

5 April 2022

**Atalaya Mining Plc.**  
("Atalaya" or "the Company")

**Atalaya Announces Significant Increase in Mineral Resources at Proyecto Masa Valverde**

***Mineral Resource Estimate to support planned economic study on its potential development as a satellite deposit that could deliver higher grade material to Proyecto Riotinto***

Atalaya Mining Plc (AIM: ATYM, TSX: AYM) is pleased to announce a new Mineral Resource Estimate (prepared in accordance with CIM guidelines and disclosure requirements of NI 43-101, for its 100% owned Proyecto Masa Valverde ("PMV"). PMV is located in the Iberian Pyrite Belt of southern Spain approximately 28 km to the south of Atalaya's 15 Mtpa processing plant at Proyecto Riotinto. PMV consists of two deposits, Masa Valverde and Majadales, which are 1 km apart. Majadales was initially discovered by Atalaya's exploration team in 2019.

**Highlights**

- Significant increase in tonnage and contained copper, silver and gold vs. prior estimate
  - Increases of 42%, 33%, 26% and 34%, respectively at Masa Valverde deposit.
- Masa Valverde Initial **Indicated** Mineral Resource:
  - 16.9 Mt at 0.66% Cu, 1.55% Zn, 0.65% Pb, 27 g/t Ag and 0.55 g/t Au (1.51% CuEq)
  - Containing an estimated 112 kt Cu, 262 kt Zn, 110 kt Pb, 14.7 Moz Ag, 0.3 Moz Au
- Masa Valverde **Inferred** Mineral Resource:
  - 73.4 Mt at 0.61% Cu, 1.24% Zn, 0.61% Pb, 30 g/t Ag and 0.62 g/t Au (1.37% CuEq)
  - Containing an estimated 448 kt Cu, 911 kt Zn, 448 kt Pb, 70.8 Moz Ag, 1.5 Moz Au
- Two copper-rich zones (10.2 Mt Indicated and 48.1 Mt Inferred) could deliver higher grade material for processing at the existing Proyecto Riotinto plant with minimal modifications
- Majadales Initial **Inferred** Mineral Resource:
  - 3.1 Mt at 0.94% Cu, 3.08% Zn, 1.43% Pb, 54 g/t Ag and 0.32 g/t Au (2.55% CuEq)
- A Preliminary Economic Assessment ("PEA") on PMV is expected to be completed in H2 2022, with a focus on scenarios that would leverage the existing plant at Proyecto Riotinto and access the orebodies via a single ramp.
- Permitting process continues, with submission of an exploitation concession application.
- Continued potential for further resource expansion, with compelling targets already identified via recent detailed ground geophysical survey.

**Alberto Lavandeira, CEO, commented:**

*"The current resource definition drilling programme that began in May 2021 has successfully expanded the Mineral Resource base and has also upgraded a portion to the Indicated category.*

*"We remain excited about the continued exploration potential at PMV, given the many anomalies our exploration team has identified. We hope to make further discoveries, building on our success in discovering the Majadales deposit, which is shallower and higher grade than Masa Valverde and thus may play a key role in optimising future development scenarios.*

*“At the Masa Valverde deposit, the significant increase in tonnage above cut-off, the sub-horizontal geometry and the defined continuity of the main mineralised zones will allow us to evaluate larger scale, more efficient and lower operating cost underground mining methods. These scenarios will be evaluated in the upcoming PEA, which is expected to focus on development scenarios that leverage our nearby Proyecto Riotinto processing plant, where copper-rich material from PMV could potentially be treated with minimal plant modifications, highlighting the opportunity to develop another project with low capital intensity.”*

### About Proyecto Masa Valverde

PMV is a volcanogenic massive sulphide (“VMS”) type deposit strategically located approximately 28 km from Proyecto Riotinto (see **Figure 1**). As announced on 21 October 2020, Atalaya acquired a 100% interest on PMV, after having conducted a period of due diligence and exploration on the property under an earlier option agreement.

PMV consists of two polymetallic deposits, Masa Valverde and Majadales, as well as several drill-ready targets (see **Figure 2**). The Majadales deposit was a new discovery made by Atalaya’s exploration team in July 2019.

### 2022 Mineral Resource Estimation Details

The 2022 Mineral Resource estimate has been prepared by CSA Global (UK) Limited (“CSA Global”). The geological model used is based on 122 drill holes with a total length of 76,123 metres, of which 83 drill holes and 58,993 metres relate to Masa Valverde and 39 drill holes and 17,130 metres to Majadales.

Assay results were compiled and validated as of 4 March 2022. CSA Global selected a cut-off grade of 0.78% CuEq for its resource estimation.

