



October 31, 2022

## **Ivanhoe Electric Updates Santa Cruz Copper Project in Arizona**



### **55,733 Meters of Drilling Complete**



### **Updated Santa Cruz Project Mineral Resource Estimate Expected in January 2023**



### **Mineral Resource Estimate to Include Texaco and East Ridge Areas**

**NEW YORK, NEW YORK – Ivanhoe Electric (NYSE American: IE; TSX: IE) Chairman and Chief Executive Officer Robert Friedland and President Eric Finlayson are pleased to provide an update on drilling operations and exploration activities at the Santa Cruz Copper Project located west of Casa Grande, Arizona.**

**Mr. Friedland commented: “Our industry-leading geologists and engineers are building a wealth of knowledge from the ongoing drilling program at the Santa Cruz Copper Project. We are excited by the rapid progress we’ve experienced at Santa Cruz, which is leading to an updated mineral resource statement for the project expected in January 2023.”**

**Glen Kuntz, Chief Technical and Innovation Officer, commented: “We have had a busy and successful first twelve months at Santa Cruz. The technical teams have published an initial Mineral Resource Estimate while managing a multi-rig drill program, completing numerous trade-off studies and carrying out the technical studies required to support a future Preliminary Economic Assessment.”**

**Graham Boyd, Vice President of US Projects, commented: “Our expert geological team is encouraged by the spectacular blues and greens of the high-grade oxide and exotic copper zones. We believe that the Santa Cruz deposit could be one slice of a larger porphyry copper system. With our Typhoon™ results, we have started testing new anomalies for additional copper discoveries.”**

Andy Russell, Santa Cruz Consulting Project Director, commented: “Based on our work to date, we expect to complete a Preliminary Economic Assessment on the Santa Cruz deposit in the first half of 2023. The initial project economics could improve further as we continue to explore and understand the other areas, including Texaco and East Ridge.”

### **Santa Cruz drill program employing up to eight drill rigs**

Up to eight drill rigs are working 24 hours a day to collect resource in-fill, geotechnical, hydrological and metallurgical information required to assess potential mine development options at the Santa Cruz Project. We have completed 23,945 meters of in-fill drilling and 7,792 meters of drilling to support studies on underground mine access, utilizing a large and experienced on-site crew of over 40 employees and 76 contractors.

A recent highlight of the in-fill drilling program is from hole SCC-084, which intersected over 250 meters of impressive oxide and exotic copper mineralization. Although pending assays, this hole demonstrates the potential for identifying new zones of oxide and exotic copper mineralization.

Core sample from hole SCC-084 at 756 meters depth showing Diorite (black) with intense high-grade atacamite copper mineralization (green) along fractures and within veins. Atacamite is a high-grade copper mineral with 60% copper by weight.



**Hole SCC-084, shown between 746- and 749-meters displaying Oracle Granite with intense, high-grade atacamite and chrysocolla copper mineralization in fractures.**



**Prior to sampling drill core for assays, holes receive detailed geotechnical evaluation using rock quality designation, logging of whole core and mapping of structural features using downhole acoustic televiewer surveys. This data is essential for understanding the engineering characteristics of the rocks influencing potential mine design.**

**As a result of the detailed geotechnical work being performed on the core samples, and the industry-wide backlogs at assay laboratories, we have experienced some delays in the receipt of assay results. Approximately 5,000 drill samples are currently being processed at two laboratories: Skyline Assayers & Laboratories in Tucson, Arizona and Société Générale de Surveillance SA (“SGS”) in Vancouver, British Columbia, Canada. We expect to receive assay results in the coming weeks.**

**SGS is constructing a sample preparation facility in Tempe, Arizona to support the Santa Cruz Project. This important facility, located a 45-minute drive from the Project, should be operating by mid-November and will significantly improve assay sample process times.**

We have installed vibrating wire piezometers in selected holes to monitor the movement of groundwater in the cover gravels and bedrock. Hydraulic testing is also underway. This work is important for assessing the water content of different rock types and determining potential dewatering requirements.

Samantha Pascarelli, Geologist, logging Santa Cruz drill core.



