

**Audit 2014
Volume 5 Söğüt
Resources and Reserves
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 2014 Volume 4 K Söğüt Resources and Reserves Koza Altın İşletmeleri A.Ş. Turkey

Koza Altın İşletmeleri A.Ş.

Istanbul
Yolu 10. Km. No: 310
Batikent – ANKARA

SRK Consulting (U.S.), Inc.
7175 West Jefferson Avenue, Suite 3000
Lakewood, CO 80235
e-mail: denver@srk.com
website: www.srk.com

Tel: +1.303.985.1333
Fax: +1.303.985.9947

SRK Project Number 173600.130

January 31, 2015

Contributors:

Gözde Kaya Akbaş, M.Sc., METU, Consultant GIS Specialist
Nilüfer Gümüş, B.Sc., Consultant Environmental Engineer
Ahmet Oğuz Öztürk, B.SC., Principal Mining Engineer

Endorsed by CPs:

Leah Mach, MSc Geology, CPG, Principal Consultant (Resource Geology)
Bret Swanson, BEng Mining, MAusIMM, MMSAQP, Principal Consultant (Mining Engineer)
Eric J. Olin, MSc, MBA, SME-RM, Principal Consultant (Metallurgy)
Dorinda Bair, BSc Geology, CPG, Principal Consultant (Geologist)

Reviewed by:

Bart Stryhas, PhD, CPG, Principal Consultant (Resource Geologist)
Peter Clarke, BSc Mining, MBA, PEng, Principal Consultant (Mining Engineer)

Table of Contents

1	Introduction	1
1.1	Söğüt District	1
1.1.1	Property Description and Location	3
1.1.2	Climate and Physiography of the Söğüt District	4
1.1.3	History	4
1.1.4	Regional Geology	5
1.1.5	Local Geology	6
1.2	Exploration	9
1.2.1	Mapping	9
1.2.2	Geophysical Surveys	9
1.2.3	Sample Collection	10
1.2.4	Drilling	10
1.2.5	Sample Preparation	10
1.2.6	Quality Assurance/Quality Control	12
1.2.7	Exploration Plan and Budget	13
2	Akbaştepe Exploration, Resources and Reserves	14
2.1	Akbaştepe Local Geology	14
2.2	Exploration	14
2.3	Drilling/Sampling Procedures	14
2.3.1	Quality Assurance/Quality Control	15
2.4	Akbaştepe Mineral Resources	20
2.4.1	Geological Model and Assay Statistics	20
2.4.2	Capping and Compositing	23
2.4.3	Density	23
2.4.4	Variography	23
2.4.5	Grade Estimation	25
2.4.6	Block Model Validation	26
2.4.7	Mineral Resource Classification	30
2.4.8	Mineral Resource Statement	30
2.4.9	Mineral Resource Sensitivity	31
2.5	Akbaştepe Ore Reserve Estimation	34
2.5.1	Modifying Factors	34
2.5.2	Open Pit	36
2.5.3	Open Pit Reserves	42
2.5.4	Underground	42
2.5.5	Underground Reserves	52

2.6	Metallurgy Testwork	52
2.6.1	Test Composites	53
2.6.2	Comminution Tests	53
2.6.3	Metallurgical Studies: Korudanlik Oxide Composite	54
2.6.4	Metallurgical Studies: Akbaştepe Sulfide Composites	54
2.7	Process Design	61
2.7.1	Capital Cost Estimate	64
2.7.2	Process Plant Operating Cost	66
3	Korudanlık	68
3.1	Local Geology	68
3.2	Exploration	68
3.3	Drilling/Sampling Procedures	68
3.3.1	Quality Assurance/Quality Control	70
3.4	Korudanlik Mineral Resources	74
3.4.1	Geological Model and Assay Statistics	74
3.4.2	Capping and Compositing	76
3.4.3	Density	78
3.4.4	Variography	79
3.4.5	Grade Estimation	79
3.4.6	Block Model Validation	79
3.4.7	Resource Classification	81
3.4.8	Mineral Resource Statement	81
3.4.9	Mineral Resource Sensitivity	81
4	Hayriye	83
4.1	Local Geology	83
4.2	Exploration	83
4.3	Drilling/Sampling Procedures	83
4.3.1	Quality Assurance/Quality Control	84
4.4	Hayriye Mineral Resources	85
4.4.1	Geological Model and Assay Statistics	85
4.4.2	Capping and Compositing	87
4.4.3	Density	88
4.4.4	Variography	88
4.4.5	Grade Estimation	88
4.4.6	Block Model Validation	88
4.4.7	Resource Classification	88
4.4.8	Mineral Resource Statement	88

4.4.9 Mineral Resource Sensitivity	89
5 Kışladere	91
5.1 Local Geology	91
5.2 Exploration	93
5.3 Drilling and Trenching	93
5.3.1 Quality Assurance/Quality Control	93
6 Environmental	95
7 Conclusions and Recommendations	96
7.1 Geology and Resources	96
7.2 Mining	96
7.3 Metallurgy and Process	97
8 References	98
9 Glossary	99
9.1 Mineral Resources and Reserves	99
9.2 Glossary of Terms	100
10 Date and Signature Page	101

List of Tables

Table 1.2.2.1: Geophysical Surveys Completed at the Söğüt Projects	9
Table 1.2.5.1: Analytes and Upper and Lower Detection Limits for ALS Codes ME-MS41 and Au-ICP22 in ppm Unless Otherwise Noted	11
Table 1.2.5.2: 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	12
Table 2.3.1: Summary of Drilling, Trenching and Sampling at Akbaştepe	15
Table 2.3.1.1: Results of Au CRM Analyses at Akbaştepe	16
Table 2.3.1.2: Results of Ag CRM Analyses at Akbaştepe	16
Table 2.3.1.3: Summary of 2014 Preparation Duplicate Au Analysis at Akbaştepe	17
Table 2.3.1.4: Summary of 2014 Preparation Duplicate Ag Analysis at Akbaştepe	18
Table 2.3.1.5: CRM Au Analysis Comparison between SGS and ALS	18
Table 2.3.1.6: Summary of 2014 SGS Check Sample Au Analysis at Akbaştepe	19
Table 2.4.1.1: Statistics of Assays within the Akbaştepe Wireframes	20
Table 2.4.2.1: Statistics of Composites within the Akbaştepe Wireframe	23
Table 2.4.2.2: Statistics of Capped Composites within the Akbaştepe Wireframes	23
Table 2.4.4.1: Variogram Parameters	25
Table 2.4.5.1: Akbaştepe Estimation Parameters	25
Table 2.4.5.2: Akbaştepe Estimation Parameters for Blocks Un-estimated after Initial Three Passes	26

Table 2.4.6.1: Akbaştepe Comparison of Composites and Estimated Grades	26
Table 2.4.8.1: Akbaştepe Cutoff Grade Parameters	31
Table 2.4.8.2: Akbaştepe Mineral Resources, including Ore Reserves, at December 31, 2014	31
Table 2.4.9.1: Akbaştepe Cutoff Grades vs. Gold Price.....	32
Table 2.5.1.1: Akbaştepe Reserve Checklist.....	35
Table 2.5.2.1: Akbaştepe Pit Optimization Inputs (as of December 31, 2014)	36
Table 2.5.2.2: Rock Strength Parameters	37
Table 2.5.2.3: Factor of Safety Results	39
Table 2.5.2.4: Open Pit Production Schedule	40
Table 2.5.2.5: Open Pit Equipment List.....	41
Table 2.5.3.1: Akbaştepe Open Pit Mineral Reserves at December 31, 2014.....	42
Table 2.5.4.1: Weighted Mean of RMR Values for the Project Area (based on lithological units)	45
Table 2.5.4.2: Weighted Mean of RMR Values for GS (based on weathering degree)	45
Table 2.5.4.3: 2014 Akbaştepe Underground Cutoff Grade Calculation	46
Table 2.5.4.4: Details of Underground Mining Cost	47
Table 2.5.4.5: Underground Mine Proven and Probable Reserve	49
Table 2.5.4.6: Akbaştepe Underground Mining Equipment.....	51
Table 2.5.4.7: Akbaştepe Ventilation Requirement	51
Table 2.5.5.1: Akbaştepe Open Pit Mineral Reserves at December 31, 2014.....	52
Table 2.6.1.1: Head Analyses for the Korudanlık and Akbaştepe Test Composites.....	53
Table 2.6.2.1: Comminutions test Results.....	53
Table 2.6.4.1: Summary of Rougher Flotation Tests on the Akbaştepe C5-AR and C6-AR Test Composites.....	56
Table 2.6.4.2: Summary of Gravity + Cleaner Flotation Tests on C6 AR and C1-C2-C3 Composites	57
Table 2.6.4.3: Summary of Locked-Cycle Test on the C6 Core Composite	59
Table 2.6.4.4: Summary of Bulk Gravity/Rougher Flotation Test on the C1-C2-C3 Composite	60
Table 2.6.4.5: Process Flowsheet Gold Recovery Comparison.....	61
Table 2.7.1: Akbaştepe Major Process Design Criteria.....	64
Table 2.7.1.1: Akbaştepe Project Capital Cost Estimate.....	65
Table 2.7.2.1: Process Plant Operating Cost Summary.....	66
Table 2.7.2.2: Summary of Akbaştepe Process Plant Consumable Costs	66
Table 2.7.2.3: Akbaştepe Power Cost Estimate	67
Table 3.3.1: Summary of Drilling at Korudanlık	69
Table 3.3.1.1: Results of Au CRM Analyses at Korudanlık	70
Table 3.3.1.2: Results of Ag CRM Analyses at Korudanlık	70
Table 3.3.1.3: Summary of 2014 Preparation Duplicate Au Analysis at Korudanlık	71
Table 3.3.1.4: Summary of 2014 Preparation Duplicate Ag Analysis at Korudanlık	71
Table 3.3.1.5: CRM Au Analysis Comparison between SGS and ALS	72

Table 3.3.1.6: CRM Ag Analysis Comparison between SGS and ALS	72
Table 3.3.1.7: Summary of 2014 SGS Check Sample Au Analysis at Korundanlik	73
Table 3.3.1.8: Summary of 2014 SGS Check Sample Ag Analysis at Korundanlik	73
Table 3.4.1.1: Statistics of Assays within the Korundanliktepe Grade Shell	74
Table 3.4.2.1: Statistics of Composites within the Korundanlik Wireframe before Capping	78
Table 3.4.2.2: Statistics of Capped Composites within the Korundanlik Wireframe	78
Table 3.4.6.1: Korundanlik Comparison of Composites and Estimated Grades	79
Table 3.4.8.1: Korundanlik Cutoff Grade Parameters	81
Table 3.4.8.2: Korundanlik Mineral Resources at December 31, 2014.....	81
Table 3.4.9.1: Korundanlik Cutoff Grades vs. Gold Price	82
Table 4.3.1: Hayriye Summary of Drilling and Trenching	84
Table 4.3.1.1: Results of Au CRM Analyses at Hayriye	84
Table 4.3.1.2: Summary of Duplicate Au Analysis at Hayriye	85
Table 4.4.1.1: Statistics of Assays within Hayriye Grade Shell	86
Table 4.4.2.1: Statistics of Composites within the Hayriye Wireframe before Capping	87
Table 4.4.2.2: Statistics of Capped Composites within the Hayriye Wireframe	87
Table 4.4.6.1: Hayriye Comparison of Composites and Estimated Grades	88
Table 4.4.8.1: Hayriye Cutoff Grade Parameters	89
Table 4.4.8.2: Hayriye Mineral Resources at December 31, 2014.....	89
Table 4.4.9.1: Hayriye Cutoff Grades vs. Gold Price	89
Table 5.3.1.1: Results of Au CRM Analyses at Kışladere	93
Table 5.2.1: Glossary.....	100

List of Figures

Figure 1.1.1: Location Map Showing Söğüt.....	2
Figure 1.1.2: Individual Project Locations within the Söğüt District.....	3
Figure 1.1.1.1: Söğüt Project Land Tenure	4
Figure 1.1.4.1: Location of Söğüt in the Sakarya Terrane.....	5
Figure 1.1.5.1: Simplified Geologic Column for the Söğüt Project Area	6
Figure 1.1.5.2: Söğüt Geology Map.....	8
Figure 2.1.1: Local Geology of Akbaştepe	14
Figure 2.3.1: Akbaştepe Drillhole Location Map.....	15
Figure 2.4.1.1: Akbaştepe Drilling and Wireframes in Plan View	21
Figure 2.4.1.2: Long-section View of Akbaştepe Wireframes, looking north-northeast	21
Figure 2.4.1.3: Cross-section Showing Domains 1 and 2 and Internal Waste Zone, looking east	22
Figure 2.4.1.4: Cross-section Showing Domain 3, looking east.....	22

Figure 2.4.4.1: Omnidirectional Variogram – Domain 1	24
Figure 2.4.4.2: Omnidirectional Variogram – Domain 2	24
Figure 2.4.6.1: Akbaştepe Domain 1 Swath Plots	27
Figure 2.4.6.2: Akbaştepe Domain 2 Swath Plots	28
Figure 2.4.6.3: Akbaştepe Domain 3 Swath Plots	29
Figure 2.4.7.1: Block Classification and Drillholes used in Estimation in Plan View	30
Figure 2.4.9.1: Grade Tonnage Curves for Akbaştepe Resource	33
Figure 2.5.1: Open Pit and Underground Layout	34
Figure 2.5.2.1: Pit by Pit Analysis of the Akbaştepe Deposit	36
Figure 2.5.2.2: Pit Design vs. Whittle Shell Section	37
Figure 2.5.2.3: Open Pit Geotechnical Sections.....	38
Figure 2.5.2.4: Open Pit Stability Analysis	39
Figure 2.5.2.5: Open Pit Production Year 1 (Oblique View)	40
Figure 2.5.2.6: Open Pit Production Year 2 (Oblique View)	41
Figure 2.5.4.1: General Site Layout.....	43
Figure 2.5.4.2: Underground Development	44
Figure 2.5.4.3: Geotechnical Hole Placement	45
Figure 2.5.4.4: Underground String Layout	48
Figure 2.5.4.5: Underground Development Rate	50
Figure 2.5.4.6: Underground Ventilation.....	52
Figure 2.7.1: Akbaştepe Process Flowsheet	63
Figure 3.1.1: Local Geology of Korudanlık	68
Figure 3.3.1: Korudanlık Drillhole Location Map.....	69
Figure 3.4.1.1: Drilling and Mineralized Zone at Korudanlık in Plan View	75
Figure 3.4.1.2: Long-section View of Drilling and Mineralized Zone at Korudanlık, Looking Northeast, with Drillholes used to Construct Wireframe.	76
Figure 3.4.2.1: Histogram of Drillhole Sample Lengths	77
Figure 3.4.2.2: Comparison of Histogram of Koza Distributed Composite Lengths (left) and SRK Run Length Composite Lengths (right)	78
Figure 3.4.6.1: Korudanlık Swath Plots	80
Figure 3.4.9.1: Grade Tonnage Curves for Korudanlık Resource	82
Figure 4.1.1: Local Geology of Hayriye	83
Figure 4.4.1.1: Drilling and Mineralized Zone at Hayriye in Plan View	86
Figure 4.4.1.2: Oblique View of Drilling and Mineralized Zone at Hayriye, Looking Northeast.....	87
Figure 4.4.9.1: Grade Tonnage Curves for Hayriye Resource	90
Figure 5.1.1: Local Geology of Kışladere	92

Disclaimer & Copyright

Disclaimer	102
Copyright.....	102

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.

Abbreviation	Unit or Term
°	degree
%	percent
AA	atomic absorption
AAS	atomic absorption spectroscopy
Ag	silver
Amsl	above mean sea level
Au	gold
BLEG	Bulk Leach Extractable Gold
BWI	Bond Work Index
C	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
ft	feet/foot
g	gram
g/cm	grams per centimeter
g/t	grams per tonne
ha	hectares
HG	high-grade
hr	hour
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
LG	low-grade

Abbreviation	Unit or Term
LoM	life of mine
m	meter
M	million
m.a.	million annum
min	minute
mm	millimeter
Mm	million meter
Moz	million ounces
Mt	million tonnes
Mt/y	million tonnes per year
MVA	million volts amperes
NN	Nearest Neighbor
NPV	net present value
OK	Ordinary Kriging
OP	open pit
oz	ounce
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 Introduction

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, 2013. Koza's Mining Assets are located in the Ovacık Mining District, Mastra Mining District, and Kaymaz District, including Söğüt, as well as Mollakara in the Diyadin District in Eastern Turkey and Himmetdede in Central Turkey.

This report is Volume 5 Söğüt Resources and Reserves of the following ten volumes reports:

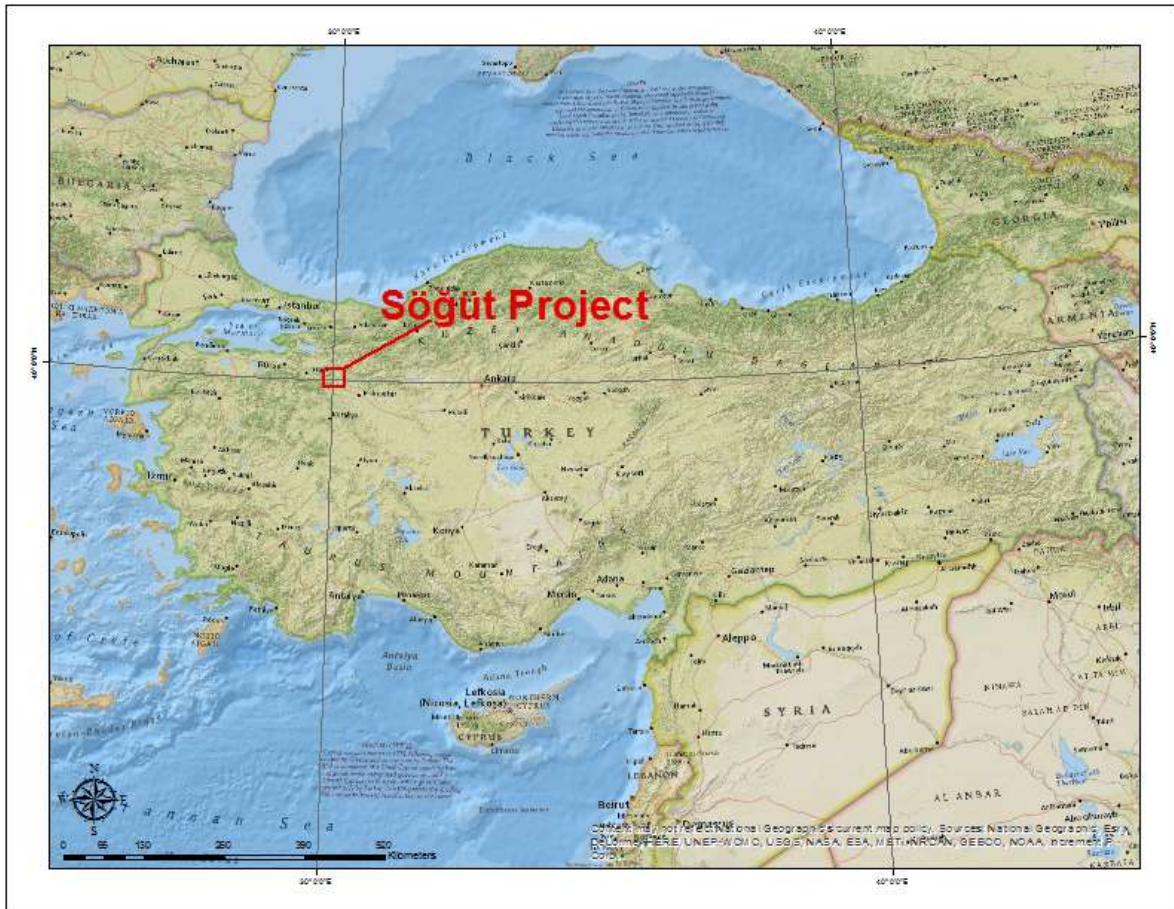
- Volume 1 Executive Summary;
- Volume 2 Ovacık Resources and Reserves;
- Volume 3 Mastra Resources and Reserves;
- Volume 4 Kaymaz Resources and Reserves;
- **Volume 5 Söğüt Resources and Reserves**
- Volume 6 Himmetdede Resources and Reserves;
- Volume 7 Mollakara Resources and Reserves;
- Volume 8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

This report is prepared in accordance with the 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. A map showing the location of Kaymaz and Söğüt is presented in Figure 1.1.

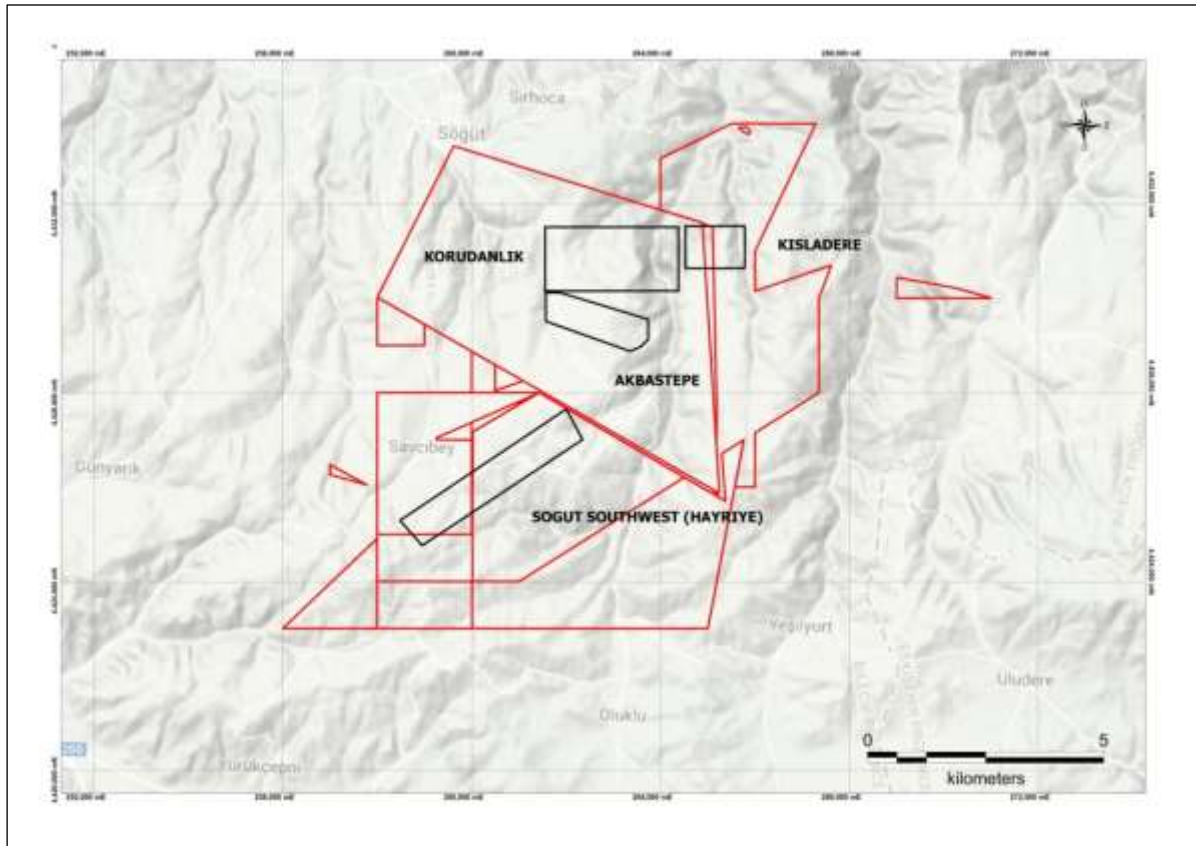
1.1 Söğüt District

The Söğüt District includes Akbaştepe, Korudanlık, Hayriye and Kışladere. The climate, physiology and regional geology of these mines and projects are discussed in this section of Volume 5. The Location of the Söğüt District is shown in Figure 1.1.1. Individual project locations within the Söğüt District are shown in Figure 1.1.2.



Source: Modified from ESRI Basemap NatGeo_World_Map, 2013

Figure 1.1.1: Location Map Showing Söğüt



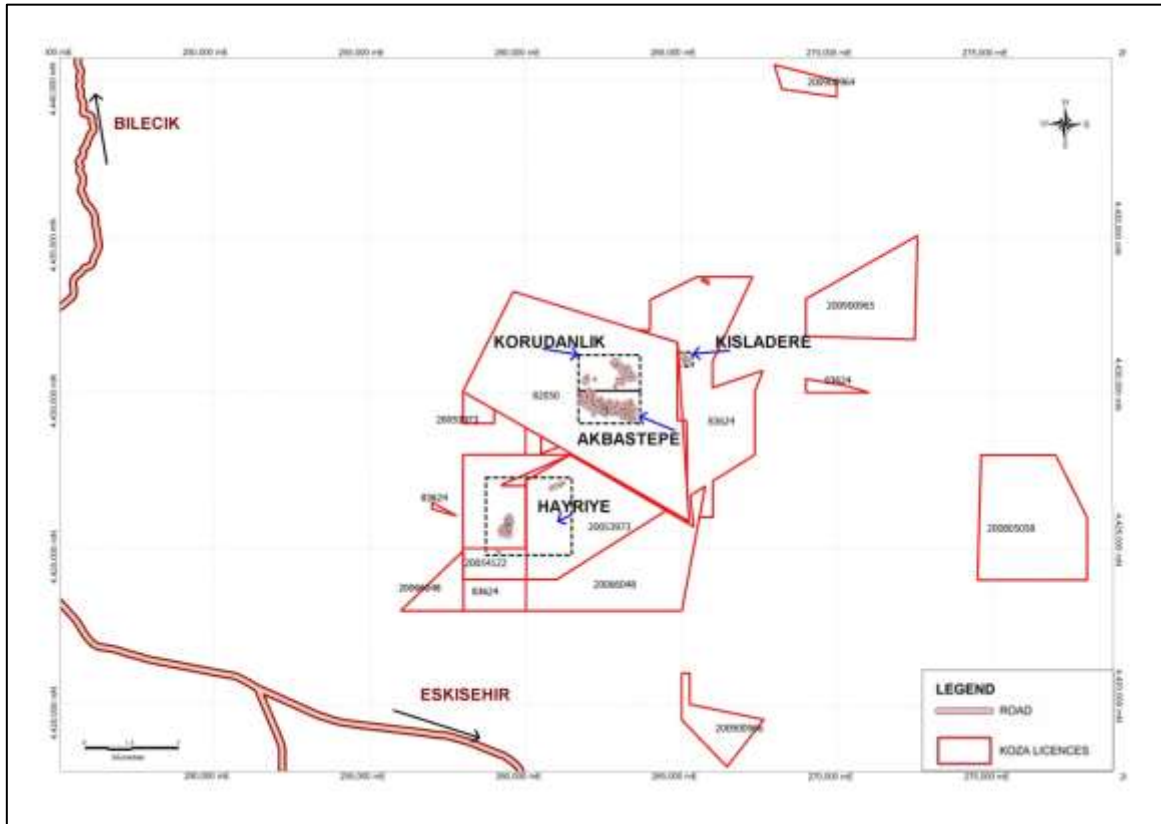
Source: Koza GIS, 2015; Basemap = ESRI Basemap World_Topo_Map, 2013

Figure 1.1.2: Individual Project Locations within the Söğüt District

1.1.1 Property Description and Location

The Söğüt Project is located in Central Anatolia, approximately 100 km northwest of Eskişehir and approximately 20 km SE of Bozüyük in central Turkey between UTM coordinates 4431500 N, 26200 E and 4428500 N, 264500 E in ED1950 Zone 36. The Söğüt Project consists of four areas. These are from northeast to southwest, Kışladere, Korudanlık/Yolocak, Akbaştepe and Hayriye also referred to as Söğüt Southwest.

The total land controlled by Koza at the project is 8,033.97 ha. This is held in four operation and one exploration licenses. The four operations licenses are 82050, 20053973, 20054122 and, 83624. Operation license 82050 is approximately 2,976 ha and has two permits associated with it. One permit is for wolframite, a tungsten mineral ((Fe, Mn)WO₄), that covers the same area as the operation license, and the second is for gold and silver and is over 294.1 ha of the license area. The three other operation licenses, 20053973, 20054122 and, 83624, have a combined area of 3,769.48 ha. The exploration license at Söğüt is 20066048, totaling 1,288.67 ha. The exploration license has expired and Koza is in the process of converting this to an operation license. Söğüt Project land tenure is shown in Figure 1.1.1.1.



Source: Koza GIS, 2015

Figure 1.1.1.1: Söğüt Project Land Tenure

1.1.2 Climate and Physiography of the Söğüt District

The Söğüt project experiences a continental climate with cold, harsh winters and dry summers with moderate to hot temperatures. Average temperatures range from 0°C in January to 22°C in July and August. The maximum temperatures may reach 40°C in the summer. 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. Söğüt is located at approximately 850 to 1,000 m elevation in an area of moderate relief and rolling hills.

1.1.3 History

MTA (Mining, Research and Exploration Institute of Turkey) held the project in 1995 and again between 1997 and 2004. Eurogold Madencilik, S.A. (Eurogold) held the project in 1996. Previous work at the Söğüt property includes exploration conducted by MTA and Eurogold. MTA collected 41 Bulk Leach Extractible Gold (BLEG) samples, 70 soil samples, 13 rock chip samples and mapped the project area at a 1:25000 scale between 1994 and 1995. In 1996 Eurogold held the property and completed 45 soil samples, 30 rock chip samples and 47 bulk samples. The 47 samples were collected from the historic mine dump. Between 1997 and 2004, MTA collected an additional 170 soil samples, 6 channel samples, 266 rock chip samples, excavated 831 m of trenches and drilled 10

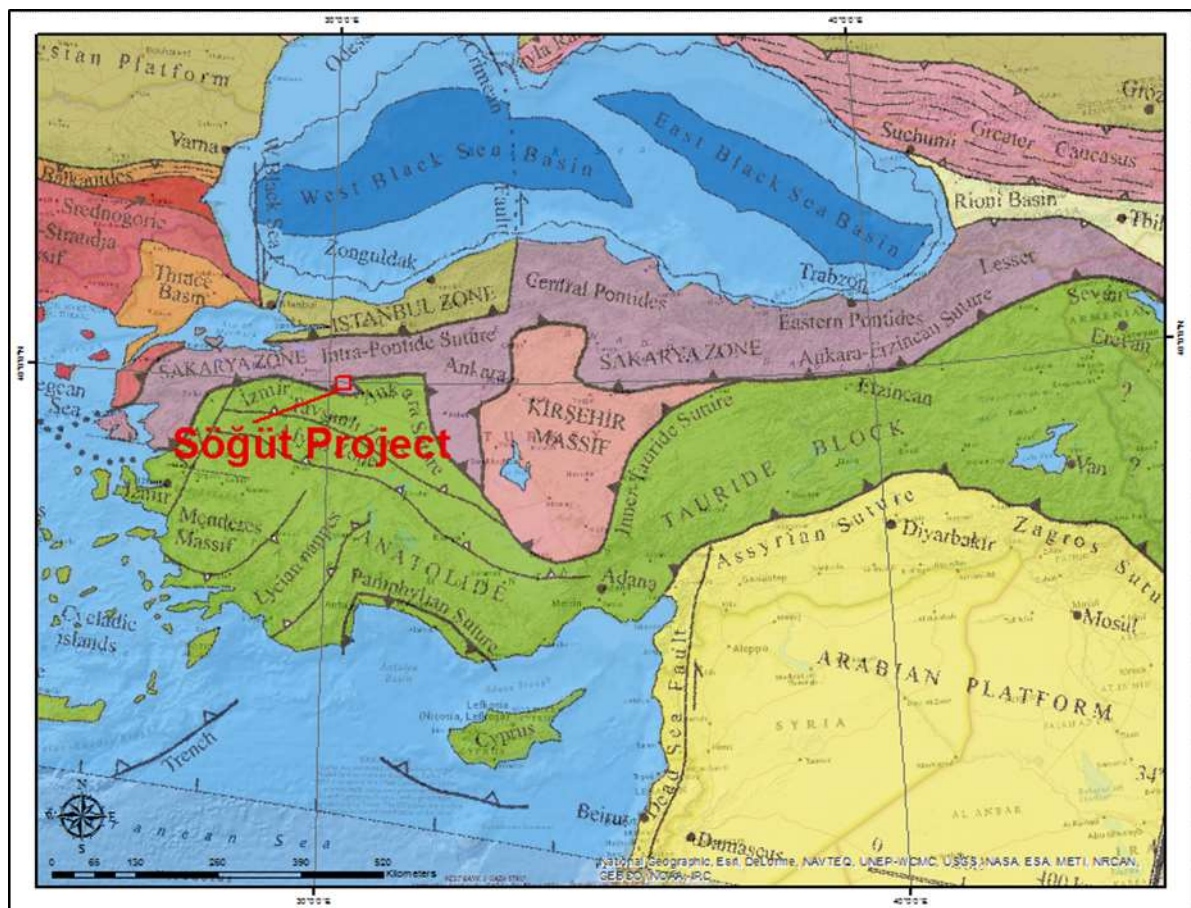
core holes. In addition to this, MTA performed geophysical surveys of the property and mapped the area at a 1:2000 scale. Koza acquired the property in 2005.

1.1.4 Regional Geology

The project is located in the Western Anatolian Extensional Tectonic Province in a region noted for low and high sulfidation epithermal deposits and porphyry copper deposits. This zone extends from north central Turkey to the Aegean Sea, and many deposits within it are linked to Paleogene and Neogene period volcanism and Upper Mesozoic to Tertiary age intrusive events (Okay, 2008).

The project is also located at the southern margin of the Sakarya Terrane (Figure 1.1.4.1) near the İzmir-Ankara Suture (Okay and Göncüoğlu, 2004). The Paleozoic age rocks have undergone greenschist metamorphism. Local areas of blueschist metamorphism are associated with the Afyon Zone that forms part of the suture between the Sakarya and Tauride-Antolide Terranes. Blueschist metamorphism is associated with subduction and is the result of high pressure and relatively low temperatures.

The Paleozoic rocks are overlain by Permo-Triassic age Karakaya group and Jurassic age sandstone and limestone (Eurogold, 1996).

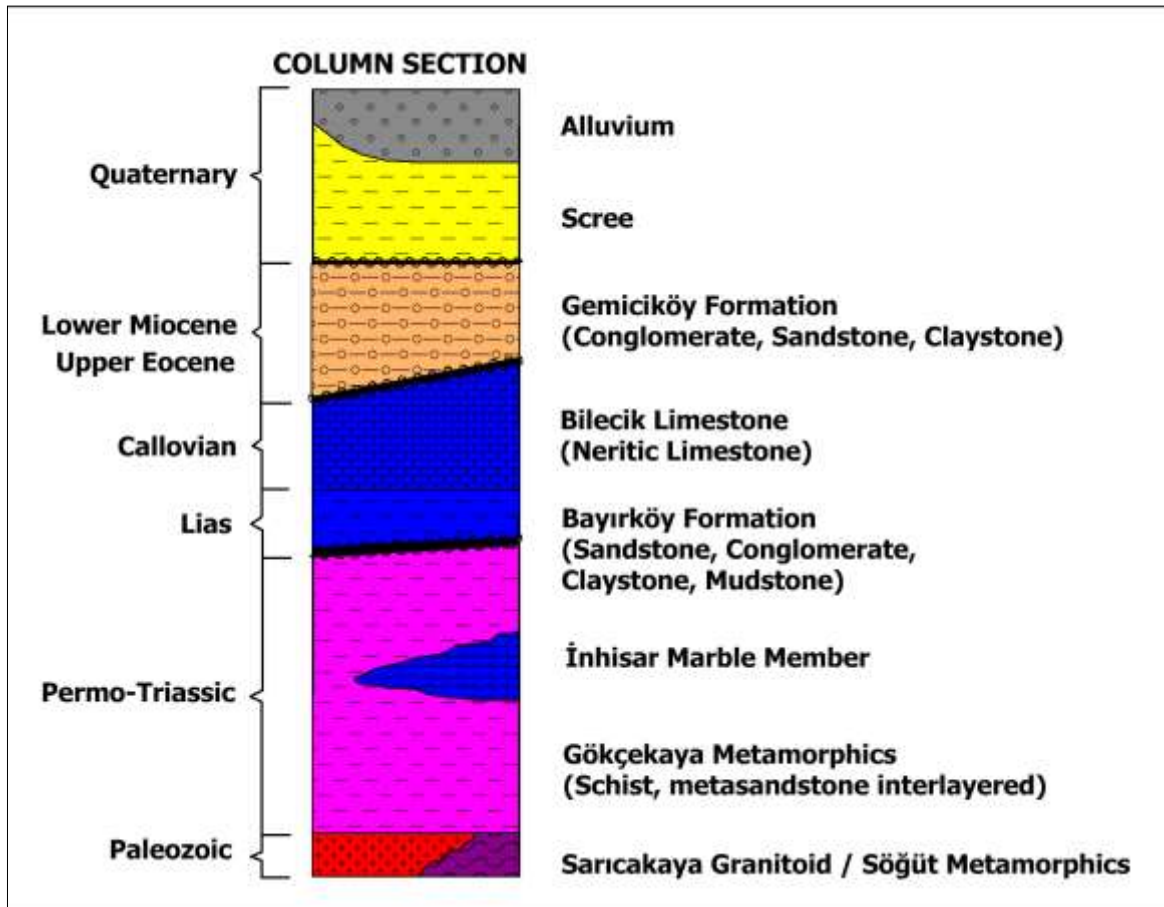


Source: Modified from Okay et al, 2010; ESRI Basemap NatGeo_World_Map, 2013

Figure 1.1.4.1: Location of Söğüt in the Sakarya Terrane

1.1.5 Local Geology

The basement rocks in the project area are Paleozoic age rocks including the Sarıcakaya Granitoid and the Söğüt metamorphics. They are overlain by Karakaya Group, Permian and Triassic age rocks including marble, granite gneiss and blueschist, which are unconformably overlain by Triassic age spillite, limestone and sandstone. To the northwest of the property are Jurassic age (Lias and Callovian) sandstone and limestone. The youngest rocks at this location are Neogene conglomerate and sandstone as well as a travertine of indeterminate age. The Triassic age limestone and the Paleozoic age schist are thought to be separated by a thrust fault. The area is interpreted as a thrust belt associated with the suture between the Sakarya and Tauride-Antolide Terranes. A simplified geologic column is presented in Figure 1.1.5.1.



