

Integrated Underground Scoping Study San José Lithium Project

Fully integrated underground mining and downstream lithium hydroxide conversion plant highlights positive economics with the delivery of an improved societal and environmental project at San José.

Infinity Lithium Corporation Limited ('Infinity', or 'the Company') is pleased to announce the results from the Integrated Underground Mine and Lithium Hydroxide Scoping Study ('Scoping Study', or 'the Study') for the San José Lithium Project ('San José', or 'the Project') in the Spanish region of Extremadura. The robust financial outcomes are aligned to positive environmental impacts and societal benefits with increased levels of employment from prior technical studies.

The Scoping Study compliments ongoing technical studies and results from the Pre-feasibility Study ('**PFS**') in the delivery of battery grade lithium hydroxide (refer to ASX announcement 22 August 2021). The Company is continuing to engage with in country and European stakeholders in response to the evolving environmental and societal considerations which are aligned to the sustainable and increased demand for the production of battery grade lithium chemicals.

Infinity's Managing Director, Ryan Parkin noted "We are pleased to provide an alternative and viable option to bring this strategically essential project to fruition which provides multiple benefits to the locality of Cáceres whilst meeting the broader critical requirement for battery grade lithium chemicals in the EU. The Integrated Underground Mine and Lithium Hydroxide Scoping Study builds on the extensive test work that has recently resulted in the production of battery grade lithium hydroxide and carbonate. The Company looks forward to working with all stakeholders to deliver an exceptional outcome as we progress San José and provide an alternative resolution for local and regional government."

The announcement was authorised by the Board. For further inquiries please contact:

Ryan Parkin CEO, Managing Director T: +61 (8) 6146 5325 E: <u>rparkin@infinitylithium.com</u> Lucas Robinson Investor Relations Manager T: +61 (0)408 228 889 E: Irobinson@infinitylithium.com ASX Release 14 October 2021 ASX: INF FRA: 3PM

Project highlights

2nd Largest JORC hard rock lithium deposit in the EU

Strategically located in Spain, Europe to be the 2nd largest market for battery grade lithium after China

1st lithium project to secure EIT InnoEnergy Funding

Uniquely **fully integrated project** with mine and adjacent conversion plant

Low carbon footprint and sustainable operation

Corporate Directory

Ryan Parkin Managing Director & CEO

Adrian Byass Non-Executive Chairman

Remy Welschinger Executive Director

Jon Starink Executive Director

Contact

Level 3, 22 Railway Road Subiaco WA 6008

T: +61 (8) 6146 5325 E:admin@infinitylithium.com W: <u>www.infinitylithium.com</u> W: <u>www.sanjosevaldeflorez.es</u>



Integrated Underground Mine and Lithium Hydroxide Production Facility Scoping Study

San José Lithium Project

The new Scoping Study reveals underground development upside for the San José Lithium Project and the increased production of battery grade lithium hydroxide from an integrated facility.

Highlights

- Underground Scoping Study completed in response to stakeholder engagement and market demand for battery grade lithium hydroxide in the EU.
- Underground Scoping Study provides environmental and societal improvements from previously published pre-feasibility study including a reduction in surface tailings and visual impact, and significantly increased numbers of direct employment.
- Forecast average steady-state production of 19.5ktpa LCE of battery grade lithium hydroxide over 26 years.

NPV _{10%} (pre-tax)	US\$	811.7m
IRR	%	25.7
LOM Gross Revenues	US\$	7,938m
Average Net Cash Flow (From Production): 26 years	US\$	190.6m
Payback Period	yrs	3.2 ⁽¹⁾
LOM Average ROM	tpa	1.9m
Average Steady-State Production Lithium Hydroxide	tpa	19.5k
Pre-Production CAPEX	US\$	532.2m
Direct Employment – Steady State Production	#	400 ⁽²⁾

Scoping Study Outcomes

(1) Payback period after commercial production of lithium hydroxide

 400 ongoing direct project employment positions when in steady-state production, 710 including construction. Average price assumption for battery grade lithium hydroxide monohydrate US\$17,000/t. Fastmarkets Battery Raw Material Price Update (24 September 2021) battery grade lithium hydroxide monohydrate (56.5% LiOH.H2O) spot prices on CIF basis for China, Japan and Korea at a mid-point of US\$21,500 per tonne.

Cautionary Statement

The Scoping Study referred to in this announcement has been undertaken to assess the viability of an underground-only mining operation and integrated lithium chemical production facility at the San José Lithium Project. It is a preliminary technical and economic study of the potential viability of the San José

Lithium Project. It is based on low-level (accuracy) technical and economic assessments, (+/- 35% accuracy) and is insufficient to support estimation of Ore Reserves. Further exploration and evaluation work and appropriate studies are required before Infinity will be in a position to estimate any Ore Reserves or to provide assurance of an economic development case at this stage; or to provide certainty that the conclusions of the Study will be realised.

Infinity have independently engaged the services of Mining Sense Global S.L. to complete a desktop review for the development of an underground mine. Infinity has previously engaged Wave International Pty Ltd ('Wave') to assess the technical and economic viability to a Pre-Feasibility Study level with regards to producing battery grade lithium hydroxide under the San José Lithium Project. Whilst the Scoping Study has yielded robust outcomes and provided independent perspective on the opportunity to produce battery grade lithium hydroxide, there is no guarantee that the Joint Venture will choose to adopt the outcomes of the study.

The Production Target and forecast financial information referred to in this announcement is based on 76% Indicated Resources and 24% Inferred Resources for the life of mine life covered under the Study. In accordance with the twenty-six (26) year mine plan incorporated into the Study, the first 3.2 years of production (covering payback period) will be derived from 92% Indicated material with 8% from the Inferred category. The Inferred material does not have a material impact on the technical and economic viability of the project. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

This Scoping Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While the Company considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Study will be achieved.

