



# Çöpler Gold Mine Site Tour

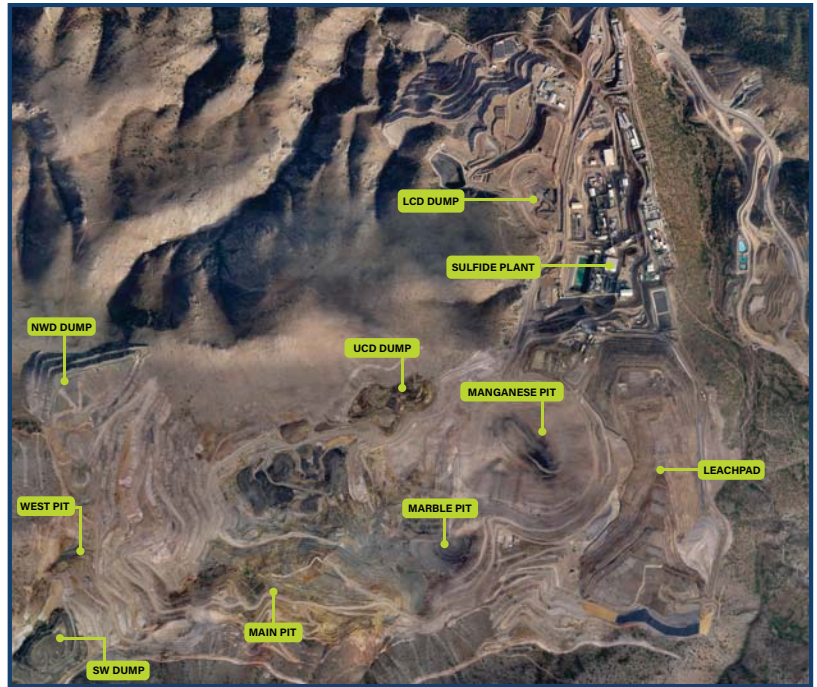
November 12-13, 2018

## OVERVIEW

Anagold operates an open pit mine to extract oxide ore for treatment on the heap leach pad and sulfide ore for treatment through the new sulfide pressure oxidation circuit.

Sulfide ore mined as part of the oxide operations is fed to the sulfide plant via layer cake stock piles to blend the ore. Sulfide ore mined in excess of plant requirements is stockpiled according to Au, sulfide and carbonate grade.

At the end of Q3 2018, the sulfide ore stockpiles were 10 million tonnes at an average grade of 3.27 g/t gold (approximately 1,062,998 contained gold ounces).



## MINING OPERATION

- Strategic mine planning optimizes the use of the orebody.
- Strategic and tactical stockpiling of sulfide ore optimizes the orebody value and reduces feed variability to the POX Plant.
- Staged open-pit development with 4 pits.
- 4 pits which contain both oxide and sulfide mineralization.

Drilling & blasting and loading & hauling is performed by a contractor.

- Bench height = 5 m
- Blast hole pattern = 3.25 m x 3.25 m
- Blast hole diameter = 102 mm

Grade control by gold, sulfide and carbonate assays from the blast holes are reconciled against the geological block model.

Mining activities are directed by Anagold shift engineers to ensure compliance with all company policies and government regulations.



## MINING FLEET DETAILS\*

- 142 Mercedes Haul Trucks (33 trucks: 38 t, 109 trucks: 43 t capacity)
- 3 Volvo Articulated Haul Trucks (40 t capacity)
- 17 CAT Excavators (5 m<sup>3</sup>)
- 3 CAT Excavators (2.5 m<sup>3</sup>)
- 3 CAT Excavators (2.41 m<sup>3</sup>)
- 3 CAT Excavators (1.76 m<sup>3</sup>)
- 6 Atlas Copco Drills
- 16 CAT Wheel Loaders
- 2 Volvo Wheel Loaders
- 8 CAT Graders
- 11 CAT Bulldozers
- 7 CAT Compactors
- 9 Mercedes Water Trucks
- 4 Mercedes Motorin Delivery Trucks
- 5 Maintenance Trucks
- 2 Lowbeds

\* Contract Fleet as of October 2018

## OVERVIEW

The process was designed to treat approximately 6.0 Mtpa of ore through a three-stage crushing circuit producing ore that is 80% passing 12.5 mm that is then agglomerated (with cement and water) to improve percolation and heap leaching performance. The agglomerated ore is stacked on a lined heap leach pad and dilute sodium cyanide solution is used to leach gold. Gold is recovered through a carbon-in-column (CIC) system, followed by stripping of gold and silver from carbon using a high-temperature, pressure elution process, and electrowinning to produce gold doré.

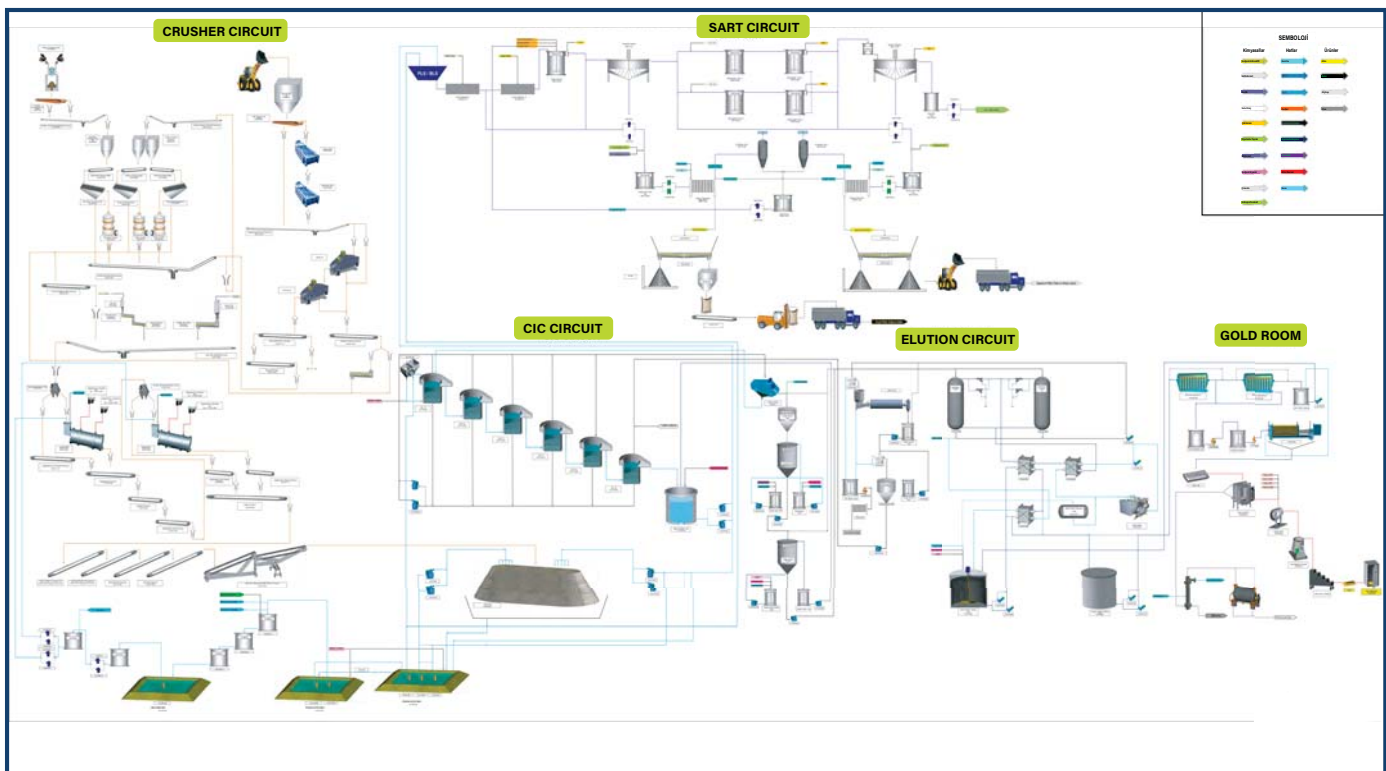
The SART plant was constructed and commissioned in 2014 to remove copper from the leaching solution. It is run as required and produces a small amount of copper.

The heap leach pad had 49 Mt stacked on it at the end of Q3 2018. Total capacity of the heap leach will be 58 Mt when the HLP4 expansion is finished in Dec 2018.

A scoping study has identified the opportunity expand the HL by approximately 20 Mt. Engineering is now progressing to feasibility study level for the HLP5 & HLP6 expansions to take the ultimate capacity to approximately 80 Mt.



## ÇÖPLER GOLD MINE PROCESS FLOW DIAGRAM





**Processing Capacity: 245 t/h of ore containing 4.8% S<sup>-2</sup> (Sulfide Sulfur)**

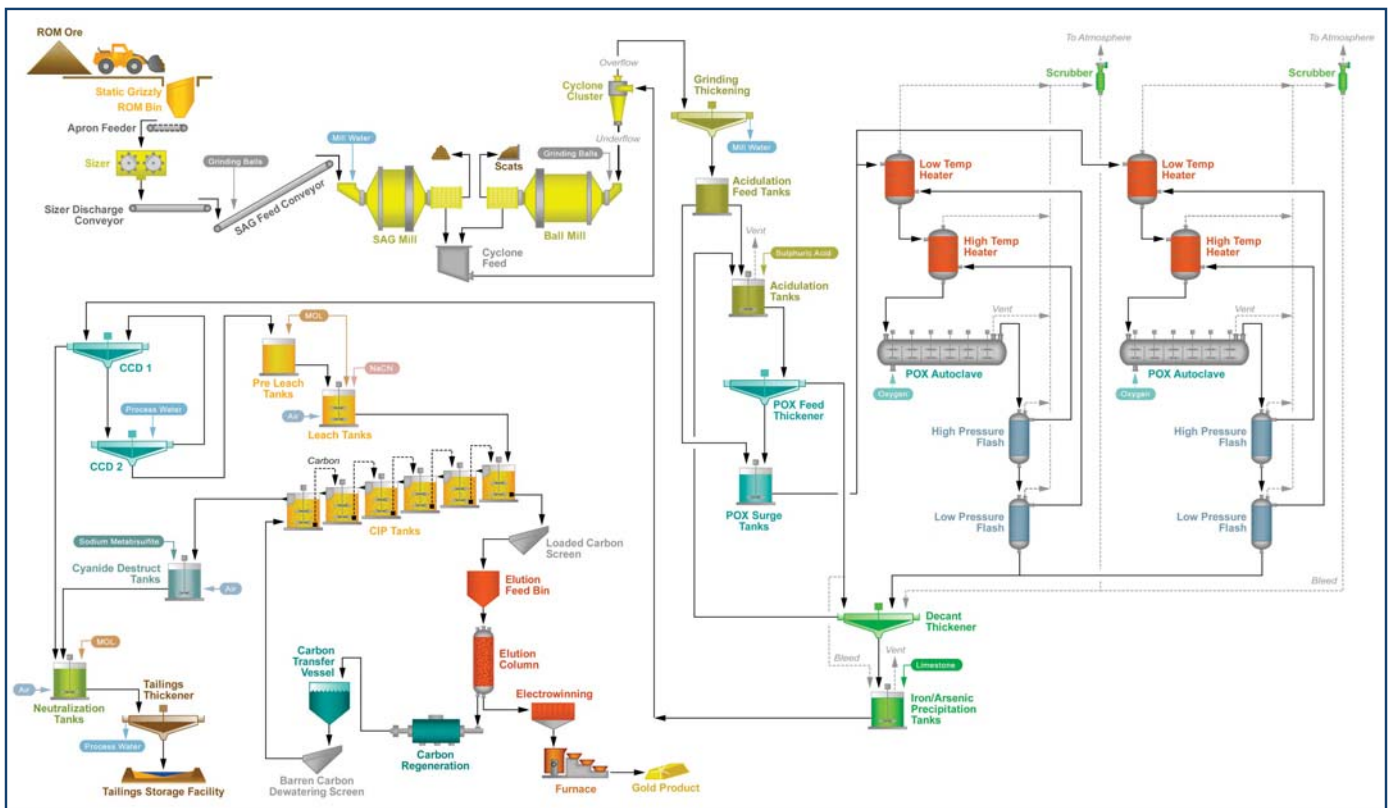
**Equivalent Sulfide Sulfur Oxidation Capacity of Pressure Oxidation Circuit: 11.76 t/h S<sup>-2</sup>**

## **Key design features included to maximize autoclave circuit operating time and efficiency:**

- A total of 30 hrs worth of slurry storage surge capacity exists between the grinding circuit and the autoclave circuit (12 hrs ahead of Acidulation, 18 hrs after Acidulation). A one day, 24 hr shutdown of the crushing and grinding circuit can be tolerated before Autoclave Circuit throughput or operating time is impacted.
- Each autoclave train is designed to operate at **150%** of its normal throughput (184 t/h vs 122.5 t/h) when the other autoclave train is off-line.
- All major surge storage and reaction tanks in the Acidulation, Iron/Arsenic Precipitation, Leach, CIP, and Tailings Detoxification and Neutralization circuits are piped to allow any tank to be bypassed for maintenance or descaling without shutdown or throughput restrictions in the respective circuits and plant.

