Discovery and Development of the Haquira Cu-Mo-Au Porphyry Deposit, Peru: A Super-Giant in the Making?

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None of the exploration properties in which Minera Antares Peru holds an interest host a known body of commercial ore and proposed programs on such properties are exploratory in nature. Development of these mineral properties is contingent upon obtaining satisfactory exploration results. Mineral exploration and development involves substantial expenses and a high degree of risk, which even a combination of experience, knowledge and careful evaluation may not be able to adequately mitigate. There is no assurance that commercial quantities of ore will be discovered on any of Antares' exploration properties. There is also no assurance that, even if commercial quantities of ore are discovered, a mineral property will be brought into commercial production.

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The Preliminary Economic Assessment ("PEA") is preliminary in nature and includes the use of inferred resources which are considered too speculative to apply economic considerations that would enable them to be categorized as mineral reserves. Mineral resources do not have demonstrated economic viability and future in-fill drilling and scoping, pre-feasibility and feasibility studies will determine what percentage of the inferred and future can be placed into the mineable category. Thus, there is no certainty that the production profile concluded in the PEA will be realized. Actual results may vary, perhaps materially. Antares is not aware of any environmental, permitting, legal, title, taxation, socio-political, marketing, or other issues which may materially affect this estimate of mineral resources. The projections, forecasts and estimates presented in the scoping study and PEA constitute forward-looking statements and readers are urged not to place undue reliance on such forward-looking statements.
Talk Outline

1) Project History & Discovery
2) Deposit Geology
3) Deposit Alteration & Mineralization
4) Mineral Resources
5) Upside Exploration Potential
Las Bambas (Ferrobamba)

Antares Camp

Huancopampa Village

Haquira East Deposit 1.5 km south
Minera Phelps-Dodge del Peru (MPDP) follows up on a Cu-Mo stream sediment anomaly and finds Cu-oxides in the creek valley; this represents the grassroots discovery of secondary Cu mineralization at Haquira.
Stream Sediment Survey

First-Pass Reconnaissance Stream Sediment Survey

Mo-ppm

1 km

Haquira West

Haquira East

Courtesy Antares Minerals

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Stream Sediment Survey

Second-Pass Follow-up Stream Sediment Survey

Mo-ppm

![Map showing Mo-ppm distribution with areas labeled Haquira West and Haquira East.](image)
Stream Sediment Survey

Second-Pass Follow-up Stream Sediment Survey

Cu-ppm

Haquira West

1 km

Courtesy Antares Minerals

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2001-2003
MPDP completes 85 drill holes totalling ~11,000m.

HAC-07
10 m @ 1.2% Sec Cu
HAC-08
18 m @ 0.48% Sec Cu
177m @ 0.40% Pri Cu
2003A Drilling MPDP

HAC-18
93 m @ 0.88% Sec Cu
This work outlines a medium sized zone of secondary Cu mineralization.
2004 - Planet Ventures (renamed to Antares Minerals) is formed.
2004 - Work starts on various projects in Argentina (including Rio Grande)
2004 - CA signed with MPDP to look at Haquira data.
2004 - Privatization of the nearby Las Bambas project awarded to Xstrata for $US 121 million. Antares Minerals begins 1-on-1 negotiation with MPDP to acquire Haquira.
2005 - In March, Antares acquires the Haquira property in a $US 15 million, 5-year option-to-purchase agreement (final $US 5 million paid in March 2010).
2005 - Antares publishes initial resource estimate based on MPDP drilling with a total of 1.3 billion lbs of contained copper in inferred resources. ANM’s initial objective is to double this resource and commences shallow drilling campaign.
2006 - Antares discovers the high-grade Haquira East porphyry in late December, 2006 (52.10 m with 1.10% Cu, 0.101% Mo, and 0.12 g/t Au. Drill hole number 215 in the overall program).
2005-2006 Drilling by Antares