Infinity Lithium Corporation Limited is in Joint Venture with Valoriza Mineria S.A., a subsidiary of SACYR S.A. over the San José Lithium Project. Infinity currently holds a 75% interest and has an Option to proceed to 100% interest at its election. This Scoping Study (on a 100% ownership basis), pre-production capital of US\$459m excluding contingencies, and US\$532.2m including a weighted average 16% contingency) will likely be required to fund the San José Lithium Project. Investors should note that there is no certainty that the Company will be able to raise that amount of funding when needed however the Company has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement and believes that it has a "reasonable basis" to expect it will be able to fund the development of the San José Lithium deposit.

It is possible that Infinity can pursue a range of funding strategies to provide funding options, and that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Infinity Lithium Corporation Limited's existing shares. It is also possible that Infinity Lithium Corporation Limited could pursue other value realisation strategies such as sale, partial sale, or joint venture of the San José Lithium Project. If it does, this could materially reduce Infinity's proportionate ownership of the San José Lithium Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of this Scoping Study.

Competent Persons Statement

The Mineral Resource estimates for the San José Lithium Project referred to in this announcement were reported by Infinity Lithium Corporation Limited in accordance with ASX Listing Rule 5.8 in its announcement of 23 May 2018. Infinity Lithium Corporation Limited is not aware of any new information or data that materially affects the information included in the ASX announcement of 23 May 2018 and confirms that all material assumptions and technical parameters underpinning the resource estimates in the announcement of 23 May 2018 continue to apply and have not materially changed.

The Mineral Resource estimates underpinning the production targets disclosed in this announcement have been prepared by a competent person in accordance with the requirements of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code), 2012 Edition.

Snowden Mining (2017) and Cube Consulting (2018) estimated the total Mineral Resource for the San José lithium deposit using Ordinary Kriging interpolation methods and reported above a 0.1% Li cut-off grade. Full details of block modelling and estimation are contained in the ASX announcement dated 5 December 2017 and updated 23 May 2018.

The information in this announcement that relates to the Scoping Study was reviewed by Adrian Byass, an employee of Infinity Lithium Corporation Limited. Adrian Byass is a member of Australian Institute of Geoscientists. Adrian Byass has provided written consent to the form and context in which the outcomes of the Scoping Study and the supporting information are presented in this announcement.

Infinity Lithium Corporation Limited has also engaged Mining Sense S.L. to complete an Underground Option Desktop Review in August of 2021 which informs this Scoping Study. Jesús Montero is a Mining Engineer at Mining Sense Global S.L.

Forward Looking Statements

Some of the statements contained in this report are forward looking statements. Forward looking statements include but are not limited to, statements concerning estimates of tonnages, expected costs, statements relating to the continued advancement of Infinity's projects and other statements which are not historical facts. When used in this report, and on other published information of Infinity, the words such as "aim", "could", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Although Infinity believes that its expectations reflected in the forward-looking statements are reasonable, such statements involve risk and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements include the potential that Infinity Lithium Corporation Limited's projects may experience technical, geological, metallurgical and mechanical problems, changes in product prices and other risks not anticipated by Infinity Lithium Corporation Limited.

Infinity Lithium Corporation Limited is pleased to report this summary of the Scoping Study and believe that it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates.

This announcement has been compiled by Infinity Lithium Corporation Limited from the information provided by the various contributors to the Scoping Study.

Executive Summary

Infinity Lithium Corporation Limited (ASX: INF, 'Infinity' or 'the Company') has conducted this Scoping Study ('Scoping Study', or 'the Study') to provide insight to the viability of developing the underground mine and the associated production of battery grade lithium hydroxide at the San José Lithium Project ('San José, or 'the Project').

Infinity has delivered this Study, leveraging off previously completed pre-feasibility level studies and subsequent test work in relation to the mineral processing and production of lithium chemicals from San José and integrated a wholly-underground mining operation to minimise impact on the environment and stakeholders.

This proposed solution removes the requirement for any open pit mining, replacing it with undergroundonly operations and preserves the landform at San José. An increase in scale of proposed production and change in mining method delivers an increase in direct employment over a comparable duration to the previously released Pre-feasibility Study ('PFS') (August 2019).

The Company has now delivered a Scoping Study involving only underground mining and processing on site to produce battery grade lithium hydroxide. The Scoping Study provides for a material change in the Project in direct response to societal and local considerations, and stakeholder interaction. The European development of a sustainable lithium-ion battery value chain could be positively affected by the availability of locally sourced and clearly traceable battery materials.

The Company believes this Scoping Study highlights the potential for San José to potentially produce increased quantities of battery grade lithium chemicals and deliver improvements in social, environmental and visual impacts through the move to consider underground mining activities.

This may assist Spain and the European Union ('EU') in their requirement to source substantial volumes of battery grade lithium chemicals and the ability to meet current Electric Vehicle ('EV') uptake projections. The EU is largely constrained by the ability to source critical raw materials and conversion capacity. The increase in production output and amendments to the project are in direct response to potential strategic partners and the broader EU lithium-ion battery markets' needs, whilst moving to further improve the Project's Environmental Social and Governance ('ESG') credentials and alignment to the community's desired outcomes.

San José is an outcropping lithium-tin deposit located in western Spain, near the town of Cáceres within the Extremadura region. The Project area has been historically mined for tin into the 1960s, with existing evidence of those activities remaining, including underground mining infrastructure and other disused buildings occupying the San José area. After cessation of tin mining, exploration and technical studies were undertaken by Spanish mining group Tolsa S.A. ('Tolsa') in the 1980s and 1990s which resulted in the identification of a substantial resource of lithium bearing mica minerals. Tolsa conducted technical studies on the mining and extraction of lithium at the time. The Project did not progress under Tosla's ownership and the tenure lapsed due to the different market conditions at the time.

In 2015 the Directorate-General for Industry, Energy and Mines of the Regional Government of Extremadura ('Junta') called for tenders including areas now referred to under San José. Spanish mineral resource company Valoriza Mineria S.A. ('Valoriza Mineria') submitted an application and was successful in the tender process with rights relating to a research permit area granted in early 2016. Infinity and Valoriza Mineria later entered into a Joint Venture ('JV') agreement with Infinity having now earned a 75% interest in the Project.