**Table 1: 2022 Mineral Resource Estimate**

#### *Masa Valverde Deposit*

Cut-off: 0.78% CuEq	Tonnage (Mt)	CuEq (%)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)
Indicated	16.9	1.51	0.66	1.55	0.65	27	0.55
Inferred	73.4	1.37	0.61	1.24	0.61	30	0.62

Cut-off: 0.78% CuEq	Cu metal (kt)	Zn metal (kt)	Pb metal (kt)	Ag metal (Moz)	Au metal (Moz)
Indicated	112	262	110	14.7	0.3
Inferred	448	911	448	70.8	1.5

#### *Majadales Deposit*

Cut-off: 0.78% CuEq	Tonnage (Mt)	CuEq (%)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)
Inferred	3.1	2.55	0.94	3.08	1.43	54	0.32

Cut-off: 0.78% CuEq	Cu metal (kt)	Zn metal (kt)	Pb metal (kt)	Ag metal (Moz)	Au metal (Moz)
Inferred	29	95	44	5.3	0.03

**Notes:**

1. Tabulated data have been rounded to reflect this as an estimate and as a result minor computational errors may occur.
2. The effective date of the Mineral Resource statement is 31 March 2022.
3. Cu Equivalent was determined using the following metal prices and recoveries: US\$9,600/t Cu, US\$3,500/t Zn, US\$2,300/t Pb, US\$23/oz Ag, US\$1,800/oz Au and recoveries of 80% were assumed for Cu and Zn, 60% was assumed for Pb, 35% was assumed for Ag and 20% was assumed for Au.
4. The 0.78% Cu Equivalent cut-off is based on a US\$60/t production cost.
5. Ordinary Kriging was used to interpolate density values into the block model from sampling data.
6. The Mineral Resource has been classified under the guidelines defined by the Canadian Institute of Mining, Metallurgy and Petroleum in their document "CIM Definition Standards for Mineral Resources and Mineral Reserves" of May 2014.
7. The metal content estimates are reflected in situ and do not include factors such as external dilution, mining losses and process recovery losses.

Further details are in **Table 2** and **Table 3** down below.

Masa Valverde is a globally significant undeveloped single VMS-type deposit. It represents approximately 94% of the total Mineral Resource estimate of PMV. It consists of three main mineralised zones: Upper Massive Sulphide, Lower Massive Sulphide and Intermediate Stockwork-type (see **Figure 3**). Inside the Massive Sulphide Zones, copper-rich ( $Zn < Cu \times 2.80$ ) and zinc-rich ( $Zn > Cu \times 2.80$ ) zones have been differentiated (see **Figure 4**). Most of the stockwork-type mineralisation is copper-rich and has lower levels of both zinc, lead and potential deleterious elements. It is very similar to the ore currently being mined at Proyecto Riotinto.

Indicated Mineral Resources totalling 16.9 million tonnes at 0.66% Cu, 1.55% Zn, 0.65% Pb, 27 g/t Ag and 0.55 g/t Au represent the first Indicated level resources declared at PMV. Based on the success of the current resource development drilling programme in converting part of the Inferred Mineral Resources to Indicated Mineral Resources, the Company's efforts will be to continue resource development activities with the aim to further upgrade the Mineral Resource base to higher categories of classification.

The Majadales deposit is smaller at 3.1 million tonnes Inferred Mineral Resources, but is shallower (starting at 320m depth) and higher grade (2.55% CuEq) than the Masa Valverde deposit (1.39% CuEq). See **Figure 5**.

In comparison to the 2017 resource estimate of 66 million tonnes at 0.67% Cu, 1.92% Zn, 0.90% Pb, 34 g/t Ag and 0.63 g/t Au (using a ZnEq cut-off of 3%), the new estimate for PMV represents a 42% increase in total tonnage and 33%, 26% and 34% increases in contained copper, silver, and gold respectively. Contained zinc and lead remain approximately the same at slightly lower grades. It should be noted that one of the main reasons for the change is driven by the switch from ZnEq reporting to CuEq, in line with Atalaya's consideration of copper as the main project driver rather than zinc.

### **Planned Preliminary Economic Assessment**

The 2022 Mineral Resource Estimate will be used to support a PEA for PMV, which will be completed during H2 2022.

The PEA is expected to evaluate scenarios that are consistent with Atalaya's strategy to develop its existing 15 Mtpa mill into a central processing hub for material sourced from its deposits in the region. Delivering higher grade material to Proyecto Riotinto would displace feed from the Cerro Colorado pit, allowing the Company to potentially increase production while maintaining its current processing rates.

The PEA is also expected to evaluate a number of mining scenarios, including selective mining of higher grade zones as well as bulk mining scenarios that are well suited to deposits of Masa Valverde's scale.

