

ACN 143 042 022

Suite 1, 6 Richardson Street West Perth Western Australia 6005

ASX Code: RIE

riedelresources.com.au

# **KEY COMPANY INFORMATION**

# **Capital Structure**

Ordinary Shares: 374m Unlisted Options: 42.9m

# Top 20 Shareholders

64%

### **Cash Reserves**

A\$2.65m (at 30 September 2017)

# RIEDEL TO FAST TRACK EXPLORATION OF CÁRMENES HIGH-GRADE COBALT-COPPER PROJECT IN SPAIN

# **HIGHLIGHTS**

- Successful completion of due diligence and all conditions precedent for the Cármenes Cobalt-Copper Joint Venture Agreement in Northern Spain.
- ▼ Value of metal (Co-Cu-Ni) in concentrate produced from historic mineralised 'ore-pipe' at La Profunda at current metals prices in excess of A\$400 million¹.
- Exceptional cobalt concentrate stream grades including 14% Cobalt.
- Similar mineralisation identified at the nearby Divina Providencia mine<sup>2</sup>.
- Additional highly prospective zones adjacent to the Divina Providencia historic cobalt-copper mine<sup>2</sup> site to now also be prioritised.
- Initial high-grade cobalt-copper mine discoveries were made from **visual detection** of ore bodies outcropping at surface.
- Advances in modern geophysical exploration techniques now facilitate discovery of new high-grade deposits even if concealed.
- □ Riedel to now fast track exploration near the La Profunda historic cobalt-copper mine active works program planned.

**Riedel Resources Limited** (ASX: RIE) is pleased to confirm the successful completion of due diligence and all conditions precedent for the Cármenes cobalt-copper project joint venture agreement in Northern Spain.

The Company will operate through its own newly formed Spanish subsidiary branch, Riedel Resources (Spain) Pty Ltd S.E.E alongside its in-country joint venture partner, SIEMCALSA (Sociedad De Investigación Y Exploración Minera De Castilla Y León S.A.).



The joint venture's priority is to now fast track exploration at and around the historic La Profunda cobalt-copper mine site, and the prospective zones adjacent to the Divina Providencia historic cobalt-copper mine site and at Valverdin (see Figure 1).

# **Historic Operations – Cármenes Cobalt-Copper Project**

The Cármenes Cobalt-Copper Project covers an area of approximately 42,300m<sup>2</sup> and has a number of historic high grade mines situated within it. The northern zone contains the **La Profunda** and **Davina Providencia<sup>2</sup>** Mines while **Fontún** and **Valverdín** are located to the south.

All project deposits can be linked to a single epithermal event with well-defined zonation that can be associated with a major regional fault-line known as the 'Léon fault'.

Riedel will focus initial exploration and development on the northern zone mines due to the outstanding historic concentrate grades achieved from this area.

# La Profunda and Divina Providencia Cobalt-Copper Mines

The high-grade cobalt-copper mines at La Profunda (~1860) and Divina Providencia (~1906) were discovered **by visual detection** of cobalt-copper minerals deposits that outcropped at surface making them visible to explorers that traversed the tenement area. Limitations on exploration techniques at that time made discovery of concealed (non-outcropping) deposits elusive.

As a result, a significant opportunity now exists for Riedel to apply modern exploration techniques to the Cármenes Cobalt-Copper Project tenement area, where 95% remains untested by modern exploration.

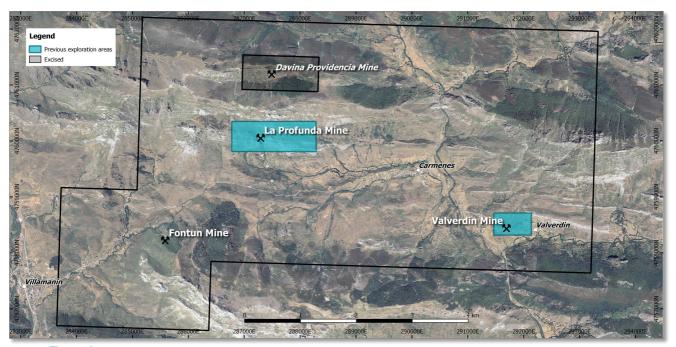


Figure 1 – Cármenes Cobalt-Copper Project area showing only 5% previously tested by modern exploration

Both the La Profunda and Divina Providencia mines were comprised of 'pipe' or 'cylindrical' style ore bodies with subvertical orientation, typically with dimensions of 30-50m in diameter and at least 200m (known extent) in length (see Figure 2).