In early October, the Santa Cruz Project introduced on-site scanning of drill core utilizing cutting-edge technology developed by GeologicAI of Calgary, Alberta, Canada. The system utilizes several components including: Light Detection and Ranging (“LIDAR”) scanning, X-Ray Fluorescence (“XRF”) chemical analysis, hyperspectral analysis for mineral identification, high-resolution core photography and geotechnical data collection and analysis tools.

Once fully deployed, this sophisticated system will allow a two to three-day turnaround time for preliminary geochemical data. The system and the produced data will assist with the prioritization of samples for both assaying and the decision-making process on subsequent drill holes.

**Michelle Legat, Vice President of Geology at GeologicAI, operating the core scanning system.**



**Santa Cruz Copper Project, Casa Grande, Arizona – Drill Site Location, October 8, 2022.**



**Updated Mineral Resource Estimate and Preliminary Economic Assessment underway**

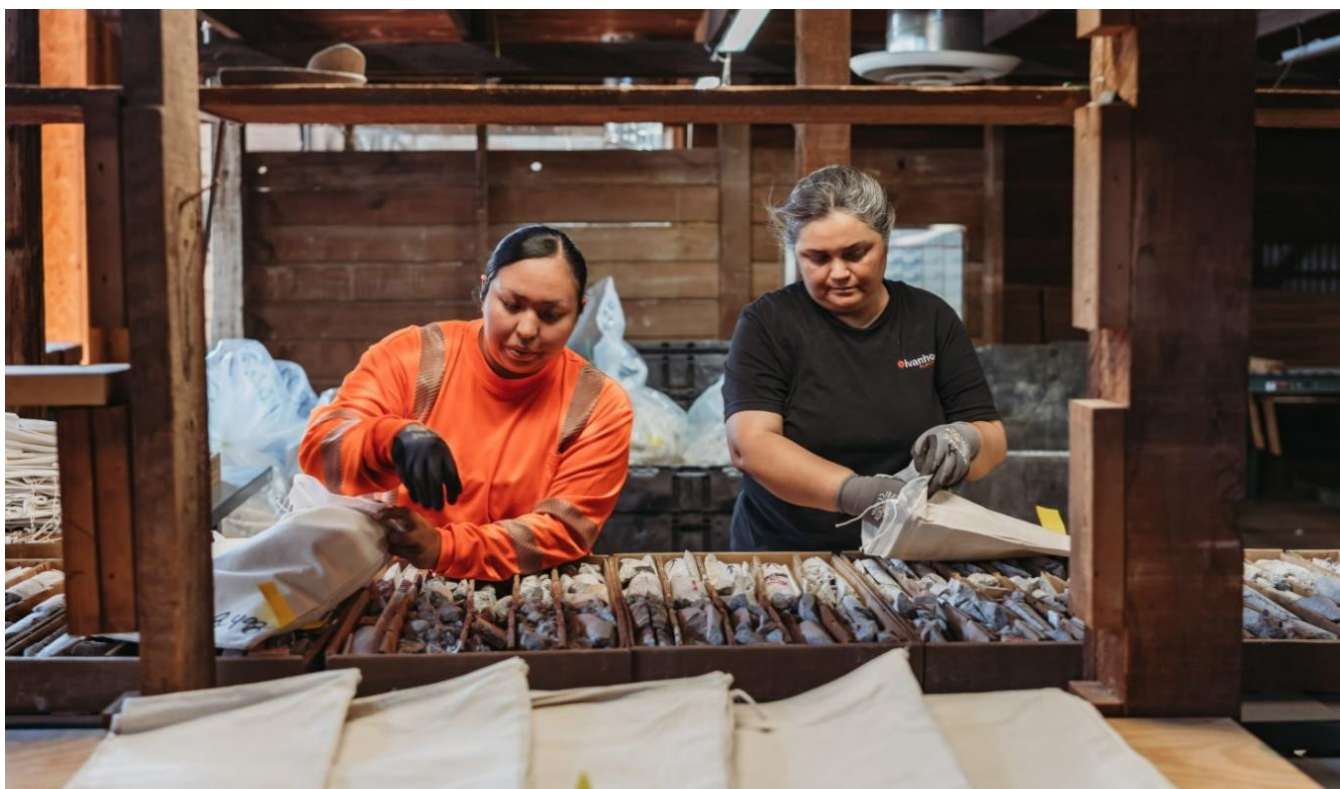
Results from the evaluation drill program will be used to support an updated Mineral Resource Estimate for the Santa Cruz Project expected in January 2023. The updated Mineral Resource Estimate will update the existing Santa Cruz deposit resource and will include initial estimates for the Texaco and East Ridge deposit areas.

