# Audit 2014 Volume 10 Exploration Projects Koza Altın İşletmeleri A.Ş. Turkey

### **Report Prepared for**



# Koza Altın İşletmeleri A.Ş.



## **Report Prepared by**



SRK Consulting (U.S.), Inc. SRK Project Number 173600.130 January 31, 2015

## Audit of Resources and Reserves Volume 10 Exploration Projects Koza Altın İşletmeleri A.Ş. Turkey

# Koza Altın İşletmeleri A.Ş.

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## **List of Abbreviations**

The metric system has been used throughout this report unless otherwise stated. All currency is in U.S. dollars unless stated otherwise. Market prices are reported in US\$ per troy oz of gold and silver. Tonnes are metric of 1,000 kg, or 2,204.6 lb, unless otherwise stated. The following abbreviations are typical to the mining industry and may be used in this report.

Abbreviatio	n Unit or Term			
0	degree			
%	percent			
AA	atomic absorption			
AAS	atomic absorption spectroscopy			
Ag	silver			
Amsl	above mean sea level			
Au	gold			
BLEG	Bulk Leach Extractible Gold			
BWI	Bond Work Index			
С	Celsius			
CoG	cutoff grade			
CIP	carbon in pulp			
cm	centimeter			
CP	Competent Person			
CPR	Competent Person's Report			
CRP	Community Relations Plan			
CRM	Certified Reference Material			
Cu	copper			
dia.	diameter			
Eq	equivalent			
EIA	Environmental Impact Assessment			
F	Fahrenheit			
g/cm	grams per centimeter			
g/t	grams per tonne			
ha	hectares			
HG	high-grade			
hr	hour			
ICP-AES				
ICP-MS	1 17			
ID2	Inverse Distance Squared			
ID3	Inverse Distance Cubed			
in	inch			
IP	Induced Polarization			
kg	kilogram			
km	kilometer			
koz	thousand troy ounce			
kt	thousand tonnes			
kV	kilovolt			
kVA	kilovolt-amps			
L	liter			
lb	pound			
LHD	load haul dump			
LIMS	Laboratory Information Management System (LIMS)			
LG	low-grade			
LoM	life of mine			
m	meter			
M	million			
m.a.	million annum			
min	minute			
	1			

Abbreviation	n Unit or Term			
mm	millimeter			
Mm	million meter			
Moz	million ounces			
Mt	million tonnes			
Mt/y	million tonnes per year			
MTA	Turkey's General Directorate of Mineral Research and Exploration			
MVA	million volts amperes			
NN	Nearest Neighbor			
NPV	net present value			
OK	Ordinary Kriging			
OP	open pit			
OZ	ounce			
PIMA	Portable Infrared Mineral Analyzer			
ppb	parts per billion			
ppm	parts per million			
QA/QC	Quality Assurance/Quality Control			
RC	reverse circulation			
RoM	run of mine			
SART	sulfidization, acidification, recycling, and thickening			
t	tonne(s)			
t/h	tonnes per hour			
t/d	tonnes per day			
t/m	tonnes per month			
t/y	tonnes per year			
TEM	Technical Economic Model			
μ	micron			
UG	underground			
V	volt			
WAD	weak acid dissociable			
Zn	zinc			

## 1 Overview

SRK Consulting (U.S.), Inc. (SRK) was commissioned by Koza Altın İşletmeleri A.Ş. (Koza) to audit Koza's gold resources and reserves and exploration projects as of the end of December 2014. Koza's Mining Assets are located in multiple districts including the; Ovacık Mining District, Mastra Mining District, Kaymaz District that includes Söğüt, Mollakara in the Diyadin District in Eastern Turkey and Himmetdede in Central Turkey.

This report is "Volume 10 Exploration Projects" of the following ten reports:

- Volume 1 Executive Summary;
- Volume 2 Ovacık Resources and Reserves;
- Volume 3 Mastra Resources and Reserves:
- Volume 4 Kaymaz Resources and Reserves;
- Volume 5 Söğüt Resources and Reserves
- Volume 6 Himmetdede Resources and Reserves:
- Volume 7 Mollakara Resources and Reserves;
- Volume 8 Technical Economics;
- Volume 9 Hasandağ and Işıkdere Resource Areas; and
- Volume 10 Exploration Projects.

This report is prepared according to the industry accepted Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012).

Volume I Executive Summary contains the Terms of Reference and Property Descriptions relevant to all volumes of this audit.

Koza controls assets throughout Turkey representing grassroots to advanced exploration stage properties. The Koza exploration team has divided the country into four regions based on European Datum 1950 (ED50), Universal Transverse Mercator (UTM) zones. These are, from west to east:

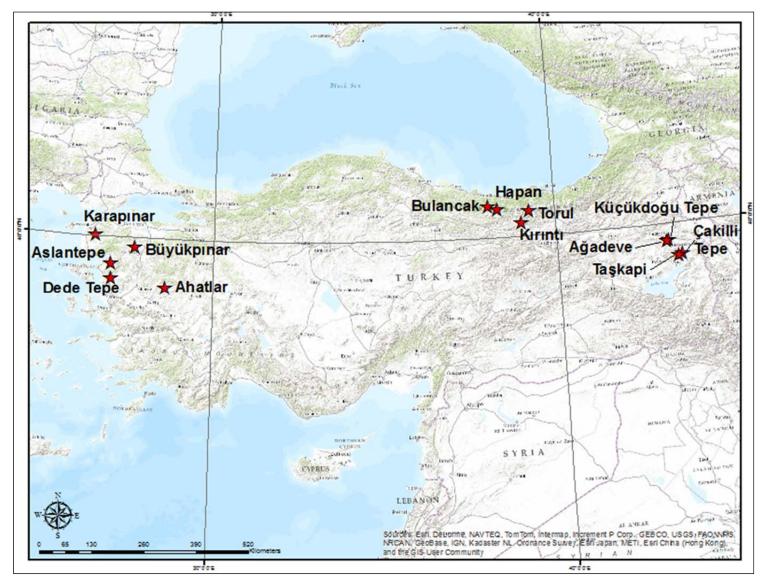
- Western Anatolia in UTM zone 35 (UTM35);
- Central Anatolia in UTM zone 36 (UTM36);
- Black Sea Region and Eastern Anatolia in UTM zone 37 (UTM37); and
- Far Eastern Anatolia in UTM zone 38 (UTM38).

Koza has many exploration projects, but the principal exploration assets are located in UTM35, UTM37 and UTM38 and are summarized in Table 1.1. Koza's principal exploration assets are the subject of this Volume.

Table 1.1: Summary of Koza Exploration Assets in Turkey

Asset	Status	Deposit Type	Region	Exploration Work Completed
Karapınar	Exploration	Low Sulfidation Epithermal Au- Ag	UTM35	Mapping, surface sampling, geophysics
Dedetepe	Advanced Exploration	Low Sulfidation Epithermal Au	UTM35	Mapping, surface sampling PIMA Mapping, geophysics
Ahatlar	Exploration	Cu-Au Porphyry/Epithermal	UTM35	Drilling, trenching, mapping and geophysics PIMA mapping
Büyükpınar	Advanced Exploration	Cu-Au Porphyry/Epithermal	UTM35	Mapping, surface sampling PIMA Mapping, trenching, drilling, geophysics
Aslantepe	Exploration	Low Sulfidation Epithermal Au	UTM35	Mapping, surface sampling, drilling, geophysics
Torul North	Exploration	Cu-Au Porphyry	UTM37	Mapping, surface sampling, trenching, started drilling, geophysics
Torul South	Advanced Exploration	Intermediate Sulfidation Epithermal Au-Ag	UTM37	Mapping, surface sampling, trenching, drilling, geophysics
Kırıntı	Advanced Exploration	Cu-Au Porphyry/High Sulfidation Epithermal	UTM37	Trenching, mapping, surface sampling, drilling, geophysics
Bulancak	Exploration	Cu-Au Porphyry/High Sulfidation Epithermal	UTM37	Mapping, surface sampling, PIMA mapping, geophysics
Hapan	Exploration	Epithermal/Mesothermal Au veins with thrust faulting	UTM37	Mapping, surface sampling,
Ağadeve	Exploration	Low Sulfidation Epithermal Au	UTM38	Drilling, trenching, surface sampling, mapping and geophysics completed
Küçükdoğutepe	Exploration	Cu-Au Porphyry	UTM38	Drilling, trenching, surface sampling, mapping and geophysics completed
Çakıllıtepe	Exploration	Epithermal Au	UTM38	Mapping, surface sampling, geophysics
Taşkapı	Exploration	Cu-Au-Mo Porphyry and Low Sulfidation Epithermal	UTM38	Mapping, surface sampling, geophysics

A map showing the locations of the Exploration projects is presented in Figure 1.1.



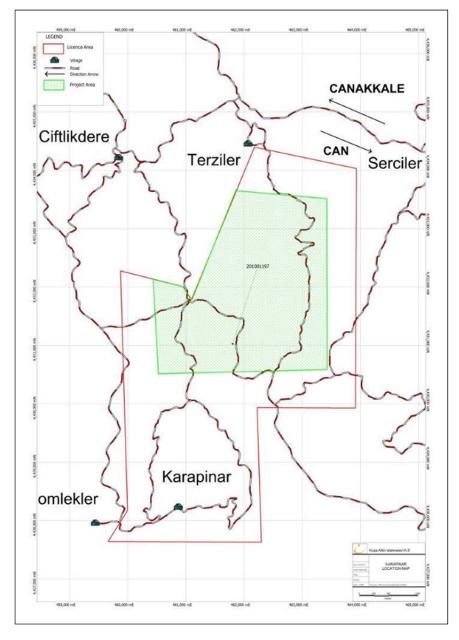
Source: Basemap = ESRI Basemap World\_Topo\_Map, 2013

Figure 1.1: Location Map of Koza Exploration Projects

## 2 Karapınar Exploration Project

## 2.1 Property Description and Location

The Karapınar Project is located 18 km southeast of Çanakkale between UTM coordinates 4343000N, 487500E and 4341750N, 489000E ED1950 Zone 35. The project is accessed from Çanakkale by following village roads southeast for approximately 30 km to the village of Karapınar. The project is located immediately east of the Karapınar Village and lies within operation license 201000097 totaling approximately 1,881 ha. This license is valid through May 7, 2022. Land tenure for this project is shown in Figure 2.1.1.



Source: Koza, 2012 GIS

Figure 2.1.1: Karapınar Location Map

## 2.2 Climate and Physiography

The Karapınar Project is located in the Ovacık District, which has a typical Mediterranean climate characterized by hot, dry summer months and warm, wet winter months. Frost and snow rarely occur in this region. The effects of the Mediterranean climate are observed inland up to elevations of 800 m above mean sea level (amsl); the climate becomes more continental further inland. The coastal mountains reach an elevation of approximately 1,000 m amsl.

The hottest and coldest months are July and January, respectively. The closest recording station is Çanakkale where the average maximum temperature in July is 31°C while the average minimum temperature in January is 3°C. The yearly average temperature is 15°C. The annual precipitation is distributed equally between spring and autumn. Precipitation is normally rain and the annual average precipitation is 612.7 mm at Çanakkale.

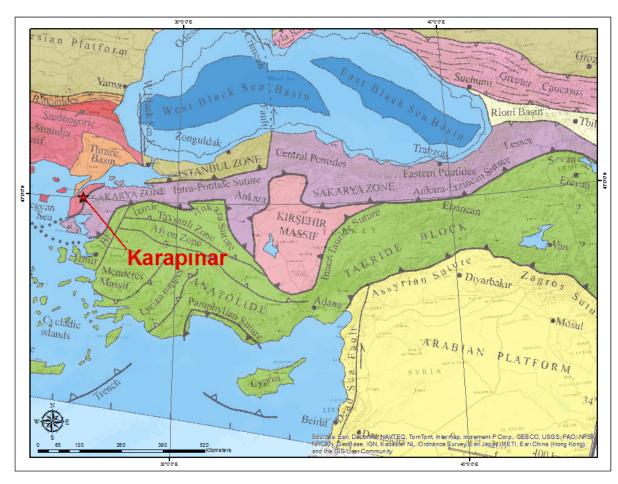
The terrain in the Ovacık District is flat to rolling hills near the Aegean Sea and rises to approximately 350 m amsl near Karapınar.

## 2.3 History

Koza acquired the Karapınar Project in 2007. Karapınar is a greenfields project generated by Koza and was not previously held by another company. Historic underground workings that have been mapped by Koza are thought to date from the Romans. Koza's recent work and activities are discussed under exploration.

## 2.4 Geology

The Karapınar Project is a low sulfidation, epithermal Au-Ag deposit located on the Biga Peninsula, western Anatolia in Çanakkale Province. This area is northeast of the Intra-Pontide Suture within the Rhodope-Strandja Massif. Karapınar is located in the Kazdağ Metamorphic Complex west of the Ovacık thrust fault. The project is hosted by the Permian age Çamlıca Group locally composed of marble and calcschist of the Salihler and Dedetepe Formations. Ophiolites of the Denizgören Formation have been faulted over the Çamlıca Group along the Ovacık thrust fault. The ophiolites which are associated with rifting were thrust onto the continent during Cretaceous subduction. These rocks are capped by andesitic flows and agglomerates of the middle Eocene Akcaalan Formation. Figure 2.4.1 shows the Karapınar Project in relation to the Rhodope-Strandja Massif and the suture zone.

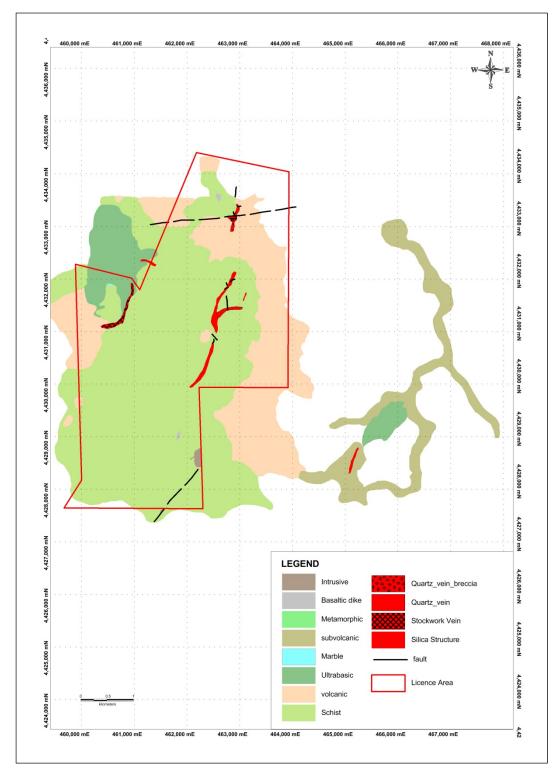


Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo World Map, 2013

Figure 2.4.1: Map Showing Karapınar Project in relation to the Rhodope-Strandja Massif

The Karapınar Project has been identified as a low sulfidation, epithermal Au-Ag deposit based on alteration mapping, mineralization style, mineral associations and textures. This mineralization includes three quartz vein/silica zones, a quartz stockwork zone and a quartz breccia zone. The main vein structure is an epithermal quartz vein hosted in schist. It strikes approximately N20°E to N25°E and can be traced for approximately 2.5 km. Near the center of the vein is an east-west striking splay vein with a strike length of approximately 500 m. The average width of the vein is 20 m; however, where this splay joins the main structure the vein width increases to approximately 150 m. The vein is exposed for a vertical extent of approximately 250 m as seen in valley exposures.

Other silica structures are hosted in the metamorphic rocks or in the contact zones between volcanic and metamorphic rocks. The different quartz vein and silica zones contain vein breccia and banded textures as well as chalcedonic and sugary quartz. Anomalous arsenic, silver, gold and antimony values suggest that the surface outcrops are near the top of the epithermal system. Figure 2.4.2 shows the Karapinar surface geology and license area.

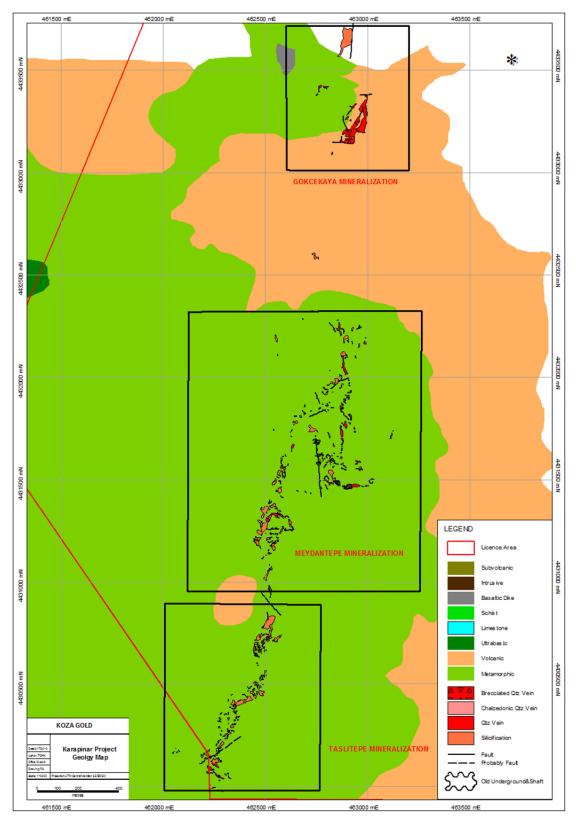


Source: Koza, 2013 GIS

Figure 2.4.2: Karapınar License Area Geology Map

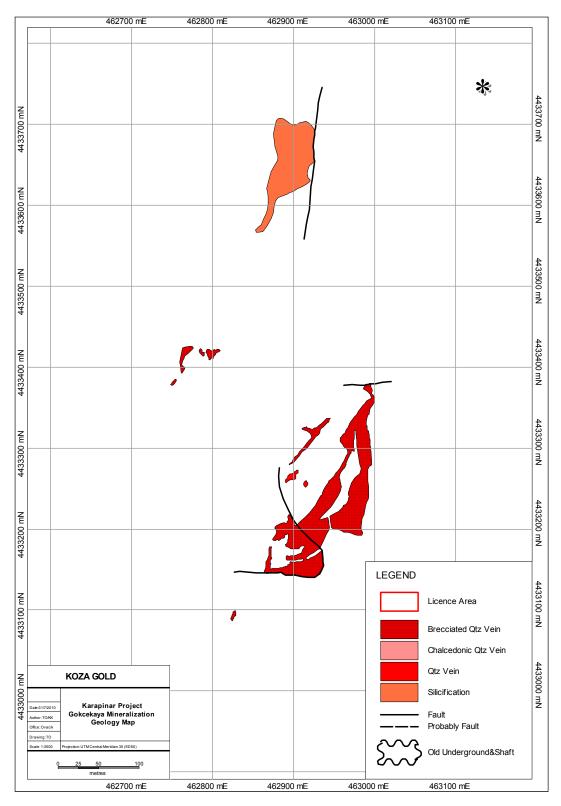
Koza has divided the project into three areas. From north to south, these are Gokcekaya, Meydantepe and Taslitepe. Koza has also mapped two outcrops of intrusive rocks near a N45°E

fault in the southern part of the project area. This fault has been mapped primarily in schist, but in places argillic, propylitic and sulfide alteration have been mapped along the fault as well as an outcrop of intrusive rocks of the Kuşçayırı Granite along its northwest side. The proximity of the alteration zones and the intrusive rocks to the Karapınar mineralization may indicate a porphyry influence or association. Koza is actively exploring the area for Cu-Au porphyry systems as well as epithermal mineralization. The detailed geology of the Karapınar license area is shown in Figure 2.4.2. Geology of the Project area is shown in Figure 2.4.3, with the three distinct exploration areas outlined with black boxes. The N45°E fault is located in the Taslitepe area in the south/southwest portion of the block. Maps showing mineralization and alteration at each of the three areas, Gokcekaya, Meydantepe and Taslitepe, are shown in Figures 2.4.4, 2.4.5 and 2.4.6, respectively.



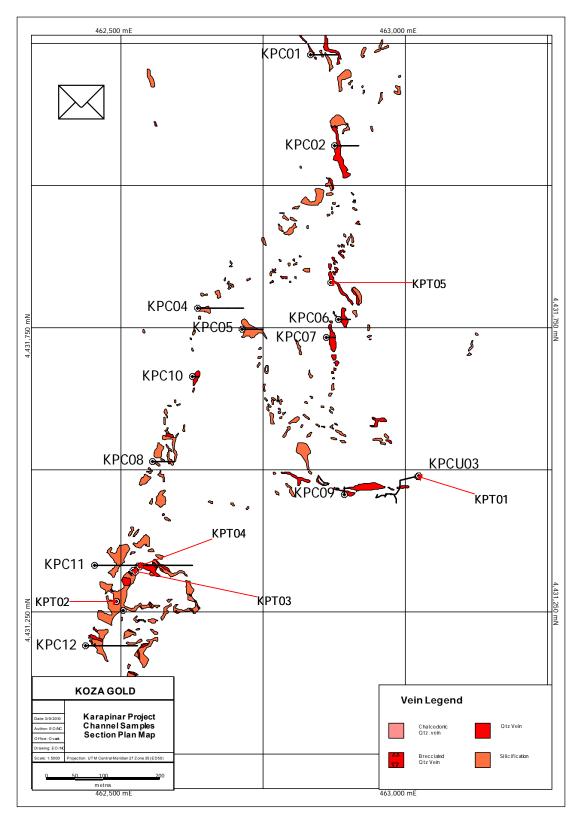
Source: Koza, 2012 GIS

Figure 2.4.3: Karapınar Project Area Geology Map



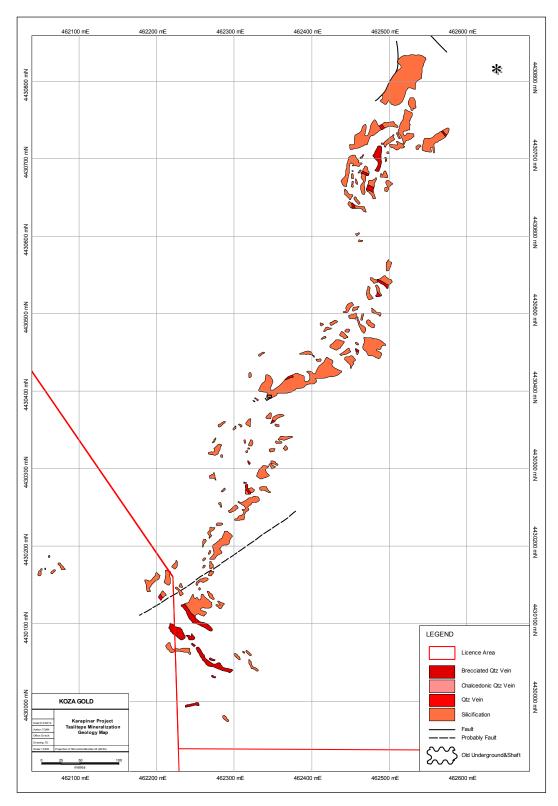
Source: Koza Exploration Presentation, 2012

Figure 2.4.4: Gokcekaya Mineralization Map



Source: Koza Exploration Presentation, 2012

Figure 2.4.5: Meydantepe Mineralization Map



Source: Koza Exploration Presentation, 2012

Figure 2.4.6: Taslitepe Mineralization Map

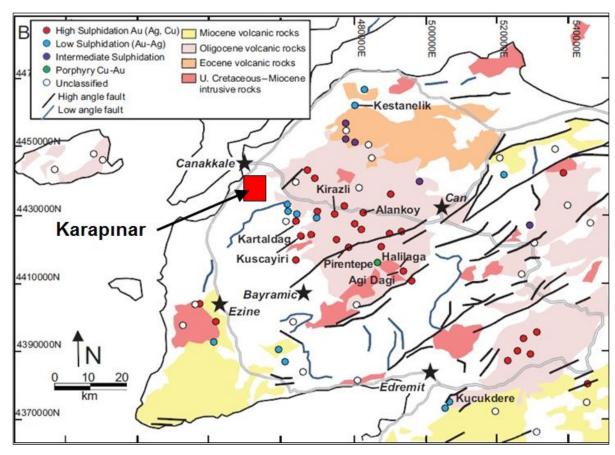
## 2.5 Exploration

Karapınar is located on the Biga Peninsula in an area of active exploration, development and mining. Deposit types actively being explored include epithermal vein deposits, porphyry copper-gold deposits and skarn mineralization associated with porphyry intrusion. Other companies working in the region include Alamos Gold Inc., Teck Madencilik Sanayi Ticaret Anonim Şirketi and Pilot Gold Inc. The Kartaldağ Mine operated by Esan Eczacibasi is also located in this area as well. Table 2.5.1 lists several important deposits along this trend. Figure 2.5.1 is modified from Smith, et al. (2014) and shows the Biga Peninsula with mineral deposits, volcanic rocks and faulting. This area is highly prospective and Koza is actively exploring along this trend.

Table 2.5.1: Mineral Deposits on Trend with Karapınar

Project ID	Company	Mineralization Type	Total Resources	Source	
Ağı Dağı	Alamos Gold (Canadian)	High Sulfidation Epithermal	1.6 Moz Au; 11.3 Moz Ag (Measured and Indicated)	http://www.alamosgold.com/ (2014)	
Halilağa	Teck Madencilik Sanayi Ticaret Anonim Şirketi and Pilot Gold, Inc.	Şirketi Cu-Au porphyry Blbs Cu		http://www.pilotgold.com/ (2014); SRI Consulting (Canada) Inc., 2014	
TV Tower	Teck Madencilik Sanayi Ticaret Anonim Şirketi and Pilot Gold, Inc.	Cu-Au porphyry	996,000 oz AgEq (Indicated)	http://www.pilotgold.com/ (2014); SRK Consulting (Canada) Inc., 2014	
Kirazlı	Alamos Gold (Canadian)	High Sulfidation Epithermal Au	772,000 oz Au; 9.2 Mz Ag (Measured and Indicated)	http://www.alamosgold.com/ (2014)	
Kartaldağ Mine	Çanakkale Madencilik A.Ş. operated by Esan Eczacibasi	Intermediate Sulfidation Epithermal	No information	SRK Consulting (Canada) Inc., 2014	

Source: Smith, et al., 2014



Source: Modified from Smith et al., 2014

Figure 2.5.1: Mineral Deposits on Trend with Karapınar

Koza acquired the project in 2006. In 2007, mapping was initiated but the bulk of mapping was completed in 2008 through 2010 and included a Portable Infrared Mineral Analyzer (PIMA) mapping program. Koza also completed a geophysical survey in 2010. Between 2007 and 2010, Koza collected 67 stream sediment, 770 soil and 170 rock chip samples. In 2009 through 2010, Koza collected and analyzed 451 channel samples from 18 trenches.

### 2.5.1 Mapping

Mapping is ongoing but was largely completed between 2008 and 2010 and included approximately 76 m of underground workings. Surface mapping was completed at 1:25,000, 1:5,000 and 1:2,000 scales. Mapping scales are appropriate for drill targeting and were completed at both regional and local scales. Koza has also conducted Portable Infrared Mineral Analyzer (PIMA) mapping of alteration zones to better understand mineralization type and distribution. Using PIMA is an appropriate methodology for determining the character and extent of alteration and is used in identifying mineralization types as well as targeting exploration activities.

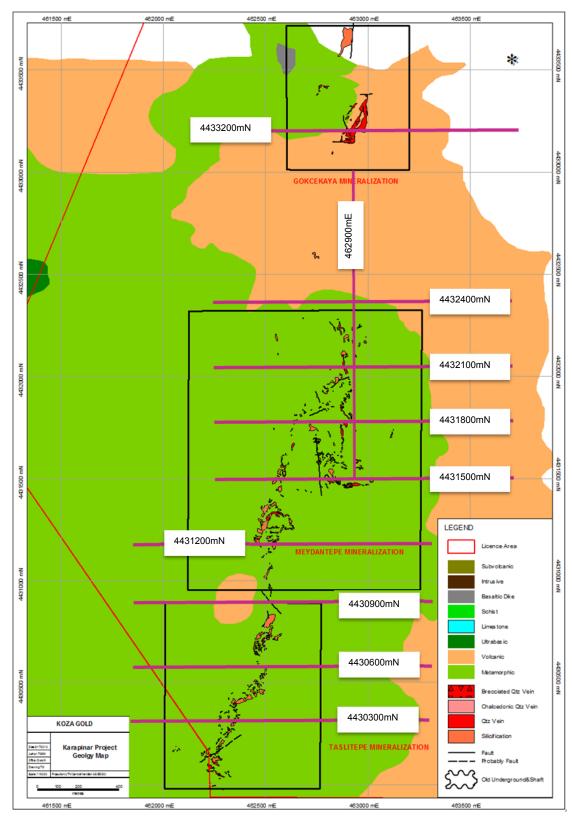
### 2.5.2 Geophysical Surveys

A geophysical survey was conducted by CFT Mühendislik (CFT) based in Ankara, Turkey in 2010. The geophysical method used was an induced polarization (IP) and resistivity survey that covered 18.2 total line km detailed as follows:

- One 2 km long line oriented north-south and sub-parallel to the strike of mineralization;
- Nine 1.8 km long lines oriented east-west across mineralization; and
- Sensors located at 300 m along each line.

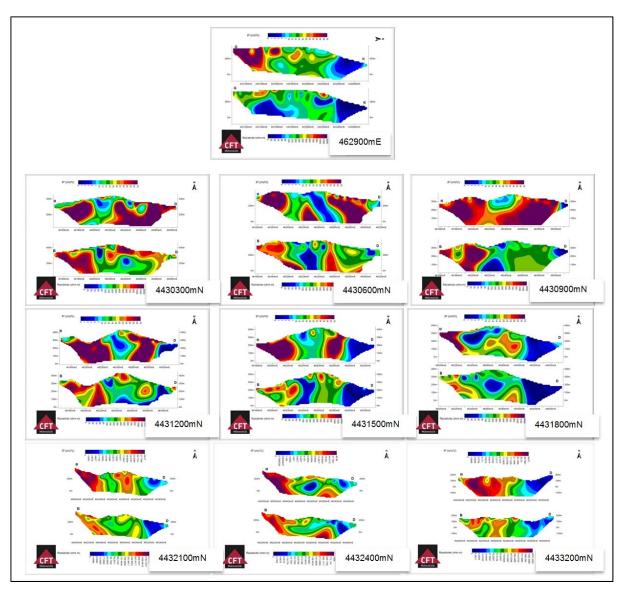
The survey was centered over the Meydantepe area where the most extensive outcrops are located. The northern-most line was laid out over the Gokcekaya area and the southern-most line crossed the Tasiliepe area. The results of the survey show anomalies of both conductive and resistive materials to depths of approximately 200 m to 350 m below surface. Each of these is associated with mineralization at surface. The anomalies are attractive exploration drilling targets and Koza plans to explore these through drilling during 2015. Figure 2.5.2.1 shows the IP/resistivity lines superimposed on the geology map and Figure 2.5.2.2 shows the sections along those lines.

This is an applicable use of geophysics and IP/resistivity surveys are appropriate for the target that Koza is exploring.



Source: Modified from Koza, GIS 2012.

Figure 2.5.2.1: Karapınar Project Area Geology Map with Geophysical Lines in Pink



Source: Koza, 2012a

Figure 2.5.2.2: IP and Resistivity Sections through Karapınar-Red Indicates High Conductivity/Low Resistivity

#### 2.5.3 Sample Collection

Sample collection was completed during 2009 and 2010. Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

Soil samples were collected over a 4 km north-south by 3 km east-west area using a regular grid spacing of 200 m north-south by 100 m east-west. The grid covered areas of known mineralization and known outcrops. Grids were oriented in the cardinal directions with the long dimension sub-

parallel to the strike of the vein. The grids were designed to test for soil anomalies in the license area over Gokcekaya, Meydantepe and Taslitepe as well as an area south of these deposits that is a possible Cu-Au porphyry target. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected.

Rock chip samples were selective chip samples collected at locations across the width of the exposed veins and silica zones and were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along the apparent strike of the vein and were selected based on field conditions and accessibility to the vein.

Koza also collected 451 samples in 2009 and 2010 from 18 trenches. The samples were channel samples that were cut using a gas powered concrete saw with a diamond blade. Koza typically collects channel samples that are 1 m long but vary in depth and width depending on field conditions and lithological contacts. Widths range from 5 to 15 cm and depths range from 15 to 20 cm. Sample weights range from 2 to 3 kg. Samples may be shorter or slightly longer than 1 m to accommodate changes in lithology.

#### 2.5.4 Drilling

Drilling has not been completed at Karapınar, but is the next step in exploration for the identified targets. Koza plans to drill at the project this field season.

#### 2.5.5 Sample Preparation and Analysis

Samples are in the control of Koza personnel either in a locked field vehicle or at a mine site in a locked building until they are submitted to the laboratory for analysis. Once the samples are submitted to the laboratory, chain of custody is controlled by the laboratory. This is industry best practice.

During 2009 and 2010 samples were submitted to ALS Global in Vancouver, Canada (ALS Vancouver) for preparation and analysis. ALS Vancouver has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil and stream sediment samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil and stream sediment samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Soil and stream sediment samples were analyzed using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS). Because of the small sample size used in the analysis, ME-MS41 is considered a semi-quantitative method for gold. Because of this Koza also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. In addition, the aqua regia digestion used in method ME-MS41 may not provide representative results

for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 2.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

Table 2.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-ICP22	Au	0.001-10	ME-MS41	Hf	0.02-500	ME-MS41	Sc	0.1-10,000
ME-MS41	Ag	0.01-100	ME-MS41	Hg	0.01-10,000	ME-MS41	Se	0.2-1,000
ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Ве	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

After drying using ALS code DRY-22, rock chip and channel samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Rock chip and channel samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 2.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 2.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Ве	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

#### 2.5.6 Quality Assurance and Quality Control

As part of their analytical quality assurance/quality control (QA/QC) program, Koza used two Certified Reference Materials (CRMs) in the field program at Karapınar. These were OxC58 and OxC72, two gold standards provided by RockLabs Limited based in Auckland, New Zealand. Between 2009 and 2010, Koza has 23 OxC58 submissions and 16 OxC72 submissions predating 2011 and used with the surface sampling programs.

Koza has standardized its QA/QC program for all exploration programs. The QA/QC program includes the insertion of the following control samples at the listed frequencies:

- Preparation blanks,1 per 50 samples;
  - If the samples are from a drillhole and there are less than 50 samples, then 1 per drillhole;
- Duplicate samples, 1 per 30 regular samples; and
- CRMs 1 per 50 sample batch.

The duplicates used by Koza include field, core, preparation and pulp duplicates depending on the project status. Koza uses the following performance gates to monitor control samples and identify analytical failures:

- Preparation blanks are 5x the lower analytical detection limit;
- Duplicates are ±30% for core duplicates, ±20% for preparation duplicates and ±10% for pulp duplicates and check samples to a second laboratory; and
- CRMs are ±2 standard deviations with ±10% used at times in smaller datasets or if ±2 standard deviations exceeds ±10% of the expected mean.

When a failure occurs, Koza assesses the failure and decides on a course of action. If it is only one failure, Koza reanalyzes five samples before and after the failure. However, in the case of multiple failures, Koza may reassay the entire batch. These actions are industry practice.