Source: Koza, 2012

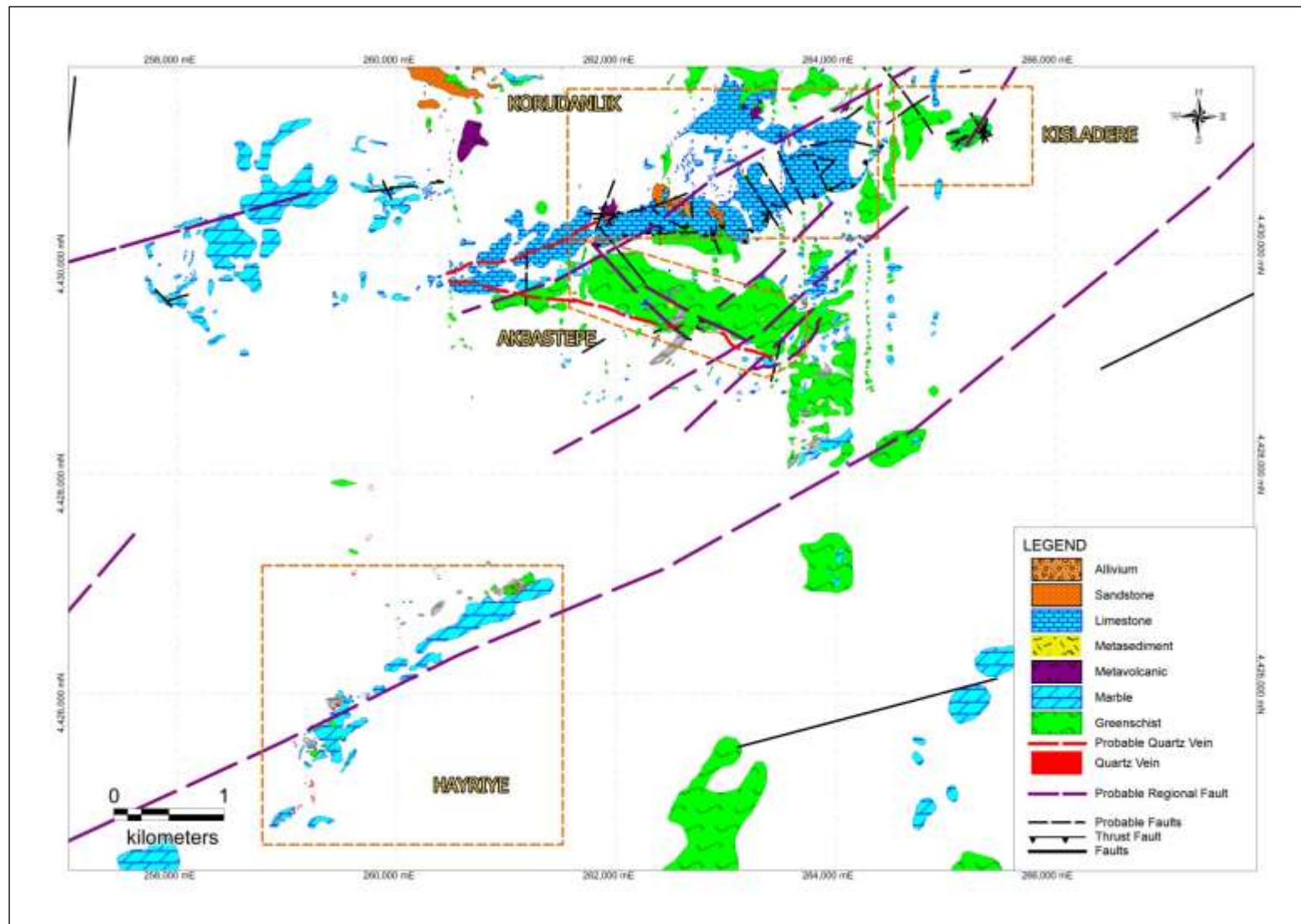
Figure 1.1.5.1: Simplified Geologic Column for the Söğüt Project Area

Multiple episodes of faulting related to the suture zone have offset the local lithologies. Strike-slip, normal and oblique-slip faults are the major types of structures mapped in outcrop at Söğüt. Evidence from drilling identifies two dominant fault sets within the mineralized zones. These include an early set of high angle faults with variable strike that have an apparent normal displacement and are offset by a later, lower angle fault set that also has variable strikes. The later set of faults appears to be right lateral strike-slip faults with a normal offset component.

Mineralization is hosted in rocks of the Karakaya Group and is interpreted as linked to the emplacement of Paleogene and Neogene period calc-alkalic plutons consisting predominately of granodiorite. Koza is using a low sulfidation epithermal, Carlin-type and orogenic-mesothermal mineralization as models for the Söğüt project and predicts to find both low-grade gold deposits with bulk tonnage potential and higher grade epithermal veins and mesothermal mineralization in the area. Söğüt is a sediment-hosted, structurally controlled, gold mineralized zone with no evidence of associated magmatic activity proximal to the mineralization. The nearest intrusive body is a granite found 2 km to the north. Gold mineralization is exposed in extensive historic mine workings. Mineralization is associated with quartz-calcite veinlets in limestone, or with quartz-clay-limonite alteration in schist. Anomalous gold, antimony, arsenic, mercury and tungsten values have been found in samples collected from the historic workings and outcrops. Several gold anomalies in stream sediment samples have been found within the project area and widespread distribution of gold has been observed in the workings.

Koza has divided Söğüt into four areas of focus based on location and mineral occurrence. These are Akbaştepe, Korudanlık, Hayriye (Söğüt Southwest) and Kışladere (Figure 1.1.2). Mineralization at Korudanlık consists of quartz vein breccias and an alteration halo of argillic and silica alteration and is interpreted as a low sulfidation epithermal zone. Skarn has also been reported in some of the wallrocks at Korudanlık. Akbaştepe, Kışladere and Hayriye are also interpreted to be low sulfidation, epithermal mineralizations. Koza is also considering that at depth, there could be a mesothermal component to all four of these deposits.

Koza has mapped mylonite between carbonate layers as well as between the contacts of carbonate layers and greenschist facies metamorphic rocks. The greatest abundance of mylonite has been mapped in the Korudanlık area where graphitic mylonite has developed in the hangingwall of the low angle faults. The presence of graphite has been interpreted as the result of high pressure during the development of the younger, low angle faults in the region. Figure 1.1.5.2 shows the geology of the Söğüt property.



Source: Koza GIS, 2015

Figure 1.1.5.2: Söğüt Geology Map

1.2 Exploration

Koza acquired the property in 2005. Koza initially began exploring Söğüt as one target, but recognized early that there were multiple targets within the license area. Much of the exploration efforts have been combined including mapping, soil, stream sediment and rock chip sampling.

Currently, Koza has divided Söğüt into four areas of focus based on location and mineral occurrence. These are as follows:

- Akbaştepe, Kışladere and Hayriye—low sulfidation epithermal gold deposits; and
- Korudanlık—low sulfidation epithermal deposit with skarn reported in some of the wallrocks.

Collectively, Koza has taken 141 stream sediment samples, 3,026 soil samples, 454 rock chip samples and six bulk samples. Koza has also trenched at Akbaştepe, Kışladere and Hayriye. The trenches were mapped and cut channel samples were collected. Koza has completed geologic mapping at several scales. In addition Koza has completed ground magnetic, IP chargeability and resistivity and pole/dipole geophysical surveys and is completing Portable Infrared Mineral Analyzer (PIMA) mapping of alteration zones at the project. Koza has conducted drilling programs at the four target areas between 2009 and 2014. Exploration drilling programs are ongoing.

1.2.1 Mapping

Koza has mapped areas of the project at a 1:50,000, 1:25,000, 1:20,000 and 1:2,000 scales. The entire project area was mapped at the larger scales. Scales were reduced as more detail was required. Since high angle normal faults may have provided conduits for gold-bearing mineralizing fluids in the region and the valleys and streambeds are interpreted as fault controlled, Koza has used this relationship as an exploration tool. Some of the mapping in the region has been focused on mapping along valleys and streambeds.

1.2.2 Geophysical Surveys

Koza has had two IP/resistivity surveys and one ground magnetic survey completed over Akbaştepe and Korudanlık. Because of the proximity of the two deposits, these surveys covered both areas. The IP/resistivity surveys were both completed by Planetary Geophysics based in Australia. The first survey was completed in 2009. The second IP/resistivity survey was completed in 2012. Koza also conducted ground magnetic surveys at these two projects in 2013 and 2014.

In 2011, Koza contracted CFT Engineering Co. (CFT) of Ankara, Turkey completed an IP/resistivity survey at Hayriye. This survey included 6 lines, each 1,500 m long totaling 9 line km.

Table 1.2.2.1 lists the geophysical surveys completed at the Söğüt projects between 2009 and 2014.

Table 1.2.2.1: Geophysical Surveys Completed at the Söğüt Projects

Year	Survey Type	Total Length	Total Area
2009-2012	Ground Magnetic	222	34
2009	IP/resistivity	43.4	3.4
2010	IP/resistivity	8.4	1.5
2012	IP/resistivity	10.5	1.6
2013	Ground Magnetic	42	7.5
2014	Ground Magnetic	125	26

Source: Koza, 2015

1.2.3 Sample Collection

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 regular grid spacing centered on mineralized zones. Samples were collected from the B horizon and typically 3 to 4 kg of sample was collected.

Rock samples were selective chip type 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, observations and accessibility to the vein.

Koza also collected trench samples. 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.

1.2.4 Drilling

Koza has drilled at all four of the project areas using its standard operating procedures for drilling programs. Drilling is discussed for each project in that project's specific section.

1.2.5 Sample Preparation

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 collected between 2009 and 2014 were prepared at two different locations. These were the ALS laboratory in İzmir, Turkey (ALS İzmir) and at the ALS laboratory in Vancouver, Canada (ALS Vancouver). Analysis was conducted at various laboratories in the ALS Global system. The ALS Vancouver laboratory conducted Inductively Coupled Plasma (ICP) multi-element analysis and fire assay (FA) and ALS at Gura Rosiei, Rosia Montana, Romania (ALS Romania) also conducted gold FA analysis. All exploration samples submitted to ALS since 2012 are analyzed for ICP and FA at ALS İzmir. 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. ALS İzmir is accredited for ISO 9001:2008 valid through January 17, 2015 through TÜV Austria.

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 1 g sample is digested using aqua regia and analyzed 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. Koza also analysis for gold using ALS code Au-ICP22, which is a FA method using a 50 g charge and ICP-AES finish. The method is appropriate for the exploration target being investigated. 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). This is an appropriate method for the target mineralization. Table 1.2.5.1 presents the analytes with upper and lower detection limits for ALS ME-MS41 and Au-ICP22.

Table 1.2.5.1: 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	B	10-10,000	ME-MS41	La	0.2-10,000	ME-MS41	Ta	0.01-500
ME-MS41	Ba	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	Mo	0.05-10,000	ME-MS41	Tl	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	P	10-10,000	ME-MS41	Y	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 chip, cut chip channel 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 requested a larger split pulverized to help mitigate the nugget affect.

The rock samples were analyzed using ALS code ME-ICP61m, a 33 element package with trace level sensitivity. A 1 g sample is put into solution using a four acid digestion and the sample is analyzed using ICP-AES. The package initially included mercury analyzed by method Hg-CV41. Koza has changed this to Hg by aqua regia digestion and ICP-MS in 2014. 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 1.2.5.2 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 1.2.5.2: 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	Tl	10-10,000
ME-ICP61m	Ba	10-10,000	ME-ICP61m	Mn	5-100,000	ME-ICP61m	U	10-10,000
ME-ICP61m	Be	0.5-1,000	ME-ICP61m	Mo	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	P	10-10,000	Mastra	Au	0.1*
ME-ICP61m	Co	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

*Represents the lower detection limit; Source Koza, 2014

1.2.6 Quality Assurance/Quality Control

Koza has a standardized Quality Assurance/Quality Control (QA/QC) program for all exploration programs. The QA/QC is discussed for each project in that project's specific section. The standardized 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 $\pm 30\%$ for core duplicates, $\pm 20\%$ for preparation duplicates and $\pm 10\%$ for pulp duplicates and check samples to a second laboratory;
- CRMs are ± 2 standard deviations for warnings and ± 3 standard deviations for failures (± 3 standard deviations must not exceed $\pm 10\%$); and
- Site specific standards that have not undergone a round robin use $\pm 7\%$.

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.

1.2.7 Exploration Plan and Budget

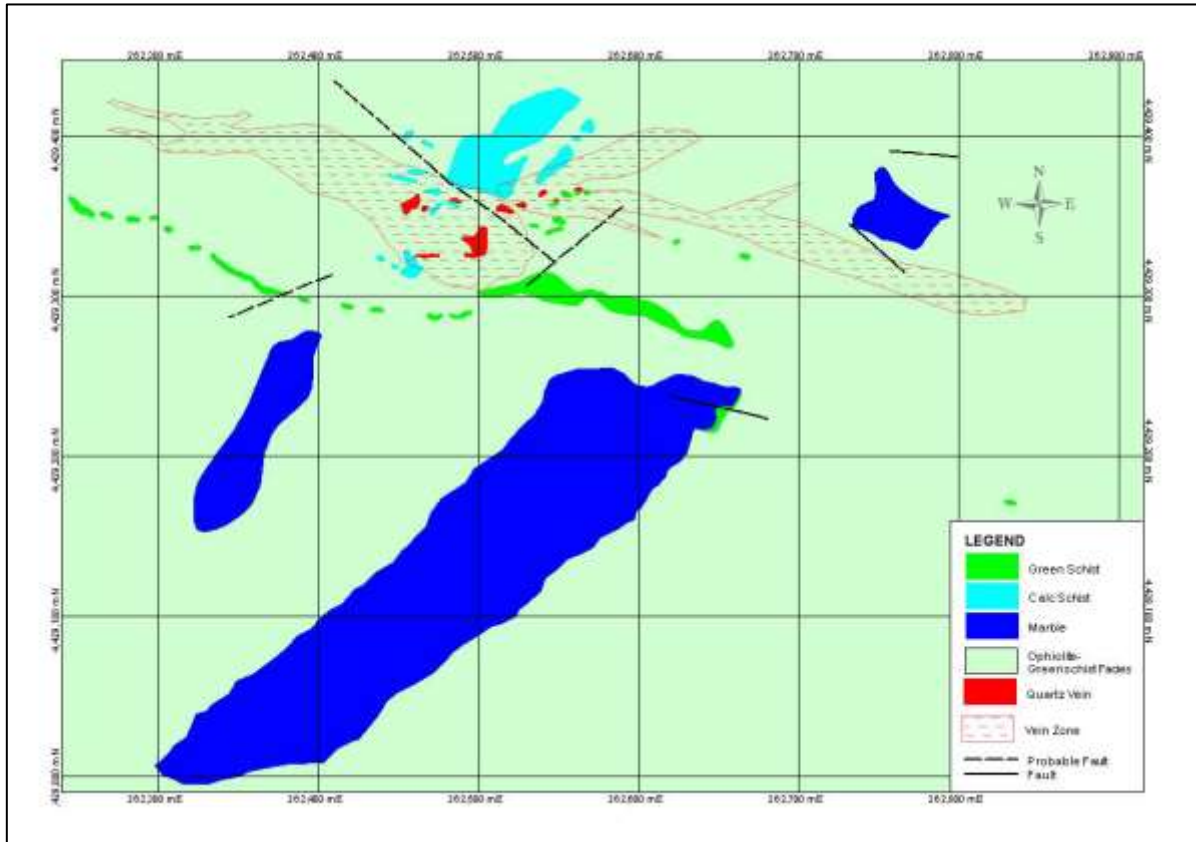
Koza has budgeted TL7.5 million (US\$3.3 million) for the project areas at Söğüt in 2015. Planned exploration on all project areas is primarily drilling. Koza is currently obtaining drilling permits at Korudanlık and Kışladere.

Koza uses industry best practice in its exploration work. Within the exploration team, there is an understood progression of steps that are used at each project using a standard set of procedures. This begins with identification of the target area and mapping at ever increasing detail. In tandem with this, Koza incorporates stream sediment, chip channel and soil sampling to better define a target for drilling. Koza also uses any geophysical tools at its disposal, including IP/resistivity and magnetic surveys and Portable Infrared Mineral Analyzer (PIMA) used in alteration mapping. Once drilling begins, Koza continues to use industry best practice in its chain of custody, core logging, core photography, sample collection, sample submission, QA/QC and database management.

2 Akbaştepe Exploration, Resources and Reserves

2.1 Akbaştepe Local Geology

Local geology is discussed in Section 1.1.5. Figure 2.1.1 presents the local surface geology at Akbaştepe.



Source: Koza, 2014

Figure 2.1.1: Local Geology of Akbaştepe

2.2 Exploration

Exploration, exclusive of drilling, was conducted jointly at Söğüt with many of the programs overlapping. Exploration that includes exploration surface sampling, trenching, mapping and geophysics are discussed in Section 1.2. Drilling at Akbaştepe is discussed below.

2.3 Drilling/Sampling Procedures

Koza has drilled 266 HQ-sized core drill holes totaling 84,236 m at Akbaştepe. In addition, seven trenches (840 m) were excavated and sampled. Visible gold is present in some of the core samples. All the trenches and drillholes have been used in the resource estimation. A summary of the drilling and trenching at Akbaştepe is shown in Table 2.3.1. A drillhole location map is shown in Figure 2.3.1.

The drillholes are on an approximate 50 m by 50 m grid spacing. All holes are drilled to the south-southwest at angles between -40° and -75° to intercept the mineralization as close to perpendicular as possible. The core recovery is excellent, ranging from 0% to 100%, with an average of 99%.

Table 2.3.1: Summary of Drilling, Trenching and Sampling at Akbaştepe

Core		Trenches		Samples Core		Samples Trenches	
Number	Meters	Number	Meters	Number	Meters	Number	Meters
266	84,236	7	840	10,053	9,414	420	840

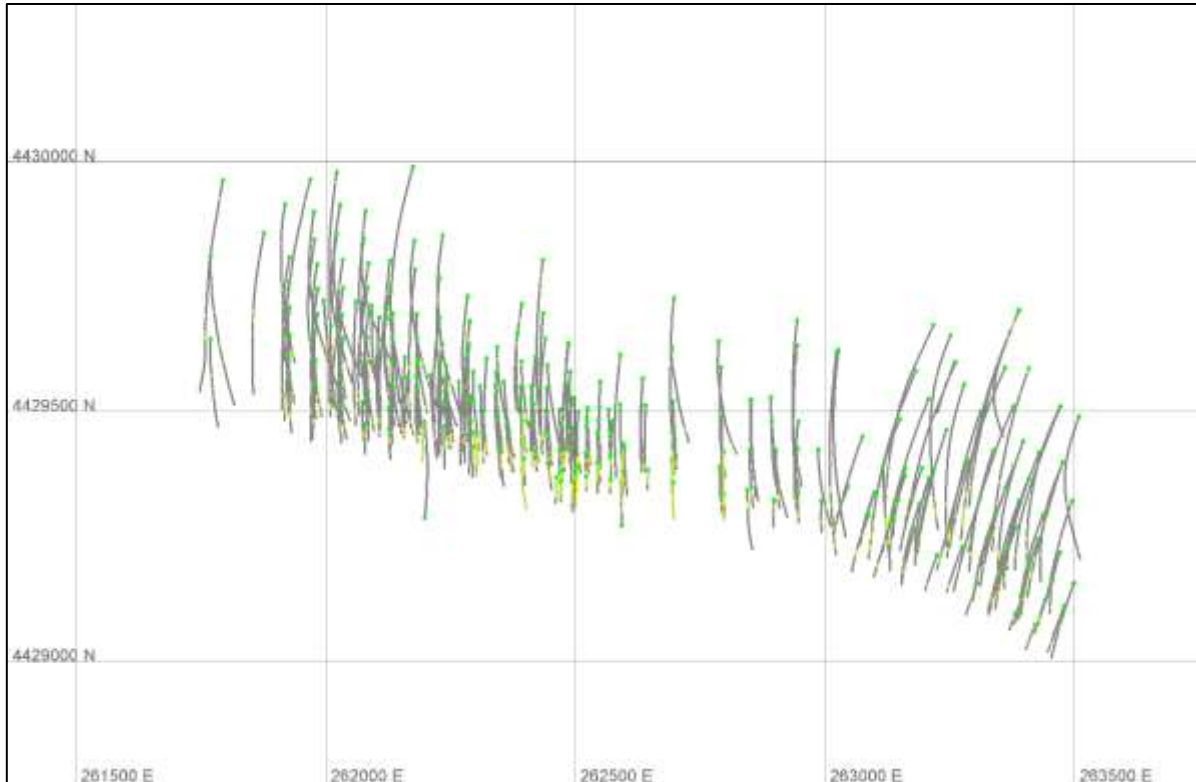


Figure 2.3.1: Akbaştepe Drillhole Location Map

The drilling and sampling have been conducted according to Koza's standard exploration practices. All core is photographed prior to logging. 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 transferred into the computer. Sample intervals are selected by the geologist. The core is sampled on nominal 1 m lengths within the mineralized zone and 2 m outside the mineralization. Samples may be shorter or slightly longer 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.

2.3.1 Quality Assurance/Quality Control

Insertions of the QA/QC samples into the sample stream are determined by the core logging geologist. The location of the control samples is noted on the sample log and in the sample

database. The QA/QC samples have the same numbering system as the drill core samples. Sample insertion rates are discussed in Section 1.2.6.

Certified Reference Materials

Koza used three CRMs during the 2014 drilling program. These were purchased from Ore Research and Exploration based in New Zealand and included OREAS 201, OREAS 62e and OREAS 61e. Table 2.3.1.1 presents the expected mean, standard deviations and summaries of the analyses of the Au CRMs and Table 2.3.1.2 lists the same information for Ag CRMs.

Table 2.3.1.1: Results of Au CRM Analyses at Akbaştepe

CRM	Number of Samples	Expected (ppm)		Observed (ppm)		% of Expected	±2 SD and < ±3SD		±3 SD	
		Mean	Std Dev	Mean	Std Dev		No. Failures	% Failure Rate	No. Failures	% Failure Rate
OREAS 201	26	0.514	0.017	0.511	0.013	99.4	1	0.0	0	0.0
OREAS 62e	77	9.13	0.41	9.13	0.16	100	0	0.0	0	0.0
OREAS 61e	20	4.43	0.15	4.55	0.09	102.7	0	0.0	0	0.0
Total	123						0	0.0	0	0.0

Table 2.3.1.2: Results of Ag CRM Analyses at Akbaştepe

CRM	Number of Samples	Expected (ppm)		Observed (ppm)		% of Expected	±2 SD and < ±3SD		±3 SD	
		Mean	Std Dev	Mean	Std Dev		No. Failures	% Failure Rate	No. Failures	% Failure Rate
OREAS 61e	20	5.27 ¹	0.43	5.08	0.19	96.3	0	0.0	0	0.0
OREAS 62e	77	9.86 ¹	0.34	9.71	0.28	98.4	0	0.0	0	0.0
Total	97						0	0.0	0	0.0

¹ Certified value for 4-acid digestion.

There was one warning outside of two standard deviations in the Akbaştepe Au data and no failures. The observed means are between 99.4 and 102.7% of the expected values for Au. There were also no warnings or failures for Ag CRMs during 2014. The observed means for Ag are between 96.3 and 98.4 % for OREAS 61e and OREAS 62e, respectively. SRK notes there is very good accuracy and that Koza should continue to closely monitor the CRMs.

The standards selected are appropriate for the analytical method and are demonstrating acceptable accuracy for Au and Ag analysis. Koza reviews all QA/QC during drilling programs and contacts the laboratory when analytical failures are identified as related to the laboratory. Should there be a laboratory related failure, Koza requests reanalysis of the failed sample and five samples in numerical sequence before and after the failure. Should there be multiple control sample failures, Koza requests reanalysis of the entire batch.

Blanks

Koza submits one preparation blank per drillhole. A blank failure is a result greater than five times the detection limit. Koza submitted 81 blanks of which there were no failures for gold or silver. The

results indicate that the preparation laboratory is performing well and there is not cross contamination.

Field Duplicates

Field duplicates are created by sampling a second split of the reject material. The objective of testing field duplicates is to understand the variance of the actual sampling and the first size reduction step.

Koza did not send field duplicates to the laboratory during 2014. In 2013, Koza sent 17 field duplicates to the laboratory for Au analysis. After filtering out pairs with at least one value less than the detection limit, 8 duplicate pairs were available for review. The samples demonstrated good reproducibility since seven of the eight samples were within $\pm 30\%$. The results indicate that field duplicates have good reproducibility. However, the Akbaştepe field duplicates have a low number of analyses and statistically, more duplicate pairs are required to properly assess field duplicate reproducibility. SRK recommends that additional field duplicates be collected in mineralized rocks to properly assess the variability of the mineralization..

Preparation Duplicates

Preparation duplicates are created by splitting a second cut of the crushed sample (coarse reject) in the same way and for 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.

Preparation duplicates can also provide an estimate analytical precision for analysis.

During 2014, Koza submitted 13 preparation duplicates to the laboratory for Au and Ag analysis. After filtering out pairs with at least one value at or above the 1.75 g/t Au cutoff grade for gold resources, only two duplicate pairs remained. Silver had only one sample that was above the detection limit and that sample correlated to one of the two duplicate gold samples that were above the cut-of grade for resources.

Taking the 2013 and 2014 data together, there are six gold samples above the resource cutoff grade for gold and six silver samples above the detection limit for silver. This represents very few data points in the grades of interest and does not provide useful information on variability of the mineralization.

A summary of the Au and Ag analytical results for 2014 are presented in Tables 2.3.1.3 and 2.3.1.4, respectively.

Table 2.3.1.3: Summary of 2014 Preparation Duplicate Au Analysis at Akbaştepe

Criteria	Number of Samples	Original>Dup	Dup>Original	Original = Dup	Within $\pm 20\%$
All samples	13	6	4	3	9
		46%	31%	23%	69%

Table 2.3.1.4: Summary of 2014 Preparation Duplicate Ag Analysis at Akbaştepe

Criteria	Number of Samples	Original>Dup	Dup>Original	Original = Dup	Within $\pm 20\%$
All samples	13	1	0	12	13
		7.6%	0%	92.3%	100%

There are insufficient samples to assess the reproducibility of the preparation duplicates in the deposit. Between 2013 and 2014, there are a total of 35 samples of which 30 are above the detection limit of analysis for gold and of those, six are above the gold cutoff grade. Duplicates samples need to be selected from mineralized zones.

SRK recommends that Koza continue to submit coarse duplicates and samples should be selected from mineralized zones. Comparing duplicate samples that are below detection limit does not provide meaningful data.

Pulp Duplicates

Koza has not submitted any pulp duplicate samples to ALS. Pulp duplicates are the primary method of checking the precision of analysis. SRK recommends that the Company begin sending pulp duplicates as part of its QA/QC program or monitor the internal pulp duplicates analyzed by ALS.

Secondary Check Lab Analysis

Koza submitted 65 pulps originally analyzed by ALS to SGS Ankara for verification analysis. The submission included seven CRM analyses; two analyses of OREAS 201 and five analyses of OREAS 61e. Koza also inserted OREAS 160, a certified blank, four times in the submission. SRK notes that the data provided for review was only for gold. Since the resource reported for Akbaştepe includes silver, Koza must review and monitor silver duplicates and CRMs. SRK recommends that Koza, monitor silver as well as gold at the secondary check lab.

Table 2.3.1.5 presents a comparison between the results of the CRM analyses at SGS with those at ALS.

Table 2.3.1.5: CRM Au Analysis Comparison between SGS and ALS

CRM	Certified Values		SGS				ALS			
	Expected (ppm)	Expected Std Dev	Number of Samples	Mean	Std Dev	% of Expected	Number of Samples	Mean	Std Dev	% of Expected
OREAS 201	0.514	0.017	5	0.535	0.007	99.4	26	0.511	0.013	107.4
OREAS 61e	4.43	0.15	2	4.58	0.147	102.7	20	4.55	0.09	103.4

There are only two submissions of OREAS 201 to SGS; however, the analysis for both OREAS 201 and OREAS 61e averaged higher than the same CRMs analyzed at ALS. Both OREAS 201 and 61e had one analysis that exceeded two standard deviations of the expected means at SGS. These are warnings and not failures. The CRM data from SGS is too limited to be a statistically meaningful database, but serves to monitor the analysis for comparison to ALS. The data suggests that ALS is providing more accurate analytical results than SGS. SRK recommends that Koza continue to monitor the CRMs submitted to SGS with check samples. If the CRMs continue to be biased high, Koza should contact the laboratory.

The blank, OREAS 160, is a pulp used to monitor cross contamination during analysis. It is not usually necessary to submit such blanks to the check assay laboratory. Koza submitted four blanks with the check samples. There was one blank sample submission that exceeded 5x the detection limit of analysis and is considered a failure. SRK notes that OREAS 160 is a pulp blank developed from barren copper zones in the Mt Isa copper deposit in Australia. Although, the sample has certified values of copper, lead, zinc and silver, it is not certified for gold and gold is not mentioned on the certification sheet. It has been assumed that no gold is present in the blank; however, it is not known if small amounts of gold could be present. SRK recommends confirming that there is no gold in this blank before using OREAS 160 as a gold blank. SRK also recommends contacting SGS about this blank failure, as it is unusual for a failure to occur at the analytical stage.

Koza submitted 65 check samples to SGS. These samples were the remaining pulp from the original analysis sample submitted to ALS and in general a duplicate is expected to be within $\pm 10\%$ of the original. Of the samples submitted, 42 (approximately 64.6%) were at or above the cutoff grade of 1.75 g/t Au for open pit resources. Table 2.3.1.6 presents the comparison between ALS (original analyses) and SGS (duplicate analyses).

Table 2.3.1.6: Summary of 2014 SGS Check Sample Au Analysis at Akbaştepe

Criteria	Number of Samples	ALS>SGS	SGS>ALS	ALS=SGS	Within $\pm 10\%$
All samples	65	46	18	1	41
		70.8%	27.7%	1.5%	63.1%

The data shows that ALS is biased higher than SGS. Approximately 70% of the original analyses were higher than the duplicate analyses while approximately 27% of the duplicate analyses were higher than the original. The reproducibility between labs improved over 2013. In 2013, reproducibility within $\pm 10\%$ was 55% while in 2014 there was 63% reproducibility. Akbaştepe is a high grade gold deposit and part of the difference is likely due to nugget gold. SRK notes that the majority of failures are between ± 10 and $\pm 15\%$. Approximately 86% of duplicates fall within $\pm 15\%$ of the original. SRK is of the opinion that the check samples are showing acceptable reproducibility for the mineralization type.

SRK recommends that Koza continue the check assay program including CRMs in the sample submission and that Koza monitor both gold and silver analyses. Koza should investigate the blank OREAS 160 to determine if gold is expected in the analysis. If it is certain there should be no gold in OREAS 160, any subsequent blank failures should be discussed with SGS.

Conclusions and Recommendations

Koza monitors the laboratory analyses by inserting internal control samples into the sample stream. Certified reference materials, blanks, preparation duplicates and secondary check lab analyses are systematically inserted to ensure reliability and accuracy of the laboratory.

SRK has the following recommendations:

- The use of the 2013 CRMs should be continued so that a statistically valid number of analyses may be available;
- Duplicate samples must be selected in mineralized material within the resource grade range;

- Either pulp duplicates should be prepared and submitted to ALS or Koza should monitor the internal pulp duplicates prepared and analyzed by ALS Global; and
- Continue the secondary check lab program with CRMs submitted with the check assay samples.

Overall the laboratory is performing well and the QA/QC program is sufficiently monitoring laboratory accuracy and reliability.

2.4 Akbaştepe Mineral Resources

The resources for the Akbaştepe (Koza, 2014) were estimated by Koza in 2014.

2.4.1 Geological Model and Assay Statistics

The Akbaştepe mineralization strikes nearly east west and dips about 65° to the north. Koza has constructed 10 wireframes at a cutoff grade of 0.5 g/t Au. The wireframes are generally thin, about 5 to 7 m in width at depth, and somewhat thicker at the surface as defined by the trenches. In places there are intercepts up to 20 m. The wireframes cover an area of 1800 m west-northwest, 120 m north-northeast and almost 1,000 m vertically. The wireframes are divided into three domains. Within one of the lower grade zones, Domain 2, there is a high grade zone, Domain 1. Within Domain 1 there is a zone of internal waste. Domain 3 comprises three smaller wireframes at the eastern end of the mineralization. Figure 2.4.1.1 shows the drilling and the wireframes in plan view; Figure 2.4.1.2 shows an oblique view of the drilling and wireframes; Figure 2.4.1.3 shows the Domains 1 and 2 and the internal waste zone in a cross-section; and Figure 2.4.1.4 shows Domain 3 in cross-section.

Statistics of the assays, both core and trench samples, within the wireframe are shown in Table 2.4.1.1. The average grade of the high-grade zone, Domain 1, is over 26 g/t Au with a high coefficient of variation (CV) at 4.09. The two lower grade zones, Domain 2 and 3), also have CVs at 9.43 and 4.70, respectively.

