

A Tour of the Mineral Deposits of Peru & The Ayawilca Zinc-Tin-Silver discovery in Central Peru

**SMEDG
19 May, 2016**

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Disclaimer

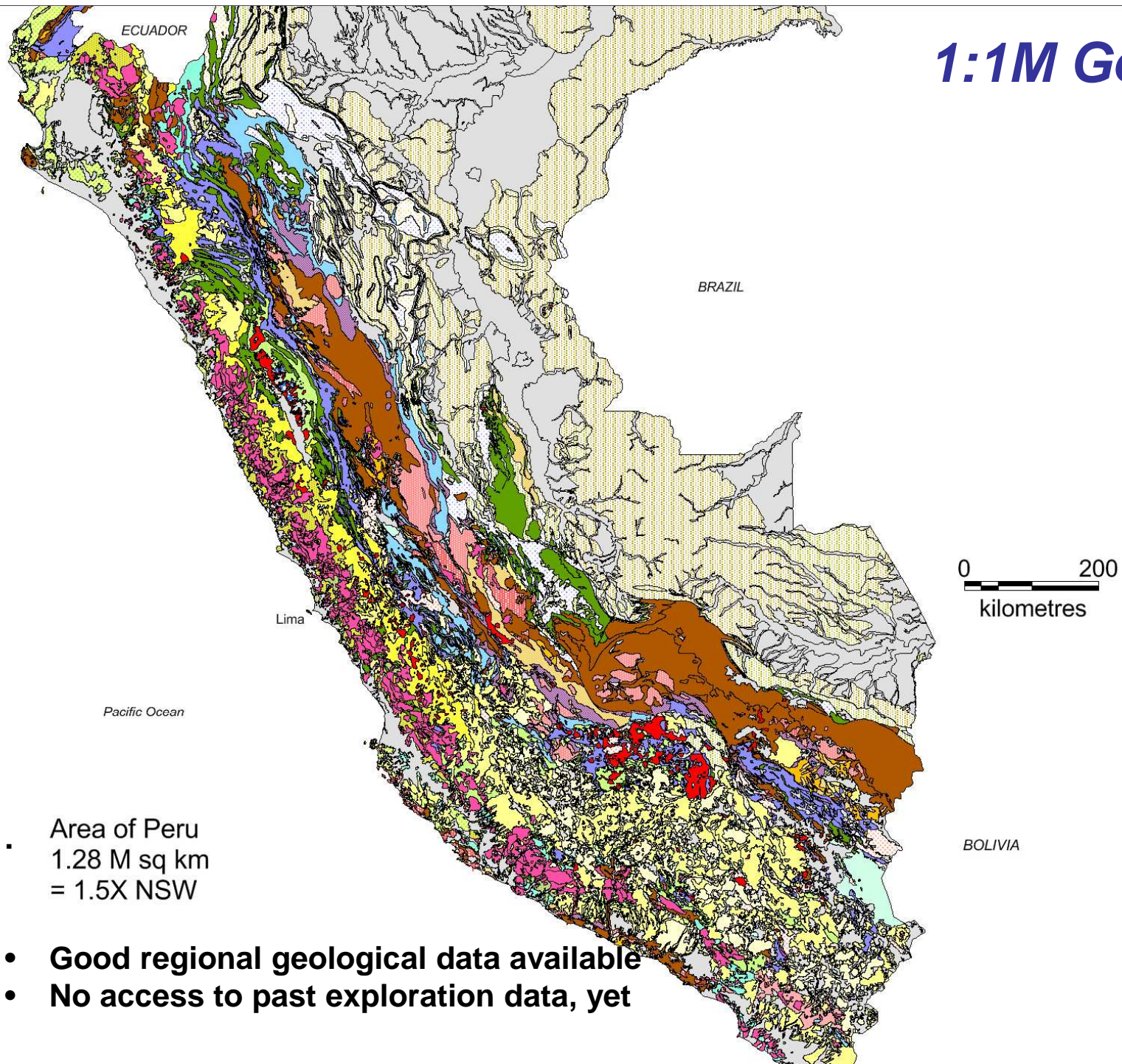
References to Peru deposit sizes are indicative only, based on in some cases, limited data. The research on deposit size/contained metals is not exhaustive, and may contain errors. The author takes no responsibility for the accuracy of deposit inventories, size or grade for Peru deposits shown herein, which are calculated on a best efforts basis. Generally the size and the contained metals of the deposits shown are based on past production + reserves + resources (M+I) data, where readily available. In some instances, gold-silver and silver-dominant deposits are converted to gold equivalent ounces.

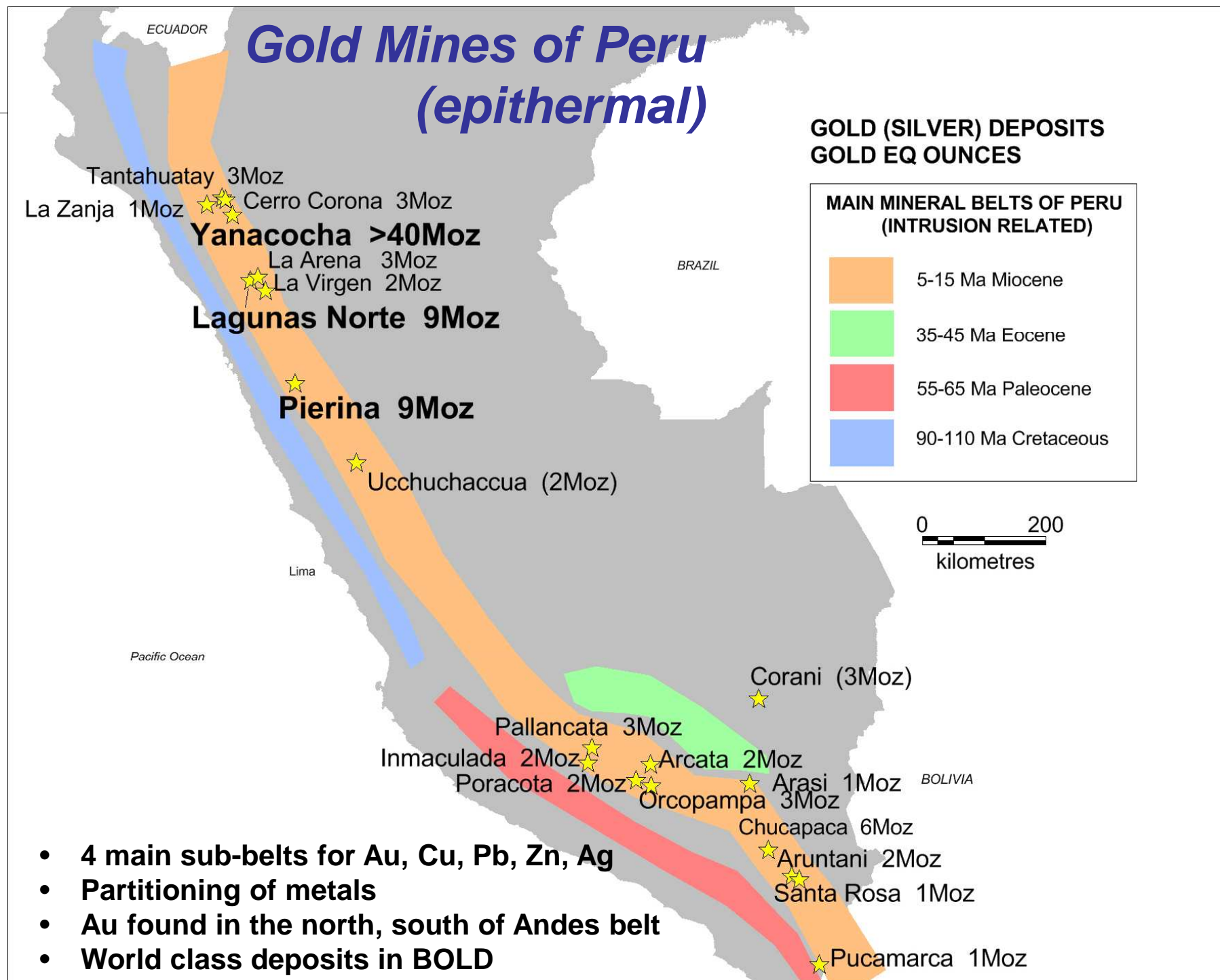
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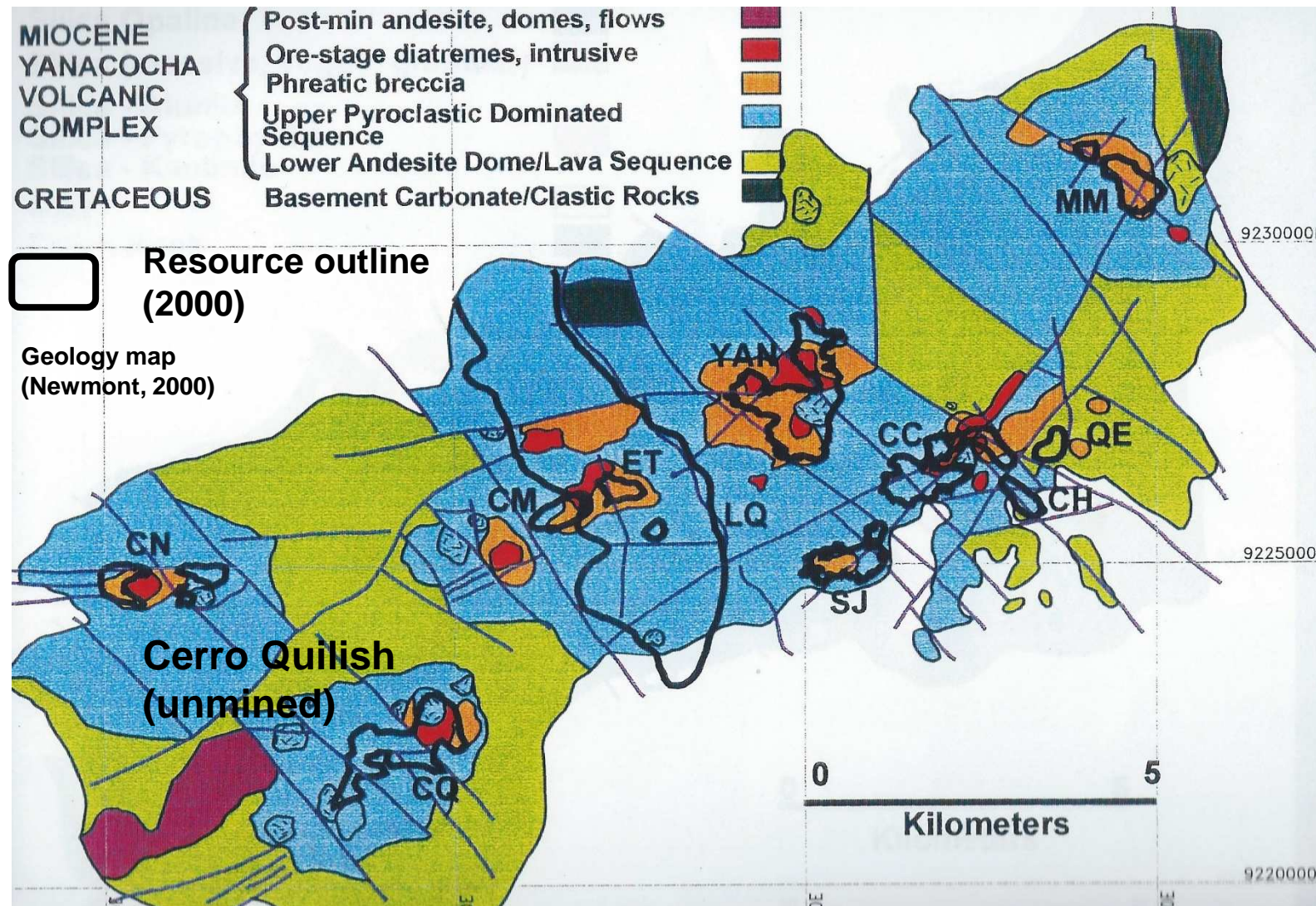
1:1M Geology





