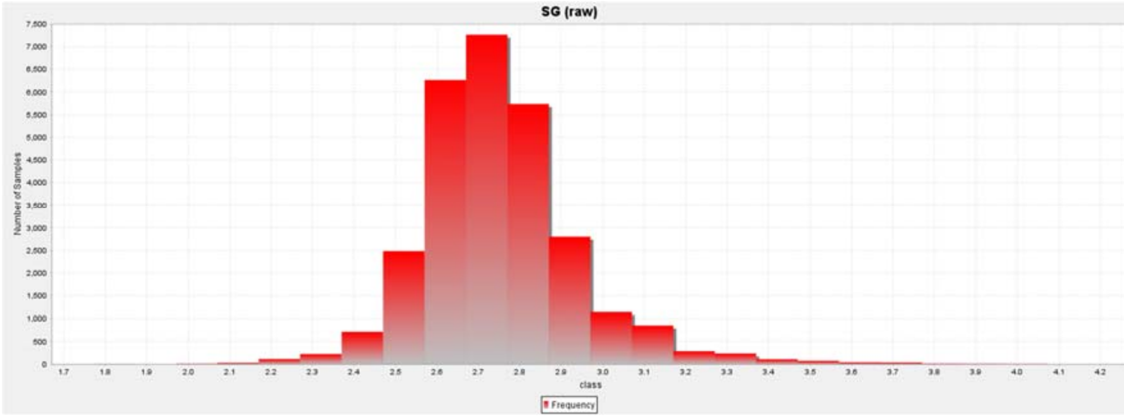


Figure 15.6.2.1: Specific Gravity Histogram of all Samples

15.6.3 Tonnage Estimation

The mineralized and mined out volumes within each block were calculated using the modelled solids. The total mineralized volume was taken as the sum of the MV, HW, and FW volumes. For veins with no modelled HW and FW solids, the MV volume is taken as the total mineralized volume. This was then adjusted to account for the voids by subtracting the volume of the mined out solids. The remaining mineralized volumes were then multiplied by the specific gravity to come up with the tonnage estimate for each block.

$$Mineralized_{Vol} = MV_{Vol} + HW_{Vol} + FW_{Vol}$$

$$Tonnage\ per\ Block = (Mineralized_{Vol} - Mined\ Out_{Vol}) * SG$$

15.6.4 Search Strategy and Estimation

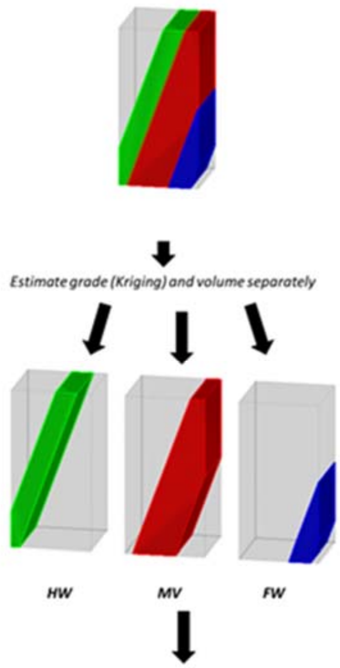
The grades were estimated per block using ordinary kriging. In this method, the average grade is calculated using weights that are determined in such a way that the minimum estimation variance is obtained. The vein grade of each block was estimated in three passes, with different search restrictions (Table 15.6.3.1). The search ellipse parameters are based on the range of the modelled semivariograms, with the search distances roughly corresponding to one-third, two-thirds, and the full variogram range. In the first pass, only blocks with samples from at least four different directions within 20m were estimated. Blocks that were not estimated in the first pass but with at least two samples within 40m were estimated in the second pass. The last pass estimated the vein grade of blocks not covered by the first two passes with at least two samples within 60m. HW and FW grades were estimated using a single pass with a 60m search ellipse radius.

Table 15.6.3.1: Search Ellipse Parameters

Pass	Search Ellipse Radius	Minimum Octants
1st	20m	4
2nd	40m	1
3rd	60m	1

15.6.5 Block Grade Compositing

The volume percentages recorded for the MV, HW, and FW domains in each block were used as weighting factors to calculate for the composite block grade. The process is illustrated by the diagram in Figure 15.6.5.1. The composite grade was used as the basis in block selection and resource reporting above the identified cut-off. For veins wherein the HW and FW were not modelled, the kriged vein grade is taken as the block grade.



$$Block\ Grade = \frac{(Vol_{MV} * Grade_{MV}) + (Vol_{HW} * Grade_{HW}) + (Vol_{FW} * Grade_{FW})}{Vol_{MV} + Vol_{HW} + Vol_{FW}}$$

Figure 15.6.5.1: Block grade computation diagram

15.7 Resource Classification

The resource blocks were classified following the categories outlined in the Philippine Mineral Reporting Code. Blocks were classified into measured, indicated, and inferred depending on which kriging pass estimated the MV grade. Blocks included in the first pass were classified as measured, indicated in the second pass, and inferred in the third pass. The remaining blocks in the model were not included in the resource estimate.

15.8 Mineral Resource Estimate

The total mineral resources for the gold veins included in this study for cut-off grades of 1.5 g/t Au and 2.0 g/t Au are as follows:

Table 15.8.1: Mineral Resource Estimate at 1.5 g/t Au cut-off

MINERAL RESOURCE (1.5 g/t Au cut-off)			
CLASSIFICATION	TONS (000 t)	GRADE (g/t)	OUNCES Au
Measured	3,195	4.8	493,000
Indicated	5,399	4.5	781,000
SUB-TOTAL	**8,594**	**4.6**	**1,274,000**
Inferred	2,760	4.5	407,000
TOTAL	**11,354**	**4.6**	**1,681,000**

Table 15.8.2: Mineral Resource Estimate at 2.0 g/t Au cut-off

MINERAL RESOURCE (2.0 g/t Au cut-off)			
CLASSIFICATION	TONS (000 t)	GRADE (g/t)	OUNCES Au
Measured	2,859	5.2	471,000
Indicated	4,629	5	734,000
SUB-TOTAL	**7,488**	**5.1**	**1,205,000**
Inferred	2,310	5.1	379,000
TOTAL	**9,798**	**5.1**	**1,584,000**

The detailed estimates per vein per resource class are in Tables 15.8.3 and 15.8.4, with the vein and wall rock estimates presented separately.

Table 15.8.3: Mineral Resource Estimate per Vein at 1.5 g/t Au cut-off

1.5 CUT-OFF	MEASURED					INDICATED					INFERRED					TOTAL						
VEIN	VEIN TONS (000)	VEIN GRADE	WALL TONS (000)	WALL GRADE	OUNCES	VEIN TONS (000)	VEIN GRADE	WALL TONS (000)	WALL GRADE	OUNCES	VEIN TONS (000)	VEIN GRADE	WALL TONS (000)	WALL GRADE	OUNCES	VEIN TONS (000)	VEIN GRADE	WALL TONS (000)	WALL GRADE	TOTAL TONS (000)	AVE GRADE	OUNCES
BNZ MV	162	6.3	88	1.8	38,000	130	7.3	85	1.5	35,000	70	7.7	50	1.5	20,000	362	6.9	223	1.6	585	4.9	92,000
BHWS MV	146	8.3	79	2.6	46,000	309	7.4	163	2.5	87,000	130	6.7	70	2.4	33,000	585	7.5	312	2.5	897	5.8	167,000
BHWS SPLIT	10	7.5	6	2.3	3,000	25	7.1	20	2.2	7,000	20	7.8	10	2.1	6,000	55	7.4	36	2.2	91	5.3	16,000
MAS MV	62	8.1	50	2	19,000	111	7.3	87	1.9	31,000	70	6.4	50	2	18,000	243	7.2	187	2	430	4.9	68,000
MAS HWS	8	9.4	8	2.9	3,000	1	4.8	1	2.1	0	0	0	0	0	0	9	8.9	9	2.8	18	5.9	3,000
BBK MV	26	8.2	31	1.5	8,000	40	10.9	55	1.4	16,000	20	13.4	20	1.3	9,000	86	10.7	106	1.4	192	5.6	35,000
SDY MV	354	6.5	328	1.8	93,000	434	5.7	375	1.7	100,000	190	6.2	150	1.8	47,000	978	6.1	853	1.8	1,831	4.1	241,000
SDYS 60S	18	10.7	12	2.3	7,000	26	11.4	17	2.1	11,000	0	8	0	1.8	0	44	11.1	29	2.2	73	7.6	18,000
SDYS 90S	13	7.2	15	2.1	4,000	4	6.1	4	1.8	1,000	0	5.7	0	1.8	0	17	6.9	19	2	36	4.3	5,000
SDYS 107S	12	5.8	12	1.4	3,000	21	4.5	24	1.3	4,000	10	6.3	10	1.6	3,000	43	5.3	46	1.4	89	3.3	9,000
SDYS 110S	53	10.1	51	1.7	20,000	43	8.8	38	1.8	14,000	10	11.5	10	1.9	4,000	106	9.7	99	1.8	205	5.9	39,000
SDYS 120S	42	5.6	42	1.6	10,000	31	6.2	27	1.6	8,000	10	7.2	10	1.7	3,000	83	6	79	1.6	162	3.9	20,000
SDYS 132S	70	8.2	53	1.8	22,000	47	8.1	32	1.8	14,000	20	9.2	10	1.9	7,000	137	8.3	95	1.8	232	5.6	42,000
SDN2 MV	131	7.2	134	1.8	38,000	251	7.3	245	1.8	73,000	110	7.4	100	1.8	32,000	492	7.3	479	1.8	971	4.6	144,000
SDN2 SPLIT	12	7.5	20	1.1	4,000	23	6.6	44	1.2	7,000	0	6.9	10	1.1	0	35	6.9	74	1.2	109	3	11,000
JES MV	39	8.3	23	2.3	12,000	99	6.9	71	2.4	27,000	70	8.3	40	2.5	22,000	208	7.6	134	2.4	342	5.6	62,000
SDN3 MV	4	4.1	7	1	1,000	45	4.2	56	1	8,000	30	7.3	40	1	8,000	79	5.4	103	1	182	2.9	17,000
SDN4 MV	8	5.2	8	1.2	2,000	60	4.6	61	1.2	11,000	20	4.6	20	1.2	4,000	88	4.7	89	1.2	177	2.9	17,000
MAI MV	73	5.1	71	1.3	15,000	245	7.4	240	1.2	68,000	160	7.7	150	1.1	45,000	478	7.1	461	1.2	939	4.2	127,000
MAI HWS	69	5.7	71	1.1	15,000	200	7.1	241	1.3	56,000	160	6.9	190	1.4	44,000	429	6.8	502	1.3	931	3.8	114,000
WGS MV	43	4.8	35	1.4	8,000	123	4.3	100	1.4	22,000	50	4.1	50	1.3	9,000	216	4.4	185	1.4	401	3	39,000
DNC MV	164	6.1	0	0	32,000	241	5.4	0	0	42,000	150	5.1	0	0	25,000	555	5.5	0	0	555	5.5	98,000
DNC HWS	7	5	0	0	1,000	5	5.7	0	0	1,000	0	4.3	0	0	0	12	5.3	0	0	12	5.3	2,000
MST2 MV	55	7.5	85	1.6	18,000	95	5.9	145	1.4	25,000	70	6.8	100	1.6	20,000	220	6.6	330	1.5	550	3.5	62,000
MST2 FWS	4	14.3	8	1.7	2,000	13	13.5	26	1.9	7,000	10	12	10	2.1	5,000	27	13.1	44	1.9	71	6.2	14,000
DNF MV	95	6.8	0	0	21,000	124	6.7	0	0	27,000	30	7.2	0	0	7,000	249	6.8	0	0	249	6.8	54,000
DNJ MV	151	5.1	0	0	25,000	312	5	0	0	50,000	160	4.7	0	0	24,000	623	4.9	0	0	623	4.9	98,000
DNM MV	127	5.6	0	0	23,000	184	4.9	0	0	29,000	90	4.3	0	0	12,000	401	5	0	0	401	5	64,000
TOTAL	**1,958**	**6.7**	**1,237**	**1.7**	**493,000**	**3,242**	**6.4**	**2,157**	**1.6**	**781,000**	**1,660**	**6.5**	**1,100**	**1.6**	**407,000**	**6,860**	**6.5**	**4,494**	**1.7**	**11,354**	**4.6**	**1,678,000**

Table 15.8.4: Mineral Resource Estimate per Vein at 2.0 g/t Au cut-off

2.0 CUT-OFF	MEASURED					INDICATED					INFERRED					TOTAL						
VEIN	VEIN TONS (000)	VEIN GRADE	WALL TONS (000)	WALL GRADE	OUNCES	VEIN TONS (000)	VEIN GRADE	WALL TONS (000)	WALL GRADE	OUNCES	VEIN TONS (000)	VEIN GRADE	WALL TONS (000)	WALL GRADE	OUNCES	VEIN TONS (000)	VEIN GRADE	WALL TONS (000)	WALL GRADE	TOTAL TONS (000)	AVE GRADE	OUNCES
BNZ MV	145	6.8	77	1.9	36,000	117	7.9	74	1.5	33,000	60	8.6	40	1.5	19,000	322	7.5	191	1.7	513	5.3	87,000
BHWS MV	142	8.5	76	2.6	45,000	275	8.2	143	2.6	84,000	100	8.3	50	2.6	31,000	517	8.3	269	2.6	786	6.3	159,000
BHWS SPLIT	10	7.5	6	2.3	3,000	25	7.1	20	2.2	7,000	20	7.8	10	2.1	6,000	55	7.4	36	2.2	91	5.3	16,000
MAS MV	59	8.4	47	2.1	19,000	110	7.3	85	1.9	31,000	70	6.5	50	2	18,000	239	7.3	182	2	421	5	68,000
MAS HWS	8	9.4	8	2.9	3,000	1	4.8	1	2.1	0	0	0	0	0	0	9	8.9	9	2.8	18	5.9	3,000
BBK MV	23	9	26	1.5	8,000	36	11.9	47	1.5	16,000	10	14.8	20	1.3	6,000	69	11.4	93	1.5	162	5.7	30,000
SDY MV	316	7	287	1.8	88,000	376	6.3	321	1.7	94,000	160	6.9	140	1.9	44,000	852	6.7	748	1.8	1,600	4.4	226,000
SDYS 60S	18	10.7	12	2.3	7,000	26	11.4	17	2.1	11,000	0	8	0	1.8	0	44	11.1	29	2.2	73	7.6	18,000
SDYS 90S	13	7.3	15	2.1	4,000	4	6.2	4	1.8	1,000	0	5.7	0	1.8	0	17	7	19	2	36	4.4	5,000
SDYS 107S	9	6.6	9	1.5	2,000	14	5.5	16	1.4	3,000	0	7.2	10	1.7	1,000	23	5.9	35	1.5	58	3.2	6,000
SDYS 110S	53	10.1	51	1.7	20,000	42	9	37	1.8	14,000	10	11.5	10	1.9	4,000	105	9.8	98	1.8	203	5.9	39,000
SDYS 120S	39	5.9	38	1.6	9,000	27	6.7	22	1.7	7,000	10	7.2	10	1.7	3,000	76	6.4	70	1.6	146	4.1	19,000
SDYS 132S	65	8.6	49	1.9	21,000	42	8.7	28	1.9	13,000	20	9.2	10	1.9	7,000	127	8.7	87	1.9	214	5.9	41,000
SDN2 MV	120	7.7	121	1.8	37,000	236	7.6	223	1.8	71,000	110	7.5	100	1.8	32,000	466	7.6	444	1.8	910	4.8	140,000
SDN2 SPLIT	11	8.1	16	1.2	3,000	20	7.1	33	1.2	6,000	0	7.5	10	1.1	0	31	7.5	59	1.2	90	3.4	10,000
JES MV	35	9.1	20	2.4	12,000	96	7.1	68	2.5	27,000	60	8.7	40	2.5	20,000	191	8	128	2.5	319	5.8	59,000
SDN3 MV	3	4.3	4	1	1,000	32	4.8	37	1	6,000	20	9.6	20	1	7,000	55	6.5	61	1	116	3.6	13,000
SDN4 MV	7	5.6	7	1.3	2,000	50	5.1	51	1.2	10,000	20	5.3	20	1.2	4,000	77	5.2	78	1.2	155	3.2	16,000
MAI MV	53	6.2	52	1.4	13,000	192	8.8	185	1.2	61,000	120	9.4	110	1.1	40,000	365	8.6	347	1.2	712	5	114,000
MAI HWS	55	6.5	56	1.1	13,000	148	8.8	174	1.3	49,000	120	8.3	140	1.5	39,000	323	8.2	370	1.3	693	4.5	100,000
WGS MV	33	5.6	24	1.5	7,000	92	5	69	1.4	18,000	40	4.9	30	1.4	8,000	165	5.1	123	1.4	288	3.5	32,000
DNC MV	156	6.3	0	0	32,000	224	5.6	0	0	40,000	130	5.7	0	0	24,000	510	5.8	0	0	510	5.8	95,000
DNC HWS	7	5.1	0	0	1,000	5	5.7	0	0	1,000	0	4.3	0	0	0	12	5.4	0	0	12	5.4	2,000
MST2 MV	48	8.2	72	1.6	16,000	73	6.9	101	1.5	21,000	60	7.8	80	1.6	19,000	181	7.5	253	1.6	434	4.1	57,000
MST2 FWS	4	15.8	7	1.8	2,000	12	13.6	25	1.9	7,000	10	12.1	10	2.2	5,000	26	13.4	42	2	68	6.4	14,000
DNF MV	90	7.1	0	0	21,000	122	6.8	0	0	27,000	30	7.4	0	0	7,000	242	7	0	0	242	7	54,000
DNJ MV	139	5.4	0	0	24,000	284	5.3	0	0	48,000	150	5	0	0	24,000	573	5.2	0	0	573	5.2	96,000
DNM MV	118	5.9	0	0	22,000	167	5.2	0	0	28,000	70	5	0	0	11,000	355	5.4	0	0	355	5.4	62,000
TOTAL	1,779	7.2	1,080	1.8	471,000	2,848	7	1,781	1.7	734,000	1,400	7.3	910	1.7	379,000	6,027	7.1	3,771	1.7	9,798	5	1,581,000

16.0 INTERPRETATION AND CONCLUSIONS

The data obtained from the concluded drilling program designed by the AMCI Exploration Team and underground mine development implemented by AMCI Mine Geology Team and AMCI Mine Operations are deemed adequately compliant with existing and accepted industry standards having been executed with sufficient safeguards in an effort to comply with quality assurance and quality control (QA/QC) requirements to qualify for an acceptable resource estimation exercise. The areas of uncertainties maybe considered minimized.

It is concluded that the main objective of locating and defining the gold mineralization within the respective veins with potential for commercial exploitation has been attained with the confirmation and eventual blocking of potentially commercial gold resource by resource evaluation drilling and underground mine development. However, more drilling works will be required to define the continuity of the drill-delimited mineralized structures comprising the respective vein system along its strike and down dip extensions to be able to increase the blocked resource and define more zones of higher-grade gold mineralization. Overall, mineral resources from the gold veins within **MPSA-234-2007-XI** were estimated at 1.681 million ounces of Au (11.354 Mt at 4.6 g/t Au), with 8.594 Mt at 4.6 g/t Au belonging to the Measured and Indicated resource categories.

17.0 RECOMMENDATIONS

Should the company decide to look for substantial or additional gold mineralization within the respective veins, it is recommended to explore by going out (or under, deeper) the drilled area. Due to the erratic nature of gold grades and the usual pinch and swell nature of veins, more holes are required per vein or area (or data points) to attain a high level of confidence in the mineral resource estimate.

There is adequate reason that the respective vein systems and their splits (Bonanza, Masarita, Sandy, Jesse, Ma. Inez, Wagas, Don Calixto, Don Joaquin, Don Fernando, Don Marion) with good gold grades may still exist laterally and vertically. This could be illustrated by producing vertical longitudinal projections for all the respective veins.

In the immediate period, a drilling program is proposed to add data points to the 'confirmed' mineralized structures, and to test the respective veins with good potential in terms of tonnage and grade: holes are proposed, totalling some >20,000 drillng-meters for the Sandy 2, Ma. Inez and splays/splits, Masarita and splays/splits, Masarita 2, Bonanza, Bonanza Hanging Wall Split (BHWS), Bibak, Wagas, Don Calixto, Don Mario and splays/splits, and Don Joaquin.

