



DRILLING STARTS ON DSO TARGETS AT BUENA VISTA GREEN IRON PROJECT

HIGHLIGHTS

- Drilling of outcropping and near-surface high grade magnetite has started
 - The campaign is designed to quantify Direct Shipping Ore potential of the Buena Vista Iron Project
 - The focus is on the as yet undrilled Iron Horse area that has previously returned up to 67% Fe in grab samples
 - High grade outcrops in the walls of the historic West Pit will be drilled to test continuity
 - Newly recognised, potentially high grade mineralisation in pit floors to be drill tested
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Magnum Mining & Exploration (ASX: MGU, "Magnum" or "the Company") wishes to announce the commencement of a shallow drilling campaign to test massive, high grade magnetite outcrops and subcrops at its Buena Vista Green Pig Iron Project in Nevada, USA (Figure 1).

Assessment of drill hole data and geological mapping has identified Direct Shipping Ore (DSO) opportunities at Buena Vista. Massive, high grade magnetite outcrops have been uncovered through historic mining activities and are shown to be more prevalent and continuous than the drilling data might indicate.

These targets represent a DSO mining and shipping opportunity that may support an early, low cost start up business for the mine.

Snow melt is now sufficiently advanced to allow drilling to occur. A full schedule of field work has now ramped up and is expected to carry on



Figure 1 Drilling starts above West Pit at the Buena Vista Green Pig Iron Project, Nevada, USA

through northern hemisphere summer. This work includes this drilling campaign but also includes surface sampling of opportunities recently recognised during drill planning.

HIGH GRADE MAGNETITE POTENTIAL

Magnetite mineralisation has been introduced into the Buena Vista Gabbro by an alteration event that is strongly controlled by faulting (Figure 2). Magnetite breccia zones and infilling of fractures are common. The relative abundance of these ground conditions produce the variations in mineralisation types from light disseminations to high grade, massive magnetite pods. Iron grades vary from trace to 68% Fe².

The massive magnetite tends to be associated with the intersection of large scale NW trending faults and a conjugate set of NE secondary faults. Steeply plunging magnetite shoots can occur at these intercepts. Where really extensive, these shoots can form an open pit mining proposition.

DRILLING CAMPAIGN

Drilling is being undertaken with a Reverse Circulation (RC) rig and is focussing on three areas (Figure 3):

1. Massive magnetite outcrops associated with the historic West Pit
2. Magnetite outcrops in the Central Pit
3. Iron Horse – an as yet undrilled area of extensive surface magnetite mineralisation that has shown to hold exceptional iron grades at surface

A local, very highly experienced drilling company has been contracted to undertake this drilling.

STOCKPILE SAMPLING

During mining of DSO material during the 1950s-1960s, US Steel stockpiled “low grade” ores. Ad hoc sampling shows this stockpile contains medium to high grade ores in the context of beneficial magnetite feeds. A systematic sampling campaign is being initiated to better define the opportunity represented by this stockpile.