Table 2.4.1.1: Statistics of Assays within the Akbaştepe Wireframes

Domain	Metal	Number	Minimum	Maximum	Mean	Std Dev	CV
Dom 1	Au	591	0.01	2380	26.62	108.82	4.09
	Ag	591	0.25	80.7	1.76	4.18	2.38
Dom 2	Au	488	0.01	1260	5.74	54.18	9.43
	Ag	488	0.25	42.3	0.79	2.06	2.60
Dom 3	Au	192	0.01	710	11.43	53.76	4.70
	Ag	192	0.25	38.7	1	2.86	2.84
All	Au	1271	0.01	2380	16.18	84.38	5.21
	Ag	1271	0.25	80.45	1.27	3.34	2.63

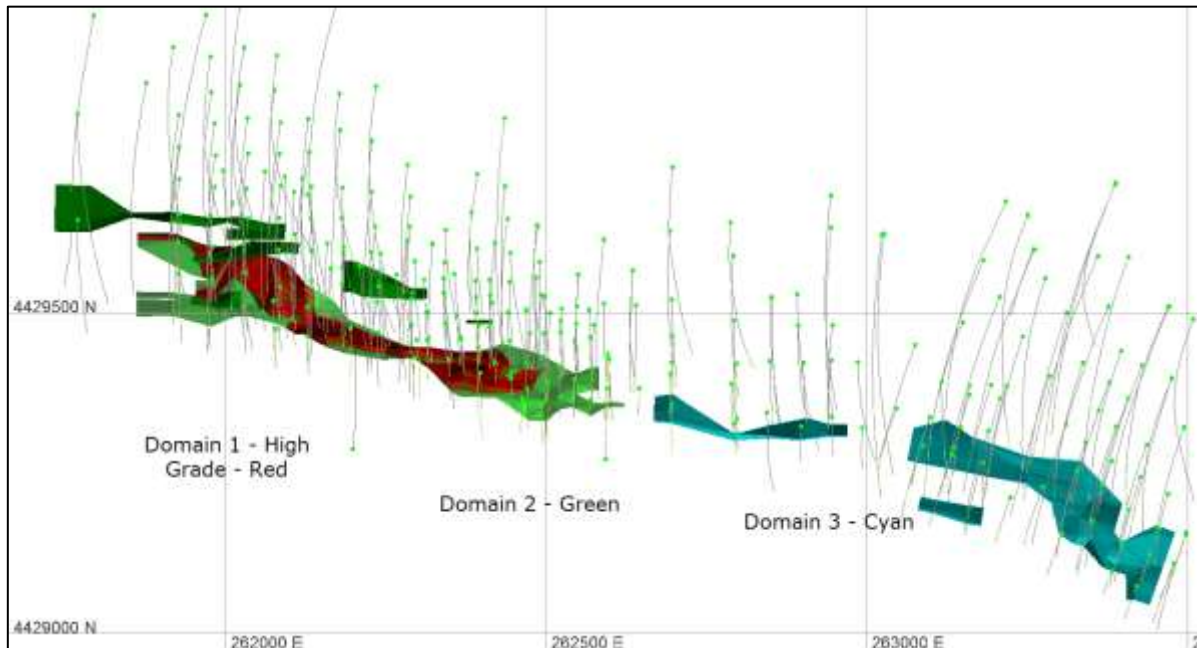


Figure 2.4.1.1: Akbaştepe Drilling and Wireframes in Plan View

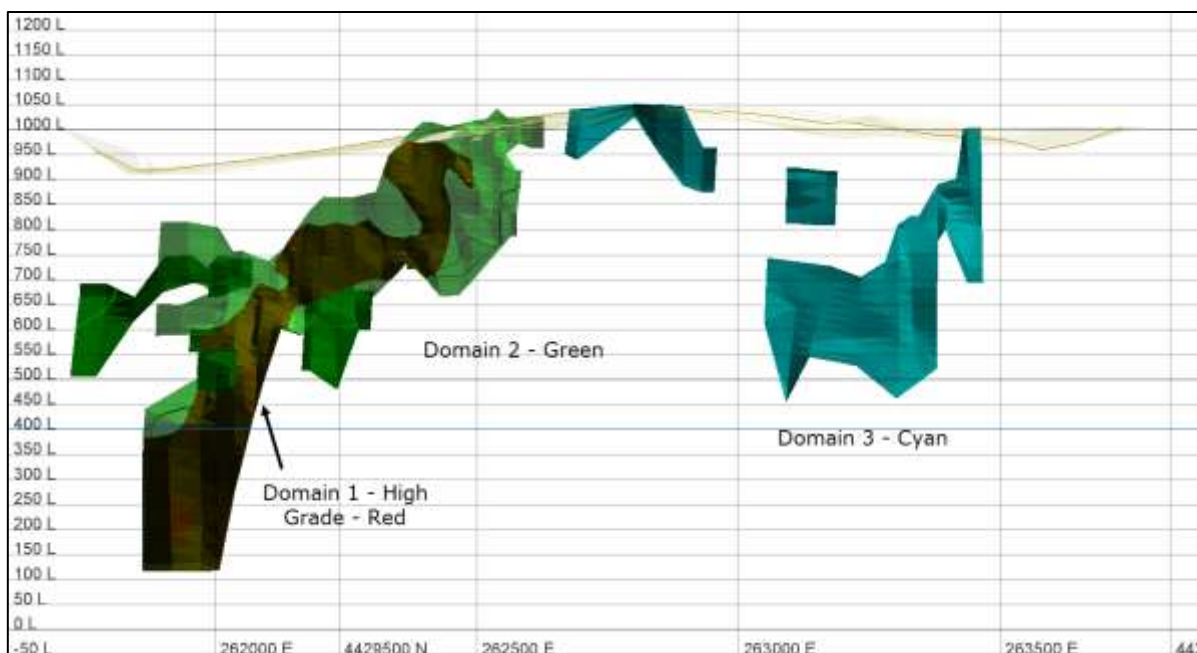


Figure 2.4.1.2: Long-section View of Akbaştepe Wireframes, looking north-northeast

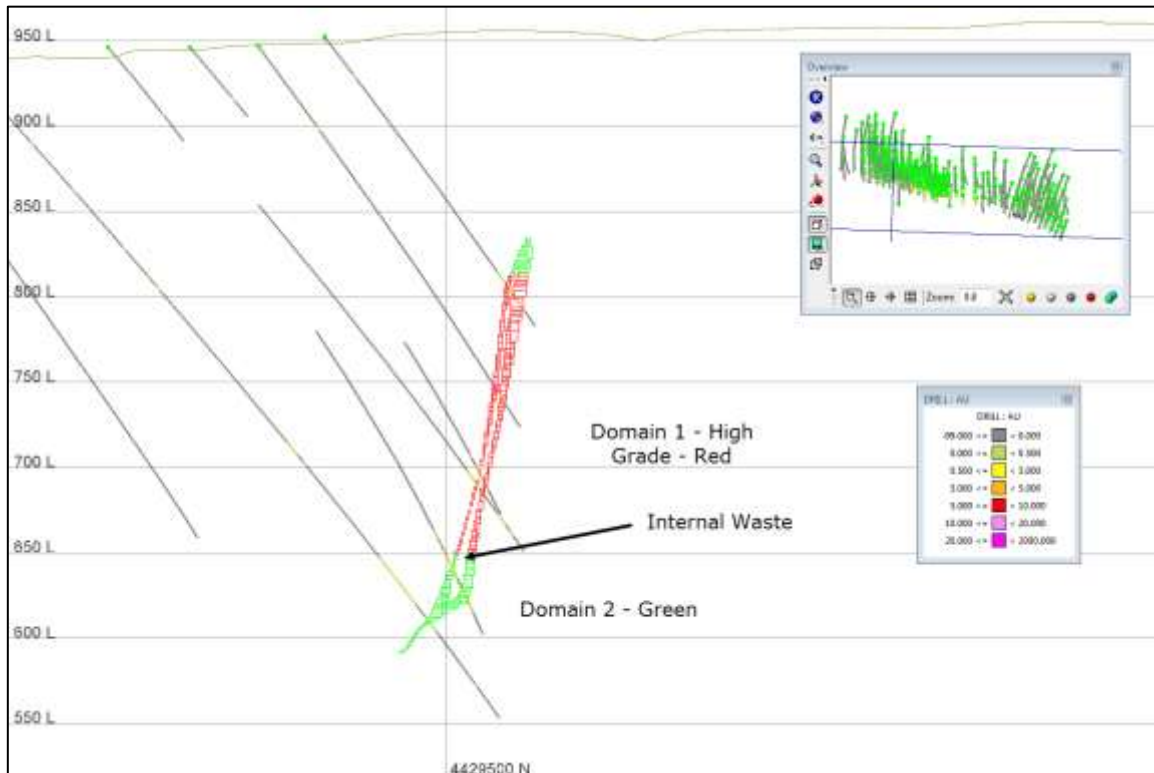
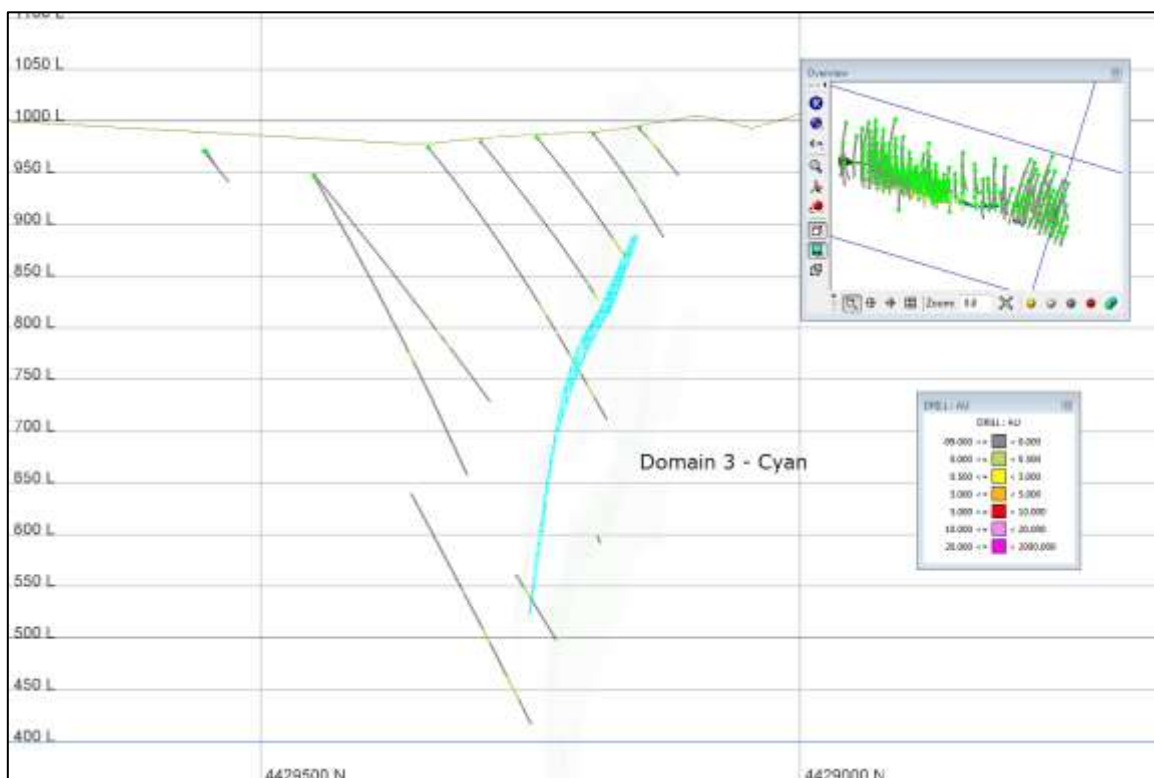


Figure 2.4.1.3: Cross-section Showing Domains 1 and 2 and Internal Waste Zone, looking east



2.4.2 Capping and Compositing

Koza determined the composite length by reviewing histograms and statistics of the sample lengths which showed that 96% of the samples in the database are 1.5 m or less in length. Based on this, Koza used a 1.5 m composite length for resource estimation. The distribution option was used where the composites are divided into equal lengths across the wireframe, based on a preferred length of 1.5 m. Table 2.4.2.1 presents the statistics of the composites. The CV has been reduced by compositing, but is still quite high at 3 or more for all domains.

Table 2.4.2.1: Statistics of Composites within the Akbaştepe Wireframe

Domain	Metal	Number	Minimum	Maximum	Mean	Std Dev	CV
1	Au	351	0.01	961.88	26.91	80.41	2.99
	Ag	351	0.25	31.76	1.78	2.97	1.67
2	Au	313	0.01	478.25	5.74	31.13	5.42
	Ag	313	0.25	16.20	0.79	1.30	1.63
3	Au	115	0.05	345.08	11.43	38.13	3.33
	Ag	115	0.25	18.94	1.00	2.13	2.12
All	Au	779	0.01	961.88	16.33	60.59	3.71
	Ag	779	0.25	31.76	1.28	2.37	1.85

Koza reviewed the assays for capping values and selected 85 g/t for gold in Domain 1, 5 g/t in Domain 2 and 5.5 g/t in Domain 3. Silver was capped at 5 g/t in Domain 1 and 2 g/t in Domains 2 and 3. Table 2.4.2.2 presents composite statistics after capping. All capping was done after compositing. The CV has been reduced significantly through compositing and capping.

Table 2.4.2.2: Statistics of Capped Composites within the Akbaştepe Wireframes

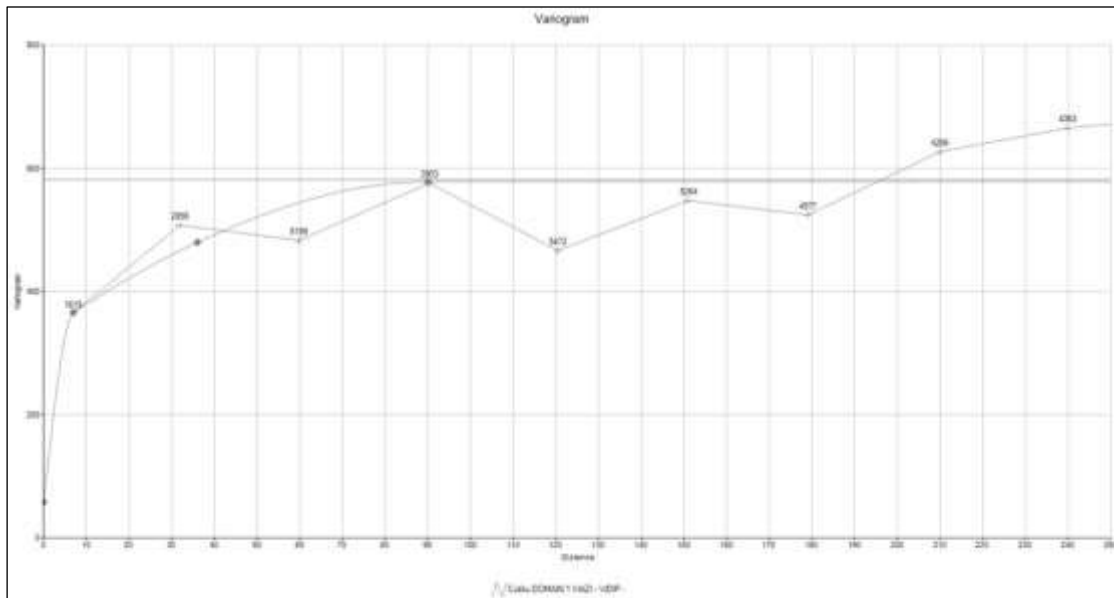
Domain	Metal	Number	Minimum	Maximum	Mean	Std Dev	CV
1	Au	351	0.01	85.00	16.81	24.77	1.47
	Ag	351	0.25	5.00	1.36	1.41	1.04
2	Au	313	0.01	5.00	2.09	1.51	0.72
	Ag	313	0.25	2.00	0.66	0.52	0.78
3	Au	115	0.05	5.50	2.68	2.04	0.76
	Ag	115	0.25	2.00	0.68	0.60	0.89
All	Au	779	0.01	85.00	8.96	18.35	2.05
	Ag	779	0.25	5.00	0.99	1.10	1.11

2.4.3 Density

Koza measured 575 pieces of HQ sized core for density determinations. The samples were grouped by mineralization, oxidation and rocky type. Koza is using the average value of 2.75 g/cm³ in its resource estimation. The density is on a dry tonnage basis.

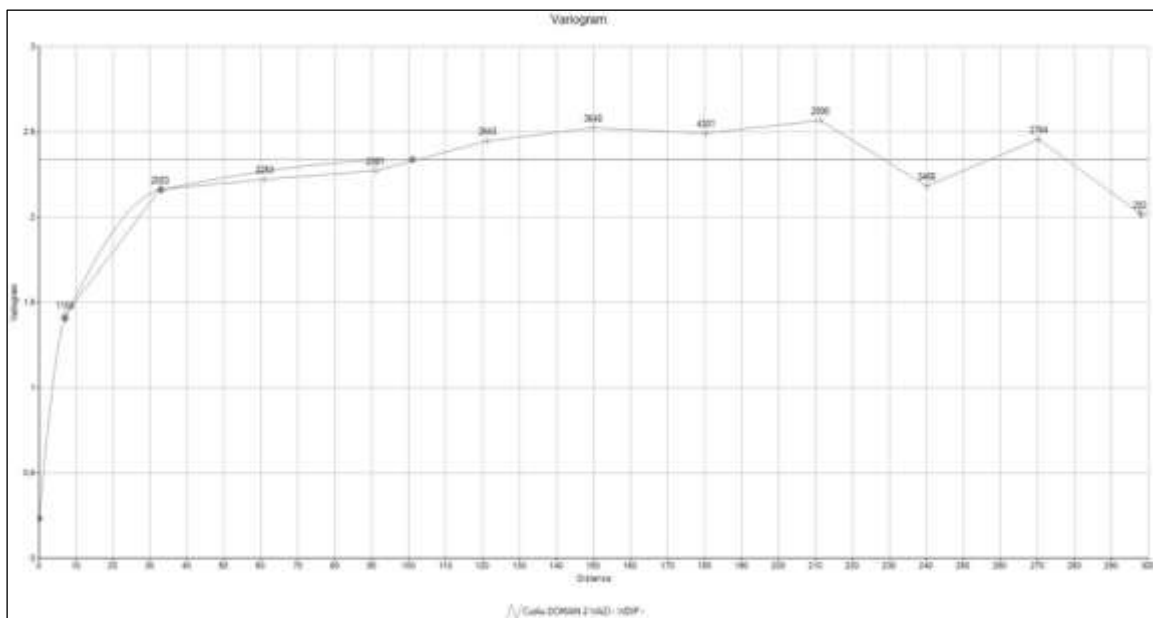
2.4.4 Variography

Koza conducted a variography study by domain at Akbaştepe. For Domains 1 and 2, the omnidirectional variograms had good structure as shown in Figures 2.4.4.1 and 2.4.4.2. The variograms parameters for Domains 1 and 2 are shown in Table 2.4.4.1. There were not enough sample pairs in Domain 3 to produce valid variograms.



Source: Koza, 2014

Figure 2.4.4.1: Omnidirectional Variogram – Domain 1



Source: Koza, 2014

Figure 2.4.4.2: Omnidirectional Variogram – Domain 2

Table 2.4.4.1: Variogram Parameters

Domain	Au							
	Nugget	Sill 1	Sill2	Sill3	Total Sill	Nugget / Sill	Range1	Range2
1	58.18	277.7	14.74	227.9	578.49	0.1	7	90
2	0.23	0.85	0.92	0.33	2.33	0.1	7	100

Source: Koza 2014

2.4.5 Grade Estimation

Koza used a quantitative kriging neighborhood analysis (QKNA), specifically kriging error and slope regression, to determine the proper block size, block discretization and number of samples. The QKNA analysis indicated that in Domain 1 a 10 m cube is the optimal size, with larger sizes of 20 m cubes for Domain 2 and 15 m cubes for Domain 3. The block model was created with blocks that are 10 m cubes because Domain 1 has more tonnage and gold ounces than the other two domains. Sub-blocking was allowed to 1.25 m within the wireframe. The 10 m block is about 20% of the drillhole spacing.

Koza used a three-pass estimation for each domain. The search ranges for Domains 1 and 2 were based on 0.67, 1, and 1.5 times the maximum variograms ranges. The search ranges for Domain 3 were based on the drillhole spacing of 50 m. Dynamic anisotropy was used in the estimation to more closely match the orientation of the mineralization. The original search ellipsoids have the following orientations:

- Domains 1 and 2:
 - Major axis: 00°,100°;
 - Semi-major axis: -80°, 010°; and
 - Minor axis: 10°, 010.
- Domain 3:
 - Major axis: 00°,105°;
 - Semi-major axis: -70°, 015°; and
 - Minor axis: 20°, 015.

Table 2.4.5.1 lists the search distances and number of composites for each estimation pass.

Table 2.4.5.1: Akbaştepe Estimation Parameters

Domain	Estimation Pass	Estimation Type	Search Distance			Composites		
			Major	Semi-major	Minor	Minimum	Maximum	Max/DH
1	1	OK, ID2, NN*	55	55	5	8	12	4
	2		88	88	8	8	12	4
	3		154	154	14	8	12	4
2	1	OK, ID2, NN*	65	65	5	8	16	4
	2		104	104	8	8	16	4
	3		156	156	12	8	16	4
3	1	ID2, NN*	50	50	5	8	12	4
	2		100	100	10	6	12	4
	3		150	150	15	3	9	2

*NN estimation uses a minimum and maximum of one composite.

Some blocks within the Domain 1 and 2 wireframes remained un-estimated after the initial three passes. Koza used the parameters in Table 2.4.5.2 for estimating those blocks.

Table 2.4.5.2: Akbaştepe Estimation Parameters for Blocks Un-estimated after Initial Three Passes

Domain	Estimation Pass	Estimation Type	Search Distance			Composites		
			Major	Semi-major	Minor	Minimum	Maximum	Max/DH
1	1	OK, ID2, NN*	55	55	5	8	12	NA
	2		88	88	8	4	12	NA
	3		154	154	14	2	10	NA
2	1	OK, ID2, NN*	65	65	5	8	16	NA
	2		104	104	8	4	16	NA
	3		156	156	12	2	10	NA

*NN estimation uses a minimum and maximum of one composite.

2.4.6 Block Model Validation

Koza validated the block model by a review of cross-sections showing block grades and composite grades on the computer monitor. Koza also compared the composite grades to OK, ID2 and NN grades (Table 2.4.6.1). The OK and ID2 gold estimations are about 1% lower than the composite grades in Domain 1 and 2% higher in Domain 2. In Domain 3, the gold estimation is about 6% higher than the composites, which is marginally acceptable. The silver ID2 estimation is about 5% lower than the composite grades overall. The comparison between estimated and composite grades is acceptable.

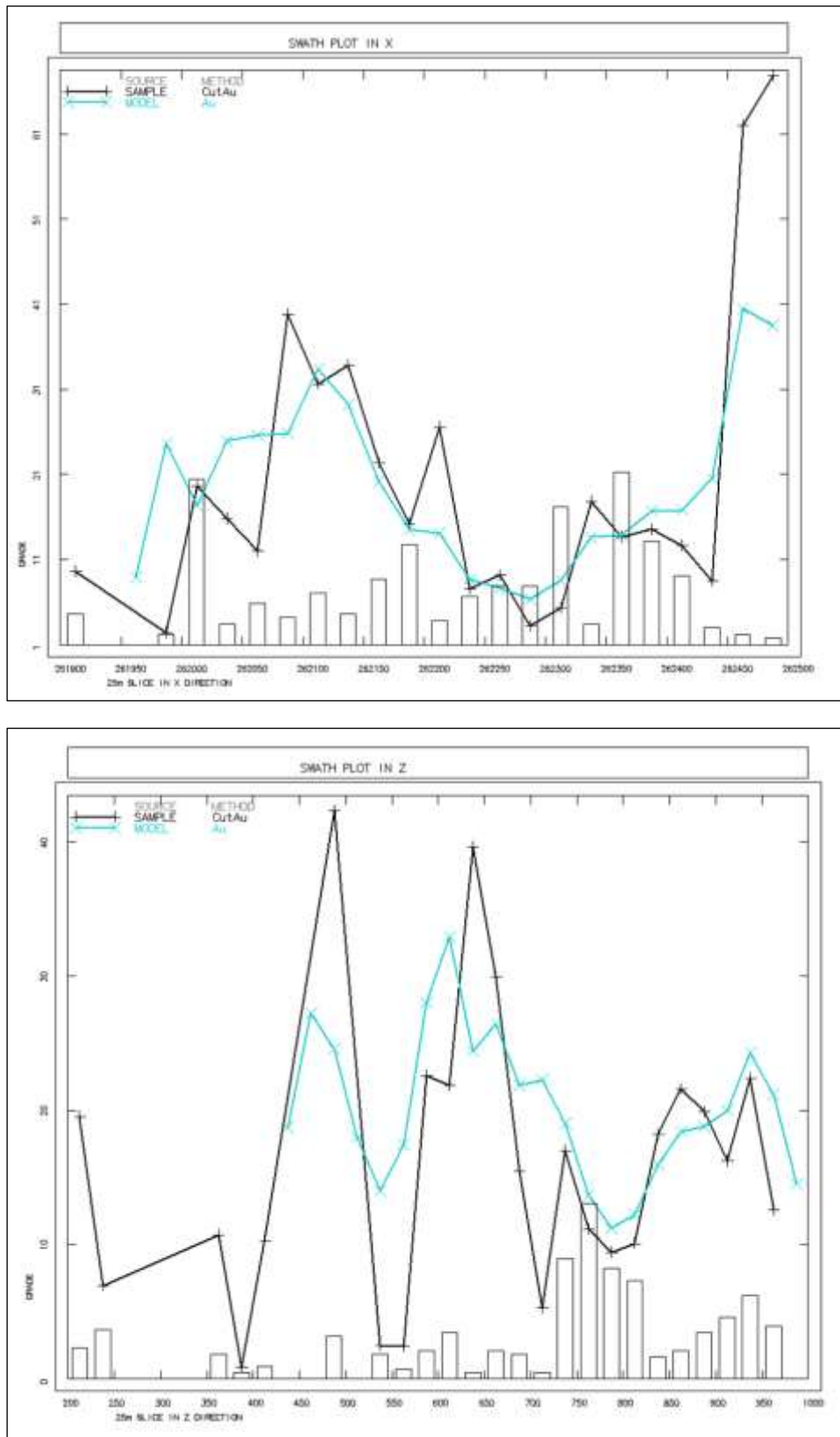
Table 2.4.6.1: Akbaştepe Comparison of Composites and Estimated Grades

Zone	Metal	Composites	OK	ID2	NN
1	Au	16.81	16.60	16.56	14.37
	Ag	1.36	NA	1.33	1.20
2	Au	2.09	2.13	2.15	2.13
	Ag	0.66	NA	0.62	0.64
3	Au	2.68	NA	2.85	2.93
	Ag	0.68	NA	0.66	0.68
All	Au	8.96* 9.87**	11.48	9.46	8.38
	Ag	0.99	NA	0.94	0.90

*Domains 1, 2 and 3 for comparison to ID2 and NN

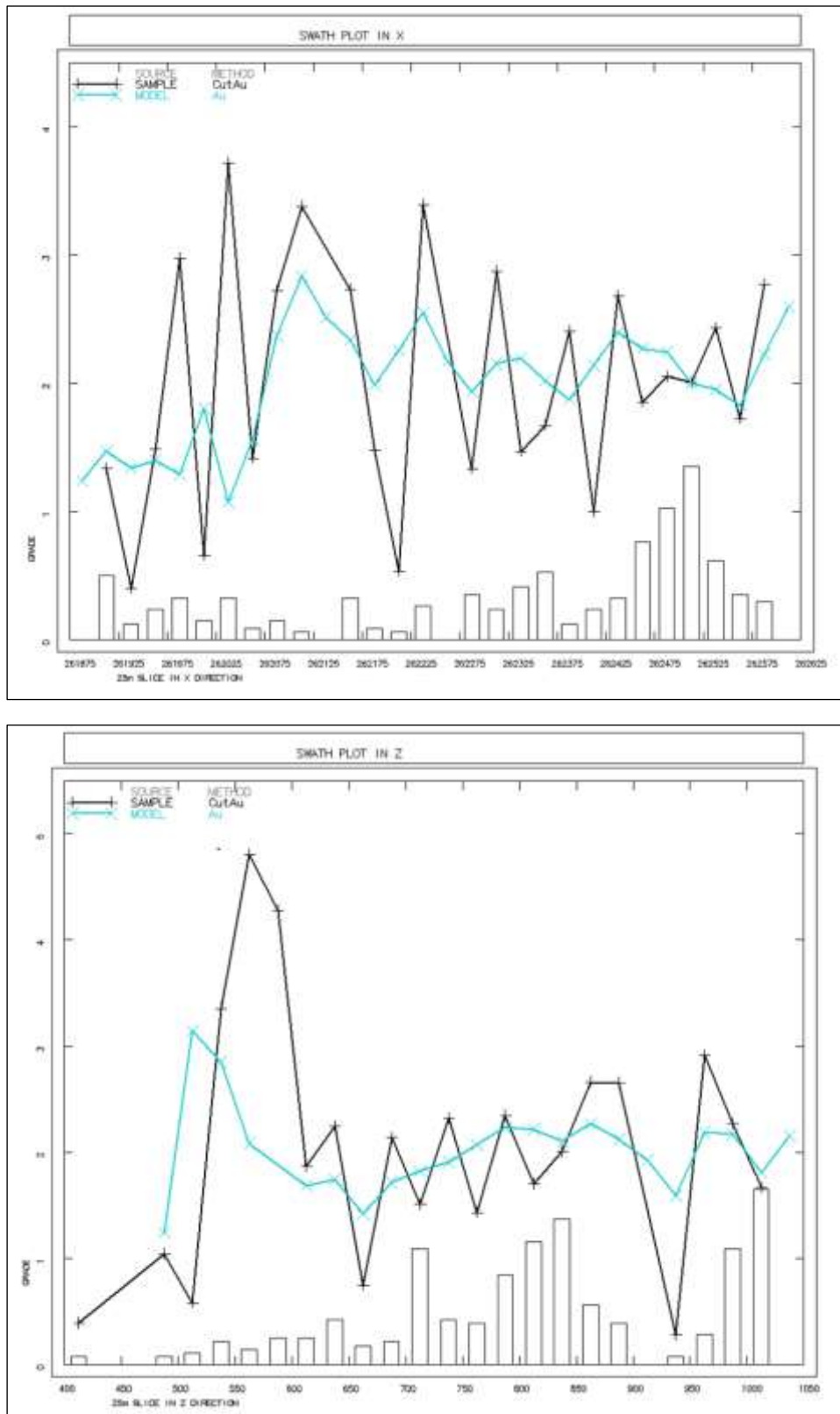
**Domains 1 and 2 only for comparison to OK

Koza also produced swath plots by easting, northing and elevation for each domain. The swath plots by Easting and Elevation for Measured and Indicated resources for Domains 1, 2 and 3 are shown in Figures 2.4.6.1, 2.4.6.2 and 2.4.6.3, respectively. The plots indicate that there has been a suitable degree of smoothing in the estimation.



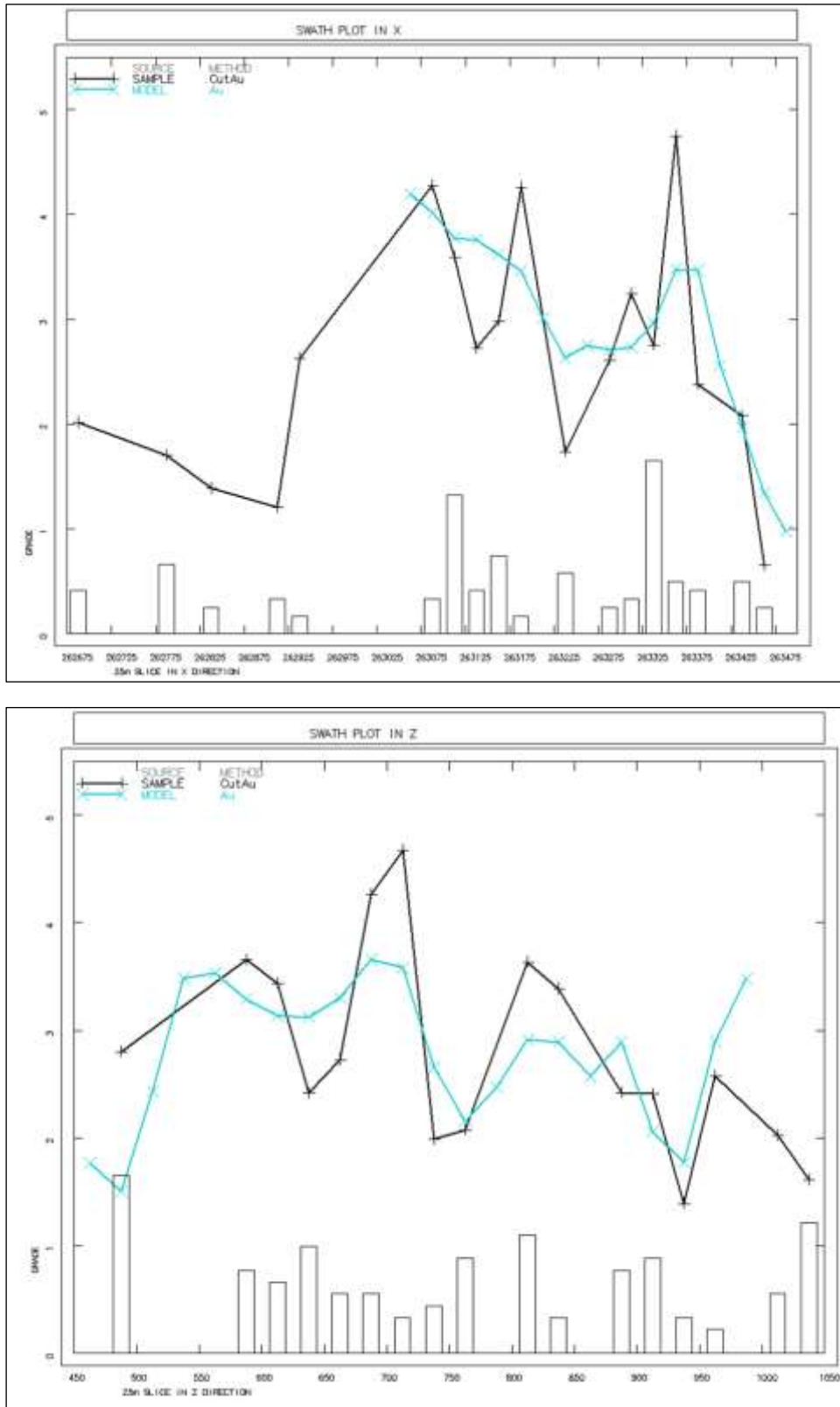
Source: Koza, 2014

Figure 2.4.6.1: Akbaştepe Domain 1 Swath Plots



Source: Koza, 2014

Figure 2.4.6.2: Akbaştepe Domain 2 Swath Plots



Source: Koza, 2014

Figure 2.4.6.3: Akbaştepe Domain 3 Swath Plots

2.4.7 Mineral Resource Classification

The resources were classified as Measured if estimated in Pass 1 with a minimum of 3 drillholes and as Indicated if estimated in Pass 2 with a minimum of two drillholes. The remaining blocks were classified as Inferred. After the initial classification, Koza constructed wireframes to remove isolated blocks of Indicated or Inferred blocks within the areas dominated by a higher classification. Figure 2.4.7.1 shows the final classified blocks and the drillholes used in the estimation.

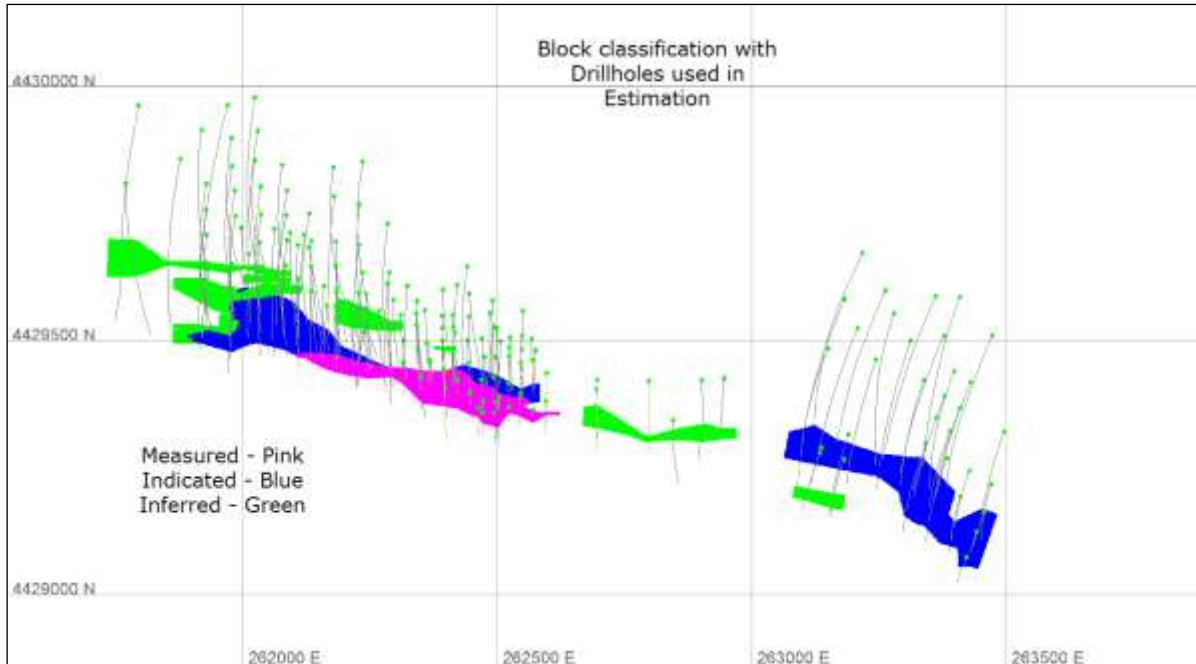


Figure 2.4.7.1: Block Classification and Drillholes used in Estimation in Plan View

2.4.8 Mineral Resource Statement

Koza has generated a pit optimization shell to constrain resources at Akbaştepe. Open pit resources are inside the pit optimization shell and are stated at a cutoff grade of 1.75 g/t Au which excludes mining costs. Underground resources are outside the shell and are stated at a cutoff grade of 3.00 g/t Au. The one year rolling average gold price is US\$1,266; the two year average is US\$1,339; and the three year average is US\$1,449. The pit optimization parameters are shown in Table 2.4.8.1 and assume that a processing facility will be built at Söğüt.

