ASX Release
29 October 2021

Magnum Mining and Exploration Limited
ABN 70 003 170 376

ASX Code
MGU

Executive Chairman
Don Carroll

Managing Director
Dano Chan

Non-Executive Directors
Matt Latimore
John Dinan

Company Secretary
John Dinan

Issued Shares
497,144,914

Listed Options
136,126,840
Exp 30/09/2022 @ $0.05

Unlisted Securities (Options & Performance Rights)
120,000,500

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Quarterly Activities Report for three months ending 30 September 2021

HIGHLIGHTS

Buena Vista

- *The strategic plan for the Buena Vista Project is now directed towards an integrated mining and production facility for provision of HBI, HPI and pig iron products to primarily the US market.*

- *The revised strategy allows Magnum to be the developer and owner of significant long term integrated and value add infrastructure at Buena Vista.*

- *Demand for long term green steel in the US market continues to grow significantly.*

- *Major US based steel producers committed to significant Electric Arc Furnace (EAF) capacity expansion (refer to release dated 28 September 2021).*

Key milestones achieved to meet this strategy:

- *The Buena Vista Project mine schedule and initial pit design completed.*

- *Review of availability of dry magnetic beneficiation plants initiated.*

- *Green Direct Reduced Iron (DRI) production testing commenced.*

- *Purchase completed of strategic land holding at Colado for railway logistics hub proximal to the Buena Vista Project.*

- *The Buena Vista Project being ideally suited to provide value add pig iron to the US market with domestic prices currently in excess of $US500/tonne.*

- *Prices for pig iron and hot briquetted iron projected to remain at high levels over long term due to demand and supply constraints.*

Corporate

- *Half yearly operations and financial report released to ASX 13 September 2021.*

- *Mr Guy Lauzier appointed as the Mine Manager of the Buena Vista Project.*

SEPTEMBER QUARTER 2021 – SUMMARY OF ACTIVITIES

1.0 OVERVIEW

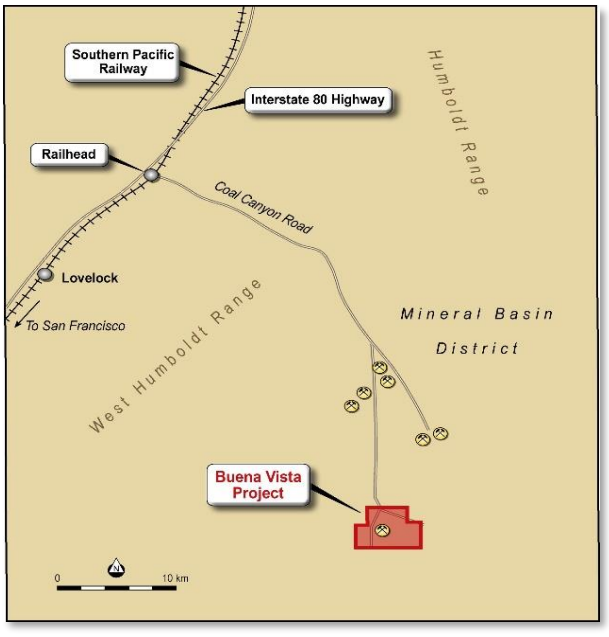
During the September 2021 quarter Magnum Mining and Exploration Limited (ASX:MGU) (Magnum or the Company) continued to progress the near-term development of the advanced Buena Vista magnetite project located in Nevada, USA (the Buena Vista Project or Buena Visa).

When Magnum purchased the Buena Vista Project earlier this year it was seen as an opportunity to both commence near term exports of premium magnetite concentrate to global markets and develop a new integrated steel industry within Nevada in the United States.

Armed with previous definitive feasibility studies the development of the near-term concentrate export business was fast tracked and as previously reported the Company had been making good progress with mine planning and infrastructure. The recent precipitous fall in the ore price has however demonstrated just how captive this strategy is to iron ore prices which is out of the Company's control.

Whilst the production cost of magnetite concentrate from the Buena Vista Project is still well below current iron ore prices (especially given the price premium that the high-grade Buena Vista magnetite will attract) this volatility nevertheless sees the Company exposed as a single commodity producer and a perpetual price taker.

As a consequence, the board of Magnum during the quarter re-directed efforts to the longer term strategy of the Buena Vista Project being developed as the linch-pin for the production of value added green steel products from an integrated steel making infrastructure development proximal to the mine site within Nevada.



Such a strategy will potentially see Magnum grow from not just being a mining company but to also being a producer of in demand steel products including hot briquetted iron (HBI) through to pig iron and potentially all the way up the value chain to high purity iron (HPI).

With the Buena Vista Project being located within the United States, which is still the world's largest economy and with the project also being located less than 150kms from California (which in itself is the world's 5th largest economy), this potential integrated development (referred to

above) will have easy access to a high volume market with considerable transport advantages over foreign suppliers.

This is an exciting development strategy and one that as it progresses will see Magnum transformed and the value of the Buena Vista Project as a key US magnetite asset more fully recognised.

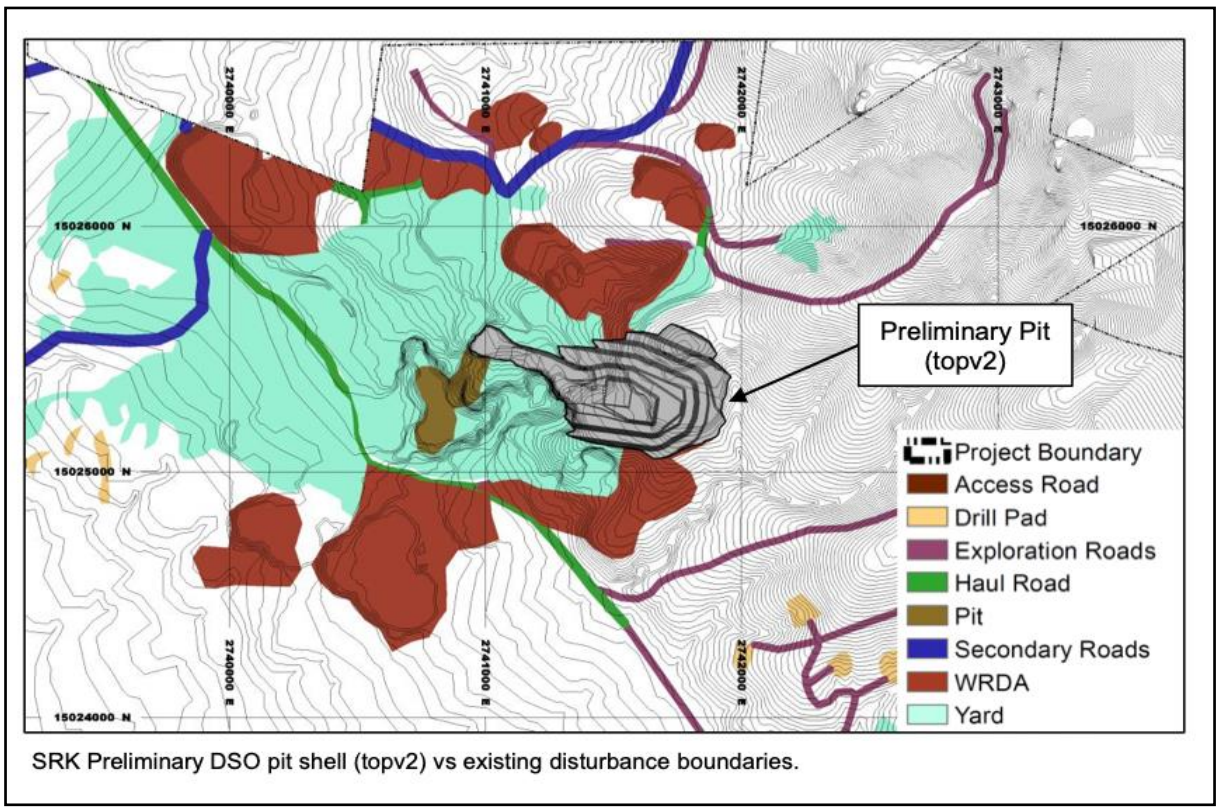
The key attributes that the Buena Vista Project provides for this strategy include:

- a robust and well understood JORC 2012 magnetite resource;
- very favourable beneficiation characteristics for a range of concentrates from +60% through to +68%;
- low to negligible impurities across all concentrate grades;
- close proximity to key infrastructure such as road, rail and port;
- located in Nevada, a Tier 1 location with Nevada rated number one globally as a mining jurisdiction;
- a readily available workforce; and
- available power options including gas and solar.

2.0 KEY PROJECT MILESTONES ACHIEVED DURING THE SEPTEMBER QUARTER

2.1 Mine Planning

During the September 2021 quarter the Company completed the initial mine plan and pit design for the Buena Vista Project. The work was completed by SRK Consulting and covers the initial two years of production at the mine (refer to release dated 28 July 2021 and 28 September 2021).



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

Figure 1: Preliminary pit design

During the quarter the Company has also been undertaking significant work (see section 2.5) by using dry beneficiation to produce an intermediate magnetite concentrate. The production of a dry concentrate will result in a positive optimisation to this pit design and scheduling (refer to release 28 September 2021).

2.2 Infrastructure

The Company has secured land for the development of its key logistic hub for the stockpiling and distribution of magnetite concentrate, HBI, green pig iron products and HPI with the purchase of around 104 acres of land near Colado (refer to release dated 28 September 2021).

This land borders the interstate highway and which lies adjacent to the main east-west railway line and interstate highway (I80).

This logistic hub will also include the stockpiling of bio-char used in the production of green iron HBI.