Whilst in JV with Valoriza Mineria, Infinity has managed the delivery of Scoping Studies and PFS for the production of battery grade lithium carbonate and lithium hydroxide from a proposed onsite production facility. Mineral processing at the facility is supplied by mining of the adjacent San José deposit. Prior studies were based on open pit mining scenarios.

Infinity has the Option, at its election to proceed to a 100% interest in the Project through a payment to Valoriza Minera.

Technologia Extremeña Del Lito S.L. ('TEL'), the JV Company, holds granted and application tenure over the San José Project. The Project is held within the outline of two tenements (PIV and PIAV, refer to Table 1) and this combined area is also covered by two successive applications which are 'next in line' by TEL.

One of the two underlying tenements is the subject of an appeal by TEL over the rejection of its application by the regional government body. Whilst TEL is appealing this in court it notes that its rights and security of tenure is maintained by the two successive, 'next-in-line' applications which cover the area.

Introduction

Infinity has produced the Scoping Study which is based on an integrated underground mine and lithium chemical processing facility on site. This is proposed to produce battery grade lithium hydroxide on site at San José.

This Scoping Study highlights the strong economic case for an integrated underground mine and lithium chemical production facility at San José and the potential for the Company to become a leading producer of lithium hydroxide in Europe for the growing battery industry.

The Study has collated stakeholder feedback and has included several substantial improvements in relation to minimising or removing visual and environmental impact, enhancing direct employment and financial benefit for the local community and region. This is in conjunction with a proposed increase in the annual production output.

Historically, San José supported underground tin mining until the late 1960s. Various studies for the site have been completed since then focusing on the extraction and processing of lithium-bearing mineralisation. Recent Scoping and Pre-Feasibility Studies completed by the Company through the Project JV since 2017 have shown the robust economic basis and processing routes amenable to the lithium mineralisation. Whilst Infinity is in JV on San José and is currently a 75% holder of the Project, it has the Option, at its election, to proceed to a 100% interest. This Scoping Study focuses on the underground-only option ('UG') and is based on a 100% ownership basis.

This study leverages off and builds on prior studies completed on San José including the most recently released PFS delivered in August 2019. Whilst ongoing pilot plant mineral processing test work currently underway is of Feasibility Study ('FS') level, the integration of an underground-only mine plan has driven the classification at this stage of study to be more conservative and defined as Scoping Study level.

Project Overview

Project Location

The San José Lithium Project is located near the town of Cáceres approximately 280 kilometres westsouthwest of Madrid, within the Extremadura Region of Spain as shown in Figure 1. Spain is considered to be a low sovereign risk investment location. The Project area is well serviced by infrastructure including electricity, gas, water and roads. There is a significant and growing availability of renewable electricity available to the Project (as evidenced by the adjoining photovoltaic installation in the tenement area, refer to Figure 2) and Infinity is examining opportunities in this regard.

As the demand for electric vehicles increases throughout Europe, the demand for lithium-ion batteries is projected to increase. The Project is located in close proximity to the growing European lithium-ion battery market.



Figure 1: Project Location



Figure 2: Aerial View of Project Setting



Tenure and Ownership

Infinity is in Joint Venture with Spanish Company Valoriza Mineria, a subsidiary of Spanish engineering and construction company, Sacyr S.A. To facilitate the JV special purpose company, TEL was created. Its only assets are the tenure and rights for San José, as shown in Figure 3. Infinity (75%) holds an option to acquire the remaining 25% interest in TEL and the results of this Scoping Study are presented on a 100% ownership basis.



Figure 3: Project Ownership Structure

The Project comprises of areas highlighted in Figure 4 Project Area and summarised in Table 1 below. All permits and applications listed in Table 1 irrespective of the holding entity are wholly owned by the JV.

Area	Reference	Entity	Status
San José:			
Investigation Permit Valdeflórez ('PIV')	10C10343-00	TEL	Cancelled – subject to contentious- administrative appeal
Investigation Permit Ampliacion Valdeflórez ('PIAV') Other Areas:	10C10359-00	TEL	Granted
Extremadura S.E.	10C10386-00	Castilla Mining S.L.	Exploration Permit Application
San José	10C10368-00	Valoriza Mineria	Investigation Permit Application
	Tabla 1. T	enement & Project Areas	

Table 1: Tenement & Project Areas

Tenure and permit application areas listed in Table 1 which comprise San José and interests of TEL are shown below in Figure 4.



Figure 4: Project Area

San José Joint Venture Permit Status

Infinity through the TEL JV maintains its rights over the San José area as shown in Figure 4. Tenure covering the Project is held through multiple, overlapping layers of granted, disputed and application tenure which preserve the Company's rights.

The Project is held with PIV (application under appeal) and PIAV (granted). The combined area is then covered by two successive, all-encompassing applications held by the JV partners. Infinity, through the JV is confident of its rights and position. A full discussion of the Project tenure is contained in ASX release 17 May 2021.

Valoriza Mineria submitted an application for the granting of a research permit in Q1 2016 and the General Directorate of Industry, Energy and Mines confirmed that Valoriza Mineria met the corresponding legal requirements, then selecting and accepting their bid called "Research Permit Valdeflórez" (ie. 'PIV') in April 2016.

The application submitted by Valoriza Mineria to obtain the Research Permit PIV was published in the Official Journal of Extremadura, so that interested parties could appear in the proceedings within fifteen (15) days following the publication of the announcement. After collecting the relevant reports and verifying that Valoriza Mineria complied with all the legal requirements for obtaining the PIV, the

Industrial, Energy and Mining Authorising Department of the Regional Government granted Valoriza Mineria the PIV. Subsequent to the granting of PIV at the request of Valoriza Mineria, the resolution of the Industrial, Energy and Mining Authorising Department of the Regional Government authorised the change of ownership of the PIV in favour of the TEL. This is due to Valoriza Mineria entering into a JV with Infinity (through wholly owned Spanish subsidiary Extremadura Mining S.L.) subsequent to the application being awarded to Valoriza Mineria.

TEL also holds 100% interest the extended Project tenure PIAV which is granted and in good standing. This adjoining area is designated for underground portal entry to access the underground operation and the location of the processing facility in this study.

