



PENINSULA MINES
LIMITED

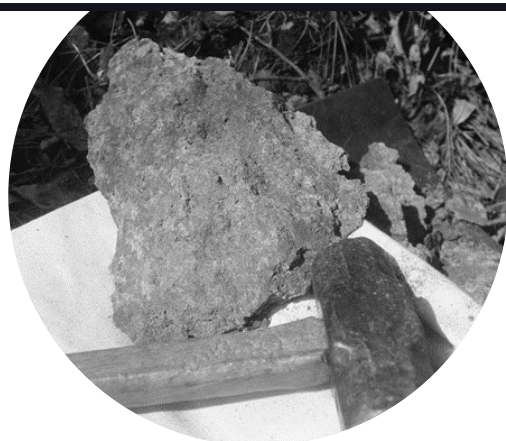


PENINSULA MINES LIMITED

discovery.

development.

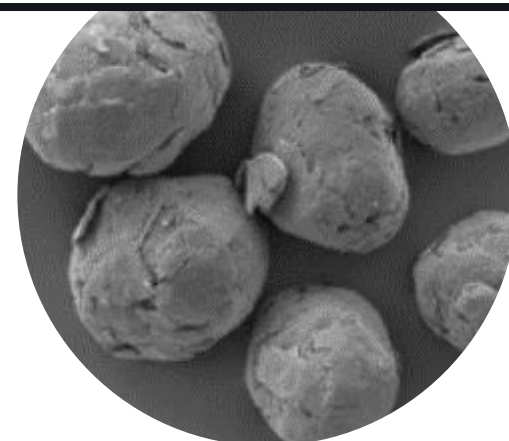
delivery.



Graphite Ore (>10% TGC)



Flotation Concentrate (>95% TGC)



Spherical Graphite (>99.95% TGC)

“High-purity graphite and other metals for
South Korea’s battery industry.”

PENINSULA MINES LTD (ASX:PSM)

October 2018 |

The Window of Opportunity in South Korea for PSM:



South Korea, a global leader in high-tech manufacturing, e.g. Lithium-Ion Batteries:

- South Korea: stable advanced economy, excellent infrastructure, low taxes and FI incentives,
- Leading manufacturer of Li-Ion (graphite) batteries and key player in renewable energy,
- Depends entirely on high-cost **Spherical Graphite**, and other products/metals from China, despite,
- historically Korea being a/the major graphite producer and other metals e.g. zinc.



Recognition by PSM that Korea is underexplored and multiple drilling targets now defined:

- Peninsula has four, granted, 100% owned, flake-graphite projects in South Korea e.g. **Gapyeong**
- Modern exploration (e.g. EM) applied for first time has defined Exploration Targets, **now drilling**



Opportunity to develop a graphite mining & downstream processing business in South Korea:

- Metallurgical testwork has established >95% concentrate potential for all four flake-graphite projects
- Testwork planned to produce spherical graphite (un-coated initially) targeting >99.95% purity



Established relationships with key Korean end-users of flake-graphite products:

- Near term delivery of flake graphite resources and metallurgical testwork to meet end-user specifications,
- provides opportunity to convert relationships to offtake / partnership agreements to drive graphite business

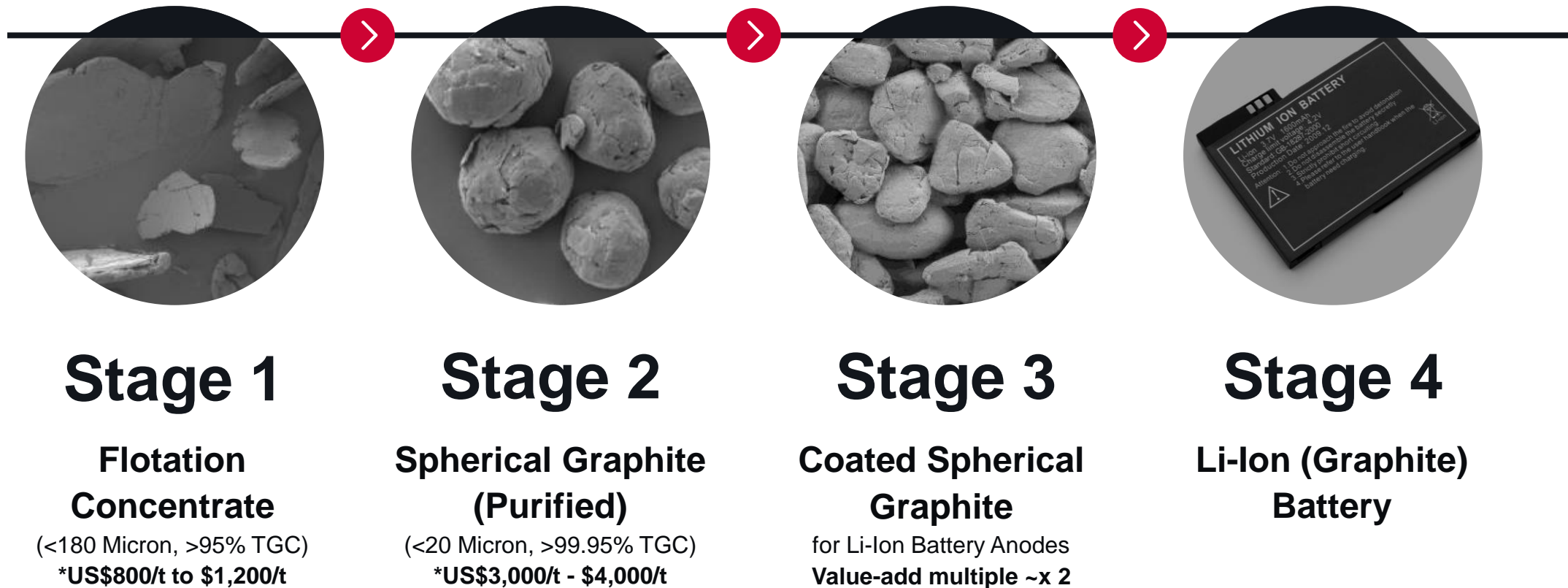


Other drilling targets in previously underexplored terranes:

- High-grade **Zinc-Lead-Copper Targets** with previous intersections e.g. 7m @ 14.6% Zn, 2.1% Cu
- High-grade **silver-gold lodes** drilled at the Osu Project, results to come
- Further drilling subject to access and funding/partnerships

Securing the graphite supply chain from mine to battery

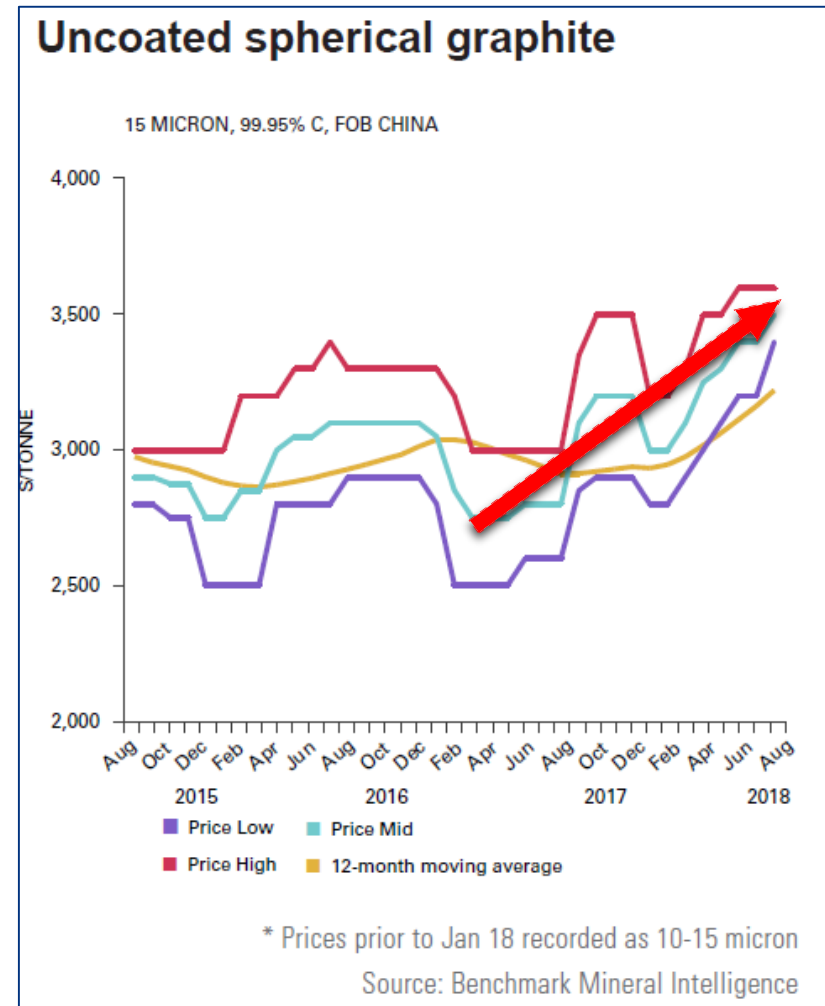
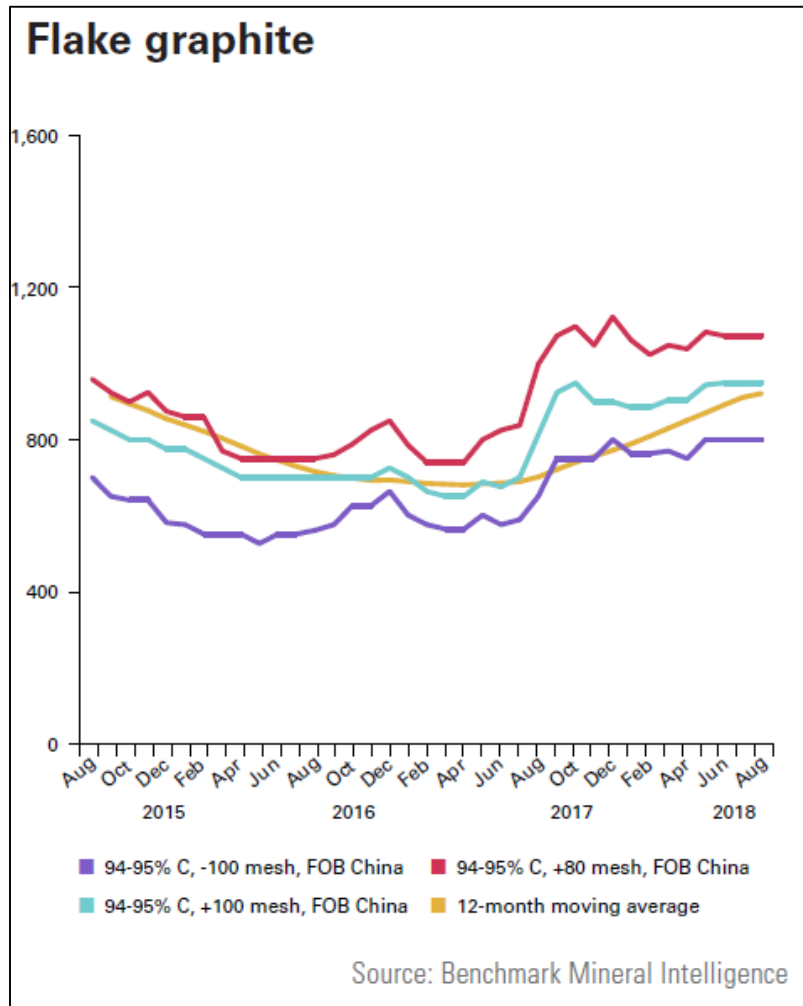
graphite production and downstream processing value-add



*Pricing from Benchmark Mineral Intelligence monthly reports 2018

Focused on the High Purity (>Value) Graphite Production:

flake graphite price stabilised, spherical graphite up 40%, 18 months



Applying modern exploration to an under-explored, but highly prospective, high-tech. country

Flake Graphite:

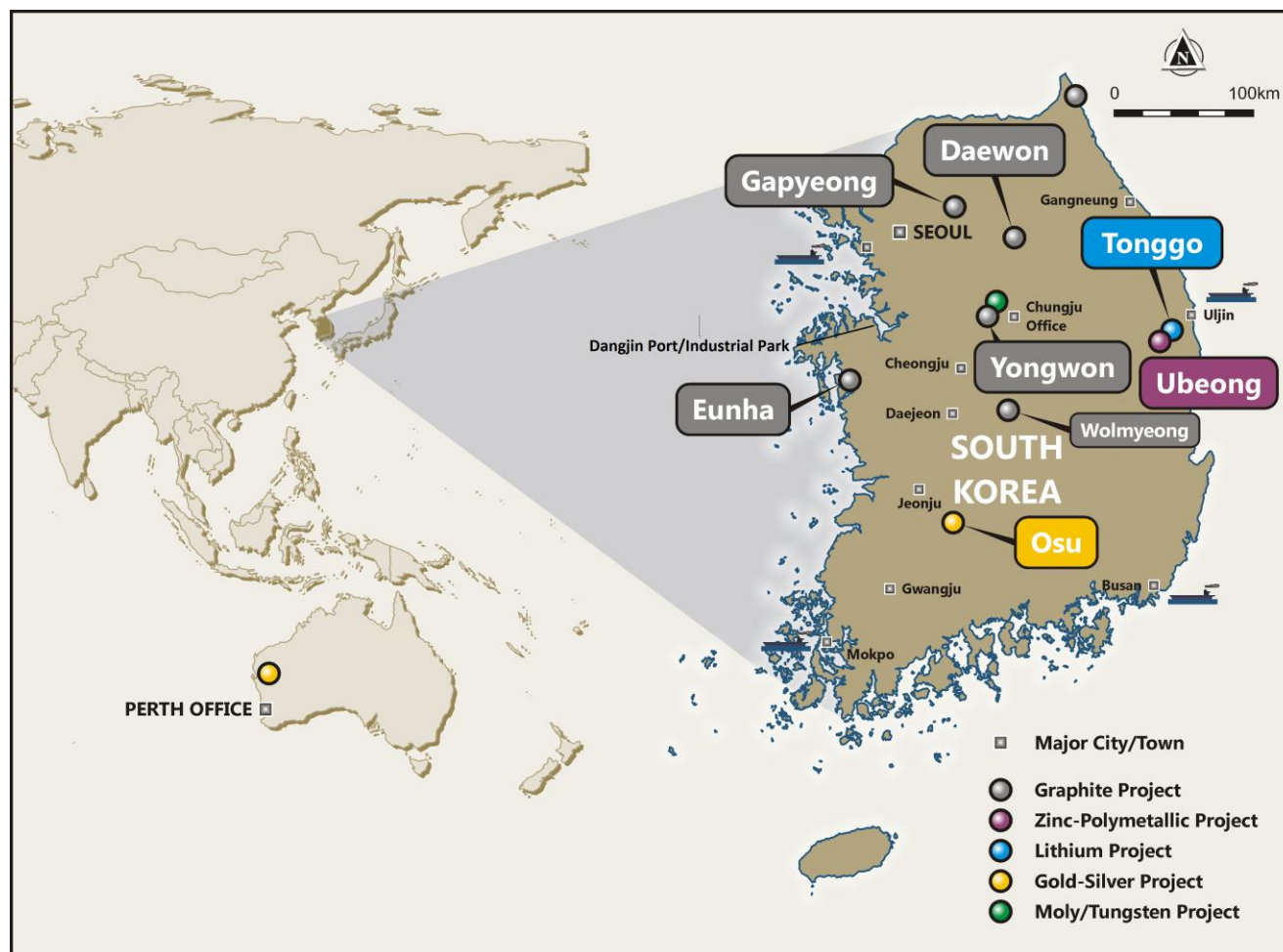
- **Eunha** – now drilling
 - Large flake, EM, Met. 97.6% TGC
- **Gapyeong** – next drill target
 - Large, high-grade, Met. 95.3% TGC
- Yongwon
 - High-grade, EM, Met. 96.8% TGC
- Daewon
 - Shallow dip, EM, Met. 96.6% TGC

Tonggo Lithium:

- Large, lithium-bearing pegmatite

Polymetallics:

- Ubeong, high-grade drill targets:
 - Zinc-Lead-Silver
 - Porphyry Cu-Au
- Osu Gold – Silver Targets



Three year plan to establish value-added graphite production

discovery to downstream processing pipeline

Year 1 (done 2018)

Year 2 (in progress 2019)

Year 3 (targeting 2020)

Stage 1a:

Established Graphite Projects

Exploration Potential:

13 to 17Mt @ 8% to 11% TGC^{D1}.

The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration work conducted to estimate a Mineral Resource and it is uncertain if further exploration will result in the definition of a Mineral Resource at any of the Company's graphite projects.

Stage 1b:

Metallurgical Testing established >95% flake-graphite concentrate potential

Stage 1c:

Established offtake/development relationships and downstream processing project to produce 99.95% spherical graphite

Stage 2a:

Resource drilling (in progress at Gapyeong high-grade flake-graphite project) to convert Exploration Target to JORC compliant maiden resources.

Stage 2b:

Test-work to produce high-purity (99.95% TGC) un-coated spherical graphite then studies for 20-60ktpa concentrate and 12 to 36ktpa spherical graphite production

Stage 2c:

Target offtake MOU('s) then binding agreements with Korean end-users to supply high-purity spherical graphite to the li-ion battery anode manufacturers.

Stage 3a:

Develop mine and concentrate processing production delivering 20 to 60ktpa (>95% TGC) concentrate.

