

# Hannanmetals

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NEWS RELEASE

AUGUST 01, 2019

## HANNAN SAMPLES 2 METRES @ 5.9% COPPER AND 66 g/t SILVER IN OUTCROP FROM SACANCHE, PERU

Vancouver, Canada – Hannan Metals Limited (“Hannan” or the “Company”) (TSXV: HAN) (OTCPK: HANNF) announces new sampling results from the northern part of the Sacanche claim application area (8,900 hectares) from the 100% owned San Martin project (38,400 hectares under claim application) in north central Peru (Figure 1).

### Highlights:

- Rock chip channel samples from outcrop separated by 5.4 kilometres:
  - **2 metres @ 5.9% copper and 66 g/t silver** with the wider zone assaying **3 metres @ 4.1% copper and 45 g/t silver** (Figure 2);
  - **0.6 metres @ 8.7% copper and 59 g/t silver** (Figure 2);
- High-grade grab sample from float assayed **30.1% copper and 595 g/t silver** within close proximity to channel samples (Figure 2);
- Multiple mineralized stratigraphic positions and styles have now been defined across the property. Two bituminous quartz sandstones from the Cushabatay Formation returned **2.6% to 2.8% copper and 36 to 50 g/t silver** confirming the copper/silver potential of this thick sandstone horizon. Lead-zinc bearing gossans greater than 50m in thickness have been discovered across an 11 kilometre strike;
- The footprint of mineralization at Sacanche has now been defined within a 27 kilometre strike.

Michael Hudson, Hannan’s CEO, states, *“In our first exploration field season at Sacanche, sediment-hosted copper-silver mineralization has been discovered across 27 kilometres of strike. Mineralization has been defined within multiple stratigraphic levels. Our initial expectations have been exceeded and the concept of a new copper district is well supported by data. Further prospecting results from south Sacanche and Tabalosos, located 80 kilometres to the north, will follow over the coming months as further results from the field season start to be received.”*

Channel samples are considered representative of the in-situ mineralization samples and sample widths quoted approximate the true width of mineralization, while grab samples are selective by nature and are unlikely to represent average grades on the property.

### Geological Discussion

High grade copper mineralization has been discovered in multiple mineralized positions at Sacanche, over a 27 kilometre strike. Two distinct sub-types of the sediment hosted copper style are described throughout Hannan’s claim application areas:

1. The first style is hosted by the Cushabatay Formation:
  - Mineralization in quartzites with hydrocarbon metal traps, analogous to the giant Udokan copper deposit in Russia and Spar Lake in the USA. This is the first time this style of mineralization has been described in the target area.
  - The Cushabatay Formation hosts >50-metre-thick gossanous outcrops with zinc-lead across 11 kilometres of strike, that is interpreted to form distally to copper-silver mineralization.

- The discovery of two bituminous quartz sandstones from the Cushabatay Formation that assayed 2.6% to 2.8% copper and 36 – 50 g/t silver confirms the copper-silver potential of this thick sandstone horizon.

2. The second style is hosted by the Sarayaquillo Formation:

- Mineralization is associated with reduced facies within red beds, where petrographic studies show copper sulphides replace both pyrite and organic material. This style is similar to copper mineralization associated with Zechstein Basin in Poland and Central African Copper Belt.
- Copper within the Sarayaquillo Formation has been discovered throughout Hannan's claim application and extends along an 80 kilometre trend from Tabalosos to Sacanche.
- Evidence for this style is demonstrated by the high grade copper in channel samples reported here at Sacanche (i.e. 2 metres @ 5.9% copper and 66 g/t silver) and by the [initial sampling by Hannan](#) in 2018 that discovered four areas of high-grade copper and silver over 15 kilometres of strike within the Tabalosos claim application area. Nineteen grab samples from mineralized float in river beds (>0.1% copper) ranged in grade from 0.1% to 8.3% copper and 0.2 g/t silver to 109 g/t silver with an average grade of 2.8% copper and 27.2 g/t silver.
- The Sarayaquillo Formation/Cushabatay Formation contact is an angular erosional unconformity that is interpreted to relate to salt tectonics (halokinesis).