Yanacocha Mine (Newmont-Buenaventura-IFC):

- One of world's largest gold deposits
- Series of volcanic centres: domes, vents
- High sulphidation epithermal deposits



Yanacocha Mine today

- Commenced in 1993, 30-35 Moz gold mined + reserves/resources 5 Moz (2015)
- Peak production 3.3 Moz/yr (2005), now producing around 0.6 Moz/yr

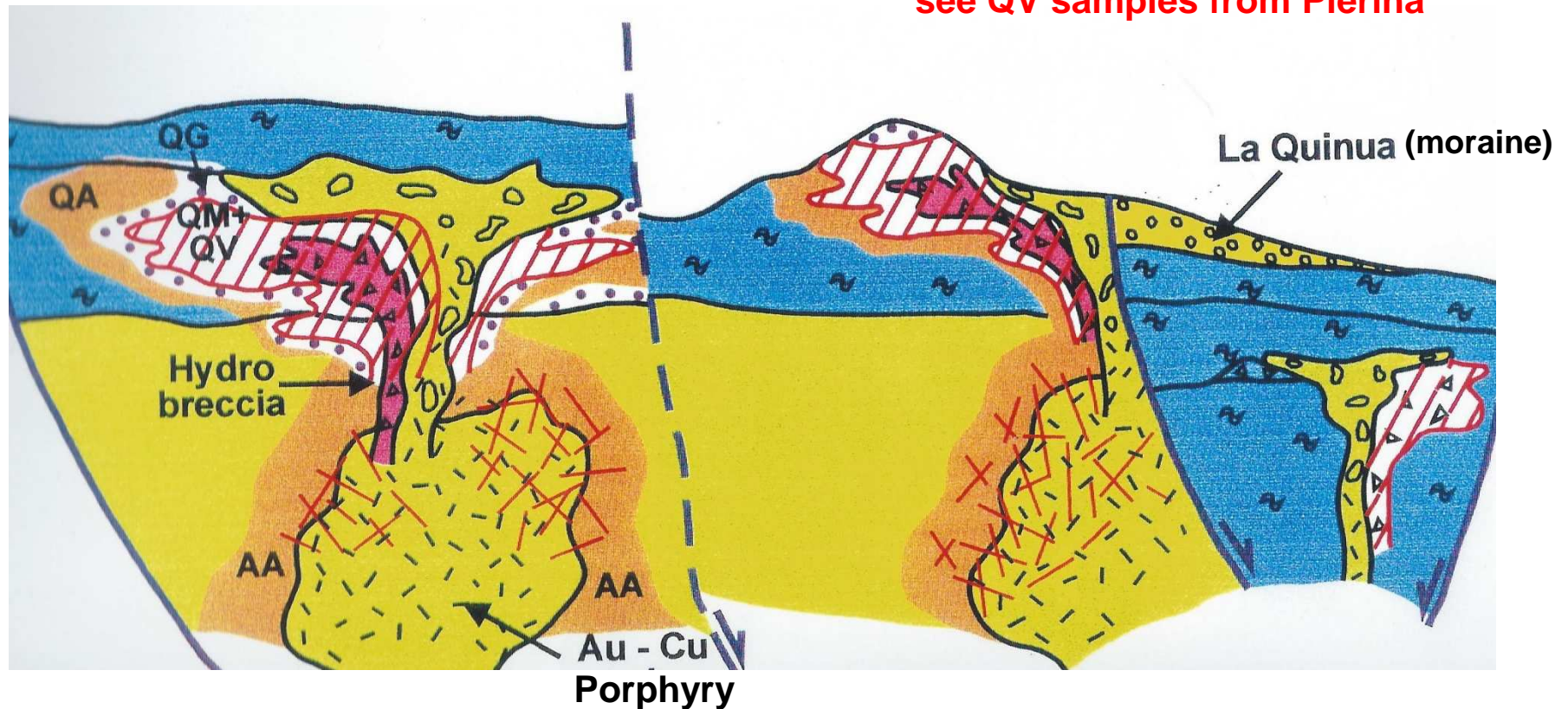


Yanacocha Geology

- Gold mineralization related to intensity of silicification, leaching
- Can be tabular in nature and capped by weakly altered rocks

Quartz Alunite → Quartz Granular → Quartz Vuggy/Massive
..Increasing gold grade

**** see QV samples from Pierina**



Newmont (2000)

Copper Mines of Peru (porphyries)

COPPER DEPOSITS

MAIN MINERAL BELTS OF PERU (INTRUSION RELATED)



0 200
kilometres

- 2 main copper belts
- World class deposits in BOLD

La Granja ★

Antamina
★ **2.5Bt @ 0.9%Cu, 1%Zn**

★ Toromocho

Las Bambas
2.5Bt @ 0.65%Cu

★ San Rafael (Tin)

★ Constancia

★ Tintaya
Antapaccay
1.5Bt @ 0.6%Cu

Cerro Verde
4Bt @ 0.4%Cu

★ Quellaveco
Cuajone
1.5Bt @ 0.65%Cu

★ Toquepala

1.5Bt @ 0.7%Cu

Copper Mines of Peru

Antamina Mine (Glencore-BHP-Teck-Mitsubishi): ***- the world's largest skarn deposit?***

Photo 1994



- Porphyry intrusion into limestones
- Reactive host rock
- Replacements by copper/zinc minerals

Photo 2014



Copper Mines of Peru

Leach caps – why are they important?