Stage 3b:

Construct down-stream processing facility to produce 12 to 36ktpa spherical graphite for Korean Li-Ion batteries (high-purity, >99.95% TGC)

Stage 3c:

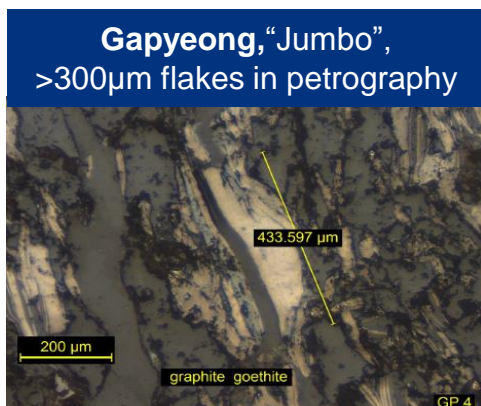
Supply key Korean end-users with downstream, high-value spherical graphite and large-flake graphite concentrate, including from off-shore

D1: Exploration Target reported 15th August 2018

Targeting resource potential for development

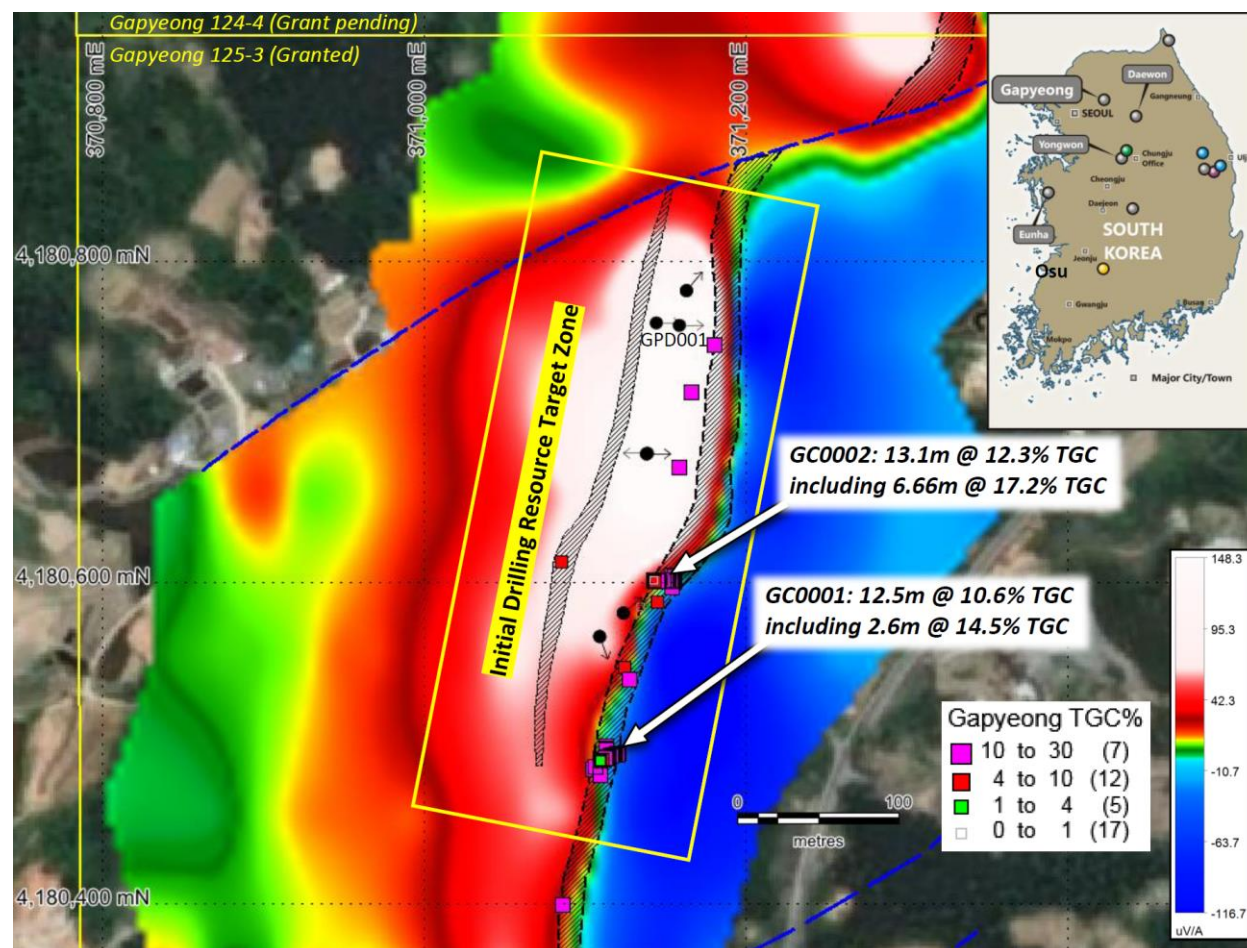
Gapyeong Target:

- high-grades, >16%TGC
- High-purity concentrate metallurgy, >95%TGC
- **Now drilling** to define resources



Gapyeong High-Grade Graphite:

800m x 200m x 10m x 12% TGC



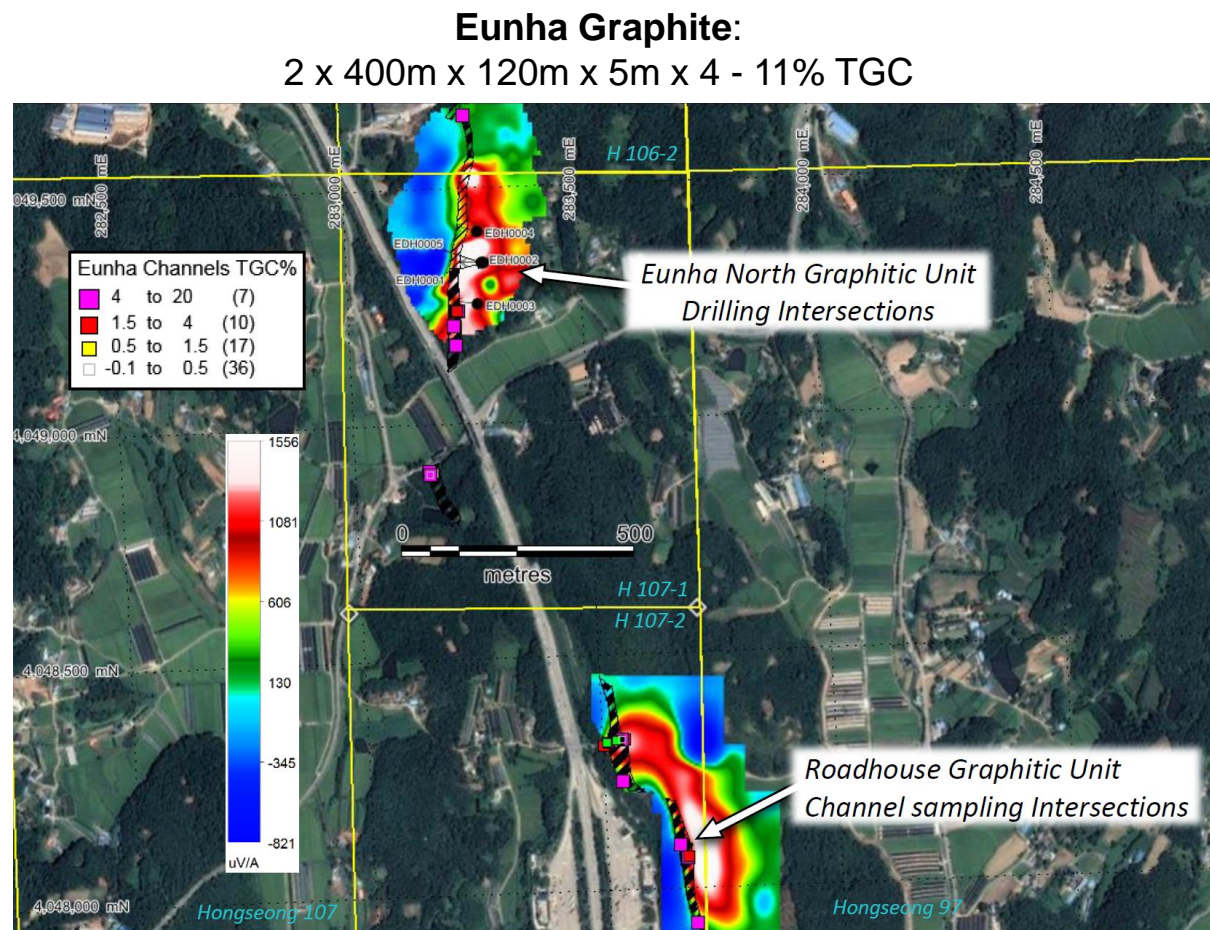
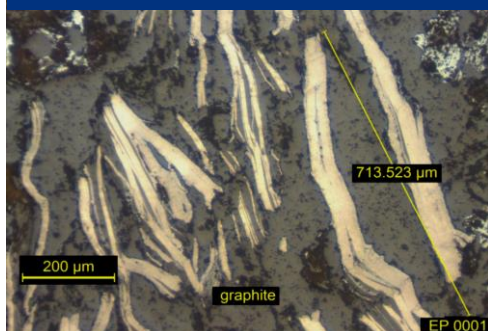
Size Fraction	Mass	Total Carbon	LOI 1000°C
µm	%	%	%
>106	4.0	92.0	92.0
>75	7.7	94.7	96.1
<75	88.3	95.5	95.3
Calc. Head	100.0	95.3	95.2

Targeting resource potential for development

Eunha Target:

- channel sampling 4-11%TGC
- high-purity concentrate metallurgy, >97%TGC
- **Initial drilling** to define resources

Eunha: "Super-Jumbo" graphite flakes (>500µm)

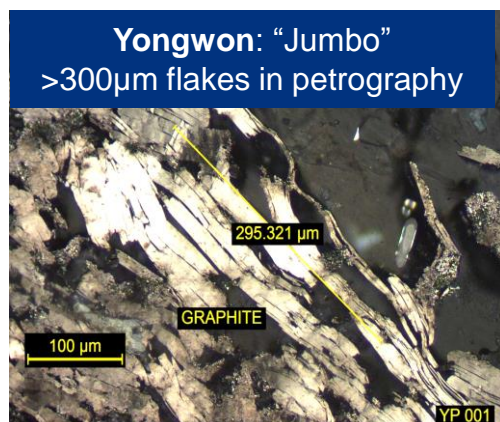


Size Fraction	Mass	Total Carbon	LOI 1000°C
µm	%	%	%
>106	17.4	98.7	98.1
>75	14.9	98.5	98.5
<75	67.7	97.1	97.0
Calc. Head	100.0	97.6	97.5

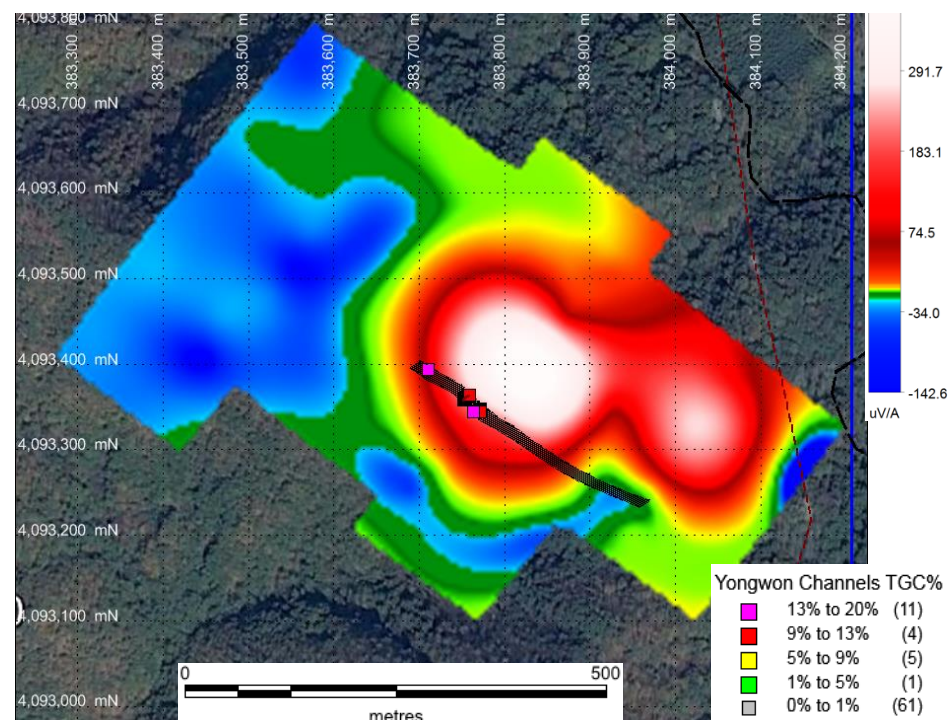
targeting resource potential for development