Several characteristics of PMV, combined with the Company's operations in the region and the project's location in the Iberian Pyrite Belt are expected to reduce initial capital requirements, expedite the development timeline and simplify the permitting process. These factors include:

- Access to Majadales and Masa Valverde would be expected to be completed via a single ramp
- Mined material would be expected to be trucked via the existing public highway to Proyecto Riotinto
- Modest surface infrastructure requirements due to trucking scenario, would facilitate reduced permitting requirements
- Material from PMV's copper zones is expected to be well suited to the configuration of the existing plant at Proyecto Riotinto, with minimal modifications expected
- Underground mines in the region (namely MATSA) have a history of being operated by local mining contractors

In addition to the copper zones, the presence of polymetallic sulphides with higher zinc, lead, silver and gold content could require the development of a new differential flotation circuit similar to other conventional systems that are operating successfully across the Iberian Pyrite Belt. Conventional metallurgical testwork is ongoing using fresh core from the different sulphide types at PMV. Separately, preliminary leaching tests with the E-LIX System are also being completed, which has the potential to unlock significant value from similar complex ores.

### **Permitting Process**

In August 2021, the Company submitted an application to the Junta de Andalucía for an exploitation concession for PMV.

### **Ongoing Exploration Programme**

Exploration drilling continues at PMV, with three drill rigs currently in operation. One rig is testing an electromagnetic anomaly (FLEM) located 300 meters west of the Masa Valverde deposit and the other two are conducting an initial drilling campaign at the Campanario target.

Atalaya believes there is good potential to extend the current Masa Valverde Mineral Resource to the west as well as discover new VMS mineralisation within the broader PMV property. See **Figure 6**.

In aggregate, Atalaya has an exploration budget of €10 million for 2022, which is funding drilling and early-stage exploration programmes across its strategic land position in the Iberian Pyrite Belt, including at PMV.

### Qualified Person Statement

The Mineral Resource estimates for PMV were prepared by CSA Global (UK) Limited (“CSA Global”) in accordance with CIM guidelines and with Canadian regulatory requirements set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI 43-101”) under the supervision of Mr. Galen White, BSc (Hons), FAusIMM, Partner and Principal Consultant of CSA Global. Mr White is a Qualified Person as defined under NI 43-101 and the AIM Rules and is independent of the Company. Mr. White consents to the inclusion of information related to Mineral Resources in this disclosure, in the form and context it appears.

### Glossary of Terms

Ag	Silver
Au	Gold
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
Cu	Copper
CuEq	Copper Equivalent
CSA Global	CSA Global (UK) Limited
FLEM	Fixed Loop Electromagnetic Survey
g/t	Grams per tonne
Indicated Mineral Resources	<p>An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.</p> <p>Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.</p> <p>An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.</p>
Inferred Mineral Resource	<p>An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.</p> <p>An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.</p>
kt	Thousand tonnes

Measured Mineral Resources	<p>A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.</p> <p>Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.</p>
Mineral Resources	A concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such a form 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.
Mt	Million tonnes
Mtpa	Million tonnes per annum
n.a.	Not available
NI 43-101	Canadian National Instrument for the Standards of Disclosure for Mineral Projects
Pb	Lead
PEA	Preliminary Economic Assessment
PMV	Proyecto Masa Valverde
PPM	Parts per million
Stockwork	It's a complex 3D network of structurally controlled or randomly oriented veins. They are common in many ore deposit types. They are also referred to as stringer zones.
VMS	Volcanic Massive Sulphide
Zn	Zinc

**Table 2: Masa Valverde Deposit Mineral Resource Estimate by Class, Material Type and Zone**

Cut-off: 0.78% CuEq	Tonnage (Mt)	CuEq (%)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)
<i>Copper Zone, Massive Sulphide</i>							
Indicated	6.6	1.21	0.68	0.62	0.47	33	0.70
Inferred	33.5	1.14	0.62	0.50	0.56	36	0.76
<i>Copper Zone, Stockwork</i>							
Indicated	3.6	1.15	0.86	0.60	0.12	8	0.18
Inferred	14.5	1.16	0.87	0.56	0.15	9	0.18

**Zinc Zone, Massive Sulphide**

Indicated	6.2	<b>2.04</b>	0.53	3.02	1.11	33	0.62
Inferred	22.6	<b>1.86</b>	0.46	2.69	0.98	37	0.74

**Zinc Zone, Stockwork**

Indicated	0.5	<b>1.56</b>	0.46	2.28	0.86	16	0.45
Inferred	2.8	<b>1.25</b>	0.37	1.90	0.53	15	0.31

**TOTAL**

Indicated	16.9	<b>1.51</b>	0.66	1.55	0.65	27	0.55
Inferred	73.4	<b>1.37</b>	0.61	1.24	0.61	30	0.62

Cut-off: 0.78% CuEq	Cu metal (kt)	Zn metal (kt)	Pb metal (kt)	Ag metal (Moz)	Au metal (Moz)
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**Copper Zone, Massive Sulphide**