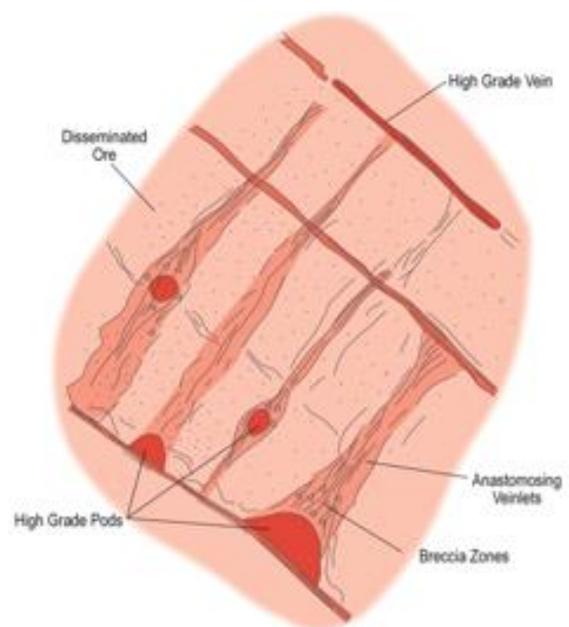


Figure 2 Magnetite mineralisation geometry at Buena Vista

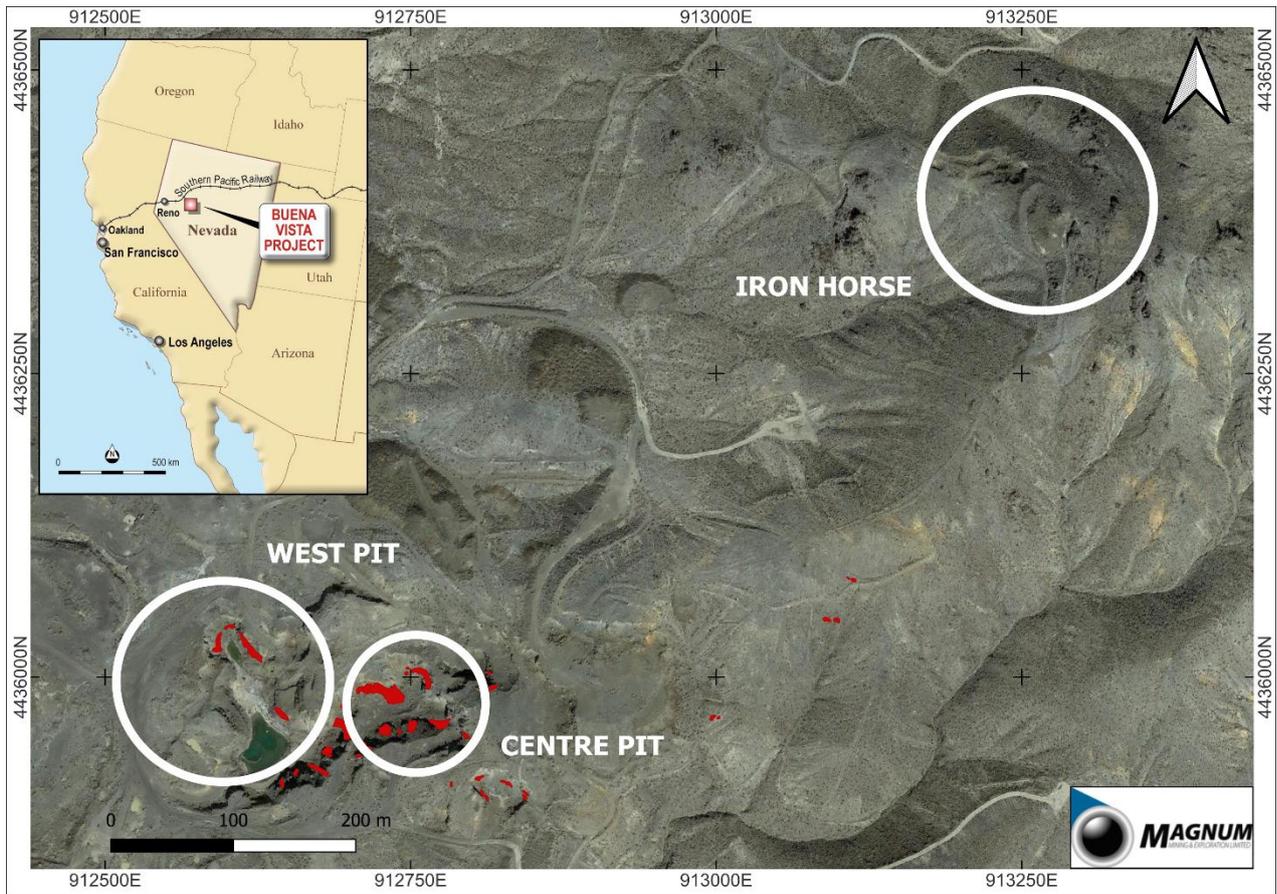


Figure 3 Areas to be drilled during 2023. Red areas indicate massive magnetite outcrops.



Figure 4 Existing West Pit at the Buena Vista. The mine and unmined resources are situated on private land and are not subject to many of the regulatory requirements that apply to public lands.



Figure 5 High grade iron in massive magnetite outcrop at the Buena Vista mine. Such outcrops are common and may provide sufficient material for early DSO production.

THE BUENA VISTA IRON DEPOSIT

Buena Vista Iron Deposit is located approximately 160km east-north-east of Reno in the mining friendly state of Nevada, United States. It was discovered in the late 1890's and in the late 1950's to early 1960's around 900,000 tonnes of direct shipping magnetite ore with an estimated grade of 58% Fe was mined.