An example from Cuajone mine, southern Peru

**** see samples of
jarosite leach cap from
Michiquillay project**

Secondary enrichment:

- Increased copper grade
- Quicker payback of capex
- Leachable copper
- Produce Cu cathode
- Close to surface
- Close to the coast

Primary mineralization



Volcanic cover

“live” hematite

Water table drops
with time

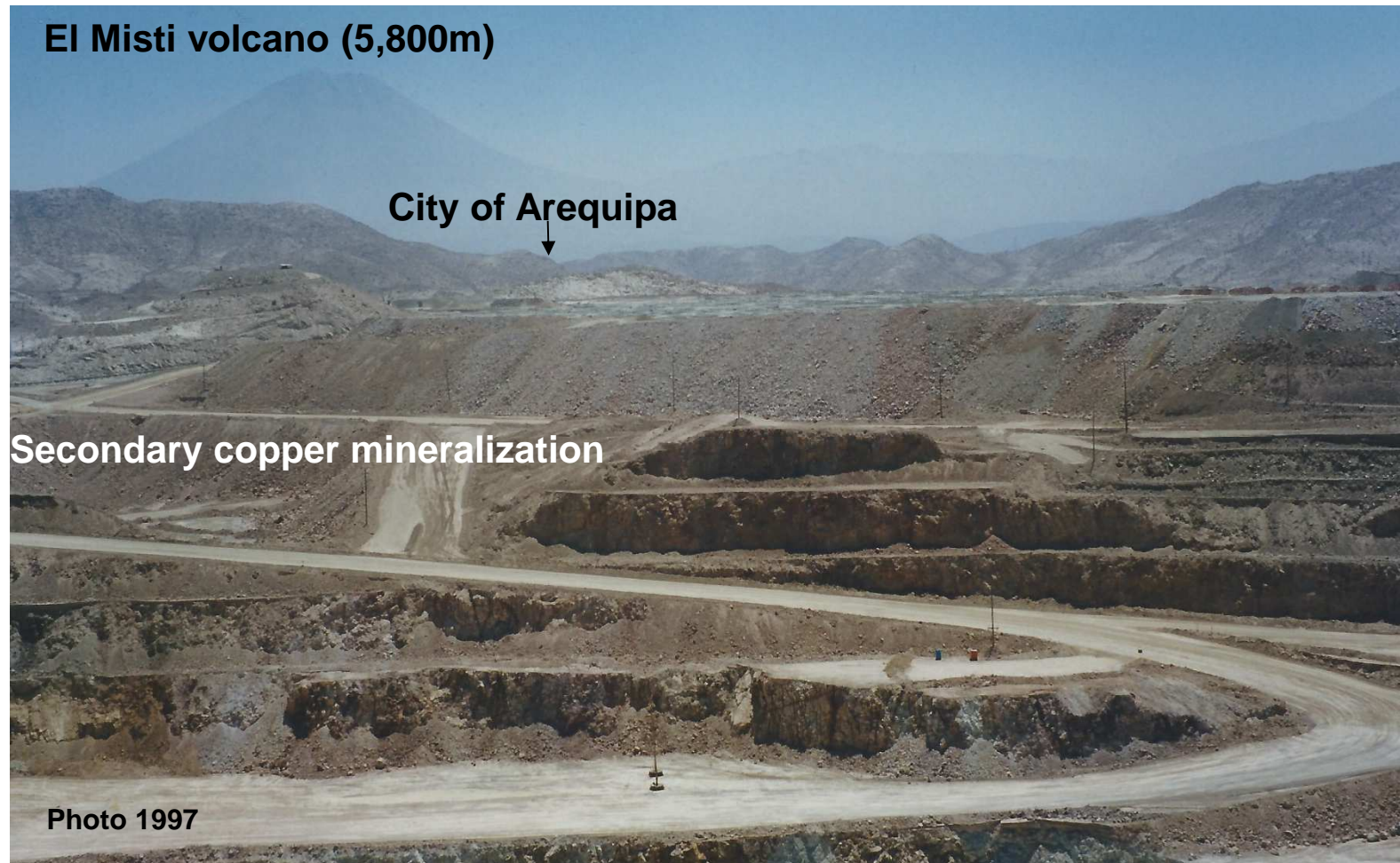
Jarosite leach cap

Secondary copper
enrichment

Photo 1997

Copper Mines of Peru

Cerro Verde Mine (Freeport-Sumitomo-Buenaventura): – Possibly Peru's largest copper porphyry deposit



Copper Mines of Peru

Quellaveco Project (Anglo American-Mitsubishi):

- 1.5Bt @ 0.7% copper resource
- Peru's largest undeveloped copper project



Photo 1997

Zinc Mines of Peru

Tambo Grande VHMS

Bongara MVT

Antamina
2.5Bt @ 0.9%Cu, 1%Zn

Huanzala

Cerro de Pasco
120Mt @ 9%Zn+Pb

Porvenir

San Gregorio

Morococha

San Vicente MVT

San Cristobal

Lima

Cerro Lindo VHMS

ZINC DEPOSITS

MAIN MINERAL BELTS OF PERU (INTRUSION RELATED)

	5-15 Ma Miocene
	35-45 Ma Eocene
	55-65 Ma Paleocene
	90-110 Ma Cretaceous

0 200
kilometres

- 2 main zinc belts (3 including MVTs)
- World class deposits in **BOLD**

Zinc Mines of Peru

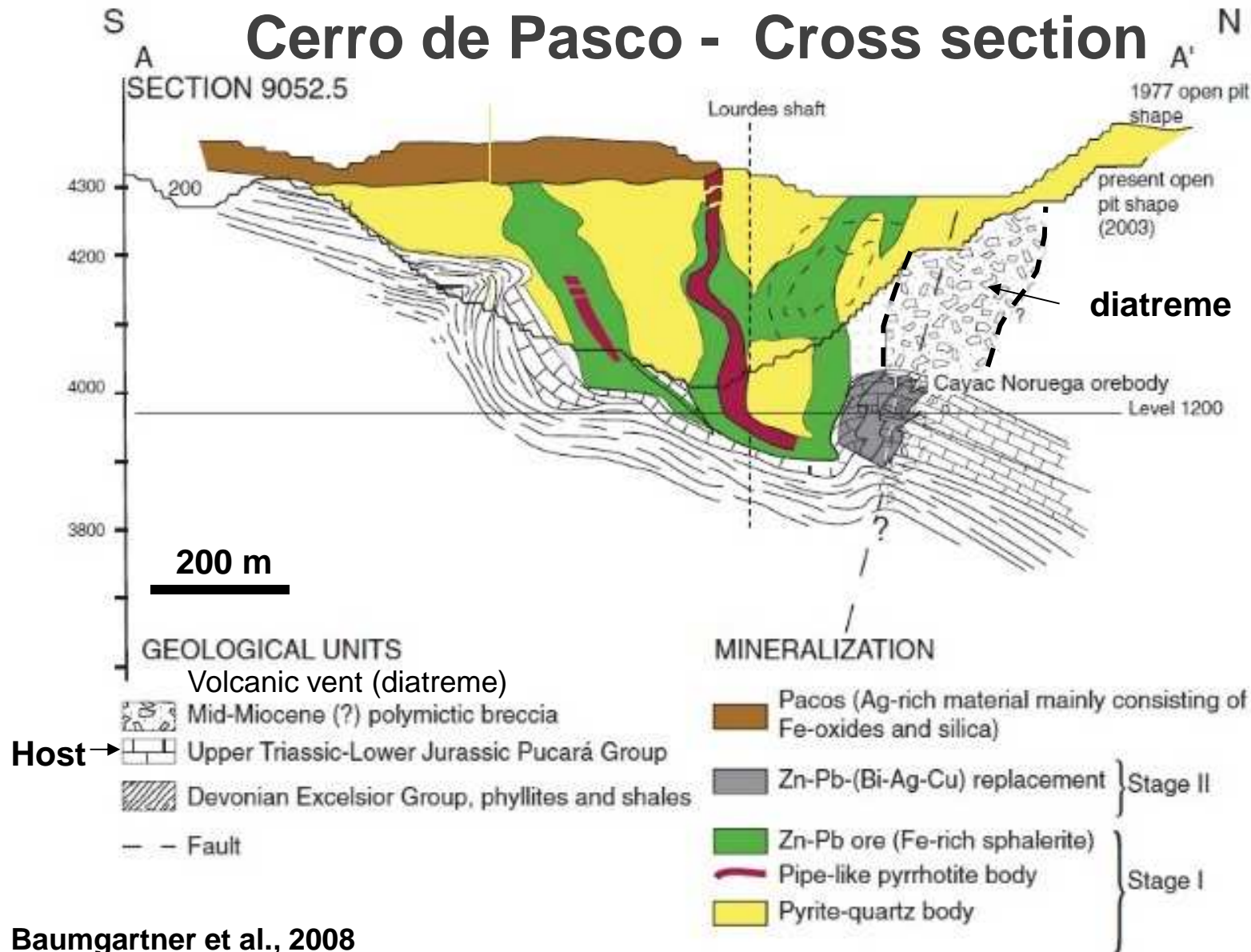
Cerro de Pasco Mine (Volcan):

- Carbonate Replacement Deposit “CRD”
- Replacement of limestones by sulphides: zinc+lead+silver, lots of pyrite
- Similar to skarn but lower temperature, shallow, epithermal



National Geographic, 2015: Cerro de Pasco mine, looking north

Cerro de Pasco - Cross section



Baumgartner et al., 2008

Comments on Peru Mineral Deposits

■ **Gold :**

- Most deposits discovered post-1990, high-sulphidation epithermals
- Production decreasing as large deposits now past their peak
- No big discoveries in last few years

■ **Copper:**

- Porphyries along coastal belt discovered in 1960s and 1970s
- Brownfields projects getting bigger and bigger, huge inventories
- Few tier one deposits left undeveloped, and no new giant discoveries
- IOCG potential along coastal belt

