PENINSULA MINES
LIMITED
ASX: PSM

ASX ANNOUNCEMENT 21 January 2019

GAPYEONG GRAPHITE CHANNEL INTERSECTIONS EXTEND TARGET

- **New channel sampling intersections including 9.69m @ 9.7% Total Graphitic Carbon (TGC) with 7.21m @ 10.6% TGC have extended the high-grade drilling target to over 400m strike length, open to the south**
- **Petrography indicates presence of large graphite flakes with some interstitial sulphides**
- **Additional metallurgy initiated targeting a fresh rock, >95% TGC, concentrate and to generate samples for further test-work, including for spherical graphite with new technology partner, Tera Technos[D13]**

Peninsula Mines Ltd (ASX:PSM) has produced additional high-grade graphite channel sampling intersections including

GC0004: 9.69m @ 9.7% TGC, including 7.21m @ 10.6% TGC (400mN) and

GC0003: 3.97m @ 9.8% TGC and 5.62 @ 6.0% TGC (680mN)

These results extend the high-grade drilling target to 400m strike length at the Gapyeong Graphite Project, located 50km east of Seoul in South Korea (see Figure 1, inset, for location).

This follows the encouraging drilling results including

GPD0005: 10.63mm (7.4m True Width (TW)) @ 11.6% TGC from 61.9m including 8.63m (6.0m TW) @ 12.1% TGC[D1] from six initial diamond drill holes for 458m on two 80m spaced cross sections across the high-conductivity electromagnetic (EM) anomaly that corresponds with the graphitic units[D1] (see Figure 1).

Additional analyses for diamond drill hole GPD0001 have also been received, providing a second intercept

GPD0001: 4.15m (3.8m TW) @ 5.1% TGC in addition to the previously announced **6.55m (5.6m TW) @ 7.9% TGC incl. 2.47m (2.5m TW) @ 11.9% TGC.**

The trenching, channel sampling, intersections are in addition to previous channel sampling intersections that include

GC0002: 13.1m @ 12.3% TGC including 6.66m @ 17.2% TGC on section 4,180,600mN and

GC0001: 12.5m @ 10.6% TGC including 2.6m @ 14.5% TGC on section 4,180,500mN[D5].

The trenching results indicate that the grade of the Gapyeong graphitic unit may be higher to the south of the current drilling.

Peninsula's Managing Director, Richard Henning said: *"We continue to be encouraged by the high-grade intercepts from the Gapyeong graphitic unit and will now do further metallurgical testing prior to further resource drilling, with the objective of defining a maiden flake-graphite mineral resource in South Korea. It should be noted that due to the winter season in Korea, ground conditions are such that further groundwork is unlikely until the Spring."*

Petrographic work on Gapyeong drill-core (GPD0001) has identified large flakes with interstitial and associated sulphides, dominantly pyrite and pyrrhotite with trace chalcopyrite and sphalerite (Photomicrographs 1 & 2). The matrix is composed of a mix of quartz and feldspars. The presence of strong sulphide mineralisation was not evident in previous channel sampling and was most likely oxidised and leached at surface.

Further metallurgical testing has been initiated on the fresh-rock drilling samples to confirm that a >95% TGC concentrate can be generated from the sulphide bearing graphitic material. Previous testing on surface trenching samples produced high-purity metallurgical concentrate of 95.4% TGC[D7].

Subject to achieving the requisite concentrate grade, the Company will look to generate a five-kilogram graphite concentrate sample for spherical graphite testwork with the objective of reaching 99.95% TGC purity spherical graphite product to meet the specifications of South Korean Lithium-ion battery anode manufacturers.

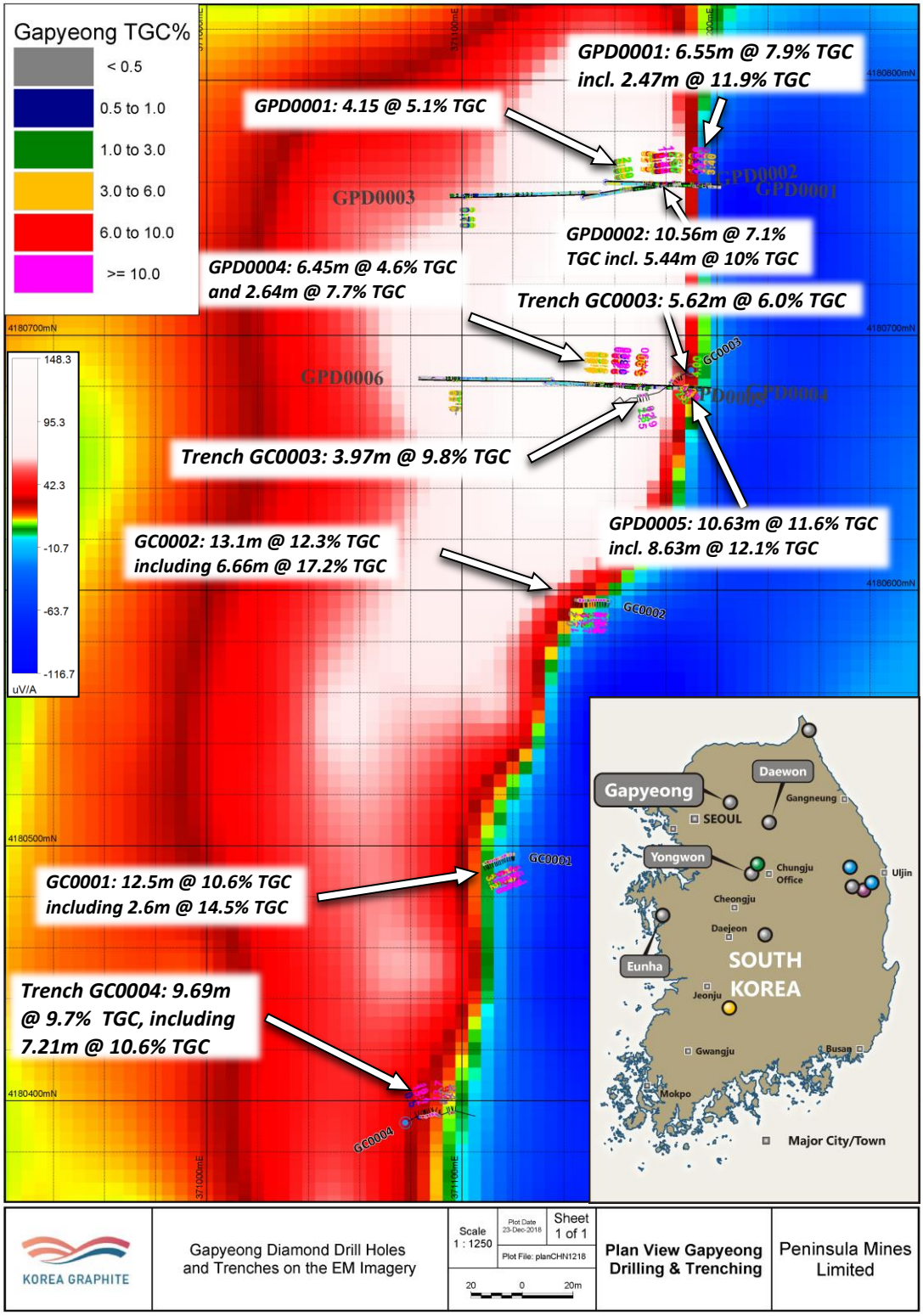

Figure 1: Gapyeong channel and drill hole locations and intersections on EM imagery, 400m zone

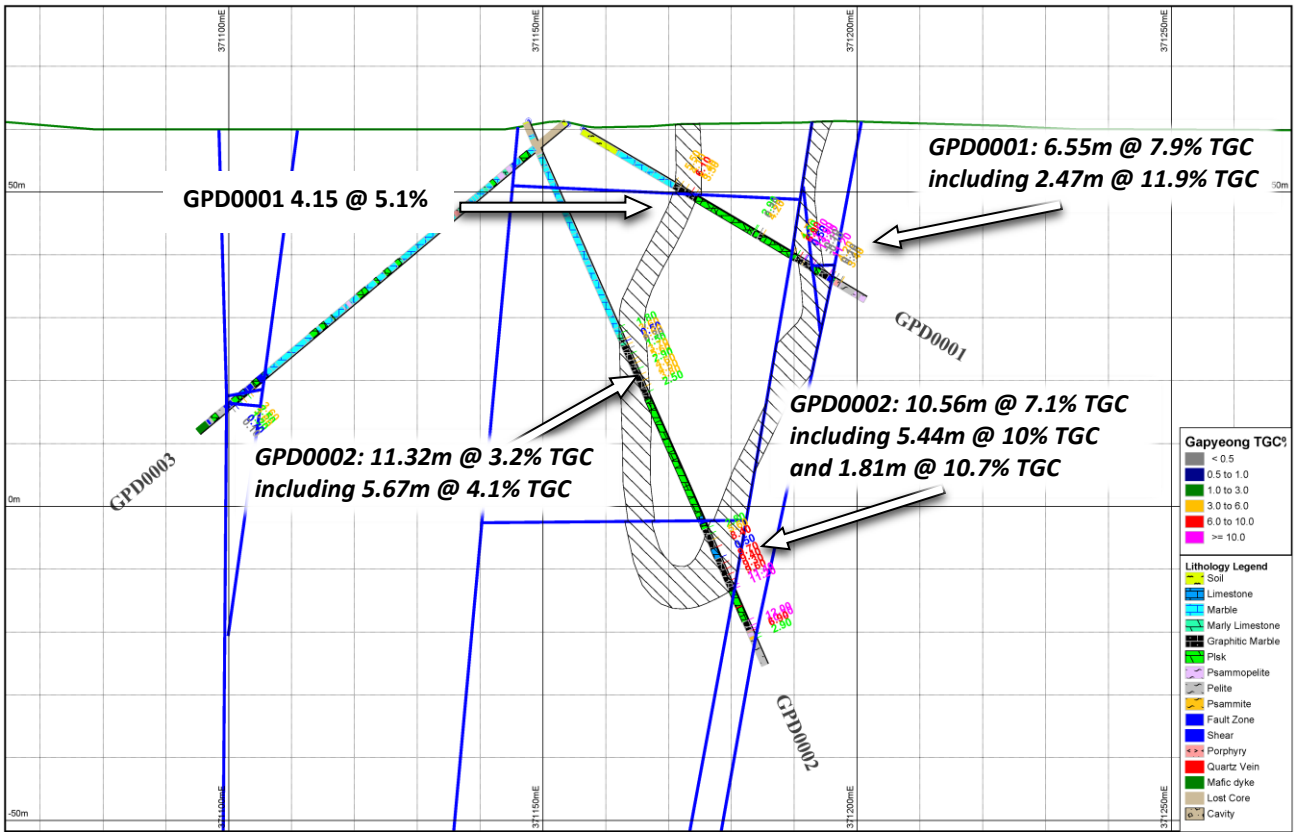

Figure 2: Cross section 4,180,760mN showing drilling intersections & interpreted synformal graphitic unit

