Audit 2014 Volume 8 Technical Economics 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 8 Technical Economics Koza Altın İşletmeleri A.Ş. Turkey

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Table of Contents

1	Introduction 1					
2	Tec	hnica	l Economics	2		
	2.1	Basis	of Technical-Economic Model (TEM)	2		
		2.1.1	General Input Parameters	3		
		2.1.2	Production Summary	3		
	2.2	Capita	al Expenditures	5		
		2.2.1	Mastra Operating Unit	5		
		2.2.2	Ovacık Operating Unit	6		
		2.2.3	Kaymaz Operating Unit	7		
		2.2.4	Himmetdede Operating Unit	7		
		2.2.5	Mollakara Operating Unit	8		
		2.2.6	Akbastepe Operating Unit	8		
	2.3	Opera	iting Costs	9		
		2.3.1	Mining Costs	9		
		2.3.2	Processing Costs	10		
		2.3.3	G&A Costs	10		
2.4 Cash flow Projections		flow Projections	11			
		2.4.1	Consolidated Operations	11		
		2.4.2	Mastra Unit Annual Cost Summary	14		
		2.4.3	Ovacık Unit Annual Cost Summary	16		
		2.4.4	Kaymaz Unit Annual Cost Summary	18		
		2.4.5	Himmetdede Unit Annual Cost Summary	19		
		2.4.6	Mollakara Unit Annual Cost Summary	20		
		2.4.7	Akbastepe Unit Annual Cost Summary	21		
3	Cor	nclusi	ons and Recommendations	23		
4	Glo	ssary		24		
	4.1	Minera	al Resources and Reserves	24		
	4.2	Glossa	ary of Terms	25		
5	Dat	e and	Signature Page	26		
Li	ist (of Ta	bles			
Га	ble 2.	1.1.1: G	Seneral Modeling Assumptions	3		
Га	ble 2.	1.2.1: O	perating Unit LoM Production Summary	2		

Table 2.1.2.2: Mill/Process Parameters	4
Table 2.1.2.3: Consolidated Ore Milled/Processed	5
Table 2.1.2.4: Consolidated Metal Recovery	5
Table 2.2.1.1: Mastra Unit LoM Capital Costs	6
Table 2.2.2.1: Ovacık Unit LoM Capital Costs	7
Table 2.2.3.1: Kaymaz Unit LoM Capital Costs	7
Table 2.2.4.1: Himmetdede Unit LoM Capital Costs	8
Table 2.2.5.1: Mollakara Unit LoM Capital Costs	8
Table 2.2.6.1: Akbastepe Unit LoM Capital Costs	9
Table 2.3.1.1: Mine Operating Costs	9
Table 2.3.2.1: Process (Mill) Operating Costs	10
Table 2.3.3.1: G&A Operating Costs	10
Table 2.4.1.1: LoM Technical-Economic Model Results (US\$000's)	11
Table 2.4.1.2: Project Sensitivity	12
Table 2.4.1.3: LoM Technical-Economic Model Results (US\$000's)	13
Table 2.4.2.1: Mastra Unit Economic Model Results (US\$000's)	14
Table 2.4.3.1: LoM Ovacık Unit Economic Model Results (US\$000's)	16
Table 2.4.4.1: Kaymaz Unit Economic Model Results (US\$000's)	18
Table 2.4.5.1: Himmetdede Unit Economic Model Results (US\$000's)	19
Table 2.4.6.1: Mollakara Unit Economic Model Results (US\$000's)	20
Table 2.4.7.1: Akbastepe Unit Economic Model Results (US\$000's)	21
Table 4.2.1: Glossary	25
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Disclaimer	27
Copyright	27

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 \$ 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				
0	degree				
%	percent				
AA	atomic absorption				
AAS	atomic absorption spectography				
Ag	silver				
amsl	above mean sea level				
Au	gold				
BLEG	Bulk Leach Extractible Gold				
BWI	Bond Work Index				
С	Celsius				
CoG	cutoff grade				
CIP	carbon in pulp				
cm	centimeter				
CP	Competent Person				
CPR	Competent Person's Report				
CRP	Community Relations Plan				
CRM	Certified Reference Material				
Cu	copper				
dia.	diameter				
Eq	equivalent				
EIA	Environmental Impact Assessment				
F	Fahrenheit				
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				
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 2014. 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 8 Technical Economics 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 using the industry accepted Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012).

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

2 Technical Economics

The financial results summarized in this section are based upon work performed by SRK as described throughout this report. All costs are in 4Q 2014 US constant dollars. This Report includes technical information, which requires subsequent calculations to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently can introduce a margin of error. Where these rounding errors occur, SRK does not consider them material.

2.1 Basis of Technical-Economic Model (TEM)

The TEM values the consolidated Koza reserves of six units, namely Mastra, Ovacık, Kaymaz, Akbaştepe, Himmetdede and Mollakara. Assets within each of the operating units are described as:

Mastra Unit

- Mastra Open Pit Mine;
- Mastra Underground Mine; and
- Mastra Mill Stockpile.

Ovacık Unit

- Ovacık Underground Mine;
- Kubaşlar Open Pit Mine;
- Çukuralan Open Pit Mine;
- · Cukuralan Underground Mine; and
- · Stockpiles.

Kaymaz Unit

- Kaymaz Open Pit Mine; and
- Kaymaz Mill Stockpile.

Himmetdede Unit

- Himmetdede Open Pit Mine; and
- Himmetdede Process Stockpile and Heap Leach.

Mollakara Unit

- Mollakara Open Pit Mine; and
- Mollakara Process Stockpile and Heap Leach.

Akbaştepe Unit

- · Akbaştepe Open Pit Mine;
- Akbaştepe Underground Mine; and
- Akbaştepe Stockpile.

The bases of technical economic inputs are summarized in Section 2.1.1.

2.1.1 General Input Parameters

Assumptions used in the TEM are shown in Table 2.1.1.1. Gold and silver are modeled at US\$1,250/oz and US\$20/oz, respectively, for the life of mine (LoM). The prices used represent a reasonable value between current market prices and 3-year running average. Gold and silver prices as of December 2014 were US\$1,202/oz and US\$16.24/oz, respectively. LME 3-year average price (through December 2014) for gold and silver are US\$1,446/oz and US\$24.68/oz, respectively.

Refining costs are estimated at US\$2.00/oz-Au. The refining cost for silver is included in this cost. A community charge (social tax) equivalent to US\$1.44/oz-Au is also applied.

There are three royalties at the Koza project properties. A 1% NSR government royalty applies to all units. An additional 1% NSR royalty is applied to production at the Mastra Open Pit. Also, a 3% gross profits royalty is applied to the underground mining operation at Ovacık is conservatively modeled as a NSR due to the complexity of modeling gross profits at Ovacık in a consolidated operation. This assumption is not material to the TEM as Ovacık UG gold production accounts for about 8% of total gold from the Ovacık unit.

An effective tax rate of 20% is assumed.

Table 2.1.1.1: General Modeling Assumptions

Description	Value	Units
Markets		
Gold Price	US\$1,250.00	per oz LoM
Silver Price	US\$20.00	per oz LoM
Outside Costs		
Refining Cost	US\$2.00	per Au-oz
Community Charge	US\$1.44	per Au-oz
Royalties		
Ovacık Private Royalty	3%	Gross Profit Ovacık Underground Mine
Mastra MTA Royalty	1%	NSR Mastra Open Pit Mine
Government Royalty	1%	All units
Tax		
Tax Rate	20%	
Depreciation	8 years	

2.1.2 Production Summary

Mine production schedules are discussed in detail throughout this report, with each mine showing a separate high-grade and low-grade (stockpile) stream. The LoM production schedules and timing from each operating mine is shown in Table 2.1.2.1. Variations in grade and tonnage from the stated reserve quantum are based on schedule accumulation methodology of both in-situ reserves and stockpiles as they are applied to the technical economic model. SRK is of the opinion that this slight variation is immaterial.

