MagIron Feasibility Study

Review of the Estimated Capital and Operation Costs for the Restart of the Plant 4 Concentrator, Located Northeast of Grand Rapids, Minnesota and the Reynolds Pellet Plant Located in Reynolds, Indiana

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Prepared For:

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1.0 EXECUTIVE SUMMARY

MagIron LLC (“MagIron” or the “Company”) was established in 2021 to be a key supplier of high-quality, low carbon iron. The Company is focused on restarting existing facilities to produce Direct Reduction (DR) high-grade pellets for feed to shaft reduction furnaces making Direct Reduced Iron (DRI) for the low carbon intensive Electric Arc Furnace (EAF) method of steel making, which constitutes approximately 70% of the United States steelmaking capacity.

MagIron was created to acquire selected former Magnetation LLC (Magnetation) assets following its bankruptcy in 2016. The Company's vision was that higher iron recoveries could be achieved from the hematite and goethite ores based on a new flow sheet using fine grinding, a deslime process, and reverse flotation. MagIron’s presumption was that the improved recoveries would ultimately result in improved productivity, a higher quality DR grade concentrate, and therefore, a much improved financial performance.

Over the past three years, MagIron has been working with several well-known and recognized consultants to complete extensive lab-scale test work to develop a new flow sheet. This feasibility study confirms the metallurgical test results of the Company’s new proposed flow sheet and predicts that iron recoveries of 80% to produce DR grade pellets from tailings, jig rock piles, low-grade stockpiles, and in-situ resources should be achievable. The new proposed flow sheet has been incorporated into the capital and operating cost estimates.

MagIron has conducted an exploratory drilling program to confirm NI 43-101 compliant Mineral Resources and Mineral Reserves from tailings basin, jig rock stockpiles of previously mined, low-grade mineralization, and in-situ material that could be mined from the Canisteo Pit. Indicated resources are 261.6 million tonnes grading 29.97% iron. Inferred resources are 177.9 million tonnes grading 22.9% iron. Probable reserves are estimated at 261.2 million tonnes grading 29.06%.

1.1 PROPERTY DESCRIPTION AND LOCATION

MagIron’s portfolio of assets is extensive and consists of iron ore processing facilities (Plant 4, Plant 1, and Prairie River Minerals (PRM)) lands (approximately 3,001 acres owned and 8,302 acres leased), mineral rights, and rail logistics facilities, all located northeast of Grand Rapids, Itasca County, Minnesota, USA. All land parcels are less than 20 miles from Grand Rapids, Minnesota. Their holdings include 133.2 million tonnes of Probable Mineral Reserves and at least another 177.9 million tonnes of Inferred Mineral Resources contained in various tailings basin, jig rock, and low-grade/lean ore stockpiles. MagIron has one 20-year leases (R-132) with the Minnesota Department of Natural Resources (MN DNR) to cover all Minnesota state owned iron-bearing residuals in basin and stockpiles in the vicinity of the Canisteo Pit Complex north of Coleraine, Minnesota. MagIron also holds two 30-year leases with private parties securing surface minerals in one case and both surface mineral rights and in-situ minerals in the other. The Canisteo Pit Complex is estimated to contain approximately 2.6 billion tonnes of in-situ and OxTac mineralization at an average iron content of 36.82% lying at the base and down-dip to the southeast of the historic mining operations.[1] MagIron has approximately 67% of this iron mineralization currently under lease. These in-situ mineral resources are within a 4.5-mile radius of Plant 4.

Plant 4 is a fairly modern, past-producing iron ore concentrator. The facility has previously operated at an annualized run-rate of approximately 2.0 million tonnes per annum (mtpa) but was designed to be expanded to 3.0 mtpa. Plant 4 was originally designed to process previously discarded waste material, such as tailings that contained economic values of hematite and goethite. The proposed modification to Plant 4 will also permit processing of jig rock, low grade

[1]Estimation by Global Minerals Engineering, Hibbing, Minnesota, 2024. The QPs for this estimate are David G. Meineke and James M. Sellner of Global Minerals Engineering.

stockpiles, and newly mined hematite resources and oxidized iron formation (OxTac) from the Buckeye Pit located in the Canisteo Complex. The Plant 4 operation also benefits from an existing rail logistics facility.

The Reynolds Pellet Plant (Reynolds Plant) is a fairly modern, past-producing pelletizer. The pellet plant previously operated at an annualized run-rate of approximately 2.2 mtpa and was designed to be expanded to 3.0 mtpa. The Reynolds Plant was previously integrated with MagIron's Plant 4 concentrator.

Iron concentrate from Plant 4 would be transported by either the BNSF railroad (formerly Burlington Northern Santa Fe) or the CN railroad (Canadian National Railway company) connecting in either case with CSX or TPW railroads both of which service the Reynolds Plant. Outbound pellets shipments from the Reynolds Plant could be serviced by two railroads, CSX (CSX railroad) or the TPW (Toledo, Peoria, and Western Railway, owned by Genesee & Wyoming Railroad).

Both Plant 4 and the Reynolds Plant were placed into care and maintenance in 2016 and have been kept in good condition. MagIron expects both facilities can be modified and restarted with a shorter lead time relative to new greenfield projects.

1.2 HISTORY OF LOCAL OPERATIONS

The reader should note that the term "ore" used in this section conforms to the historic terms used in the Mesabi Range to refer to iron mineralization with a potential economic value. It does not meet the definition for "ore," as defined in Canadian or United States standards, which require that any term that includes "ore" must be demonstrated to be economically viable.

The Canisteo Complex is noted for its intensive oxidation of the Mesabi Range Biwabik iron formation (BIF) units, which converted nearly all the magnetite rich BIF to hematite and goethite-rich BIF, also known as "Natural Ores" and OxTac. Natural ores were easy to dig and the quality and grade were such that the material could be direct shipped as blast furnace (BF) feed.

The local area has previously been heavily mined for 80 years. The Oliver Iron Company (U.S. Steel) commenced surface stripping in 1903. U.S. Steel also operated the Judd, Homestead, Plummer, and Diamond Mines. Cleveland Cliffs previously operated the Walker, Morrison, Fletcher, King, North Star, Danube, Bingham, Holman-Cliffs, and Sally Mines. At the west end of the Canisteo Complex, Hanna Mining operated the Jennison, Buckeye, and Hunner Mines. Pickands Mather operated the Orwell Mine that later became part of the Cleveland Cliffs operations.

The last natural ore mining was in 1986. A total of about 264 million long tons were historically mined out of the Canisteo Complex. However, the hematite-goethite mineralization in this area of the Mesabi Iron Range was not exhausted but rather mining was discontinued because the industry became focused on the magnetic taconite ores, which became the dominant supplier of 65% iron pellets. All the magnetic taconite mines were east of Calumet, Minnesota.

In 2011, Magnetation, a joint venture with AK Steel, was created to mine and process resources from tailings basin, jig rock, and lean ore stockpiles. Initial production at Plant 2 was in June 2012 and production from Plant 2 and Plant 4 ceased in early October 2016. The various intangible assets related to Magnetation, including software, drawings, plans, models, historical records, operating data, maps, photographs, and patents are owned by a private company, MagGlobal LLC (MagGlobal), the successor to the managing agent of Magnetation. MagIron has an Intellectual Property Acquisition (IPA) agreement, which secures the exclusive use and ownership of these intangible assets with MagGlobal.