Mining and metallurgical processing trade-off studies aimed at optimizing the initial economic analysis of the project are underway, in support of the Preliminary Economic Assessment (“PEA”) for the Santa Cruz Project. The initial PEA will cover only the Santa Cruz deposit area and is scheduled for completion in Q2 2023.

Through the trade-off studies we are resolving access alternatives, production rates, processing methods, copper cut-off grades, mining sequences and material handling systems. Our engineering teams have reviewed an initial 26 scenarios, which have been reduced to 7 optimized potential underground development scenarios for further study.

The Company is also completing environmental baseline studies, including hydrology and geochemistry test work, to support future applications for the Aquifer Protection Permit to the Arizona Department of Environmental Quality and the Dewatering Permit to the Arizona Department of Water Resources.

**Deidra Contreras and Karilys Mendez, Geotechnicians sampling Santa Cruz drill core.**



To date, 23,996 meters of exploration drilling on new areas have been completed. This includes the initial four-hole verification drill program conducted on the Santa Cruz copper deposit in 2021.

Based on results from the 26.5 km<sup>2</sup> Typhoon™ survey completed in July, with preliminary results disclosed on [September 15, 2022](#), three drill rigs were re-assigned from the Santa Cruz copper deposit evaluation drilling program to test five major chargeability targets that are potentially indicative of new zones of sulfide mineralization. A major new exploration discovery could alter the development options being studied for the upcoming PEA.

**Drilling at the East Ridge Typhoon™ target commenced in late-September and on the Far Southwest Typhoon™ target in mid-October. Both targets are thought to be separated by faults from the Santa Cruz copper deposit and could represent fragments of a single large porphyry copper deposit.**

**A highlight of initial East Ridge drilling was discovered in hole SCC-096, which intersected 150 meters of visible oxide copper mineralization, including approximately 10 meters of intense copper mineralization. Assays are currently pending.**

**An example of spectacular chrysocolla and atacamite oxide copper mineralization in a core sample from hole SCC-096 at 587 meters depth, targeting the East Ridge Typhoon™ target.**