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20. APPENDIX

20.1 List of Drill Holes in the Database

Number	HOLE-ID	EASTING	NORTHING	ELEVATION	DEPTH	YEAR
1	BHWS-485-001	615431.23	815285.23	489.67	400	2020
2	BHWS-485-002	615430.16	815286	489.77	396.1	2020
3	BHWS-485-003	615429.66	815285.65	489.55	273.4	2020
4	BHWS-485-004	615429.66	815285.65	489.55	250	2020
5	BHWS-485-005	615428.67	815286	489.7	298.3	2020
6	BHWS-485-006	615426.6	815284.9	489.93	350	2020
7	BHWS-605-004	615574.42	815072.35	604.37	372.4	2020
8	BHWS-605-005	615572.5	815073	604.39	266.9	2020
9	BHWS-605-006	615572.5	815073	604.39	370.9	2020
10	DNC-41.7W-01	613803	815579	737.85	447	2020
11	DNC-73.7W-01	613500	815683	665	248.7	2020
12	DNC-89.6W-01	613327.5	815675.2	658.23	300.3	2020
13	DNC-89.6W-02	613327.5	815675.2	658.23	236.5	2020
14	JES-575-004	615715.11	814912.28	576.48	367.9	2020
15	JES-575-005	615716.18	814912.62	576.16	370.5	2020
16	JES-575-006	615714.26	814912.62	576.44	370.1	2020
17	JES-620-001	615942.74	814763.94	623.35	300	2020
18	JES-620-002	615942.59	814763.94	622.83	255.1	2020
19	KAUR-170S-02	616308.98	814558.02	1091.75	596.8	2020
20	MAI-KAUR-149.5S-01	616022.57	814616.25	951.7	339.4	2020
21	MAI-KAUR-149.5S-02	616022.57	814616.25	951.7	433.5	2020
22	MAI-KAUR-150S-01	616074.37	814637.3	930	305.8	2020
23	MAI-KAUR-150S-02	616074.37	814637.3	930	440.2	2020
24	MAI-KAUR-156S-01	616232.04	814615.39	1060.5	452.4	2020
25	MAI-KAUR-156S-02	616232.04	814615.39	1060.5	449.5	2020
26	SDN2-590-005	615059.17	815386.11	594.5	400	2020
27	SDN-485-001	615425.16	815279.05	490.36	400	2020
28	SDN-485-002	615425.62	815277.13	489.93	400.3	2020
29	SDN-485-003	615425.6	815280.89	490.31	400	2020
30	SDN-485-004	615424.78	815276.94	489.66	400.8	2020
31	SDN-485-005	615424.22	815278.16	490.3	400.5	2020
32	SDN-485-006	615424.18	815278.03	489.95	400.5	2020
33	STF-10E-01	613967.69	814520.43	900.06	520.9	2020
34	STF-18W-01	613664.75	814506.79	958	599.9	2020
35	STF-18W-02	613664.75	814506.79	958	599.2	2020
36	STF-30E-01	614149.7	814435.74	919.63	464.4	2020
37	STF-30E-02	614149.7	814435.74	919.63	710.1	2020
38	STF-30E-N01	614172.27	814487.21	920	404.9	2020
39	STF-30E-N02	614213.8	814599.8	945	249.1	2020
40	STF-30E-S01	614092.6	814278.88	931	450.9	2020
41	STF-40E-01	614262.24	814452.59	981	604.3	2020
42	STF-40E-02	614262.24	814452.59	981	599.8	2020

43	WGS-500-001	613837.65	815849.58	498.78	370	2020
44	WGS-500-002	613837.45	815850.16	499.19	381.8	2020
45	WGS-56W-01	613799.87	815983.12	827	412.8	2020
46	WGS-59.3W-01	613800	816087.15	767.28	131.6	2020
47	WGS-63.4W-01	613708.72	815936.82	825.34	450	2020
48	WGS-67.5W-01	613700	816051.21	800	253.4	2020
49	WGS-96.4W-01	613343.37	815915.17	662	350.5	2020
50	BHWS-605-001	615571.06	815073.21	604.88	333.8	2019
51	BHWS-605-002	615572.61	815072.92	604.95	359.8	2019
52	JES-575-001	615714.3	814912.02	576.86	370	2019
53	JES-575-002	615715.88	814912.1	576.88	356.1	2019
54	JES-575-003	615715.88	814912.1	576.88	371.3	2019
55	JES-KAUR-108.5S-01	615983.27	815110.61	1069.77	654.8	2019
56	KAUR-151.7S-01	616141.75	814677.75	1028	178.66	2019
57	KAUR-151.7S-02	616141.75	814677.75	1028	300.6	2019
58	KAUR-155.6S-01	616269.26	814733.59	1081.36	374.7	2019
59	KAUR-155.6S-02	616269.26	814733.59	1081.36	490.36	2019
60	KAUR-170S-01	616308.98	814558.02	1091.75	417.4	2019
61	KAUR-172.3S-01	616082.21	814358.26	1066.62	233.2	2019
62	KAUR-172.3S-02	616082.21	814358.26	1066.62	373.8	2019
63	KAUR-172-.3S-02	616082.21	814358.26	1066.62	373.8	2019
64	MAI-725-005	615976.38	814664.35	727.7	156	2019
65	MI-172.3S-001	616082.21	814358.26	1066.63	373.63	2019
66	MST2-530-001	614808.53	815681.66	538.61	370	2019
67	MST2-530-002	614808.88	815682.23	538.66	374.9	2019
68	MST2-530-003	614807.4	815680.15	536.71	366.9	2019
69	MST2-530-004	614806.35	815679.3	538.28	382.7	2019
70	MST2-530-005	614806.16	815679.91	538.64	381.6	2019
71	MST2-530-006	614806.16	815679.91	538.64	380.5	2019
72	MST2-530-007	614807.37	815678.18	538.64	380.1	2019
73	MST-545-004	614563.82	815769.1	548.23	80	2019
74	SDN2-545-001	615275.32	814989.79	547.77	400.7	2019
75	SDN2-545-002	615275.36	814986.96	547.41	400.7	2019
76	SDN2-545-003	615274.73	814987.44	547.7	400.2	2019
77	SDN2-545-004	615274.73	814987.44	547.7	400.2	2019
78	SDN2-545-005	615274.42	814987.68	547.75	400.5	2019
79	SDN2-545-006	615274.06	814987.15	547.49	400.3	2019
80	SDN2-545-007	615275.75	814987.75	547.25	454	2019
81	SDN2-560-002	615331.29	814978.27	561.62	360.2	2019
82	SDN2-560-003	615331.14	814975.59	561.48	387.6	2019
83	SDN2-560-004	615331.1	814975.63	561.3	382.1	2019
84	SDN2-590-001	615059.82	815385.39	594.32	353.2	2019
85	SDN2-590-003	615060.07	815385.96	594.38	380.2	2019
86	SDN2-605-003	615481.8	814954.11	607.19	384	2019
87	SDN2-605-004	615481.94	814953.74	606.77	386.4	2019
88	SDN2-605-005	615481.95	814953.78	607.09	375.1	2019

89	SDN2-605-006	615481.92	814953.97	606.73	380	2019
90	SP-BH-04	616107.26	815954.08	680	32.9	2019
91	STF-0.4E-01	613868.23	814528.27	836.27	406.5	2019
92	STF-0.4E-02	613868.23	814528.27	836.27	500.3	2019
93	STF-0POS-01	613868.99	814534.14	836	510	2019
94	TAG-363-002	612280.96	818346.68	365.82	42.1	2019
95	TAG-L363-01	613290.37	817491.18	479	500.4	2019
96	TAG-L363-02	613285.49	817489.82	479	400.5	2019
97	AKN-114.5S-05-01	616498.51	815463.03	960.21	173.6	2018
98	AKN-125S-06-01	616492.46	815322.75	1009.08	96.4	2018
99	AKN-55S-04-01	615873.06	815714.85	843.35	88.5	2018
100	AKN-55S-04-02	615873.06	815714.85	843.35	162.8	2018
101	AKN-81.5S-01-01	616063.87	815528.65	835.15	142.2	2018
102	AKN-81.5S-01-02	616063.87	815528.65	835.15	181.4	2018
103	AKN-90S-03-01	615977.38	815348.19	946.27	72	2018
104	AKN-94S-02-01	616064.96	815366.4	944.33	216.2	2018
105	AKN-94S-02-02	616064.96	815366.4	944.33	114.7	2018
106	BUN-CH-01	616346.05	816078.78	728.8	252.2	2018
107	KAG-228S-01	616260	813785.04	1326.36	617.4	2018
108	KSP-100S-001	610832.5	816033.42	718.43	160	2018
109	KSP-100S-002	610832.5	816033.42	718.43	190	2018
110	KSP-300S-01-1	610794.59	815835.36	773.61	314	2018
111	KSP-300S-01-2	610794.59	815835.36	773.61	275	2018
112	KSP-400S-002	610814.85	815731.17	789.17	260	2018
113	KSP-400S-01-1	610814.85	815731.17	789.17	225	2018
114	KSP-500S-01-1	610847.87	815628.25	810.36	190	2018
115	KSP-500S-01-2	610847.87	815628.25	810.36	225	2018
116	KSP-550S-01-1	610873.02	815579.73	828.94	160	2018
117	KSP-550S-01-2	610873.02	815579.73	828.94	190	2018
118	MAI-725-001	615975.05	814663.98	727.77	347.4	2018
119	MAI-725-002	615975.04	814663.98	727.44	251.1	2018
120	MAI-725-003	615975.1	814667.96	727.81	232.9	2018
121	MAI-725-004	615976.43	814666.07	727.88	158.9	2018
122	MAI-840-001	615530.67	814861.99	844.56	290.5	2018
123	MAI-840-002	615529.91	814862.42	844.71	355.1	2018
124	MAI-840-003	615530.7	814862.03	844.57	300	2018
125	MAI-840-004	615531.1	814865.71	845.6	350	2018
126	MST-545-002	614562.99	815764.63	547.6	174.9	2018
127	MST-545-003	614561.89	815765.51	547.6	302.6	2018
128	MST-545-005	614563.82	815769.1	548.23	249.5	2018
129	SDN2-560-001	615331.05	814975.45	561.51	367.8	2018
130	SDN2-605-001	615481.95	814953.78	607.03	363.6	2018
131	SDN2-605-002	615481.93	814953.74	606.65	381.1	2018
132	SGY-175N-01	611318.8	816347.6	740.6	264.6	2018
133	SGY-250S-01	611247	815915.8	879.7	153.2	2018
134	SGY-75N-01	611348.4	816240.1	734.2	328	2018

135	SP-BH-01	615876.05	815945.05	744.62	30	2018
136	SP-BH-02	616053.22	816029.46	667.88	32.1	2018
137	SP-BH-03	616188.62	816101.12	724.05	31.6	2018
138	SP-BH-05	616004.73	816111.72	653.27	39.2	2018
139	SP-BH-06	616007.19	816143.39	650	32.3	2018
140	SP-BH-07	615779.69	816027.47	771.69	53.1	2018
141	SP-BH-08	615811.37	816106.19	759.26	61.7	2018
142	SP-BH-09	616178.42	816188.46	787.77	91.8	2018
143	SP-BH-09-02	616181.94	816189.87	787.62	112.4	2018
144	BBK-530-001	615007.07	815780.18	538.64	158.7	2017
145	BBK-530-002	615007.17	815779.29	538.79	152.8	2017
146	JES-741-001	615897.42	814700.49	743.2	171.1	2017
147	JES-741-002	615898.27	814699.94	743.09	119.3	2017
148	JES-741-003	615898.26	814700.26	743.32	155.3	2017
149	KAG-212S-01	615888.18	813677.28	1326.11	227.2	2017
150	KAG-219S-01	615892.13	813588.73	1290.47	135.6	2017
151	KAG-223S-01	616044.49	813665.89	1373.49	154.7	2017
152	KAG-224.5S-01	615909.88	813533.45	1306.33	124.3	2017
153	KAG-224.5S-02	615909.88	813533.45	1306.33	125.1	2017
154	KAG-224.5S-03	615909.88	813533.45	1306.33	186.2	2017
155	KAG-225S-01	615945.25	813544.56	1320.53	224.3	2017
156	KAG-226S-01	616033.26	813617.68	1365	383.7	2017
157	KAG-227S-01	616138.97	813670.72	1391.53	477.53	2017
158	KAG-254S-01	616304.08	813466.85	1403.77	116.7	2017
159	KAG-259S-01	616149.87	813285.73	1465.71	132.5	2017
160	KAUR-210S-01	616484	814195	1165	190	2017
161	KAUR-221S-01	616530	814094	1184	174.4	2017
162	KAUR-224S-01	616561	814080	1196	130	2017
163	KAUR-228S-01	616578	814042	1189	115.1	2017
164	KAUR-235S-01	616632	814003	1222	120.5	2017
165	KAUR-245S-01	616672	813930	1233	149.7	2017
166	KAUR-245S-02	616672	813930	1233	89.1	2017
167	MAI-605-001	615100.92	815018.79	607.69	346.5	2017
168	MAI-605-002	615102.7	815018.16	607.69	373	2017
169	MST-545-001	614563.53	815766.65	547.57	253.1	2017
170	MST-590-006	615012.35	815714.07	596.83	353.7	2017
171	MST-590-007	615012.53	815714.21	596.68	231.5	2017
172	MST-590-008	615012.97	815713.7	596.82	341.3	2017
173	MST-590-009	615013.2	815714.03	596.82	340.9	2017
174	ASA-731-001	615301.28	815125.05	732.9	372.9	2016
175	ASA-731-002	615301.1	815124.89	733.27	357.5	2016
176	BHWS-702-001	615361.92	815252.06	704.57	35.2	2016
177	BHWS-702-002	615366.36	815250.84	704.4	51.8	2016
178	BHWS-702-003	615366.36	815250.84	704.4	71.4	2016
179	MI-794-001	615524.01	814610.83	796.36	48.9	2016
180	MI-794-002	615524.01	814610.83	769.36	47.3	2016

181	MI-794-003	615524.83	814610.83	796.36	45.2	2016
182	MST-560-005	614400	816026.26	560.03	234.4	2016
183	MST-590-004	615013.07	815716.26	596.93	350	2016
184	MST-590-005	615012.68	815716.2	596.74	365.7	2016
185	ASA-545-001	615149.71	815502.58	559.66	168.9	2015
186	ASA-545-002	615149.71	815502.58	559.66	182.6	2015
187	ASA-545-003	615149.71	815502.58	559.66	162.9	2015
188	ASA-545-004	615149.71	815502.58	559.66	200	2015
189	ASA-545-005	615149.71	815502.58	559.66	137.5	2015
190	ASA-665-001	615147.58	815476.45	670.17	150	2015
191	ASA-665-002	615147.58	815476.45	670.17	150.1	2015
192	ASA-665-003	615146.78	815478.51	669.87	239.7	2015
193	ASA-770-002	616062.29	814631.09	771.84	52.2	2015
194	ASA-770-003	616062.2	814631.07	771.71	62.8	2015
195	ASA-810-008	615656.48	814769.96	817.48	52.5	2015
196	ASA-810-009	615656.5	814769.61	814.47	61.3	2015
197	ASA-810-010	615657.02	814769.46	816.66	55.9	2015
198	BHWS-001	615679.14	815104.09	878	350	2015
199	BHWS-530-001	615422	815415	543	81.8	2015
200	BHWS-810-003	615514.91	814981.88	814.25	364	2015
201	BHWS-810-004	615513.55	814981.07	814.88	361.9	2015
202	BHWS-810-005	615513.55	814981.07	814.85	360	2015
203	DF-50W-001	613517.17	815164.26	871.71	372	2015
204	DF-50W-002	613511	815166	870	476.3	2015
205	DF-60W-001	613424.7	815219.74	837.18	302.1	2015
206	DF-650-001	613780.11	814858	651	59	2015
207	DF-650-002	613780.11	814858	651	119.1	2015
208	DF-70W-001	613319.22	815232.38	795.91	350	2015
209	DF-70W-002	613319.22	815232.38	795	397.1	2015
210	DF-80W-001	613184.64	815256.49	716.34	248.3	2015
211	DJ-30E-001	614209.44	814577.09	937.37	339.8	2015
212	DJ-30E-002	614209.44	814577.09	937.37	473.1	2015
213	DJ-40E-001	614419.43	814906.19	943.49	551.5	2015
214	DJ-55E-001	614457.14	814552.31	1096.2	150	2015
215	DJ-55E-002	614457.14	814552.31	1096.2	224.2	2015
216	DJ-650-001	613775.48	814855.75	651.11	63.6	2015
217	DJ-650-002	613775.48	814855.75	651.11	100	2015
218	DNC-530-104	613863.44	816074.32	531.1	403.8	2015
219	FRN-575-001	614267.91	816087.38	574.24	64.5	2015
220	FRN-575-002	614267.91	816087.38	574.24	73.1	2015
221	MI-770-001	615814.45	814623.95	767.13	125	2015
222	MI-770-002	615815.47	814624.03	767.32	102.4	2015
223	MI-770-003	615816.09	814623.84	766.68	134.6	2015
224	MN-110N-001	614348	816590	650	202.8	2015
225	MN-110N-002	614348	816590	650	98.8	2015
226	MN-70N-001	614725.9	816387.81	626.27	314.6	2015

227	MN-70N-002	614726	816384	626.27	285.4	2015
228	MST-120W-001	613262.35	816468.52	719.75	215.6	2015
229	MST-120W-002	613262.35	816468.52	719.75	290.6	2015
230	MST-560-004	614400.78	816025.78	560.03	167.7	2015
231	MST-590-003	614793.23	815900.87	595.66	331	2015
232	TAG-363-001	612280.96	818346.68	365.82	140.6	2015
233	WGS-110W-001	613209.08	815935.85	649.21	265.8	2015
234	WGS-110W-002	613209.1	815935.14	649.06	232	2015
235	WGS-530-001	613494.69	816050.45	534.48	26.1	2015
236	WGS-530-002	613494.69	816050.45	534.48	27.3	2015
237	WGS-87W-001	613503.61	816086	708.86	223.6	2015
238	WGS-87W-002	613503.61	816086.54	708.86	143.4	2015
239	WGS-87W-003	613503.6	816086.54	708.86	166.5	2015
240	AMA-530-019	615157	815459	530	83.5	2014
241	AMA-530-020	615027.03	815684.12	542.57	76.6	2014
242	AMA-530-021	615026.84	815684.02	541.99	78.3	2014
243	AMA-575-004	615161.6	815307.18	582.19	79.2	2014
244	AMA-575-005	615160.95	815306.64	581.55	95	2014
245	ASA-590-025	615402.83	815236.86	602	379.8	2014
246	ASA-590-026	615286.76	815134.64	602.22	468	2014
247	ASA-590-027	615286.28	815134.8	602.66	442.6	2014
248	ASA-590-028	615524.47	815053.51	604.96	105.8	2014
249	ASA-590-029	615524.47	815053.51	604.96	106.6	2014
250	ASA-590-031	615573.16	815064.39	605.93	106	2014
251	BHWS-575-001	615547.97	815235.02	586.32	60	2014
252	BHWS-575-002	615547.97	815235.02	586.32	75.3	2014
253	BHWS-810-001	615513.82	814982.31	814.49	316.4	2014
254	BHWS-810-002	615513.81	814982.31	814.49	374.4	2014
255	DNC-530-107	613863.57	816074.91	531.1	189.98	2014
256	FRN-560-001	614479.23	816068.15	561.95	34.6	2014
257	FRN-560-002	614479.39	816064.89	561.43	31.4	2014
258	FRN-560-003	614478.24	816067.72	561.55	60.1	2014
259	MST-560-001	614479.39	816064.89	561.43	80.4	2014
260	MST-560-002	614476.31	816060.2	561.85	45.2	2014
261	MST-590-001	614794.9	815900.88	594.8	328.3	2014
262	MST-590-002	614793.23	815900.87	595.66	350	2014
263	AMA-500-009	615063.07	815670.39	509.26	95.3	2013
264	AMA-530-015	614745.25	816021.48	536.82	501.9	2013
265	AMA-530-016	614746.84	816018.98	536.33	459.6	2013
266	AMA-530-017	615158.73	815438.93	543.68	63.2	2013
267	AMA-530-018	615159.05	815438.8	543.69	60.3	2013
268	AMA-575-003	615146.78	815442.7	581.43	93.1	2013
269	AMA-590-001	615337.18	815327.2	603.73	61.6	2013
270	AMA-590-002	615336.76	815327.31	603.59	63	2013
271	AMA-590-003	615501	815268	590	21.4	2013
272	AMA-590-004	615501	815268	590	75	2013

273	AMA-590-004A	615501	815268	590	38.2	2013
274	AMA-590-005	615501	815268	590	58.7	2013
275	ASA-590-010	615281.74	815311.25	599.27	524.9	2013
276	ASA-590-011	615280.62	815313.89	598.74	472.6	2013
277	ASA-590-012	615279.35	815313.13	598.52	514.9	2013
278	ASA-590-013	615282.1	815312.22	599.19	476.6	2013
279	ASA-590-014	615281.92	815312.21	598.92	499.6	2013
280	ASA-590-015	615281.07	815316.32	598.89	498.2	2013
281	ASA-590-016	615281.11	815314.75	598.52	300	2013
282	ASA-590-020	615359.65	815207.15	600.82	296.6	2013
283	ASA-590-021	615403.08	815236.86	601.45	473.8	2013
284	ASA-590-022	615403.27	815236.94	601.45	312.8	2013
285	ASA-590-023	615403.35	815237	601.87	470.1	2013
286	ASA-590-024	615403.16	815236.87	601.53	332.8	2013
287	ASA-590-030	615397.3	815233.77	600.8	427.4	2013
288	DCX-530-001	613861	816078	531.3	457.5	2013
289	DCX-530-002	613863.91	816074.28	531.3	392.8	2013
290	DNC-530-003	613863.58	816075.08	530.84	453.9	2013
291	AMA-485-002	614915.49	816093.11	492.64	99.1	2012
292	AMA-485-003	614913.29	816097.08	493.2	102.1	2012
293	AMA-500-001	614867.16	816116.55	508.35	35.5	2012
294	AMA-500-002	614915.34	816076.84	508.05	80.2	2012
295	AMA-500-003	614913.09	816076.77	508.44	71.5	2012
296	AMA-500-004	615130.06	815610.55	509.48	50.7	2012
297	AMA-500-005	615128.83	815612.02	510.44	45.5	2012
298	AMA-500-006	615129.65	815608.94	510.5	26	2012
299	AMA-500-007	615130.06	815609.44	510.55	54.4	2012
300	AMA-500-008	615062.37	815669.68	508.93	48.7	2012
301	AMA-515-003A	615009.97	816050.96	524.49	71.1	2012
302	AMA-515-004	615299.65	815469.7	530.4	28.6	2012
303	AMA-515-005	615299.65	815469.7	530.4	65.9	2012
304	AMA-515-006	615299.65	815469.7	530.4	36	2012
305	AMA-575-001	615241.42	815438.81	581.7	265.1	2012
306	AMA-575-002	615241.47	815438.78	581.44	303.4	2012
307	AMI-860-003	615726.62	814568.03	854.26	47	2012
308	ASA-590-001	615275.61	815312.18	602.76	265	2012
309	ASA-590-002	615275.21	815311.51	603.1	350	2012
310	ASA-590-003	615275.36	815311.7	603.45	338.2	2012
311	ASA-590-004	615279.6	815312.85	600.97	328.2	2012
312	ASA-590-005	615282.32	815312.82	599.62	392	2012
313	ASA-590-008	615280.64	815309.79	598.76	387.7	2012
314	ASA-770-001	615899.11	814708.3	771.91	76.5	2012
315	ASA-785-005	615703.67	814608.26	794.02	287	2012
316	ASA-785-006	615704.18	814608.32	794.46	226.2	2012
317	ASA-785-007	615703.47	814608.27	794.63	271.2	2012
318	ASA-785-008	616063.63	814639.05	790.85	80.1	2012

319	ASA-785-009	615700.41	814608.41	794.02	352.6	2012
320	ASA-785-010	615703.66	814607.66	794.21	303.1	2012
321	ASA-785-011	615704.27	814606.66	794	300	2012
322	ASA-785-012	615701.77	814604.94	796.34	346.5	2012
323	ASA-800-004	616041.51	814632.56	804.78	46.8	2012
324	ASA-800-005	616041.89	814635.06	804.7	15.8	2012
325	ASA-800-006	616036.61	814626.33	804.68	54.6	2012
326	BNZ-021	614894.66	816408.67	585.92	266.9	2012
327	BNZ-022	615038.06	816128.47	695.9	316.3	2012
328	BNZ-024	613926	816476.95	522.71	218.8	2012
329	DNARC-001	613835	815222	737.6	153	2012
330	DNC-001	614063.54	815603.4	867.64	354.4	2012
331	DNC-002	613627.51	815626.16	679.6	401.6	2012
332	DNC-003	613624.81	815626.56	679.51	315.6	2012
333	DNC-004	613625.69	815624.04	679.56	453.9	2012
334	DNC-006	613310	815620	666	390.8	2012
335	MST-002	613939.9	816475.8	520	274	2012
336	AMA-485-001	614815.24	816024.09	498.01	79	2011
337	AMA-515-001	614997.24	816041.84	521.1	79	2011
338	AMA-515-002	615000.01	816046.63	524	78.8	2011
339	AMA-515-003	615009.97	816050.96	524.77	42.1	2011
340	AMA-530-004	615034.54	815790.88	536.87	154	2011
341	AMA-530-005	614745.01	816083.48	535.79	191.6	2011
342	AMA-530-006	614745.59	816081.84	535.62	212.5	2011
343	AMA-530-007	615055.68	815649.53	538.72	104	2011
344	AMA-530-008	615055.41	815651.62	538.78	157.6	2011
345	AMA-530-009	614737.79	816175.66	537.72	115.5	2011
346	AMA-530-010	615056.32	815650.81	537.59	135.3	2011
347	AMA-530-011A	615014.61	815783.95	537.66	187.5	2011
348	AMA-530-012	615014.02	815782.27	536.54	170.3	2011
349	AMA-530-013	614741.05	816176.88	538.08	86.7	2011
350	AMA-530-014	614779.51	816182.29	537.06	33.6	2011
351	AMA-560-001	615228.98	815466.12	568.35	97.5	2011
352	AMA-560-002	615226.54	815465.24	568.32	163.5	2011
353	AMI-001	615484.2	814429.57	1025.23	75.4	2011
354	AMI-001A	615484.2	814429.57	1025.23	293.7	2011
355	AMI-001B	615484.2	814429.57	1025.23	260.6	2011
356	AMI-003	615482.64	814427.9	1025.36	356	2011
357	AMI-004	615681.34	814601.59	988.41	259.5	2011
358	AMI-005	615681.12	814601.46	988.51	137.9	2011
359	AMI-006	615482.64	814427.9	1025.36	380.3	2011
360	AMI-860-001	615702.31	814576.51	853.24	48	2011
361	AMI-860-002	615704.66	814576.03	854.73	44.1	2011
362	AMR-530-001	614152.8	816127.53	535.11	49.2	2011
363	AMR-530-002	614150.04	816129.65	535.13	82	2011
364	AMR-545-001	614152.8	816127.53	535.11	91.2	2011

