



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: 418m Unlisted Options: 18m

**Top 20 Shareholders** 66.25%

#### **Cash Reserves**

A\$2.71m (at 31 December 2017)

# HIGH-PRIORITY COBALT-COPPER DRILLING TARGETS DEFINED AT PROFUNDA MINE PROSPECT. SPAIN

# **HIGHLIGHTS**

- ▼ 5 high priority drilling targets at the Profunda Mine Prospect situated within the broader Cármenes cobalt-copper project in Northern Spain

   1. \*\*The Profunda Mine Prospect situated within the broader Cármenes cobalt-copper project in Northern Spain

   2. \*\*The Profunda Mine Prospect situated within the broader Cármenes cobalt-copper project in Northern Spain

   3. \*\*The Profunda Mine Prospect situated within the broader Cármenes cobalt-copper project in Northern Spain

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- Ground Pole-Dipole Induced Polarisation (PDIP) surveys identified 3 significant target clusters within 200 metres of the historic Profunda Mine workings
- Target areas show significant coincident radiometric anomalies
- Zone 2 is located 150 metres NW of Profunda and is characterized by coincident IP, magnetic, radiometric and ion-leach soil anomalies
- Application lodged to test the three highly prospective target clusters with 750 metre (minimum) five hole diamond drilling programme.
- Newly constructed road along Profunda mine trend has facilitated vehicle and equipment access into areas previously considered difficult to explore
- Riedel to continue to identify and refine new target anomalies at the Profunda East, Profunda West, Fontun and Providencia East Prospect

**Riedel Resources Limited** (ASX: RIE) ("Riedel" or "the Company") is pleased to advise that a recently completed ground geophysics programme has successfully defined 5 high priority targets that will form the basis of the upcoming maiden drilling programme at the Company's Profunda Mine Prospect (see Figure 1).

# Riedel Executive Chairman, Mr Jeffrey Moore commented:

"We are extremely pleased to have identified such compelling targets which strongly validate our previous exploration work ahead of the scheduled nearterm commencement of drilling.

"The proximity of the geophysical targets to the historic high-grade La Profunda cobalt-copper mine is very encouraging and clearly demonstrates the near-mine potential of this area.

"Importantly, we will now be looking to extrapolate this target identification process across our remaining Prospect areas, which still remain largely untested by modern exploration techniques.

"We are entering a very exciting phase in our project exploration, highlighted by the imminent commencement of our maiden diamond drilling programme at the Cármenes cobalt-copper project, and we look forward to providing our shareholders with further updates in the near-term."





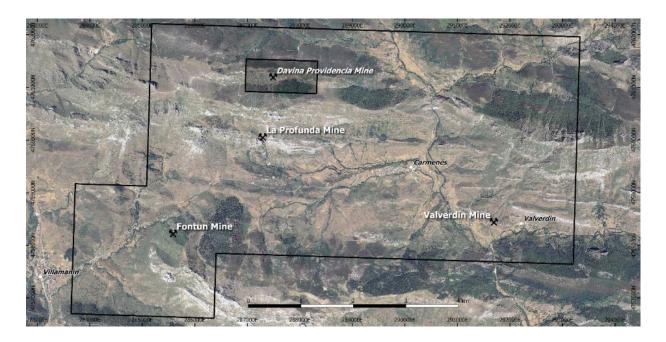


FIGURE 1: Cármenes Project Location map showing La Profunda Mine Target Area

# **Next Steps – Drilling Preparation**

Riedel expects to receive approval to commence drilling at the Profunda Mine Prospect in the near-term, following the submission of a drilling programme application last month (see ASX release dated 23 March 2018).

In preparation for the maiden drilling programme, a new access road has been constructed to facilitate better access to the project area (see Figure 2). The road now facilitates vehicle and equipment access from the town of Carmenes to the west over a distance of more than 3.5 kilometres.

Additional drilling preparation activities including on-ground logistics and earthworks are well advanced, with drilling equipment set to be mobilised immediately upon receipt of approvals.

In addition, target generation activities will continue to be run in parallel across the Company's other highly prospective prospects, including the Profunda East, Profunda West, Fontun and Providencia East Prospects respectively. Riedel looks forward to providing shareholders with further updates on the commencement of drilling and the identification of additional high priority drill targets over the coming weeks.





