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DESERT STAR PROJECT ADVANCES TOWARDS FIRST DRILL PROGRAM NEAR MOUNTAIN PASS

Highlights

- **Plan of Operations submitted:** Plan of Operations for the Desert Star Projects in California, USA, has been officially submitted to the U.S. Bureau of Land Management (BLM), marking a major milestone in the project development. The inaugural drill program is designed to test four high priority rare earth elements (REE) targets, ST1, ST2, ST3 and NT1, identified through structural intersections and geophysical anomalies analogous to the world class Mountain Pass deposit. BLM approvals are expected in October/November, with site preparation and drilling expected to commence swiftly thereafter.
- **Four high-priority REE targets defined:** Desert Star (ST1, ST2 and ST3) show strong gravity anomalies, elevated Th/U ratios, radiometric highs and structural intersections consistent with REE-bearing carbonatite systems akin to Mountain Pass; Desert Star North (NT1) shows moderate radiometric anomalism, gravity highs and fault intersections indicative of structurally controlled REE mineralisation.
- **Outstanding initial grades reinforce geological model:** Reconnaissance sampling has confirmed exceptional rare earth grades, validating the hypothesis that a REE-rich corridor extends northeast from the Mountain Pass Mine into the Desert Star Project area. Assays from heavy mineral concentrates returned values up to 26,286 ppm TREO (2.63%), while rock chip samples reported up to 7,841 ppm TREO (0.78%), highlighting significant exploration upside *(see ASX Announcement dated 1 September 2025)*.
- **Upcoming assay results from Desert Star Projects:** A total of 21 rock chip samples and 46 heavy mineral concentrate samples were collected from the Desert Star North project. In addition, 16 heavy mineral concentrate samples were collected from Desert Star and submitted to ALS within the same batch. These samples were recently submitted to the lab for full REE and multi-element geochemical suites. Results are expected in October.
- **Ground geophysical surveys underway:** Ground-based radiometric, magnetic, and gravity surveys are currently underway across both project areas, with completion expected next week. These datasets will be integrated with geochemical results and existing desktop interpretations to form a technically robust foundation for drill targeting.

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- **Strategic Location of Desert Star Projects:** The Desert Star Project is strategically located just 4.5 km northeast of MP Materials' Mountain Pass REE Mine[1] one of the largest and highest-grade rare earth operations globally. Desert Star North Project lies only 3 km north of the Colosseum Gold Mine, which hosts a JORC-2012 compliant Mineral Resource of 27.1 Mt @ 1.26 g/t Au for 1.1 million ounces[2]. Both properties are located within the same regional corridor and share structural and geological characteristics with the globally significant Mountain Pass Rare Earth Mine.
- **Downstream Evaluation:** Initiation of downstream evaluation is underway to secure U.S. supply chain.

Bayan Mining and Minerals Ltd (ASX: BMM; "BMM" or "the Company") is pleased to announce that has formally submitted a Plan of Operations to the U.S. Bureau of Land Management for its 100% owned Desert Star Projects, located in California, USA. BLM approvals are expected in October/November, with site preparation and drilling expected to commence swiftly thereafter.

This milestone coincides with exceptional surface assay results and the completion of an integrated geophysics desktop study, which together define a compelling pipeline of targets for maiden drilling.

Executive Director Fadi Diab commented:

"The submission of our Plan of Operations to the BLM marks a significant milestone in the advancement of our Desert Star Projects. With our first drill program now firmly in sight, we are positioning Bayan at the forefront of U.S. based rare earth exploration.

The strength of our geological model continues to be validated by outstanding surface assay results, and the integration of geophysical and geochemical datasets is providing a robust technical foundation for drill targeting.

We look forward to receiving final BLM approvals and commencing drilling in the near term, as we take the next step towards unlocking the full potential of this highly strategic asset.

Assays Results Confirm Exceptional Rare Earth Grades

As previously released *(see ASX Announcement dated 1 September 2025*), reconnaissance sampling across Desert Star returned outstanding results, including heavy mineral concentrate assays up to 26,286 ppm TREO (2.63%) (Sample 19440), with several additional samples exceeding 10,000 ppm TREO such as 14,935 ppm (Sample 19419), 13,774 ppm (Sample 19441) and 13,185 ppm (Sample 19444).

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[1] MP Minerals Corp. (NYSE:MP) www.mpminerals.com

[2] Dateline Resources Ltd (ASX:DTR) ASX Announcement titled 'Colosseum Scoping Study Delivers Positive Outcomes' dated 23 October 2024.