Table 2.4.8.1: Akbaştepe Cutoff Grade Parameters

Prices and Costs	Units	Open Pit	Underground
Gold Price	US\$/oz	1,450	1,450
Gold Recovery	%	85	85
Gold Refining	US\$/oz	3.44	3.44
Royalty	%	2	2
Government Right	%	1	1
Process Cost	US\$/t	60.00	60.00
Mining Cost	US\$/t	0.00	45.00
G&A Cost	US\$/t	7.50	7.50
Rehandling	US\$/t	0.00	0.00
Calculated Cutoff grade	g/t	1.76	3.06
Final Cutoff grade	g/t	1.75	3.00

Source: Koza, 2014

The mineral resources at Akbaştepe are stated in Table 2.4.8.2.

Table 2.4.8.2: Akbaştepe Mineral Resources, including Ore Reserves, at December 31, 2014

Classification	kt	Au (g/t)	Ag (g/t)	Au(oz)	Ag(oz)
Open Pit					
Measured	420	15.83	1.4	214	19
Indicated	2	3.66	1.3	0	0
M&I	422	15.76	1.4	214	19
Inferred	37	2.52	1.3	3	2
Underground					
Measured	580	12.99	1.2	242	22
Indicated	1,350	14.62	1.1	634	46
M&I	1,930	14.13	1.1	877	68
Inferred	1,348	11.90	1.2	516	52
Total					
Measured	1,000	14.18	1.3	456	41
Indicated	1,351	14.60	1.1	634	46
M&I	2,351	14.42	1.1	1,090	86
Inferred	1,385	11.65	1.2	519	54

- Tonnages and grade are rounded to reflect approximation;
- Resources are stated at a cutoff grade of 1.75 g/t Au for open pit and 3.00 g/t Au for underground;
- Open pit resources are contained within grade shells and are constrained by a pit optimization shell;
- Underground resources are contained within grade shells; and
- Mineral Resources are reported inclusive of Mineral Reserves.

2.4.9 Mineral Resource Sensitivity

Figure 2.4.9.1 presents grade tonnage curves for the Measured and Indicated Resources and Figure 2.4.9.2 presents grade tonnage curves for the Inferred Resources.

Cutoff grades for the Akbaştepe resource at various gold prices are shown in Table 2.4.9.1.

Table 2.4.9.1: Akbaştepe Cutoff Grades vs. Gold Price

Gold Price	Open Pit Cutoff Grade	Underground Cutoff Grade
1600	1.52	1.52
1550	1.57	1.57
1500	1.62	1.62
1450	1.67	1.67
1400	1.73	1.73
1350	1.80	1.80
1300	1.87	1.87
1250	1.94	1.94
1200	2.02	2.02

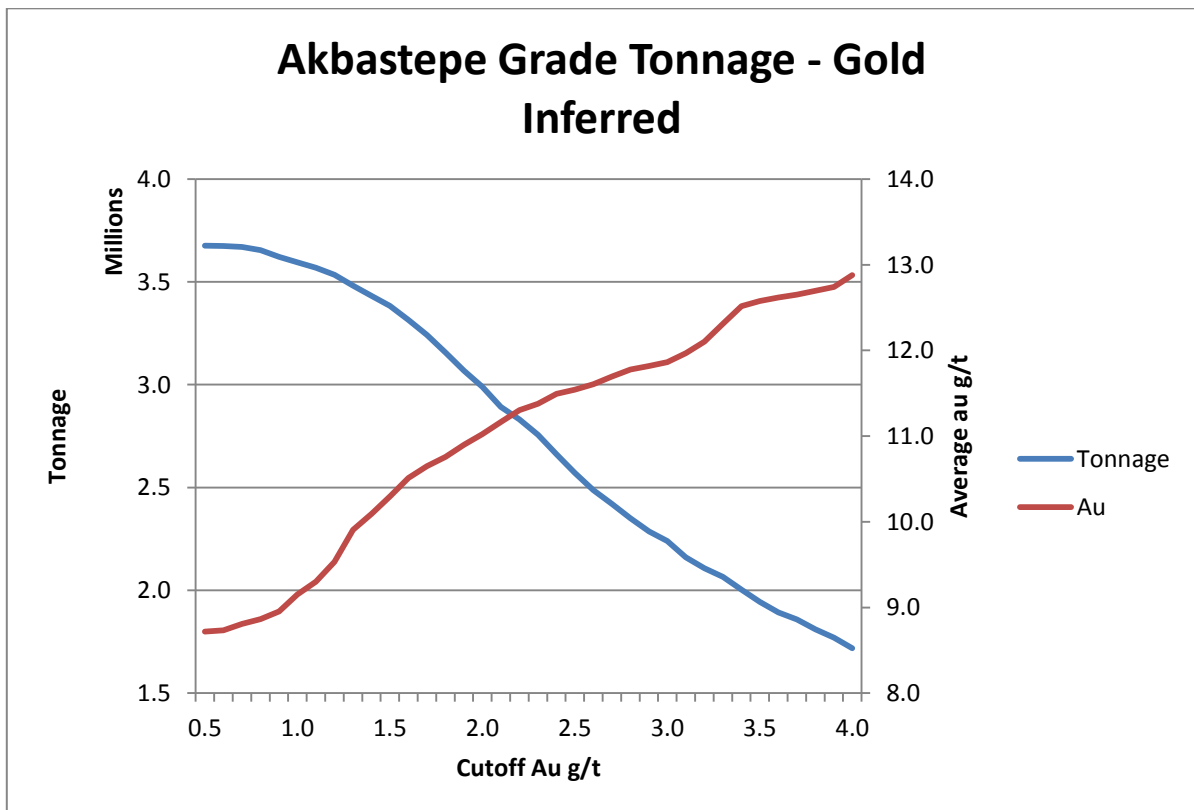
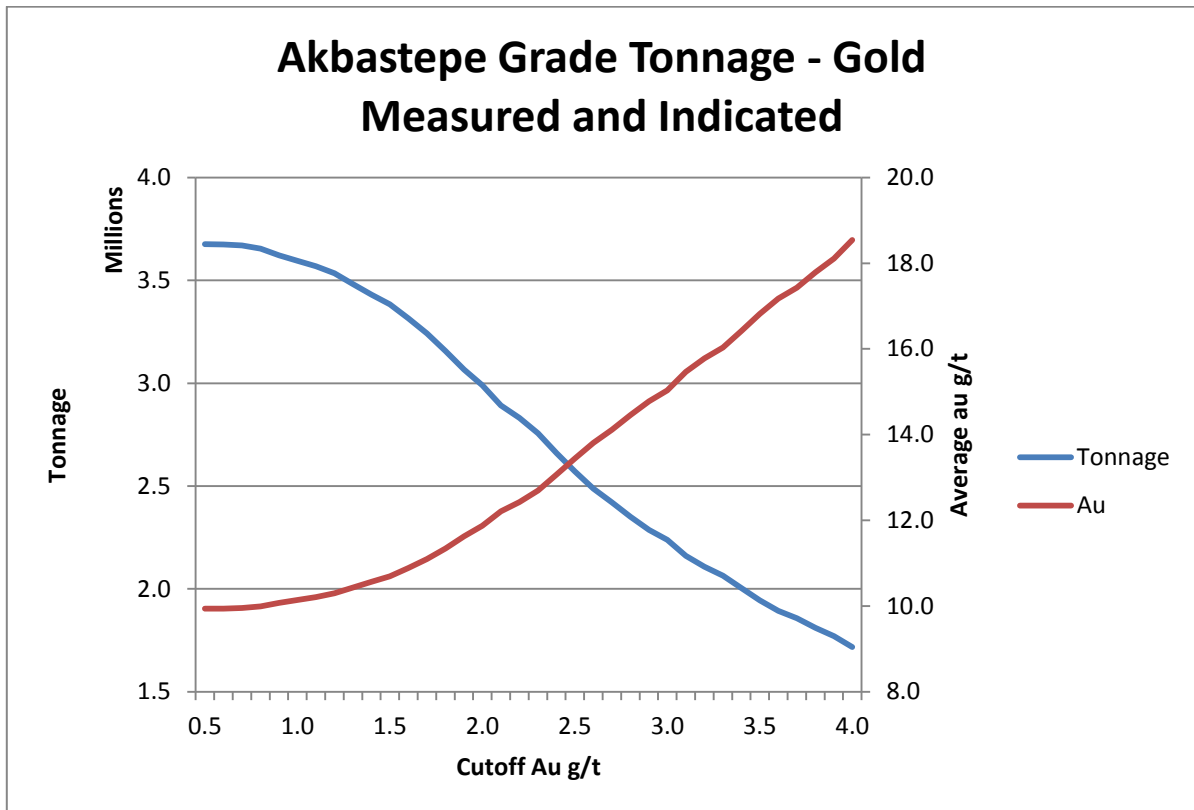
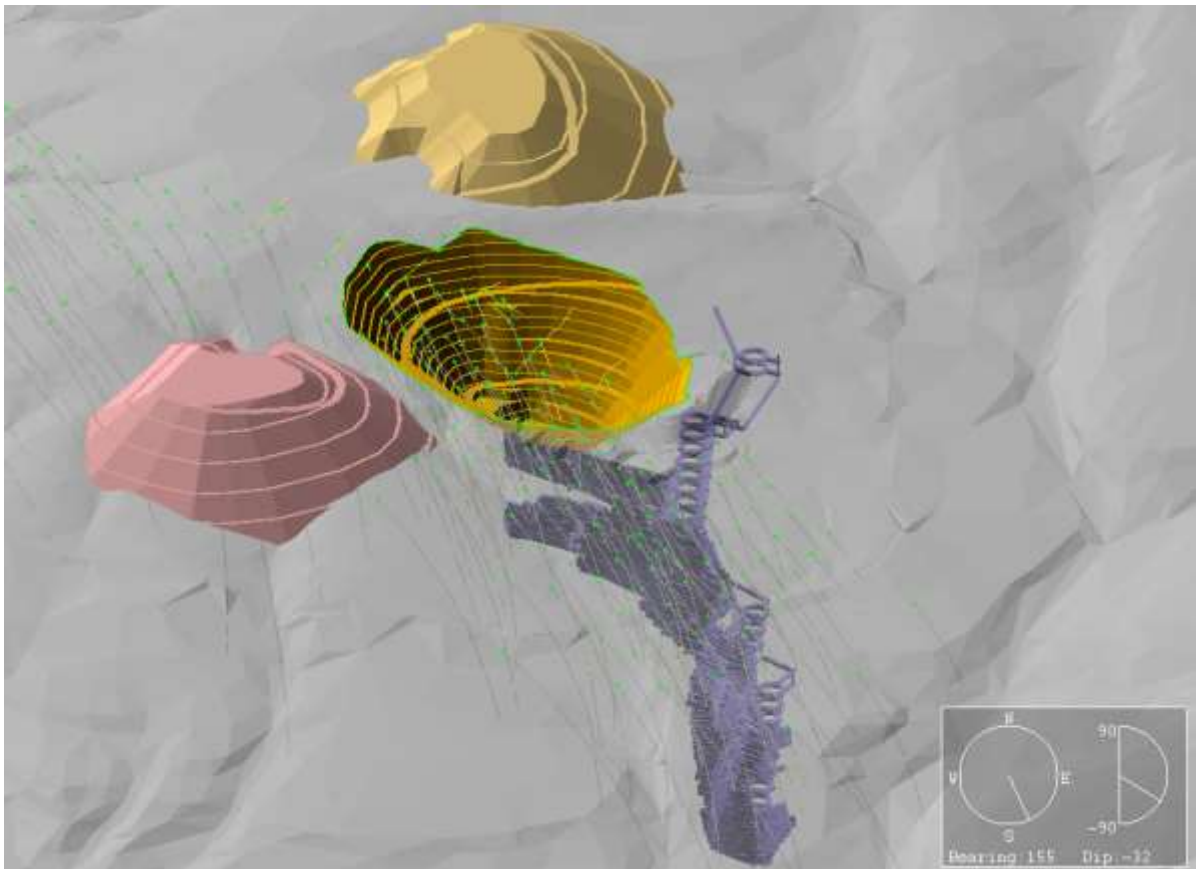


Figure 2.4.9.1: Grade Tonnage Curves for Akbařtepe Resource

2.5 Akbaştepe Ore Reserve Estimation

The Akbaştepe mineral deposit is located approximately 40 to 50 km by paved road from the Kaymaz mill. Akbaştepe was mined in 2013, with oxide material sent to Kaymaz for batch processing. During 2014, Koza continued working on the Akbaştepe prefeasibility report advancing metallurgical test work, tailings locations, mine planning for both open pit and underground, permitting, environmental studies and capital and operating cost estimation. As part of the prefeasibility study, reserves have been calculated for an open pit mine, which mines sulfide ore below the previously mined oxide ore and also includes underground cut and fill mining at depth.

LoM plans and resulting reserves are determined based on a gold price of US\$1,250/oz for the underground and open pit mines and projects. Reserves stated in this report are as of December 31, 2014.



Source: SRK, 2014

Figure 2.5.1: Open Pit and Underground Layout

2.5.1 Modifying Factors

The conversion of resource to reserve entails the evaluation of modifying factors that should be considered stating a reserve. Table 2.5.1.1 illustrates a reserve checklist and associated commentary on the risk factors involved for the Akbaştepe reserve statement.

Table 2.5.1.1: Akbaştepe Reserve Checklist

Unit	Data Evaluated	Data Not Evaluated	Not Applicable	Notes
Mining				
Mining Width	X			Small mining trucks/Cut and fill mining
Open Pit and/or Underground	X			Open Pit/Underground
Density and Bulk Handling	X			575 samples for density. Rock is competent
Dilution	X			No dilution added to open pit; Planned and unplanned for underground is included
Mine Recovery	X			Full mine recovery assumed
Waste Rock	X			Waste dump strategy in place and sufficient volume
Grade Control	X			Koza Methodology
Processing				
Representative Sample	X			75 samples from 26 holes
Deleterious Elements	X			Sulfide, Arsenic
Process Selection	X			Flotation, Pressure Oxidation
Geotechnical/Hydrological				
Slope Stability (Open Pit)	X			Slope stability study complete. full shotcreting UG
Area Hydrology	X			Hydrology study budgeted
Seismic Risk	X			2.4 m/s2
Environmental				
Baseline Studies	X			2012 EIA for open pit
Tailing Management	X			2Mm3 capacity
Waste Rock Management	X			Stability OK; MBA management ongoing
Acid Rock Drainage Issues	X			Koza should look at lined waste dumps
Closure and Reclamation Plan	X			Project still developing EIA
Permitting Schedule	X			
Legal Elements or Factors				
Security of Tenure	X			Operating license in place
Ownership Rights and Interests	X			Assume ok.
Environmental Liability	X			Historic mine, no modern operations
Political Risk (e.g., land claims, sovereign risk)	X			Koza has unfavorable relationship with Turkish government
Negotiated Fiscal Regime	X			
General Costs and Revenue Elements or Factors				
General and Administrative Costs	X			Adequate
Commodity Price Forecasts	X			Using 2014 general consensus
Royalty Commitments	X			Are applied in cut-of-grade
Taxes	X			
Corporative Investment Criteria	X			
Social Issues				
Sustainable Development Strategy	X			Koza social program
Impact Assessment and Mitigation	X			Ongoing project planning
Negotiated Cost/Benefit Agreement		X		
Cultural and Social Influence		X		

Source: SRK, 2014

2.5.2 Open Pit

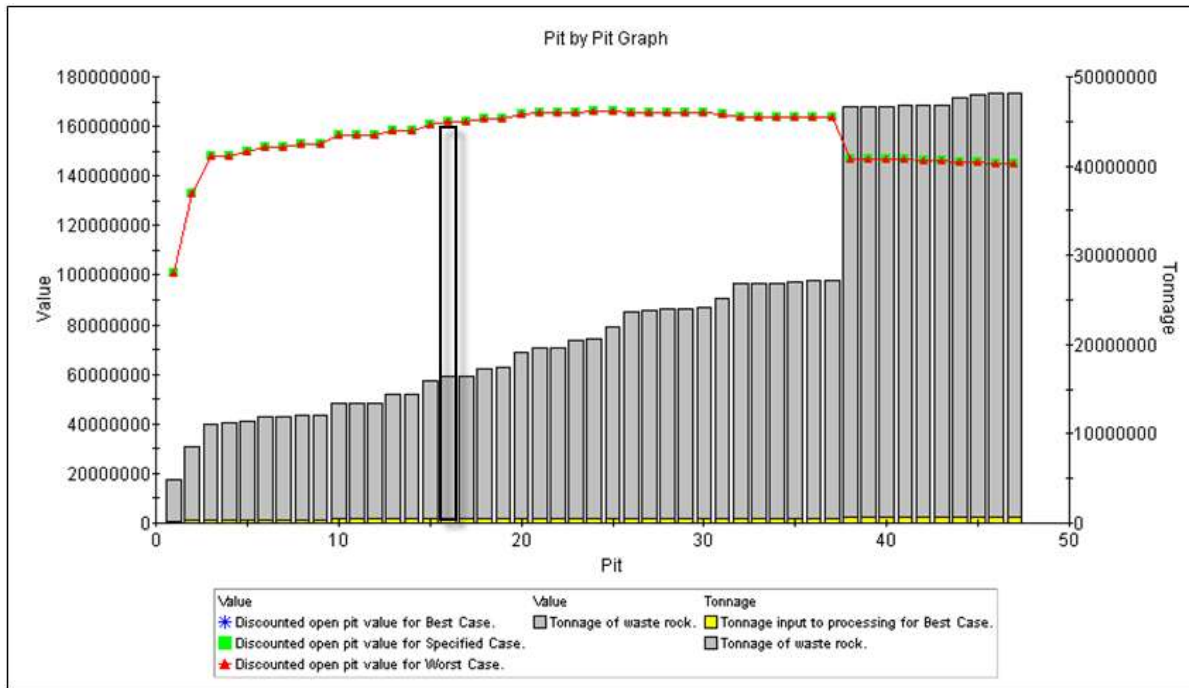
The open pit Akbaştepe is somewhat different from normal pit designs due to the very high grade nature of the deposit that subsequently supports high stripping ratios. Table 2.5.2.1 illustrates the default pit optimization inputs and economics that define the reserve cutoff grade.

Table 2.5.2.1: Akbaştepe Pit Optimization Inputs (as of December 31, 2014)

Parameter	Unit	Amount
Mining Cost	US\$/t material	1.63
Rehabilitation Cost	US\$/t waste	0.20
Milling Cost	US\$/ore	70.0
Selling Cost	US\$/oz	3.44
Grade Control	US\$/ore	0.5
Administration	US\$/ore	7.5
Ore Rehandle	US\$/ore	1.0
Transport	US\$/ore	0
Gold Price	US\$/oz	1,250
Silver Price	US\$/oz	20
Gold Recovery	%	82
Silver Recovery	%	75
Cutoff grade	g/t Au	2.48

Source: Koza, 2014

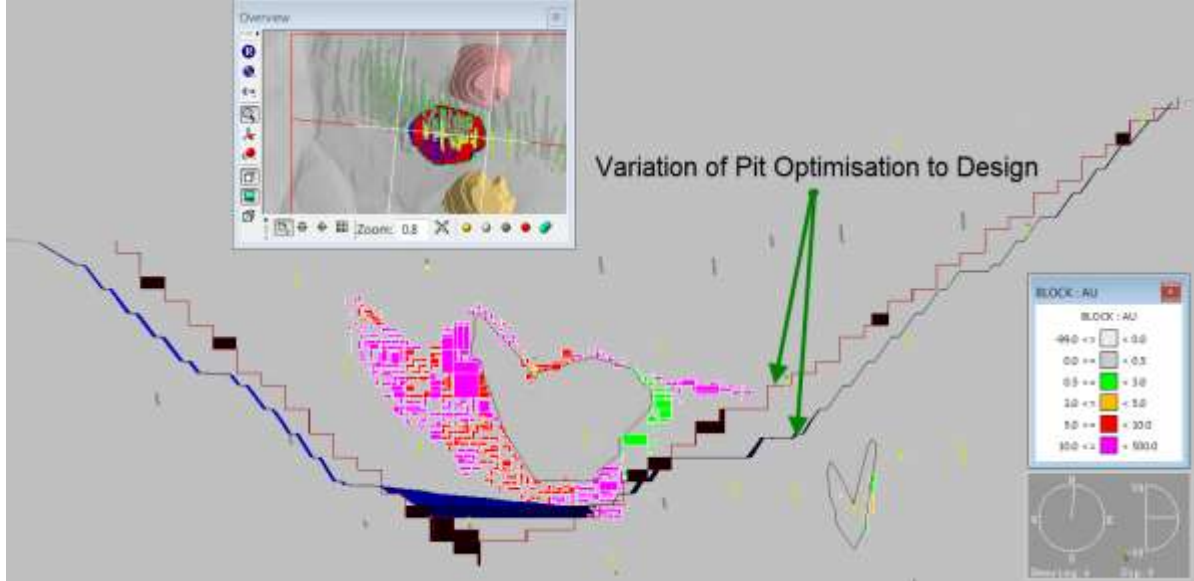
Figure 2.5.2.1 details the Whittle™ pit by pit analysis of the Akbaştepe deposit and it is clear that the variability in pit size is limited to two major step increases. The first step increase is at pit 3, this is followed by some incremental stripping through pit 37 and then pit 38 requires a large stripping hurdle to be overcome. Koza have selected pit 16 as the basis for pit design and SRK does not see any problem with this selection. Any pit from pit 3 through 37 would be sufficient.



Source: Koza, 2014

Figure 2.5.2.1: Pit by Pit Analysis of the Akbaştepe Deposit

The open pit design has been sized for contractor operations using a 12 m wide road, 10% maximum grade, double bench configuration with each mining face being 5 m, average bench face angle of 54° and overall pit slope angle between 36° and 40°. Figure 2.5.2.2 illustrates the effect of applying haul roads and practical mining shapes to the optimization results.



Source: SRK, 2014

Figure 2.5.2.2: Pit Design vs. Whittle Shell Section

For an open pit to be considered safe, geotechnical analysis should be performed on the open pit design so that a factor of safety (FoS), or risk of pit failure, can be determined. A FoS between 1.1 and 1.3 is generally considered safe using the geotechnical engineer's assumptions. Koza have utilized Roclab software for their limit equilibrium analysis.

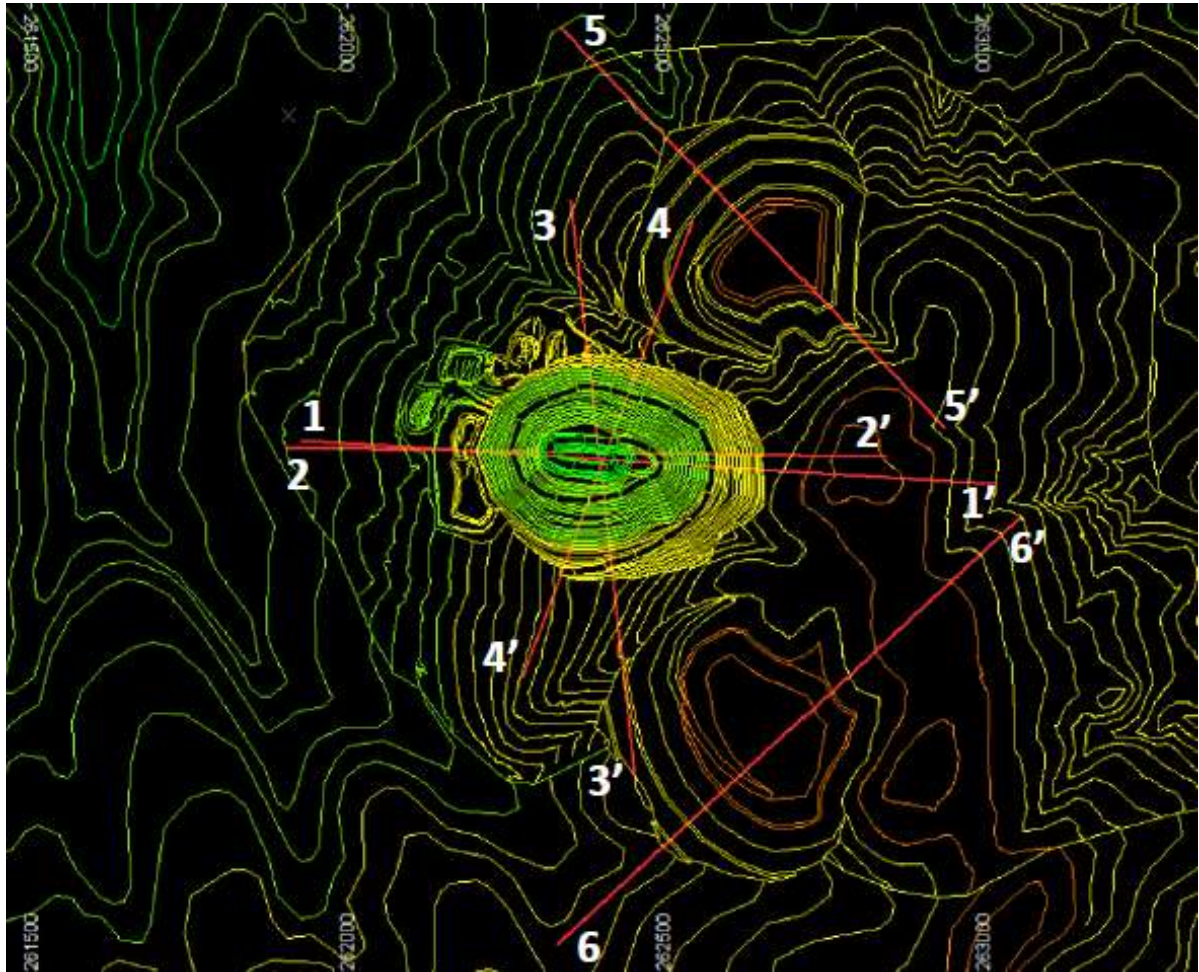
The main strength parameters are detailed in Table 2.5.2.2.

Table 2.5.2.2: Rock Strength Parameters

Rock Type	Cohesion c, (kPa)	Friction Angle ϕ , (°)
High	400	35
Medium	240	26
Low	160	20

Source: Koza, 2014

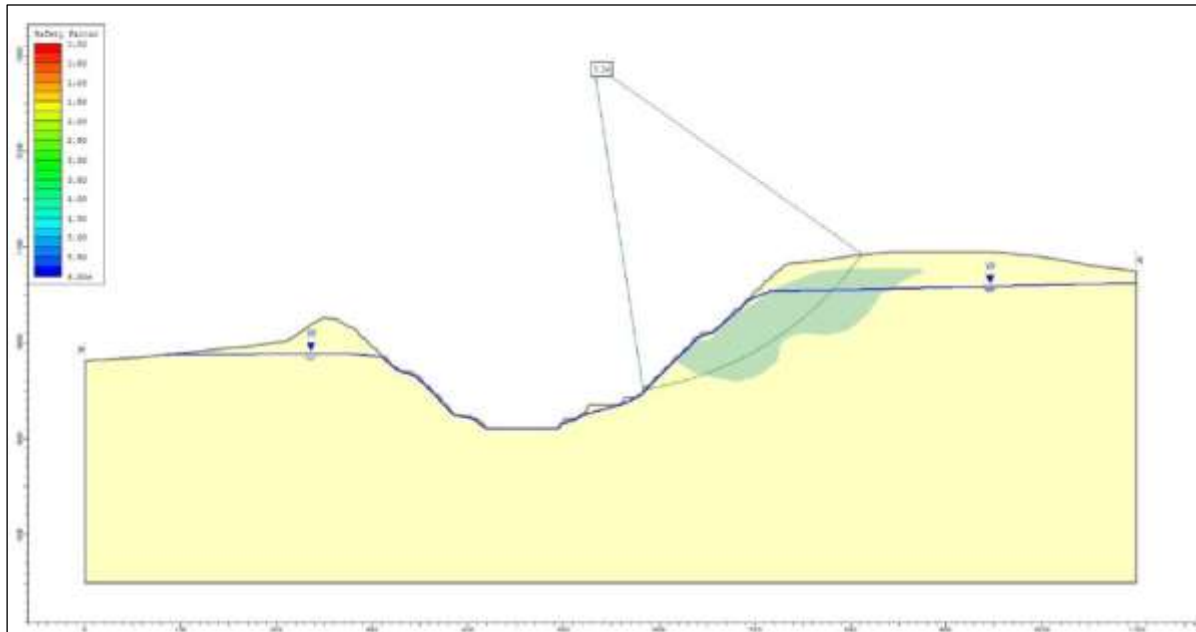
Koza has completed six geotechnical sections through the circumference of the open pit and also the waste dumps located on the side of the hills adjacent to the open pit. Figure 2.5.2.3 details the sections analysed for the FoS analysis.



Source: Koza, 2014

Figure 2.5.2.3: Open Pit Geotechnical Sections

Figure 2.5.2.4 represents the section line 1-1 in Figure 2.5.2.3 and also represents the greatest risk from a stability perspective.



Source: Koza, 2014

Figure 2.5.2.4: Open Pit Stability Analysis

Table 2.5.2.3 details the slope stability analysis results for all the sections analysed. The pseudo-static results incorporate a ground acceleration of 0.12 m/s^2 that is half of the predicted maximum ground acceleration due to earthquakes.

Table 2.5.2.3: Factor of Safety Results

Section	Slope Height (m)	Slope Angle (°)	FoS (Static)	FoS (Pseudo-Static)
East Wall (1-1')	170	36	1.34	1.10
West Wall (2-2')	105	38	2.00	1.67
South Wall (3-3')	140	38	1.30	1.10
North Wall (4-4')	130	40	1.75	1.44
Northern Waste Dump (5-5')	90	25	1.45	1.12
Southern Waste Dump (6-6')	85	26	1.49	1.14

Source: Koza, 2014

Koza Gold schedule their open pit operations on a monthly basis utilizing block model blocks that have been flagged by the Koza pit design. It is anticipated that open pit operations will commence a year and half before the process plant is built so that sufficient ore has been stockpiled while underground development continues in parallel with the open pit.

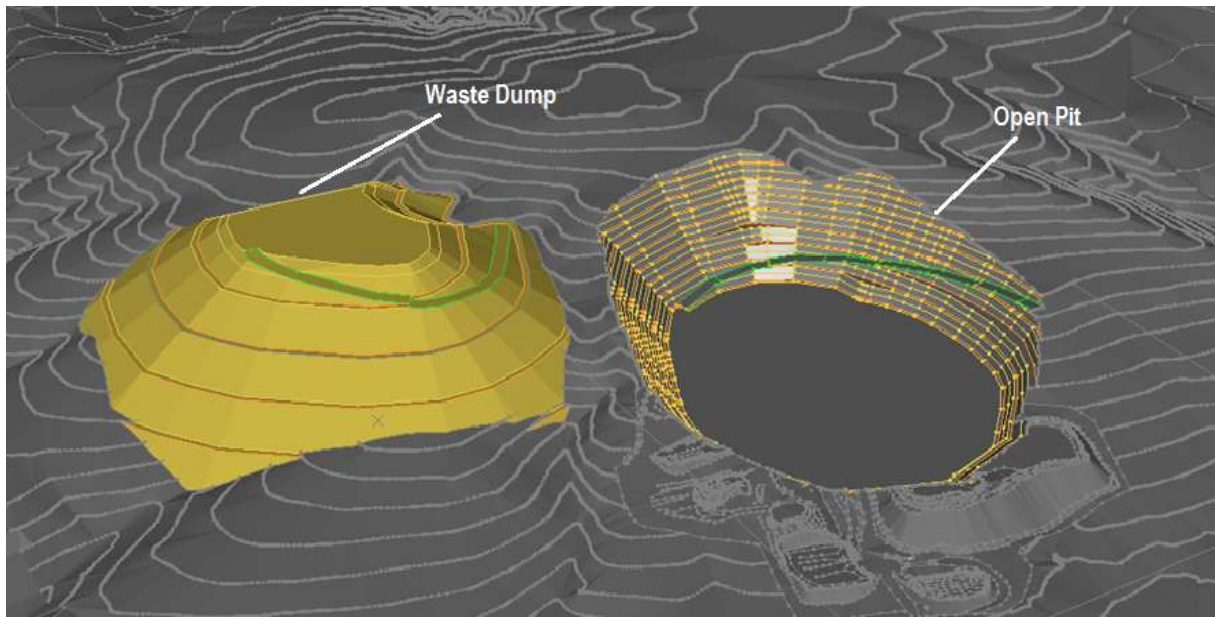
The open pit production schedule that is the basis of the economic analysis is provided in Table 2.5.2.4.

Table 2.5.2.4: Open Pit Production Schedule

Period	Year 1	Year2	Total
Waste Tonnes Op (t)	8,983,628	7,956,471	16,940,099
Ore Op (t) Sulfide	34,332	312,238	346,570
Strip Ratio (waste:ore)	262	25	49
Au (g/t) Op Sulfide	14.33	19.91	19.36
Ag (g/t) Op Sulfide	1.56	1.51	1.52
Gold Ounces	15,817	199,870	215,718

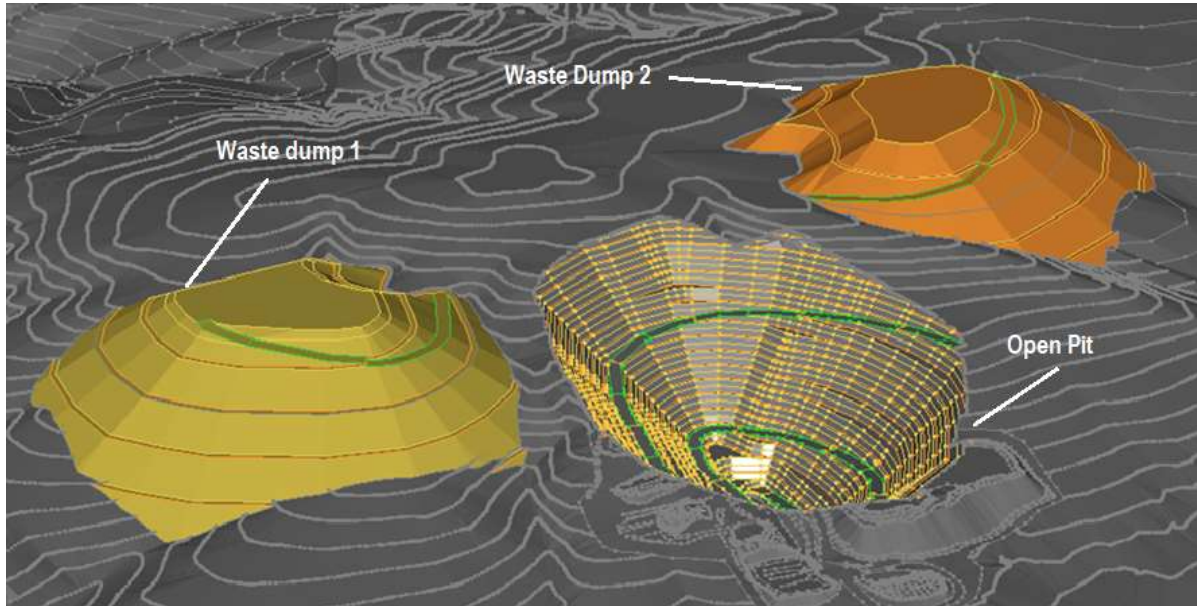
Source: Koza, 2014

Figures 2.5.2.5 and 2.5.2.6 show the pit and waste dump progression as designed for year 1 and year 2. It is anticipated that a single phase be mined. SRK is of the opinion that the pit is wide enough to support a two-phase extraction that will optimize the ramp placement for the initial waste dump. Even though mining will be carried out by contractors, phased mining optimizes the waste stripping requirements.