FIGURE 2: Location of new access road that extends 3.7km along the Profunda prospective trend

# **PROFUNDA MINE AREA**

# **Target Generation Programme Overview**

The recently completed PDIP surveys comprised 7 pole-dipole lines, collecting data over 1,600 metres, within the vicinity of the Profunda Mine area (see Figures 3 and 5). Interpretation of the PDIP data has identified 3 significant target clusters located within 200 metres of the historic La Profunda Mine workings.

The target clusters present compelling drilling targets and are characterised by multiple and coincident geophysical and geochemical signatures.

In 2016, Riedel's joint venture partner SIEMCALSA carried out preliminary geophysical testwork by way of IP and ground magnetic surveys in the vicinity of the historic La Profunda Mine. The results of this work highlighted several Chargeability anomalies which are interpreted as being characteristic of **disseminated sulphides mineralisation with a pipe-like shape**.

This interpretation gave the Company great confidence that **the anomalies could represent other undiscovered "concealed" Profunda-type cobalt-copper nickel-(gold) deposits** or repetitions without surface expression.

Accordingly, in December 2017 geophysical surveys commenced with the specific purpose of gathering detailed information around those previously defined Chargeability anomalies for the purpose of defining drilling targets. Despite the onset of winter in northern Spain, geophysical contractor IGT's personnel have strongly committed to the survey programme and succeeded in collecting high-quality data from the electrical geophysical surveys.

Figures 3 and 5 highlight the location of the 2016 and December 2017 - January 2018 PDIP survey lines and the location of Chargeability anomalies in the three key Target Zones near La Profunda mine.



# **Discussion of Results**

The results of the IP measurements made using the Pole-Dipole array are very similar to those preliminary results recorded in 2016. This "repeatability" of results is considered to be highly encouraging, both from a qualitative aspect and from the characteristics of the anomalies detected, particularly from lines 2017A, 2017D, 2018E, 2018F and 2018G.

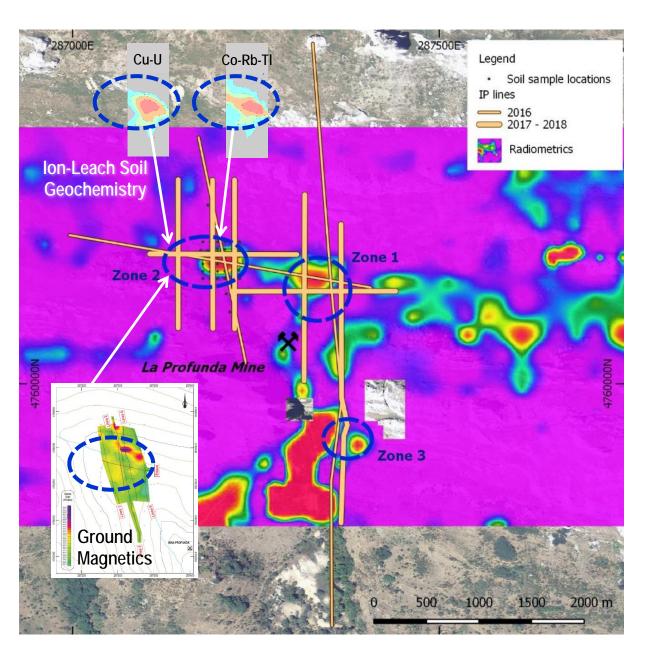


FIGURE 3. PDIP Chargeability, radiometric, ground magnetic and geochemical anomalies - La Profunda
Mine Area

The correlation of the Chargeability anomalies with those of the 2016 study is presented in Figure 5 and the clustering of the Chargeability anomalies in the three Target Zones gives the Company great confidence that high-order drilling targets have been generated from this work.



The anomalies have been repeated in multiple surveys and the Chargeability responses are characteristic of responses generated by **metal sulphides disseminated in pipe-like structures**.

Zone 2 is of particular interest because the area highlighted by the PDIP data shows a strong and discrete anomaly defined by coincident PDIP data, ground magnetic survey data, radiometric data and lon-Leach soil geochemistry (see Figure 3).

The fact that these results of each of these complimentary methodologies are anomalous and strongly coincident is considered to be highly encouraging for the detection and discovery of buried or "blind" minerals deposits that may underlie or be located marginal to Zone 2.

Zones 1 and 3 show similar potential to Zone 2, however, they are only defined by coincident IP and radiometric anomalies because ground magnetic and Ion-Leach soil geochemical surveys have not been carried out over these anomalies. Notwithstanding, even in the absence of this survey data Zones 1 and 3 represent compelling drilling opportunities.

