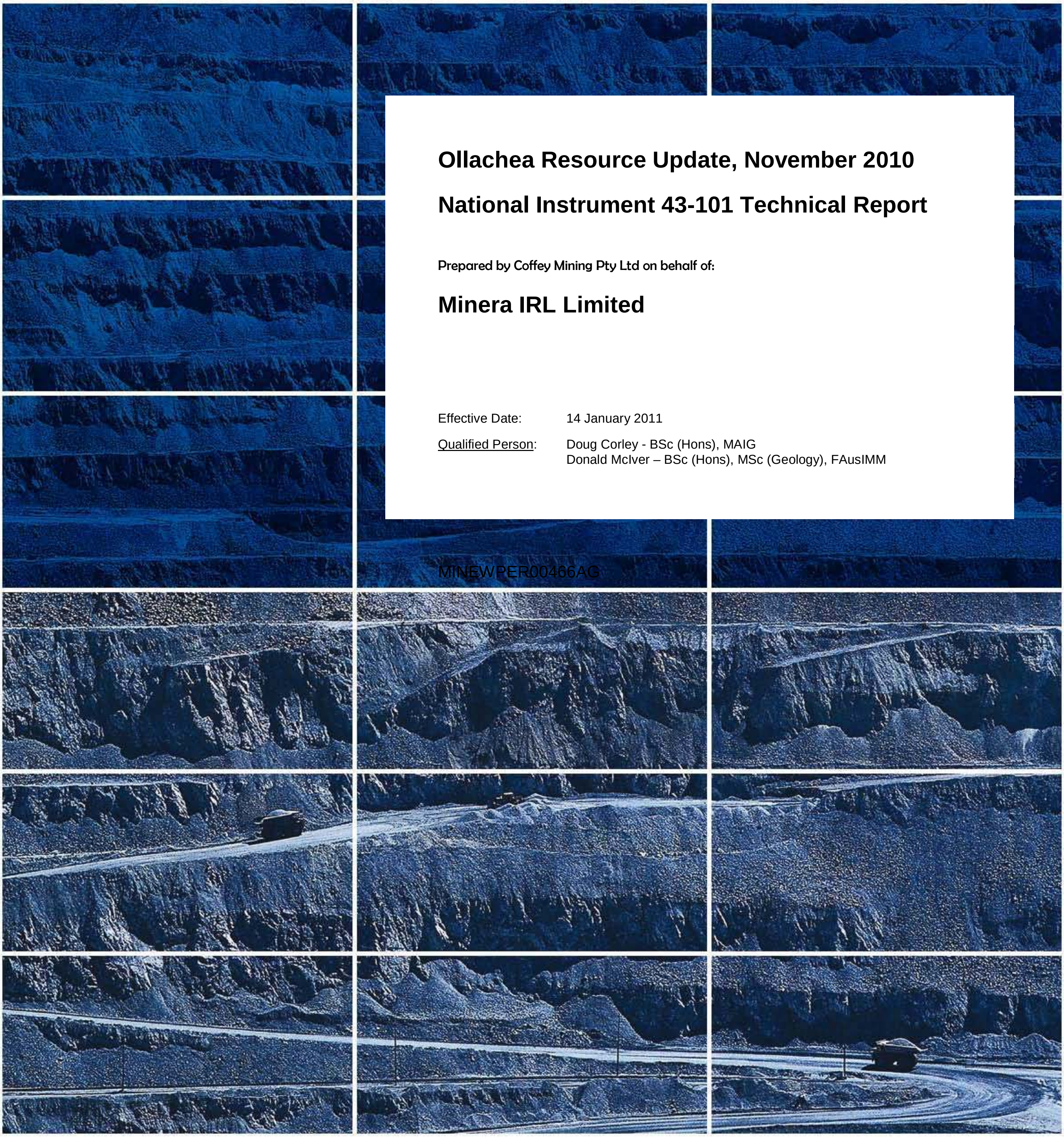
coffey mining
SPECIALISTS FROM BOARDROOM TO MINE FACE



Ollachea Resource Update, November 2010

National Instrument 43-101 Technical Report

Prepared by Coffey Mining Pty Ltd on behalf of:

Minera IRL Limited

Effective Date:	14 January 2011
Qualified Person:	Doug Corley - BSc (Hons), MAIG Donald McIver – BSc (Hons), MSc (Geology), FAusIMM

MINEWPER00466AG

DOCUMENT INFORMATION

Author(s): Coffey Mining
Doug Corley — Associate Resource Geologist — B Sc (Hons), MAIG
Minera IRL Limited
Donald McIver — Vice President - Exploration — B Sc (Hons), MSc (Geology), FAusIMM

Date: 14 January 2011

Project Number: MINEWPER00466AG

Version / Status: Final

Path & File Name: F:\MINE\Projects\Minera IRL\MINEWPER00466AG_Ollachea Resources and PFS\Report\CMWPr_466AG_Ollachea_ResourceModel_43-101_Nov2010_FINAL_Sedar.docx

Print Date: Friday, 14 January 2011

Copies:

Minera IRL Limited (2)
Coffey Mining – Perth (1)

Document Change Control

Version	Description (section(s) amended)	Author(s)	Date

Document Review and Sign Off

Primary Author
Doug Corley

Supervising Principal
Neil Inwood

Table of Contents

List of Figures

List of Tables

List of Appendices

1 SUMMARY

1.1 Introduction

Coffey Mining Pty Ltd (Coffey Mining) has been commissioned by Minera Kurri Kullu S.A. (MKK), a wholly owned subsidiary of Minera IRL S.A. (Minera), which in turn is a wholly owned subsidiary of Minera IRL Limited (MIRL), to complete a technical report for the Ollachea Gold Project (the Project) in Peru. Coffey Mining was requested by MKK to prepare the updated technical report in accordance with the requirements of the Canadian Securities Administrators' National Instrument 43-101 - Standard of Disclosure for Mineral Projects ("NI 43-101").

1.2 Location

The Project is located in the Ollachea District of Carabaya Province in the Puno Region of south-eastern Peru. The Ollachea village, located 1.5km to the east of the Project area, has a population of approximately 2,000. This is the main population base within close proximity to the Project.

1.3 Tenure

The Project comprises 12 tenements, covering an aggregate area of 8,698.98ha. The mining concessions are in good standing. No litigation or legal issues related to the project are pending.

MKK is 100% owner of the tenements which is subject to a government royalty up to 3% of the gross sales along with a vendor royalty of 1% net smelter revenue (NSR).

1.4 Geology and Mineralization

The geology of the mineralised area of interest of the Ollachea project is dominated by phyllitic slates of the Devonian Sandia Formation, whereas the central portion is assigned to variably bedded graphitic slates and shales of the Siluro-Devonian Ananean Formation.

The gold mineralization at Ollachea is broadly stratabound within NE to EW trending south dipping carbonaceous phyllites. Gold mineralization is associated with mesothermal quartz-carbonate-sulphide veins, with the sulphide assemblage dominantly comprising of pyrrhotite (dominate), pyrite and minor chalcopyrite. Arsenopyrite and free gold have also been observed.

1.5 Resources

Coffey Mining has estimated an Indicated and Inferred Mineral Resource for the Minapampa and Minapampa East Zones of the Project as at 30th November 2010. All grade estimation was completed using Ordinary Kriging ('OK') for gold. The estimation was constrained within mineralized geological-grade interpretations that were created with the assistance of MKK geologists.

Seven high grade domains have been interpreted using north-south oriented, vertical transversal sections based on grade information and detailed geological observations.

The resource estimate for Ollachea has been classified as an NI 43-101 compliant Indicated and Inferred Mineral Resource, in accordance with the NI 43-101 and the CIM standards, based on the confidence levels of the key criteria that were considered during the resource estimation. Table 1.5_1 below presents the grade tonnage report estimated as of the 30th of November 2010.

Table 1.5_1
Ollachea Project
Grade Tonnage Report – Mineral Resource (as at 30th November 2010)
Ordinary Kriging Estimate
20mE x 20mN x 4mRL Panel Size

Area	Category	Lower Cutoff Grade (g/t Au)	Million Tonnes	Average Grade (g/t Au)	Contained Gold (Kozs)
Minapampa	Indicated	0	9.3	3.8	1,145
		2	9.0	3.9	1,133
		2.5	7.5	4.2	1,017
		3	5.6	4.7	847
		3.5	4.0	5.3	684
	Inferred	0	4.2	2.7	363
		2	2.7	3.3	280
		2.5	1.6	4.0	203
		3	1.0	4.8	149
		3.5	0.6	5.7	109
Minapampa East	Indicated	0	0.2	2.8	22
		2	0.2	2.9	22
		2.5	0.2	3.1	17
		3	0.1	3.3	10
		3.5	0.02	3.8	2
	Inferred	0	2.3	2.9	216
		2	2.2	3.0	209
		2.5	1.5	3.3	160
		3	0.6	4.1	85
		3.5	0.3	4.9	51

There is currently a Pre-Feasibility study (the Study) underway by Coffey Mining on the Indicated resource material presented in Table 1.5_1. The Study will generate reserves for the project and will be reported at a later date.

1.6 Recommendations

The following recommendations are made for the next phases of the Project:

- Continue to submit umpire samples to a check laboratory in a timely manner during drill campaigns, this will reduce the possibility of oxidation effecting the check pulps
- Add standards and blanks to any umpire samples to check laboratories, as a further check to confirm the adequacy of the standards used.

- The nominal drill spacing of 40m x 40m appears adequate for the Indicated resource, however some close spaced drilling is recommended to test the short scaled variability of the deposit, and to assist in determining the spacing required to define a Measured resource.

2 INTRODUCTION

2.1 Scope of Work

Coffey Mining Pty Ltd (Coffey Mining) has been commissioned by Minera Kurri Kullu S.A. (MKK), a fully owned subsidiary of Minera IRL S.A. (Minera), which in turn is a wholly owned subsidiary of Minera IRL Limited (MIRL) to complete a technical report for the Ollachea Gold Project (the Project) in Peru. Coffey Mining was requested by MKK to prepare the updated technical report in accordance with the requirements of the Canadian Securities Administrators' National Instrument 43-101 - Standard of Disclosure for Mineral Projects ("NI 43-101").

The Project is a gold project located 1.5km from the village of Ollachea, in the Puno Region of south-eastern Peru.

This report is prepared to comply with reporting requirements set forth in the NI 43-101).

2.2 Qualifications and Experience

Coffey Mining is an international mining consulting firm specialising in the areas of geology, mining and geotechnical engineering, metallurgy, hydrogeology, hydrology, tailings disposal, environmental science and social and physical infrastructure.

The “qualified persons” (as defined in NI 43-101) for the purpose of this report are Mr. Doug Corley, who is an employee of Coffey Mining and Mr Donald McIver, who is an employee of MIRL.

Mr. Corley is a professional geologist with over 19 years experience in exploration, mining and resource geology. He is an Associate Resource Geologist, with Coffey Mining’s West Perth Office in Australia. Mr. Corley is also a Member of the Australian Institute of Geosciences (MAIG) and has the appropriate relevant qualifications, experience and independence as defined in the Canadian National Instrument 43-101. Mr Corley visited the Ollachea Project between 21st and 22nd June 2010.

Mr. McIver is a professional exploration geologist with 24 years experience in exploration geology. He is Vice President Exploration, with MIRL. Mr. McIver is a Fellow of the Australian Institute of Mining and Metallurgy (AUSIMM) and has the appropriate relevant qualifications, experience and independence as defined in the Canadian National Instrument 43-101. Mr. McIver has continuously visited the Ollachea Project since inception.

2.3 Independence

Mr. Doug Corley has not had previously, any material interest in MKK or related entities or interests. Coffey Mining’s relationship with MKK is solely one of professional association between client and independent consultant. This report is prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this report.

Mr Donald McIver is a full time employee of MIRL and is responsible for Sections 4, 5, 6.1, 7, 8, 9 and 10 of this report.

2.4 Principal Sources of Information

In addition to site visits undertaken to the Ollachea Project between the 21st and 22nd June 2010 by Mr. Corley, this report has relied extensively on information provided by MKK, extensive discussion with management of MKK, and studies completed by other internationally recognised independent consulting and engineering groups. A full listing of the principal sources of information is included in Section 19 of this report and a summary is provided below:

- RSG Global Consulting Pty Ltd (April 2007) – Competent Person's Report.
- Telluris Consulting Ltd. (September 2009) – Structural Field Study of the Ollachea District
- Smee and Associates Consulting Ltd (February, 2009) - A Review of the Minera IRL S.A Quality Control Protocol, Core and Blasthole Sampling Protocol, and Two Laboratories, Peru
- Coffey Mining (April, 2010) – Ollachea Gold Project National Instrument 43-101Technical Report.

Coffey Mining has made all reasonable enquiries to establish the completeness and authenticity of the information provided and identified, and a final draft of this report was provided to MKK along with a written request to identify any material errors or omissions prior to lodgement.

2.5 Abbreviations

A full listing of abbreviations used in this report is provided in Table 2.5_1 below.

Table 2.5_1
Ollachea Project
List of Abbreviations

	Description		Description
$	United States of America dollars	km	kilometres
µ	microns	km²	square kilometres
3D	three dimensional	koz	Thousand ounces
AAS	atomic absorption spectrometer	M	Million
Au	gold	m	Metres
bcm	bank cubic metres	MIK	Multiple Indicator Kriging
CC	correlation coefficient	ml	Millilitre
cfm	cubic feet per minute	mm	Millimetres
CIC	carbon in column	MMI	mobile metal ion
CIL	carbon-in-leach	Moz	million ounces
cm	centimetre	Mtpa	million tonnes per annum
cusum	cumulative sum of the deviations	MW	Megawatt
CV	coefficient of variation	N (Y)	Northing
DDH	diamond drillhole	NaCN	sodium cyanide
DTM	digital terrain model	NATA	National Association of Testing Authorities
E (X)	easting	NPV	net present value
EDM	electronic distance measuring	NQ_2	size of diamond drill rod/bit/core
EV	expected value	ºC	degrees centigrade
g	gram	OK	Ordinary Kriging
g/m³	grams per cubic metre	oz	troy ounce
g/t	grams per tonne	P80 -75µ	80% passing 75 microns
GW	Gigawatt	PAL	pulverise and leach
GWh/y	Giggawatt hours per year	ppb	parts per billion
HARD	half the absolute relative difference	ppm	parts per million
HDPE	high density poly ethylene	PSI	pounds per square inch
HQ_2	size of diamond drill rod/bit/core	PVC	poly vinyl chloride
h	hours	QC	quality control
HRD	half relative difference	Q-Q	quantile-quantile
ICP-MS	inductivity coupled plasma mass spectroscopy	RAB	rotary air blast
ID	Inverse Distance weighting	RC	reverse circulation
ID²	Inverse Distance Squared	RL (Z)	reduced level
IPS	integrated pressure stripping	ROM	run of mine
IRR	internal rate of return	RQD	rock quality designation
ISO	International Standards Organisation	SD	standard deviation
ITS	Inchcape Testing Services	SGS	Société Générale de Surveillance
ka	thousand years	SMU	simulated mining unit
kg	kilogram	t	tonnes
kg/t	kilogram per tonne	t/m³	tonnes per cubic metre

3 RELIANCE ON OTHER EXPERTS

Neither Coffey Mining nor the other author of this report is qualified to provide comment on legal issues associated with the Ollachea Project included in Section 4 of this report. Assessment of these aspects has relied on information provided by MKK solicitors, and has not been independently verified by Coffey Mining.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Project Location

The Project is located in the Ollachea District of Carabaya Province in the Puno Region of south-eastern Peru. The Project is cut by the west to east flowing Oscco Cachi River and includes segments of the Joro Piña and Cuchi Puñunan Mountains. The Project is located approximately 160km southeast of Cuzco, 230km north-northwest of Puno and 1.5km west of the village of Ollachea (Figure 4.1_1). Central coordinates are 338,500mE and 8,474,500mN and the areas of economic interest of the project lie between 2,700m and 3,300m elevation.

Figure 4.1_1
Location Plan of Ollachea Project

The boundaries of the concessions have not been surveyed as this is not a requirement of Peru's mining code. The tenement boundaries are defined by UTM coordinates with the datum of PSAD 56, Zone 19S.

4.2 Tenement Status

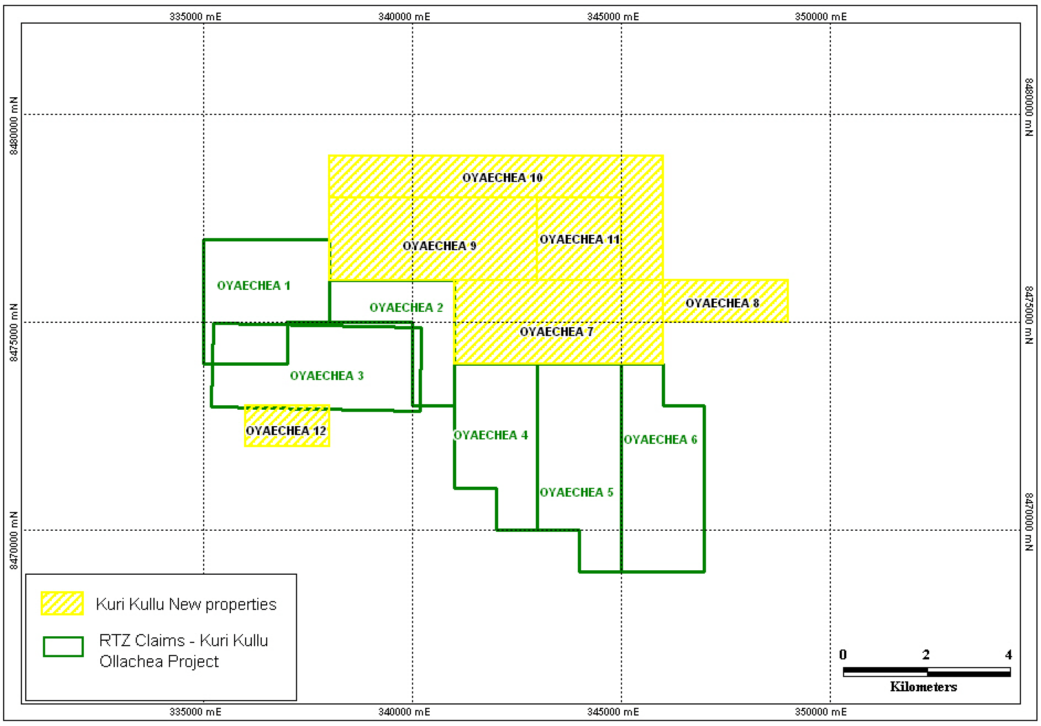
The Ollachea Project comprises 12 tenements, covering an aggregate area of 8,698.98ha as shown in Table 4.2_1 and Figure 4.2_1 below. MKK is 100% owner of the tenements which are subject to royalties as set forth in Section 4.4.

Table 4.2_1
Ollachea Project
Table Description

Concession Name	Number	Type	Holder	Area (ha)	Application Date	Expiry Date
OYAECHEA 1	010215003	mining concessions	Compania Minera Kuri Kullu SA	800	23/06/2003	See Note 1
OYAECHEA 2	010215103	mining concessions	Compania Minera Kuri Kullu SA	500	23/06/2003	See Note 1
OYAECHEA 3	010218103	mining concessions	Compania Minera Kuri Kullu SA	998.98	24/06/2003	See Note 1
OYAECHEA 4	010215203	mining concessions	Compania Minera Kuri Kullu SA	700	23/06/2003	See Note 1
OYAECHEA 5	010215303	mining concessions	Compania Minera Kuri Kullu SA	900	23/06/2003	See Note 1
OYAECHEA 6	010215403	mining concessions	Compania Minera Kuri Kullu SA	900	23/06/2003	See Note 1
OYAECHEA 7	010389907	mining concessions	Compania Minera Kuri Kullu SA	1000	19/08/2008	See Note 1
OYAECHEA 8	010389807	mining concessions	Compania Minera Kuri Kullu SA	300	30/10/2007	See Note 1
OYAECHEA 9	010139909	mining concessions	Compania Minera Kuri Kullu SA	1000	30/11/2009	See Note 1
OYAECHEA 10	010140009	mining concessions	Compania Minera Kuri Kullu SA	1000	16/10/2009	See Note 1
OYAECHEA 11	010140109	mining concessions	Compania Minera Kuri Kullu SA	400	16/10/2009	See Note 1
OYAECHEA 12	010167809	mining concessions	Compania Minera Kuri Kullu SA	200	22/01/2010	See Note 1

Note 1: No extinction provision applies to Mining Concessions under Peruvian legislation, as long as its titleholder complies with the administrative obligations established by law in order to maintain its validity.

Figure 4.2_1
Plan of Ollachea Project Tenements



The mining concessions are in good standing. No litigation or legal issues related to the project are pending. Concessions are generally irrevocable but may lapse or terminate in the following two circumstances:

- Failure by a concession holder to pay the mining validity fee (*derecho de vigencia*) for two consecutive years; or
- Failure by a concession holder to pay the penalty (*penalidad*) for two consecutive years, for not achieving exemption from the penalty by meeting investment requirements or for not meeting minimum annual production targets.

4.3 Permits

MKK have provided the permits that are in place for the current exploration phase as shown in Table 4.3_1.

Projected Permits for the Underground Ollachea Project:

- Modification of the permit of the current Water Use Authorization "Rio Osco Cachi" to be used for construction and exploration in the Ollachea underground project. Including the compilation of technical information.
- Authorisation of discharges of industrial wastewater treated, from the treatment system from the underground Project. This includes a Favourable Technical Opinion to Grant the Discharge of Industrial Residual Water Authorization from the underground Activities by DIGESA

4.4 Royalties and Agreements

MKK will be subjected to the following royalties:

a. Peru Government Royalty

The Peru Government Royalty is based on the following:

- Companies with gross sales of up to the first US$60 million per year – has a royalty of 1% for that portion of sales;
- With the portion above US$60 million of gross sales from US$60 million to US$120 million per year – the royalty increases to 2% for that portion of sales; and
- Any gross sales over US$120 million per year – has a royalty of 3% for that portion of sales.

b. Vendor Royalty

A vendor royalty of 1% net smelter revenue (NSR) is included in the Model.

4.5 Environmental Liabilities

The Project to date has comprised two stages and in order to implement them, two semi-detailed Environmental Impact Studies (EIAsd) were prepared. In the first study, the existence of nine mining environmental liabilities (PAMs), were listed, and are detailed in Table 4.5_1.

Table 4.5_1
Ollachea Project
Mining Environmental Liabilities (PAMs)

POINT	EASTING (m)	NORTHING (m)	ZONE	TYPE OF LIABILITY
P-01	338939	8474389	Inaccata	Underground work, waste rock dump and open pit
P-02	339031	8474382	Inaccata	Underground work and waste rock dump
P-03	339144	8474450	Inaccata	Underground work and waste rock dump
P-04	339291	8474463	Mina Pampa	Underground work, waste rock dump and open pit
P-05	339447	8474428	Gallo Cunga-Asiento	Underground work , waste rock dump and open pit
P-06	339606	8474449	Balcon	Underground work, waste rock dump and open pit
P-07	339776	8474551	Huayruciña	Underground work, waste rock dump and open pit
P-08	339849	8474595	Huayruciña	Underground work, waste rock dump and open pit
P-09	339968	8474607	Huayruciña	Underground work, waste rock dump, and open pit

Source: ELAsd Exploration Project Ollachea (MKK).

These liabilities, which were identified in 2008, belonged to abandoned works, waste rock dumps and open pits left by artisanal mining. Subsequently, during the preparation of the First Amendment of the EIAsd in June 2009, it was verified that these PAMs have been reactivated by artisanal miners and according to the existing legislation they become part of the artisanal active mining activities, and have ceased being mining environmental liabilities (PAMs) as such.

To date, the only activities within in the project area is artisanal exploitation. MKK would solely provide the necessary support to carry out the closing activities as claimed by law.

Table 4.3_1
Ollachea Project
Exploration Permits

Date	Permit Type	Group	Report Number	Purpose	Expiry	Comment
27-05-08	R.A Nº 069-2008-DRA-P-ATDRHI	Puno Agricultural Regional Office		Permit for Compañía Kuri Kullu S.A. for the Use of Water from the Water Sources: "Oscco Cachi River" and "Maticuyox Cucho Spring"	27-05-09	UPDATED
30-09-08	R.D Nº 241-2008-MEM-AAM	MEM	Report Nº 1073-2008-MEM-AAM/AD/WAL	Semi-Detailed Environmental Impact Study of Ollachea Project, Submitted by Minera Kuri Kullu to be implemented in the Ollachea District, Province of Caravaya, Department of Puno	ND	
22-06-09	R.A Nº 479-2009-ANA/ALA HI.	ANA	Registry Application Nº 189-2009 ALA HI.	Authorizes the Use of Water, in the Process of Regularization, with Mining Exploration Study Purposes Through Diamond Drillings in the Mining Concessions	30-09-09	UPDATED
11-12-09	R.A Nº 542-2009-ANA/ALA HI.	ANA		Extension of the Water Use Authorization with Mining Exploration Study Purposes Through Diamond Drillings of the Water Resources from the Oscco Cachi River and Maticuyoc Cucho Spring	01-03-10	UPDATED
26-01-10	Report Nº 444-2010-OTVI	DIGESA	Report Nº 00302-2010/DEPA-APRHI/DIGESA	Favourable Technical Opinion to Grant the Discharge of Industrial Residual Water Authorization	ND	
01-03-10	Report N° 068-2010-MEM/AAM	MEM	Report Nº 187-2010-MEM-AAM/AD/WAL/VRC	Approval of the Amendment of the Semi-Detailed Environmental Impact Study of Ollachea Project,	ND	
03-03-10	R.A. 0004-2010-ANA/ALA I.	ANA/ALA		Authorises the Use of Water in Mining Exploration Study Purposes Through Diamond Drillings in the Mining Concessions from the Water Sources: "Oscco Cachi River" and "Maticuyox Cucho Spring"	03-01-13	
13-05-10	R.D. 0066-2010-ANA-DCPRH	ANA	Report N° 1083-2010-ANA-AO-CAST	Authorisation of discharges of treated industrial waste water from the treatment system - consisting of settling ponds.	13-05-12	
2011-Projected		ANA-ALA		Amendment of the Authorisation of the Use of Water in Mining Exploration for Study Purposes through Diamond Drilling from the Water Sources: "Oscco Cachi River" and "Maticuyox Cucho Spring" for the Minapampa area and Underground Project in Ollachea.		PROJECTED
2011 Projected		DIGESA		Favourable Technical Opinion to Grant the Discharge of Industrial Residual Water Authorization from the Underground Activities.		PROJECTED
2011 Projected		ANA		Authorisation of discharges of treated industrial wastewater from the treatment system from the Underground Project.		PROJECTED

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Project Access

The village of Ollachea can be reached by vehicle from Juliaca in four hours, via a good quality sealed road, with localised zones of unsealed road, associated with the construction of the Southern Interoceanic Highway, (Atlantic, Brazil to Pacific, Peru). From the Ollachea village, the Project is accessed via a steep gravel road for a further 1.5km to the west. The area is accessible for most of the year; however, access may be occasionally be intermittently restricted in summer due to snow falls over the intervening high Andean mountain range and landslides that have been known to block the road completely. A second access to the Ollachea Project is available in less than 16 hours via Cusco – Loretto – San Gaban. The Southern Interoceanic Highway (Brazil to Peru), currently under construction, passes through the centre of the Ollachea village. The construction of this road to Ollachea is nearing completion.

5.2 Physiography and Climate

The Project lies within steep sided valleys and ridges ranging in altitude from 2,700m to 3,300m above sea level. The Project is within a sub-alpine climatic regime. Precipitation is markedly seasonal and total annual precipitation averages about 950mm per year. Some 70% to 80% of annual precipitation is received between November and April. Snow is an unusual occurrence at this elevation. The vegetation is dominated by small trees, low shrubs and alpine grasses. A small perennial stream (the “Rio Oscco Cachi”) flows east through the property to the Ollachea village.

5.3 Local Infrastructure and Services

The village of Ollachea, is located 1.5km to the east of the Project area and has a population of approximately 2,000. This is the main population base within close proximity to the Project. During the exploration phase, most of the workforce of more than 100 employees is sourced from Ollachea.

The small community of Asiento lies close to and south of the Project area and relies on subsistence cropping. Approximately 120 small-scale miners working the outcrop have established temporary residence within the currently excised licences immediately north of and adjacent to the farming community. Their main homes are in Ollachea.

The nearest major airport is located at Juliaca, a four hour drive to the south. It is serviced by regular commercial flights from Lima. Road access to the Project is sound and generally well maintained, although local sections are temporarily affected by the construction of the Southern Interoceanic Highway which is nearly completed to the Ollachea village. The San Gaban hydroelectric complex is located 43km north-northeast of the Project. The average capacity of the grid is 455MW, generating some 3,240GWh/y. The San Gaban complex connects directly to the national grid, which passes directly across the Project.

A permanent source of water is available from the Ollachea River, a major melt-water drainage that flows immediately north of the Ollachea village. It is expected to provide an adequate water supply for any future mining and processing activities. In addition, small streams and water bores are located within the Project area, the latter supplying the Ollachea village. Figure 5.3_1 shows the physiography with its limited infrastructure. The Ollachea village is approximately 1.5km from the main mineralized zone.

Figure 5.3_1
3D Raster Image looking North along Ollachea Valley

(Telluris Consulting Ltd, 2009)

6 HISTORY

6.1 Exploration History

The earliest evidence of mining at the Ollachea Project can be attributed to Spanish colonial activity during the 18th century, while subsequent informal mining activity has been actively pursued in the area since at least the 1970's and probably considerably longer.

Modern exploration commenced with Canadian listed company, Peruvian Gold Limited, which completed five diamond drill holes (501m) between 1998 and 1999. Some of the better results published by Peruvian Gold from each hole respectively include 71.05m at 0.47g/t Au, 43.75m at 0.90g/t Au, 129.05m at 0.74g/t Au (including 18m at 2.08g/t), 73.5m at 1.04g/t Au (including 24m at 3.02g/t), and 50.7m at 0.56g/t Au (including 22m at 1.02g/t).

Rio Tinto is understood to have re-discovered the area in May 2003 while following-up a regional stream sediment sampling program. Two field trips were completed in 2003 and 2004, during which period 58 rock chip samples were collected. The results were highly encouraging with 39 samples from a 1km by 1.2km area, coincident with a portion of the "Comunidad Campesino de Ollachea" (CCO) Mining Lease, averaging 6.36g/t Au. Some 21 of these samples returned >1g/t, of which 10 returned >5g/t Au.

6.2 Resource History

Coffey Mining completed a previous resource estimate of the main mineralised zone (Minapampa) as of the 6^{th} October 2009, and the results were reported in the previous NI43-101 Technical Report dated 6^{th} April 2010. The entire resource was classified as Inferred and a summary table presented as Table 6.2_1, at various lower grade gold cutoffs.

Table 6.2_1

Ollachea Project

Previous Reported Resource
Grade Tonnage Report – Mineral Resource (as at 6th October 2009)
Ordinary Kriging Estimate
20mE x 30mN x 4mRL Panel

	Lower Cutoff Grade (g/t Au)	Million Tonnes	Average Grade (g/t Au)	Contained Gold (Kozs)
Inferred Mineral Resource	0.0	13.6	3.6	1,574
	0.5	13.6	3.59	1,574
	1.0	13.5	3.62	1,571
	2.0	11.4	3.98	1,456
	2.5	8.9	4.50	1,277
	3.0	6.5	5.06	1,067
	5.0	2.1	7.81	531

6.3 Mining History

Artisanal mining groups have been operating in the region for hundreds of years. No formal production figures are available but recent survey data identifies a number of horizontal drives, on average approximately 50m long into the mineralization, the amount of material removed from the current resource is not considered material, and a nominal depletion has been adopted in the final resource model. Figure 6.3_1 below shows the current surface extent of mining.

Figure 6.3_1
Artisanal Mining

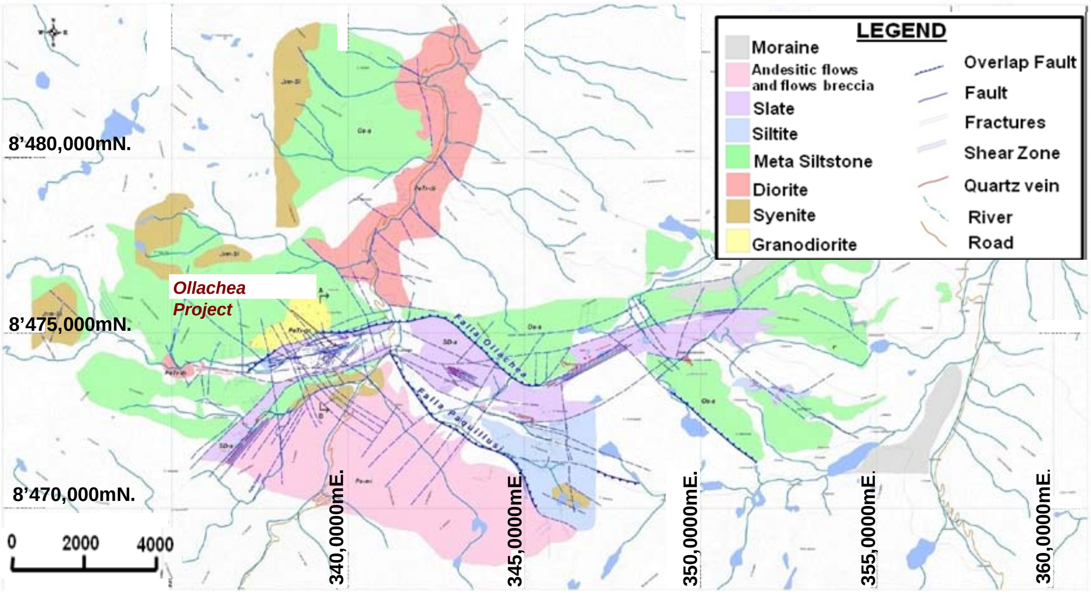
7 GEOLOGICAL SETTING

7.1 Regional Geology

The regional setting of the Ollachea Project is characterized by a significant change in the strike of the Andean range, whereby the stratigraphy is locally aligned approximately eastwest, as opposed to the dominant northwest Andean trend. This deflection is postulated to have resulted from significant compression and thrusting to accommodate a prominent portion of the adjacent Brazilian Shield located to the east.

On a regional scale, high grade gold projects occur almost exclusively in slates/phyllites, (usually carbonaceous), and rarely in more arenaceous sediments but only when they lie adjacent to mineralized phyllites. This suggests that there may be a regional control on pre D1 syngenetic gold in sulphides that has been upgraded in areas of strong overprinting D1 deformation. Figure 7.1_1 shows the regional setting with respects to the Ollachea project.

Figure 7.1_1
Ollachea Project
Regional Setting



(after Ing. Valdivieso, Y., MKK, 2008. Regional Map of the Ollachea Project. 1:50,000 scale)

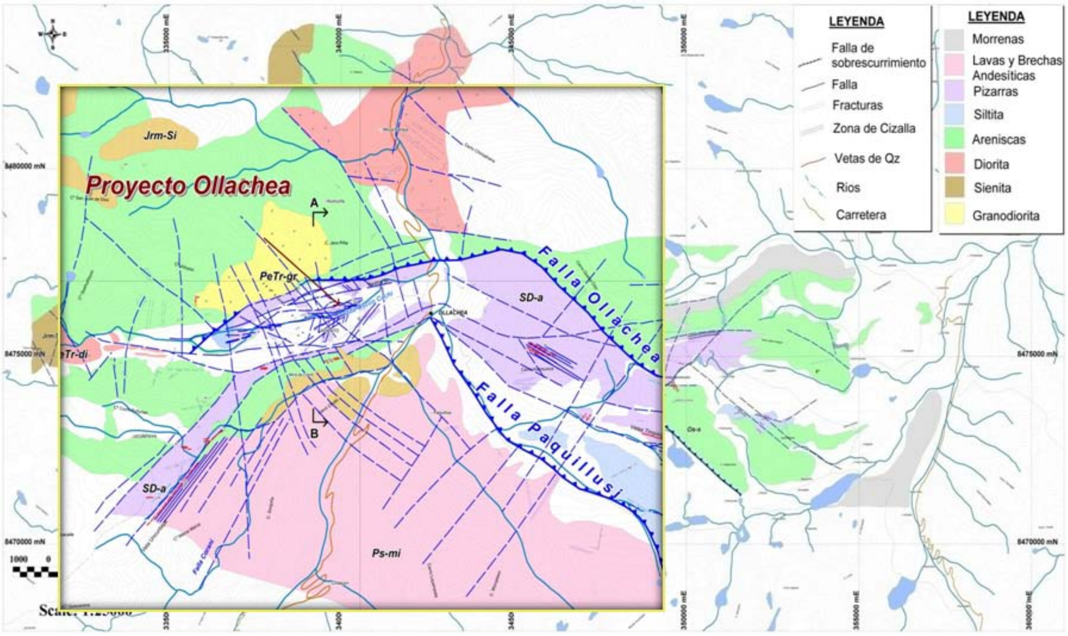
7.2 Project Geology

The geology of the Ollachea project is dominated by phyllites of the Devonian Sandia Formation, while the central portion is assigned to variably bedded graphitic slates and shales of the Siluro-Devonian Ananean Formation. A large nepheline syenite intrusion is located in the southern portion of the project.

The gold mineralization at Ollachea is broadly stratabound within NE to EW trending south dipping carbonaceous phyllites as shown in Figure 7.2_1 below. Two Principal tectonic events are recognised in the Ollachea District:

- D1 – this first event is the deformation of the slate sequence and the thrusting of the Sandia Formation over the Ananea Formation as part of the Hercynic orogenesis.
- D2 – the second phase of deformation is the start of the deformation of the Andean belt (late-Triassic approx. 220 +-10Ma)

Figure 7.2_1
Ollachea Project
Geology



(after Ing. Valdivieso, Y., MKK, 2008. Regional Map of the Ollachea Project; inset showing Project-scale Structure. 1:50,000 scale)

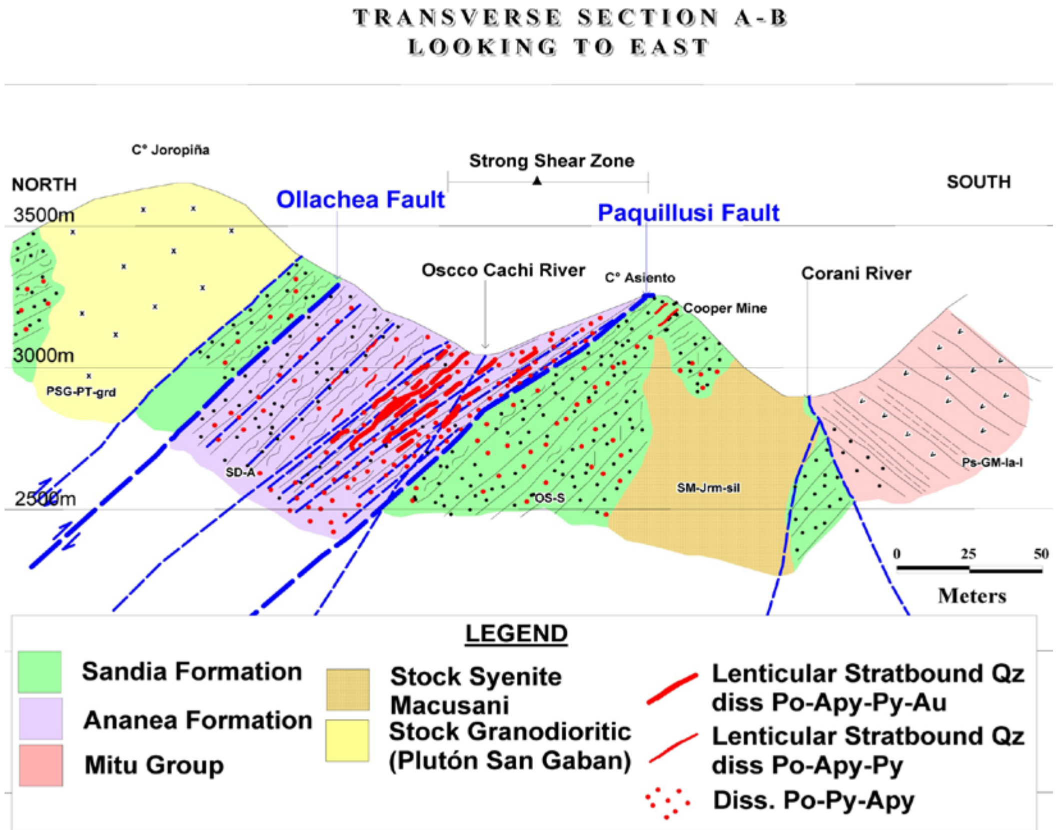
The D1 event was oriented by a NW-SE compression forming zones of shearing, folding and thrusting (inverse faults) of NE-SW strike. Gold mineralization is associated with the first event D1.

The D2 deformation consisted of a prolonged stage of compression oriented NNE-SSW forming principally reverse faults striking WNW-ESE and invoking the folding of the Ollachea District into the form of a “half-dome” thus changing the orientation of the slates in the central area to an almost E-W strike.

Figures 7.2_1 and 7.2_2 show respectively the geology and structure in plan view along with a schematic cross section view of the geology.