Source: Koza, 2014

Figure 2.5.2.5: Open Pit Production Year 1 (Oblique View)



Source: Koza, 2014

Figure 2.5.2.6: Open Pit Production Year 2 (Oblique View)

Koza uses contractors for all open pit operations except Himmetdede. This is because the Turkish contractors provide a very competitive mining cost and the weather, terrain and mine tonnage is not detrimental to operations that may otherwise force specific mining equipment to be used.

The mine contractor will provide all personnel, equipment and facilities required for open pit mining and as such there is no significant capital provision for open pit mining equipment.

The suggested open pit mining equipment is detailed in Table 2.5.2.5.

Table 2.5.2.5: Open Pit Equipment List

Qty.	Equipment Type	Suggested Model
2	Excavator	PC700LC
1	Excavator	PC300LC
1	Loader	WA470
1	Loader	WA500
1	Grader	GD675
1	Dozer	D155AX
1	BOMAG (Road Roller)	216
2	ROC	DX800
13	Truck	FMX500
2	Water Truck	FMX330
1	Petrol Truck	FMX331
1	Maintenance Truck	1826
1	Tow Truck	FMX460

Source: Koza, 2014

Because the mining equipment is so small (based on 40-t class haulage trucks), no additional dilution or mine recovery factors are added into the mine production schedule and reserve statement. Koza indicates that the selective mining unit is very small and, through the use of grade

control spotters and detailed excavator work, Koza can mine the high grade zones with great accuracy. This has been witnessed by SRK at previous operations, thus SRK will not challenge this assumption until more detailed mine planning becomes available during feasibility.

2.5.3 Open Pit Reserves

LoM plans and resulting reserves are determined based on a gold price of US\$1,250/oz for the open pit mine. Proven and Probable reserve categories are determined directly from the Measured and Indicated categories. SRK is of the opinion that the reserve classification used by Koza is valid for the Akbaştepe mine.

Table 2.5.3.1 presents the mineral reserve for the Akbaştepe open pit mine as of December 31, 2014.

Table 2.5.3.1: Akbaştepe Open Pit Mineral Reserves at December 31, 2014

Category	kt	g/t Au	g/t Ag	koz Au	koz Ag
Proven Reserve	346	19.36	1.5	216	17
Probable Reserve	1	2.48	0.7		
Total Proven and Probable Reserves	347	19.35	1.5	216	17

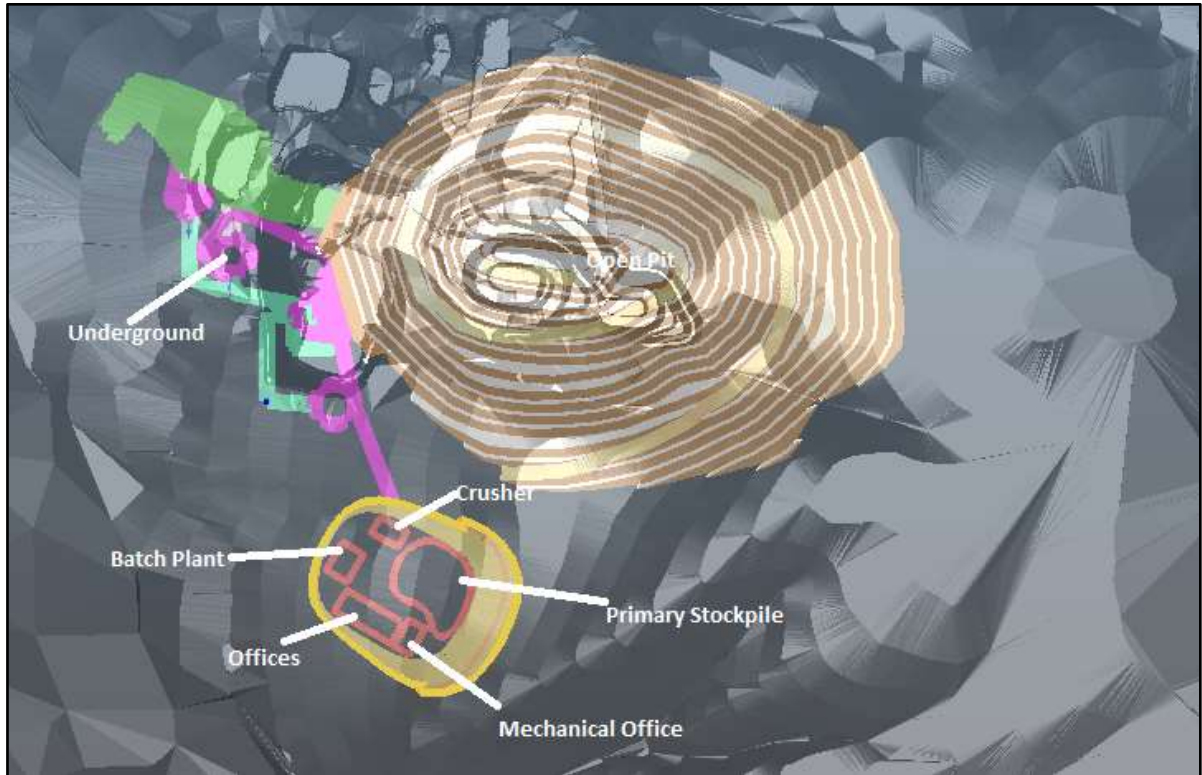
Source: Koza, 2014

Metal Price: US\$1,250/oz-Au, US\$20/oz-Ag, Au Recovery 82%, Ag Recovery 75%, Au cutoff grade 2.48g/t.

2.5.4 Underground

The underground mine plan is based on the same dimensions, equipment, labour, geotechnical support, productivity and mining cost as achieved at Koza's other underground mines at Ovacik, Cukuralan and Mastra. So long as water is not a problem, there is no reason to believe the predicted mining cost is not achievable as ground conditions have been estimated. The mine will begin development and initial extraction as the open pit nears completion. The orebody is very high grade but relatively thin, so the mining width of the proposed drift dimensions will be subject to significant dilution issues. These issues should be studied closely as the project moves from a pre-feasibility stage to feasibility.

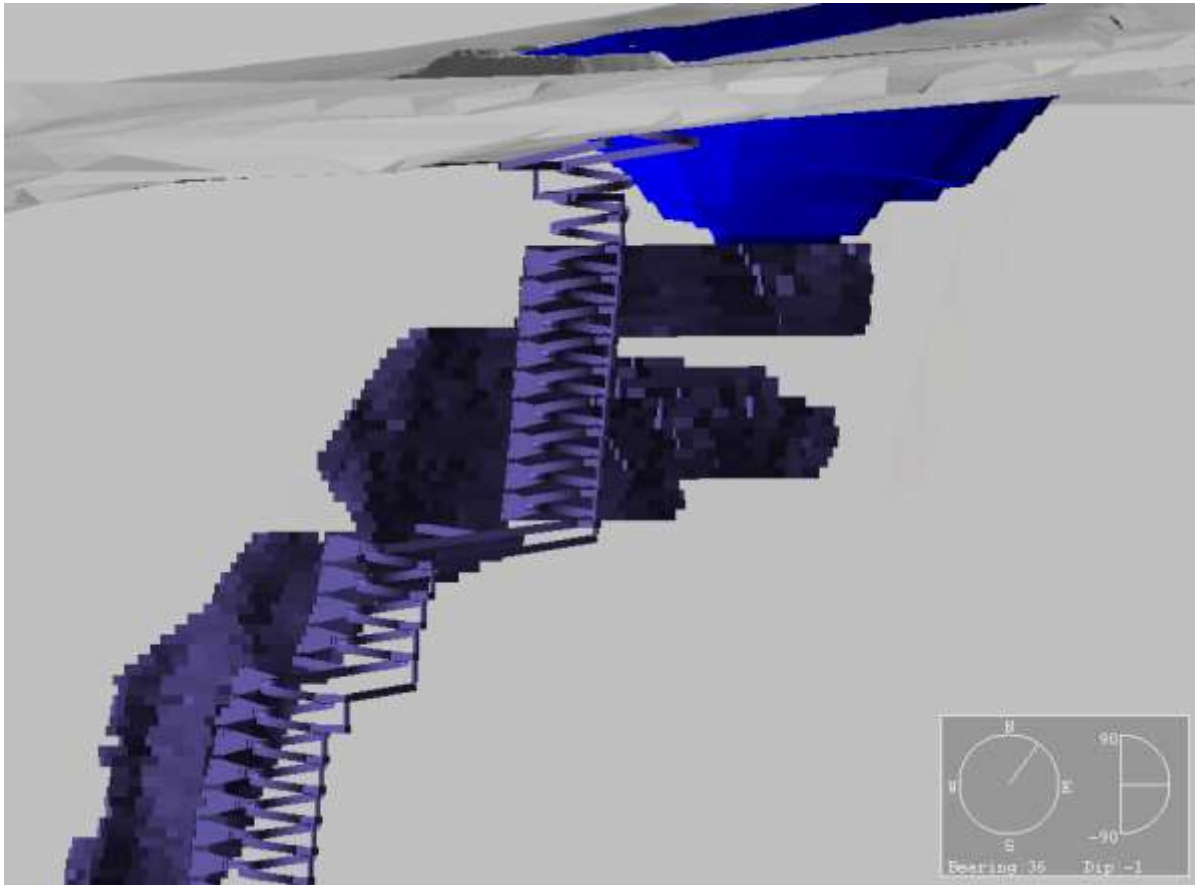
Figure 2.5.4.1 shows the preliminary portal and associated infrastructure when compared to the open pit.



Source: Koza, 2014

Figure 2.5.4.1: General Site Layout

Access to the underground orebody is via a portal located on the south side of the pit. The ramp spirals down on the footwall of the orebody about 250 m in depth, whereupon the ramp moves east along the orebody strike, thus following the high grade mineralization and deepens for another 220 m in depth. All access development is driven at a nominal 5 m x 5 m. The main ramp has a gradient of 8.13 degrees based on a radius of 16.72 m. Ventilation drives are 4.5 m X 4.5 m and 10 m long that are connected on each level by a 3.5 m shaft. Figure 2.5.4.1 shows the LoM plan development (purple).



Source: SRK, 2014

Figure 2.5.4.2: Underground Development

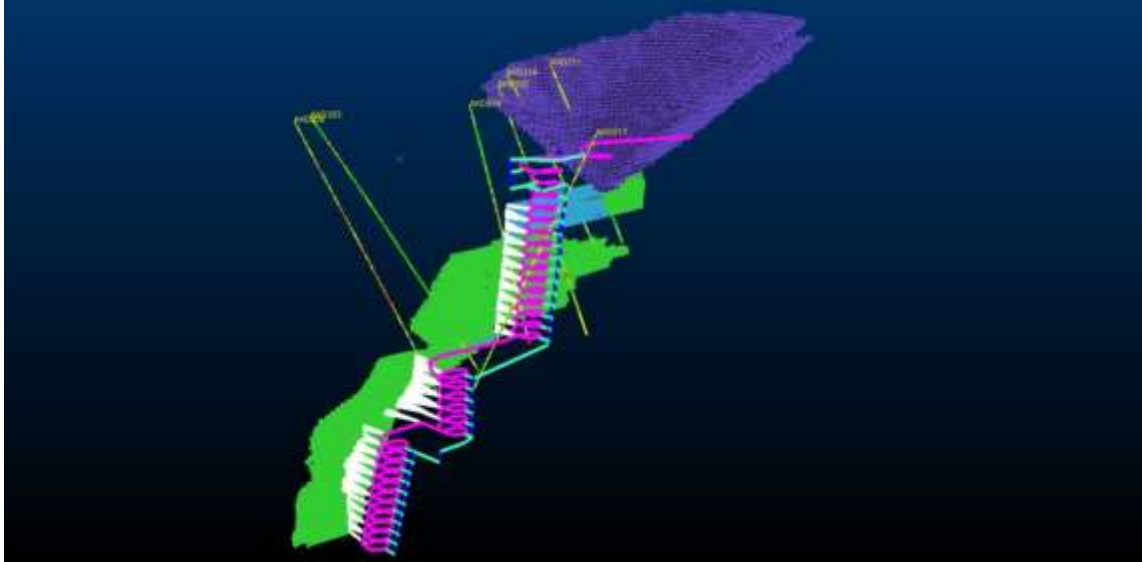
A cut and fill underground mining method will be used in the fashion that is employed at other Koza sites. Primary cuts will be driven 5 m high at a spacing of 10 m or 15 m, back to floor, allowing either two or three cuts to be mined between the primaries, respectively. Primary stopes will be mined and filled with rockfill containing an 8% cement binder. This high cement content is required as these stopes will be undercut by the third lift at a later date. The second lift is mined over the first and filled with development waste, unless a parallel drift is being mined on the same horizon, in which case backfill with 6% cement binder is installed. This percentage of cement is required so that equipment mining the third cut has a stable working platform and to provide increased strength for wider stope areas. The final lift is mined in an undercut fashion with the backfill from the primary cut forming the stope back. This final cut is generally left open.

There is the possibility that historically mined areas will be encountered during operations. Generally, when drilling around a historically mined area, the material is softer and has a more oxidized color. Care must be taken in these areas to ensure safety.

All development will be drilled using twin boom jumbos. Faces will be mucked out using LHD's and primary support in the form of 10 cm of polypropylene fiber reinforced shotcrete will be applied. Ore and waste are transported from the face using dump trucks to either the ore stockpiles or the waste dumps on surface. The trucks back-haul cemented backfill to the cut and fill stopes underground.

Koza has undertaken a geotechnical program to determine safe working practices for different material qualities that will be encountered underground.

Figure 2.5.4.3 shows the geotechnical holes drilled.



Source: Koza, 2014

Figure 2.5.4.3: Geotechnical Hole Placement

Tables 2.5.4.1 and 2.5.4.2 show rock mass ranking for expected material types based on weathering profile and lithology. Based on these numbers and rock mass quality assumptions, Koza engineers can specify geotechnical protocols to ensure the safety of underground workers.

Table 2.5.4.1: Weighted Mean of RMR Values for the Project Area (based on lithological units)

Rock Type	Average RMR (%)	Std. Dev. (±)
GS	48.88	8.79
Other	54.35	21.41
Average	48.96	9.11

Source: Koza, 2014

Table 2.5.4.2: Weighted Mean of RMR Values for GS (based on weathering degree)

Weathering	Rock Type	Average RMR (%)
FR	52.44	7.22
SW	44.88	6.18
Other	41.67	11.91
Average	48.88	8.79

Source: Koza, 2014

Based on the geotechnical studies, standard development ground support has been designed for various ground conditions and openings. Details of the support are summarized below.

Reasonably stable ground (Slightly weathered/altered rock or better):

- Cut face up to 3 m with drilling & blasting;
- Apply 50 mm of fibrecrete after mucking;
- Install split sets at 1.2 m spacing per row; and
- Prepare the face for the next cut.

Stable (Moderately weathered/altered rock):

- Apply 100 mm of fibrecrete after mucking;

Fretting ground (highly weathered/altered rock):

- Cut face up to 2 to 3 m (favorably with rock breaker, if not drilling & blasting);
- Apply 50 mm of fibrecrete (immediately before mucking if fretting starts after or during cut);
- Install mesh and split sets at 1.2 m spacing per row; and
- Apply final layer of fibrecrete to final design thickness (100 mm) after mucking;

Self-mining ground (highly/extremely weathered/altered rock and/or fault or crushed zones with water pressure):

- Install spiling bars at nominal 0.3 to 0.5 m spacing prior to cut;
- Cut face 1.5 to 2 m with rock breaker;
- Apply 50 mm of fibrecrete (immediately before mucking if fretting starts after or during cut);
- Install mesh and split sets at 1.2 m spacing per row;
- Apply final layer of fibrecrete to final design thickness (100 mm) after mucking;

Mining costs predicted for Akbaştepe are based on Kozas experience at its other mining operations and anticipated ground conditions. Table 2.5.4.3 shows the anticipated Akbaştepe underground mine cost used for the calculation of cutoff grade.

Table 2.5.4.3: 2014 Akbaştepe Underground Cutoff Grade Calculation

Parameter	Unit	Cut and Fill
Mining cost	US\$/t mined	50.1
Processing cost	US\$/t ore	70.0
Admin cost	US\$/t ore	7.5
Total Cost	US\$/t	127.5
Gold price	US\$/oz	1,250
Gold recovery	%	82
Silver recovery	%	75
Government Right and Royalty	%	3
Refining	US\$/oz	3.44
Cutoff Grade	g/t Au	4

Source: Koza, 2014

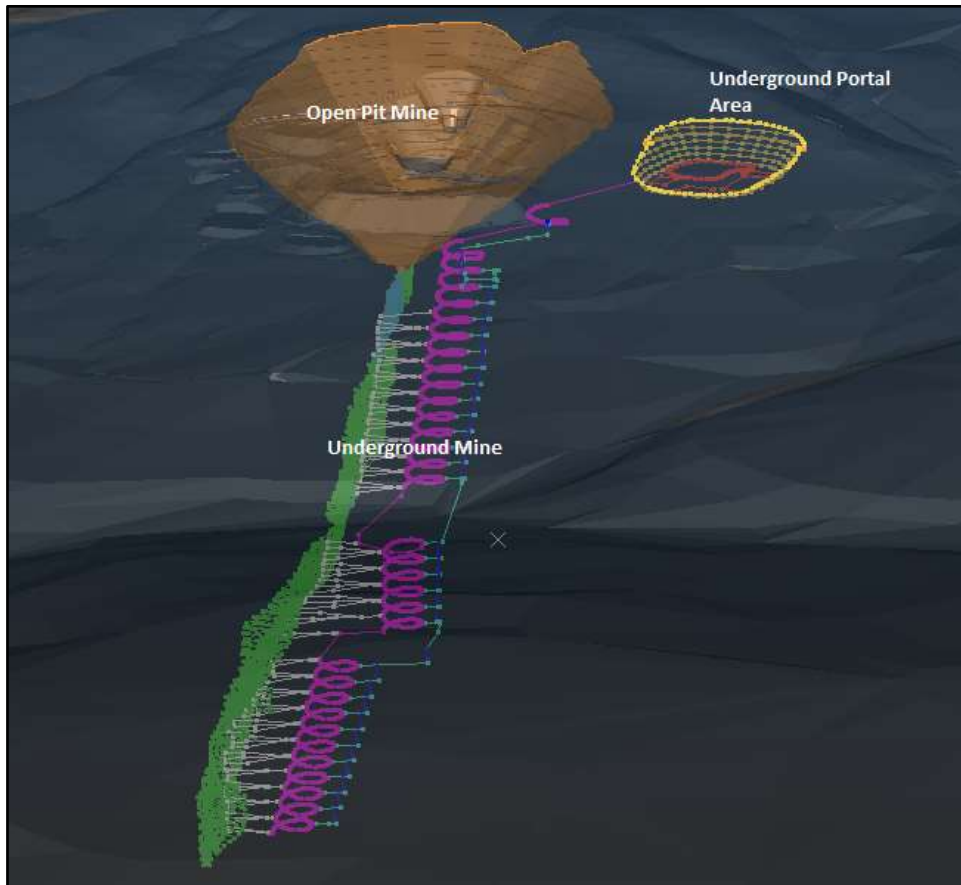
The breakdown of the US\$50/t mining cost is detailed in Table 2.5.4.4.

Table 2.5.4.4: Details of Underground Mining Cost

Name	Cost/Tonnes (US\$)
Drilling Cost	0.98
Blasting Cost	1.22
Ventilation Cost	0.28
Support Cost	5.07
Fuel Consumption Cost	5.74
Elektricity Cost	2.17
Backfill Cost	10.41
Salary Cost	7.24
Transport Cost	4.79
Equipment Repair&Maintenance Cost	9.46
Other Costs	2.77
Total	\$50.13

Source: Koza, 2014

The mine production schedule has been carried out using mine24D where the underground string lines are convered into 5 m X 5 m triangulations with tonnes and grade accumulated from the block model within these shapes. Because the block model is sub-blocked and limited to estimated geology, the mineralization can be smaller than the area defined by underground drift dimensions. The scheduling system takes any undefined volume and assumes it is waste thus adding dilution tonnage to the ore estimated. SRK estimates that up to 30% dilution has been included by Koza. The dimension of the drives should be looked at in detail to ensure the 5 m X 5 m drift is the most suitable mining dimension as opposed to small dimensions such as 3 m x 3 m utilizing smaller equipment.



Source: Koza 2014

Figure 2.5.4.4: Underground String Layout

Table 2.5.4.5 shows the planned mine production schedule with year 1 being 2019 or the second year of open pit mining. Ore mining will target 1,250 t/d.

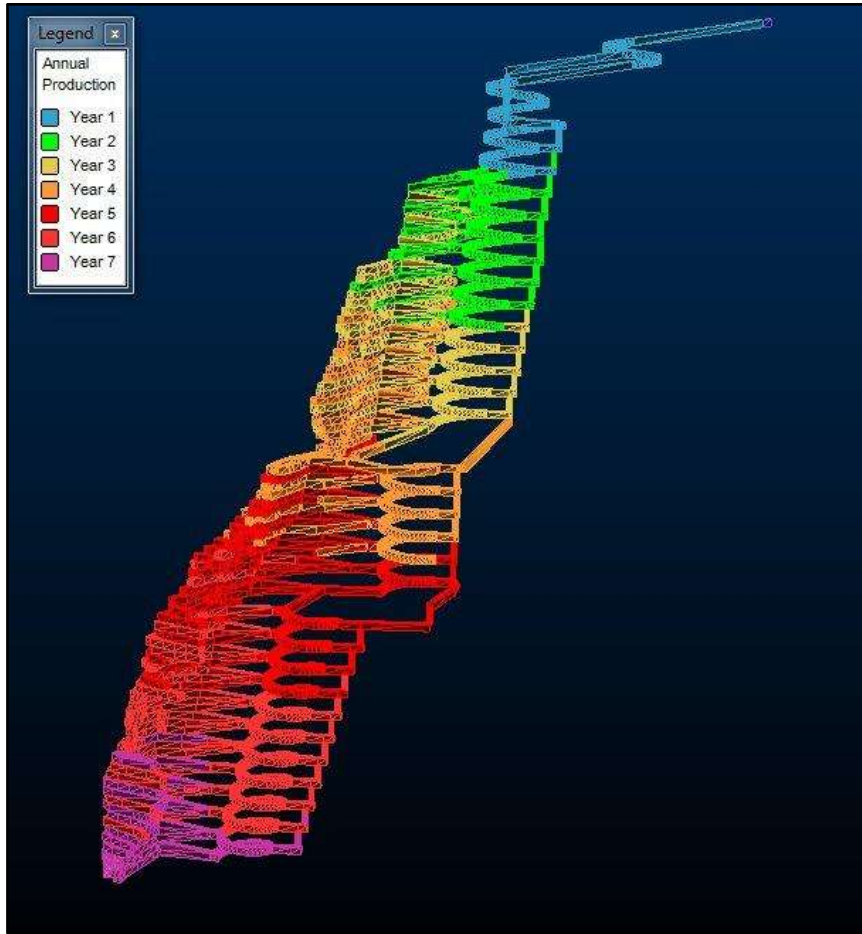
Table 2.5.4.5: Underground Mine Proven and Probable Reserve

Name	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL
Diluted Ton	72,567	236,223	454,876	437,843	439,914	431,913	194,150	2,267,487
Diluted AU	-	4.08	7.53	9.16	12.28	11.28	14.21	9.45
Diluted AG	-	0.46	0.67	0.62	0.64	0.62	0.42	0.58
ROM TON	-	75,052	291,389	304,815	300,709	297,988	145,903	1,415,856
ROM AU	-	10.92	11.13	12.76	17.82	16.24	18.85	14.76
ROM AG	-	0.90	0.90	0.84	0.92	0.89	0.56	0.86
HG TON	-	14,512	61,147	79,132	162,245	133,834	75,288	526,159
HG AU	-	19.972	22.506	24.883	24.747	24.272	27.557	24.66
HG AG	-	1.519	1.488	1.367	1.304	1.231	0.456	1.20
LG TON	-	14,960	29,577	28,332	9,053	8,342	1,150	91,414
LG AU	-	3.02	3.22	3.28	3.27	3.30	3.31	3.22
LG AG	-	0.64	0.55	0.38	0.18	0.30	0.25	0.45
WASTE TON	72,567	146,211	133,910	104,697	130,152	125,583	47,096	760,217
WASTE AU	-	0.69	0.67	0.26	0.10	0.04	0.11	0.32
WASTE AG	-	0.22	0.18	0.05	0.01	0.00	0.01	0.09
Metres	1,040	3,366	6,183	5,837	5,898	5,777	2,588	30,688
CAP METER	999	816	626	657	825	773	190	4,884
VER	41	73	53	25	58	63	21	333
OPR METER	-	2,477	5,505	5,155	5,015	4,941	2,377	25,471
ORE METER	-	2,040	4,949	4,639	4,177	4,017	1,968	21,788

Source: Koza 2014

It is assumed that nine faces will be mined at the same time and each face will be pregressed at a rate of 60 m per month. Given this development rate, the underground is planned to continue for seven years.

Figure 2.5.4.5 below shows the underground mine progression broken down by years.



Source: Koza, 2014

Figure 2.5.4.5: Underground Development Rate

The mining equipment detailed in Table 2.5.4.6 is a carbon copy of the mine equipment used at Koza's other underground mines. The equipment is well suited to the 5 m X 5 m dimension of the workings and associated ground conditions.

Table 2.5.4.6: Akbaştepe Underground Mining Equipment

Task	Equipment	Quantity	Supplier
Truck haulage	MT 2010	4	Atlas Copco Wagner
Mucking	SLF 65	4	Schopf
Shotcrete	Spraymec	1	Normet shotcrete sprayer
	UG Mixer Truck	1	Normet shotcrete transmixer truck
Drilling	Jumbo	2	Atlas Copco 2 twin boom and 1 single boom
	Simba	1	Atlas Copco long hole drilling rig
	Diamec U-6	1	Atlas Copco Core drilling rig
Service	ITC	1	JCB TM 310
	Loader	1	JCB 456 ezx
	Pick-up	2	Ford Ranger
	Tractor	1	New Holland T6020
		1	New Holland T4030
	Personnel Carrier (portal to UG/UG to portal)	1	Titan
	Back Hoe	1	JCB 4CX
Total		22	

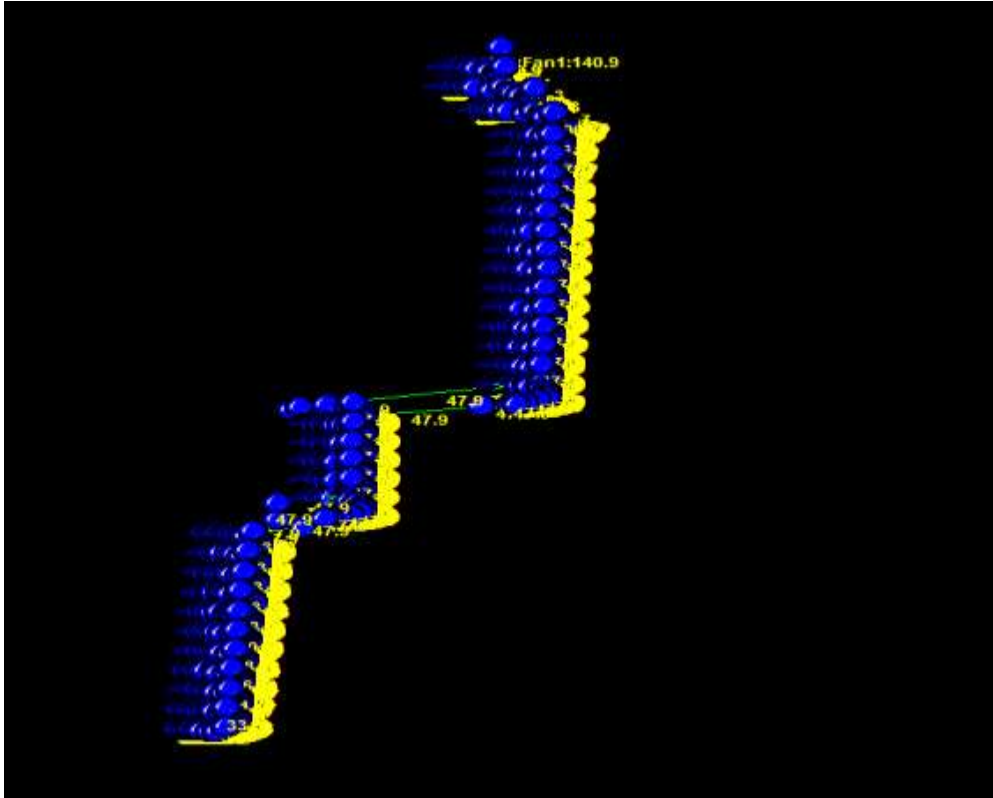
Source: Koza, 2014

Mine ventilation will be provided to all working areas using two 132 kW surface fans that will be run in parallel. The exhaust fans will be situated above the exhaust raise. Additional auxiliary fans will distribute air to local working areas and areas where additional ventilation is required. Koza engineers have estimated the required airflow and conducted ventilation simulations to ensure the exhaust fans are sufficient in size. Table 2.5.4.7 details the assumed ventilation requirements.

Table 2.5.4.7: Akbaştepe Ventilation Requirement

Equipment	Engine Power kW	Equipment Efficiency	Equipment Quantity	Air Necessity (for 1 equipment) (m ³ /sec)	Total Air Necessity (m ³ /sec)
Truck	224	100%	4	11.2	44.8
LHD	148	100%	3	7.4	22.2
Jumbo	58	25%	2	0.725	1.5
Spraymec	96	25%	1	1.2	1.2
Bolter	110	25%	1	1.375	1.4
Mixer	165	100%	1	8.25	8.3
IT	110	100%	2	5.5	11.0
JCB-Hammer	75	100%	1	3.75	3.8
Tractor	67	100%	2	3.35	6.7
Light vehicle	116	100%	2	5.8	11.6
Air Loss (% 10)					11.2
Total					124

Figure 2.5.4.6 provides an illustration of the Ventsim analysis conducted by Koza on the life of mine underground plan. The two 132 kW fans will provide 140 m³/sec air flow which is greater than the estimated 124 m³/sec required for safe operations.



Source: Koza 2014

Figure 2.5.4.6: Underground Ventilation

2.5.5 Underground Reserves

LoM plans and resulting reserves are determined based on a gold price of US\$1,250/oz for the underground and open pit mines and projects. Reserves stated in this report are as of December 31, 2014. Proven and Probable reserve categories are determined directly from the Measured and Indicated categories. SRK is of the opinion that the reserve classification used by Koza is valid for the underground mine.

Table 2.5.5.1: Akbaştepe Open Pit Mineral Reserves at December 31, 2014

Category	kt	g/t Au	g/t Ag	koz Au	koz Ag
Proven Reserve	594	9.96	0.9	190	16
Probable Reserve	913	16.73	0.8	491	24
Total Proven and Probable Reserves	1,507	14.06	0.8	681	40

Source: Koza, 2014

Metal Price: US\$1,250/oz-Au, US\$20/oz-Ag, Au Recovery 82%, Ag Recovery 75%, Au cutoff grade 4/t.

2.6 Metallurgy Testwork

Metallurgical studies were conducted by SGS Canada (SGS) to a prefeasibility level of investigation for the Söğüt project and the results of this work are presented in the following reports:

- “An Investigation into the Recovery of Gold From the Söğüt Project”, SGS Canada, March 4, 2013; and
- “An Investigation into the Recovery of Gold from the Korudanlik and Akbaştepe Deposits From the Söğüt Project”, SGS Canada, September 3, 2014.

The results from SGS’s 2014 test program supercede the work performed in 2013 and are summarized in this section.

2.6.1 Test Composites

Metallurgical studies were conducted on test composites from both the Korudanlik oxide deposit and the Akbaştepe sulfide deposit. Head assays for each of the test composites are shown in Table 2.6.1.1.

Table 2.6.1.1: Head Analyses for the Korudanlik and Akbaştepe Test Composites

Element	Unit	Korudanlik		Akbaştepe				
		Oxide Comp 1 (HG)	Oxide Comp 2 (ROM)	C1-C2-C3 AR Comp	C5 AR Comp	C5 Core Comp	C6 AR Comp	C6 Core Comp
SG		2.76	2.74	2.92	2.97	2.97	2.95	2.91
Au (Screen Met)	g/t	33.6	4.79	6.84	31.0	31.2	9.69	10.4
Ag	g/t	3.2	<0.5	1.1	2.6	2.3	<0.5	0.8
S=	%	<0.05	<0.05	3.02	4.25	5.63	2.45	2.65
ST	%	0.01	0.02	3.31	5.46	5.83	2.79	2.65
CT	%	8.50	9.04	4.69	2.78	2.74	5.31	4.57
TOC	%	0.11	0.17	0.14	0.07	0.10	0.06	0.06
CO ₃	%	41.7	44.4	22.9	13.4	13.1	25.8	22.2
As	%	0.015	0.014	0.48	0.40	0.39	0.52	0.89
Fe	%	0.45	0.52	5.56	6.42	6.76	5.45	5.25
Cu	%	0.002	0.001	0.005	0.009	0.008	0.004	0.006

Source: SGS, 2014

2.6.2 Comminution Tests

Bond rod mill (RWi), ball mill work index (Bwi) and abrasion index (Ai) determinations were conducted on the C5 and C6 composites from the Akbaştepe and the oxide composite from the Korudanlik composite. The RWi for the Akbaştepe composites ranged from 16 to 18 kWh/t and the BWi ranged from 15 to 17 kWh/t. As such, the Akbaştepe ore would be categorized as medium to hard. The RWi and BWi for the Korudanlik oxide composite were reported at 13.3 and 9.9 kWh/t indicating that Korudanlik ore can be categorized as medium to soft. Comminution test results are presented in Table 2.6.2.1.

Table 2.6.2.1: Comminutions test Results.

Sample	RWi (kWh/t)	BWi (kWh/t)	AI (g)
C5 Comp	16.3	14.9	0.138
C6 Comp	18.2	17.0	0.097
Oxide Comp	13.3	9.9	0.032

Source: SGS 2014

2.6.3 Metallurgical Studies: Korudanlık Oxide Composite

Metallurgical testwork on the Korudanlık oxide samples consisted of diagnostic leach tests, which were used to determine the gold deportment of the sample, gravity separation testwork, cyanidation testwork and solid/liquid separation testwork. Diagnostic leach tests were performed on Oxide Comp 2 (ROM) to examine the gold deportment in the sample by systematically accounting for gold association with different mineral assemblages or ore matrices. The results of the diagnostic leach test indicated that approximately 94% of the gold was readily available and could be extracted by gravity separation and cyanidation.

Gravity separation testwork was conducted on both Oxide Comp samples to evaluate the recovery of gold by gravity concentration. It was found that the oxide ore is highly amenable to gravity concentration with 55% to 66% of the gold reporting to the gravity concentrate after five passes through a Knelson centrifugal concentrator.

Cyanidation testwork conducted on the gravity tailing from Oxide Comp 1 demonstrated that 96.1% of the contained gold could be extracted after 48 hours of leaching, which yielded an overall gravity + cyanidation gold recovery of 98.7%. Overall gold (gravity + cyanidation) recovery for Oxide Comp 2 was reported at 94.6%. Cyanide and lime consumption were low at 0.08 kg/t NaCN and 0.41 kg/t CaO.

Whole ore cyanidation tests were completed on Oxide Comp 2 (without gravity preconcentration). The results of these tests showed that about 93% of the gold could be extracted at a grind of 80% passing (P80) 80 microns. Gold extractions of about 91% were achieved at coarser grinds of P80 98 -137 microns. Again, cyanide and lime consumption were low at 0.08 kg/t NaCN and 0.43 kg/t CaO.