In the 1960's, US Steel Corporation acquired the Buena Vista Project and carried out an extensive exploration program including 230 diamond drill holes and considerable metallurgical test work. Richmond Mining Limited, an ASX listed company, acquired Buena Vista in 2009 and commenced a detailed exploration program culminating in a definitive feasibility study in 2013. A key component of these studies was extensive investigation of the optimal logistics plan for the deposit's development. This included the negotiation of in-principle agreements with existing rail and port operators and the securing of all major mining permits. Detailed costings were completed on the trucking or slurry pipeline options to deliver the concentrate to the rail head located some 50 kilometres from mine site. A significant decline in iron ore prices to less than US\$50/ tonne caused the then proposed development of Buena Vista to be deferred.

Geology

The Buena Vista Project magnetite deposits are the product of late-stage alteration of a localised intrusive local gabbro that resulted in intensely scapolitised lithologies and the deposition of magnetite. The most well-known example of this type of magnetite mineralisation is the Kiruna magnetite deposit in Sweden, which has been in production since the early 1900's.

The distribution and nature of the magnetite mineralisation at Buena Vista is a function of ground preparation by faulting and fracturing, forming a series of open fractures and breccia zones. These ground conditions produce variations in mineralisation types from massive pods grading +60%

magnetite to lighter disseminations grading 10-20% magnetite.

Metasomatic magnetite deposits such as those at Buena Vista have important positive beneficiation characteristics over the other main type of magnetite deposit which is a banded iron hosted magnetite, also known as a taconite.

The Buena Vista ore is of magmatic origin and as a consequence is coarser grained and softer than banded iron hosted ores. Industry standard crushing, grinding and magnetic separation produces a concentrate grade of +67.5% Fe with very low levels of impurities.

Resource

The Mineral Resource Estimate (JORC(2012)) at Buena Vista is¹:

Category	Million Tonnes	Fe %	DTR %
Indicated Resource	151	19	23.2
Inferred Resource	81	18	22
Total Resource	232	18.6	22.6

The Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Additionally, an Exploration Target Estimate exists²:

Category	Million Tonnes	Fe %
Exploration Target	407 to 540	15 to 22

The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Development

Mining permits are in place to develop the Buena Vista Iron Mine. The Company has re-aligned the project from a simple mining, concentration and exporting model to a proposed green pig iron producer. Using cutting edge technology in tandem with biochar sources, the Company aims to capitalise on a first-mover advantage to supply green pig iron to the USA steel industry.

¹ Refer to ASX:MGU – 'Maiden JORC 2012 Resource for Buena Vista Magnetite Project', 23 March 2021.

² Refer to ASX:MGU – 'Significant Exploration Target Defined', 13 January 2023.

CAUTIONARY STATEMENTS

COMPETENT PERSON'S STATEMENT – RESOURCE ESTIMATION

The information in this report that relates to Mineral Resources is based on information compiled by Mr Jonathon Abbott, a Competent Person who is a Member of the Australian Institute of Geoscientists and a full time employee of MPR Geological Consultants Pty Ltd. Mr Abbott has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the “Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves”. Mr Abbott consents to the inclusion of the matters outlined in this announcement in the form and context in which it appears.

COMPETENT PERSON'S STATEMENT – EXPLORATION TARGET ESTIMATION

The information in this report that relates to an Exploration Target is based on information compiled by Mr Marcus Flis, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy and a full time employee of Rountree Pty Ltd. Mr Flis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the “Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves”. Mr Flis consents to the inclusion of the matters outlined in Appendix A in the form and context in which it appears.

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

NO NEW INFORMATION

The Company confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates in the announcement of the 'Maiden JORC Resources for the Buena Vista Magnetite Project' dated 23 March 2021 continue to apply and have not materially changed.

FORWARD LOOKING STATEMENTS

This release contains “forward-looking information” that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to studies, the Company's business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this news release are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to general business, economic, competitive, political and social uncertainties; the actual results of current development activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of metals; failure of plant, equipment or processes to operate as anticipated; accident, labour disputes and other risks of the mining industry; and delays in obtaining governmental approvals or financing or in the completion of development or construction activities. This list is not exhaustive of the factors that may affect our forward-looking information.

These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information.

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