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Rock chip sampling also delivered strong values, peaking at 7,841 ppm TREO (0.78%) (Sample 19415), supported by further high-grade results including 4,097 ppm (Sample 19378) and 3,443 ppm (Samples 19411 and 19413). These results validate the continuation of the rare earth bearing corridor extending northeast from the Mountain Pass Mine into the Desert Star Project.

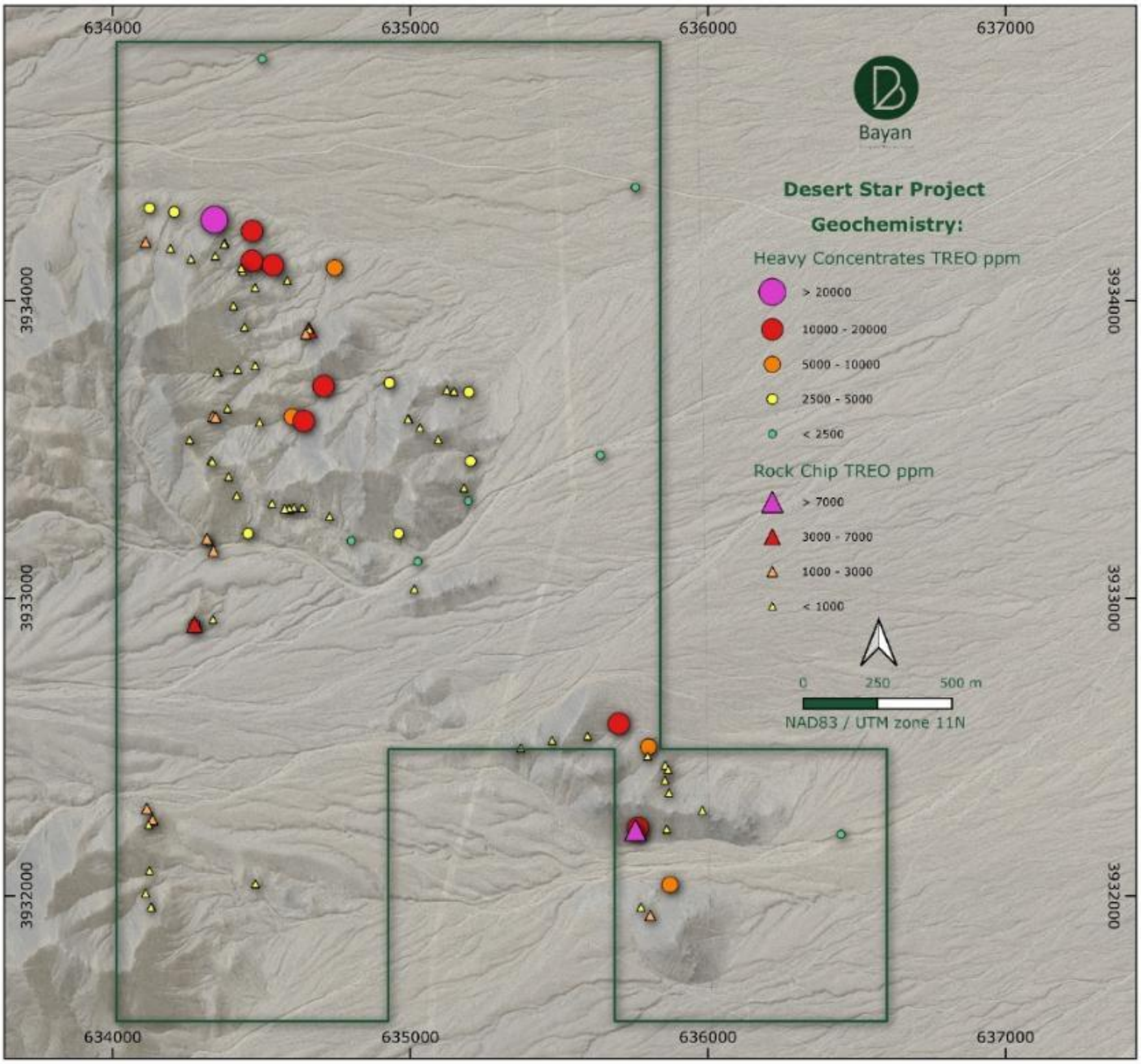

Figure 1: Desert Star Project – Plan View Showing Sampling Locations and TREO Assay Results

In addition, a further 83 samples have now been submitted to ALS for full REE and multi element geochemical analyses comprising 67 from Desert Star North and 16 from Desert Star. Results are expected in the coming weeks and will provide additional definition of the mineralisation footprint across the project area.

