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Eurasian Resources Group

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MEDIA RELEASE

NOMAD: world-first 'smart exploration rover' a field-testing success in the Kingdom of Saudi Arabia

Monday, January 8, 2024, Riyadh - The groundbreaking smart exploration rover, NOMAD, has achieved remarkable success during its first field testing in the Kingdom of Saudi Arabia. This world-first innovation, designed for early exploration in complex terrains, demonstrated its exceptional ability to navigate challenging environments. The robot was developed by ERG Technology Intelligence, a division of Luxembourg global metals and mining company, Eurasian Resources Group (ERG).

NOMAD, a remotely-operated soil sampling robot, and exclusive local project for ERG Arabia, arrived in Riyadh in December. During the field testing undertaken in Ad Dawadmi, NOMAD showcased its ability to take soil samples efficiently and safely, while minimising environmental disturbance.

"Navigating the Kingdom's complex terrain, with its extreme conditions and rugged landscapes, poses a core challenge for mineral explorers," **said Aaron Baensch, Head of ERG Technology Intelligence.** "The terrain in the areas tested comprised shallow cover over residual regolith and proved the suitability of implementing NOMAD in the region perfectly. The robot excelled in boosting operational efficiency by an astounding 400% compared to conventional manual exploration methods."

NOMAD can collect more than 120 soil samples daily – a major improvement on the maximum of 30 samples that can be achieved manually, significantly reducing human involvement in perilous operations while minimising errors and resource wastage.

Once samples are collected by a NOMAD, it returns to a central, remote, mobile analysis base station which houses the robots and also re-charges the batteries that power them. The base station, part of ERG Arabia's complete end-to-end smart exploration solution, conducts analysis of the collected sample on site, working seamlessly to fast-track operations, by helping the geology teams on the ground to make decisions in real time. This level of agility is integral to developing a more responsive and sustainable mining sector.

Supporting a smarter, greener, and more sustainable economy in the Kingdom – in line with Vision 2030 – also includes promoting knowledge-transfer programmes across operations. To that end, ERG's in-house geology graduates from King AbdulAziz University, played a major role in transporting, operating, and testing NOMAD.

“We put a lot of thought to building our geology curriculum for future explorers to include an innovation mindset in their programme, but also improve their long-term prospects in a field that will become increasingly tech-enabled,” **said Augustine Raj, Head of Exploration at ERG Arabia.** “In a concerted knowledge-sharing effort, our ongoing graduate and student programmes are focussed on certifying local geologists on all aspects of exploration, including technology and industry best-practices.”

The success of NOMAD's field testing marks a significant milestone in ERG Arabia's journey towards redefining exploration and shaping a brighter tomorrow through smart technology.

Video snippets and exclusive photos from the NOMAD field testing day in Ad Dawadmi [can be found here](#).

For further information and image attributes, please contact communications.ksa@erg.net.

About ERG Arabia:

ERG Arabia is a fully owned subsidiary of Eurasian Resources Group (ERG), a global metals mining company headquartered in Luxembourg. With integrated exploration, mining, processing, energy and logistics operations, the Group operates in 16 countries and is a major employer in the industry with around 80,000 people working for it. In the Kingdom of Saudi Arabia, ERG is focused on adopting a technological leadership position through industry partnerships, with the Kingdom serving as a strategic base for an advanced, high impact hub to sustainably meet mineral demand. ERG intends to expedite early-stage exploration in the Kingdom to help meet the surging demand for battery metals, by deploying innovative and sustainable exploration technologies through its technology intelligence division.

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About ERG:

Eurasian Resources Group (ERG) is a global metals and mining company, with a workforce of around 80,000 and integrated exploration, mining, processing, energy and logistics operations in Kazakhstan, Africa, the Kingdom of Saudi Arabia and Brazil. ERG operates in 16 countries and is a growing supplier of critical raw materials that are enabling the global energy transition.

In **Kazakhstan**, ERG represents one third of the metals and mining industry. It is also a key power supplier and a large railway operator in Central Asia. ERG manages several of Kazakhstan's leading production entities, including Kazchrome, SSGPO, Kazakhstan Aluminium Smelter (KAS), Aluminium of Kazakhstan, Eurasian Energy Corporation, and others.

ERG is the world's largest high-carbon ferrochrome producer by chrome content and one of the largest producers of cobalt. It is also a large global supplier of copper and high-grade iron ore. In Eurasia, it is one of the largest suppliers of alumina and is Kazakhstan's only producer of high-grade aluminium.

In **Africa**, ERG mines and processes copper and cobalt ore and produces copper metal and cobalt hydroxide. Frontier is the cornerstone of the Group's copper business, while ERG's Metalkol, a major tailings reprocessing operation in the Democratic Republic of the Congo, has become one of the world's largest producers of cobalt as well as a major producer of copper. The Group has its own supply chain on the continent through its logistics company Sabot as well as development projects which are focused on other minerals and products across Africa, including in South Africa and Zimbabwe.

In **Brazil**, ERG is developing BAMIN, an integrated mining and logistics project in the State of Bahia,

which comprises the Pedra de Ferro iron ore mine, the Porto Sul deep-water port and the associated stretch of the new FIOLE broadgauge railway.

In the **Kingdom of Saudi Arabia**, ERG is focused on adopting a technological leadership position through industry partnerships, with the Kingdom serving as a strategic base for an advanced, high-impact hub to sustainably meet mineral demand. ERG intends to expedite early-stage exploration in the Kingdom to help meet the surging demand for battery metals, by deploying innovative and sustainable exploration technologies through its Technology Intelligence division.

ERG is a Strategic Partner Associate of the **World Economic Forum** and a founding member of the **Global Battery Alliance (GBA)** which is dedicated to establishing a sustainable and responsible global supply chain for the lithium-ion batteries that can power the Fourth Industrial Revolution and a low carbon economy through mobile devices, electric vehicles and renewable energy systems.

Since its establishment in 2017, the GBA has grown into a partnership with of more than 150 businesses, governments, academics, industry actors, international and non-governmental organisation. In 2022, the [GBA launched its flagship initiative, the Battery Passport](#), at the World Economic Forum Annual Meeting in Davos. The Battery Passport will become a legal requirement in Europe, by 2026, with other geographies likely to follow suit in the future.

ERG is also a co-founder of the [ReSource](#) initiative, working together with CMOC, Glencore, Umicore and Tesla. The initiative uses blockchain to track cobalt and other battery materials in real operating conditions from the mine to an electric vehicle.

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