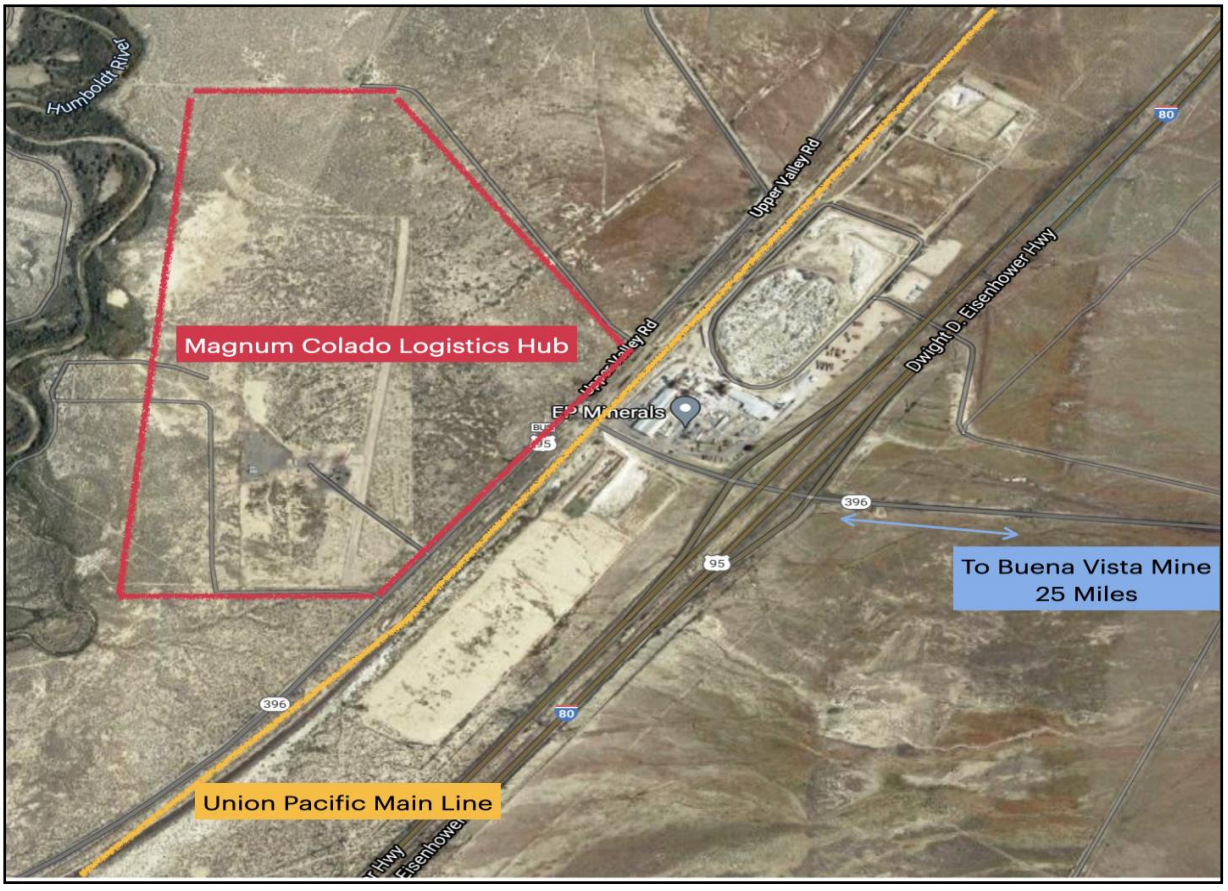


Figure 2: Colado Land Purchase Location and Proposed Logistics Hub

2.3 Primary and Secondary Crushing Tests

Test work to determine the primary and secondary crushing and screening characteristics of Buena Vista ore was completed during the quarter (refer to release dated 13 August 2021 and 28 September 2021). This test work was undertaken by Hanlon Engineering Associates (a subsidiary of GR Engineering Services) with the preliminary results confirming the Buena Vista ore can be easily crushed and sized ready for further processing.

As a result of this test work and a high level review of the extensive metallurgical data base over the Buena Vista Project, the Company is planning to use a 'dry concentrate' process to produce the magnetite concentrate that will be the feed for the proposed integrated processing facility.

The use of dry beneficiation will be very cost effective as a result of reduced power inputs and a significantly reduced use of processing water.

Test work for the manufacture of a the dry concentrate plant is near completion and the results will feed into the detailed design and allow capital and operating cost estimates to be made for this part of the circuit.

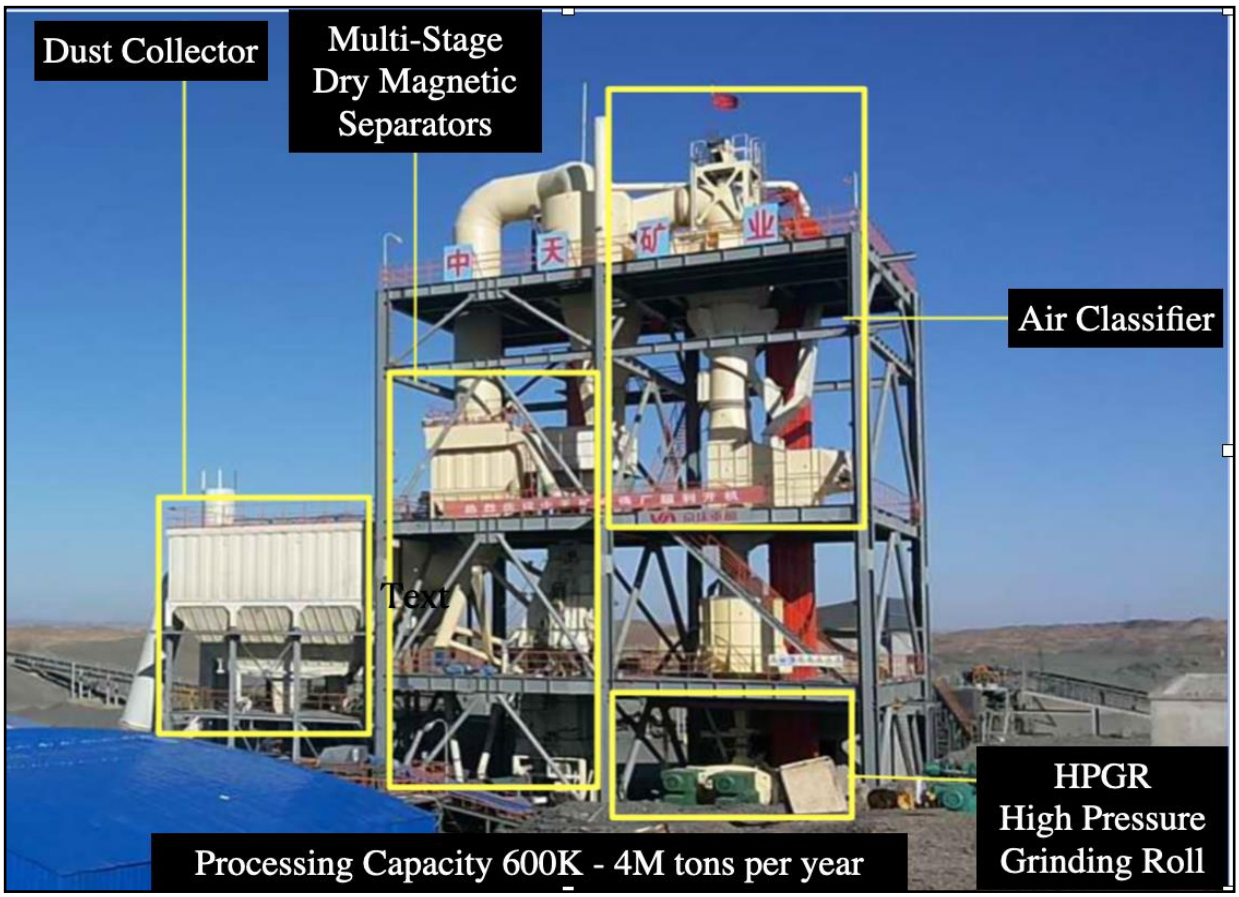


Figure 3: Modular Dry Magnetic Beneficiation Plant (not an asset of the Company)

2.4 Direct Reduction Iron Test Work

During the quarter Magnum commenced trial production of green sponge iron/ direct-reduced iron (DRI) sample products using 100% biochar (refer to release dated 28 September 2021).

This test work uses magnetite ore from the Buena Vista Project and is being undertaken in China in association with Beijing Shougang International Engineering Technology Co. Ltd. (http://en.bsiet.com/gsglen/gsjj1en/cindex1.html), which is a subsidiary of the Shougang Group which ranks No 2 in steel enterprises in China.

The trial production is using a rotary kiln facility which is one of only a few in the world that is capable of the integrated process of blending the magnetite iron ore directly with bio-char to 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 magnetite 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.

2.5 Metallurgical Overview

The Buena Vista ore has been subject to a number of generations of extensive metallurgical test work, all of which has demonstrated that the primary ore irrespective of the primary grade beneficiates to a +67.5%-68% concentrate with no deleterious elements (refer to release dated 13 September 2021).

The production of this concentrate is predicated on a standard magnetite beneficiation circuit which comprises wet crush and grind with magnetic recovery. A major advantage of the Buena Vista ore over other magnetite resources, notably those hosted in banded iron formations, is the relative softness of the ore coupled with the magnetite being liberated with a much coarser grind.

The following are a range of graphical presentations from the historical test work demonstrating the beneficiation characteristics of the Buena Vista ore.

These charts are based on a representative selection of Davis Tube Recovery (DTR) results based on the testing of a number of Buena Vista ore samples representing varying primary Fe% grades.