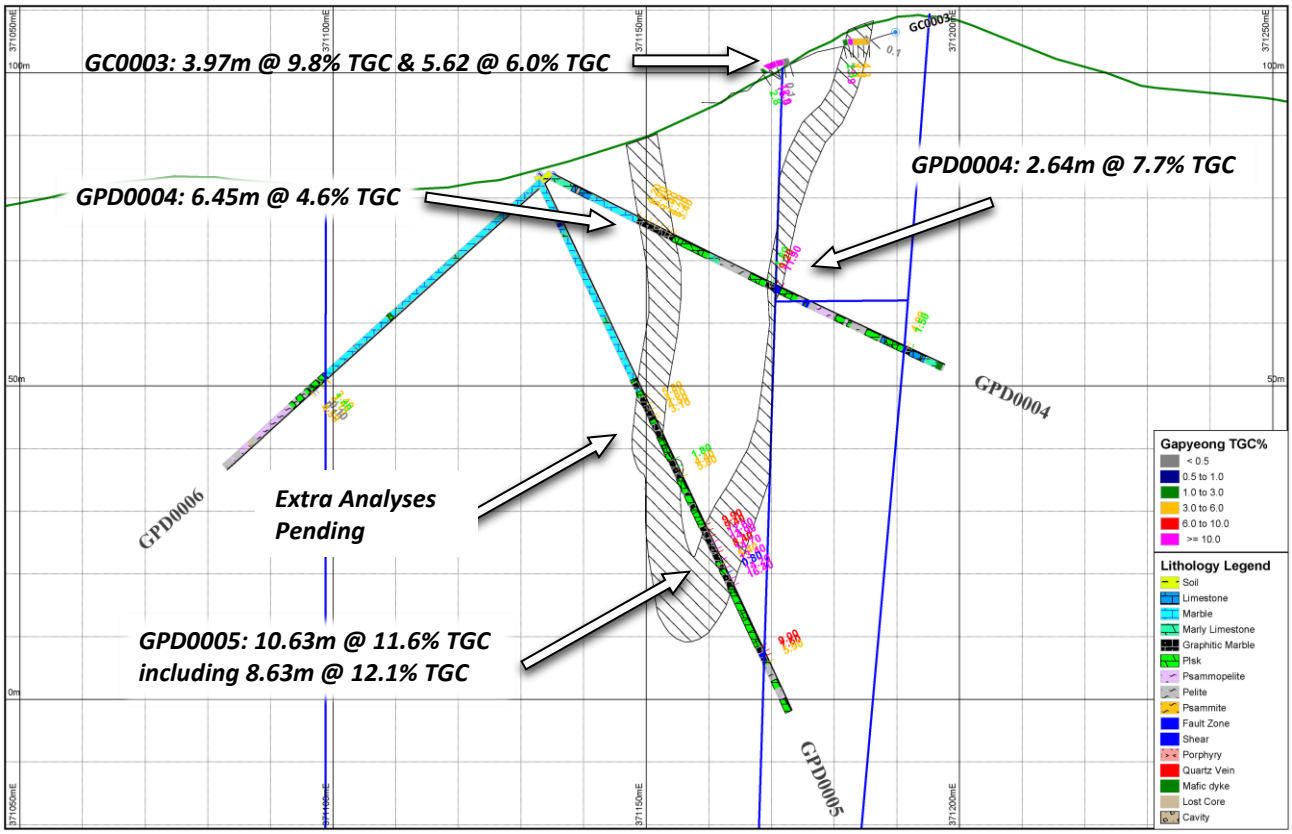

Figure 3: Cross section 4,180,680mN showing drilling/channel intersections & interpreted synformal graphitic unit

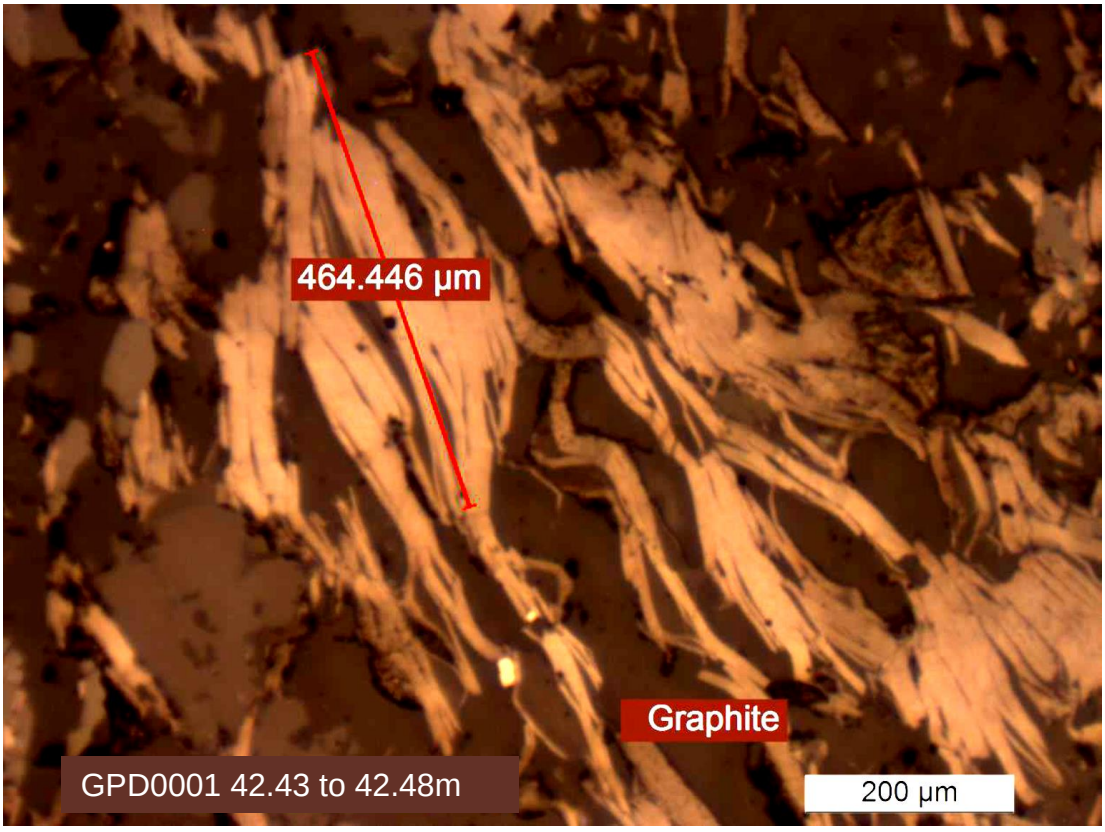

Photo1: Image showing grain size of the graphite flakes from hole GPD0001

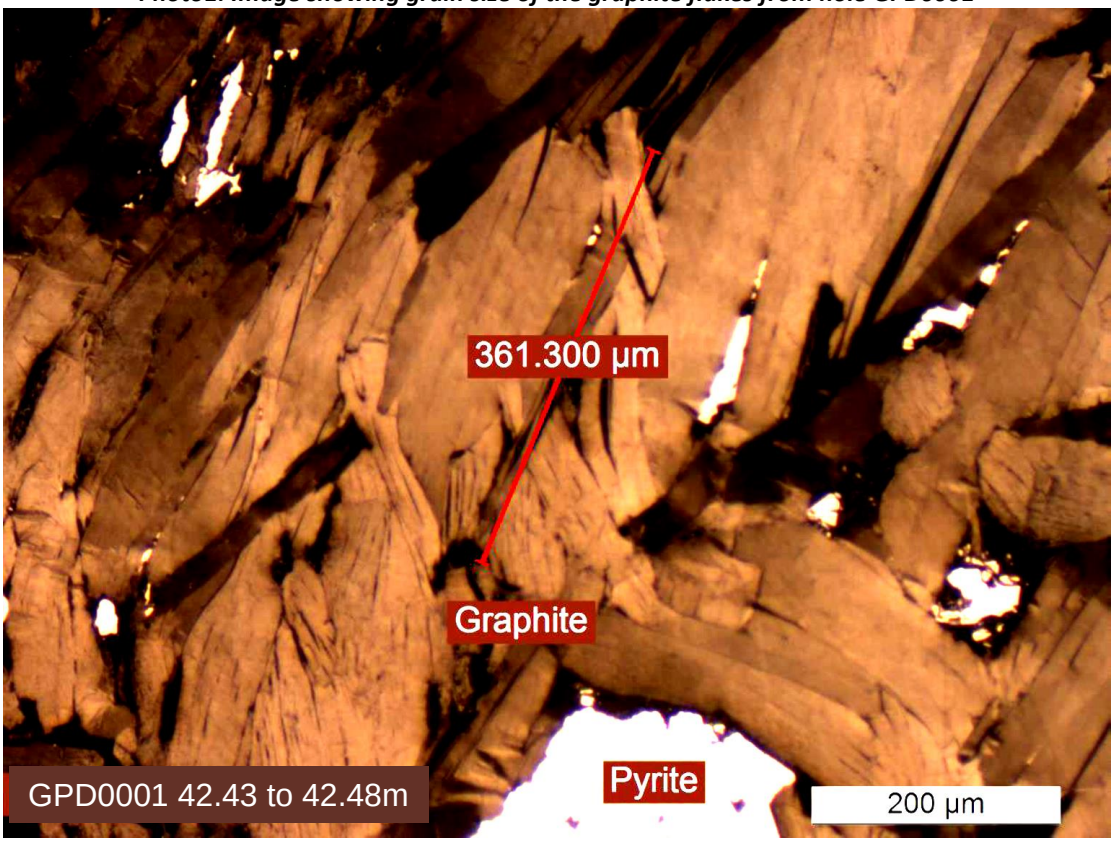

Photo2: Image showing grain size of the graphite flakes from hole GPD0001, gangue a mix of coarse sulphides and finer silica & calc-silicate minerals

Flake graphite in the drilling intersections at Gapyeong is associated with sulphides, dominantly pyrite and pyrrhotite with trace chalcopyrite and sphalerite (Photomicrographs 1 & 2). The matrix is composed of a mix of quartz and feldspars (potassic and plagioclase that are locally sericite altered), lesser prehnite, garnet, clinozoisite and titanite. The presence of strong sulphide mineralisation was not evident in previous channel sampling and was most likely oxidised and leached at surface. Further metallurgical testing has been initiated on the fresh-rock drilling samples to confirm that a >95% TGC concentrate can be generated from the sulphide bearing graphitic material. Previous testing on surface trenching samples produced high-purity metallurgical concentrate of 95.4% TGC[D7].