Figure 7.2_2

Ollachea Project
Schematic Cross Section – Looking East



(after Ing. Valdivieso, Y., MKK, 2008. Schematic Transverse Section looking East, Ollachea Project. 1:50,000 scale)

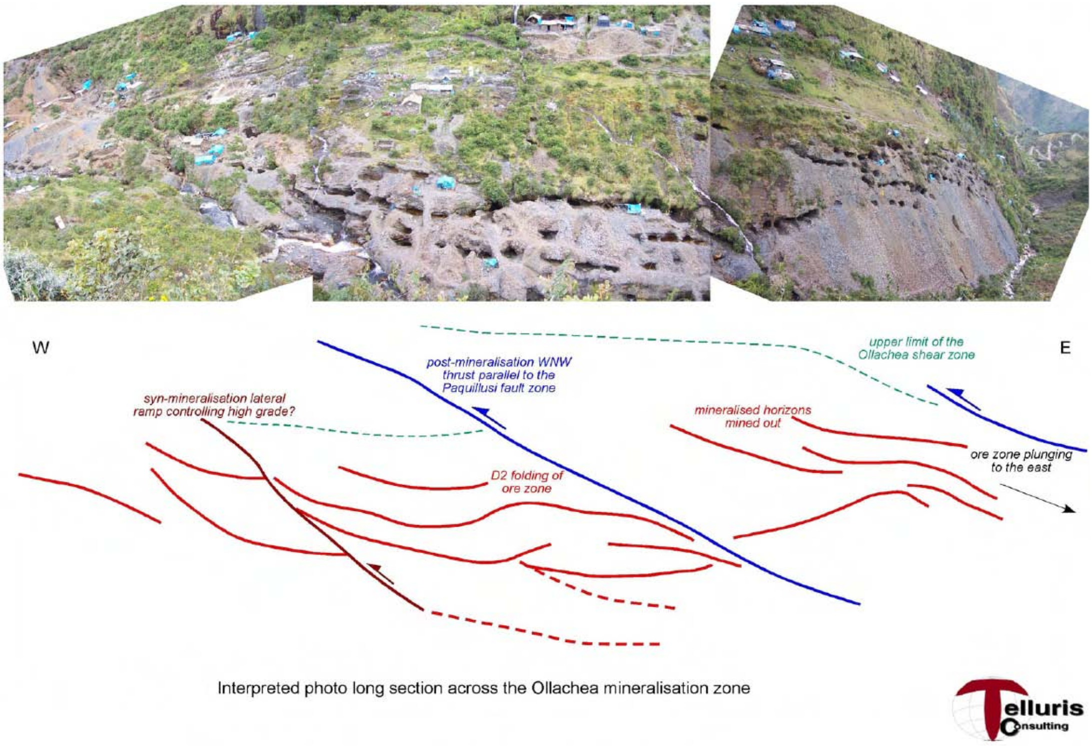
8 DEPOSIT TYPES

Telluris Consulting (Sept 2009) reported that the main stage of gold mineralization at Ollachea is associated with a D1 event comprising of shearing and folding and is largely confined to the weaker carbonaceous shales along a brittle-ductile shear zone. This style of mineralization is similar to an orogenic-style gold deposit but possibly related to late stage dioritic to granodioritic intrusions. The absence of main stage D1 mineralization outside the graphitic phyllonites of the Ananea Formation and comparison with other deposits in the region suggests that there may be some degree of possible pre-shearing concentration of gold within the syn-sedimentary pyrite.

9 MINERALISATION

The principal zone of mineralisation comprising the Ollachea Prospect is being extensively worked by artisanal miners (Figure 9_1). The main mineralized area has a strike length of at least 1km and a minimum aggregate width in the order of 100m. Mineralised vein zones within this envelope average 40m to 60m wide and individually range from a few metres up to 100m in strike length and although open-ended, can be traced by drilling down dip over 350m.

Figure 9_1
Principal Mineralized Zone

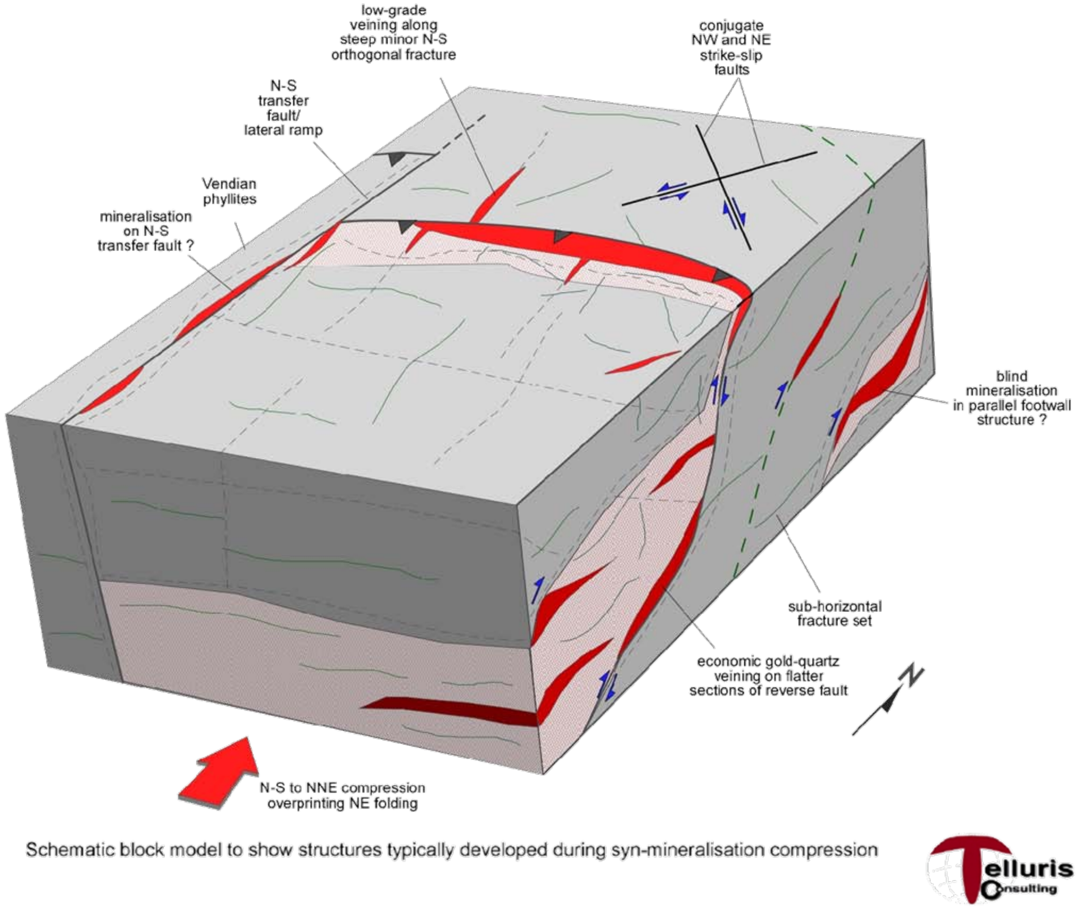


(Telluris Consulting Ltd, 2009)

Gold mineralisation is associated with mesothermal quartz-carbonate-sulphide veins and veinlets, with the sulphide assemblage dominantly comprising pyrrhotite (dominate) – pyrite, arsenopyrite and minor chalcopyrite. Coarse crystalline arsenopyrite and free gold are frequently observed, in close association to one another within the central Minapampa zone. Vein widths vary from a few centimetres up to a maximum of 40cm but do not always contain gold mineralization.

The mineralised veins are emplaced within an extensive shear zone, which dominates the entire variably graphitic shale package and is responsible for the well developed slaty cleavage. Mineralized veins have intruded late in the development of the shear zone and are broadly concordant to the cleavage. The veins are strongly boundinaged, resulting in the development of discontinuous lenses of mineralized veins / veinlets. Figure 9_2 shows a schematic bock model of the mineralization defined at Ollachea.

Figure 9_2
Schematic Bock Model of the Mineralised Structures



(Telluris Consulting Ltd, 2009)

With regard to lithological characteristics, the entire project area is contained within a quite monotonous slate sequence; this has been classified based on the presence / absence, content and nature of disseminated pyrrhotite (Po). - Different types of mineralization have been differentiated (Coarse, Laminar, Fine and None) based on its occurrence in:

- Pz 1: Slate without dissemination of Po.
- Pz 2: Slate with fine dissemination of Po.
- Pz 3: Slate with laminar dissemination of Po (of acicular appearance).
- Pz 4: Slate with coarse dissemination of Po.

Furthermore, it is possible to differentiate a fine intercalation of metamorphosed fine-grained siltstone (hornfelsic siltstone) and slate (finely banded) and occasionally an intercalation of slate and quartz producing a zebra-like texture:

- Pz 5: intercalated fine laminated slate and hornfelsic siltstone.
- Pz 6: intercalated slate and quartz banding (zebra type texture).

In addition to this, it is possible to encounter meta-sandstones and sills that have minor or no association to gold mineralization.

Within the above classification, the slate with fine dissemination of pyrrhotite, (Pz 1) and the slate with no pyrrhotite dissemination turn out to be the most favourable to host gold mineralization.

With respect to mineralization in veinlets and micro veinlets, we should consider the main mineralogical assemblies such as: quartz–pyrrhotite-smectite-pyrrhotite-quartz-pyrite (with some very minor content of sphalerite).

With regard to other mineral content, such as the arsenopyrite and chalcopyrite, when arsenopyrite is overly crystallized, it does not correlate to high gold values, thus it can help demarcate the barren zone.

When pyrite is the primary mineral over other sulphides, gold values are scarce.

Alteration in general is quite scarce; sericitisation is also scarce in the area and when it occurs, has no correlation to gold mineralization.

Structurally, data on faults and fractures from the logging of the drill-holes, has been adequately interpreted in order to obtain a good structural correlation.

An orientated DC study, on 18 DC (DDH10-102 to DDH10-119) was recently completed; the test was run from 50 metres before the projection of the mineralized zone as identified in the project area, to the end of the hole. Then the Alpha and Beta angles of the foliations, faults, fractures, veinlets, micro veinlets and other outstanding structures were recorded over the core.

The results of azimuths and dips from oriented core mostly match those as recorded from surface exposures. A summary of the results is given below;

<u>The strike or azimuth of the features is rated as</u>:

- **High predominance**: between 270° - 300°

<u>The dip of the features is rated as</u>:

- **High predominance**: between 40° - 60°

There is an alignment / correlation of the mineralisation relative to the foliation where favourable horizons continue. This information was also used to help interpret the mineralised zones.

The mineralisation is defined in further detail is Section 16.

10 EXPLORATION

Core drilling has been the dominant exploration tool of MKK in defining mineral resources at the project. Geological mapping and geochemical sampling, along with an aster and structural geology targeting exercise completed by Telluris Consulting in September 2009, have additionally contributed

Although most exploration has been focused on the project, some additional effort has been expended on a regional basis. Many precious mineral occurrences have been identified on a wider scale, some relatively close-by to Ollachea; others like the Rinconada and Untuca Mines further afield.

Exploration surveys and interpretations completed to date within the Project have largely been planned, executed and supervised by national MKK personnel, supplemented by consultants and contractors for more specialised or technical roles. The data is considered to be of good quality (Sections 11 to 14).

Coffey Mining considers the exploration targets justify further follow-up and have the potential to significantly add to the resource inventory of the Project, as proven by the Minapampa East Zone. From an economic view the deeper down dip potential of Ollachea may be better targeted from any future underground development as diamond drilling from surface will require >1km holes due to the high topography north of the main northward-dipping mineralisation.

New discoveries like the Concurayoc Zone, displaced by some 300m from the main Minapampa Zone, create additional resource potential. All mineralisation discovered to date at Ollachea remains open-ended along strike as well down-dip.

11 DRILLING

11.1 Introduction

The principal methods used for exploration drilling at Ollachea have been diamond core drilling (DDH) by MDH SAC (drilling company), using standard wireline diamond drilling of HQ diameter then reducing to NQ as ground conditions dictate. Core recovery was very good except in large fracture zones.

Table 11.1_1 summarizes pertinent drilling statistics. The central zone has been drilled at a nominal spacing of 40m by 40m.

Table 11.1_1
Ollachea Project
Summary Drilling Statistics

Company/Year	Drillholes	Metres	Contractor	Drill Type	Sample Size
Peruvian Gold Limited (1998 - 1999)	5	501	Unknown	Diamond	HQ, NQ
MKK (2008 – November 2010)	126	48,111.9	MDH SAC	Diamond	HQ, NQ, BQ

11.2 Drilling Procedures

11.2.1 Diamond Drilling Procedures

All diamond drilling used in the November 2010 resource estimate was completed by the MKK contractor. Most diamond core holes were drilled using HQ and reducing to NQ diameter. The were some BQ diameter holes drilled but they were not located within the Minapampa and Minapampa East area

Based upon inspection of various core trays available on site and review of the available reports, Coffey Mining considers that diamond core drilling has been carried out to expected industry standards.

11.3 Drilling Orientation

Drillholes were generally drilled to the south at between 40 degrees to 90 degrees dip. Holes were targeted to perpendicularly intersect the main trend of mineralization but given the access to deeper sections of mineralisation the intersections are often oblique to mineralization. The deeper sections of Ollachea will need to be targeted from underground or via >1km surface directional drilling The central zone (Minapampa and Minapampa East) has been drilled at a nominal spacing of 40m by 40m.

The relationship between drilling and mineralisation is defined in further detail is Section 16. Drillholes typically intersect mineralisation orthogonally, and the mineralised intercepts are typically 60% to 100% of the true mineralised thickness.

11.4 Surveying Procedures

11.4.1 Accuracy of Drillhole Collar Locations

Drillhole collars were surveyed by MKK surveyors using total station. Survey accuracy is reported as +/-0.5m.

Accuracy of the survey measurements meets acceptable industry standards.

11.4.2 Downhole Surveying Procedures

Downhole surveys have been undertaken by the contract driller utilising both a Reflex single shot and multi-shot survey tool.

On validating the database, the original survey certificates for holes DDH08-01 and DDH08-02 were not located. The survey coordinates within the database provided by MKK were used. On inspecting these holes spatially, there was good correlation from surrounding drilling and correlation of results, and where therefore used for the resource estimation.

Accuracy of the down-the-hole survey measurements meets acceptable industry standards.

12 SAMPLING METHOD AND APPROACH

12.1 Diamond Core Sampling

Since mid 2009, the sampling protocol at Ollachea has changed, the HQ and NQ diameter diamond core within the mineralised zone (20m either side of known mineralised lenses) was sampled on an average length of 1m (half core). Areas out-side the mineralised zones were sampled at 5m (quarter core), if any significant intercepts were found (>0.1g/t Au), then the interval was re-sampled to 1m (half core).

Initial samples at Ollachea were taken on 2m sample lengths, after the recommendations by Coffey Mining; the current sampling protocol was established. Figure 16.1.6_1 shows a histogram of raw sample lengths, though the majority of samples taken are at a 2m length, there is now a substantial amount of 1m sample intervals, obtained from the latest infill drill campaign.

The core was split using a diamond core saw. Samples were numbered and collected in individual plastic bags with sample tags inserted inside. The chain of custody was noted to be very good with the remaining core currently stored within refrigerated containers.

Core mark-up and sampling has been conventional and appropriate. Core was orientated for structural measurements, from and including drillhole DDH10-102, based on recommendations from Coffey Mining. Earlier drilling is not orientated.

12.2 Logging

Diamond core was logged in detail for geological, structural and geotechnical information, including RQD and core recovery. Whole core was routinely photographed. Review by Coffey Mining of selected geological logs against actual core showed no significant discrepancies or inconsistencies.

Diamond core logging has been conventional and appropriate.

12.3 Results

The November resource estimate and associated statistics as described in Section 16 summarises appropriate drill assay data up to and including hole DDH10-125. Drillholes typically intersect mineralisation orthogonally, and the mineralised intercepts are typically 60% to 100% of the true mineralised thickness.

13 SAMPLE PREPARATION, ANALYSES AND SECURITY

13.1 Sample Security

Reference material is retained and stored on site, including half-core and photographs generated by diamond drilling, and duplicate pulps and residues of all submitted samples. All core and pulps are stored at the MKK base in Juliaca City, in refrigerated containers, to preserve the sulphides.

13.2 Sample Preparation and Analysis

13.2.1 CIMM Laboratory

The CIMM sample preparation laboratory in Juliaca City, prepared the drill core samples for the Ollachea Project under the following procedure:

- Samples are sorted and dried in an oven
- Samples are crushed by 2 crushers followed by a roll crusher to 2mm. The full sample is riffle split to 500g.
- A 500g pulp is prepared in LM2 pulveriser bowls to 85% < 75µm (200 mesh). 50g pulps were submitted for chemical analysis.
- Chemical analysis is conducted at the CIMM Lima laboratory and consisted of fire assay (FA) with atomic absorption spectrometry (AAS) finish, using 50g sub-samples. A 32 element suite was also analysed by ICP-OES but has been stopped by MKK as no significant values for these elements were returned from this analysis.

Smee (2009) completed an audit of the preparation laboratory and identified serious preparation issues.

- The crushers were examined and both showed that the dust extraction pipe was connected directly to the rear of the crushers rather than the rear of the dust enclosure. This can create a sample bias.
- The pulveriser only handles 250g at a time and 500g is pulverized. These pulverisers need replacing.

The issues identified by Mr. Smee have since been rectified.

13.3 Adequacy of Procedures

Coffey Mining has been advised the main issues identified by Smee (2009), have been rectified and this includes:

- Upgrading the pulverising unit to a COSAN TM, LM2 model
- Pulveriser bowls have been upgraded to B2000 type, so they can handle the 500g pulverisation in one pass
- In regards to the dust extraction unit, the pipe is no longer attached directly to the crusher as before, and the extraction power of the exhaust fan has been reduced.

Coffey Mining has not been able to independently verify that the recommendations by Smee have been implemented at the Juliaca sample preparation laboratory and is relying on information provided by MKK.

Coffey Mining considers that the sample preparation and security are adequate and appropriate for use in the resource estimation.

14 DATA VERIFICATION

14.1 Introduction

Standards, blanks and pulp duplicates are inserted at approximately 1 in 20 (5%) by MKK.

14.2 MKK Standards and Blanks

MKK has made eight gold standards (8001 to 8009) of various grades. The previous report (Coffey Mining (April 2010)) identified issues with standards 8001 to 8004, and they are no longer used. Summary results from the standards are shown in Table 14.2_1.

Table 14.2_1
Previous Gold Standards Utilised by MKK
Submitted Standards – no longer used

Standard	Expected Value (EV)	+/-10% (EV)	Failed	No of Analyses	Min. (%)	Max. (%)	Mean (%)	% Within +/- 10 of EV	% RSD (from EV)	% Bias (from EV)
8001 (ppm)	25.36	22.82 to 27.9	**2**	17	21.66	24.85	0.87	88.24	3.63	-5.1
8002 (ppm)	6.99	6.29 to 7.69	**2**	235	1.55	7.66	7.01	0.43	6.14	0.27
8003 (ppm)	1.53	1.38 to 1.68	**20**	243	1.23	1.83	1.5	92.59	5.04	-1.82
8004 (ppb)	19.86	17.87 to 21.85	**ALL**	119						

Coffey Mining considers that the current accuracy of the new standards 8006 to 8009 to be reasonable, but identified a number of poorly monitored issues from the earlier standards. Figures 14.2_1 to 14.2_4 show the results over time, for standards 8006 to 8009 respectively. Summary of results below:

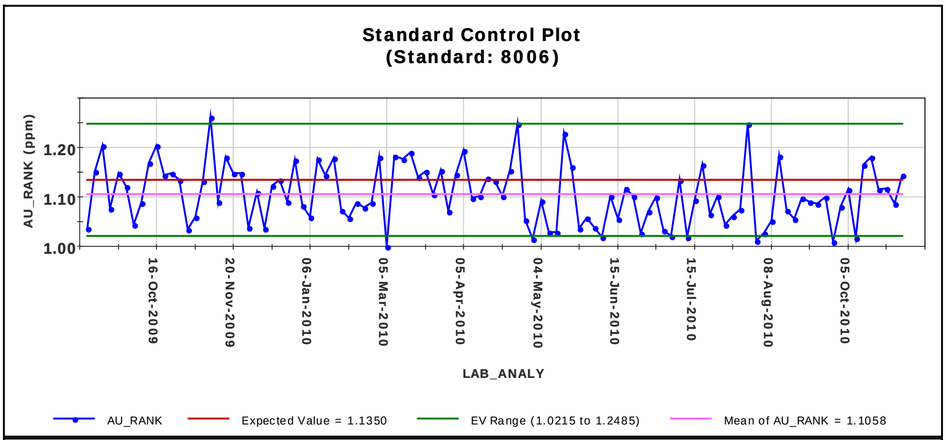
- 8006 Over time shows a negative bias from the expected value (-2.6%). From the 4 May 2010 to the 5 October 2010 this bias is more pronounced, and could be attributed to a calibration error at the laboratory, as results return to expected values.
- 8007 Generally the results are around the expected value, though there is a slight negative bias, this has been exaggerated by a possible misallocated standard submitted towards the end of May 2010.
- 8008 Similar to 8007, generally expected values are returned, a possible misallocated sample was included in early November 2010.
- 8009 Overall good accuracy with expected value, with a very slight positive bias (+0.2%).

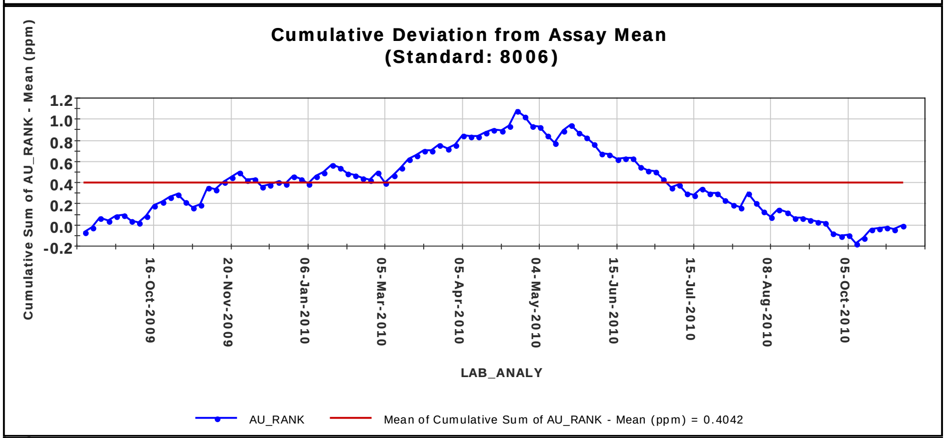
Blanks were initially made from “known” waste areas by MKK staff. However recently, certified waste standards have been used. Figure 14.2_5, shows the results over time, with very good results shown from early 2010, when the previous “in-house” blank material was no longer submitted.

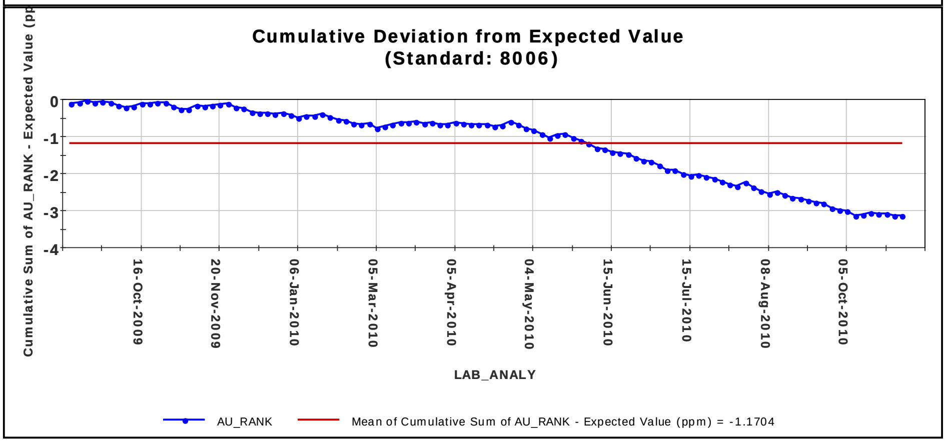
Figure 14.2_1
MKK - Standard 8006

OLLACHEA QAQC
(Standard: 8006)

Standard:	8006	No of Analyses:	107
Element:	Au	Minimum:	1.0000
Units:	ppm	Maximum:	1.2610
Detection Limit:	-	Mean:	1.1058
Expected Value (EV):	1.1350	Std Deviation:	0.0591
E.V. Range:	1.0215 to 1.2485	% in Tolerance	91.5888 %
		% Bias	-2.5691 %
		% RSD	5.3420 %





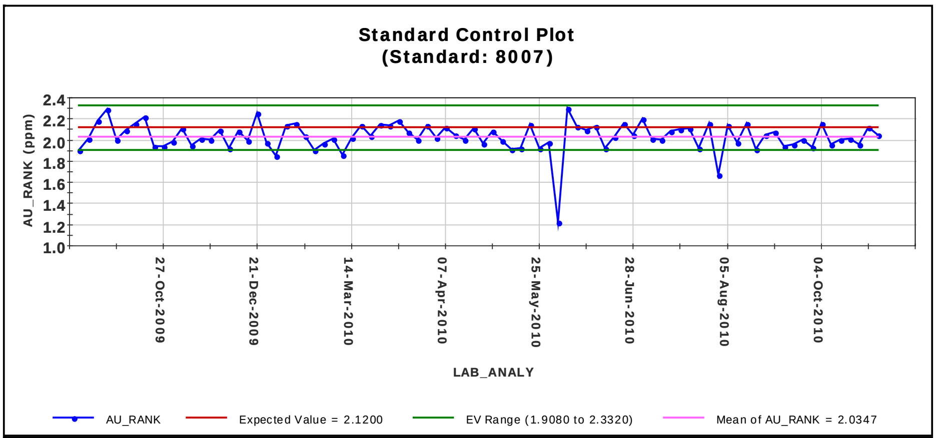


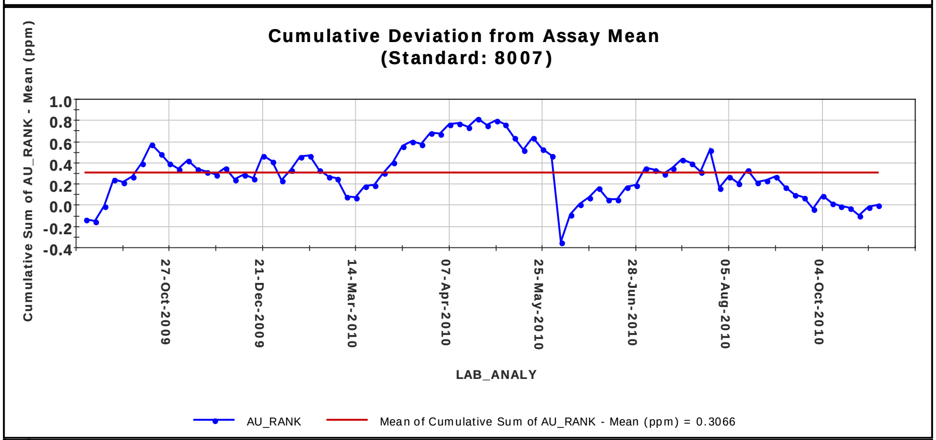
Printed: 15-Dec-2010 15:36:03 Data Refreshed: 15-Dec-2010 15:21:34 Page 1

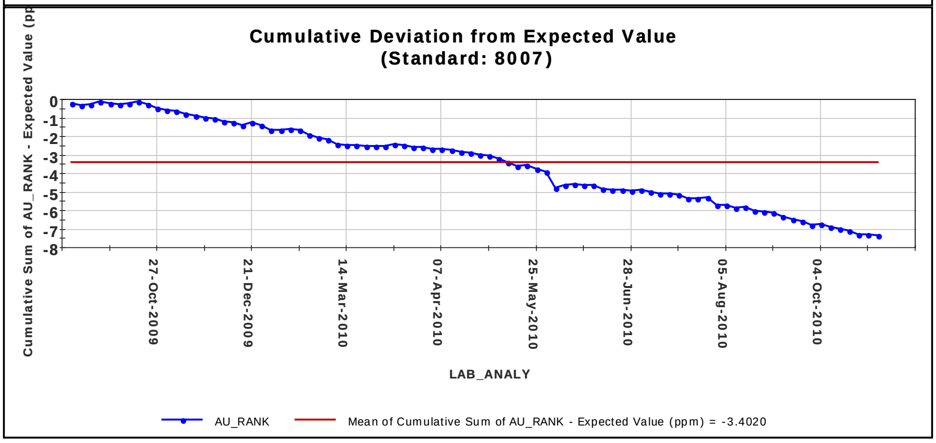
Figure 14.2_2
MKK - Standard 8007

OLLACHEA QAQC
(Standard: 8007)

Standard:	8007	No of Analyses:	86
Element:	Au	Minimum:	1.2200
Units:	ppm	Maximum:	2.2980
Detection Limit:	-	Mean:	2.0347
Expected Value (EV):	2.1200	Std Deviation:	0.1367
E.V. Range:	1.9080 to 2.3320	% in Tolerance	93.0233 %
		% Bias	-4.0215 %
		% RSD	6.7204 %





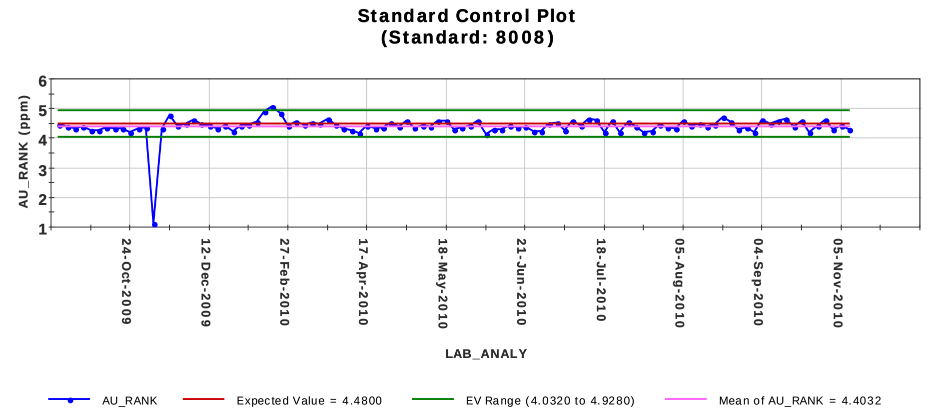


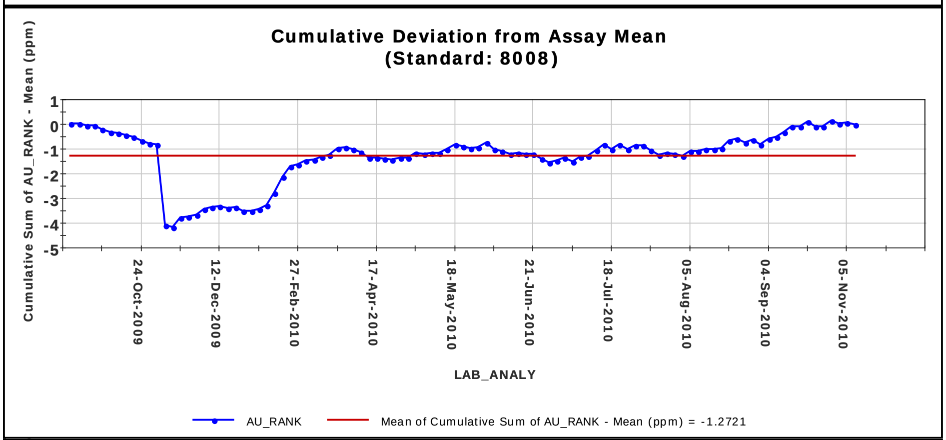
Printed: 15-Dec-2010 15:36:27 Data Refreshed: 15-Dec-2010 15:21:34 Page 1

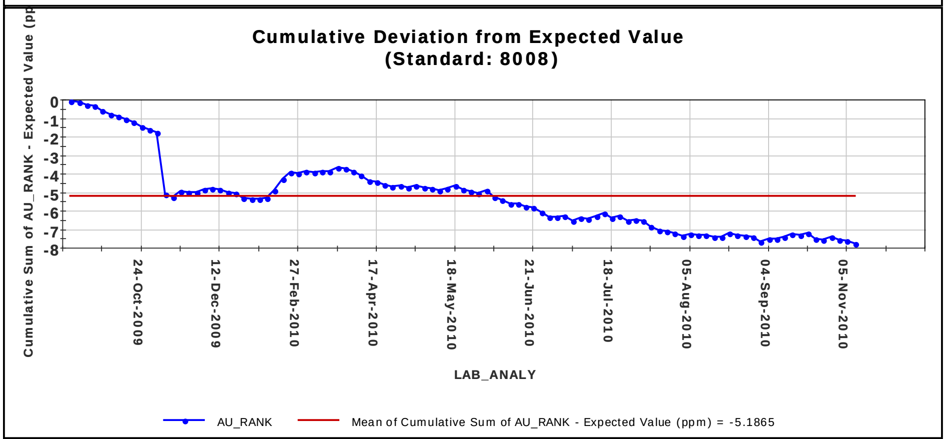
Figure 14.2_3
MKK - Standard 8008

OLLACHEA QAQC
(Standard: 8008)

Standard:	8008	No of Analyses:	101
Element:	Au	Minimum:	1.1320
Units:	ppm	Maximum:	5.0790
Detection Limit:	-	Mean:	4.4032
Expected Value (EV):	4.4800	Std Deviation:	0.3639
E.V. Range:	4.0320 to 4.9280	% in Tolerance	98.0198 %
		% Bias	-1.7132 %
		% RSD	8.2634 %





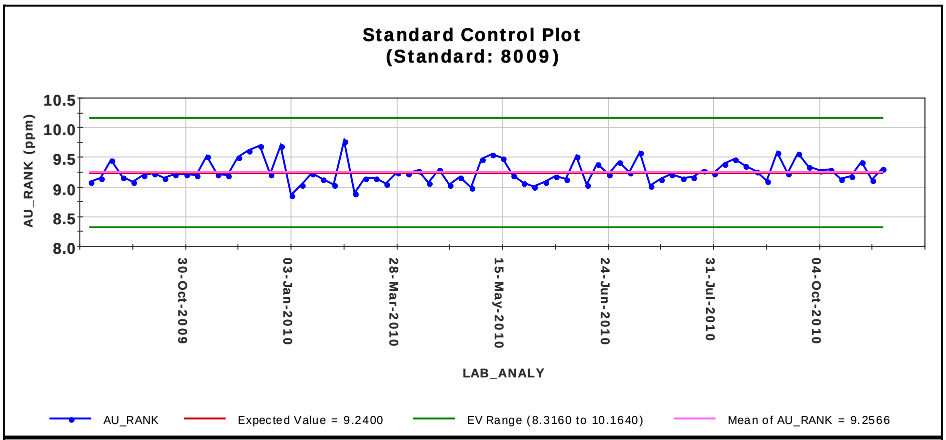


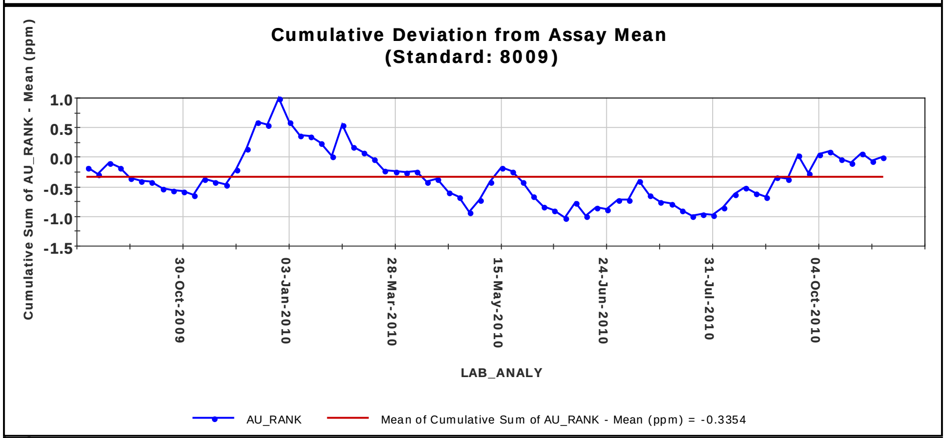
Printed: 15-Dec-2010 15:36:53 Data Refreshed: 15-Dec-2010 15:21:34 Page 1

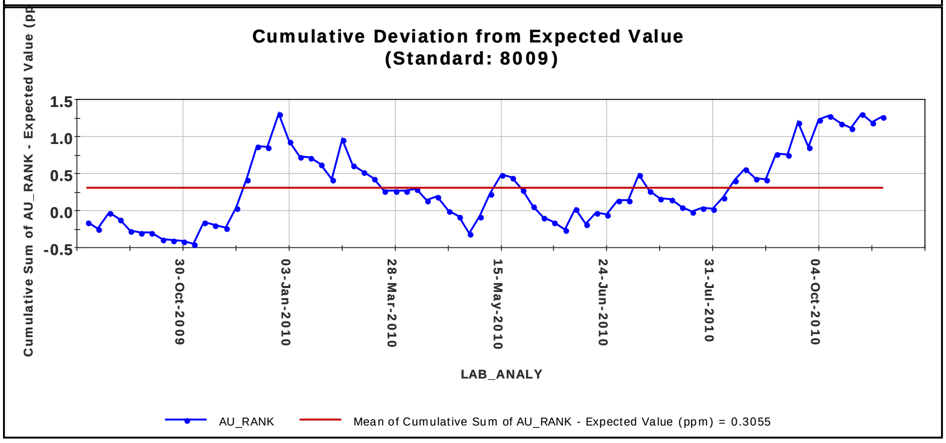
Figure 14.2_4
MKK - Standard 8009

OLLACHEA QAQC
(Standard: 8009)

Standard:	8009	No of Analyses:	76
Element:	Au	Minimum:	8.8620
Units:	ppm	Maximum:	9.7760
Detection Limit:	-	Mean:	9.2566
Expected Value (EV):	9.2400	Std Deviation:	0.1905
E.V. Range:	8.3160 to 10.1640	% in Tolerance	100.0000 %
		% Bias	0.1801 %
		% RSD	2.0583 %





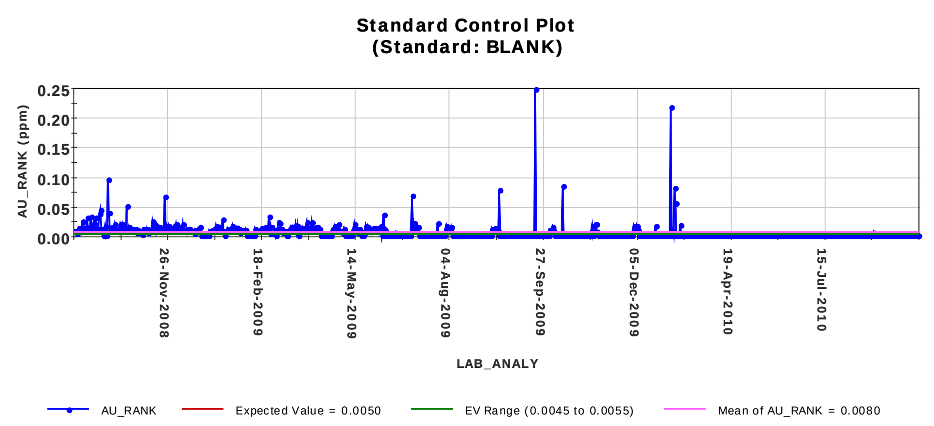


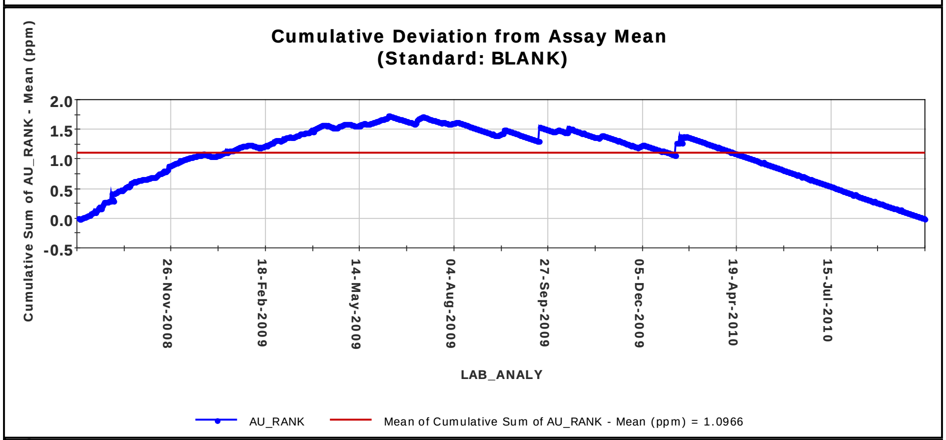
Printed: 15-Dec-2010 15:21:55 Data Refreshed: 15-Dec-2010 15:21:34 Page 1

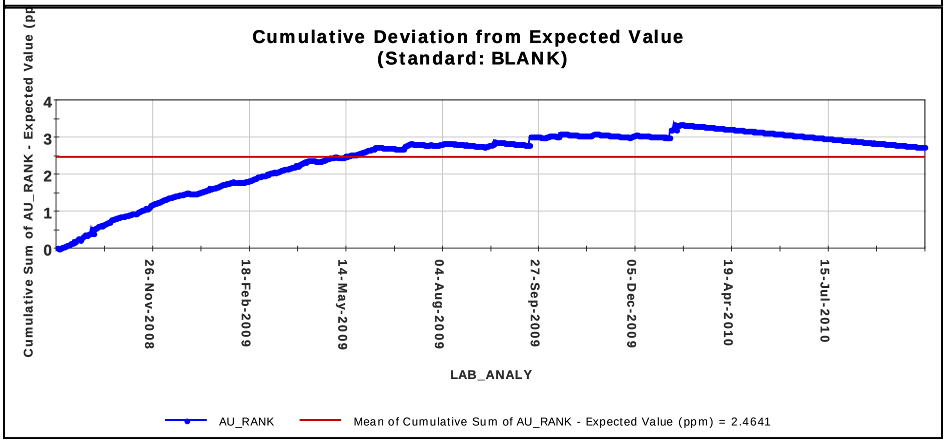
Figure 14.2_5
MKK – Blank Standard

OLLACHEA QAQC
(Standard: BLANK)

Standard:	BLANK	No of Analyses:	899
Element:	Au	Minimum:	0.0025
Units:	ppm	Maximum:	0.2500
Detection Limit:	0.005	Mean:	0.0080
Expected Value (EV):	0.0050	Std Deviation:	0.0142
E.V. Range:	0.0045 to 0.0055	% in Tolerance	0.2225 %
		% Bias	60.7786 %
		% RSD	176.7150 %







Printed: 15-Dec-2010 15:37:34 Data Refreshed: 15-Dec-2010 15:21:34 Page 1

14.3 MKK Duplicates

14.3.1 Field Duplicates

A field duplicate is collected after every 30 samples by MKK. Initially in the project, the field duplicates compared ½ core with ¼ core. Coffey Mining recommended that during the latest infill program, that field duplicates be submitted based on a similar sample volume. That is, a ½ core sample (1m interval) would have a ½ core field duplicate, a ¼ core sample (5m interval) would have a ¼ core field duplicate.

Coffey mining has compared the results of the ½ core vs ¼ core, ½ core vs ½ core and ¼ core vs ¼ core using the QC assure software. The results are graphically displayed in Figures 14.3.1_1 to 14.3.1_3.