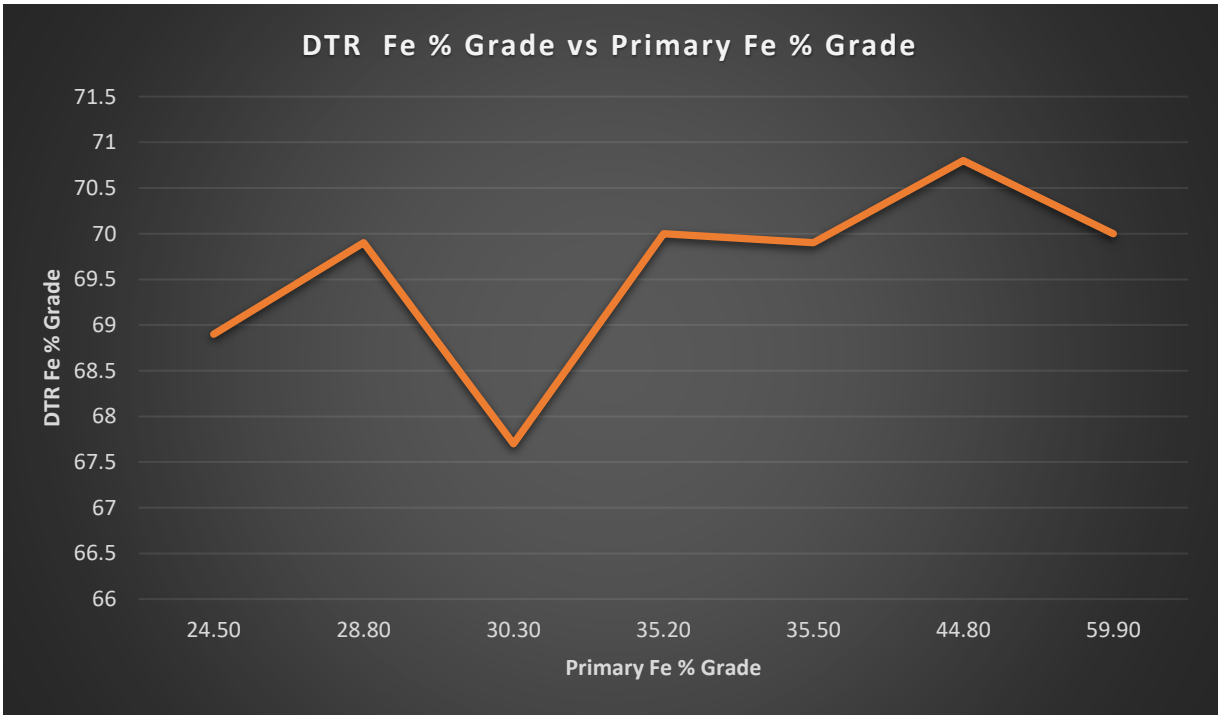


Figure 4: Concentrate Grade vs Primary Grade

Figure 4 shows the DTR Fe grade that resulted from the test work of samples with primary Fe grades ranging from around 24% Fe through to around 60% Fe. As can be seen there is little variation in the beneficiated grade with all samples beneficiating to +67.5% Fe.

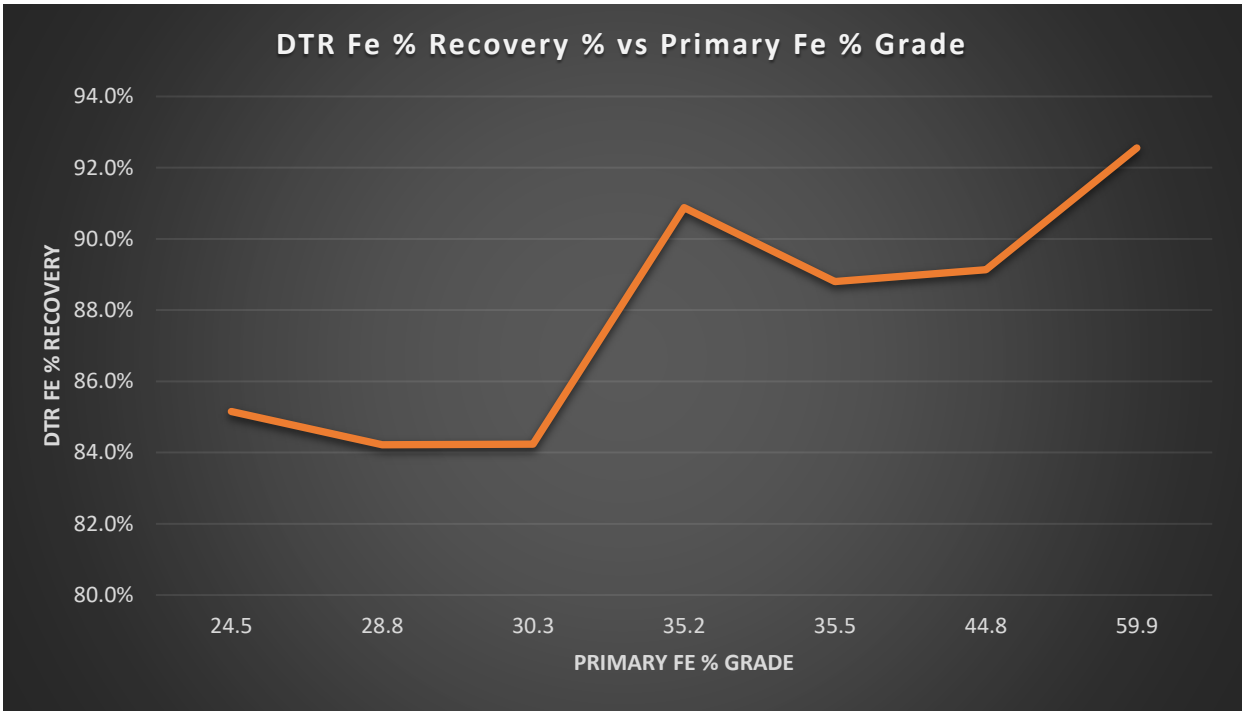


Figure 5: DTR Fe Recovery vs Primary Fe Grade

Figure 5 shows that base case recoveries appear to be around 84% but with higher primary grades the Fe recovery can improve to over 92%.

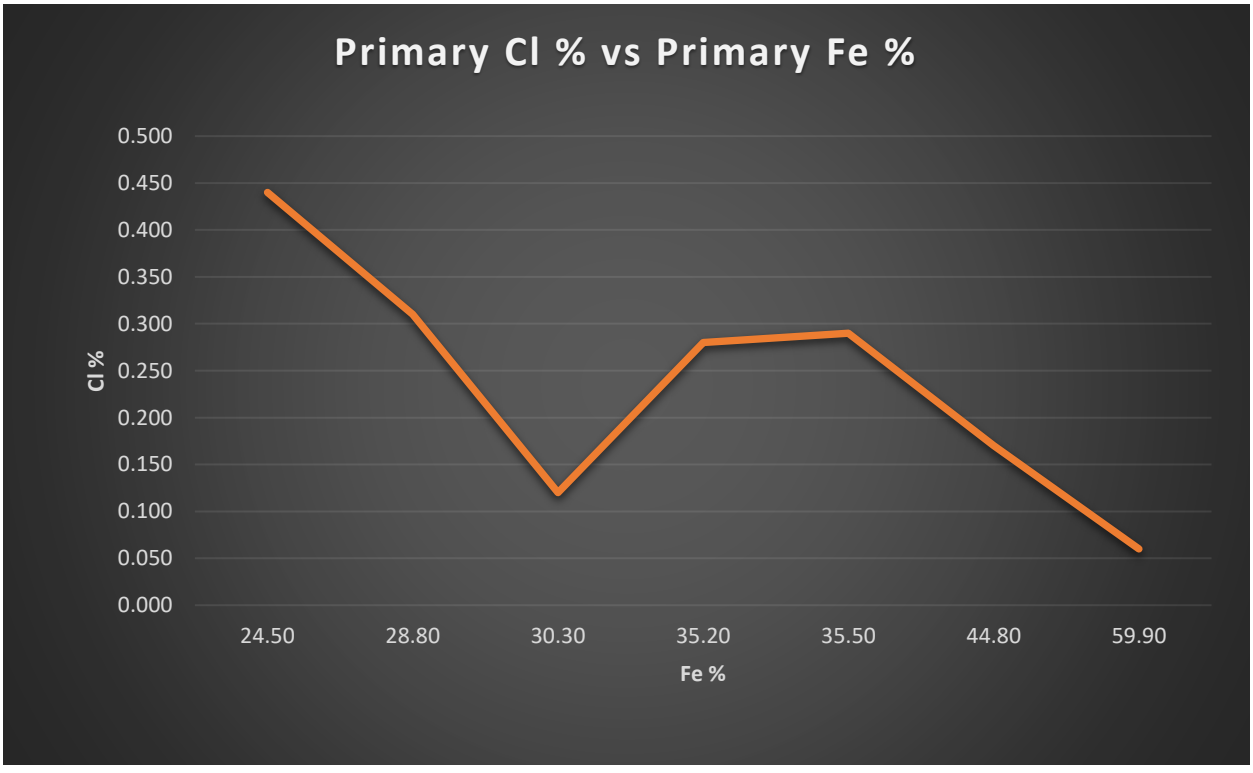


Figure 6: Primary Cl grade vs Primary Fe Grade

High chlorine (Cl) concentrations in iron ore can cause significant concerns as through the steel making process (especially sintering) it becomes a pollutant. **Figure 6** shows the Cl concentration across the range of primary grades and Figure 7 shows that these already quite negligible concentrations are reduced significantly when Buena Vista ore is beneficiated.