Hannan's interpretation is that copper and silver were deposited from low-temperature oxidised saline brines formed from the several hundred metre thick Pareni Salt Formation. The brines scavenged metals (principally copper ± silver and associated lead and zinc) from the deeper Mitu Group red beds and volcanoclastics which were deposited in a failed Traissic rift. The circulation of saline fluids across the redox boundary was induced and focused by halokinesis. Geological relationships suggest halokinesis was initiated during Jurassic rifting and was active until the early to mid-Cretaceous which coincides with the formation of an Andean foreland basin.

In other news, two claim applications with a total area of 2,000 hectares has been submitted to [Ingemmet](#), covering high grade copper mineralization at Sacanche North.

Management of Hannan have significant prior experience in [Peru, which is the world's second largest copper producer](#). The country's copper output is forecast to increase from 2.5 million tonnes ("Mt") in 2018 to 3.8Mt by 2027, averaging 4.7% annual growth. Sediment-hosted deposits are the world's [second-most](#) important source of copper accounting for approximately 20% of world production.

**About Hannan Metals Limited (TSX.V:HAN) (OTCPK: HANNF)**



[Hannan Metals Limited](#) is a natural resources and exploration company developing sustainable and ethical resources of metal needed to meet the transition to a low carbon economy. Over the last decade, the team behind Hannan has forged a long and successful record of discovering, financing and advancing mineral projects in Europe and Peru.

Mr. Michael Hudson FAusIMM, Hannan's Chairman and CEO, a Qualified Person as defined in National Instrument 43-101, has reviewed and approved the technical disclosure contained in this news release.

On behalf of the Board,

**"Michael Hudson"**

Michael Hudson, Chairman & CEO

**Further Information**

[www.hannanmetals.com](http://www.hannanmetals.com)

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Mariana Bermudez, Corporate Secretary,

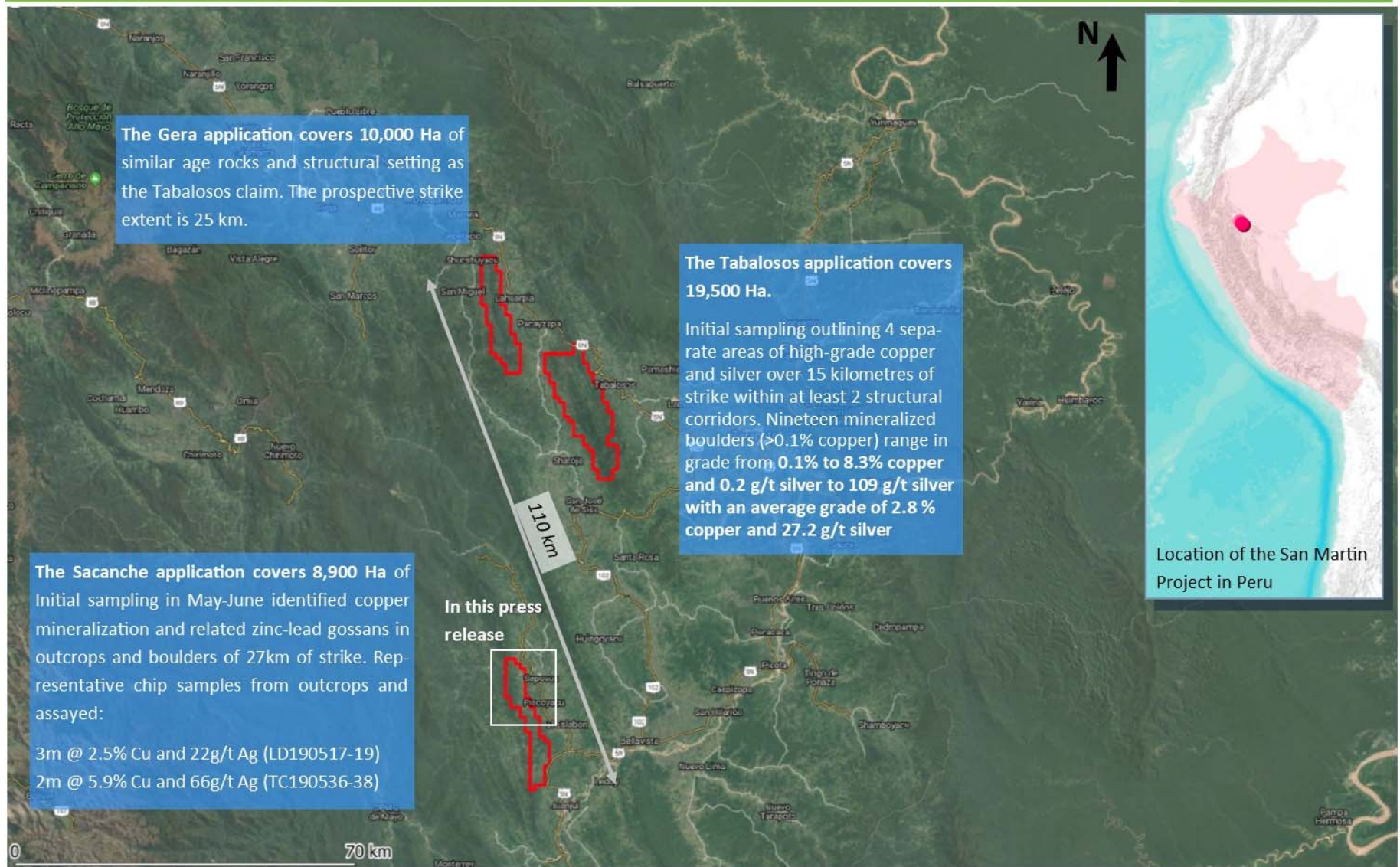
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**Forward Looking Statements**