Table 2.1.2.1: Operating Unit LoM Production Summary

Unit Assets	Develop (m)	Waste (kt)	Ore (kt)	Gold (koz)	Silver (koz)	Start Date ⁽²⁾	End Date
Mastra Unit							
Mastra Open Pit	0	1,132	90	7	20	Jun 2015	Nov 2015
Mastra Underground (1)	229	128	262	43	43	Jul 2015	Feb 2018
Mastra Mines	229	1,260	352	50	63		
Mastra Mill Recovery (3)	-	_	758	75	84	20	Dec 2016
Ovacik Unit							
Ovacik Underground	107	40	227	36	20	Jan 2015	Jul 2021
Kubaşlar Open Pit	0	2,622	927	69	433	Jan 2024	Nov 2024
Çukuralan Open Pit	0	49,192	2,614	377	118	Jan 2015	Jun 2021
Çukuralan Underground	13,156	1,700	7,793	1,135	360	Jan 2015	Sep 2030
Ovacik Mines	13,263	53,554	11,560	1,617	932		
Ovacik Mill Recovery (3)	-	_	13,278	1,658	847	Jan 2015	Sep 2030
Kaymaz Unit							
Kaymaz Open Pit	0	49,393	2,972	441	508	Jan 2015	May 2018
Kaymaz Mines	-	-	2,972	441	508		
Kaymaz Mill Recovery (3)	0	_	3,039	385	386	Jan 2015	May 2018
Akbaştepe Unit							
Akbaştepe Open Pit	0	16,940	347	216	17	Jan 2018	Jan 2020
Akbaştepe Underground	4,883	396	1,507	681	40	Jan 2018	Sep 2024
Akbaştepe Mines	4,883	17,336	1,854	897	57		
Akbaştepe Mill Recovery (3)	-	_	1,859	736	43	Jul 2019	Sep 2024
Himmetdede Unit							
Himmetdede Mines	0	51,612	26,077	618	0	Apr 2015	Apr 2020
Himmetdede Process Recovery ⁽³⁾	-	_	26,109	446	0	Apr 2015	Apr 2020
Mollakara Unit							
Mollakara Mines	0	11,012	14,916	374	98	Apr 2019	Jul 2021
Mollakara Process Recovery (3)	-	-	14,916	243	10	May 2019	Feb 2022

⁽¹⁾ Mastra 2017 high grade ore transported to Ovacik RoM stockpile for processing

The mine production schedules, as presented were incorporated into the TEM. A processing schedule for each operating unit was then developed in the TEM, which processes high-grade material first, followed by the low-grade ore.

The operating capacity and overall metal recovery for each mill is shown in Table 2.1.2.2.

Table 2.1.2.2: Mill/Process Parameters

Parameter	Units	Mastra Mill	Ovacik Mill	Kaymaz Mill	Akbaştepe Mill	Himmetdede Process	Mollakara Process
Operating Capacity	t/month	40,000	72,000	75,600	30,000	500,000	500,000
Gold Recovery	%	94%	95%	87%	82%	72%	65%
Silver Recovery	%	75%	75%	75%	75%	50%	10%

⁽²⁾ Denotes start dates and end dates for the asset. A "-" means the asset was operational prior to the beginning of the modeling period.

⁽³⁾ Mill/Process Recovery includes stockpile inventories.

Operating capacity and recovery at the existing Mastra, Ovacık and Kaymaz mills are based upon historic achievements at these units. Capacity and recovery at the Himmetdede plant is based on initial operations and Mollakara process plant is an estimate.

Tables 2.1.2.3 and 2.1.2.4 summarize forecasted LoM ore processed and metals recovery from the various operating mines.

Table 2.1.2.3: Consolidated Ore Milled/Processed

Operating Unit	Ore Milled (kt)	Gold Grade (g/t)	Silver Grade (g/t)	Contained Gold (koz)	Contained Silver (koz)
Mastra Unit	758	3.25	4.62	79	113
Ovacik Unit	13,278	4.09	2.65	1,746	1,129
Kaymaz Unit	3,039	4.53	5.26	443	514
Akbaştepe Unit	1,859	15.01	0.96	897	57
Himmetdede Unit	26,109	0.74	0.00	619	0
Mollakara Unit	14,916	0.78	0.20	374	98
Total Ore Processed	59,954	2.17	0.99	4,158	1,911

Ore milled/processed and contained ounces include starting stockpile inventories.

Table 2.1.2.4: Consolidated Metal Recovery

Operating Unit	Contained Metal	Recovery	Recovered Metal
oporating offic	(koz)	(%)	(koz)
Gold			
Mastra	79	94	75
Ovacik	1,746	95	1,658
Kaymaz	443	87	385
Akbaştepe	897	82	736
Himmetdede	619	72	446
Mollakara	374	65	243
Total Gold	4,158	85%	3,543
Silver			
Mastra	113	75	84
Ovacik	1,129	75	847
Kaymaz	514	75	386
Akbaştepe	57	75	43
Himmetdede	0	0	0
Mollakara	98	10	10
Total Silver	1,911	72%	1,369

2.2 Capital Expenditures

LoM capital expenditures are described as follows.

2.2.1 Mastra Operating Unit

Mining and processing assets in the Mastra Unit are mature operations. The Mastra Open Pit mine will deplete its reserves in 4Q 2015 and will close. The Mastra mill will treat high-grade ore from the Mastra Underground mine until the end of 2016 and then shut down. The Mastra Underground high-grade mined in 2017 will be transported to the Ovacik stockpile and treated through the Ovacik mill in

2018. The Mastra underground mine has a remaining life of 3.0 years based on reserves. Production at Mastra underground is expected to cease in 1Q 2018.

LoM capital expenditures, totaling US\$15.5 million will be used for development and support for the Mastra Underground mine as well as for the tailings dam and closure of the surface operations (Table 2.2.1.1).

Table 2.2.1.1: Mastra Unit LoM Capital Costs

Description	LoM Cost (US\$000's)
Mining	
Mastra Open Pit	0
Mastra Underground	0
Mastra Underground Develop.	785
Mining	\$785
Processing	
Mill Facility	83
Tailings Dam	8,148
Processing	\$8,231
Infrastructure	
Mastra	0
Mastra Closure	5,743
Other	1,392
Infrastructure	\$7,135
Total	\$16,151

2.2.2 Ovacık Operating Unit

The Ovacık Unit has two mature operations, Ovacık Underground which is expected to close in 3Q 2021, and Küçükdere Open Pit which closed in 4Q 2009. Additional operations have begun or are expected to come on line: Çukuralan Underground, Çukuralan Open Pit, and Çoraklıktepe Open Pit. The Kubaşlar Open Pit is a small operation which is expected to come on-line in 1Q 2024. The Ovacık Mill will support all these operations as part of the company's hub strategy.

LoM capital costs at Ovacık, shown in Table 2.2.2.1.

Table 2.2.2.1: Ovacık Unit LoM Capital Costs

Description	LoM Cost (US\$000's)
Mining	
Ovacık Underground	0
Ovacık Underground Develop.	386
Kubaşlar Open Pit	0
Çukuralan Open Pit	0
Çukuralan Underground	0
Çukuralan Underground Develop.	32,914
Çoraklik Open Pit	0
Mining	\$33,300
Processing	
Ovacık Mill	9,384
Tailings Dam	7,327
Processing	\$16,711
Infrastructure	
Ovacik	0
Ovacık Closure	3,418
Çukuralan	0
Çukuralan Closure	13,979
Çorakliktepe	0
Çorakliktepe Closure	0
Kubaşlar	0
Kubaşlar Closure	1,089
Infrastructure	\$18,486
Total	\$68,497

2.2.3 Kaymaz Operating Unit

Kaymaz is an operating unit, which consist of an open pit mine and mill commissioned near the end of 3Q 2011. LoM capital is shown in Table 2.2.3.1.

Table 2.2.3.1: Kaymaz Unit LoM Capital Costs

Description	LoM Cost (US\$000's)
Mining	
Kaymaz Open Pit	222
Mining	\$222
Processing	
Kaymaz Mill	1,742
Tailings Dam	124
Processing	\$1,866
Infrastructure	
Kaymaz	3,181
Kaymaz Closure	34,050
Infrastructure	\$37,231
Total	\$39,319

2.2.4 Himmetdede Operating Unit

Himmetdede will be a new operating unit, which consist of a new open pit mine and heap leach with process facility to be commissioned near the end of 3Q 2013. LoM capital is shown in Table 2.2.4.1.