After examining the field duplicates, there does not appear to be much difference in the relative sample precision. For the ½ vs ¼ core samples (592 results) only 70% pass a 30% HARD, whereas for the ½ vs ½ core samples (133 results) only 68% pass a 30% HARD. The ¼ vs ¼ core samples (195 results) only 68% pass a 30% HARD. In both cases the precision levels are moderate, as is often encountered in nuggetty gold deposits.

The comparison of the ¼ core vs ½ core and the ½ core vs ½ core field duplicates, to date, shows there is no noticeable change due to the different sample volumes. There is a negative bias in the higher grade values (> 10g/t Au), indicating the possible presence of coarse gold; although the mean of the field duplicate is higher for both data sets than for the original samples.

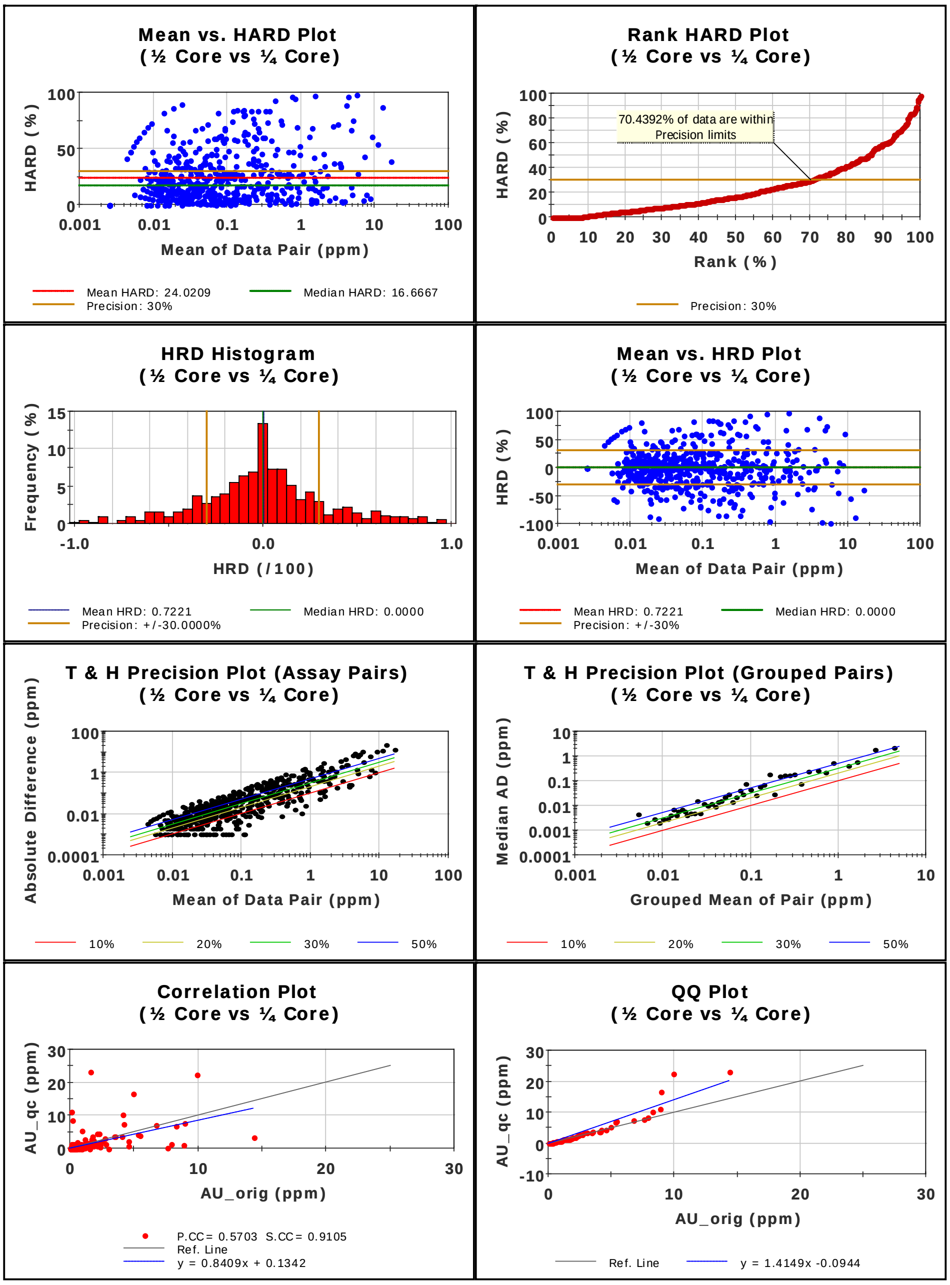
The ¼ core vs ¼ core field duplicate, is mainly restricted to the non-mineralised areas (5m length).

Coffey Mining recommends that this ½ core versus ¼ core duplicate be discontinued, in infill drill areas, as comparing different sample sizes does not produce conclusive results

Figure 14.3.1_1
Field Duplicates – ½ core vs ¼ core

OLLACHEA FIELD DUPLICATES
(½ Core vs ¼ Core)

	AU_orig	AU_qc	Units		Result
No. Pairs:	592	592		Pearson CC:	0.5703
Minimum:	0.0025	0.0025	ppm	Spearman CC:	0.9105
Maximum:	14.3300	23.2900	ppm	Mean HARD:	24.0209
Mean:	0.3982	0.4690	ppm	Median HARD:	16.6667
Median	0.0430	0.0410	ppm		
Std. Deviation:	1.2528	1.8471	ppm	Mean HRD:	0.7221
Coefficient of Variation:	3.1461	3.9381		Median HRD	0.0000

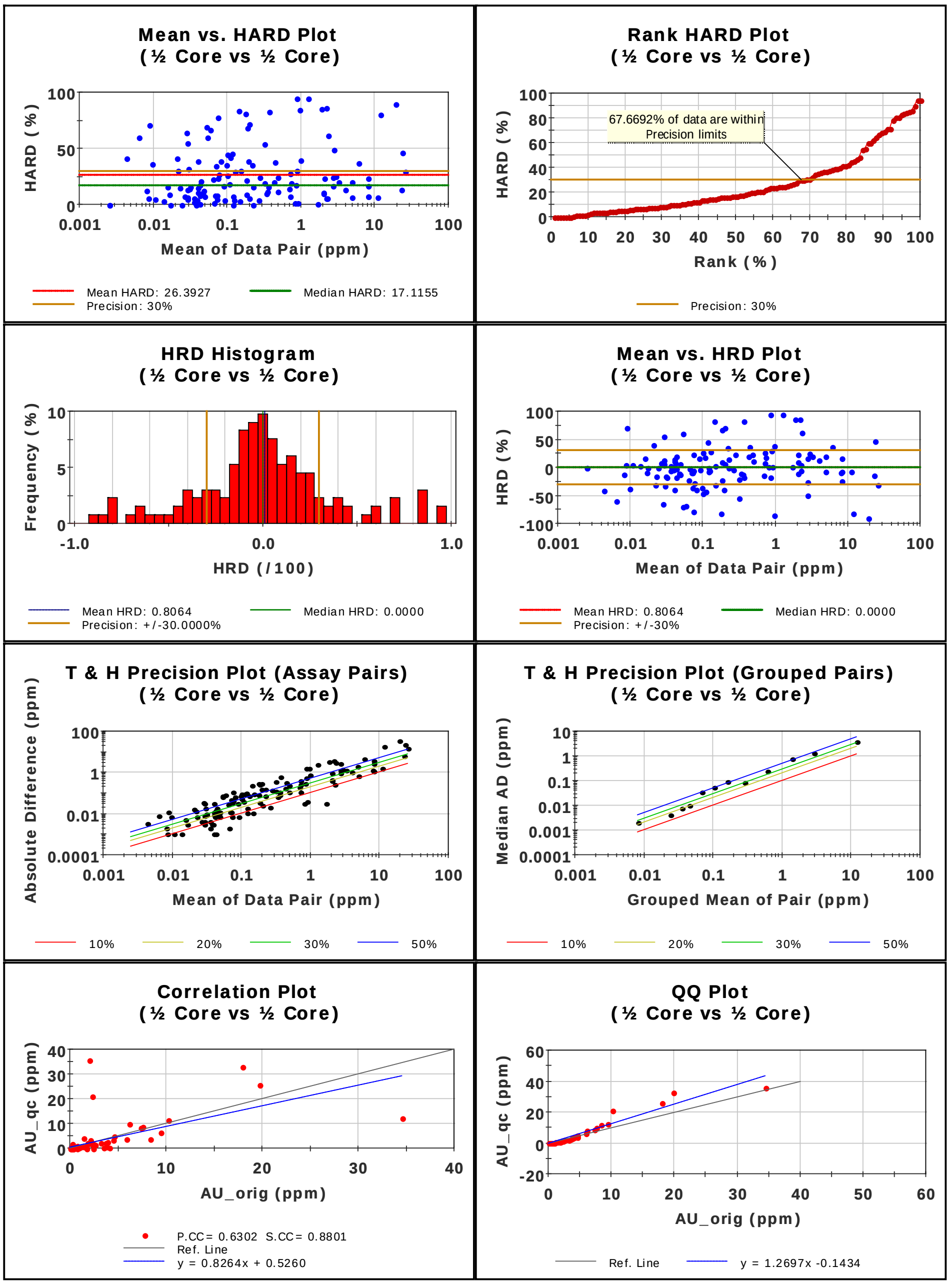


Printed: 15-Dec-2010 11:48:13 Data Imported: 15-Dec-2010 11:40:42 Page 1

Figure 14.3.1_2
Field Duplicates – ½ core vs ½ core

OLLACHEA FIELD DUPLICATES
(½ Core vs ½ Core)

	AU_orig	AU_qc	Units		Result
No. Pairs:	133	133		Pearson CC:	0.6302
Minimum:	0.0025	0.0025	ppm	Spearman CC:	0.8801
Maximum:	34.5090	35.9100	ppm	Mean HARD:	26.3927
Mean:	1.5102	1.7741	ppm	Median HARD:	17.1155
Median	0.1200	0.1110	ppm		
Std. Deviation:	4.0889	5.3618	ppm	Mean HRD:	0.8064
Coefficient of Variation:	2.7075	3.0223		Median HRD	0.0000

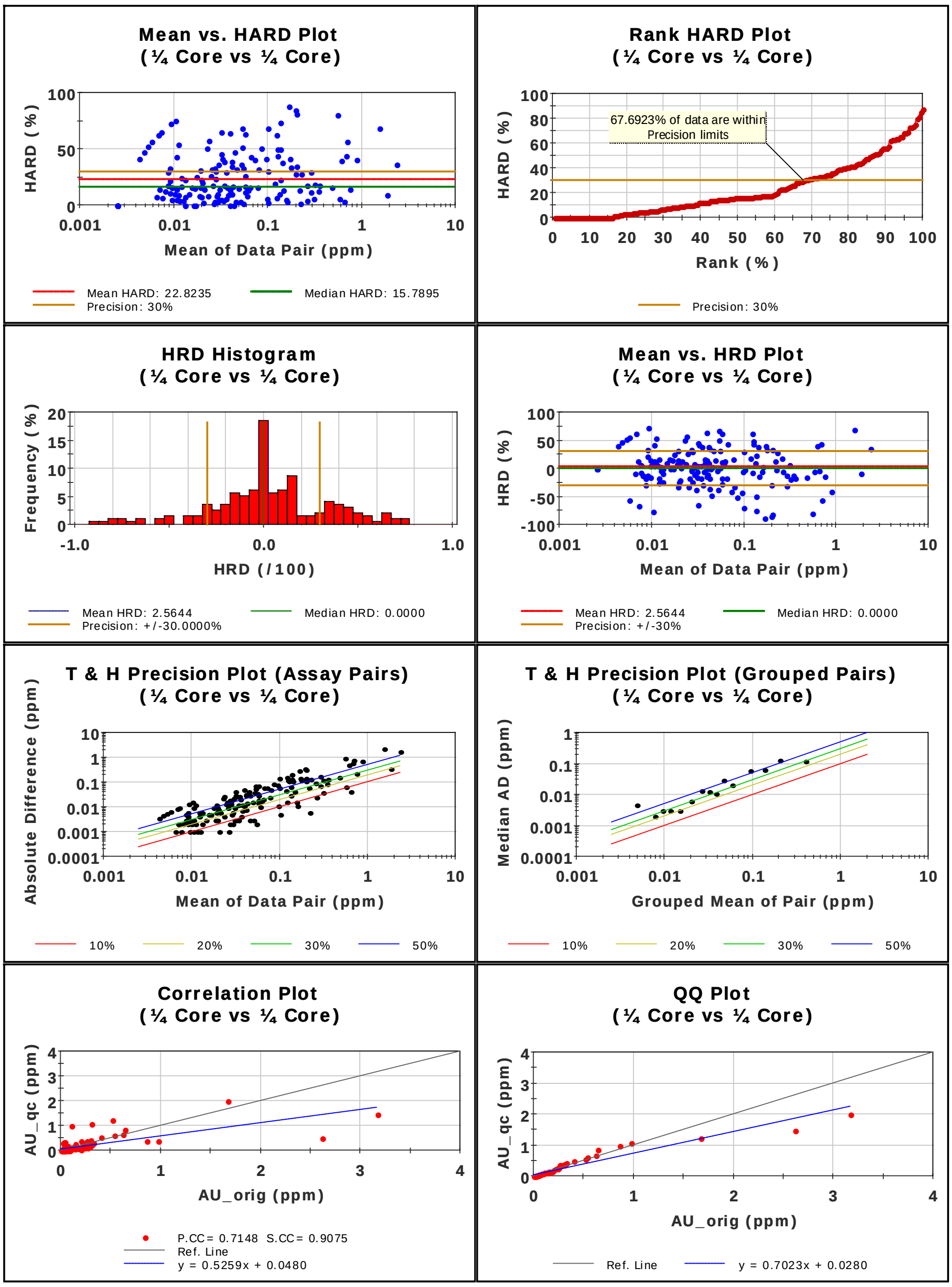


Printed: 15-Dec-2010 11:46:24 Data Imported: 15-Dec-2010 11:40:42 Page 1

Figure 14.3.1_3
Field Duplicates – ¼ core vs ¼ core

OLLACHEA FIELD DUPLICATES
(¼ Core vs ¼ Core)

	AU_orig	AU_qc	Units		Result
No. Pairs:	195	195		Pearson CC:	0.7148
Minimum:	0.0025	0.0025	ppm	Spearman CC:	0.9075
Maximum:	3.1740	2.0090	ppm	Mean HARD:	22.8235
Mean:	0.1132	0.1075	ppm	Median HARD:	15.7895
Median	0.0260	0.0250	ppm		
Std. Deviation:	0.3361	0.2473	ppm	Mean HRD:	2.5644
Coefficient of Variation:	2.9684	2.2996		Median HRD	0.0000



Printed: 15-Dec-2010 11:50:06 Data Imported: 15-Dec-2010 11:40:42 Page 1

14.3.2 Preparation Duplicate Sample

After crushing the sample to a -2mm size, the sample is split twice to 500g with the second split representing the preparation duplicate. This occurred on samples up to and including DDH10-80 (last primary laboratory assay date – 18 January 2010).

Coffey Mining compared the preparation duplicate data (289 samples) using the QC Assure software. The results of this data are presented in Figure 14.3.2_1, showing that the preparation duplicate has over 86% precision at 20% Rank HARD and 74% precision at 10% Rank HARD. This is a good result for this style of Au mineralisation.

14.3.3 Pulp Duplicate

During the drilling program, CIMM laboratories provided two pulps obtained from each sampled interval. MKK personnel recoded all the samples and regularly sent the second pulp of the same sample as pulp duplicate back to CIMM (i.e. a blind pulp duplicate). This occurred on samples up to and including DDH09-43 (with a last primary laboratory assay date of 17 June 2009).

The 228 pulp duplicates submitted returned a poor precision of 58% at 10% Rank HARD with the mean grade of the duplicates being 8% higher than the mean grade of the original pulp samples (0.69ppm Au versus 0.64ppm Au). The results of this data are presented in Figure 14.3.3_1.

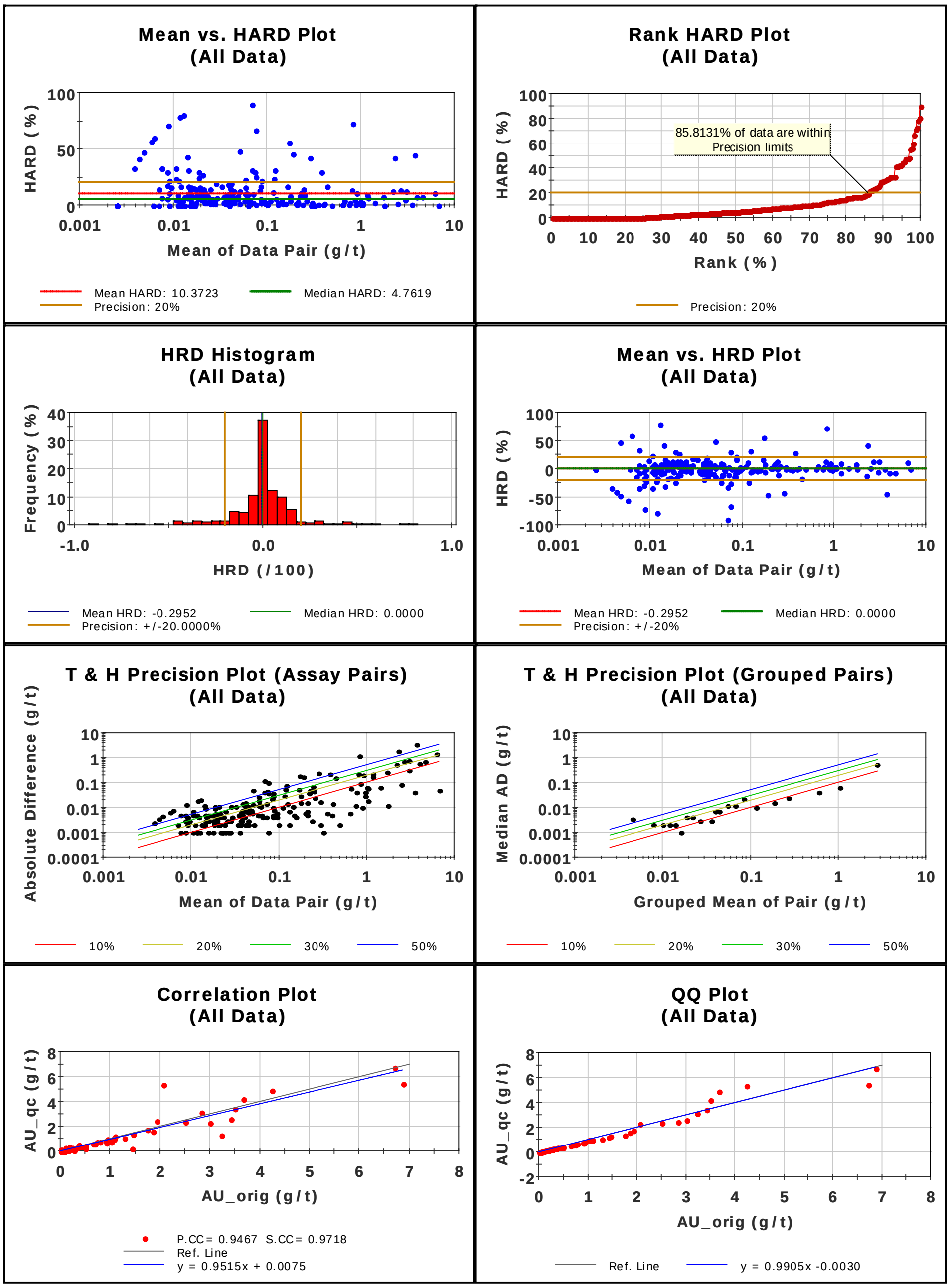
The reasoning behind the poor precision levels seen in the pulp duplicates is unclear as the preparation laboratory duplicates returned an overall good precision. Smee (2009) suggested that the resubmitted pulps have been contaminated in some way possibly due to humidity and or mixing of pulps. Poor homogenisation during pulverisation could also be an issue.

A total of 80 Umpire pulp samples were sent to ALS Chemex laboratories in Santigo, Chile from the 2010 drilling campaign. The pulps were analysed using the same method as used by CIMM (see Section 14.4.1) and showed high precision levels. The improved result from the Umpire pulps indicates that oxidation of pulps may have an effect the precision of the duplicate study.

Figure 14.3.2_1
Preparation Laboratory Duplicates – Up To DDH10-80

OLLACHEA PREP DUPLICATES (All Data)

	AU_orig	AU_qc	Units		Result
No. Pairs:	289	289		Pearson CC:	0.9467
Minimum:	0.0025	0.0025	g/t	Spearman CC:	0.9718
Maximum:	6.8760	6.7610	g/t	Mean HARD:	10.3723
Mean:	0.2692	0.2636	g/t	Median HARD:	4.7619
Median	0.0250	0.0230	g/t		
Std. Deviation:	0.8211	0.8253	g/t	Mean HRD:	-0.2952
Coefficient of Variation:	3.0502	3.1305		Median HRD	0.0000

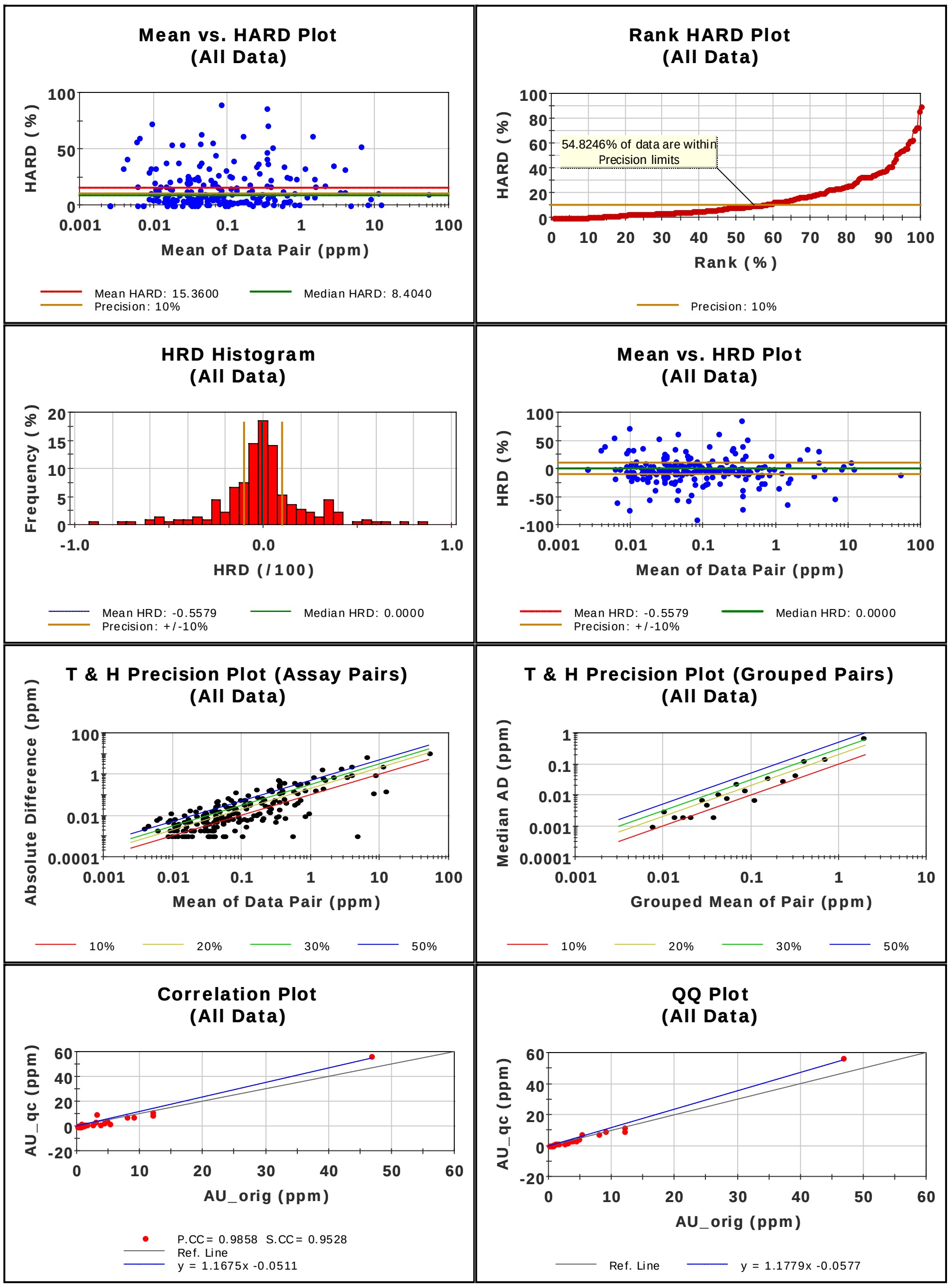


Printed: 15-Dec-2010 12:31:11 Data Imported: 15-Dec-2010 12:24:50 Page 1

Figure 14.3.3_1
Ollachea Project : Pulp Duplicates – Up to DDH09-43

OLLACHEA PULP DUPLICATES
(All Data)

	AU_orig	AU_qc	Units		Result
No. Pairs:	228	228		Pearson CC:	0.9858
Minimum:	0.0025	0.0025	ppm	Spearman CC:	0.9528
Maximum:	46.7400	57.1900	ppm	Mean HARD:	15.3600
Mean:	0.6363	0.6918	ppm	Median HARD:	8.4040
Median	0.0460	0.0500	ppm		
Std. Deviation:	3.4004	4.0274	ppm	Mean HRD:	-0.5579
Coefficient of Variation:	5.3443	5.8220		Median HRD	0.0000



Printed: 15-Dec-2010 13:18:18 Data Imported: 15-Dec-2010 13:17:37 Page 1

14.4 Laboratory Internal and External Quality Control

14.4.1 Umpire Laboratory Testing

MKK selected 205 various pulp samples from the 2008, 2009 and 2010 drill campaigns, these samples were reanalysed by ALS Chemex using fire assay where < 10g/t Au and a gravimetric finish was used where > 10g/t Au, to emulate the same method used by CIMM.

The results presented in the Figure 14.4.1_1 shows a moderate precision between the two, with 59% passing 10% HARD (However this increases to 72% passing 15% HARD).

As mentioned previously in Section 14.3.3, there was some concern about possible mixing or humidity problems due to storage, the umpire testing results were further split into samples from the 2008 / 2009 drill program, and samples from the 2010 drill campaign. These results are displayed in Figures 14.4.1_2 and 14.4.1_3 respectively.

The earlier drill pulps from the 2008/2009 campaign (125 samples) show a low precision, similar to the pulp duplicates in Section 14.3.3; 54% passing 10% HARD. The pulps from the 2010 campaign (80 samples) shows an increase in precision; with 66% passing 10% HARD, (this increases to 80% passing at 15% HARD). More noticeable is the increase in the Pearson and Spearman Correlation Coefficient to 0.99 and 0.93 respectively.

This result indicates a good reproducibility of the CIMM results by ALS Chemex. Coffey mining recommends that:

- MKK continue with umpire testing during drill campaigns; no more than 6 months after the original pulp sample is generated, to reduce any issues with oxidation or humidity.
- Standards 8006 to 8009 and blank standards are included in the umpire laboratory testing in future.

14.4.2 Screen Fire Assay

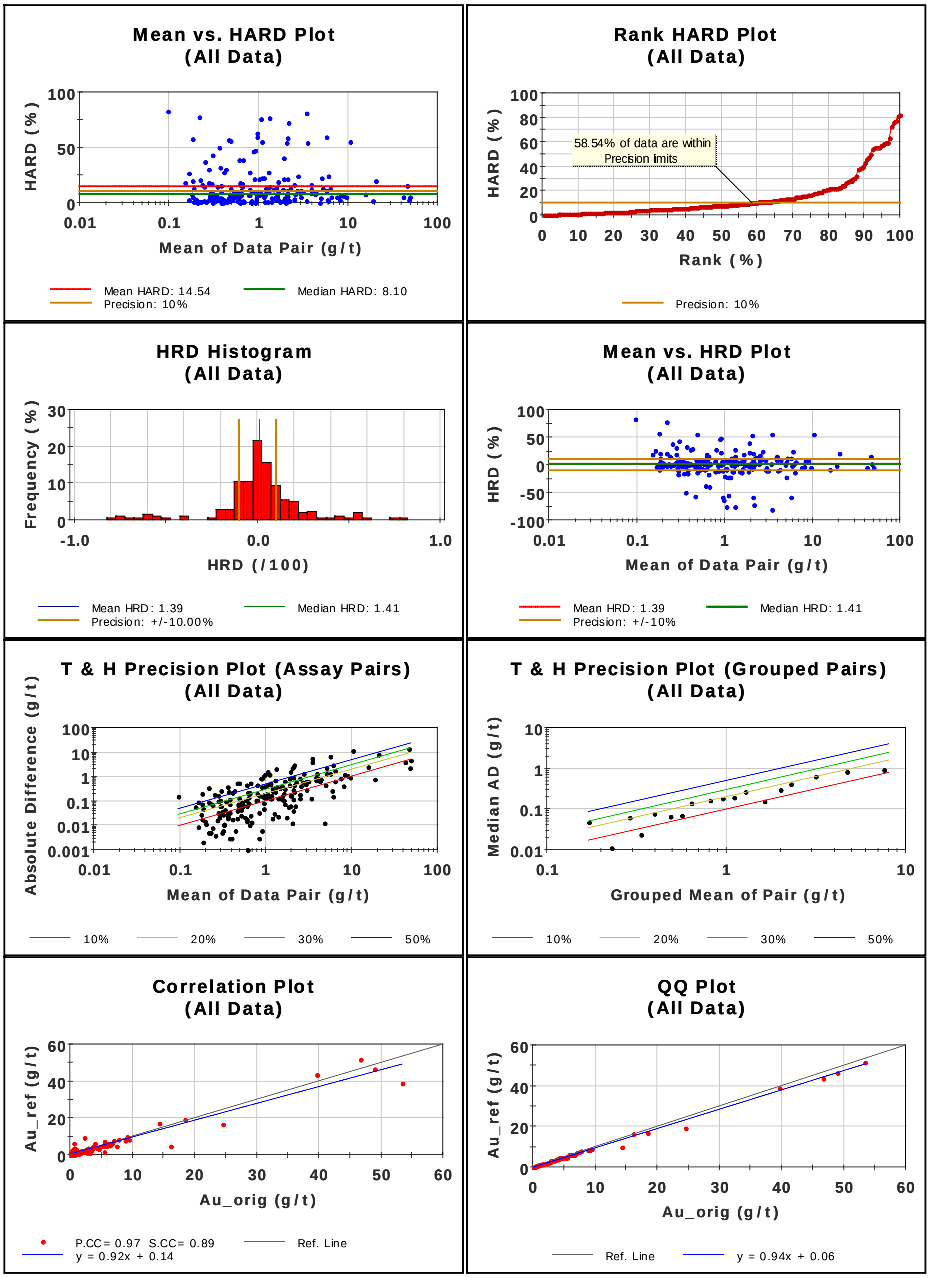
As a follow up to the 2009 Screen Fire Analysis (SFA), MKK used 221, one kilogram coarse reject samples from the 2009 / 2010 diamond drill program to conduct a SFA at CIMM laboratory. The analysis compares the fine fraction (-150 mesh) with Atomic Absorption Spectroscopy (AAS) and FA, and the coarse fraction (+150 mesh) gravimetric with AAS finish and FA. The report is included in Appendix A.

The main findings was that there was no real nugget effect in the fine (-150 mesh) fraction. In the coarse fraction the nugget effect becomes an issue for values over about 6g/t Au, where the FA shows a positive bias for the same AAS value.

Figure 14.4.1_1
CIMM versus ALS Chemex Umpire Samples (Pulp) – All Data

OLLACHEA UMPIRES - CIMM vs ALS CHEMEX (All Data)

	Au_orig	Au_ref	Units		Result
No. Pairs:	205	205		Pearson CC:	0.97
Minimum:	0.16	0.02	g/t	Spearman CC:	0.89
Maximum:	53.38	51.65	g/t	Mean HARD:	14.54
Mean:	2.75	2.66	g/t	Median HARD:	8.10
Median	0.84	0.92	g/t		
Std. Deviation:	6.98	6.60	g/t	Mean HRD:	1.39
Coefficient of Variation:	2.54	2.48		Median HRD	1.41

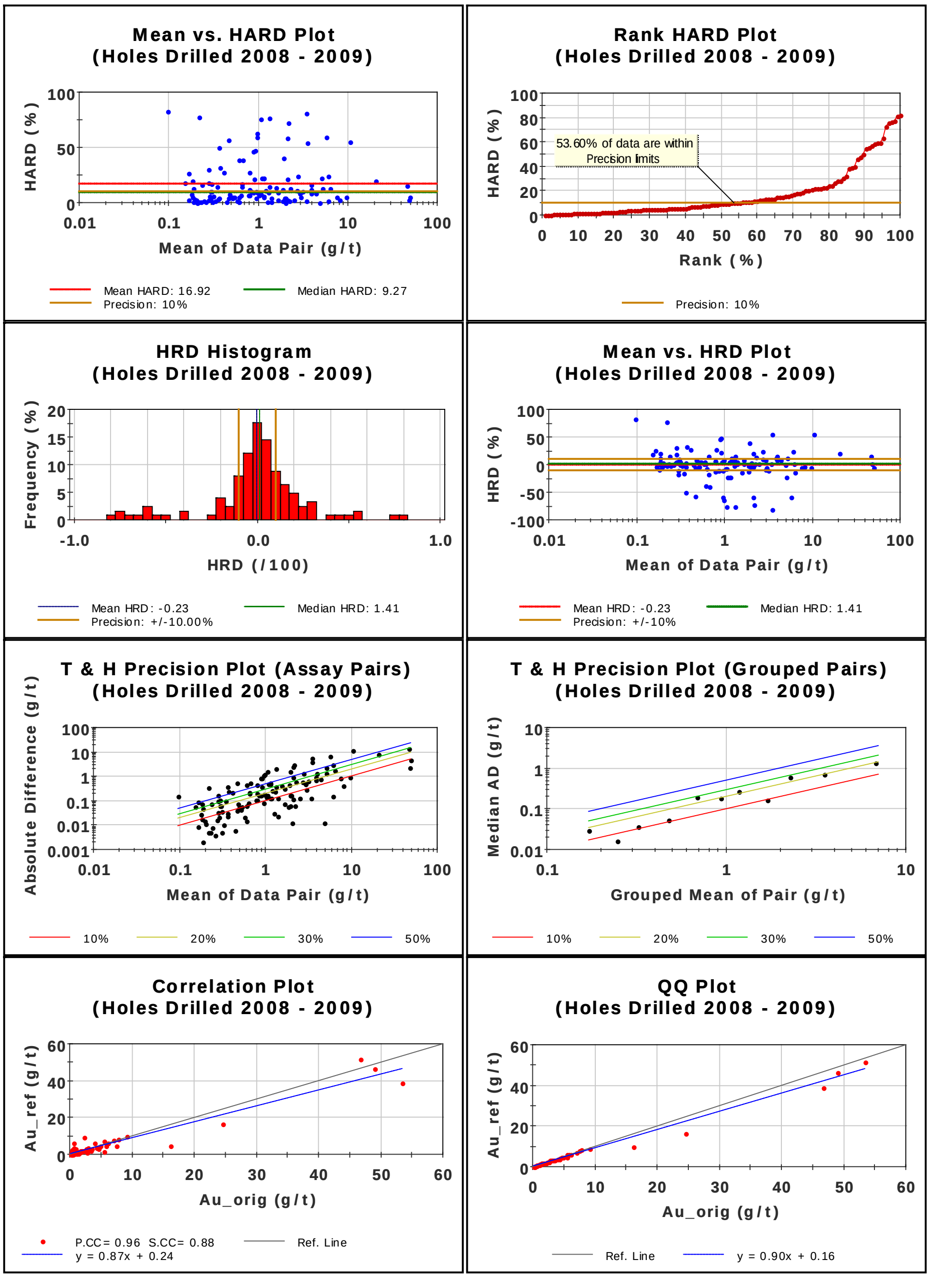


Printed: 20-Dec-2010 15:06:31 Data Imported: 16-Dec-2010 10:50:41 Page 1

Figure 14.4.1_2
CIMM versus ALS Chemex Umpire Samples (Pulp) – 2008/2009 program

OLLACHEA UMPIRES - CIMM vs ALS CHEMEX (Holes Drilled 2008 - 2009)

	Au_orig	Au_ref	Units		Result
No. Pairs:	125	125		Pearson CC:	0.96
Minimum:	0.16	0.02	g/t	Spearman CC:	0.88
Maximum:	53.38	51.65	g/t	Mean HARD:	16.92
Mean:	2.99	2.84	g/t	Median HARD:	9.27
Median	0.85	1.05	g/t		
Std. Deviation:	7.93	7.17	g/t	Mean HRD:	-0.23
Coefficient of Variation:	2.65	2.53		Median HRD	1.41

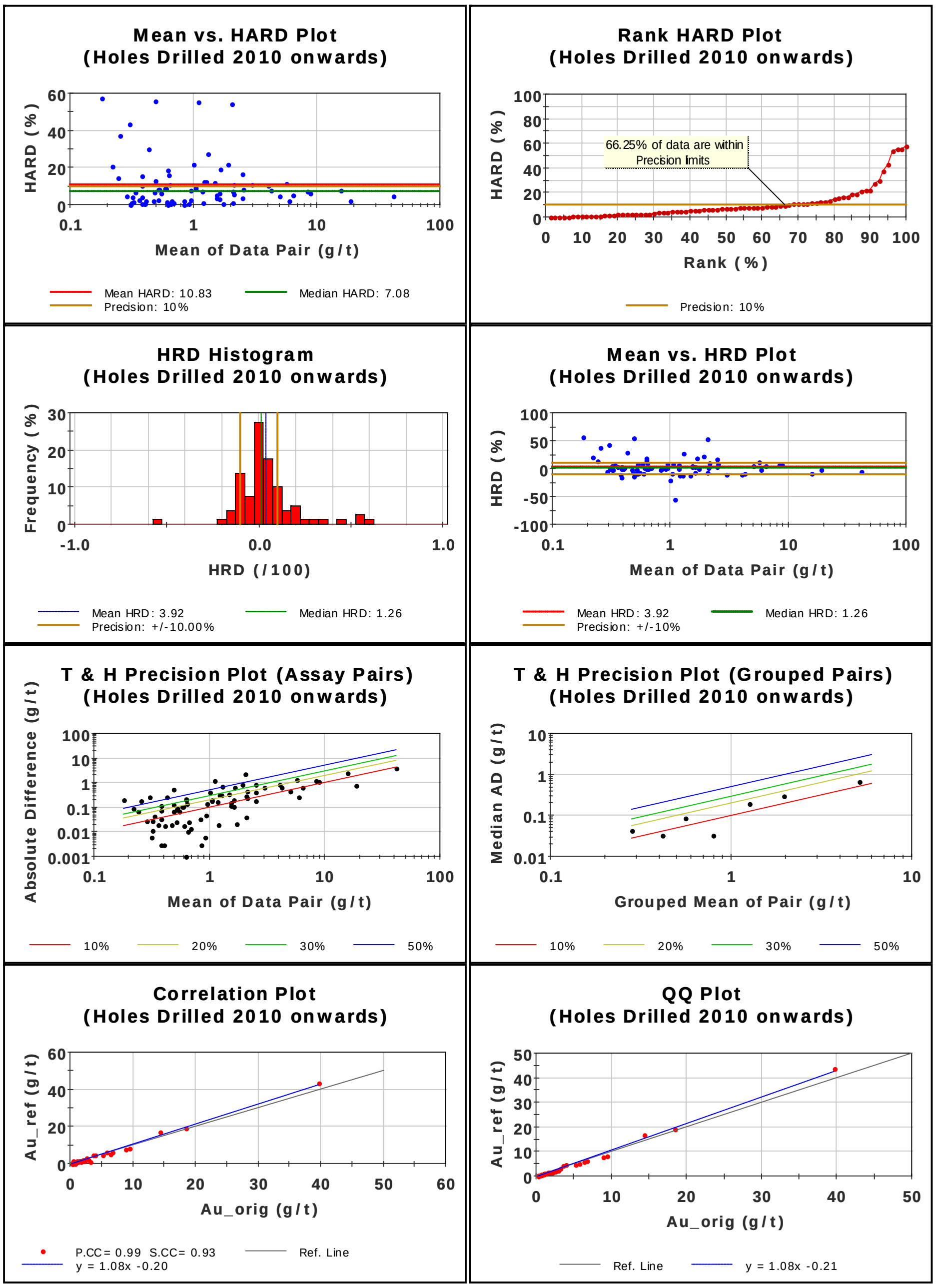


Printed: 20-Dec-2010 14:31:47 Data Imported: 16-Dec-2010 10:50:41 Page 1

Figure 14.4.1_3
CIMM versus ALS Chemex Umpire Samples (Pulp) – 2010 Program

OLLACHEA UMPIRES - CIMM vs ALS CHEMEX (Holes Drilled 2010 onwards)

	Au_orig	Au_ref	Units		Result
No. Pairs:	80	80		Pearson CC:	0.99
Minimum:	0.27	0.08	g/t	Spearman CC:	0.93
Maximum:	39.67	43.70	g/t	Mean HARD:	10.83
Mean:	2.39	2.38	g/t	Median HARD:	7.08
Median	0.80	0.86	g/t		
Std. Deviation:	5.14	5.58	g/t	Mean HRD:	3.92
Coefficient of Variation:	2.15	2.35		Median HRD	1.26



Printed: 20-Dec-2010 14:32:27 Data Imported: 16-Dec-2010 10:50:41 Page 1

14.5 Adequacy of Procedures

Since the previous report there has been a dramatic improvement in the MKK sampling procedures, with MKK now also having a full time database manager on staff. Procedures are in place to review assay results on a batch by batch basis. If any standards or blanks fail, the batch is immediately re-assayed.

Coffey Mining considers that the current drilling and sampling procedures undertaken by MKK meet industry standards.

15 ADJACENT PROPERTIES

There are no advanced gold properties in the immediate vicinity of Ollachea.