During 2013, Analytical Solutions Ltd. reviewed the Koza QA/QC procedures and recommended that during early exploration projects such as Karapınar, Koza submit more duplicates and less CRMs with soil, stream sediment and outcrop samples (Analytical Solutions Ltd, 2013). Analytical Solutions

(2013) advises that precision and not accuracy are more important during early stage soil sample efforts at a project. Analytical Solutions Ltd. (2013) specifically stated that field duplicates were more important in since they test sampling collection errors and site variability. SRK supports these recommendations and is of the opinion that they are appropriate and should be accepted as part of Koza's QA/QC program for very early stage projects. Koza plans to implement this approach on subsequent soil, stream sediment and outcrop sampling programs at Karapınar. SRK notes that the next logical step for exploration at Karapınar is drilling and that Koza's standard QA/QC program is appropriate.

Because the next logical exploration activity at Karapınar is drilling, SRK recommends that Koza use at least two CRMs but optimally three CRMs during the QA/QC program. The CRMs should be selected to bracket expected mineralization grades. The CRMs should include one near a possible CoG of mineralization, one near the average grade and one at the approximate 80<sup>th</sup> percentile grades in the sample population. The higher grade CRM should not test the outliers. SRK also recommends that Koza consider the following performance gates for CRMs:

- If one analysis is outside of ±2 standard deviations it is a warning;
- Two or more consecutive analyses outside of ±2 standard deviations is a failure;
- If an analysis is outside ±3 standard deviations it is a failure if ±3 standard deviations does not exceed ±10% of the mean; and
- If the ±3 standard deviations exceed ±10% of the mean, then ±5 to ±10% should be used.

Ore Research & Exploration (OREAS), who manufactures CRMs, recommends using these performance gates and has started printing this information on CRM certificates as part of a guide for use of the CRM. ALS Global uses ±3 standard deviations during analysis as a performance gate for internal CRMs (ALS Global, 2012). Koza is using a more restrictive performance gate that may result in unnecessary failures.

#### 2.5.7 Exploration Plan and Budget

Koza plans to drill in the three target areas at Karapınar during 2015 and has budgeted TL3.31 million (US\$1.4 million). SRK is of the opinion that this is an appropriate exploration budget to investigate the mineralization at Karapınar and potentially advance the project to an inferred resource.

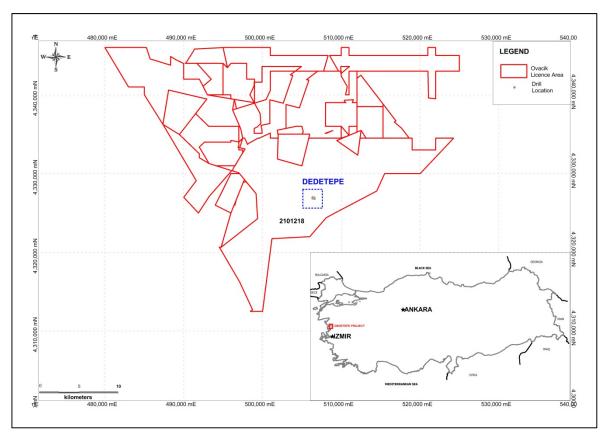
### 2.6 Environmental

Koza holds one exploration license for the Karapınar Prospect in Çanakkale Province in northwestern Turkey. Part of the license area is located in the catchment of the Atıkhisar Reservoir. Ten percent of the reservoir operation volume is allocated for drinking water supply. The Atıkhisar Reservoir is approximately 3.7 km upstream from the project area. Other areas of particular importance cover Troia National Park, 17 km west of the license area, and wild life development areas in Çan District approximately 25 km from the license area. Koza has indicated that the Environmental Impact Assessment (EIA) process has been suspended by the adverse opinion of General Directorate of Forestry. Official correspondence is ongoing.

## 3 Dedetepe Exploration Project

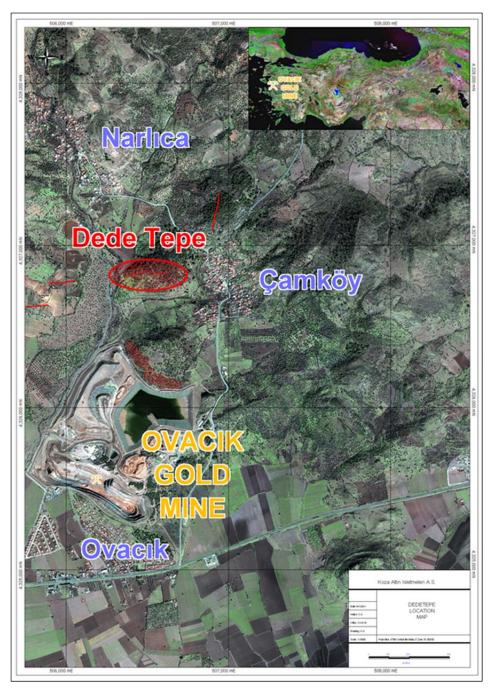
## 3.1 Property Description and Location

Dedetepe is a low sulfidation, epithermal Au deposit located approximately 1 km north of the Ovacık Mine within the same license area. The Dedetepe Project is located between approximately 4326500N, 509500E and 4326000N, 510200E UTM coordinates, ED1950, Zone 35. The location and land tenure for Dedetepe is shown in Figure 3.1.1 and relative to Ovacık Mine in Figure 3.1.2.



Source: Koza GIS, 2010

Figure 3.1.1: Dedetepe Location and Land Tenure Map



Source: Koza, 2011

Figure 3.1.2: Dedetepe Location Relative to the Ovacık Mine

## 3.2 Climate and Physiography

The Dedetepe Project is located in the Ovacık District and experiences a typical Mediterranean climate, characterized by hot, dry summer months and warm, wet winter months. Frost and snow rarely occur in this region. The effects of this Mediterranean climate are observed inland up to

elevations of 120 m above mean sea level (amsl); the climate becomes more continental further inland. The coastal mountains reach an elevation of 1,000 m amsl.

The hottest and coldest months are July and January, respectively. The maximum and minimum temperatures recorded in Bergama are 45°C (July 2000) and –11.4°C (January 1968), respectively. The maximum and minimum temperatures recorded at Dikili, on the coast, are 41.8°C (July 1987) and –8.6°C (January 1942), respectively. The yearly average temperature is 16.2°C in Bergama and 16.4°C in Dikili. The annual precipitation is distributed equally between spring and autumn. Precipitation is normally rain and the annual average precipitation is 646.2 mm inland near Ovacik Mine and 629.2 mm at the coast.

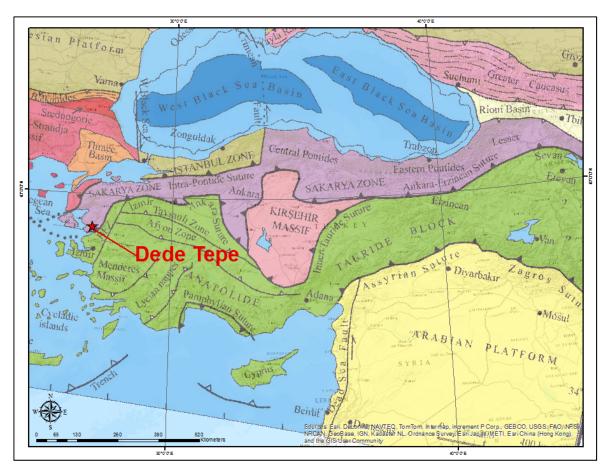
The terrain in the Ovacık District is flat to rolling hills near the Aegean Sea rising quickly to approximately 500 m amsl at Çukuralan and Kıratlı. The relief at some of the project areas near the coast is low rolling hills while the relief at the inland projects is moderate to steep.

# 3.3 History

Eurogold Madencilik, S.A. (Eurogold) identified the mineralization in the 1990's. The Project was explored by Eurogold from 2003 to 2004 and by Newmont Gold Corporation (Newmont) in 2005. Eurogold conducted Bulk Leach Extractable Gold (BLEG) sampling and analysis as well as collecting rock chip and soil samples. Newmont drilled one drillhole. Koza acquired the Dedetepe Project in 2005.

# 3.4 Geology

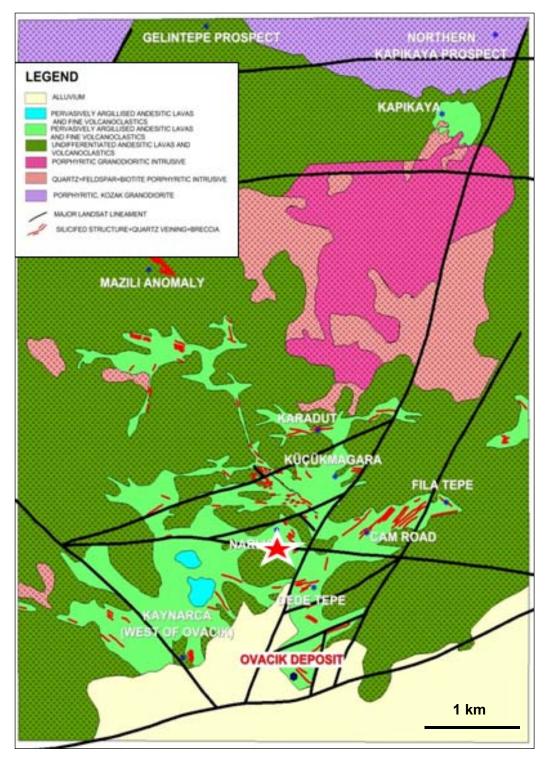
The Dedetepe Project is located in the Western Anatolian Extensional Tectonic Province in a zone of low and high sulfidation epithermal deposits. This zone extends from north central Turkey to the Aegean Sea, and straddles the İzmir-Ankara Suture, which formed during Cretaceous age as a result of collision and subsequent subduction of the Anatolide-Tauride block beneath the Sakarya Terrane during closure of the Tethyan Sea. This event was followed by two periods of rift related extension caused by a change in plate motion and resulting development of NNE-SSW and NE-SW trending grabens. The Ovacık District is located in the Sakarya Terrane, north of the İzmir-Ankara Suture Zone. Deposits within this zone are commonly associated with Paleogene- and Neogene-age volcanism and Upper Mesozoic- to Tertiary-age intrusive events (Yilmaz, 2002; Okay et al., 2004; Okay, 2008). Figure 3.4.1 shows Dedetepe relative to the Sakarya Terrane and suture zone.



Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 3.4.1: Location of Dedetepe Relative to the Sakarya Terrane

The regional geology of the Ovacik District is described by Koza as an area underlain by the Triassic-age Karakaya Metamorphic Complex, represented locally by the Kinik Formation. This metamorphic complex was intruded during the Oligocene and Miocene by the Kozak Magmatic Complex. In places, both the Kozak Magmatic and Karakaya Metamorphic complexes have been overlain by Miocene age volcanic rocks and Quaternary alluvium (Kara, 2004). Figure 3.4.2 shows the regional geology.

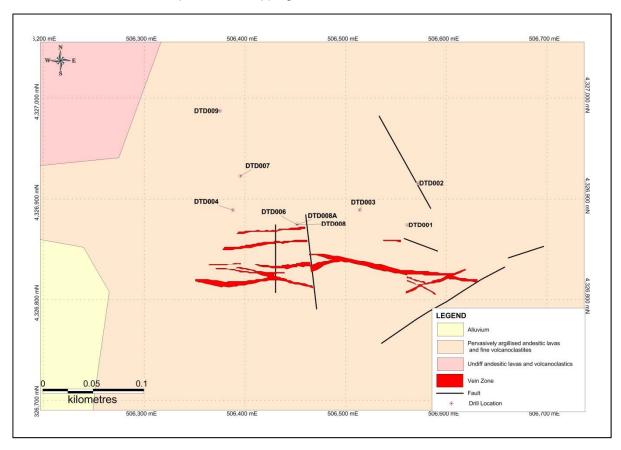


Source: Koza Exploration Presentation, 2012a

Figure 3.4.2: Regional Geology Map of the Ovacık Mine Area

Dedetepe is a low sulfidation, epithermal Au deposit formed in association with the veining at Ovacık. The Dedetepe mineralization is in fault-controlled quartz-breccia veins hosted in the same andesite

porphyry unit as Ovacık. These veins strike from N85°E to S70°E with a known strike length of 400 m. Veins range up to 3 m in thickness and dip from 70°N to 90° in the porphyritic andesite. Subvertical veining with argillic alteration are exposed on the south side of Dedetepe. Textures and type of quartz (chalcedony and opaline quartz) plus geochemical evidence of gold with arsenic, mercury, antimony and silver suggest that the surface exposure represents mineralization near the top of the epithermal system. Geology and drillhole locations are shown in Figure 3.4.3. Angle core holes were drilled to the south to intercept the north dipping vein.



Source: Koza GIS, 2012

Figure 3.4.3: Dedetepe Geology and Drillhole Location Map

# 3.5 Exploration

Koza acquired the project in 2005 and has relied on Eurogold and Newmont's previous work to assess and plan exploration programs at Dedetepe. This included one Bulk Leach Extractible Gold (BLEG) sample, the collection of 63 rock chip samples, and 164 soil samples completed by Eurogold and one drillhole completed by Newmont. Koza has completed nine additional drillholes.

## 3.5.1 Mapping

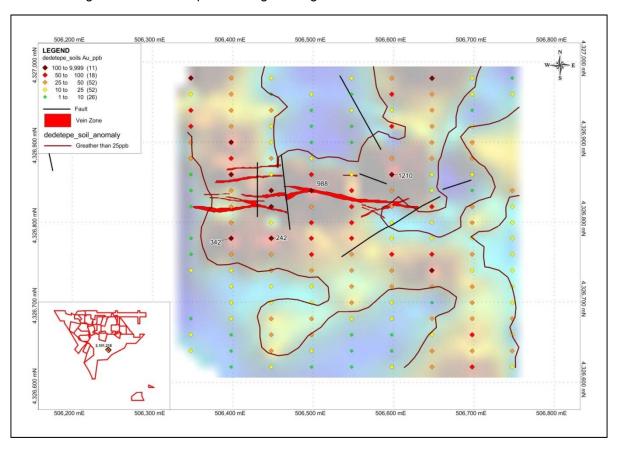
Koza acquired the project in 2005 and reviewed all of the data collected by the previous operators. During 2006, Koza mapped the area at 1:2,000 scale. This map is used in conjunction with Eurogold and Newmont surface samples to target drilling.

## 3.5.2 Geophysical Surveys

Koza has had no geophysical surveys completed at Dedetepe. There is sufficient surface exposure to target drilling and geophysical surveys have not been necessary at this time. Koza uses all of the exploration tools at its disposal and may use a geophysical survey in future if it is deemed necessary.

## 3.5.3 Sample Collection

Work completed by Eurogold included one BLEG sample, the collection of 63 rock chip samples, and 164 soil samples. Figure 3.5.3.1 presents a soil anomaly map produced by Koza from the Eurogold data. The map is contoured for gold above 25 ppb (0.025 ppm). The gold anomaly map shows additional targets for Koza to explore through drilling.



Contour = 25 ppb or 0.025 ppm Source: Koza GIS, 2013

Figure 3.5.3.1: Gold Anomaly Map for Dedetepe Soil Samples

Koza does not have information on how Eurogold conducted their soil and rock chip sample collection, but consider it to be the industry practice in 2003 and 2004. Koza has completed mapping that visually confirmed mineralization in outcrop. Drilling discussed in the following section has confirmed subsurface mineralization.

## 3.5.4 Drilling

Newmont drilled one HQ-size core hole at the project in 2005. Six drillholes had been planned but one was completed when Koza acquired the project. The hole was drilled by Spektra Jeotek in Ankara, Turkey. The total drillhole depth was 100.5 m with recoveries averaging 79%.

Koza drilled 1,113.5 m in nine drillholes between 2010 and 2011. Drilled recoveries ranged from 48% to 100%. Drillholes collars were located by Koza surveyors and downhole surveys were conducted on all drillholes at 50 m intervals.

Koza records drillhole data onto paper logs and transfers the data into the computer. The drill core was photographed prior to geological logging. Data captured during core logging included, rock types, structure, mineralogy and recovery. The sample intervals were marked by the geologist and the core was sawed lengthwise using a diamond saw, with half submitted for analysis and half retained for later reference. Core is stored at the Ovacık Mine. The drilling company used by Koza was International Drilling Company (IDC) based in Ankara, Turkey.

The drilling showed mineralization consistent with that observed at Ovacık. Additional drilling is needed to identify and delineate a resource. Koza did not drill at Dedetepe in 2013 or 2014 because it is in the process of obtaining drilling permits.

### 3.5.5 Sample Preparation and Analysis

Soil samples collected by Eurogold in 2003 were submitted to ALS Vancouver for preparation and analysis. ALS Vancouver currently has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the LIMS. All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Eurogold submitted one stream sediment sample in 2003 that was analyzed by BLEG. BLEG samples are large stream sediment sample collected with an optimum weight between 1 and 3 kg and analyzed using a cyanide leach procedure to detect very low gold. The sample was screened to -180 micron (80 mesh) to remove organic matter and large particles and was pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis. Koza does not have the information on which of the two possible BLEG methods were used. Method Au-CN12 and Au-AA12 have an analytical range between 0.0001 and 10 ppm Au and Au-CN11 and Au-AA11 have an analytical range between 0.001 and 10 ppm Au.

Eurogold and Koza rock chip samples were dried using ALS code DRY-22, rock chip samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Eurogold and Koza request a larger split pulverized to help mitigate the nugget affect.

During 2003, Eurogold requested analysis using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both ICP-AES and ICP-MS. Because of the small sample size required for analysis, ME-MS41 is considered a semi-quantitative method

for gold. Eurogold also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. The aqua regia digestion used in method ME-MS41 may not provide representative results for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 3.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22. Koza has used this same method is subsequent work.

Table 3.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-ICP22	Au	0.001-10	ME-MS41	Hf	0.02-500	ME-MS41	Sc	0.1-10,000
ME-MS41	Ag	0.01-100	ME-MS41	Hg	0.01-10,000	ME-MS41	Se	0.2-1,000
ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Ве	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

In 2005, Newmont drilled one drillhole. Koza drilled nine additional drillholes between 2010 and 2011. Both Newmont and Koza submitted the drill core samples to ALS Vancouver for preparation and analysis. Koza continued to use the methods selected by Newmont. This is appropriate for continuity of analysis. In addition, the methods selected by Newmont and subsequently used by Koza are appropriate for the deposit type and level of study.

On arrival at ALS Vancouver, core samples were bar coded and entered into the LIMS. All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Core samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza and Newmont requested a larger split pulverized to help mitigate the nugget affect. A pulverization QC test was also performed during sample analysis.

Drill core samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 3.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

10-10,000

2-10,000

Method Analyte Range Method Analyte Method Range Analyte Range Au-AA24 0.005-10 ME-ICP61m Au Cu 1-10,000 ME-ICP61m S 0.01-10% Hg-CV41 5-10,000 Hg 0.01-100 ME-ICP61m Fe 0.01-50% ME-ICP61m Sb ME-ICP61m 0.5-100 ME-ICP61m 10-10,000 ME-ICP61m 1-10,000 Ag Ga Sc ME-ICP61m Αl 0.01-50% ME-ICP61m Κ 0.01-10% ME-ICP61m 1-10,000 Sr ME-ICP61m 5-10.000 ME-ICP61m 10-10.000 ME-ICP61m Th 20-10.000 As Ιa ME-ICP61m 10-10,000 ME-ICP61m 0.01-50% ME-ICP61m 0.01-10% Ba Mg Τi ME-ICP61m Re 0.5-1,000 ME-ICP61m Mn 5-100,000 ME-ICP61m ΤI 10-10,000 ME-ICP61m 2-10,000 ME-ICP61m ME-ICP61m 10-10,000 Bi Мо 1-10,000 U ME-ICP61m Ca 0.01-50% ME-ICP61m Na 0.01-10% ME-ICP61m V 1-10,000

Ni

Ρ

Pb

1-10,000

10-10,000

2-10,000

ME-ICP61m

ME-ICP61m

W

7n

ME-ICP61m

ME-ICP61m

ME-ICP61m

Table 3.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Source: ALS Global, 2014

Cd

Co

Cr

ME-ICP61m

ME-ICP61m

ME-ICP61m

### 3.5.6 Quality Assurance and Quality Control

0.05-1,000

1-10,000

1-10,000

Koza has no QA/QC information from the Eurogold soil, BLEG and rock chip sampling programs. Since this soil, BLEG and rock chip sample data is not used for resource evaluation, the lack of QA/QC information is not material to the advancement of the project. The drilling completed by Newmont and Koza contained QA/QC control samples consistent with industry best practice.

Koza has a QA/QC sample program it uses during all of exploration drilling. Insertion of control samples is generally at the same frequency but is varied depending on the deposit. The QA/QC control samples include a preparation blank, standards that are either CRMs or a site standard and a preparation duplicate. Should there be a QA/QC sample failure during a drilling program, Koza investigates the failure to determine why it occurred and takes appropriate action. If the failure is due to laboratory error, then Koza requests that the entire batch be reanalyzed. SRK is of the opinion that should a large proportion of the QC samples fail, the entire batch should be reanalyzed, but if only one or two QC failures occur, SRK recommends sampling the failed QC samples and three to four samples in sequence before and after the failure.

Location of the QC control samples in the sample stream is determined by the core logging geologist and are inserted into the drill core sequence. The QC control samples are bagged and submitted by the core sampler under the direction of the geologist who logged the core. The location of the control samples is noted on the sample log and in the sample database. The QC control samples have the same numbering system as the drill core samples. Sample blanks and preparation duplicates are inserted into the sample stream at a rate of one in every 30 samples. CRMs are inserted at a rate of one in every 50 samples.

### **Certified Reference Materials**

Dedetepe has used three different Certified Reference Materials (CRMs): two purchased from RockLabs based in New Zealand, and one site specific standard produced in-house by Koza from material at the Ovacık Mine. Koza uses a performance range of ±10% of the mean to evaluate the CRMs when there are a small number of analyses from ALS and ±2 standard deviations of the mean once there is a statistically meaningful data set. This is more restrictive than recommended by

OREAS who manufactures CRMs. OREAS recommends the following method for determining failures:

- If one analysis is outside of ±2 standard deviations it is a warning;
- Two or more consecutive analyses outside of ±2 standard deviations is a failure; and
- If an analysis is outside ±3 standard deviations it is a failure if ±3 standard deviations does not exceed ±10% of the mean.

Should ±3 standard deviations exceed ±10% of the mean, OREAS gives ±5% of the mean performance gates for use with its CRMs ALS Global uses ±3 standard deviations during analysis as a performance gate for internal CRMs.

Analytical Solutions Ltd. (2013), of Toronto, Canada reviewed Koza's current QA/QC practices and recommended using ±3 standard deviations as a failure threshold. The ±3 standard deviation threshold should not be more than 10% of the expected value.

A total of 96 CRMs were submitted with the core samples during the drilling programs between 2005 and 2011. Koza tracked Au with these standards. Koza used  $\pm 10\%$  to determine failures at Dedetepe. Table 3.5.6.1 presents the expected mean, standard deviations and summaries of the analyses of the Au CRMs used at Dedetepe at  $\pm 10\%$ .

Table 3.5.6.1: Results of Au CRM Analyses at Dedetepe using ±10% Performance Gate

Standard	Number	Expect	ed (ppm)	Observ	red (ppm)	% of	Number	% Failure
Standard	Samples	Mean	Std Dev	Mean	Std Dev	Expected	Failures	Rate
OxG60	78	1.025	0.028	0.977	0.037	95.3	4	5
OxE74	14	0.615	0.017	0.633	0.015	102.9	0	0.0
OV018	4	1.858	0.066	1.824	0.048	98.2	0	0.0
Total	96						4	4

Data Source: Koza, 2012

Based on ±10% performance gate, OxG60 has a 5% failure rate. If Koza uses ±3 standard deviations of the mean as recommended by current industry practice, CRM OxG60 has a 14% failure rate. Below are the results for the Au CRM analyses including OxG60 using ±3 standard deviations of the mean.

Table 3.5.6.2: Results of Au CRM Analyses at Dedetepe using ±3 Standard Deviation Performance Gate

Standard	Standard Number		Expected (ppm)		Observed (ppm)		Number	% Failure
Standard	Samples	Mean	Std Dev	Mean	Std Dev	Expected	Failures	Rate
OxG60	78	1.025	0.028	0.977	0.037	95.3	11	14
OxE74	14	0.615	0.017	0.633	0.015	102.9	0	0.0
OV018	4	1.858	0.066	1.824	0.048	98.2	0	0.0
Total	96						11	12

Source: Koza, 2012

The CRM OxG60 is performing low overall and has an unacceptable failure rate using industry practice of ±3 standard deviation. Overall, this CRM was biased low compared to the expected mean. The CRM OxE74 and Ovacık standard OV018 had only a limited number of analyses. Neither of these CRMs had failures. The Ovacık standard OV018 was low while OxE74 was high. Although

there were a significant number of failures with OxG60, OV018 is in the same approximate grade range and demonstrated that the laboratory can provide accurate results in that grade range. However, there are far less analyses for OV018 than for OxG60. In subsequent drilling programs, SRK recommends discontinuing the use of OxG60 and using OV018 or a CRM of similar grade range. Koza investigates and takes action to correct all QA/QC failures.

#### **Blanks**

Sample blanks test for cross contamination during sample preparation and assaying and handling errors. Koza inserts one sample blank into every sample batch of 50 samples using pulp blanks up until June 2012 and preparation blanks after that. A blank failure is a result greater than five times the detection limit. Since drilling at Dedetepe predated 2012, all blanks are pulp blanks. Koza submitted five blanks with no failures. The results indicate that the laboratory does not have cross contamination problems during analysis. Koza has initiated using preparation blanks and will be submitting preparation blanks in subsequent drilling programs at Dedetepe, Koza use preparation blanks to monitor for cross contamination during sample preparation.

### **Preparation Duplicates**

Preparation duplicates are created by taking a second split of the crushed sample (coarse reject) using the same method and collecting the same weight as the original sample. The objective is to determine if:

- Splitting procedures are applied consistently; and
- Changes are required for the crush size.

Koza sent seven preparation duplicates to the primary laboratory for gold analysis. A summary of the analytical results are presented in Table 3.5.6.3.

Table 3.5.6.3: Summary of Duplicate Gold Analysis at Dedetepe

Criteria	Number of Sample	Original>Dup	Dup>Original	Original = Dup	Within +/- 20%
Alloomanloo	7	2	5	0	7
All samples	7	29%	71%	0%	100%

Source: Koza, 2012

The results of the small data set indicate that the sample collection and preparation procedures are appropriate and consistent for the deposit type. SRK recommends that Koza continue monitoring preparation duplicates during subsequent drilling programs to get a larger database for assessment.

### **Pulp Duplicates**

Koza does not submit pulp duplicates at this time. Pulp duplicates test the analytical reproducibility or precision of the analysis. SRK recommends that Koza add pulp duplicates to its QA/QC program. ALS runs internal duplicates that Koza could request at no charge. SRK recommends that Koza request these duplicates and review them during subsequent exploration programs.

### **Secondary Check Lab Analysis**

Koza has not sent any Dedetepe check samples in the form of pulp duplicates to a secondary laboratory as verification of the primary laboratory's analytical results. SRK recommends that Koza add this type of QA/QC samples to its program. Check samples must be analyzed at the secondary

laboratory on the same pulp originally analyzed, using the same method as the primary laboratory and CRMs must be submitted with the check samples.

### **QA/QC Conclusions**

Koza did no sampling during the 2013 to 2014 exploration program at this project. However, the following recommendations are appropriate for subsequent programs. Koza should adopt using ±3 standard deviations as a failure threshold as long as this threshold does not exceed ±10% of the mean. A ±2 standard deviation can be used as a warning or a failure should to consecutive samples exceed this threshold. Other recommendations include additions to database management to track QA/QC with method codes, laboratory certificates, dates, and changes to the database to reflect repeats of QA/QC failures. Koza should also add pulp duplicates and check samples to a secondary laboratory as part of its QA/QC program.

### 3.5.7 Exploration Plan and Budget

Koza plans to conduct additional drilling at Dedetepe during 2015 contingent on receipt of drilling permits. Dedetepe is within the Ovacık Mine exploration license and included in the budget and exploration in the deposits around the mine will be part of a TL1.5 million (US\$687,000) exploration effort. Verification of mineralization will be through drilling. SRK is of the opinion that the exploration plan and budget are appropriate for advancing the project and will be sufficient to start resource delineation.

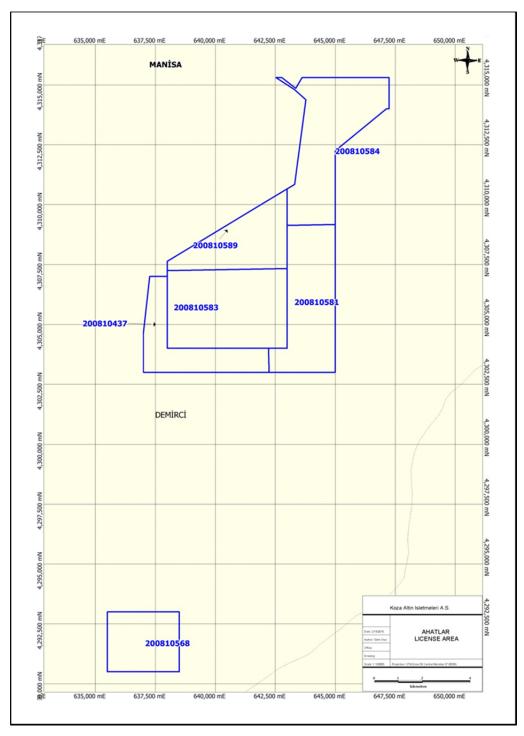
### 3.6 Environmental

Dedetepe is within the Ovacık Mine license area. Exploration is ongoing and additional drilling is required at the project. An EIA application has not been made at this time.

# 4 Ahatlar Exploration Project

# 4.1 Property Description and Location

The Ahatlar Project is a low sulfidation, Au-Ag epithermal deposit located approximately 20 km south of Demirci. Access to this project is by traveling south along winding paved roads to the village of Ahatlar. This project lies between UTM coordinates 4313000 N, 641000 E to 4307000 N, 644500 E in ED1950 Zone 35. The Ahatlar Project is within exploration licenses 200810568, 200810581, 200810583, 200810584, 200810589 and 200810437. These licenses total approximately 6,902 ha (Figure 4.1.1).



Source: Koza, 2012 GIS

Figure 4.1.1: Ahatlar Location Map

# 4.2 Climate and Physiography

The Ahatlar Project is inland from the Aegean Sea approximately 150 km and experiences a continental climate with cold winters and dry summers with moderate to hot temperatures. Average

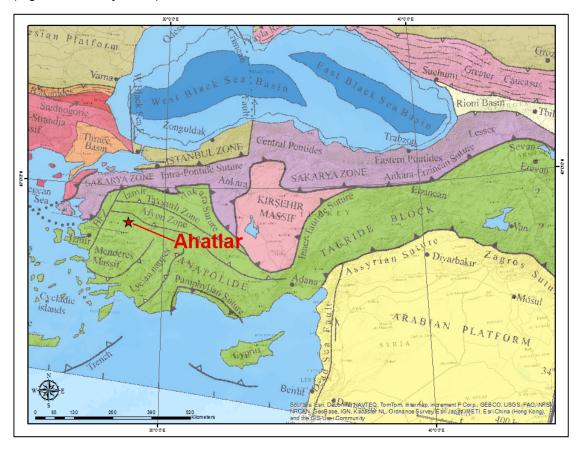
temperatures range from 0°C in January to 22°C in July and August. Local rainfall data indicates average annual precipitation is 350 to 400 mm, which falls as rain during the summer months and snow during the winter months. The terrain around Ahatlar ranges from 800 to 1,000 m amsl with moderate relief and rolling hills.

# 4.3 History

The Ahatlar Project was held by Eurogold in 1991 and explored by Eurogold and Newmont through 2002. Eurogold mapped the project in 1991 and Eurogold and Newmont collected BLEG and stream sediment samples in 2002. Newmont drilled ten reverse circulation (RC) holes at the Ahatlar Project in 2002. The project was idle until Koza acquired it in 2008.

# 4.4 Geology

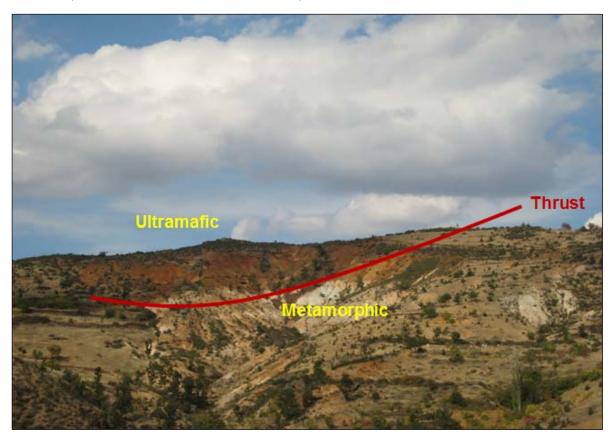
The Ahatlar Project is a low sulfidation, Au-Ag epithermal deposit, located in Manisa province in western Anatolia. The project lies in the Menderes Massif proximal to a northwest trending thrust fault that separates the Afyon Zone and the Menderes Massif. This area is south of the Izmir-Ankara suture in the western part of the Anatolide-Tauride tectonic block (Figure 4.4.1). The Menderes Massif forms the basement rock and is considered a metamorphic core complex with high-grade metamorphism at the center of the massif decreasing outwards into a lower-grade metamorphic halo (Yigit, 2006; Okay, 2008).



Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 4.4.1: Ahatlar Project Location Relative to the Anatolide Block

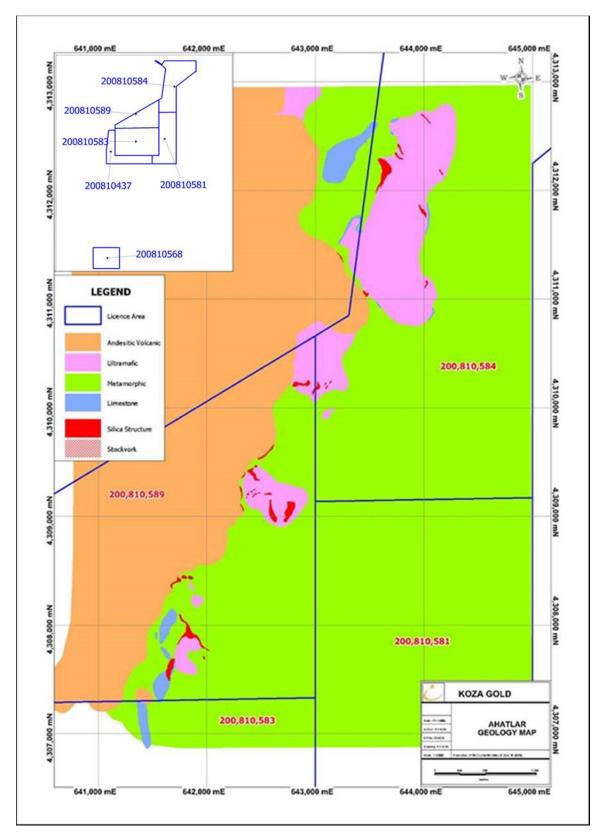
The project area includes Paleocene to Eocene age ultramafic rocks and Miocene age andesitic rocks overlying metamorphic rocks. Metamorphic rocks are at low-grade mica schist, at prehnite-pumpellyite to greenschist facies. Andesitic flows can be found to the west of the mineralized ultramafic rocks and cap the ultramafic rocks locally. The andesitic flows are related to caldera formation with alteration and mineralization along the margin between the caldera and faulting. The ultramafic rocks have been thrust over the metamorphic rocks at Ahatlar. Figure 4.4.2 shows the relationship between the ultramafic and metamorphic rocks.