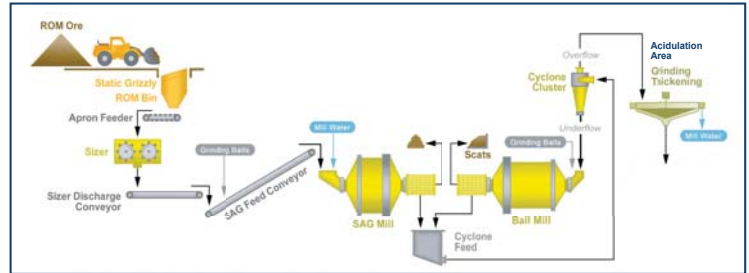
The autoclave preheaters are designed to operate at above the design requirements. This provides upside to potentially treat lower sulfide grades and provides the engineers extra optionality to optimise the autoclave performance.

In 2021, sulfide sulfur grade of ore is scheduled to decline by ~10% from the design grade, allowing an increase in forecast annual throughput to 2.2 Mt/a of ore following the implementation of potential debottlenecking modifications to the plant for which ~\$14M in sustaining capital is estimated.



## PROCESS DESCRIPTION

Run Of Mine (ROM) ore is fed to the hopper with a front-end loader through a fixed 500 mm grizzly. The -500 mm ore is processed through an MMD 750 toothed roll sizer, producing -250 mm feed for grinding, which is transferred via two conveyors to the SAG mill.



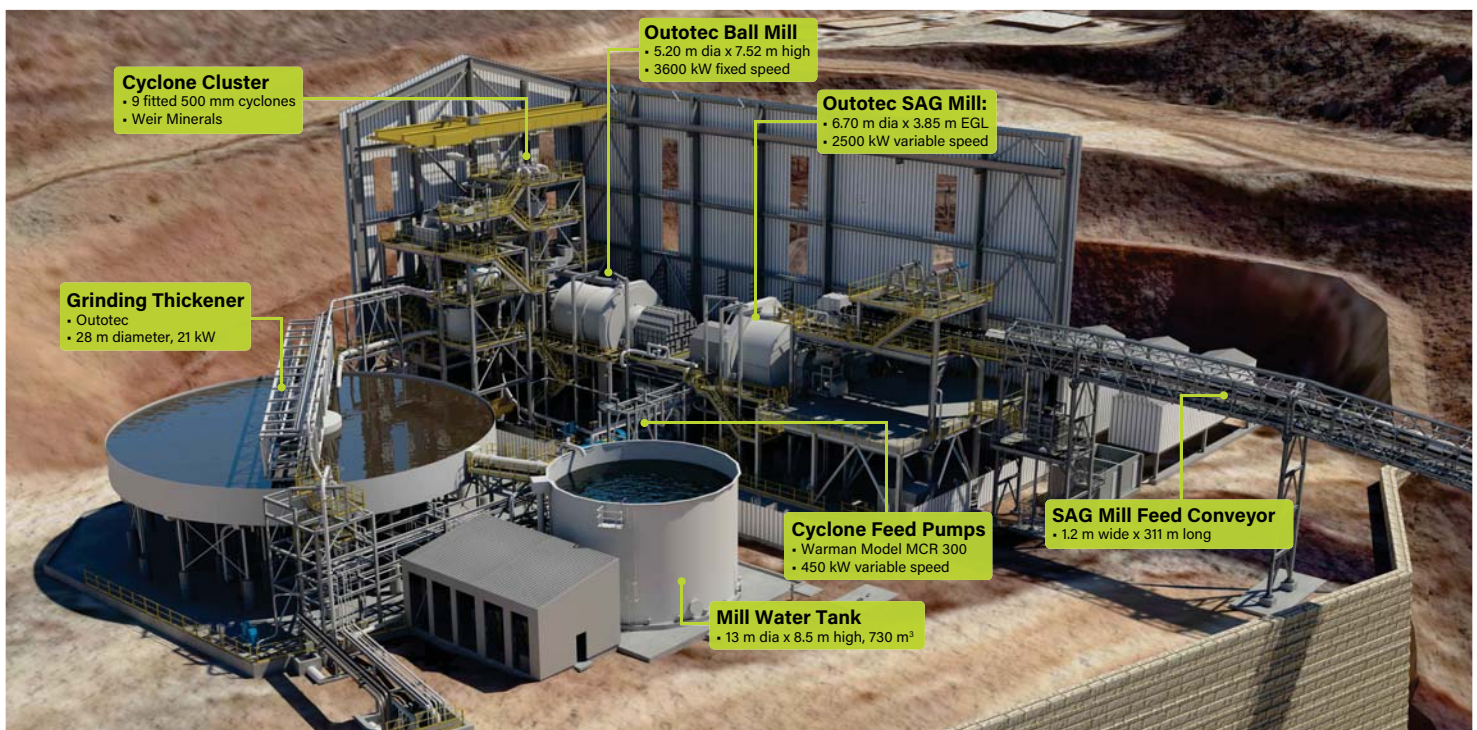
The SAG mill reduces the ore to -12 mm at an expected 80% passing size (P80) of 1400 microns. SAG mill pebbles are normally recycled to the SAG mill through a water jet return trumpet in the center of discharge trommel but, if desired, can be discharged to the pebble conveyor and outdoor stockpile. The SAG mill discharge combines with the ball mill discharge and is pumped to the Cyclone cluster. Final ground ore with a design particle size of 80% passing 100 microns reports to the cyclone overflow, while the coarser material is discharged from the cyclone underflow and returned to the ball mill for additional grinding.

Cyclone overflow slurry flows to the grinding thickener and thickened to approximately 45% solids and then pumped to the two Acidulation Feed tanks. Overflow water from the thickener is collected for reuse.

## KEY PROCESS/EQUIPMENT DESIGN CRITERIA

- Nominal design throughput for circuit is nameplate of 245 t/h plus 25% design margin.
- Apron Feeder and MMD sizing as well as conveyor belt widths were dictated by maximum ore lump size, not throughput, which provides inherent excess capacity in this equipment.
- Temporary chute and finer 300 mm grizzly panels can be used to maintain operation while MMD is out of service for maintenance.
- Mill power based on 245 t/h with ore at the 80<sup>th</sup> percentile of tested hardness factors and managed with ore blending.
- Floor sump is a drive-in ramp sized for a CAT 980 front end loader to facilitate rapid clean-up of any major spillage event.

## GRINDING EQUIPMENT & AREA LAYOUT

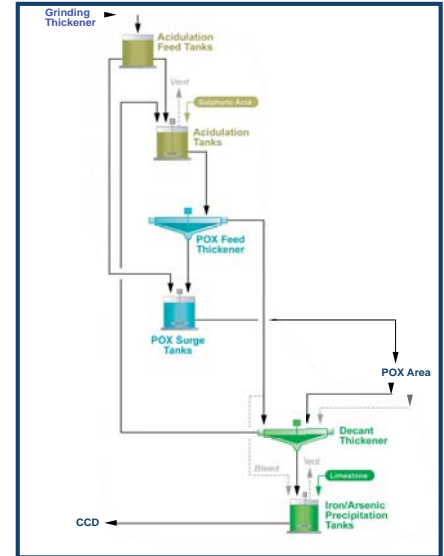


# ACIDULATION & IRON ARSENIC PRECIPITATION AREA

## PROCESS DESCRIPTION

In the Acidulation circuit, acid produced in the autoclaves and recovered in the decant thickener is used to selectively destroy a portion of the carbonate content of the ground ore before feeding the autoclaves. This ensures that the desired free acid concentration and iron chemistry is achieved in the autoclaves. The circuit also provides significant surge storage capacity between the grinding and autoclave circuits.

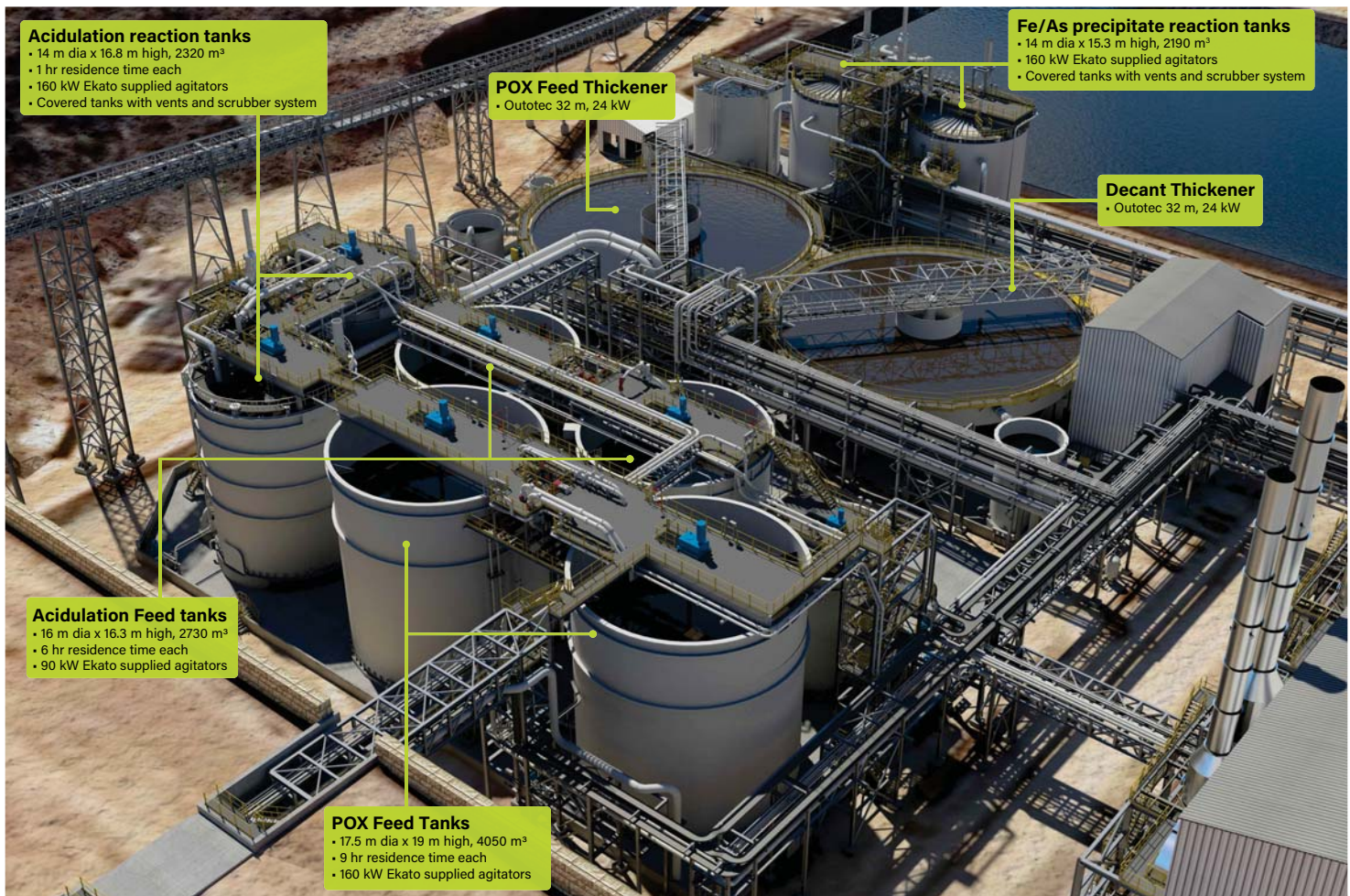
In the Iron/Arsenic (Fe/As) precipitation circuit, excess acid in decant thickener products is neutralized and a majority of the contained iron and arsenic is precipitated as environmentally stable ferric arsenate using locally sourced limestone as a low-cost neutralization agent, all while limiting the precipitation of copper from solution.



## KEY PROCESS/EQUIPMENT DESIGN CRITERIA

- Total surge capacity between grinding and autoclave circuits is 30 hrs (12 hours ahead of Acidulation and 18 hours between Acidulation and Autoclaves).
- To facilitate descaling the Acidulation and Fe/As precipitation tanks include descaling hatches around the periphery of roofs and bobcat access doors at the bases to facilitate descaling.

