**Research Agreement**

# *According to “Regolamento di Ateneo per Attività Conto Terzi, art. 2 comma 2 lett. a) e b) DR/2022/323 del 01/02/2022”)*

**(Foreign Company)**, located in \_\_\_\_\_\_, road \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, fiscal code \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, represented by Dr. Kerry McDonald, hereafter called “the Client”

**AND**

The **Dipartimento di Scienze della Terra, dell’Ambiente e delle Risorse, Università degli Studi di Napoli “Federico II” (Italy)**, located in via Vicinale Cupa Cintia, 21, Complesso Universitario di Monte S. Angelo - Edificio 10, 80126 - Napoli, C.F. 00876220633 – represented by the Director pro tempore Prof. Vincenzo Morra, born in Napoli on the 01/08/1958, domiciled for the charge in the Department office, hereafter called “DiSTAR”

**CONSIDERED THAT**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SIGN THE FOLLOWING AGREEMENT**

1. SCOPE OF THE WORK AND RESEARCH ACTIVITY

2. FIELD OF ACTIVITY

2.1 The principal investigator for the DiSTAR is Prof. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2.2 The Parties shall perform their duties under this Agreement on the basis of the research programme set out in Appendices 1 and 2. Appendix 1 sets out the objective of the Agreement (the “Objective“). Appendix 2 specifies the field of activity, the time schedule, and details to the remuneration.

2.3 The Parties agree that the research programme is binding but retain the right to adapt it, if necessary, from time to time by mutual written agreement.

3. TIMING

The study agreed upon consists in:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This agreement will have an expected duration of …..months, starting from …….

4. CONTACT PERSONS

Contact person for the DiSTAR will be Prof. \_\_\_\_\_\_\_\_\_\_\_; contact person for \_\_\_\_\_\_\_\_\_\_\_\_. Will be\_\_\_\_\_\_\_\_\_\_\_\_. Prof. \_\_\_\_\_\_\_\_\_\_\_ will immediately contact the Client in case of problems or modifications related to the development of the agreed research work.

5. PLACE OF SERVICE

The place of service is Naples (Italy). Any travel (transport, accommodation, daily allowance) to the project site in \_\_\_\_\_\_\_\_\_ will be covered by the Client in addition to the agreed costs, if the client. requests these travels.

6. TECHNICAL REPORTS

Preliminary information on the results obtained will be discussed with the Client already before completion of the work (state – of - the art interim reports). The DiSTAR will provide a full Technical Report at the end of the work.

7. TERMINATION

The parties can terminate the present agreement by a written 30 days-prior notification. In case of advanced termination, the costs of the activities supported until to that time must be covered.

8. COSTS

For the activities envisaged in the agreement, the Client undertakes to pay the DiSTAR the sum of € ……..(………../00) + tax charges.

Payment will be made in the following ways:

 • advance: % ...... of the total amount upon signing of this agreement;

• first down payment equal to% ...... .. of the total amount upon delivery of ...... .;

• balance equal to %…… of the total amount at the end of the agreement period.

Payments must be performed exclusively through the DiSTAR bank account (*Ai sensi di quanto previsto dall’art. 3 comma 1 della legge 13 agosto 2010 n. 136 e successive modificazioni*):

 **IBAN: IT79O0623003543000058327189**

The DiSTAR personnel authorized to operate on this account is represented by:

The Director: Vincenzo Morra, born in Napoli on the 1/8/1958, resident in Via Spartaco 25/A, 80126, Napoli, Fiscal code: MRRVCN58M01F839N

The Head of the Departmental Office “Contabilità”: Agostino Salomone, born in Napoli on the 18/10/1965, resident in Via Omodeo 45 , 801285 Napoli, Fiscal code: SLMGTN65R18F839O

Invoices will be sent to the Client after the reception of the payments (pro-forma will be sent in advance).

9. CONFIDENTIALITY

All the results obtained in the frame of this Agreement are property of both the Client and the DiSTAR. In the frame of the agreed work, upon confirmation of the Client, the DiSTAR could develop teaching activities (i.e thesis), by using the materials analyzed in the frame of the present work.

10. PUBLICATION OF THE DATA

The Work Results obtained by the investigators of the DiSTAR are generally intended for publication in scientific media.

The DiSTAR will take into account the interests of Minera Forrester S.A.C. and will thus provide the text of any intended publication to the Company prior to submitting a publication in order to give Minera Forrester S.A.C. the opportunity to issue a statement if there will be restrictions in publishing.

11. SECURITY

The personnel of UNINA and \_\_\_\_\_\_\_, who travel to the headquarters of the other Entity to participate in the activities related to this Agreement, must comply with the disciplinary and safety regulations in force at that location.