Table 2.2.4.1: Himmetdede Unit LoM Capital Costs

Description	LoM Cost (US\$000's)
Mining	
Himmetdede Open Pit	761
Mining	\$761
Processing	
Himmetdede Leach	7,096
Other	6,612
Processing	\$13,708
Infrastructure	
Himmetdede	7,743
Other	761
Infrastructure	\$8,504
Total	\$22,973

2.2.5 Mollakara Operating Unit

Mollakara will be a new operating unit, which consist of a new open pit mine and heap leach with process facility to be commissioned the beginning of 2Q 2019. LoM capital is shown in Table2.2.5.1.

Table 2.2.5.1: Mollakara Unit LoM Capital Costs

Description	LoM Cost (US\$000's)
Mining	
Mollakara Open Pit	762
Mining	\$762
Processing	
Mollakara Leach	94,347
Processing	\$94,347
Infrastructure	
Mollakara Closure	0
Land Acquisition	10,000
Infrastructure	\$10,000
Total	\$105,109

2.2.6 Akbaştepe Operating Unit

Akbaştepe will be a new operating unit, which consist of a new open pit mine and new underground mine with process facility to be commissioned the beginning of 3Q 2019. LoM capital is shown in Table2.2.6.1.

Table 2.2.6.1: Akbaştepe Unit LoM Capital Costs

Description	LoM Cost
Mining	
Akbaştepe Open Pit	1,000
Akbaştepe Underground	33,988
Mining	\$34,988
Processing	
Akbaştepe Mill	47,060
Tailings Dam	38,370
Processing	\$85,430
Infrastructure	
Akbaştepe	6,200
Akbaştepe Closure	3,390
Infrastructure	\$9,590
Total	\$130,008

2.3 Operating Costs

2.3.1 Mining Costs

Mining costs are shown in Table 2.3.1.1. LoM average unit costs are used in the TEM. For open pit operations mining costs are applied to ore and waste moved. Costs include drilling blasting, loading, hauling and support functions. An additional provision for grade control and rehandled is applied to ore tonnes only.

Underground mining costs are all in ore costs. Costs include drilling, blasting, loading, hauling ground control, ventilation, pumping and support costs. Development costs are capitalized.

Table 2.3.1.1: Mine Operating Costs

	LoM	LoM	LoM
Operating Unit/Asset	Cost	Cost	Cost
-	(US\$000's)	(US\$/t-mined)	(US\$/t-ore)
Mastra Unit			
Mastra Open Pit	1,920	1.571	21.370
Mastra Underground	20,276	52.000	77.332
Ovacik Unit			
Ovacik Underground	14,675	55.000	64.683
Çukuralan Open Pit	104,611	2.019	40.026
Çukuralan Underground	360,728	38.000	46.287
Kubaşlar Open Pit	6,889	1.941	7.433
Kaymaz Unit			
Kaymaz Open Pit	72,194	1.379	24.290
Akbaştepe Unit			
Akbaştepe Open Pit	15,420	0.892	44.494
Akbaştepe Underground	95,394	50.130	63.289
Himmetdede Unit			
Himmetdede Open Pit	118,020	1.519	4.520
Mollakara Unit			
Mollakara Open Pit	46,038	1.776	3.087

2.3.2 Processing Costs

LoM processing costs are summarized in Table 2.3.2.1. A discussion of these costs can be found elsewhere in this report.

Table 2.3.2.1: Process (Mill) Operating Costs

Description	Units	Mastra	Ovacik	Kaymaz	Akbaştepe	Himmetdede	Mollakara
Chemicals	US\$/t-milled	5.500	2.270	4.860	31.970	0.740	1.905
Materials	US\$/t-milled	3.500	2.190	4.930	6.210	0.470	0.804
Energy	US\$/t-milled	5.830	2.610	5.080	23.640	1.720	0.053
Maintenance	US\$/t-milled	5.000	1.350	2.420	4.710	0.250	0.133
Contractors	US\$/t-milled	\$3.550	0.920	1.150	0.000	0.000	0.000
Heap Leach	US\$/t-ore	0.000	0.000	0.000	0.000	0.000	1.690
LoM Unit Cost		\$23.380	\$9.340	\$18.440	\$66.530	\$3.180	\$4.585
Wages	US\$/year	408,000	708,000	753,600	905,760	2,088	2,088
Salaries	US\$/year	168,000	504,000	246,000	442,200	0	0
Maintenance	US\$/year	72,000	0	120,000	0	0	3,996
Other	US\$/year	381,360	60,240	218,400	0	3,960	0
LoM Fixed Cost	US\$/year	\$1,029,360	\$1,272,240	\$1,338,000	\$1,347,960	\$6,048	\$6,084

2.3.3 **G&A Costs**

G&A costs, shown in Table 2.3.3.1 are LoM averages used in the model and allocated for each operating unit. These values were incorporated into the TEM in the same manner as mining operating costs.

Table 2.3.3.1: G&A Operating Costs

Description	Units	Unit Cost	LoM Cost
Mastra Unit			
Transportation-Mastra Open Pit	US\$/t-milled	2.000	180
G&A Allocation	US\$/t-milled	20.810	15,778
Mastra Unit		\$21.047	\$15,958
Ovacik Unit			
TransportKubaşlar	US\$/t-milled	11.000	10,194
TransportÇukuralan	US\$/t-milled	8.000	83,255
G&A Allocation	US\$/t-milled	18.100	240,724
TransportMastra	US\$/t-milled	0	0
Ovacik Unit		\$25.138	\$333,780
Kaymaz Unit			
G&A Allocation Kaymaz	US\$/t-milled	9.000	27,355
Kaymaz Unit		\$9.000	\$27,355
Akbaştepe Unit			
G&A Allocation	US\$/t-milled	7.500	13,943
Akbaştepe Unit		\$7.521	\$13,943
Himmetdede Unit			
G&A Allocation	US\$/t-milled	1.000	26,109
Himmetdede Unit		\$1.000	\$26,109
Mollakara Unit			
G&A Allocation	US\$/t-milled	1.000	14,916
Mollakara Unit		\$1.000	\$14,916

2.4 Cash flow Projections

2.4.1 Consolidated Operations

The base case economic analysis results, shown in Table 2.4.1.1, indicate a post-tax NPV of US\$1,391.8 million at a 5% discount rate based on reserves. The SRK LoM plan and economics are based on the following:

- Proven and probable reserves only;
- An overall project life of 15 years;
- An overall average metallurgical recovery rate of 85% Au and 72% Ag, over the LoM;
- LoM operating cost of US\$30.28/t-processed, or US\$510.22/oz-Au (net Ag production);
- LoM capital costs of US\$382.2 million;
- 20% tax rate; and
- No allowance for salvage value is assumed in the analysis.

Table 2.4.1.1: LoM Technical-Economic Model Results (US\$000's)

Description	Value	US\$/t-milled	US\$/oz-Au
Net Revenue			
Gold	4,428,660		
Silver	27,392		
Net Revenue	\$4,456,051		
Refinery	(7,086)		
Community Charge	(5,102)		
NSR	\$4,443,864	\$74.11	\$1,254.29
Royalties - Ovacik Private	(1,380)		
Mastra MTA	(149)		
Government	(44,287)		
Net Revenue	\$4,398,048	\$73.35	\$1,241.36
Operating Costs			
Mastra Unit	58,220		
Ovacik Unit	964,736		
Himmetdede Unit	240,316		
Mollakara Unit	136,903		
Kaymaz Unit	160,278		
Akbaştepe Unit	255,513		
Environmental Cost	0		
Operating Cost	\$1,815,967	\$30.29	\$512.56
Operating Margin	\$2,582,081	\$43.06	\$728.80
Capital Costs			
Mastra Unit	16,151		
Ovacik Unit	68,497		
Himmetdede Unit	22,973		
Mollakara Unit	105,109		
Kaymaz Unit	39,319		
Akbaştepe Unit	130,008		
Koza HQ	777		
Capital Cost	\$382,834		
Income Tax	\$363,653		
Cash Flow	\$1,835,594		
NPV	\$1,377,905	5%	

Project sensitivity, shown in Table 2.4.1.2, indicates the project is most sensitive to price followed to a lesser extent by operating costs. This conclusion is reasonable given the maturity of the project even with the new open pits and heap leach operations contributing the majority of the capital expenditures. Project sensitivity is presented in Figure 2.4.1.1.

