DANNEMORA FS

Executive Summary

Prepared for: Dannemora Iron AB

SLR Ref: 501.008621.00001
Version No: 1
14th December 2022

BASIS OF REPORT

This document has been prepared by SLR with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Dannemora Iron AB (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

CONTENTS

1.0 INTRODUCTION & PROJECT DESCRIPTION 1

2.0 PROJECT STATUS 4

3.0 REGULATORY & APPROVALS 5

4.0 FS TEAM AND COMPETENT/QUALIFIED PERSONS (CP/QP) 6

5.0 THE IRON ORE MARKET 7

5.1 Recent Iron Ore Price 7

6.0 DANNEMORA HIGH GRADE CONCENTRATE AND ITS MARKETS 8

7.0 THE GREEN SHIFT 10

7.1 Dannemora a Green Mine 10

7.2 All Electrical Mine Operation 11

8.0 GEOLOGY 13

8.1 Mineralisation 13

9.0 MINERAL RESOURCE ESTIMATE 15

10.0 ORE RESERVE ESTIMATE 17

11.0 MINING 18

11.1 Geotechnical 20

11.2 Water Management 21

12.0 ORE PROCESSING 25

13.0 INFRASTRUCTURE 28

14.0 ENVIRONMENTAL & SOCIAL 30

15.0 OPERATIONAL CONSIDERATIONS 31

16.0 COST ESTIMATION 33

16.1 CAPEX 33

16.2 OPEX 34

17.0 FINANCIAL EVALUATION 35

18.0 PROJECT IMPLEMENTATION PLAN 36

18.1 Strategy for the Project Implementation 36
18.2 Project Management Methods and Quality System Process 37
18.3 Project Implementation Schedule 38

19.0 CONCLUSIONS & RECOMMENDATIONS 39
19.1 Conclusions 39
19.2 Recommendations 40
19.3 Opportunities 41
19.4 Risks 42

20.0 EXPLORATION POTENTIAL 43

DOCUMENT REFERENCES

TABLES

Table 1: Comparison of Estimated Costs between BEV and Diesel Vehicles over LOM (once operational) ... 11

Table 2: Comparison of Estimated BEV Power Costs versus Diesel Consumption over LOM ... 12

Table 3: Mineral Resource Estimate for Dannemora Mine for 8th August 2022 compared to 31st December 2021 ... 15

Table 4: Probable Ore Reserves reported for Dannemora Mine (31st October 2022) ... 17

Table 5: Project Capital Costs ... 33

Table 6: Initial Project Capital Costs ... 33

Table 7: Other Project Capital Costs ... 33

Table 8: Project Operating Costs ... 34

FIGURES

Figure 1: Location of the Dannemora Site ... 1

Figure 2: Mining concession area (orange) and mine infrastructure land allocation (red) at Dannemora (Source: SGU, August 2013) ... 3

Figure 3: Location of existing mineralised bodies in relation to mine infrastructure (long-section) ... 14

Figure 4: Focus area orebodies within the FLAC3D model (grey = historically open stopes, ES = existing stopes, S# = planned stopes, yellow/beige = current infrastructure, green/teal = planned infrastructure) ... 21

Figure 5: Proposed water flowsheet during dewatering (Geosyntec Consulting, June 2022) ... 23

Figure 6: Proposed flowsheet for water management during operations ... 24

Figure 7: FS processing flowsheet including flash flotation in rougher circuit ... 27

Figure 8: Dannemora Mine Site ... 28

Figure 9: Dannemora Organogram ... 32

Figure 10: Annual after tax cashflow over the LOM ... 35

Figure 11: Project Implementation Planning Documents ... 36

Figure 12: The Project Management and the Quality System Process ... 37

Figure 13: Planning documents during FS ... 38

Disclaimer

This document was prepared by SLR Consulting Limited ("SLR") and contains the expressions of professional opinions of the authors based on (i) information available at the time of preparation, (ii) data supplied by Dannemora Iron AB ("DIAB / Dannemora") and others, and (iii) the assumptions, conditions, and qualifications set forth in this document. Much of the work carried out as part of this Feasibility Study (FS) is based on information/data, knowledge and inputs provided by key individuals (previously part of PFS team) who worked at Dannemora during the 2012-2015 period. These individuals will continue to provide inputs as the Project develops.

SLR has relied on the work of other consultants identified in this document without verifying the accuracy or completeness of that work including, without limitation, the Mineral Resource Estimate which was compiled under the supervision of Mr. Thomas Lindholm of GeoVista AB. In terms of processing, Bo Arvidson (PhD) of Arvidson Consulting was responsible for metallurgy and process flowsheet design, and the Dannemora team designed the process and plant which Mr. Chris Stinton of Zenito Ltd reviewed.

The quality of information, conclusions, and estimates contained herein are consistent with the stated levels of accuracy as well as the circumstances and constraints under which the mandate was performed. This report is intended to be used solely by Dannemora, subject to the terms and conditions of its contract with SLR. SLR has consented to Dannemora publishing this document. Except for the purposes legislated under the law, any use of this report by any third party is at that party's sole risk.

1.0 Introduction & Project Description

In May 2022, Dannemora Iron AB ("DIAB") commissioned SLR Consulting ("SLR") to undertake and complete a Feasibility Study[1] ("FS" or "Study") for the recommencement of mining at the Dannemora Mine ("Dannemora" or "Project"), located in eastern Sweden. The Dannemora Mine is located near Österbybruk, in the municipality of Östhammar, in Uppland County, some 105 km northeast of Stockholm (Figure 1).

An important part of the FS was to focus on the potential for the Project to reduce its carbon footprint by operating a 100 % electrical mining fleet.

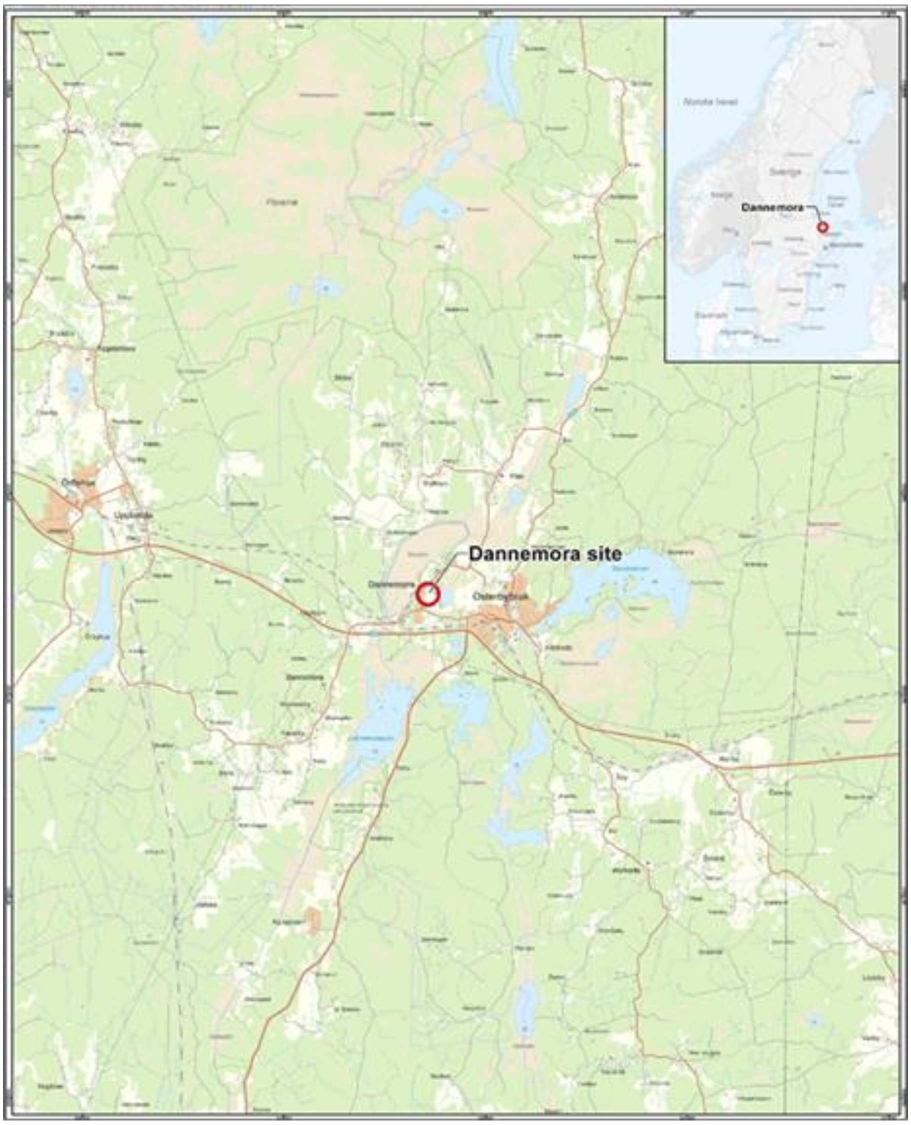

Figure 1:
Location of the Dannemora Site

---

[1] FS: A Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable). The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study (JORC 2012).

Dannemora Iron AB ("DIAB") was acquired by Grängesberg Exploration AB in August 2020. Grängesberg Exploration AB was subsequently acquired by Metallvärlden I Sverige AB in November 2020, and later changed its name to Grängesberg Exploration Holding AB ("GRANGEX"). In December 2020/January 2021, the new Grängesberg Exploration Holding AB raised MSEK 47 to restructure the business of the company and to exercise a study with the objective to restart the Dannemora Mine, as well as completing a Feasibility Study for the production of apatite from an old tailings facility in Grängesberg.

Mining in Dannemora has a long tradition and may have commenced as early as the 13th Century. Throughout its life, the mine was one of the most important employers in the area. The first concentrator at Dannemora was built in the beginning of the last century. During the last active period (2012 to 2015), when the mine was operated by Dannemora Magnetit AB (DMAB), the mine and plant provided employment for ca. 117 employees and ca. 110 contractors.

It is GRANGEX's intention to recommence mining at Dannemora using a sublevel open stoping mining method with backfill, and to utilise the backfill to provide stability to the underground workings. Pre-production works (including dewatering of the workings) are envisaged to take about 30 months, with a ramp-up to an average full production of about 3 million tonnes ("Mt") Run of Mine ("ROM") per year, equating to ca. 1.01 million DMT/yr (dry metric tonnes) of saleable Magnetite iron ore concentrate (ca. 68 % Fe), over a ca. 11 year life-of-mine ("LOM"). The LOM is based on a current Ore Reserve Estimate of **ca. 31.11 Mt @ 32.10% Fe, 2.02% Mn and 0.24% S** as of 31st October 2022, which follows the guidelines of the JORC Code[2], 2012 edition. Also included in the ore reserve estimate is ca. 3.0 Mt of tailings @ 22.5% Fe, 2.50% Mn and 0.19% S. The tailings included in the ore reserve estimate are based on tailings historically placed as backfill in a number of the stopes in the Konstäng and Kruthus orebodies, in the south of the Dannemora Mine.

Subject to access agreements and the necessary approvals, Dannemora has access to a rail line, with connection to the Port of Oxelösund ca. 220 km to the south.

Re-establishing production will require about a 30 month capital programme, including dewatering of the mine, refurbishment of the existing ore hoisting mechanism from underground, implementation of a new dry and wet process to concentrate the ore, and refurbishment of the material handling system at the port. The recommencement of mining at Dannemora looks to minimise environmental impacts by making use of the existing infrastructure available to the Project.

The Dannemora Mine is covered by a valid exploitation concession/permit titled 'Dannemora' (Figure 2), which allows for the extraction of iron, lead, zinc, copper, gold, silver and manganese. The concession was granted in 2007 and remains valid for 25 years (until 1st January 2032), with the possibility for extension if required for the duration of production under the condition of approval by the mining inspectorate. If mining activities are still on-going at the time the permit expires, it can be extended in 10-year periods, without the need for a new application.

[2] JORC: The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code') is a professional code of practice that sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves. The JORC Code provides a mandatory system for the classification of minerals Exploration Results, Mineral Resources and Ore Reserves according to the levels of confidence in geological knowledge and technical and economic considerations in Public Reports.

Public Reports prepared in accordance with the JORC Code are reports prepared for the purpose of informing investors or potential investors and their advisors. They include, but are not limited to, annual and quarterly company reports, press releases, information memoranda, technical papers, website postings and public presentations of Exploration Results, Mineral Resources and Ore Reserves estimates.

The JORC Committee is a member of and works closely with CRIRSCO, the Committee for Mineral Reserves International Reporting Standards to ensure international consistency in the development of reporting standards and the promotion of best practice in implementation of the relevant standards and codes. Any Public Reporting of Exploration Results, Mineral Resources or Ore Reserves must be based on and fairly reflect documentation prepared by a Competent Person in accordance with the JORC Code.