Further drilling to define a maiden flake-graphite resource at Gapyeong will be planned subject to the results of the further metallurgical testwork on fresh rock from the drill core samples.

Subject to achieving the requisite concentrate grade, the Company will look to generate a five-kilogram graphite concentrate sample for spherical graphite testwork with the objective of reaching 99.95% TGC purity spherical graphite product to meet the specifications of South Korean Lithium-ion battery anode manufacturers.

Table 1: Gapyeong new channel sampling intersections

Hole Number	From (m)	To (m)	Interval	True Width	TGC %	TCC%	TOC%	TC%	S%
GC0003 (680mN)	**5.38**	**11.00**	**5.62**	**5.0**	**6.0**	0.1	0.1	6.2	0.1
	22.30	**26.27**	**3.97**	**2.7**	**9.8**	0.2	0.1	10.1	0.2
GC0004 (400mN)	**8.05**	**17.74**	**9.69**	**8.3**	**9.7**	0.2	0.1	10.0	0.0
Including	**10.53**	**17.74**	**7.21**	**5.9**	**10.6**	0.1	0.0	10.7	0.0
	22.54	**23.61**	**1.07**	**1.0**	**9.7**	0.0	0.1	9.8	0.0

Table 2: Gapyeong new drilling intersections

Hole Number	From (m)	To (m)	Interval	True Width	TGC %	TCC%	TOC%	TC%	S%
GPD0001 (760mN)	**38.71**	**46.15**	**7.44**	**5.6**	**7.2**	0.7	0.4	8.3	3.2
Including	**39.60**	**42.57**	**2.97**	**2.5**	**11.1**	0.6	0.4	12.2	3.8
	16.99	**21.14**	**4.15**	**3.5**	**5.1**	2.9	0.7	8.7	1.4

See Appendix 1 for drill hole locations and details and Appendix 2 for a detailed tabulation of all available drill core analyses and summary lithology.

ENDS

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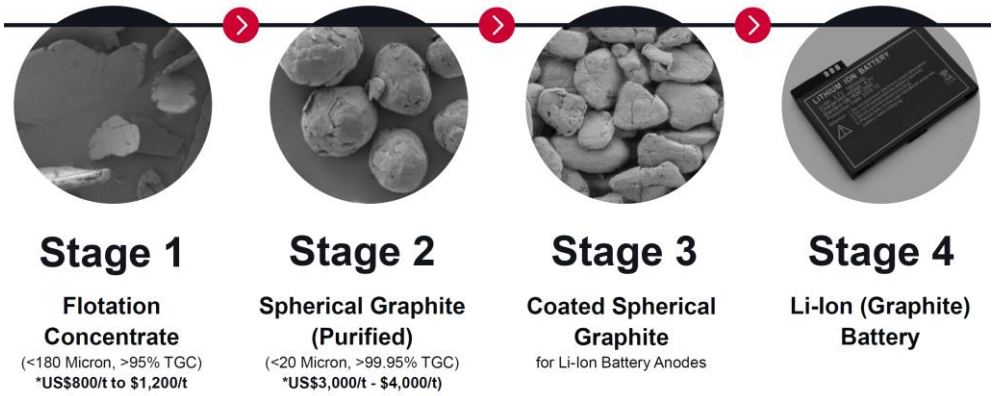
About the Peninsula Mines Limited Graphite Business:

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 more than 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. 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 - November 2018[D7].

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 recently signed a Memorandum of Understanding ("MOU") with a South Korean high-technology manufacturing company, Tera Technos Co., Ltd ("Tera Technos"), that specialises in the production of high performance carbon composite "SiOx" anode materials, a modified and enhanced version of spherical graphite, see "Tera Series" product photomicrograph below (Spheroid size <20µm). The MOU includes an initial testing programme, to be conducted by Tera Technos, to complete spheroidisation and electrochemical testwork on graphite concentrate samples from the Company's flagship Gapyeong Graphite Project[D13].

Peninsula also signed a Memorandum of Understanding ("MOU") with Korean expandable graphite producer, Graphene Korea, in June 2017[D9], 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 extended a Binding Supply Agreement with Canadian listed DNI Metals Inc ("DNI")[D10]. Subject to various conditions, DNI will supply up to 24,000 tonnes per year of flake graphite for on-sale to Korean end-users. 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 High-Grade Graphite Intersections from Gapyeong Drilling, ASX: 11/12/18
D2 Gapyeong Drilling Intersections Confirm Exploration Target, ASX: 23/11/18
D3 Gapyeong High-Grade Graphite Drilling Underway, ASX: 09/10/18
D4 Drilling commenced Testing Key Korean Projects, ASX: 20/09/18
D5 Gapyeong High-Grade Graphite Channel-Sampling Intersections, ASX: 01/08/18
D6 Exploration Target for Key Korean Flake-Graphite Projects, ASX: 15/08/18

D7 High-Purity Graphite Concentrate Confirms Potential of High Grade Gapyeong Project, ASX:23/05/18
D8 Benchmark Mineral Intelligence Graphite Pricing Assessment, November 2018
D9 Flake-Graphite Offtake and Development MOU signed with Korean End-User, ASX: 14/06/17
D10PSM extends Large-Flake Graphite supply Agreement with DNI, ASX: 22/10/18
D11New High-Grade Graphite Results Confirm Resource Drilling Target at Gapyeong, ASX: 19/03/18
D12Exceptional EM Conductors Define Drilling Targets at Gapyeong Graphite Project, ASX: 14/03/18
D13Peninsula Signs MOU with Korean Li-Ion Battery Anode Supplier, ASX: 09/01/19
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.*	Additional, diamond drill core from diamond drill hole GPD0001 was cut in half using the company's diamond bladed saw with the core half containing the orientation line kept as a permanent drill core record with the other half of the cut core placed in a prelabelled calico bag. This first hole GPD0001 was drilled with an HQ drill string with the balance of the programme completed using an Q3 drill string which produce 50mm diameter core. An extra 16 core samples have been cut from holes GPD0002, GPD0003, GPD0005 the results of this additional sampling are still pending. 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. The locations of the drill holes are shown in Figures 1, 2 and 3. All coordinates were recorded in WGS84, UTM Zone 52N coordinate system and are tabulated in Appendix 1. A further, 10 channel samples were cut in the wall and floor of a third hand dug trench excavated on the 4180680mN section and 13 samples from a fourth trench excavated at 4180400mN. The samples were cut using a diamond blade fitted angle grinder or with a plaster spatula in the case of highly weathered samples from channels in the wall of the trenches approximately 7cm wide and 7cm deep. The channel was cut as near as possible to horizontal across the steep dipping graphitic unit. The sample quality was excellent, fresh to partially oxidised rock. Each sample was collected across an interval of between 0.64m to 1.33m. The location of the channel sampled trenches is shown in Figure 1 and 3. All coordinates were recorded in WGS84, UTM Zone 52N coordinate system and location details and summary geology are tabulated in Appendix 3. All half core and petrology samples and channel samples were dispatched via FedEx to Nagrom laboratories, Perth. In addition to core sampling, select pieces of quarter core nominally 4 to 6cm in length were cut from various intervals across the 6 Gapyeong drill holes, preserving the bottom of hole line in the remaining quarter core piece. The aim of the petrology work was to further assess the flake size of the graphite and the relationship between the graphite and the sulphide mineralisation (Photos 1 & 2). The petrology also aimed

Criteria	*JORC – Code of Explanation*	Commentary
		to examine the character of the gangue mineralogy and the nature of the skarn alteration within the host meta-limestone sequence. The samples were analysed for a suite of elements by XRF as well as Total Carbon (TC%), Total Graphitic Carbon (TGC%), Total Organic Carbon (TOC%) and Total Inorganic Carbon (TIC%) and sulphur (S %) at NAGROM laboratory in Perth, Australia. NAGROM operate a LECO analyser: C and S values were determined from sample mass differences, using precision scales, resulting from heating to burn off carbon and sulphur, which were emitted as CO_2 and SO_2. The latest drill core analysis results from hole GPD0001 are tabled in Appendix 2, below and the earlier results from all 6 drill holes can be viewed in the 11th December 2018 release[D1]. All coordinates were recorded in WGS84, UTM Zone 52N coordinate system.
	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 spatial restrictions holes have been drilled slightly oblique to the folded graphitic structure on section 4180760mN. All channels samples were cut from channels, approximately 7cm wide, taken along the wall or floor of the hand excavated trench. Sampling was undertaken as close as possible to normal to strike of the variably dipping graphitic unit some variation in the trench direction was necessary to avoid large trees and roots. All the drill hole collar locations have been surveyed using Differential GPS (DGPS) unit by a contract surveyor. The channel sample locations were referenced to pegs the location of these reference pegs were also surveyed using the DGPS (DGPS). The location of specific channels was referenced from pegs using vectors calculated using taped distances and hand-held Sunto compass bearings and clinometer angles.
	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.	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. The drill core was sawn 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 was sent to Nagrom Laboratories, Perth for analysis. The surface channel samples were collected from hand excavated trenches. A channel approximately 7cm wide, was

Criteria	*JORC – Code of Explanation*	Commentary
	Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	cut across the variably dipping, graphitic unit. The entire channel cut sample was collected in the intervals ranging from 0.64m to 1.5m. A 33.5m long trench was excavated at 4180680mN across the graphite bearing structures but only the two separate graphite bearing zones were sampled, while at 4180395mN a 31m long trench was excavated across two separate graphitic zones. The graphitic channel samples, averaging 1kg to 9kg, were heat treated at 165 degrees Celsius for customs purposes. While the core samples were air dried and being sourced from more than 2m below surface did not require heat treatment. Samples post drying were crushed to a nominal top size of 6.3mm using a jaw crusher. The coarse jaw crushed sample was then riffle split to generate a sub-sample for pulverisation. The sample was pulverised using a LM5 pulveriser until 80% of the sample passed 75 microns. A ~150g subsample of the pulverised material was then randomly selected for analysis with the balance of the coarse and pulverised material retained for possible future metallurgical studies. NAGROM utilised a LECO analyser and gravimetric analyses, where C and S values were determined from mass differences (using precision scales) during the high temperature heating and subsequent CO_2 and SO_2 generation inside the analyser. This method was considered near total for C and S and was the preferred method for accurate graphite sample analysis. From these analyses, the Total Carbon, Total Graphitic Carbon (TGC), Organic Carbon and Inorganic Carbon (as carbonate) and Sulphur were reported (Appendix 2 & 3).
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. The pre-collar of each drill hole was drilled with an open bit and generally the soil and loose rock from the soil profile was washed away. Minor compacted soil was recovered from the first 1 to 2m of the holes when water was not used during the drilling process. Post the pre-collar holes were cased with HW drill rods and conventional HQ or Q3 drilling was then undertaken using a standard triple tube core barrel. 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.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	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. A 0.55m wide cavity was intersected within the marble from 4.45m in hole GPD0004 and an 8cm wide cavity from 41.9m in hole GPD0006.