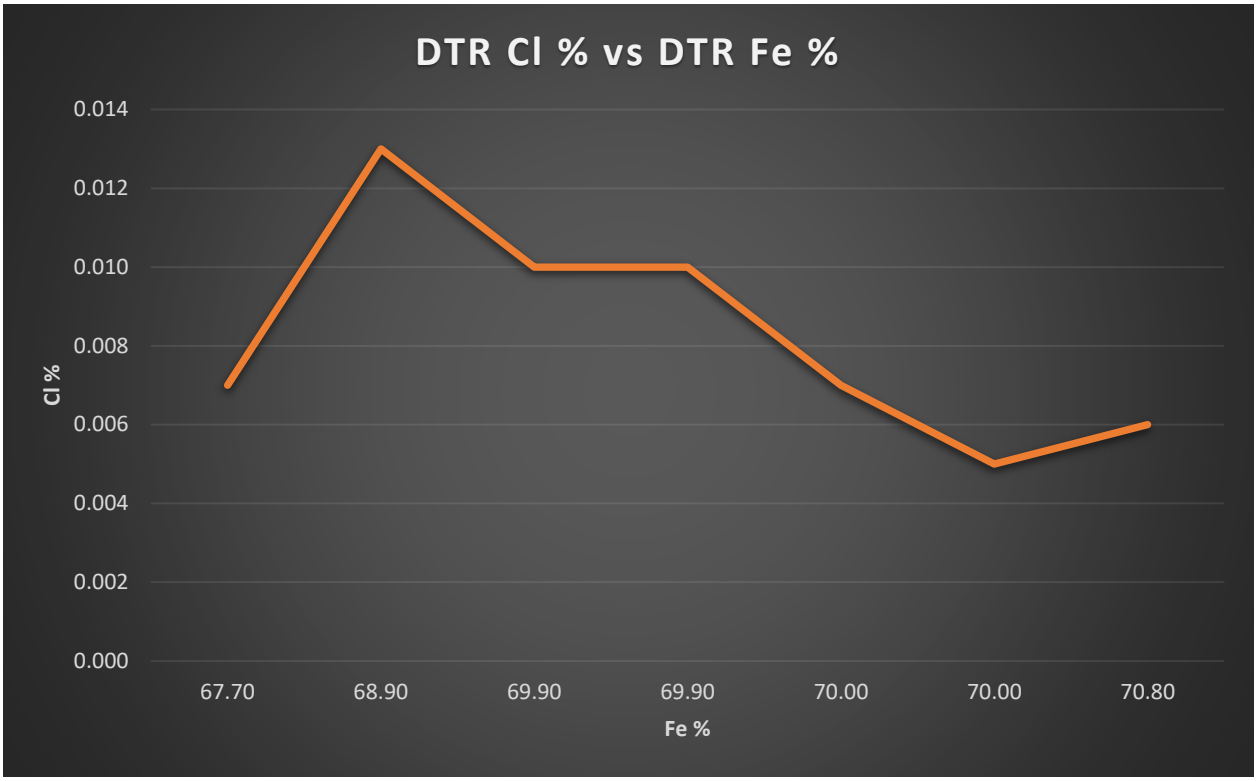


Figure 7: DTR Cl grade vs DTR Fe Grade

Phosphorous (P) is a common impurity in iron ore as high concentrations can make steel weak, as a consequence high concentrations can attract significant penalties or reduced sales. **Figure 8** shows that primary ore from Buena Vista has negligible concentrations of P and that these concentrations are further reduced during beneficiation (**see Figure 9**).