Magnetation produced concentrate from the Canisteo Complex legacy materials from June 2012 at Plant 2 through to October 16, 2016 at Plant 4. Plant 4 production records, obtained from MagGlobal under the IPA, show that during 2015 (January through December), Magnetation processed approximately 7.8 million metric tonnes with an average head grade of approximately 28.9% iron and in the first 9 months of 2016, approximately 7.5 million metric tonnes at a head grade of 28.9% iron.

1.3 GEOLOGY AND MINERALIZATION

Plant 4 is in the southwestern end of the Mesabi Iron Range, an historic world class mining district in northeastern Minnesota. Most of the world's iron ranges, including those in Minnesota, formed during the middle Precambrian period when erosion leveled mountains, releasing iron and silica into the waters of the newly formed sea. Marine algae living in this new sea raised the level of atmospheric oxygen causing the eroding iron to precipitate into banded iron formation. The overall structure of the Mesabi Iron Range is a gently dipping monocline, trending southwest-northeast and dipping 5° to 15° to the southeast. The iron ores are hosted in the Biwabik Formation, which includes natural iron ores and magnetic taconite and hosts iron-rich cherty and iron-rich slaty layers. The Biwabik Formation is 340 feet to 750 feet thick. The term "iron-formation" and "banded iron-formation" or BIF refers to bedded, layered, or laminated sedimentary rock that contains 15% or more iron. Commonly, the terms iron formation and BIF are interchangeable. The term "taconite" refers to BIF that contains iron minerals (principally magnetite), quartz, chert, or carbonate material. It is a hard, dense rock that contains 15% to 36% iron.

Sometime after deposition and compaction, the BIF was oxidized and leached. Proposed ages for this oxidation/leaching event range from Paleoproterozoic (hydrothermal) to the preferred pre-Cretaceous (meteoric). High-grade direct shipping ore (DSO), also referred to as "Natural Ore" or high-grade ore, was the first type of iron ore mined from the BIF before the turn of the 20th century. This ore type was composed mainly of hematite- and/or goethite-rich material representing a supergene replacement of the original magnetite and was easily dug out of the ground due to its soft/weathered nature. DSO was formed by localized enrichment of the BIF via oxidation and leaching by descending circulating water in the vicinity of faulted and/or fractured zones. These natural iron ores are higher-grade than the taconite. Natural iron ores are principally mixtures of hematite and goethite within cherty and slaty units. The natural Mesabi Range iron ores occur in the Biwabik formation as trough shaped ore bodies in elongated channels and as irregular and tabular deposits in fractured areas associated with faults and folds. Historically, these natural ore bodies ranged in size from a few thousand tonnes to hundreds of millions of tonnes and occurred in any part of the iron formation. The Mesabi Iron Range is covered by glacial drift (overburden) that thickens southward and is commonly from 20 feet to 200 feet thick but locally, it may be as much as 500 feet thick over the westernmost Mesabi Range.

There is one significant difference between iron mineralization in the Canisteo Complex and the rest of the Mesabi Iron Range. Oxidation in the Canisteo Complex region apparently continued further down-dip as compared to the rest of the Mesabi Iron Range. Below the DSO ores, elsewhere, mining has continued by processing the un-enriched magnetic taconite ores. The Canisteo Complex is hematite-goethite rich with magnetite as a trace mineral. Deep oxidation of the original magnetite rich taconite has converted nearly all the magnetite bearing taconite to hematite and goethite. Thus, the predominant iron minerals in the various tailings basins and low-grade stockpiles are hematite and goethite while magnetite is only a trace mineral. Much of the in-situ down-dip resource remains hematite and goethite rich. However, from historic diamond drilling, it appears that below the zone of deep oxidation, typical magnetite-rich iron formation or taconite is present.

It is important to note that much of the resources and/or reserves discussed in this report, along with metallurgical/processing information, pertain to previously processed tailings material, jig rock, and low-grade stockpiles remaining from historic and previous mining operations (Legacy Materials). Historically, DSO was mined and processed. Low-grade material, generally about 20% iron to 50% iron was stockpiled. The tailings generally contain 20% iron to 30% iron, and the jig rock/lean ore piles generally contain 20% iron to 50% iron. Initially, all mining by MagIron will be from those Legacy Materials. After the Canisteo Pit has been partially de-watered, expected to be after Year 5 or Year 6 of operational start up. MagIron plans to begin mining and blending Buckeye in-situ resources into the process feed. Consequently, this report refers to not only the Legacy Materials, but also the large amount of oxidized taconite where magnetite has been largely replaced by hematite and goethite ("OxTac") available in the Canisteo Pit and parts of the BIF southwest of the Canisteo Pit.

The BIF, within the southwestern most portion of the Mesabi Range, has typically been sub-divided into four members that include (from bottom to top): Lower Cherty, Lower Slaty, Upper Cherty, and Upper Slaty. Locally, the historic operating companies had further sub-divided the Biwabik formation into several sub-members on the basis of sedimentological textures and mineralogical changes (some of which are probably related to diagenetic changes). The lowest stratigraphic unit is the Pokegama Quartzite consisting of fine to medium grained, sandy quartzite that is grey-brown to red in color. The Pokegama Quartzite is overlain by the 415 foot thick section of Biwabik iron formation. The basal Biwabik units consist of 5 separate cherty horizons, termed Lower Cherty 1 through Lower Cherty 5. These five cherty units host iron oxide (hematite and goethite) mineralization ranging from bedded iron-rich layers to disseminated iron oxides. In total, Lower Cherty 1 through Lower Cherty 5 is 290 feet thick. Stratigraphically above these 5 units is the Lower Slaty unit, consisting of 20 feet of very thinly bedded red stained rock referred to as "Paint Rock". MagIron is not planning on mining or processing any paint rock stockpiles or paint rock in-situ mineralization. Stratigraphically above the Lower Slaty are the Upper Cherty 1 and Upper Cherty 2, totaling 105 feet with goethite as the dominant iron mineral in the Upper Cherty 1.

In the tailings basins, jig rock, and low-grade stockpiles, these various stratigraphic units have been mixed, blended, and combined and metallurgical tests results reflect metallurgical recoveries on mixed stratigraphically controlled mineralization. However, for the Buckeye deposits, resources and metallurgical results are reported for each separate stratigraphic host that is expected to be mined and processed.

1.4 EXPLORATION

1.4.1 Legacy Parcels

Exploration of the MagIron "man-made deposits" (tailings basins, jig rock, and low-grade stockpiles) consists of approximately 163 sonic drill holes prior to 2024 (drilled from 2013 through 2016 by Magnetation) and an extensive sonic drilling program conducted by MagIron in 2024. In addition, there were 12 diamond drill holes drilled in 2014 in the Buckeye OxTac in-situ resource in the southwest end of the Canisteo Pit. These 12 diamond drill core holes were geologically and geotechnically logged by MagGlobal in 2014 but assayed in 2025. The earlier sonic drilling samples, completed in 2013 to 2016, were assayed in-house without the use of standards and blanks or check analyses. The newer 2024 sonic drilling programs were drilled, in part, to confirm and modify the previous grade estimates, which were based upon the historic mining and processing records from MagGlobal. Only a small portion of the pre-2024 sonic drill hole rejects remain stored on site. In late 2023, Behre Dolbear planned and coordinated the re-sampling and assaying, with standards and blanks, of a portion of the available material. The 2024 drilling program and assay results confirmed the earlier assay results and grade estimates.