Source: Koza Exploration Presentation, 2012a

Figure 4.4.2: Relationship between Metamorphic and Ultramafic Rocks

Gold mineralization is found in a series of five crudely circular zones trending N24°E that dip approximately 20°E. The zones are hosted by ultramafic rocks and each zone includes a lithocap composed of a pyrite halo, silica alteration and gossan and in places veining. In places, the ultramafic rocks have been altered to listwaenite, a carbonate replacement. These zones are found over a 6.5 km trend and range in size from 100 m x 300 m to 1,000 m x 2,000 m and have an average gossan thickness of 30 m. Mineralization in the silica caps includes grey to black, opaline and chalcedonic quartz and silica with traces of pyrite, glassy goethite-limonite and possibly turquoise (copper phosphate) and wad (manganese oxide). Jasper has also been observed at Ahatlar and breccias are present. Koza interprets Ahatlar as a low sulfidation, gold-silver epithermal deposit related to the upper portion of a porphyry system. This is based on the presence of the silica caps and their textures and the anomalous Hg-As-Sb in samples collected from the silica caps. Figure 4.4.3 presents the geologic map of the project area.



Source: Koza, 2015 GIS

Figure 4.4.3: Ahatlar Project Area Geology Map with Licenses and License Numbers

# 4.5 Exploration

Prior to Koza's acquisition of the project in 2008, Eurogold and Newmont collected 18 BLEG samples 26 stream sediment samples and 80 rock chip samples. The work by Eurogold and Newmont was completed in 2002. Koza does not have details of the sample collection, QA/QC and analytical methods. Given that the work completed involved Newmont; the work was likely conducted using industry standard methodology. However, Koza has resampled Ahatlar.

Newmont drilled 918 m in ten reverse circulation (RC) drillholes at Ahatlar, but the data is not available to Koza. Koza is currently applying for drilling permits and planning to drill the project in 2016.

In 2008, Koza acquired the Ahatlar project and collected 139 stream sediment samples. Between 2008 and 2009, Koza collected 54 rock chip samples. In 2009, Koza collected 709 soil samples. Koza has also completed 10 trenches totaling 100 m. The trenches were mapped for lithology and alteration. Koza is currently applying for drilling permits and planning to drill the project in 2016.

# 4.5.1 Mapping

A local geological map was constructed at a 1:1,000 scale by Eurogold in 1991. Koza remapped the project in 2009 at the same scale, for structure and geology. This was used as the base for plotting soil samples to identify anomalies. Koza excavated 10 trenches at the project that have also been mapped. The company has completed a PIMA survey at the project to identify and delineate alteration zones. Koza also mapped on a regional scale verifying geology and structure on a 250,000 scale map.

# 4.5.2 Geophysical Surveys

Koza has had two geophysical surveys completed at Ahatlar. The first was in 2011 by CFT and was an IP survey and resistivity survey. The second was a ground magnetic survey completed by Koza in 2013. The IP-resistivity survey covered 18 km total line length with the following details:

- Ten 1.8 km lines oriented east-west, perpendicular to the local mineralization; and,
- Sensors spaced at 100 m intervals along each line.

The IP-resistivity survey identified subsurface drilling targets under the three southern lithocaps. These are anomalies of conductive and resistive materials to depths of approximately 150 m to 200 m below the surface. These are prospective exploration drilling targets and Koza plans to explore these through drilling during 2016.

The ground magnetic survey completed by Koza was conducted with the following parameters:

- Total line length was 100.24 km;
- A total of 35 lines north oriented lines were 3.2 km and south oriented lines were 2.6 km;
- Readings were collected at 200 m intervals along the lines.

Both of the geophysical methods are appropriate surveys for the Ahatlar target. The IP-resistivity survey is used to identify sulfide and silica mineralization, while the ground magnetic survey will identify magnetic minerals present that may be associated with mineralization. Caution should be used with these techniques in the presence of metamorphic rocks. Graphite that may be present in

some metamorphic rocks is conductive and can give false positive results. Magnetite will produce a magnetic high and may or may not be the result of secondary mineralization.

### 4.5.3 Sample Collection

Koza sample collection was completed during 2008 and 2009. Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

Soil samples grids were designed to cover each lithocap with the grids oriented in the cardinal directions. Grid spacing over the three southern lithocaps were 100 m north-south by 50 m east-west. The northern lithocap and alteration zone was sampled at a wider spacing of 200 m north-south by 100 m east-west. This spacing was also used between the southern lithocaps. The grids were designed to test for soil anomalies over the four lithocap zones. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected.

Rock chip samples were selective chip samples collected at locations across the width of the exposed veins and silica zones and were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along the veins trend and were selected based on field conditions and accessibility to the vein.

### 4.5.4 Drilling

Newmont drilled 918 m in 10 RC drillholes at Ahatlar, but the data is not available to Koza. Koza is currently applying for drilling permits and planning to drill the project in 2016.

### 4.5.5 Sample Preparation and Analysis

Samples are in the control of Koza personnel either in a locked field vehicle or at a mine site in a locked building until they are submitted to the laboratory for analysis. Once the samples are submitted to the laboratory, chain of custody is controlled by the laboratory. This is industry best practice.

During 2008 and 2009 samples were submitted to ALS Vancouver for preparation and analysis. ALS Vancouver has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil and stream sediment samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil and stream sediment samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Soil and stream sediment samples were analyzed using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma-Mass

Spectroscopy (ICP-MS). Because of the sample size, ME-MS41 is considered a semi-quantitative method for gold. Because of this Koza also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. The aqua regia digestion used in method ME-MS41 may not provide representative results for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 4.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

Table 4.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-ICP22	Au	0.001-10	ME-MS41	Hf	0.02-500	ME-MS41	Sc	0.1-10,000
ME-MS41	Ag	0.01-100	ME-MS41	Hg	0.01-10,000	ME-MS41	Se	0.2-1,000
ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Ве	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

After drying using ALS code DRY-22, rock chip and channel samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Rock chip samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 4.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 4.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Ве	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

## 4.5.6 Quality Assurance and Quality Control

Koza submitted 13 CRMs of OxC58 and 17 field duplicates for Ahatlar during the 2009 rock chip sampling program. OxC58 is a low grade gold CRM at 0.201 ppm produced by RockLabs based in New Zealand. This is an appropriate CRM to use for this project. SRK recommends adding at least one CRM at the project that would test analytical accuracy at the average grade of mineralization for future sampling work. Adding a third CRM at the 80<sup>th</sup> percentile of the analytical results would be preferred.

Analytical Solutions Ltd. (2013) reviewed the Koza QA/QC procedures and recommended that during early exploration projects, Koza submit a "high proportion of duplicates and fewer standards" with soil, stream sediment and outcrop samples. The purpose of this is that precision and not accuracy are more important at this stage of a project. Analytical Solutions Ltd. specifically stated that field duplicates were the most important by testing sampling collecting error and site variability. Based on Analytical Solutions Ltd (2013) recommendations, Koza should submit field duplicates, preparation duplicates, sample blanks and CRMs in its early stage projects. This will allow Koza to assess the variability of the soils and stream sediment samples to better determine sample preparation and analytical procedures. SRK supports these recommendations and they should be accepted as part of Koza's QA/QC program for pre-drilling exploration programs.

Koza will use its standard QA/QC program for any future drilling programs that uses the following QC samples insertions:

- Preparation blanks,1 per 50 samples,
  - o If the samples are from a drillhole and there are less than 50 samples, then 1 per drillhole;
- Duplicate samples, 1 per 30 regular samples; and
- CRMs 1 per 50 sample batch.

Koza monitors drilling programs on an ongoing basis and investigates all QC sample failures as they occur. Should there be a failure Koza typically has the laboratory reanalyzed the entire batch. SRK recommends that the entire batch be analyzed only if all QC samples fail. In the case of one or two

failures in a batch, SRK recommends reanalyzing the failure and three to four samples on either side of the failed sample.

## 4.5.7 Exploration Budget

The 2015 budget for this project is approximately TL302,000 (US\$134,000) and reflects the permitting effort. SRK is of the opinion that the budget is appropriate for permitting and drillhole planning. Should Koza receive drilling permits during the 2015 year with sufficient time to start a drilling program, the budget will require reassessment for drilling costs.

### 4.6 Environmental

A preliminary investigation of the exploration licenses and surrounding vicinity indicates that there are no areas with particular protection status such as wetlands, drinking water reservoirs, nature conservation areas, etc. located within a 20 km distance from the license area. The closest reservoir to the license area is Demirtepe Reservoir located approximately 17 km to the site and used for irrigation water supply. A map of the environmentally protected and sensitive areas around the licenses is given in Figure 4.6.1.

The application for changing from exploration licenses to operation licenses was made by Koza on 24 November 2013. This process is on-going. After the operation licenses are obtained, Koza will have a three-year period to complete the EIA permitting for the license area. Koza has not initiated environmental baseline studies at this time.

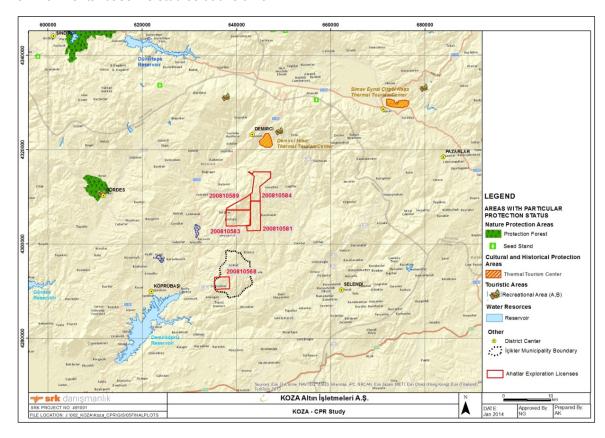
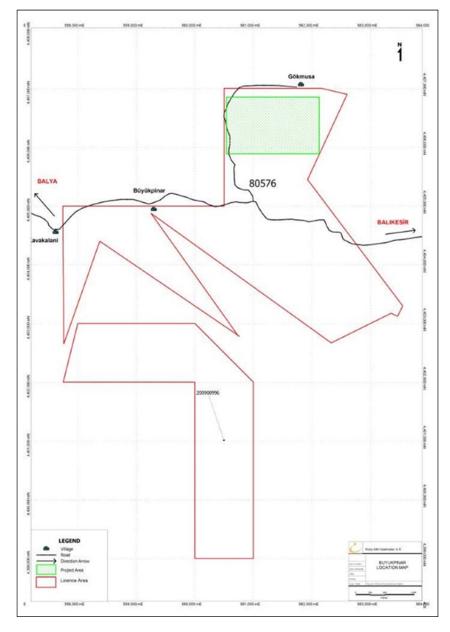


Figure 4.6.1: Environmentally Protected and Sensitive Areas around the Licenses

# 5 Büyükpınar Exploration Project

# 5.1 Property Description and Location

The Büyükpınar Project, a Cu-Au porphyry and epithermal vein target, is located approximately 20 km northwest of the city of Balıkesir. The project is accessed by following paved and dirt roads northwest of Balıkesir for approximately 20 km to Gökmusa Village. The project is between UTM coordinates 4407000 N, 560500 E to 4404500 N, 562500 E in ED1950 Zone 35. The Büyükpınar Project is within operation license 80576, which totals approximately 1,116 ha. Figure 5.1.1 shows the land tenure for this project.



Source: Koza, 2012 GIS

Figure 5.1.1: Büyükpınar Land Tenure Map

# 5.2 Climate and Physiography

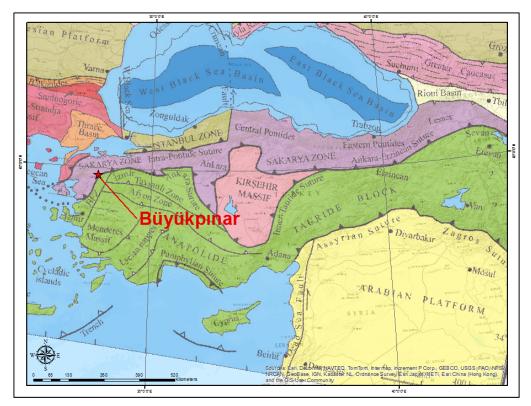
The Büyükpınar project is approximately 150 km inland from the Aegean Sea and experiences a continental climate with cold winters and relatively dry summers with moderate to hot temperatures. Average temperatures range from 0°C in January to 22°C in July and August. Local rainfall data indicates average annual precipitation is 350 to 400 mm, which falls as rain during the summer months and snow during the winter months. The terrain around Büyükpınar ranges from 800 to 1,000 m amsl with moderate relief and rolling hills.

# 5.3 History

The Büyükpınar Project was held by Normandy Madencilik, A.S. (Normandy) between 1996 and 1997. During this time Normandy collected 10 BLEG, 130 stream sediment and 135 rock chip samples. Koza has no data from when Normandy held the project. Koza acquired the license in 2006.

# 5.4 Geology

The Büyükpınar Project is north of the İzmir-Ankara Suture in the southern margin of the Sakarya Terrane (Figure 5.4.1). This area is in the Western Anatolian Extensional Tectonic Province in a region characterized by low and high sulfidation epithermal deposits and porphyry copper deposits, which extends from north central Turkey to the Aegean Sea. In this area, Triassic age sedimentary rocks of the Çaltepe Formation consist of a mélange with large "exotic" limestone blocks that have been intruded by Cretaceous to Paleogene-age Ilica-Şamli Granite (Okay et al., 2004; Okay, 2008).



Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 5.4.1: Location of the Büyükpınar Project Relative to the Sakarya Terrane

Koza has identified four separate phases of the Ilica-Şamli Granite at Büyükpınar from outcrop and drilling. These are from earliest to latest stages:

- First Stage Porphyry Intrusive;
- Second Stage Microgranitic Intrusive;
- Third Stage Quartz Porphyry; and
- Fourth Stage Sub-volcanic phase.

Both the intrusive and the sedimentary rocks are covered in places by the Eocene-age Bağburun Group consisting of porphyritic andesite flows and pyroclastic material. The volcanic units exhibit propylitic and widespread argillic-silicic alteration in a halo over 1 km long at Büyükpınar.

Koza has identified three mineralization types at Büyükpınar:

- Epithermal:
  - Yaylacık Mineralization: Low Sulfidation Au-Ag;
  - o East of Gokmusa: High Sulfidation Au-As;
  - West of Gokmusa: Low Sulfidation Au; and
  - Sobucealan Mineralization: Intermediate Sulfidation Pb-Au-Ag.
- Porphyry:
  - o Gokmusa Porphyry: Cu-Au ± Mo; and
  - o Turplu Anomaly: Au-Cu-Mo.
- Carbonate Hosted:
  - Sobucealan Skarn Mineralization: Exsoskarn Pb-Zn±Cu-Au-Ag; and
  - Gokmusa Anomaly: Distal Skarn Au-Pb (at depth) Epidote-Amphibole Skarn.

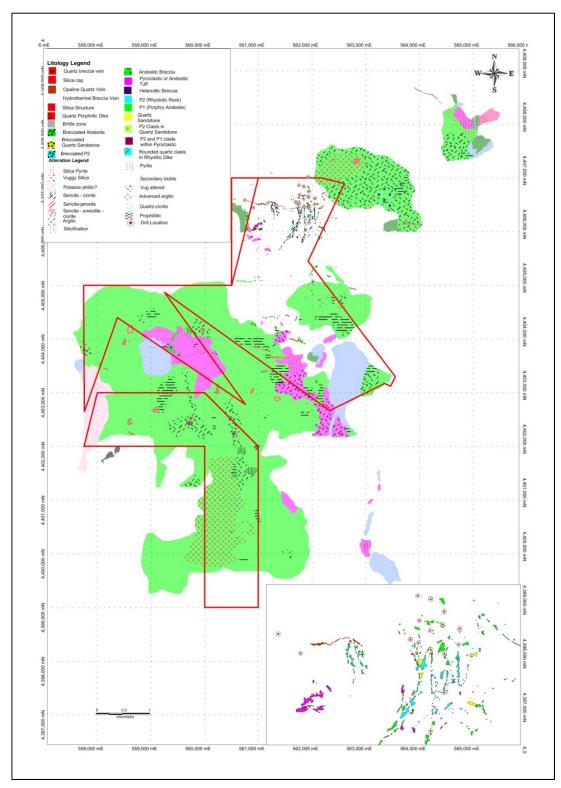
Koza has been focusing drilling on the porphyry and epithermal systems.

Within the alteration zone, detailed geological mapping has identified a predominantly east-west trending sub-vertical, structurally controlled silica breccia zone at the contact between the Çaltepe Formation and the Bağburun Group. The Ilica-Şamli Granite outcrops in two small areas at the site and has been further exposed in trenches. This silica breccia zone is interpreted as an epithermal vein zone in association with a porphyry system. This epithermal zone has a strike length of approximately 1.4 km with thicknesses ranging from less than 2 to 10 m. The breccia includes comb quartz, vug infill, carbonate replacement and structural breccias. The quartz content of the structure varies from 40 to 80% but rarely 100% (Kara, 2007).

Immediately south and adjacent to this epithermal vein system are alteration zones consistent with the top of a copper-gold porphyry system. This includes silicification with areas of strong argillic alteration extending over 1km from the vein zone, areas of pyrite concentration and quartz stockworks identified in trenches. Observations of copper oxidation (azurite and malachite) and iron oxides near springs draining the mineralized zone indicate the presence of copper and iron in the rocks (Kara, 2007).

In the silicified alteration zone southeast of the epithermal vein system, soil sample analyses for copper, gold and molybdenum show a strong correlation. This relationship was also seen in analysis of rock samples collected from the argillically altered porphyry intrusive mapped at the project. An IP geophysical survey has identified an area of elevated chargeability indicating the presence of sulfide minerals. The best mineralization may be at the margins in the intermediate chargeability responses,

which is where Koza has been targeting exploration on the Cu-Au-Mo porphyry. Figure 5.4.2 shows the geology of the Büyükpınar project.



Source: Koza, 2012 GIS

Figure 5.4.2: Büyükpınar Project Location Map

# 5.5 Exploration

Koza sampled near the property in 2006 collecting one stream sediment sample and 26 rock chip samples. Koza acquired the Büyükpınar in 2007. Since then Koza collected an additional 416 stream sediment, 1,624 rock chip and 2,606 soil samples. Koza has collected 1,065 channel, select chip and cut channel sample from eight trenches. Total trenching is 2,607 m. Koza has also mapped the project at various scales, completed geophysical surveys and drilling at the project.

## 5.5.1 Mapping

Koza completed regional mapping in the project area in 2006 at 1:25,000 and 1:10,000 scales. After acquiring Büyükpınar in 2007, Koza mapped mineralization and lithology at local scales of 1:5,000 and 1:2,000. Koza has also completed a PIMA mapping program to identify and delineate alteration at the project and has also mapped 2,607 m in eight trenches.

### 5.5.2 Geophysical Surveys

Koza has completed eight geophysical surveys over portions of the project area. This includes IP-resistivity surveys completed by Planetary Geophysics (Planetary) based in Queensland, Australia and CFT and ground magnetic surveys completed by Koza personnel. Table 5.5.2.1 lists the surveys completed at Büyükpınar.

Table 5.5.2.1: Geophysical Surveys Completed at Büyükpınar

Completed by	Year	Туре	Number of lines	Length of lines (m)	Spacing along lines (m)	Total line length (km)
Planetary	2008	IP	11	1,200	100	13.2
Koza	2010	Ground Mag	41	3,000	100	123
CFT	2010	IP	2	2,000	200	4.1
CFT	2010	IP	1	4,000	200	4
CFT	2010	IP	1	2,000	200	2
Koza	2011	Ground Mag	17	600	100	10.2
Koza	2011	Ground Mag	17	2,800	100	47.6
Planetary	2012	IP	4	1,550	200	6.45

Source: SRK, 2015

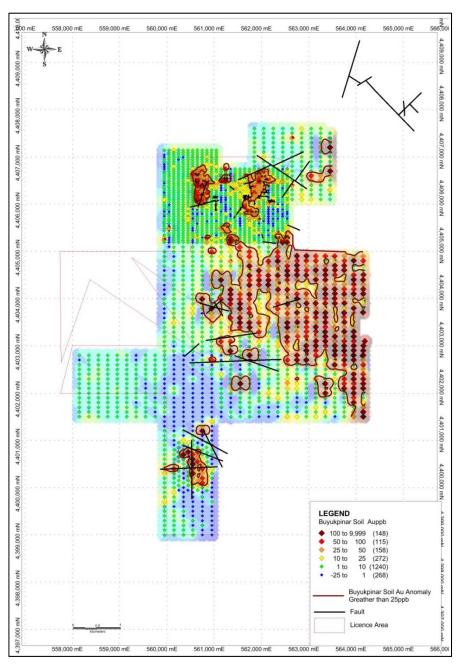
These geophysical surveys in conjunction with mapping and surface sampling have identified drilling targets at Urkut tepe. Koza drilled these targets between 2009 and 2012. Drilling is discussed in Section 5.5.4.

### 5.5.3 Sample Collection

Koza sampled near the property in 2006 collecting one stream sediment sample and 26 rock chip samples. After acquiring Büyükpınar in 2007, Koza collected an additional 416 stream sediment, 1,624 rock chip and 2,606 soil samples. Koza has collected 1,065 channel, select chip and cut channel sample from eight trenches. Total trenching is 2,607 m.

Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

Soil samples were collected in the Urkut tepe area over an approximately 2 km north-south by 2.5 km east-west area using a regular grid spacing of 50 m north-south by 100 m east-west. The grid was centered over the license area and covering areas of known mineralization and was extended to encompass known outcrops. South of Urkut tepe, the grid was expanded to 100 m north-south by 200 m east-west with a small 800 m by 1,000 m area where extra lines were added offset by 50 m north-south to the main grid. This 'diamond' pattern was over an outcropping mineralized zone. The majority of the license area has been covered by soil sampling. Figure 5.5.3.1 shows the soil sample grid with gold anomalies shown in ppb.



Source: Koza GIS, 2013

Figure 5.5.3.1: Soil Grid Map with Gold Anomalies Shown in ppb

Soil samples grids are oriented in the cardinal directions. The grids were designed to test for soil anomalies in the license area over. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected.

Rock chip samples were selective chip samples collected at locations across the width of the exposed veins and silica zones and were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along veins and were selected based on field conditions and accessibility to the vein.

Koza also collected 1,065 channel samples from eight trenches that were a combination of channel and rock chip samples. Rock chip samples were collected as discusses in the preceding paragraph. Channel samples are cut using a gas powered concrete saw with a diamond blade. Channel samples are typically 1 m long but vary in depth and width depending on field conditions and lithological contacts. Widths range from 5 to 15 cm and depths range from 15 to 20 cm. Sample weights range from 2 to 3 kg. Samples may be shorter or slightly longer than 1 m to accommodate changes in lithology.

### 5.5.4 Drilling

Between 2009 and 2012, Koza drilled 27, HQ-sized core holes totaling approximately 9,570 m at Urkut tepe targeting exposed mineralization, geophysical and soil anomalies. The first six drillholes totaling 2,508 m, were drilled between 2009 and 2010 by Pozitif Sondaj (Pozitif) based in Ankara, Turkey. During 2011 and 2012, Koza drilled 21 additional drillholes totaling 7,062 m. Spektra was the contractor for the second phase. Core recoveries averaged approximately 96% during the first drilling program and 98% during the second. Drillhole spacing is approximately 100 m.

Koza records drillhole data onto paper and collects recovery, rock quality designation (RQD), fracture counts, fracture orientation, quartz vein density, vein orientation, rock type, alteration and sulfide and oxide percentages. Data is then loaded into the computer for additional analysis. Sample intervals are selected by the geologist and are typically 1 m in length. Samples may be shorter or slightly longer than 1 m to accommodate changes in lithology. The core is cut in half lengthwise with  $\frac{1}{2}$  sent for assay and  $\frac{1}{2}$  archived for reference or future analysis.

### 5.5.5 Sample Preparation and Analysis

Core and exploration samples are held in the custody of Koza in a locked vehicle, a locked core logging facility or at the nearest mine site in a locked building until being shipped to the laboratory for analysis. Core samples are either delivered to the laboratory by Koza personnel or shipped via commercial trucking. This is industry best practice.

Soil, stream, rock chip and channel samples were submitted to ALS Vancouver for preparation and analysis. ALS Vancouver has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil and stream sediment samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil and stream sediment samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Soil and stream sediment samples were analyzed using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS). Because of the sample size, ME-MS41 is considered a semi-quantitative method for gold. Because of this Koza also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. The aqua regia digestion used in method ME-MS41 may not provide representative results for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 5.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

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ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Be	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
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ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

After drying using ALS code DRY-22, rock chip and channel samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Between 2009 and 2012, Koza submitted the drill core samples to ALS Vancouver for preparation and analysis. On arrival at ALS Vancouver, core samples were bar coded and entered into the LIMS. All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Core samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requested a larger split pulverized to help mitigate the nugget affect. A pulverization QC test was also performed during sample analysis.

Drillholes were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this

method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50 g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 5.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 5.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Be	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

## 5.5.6 Quality Assurance and Quality Control

Koza inserts sample blanks and preparation duplicates into the sample stream at a rate of one in every 30 samples and inserts CRMs at a rate of one in every 50 sample. Koza always use a minimum one CRM and one blank for every batch.

### **Certified Reference Materials**

Beginning with the 2009 drilling program, Büyükpınar used three different CRMs; two purchased from RockLabs in New Zealand and one purchased from Ore Research and Exploration (OREAS) based in Australia. The two RockLabs CRMs, OxE74 and OxG83, are for gold, while OREAS501 is certified for gold, copper, molybdenum, silver and sulfur of which, Koza monitors gold, copper and molybdenum. Koza uses a performance range of ±10% to evaluate the CRMs when there are a small number of analyses from ALS and ±2 standard deviations of the mean once there is a statistically meaningful data set. Table 5.5.6.1 presents the expected mean, standard deviations and summaries of the analyses of the gold CRMs. Table 5.5.6.2 provides the same information for copper and molybdenum for OREAS501.

Table 5.5.6.1: Results of Gold CRM Analyses at Büyükpınar

	Number	Expected (ppm)		Observed (ppm)		% of	Number	%
Standard	Samples	Mean	Std Dev	Mean	Std Dev	Expected	Failures	Failure Rate
OxE74	86	0.615	0.017	0.604	0.018	98.2	1	1.2
OxG83	92	1.002	0.027	1.005	0.032	100.3	6	6.5
OREAS501	17	0.204	0.011	0.202	0.007	99.0	0	0.0
Total	195						7	3.5

Source: Koza, 2012

Table 5.5.6.2: Results of Copper and Molybdenum for CRM OREAS501 at Büyükpınar

	Number		Expected (ppm)		Observed (ppm)		Number	%
Standard	Samples	Mean	Std Dev	Mean	Std Dev	% of Expected	Failures	Failure Rate
Copper	17	2710	80	2658	100	98	0	0
Molybdenum	17	59.2	2.1	57.3	2.3	97	0	0

Source: Koza, 2012

Overall there was a low failure rate for all CRMs. The CRM OxE74 performed low overall, with the lowest analytical results earlier in the drilling program where the failures occurred. However, later results for OxE74 were closer to the mean. The CRM OxG83 performed closer to the mean overall with both high and low failures. The copper, gold and molybdenum CRM, OREAS501, had only 17 analyses, and performed low for all three elements with no failures. Koza should continue to monitor this CRM. Koza should also verify that the analytical method used at its primary laboratory is one of the methods used to certify OREAS501. If the analytical methods do not match, it may cause the CRM to not perform as expected.

General industry practice is to use the following method for determining failures:

- If one analysis is outside of ±2 standard deviations it is a warning;
- Two or more consecutive analyses outside of ±2 standard deviations is a failure; and
- If an analysis is outside ±3 standard deviations it is a failure.

Analytical Solutions Ltd. (2013) reviewed Koza's current QA/QC practices and recommended using ±3 standard deviations as a failure threshold. The ±3 standard deviation threshold should not be more than 10% of the expected value. SRK supports this recommendation.

Koza investigates failures to determine why they occurred and takes action to correct problems. The results from the CRMs indicate that the laboratory is providing accurate data.

### **Blanks**

Sample blanks test for cross contamination during sample preparation and assaying and handling errors. Koza inserts one sample blank into every sample batch of 50 samples using pulp blanks up until June 2012 and preparation blanks after that. A blank failure is a result greater than five times the detection limit. Koza submitted 21 blanks with no failures. The results indicate that the laboratory does not have cross contamination problems during analysis.

### **Preparation Duplicates**

Preparation duplicates are created by taking a second split of the crushed sample (coarse reject) using the same method and collecting the same weight as the original sample. The objective is to determine if:

- Splitting procedures are applied consistently; and
- Changes are required for the crush size.

Koza sent 98 preparation duplicates to the primary laboratory for gold analysis. A summary of the analytical results are presented in Table 5.5.6.3.

Table 5.5.6.3: Summary of Duplicate Gold Analysis at Büyükpınar

Criteria	Number of Samples	Original>Dup	Dup>Original	Original = Dup	Within +/- 20%
All samples	00	49	37	15	72
All samples	98	47%	38%	15%	73%

Source: Koza, 2012

The results show a slight high bias to the original sample and a 27% failure rate for preparation duplicates. Failures are identified throughout the grade range. This could be related to a nugget effect. SRK recommends that Koza continue monitoring preparation duplicates. Given the failures, it may be necessary to change the amount of sample submitted for pulverization or to change homogenization. However, this is a limited database and more data should be collected. SRK also recommends tracking duplicate analysis for copper and molybdenum.

### **Pulp Duplicates**

Koza does not monitor pulp duplicates at this time. Pulp duplicates test the analytical reproducibility or precision of the analysis. SRK recommends that Koza add pulp duplicates to its QA/QC program.

### **Secondary Check Lab Analysis**

Koza has not sent any Büyükpınar check samples in the form of pulp duplicates to a secondary laboratory as verification of the primary laboratory's analytical results. SRK recommends that Koza add this type of QA/QC samples to its program. Check samples must be analyzed at the secondary laboratory using the same method as primary laboratory and CRMs must be submitted with the check samples.

### **QA/QC Conclusions**

Koza did no sampling during the 2013 and 2014 exploration programs at this project, since they were obtaining drilling permits. However, the following recommendations are appropriate for subsequent programs. Koza should also adopt using ±3 standard deviations as a failure threshold as long as this threshold does not exceed ±10% of the mean. A ±2 standard deviation can be used as a warning or a failure should to consecutive samples exceed this threshold. Other recommendations include additions to database management to track QA/QC with method codes, laboratory certificates, dates, and changes to the database to reflect repeats of QA/QC failures.

## 5.5.7 Exploration Budget

Core logging to date suggests that Koza may be exploring near the center of the Gokmusa porphyry system. Koza has also identified another porphyry target, Turplu, approximately 5 km south of Büyükpınar within the license held by Koza. This new target has gold, copper and molybdenum anomalies covering a 400 m x 800 m area.

Koza plans to conduct additional geophysics and drilling at Büyükpinar during 2015. The exploration budget of TL1.5 million (US\$667,000) and includes managing permits and leases on the licenses. It is SRK's opinion that the budget is adequate for these activities. SRK is of the opinion that exploration at Büyükpınar is appropriate for the deposit type and that Koza is using industry standard exploration practices at the project.

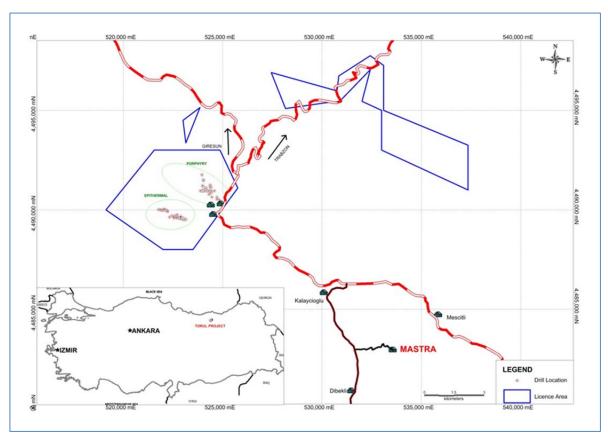
## 5.6 Environmental

The Manyas Reservoir is approximately 4 km from the license area. The reservoir is constructed for flood protection, power generation, and irrigation water supply. Manyas Lake, which is downstream of the Manyas Reservoir and 32 km northwest of the license area, is a protected wetland under the international Ramsar Convention. Manyas Lake being a Ramsar site and home to several bird species can be considered as an environmental sensitivity for the project that may require further delineation during the future EIA permit studies. The significance of impacts of a future mine development and required environmental mitigation measures will need to be assessed with respect to the Manyas Lake. Koza has indicated that the EIA permit for this license was obtained on September 12, 2013.

# 6 Torul Exploration Project

# 6.1 Property Description and Location

The Torul Project is located approximately 13 km northwest of the Mastra Mine and immediately west of the village of Torul. The Torul village is located along E-97/D883 approximately 70 km south of Trabzon and 32 km northwest of Gümüşhane. The project is accessed by traveling west out of Torul on a series of mountain roads and is located at approximately UTM coordinates 4494000 N, 520000 E to 4487000 N, 525000 E in ED1950 Zone 37. The project includes operation license 7962 covering approximately 3,915 ha in three separate areas. Koza has a gold and silver mine permit covering 288 ha within 7962. Land tenure for Torul is shown in Figure 6.1.1.



Source: Koza, 2012 GIS

Figure 6.1.1: Torul Location and Land Tenure Map

Koza is currently exploring two targets on the southwestern portion of the license area. These are an intermediate sulfidation Au-Ag epithermal deposit to the south and a Cu-Au porphyry deposit to the north.

# 6.2 Climate and Physiography

Torul is located in the Mastra District close to the Mastra Mine and shares the same climate. The Mastra Mine is located on the leeward side of the mountains and experiences a typical continental

climate. These areas are in a semi-rain shadow, where precipitation from the Black Sea is frequently blocked by the mountain range between Gümüşhane and Trabzon. During the summer months from June to September, the weather is hot and dry. Temperatures have reached 36°C in July at Gümüşhane with average temperatures around 20°C. Winters are cold and snowy with average temperatures around -3°C for Gümüşhane. Minimum winter temperatures at the Mastra Mine have been reported to -24°C. Annual precipitation is reported to be 400 mm per year falling as rain in the summer and as snow in winter. Most of the rainfall occurs during March, April and May. Torul is located in areas of steep mountainous topography between 1,000 and 1,500 m amsl. The terrain is steep and rugged with high relief.

# 6.3 History

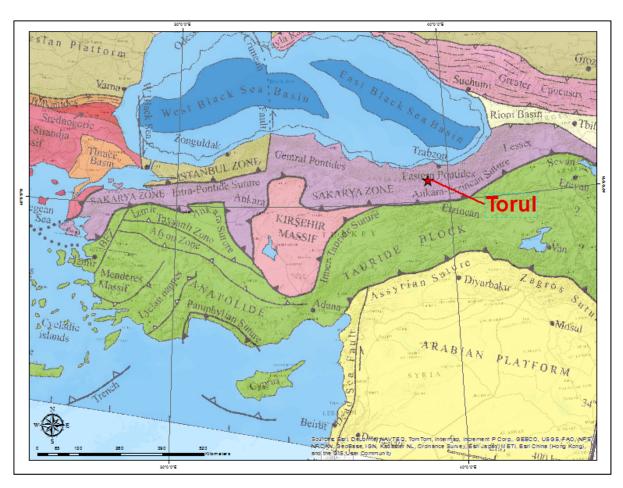
The intermediate sulfidation Au-Ag epithermal deposit also referred to as Torul South or Torul 2 was held and explored by Eurogold between 1990 and 2001, Normandy between 2001 and 2003 and Newmont between 2003 and 2007. Koza obtained the project in 2007 and has 100% ownership. Previous operators did not identify the potential for a Cu-Au porphyry deposit to the north within the license area. Koza has identified and explored this potential

Work by Eurogold included extensive stream sediment sampling in 47 BLEG samples and 159 rock chip samples. The property was explored in 2003 by Normandy who collected approximately 20 soil samples and took 11 additional rock chip samples. Newmont held the property from 2003 until 2007 when Koza acquired the project.