The PIV was granted in October 2016, the JV conducted exploration works such as drilling to support Scoping Study and PFS work. It then reverted to application status in May 2019 due to the Junta's clerical errors based on it not advertising the application in public documents for a sufficient period before granting the PIV. The basis of the decision of the Junta to revert the PIV to application was due to a request from environmental association ACIMA for an ex officio review of the October 2016 process relating to the tender and subsequent issue of research permit PIV. Allegations raised by ACIMA included the following procedural defects:

- a) the public information procedure, where there was a period of public notice totalling fifteen (15) days instead of thirty (30) days, and
- b) the failure of the Junta to provide the restoration plan as required in the public information period. The restoration plan was provided by Valoriza Mineria as a requirement under the public notice procedure.

TEL submitted responses to all allegations that resulted from the administrative fault of the Junta that reverted the granted PIV back into application. The decision could potentially affect a significant number of permits held by others that have been granted in Extremadura.

The Company is contesting the cancellation of PIV and has lodged a contentious-administrative appeal. The Company strongly disputes the basis of the decision of the cancellation of PIV and retains all legal rights against the Junta of Extremadura. For further details refer to ASX announcement 17 May 2021 with reference to the background and administrative decisions of the project tenure areas.

TEL received notification that an appeal lodged by a Non-Government Organisation ('NGO') against the Project's PIAV was dismissed and the extension area remains granted and in good standing. The administrative process of the application for the Sierra de la Mosca Protected Landscape declaration remains in process with final proposal to the public for the presentation of the pertinent allegations, potentially affecting areas included in PIAV.

The permit types are identified in Table 2 and the table is modified to provide some guidance as to equivalent permit types as used in the Western Australian resources environment.

Spanish Tenure Type	Australian Equivalent	Period (Min-Max)	Size Km² (Min-Max(Comment
Exploration Permit	Nil	1-2 years	67.5 - 675	No active surface works – e.g. mapping, remote sensing.
Investigation Permit	Exploration Licence	1-9 years	0.255 – 67.5	Can allow drilling and bulk sampling.
Exploitation Concession	Mining Licence	30-90 years	0.225 – 22.5	Mining and treatment.

Table 2: Spanish Tenement Types

It is important to note that whilst the PIV is the subject of dispute, there are overlying claims held by the JV which cover not just the PIV and adjoining PIAV area but larger extents as well (Figure 4).

Study Team

The following team contributed to the completion of this Study:

Country	Person	Company	Position
₩	Adrian Byass	Infinity Lithium	Non-Executive Chairman: Geologist
*	Ryan Parkin	Infinity Lithium	Managing Director
	Remy Welschinger	Infinity Lithium	Executive Director
*	Jon Starink	Infinity Lithium	Executive Director/ CTO: Process Engineer
米	Dr David Maree	Chemprocess Pty Ltd	Director: Process Engineer
	David Valls	Extremadura Mining S.L.	General Manager Spain: Geologist
- <u>18</u>	Jesus Montero	Mining Sense Global S.L.	Mining Engineer
.	Maria de los Angeles Ramos	Mining Sense Global S.L.	Mining Engineer

Table 3: Study Team

Consultants: Supporting Information	
Cube Consulting	2018 MRE
Peter O'Bryan and Associates	Geotechnical Study
Wave Engineering	2019 PFS

Table 4: Supporting Information

Mineral Resources

San José is a zinnwaldite mica replacement deposit hosted by pelitic shales of the Central Iberian Zone, with lithium mineralisation occurring predominantly within the slates and to a lesser degree in the quartz carbonate veins which have been historically mined for tin. The rock which hosts mineralisation at San José is comprised roughly in equal parts mica, quartz and tourmaline. Mineralisation within quartzite is typically low-grade. The pervasive nature of mineralisation (broad, relatively homogeneous distribution) is likely derived from a deep-seated intrusive source. Mineralisation is open at depth and has not been closed off by drilling.

San José has a very large JORC 2012 Mineral Resource Estimate ('MRE') with most of the mineralisation classified as Indicated. Cube Consulting estimated the MRE in 2018 using Ordinary Kriging and is supported by 57 RC and Diamond Drillholes for 11,774m of Reverse Circulation ('RC') and Diamond Drilling (ASX release 5 December 2017, 23 May 2018). A cut-off of 1,000ppm lithium was initially used to constrain open pit mineralisation. A higher cut-off of 2,500ppm has been used as an economic cut-off for optimisation and economic evaluation of potential underground operations. These are shown in Table 5 and 6.

Classification	Tonnes (Mt)	Li (%)	Li ₂ O (%)
Indicated Resources	59.0	0.29	0.63
Inferred Resources	52.2	0.27	0.59
TOTAL	111.3	0.28	0.61

Table 5: 2018 MRE San José at a 1,000ppm lithium cut-off

Classification	Tonnes (Mt)	Li (%)	Li ₂ O (%)
Indicated Resources	36.80	0.35	0.72
Inferred Resources	28.64	0.34	0.75
TOTAL	65.44	0.34	0.74

Table 6: 2018 MRE San José at a 2,500ppm lithium cut-off

Estimates using Ordinary Kriging methodology. NB: small discrepancies may occur due to rounding. Further details in ASX release 23 May 2018.

Lithium (Li) mineralisation is commonly expressed as either lithium oxide (Li_2O) or lithium carbonate (Li_2CO_3) or Lithium Carbonate Equivalent (LCE). Lithium Conversion 1.0% Li = 2.153 Li_2O

The spatial distribution of Indicated and Inferred mineralisation at San José is shown in Figure 7. San José is a bulk-style deposit. Mineralisation at San José has not been closed off and is open at depth and along strike. The distribution of Indicated and Inferred mineralisation is distinctive and a zone of Inferred classification mineralisation wraps around the main, central, and coherent body of Indicated classification mineralisation. This is shown in Figure 5. This is influenced by drilling density and prior requirements to drill the deposit to support open pit mining and the MRE decreases in confidence as from the centre of the edge and as depth increases.



Figure 5: Resource classification San José over cross section.