Criteria	*JORC – Code of Explanation*	Commentary
	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.	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. Core recovery and core quality has been outstanding throughout the programme. No sample bias is expected given the quality of the drill core throughout each of the 6 holes drilled to date.
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 the ori line marked up at the drill site for logging. Preliminary core logging was undertaken at the drill site with detailed logging completed at the Company's dedicated core logging shed at Sotae-myeon prior to sampling. All holes were geologically, geotechnically logged in addition core alteration details were recorded. Point structural data was routinely acquired to help define the fold geometry and attitude of faults and joint systems. The results for the Specific Gravity (SG) recordings are currently being compiled to allow an SG value to be assigned to each geological interval. All logging work has been 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. 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. The geology for the entire drill hole will be logged in detail. All channel sample intervals were photographed prior to and post cutting. The geology of each sampled interval was recorded in a field notebook and transferred to an Excel spreadsheet. Logging included descriptions of rock type, degree of weathering and oxidation, gangue minerals observed, nature of the mineralisation, width and depth of each sample. Structural information, such as bedding dip and direction were also collected. Sketch maps of the channel and sampled intervals were also made. The geology for the entire channel sampled interval was recorded. There were no areas of sample loss within any of the channel sampled intervals. Though due to interference from trees and roots trench directions needed to be altered and in cases samples offset from each other due to these natural obstacles encountered while trying to excavate straight trenches.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Half core sampling was completed from the targeted graphite bearing structures.

Criteria	*JORC – Code of Explanation*	Commentary
and sample preparation	*If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	All channel samples were taken with two parallel saw cuts with the rock between the cuts removed using a geology hammer and/or a mallet and chisel. In cases were the sample was highly oxidised and weathered the sample was cut with a plaster spatula and with material in between the spatula cuts removed with a chisel or another spatula. The entire sampled interval was cut and a rubber mat was used to help funnel material into a calico sample bag. Samples were dried in the Company's secure core cutting shed using a gas heater prior to dispatch to Nagrom laboratories, Perth.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The details of the applicable sample preparation are discussed above and below.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The Company included 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 core sample will at some future date be sent to another lab as a reference check. The channel cut sample was collected in intervals ranging from 0.64m to 1.5m ensuring that a representative sample was taken across the length and breadth of each sampled interval. Sample quality was excellent and samples included fresh to partially oxidised rock.
	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. As previously stated, the entire channel cut sample was collected in the intervals ranging from 0.64m to 1.5m ensuring a representative sample was collected. The field duplicate samples taken show an excellent correlation/repeatability with the prime channel sample. No sample splits have been analysed other than those routinely analysed by the laboratory as part of their own internal QA/QC process.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The core and channel 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.*	At NAGROM, the channel samples post drying were crushed to a nominal top size of 6.3mm using a jaw crusher then riffle split to generate a 500g sub-sample for pulverisation. Each sample was pulverised using a LM5 pulveriser until 80% of the sample passed 75 microns. A >10g subsample of the

Criteria	*JORC – Code of Explanation*	Commentary
		pulverised material will then randomly selected for analysis with the balance of the pulverised material retained for future use. The NAGROM analyses utilised a LECO analyser and were gravimetric analyses, where C and S values were determined from mass differences (using precision scales) during the high temperature heating and subsequent CO_2 and SO_2 generation inside the analyser. This method is considered near total for C and S and was the globally preferred method for accurate graphite sample analysis. From these analyses, the Total Carbon, Total Graphitic Carbon (TGC), Organic Carbon and Inorganic Carbon (as carbonate) and Sulphur will be reported. The analyses are considered total for the key elements of C and S. Additional XRF analyses of gangue minerals were also undertaken as part of the overall analysis suite.
	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. The geophysical programme parameters were as follows: **Planning/Supervision:** Southern Geoscience Consultants Pty Ltd (SGC) **Survey Configuration:** Fixed Loop TEM (FLEM) **TX Loop Size:** 200m x 700m (Gapyeong – 3 overlapping loops). Three overlapping TX loops at each site. **Transmitter:** ZT-30 **Transmitter Power:** 72V (6 x 12V car batteries) **Receiver:** SMARTem24 **Sensor:** RVR coil – vertical (Z) component **Line Spacing:** 75m and 100m at Gapyeong **Line Bearing:** 090° at Gapyeong **Station Spacing:** 25m and 50m **TX Frequency: 5 Hz for Gapyeong (200msec time base)** **Duty cycle:** 50% **Current:** 5 to 10 Amp **Stacks:** 256 stacks **Readings:** At least 3 repeatable readings per station **Powerline Frequency:** 60 Hz 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

Criteria	*JORC – Code of Explanation*	Commentary
		outcrop. The results of the EM work were discussed more fully in 14 March 2018 release[D12].
	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 included blank and CRM samples as part of the drill core and channel sample analyses. Blind field repeats will be sent to an alternative lab at some future date as a cross check on the primary analyses. NAGROM undertakes routine blank, CRM and repeat analyses as part of the labs own internal QA/QC procedures. The results of the Company's and the laboratory's own internal QA/QC do not indicate any issues with the analysis results reported herewith. The labs routine sample repeats show excellent correlation.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	All reported intercepts have been confirmed by one or more of the Company's geologists. None of the results reported or commented upon in this release have been independently checked by non-Company personnel. This is not considered material at this early reconnaissance stage of the project's evaluation.
	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.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All core and channel sampling logging details are stored in an Excel database. All results are checked by the responsible geologist on entry to the database. The Company's data is entered into an Excel database and routinely transferred to the Perth Head Office.
	Discuss any adjustment to assay data.	The core drilling data discussed in this release is summarised in the accompanying Appendices 1 and 2 with all the earlier analyses from the 6 drill holes or included in the 11th December 2018 release[D1]. The latest channel sample analyses are included in Appendix 3 while results from trench 1 and 2 can be viewed in 1st August 2018 release[D5]. Length weighted averages have been calculated and presented in the main body of this release. All data in the appendices is raw laboratory data. The organic carbon and inorganic carbon content were calculated using the results of the total and graphitic carbon and non-inorganic carbon analyses. This is standard practice in the reporting analyses of various carbon species.

Criteria	*JORC – Code of Explanation*	Commentary
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 down hole 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 drill holes may have had a minor effect 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 from gravity accelerometer readings taken during the core orientation process. The drill hole collar locations were surveyed by a contract surveyor using a Differential GPS and are considered accurate to +/- 1.1m. The layout of the EM loop and station reading points were all taken with a hand-held Garmin GPS unit. Trench sampling control points were initially surveyed using a handheld Garmin GPS unit at each of the trench sites as well as pegs placed at the start and end of each trench. These reference control pegs were subsequently surveyed by a contract surveyor using a DGPS unit. Chain, compass and clinometer survey has been used to spatially locate the start and end of each channel sample relative to specific reference peg.
	Specification of the grid system used.	All drill hole collar locations and trench 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. Geophysical measurement locations were determined using a hand-held Garmin GPS64CSx. The accuracy of this unit at most sample sites was +/- 5m to 10m.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The initial drill section spacing is on nominal 80m spaced north-south sections with holes at 40m spacing down dip for the two easterly drilled holes drilled on each drill section. A single hole was drilled back to the west targeting a second EM anomaly that has subsequently been found to be related to graphite mineralisation along and adjacent to a steep near vertical easterly dipping fault structure. The initial interpretation has been modified following the completion of the drill programme. The high-quality core orientation data obtained from the drill programme indicates that there is an upright northerly plunging synformal fold structure located to the east of the two drill pad locations. Further, channel sampling and drilling is planned and will be conducted initially at 80 to 100m section spacing. To date

Criteria	*JORC – Code of Explanation*	Commentary
		trenches have been excavated at 4180400mN, 4180500mN, 4180600mN and 4180680mN.
	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. Follow-up systematic trenching is planned at 40m spacing where possible along the entire structure's length.
	Whether sample compositing has been applied.	No sample compositing has been undertaken. Though core sample rejects will be composited to generate a fresh sample for metallurgical testing. The latest drill hole analysis results are included as Appendix 2. The latest channel sample results are included as Appendix 3.
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. The trenches have been dug close to normal to the strike of the Gapyeong graphitic unit. Even sized samples have been taken from each interval. The sampling is considered unbiased.
	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.	The channel samples were all sawn as close to horizontal as possible given the limitations of the trench topography and basal trench outcrop. The channel angle is generally 10 to 30 degrees to the structures dip. True widths for each interval will be calculated using the observed structural dips, the channel dip and angle between the channel direction and dip direction of the graphite bearing structures. All 6 diamond drill holes completed to date were drilled as close to normal to the strike of the target structures with 3 holes drilled on each of the two 80m spaced sections. Some compromise had to be made due to available drill pad access areas. The drilled dip of the holes and the angle of intersection with the targeted structures has meant that down hole intercept widths exceed true width in all 6 holes completed thus far.

Criteria	*JORC – Code of Explanation*	Commentary
Sample security	*The measures taken to ensure sample security.*	Core was initially kept at the drill site while orientation line mark-up and initial core logging work was undertaken. All core was then transported at the end of the drill programme to the company's secure core shed facility where detailed logging and checking of the orientation line mark-up was undertaken by the exploration manager. At the company's core cutting facility cut lines were also marked up on the core prior to detailed core photography been completed and core cutting initiated using the company's diamond bladed brick saw. Once cut samples were placed in clean prelabelled calico bags and air dried in the secure shed. Samples once dry were packed into cardboard cartons and dispatched via FedEx 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. 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. In addition, the Company filed an MDS survey on 16 May 2018 and received notification of the grant of the adjoining northern sub-block Gapyeong 124-4 by mail in October 2018 and has paid the required Government taxes to finalise the tenement grant on 30 November 2018. The company has applications over the adjacent 3 sub-blocks on tenements 124 and 125 and will seek to identify outcropping mineralisation that will facilitate the grant of further adjoining sub blocks.