AHAD-097
Discovery Hole for Haquira East Primary Deposit
52.1 m @ 1.10% Cu, 0.101% Mo, 0.12 g/t Au
Terminated in mineralization 23rd December, 2006
215th drill hole at Haquira Project

215 holes completed through end of 2006 with average depth of 135 m
Objective to define shallow secondary mineralization
Haquira East Porphyry
Hypogene Discovery 2006

AHAD-082
42.80m @ 0.97% Cu, 0.08% Mo,
0.04g/t (1.43% CuEQ)

AHAD-097
52.10m @ 1.10% Cu, 0.10% Mo,
0.12g/t (1.43% CuEQ)
2007 - In July, 2007, Antares announces the 1st deep drill hole into Haquira East confirming the discovery of the high-grade primary Cu-Mo porphyry deposit.

- **AHAD-098A**: 380.65m @ 0.67% Cu & 0.013% Mo (0.79% CuEQ)

2007 - In October, Antares publishes an updated 43-101 resource of:

- 133.7 MT @ 0.53% CuT indicated & 43.6 MT @ 0.44% CuT inferred (leachable secondary Cu material only).
- 1.6 billion lbs Cu indicated and 0.4 billion lbs inferred.

2008 - Antares releases positive Preliminary Economic Assessment (PEA) study for the Haquira SX-EW project (leachable secondary Cu material only).

2008 - 43-101 interim resource published for Haquira East primary sulphides

- Indicated 147.9 MT @ 0.57% CuT, 0.015% Mo, 0.05 g/t Au (0.71% CuEQ)
- Inferred 304.6 MT @ 0.53% CuT, 0.012% Mo, 0.04 g/t Au (0.64% CuEQ)

2009 - Drilling slows due to worldwide economic crises but decision made to continue working at reduced level to maintain continuity of community support. This turned out to be a key decision.

2009 - Best hole drilled on the project to-date is announced in February

- **AHAD-159**: 937.30m @ 1.14% Cu, 0.034% Mo, 0.10 g/t Au (1.42% CuEQ)
- Including 331.20m @ 1.76% Cu, 0.013% Mo, 0.20 g/t Au (1.94% CuEQ)
2010 July - Integrated Preliminary Economic Assessment (PEA) for leach/mill operation released. First look at potential for entire system very positive.

2010 June-September - Coverage by mining analysts increases from one to six. 12 month estimates range up to $6.00 – increased market awareness. Increase in interest from potential partners.

2010 October - Agreement announced whereby First Quantum Minerals would acquire all outstanding share of Antares Minerals Inc and thereby become the new owner of Minera Antares Peru S.A.C. and the Haquira Project.

2010 December - Sale agreement with First Quantum Minerals finalized for ~$CDN 650 million.

2010 December - Regulus Resources Inc (REG.V) created as a Spinco to hold the Rio Grande Project in Argentina – First Quantum owns 9.9% of Regulus. We look to repeat the same pattern with Regulus that we managed with Antares.

2011 - First Quantum Minerals continues drilling and exploration
Haquira Drilling to the End of 2010

Haquira Project Drill Hole Location Map

Haquira West

Haquira East

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3 major sedimentary stratigraphic units

- Ferrobamba Formation (not present)
  - Limestone sequence; Las Bambas & Tintaya skarns
- Mara Formation (youngest)
  - Red-bed sequence
- Soraya Formation (middle)
  - Quartzites and intercalated fine-to medium-grained, locally calcareous sedimentary rocks
- Chiquibambilla Formation (oldest)
  - Fine-grained black shales and siltstones with local syngenetic pyrite
Las Bambas Global
1.55 bt @ 0.61% Cu
(Dec 2010)

Haquira Global
975 mt @ 0.55% Cu
(Feb 2010)
Surface Geology Map
Modified after (Gans, 2008)

Potato Patch Target
Haquira East Target
Haquira West
Haquira East SW extension (LN)

0 km 1
Mara Fm.
Young Ignimbrites
Soraya Fm.
Porphyry Intrusions
Chuquibambilla Fm.

