PENINSULA MINES
LIMITED
ASX: PSM

ASX ANNOUNCEMENT 23 October 2018

# GAPYEONG DRILLING INTERSECTIONS CONFIRM EXPLORATION TARGET

- **Initial three diamond holes intersect significant widths of graphitic mineralisation at Gapyeong**
- **Thickness and geometry in line with expectations and confirm Exploration Target model for a synform**
- **Drilling continues to test the next drill section, 80m to the south**

Peninsula Mines Ltd (ASX:PSM) has intersected graphitic mineralisation in the first three drillholes of the current diamond drilling programme[D1,D2] on its high-grade Gapyeong Flake-Graphite Project, located 50km east of Seoul in South Korea (see Figure 1, inset, for location).

The initial three diamond drillholes, for 223.4m, tested section 4,180,760mN to the north of the outcropping graphitic units and included two holes, GPD0001 and GPD0002, that tested the eastern graphitic unit and GPD0003 that tested a projected western graphitic unit (see locations Figure 1). All three holes intersected significant widths of graphitic mineralisation as summarised below (see Appendix 1 for drillhole locations and intersection geology interval summaries):

**GPD0001: 8.19m (7.7m TW) from 39.6m downhole predominantly graphitic gneiss**

**GPD0002: 18.4m (10.8m TW) from 71.3m downhole predominantly graphitic gneiss**

**GPD0003: 8.95m (7.5m TW) from 61.85m downhole predominantly graphitic gneiss**

The graphitic units are hosted by marbleised limestone and ground/drilling conditions are very good. The Exploration Target model for Gapyeong was for a shallow plunging synformal structure[D4], as indicated by the electromagnetic (EM) anomaly[D10] model, and this has been confirmed by the initial drilling (see Figure 2).

Previous channel sampling intersections to the south of the current drilling included **GC0002: 13.1m @ 12.3% Total Graphitic Carbon (TGC) including 6.66m @ 17.2% TGC** and **GC0001: 12.5m @ 10.6% TGC including 2.6m @ 14.5% TGC[D3]** (see Figure 1).

The Exploration Target for Gapyeong was included in the overall target announced 15 August 2018 and includes **10 to 14 million tonnes grading 8% to 12% TGC and containing 1 to 1.4 million tonnes of graphite[D4].** The potential quantity (tonnage and contained graphite) 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 the Gapyeong Project.

The initial programme at Gapyeong will test the central part of the EM anomaly on 80m spaced sections, with the objective of defining a maiden, flake graphite, Mineral Resource.

Peninsula's Managing Director, Jon Dugdale, said: *"The initial drilling intersections of graphitic material at the Gapyeong project are very encouraging, as they have confirmed the exploration target model for this high-grade flake graphite project and auger well for the definition of a maiden flake-graphite Mineral Resource in South Korea."*

Additional metallurgical testing will be carried out on bedrock drill-core samples to determine concentrate characteristics in fresh rock. Previous testing produced high-purity metallurgical concentrate results of 95.4% TGC for the high-grade Gapyeong flake-graphite deposit[D5].

Following receipt of initial results and subject to concentrate metallurgy, the Company will look to generate a 5kg graphite concentrate sample for spherical graphite testwork with the objective of reaching 99.95% TGC purity product to supply Korean li-ion battery anode manufacturers.