Criteria	JORC – Code of Explanation	Commentary
		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. 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. There are no native title interests in Korea. It is a generally accepted requirement that mineral title holders gain the 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 earlier EM survey work at Gapyeong and have so far viewed all exploration efforts favourably. The Company has received support from both the local Geumdae-ri community as well as the Local Gapyeong-gun Government.
	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 two sub-blocks Gapyeong 125-3 and Gapyeong 124-4 and has valid 6-month applications over adjoining subblocks on tenement blocks 124 and 125.The company will aim to file additional MDS reports to facilitate he grant of further sub-blocks prior to the expiry of the applications. 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

Criteria	JORC – Code of Explanation	Commentary
		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. 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.
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 schists, gneisses, limestones and calcsilicate units. 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.

Criteria	JORC – Code of Explanation	Commentary
		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 skarn/marble horizon is exposed along a NE-SW trending ridge crest the western limb of the synformal fold structure daylights 20 to 35m to the west. There is a marked conductivity contrast between the non-conductive eastern pelitic schists and the highly conductive Gapyeong graphite bearing skarn horizon. The lower grade graphitic mineralisation on the western synformal fold limb is hosted in graphite bearing marble that passes into higher grade graphitic skarn on the eastern limb. To the west the core of the antiform is composed of marbles, lesser remnant limestone and minor local skarnified bands. The core of the synform and the eastern fold limb is more intensely altered skarn. Further, to the east synform and across a major north-south trending fault structure there are altered pelitic and psammopelitic schists locally cut by narrow mafic dykes. The 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 varies in dip from 60 to 90 degrees to east-southeast but also roles to dip to the west (see Figures 2 & 3).
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:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduce Level) – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length*	All earlier Gapyeong sample results and sample location details were included in previous releases [D1,D5,D7,D11,D12]. The latest drill hole analysis data from hole GPD0001 is included as appendix 2 along with a brief summary of the lithologies for the sampled intervals. All details relating to the latest round of trenching is included in Appendix 3. The collar locations and dip and azimuth details for the 6 drill holes are tabled in Appendix 1. 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. Additional drill hole sampling results are pending from holes GPD0002, GPD0003 and GPD0005.
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. Length weighted averages have been reported in the body of the release.
	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.	The latest core analysis results are included in Appendix 2 and earlier analyses from the other holes were released on 11th December 2018[D1]. The latest channel sampling results are included as Appendix 3 with earlier results from trench 1 and 2 available in the 1st August 2018 [D5] release. Length weighted averages for key intercepts are summarised in the body of the release and in Tables 1 & 2.
	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[D1,D5]. True width of the graphite bearing zones have been included in Tables 1 & 2 and in the summary of key intervals within the body of the text.
	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. While trenches have been excavated normal to strike where possible given the limitations of avoiding growing trees and major tree roots.

Criteria	JORC – Code of Explanation	Commentary
	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 in the body of the text and summarised in Table 2. Similarly, down hole and true widths for the sampled channel intercepts is also discussed in the body of this release and reported in Table 1.
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 completed drill holes and the 4 trenches excavated to date on the Gapyeong EM anomaly as defined by the FLEM survey[D11]. 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 and shows the results of the additional assays recently received from hole GPD0001. Figure 3 is a cross section at 4180680mN through holes GPD0004, GPD0005 and GPD0006 as well as Trench GPC0003.
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 analyses values and sample location details have been reported previously [D5,D7,D11,D12]. A full list of available core analysis results was included as Appendix 2 in the 11th December 2018 release[D1]. This release includes additional analyses from hole GPD0001 as well as the analysis results from the latest trenching work. The results for additional sampling from holes GPD0002, GPD0003 and GPD0005 will be released as and when they become available.
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 [D5,D7,D11,D12].
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 additional metallurgical testing on a composite sample sourced from the coarse reject and additional ground reject material from this initial phase of drill core sampling. The fresh metallurgical testwork will assess whether the sulphides (predominately pyrite and pyrrhotite) have any adverse impact on the metallurgical

Criteria	JORC – Code of Explanation	Commentary
		recovery. The aim being to produce a 5 kg sample with >95% graphite concentration that can then be used for spherical graphite testwork with the objective of reaching +99.95% TGC purity product to supply Korean Li-ion battery anode manufactures. Pending a favourable outcome from the additional metallurgical testwork the drill programme will be expanded to test additional drill sections further to the south with the aim of generating a maiden Mineral Resource for the Gapyeong project. 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.
	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 Figure 1 shows the location of the 4 completed trenches and 6 drill holes. Figure 2 is a cross section through the first completed drill section at 4180760mN while Figure 3 is a cross section through the second drill section at 4180680mN and also shows the results for Trench GPC0003. The inset in Figure 1 shows the location of the Gapyeong and the Company's other projects and major Korean cities.

Appendix 1: Gapyeong Graphite Project diamond drill hole locations and details

Hole ID	Project	Prospect	Tenement	Coordinate System	Easting (m)	Northing (m)	RL (m)	Dip (degrees)	True Azimuth (degrees)	Hole Size	Total Depth (m)
GPD0001	Gapyeong	Geumdaeri	Gapyeong 125-3	UTM WGS84 R52N	371156.4	4180760.1	60.1	-30.6	91.4	HQ	52.5
GPD0002	Gapyeong	Geumdaeri	Gapyeong 125-3	UTM WGS84 R52N	371147.7	4180754.2	61.3	-66.3	79.4	Q3	94.59
GPD0003	Gapyeong	Geumdaeri	Gapyeong 125-3	UTM WGS84 R52N	371154	4180755.6	60.8	-39.8	267.8	Q3	76.56
GPD0004	Gapyeong	Geumdaeri	Gapyeong 125-3	UTM WGS84 R52N	371135.1	4180681.5	83.7	-27.1	90.4	Q3	69.57
GPD0005	Gapyeong	Geumdaeri	Gapyeong 125-3	UTM WGS84 R52N	371133.0	4180681.7	83.8	-64.8	89.2	Q3	94.58
GPD0006	Gapyeong	Geumdaeri	Gapyeong 125-3	UTM WGS84 R52N	371135.1	4180682.3	83.7	-41.7	268.9	Q3	70.12

Appendix 2: Gapyeong diamond drill core sample analyses and summary lithology

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0001	0	1.5	1.5	Soil						
GPD0001	1.5	6.5	5	Soil						
GPD0001	6.5	6.9	0.4	Marble						
GPD0001	6.9	9.91	3.01	Marble						
GPD0001	9.91	12.21	2.3	Marble						
GPD0001	12.21	13.21	1	Marble						
GPD0001	13.21	14.42	1.21	Marble						
GPD0001	14.42	15.3	0.88	Marble						
GPD0001	15.3	16.99	1.69	Marble						
GPD0001	16.99	17.99	1	Graphitic Marble	GPD0001-015	9.2	1.2	3.2	5.5	0.5
GPD0001	17.99	18.99	1	Graphitic Marble	GPD0001-016	7.1	1.7	2.9	4.1	0.1
GPD0001	18.99	19.99	1	Graphitic Marble	GPD0001-017	10.1	1.2	2.9	6.1	1.1
GPD0001	19.99	20.72	0.73	Graphitic Marble	GPD0001-018	8.8	1.4	2.7	5.4	0.7
GPD0001	20.72	21.14	0.42	Graphitic Marble	GPD0001-020	7.4	1.3	2.7	3.5	1.2