■ **Zinc-lead-silver:**

- Several old and tired deposits, few new discoveries

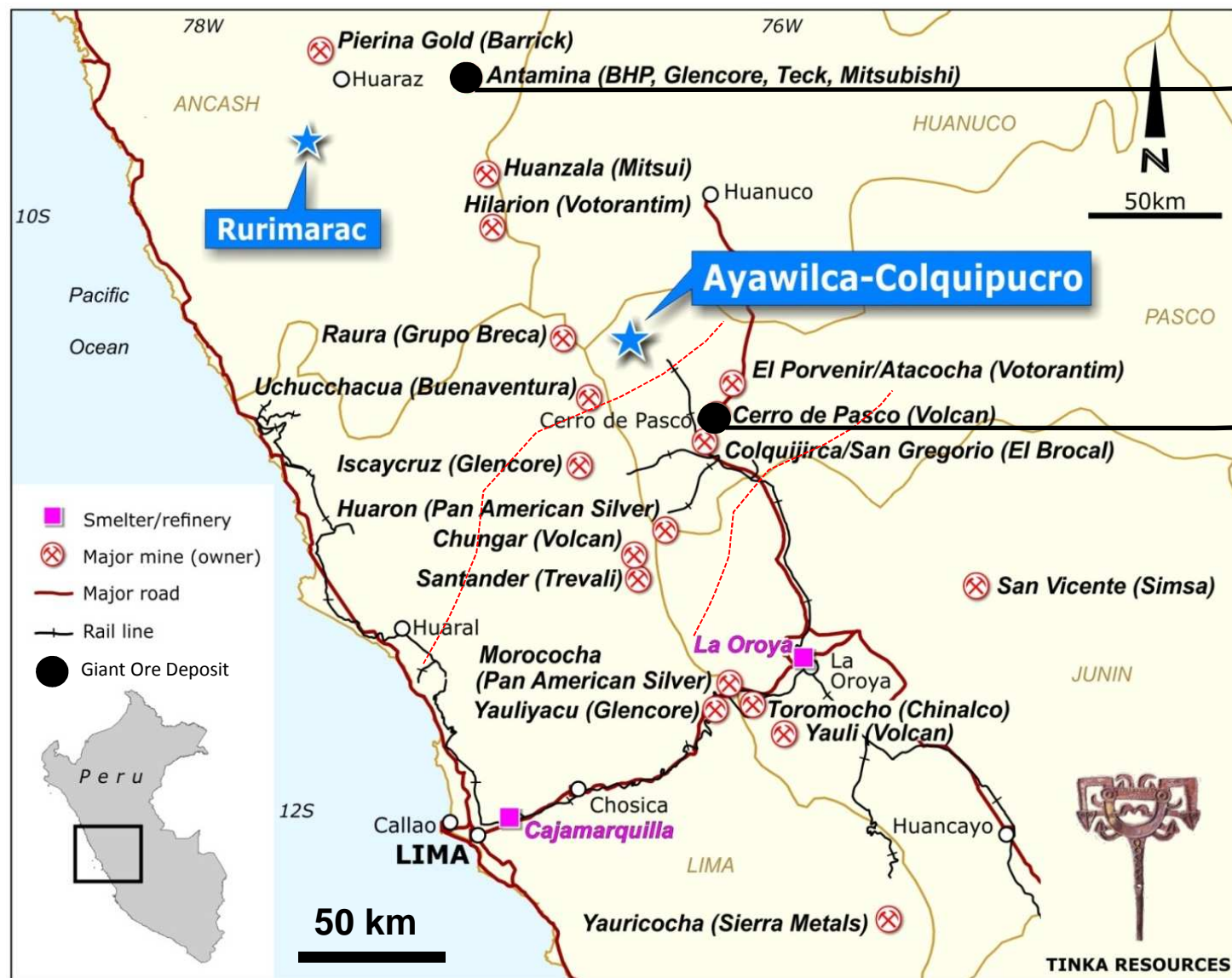
■ **Tin:** One mine, one potential new discovery

Exploration opportunities – still exist but there are challenges:

- Peru becoming a mature belt; most new discoveries likely to be ‘under cover’
- Access more complex than in the past, community support is essential
- Red tape, permitting requirements can slow progress - costs time and money
- Good local team a necessity



