

DSO SAMPLING AT BUENA VISTA UNCOVERS NEW POTENTIAL

HIGHLIGHTS

- Campaign of channel sampling massive magnetite outcrops completed at Buena Vista
- Reconnaissance has identified shallow, high-grade potential in historic pits
- All previous holes drilled underneath these scree covered occurrences
- Drilling programme to test DSO potential to now include shallow in-pit targets
- The fully permitted Buena Vista Mine site could access this material early and with minimal capital requirements

Magnum Mining & Exploration (ASX: MGU, “Magnum” or “the Company”) has completed the first phase channel sampling of massive, high grade magnetite outcrops at its Buena Vista Green Pig Iron Project in Nevada, USA (Figure 1).

This work will support work focussed on outlining a possible Direct Shipping Ore (DSO) source that may allow an early, low cost start-up for mining and shipment of DSO from the project.

DSO POTENTIAL

The Buena Vista Mine site has not been comprehensively mapped since 1960. Modern mapping is hampered by the extensive earth works, stockpiles, dumps, and ground disturbance that resulted from the mining operations during the 1950s to the 1970s.

Evenso, that mapping shows widespread occurrences of massive magnetite. It is not uncommon for these outcrops to exceed the minimum iron grade equivalent to Platts standard fines grade of 62% Fe or lump grade of 62.5% Fe.



Figure 1 Buena Vista Green Pig Iron Project Location, Nevada, USA

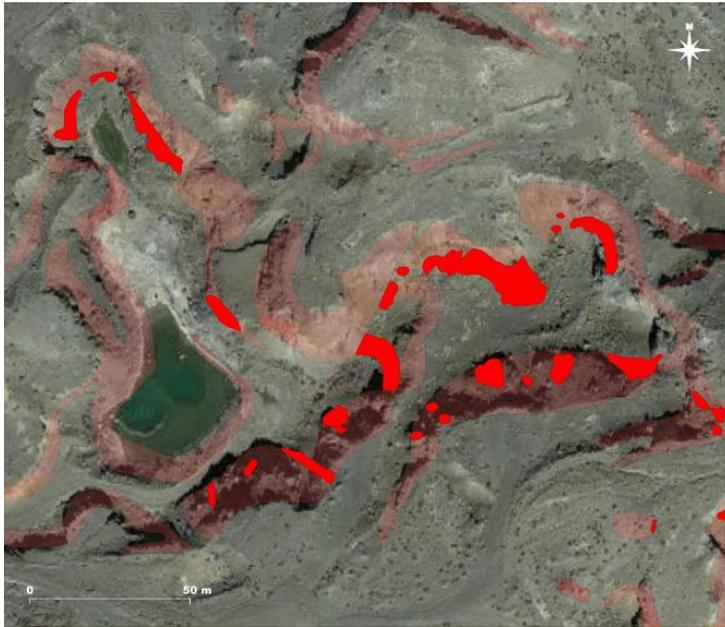


Figure 2 Areas of massive magnetite outcrop, representing high grade ores and highlighted in red, are common at the Buena Vista Green Pig Iron Project. Light red areas indicate areas of disseminated magnetite outcrop.

The massive magnetite outcrops have generally been exposed through the mining process, although natural outcrops are not uncommon.

Drilling of the Buena Vista deposit has historically focussed on deeper, high tonnage targets, ignoring the lower tonnage, near surface or surface potential. First pass channel sampling (ie, a line of continuous rock chips taken across an outcrop) has now been completed. Those samples are being processed now.

During the sampling procedure, it was recognised that there may exist in the floors of the existing pits potentially high grade magnetite ore. This material may be easily accessible with little additional work required to mine it: the Buena Vista Mine is a fully permitted mine for open cut mining.

DRILLING CAMPAIGN

A drilling contract is in place for shallow DSO drilling. This drilling will be done with a Reverse Circulation (RC) rig. It is focussed on three areas:

1. Massive magnetite outcrops associated with the historic West Pit
2. Magnetite outcrops and indications of DSO possibilities in in the floor of the Central Pit
3. Iron Horse – an as yet undrilled area of extensive surface magnetite mineralisation.

It is expected that the drilling campaign will start by the end of April.



Figure 3 Photos of in pit high grade magnetite (left) and in the West Pit walls (above). Massive magnetite are the dark grey areas in the top right hand of the

A local, experienced drilling company has been contracted to undertake the drilling.



Figure 4 Existing West Pit at the Buena Vista mine. The mine is located on private land and is fully permitted for open cut and beneficiation operations.

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.

Neither the Company, nor any other person, gives any representation, warranty, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. Except as required by law, and only to the extent so required, none of the Company, its subsidiaries or its or their directors, officers, employees, advisors or agents or any other person shall in any way be liable to any person or body for any loss, claim, demand, damages, costs or expenses of whatever nature arising in any way out of, or in connection with, the information contained in this document. The Company disclaims any intent or obligations to or revise any forward-looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law.