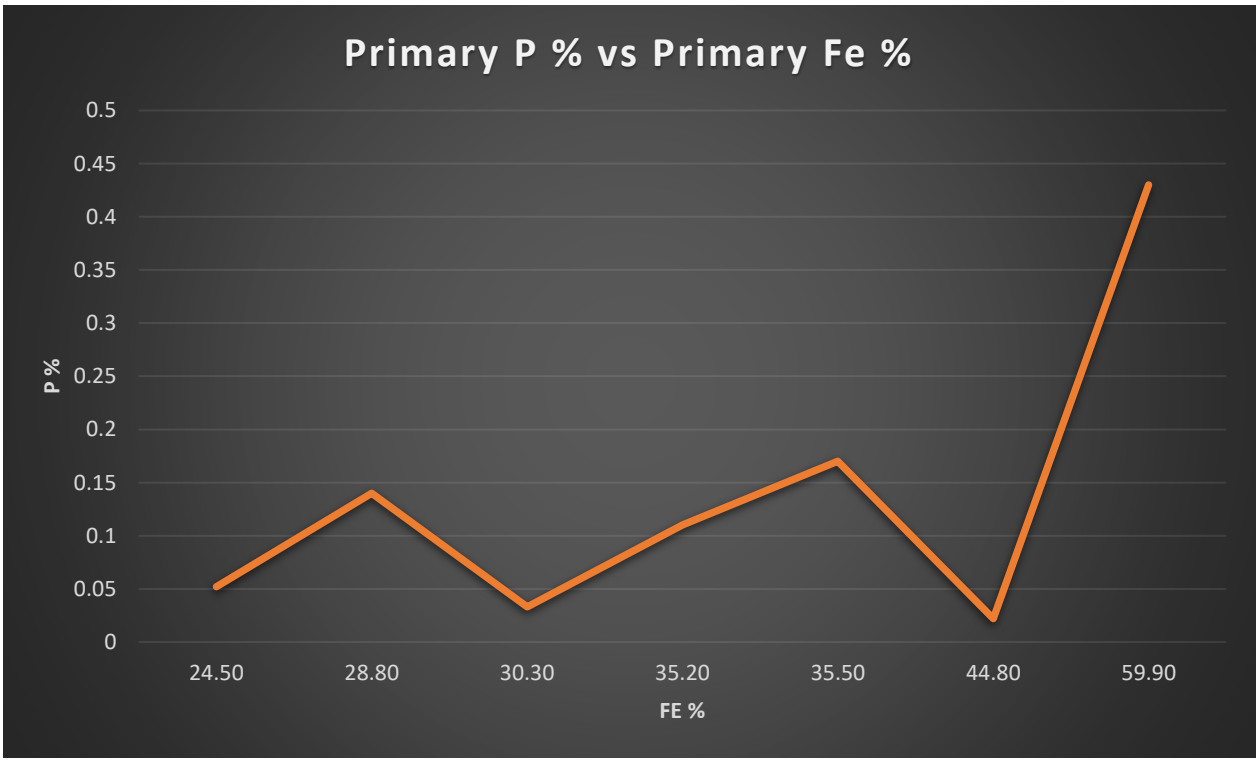


Figure 8: Primary P grade vs Primary Fe grade

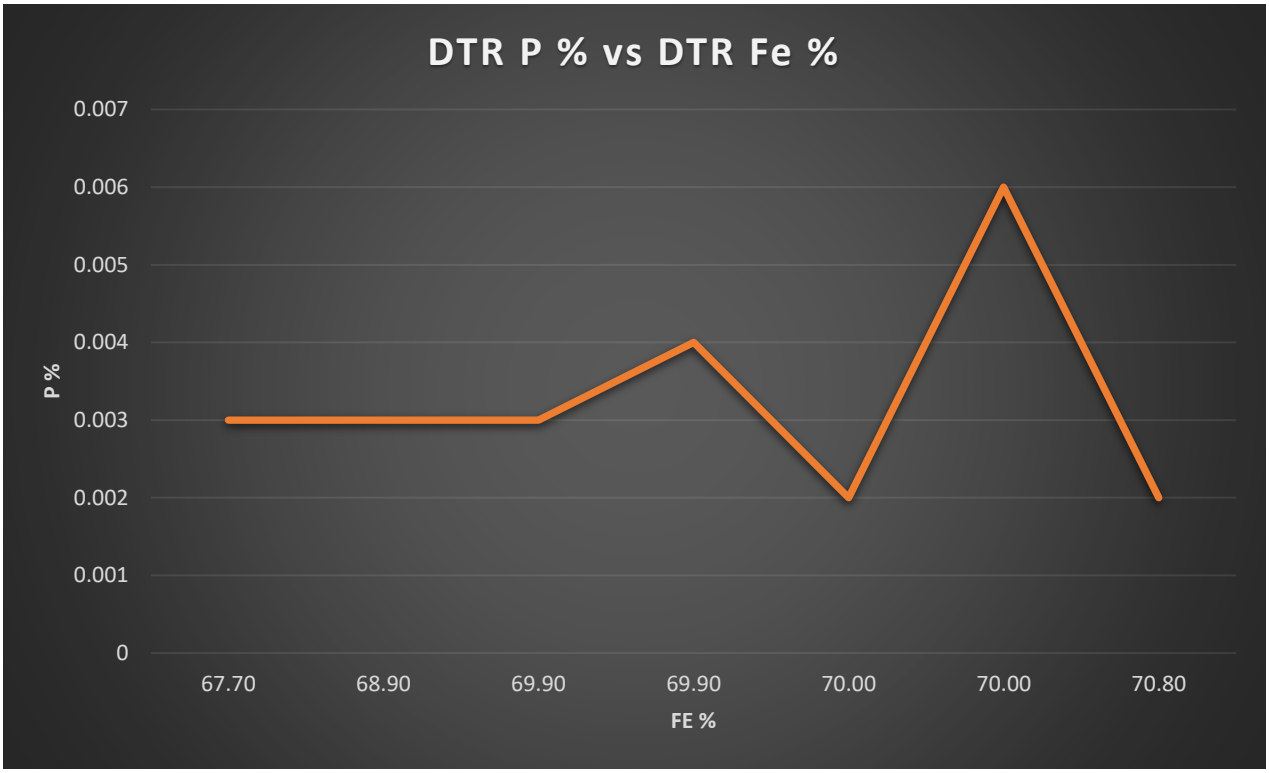


Figure 9: DTR P grade vs DTR Fe grade

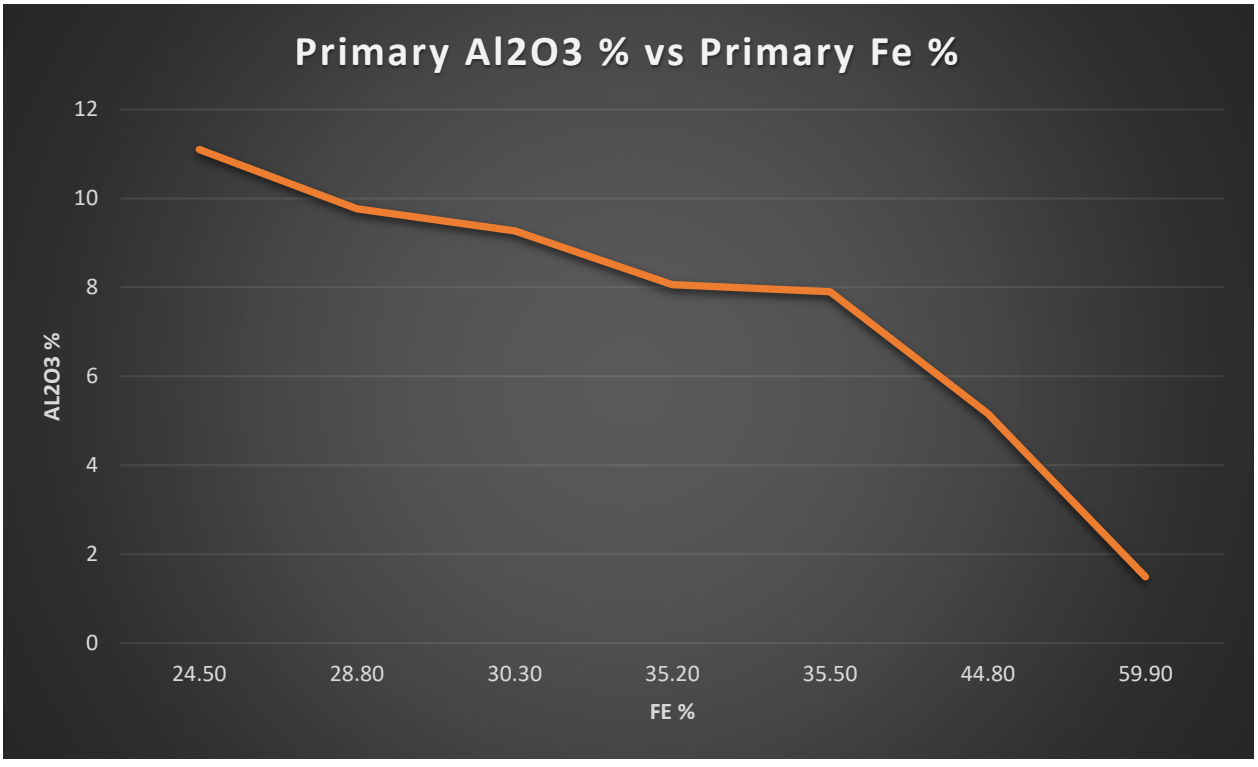


Figure 10: Primary Al_2O_3 grade vs Primary Fe grade

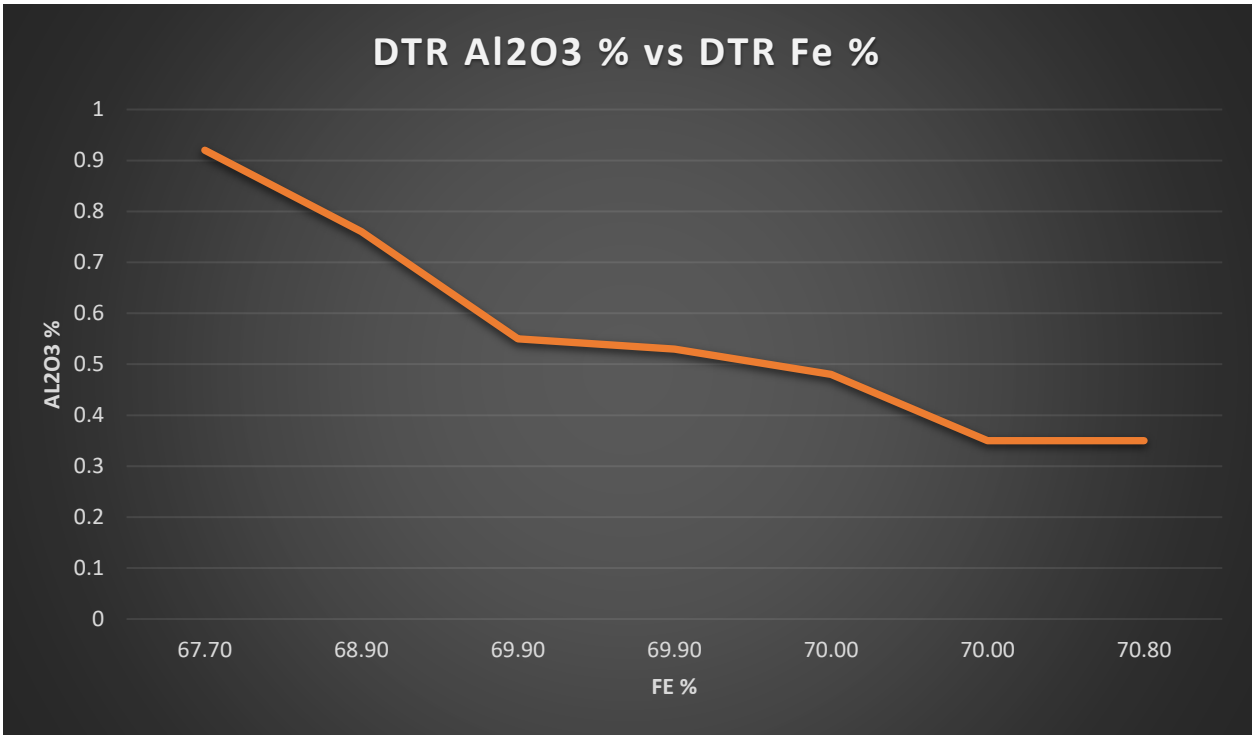


Figure 11: DTR Al_2O_3 grade vs DTR Fe grade

Alumina (Al_2O_3) is another impurity that is often in iron ores. **Figures 10** and **11** respectively show the Al_2O_3 concentrations in Buena Vista ore and the extremely low concentration that results from beneficiation.

2.5.1 Dry Beneficiation

Recent limited test work by Magnum has built on this considerable data base and preliminary results indicate that the Buena Vista ore will beneficiate to a +60% concentrate using a relatively coarse dry crush and grind (refer to release dated 28 September 2021).

This has significant positive implications for the Buena Vista Project as some value add iron production processes do not necessarily require the higher Fe grade concentrates, in fact lower grade concentrates with higher silica (which can act as a flux) are preferred.

The use of a dry crush rather than wet will also provide beneficial cost and environmental advantages.

Magnum is undertaking additional beneficiation test work to confirm these initial results.

2.6 Preliminary Marketing Studies

The Buena Vista Project is strategically located to supply US West Coast steel producers as can be seen in the map below. These steel producers could be provided with HBI or pig iron product produced from a production facility at the Buena Vista Project.

The location of the proposed Nevada production facility close to West Coast steel producers compared to alternative suppliers will provide a competitive advantage to Magnum as well as

diversification of end user options and will ensure that the Company captures a transportation premium. See also the release dated 28 September 2021.

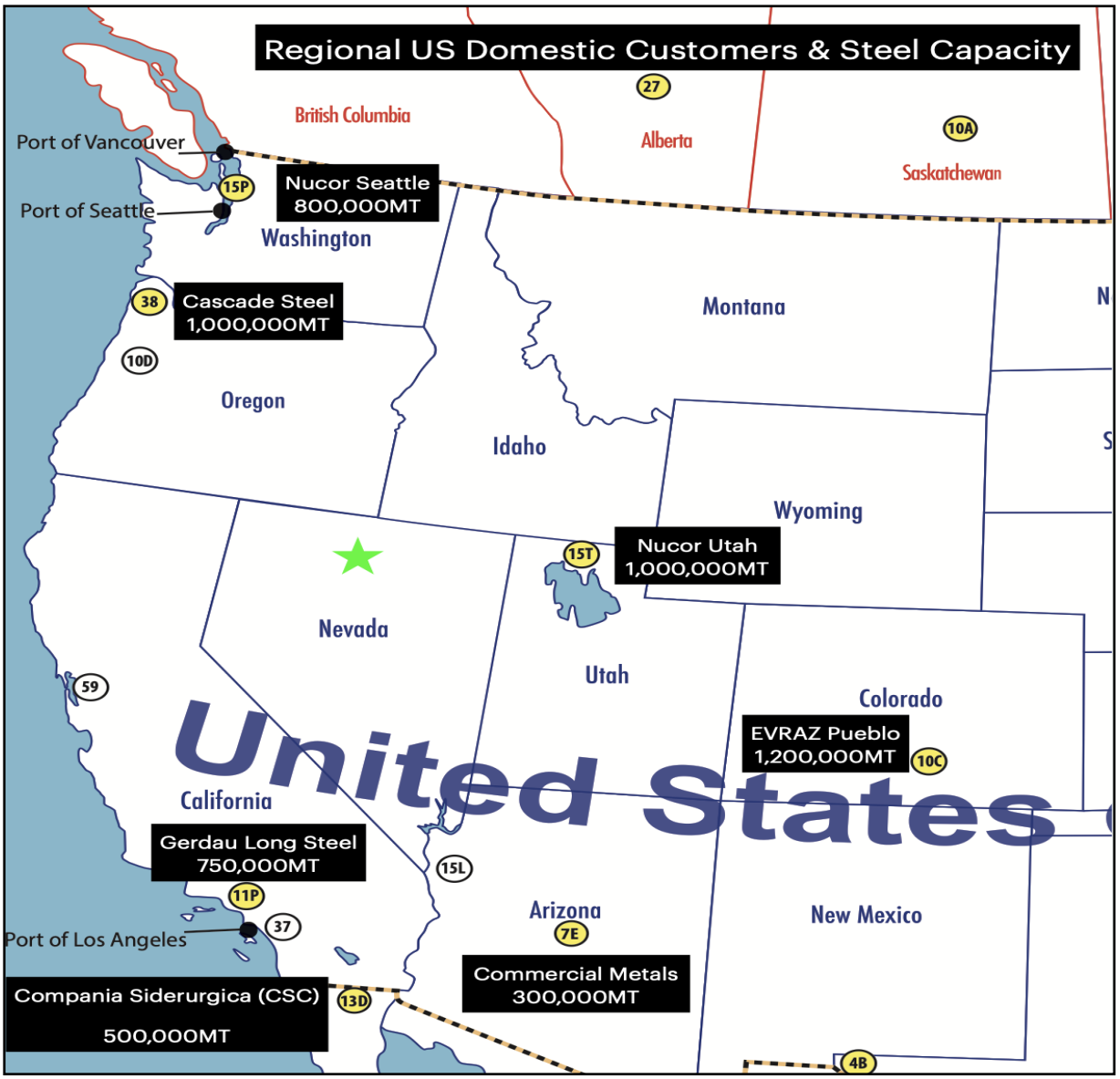


Figure 12: West Coast of USA Steel Mill Locations

2.7 Key Personnel Appointment

During the September 2021 quarter Magnum appointed Mr Guy Lauzier as the Mine Manager for the Buena Vista Project. Mr Lauzier has over 40 years' experience working in the mining industry having worked for major mining companies in North America.