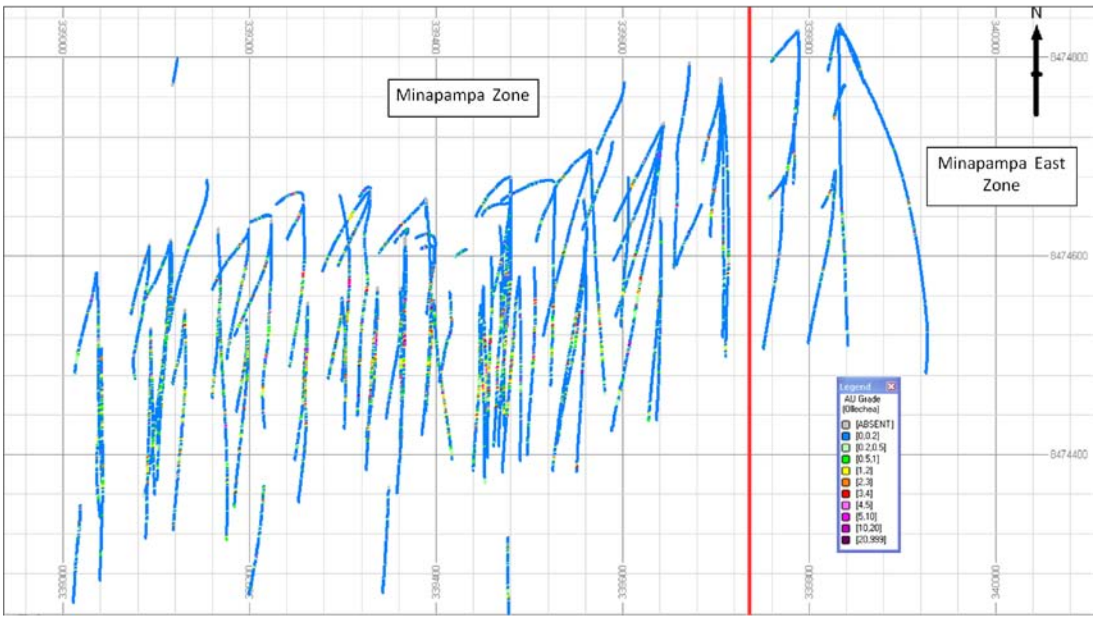
16 MINERAL RESOURCE ESTIMATE

16.1 Introduction

Coffey Mining has estimated the Mineral Resource for the Ollachea Gold Project as at 24th November 2010. All grade estimation was completed using Ordinary Kriging ('OK') for gold. This estimation approach was considered appropriate based on a review of a number of factors, including the quantity and spacing of available data, the interpreted controls on mineralization, and the style of mineralization. The estimation was constrained within mineralised interpretations that were created with the assistance of MKK geologists.

The Ollachea resource estimate is based entirely on diamond core (DC) drilling. The database provided by MKK contained 126 DC holes totalling 48,111.9m. The resource estimate was based on 107 DC holes totalling 40,400m. The estimate contained assay data up to and including hole DDH10-125, from both the Minapampa and Minapampa East zones Figure 16.1_1.

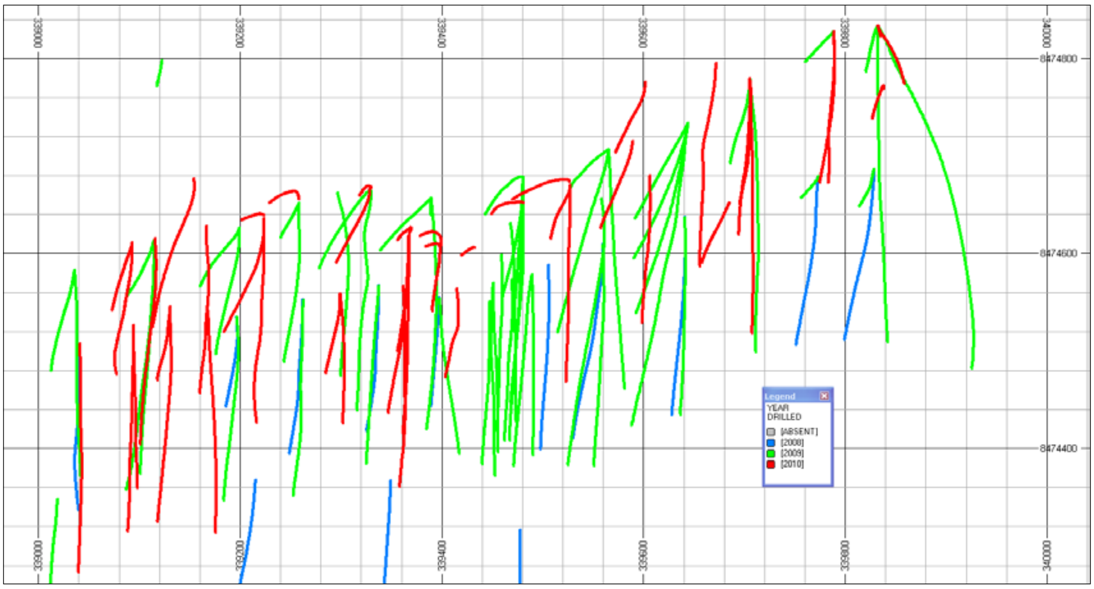
Figure 16.1_1
Ollachea Project
Drillholes by Domain – Plan View



A total of 678 bulk density determinations were collected from the DC campaign and used as the basis for tonnage reporting (no increase on the data collected for the previous report, Coffey Mining (April 2010)). The samples were used to estimate an average in-situ dry bulk density of 2.80t/m^3, as described in Section 16.2.4.

Various phases of drilling (2008 – 2010), were used in the resource estimate. Figure 16.1_2 shows a plan view of the drilling, coloured by year drilled; as can be seen subsequent drill programs infill previous campaigns. The campaigns are well spread throughout the project area and can be shown to complement previous mineralised intersections.

Figure 16.1_2
Ollachea Project
Drillholes by Year Drilled – Plan View



2008 (Blue) / 2009 (Green) / 2010 (Red)

16.1.1 Geological Model

Seven high grade domains have been interpreted using N-S oriented vertical sections based on grade information and geological observations from Coffey Mining and MKK's geologist, consistent with the previous interpretation.

Interpretation of the Ollachea geological sections has been based upon information obtained from drillhole core-logging which compiles the different lithological, mineralogical, structural and alteration characteristics in the Minapampa area.

16.1.2 Mineralised Zones

For the purpose of resource estimation, seven main high grade mineralized domains were interpreted and modelled on a lower cutoff grade of 1.0g/t Au.

The Ollachea interpretation was restricted to the high grade, relatively continuous zones (ZONE 1 to 7). A low grade envelop (Zone 99) was also modelled around the main mineralised zones to account for mining dilution. Background mineralisation (Zone 0) was also modelled. The modelled domains are shown below in Figures 16.1.2_1 and 16.1.2_2.

Figure 16.1.2_1
Ollachea Project
Zones Used - South-North Section – 339200mE

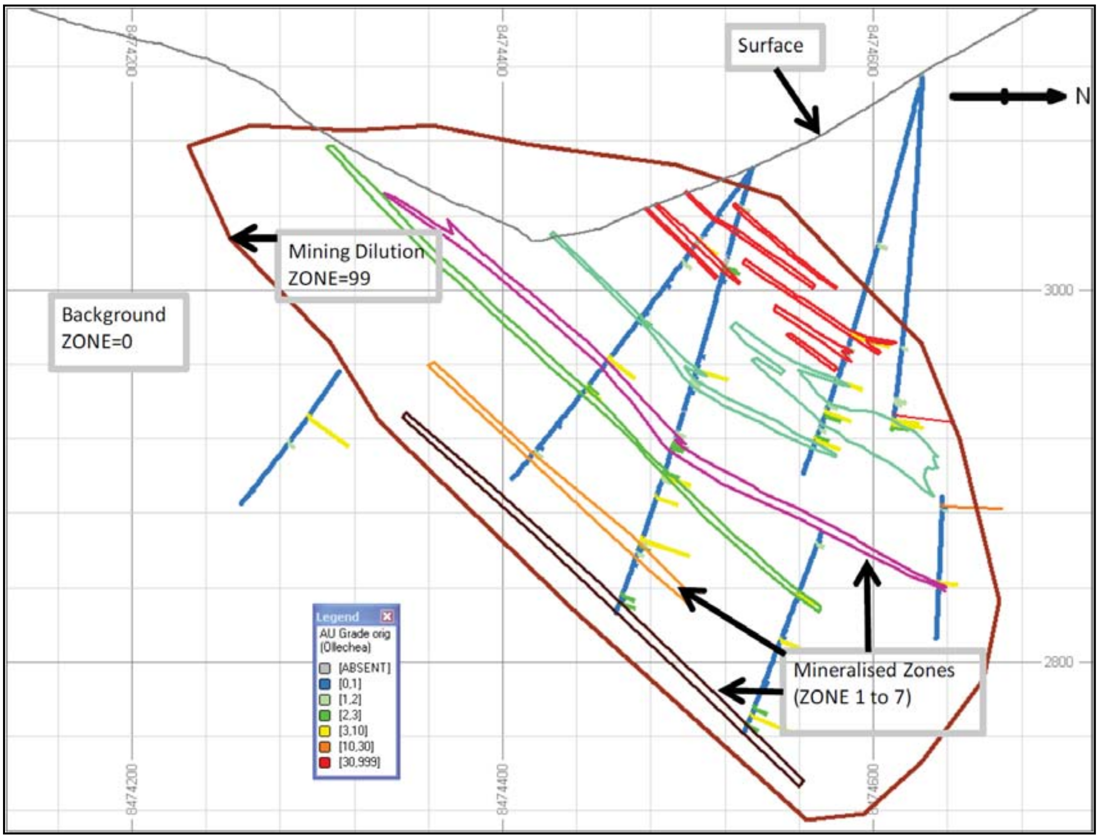
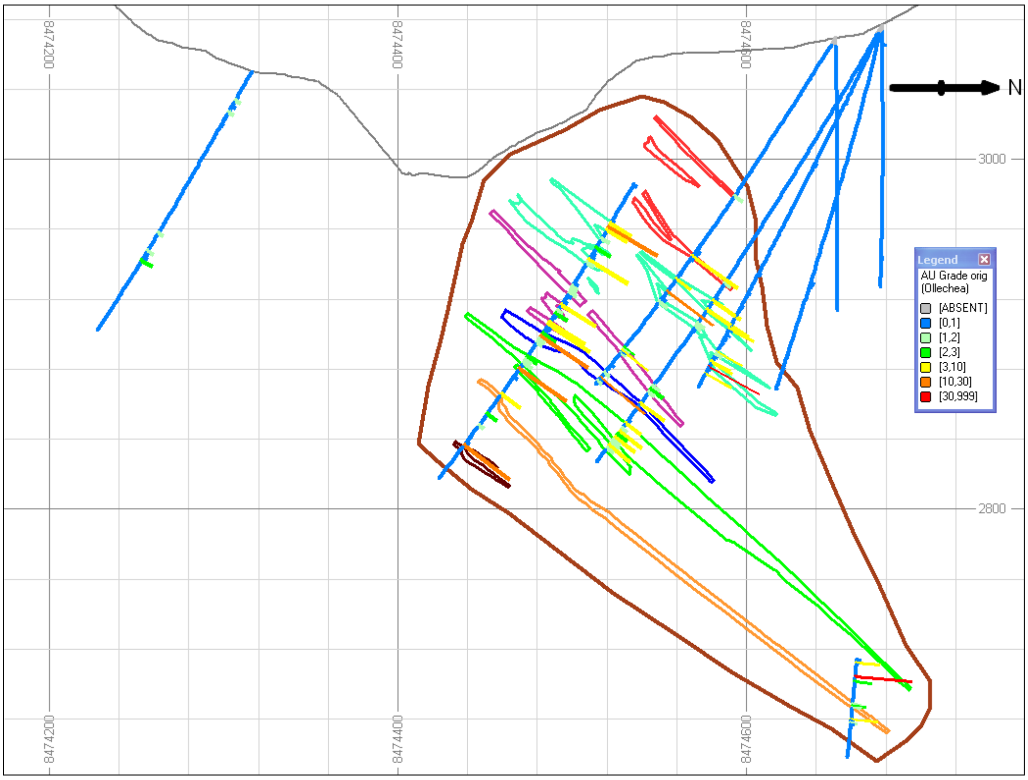


Figure 16.1.2_2
Ollachea Project
Zones Used - South-North Section – 339480mE



Interpretation and digitizing of all constraining boundaries was undertaken on cross sections orthogonal to the drill line orientation. The generated wireframes were all snapped to the available DC data.

The resultant digitized boundaries have been used to construct wireframe defining the three-dimensional geometry of each interpreted feature. The interpretation and wireframe models were developed using the Datamine (Studio 3) mining software package.

16.1.3 Oxidisation Divisions

No oxidation delineation was made. Due to the minor effect of weathering and oxidation in the project area, all material was treated as fresh.

The surface topography (TOPO) was provided and was used to delineate the Fresh Material / Air contact.

16.1.4 Sample Flagging

The wireframe generated were used to flag various constraints in the drilling, a summary of the mineralised zone coding is summarised in Table 16.1.4_1.

Table 16.1.4_1
Ollachea Project
Mineralisation Zone Coding Used

Code Used	Value	Description
ZONE	0	Background data
	1	Mineralised Lens 1
	2	Mineralised Lens 2
	3	Mineralised Lens 3
	4	Mineralised Lens 4
	5	Mineralised Lens 5
	6	Mineralised Lens 6
	7	Mineralised Lens 7
	99	Mining Dilution around Mineralised Zones
MINZONE	1	If ZONE >=1 and ZONE<=7
	0	Where ZONE=0 and ZONE=99
DOMAIN	1	Minapampa Zone
	2	Minapampa East Zone

16.1.5 Treatment of Missing / Absent Samples

Un-sampled intervals less than 5m are treated as missing (i.e. grade=absent). This was the maximum sample interval sampled, in areas adjacent to the mineralised zones, and missing intervals less than 5m are assumed to be due to core recovery issues.

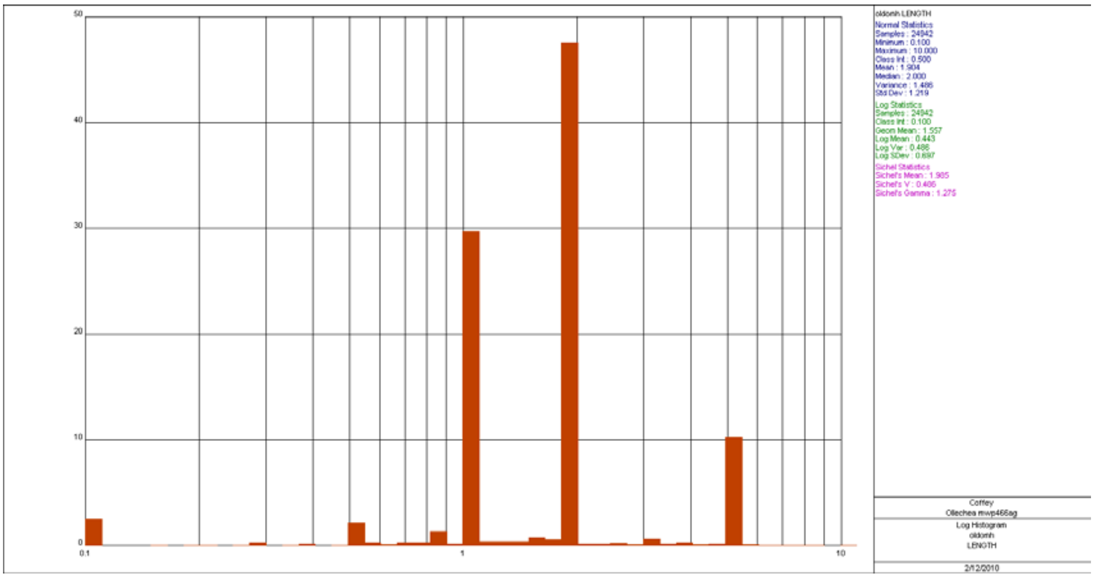
Unsampled Intervals greater than 5m and the first unsampled interval in every DC hole are treated as barren (i.e. grade=0.0025g/t Au).

16.1.6 Compositing

The drillhole database was composited to a 2m downhole composite interval within each of the ZONES (see Table 16.1.4_1). The composite datasets were completed using Datamine mining software package and its COMPDH function using a residual retention routine, where residuals are added back to the adjacent interval. The majority of composite lengths are 2m, with a small amount of composite lengths ranging from 1 to 3m and mean lengths equal to 2m. The global effect of the compositing produces negligible effect to the total length and mean grade. A decrease in the sample variance is noted as a natural effect of compositing. The 2m composite files were used for all statistical, geostatistical and grade estimation studies.

The decision to use 2m composites was based on the targeted mining approach which will be an underground high level of mining selectivity. The majority of the sampling has been collected using 1 - 2m sample intervals. Although there are a small amount of samples collected at a 5m interval (outside, but adjacent to the known mineralised zone), the 2m composite interval is considered to be appropriate. A histogram of in situ sample lengths is provided as Figure 16.1.6_1.

Figure 16.1.6_1
Ollachea Project
Histogram of In-Situ Sample Lengths



16.2 Statistical Analysis

Descriptive and distribution statistics have been compiled based upon the 2m composite gold (Au g/t) data. The interpreted data relevant to resource estimation studies was coded to the composite data.

16.2.1 Summary Statistics – Raw Data

Table 16.2.1_1 presents the summary table of the raw statistics, grouped by mineralised zone for the combined Minapampa and Minapampa East domains.

Table 16.2.1_1
Ollachea Project
Summary Statistics Au g/t – Raw Data
Grouped by ZONE
(Combined Minapampa & Minapampa East)

Zone	Description	Count	Min	Max	Mean	Std. Dev.	Variance	CV
0	Background	11790	0.003	82.54	**0.15**	1.26	1.58	8.25
99	Dilution Zone	11235	0.003	47.36	**0.19**	0.73	0.54	3.78
1	Min. Lens 1	199	0.030	42.55	**3.11**	4.11	16.87	1.32
2	Min. Lens 2	642	0.046	153.00	**5.57**	13.24	175.25	2.38
3	Min. Lens 3	281	0.026	29.31	**3.68**	4.48	20.03	1.22
4	Min. Lens 4	89	0.111	23.84	**2.91**	3.63	13.18	1.25
5	Min. Lens 5	397	0.008	29.88	**2.88**	3.34	11.15	1.16
6	Min. Lens 6	139	0.017	51.29	**2.93**	6.14	37.71	2.09
7	Min. Lens 7	64	0.031	17.04	**2.45**	2.40	5.77	0.98

16.2.2 Summary Statistics – Composite Data

2m Composite statistics based on the mineralised codes are listed in Table 16.2.2_1 below for the combined Minapampa and Minapampa East domains.

Table 16.2.2_1
Ollachea Project
Summary Statistics Au g/t – 2m Composite Data
Grouped by ZONE
(Combined Minapampa & Minapampa East)

Zone	Description	Count	Min	Max	Mean	Std. Dev.	Variance	CV
0	Background	14073	0.003	82.54	**0.11**	0.93	0.86	8.39
99	Dilution Zone	8806	0.003	23.70	**0.18**	0.47	0.22	2.61
1	Min. Lens 1	147	0.119	42.55	**3.27**	4.34	18.86	1.33
2	Min. Lens 2	445	0.137	153.00	**5.55**	12.00	143.94	2.16
3	Min. Lens 3	207	0.057	29.31	**3.70**	4.35	18.96	1.18
4	Min. Lens 4	63	0.111	23.84	**3.07**	3.83	14.64	1.25
5	Min. Lens 5	303	0.016	21.41	**2.84**	2.79	7.76	0.98
6	Min. Lens 6	119	0.017	51.29	**3.05**	6.47	41.81	2.12
7	Min. Lens 7	63	0.031	17.04	**2.49**	2.44	5.94	0.98
1 to 7 Combined	MINZONE=1	1347	0.016	153.00	**3.93**	7.76	60.17	1.98

16.2.3 High Grade Capping

High grade capping (cutting) was determined on a case by case basis, within each zone. The composite data for each of the mineralised zones generally had a positively skewed grade distribution, characterised by differences between mean and median grades, and moderate to high coefficients of variation (CV - calculated by dividing the standard deviation by the mean). The CV is a relative measure of skewness, values greater than one can often indicate distortion of the mean by outlier data.

The requirement for high-grade caps was assessed via a number of steps to ascertain the reliability and spatial clustering of the high grade composites. The steps completed as part of the high-grade cap assessment included:

- A review of the composite data to identify any data that deviate from the general data distribution. This was completed by examining the cumulative distribution function (Appendix B – cumulative distribution function analysis against each zone is shown).
- A review of data comparing the percentage of metal and data the CV effected by high-grade cuts (Appendix B).
- A visual 3D review to allow assessment of the clustering of the higher-grade composite data.

Based on the review, appropriate high grade caps were selected for each Zone. The application of high grade caps resulted in relatively few data being capped. The capping has resulted in minor reduction in mean grade except for ZONE 6, where the capping of two outlier values resulted in a 15% reduction in mean grade.

A cap of 0.9g/t Au was applied to ZONE's 0 and 99, due to the presence of highly variable, higher grades within the dominantly lower grade zones. The capping was required to reduce the amount of metal which would be artificially added during the estimation process in these zones.

The summary statistics for the 2m composite data, calculated for uncut and cut values for each element, are presented in Table 16.2.3_1.

Table 16.2.3_1
Ollachea Project
Outlier Statistics - 2m Composites by ZONE

ZONE	Element	Uncut				Cut					% Change in Mean
		Number Data	Mean	Std. Dev.	CV	Upper Cap	Mean	Std. Dev.	CV	Number Data Cut	
1		147	3.27	4.33	1.32	20	3.12	3.18	1.02	1	-4.7
2		445	5.54	11.98	2.16	40	4.95	6.83	1.38	4	-10.8
3		207	3.70	4.34	1.17	22	3.61	3.90	1.08	4	-2.3
4		63	3.07	3.80	1.24	18	2.98	3.33	1.12	1	-3.0
5	Au(g/t)	303	2.84	2.78	0.98	NC	2.84	2.78	0.98	0	0.0
6		119	3.05	6.44	2.11	21	2.58	3.32	1.29	2	-15.4
7		63	2.49	2.42	0.97	NC	2.49	2.42	0.97	0	0.0
99		8806	0.18	0.47	2.61	0.9	0.16	0.21	1.31	196	-11.2
0		14073	0.11	0.93	8.39	0.9	0.07	0.15	2.26	266	-38.2

16.2.4 Bulk Densities

The Ollachea database contains 626 bulk density measurements; there has been no increase to the bulk density data collected as reported previously. However the data has been re-examined based on the new zones generated with the increase drill data.

Table 16.2.4_1 summarises the bulk density statistics by ZONE. Table 16.2.4_2 shows the statistics for bulk densities within and outside the mineralised zone.

Table 16.2.4_1
Ollachea Project
Summary Statistics – Bulk Density Data
Grouped by ZONE
(Combined Minapampa & Minapampa East)

Zone	Count	Min	Max	Mean	Median	Std. Dev.	Variance	CV
0	321	2.63	3.12	**2.81**	2.81	0.057	0.003	0.020
99	241	2.60	2.99	**2.79**	2.79	0.071	0.005	0.025
1	8	2.71	2.89	**2.82**	2.82	0.056	0.003	0.020
2	23	2.61	2.90	**2.80**	2.82	0.084	0.007	0.030
3	17	2.72	2.90	**2.81**	2.82	0.048	0.002	0.017
4	2	2.66	2.83	**2.75**	2.66	0.118	0.014	0.043
5	5	2.75	2.85	**2.79**	2.77	0.041	0.002	0.015
6	4	2.66	2.86	**2.75**	2.68	0.091	0.008	0.033
7	5	2.66	2.87	**2.75**	2.68	0.102	0.010	0.037

Table 16.2.4_2 Ollachea Project Summary Statistics – Bulk Density Data Grouped by MINZONE (Combined Minapampa & Minapampa East)								
MINZONE	**Count**	**Min**	**Max**	**Mean**	**Median**	**Std. Dev.**	**Variance**	**CV**
0	562	2.60	3.12	**2.80**	2.81	0.064	0.004	0.023
1	64	2.61	2.90	**2.79**	2.82	0.073	0.005	0.026

The data shows that the 2.80g/cm³ dry in-situ bulk density value used for the previous resource estimate is reasonable and there is no real difference in the average bulk density within or outside the mineralised zone. There is not enough data to estimate the Bulk Density directly.

A Bulk Density of 2.80g/cm³ has been assigned to all blocks within the current model below the topographic surface.

16.3 Variography

16.3.1 Introduction

Variography is used to describe the spatial variability or correlation of an attribute (gold, silver, sulphur, etc). The spatial variability is traditionally measured by means of a variogram, which is generated by determining the averaged squared difference of data points at a nominated distance (h), or lag. The averaged squared difference (variogram or $\gamma(h)$) for each lag distance is plotted on a bivariate plot where the X-axis is the lag distance and the Y-axis represents the average squared differences ($\gamma(h)$) for the nominated lag distance.

In this document, the term “variogram” is used as a generic word to designate the function characterising the variability of variables versus the distance between two samples.

Fitted to the determined experimental variography is a series of mathematical models which, when used in the kriging algorithm, will recreate the spatial continuity observed in the variography.

The Isatis geostatistical software was employed to generate and model the variography. The rotations are input for grade estimation, with X (rotation around Z axis), Y (rotation around Y`) and Z (rotation around X``) also being referred to as the major, semi-major and minor axes.

Initially, downhole experimental variograms were calculated to establish the nugget for modelling the directional variograms for grade. The geology and geometry of mineralisation controls were also considered in selecting the orientations.

In general, experimental traditional variograms did not exhibit robust structures and therefore correlograms were examined. Correlograms were found to be relatively well structured for the major direction and provided the best description of the spatial variability. Two structured spherical models were fitted to the correlograms.

Due to the limited number of data points in the majority of the mineralised zones, a correlogram was based on the combined mineralised zone (ZONE = 1 to 7 inclusive), there was enough data points in ZONE 2, so a separate correlogram for this zone was generated. Separate correlograms were also generated for the low grade zones (ZONE 0 and 99).

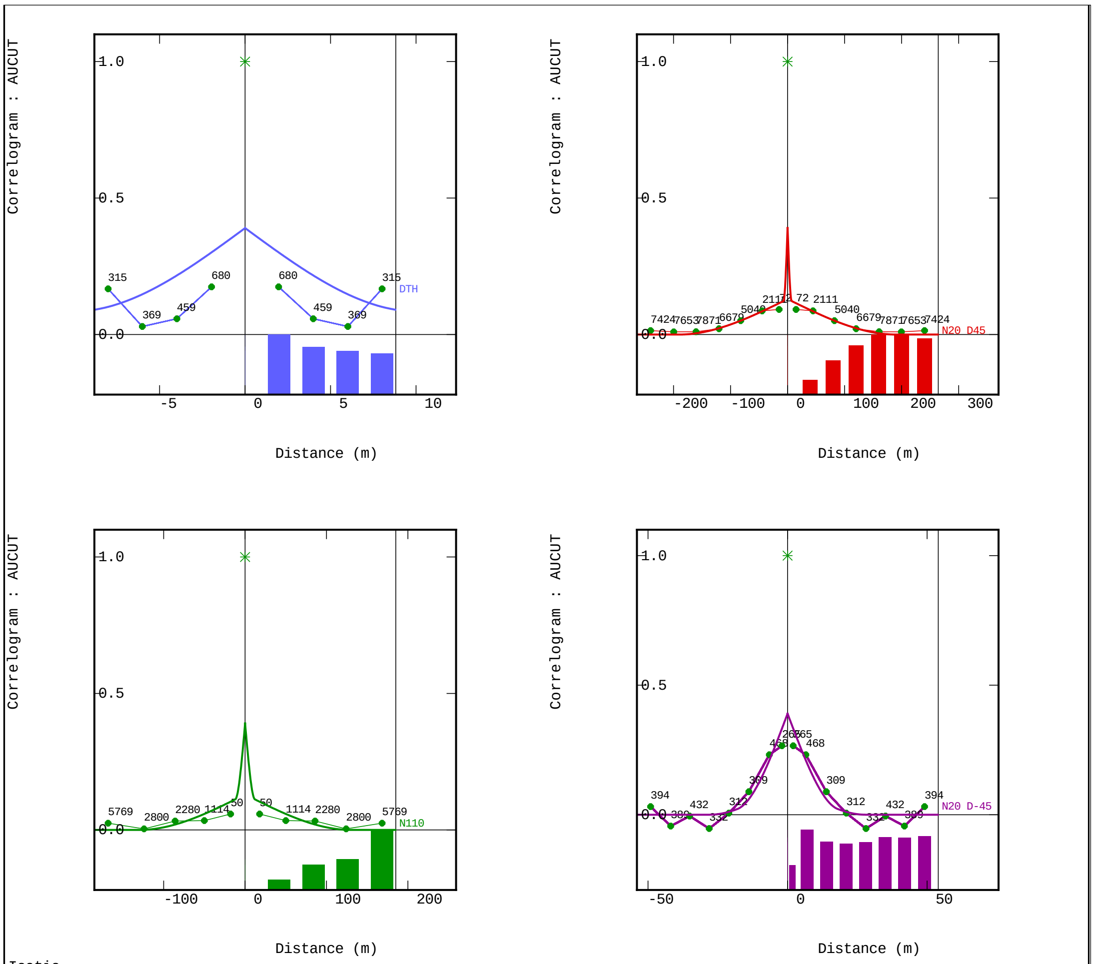
16.3.2 Variography Results

General aspects of the variography are:

- Variograms were modelled based on the 2m composited Au (g/t) values generated within the respective zones. High grade cuts (caps) were applied to the composites prior to generating the variography, as described in Section 16.2.3. Downhole and directional correlograms were generated. Variogram orientations reflected obvious trends in the data.
- The variogram for the combined mineralised zones was based on the dataset for ZONE's 1 to 7 combined (MINZONE 1), but for estimation purposes was applied to data subset by ZONE, (i.e. ZONE = 1, 3, 4, 5, 6, 7). The variography for ZONE's 2, 0 and 99 was based on the same respective data subsets, and was also used for estimation purposes.
- Within the mineralised zones, the total range in the major direction varied from 140m (for ZONE 2) to 190m (for the combined mineralised zone – MINZONE 1), greater than the average drillhole spacing, a nominal 40m x 40m grid. For the low grade zones, the total range in the major direction varied from 190m (for ZONE 99) to 450m (for ZONE 0).
- The relative nugget for the variography ranges in the mineralised zone between 61% (MINZONE 1) to 63% (ZONE 2), displaying a high degree of short-spaced variability, common in narrow veined gold deposits. The lower grade zones, relative nugget for the variography ranges between 38% (ZONE 0) to 54% (ZONE 99).

Results from the variography are given in Table 16.3.2_1 and graphically presented in Figures 16.3.2_1 to 16.3.2_4.

Figure 16.3.2_1
Ollachea Project
Correlogram MINZONE=1
(Combined Mineralised Zones)



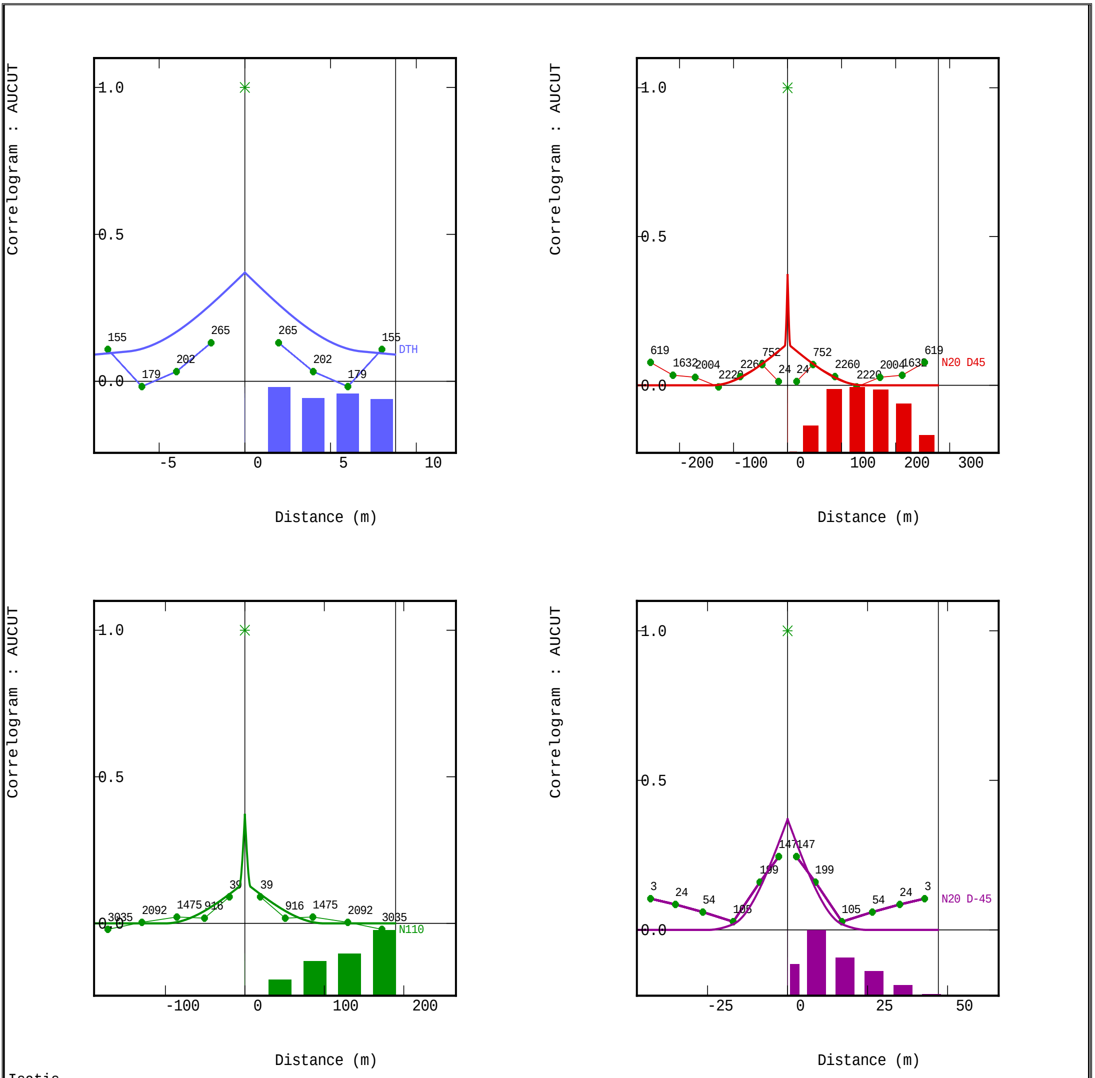

```
Isatis
Data/old2tcut(AFLG_Zones{ZONE 1 to 7 COMB})
- Variable #1 : AUCUT
Experimental Variogram : in 1 direction(s)
D1   : N20 D45
      Angular tolerance =  20.00
      Lag =  40.0000m, Count = 15 lags, Tolerance = 50.00%
Model : 3 basic structure(s)
Global rotation = Az=70.00 Ay=45.00 Ax=0.00 (Mathematician)
S1  - Nugget effect, Sill =      0.61
S2  - Spherical - Range = 7.0000m, Sill =      0.26
      Directional Scales = (         7.0000m,        12.0000m,        18.0000m)
S3  - Spherical - Range = 28.0000m, Sill =      0.13
      Directional Scales = (       190.0000m,       130.0000m,        28.0000m)
```

doug_corley
Oct 11 2010
466AF_Olleche

Top Right – Down hole **/ Top Left** – Major direction

Bottom Right – Semi- Major direction **/ Bottom Left –** Minor direction

Figure 16.3.2_2
Ollachea Project
Correlogram ZONE=2
(Mineralised Zone 2)

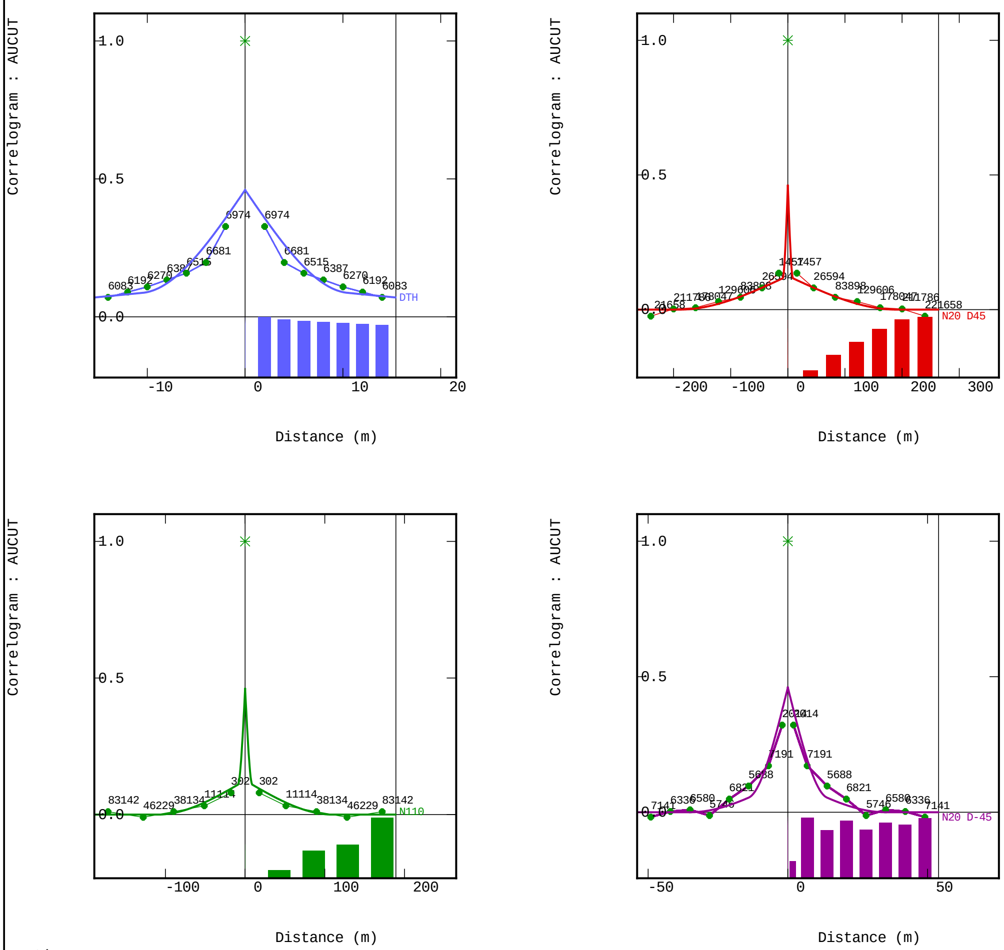



```
Isatis
Data/old2tcut(AFLG_Zones{ZONE=2})                                   doug_corley
- Variable #1 : AUCUT                                               Oct 11 2010
Experimental Variogram : in 1 direction(s)                          466AF_Olleche
D1  : N20 D45
      Angular tolerance =  20.00
      Lag =  43.0000m, Count = 15 lags, Tolerance = 50.00%
Model : 3 basic structure(s)
Global rotation = Az=70.00 Ay=45.00 Ax=0.00 (Mathematician)
S1  - Nugget effect, Sill =       0.63
S2  - Spherical - Range = 5.0000m, Sill =       0.23
      Directional Scales = (          5.0000m,          7.0000m,         17.0000m)
S3  - Spherical - Range = 25.0000m, Sill =       0.14
      Directional Scales = (       140.0000m,        100.0000m,         25.0000m)
```

Top Right – Down hole **/ Top Left** – Major direction

Bottom Right – Semi- Major direction **/ Bottom Left –** Minor direction

Figure 16.3.2_3
Ollachea Project
Correlogram ZONE=99
(Mining Dilution)

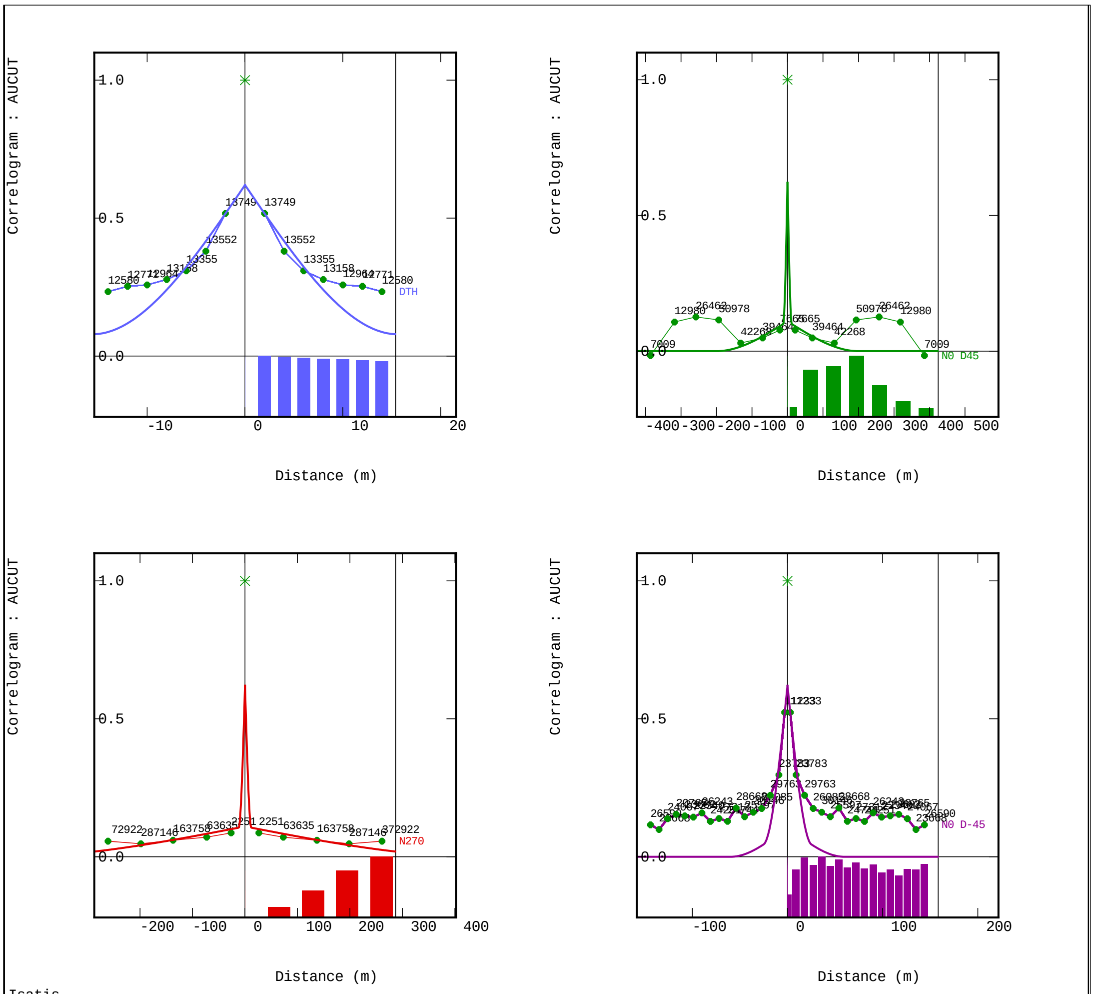



```
Isatis
Data/old2tcut(AFLG_Zones{ZONE=99})
- Variable #1 : AUCUT
Experimental Variogram : in 1 direction(s)
D1   : N20 D45
      Angular tolerance =  18.00
      Lag =  40.0000m, Count = 15 lags, Tolerance = 50.00%
Model : 3 basic structure(s)
Global rotation = Az=70.00 Ay=45.00 Ax=0.00 (Mathematician)
S1   - Nugget effect, Sill =       0.54
S2   - Spherical - Range = 9.0000m, Sill =      0.335
      Directional Scales = (          9.0000m,          9.0000m,         14.0000m)
S3   - Spherical - Range = 35.0000m, Sill =      0.125
      Directional Scales = (        190.0000m,        110.0000m,         35.0000m)
```

Doug_Corley
Oct 09 2010
466AF_Olleche

Top Right – Down hole **/ Top Left** – Major direction
Bottom Right – Semi- Major direction **/ Bottom Left –** Minor direction

Figure 16.3.2_4
Ollachea Project
Correlogram ZONE=0 (Background)




```
Isatis
Data/OLD_old2tcut(AFLG_Zones{ZONE=0})
- Variable #1 : AUCUT
Experimental Variogram : in 1 direction(s)
D2   : N0 D45
      Angular tolerance =    9.00
      Lag =  65.0000m, Count = 15 lags, Tolerance = 50.00%
Model : 3 basic structure(s)
Global rotation = Az=180.00 Ay=0.00 Ax=45.00 (Mathematician)
S1  - Nugget effect, Sill =       0.38
S2  - Spherical - Range = 12.0000m, Sill =       0.51
      Directional Scales = (         12.0000m,          12.0000m,          25.0000m)
S3  - Spherical - Range = 60.0000m, Sill =       0.11
      Directional Scales = (        450.0000m,         200.0000m,          60.0000m)
```

doug_corley
Dec 03 2010
MINERA_Ollach

Top Right – Down hole **/ Top Left** – Major direction

Bottom Right – Semi- Major direction **/ Bottom Left –** Minor direction

Table 16.3.2_1

Ollachea Project

Relative Variogram Models by ZONE / MINZONE

Code	Variable	Major Axis		Semi-Major Axis		Minor Axis		Relative Nugget (C_0%)	Sill 1 (C_1%)	Range Structure 1 (m)			Sill 2 (C_2%)	Range Structure 2 (m)		
		Dip (º)	Azimuth (º)	Dip (º)	Azimuth (º)	Dip (º)	Azimuth (º)			Major Axis	Semi Major Axis	Minor Axis		Major Axis	Semi Major Axis	Minor Axis
MINZONE=1	Au (Cut)	45	020	0	110	45	200	61	26	7	12	18	13	190	130	28
ZONE=2	Au (Cut)	45	020	0	110	45	200	63	23	5	7	17	14	140	100	25
ZONE=99	Au (Cut)	45	020	0	110	45	200	54	33.5	9	9	14	12.5	190	110	35
ZONE=0	Au (Cut)	45	000	0	090	45	180	38	51	12	12	25	11	450	200	60

Notes:
1. Orientations for the major, semi major and minor axes are supplied as dip and azimuths.
2. Spherical models were applied to the experimental correlograms.