Figures 7 to 11 show strong examples of individual Chargeability anomalies and locations of the diamond drill holes designed to test the PDIP anomalies within Zones 1 to 3.



FIGURE 4: Target Zones 1 and 2 – Photo looking north-east over Target Zones 1 and 2 with La Profunda
Mine Portal in lower right corner in foreground



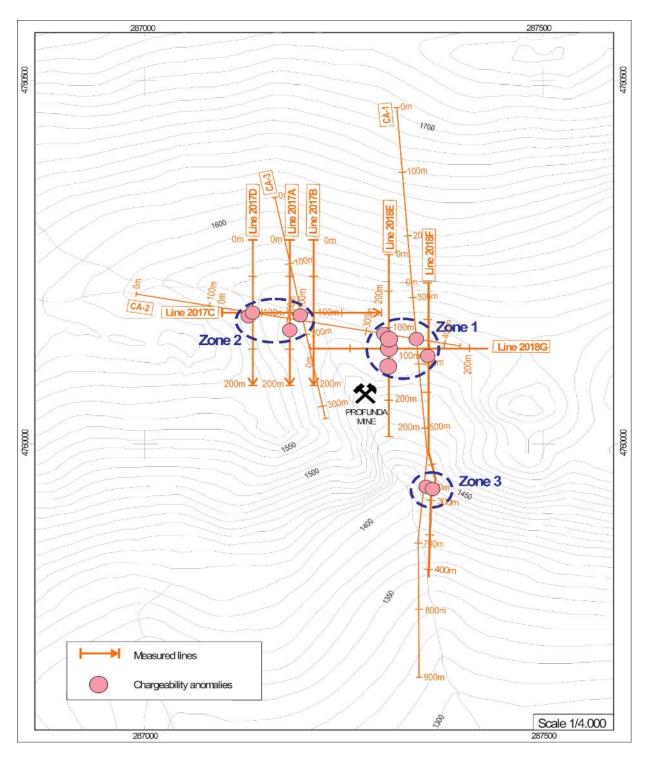


FIGURE 5: Location of Chargeability Anomalies at La Profunda Mine Area



# **Diamond Drilling Targets**

In late February, an application to commence diamond drilling for a minimum of 750 metres in five (5) core holes near La Profunda Mine was lodged. The locations of the drill holes are shown in Figure 6 below.

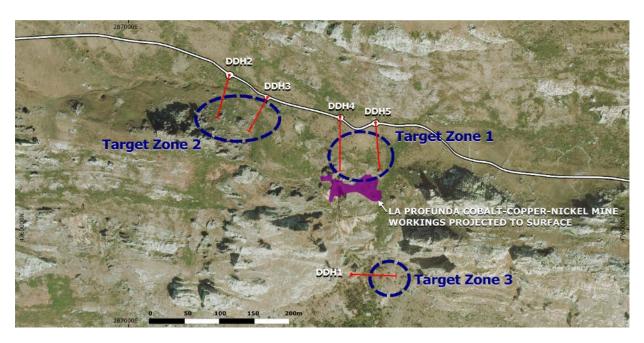


FIGURE 6: Cármenes Project - Location of proposed diamond drillholes - La Profunda Mine Area

Diagrammes (pseudosections) showing the PDIP chargeability inversion anomalies and proposed drillhole locations are shown below in Figures 7 to 11.