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0001	21.14	22.14	1	Skarn (calcsilicate)						
GPD0001	22.14	24.14	2	Skarn (calcsilicate)						
GPD0001	24.14	25	0.86	Skarn (calcsilicate)						
GPD0001	25	28	3	Skarn (calcsilicate)						
GPD0001	28	30.87	2.87	Skarn (calcsilicate)						
GPD0001	30.87	31.66	0.79	Skarn (calcsilicate)						
GPD0001	31.66	31.87	0.21	Graphitic Marble	GPD0001-022	5.6	0.5	2.7	2.9	<0.1
GPD0001	31.87	32.68	0.81	Skarn (calcsilicate)	GPD0001-023	0.6	0.9	0.3	0.3	<0.1
GPD0001	32.68	33.24	0.56	Graphitic Marble	GPD0001-024	7.9	1.1	1.3	4.2	2.4
GPD0001	33.24	33.96	0.72	Skarn (calcsilicate)						
GPD0001	33.96	34.94	0.98	Skarn (calcsilicate)						
GPD0001	34.94	37.14	2.2	Skarn (calcsilicate)						
GPD0001	37.14	38.71	1.57	Skarn (calcsilicate)						
GPD0001	38.71	38.95	0.24	Fault & Limestone	GPD0001-025	8.6	0.8	2.9	4.7	1.0
GPD0001	38.95	39.6	0.65	Skarn (calcsilicate)	GPD0001-026	3.5	3.3	2.2	1.2	0.1
GPD0001	39.6	40.1	0.5	Graphitic Marble	GPD0001-001	8.8	4.8	1.1	6.9	0.8
GPD0001	40.1	40.87	0.77	Graphitic Marble	GPD0001-002	13.1	4.1	1	11.5	0.6
GPD0001	40.87	41.08	0.21	Psammite	GPD0001-003	1	3.9	0.2	0.6	0.3
GPD0001	41.08	42.08	1	Graphitic Marble	GPD0001-004	14.1	3	0.2	13.9	<0.1
GPD0001	42.08	42.57	0.49	Graphitic Marble	GPD0001-006	14.9	3.6	0.7	13.3	0.9
GPD0001	42.57	43.34	0.77	Skarn (calcsilicate)	GPD0001-007	0.6	1	0.4	<0.1	0.1
GPD0001	43.34	44.09	0.75	Skarn (calcsilicate)	GPD0001-008	0.3	0.7	0.3	<0.1	0.1
GPD0001	44.09	45.51	1.42	Graphitic Marble & Porphyry	GPD0001-009	12.2	4.3	0.3	11.2	0.8
GPD0001	45.51	46.15	0.64	Fault & Porphyry	GPD0001-010	4.8	4.9	0.5	4.2	<0.1
GPD0001	46.15	46.79	0.64	Skarn (calcsilicate)	GPD0001-011	0.7	2.5	0.4	0.1	0.2
GPD0001	46.79	47.57	0.78	Porphyry & Skarn	GPD0001-012	0.9	2	0.4	0.4	<0.1
GPD0001	47.57	47.79	0.22	Graphitic Marble	GPD0001-013	3.7	2.4	0.2	3.4	<0.1
GPD0001	47.79	48.03	0.24	Psammopelite						
GPD0001	48.03	50.32	2.29	Pelite						
GPD0001	50.32	51.03	0.71	Psammopelite						
GPD0001	51.03	51.51	0.48	Pelite						
GPD0001	51.51	52.5	0.99	Psammopelite						
GPD0002	0	0.3	0.3	Soil						
GPD0002	0.3	2.17	1.87	Lost Core (Soil)						
GPD0002	2.17	2.5	0.33	Marble						
GPD0002	2.5	2.93	0.43	Marble						
GPD0002	2.93	5.45	2.52	Lost Core (Pelite)						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0002	5.45	5.65	0.2	Psammopelite						
GPD0002	5.65	5.91	0.26	Marl						
GPD0002	5.91	6.01	0.1	Lost Core						
GPD0002	6.01	7.43	1.42	Marble						
GPD0002	7.43	7.9	0.47	Marble						
GPD0002	7.9	8.59	0.69	Marble						
GPD0002	8.59	10.5	1.91	Marble						
GPD0002	10.5	13.4	2.9	Marble						
GPD0002	13.4	16.4	3	Marble						
GPD0002	16.4	19.4	3	Marble						
GPD0002	19.4	22.46	3.06	Marble						
GPD0002	22.46	24.15	1.69	Marble						
GPD0002	24.15	24.85	0.7	Marble						
GPD0002	24.85	25.35	0.5	Marble						
GPD0002	25.35	27.5	2.15	Marble						
GPD0002	27.5	29.13	1.63	Marble						
GPD0002	29.13	30.84	1.71	Marble						
GPD0002	30.84	33.84	3	Marble						
GPD0002	33.84	35.93	2.09	Marble						
GPD0002	35.93	36.93	1	Graphitic Marble	GPD0002-001	4.2	0.6	1.2	1.8	1.2
GPD0002	36.93	38.01	1.08	Graphitic Marble	GPD0002-002	5.3	1.3	1.7	3.6	<0.1
GPD0002	38.01	38.43	0.42	Graphitic Marble	GPD0002-003	1.7	0.1	0.9	0.5	0.3
GPD0002	38.43	39.02	0.59	Marl	GPD0002-004	5.3	0.2	0.6	4.6	0.1
GPD0002	39.02	39.68	0.66	Graphitic Marble	GPD0002-005	1	1.2	0.6	0.3	0.2
GPD0002	39.68	40.58	0.9	Graphitic Marble	GPD0002-006	2.4	3.7	0.9	1.5	<0.1
GPD0002	40.58	41.55	0.97	Graphitic Marble	GPD0002-007	6.7	1.7	2.9	3.7	<0.1
GPD0002	41.55	42.25	0.7	Graphitic Marble	GPD0002-008	6.5	1.9	0.6	5.6	0.3
GPD0002	42.25	43.25	1	Graphitic Marble	GPD0002-009	6.7	1.3	2.9	2.9	0.9
GPD0002	43.25	44.25	1	Graphitic Marble	GPD0002-010	9.6	1.1	3.1	4.6	1.9
GPD0002	44.25	45.25	1	Graphitic Marble	GPD0002-011	7.5	1.9	2.9	4.5	<0.1
GPD0002	45.25	46.25	1	Graphitic Marble	GPD0002-012	8.2	1.2	3.2	3.8	1.2
GPD0002	46.25	47.25	1	Graphitic Marble	GPD0002-013	6.5	1.3	3.3	2.5	0.7
GPD0002	47.25	48.2	0.95	Graphitic Marble	GPD0002-032	AP	AP	AP	AP	AP
GPD0002	48.2	48.37	0.17	Skarn (calcsilicate)						
GPD0002	48.37	48.83	0.46	Skarn (calcsilicate)						
GPD0002	48.83	50.06	1.23	Skarn (calcsilicate)						
GPD0002	50.06	52.25	2.19	Skarn (calcsilicate)						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0002	52.25	55.3	3.05	Skarn (calcsilicate)						
GPD0002	55.3	57.43	2.13	Skarn (calcsilicate)						
GPD0002	57.43	58.8	1.37	Skarn (calcsilicate)						
GPD0002	58.8	60.06	1.26	Skarn (calcsilicate)						
GPD0002	60.06	63.45	3.39	Skarn (calcsilicate)						
GPD0002	63.45	65.53	2.08	Skarn (calcsilicate)						
GPD0002	65.53	68	2.47	Skarn (calcsilicate)						
GPD0002	68	68.75	0.75	Skarn (calcsilicate)						
GPD0002	68.75	69.63	0.88	Limestone & Fault						
GPD0002	69.63	70	0.37	Fault & Limestone						
GPD0002	70	70.37	0.37	Skarn (calcsilicate)						
GPD0002	70.37	70.91	0.54	Skarn (calcsilicate)						
GPD0002	70.91	71.91	1	Graphitic Marble	GPD0002-014	6	1.6	3.1	2.8	0.1
GPD0002	71.91	72.91	1	Graphitic Marble	GPD0002-015	8.1	2.9	1.8	5.6	0.8
GPD0002	72.91	74.28	1.37	Graphitic Marble	GPD0002-016	9.6	3.7	0.7	8.4	0.5
GPD0002	74.28	76.03	1.75	Limestone	GPD0002-017	1.3	3.2	0.7	0.5	<0.1
GPD0002	76.03	77.03	1	Graphitic Marble	GPD0002-018	10.2	4.8	0.6	9.7	<0.1
GPD0002	77.03	78.03	1	Graphitic Marble	GPD0002-021	12.4	4	3	9.4	<0.1
GPD0002	78.03	79.03	1	Graphitic Marble	GPD0002-022	12.4	4.2	3.1	9.3	<0.1
GPD0002	79.03	80	0.97	Sheared Graphitic Marble	GPD0002-023	12.1	4.2	2.5	9.6	<0.1
GPD0002	80	80.96	0.96	Sheared Graphitic Marble	GPD0002-024	13.8	5.4	2.5	11.4	<0.1
GPD0002	80.96	81.47	0.51	Sheared Graphitic Marble	GPD0002-026	13.3	3.4	2.2	11.2	<0.1
GPD0002	81.47	82.47	1	Skarn (calcsilicate)						
GPD0002	82.47	84.4	1.93	Skarn (calcsilicate)						
GPD0002	84.4	84.59	0.19	Quartz Vein						
GPD0002	84.59	85.95	1.36	Skarn (calcsilicate)						
GPD0002	85.95	86.95	1	Skarn (calcsilicate)	GPD0002-033	AP	AP	AP	AP	AP
GPD0002	86.95	87.96	1.01	Graphitic Marble	GPD0002-027	13	2.3	1	12	<0.1
GPD0002	87.96	88.48	0.52	Graphitic Marble	GPD0002-028	11.5	5.1	1.2	10.3	<0.1
GPD0002	88.48	88.76	0.28	Porphyry	GPD0002-029	7	3.4	<0.1	6.9	0.1
GPD0002	88.76	89.56	0.8	Psammite & Porphyry	GPD0002-034	AP	AP	AP	AP	AP
GPD0002	89.56	90.11	0.55	Psammite	GPD0002-030	3.2	4.2	0.2	2.9	<0.1
GPD0002	90.11	91.11	1	Pelite						
GPD0002	91.11	93.11	2	Pelite						
GPD0002	93.11	94.59	1.48	Pelite						
GPD0003	0	0.7	0.7	Soil						
GPD0003	0.7	6.5	5.8	Lost Core (Soil)						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0003	6.5	6.82	0.32	Marble						
GPD0003	6.82	7.74	0.92	Marble						
GPD0003	7.74	9.25	1.51	Skarn (calcsilicate)						
GPD0003	9.25	9.45	0.2	Skarn (calcsilicate)						
GPD0003	9.45	10.45	1	Sheared Marble						
GPD0003	10.45	11.07	0.62	Fault						
GPD0003	11.07	11.3	0.23	Marble						
GPD0003	11.3	12.2	0.9	Psammopelite						
GPD0003	12.2	12.94	0.74	Marl						
GPD0003	12.94	13.95	1.01	Psammopelite						
GPD0003	13.95	14.75	0.8	Marble						
GPD0003	14.75	14.8	0.05	Lost Core						
GPD0003	14.8	15.53	0.73	Skarn (calcsilicate)						
GPD0003	15.53	16.4	0.87	Marble						
GPD0003	16.4	16.97	0.57	Marly Marble						
GPD0003	16.97	18.35	1.38	Marly Marble						
GPD0003	18.35	18.85	0.5	Faulted Marble						
GPD0003	18.85	19.39	0.54	Marly Marble						
GPD0003	19.39	19.98	0.59	Marly Marble						
GPD0003	19.98	20.15	0.17	Fault						
GPD0003	20.15	22.2	2.05	Marl						
GPD0003	22.2	23.1	0.9	Porphyry						
GPD0003	23.1	23.27	0.17	Marly Skarn						
GPD0003	23.27	26.17	2.9	Marble						
GPD0003	26.17	26.85	0.68	Marble						
GPD0003	26.85	27.35	0.5	Marly Marble						
GPD0003	27.35	29.13	1.78	Marble						
GPD0003	29.13	31.06	1.93	Marly Marble						
GPD0003	31.06	34.05	2.99	Marly Marble						
GPD0003	34.05	34.5	0.45	Marl						
GPD0003	34.5	35.27	0.77	Marly Skarn						
GPD0003	35.27	36.7	1.43	Marly Marble						
GPD0003	36.7	37.71	1.01	Skarn (calcsilicate)						
GPD0003	37.71	39.08	1.37	Marble						
GPD0003	39.08	39.66	0.58	Marly Skarn						
GPD0003	39.66	41.44	1.78	Marly Marble						
GPD0003	41.44	43.26	1.82	Marly Skarn						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0003	43.26	44.54	1.28	Marble						
GPD0003	44.54	44.79	0.25	Sheared Marble						
GPD0003	44.79	45.44	0.65	Psammopelite						
GPD0003	45.44	45.99	0.55	Marly Marble						
GPD0003	45.99	46.2	0.21	Psammopelite						
GPD0003	46.2	48.34	2.14	Marly Marble						
GPD0003	48.34	48.61	0.27	Marly Skarn						
GPD0003	48.61	50	1.39	Marble						
GPD0003	50	51.04	1.04	Skarn (calcsilicate)						
GPD0003	51.04	51.67	0.63	Marble						
GPD0003	51.67	53.01	1.34	Skarn (calcsilicate)						
GPD0003	53.01	54.1	1.09	Marble						
GPD0003	54.1	57.1	3	Marble						
GPD0003	57.1	60.1	3	Marble						
GPD0003	60.1	61.26	1.16	Marble						
GPD0003	61.26	62.26	1	Marble						
GPD0003	62.26	62.43	0.17	Sheared Graphitic Marble						
GPD0003	62.43	63.05	0.62	Limestone &Graphitic Marble						
GPD0003	63.05	64	0.95	Sheared Limestone						
GPD0003	64	64.78	0.78	Skarn (calcsilicate)						
GPD0003	64.78	65.18	0.4	Skarn (calcsilicate)	GPD0003-001	6.9	2.6	2.9	3.6	0.4
GPD0003	65.18	66.22	1.04	Faulted Graphitic Marble	GPD0003-002	5.1	2.4	2.5	2.5	0.1
GPD0003	66.22	66.71	0.49	Faulted Skarn	GPD0003-003	7.7	1	3.2	3.6	0.9
GPD0003	66.71	67.64	0.93	Skarn & Limestone	GPD0003-004	3.6	2.4	2	1.2	0.4
GPD0003	67.64	68.31	0.67	Marly Skarn	GPD0003-005	3	1.1	1.9	0.7	0.4
GPD0003	68.31	69.31	1	Skarn (calcsilicate)	GPD0003-006	2.6	4.1	1.8	0.1	0.7
GPD0003	69.31	70	0.69	Faulted Skarn	GPD0003-008	AP	AP	AP	AP	AP
GPD0003	70	71	1	Faulted Graphitic Marble						
GPD0003	71	72	1	Pelite						
GPD0003	72	72.54	0.54	Pelite						
GPD0003	72.54	73.68	1.14	Skarn (calcsilicate)						
GPD0003	73.68	74.04	0.36	Pelite						
GPD0003	74.04	74.53	0.49	Fault						
GPD0003	74.53	74.7	0.17	Pelite						
GPD0003	74.7	76.56	1.86	Mafic Dyke						
GPD0004	0	1.5	1.5	Soil & Marl						
GPD0004	1.5	3.7	2.2	Marl						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0004	3.7	4.45	0.75	Limestone						
GPD0004	4.45	5	0.55	Cavity						
GPD0004	5	6.97	1.97	Cavity						
GPD0004	6.97	7.73	0.76	Marble						
GPD0004	7.73	10.33	2.6	Marble						
GPD0004	10.33	12.27	1.94	Marble						
GPD0004	12.27	14.22	1.95	Marble						
GPD0004	14.22	15.22	1	Marble	GPD0004-001	7	1.1	2.8	4.2	<0.1
GPD0004	15.22	16.22	1	Graphitic Marble	GPD0004-002	9.1	1.1	3.2	5.9	<0.1
GPD0004	16.22	17.22	1	Graphitic Marble	GPD0004-003	8.2	1.7	2.9	5	0.3
GPD0004	17.22	18.22	1	Graphitic Marble	GPD0004-004	7.7	1.6	2.8	3.4	1.5
GPD0004	18.22	19.22	1	Graphitic Marble	GPD0004-005	8.9	2	3.5	4.7	0.7
GPD0004	19.22	20.23	1.01	Graphitic Marble	GPD0004-006	8.2	1.5	3	5.2	<0.1
GPD0004	20.23	20.97	0.74	Graphitic Marble	GPD0004-007	7.6	1.3	3.1	3.4	1.1
GPD0004	20.97	21.67	0.7	Graphitic Marble						
GPD0004	21.67	22.58	0.91	Skarn (calcsilicate)						
GPD0004	22.58	23.3	0.72	Skarn (calcsilicate)						
GPD0004	23.3	26.3	3	Skarn (calcsilicate)						
GPD0004	26.3	27	0.7	Skarn (calcsilicate)						
GPD0004	27	28	1	Skarn (calcsilicate)						
GPD0004	28	29	1	Marly Marble						
GPD0004	29	29.97	0.97	Marly Skarn						
GPD0004	29.97	31.4	1.43	Pelite						
GPD0004	31.4	33.4	2	Pelite						
GPD0004	33.4	34.4	1	Pelite						
GPD0004	34.4	35.32	0.92	Pelite						
GPD0004	35.32	37.13	1.81	Skarn (calcsilicate)						
GPD0004	37.13	38.13	1	Skarn (calcsilicate)	GPD0004-008	6.3	2.2	3.9	1.8	0.6
GPD0004	38.13	39.05	0.92	Graphitic Marble	GPD0004-009	11.9	4.8	1.2	9.2	1.5
GPD0004	39.05	39.71	0.66	Graphitic Marble	GPD0004-010	13.7	2.6	1.2	11.9	0.6
GPD0004	39.71	40.77	1.06	Sheared Graphitic Marble						
GPD0004	40.77	41.77	1	Skarn (calcsilicate)						
GPD0004	41.77	42.77	1	Skarn (calcsilicate)						
GPD0004	42.77	43.77	1	Skarn (calcsilicate)						
GPD0004	43.77	44.89	1.12	Pelite						
GPD0004	44.89	45.14	0.25	Sheared Skarn						
GPD0004	45.14	45.42	0.28	Skarn (calcsilicate)						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0004	45.42	45.88	0.46	Sheared Pelite						
GPD0004	45.88	47.02	1.14	Pelite						
GPD0004	47.02	50.11	3.09	Psammite						
GPD0004	50.11	50.51	0.4	Pelite						
GPD0004	50.51	52.17	1.66	Skarn (calcsilicate)						
GPD0004	52.17	52.68	0.51	Psammopelite						
GPD0004	52.68	53.27	0.59	Skarn (calcsilicate)						
GPD0004	53.27	53.69	0.42	Pelite						
GPD0004	53.69	54.36	0.67	Pelite						
GPD0004	54.36	55.9	1.54	Pelite						
GPD0004	55.9	58.3	2.4	Skarn (calcsilicate)						
GPD0004	58.3	58.61	0.31	Pelite						
GPD0004	58.61	59.44	0.83	Limestone						
GPD0004	59.44	60.55	1.11	Skarn (calcsilicate)						
GPD0004	60.55	61.5	0.95	Skarn (calcsilicate)						
GPD0004	61.5	62.5	1	Skarn (calcsilicate)	GPD0004-012	4.4	0.5	0.4	4	<0.1
GPD0004	62.5	63	0.5	Sheared Graphitic Marble	GPD0004-013	1.5	1.9	<0.1	1.5	<0.1
GPD0004	63	63.69	0.69	Graphitic Marble						
GPD0004	63.69	65.5	1.81	Skarn & Limestone						
GPD0004	65.5	65.74	0.24	Skarn (calcsilicate)						
GPD0004	65.74	66.41	0.67	Limestone						
GPD0004	66.41	68.41	2	Marl						
GPD0004	68.41	69.37	0.96	Mafic Dyke						
GPD0004	69.37	69.57	0.2	Psammopelite						
GPD0005	0	0.65	0.65	Soil						
GPD0005	0.65	1.45	0.8	Lost Core (Soil)						
GPD0005	1.45	1.53	0.08	Marble						
GPD0005	1.53	2.28	0.75	Marble						
GPD0005	2.28	4.5	2.22	Marble						
GPD0005	4.5	6.42	1.92	Marble						
GPD0005	6.42	7.26	0.84	Marly Marble						
GPD0005	7.26	8.24	0.98	Marble						
GPD0005	8.24	9	0.76	Faulted Marble						
GPD0005	9	10.13	1.13	Marble						
GPD0005	10.13	10.95	0.82	Marly Marble						
GPD0005	10.95	13.95	3	Marble						
GPD0005	13.95	16.95	3	Marble						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0005	16.95	19.95	3	Marble						
GPD0005	19.95	22.95	3	Marble						
GPD0005	22.95	25.02	2.07	Marble						
GPD0005	25.02	26.36	1.34	Marly Marble						
GPD0005	26.36	29.36	3	Marble						
GPD0005	29.36	32.36	3	Marble						
GPD0005	32.36	34.97	2.61	Marble						
GPD0005	34.97	35.97	1	Marble						
GPD0005	35.97	36.33	0.36	Skarn (calcsilicate)						
GPD0005	36.33	36.6	0.27	Skarn (calcsilicate)	GPD0005-026	AP	AP	AP	AP	AP
GPD0005	36.6	37.6	1	Graphitic Marble	GPD0005-027	AP	AP	AP	AP	AP
GPD0005	37.6	38.15	0.55	Marble	GPD0005-028	AP	AP	AP	AP	AP
GPD0005	38.15	39.15	1	Skarn (calcsilicate)	GPD0005-001	8.2	2.1	1.8	5.8	0.6
GPD0005	39.15	40.56	1.41	Graphitic Marble	GPD0005-002	8.7	1.4	3.5	4.8	0.4
GPD0005	40.56	41.56	1	Graphitic Marble	GPD0005-003	7.9	1.5	2.8	4.5	0.6
GPD0005	41.56	42.58	1.02	Graphitic Marble	GPD0005-004	7.6	1.1	2.9	3.1	1.6
GPD0005	42.58	43.12	0.54	Graphitic Marble	GPD0005-029	AP	AP	AP	AP	AP
GPD0005	43.12	43.86	0.74	Skarn (calcsilicate)	GPD0005-030	AP	AP	AP	AP	AP
GPD0005	43.86	44.98	1.12	Graphitic Marble	GPD0005-031	AP	AP	AP	AP	AP
GPD0005	44.98	46	1.02	Graphitic Marble	GPD0005-033	AP	AP	AP	AP	AP
GPD0005	46	46.4	0.4	Skarn (calcsilicate)	GPD0005-034	AP	AP	AP	AP	AP
GPD0005	46.4	46.69	0.29	Sheared Skarn	GPD0005-035	AP	AP	AP	AP	AP
GPD0005	46.69	47.58	0.89	Sheared Skarn	GPD0005-036	AP	AP	AP	AP	AP
GPD0005	47.58	48.04	0.46	Skarn (calcsilicate)	GPD0005-037	AP	AP	AP	AP	AP
GPD0005	48.04	49.04	1	Skarn (calcsilicate)	GPD0005-038	AP	AP	AP	AP	AP
GPD0005	49.04	50.21	1.17	Skarn (calcsilicate)	GPD0005-005	5.8	2.3	2.2	1.8	1.8
GPD0005	50.21	51.55	1.34	Graphitic Marble	GPD0005-006	6.2	3.5	1.5	4.4	0.3
GPD0005	51.55	52.46	0.91	Graphitic Marble	GPD0005-007	6.8	4.4	1	5.8	<0.1
GPD0005	52.46	53.37	0.91	Graphitic Marble						
GPD0005	53.37	55.91	2.54	Skarn (calcsilicate)						
GPD0005	55.91	56.31	0.4	Graphitic Marble						
GPD0005	56.31	57.97	1.66	Marly Marble						
GPD0005	57.97	58.59	0.62	Graphitic Marble						
GPD0005	58.59	59.41	0.82	Skarn (calcsilicate)						
GPD0005	59.41	60.9	1.49	Skarn (calcsilicate)						
GPD0005	60.9	61.9	1	Skarn (calcsilicate)	GPD0005-008	10.7	5.2	0.8	9.9	<0.1
GPD0005	61.9	62.9	1	Graphitic Marble	GPD0005-009	11.8	3.6	2.1	9.4	0.3