The proposed mining will be preferentially focused on the areas of mineralisation classified as Indicated. Some Inferred mineralisation is included in the mine plan, but this is the minority and mainly at the later stages of proposed mining and processing.

The Scoping Study mining model is derived predominantly from Indicated category Mineral Resources. The current underground mine design optimises approximately 60% of the defined Indicated Mineral Resource Estimate.

Mining

Previous mining at San José has been conducted using underground methods on a limited scale to extract tin-bearing quartz veins. Subsequent studies have been conducted by Infinity and prior owners into open pit mining of the lithium resource.

This study is based on large-scale mining in an underground-only method. Additional test work (drilling, process test work, geotechnical and mining studies) conducted by Infinity since 2016 (and released to the ASX as completed) has demonstrated greater depth extensions to the mineralisation at San José, and significantly upgraded the total resource. This work supports the underground-only mining scenario presented in this Scoping Study.

Infinity engaged Mining Sense to produce an underground mining plan to support a 2 million tonnes per annum (Mtpa) processing plant located on site. To do this, an underground mine will be developed with the portal entrance located adjacent to the proposed process plant location in PIAV. This decline will

extend approximately 1,300m and drive from the portal WNW declining to approximately 60m below ground before it encounters the resource.

Mining Sense selected transversal long hole stoping with paste backfill as the ideal mining method for resource extraction. This method, which allows mining in primary and secondary stopes, will enable maximum extraction of the mineralisation and maximum storage of tailings in the voids left through underground paste-fill. The conceptual design including mine decline, ventilation and production stopes are shown in Figure 6.



Figure 6: San José Conceptual Mine Design: Proposed LOM underground stoping (red) and decline development (yellow)

The mine will ramp-up to full production over a 2-year period from start of production and then operate at 2.0Mtpa production for 22 years before it reduces based on current available resources to cease production after 26 years. The mine plan delivers 47.7Mt for a contained 145.7kt of LCE to the processing plant. The mine schedule is shown below in Figure 7.



Figure 7: San José Production report LOM in tonnes and grade

Previous underground tin mining at San José was limited in scale and focussed mainly on narrow tinbearing quartz veins. Underground mining extended below the proposed crown pillar (40m) and ventilation/secondary egress can be exploited through historical shafts as shown in Figure 8.



Figure 8: San José Long Section showing historical underground mining and location of historical surface infrastructure

Pre-production development of the underground mine is forecast to take two years. The ramp up production period to process the beneficiated product is forecast for a further two years. The LOM production report is detailed in Figure 7.

Limited historical mining is not projected to interfere with underground lithium mining as a crown pillar of 40m will be preserved above bulk long-hole stoping contemplated in this study.

Mining will be conducted utilising twin boom jumbo excavators with mined material mucked and transported in Load Haul Dump ('LHD') to stockpiles. Front end loaders will rehandle mined material into articulated trucks which will deliver it to the ROM. Labour requirements for the mining operation require 50 people in management, technical and maintenance labour staffing. A further 126 people are required in technical/production roles. A total of 246 people will be employed in the mining activities to deliver material for processing.

Mine Infrastructure requirements consist of:

- Mine ventilation;
- Mine dewatering;
- Paste fill and reticulation system;
- Power supply with combined installed power in the range of 4.5-5.5 Mega Watt ('MW');
- Compressed air industrial water supply;
- Mine access (portal and decline); and
- Control and communication system.

The Capital Cost ('CAPEX') for pre-production includes:

- Mining equipment purchases and/or leases;
- Mine development construction including the portal, decline, crosscuts, footwall drives, ventilation raises and development to allow first ore production; and
- Infrastructure covering paste-fill plant, paste reticulation system, ventilation, dewatering, power infrastructure, communications systems and safety infrastructure.

The CAPEX estimate for pre-production is based on a combination of quotes and cost data from similar projects as appropriate to this level of study. Mining Sense estimates that the quotes are sufficient to PFS level of study. The main sources of data include:

- a) specific quote pricing based on project specifications (56%), then
- b) calculated from a combination of quotes and Mining Sense experience (20%); and
- c) based on similar projects but at PFS level (24%).

Pre-Production Mine CAPEX

Pre-production capital cost of \$36.0 million is estimated. The assumption of decline and portal location is based on the plant location in PIAV. This includes portal, decline, ventilation, mining fleet purchases.

Life of Mine CAPEX

The Life of Mine ('LOM') capital costs are detailed in Table 7 and are based on the assumption of sustaining CAPEX (5%), rolling rebuilds of equipment on 5-year intervals, plant maintenance and upgrades to installed infrastructure as required.

The major cost is associated with development to access mineralisation and make ready for stoping (operating costs). Due to the relatively early stage of study for underground mining, Mining Sense has allocated a large and conservative contingency cost as well (20%).

Activity	US\$m
Development	139.8
Mining Equipment	85.0
Mine Infrastructure	15.0
Tailings Management	14.3
Contingency ⁽¹⁾	50.8
TOTAL	305.0

Table 7: LOM CAPEX – Underground Mining

(1) Underground Mine LOM CAPEX contingencies 20%

Mining OPEX

The operating cost ('OPEX') related to mining assumes owner operator mining in the estimates. The OPEX estimate encompasses all mining activities associated with ore mining including ore stoping, and backfilling. The OPEX has been estimated by Mining Sense using first principles.

Activity	US\$m
Stoping	633.2
Paste Backfill	47.6
Ore Drives	87.9
Contingency ⁽¹⁾	153.8
TOTAL	922.5

Table 8: OPEX – Underground Mining

Operating Costs LOM and unit costs are shown in Table 8 and includes a 20% contingency.

Processing

This Study is based on underground mining delivering an average steady-state 2.0Mtpa to the processing plant, located within 2 kilometres of the resource. The lithium bearing mica ore is separated from related quartz and tourmaline minerals through a crush, grind and froth flotation beneficiation process. The mica concentrate will then be treated via a sulphate roast using water leach with crystallisation and precipitation.