Thrust Faults

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Soraya Fm.

Coarse-grained Quartzite

Fine-grained Quartzite

Fine-grained Sediments (FCSU)

Fine-grained Sediments (FCSU)
Haquira Intrusive Rocks

- Late-Post Mineralization
  - Monzogranite – Granodiorite

- Late Mineralization
  - Monzodiorite – Quartz Monzodiorite
  - Quartz Monzonite - Granodiorite

- Syn Mineralization
  - Quartz Monzonite
  - Monzonite - Monzodiorite

- Early-Syn Mineralization
  - Quartz Diorite
  - Diorite
**Porphyry Cu Model**

**Alteration Zones**

Cross-section of a Porphyry Copper Deposit

Volcanic Edifice?
with hot springs alteration

- **Propylitic**
  - Chl, Ep, Carb, Hem, Py, Alb, ±Ksp, Ser, Cp, Act

- **Advanced argillic**
  - Pyrophyllite, Ser, Alunite, Qz, ±Kaol, Dick, Diaspore, And
  - Py, Bn, ±Ct or Cp, En, SI, ±Td

- **Sericitic**
  - Ser, Qz, Py, Cp, SI

- **K-silicate**
  - Biot, Ksp, Qz, Ser, ±And, Anhy, Calc, Mag, (Bn-Cp, Bn-Ct, or Cp-Py)

- **Sodic-calcic**
  - Na-Plag, Act, Ep, Sph, ±Chl

**Host Rock**

- **Granodiorite**
  - Chl, Alb, Ep, Act

- **Andesite**
  - Same

- **Chl, Ser**

- **Biot, NaPlag, Qz, Anhy, Mag**
  - ±Act

- **Na-Ca Plag, Act, Diop, Ep, Sph**

Schematic: After Gustafson & Hunt (1975); Carten (1986); Dilles et al. (2000)

Schematic diagram illustrating typical alteration zoning in porphyry copper deposits developed in granitoid crustal rocks (After Gustafson & Hunt, 1975).

Sodic-calcic zones after Carten (1986). In sodium, magnesian, and iron-rich island arc sequences, mafic silicates (chlorite, biotite) and albite dominate.
Potassic Alteration
K-feldspar
Potassic Alteration
Biotite-(Actinolite)

Biotite-Actinolite Veinlets

“Shredy Biotite”

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Mineralogy of EDM halos consists of various mixtures of biotite, muscovite, K-feldspar, andalusite, and rarely corundum, indicative of temperatures close to 600°C.

EDM’s in other deposits
- Butte, Montana
- El Salvador, Chile
- Chuquicamata, Chile
- Pelambres, Chile

Very high density of EDM veins at Haquira in relation to most deposits.
Deep Anhydrite

AHAD-120 >1000 m
AHAD-194 >550 m

CaSO₄ precipitates at 375-500°C, dissolves <375°C

Vuggy Textured Veins
Leached Anhydrite?
Sericitic Alteration (Phyllic, QSP)

Sericitic Overprinting Potassic

Sericitic & Intermediate Argillic Alteration

Intermediate Argillic Overprinting Potassic
Sericitic & Intermediate Argillic Alteration

Sericitic Overprinting Potassic & Intermediate Argillic

Sericitic Overprinting Potassic

Sericitic & Intermediate Argillic Alteration

Section 1900NW, Haquira East (Looking Northwest)

SERICITIC ALTERATION
- Core intercepts in which ser. all in
- Core containing
- Individual sericite
- Wires

- Gray qtz-ser
- Green ser-chl

MTEmori, Aug 2008

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Sodic – calcic veins
Sodic – calcic veins

Section 1900NW, Haquira East
(Looking Northwest)

EDM ALTERATION HALOS
mostly 0.2 - 1.9%, locally 2-10%
mostly trace - 0.1%

CALCSILICATE VEINS

260 meters

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Silicic Alteration
Cu – Oxides