16.4 Volume Modelling / Block Model Development

16.4.1 Introduction

A three dimensional block model was constructed for the different resources, covering all the interpreted mineralisation zones and including suitable additional waste material to allow mining optimisation studies.

16.4.2 Model Construction and Parameters

A three dimensional block model was generated to enable grade estimation, using the Datamine™ mining software package. The selected block size was based on the geometry of the domain interpretation and the data configuration. A parent block size of 20mE x 20mN x 4mRL was selected with sub-blocking to a 2mE x 2mN x 0.4mRL cell size to improve volume representation of the interpreted wireframe models. Sufficient variables were included in the block model construction to enable grade estimation and reporting.

The 20mE x 20mN x 4mRL block size represents approximately half the drill spacing within the resource. The block model construction parameters are displayed in Table 16.4.2_1.

Table 16.4.2_1
Ollachea Project
Block Model Parameters

	East	North	Elevation
Origin	338,900	8,474,280	2,400
Extent (m)	1,100	720	800
Parent Block size (m)	20	20	4
Sub-Block Size (m)	2	2	0.4
Number of Blocks (parent)	55	36	200

The mineralised zones and topographic surface were coded to the block model from the wireframes.

16.4.3 Estimation Methods

The sample search strategy was based upon analysis of the variogram model anisotropy, mineralisation geometry and data distribution.

The block model was coded with the number of composites selected, the average distance of composites, Slope of Regression, Kriging Variance, Block Variance, Kriging Efficiency %, which were later used in the determination of the resource classification.

A three pass search strategy was established to interpolate grade for each of the respective zones (See Section 16.1.4). The search strategy was based as follows:

- Pass 1 based on the relevant anisotropic ranges determined from the variography.
- Pass 2 if no grade was able to be assigned during pass 1, then the search ellipse was expanded 2 times.
- Pass 3 if no grade was able to be assigned during pass 2, then the search ellipse was expanded 3 times (only used where MINZONE=1).

A further strategy used in the estimation process was to limit the effect of higher grade values. Table 16.4.3_1 list the criteria used to reduce the influence of higher grade data within the mineralised zones.

Table 16.4.3_1
Ollachea Project
High Grade Values-Distance Limiting Parameters Used by ZONE (MINZONE=1)

ZONE	Values on which Distance Limitation was Used (Au g/t)	Distance of High Grade Influence (Search Ellipse – Major / S-Major / Min)
1	>= 10	40m (M) / 40m (SM) / 12.5m (Min)
2	>= 25	40m (M) / 40m (SM) / 12.5m (Min)
3	>= 10	40m (M) / 40m (SM) / 12.5m (Min)
4	>= 10	40m (M) / 40m (SM) / 12.5m (Min)
5	>= 9	40m (M) / 40m (SM) / 12.5m (Min)
6	>= 10	40m (M) / 40m (SM) / 12.5m (Min)
7	>= 9	40m (M) / 40m (SM) / 12.5m (Min)

The relevant zone was estimated using OK on the 2m composite samples. Domain control (hard boundaries) was used for both composite and block selection (for ZONE=1, 2, 3, 4, 5, 6, 7 and 99).

In the estimation of ZONE 0, a soft boundary was used, in which data from both ZONE 99 and 0 was seen.

Grade estimates were interpolated into parent cells and all sub-cells were assigned the parent cell grades. Any un-estimated blocks were assigned a value of 0.0025g/t Au.

16.4.4 Estimation Parameters

The OK estimation parameters are tabulated in Table 16.4.4_1. An explanation of all the attributes fields within the model is given in Table 16.4.4_2.

Table 16.4.4_1

Ollachea Project

Search Neighbourhood Parameters Used for Resource Model Estimation

ZONE	Variable	Search Ellipse Ranges			Search Ellipse Orientation						First Pass		Second Pass			Third Pass			Max. No. of Comps From Any Drillhole
		Major Axis	Semi-Major Axis	Minor Axis	Major Axis		Semi-Major Axis		Minor Axis		Min. No. of Comps Used	Max. No. of Comps Used	Search Volume Factor	Min. No. of Comps Used	Max. No. of Comps Used	Search Volume Factor	Min. No. of Comps Used	Max. No. of Comps Used	
					Dip	Azi	Dip	Azi	Dip	Azi									
0	Au (Cut)	150	90	60	45	000	0	090	45	180	8	20	2	4	20	-	-	-	5
99	Au (Cut)	150	100	35	45	020	0	110	45	200	8	20	2	4	20	-	-	-	5
1	Au (Cut)	80	80	25	45	020	0	110	45	200	4	20	2	2	25	3	4	16	4
2	Au (Cut)	80	80	25	45	020	0	110	45	200	2	20	2	2	25	3	4	16	4
3	Au (Cut)	80	80	25	45	020	0	110	45	200	2	20	2	2	25	3	4	16	4
4	Au (Cut)	80	80	25	45	020	0	110	45	200	2	20	2	2	25	3	4	16	4
5	Au (Cut)	80	80	25	45	020	0	110	45	200	2	20	2	2	25	3	4	16	4
6	Au (Cut)	80	80	25	45	020	0	110	45	200	2	20	2	2	25	3	4	16	4
7	Au (Cut)	80	80	25	45	020	0	110	45	200	2	20	2	2	25	3	4	16	4

Table 16.4.4_2

Ollachea Project

Ollachea Resource Model Attribute List
November 2010 Datamine Model
olnov10m.dm, 1,510,144 records

Field	Alphanumeric or Numeric	Default Value	Comment
IJK	N	0	Datamine block model field
XC	N	0	Cell Centroid X coordinate
YC	N	0	Cell Centroid Y coordinate
ZC	N	0	Cell Centroid Z coordinate
XINC	N	20	Cell X dimension
YINC	N	20	Cell Y dimension
ZINC	N	4	Cell Z dimension
ZONE	N	0	Au Mineralised Zones: 0 (Background), 99 (Mining Dilution), 1 (Lens 1), 2 (Lens 2), 3 (Lens 3), 4 (Lens 4), 5 (Lens 5), 6 (Lens 6), 7 (lens 7).
DOMAIN	N	1	1 = Minapampa Zone / 2 = Minapampa East Zone
INSITU	N	0	Numeric depletion flag. INSITU 0=material has been mined / removed. 1=material is insitu.
MINZONE	N	-	Mineralisation envelope - defined mineralisation domains (ZONE=1 to 7): 1=mineralisation envelope, 0=un-mineralised background.
AU	N	0	Ordinary Kriged Au grade (g/t) for whole block grade estimate.
NUMS_AU	N	-	Number of samples used in the OK block estimate for Au.
PASS_AU	N	-	Search expansion / pass in which the OK block estimate was generated for Au.
DIST_AU	N	-	Geostatistical distance to the nearest sample used in the OK block estimate expressed as a fraction of the search radius, for Au variable.
VAR_AU	N	-	Estimation variance for OK estimate of Au variable.
KE	N	-	Kriging efficiency.
SLOPE	N	-	Slope of regression.
RESCODE	N	-	Classification category – 1=Measured, 2=Indicated, 3=Inferred, 4=Unclassified / No Confidence.
MODLFILE	A		Flag for model source -- "MDOLLACHEA10"=November 2010 Coffey Mining Datamine model.
DENSITY	N	-	Bulk density - assigned value of 2.80m³/t
XMORIG	N	338900	X coordinate of model origin.
YMORIG	N	8474280	Y coordinate of model origin.
ZMORIG	N	2400	Z coordinate of model origin.
NX	N	55	Number of parent cells in the X direction.
NY	N	36	Number of parent cells in the Y direction.
NZ	N	200	Number of parent cells in the Z direction.

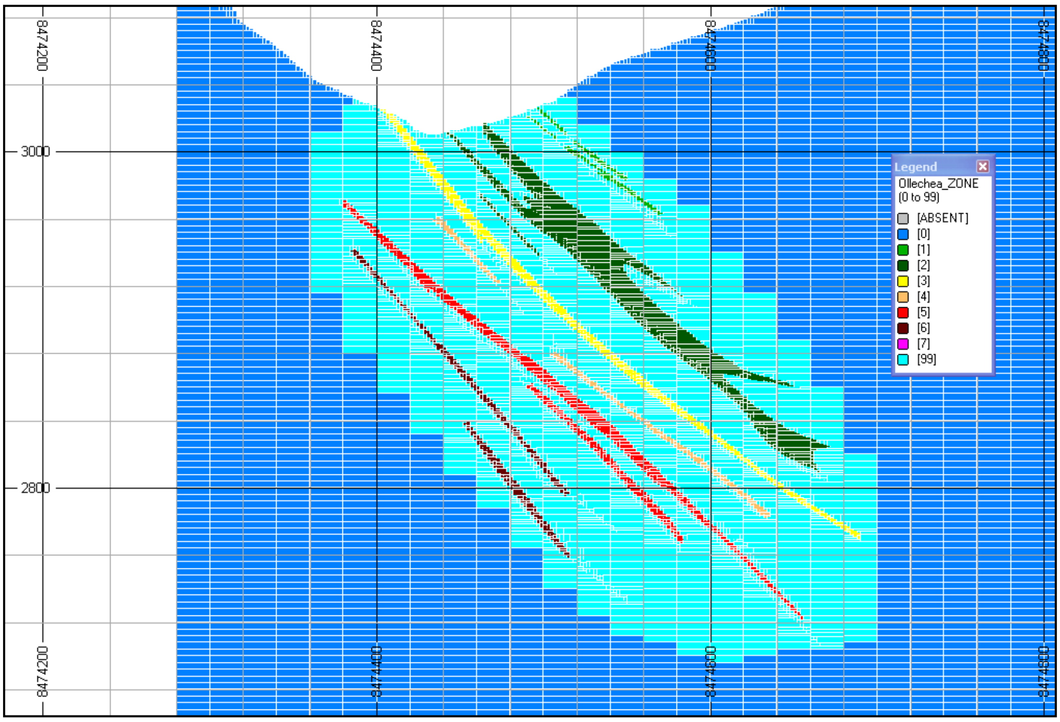
16.4.5 Model Validation

Volumetric Validation

A comparison between the measured volumes of the solids generated during the geological modelling and the volume of mineralization in the block model was carried out. Table 16.4.5_1 summarizes this comparison and indicates that the adherence of the block model to solids is very good. Figure 16.4.5_1 shows a south-north section of the resulting block model, colour coded by ZONE, and shows the sub-celling is adequate to capture the features from the wireframe.

Table 16.4.5_1 Ollachea Project Volume Comparison Mineralised Solids verses Block Model			
ZONE	**Solids Vol. (m^3)**	**Block Model Vol. (m^3)**	**Solids / Blocks Vol. (%)**
1	318,284.7	318,280.0	100.00%
2	1,562,141.6	1,562,083.2	100.00%
3	820,640.5	821,105.6	99.94%
4	197,996.3	198,228.8	99.88%
5	1,994,220.9	1,994,924.8	99.96%
6	601,367.1	602,811.2	99.76%
7	277,931.3	277,993.6	99.98%
Total	**5,772,582.5**	**5,775,427.2**	**99.95%**

Figure 16.4.5_1
Ollachea Project
Block Model Section – Coloured by ZONE



South-North Section at 339,315mE

Block Model Comparison against Drill Data

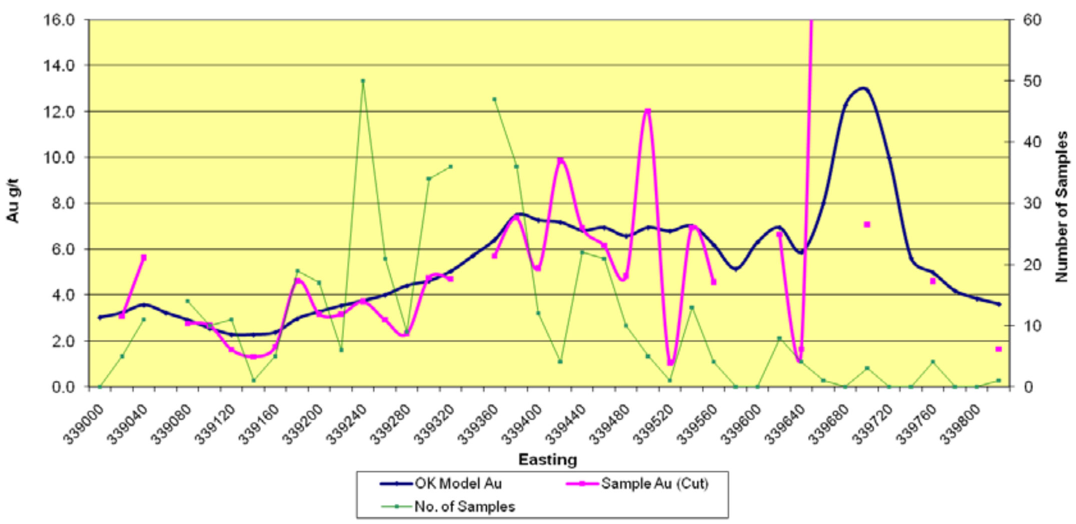
A detailed validation of the OK estimate was completed for each ZONE and included both an interactive 3D and statistical review. The validation included a visual comparison of the input data against the block models' grade in plan and cross section. It also included review of the distribution of recorded estimation controls including search pass, average sample distance, number of contributing samples and drillholes. Table 16.4.5_2 shows a global comparison by each of the mineralised zone.

Table 16.4.5_2
Ollachea Project
Comparison of Drilling Data to Block Model by ZONE (Mineralised Zones)

ZONE	Drilling Data				Model	% Difference Drill Data / Block Model (Weighted)
	Au (uncut)	Au (cut)	Au (cut) Length Weighted	Au (cut) Declustered 50mE x 40mN x 4mRL	Au (cut) OK Volume Weighted	
1	3.27	3.12	3.03	3.39	3.18	-5%
2	5.54	4.95	4.96	4.99	4.85	2%
3	3.70	3.61	3.59	3.53	3.38	6%
4	3.07	2.98	2.76	3.05	2.47	10%
5	2.84	2.84	2.83	2.94	2.80	1%
6	3.05	2.58	2.58	2.60	2.46	5%
7	2.49	2.49	2.47	2.71	2.25	9%
Total	**3.93**	**3.65**	**3.63**	**3.70**	**3.38**	**7%**

A spatial comparison of the mean grade of the input composites against the block models' grade was also made. The models were divided into slices by directions (Easting and RL) and average grades calculated for the various domains. Similarly, the composite averages and declustered composite averages were also computed. The results were plotted. Examination of these plots indicated that the models were appropriately honouring the input data and trends. A selection of figures from each ZONE displaying this is presented in Appendix C. Figure 16.4.5_2 shows the results of the comparison by Easting for ZONE 2.

Figure 16.4.5_2
Ollachea Project
Block Model verses Drill Data by Easting (20m Section) – ZONE 2



Estimated Block by Pass Number

Table 16.4.5_3 shows the majority of blocks where estimated in the first pass.

Table 16.4.5_3
Ollachea Project
Blocks Estimated by Search Pass Number

ZONE	Pass 1	Pass 2	Pass 3
1	99.69%	0.31%	0.00%
2	97.16%	2.83%	0.01%
3	91.36%	8.64%	0.00%
4	96.38%	3.62%	0.00%
5	74.05%	25.95%	0.00%
6	86.27%	13.73%	0.00%
7	77.90%	22.10%	0.00%
ZONE 1 to 7 COMB.	86.40%	13.59%	0.00%

16.4.6 Ancillary Fields

Bulk Density

As discussed previously in Section 16.2.4, a dry in-situ bulk density of 2.80g/cm³ has been assigned to all blocks within the current model below the topographic surface.

Depletion for Underground Workings

There is a long history of underground artisanal mining in the Ollachea project area. Recently there has been a push by the Peruvian government to register the “informal miners”, so a large majority of underground works have been surveyed. The string files produced from the surveyed workings do not definitively indicate the height of the underground drives or other workings. Analysis of the lateral distribution of the data collected indicates the majority of artisanal workings are within 10m of the natural surface, although individual workings / drives do go deeper. In order to account for some depletion in the project area, all blocks within 10m of the surface were flagged as depleted cells.

Within the model all depleted cells were flagged as VOID=1.

16.5 Resource Classification

The resource estimate for the Ollachea Project (Minapampa and Minapampa East deposits) has been categorised in accordance with the criteria laid out in the Canadian National Instrument 43-101 (“NI 43-101”) guidelines and Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves, published by the Joint Ore Reserves Committee (JORC) of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists, and Minerals Council of Australia, 2004. The criteria used to categorise the Mineral Resources include the robustness of the input data, the confidence in the geological interpretation including the predictability of both structures and grades within the mineralised zones, the distance from data, and amount of data available for block estimates within the respective mineralised zones. Key criteria used in the classification are tabulated below as in Table 16.5_2.

An Inferred and Indicated Mineral Resource has been defined using definitive criteria determined during the validation of the grade estimates, with detailed consideration of the CIM categorisation guidelines.

The Inferred Mineral Resource classification was based on the following criteria:

- The block must have an estimated Au Value.
- The block must be within the mineralised zones (ZONE 1 to 7).

The Indicated Mineral Resource classification was based on the following criteria:

- Where the blocks occur in a portion of the deposit with the highest density of drilling of approximately 40m x 40m or better.
- The slope of regression for the Au OK estimate is greater than 0.47.
- Where the geostatistical distance to the nearest sample used in the Au OK block estimate is within 0.3 (30%) of the first pass search ellipse shape.

The distribution of Indicated and Inferred Resource blocks is presented as Figures 16.5_1.

A Datamine string file produced in section (and checked in plan) was used to define the final Inferred and Indicated zones. The resulting wireframes were used to select the model and assign a numeric flag in the 'RESCODE' field as listed in Table 16.5_1

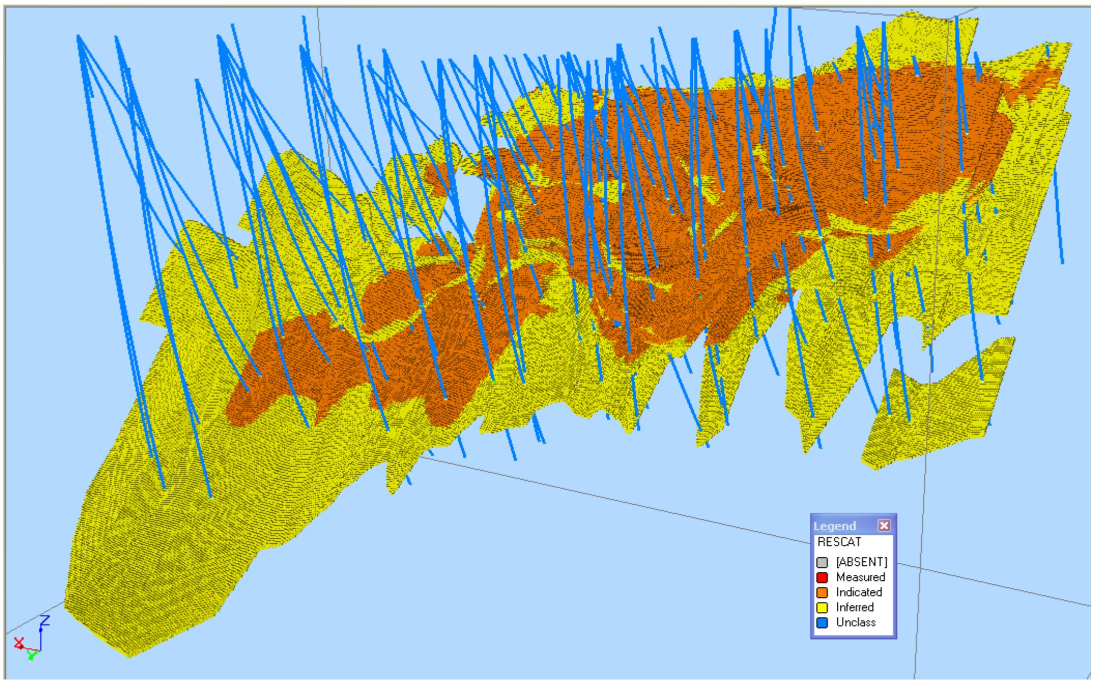
Table 16.5_1
Resource Classification Code

Resource Classification	**RESCODE**
Indicated	2
Inferred	3
Unclassified	4

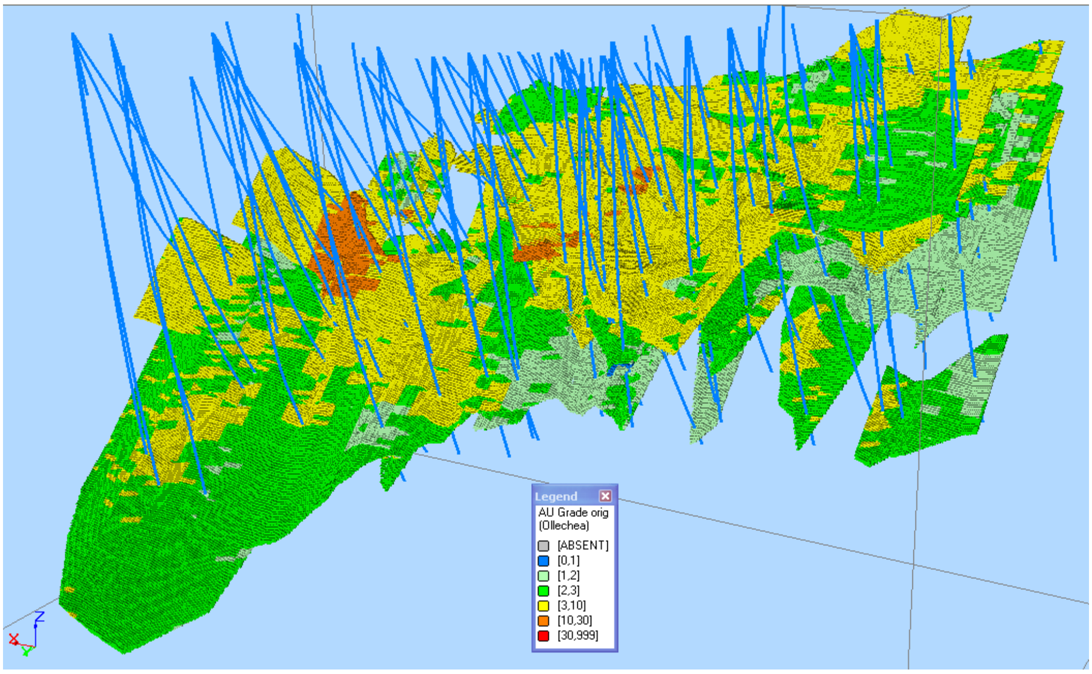
Table 16.5_2
Ollachea Project
Confidence Levels of Key Criteria

Items	Discussion	Confidence
Drilling Techniques	Diamond drilling is Industry standard approach.	High
Logging	Standard nomenclature and apparent high quality.	High
Drill Sample Recovery	Good recovery recorded except in shear/fault zones.	High
Sub-sampling Techniques & Sample Preparation	A 1m sampling method has been implemented, though there is a high amount of 2m samples from earlier campaigns	Moderate
Quality of Assay Data	Available field duplicate data shows a moderate precision.	Moderate
Verification of Sampling and Assaying	Umpire samples have shown good precision	Moderate-High
Location of Sampling Points	Survey of all collars with downhole survey completed for most holes.	Moderate to High
Data Density and Distribution	Approximately 40m x 40m spaced drilling in central zone has provided adequate data for an inferred / Indicated resource. Infill to 20 x 20m will be required to increase the confidence of the current interpretation.	Moderate
Audits or Reviews	Audits have been routinely completed, last one by Smee (2009) on laboratory and QA/QC procedures. All issues identified have been rectified in a timely manner.	High
Database Integrity	Assay hard copy sheets were randomly checked against the digital database with no errors identified	High
Geological Interpretation	The current 7 high grade zones are preliminary but relatively robust. Mineralisation appears parallel to the dominate foliation, and has been confirmed by orientated core measurements	Moderate
Estimation and Modelling Techniques	Ordinary Kriging has been used to obtain estimates of Au g/t grade. Coffey Mining used a three pass estimation method for all blocks. High grade values were distance limited	High
Cutoff Grades	A Cutoff Grade of 1g/t Au was used to define the high grade envelopes.	Moderate-High
Mining Factors or Assumptions	None.	N/A

Figure 16.5_1
Ollachea Project : 3D Perspective View of Drilling Data and Inferred / Indicated Classified Blocks (view looking to the south-east)



(Blocks coloured yellow = Inferred, Blocks coloured orange = Indicated)



(Inferred / Indicated Blocks Coloured by Au g/t Grade)

A breakdown of the Inferred and Indicated Resource Classification by area is presented in Table 16.5_3.

Figure 16.5_2 shows the grade-tonnage curve for the combined (Minapampa and Minapampa East) Indicated Resource.

Coffey Mining is unaware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues which would materially affect the Mineral Resource.

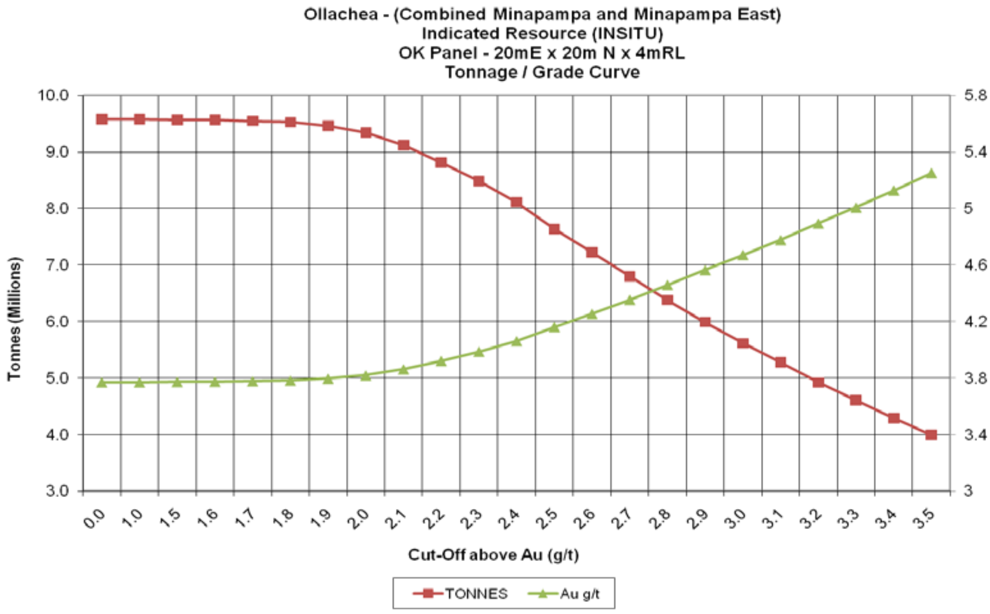
Table 16.5_3

Ollachea Project

Grade Tonnage Report – Mineral Resource (as at 30th November 2010)
Ordinary Kriging Estimate – Reported Using a Dry Bulk Density of 2.8t/m^3
20mE x 20mN x 4mRL Panel Size

Area	Category	Lower Cutoff Grade (g/t Au)	Million Tonnes	Average Grade (g/t Au)	Contained Gold (Kozs)
Minapampa	Indicated	0	9.3	3.8	1,145
		2	9.0	3.9	1,133
		2.5	7.5	4.2	1,017
		3	5.6	4.7	847
		3.5	4.0	5.3	684
	Inferred	0	4.2	2.7	363
		2	2.7	3.3	280
		2.5	1.6	4.0	203
		3	1.0	4.8	149
		3.5	0.6	5.7	109
Minapampa East	Indicated	0	0.2	2.8	22
		2	0.2	2.9	22
		2.5	0.2	3.1	17
		3	0.1	3.3	10
		3.5	0.02	3.8	2
	Inferred	0	2.3	2.9	216
		2	2.2	3.0	209
		2.5	1.5	3.3	160
		3	0.6	4.1	85
		3.5	0.3	4.9	51

Figure 16.5_2
Grade-Tonnage Curve for Ollachea Project – Total Indicated Resource



17 OTHER RELEVANT DATA AND INFORMATION

At present at Preliminary Feasibility Study is underway by Coffey mining on the Indicated Resource Indentified. The results of the study are due in the first half of 2011.

18 RECOMMENDATIONS

The following recommendations are made for the next phases of the Project:

- Continue to submit umpire samples to a check laboratory in a timely manner during drill campaigns, this will reduce the possibility of oxidation effecting the check pulps
- Add standards and blanks to any umpire samples to check laboratories, as a further means to confirm the adequacy of the standards used.
- The nominal drill spacing of 40m x 40m appears adequate for the Indicated resource, however some close spaced drilling is recommended to test the short scale variability of the deposit, and to assist in determining the spacing required to define a Measured resource in the future.

Table 18_1 list the expected costs for the recommendations.

Table 18_1
Ollachea Project
Costs for Recommendations

Items	Cost
QA/QC and Umpire testing (including standards and blanks)	US$30,000 / year
Drill Minapampa East to an Indicated Resource (approx. 40mx40m grid)	US$1.2M (approx. 6,100m drilling)

19 REFERENCES

Coffey Mining (RSG Global) - Yeates, R. et al., 2007, Competent Persons Report – April 2007, Project Number PINV01, 1162 Hay Street, West Perth 6005 Australia.

Coffey Mining (November, 2009) – Technical Report, Project Number MineWPer00466AC, 1162 Hay Street, West Perth 6005 Australia.

Coffey Mining(April, 2010) - NI43-101 Technical Report and Scoping Study, Project Number MineWPer00466AE, 1162 Hay Street, West Perth 6005 Australia.

Smee and Associates Consulting Ltd (February, 2009) - A Review of the Minera IRL S.A Quality Control Protocol, Core and Blasthole Sampling Protocol, and Two Laboratories, Peru.

Telluris Consulting Ltd. (September 2009) – Structural Field Study of the Ollachea District.

20 CERTIFICATES OF AUTHORS

Certificate of Qualified Person

As the primary author of the report entitled "Ollachea Resource Update, November 2010, Technical Report" (the Report), dated 14 January 2011, I hereby state:

1. I, Doug Corley, Associate Resource Geologist of Coffey Mining Pty Ltd, 1162 Hay Street, West Perth, Western Australia, Australia, do hereby certify that:
2. I am a practising geologist with 19 years of mining and resource estimation experience. I am a member of the Australian Institute of Geoscientists ("MAIG").
3. I am a graduate of James Cook University – Townsville, Queensland and hold a Bachelor of Science Degree (with Honours) in Geology (1991). I have practiced my profession continuously since 1991.
4. I am a "qualified person" as that term is defined in National Instrument 43-101 (Standards of Disclosure for Mineral Projects) (the "Instrument").
5. I visited the property that is the subject of this Report between the 21St and 22nd June 2010.
6. I am responsible for all sections of this Report excluding Sections 4, 5, 6.1, 7, 8, 9 and 10.
7. I hereby consent to the use of this Report and my name in the preparation of documents for a public filing including a prospectus, an annual information filing, brokered or non-brokered financing(s), or for the submission to any Provincial or Federal regulatory authority.
8. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, or the omission to disclose which makes the Report misleading and that as of the date of this certificate, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.
9. I have read and understand National Instrument 43-101 and am independent of the issuer as defined in Section 1.4 and prior to visiting Ollachea I had no involvement in or knowledge of the property that is the subject of this Report.
10. I have read the National Instrument and Form 43-101F1 (the "Form") and the Report has been prepared in compliance with the Instrument and the Form.
11. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the Property that is the subject of this report and do not hold nor expect to receive securities of Minera IRL Limited.

Dated at Perth, Western Australia, Australia, on 14th day of January 2011.

B.Sc (Hons) Geol MAIG

Doug Corley
Associate Resource Geologist
Coffey Mining Pty Ltd

Certificate of Qualified Person

As co-author of the report entitled "Ollachea Resource Update, November 2010, Technical Report" (the Report), dated 14 January 2011, I hereby state:

1. I, Donald McIver, Employee and Vice President Exploration of Minera IRL Limited, do hereby certify that:
2. I am a Fellow of the AusIMM (Australasian Institute of Mining and Metallurgy), and a 'Qualified Person' in relation to the subject matter of this report.
3. I graduated with a Bachelor of Science Degree (with Honours) in Geology (1986) from the University of Port Elizabeth. I have subsequently obtained a Masters Degree in Exploration and Economic Geology (1996). I have practiced my profession continuously since then.
4. I am a "qualified person" as that term is defined in National Instrument 43-101 (Standards of Disclosure for Mineral Projects) (the "Instrument").
5. I visit the Ollachea property on a regular basis and visited the property that is the subject of this Report with Mr. Doug Corley from the 21st to the 22nd June 2010.
6. I am responsible for Sections 4, 5, 6.1, 7, 8, 9 and 10 of this report.
7. I hereby consent to the use of this Report and my name in the preparation of documents for a public filing including a prospectus, an annual information filing, brokered or non-brokered financing(s), or for the submission to any Provincial or Federal regulatory authority.
8. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, or the omission to disclose which makes the Report misleading and that as of the date of this certificate, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.
9. I have read and understand National Instrument 43-101.
10. I have read the National Instrument and Form 43-101F1 (the "Form") and the Report has been prepared in compliance with the Instrument and the Form.
11. I am a full time employee of Minera IRL Limited.

Dated at Lima, Peru, on the 14th day of January 2011.

Donald McIver. B.Sc (Hons), MSc (Geology), FAusIMM
Vice President Exploration
Minera IRL Limited

Appendix A

Screen Fire Assay Report

Screen Fire Assay 2010: Results & Analysis

From: Susana Torres

Date: 30 November 2010

Subject: Ollachea Screen Fire Assays - 2010

A total of 244 samples were selected from Ollachea Project´s Minapampa Zone, from samples of 2009 – 2010´s diamond drilling program, from the reject material of the mechanic preparation of half drill core – samples.

The samples were taken from intervals with mineralization potential on Minapampa area. Samples with original AAS high results were preferably considered, including intervals between them even if they don't presented mineralized values.

Once received at CIMM´s lab, the samples were weighted, dried, crush and pulverized to the required size for the analysis. After sieving the sample, two different fractions were observed: the coarse and the fine fraction. Both independent analysis, of the coarse and the fine fraction, were used on the final calculations.
The coarse fraction was analysed by using gravimetric and atomic absorption spectroscopy (AAS) methods. The reasons and implications of using the second analysis are still under observation.
The AAS method was used for the fine fraction Au content calculations.
Of the 244 samples, 23 of them had weights under 1000 grams, and for those samples it was necessary to do a different calculation based on 500 grams- sample weight.

The analysis of these 23 samples were considered separately from the other 221 samples

The attached file contains a CIMM spreadsheet of results and my own analysis spreadsheet (there are a few inaccuracies in my analysis, for example, some samples were of 500 grams instead of 1000 grams). This analysis seeks to compare the original CIMM results with the SFA (and standard AAS finish gold assays by CIMM) and assesses the results from a number of perspectives.

There were 244 SFA assays carried out by CIMM.