2.6.4 Metallurgical Studies: Akbaştepe Sulfide Composites

The metallurgical testwork on the Akbaştepe sulfide composites consisted of diagnostic leach tests, gravity separation testwork, flotation, cyanidation testwork, pressure oxidation, roasting and biooxidation.

Diagnostic leach tests on the C5 Core Composite indicated that only 19% of the gold was readily available for extraction by direct cyanidation. Similar tests on the C6 Core Composite found that about 51% of the gold was available for extraction by direct cyanidation. As such, gold contained in Akbaştepe sulfide deposit is considered refractory. Due to the refractory nature of the ore, metallurgical testwork was focused on a process flowsheet that would include flotation to recover the contained gold into a bulk sulfide flotation concentrate, which could then be oxidized by either pressure oxidation, roasting or biooxidation to make the gold in the concentrate amenable to extraction by cyanidation.

Flotation Testwork

Flotation testwork included whole ore rougher kinetic tests, whole ore cleaner tests, gravity tailing cleaner tests and locked cycle tests. Targets were set at 20% mass pull to the rougher concentrate and a sulfur to carbonate ratio of greater than 1 for the downstream oxidative treatment testwork. A series of flotation tests was undertaken using the C5 and C6 AR Comps. The purpose of the testwork was to confirm/optimize the flotation conditions. Rougher kinetic tests were performed on each sample and the effect of grind size was evaluated.

The highest rougher concentrate recovery for the C5 AR Comp was 98.4% gold and 96.9% sulphur. The results of rougher floatation tests at the finest grind size tested ($\sim P_{80}$ 75 microns) are summarized in Table 2.6.4.1. The results from the C6 AR composite demonstrated that 95.4% of the gold and 97.1% of the sulfur could be recovered into a rougher flotation concentrate at a 26% mass pull. Similar results were obtained for the higher grade C5 AR composite. Cleaner tests were performed on the C6 AR Comp and C1-C2-C3 gravity tailings samples and the results are summarized in Table 2.6.4.2. Overall gold recoveries (gravity plus flotation) ranged from 67% to 88% into concentrates containing about 5 to 10 mass%.

Table 2.6.4.1: Summary of Rougher Flotation Tests on the Akbaştepe C5-AR and C6-AR Test Composites

Test No.	Sample	Rougher Tailing	Product	Wt %	Assay (g/t, %)				Distribution (%)				Calc. Head (g/t, %)			
					Au	ST	As	CO ₃	Au	ST	As	CO ₃	Au	ST	As	CO ₃
F-3	C5 AR Comp	76	Ro Conc 1-6	36.2	95.2	13.7	1.00	9.31	98.4	96.9	89.7	23.1	35.0	5.10	0.40	14.6
F-4	C6 AR Comp	71	Ro Conc 1-6	26.4	29.3	9.20	1.73	17.6	95.4	97.1	90.7	19.3	8.11	2.49	0.50	24.1

Source: SGS, 2014

Table 2.6.4.2: Summary of Gravity + Cleaner Flotation Tests on C6 AR and C1-C2-C3 Composites

Test No.	Rougher Tailing (P80, µm)	Conditions	Product	Wt %	Assay (g/t, %)				Distribution (%)			
					Au	ST	As	CO ₃	Au	ST	As	CO ₃
F-14 C6 AR Comp Feed = Test G6 Gravity Tail	Primary 75 Regrind 35	1,500 g/t Na ₂ SiO ₃ [^] 100 g/t CuSO ₄ 65 g/t PAX 18 g/t R208 75 g/t U250C	Mozley Concentrate	0.057	3220				23.7			
			Mozley Conc + 1st Clnr Conc	4.77	118				72.9			
			1st Clnr Conc	4.72	80.4	33.6	4.26	6.42	49.2	63.6	39.2	1.2
			1st Clnr Conc + Scav Conc	6.17	72.3	32.0	4.37	7.04	57.9	79.3	52.7	1.7
			1st Clnr Scav Tail	5.47	9.77	4.61	1.85	21.1	6.9	10.1	19.8	4.4
			Ro Conc 1-4	11.6	42.9	19.1	3.19	13.7	64.8	89.4	72.4	6.0
			Rougher Tail	88.3	1.00	0.30	0.16	28.0	11.5	10.6	27.6	94.0
			Combined Tail**	93.8	1.51	0.55	0.26	27.6	18.4	20.7	47.3	98.3
			Head (calc.)	100.0	7.71	2.49	0.51	26.3	100.0	100.0	100.0	100.0
			Direct Head		9.69	2.79	0.50	25.8				
F-16 C5 AR Comp Feed = Test G10 Gravity Tail	Primary 75 Regrind 35	1500 g/t Na ₂ SiO ₃ 100 g/t CuSO ₄ 65 g/t PAX 18 g/t R208 75 g/t U250C	Mozley Concentrate	0.191	1573				10.6			
			Mozley Conc + 1st Clnr Conc	9.58	260				87.7			
			1st Clnr Conc	9.39	233	35.5	1.69	3.69	77.1	65.5	40.1	2.5
			1st Clnr Conc + Scav Conc	12.1	191	34.4	1.71	4.06	81.7	81.8	52.5	3.5
			1st Clnr Scav Tail	7.15	11.8	6.18	0.94	13.1	3.0	8.7	17.0	6.7
			Ro Conc 1-4	19.3	125	23.9	1.43	7.4	84.7	90.5	69.5	10.2
			Rougher Tail	80.5	1.66	0.60	0.15	15.6	4.7	9.5	30.5	89.8
			Combined Tail**	87.7	2.49	1.05	0.21	15.4	7.7	18.2	47.5	96.5
			Head (calc.)	100.0	28.4	5.09	0.40	14.0	100.0	100.0	100.0	100.0
			Direct Head		31.0	5.46	0.40	13.4				
F-17 C1-C2-C3 AR Comp Feed = Test G9 Gravity Tail	Primary 75 Regrind 35	1,500 g/t Na ₂ SiO ₃ 100 g/t CuSO ₄ 65 g/t PAX 18 g/t R208 75 g/t U250C	Mozley Concentrate	0.101	840				13.4			
			Mozley Conc + 1st Clnr Conc	5.41	77.9				66.6			
			1st Clnr Conc	5.31	63.4	33.7	3.32	6.93	53.2	58.6	37.6	1.6
			1st Clnr Conc + Scav Conc	7.17	56.0	32.1	3.30	7.66	63.5	75.3	50.5	2.4
			1st Clnr Scav Tail	9.39	8.12	5.18	1.32	20.6	12.0	15.9	26.4	8.4
			Ro Conc 1-4	16.6	28.9	16.8	2.18	15.0	75.6	91.3	76.9	10.8
			Rougher Tail	83.3	0.84	0.32	0.13	24.5	11.1	8.7	23.1	89.2
			Combined Tail**	92.7	1.58	0.81	0.25	24.1	23.1	24.7	49.5	97.6
			Head (calc.)	100.0	6.33	3.05	0.47	22.9	100.0	100.0	100.0	100.0
			Direct Head		6.84	3.31	0.48	22.9				

[^] Na₂SiO₃ added in grinding mill

**Combined Tail = Rougher Tail + 1st Clnr Scav Tail

Source: SGS, 2014

A locked cycle test was performed on the C6 core composite gravity tailing in order to simulate the disposition of recirculated intermediate flow streams (cleaner flotation tailings). The results of this test demonstrated that 82% of the gold could be recovered into gravity + flotation concentrates at a grade of 103 g/t Au and 24% S with a mass pull of 8.5%. The sulphur to carbonate ratio was approximately 4:1. The results of this test are summarized in Table 2.6.4.3. It was concluded that cleaner flotation resulted in excessive gold losses, and as such, gold flotation would include only rougher flotation without cleaner flotation.

Table 2.6.4.3: Summary of Locked-Cycle Test on the C6 Core Composite

Test No.	Sample	Product Size (P ₈₀ , µm)	Product	Wt %	Assays (g/t, %)				% Distribution				Calc. Head (g/t, %)			
					Au	ST	As	CO ₃	Au	ST	As	CO ₃	Au	ST	As	CO ₃
LCT-1	C6 Core Comp	Primary 79	Mozley Concentrate	0.03	2,500				8.1							
			Mozley Conc + 1st Clnr Conc	8.53	103	24.5	6.14	6.72	82.4	83.3	59.9	2.5	10.2	2.47	0.87	22.6
			1st Clnr Concentrate	8.49	93.4	24.6	6.16	6.75	74.3	83.3	59.9	2.5				

Source: SGS, 2014

Bulk Gravity/ Rougher Flotation

A bulk gravity + rougher flotation test was conducted on 170 kg of the Akbaştepe C1-C2-C3 composite in order to generate a sufficient quantity of floatation concentrate for downstream oxidation and cyanidation testwork. This test resulted in the recovery of 18.2% of the gold into a gravity concentrate containing 1,863 g/t Au and representing only 0.06 weight % of the ore. The overall gold recovery (gravity + rougher flotation) was 88% at a combined concentrate grade of 36 g/t Au. The sulfur to carbonate ratio of the rougher concentrate was 1.3 and suitable for subsequent oxidative testwork to evaluate pressure oxidation (POX), roasting and biooxidation. The results of the bulk gravity/flotation test are summarized in Table 2.6.4.4

Table 2.6.4.4: Summary of Bulk Gravity/Rougher Flotation Test on the C1-C2-C3 Composite

Product	Weight %	Assays (g/t, %)					% Distribution				
		Au	Ag	ST	As	CO ₃	Au	Ag	ST	As	CO ₃
Knelson + Rougher	14.5	36.0					88.0				
Knelson Conc	0.06	1863					18.2				
Rougher Conc	14.5	28.6	4.6	18.3	2.43	14.0	69.8	21.5	91.4	78.9	9.3
Rougher Tail **	85.5	0.82	2.8	0.29	0.11	23.1	11.8	78.5	8.6	21.1	90.7
Head (calc.)	100.0	5.93	3.1	2.90	0.45	21.8	100.0	100.0	100.0	100.0	100.0

Source: SGS, 2014

Pressure Oxidation

A series of POX tests was completed using a batch 2-litre Parr autoclave. The retention time, temperature, feed size and pre-acidification conditions were varied and optimized. The results indicated that the sample responded well to POX testwork and high sulfide sulphur oxidation values (>99%) could be achieved which rendered the gold amenable to cyanidation. Hot curing the POX residue was also investigated and it was determined to be beneficial to the overall flowsheet because it decreased reagent consumptions (NaCN and CaO) during leaching. The optimized POX/CIL results achieved a unit gold recovery of 98.6%.

Roasting

A single roast and CIL test was conducted to evaluate the effect of two-roasting. The sulfide oxidation during the roast was 98.3% and the CIL gold extraction was 79%. The roast test conditions were not further optimized at this stage.

Biooxidation

Biooxidation was investigated using BioMin's BIOX[®] process as an alternative means of achieving the necessary level of sulfur oxidation. Tests were conducted to determine the extraction of gold as a function of sulfide oxidation over a period of 15 to 30 days. This resulted in approximately 98% to 99% oxidation of the sulfide minerals and approximately 98% to 99% gold extraction from the oxidized sulfide flotation concentrate.

Flowsheet Option Comparison and Gold Recovery Estimate

A comparison of the flowsheets tested using the Akbaştepe C1-C2-C3 sample is outlined in Table 2.6.4.5 along with estimated gold recoveries. Process flowsheet alternatives that include gravity concentration, bulk sulfide rougher flotation, flotation concentrate oxidation, by either POX or

BiOx, and then CIL cyanidation of the oxidized flotation concentrate are both estimated to result in overall gold recoveries of about 89%.

Table 2.6.4.5: Process Flowsheet Gold Recovery Comparison

Flowsheet	Overall Au Recovery %
Gravity (Conc. Leach) + Flotation + Leaching (Intensive Conc. and Tail)	44.6
Gravity (Conc. Leach) + Flotation + Leaching (UFG Conc. and tail)	35.3
Gravity (Conc. Leach) + Flot. Tail Leach + Flot Conc. POX/CIL	89.4
Gravity (Conc. Leach) + Flot. Tail Leach + Flot Conc. Roast/CIL	75.7
Gravity (Conc. Leach) + Flot. Tail Leach + Flot Conc. BIOx/CIL	89.4

Source: SGS, 2014

2.7 Process Design

As part of its prefeasibility study for the Akbaştepe project dated December 2014, Koza designed a process plant to treat refractory gold ore at the rate of 500,000 t/y, equivalent to 1,370 t/d through a process flowsheet that would include:

- Three stage crushing;
- Rod and ball mill grinding;
- Gravity concentration & intensive cyanide leaching;
- Bulk sulfide rougher flotation and thickening;
- Rougher flotation concentrate regrinding;
- Autoclave feed thickening, acidification and preheating;
- Pressure oxidation (POX) of the rougher flotation concentrate;
- Hot curing of pressure oxidation product;
- Counter-current decantation (CCD) thickener washing;
- CIL cyanidation;
- Acid wash, gold elution and electro-winning, carbon regeneration;
- Cyanide detoxification; and
- Fresh and reclaim water supply and distribution.

Run of mine (ROM) ore will be crushed in a three-stage crushing circuit to 80% passing (P_{80}) 9.5 mm. The crushed ore will be stored in a 1,400 t capacity fine ore bin and be fed to a rod mill/ball mill grinding circuit at about 62 t/h. The ball mill will be operated in closed circuit with hydroclones to produce a final grind size of P_{80} 75 μ m in the cyclone overflow. A portion of the cyclone underflow will be processed with a Knelson centrifugal concentrator that will serve to recover coarse gold into a gravity concentrate that will be processed separately in an intensive cyanide leach circuit.

The cyclone overflow will be advanced to the rougher flotation circuit where gold associated with pyrite and arsenopyrite will be recovered into a bulk sulfide rougher flotation concentrate representing about 18% of the ore feed mass. The rougher flotation concentrate will then be thickened and reground to about P_{80} 42 μ m and then advanced to the pressure oxidation (POX) circuit where the gold-bearing sulfide minerals will be oxidized to release the contained gold, such that it will be amenable to extraction in a conventional carbon in leach (CIL) cyanidation circuit. The CIL circuit has been designed with a total retention time of 48 hours, and will leach the combined oxidized flotation concentrate and the rougher flotation tailing. Loaded carbon from the CIL circuit will be processed in a conventional gold recovery circuit that includes acid washing of the loaded carbon

and elution of adsorbed gold and silver values in an elution column with a hot caustic/cyanide solution. The eluted gold and silver values will then be circulated through electrowinning cells and precipitated on stainless steel cathodes. The precious metal precipitates will then be dried, fluxed and refined to produce a final doré product. The process flowsheet for the Akbaştepe process plant is shown in Figure 2.7.1 and the major process design criteria are shown in Table 2.7.1.

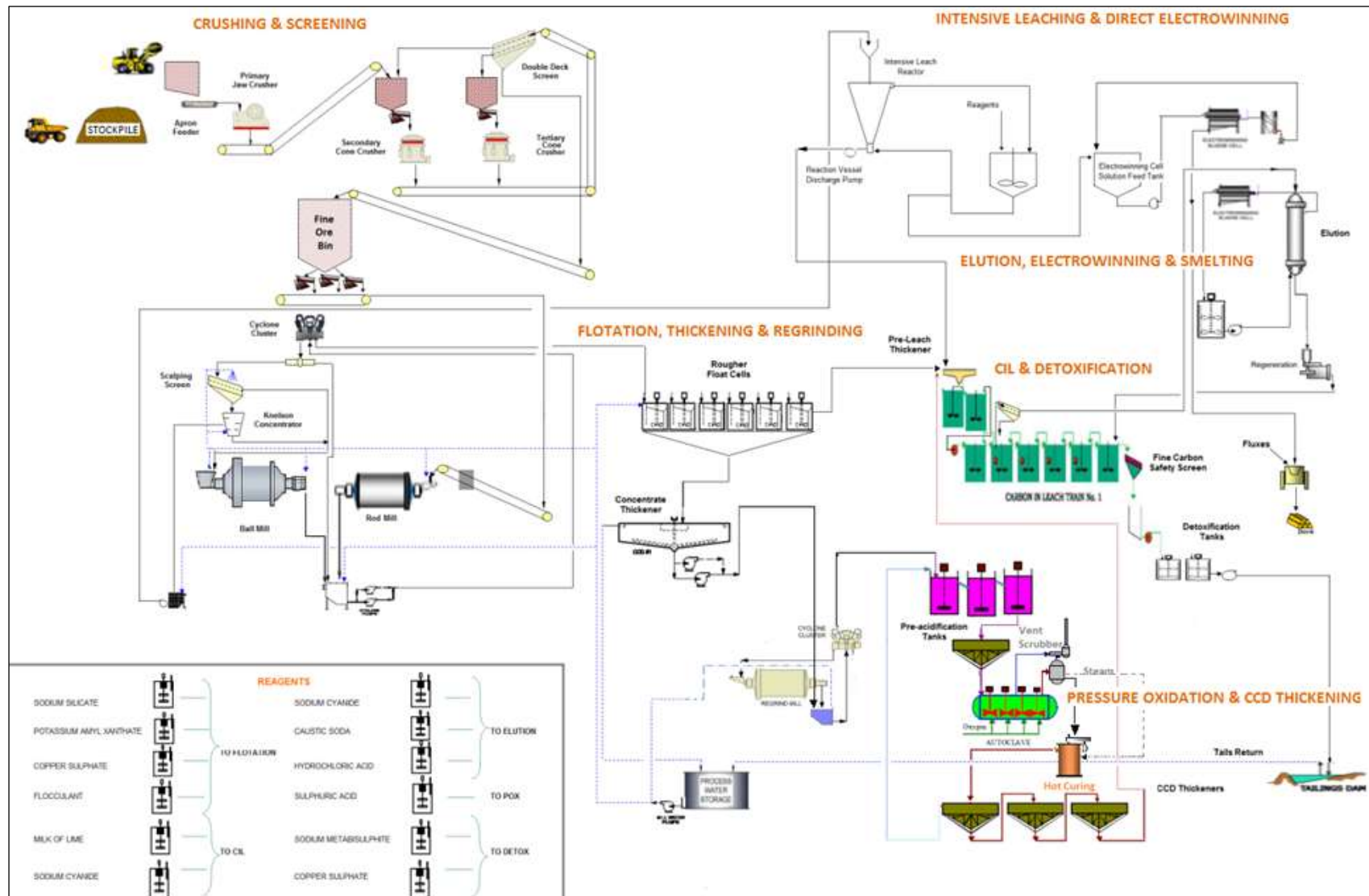


Figure 2.7.1: Akbaştepe Process Flowsheet

Table 2.7.1: Akbaştepe Major Process Design Criteria

Parameter	Unit	Criteria
General		
Annual Throughput	t/y	500,000
Daily Throughput	t/d	1,370
Overall Gold Recovery	%	89
Crushing Circuit		
Operating Availability	%	70
ROM Top Size	mm	500
Primary Crusher: Closed Side Set	mm	90
Secondary Crusher: Closed Side Set	mm	30
Tertiary Crusher: Closed Side Set	mm	15
Final Crushed Product: P80	mm	9.5
Grinding Circuit		
Feed Rate	t/h	62.2
Bond Rod Mill Work Index	kwh/t	18.2
Bond Ball Mill Work Index	kwh/t	17.0
Rod Mill P80	µm	850
Cyclone Overflow P80	µm	75
Rougher Flotation		
Slurry Density	%	35
Retention Time	minutes	50
Mass Pull To Concentrate	%	18
Concentrate Thickening		
Underflow density	% w/w	65
Concentrate Regrind		
Regrind size P80	µm	42
Pressure Oxidation		
Feed Tonnage	t/h	11.2
Autoclave Temperature	° C	210
operating Pressure	Kpa	2,200
Autoclave Retention Time	minutes	60
CIL Circuit		
Feedrate	t/h	62.2
Retention Time	hours	48
Slurry Density	%	45
Carbon Concentration	g/L	30
CIL Aeration		Oxygen
Carbon Elution		
Type		AARL

Source: Koza, 2014

2.7.1 Capital Cost Estimate

Koza has estimated the capital cost (Capex) for the Akbaştepe project, including a 500,000 t/y process plant to treat refractory gold ore from the Akbaştepe deposit at US\$124 million. Koza's Capex estimate is based on the following:

- Process design criteria;
- Process flow diagrams;
- Budgetary quotations from vendors;
- Mechanical equipment list; and
- In-house historical data and database information including unit cost rates from the construction of the Himmetdede and Kaymaz Gold Mines.

Construction unit prices are based on the recently completed Himmetdede Gold project. Material quantities, building sizes etc. are based on the Kaymaz Gold Plant. Major process equipment and the pressure oxidation circuit are based on vendor quotations. The estimate is considered to have an accuracy of minus 5 plus 25 percent. Table 2.7.1.1 provides a summary of estimated costs by major plant area.

Table 2.7.1.1: Akbaştepe Project Capital Cost Estimate

Description	Total (US\$)
Construction	
Overall Site	1,196,408
Crushing	656,902
Screening	478,882
Stockpile	667,272
Grinding & Gravity concentration	1,087,598
Flotation	812,880
Regrinding	486,170
POX	1,147,050
Thickener & Process Water	431,662
Carbon In Leach & Intensive Leach	1,064,382
Reagents	982,393
Prefabricated Offices & Auxiliary Buildings	700,000
Tailings Pad	7,000,000
Tailings Piping Works	3,000,000
Excavation & Backfill	3,100,000
Piping	
Piping Works	2,500,000
Electrical	
Automation & Electrical Works	6,474,000
Equipment	
Process Plant Equipment	26,060,000
Conveyor Mech. EQ & Acc	1,080,000
Engineering	
Engineering	6,000,000
Power Supply	
Power Line Relocation	2,000,000
Open Pit	
Open Pit	1,000,000
Open Pit Closure	2,813,000
UG Mine	
UG Mine Portal AG Structures	3,900,000
UG Mine Portal Equipment	9,000,000
UG Mine Development etc.	14,500,000
Other	
Other	5,200,000.00
Cost	103,338,600
20% Cont.	20,667,720
Total Cost	\$124,006,320

Source: Koza, 2014

The capital cost estimate is expressed in United States dollars. No provision has been included to offset future escalation. The estimate includes a contingency allowance of approximately 20%. The following items are not included in the capital estimate:

- Oxygen plant which is included as an operating cost;
- Sample preparation, metallurgical testwork, Feasibility Study, EIA, etc.;

- Owner's corporate costs;
- Allowance for special incentives, based on schedule, safety, etc.;
- Interest and financing costs; and
- Foreign currency exchange rate fluctuations.

2.7.2 Process Plant Operating Cost

Process plant operating costs are summarized in Table 2.7.2.1 and are estimated at US\$69.36/t ore processed, including a 30% contingency. The major contributors to the operating cost are process consumables at US\$29.37/t ore and process power at US\$18.00/t ore.

Table 2.7.2.1: Process Plant Operating Cost Summary

Cost Area	US\$/t
Plant Consumables	29.37
Maintenance	3.62
Labor Costs	2.41
Power&Energy	17.96
Sub-Total	53.36
Contingency (30%)	16.01
Total	\$69.36

Source: Koza, 2014

Process Consumables

Process consumable costs, estimated at US\$29.37/t, are detailed in Table 2.7.2.2

Table 2.7.2.2: Summary of Akbaştepe Process Plant Consumable Costs

Cost Area	Unit Cost (US\$/ t ore)	Cost (%)
Ore Rehandling/Crushing	0.20	0.67
Grinding	3.56	12.12
Intensive Leaching	0.02	0.06
Flotation & Regrinding	2.05	6.98
Pressure Oxidation & CCD Thickening	16.31	55.55
Thickening & Pre-Aeration & CIL	4.34	14.77
Detoxification	2.10	7.16
Stripping & Electrowinning	0.43	1.45
Goldroom	0.36	1.24
Total	\$29.37	100.00%

Source: Koza, 2014

Process Power

The process power cost is summarized in Table 2.7.2.3 and is estimated at US\$18.00/t. The power cost estimate is based on a total installed power of 13,017 kW, power utilization of 86% and a unit power cost of US\$0.10/kWh.

Table 2.7.2.3: Akbaştepe Power Cost Estimate

Area	Power (kW)
Overall Site	1,758
Crushing	1,110
Screening	383
Stockpile	299
Grinding	2,406
Gravity Concentration	60
Flotation	460
Regrinding	400
POX	2,500
Thickener & Process Water	379
Carbon In Leach & Intensive Leach	2,120
Reagents	1,143
Total	13,017
Utilization	0.86
kWh/t	180
Power cost (US\$/kwh)	0.10
Power cost (US\$/t ore)	18.00

Source: Koza, 2014

Maintenance Cost

Maintenance costs are estimated at US\$3.62/t are based on Koza's operating experience.

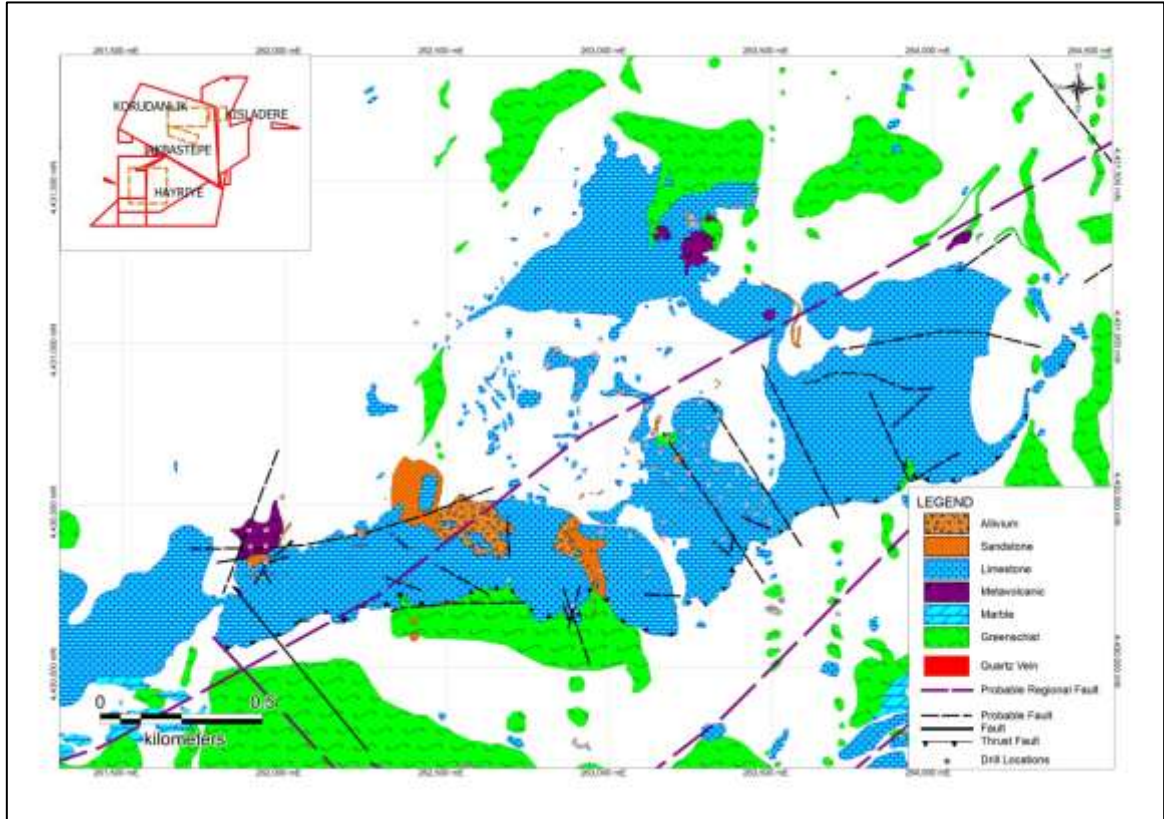
Labor Costs

Labor costs are estimated at US\$2.41/t and are based on a manpower schedule that includes 58 operators and 6 staff. Labor and burden rates are based on Koza's current rates.

3 Korudanlık

3.1 Local Geology

Local geology is discussed in Section 1.1.5. Figure 3.1.1 presents the local surface geology at Korudanlık.



Source: Koza GIS, 2015

Figure 3.1.1: Local Geology of Korudanlık

3.2 Exploration

Exploration exclusive of drilling was conducted jointly at the Söğüt projects with many of the programs overlapping. Exploration that includes, surface sampling, trenching, mapping and geophysics are discussed in Section 1.2. Drilling at Korudanlık is discussed below.

3.3 Drilling/Sampling Procedures

Koza has drilled 93 HQ-sized diamond core drillholes in 34,138 m at Korudanlık. This represents 12,773 samples collected from drilling. All the drillholes have been used in the resource estimation. The drillholes are located on section lines oriented northeast. The section lines are 50 m apart and the drillholes are spaced at 50 m on the lines. The core recovery ranges from 0% to 100%, with an

average of 97%. A summary of the drilling Korudanlık is shown in Table 3.3.1. A drillhole location map is shown in Figure 3.3.1.

Table 3.3.1: Summary of Drilling at Korudanlık

Core		Samples Core	
Number	Number	Meters	Meters
93	34,138	12,773	13,286

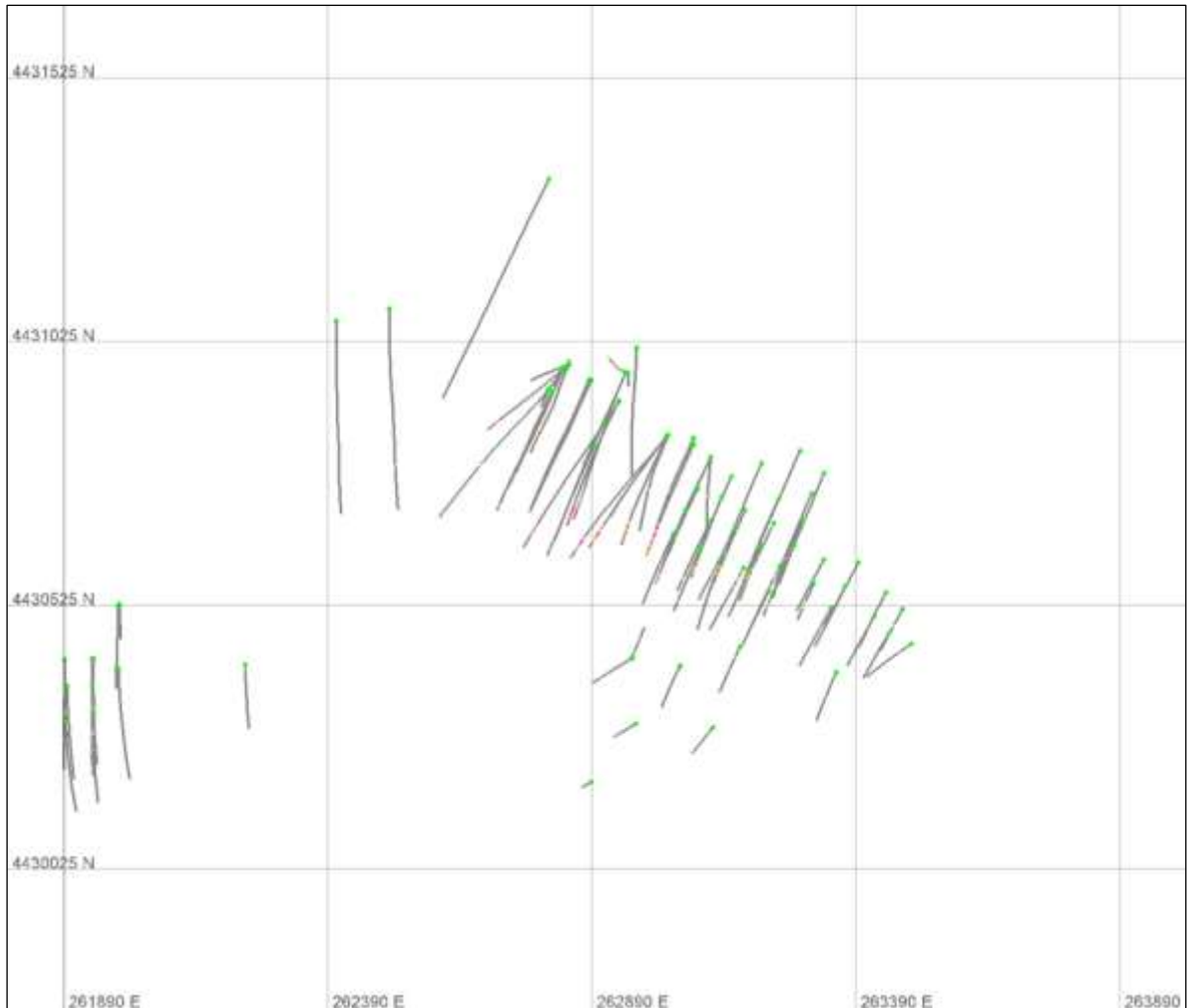


Figure 3.3.1: Korudanlık Drillhole Location Map

The drilling and sampling have been conducted according to Koza's standard exploration practices. All core is photographed prior to logging. 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 transferred into the computer. Sample intervals are selected by the geologist. The core is sampled on nominal 1 m lengths within the mineralized zone and 2 m outside the mineralization. Samples may be shorter or slightly longer 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.

3.3.1 Quality Assurance/Quality Control

All Korudanlık control samples have been monitored for gold. Silver results for a limited number of CRMs, duplicates and check samples were provided to SRK. The silver results for the blank samples were not provided to SRK. It does not appear that the Company is currently monitoring Ag for the blank samples and some of the other control samples. Because Ag is reported in the resource statement, SRK recommends Koza monitor Ag results for all control samples.

Certified Reference Materials

Throughout the life of the project, 11 different CRMs have been used at Korudanlık: six produced by RockLabs and two produced by OREAS. Koza has currently reduced this number to three CRMs. These are OREAS 201 for gold and OREAS 61e and OREAS 62e for gold and silver. The CRMs were analyzed by ALS during the drilling programs at its laboratories in Vancouver, Australia or Izmir. Koza uses a performance range of ± 3 standard deviations to define a failure.

Tables 3.3.1.1 and 3.3.1.2 present the expected mean, standard deviations and summaries of the analyses of the Au and Ag CRMs, respectively. Table 3.3.1.1 includes all Au CRMs used at Korudanlık throughout the life of the project.

Table 3.3.1.1: Results of Au CRM Analyses at Korudanlık

CRM	Number of Samples	Expected (ppm)		Observed (ppm)		% of Expected	± 2 SD and $< \pm 3$ SD		± 3 SD	
		Mean	Std Dev	Mean	Std Dev		No. Failures	% Failure Rate	No. Failures	% Failure Rate
OREAS 201	26	0.514	0.017	0.508	0.011	98.8	0	0.0	0	0.0
OREAS 61e	36	4.43	0.15	4.52	0.11	102.0	0	0.0	0	0.0
OREAS 62e	20	9.13	0.41	9.14	0.21	100.1	0	0.0	0	0.0
Total	82						0	0.0	0	0.0

Table 3.3.1.2: Results of Ag CRM Analyses at Korudanlık

CRM	Number of Samples	Expected (ppm)		Observed (ppm)		% of Expected	± 2 SD and $< \pm 3$ SD		± 3 SD	
		Mean	Std Dev	Mean	Std Dev		No. Failures	% Failure Rate	No. Failures	% Failure Rate
OREAS 61e	17	5.27 ¹	0.43	5.09	0.28	96.5	1	5.8	0	0.0
OREAS 62e	16	9.86 ¹	0.34	9.81	0.2	99.5	0	0.0	0	0.0
Total	33						1	3.0	0	0.0

¹ Certified value for 4-acid digestion.

There were no gold failures in the CRMs. The observed means of the gold CRMs were between 98.8% and 102% of the expected mean. CRM OREAS 201 is biased low while the other two CRMs are biased high. The overall CRM performance shows the laboratory is providing accurate results for gold.

Silver had one warning for OREAS 61e and no failures for silver CRMs. Silver CRMs are biased low overall with observed means between 96.5% and 99.5% of the expected mean. The overall CRM performance shows the laboratory is providing accurate results for silver.

SRK recommends continued monitoring of the CRMs. The data show that the laboratory is providing accurate results for both gold and silver. The CRM OREAS 61e is reporting low Ag grades and should be closely monitored.

Blanks

Koza submits one sample blank per drillhole. A blank failure is a result greater than five times the detection limit. Koza submitted 11 blanks of which there were no failures. These results show that the laboratory has good preparation protocols and there has been no cross contamination of samples during the 2014 analytical programs.