Ayawilca Project: A new Zinc-Tin discovery in Central Peru

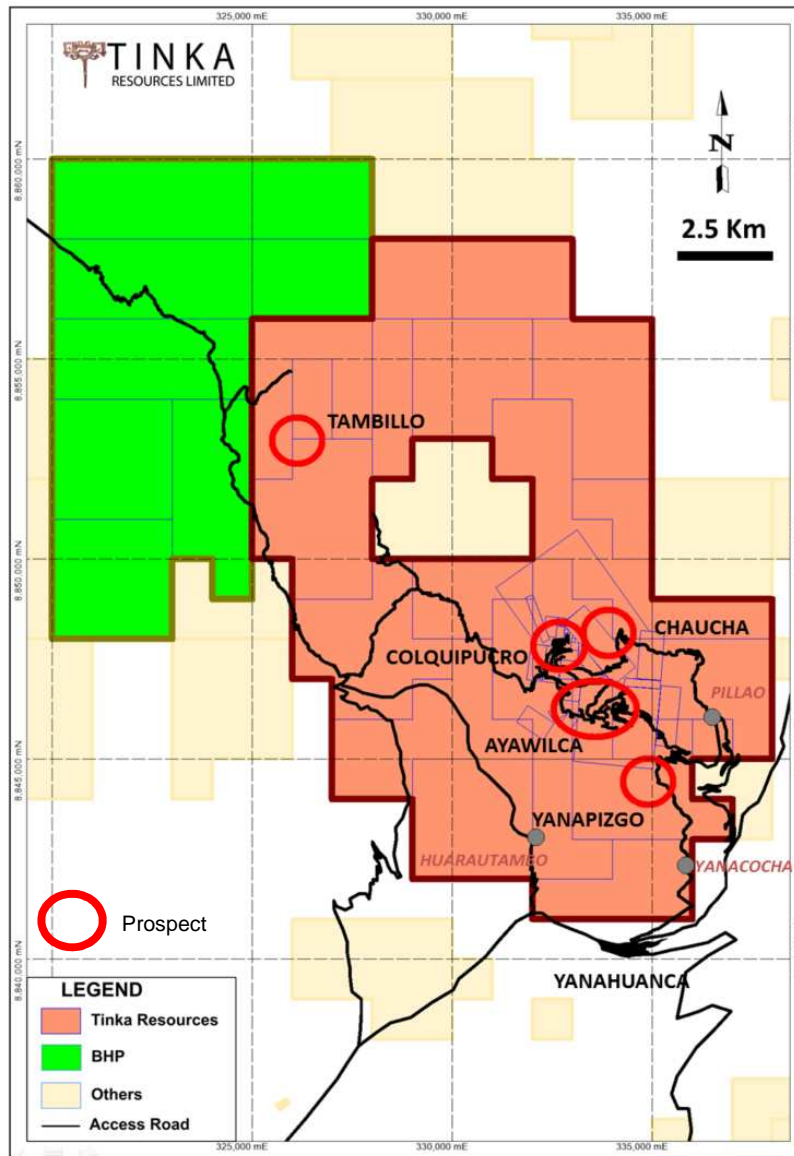


Antamina:
Largest Current
Copper/Zinc Mine
in Peru

Cerro de Pasco:
Largest Historic
Silver/Zinc Mine in
Peru



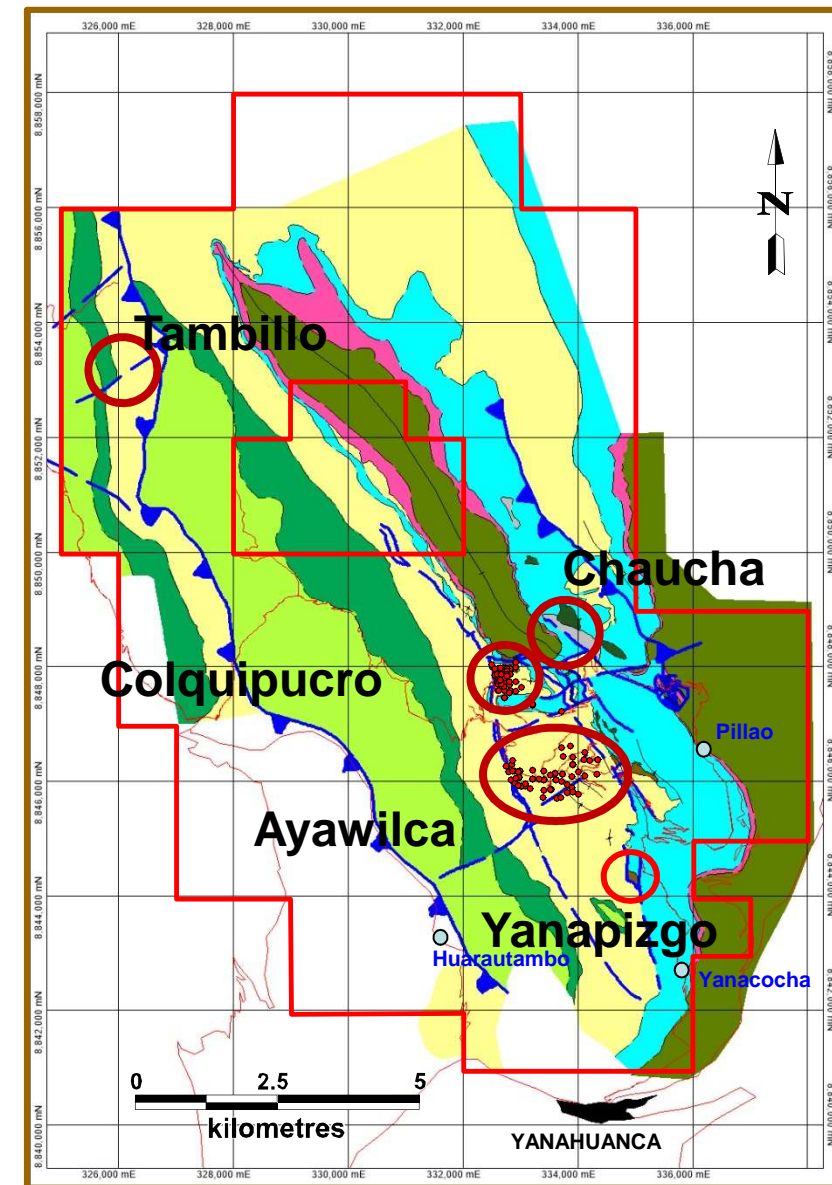
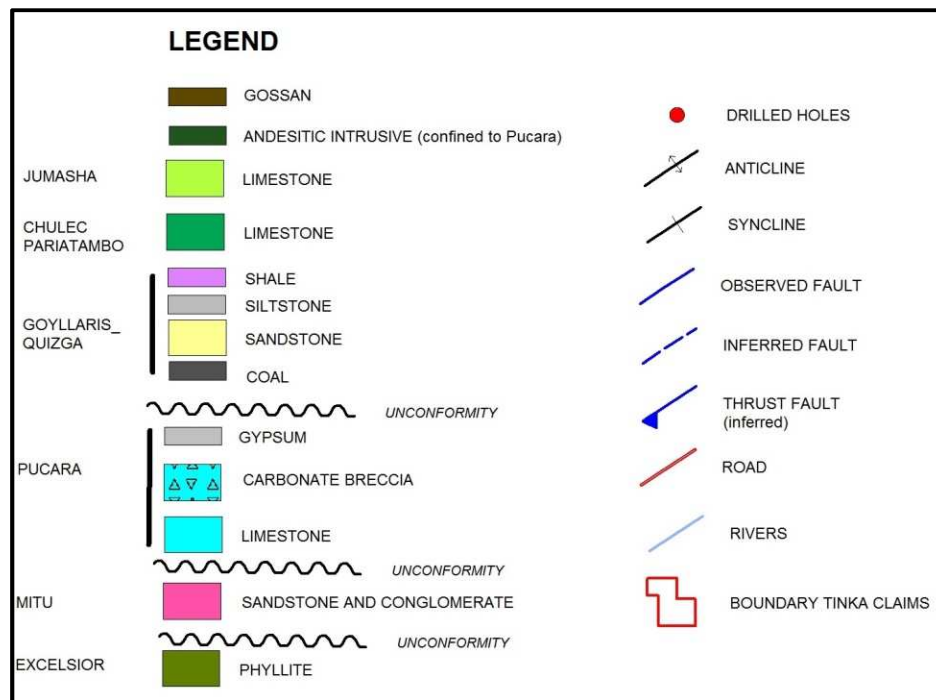
Tinka Resources: Regional Tenement Map



- 100% Tinka
- 140 km² of tenements, largely unexplored
- Drilling only tested small area
- Ayawilca, Colquipucro
- Tambillo & Yanapizgo new surface manifestations in 2016

Project Geology

- Colquipucro: Silver oxide mineralization hosted by Cretaceous sandstone
- Ayawilca: Zinc-tin mineralization hosted by underlying Triassic limestone – ‘blind’



Mineral Resource Estimates Feb' 2015

▪ **Ayawilca Inferred Mineral Resource:**

- **13.3 Million Tonnes grading 7.7 % Zinc Eq. (5.9% Zn, 0.2% Pb, 68 g/t In, 14g/t Ag):**

- 1.7 billion pounds of Zinc;
- 909 tonnes of Indium;

Cut-off: NSR \$60/t


- **Resource upgrade expected Q2 2016, 9000 m drill program (Q4 2015) for ZINC and TIN**

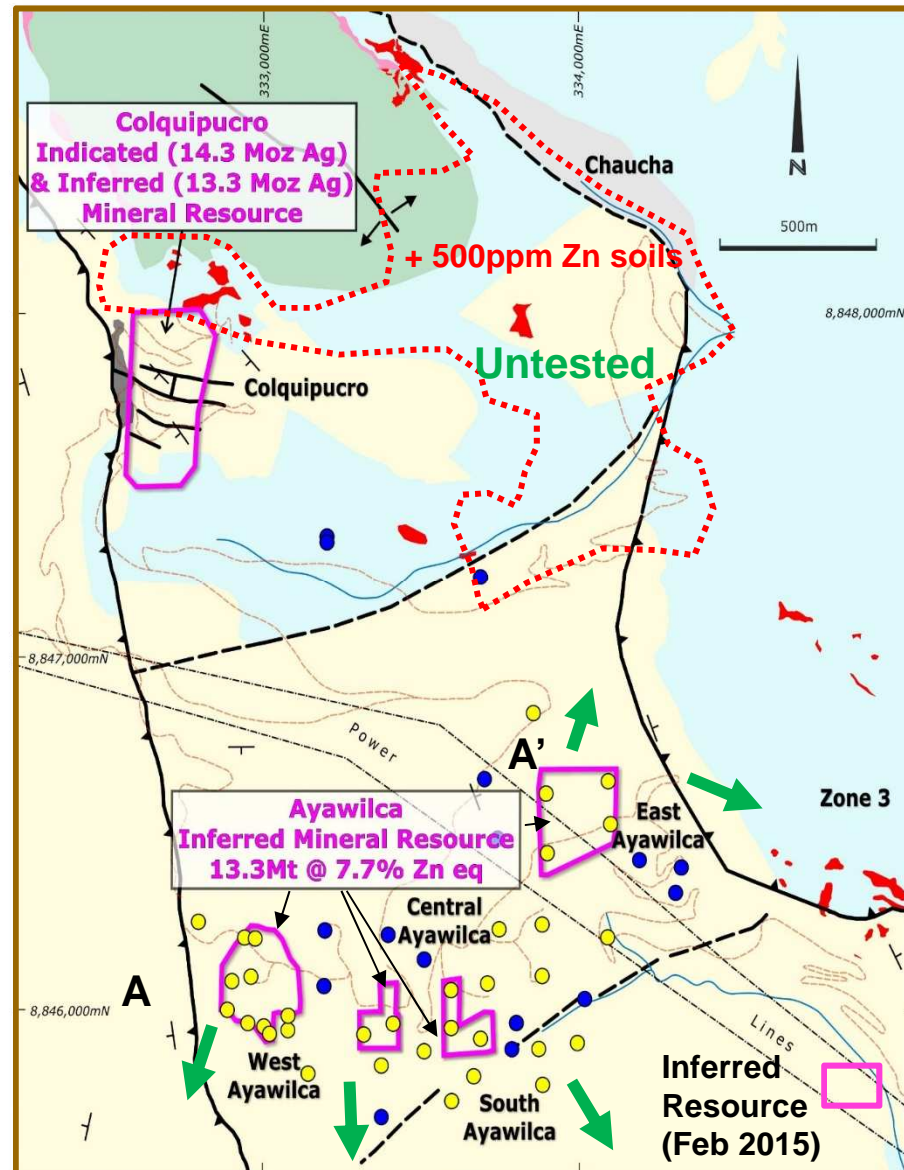
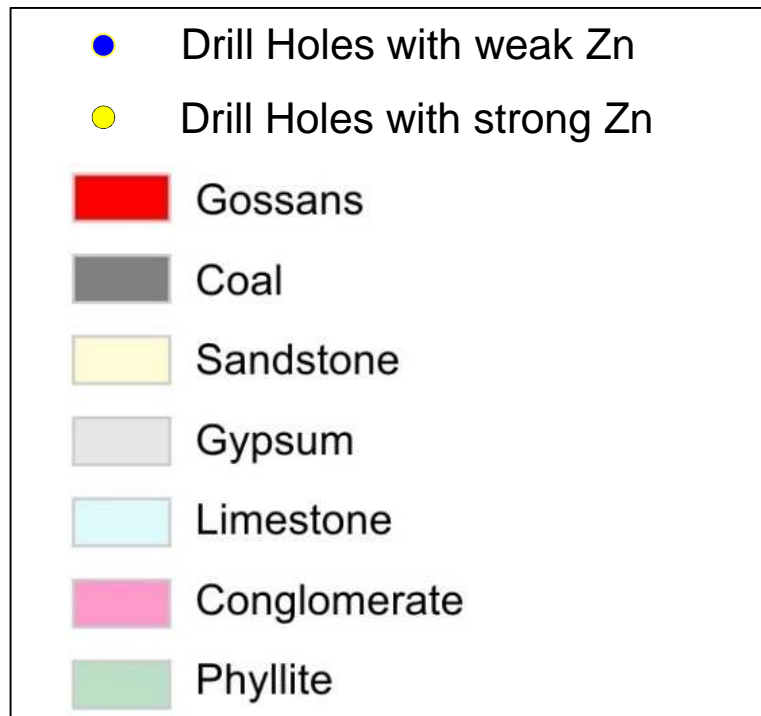
▪ **Colquipucro Silver Oxide Resource (<2km away):**