The lithium sulphate leachate produced from this process is then purified and treated with sodium hydroxide (caustic soda) to produce lithium hydroxide (Wave International, 2019). Optimisation is ongoing as part of pilot-scale test work currently underway but no material changes are currently proposed. The process assumptions under the PFS have been retained. Additional purification and crystallisation processes are required to produce battery grade material. A full description of this process is outlined in the San José PFS, ASX release 22 August 2019. Test work has continued at pilot scale and the related test work resulted in the delivery of battery grade lithium hydroxide which was detailed in ASX release 20 September 2021.

The beneficiation process plant will produce approximately 885ktpa of concentrate from 2Mtpa. The mine schedule is designed to produce approximately 19,500tpa of battery grade lithium hydroxide over 22 years of production after the initial two years of ramp up. The process schematic is depicted in Figure 9.



Figure 1: Process Schematic

The estimated process infrastructure and non-process infrastructure capital cost is US\$412.7 million (excluding contingency) for a 2.0Mtpa process facility based on the PFS and without amendment other than scaling factors. The capital cost estimate has been based on factoring appropriate parts of an expansion of prior PFS estimates and industry benchmark values.

The location of the proposed plant is assumed to be in the same location and layout as the 2019 PFS within PIAV.



Figure 10: 3D Render of the Proposed Processing Plant: PFS August 2019

Metallurgy and Concentrate Product Quality

The Company's metallurgical test work assumptions are noted with reference to recoveries for beneficiation and hydrometallurgy from the PFS. Results have returned high recoveries to date, averaging 66.5% beneficiation and 79.6% hydrometallurgy recoveries.

Test work has progressed with German based engineering and laboratories group Dorfner Anzaplan and the work program (in alignment with the Project Agreement with EIT InnoEnergy) has progressed with the successful production of battery-grade lithium hydroxide monohydrate in open circuit with only a single stage of crystallisation. The test work is part of its on-going process flowsheet development program. Locked-cycle test work will be undertaken and the pilot-scale production of mineral concentrate (beneficiation) has been successfully completed with no material deviation of performance from bench-scale test work. The up-scaled test work programme has provided a total of circa 400 kilograms of flotation concentrate for subsequent process test work, the first stage of which is sulphation roasting. For further details refer to ASX announcement 20 September 2021.

Tailings Storage Facility

Whilst this estimate has assumed no variation in process flow sheet from the 2019 PFS study it has assumed use of paste fill in underground and therefore there is a significant reduction in Tailings Storage Facility ('TSF') requirements.

There is a significant (>50%) reduction in proposed surface storage of tailings as a result of underground paste-fill. A capital cost of US\$6.1 million LOM (excluding contingency) has been estimated tailings storage. The Pre-Production TSF capital cost estimate amount (which feeds into NPI CAPEX) is US\$2.1 million. This estimate has been produced to support economic studies based on a 2.0Mtpa underground-only mine plan and associated Scoping Study and suitable levels of accuracy.

The TSF capital cost estimate has been based on factoring of prior PFS estimates and takes advantage of the significantly reduced land use requirement. The location of the proposed plant is assumed to be in the same location as the 2019 PFS within PIAV.

The waste streams at San José will include

- 1) Waste rock from mining/beneficiation;
- 2) Waste from the roast process; and
- 3) Waste(s) from hydrometallurgy process

It is proposed that waste streams from underground mining and beneficiated material, as well as the roast residue, are combined with cement and used as paste-fill in the underground mining operation. The surface storage tailings is proposed as per the PFS ASX announcement 22 August 2019.

The projected total surface impact of the reduced TSF area, with no change in processing plant surface area and no open pit are shown below in Figure 11. This highlights the potential to significantly reduce the surface impact of TSF compared with the 2019 PFS with rehabilitation post-production covering remaining material.

The Company will undertake further work on additional potential saleable materials, either as potential for sale or disposal off site (see Next Steps).



Figure 11: Projected Total Surface Impact of the Proposed Underground Mine

Infrastructure, Transport & Logistics

The Study anticipates the requirement for both process infrastructure and non-process infrastructure to be built or accessed by Infinity. The Project is in close proximity to a major gas pipeline(s), roadways, water and electricity (see Figure 2). The region of Extremadura has extensive renewable energy infrastructure (both photovoltaic and wind). The electricity requirements for the Project have the potential to be aligned to specific energy generating assets or alternatively green energy certificates acquired.

Construction and Operational

A logistical solution was delivered as part of the 2019 PFS for the construction and operation of the San José integrated lithium chemical production facility and this has formed the basis of this section. It is envisaged there will be the requirement to deliver substantial amounts of equipment to site prior to and during construction. The Scoping Study has envisaged the utilisation and acquisition of capital equipment almost exclusively produced in the EU, and the availability within the EU and Spain of all reagents required means that international shipping and transport is not necessary at this stage.

During operation, reagents and consumables will have to be delivered and finished product transported to consumers. A major component which reduces transport and improves the logistical solution is the gas pipeline which runs adjacent to the Cáceres-Madrid highway, immediately north of the Project. It is proposed that gas, electricity (grid) and municipal water will be accessed by the Project via power line and pipeline, reducing transport requirements substantially.

Consumables Transport and Logistics

Spain and the EU have an excellent infrastructure network covering transport, water, power, and communications. The ability to move within the EU and not incur customs duty is also an important aspect of this logistical benefit.

All of the reagents required for San José that are inbound to the site including consumables (such as diesel fuel for the operational vehicles) can be obtained in Spain and trucked to site. Transport infrastructure includes multilane highway within 3km of the Project which has a direct connection to Madrid, major ports and continental Europe. The link road/bypass to the east of the town separates the Project from the town and allows access to the Project from the south (Miajadas Road). The major road network in Spain is expected to be a large part of the logistical solution. Typical transport will be conducted using rigid, 25t capacity haulage vehicles.

Alternatively, the consumables have an option to arrive via Spain's extensive rail network. There is an extensive national rail network that can facilitate the carriage of goods either to, or from San José. The EU "Ten-T Core Rail Network" includes the region of Extremadura. There is a station in Cáceres and a siding for heavy goods use. Trucks will not have to drive through the town of Cáceres with adequate access from major highways adjacent to the Project area, and the added benefit of the Cáceres ring road.