Based upon the historic mine data and the results of the pre-2024 sonic drilling results, it was decided to drill a minimum one hole for each 1 million tonnes of estimated resource in each area expected to be mined and processed. The pre-2024 drilling was conducted in 11 of the 34 separate resource areas planned for the currently proposed operation. Thus, Behre Dolbear, along with the MagIron personnel, planned the re-drilling of all 34 of the separate resource areas by sonic drilling. It should be noted that the material in one of the tailings basins drilled was later dropped from MagIron's proposed operation due to the high proportion on slimes (fines and clay) in the basin and considered unsuitable at the present time for reprocessing.

A total of 138 sonic drill holes were proposed for the 2024 drilling program. Only 130 sonic drill holes were completed in the program. Eight were not drilled due to site conditions. In general, the sonic drilling recovery was good to excellent; however, there are nine intervals recorded as “no recovery” and there were three lost samples. These three intervals were logged and transferred to the receiving lab (prior to its re-location to a new building) but no assays were ever received. The sample buckets were presumed to have been mistakenly discarded in the hasty exit from their original lab location. The lost samples reflect <0.20% of all the drill samples collected. The Qualified Person (QP) opines that the loss of these three samples does not affect the results of the 2024 drill program.

1.4.2 Buckeye Pit

In 2014, 12 NQ size core holes were drilled into the peripheral areas of the Buckeye Pit by IDEA Drilling LLC for Magnetation. These holes were drilled, in part, to confirm the historic tonnage and grade information on the Buckeye Open Pit. A total of 3,137 feet of core was drilled. Core recovery was poor in the highly weathered, crumbly iron formation horizons but very good in the interbedded slaty unit (Lower Slaty) and basal Pokegama Quartzite unit. Overall weighted average core recovery in the iron formation was 62.8%. All holes started in overburden, cored through iron formation section, and ended in the underlying Pokegama Quartzite.

All 2014 diamond drill hole core was initially geologically logged on paper copies and used for detailed cross sections. All iron formation and Pokegama Quartzite intervals were logged for core recovery and rock quality data (RQD). All core was photographed by MagGlobal. All holes were drilled vertically, and all iron formation intersections were nearly true thickness. Although recovery in the crumbly cherty units was poor, the QP opines that the recovery factor only minimally affects the reliability of the assay data since there is a wealth of grade information from the long history of previous mining. A series of 37 geology/drill hole cross sections were created by MagGlobal utilizing the 2014 diamond drill hole core holes (pre-assaying) for geologic data, historic diamond drill, and churn drill hole data, and the historic open pit mine data.

None of the 2014 core was initially assayed, rather it was stored securely in a metal building at the gated Plant 4 Site facility. For this report, it was decided to assay the core. Rather than splitting the core, the core has been crushed in its entirety, based upon stratigraphy. All assays, including appropriate standards, blanks, and duplicates, have been completed and added to the assay database. Assay results have been tabulated based upon each stratigraphic unit expected to be mined and processed. All this new assay information has been utilized for the new resource estimation.

1.5 QP GEOLOGIST’S CONCLUSIONS ON EXPLORATION AND QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

All the historic sonic drilling and the 2024 sonic drilling campaign drill tested material that had been previously mined Legacy materials. No sonic drilling was undertaken on undisturbed, in-situ mineralization. Thus, there are no in-situ geologic factors involved with the accuracy and reliability of the sonic drilling programs. Except for a very few no recovery intervals, recovery was near 100%. During the 2024 drilling campaign, the entire sample was collected and submitted for assay; thus, ensuring that samples collected are representative of the tailings basins and jig rock and low grade/lean ore stockpiles. All drill holes were vertical and sampled from the surface to the native material (glacial and/or organic material) boundary. All drill holes tested true thickness. There are no geologic factors that affect the grade, thickness, and representative nature of the drill results. There are no significant higher-grade intervals within a lower-grade intersection. There is no bias of grade, except for the realization that jig rock piles, jig coarse tail piles, and lean ore stockpiles are generally significantly higher-grade than the tailings basins.

Most importantly, the principal purpose of the 2024 sonic drilling campaign was to determine whether the pre-2024 drill data and other resource grade determinations were valid and appropriate to be used in a new project wide resource estimate.

A QA/QC program was undertaken for both sonic drilling programs and for the assaying of the Buckeye core. Standards and blanks were inserted into the assay sample stream at the rate of 1 standard and 1 blank for each approximately 20 samples. Also, duplicate samples, check assaying on coarse rejects and pulps, twin drill holes, and Behre Dolbear's independent sampling were all undertaken as part of the QA/QC campaign. The QP geologist opines that, based upon the 2024 drilling campaign assay results, and on the favorable results of the 2024 and 2025 sonic drilling QA/QC Programs, the historic drill data on the Legacy Resource is reasonable and valid and can be used in the new resource estimate. Similarly, based upon the QA/QC results on the Buckeye core, the previous resource estimate for tonnage is reasonable while the grade estimate has been updated based on the assay results for each stratigraphic unit assayed.

1.6 MINERAL RESOURCES

The Indicated Mineral Resource estimate for the tailings basin, jig rock, and stockpiles at the MagIron Project is 133.3 million tonnes averaging 27.10% iron. The Buckeye Pit contains 128.3 million tonnes of Indicated Mineral Resource averaging 32.19%. The Total Indicated Mineral Resource is estimated as 261.6 million tonnes averaging 29.60% iron, as shown in Table 1.1, below. Table 1.1 below, summarizes the Mineral Resources at the MagIron Project. It should be noted that mineral resources that are not mineral reserves do not have demonstrated economic viability.

TABLE 1.1
SUMMARY OF MINERAL RESOURCES AT THE MAGIRON PROJECT[1,2]

Area	Resource Category	Tonnes (million)	Average Fe (%)
Basins, Jig Rock, Stockpiles	Indicated	133.3	27.10
Buckeye Pit	Indicated	128.3	32.19
	Total Indicated	**261.6**	**29.60**
Basins, Jig Rock, Stockpiles	Inferred	175.8	22.80
	Total Inferred	**175.8**	**22.80**

[1]Mineral Resources are inclusive of Mineral Reserves
[2]Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

There is a large tonnage of potential resource or mineralization in the remaining tailings basin, lean ore piles, and jig rock piles beyond those discussed in this report. Also, there is an extremely large quantity of potential resources in the in-situ mineralization downdip and along strike to the southwest of the historic mining operations, which could eventually be mined using open pit techniques. All this mineralization will require additional drilling and mine planning to advance them to a higher resource classification.