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Figure 2: Field photograph showing surface sampling at the Desert Star North Project.

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Geophysics Defines Four Priority Targets

As previously outlined *(see ASX Announcement dated 5 September 2025)*, the geophysics led desktop study defined four coherent REE targets across the Desert Star Projects. At Desert Star, three target zones (ST1, ST2 and ST3) have been delineated. ST1 is characterised by a gravity high coincident with a magnetic low and elevated Th/U radiometric ratio, consistent with a dense carbonatite body. ST2 is defined by a discrete gravity high coincident with radiometric highs and structural intersections, highlighting potential REE-bearing intrusives. ST3 is a broad 500 by 300 metre anomaly marked by a gravity high, reduced magnetic intensity and anomalous Th/K and Th/U ratios a geophysical expression analogous to the Mountain Pass carbonatite system.

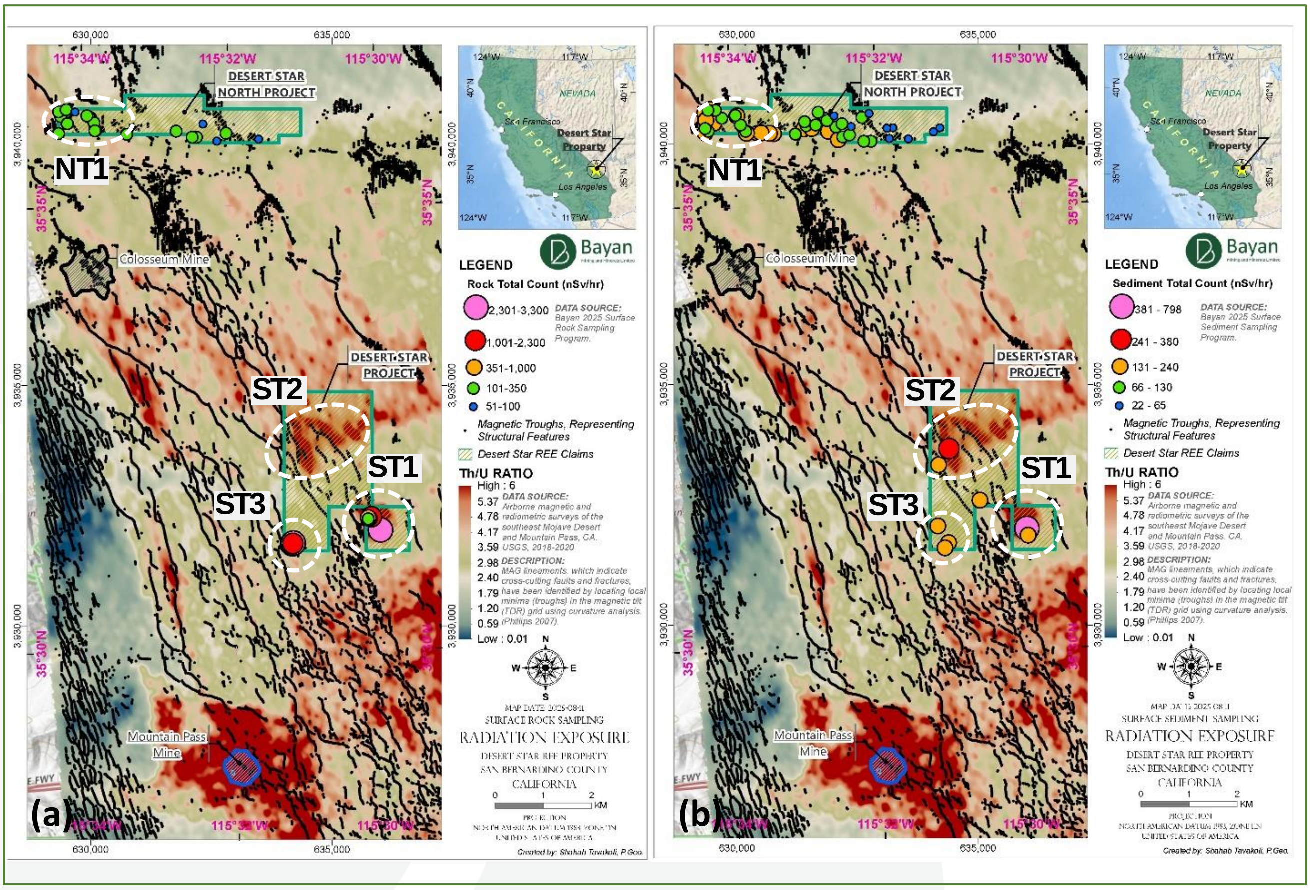

Figure 3: Priority Target Areas Overlain on Th/U Ratio Radiometric Data

At Desert Star North, Target NT1 is delineated by radiometric anomalies, a gravity high and multiple fault intersections, suggesting structurally controlled REE mineralisation. The coincidence of these geophysical signatures with mapped structural corridors provides a robust exploration model directly comparable to known REE systems in the district.

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Figure 4: Field crew conducting ground magnetic and gravity survey at Desert Star Project

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About Desert Star Projects

The Desert Star Projects comprises two claim blocks, Desert Star and Desert Star North located in San Bernardino County in California's eastern Mojave Desert. Together, the projects cover a combined area of approximately 9.75 km² and consist of 117 federal lode claims[3], which have been staked and claim applications were submitted to the U.S. Bureau of Land Management for registration.