Table 2.4.1.2: Project Sensitivity

NPV 5%	-15%	-10%	-5%	Base	+5%	+10%	+15%
Revenues	976,120	1,110,148	1,244,078	1,377,905	1,511,692	1,645,459	1,779,205
Capital Costs	1,406,102	1,396,711	1,387,310	1,377,905	1,368,492	1,359,050	1,349,579
Operating Costs	1,543,250	1,488,142	1,433,026	1,377,905	1,322,779	1,267,637	1,212,472

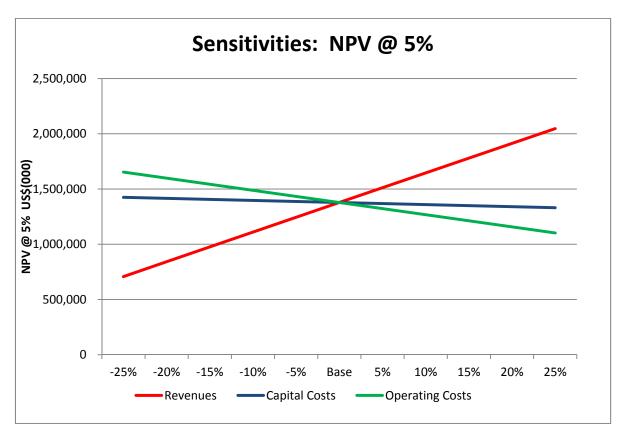


Figure 2.4.1.1: Project Sensitivities

SRK Consulting (U.S.), Inc.
Audit 2014 - Koza Altın İşletmeleri A.Ş.
Volume 8 - Page 13

Table 2.4.1.3: LoM Technical-Economic Model Results (US\$000's)

Production Summary	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Ore Milled																			
Mastra Unit	kt	758	280	451	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0
Ovacik Unit	kt	13,278	864	864	864	864	864	864	864	864	864	864	864	864	864	864	864	318	0
Kaymaz Unit	kt	3,039	907	907	830	395	0	0	0	0	0	0	0	0	0	0	0	0	0
Himmetdede Unit	kt	26,109	3,078	5,961	6,000	6,000	4,516	554	0	0	0	0	0	0	0	0	0	0	0
Mollakara Unit	kt	14,916	0	0	0	0	2,825	5,573	6,000	518	0	0	0	0	0	0	0	0	0
Akbaştepe Unit	kt	1,859	0	0	0	0	180	360	360	360	360	239	0	0	0	0	0	0	0
Total Milled	kt	59,959	5,130	8,183	7,694	7,286	8,384	7,351	7,224	1,742	1,224	1,103	864	864	864	864	864	318	0
Gold Recovered																			1
Mastra Unit	koz	75	41	30	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Ovacik Unit	koz	1,658	125	132	104	124	134	137	143	131	142	90	105	117	60	49	49	18	0
Kaymaz Unit	koz	385	80	109	141	56	0	0	0	0	0	0	0	0	0	0	0	0	0
Himmetdede Unit	koz	446	58	110	93	95	75	15	0	0	0	0	0	0	0	0	0	0	0
Mollakara Unit	koz	243	0	0	0	0	34	97	100	12	0	0	0	0	0	0	0	0	0
Akbaştepe Unit	koz	736	0	0	0	0	88	137	120	152	158	80	0	0	0	0	0	0	0
Total	koz	3,543	304	381	337	278	330	386	363	295	300	171	105	117	60	49	49	18	0
Silver Recovered																			
Mastra Unit	koz	84	40	42	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Ovacik Unit	koz	847	68	42	41	32	35	34	36	30	33	171	142	68	36	33	34	12	0
Kaymaz Unit	koz	386	101	110	127	48	0	0	0	0	0	0	0	0	0	0	0	0	0
Himmetdede Unit	koz	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mollakara Unit	koz	10	0	0	0	0	2	4	4	0	0	0	0	0	0	0	0	0	0
Akbaştepe Unit	koz	43	0	0	0	0	6	10	8	8	8	3	0	0	0	0	0	0	0
Total	koz	1,370	209	193	169	82	43	48	48	38	41	174	142	68	36	33	34	12	0
Cash Flow Schedule		,				_	_	_											ſ
Market Price Gold		-	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250	\$1,250
Market Price Silver		_	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20
Gross Revenue			7	,	7-7	,	7	,	7		4		7	,	4 -5	7-5		4 -4	1
Gold	000s	4,428,660	379,860	476,009	421,671	348,112	412,712	482,437	454,289	369,055	375,145	213,423	130,963	145,760	74,797	60,645	60,665	23,116	0
Silver	000s	27,392	4,179	3,862	3,372	1,639	869	965	953	761	825	3,477	2,836	1,361	719	653	684	238	Ö
Gross Revenue	000s	4,456,051	384,039	479,871	425,042	349,751	413,581	483,403	455,242	369,815	375,970	216,900	133,799	147,121	75,516	61,298	61,349	23,355	0
Refinery		1,122,221	,	,	.==,= .=	,	,	100,100	,		0.0,0.0	_ : : ; : : :	,	,	,	0.1,200	- 1,0 10		
Refinery	000s	(7,086)	(608)	(762)	(675)	(557)	(660)	(772)	(727)	(590)	(600)	(341)	(210)	(233)	(120)	(97)	(97)	(37)	0
Community Charge	000s	(5,102)	(438)	(548)	(486)	(401)	(475)	(556)	(523)	(425)	(432)	(246)	(151)	(168)	(86)	(70)	(70)	(27)	Ö
Transportation	000s	(0,:02)	0	(0.0)	(100)	(101)	()	(000)	0	(0)	(.0_)	(= .0)	0	(100)	(00)	0	(. 5)	(=.)	0
Refinery	000s	(12,188)	(1,045)	(1,310)	(1,160)	(958)	(1,136)	(1,328)	(1,250)	(1,016)	(1,032)	(587)	(360)	(401)	(206)	(167)	(167)	(64)	0
NSR	000s	4,443,864	382,994	478,561	423,882	348,793	412,445	482,075	453,992	368,800	374,938	216,312	133,439	146,720	75,310	61,131	61,182	23,291	0
Royalty	0003	-,440,004	002,004	470,001	420,002	040,700	712,770	402,070	400,002	000,000	074,000	210,012	100,400	140,720	70,010	01,101	01,102	20,201	ı
Ovacik Private	000s	(1,380)	(104)	(109)	(87)	(103)	(111)	(114)	(119)	(109)	(118)	(75)	(87)	(97)	(50)	(40)	(40)	(15)	0
Mastra MTA	000s	(149)	(82)	(61)	0	(7)	() (()	(1.0)	(100)	(1.0)	(, 0)	(0.7	(0.7)	0	0	0	0	Ö
Government	000s	(44,287)	(3,799)	(4,760)	(4,217)	(3,481)	(4,127)	(4,824)	(4,543)	(3,691)	(3,751)	(2,134)	(1,310)	(1,458)	(748)	(606)	(607)	(231)	0
Total Royalty	000s	(45,816)	(3,984)	(4,930)	(4,303)	(3,591)	(4,238)	(4,938)	(4,662)	(3,799)	(3,870)	(2,210)	(1,397)	(1,555)	(798)	(647)	(647)	(247)	0
Net Revenue	000s	4,398,048	379,009	473,631	419,579	345,202	408,207	477,137	449,330	365,000	371,068	214,103	132,042	145,165	74,512	60,484	60,535	23,044	0
Operating Costs	0003	4,000,040	373,003	773,031	710,010	070,202	700,201	711,131	773,330	303,000	37 1,000	217,100	102,042	173,103	17,512	00,707	00,000	20,044	ı
Mastra Unit	000s	58,220	25,857	28,172	2,705	1,487	0	0	0	0	0	0	ا م	0	0	0	0	0	0
Ovacik Unit	000s	964,736	64,047	54,774	61,669	80,923	82,031	88,050	75,422	69,672	67,764	83,926	62,416	53,084	36,816	35,585	35,290	13,270	0
Kaymaz Unit	000s	160,278	55,554	51,223	40,129	13,372	02,031	00,030	0	05,672	07,704	03,320	02,710	0	0 0,010	0	00,200	0	0
Himmetdede Unit	000s	240,316	33,888	52,531	51,547	51,238	44,763	6,348	0	0	0	0	ő	0	ő	ő	0	0	0
Mollakara Unit	000s	136,903	0	0	0 0	0	36,874	51,498	45,373	3,157	0	ől	ő	0	0	0	0	0	0
Akbastepe Unit	000s	255,513	0	0	ő	7.971	30,169	48,422	47,542	46,973	46,719	27,717	ő	0	0	0	0	0	0
Operating Costs	000s	1,815,967	179,347	186,699	156,049	154,991	193,837	194,318	168,337	119,803	114,483	111,643	62,416	53,084	36,816	35,585	35,290	13,270	0
	\$/t-milled	30.29	\$34.96	\$22.81	\$20.28	\$21.27	\$23.12	\$26.44	\$23.30	\$68.76	\$93.53	\$101.22	\$72.24	\$61.44	\$42.61	\$41.19	\$40.84	\$41.74	\$0.00
EBITDA	000s	2,582,081	199,662	286,932	263,530	190,211	214,369	282,819	280,993	245,198	256,585	102,460	69,626	92,082	37,696	24,899	25,245	9,774	Ψ0.00
Cash Available for Debt Service	0003	2,502,001	100,002	200,302	200,000	100,211	217,000	202,013	200,990	۷٦٥, ١٥٥	200,000	102,400	00,020	52,002	57,090	27,000	20,270	5,114	ı
Operating Margin	000s	2,582,081	199,662	286,932	263,530	190,211	214,369	282,819	280,993	245,198	256,585	102,460	69,626	92,082	37,696	24,899	25,245	9,774	0
Project Capital (Equity)	000s	(382,834)	(14,722)	(7,494)	(70,966)	(155,560)	(35,215)	(23,908)	(21,744)	(22,418)	(15,656)	(7,020)	(2,772)	(2,120)	(885)	(602)	(600)	(588)	(564)
Income Tax	000s	(363,653)	(35,341)	(54,061)	(31,884)	(3,427)	(00,210)	(42,914)	(46,924)	(39,954)	(44,326)	(16,721)	(12,379)	(17,388)	(7,051)	(4,691)	(4,799)	(1,792)	(507)
Working Capital	000s	(505,055)	(3,387)	734	101	462	(2,133)	903	1,030	(39,934)	156	875	(54)	332	223	(152)	(4,799) 87	550	
CF Avail. for Debt Service	000s	1,835,594	146,213	226,111	160,781	31,686	177,022	216,900	213,354	183,097	196,759	79,594	54,421	72,907	29,983	19,454	19,933	7,944	(564)
Loan Repayment	000s	1,000,094	140,213	220,111	0	0 1,000	0	210,900	213,354	165,097	190,739	79,394	0 +,4∠ 1 ∩	12,907	29,963	19,434	19,933	7,944 0	(304)
Interest Expense	000s	-	0	0	0	0	0	١	0	0	0	0	0	0	0	0	0	0	0
·		4.005.504	Ů	· ·		04 000		040.000		•	400.750		54.404			-		-	
Free Cash Flow	000s	1,835,594	146,213	226,111	160,781	31,686	177,022	216,900	213,354	183,097	196,759	79,594	54,421	72,907	29,983	19,454	19,933	7,944	(564)
Present Value	000s	1,377,905	139,990	206,593	140,004	26,940	138,562	162,741	152,016	124,155	126,941	49,135	31,707	40,451	15,939	9,783	9,526	3,665	(244)