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.

Preparation duplicates can also provide an estimate of analytical precision for analysis.

Koza has submitted 198 preparation duplicates over the life of the project and 28 during the 2014 drilling program. Of the total, nine submitted in 2013 were greater than the cutoff grade for resources of 0.6 g/t Au while none were greater than the cutoff grade during 2014. There were only four silver samples that exceeded the detection limit four silver in the entire program. A summary of the Au and Ag analytical results are presented in Tables 3.3.1.3 and 3.3.1.4, respectively.

Table 3.3.1.3: Summary of 2014 Preparation Duplicate Au Analysis at Korudanlık

Criteria	Number of Samples	Original>Dup	Dup>Original	Original = Dup	Within +/- 20%
All samples	28	11	4	13	28
		39%	14%	46%	100%

Note: There were no gold analyses above the cutoff grade of 0.6 g/t Au during 2014

Table 3.3.1.4: Summary of 2014 Preparation Duplicate Ag Analysis at Korudanlık

Criteria	Number of Samples	Original>Dup	Dup>Original	Original = Dup	Within +/- 20%
All samples ²⁹	28	0	0	28	28
		0%	0%	100%	100%

Note: There were no silver analyses above the detection limit during 2014

The preparation duplicates submitted at the project to date have not provided useful data to support assessment of sample variability and precision. Duplicate samples must be selected from mineralized material in order to make this assessment.

SRK recommends that Koza continue to submit coarse duplicates and samples must be selected from the mineralized zones.

Pulp Duplicates

Koza has not submitted any pulp duplicate samples to ALS Chemex. Pulp duplicates are the primary method of checking the precision of analysis. SRK recommends that the Company begin sending

pulp duplicates as part of its QA/QC program or monitor the internal pulp duplicates produced and analyzed by ALS Chemex.

Secondary Check Lab Analysis

Koza submitted 94 pulps originally assayed at ALS to SGS Ankara for verification analysis. This included two CRM submissions of OREAS 62e and four blank submissions of OREAS 160. Table 3.3.1.5 and Table 3.3.1.6 present a comparison of results of CRM analyses at SGS with those at ALS.

Table 3.3.1.5: CRM Au Analysis Comparision between SGS and ALS

CRM	Cerified Values		SGS				ALS			
	Expected (ppm)	Expected Std Dev	Number of Samples	Mean	Std Dev	% of Expected	Number of Samples	Mean	Std Dev	% of Expected
OREAS 62e	9.13	0.41	2	8.99	0.14	98.4	20	9.14	0.21	100.1

Table 3.3.1.6: CRM Ag Analysis Comparision between SGS and ALS

CRM	Cerified Values		SGS				ALS			
	Expected (ppm)	Expected Std Dev	Number of Samples	Mean	Std Dev	% of Expected	Number of Samples	Mean	Std Dev	% of Expected
OREAS 62e	9.8601	0.34	2	11	0	112%	16	9.81	0.2	99.5

¹ Certified value for 4-acid digestion.

The gold CRM analyses from SGS are performing within acceptable limits and are slightly lower than those at ALS. SRK notes that there are only two analyses from SGS for this CRM and 16 from ALS, but the data indicates that both laboratories are providing acceptable analytical results for gold. Both CRMs failed for SGS silver analysis and silver is biased with both results at 112% of the expected mean. SRK recommends contacting SGS about these silver analyses.

There were no blank failures in the four samples submitted to SGS. SRK notes that it is not necessary to submit blanks with the check samples since there is no sample preparation involved with check samples as they are submitted as pulps. The primary reason for blanks is to detect cross contamination during sample preparaion.

Koza submitted 94 check samples to SGS for both gold and silver. There are different lower detection limits for both gold and silver analyses at SGS and ALS. For gold, the lower detection limit is 0.005 and 0.01 ppm at ALS and SGS, respectively. For silver, the lower limit is 0.5 and 2 ppm at ALS and SGS, respectively. Koza is currently reporting silver at an average grade of 0.4 g/t Ag. SRK recommends that Koza select methods at both laboratories with the same lower detection limits for gold and silver and that Koza select a silver method that has a lower detection limit below the resource cutoff grades.

Because of the disparity between the lower detection limits for gold and silver at the two laboratories, of the 94 samples submitted, 84 gold and six silver analyses could be compared. Tables 3.3.1.7 and 3.3.1.8 present the results for gold and silver check samples at Korundanlik, respectively.

Table 3.3.1.7: Summary of 2014 SGS Check Sample Au Analysis at Korundanlik

Criteria	Number of Samples	ALS>SGS	SGS>ALS	ALS=SGS	Within $\pm 10\%$
All samples	84	64	18	2	40
		76.2%	21.4%	2.4%	47.6%

Table 3.3.1.8: Summary of 2014 SGS Check Sample Ag Analysis at Korundanlik

Criteria	Number of Samples	ALS>SGS	SGS>ALS	ALS=SGS	Within $\pm 10\%$
All samples	6	0	5	1	2
		0%	83.3%	16.7%	33.3%

The data shows significant differences between the laboratories. Gold is biased higher at ALS and the six silver analyses are biased higher at SGS. In 2013, the SGS laboratory was biased high for both gold and silver. In general there is poor reproducibility of the results between the two labs. The small CRM database shows that both ALS and SGS are providing accurate data for gold. The CRM data provided for silver shows that ALS is also providing accurate data for this element; however, both SGS CRM analyses failed for silver. SRK recommends that Koza contact SGS regarding its silver analysis.

SRK notes that better analytical reproducibility was demonstrated between the two laboratories for gold at separate Söğüt project (Akbaştepe) with similar high grade gold. Both projects are using the same analytical methods. Because of the inconsistency between the two project's gold analyses conducted during the same year, SRK recommends contacting SGS to determine why there is continuing variation between the two laboratories at this project and inconsistency between multiple projects. SRK also recommends combining the two datasets (Korundanlik and Akbaştepe) and plotting them over time to see if the SGS laboratory had a problem during a certain time period.

Conclusions and Recommendations

Koza monitors QA/QC of the laboratory analyses by inserting internal control samples into the sample stream. These currently include CRMs, blanks and preparation duplicates. 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 failure and five samples on either side of the failure be reanalyzed. Should there be multiple failures Koza requests the entire batch be reanalyzed.

The preparation duplicates are not sufficiently testing the sample variability and precision of mineralization because samples are not selected from mineralized zones. Koza does not submit pulp duplicates so analytical precision for the mineralization is not being tested. Koza is submitting CRMs so precision and accuracy of the analytical method is being checked with CRMs and the CRMs are demonstrating that the laboratory is providing acceptable data.

SRK has the following recommendations:

- Monitor OREAS 61e silver performance;
- Plot the standards against time to determine if the laboratory has trouble during a certain period,

- Duplicate samples should be within mineralized zones in the resource grade range;
- Add pulp duplicates to the QA/QC program,
- Continue sending check samples to SGS with CRMs;
- Select analytical methods at both laboratories that have the same or closer detection limits;
- Combine all of the check sample data from all of the projects during 2014 and plot failures over time to determine if SGS was having difficulty during a certain time period during the year; and
- SGS should be contacted concerning the analytical difference and silver CRM failures.

Overall the CRMs indicated the laboratory is providing accurate and precise results. The QA/QC program can be improved by submitting preparation and pulp duplicates from mineralized zones and check samples to a secondary laboratory with CRMs inserted into the submission. The QA/QC data supports use of the data in resource estimation.

3.4 Korudanlık Mineral Resources

Koza updated the resource estimate for the Korudanlık Project with additional drilling in 2014.

3.4.1 Geological Model and Assay Statistics

The mineralized zone at Korudanlık strikes west-northwest and dips steeply to the northeast. The mineralized zone is narrow, generally between 1 and 5 m in thickness with a maximum of about 8 m. The mineralization was modeled in a wireframe using a 0.5 g/t gold cutoff. There are also two small wireframes centered on a single drillhole at depth. The wireframe extends 800 m in the west-northwest direction, 350 m in the north-northeast direction and 600 m vertically.

Figure 3.4.1.1 shows the drilling and wireframe in plan view and Figure 3.4.1.2 shows a long-section view of the wireframe and the 37 drillholes used to construct the wireframe. Table 3.4.1.1 contains statistics of the assays within the wireframe. The coefficient of variation is high for gold at 3.85 and very high for silver at 13.86.

Table 3.4.1.1: Statistics of Assays within the Korundanliktepe Grade Shell

Metal	Count	Min	Max	Mean	Std Dev	CV
Au	578	0.011	848	12.17	46.86	3.85
Ag	578	0.001	480	1.73	23.96	13.86

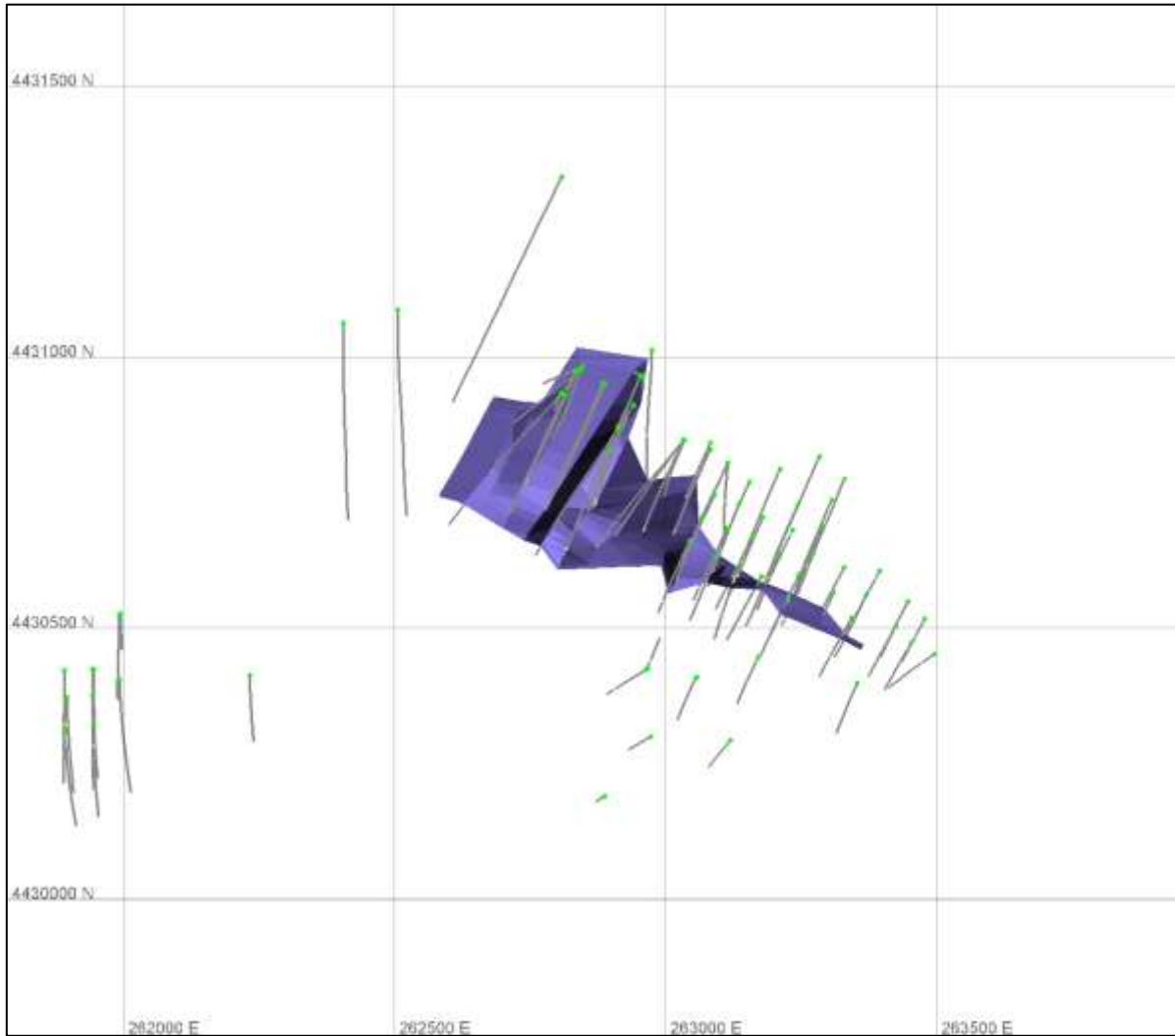


Figure 3.4.1.1: Drilling and Mineralized Zone at Korudanlık in Plan View

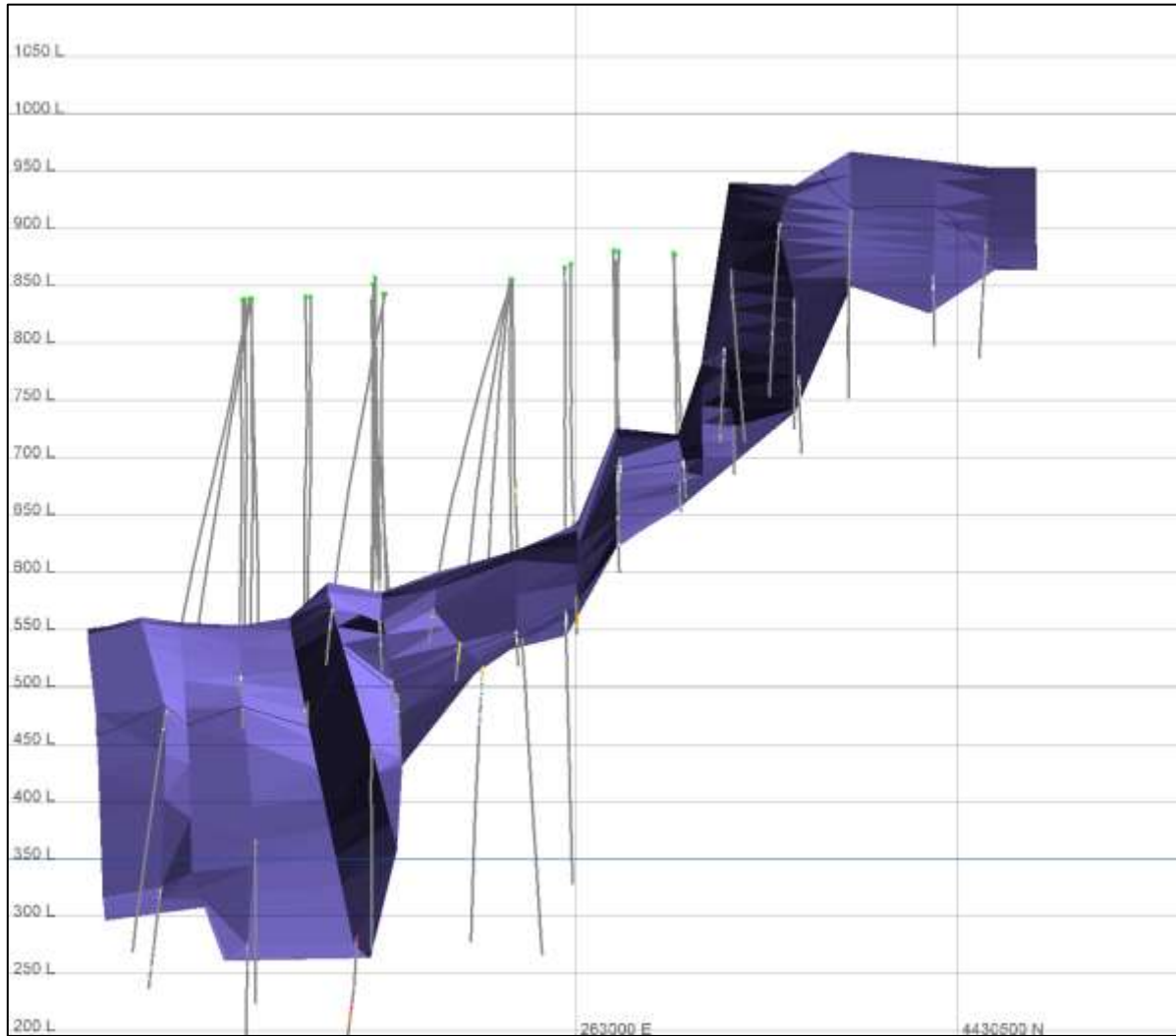


Figure 3.4.1.2: Long-section View of Drilling and Mineralized Zone at Korudanlık, Looking Northeast, with Drillholes used to Construct Wireframe.

3.4.2 Capping and Compositing

Koza determined a composite length by reviewing statistics and a histogram of the drillhole sample lengths. Koza found that 75% of the samples in the database were 1.1 m or less in length. Based on this, Koza used a 1.1 m composite length for resource estimation. The drillholes were composited by the distribution method where the composite lengths are distributed equally across intervals of the same geology. This results in many different composite lengths.

It is SRK's opinion that this composite length is too short. In fact 70% of the composites are less than 1.1 m and 94.5% are less than 1.5 m. SRK suggests that 1.5 m is a better composite length. A histogram of the drillhole sample lengths is shown in Figure 3.4.2.1.

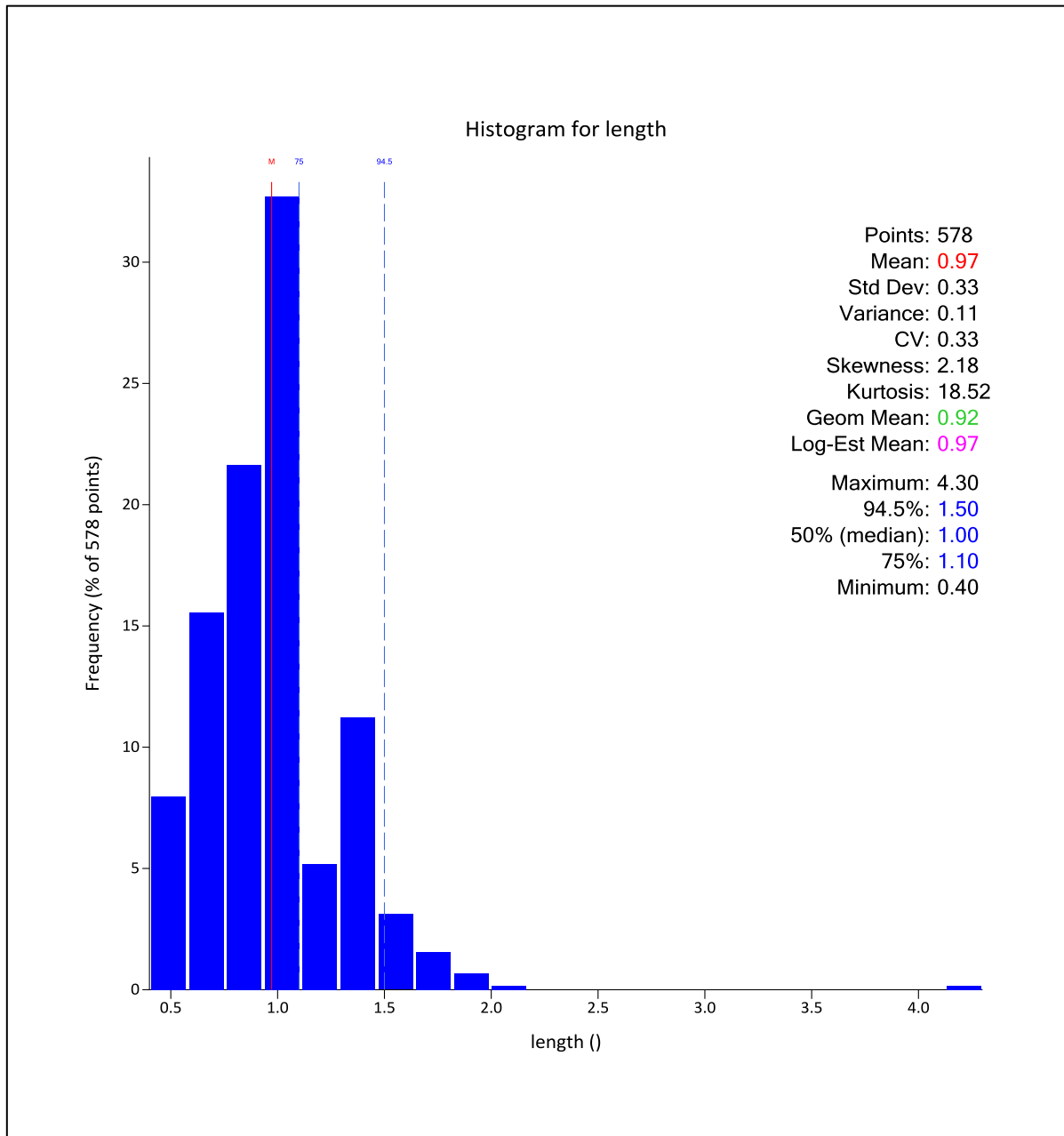


Figure 3.4.2.1: Histogram of Drillhole Sample Lengths

The drillholes were composited by the distribution method where the composite lengths are distributed equally across the wireframe. The purpose of compositing is to standardize the sample lengths for use in resource estimation. A better method at Korudanlik may be to use the run length option where all composites are the same length, except the last one where the drillhole exits the wireframe. The distribution method is not well suited to this style of mineralization. Figure 3.4.2.2 shows two histograms: the one on the left is length from the Koza composite file and the one on the right is from a composite file made by SRK using the 1.1 m run length option.

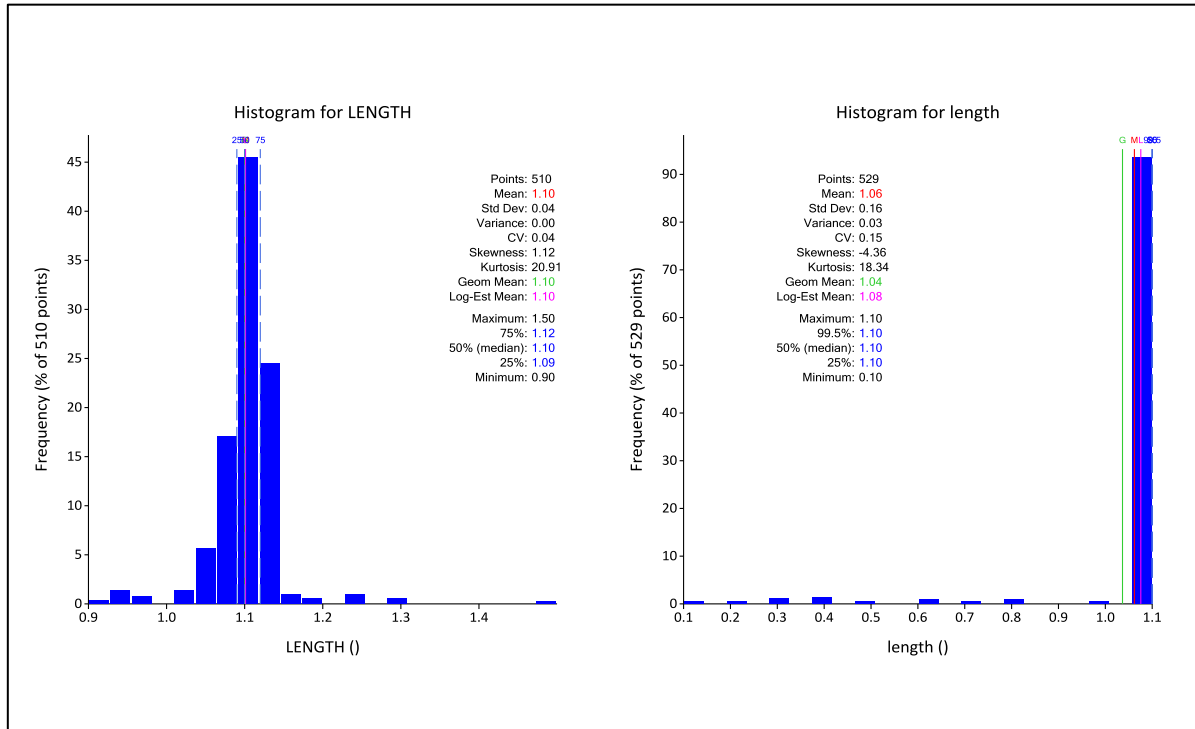


Figure 3.4.2.2: Comparison of Histogram of Koza Distributed Composite Lengths (left) and SRK Run Length Composite Lengths (right)

Table 3.4.2.1 presents the statistics of the composites.

Table 3.4.2.1: Statistics of Composites within the Korudanlık Wireframe before Capping

Metal	Count	Min	Max	Mean	Std Dev	CV
Au	510	0.01	789.41	12.17	44.01	3.62
Ag	510	0.00	480.00	1.73	22.00	12.73

Koza reviewed histograms, cumulative probability plots and quantile analysis of the composites for capping values and selected 50 g/t for gold and 4 g/t for silver based on a quantile analysis. Table 3.4.2.2 presents composite statistics after capping. Capping was applied after compositing. The capping has reduced the CV, but it is still relatively high for resource estimation.

Table 3.4.2.2: Statistics of Capped Composites within the Korudanlık Wireframe

Metal	Count	Min	Max	Mean	Std Dev	CV
Au	510	0.01	55	8.42	14.52	1.73
Ag	510	0.00	4	0.46	0.89	1.93

3.4.3 Density

Density measurements were taken on 220 pieces of HQ size core from drillholes. The density measurements were done with the wax coating method and weighing in water and in air. The

average value is 2.72 g/cm³ and that is used in the resource estimation. The density is on a dry tonnage basis.

3.4.4 Variography

Koza did not conduct a variography study because of the low number of samples.

3.4.5 Grade Estimation

The block model was created with blocks that are 5 m cubes. Sub-blocking was allowed to 1.25 m within the wireframe.

Koza used a three-pass, ID2 estimation and a nearest neighbor estimation for verification. The search ellipsoid was oriented to azimuth 025° with a vertical dip:

- First Pass: Search of 65 m x 70 m x 20 m, with a minimum of 12, a maximum of 30 composites and maximum of 3 composites per drillhole;
- Second Pass: Search of 130 m x 140 m x 40 m, with a minimum of 12, a maximum of 30 composites and maximum of 3 composites per drillhole; and
- Third Pass: Search of 195 m x 210 m x 60 m with a minimum of 3, maximum of 12 composites and maximum of 3 composites per drillhole.

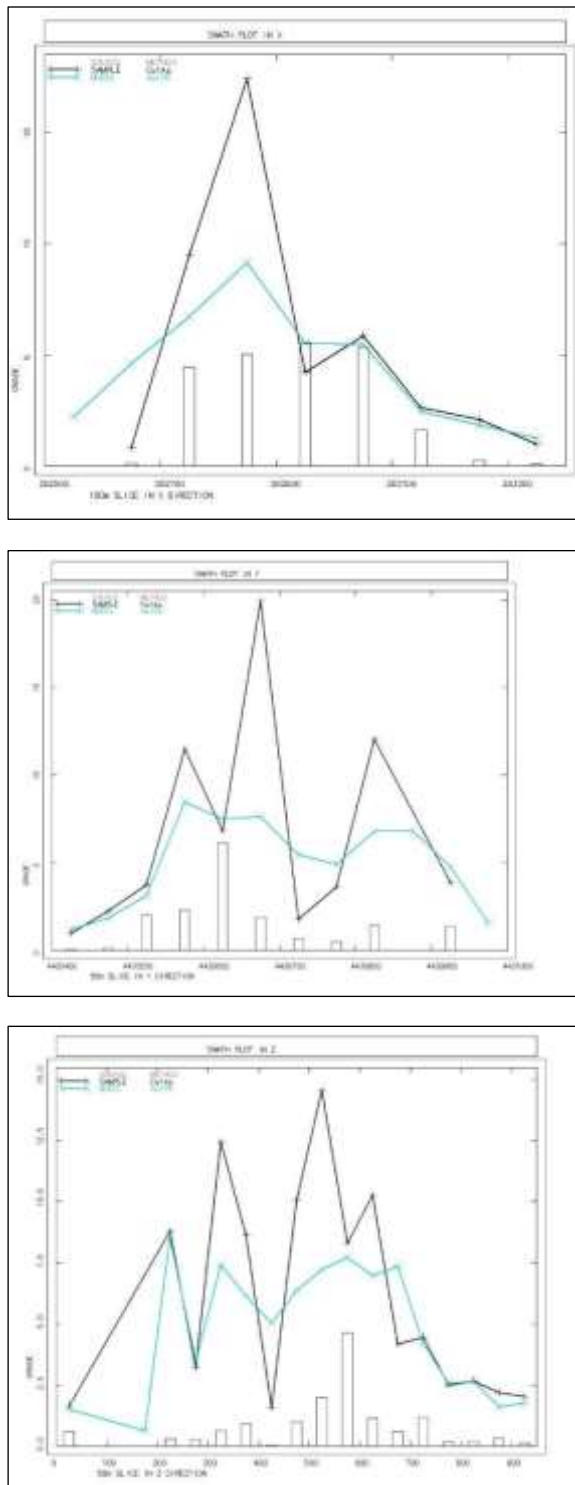
The two small wireframes were estimated with an omnidirectional search also in three passes, but all blocks were estimated in the second pass which required only one drillhole.

3.4.6 Block Model Validation

Koza validated the block model by comparing block grades to composite grade on cross-sections, comparison of the composite grades to the average grade of the estimated blocks as shown in Table 3.4.6.1, and generation of swath plots (Figure 3.4.6.1). The ID2 and NN estimations are quite close for both gold and silver and about 9% lower than the composite grades. The swath plots show appropriate smoothing of the model grades.

Table 3.4.6.1: Korudanlık Comparison of Composites and Estimated Grades

Zone	Metal	Composites	ID2	NN
1	Au	8.42	7.70	7.75
	Ag	0.46	0.40	0.39



Source: Koza, 2014

Figure 3.4.6.1: Korudanlık Swath Plots

3.4.7 Resource Classification

Resources at Korudanlık were classified as Inferred because of the low number of drillholes.

3.4.8 Mineral Resource Statement

Koza opted to report the resource as an underground resource in 2014 due to a high open pit stripping ratio. Originally, Koza had produced an open pit optimization shell to constrain resources at Korudanlık, but the shell resulted in over a 50:1 stripping ratio. The pit optimization parameters are shown in Table 3.4.8.1 and assume that a processing facility will be built at Söğüt. Koza has conducted bottle roll tests to give a preliminary gold recovery. The pit optimization shell resulted in over a 50 to 1 stripping ratio. Underground resources are stated at a cutoff grade of 1.70 g/t Au. The one year rolling average gold price is US\$1,266; the two year average is US\$1,339; and the three year average is US\$1,449.

Table 3.4.8.1: Korudanlık Cutoff Grade Parameters

Prices and Costs	Units	Open Pit	Underground
Gold Price	US\$/oz	1,450	1,450
Gold Recovery	%	92	92
Gold Refining	US\$/oz	3.44	3.44
Royalty	%	2	2
Government Right	%	1	1
Process Cost	US\$/t	15.00	15.00
Mining Cost	US\$/t	0.00	45.00
G&A Cost	US\$/t	10.00	10.00
Rehandling	US\$/t	0.50	0.50
Calculated Cutoff grade	g/t	0.61	1.70
Final Cutoff grade	g/t	0.60	1.70

Source: Koza, 2014

The mineral resources at Korudanlık are stated in Table 3.4.8.2.

Table 3.4.8.2: Korudanlık Mineral Resources at December 31, 2014

Classification	kt	Au (g/t)	Ag (g/t)	Au(oz)	Ag(oz)
Inferred	5,907	8.59	0.4	1,632	83

- Tonnages and grade are rounded to reflect approximation;
- Resources are stated at a cutoff grade of 1.70 g/t Au for a potential underground mine;
- Open pit resources are contained within grade shells and are constrained by a pit optimization shell; and
- Mineral Resources are reported inclusive of Mineral Reserves.

3.4.9 Mineral Resource Sensitivity

Figure 3.4.9.1 presents grade tonnage curves for the Inferred Resources.

Cutoff grades for the Akbaştepe resource at various gold prices are shown in Table 3.4.9.1.

Table 3.4.9.1: Korudanlik Cutoff Grades vs. Gold Price

Gold Price	Underground Cutoff Grade
1600	1.54
1550	1.59
1500	1.64
1450	1.70
1400	1.76
1350	1.82
1300	1.90
1250	1.97

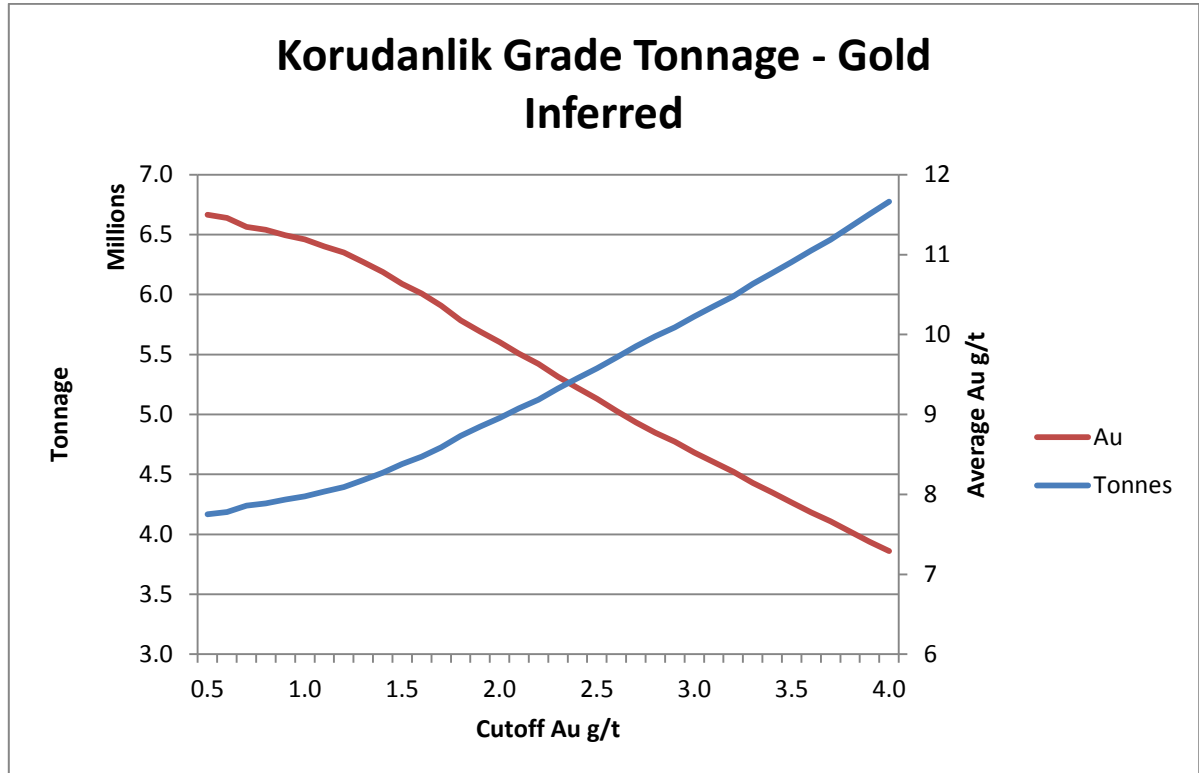
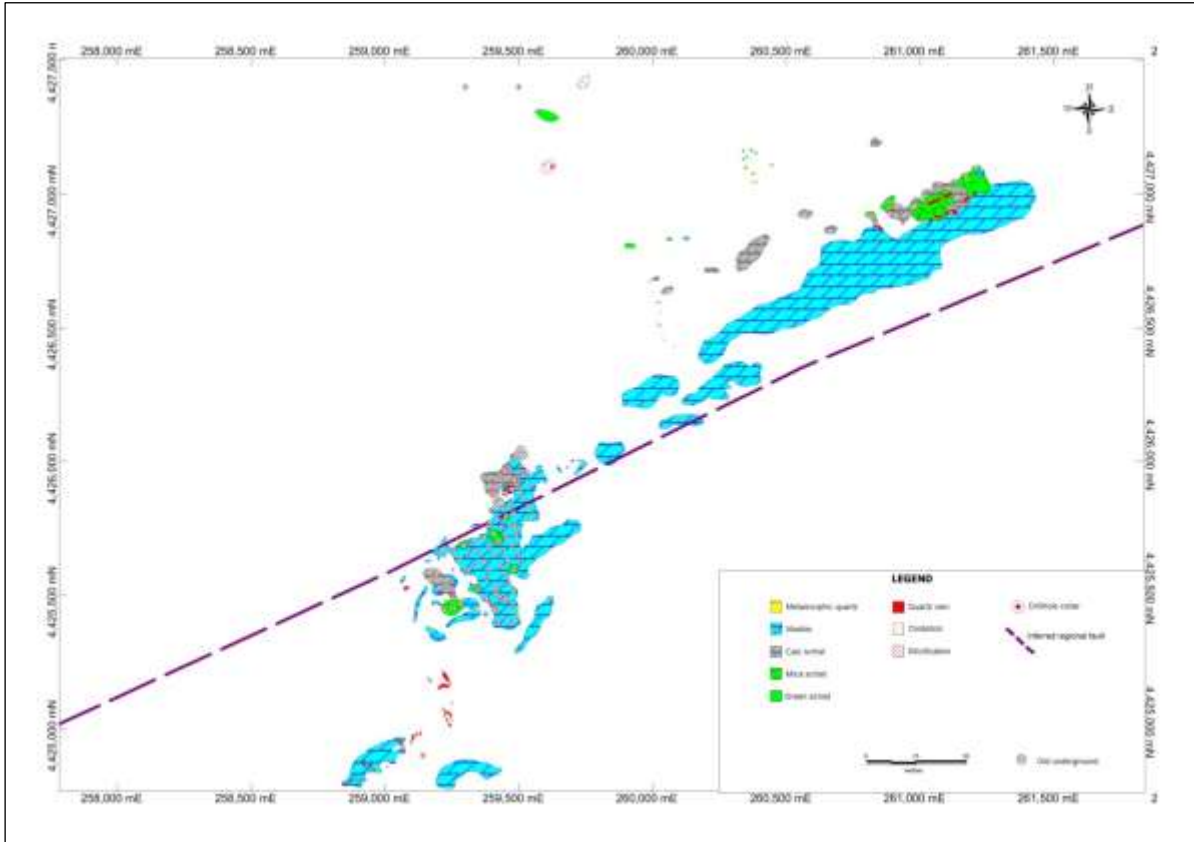


Figure 3.4.9.1: Grade Tonnage Curves for Korudanlık Resource

4 Hayriye

4.1 Local Geology

Local geology is discussed in Section 1.1.5. Figure 4.1.1 presents the local surface geology at Hayriye overlaid on topography. Geophysical survey lines are also shown on the map in green.