Strategically located within a globally significant critical minerals corridor, the Desert Star Project lies just 4.5 km from MP Materials' operating Mountain Pass Rare Earth Mine and approximately 4.7 km from southern extents of the Colosseum Gold Mine.

The area is well supported by infrastructure, including nearby access to Interstate 15, high-voltage power transmission lines servicing the Mountain Pass Mine, and a Union Pacific rail line within 25 km that may support bulk logistics in future development. Additional renewable power infrastructure in the Ivanpah Valley provides further optionality for low-emission energy access.

The Desert Star claim block comprises 72 federal lode claims covering approximately 6 km². Geologically, the area lies within a structurally uplifted block of Paleoproterozoic metamorphic and igneous basement rocks intruded by Mesoproterozoic alkaline and carbonatite intrusives, including shonkinite, syenite, granite, and carbonatite. These intrusions are genetically linked to REE mineralisation in the district, with key alteration assemblages such as barite, fluorite, hematite, phlogopite, and calcite indicating a magmatic-hydrothermal origin. The tenement is bounded by the Ivanpah Fault to the east and the Clark Mountain Fault to the west, both major regional structures associated with mineralisation at Mountain Pass and Colosseum.

The Desert Star North claim block consists of 45 federal lode claims covering approximately 3.75 km². The project spans a geological transition from Paleoproterozoic basement rocks in the west to Cambrian marine sedimentary units in the east, including limestones, quartzites, and shales. These formations are part of the broader stratigraphy that hosts both rare earth and gold mineralisation in the region. Desert Star North is similarly transected by the northwest-trending Ivanpah and Clark Mountain faults, which exhibit vertical displacement in excess of 10,000 feet. These structures are recognised as key controls on regional mineralisation, including at the Mountain Pass REE Mine and the Colosseum Gold Mine, located immediately to the south.

[3] Refer to BMM ASX Announcements dated 7 July 2025 and 14 July 2025.

