

Copper explorers coasting in Chile

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The drive north along Ruta 5 from La Serena towards Vallenar is to drive through more than a century of mining history. From the silver mines of the 1800s, to the iron ore mines of the late twentieth century, and the almost continual small-scale production of high-grade copper oxide. The four-lane highway passes through a wide valley with desert scrub and cacti, in parts reminiscent of Nevada or Arizona in the US, particularly with the cobalt blue sky and beating sun.

The drive passes a wind farm funded by Barrick Gold and various solar generation facilities but tucked away to the east of the Coastal Range and the Pacific Ocean, it also runs along part of the 2000km-long north-south Atacama Fault in central Chile, which hosts iron, copper-iron and copper-gold deposits including IOCG, porphyry and vein deposits.

It also holds promise for Chile's future copper developments, such as with companies like Hot Chili and Tribeca Resources, and further north, Capstone Copper's Santo Domingo project, looking at bringing forward affordable projects which benefit from the rich regional infrastructure endowment, which includes access, high-tension power lines, local mining culture and port facilities. This should be music to the ears of mining investors who are still beating the capital discipline drum and nervous about development cost blowouts, which has made the greenlighting of new mine developments noticeable by their absence despite the copper price being notionally above the US\$4 per pound incentive price. No wonder diversified miner Glencore and royalty company Osisko Royalties are interested.

Within this context, the long-overlooked coastal range in Chile is drawing increasing attention from copper explorers and developers who believe viable and economic deposits can be found, which, while smaller than the mega porphyries in the high cordillera which have powered the country's copper production, can potentially be brought to market with less permitting, development and financing risk.

[Costa Fuego section omitted from this reproduction of the original article. Refer to <https://www.mining-journal.com/site-visits/news/1446833/copper-explorers-coasting-in-chile> for full article]

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Drilling at Tribeca Resources' Gaby target at La Higuera near Coquimbo, Chile

Tribeca

Exploration spending in Chile has been increasing in recent years, amounting to US\$713.2 million in 2022, according to state copper agency Cochilco, a 24.6% rebound from the low of \$450 million in 2020, the lowest amount since before 2010. The majority of spending at \$345 million is by miners around their mines, with large mining companies spending most on exploration at 74.6% of the total. Early-stage exploration accounted for \$197.3 million in 2022, with the amount spent by junior explorers almost doubling from 2021 to 2022, increasing its share from 9% to 18%. Copper is the most sought mineral, accounting for 74% of spend, followed by gold at 21%.

A new crop of junior copper explorers in Chile includes Culpeo Minerals, Torq Resources, Atacama Copper, Pampa Metals, ATEX Resources, Solis Minerals, Rugby Resources, Alto Verde Copper, Great Southern Copper and Nobel Resources. The newest of all is Tribeca Resources, one of a new generation of copper exploration juniors in Chile's IOCG belt whose La Higuera project, some 100km south of Costa Fuego echoes many of the attractions Hot Chili sees in the region.

Tribeca is also drawn by the fact the coastal region has been overlooked and under-appreciated in the past, even though it is possible to find a sizeable deposit. Lundin Mining's Candelaria near Copiapo is the exemplar in this context. With infrastructure development being a key factor in development time and cost blowouts, the coastal zone and its proximity to existing infrastructure are very attractive.

I drove to the site, a few hundred metres off the Pan-American highway, with chief executive Paul Gow in a VW Gol. Having a four-wheel drive truck was unnecessary,

which also attests to Gow's frugal and parsimonious financial management, a habit carried over from when he and partner Thomas Schmidt funded the early days of the company from their own pockets. Both Gow and Schmidt worked for Xstrata Copper in their previous lives. The company doesn't have a corporate office and has a monthly burn rate of just \$40,000, excluding drilling, while its drilling costs are just \$130/m before assays and geological team.

Tribeca was also attracted by the presence of high-grade small-scale operations in the district and is leveraging the experience of Gow exploring for IOCG deposits around the Olympic Dam mine in Australia. Olympic Dam has several hundred metres of barren sedimentary cover above its mineralisation. "We are looking for a sulphide copper-gold system containing hundreds of millions of tonnes of resources. We see opportunity under the gravel cover in areas where there have been high-grade oxides exploited from the mountain tops. Copper is present in outcrops, and we follow them under the gravel," Gow told Mining Journal during the visit.

Like Hot Chili, the Atacama Fault is the main regional controlling structure, and the northwest cross faulting is also relevant. With up to 60m of gravel cover, soil geochemistry is not such a useful exploration tool, but the presence of magnetite and hematite in IOCG deposits means geophysical methods like magnetics and gravity are.

Gow says good targets are near high magnetic anomalies, although the highest copper grade is not necessarily where the highest magnetic anomaly is. "My experience in the Olympic Dam province, particularly with the Prominent Hill discovery by Minotaur Resources, is that the mineralisation is related to hematite and is commonly offset from the magnetic anomaly. The magnetic anomaly tells you there is a hydrothermal system present, but then you have to identify where the mineralisation is located within that system."

The company is also picking up where a previous explorer called Peregrine Metals left off. Peregrine drilled some 4000m in 12 holes at Gaby, which is Tribeca's main target and where drilling began in November 2022. "We are drilling step-out holes to the north of the Peregrine drilling and have drilled up to 600m to the north," Gow said.



Tribeca Resources' CEO Paul Gow (right) inspecting fresh drill core from Gaby near La Higuera in Coquimbo, Chile

Tribeca expects to release its first drill results in the coming weeks and show whether or not it has been successful in its initial aim of expanding the mineralisation footprint. "What got me into exploration was the excitement of waiting by the fax machine for the drilling results to come in," said Gow. With the company's concessions extending for another kilometre to the north, there is potential to continue expanding the footprint further.

For its first programme, Tribeca uses reverse circulation drilling to pre-collar the holes and penetrate the gravels and weathered zone before switching to diamond drilling for the tail to a total depth of about 400m. It plans some 2200m at Gaby and will then look to drill 600m at its Chirsposo target, 3km to the south.

Luck plays a role in exploration, and Tribeca appears to have had some already. It is perhaps the youngest copper explorer in Chile, having completed a reverse takeover transaction in October 2022 to list on the Toronto Stock Exchange Junior board when at least two other Chile copper exploration hopefuls delayed their listing efforts. "We raised US\$2.1 million in January 2022 from mainly experienced mining people, so we didn't look to raise any money when we listed, so we didn't encounter any adverse market reaction," said Gow.

Shares in Hot Chili are trading at C95c, valuing the company at C\$114 million.

Shares in Tribeca Resources are trading at C36c, valuing the company at C\$19 million.