If maritime shipping was required there is easy access to ports throughout Spain including Algeciras Port, Huelva Port or Valencia.

Product Transport and Logistics

Lithium hydroxide monohydrate is a high value product that requires an airtight transport solution. It is anticipated that product would be transported in sealed sea containers and can be safely transported by road, rail and/or seaborne freight. It is anticipated that product will be sold at the mine gate and transport arranged by the consumers.

General & Administrative

A variety of general and administration costs have been included in the operating expenditure estimate including insurances, freight, consultants, tenement fees, communications and office expenses. These estimates have been assumed from relevant Australian and Spanish sources and reflect general mining and location specific circumstances.

Labour

The labour costs for the Project have been estimated using an organisation chart for a typical underground mine and processing plant. The estimate is based on the assumption the mine will operate 24 hours per day, 365 days per year, with shifts being 8 hours long. Total workforce requirements are listed below in Figure 12.



Figure 12: Direct Employment Summary

(1) Assumed direct employment per PFS – scale up to 2Mtpa not factored. Scale up factored: 496 construction, 201 processing, total 971. The rate for each identified role within the organisation has been based on similar project studies in Europe.

Economics

The economic estimates presented in the Scoping Study are based on available information. Previous studies used to inform these estimates include:

- Valdeflórez Project-Underground Option Desktop Review (Mining Sense Global SL, 2021);
- Valdeflórez Project- Open Pit and Underground Conceptual Study (Mining Sense Global SL, 2020);
- The San José Lithium Project Pre-Feasibility Study (PFS)(Wave International, 2019).

Capital Expenditure Estimates

The pre-production capital cost estimate (CAPEX) for San José is shown below. This is based on the production battery grade lithium hydroxide on site. The estimate is considered to be suitable for a Scoping Study and the basis for further optimisation and de-risking work. The capital cost estimates for pre-production, including ramp-up, is listed in Table 10.

Pre-Production Capital Costs	US\$m
General & Underground Mining	46.7
NPI & Processing	412.7
Total Ex-Contingency	459.4
Contingencies ⁽¹⁾	72.8
Total	532.2

Table 10: Pre-Production Capital Cost Estimates

(1) Pre-production CAPEX contingencies for underground mining 20% per Mining Sense. Pre-production contingencies for general and other NPI 10%. Contingencies for processing plant and NPI 15.4%

Operating Costs

Operating costs are inclusive of mining, processing, infrastructure, waste storage, administration and product transport fees. The mining cost estimate is based on an owner's fleet model and includes contingencies of 20% on all base assumptions. An inclusive cost estimate is presented below in Table 11 inclusive of ramp up and scale down assumptions over the life of the Project.

Average Operating Costs Estimates	US\$/t
General & Underground Mining	2,265
Processing	4,134
Total LOM C1 Costs	6,399

Table 11: Operating Costs Estimate

The average LOM C1 cost excluding underground mining cost contingencies is US\$6,070 per tonne.

Financial Assumptions & Project Economics

Financial assumption (Tables 12 - 14) and sensitivity analysis (Table 15) are shown below. Revenue and cash flow forecasts have been developed using a consensus of analyst forecasts for the lithium prices over Project's life of mine.

Average long-term lithium hydroxide price	US\$/t	17,000
Exchange Rate	€: US\$	1.15
Discount Rate (pre-tax)	%	10%
Conversion Factor Li ₂ O : Li ₂ CO ₃	:	2.473
Conversion Factor LiOH.OH : Li ₂ CO ₃	:	0.880
Beneficiation Recoveries	%	66.5%
Hydrometallurgy Recoveries	%	79.6%
Average ROM LOM	Mtpa	1.9
Construction	yrs	2
Ramp Up	yrs	2
LOM	yrs	26

Table 12: San José Base Assumptions (Life of Mine Averages)

Total Gross Revenues	US\$m	7,938
Operating Costs – General & Underground Mine	US\$m	1,057
Operating Costs – Processing	US\$m	1,930
Gross Margin	US\$m	4,951

Table 13: San José Cash Flow & Operating Gross Margin

Average Net Cash Flow (From Production): 26 years	US\$	190.6m
Net Present Value (Pre-Tax)	US\$	811.7m
Internal Rate of Return (IRR)	%	25.7%
Project Payback Period	Years	3.2

Table 14: San José Project Metrics

NPV	-20%	-10%	Base	+10%	+20%
Lithium Hydroxide Price	370.4m	591.1m	811.7m	1,032.4m	1,253.1m
Operating Costs	983.4m	897.6m	811.7m	725.9m	640.1m
Capital Expenditure	919.1m	865.4m	811.7m	758.1m	704.4m
IRR	-20%	-10%	Base	+10%	+20%
Lithium Hydroxide Price	18.2%	22.1%	25.7%	29.0%	32.2%
Operating Costs	28.5%	27.1%	25.7%	24.2%	22.8%
Capital Expenditure	30.4%	27.8%	25.7%	23.8%	22.1%

Table 15: Sensitivity Analysis

(1) Underground mining costs assume a 20% contingency per Mining Sense.

(2) Pre-production CAPEX contingencies for underground mining 20% per Mining Sense.

(3) Pre-production contingencies for general and other non-process infrastructure 10%.

(4) Contingencies for processing plant and NPI 15.4%

Timeline to Production

This Scoping Study shows that a 2.0Mtpa scenario begins following a pre-production and ramp up phase of four years, with a decline extending approximately 1,300m from porthole to first ore production approximately 60m below surface. Planned extraction of the first mineralisation from development is scheduled for Q1 of 2025 through commissioning and production.