Yongwon Target:

- channel sampling >10%TGC
- high-purity concentrate metallurgy, >96.8%TGC
- drilling planned to define resources, subject access



Yongwon Graphite: 400m x 180m x 10m thick x 10% TGC

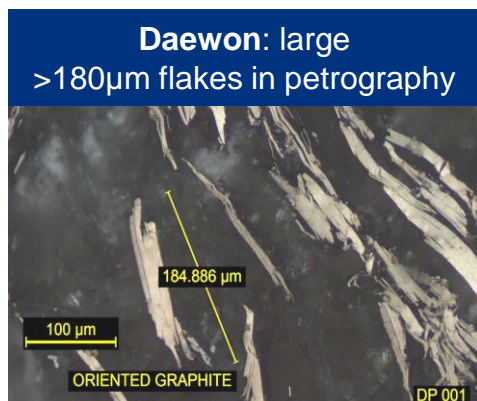


Size Fraction	Mass	Total Carbon	*LOI 1000°C	TGC Recovery
µm	%	%	%	%
>106	8.2%	97.6	97.9	
>75	13.7%	97.8	98.2	
<75	78.1%	96.6	96.7	
Calc. Head	100.0%	96.8	97.0	87.3%

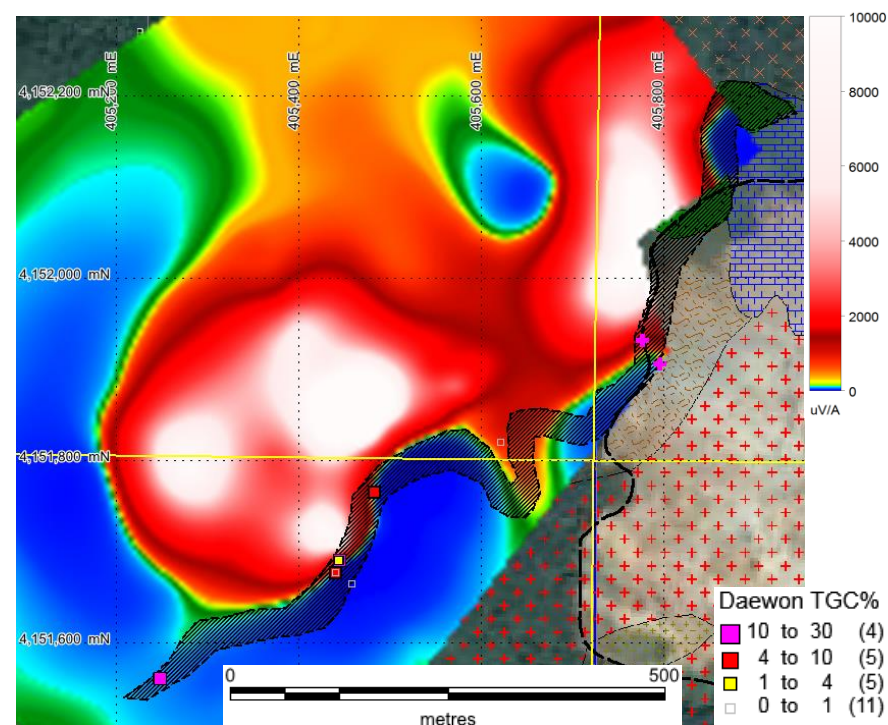
targeting resource potential for development

Daewon Target:

- channel sampling 4-24% TGC
- high-purity concentrate metallurgy, >96.5% TGC
- drilling planned, to define resources, subject access



Daewon Graphite: 800m x 200m x 6m thick x 6 - 10% TGC



Size Fraction	Mass	Total Carbon	*LOI 1000°C	TGC Recovery
µm	%	%	%	%
>106	6.7%	97.0	97.1	
>75	11.4%	97.5	97.7	
<75	81.9%	96.5	96.6	
Calc. Head	100.0%	96.6	96.7	81.8%

Key opportunity – value-added spherical graphite processing in Korea

three stage processing test work underway:



1

Generate >5kg, high-purity (>97% TGC), concentrate from Eunha and other projects (e.g. Gapyeong) for spherical graphite testing.

2

High-purity graphite concentrate samples to Germany for Micronisation and Spheroidisation of flake graphite then,