# 6.4 Geology

#### **Regional Geology**

Torul is located in the Mastra District. The Mastra District is within the Sakarya Terrane north of the Ankara-Erzincan Suture. This terrane is located in the eastern part of the Pontide Tectonic Belt in the Pontide island arc complex. This island arc formed during subduction of the African Plate under the Eurasian Plate between the Jurassic and Miocene (Okay et al., 2004; Okay, 2008). Figure 6.4.1 shows Torul in the Sarkarya Terrane.

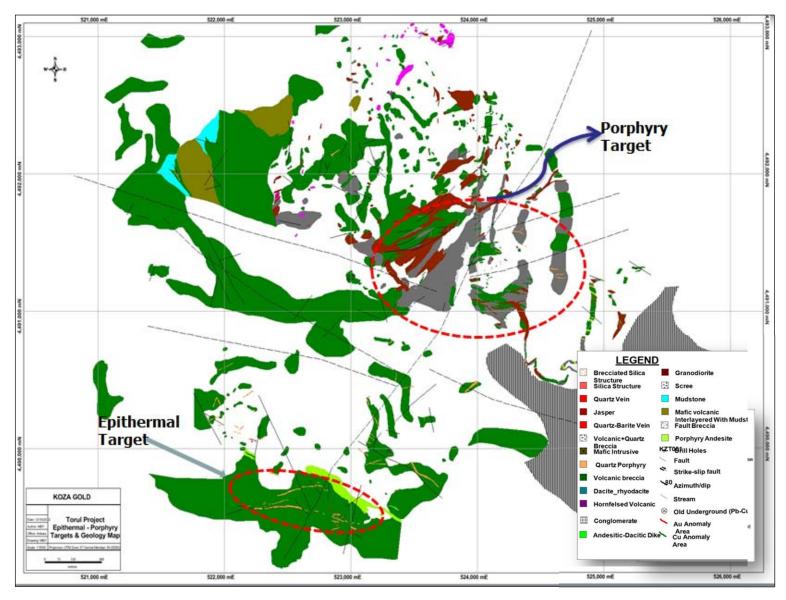


Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 6.4.1: Location of the Torul Project Relative to the Sarkarya Terrane

The oldest units in the area are Paleozoic age metamorphic rocks, which have been intruded by the Permian age, Gümüşhane granitoid suite. These rocks are unconformably overlain by basalt and andesite lavas of Liassic age, which are in turn overlain by Jurassic and Cretaceous age limestone. All of these units have been intruded by the Cretaceous age Kaçlar granitoid and finally capped by Eocene age andesite flows and pyroclastic rocks of the Kabakoy Formation (Tüyüz, et al., 1995).

There are two exploration targets at Torul; an intermediate sulfidation Au-Ag epithermal vein zone and a Cu-Au porphyry. Both porphyry intrusives and quartz veining are found predominantly along a regional scale, northwest structural zone. It is thought that this structural zone may be a strike-slip fault related to other regional structures (Chapman, 2007). Figure 6.4.2 shows the regional geology of the Torul project.



Source: Koza Exploration Presentation, 2012a

Figure 6.4.2: Torul Regional Geology Map

#### **Local Geology Torul North**

Torul North is in an early stage of exploration, but is interpreted by Koza to be part of the regional mineralizing event that produced mineralization at the Mastra Mine. Torul North is interpreted as having a Cu-Au porphyry association. Recent exploration in the northern portion of the project area has identified alteration and rock types consistent with a porphyry deposit. This includes propylitically-altered granodiorite distal to a central area featuring a quartz-eye porphyry. Quartz-eye porphyries, while not necessarily mineralized, are an important exploration indicator and are often found over and relatively central to Cu and Cu-Au porphyry systems.

Torul North is covered by Eocene age flysch that has been hornfelsed by various intrusions, including diorite and granodiorite dikes. There are also andesite and dacite rocks in the area, and cross-cutting mafic volcanic units, as well as a late quartz porphyry. The diorite and granodiorite are observed as NNE-trending dikes, typically found with a mineralized breccia at the dike margin. Koza has also found veins up to 1 m in thickness with malachite staining, azurite, chalcopyrite, chalcocite and possible copper wad.

Exploration efforts at Torul North are focused on a ground magnetic anomaly that is approximately 1 km in diameter. This anomaly is generally a magnetic high with a distinct linear low that is approximately 700 m N-S crosscutting the high anomaly. Koza is interpreting the linear magnetic low as possible magnetite destruction resulting from overprinting by quartz-illite-pyrite alteration relating to porphyry mineralization. This magnetic high is coincident with gold, copper and molybdenum anomalies. Torul North project geology is shown if Figure 6.4.3.

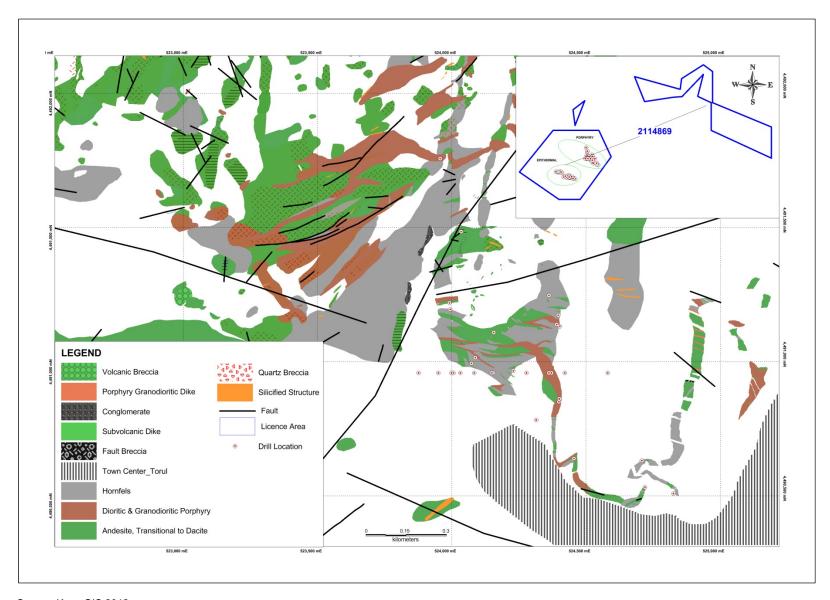


Figure 6.4.3: Torul North Project Geology

#### **Local Geology Torul South**

The southern part of the Torul exploration area (Torul South/Torul 2) is similar to mineralization at the Mastra Mine displaying the same type of alteration and mineralization characteristics. Torul South is described as a structurally controlled intermediate sulfidation epithermal system located near the contact between andesite flows and an intrusive quartz monzonite porphyry. Multi-phase dacite dikes and a diorite dike are also found in association with the mineralization. In the south and southeast of Torul South, mineralization and alteration is spatially related to two sub-parallel faults that strike between N65°E and N80°W. Quartz veins, silica structures and silica breccia zones are located on both the hanging wall and footwall of these faults and are parallel to subparallel to the fault trend. In places, the veins, silica zones and breccias are within 15° of the main fault zones suggesting Riedel shears and related to the strike-slip movement.

These faults and associated mineralization are cross cut by two sets of relatively barren fault zones. The first set of faults strikes between N15°E to N30°E. These can be traced over the greatest distance and do not appear to offset the Au-Ag mineralized system. The second set of faults strikes N40°W. In places, the second set of faulting offsets the mineralized zone by 0 to 10 m. A third set of faults is found between the two main mineralized zones. The third set of faults strikes N50°E and in places have small poorly developed vein zones spatially related and subparallel to them.

Alteration consists of silicification adjacent to the southern mineralized zone and a more extensive argillic alteration zone encompassing the eastern part of the two mineralized zones at Torul South and extending toward the northwest end of the property. The northwest end of the property is still in the preliminary stages of mapping. However, a quartz vein with a strike of N55°W and four silicified structures (one striking N65°E, one striking N15°E, and two striking N30-60°W) have been mapped. No alteration zoning has been mapped around these veins and they are most likely distal to the main porphyry system identified to the north.

The quartz veins at Torul South have drusy overgrowths and bladed barite crystals as well as disseminated pyrite, sphalerite, galena, and chalcopyrite. The presence of galena and sphalerite in these veins suggest that they are outside of the core area of the porphyry system. Porphyry deposits are zoned with base metals along the edges. Sulfide minerals are also found in the breccias and the silica structures. The mineralized zones at Torul South extend over an area of approximately 800 m by 250 m in the southeast and 300 m x 200 m in the northwest. Both areas remain open at depth and along strike. The geology of the Torul South project is shown in Figure 6.4.4.

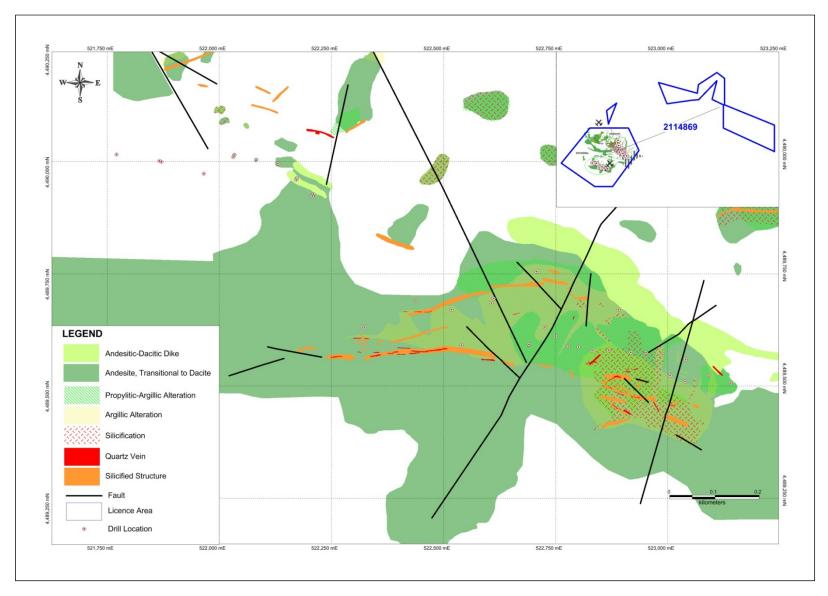


Figure 6.4.4: Torul South Geology Map

# 6.5 Exploration

Koza conducted exploration on the project in 2006 as part of its acquisition and acquired the project in 2007.

#### **Torul North**

At Torul North, the porphyry target, Koza has also collected 29 stream sediment, 374 soil, 240 rock chip channel and 399 continuous chip channel samples and has mapped parts of the project area on local and regional scales. Koza has completed a ground magnetic survey and drilled eight core holes totaling approximately 4,703 m.

### **Torul South/Torul 2**

At Torul South, the epithermal target, Koza has collected 29 stream sediment samples, 358 soil samples, 93 rock chip samples and drilled 51 core holes totaling approximately 9,006 m. Koza has mapped the project area at local and regional scales. It has also completed geophysics including a IP survey over the target and a ground magnetic survey.

## 6.5.1 Mapping

#### **Torul North**

Koza has mapped parts of the project area at 1:2,000, 1:5,000 and 1:10,000 scales. This includes local and regional scales in order to better target exploration drilling. Mapping has been focused on vein outcrops, structure, lithology and alteration. Mapping is appropriate for the target mineralization.

#### **Torul South/Torul 2**

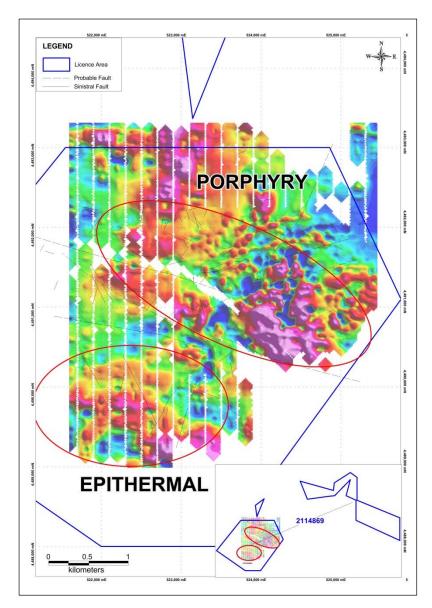
Koza has mapped parts of the project area at 1:1,000, 1:2,000, 1:5,000 and 1:10,000 scales. This includes local and regional scales in order to better target exploration drilling. Mapping has been focused on locating stockwork, structure, lithology and alteration. Mapping is appropriate for the target mineralization.

## 6.5.2 Geophysical Surveys

#### **Torul North and Torul South/Torul 2**

Between, 2010 and 2011, Koza contracted CFT to complete and IP-resistivity survey over both Torul North and South. CFT completed five lines totaling 5.15 km of IP. Koza also completed a 70 km of ground magnetic survey covering both the north and south targets.

The magnetic survey shows highs in both the epithermal and the porphyry target areas and an additional anomaly to the northwest of the projects near the concession boundary. In the porphyry area, the magnetic high corresponds to the surface sample anomalies. The sample maps over the porphyry target area demonstrate positive correlation between the three metals present. Koza has only drilled eight drillholes in this area and will continue exploration by drilling. The geophysical anomalies show that there is potential outside the drilled area. Exploration potential for the Torul porphyry target is discussed in Section 13 .Figure 6.5.2.1 presents the magnetic survey results.



Magnetic highs are orange through magenta, magnetic lows are greens and blues Source: Koza GIS, 2013

Figure 6.5.2.1: Torul Magnetic Survey Map

## 6.5.3 Sample Collection

## **Torul North and Torul South/Torul 2**

Work by Eurogold included 47 BLEG stream sediment samples and 159 rock chip samples. The property was explored in 2003 by Normandy who collected approximately 20 soil samples and took 11 additional rock chip samples. Newmont held the property from 2003 until 2007 when Koza acquired the project. Koza does not have details of the previous sample collection, but it was likely industry practice at the time. Koza has resampled the area as confirmation of the original results.

Koza collected 29 stream sediment samples in 2006 at Torul North and another 29 at Torul South/Torul 2. Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

In 2007, Koza collected 358 soil samples at Torul South/Torul 2. Between 2008 and 2009, Koza collected 374 samples and Torul North.

At Torul South/Torul 2, soil samples were collected over an approximate 1 km north-south by 1.75 km east-west area using a regular grid spacing of 100 m north-south by 50 m east-west. Samples were not collected where soil was not present. The grid was centered north of the drilling and mapped outcrop to explore for hidden targets. At Torul North soil samples were collected over an approximate 2.5 km north-south by 3 km east-west area using a regular grid spacing of 100 m north-south by 200 m east-west. The soil grid was positioned to sample over the magnetic anomalies identified during the geophysical surveys. Both soil grids were oriented in the cardinal directions. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected. Figures 6.5.3.1 and 6.5.3.2 show the soil sample grid with gold and copper results at Torul South/Torul 2, respectively. Figures 6.5.3.3 through 6.5.3.5 show the soil sample grid for Torul North with copper, gold and molybdenum, respectively. The surface sample maps for Torul South show anomalous areas to the north of the current drillhole locations. These areas are additional exploration targets for Torul South. Koza will target drillholes at Torul South based on the gold anomalies during the next drilling program.

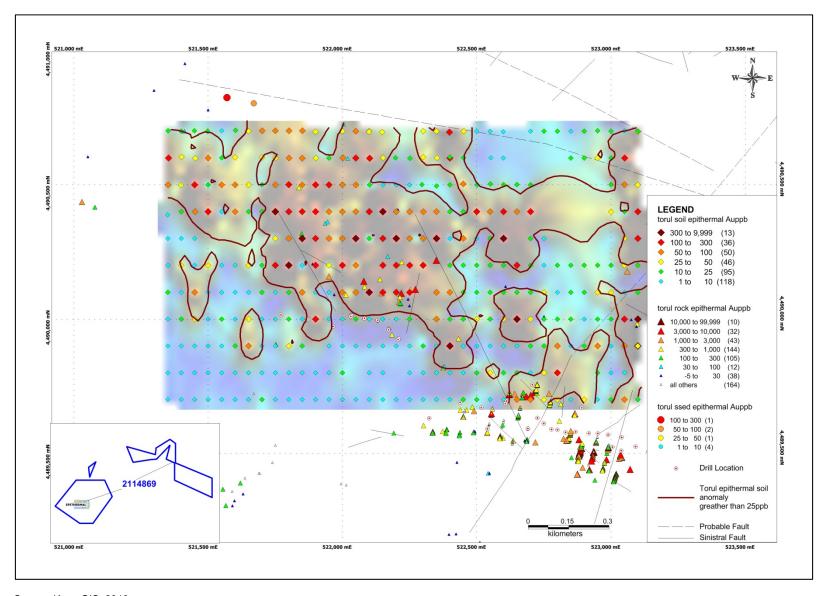


Figure 6.5.3.1: Torul South Surface Sample Map with Gold Soil Samples in ppb

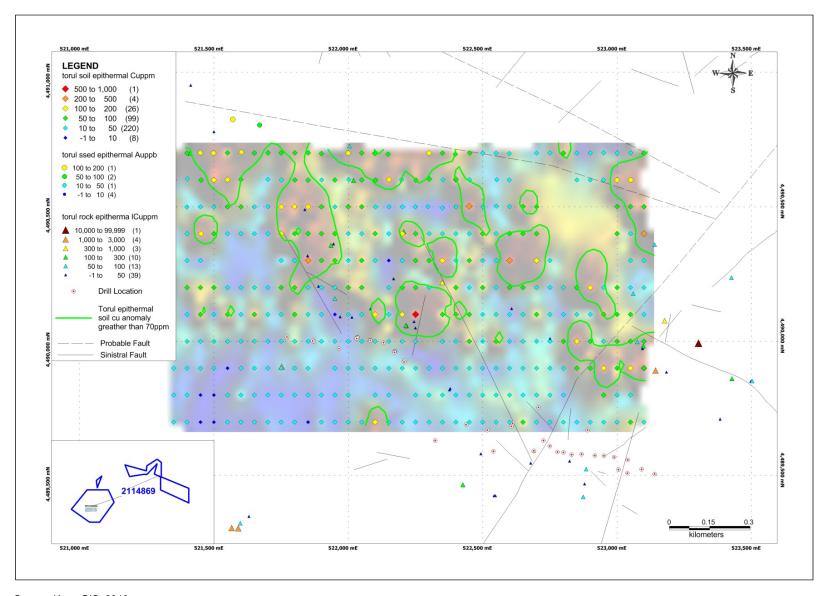


Figure 6.5.3.2: Torul South Surface Sample Map with a Contour for Copper Soil Samples >5 ppm (0.005%)

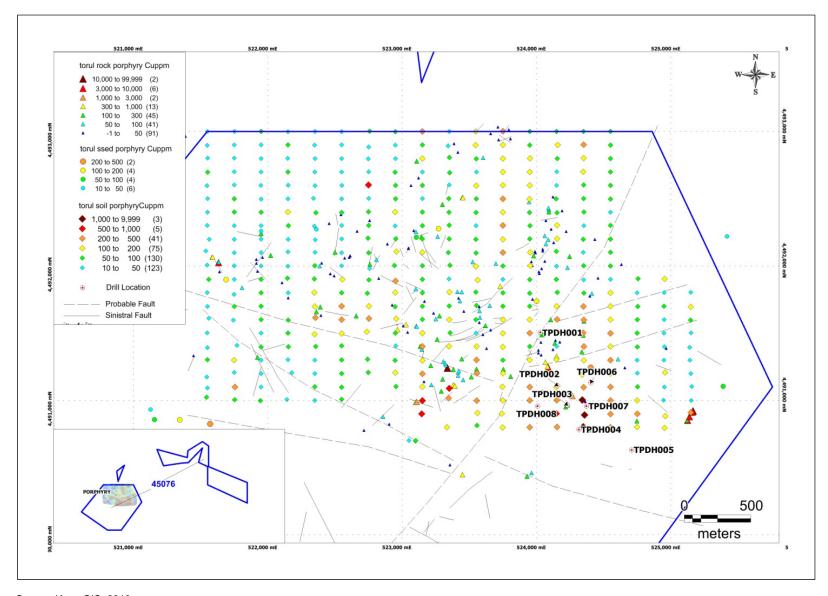


Figure 6.5.3.3: Torul North Surface Sample Map with Copper Soil Samples—Note >70 ppm is 0.007%

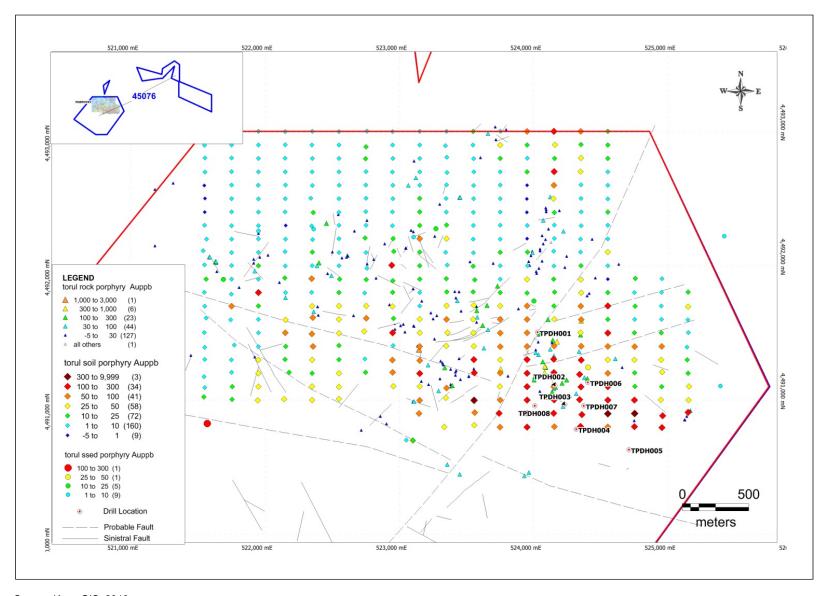


Figure 6.5.3.4: Torul North Surface Sample Map with Gold Soil Samples—Note >25 ppb = 0.025 ppm)

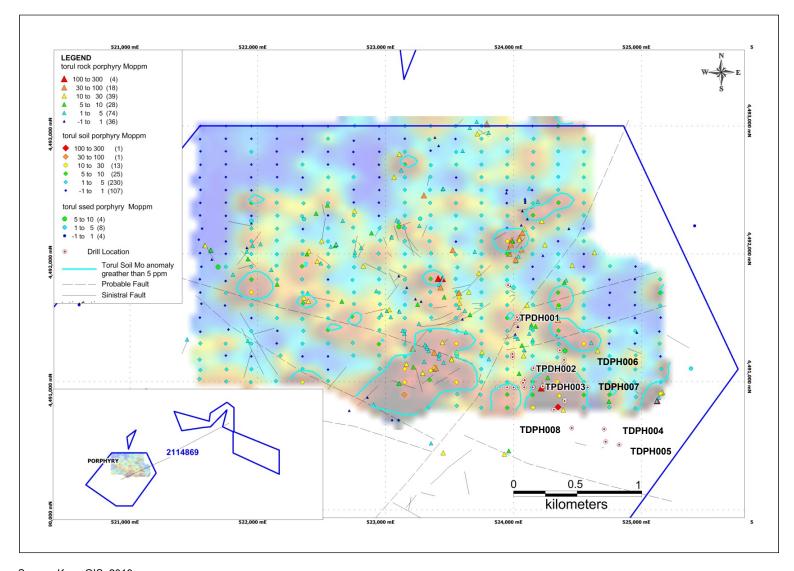


Figure 6.5.3.5: Torul North Surface Sample Map with a Contour for Molybdenum Soil Samples >5 ppm (0.005%)

There were 93 rock chip channel collected at Torul South/Torul 2 between 2007 and 2012 and 240 rock chip channel collected at Torul North. These are chip samples collected perpendicular to mineralized structures. Koza also collected 399 continuous chip samples at Torul North. A continuous chip channel sample is not a cut channel sample but is collected to be as representative of a channel sample as possible. Rock chip and chip channel samples were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along the structures trend and were selected based on field observations, conditions and accessibility to the structures and veins.

## 6.5.4 Drilling

#### **Torul North and Torul South/Torul 2**

Koza drilled at Torul North between 2011 and 2012. A total of 4,703 m was drilled in eight drillholes. The drilling contractor was Spektra and core recoveries averaged 96%. Koza records core information onto paper logs and transfers the data into the computer after logging is complete. Additional, drilling has been planned along a 1 km fence at 50 m intervals with step-out drilling to the north and south at approximately 250 m.

Koza drilled nine drillholes in 2006 as part of their assessment of the project and another 33 drillholes between 2011 and 2012. Total drilled at Torul South/Torul 2 was 9,005.9 m of HQ-sized core. Spektra drilling was the drilling contractor for both drilling projects and achieved approximately 98% core recovery.

At both targets, Koza uses the same logging and sampling methodologies. Data captured during core logging includes core recovery, RQD, fractures counts and orientation, quartz vein density and orientation, rock type alteration and sulfide and oxide percentages. Koza also examined the core for magnetic susceptibility. Core samples are selected and marked by the geologist. Sample intervals are selected by the geologist and are typically 1 m in length. Samples may be shorter or slightly longer than 1 m to accommodate changes in lithology. The core is cut in half lengthwise with ½ sent for assay and ½ archived for reference or future analysis.

## 6.5.5 Sample Preparation and Analysis

All samples are held in the custody of Koza until they are shipped to the laboratory for analysis in a locked vehicle, in a locked core logging facility or at the nearest mine site in a locked building. Core samples are either delivered to the laboratory by Koza personnel or shipped via commercial trucking. This is industry best practice.

Soil and stream sediment samples collected in 2006 and 2007 were submitted to ALS Vancouver for preparation and analysis. ALS Vancouver has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil and stream sediment samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil and sediment samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Soil and sediment samples were analyzed using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS). Because of the sample size, ME-MS41 is considered a semi-quantitative method for gold. Because of this Koza also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. The aqua regia digestion used in method ME-MS41 may not provide representative results for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 6.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

Table 6.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-ICP22	Au	0.001-10	ME-MS41	Hf	0.02-500	ME-MS41	Sc	0.1-10,000
ME-MS41	Ag	0.01-100	ME-MS41	Hg	0.01-10,000	ME-MS41	Se	0.2-1,000
ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Be	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

After drying using ALS code DRY-22, rock chip and channel samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Rock chip channel, continuous chip channel and core samples collected between, 2009 and 2012, were prepared at two different locations. These were the ALS laboratory in İzmir, Turkey (ALS İzmir) and at Koza's Mastra Mine laboratory. Analysis was conducted at various laboratories. The ALS Vancouver laboratory conducted ICP multi-element analysis, ALS at Gura Rosiei, Rosia Montana, Romania (ALS Romania) conducted gold FA analysis and the Mastra Mine laboratory conducted gold and silver analysis by AAS. ALS Vancouver and ALS Romania have ISO 17025 accreditation for specific analytical methods through the Standards Council of Canada. ALS Vancouver's accreditation is valid through May 18, 2017 and ALS Romania's is valid through March 27, 2016. Mastra Mine laboratory has no external certification.

On arrival at ALS İzmir rock chip channel, continuous chip channel and core samples were bar coded and entered into the LIMS. All samples were dried to a maximum temperature of 60°C in order

to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Core samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requested a larger split pulverized to help mitigate the nugget affect. A pulverization QC test was also performed during sample analysis. Sample pulps were then shipped to ALS Vancouver for ICP multi-element analysis and ALS Romania for gold FA. If samples were sent to the Mastra Mine lab, they were prepared on site and analyzed for gold and silver.

Rock samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 6.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41, Au-AA24, and Mastra DIBK-AR for gold and AR for Ag.

Table 6.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41, Au-AA24 and Mastra DIBK-AR for Au and AR for Ag in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sc	1-10,000
Hg-CV41	Hg	0.01-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sr	1-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	K	0.01-10%	ME-ICP61m	Th	20-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	La	10-10,000	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	As	5-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	TI	10-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ве	0.5-1,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	V	1-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Na	0.01-10%	ME-ICP61m	W	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Ni	1-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Р	10-10,000	Mastra	Au	0.1*
ME-ICP61m	Со	1-10,000	ME-ICP61m	Pb	2-10,000	Mastra	Ag	0.2*
ME-ICP61m	Cr	1-10,000	ME-ICP61m	S	0.01-10%			
ME-ICP61m	Cu	1-10,000	ME-ICP61m	Sb	5-10,000			

Source: ALS Global, 2014

## 6.5.6 Quality Assurance and Quality Control

Koza inserts sample blanks and preparation duplicates into the sample stream at a rate of one in every 30 samples and CRMs are inserted at a rate of one in every 50 sample for soil and stream sediment sampling. Koza always uses a minimum of one CRM for every batch of soil, stream sediment and outcrop samples.

#### **Certified Reference Materials**

Koza has used three different Certified Reference Materials (CRMs); two purchased from RockLabs in New Zealand and one produced in-house by Koza from material collected at the Mastra Mine. These CRMs were used for both Torul North and South and were provided as a single database, without identification as to which data applied to which project. SRK recommends that the QA/QC data be separated by project and mineralization type. Koza uses a performance range of ±10% to evaluate the CRMs when there are a small number of analyses from ALS and ±2 standard deviations

<sup>\*</sup>Represents the lower detection limit; Source Koza, 2014.

of the mean once there is a statistically meaningful data set. Table 6.5.7.1 presents the expected mean, standard deviations and summaries of the analyses of the gold CRMs.

Table 6.5.7.1: Results of Gold CRM Analyses at Torul

	Number Expected (ppm)		Observed (ppm)		% of	Number	% Failure	
Standard	of Samples	Mean	Std Dev	Mean	Std Dev	Expected	Failures	Rate
SF45	4	0.848	0.028	0.862	0.025	101.7	0	0.0
SE58	106	0.607	0.019	0.598	0.018	98.5	2	2
MA05	1	2.420	0.027	2.400	NA	99.2	0	0.0
Total	111						2	2

Source: Koza, 2012

There were two failures in SE58. This CRM performed low overall, but the failures occurred during a period where the CRM performed unusually high. There were few CRM analyses for SF45 and MA05 and SRK suspects that these are from the most recent drilling program at Torul North and there are two few samples at this time to assess overall performance other than there were no failures. Koza investigates all failures and determines a course of action to correct any problems.

The CRMs should be selected to best fit the mineralization and analytical method used. SRK recommends confirming that the CRMs are appropriate for both epithermal and porphyry deposits and separate the CRM by deposit for monitoring. In reference to Torul North, SRK also recommends monitoring CRMs for copper and possibly molybdenum. The results demonstrate that the laboratory is providing Koza with accurate results.

General industry practice is to use the following method for determining failures:

- If one analysis is outside of ±2 standard deviations it is a warning;
- Two or more consecutive analyses outside of ±2 standard deviations is a failure; and
- If an analysis is outside ±3 standard deviations it is a failure.

Analytical Solutions Ltd. (2013), of Toronto, Canada reviewed Koza's current QA/QC practices and recommended using ±3 standard deviations as a failure threshold. The ±3 standard deviation threshold should not be more than 10% of the expected value.

### **Blanks**

Sample blanks test for cross contamination during sample preparation and assaying and handling errors. Koza inserts one sample blank into every sample batch of 50 samples using pulp blanks up until June 2012 and preparation blanks after that. A blank failure is a result greater than five times the detection limit. Koza submitted 37 blank samples with no failures. The results indicate that the laboratory does not have cross contamination problems during analysis.

#### **Preparation Duplicates**

Preparation duplicates are created by taking a second split of the crushed sample (coarse reject) using the same method and collecting the same weight as the original sample. The objective is to determine if:

- Splitting procedures are applied consistently; and
- Changes are required for the crush size.

Koza sent 45 preparation duplicate samples to the primary laboratory for gold analysis. A summary of the analytical results are presented in Table 6.5.7.2. The results indicate that Torul preparation duplicates are performing well.

Table 6.5.7.2: Summary of Duplicate Au Analysis at Torul

Criteria	Number of Samples	Original>Dup	Dup>Original	Original = Dup	Within +/- 20%
All samples	45	10	15	20	43
		22%	33%	44%	96%

Source: Koza. 2012

The results are relatively unbiased and there are almost no failures. However, since the data is for both types of mineralization and there are only 45 samples this is not sufficient to determine if the preparation is appropriate. SRK recommends that Koza continue submitting preparation samples for any drilling at either Torul North or Torul South and that the databases be monitored separately to assess preparation procedures for the two deposit types.

#### **Pulp Duplicates**

Koza does not submit pulp duplicates at this time. Pulp duplicates test the analytical reproducibility or precision of the analysis. SRK recommends that Koza add pulp duplicates to its QA/QC program.

### **Secondary Check Lab Analysis**

Koza has not sent any Torul check samples in the form of pulp duplicates to a secondary laboratory as verification of the primary laboratory's analytical results. SRK recommends that Koza add this type of QA/QC samples to its program. Check samples must be analyzed at the secondary laboratory using the same method as primary laboratory and CRMs must be submitted with the check samples.

#### **QA/QC Conclusions**

Koza did no sampling during the 2013 and 2014 exploration programs at this project. However, Koza should adopt using  $\pm 3$  standard deviations as a failure threshold as long as this threshold does not exceed  $\pm 10\%$  of the mean. A  $\pm 2$  standard deviation can be used as a warning or a failure should to consecutive samples exceed this threshold. Other recommendations included additions to database management to track QA/QC with method codes, laboratory certificates, dates, and changes to the database to reflect repeats of QA/QC failures. Additional CRMS are also recommended.

## 6.5.7 Exploration Budget

Koza has budgeted TL1.0 million (US\$453,000) for exploration at both the north and south projects. This will include additional drilling. SRK is of the opinion that the drillhole budget will need to be reassessed once permits are acquired for drilling at both projects.

#### 6.6 Environmental

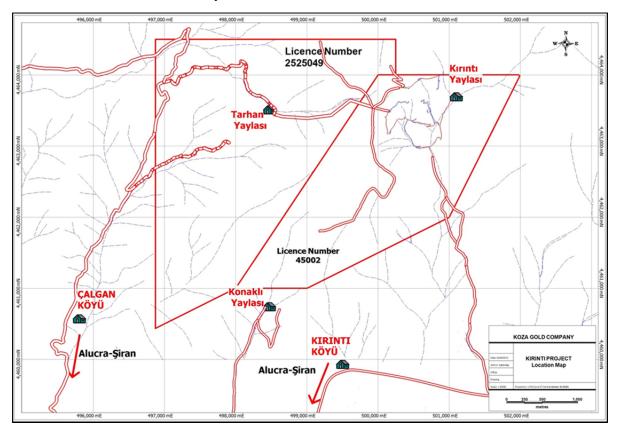
The closest areas with environmental sensitivity are designated forest recreation areas that are located 5 to 10 km from the site. Other areas with particular protection status (that is nature parks, etc.) are located further than 20 km from the license area. Koza received an EIA permit exemption

for this license in 2007 for the Torul property. There was a five year time limit on this and the EIA permit exemption expired on August 15<sup>-</sup> 2012.