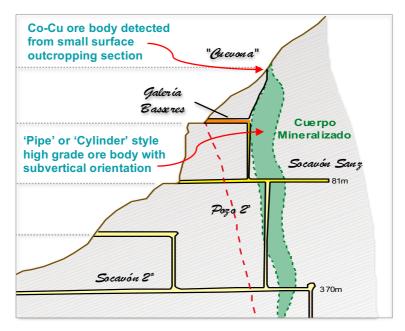


Figure 2 – La Profunda Mine (La Cuevona 'The Cavern') ore 'pipe' detected only due to small outcropping section at surface

Mining operations at La Profunda were initially conducted by Julián García Rivas between 1870 to 1883 and the treatment of La Profunda ore produced a single concentrate stream of **18,000 tonnes** at **4% Cobalt and 20% Copper**. Further ore was discovered at -100 metres in 1883 thus starting the second significant period of mining that continued underground by Anglo-Española de Minerales S.A until 1890.

The complex cobalt/copper/nickel ores were treated at a concentrator built and located adjacent to the La Profunda mine where dual concentrate streams were produced containing a further 20,000 tonnes. The cobalt concentrate stream averaged exceptional grades of 14% Cobalt, plus 4% Nickel and 6% copper, while the equally impressive copper concentrate stream averaged 33% Copper.





Figures 3 & 4 - Aerial ropeway 6 ore delivery buckets from La Profunda to Villamanín plant (circa 1924)



From 1870 to 1890, the La Profunda plant treated in excess of 100,000 tonnes of ore to produce 38,000 tonnes of Cobalt and Copper concentrates from just the La Profunda Cobalt-Copper-Nickel mine alone. The value of the metal (cobalt, copper, nickel) recovered to concentrate from the single high grade 'ore pipe' at La Profunda would therefore be in excess of A\$400 million<sup>1</sup> at current metals prices.



Figure 5 - Outstanding concentrate grades from La Profunda Mine

In the 1920's, Metalúrgica del Cobre y Cobalto S.A. recommenced mining operations. Significant investment was made into a new 'modern' concentrator and electrolytic extraction (hydrometallurgical) facility with increased capacity (see Figure 6). The plant was located at Villamanín and ore was transported from the La Profunda mine to the plant via a sophisticated aerial cableway ore transportation system (see Figures 3 & 4). However, the ensuing Great Depression lead to a collapse in the price of cobalt in global markets and operations were consequently halted. The facility was later impacted by the Spanish Civil War in the 1930's.

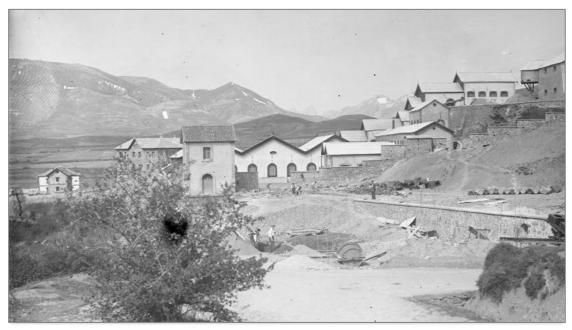


Figure 6 - Villamanín concentrator and hydrometallurgical plant





Figure 7 – Mine and Processing Workers at Villamanín Plant prior to collapse of global cobalt prices during the Great Depression (circa 1930)

The tenement area was subject to a number of ownership changes during subsequent years before Riedel's joint venture partner, **SIEMCALSA** (Sociedad De Investigación Y Exploración Minera De Castilla Y Léon S.A.) was granted new investigation permits in 2009.

Since this time SIEMCALSA have undertaken a significant number of geological, geochemical and geophysical surveys which have identified at least **11 high priority targets**. The Riedel joint venture partnership now enables the further exploration of these targets to be fast tracked.

Riedel expects to be able to provide the market with a detailed update on these high priority targets in the coming days.

# For further information please contact:

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### **About Riedel Resources Limited**

Riedel Resources Limited listed on ASX on 31 January 2011 and is an Australian-based exploration company focused on the exploration and development of technology metals in Europe.

Further information can be found at the Company's website www.riedelresources.com.au

### **About SIEMCALSA**

**SIEMCALSA** (Sociedad De Investigación Y Exploración Minera De Castilla Y Léon S.A.) is a parastatal corporation established in 1988 devoted to the promotion and stimulation of the mining sector in the Castilla and León (Spain). Further information can be found at the Company's website www.siemcalsa.com

# **Competent Person's Statement**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Jeffrey Moore, who is a Member of The Australian Institute of Mining and Metallurgy. Mr Moore is a full-time employee of Riedel Resources Limited. Mr Moore has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Moore consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

<sup>1</sup> Value illustrates the Australian dollar value of all cobalt, copper and nickel metal contained in historic concentrate produced from La Profunda based on LME official cash bid prices for Co, Cu and Ni as at 03/11/17 and Australian dollar to US dollar foreign exchange rate of 0.765. The value of the metal in concentrate is illustrative only and does not imply that the full value would be realised from the actual sale (if any) of the concentrates produced. The actual or realised value received from any sales of concentrate would be subject to normal commercial arrangements negotiated between the concentrate producer and buyer.

<sup>&</sup>lt;sup>2</sup> Excised from Carmenes Project joint venture tenement area. Currently under investigation permit application by SIEMCALSA.