- Chrysocolla
- Cuprite
- Chalcotrichite
- Neotocite
- Cu-limonites
- Native Cu
Mixed Oxides & Supergene Enrichment

Chalcocite

Chrysocolla
Primary Cu-Mo-Fe Sulphides

Pyrite

Chalcopyrite

Molybdenite

Bornite

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<table>
<thead>
<tr>
<th>No</th>
<th>Type</th>
<th>Alteration</th>
<th>Cuts</th>
<th>Notes</th>
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<tbody>
<tr>
<td>1</td>
<td>Aplite</td>
<td>none</td>
<td>-</td>
<td>Vein-dikes grade to 2</td>
</tr>
<tr>
<td>2</td>
<td>Qtz-(Kspar)</td>
<td>Bio</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Actinolite ± Cp ± Py</td>
<td>Plag ± Diop ± Act</td>
<td>1,2</td>
<td>Sodic-Calcic</td>
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<tr>
<td>4</td>
<td>Biotite±(rare sulf)</td>
<td>Bio</td>
<td>3</td>
<td>Bio bx &amp; crackles</td>
</tr>
<tr>
<td>5</td>
<td>EDM selvages (Cp±Bn)</td>
<td>Bio-Musc</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Qtz-Cp±Bn±Mb (B vein)</td>
<td>Bio</td>
<td>4,5</td>
<td>Distinct centerline</td>
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<tr>
<td>7</td>
<td>Cp±Bn (sulf vn)</td>
<td>Bio</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Qz-Mb (banded)</td>
<td>Bio</td>
<td>6,7</td>
<td>Some early (post-3)</td>
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<tr>
<td>9</td>
<td>Py±Cp (D vein)</td>
<td>Ser±Chl</td>
<td>8</td>
<td></td>
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<tr>
<td>10</td>
<td>Py?</td>
<td>Illite Kaol, Smect, Chl</td>
<td>9?</td>
<td>Outer selvage to D</td>
</tr>
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</table>
(1) Aplite Dykes & (2) Quartz-K-feldspar veins (non-mineralizing)
Haquira East Vein Chronology

(1) Aplite Dykes & (2) Quartz-K-feldspar veins (non-mineralizing)
(3) Calc-silicate (px-amp) veins and patches (non-mineralizing)

(4) Biotite veinlets (rare sulphides)
(3) Calc-silicate (px-amp) veins and patches (non-mineralizing)
(4) Biotite veinlets (rare sulphides)
(5) EDM (early dark micaceous) veins (~600°C) (mineralizing)
(5) EDM (early dark micaceous) veins (~600°C) (mineralizing)
(6) (a) A-veins (hotter) & (b) B-veins (cooler) (mineralizing)
(6) (a) A-veins (hotter) & (b) B-veins (cooler) (mineralizing)
(7) Sulphide-only veins (no quartz, no alteration haloes) *(mineralizing)*
(7) Sulphide-only veins (no quartz, no alteration haloes) *(mineralizing)*
(7) Sulphide-only veins (no quartz, no alteration haloes) (mineralizing)
(8) Banded Quartz-Mo veins (mineralizing)
(8) Banded Quartz-Mo veins

zones of very abundant Banded Qtz-Moly veins

MOLYBDENUM GRADE (ppMo)
(9) D-veins (quartz-pyrite ± chalcopyrite) *(late mineral)*
Indicates a reversal in Temp (°C) and another magmatic-hydrothermal system??
Haquira East – Level Plans

~400-500m

~600-700m

Open

Open

Open
Haquira East – Level Plans

~400-500m

~600-700m

Open
Haquira East – Level Plans

- Open
- ~400-500m
- ~600-700m

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Sulphide Distribution & Au/Cu Ratio

Section 1900NW, Haquira East
(Looking Northwest)

Bn:Cp & Cp-Py ratios
- > 5:1
- 4:1 - 1:4
- 1.5 - Cp(Bn)
- Cp-only
- Cp-Py & Py-only