- 14.3 Moz silver grading 60 g/t Ag (Indicated), and
- 13.2 Moz silver grading 48g/t Ag (Inferred)

Cut-off: 15g/t Ag (\$12/t)

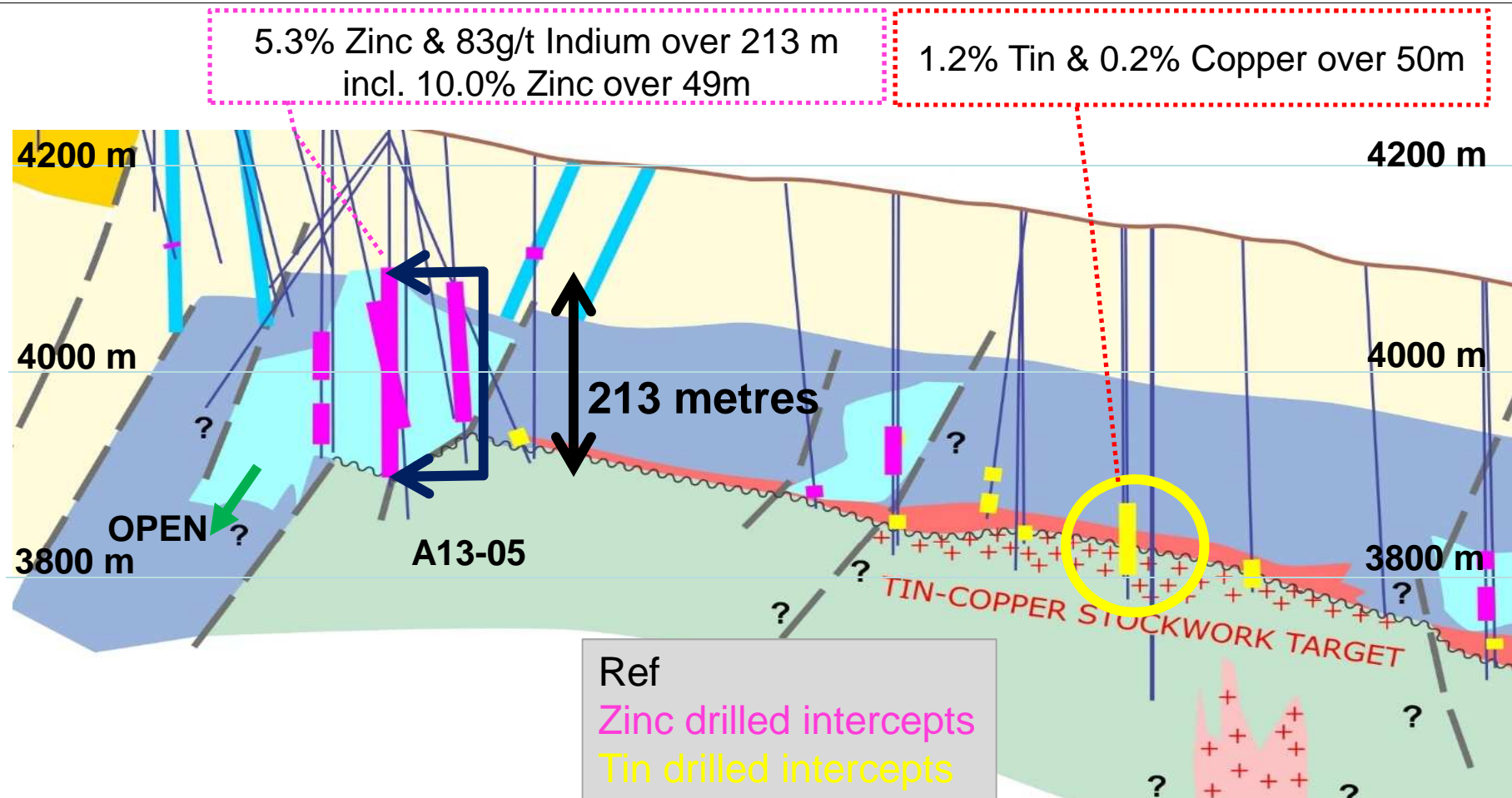
Ayawilca Project - Geology

- Resource boundaries limited by drill permit boundaries
- 12 km² prospective area
- ~28,000 m drilled at Ayawilca
- Resources open 





Ayawilca Cross Section (West to East)



- 213 metres is equivalent to a 66 story building
- Mineralization found in drilling over 2km x 2km area, open
- Sandstone 'seal' was important control - prevented early discovery

High Grade Mineralization at Ayawilca

Zinc (Indium-Lead-Silver)

Drill Hole	From (m)	To (m)	Interval (m)	Zinc (%)	Lead (%)	Silver (g/t)	Indium (g/t)
A13-05	130.3	343.2	212.9	5.34	0.17	15	83
including	130.3	179.5	49.2	10.07	0.55	32	51
including	150.0	166.0	16.0	18.14	0.05	39	120
and	316.0	326.0	10.0	12.93	0.02	42	670

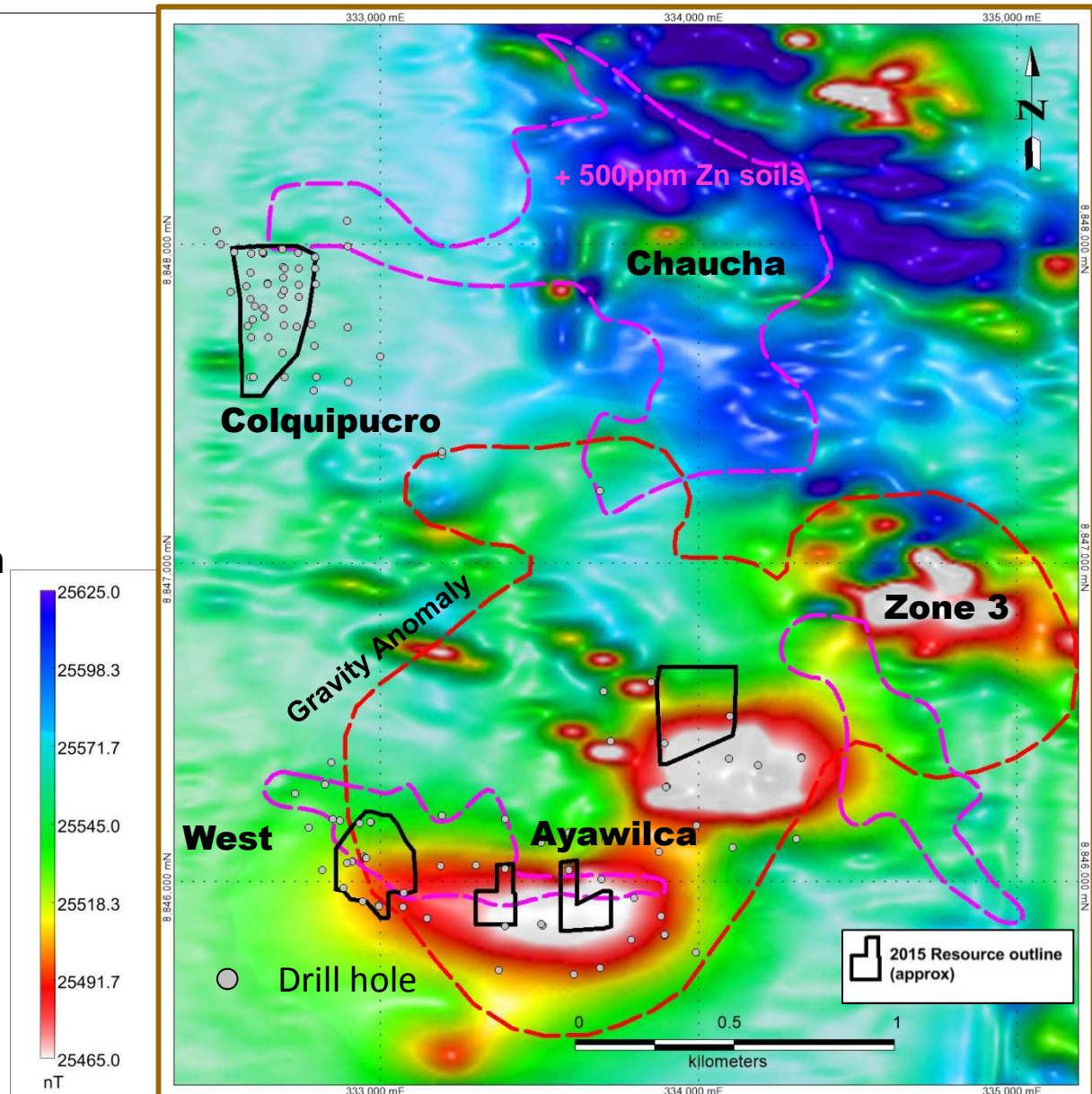
Tin (Copper-Silver)