365	ASA-001	615828.38	814691.48	935.24	79	2011
366	ASA-002	615774.76	814720.4	925.86	57.5	2011
367	ASA-003	616185.84	814456.64	990.93	309.5	2011
368	ASA-005	615405.75	815240.39	782.13	42.5	2011
369	ASA-005A	615405.75	815240.39	782.13	291.5	2011
370	ASA-007	615404.43	815241.7	782.2	281.6	2011
371	ASA-008	615405.34	815241.23	782.13	345.8	2011
372	ASA-009	615407.15	815241.44	785.24	386.1	2011
373	ASA-010	615405.9	815241.51	782.29	342.5	2011
374	ASA-785-001	615726.73	814550.26	794.28	46.4	2011
375	ASA-785-003	615728.03	814556.66	785	56.6	2011
376	ASA-785-004	615728.03	814556.66	785	49.2	2011
377	ASA-800-001	615903.04	814670.9	802.82	39	2011
378	ASA-800-002	615905.69	814670.39	802.93	52.6	2011
379	ASA-800-003	615902.73	814669.86	801.6	9.1	2011
380	ASA-804-001	615710.21	814590.91	794.72	83.1	2011
381	ASA-804-002	615706.89	814589.42	794.66	48.8	2011
382	ASA-810-001	615463.88	814933.24	814.02	119.5	2011
383	ASA-810-002	615461.88	814935.13	814.18	197.1	2011
384	ASA-810-003	615463.75	814935.57	813.08	157.5	2011
385	ASA-810-004	615499.4	814965.92	813.67	180.5	2011
386	BNZ-007	614921.02	816172.63	702.19	279.5	2011
387	BNZ-008	614709.7	816106.89	594.08	159.5	2011
388	BNZ-009	614709.5	816106.57	594.2	321.5	2011
389	BNZ-010A	614920.66	816172.95	702.22	411	2011
390	BNZ-011	614709.76	816105.99	594.12	391.1	2011
391	BNZ-012	614708.94	816106.24	594.21	404.5	2011
392	BNZ-013	614944.99	816111.13	678.61	184.5	2011
393	BNZ-014	614708.3	816106.94	594.21	269	2011
394	BNZ-015	614648.36	816216.63	577.48	185	2011
395	BNZ-016B	614919.96	816171.98	702.09	317.5	2011
396	BNZ-017	614712.04	816102.57	594.4	303.5	2011
397	BNZ-018	615060.15	816160.64	703.47	82	2011
398	BNZ-019	614895.07	816408.96	586.01	510.2	2011
399	BNZ-020	615060.15	816160.64	703.62	203	2011
400	UGBBK-11-04	615012.44	815780.96	537.99	112	2011
401	BNZ-001	614711.24	816101.75	593.93	249	2010
402	BNZ-002	614711.87	816101.48	594.05	177	2010
403	BNZ-003A	614711.87	816101.48	594.05	179	2010
404	BNZ-004	614655.85	816220.93	576.17	252.4	2010
405	BNZ-005	614658.17	816221.52	576.17	271.5	2010
406	BNZ-006A	614645.27	816216.33	576.42	256	2010
407	JB-10-01	615721.4	814938.02	885.61	234.5	2010
408	JB-10-02A	615722.33	814938.49	885.65	317.6	2010
409	MST-10-01	614404.72	816196.42	553.57	250	2010
410	UGBBK-10-01	614741.13	816087.13	536	61.6	2010

411	UGBBK-10-03	615014.94	815715.81	597.42	107.2	2010
412	UGBNZ-10-01	614741.13	816087.13	536	111.6	2010
413	UGBNZ-10-02	614740.89	816086.69	536	136	2010
414	UGFV-10-01	614196.73	816171.34	534.97	50	2010
415	UGJB-04	615802.01	814770.01	830	70	2010
416	UGJB-05	615802.01	814770.01	830	92.2	2010
417	UGMAS-10-01	615216.29	815479.19	607.21	20	2010
418	UGMAS-10-02	615216.29	815479.19	607.21	20	2010
419	UGMAS-10-06	615215.16	815482.78	607.83	21.1	2010
420	UGMST-10-01	614216.17	816145.04	535.57	25.1	2010
421	UGMST-10-02	614210.38	816144.85	535.96	25.2	2010
422	UGMST-10-03	614216.89	816145.39	536.04	37	2010
423	UGSDY-10-01	615236.41	815393.36	729.89	126.6	2010
424	UGSDY-10-02	615242.85	815401.8	729.89	20.3	2010
425	UGJB-01	615802	814770	830	53.7	2009
426	UGJB-02	615802.01	814770.01	830	56.9	2009
427	UGJB-03	615802.01	814770.01	830	80.2	2009
428	BM-39	615668.98	815087.14	898.97	173.5	2007
429	BM-40	615685.25	815135.6	898.59	232	2007
430	BM-41	615668.98	815087.14	898.97	216	2007
431	BM-42	615685.25	815135.6	898.59	191	2007
432	BM-43	616144.2	814565.9	1002.1	147.8	2007
433	BM-44	615711.05	814995.68	892.56	159	2007
434	BM-45	615702.99	815039.98	899.94	213.6	2007
435	BM-46	615349.86	815249.45	778.74	154.7	2007
436	BM-47	615412.94	815197.83	784.57	150.9	2007
437	BM-48	615473.05	815124.44	798.57	251.2	2007
438	BM-49	615412.94	815197.83	784.57	200	2007
439	BM-50	615349.86	815249.45	778.74	181.5	2007
440	BM-51	615296.14	815340.59	762.58	152.4	2007
441	BM-52	615221.22	815425.53	754.26	169.1	2007
442	BM-53	615164.35	815745.33	684.61	110.3	2007
443	BM-54	615221.22	815425.53	754.26	255.1	2007
444	BM-55	615164.35	815745.33	684.61	150.8	2007
445	BV-01	614982.7	815754.79	648.83	190.4	2007
446	BV-02	614982.7	815754.79	648.83	251	2007
447	BV-04	614834.59	815920.87	628.29	80.3	2007
448	BV-05	614681.63	816109.04	598.86	150.4	2007
449	DF-17	613903	814966.99	832.18	300.6	2007
450	DF-18	613902.97	814966.46	832.18	305.5	2007
451	DF-21	613125.4	815283.4	706.66	254.3	2007
452	DF-22	614016.62	814833.09	869.73	228.3	2007
453	DF-23	613125.4	815283.4	706.66	300.7	2007
454	DF-24	614016.62	814833.09	869.73	306.9	2007
455	DJ-01	614171.91	814696.71	943.62	273.8	2007
456	DM-01	614171.91	814696.72	943.62	193.4	2007

457	DM-02	614171.91	814696.72	943.62	252.4	2007
458	JB-39	616251.11	814425.94	999.95	135.3	2007
459	JB-40	615702.94	814729.69	914.07	187.1	2007
460	JB-41	616145.39	814430.79	1007.96	115.8	2007
461	JB-42	616251.1	814425.94	999.97	216.6	2007
462	JB-43	616144.2	814565.9	1002.1	137.5	2007
463	JB-44	616144.2	814565.99	1002.1	189.1	2007
464	JB-45	616257	814426.01	999.95	209	2007
465	JB-46	616145	814431	981.2	150	2007
466	JB-47	616108.76	814629.3	992.01	118.1	2007
467	JB-48	616109.19	814629.6	991.97	172.3	2007
468	JB-49	615559.37	815076.84	814.16	151.5	2007
469	JB-50	615473.05	815124.44	798.19	150	2007
470	JB-51	615412.94	815197.83	784.57	250	2007
471	JB-52	615348.87	815266.36	774.11	182.3	2007
472	JB-53	615559.37	815076.84	814.16	181.6	2007
473	JB-54	615473.05	815124.44	798.57	200	2007
474	JB-55	616032.76	814701.24	953.9	194.7	2007
475	JB-56	615348.87	815266.36	774.11	181.5	2007
476	JB-57	615412.94	815197.83	784.57	182.5	2007
477	JB-58	615473.05	815124.44	798.19	176.3	2007
478	JB-59	615879.39	814717.87	918.96	126.5	2007
479	JB-60A	616297.61	814372.39	1016.53	150	2007
480	JB-61	615879.39	814717.87	918.96	170	2007
481	JB-62	615879.39	814717.87	918.96	100	2007
482	JB-63	616059.41	814604.29	959.34	96.7	2007
483	JB-64	616297.61	814372.39	1016.96	150	2007
484	JB-65	615879.39	814717.87	918.96	151.2	2007
485	JB-66	616036.64	814648.23	942.34	109.9	2007
486	JB-67	616037.32	814649.14	942.22	109.5	2007
487	JB-68	615963.6	814685.56	927.81	120.8	2007
488	JB-69	615963.6	814685.56	927.81	137.5	2007
489	JB-70	616209.73	814452.66	993.1	285	2007
490	JB-71	615963.6	814685.56	927.81	126.3	2007
491	JB-72	615855.29	814745.36	910.87	160.2	2007
492	JB-73	615855.29	814745.36	910.87	166.2	2007
493	JB-74	616262.25	814395.42	1011.97	147.3	2007
494	MI-16	615688.19	814708.71	915.62	287.1	2007
495	MI-17	615190.13	814815.91	1012.65	197.7	2007
496	MI-18	615313.4	814779.59	1056.22	217.2	2007
497	MI-19	615386.76	814754.21	1037.09	185.5	2007
498	MI-20	615688.19	814708.71	915.62	371	2007
499	MI-21	615313.4	814779.59	1056.22	283.9	2007
500	MI-22	615190	814815.9	1012.65	302.2	2007
501	MI-23	615386.4	814754.21	1037.09	264.1	2007
502	MI-24	615275.86	814851.3	1029.71	280.2	2007

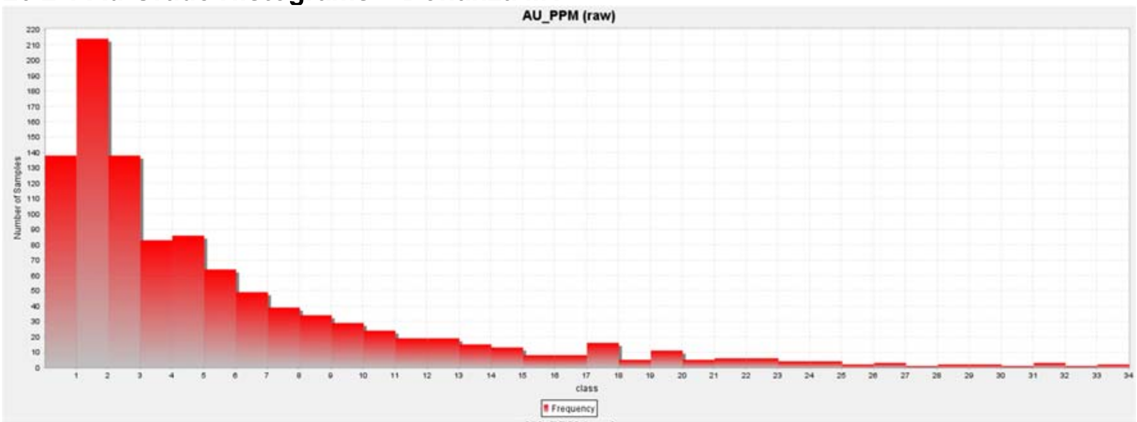
503	MI-27	614788.31	814734.75	940.1	116.4	2007
504	MI-28	615275.86	814851.3	1029.71	281.5	2007
505	MI-29	614887.58	814804.95	934.9	153.6	2007
506	SF-01	613716.3	814282.81	890.77	220.1	2007
507	SF-02	613246.81	814704.2	789.4	250	2007
508	SF-03	613716.3	814282.81	890.77	90	2007
509	SF-04	613086.05	814611.17	783.74	267.4	2007
510	UGDF-01	613698.05	815033.05	706.61	336	2007
511	UGSV-01	615537.14	814890.26	843.62	120.4	2007
512	UGSV-02	615537.14	814890.26	843.62	200	2007
513	UGSV-03	615537.14	814890.26	843.62	126	2007
514	UGSV-04	615537.14	814890.26	843.62	150	2007
515	BM-01	614925.48	815776.34	643	352.6	2006
516	BM-02	614991.22	815828.44	678.46	113.35	2006
517	BM-03	615157.2	815602.37	696.9	115.8	2006
518	BM-05	615156.89	815602.36	696.83	170	2006
519	BM-06	615156.28	815602.02	696.79	359.9	2006
520	BM-08	614987.58	816070.64	663.95	379.8	2006
521	BM-09	615308.36	815605.13	737.88	313	2006
522	BM-10	614987.58	816070.64	663.95	303.9	2006
523	BM-11	615308.36	815605.13	737.88	279.1	2006
524	BM-12	615231.65	815722.26	715.6	241.8	2006
525	BM-13	614987.88	816071.47	664.11	251.8	2006
526	BM-14	615308.51	815605.26	737.81	321.9	2006
527	BM-15	615231.85	815722.6	715.56	241.2	2006
528	BM-16	614987.88	816071.47	664.11	223.4	2006
529	BM-17	615308.51	815605.26	737.81	306.8	2006
530	BM-18	615231.47	815723.23	715.57	274.7	2006
531	BM-19	614987.88	816071.47	664.11	182.5	2006
532	BM-20	615308.36	815605.13	737.88	258.3	2006
533	BM-21	614987.88	816071.47	664.11	220.1	2006
534	BM-22	615231.83	815723.29	715.56	266	2006
535	BM-23	615308.36	815605.13	737.88	339	2006
536	BM-24	615138.89	815790.01	698.46	278.5	2006
537	BM-25	615087.55	815894.9	743.85	263.55	2006
538	BM-26	615087.55	815894.9	743.85	316.95	2006
539	BM-28	615043.75	815935.25	732.53	203	2006
540	BM-30	615241.35	815650.8	710.64	334	2006
541	BM-31	615043.75	815935.25	732.53	247.6	2006
542	BM-32	615241.35	815650.8	710.64	232.1	2006
543	BM-33	614952.91	816113.35	679.45	221.1	2006
544	BM-35	614952.91	816113.35	679.45	213	2006
545	BM-36	615144.9	815879.25	766.36	250.1	2006
546	BM-37	615144.9	815879.25	766.36	166	2006
547	DC-01	614229.93	814619.52	941.79	293.7	2006
548	DF-05	613497.79	815088.37	856.55	211.5	2006

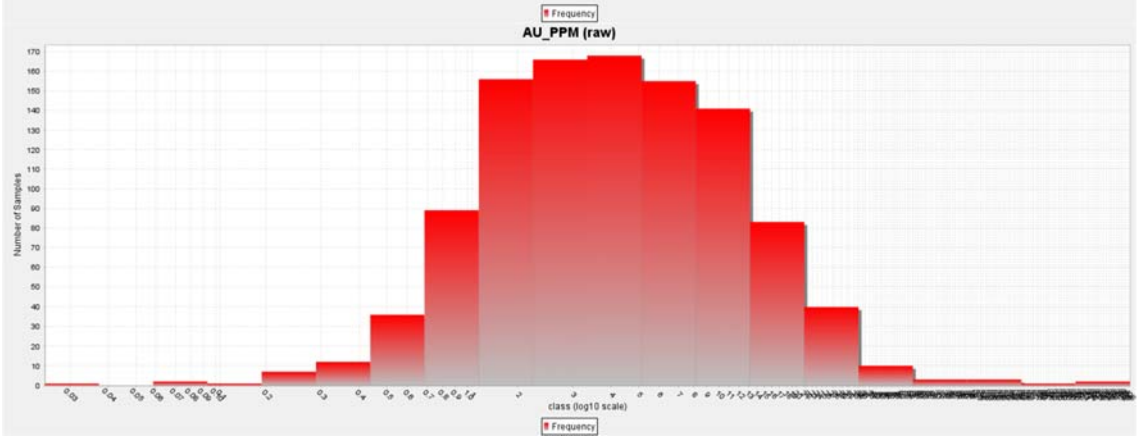
549	DF-06	613844.62	815084.42	763.13	291.5	2006
550	DF-07	613498.13	815089.09	856.45	332.3	2006
551	DF-08	614010.14	814973.31	874.24	315.65	2006
552	DF-09	613844.66	815084.79	763.09	353	2006
553	DF-10	613497.44	815089.11	856.63	277.4	2006
554	DF-11	613497.44	815089.11	856.63	262.65	2006
555	DF-13	613400.81	815102.67	784.16	272.1	2006
556	DF-14	613400.81	815102.67	784.16	245.2	2006
557	DF-15	614010.14	814973.31	874.24	352.8	2006
558	JB-01	615782.21	814795.43	889.63	277.65	2006
559	JB-02	615782.4	814795.73	889.68	235.8	2006
560	JB-03	615782.69	814796.47	889.46	260.55	2006
561	JB-04	615782.21	814795.43	889.63	335.7	2006
562	JB-05	615926.13	814702.59	922.4	311.6	2006
563	JB-06	615926.13	814702.59	922.4	141.3	2006
564	JB-07	615926.38	814702.99	922.53	199.3	2006
565	JB-08	615610.6	814948.64	814.82	260	2006
566	JB-09	615611.14	814949.67	814.61	344.1	2006
567	JB-10	615700.29	814876.38	899.1	212	2006
568	JB-11	615561.81	815041.02	820.5	222	2006
569	JB-12	615700.37	814876.4	899.1	215.5	2006
570	JB-13	615611.61	814950.7	814.56	206.2	2006
571	JB-14	615561.85	815041.24	820.44	262.7	2006
572	JB-15	616017.27	814663.17	938.05	249.8	2006
573	JB-16	615700.29	814876.38	899.1	248.7	2006
574	JB-17	615499.64	815077.11	813.28	186.6	2006
575	JB-18	616017.27	814663.17	938.05	228.4	2006
576	JB-19	615656.31	814891.55	876.19	165	2006
577	JB-20	615499.64	815077.11	813.28	218.2	2006
578	JB-21	616017.27	814663.17	938.05	151.8	2006
579	JB-22	615787.08	814792.44	892.08	157.85	2006
580	JB-23	615656.81	814891.55	876.19	166	2006
581	JB-24	615702.94	814729.69	914.07	180	2006
582	JB-25	615656.81	814891.55	876.19	137.1	2006
583	JB-26	616120.2	814496.09	981.12	152.1	2006
584	JB-27	615973.48	814737.23	958.89	100.3	2006
585	JB-28	615435.03	815162.57	791.32	168.7	2006
586	JB-29	615702.94	814729.69	914.07	235.6	2006
587	JB-30	615435.03	815162.57	791.32	193.1	2006
588	JB-31	615387.66	815235.99	778.73	167.4	2006
589	JB-32	616120.2	814496.09	981.12	152.5	2006
590	JB-33	616149.59	814432.7	1008.43	145.1	2006
591	JB-35	616120.2	814496.09	981.12	157.9	2006
592	JB-36	615387.66	815235.99	778.73	186.3	2006
593	JB-37	616251.11	814425.94	999.95	101.1	2006
594	JB-38	616120.2	814496.09	981.12	152.2	2006

595	MI-01	615918.94	814624.59	969.94	335.5	2006
596	MI-02	615919.13	814625.2	970.1	303.6	2006
597	MI-03	615757.94	814721.54	923.12	307	2006
598	MI-04	615757.94	814721.54	923.12	312.1	2006
599	MI-05	615546.13	814739.19	936.48	248	2006
600	MI-06	615432.35	814734.11	1033.17	247.7	2006
601	MI-07	615546.13	814739.19	936.48	291	2006
602	MI-08	615432.35	814734.11	1033.17	296.4	2006
603	MI-09	615152.35	814607.3	1103.49	271.4	2006
604	MI-10	615337.44	814701.7	1097.9	178	2006
605	MI-11	615152.54	814607.59	1103.48	271.1	2006
606	MI-12	615337.3	814701.29	1097.97	250.3	2006
607	MI-13	615251.47	814777.09	1044.46	208.8	2006
608	MI-14	615152.54	814607.59	1103.48	225.9	2006
609	MI-15	615251.47	814777.09	1044.46	238.8	2006
610	MS-01	613985.77	816466.52	528.91	275.3	2006
611	MS-02	613796.91	816376.75	562.82	173.05	2006
612	SB-04	615650.14	813999.13	1165.27	289.9	2006
613	SB-05	615668.58	814090.13	1221.45	276.2	2006
614	SB-06	615832.07	814026.42	1238.48	234.4	2006
615	SB-07	615549.73	813989.09	1113.84	100	2006
616	SB-08	615549.96	813989.7	1113.75	106.2	2006
617	DF-01	613301.83	815145.27	736.47	182.7	2005
618	DF-02	613300.26	815141.05	736.42	151.6	2005
619	DF-03	613376.38	815075.69	766.47	201	2005
620	SB-01	615475.72	814085.11	1131.08	249	2005
621	SB-02	615531.86	814024.59	1120.24	215.6	2005
622	SB-03	615562.39	814126.82	1185.49	420.1	2005