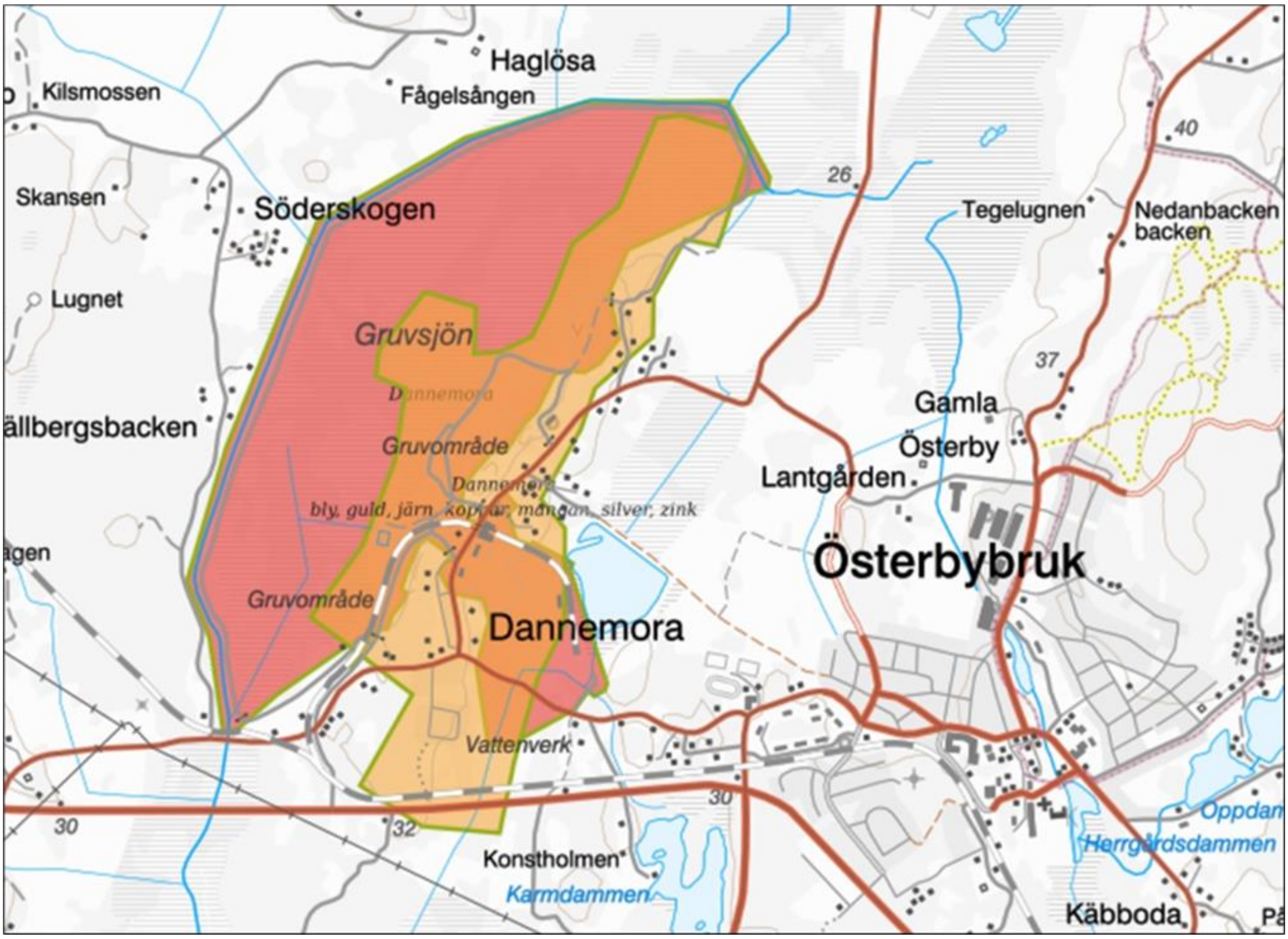

Figure 2:
Mining concession area (orange) and mine infrastructure land allocation (red) at Dannemora (Source: SGU, August 2013)

2.0 Project Status

Based on the successful outcome of the Scoping Study completed by Golder in May 2021, and the PFS also completed by Golder in February 2022, DIAB commissioned SLR[3] to undertake a FS for the Dannemora Project as the next step in the process of reopening the Dannemora Mine. The FS has involved completing the following key tasks:

- Updating the Mineral Resource Estimate for the Project (in accordance with JORC) based on sampling of core not previously sampled following a reduction in the proposed cut-off grade from 20% to 15% Fe.
- Including the recovery of historical tailings (from 2012 - 2015) from underground stopes and their inclusion in the Mineral Resource Estimate and Ore Reserves.
- Planning for a fully integrated electrical underground fleet of mobile mining equipment, including drill rigs, rock bolters, trucks and load-haul-dump machines (LHDs) to reduce the CO_2 footprint of the mining operation.
- Using the mine plan from the PFS as a basis of an updated Life of Mine (LOM) plan, with areas previously planned and/or development being utilised to reduce initial start-up Capex.
- Building on the metallurgical testwork completed for the Scoping Study and the PFS, as well as further complimentary work in the FS test programme, to confirm that the Fe-concentrate product produced would be of a quality that meets the needs of the steel producers now focusing on and investing in "Green Steel". The FS built on the metallurgical testwork completed during the Scoping Study and PFS, as well as the further work in the FS programme, which indicated that there is a good opportunity to produce a Fe-concentrate grade of around 68% Fe, which would further enhance the viability and sustainability of the Project.
- Completion of key studies and activities enabled the submission of an Environmental Permit Application including an Environmental Impact Assessment ("EIA") to the Environmental Court in June 2022, including work on developing a site Water Balance and Water Management Plan for the Project.
- Developing a Cashflow Model with an accuracy of +/- 10 - 15% on Opex and Capex inputs.

[3] Key members of the SLR team for the FS were part of the same team that executed the Scoping Study and the Preliminary Feasibility Study for the project.

3.0 Regulatory & Approvals

The Swedish Environmental Code (SFS 1998:808) provides the legal environmental framework for environmental matters. The first step in the Swedish permitting process, consultation with the County Administration Board ("CAB"), the Local Environmental Department ("LED") and other stakeholders, was formally initiated in October 2021.

Consultation was also carried out on 2nd February 2022 with the CAB and LED, and on 16th and 17th March 2022 with local stakeholders. Prior to the consultation, Dannemora prepared a consultation document that covered the planned locations for the activities, the extent of the planned operations, preliminary designs, and foreseen environmental impacts from activities *("Dannemora Samrådshandling"* 2021-12-06").

Consultation was also carried out with other national authorities, municipalities, environmental organisations such as Non-Governmental Organisations ("NGOs"). Public consultation letters were sent out on 7th March 2022. The purpose of the consultation was to obtain viewpoints to consider in the Environmental Impact Assessment ("EIA") work. Guidance from CAB was also considered in planning and executing the EIA.

After finalising the Environmental Impact Assessment Report (EIAR) and the technical description of the activities and facilities, a formal permit application (legal) was prepared. All reports, drawings and documents were submitted to the permitting authority (Environmental Court in Nacka) on 29th June 2022. The EIAR is a statement of the effects, if any, which the proposed Project, if carried out, would have on the environment.

The Official Notification of the application was made on 2nd November 2022 by the Environmental Court in Nacka, and the final date for receipt of comments/observations from stakeholders was set as 12th December 2022.

4.0 FS Team and Competent/Qualified Persons (CP/QP)

The FS has been compiled by SLR using client-supplied data and information. As such, the report draws upon information presented in previous reports, by external parties. Information has been utilised by the project team, comprising predominantly Dannemora technical staff, with some input from specialist sub-contractors.

The Mineral Resource and Ore Reserve in this Feasibility Study have been estimated in compliance with the principles as set out in JORC-2012. According to JORC, a competent person ("CP") must have a minimum of five years relevant experience in the style of mineralisation or type of deposit under consideration and in the activity which that person is undertaking. The CP must also be a Member or Fellow of the Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a "Recognised Professional Organisation ("RPO")". Any Public Reporting of Exploration Results, Mineral Resources or Ore Reserves must be based on, and fairly reflect documentation prepared by a Competent Person in accordance with the JORC Code.

Competent Person for Mineral Resources: Mr. Thomas Lindholm, GeoVista AB, who is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM), is the Competent Person responsible for the Mineral Resource estimate for Dannemora based on his training and experience in exploration, mining and mineral resource estimation of iron ore, base and precious metals. The Mineral Resources are reported following the guidelines of the JORC Code, 2012 edition. Thomas is regularly involved in Resource Estimation for Scoping Studies through to full Feasibility Study, site supervision and exploration drill programme design.

Competent Person for Ore Reserves: Mr. Bryan Pullman (P.Eng.), Principal Mining Engineer with SLR Consulting UK Ltd, is the Competent Person as defined by JORC (2012) responsible for the estimation of the Ore Reserves following the guidelines of the JORC Code, 2012 edition.

Competent Person for Mineral Processing: Mr. Bo Arvidson (PhD) of Bo Arvidson Consulting LLC, is the Competent Person defined under JORC (2012) based on being a Qualified Person (QP) under NI 43-101, responsible for metallurgical test work and process flowsheet design.

Competent Person for Process Plant Engineering: Mr. Chris Stinton (C.Eng.), Zenito, is the Competent Person for the process plant engineering.

5.0 The Iron Ore Market

The global steel industry is by far the single largest driver of global iron ore demand. Crude steel production is partly based on virgin iron units (iron ore products), and partly recycled iron and steel units (scrap).

The supply of iron ore products is dominated by the “big four” iron ore companies of the world. They are, in size order: (1) Vale (Brazil), (2) BHP (Australia), (3) Rio Tinto (UK) and (4) FMG (Australia), and together they account for about 69% of the global seaborne iron ore trade.

DIAB have commissioned RMG Consulting to carry out a study on ‘The market for high grade green iron ore in Europe’. The findings of their report are summarised below.

Steel is a fundamental building block for all societies in the world, with the demand for steel being particularly strong in early industrialization of a country. A growing global population, an increased standard of living and the green energy transition, will guarantee a continued strong demand for steel.

National undertakings together with many steel companies’ voluntary commitments to meet the demands for a reduction of CO_2 emissions have created a strong push towards the establishment of green steel production technologies and a reduction in CO_2 emissions from existing blast furnaces. Also, important steel customers such as the auto industry, have made similar commitments which will increase the demand for green steel.

In the short- to mid-term the only viable technology for green steel production is direct reduction using hydrogen gas. This will increase demand for DR-grade pellets and high-grade iron ores from plants using this new technology. In 2030 the demand for DR pellets will be in the order of magnitude of 50 Mt in the EU. Assuming that the existing pellet producers of LKAB and Tata Ijmuiden will produce as much DR pellets as theoretically possible, there will be a gap between supply and demand in the EU of more than 10 Mt (perhaps as much as 20 Mt) by 2030.

Iron ores containing between 65 % and 68.5 % Fe are highly sought-after as feed material to make high-grade pellets suitable for DR iron-making processes. Such concentrates are often based on magnetite ores like Dannemora.

Iron ore prices (62% Fe) have swung from below USD 60 per DMT to over USD 200 per DMT during the past five years. There is a higher price paid for high grade Fe concentrates suitable for DR pellet production. The difference between these two prices has varied between 5-40 USD per DMT in the past 5 years.

The market for high grade ores will be affected in two ways by increasing demand: (i) more iron ore of high quality will need to be produced, and (ii) most probably there will be a deficit of high-grade iron ores. Both of these factors are expected to increase the price of high-grade ores.

The high quality Dannemora iron ore is anticipated to command a premium over high grade (65 %) iron ores currently available on the market today, because of a number of factors, including fossil fuel free mine production, magnetite ore, a very high Fe-level, low shipping costs and the growing market gap for high grade iron ore in Europe.

5.1 Recent Iron Ore Price

During the past two years, the steel industry has somewhat slowed down in China and the overall demand for iron ore has dropped, largely due to the effects of the pandemic. The prices for 62% and 65% Fe products have fallen from a level of USD 230 per DMT and USD 255 per DMT in June 2021, to a level of USD 95 per DMT and USD 110 per DMT respectively in November 2022. The average prices have, over the last 5-year period, been at the level of USD 109 per DMT and USD 127 per DMT respectively, with an average Fe premium of USD 6 per Fe-unit for every Fe-unit above 62% (according to Platts IODEX).

6.0 Dannemora High Grade Concentrate and its Markets

There are primarily two different geographical market areas that are of interest to, and with an interest in, the Dannemora high grade concentrate:

- The European Steel Industry due to freight cost advantages and low carbon footprint; and
- Merchant pelletising companies in the MENA[4] region, due to the very high grade of the concentrate.

The European Steel Industry, with very large companies like Tata Steel, Thyssen Krupp and Arcelor Mittal, are increasingly focusing on finding ways to reduce their carbon footprint to face the growing demand for "green steel", primarily from the car industry. "Green steel" requires the introduction of more environmentally friendly steel making technology, e.g., DR/EAF[5] instead of BF/BoF[6], which requires, among other things, as high-grade an iron ore as possible. It also requires as low a carbon footprint as possible throughout the supply chain, which is one good reason for local or regional sourcing instead of sourcing from overseas.

In the MENA region there are a number of merchant DR[7] pellet producers currently sourcing their feedstock to a very large degree from Brazil and Canada. European supply, which is within shorter shipping distances is currently quite limited and pellet producers like e.g., Bahrain Steel (Bahrain) and Tosyali (Algeria), are actively looking for additional supply from current and future producers of high-grade concentrate from more nearby locations than South- and North America, e.g., Scandinavian iron ore producers.

With a planned average annual output of about ca. 1.01 million DMT/yr of product based on the LOM schedule, the Dannemora concentrate is expected to be in greater demand than what the company will be able to deliver. Potential customers, all of which Dannemora representatives have been in contact with, are Tata Steel, Arcelor Mittal, Thyssen Krupp, Saltzgitter, Rogesa, Voestalpine, Bahrain Steel and Tosyali.

However, changing market dynamics, with a higher appreciation of products contributing to lowering of CO_2 emissions, may result in additional premiums for such products. Taking these conditions into account it could be assumed that these high-grade products are and will likely continue to be for quite some time, in short supply, and therefore an increase in premiums is likely.

The pricing methodology prevailing on the European market as well as in the MENA region is based on a netback calculation where the benchmark is FOB[8] Tubarao (Brazil). To determine the FOB price Tubarao, the CFR[9] price China is reduced with the Baltic Exchange's freight rate for a capsize vessel from Tubarao to Qingdao (C3). For shipments to into Europe and MENA the freight cost difference between shipments from Tubarao and port of discharge (C2 for ARAG-area, i.e., Amsterdam-Rotterdam-Antwerp-Ghent) and actual port of loading to port of discharge, is used to calculate price neutrality for the buyer.

Assuming a base price CFR China of USD 125 per DMT for a 65% Fe product, adding another 3 Fe-units at USD 6 per Fe-unit, plus adding a modest quality premium of USD 3 per DMT, and subtracting the long-term estimate for shipping costs from Brazil of about 19 USD per DMT, and adding a freight cost advantage versus competitors from Brazil of USD 2 per DMT (USD 10 vs USD 8) the realized FOB price in the Port of Oxelösund will be USD 129 per DMT.

---

[4] MENA = Middle East and North Africa.

[5] DR/EAF = Direct Reduction/Electric Arc Furnace.

[6] BF/BoF = Blast Furnace/Basic Oxygen Furnace.

[7] DR = iron ore pellet that has a typical Fe content above 66%.

[8] FOB = Free on Board ore costs.

[9] CFR = Cost and freight.

7.0 The Green Shift

In the last few years politicians and business leaders around the world have begun to realise the need for, and value of, reducing the carbon footprint from people's everyday life. Production processes are being developed where the use of fossil fuels is being reduced or entirely replaced. Recycling and reuse of products have gained more attention and the steel industry is no exception.

The steel industry is a major contributor to CO_2 emissions in Europe, representing 25% of the industrial emissions and 7% of total on an annual basis. The industry and its customers have during the last few years started focusing on reducing its carbon footprint throughout the entire value-chain, from mining through to manufacturing and use of its end products. Car manufacturers not only make cars that will run on fossil free fuel, but they also demand that the steel (and other products) they buy is also as carbon free as possible. This has resulted in the inception of some recent large projects in Sweden alone; Hybrit (a collaboration between LKAB, SSAB and Vattenfall) and H2 Green Steel, both projects with ambitions to become fossil free steel producers. Other steel companies in Europe, e.g., Tata Steel in Ijmuiden, Netherlands and Voestalpine in Austria, and around the world, are in different phases of planning similar changes to their future steel production processes.