Observations are as follows:

- The comparisons can be summarized as follows:

a) For those samples with a total weight around 1 kilogram:

	Samples	SFA	AAS (-) fraction	CIMM AAS
Assay g/t	221	2.36	1.97	2.25
% variation			-16.6%	-5%

b) Calculations made on samples with a total weight of around 0.5 kg:

	Samples	SFA	AAS (1)	AAS (0)
Assay g/t	23	2.46	2.47	2.46
% variation			100.5%	100.0%

Comments as follows:

- The standard AAS gold assays on the SFA procedures, average 16.6 % less than the SFA itself.
- After observing the comparison charts, we can also conclude that the SFA - AAS assays (on the fine fraction) show little sign of nugget effect.
- The average for the CIMM`s AAS original results is 5% lower than the SFA.
- The greatest variance is in the high grade range and reducing as the assay results drop. Samples with Au grades lower than 0.5 g/t, do not show a represantive. This is shown in the table below

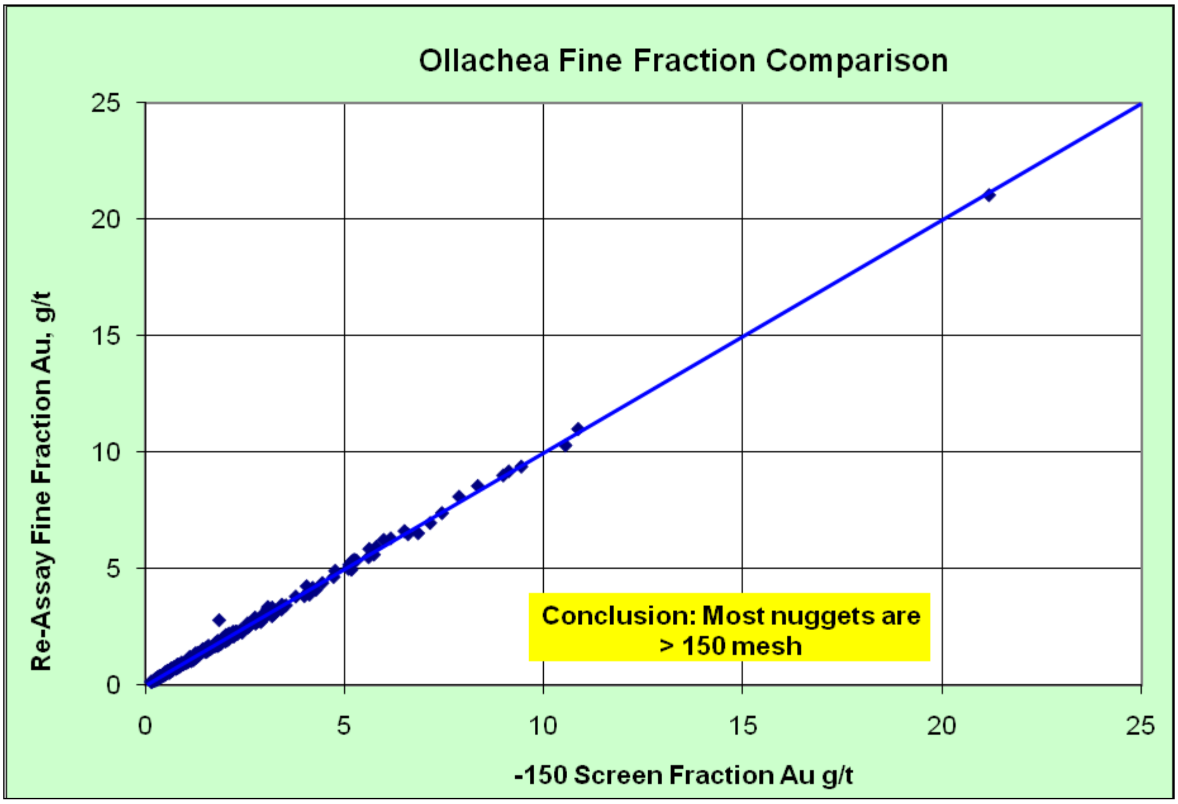
Range		Samples	SFA	AAS (1)	AAS (0)
AAS (0)	> 10 g/t Au	3	21.8	13.71	18.32
	- % variation			63.0%	84.1%
AAS (0)	5 – 10 g/t Au	21	6.75	5.56	6.58
	- % variation			82.3%	97.4%
AAS (0)	2 - 5 g/t Au	57	3.15	2.73	3.2%
	- % variation			86.7%	100.3%
AAS (0)	1 - 2 g/t Au	55	1.48	1.33	1.43
	- % variation			89.9%	96.3%
AAS (0)	1 -0.5 g/t Au	42	0.81	0.75	0.74
	- % variation			92.0%	91.2%
AAS (0)	< 0.50 g/t Au	43	0.47	0.41	0.32
	- % variation			86.3%	68.5%

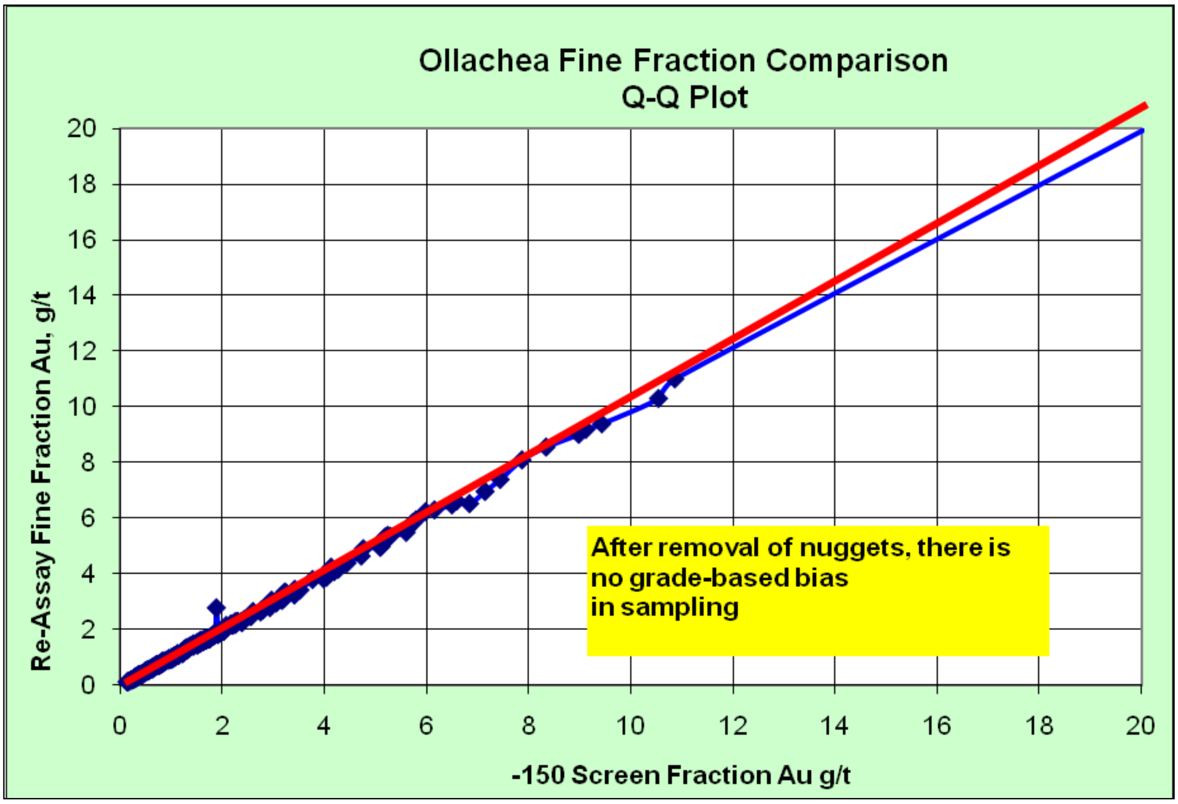
- Of the 221 samples, 127 of the 221 samples were higher with the original AAS assays compared to the SFA. This represents 57% of the samples. On the previous 2009 SFA results analysis, the percentage of original AAS results higher than those reported by SFA analysis was 58%

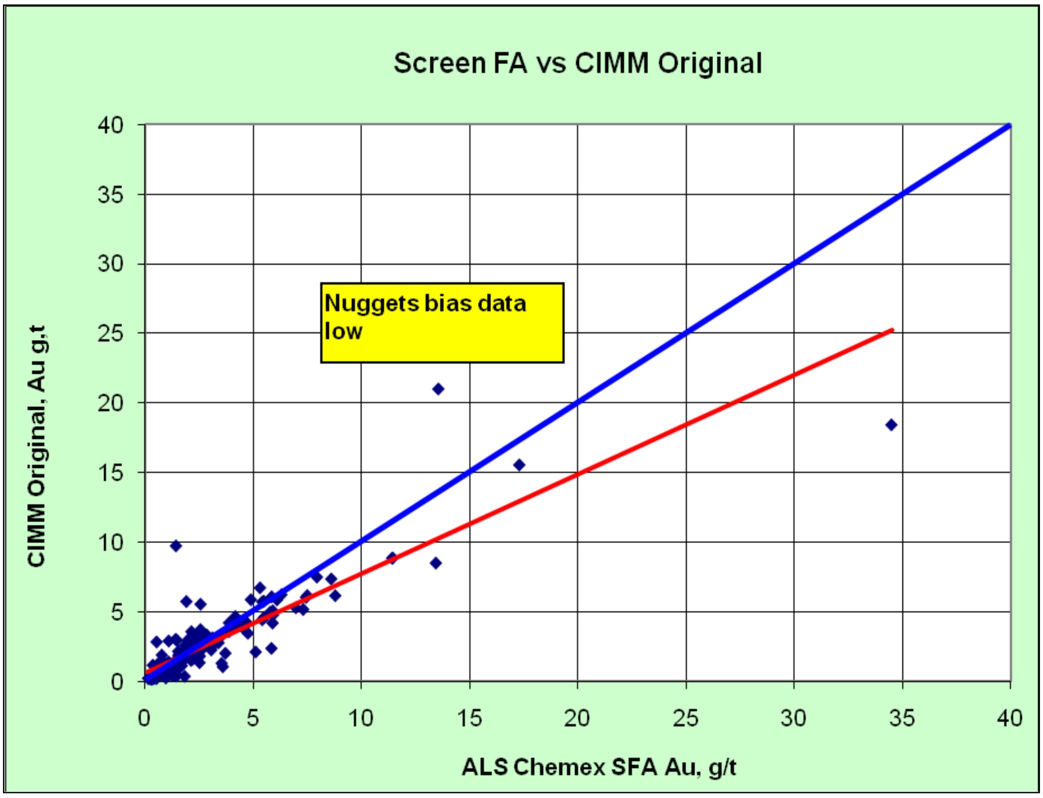
- The reproducibility is not great, this can be quantify with the field and preparation duplicates analysis.
- The nugget affect is variable, ranging from 66.8% down to almost cero. This values are very similar to those reported on the first SFA assay in 2009, with 68.7% of gold in the screen oversize down to zero. The average is 12.1 % (the first reported average value in 2009 was 14.8%).
- But there are some areas where the nugget affect ***is*** significant and this does affect the variability. The table below shows a clear relationship between the amount of coarse gold and the alignment of the different assay methods (also removing the 6 high variance samples in the coarsest range):

Range		Samples	SFA	AAS (1)	AAS (0)
Plus 19.9% coarse Au	- g/t Au	43	4.4	2.74	3.8
	- % variation			37.7%	13.6%
10-19.8% coarse Au	- g/t Au	47	2.2	1.92	2.14
	- % variation			12.7%	2.72%
Minus 10% coarse Au	- g/t Au	131	1.76	1.73	1.76
	- % variation			1.70%	0 %

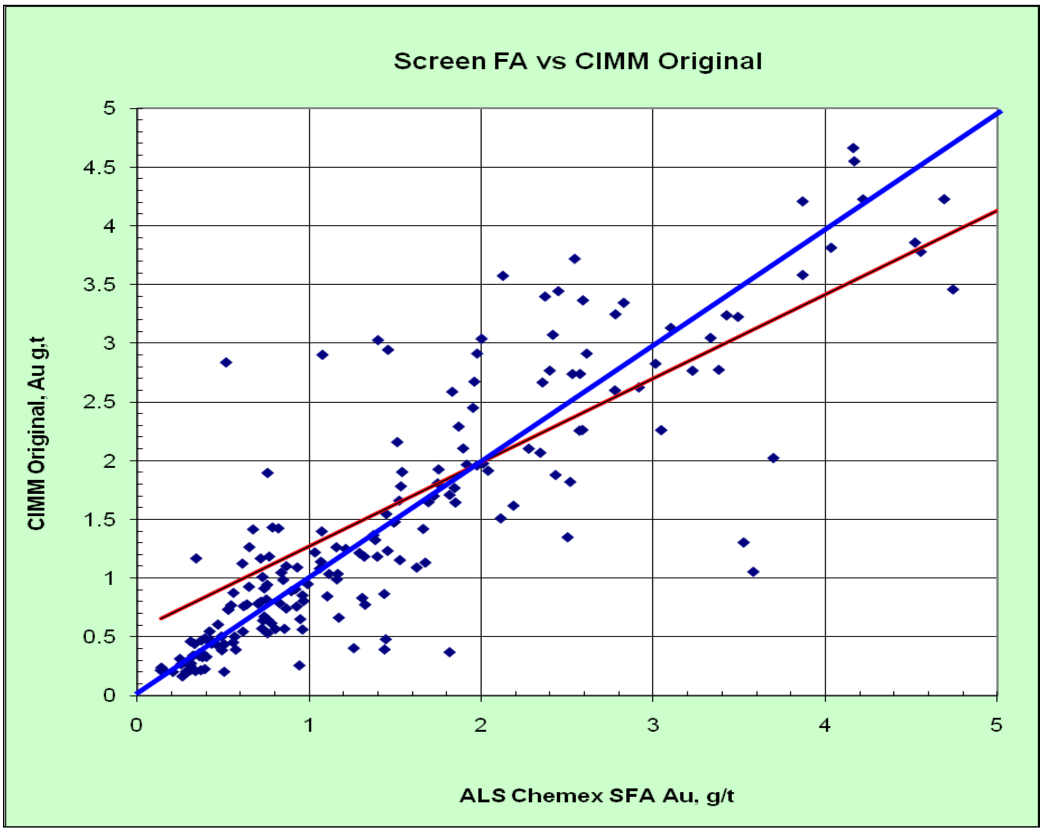
After checking charts of the comparison of the analysis of the fine fraction, (analysis done on pulps separately packaged after pulverization), it is observed that no significant nuggets are present on the fine fractions, since the values are plotted almost as the X=Y line. When sa mples present va lues higher than 6 Au g/t, some minor difference is observed. When observed on a XY chart, the results of the SFA analysis are higher than the original AAS.

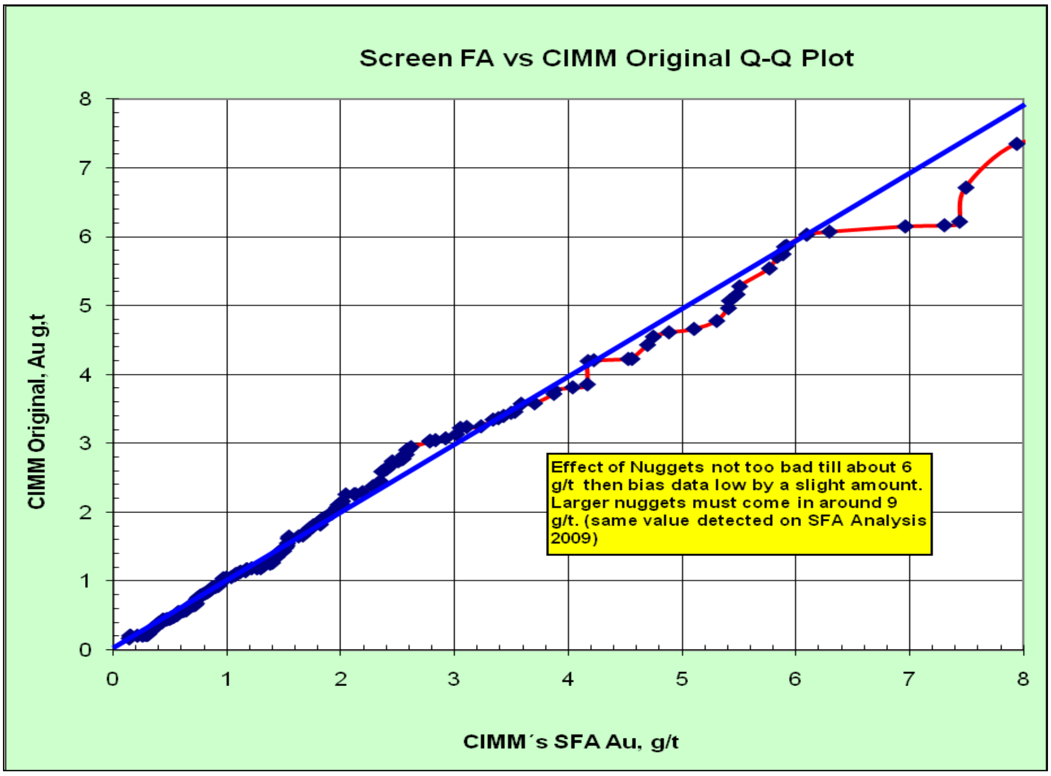

Ollachea Fine Fraction Comparison
Re-Assay Fine Fraction Au, g/t
-150 Screen Fraction Au g/t
Conclusion: Most nuggets are > 150 mesh
0
5
10
15
20
25


Ollachea Fine Fraction Comparison
Q-Q Plot
Re-Assay Fine Fraction Au, g/t
-150 Screen Fraction Au g/t
After removal of nuggets, there is no grade-based bias in sampling
0
2
4
6
8
10
12
14
16
18
20



If the same chart is observed with more detail on the lower values, the reproducibility is not good, and can be either higher or lower than the original values.



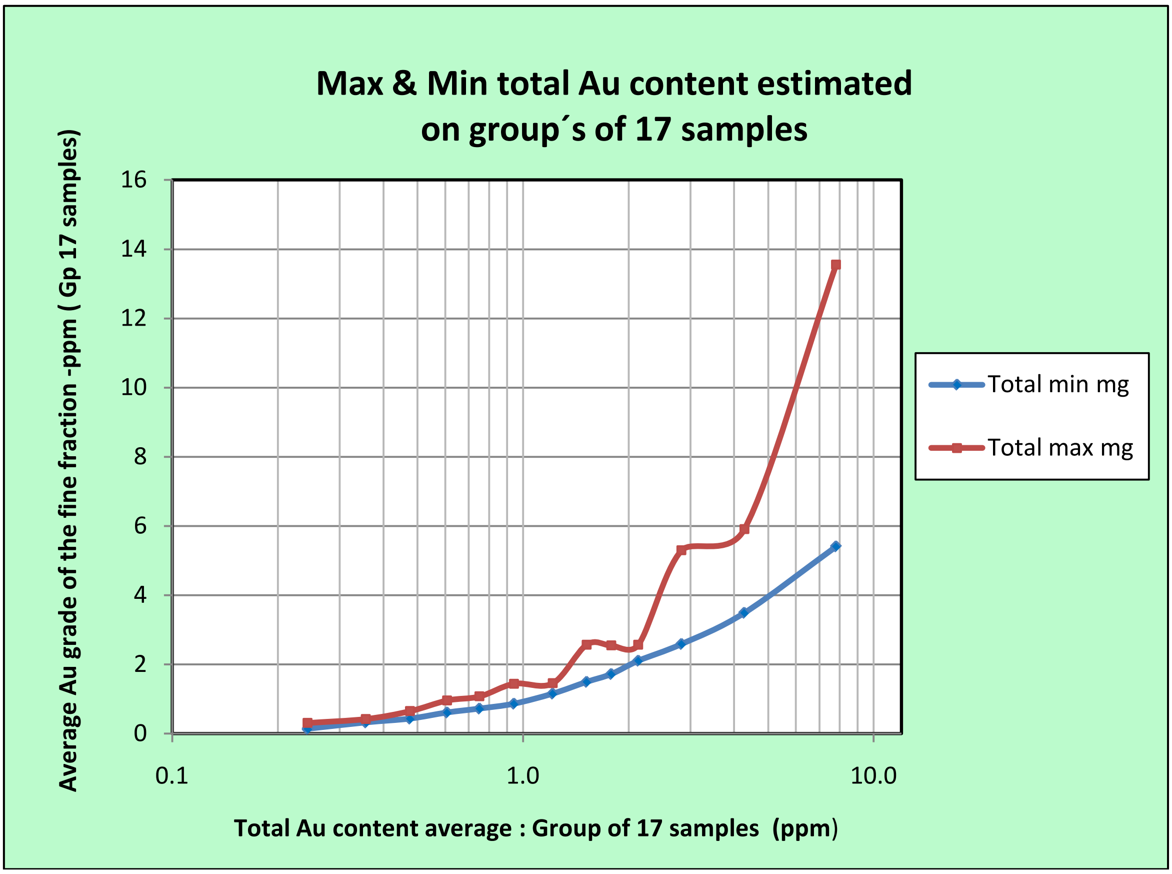


A comparison between the amount of gold found on the coarse fraction vs. the Au grams estimated on the fine fraction was calculated as groups of 17 samples sorted by the amount of gold on the fine fraction. After the analysis of the fine and coarse values of these samples, the outliers were eliminated, obtaining a representative maximum and minimum value of Au total content for an average value. This mean that if we have a mass of rock with a real value of 0.243, after taking a representative sample of it, the min and max values we can obtain are 0.14 and 0.31 Au mg. We can interpret this as a "confidence interval".

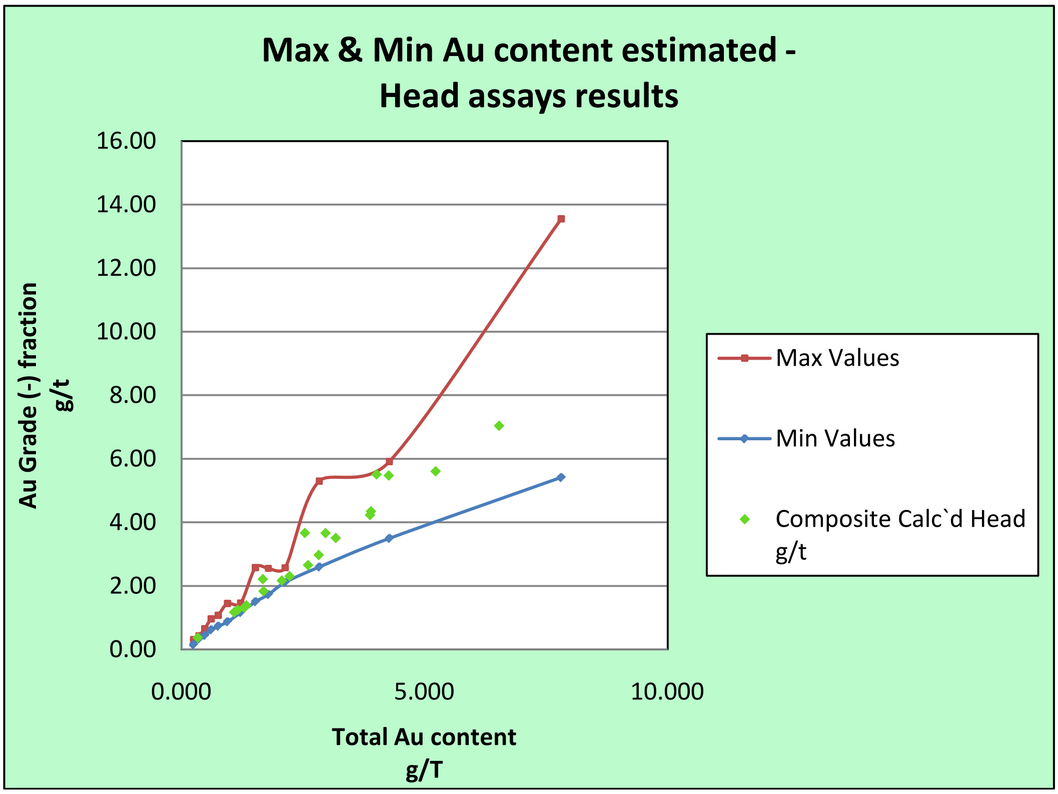
The values are shown on the following chart:

(-) Fraction Au mg	Min Au mg	Max Au mg
0.243	0.14	0.31
0.356	0.33	0.43
0.476	0.44	0.65
0.607	0.614	0.962
0.751	0.73	1.08
0.942	0.87	1.45
1.215	1.16	1.46
1.519	1.50	2.57
1.785	1.72	2.55
2.132	2.110	2.57
2.831	2.59	5.30
4.275	3.49	5.91
7.810	5.41	13.55

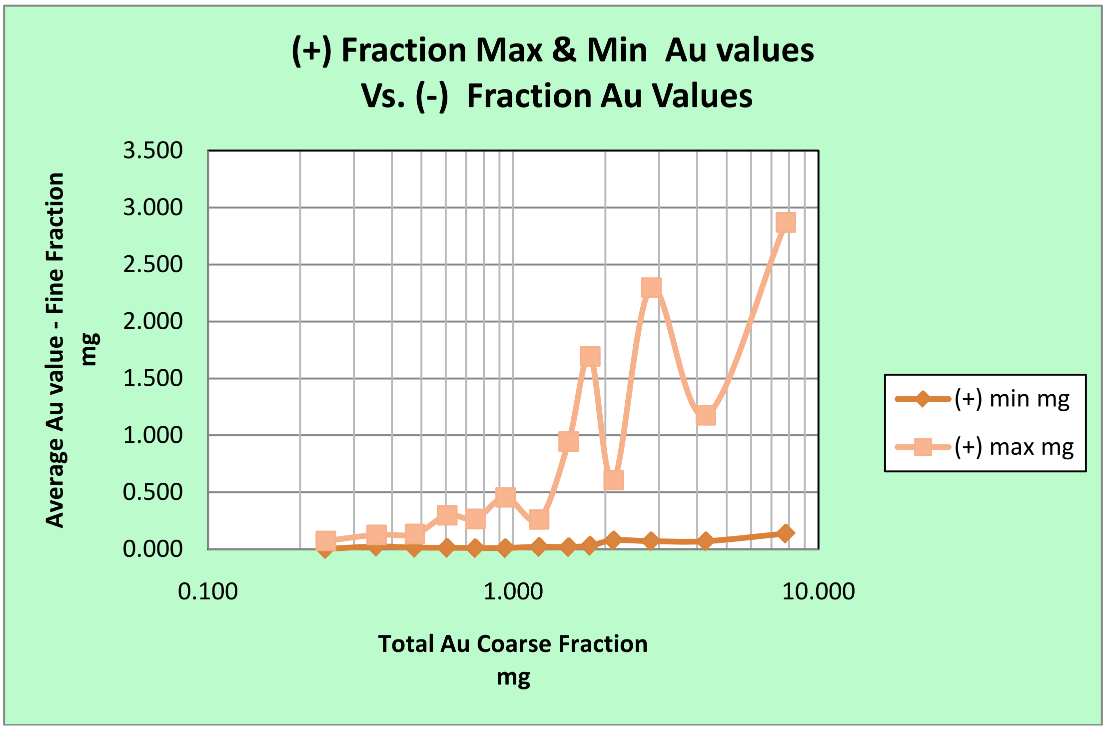
Chart below shows the previous idea:



As an exercise, some results of a metallurgical test were plotted on the same chart. These values are show on the X axe with the Au Grades (g/t) calculated for those intervals from the original AAS value (AAS analysis made on 15 gr of pulverized drill core), versus the composite calculated by head assays on metalurgical samples (analysis on the entire interval of drill core). All the results were plotted between the max and min lines. (See below):



Another graphic shows the behaviour of the coarse Au on averaged values of Au on the fine fraction. Two lines are shown: how the maximum and minimum values of the coarse fraction behaves as the fine fraction grade increases: The maximum line shows a constant erratic behaviour, may be caused by two different events of coarse Au mineralization?



Discussion

- On the last SFA analysis performed in 2009, there was an observation made about the possibility that the samples analysed could had been oxidized, and the contained pyrrotite gained significant weight, which will consecuently affect the results by making the Au content lower than the original, since the initial weight had increased.

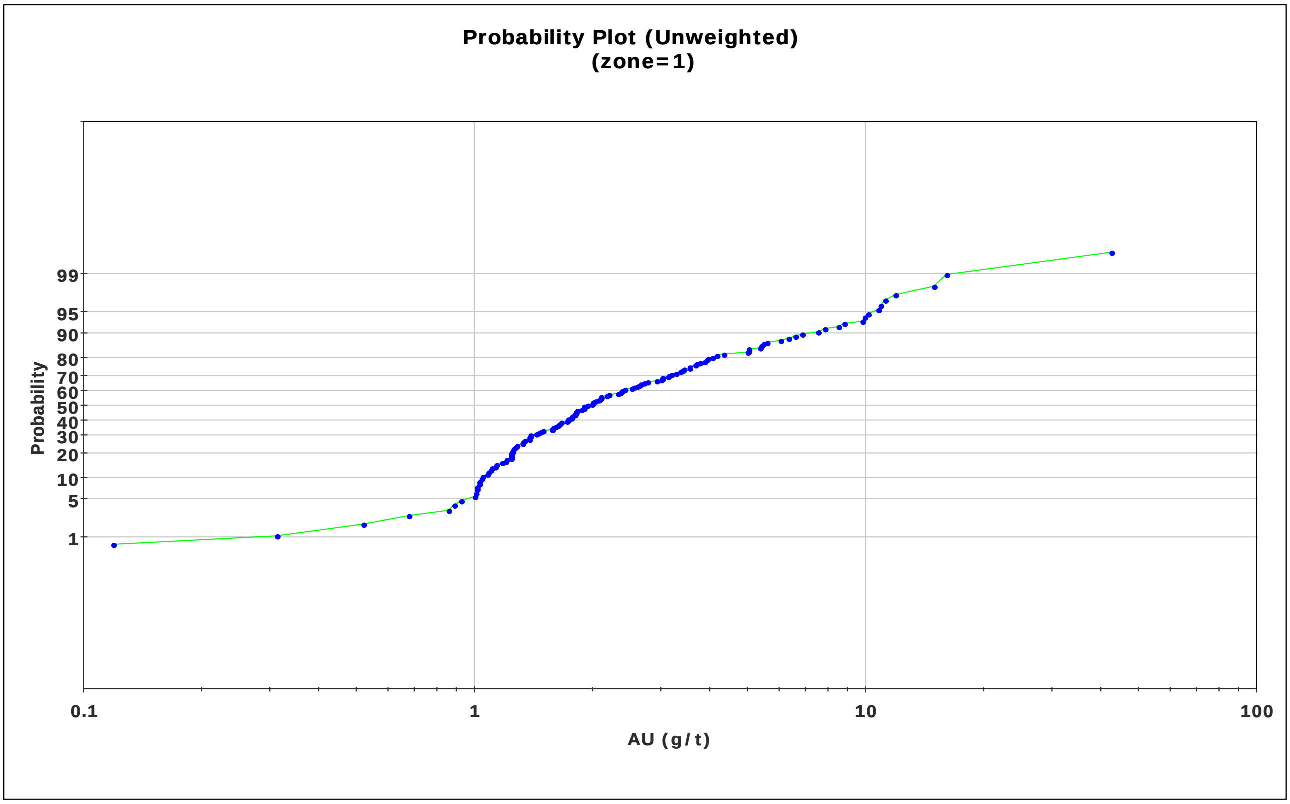
- In 2009 SFA analysis, not many samples of low grade were analysed, since the higher grades were preferably selected: "*Another consideration is that the samples selected were heavily weighted toward the higher grade samples. The above analysis shows that nugget affect, as would be expected, is most pronounced in the high grade samples. Although there does not appear to be much evidence of this from the suite of samples selected, it is possible that the lower grade range, say below 10g/t, may, in fact, contain more high grade spikes (in other words, we have concentrated in selecting high grade samples that are likely to be averaged down whilst not selecting a proportional suite of lower grade samples that might average **up** due to nugget affect). An example of this is illustrated where one of the duplicates was screen fire assayed at 21.7t/t compared to the original sample of 8.9t/t*".

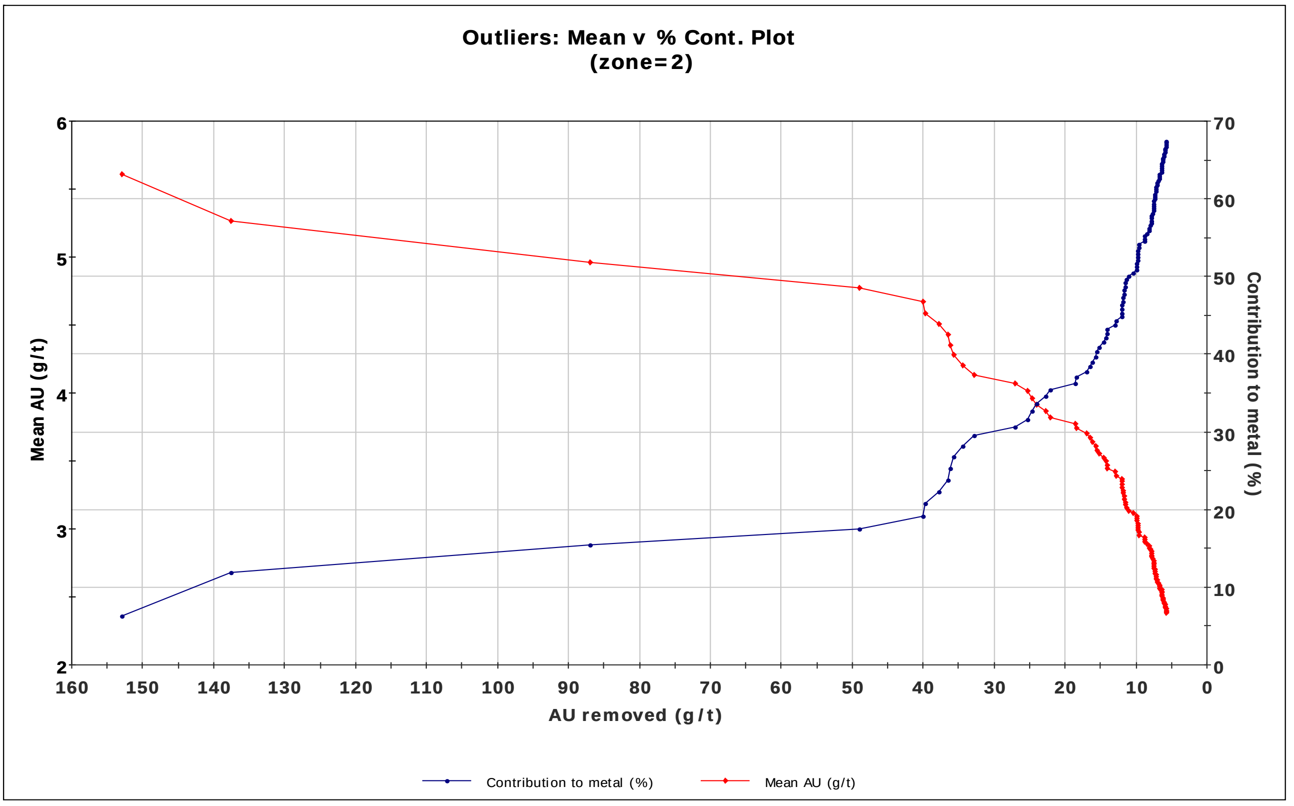
  After taking a careful look of 2010 data, more than the 60% of the values under 1 Au g/t present higher values on the SFA than the CIMM`s AAS.

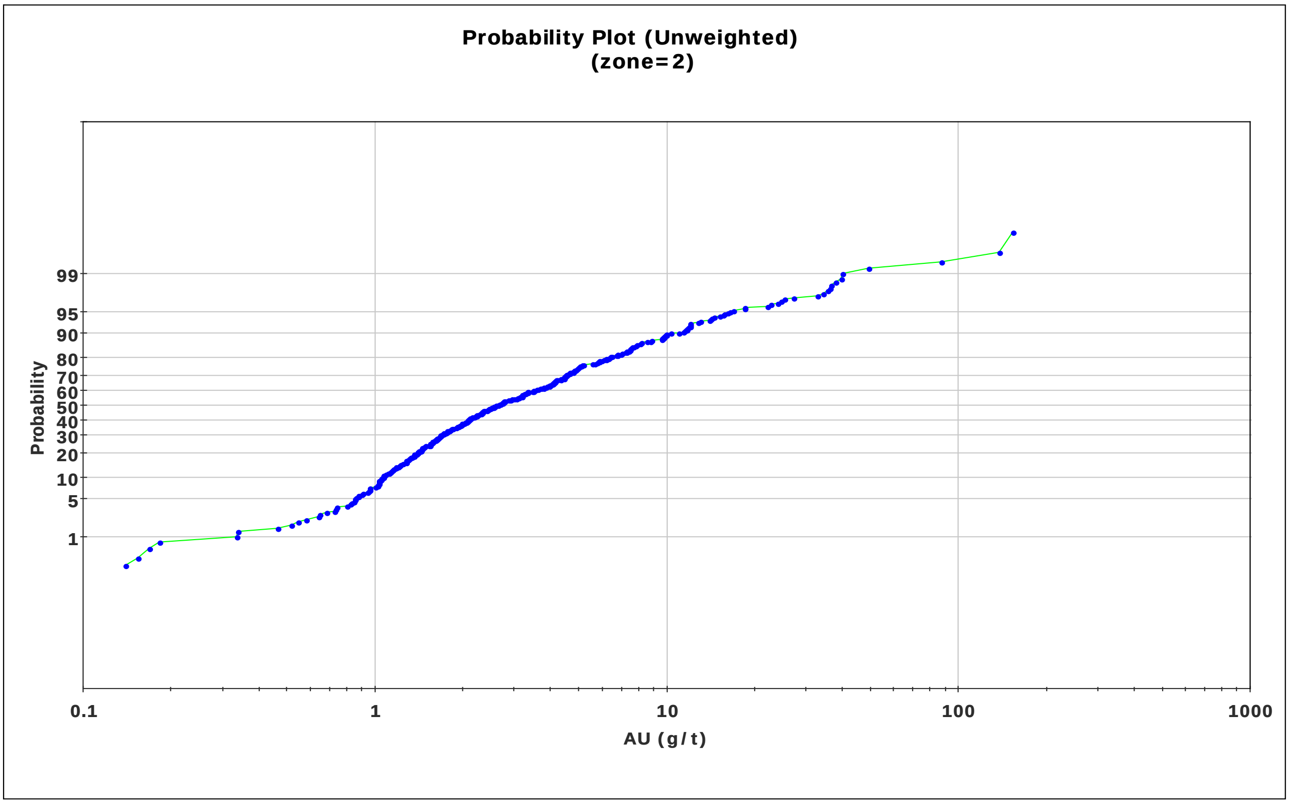
Appendix B

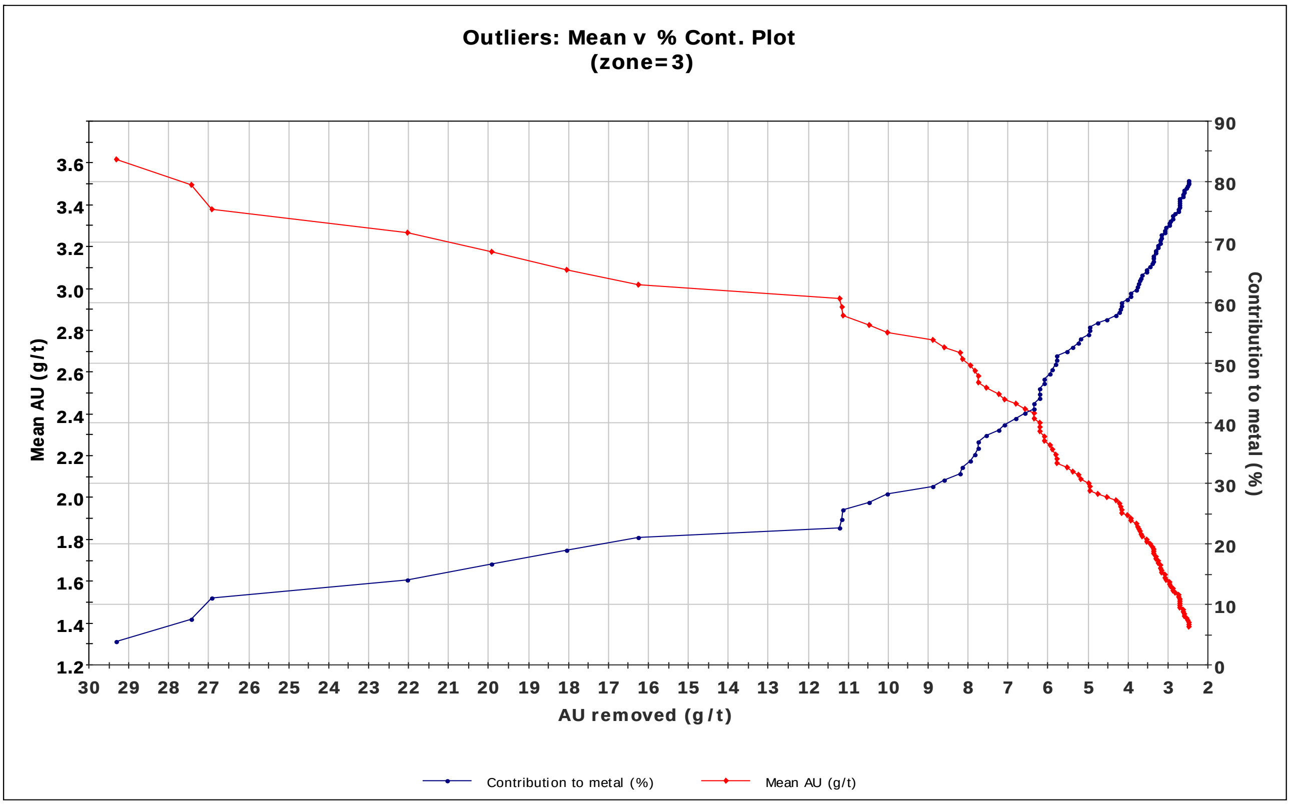
High Grade Analysis

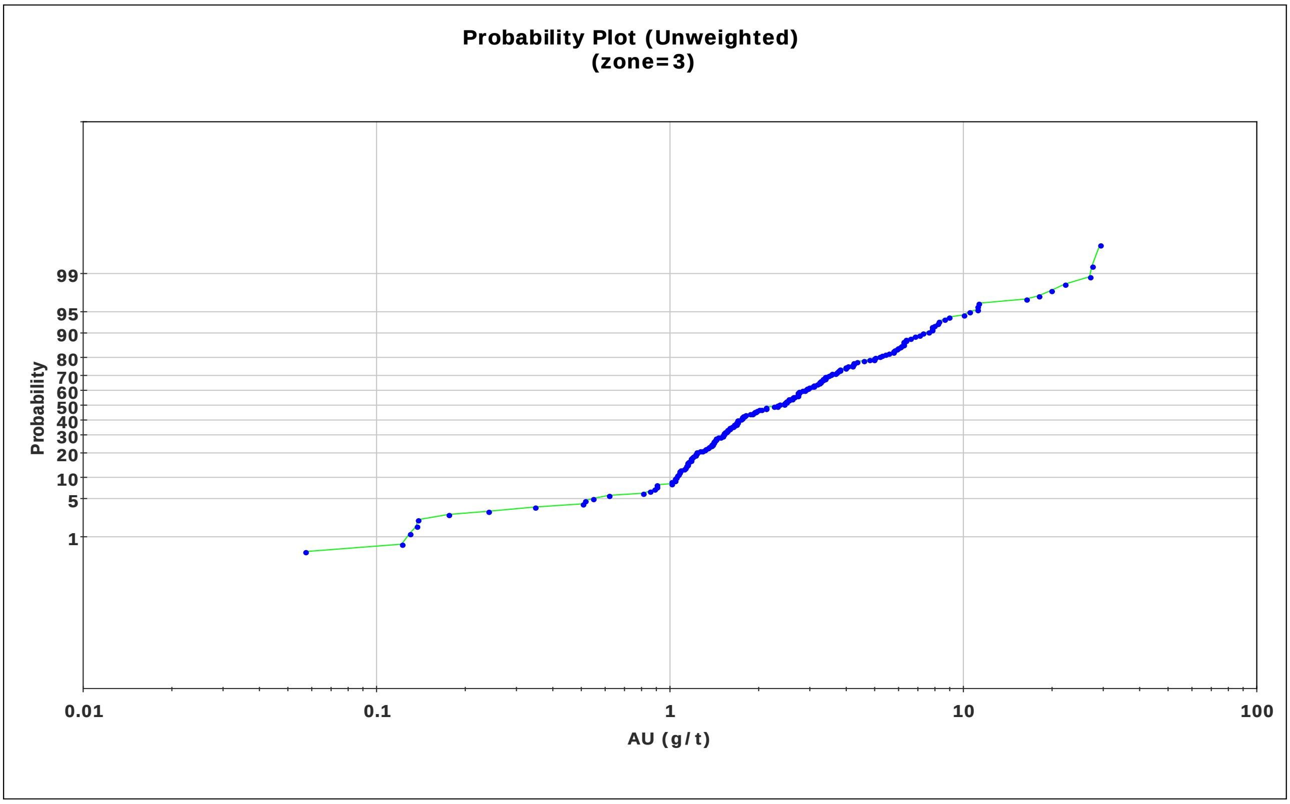

Outliers: Mean v % Cont. Plot
(zone=1)
Mean AU (g/t)
Contribution to metal (%)
AU removed (g/t)
Contribution to metal (%)
Mean AU (g/t)