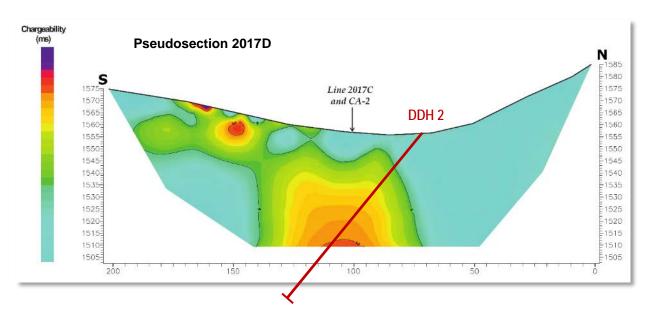


FIGURE 7: TARGET ZONE 2 - Proposed Diamond Drillhole 2 on Pseudosection 2017D



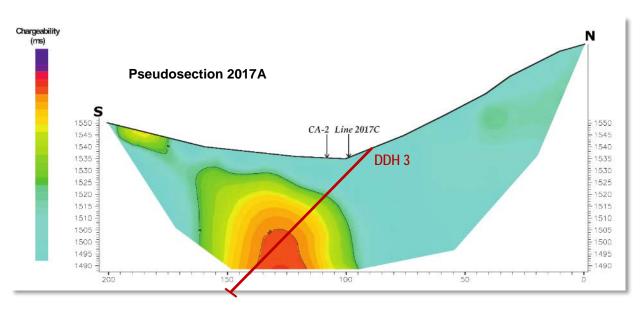


FIGURE 8: TARGET ZONE 2 - Proposed Diamond Drillhole 3 on Pseudosection 2017A

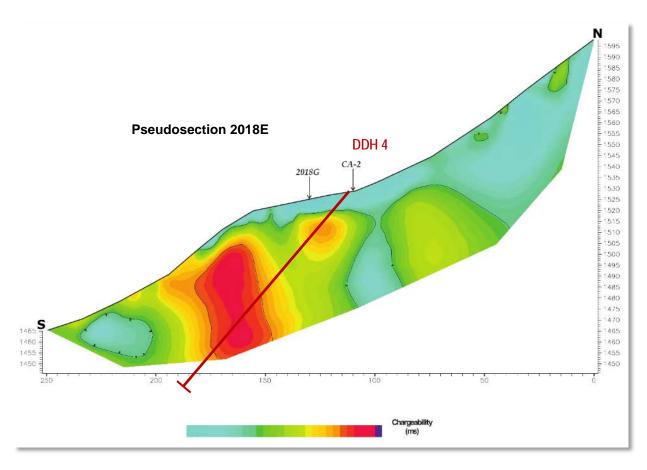


FIGURE 9: TARGET ZONE 1 - Proposed Diamond Drillhole 4 on Pseudosection 2018E



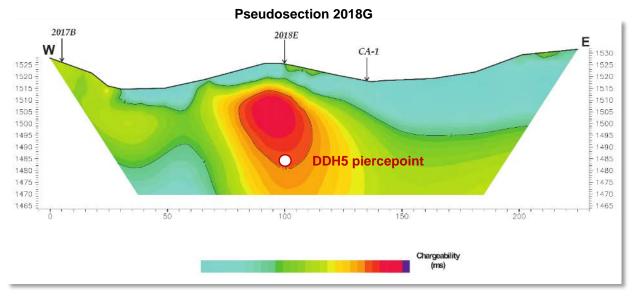


FIGURE 10. TARGET ZONE 1 - Proposed Diamond Drillhole 5 piercepoint through Pseudosection 2018G

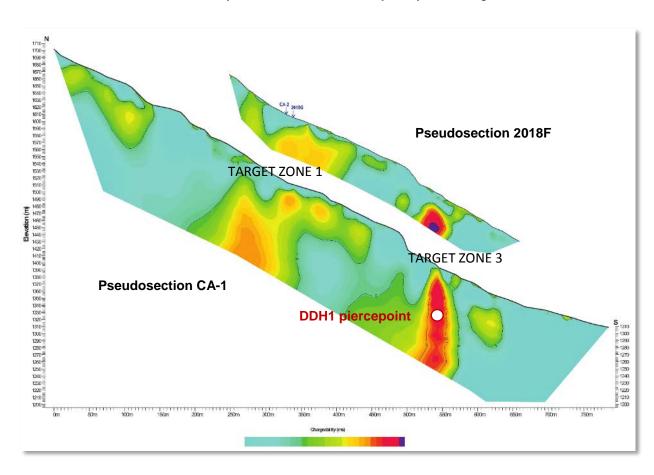


FIGURE 11. TARGET ZONE 3 – Proposed Diamond Drillhole 5 piercepoint through Pseudosection CA-1 and parallel Pseudosection 2018F highlighting duplicate target anomaly



# 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 autonomous community of 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.