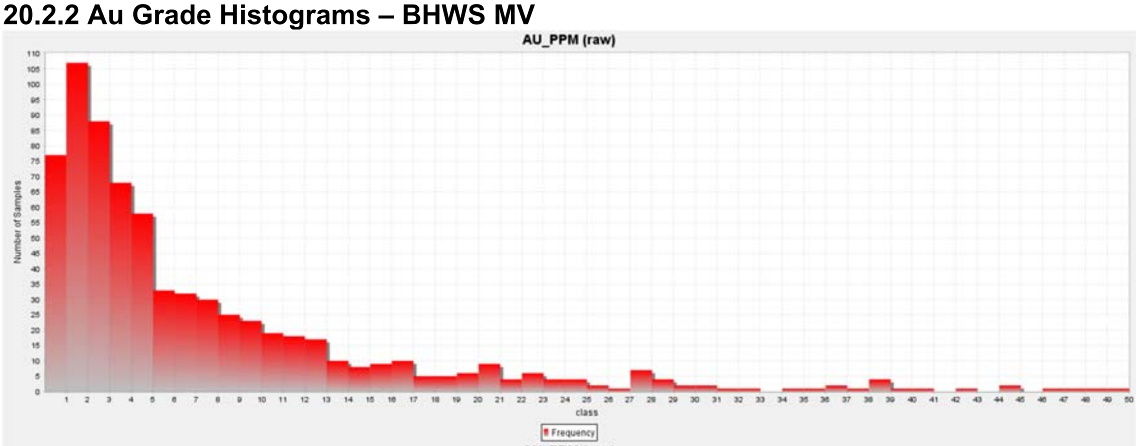
20.2 Histograms

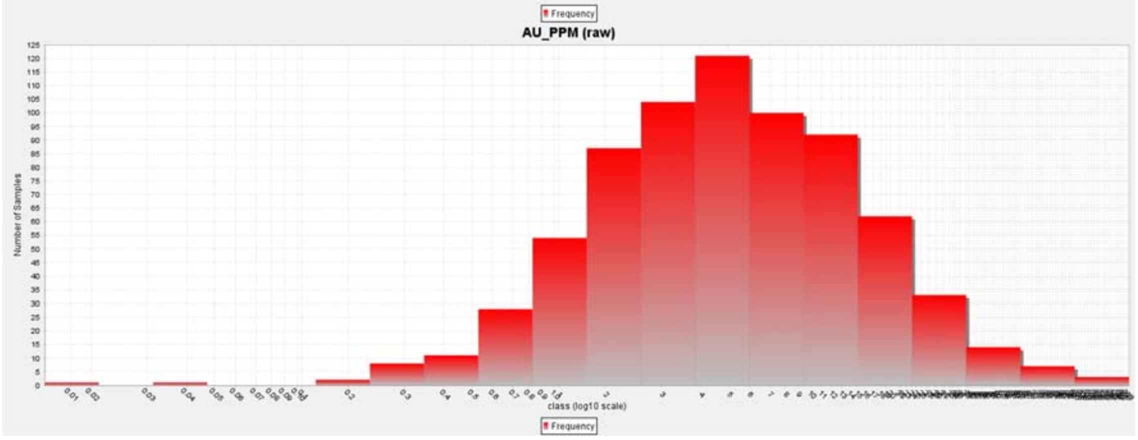
20.2.1 Au Grade Histograms – Bonanza MV



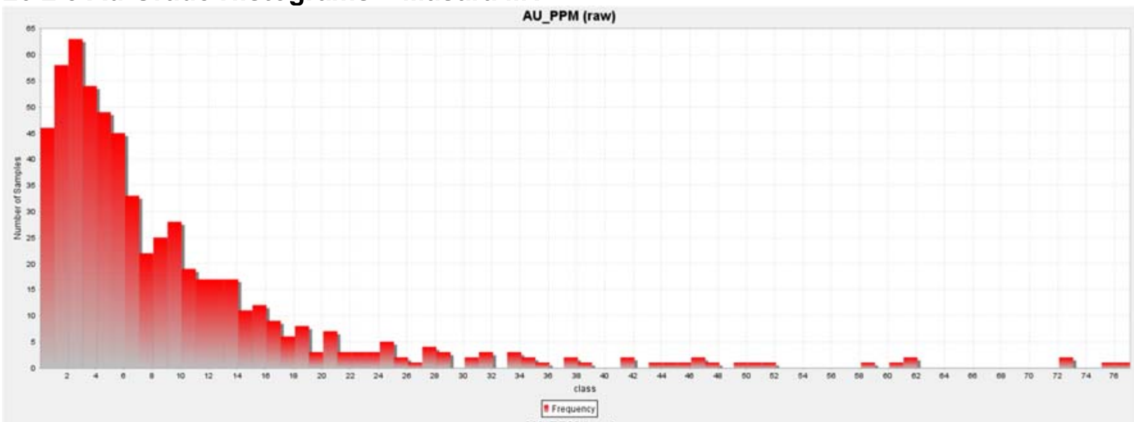


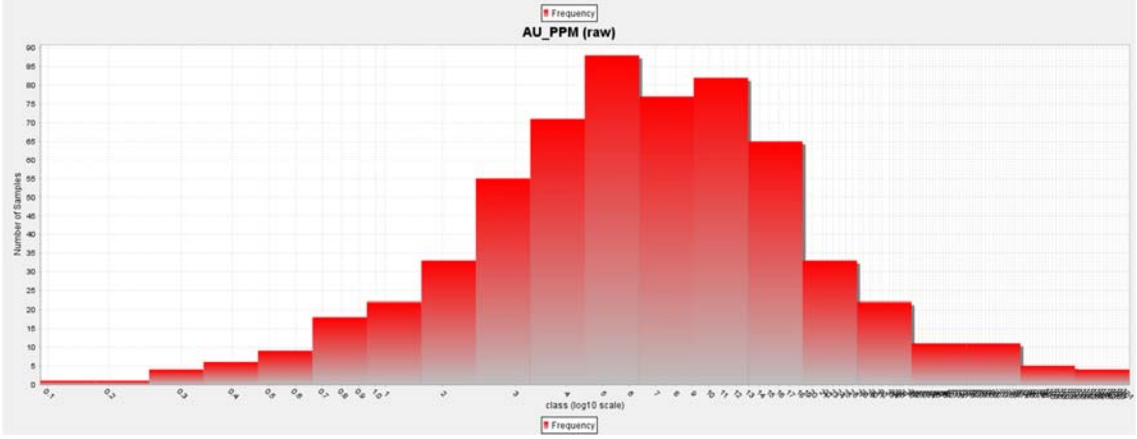
20.2.2 Au Grade Histograms – BHWS MV



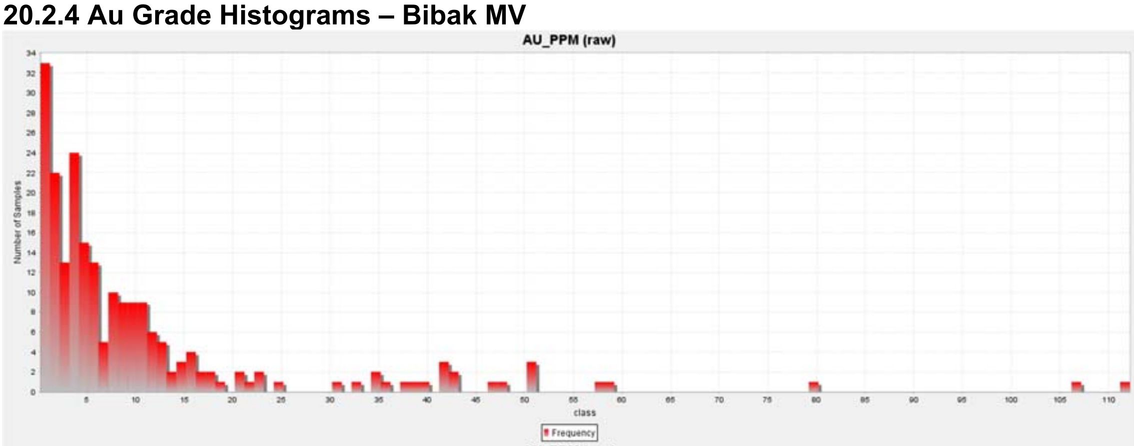


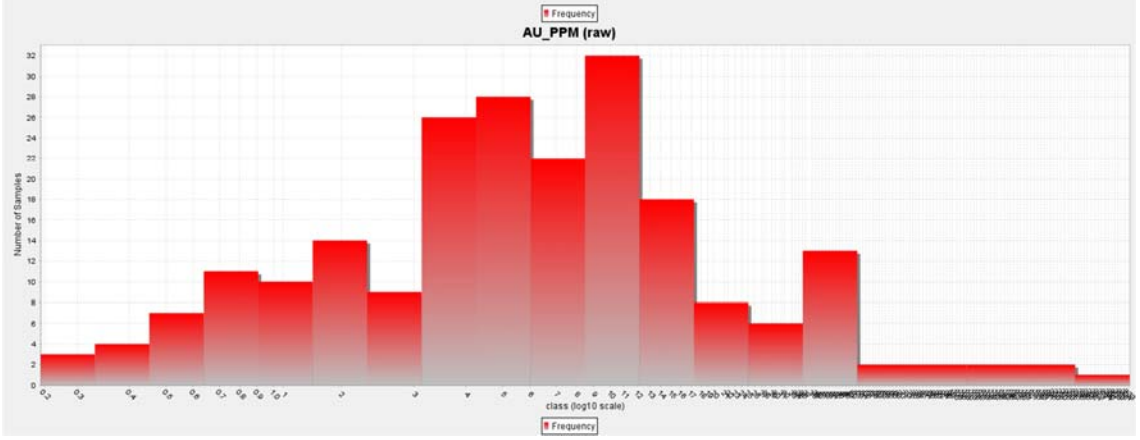
20.2.3 Au Grade Histograms – Masara MV



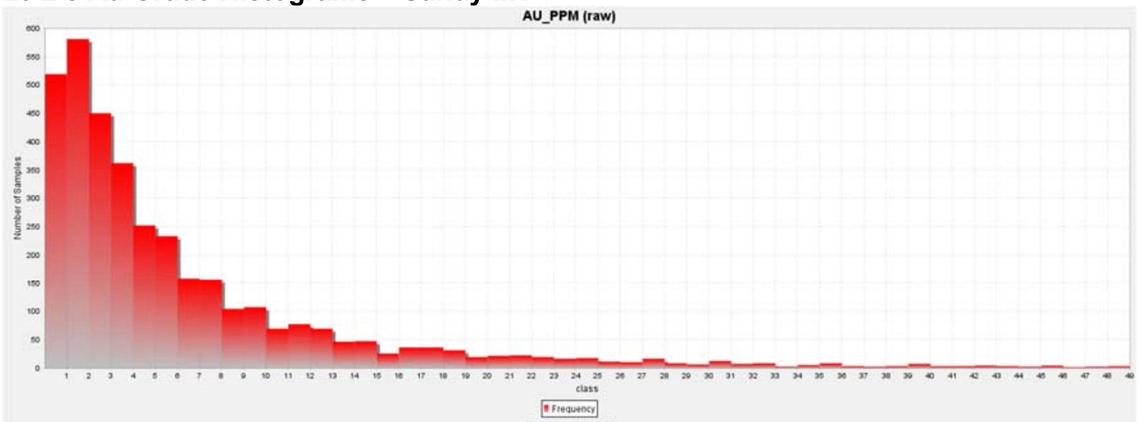


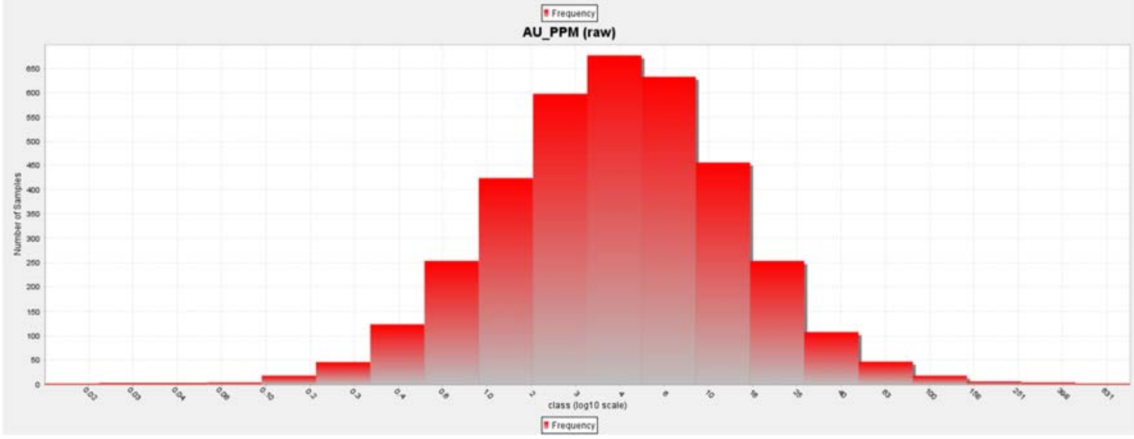
20.2.4 Au Grade Histograms – Bibak MV



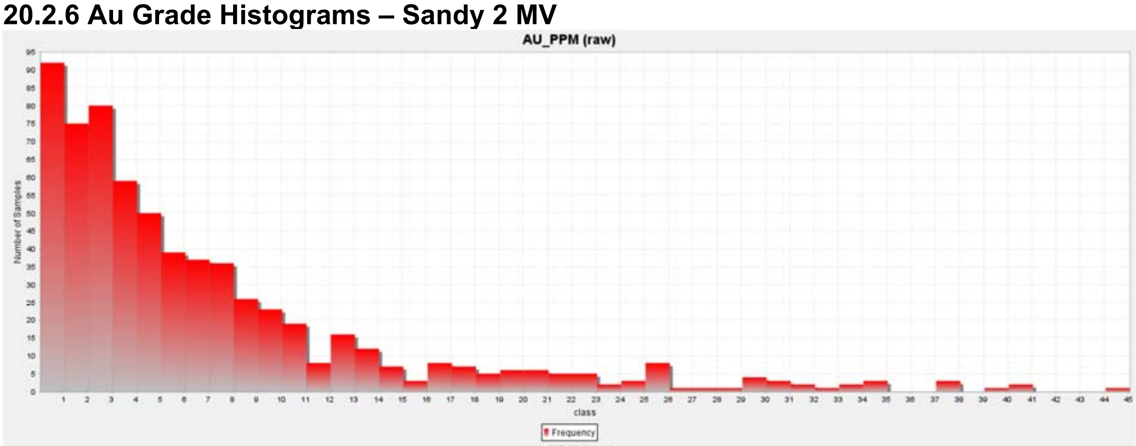


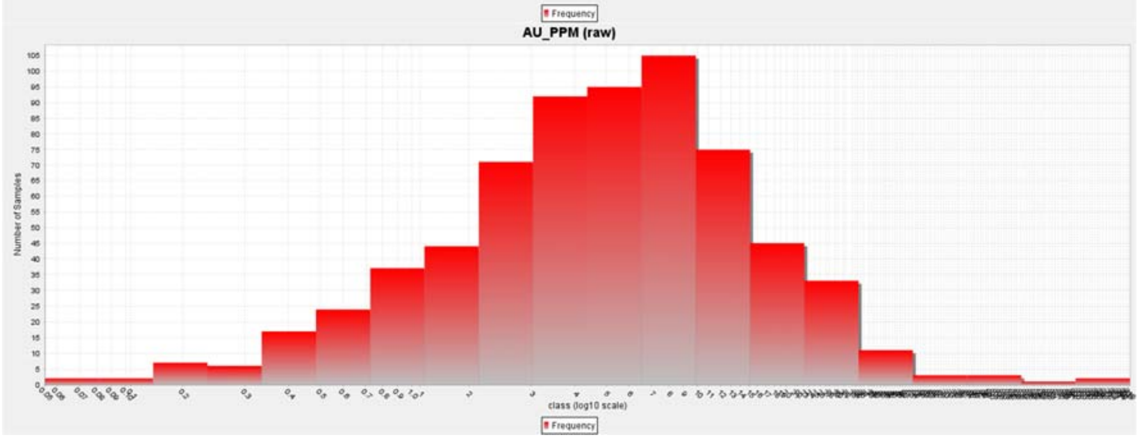
20.2.5 Au Grade Histograms – Sandy MV



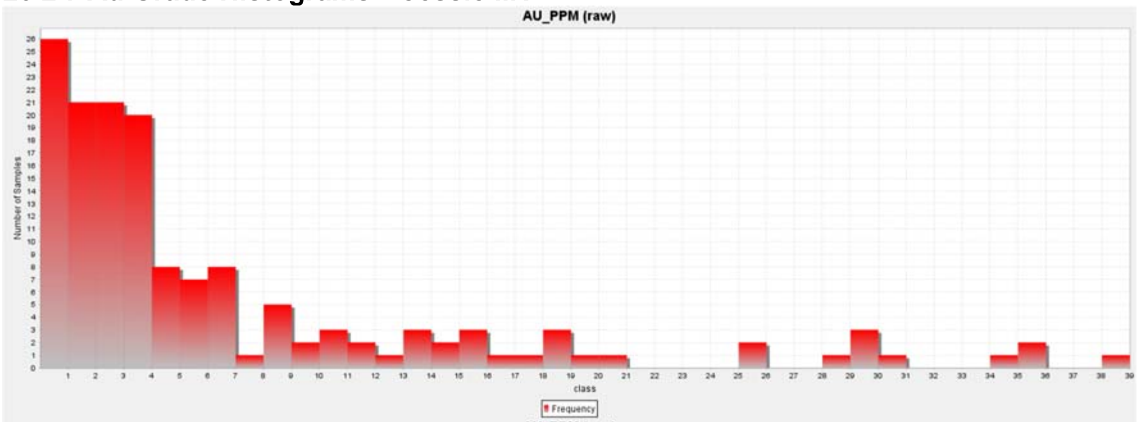


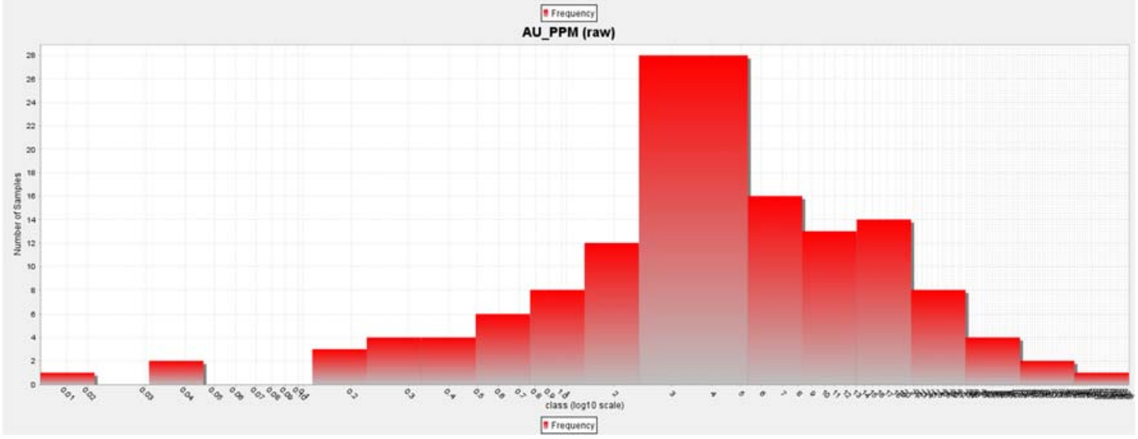
20.2.6 Au Grade Histograms – Sandy 2 MV



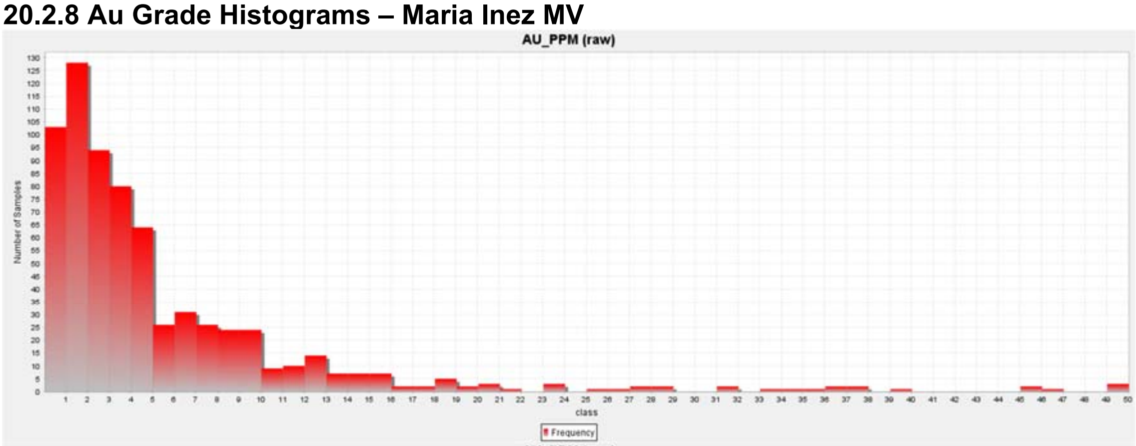


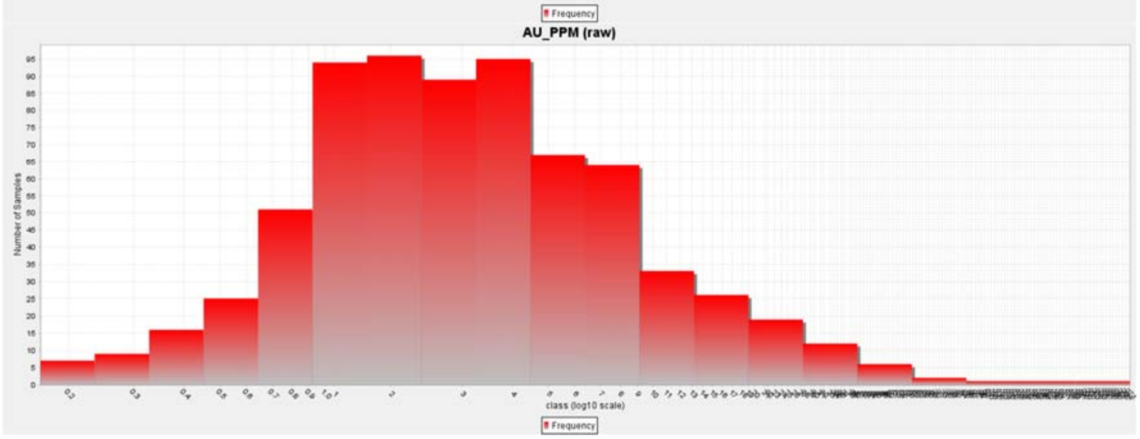
20.2.7 Au Grade Histograms – Jessie MV



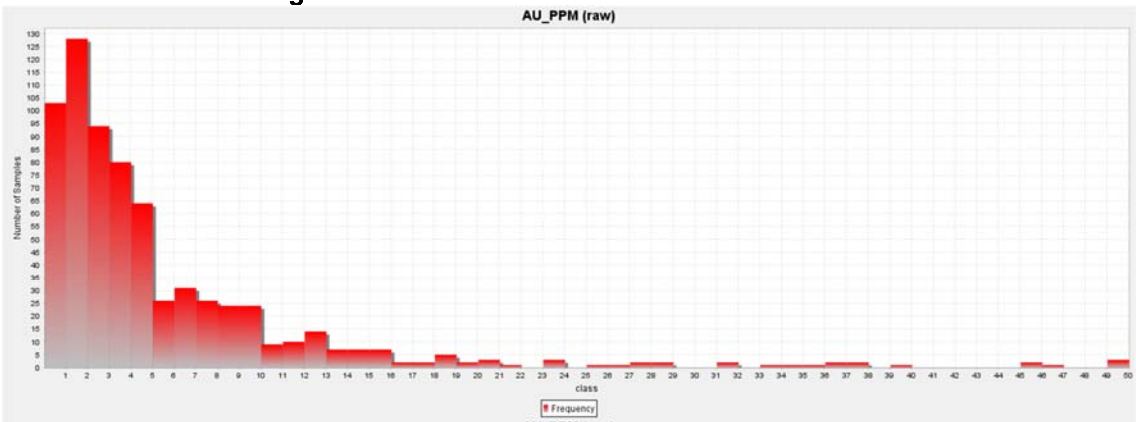


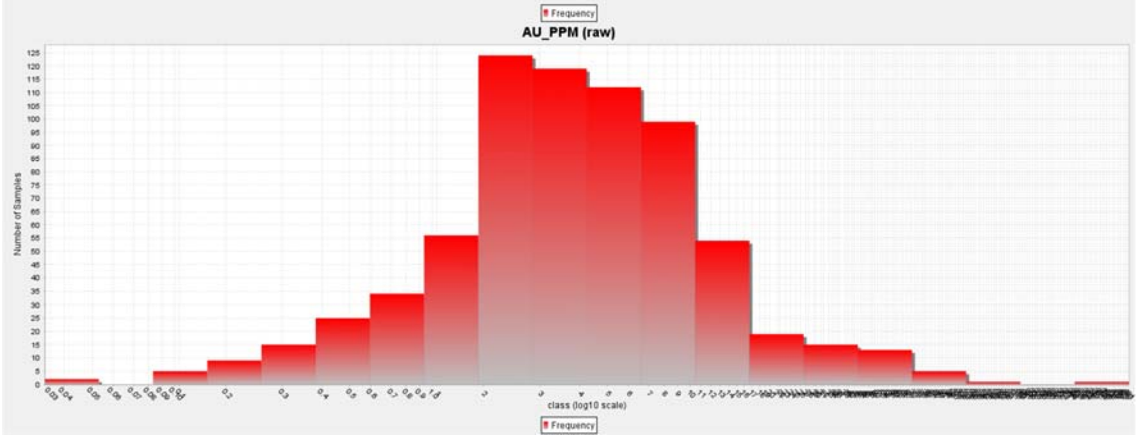
20.2.8 Au Grade Histograms – Maria Inez MV