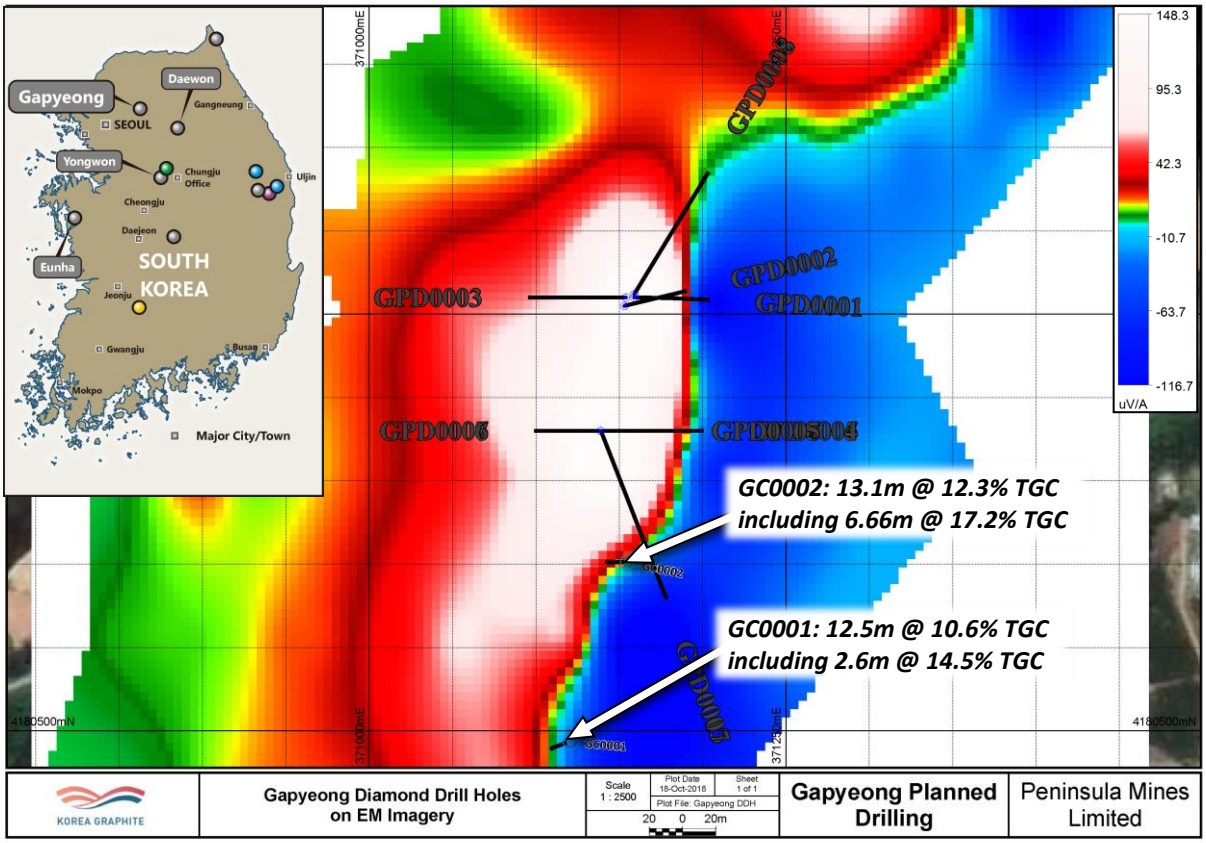


*Figure 1: Gapyeong drillhole locations (completed & planned), channel sampling intersections on EM anomalies[D3]*

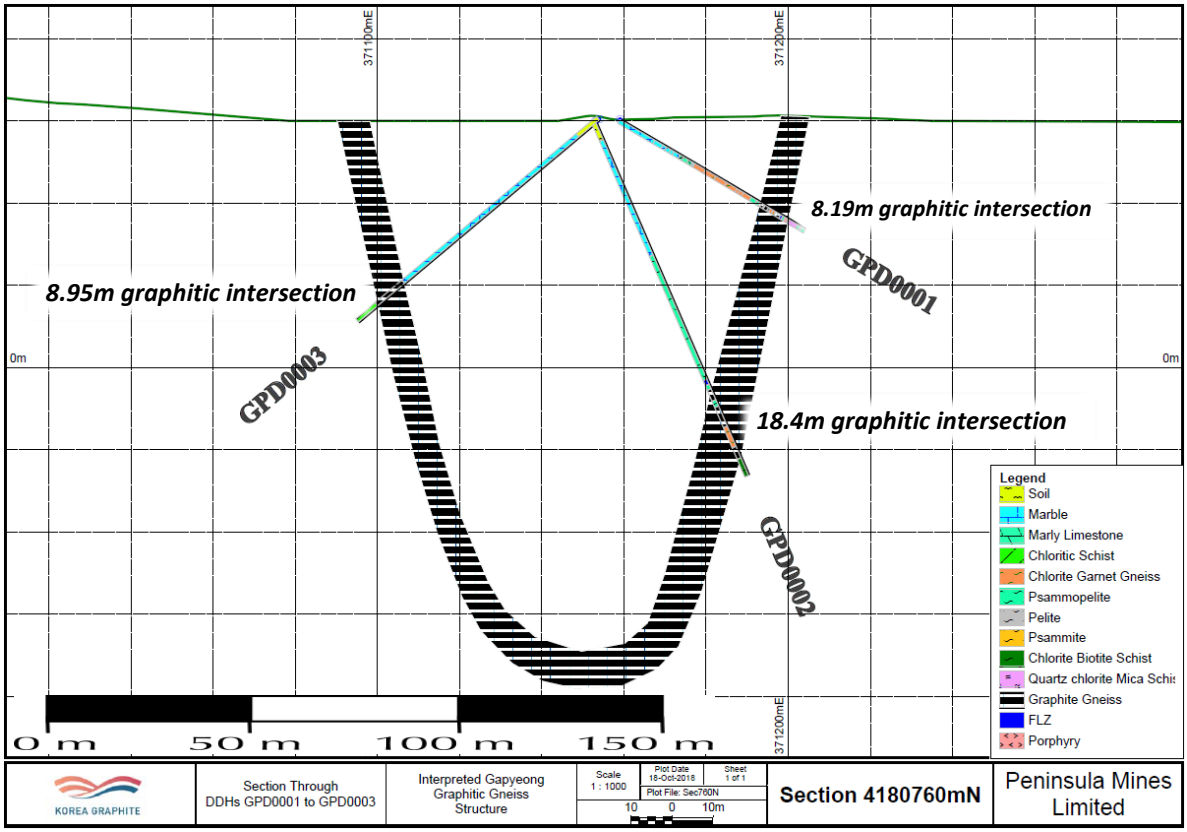


*Figure 2: Gapyeong cross section 4,180,760mN showing drilling intersections & interpreted synformal graphitic unit*