This change is expected to result in an increase in demand for high grade raw materials. The major iron ore producers in Australia all currently supply relatively low-grade products of around 62% Fe, while the new production processes will require Fe-grades of above 66%. This puts producers of high-grade ore in a favourable position when negotiating prices with their customers.

Dannemora has the opportunity to produce high grade concentrate of the right quality to meet the expectations and increased demand for such a product.

7.1 Dannemora a Green Mine

The recommencement of mining at the Dannemora Mine is being designed to ensure that the extraction of iron ore is maximised through the use of Green Technology. As such, this will benefit both the local community and the State in an environmentally sustainable way, primarily through reduction of its carbon footprint by means of electrification of the mining fleet and transportation to port.

Sustainability is a term that has become widely used in recent decades and is often used to mean different things by different people. In 1987, the United Nations defined sustainability as *"meeting the needs of the present without compromising the ability of future generations to meet their own needs".*

The International Council on Mining and Metals (ICMM) is an international organization dedicated to a safe, fair and sustainable mining and metals industry. The Council is made up of 26 leading mining and metals companies and 35 regional and commodities associations. The objective of the Council is to strengthen environmental and social performance within the industry and enhance mining's contribution to society.

The ICMM has produced a Sustainable Development Framework with the most recent version being issued in 2015. This framework is made up of ten principles that represent best practice for sustainability in the mining industry. Dannemora is committed to align to the ten principles as set out by the ICMM.

Mining is an energy intensive industry and in particular mining underground where dewatering and ventilation is required. As such, recommencement at Dannemora will employ CO_2-free production technologies. The primary way in which this will be achieved is through the use of 100 % electric powered mining equipment. This not only reduces reliance on fossil fuels, but also reduces emissions and the resulting energy costs associated with ventilation of the diesel exhaust fumes. Dannemora proposes to incorporate the following additional items into the design of the overall Project to meet its commitment to reducing reliance on fossil fuels:

- Complete mining fleet as well as other vehicles and equipment to be 100% electrical;

- HVO[10] or Hydrogen driven train transport to the port; and
- Electrification of harbour loading procedures.

7.2 All Electrical Mine Operation

During the construction phase, the Dannemora Mine will utilise electrical equipment as much as technically and commercially possible. In the operational phase the underground operation will be 100% electrical, including all contractors. The transition to electrical equipment is a process that is now ongoing globally. At present, electrical equipment is more expensive than standard diesel equipment, especially when battery costs are considered. Going forward, costs are expected to change in favour of electrical equipment. Current costs are used in the economic analysis, with any future reductions in price considered as an upside.

Table 1 presents a comparison of the estimated total investment cost for underground diesel and battery electric vehicles ("BEV"), including the leasing of machines (both BEV and diesel), as well as the rental cost for batteries for the BEV over the LOM (but excluding the cost of energy/electricity and diesel) based on cost estimates supplied by manufacturers/suppliers; once the mine is fully operational. Despite the negative cost differential of ca. MUSD 95 over the LOM between the cost of operating BEV compared to diesel machines underground, the main carbon emission from the underground operations will come from the blasting of ore and waste rock.

Table 1:
Comparison of Estimated Costs between BEV and Diesel Vehicles over LOM (once operational)

Category	BEV (USD$)	Diesel (USD$)
Initial CAPEX (inc. leasing & battery rental)	5,780,429	3,592,857
Sustaining CAPEX (inc. leasing & battery rental)	10,846,251	3,564,286
OPEX (inc. leasing & battery rental)	141,464,926	55,983,125
Total	**158,091,606**	**63,140,268**
Difference		**-94,951,338**

In addition, Table 2 provides a cost comparison between the estimated amount of electricity and diesel required to operate an underground electric and diesel fleet based on cost estimates supplied by suppliers. Also provided is a cost comparison of the amount of energy/electricity required to operate the ventilation system, dependent on whether the underground mining fleet is powered by electricity or diesel. As compensation for the estimated total investment cost (LOM) presented in Table 1, a saving of almost MUSD 50 can be achieved by using BEV over diesel powered vehicles in terms of 'fuel/energy' consumed over the LOM.

Despite the negative cost differential of ca. MUSD 45 (USD 94,951,338 - USD 50,205,556) over the LOM when comparing the cost of running an underground mining fleet to a diesel fleet, the estimated reduction in CO_2 emissions on a yearly basis has been estimated to be ca. 5,490 t/yr, or ca. 60,391 t over the LOM. By reducing the LOM carbon footprint in this way, Dannemora is demonstrating its commitment to operating a Green Mine.

[10] HVO = Hydrotreated vegetable oil fuel.

Table 2:
Comparison of Estimated BEV Power Costs versus Diesel Consumption over LOM

Category	(USD$)
Cost of BEV Power	6,671,318
Cost of Diesel	53,652,500
Difference	**-46,981,182**
Cost of Ventilation with BEV	4,936,251
Cost of Ventilation with Diesel	8,160,625
Difference	**-3,224,374**
Overall Total Difference	**-50,205,556**

8.0 Geology

The Dannemora deposit is contained within the regional host rocks of the Leptite Formation, an assemblage of Svecofennian (of Lower Proterozoic age ca. 1.8 to 1.9 Ga) marbles, metavolcanics and subsidiary metasediments.

The principal units of the Leptite Formation are steeply dipping along the limbs of northeast-trending (ca. 030° NE) isoclinal fold structures, and occur between large granitoid intrusive bodies. The lithologies have undergone varying degrees of metamorphism related to both regional and local thermal alteration activity.

In the Dannemora Mine area, the metavolcanic and metasedimentary rocks are shaped into two parallel synclines separated by an isoclinal anticline which together plunge gently to the northeast. The principal mineralisation is confined to the easternmost syncline, with exploration to date only identifying smaller bodies associated with the westernmost structure.

8.1 Mineralisation

The magnetite mineralisation is mostly restricted to the upper unit of the upper formation at Dannemora, and is normally strata bound within dolomitic units.

Previous exploration work has identified about 25 individual mineralised bodies situated along a 3 km strike length of the syncline and surrounding structures at varying depths from surface. The bodies occur within a ca. 400 - 800 m wide stratigraphic thickness and display a thinning and thickening, which is commensurate with their positions relative to the primary structures, i.e., thinning and fragmenting within the limbs of the syncline and thickening towards the keel of the Dannemora Syncline. The limbs dip at ca. 85° near surface and shallow to ca. 60° at the 350 m level of the mine. The location of the mineralised bodies in long-section in relation to the main mine infrastructure is shown in Figure 3.

Based on previous mineralogy and average compositional analysis, the mineralisation has been commonly categorised as a manganese-rich skarn iron ore (with an iron content of 30 to 50%, and a manganese content of 1 to 6%), and a manganese-poor skarn iron ore (with an iron content of 30 to 50% and a manganese content of 0.2 to 1%).

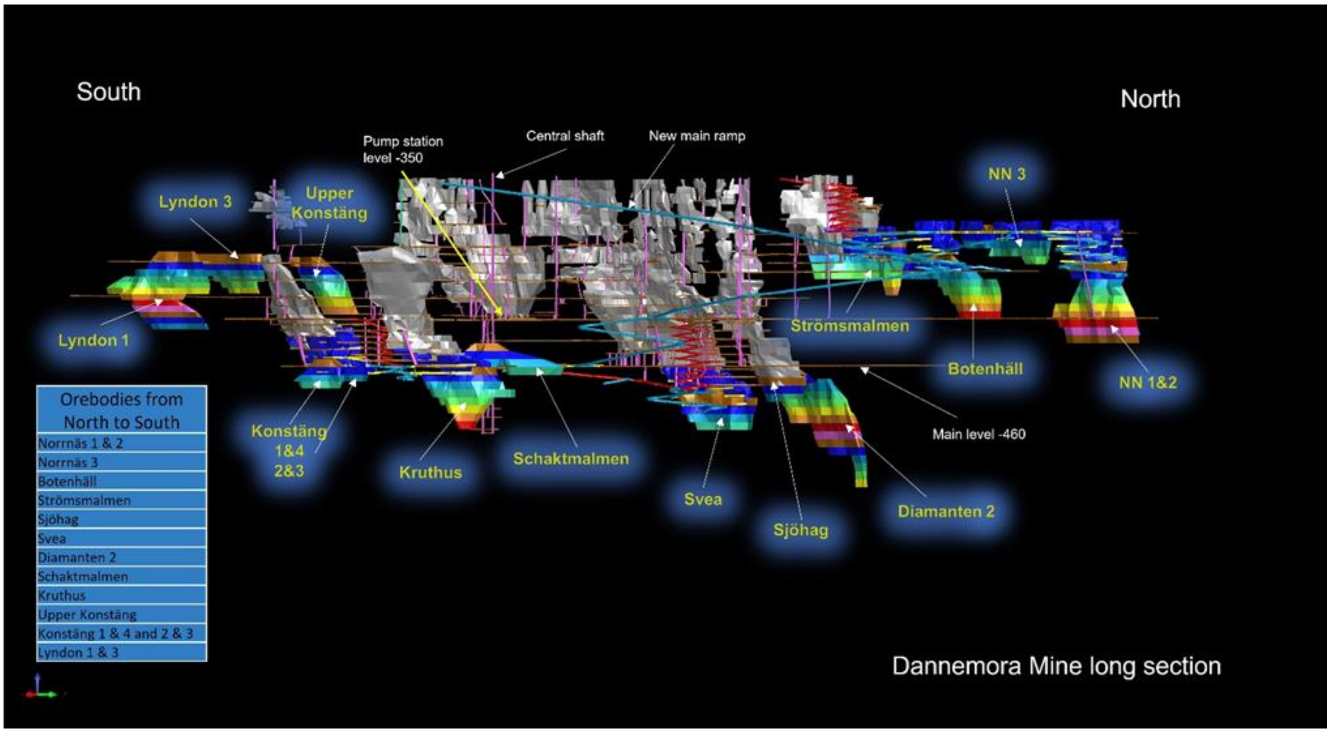

Figure 3:
Location of existing mineralised bodies in relation to mine infrastructure (long-section)

9.0 Mineral Resource Estimate[11]

The Mineral Resource Estimate produced for inclusion in the FS is compliant with the principles as set out in JORC-2012. It has been compiled under the supervision of Mr. Thomas Lindholm, GeoVista AB, who is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM), and a Competent Person (CP) qualified to report on mineral resources, based on his training and experience in exploration, mining and mineral resource estimation of iron ore, base and precious metals. The statement on Mineral Resources is supported by a completed Table 1, as required by JORC-2012.

Table 3 presents a summary of the Iron Ore Resources for Dannemora Mine as of 8th August 2022 compared to 31st December 2021.

Table 3:
Mineral Resource Estimate for Dannemora Mine for 8th August 2022 compared to 31st December 2021

Category	2022				2021			
	Tonnes	Fe%	Mn%	S%	Tonnes	Fe%	Mn%	S%
Measured	17,319,000	37.49	1.90	0.25	16,733,000	37.87	1.90	0.30
Indicated (In Situ)	11,882,000	34.66	2.20	0.27	11,454,000	34.58	2.20	0.30
Indicated - Tailings	3,000,000	22.50	2.50	0.19				
Total Measured + Indicated	**32,201,000**	**34.91**	**2.06**	**0.25**	**28,187,000**	**36.53**	**2.00**	**0.30**
Inferred (In Situ)	5,948,000	33.33	2.27	0.15	5,823,000	31.90	2.50	0.19
Inferred (Tailings)					1,700,000	21.00	2.50	0.19
Total Inferred	5,948,000	33.33	2.27	0.15	7,523,000	29.44	2.50	0.19

The principal difference between the 2021 and 2022 Mineral Resource Estimates is the addition of 150 recently assayed samples, which have added information where the grades had either been estimated as 0%, thus diluting the overall grade; or not been included in the wireframing process, thereby losing tonnage.

In addition, the tailings stored underground has been re-classified from Inferred to Indicated based on:

- Metallurgical testwork that demonstrates that a concentrate with approximately 70% Fe can be produced, using the same process as for the ROM ore; and
- Detailed mine planning showing that ca. 3 Mt of tailings can be recovered at a rate of ca. 300,000 t/yr with low developments costs.

In summary, the **Total Measured + Indicated Mineral Resource Estimate** for the Dannemora Project as of **8th August 2022** is estimated to be **32,201,000 t @ 34.91% Fe, 2.06% Mn and 0.25% S** (using a cut-off of 15% Fe).

[11] As defined under JORC, a 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

10.0 Ore Reserve Estimate[12]

As demonstrated in the Section Mining below, the Mineral Resource Estimate presented in Table 3 has been subject to detailed mine planning, including the consideration of expected or actual Modifying Factors such as, waste inclusions (dilution), and planned and operational ore losses. The resulting tonnage is therefore considered to be a Probable Ore Reserve. The Estimated **Probable Ore Reserve** for the Dannemora Mine, on **31st October 2022**, is estimated to be **31.11 Mt @ 32.10% Fe, 2.02% Mn and 0.24% S**, as shown in Table 4. Also included in the ore reserve estimate is ca. 3.0 Mt of tailings @ 22.5% Fe, 2.50% Mn and 0.19% S. The tailings included in the ore reserve estimate are based on tailings historically placed as backfill in a number of the stopes in the Konstäng and Kruthus orebodies, in the south of the Dannemora Mine.

Table 4:
Probable Ore Reserves reported for Dannemora Mine (31st October 2022)

All Orebodies	Diluted tonnes (kt)	Diluted Fe-grade (wt%)	Mn-grade (wt%)	S-grade (wt%)
Total	31,110,000	32.10	2.02	0.24

The estimate has been compiled under the supervision of Mr. Bryan Pullman (P.Eng.), SLR, who is a member of the Institute of Materials, Minerals and Mining (IOM3), United Kingdom, and a member of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), and a Competent Person (CP) qualified to report on ore reserves, based on his training and experience in mining and ore reserve estimation of iron ore, base and precious metals.

[12] As defined under JORC, an 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.

11.0 Mining

As part of the proposed recommencement of mining activities at the Dannemora Mine, a comprehensive development and mining plan has been developed as part of the FS.

Before the commencement of any mining, the mine will need to be dewatered. The average inflow of water into the mine during operation is estimated to be ca. 864 m^3/ day. Dewatering will be followed by the excavation of caverns for the underground crusher and associated facilities, the raise-boring of ore passes from the main level (460 m), and the commissioning of the existing Central Shaft hoisting system.

The current mining plan has been developed based on work carried out for the PFS. The plan covers the development of ramps and drifting in ore, in addition to the need for investment in the form of shafts and drifts in waste to provide for necessary ventilation.

To reach an average production rate of ca. 3 Mt/yr in a cost efficient and environmentally acceptable manner, revisions to the ore/waste transport system underground and on surface have been undertaken. These include the service ramps to the underground crusher and hoisting area as well as to open stopes for dumping waste. On surface, four previously worked out stopes near the surface will be used for backfilling via conveyer from the plant.