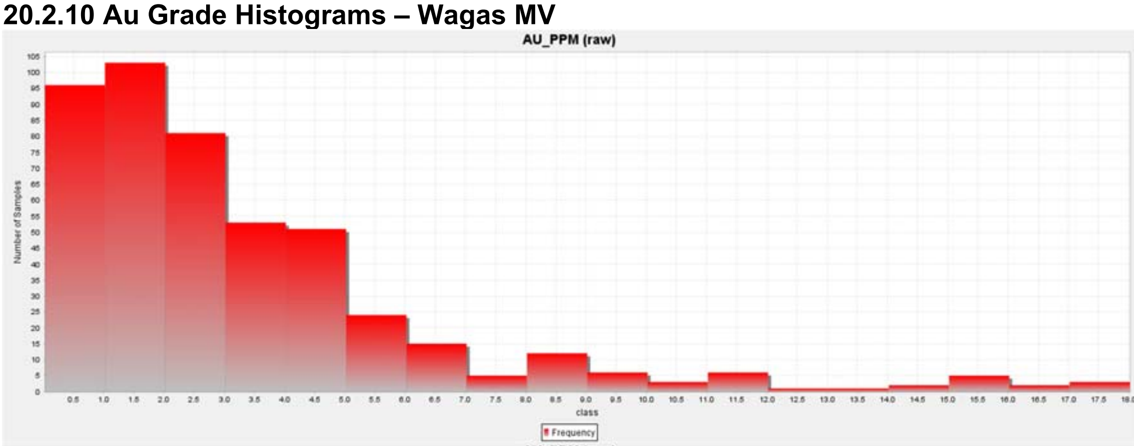


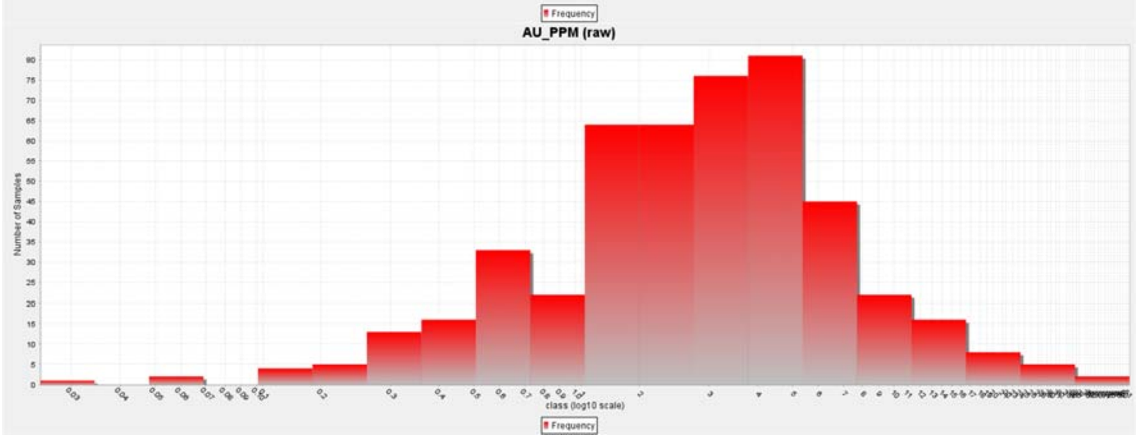
20.2.9 Au Grade Histograms – Maria Inez HWS



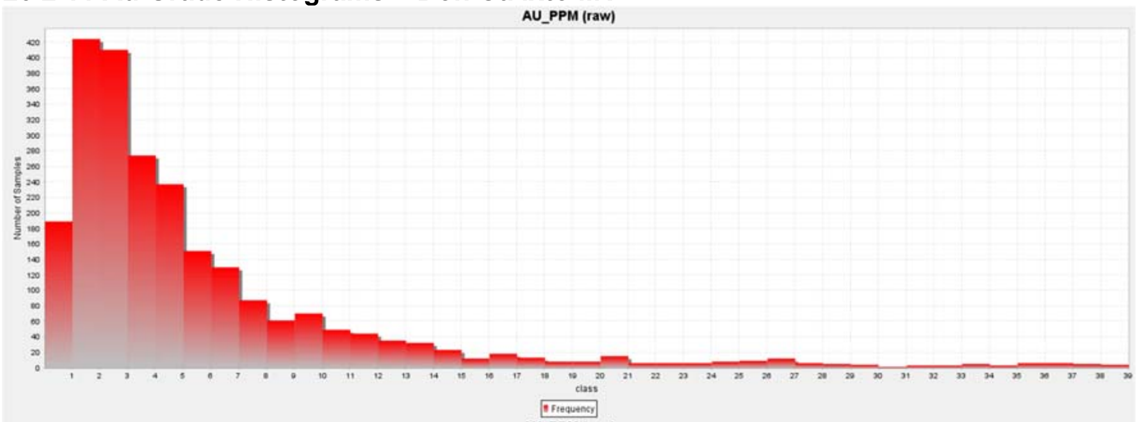


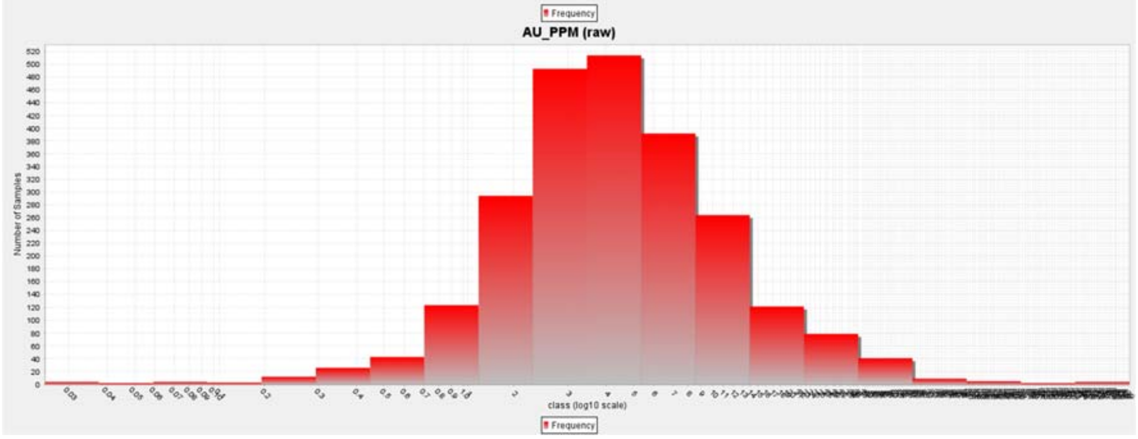
20.2.10 Au Grade Histograms – Wagas MV



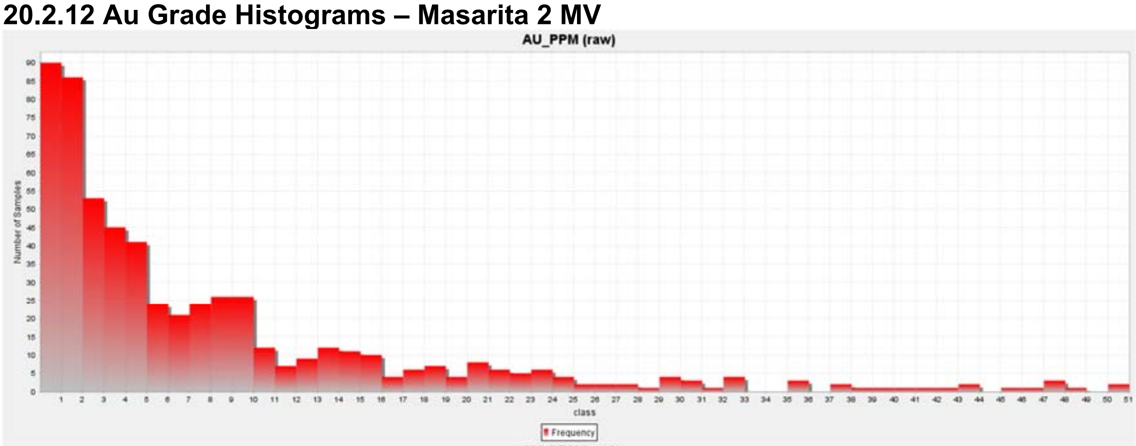


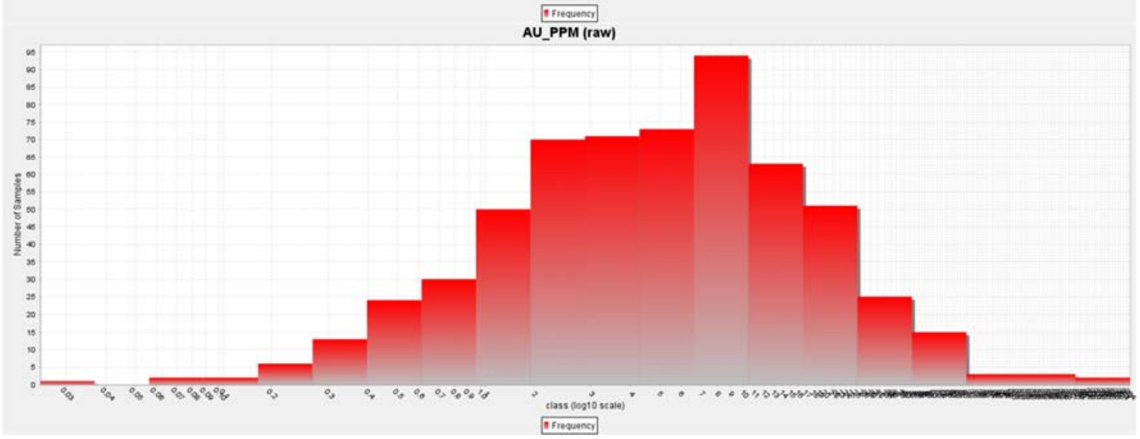
20.2.11 Au Grade Histograms – Don Calixto MV



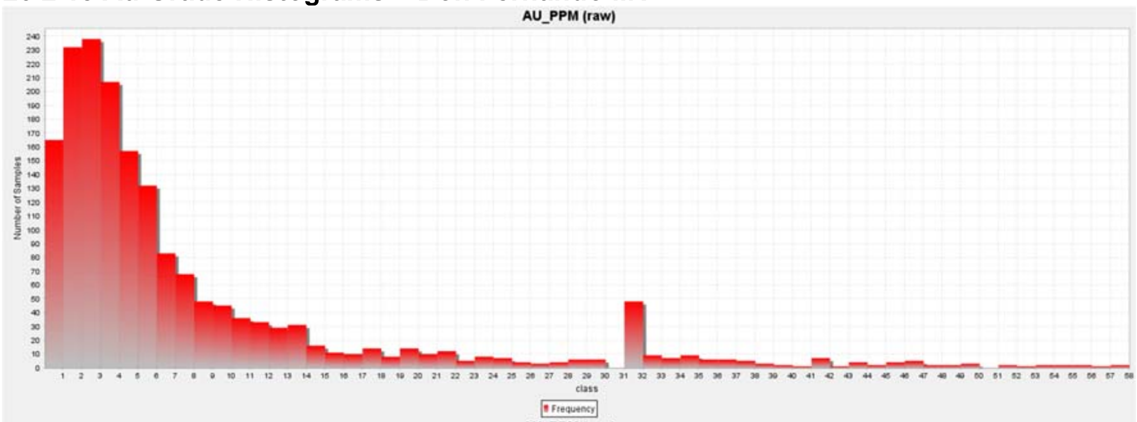


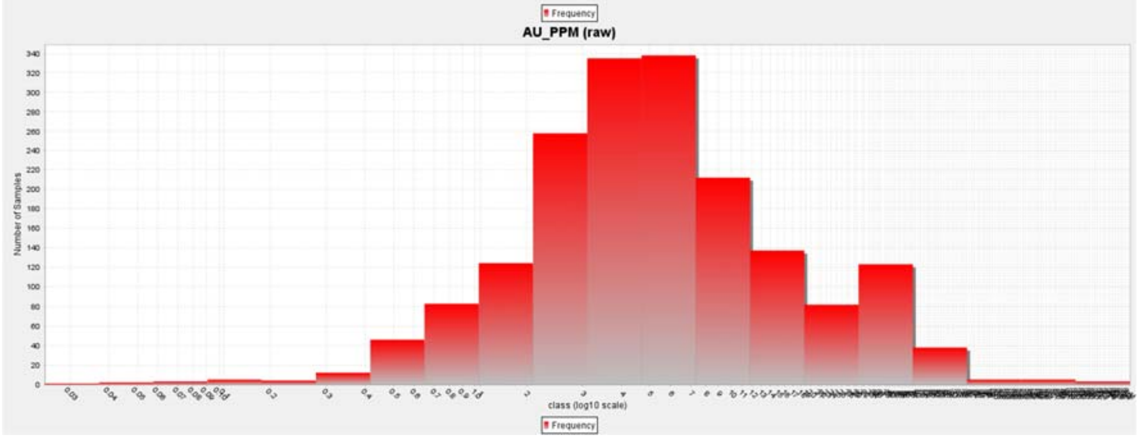
20.2.12 Au Grade Histograms – Masarita 2 MV



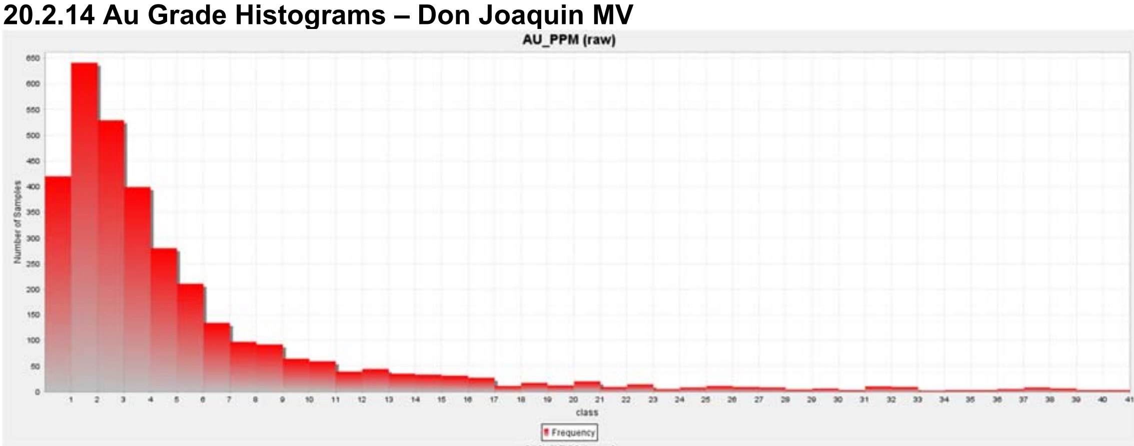


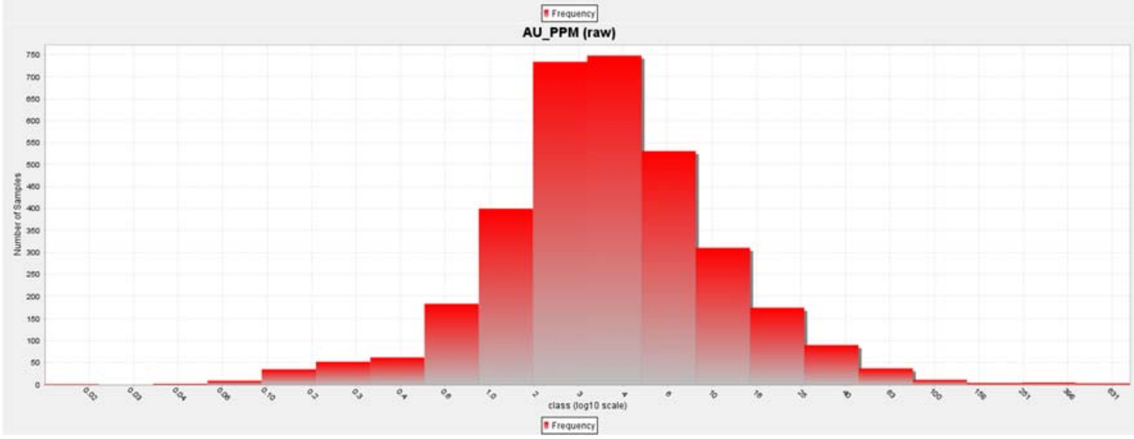
20.2.13 Au Grade Histograms – Don Fernando MV



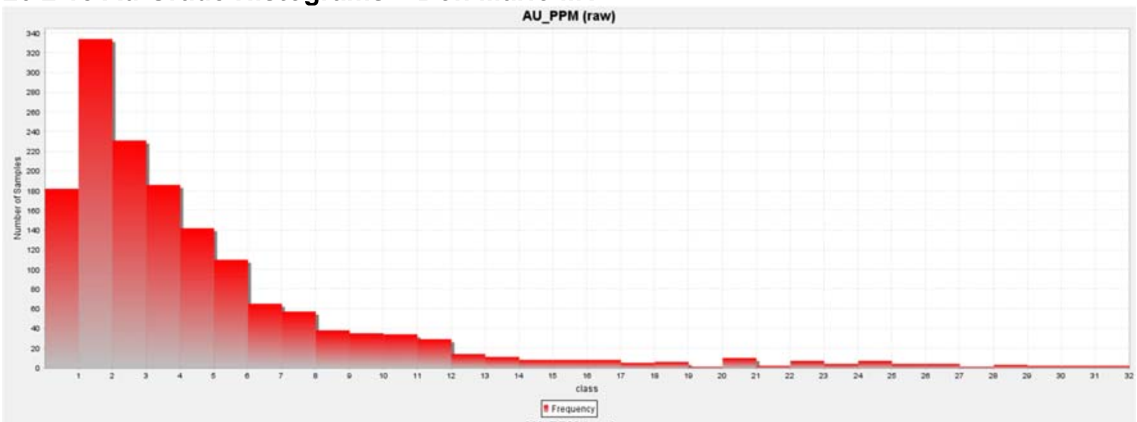


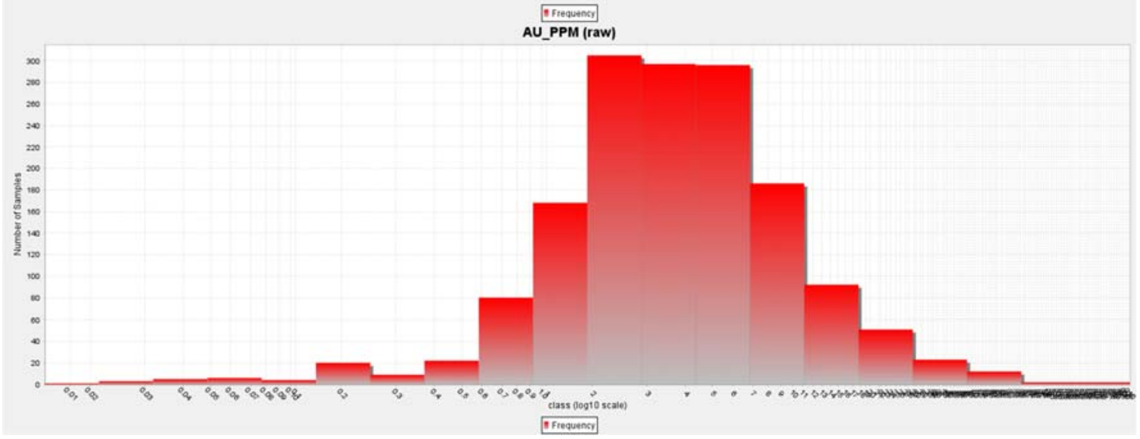
20.2.14 Au Grade Histograms – Don Joaquin MV





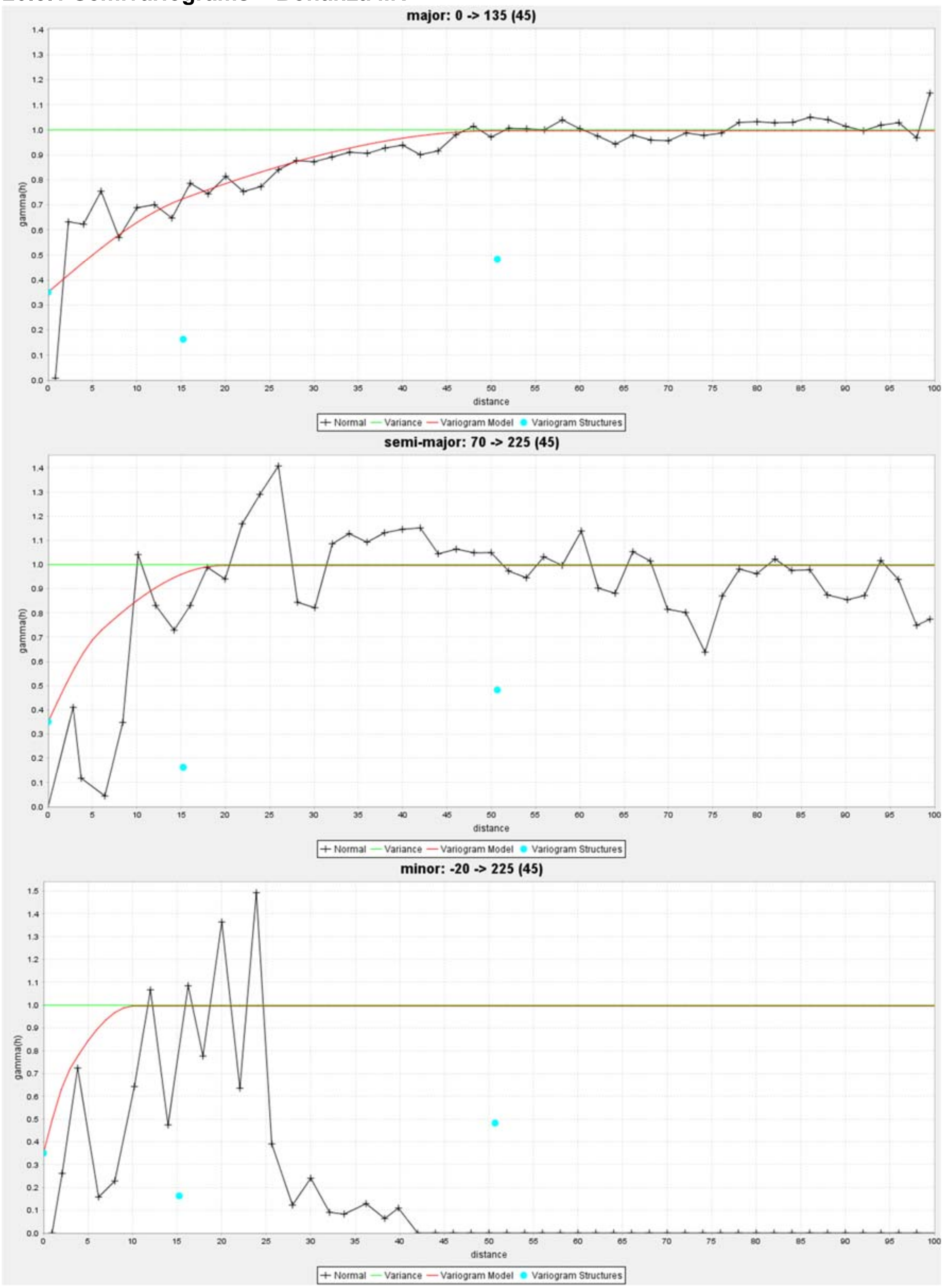
20.2.15 Au Grade Histograms – Don Mario MV



