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High grade outcropping magnetite prospect located at Buena Vista

HIGHLIGHTS

- **Buena Vista data review highlights a high grade undrilled outcropping magnetite target**
- **Located approximately 800m ENE from the existing Buena Vista magnetite resources**
- **Named the Iron Horse prospect, recent field examination confirms potential as a high grade magnetite drill target.**
- **Historic rock chip sampling returned very high iron grades with negligible impurities**
- **Prospect represents a potential DSO ore source and a high grade blend to Buena Vista ROM**

The continuing review of the extensive data base of Buena Vista has highlighted an undrilled high grade magnetite prospect located around 800m ENE of the existing Buena Vista magnetite resources.

Named the Iron Horse prospect, the magnetite target outcrops sporadically along a number of discrete but interconnected hills with an elevation of around 120 metres above plain level.

Seven rock chip samples were collected in an initial reconnaissance along the areas of outcrop and these returned outstanding assay results as shown in Table 1.

Sample No.	Total Fe %	SiO_2 %	Al_2O_3 %	P_2O_5 %	TiO_2 %	MgO %	CaO %	S %	As ppm
IHV01	58.8	7.53	1.26	0.17	2.20	2.37	2.87	0.016	4
IHV02	66.9	1.72	0.26	0.06	1.62	0.42	1.15	0.002	2
IHV03	67.9	1.24	0.18	0.10	1.73	0.32	0.84	0.005	8
IHV04	64.8	1.60	0.22	1.11	1.83	0.61	2.98	0.003	8
IHV05	66.4	1.05	0.21	0.16	1.75	0.52	1.71	0.011	3
IHV06	67.8	1.36	0.14	0.01	1.66	0.63	0.90	0.003	2
IHV07	66.4	2.25	0.39	0.05	1.73	0.81	0.97	0.010	1

Table 1: Iron Horse prospect - magnetite rock chip assay results

These rock chip samples were analysed by XRF and cover two outcropping zones with the southernmost and northernmost samples approximately 600 metres apart.

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The recent field reconnaissance noted that southernmost zone had the better outcrop with around 100 metres of strike length exposed. Outcrop widths in this zone were 10- 30 metres with a strike trend of around 340 and a dip to the northeast.

The field reconnaissance also noted the style of mineralisation exposed in outcrop suggests the prospect is potentially vein related, unlike the hydrothermal disseminations and breccia filling which characterises the mineralisation associated with the main resource zones.

The possibility therefore exists for significant extensions of this vein-style mineralisation at depth.

Geochemically, the Iron Horse rock chip assay results are very high grade. Such grades suggest strong potential for direct shipping ore ("DSO") and it therefore represents a high priority exploration target.

Iron Horse Prospect – IHV02 Sample Site (39° 58.592', 118° 09.665')

Exploration of the Iron Horse prospect will be fast tracked (weather permitting) for drill testing in the June quarter.

Sample No.	Sample Type	Latitude (degrees/minutes)	Longitude (degrees/minutes)
IHV01	Composite rock chip	39° 58.526'	118° 09.621'
IHV02	Composite rock chip	39° 58.592'	118° 09.665'
IHV03	Composite rock chip	39° 58.602'	118° 09.678'
IHV04	Composite rock chip	39° 58.619'	118° 09.697'
IHV05	Composite rock chip	39° 58.656'	118° 09.718'
IHV06	Composite rock chip	39° 58.861'	118° 09.854'
IHV07	Composite rock chip	39° 58.939'	118° 09.724'