# 7 Kırıntı Exploration Project

# 7.1 Property Description and Location

The Kırıntı is a Cu-Au porphyry project located in the Pontide (Kaçkar) Mountains near Kırıntı village, Gümüşhane Province in northeastern Turkey. The project is accessed from the town of Gümüşhane by taking Highway 29-50 to DO40 and then west to Şiran. From Şiran, Kırıntı is approximately 15 km northwest along mountain roads. The project area is located between UTM coordinates 4464000 N, 500000 E to 4461000 N, 498000 E in ED1950 Zone 37. Koza has one operation license at the Kırıntı Project. The operation license number is 45002, which comprises approximately 599.98 ha and includes a 8.13 ha gold and silver permit (Figure 7.1.1). Koza is referring to this area as the Şiran District. SRK visited the Kırıntı Project at 2012 summer time.



Source: Koza, 2013 GIS

Figure 7.1.1: Kırıntı Location Map

# 7.2 Climate and Physiography

The Kırıntı Project is located approximately 40 km southwest of the Mastra Mine and shares a similar continental climate. The Kırıntı Project is located in a semi-rain shadow, where precipitation is frequently blocked by the Kaçkar Mountains. During the summer months from June to September, the weather is hot and dry. Temperatures have reached 31°C in July at Şiran with average temperatures around 28°C. Winters are cold and snowy with average temperatures around -4°C for

Şiran. Minimum winter temperatures at the Mastra Mine have been reported to -24°C. Annual precipitation is reported to be between 239 and 735 mm per year falling as rain in the summer and as snow in winter. Most of the rainfall occurs during the spring. The Kırıntı Project is located in areas of mountainous topography between 1,700 and 2,500 m amsl. The terrain in places is steep with high relief.

# 7.3 History

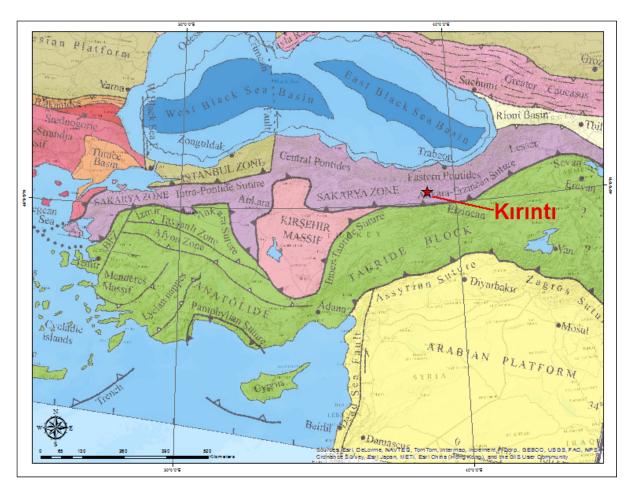
The Kırıntı Project area has been known since historic times. Koza has identified three historic excavations on the license. Two are located in the southwest part of the license area where copper was recovered and one on the northwest part of the property where Koza is of the opinion that gold was recovered.

The license was the subject of Joint Venture between Yeni Anadolu Mineral Madencilik Sanayi ve Ticaret Ltd. Sirketi (YAMAS) and an undisclosed license owner from 2003 to 2007. During that time, the Joint Venture completed 54 channel and rock chip samples, 525 systematic and semi-systematic soil samples, 4 km² of mapping at an unknown scale, a Pole-dipoles IP survey covering 8.75 km², ground magnetic survey coving 12 km² and completed 7 diamond drillholes of HQ-sized core totaling approximately 1,461. Koza acquired the license from the owner in May 2010, after expiration of the Joint Venture agreement. Koza has reviewed the available data, but does not have details on sample collection and analysis. Since acquisition, Koza has conducted additional sampling to confirm the previous results.

# 7.4 Geology

## 7.4.1 Regional Geology

The Şiran District is located in northeastern Turkey approximately 60 km SSW of Gümüşhane. This area is within the Sakarya Terrane north of the Ankara-Erzincan Suture (Figure 7.4.1.1). This terrane is located in the eastern part of the Pontide Tectonic Belt in the Pontide island arc complex. This island arc formed during subduction of the African Plate under the Eurasian Plate between the Jurassic and Miocene. The Pontide Tectonic Belt is a sub-province of the Tethyan Metallogenic Province. The Pontide Tectonic Belt is commonly known to host kuroko-type massive sulfide deposits (Okay, 2008). The oldest units in the area are Paleozoic age metamorphic rocks, which have been intruded by the Permian age, Gümüşhane granitoid suite. These rocks are unconformably overlain by basalt and andesite lavas of Liassic age, which are in turn overlain by Jurassic and Cretaceous age limestone. All of these units have been intruded by the Cretaceous age Kaçlar granitoid and finally capped by Eocene age andesite flows and pyroclastic rocks of the Kabakoy Formation (Tüyüz, et al., 1995).

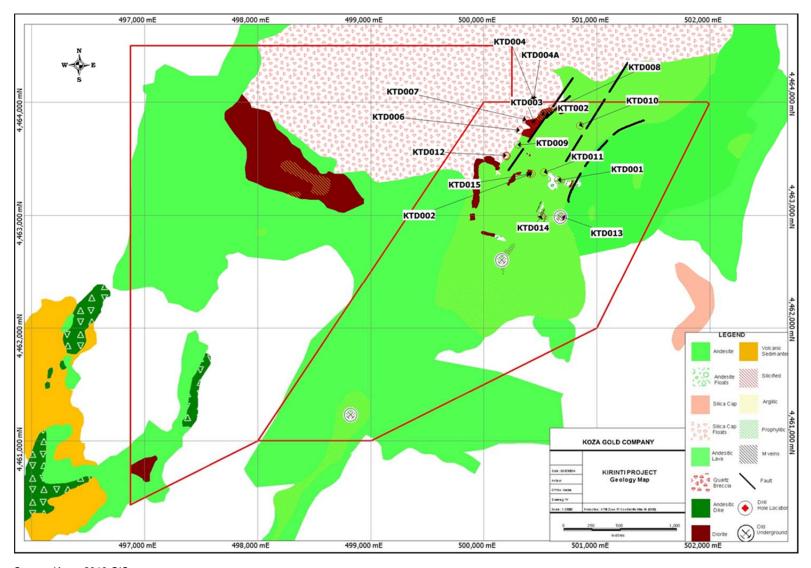


Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 7.4.1.1: Location of Kırıntı Project Relative to the Sakarya Terrane

## 7.4.2 Local Geology

Mapping within the license area has identified extensive propylitic alteration in andesite and pyroclastic rocks. Near the center of the license is an outcrop of granodiorite. Volcanic rocks around this outcrop exhibit phyllic to argillic alteration. On and around Burgubaba Hill is a northwest-southeast oriented silica cap covering an area of 2.2 km x 0.2 km. Massive boulders of silica cap material up to 10 m x 30 m in size have been shed off this zone. In the adjacent andesite, stockworks interpreted as high-temperature and networks of sheeted barite-rich, quartz veins have developed. Jarosite and vuggy quartz are also observed in the area. Regional tectonism has resulted in the development of echelon structures and structural mapping is an important part of ongoing exploration Drilling completed at the project as well as mapping observations indicate that mineralization at the Kırıntı Project is a high sulfidation mineralization associated with a porphyry system. Figure 7.4.2.1 presents the local geology with surface sample locations and both YAMAS and Koza drillhole locations.



Source: Koza, 2013 GIS

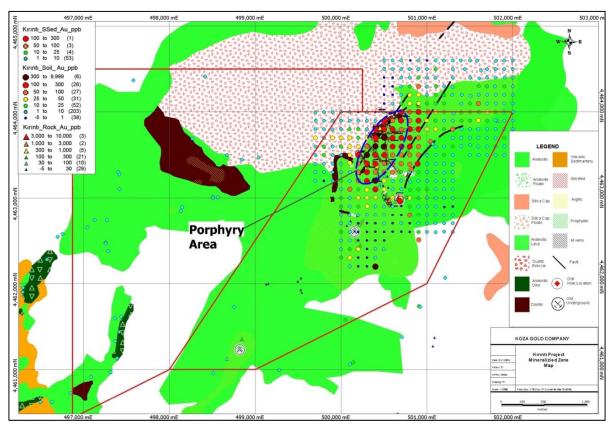
Figure 7.4.2.1: Kırıntı Geology Map with Drill Collar Locations

# 7.5 Exploration

Koza acquired the Kırıntı Project in 2010 and exploration work began in 2011. To date, Koza has completed detailed mapping at the perceived center of the mineralized system at a 1:2,000 scale, conducted a ground magnetic survey covering a 5.25 km² in an area 2.5 km x 2.1 km, and conducted a three line 6.7 km IP and resistivity geophysics survey. Additionally, 61 steam sediment, 393 soil, and 21 rock chip samples have been and collected and nine core holes with a total 5,078 m have been drilled.

## 7.5.1 Mapping

Koza has mapped the entire project area at 1:10,000 scale and local areas at 1:2,000 scale. The regional scale mapping was completed in 2010 and the local mapping in 2011. Figure 7.5.1.1 presents the 1:2000 scale map with soil grids and outcrop samples for gold in ppb. Shown on this map is the area Koza has identified as showing porphyry characteristics and potential.



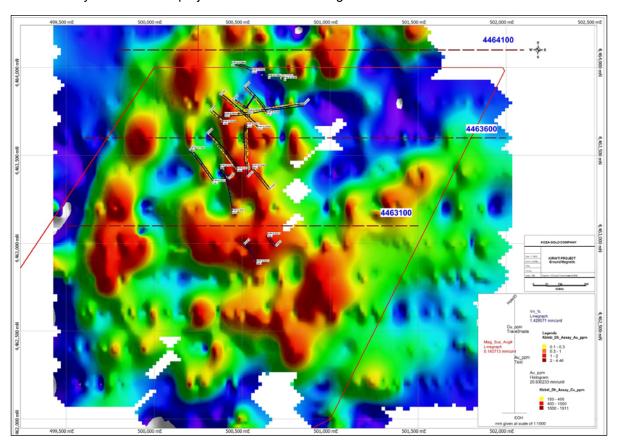
Source: Koza GIS, 2014

Figure 7.5.1.1: Kırıntı Surface Sample Map with Gold Soil Samples in ppb

## 7.5.2 Geophysical Surveys

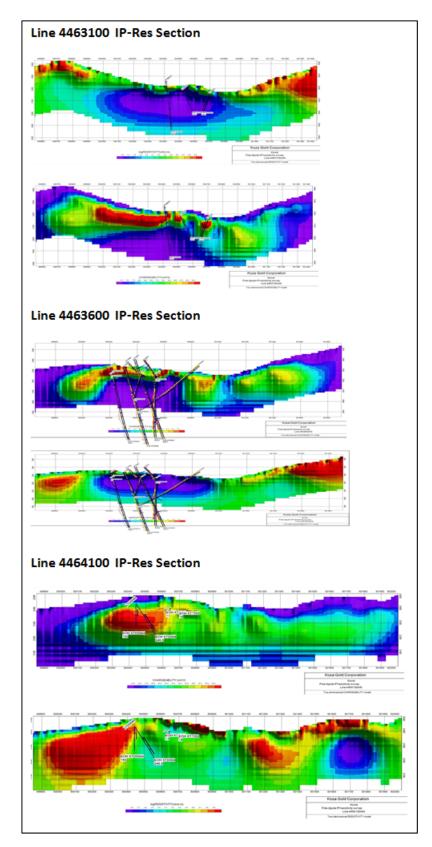
Koza conducted a ground magnetic survey covering a 5.25 km² in an area 2.5 km x 2.1 km. Koza also contracted a three line 6.7 km IP and resistivity geophysics survey from Mykea Geophysics Pty Ltd (Mykea) based in Queensland, Australia. Figure 7.5.2.1 shows the ground magnetic survey.

Dashed east-west lines show the position of the IP and resistivity survey. Figure 7.5.2.2 shows the IP and resistivity results for the project and drillholes testing the anomalies.



Source: Koza, 2012a

Figure 7.5.2.1: Kırıntı Ground Magnetic Survey with Drillholes



Source: Koza, 2012a

Figure 7.5.2.2: Kırıntı IP and Resistivity Survey with Drillholes

Koza has used the geophysical surveys completed at the project to target drilling and further exploration. Drilling is discussed in Section 7.5.3.

## 7.5.3 Sample Collection

Between 2011 and 2012, Koza collected, 61 steam sediment, 393 soil, and 21 rock chip samples at the project. Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

Soil samples were collected using a regular grid spacing of 100 m north-south by 100 m east-west. Samples were not collected where soil was not present. The grid was centered over the magnetic anomaly. The soil grid (Figure 7.5.1.1) varies from approximately 1.75 to 2 km north-south by 1.5 to 2.25 km east-west. Soil samples are collected from the B horizon.

There were 21 rock chip channel collected at Kırıntı between 2011 and 2012. These are chip samples collected perpendicular to mineralized structures. Rock chip samples were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along the structures trend and were selected based on field observations, conditions and accessibility to the structures and veins.

## 7.5.4 Drilling

Koza has drilled an additional nine core holes with a length total 5,078 m. The core included HQ-, PQ- and NQ-sized core. The drilling contractor used at the project was Spektra and recoveries were approximately 95%. Koza records core information onto paper and transfers the data into the computer for further analysis. Data captured during core logging includes core recovery, RQD, fractures counts and orientation, vein orientation, rock type alteration and sulfide and oxide percentages. Koza also examined the core for magnetic susceptibility. Core samples are selected and marked by the geologist. Sample intervals are selected by the geologist and are typically 1 m in length. Samples may be shorter or slightly longer than 1 m to accommodate changes in lithology. The core is cut in half lengthwise with half sent for assay and half archived for reference or future analysis.

## 7.5.5 Sample Preparation and Analysis

All samples are held in the custody of Koza until it is shipped to the laboratory for analysis in a locked vehicle, in a locked core logging facility or at the nearest mine site in a locked building. Core samples are either delivered to the laboratory by Koza personnel or shipped via commercial trucking. This is industry best practice.

Samples submitted between 2011 and 2012, were prepared at ALS İzmir. Analysis was conducted at two different laboratories in the ALS Global system. The ALS Vancouver laboratory conducted ICP multi-element analysis and ALS Romania conducted gold FA analysis. ALS Vancouver and ALS Romania have ISO 17025 accreditation for specific analytical methods through the Standards Council of Canada. ALS Vancouver's accreditation is valid through May 18, 2017 and ALS Romania's is valid through March 27, 2016.

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ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Ве	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

Rock samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic

Absorption Spectroscopy (AAS) finish. Table 7.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 7.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Ве	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

## 7.5.6 Quality Assurance and Quality Control

Koza inserts sample blanks and preparation duplicates into the sample stream at a rate of one in every 30 samples and CRMs are inserted at a rate of one in every 50 sample for soil and stream sediment sampling. Koza always uses a minimum of one CRM for every batch of soil, stream sediment and outcrop samples.

### **Certified Reference Materials**

Koza has used two CRMs at Kırıntı; one purchased from RockLabs in New Zealand and one produced by OREAS based in Australia. Koza uses a performance range of ±10% to evaluate the CRMs when there are a small number of analyses from ALS and ±2 standard deviations of the mean once there is a statistically meaningful data set. Table 7.5.6.1 presents the expected mean, standard deviations and summaries of the analyses of the Au CRMs. Koza Altin defines a failure as outside three standard deviations of the mean.

Table 7.5.6.1: Results of Au CRM Analyses at Kırıntı

Standard	Number	Expected (ppm)		Observed (ppm)		% of	Number	% Failure
Standard	Samples	Mean	Std Dev	Mean	Std Dev	Expected	Failures	Rate
OREAS501	38	0.204	0.011	0.201	0.007	98.5	0	0.0
SF57	23	0.848	0.030	0.840	0.021	99.1	1	4.3
Total	61						1	1.6

Source: Koza, 2012

There was one failure in SF57 and both CRMs are performing low overall. These are two very low grade CRMs and currently these are very small data sets. SRK recommends that Koza continue using these CRMs and consider adding a higher grade CRM to the QA/QC program. SRK also recommends that if this is a porphyry target, that Koza also monitor copper on the OREAS501 CRM. The results demonstrate that the laboratory is providing Koza with accurate results.

General industry practice is to use the following method for determining failures:

- If one analysis is outside of ±2 standard deviations it is a warning;
- Two or more consecutive analyses outside of ±2 standard deviations is a failure; and
- If an analysis is outside ±3 standard deviations it is a failure.

Analytical Solutions Ltd. (2013) reviewed Koza's current QA/QC practices and recommended using ±3 standard deviations as a failure threshold. The ±3 standard deviation threshold should not be more than 10% of the expected value.

#### **Blanks**

Sample blanks test for cross contamination during sample preparation and assaying and handling errors. Koza inserts one sample blank into every sample batch of 50 samples using pulp blanks up until June 2012 and preparation blanks after that. A blank failure is a result greater than five times the detection limit. Koza submitted eight blanks samples and had no failures. The results indicate that the laboratory does not have cross contamination problems during analysis. Blank data should continue to be monitored.

#### **Preparation Duplicates**

Preparation duplicates are created by taking a second split of the crushed sample (coarse reject) using the same method and collecting the same weight as the original sample. The objective is to determine if:

- Splitting procedures are applied consistently; and
- · Changes are required for the crush size.

Koza sent 34 preparation duplicate samples to the primary laboratory for gold analysis. A summary of the analytical results are presented in Table 7.5.6.2.

Table 7.5.6.2: Summary of Duplicate Gold Analysis at Kırıntı

Criteria	Number of Samples	Original>Dup	Dup>Original	Original = Dup	Within +/- 20%
All samples	24	20	12	2	33
	34	58%	35%	6%	97%

Source: Koza, 2012

The data shows a bias on the original samples. However, there was only one failure indicating that the preparation procedures are appropriate for the deposit.

#### **Pulp Duplicates**

Koza does not submit pulp duplicates at this time. Pulp duplicates test the analytical reproducibility or precision of the analysis. SRK recommends that Koza add pulp duplicates to its QA/QC program.

#### **Secondary Check Lab Analysis**

Koza has not sent any Kırıntı check samples in the form of pulp duplicates to a secondary laboratory as verification of the primary laboratory's analytical results. SRK recommends that Koza add this type of QA/QC samples to its program. Check samples must be analyzed at the secondary laboratory using the same method as primary laboratory and CRMs must be submitted with the check samples.

#### **QA/QC** Conclusions

Koza did no sampling during the 2013 exploration program at this project. However, the following recommendations are appropriate for subsequent programs. Since the preparation duplicate requested by Koza is known to ALS and that the ALS laboratory automatically generates an internal preparation duplicate as well as a pulp duplicate, Analytical Solutions Ltd. (2013) recommended that Koza discontinue submitting these types of duplicates, and instead request and rely on the laboratory internal duplicate data. It was also recommended that Koza, monitor this data on a monthly basis in addition to using the external CRMs and blank samples. Koza should also adopt using ±3 standard deviations as a failure threshold as long as this threshold does not exceed ±10% of the mean. A ±2 standard deviation can be used as a warning or a failure should to consecutive samples exceed this threshold. Other recommendations included additions to database management to track QA/QC with method codes, laboratory certificates, dates, and changes to the database to reflect repeats of QA/QC failures. SRK supports these recommendations and is of the opinion that they are appropriate and should be accepted as part of Koza's QA/QC program.

## 7.5.7 Exploration Plan and Budget

Koza plans to continue exploration through drilling and has budgeted TL153,000 (US\$68,000) for the 2015 exploration year for permitting activities. The current budget will be reassessed once drill permits are received.

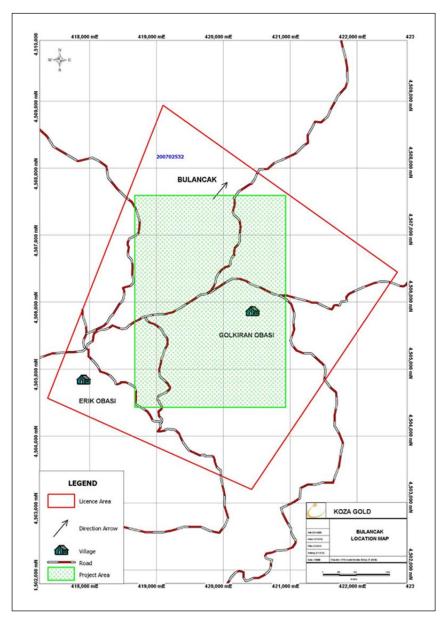
## 7.6 Environment

Koza received an EIA permit exemption for this license on December 5, 2011 for the Kırıntı property. These exemptions have a 5 year time limit and the EIA permit exemption will expire on December 5 2016.

# 8 Bulancak Exploration Project

# 8.1 Property Description and Location

The Bulancak Project is located approximately 30 km south southwest of the coastal city of Giresun. Koza is exploring this project for both Cu-Au porphyry and high sulfidation Au-Cu-Pb-Zn epithermal mineralization. The project is accessed by taking secondary road 28-75 south from Bulancak and then a series of mountain roads. The Bulancak Project is located between UTM coordinates 4507500 N, 418000 E to 4504000 N, 420500 E in ED1950 Zone 37. Koza has exploration license 200702532 covering an area of approximately 1,624 ha. Land tenure for this project is shown in Figure 8.1.1.



Source: Koza, 2012 GIS

Figure 8.1.1: Bulancak Location Map

## 8.2 Climate and Physiography

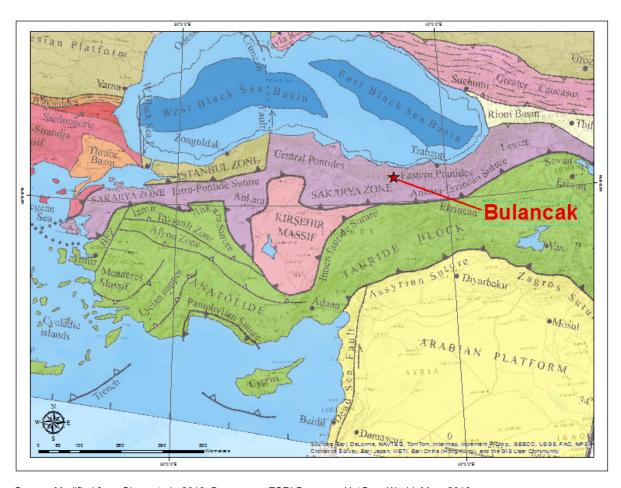
The climate around the Black Sea is a wet, temperate climate. The Bulancak project is located on the Black Sea side of the Kaçkar Mountains. The Black Sea region is the wettest area of Turkey with average annual precipitation of 828 mm per year, falling as rain at lower elevations and snow at the higher elevations in winter. Temperatures range from 5 to 30°C at Trabzon near the Black Sea but may be lower at higher elevation in the project areas. Bulancak is located in a steep mountainous topography between 1,000 and 1,500 m amsl. The terrain is steep and rugged with high relief.

## 8.3 History

The climate around the Black Sea is a wet, temperate climate. The Bulancak project is located on the Black Sea side of the Kaçkar Mountains. The Black Sea region is the wettest area of Turkey with average annual precipitation of 828 mm per year, falling as rain at lower elevations and snow at the higher elevations in winter. Temperatures range from 5 to 30°C at Trabzon near the Black Sea but may be lower at higher elevation in the project areas. Bulancak is located in a steep mountainous topography between 1,000 and 1,500 m amsl. The terrain is steep and rugged with high relief.

# 8.4 Geology

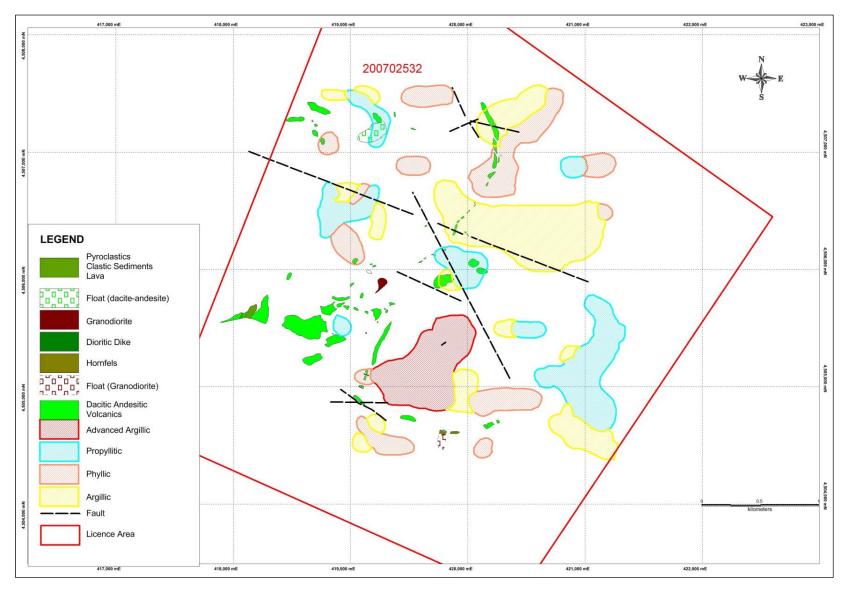
The Bulancak Project is in the inner Eastern Pontides in the Sakarya Terrane, north of the Ankara-Erzincan Suture (Figure 8.4.1). This project area is within the Paleozoic to Mesozoic era Pulur Massif, a high-grade metamorphic complex. The Pulur Massif trends northeast, is composed of gneiss, microgneiss, migmatites and metaquartzite and is exposed over an area of approximately 600 km². During the Eocene age Alpide orogeny, the Pulur Massif was intruded by diorite, andesite stocks and sills associated with subduction (Okay, 2008).



Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 8.4.1: Location of the Bulancak Project Relative to the Sakarya Terrane

Gold mineralization in the project area is hosted by pyroclastic and clastic sediments, granodiorite, dioritic dikes and volcanic rocks with compositions ranging from dacitic to andesitic. Quartz-pyrite-sericite alteration, silicification and argillic alteration have been identified in the project area. In addition, quartz breccias, quartz veins with sphalerite and galena and stockwork zones also containing sphalerite, galena and chalcopyrite have been mapped. The area has been mined historically for base metals. Bulancak has characteristics of Cu-Au porphyry mineralization and is currently being explored using this model. The project geology is presented in Figure 8.4.2.



Source: Koza, 2012 GIS

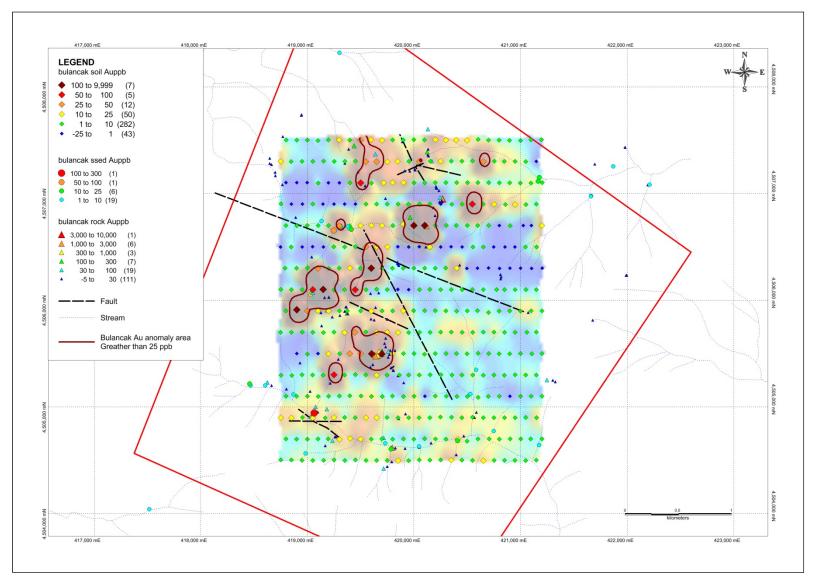
Figure 8.4.2: Bulancak Geology Map

# 8.5 Exploration

Koza acquired Bulancak in 2007 and collected 27 stream sediment, 399 soil and 230 rock chip samples. Koza has also completed geophysical surveys including IP chargeability and resistivity and a ground magnetic survey. The Company has mapped at regional and local scales and has completed PIMA mapping of the project area.

## 8.5.1 Mapping

Koza mapped Bulancak at a regional scale of 1:10,000 in 2007 and at a more local scale of 1:2,000 in 2008. In 2013 Koza completed a PIMA mapping exercise at the project to delineate alteration in the project area. Figure 8.5.1.1 presents the surface sample map showing areas of anomalous soil samples for gold. The soil sample contour is at 25 ppb gold.

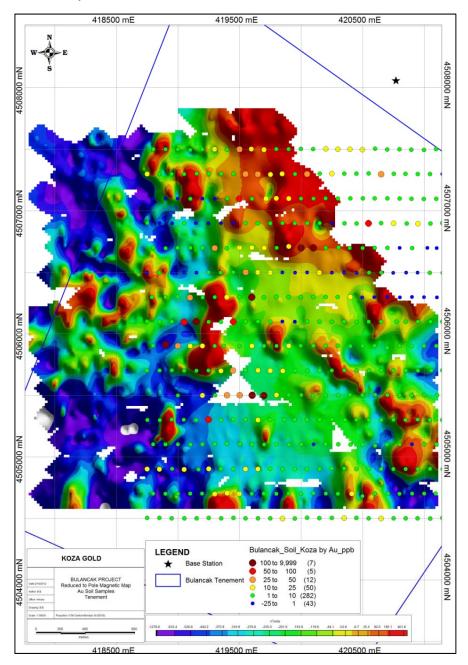


Source: Koza, 2013 GIS

Figure 8.5.1.1: Bulancak Surface Sample Map with Soil Sample Contour for Gold >25 ppb

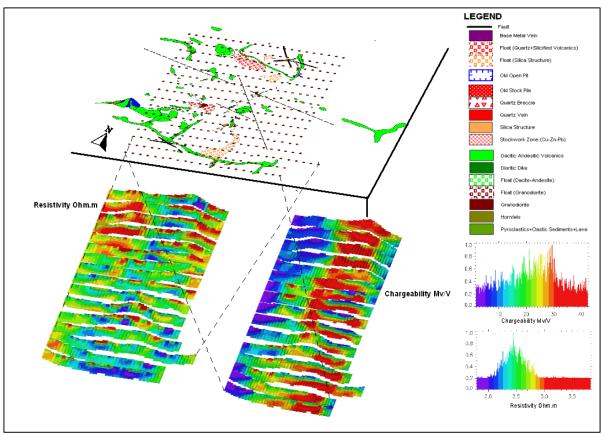
### 8.5.2 Geophysical Surveys

Koza has also completed geophysical surveys including IP chargeability/resistivity and two ground magnetic surveys. Koza conducted the ground magnetic surveys in 2012 and the IP/resistivity survey was completed by Planetary Geophysics in 2009. Figure 8.5.2.1 presents the magnetic survey results completed by Koza combined with soil sample results for gold. Figure 8.5.2.2 shows the IP/resistivity results.



Magnetic highs are orange through red, lows are deep purple through green Source: Koza, 2012a

Figure 8.5.2.1: Bulancak Magnetic Survey Map with Soil Sample Contour for Gold >25 ppb



East-West dotted lines are section lines.

Source: Koza, 2012a

Figure 8.5.2.2: Bulancak IP and Resistivity Results Map with Area Geology Map in Oblique View

In Figure 8.5.1.1, anomalous gold does not coincide with magnetic highs in the southern part of the project area. In the north, there is a tenuous correlation with anomalous gold values and elevated magnetic response, but not with the magnetic highs. This relationship could be the result of magnetite destruction and could help determine direction to the core of the hydrothermal system. Gold is commonly external to the system core and near its top. SRK recommends that Koza also plot copper and molybdenum surface samples in plan view and compare these maps with the gold map presented. The IP and resistivity results (Figure 8.5.2.2), show large zones of chargeability that extend out of the survey area and are considered open. These are additional exploration targets at Bulancak and should be investigated by drilling or additional geophysical surveys.

#### 8.5.3 Sample Collection

Koza collected 27 stream sediment, 399 soil and 230 rock chip samples at Bulancak. Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

The soil sample grid was designed to cover the silica lithocap and mapped porphyry within the license area. The grid is oriented in the cardinal directions with a grid spacing of 200 m north-south by 100 m east-west. Total sampled area is approximately 3 km north-south by 2.5 km east-west. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected. In Figure 8.5.1.1 in Section 8.5.1, the surface sample map is presented showing areas of anomalous soil samples for gold. The soil sample contour is at 25 ppb gold. Figure 8.5.2.1 above presents the same 25 ppm gold contour superimposed on the magnetic survey map.

Rock chip samples were selective chip samples collected at locations across the width of the exposed veins, silica zones and stockworks and were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along the strike of the structure and were selected based on field observations, conditions and accessibility to the target structure.

### 8.5.4 Drilling

Drilling has not been completed at Bulancak, but is the next logical step in exploration for the identified targets. Koza plans to drill at the project during the 2015 field season.

#### 8.5.5 Sample Preparation and Analysis

Samples held in the custody of Koza until they are shipped to the laboratory for analysis in a locked vehicle, in a locked core logging facility or at the nearest mine site in a locked building. Core samples are either delivered to the laboratory by Koza personnel or shipped via commercial trucking. This is industry best practice.

Soil, stream, rock chip and channel samples were submitted to ALS Vancouver for preparation and analysis. ALS Vancouver has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil and stream sediment samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil and stream sediment samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Soil and stream sediment samples were analyzed using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS). Because of the sample size, ME-MS41 is considered a semi-quantitative method for gold. Because of this Koza also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. The aqua regia digestion used in method ME-MS41 may not provide representative results for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 8.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

Table 8.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-ICP22	Au	0.001-10	ME-MS41	Hf	0.02-500	ME-MS41	Sc	0.1-10,000
ME-MS41	Ag	0.01-100	ME-MS41	Hg	0.01-10,000	ME-MS41	Se	0.2-1,000
ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Be	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

After drying using ALS code DRY-22, rock chip and channel samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Rock chip and channel samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 8.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 8.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Ве	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

### 8.5.6 Quality Assurance and Quality Control

Koza has standardized its QA/QC program for all exploration programs. The QA/QC program includes the insertion of the following control samples at the listed frequencies:

- Preparation blanks,1 per 50 samples,
  - o If the samples are from a drillhole and there are less than 50 samples, then 1 per drillhole;
- Duplicate samples, 1 per 30 regular samples; and
- CRMs 1 per 50 sample batch.

The duplicates used by Koza include field, core, preparation and pulp duplicates depending on the project status. For example an advanced drilling program may not need to use core duplicates. Koza uses the following performance gates to monitor control samples and identify analytical failures:

- Preparation blanks are 5x the lower analytical detection limit;
- Duplicates are ±30% for core duplicates, ±20% for preparation duplicates and ±10% for pulp duplicates and check samples to a second laboratory; and
- CRMs are ±2 standard deviations with ±10% sometimes used in smaller datasets or if ±2 standard deviations exceeds ±10% of the expected mean.

Koza uses the practice of reanalyzing the entire batch should a failure be recognized. This has been an industry practice that has changed over time. Currently, industry practice reanalyzes the entire batch if a large proportion of the QC samples are failures. However, reanalysis of the entire batch for one QC failure is considered unnecessary. SRK is of the opinion that should a large proportion of the QC samples fail, the entire batch should be reanalyzed, but if only one or two QC failures occur, SRK recommends sampling the failed QC samples and three to four samples in sequence before and after the failure.