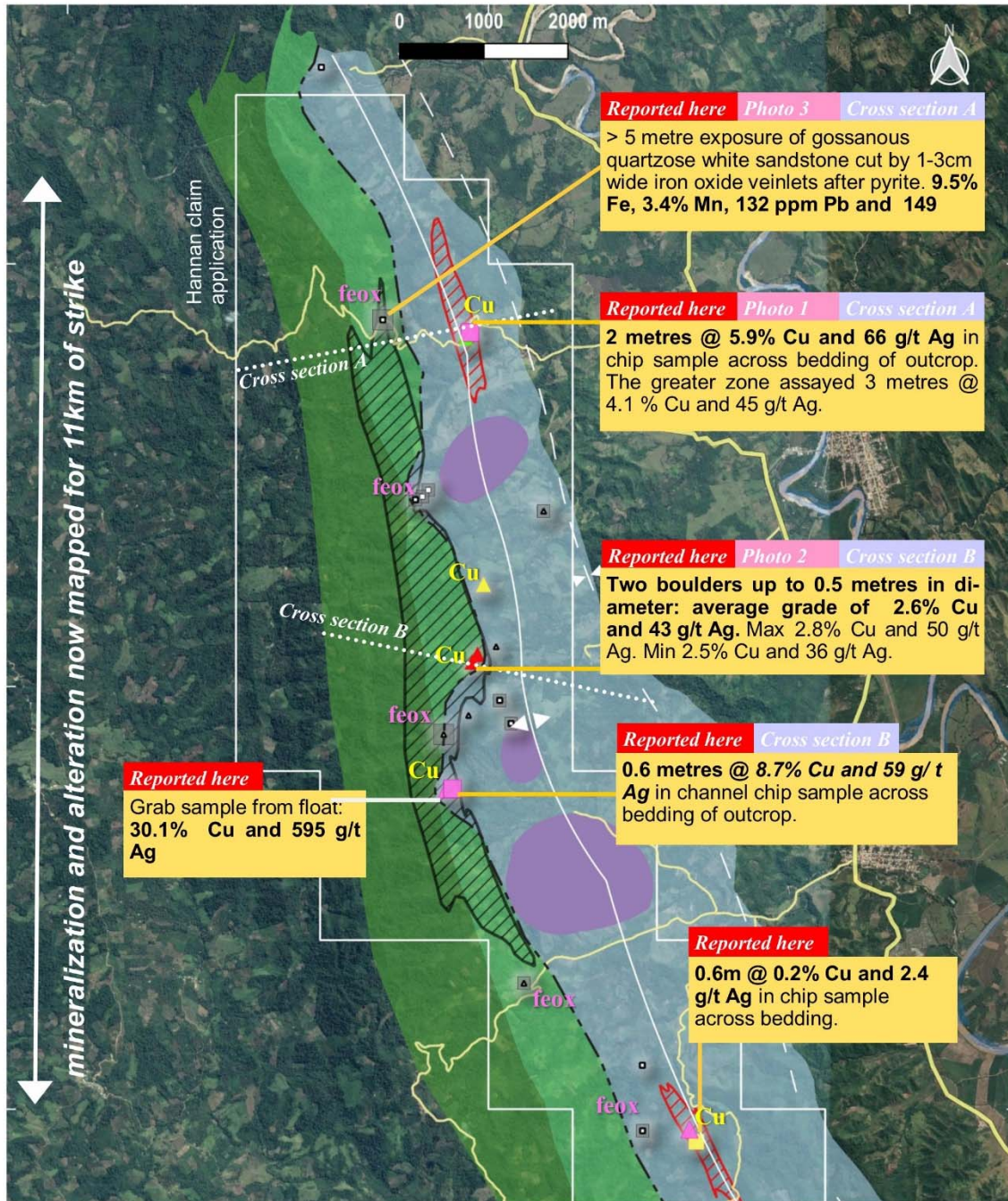
Certain information set forth in this news release contains "forward-looking statements", and "forward- looking information" under applicable securities laws. Except for statements of historical fact, certain information contained herein constitutes forward-looking statements, which include the Company's expectations regarding future performance based on current results, expected cash costs based on the Company's current internal expectations, estimates, projections, assumptions and beliefs, which may prove to be incorrect. These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause the Company's actual performance and financial results in future periods to differ materially from any projects of future performance or results expressed or implied by such forward-looking statement. These risks and uncertainties include, but are not limited to: The Company's expectations regarding timing to complete field work and outcome of results, the granting of the claim applications in Peru, community relations, liabilities inherent in mine development and production, geological risks, the financial markets generally, and the ability of the Company to raise additional capital to fund future operations. There can be