3

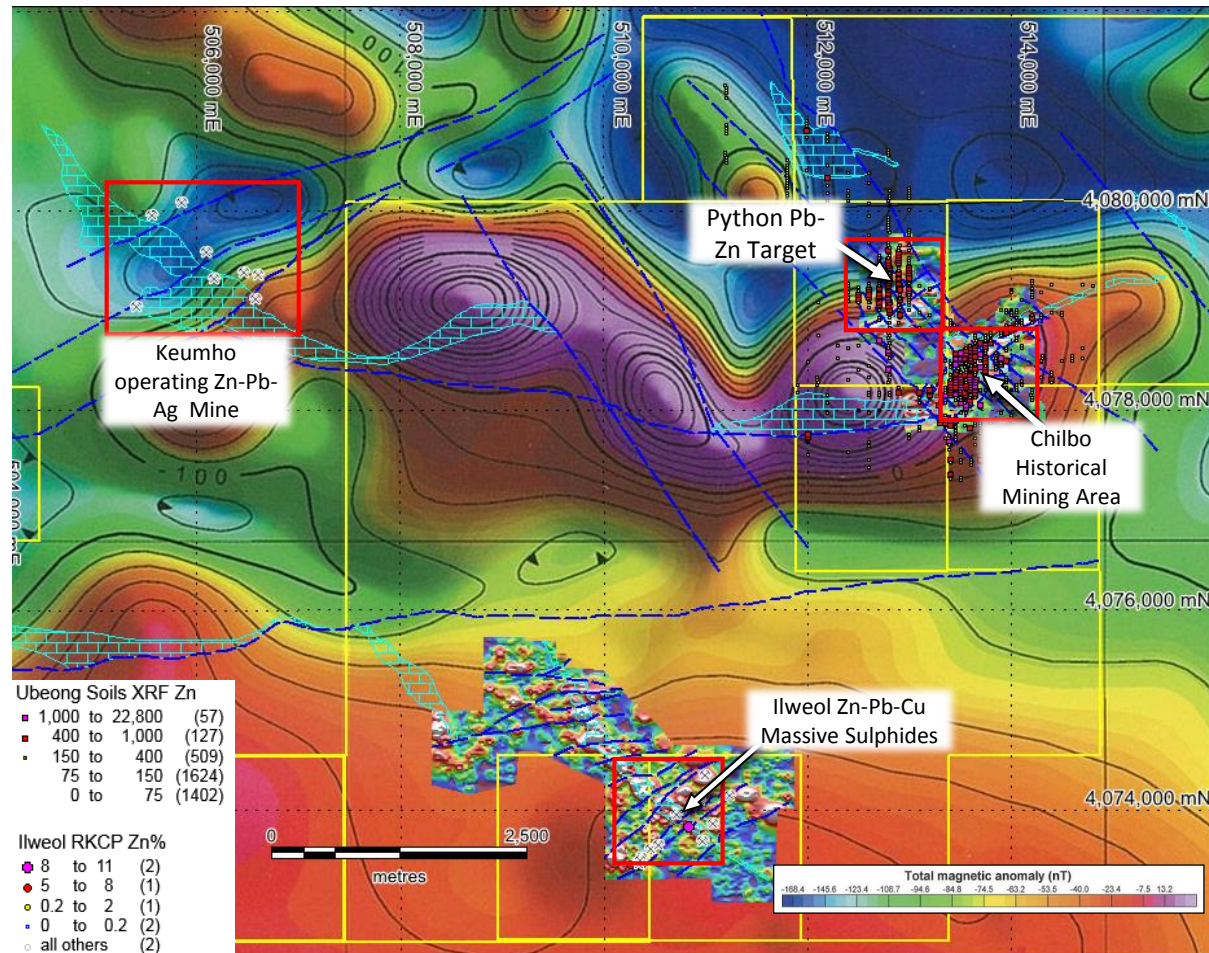
Purification of spherical graphite – targeting >99.95% TGC purity (thermal, non-fluoride), followed by electrochemical (battery) testing of purified spherical graphite, by German firm, in collaboration with CSIRO.

Next steps: Scoping then Feasibility Study into in-country processing to non HF, high-purity spherical graphite (99.95% TGC).

Other discovery and development opportunities in Korea

Ubeong zinc – polymetallic project, multiple drilling targets:

- first application of modern exploration to major high-grade Zn-Pb-Cu system



- **Large Ubeong Zinc-Lead-Copper Project**
 - 10km mineralised skarn-limestone trends with historical workings and operating Keumho mine adjoining
- **Drilling of Chilbo and Python Prospects:**
 - numerous workings with high-grade Zn & Cu in outcrop at **Chilbo**
 - high-grade Zn & Pb sulphides (to 22% Pb, 21% Zn) intersected at **Python**
 - previous massive sulphide “discovery” intersections at **Ilweol** including:
 - 7m @ 14.6% Zn, 2.1% Cu
 - 2.1m @ 18.7% Zn, 11% Pb, 3.2% Cu
 - 3.6m @ 15.5% Zn, 1.48% Pb
- **Nearby, operating, Keumho Zinc Mine** immediate processing potential and offtake in-country available e.g. Korea Zinc smelter

Peninsula Mines (ASX:PSM) - why invest?

outstanding opportunities for discovery, development, delivery in Korea



Four flake - graphite discoveries in Korea, to deliver downstream graphite to the offtakers doorstep:

- Drilling now testing 100% owned flake graphite Exploration Potential of up to 13 to 17Mt @ 8% to 11% TGC.
The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration work conducted to estimate a Mineral Resource and it is uncertain if further exploration will result in the definition of a Mineral Resource at any of the Company's graphite projects.
- Established metallurgical potential to produce >95% purity, flake - graphite concentrate.
- Downstream testing for 99.95% purity spherical graphite for Li-Ion battery anode production in-country



Established relationships with Korean graphite end-users and large-flake graphite supplier:

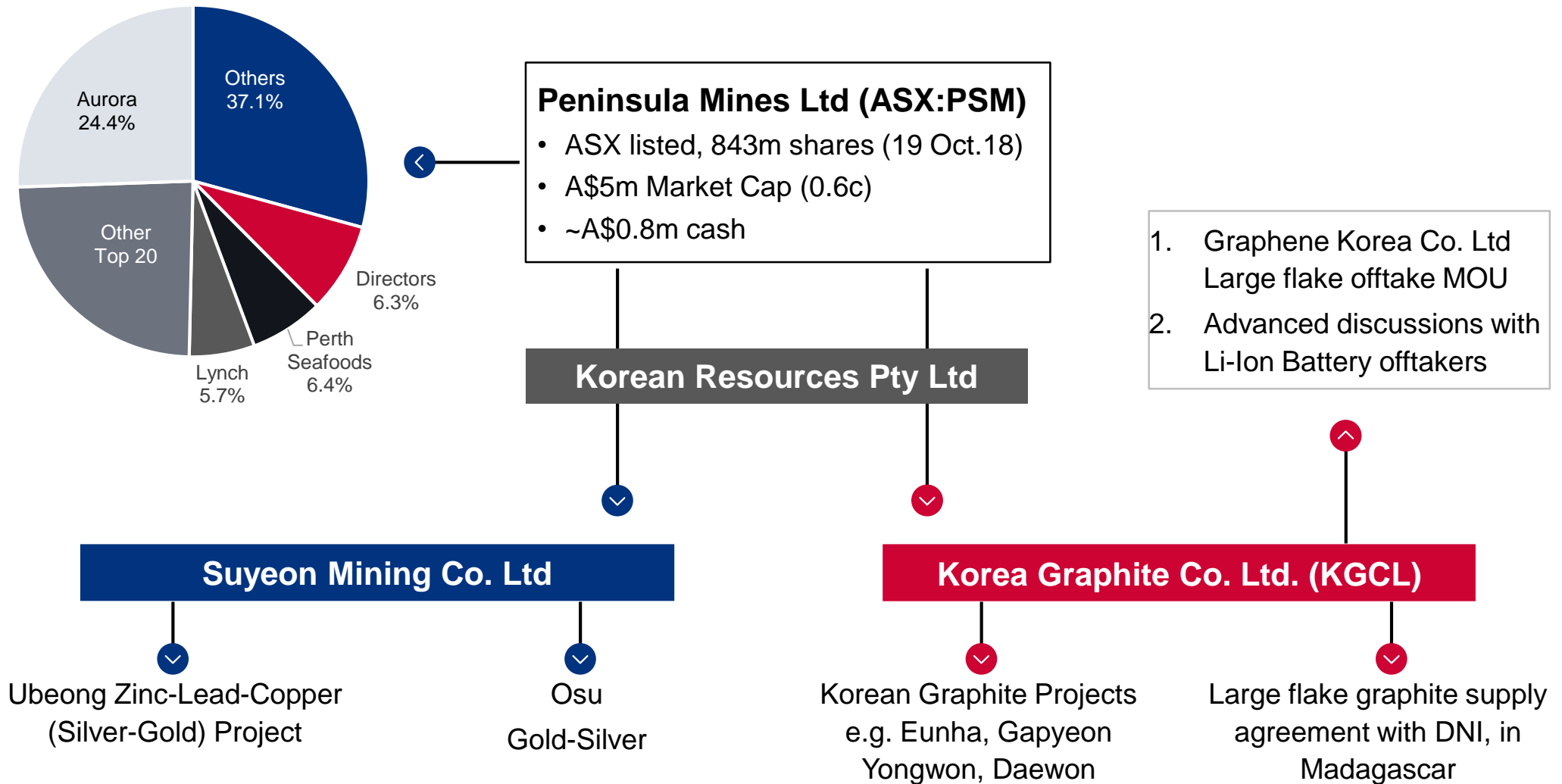
- MOU with expandable graphite producer for large flake-graphite offtake and development cooperation
- Supply agreement for up to 24kt per year of large-flake graphite from developer/producer in Madagascar, an established high-quality, low cost, graphite production area.
- Advanced discussions with key Korean end-users for offtake of, high-purity, spherical graphite



Drilling targets for high-grade zinc-lead-copper and silver-gold targets in underexplored systems.

- 100% owned tenements covering >10km strike of mineralised Zn-Pb-Cu skarn near existing mine
- Previous high-grade zinc-copper-lead intersections at Ilweol, up to **7m @ 14.6% Zn, 2.1% Cu**, for follow up
- **Osu gold Project**, high-grade silver-gold lodes, drilling results to come.

tightly held register, corporate structure set-up - for investment and value growth



strong leadership with track record of delivery



Jon Dugdale – Managing Director

BSc (Hons), FAusIMM, MAICD

- 32 years experience including 20 years geology/discovery and 12 years corporate/investment
- Proven track record of discovery, project development and funding
- Extensive international network within the Asian region



Danny Noonan – Executive Director

BSc (Hons), MAusIMM

- Extensive International geology experience
- Very experienced mining and resources development geologist
- Generated the Korean projects and focussed on resources and development



Phillip Jackson – Non-Executive Chairman

BJuris LLB MBA FAICD

- 25 years International resources experience
- Legal and contracts agreements expertise
- Commercial and contract law focus



Martin Pyle – Non-Executive Director

BSc (Hons), MBA

- >30 years of geology and corporate experience
- Strong network in financing and investment sector
- Track record of financing and experienced director

for further information



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competent persons statement and disclaimer

The information in this presentation that relates to Exploration Targets is based on information compiled by Mr Daniel Noonan, a Member of The Australian Institute of Mining and Metallurgy. Mr Noonan is engaged as a full time consultant to the Company providing exploration managerial services for the Company's Korean operations. Mr Noonan has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves'. Mr Noonan consents to the inclusion in this presentation of information compiled and interpreted by him in the form and context in which it now appears.

The information in this release that relates to metallurgical test work is based on information compiled and / or reviewed by Mr Peter Adamini who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Adamini is a full-time employee of IMO Project Services. Mr Adamini consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this release that relates to Geophysical Results and Interpretations is based on information compiled by Mr William Peters, a Consulting Geophysicist (Crosmin Pty Ltd) at Southern Geoscience Consultants. Mr Peters is a Fellow of the Australasian Institute of Mining and Metallurgy and Chartered Professional (Geology) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Peters consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

The background information on the location and history of the Company's key projects has not materially changed since they were first described in earlier ASX releases of the Company following the adoption by the Company of the reporting practices outlined in the 2012 edition JORC code.

The Company's website is located at (www.peninsulamines.com.au). The website contains information on the Company's projects, project maps, a list of the Company's announcements to ASX, information on Native Title (including the tenement grant process and heritage surveys), legislative environments under which the Company operates, Corporate Governance, a section on risks, many of which are common to exploration companies and other useful information. All the information presented in this investor update has been released to the market in previous Company announcements and no new exploration results are presented in this presentation. A list of the Company's announcements is also obtainable from the Australian Securities Exchange.

Forward-Looking Statements are included herein, regarding the future ability to finance projects and other statements that express management's expectations, or estimates regarding the timing of completion of various aspects of the projects' development or of our future performance and thereby constitute "forward-looking statements". The words "believe", "expect", "anticipate", "contemplate", "target", "plan", "aims", "intends", "continue", "budget", "estimate", "may", "will", "schedule", and similar expressions identify forward-looking statements. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies.

In particular, announcements and presentations by Peninsula Mines Limited include many such forward-looking statements and such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual financial results, performance or achievements of Peninsula Mines Limited to be materially different from its estimated future results, performance or achievements expressed or implied by those forward-looking statements and its forward-looking statements are not guarantees of future performance. These risks, uncertainties and other factors are included in the Risks section of the Company's website and ASX announcements available on the company's websites. Peninsula Mines Limited expressly disclaim any intention or obligation to update or revise any forward-looking statements whether as a result of new information, events or otherwise, except where required by law.