

GREEN IRON PRODUCTION PATHWAY UPDATE

Highlights:

- Significant progress with Magnum's Buena Vista green iron project:
 - Buena Vista iron ore mine plan and pit design completed
 - Selection of dry magnetic beneficiation plant underway
 - Green Direct Reduced Iron (DRI) production test underway
- Strategic land purchase for railway logistics hub close to Buena Vista mine
- Huge increase in long term USA green iron market with significant Electric Arc Furnace (EAF) capacity expansions fully committed and/or under construction by major steel producers.
- Pig iron US import price is currently above US\$500 per tonne CIF New Orleans compared to internationally traded iron ore at around US\$100 per tonne CIF China. Prices for pig iron and HBI are expected to remain high over the coming years due to increased demand and supply constraints.

Magnum Mining and Exploration Limited ("Magnum" or the "Company") (ASX:MGU) is pleased to provide a progress update with Magnum confirming it is on track to become a leading producer of green iron products in the USA. Magnum is well positioned to take advantage of rapidly increasing demand for high value green HBI (hot briquetted iron) and PI (pig iron) both attracting premium prices.

PROGRESS UPDATE

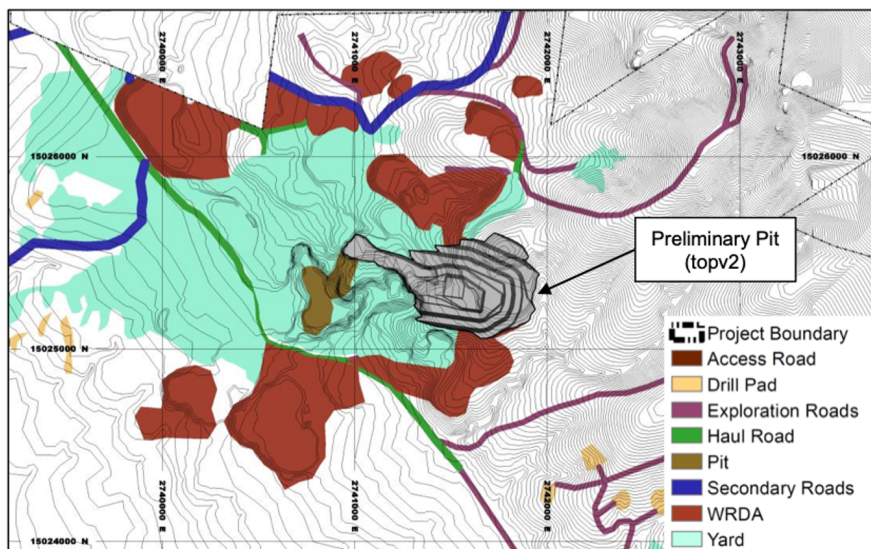
1. Pit design and mine plan completed

The Company has also completed the initial mine plan and pit design for the Buena Vista Project. The work was completed by SRK Consulting, a highly respected engineering and consulting company. The mine plan covers the initial two (2) years of production at the mine and the plan will be further optimized the 'dry concentrate' plant design.

Preliminary Pit Design (topv2)

Bench (ft)	Ore Mass (kt)	Ore Grade Fe (%)	Waste+ Stk Mass (kt)	Total Mass (kt)	Effective Strip Ratio (wst+stk)/ore
4560			1	1	0.0
4540			23	23	0.0
4520			23	23	0.0
4500	6	36.8	89	95	15.0
4480	27	35.1	125	152	4.7
4460	67	35.9	142	209	2.1
4440	87	35.9	152	238	1.7
4420	90	35.8	163	252	1.8
4400	94	36.0	119	212	1.3
4380	85	36.1	114	200	1.3
4360	69	35.8	25	95	0.4
4340	35	36.6	2	37	0.1
Grand Total	560	35.9	978	1,537	1.7

Cutoff Grade $\geq 32\%$ Fe
(kt) = thousand metric tonnes



SRK Preliminary DSO pit shell (topv2) vs existing disturbance boundaries.

Image 1: SRK Pit Design at Magnum Buena Vista Mine

PROGRESS UPDATE

2. Significant land purchase completed for logistic hub for stockpiling and distribution of iron ore, HBI and green pig iron products.

The Company has purchased over 104 acres of land which lies adjacent to the main railway line and interstate highway at the Buena Vista Project. This land will be developed to become the logistic hub for the stockpiling and distribution of the Company's products of iron ore, HBI and pig iron. This logistic hub will also include the stockpiling of bio-char used in the production of green iron HBI.



Image 2: Aerial view of Magnum Colorado Logistics Site

PROGRESS UPDATE

3. Primary & secondary crushing tests completed and equipment selected.

The test work for the primary and secondary crushing and screening of mined ore has been completed as planned. This work was conducted by Hanlon Engineering Associates (a subsidiary of GR Engineering Services) with initial results confirming the iron ore at the Buena Vista Project is easily crushed and sized ready for further processing at Magnum's magnetic beneficiation plant.