2.8 Water

Confluence Water Resources LLC was engaged in September 2021 to drill three water wells to produce up to 600 US Gallons per minute (as per Magnum's existing permit).

This volume of water will be sufficient for preliminary operations at the Buena Vista Project.

3.0 ABOUT THE BUENA VISTA MAGNETITE IRON ORE PROJECT

3.1 Location and History

Buena Vista is located approximately 160km east-north-east of Reno in the mining friendly state of Nevada, United States.

The Buena Vista Project 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.

The Buena Vista Project was refreshed in 2009 when Richmond Mining Limited, an ASX listed company, acquired Buena Vista and commenced a detailed exploration program culminating in a definitive feasibility study in July 2011 and an updated study in 2013 for an expanded production rate.

A key component of these studies was extensive investigation of the optimal logistics plan for development of Buena Vista.

This included the negotiation of in-principle agreements with existing rail and port operators and the securing of all major mining permits.

In addition, 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 an eventual low of less than US$50/ tonne caused the then proposed development of Buena Vista to be deferred.

3.2 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, breccia zones and networks of fine fractures.

	Buena Vista (Magmatic)	**Taconite (Banded iron)**
Genesis	Metasomatic (hot solutions)	Non-magmatic precipitate
Grain size	Coarse	Fine
Grind size to liberate magnetite	+100 microns	Sub 15-20 microns
Capex	Lower capital intensity	Higher capital intensity
Opex	Lower opex	Higher opex

These ground conditions produce variations in mineralization 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.

Figure 13: Buena Vista Project Area showing historic loadout facility and stockpiles

3.3 Historic Drilling

The Buena Vista Project has been extensively drilled with three main programs carried out.

The initial program was by US Steel Corporation in the early 1960's and was by BQ, NQ and HQ diamond drilling and holes were surveyed for dip using a Tropari instrument.

A total of around 13,600 metres of core was completed and all holes were geologically logged.

Around 5,000 samples across the magnetite mineralised zones were taken from the drill core and the magnetite content determined by Davis Tube. All testing was carried out at the Colorado school of Mines Research foundation.

In 2010, a confirmatory diamond drill program of around 930 metres was carried out by Richmond Mining Limited. This program, which was HQ was designed to twin various 1960's holes in order to test for vertical and lateral continuity as well as provide QA/QC information on the historic drilling.

All of the core was geologically logged and then halved or quartered and samples assayed by American Assay Laboratories in Reno and SGS Laboratories in Perth.

In 2012, Nevada Iron Limited carried out a program comprising 3,420 metres of HQ diamond drilling and 13,024 metres of 138 mm reverse circulation drilling.

This program was designed to provide infill drilling for an expanded resource estimate, extend the boundaries of the known mineralised areas and provide additional core for definitive metallurgical beneficiation test work. All drill holes from this program were geologically logged and the diamond holes surveyed down hole.

Samples from this program were prepared by ALS Global Laboratories in Reno and analysed by ALS Laboratories in Perth.

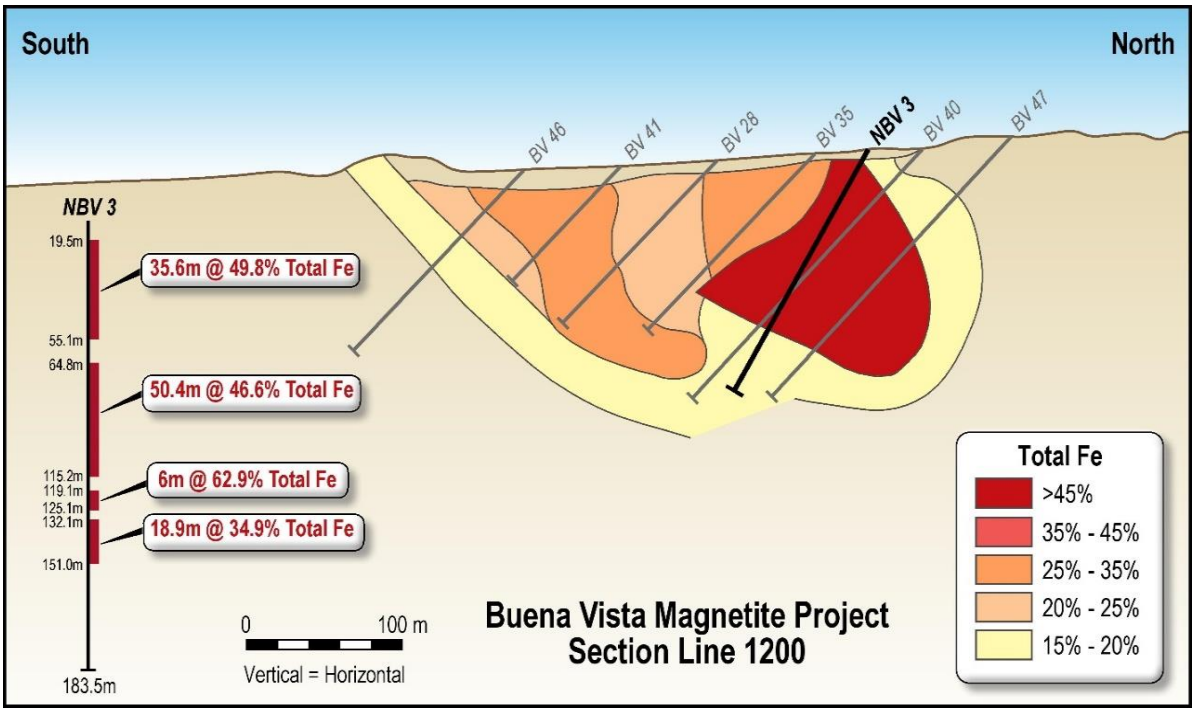


Figure 14: Section Line 1200 (2011 feasibility study)

3.4 Metallurgy

Unlike banded iron hosted magnetite deposits (taconites) where the magnetite mineralisation is finely disseminated in siliceous bedding planes, the Buena Vista ore is of magmatic origin and as a consequence is coarser grained in association with the siliceous host rock.

The prime benefit of this is that metallurgical test work has shown that the primary crush of the Buena Vista ore on average increases the mill grade to +45% irrespective of the primary ore grade. This is an important distinction to taconites and results in reduced energy usage for the subsequent crushing and grinding upgrade to the concentrate grade of +67.5%.

The Buena Vista concentrate contains no deleterious concentrations of impurities with silica typically 1.4-1.5%, alumina less than 1% and negligible sulphur and phosphorous content (around-0.003% respectively). In addition, titanium and vanadium levels are low in the Buena Vista concentrate, typical levels are around 0.2% TiO_2 and 0.3% V.

3.5 Project Logistics

The Buena Vista Project mine site is ideally located, with towns Fallon (20,000 population) and Lovelock (8,000 population) within close proximity to the mine site. This provides site personnel and their families the opportunity to reside in local communities with existing infrastructure and facilities.

The mine site is around 50kms from the Union Pacific rail line which connects with multiple export port options including Stockton, West Sacramento, Oakland, San Francisco and Richmond.

Grid power is available within 40km of the deposits and sufficient water can be sourced from ground water aquifers located in the North Carson sink. The Nevada Department of

Conservation and Natural Resources has already granted the required water rights for the life of the mine.

The mine is located in Churchill County in the State of Nevada which has a strong history of supporting mining developments and is easily accessed via the sealed Coal Canyon road.

3.6 JORC 2012 Resources

On 23 March 2021, Magnum announced that the Buena Vista Mineral Resource had been updated in accordance with the 2012 edition of the JORC Code (JORC 2012).

Magnum reported that the Mineral Resources previously reported in 2012/13 under the 2004 JORC Code and the NI43-101 Code had undergone a comprehensive review and full evaluation by the Company's highly experienced and qualified independent consultant, MPR Geological Consultants.

The total Mineral Resource estimate increased as a result of this update with the key changes:

- A **31% increase** in total reported Mineral Resources from 177.3Mt to 232Mt
- A **6% increase** in the indicated resource for the Section 5 area and a **25% increase** in the DTR% (Davis Tube Recovery Percentage)
- An **additional 40Mt** of inferred mineral resources for the West Pit area and **13% increase** in the DTR%
- A **14% increase** in the inferred resource for the East Pit area

The Company confirms that it is not aware of any new information or data that materially affects the information included in this Quarterly Report 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.

Estimates at 10% Fe cut off										
Deposit	Resource	2013			2021			Difference		
	Category	Mt	Fe%	DTR%	Mt	Fe%	DTR%	Mt	Fe%	DTR%
Section 5	Ind	32.1	17.7	16.8	34	17.4	21.0	6%	-2%	25%
	Inf	0	0.0	0.0	8.0	16	18	-	-	-
	Subtotal	**32.1**	**17.7**	**16.8**	**42**	**17**	**20**	**31%**	**-3%**	**22%**
West	Ind	116.6	19.1	21.2	117	19.5	23.9	0%	2%	13%
	Inf	0	0.0	0.0	40	17	21	-	-	-
	Subtotal	**116.6**	**19.1**	**21.2**	**157**	**19**	**23**	**35%**	**-1%**	**9%**
East	Ind	0	0.0	0.0	0.0	0.0	0.0	-	-	-
	Inf	28.9	19.6	23.4	33	19	23	14%	-3%	-2%
	Subtotal	**28.9**	**19.6**	**23.4**	**33**	**19**	**23**	**14%**	**-3%**	**-2%**
Total	Ind	148.7	18.8	20.3	151	19.0	23.2	2%	1%	15%
	Inf	28.9	19.6	23.4	81	18	22	180%	-10%	-8%
	Total	**177.6**	**18.9**	**20.8**	**232**	**18.6**	**22.6**	**31%**	**-2%**	**9%**

Table 1: JORC (2012) reported mineral resources compared with 2013 NI43-101 estimate.