Figure 13: Projected Timeline

Project Funding

The Board of Infinity believes there is a reasonable basis to assume the necessary funding for San José will be obtained for the following reasons:

- The Project will likely be funded through both debt and equity;
- Infinity Lithium maintains 75% Project ownership through wholly owned Spanish subsidiary Extremadura Mining S.L. with a call option acquire the balance of 25% and therefore move to 100% Project ownership prior to the final investment decision;
- The EU COVID Recovery & Resilience funding is highly aligned to projects relating to digital transformation, renewable energies and sustainability. Projects that relate to critical raw materials and in particular lithium have been highlighted;
- The Spanish Prime Minister announced the Strategic Projects for Economic Recovery and Transformation initiative ('PERTE') in July 2021. PERTE is the post-pandemic economic recovery mechanism which allocates €4.6 billion to the development of the lithium-ion battery value chain and electrification projects within Spain;
- The European Investment Bank ('EIB') is one of the world's main financiers of climate action. The European Union is at the forefront of the global fight against greenhouse gas ('GHG') emissions and to adapt to a changing climate. It plays a leading role in implementing the Paris Agreement. The EIB Group places sustainability at the heart of these EU initiatives;
- There are low interest loans and grants available through the COVID funding initiatives and low interest-bearing debt facilities provided through the EIB that are aligned to the strategic objectives of the EU and the move towards a Net Zero Carbon 2050 target;
- The Board and Management of Infinity have a strong financial track record in raising equity and project finance for numerous ASX listed companies of which multiple are in construction/development currently and/or production;
- Infinity has approximately A\$19.1 million (as at 30 June 2021) in cash and therefore has sufficient funds to progress to the next phases of the Project, including the PFS for the San José Lithium Project with underground raw material extraction; and
- Increasing global demand for batteries and battery products supports Infinity's views about the long-term viability of the Project.

The Company has formed the view that there are reasonable grounds to assume that a combination of offtake, finance, debt and equity will likely be successfully raised and be sufficient to cover the estimated capital and working capital costs as and when required. Investors should however note that there is no certainty that the Company will be able to raise the amount of funding required when needed.

It is possible that funding may be dilutive to, or otherwise affect the value of the Company's existing shares. It is also possible that the Company could pursue other strategies to provide alternative funding options including undertaking a corporate transaction, seeking a joint venture partner or asset sales.

Next Steps

Prior to the delivery of this underground-only Scoping Study, Infinity had successfully delivered a PFS and was progressing work on a Feasibility Study based on open pit mining.

Irrespective of the mining style, the mineral processing and integrated lithium chemical processing facility component of the various technical studies does not vary. Infinity proposes to advance San José and to

continue investigation into the viability at higher confidence levels of an underground-only mining and integrated processing facility. The Company will ensure that the next steps include:

- Continued engagement with local and regional stakeholders and alignment of the Project to local, regional and national interests in the development of an integrated lithium chemical business;
- Improve and advance stakeholder relations through actions such as pivoting the proposed operation from open pit to underground in order to minimise visual and other impacts whilst still ensuring important economic benefits to the region;
- Align activities to the significant renewable energy infrastructure in Extremadura and examine opportunities to electrify underground mining fleet and machinery to potentially further reduce carbon emissions associated with mining;
- Technical studies to enhance confidence levels supporting underground mining to Pre-Feasibility Studies and potentially Feasibility level Studies if appropriate;
- Continue to advance parallel and interchangeable metallurgical processing test work that is currently underway to deliver Feasibility Study output(open pit mining and integrated processing facility;
- Investigate integration of advanced metallurgy and other technical aspects into the undergroundonly mining which would require additional drilling for geotechnical and resource definition activities;
- Advance and expand the publicly announced offtake relationships and continue engagement with other strategic stakeholders in both Spain and the EU;

Lithium Market Overview

Commentary on the lithium market has been obtained from industry publications and open file data.

Global demand for lithium raw materials and lithium chemicals is forecast to continue grow with the adoption of EVs. Forecasts highlight that China will remain the largest market for lithium-ion batteries and EV production, however increasing EV market penetrations in the EU in 2020 are expected to remain strong following the introduction of tighter EU fleet CO₂ emissions standards, implementation of a battery passport, and government subsidies.



Figure 14: EV Sales at July 2020. Source: Canaccord Genuity September 2021

Canaccord Genuity have noted market balance surpluses to be reversed by 2023, with longer term forecast highlighting significant global market deficits evident from 2025, and the total global demand for lithium to reach more than 2.5Mt LCE by 2030.



Source: Canaccord Genuity September 2021

Source: Canaccord Genuity September 2021

The EU is forecast to require significant volumes of battery grade lithium chemcials. Canaccord Genuity forecast that the EU will require more than 600,000 LCE tonnes based on an EV penetration rate of more than 60% by 2030 (Figure 17).



Figure 17: Canaccord Genuity EU Demand Forecast (Canaccord Genuity Capital Markets, 2021), Infinity Lithium.



Figure 18: Lithium-Ion Battery Gigafactory Projection. Source: Infinity Lithium and Roland Berger July 2021

The global battery grade lithium chemical supply deficiency that has been forecast has been highlighted in Europe by Benchmark Mineral Intelligence, forecasting in September 2021 that a growing raw material disconnect between supply and demand could lead to an annual shortfall of up to 500,000 tonnes in Europe by 2030.

The pricing of battery grade lithium chemicals has seen substantial increases in the spot market throughout 2021. Leading PRA Fastmarkets Battery Raw Material Price Update (24 September 2021) provided the rationale for battery grade lithium hydroxide monohydrate (56.5% LiOH.H2O) spot prices on CIF basis for China, Japan and Korea at a mid-point of US\$21,500 per tonne. The European market will be subject to sustainability requirements through the New EU Battery Regulations and Battery Passport, however EU pricing impacts on battery grade lithium chemicals have not been factored into pricing projections.

References

Benchmark Mineral Intelligence. (2021). Lithium Forecasts. https://www.benchmarkminerals.com/forecasts/#lithium

Canaccord Genuity Capital Markets. (2021). EV Materials: Lithium.

European Commission. (2020). Study on the EU's list of Critical Raw Materials (2020): Final Report. <u>https://ec.europa.eu/growth/sectors/raw-materials/specific-interest/critical_en</u>

Mining Sense Global SL. (2020). Valdeflórez Project - Open Pit and Underground Conceptual Study.

Mining Sense Global SL. (2021). Valdeflórez Project - Underground Costs Calculation & Preliminary Throughput Review.

Wave International. (2019). San José Lithium Project Pre-Feasibility Study (PFS).