## ACIDULATION AND IRON/ARSENIC PRECIPITATION AREA LAYOUT

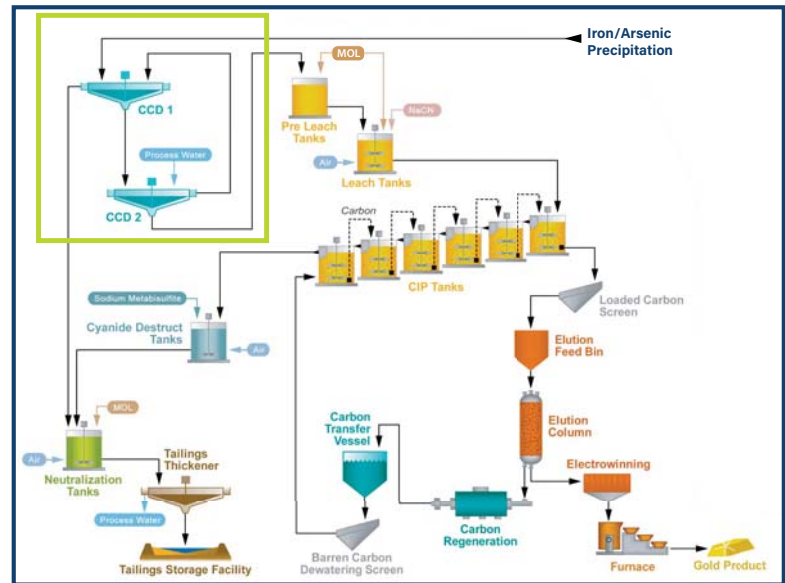


## PROCESS DESCRIPTION

After the Iron/Arsenic Precipitation process, the Counter Current Decantation (CCD) circuit uses a large volume of Process Water (~1350 m<sup>3</sup>/hr) to wash copper and any residual iron remaining in solution from the oxidized ore.

Removing these minerals before the ore is fed into the Leach circuit reduces cyanide consumption rates.

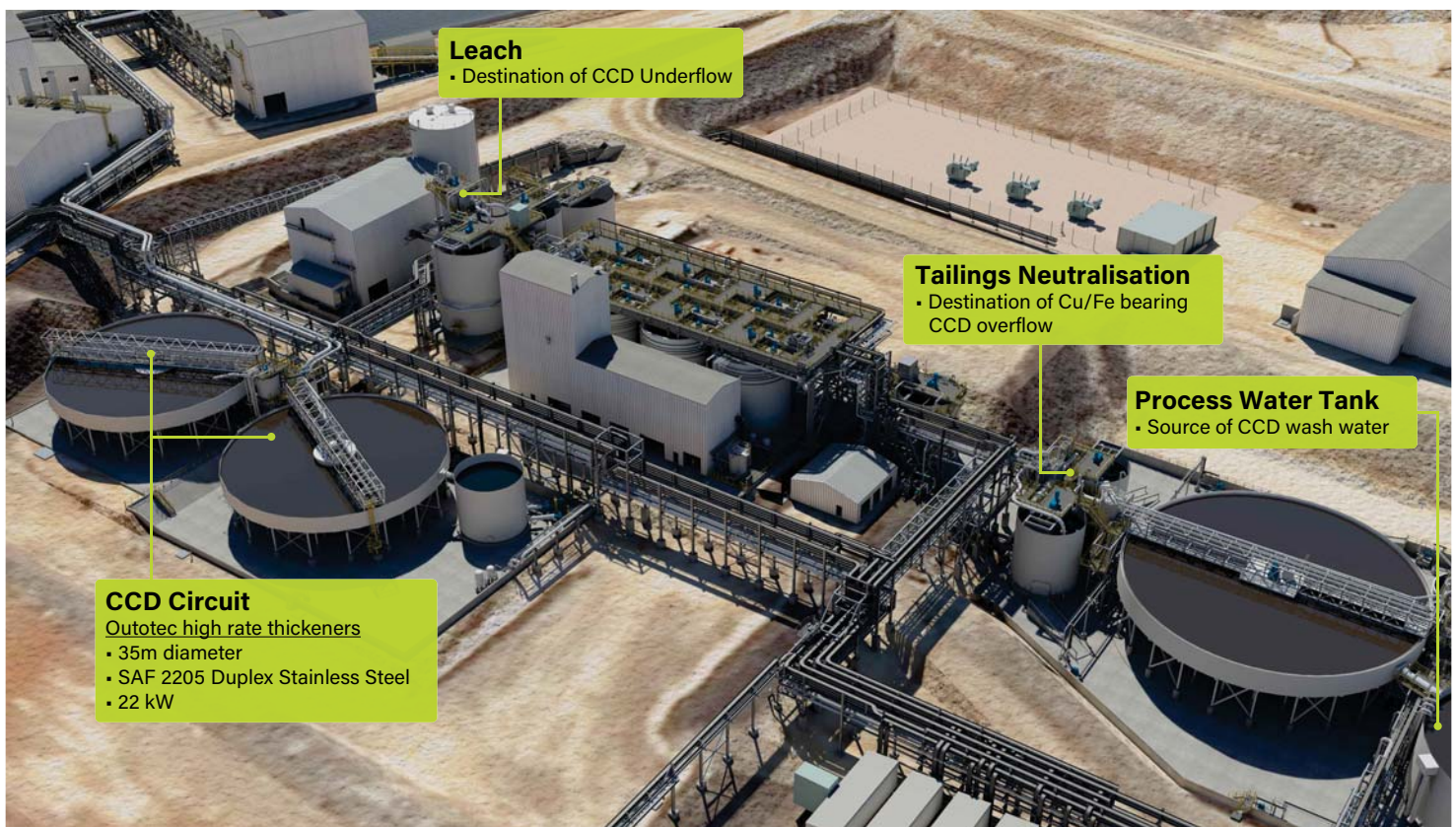
The circuit is configured as a typical two-stage counter current thickening circuit.



## KEY PROCESS/EQUIPMENT DESIGN CRITERIA

A high wash ratio (wash water flow vs water content in thickener underflow) allows for efficient washing of copper from the oxidized ore using two stages of CCD thickening. The high wash ratio flow of process water also provides an additional benefit by cooling the product from Iron Arsenic Precipitation from ~68°C to ~43°C, which improves carbon adsorption performance in CIP. Space was left in the plant layout for possible future installation of a copper recovery circuit or a third CCD thickener.

## CCD AREA LAYOUT



# POX AREA

## PROCESS DESCRIPTION

Acidulated ore from the POX Feed Surge Tanks undergoes two stages of preheating (to 95°C and then 150°C) utilizing steam generated in the two stages of pressure letdown of the autoclave discharge through high and low temperature flash vessels.

Preheated feed slurry is pumped by a pair of Geho positive displacement pumps to the autoclave. In the autoclave, gaseous oxygen is sparged under the agitator impellers, diffuses into the slurry, and reacts with the sulfide minerals creating heat and acid. Quench water is also added through the same spargers to control compartment temperature.

The first compartment is larger than the subsequent compartments with three agitators and half the total volume of the autoclave to ensure sufficient heat and acid is generated to achieve and maintain the required operating temperature and acid conditions.

Carbon dioxide gas (generated from acid reaction with the carbonate minerals) and residual unreacted oxygen is vented from the autoclave through a pressure control valve into the venturi scrubber, which also scrubs excess flashed steam not consumed in the preheaters.

Oxidized slurry from the autoclave is discharged through the two stages of flash vessels and is then pumped to the Decant thickener.

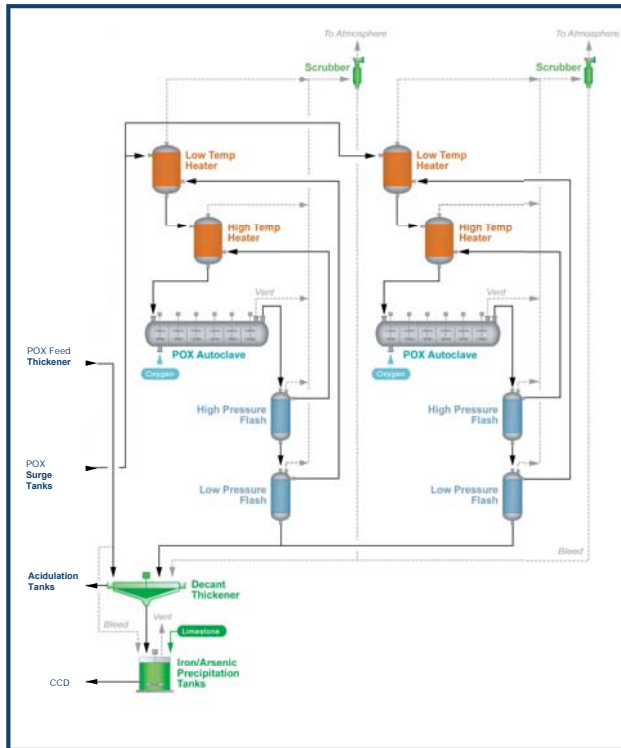
## POX EQUIPMENT AND AREA LAYOUT

Each POX train includes:

- Horizontal autoclave, carbon steel shell, acid brick lined, 4.97 m dia inside steel, 4.46 m dia inside brick, 29.1 m long, with 6 agitators (Ekato supplied) in 4 compartments
- High Temperature Flash Vessel, carbon steel shell, acid brick lined, 5.5 m dia., 9.4 m tall
- Low Temperature Flash Vessel, carbon steel shell, acid brick lined, 6.1 m dia, 10.2 m tall
- Brick lining of autoclaves and flash vessels supplied and installed by Koch Knight
- Venturi scrubber, Super Duplex Stainless Steel construction, 1.6 m dia
- Pressure Relief – Safety scrubber, Super Duplex Stainless Steel construction, 3.77 m dia
- Low Temperature Preheater, Duplex Stainless Steel construction, 2.7 m dia. x 17 m tall
- High Temperature Preheater, Super Duplex Stainless Steel construction, 2.7 m dia. x 17 m tall
- Two Positive Displacement Autoclave Feed pumps, Geho model ZPM 800, 260 kW

Each of the autoclave and flash vessels were brought to site in three pieces with final weld assembly performed on site in position. Carpenteria Corsi S.r.l, based in Italy, performed both the shop fabrication and site assembly of the vessels. All works and testing results are reviewed by a Notified Body (NoBo) to receive CE certification.

## KEY PROCESS/EQUIPMENT DESIGN CRITERIA



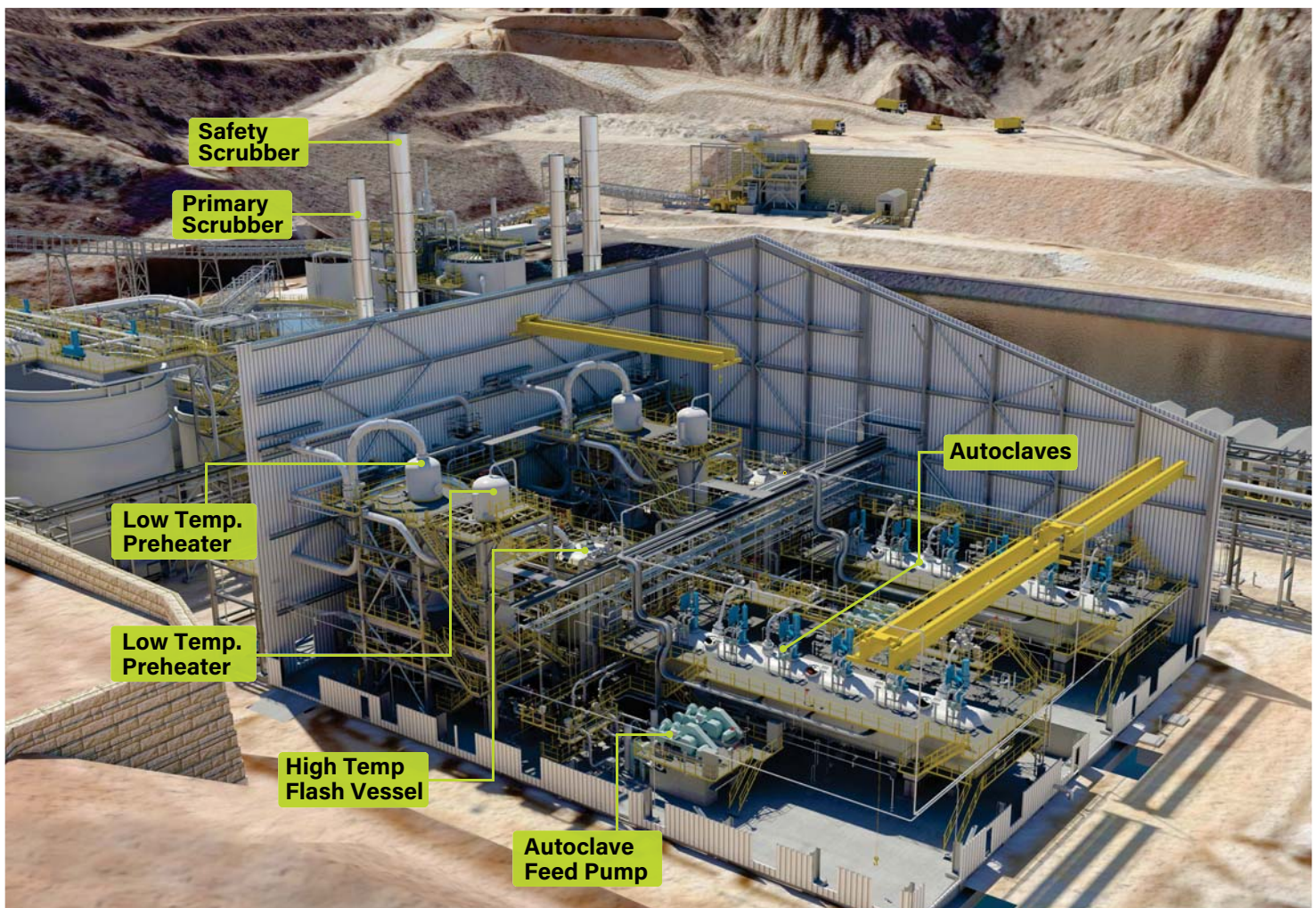
Normal nameplate capacity of each train (when both trains are on-line) is 122.5 t/h ore with 4.8%  $S^{2-}$  sulfur (5.88 t/h  $S^{2-}$  sulfur).