**Ray Harris, Consulting Geotechnical Geologist, performing geotechnical logging of Santa Cruz drill core.**

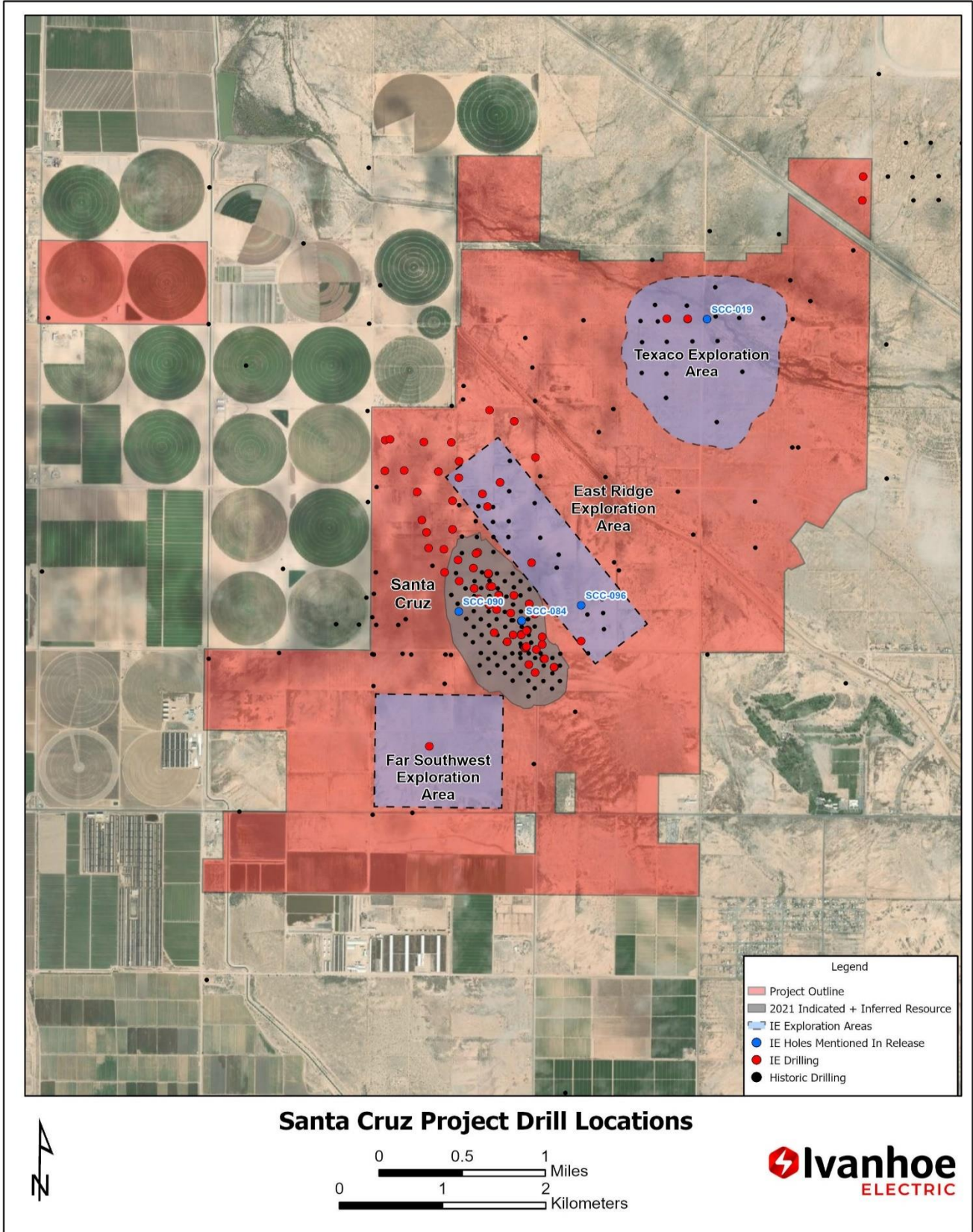


Drill rigs will return to the Texaco target in November. Ivanhoe Electric previously drilled five holes at Texaco, three of which intersected mineralized bedrock, with **hole SCC-019 returning 73 meters grading 2.2% copper, the highest-grade intersection recorded at Texaco.** Notably, after encountering an initial zone of strong secondary copper mineralization, a long intercept of primary chalcopyrite mineralization was found, indicating the potential for high-grade hypogene mineralization.

**An example of high-grade chalcopyrite mineralization as breccia fill and disseminations at Texaco, as seen in hole SCC-019. This sample is taken from a 1-meter interval grading 3.5% copper at 816 meters depth.**



**Santa Cruz Copper Project outline showing drilling locations, the Santa Cruz deposit and exploration areas.**



**Santa Cruz Project Drill Locations**



**Spectacular core sample from drill hole SCC-090, a 100-meter step out to the west of the Santa Cruz deposit. This core sample, taken from 479 meters depth, shows exceptional chrysocolla, atacamite and cuprite mineralization, as well as hematite (iron oxide). This zone has the potential to expand the areas of soluble oxide copper mineralization to the west of the known Santa Cruz deposit**



## **Qualified Persons**

**Disclosures of a scientific or technical nature included in this news release, including the sampling, analytical and technical data underlying the information, have been reviewed, verified, and approved by Glen Kuntz, P.Geo., and Christopher Seligman, MAusIMM CP (Geo), each of whom are Qualified Persons as defined by Regulation S-K, Subpart 1300 promulgated by the U.S. Securities and Exchange Commission and by Canadian National Instrument 43-101. Each of Mr. Kuntz and Mr. Seligman is an employee of Ivanhoe Electric.**

Ivanhoe Electric has had prepared an independent technical report summary for the Santa Cruz Project prepared under SEC Regulation S-K, Subpart 1300 and an independent technical report prepared under Canadian National Instrument 43-101. The reports are available on the company's website, on EDGAR and on the company's SEDAR profile:

- “Technical Report Summary on the Santa Cruz Project, Arizona, USA” prepared by Nordmin Engineering Ltd. (“Nordmin”) with an effective date of June 7, 2022 (S-K 1300 Report).
- “NI 43-101 Technical Report and Mineral Resource Estimate for the Santa Cruz Project, Arizona, USA” prepared by Nordmin with an effective date of June 7, 2022.