Indicated	45	41	31	7.0	0.1
Inferred	208	168	188	38.8	0.8

**Copper Zone, Stockwork**

Indicated	31	21	4	0.9	0.0
Inferred	126	81	22	4.1	0.1

**Zinc Zone, Massive Sulphide**

Indicated	33	188	69	6.6	0.1
Inferred	104	608	222	26.9	0.5

**Zinc Zone, Stockwork**

Indicated	2	12	4	0.3	0.0
Inferred	10	53	15	1.3	0.0

**TOTAL**

Indicated	112	262	110	14.7	0.3
Inferred	448	911	448	70.8	1.5

**Notes:**

1. Tabulated data have been rounded to reflect this as an estimate and as a result minor computational errors may occur.
2. The effective date of the Mineral Resource statement is 31 March 2022.
3. Cu Equivalent was determined using the following metal prices and recoveries: US\$9,600/t Cu, US\$3,500/t Zn, US\$2,300/t Pb, US\$23/oz Ag, US\$1,800/oz Au and recoveries of 80% were assumed for Cu and Zn, 60% was assumed for Pb, 35% was assumed for Ag and 20% was assumed for Au.
4. The 0.78% Cu Equivalent cut-off is based on a US\$60/t production cost.
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7. The metal content estimates reflected are in situ, and do not include factors such as external dilution, mining losses and process recovery losses.

**Table 3: Majadales Deposit Mineral Resource Estimate by Class and Material Type**

Cut-off: 0.78% CuEq	Tonnage (Mt)	CuEq (%)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)
<i>Massive Sulphide</i>							
Inferred	2.7	<b>2.67</b>	0.94	3.30	1.53	58	0.34
<i>Semi-Massive Sulphide</i>							
Inferred	0.2	<b>1.19</b>	0.73	0.87	0.39	16	0.16
<i>Stockwork</i>							
Inferred	0.1	<b>1.08</b>	0.87	0.43	0.11	7	0.06
<b>TOTAL</b>							
Inferred	3.1	<b>2.55</b>	0.94	3.08	1.43	54	0.32

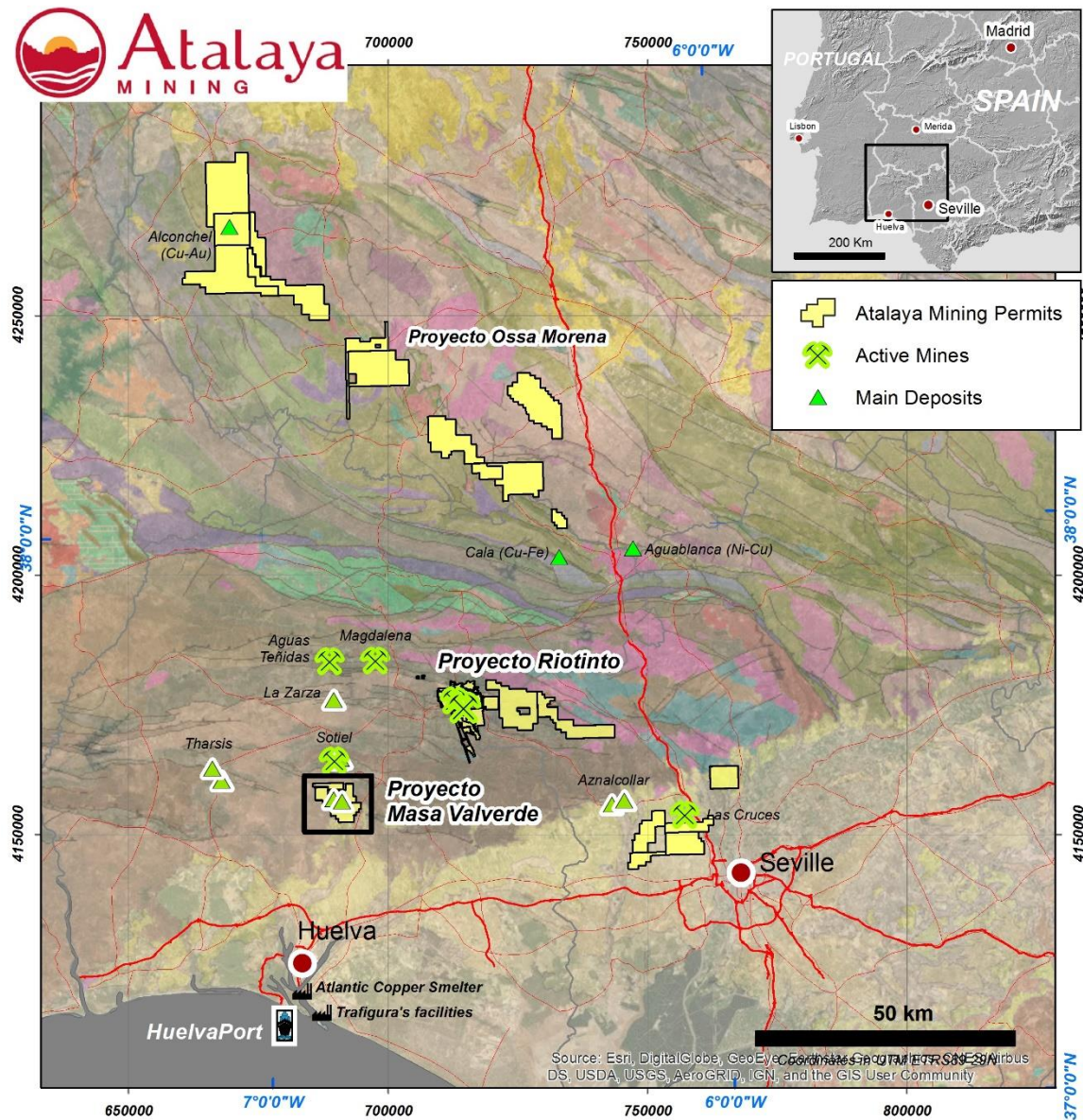
Cut-off: 0.78% CuEq	Cu metal (kt)	Zn metal (kt)	Pb metal (kt)	Ag metal (Moz)	Au metal (Moz)
<i>Massive Sulphide</i>					
Inferred	26	90	42	5.1	0.030
<i>Semi-Massive Sulphide</i>					
Inferred	2	2	1	0.1	0.001
<i>Stockwork</i>					
Inferred	1	1	0	0.0	0.000
<b>TOTAL</b>					
Inferred	29	95	44	5.3	0.032