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Table 1 - (JORC Code, 2012 Edition)

Section 1 Sampling Techniques and Data

CRITERIA	COMMENTARY
Sampling techniques	<ul style="list-style-type: none"> Rock chip samples were collected from outcropping massive magnetite. Continuous channel sampling was done and consolidated into two metre runs The sample will be assayed by ICPMS techniques for a range of elements
Drilling techniques	<ul style="list-style-type: none"> Drilling is not being reported
Drill sample recovery	<ul style="list-style-type: none"> Drilling is not being reported
Logging	<ul style="list-style-type: none"> Drilling is not being reported
Sub- sampling techniques and sample preparation	<ul style="list-style-type: none"> No sub-sampling was done
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The assay method used is designed to measure total iron content plus any trace elements. Internal Laboratory QAQC will be done
Verification of sampling and assaying	<ul style="list-style-type: none"> Field note book was used to record primary data in the field. Primary data was then entered digitally and is stored and archived to Magnum's server in Excel format. Data is visually checked and validated prior to import and additional validation is carried out upon entry to the database. No adjustments or calibrations were made to the assay data..
Location of data points	<ul style="list-style-type: none"> Handheld GPS was used to determine sample locations with an accuracy of approximately $\pm 5m$. Grid Co-ordinate system used is NAD83, UTM Zone 11N. Original Handheld GPS co-ords are maintained in the database. This is considered appropriate at this early stage of exploration..
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for samples are varied and dependent on outcrop distribution. Data spacing is sufficient for this early stage of exploration Samples were composited for each channel in any one deposit. This will be fully reported once results are in.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Not applicable – samples were collected across the width of the outcrop
Sample security	<ul style="list-style-type: none"> All samples to be transported to the lab by an independent consultant
Audits or reviews	<ul style="list-style-type: none"> No audits were done.

Section 2 Reporting of Exploration Results

Criteria listed in the preceding section also apply to this section

CRITERIA	COMMENTARY
Mineral tenement and land tenure status	<ul style="list-style-type: none"> The project contains mineral rights over 234 separate claims covering an area of 2,457Ha (6,071 acres). Of these 45 are patented mining claims with the balance being either former railroad fee title land or unpatented claims The 45 patented mining claims covering 777 acres are all secured through lease agreements and have overriding royalties.

	<ul style="list-style-type: none"> • The project has surface rights to the Section 5 patented land claim (528 acres). These rights provide for the housing of Buena Vista's proposed production facilities, plant, workshops stockpiles and waste dumps. • All tenements are in good standing. • Relevant tenements to this announcement are T24NR34E Section 4, Section 5, Section 7, Section 8, Section 17, Rover 1832, Albatross 1832, Wyoming 1832, Cactus 1832, NVFe2,3,4,5,6,7,8, Iron Mt 2MS14880,3MS14880, 6MS14880, 7MS14880, 10MS14880, 12MS14880, 13MS14880, 14MS14880, 15MS14880
Exploration done by other parties	<ul style="list-style-type: none"> • The database compiled for resource modelling comprises 218 holes for 36,084 m of drilling. Diamond drilling by Columbia Iron Mines in 1960 provides around 50% of the combined drilling (112 holes for 18,215 m), with 2010 Richmond Mining Pty Ltd diamond drilling contributing 4% (8 holes, 1,415 m), and 2012 Nevada Iron Limited RC and diamond drilling contributing 10% and 36% respectively (19 holes, 3,431 m and 50 holes, 13,024m).
Geology	<ul style="list-style-type: none"> • Buena Vista magnetite iron mineralisation occurs within scapolite-hornblende-clinopyroxene-calcite-magnetite altered gabbro. Magnetite mineralisation varies from fine disseminations to massive pods up to tens of metres in dimensions, reflecting variable ground preparation of the gabbro. The mineralisation generally dips moderately to the north, striking approximately east-southeast (~098 to 120) for most of the property area, and trending southwest-northeast in the East Deposit area (~070). • The magnetite mineralisation is cross cut by late-stage steep, generally east-west trending dykes ranging in thickness from less than 1m to rarely ~60 m. • The mineralisation generally outcrops, but in the west of the project, including the Section 5 Deposit and western portions of the West Deposit it is overlain by around 3 to rarely 25m of un-mineralised surficial alluvial gravels. • The mineralisation shows no significant oxidation, with fresh material occurring at shallow depths
Drill hole information	<ul style="list-style-type: none"> • No drill hole results are reported in this announcement.
Data aggregation methods	<ul style="list-style-type: none"> • No aggregation has been applied.
Relation between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • Not applicable.
Diagrams	<ul style="list-style-type: none"> • See diagrams included in this announcement.
Balanced reporting	<ul style="list-style-type: none"> • No results reported in this release.
Other substantive exploration data	<ul style="list-style-type: none"> • Geological interpretive map is included in the announcement. • Ground magnetic and gravity surveys exist over the area.
Further work	<ul style="list-style-type: none"> • Future exploration programs are currently under development

Section 3 Estimation and Reporting of Mineral Resources

Criteria listed in the preceding sections also apply to this section

Mineral Resources are not being reported in this announcement.