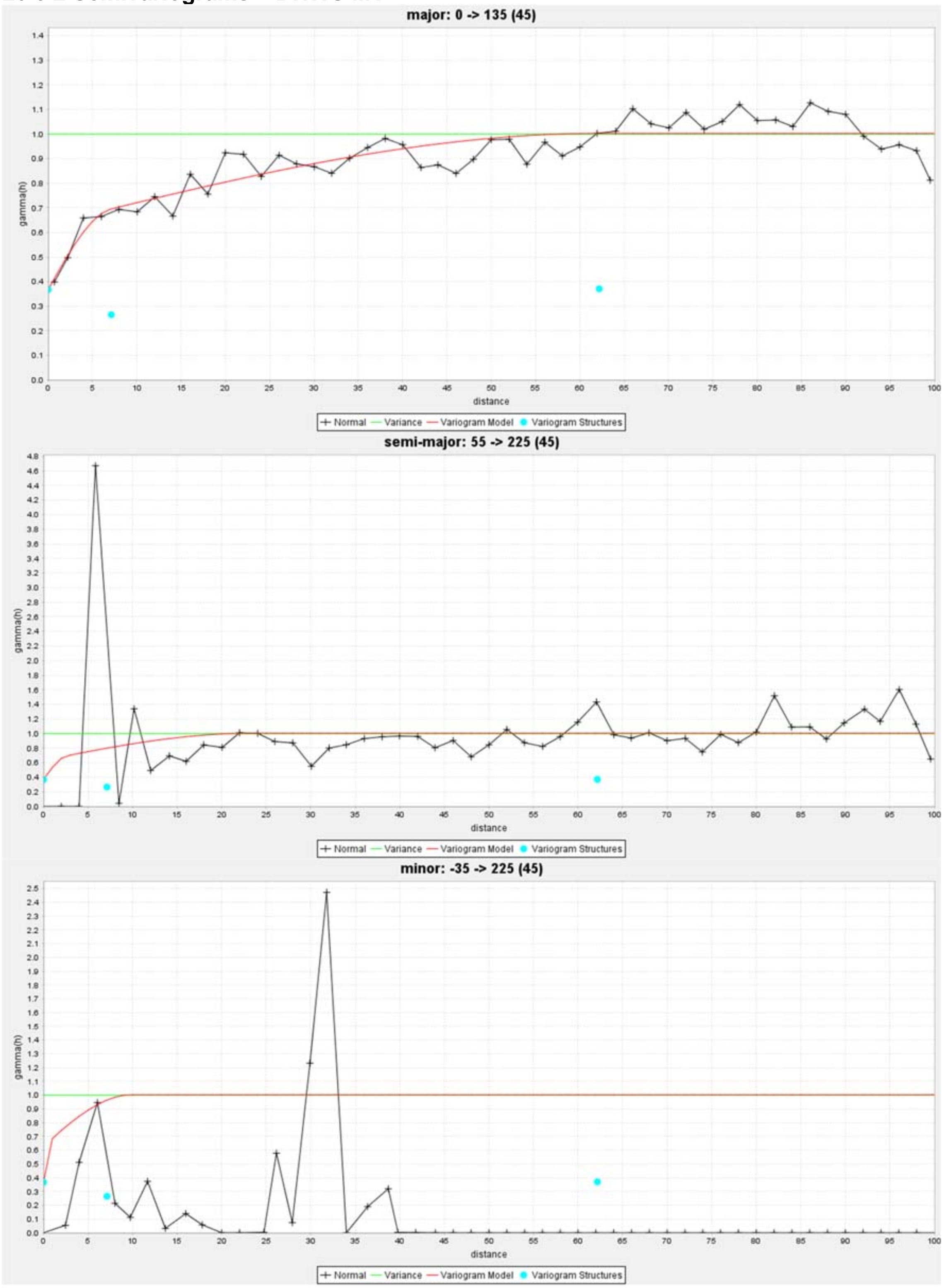


20.3 Semivariograms

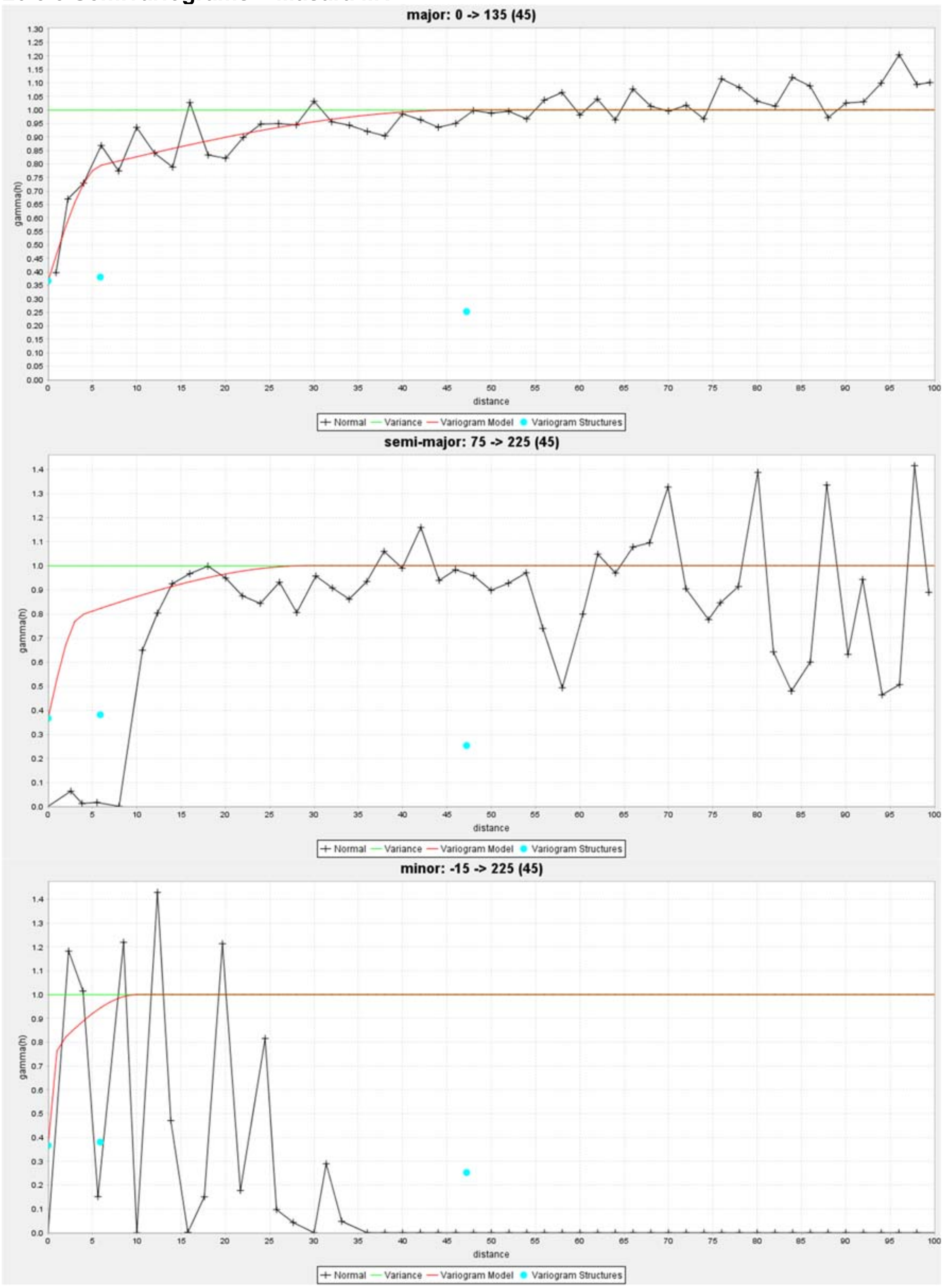
20.3.1 Semivariograms – Bonanza MV



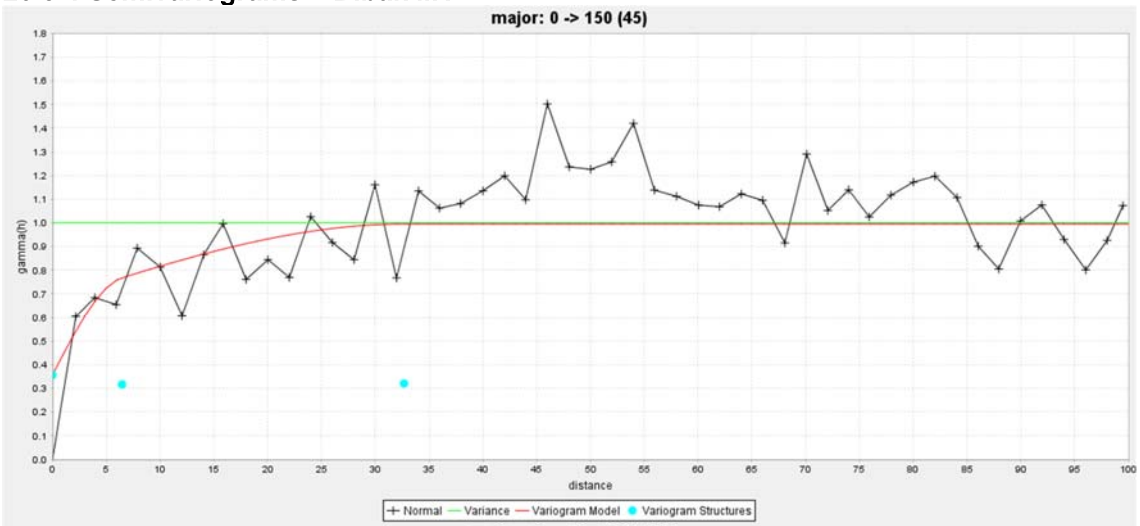
20.3.2 Semivariograms – BHWS MV

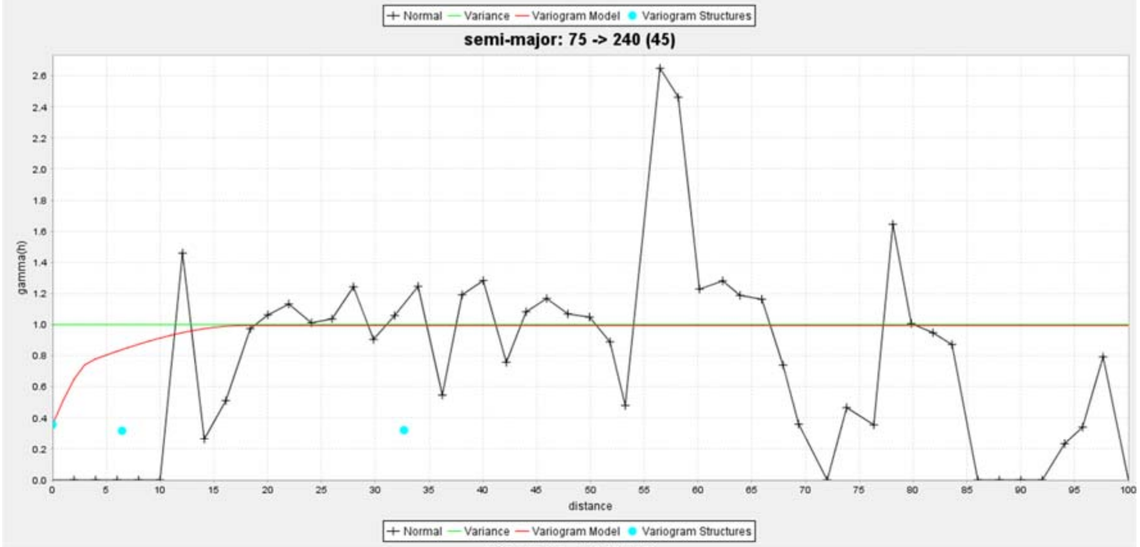


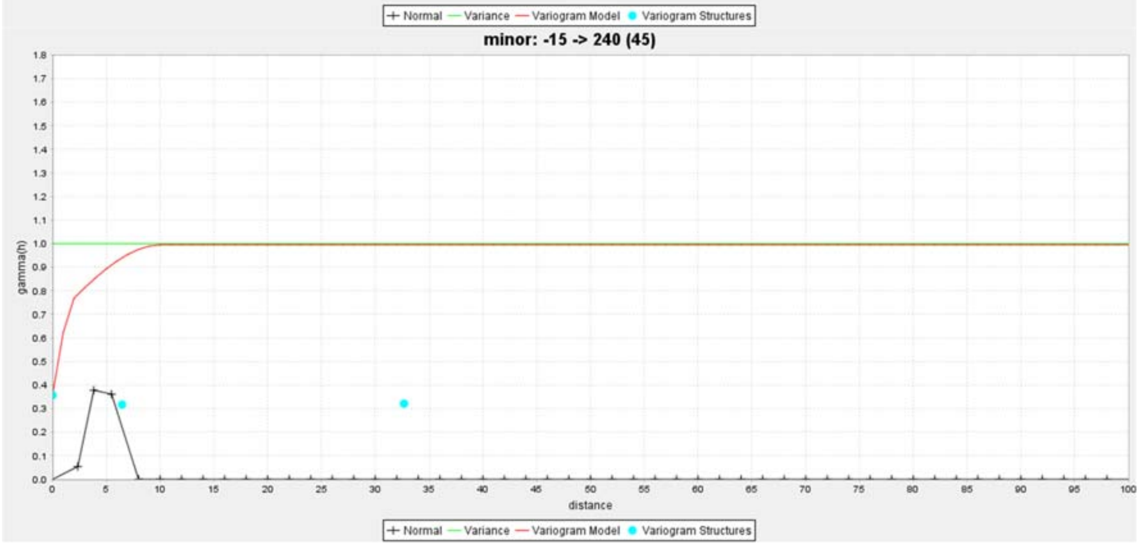
20.3.3 Semivariograms – Masara MV



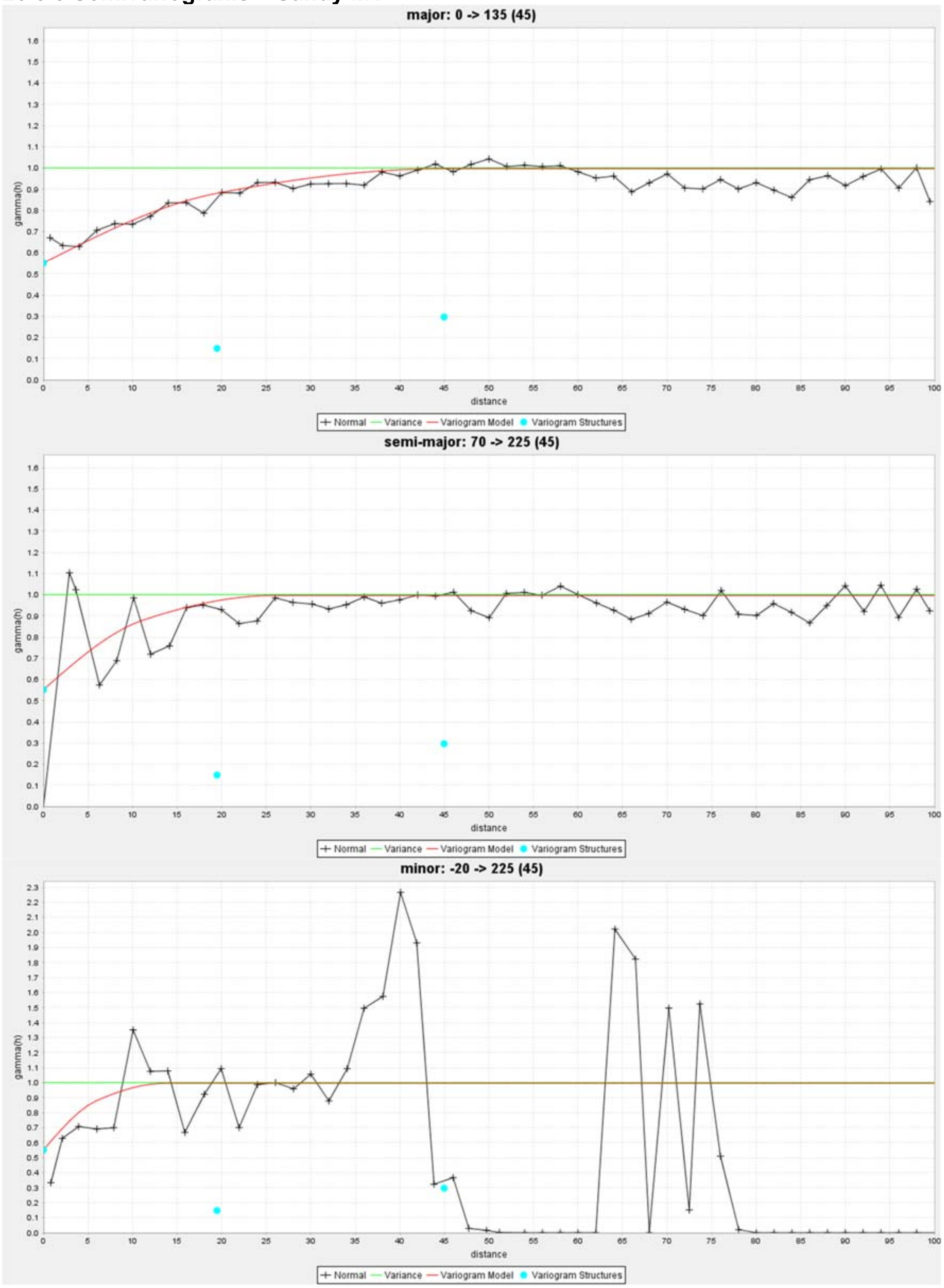
20.3.4 Semivariograms – Bibak MV



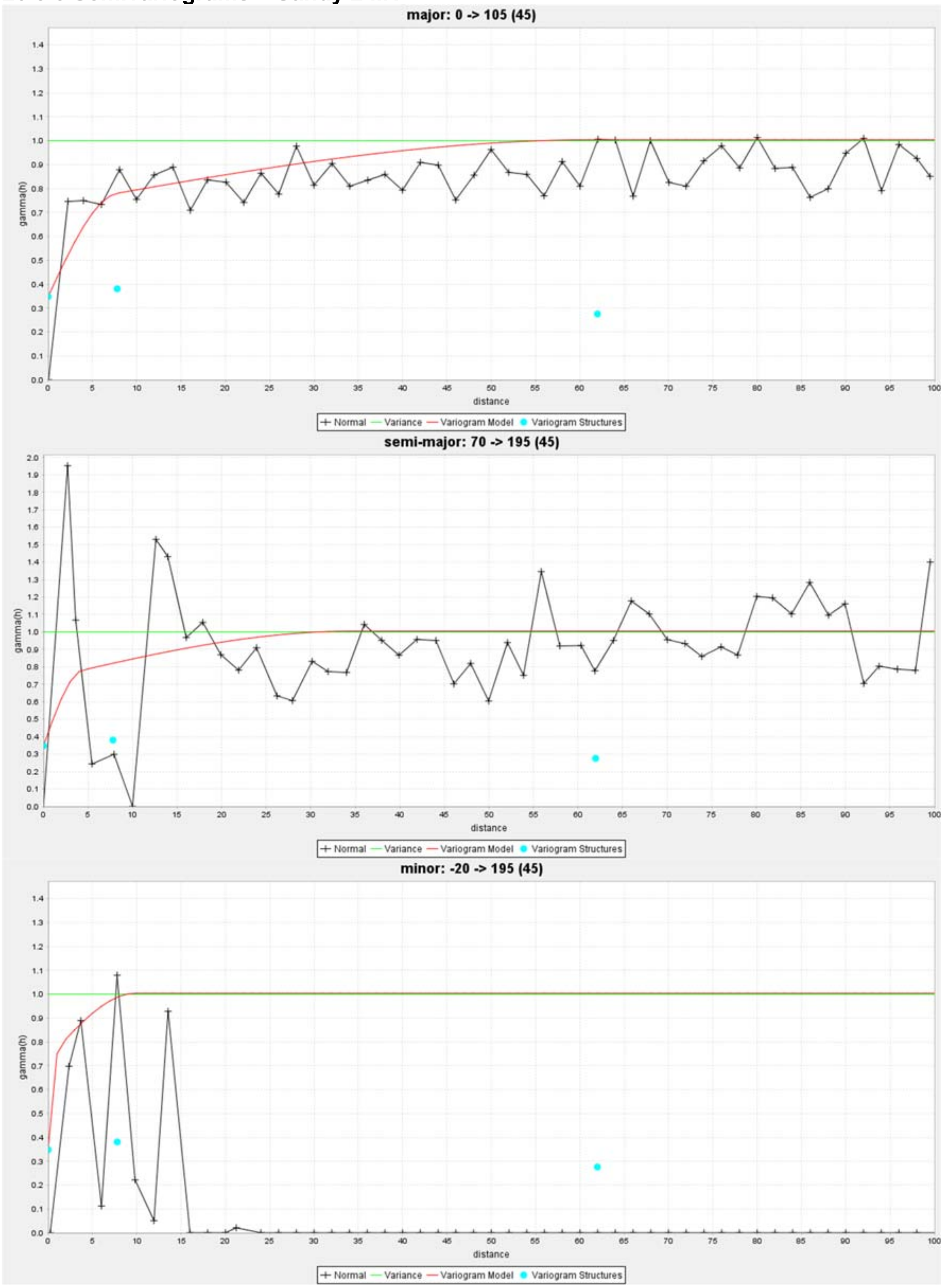




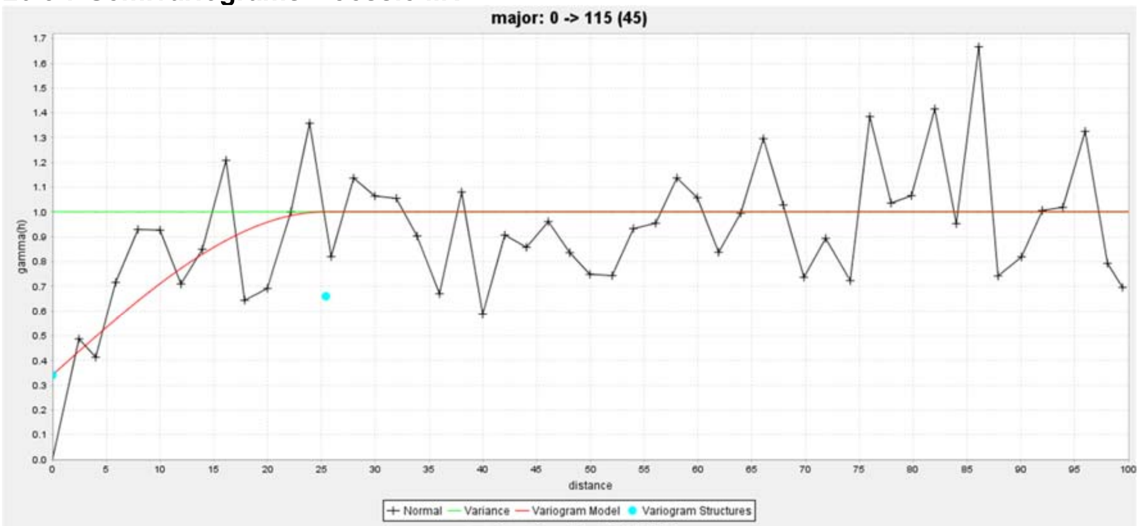
20.3.5 Semivariograms – Sandy MV

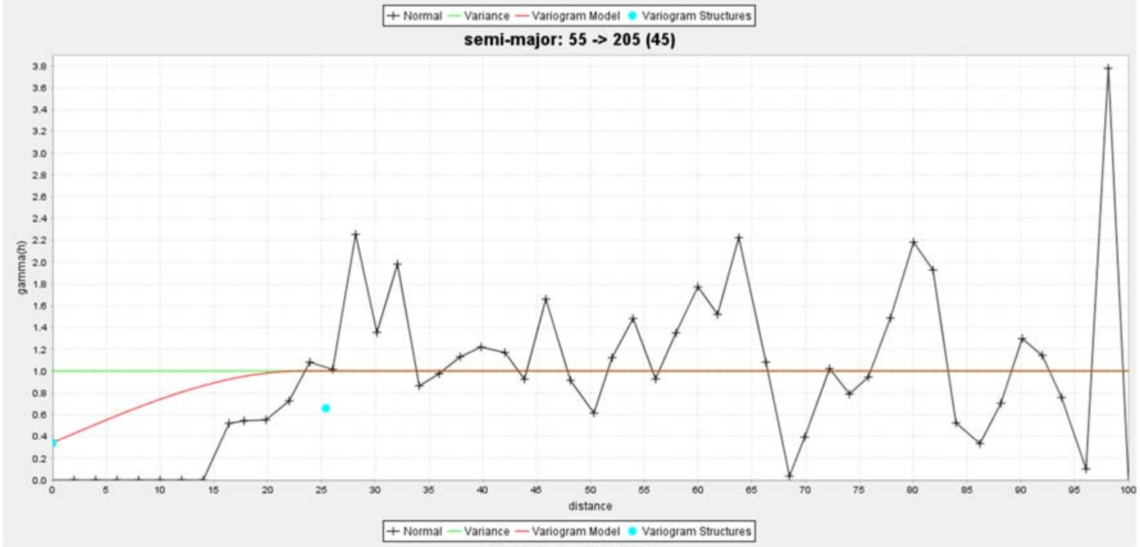


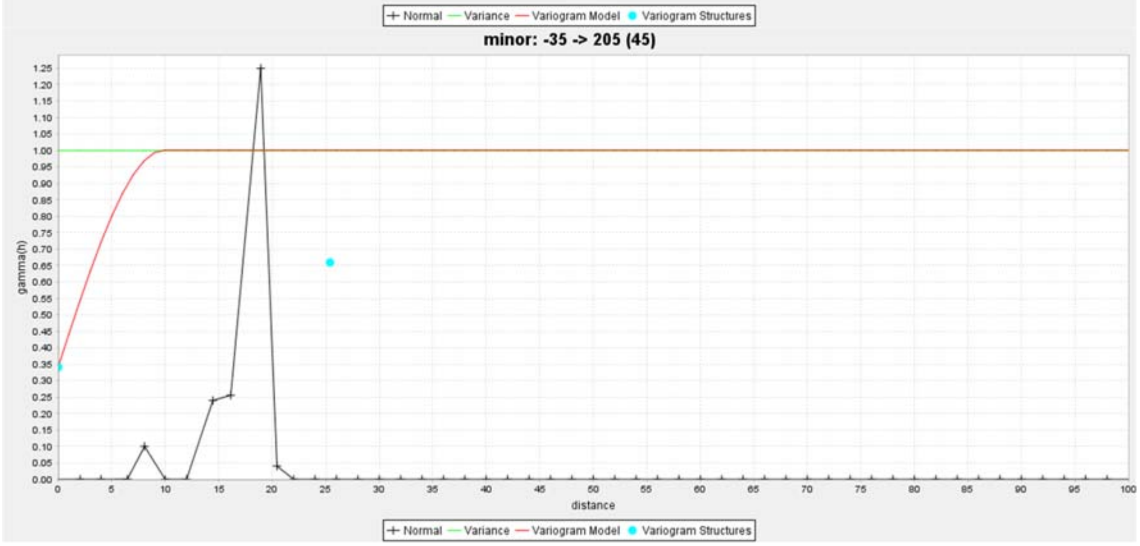
20.3.6 Semivariograms – Sandy 2 MV