Design capacity of each train (when other train is off-line) is 184 t/h ore with 4.8%  $S^{2-}$  sulfur (8.82 t/h  $S^{2-}$ ).

Autoclave operating conditions are 220°C, 3150 kPag and 20 – 25 g/L free  $H_2SO_4$  in discharge solution.

Oxygen utilization is 85%.

High Temperature Flash Vessels and Preheaters designed for operation at up to 170°C if necessary to autogenously treat low sulfur ore down to ~3.2%  $S^{2-}$ . This extra design feature makes the autoclaves more capable to treat lower sulfur grade or more metallurgically complex ore than expected. It also provides upside potential.

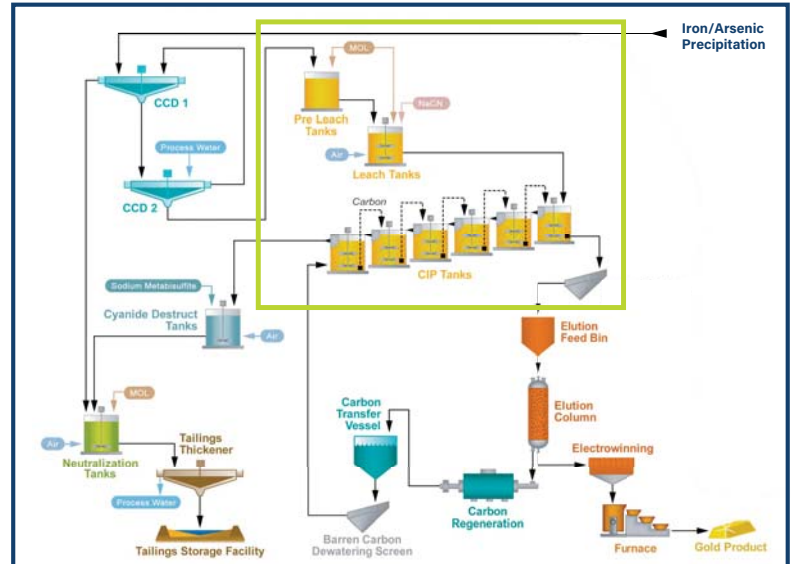


## PROCESS DESCRIPTION

In the Leach circuit, liberated gold is leached from the washed oxidized ore with cyanide.

In the Carbon In Pulp (CIP) circuit, leached gold is loaded onto activated carbon granules.

The loaded carbon is then advanced to the Carbon Elution circuit for final gold recovery.



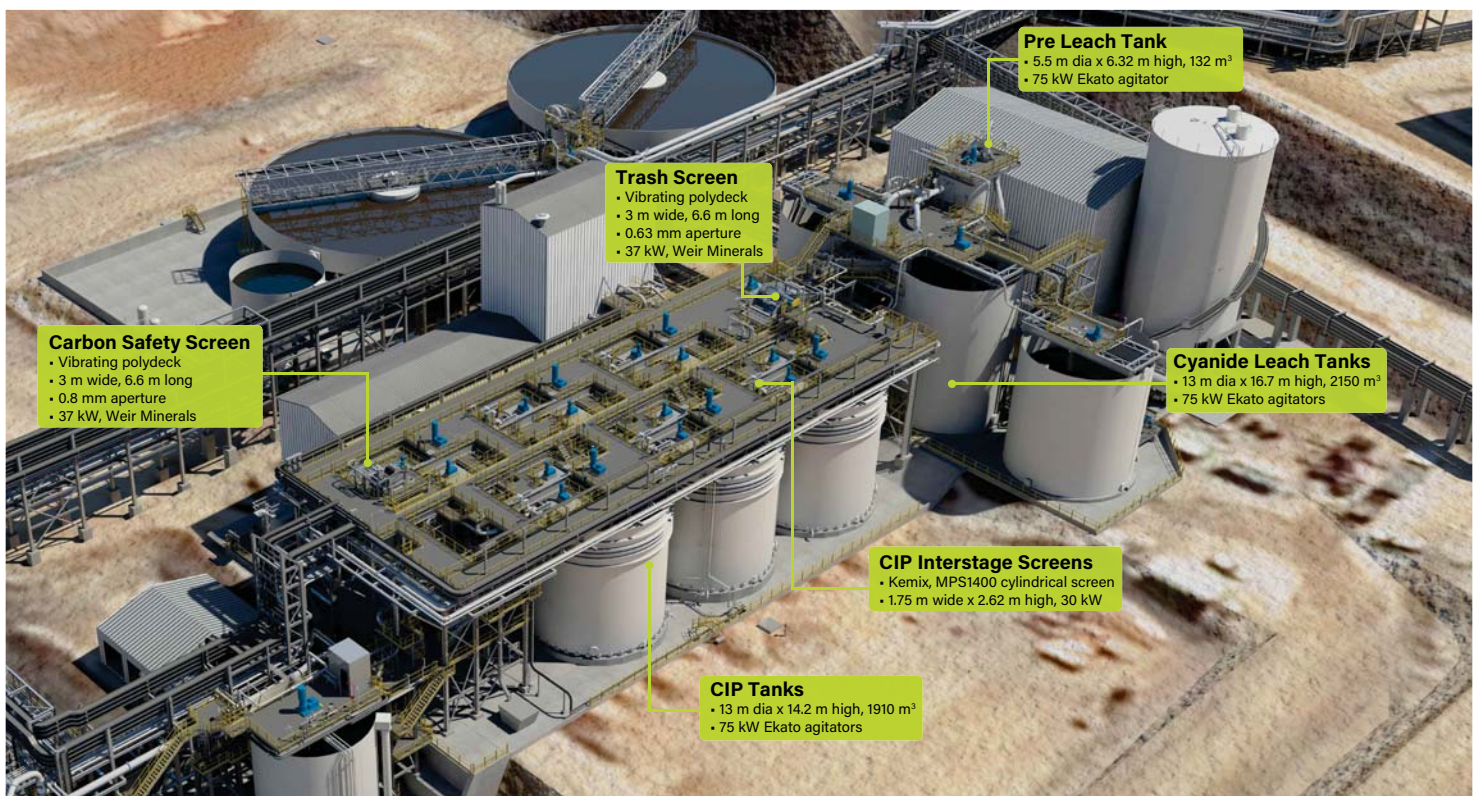
## KEY PROCESS DESIGN CRITERIA

Total circuit residence time of 18 hrs (6 hrs per tank) is sufficient to complete gold leaching from oxidized ore, and CIP stage residence time of 12 hrs (2 hrs per tank) is sufficient for efficient gold adsorption from solution onto carbon.

Each CIP tank has positions for two interstage screens. The cleaned rotatable spare screen can be installed and started in each tank before the operating screen is removed for cleaning. This eliminates the need to bypass CIP tanks for interstage screen cleaning.

The circuit is equipped with an overhead gantry crane for interstage screen removal and transport to a dedicated cleaning station away from the tanks, which mitigates the risk that near-size particles cleaned from the screens falling back into the tank and re-blind the screens.

## CYANIDE LEACH & CIP AREA LAYOUT

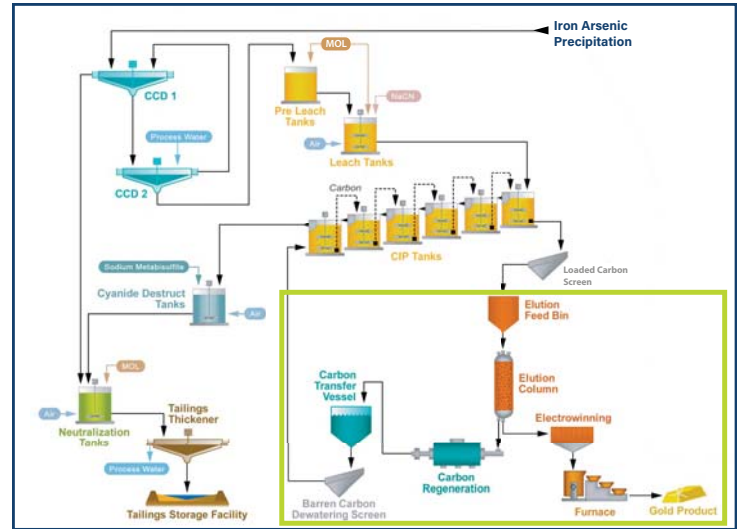


## PROCESS DESCRIPTION

In the Carbon Elution circuit, gold which has been recovered on carbon in the CIP circuit, is stripped from that loaded carbon and concentrated in a high grade eluate (electrolyte) solution.

The eluate solution is then processed through three electrowinning cells. Gold is recovered as a sludge from those cells and refined to dore bars in the oxide refinery facility.

Barren carbon is regenerated in a diesel fired rotary kiln before being returned to the CIP circuit.



## KEY PROCESS/EQUIPMENT DESIGN CRITERIA

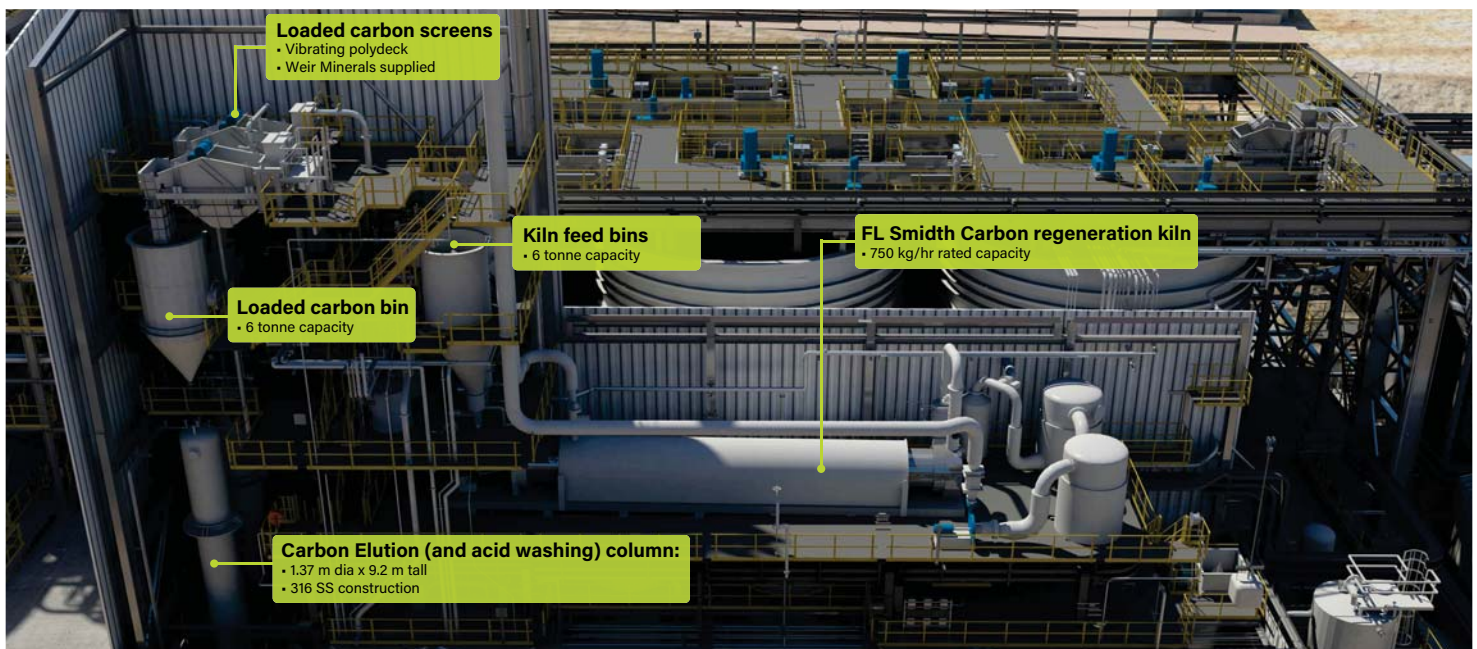
Loaded carbon is processed in 6 tonne batches. The design allows for processing up to three batches per day (18 t/d), but two batches per day (12 t/d) will normally be sufficient.

The elution sequence includes:

- A dilute nitric acid wash to remove scale.
- An optional cold cyanide elution, if required to remove and recover copper prior to gold elution. (Cold cyanide eluate, if produced, will be processed in the existing oxide SART plant).
- Gold elution utilizing a split AARL elution process.
- Electrowinning of the pregnant eluate solution for recovery of gold as a sludge.
- Refining of that sludge to bullion bars in the oxide refinery.