In order to implement the provisions of the Consolidated Text on Workplace Safety, as per Legislative Decree of April 9, 2008, No. 81, integrated with Legislative Decree of August 3, 2009, No. 106, it is established that each Party will assume, within its own area of responsibility, all costs related to the application of health and safety regulations in the workplace, specifically with regard to the safety of their own premises (Annex IV – Legislative Decree 81/08) in relation to their employees or equivalent personnel involved in the activities covered by this Framework Agreement and associated Implementation Agreements.

The persons designated to assume the roles of guarantee under Article 2, paragraph 1, letters b), d), and e) of Legislative Decree of April 9, 2008, No. 81, as amended, and any other necessary roles in accordance with their respective internal regulations, will be defined in the individual Implementation Agreements, if stipulated. This information must be included in the "Cooperation and Coordination Record," agreed upon by the Parties and signed at the start of collaborative activities, together with the distribution of responsibilities related to training and instructional obligations, any necessary health monitoring, and the provision of PPE (Articles 36, 37, 41, and 77, Legislative Decree 81/08) for individuals hosted in the facilities where the collaboration activities will take place.

The Parties commit to coordinating their respective activities by providing, prior to their commencement, detailed information on the risks present in their respective work environments, as well as those related to the tasks to be performed, including the associated prevention, protection, and emergency measures in place.

If, during a specific activity, the personnel of the Parties introduce sources of risk for health and safety in the facility in which they operate, such activities may only proceed following coordination between the parties, aimed at assessing the new risk and determining any additional prevention and protection measures to be adopted.

Facilities, equipment, machinery, and instruments provided for scientific activities by each Party must comply with all current safety regulations and be covered by appropriate insurance for fire, theft, and third-party liability risks.

Each Party assumes responsibility for any damage that may be caused by its personnel or equivalent individuals to persons, infrastructures, or equipment provided by the other Party.

**12 – PROCESSING OF PERSONAL DATA AND ANTI-CORRUPTION REGULATIONS**

"The University of Naples Federico II and \_\_\_\_\_\_\_\_\_\_\_ agree to process personal data solely for purposes connected with the execution of this Agreement, in compliance with Regulation (EU) 2016/679 of the European Parliament and of the Council of April 27, 2016 (hereafter “GDPR”) and Legislative Decree of June 30, 2003, No. 196, as amended by Legislative Decree of August 10, 2018, No. 101, as well as, where applicable, any measures issued by the Italian Data Protection Authority. The University of Naples Federico II and \_\_\_\_\_\_\_\_\_\_\_ ensure that personal data will be processed in accordance with the principles outlined in Article 5 of the GDPR and commit to fulfilling all requirements set out in the aforementioned legislation, as well as implementing appropriate technical and organizational measures to ensure compliance with the GDPR.

The University of Naples Federico II and \_\_\_\_\_\_\_\_\_\_\_ assume the role of Joint Controllers, pursuant to Article 26 of the GDPR, with respect to the processing of personal data specified in the “Joint Controllership Agreement” addendum, which, once signed by the Parties, forms an integral part of this Agreement. For all other data processing activities not specifically indicated in the aforementioned addendum, the University of Naples Federico II and \_\_\_\_\_\_\_\_\_\_\_ shall be considered Independent Controllers and will independently fulfill the requirements stipulated by privacy laws."

13. FINAL RULES

This private deed is drawn up in duplicate and will be registered only in case of need, with costs borne by the requesting party. The stamp duty is borne by DISTAR and is “settled virtually pursuant to Article 15 of Presidential Decree 642/1972 – Authorization of the Revenue Agency No. 16825 of March 20, 1989, extended by authorization No. 45414 issued by the Revenue Agency Provincial Directorate I of Naples on February 29, 2024.”

For any matters not expressly provided for in this Research Agreement, reference is made to the provisions of the Civil Code.

In case of any disputes that cannot be resolved amicably, the competent court is identified as: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. In relation to this article, the signing of the agreement affixed below is equivalent to dual signatures pursuant to Article 1341 of the Civil Code.

Place, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Napoli

 For the Client For the DiSTAR

 the Director

 (Prof. V. Morra)

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Appendix 1**

Objective of the Agreement

The Mina Grande and Cristal deposits are located in the northern part of the Bongará district. At Cristal, nonsulfide ores compose about 50% of the mineralization and consist of smithsonite and hemimorphite, mostly formed as direct replacement of sphalerite (which still represents the remaining 50% of the ore; Arfè et al., 2018). In contrast, mineralization at Mina Grande consists entirely of oxidized minerals, primarily hydrozincite and smithsonite, which occur as wall-rock replacements or concretionary cements in various generations of collapse breccia in karst cavities (Arfè et al., 2017). In a paper published by Mondillo et al. (2018 – Mineralium Deposita) it was reported that several drillcore samples from the Cristal area have bulk Ge concentrations of circa 100 ppm, with mean Ge in sphalerite of 142 ppm, mean values 100 to 229 ppm, max 511 ppm, in goethite and mean values 39 to 137 ppm, max 258 ppm, in hemimorphite. Similar study conducted by Chirico et al. (2022 – Economic Geology) evidenced similar Ge deportment in the Florida Canyon Zn deposit.