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0005	62.9	63.9	1	Graphitic Marble	GPD0005-010	14.1	2.2	0.7	12.6	0.8
GPD0005	63.9	64.9	1	Graphitic Marble	GPD0005-012	16.8	3	0.9	14.9	1
GPD0005	64.9	66.08	1.18	Graphitic Marble	GPD0005-013	10.2	3.6	1.4	8.4	0.4
GPD0005	66.08	66.71	0.63	Graphitic Marble & Skarn	GPD0005-014	15.5	2.3	0.2	14.7	0.6
GPD0005	66.71	68.03	1.32	Graphitic Marble	GPD0005-015	5.7	3.7	<0.1	5.4	0.3
GPD0005	68.03	68.64	0.61	Graphitic Marble & Skarn	GPD0005-016	14.3	2	0.2	13.4	0.7
GPD0005	68.64	69.48	0.84	Graphitic Marble	GPD0005-017	1.1	2.5	0.2	0.8	0.1
GPD0005	69.48	70.3	0.82	Graphitic Marble & Skarn	GPD0005-018	15.3	1.7	0.1	14.2	1
GPD0005	70.3	71.4	1.1	Graphitic Marble	GPD0005-019	16.7	3.6	<0.1	16.4	0.3
GPD0005	71.4	72.53	1.13	Graphitic Marble						
GPD0005	72.53	73.53	1	Skarn (calcsilicate)						
GPD0005	73.53	75.32	1.79	Skarn (calcsilicate)						
GPD0005	75.32	77.2	1.88	Skarn (calcsilicate)						
GPD0005	77.2	78.33	1.13	Skarn & Quartz veins						
GPD0005	78.33	80.35	2.02	Skarn (calcsilicate)						
GPD0005	80.35	82.18	1.83	Skarn (calcsilicate)						
GPD0005	82.18	83.18	1	Skarn (calcsilicate)	GPD0005-022	9.1	4.8	<0.1	9	<0.1
GPD0005	83.18	84.18	1	Graphitic Marble	GPD0005-024	9.7	3.1	1.6	7.6	0.5
GPD0005	84.18	84.9	0.72	Faulted Limestone	GPD0005-025	7.3	3.9	0.9	5.9	0.5
GPD0005	84.9	85.92	1.02	Graphitic Marble						
GPD0005	85.92	86.28	0.36	Skarn (calcsilicate)						
GPD0005	86.28	86.92	0.64	Pelite						
GPD0005	86.92	89	2.08	Pelite						
GPD0005	89	90.42	1.42	Skarn (calcsilicate)						
GPD0005	90.42	91.66	1.24	Pelite						
GPD0005	91.66	92.3	0.64	Psammopelite						
GPD0005	92.3	94.58	2.28	Skarn (calcsilicate)						
GPD0006	0	2	2	Soil & Lost Core						
GPD0006	2	2.1	0.1	Marly Marble						
GPD0006	2.1	3.71	1.61	Marble						
GPD0006	3.71	4.7	0.99	Marble & Lost Core						
GPD0006	4.7	5.2	0.5	Marble & Lost Core						
GPD0006	5.2	6	0.8	Marble						
GPD0006	6	7.86	1.86	Marble						
GPD0006	7.86	9.4	1.54	Marly Marble						
GPD0006	9.4	11	1.6	Marble						
GPD0006	11	13.6	2.6	Marly Marble						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0006	13.6	15.8	2.2	Marble						
GPD0006	15.8	16.12	0.32	Marble						
GPD0006	16.12	17.95	1.83	Marly Marble						
GPD0006	17.95	19.39	1.44	Marly Marble						
GPD0006	19.39	19.85	0.46	Marly Marble						
GPD0006	19.85	20.78	0.93	Marly Marble						
GPD0006	20.78	22.33	1.55	Marly Marble						
GPD0006	22.33	22.86	0.53	Marble						
GPD0006	22.86	24.79	1.93	Faulted Marble						
GPD0006	24.79	26.42	1.63	Marble						
GPD0006	26.42	28.15	1.73	Marly Marble						
GPD0006	28.15	30.35	2.2	Marly Marble						
GPD0006	30.35	31.87	1.52	Marly Marble						
GPD0006	31.87	32.67	0.8	Marble						
GPD0006	32.67	33.02	0.35	Marl						
GPD0006	33.02	34.08	1.06	Marble						
GPD0006	34.08	34.91	0.83	Skarn (calcsilicate)						
GPD0006	34.91	37.45	2.54	Marble						
GPD0006	37.45	40.45	3	Marly Marble						
GPD0006	40.45	41.9	1.45	Marble						
GPD0006	41.9	41.98	0.08	Cavity						
GPD0006	41.98	45	3.02	Marble						
GPD0006	45	48.35	3.35	Marble						
GPD0006	48.35	48.6	0.25	Skarn & Limestone	GPD0006-001	7.2	0.8	2.8	3.4	1
GPD0006	48.6	48.73	0.13	Sheared Marble	GPD0006-002	2.8	2	1.4	1.4	<0.1
GPD0006	48.73	49.69	0.96	Skarn (calcsilicate)	GPD0006-003	9.2	1.2	3.2	4.1	1.9
GPD0006	49.69	50.03	0.34	Graphitic Marble	GPD0006-004	0.8	1.5	0.7	<0.1	0.1
GPD0006	50.03	51.1	1.07	Skarn (calcsilicate)	GPD0006-005	1.4	1.8	1.1	0.1	0.2
GPD0006	51.1	51.62	0.52	Skarn (calcsilicate)	GPD0006-006	6.9	3.8	2.3	4.5	<0.1
GPD0006	51.62	51.98	0.36	Graphitic Marble						
GPD0006	51.98	52.58	0.6	Faulted Skarn						
GPD0006	52.58	53.35	0.77	Pelite						
GPD0006	53.35	54.48	1.13	Skarn (calcsilicate)						
GPD0006	54.48	55.08	0.6	Pelite						
GPD0006	55.08	55.82	0.74	Skarn (calcsilicate)						
GPD0006	55.82	57.36	1.54	Psammopelite						
GPD0006	57.36	60.36	3	Psammopelite						