Au/Cu RATIOS (ppm Au/‰ Cu)
- 100 X (ppm Au‰ Cu)
- 11.00 - 16.00
- 6.00 - 10.99
- 4.00 - 5.99
- 3.00 - 3.99
- < 2.0
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<th>Haquira Global</th>
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<tr>
<td></td>
<td>Secondary Cu (0.2% cut-off)</td>
<td>Measured</td>
<td>59.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indicated</td>
<td>155.6</td>
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<td></td>
<td></td>
<td>Inferred</td>
<td>72.2</td>
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<td>Total</td>
<td>287.2</td>
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<tr>
<td></td>
<td>Primary Cu (0.3% cut-off)</td>
<td>Measured</td>
<td>68.9</td>
</tr>
<tr>
<td></td>
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<td>Indicated</td>
<td>285.7</td>
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<td></td>
<td></td>
<td>Inferred</td>
<td>333.7</td>
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<tr>
<td></td>
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<td>Total</td>
<td>688.3</td>
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<tr>
<td></td>
<td>Total Haquira (Sup + Hyp)</td>
<td>Measured</td>
<td>128.3</td>
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<tr>
<td></td>
<td></td>
<td>Indicated</td>
<td>441.3</td>
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<tr>
<td></td>
<td></td>
<td>Inferred</td>
<td>405.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>975.5</td>
</tr>
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CuEQ = Cu% + (Au g/t x 0.4862) + (Mo% x 10.00/1.50) + (Ag g/t x 0.0077)

Cu = $US 1.50/lb  Au = $US 500/oz  Mo = $US 10.00/lb  Ag = $US 8.00/oz

5,326,100 Metric Tonnes Cu
6,025,320 Metric Tonnes CuEQ

Mea + Ind (lbs Cu) | 7,090,001,100
Inf (lbs Cu) | 4,654,049,400
Contained lbs Cu | 11.7 billion

Mea + Ind (lbs CuEQ) | 8,094,775,500
Inf (lbs CuEQ) | 5,191,055,100
Contained lbs CuEQ | 13.2 billion

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Haquira 3D Grade Shells View
Sec. Cu (0.2%) & Primary Cu (0.3%)

Haquira West Secondary
Haquira East Secondary

Haquira West Primary
Potato Patch
Haquira East Primary
Haquira Resource Growth 2004 - 2010


Phelps - Dodge
Antares Minerals

Billion Pounds Copper


Sulphides 0.3% Cutoff Oxides 0.2% Cutoff

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Modified from Singer et al. (2005)

Figure 20. Cumulated frequency of ore tonnages of porphyry Cu–Mo (model 21a) deposits. Each dot represents an individual deposit. Intercepts for the 90th, 50th, and 10th percentiles of the lognormal distribution are provided.

Figure 21. Cumulated frequency of copper grade of porphyry Cu–Mo (model 21a) deposits. Each dot represents an individual deposit. Intercepts for the 90th, 50th, and 10th percentiles of the lognormal distribution are provided.
Categories defined by Clark et al. (1993)
Haquira East - Section 1900NW
Au/Cu Ratio, Sulphides, EDM Veins

Section 1900NW, Haquira East (Looking Northwest)

Au/Cu RATIOS (ppm Au%/Cu)

1000m

500m

1-2% EDM

2-10% EDM

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1) The Haquira Cu-Mo-Au porphyry is an exciting new discovery within an emerging world-class Cu district in Peru

2) Early SX-EW operation followed by an open pit and possible underground mining of the primary sulphides

3) Impressive vertical extent to the mineralization

4) Large zones of higher-grades

5) Geological, geophysical & geomorphologic evidence suggest we have only found a portion of the deposit (open to NW, SE, SW and to depth)

6) Excellent exploration potential in adjacent targets

7) First Quantum Minerals is currently drilling & exploring adjacent targets

8) Lots geological work left to be done!

9) Haquira is a SUPER-GIANT in the making!
The Antares Team

Thanks for your attention