# Appendix 1: JORC Code, 2012 Edition - Table 1 report template

# **Section 1 Sampling Techniques and Data**

Criteria	Commentary
Sampling techniques	<ul> <li>Overlaying geophysical and geochemical surface sampling results were used to locate potential massive sulphide drill targets. Techniques include:         <ul> <li>Ground radiometric U surveying (2017)</li> <li>Ground magnetics survey (2016)</li> <li>Ion Leach soil sampling (completed by SIEMCALSA in 2015)</li> <li>Pole-Dipole Induced Polarization surveys (2016, 2017, 2018)</li> </ul> </li> <li>This style of exploration is appropriate for the copper-cobalt 'pipe' style mineralization prevalent in the project area.</li> </ul>
Drilling techniques	No drilling completed to date
Drill sample recovery	No drilling completed to date
Logging	No drilling completed to date
Sub-sampling techniques and sample preparation	<ul> <li>Ion Leach - Approximately 500 g of soil is collected from near surface (10-20 cm depth)</li> <li>No drilling completed to date</li> </ul>



Criteria	Commentary
Quality of assay data and laboratory tests	<ul> <li>Soil samples submitted to ALS Chemex, Seville Spain for IONIC Leach ICP multi-spectral analysis and pH; replicates submitted at a rate of approximately 1 in 20</li> </ul>
Verification of sampling and assaying	<ul> <li>Sample data is housed in an MS Access database by SIEMCALSA</li> <li>Verification of Lab QC analytical data has been completed.</li> </ul>
Location of data points	<ul> <li>Hand held GPS and orthophoto accurately locate data points to &lt; 1 m in three dimensions.</li> <li>Projection system is ETRS89 / ETRS-TM30</li> <li>Topographic surface derived from digital terrain model which is adequate for topographic control of surface sampling</li> </ul>
Data spacing and distribution	<ul> <li>Ground radiometric U surveying on a 25m x 25m grid</li> <li>Ion Leach soil geochemistry on a 10 x 10m grid</li> <li>Ground magnetics ~ La Profunda five NNW-SSE traverse 5m to 15m line spacings line lengths approximately 400m</li> <li>Pole-Dipole Induced Polarization surveys ~ La Profunda 7 PDIP traverses 1,600m total line length 10m to15m electrode spacings, recording levels n = 10, current 800mA</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Sampling grids traverse exposed geology where accessible</li> <li>Sampling bias is not expected</li> </ul>
Sample security	No drilling completed to date
Audits or reviews	Geophysical consultants, Resource Potentials have reviewed, verified and confirmed the results of geophysical testing

# **Section 2 Reporting of Exploration Results**

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>Spanish Mineral Investigation Tenements PI 1507 Cármenes and PI 1506 Valverdín are held by Sociedad De Investigación Y Exploración Minera De Castilla Y Léon S.A. ("SIEMCALSA") and managed by Reidel Resources Limited (Reidel) through a Joint Venture whereby Riedel can earn-in an interest up to 90% in the Cármenes Project by way of funding staged exploration and development expenditure, with provision to acquire the remaining 10%</li> <li>PI 1506 Valverdín is valid until May 12, 2020</li> <li>PI 1507 Cármenes is valid until May 12, 2020</li> <li>Agreements with land owners and authorizations for works have been received by SIEMCALSA with respect to PI 1506 Valverdín</li> <li>There are no known impediments to obtaining a licence to operate or explore in the tenements under consideration</li> </ul>
Exploration done by other parties	Available exploration results described above have been prepared by SIEMCALSA
Geology	<ul> <li>Located in the Castilla y Leon region of Spain, within the Cantabrian Zone of the Iberian Massif of Northern Spain on the southern slope of the Cantabric range, within a 60 km Paleozoic belt</li> <li>Host rocks are limestones and dolomites of Namurian and Carboniferous ages. The whole area has been subject to intense hydrothermal dolomitization</li> <li>Mineralisation is fracture related, hydrothermal, stratiform carbonate replacement in nature. (Cu-Co-Ni (=/-Au-U) as sulphides and arsenides (La Profunda), Au (Valverdin) and Pb-Cu-Zn-Ag (Fontun) in limestone and shale stratigraphy</li> <li>Extensive alteration</li> </ul>



Criteria	Commentary
	Sub-vertical bodies as pipes and chimneys
Drill hole Information	No drilling completed to date
Data aggregation methods	No drilling completed to date
Relationship between mineralisation widths and intercept lengths	No drilling completed to date
Diagrams	Maps and diagrams are provided in body of the report
Balanced reporting	<ul> <li>Data is presented for both positive and negative results and can be considered balanced</li> </ul>
Other substantive exploration data	No other substantive work completed
Further work	<ul> <li>Extension of radiometric, ion leach, magnetic surveys and proposed diamond drilling of defined targets</li> </ul>