ENDS

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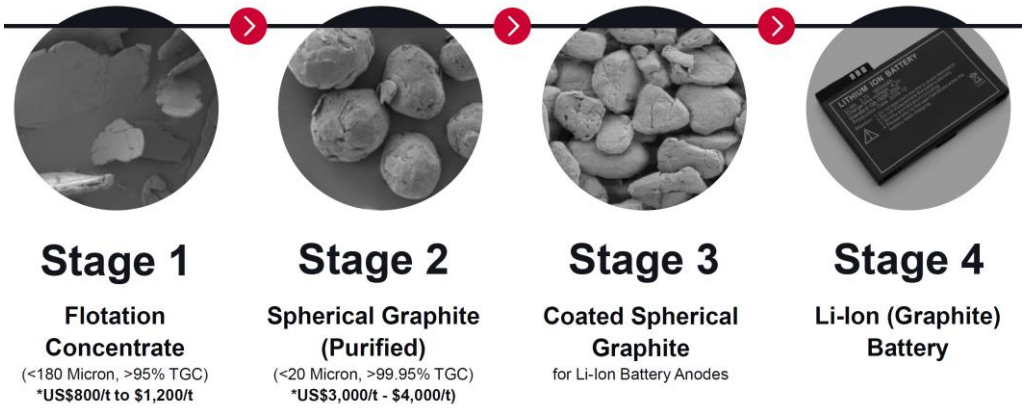
**About the Peninsula Mines Limited Graphite Business:**

Peninsula Mines Ltd ("Peninsula") is an Australian listed, exploration/development company focused on developing opportunities for mineral discovery and production in South Korea, where the Company is well established with a network of key contacts, having worked in the Country for over five years.

South Korea is one of the world's largest producers of lithium-ion batteries, but obtains downstream graphite products, including spherical graphite for Lithium-Ion battery anodes, predominantly from China (see value-chain below). Peninsula has identified the opportunity to mine and process graphite to produce value-added spherical graphite, in South Korea, to directly supply lithium-ion battery manufacturers and other graphite end-users in-country.




*Note: US$ pricing from Benchmark Mineral Intelligence graphite price assessments, July – September 2018*[D6].

Peninsula and its subsidiaries have tenements and tenement applications in South Korea with fine to large and jumbo flake graphite identified. Peninsula intends to progress these and other projects to JORC compliant resource definition and, potentially, development of mining and flake graphite concentrate production for spherical graphite – Lithium-ion battery applications and/or expandable graphite and other markets in Korea.

Peninsula signed a Memorandum of Understanding ("MOU") with Korean expandable graphite producer, Graphene Korea, in June 2017[D7], which envisages long-term strategic cooperation with respect to offtake of graphite concentrate and development of graphite mining and processing projects both within and potentially outside Korea.

Peninsula has also secured a Binding Supply Agreement with Canadian listed DNI Metals Inc ("DNI"). Subject to various conditions, DNI will supply up to 24,000 tonnes per year of flake graphite to Peninsula's 100% owned subsidiary, Korea Graphite Company Limited (''KGCL''), for on-sale to Korean end-users[D8]. Peninsula and DNI are discussing options to cooperate with respect to fast-tracking the development of DNI's large-flake graphite projects in Madagascar, which are situated close to port access and are saprolite (weathered rock) hosted - with low cost mining and processing potential.

**Summary list of Peninsula ASX releases and other documents referenced in this announcement:**

D1 Gapyeong High-Grade Graphite Drilling Underway, ASX: 09/10/18
D2 Drilling commenced Testing Key Korean Projects, ASX: 20/09/18
D3 Gapyeong High-Grade Graphite Channel-Sampling Intersections, ASX: 01/08/18
D4 Exploration Target for Key Korean Flake-Graphite Projects, ASX: 15/08/18
D5 High-Purity Graphite Concentrate Confirms Potential of High Grade Gapyeong Project, ASX:23/05/18
D6 Benchmark Mineral Intelligence Graphite Pricing Assessment, September 2018
D7 Flake-Graphite Offtake & Development MOU signed with Korean End-User, ASX: 14/06/17
D8 PSM signs MOU to supply Flake Graphite to Korean End-Users, ASX: 15/08/17
D9 New High-Grade Graphite Results Confirm Resource Drilling Target at Gapyeong, ASX: 19/03/18
D10Exceptional EM Conductors Define Drilling Targets at Gapyeong Graphite Project, ASX: 14/03/18
For full versions of the Company's releases see Peninsula's website www.peninsulamines.com.au

**Forward Looking Statements**

*This report contains certain forward-looking statements. These forward-looking statements are not historical facts but rather are based on Peninsula Mines Ltd's current expectations, estimates and projections about the industry in which Peninsula Mines Ltd operates, and beliefs and assumptions regarding Peninsula Mines Ltd's future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates" "potential" and similar expressions are intended to identify forward-looking statements. These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Peninsula Mines Ltd, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Peninsula Mines Ltd cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of Peninsula Mines Ltd only as of the date of this report. The forward-looking statements made in this report relate only to events as of the date on which the statements are made. Peninsula Mines Ltd does not undertake any obligation to report publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this report except as required by law or by any appropriate regulatory authority.*