Additionally, MagIron's currently owned and leased properties border land controlled by the MN DNR and estimated by Global Minerals Engineering LLC (GME) to contain 2.6 billion tonnes of iron mineralized materials. Core drilling, assaying, and metallurgical test work along with geologic modeling would have to be completed on these lands to classify this material as a compliant mineral resource. MagIron currently controls 67% of the surface and mineral rights of these properties and effectively land locks the remaining portion of these lands although it does not currently lease them.

1.7 MINERAL RESERVES

The Mineral Reserves at the MagIron Project total 261.2 million tonnes averaging 28.66% iron. Table 1.2, below, summarized the Mineral Reserve at the MagIron Project.

TABLE 1.2
SUMMARY OF MINERAL RESERVES AT THE MAGIRON PROJECT[1]

Area	Reserve Category	Tonnes (million)	Average Fe (%)
Tailings Basin[2]	Probable	69.1	24.83
Jig Rock and Stockpiles[2]	Probable	64.1	28.97
Buckeye Pit[3]	Probable	128.0	30.58
Total Probable Reserves		**261.2**	**28.66**

[1]Mineral Resources are inclusive of the Mineral Reserves
[2]Tailings Basin, Jig Rock and Stockpiles include 1% grade dilution
[3]Buckeye Pit includes 5% grade dilution

1.8 MINING

MagIron proposes to begin producing from several tailings basins, jig rock, low-grade stockpiles, and the former Buckeye Open Pit Mine in the general area of Grand Rapids, Coleraine, Calumet, and Bovey, Itasca County, Minnesota.

The operation will consist of secondary recovery from historic tailings basins using methods unique to the area where the tailings material is excavated and stacked in windrows called “fingers” and allowed to drain and dry over some period of time. Following the draining and drying cycle, the material is hauled out of the basin with low ground pressure articulated trucks then transferred to large off highway mining truck for transport to the Plant 4 processing facility. There it becomes part of a blended plant feed material. This operation will extract approximately 69.1 million tonnes of tailings material at a grade of 24.83% iron.

Concurrently with the tailings basin recovery is a mining operation for the jig rock/stockpile material. This material is less complicated to handle as it is not in a basin but rather consists of large piles of material that had been rejected in past operations due to its lower than economic grade at the time. This material is excavated with large front-end loaders and hauled to Plant 4 using off highway mining trucks. Production from the jig rock/stockpiles will yield approximately 64.1 million tonnes at an undiluted average grade of 28.97% iron.

The third type of operation is the mining of the formerly operating Buckeye Open Pit mine. This operation will be a conventional open pit mine using drill/blast/load/haul methods common throughout the iron range. Resources from the Buckeye Open Pit are currently listed at 128 million tonnes at a diluted grade of 30.58% iron.

Over the estimated life of the operation, production rates will average approximately 8.5 million tonnes per year at an average grade of approximately 28.7% iron.

Each of these operations is unique and will require differing techniques to move the material to Plant 4. Further, each of the operations has estimated costs per tonne of material mined unique to the mining methodology for the resource area. Costs for the three methods varies considerably due to the conditions and equipment being used. The life-of-mine average mining cost will be approximately $3.88 per tonne.

- Basin tails operation that requires over the road haulage – $5.68 per tonne.
- Operations in the jig rock piles and some basins requiring no highway haulage – $3.86 per tonne.
- Conventional mining operations in the Buckeye Open Pit – $3.24 per tonne.
- Over burden stripping for the Buckeye Open Pit is estimated to be approximately $0.37 per tonne of Buckeye ore.

1.9 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

MagIron has secured all the necessary permits to restart Plant 4. The operating permits that have been secured in the last two years are described herein.

1.9.1 Part 70 Air Permit – Issued by Minnesota Pollution Control Agency – Issued to MagIron – October 31, 2024

This Part 70 Air Permit covers the MagIron facility located at 28754 Itasca County Highway 61, Grand Rapids, Itasca County, Minnesota. Included in the permit is MagIron’s Plant 4, the Jessie rail loadout, and the PRM Demonstration Plant.

Plant 4 is a scram mining operation that is designed to produce iron concentrate from legacy tailings basins and jig rock from various stockpiles as a feedstock for Plant 4, which can produce up to 3.0 mtpa of iron concentrates.

The PRM site is also scram mining operation designed to produce high-grade iron ore from low-grade legacy waste rock stockpiles (the Jessie Mine Stockpile, Jessie #2 Mine Stockpile, and the Buckeye Mine Stockpile). The facility is currently inactive but is designed to produce a maximum of 1.75mmtpa of products.

With MagIron's purchases of the PRM and Plant 4/Jessie Loadout operations, the two facilities are now under common control and are considered a single stationary source for the air permit. The permit incorporates the existing equipment from Plant 4, PRM, and the Jessie Loadout.

The main pollutants of concern across all three sites are particulate matter (PM), less than 10 microns in diameter (PM10), and PM less than 2.5 microns in diameter (PM2.5). MagIron will utilize various dust control measures to reduce emissions from its paved and unpaved roads, long-term material storage areas, stockpiles, and exposed mining areas.

The MagIron facility is considered a synthetic minor source under Prevention of Significant Deterioration (PSD), a major source under 40 CFR Part 70, and an area source for hazardous air pollutants (HAPs) under 40 CFR Part 63.

The permit authorizes the construction of the new fixed crushing circuit at Plant 4 that will include various material handling equipment including a high pressure grinding roll, screens, a fabric-filter-controlled cone crusher, and a new conveyor at the existing portable screening operation at Plant 4. The permit does not authorize any changes or modifications to the PRM and Jessie Loadout sites.

Improvements to the Plant 4 bag house are included in the scope of this permit.

The air permit is renewed every five years and renewals are considered administrative.

1.9.2 Minnesota Department Of Natural Resources (MDNR) – Permit to Mine – Issued to MagIron – August 12, 2024

This permit is required for any metallic mineral mining operation in Minnesota. It applies to both new mining operations and the reactivation of inactive sites.

The application includes:

- Organizational data (ownership, structure, agents).
- Environmental setting maps and analysis.
- Mining and reclamation plans.
- Operating plans for the current or upcoming period.
- Financial capability documentation to ensure reclamation obligations can be met.

MagIron must:

- Submit annual mining reports.
- Provide updated operating plans.
- Prepare a deactivation plan for mine closure.
- File a request for release from obligations once reclamation is complete.

1.9.3 Minnesota Department Of Natural Resources (MDNR) – Water Appropriations Permit #2012-0683 – Issued to MagIron – January 26, 2024

A Water Appropriation Permit is required in Minnesota for most uses of surface or groundwater that exceeds a minimal threshold. These permits are regulated by the MN DNR under Minnesota Statutes Chapter 103G and Minnesota Rules Chapter 6115. A Water Appropriation Permit allows individuals or entities to withdraw or use water from lakes, rivers, streams, or aquifers for various purposes. Permits require monitoring and monthly and annual water use must be measured and reported. This permit secured by MagIron to allow it to draw process and dust control water from the Canisteo Pit to facilitate its operations

1.9.4 SDS Permit – Issued by Minnesota Pollution Control Agency – Issued to MagIron – June 28, 2024.

MagIron’s Plant 4 will process iron bearing materials from legacy tailings basins and stockpiles to produce iron concentrates. As detailed in Section 16.0 of this report, the materials to be mined will be jig rock (rock left over from the gravity separation of ore), rock rejects, coarse tailings, and fine tailings. It is projected the material will be mined at a rate of approximately 6 to 8 mdmt to produce up to 3 mdmt of iron concentrates per operating year.