Drill Hole	From (m)	To (m)	Interval (m)	Tin (%)	Copper (%)	Silver (g/t)
A15-40	328.0	378.5	50.5	1.23	0.16	15
including	328.0	341.0	13.0	2.94	0.25	12
including	330.0	332.5	2.5	8.81	0.18	10
A13-11	328.0	344.2	16.2	1.03	0.67	22
including	330.0	332.0	2.0	4.81	2.07	77

Geophysics - Magnetics and Gravity

- 30% of prospective area drilled to date
- Gravity, Ground magnetics and IP completed
- Magnetics provides the best indirect exploration guide
- However, zinc is not directly associated to strongest magnetic anomalies (pyrrhotite)

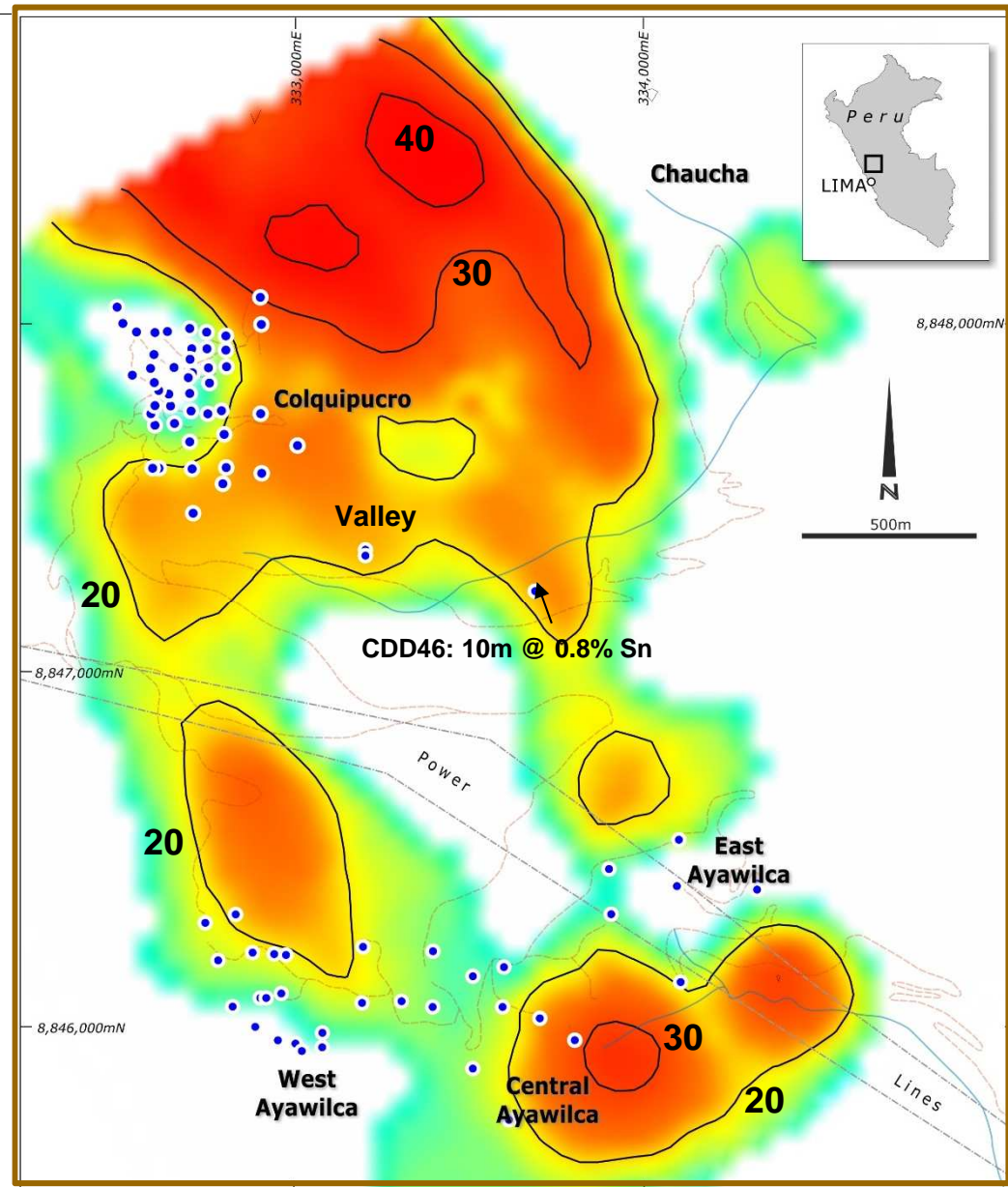
RTE magnetics



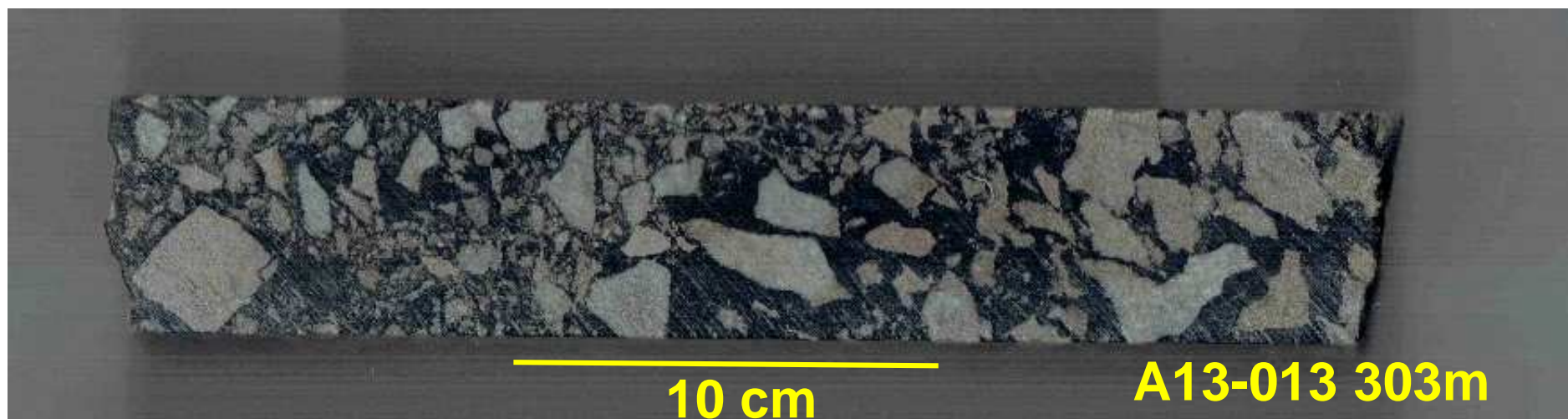
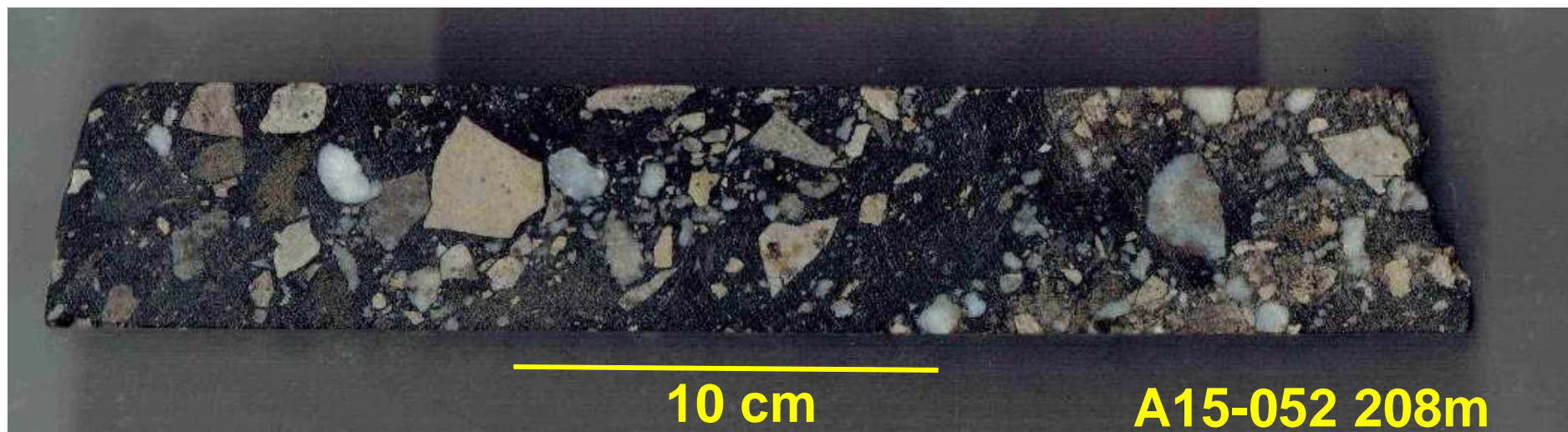
IP Geophysical Anomalies

- IP at 350 metres depth
- Extensive sulphide
- Chaucha anomaly not yet permitted to drill
- Drill permits expected Q3-Q4 2016

Chargeability at 350 m depth
(mV/V)