2.4.2 Mastra Unit Annual Cost Summary

Annual production, operating and capital costs for the Mastra unit are shown in Table 2.4.2.1.

Table 2.4.2.1: Mastra Unit Economic Model Results (US\$000's)

	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Mining																			
Consolidated																			
Ore Mined	kt	352	225	100	25	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Grade																			
Gold	g/t	4.42	4.2	5.1	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	5.58	5.8	5.8	3.3	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			
Gold	koz	50	30	16	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	koz	63	42	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mastra Open Pit																			
Ore Mined	kt	90	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grade																			
Gold	g/t	2.27	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	6.98	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			
Gold	koz	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	koz	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mastra Underground																			
Ore Mined	kt	262	135	100	25	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Grade							ŭ	Ů	Ů					ŭ				ŭ	
Gold	g/t	5.15	5.4	5.1	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	5.10	4.9	5.8	3.3	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained	3.1																		
Gold	koz	43	23	16	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	koz	43	21	18	3	0	0	0	0	0	Ő	0	0	0	0	ő	ő	0	0
Processing		.0																Ū	
Ore Milled		758	280	451	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0
Gold Recovered		75	41	30	0	4	0	0	0	0	ő	ő	ő	0	ő	ő	ő	0	0
Silver Recovered		85	40	42	o o	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Costs		00	70	72	0		0	U	U	U	0	0	U	0	U	U	0		0
Mining Costs																			
Mastra Open Pit	\$000s	1,920	1,920	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mastra Underground	\$000s	20,276	10,785	7,225	2,129	138	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$000s	22,196	12,704	7,225	2,129	138	0	0	0	0	0	0	0	0	0	0	0	0	0
	,						,	,	,	,		-		,	-	-	-	,	
Mastra Open Pit	\$/t-ore	21.37	21.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mastra Underground	\$/t-ore	77.33	79.87	72.48	85.70	52.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	\$/t-ore	63.05	56.50	72.48	85.70	52.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Process, G&A								_	_	_	_	_	_		_	_	_	_	_
Mastra Mill	\$000s	20,066	7,147	11,567	576	777	0	0	0	0	0	0	0	0	0	0	0	0	0
G&A	\$000s	15,958	6,006	9,379	0	572	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$000s	36,024	13,153	20,946	576	1,349	0	0	0	0	0	0	0	0	0	0	0	0	0

	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Mastra Mill	\$/t-ore	26.47	25.52	25.66	0.00	28.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G&A	\$/t-ore	21.05	21.45	20.81	0.00	20.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	\$/t-ore	47.51	46.98	46.47	0.00	49.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capital Costs																			
Mining																			
Mastra Open Pit	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mastra Underground	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mastra UG Devel	\$000s	785	785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$000s	785	785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process, Owner																			
Mastra Mill	\$000s	83	25	24	24	10	0	0	0	0	0	0	0	0	0	0	0	0	0
G&A	\$000s	5,743	0	0	0	2,740	1,953	828	148	12	12	12	12	12	12	2	0	0	0
Subtotal	\$000s	5,788	25	24	24	2,750	1,953	828	148	12	12	12	12	12	12	2	0	0	0
Total	\$000s	6,611	810	24	24	2,750	1,953	828	148	12	12	12	12	12	12	2	0	0	0

2.4.3 Ovacık Unit Annual Cost Summary

Annual production, operating and capital costs for the Ovacık unit are shown in Table 2.4.3.1.

Table 2.4.3.1: LoM Ovacık Unit Economic Model Results (US\$000's)

	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Mining																			
Consolidated																			
Ore Mined	kt	11,560	939	378	640	1,539	737	1,065	951	787	806	1,733	729	528	243	199	210	75	0
Grade																			
Gold	g/t	4.35	4.6	4.8	4.5	4.5	5.0	4.9	4.8	4.1	4.9	3.3	4.5	4.2	3.3	3.4	3.3	3.6	0.0
Silver	g/t	2.51	1.5	1.6	1.7	1.5	1.7	1.6	1.5	1.3	1.5	8.4	1.5	1.2	1.2	8.0	1.3	1.1	0.0
Contained																			
Gold	koz	1,617	140	58	93	223	119	169	148	104	126	182	105	71	26	22	22	9	0
Silver	koz	932	46	19	34	72	41	54	45	33	39	467	35	20	9	5	9	3	0
Ovacik Underground																			
Ore Mined	kt	227	68	26	26	23	35	30	19	0	0	0	0	0	0	0	0	0	0
Grade																			
Gold	g/t	4.92	6.0	5.8	4.0	5.9	4.4	3.1	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	2.79	2.1	2.8	2.9	5.3	4.1	1.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			
Gold	koz	36	13	5	3	4	5	3	2	0	0	0	0	0	0	0	0	0	0
Silver	koz	20	4	2	2	4	5	1	1	0	0	0	0	0	0	0	0	0	0
Kubaşlar Open Pit																			
Ore Mined	kt	927	0	0	0	0	0	0	0	0	0	927	0	0	0	0	0	0	0
Grade																			
Gold	g/t	2.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	14.53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			
Gold	koz	69	0	0	0	0	0	0	0	0	0	69	0	0	0	0	0	0	0
Silver	koz	433	0	0	0	0	0	0	0	0	0	433	0	0	0	0	0	0	0
Çukuralan Open Pit																			
Ore Mined	kt	2,614	639	138	374	955	54	263	191	0	0	0	0	0	0	0	0	0	0
Grade																			
Gold	g/t	4.49	4.6	4.6	3.8	4.3	3.9	5.5	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	1.41	1.4	1.3	1.4	1.1	1.1	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			
Gold	koz	377	94	20	46	132	7	47	32	0	0	0	0	0	0	0	0	0	0
Silver	koz	118	28	6	17	34	2	18	14	0	0	0	0	0	0	0	0	0	0
Cukuralan Underground																			
Ore Mined	kt	7,793	232	214	240	561	648	773	742	787	806	807	729	528	243	199	210	75	0
Grade		,									-						-		
Gold	g/t	4.53	4.4	4.8	5.7	4.8	5.1	4.8	4.7	4.1	4.9	4.4	4.5	4.2	3.3	3.4	3.3	3.6	0.0
Silver	g/t	1.44	1.7	1.6	2.0	1.9	1.7	1.4	1.3	1.3	1.5	1.3	1.5	1.2	1.2	0.8	1.3	1.1	0.0
Contained																			
Gold	koz	1,135	33	33	44	87	107	119	113	104	126	114	105	71	26	22	22	9	0