During the first year of mining, development of waste drifts and shafts will be prioritised. As a result, the production of iron ore during Year 1 (seven months) will be limited to ca. 1.5 Mt, before ramping up to ca. 2.7 Mt in Calendar Year 2.

Additional underground capital development will comprise access development, and sublevel caving (SLC) production drives in preparation for the recommencement of mine production, with development waste being dumped into old stopes mostly in the northern part of the mine.

The means of transport underground will differ from previous when production recommences. Electric mine trucks and electric loaders will be used to transport ore to underground ore passes. They will feed an underground crusher on the -460 m level, from which ore will be hoisted to the surface via the Central Shaft hoisting system by skip.

There are ore zones in both the Northern and Southern areas of the mine which are partially developed, and can be readily accessed following the recommencement of mining to achieve an average target production rate of ca. 3 Mt/yr. Some stopes are already opened, the production in these areas can begin immediately after the dewatering of the mine is completed.

To minimise environmental impact and provide support in mined out areas, all future tailings produced will be backfilled in previously worked out stopes underground.

In general, the strength of the rock mass is good, with UCS[13] values in many areas around 200 mPa, and RQDs[14] of typically between 70 to 90. This will enable the use of a combination of 50 mm fibre-reinforced shotcrete or wire mesh in the back, and systematic bolting at 1.5 m centres; with 2.7 m long steel bolts. In areas with very good rock conditions, systematic bolting will not be necessary, and support will be by a combination of wire mesh and selective spot bolting. Using wire mesh instead of shotcrete will make it possible to proceed with drifting immediately after installing the mesh. This process is more time efficient and is estimated to save up to three hours per round.

In areas close to larger faults / fracture zones, it will be sufficient to install a combination of rock bolts and shotcrete.

[13] UCS = Uniaxial Compressive Strength

[14] RQD = Rock Quality Designation

Since production last ceased in 2015, no deformation or rock falls have been observed in the access ramps, ore drives or in the hangingwall.

The historic ventilation system comprised four ventilation shafts, and two declines with a capacity of 260 m^3/s. This is considered sufficient for future planned operations. During future production, only BEV vehicles will be used in the mine. This will reduce demand on the ventilation system, i.e. the number of ventilation fans and the running time for the fans. A control system will help to decrease the costs for mine ventilation by only sending air to the areas where it is needed, rather than using the ventilation fans all day long. Table 2 above presents the potential cost saving when using BEVs compared to diesel powered vehicles underground.

Ore production, including development drifts in ore, will be undertaken by the company's own staff, whilst development in waste will be undertaken by contractors.

Northern Area - Development

Existing development will allow access to ca. 800,000 t of inventory ore available for start-up production in the Northern Area of the mine (Figure 3).

Norrnäs 1 & 2 orebodies will require ramp development from level -249 m to sublevels -253 m and -272 m, in 280 m of waste. Each ramp will be driven past each sublevel drift by at least 15 m, so as not to disturb the development of the production drift on the sublevel when the ramp is continued downwards to the next sublevel. This will also benefit the stability of the entrance to the stopes from the production drift.

Sublevel -143 m in Norrnäs 3 is ready for longhole drilling, with an estimated inventory of ca. 96,000 t of ore available. The ore drive on sublevel -160 m must be extended by ca. 120 m, which is planned to be done in Year 1. Approximately 344,000 t of ore will be available from sublevel -160 m in Year 1.

Sublevels at -215 m and -235 m in Botenhäll are developed. Since the volumes of potential recoverable ore has increased in Botenhäll and Strömsmalmen due to recent sampling of historical core, the two orebodies can now be connected, allowing Strömsmalmen to be developed and mined from Botenhäll. Sublevel -196 m which is already developed needs further development since the position and volume of the orebody has changed following the recent sampling of historical core. While production in Strömsmalmen is planned to start in Year 2, ca. 269,000 t of ore are planned to be mined from Botenhäll sublevel -196 m in Year 1.

Southern Area and Svea - Development

The mining at Svea can be started as soon as the drifts have been inspected and any remediation work completed. A ramp down to the next sublevel will be prioritised in order to develop and maintain a reasonable rate of production. Since the orebodies of Svea, Konstäng and Kruthus (Figure 3) narrow with depth, it will be important to start the development of a H-ramp towards Diamanten 2 (D2) as soon as the dewatering programme permits. This will be done in connection with the development of a cross-ramp (directly opposite the portal to the H-ramp towards D2), as well as the development of a ramp down towards KH sublevel - 495 m, and the development of drifts to KH sublevel -495 m and KÄ sublevel -495 m. This will provide the required production on at least four fronts. In order to ventilate D2 correctly, ventilation raises next to the orebody will be developed at an early stage.

The exploration drifts from the H-ramp D2 need to be developed in connection with the development of the H-ramp. If the exploration drifts are postponed, there will be disruption to the production of ore from D2 and to the installation of infrastructure in the H-ramp (electricity, water etc.). It will be advantageous to start development of the drift to D2 as soon as the dewatering permits (i.e., pumping of water from Svea). This will eliminate disturbance to the intersection of D2 crosscut when production starts in Svea. Waste rock produced can be transported to and dumped in nearby stopes, close to the -460 m main level.

It is projected that the following electrified mining equipment will be required for the recommencement of mining activities at Dannemora: 2 drilling rigs for drifting, 3 longhole rigs, 5 loaders, 6 trucks (depending on size), 2 bolters, 2 scalers and 3 blasting support vehicles, plus ancillary support vehicles.

The Dannemora mine will only use BEVs (battery electric vehicles). This will be important in reaching Dannemora's climate goals and reducing the mine´s energy costs; in particular the costs for ventilation.

11.1 Geotechnical

Geotechnical analyses in support of mining the Dannemora orebodies using available site characterisation data was undertaken as part of this study. Using data supplied by DIAB and that sourced by SLR as part of this study, a geotechnical model composed of the following inputs was analysed; geological, rock mass, structural, hydrogeological, and geotechnical domaining. The geotechnical model is the basis of geotechnical analysis and mine design.

Stability Analyses and Support Design

The following conclusions are drawn from the stability analyses and support design:

- Historical stopes are stable according to Dannemora staff, even though they plot in the "unstable" region of the empirical stope stability charts. Planned stope geometries in the current mine plan also plot in the "unstable" region of the empirical charts. The planned stopes are generally smaller (HRs) and have commensurate or higher Stability Numbers (N) than the historically stable stopes.
    - Whilst efforts have been made to improve the rock mass values attributed to each orebody, it is possible that they are still underestimated. Additionally, the historical stress values could be producing overly adverse stress inputs for the empirical stope stability calculations.
- The Diamanten 2 (45°), Schaktmalmen and Svea orebodies are the most likely of the orebodies to suffer instabilities due to their increased depth (Svea) and lower dipping hangingwalls (Diamanten 2 (45°), and Schaktmalmen). Botenhäll, Sjöhag, and Upper Konstäng orebody hangingwalls are deemed, by empirical estimates, to have materially greater than the planned dilution of 10%.
- FLAC3D (Fast Lagrangian Analysis of Continua in 3 Dimensions) (Figure 4) numerical modelling has been utilized in this study, and the results of which show that:

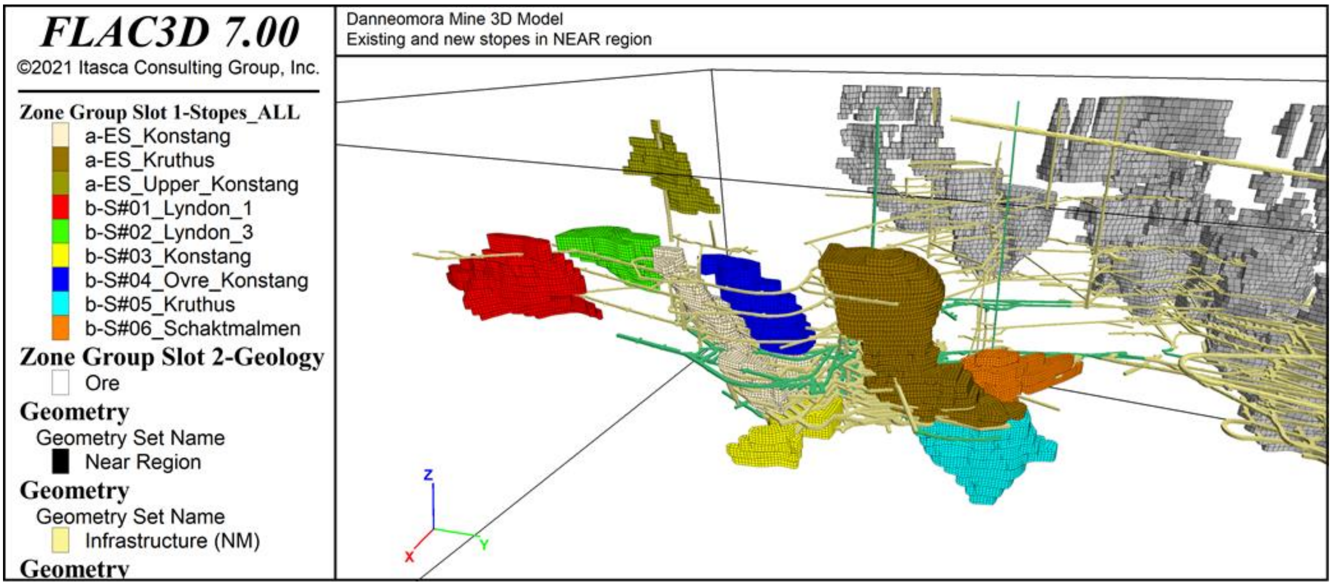

Figure 4:
Focus area orebodies within the FLAC3D model (grey = historically open stopes, ES = existing stopes, S# = planned stopes, yellow/beige = current infrastructure, green/teal = planned infrastructure)

    - The planned stopes are generally stable, with indications of plasticity between 2 - 18 m into the stope walls (though see exceptions below).

- Historic Kruthus, Kruthus, and Schaktmalmen progressively coalesce as mining goes through each stage. Schaktmalmen (and the footwall of Kruthus) could experience adverse stress due to their increased depth when compared with the other planned Dannemora stopes. Notwithstanding this, Schaktmalmen is planned to be the final stope mined at Dannemora, and thus the impact of (any) instability will be minimal upon productivity.
- Upper Konstäng, which is located between Konstäng and Kruthus shows high plasticity in the numerical model, which connects the Upper Konstäng, Konstäng and Kruthus stopes, suggesting that the pillar between them could be at risk of failure.
- The shaft and crusher excavations experience little to no plasticity from mining of nearby stopes according to the numerical model.
- Numerical modelling shows that plasticity pervades into the Kruthus orebody drives and that there are low Strength-Stress ratios where the ore drives intersect with the orebody.
- Whilst mining does not affect the planned lunchroom according to the numerical model, the Schaktmalmen orebody plasticity contours interact with the workshop areas, which suggests potential stability issues between the Schaktmalmen stopes and the workshops. Notwithstanding this, Schaktmalmen is planned to be the final stope mined at Dannemora, and thus the impact of (any) instability will be minimal upon productivity.

- Stopes are planned to be backfilled to secure long-term stability.
- Ore drive backs are planned to be supported as standard.
- Ground support has been split into 3 main classes.
- Specific ground support is provided for stope brows, large excavations, and intersections; including Swellex, cable bolts and straps.

11.2 Water Management

The general requirements of the Swedish Environmental Code (SFS 1998:808) in terms of the management of water have been used as the principal design guidelines for the Project. This ensures that the use of water for mining activities is controlled.

Consideration has also been given to the Swedish Agency for Marine and Water Management Authority's regulations (HVMFS 2017:20) and the Swedish Food Agency's regulations (SLVFS 2001:30) on drinking water during the design process.

The mine's water management system has been designed around the needs of the operation, the water balance and the potential impact on the environment. Water management can be divided into three different stages: (i) baseline, (ii) dewatering, and (iii) operation (dewatered state).

When the mining operation has ceased and closure has commenced, the mine will slowly refill with water. The conditions will essentially be the same as the conditions prior to the commencement of mining operations. There will be no active water management associated with the closure period.

Current Mine Water

At the time of writing, the Dannemora Mine is filled with water up to a level of ca. -345 m. To be able to install the crusher underground at the -460 m level, it will be necessary to pump out the water as quickly as possible. The water level in the mine rises by about one metre per month, on average.

System for Dewatering

There are various options for draining the mine of water. The dewatering can be done via the existing ramp or directly via the Central Shaft (or by a combination of both, to allow flexibility).

To start production, which is planned to start in 2025, the shaft option has been chosen. A big advantage of this option is that the pump capacity is directly close to 200 l/s instead of 100 l/s for the ramp option. The system chosen for dewatering is easy to install and will save time.

The idea is to install a system which can be dropped into one of the skip shafts associated with the Central Shaft.

As mentioned above, the first step is to reach the -460 m level where one of the mine's main pumping stations is located. Another pumping station is located on level -350 m next to the Central Shaft. The pumped water will be cleaned by a water treatment plant on surface next to the Mine Lake.

Mine Water Treatment Plant

All water that leaves the mine operational area, both during the dewatering and the operational phases, will be sent to the mine water treatment plant for treatment. After dewatering is completed, pumping will be carried out to maintain the mine's dewatered state during operations.

The inflow today is about 37m^3/hr. The forecast shows that the inflow will increase to about 40 m^3/hr as additional orebodies are mined.

The proposed system will consist of eight containers placed on either a gravel or asphalt bed near to the mine water ponds located near Gruvsjön. The total capacity will be ca. 800 m^3/hr.

Due to its modular nature, this system can be quickly scaled up or down depending on the requirement at the time. From modelling work it is likely that the maximum throughput will generally be between 40 - 50 m^3/hr, but this will vary throughout the year, especially in the Spring after snow melt.

The water treatment system proposed for the mine, both for the initial dewatering, as well as the operational phase, is based around a technology for selective metal extraction from water-based liquids. It has a high metal selectivity, both in-between individual metals but also between metals and harmless dissolved salts. This technology also keeps both chemical consumption and secondary waste to an absolute minimum. The technology itself uses a combination of innovative chemistry and conventional ultrafiltration technology which is energy efficient due to the low pressure applied in the system.

It is noted however that other alternative technologies are available, and these will be investigated during the final engineering design phase of the Project.

Dewatering – Water Balance

The original mine dewatering system will be re-used and expanded where necessary, as mining progresses. It has been assumed that the worst-case scenario is that pumping will commence at level -308 m (i.e., where dewatering started in 2009). However, if possible, dewatering of the mine will commence earlier, which would both technically simplify, and lessen the time and costs due to a reduced volume and easier access to the flooded areas in the mine. Figure 5 presents the proposed water flowsheet during dewatering.