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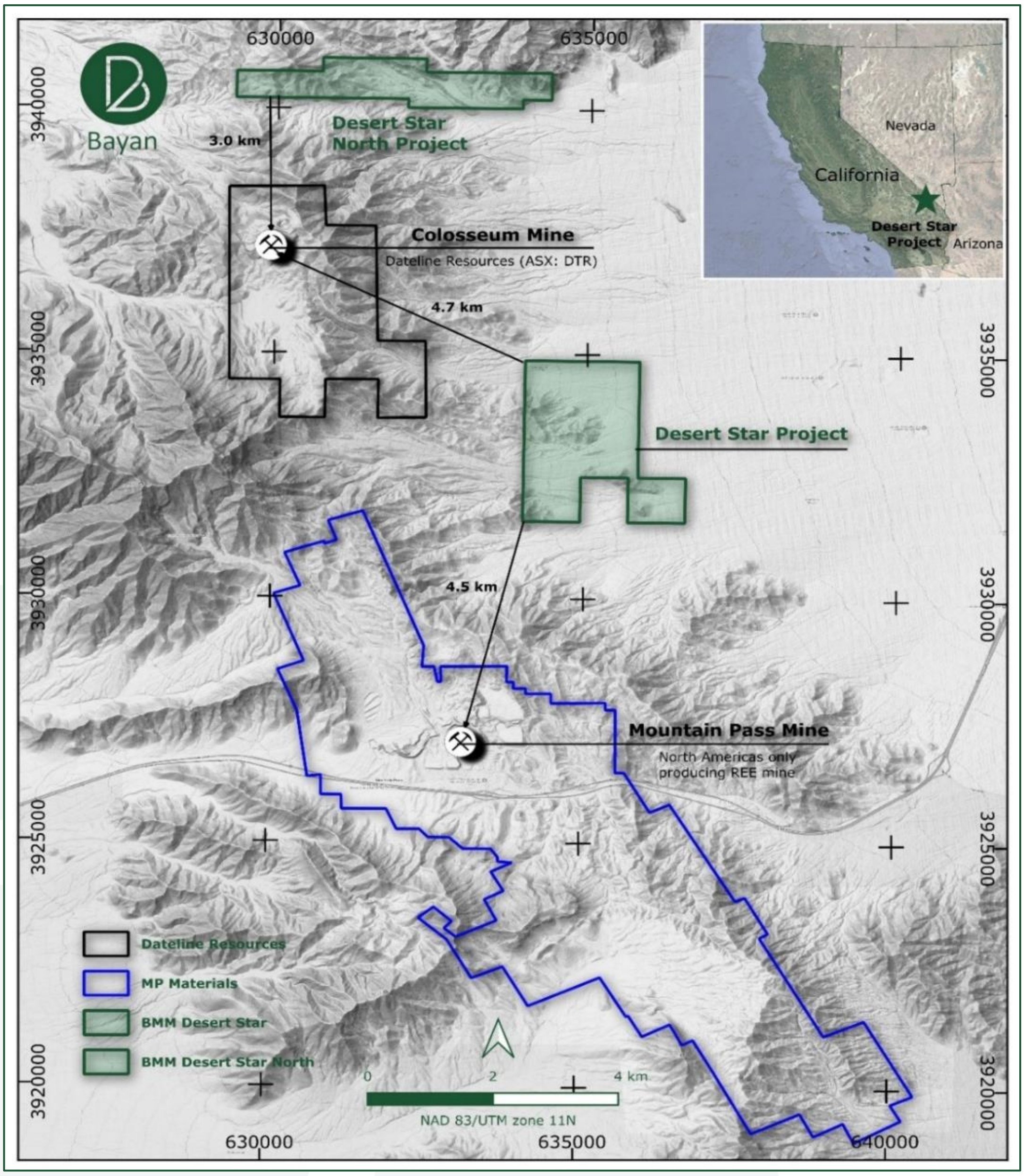

Figure 5: Desert Star Projects Location Map

For further information, please contact:

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Authorised for release by the Board of Bayan Mining and Minerals Limited

-ENDS-

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Competent Persons Statement

The information in this release that relates to Exploration Targets or Exploration Results is based on information compiled by Mr Dejan Jovanovic, a Competent Person who is a Member of the European Federation of Geologists (EurGeol). The European Federation of Geologists is a Joint Ore Reserves Committee (JORC) Code 'Recognised Professional Organisation' (RPO). An RPO is an accredited organisation to which the Competent Person under JORC Code Reporting Standards must belong to report Exploration Results, Mineral Resources, or Ore Reserves through the ASX. Mr Jovanovic is the General Manager of Exploration and is a part-time contractor of the Company. Mr Jovanovic has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jovanovic consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements.

The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

Forward-looking Statements

Certain statements included in this release constitute forward-looking information. Statements regarding BMM's plans with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that BMM's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that BMM will be able to confirm the presence of additional mineral resources, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of BMM's mineral properties. The performance of BMM may be influenced by a number of factors which are outside the control of the Company and its Directors, staff, and contractors.

These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

Except for statutory liability which cannot be excluded, each of BMM, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in these forward-looking statements and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in forward-looking statements or any error or omission. BMM undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly, you should not place undue reliance on any forward-looking statement.

Proximate Statements

This release contains references to mineral exploration results derived by other parties either nearby or proximate to the Desert Star Projects and includes references to topographical or geological similarities to that of the Desert Star Projects. It is important to note that such discoveries or geological similarities do not in any way guarantee that the Company will have similar exploration successes on the Desert Star Projects, if at all.

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