Acid washing and gold elution are both conducted in the same 6 tonne vessel, limiting the number of carbon transfers required and associated carbon damage (loss).

## ELUTION AREA LAYOUT

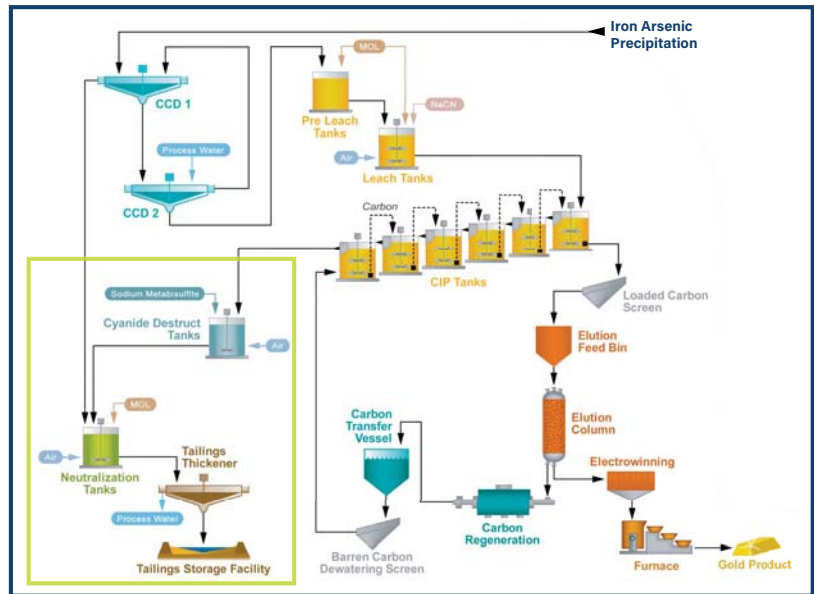


## PROCESS DESCRIPTION

In the Tailings Treatment circuit, cyanide contained in CIP tailings is chemically destroyed to detoxify the slurry.

Any remaining copper and other metal salts are also neutralized and precipitated as environmentally stable hydroxides.

The tailings is thickened and process water is recovered for re-use in the plant, and the final detoxified, neutralized and thickened tailings is pumped 4.3 km to the Tailings Storage Facility.

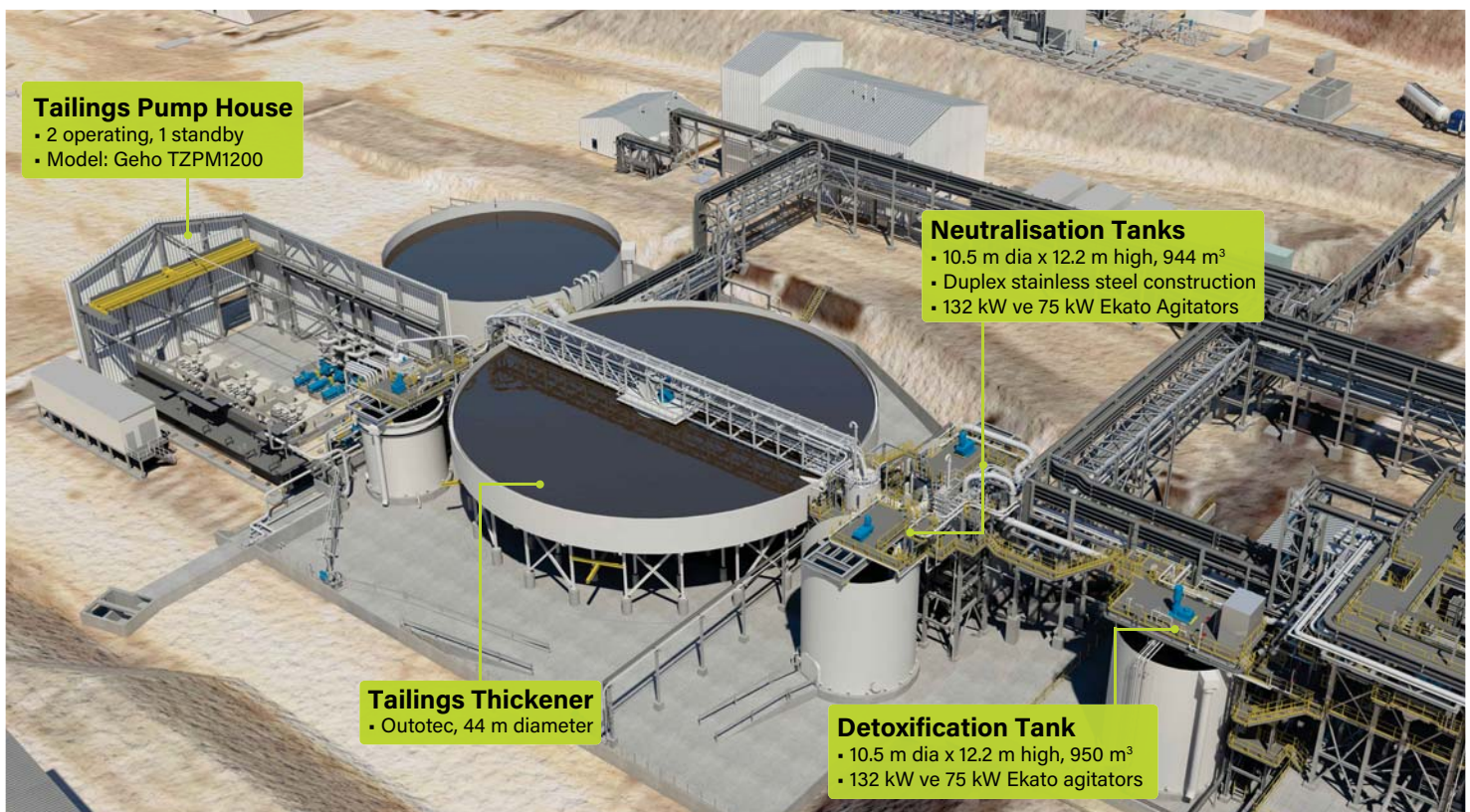


## KEY PROCESS/EQUIPMENT DESIGN CRITERIA:

Detoxified tailings weak acid dissociable cyanide (WAD CN) content <5 ppm (versus regulatory limit of 10 ppm WAD CN).

The first neutralization tank can operate as the detoxification step, allowing for the detoxification tank or either of the neutralization tanks to be bypassed for maintenance or descaling while maintaining full circuit operation and throughput.

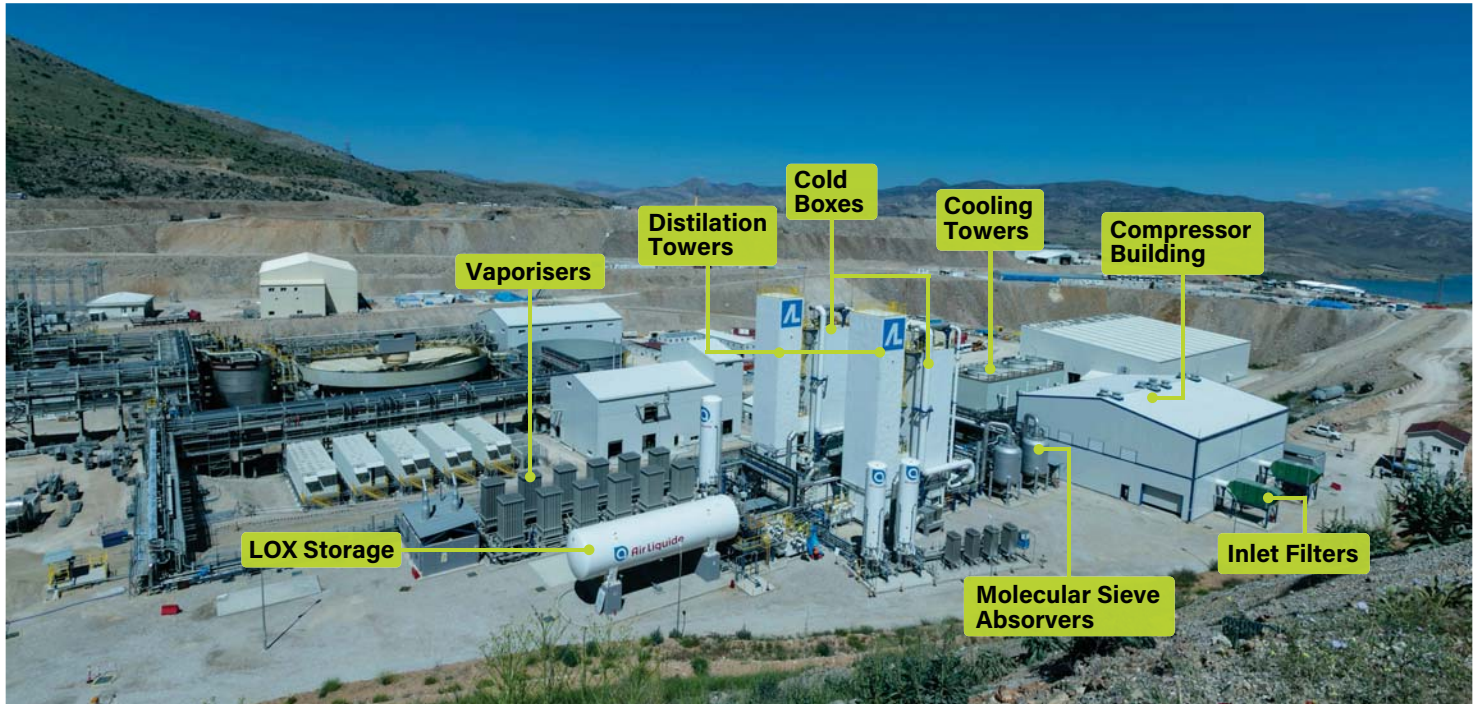
## TAILINGS TREATMENT AREA LAYOUT



## FACILITY DESCRIPTION

The Çöpler Oxygen Plant is a standard Air Liquide owned and operated facility which will supply gaseous oxygen to the Pressure Oxidation circuit “over the fence” under the terms of a long-term gas supply agreement.

## OXYGEN PLANT EQUIPMENT



## PROCESS DESCRIPTION

The O<sub>2</sub> plant includes two independent Air Separation Units (ASUs), each with a design capacity of 10,000 Nm<sup>3</sup>/hr of contained O<sub>2</sub> in gaseous oxygen (GOX) at ≥98% O<sub>2</sub>. Total plant capacity is 20,000 Nm<sup>3</sup>/hr, or 686 t/d of contained O<sub>2</sub>, delivered to the Pressure Oxidation circuit supply pipeline at a pressure of 3600 kPag. The ASU trains utilize “Pumped LOX cycle” technology in which gaseous oxygen is produced at delivery pressure by vaporizing liquid oxygen (LOX) in a heat exchanger against a side stream of the inlet air at a boosted pressure. An oxygen compressor, which have on occasion been troublesome components of other oxygen plants, is not required. The plant includes liquid oxygen storage, which can be used for temporary back-up supply of 10,000 Nm<sup>3</sup>/hr GOX in the event of a short duration trip of one or both of the ASU trains by vaporization through the ambient vaporizer tube system at the south end of the O<sub>2</sub> plant. The design allows for a seamless transition to backup LOX.

Each 10,000 Nm<sup>3</sup>/hr ASU train is a standard Air Liquide basic design (they call them a “Sigma” plant) which they have installed and operated at tens of locations world-wide, with minor modifications to specifically suit the requirements of the Çöpler Pressure Oxidation circuit. These modifications include:

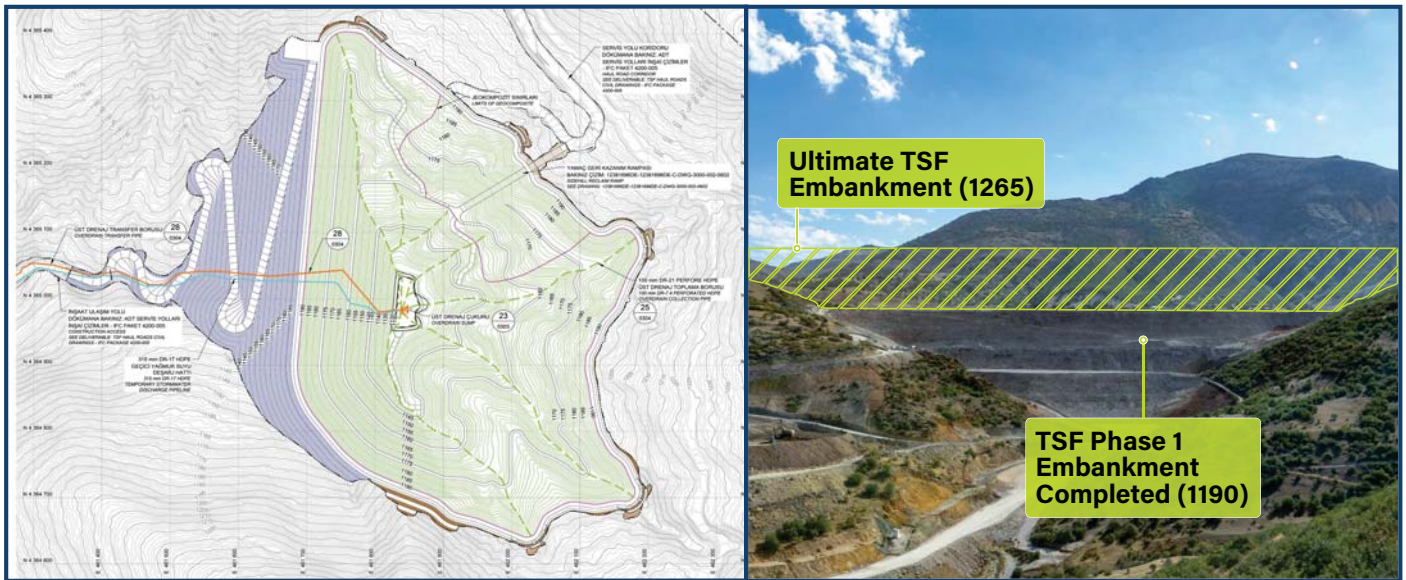
- Inlet air quality specifications appropriate for the Çöpler site.
- Our battery limit GOX delivery system pressure of 3600 kPag.
- Back-up LOX storage at delivery pressure.