Table 1: Iron Horse prospect - rock chip sample locations

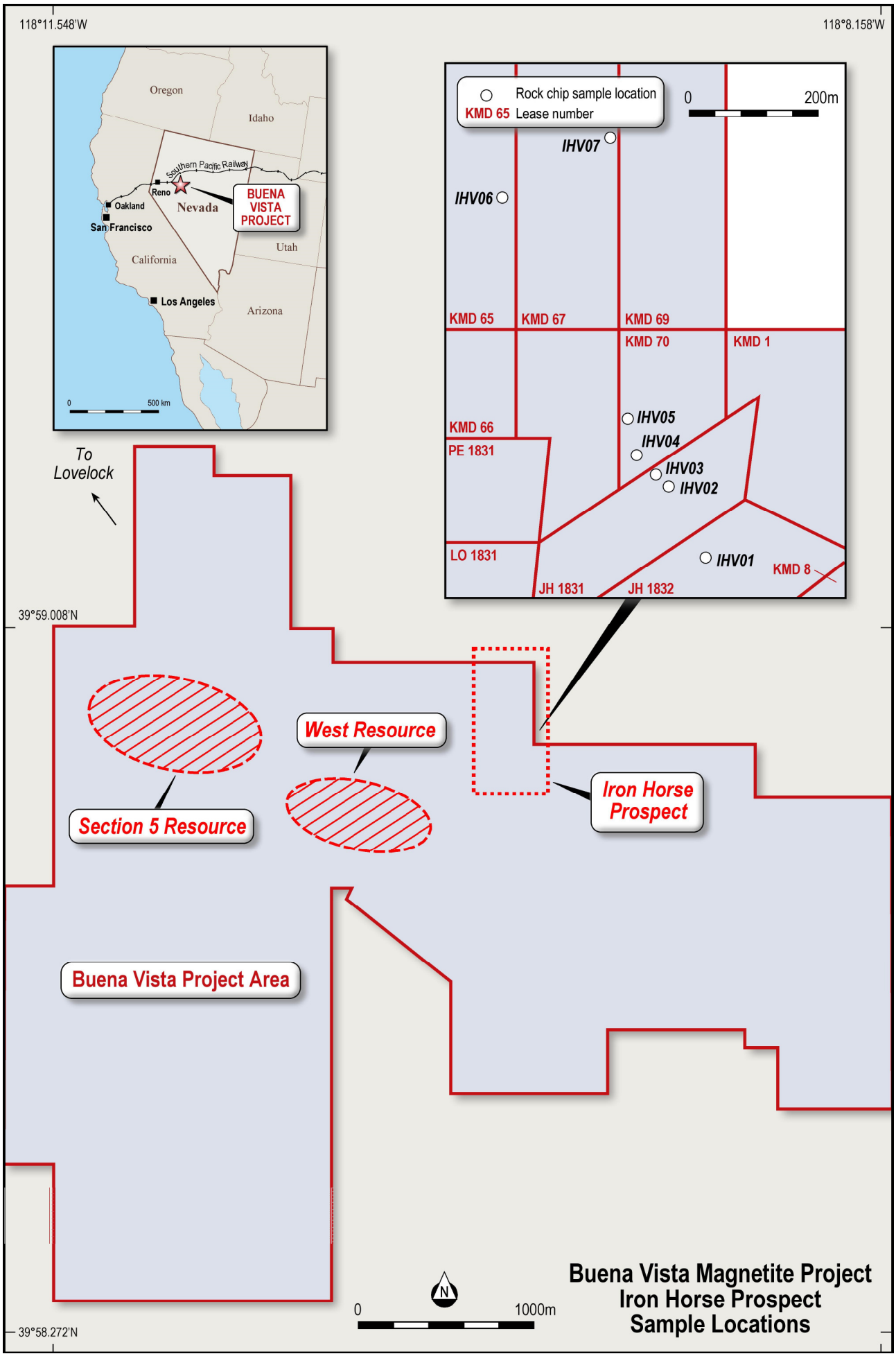
This announcement is authorised for release to the market by the Board of Directors of Magnum Mining & Exploration Limited.

Magnum Mining and Exploration Ltd

Grant Button
Company Secretary

Competent Persons Statement

The information in this announcement that relates to Exploration Results, Mineral Resources and magnetite grades at Buena Vista complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and has been compiled and assessed under the supervision of Mr Howard Dawson, Non-Executive Director of Magnum Mining and Exploration Limited. Mr Dawson is a member of the Australian Institute of Geoscientists and 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 Code. Mr Dawson consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. Mr Dawson has reviewed this announcement and considers all of the technical information provided to be an accurate representation of the work carried out over the Iron Horse prospect.