no assurance that forward-looking statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. The Company undertakes no obligation to update forward-looking statements if circumstances or management's estimates or opinions should change except as required by applicable securities laws. The reader is cautioned not to place undue reliance on forward-looking statements.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this news release.



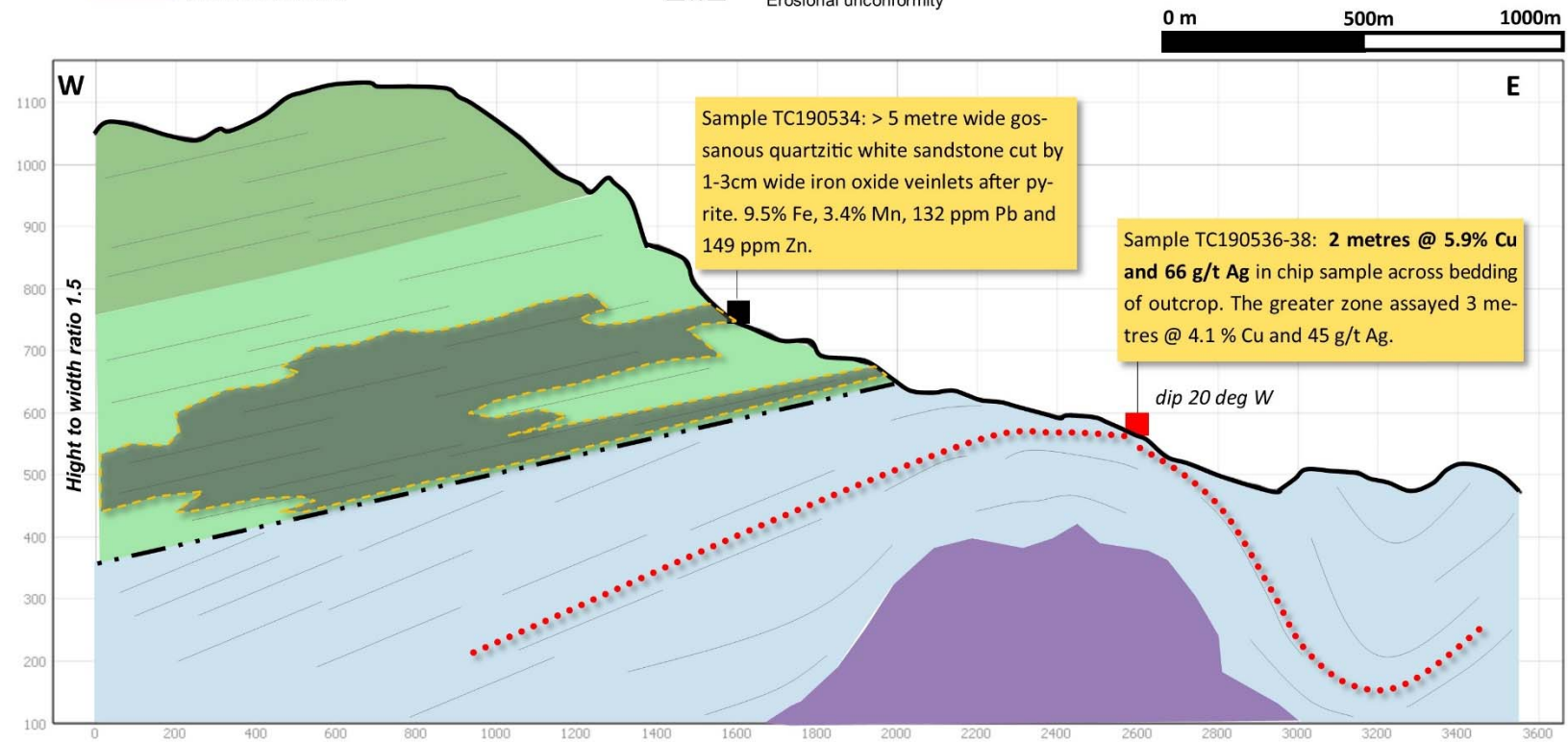
**Figure 1.** Overview of the San Martin sediment-hosted Cu-Ag project, Peru. Hannan’s mineral claim applications now cover 76 kilometres strike (38,400 hectares) of the prospective host horizon within a 110 kilometre long trend.



**Figure 2.** Overview of key exploration results at Sacanche North. Too date mineralization and alteration has been mapped for 27km strike. Importantly high grade copper mineralization in outcrop or boulders has been discovered throughout the property.