**Competent Persons Statements**

*The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Daniel Noonan, a Member of the Australian Institute of Mining and Metallurgy. Mr Noonan is an Executive Director of the Company. 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 Exploration Results, Mineral Resources and Ore Reserves'. Mr Noonan consents to the inclusion in the report of the matters based on this information in the form and context in which it 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 Independent Metallurgical Operations Pty Ltd. 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 Karen Gilgallon, Principal Geophysicist at Southern Geoscience Consultants. Karen Gilgallon is a Member of the Australasian Institute of Geoscientists (AIG) 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'. Karen Gilgallon consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.*

# JORC Code, 2012 Edition: Table 1
## Section 1: Sampling Techniques and Data
*(Criteria in this section apply to all succeeding sections.)*

| Criteria | *JORC – Code of Explanation* | Commentary |
|---|---|---|
| Sampling techniques | *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* | No sampling has been undertaken as yet on the drill core and no drill core assay results are discussed in this release. References are made to previous surface channel sampling results[D3].<br><br>The Drilling of hole GPD0001 was completed using an HQ drill string and all subsequent holes will be completed using a Q3 drill string to produce 50mm diameter core. The core quality at Gapyeong has been excellent with minimal weathering and no core loss has occurred other than from isolated points from within the first 25m of the holes mainly associated with washing away of soil. The core quality is excellent, dominantly fresh with minimal partially oxidised rock near surface.<br><br>The locations of the drill holes are shown in Figures 1 and 2. All coordinates were recorded in WGS84, UTM Zone 52N coordinate system and are tabulated in Appendix 1. |
| | *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | Standard diamond drilling has been undertaken but due to access restrictions holes have been drilled oblique to the folded graphitic structure. |
| | *Aspects of the determination of mineralisation that are material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g.* | Standard diamond drilling has been undertaken to generate HQ and Q3 diameter drill core. Core has been placed in wooden or plastic core trays for subsequent detailed logging. Core has been orientated using a Devicore BBT electronic core orientation device generating orientation data for each drill run.<br><br>It is the Company's intention to saw the core in half at the Company's dedicated core logging and cutting facility at Sotae-myeon. The half core with the orientation line will be preserved and the other half will be sent to Nagrom Laboratories, Perth for assay. |

| Criteria | *JORC – Code of Explanation* | Commentary |
|---|---|---|
| | *submarine nodules) may warrant disclosure of detailed information.* | |
| Drilling techniques | *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | All the drilling referenced in this release has been surface diamond drilling. All drill core has been orientated using a Devicore BBT electronic core orientation tool. |
| Drill sample recovery | *Method of recording and assessing core and chip sample recoveries and results assessed.* | The core recovery has been excellent except as discussed previously from within the first 10 to 25m where some loss has occurred as a result of washing away soils during the pre-collar.<br><br>To maximise core recovery dedicated mud mix has been utilised following input from the Australian Mud Company, Perth who have supplied specific drill additives to assist in areas of weak core or fractured ground. It is the intention to shorten drill runs should any weak ground be encountered through the ore zone in particular. To date core recovery and core quality has been outstanding.<br><br>No sample bias is expected given the quality of the drill core throughout each of the 3 holes completed to date. |
| | *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | |
| | *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | |
| Logging | *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* | All holes are orientated and marked up at the drill site for logging. Core logging is been undertaken at the drill site. All holes are being geologically, geotechnically logged in addition all core alteration is being logged. Point structural data is being routinely acquired to help define the fold geometry and attitude of faults and joint systems. All logging work is being completed to a level that would support a planned future Mineral Resource estimation. Further, it is the company's intention to retain all sample rejects for additional metallurgical testing by IMO, Perth. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* | |

| Criteria | *JORC – Code of Explanation* | Commentary |
|---|---|---|
| | *The total length and percentage of the relevant intersections logged.* | Logging is both qualitative and quantitative in nature. All core trays are photographed during drilling and again in detail prior to sampling but post core mark-up and logging.<br><br>The geology for the entire drill hole will be logged in detail. To date only preliminary logging has been undertaken for holes GPD0002 and GPD0003. |
| Sub-sampling techniques and sample preparation | *If core, whether cut or sawn and whether quarter, half or all core taken.* | It is the company's intention to complete half core sampling of the core from the targeted graphite bearing structures. |
| | *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* | All samples will be drill core samples. |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | The details of the applicable sample preparation will be discussed more fully in subsequent releases when sampling and assaying of the drill core has been completed. |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | The Company will include blank samples after samples visually estimated to have a higher graphite content. Certified Reference sample will be analysed with every batch of 20 samples. Similarly, a repeat samples will at some future date be sent to another lab as a reference check. |
| | *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* | Diamond drilling is a high quality industry standard sampling method. Due to limitations in surface drill site access some compromise was required when designing drill holes and as a result holes while drilled normal to the target structure have been drilled a variable drill dips and as a result the drill intercepts generated are not true width intercepts. |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled.* | The core sample sizes are considered more than adequate to assess TGC content of the graphite mineralisation from the sampled sites at the Gapyeong project. |
| Quality of assay data and laboratory tests | *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* | No core assaying has been completed at this point of time and no commentary has been made in this release on drill core assay results. |