At Bulancak, Koza submitted eight blanks, 33 preparation duplicates and 62 CRMs. There were two CRMs. These were OREAS 501 provided by OREAS and SF57 purchased from RockLabs. There were no blank failures and the preparation duplicates showed acceptable reproducibility. Koza used ±10% as performance gates for the two CRMs. For OREAS 501, this was approximately ±2 standard deviations of the certified mean and for SF57 ±3 standard deviation of the certified mean. There were no CRM failures in the sample submissions.

Analytical Solutions Ltd. (2013) reviewed the Koza QA/QC procedures and recommended that during early exploration projects, Koza submit a "high proportion of duplicates and fewer standards" with soil, stream sediment and outcrop samples. The purpose of this is that precision and not accuracy are more important at this stage of a project. Analytical Solutions Ltd. specifically stated that field duplicates were the most important by testing sampling collecting error and site variability. These recommendations are appropriate and should be accepted as part of Koza's early exploration stage QA/QC program.

Because one of the next logical exploration activities at Bulancak is drilling, SRK recommends that Koza use at least two CRMs but optimally three CRMs during the drilling QA/QC program. The CRMs should be selected to bracket expected mineralization grades. The CRMs should include one near a possible CoG of mineralization, one near the average grade and one at the approximate 80<sup>th</sup> percentile grades in the sample population. The higher grade CRM should not test the outliers. SRK also recommends that Koza consider the following performance gates for CRMs:

- If one analysis is outside of ±2 standard deviations it is a warning;
- Two or more consecutive analyses outside of ±2 standard deviations is a failure;
- If an analysis is outside ±3 standard deviations it is a failure if ±3 standard deviations does not exceed ±10% of the mean; and
- If the ±3 standard deviations exceed ±10% of the mean, then ±5 to ±10% should be used.

Ore Research & Exploration (OREAS) who manufactures CRMs, recommends using these performance gates and has started printing this information on CRM certificates as part of a guide for use of the CRM. ALS Global uses ±3 standard deviations during analysis as a performance gate for internal CRMs (ALS Global, 2012). Koza is using a more restrictive performance gate that may result in unnecessary failures.

#### 8.5.7 Budget and Exploration Plan

Koza has budgeted TL1.1 million (US\$492,000) for exploration at Bulancak during 2015. SRK is of the opinion that the budget is adequate for a drilling program to test the anomalies. SRK notes that additional geophysics may be warranted at the site. SRK is of the opinion that the exploration approach used by Koza is appropriate for this project and is industry best practice.

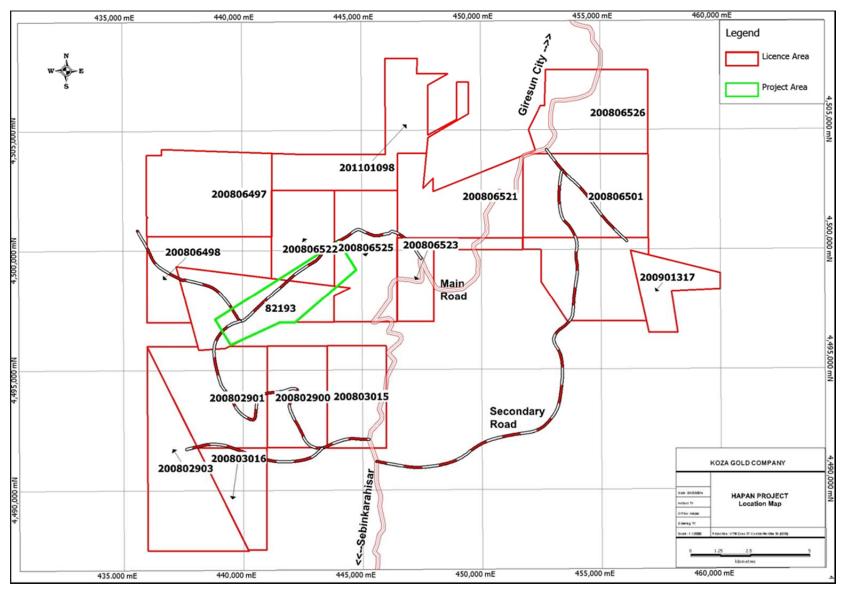
#### 8.6 Environmental

Koza's 1,624 ha exploration area in Bulancak District of Giresun Province in northern Turkey is not located in any area of particular protection status. Any areas with particular environmental sensitivity as designated by laws and regulations are located further than 30 km from the license area. The closest reservoir to the site is Kovanlı Pond constructed for local flood protection. Pazarsuyu Creek, which is approximately 5 km from the license area, and its tributaries are considered the most sensitive streams in the Bulancak Prospect area Koza has indicated that the EIA permitting process is on-going for this license.

## 9 Hapan Exploration Project

### 9.1 Property Description and Location

The Hapan Project is approximately 30 km south of the coastal city of Giresun near the village of Hapan and is being explored as an Au epithermal to mesothermal vein deposit associated with thrust faulting. The project is accessed by taking paved road D865 south and then secondary road 28-26 northwest from Giresun. Areas of the project are then accessed by a series of mountain roads. The Hapan Project is located between UTM coordinates 4500500 N, 438500 E to 4495500 N, 445000 E in ED1950 Zone 37. Koza has one operation and fifteen exploration licenses covering this area. These are operation license 82193 and the following exploration licenses 200802900, 200802901, 200802903, 200803015, 200803016, 200806497, 200806499, 200806501, 200806521, 200806522, 200806523, 200806525, 200901317, and 201101098. These licenses collectively cover approximately 19,480.12 ha or approximately 197.8km². All of the exploration licenses have expired. Koza is in the process of converting the expired exploration license to operation licenses. Operation license 82193 is valid through October 3, 2022. Land Tenure for this Project is shown in Figure 9.1.1.



Source: Koza, 2013 GIS

Figure 9.1.1: Hapan Land Tenure Map

### 9.2 Climate and Physiography

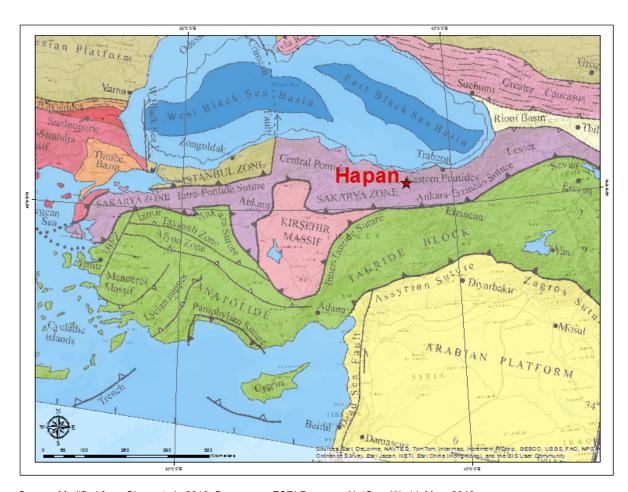
The climate around the Black Sea is a wet, temperate climate. The Hapan Project is located on the Black Sea side of the Kaçkar Mountains. The Black Sea region is the wettest area of Turkey with average annual precipitation of 828 mm per year, falling as rain at lower elevations and snow at the higher elevations in winter. Temperatures range from 5 to 30°C at Trabzon near the sea but may be lower at higher elevation in the project areas. Hapan is located in a steep mountainous topography between 1,000 and 1,500 m amsl. The terrain is steep and rugged with high relief.

### 9.3 History

Hapan is a greenfields exploration project generated by Koza in 2007. The area was targeted based on favorable regional geology and by using Koza's exploration model for Cu-Au porphyry systems and epithermal or shallow mesothermal mineralization. There has been no work by other companies prior to Koza acquiring Hapan in 2007. Within the project area there is evidence of small-scale historic underground and open pit mining for base metals.

### 9.4 Geology

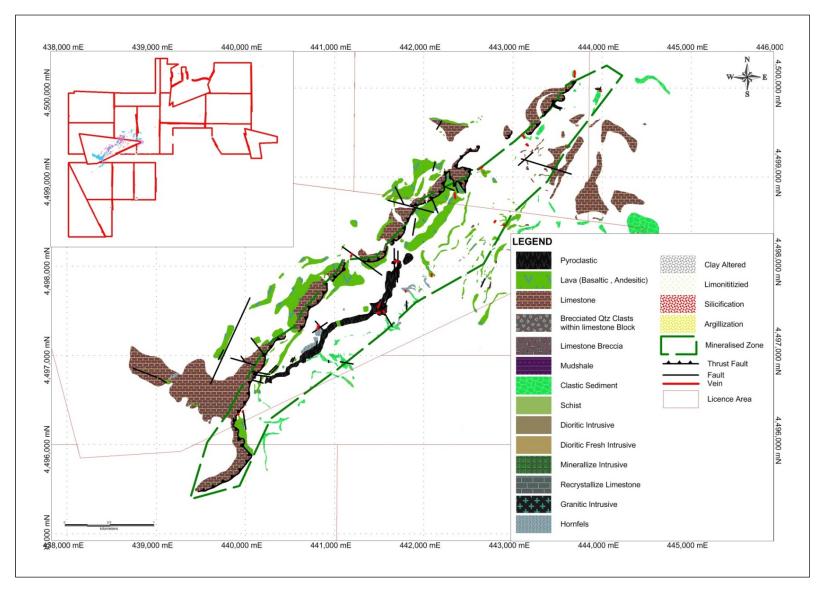
The Hapan Project is in the inner Eastern Pontides in the Sakarya Zone, north of the Ankara-Erzincan Suture (Figure 9.4.1). This area is associated with the Paleozoic to Mesozoic era Pulur Massif a high-grade metamorphic complex. The Pulur Massif trends northeast, is composed of gneiss, microgneiss, migmatites and metaquartzite and is exposed over an area of approximately 600 km<sup>2</sup>. During the Eocene age Alpide orogeny, the Pulur Massif was intruded by diorite, andesite stocks and sills associated with subduction (Okay, 2008).



Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 9.4.1: Location of Hapan Relative to the Sakarya Terrane

The Hapan Project exploration is focused primarily along the rocks in and around a thrust fault that trends N40-45°E (Figure 9.4.2). The upper plate of the thrust fault is composed of Cretaceous age limestone and clastic sediments. The lower plate consists of volcanics and metavolcanics ranging in composition from andesitic to basaltic. These rocks are porphyritic and have propylitic alteration composed of chlorite, epidote, magnetite and silica. Where altered, the limestone and carbonate clastic rocks are silicified and may or may not contain pyrite. Pyrite maybe oxidized to limonite. The thrust fault contains large boudins of basement rock with a mylonitic matrix.



Source: Koza, 2012 GIS

Figure 9.4.2: Hapan Geology Map

The strike length of the thrust fault where mineralization occurs is up to 6,500 m and averages 2 m of thickness. Three styles of mineralization have been identified by Koza:

- Coarse crystalline quartz veins developed in dilations along reverse faults up to 2 m wide and hosted in the inner propylitic altered basement volcanics, and also occurring in the mylonitic matrix of the thrust as lenticular and discontinuous veins about 2 to 3 cm thick;
- Carbonate replacement style mineralization in the overlying carbonate-clastics sediments;
   and
- Alteration and mineralization consistent with a buried porphyry system.

Koza interprets that mineralization occurred at the time of thrusting, since the mineralized veins occur both within the basement and the thrust fault. This is the current interpretation because the veins in the mylonite fabric show no megascopic strain and are not sheared.

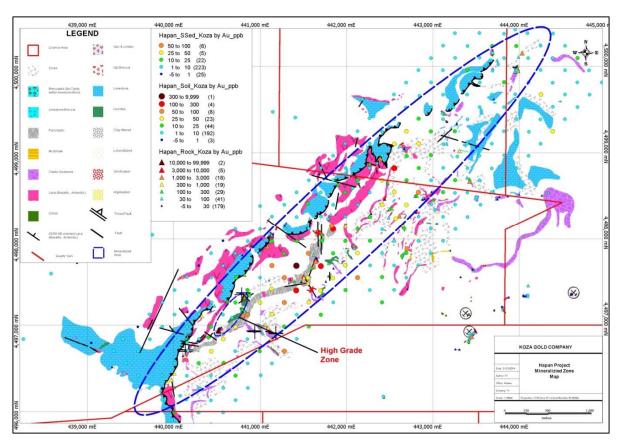
Quartz veins seen at Hapan range from pyrite-bearing epithermal style vein material with banding, crystalline quartz and bladed barite to mesothermal quartz-carbonate type.

### 9.5 Exploration

Koza acquired the Hapan Project in 2007 and has collected stream sediment, soil and rock chip samples, as well as completed mapping at multiple scales. Additional programs included a ground magnetic geophysical survey. Drilling has not been completed for Hapan but is scheduled for the 2015 field season.

### 9.5.1 Mapping

Koza has mapped Hapan at a regional scale of 1:25,000 and the following local scales; 1:10,000, 1:5,000 and 1:2,000. Figure 9.5.1.1 shows Koza's geologic map for the project area with surface samples showing gold values. The mineralized area is outlined with a dashed blue line.



Source: Koza GIS, 2015

Figure 9.5.1.1: Hapan Geologic Map with Au Surface Samples in ppb—Note 25 ppb

#### 9.5.2 Geophysical Surveys

Koza completed a ground magnetic survey in 2011 with total line km of 34 with readings at 200 m. Koza plans to do additional geophysics at Hapan in 2015. SRK notes that Hapan is a thrust belt with schists. This environment may contain graphite which is conductive and may give false positives when conducting chargeability surveys. SRK is of the opinion that an IP and resistivity may be useful at this project, but recommends that Koza check the metamorphic rocks for the presence of graphite and remain aware to the potential during subsequent geophysical interpretations.

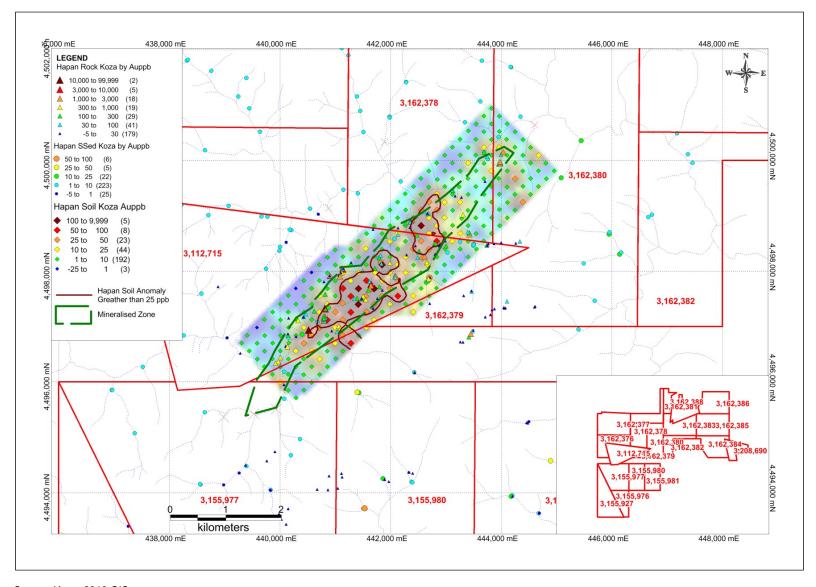
#### 9.5.3 Sample Collection

Koza has collected 281 stream sediment, 275 soil and 265 rock chip samples at Hapan. Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

The soil sample grid was rotated N45°E, parallel to the trend of mineralization and designed to cover the mineralized area. The grid spacing of 200 m by 200 m and the total sampled area is approximately 7 km northeast-southwest by 2 km southeast-northwest. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected. In Figure 9.5.3.1 shows, the surface

sample map showing areas of anomalous soil samples for gold with gold values for soils, stream and rock chip samples. The soil sample contour is at 25 ppb gold and the mineralized zone is shown in green.

Rock chip samples were selective chip samples collected at locations across the width of the exposed veins, silica zones and stockworks and were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along the strike of the structure and were selected based on field observations, conditions and accessibility to the target structure.



Source: Koza, 2013 GIS

Figure 9.5.3.1: Hapan Surface Sample Map with Soil Sample Contour for Gold >25 ppb

### 9.5.4 Drilling

Drilling has not been completed at Hapan. The next logical step in exploration for Hapan is drilling and Koza plans to drill at the project in 2015.

#### 9.5.5 Sample Preparation and Analysis

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil and stream sediment samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil and stream sediment samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Soil and stream sediment samples were analyzed using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS). Because of the small sample size used in the analysis, ME-MS41 is considered a semi-quantitative method for gold. Because of this Koza also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. In addition, the aqua regia digestion used in method ME-MS41 may not provide representative results for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 9.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

Table 9.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-ICP22	Au	0.001-10	ME-MS41	Hf	0.02-500	ME-MS41	Sc	0.1-10,000
ME-MS41	Ag	0.01-100	ME-MS41	Hg	0.01-10,000	ME-MS41	Se	0.2-1,000
ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Те	0.01-500
ME-MS41	Ве	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

After drying using ALS code DRY-22, rock chip and channel samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code

SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Rock chip and channel samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. The samples were also analyzed for mercury using Hg-CV41. By this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Table 9.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 9.5.5.2 Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Ве	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

#### 9.5.6 Quality Assurance and Quality Control

Koza inserts sample blanks and preparation duplicates into the sample stream at a rate of one in every 30 samples and inserts CRMs at a rate of one in every 50 sample for soil, stream sediment and outcrop sampling. Koza always use a minimum one CRM for every batch of soil, stream sediment and outcrop samples. Koza has acceptable results from the inserted QC control samples.

Analytical Solutions Ltd. (2013) reviewed the Koza QA/QC procedures and recommended that during early exploration projects, Koza submit a "high proportion of duplicates and fewer standards" with soil, stream sediment and outcrop samples. The purpose of this is that precision and not accuracy are more important at this stage of a project. Analytical Solutions Ltd. specifically stated that field duplicates were the most important by testing sampling collecting error and site variability. It was recommended that Koza add field duplicates to its early stage sampling QA/QC programs. SRK supports these recommendations and is of the opinion that they are appropriate and should be accepted as part of Koza's QA/QC program.

#### 9.5.7 Budget and Exploration Plan

The Hapan exploration budget for 2014 is TL1.5 million (US\$655,000) and will include drilling and additional geophysics. SRK is of the opinion that the exploration budget is appropriate for the project.

#### 9.6 Environmental

The Hapan Prospect exploration license area is located 16.5 km east of the Bulancak license area. The Aksu River is 0.5 km away from the license area. The watershed comprises part of the license area, and the Aksu River drains into the Black Sea. Two issues might create potential environmental challenges for the project. Due to the significance of aquatic species, the first challenge is thought to be the protection of the water quality and existing conditions in the Aksu River and its tributaries. The second challenge may be public sensitivity due to the plans for the use of the İkisu Reservoir located on Aksu River as a drinking water supply. The reservoir, located 8 km upstream of the license area, has been constructed for electricity production purposes; therefore, it is not a sensitive issue for the project. The environmentally sensitive and protected areas around the license are shown in Figure 9.6.1.

Koza has indicated that they have obtained the EIA permit for the operation license 82193 on December 2, 2013. In addition, two of the exploration licenses are being converted to operation licenses. The application for conversion was made on July 8, 2013, Koza will need to obtain an EIA permit for these two licenses within 3 years of issue of the operation licenses.

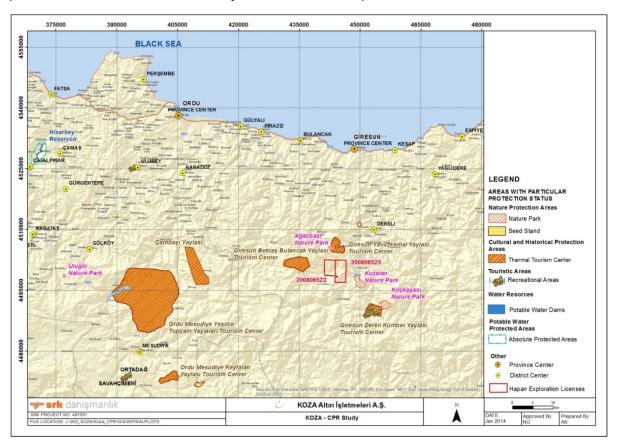
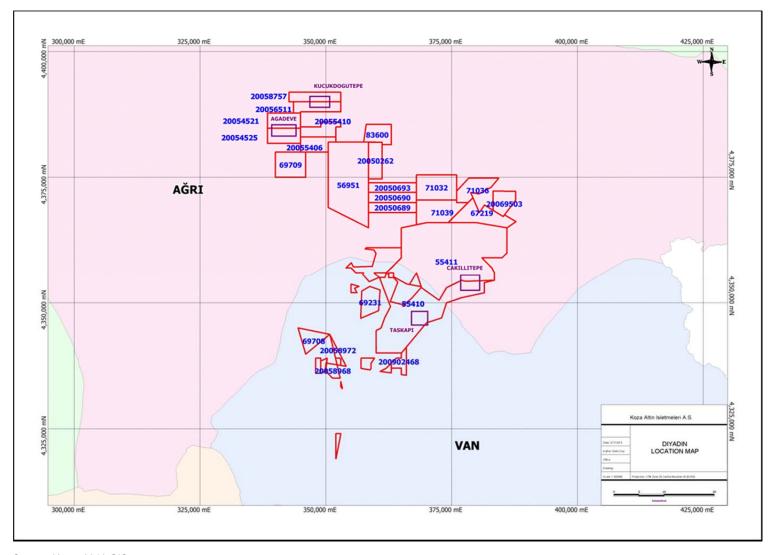


Figure 9.6.1: Environmentally Sensitive and Protected Areas around the License Areas

# 10 Ağadeve and Küçükdoğutepe Exploration Projects

### 10.1 Property Description and Location

These two projects are approximately 14 km southeast of Ağri and are accessed by following gravel roads from the outskirt of Ağri to the village of Ağadeve. The projects are approximately 3 km apart and mineralization at the two sites may be related. The Ağadeve Project is located between UTM coordinates 4387500 N, 339500 E and 4384800 N, 344000 E ED1950 Zone 38, within exploration license 20054521 totaling 1,980 ha valid through 2023. The Küçükdoğutepe Project is located between UTM coordinates 4390000 N, 344500 E and 4388500 N, 346500 E ED1950 Zone 38. Küçükdoğutepe is within exploration license 20056511 totaling 1,921 ha. The Küçükdoğutepe license expired in 2010. Koza is in the process of converting this to an operating license. Land tenure for Ağadeve and Küçükdoğutepe is shown in Figure 10.1.1. This map also shows the location of Çakıllıtepe and Taşkapı discussed below in Sections 11 and 12, respectively.



Source: Koza, 2012 GIS

Figure 10.1.1: Dıyadın Prospect Map with Land Tenure for the Ağadeve, Küçükdoğutepe, Çakıllıtpe and Taşkapı Projects shown in Purple Squares

### 10.2 Climate and Physiography

The Ağadeve and Küçükdoğutepe Projects are located in Eastern Anatolia. These projects are located in a continental climate with slightly more precipitation then Central Anatolia. This region is subject to cold harsh winters and dry warm summers. At Van, average temperatures range from - 3.3°C in January to 21.1°C in July and August. Temperatures as high as 44°C and as low as -45°C have been recorded in Eastern Anatolia. Temperatures are slightly cooler at elevation. Total precipitation is approximately 570 mm and falls as rain in the summer and snow in the winter.

The Ağadeve and Küçükdoğutepe projects are near Ağri with low to moderate relief in an area with parts of each project located on low hills and rolling farm land. Elevations for these two projects range from 1,650 to 1,730 m amsl.

### 10.3 History

These two projects were previously held by Newmont between 2005 and 2008. At Ağadeve, Newmont collected four BLEG, 26 stream sediment, 751 soil and 402 rock chip samples. Newmont also drilled 11 holes totaling 2,277.8 m. A similar program was completed at Küçükdoğutepe by Newmont with the collection of 11 BLEG, 5 stream sediment, 718 soil and 129 rock chip samples. At Küçükdoğutepe, Newmont drilled 3 drillholes. Newmont also completed two geophysical surveys at both projects that included pole dipole and gravity surveys. Koza acquired these projects in 2008.

### 10.4 Geology

The two projects are located in the Tauride Block south of the Ankara Erzincan-Suture (Figure 10.4.1). Ağadeve and Küçükdoğutepe are considered part of the same system. Koza is targeting a low sulfidation epithermal system in association with a Cu-Au porphyry. At Ağadeve, the rocks include Pliocene andesite overlain by Quaternary age andesite and Pliocene to Quaternary age undifferentiated continental clastic rocks. Pliocene age rocks include porphyritic andesite, andesite debris flows and pyroclastic rocks. These are capped by Quaternary age andesite and ignimbrites most likely of andesitic composition. In addition, northwest of the identified mineralization are three domes composed of dacite and andesite that Koza is currently interpreting as vents (Yılmaz, 1998; Okay, 2008).



Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

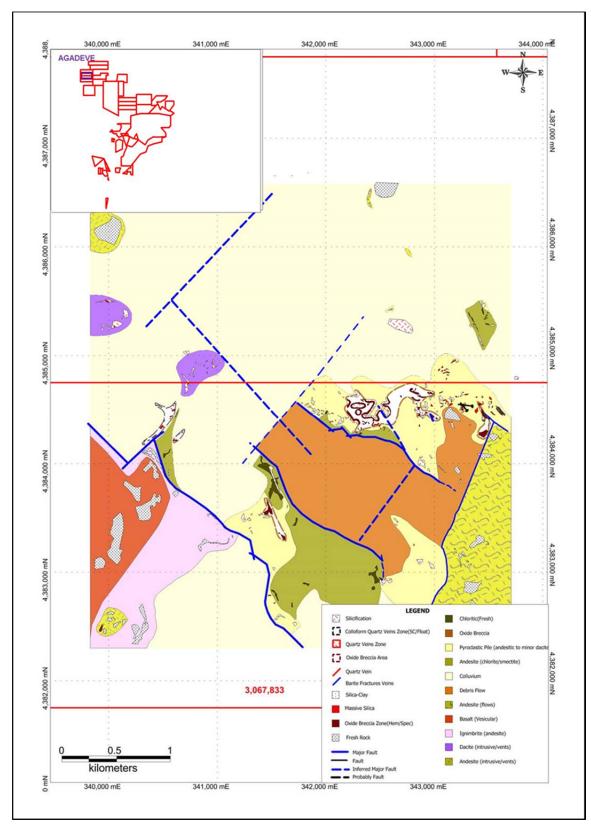
Figure 10.4.1: Location of the Ağadeve and Küçükdoğutepe Projects Relative to the Tauride Block

This project is in an early stage of exploration and mineralization at Ağadeve was confined to float in a highly altered zone where Newmont had focused some of its previous exploration. Quartz textures found in this area included cockscomb structure and banding consistent with low sulfidation epithermal quartz. Alteration in this area includes zones of silica clay alteration, massive silica and breccias zones with iron oxides. These are features and alteration consistent with the top of a porphyry system. To the north of this area, Koza has identified breccia zones and float in the adjacent fields consistent with a high sulfidation system. This has led Koza to interpret the mineralization as a high sulfidation epithermal system with a low sulfidation overprint.

Küçükdoğutepe appears to be more distal than Ağadeve to a possible porphyry. At Küçükdoğutepe, the rocks are primarily andesite and porphyritic andesite with propylitic alteration and weak development of clays. Laminated calcareous sediments have been found in this area as well. Koza has identified a vein and jasperoid zone that can be traced for 600 m along a N40°E strike that averages 1.5 m wide. Red jasperoid can be found as float along this strike and veining parallels a porphyritic dike. The host is silicified and brecciated in places and the quartz is gray indicating the presence of a fine grained sulfide. Massive pink feldspar, possibly adularia has also been identified at this location. Approximately 1.7 km east, uphill from this location is a silicified andesite with

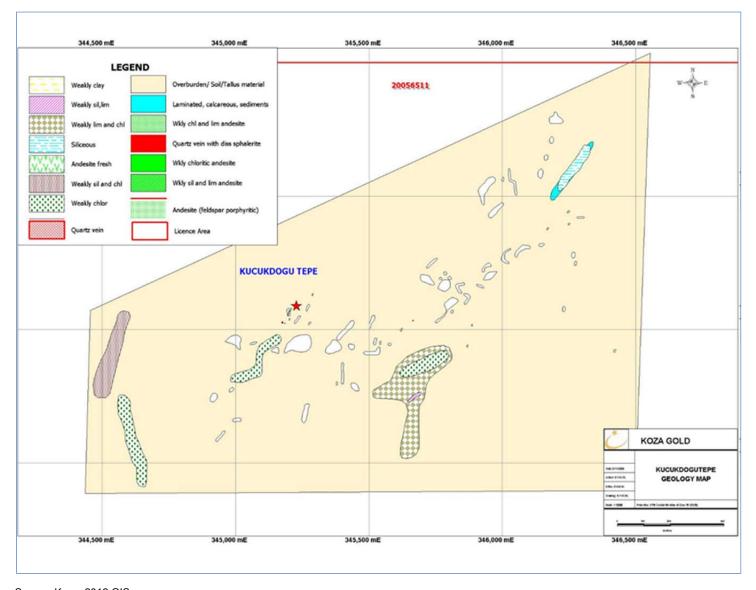
possible xenoliths of sheared, banded material containing galena which appears to be hornfels and may be a metasediment.

Ağadeve and Küçükdoğutepe are found at the bases of the low hills around Ağadeve village and extend upslope. These two areas are 3 km apart and are found along the boundary in a crudely arcuate zone near the edge of and adjacent to a circular topographic low that is coincident with a low gravity anomaly. This circular feature could mark the top of an intrusive igneous body. Float found in the fields above this zone are consistent with high sulfidation mineralization and could indicate the presence of a mineralized porphyry system at depth. The geologic mas for Ağadeve and Küçükdoğutepe are shown in Figures 10.4.2 and 10.4.3, respectively.



Source: Koza, 2015 GIS

Figure 10.4.2: Ağadeve Geology Map



Source: Koza, 2012 GIS

Figure 10.4.3: Küçükdoğutepe Geology Map

### 10.5 Exploration

Koza acquired both Ağadeve and Küçükdoğutepe in 2008. At Ağadeve, Koza has collected 30 rock chip samples and at Küçükdoğutepe Koza has collected 23 rock chip samples. Koza has also completed reconnaissance mapping in the area along with IP and ground magnetic geophysical surveys completed my Newmont.

#### 10.5.1 Mapping

After acquiring the project in 2008, Koza mapped the project at a reconnaissance level. In 2009, Koza mapped the project area at 1:5,000 scale collecting structural and lithological data and at 1:10,000 scale during soil sample collection. Geologic maps completed for Ağadeve and Küçükdoğutepe are shown in Figures 10.4.2 and 10.4.3, respectively.

### 10.5.2 Geophysical Surveys

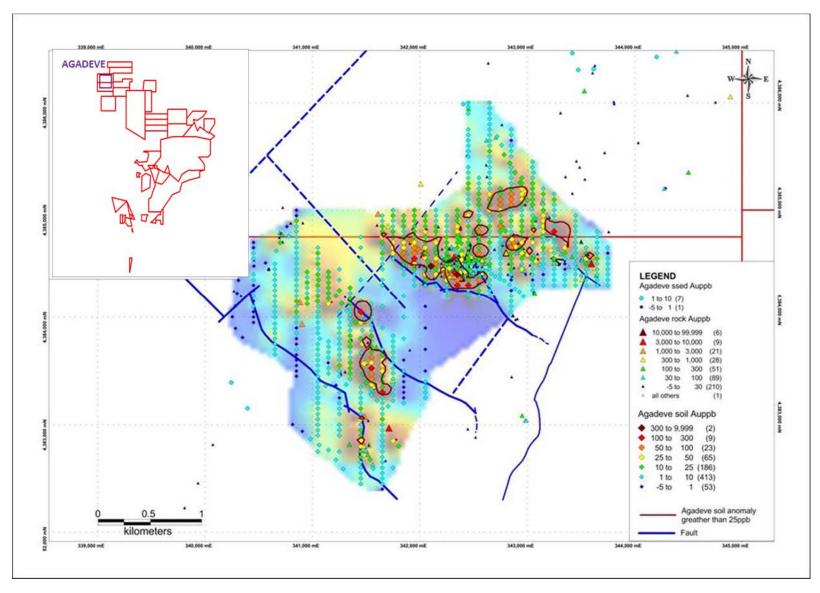
Koza has not completed any geophysical surveys at this time. Additional geophysics is part of Koza's long term exploration plan for this project to explore some of the anomalies identified by Newmont. SRK is of the opinion that this is appropriate for the project.

#### 10.5.3 Sample Collection

Koza has collected 30 rock chip samples and at Küçükdoğutepe Koza has collected 23 rock chip samples at Ağadeve. Koza has also reviewed and assessed Newmont's soil sampling data for use in targeting exploration. Koza does not have details of Newmont's sampling methods but it was likely industry practice at the time of collection.

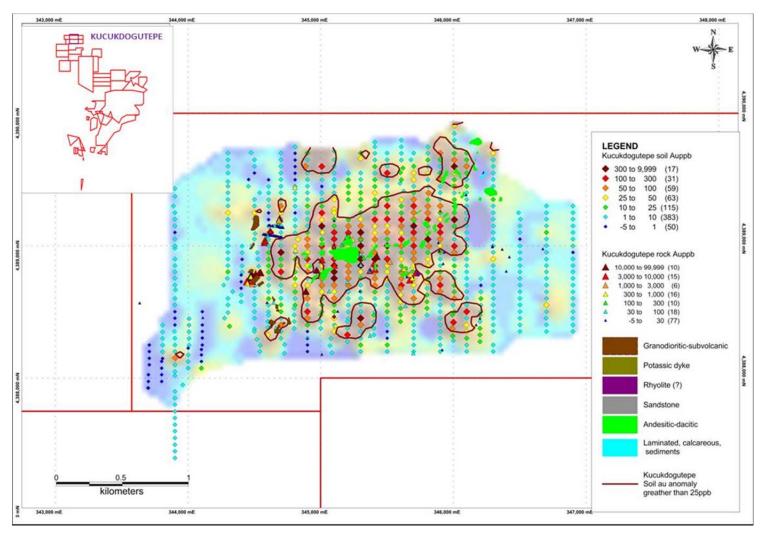
Rock chip samples were selective chip samples collected at locations across the width of exposed veins, silica zones and stockworks and were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along the strike of the structure and were selected based on field conditions and accessibility to the target structure.

Figures 10.5.3.1 and 10.5.3.2 show Newmont's soil grid with Koza's surface samples for gold anomalies within a 25 ppb gold contour for Ağadeve and Küçükdoğutepe, respectively. The grid is oriented in the cardinal directions and grid spacing is 50 m north—south by 100 m east-west.



Source: Koza, 2015 GIS

Figure 10.5.3.1: Ağadeve Surface Sample Map with Soil Sample Contour for Gold >25 ppb



Source: Koza, 2015 GIS

Figure 10.5.3.2: Küçükdoğutepe Surface Sample Map with Soil Sample Contour for Gold >25 ppb

#### 10.5.4 Drilling

Koza has not drilled at the project and but has identified drilling targets based on mapping, Newmont's geophysical surveys and soil grids. Koza is currently working on acquiring drilling permits for the project.

#### 10.5.5 Sample Preparation and Analysis

Samples are in the control of Koza personnel either in a locked field vehicle or at a mine site in a locked building until they are submitted to the laboratory for analysis. Once the samples are submitted to the laboratory, chain of custody is controlled by the laboratory. This is industry best practice.

Samples were submitted to ALS Global in Vancouver, Canada (ALS Vancouver) for preparation and analysis. ALS Vancouver has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22).