Disposal of tailings to various tailings cells will generally follow mined out locations. There will be no modification to watersheds from the proposed mining operations. Snowmelt and rainfall run-off will be collected and contained within dike parameters. Process water will be stored and monitored in an on-site tailings pond and recirculated and reused. There will be no discharge of industrial stormwater or process wastewater to surface waters.

Process make-up water will be obtained from the Canisteo Pit in accordance with MDNR Water Appropriation Permit #2012-0683. Water will be routed from the Canisteo Pit at an estimated rate of 2.5 million gallons per day to a process water receiver, which includes a thickener, clearwater pond, and process water bunker. Approximately 10.2 million gallons per day is transferred to the processing plant for mineral processing. Water is pumped back to the tailings basin at an estimated rate of 10.5 million gallons per day after use for mineral extraction at the processing plant.

1.10 ENVIRONMENTAL MISCELLANEOUS

Other local permits and requirements for Plant 4, such as plant renovation/modification building permits, hazardous materials storage permit, a petroleum spill prevention and control plan, a solid waste disposal permit, etc., are required but are considered administrative. They would be applied for as the renovation of Plant 4 proceeds and startup approaches.

Minnesota is considered a difficult jurisdiction to secure these permits, and particularly those specific to mining. MagIron's efforts were significant over the past few years to secure them. There are conditions on the permits including monitoring/reporting, updating of financial assurance, and wetland mitigation or avoidance. These conditions are not time sensitive and are actively tracked by MagIron's environmental consultant, Foth Infrastructure and Environmental (Foth) for compliance. There is no on-going permitting work outside of required monitoring and reporting being undertaken by Foth.

No adverse or material environmental conditions were noted during the several field visits conducted by Behre Dolbear Senior Associates to the Plant 4 Site in 2023 and 2024.

It is envisaged that MagIron will source a portion of the electricity for Plant 4 from Manitoba Hydro in Canada and is exploring options to utilize abundant wind power in Indiana to power the Reynolds Plant. These sources of renewable energy will enhance the low-carbon credentials of MagIron's products.

1.11 RECLAMATION OBLIGATIONS

As MagIron mines and excavates the jig rock piles and tailings basins, they are obligated to reclaim the properties to current standards dictated by the MDNR. The plans approved are site specific but generally involve regrading and re-seeding vegetation as well as stormwater management features. Reclamation will be concurrent as operations proceed and costs are budgeted.

For the Buckeye Pit to come online, an ongoing stripping program of mostly glacial till overburden will have to be removed. This material (largely alluvial sand and gravel) will be stockpiled for use in tailings dam construction and future reclamation in the Buckeye Pit and other impacted areas. Costs for the ongoing stripping have been accounted for in the Project's financial model.

1.12 WATER APPROPRIATIONS PERMIT TO DEWATER BUCKEYE PIT

Beginning in Year 6 of the current mine plan, Plant 4 will begin processing in-situ iron ore from the Buckeye Mine. The mine is located on lands owned or controlled by MagIron and is close to the Plant 4 facility. The Buckeye Mine is part of the Canisteo Mine Pit complex but is separated from most of the pit by a currently submerged land bridge. Although the water level in the Buckeye/Canisteo Pit will be lowered substantially by Year 6, due to the use of the pit water for mineral processing purposes, additional pit de-watering will be needed for facilitating full mine operations as well as ongoing pit water management.

MagIron will begin this permitting process not long after steady state operations are achieved. As the State of Minnesota has pumped significant amount of water out of the Canisteo Pit over the past 4 to 6 years to manage water levels, it is assumed that permitting for the MagIron discharge permit will be largely administrative. The effort to secure the permit will likely take 1 to 2 years so the effort to obtain this permit will begin in Year 1 of operations. If the permitting effort is delayed, significant iron ore reserves and resources are available to sustain projected production volumes until the permit is secured.

1.13 PLANT 4 SOCIETAL AND COMMUNITY IMPACT

Iron mining on the Mesabi Iron Range began approximately 140 years ago and continues at multiple locations today.

Due to the long history of iron mining on the Mesabi Range, societal, community, and industry infrastructure is widely developed. MagIron will not have to construct or provide any employee housing, schools, medical facilities, employee meals, recreation facilities, etc. Local housing, schools, hospitals, and other community resources are adequate to support the additional residents who may move to the area because of employment with MagIron. Mining industry suppliers and equipment vendors are all located close to Plant 4 as well as contractors that may be needed for facility modifications, upgrades, or repairs.

No adverse or material or environmental conditions were noted during field visits conducted by Behre Dolbear Senior Associates to the Plant 4 Site in 2023 and 2024.

1.14 REYNOLDS PELLET PLANT PERMITS

1.14.1 Prevention of Significant Deterioration (PSD) Air Permit

The Reynolds Plant will require a Prevention of Significant Deterioration (PSD) air permit. KERAMIDA (MagIron’s Indiana environmental consultant) will initiate air emissions modeling of the facility to determine what will be required to meet PSD permit requirements. Before modeling can begin, an emission inventory must be developed for the Reynolds Plant, based upon anticipated process equipment and throughput. An emission model will be developed based upon the inventory. Additional models runs will be required to ascertain the operating conditions under which the modeled emissions will meet the applicable regulatory requirements. Once successful modeling is completed, a permit application will be prepared and submitted to the Indiana Department of Environmental Management (IDEM). As with any facility start up, the most time critical deliverables for the perspective of an Environmental, Health, and Safety (EHS) regulatory perspective is the air permit application and subsequent air permitting process.

This emissions inventory should be reduced when compared to previous operations because of the 20% reduction in natural gas usage to make the DR pellets versus BF pellets. The 20% reduction should be tied to the lower flux calcining load for DR pellets due to the lower dosage of limestone and dolomite used to make DR pellets versus the previous super fluxed BF pellets made in 2014 to 2016.

MagIron has engaged KERAMIDA, as of January 5, 2026, to commence work to obtain the required PSD air permit. It is estimated that the required permitting process will take between 9 months to 14 months to obtain from the commencement work and submission of the permit application with the required modeling data. IDEM is required by statute to act on the permit application within 270 days of submission of the application, but delays in this process have been noted for other applicants. As the previous operation obtained an approved PSD permit in this same timeline, Behre Dolbear is of the opinion that this time estimate is reasonable today as emissions will be reduced from the 2014-2016 level.

Dust emissions will be managed by the existing fugitive dust collectors and bag house. Behre Dolbear is of the opinion that any modifications that may be needed in the air pollution control system, by Indiana regulators, is allowed for in the Reynolds Plant restart capital cost contingency.

Although not currently planned, any outside storing of materials, that would be exposed to stormwater, would require a stormwater permit and if hazardous waste of any type is generated (not currently anticipated), MagIron would need to get an EPA ID number. This is a very straightforward process and is considered administrative.

Currently, it is not anticipated that any new ground disturbance at the Reynolds Plant will exceed 1 acre. However, if it does (such as if paving of the parking and interior roadways is considered a new disturbance), MagIron would need to get a stormwater construction permit, which is also considered an administrative permit. This is often completed by the construction company completing the work.