**Notes:**

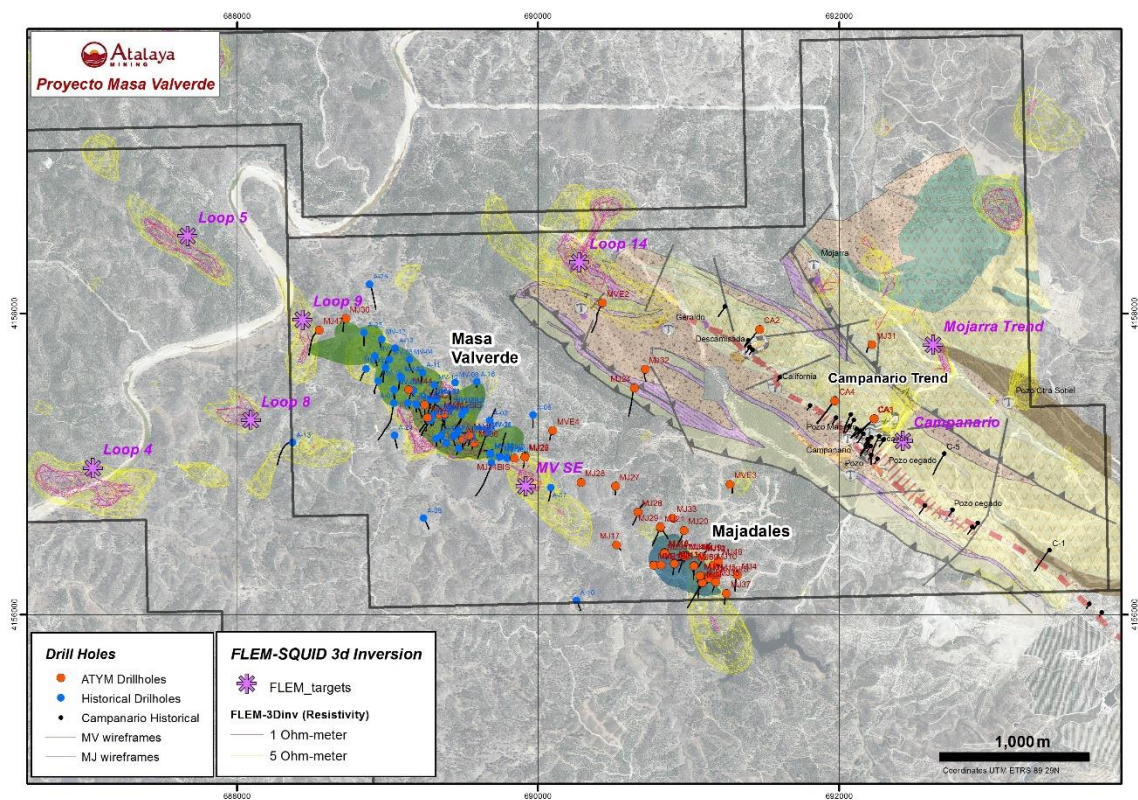
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7. The metal content estimates reflected are in situ, and do not include factors such as external dilution, mining losses and process recovery losses.