Image 3: Actual mobile equipment, for Primary and Secondary Crushing

PROGRESS UPDATE

4. Selection of modular “Plug & Play” dry magnetic beneficiation plant in progress

The Company has decided to use a ‘dry concentrate’ process to produce the iron ore that is required as feed to the rotary kiln at the Buena Vista Project. The planned dry magnetic beneficiation plant is cost effective, an efficient setup and provides the added savings in water consumption in what is an increasingly arid region. This will further strengthen the Company’s vision of being a ‘green iron’ producer.

The Company also wishes to advise that the manufacturer’s test work on a large sample of our iron ore is nearing completion and the results from the comprehensive program are expected within the next few weeks. The output from this work will feed into the detailed design and estimates of the capital and operating costs of the dry concentrator.

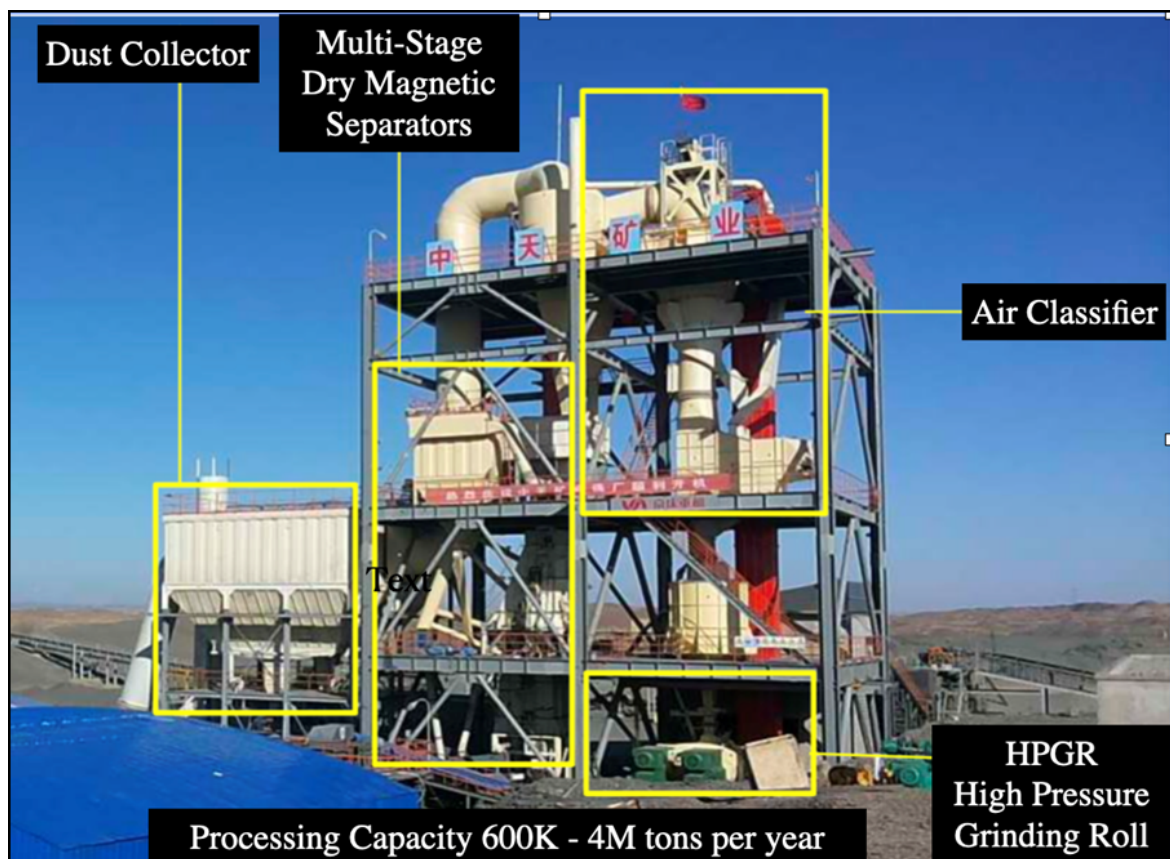


Image 4: Modular Dry Magnetic Beneficiation Plant

PROGRESS UPDATE

5. 100% biochar rotary kiln sponge iron pilot plant test in progress

Magnum is in the process of producing its first green sponge iron/ direct-reduced iron (DRI) sample products using 100% biochar.

Trial rotary kiln production of green sponge iron / DRI produced from our Buena Vista iron ore is underway in China. The trial production is in association with Beijing Shougang International Engineering Technology Co. Ltd. (<http://en.bsiet.com/gsglen/gsjj1en/cindex1.html>) [This engineering company is a subsidiary company of the Shougang Group which ranks No 2 in steel enterprises in China.]