	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Silver	koz	360	13	11	15	34	35	35	30	33	39	34	35	20	9	5	9	3	0
Çoraklik Tepe Open Pit																			
Ore Mined	kt	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grade															_				
Gold	a/t	_	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	_	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained	9,1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gold	koz	_	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	koz	_	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ő
Processing			Ū		Ŭ												Ť		Ť
Ore Milled	kt	13,278	864	864	864	864	864	864	864	864	864	864	864	864	864	864	864	318	0
Gold Recovered	koz	1,658	125	132	104	124	134	137	143	131	142	90	105	117	60	49	49	18	ő
Silver Recovered	koz	847	68	42	41	32	35	34	36	30	33	171	142	68	36	33	34	12	0
Operating Costs	ROZ	047	00	72	71	02	00	54	30	30	33	171	172	00	30	- 55	34	12	— <u> </u>
Mining																			
Ovacik Underground	\$000s	14,675	4,656	1,585	1,593	1,520	2,138	1,971	1,211	0	0	0	0	0	0	0	0	0	0
Kubaşlar Open Pit	\$000s	6,889	4,050	1,565	1,593	1,320	2,130	1,971	1,211	0	0	6,889	0	0	0	0	0	0	0
Çukuralan Open Pit	\$000s	104,611	16,190	14,769	17,864	16,296	17,001	16,631	5,859	0	0	0,009	0	0	0	0	0	0	0
Cukuralan Underground	\$000s	360,728	11,249	10,623	12,322	25,997	32,296	36,185	35,911	38,393	36,333	35,409	31,606	23,880	9,894	9,012	8,626	2,993	0
Çoraklik Tepe Open Pit	\$000s	300,720	11,249	10,023	12,322	25,997	32,290	30,163	0	30,393	0 30,333	35,409	31,000	23,000	9,094	9,012	0,020	2,993	0
Total	\$000s	486.903	32.095	26,977	31.778	43.813	51.436	54.787	42.981	38,393	36,333	42,298	31.606	23.880	9.894	9.012	8.626	2.993	0
1 4 44			. ,		60.65		- ,	- , -	,		0.00		- ,	- ,	- ,	- , -	-,	2,993 0.00	0.00
Ovacik Underground	\$/t-ore	64.68 7.43	68.77	60.99	0.00	65.38 0.00	60.68	66.71 0.00	64.17	0.00 0.00	0.00	0.00 7.43	0.00	0.00 0.00	0.00	0.00 0.00	0.00	0.00	0.00
Kubaşlar Open Pit	\$/t-ore		0.00	0.00			0.00		0.00			_	0.00		0.00		0.00		
Çukuralan Open Pit	\$/t-ore	40.03 46.29	25.34 48.39	106.87 49.68	47.76 51.40	17.07 46.32	316.01	63.34 46.83	30.67 48.43	0.00 48.76	0.00 45.06	0.00 43.90	0.00 43.37	0.00 45.23	0.00 40.78	0.00 45.29	0.00 41.00	0.00 40.01	0.00
Çukuralan Underground	\$/t-ore	40.29					49.84												
Çoraklik Tepe Open Pit	\$/t-ore	- 40.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Process, G&A	\$/t-ore	42.12	34.17	71.36	49.65	28.46	69.79	51.45	45.17	48.76	45.06	24.40	43.37	45.23	40.78	45.29	41.00	40.01	0.00
Ovacik Mill	\$000s	144,054	9,342	9,342	9,342	9,342	9,342	9,342	9,342	9,342	9,342	9,342	9,342	9,342	9,342	9,342	9,342	3,924	0
G&A	\$000s	333,780	22,610	18,455	20,548	27,767	21,253	23,920	23,099	21,937	22,089	32,286	21,468	19,862	17,580	17,230	17,322	6,353	0
Total	\$000s	477,834	31,952	27,797	29,890	37,109	30,595	33,262	32,441	31,279	31,431	41,628	30,810	29,204	26,922	26,572	26,664	10,277	0
Ovacik Mill	\$/t-ore	10.85	10.81	10.81	10.81	10.81	10.81	10.81	10.81	10.81	10.81	10.81	10.81	10.81	10.81	10.81	10.81	12.34	0.00
G&A	\$/t-ore	25.14	26.17	21.36	23.78	32.14	24.60	27.69	26.73	25.39	25.57	37.37	24.85	22.99	20.35	19.94	20.05	19.98	0.00
Total	\$/t-ore	35.99	36.98	32.17	34.60	42.95	35.41	38.50	37.55	36.20	36.38	48.18	35.66	33.80	31.16	30.76	30.86	32.32	0.00
Capital Costs Mining																			
Ovacik Underground	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ovacik UG Develop.	\$000s	386	0	0	0	0	0	386	0	0	0	0	0	0	0	0	0	0	0
Kukudere Open Pit	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Çukuralan Open Pit	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Çukuralan Underground	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Çukuralan UG Develop.	\$000s	32,914	598	911	3,720	2,133	5,171	4,397	5,443	4,854	2,556	1,354	1,344	432	0	0	0	0	0
Çoraklik Tepe OP Initial	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
subtotal	\$000s	33,300	598	911	3,720	2,133	5,171	4,784	5,443	4,854	2,556	1,354	1,344	432	0	0	0	0	0
Process, Owner																			
Ovacik Mill	\$000s	16,711	552	1,197	7,234	552	552	552	552	552	552	552	552	552	552	552	552	552	552
G&A	\$000s	18,486	0	0	734	24	24	24	3,762	7,500	3,221	816	852	1,112	309	36	36	24	12
Subtotal	\$000s	35,197	552	1,197	7,968	576	576	576	4,314	8,052	3,773	1,368	1,404	1,664	861	588	588	576	564
Total	\$000s	68,497	1.150	2,108	11,688	2.709	5,747	5,360	9,757	12,906	6,329	2,722	2.748	2.096	861	588	588	576	564

2.4.4 Kaymaz Unit Annual Cost Summary

Annual production, operating and capital costs for the Kaymaz unit are shown in Table 2.4.4.1.