The data base for the JORC 2012 mineral resource estimate utilised data from 139 diamond drill holes totally 23,061 metres and 50 reverse circulation drill holes totaling 13,024 metres.

4.0 OPERATIONS AT GRAVELLOTTE REMAIN CONSTRICTED

Activities at the Company's Gravelotte emerald project (located in the Limpopo Province in South Africa) are still limited to care and maintenance and desk stop studies as a result of travel restrictions and restrictions placed on site activities due to the Covid pandemic.

As a result of the Company's focus on the Buena Vista Project Magnum continues to assess the best option for Gravelotte moving forward. One option may be the sale of the asset.

5.0 EXPLORATION INTERESTS

The following tenement information is provided in accordance with ASX Listing Rule 5.3.3 for the quarter ended 30 September 2021:

Buena Vista Project

Claim Name	BLM Serial Nos.	BLM Lead Serial No.	Claim Type
KMD 1	NMC956471	NMC956471	Lode
KMD 2	NMC956472	NMC956471	Lode
KMD 3	NMC956473	NMC956471	Lode
KMD 4	NMC956474	NMC956471	Lode
KMD 5	NMC956475	NMC956471	Lode
KMD 6	NMC956476	NMC956471	Lode
KMD 7	NMC956477	NMC956471	Lode
KMD 8	NMC956478	NMC956471	Lode
KMD 9	NMC956479	NMC956471	Lode
KMD 10	NMC1049632	NMC1049632	Lode
KMD 11	NMC956481	NMC956471	Lode
KMO 12	NMC956482	NMC956471	Lode
KMO 13	MИC956483	NMC956471	Lode
KMD 14	NMC956484	NMC956471	Lode
KMD 15	NMC956485	NMC956471	Lode
KMD 16	NMC956486	NMC956471	Lode
KM0 17	NMC956487	NMC956471	Lode
KMD 18	NMC956488	NMC956471	Lode
KMD 19	NMC956489	NMC956471	Lode
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KMD 29	NMC956499	NMC956471	Lode
KMD 30	NMC956500	NMC956471	Lode
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KMD 32	NMC956502	NMC956471	Lode
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KMD 34	NMC956504	NMC95Б471	Lode
KMD 35	NMC95Б505	NMC956471	Lode
KMD 36	NMC956506	NMC956471	Lode
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KMD 38	NMC956508	NMC956471	Lode
KMD 39	NMC956509	NMC956471	Lode
KMD 40	NMC956510	NMC956471	Lode
KMD 41	NMC956511	NMC956471	Lode
KMD 42	NMC956512	NMC956471	Lode
KMD 43	NMC956513	NMC956471	Lode
KMD 44	NMC956514	NMC956471	Lode
KMD 45	NMC956515	NMC956471	Lode
KMD 46	NMC95Б51Б	NMC956471	Lode
KMD 47	NMC956517	NMC956471	Lode
KMD 48	NMC956518	NMC956471	Lode
KMD 49	NMC956519	NMC956471	Lode
KMD 50	NMC956520	NMC956471	Lode
KMD 51	NMC956521	NMC956471	Lode
KMD 52	NMC956522	NMC956471	Lode
KMD 53	NMC956523	NMC956471	Lode
KMD 54	NMC956524	NMC956471	Lode
KMD 55	NMC956525	NMC956471	Lode
KMD 56	NMC956526	NMC956471	Lode
KMD 57	NMC1049633	NMC1049632	Lode
KMD 58	NMC1049634	NMC1049632	Lode
KMD 59	NMC979428	NMC979387	Lode
KMD 60	NMC979429	NMC979387	Lode
KMD 61	NMC979430	NMC979387	Lode
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KMD 63	NMC979432	NMC979387	Lode
KMD 64	NMC979433	NMC979387	Lode
KMD 65	NMC979434	NMC979387	Lode
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KMD 68	NMC979437	NMC979387	Lode
KMD 69	NMC979438	NMC979387	Lode
KMD 70	NMC979439	NMC979387	Lode
NvFe 1	NMC1045283	NMC1045283	Lode
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NvFe 7	NMC1045289	NMC1045283	Lode
NvFe 8	NMC1045290	NMC1045283	Lode
NvFe 9	NMC1068429	NMC1068429	Lode
NvFe 10	NMC1068430	NMC1068429	Lode

NvFe 11	NMC1068431	NMC1068429	Lode
NvFe 12	NMC1068432	NMC1068429	Lode
NvFe 13	NMC1068433	NMC1068429	Lode
NvFe 14	NMC1068434	NMC1068429	Lode
NvFe 15	NMC1068435	NMC1068429	Lode
NvFe 16	NMC1068436	NMC1068429	Lode
NvFe 17	NMC1068437	NMC1068429	Lode
NvFe 18	NMC1068438	NMC1068429	Lode
NvFe 19	NMC1068439	NMC1068429	Lode
NvFe 20	NMC1075996	NMC1075996	Lode
NvFe 21	NMC1075997	NMC1075996	Lode
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NvFe 23	NMC1075999	NMC1075996	Lode
NvFe 24	NMC1076000	NMC1075996	Lode
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NvFe 26	NMC1076002	NMC1075996	Lode
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NvFe 31	NMC1076007	NMC1075996	Lode
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NvFe 33	NMC1076009	NMC1075996	Lode
NvFe 34	NMC1076010	NMC1075996	Lode
NvFe 35	NMC1076011	NMC1075996	Lode
NvFe 36	NMC1076012	NMC1075996	Lode
NvFe 37	NMC1076013	NMC1075996	Lode
NvFe 38	NMC1076014	NMC1075996	Lode
NvFe 39	NMC1076015	NMC1075996	Lode
NvFe 40	NMC1076016	NMC1075996	Lode
NvFe 41	NMC1076017	NMC1075996	Lode
NvFe 42	NMC1076018	NMC1075996	Lode
NvFe 43	NMC1076019	NMC1075996	Lode
NvFe 44	NMC1076020	NMC1075996	Lode
NvFe 45	NMC1076021	NMC1075996	Lode
NvFe 46	NMC1076022	NMC1075996	Lode
NvFe 47	NMC1076023	NMC1075996	Lode
NvFe 48	NMC1076024	NMC1075996	Lode
NvFe 49	NMC1076025	NMC1075996	Lode
NvFe 50	NMC1076026	NMC1075996	Lode
NvFe 51	NMC1076027	NMC1075996	Lode
NvFe 52	NMC1076028	NMC1075996	Lode
NvFe 53	NMC1076029	NMC1075996	Lode
NvFe 54	NMC1076030	NMC1075996	Lode
NvFe 55	NMC1076031	NMC1075996	Lode
NvFe 56	NMC1076032	NMC1075996	Lode
NvFe 57	NMC1076033	NMC1075996	Lode

NvFe 58	NMC1076034	NMC1075996	Lode
NvFe 59	NMC1076035	NMC1075996	Lode
NvFe 60	NMC1076036	NMC1075996	Lode
NvFe 61	NMC1076037	NMC1075996	Lode
NvFe 62	NMC1076038	NMC1075996	Lode
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NvFe 78	NMC1076054	NMC1075996	Lode
NvFe 79	NMC1076055	NMC1075996	Lode
NvFe 80	NMC1076056	NMC1075996	Lode
NvFe 81	NMC1076057	NMC1075996	Lode
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NvFe 83	NMC1076059	NMC1075996	Lode
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NvFe 85	NMC1076061	NMC1075996	Lode
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NvFe 87	NMC1076063	NMC1075996	Lode
NvFe 88	NMC1076064	NMC1075996	Lode
NvFe 89	NMC1076065	NMC1075996	Lode
NvFe 90	NMC1076066	NMC1075996	Lode
NvFe 91	NMC1076067	NMC1075996	Lode
NvFe 92	NMC1076068	NMC1075996	Lode
NvFe 93	NMC1076069	NMC1075996	Lode
NvFe 94	NMC1076070	NMC1075996	Lode
NvFe 95	NMC1076071	NMC1075996	Lode
NvFe 96	NMC1076072	NMC1075996	Lode
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NvFe 98	NMC1076074	NMC1075996	Lode
NvFe 99	NMC1076075	NMC1075996	Lode
NvFe 100	NMC1076076	NMC1075996	Lode
NvFe 101	NMC1076077	NMC1075996	Lode
NvFe 102	NMC1076078	NMC1075996	Lode
NvFe 103	NMC1076079	NMC1075996	Lode
NvFe 104	NMC1076080	NMC1075996	Lode