118°11.548'W
118°8.158'W
Oregon
Idaho
Southern Pacific Railway
Reno
Nevada
BUENA VISTA PROJECT
Oakland
San Francisco
California
Utah
Los Angeles
Arizona
0
500 km
Rock chip sample location
KMD 65 Lease number
0
200m
IHV07
IHV06
KMD 65
KMD 67
KMD 69
KMD 70
KMD 1
KMD 66
PE 1831
IHV05
IHV04
IHV03
IHV02
LO 1831
IHV01
KMD 8
JH 1831
JH 1832
To Lovelock
39°59.008'N
West Resource
Section 5 Resource
Iron Horse Prospect
Buena Vista Project Area
0
1000m
N
39°58.272'N
Buena Vista Magnetite Project
Iron Horse Prospect
Sample Locations

JORC CODE, 2012 EDITION

Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code ex Figuration	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	The rock chip samples were taken across a number of sites at each sample location to ensure representivity and avoid sample bias. Samples were taken using a geological hammer and sledgehammer and were bagged and labelled at each sample site. In all locations at least 5kg of sample was taken. Samples were forwarded to the ALS laboratory in Reno for sample preparation and analysis. A log of all samples despatched and details of the date of despatch were maintained on site. Confirmation of receipt of each sample at the laboratory was provided for each batch by ALS. At the laboratory the samples were dried at 105C for 24hrs and then crushed to 90% at passing 6mm. The crushed sample was put through a Jones riffle splitter, and a 0.3kg split was then pulverised to 85% passing 100um
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	Not Applicable
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	Not Applicable

Criteria	JORC Code ex Figuration	Commentary
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	Geological logging was undertaken at each sample site with estimated Fe content recorded. A description of the geology at each sample site was also recorded noting structure and dip and strike if measureable.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	The sampling technique is considered appropriate for the reconnaissance nature of the sampling programme. The rock chip samples were of an appropriate size and consistency to ensure no sample bias.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	Commercial laboratories ALS was used for the preparation and analysis of samples. This is best industry practice and the techniques used appropriate to the style of mineralisation. The laboratory used a blank and a standard in the sample batch to ensure no inter-sample assay contamination and to confirm accuracy and precision. All samples were assayed for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na,P, Si, Sr, Ti, V, C, S, As, Cd, Ce, Co, Cu, Ga, La, Mo, Ni, Pb, Sb, Se, Sn, W, Zn, Zr and LOI.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data*	Not applicable

Criteria	JORC Code ex Figuration	Commentary
	storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Each sample location was surveyed using a hand held GPS accurate to 5-10 metres depending on atmospheric conditions. The reduced level was also recorded. Sample locations were recorded on the global grid system recording parallels of latitude and the meridian of longitude.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	The sample locations were spaced at an appropriate distance relative to outcrop to provide a representative test of the surface expression of the Iron Horse prospect.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Not applicable.
Sample security	• *The measures taken to ensure sample security.*	The samples were assigned codes at the point of collection. The code represented the prospect from which the sample was taken without giving an indication of the origin of the sample. The samples were sent in a single batch to the ALS laboratory in Reno for preparation and analysis. A chain of custody procedure was used to monitor the progress of the sample batch. A log of all he sample batch despatched and details of the date of despatch were maintained by the Geologist. Confirmation of receipt of the sample batch at the laboratory was provided by ALS.

Criteria	JORC Code ex Figuration	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	None taken.

Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code ex Figuration	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.*	The Buena Vista 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 All claims are in good standing.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Major exploration programmes have been conducted over Buena Vista by the following companies: 1. Columbia Iron Mining Company from 1960 2. Richmond Mining – 2010 3. Nevada Iron - 2012
Geology	• *Deposit type, geological setting and style of mineralisation.*	The general geology of the Buena Vista area consists of basaltic volcanic rocks of Jurassic age that are intruded by the partially scapolitized Humboldt gabbroic complex. Tertiary deposits are in fault contact against the complex in the eastern part of the project area The Buena Vista magnetite deposits formed as the result of metasomatic processes associated with the intrusion of the large Humboldt Gabbro lopolith The magnetite mineralisation at Buena Vista occurs as high grade pods, veins and disseminations within the heavily altered volcanic rock, now mostly represented by scapolite and hornblende
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole*	Included in bulk of main report.

Criteria	JORC Code ex Figuration	Commentary
	collar ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Not applicable
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	Not applicable.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a Figure view of drill hole collar locations and appropriate sectional views.*	Sample location plan included in main bulk of report
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All assay results reported in main bulk of report.

Criteria	JORC Code ex Figuration	Commentary
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	The project has been extensively explored over many years along with some geophysical investigations. There is a significant amount of historical information available for the project area. No details of past exploration over the Iron Horse project are available.
Further work	• *The nature and scale of Figurened further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	A drilling programme is planned to test the Iron Horse prospect at depth for width, grade and continuity.