1.15 STORM AND PROCESS WATER MANAGEMENT

The Reynolds Plant Site will utilize existing water management infrastructure to manage stormwater on an ongoing basis. Process wastewater will be recycled and consumed on site with make-up water being sourced from the municipal water system or two on-site wells.

1.16 SOCIETAL AND COMMUNITY IMPACT

The Reynolds Plant is located within the city limits of Reynolds, Indiana. Reynolds is a city of 530 residents that has a fully developed industrial and societal infrastructure to support local employees that will be employed at the Reynolds Plant. During past operations at the Reynolds Plant, employees generally lived in towns within a 40 mile to 50 mile radius of the Reynolds Plant and that will likely be the same after the restart of operations. MagIron will not have to construct or provide any employee housing, schools, medical facilities, employee meals, recreation facilities, etc. Local housing, schools, hospitals, and other community resources are adequate to support any additional residents who may move to the area because of employment with MagIron at the Reynolds Plant. Heavy industrial suppliers and equipment vendors are all located in the vicinity of the Reynolds Plant as well as contractors that may be needed for facility modifications, upgrades, or repairs.

No adverse or material or environmental conditions were noted during a field visit conducted by the Behre Dolbear Senior Associates to the Reynolds Plant site in December 2024.

1.17 METALLURGY

The development of a proprietary process by MagIron to economically extract iron from tailings basin, jig rock, low-grade stockpile material, and open pit ore depends on reverse flotation. Reverse flotation rejects silica to the flotation froth, which in turn enriches the iron concentration of the material remaining in the flotation cell. MagIron proposes to remove 88% to 97% silica from the identified resource material.

All references to flotation in this report refer to reverse flotation where the silica is discarded in the froth and the iron concentrate is the residual remaining in the flotation cell.

From 2015 to 2016, Magnetation operated Plant 4 and processed this same material using different combinations of magnetic separators, Wet High Intensity Magnetic Separators (WHIMS), and flotation. Iron recoveries were approximately 40%. The concentrate from this process contained between 4.5% and 5.0% silica and qualified as blast furnace (BF) feed material.

Starting in 2022, MagIron initiated laboratory test work using its proprietary process, which included the use of WHIMS, fine grinding, desliming, and flotation, which was internally named as the Selective Flocculation, Desliming, and Flotation (SFDF) process. The SFDF process uses certain aspects of a proprietary process covered by U.S. Patent No. 10,201,816 B, which MagIron has a right to use under the IPA agreement with MagGlobal.

As of October 2025, MagIron has performed 111 different bench scale tests on standardized material and variability samples. Using ultra-fine grinding, desliming, and flotation, bench scale iron recoveries varied from 60% to 93% and averaged 76.2% for a DR grade concentrate.

Pilot scale tests, which were run on a select material designed to duplicate the WHIMS upgrade, achieved 83.5% iron recovery for a DR grade concentrate. NRRI has not issued a final Pilot Plant report at the time of this writing but final results should not significantly affect the estimated mill grind power, recoveries, or reagent consumptions used in this study.

Overall iron recovery for the project for DR grade concentrate is estimated at 79.6% based on a 2% iron loss in the WHIMS circuit, a 2.6% iron loss in the Deslime circuit, and an 83.5% iron recovery in the flotation circuit, which was achieved during Run 5 of the pilot plant operation. An overall iron recovery of 80% should be achieved with automated WHIMS operation and amine addition rates tied to silica content in a flotation circuit equipped with on-line analyzers.

Similarly, iron recovery for the project for BF concentrate grade is estimated at 85%.

There is a high risk that the overall 80% iron recovery associated with the newly developed SFDF process for DR grade concentrate may require operational experience in order for it to be achieved. The risk is mitigated in the project economics by allowing a ramp-up period of one year to achieve full production and recovery.

The pilot plant operation did achieve the target iron recovery despite using older design rectangular “Wemco” flotation cells, manual controls and no online analyzers for either particle size or silica content. The full-scale plant will benefit from state-of-the-art flotation cells, online silica and particle analyzers, sophisticated automated and artificial intelligence assisted process control, and staged addition of key reagents.

1.18 PLANT 4 PROCESS PLANT

The proposed mineral beneficiation at Plant 4 for the SFDF process would include tailings screening/slurrifying. High Pressure Grind Rolls (HPGR) for jig rock crushing, wet screening, slurry tank storage, WHIMS, deslime tanks and thickeners, flotation consisting of roughers, scavengers, and cleaners, concentrate storage, concentrate filtration, concentrate shipping, and reagent storage, mixing, and distribution. Modifications to the existing plant will satisfy most of the needs associated with the new SFDF process.

A new HPGR circuit will be added to the plant feed to process jig rock and low grade stockpile material. The HPGR circuit will produce material suitable for feed to the WHIMS circuit and the ball mill circuit.

Fine grinding to 80% passing 25 microns was set as a required parameter during the study. The project will install a second ball mill (existing on site) and two new 5,500 kW Swiss Tower Mills (STM) to produce this size product.

The deslime portion of the SFDF process will require two new 100 foot diameter thickeners with additional reagent tanks and conditioning tanks.

The flotation portion of the SFDF process will require 16 new 100 cubic meters (m^3) flotation cells for the rougher and scavenger circuits. A total of 6 existing 50 m^3 cells and 2 new 100 m^3 flotation cells will be used as cleaner cells in the new flotation circuit. New blowers will be added to meet the increased air demand associated with the new flotation circuit configuration.

The existing concentrate thickening and filtration circuit will be used but with two additional disc filters being added to account for the reduced efficiency associated with finer grind size.

A new starch preparation and mixing system consisting of 2 new 20 foot diameter × 85 foot tall starch storage silos will be constructed near the main plant building. The starch will be received by truck and pneumatically conveyed into the silos.

A new 12,000 gallon receiving tank for caustic storage and a new 30,000 gallon carbon dioxide storage will be added.

The existing tailings thickener and tailings basin will be reactivated upon Plant 4 startup. Several additional tailings dam lifts will have to be built as operations proceed but as these lifts are added, additional adjacent existing basins will be absorbed adding capacity. This expansion will give the project up to 40 years of tailings basin life at the scheduled production rates.

The dam lifts will be constructed of locally available sand and gravel resources, such as overburden from the Buckeye Pit. Tailings will not be used as a dam construction material.

Tailings dam designs are reviewed and approved by the Minnesota DNR. As the area where the current basin is located is considered previously disturbed, the permitting and approval process for the dam lifts, while rigorous, is considered administrative and is not a material risk to ongoing operation of Plant 4.

Additional previously disturbed lands are available locally to Plant 4 for tailings basin expansion beyond 40 years of current operations.

1.19 REYNOLDS PELLET PLANT

The Reynolds Pellet Plant previously operated in 2016 at an annualized run-rate of approximately 2.2 mtpa and was designed to expand to 3.0 mtpa with limited additional investment. The Reynolds Plant was previously integrated with MagIron’s Plant 4 concentrator. Inbound concentrate from Plant 4 can be transported by either the BNSF railroad (formerly Burlington Northern Santa Fe) or the CN railroad (Canadian National Railway) connecting in either case with CSX or Toledo Peoria & Western (TPW) railroads, both of which service the Reynolds Plant. Outbound pellets shipments from the Reynolds Plant can be serviced by two railroads, CSX (CSX railroad) and TPW (owned by Genesee & Wyoming Railroad).