## LEGEND

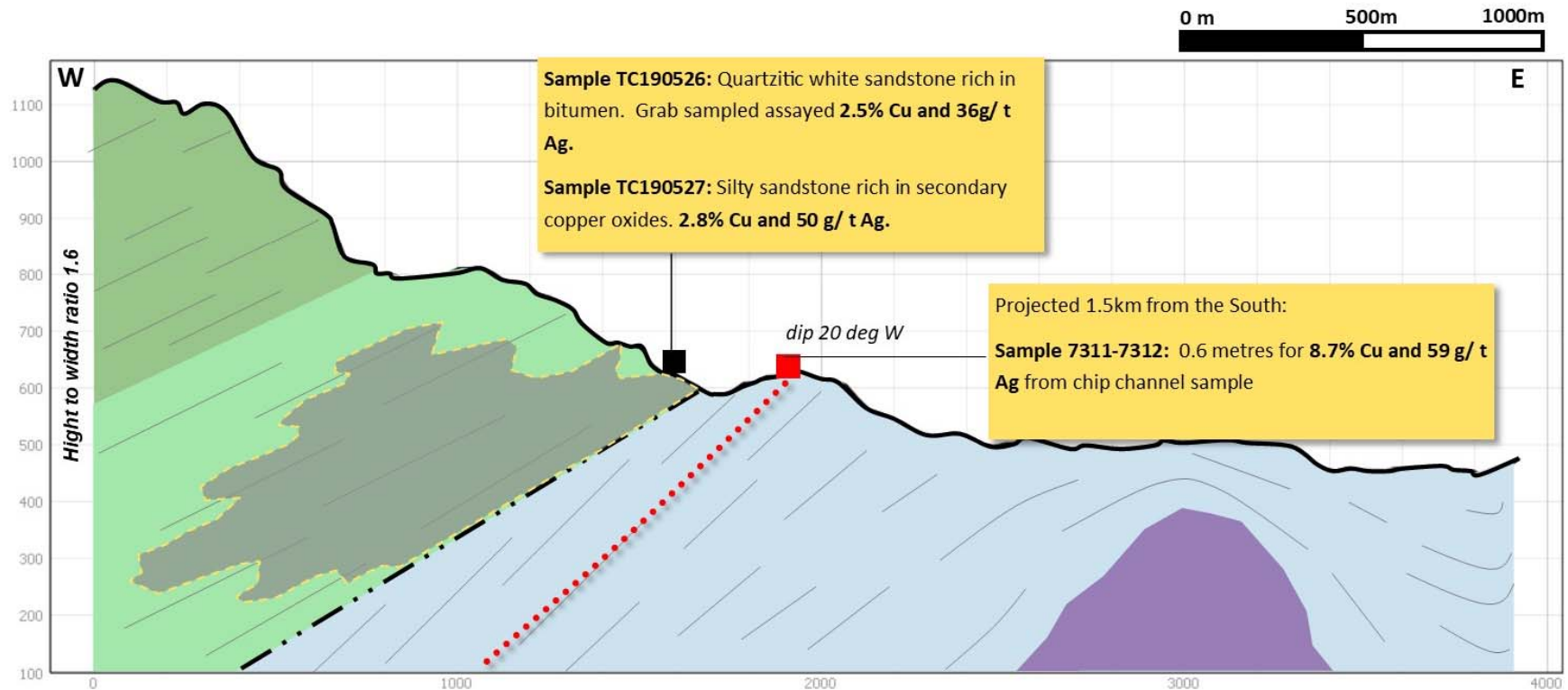
- Undifferentiated Grupo Oriente
- Grey quartzitic sandstone with +/- bituminous carbon
- Red sandstone / siltstone / mudstone +/- organic carbon
- Inferred salt intrusion
- Inferred grey sandstone hosted copper target.
- Inferred red-bed hosted copper target
- Erosional unconformity



**Figure 3.** Cross Section A of north Sacanche. Showing the context of two target levels identified at the project. All units in metres and the vertical exaggeration is 1.5 times. The Sarayaquillo Formation/Cushabatay Formation contact is an angular erosional unconformity that is interpreted to relate to salt tectonics.

## LEGEND

Grupo Oriente		Undifferentiated Grupo Oriente		Inferred grey sandstone hosted copper target.
Grupo Oriente		Grey quartzitic sandstone with +/- bituminous carbon		Inferred red-bed hosted copper target
Sarayaquillo		Red sandstone / siltstone / mudstone +/- organic carbon		Erosional unconformity
Pareni Salt		Inferred salt intrusion		



**Figure 4.** Cross Section B from North Sacanche. Shows context of two target levels identified at the project. All units in metres and the vertical exaggeration is 1.6 times. The Sarayaquillo Formation/Cushabatay Formation contact is an angular erosional unconformity that is interpreted to relate to salt tectonics.

**Photo 1:** Sample TC190536-38.  
**2 metres @ 5.9% Cu and 66 g/t Ag** in chip sample across bedding of out-crop. The greater zone assayed 3m @ 4.1 % Cu and 45 g/t Ag.



**Photo 2:** Sample TC190526.  
White quartzitic sandstone with disseminated bitumen and secondary copper minerals.  
**2.5% Cu and 36 g/t Ag.**



**Photo 3:** Sample TC190534.  
> 5 metre wide exposure of gossanous quartzitic white sandstone cut by 1-3cm wide iron oxide veinlets after pyrite. **9.5% Fe, 3.4% Mn, 132 ppm Pb and 149 ppm Zn.**



Figure 5. Photos of reported samples.