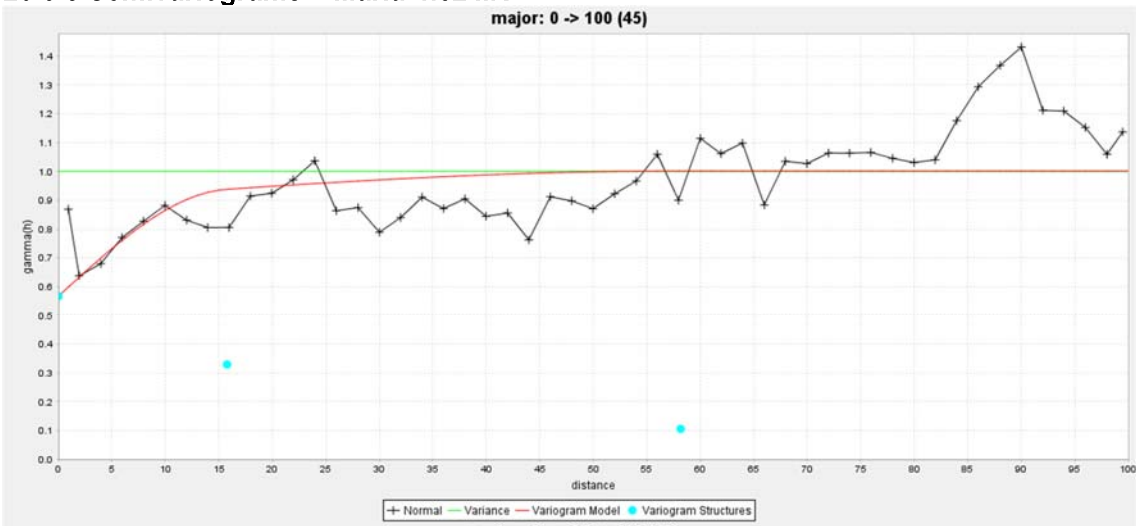
20.3.7 Semivariograms – Jessie MV

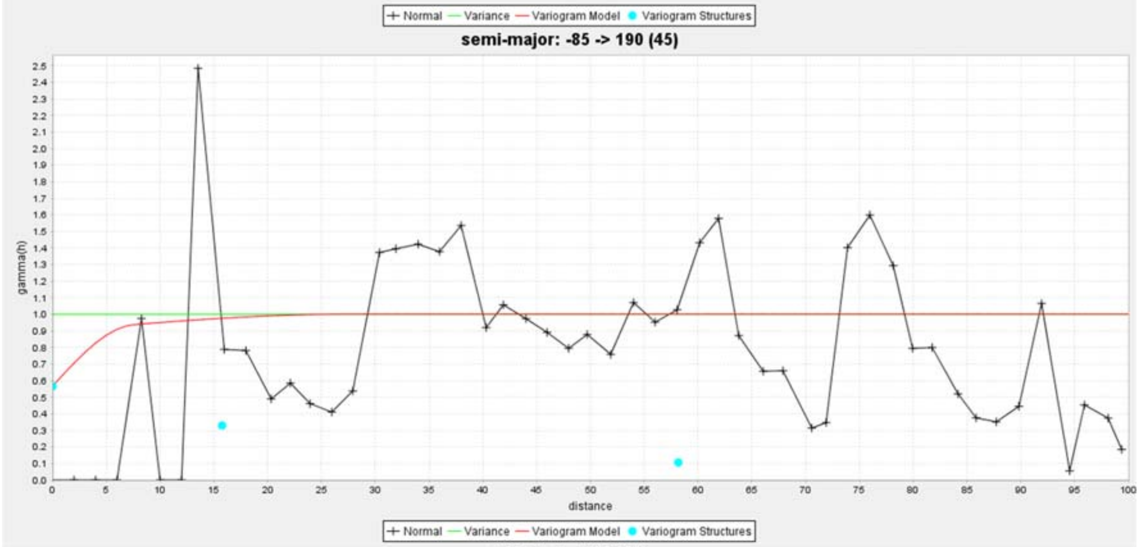


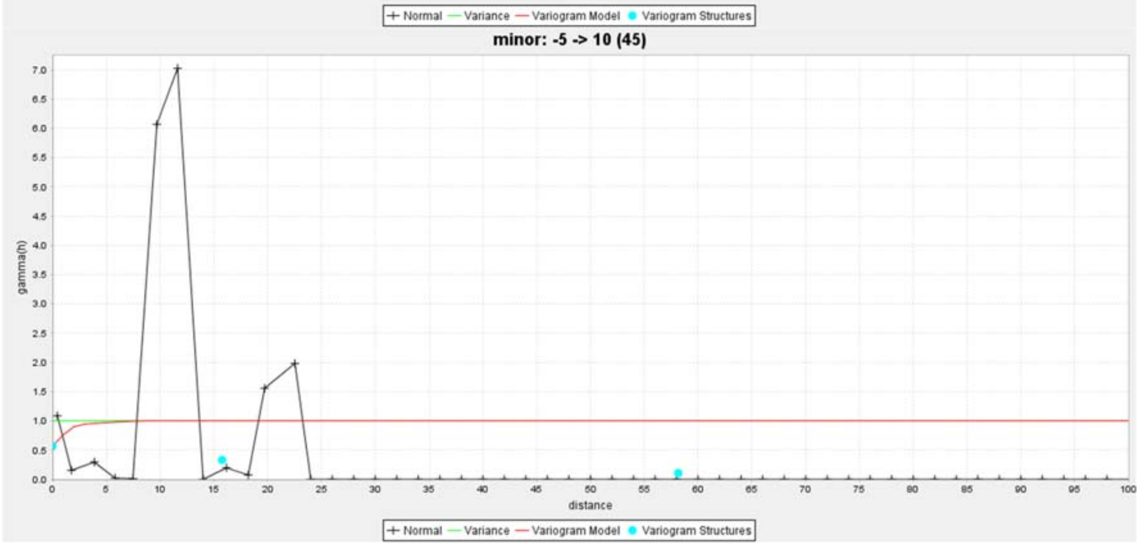




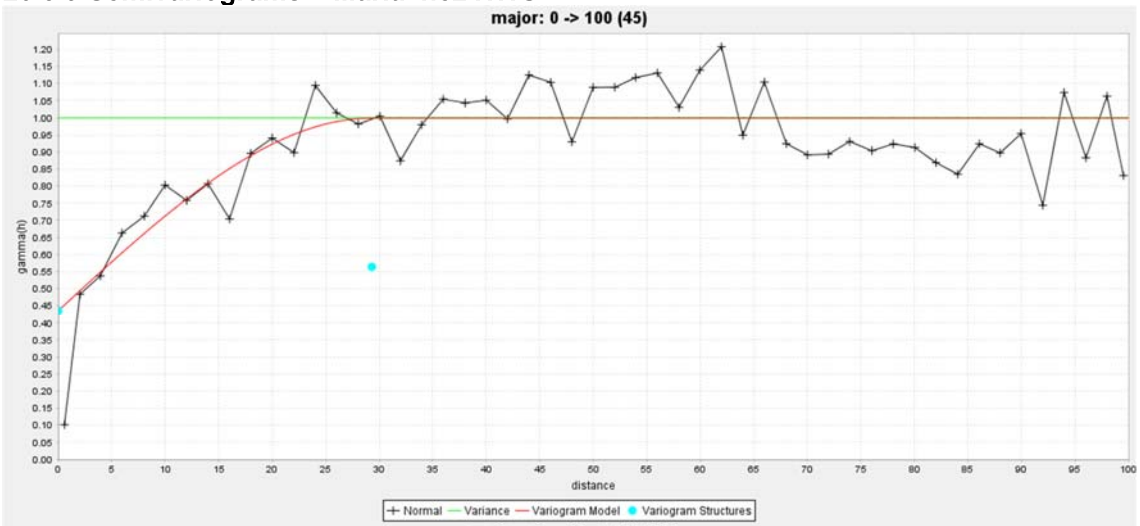
20.3.8 Semivariograms – Maria Inez MV

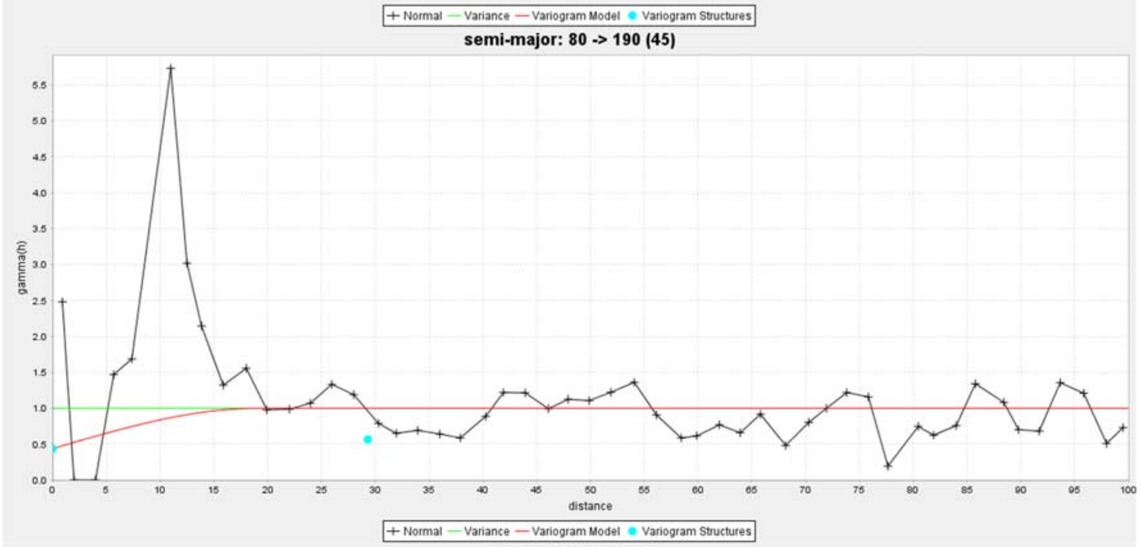


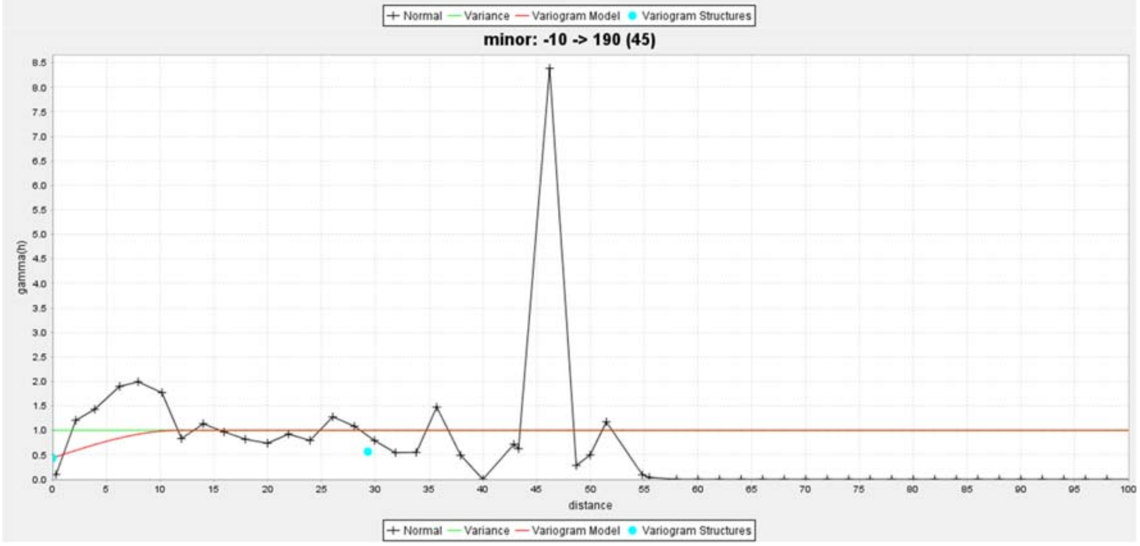




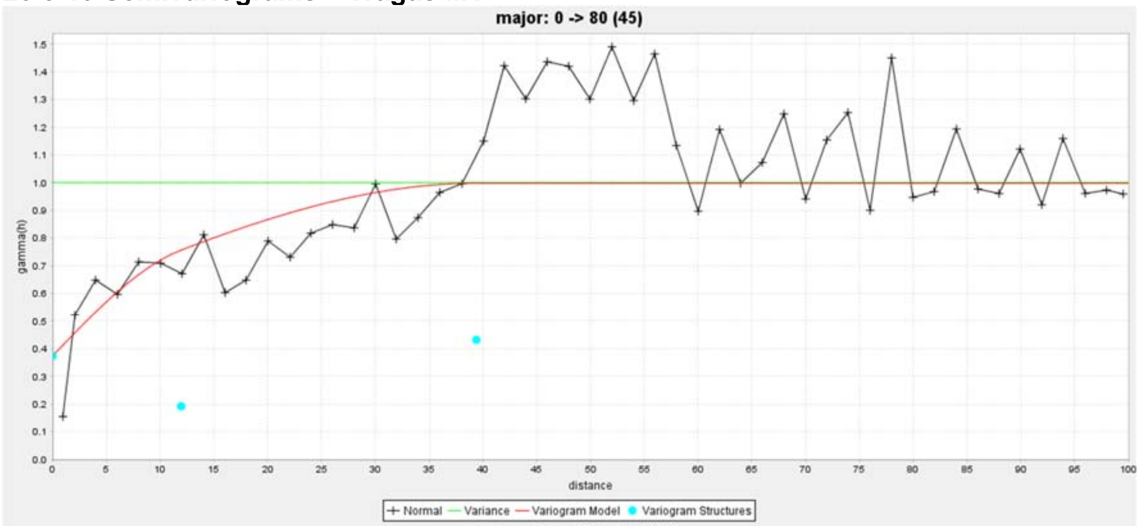
20.3.9 Semivariograms – Maria Inez HWS

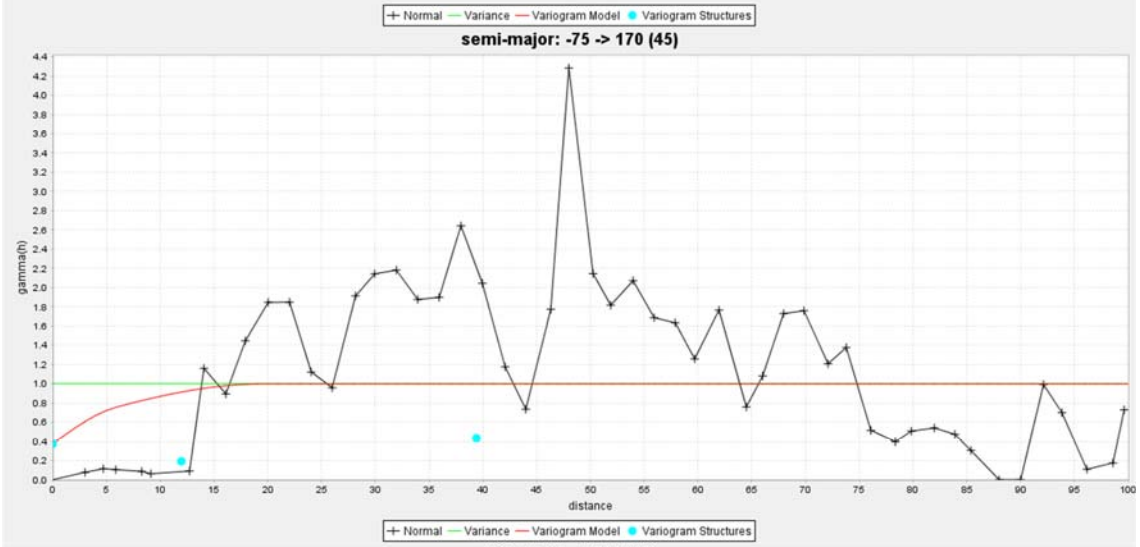


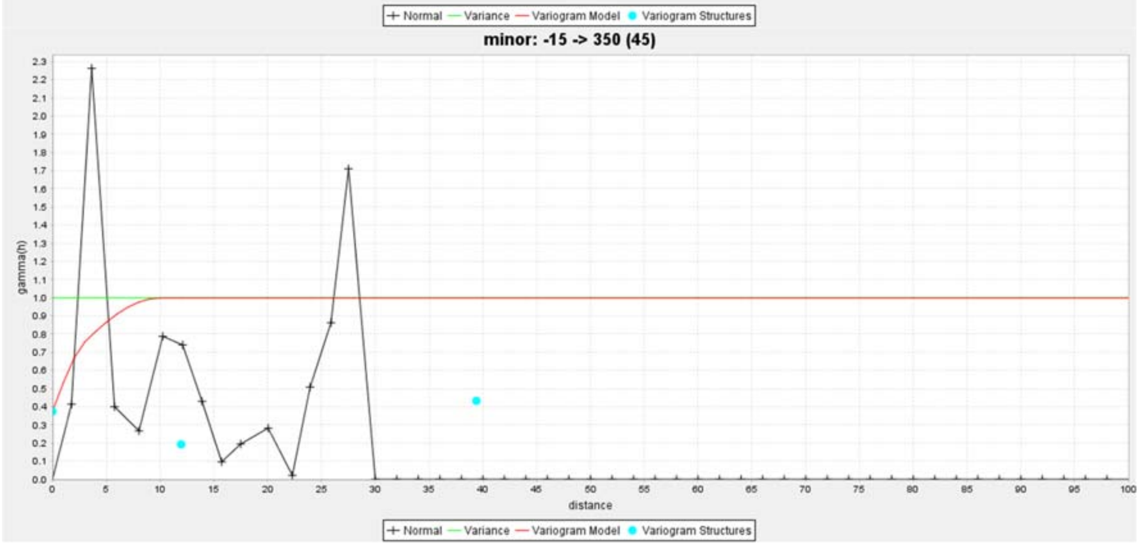




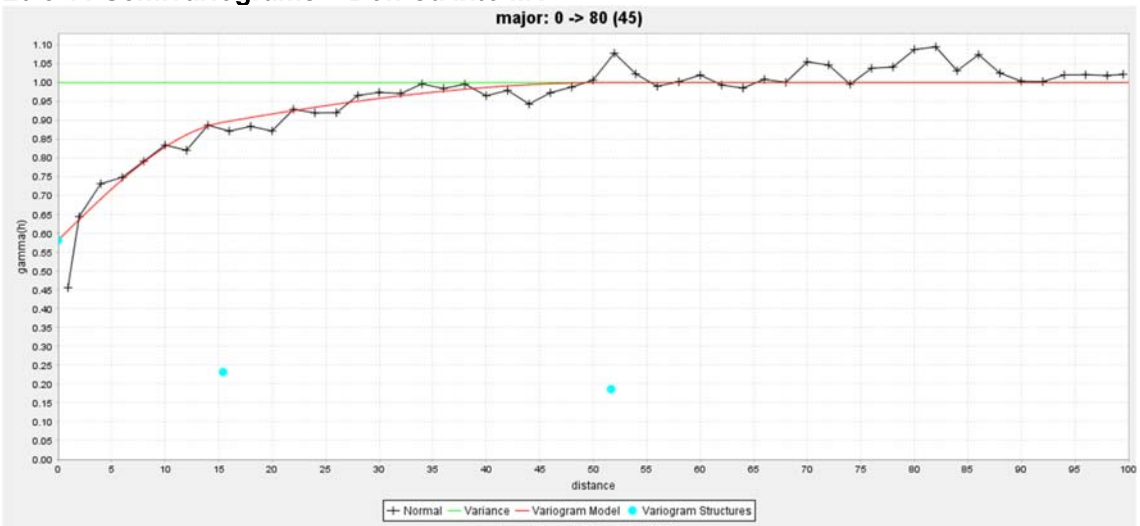
20.3.10 Semivariograms – Wagas MV

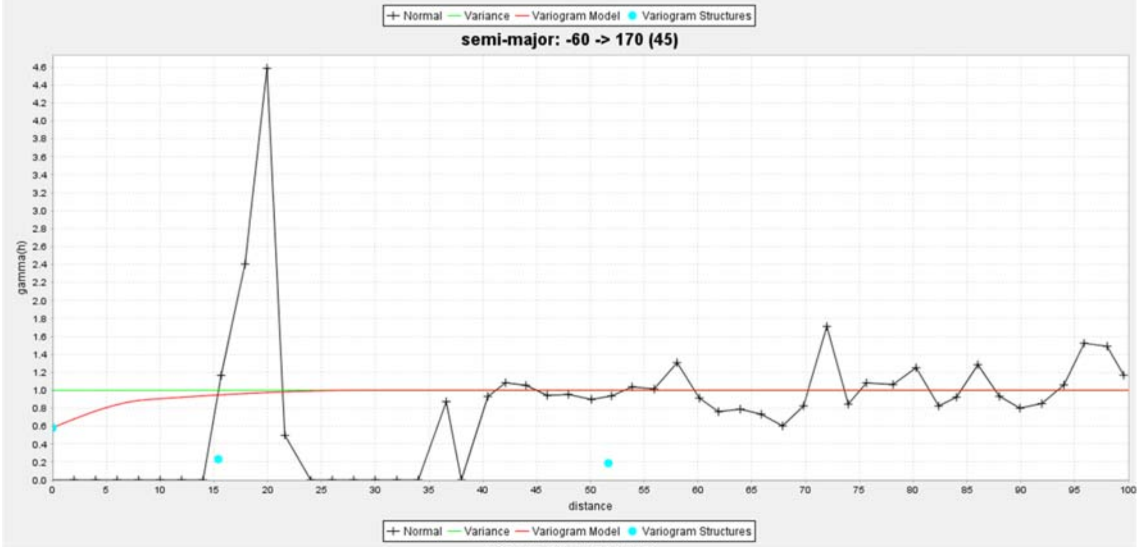