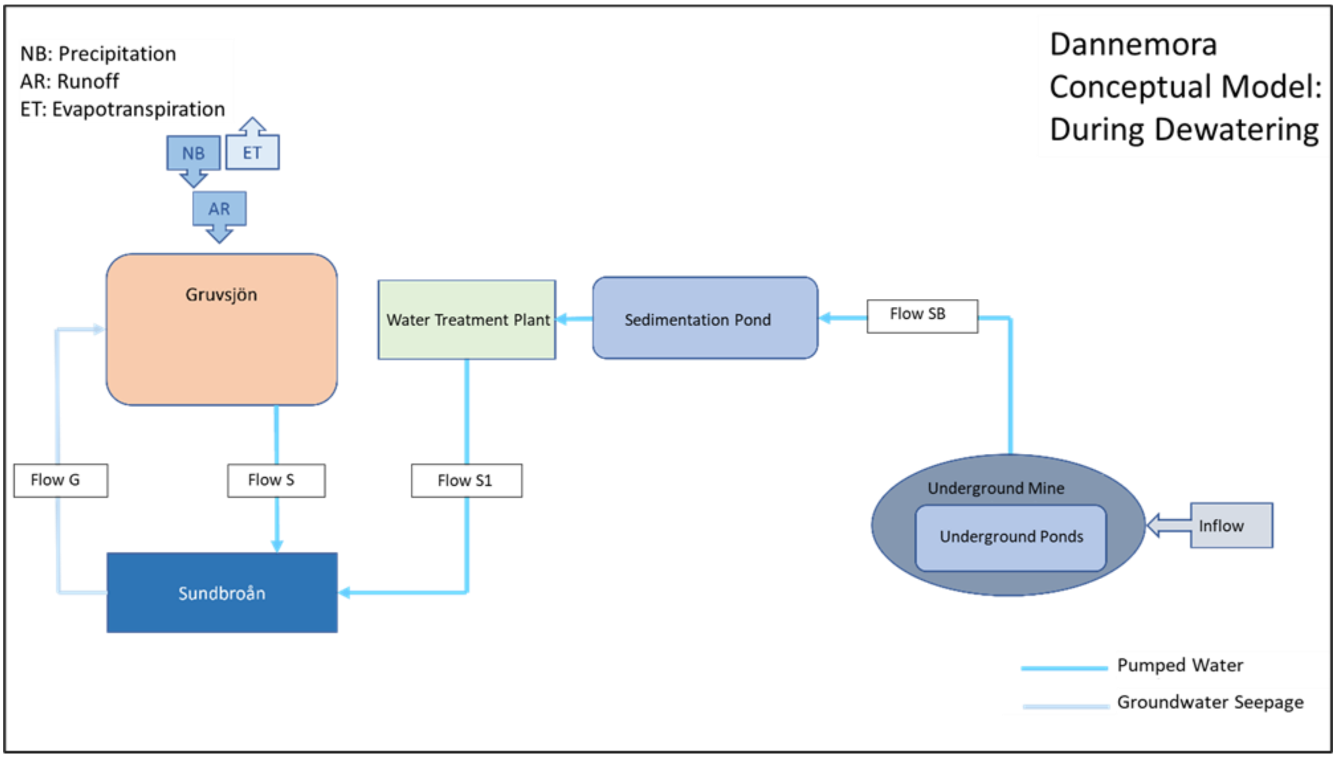

Figure 5:
Proposed water flowsheet during dewatering (Geosyntec Consulting, June 2022)

The current mine dewatering system comprises pump stations at -175 m and -460 m levels, and in Sjöhag at -506 m. Submersible pumps will be installed in the Central Shaft bottom at -620 m, from where it will be pumped to the -460 m level, and from there to the mine water settlement pond/ponds at surface. The ponds currently have a capacity of ca. 1,800 m^3 but can be expanded to ca. 9,000 m^3 if necessary.

Surface water entering the mine is to be collected at the -175 m level and pumped to surface. Water will also be collected from the mining areas at Sjöhag and from there to the -460 m level pump station. In addition, there are water sumps on the -300 m and -350 m levels.

When the water level reaches the basin at the main level -466 m, the Central Shaft will be drained down to -620 m with submersible pumps. The water from Konstäng, Kruthus and Svea will be pumped with submersible pumps to an existing blind shaft which is connected to the Central Shaft.

When the water reaches ground level, it will be pumped to a concrete-cast sedimentation pond before being sent to the mine water treatment plant. Treated water will be sent to the process water pond, sedimentation basin and water tank at the concentrator so that all reservoirs are full when the enrichment process is started. When the reservoirs are full, surplus treated water will be discharged to Sundbroån. At the discharge point in Sundbroån, the speed of the pumped water will be reduced, so that resuspension is minimised.

It is estimated that it will take 8-12 months to get the mine completely dry to be able to commence mining (Geosyntec Consulting, June 2022).

Water Management During the Operational Phase

During the operational phase of the mine, water will be pumped from the base of the Central Shaft at the -620 m level, and from the -466 m and -350 m levels. Areas of the mine that are located below these levels will be drained by temporary submersible pumps.

All water in the mine will be sent to sedimentation ponds before being pumped above ground (during the day) for use in the plant or for discharge/storage, or reused for drilling underground, or as dust control. The proposed flowsheet for water management during operations is shown in Figure 6.

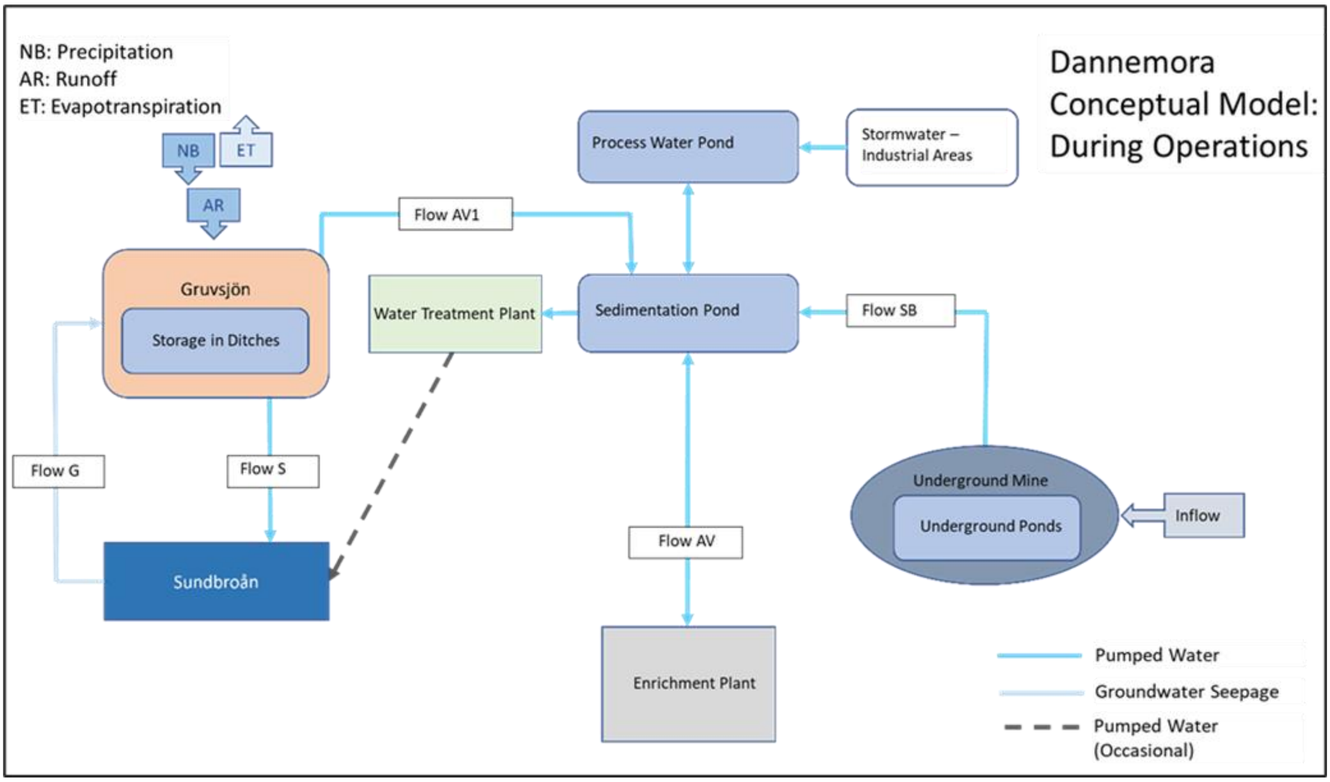

Figure 6:
Proposed flowsheet for water management during operations

Water not supplied from underground will be taken from ditches in Gruvsjön via a new pumping station (Flow AV1) and from planned water reservoirs. Withdrawal from Gruvsjön will be limited to a maximum of 4% of the monthly average flow in Sundbroån. In high-flow situations, i.e. when the flow corresponding to 4% of Sundbroån's monthly average water flow is greater than the withdrawal need (flow AV1), the surplus will be used to fill the reservoirs.

During operations, ca. 80 m^3/ hr of water will be required. This water will be taken from drainage water from the mine (ca. 37 m^3/ hr), stormwater from the industrial area (ca. 2 m^3/ hr annual average) and extraction of water from the canal in the drained Gruvsjön (ca. 41 m^3/ hr annual average). The water from all three sources will feed into the same water management system above ground that supplies the concentrator and mine with water. Any surplus water will be sent to ponds for storage and used during dry periods.

During normal operations, water will rarely be discharged offsite, however, occasionally excess water will be diverted from Gruvsjön to Sundbroån to keep Gruvsjön dry (in compliance with existing permits).

12.0 Ore Processing

As part of the Scoping Study, Pre-Feasibility Study as well as the Feasibility Study (FS), a new iron ore process was developed for the Dannemora Mine, and refined further as part of the FS. After conventional crushing in two stages, the <45 mm product shall be fed for comminution to a High-Pressure Grinding Roll ("HPGR"). The mine is classified as "dry", meaning that there is very little water entering the orebody. This unique condition (for a Swedish mine) makes the mined ores particularly amenable for both HPGR comminution to a <6.3 mm size fraction, and subsequent dry separation by a magnetic drum separator of the medium-intensity class ("MIMS").

By magnetic separation of the <6.3 mm crushed product approximately one quarter or more (30% on average) of the mined material can be rejected with minimal magnetite loss. Therefore, only about 70% on average of the ore will need further staged grinding for liberation minerals to enable separation to a high-grade concentrate. The remaining coarse product will be returned to mined out areas underground as backfill or may be used for industrial purposes if testing confirms its usefulness. By preconcentrating the beneficiation plant feed, there will be a substantial saving related to grinding energy and a significant saving of water for downstream processing.

A typical wet ball mill circuit will be used to grind the plant feed to a suitable size for an effective intermediate magnetite upgrade using common rougher wet low-intensity magnetic separators ("WLIMS"). Included in the rougher processing is a "flash" flotation section to facilitate removal of sulphur-bearing minerals. The rougher concentrate will then be ground in highly efficient fine grinding equipment to produce a final mineral liberation size. Finisher WLIMS followed by another final floatation section and dewatering WLIMS shall produce a final magnetic concentrate, to meet strict high-quality concentrate requirements. The flotation process has been developed for many similar situations. A non-chemical upgrading method has also been evaluated. This method, introduced in the last few years, may be used instead of a reverse silica flotation process to upgrade iron ore concentrates further.

The ores identified at Dannemora have a wide range of characteristics. Therefore, the process is designed to control and subsequently reduce the variability by rejecting unwanted minerals in efficient stages before the final beneficiation sequence and hence enable a consistently high-grade final concentrate, with a target of 68% Fe and a maximum of 0.05% S. The process is designed to remove substantial and varying amounts of interfering materials (deleterious elements) before the plant feed reaches the final stages. Anticipated ore variations will be essentially eliminated in up-front stages (MIMS, rougher WLIMS, flash flotation and a 2nd rougher WLIMS).

Several modifications to the process flowsheet were developed for the FS. These enhanced efficiencies in the pre-concentration stage and substantially reduced the sulphur content for difficult ore types. The results from final testwork are not yet completely available at the time of writing. However, performance projections based on testwork completed for the Scoping Study, PFS and FS initial testing indicates that the modifications made to the process flowsheet will prove positive. An assay of the sulphur level at 0.03% has been verified by recent testwork received from SGS.

Considering that the composite sample for the Scoping Study is likely to be more representative for the near future operation after the mine restart and the new bulk sample less representative (due to limitations related to sampling access), the projections for the process plant performance should be weighted towards the data obtained in the Scoping Study. Nevertheless, the performance achieved so far with the bulk sample meets the desired target. Additional assays from beneficiation tests are currently in progress to further validate the projections. Sufficient concentrate and tailing samples for additional testing required for process guarantees will be available shortly.

Additional upgrading of the concentrate grade by either reverse silica flotation or by a new electromagnetic method should be considered. The latter method requires less water and would be preferable to reduce any potential complications with chemicals in recirculated water. The best time for further evaluation of this option is after ramp-up of the operation. A pilot size Longi unit should be operated on the concentrate stream bleed to fully study the performance.

Detailed mineralogical study of drill core representing the projected future orebodies is recommended to primarily determine the occurrence of monoclinic pyrrhotite.

The design criteria for the flowsheet targets a mass yield of 36.61% $Fe_{(tot)}$ and a $Fe_{(tot)}$ recovery of 76.88% to produce ca. 1.14 Mt/yr at a grade of ca. 68.15% Fe when in full production. This is based on a 400 t/hr feed at a grade of 32.1% Fe. The proposed flowsheet for the Project is shown in Figure 7.