The Reynolds Plant was placed into care and maintenance in 2016 and has been maintained in good condition. Behre Dolbear has toured the Reynolds Plant and is of the opinion that the plant can be restarted efficiently, requiring limited additional investment and a shorter lead time relative to new greenfield projects.

The restarted Reynolds Plant will differ from its original design in that all grinding and concentrating before pelletizing will take place at Plant 4 in Minnesota. The grinding and concentrating sections of the Reynolds Plant will be bypassed by the installation of a startup conveyor and chute work. Additional iron ore pellet production equipment will be installed to raise the iron ore pellet production capacity to 3 mtpa. These modifications will result in a headcount reduction of 7 to 10 employees, a reduction in electricity consumption from 22 megawatts (MW) to 15 MW and production of DR pellets versus BF grade pellets will reduce natural gas usage by approximately 20%.

All necessary energy, transportation, and support infrastructure (warehouse, testing laboratory, employee support facilities, etc.) is in place with minor upgrades required during pre-startup facility cleanup and restoration. Parking and in plant roadways will have to be paved to control fugitive dust.

1.20 ECONOMIC ANALYSIS

Behre Dolbear prepared a discounted cash flow model for the MagIron Project to determine the Net Present Value (NPV), Internal Rate of Return (IRR), and payback period. The technical cash flow was prepared for both a pre-income tax and an after-tax basis and was prepared in accordance with NI 43-101 Standards of Disclosure. The key assumptions for the cash flow are summarized in Table 1.3, below.

TABLE 1.3 KEY CASH FLOW ASSUMPTIONS (BASE CASE)		
Item	**Units**	**Value**
Mineral Reserves	million tonnes	261.2
Mine Life	years	32
Average Annual Concentrate Production	K dmt	2,776.1
Average Annual Pellet Production	K dmt	2,637.3
Average Iron ROM Grade	%	29.9%
Average Iron Recovery	%	80.0%
65% CFR China Iron Ore Price	$/dmt	$128.60
DR Pellet Premium	$/dmt	$60.83
Average C3 Freight Costs	$/wmt	$21.70
Freight to Reynolds	$/dmt Concentrate	$26.04
Realization of Pellets (FOB Reynolds Plant)	$/dmt	$164.13
Minnesota Production Tax (2025)	$/short-ton Concentrate	$3.427
Blended State and Federal Corporate Tax Rate	%	24.87%
Discount Rate	%	8% (Nominal) or 4.9% (Real)
Construction Period	months	12
Initial CAPEX	$ million	$434.76

The economic analysis assumes savings on unnegotiated rail rates received by MagIron, based on actual savings achieved by Magnetation historically and what peer companies are using. The rail rates used in all three scenarios are more conservative than these reference points.

Three different economic cases were analyzed:

- **Base Case** – 10-year trailing average market price for iron, 10% tariff on United States imports, and a 15% reduction of the unnegotiated rail rates;
- **Upside Case** – a 5% increase in the average market price, a 5% increase in the C3 freight cost, a 15% tariff on imports, and a 20% reduction of the unnegotiated rail rates; and
- **Downside Case** – a 5% decrease in the average market price, a 5% decrease in the C3 freight cost, no tariff on United States imports, and a 10% reduction of the unnegotiated rail rates.

The financial performance of the MagIron Project was calculated based on 100% equity financing, even though MagIron may decide in the future to finance part of the MagIron Project with debt financing or equipment leases. Project revenue is derived from the sale of DR grade pellet into the international marketplace. Pricing was estimated on a CFR China basis adjusted for logistics costs to the Reynolds Plant.

The historic iron pricing data used to determine the product pricing assumptions used in this study is shown in Table 1.4, below.

TABLE 1.4 HISTORIC IRON PRICING DATA					
Year	**62% Iron CFR China**	**65% Iron CFR China**	**65%/62% Iron Spread**	**DR Pellet Premium**	**C3 Freight**
2015	$61.9	$67.9	$6.1	$51.9	$15.0
2016	$77.0	$85.9	$8.9	$50.4	$11.9
2017	$93.4	$114.4	$20.9	$73.4	$19.7
2018	$88.5	$114.9	$26.4	$80.3	$23.4
2019	$116.9	$130.5	$13.6	$75.4	$23.1
2020	$133.8	$150.6	$16.8	$34.6	$18.3
2021	$189.1	$219.0	$29.9	$66.9	$31.5
2022	$131.7	$152.3	$20.5	$80.5	$26.6
2023	$125.8	$138.7	$12.9	$53.8	$22.2
2024	$111.7	$126.0	$14.3	$52.6	$25.4
YTD – September 2025	$100.5	$114.4	$13.9	$49.3	$21.6
3-year average	**$111.8**	**$125.3**	**$13.7**	**$51.9**	**$22.9**
5-year average	**$136.4**	**$154.0**	**$18.3**	**$60.6**	**$24.6**
10-year average	**$111.8**	**$128.6**	**$16.8**	**$60.8**	**$21.7**
Source: Woodmac, Morgan Stanley Real 2025 $					

The results of the economic analysis for the three cases examined are summarized in Table 1.5, below.

TABLE 1.5 SUMMARY OF ECONOMIC ANALYSIS (4.9% DISCOUNT RATE FOR NPV)					
Case	**Pre- Income Tax**		**After-Income Tax**		**Payback**
	NPV (millions)	**IRR**	**NPV (millions)**	**IRR**	
Base Case	$2,178	34.13%	$1,598	27.60%	3 years 7 months
Upside Case	$3,147	46.09%	$2,326	36.81%	2 years 10 months
Downside Case	$875	17.42%	$619	14.55%	6 years 6 months

The pre-tax base case financial model resulted in an IRR of 34.13% and a NPV of $2,178 million with a discount rate of 4.9% (Real). On an after-tax basis, the base case financial model resulted in an IRR of 27.60% and a NPV of $1,598 million with a discount rate of 4.9% (Real). The after-tax undiscounted payback period is based on the base of 3 years 7 months. The Company believes that the upside to this financial analysis is possible via:

- Further optimization work on the new flow sheet and restart plan, which could potentially reduce both capex and operating costs; and

- Including debt and equipment leases into the ultimate funding package to support the restart of its facilities; and

- Potential government grants and tax incentives.

The Company is already pursuing some of these options to further enhance the economics of the MagIron Project.

1.21 SALES AND MARKETING

1.21.1 Introduction

The steel industry is undergoing a structural transformation driven by decarbonization, corporate net-zero commitments, and a technological shift from traditional Blast Furnace/Basic Oxygen Furnace (BF-BOF) routes toward Direct Reduction – Electric Arc Furnace (DRI-EAF) method of steel production. This transition is reshaping global and regional iron ore markets, increasing demand for high-grade, low-impurity feedstocks, such as DR-grade pellets and Ore-Based Metallics (OBM), such as DRI, Hot Briquetted Iron (HBI), and pig iron, that enable lower-carbon steelmaking.