| Criteria | *JORC – Code of Explanation* | Commentary |
|---|---|---|
| | *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivations, etc.* | The Company commissioned Southern Geoscience Consultants (SGC) of Perth to undertake fixed loop electromagnetic (FLEM) surveys across the Gapyeong graphitic unit. The purpose of the survey was to determine the EM (conductivity) response of the outcropping graphitic unit and map the extent and geometry of the conductive unit along strike and at depth.<br><br>The geophysical programme parameters were as follows:<br>**Planning/Supervision:** Southern Geoscience Consultants Pty Ltd (SGC)<br>**Survey Configuration:** Fixed Loop TEM (FLEM)<br>**TX Loop Size:** 200m x 700m (Gapyeong – 3 overlapping loops). Three overlapping TX loops at each site.<br>**Transmitter:** ZT-30<br>**Transmitter Power:** 72V (6 x 12V car batteries)<br>**Receiver:** SMARTem24<br>**Sensor:** RVR coil – vertical (Z) component<br>**Line Spacing:** 75m and 100m at Gapyeong<br>**Line Bearing:** 090° at Gapyeong<br>**Station Spacing:** 25m and 50m<br>**TX Frequency: 5 Hz for Gapyeong (200msec time base)**<br>**Duty cycle:** 50%<br>**Current:** 5 to 10 Amp<br>**Stacks:** 256 stacks<br>**Readings:** At least 3 repeatable readings per station<br>**Powerline Frequency:** 60 Hz<br><br>Data was received on 29 channels from early to late time (shallow to deeper) during the Gapyeong survey. The anomaly displayed in Figure 1 shows the channel 25 image (50 msec after TX turnoff) approximating the location of the stronger and deeper parts of the conductive mineralisation down-dip from outcrop. The results of the EM work were discussed more fully in 14 March 2018 release[D5]. |
| | *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | The Company intends to include blank and CRM samples as part of the future drill core sample analyses. Blind field repeats will be sent to an alternative lab at some future date as a cross check on the primary assays. |
| Verification of sampling and assaying | *The verification of significant intersections by either independent or alternative company personnel.* | No drill intercepts other than lithological references have been discussed in this release. |
| | *The use of twinned holes.* | This is the first ever drill programme at the Gapyeong project at this point in time no holes have been twinned. |

| Criteria | *JORC – Code of Explanation* | Commentary |
|---|---|---|
| | *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* | All core logging details including future core assay results are stored in an Excel database. All results are checked by the responsible geologist on entry to the database.<br><br>The Company's data is entered into an Excel database and routinely transferred to the Perth Head Office. |
| | *Discuss any adjustment to assay data.* | This release does not include any references to new assay data any assays discussed in this release are from previous surface channel sampling work released previously[D3]. |
| Location of data points | *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* | All drill holes have been surveyed at nominal 18m survey interval using the Company's own Ezyshot survey instrument. The instrument was serviced by Reflex in Perth immediately prior to the commencement of the Gapyeong drill programme. The presence of pyrrhotite in the first two drill holes may have had a minor affect on the azimuth component of the survey but magnetic data readings at each survey were within acceptable bounds. Further, the Ezyshot dip data is cross checked against the Devicore BBT regular nominally 3m spaced dip data generated during the core orientation process. The drill hole collar locations are considered provisional and will be surveyed by a contract surveyor using a Differential GPS at some future date post the completion of the drill programme. |
| | *Specification of the grid system used.* | All drill hole collar locations were surveyed in the UTM WGS84 zone 52N coordinate system. |
| | *Quality and adequacy of topographic control.* | Topographic controls were based on The National Geographic Information Institute (NGII), 1:5,000 scale digital contour data available for the entire country. |
| Data spacing and distribution | *Data spacing for reporting of Exploration Results.* | The initial drill hole spacing is on nominal 80m spaced north-south sections with holes at 40m spacing down dip on the drill section for the eastern limb of the interpreted target fold structure. Only a single hole has tested the interpreted western fold limb (Figure 2).<br><br>Further channel sampling and drilling is planned and will be conducted initially at 80m section intervals. |
| | *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* | The planned 80 x 40m drill hole and surface channel sample spacing is considered adequate to provide sufficient geological confidence in the continuity of the targeted graphitic structures. All drilling and channel sampling will be undertaken to a standard that will allow the data to be utilised in any future Mineral Resource estimation.<br><br>Planned follow-up systematic trenching is planned at 40m spacing where possible along the entire structures length. |

| Criteria | *JORC – Code of Explanation* | Commentary |
|---|---|---|
| | *Whether sample compositing has been applied.* | No sampling has yet been undertaken. |
| Orientation of data in relation to geological structure | *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* | Drill holes are targeting 80m spaced sections with holes drilled normal to the strike of the graphitic unit wherever possible given surface access limitations. |
| | *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | No sampling has been completed. All 3 holes completed to date are close to normal to the strike of the target structures. Some compromise has been made due to access with respect to dip of the holes and as a result drill hole down hole widths exceed true width in all 3 holes completed thus far. |
| Sample security | *The measures taken to ensure sample security.* | Core is kept at the drill site until orientation line mark-up and core logging has been completed. The core is then transported to the Company's secure core yard at Sotae-myeon. At the company's core cutting facility cut lines will be marked up and the core will then be cut using the company's diamond bladed brick saw. Once cut samples are placed in clean prelabelled calico bags and air dried in the secure shed. Samples once dry will be packed into cardboard cartons and dispatch via Fed Ex to NAGROM Laboratories, Australia. |
| Audits or reviews | *The results of any audits or reviews of sampling techniques and data.* | The NAGROM Laboratory, Kelmscott has been visited by Company personnel and met full international standards. NAGROM is internationally recognised, particularly in the field of graphite analysis.<br><br>Similarly, the IMO metallurgical laboratory in Welshpool, Perth, WA has been visited by Company personnel and meets full international standards. IMO are also internationally recognised, particularly in the field of metallurgical evaluations. |