This pilot rotary kiln test facility is one of only a few in the world that is able to take the iron ore, blend it with bio-char and produce green sponge iron / DRI products.

The results from this work will allow the Company to design the optimal kiln size and feed grade of iron ore and bio-char and determine the initial Capex and Opex for a commercial sized rotary kiln.

Most importantly the Company will have product to show potential customers and management is planning to commence supply discussions with customers domestically in the USA as well as in Asia.



Image 5: Pilot Plant Test for production of Green Direct Reduced Iron (DRI)

PROGRESS UPDATE

6. Rapid Expansion of US EAF capacity as steel prices surge

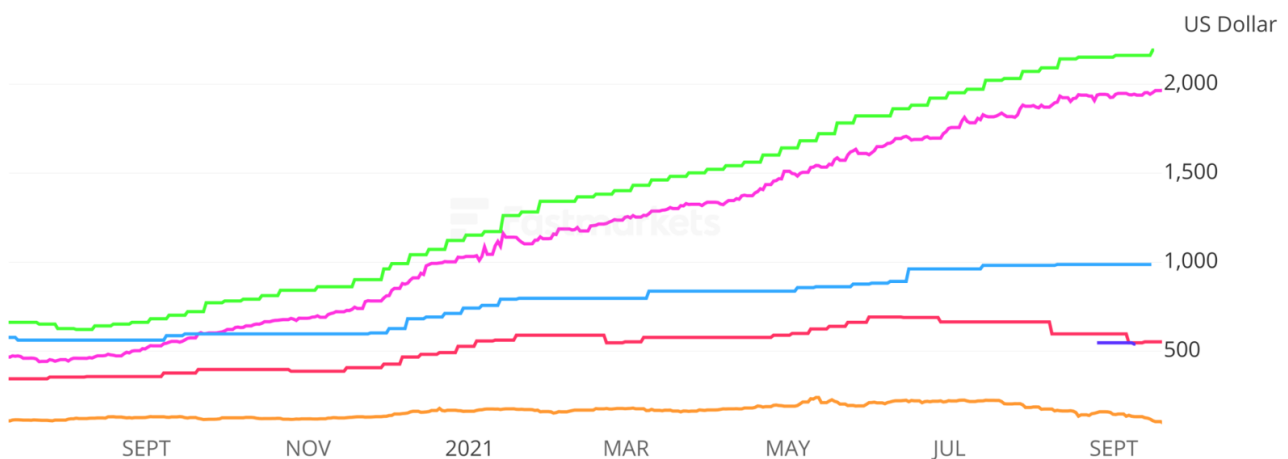
Over the past few weeks US steel producers have announced significant expansions in steel production using electric arc furnaces. Steel scrap supply is limited and these furnaces will require significant volumes of HBI/pig iron for quality feed. In the United States, most HBI/pig iron is imported and is currently trading at above US\$500 per tonne. Unlike iron ore, the prices for pig iron and HBI are expected to remain high due to supply restraints.

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US Steel Price vs China IO & Pig Iron

- Mid MB-STE-0468 - Steel hot-rolled coil index, fob mill US, \$/short ton
- Mid MB-STE-0465 - Steel reinforcing bar (rebar), fob mill US, \$/short ton
- Mid MB-STE-0469 - Steel cold-rolled coil, fob mill US, \$/short ton
- Mid MB-IRO-0078 - Pig iron basic grade, Brazil, fob New Orleans, \$/tonne
- Mid MB-IRO-0008 - Iron ore 62% Fe fines, cfr Qingdao, \$/tonne
- Mid MB-IRO-0178 - Pig iron, import, cfr China, \$/tonne



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Image 6: US steel price surge (Source: Metal Bulletin)

PROGRESS UPDATE

7. Magnum Marketing Plans

The Buena Vista Project is strategically located to supply US West Coast steel producers as can be seen in the map below with potential steel producers as customers or joint venture partners. Using the HBI product from the test work program, Magnum will meet with potential domestic customers. While product quality will be the focus the Company will also have pricing discussions.

The intention is to price the hot-briquetted iron (HBI) using delivered pig iron pricing in the US as a reference, with price adjustments agreed with customers depending on the customers plant location and on the HBI quality variance with pig iron. The location of the Nevada Iron plant close to West Coast steel producers compared to alternative suppliers provides competitive advantage and diversification of end user options and will ensure that the Company captures a transportation premium.



Image 7: Potential customers on the West Coast USA

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Managing Director, Mr Dano Chan made the following statement in relation to the Company's progress to date, *"the Company is perfectly placed to supply the strong US domestic steel market. There is a current and forecasted shortage of green pig iron supply in North America. With our own low-cost in-house iron ore and abundant local biomass supply, Magnum remains on track to achieve its vision to be a highly profitable producer of green iron and to achieve this in a relatively short timeframe serving rapidly growing markets."*

The release of this announcement has been authorised by the Company Secretary.

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