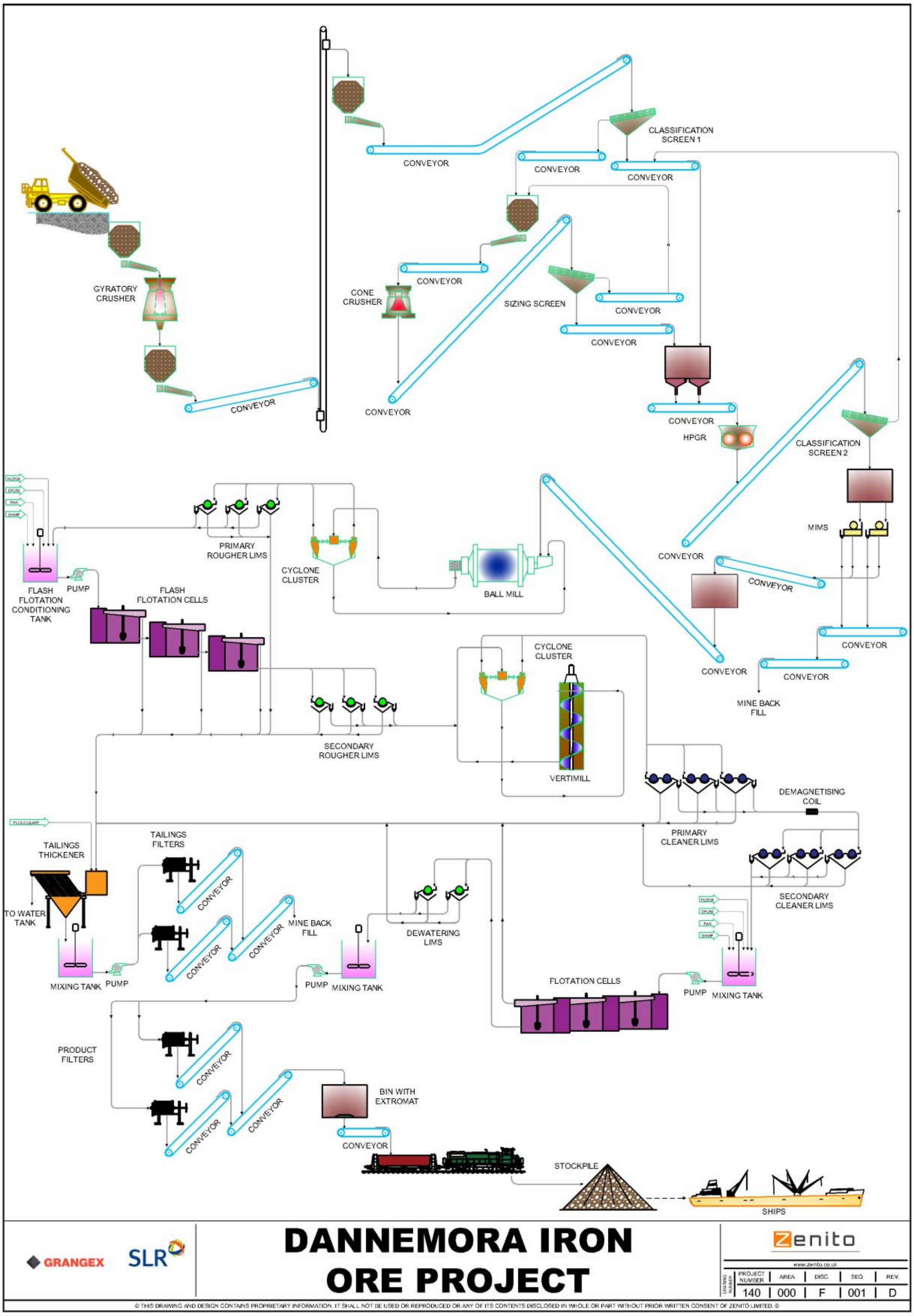

Figure 7:
FS processing flowsheet including flash flotation in rougher circuit

13.0 Infrastructure

The current mine site has been operational for more than 100 years. There are two main ramps accessing the underground workings, plus a Central Shaft to a depth of 620 m. Figure 8 presents an aerial photograph of the mine site, with the existing and proposed new infrastructure shown.

Two powerlines, each with a capacity of 20 MW (total 40 MW) are available to the site from the main national power supply system. The power supply will have to be connected to the mine, with an estimated power requirement of a maximum of 20 MW.

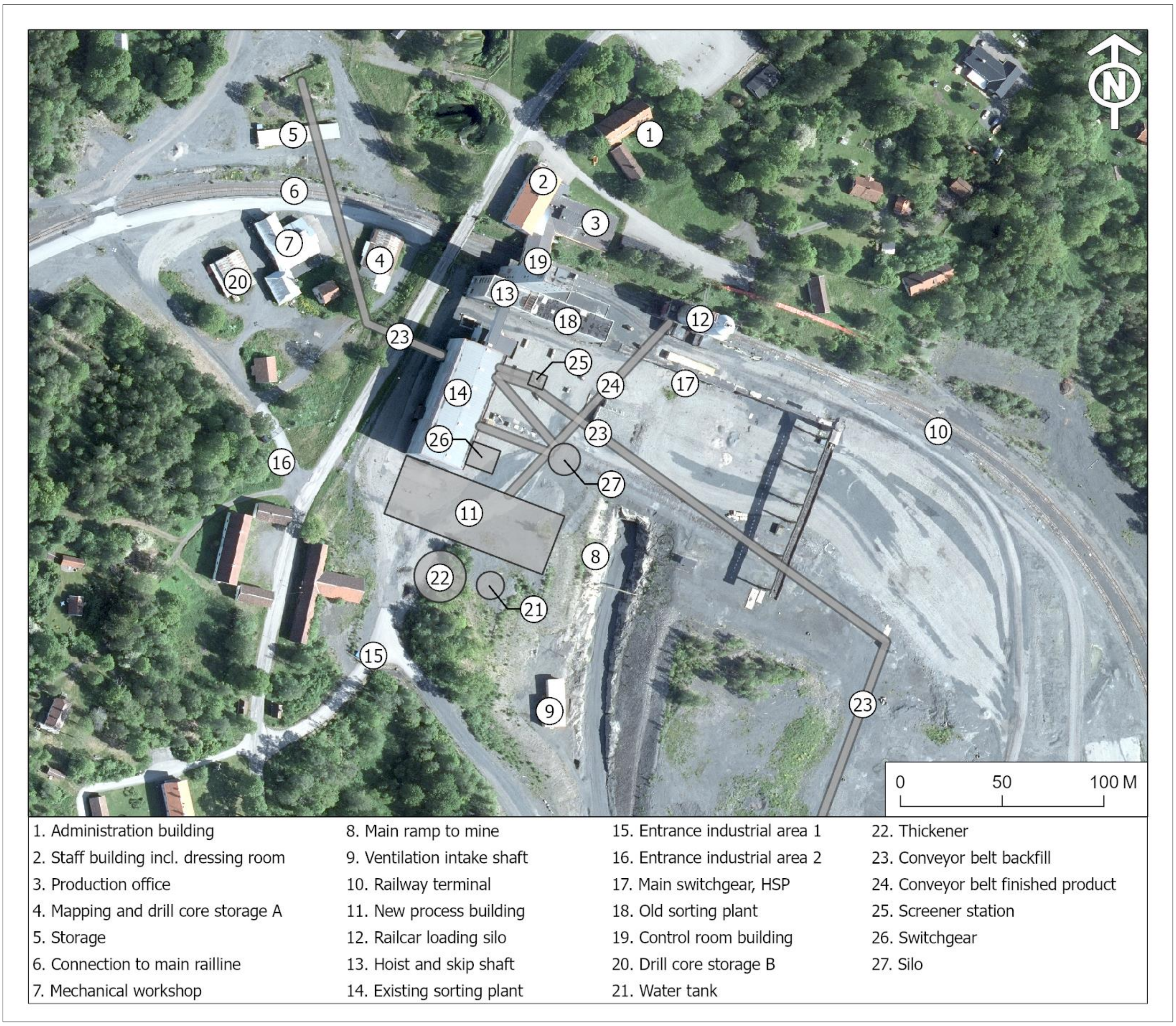

Figure 8:
Dannemora Mine Site

There is road as well as railway access to the Site. National highway 292 runs between Hargshamn in the east and Söderfors in the west, and connects to European highway E4 at Tierp, in the north of Uppland County. The highway maintains a road standard of BK4, which is the highest standard in Sweden allowing a gross tonnage of 74 tonnes. The Site has access to a rail link connecting a pulp and paper mill (Holmen AB) in Hallstavik with the main rail line at Örbyhus. The main rail line provides to two main options regarding the Port of Loading for the

Project. The Port of Oxelösund, south of Stockholm, offers the possibility of loading bigger ships and therefore increases the Project's competitiveness, especially for far away destinations. The Port of Hargshamn is significantly closer to the mine site but ship size is limited to a maximum 20,000 TDW, limiting accessible markets to Northern and North-western Europe. The final decision about which port alternative to choose will be a trade-off-calculation where long-term demand and price potential will be balanced against overall logistical costs and timeframe, within which the transport routes will be accessible. All current information and most probable assumptions regarding availability of rail infrastructure indicate that the Port of Oxelösund will be the best alternative due to its better flexibility in terms of cost efficiency in reaching end customers.

14.0 Environmental & Social

The terrain and associated habitats in the vicinity of Dannemora comprise of a rather flat lying topography, with small height differences between lakes, wetlands and wooded areas. Some of these wetlands have been created by humans through lowering of water levels in lakes or through bilge pumping.

The mineral deposits at Dannemora have been designated as a site of national interest in terms of mineral resources. The whole area, including nearby Österbybruk, is also an area of national interest in terms of cultural conservation. There are no strictly protected areas close to Dannemora except for a water protection area (Kyrkholmen) ca. 1 km to the south of the mine.

When the mine was in operation, excess water was discharged into the local watercourse, Sundbroån, to the west of the mine. This watercourse flows to the south and enters Lake Dannemorasjön further south. Sundbroån has been classified in accordance with the Water Framework Directive (WFD). The current ecological status is moderate and the EQS (Environmental Quality Standards) has been designated to be good by 2027. Future discharge from the mine will be required to meet discharge limits in accordance with the WFD.

As there is currently no valid Environmental Permit in place for the mining operation at Dannemora, a new permit was applied for after finalising the Environmental Impact Assessment Report (EIAR) and the technical description of the activities and facilities. All reports, drawings and documents were submitted to the permitting authority (Environmental Court in Nacka) on 29th June 2022. The EIAR is a statement of the effects, if any, which the proposed Project, if carried out, would have on the environment.

Based on the information reviewed, several environmental issues have been identified that are considered to be of importance to the recommencement of mining at Dannemora: (i) Impact on groundwater levels in the surrounding area and especially private wells; (ii) Potential release of metals to the Sundbroån watercourse; and (iii) Potential leakage of arsenic from waste material backfilled in the underground mine workings. The leakage of arsenic will be dealt with by including a water cleaning system for any release water from the dewatering stage of the mine, as well as during its operation.

All water that leaves the mine operational area, both during the dewatering and the operational phases, will be sent to the mine water treatment plant for treatment. During the dewatering phase, the treatment plant's capacity will be ca. 800 m^3/hr. After dewatering is completed, pumping will be carried out to maintain the mine's dewatered state during operations.

Dannemora Mine is a large underground mine with low infiltration of groundwater due to a relatively dense and stable bedrock. The mining that is planned will take place at depth and in connection with existing tunnels and stopes, which is why the negative consequences on groundwater conditions are assessed as small, both in soil and rock.

The inflow to the existing mine has been calculated to be ca. 10 l/s, on a yearly average. This is a low inflow for a mine of this size which indicates that the rock has a low hydraulic conductivity. The leakage to the fully drained mine has been calculated to be 40 m^3/hr (11 l/s), i.e. ca. 10% greater than the current leakage which has a water level of ca. -345 m. This in turn means that the impact on groundwater levels in the surrounding rock and soil will be low, resulting in a small area of influence. This is in line with the experiences from earlier periods of operations, when limited lowering of groundwater was reported. Once mining has ceased, the mine will be allowed to rewater slowly. This is considered to not significantly impact the surface water systems. Open pit lakes will be formed mainly from groundwater with some addition from direct precipitation.

15.0 Operational Considerations

It is DIAB's intention to have an owner operated mine, with all key staff employed by DIAB and all key parts of the operations run by its own staff. There will be a need to work with contractors for special tasks such as blasting, servicing and specialists regarding mining as well as process equipment. The plan is to have the majority of all maintenance carried out by DIAB's own staff at the mine as well as the process plant.

Based on experience from the 2012-2015 operation, the total number of directly employed staff and contractors has been estimated to be around 175.

It is proposed that the mining operation will run 7 days a week, with two 10 hour shifts per day, giving a total of 4 shift teams. It is envisaged that the process plant will run 24/7, with 5 shift teams. The plan is to have a "flat" management structure within the organisation, with the DIAB Managing Director reporting to the CEO of Grängesberg Exploration Holding AB.

A Mine Manager will be responsible for the mining operation, with a Mill Manager being responsible for processing and loading of product to the rail cars, prior to transport to the port. The Management team will consist of the following: Managing Director, Mine Manger, Mill Manager, Marketing and Logistic Manager, HR Manager, Financial Manager, HSE Manager, Service and Maintenance Manager, and Exploration Manager. Including support staff for the management team, the total number will be between 12 and 14 people (Figure 9). The Managing Director will delegate tasks and responsibilities for the different parts of the operations to the relevant managers, in accordance with industry best practices and Health and Safety legislation.

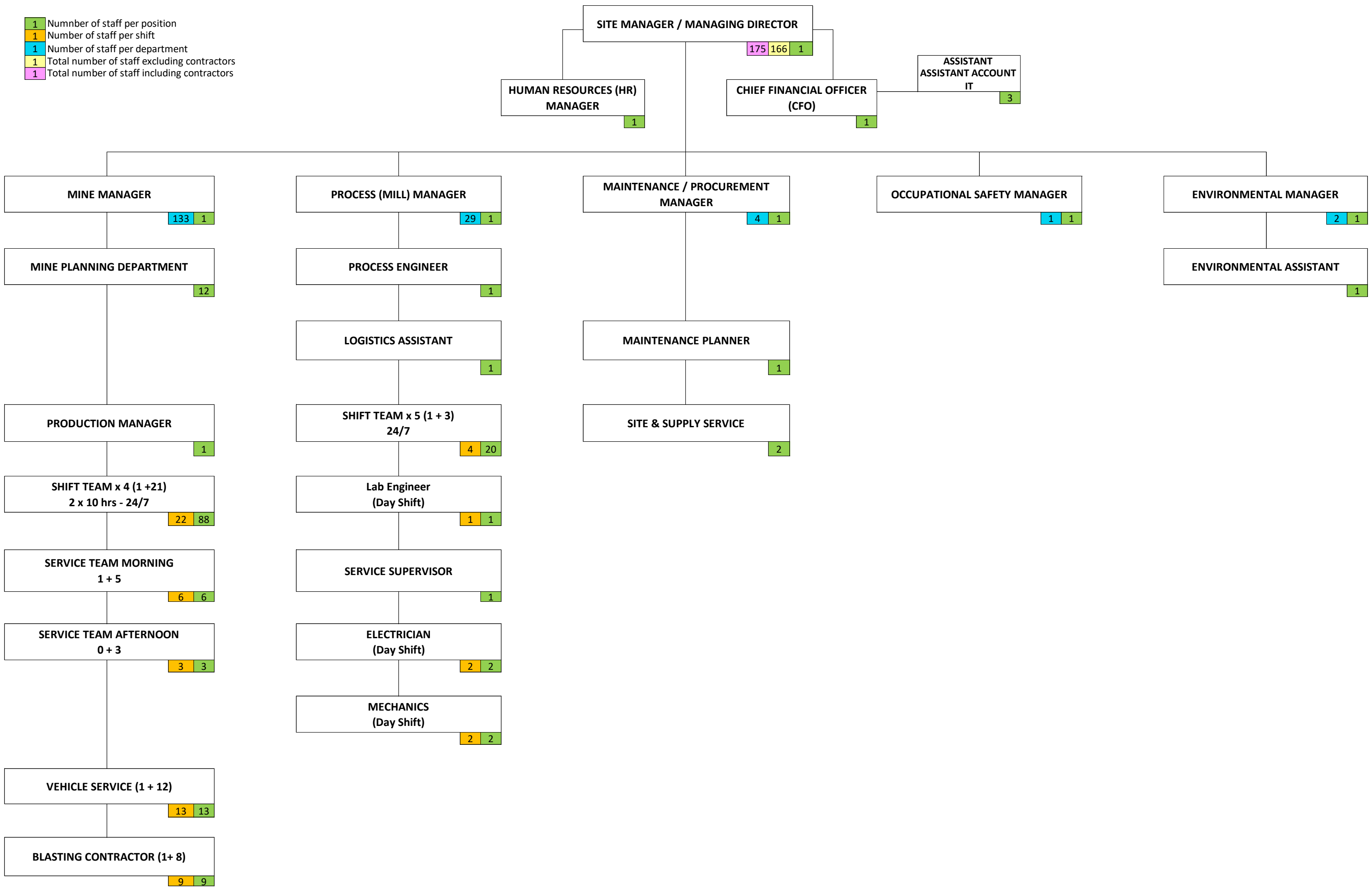

Figure 9:
Dannemora Organogram

16.0 Cost Estimation[15]

16.1 CAPEX

Total capital expenditure for the Dannemora Project has been estimated to amount to ca. MUSD 195.6 (ca. MSEK 2,054) over an 11 year mine life (excluding a 30 month pre-development period) (Table 5). Expenditure is comprised of Initial (growth) and sustaining capital throughout the project life as detailed in the table below. Estimates have been based on quotations and inhouse estimates prepared by DIAB to within a +/-10 - 15% order of accuracy, reviewed and compiled by SLR.