Table 2.4.4.1: Kaymaz Unit Economic Model Results (US\$000's)

	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Mining Consolidated																			1
Ore Mined	kt	2,972	1,006	1,044	544	378	0	0	0	0	0	0	0	0	0	0	0	0	0
Grade																			1
Gold	g/t	4.62	3.2	4.6	7.1	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	5.32	4.6	5.1	7.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			1
Gold	koz	441.0	102	153	125	61	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	koz	508.2	149	170	129	61	0	0	0	0	0	0	0	0	0	0	0	0	0
Kaymaz Open Pit																			1
Ore Mined	kt	2,972	1,006	1,044	544	378	0	0	0	0	0	0	0	0	0	0	0	0	0
Grade																			1
Gold	g/t	4.62	3.2	4.6	7.1	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	5.32	4.6	5.1	7.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained	_																		i
Gold	koz	441	102	153	125	61	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	koz	508	149	170	129	61	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing Ore Milled	kt	3,039	907	907	830	395	0	0	0	0	0	0	0	0	0	0	0	0	0
Gold Recovered	koz	385	80	109	141	56	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver Recovered	koz	386	101	110	127	48	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Costs Mining																			1
Kaymaz Open Pit	\$000s	72,194	29,323	24,991	16,004	1,876	0	0	0	0	0	0	0	0	0	0	0	0	0
Akbaştepe Open Pit	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$000s	72,194	29,323	24,991	16,004	1,876	0	0	0	0	0	0	0	0	0	0	0	0	0
Kaymaz Open Pit	\$/t-ore	24.29	29.16	23.94	29.39	4.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Akbaştepe Open Pit	\$/t-ore	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	\$/t-ore	24.29	29.16	23.94	29.39	4.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Process, G&A																			1
Kaymaz Mill	\$000s	60,730	18,067	18,067	16,651	7,945	0	0	0	0	0	0	0	0	0	0	0	0	0
G&A	\$000s	27,355	8,165	8,165	7,474	3,551	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$000s	88,084	26,232	26,232	24,125	11,496	0	0	0	0	0	0	0	0	0	0	0	0	0
Kaymaz Mill	\$/t-ore	19.98	19.91	19.91	20.05	20.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G&A	\$/t-ore	9.00	9.00	9.00	9.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	\$/t-ore	28.98	28.91	28.91	29.05	29.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capital Costs Mining																			, T
Kaymaz Open Pit	\$000s	222	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Söğüt Open Pit	\$000s	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$000s	222	222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process, Owner																			, T
Mastra Mill	\$000s	1,866	0	326	420	420	420	280	0	0	0	0	0	0	0	0	0	0	0
G&A	\$000s	37,231	0	707	707	5,639	5,639	5,681	5,328	5,328	5,328	2,802	12	12	12	12	12	12	0
Subtotal	\$000s	39,097	0	1,033	1,127	6,059	6,059	5,961	5,328	5,328	5,328	2,802	12	12	12	12	12	12	0
Total	\$000s	39,319	222	1,033	1,127	6,059	6,059	5,961	5,328	5,328	5,328	2,802	12	12	12	12	12	12	0

2.4.5 Himmetdede Unit Annual Cost Summary

Annual production, operating and capital costs for the Himmetdede unit are shown in Table 2.4.5.1.

Table 2.4.5.1: Himmetdede Unit Economic Model Results (US\$000's)

Grade Gold Gold Gold Gold Gold Gold Gold Gold		Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Grade Gold g/t 0.74 0.9 0.8 0.7 0.7 0.7 0.0	Mining Consolidated		_																	
Gold Gold	Ore Mined	kt	26,077	3,046	6,038	5,941	6,034	4,464	554	0	0	0	0	0	0	0	0	0	0	0
Silver	Grade																			
Silver	Gold	g/t	0.74	0.9	0.8	0.7	0.7	0.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained Gold	Silver		-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver Koz - 0 0 0 0 0 0 0 0 0	Contained																			
Silver Koz - 0 0 0 0 0 0 0 0 0	Gold	koz	617.8	85	153	127	133	102	16	0	0	0	0	0	0	0	0	0	0	0
Ore Mined Kt 26,077 3,046 6,038 5,941 6,034 4,464 554 0 0 0 0 0 0 0 0 0	Silver	koz	-	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
Grade Gold Gold Gold Gold Gold Gold Gold Gold	Himmetdede Open Pit																			
Grade Gold g/t 0.74 0.9 0.8 0.7 0.7 0.7 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Ore Mined	kt	26,077	3,046	6,038	5,941	6,034	4,464	554	0	0	0	0	0	0	0	0	0	0	0
Silver gold koz 617.8 85 153 127 133 102 16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Grade		,	,	·															
Silver gold koz 617.8 85 153 127 133 102 16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gold	a/t	0.74	0.9	0.8	0.7	0.7	0.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained Gold	Silver		_	0.0	0.0	0.0	0.0	0.0							0.0	0.0	0.0			0.0
Silver Koz - 0 0 0 0 0 0 0 0 0	Contained	J																		
Silver Koz - 0 0 0 0 0 0 0 0 0	Gold	koz	617.8	85	153	127	133	102	16	0	0	0	0	0	0	0	0	0	0	0
Processing Ore Milled kt 26,109 3,078 5,961 6,000 6,000 4,516 554 0 <th< td=""><td>Silver</td><td>koz</td><td>-</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></th<>	Silver	koz	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ore Milled kt 26,109 3,078 5,961 6,000 6,000 4,516 554 0	Processing	_		-		_	_			_										
Gold Recovered koz 446 62 109 93 95 75 11 0 <td></td> <td>kt</td> <td>26.109</td> <td>3.078</td> <td>5.961</td> <td>6.000</td> <td>6.000</td> <td>4.516</td> <td>554</td> <td>0</td>		kt	26.109	3.078	5.961	6.000	6.000	4.516	554	0	0	0	0	0	0	0	0	0	0	0
Silver Recovered koz - 0		-						,			-						_	_		Ö
Operating Costs Mining Himmetdede Open Pit \$000s 118,020 19,469 24,608 23,443 23,134 23,612 3,754 0 <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>-</td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td>0</td>			-							_	-			-	-	-		-	-	0
Himmetdede Open Pit \$000s 118,020 19,469 24,608 23,443 23,134 23,612 3,754 0	Operating Costs Mining	-			-															
Himmetdede Open Pit \$/t-ore 4.53 6.39 4.08 3.95 3.83 5.29 6.78 0.00 0.0		\$000s	118,020	19,469	24,608	23,443	23,134	23,612	3,754	0	0	0	0	0	0	0	0	0	0	0
Total \$/t-ore 4.53 6.39 4.08 3.95 3.83 5.29 6.78 0.00	Total	\$000s	118,020	19,469	24,608	23,443	23,134	23,612	3,754	0	0	0	0	0	0	0	0	0	0	0
Process, G&A Himmetdede Mill \$000s 96,187 11,341 21,962 22,104 16,636 2,041 0	Himmetdede Open Pit	\$/t-ore	4.53	6.39	4.08	3.95	3.83	5.29	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Himmetdede Mill \$000s 96,187 11,341 21,962 22,104 22,104 16,636 2,041 0 0 0 0 0 0 0 0 0	Total	\$/t-ore	4.53	6.39	4.08	3.95	3.83	5.29	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Process, G&A																			
	Himmetdede Mill	\$000s	96.187	11.341	21.962	22.104	22.104	16.636	2.041	0	0	0	0	0	0	0	0	0	0	0
	G&A	\$000s	26.109						554	0	0	0	0		0	0	0	0	0	0
Total \$000s 122,296 14,419 27,923 28,104 28,104 21,151 2,595 0 0 0 0 0 0 0 0 0 0 0	Total		· · · · · · · · · · · · · · · · · · ·					,		0	0	0	0	0	0	0	0	0	0	0
Himmetdede Mill \$/t-ore 3.68 3.68 3.68 3.68 3.68 3.68 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Himmetdede Mill	\$/t-ore	3.68	3.68	3.68	3.68	3.68	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	G&A	\$/t-ore	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
																				0.00
Capital Costs		Ţ.o.o.o																		
Mining																				
	3	\$000s	761	401	270	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	\$000s	761	401	270	90	0	0	0	0	0	0		0	0	0	0	0	0	0
Process. Owner		,																		
		\$000s	13.708	2.154	3.616	4.344	2.112	1.368	114	0	0	0	0	0	0	0	0	0	0	0
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2.4.6 Mollakara Unit Annual Cost Summary

Annual production, operating and capital costs for the Mollakara unit are shown in Table 2.4.6.1.