Ayawilca Breccias



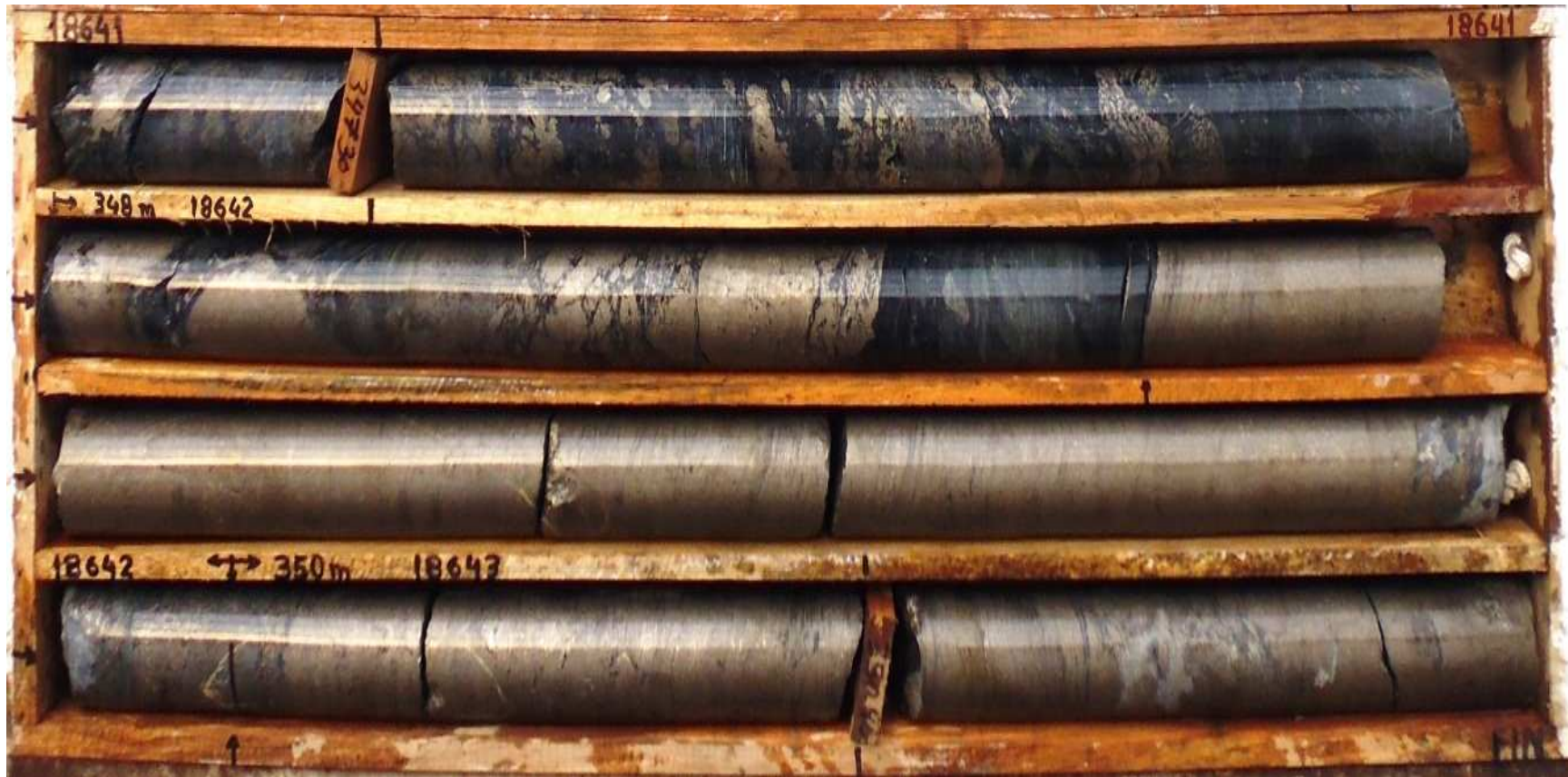
Mineralization I - Zinc Replacement of Limestone

Sphalerite in fractures and matrix replacement



A14-24 Massive Py-Sph in limestone; 350 m depth

Mineralization II - Tin-Copper Mineralization



Massive pyrrhotite replacing limestone: 1% tin (cassiterite), 0.3% copper

Drill hole A14-27, 350 m depth

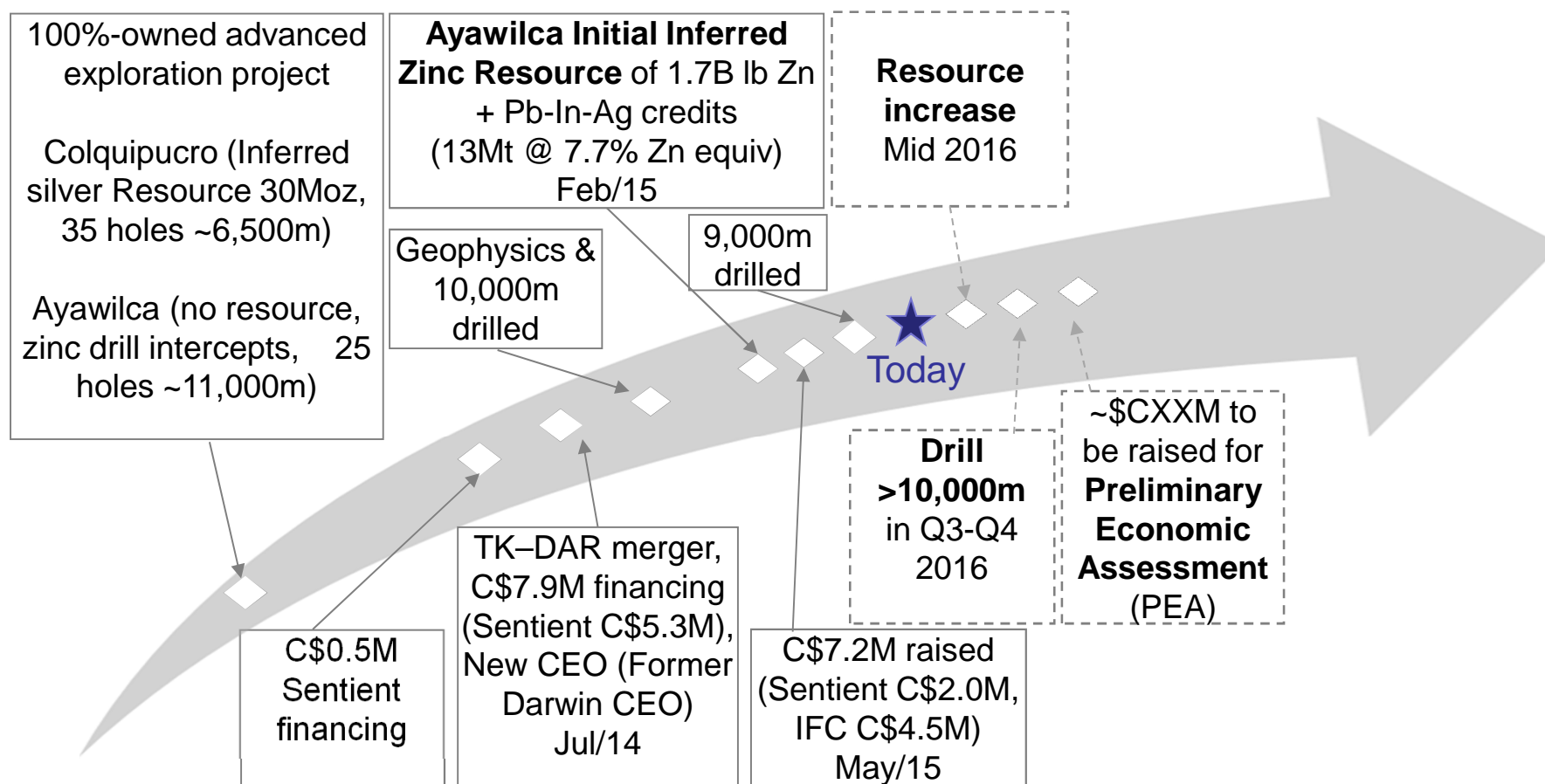
Mineralization II - Tin-Copper Mineralization

Cassiterite (tin oxide) is disseminated within pyrrhotite, chalcopyrite





Tinka – Milestones and Outlook



Indicative Stages & Timeline	Early Exploration	Sentient/ Darwin Project Acquisition Tinka refinancing	Exploration & Resource Delineation Preliminary Economics	Feasibility PFS/FS	Funding, Construction and Operation ?
	2010-2013	Feb-Jul 2014	Aug 2014- Dec 2017	2018-2019	2019-2021

Tinka Resources - Corporate

Trading Symbol:

TSXV: TK

Shares Issued:

149.8 M

Warrants:

39.8 M

Options:

10.3 M

Shares reserved :

0.5 M

Fully diluted:

200.4 M

Key statistics:

Last financing: C\$7.25m May'15 (\$0.215 /sh)

Cash March 31, 2016:

~C\$3.8 M

Market cap @ \$0.24/share:

~C\$35 M

Major shareholders

Sentient Group:

21.5%

International Finance Corp (World Bank):

14.0%



Machu Picchu, 1996

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AYAWILCA VIDEO

Thank you!
Gracias!