Source: Koza, 2014

Figure 4.1.1: Local Geology of Hayriye

4.2 Exploration

Exploration, exclusive of drilling, was conducted jointly at Söğüt with many of the programs overlapping. Exploration that includes surface sampling, trenching, mapping and geophysics are discussed in Section 1.2. Drilling at Akbaştepe is discussed below.

4.3 Drilling/Sampling Procedures

Koza has drilled 67 core holes at Hayriye and excavated 15 trenches. The holes are drilled on section lines oriented to the northeast and spaced at 50 m and are spaced 50 m apart on the section lines. The holes are inclined to the northwest at 50° from horizontal. Table 4.3.1 is a summary of the drilling and trenching at Hayriye.

Table 4.3.1: Hayriye Summary of Drilling and Trenching

Core		Samples Core		Trenches		Samples Trenches		Channel Samples	
Number	Meters	Number	Meters	Number	Meters	Number	Meters	Number	Meters
67	10,227	3,716	3,889	15	1,208	436	1,196	148	148

The drilling and sampling have been conducted according to Koza's standard exploration practices. All core is photographed prior to logging. 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 transferred into the computer. Sample intervals are selected by the geologist. The core is sampled on nominal 1 m lengths within the mineralized zone and 2 m outside the mineralization. Samples may be shorter or slightly longer 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.

4.3.1 Quality Assurance/Quality Control

There was no drilling at Hayriye in 2013 or 2014. The QA/QC program discussed below is from previous drilling programs. Performance gates discussed for CRMs were those in use at the time the data was collected and reflect how the data was assessed. During the next drilling program, Koza will use its current QA/QC program used for drilling and discussed in Section 1.2.6. The QA/QC assessment below is acceptable and supports the resource estimate presented in Section 4.4.

Certified Reference Material

Koza has used five CRMs at Hayriye purchased from RockLabs. These are SE44, OXE74, OXF65, SE58 and SF57. Failures are those standards outside of $\pm 10\%$ for CRMs with a limited number of submissions and ± 2 standard deviations for those standards with a more statistically representative dataset. Table 4.3.1.1 presents the expected mean, standard deviations and summaries of the analyses of the Au CRM's.

Table 4.3.1.1: Results of Au CRM Analyses at Hayriye

Standard	Number Samples	Expected (ppm)		Observed (ppm)		% of Expected	Number Failures	% Failure Rate
		Mean	Std Dev	Mean	Std Dev			
SE44	54	0.606	0.017	0.607	0.016	100	0	0
OXE74	18	0.615	0.017	0.601	0.011	98	0	0
OXF65	1	0.805	0.034	0.778	NA	97	0	0
SE58	51	0.607	0.019	0.597	0.013	98	4	8
SF57	11	0.848	0.030	0.856	0.026	101	0	0
Total	135							3

Source: Koza, 2012

Koza has used a number of different standards of approximately the same analytical range. Of the five standards, OXE74, OXF65 and SE58 are performing low. The other two CRMs are performing very close to the mean. In general, all of the standards are performing within the performance range but SE58 is performing low and should be monitored closely. The data indicates that the laboratory is providing accurate results. SRK recommends adding a higher grade standard to this project that

would bracket the grade range at Hayriye. SRK also recommends that Koza monitor the CRM performance for silver since there is a silver resource reported at Hayriye.

Blanks

Koza submits one sample blank per drill using pulp blanks up until June 2012 and preparation blanks since then. A blank failure is a result greater than five times the detection limit. Koza submitted 51 blanks with no blank failures. There was no cross contamination identified during the drilling program at the preparation laboratory.

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 submitted 55 preparation duplicates to the laboratory. A summary of the analytical results are presented in Table 4.3.1.2.

Table 4.3.1.2: Summary of Duplicate Au Analysis at Hayriye

Criteria	Number of Samples	Original>Dup	Dup>Original	Original = Dup	Within +/- 20%
All samples	55	15	20	20	38
		27%	36%	36%	69%

Source: Koza, 2012

Although there is a 31% failure rate, all duplicate sample failures except one were below 0.1 g/t Au and near the detection limit where reproducibility is poor. The failure that exceeded 0.1 g/t Au was below the cutoff grade for Söğüt resource estimation. There were one coarse duplicate above the cutoff grade for Söğüt resource estimation, which had good reproducibility. However, this database does not confidently demonstrate reproducibility of the coarse fraction. SRK recommends that Koza continue to submit coarse duplicates and that samples should be submitted in the grade range of the resource for Hayriye.

4.4 Hayriye Mineral Resources

Koza produced the resource estimate for the Hayriye Project at Söğüt in 2012.

4.4.1 Geological Model and Assay Statistics

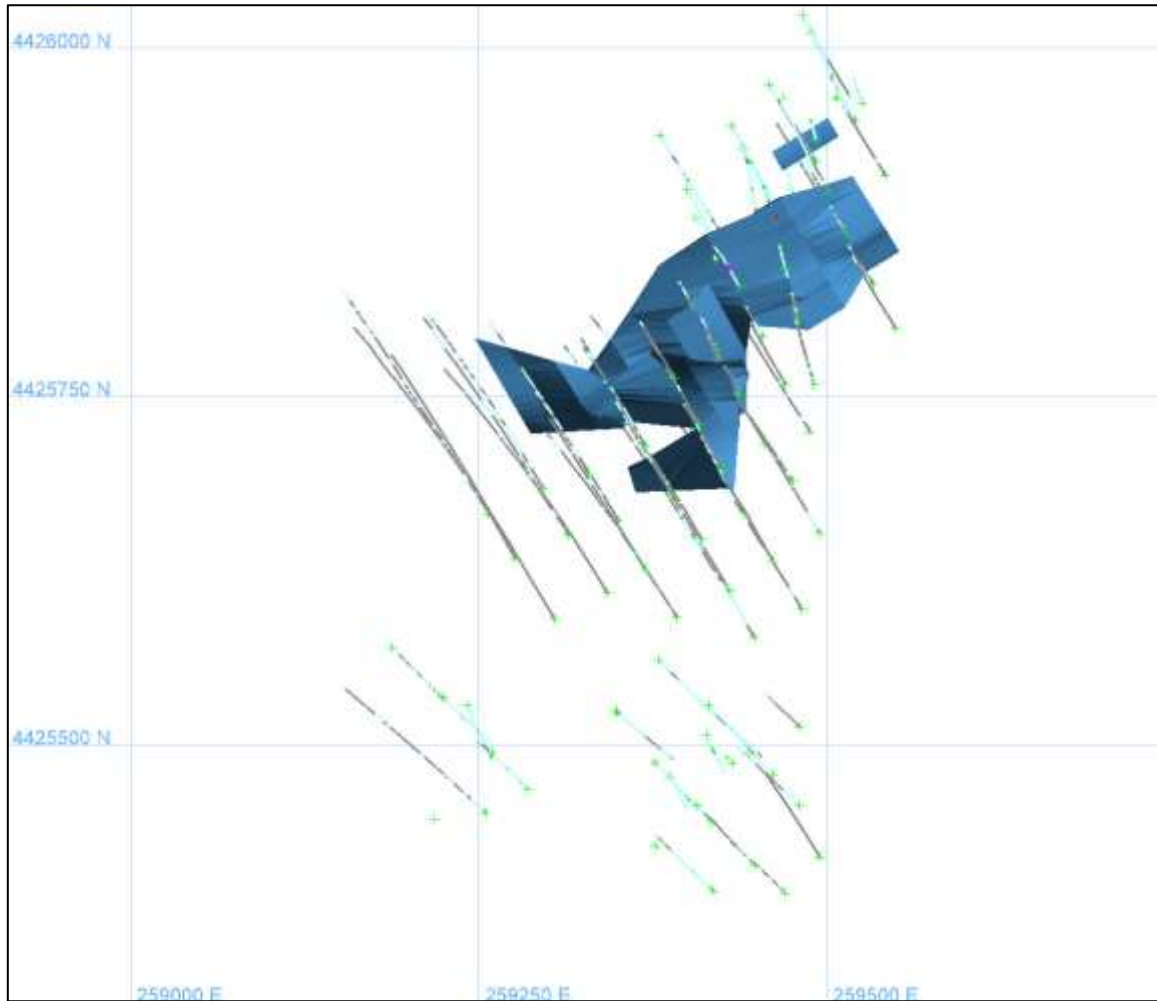
The mineralized zone at Hayriye strikes east-northeast and dips to the southeast at about 55°. The mineralized zone is narrow, generally about 2.5 m in thickness with a maximum of about 8 m. The mineralization was modeled in 4 wireframes using a 0.5 g/t gold cutoff. The wireframe extends 300 m in the northeast direction, 150 m to the southeast and 150 m vertically.

Figure 4.4.1.1 shows the drilling in plan view and Figure 4.4.1.2 shows an oblique view of the wireframe and drilling. Table 4.4.1.1 contains the assays within the wireframe.

Table 4.4.1.1: Statistics of Assays within Hayriye Grade Shell

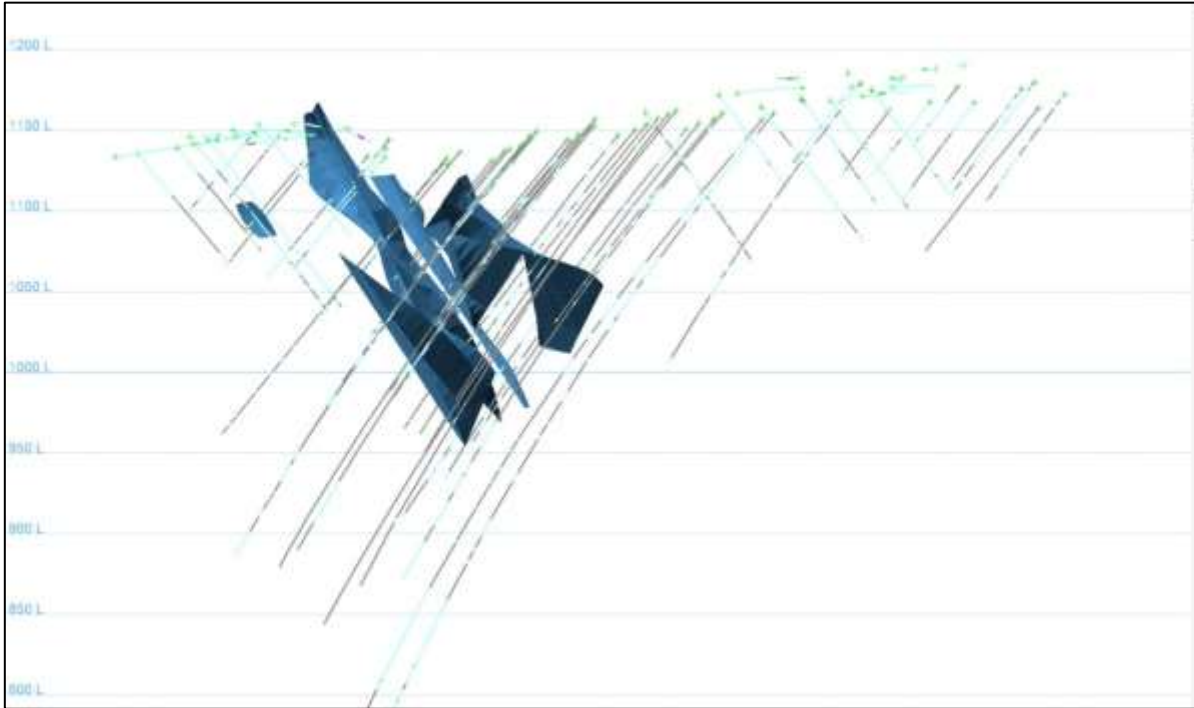
Metal	Count	Min	Max	Mean	Std Dev	Skewness	CV
Au	107	0.01	35.8	3.64	6.16	3.38	1.69
Ag	107	0.25	9.40	0.42	0.77	9.52	1.83

Source: SRK, 2013



Source: SRK, 2013

Figure 4.4.1.1: Drilling and Mineralized Zone at Hayriye in Plan View



4.4.3 Density

Density measurements were taken on 24 pieces of HQ core from 18 drillholes. The density measurements were done with the wax coating method and weighing in water and in air. The average value is 2.62 g/cm³ and that is used in the resource estimation. The density is on a dry tonnage basis.

4.4.4 Variography

Koza did not conduct a variography study because of the low number of samples.

4.4.5 Grade Estimation

The block model was created with blocks that are 5 m cubes. Sub-blocking was allowed to 1.25 m within the wireframe.

Koza used a three pass estimation using ID2:

- First Pass: search of 60 m x 40 m x 15 m, with a minimum of 5, a maximum of 10 composites and maximum of 2 composites per drillhole;
- Second Pass: search of 120 m x 80 m x 30 m, with a minimum of 5, a maximum of 10 composites and maximum of 2 composites per drillhole; and
- Third Pass: search of 180 m x 120 m x 45 m with a minimum of 3, maximum of 8 composites and maximum of 2 composites per drillhole.

An octant search was used, requiring a minimum of 2 octants with a minimum of 1 and a maximum of 4 composites per octant. Dynamic anisotropy was used in the search ellipse to closely match the shape of the wireframe.

4.4.6 Block Model Validation

SRK compared the composite grades to the average grade of the estimated blocks as shown in Table 4.4.6.1. The ID2 estimation is very close to the composite grades.

Table 4.4.6.1: Hayriye Comparison of Composites and Estimated Grades

Zone	Metal	Composites	ID2
1	Au	3.07	3.06
	Ag	0.42	0.41

Source: SRK, 2013

4.4.7 Resource Classification

Resources at Hayriye were classified as Indicated if estimated in the first pass with a minimum of 3 drillholes. The remaining blocks were classified as Inferred.

4.4.8 Mineral Resource Statement

Koza has not produced a pit optimization shell to constrain resources at Hayriye. It is becoming an industry standard to state resources within a pit shell. Koza has started this practice for new projects and has used pit shells at Akbaştepe and Korudanlık. The Hayriye resource was completed in 2012 and the pit optimization work has not yet been done on this project. The open pit resources are

constrained by a grade shell and are stated at a cutoff grade of 0.60 g/t Au. The one year rolling average gold price is US\$1,266; the two year average is US\$1,339; and the three year average is US\$1,449. The cutoff grade parameters are shown in Table 4.4.8.1 and assume that a processing facility will be built at Söğüt.

Table 4.4.8.1: Hayriye Cutoff Grade Parameters

Prices and Costs	Units	Open Pit
Gold Price	US\$/oz	1,450
Gold Recovery	%	92
Gold Refining	US\$/oz	3.44
Royalty	%	2
Government Right	%	1
Process Cost	US\$/t	15.00
Mining Cost	US\$/t	0.00
G&A Cost	US\$/t	10.00
Rehandling	US\$/t	0.50
Calculated Cutoff grade	g/t	0.61
Final Cutoff grade	g/t	0.60

Source: Koza, 2014

The mineral resources at Hayriye are stated in Table 4.4.8.2.

Table 4.4.8.2: Hayriye Mineral Resources at December 31, 2014

Classification	kt	Au (g/t)	Ag (g/t)	Au(oz)	Ag(oz)
Indicated	165	3.07	0.4	16	2
Inferred	155	3.04	0.4	15	2

- Tonnages and grade are rounded to reflect approximation;
- Resources are stated at a cutoff grade of 0.60 g/t Au; and
- Resources are contained within grade shells but not by a pit optimization shell.

4.4.9 Mineral Resource Sensitivity

Figure 4.4.9.1 presents grade tonnage curves for the Indicated and Inferred Resources.

Cutoff grades for the Akbaştepe resource at various gold prices are shown in Table 4.4.9.1.

Table 4.4.9.1: Hayriye Cutoff Grades vs. Gold Price

Gold Price	Open Pit Cutoff Grade
1600	0.56
1550	0.57
1500	0.59
1450	0.61
1400	0.64
1350	0.66
1300	0.69
1250	0.71

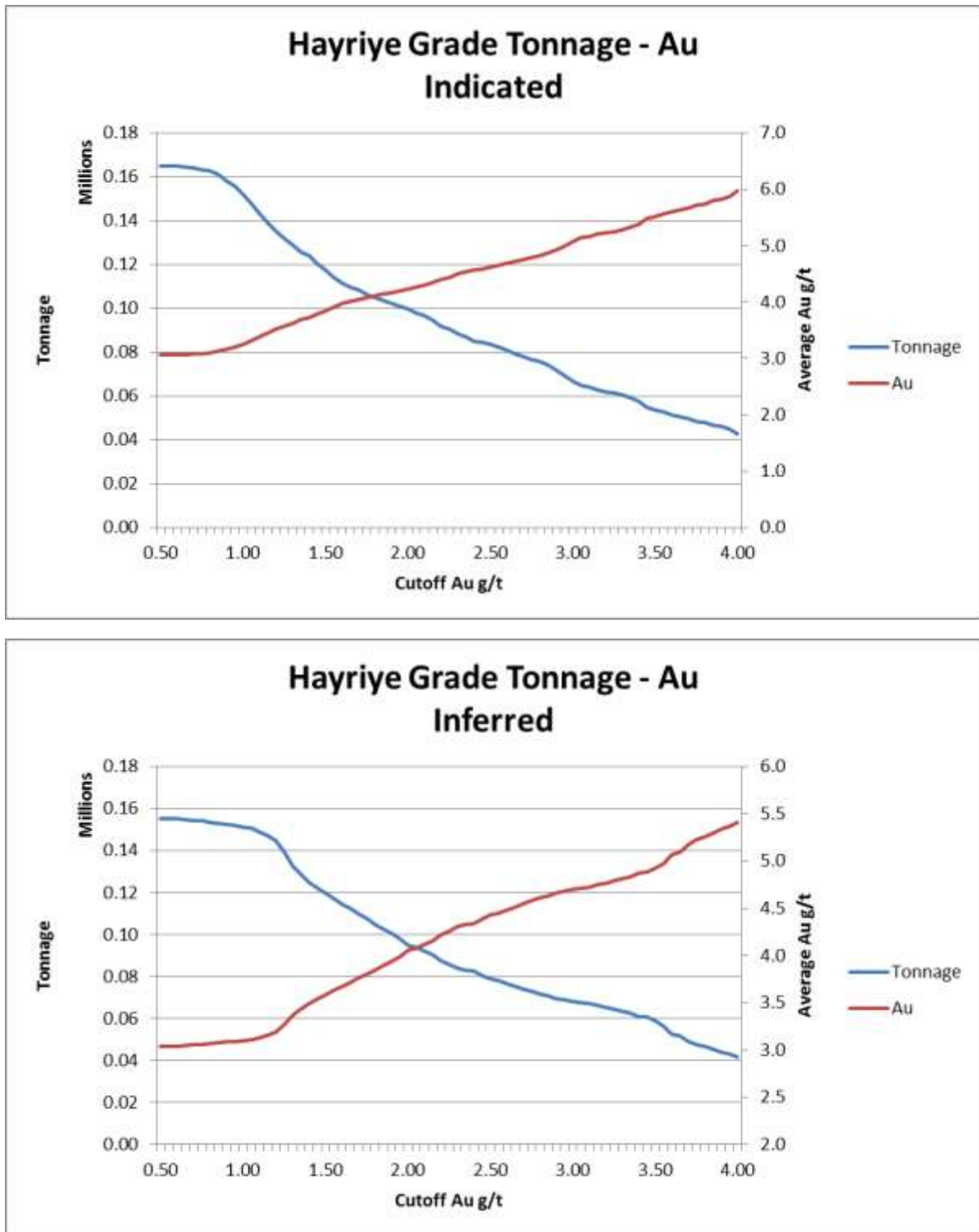
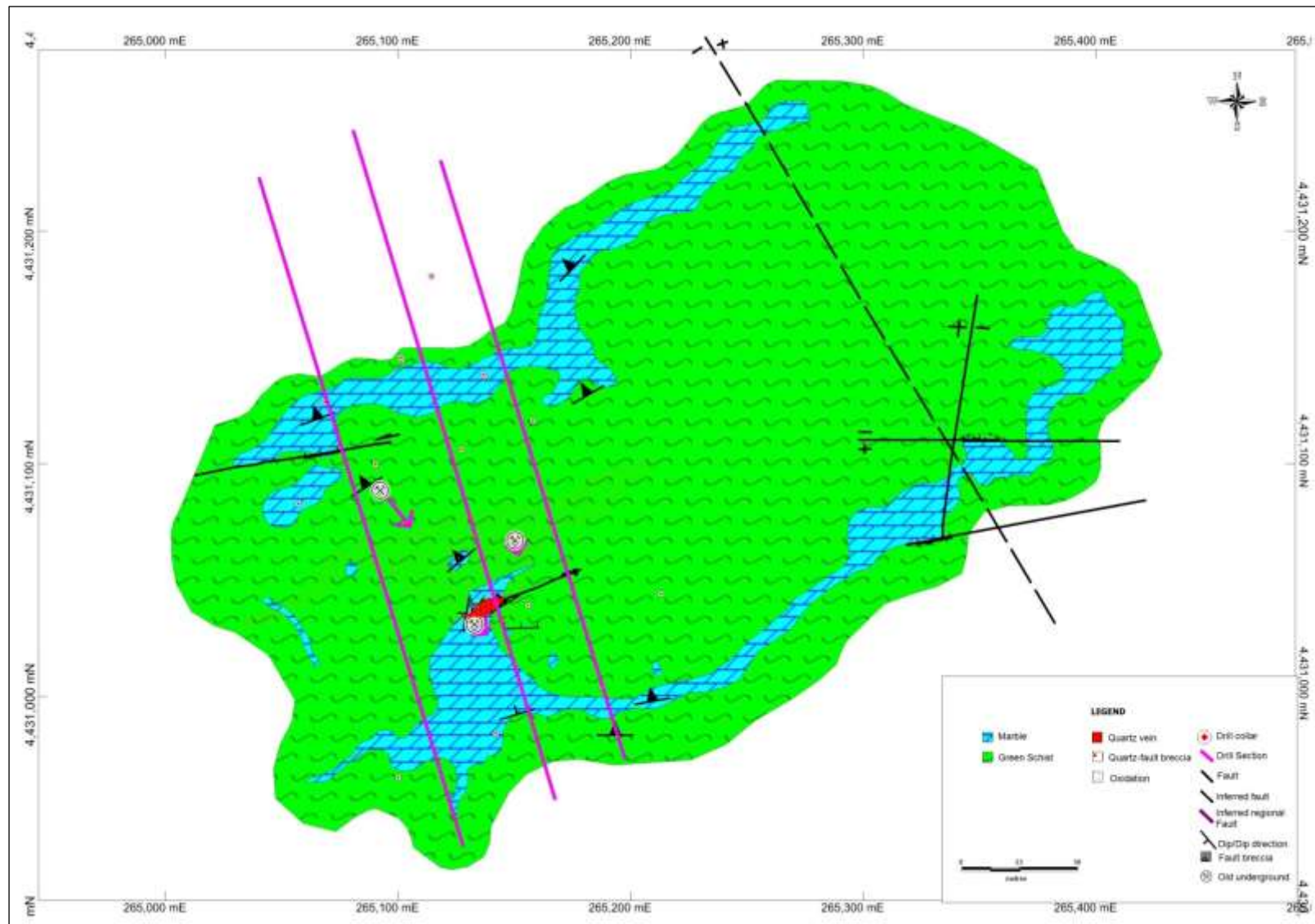


Figure 4.4.9.1: Grade Tonnage Curves for Hayriye Resource

5 Kışladere

5.1 Local Geology

Kışladere is an exploration project located east of Korudanlık (Figure 1.1.2) and is being explored as a low sulfidation epithermal gold deposit. Local geology is presented in Figure 5.1.1 which also shows trench lines.



Source: Koza GIS, 2015

Figure 5.1.1: Local Geology of Kışladere

5.2 Exploration

Exploration, exclusive of drilling, was conducted jointly at Söğüt with many of the programs overlapping. Exploration that includes surface sampling, mapping and geophysics are discussed in Section 1.2.

5.3 Drilling and Trenching

Koza has completed no exploration at this project since 2012. At that time, Koza had completed five trenches, totaling 88 m and collected 177 samples from the trenches. Koza had also completed 11 HQ-diameter diamond core drillholes totaling 1,574.4 m and collected 213 samples.

The drilling and sampling have been conducted according to Koza's standard exploration practices. All core is photographed prior to logging. 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 transferred into the computer. Sample intervals are selected by the geologist. The core is sampled on nominal 1 m lengths within the mineralized zone and 2 m outside the mineralization. Samples may be shorter or slightly longer 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.

There has been insufficient data for Koza to complete a resource estimation for this project. Kışladere is carried as exploration potential by Koza.

5.3.1 Quality Assurance/Quality Control

There was no drilling at Kışladere in 2013 or 2014. The QA/QC program discussed below is from previous drilling programs. Performance gates discussed for CRMs were those in use at the time the data was collected and reflect how the data was assessed. During the next drilling program, Koza will use its current QA/QC program used for drilling and discussed in Section 1.2.6. The QA/QC assessment below acceptable and supports the resource estimate presented in Section 4.4.

Certified Reference Material

Koza has used five CRMs at Kışladere purchased from RockLabs. These are SE58 and SF57. Failures are those standards outside of $\pm 10\%$ for CRMs with a limited number of submissions and ± 2 standard deviations for those standards with a more statistically representative dataset. Table 5.3.1.1 presents the expected mean, standard deviations and summaries of the analyses of the Au CRM's.

Table 5.3.1.1: Results of Au CRM Analyses at Kışladere

Standard	Number Samples	Expected (ppm)		Observed (ppm)		% of Expected	Number Failures	% Failure Rate
		Mean	Std Dev	Mean	Std Dev			
SE58	5	0.607	0.019	0.604	0.014	99	0	0
SF57	6	0.848	0.030	0.832	0.011	98	0	0
Total	11							0

Source: Koza, 2012

Koza has used two CRMs of approximately the same analytical range. Both standards have a very limited dataset and both are performing within the performance range but low overall. The data indicates that the laboratory is providing accurate results on this limited dataset. SRK recommends

adding a higher grade standard to this project that would bracket the grade range at Hayriye. SRK also recommends that Koza monitor the CRM performance for silver.

Blanks

Koza submits one sample blank per drill using pulp blanks up until June 2012 and preparation blanks since then. A blank failure is a result greater than five times the detection limit. Koza submitted eight blanks with no blank failures. There was no cross contamination identified during the drilling program at the preparation laboratory.

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 provided the results for one preparation duplicate, which was a failure. The original ran 0.052 g/t Au while duplicate was 0.62 g/t Au. This is not a representative dataset and reproducibility cannot be assessed with one sample. SRK recommends that Koza continue to submit coarse duplicates and these should be selected from the grade range of a potential resource for Kışladere.

7 Conclusions and Recommendations

7.1 Geology and Resources

SRK recommends that the composite length at all of the projects should be changed to 1.5 m or longer. At Korudanlık, 25% of the drillhole samples are longer than the 1.1 m now being used as the composite length. SRK also recommends that a simple run length option be used rather than the distribution option to standardize the composite lengths. The CV at Korudanlık is relatively high at 1.73 (gold) and 1.93 (silver). SRK suggests that the CV may be reduced with the longer composite length and also suggests that Koza review the capping values. SRK also recommends that the capping should be applied prior to compositing.

SRK recommends that at Korudanlık, the grade shell threshold should be revised to better reflect an underground mining cutoff grade. SRK recommends that pit optimization shells be generated for Hayriye to be used in the resource statement. This has become an industry standard which Koza is following for many of its projects. SRK suggests that Koza make this a standard practice at all its projects.

In regard to QA/QC, SRK recommends that Koza add a higher grade CRM to the QA/QC program at Akbaştepe, Hayriye and Kışladere to better bracket the grade ranges. Where Koza is reporting a silver resource, SRK recommends the addition of silver CRMs. At Korudanlık, Hayriye and Kışladere, SRK recommends that Koza continue using preparation duplicates and strongly recommends submitting duplicates from a range of grades represented by the deposit. For those with resources, the grade ranges should be primarily from the data above cutoff grade of the resource estimate. SRK observed that although in many cases there was excellent reproducibility, most of the data was collected from samples below the cutoff grade and even below detection limit, which does not confidently demonstrate reproducibility of the coarse fraction. SRK also recommends that Koza submit pulp duplicates to test analytical reproducibility and send check samples in the form of pulp duplicates to a secondary laboratory as verification of ALS results. Pulp duplicates and check samples should be submitted from all Söğüt projects.

7.2 Mining

Akbaştepe open pit and underground has the potential to be a high grade deposit and is currently at a prefeasibility-level of study. The open pit will have a very high strip ratio but benefits from an average grade of approximately 20 g/t.

The underground operations have been designed using a cut and fill mining method using similar equipment, production rate, geotechnical and ventilation parameters that are employed at other Koza operations.

SRK recommends that considerable time and effort be placed into optimizing the underground mine plan and in particular the dimensions of the drifts. Using the current mine dimensions and compared to the sub-blocked block model there is a 33% dilution of grade based. As there is so much dilution currently incorporated into the design, an understanding of expected production rates should also be considered. (Accept dilution for high production rate or reduce dilution and reduce production rate).

SRK reviewed the stope sizes in comparison to the block model, drillholes and geological interpretation. It appears that in some localized areas where the vein seems to split and that the

geological interpretation where the vein comes back together is thicker than it actually is. SRK recommends the vein thickness be scrutinized to ensure no overestimation of reserve occurs.

7.3 Metallurgy and Process

- Metallurgical studies were conducted by SGS Canada (SGS) to a prefeasibility level of investigation for the Söğüt project;
- Metallurgical testwork on the Korudanlik oxide samples consisted of diagnostic leach tests, which were used to determine the gold deportment of the sample, gravity separation testwork, cyanidation testwork and solid/liquid separation testwork;
- Cyanidation testwork conducted on the gravity tailing from the Korudanlik Oxide Comp 1 demonstrated that 96.1% of the contained gold could be extracted after 48 hours of leaching, which yielded an overall gravity + cyanidation gold recovery of 98.7%. Overall gold (gravity + cyanidation) recovery for Oxide Comp 2 was reported at 94.6%. Cyanide and lime consumption were low at 0.08 kg/t NaCN and 0.41 kg/t CaO;
- The metallurgical testwork on the Akbaştepe sulfide composites consisted of diagnostic leach tests, gravity separation testwork, flotation, cyanidation testwork, pressure oxidation, roasting and biooxidation;
- Diagnostic leach tests on the Akbaştepe C5 Core Composite indicated that only 19% of the gold was readily available for extraction by direct cyanidation. Similar tests on the C6 Core Composite found that about 51% of the gold was available for extraction by direct cyanidation. As such, gold contained in Akbaştepe sulfide deposit is considered refractory;
- Akbaştepe process flowsheet alternatives that include gravity concentration, bulk sulfide rougher flotation, flotation concentrate oxidation by either POX or BiOx and then CIL cyanidation of the oxidized flotation concentrate are both estimated to result in overall gold recoveries of about 89%;
- Koza has designed a process plant to treat Akbaştepe refractory gold ore at the rate of 500,000 t/y, equivalent to 1,370 t/d; and
- Akbaştepe process plant operating costs are estimated at US\$69.36/t ore processed, including a 30% contingency. The major contributors to the operating cost are process consumables at US\$29.37/t ore and process power at US\$18.00/t ore.

8 References

- Bloom, L. (Bloom), 2013. *Ankara geochemistry, assaying and quality control sessions report to Koza Gold*, dated May 31, 2013, 15p.
- 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.
- EUROGOLD MADENCİLİK A.Ş., 1996, *Kızılsaray (D4-17) (Söğüt/Eskişehir) Prospect*, Unpublished Report, 10p.
- Koza Altın İşletmeleri A.Ş. (Fall 2014) *Prefeasibility for the Akbaştepe Prospect, Turkey*.
- Koza Altın İşletmeleri A.Ş. (Fall 2014) *Mineral Resource Estimate for the Korudanlık Prospect, Turkey*.
- Koza Altın İşletmeleri A.Ş. (Fall 2013a) *Mineral Resource Estimate for the Hayriye Prospect, Turkey*.
- Koza Altın İşletmeleri A.Ş. (2012f) GIS Database.
- 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.
- Okay, A.I. and Whitney, D.L., 2010, Blueschists, ophiolites, and suture zones in northwest Turkey, in: Tectonic Crossroads: Evolving Orogens of Eurasia-Africa-Arabia October 4-8, 2010, Ankara, Turkey Conference Paper, 54p.
- SGS Canada, September 3, 2014. "An Investigation into the Recovery of Gold From the Korudanlık and Akbaştepe Deposits From the Söğüt Project"
- SGS Canada, March 4, 2013. "An Investigation into the Recovery of Gold From the Söğüt Project"
- SRK, 2013, Audit 2013 Volume 4 Kaymaz, Including Söğüt Resources and Reserves Koza Altın İşletmeleri A.Ş. Turkey, 122 p.

9 Glossary

9.1 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.

9.2 Glossary of Terms

Table 5.2.1: 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).

10 Date and Signature Page

Signed on this 31st Day of January, 2015.

Endorsed by CPs:

Leah Mach, MSc Geology, CPG

Dorinda Bair, BSc Geology, CPG

Bret Swanson, BEng Mining, MAusIMM, MMSAQP

Eric Olin, MSc, MBA, SME-RM

Reviewed by:

Bart Stryhas, PhD

Peter Clarke, BSc Mining, MBA, PEng

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted industry practices.

Disclaimer

The opinions expressed in this Report have been based on the information supplied to SRK Consulting (U.S.), Inc. (SRK) by Koza Altın İşletmeleri A.Ş. (Koza). These opinions are provided in response to a specific request from Koza to do so, and are subject to the contractual terms between SRK and Koza. SRK has exercised all due care in reviewing the supplied information. Whilst SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information and does not accept any consequential liability arising from commercial decisions or actions resulting from them. Opinions presented in this report apply to the site conditions and features as they existed at the time of SRK's investigations, and those reasonably foreseeable. These opinions do not necessarily apply to conditions and features that may arise after the date of this Report.

Copyright

This report is protected by copyright vested in SRK Consulting (U.S.), Inc. It may not be reproduced or transmitted in any form or by any means whatsoever to any person without the written permission of the copyright holder, SRK except for the purpose as set out in this report.