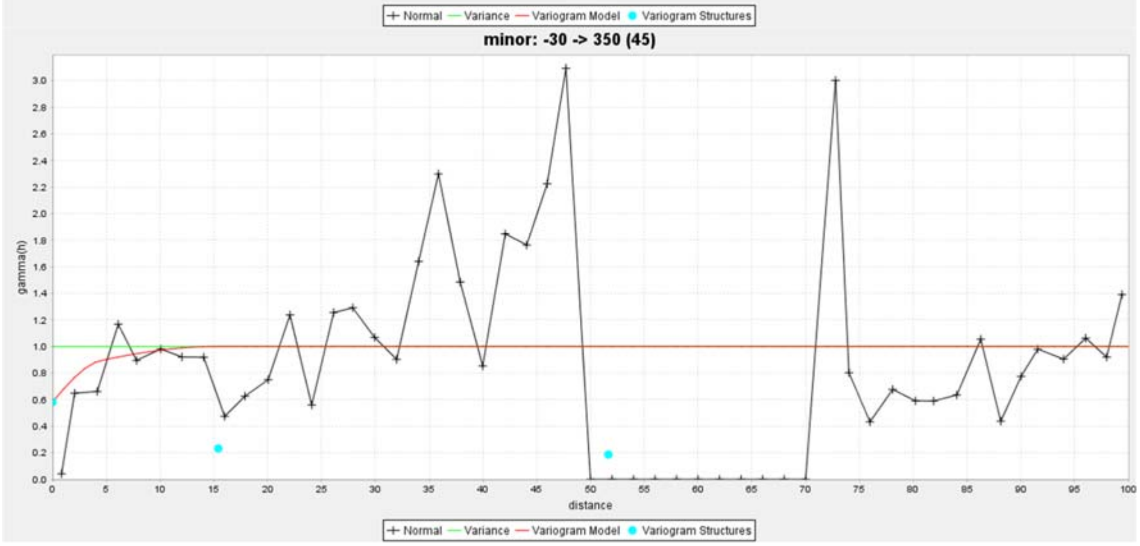




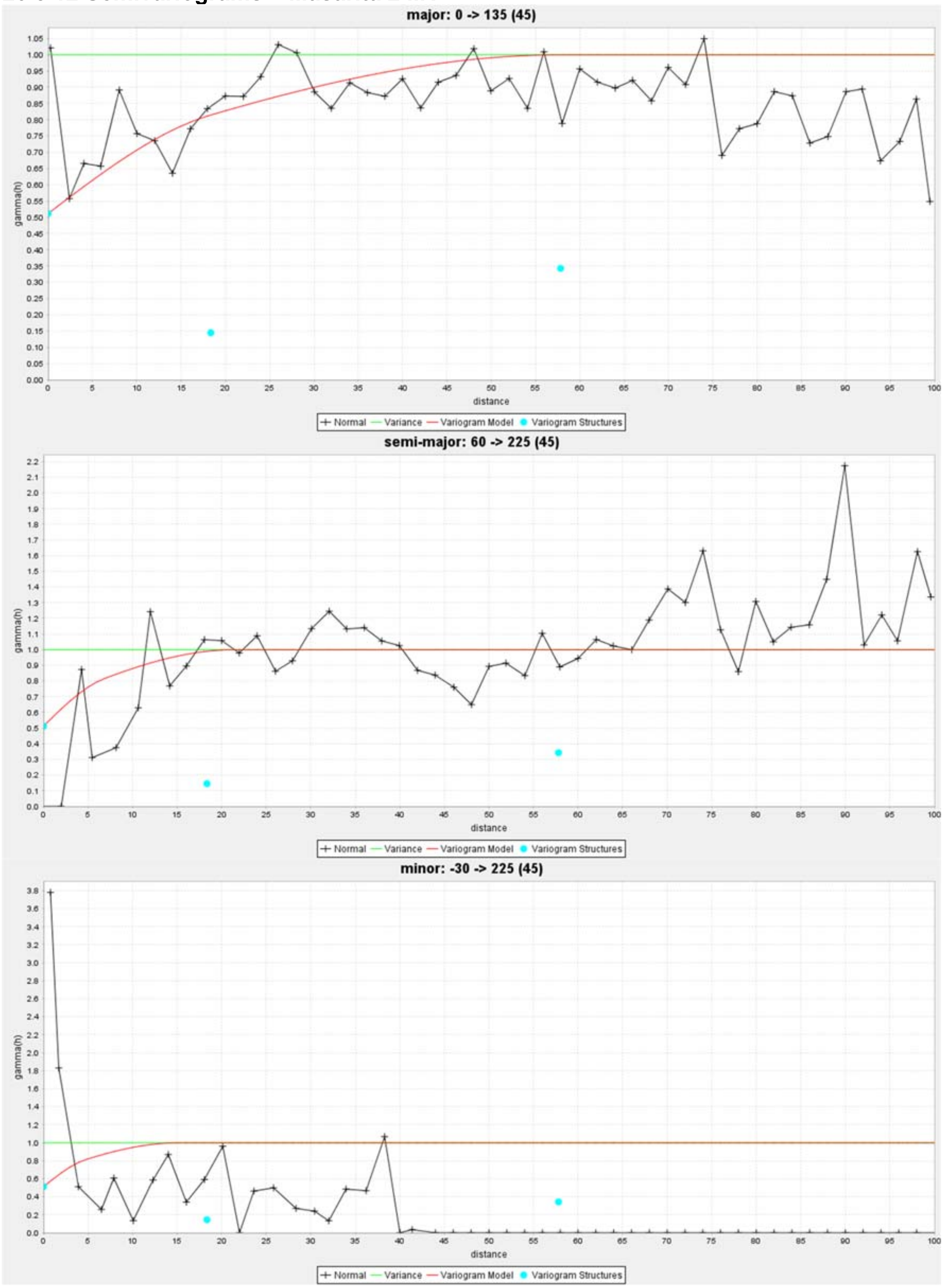
20.3.11 Semivariograms – Don Calixto MV



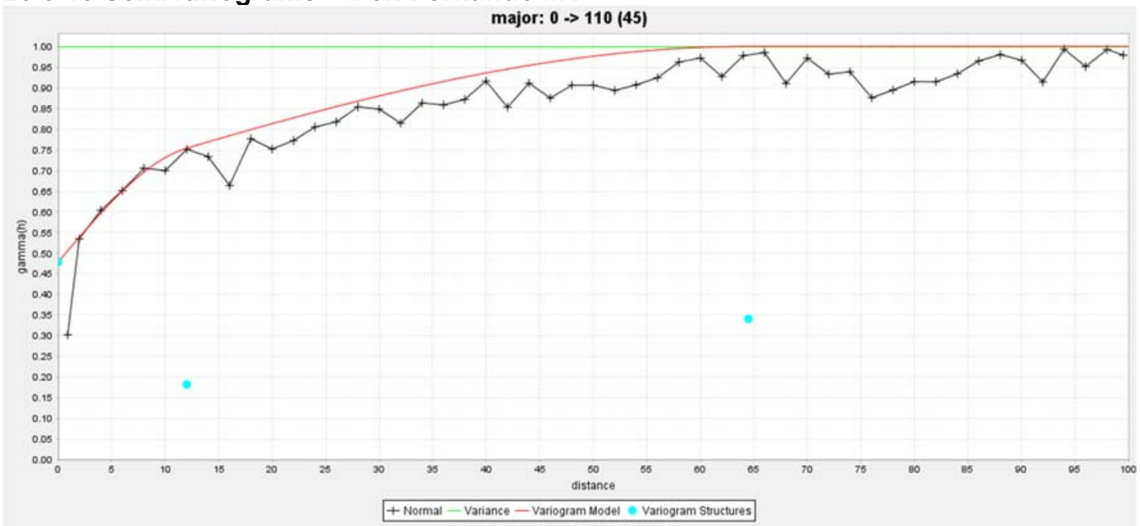


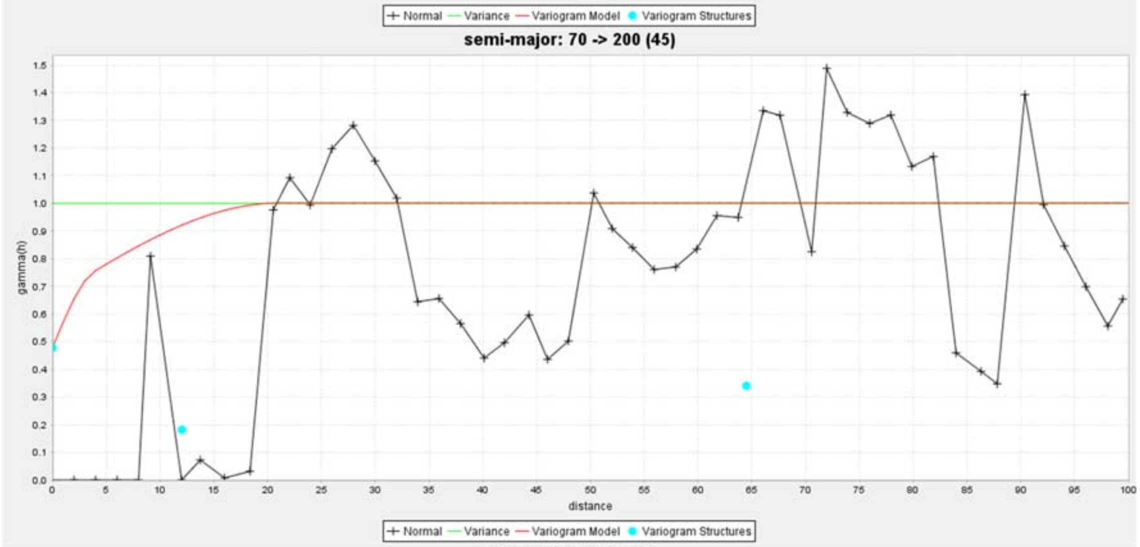


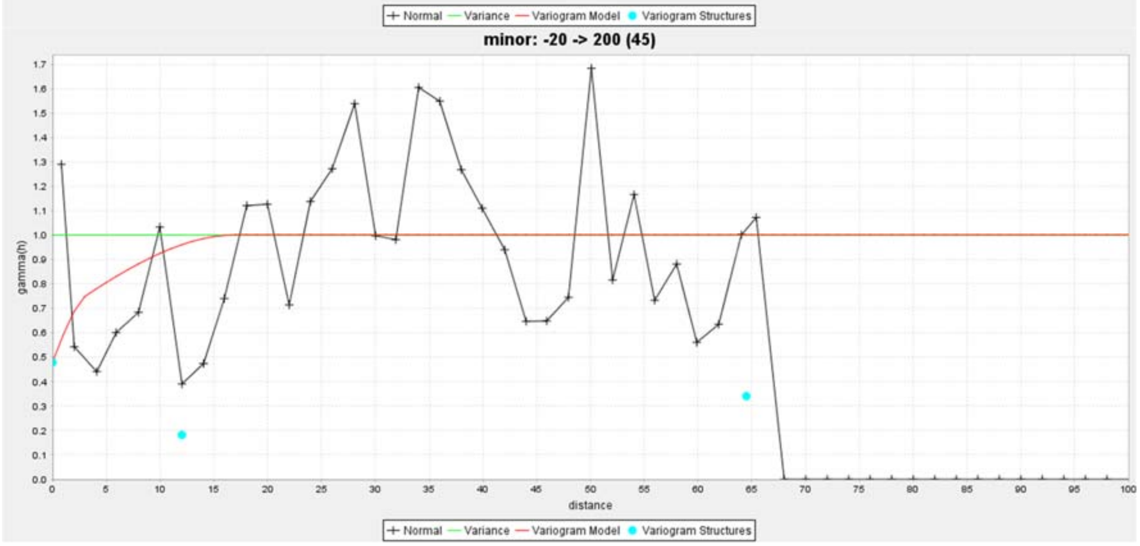
20.3.12 Semivariograms – Masarita 2 MV



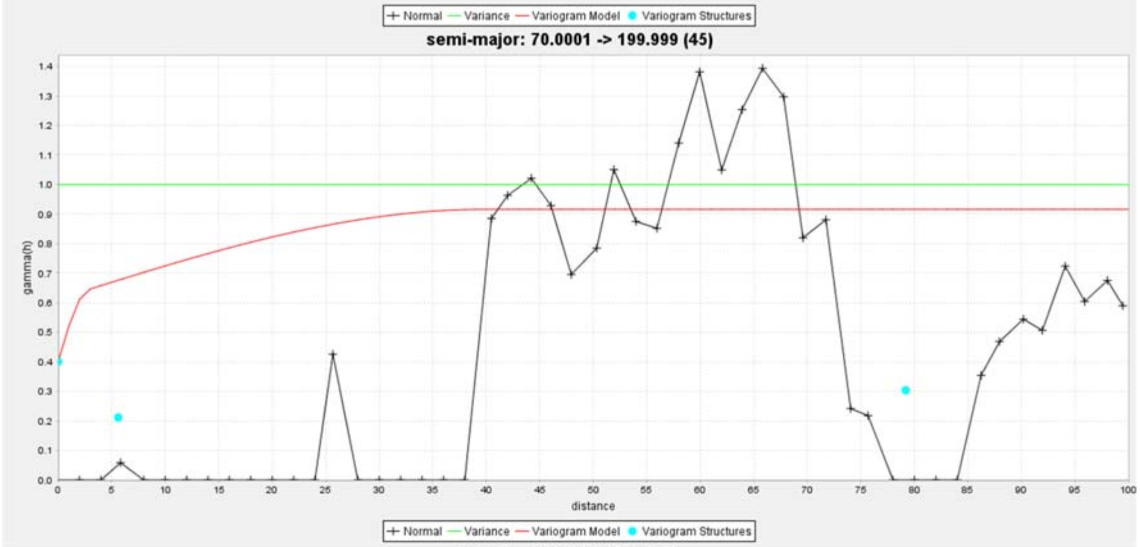
20.3.13 Semivariograms – Don Fernando MV

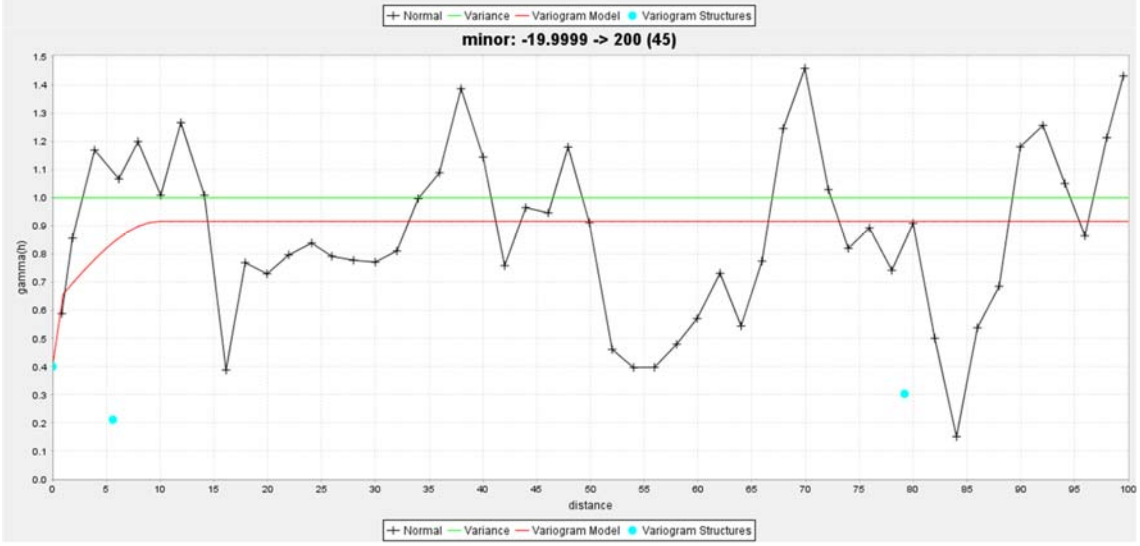




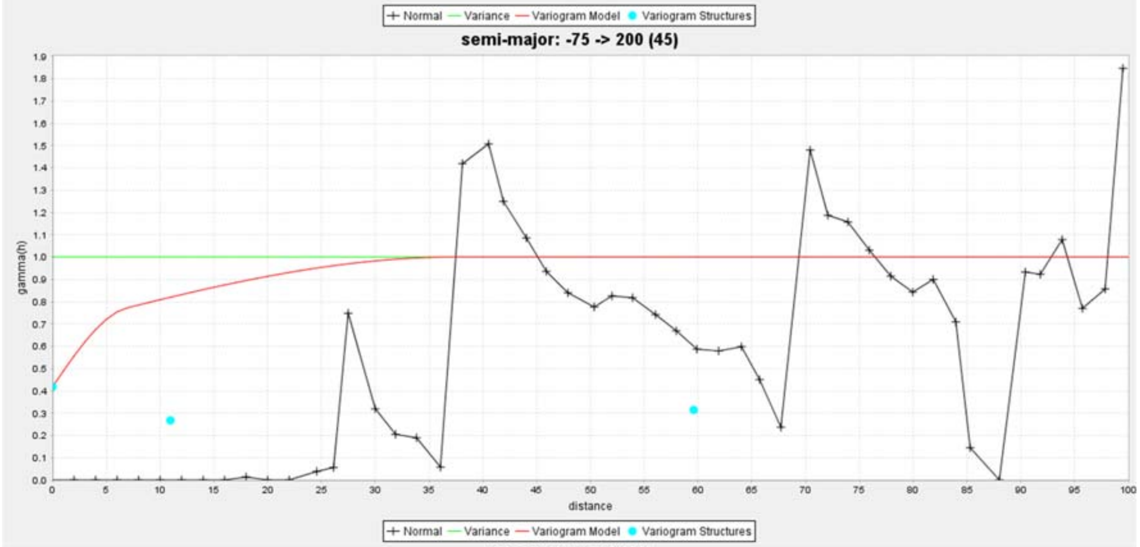


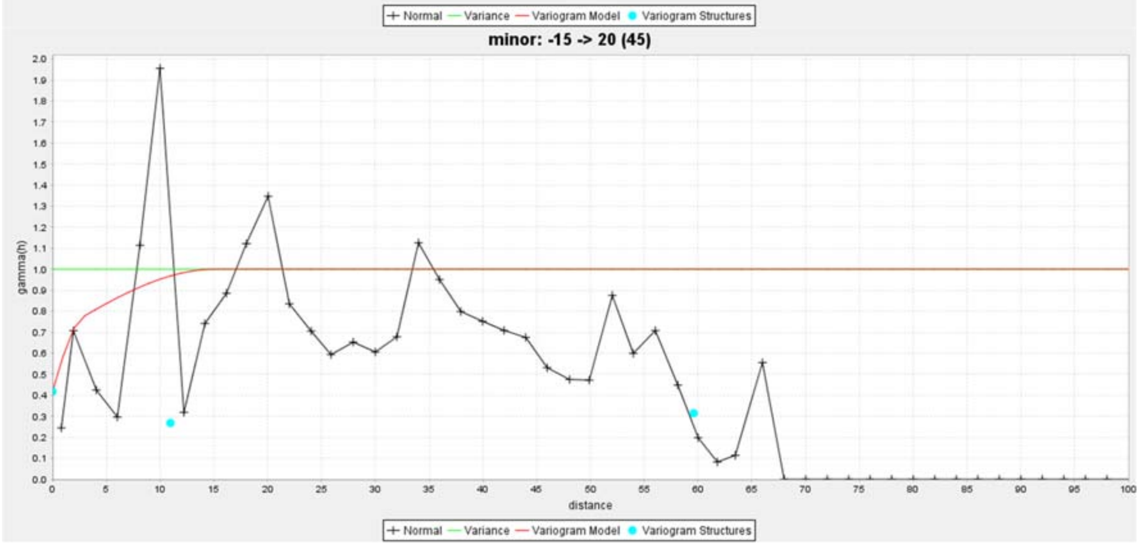
20.3.14 Semivariograms – Don Joaquin MV





20.3.15 Semivariograms – Don Mario MV





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