Table 2.4.6.1: Mollakara Unit Economic Model Results (US\$000's)

	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Mining Consolidated																			
Ore Mined	kt	14,916	0	0	0	0	4,397	6,978	3,540	0	0	0	0	0	0	0	0	0	0
Grade																			
Gold	g/t	0.78	0.0	0.0	0.0	0.0	0.7	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	0.20	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			
Gold	koz	374.3	0	0	0	0	96	197	81	0	0	0	0	0	0	0	0	0	0
Silver	koz	97.9	0	0	0	0	28	54	16	0	0	0	0	0	0	0	0	0	0
Mollakara Open Pit																			
Ore Mined	kt	14,916	0	0	0	0	4,397	6,978	3,540	0	0	0	0	0	0	0	0	0	0
Grade																			
Gold	g/t	0.78	0.0	0.0	0.0	0.0	0.7	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	0.20	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained	_																		
Gold	koz	374.3	0	0	0	0	96	197	81	0	0	0	0	0	0	0	0	0	0
Silver	koz	97.9	0	0	0	0	28	54	16	0	0	0	0	0	0	0	0	0	0
Processing																			
Ore Milled	kt	14,397	0	0	0	0	2,825	5,573	6,000	0	0	0	0	0	0	0	0	0	0
Gold Recovered	koz	284	0	0	0	0	34	97	153	0	0	0	0	0	0	0	0	0	0
Silver Recovered	koz	10	0	0	0	0	2	4	4	0	0	0	0	0	0	0	0	0	0
Operating Costs Mining																			
Mollakara Open Pit	\$000s	46,038	0	0	0	0	19,667	17,549	8,821	0	0	0	0	0	0	0	0	0	0
Total	\$000s	46,038	0	0	0	0	19,667	17,549	8,821	0	0	0	0	0	0	0	0	0	0
Mollakara Open Pit	\$/t-ore	3.09	0.00	0.00	0.00	0.00	4.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	\$/t-ore	3.09	0.00	0.00	0.00	0.00	4.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Process, G&A																			
Mollakara Mill	\$000s	75,950	0	0	0	0	14,383	28,376	30,552	2,639	0	0	0	0	0	0	0	0	0
G&A	\$000s	14,916	0	0	0	0	2,825	5,573	6,000	518	0	0	0	0	0	0	0	0	0
Total	\$000s	90,866	0	0	0	0	17,207	33,949	36,552	3,157	0	0	0	0	0	0	0	0	0
Mollakara Mill	\$/t-ore	5.28	0.00	0.00	0.00	0.00	5.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G&A	\$/t-ore	1.04	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	\$/t-ore	6.31	0.00	0.00	0.00	0.00	6.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capital Costs																			
Mining																			
Mollakara OP	\$000s	762	0	0	0	699	64	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$000s	762	0	0	0	699	64	0	0	0	0	0	0	0	0	0	0	0	0
Process, Owner		-																	
Mollakara Mill	\$000s	94,347	0	0	0	94,347	0	0	0	0	0	0	0	0	0	0	0	0	0
G&A	\$000s	10,000	0	0	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	\$000s	104,347	0	0	10,000	94,347	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$000s	105,109	0	0	10,000	95,045	64	0	0	0	0	0	0	0	0	0	0	0	0

2.4.7 Akbaştepe Unit Annual Cost Summary

Annual production, operating and capital costs for the Akbaştepe unit are shown in Table 2.4.7.1.

Table 2.4.7.1: Akbaştepe Unit Economic Model Results (US\$000's)

	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Mining Consolidated																			i I
Ore Mined	kt	1,854	0	0	0	34	402	321	333	310	306	147	0	0	0	0	0	0	0
Grade																			1
Gold	g/t	15.05	0.0	0.0	0.0	14.3	17.6	10.4	12.0	17.4	15.9	18.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	0.96	0.0	0.0	0.0	1.6	1.4	0.9	8.0	0.9	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			1
Gold	koz	897.1	0	0	0	16	228	107	128	173	156	89	0	0	0	0	0	0	0
Silver	koz	57.1	0	0	0	2	18	9	9	9	9	3	0	0	0	0	0	0	0
Akbaştepe Open Pit																			i
Ore Mined	kt	347	0	0	0	34	312	0	0	0	0	0	0	0	0	0	0	0	0
Grade																			1
Gold	g/t	19.36	0.0	0.0	0.0	14.3	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	1.52	0.0	0.0	0.0	1.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			1
Gold	koz	215.7	0	0	0	16	200	0	0	0	0	0	0	0	0	0	0	0	0
Silver	koz	16.9	0.00	0.00	0.00	1.73	15.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Akbastepe Underground																			
Ore Mined	kt	1,507.27	0	0	0	0	90	321	333	310	306	147	0	0	0	0	0	0	0
Grade		,																	1
Gold	g/t	14.06	0.0	0.0	0.0	0.0	9.6	10.4	12.0	17.4	15.9	18.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Silver	g/t	0.83	0.0	0.0	0.0	0.0	0.9	0.9	0.8	0.9	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Contained																			1
Gold	koz	681.40	0	0	0	0	28	107	128	173	156	89	0	0	0	0	0	0	0
Silver	koz	40.25	0	0	0	0	2	9	9	9	9	3	0	0	0	0	0	0	0
Processing																			
Ore Milled	kt	1,859	0	0	0	0	180	360	360	360	360	239	0	0	0	0	0	0	0
Gold Recovered	koz	736	0	0	0	0	88	137	120	152	158	80	0	0	0	0	0	0	0
Silver Recovered	koz	43	0	0	0	0	6	10	8	8	8	3	0	0	0	0	0	0	0
Operating Costs Mining																			
Akbaştepe Open Pit	\$000s	15,420	0	0	0	7,971	7,449	0	0	0	0	0	0	0	0	0	0	0	0
Akbaştepe UG	\$000s	95,394	0	0	0	0	8,721	20,423	19,543	18,974	18,720	9,012	0			-	-		1
Total	\$000s	110,814	0	0	0	7,971	16,170	20,423	19,543	18,974	18,720	9,012	0	0	0	0	0	0	0
Akbaştepe Open Pit	\$/t-ore	8.29	0.00	0.00	0.00	232.17	23.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Akbaştepe UG	\$/t-ore	51.31	0.00	0.00	0.00	0.00	96.88	63.63	58.66	61.25	61.11	61.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	\$/t-ore	59.61	0.00	0.00	0.00	232.17	40.20	63.63	58.66	61.25	61.11	61.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Process, G&A	7	33.01	0.00	0.00	3.30			33.30	55.50	020	J	- · · · - ·	0.00	0.00	0.00	0.00	0.00	0.00	
Akbastepe Mill	\$000s	130,757	0	0	0	0	12,649	25,299	25,299	25,299	25,299	16,912	0	0	0	0	0	0	0
G&A	\$000s	13,943	0	0	ő	ő	1,350	2,700	2,700	2,700	2,700	1,793	0	0	0	0	0	0	0
Total	\$000s	144,699	0	0	0	0	13,999	27,999	27,999	27,999	27,999	18,705	0	0	0	0	0	0	0
Akbaştepe Mill	\$/t-ore	70.34	0.00	0.00	0.00	0.00	70.27	70.27	70.27	70.27	70.27	70.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00
G&A	\$/t-ore	70.34	0.00	0.00	0.00	0.00	7.50	7.50	7.50	7.50	70.27	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GaA	p/t-ore	7.50	0.00	0.00	0.00	0.00	7.50	0.1	7.50	7.50	7.50	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Units	Total or Avg.	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total	\$/t-ore	77.84	0.00	0.00	0.00	0.00	77.77	77.77	77.77	77.77	77.77	78.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capital Costs Mining																			i
Akbaştepe Mine Capital	\$000s	34,988	0	0	17,377	3,601	2,944	2,255	2,368	2,972	2,787	684	0	0	0	0	0	0	0
Subtotal	\$000s	34,988	0	0	17,377	3,601	2,944	2,255	2,368	2,972	2,787	684	0	0	0	0	0	0	0
Process, Owner		-																	·
Akbaştepe Mill	\$000s	85,430	0	0	25,884	43,090	16,456	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Akbaştepe Infrastructure	\$000s	9,590	0	0	0	0	600	4,590	1,200	1,200	1,200	800	0	0	0	0	0	0	0
Subtotal	\$000s	95,020	0	0	25,884	43,090	17,056	4,590	1,200	1,200	1,200	800	0	0	0	0	0	0	0
Total	\$000s	130,008	0	0	43,261	46,691	20,000	6,845	3,568	4,172	3,987	1,484	0	0	0	0	0	0	0

3 Conclusions and Recommendations

The analysis performed has resulted in favorable economics for the group of mining operations contained in this report. Commodity pricing for gold and silver always carry some risk when predicting future price scenarios.

Recommendations, opportunities and risks are mainly driven on the technical aspects of the resources, reserves, mine plans and processes and are addressed in the remaining volumes of this report.

4 Glossary

4.1 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.

4.2 Glossary of Terms

Table 4.2.1: 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).

5 Date and Signature Page

Signed on this 31st Day of January, 2015.

Endorsed by CP:

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Valerie Obie, BS Mining, MA, SME-RM

Reviewed by:

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Grant Malensek, PEng/PGeo

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.

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