**Figure 1: Location Map of Proyecto Masa Valverde**

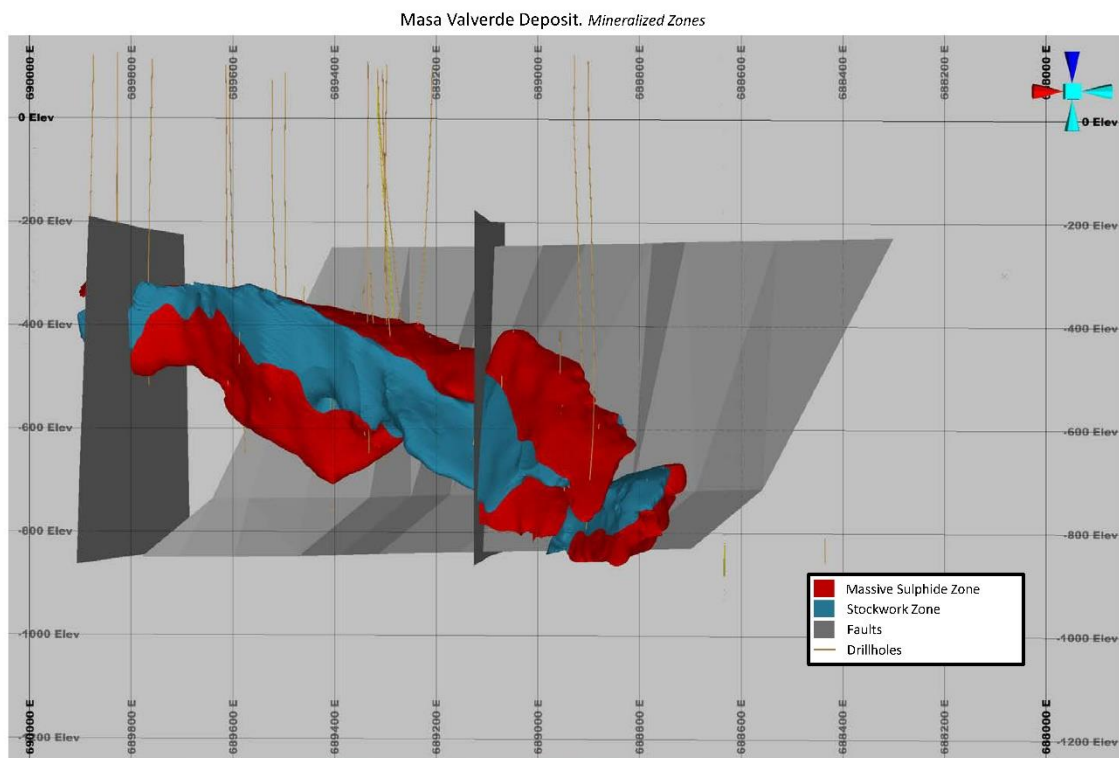


**Figure 2: Map of Various Deposits and Target Zones at Proyecto Masa Valverde**



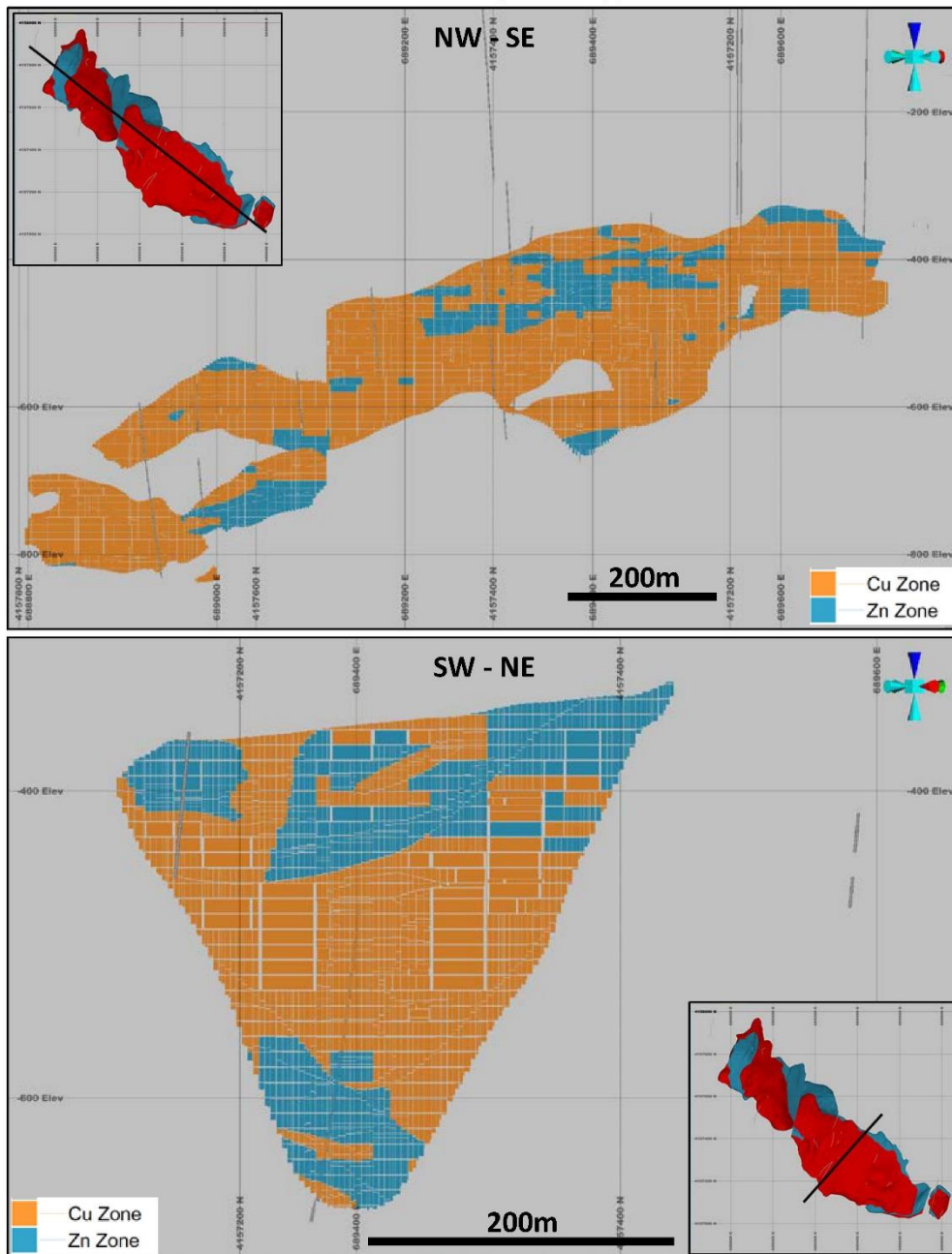