*(Criteria in this section apply to all succeeding sections.)*

## Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| Criteria | JORC – Code of Explanation | Commentary |
|---|---|---|
| Tenement and land tenure status | *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* | At the Gapyeong project the Company submitted an MDS report to the Mines Registration Office (MRO) for sub-block Gapyeong 125-3 in September 2017 and the formal Ministry site inspection was conducted on 16 May 2018. The Company received formal written notification of the tenements grant on 11 June 2018 and paid the registration tax on 20 July 2018.<br><br>In addition, the Company has filed an MDS over the adjoining northern sub-block Gapyeong 124-4. The MDS site inspection was completed by Ministry officials during the week of the 21 August 2018. The Company is still awaiting feedback from the ministry regarding the site inspection and grant of the northern title.<br><br>The majority of the land at the northern end of the Gapyeong project and along the western margin of the outcropping graphite unit is privately held agricultural or forest land. Along the main ridge where the structure daylights the land is Government owned and held by the North Han River Water Management Board. The bulk of the outcropping graphite structure lies within the 500m wide riparian zone of the northern arm of the Han River. The Company is seeking clarification from the Local Government authority regarding the approval process to conduct certain activities within the riparian zone. The company was given Local Government approval to undertake drilling activities on privately held land subject to the company signing agreements with the local land holders. Further, approval has been obtained to drill on privately owned forest land subject to the company finalising agreements with local land holders and completing and lodging a forest rehabilitation plan with the Local Government Forest office.<br><br>Each Korean tenement block covers a 1-minute graticule and has a nominal area of 276 hectares. The Company has 100% sole rights over each of the Gapyeong tenement applications for graphite. Graphite, like other industrial minerals, is classified as a minor mineral under Korean Mineral Law. In the case of minor minerals such as graphite, each 1-minute graticule block is further subdivided into four 30”x 30” sub-blocks (sub-blocks are only applicable for industrial minerals and road metal and dimension stone quarry permits). The Company must complete and file a Mineral Deposit Survey (MDS) over each sub-block to secure a potential 6-year exploration right for each sub-block.<br><br>There are no native title interests in Korea. It is a generally accepted requirement that mineral title holders gain the |

| Criteria | JORC – Code of Explanation | Commentary |
|---|---|---|
| | | consent of local land owners and residents before undertaking any major exploration activity, such as drilling. The local community was very engaging and interested in the recent EM survey work at Gapyeong and have so far exploration efforts have been favourably received by the local Geumdae-ri community. Similarly, to date thee have been no objections from local residents regarding the company's drilling activities. |
| | *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | The Company has been formally granted one sub-block (Gapyeong 125-3) and expects the second northern sub-block (Gapyeong 124-4) to be granted by late October.<br><br>Once an MDS application is approved the Company has one year in which to file a prospecting plan and from the point at which the prospecting plan is filed the title holder is granted an initial 3-year exploration period which can be extended to 6 years upon submission of a supplementary application to the Ministry. Further, the Company can convert the exploration licence to a formal mining right at any point during the 6-year exploration period by the filing of a prospecting report. A recent change to the Korean Mineral Law now requires that a mineral right holder must include details of the defined Mineral Resource with any application for extension to an Exploration Right or for the grant of a full Mining Right. There are minimum Resources requirements that must now be met at each stage of the application process.<br><br>Upon approval of a Mining Right the Company has 3 years to file and have a Mine Planning Application (MPA) approved. The MPA is submitted to and approved by the Local Government and is akin to local council planning approval. As part of the MPA process, the title holder must secure a "no objection certificate" from the residents of the local village(s). An MPA primarily covers design, implementation, environmental and safety aspects of all surface activities associated with the planned mining venture. The approval of the MPA then grants the mining Right holder a 20-year production period that can be extended further upon application, provided all statutory requirements have been met over the life of the mine. From the date of grant of the Mining Right, the title holder has a 3-year period in which mine production must commence. During this 3-year period, the title holder must make a minimum level of investment on plant and mine infrastructure in the amount of KWon100million (~A$120,000). In addition, certain minimum annual production levels must be met depending on the commodity being mined and its commercial value. In the case of graphite, it is 50 tonnes concentrate containing 75% TGC. |