DR-grade pellets cannot be charged directly into an EAF. they must first be processed in a direct-reduction furnace (using natural gas or hydrogen) to produce DRI or HBI, which can then be melted in an EAF. As investment in new DRI capacity accelerates globally and in North America, the availability of suitable DR-grade pellet feed has become a critical bottleneck and a key value driver for upstream projects.

In parallel, United States trade policy, particularly the continuation and expansion of Section 232 tariffs and related import measures, is expected to reinforce the competitiveness of domestic steelmaking and raw material suppliers. These tariffs raise the landed cost of imported steel and iron units, making United States-sourced DR-grade pellets and OBMs more attractive to domestic DRI and EAF producers. Together with federal incentives, under the Inflation Reduction Act (IRA), the tariff regime creates a favorable commercial environment for United States projects, such as MagIron, which is positioned to supply low-carbon DR-grade feedstock to the expanding North American market.

1.21.2 Demand Trends

Global iron ore demand is being re-shaped by the steel industry’s transition toward lower-carbon production routes. While total crude steel output remains broadly stable, the mix of production technologies is changing rapidly, with growing adoption of DRI and EAF technologies. This transition is driving sustained demand for higher-quality iron units, particularly DR-grade pellets and OBMs, such as DRI, HBI, and pig iron.

1.21.2.1 Regional Production Mix

The global steel industry remains regionally differentiated. Asia, led by China, Japan, and South Korea, continues to rely primarily on the BF-BOF route, consuming large volumes of sinter fines and conventional BF pellets. By contrast, North America is dominated by EAF production, which now accounts for approximately 71% of total steel output and continues to expand. Europe and the Middle East and North Africa (MENA) regions are also transitioning rapidly, with numerous DRI-EAF projects under development to meet decarbonization targets and secure low-emission steel supply. These shifts are creating differentiated regional markets for iron ore products, with particularly strong demand growth for DR-grade pellets in EAF-intensive regions.

1.21.2.2 EAF and DRI Growth

The share of EAF-based steelmaking continues to increase globally, supported by decarbonization initiatives and lower capital intensity relative to BF-BOF plants. However, EAFs depend on high-quality metallic inputs – scrap alone cannot meet this need. DR-grade pellets are first processed in DR furnaces to produce DRI or HBI, which are then melted in EAFs. Global EAF steel production is expected to increase from around 28% of total output in 2022 to 36% by 2030 and 42% by 2040, implying a Compound Annual Growth Rate (CAGR) of approximately 3.7% through 2030 and around 3.1% thereafter. Growth is led by expansions in North America, Europe, and MENA. This growth in

EAF capacity will drive strong demand for DR-grade pellets, increasing from approximately 30 million tonnes in 2022 to 125 million tonnes by 2034, implying a 13% CAGR over this period.

1.21.2.3 High-grade Iron Ore and Pellet Demand

This technological transition is fueling a structural increase in demand for high-grade, low-impurity ores and DR-grade pellets, which improve furnace productivity and reduce energy consumption and CO_2 emissions. DR-grade pellets must meet strict chemical and physical specifications (typically >67% iron and <3.0% silicon dioxide (SiO_2) + aluminum oxide (Al_2O_3), limiting the number of qualified suppliers. Industry commentators, such as Fastmarkets, report a persistent premium for DR-grade pellets, depending on supply tightness and market cycle. This premium has average $60.8 per tonne over the past 10 years and reached $95 per tonne in 2022.

1.21.2.4 Ore-Based Metallics

As scrap quality and availability tighten, OBMs, such as DRI, HBI, and merchant pig iron, are increasingly used to supplement scrap in EAFs and produce higher-purity steels. Global OBM demand is projected to rise sharply over the next 10 years to 15 years, driven by low-carbon steel initiatives and the deployment of DRI plants.

1.21.2.5 Regional Dynamics and Outlook

In the United States and Canada, around 17 mtpa of new EAF capacity is under construction through 2028, including projects by major integrated and mini-mill producers. Notably, the Hyundai/POSCO project in Alabama will incorporate a DRI furnace alongside its EAF complex, signaling a broader domestic trend toward integrated DRI-EAF development.

In Europe, decarbonization programs are prompting the conversion of integrated BF sites into DRI-EAF operations, while MENA, with abundant natural gas and renewable potential, is emerging as a major hub for both conventional and hydrogen-based DRI exports.

In contrast, Asian producers are expected to maintain a predominantly BF-BOF mix for the foreseeable future, though pilot DRI projects are increasing.

Overall, global demand growth for DR-grade feedstocks and OBMs is expected to outpace new supply additions through at least the early-to-mid-2030s, creating sustained tightness and pricing support for high-grade producers, such as MagIron.

1.21.3 Supply Trends

The global iron ore supply base remains highly concentrated, with a small number of large producers in Australia and Brazil accounting for approximately 75% of seaborne trade. While these regions continue to dominate supply, most of their production is focused on BF-grade fines and pellets, with limited volumes of DR-grade material. As a result, the global availability of DR-grade iron ore and pellets is constrained and unlikely to expand rapidly.

Future supply will depend heavily on brownfield optimization, beneficiation upgrades, and selective greenfield developments targeting high-grade ores. However, environmental permitting requirements, long development lead times, and increasing capital costs make rapid supply growth challenging. Several producers are pursuing beneficiation and pelletizing upgrades to improve DR-grade output, while others are trialing hydrogen-based reduction processes to capture the emerging low-carbon market.

1.21.3.1 Industry Responsiveness

The mining industry's ability to respond to demand growth for DR-grade products is limited by geological, technical, and financial constraints. Lead times for new mines or pelletizing plants typically exceed five to seven years, implying that new DR-grade supply will lag behind accelerating demand. Consequently, existing producers and brownfield restarts are expected to play a key role in bridging short-term supply gaps.

These factors collectively suggest that the iron ore supply chain will remain structurally tight in the medium term, with DR-grade feedstocks commanding sustained premiums. This environment is favorable for near-term producers, such as MagIron, which can deliver qualified DR-grade products more quickly than new greenfield entrants.

1.21.4 Impact on Pricing

The confluence of rising demand for DR-grade pellets and limited near-term supply growth is expected to maintain strong pricing differentials between high-grade and standard iron ore products. DR-grade pellet premiums are expected to remain structurally elevated, reflecting their scarcity and essential role in decarbonized steelmaking. In parallel, prices for OBM, such as DRI, HBI, and pig iron, are anticipated to track global scrap and energy market dynamics, maintaining their position as critical inputs for EAF operations. As regional decarbonization policies expand, particularly in the United States and Europe, carbon-related pricing mechanisms may further enhance premiums for certified low-emission feedstocks.

1.21.5 MagIron's Position

MagIron is positioned to capitalize on the structural shift in steelmaking toward low-carbon production and the associated demand for DR-grade feedstocks. The Company's operations represent a brownfield restart, allowing it to return currently idled facilities to production quickly and at a reasonable additional capital cost. The Project benefits from approximately US$660 million of historical capital investment that has a replacement value of approximately US$1.3 billion to US$1.5 billion, which gives MagIron a capital cost and start up timeline advantage compared to new-build or other greenfield developments.