The main objective of the work is to perform the mineralogical and geochemical analysis of new drillcore samples from the Mina Grande and Cristal properties, for determining the Ge occurrence and its deportment in the various ore minerals.

In sedimentary rocks-hosted Zn deposits, Ge commonly occurs as trace element in sphalerite. Given the geochemical affinity of Ge to Si4+ and Fe3+, weathering of Ge-bearing sulfides could potentially lead to Ge enrichments in silicate and Fe-oxy-hydroxide minerals. The present work should therefore be focused on both sulfide and oxidized samples.

**Appendix 2**

Time Schedule and costs

Samples of the Mina Grande and Cristal-Bongará deposit representative of the economic orebodies will be analyzed by Prof. N. Mondillo, with the purpose to obtain a complete mineralogical evaluation of the mineralized intervals (ore and gangue minerals and their intergrowths) and determining the Ge deportment.

The samples required for mineralogical and geochemical characterization must include all the different kinds of ore facies (oxidized and sulfides) and should have comprehensive average grade resembling the grade of the mineral resources.

The study will be carried as follows:

* The DiSTAR research group will examine in a qualitative mode the drillcore samples (60 - 100 samples\*).

*\* the exact number of samples and the sample list will be defined together with the client.*

* It may be necessary to make one or more thin/polished sections of each sample, as well as several preparations for X-ray diffraction (if the samples include clay minerals), and microprobe mounts for the SEM/EDS. Results from the analyses of these samples should be ready in a 6 months-time from the moment the samples arrive in Napoli.
* Details on analysis and analytical costs:
1. Qualitative X-ray powder diffraction analysis (XRPD) and sample preparation: 135 €/sample
2. Further quantitative XRD analysis on selected samples if requested: 72 €/sample
3. XRD analysis on clay minerals on selected samples if requested: 315 €/sample
4. Polished thin section preparation: 25 €/section
5. Petrographic analysis on thin sections: 180 €/sample
6. SEM-EDS analysis on selected samples: 320 €/day (normally 4 samples/day)
7. LA-ICP-MS analysis on selected samples: 500 €/day (normally 4 samples/day)
* Bulk geochemical analysis will be carried out directly by the client in a commercial laboratory in Lima and must be made available to the DiSTAR research group.

Whole-rock chemical analyses of major (Zn, Pb, Fe, Ca, Mg, Si, Al, Na, K, P, Mn) and minor elements (Ga, Ge, Mo, Cu, Ag, Ni, Co, As, U, Th, Sr, Cd, Sb, Bi, V, La, Cr, Ba, W, Sc, Tl, Se, Rb, Sn, Zr, Y, Ce, In) plus sulfur in mineralized samples must be carried out on identical powder splits to those used for the XRPD analyses. It is highly suggested to conduct the analyses on the same samples already used for the chemical assays or to select drillcore samples with a representative length of 1 m or more. Samples must be crushed, quartered, and milled before the analysis. Sample preparation can be done by the commercial laboratory on request. \*\*

Regarding the analytical protocol, Bureau Veritas Commodities Canada Ltd. proposes the analysis of ten grams of representative milled sample through the LF725 package (Li-borate fusion/X-ray fluorescence spectroscopy (XRF) – specific for base metal bearing samples). Samples with high Zn amounts (greater than 40%) must be run for overlimits with the LF726 package, in which the samples are fused with Li2B4O7/LiBO2 fluxes to be subsequently analyzed by XRF or also by titration. Minor elements can be assayed for example by using the AQ270 (ultratrace aqua regia plus ICP-AES and MS) package or the MA270 package (Multi-acid ICP-ES/MS). Gallium and Ge can be analyzed using the GC204-Ge & Ga package, which involves a closed vessel procedure, to prevent element loss during the HF+AR digestion, followed by ICP-MS analysis. In case of sulfide occurrence, it is necessary to evaluate if specific analysis of total Sulphur is needed.

In any case, when choosing the commercial laboratory, **it is recommended to have a direct contact with the laboratory to select the right combination of analytical packages**, allowing to best reconcile costs and needs. Prof Nicola Mondillo can support the client during this stage.

*\*\* If samples are sent for preparation to a commercial laboratory, it is recommended to make available the crushed quarter samples also for the mineralogical analyses.*