| Criteria | JORC – Code of Explanation | Commentary |
|---|---|---|
| Exploration done by other parties | *Acknowledgement and appraisal of exploration by other parties.* | In 1971, the Korea Mineral Promotion Corporation (KMPC) completed a programme of surface mapping and sampling at the Gapyeong Project including the collection of 21 samples from surface trenches. They reported grades ranging from 6.8 to 30% TGC. They identified outcropping graphitic schist unit over 700m of strike with widths varying from 5 to 15m and dipping between 60 to 90 degrees to the northwest. They described granitic gneisses, limestones and calcsilicate units.<br><br>KIGAM has flown airborne radiometrics and airborne magnetics across South Korea as part of an ongoing data capture programme conducted over the last 30 or more years. These surveys cover the Gapyeong project area. KIGAM has also completed 1:50,000 scale mapping across the project area.<br><br>The Company is currently not aware of any exploration work by other non-Government agencies/parties. |
| Geology | *Deposit type, geological setting and style of mineralisation.* | At Gapyeong the eastern limb of the main graphitic gneiss horizon is exposed along a NE-SW trending ridge crest the western limb of the synformal fold structure daylights around 100m to the west. There is a marked conductivity contrast between the non-conductive eastern pelitic schists and the highly conductive Gapyeong graphitic gneiss horizon. The graphitic gneiss is locally overlain by marbles and marly marbles, calcsilicate units and a suite of chlorite and garnet bearing gneisses. A FLEM has identified a fault offset of the unit along the northern east-west valley. The eastern limb of the Gapyeong structure dips at 60 to 90° to the west-northwest while the western limb dips 60 to 90 degrees to eat-southeast. |
| Drill hole information | *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*<br>• *easting and northing of the drill hole collar*<br>• *elevation or RL (Reduce Level) – elevation above sea level in metres) of the drill hole collar*<br>• *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>• *hole length* | All previous Gapyeong sample results and sample location details were included in previous releases [D3,D5,D9,D10]. No new sampling data is included with this release.<br><br>The collar locations and dip and azimuth details for the 3 holes completed on section 4018760mN are tabled in Appendix 1. In addition, a brief summary log of the lithology of the 3 holes is also tabulated in Appendix 1.<br><br>The Company is planning to continue metallurgical studies evaluating the suitability of the Gapyeong concentrate for micronisation (to <20µm) and spheroidisation. |

| Criteria | JORC – Code of Explanation | Commentary |
|---|---|---|
| | *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | No material information has been excluded from this release. |
| Data aggregation methods | *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* | No data has been cut or truncated. |
| | *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* | No new sampling or assay data has been commented upon or released with this announcement. |
| | *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | No metal equivalent values have been reported. |
| Relationship between mineralisation widths and intercept lengths | *These relationships are particularly important in the reporting of Exploration Results.* | Reference has been made to the previously announced Gapyeong Project exploration target[D4].<br><br>True width of the graphite bearing zones have been included in the description of geological intervals. None of these intervals have been sampled or analysed as yet. |

| Criteria | JORC – Code of Explanation | Commentary |
|---|---|---|
| | *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* | Drill holes have been drilled close to normal to the strike of the target structure within the limitations of available drill access points. Holes are cutting the synformal structure obliquely due to limitations in drill pad access and topography. |
| | *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | Both downhole and true width of logged graphite bearing zone have been discussed. As yet the grade of these intervals has not been confirmed by sampling and assay. |
| Diagrams | *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | Figure 1 shows the locations of the planned and completed drill holes on the Gapyeong EM anomaly as defined by the FLEM survey[D10]. The figure also includes an insert showing the location of the Gapyeong project with respect to major Korean cities and the company's the projects. Figure 2 is a cross sectional view through the 3 holes completed on section 4180760mN. |
| Balanced reporting | *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | All assay values and sample location details have been reported previously [D3,D5,D9,D10]. No new assay data is discussed in this release. |

| Criteria | JORC – Code of Explanation | Commentary |
|---|---|---|
| Other substantive exploration data | *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | All data considered relevant and material have been included and commented upon in this announcement or included in the earlier announcement [D3,D5,D9,D10]. |
| Further work | *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* | The company plans to complete drilling on section 4,180,680mN and then assess the results of the programme. Pending results of the drill core assaying it is likely that further metallurgical tests will be undertaken before the programme is expanded to test additional drill sections to the south.<br><br>Surface trenching and channel sampling is planned on 40m sections where possible along the full 1000m of geophysically defined strike length of the Gapyeong structure.<br><br>The suitability of the initial ~5kg of high-grade concentrate will now be assessed for further down-stream processing including micronisation then spheronisation to produce a spherical graphite concentrate for final purification and coating prior to lithium-ion battery anode production. As well as assessing its suitability for use in emerging expandable graphite industry. |
| | *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | The included Figures 1 shows the location of the completed and planned drill holes. Figure 2 is a cross section through the first completed drill section at 4180760mN.<br><br>The inset in Figure 1 shows the location of the Gapyeong and to the Company's other projects and major Korean cities. |