Total oxygen plant capacity of 20,000 Nm<sup>3</sup>/hr includes an approximately 12% design margin over the 17,350 Nm<sup>3</sup>/hr theoretically necessary to process 11.76 t/hr of S<sup>-2</sup> sulfur at an 85% oxygen utilization. This is potential production upside for the autoclave actual oxygen consumption will vary over the life of the operation with S<sup>-2</sup> sulfur and carbonate grades as well as autoclave operating times.

## FACILITY DESCRIPTION

The Çöpler Tailings Storage Facility (TSF) is located in a tributary canyon on the eastern side of the mine, approximately 4.3 km from the POX plant site. The TSF is designed to provide capacity for the disposal of 45.9 Mt of tailings over the currently projected 20-year life of the operation.

The TSF will be a fully lined impoundment with a compacted earth and rock fill embankment. It will be constructed in a total of 6 phases, or lifts, to progressively higher elevations over the life of the operation. Phase 1, has an embankment elevation of 1190 m. The final height of phase 6, scheduled for completion in 2035, will have an embankment elevation of 1265 m.

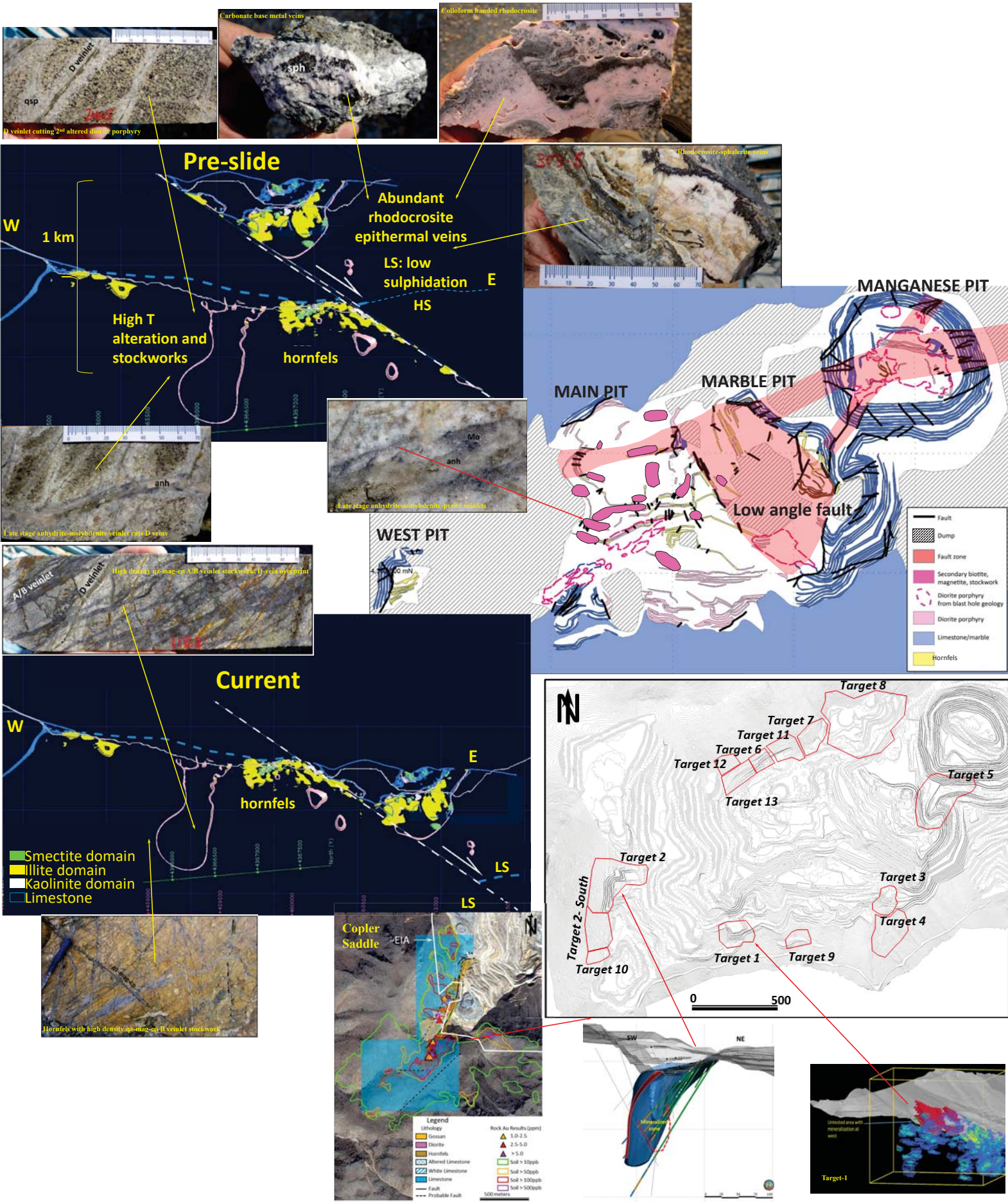


## PRIMARY DESIGN COMPONENTS

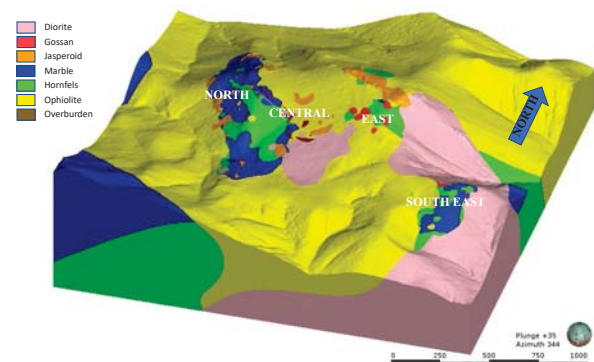
- Phased compacted earth and rock fill embankment (on western side of canyon).
- Composite geomembrane-geosynthetic clay liner (GCL) system, with textured HDPE final liner on top.
- Two-layer granular filter protection system for embankment.
- An impoundment gravity flow underdrain system and collection pond for any ground water from under the liner system.
- An impoundment gravity flow overdrain system, collection pond, and pump system to return water to the process.
- Perimeter roads and benches, on which the tailings distribution, piping and deposition will be placed.
- A sidehill rail tailings water reclaim pumping system for phases 1 & 2, which is planned to be replaced with a floating barge pump reclaim from phase 3 on.

The planned construction schedule for the TSF phases provides for a residual minimum freeboard allowance of 1 m above the stored tailings and water to contain a projected maximum precipitation event.

Mine planning and TSF construction has been completed considering an increase to autoclave (sulfide plant) through put above design to ensure it is not a bottleneck.



# ÇAKMAKTEPE DEPOSIT

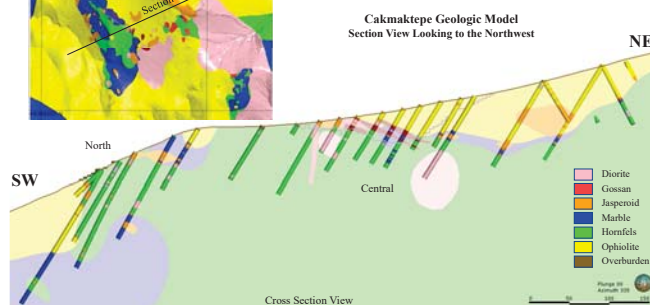
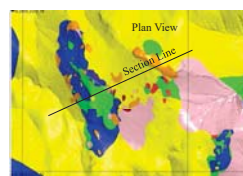
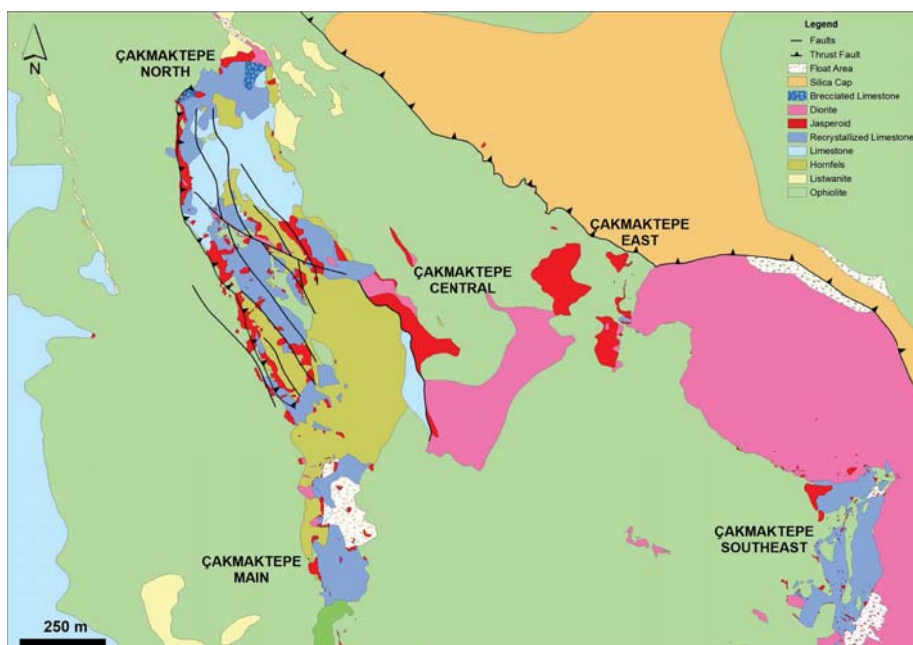
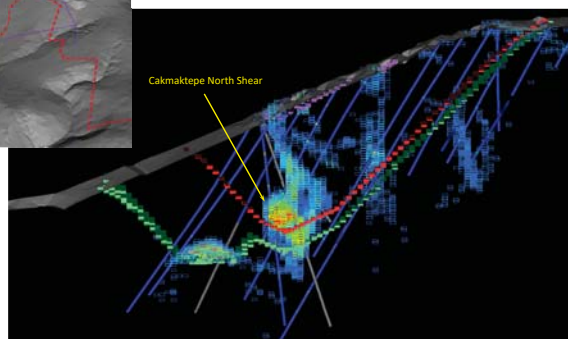
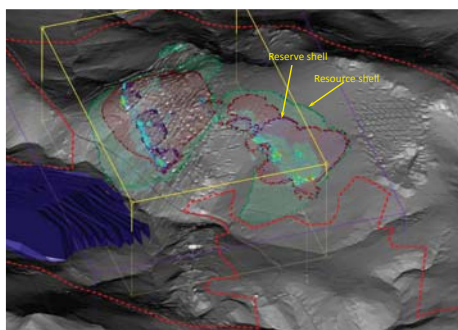
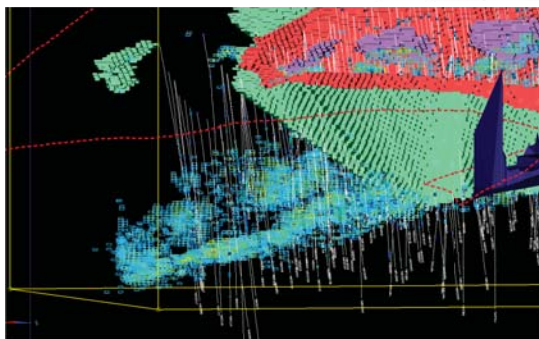
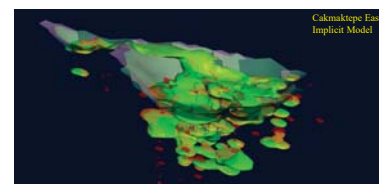