NvFe 105	NMC1076081	NMC1075996	Lode
NvFe 106	NMC1076082	NMC1075996	Lode
NvFe 108	NMC1076083	NMC1075996	Lode
NvFe 109	NMC1076084	NMC1075996	Lode
NvFe 110	NMC1076085	NMC1075996	Lode
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NvFe 112	NMC1076087	NMC1075996	Lode
NvFe 113	NMC1076088	NMC1075996	Lode
NvFe 114	NMC1076089	NMC1075996	Lode
NvFe 115	NMC1076090	NMC1075996	Lode
HNVFE NO 1	NMC1093640	NMC1093640	Mill Site
HNVFE NO 2	NMC1093641	NMC1093640	Mill Site
HNVFE NO 3	NMC1093642	NMC1093640	Mill Site
HNVFE NO 4	NMC1093643	NMC1093640	Mill Site
HNVFE NO 5	NMC1093644	NMC1093640	Mill Site
HNVFE NO 6	NMC1093645	NMC1093640	Mill Site
HNVFE NO 7	NMC1093646	NMC1093640	Mill Site
HNVFE NO 8	NMC1093647	NMC1093640	Mill Site
HNVFE NO 9	NMC1093648	NMC1093640	Mill Site
HNVFE NO 10	NMC1093649	NMC1093640	Mill Site
HNVFE NO 11	NMC1093650	NMC1093640	Mill Site
HNVFE NO 12	NMC1093651	NMC1093640	Mill Site
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HNVFE NO 14	NMC1093653	NMC1093640	Mill Site
HNVFE NO 15	NMC1093654	NMC1093640	Mill Site
HNVFE NO 16	NMC1093655	NMC1093640	Mill Site
HNVFE NO 17	NMC1093656	NMC1093640	Mill Site
HNVFE NO 18	NMC1093657	NMC1093640	Mill Site
HNVFE NO 26	NMC1093665	NMC1093640	Mill Site
HNVFE NO 27	NMC1093666	NMC1093640	Mill Site
HNVFE NO 28	NMC1093667	NMC1093640	Mill Site
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HNVFE NO 30	NMC1093669	NMC1093640	Mill Site
HNVFE NO 31	NMC1093670	NMC1093640	Mill Site
HNVFE NO 32	NMC1093671	NMC1093640	Mill Site
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HNVFE NO 35	NMC1093674	NMC1093640	Mill Site
HNVFE NO 36	NMC1093675	NMC1093640	Mill Site
HNVFE NO 37	NMC1093676	NMC1093640	Mill Site
HNVFE NO 38	NMC1093677	NMC1093640	Mill Site
HNVFE NO 39	NMC1093678	NMC1093640	Mill Site
HNVFE NO 40	NMC1093679	NMC1093640	Mill Site
HNVFE NO 41	NMC1093680	NMC1093640	Mill Site
HNVFE NO 42	NMC1093681	NMC1093640	Mill Site
HNVFE NO 43	NMC1093682	NMC1093640	Mill Site

HNVFE NO 44	NMC1093683	NMC1093640	Mill Site
HNVFE NO 45	NMC1093684	NMC1093640	Mill Site
HNVFE NO 46	NMC1093685	NMC1093640	Mill Site
HNVFE NO 47	NMC1093686	NMC1093640	Mill Site
HNVFE NO 48	NMC1093687	NMC1093640	Mill Site

Gravelotte Project

Location	Project	Tenement Type	Number	Interest	Status
Limpopo Province, South Africa	Gravelotte	Mining Right	MPT 85/2014	74%	Granted
Limpopo Province, South Africa	Gravelotte	Prospecting Right	LP 204 PR	74%	Granted

CORPORATE REPORT

6.0 ISSUE OF SECURITIES

During the September 2021 quarter Magnum issued the following listed securities:

2 July 2021: 14,000 ordinary shares following the conversion of 14,000 listed options at $0.05 per conversion to raise $700.

2 July 2021: 500,000 ordinary shares following the conversion of 500,000 unquoted options at $0.05 per conversion to raise $25,000.

22 July 2021: 9,000,000 unquoted options with an exercise price of $0.20 expiring on 19 April 2024, issued for nil consideration to broker, Shape Capital Pty Ltd (see announcement dated 7 May 2021).

27 July 2021: 1,666,666 ordinary shares issued at $0.15 per share to a non-executive director as announced to the market on 7 May 2021.

3 August 2021: the following unquoted equity securities were issued in accordance with the Company's Employee Incentive Plan (announced 28 July 2021):

- MGUAJ: 500,000 Performance Rights expiring 20 January 2022 (vest on the commencement of Iron Ore Production);
- MGUAK: 500,000 Performance Rights expiring 20 April 2022 (vest on finalisation of rail and port approvals);
- MGUAL: 1,000,000 Performance Rights expiring 20 July 2022 (vest on payment of first Iron Ore shipment (min 30,000 tonnes);
- MGUAM: 1,000,000 Performance Rights expiring 20 July 2022 (vest on market cap above $150,000,000);
- MGUAN: 1,000,000 Performance Rights expiring 20 July 2023 (vest on market cap above $200,000,000 (14 trading days);
- MGUAO: 1,000,000 Performance Rights expiring 20 January 2022 (vest on signing binding off-take agreement & investment);
- MGUAP: 1,000,000 Performance Rights expiring 20 October 2022 (vest on first 100,000t of iron ore);
- MGUAQ: 15,000,000 unquoted options expiring 20 July 2024, exercise price $0.25;
- MGUAR: 10,000,000 options expiring 20 July 2024, exercise price $0.20;

- MGUAS: 10,000,000 options expiring 20 July 2024, exercise price $0.30; and
- MGUAT: 10,000,000 options expiring 20 July 2024, exercise price $0.40.

4 August 2021: 8,903,765 ordinary shares following the conversion of 8,903,765 listed options at $0.05 per conversion to raise $445,188.25.

6 August 2021: 225,000 ordinary shares following the conversion of 225,000 listed options at $0.05 per conversion to raise $11,250.

17 August 2021: 130,000 ordinary shares following the conversion of 130,000 listed options at $0.05 per conversion to raise $6,500.

24 August 2021: 1,000,000 ordinary shares following the conversion of 1,000,000 unquoted options at $0.03 per conversion to raise $30,000.

7.0 IMPLEMENTATION OF EMPLOYEE INCENTIVE PLAN

On 28 July 2021, the Company announced that it intended to undertake an issue of unquoted options and performance rights to directors (ESOP Securities) under the employee incentive plan approved by shareholders at the Extraordinary General Meeting of Shareholders held on 20 July 2021 (refer to release dated 28 July 2021). The Company issued the ESOP Securities on 3 August 2021 (refer to release of that date).

8.0 NOTICE UNDER ASX LISTING RULE 3.10A

On 13 August 2021, the Company announced that 8,333,333 fully paid ordinary shares (Escrowed Shares) would be released from voluntary escrow on 20 August 2021, in accordance with the provisions of the agreement for sale of the Buena Vista Project (see announcement dated 9 February 2021). As part of the transaction the Escrowed Shares were issued to the vendors of the Buena Vista Project, with such shares being placed in voluntary escrow for 6 months from their date of issue.

9.0 ASX: ANNOUNCEMENTS RELEASED DURING THE SEPTEMBER 2021 QUARTER

02/07/2021	Application for quotation of securities
02/07/2021	Application for quotation of securities
07/07/2021	Change of Registered Office Address
09/07/2021	Investor Presentation
09/07/2021	Letter to Shareholders – EGM and Webinar details
12/07/2021	Magnum Progress Update
16/07/2021	Updated Letter to Shareholders – Virtual EGM
20/07/2021	Results of Meeting
22/07/2021	Proposed issue of securities – MGU
22/07/2021	Notification regarding unquoted securities – MGU
27/07/2021	Market Update
27/07/2021	Application for quotation of securities
27/07/2021	Cleansing Notice
28/07/2021	Magnum Project Update
28/07/2021	Issue of Incentive Options & Performance Rights to Directors
28/07/2021	Quarterly Report June 2021
29/07/2021	Appendix 5B
03/08/2021	Notification regarding unquoted securities – MGU
03/08/2021	Change of Director's Interest Notice x 4
04/08/2021	Application for quotation of securities
06/08/2021	Application for quotation of securities
06/08/2021	Trading Halt
13/08/2021	Anglo American Agreement
13/08/2021	Notification under ASX Listing Rules 3.10A

17/08/2021	Application for quotation of securities
23/08/2021	MGU Green Iron Production Strategy for development & growth
24/08/2021	Application for quotation of securities
24/08/2021	Cleansing Notice
24/08/2021	Clarification to Update provided on August 23
01/09/2021	Appendix 3Y – Director purchase of MGU Shares
02/09/2021	Appendix 3Y – Director purchase of shares
13/09/2021	Half Yearly Report and Accounts
28/09/2021	Green Iron Production Pathway Update

10.0 APPENDIX 5B

As set out in the corresponding Appendix 5B to this Quarterly Activities Report, exploration expenditure during the quarter totalled A$1,287,000, which related to expenditure at the Buena Vista Iron Ore Project and the Gravelotte Project. In accordance with ASX Listing Rule 5.3.2, the Company advises that no mining development or production activities were conducted during the September 2021 Quarter.

Payments to related parties totalling A$190,000 consisted of remuneration paid to executive and non-executive directors and their associates.

This document has been authorised for release to the ASX by the Company's Board of Directors.

Further information please contact:

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Non-Executive Director and Company Secretary

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+61 2 8316 3989
email: info@mmel.com.au

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
Magnum Mining and Exploration Limited	
ABN	**Quarter ended ("current quarter")**
70 003 170 376	30 September 2021

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(1,287)	(2,037)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	-	-
	(e) administration and corporate costs	(490)	(1,215)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	-
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other	-	
1.9	**Net cash from / (used in) operating activities**	**(1,777)**	**(3,253)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	(80)	(450)
	(b) tenements	-	-
	(c) property, plant and equipment	(190)	(884)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	161
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**(270)**	**(1,173)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	8,766
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	742	1,639
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(640)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	(163)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (Share buy-back)	-	-
3.10	**Net cash from / (used in) financing activities**	**742**	**9,602**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	6,685	206
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,777)	(3,253)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(270)	(1,173)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	742	9,602

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
4.5	Effect of movement in exchange rates on cash held	-	(2)
4.6	**Cash and cash equivalents at end of period**	**5,380**	**5,380**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	5,380	6,686
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**5,380**	**6,686**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	190
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	**Total financing facilities**	-	-

7.5	**Unused financing facilities available at quarter end**	-

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(1,777)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,777)
8.4	Cash and cash equivalents at quarter end (item 4.6)	5,380
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	5,380
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	3.03

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: Not applicable

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: Not applicable

8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answer: Not applicable	
Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.	

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 29 October 2021 .....

Authorised by: By the Company's Board of Directors .....
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.