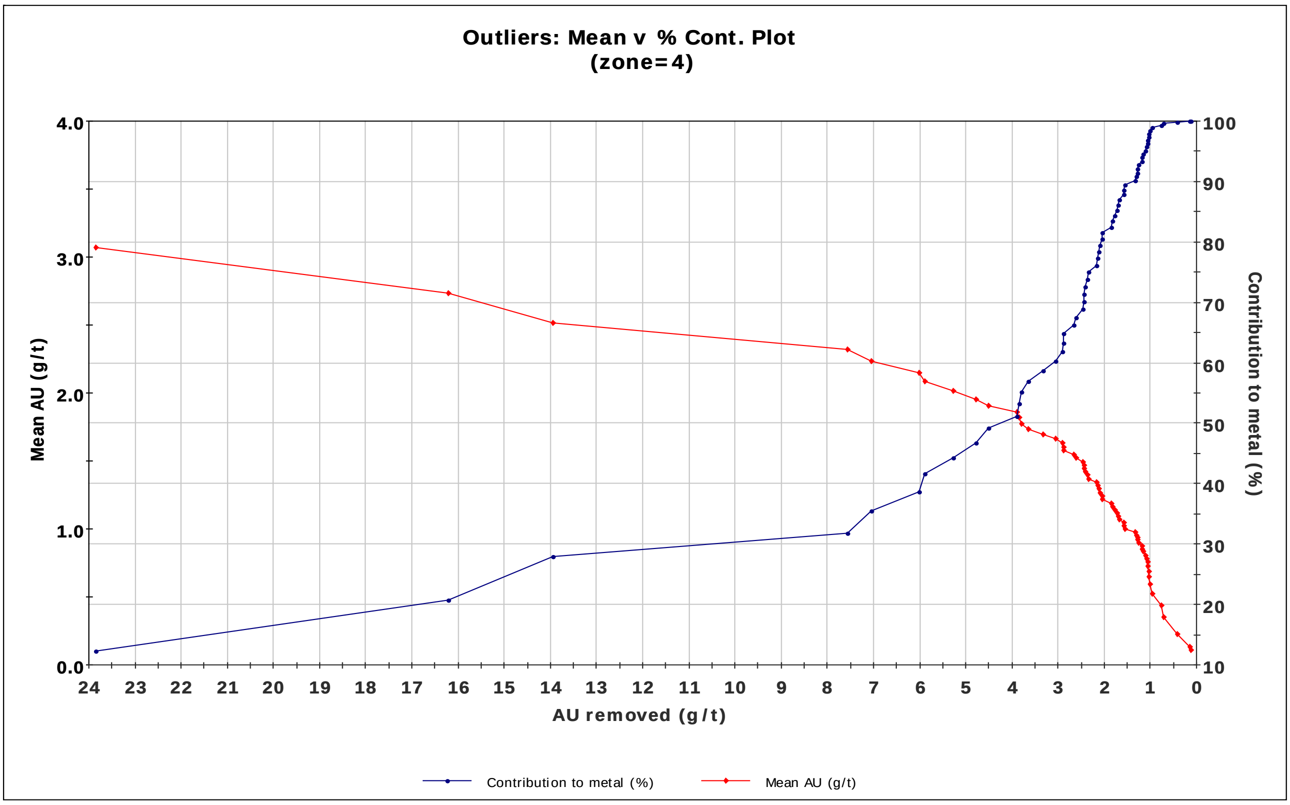

Probability Plot (Unweighted)
(zone=1)
Probability
AU (g/t)


Outliers: Mean v % Cont. Plot
(zone=2)
Mean AU (g/t)
Contribution to metal (%)
AU removed (g/t)
Contribution to metal (%)
Mean AU (g/t)

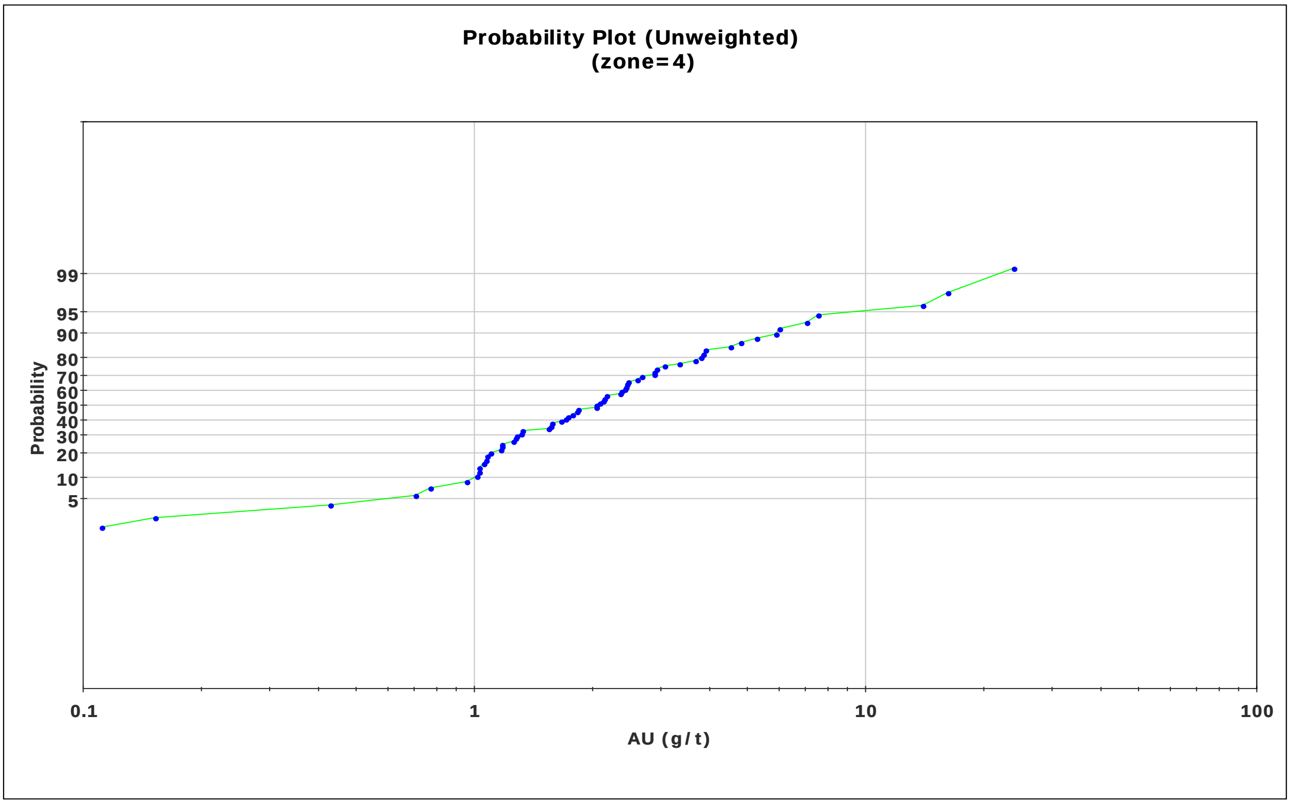

Probability Plot (Unweighted)
(zone=2)
Probability
AU (g/t)


Outliers: Mean v % Cont. Plot
(zone=3)
Mean AU (g/t)
Contribution to metal (%)
AU removed (g/t)
Contribution to metal (%)
Mean AU (g/t)

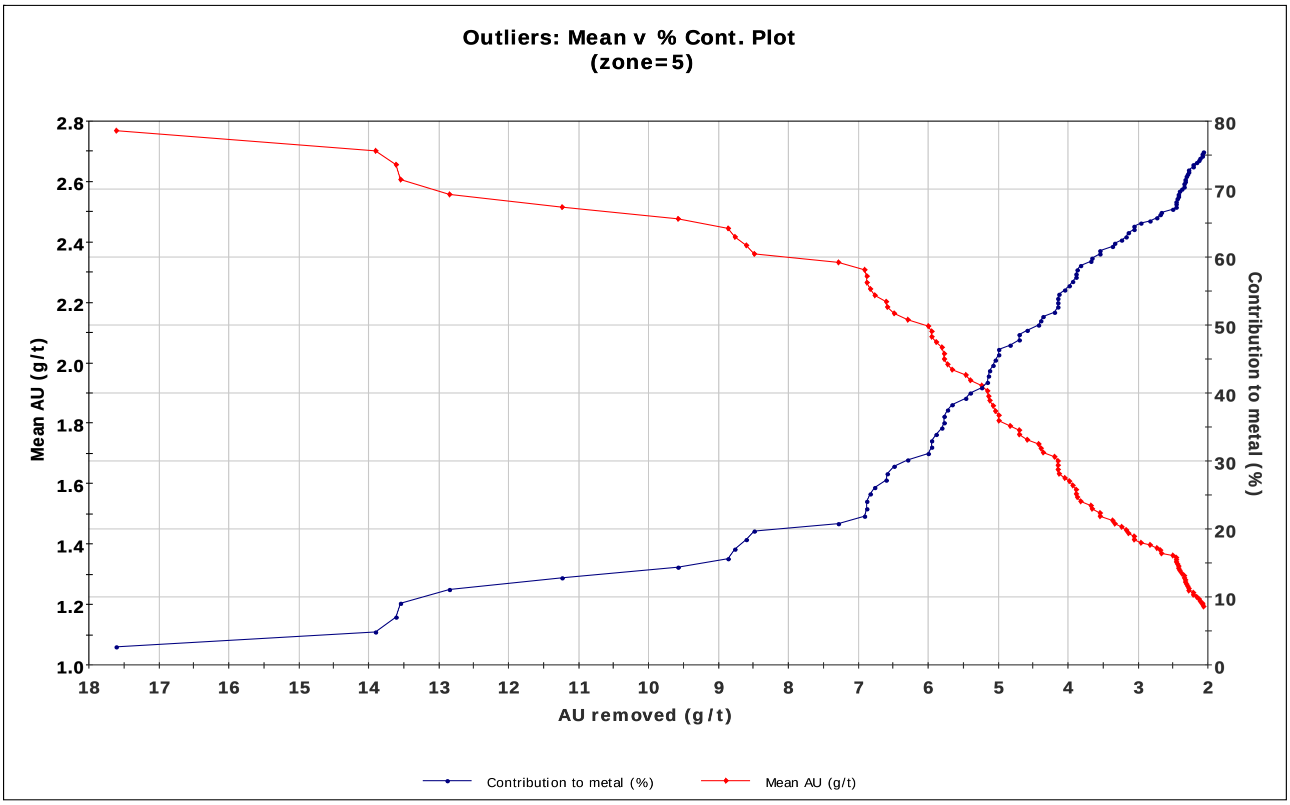

Probability Plot (Unweighted)
(zone=3)
Probability
AU (g/t)

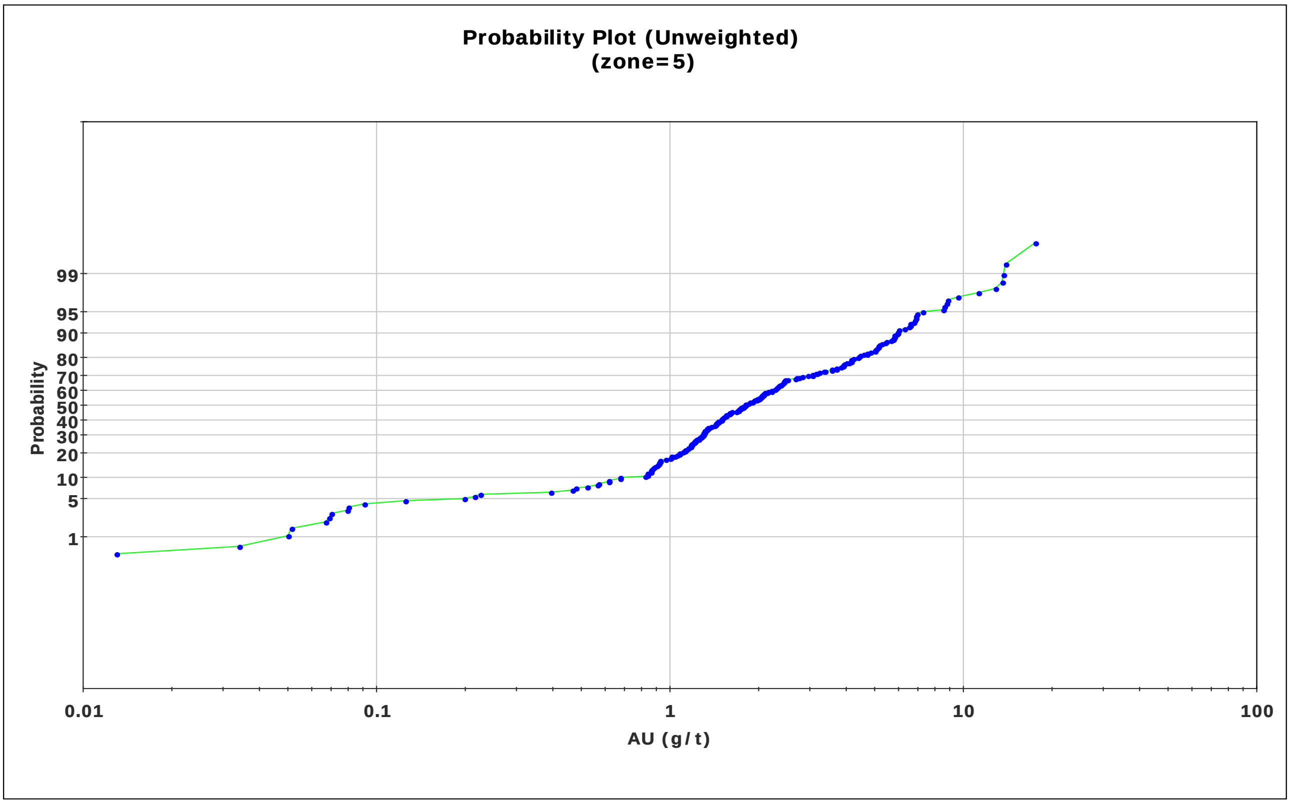


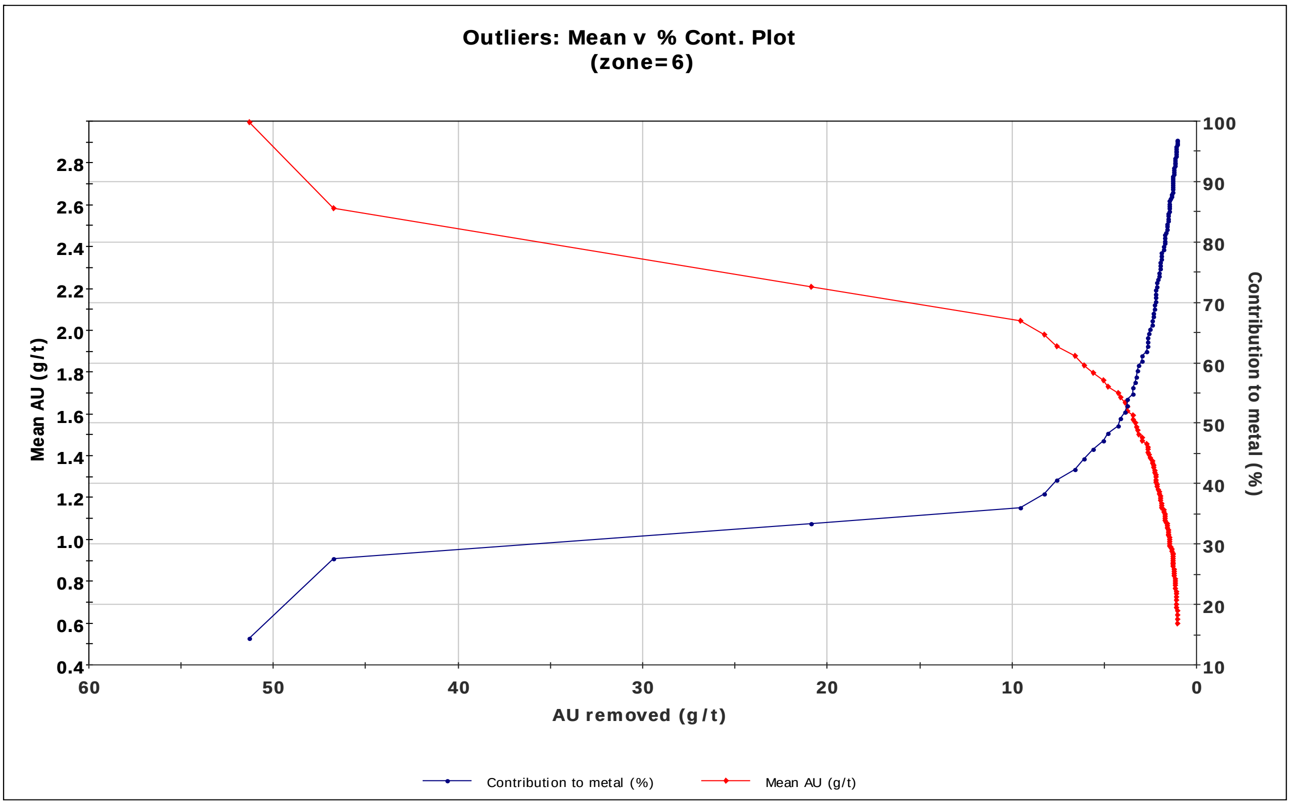
Outliers: Mean v % Cont. Plot
(zone=4)
Mean AU (g/t)
Contribution to metal (%)
AU removed (g/t)
Contribution to metal (%)
Mean AU (g/t)

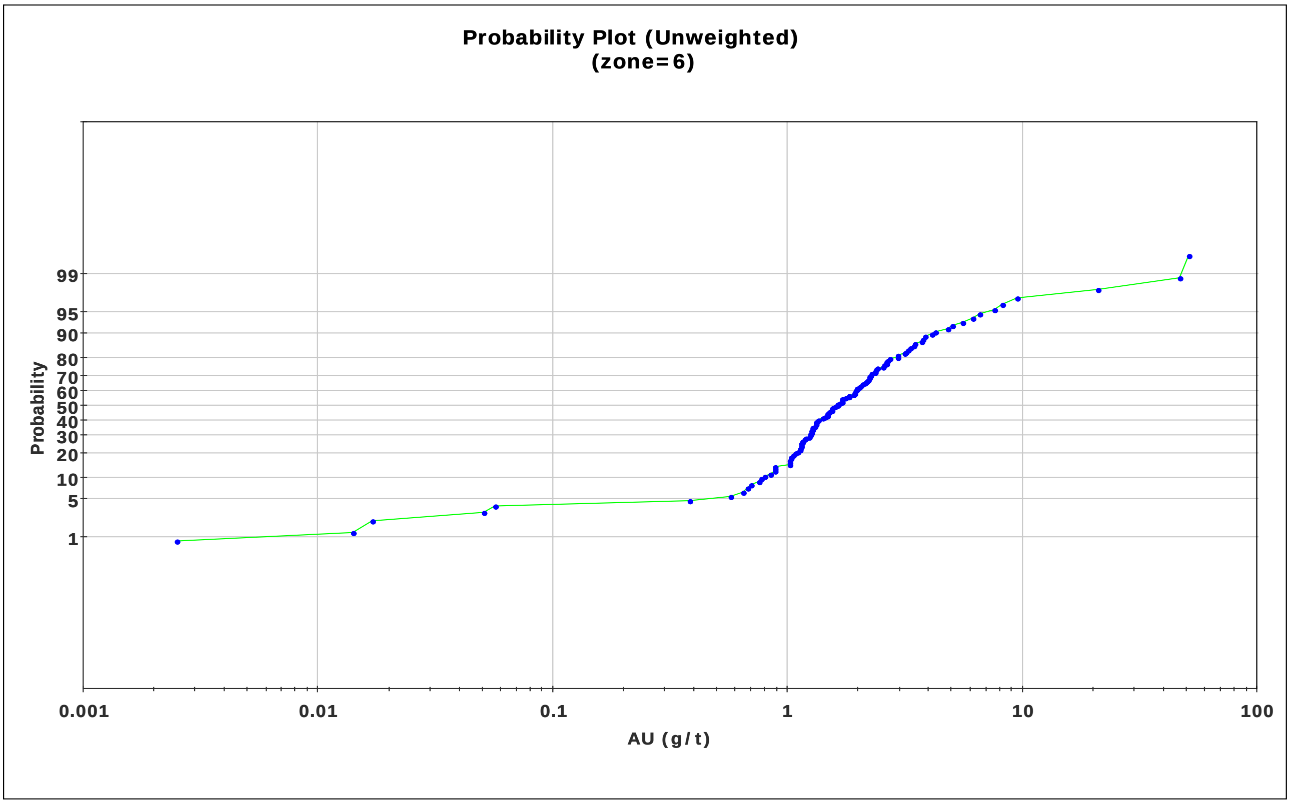


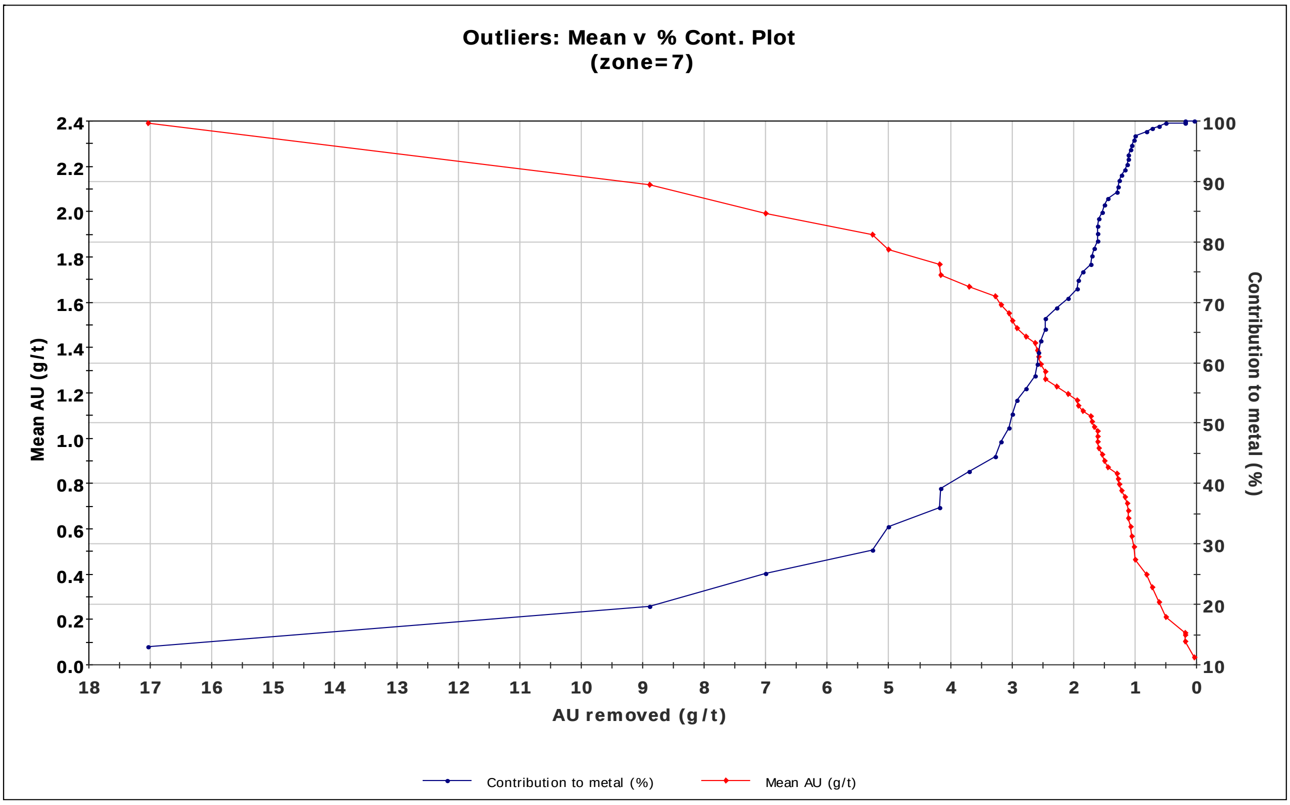
Probability Plot (Unweighted)
(zone=4)
Probability
AU (g/t)

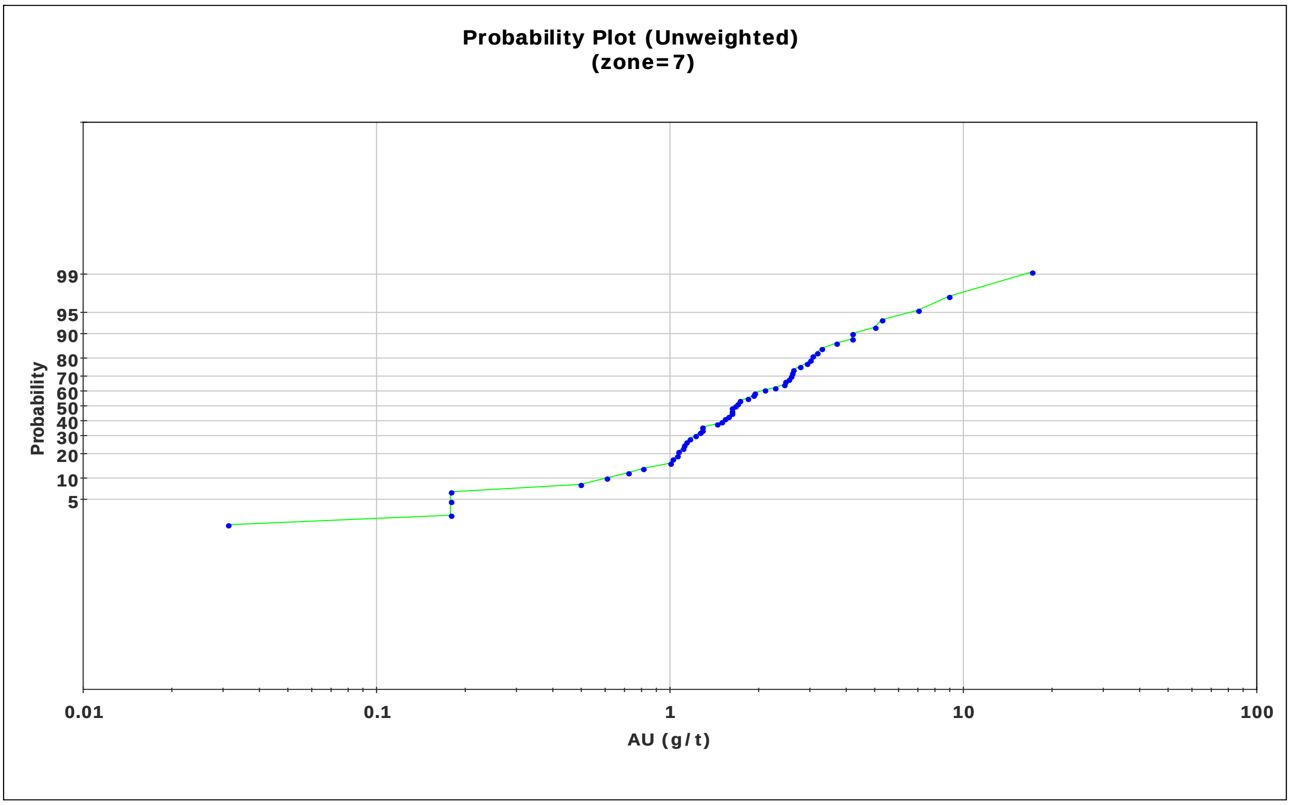

Outliers: Mean v % Cont. Plot
(zone=5)
Mean AU (g/t)
Contribution to metal (%)
AU removed (g/t)
Contribution to metal (%)
Mean AU (g/t)


Probability Plot (Unweighted)
(zone=5)
Probability
AU (g/t)


Outliers: Mean v % Cont. Plot
(zone=6)
Mean AU (g/t)
Contribution to metal (%)
AU removed (g/t)
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
100
90
80
70
60
50
40
30
20
10
60
50
40
30
20
10
0
Contribution to metal (%)
Mean AU (g/t)


Probability Plot (Unweighted)
(zone=6)
Probability
99
95
90
80
70
60
50
40
30
20
10
5
1
0.001
0.01
0.1
1
10
100
AU (g/t)

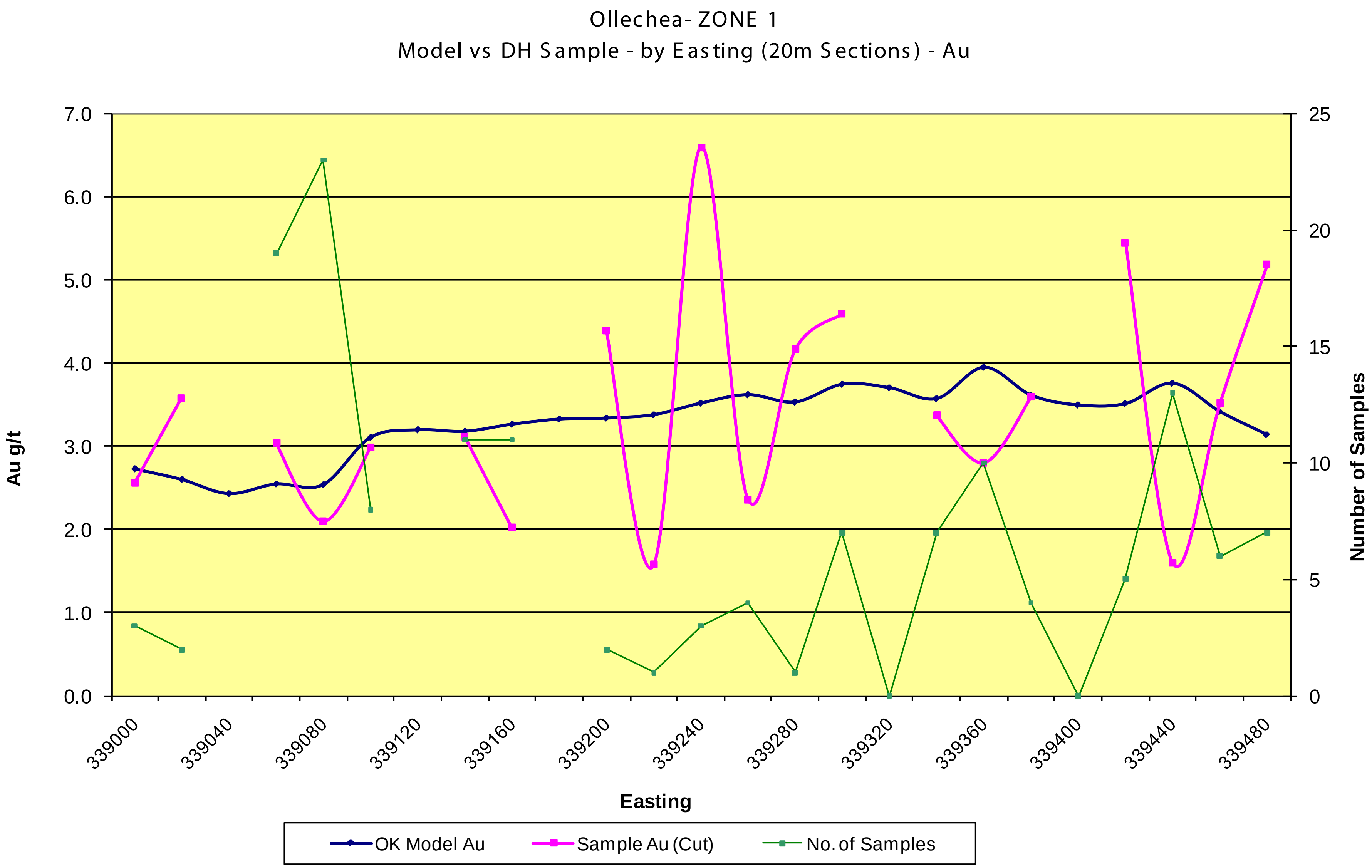

Outliers: Mean v % Cont. Plot
(zone=7)
Mean AU (g/t)
Contribution to metal (%)
AU removed (g/t)
Contribution to metal (%)
Mean AU (g/t)


Probability Plot (Unweighted)
(zone=7)
Probability
AU (g/t)