Çakmaktepe oxide ore 2017 Q4 Mineral Reserve

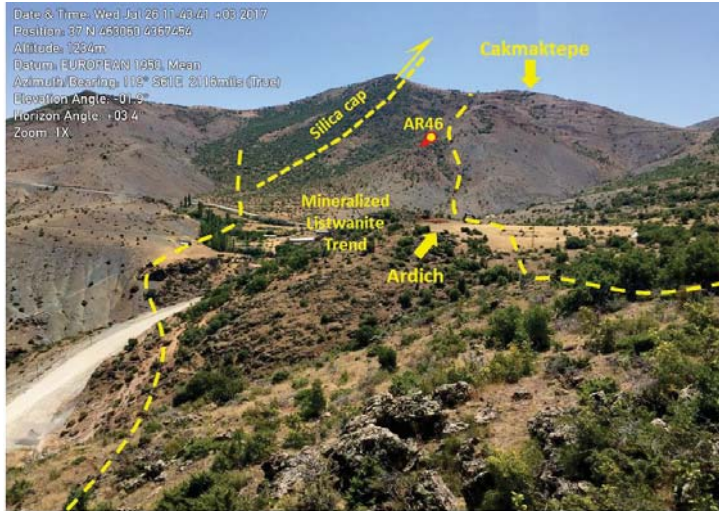
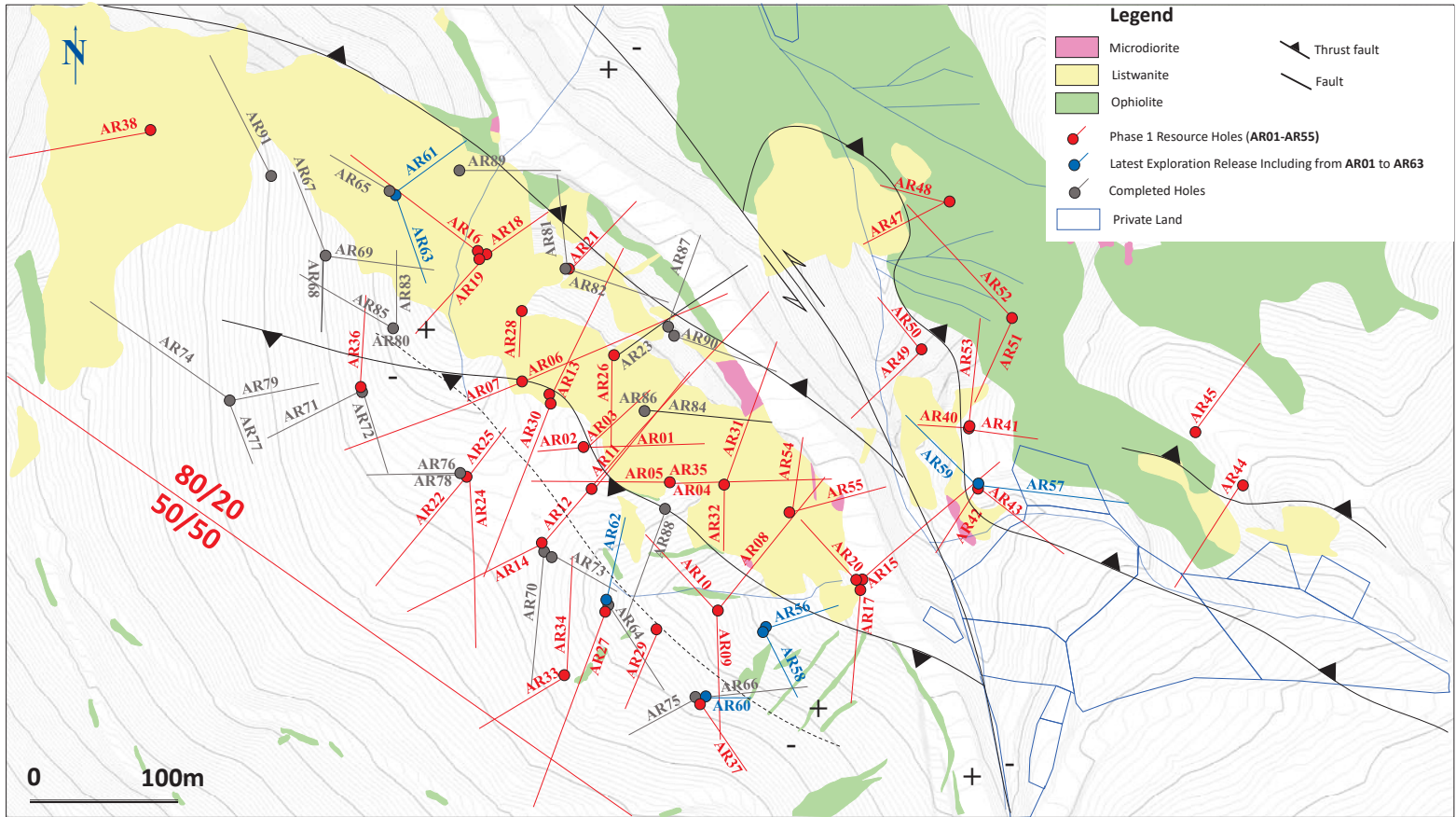
	Tonnes (x1,000)	Au (g/t)	Contained Au, oz
Proven & Probable	2,527	2,16	176,000

Çakmaktepe oxide ore 2017 Q4 Mineral Resource

	Tonnes (x1,000)	Au (g/t)	Contained Au, oz
Measured & indicated	3,820	1,86	229,000
Inferred	1,455	1,05	49,000
TOTAL	5,275		278,000



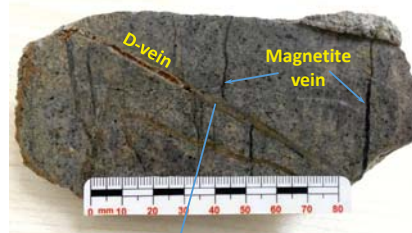
# ARDICH PROJECT



News Release Date	Drill Holes	# of Holes	Total m
December 18, 2017	AR01-AR05	5	628.3
February 26, 2018	AR06-AR18	13	2,704.6
July 25, 2018	AR19-AR43	25	4,010.2
November 7, 2018	AR44-AR63	20	2,641.8
<b>TOTAL</b>	<b>AR01-AR63</b>	<b>63</b>	<b>9,984.9</b>
Resource Model	AR01-AR55	55 (in progress)	

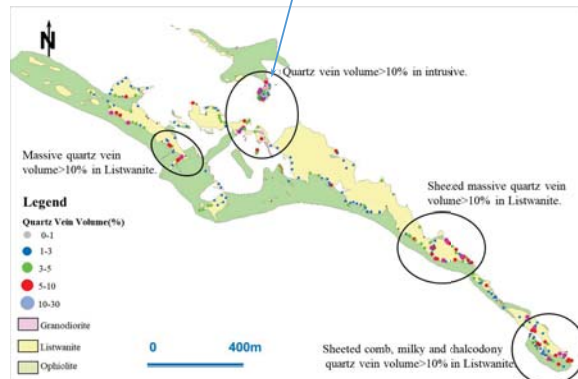
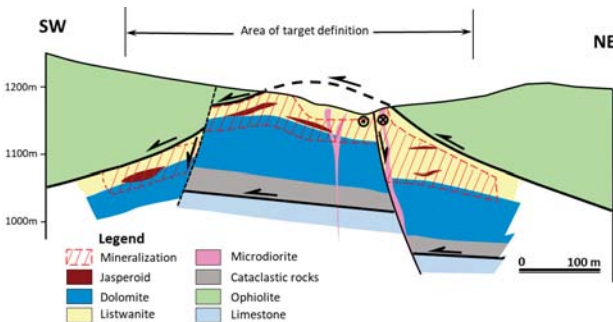
We are currently drilling AR93

## Listwanite mapping program

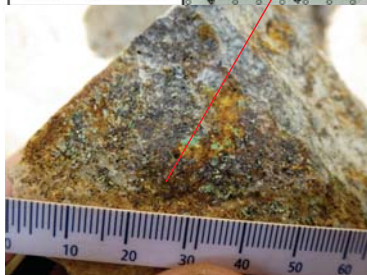
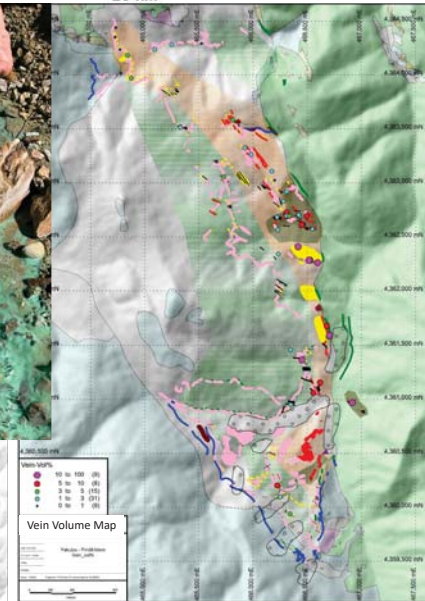
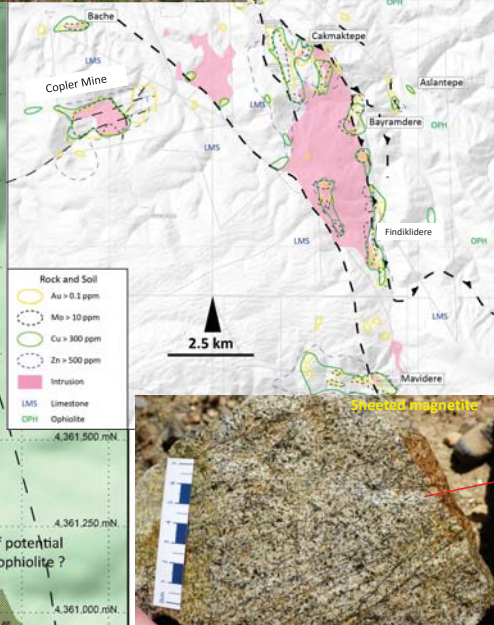
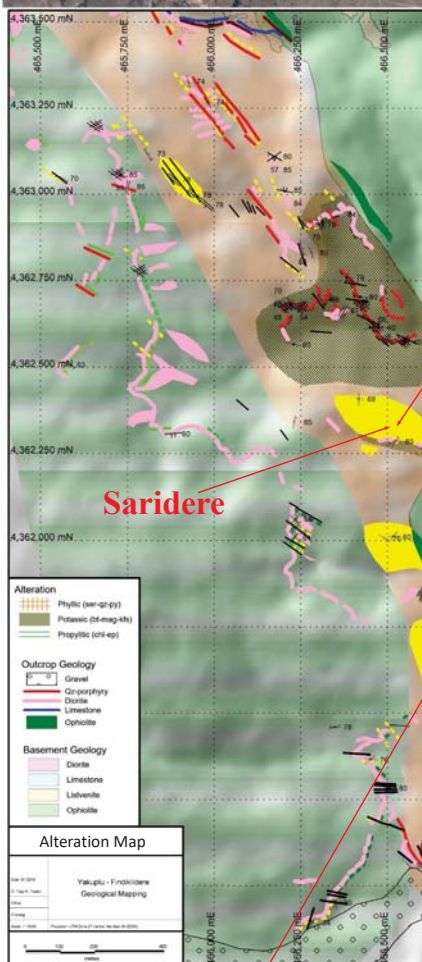
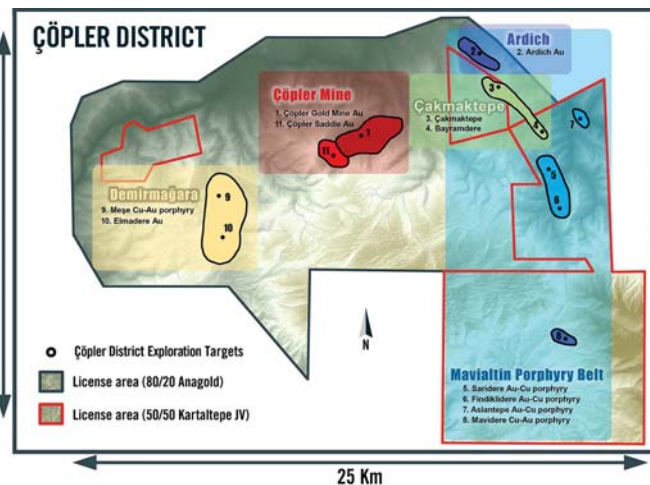
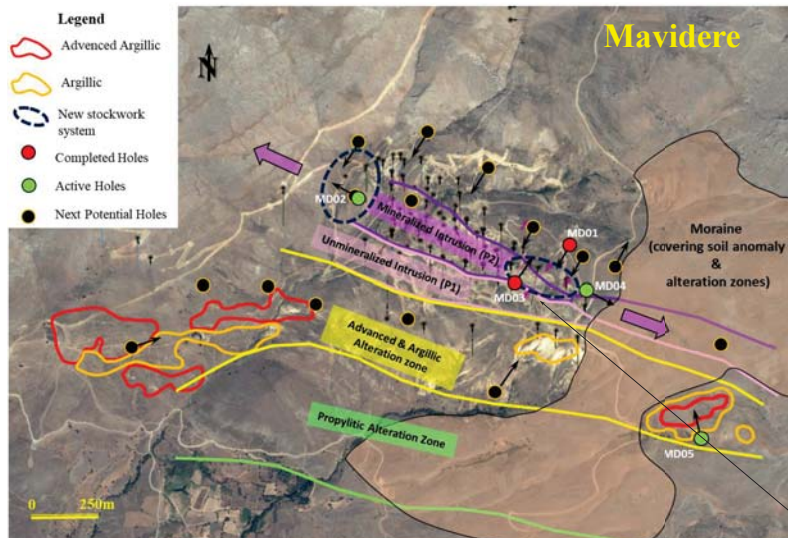


8.0m @ 0.15g/t Au  
In stockwork Granodiorite.