Table 5:
Project Capital Costs

Capital Cost	Cost (MUSD)
Initial	178.3
Sustaining	17.3
Total	**195.6**

A breakdown of Initial (Growth) capital expenditure to key cost areas is provided below in Table 6.

Table 6:
Initial Project Capital Costs

Initial Capital Cost	Cost (MUSD)	% Cost
Civil Works	25.9	18%
Mine Dewatering	8.9	6%
Mine	20.9	14%
Ore Treatment	69.4	48%
Infrastructure	20.7	14%
Total	**145.7**	**100%**

The remaining capital expenditure consists of the items presented in Table 7.

Table 7:
Other Project Capital Costs

Other Capital Cost	Cost (MUSD)
Indirect	16.8
Sustaining	17.3
Contingency	15.8
Total	**49.9**

[15] Cost Estimations and Financial Evaluation are based on complying with the Principles of the JORC Code as presented in Table 1 of the Code for those preparing Public Reports on Exploration Results, Mineral Resources and Ore Reserves.

16.2 OPEX

For the Dannemora Project, total operating expenditure has been estimated to amount to ca. MUSD 608 (ca. MSEK 6,382) or USD 19.5/t (ore) or USD 54.7/t (product) over an 11 year mine life (Table 8). Expenditure is comprised of key areas throughout the project life as detailed in the table below. Unit operating costs per tonne of ore processed are also provided. Estimates have been based on quotations and inhouse estimates prepared by DIAB within a within a +/- 10 - 15% order of accuracy, reviewed and compiled by SLR.

Table 8:
Project Operating Costs

Operating Cost	Cost (MUSD)
Mining	229
Processing	112
General & Administration	33
Labour	126
Logistics	106
Closure	1
Total	**608**

17.0 Financial Evaluation

A cashflow model evaluation has been completed for the Project, analysing capital costs, operating costs and revenue on an annual basis over the full 13 year project life. The project plan comprises a 30 month pre-development period, followed by 11 years of mine production and processing to a saleable magnetite concentrate.

A financial model for the Project has been prepared based on a run-of-mine (ROM) estimate of ca. 31.11 Mt @ 32.10% Fe, 2.02% Mn and 0.24% S, and on life-of-mine (LOM) physical schedules, capital and operating costs, discount rate and revenue assumptions provided by DIAB and compiled by SLR. A conventional cashflow model has been prepared to derive project Net Present Value (NPV), Internal Rate of Return (IRR), payback period and cashflows on a before and after-tax basis. A discount rate of 8% has been applied that takes into account market interest rates and geographical risk.

Based on the Capex and Opex inputs presented above the Project generates a Pre-Tax Net Present Value (NPV) MUSD 274 at a discount rate of 8%, with an Internal Rate of Return (IRR) of 31%. This results in a Post-Tax NPV of MUSD 205, with an IRR of 26.9%, and payback period of 3.7 years.

Annual project cashflow over the LOM is presented in Figure 10.

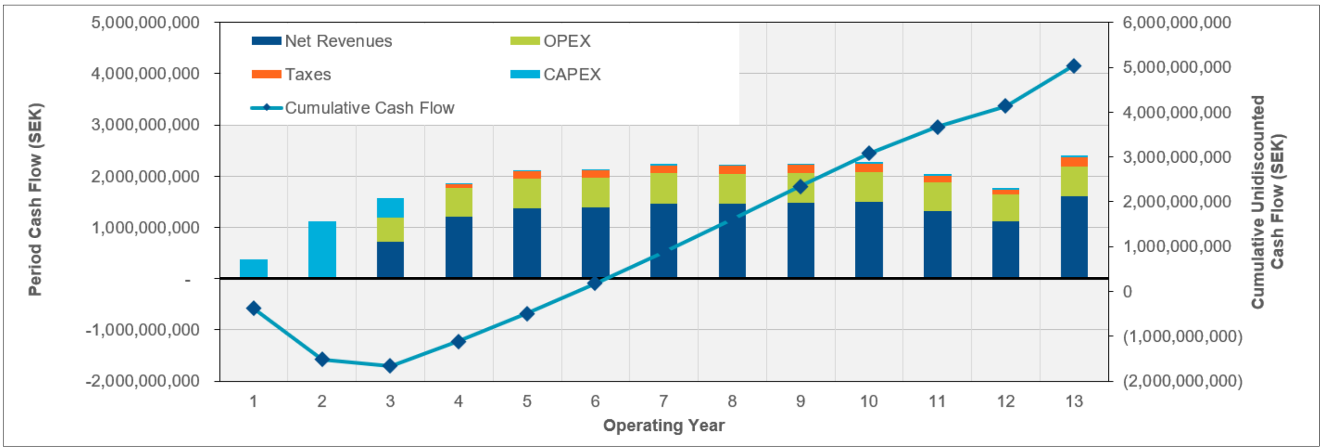

Figure 10:
Annual after tax cashflow over the LOM

18.0 Project Implementation Plan

The Project Implementation Plan (PIP) consists of a number of key stages, including; workshops for Stakeholder Analysis, definition of Work Breakdown Structure (WBS) and Cost Breakdown Structure (CBS) with Cost calculations, followed up with meetings obtaining a detailed time schedule based on Suppliers tenders and/or estimations by Experts.

The main components of the PIP are shown in Figure 11 below.

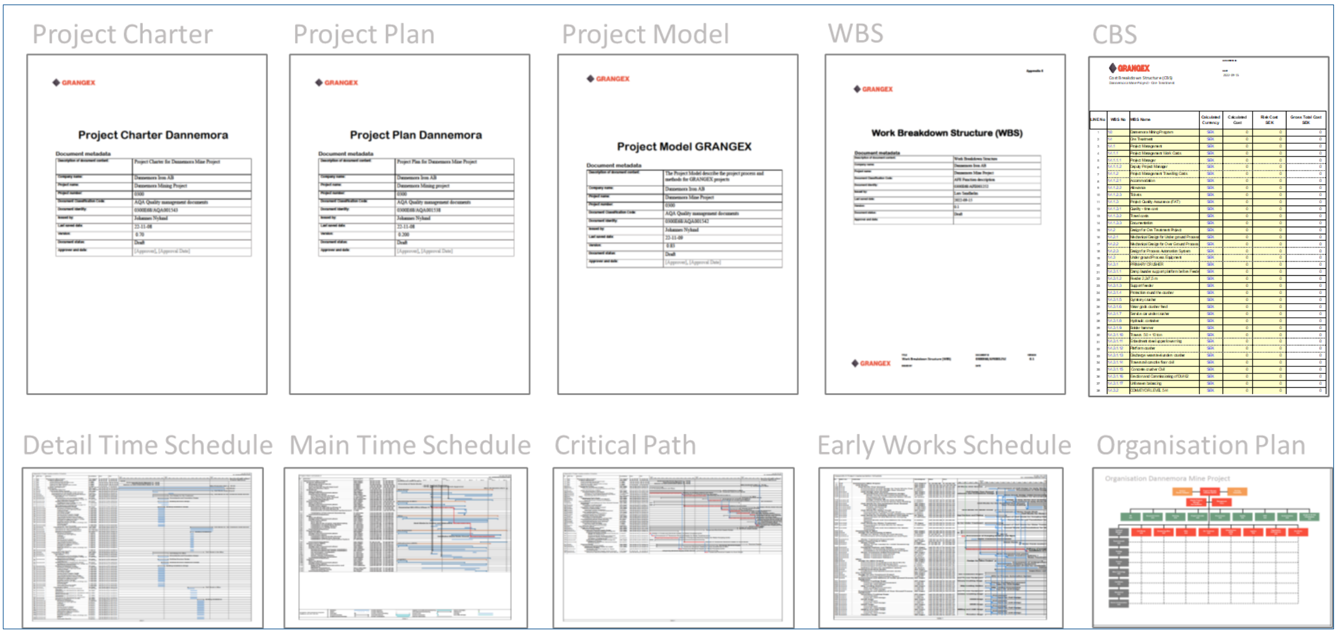

Figure 11:
Project Implementation Planning Documents

18.1 Strategy for the Project Implementation

The PIP specifies an overview of the approach, tasks and schedule, as well as identifying and addressing any unique challenges facing the Project. The Project will be designed and constructed to industry and regulatory standards and will address all environmental and safety issues. Adherence to the PIP will ensure that the Project is completed on time and within budget.

The project implementation is expected to take a period of approximately 30 months to full production and can be separated into a period of Early Works, followed by the Full Project Implementation.

The strategy for the Project implementation is based on:

- A project team of the owner's resources, hand-picked consultants with expert skills, and with experience from similar large and complex projects;
- The project team for project management and design will be located at the Dannemora office to give an optimal mix of risk minimisation and governance of the whole chain of the Design & Procurement-, Construction- and Commissioning phases;
- Project Methods by GRANGEX Project Portal with state of art project methods and template supports - Quality Assurance Process;
- Procurement of equipment together with functional and design responsibility, combined with procurement of "Construction Execution Contracts" (AB04), and with owner supervision for civil works-,

installation- and commissioning works, will enable the project team to take control of risk mitigation and find the optimal cost solution. However, in some cases, for appropriate work packages, “Design and Build Contracts” (Turn-key) will be put in place for specialist technology vendors and suppliers; and

- Operational Readiness by Early Involvement in Commissioning by Owner’s Operation & Maintenance Team.

18.2 Project Management Methods and Quality System Process

The overall project methodology approach will follow the owners' requirements and be based on relevant standards such as ISO 9001, ISO 10006, ISO 14001, etc., as well as an experienced based application of PMI Guidelines. These standards form the basis and provide guidance for the application of methods and structures for the Project Plan with underlying plans. Figure 12 below shows an overview of the basic structure of the Project Plan that handles the project management activities and secures the quality of Project activities in a systematic and orderly manner.

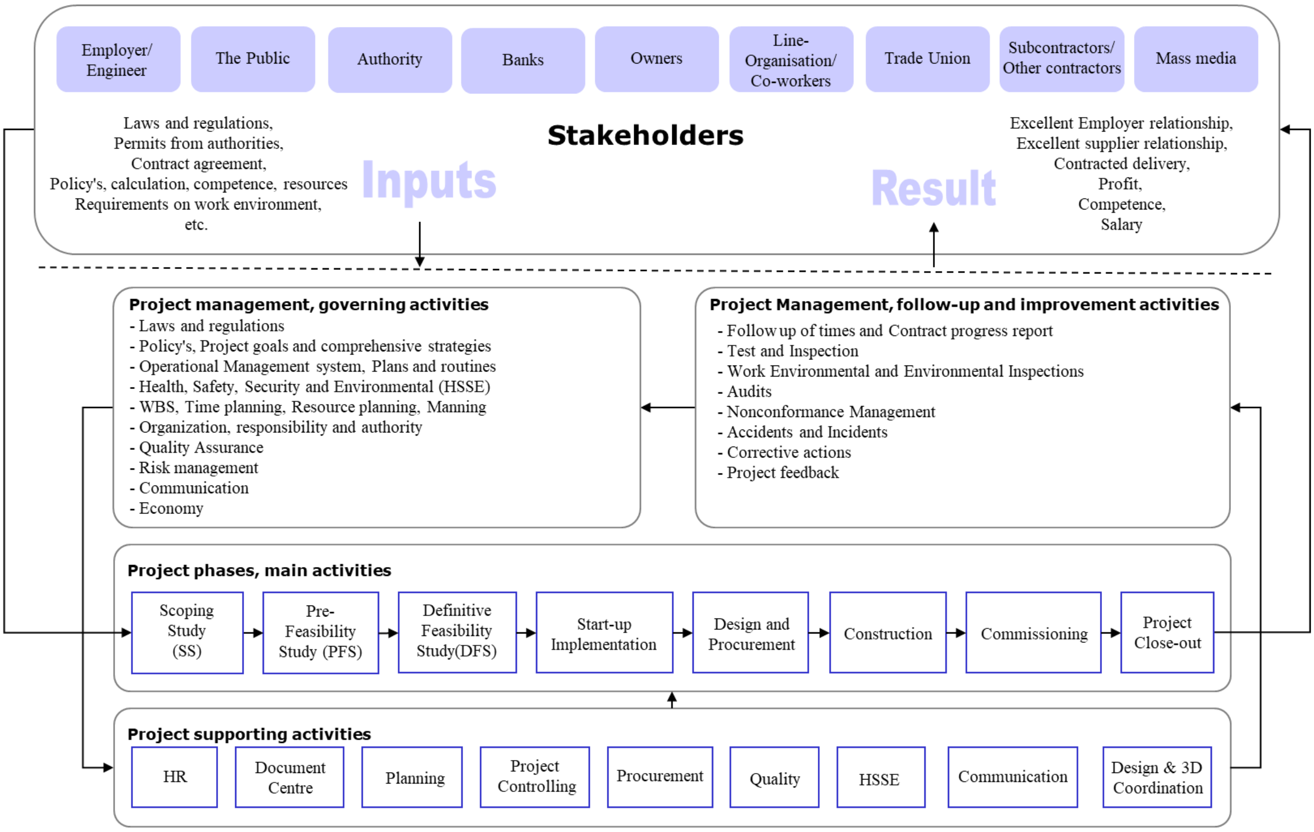

Figure 12:
The Project Management and the Quality System Process

The figure shows the Project Management and Quality System Process that are defined in the Project Charter and Project Plan. The figure also presents key Stakeholder requirements, including authority requirements, environmental requirements, public's expectations, and owner’s requirements.