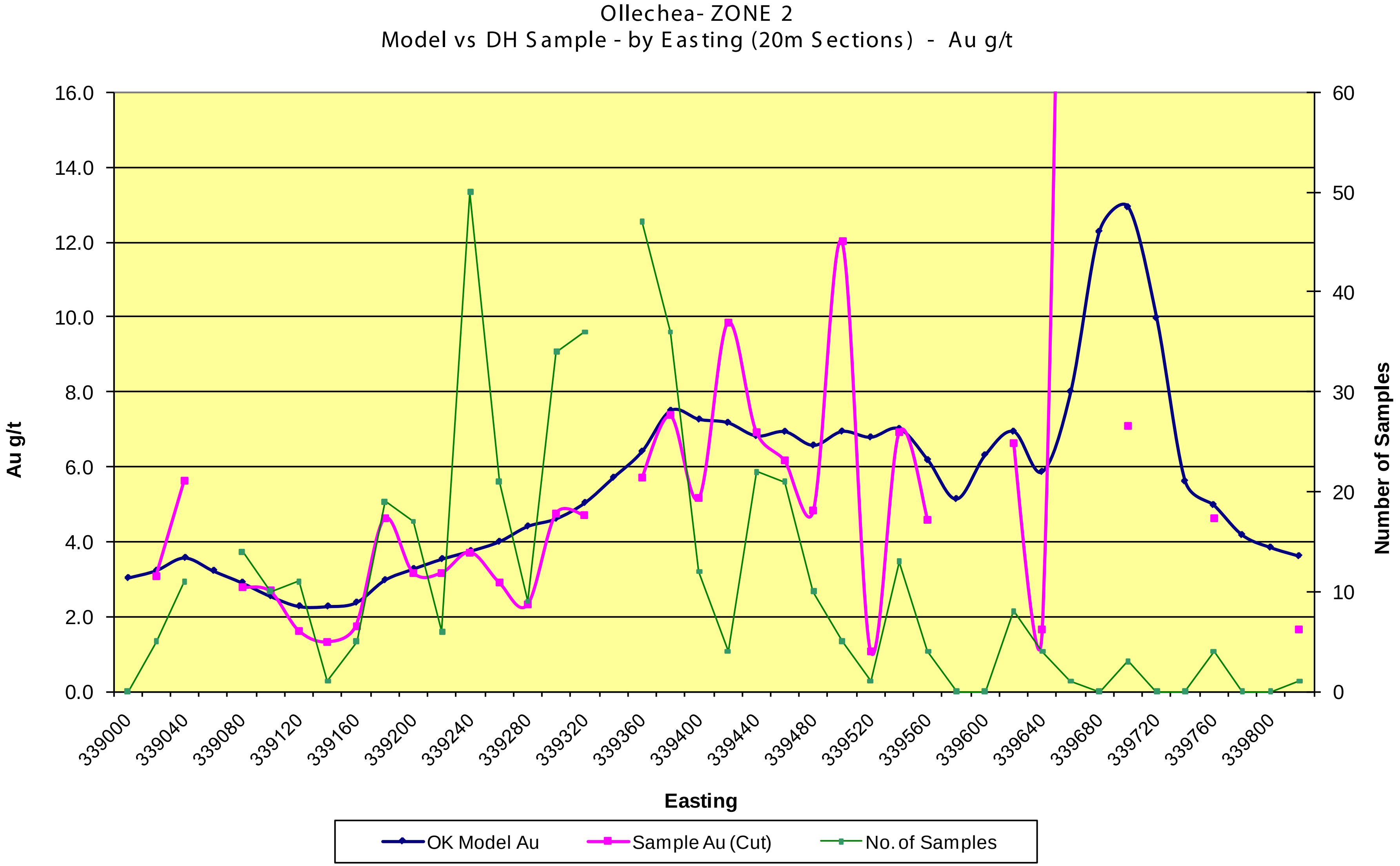
Appendix C

Validation Plots

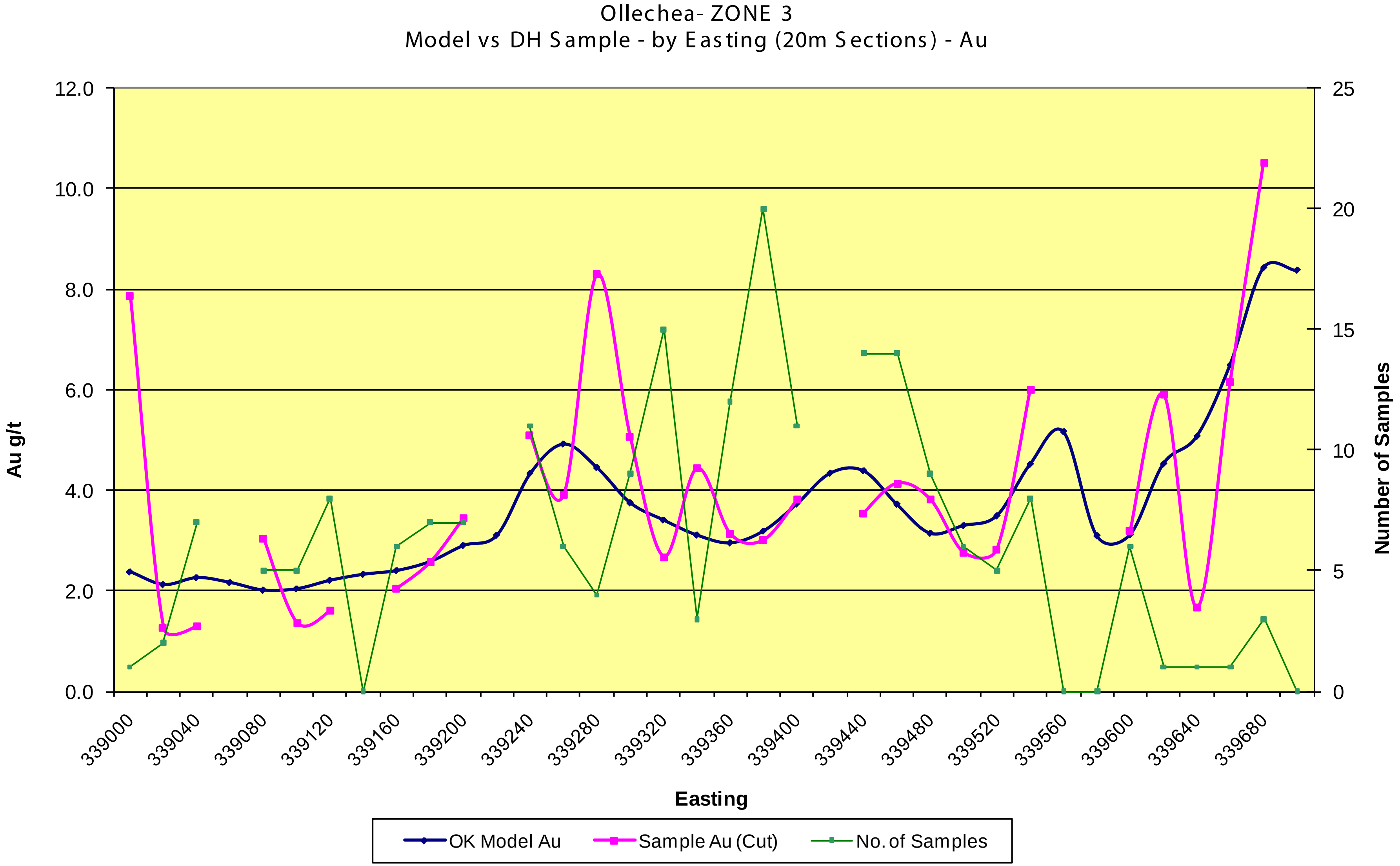
Validation Plots by Easting



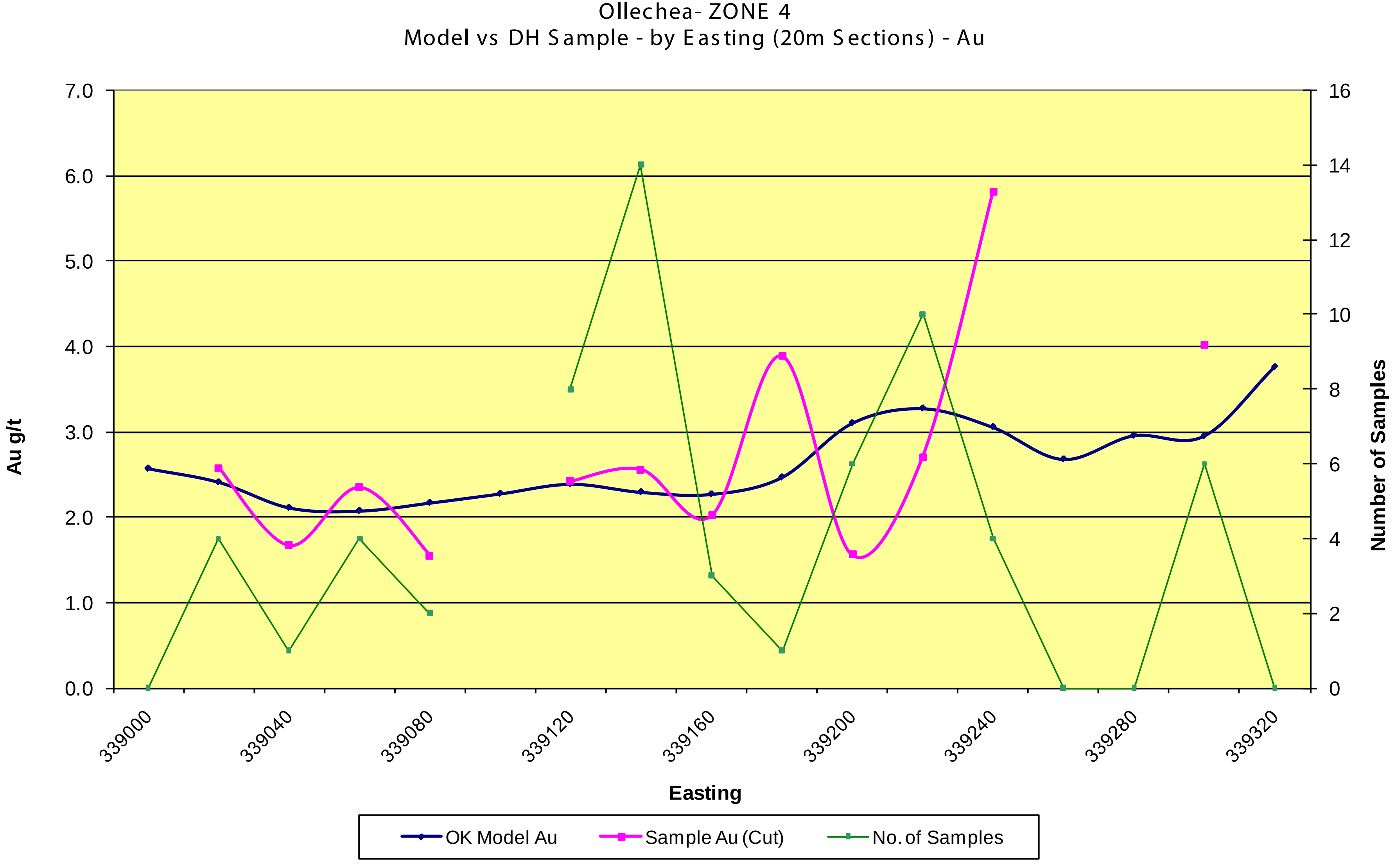
Validation Plots by Easting



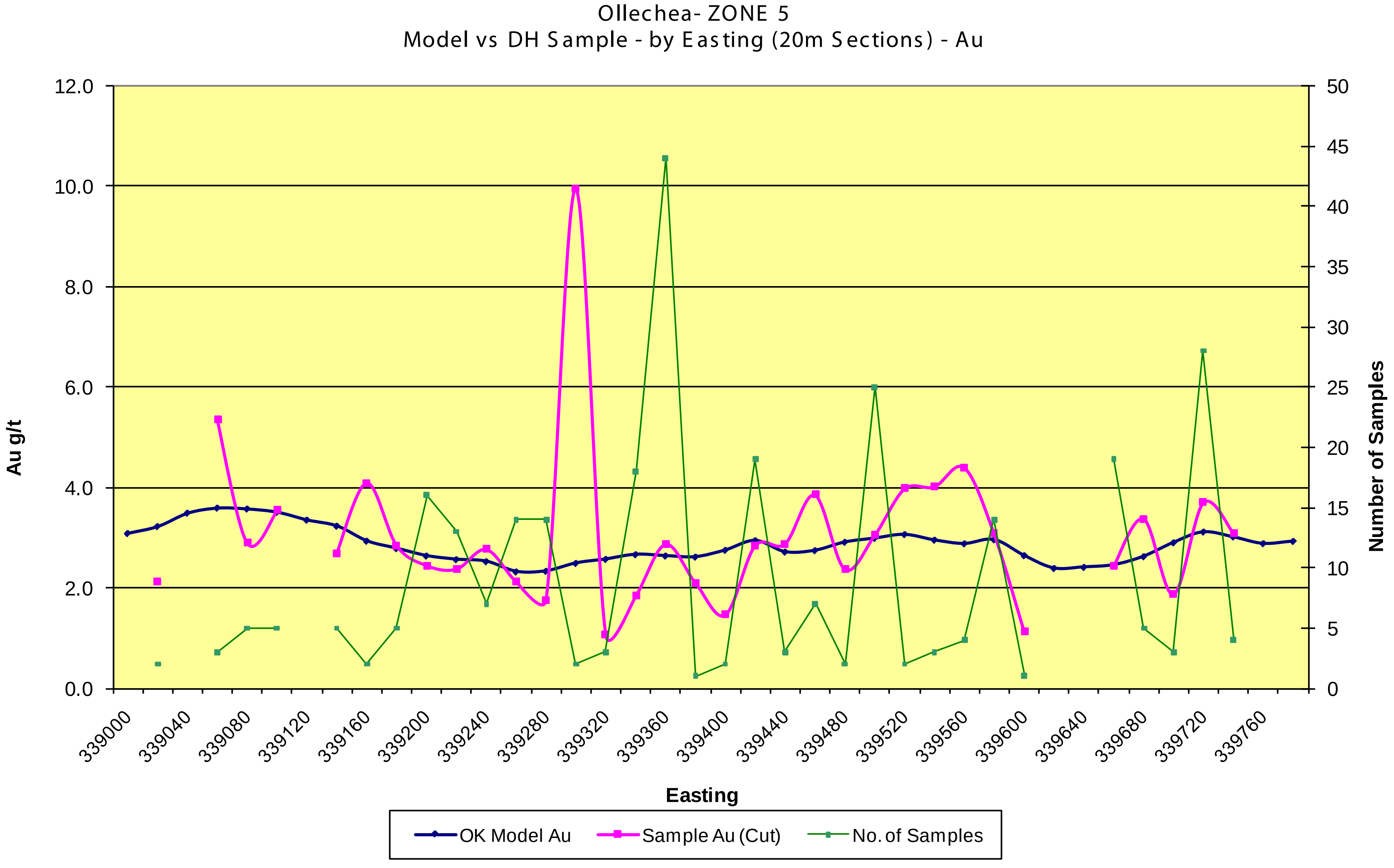
Validation Plots by Easting



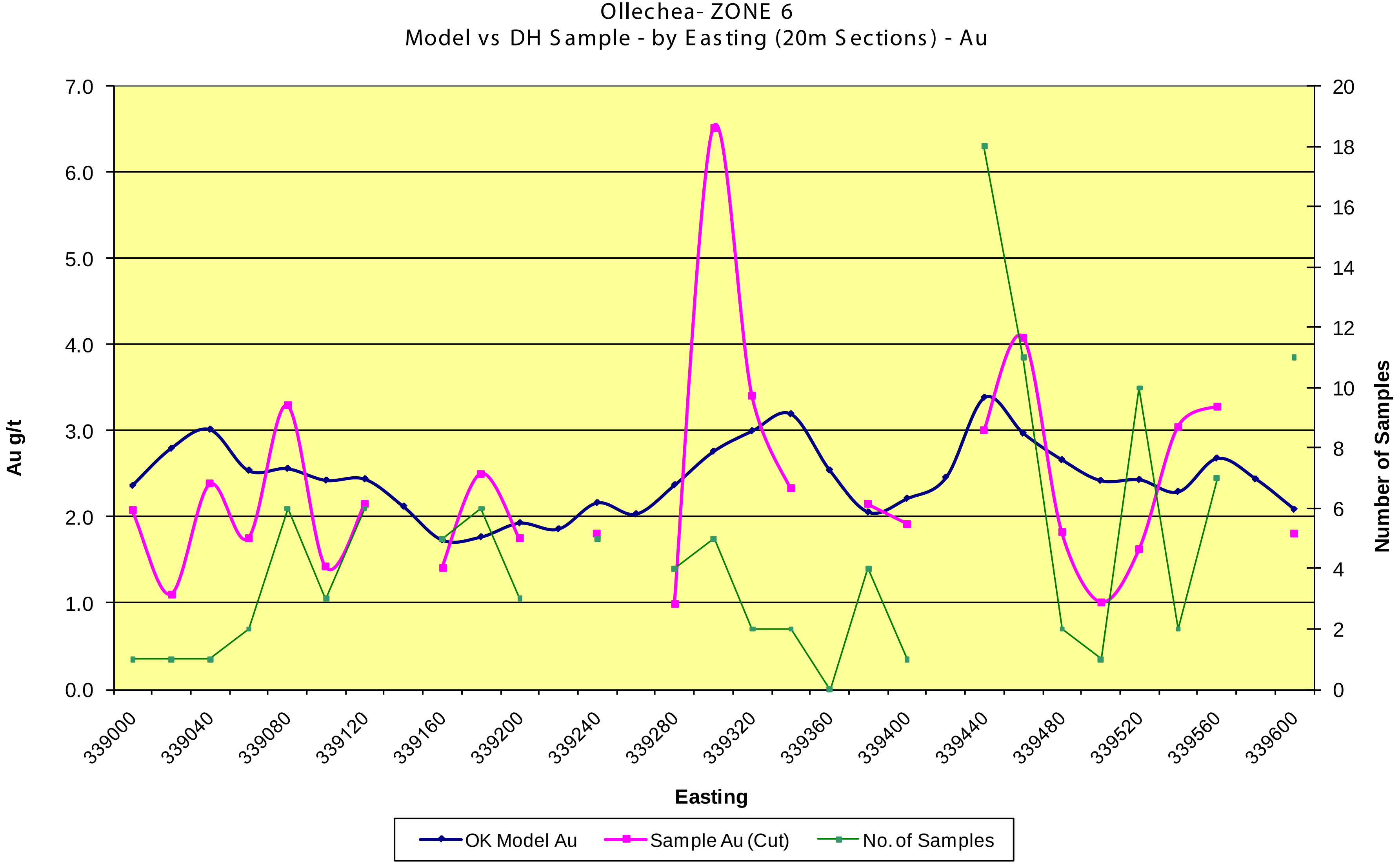
Validation Plots by Easting



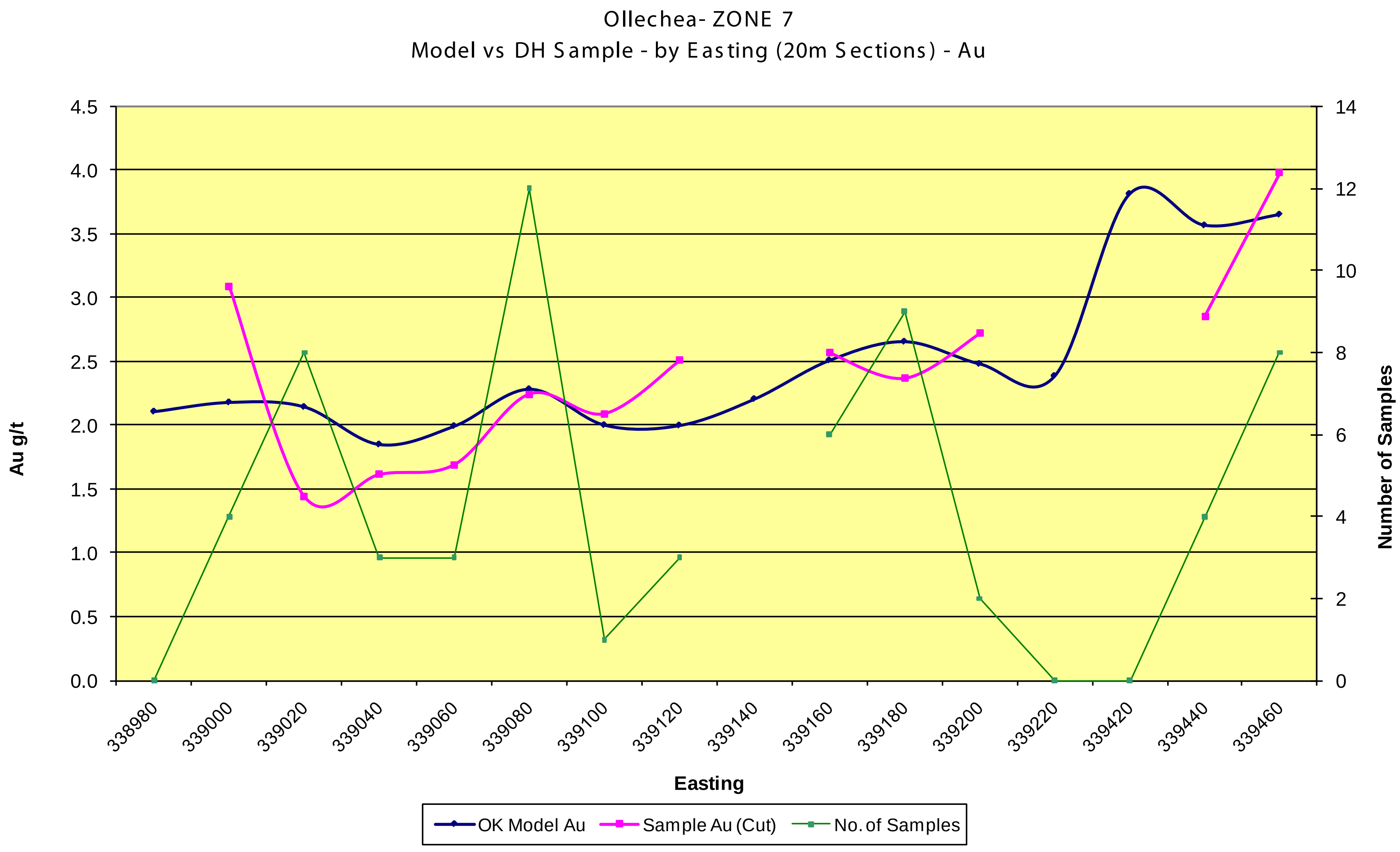
Validation Plots by Easting



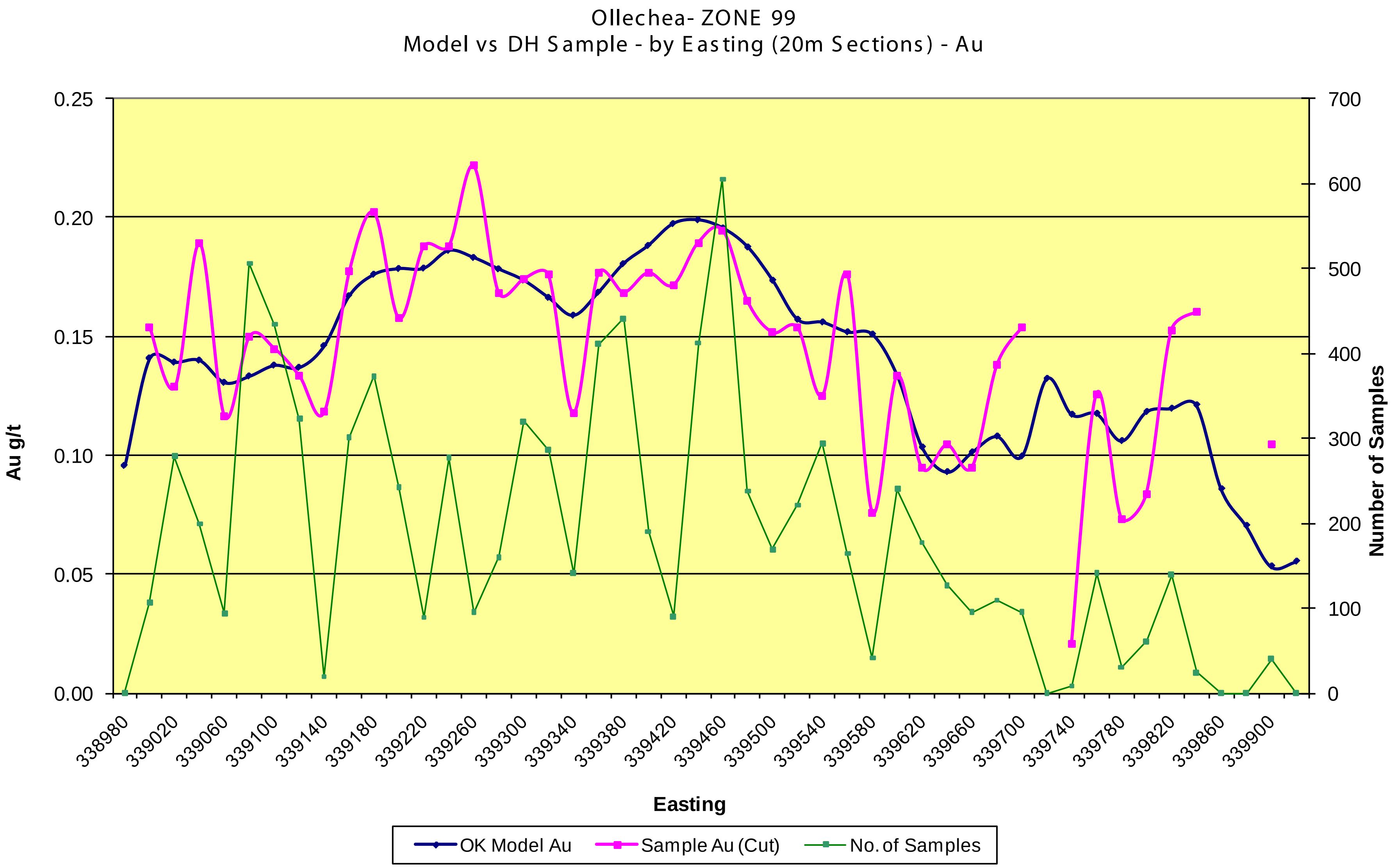
Validation Plots by Easting



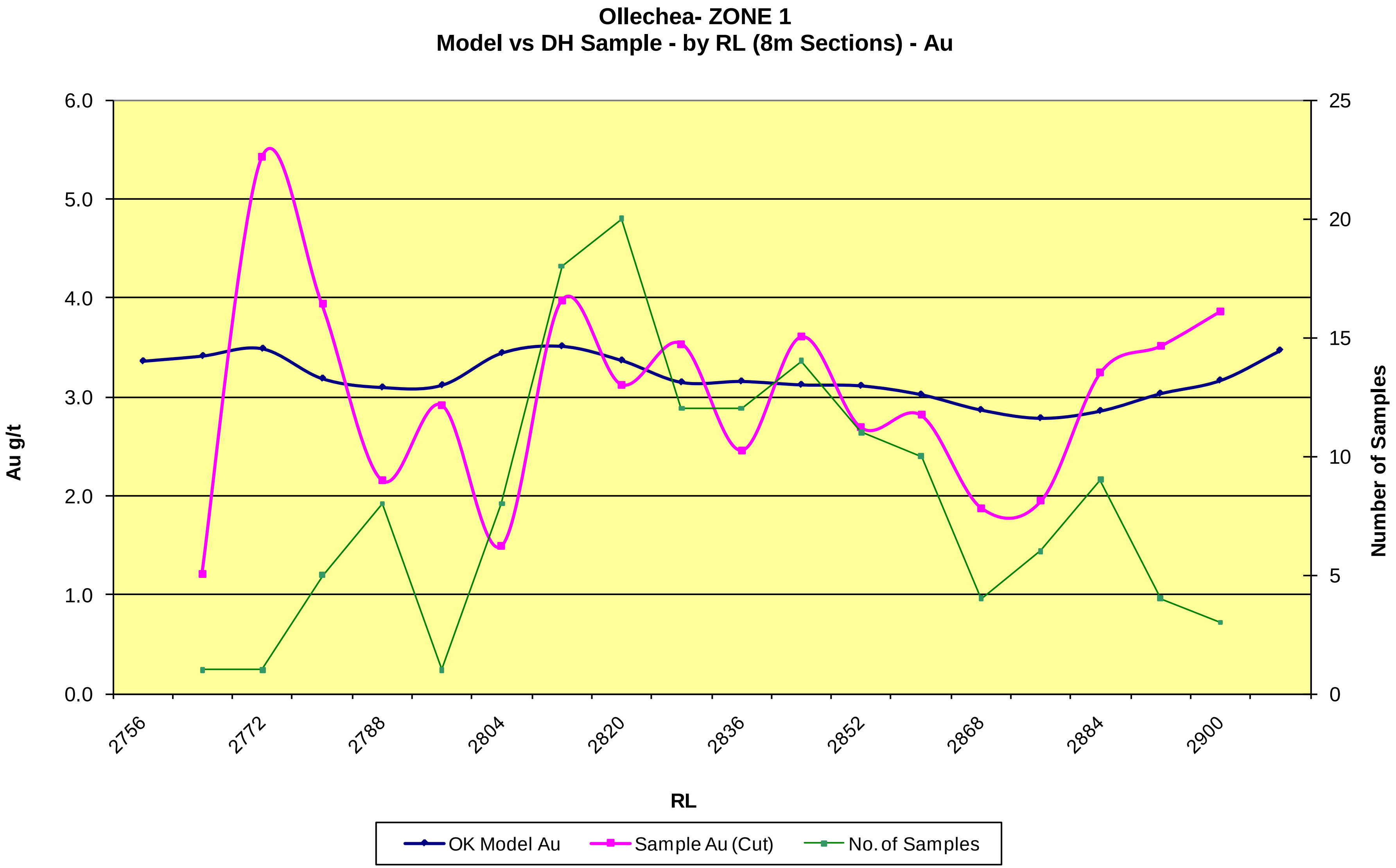
Validation Plots by Easting



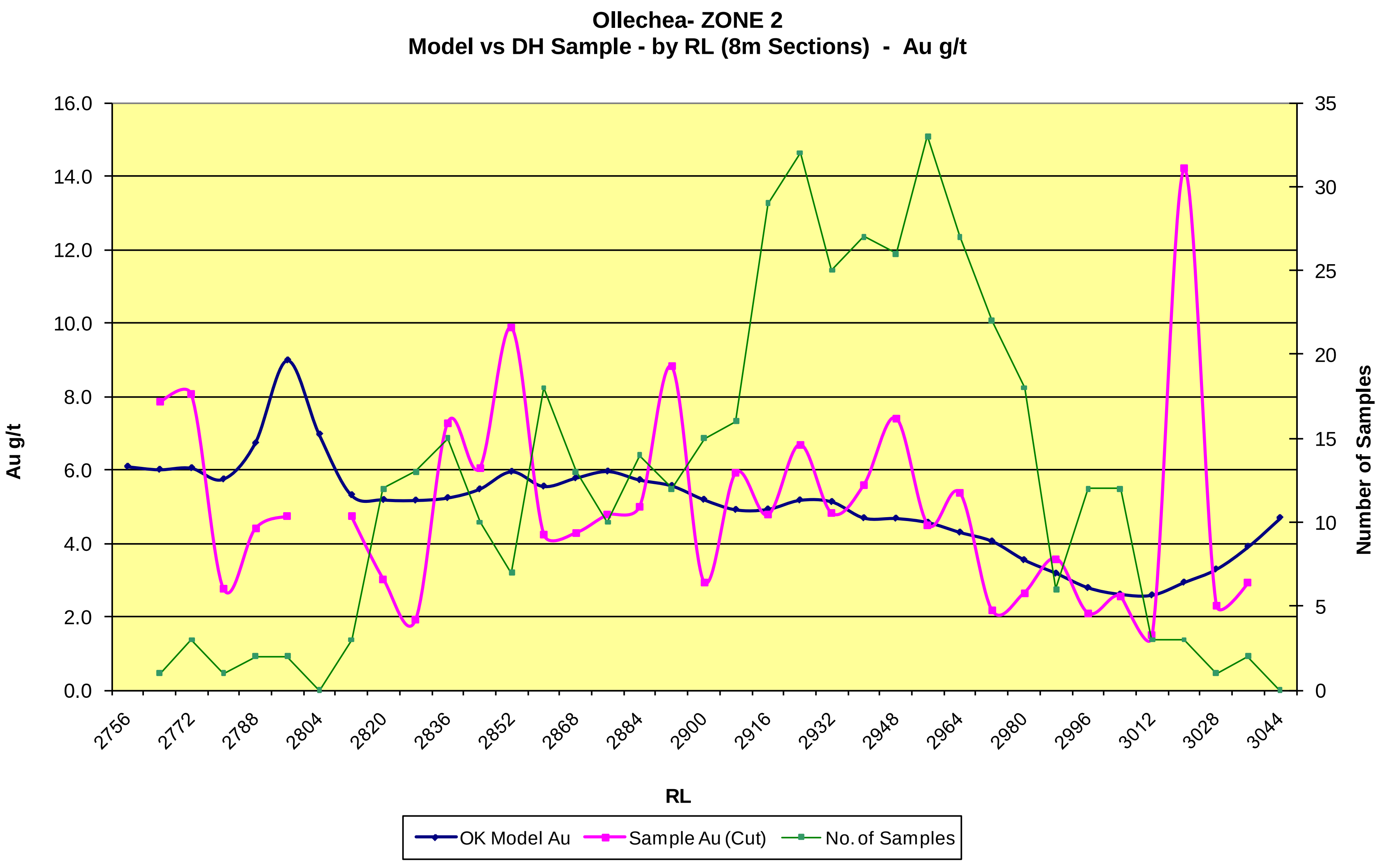
Validation Plots by Easting



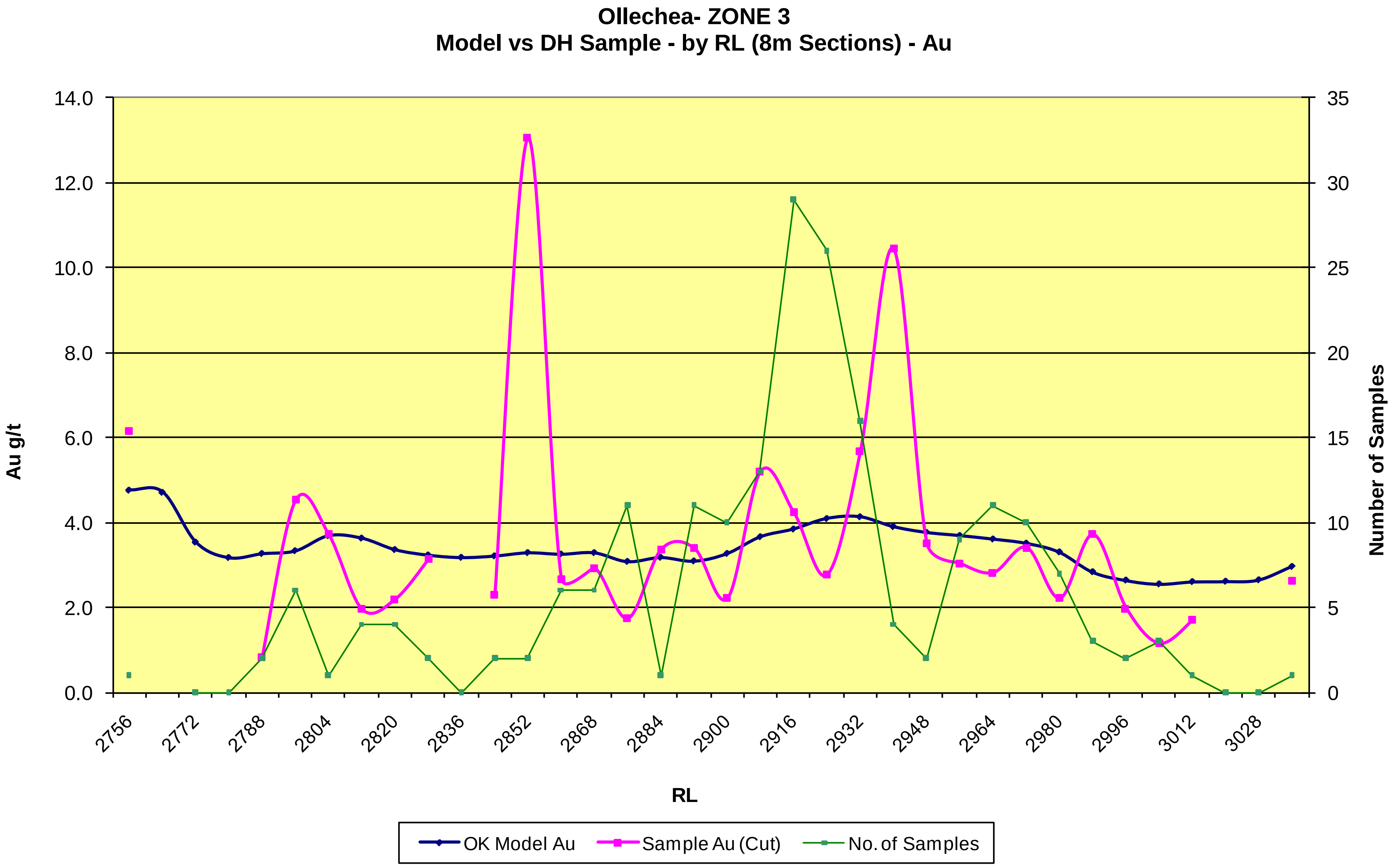
Validation Plots by RL



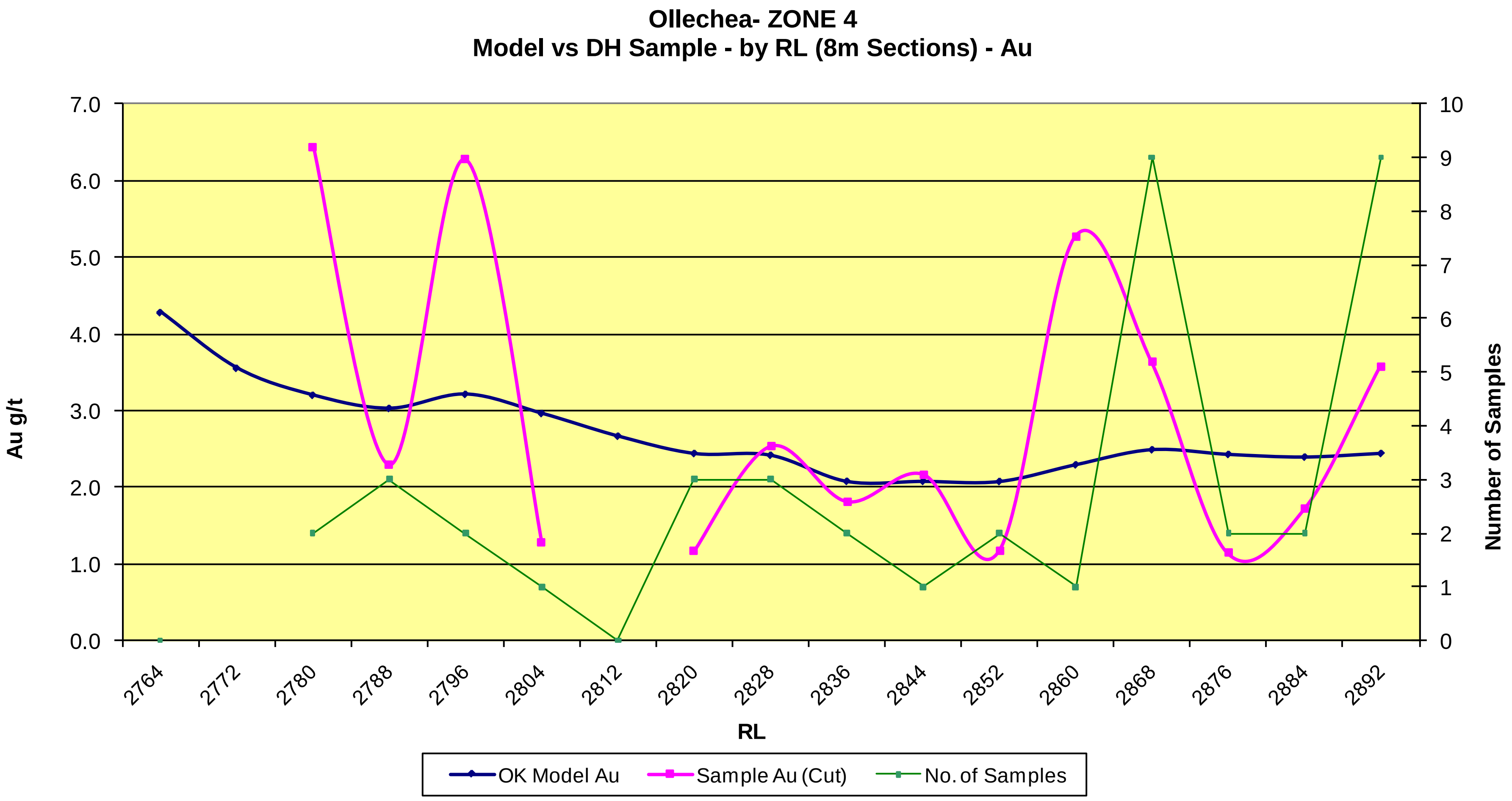
Validation Plots by RL



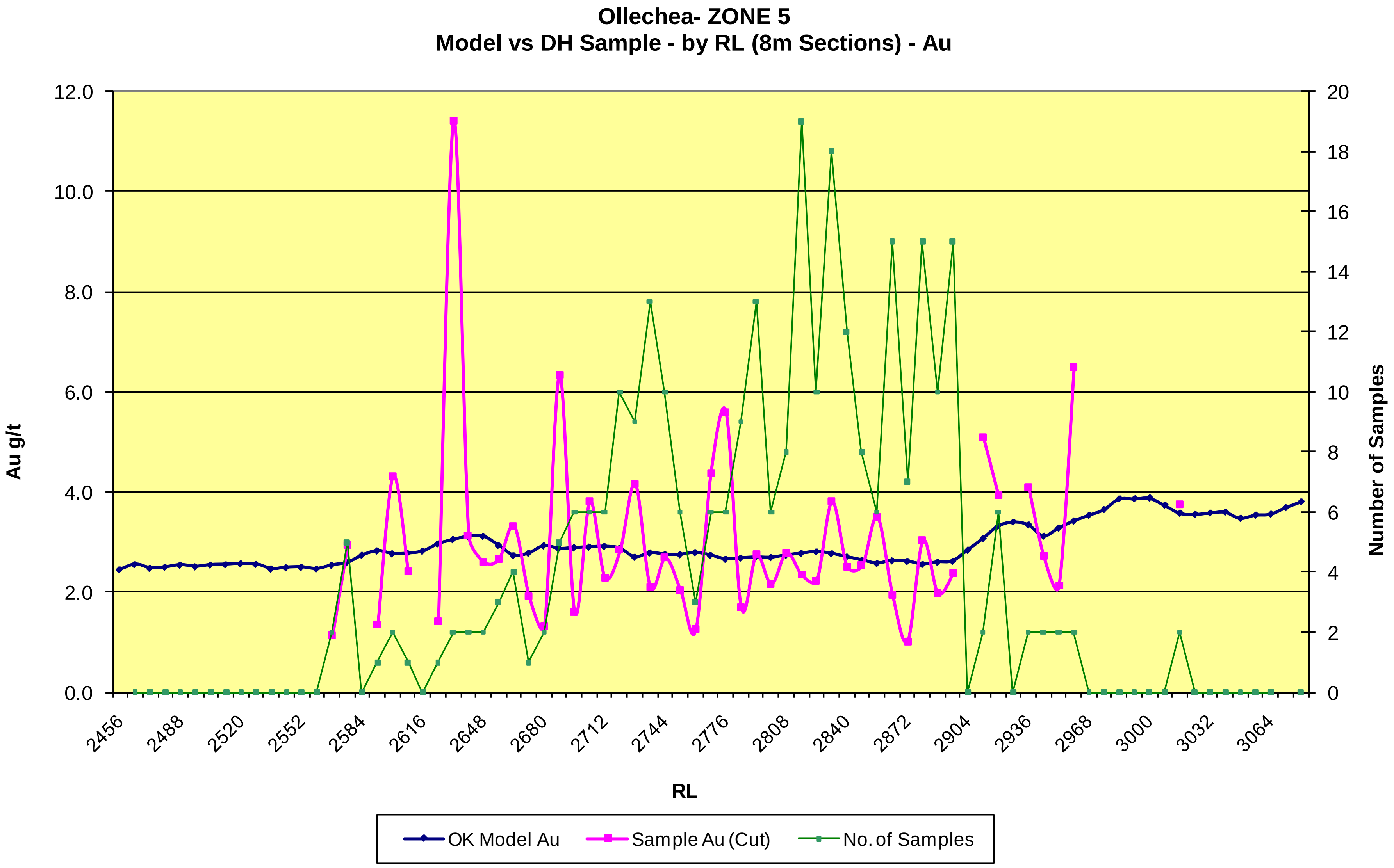
Validation Plots by RL



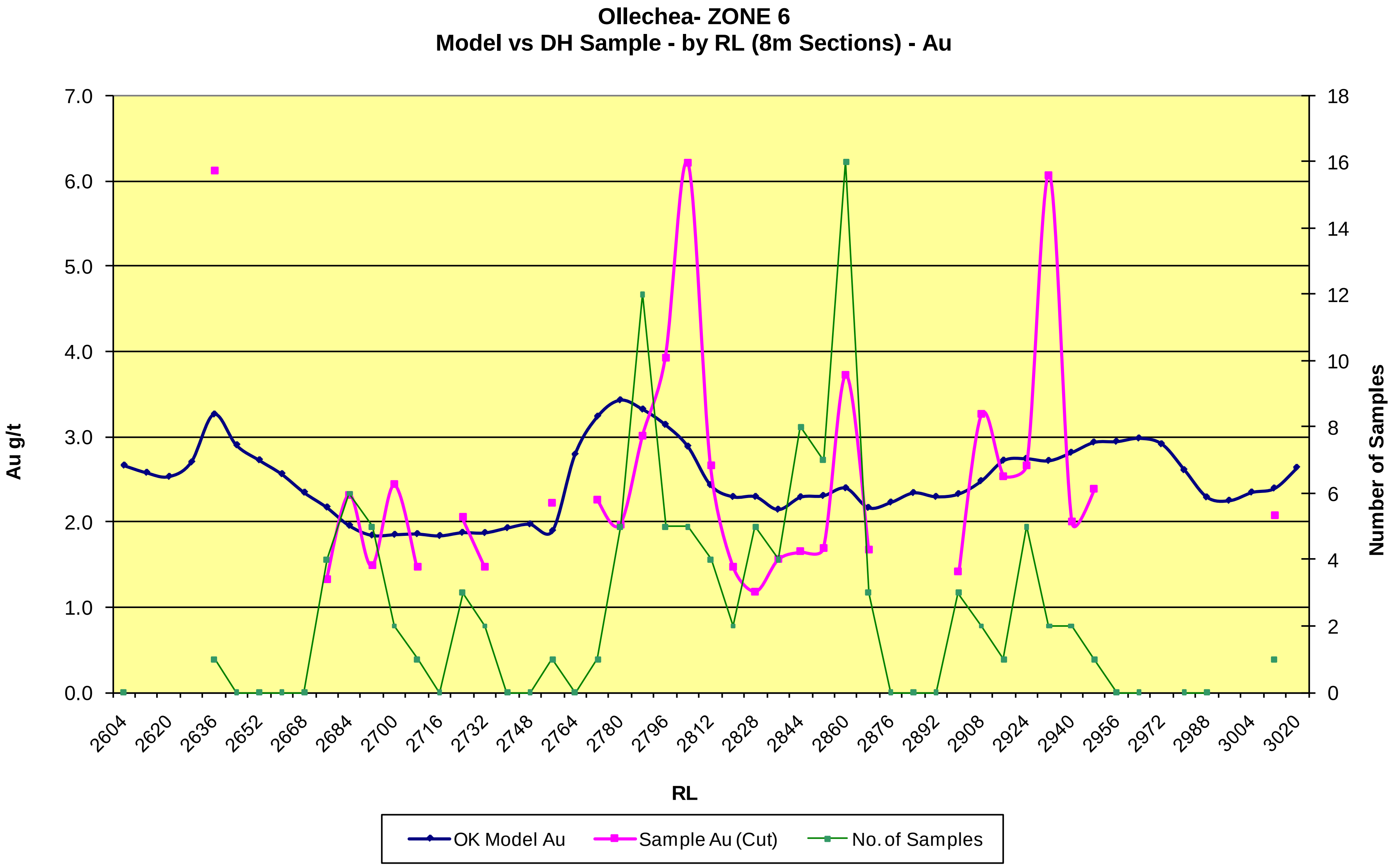
Validation Plots by RL



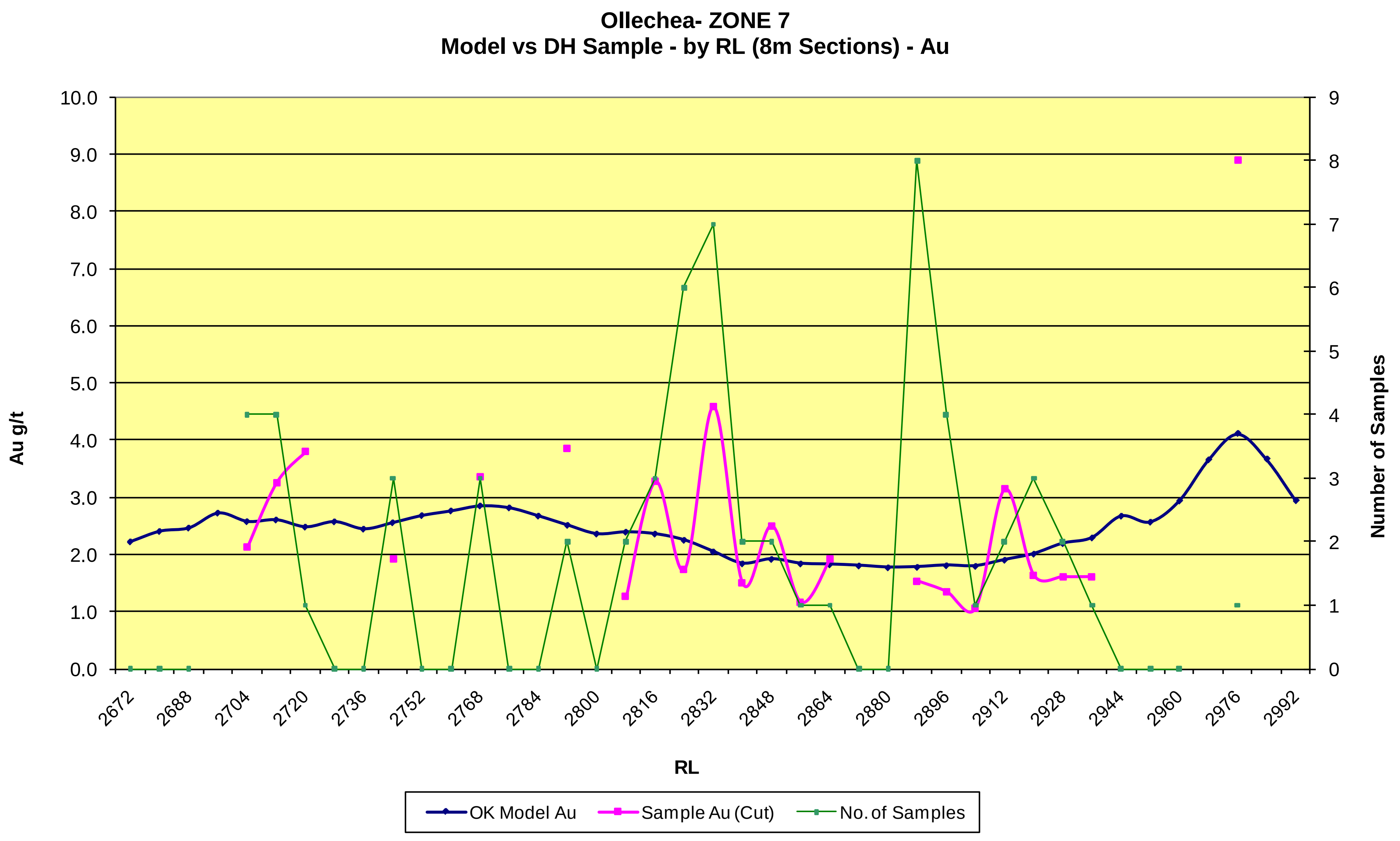
Validation Plots by RL



Validation Plots by RL



Validation Plots by RL



Validation Plots by RL