The technical report summary and technical report include relevant information regarding the assumptions, parameters and methods of the mineral resource estimates on the Santa Cruz Project cited in this news release, as well as information regarding data verification, exploration procedures and other matters relevant to the scientific and technical disclosure contained in this news release.

## **About Ivanhoe Electric**

Ivanhoe Electric is an American technology and mineral exploration company that is re-inventing mining for the electrification of everything by combining advanced mineral exploration technologies, renewable energy storage solutions and electric metals projects predominantly located in the United States. Ivanhoe Electric uses its Typhoon™ transmitter, an accurate and powerful geophysical survey system, together with advanced data analytics provided by its subsidiary, Computational Geosciences, to accelerate and de-risk the mineral exploration process as well as to potentially discover deposits of critical metals that may otherwise be undetectable by traditional exploration technologies. Through its controlling interest in VRB Energy, Ivanhoe Electric also develops and manufactures advanced grid-scale vanadium redox battery storage systems. Finally, through advancing its portfolio of electric metals projects located primarily in the United States, headlined by the Santa Cruz Copper Project in Arizona and the Tintic Copper-Gold Project in Utah, as well as projects in Montana, Oregon and North Carolina, Ivanhoe Electric is also well positioned to support American supply chain independence by delivering the critical metals necessary for electrification of the economy.

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## Forward-looking statements

Certain statements in this news release constitute “forward-looking statements” or “forward-looking information” within the meaning of applicable U.S. and Canadian securities laws. Such statements and information involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the company, its projects, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as “may”, “would”, “could”, “will”, “intend”, “expect”, “believe”, “plan”, “anticipate”, “estimate”, “scheduled”, “forecast”, “predict” and other similar terminology, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. These statements reflect the company’s current expectations regarding future events, performance and results and speak only as of the date of this news release.

Such statements include without limitation statements regarding: (i) completion of an updated mineral resource for the Santa Cruz Project in January 2023, including an updated resource for the Santa Cruz deposit and initial resource estimates for the Texaco and East Ridge areas; (ii) completion of a Preliminary Economic Assessment in Q2 2023; (iii) the establishment by SGS of Geneva, Switzerland of a sample preparation facility in Tempe, Arizona in November, 2022; (iv) future exploration and drilling activities; and (v) future mineral resource expansion.

This news release also contains references to estimates of Mineral Resources. The estimation of Mineral Resources is inherently uncertain and involves subjective judgments about many relevant factors. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation (including estimated future production, the anticipated tonnages and grades that will be mined and the estimated level of recovery that will be realized), which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that ultimately may prove to be inaccurate. Mineral Resource estimates may have to be re-estimated based on: (i) fluctuations in copper, gold or other metal prices; (ii) results of drilling and other exploration activities; (iii) metallurgical testing and other studies; (iv) proposed mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates and/or changes in mine plans; (vi) the possible failure to receive required permits, approvals and licenses; and (vii) changes in law or regulation.

Forward-looking statements are based on management’s beliefs and assumptions and on information currently available to management. Such statements are subject to significant risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including changes in the prices of copper or other metals Ivanhoe Electric is exploring for; the results of exploration and drilling activities and/or the failure of exploration programs or studies to deliver anticipated results or results that would justify and support continued exploration, studies, development or operations; the final assessment of exploration results and information that is preliminary; the significant risk and hazards associated with any future mining operations, extensive regulation by the U.S. government as well as local governments; changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts with the company to perform as agreed; and the impact of political, economic and other uncertainties associated with operating in foreign countries, and the impact of the COVID-19 pandemic and the global economy. These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements described in Ivanhoe Electric’s registration statement on Form S-1, as amended, filed with the U.S. Securities and Exchange Commission and base PREP prospectus filed with Canadian securities commissions.

No assurance can be given that such future results will be achieved. Forward-looking statements speak only as of the date of this news release. Ivanhoe Electric cautions you not to place undue reliance on these forward-looking statements. Subject to applicable securities laws, the company does not assume

any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this news release, and Ivanhoe Electric expressly disclaims any requirement to do so.