After drying using ALS code DRY-22, rock chip and channel samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Rock samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 10.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 10.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Ве	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

### 10.5.6 Quality Assurance and Quality Control

Koza inserts sample blanks and preparation duplicates into the sample stream at a rate of one in every 30 samples and inserts CRMs at a rate of one in every 50 sample for soil, stream sediment and outcrop sampling. Koza always use a minimum one CRM for every batch of soil, stream sediment and outcrop samples. The QC samples were acceptable for the exploration program.

Analytical Solutions Ltd. (2013) reviewed the Koza QA/QC procedures and recommended that during early exploration projects, Koza submit a "high proportion of duplicates and fewer standards" with soil, stream sediment and outcrop samples. The purpose of this is that precision and not accuracy are more important at this stage of a project. Analytical Solutions Ltd. specifically stated that field duplicates were the most important by testing sampling collecting error and site variability. It was recommended that Koza add field duplicates to its early stage sampling QA/QC programs. SRK supports these recommendations and is of the opinion that they are appropriate and should be accepted as part of Koza's QA/QC program.

### 10.5.7 Budget and Exploration Plan

The conceptual exploration target is a Cu-Au porphyry system and a related low sulfidation epithermal zone. Recommendations for continued exploration include an additional IP survey and/or additional drilling. SRK also recommends that Koza plot and review the copper results for the surface sampling and compare it with the gold data. SRK is of the opinion that Koza is using an appropriate model and exploration method using industry best practice for this project.

Koza is currently obtaining drilling permits and has budgeted TL88,000 (US\$39,000) for exploration at Ağadeve and Küçükdoğutepe. This is to cover permitting and license expenses. SRK is of the opinion that the budget will support the permitting process. Any additional surface exploration will require reassessment of the budget. Koza has exploration work scheduled for 2015.

#### 10.6 Environmental

There are no areas with particular environmental protection status located in the vicinities of Ağadeve and Küçükdoğutepe license areas. The closest site identified with environmental sensitivity is Balık Lake wetland approximately 20 km northeast of the license area. The environmentally sensitive and protected areas around the license areas are shown in Figure 10.6.1.

Ağadeve prospect is an operation license. Koza received an EIA exempt certificate on June 9, 2014 for the Ağadeve prospect. Küçükdoğu prospect is an exploration license and no environmental studies are conducted.

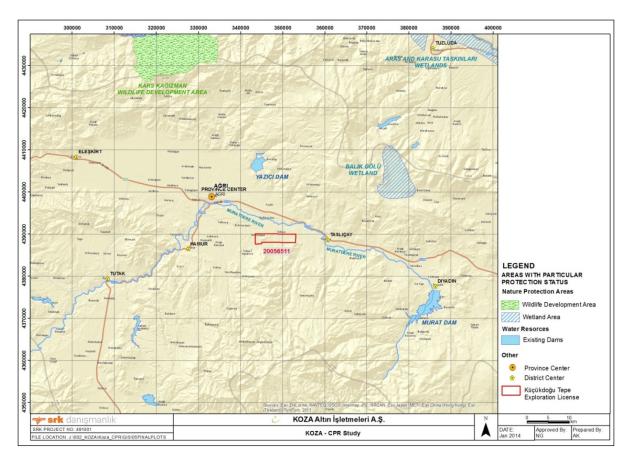


Figure 10.6.1: Environmentally Sensitive and Protected Areas around License Areas

## 11 Çakıllıtepe Exploration Project

### 11.1 Property Description and Location

The Çakıllıtepe Project is approximately 60 km southeast of Ağri. The project is accessed from Ağri by taking road E80 west for 50 km then south on road 04-26 for 7 km to Diyadin. From Diyadin, Mollakara village and Koza's Mollakara Project are 15 km south along dirt roads. Çakıllıtepe is located approximately 5 km further south of Mollakara between UTM coordinates 4360000 N, 374000 E and 4354000 N, 382000 E ED1950 Zone 38. Çakıllıtepe is within operation license 55410 totaling 17,045 ha. Land tenure for Çakıllıtepe is shown above in Figure 10.1.1.

### 11.2 Climate and Physiography

Çakıllıtepe is located in Eastern Anatolia in a continental climate with slightly more precipitation then Central Anatolia. This region is subject to cold harsh winters and dry warm summers. At Van average temperatures range from -3.3°C in January to 21.1°C in July and August. Temperatures as high as 44°C and as low as -45°C have been recorded in Eastern Anatolia. Temperatures are slightly cooler at elevation. Total precipitation is approximately 570 mm and falls as rain in the summer and snow in the winter.

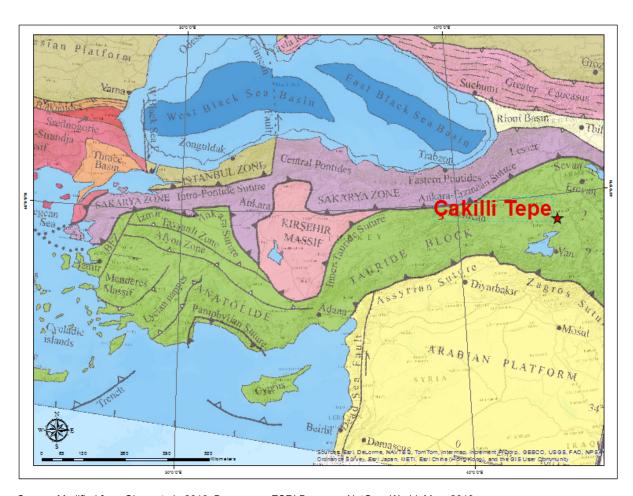
Çakıllıtepe has an approximate 1,000 m elevation gain from valley floor to peak and moderate to high relief

### 11.3 History

Çakıllıtepe was held by Newmont between 2005 and 2008. During that time, Newmont collected 7 BLEG, 12 stream sediment, 995 soil and 320 rock chip samples. Koza acquired the projects in 2008.

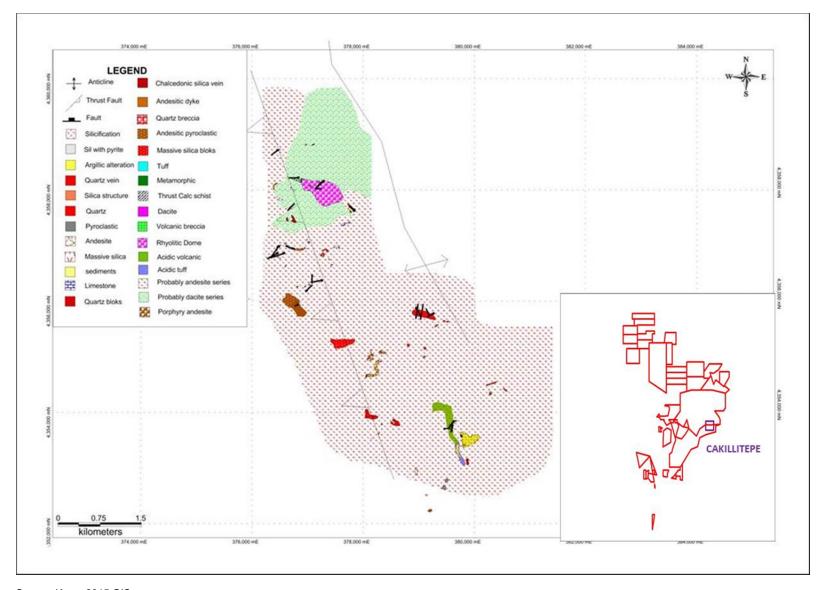
### 11.4 Geology

On a regional scale Çakıllıtepe is located south in the Tauride Block south of the Ankara Erzincan-Suture (Figure 11.4.1). The Çakıllıtepe project is hosted in aphanitic andesite and a dacite series (Figure 11.4.2), which are surrounded by a porphyritic andesite series. Limestone has been found as xenoliths locally. Koza has identified three silica caps, one of which contains limonite. Manganese oxide and specular hematite have also been identified during reconnaissance mapping. The area includes jasperoid, clay alteration and silica breccias. Koza has also identified a quartz vein that trends N40°E and dips 60°NW. This vein outcrops over a 350 m vertical extent and averages 3 m wide. The vein contains quartz, barite, calcite and traces of gray sulfide minerals. Textures include quartz banding, quartz crystals with scepters and reverse scepters indicating several episodes of passive mineralization. Barite is bladed or occurs with calcite as replacement textures.



Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 11.4.1: Location of the Çakıllıtepe Projects Relative to the Tauride Block



Source: Koza, 2015 GIS

Figure 11.4.2: Çakıllıtepe Geology Map

### 11.5 Exploration

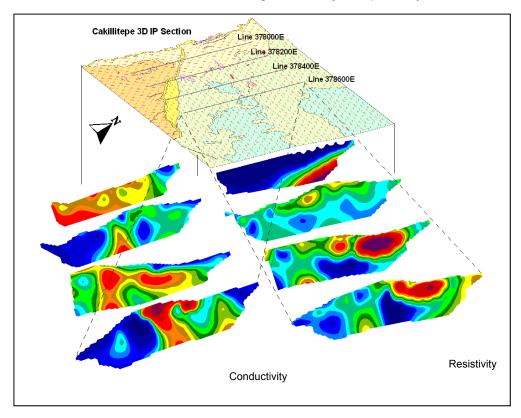
Koza acquired the project in 2008 and has collected 11 stream sediment, 487 soil and 71 rock chip samples. Koza has also completed reconnaissance and local mapping in the area as well as two geophysical surveys. Koza's conceptual target for Çakıllıtepe is a low sulfidation vein system. SRK is of the opinion that this is an appropriate model for the project and that Koza is systematically exploring this early stage project using industry best practice.

### **11.5.1 Mapping**

Koza has mapped the area at a reconnaissance level of 1:25,000 and at a local scale of 1:5,000. Figure 11.4.2 shows Koza's current map of the area.

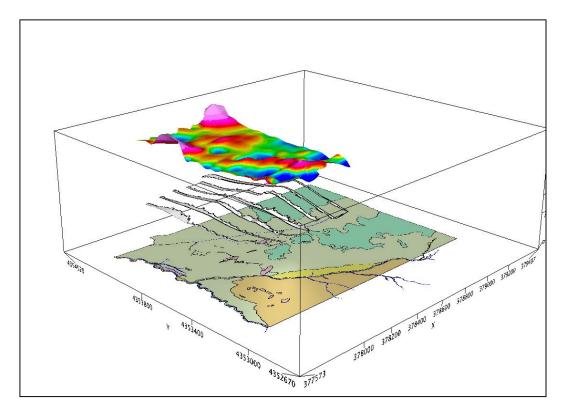
#### 11.5.2 Geophysical Surveys

Koza completed two geophysical surveys at the project in 2010. These were an IP/resistivity survey completed by CFT and a ground magnetic survey completed by Koza. The IP survey consisted of four lines averaging 1,000 m long for a total line length of 3,900 m. Sensor were located at 200 m intervals. The ground magnetic survey completed by Koza totaled 10,000 line meters. Figures 11.5.2.1 and 11.5.2.2 show the IP and magnetic surveys, respectively.



Red represents conductive and resistive highs and blue represents lows. Source: Koza, 2012a

Figure 11.5.2.1: CFT IP and Resistivity Survey at Çakıllıtepe



Reds represent highs and blue represents lows. Source: Koza, 2012a

Figure 11.5.2.2: Koza Ground Magnetic Survey at Çakıllıtepe

Both the IP survey and the magnetic survey have identified drilling targets that should be explored further.

## 11.5.3 Sample Collection

Koza has collected 11 stream sediment, 487 soil and 71 rock chip samples. Sample collection was during 2008.

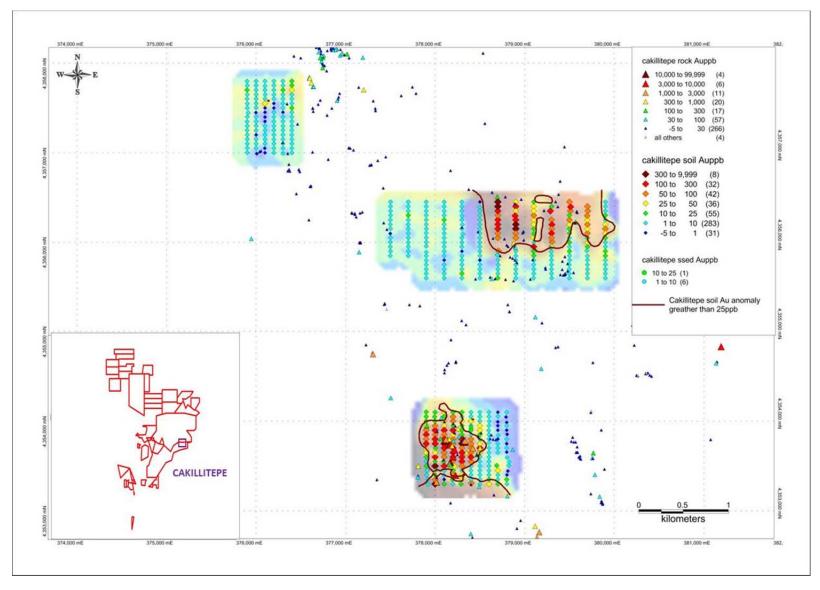
Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

Soil samples grids were designed to cover three mineralized areas of interest and were all oriented in the cardinal directions. Grid spacing in the northern and southern grids was 50 m north-south by 100 m east-west and in the middle grid was 50 m north-south by 200 m east-west. The northern grid extents were approximately 750 m north-south by 500 m east-west, the middle grid was approximately 1 km north-south by 2.5 km east-west and the southern grid was approximately 1 km square. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected.

Rock chip samples were selective chip samples collected at locations across the width of the exposed veins and silica zones and were typically 3 to 4 kg in weight. Collection points ranged from

200 to 25 m apart along the veins strike and were selected based on field observations, conditions and accessibility to the vein.

Figure 11.5.3.1 shows the surface sample map showing gold anomalies within a 25 ppb gold contour. The map shows the three current areas of exploration focus.



Source: Koza, 2015 GIS

Figure 11.5.3.1: Çakıllıtepe Surface Sample Map with Soil Sample Contour for Gold >25 ppb

## 11.5.4 Drilling

Koza has not drilled at the project and but has identified drilling targets based on mapping, geophysical surveys and soil grids. Koza plans to drill at the project in 2015.

## 11.5.5 Sample Preparation and Analysis

Samples are in the control of Koza personnel either in a locked field vehicle or at a mine site in a locked building until they are submitted to the laboratory for analysis. Once the samples are submitted to the laboratory, chain of custody is controlled by the laboratory. This is industry best practice.

Samples were submitted to ALS Global in Vancouver, Canada (ALS Vancouver) for preparation and analysis. ALS Vancouver has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil and stream sediment samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil and stream sediment samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Soil and stream sediment samples were analyzed using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS). Because of the sample size, ME-MS41 is considered a semi-quantitative method for gold. Because of this Koza also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. The aqua regia digestion used in method ME-MS41 may not provide representative results for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 11.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

Table 11.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-ICP22	Au	0.001-10	ME-MS41	Hf	0.02-500	ME-MS41	Sc	0.1-10,000
ME-MS41	Ag	0.01-100	ME-MS41	Hg	0.01-10,000	ME-MS41	Se	0.2-1,000
ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Be	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

After drying using ALS code DRY-22, rock chip samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Rock chip samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 11.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 11.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Be	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

# 11.5.6 Quality Assurance and Quality Control

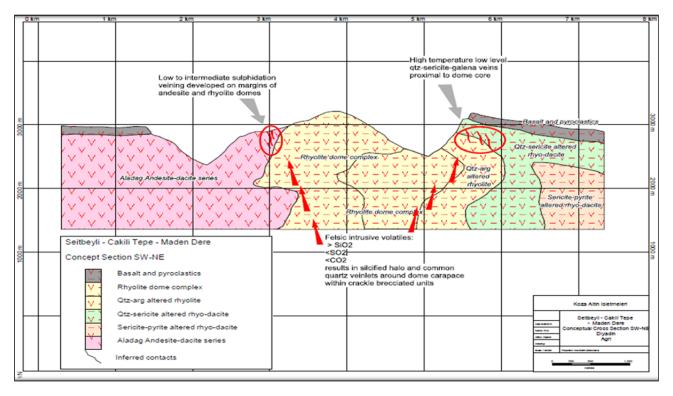
Koza inserts sample blanks and preparation duplicates into the sample stream at a rate of one in every 30 samples and inserts CRMs at a rate of one in every 50 sample for soil, stream sediment and outcrop sampling. Koza always use a minimum one CRM for every batch of soil, stream sediment and outcrop samples. The QC samples were in acceptable limits at the project.

Analytical Solutions Ltd. (2013) reviewed the Koza QA/QC procedures and recommended that during early exploration projects, Koza submit a "high proportion of duplicates and fewer standards" with soil, stream sediment and outcrop samples. The purpose of this is that precision and not accuracy are more important at this stage of a project. Analytical Solutions Ltd. specifically stated that field duplicates were the most important by testing sampling collecting error and site variability. It was recommended that Koza add field duplicates to its early stage sampling QA/QC programs. SRK supports these recommendations and is of the opinion that they are appropriate and should be accepted as part of Koza's QA/QC program.

## 11.5.7 Budget and Exploration

Exploration is ongoing at Çakıllıtepe. Koza has budgeted TL1.5 million (US\$680,000) for both Çakıllıtepe and Taşkapı for additional geophysics, trenching and drilling. SRK is of the opinion that the budget will be adequate to test anomalies but will need to be reassessed once additional data is available to advance this project to resource delineation.

Koza's conceptual target for Çakıllıtepe is a low sulfidation vein system. Koza's conceptual model is shown schematically in Figure 11.5.7.1. SRK is of the opinion that this is an appropriate model for the project and that Koza is systematically exploring this early stage project using industry best practice.



Source: Koza Exploration Presentation, 2012a

Figure 11.5.7.1: Çakıllıtepe Conceptual Model in Schematic Cross Section Looking Northwest

# 11.6 Environmental

Koza has EIA exemption for the Çakıllıtepe prospect as of 2009. This has been renewed as of July 10, 2014. This exemption is valid for 5 years.

# 12 Taşkapı Exploration Project

# 12.1 Property Description and Location

The Taşkapı Project is approximately 85 km north of Van and 26 km north northeast of Erciş. The project is accessed from Van by taking D975 north for approximately 70 km then D280 west for 29 km to Erciş. Both D975 and D280 are paved divided highways. From Erciş, Taşkapı is located approximately 25 km north along gravel mountain roads near Taşkapı village. The project is located between UTM coordinates 4349500 N, 366000 E and 4345000 N, 369000 E ED1950 Zone 38. Taşkapı is located 12 km south of Çakıllıtepe in the same license. This is operation license 55410 totaling 17,045 ha. Land tenure for Taşkapı is shown above in Figure 10.1.1.

# 12.2 Climate and Physiography

Taşkapı is located in Eastern Anatolia in a continental climate with slightly more precipitation then Central Anatolia. This region is subject to cold harsh winters and dry warm summers. At Van average temperatures range from -3.3°C in January to 21.1°C in July and August. Temperatures as high as 44°C and as low as -45°C have been recorded in Eastern Anatolia. Temperatures are slightly cooler at elevation. Total precipitation is approximately 570 mm and falls as rain in the summer and snow in the winter.

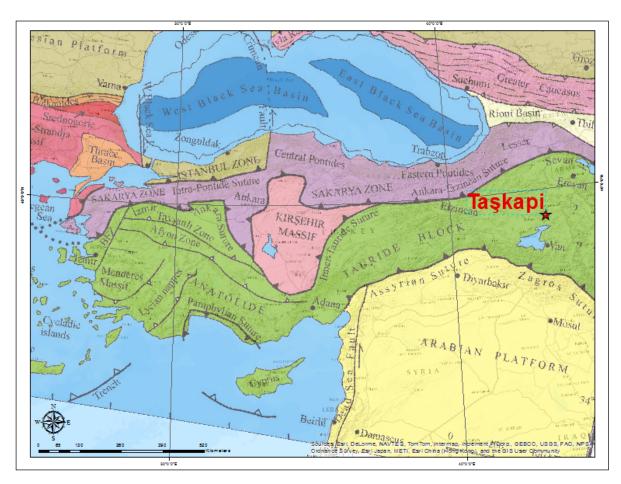
Taşkapı has the highest relief of the projects in the Diyadin District with elevations ranging from approximately 2,000 m near the valley floors to 3,000 m on the ridges in the project area.

# 12.3 History

Taşkapı was held by Newmont between 2005 and 2008. During that time Newmont collected 29 BLEG, seven stream sediment, 237 soil and 427 rock chip samples. Koza acquired this project in 2008.

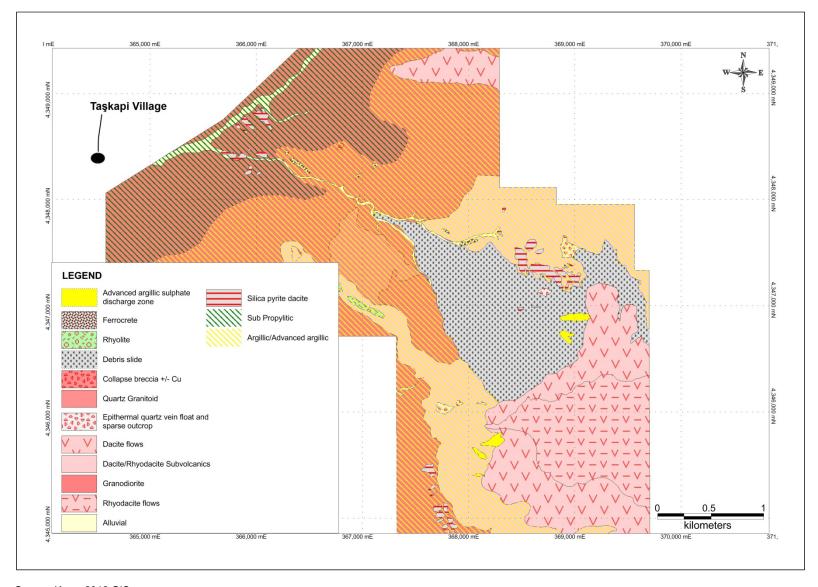
# 12.4 Geology

On a regional scale, the Taşkapı Project is located in the Tauride Block south of the Ankara Erzincan-Suture (Figure 12.4.1). Reconnaissance mapping of the area has delineated an area with multiple phases of potassic intrusive and extrusive igneous rocks including quartz granitoid, which may be quartz eye porphyry. Granodiorite has also been mapped as well as rhyolite, rhyodacite and dacite which occur as flows and intrusives (Figure 12.4.2).



Source: Modified from Okay, et al., 2010, Basemap = ESRI Basemap NatGeo\_World\_Map, 2013

Figure 12.4.1: Location of the Taşkapı Project Relative to the Tauride Block



Source: Koza, 2012 GIS

Figure 12.4.2: Taşkapı Geology Map

Quartz eye porphyry phases are often found associated with copper, copper-gold and copper-gold-molybdenum porphyry deposits. Koza has mapped areas of advanced argillic alteration, ferrocrete and quartz-sericite-pyrite alteration often associated with porphyry systems. In addition epithermal mineralization may also be present. Float from epithermal quartz vein material consistent with both mid-level, low sulfidation and high sulfidation systems have been found at the site. Textures include colloform and crustiform associated with low sulfidation and vuggy with secondary iron oxides that may represent high sulfidation epithermal. Copper oxides have been found as surface coatings and iron oxide has been observed as blood red hematite also referred to as "live hematite" as well as specularite. The alteration observed is extensive and can be traced over 3.5 km along a N40°E trend. Evidence from float occurrences indicates that the epithermal veins may be perpendicular to this trend. Koza has also identified a collapse breccia with copper oxides.

Based on these observations, Koza had divided Taşkapı into four project areas from north to south:

- Yesiltepe, a breccia zone with copper oxide bearing clasts;
- Mavitepe, phreatic breccia with copper mineralization including azurite and malachite;
- Kızıltepe/Karayayla, high sulfidation epithermal; and
- Delhasan, hydrothermal breccia with alunite that has analyzed for gold in rock chip samples.

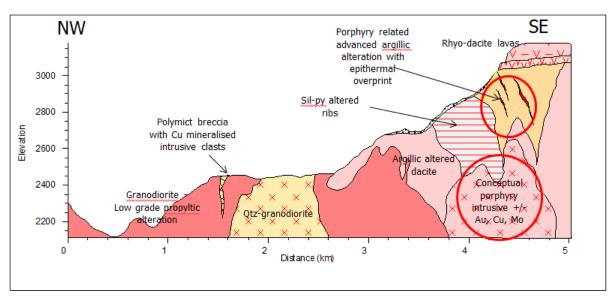
The location of these projects is shown in Figure 12.4.3.



Source: Koza Exploration Presentation, 2012a

Figure 12.4.3: Aerial Photograph Showing Location of Individual Taşkapı Projects with Proposed Drilling Locations Shown in Red Dots

Koza is targeting late stage epithermal quartz veins and a possible blind porphyry system, interpreted as centered below the argillic-advanced argillic alteration zone identified at Taşkapı. Figure 12.4.4 shows Koza's conceptual targets in schematic cross section.



Source: Koza Exploration Presentation, 2012a

Figure 12.4.4: Schematic Cross Section showing Taşkapı Conceptual Targets

# 12.5 Exploration

Koza acquired Taşkapı in 2008 and has collected six stream sediment, 198 soil, and 156 rock chip samples and completed reconnaissance sampling at the project. Koza has completed six lines of IP geophysics totaling 20.8 km and 13 lines of ground magnetic surveys. Figure 12.5.1 shows the surface sample map showing gold anomalies within a 25 ppb gold contour.

# **12.5.1 Mapping**

Koza has completed reconnaissance and local scale mapping at a 1:1,500 scale. Koza's geologic map produced from this work is shown above in Figure 12.4.2.

# 12.5.2 Geophysical Surveys

Koza has completed IP/resistivity survey over the project area and a ground magnetic survey. The IP survey was completed by CFT and was six lines totaling 20.8 km. Koza completed the ground magnetic survey that consisted of 13 lines totaling 60 km. This work has provided drilling targets for Koza at the project. It has also shown anomalies at the edges of the surveys indicating that the geophysical surveys will be have to be expanded. Koza plans to conduct additional geophysics at the project during 2015.

### 12.5.3 Sample Collection

Koza acquired Taşkapı in 2008 and collected six stream sediment, 198 soil, and 156 rock chip samples between 2008 and 2010. Koza also collected 110 trench samples and 213 drill core samples in 2014. Drill sample collection is discussed in Section 12.5.4.

Stream sediment samples were collected along master streams above and below the inflow of tributary creeks. Samples were collected to be as representative as possible. This was done by

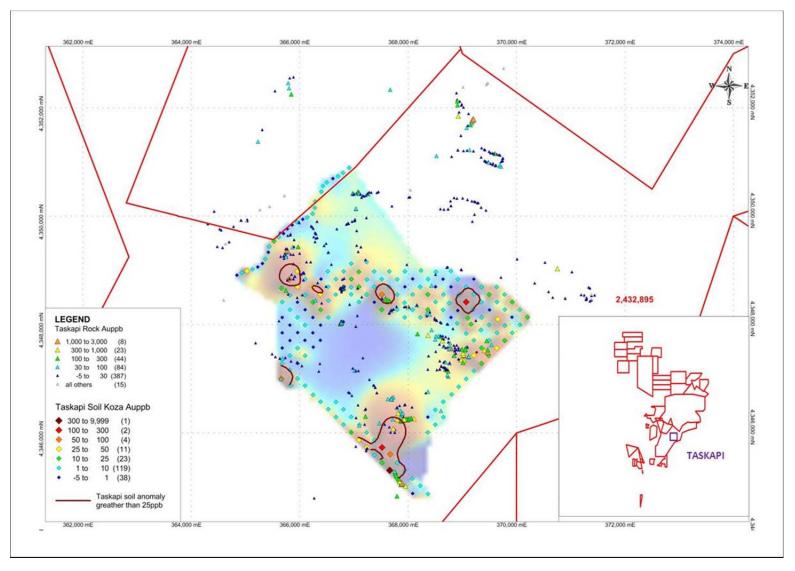
collecting a composite sample at each location from the same depositional environment in the stream bed. Koza screens stream sediment samples to -80 mesh and typically collects 3 to 4 kg of sample.

Soil samples grids were designed to cover three mineralized areas of interest and were collected where soil was available. The soil grid was oriented at N45°E and grid spacing was 100 m north-south by 100 m east-west. The sampling area was approximately 2 km x 2 km. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected.

Rock chip samples were selective chip samples collected at locations across the width of the exposed veins and silica zones and were typically 3 to 4 kg in weight. Collection points ranged from 200 to 25 m apart along the veins strike and were selected based on field observations, conditions and accessibility to the vein.

Trench sampling was conducted as continuous chip channel samples. These are collected to be as representative of a cut channel sample as possible but they are not sawn channel samples. Channel samples are typically 1 m in length and were typically 3 to 4 kg in weight. Samples may be shorter or slightly longer than 1 m to accommodate changes in lithology.

Figure 12.5.3.1 shows the surface sample map showing gold anomalies within a 25 ppb (0.025 ppm) gold contour.



Source: Koza, 2015 GIS

Figure 12.5.3.1: Taşkapı Surface Sample Map with Soil Sample Contour for Gold >25 ppb

## 12.5.4 Drilling

Koza drilled three drillholes at Taşkapı in 2014. Total drilled meters were 768.4 and 213 samples were collected. The core was HQ-sized and Koza used its own drill rig and drilling crew for the project. Core recoveries ranged from 85 to 100% averaging approximately 92%.

Koza records core information onto paper and collects recovery, rock quality designation (RQD), fracture counts, fracture orientation, quartz vein density, vein orientation, rock type, alteration and sulfide and oxide percentages. Data is then entered into the computer for additional analysis. Sample intervals are selected by the geologist and are typically 1 m in length. Samples may be shorter or slightly longer than 1 m to accommodate changes in lithology. The core is cut in half lengthwise with ½ sent for assay and ½ archived for reference or future analysis.

## 12.5.5 Sample Preparation and Analysis

Samples are in the control of Koza personnel either in a locked field vehicle or at a mine site in a locked building until they are submitted to the laboratory for analysis. Once the samples are submitted to the laboratory, chain of custody is controlled by the laboratory. This is industry best practice.

Samples were submitted to ALS Global in Vancouver, Canada (ALS Vancouver) for preparation and analysis. ALS Vancouver has ISO 17025:2005 accreditation, which is specific to analytical methods, through the Standards Council of Canada valid through May 18, 2017.

Once the samples arrived at the laboratory, they were bar coded and entered into the Laboratory Information Management System (LIMS). All samples were dried to a maximum temperature of 60°C in order to avoid or limit volatilization of elements such as mercury (ALS code DRY-22). Soil and stream sediment samples were screened to -180 micron (80 mesh) to remove organic matter and large particles. Soil and stream sediment samples were pulverized to 85% passing 75 microns (ALS code PUL-31) prior to digestion and analysis.

Soil and stream sediment samples were analyzed using ALS code ME-MS41, a 51 element package with ultra-trace level sensitivity typically used for rock samples and drill core. In this analysis, a minimum 1 g of sample is digested using aqua regia and finished using both Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS). Because of the sample size, ME-MS41 is considered a semi-quantitative method for gold. Because of this Koza also requested analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. The aqua regia digestion used in method ME-MS41 may not provide representative results for refractory minerals and elements such as molybdenum (ALS Global, 2014). Table 12.5.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

Table 12.5.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-ICP22	Au	0.001-10	ME-MS41	Hf	0.02-500	ME-MS41	Sc	0.1-10,000
ME-MS41	Ag	0.01-100	ME-MS41	Hg	0.01-10,000	ME-MS41	Se	0.2-1,000
ME-MS41	Al	0.01-25%	ME-MS41	In	0.005-500	ME-MS41	Sn	0.2-500
ME-MS41	Au	0.2-25	ME-MS41	K	0.01-10%	ME-MS41	Sr	0.2-10,000
ME-MS41	В	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Та	0.01-500
ME-MS41	Ва	10-10,000	ME-MS41	Li	0.1-10,000	ME-MS41	Te	0.01-500
ME-MS41	Be	0.05-1,000	ME-MS41	Mg	0.01-25%	ME-MS41	Th	0.2-10,000
ME-MS41	Bi	0.01-10,000	ME-MS41	Mn	5-50,000	ME-MS41	Ti	0.005-10%
ME-MS41	Ca	0.01-25%	ME-MS41	Мо	0.05-10,000	ME-MS41	TI	0.02-10,000
ME-MS41	Cd	0.01-1,000	ME-MS41	Na	0.01-10%	ME-MS41	U	0.05-10,000
ME-MS41	Ce	0.02-500	ME-MS41	Nb	0.05-500	ME-MS41	V	1-10,000
ME-MS41	Co	0.1-10,000	ME-MS41	Ni	0.2-10,000	ME-MS41	W	0.05-10,000
ME-MS41	Cr	1-10,000	ME-MS41	Р	10-10,000	ME-MS41	Υ	0.05-500
ME-MS41	Cs	0.05-500	ME-MS41	Pb	0.2-10,000	ME-MS41	Zn	2-10,000
ME-MS41	Cu	0.2-10,000	ME-MS41	Rb	0.1-10,000	ME-MS41	Zr	0.5-500
ME-MS41	Fe	0.01-50%	ME-MS41	Re	0.001-50			
ME-MS41	Ga	0.05-10,000	ME-MS41	S	0.01-10%			
ME-MS41	Ge	0.05-500	ME-MS41	Sb	0.05-10,000			

Source: ALS Global, 2014

After drying using ALS code DRY-22, rock chip, trench and core samples were crushed to 70% passing -2 mm (ALS code CRU-31) and a 1,000 g split was collected using a riffle splitter (ALS code SPL-21). The 1,000 g split was pulverized to 85% passing 75 microns (ALS code PUL-32). Koza requests a larger split pulverized to help mitigate the nugget affect.

Cores and trench samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A minimum sample of 1 g is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package includes mercury analyzed by method Hg-CV41. In this method, mercury content is determined using aqua regia digestion and cold vapor AAS. Gold was analyzed using ALS code Au-AA24, which is gold by FA using a 50g charge with an Atomic Absorption Spectroscopy (AAS) finish. Table 12.5.5.2 presents the analytes with upper and lower detection limits for ALS ME-ICP61m, Hg-CV41 and Au-AA24.