**Figure 3: Main Mineralized Zones of the Masa Valverde Deposit**



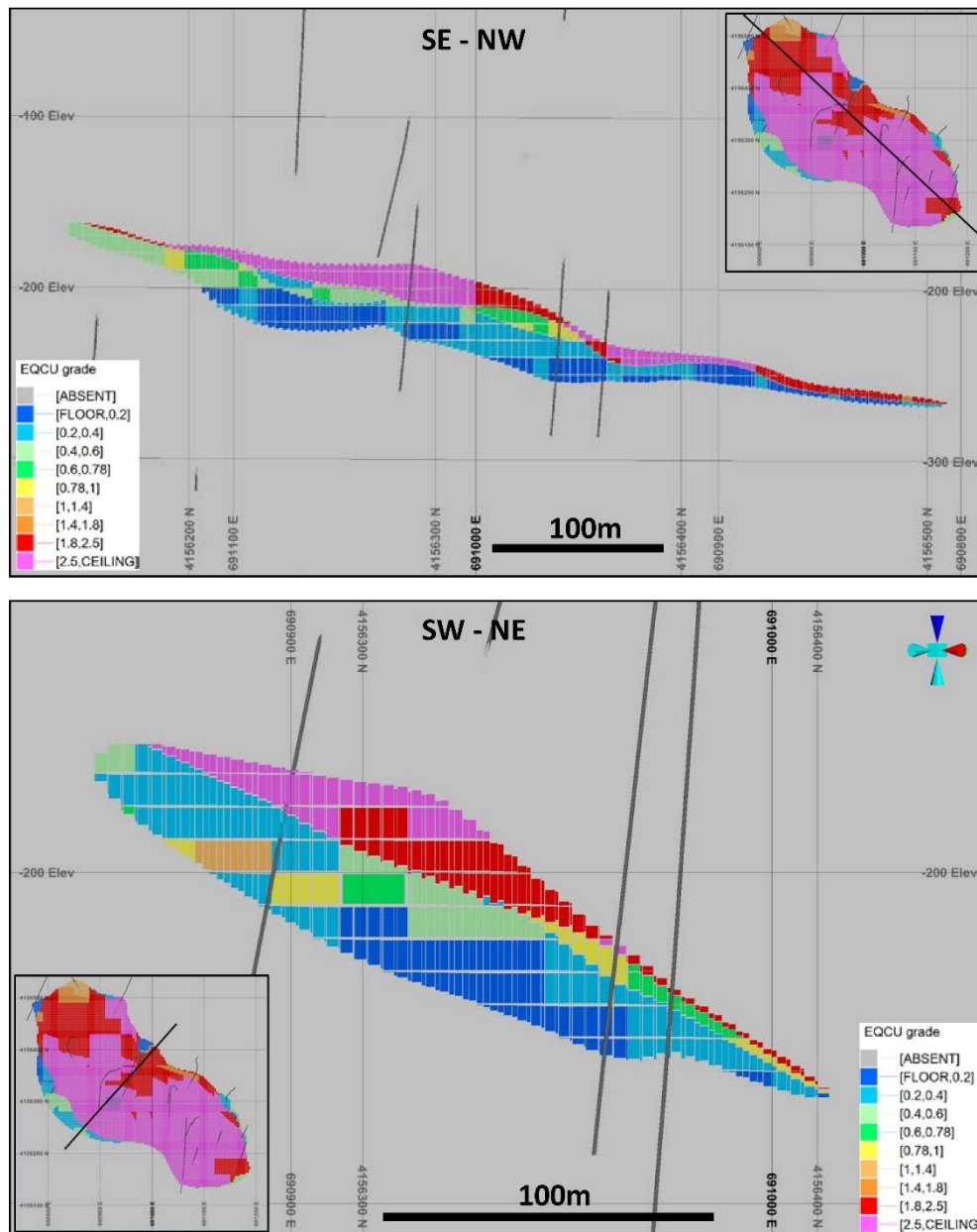
**Figure 4: Masa Valverde Cu and Zn Zones – Longitudinal and Cross Sections**