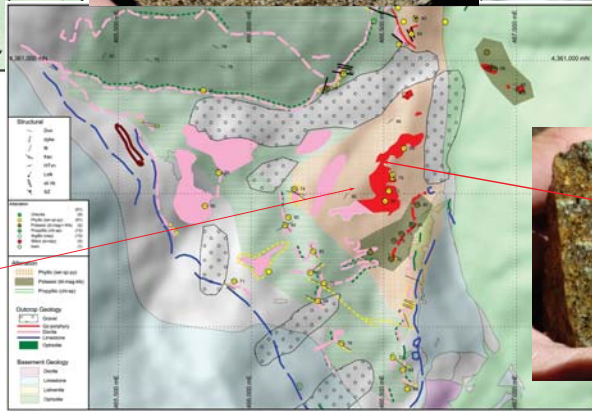
Hole ID	From (m)	To (m)	Interval (m)	Au g/t	Remarks	Depth (m)
AR44	-	-	-	-	-	166.70
AR45	-	-	-	-	-	145.50
AR46	107.00	117.00	10.00	0.57	Oxide	253.40
AR47	131.50	132.50	1.00	5.78	Oxide	
	87.20	98.90	11.70	1.74	Sulfide	134.40
AR48	36.10	42.10	6.00	1.83	Oxide	92.20
	46.10	49.10	3.00	1.25	Oxide	
AR49	19.40	26.40	7.00	1.47	Oxide	131.40
AR50	27.30	39.00	11.70	4.49	Oxide	95.00
Including	37.00	38.00	1.00	26.20	Sulfide	
AR51	45.30	48.30	3.00	1.04	Oxide	
	57.70	65.00	7.30	0.82	Oxide	
	69.00	82.00	13.00	2.37	Oxide	119.60
Including	71.00	73.00	2.00	8.50	Mixed	
	86.00	99.40	13.40	0.95	Oxide	
AR52	59.00	70.00	11.00	0.75	Oxide	
	74.00	79.00	5.00	0.35	Oxide	
	97.40	102.70	5.30	0.62	Oxide	
	121.30	179.00	57.70	3.84	Mixed	
Including	121.30	131.50	10.20	5.75	Oxide	216.90
Including	135.60	147.50	11.90	6.40	Mixed	
Including	153.50	158.50	5.00	5.15	Sulfide	
Including	166.10	171.30	5.10	6.42	Mixed	
	188.00	204.00	16.00	0.51	Oxide	
AR53	49.60	98.10	48.50	2.69	Oxide	
Including	59.60	65.60	6.00	5.04	Oxide	
Including	78.60	84.60	6.00	7.06	Oxide	142.90
	106.60	142.00	35.40	0.89	Oxide	
AR54	5.00	66.40	61.40	2.22	Oxide	
Including	36.80	43.60	6.80	7.14	Oxide	110.30
Including	49.00	55.40	6.40	7.75	Oxide	
AR55	3.00	27.10	24.10	1.55	Oxide	
Including	16.00	18.00	2.00	5.49	Oxide	
	31.10	73.60	42.50	2.55	Mixed	126.80
Including	44.30	47.80	3.50	6.80	Oxide	
Including	55.80	59.30	3.50	5.67	Mixed	
Including	63.30	67.30	4.00	7.64	Oxide	
AR56	22.30	48.70	26.40	2.41	Oxide	
Including	34.30	37.30	3.00	6.23	Oxide	103.60
	63.10	79.00	15.90	1.41	Oxide	
AR57	-	-	-	-	-	148.00
AR58	23.90	85.30	61.40	2.04	Mixed	
Including	50.70	52.70	2.00	6.17	Sulfide	99.80
Including	70.30	76.30	6.00	7.09	Oxide	
AR59	30.50	52.00	21.50	1.55	Oxide	
	58.50	94.70	36.20	1.67	Oxide	
Including	59.50	64.50	5.00	5.34	Oxide	131.70
Including	76.70	79.00	2.30	5.30	Oxide	
AR60	-	-	-	-	-	57.30
AR61	8.00	108.60	100.60	1.35	Oxide	
Including	82.10	92.10	10.00	3.01	Oxide	120.20
Including	100.10	103.30	3.20	5.01	Oxide	
AR62	19.80	84.00	64.20	2.00	Mixed	121.40
Including	45.30	57.30	12.00	5.21	Oxide	
AR63	44.00	78.30	34.30	1.11	Oxide	124.70
	85.30	94.60	9.30	0.79	Oxide	



# MAVIALTIN PORPHYRY BELT

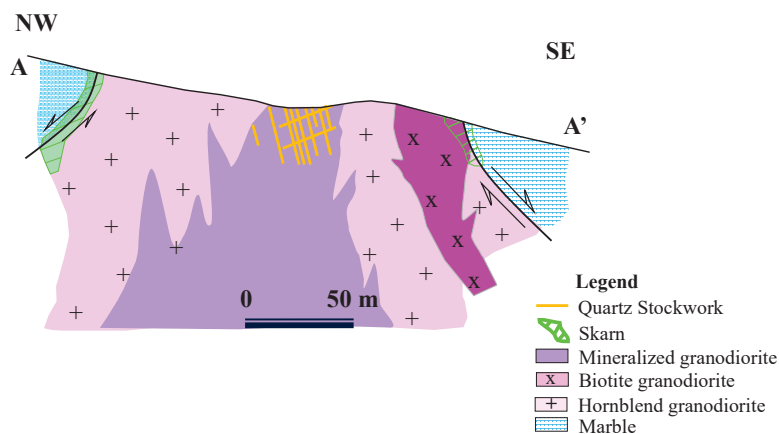
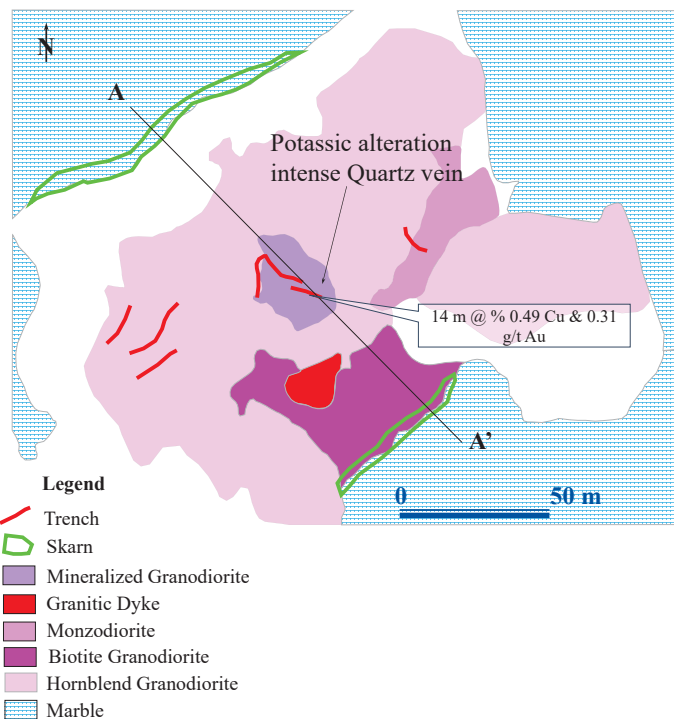
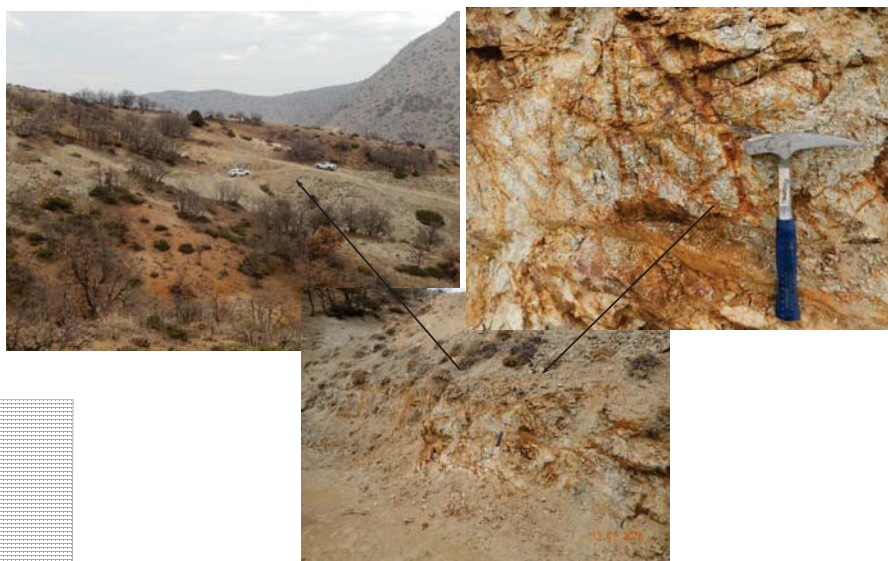


**Findikludere**

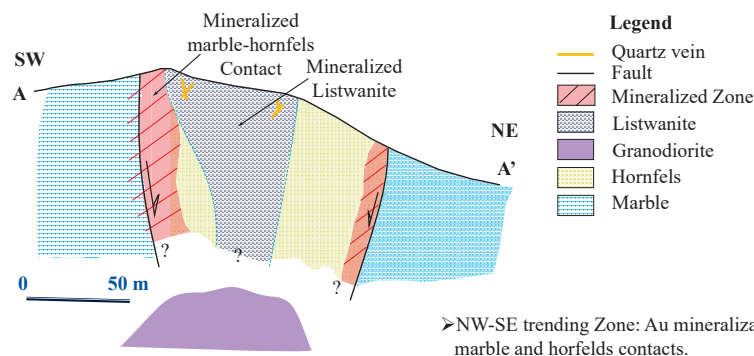
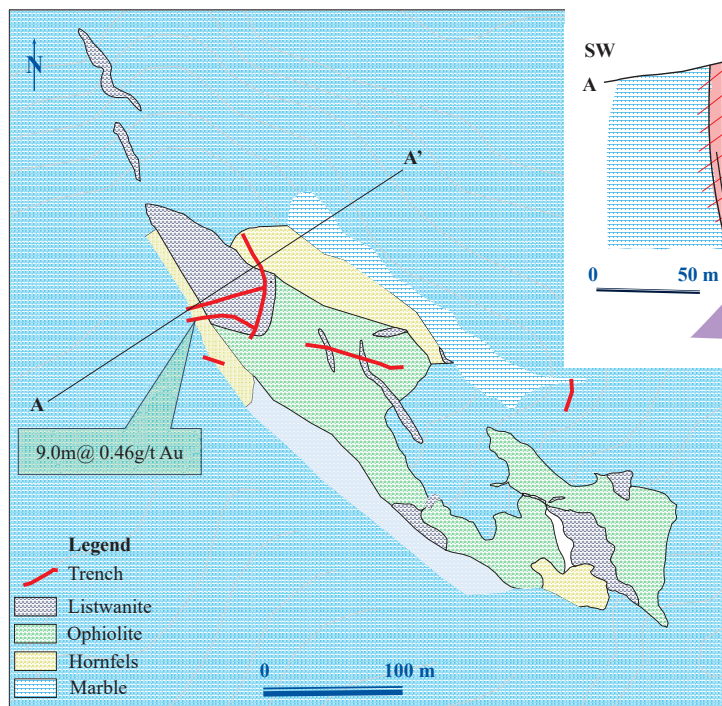


## Mese Cu-Au Porphyry

- 5 Intrusive phases (3 Granodiorites, Monzodiorite and a Granitic Dyke)
- Marble intruded by granodiorite
- Small scale Cu-Au skarn developments at marble contacts
- Mineralized GD can be the finger of a larger stock at depth
- Main trends of the quartz veins are N40W and N10E
- Primary sulfides leached to FeOx
- Potassic; secondary Bio, Kfelds, Mag and Qtz
- Well developed Qtz stockwork
- Cu staining on fracture surfaces



## Elmadere Au



- NW-SE trending Zone: Au mineralization at marble and hornfels contacts.
- Au also developed in the listwanites

### Mese Cu-Au porphyry

Rock Chip Sampling : 160 samples, up to 2.44 g/t Au  
 Trench Sampling : 141 samples, up to 1.55 g/t Au.  
 Soil Sampling : 191 samples, up to 0.413 g/t Au.

### Elmadere Au

Rock Chip Sampling : 91 samples, up to 0.24 g/t Au  
 Trench Sampling : 233 samples, up to 1.59 g/t Au.  
 Soil Sampling : 236 samples, up to 1.55 g/t Au.