Table 12.5.5.2: Analytes and Upper and Lower Detection Limits for ALS Codes ME-ICP61m, Hg-CV41 and Au-AA24 in ppm Unless Otherwise Noted

Method	Analyte	Range	Method	Analyte	Range	Method	Analyte	Range
Au-AA24	Au	0.005-10	ME-ICP61m	Cu	1-10,000	ME-ICP61m	S	0.01-10%
Hg-CV41	Hg	0.01-100	ME-ICP61m	Fe	0.01-50%	ME-ICP61m	Sb	5-10,000
ME-ICP61m	Ag	0.5-100	ME-ICP61m	Ga	10-10,000	ME-ICP61m	Sc	1-10,000
ME-ICP61m	Al	0.01-50%	ME-ICP61m	K	0.01-10%	ME-ICP61m	Sr	1-10,000
ME-ICP61m	As	5-10,000	ME-ICP61m	La	10-10,000	ME-ICP61m	Th	20-10,000
ME-ICP61m	Ва	10-10,000	ME-ICP61m	Mg	0.01-50%	ME-ICP61m	Ti	0.01-10%
ME-ICP61m	Ве	0.5-1,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	TI	10-10,000
ME-ICP61m	Bi	2-10,000	ME-ICP61m	Мо	1-10,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Ca	0.01-50%	ME-ICP61m	Na	0.01-10%	ME-ICP61m	V	1-10,000
ME-ICP61m	Cd	0.05-1,000	ME-ICP61m	Ni	1-10,000	ME-ICP61m	W	10-10,000
ME-ICP61m	Co	1-10,000	ME-ICP61m	Р	10-10,000	ME-ICP61m	Zn	2-10,000
ME-ICP61m	Cr	1-10,000	ME-ICP61m	Pb	2-10,000			

Source: ALS Global, 2014

## 12.5.6 Quality Assurance and Quality Control

Koza inserts sample blanks and preparation duplicates into the sample stream at a rate of one in every 30 samples and inserts CRMs at a rate of one in every 50 sample for soil, stream sediment and outcrop sampling. Koza always use a minimum one CRM for every batch of soil, stream sediment and outcrop samples. The QC samples were in acceptable limits for the exploration samples.

Analytical Solutions Ltd. (2013) reviewed the Koza QA/QC procedures and recommended that during early exploration projects, Koza submit a "high proportion of duplicates and fewer standards" with soil, stream sediment and outcrop samples. The purpose of this is that precision and not accuracy are more important at this stage of a project. Analytical Solutions Ltd. specifically stated that field duplicates were the most important by testing sampling collecting error and site variability. It was recommended that Koza add field duplicates to its early stage sampling QA/QC programs. SRK supports these recommendations and is of the opinion that they are appropriate and should be accepted as part of Koza's QA/QC program.

Koza has begun drilling at Taşkapı. This was a small drilling program and the early exploration protocol is acceptable for this effort. However, for future drilling at the project, SRK recommends that Koza use its standard drilling QA/QC at Taşkapı. This includes increasing the number of CRMs used, adding core duplicates and preparation duplicates to the program and increasing the insertion rate on CRMs.

Koza's standard QA/QC program includes the insertion of the following control samples at the listed frequencies:

- Preparation blanks,1 per 50 samples,
  - If the samples are from a drillhole and there are less than 50 samples, then 1 per drillhole;
- Duplicate samples, 1 per 30 regular samples; and
- CRMs 1 per 50 sample batch.

The duplicates used by Koza include field, core, preparation and pulp duplicates depending on the project status. For example an advanced drilling program may not need to use core duplicates. Koza uses the following performance gates to monitor control samples and identify analytical failures:

- Preparation blanks are 5x the lower analytical detection limit;
- Duplicates are ±30% for core duplicates, ±20% for preparation duplicates and ±10% for pulp duplicates and check samples to a second laboratory; and
- CRMs are ±2 standard deviations with ±10% sometimes used in smaller datasets or if ±2 standard deviations exceeds ±10% of the expected mean.

When a failure occurs, Koza assesses the failure and decides on a course of action. If it is only one failure, Koza reanalyzes five samples before and after the failure. However, in the case of multiple failures, Koza may reassay the entire batch. These actions are industry practice.

SRK recommends that Koza use at least two CRMs but optimally three CRMs during the QA/QC program. The CRMs should be selected to bracket expected mineralization grades. The CRMs should include one near a possible CoG of mineralization, one near the average grade and one at the approximate 80<sup>th</sup> percentile grades in the sample population. The higher grade CRM should not

test the outliers. SRK also recommends that Koza consider the following performance gates for CRMs:

- If one analysis is outside of ±2 standard deviations it is a warning;
- Two or more consecutive analyses outside of ±2 standard deviations is a failure;
- If an analysis is outside ±3 standard deviations it is a failure if ±3 standard deviations does not exceed ±10% of the mean; and
- If the ±3 standard deviations exceed ±10% of the mean, then ±5 to ±10% should be used.

Ore Research & Exploration (OREAS) who manufactures CRMs, recommends using these performance gates and has started printing this information on CRM certificates as part of a guide for use of the CRM. ALS Global uses ±3 standard deviations during analysis as a performance gate for internal CRMs (ALS Global, 2012). Koza is using a more restrictive performance gate that may result in unnecessary failures.

## 12.5.7 Budget and Exploration

Exploration is ongoing at Taşkapı. Koza has budgeted TL1.5 million (US\$680,000) for both Taşkapı and Çakıllıtepe for additional geophysics, trenching and drilling. SRK is of the opinion that the budget will be adequate to test anomalies but will need to be reassessed once additional data is available to advance this project to resource delineation.

### 12.6 Environmental

Koza has EIA exemption for the Taşkapı prospect as of 2009. This has been renewed as of July 10, 2014. This exemption is valid for 5 years.

# 13 Mineral Potential

JORC (2012 Clause 17-19) recognizes that when there is insufficient exploration to estimate a Mineral Resource under JORC guidelines it is often appropriate to comment on and discuss exploration results in terms of mineral potential provided that such information relating to exploration targets is not misconstrued as an estimate of Mineral Resources or Ore Reserves. In these cases, mineral potential of exploration targets is represented as a range of tonnes and grades, the basis for the stated mineral potential, description of the level of completed exploration, details of testing to confirm the validity of the exploration target and a timeframe within which the testing is expected be completed.

The Koza exploration team has many exploration targets that have been sampled and explored with enough detail to be expressed as mineral potential. The potential quantity and grade of the exploration targets described below is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. Table 13.1 presents SRK's evaluation of the mineral potential in the resource and exploration areas including evaluation timeframes. Detailed information on the assumptions supporting the mineral potential including basis for potential, proposed testing to confirm potential and exploration budget information can be found in Volume 9. The expected duration in months to evaluate the potential with possible conversion to resources is shown on Table 13.1. The timeframe is between 2014 and 2018; as shown in Table 13.2. There is no guarantee that with additional exploration, any of the Koza exploration projects in the following table will advance to a resource stage.

**Table 13.1: Exploration Potential at Koza Properties** 

Avec	M	t	g/t	Au	oz	Au	Duration	Duration (months)				
Area	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Period			
Çukuralan Main	2.9	3.8	3	4.5	280,000	560,000	8	18	2015-2017			
Çukuralan SE	0.5	0.5	1	4.5	17,000	78,000	5	10	2015-2017			
Aslantepe	2.4	4.7	1.5	1.9	114,000	288,000	10	20	2015-2018			
Kıratlı	0.75	1.0	2	2.5	46,000	84,000	5	10	2015-2017			
Karapınar	4.7	7.2	0.5	2.5	75,000	577,000	10	24	2015-2019			
Kubaşlar	0.7	0.7	0.5	1.6	12,000	38,000	12	24	2016-2017			
Dedetepe	2.2	3.1	0.24	1	17,000	100,000	8	14	2016-2018			
Ahatlar	0.6	1.5	1	1.5	18,000	75,000	8	16	2016-2018			
Kaymaz - Mermerlik	0.1	0.2	2	2	13,000	31,000	6	12	2015-2017			
Söğüt Akbaştepe	1.8	3.0	10	12	586,000	1,200,000	12	24	2015-2017			
Söğüt Hayriye	0.15	0.3	3	6	15,000	58,000	6	12	2015-2017			
Söğüt Korudanlık	1.6	5.1	5	6	256,000	1,000,000	12	24	2015-2018			
Söğüt Kışladere	0.3	1.0	1	3	10,000	96,000	12	24	2015-2019			
İşikdere	2.9	4.6	0.5	2	46,000	299,000	8	14	2015-2018			
Hasandağ	14.9	26.5	0.5	1	240,000	852,000	12	24	2015-2019			
Torul Epithermal	1.5	1.7	0.9	1.5	43,000	85,000	6	12	2015-2019			
Torul Porphyry	1.9	3.9	0.5	0.5	31,000	63,000	12	36	2015-2019			
Taşkapi	0.3	0.6	1	2	10,500	42,000	12	36	2015-2019			
Hapan 1	2.0	2.0	1	2.5	64,000	161,000	6	12	2015-2019			
Bulancak	0.8	1.1	1	1.5	25,000	56,000	6	12	2015-2019			
Çakillitepe	0.09	0.1	2	10	6,000	33,000	6	12	2015-2019			
Küçükdoğutepe	0.2	0.2	1	2	7,500	13,000	6	12	2015-2019			
Büyükpinar	2.6	2.6	0.2	1.5	17,000	125,000	10	20	2015-2018			
Kirinti	5.0	5.0	0.5	5	80,000	804,000	12	24	2015-2019			
Total	51	80	0.2	12.0	2,029,000	6,718,000						

This table has not changed from December 2013.

Koza drilled at Söğüt Akbaştepe and Korudanlik in 2014, but did not receive the necessary permits to drill at the other sites.
 Work is not planned at Ahatlar, Kubaşlar or Dedetepe during the 2015 field season. Budgets reflect permitting.
 Source: SRK

Table 13.2: Timeframe for Evaluation of Exploration Potential and Possible Conversion to Resource

Barranto Aura	Time (n	nonths)						20	15	·							2016					2017				20	18			2	019	
Property Area	Minimum	Maximum	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Q1	Q2	2	Q3	Q4	Q1	Q2	Q	3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Çukuralan Main	8	18																														
Çukuralan SE	5	10																														
Aslantepe	10	36																														
Kıratlı	5	12																														
Karapınar	10	72																														
Kubaşlar	5	10																														
Büyükpinar	10	20																														
Dedetepe	8	14																														
Ahatlar	8	16																														
Kaymaz - Mermerlik	6	12																														$\Box$
Söğüt Akbaştepe	12	24																														
Söğüt Hayriye	6	12																														
Söğüt Korudanlık	12	24																														
Söğüt Kışladere	12	24																														
lşıkdere	12	18																														
Hasandağ	12	24																														
Torul Epithermal	6	15																														$\prod$
Torul Porphyry	24	48																														
Taşkapi	24	48																														
Hapan 1	12	48																														
Bulancak	12	36																														
Çakillitepe	12	24																														
Küçükdoğutepe	12	24																														
Kirinti	12	48																														

Source: SRK, 2014

#### Çukuralan

Koza successfully drilled the Çukuralan Project, during the period from 2007 to 2013, identifying a resource of 2.3 Moz of gold in Measured and Indicated resources and an additional 0.51 Moz of gold in Inferred resources. The deposit remains open along strike to the northeast and southwest. Additional vein material has been identified and surface sampled on strike to the northeast. The southwest extension is covered by later volcanic flows and a geophysics survey of the area shows an anomaly with the same response as the resource area. In addition, Koza has identified two additional gold-bearing zones, the NW Zone and the KOZ Zone, to the southeast, perpendicular to the main structure. These two zones have been soil sampled on an approximate 50 m x 100 m grid and selectively outcrop sampled. Koza is waiting for approval of drilling permits for this area. The potential assigned to Çukuralan has been divided between the extension of the main vein to the northeast and the gold-bearing structures to the southeast but excludes the geophysical anomaly. To estimate a tonnage, the specific gravity used at the Çukuralan Mine was used.

The main vein potential is based on identification of an additional 600 to 800 m of strike length averaging five meters thick with a down dip extension of 400 m. This area is on strike with the mine and currently has no drilling but has been sampled in outcrop. There appears to be no structural offsets along this trend although Koza has mapped some additional vein structures crosscutting this area. These structures are not included in the potential. Grade range is based on the average grades at the mine. A density of approximately 2.41 g/cm³ was used based on measurements used in resource estimation. Koza plans to verify this through additional drilling expected to be completed in 8 to 18 months.

Potential on the two southeast zones is based on the cumulative length of the vein structures of approximately 2,200 m, a vein width of 1 m and a down dip extension of approximately 100 m. A lower grade was allowed for the minimum with a maximum the same as the average grade at the Çukuralan Mine. Koza plans to verify this through additional drilling expected to be completed in 5 to 10 months. Koza has budgeted TL781 million (US\$347,000) for exploration drilling during 2014 at Çukuralan.

#### **Aslantepe**

The Aslantepe Project is a low sulfidation epithermal gold vein system that has been channel sampled in surface exposures, soil sampled and has data from 37 drillholes. Drill spacing ranges from 50 to 100 m. Aslantepe has a JORC compliant inferred resource of 23,000 oz Au at an average grade of 2.45 g/t Au.

Potential is based on areas adjacent to the Inferred resource that are open along strike and dip and is unconstrained by drilling. This represents a length ranging from 1,000 to 2,000 m, a 200 m down dip extension and 5 m average width. Grades are based on the weighted average of the samples and a density of 2.36 g/cm<sup>3</sup> based on actual core measurements used in resource estimation. Koza plans to verify the potential over the next 10 to 20 months and has budgeted TL2.1 million (US\$952,000) for exploration drilling during 2015.

#### Kıratlı

Koza acquired the Kıratlı project in 2006 from Normandy, which had completed limited exploration at the site. The gold mineralization occurs in a vein structure which forms a prominent outcrop and Koza has recently identified another structure a few kilometers south. Koza's exploration includes

mapping, soil and channel sampling and drilling 5,608 m in 37 core holes. Drill spacing ranges from approximately 50 to 90 m. The resource estimate is 135,000 oz of gold of inferred material with an average grade of 2.24 g/t Au.

SRK has assigned potential based on an approximate 550 m extension of the vein zone averaging 5.5 to 8 m thick with a down dip extension of 100 m. Grade is based on the approximate average grade of the deposit and a density of 2.41 g/cm<sup>3</sup> from core measurements used for resource estimation. Koza plans to verify the potential over the next 5 to 10 months. Kiratli is within the Ovacık Mine exploration budget and exploration in the deposits around the mine will be part of a TL1.5 million (US\$687,000) exploration effort. Verification will be through drilling.

#### Karapınar

The Karapınar property consists of a prominent vein structure which can be traced over 2.5 km. The average width of the vein is 20 m, but pinches and swells to widths from 5 to over 100 m. There are numerous historic shallow workings on the vein which date from Roman times. To date, Koza has conducted initial mapping and limited rock chip sampling. SRK has assumed dimensions of 1,500 to 2,300 m combined length for the three areas, 6 m of thickness and 200 m of down dip extension based on the vertical extent of observed in topography and underground mapping and sampling. The approximate density of quartz of 2.6 g/cm³ was used to estimate tonnes and average Au grades between 0.5 and 2.5 g/t were used based on sample results. Koza plans to verify this potential in the next 10 to 24 months and has budgeted TL3.1 million (US\$1.4 million) for the 2015 drilling program. Verification will be through drilling.

#### <u>Kubaşlar</u>

Koza drilled more than 90% of the strike length of the Kubaşlar vein in 2010 and has cut off mineralization to the northwest and at depth. Drillhole spacing is approximately 50 to 100 m. There is a single drillhole at the east-southwest which indicates that mineralization may continue in that direction. There is currently an inferred resource for this project of 14,000 oz at an average grade of 2.17 g/t Au.

SRK estimates that there may be an additional 600 m of mineralization along strike, 100 m down-dip and 5 m of thickness at gold grades between 0.5 and 1.6 g/t Au based on the range of surface samples. A density of 2.48 g/cm³ based on measurements of drill core was used to estimate a tonnage range. Koza expects to verify the potential in 12 to 24 months through drilling. No drilling was completed during 2014 while drill permits were being acquired. Koza has budgeted TL24,000 (US\$11,000) for licensing fees during 2015. Koza expects to move forward with exploration in 2016.

#### **Dedetepe**

The Dedetepe property is located about 1 km north of the Ovacık mine and is an epithermal, low sulfidation vein gold deposit similar to Ovacık. Steeply dipping veins up to 3 m in width have been mapped over a strike distance of about 350 m. Koza has drilled nine drillholes at Dedetepe on an irregular grid of approximately 100 m. Koza has defined four to five mineralized zones within the drillholes based on a 0.3 g/t Au grade shell. There is no resource estimate for Dedetepe.

SRK has assumed a strike length of approximately 800 m, a down dip length of 150 m and thicknesses ranging from 7 to 10 m based on the drilling. SRK used 2.6 g/cm³, the approximate density of quartz, to estimate tonnage and a grade range of 0.24 g/t to 1 g/t Au. Koza anticipates

verification of the potential in 8 to 14 months. Dedetepe is within the Ovacık Mine exploration budget and exploration in the deposits around the mine will be part of a TL1.5 million (US\$687,000) exploration effort. Verification will be through drilling. Koza expects to drill at the Dedetepe in 2016.

#### **Ahatlar**

The potential at Ahatlar is based on Koza's limited sampling of the silica cap and assumed dimensions based on mapping, as well as limited information from Tüprag drilling. Silica caps and gossans are indications that mineralization may be present but silica caps and gossans may or may not have significant gold grades. SRK cannot confirm the presence of a vein zone from the information provided. As a result, potential is limited to the immediate area around the high-grade samples. Currently, the sampling has been rock chip, stream sediment and soil sampled. The project includes ten trenches. Soil samples were completed on 100 m centers over the anomalies.

To determine potential, SRK has used length and width of the sampled zones with a range of 150 to 200 m long by 50 to 100 m wide with a vertical extent of 30 m. SRK used a range of 1.5 to 5 g/t Au based on weighted average grades and a specific gravity of 2.6 g/cm³ based on the approximately density of quartz to determine tonnes. Koza plans to verify this target in 8 to 16 months through drilling and has been working on obtaining drill permits for Ahatlar. The 2015 budget for this project is approximately TL302,000 (US\$134,000) and reflects the permitting effort. The budget will be reassessed later in 2015 but Koza expects to begin drilling in 2016.

#### Kaymaz-Mermerlik

Koza acquired the Kaymaz property from Tüprag in 2006. Tüprag had conducted mapping, stream sediment and soil sampling, trenching, geophysical surveys and drilling on the property. Tüprag and Koza combined drilling at Kaymaz is 43,015.9 m in 374 core holes and 11,526.86 m in 177 RC holes. There is an additional 7,077.86 in 66 trenches.

At Kaymaz-Mermerlik, there are 76 drillholes and 4 trenches totally 7,901.4 m and 410 m, respectively. Drillhole spacing is approximately 20 m. The mineralization appears to have been cut off by drilling with the exception of some deeper mineralization in both areas. There is currently a JORC compliant Measured and Indicated resource estimate of approximately 68,800 oz Au at 2.51 g/t and an Inferred resource estimate of approximately 14,500 oz Au at 2.50g/t.

SRK has assumed that the mineral potential is approximately 20% to 30% of the current mineral resource. Verification of this potential is planned in 6 to 12 months through step out drilling and infill drilling. The exploration budget for Kaymaz is approximately TL30,000 (US\$13,000) for licensing fees. Exploration at the site is handled by the mine geologists under the mine budget. Koza is will reassess the budget for this project later this year.

#### Söğüt

The Söğüt property includes four areas: Korudanlik, Kışladere, Akbaştepe and Hayriye. At Korudanlik, narrow cuts and a small open pit are interpreted as evidence that this deposit was mined during Roman times. The other areas show no evidence of historic mining activities. The Mining, Research and Exploration Institute of Turkey (MTA) and Eurogold conducted exploration at Söğüt prior to Koza's acquisition. The MTA exploration included soil and rock chip samples, trenching, geophysical surveys and 10 core holes. Koza acquired the property in 2005 and has since conducted stream sediment sampling, trenching and drilling.

The 137 core holes and seven trenches at Akbaştepe were used in the 2012 resource estimation containing approximately 1.1 Moz Au at 12.00 g/t Au in indicated resources and approximately 2.0 Moz Au at 9.10 g/t Au in inferred resources. The vein zone has been drilled on 20 m centers. The Akbaştepe mineralization is open along strike. Potential at Akbaştepe is based on sections that are open to exploration and are cumulatively 750 m long x 1 to 5 m thick x 900 m down dip. A density of 2.7 g/cm³ was used based on measurements on core that are used in resource estimation. Grade is based on the resource estimate. Verification of the potential at Akbaştepe is expected in 12 to 24 months through drilling.

Hayriye exhibits similar characteristics as Akbaştepe and Koza has completed 66 drillholes at this project. The project has been drilled on approximately 25 m centers. Hayriye contains 16,000 oz Au at 3.07 g/t Au in indicated resources and 15,000 oz gold averaging 3.04 g/t Au in inferred resources. At Hayriye, potential is based on an extension that is 125 to 250 m x 2 to 5 m x 100 m. A density of 2.7 g/cm³ was used based on measurements on core that are used in resource estimation. Grade is based on the resource estimate. Potential is expected to be verified in 6 to 12 months through drilling.

Koza has a JORC Compliant resource estimation for Korudanlık of approximately 1.2 Moz Au at 6.25 g/t Au in Inferred resources. The project has been drilled on approximately 50 m centers. Korudanlık remains open down dip and along strike. This project has potential to increase by 50% Potential is based on areas that are open along strike and dip. The area at Korudanlık is approximately 1,000 m x 3 to 7 m x 700 m using a density of 2.7 g/cm³ from measurements on core. Grade is based on the resource estimate. Koza expects to verify the potential through drilling in the next 12 to 24 and is currently waiting for drilling permits to continue exploration.

Kışladere has no resource estimate at this time and is based on sample spacing. Kışladere remains open along strike and down dip. Potential is based on areas that are open along strike and dip. Kışladere potential is based on a 400 m x 3 m x 300 m area using the same density of 2.7 g/cm³ as at the other Söğüt areas. Grade is based on the weighted average of rock chips samples. Koza expects to verify the potential through drilling in the next 12 to 24 and is currently waiting for drilling permits to continue exploration.

Koza has budgeted TL7.5 million (US\$3.3 million) for exploration at the Söğüt project area. Exploration will be focused on drilling in all of the project areas. Koza is currently obtaining permits to drill at Korudanlik and Kısladere.

#### <u>Işıkdere</u>

lşıkdere is a copper-gold porphyry target. Koza has 5,000 oz Au averaging 1.66 g/t in Indicated resources and 21,000 oz Au averaging 1.68 g/t Au in inferred resources. Koza's work at lşıkdere has been focused on the resource area where drilling has been completed on a grid spacing of approximately 25 m x 100 m.

SRK has based potential ounces on drillhole information with the current extent of trench and rock chip sampling minus the resource. Potential is based on a 550 m x 45 to 65 m x 50 m zone using 2.6 g/cm<sup>3</sup> for density based on the approximate average density of quartz. Grade ranges were determined by using weighted averages from trench and drillhole samples which are in the range for the resource estimation. Verification of potential will be over the next 8 to 14 months by drilling. Koza has budgeted TL211,000 (US\$94,000) and is currently obtaining drilling permits.

#### <u>Hasandağ</u>

Hasandağ is another property acquired from Newmont and is a high sulfidation epithermal gold target. Newmont estimated a mineral inventory based on 26 drillholes. Koza has drilled an additional 11 drillholes on an irregular grid of approximately 100 m spacing and has estimated an inferred resource of 102,000 oz Au at an approximate average of 0.41 g/t Au. The mineralization remains open in all directions and mineral potential is based on replacing the Newmont mineral inventory. This would cover an area approximately 250 to 450 m x 225 m x 100 m. A 2.6 g/cm³ density based on the approximate density of quartz was used to estimate tonnage. Grade is based on the resource estimate. Verification of the potential is expected in 12 to 24 months through drilling. Koza is obtaining drilling permits and currently has a budget of TL478,000 (US\$213,000) for exploration.

#### **Torul**

The Torul property is located near the Mastra Mine and consists of two types of mineralization: low sulfidation epithermal vein gold mineralization in the southern portion of the license; and porphyry copper-gold in the northern portion of the license. The systems are separated by a river valley. There are currently no resource estimations for either project.

Potential in the epithermal mineralization is based on 51 drillholes at approximately 30 m intervals along the strike of the system. The potential is estimated using strike length, apparent thickness and down dip extension. This is approximately 1,500 to 1,000 m x 3 to 5 m x 125 to 150 m using an average quartz density of 2.6 g/cm<sup>3</sup> to estimate tonnage. Grade is based on the approximate weighted average of the core samples. Verification is expected to be completed in 6 to 12 months by additional drilling.

Koza has drilled approximately 32 drillholes at the porphyry target. This includes drilling along one east-west fence at 50 m intervals and additional drillholes drilled at 250 m offsets both north and south of this fence. Potential at this project is based on continuous mineralization in a 150 m x 50 to 100 m x 100 m zone using an average quartz density of 2.6 g/cm³ to estimate tonnage. Grade is based on the weighted average of the mineralized samples. Verification is expected in the next 12 to 36 months through drilling. Koza has budgeted TL1.0 million (US\$453,000) for exploration at the project.

#### Taşkapı, Hapan, Çakillitepe, Küçükdoğutepe/Ağadeve and Bulancak

Exploration potential for Taşkapı, Hapan, Çakillitepe, Küçükdoğutepe/Ağadeve and Bulancak are based on type and amount of sampling, continuity of mineralization, weighted averages of grades and length and width of mineralization based on sample distribution. If no depth information is available, depth has been estimated based on mineralization type. A density of 2.6 g/cm³ was used which is an approximate average for quartz vein material and host rocks. Drilling and trenching provide more confidence than surface outcrop sampling. Soil sampling has only been used to confirm mineralization for potential but has not been used to estimate tonnes and grade. Koza is currently obtaining drilling permits for many of these projects.

Taşkapı potential is based on surface sampling and vertical extent of mineralized structures present at the project. Koza has identified a high sulfidation epithermal area and this has been used for the basis for potential. Sample spacing is irregular but ranges from 10 to 100 m. Potential is based on a 500 to 1,000 m x 2.5 m x 100 m zone. A density of 2.6 g/cm³ was used to estimate tonnage. Grade is based on the weighted average of the samples in the structural zone. Koza is currently waiting on

drilling permits but expects to verify this potential in 12 to 36 months through additional surface sampling and drilling. The exploration budget for Taşkapı is shared with Çakillitepe and totals approximately TL1.5 million (US\$680,000).

Hapan potential is based on the length and width of the area where rock chip samples are consistently greater than 0.5 g/t. The assumed grade is the weighted average of the 51 samples within this area. Sample spacing is irregular but ranges from 10 to 100 m. The depth is based on a 2 m average thickness of the target thrust fault. Analysis is from outcrop samples which may not be representative of the average grade in the vein. Hapan potential is based on 1,100 m x 2 m x 350 m zone using a specific gravity of 2.6. The exploration budget for Hapan is TL1.5 million (US\$655,000). Verification is expected in 6 to 12 months by drilling at the project.

Bulancak potential is based on location of four outcrop samples greater than 0.5 g/t gold, vertical exposure of mineralization observed on sections of the vein and the total length of the vein. The rock chip samples are spaced at 50 to 100 m intervals with soil samples on a 100 x 200 m grid. The volume used for potential is approximately 200 to 300 m x 10 m x 150 m using a density of 2.6 g/cm<sup>3</sup> to estimate tonnage. Grade is based on the weighted average of the samples in the mineralized zone. Koza expects to verify this in 6 to 12 months through drilling and has budgeted TL1.1 million (US\$492,000) for exploration at Bulancak.

Çakillitepe potential dimensions are based on the distance between the two highest grade samples collected from the vein, the width of the vein and the elevation change between the two samples. Rock chip samples range from 10 to 100 m apart. The grade has been placed relatively low since these are rock chip samples not channel samples. Rock chip samples may not be representative of the average grade in the vein. The volume used for potential is 120 to 130 m x 2 m x 150 m using a density of 2.6 g/cm<sup>3</sup>. The exploration budget for Çakillitepe is shared with Taşkapı and totals approximately TL1.5 million (US\$680,000). Koza expects to verify this potential in the next 6 to 12 months by drilling.

Küçükdoğutepe/Ağadeve potential is based on samples from Küçükdoğutepe. The tonnage is based on the length of one vein and the width observed on site. Depth is based on elevation gain between the vein zones. The grade is based on the weighted average of rock chip samples collected by Newmont and Koza at approximately 10 to 100 m intervals along mineralized structures. Küçükdoğutepe/Ağadeve potential is from an volume 500 to 600 m x 1.5 m x 100 m and a density of 2.6 g/cm³ was used to estimate tonnage. Grade is based on the approximate weighted average of the structural zone. Verification of potential will be through drilling and is expected to be completed in 6 to 12 months pending receipt of drilling permits. Koza has budgeted TL88,000 (US\$39,000) for exploration.

## Büyükpınar

Büyükpınar is a copper-molybdenum-gold porphyry target. Koza has drilled approximately 9,185 m in 27 drillholes in the primary target area of the property and has identified a secondary porphyry target that will be an additional focus of exploration. Drill spacing is approximately 100 m.

SRK has based potential ounces on the surface extent of gold-bearing structures and drillholes information. These structures enclose a volume of 1,000 m x 10 m x 100 m and a density of 2.6 g/cm<sup>3</sup> is based on the approximately average of quartz was used to estimate tonnage. The grade is based on the weighted average of samples in this structure. Koza is planning to verify this potential

in 10 to 20 months but is waiting for drilling permits. The exploration budget for this project is TL1.5 million (US\$667,000) and will be reassessed once drill permits are received.

#### **Kırıntı**

Kırıntı is a copper-gold porphyry target with high sulfidation epithermal vein zones. Potential is based on silica/lithocap outcrop, 16 drillholes, surface sampling and vertical exposure of the epithermal zone. Gold grades are based on the weighted average of the surface and drillhole samples. The exposure enclose a volume of 250 m x 170 m x 45 m and a density of 2.6 g/cm³ was used, based on the approximately density of quartz, to estimate tonnage. Koza expects to verify this in 12 to 24 months through drilling and has budgeted TL153,000 (US\$68,000) for the 2014 exploration year. The current budget will be reassessed once drill permits are received.

### 13.1 Conclusions

There is significant potential at Koza's projects to increase the current JORC classified mineral resource statement for gold by up to 50%. The exploration and technical team at Koza are highly competent and have proven to be successful at identifying and developing resources at the operating mines and exploration projects. In many cases the maximum potential identified by the Koza exploration team has been successfully advanced to a JORC compliant resource. There is no guarantee that with additional exploration, any of the Koza exploration projects discussed in the previous section will advance to a resource level.

The capacity of Koza to maintain and expand the reserve and resource base to assure continuing levels of production and future expansion is dependent upon a commitment to acquire and explore potential mineral prospects. Koza has demonstrated this commitment through the establishment of an experienced exploration team and budgets to support exploration activities. Exploration priorities and long-term development options are based on an internal assessment of mineral potential within its extensive exploration portfolio at different stages of evaluation. Koza holds a number of exploration properties with excellent potential for developing resources after drilling or additional drilling. In addition, there are opportunities at the operating mines and resource areas to extend known mineralized structures and extend the mine life. In reviewing the reserve and resource replacement strategy of Koza, SRK is of the opinion that this mineral potential is material for the long-term development of the company. Koza has budgeted approximately TL49 million (US\$22 million) for exploration projects and TL3.4 million (US\$1.5 million) for exploration around operating mines for 2015, demonstrating the Company's ongoing commitment to finding and developing new projects as well as continuing to expand exploration at the operating mines.

# 14 References

- Albayrak, Ömer (2007), Personal communication.
- ALS Global (2012), ALS Minerals Technical Note: Quality Control Standards, A Laboratory Perspective, 4 p.
- ALS Global (2014), Schedule of Services & Fees, 2014 USD. 44 p. Analytical Solutions Ltd. (ASL), 2013. Ankara geochemistry, assaying and quality control sessions report to Koza Gold, dated May 31, 2013, 44p.
- ESRI Basemap NatGeo\_World\_Map (2013), National Geographic, ESRI, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, iPC, Accessed January 2013.
- ESRI Basemap World\_Topo\_Map (2013), Sources: ESRI, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, ESRI Japan, METI, Esri China (Hong Kong), and the GIS User Community, Accessed January 2013.
- Kara, Z. (2004), Newmont Mining Corporation Mineral Resources and Ore Reserve Report as of August 31, 2004, Ovacık Gold Mine, Unpublished Report by Normandy Madencilik, A.Ş., 76 p.
- Koza Altın İşletmeleri A.Ş. (2012), Various Tables and Information supplied by Koza via email and ftp site.
- Koza Altın İşletmeleri A.Ş. (2012) GIS Database.
- Koza Altın İşletmeleri A.Ş. (2012a) Exploration Projects PowerPoint Presentation.
- Okay, A.I. and Göncüoğlu, C. (2004), *The Karakaya Complex: A Review of Data and Concepts*, in: Turkish Journal of Earth Sciences, V.13, pp.77-95.
- Okay, A. I. (2008), Geology of Turkey: A Synopsis, Anschnitt, Vol. 21, pp 19-42
- Smith, M. T., Lepore, W.A., Incekaraoĝlu, T., Shabestari, P., Boran, H., and Raabe, K. (2014), Küçükdağ: A New, High Sulfidation Epithermal Au-Ag-Cu Deposit at the TV Tower Property in Western Turkey, in: Economic Geology, V. 109, No. 6, pp. 1501-1511.
- SRK Consulting (Canada), Inc. (2014). Independent Technical Report for the TV Tower Exploration Property, Çanakkale, Western Turkey prepared for: Pilot Gold Inc., Authors: Casey Hetman, James N. Gray and Gary Simmons, p.133.
- Yigit, O. (2006), *Gold in Turkey—a missing link in Tethyan metallogeny*, in: Ore Geology Reviews, Volume 28 Issue 2, pp 147-179.
- Yilmaz, H. (2002), Ovacık Deposit: An Example of Quartz-Adularia Type Gold Mineralization in Turkey, in: Economic Geology, Vol. 97, pp. 1829-1839.
- Yılmaz, Y., Güner, Y. and Şaroğlu, F. (1998), *Geology of the Quaternary Volcanic Centres of the East Anatolia*,in: Journal of Volcanology and Geothermal Research, Vol. 85, pp 173-210

Yilmaz, H. (2003), Exploration at the Kuscayiri Au (Cu) prospect and its implications for porphyry related mineralization in western Turkey, in: Journal of Geochemical Exploration, Vol. 77, pp. 133-150.

# 15 Glossary

### 15.1 Mineral Resources and Reserves

The JORC Code 2012 was used in this report to define resources and reserves.

A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes which may be limited or of uncertain quality and reliability.

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

A 'Measured Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes. The locations are spaced closely enough to confirm geological and grade continuity.

# 15.2 Glossary of Terms

Table 15.2.1: Glossary

Term	Definition
Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
Crushing	Initial process of reducing ore particle size to render it more amenable for further processing.
Cutoff Grade	The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution	Waste, which is unavoidably mined with ore.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
Fault	The surface of a fracture along which movement has occurred.
Flitch	Mining horizon within a bench. Basis of Selective Mining Unit and excavator dig depth.
Footwall	The underlying side of an orebody or stope.
Grade	The measure of concentration of gold within mineralized rock.
Haulage	A horizontal underground excavation which is used to transport mined ore.
Igneous	Primary crystalline rock formed by the solidification of magma.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level	Horizontal tunnel the primary purpose is the transportation of personnel and materials.
Milling	A general term used to describe the process in which the ore is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mining Assets	The Material Properties and Significant Exploration Properties.
SAG Mill	Semi-autogenous grinding mill, a rotating mill similar to a ball mill that utilizes the feed rock material as the primary grinding media.
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Sill	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase.
Spigotted	Tap/valve for controlling the release of tailings.
Stope	Underground void created by mining.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulfide	A sulfur bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Variogram	A statistical representation of the characteristics (usually grade).

# 16 Date and Signature Page

Signed on this 31<sup>st</sup> Day of January, 2015.

# **Endorsed by CPs:**



Dorinda K. Bair, BSc Geology, CPG

# Reviewed by:

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Bart Stryhas, PhD. CPG

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