Masa Valverde Deposit. *Copper and Zinc Zones*

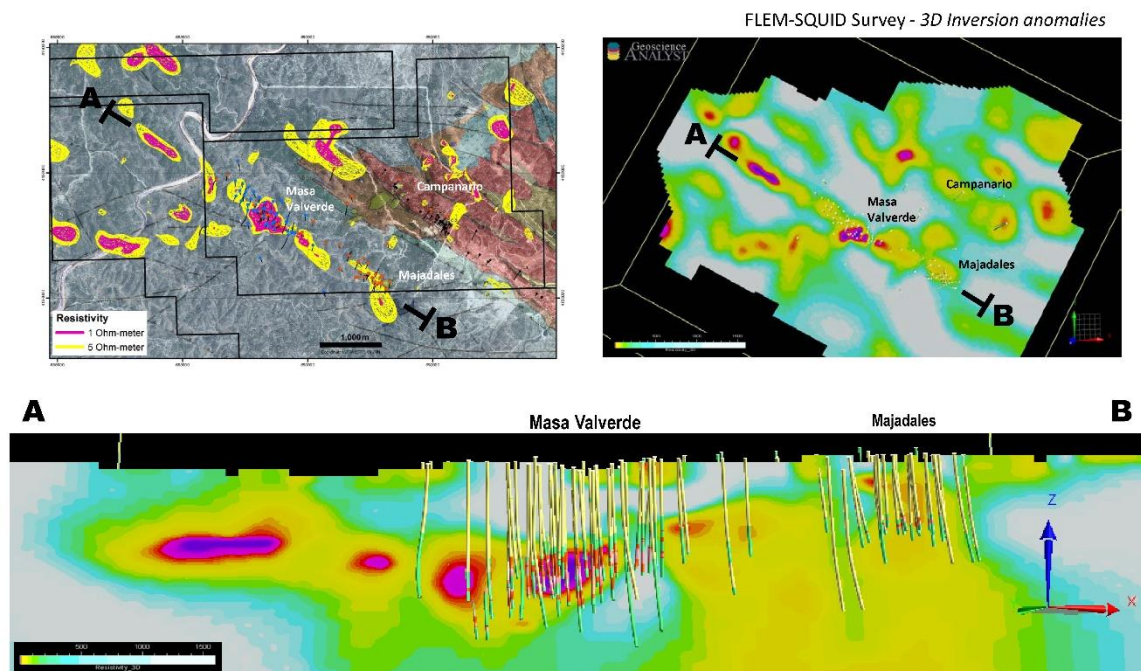


**Figure 5: Main Mineralized Zones of the Majadales Deposit**

Majadales Deposit. *Equivalent Copper*



**Figure 6: Main Geophysical Targets at Proyecto Masa Valverde**



*This announcement contains information which, prior to its publication constituted inside information for the purposes of Article 7 of Regulation (EU) No 596/2014.*

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**About Atalaya Mining Plc**

Atalaya is an AIM and TSX-listed mining and development group which produces copper concentrates and silver by-product at its wholly owned Proyecto Riotinto site in southwest Spain. Atalaya's current operations include the Cerro Colorado open pit mine and a modern 15 Mtpa processing plant, which has the potential to become a centralised processing hub for ore sourced from its wholly owned regional projects around Riotinto that include Proyecto Masa Valverde and Proyecto Riotinto East. In addition, the Group has a phased, earn-in agreement for up to 80% ownership of Proyecto Touro, a brownfield copper project in the northwest of Spain. For further information, visit [www.atalayamining.com](http://www.atalayamining.com)