These inputs form the basic requirement needed to be handled by Project Management activities, including Project phases – Main Activities and Project Supporting Activities.

18.3 Project Implementation Schedule

Figure 13 below shows the Project Implementation planning prepared during the FS. The Time Schedules are based on activities with links which provide full control via Critical Path Analysis. The Work Breakdown Structure (WBS) defining the Scope, provides a common coordinated structure for the Cost breakdown structure (CBS) and Time Schedule. This coordinated WBS and CBS will enable Earned Value to be achieved for the Project.

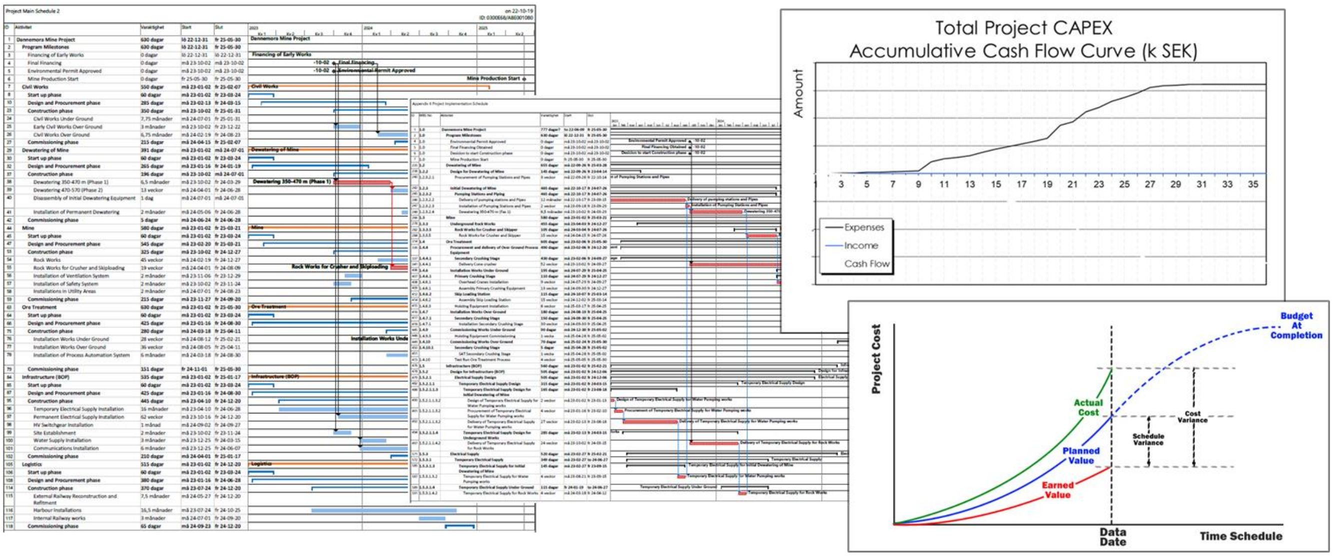

Figure 13:
Planning documents during FS

19.0 Conclusions & Recommendations

19.1 Conclusions

The Dannemora Mine restarted production in 2012, however operations ceased in 2015 due to bankruptcy. The main reasons for the bankruptcy were that the quality of the finished product was below market expectations, and unfinished installations in ROM equipment. In addition, the beneficiation stage resulted in high production costs. Additionally, the prices achieved could not pay for the cost of production in a depressed market.

During the production period of 2012-2015, it was proven that sustainable mining could be undertaken in an efficient and cost-effective way with the production of ca. 3 Mt/yr of ore.

Based on the experience from 2012 to 2015, and with the clear objective to focus on improving the quality and grade of the finished product such that it would meet the demands and needs of customers globally, a new beneficiation process was required. This was accomplished by using known advanced and proven technologies, and appropriate confirmatory testwork. By improving the Fe-concentrate grade and reducing critical deleterious elements to acceptable levels, it will be possible to achieve substantially higher prices compared to the 2012-2015 period.

Based on the results of the FS, and future market expectations, the recommendation is that the Project should be taken to the tender stage. The metallurgical testwork completed indicates that there is an opportunity to further increase the Fe-concentrate grade from 68 % to over 69 %, which would further enhance the viability and sustainability of the Project.

The financial evaluation of the Project carried out as part of the FS is based on an estimated overall LOM capital expenditure of ca. MUSD 195.6, with an operating cost of ca. USD 54.7/t of product based on an Iron Price of USD 129/t. Based on this expenditure, the Project is estimated to generate a Pre-Tax Net Present Value (NPV) of MUSD 274, at a discount rate of 8%, with an Internal Rate of Return (IRR) of 31%. This results in a Post-Tax NPV of MUSD 205, with an IRR of 26.9%, and a payback period of 3.7 years.

Based on metallurgical testwork completed to date it is possible to produce a Fe-concentrate of ca. 68% Fe, that would be of DRI (Direct Reduced Iron) quality and meet the requirements for “green steel”. This quality of Fe-concentrate is in limited supply, and it can be expected that this situation will be even further underlined over the coming years. Additional testwork undertaken during the FS stage of the Project was targeted to identify the potential to further increase the Fe-content in the concentrate. Efforts will also be made to maximise the mining grade during the LOM schedule.

Furthermore, once in operation, the immediate area surrounding the mine has the potential for further discovery of additional mineral resources, as a number of the mineralised bodies are open at depth.

A key conclusion of the FS work is that the Dannemora Mining Project will play an important part in reducing CO_2 emissions by operating a fully electrical underground mining fleet as well as beneficiation, while still producing a high magnetite Fe-concentrate with Green Steel credentials.

It is planned to utilise and upgrade the previous improvements made to the mine during the 2012-2015 period as part of the future proposed development. The existing mine plan developed during this period will form the basis of the new and extended LOM, with areas previously planned and/or development being utilised to reduce initial start-up CAPEX.

Much of the work carried out as part of this FS is based on information/data and knowledge gained by key individuals (part of Scoping Study and PFS team) who previously worked at Dannemora during the 2012-2015 period. These individuals will continue to part of the study team and provide inputs as the Project develops.

The results of the FS provide a strong foundation to take this Project - the re-commencement of mining at Dannemora - to the next stage.

19.2 Recommendations

Following the conclusion of the FS a number of key technical and project recommendations can be made under the following headings:

Marketing

- Emphasise the product's strength as being produced with a minimal CO_2 footprint and ideal for "Green Steel" production.
- Identify customers that focus on developing steel production with the smallest possible CO_2 footprint.
- Present and represent at iron ore conferences in Europe and the Middle East.
- Active marketing towards all potential customers with a clear strategy to reduce CO_2 emissions in Europe and the Middle East.
- Investigate potential interest and shipping solution for sales to distant destinations (MENA and Japan).

Community

- Continue to be proactive in information meetings with all who will be impacted, positively or negatively, by restarting the mine.
- Continue dialogue with all stakeholders during permitting, construction and operation.

Geology

- In direct connection to standard drill core logging, in-house produce small (2-3 cm) semi-polished ore samples and skarn, in order to exert mineralogical and geochemical control on ore and gangue material by using standard ore microscopy and (near in-house) SEM-EDS.
- Acquisition of hand-held XRF analyser for in-situ ore control, underground as well as during drill core logging.
- Underground laser scanning to facilitate mine planning and ore control.
- Expansion of Indicated and Measured Mineral Resource: Exploration drilling on existing inferred resources and exploration target to add to current mineral resource.
- Continue to collect samples from core which was not previously assayed for Fe due to having an historical cut-off grade of 20% Fe, and from areas where it was not possible to recover the Fe in the beneficiation plant.

Geotechnical

- Carryout Geotechnical logging (RQD etc.) when drill core logging.

Mining

- The drilling of exploration targets should be initiated as soon as possible with the objective to increase the LOM.
- The sub-level height in Dannemora is normally set to 19 m in order to avoid ore losses or too much waste inclusions. The reason for ore losses and/or waste inclusions are often that the orebodies are undulating in nature. A cheaper way than dense diamond drilling to get a better knowledge of the ore outlines would be to dense drill a set of percussion holes from nearby drifts or ramps, and log them with a magnetometer and deviation survey them. This will at least increase the ability to make better production planning decisions and quite possibly to increase the height of the sub-level by a number of metres.

- The use of portable XRF equipment at the mining front would enable better selection of the mined material to the crusher.
- Review of cut-off grade to consider the possibility of flexible cut-offs based on the different characteristics of the ore in different parts of the mine. In addition to this, is the need for ROM blending to enable production of specified grades.

Processing

- Finalise testwork to confirm proposed flowsheet and provide samples for vendors.
- Further upgrading of the concentrate grade by either reverse silica flotation or by a new electromagnetic method should be considered once the plant is up and running.
- Additional drill core samples representing deeper mining levels and all orebodies should be collected for confirmatory testing.
- Batch testing of additional drill core samples against mining schedule to investigate enhancement of final concentrate quality.
- Determine additional comminution data on a selection of drill core.
- Liaise with mining engineers to update/revise mine plan.
- The aim is to provide a DR quality concentrate and to optimize the grade vs recovery.
- TML determination of concentrate to be done by an external laboratory. Moisture content to be determined during production.
- In preparation for production, consider and plan for possible blending of ore from areas with high S content with ore from areas with low S content.
- Investigate options for processing high pyrrhotite content ore to achieve sufficiently low S content by finer grinding and enhanced extraction methods as well as selectively mine and blend accordingly.
- Test, bench test and QEMSCAN drill cores from orebodies not included in previous sampling.

19.3 Opportunities

A number of opportunities to improve and maximise the Project’s life and financial return have been identified:

- Due to the ongoing shift (the Green Industrial Revolution) towards fossil free steel making, there is an important opportunity to be had in moving the Dannemora concentrate firstly to be CO_2 free ex works, and also later on an FOB basis. This can be achieved with the following actions:
  - For the construction phase, request contractors/suppliers to use equipment with reduced carbon footprint;
  - Complete electrification of the mine and all related operations;
  - HVO driven train transport initially. HVO with the objective to operate CO_2 free, hydrogen train transport;
  - Electrification of harbour loading procedures; and
  - Negotiate with customers to exercise shipments with a minimized CO_2 footprint.
- All CAPEX costings are based on budget quotations, price lists and/or calculated prices, hence there is an opportunity to negotiate improved terms and prices with suppliers as the Project progresses to the next level of design.

- Plan and exercise exploration drilling of the inferred resource and identified exploration targets with the objective to increase the LOM.
- Following completion of the FS and recommendation to proceed, improved accuracy will be possible at the next level of study as engineering design progresses.
- Investigate and evaluate the possibility to further reduce the Project's carbon footprint by identifying the source of input goods, such as explosives (scope 1) chemicals, steel and concrete (scope 3) with a minimal or no carbon footprint.

19.4 Risks

Risks to project viability have been reviewed and highlighted, with thoughts/plans on how to mitigate same, for the next phase of the Project:

- Securing a long-term electrical power agreement with the local network operator, Vattenfall. Work initiated and constructive discussions ongoing.
- Securing stable and long-term agreement with the Transport Administration for rail access to Hargshamn and Oxelösund. Work initiated and constructive discussions ongoing.
- Securing long-term power prices at competitive levels with power supply companies. Contacts and discussions initiated.
- Finalise outstanding metallurgical testwork.
- Secure qualified staff for the operation. Continue to develop contacts with local schools and develop a good relationship with local and regional stakeholders.
- Secure delivery of key equipment, such as pumps for the dewatering of the mine and long-lead items. To be undertaken by initiating negotiations as soon as possible.
- The timely granting of the Environmental Permit to allow construction to begin. This can be achieved by working proactively and efficiently to complete queries from the Environmental Court.

20.0 Exploration Potential

The area in the vicinity of the Dannemora deposits holds the potential to further increase mineral resources through exploration. At present, most of the interpreted mineralised bodies are open at depth due to the shallow nature of the majority of the drilling.

An Exploration Target (as defined in Clause 17 of the JORC Code) report was produced by DMAB in October 2013. Tonnages and grade of potential mineralisation down-dip from existing mineralised bodies were estimated based on geological knowledge, existing drillhole assays, down-hole magnetic surveys, and geophysical surveys available at that time.

The total Exploration Target tonnage is estimated to be between about 20 Mt to 35 Mt with a grade ranging from about 34% to 39% Fe, from a total of seven Exploration Target areas identified. Historical and recent drilling results have been used for this estimate. Magnetic ground surveys and magnetic down-hole surveys have also been used. The magnetic surveys are both historic and recent, but all interpretations from the magnetic surveys are based on recent interpretations by geophysicist Lars Edberg.

The Competent Person (CP) for DMAB, at the time of reporting, Mr. Peter Svensson, accepted responsibility for the estimate. The current CP, Mr. Thomas Lindholm, was part of the team that defined the exploration potential and accepts responsibility today. The potential quantity and grade of the Exploration Targets is conceptual in nature and there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

EUROPEAN OFFICES

AYLESBURY
T: +44 (0)1844 337380

BELFAST
belfast@slrconsulting.com

BIRMINGHAM
T: +44 (0)121 2895610

BONN
T: +49 (0)176 60374618

BRADFORD-ON-AVON
T: +44 (0)1225 309400

BRISTOL
T: +44 (0)117 9064280

CARDIFF
T: +44 (0)2920 491010

CHELMSFORD
T: +44 (0)1245 392170

CORK
T: ++353 (0) 21 240 9000

DUBLIN
T: +353 (0)1 296 4667

EDINBURGH
T: +44 (0)131 335 6830

EXETER
T: +44 (0)1392 490152

FRANKFURT
frankfurt@slrconsulting.com

GRENOBLE
T: +33 (0)6 23 37 14 14

LEEDS
T: +44 (0)113 5120293

LONDON
T: +44 (0)203 8056418

MAIDSTONE
T: +44 (0)1622 609242

MANCHESTER
T: +44 (0)161 8727564

NEWCASTLE UPON TYNE
T: +44 (0)1844 337380

NOTTINGHAM
T: +44 (0)115 9647280

SHEFFIELD
T: +44 (0)114 2455153

SHREWSBURY
T: +44 (0)1743 239250

STIRLING
T: +44 (0)1786 239900

WORCESTER
T: +44 (0)1905 751310