**Appendix 1: Gapyeong Graphite Project diamond drillhole locations and summary logging details**

| HoleID | East | North | mRL | Dip | TrueAz | GridAZ | MagAZ | Actual Depth |
|---|---|---|---|---|---|---|---|---|
| GPD0001 | 371,159 | 4,180,760 | 60.29 | -32 | 89.1 | 90.0 | 97.7 | 52.5 |
| GPD0002 | 371,153 | 4,180,755 | 60.00 | -66 | 75.7 | 76.6 | 84.3 | 94.4 |
| GPD0003 | 371,154 | 4,180,760 | 60.29 | -40 | 269.1 | 270.0 | 277.7 | 76.5 |
| Total | | | | | | | | **223.4** |

| HoleID | From | To | Interval | Lithology |
|---|---|---|---|---|
| GPD0001 | 0.0 | 9.91 | 9.91 | Pmmb |
| GPD0001 | 9.91 | 12.21 | 2.30 | Pmmb |
| GPD0001 | 12.21 | 13.21 | 1.00 | Pmmb |
| GPD0001 | 13.21 | 14.42 | 1.21 | Pmmb |
| GPD0001 | 14.42 | 15.3 | 0.88 | Pmmb |
| GPD0001 | 15.3 | 16.99 | 1.69 | Pmmb |
| GPD0001 | 16.99 | 17.99 | 1.00 | Pmls |
| GPD0001 | 17.99 | 19.39 | 1.40 | Pmls |
| GPD0001 | 19.39 | 20.55 | 1.16 | Pmls |
| GPD0001 | 20.55 | 20.72 | 0.17 | Ppe |
| GPD0001 | 20.72 | 21.14 | 0.42 | Pmmb |
| GPD0001 | 21.14 | 24.14 | 3.00 | Pchgtgn |
| GPD0001 | 24.14 | 27.14 | 3.00 | Pchgtgn |
| GPD0001 | 27.14 | 30.14 | 3.00 | Pchgtgn |
| GPD0001 | 30.14 | 33.14 | 3.00 | Pchgtgn |
| GPD0001 | 33.14 | 33.96 | 0.82 | Pchgtgn |
| GPD0001 | 33.96 | 34.94 | 0.98 | Pchgtgn |
| GPD0001 | 34.94 | 37.14 | 2.20 | Pchgtgn |
| GPD0001 | 37.14 | 38.71 | 1.57 | Ppsm |
| GPD0001 | 38.71 | 38.84 | 0.13 | FLZ |
| GPD0001 | 38.84 | 39.6 | 0.76 | Ppsm |
| GPD0001 | 39.6 | 40.1 | 0.50 | Pgpn |
| GPD0001 | 40.1 | 40.87 | 0.77 | Pgpn |
| GPD0001 | 40.87 | 41.08 | 0.21 | Psm |
| GPD0001 | 41.08 | 42.08 | 1.00 | Pgpn |
| GPD0001 | 42.08 | 42.57 | 0.49 | Pgpn |
| GPD0001 | 42.57 | 43.34 | 0.77 | Pchgtgn |
| GPD0001 | 43.34 | 44.09 | 0.75 | Pchgtgn |
| GPD0001 | 44.09 | 45.51 | 1.42 | Pgpn |
| GPD0001 | 45.51 | 46.15 | 0.64 | FLZ |
| GPD0001 | 46.15 | 46.79 | 0.64 | Ppsm |
| GPD0001 | 46.79 | 47.57 | 0.78 | Kpor |
| GPD0001 | 47.57 | 47.79 | 0.22 | Pgpn |
| GPD0001 | 47.79 | 48.03 | 0.24 | Ppe |
| GPD0001 | 48.03 | 50.32 | 2.29 | Pqzchmi |

| HoleID | From | To | Interval | Lithology |
|---|---|---|---|---|
| GPD0001 | 51.03 | 51.51 | 0.48 | Pqzchmi |
| GPD0001 | 51.51 | 52.5 | 0.99 | Ppsm |
| GPD0002 | 0.0 | 5.0 | 5.0 | Qs |
| GPD0002 | 5.0 | 35.7 | 30.7 | Pmmb |
| GPD0002 | 35.7 | 68.7 | 33 | Ppsm |
| GPD0002 | 68.7 | 70.1 | 1.4 | FLZ |
| GPD0002 | 70.1 | 71.3 | 1.2 | Ppsm |
| GPD0002 | 71.3 | 74.2 | 2.9 | Pgpn |
| GPD0002 | 74.2 | 75.9 | 1.7 | Ppsm |
| GPD0002 | 75.9 | 81.25 | 5.35 | Pgpn |
| GPD0002 | 81.25 | 86.6 | 5.35 | Pchgtgn |
| GPD0002 | 86.6 | 89.7 | 3.1 | Pgpn |
| GPD0002 | 89.7 | 94.4 | 4.7 | Pchbtsc |
| GPD0003 | 0.0 | 6.5 | 6.5 | Qs |
| GPD0003 | 6.5 | 61.85 | 55.35 | Pmmb |
| GPD0003 | 61.85 | 70.8 | 8.95 | Pgpn |
| GPD0003 | 70.4 | 76.5 | 6.1 | Pchsc |

**Lithology Key**

Qs (soil),
Kpor (porphyry),
FLZ (fault),
Pmmb (marble),
Pmls (marly marble),
Pchgtgn (chlorite biotite gneiss),
Ppe (pelite),
Psm (psammite),
Ppsm (psammopelite),
Pgpn (graphitic gneiss),
Pchsc (Chloritic schist),
Pchbtsc (chlorite biotite schist),
Pqzchmi (quartz, chlorite mica schist)