HoleID	From	To	Interval	Lithology	SampleID	TC%	S%	TCC%	TGC%	TOC%
GPD0006	60.36	63.36	3	Psammopelite						
GPD0006	63.36	64.39	1.03	Pelite						
GPD0006	64.39	64.71	0.32	Faulted Psammite						
GPD0006	64.71	65.86	1.15	Psammopelite						
GPD0006	65.86	66.72	0.86	Psammopelite						
GPD0006	66.72	67.18	0.46	Pelite & Quartz Veins						
GPD0006	67.18	67.96	0.78	Pelite						
GPD0006	67.96	68.5	0.54	Psammopelite						
GPD0006	68.5	70.12	1.62	Pelite						

*AP refers to sample intervals for which analyses are still pending

Appendix 2: continued with XRF analyses.

Sample ID	Al %	As %	Ba %	Ca %	Cl%	Co %	Cr %	Cu %	Fe %	K%	Mg %	Mn %	Mo %	Na%	Nb %	Ni%	P%	Pb %	S%
GPD0001-001	4.800	<0.001	0.028	8.441	<0.001	0.003	0.010	0.018	8.947	1.344	1.074	0.078	0.006	0.794	0.004	0.017	0.070	0.002	5.234
GPD0001-002	4.758	<0.001	0.031	5.699	0.004	0.003	0.017	0.007	6.584	1.799	0.835	0.064	0.003	0.741	0.002	0.021	0.066	0.004	4.002
GPD0001-003	7.108	<0.001	0.027	7.866	<0.001	0.004	0.004	0.013	7.044	1.134	2.290	0.115	0.005	1.587	0.006	0.016	0.187	<0.001	3.905
GPD0001-004	5.394	<0.001	0.049	5.491	0.004	0.003	0.016	0.010	5.258	1.743	1.251	0.082	0.004	0.878	<0.001	0.012	0.073	<0.001	2.270
GPD0001-006	5.638	<0.001	0.060	8.199	0.004	0.004	0.013	0.022	7.707	1.554	0.586	0.101	<0.001	1.041	<0.001	0.008	0.073	<0.001	3.234
GPD0001-007	6.838	<0.001	0.027	5.833	0.023	0.005	0.004	0.006	10.291	0.652	3.578	0.199	<0.001	2.172	<0.001	0.005	0.154	<0.001	1.080
GPD0001-008	7.133	<0.001	0.010	3.405	0.010	0.005	0.003	0.005	10.832	0.398	3.690	0.210	<0.001	2.231	<0.001	0.004	0.158	<0.001	0.733
GPD0001-009	6.370	<0.001	0.063	4.750	0.003	0.004	0.008	0.027	8.783	2.268	1.510	0.122	<0.001	1.028	<0.001	0.008	0.071	0.003	3.863
GPD0001-010	7.842	<0.001	0.060	1.581	<0.001	0.004	0.005	0.014	7.988	3.238	0.664	0.091	0.003	1.089	0.006	0.006	0.033	0.003	4.723
GPD0001-011	7.249	<0.001	0.030	3.878	0.008	0.004	0.004	0.007	8.363	1.599	2.920	0.400	0.002	1.063	0.006	0.004	0.202	<0.001	2.165
GPD0001-012	8.292	<0.001	0.086	2.686	0.010	0.002	0.003	0.009	4.441	3.078	1.481	0.130	<0.001	1.856	0.004	0.004	0.106	0.002	1.607
GPD0001-013	9.305	<0.001	0.042	1.381	0.003	0.002	0.010	0.007	5.006	2.641	1.245	0.462	0.002	1.956	0.006	0.005	0.024	0.003	2.214
GPD0001-015	2.683	-0.001	0.021	17.287	0.011	0.001	0.002	0.003	2.098	1.525	1.913	0.062	-0.001	0.291	0.002	0.003	0.06	-0.001	1.223
GPD0001-016	2.715	-0.001	0.014	17.288	0.014	0.002	0.002	0.003	3.113	1.5	3.353	0.104	0.002	0.31	0.004	0.002	0.057	-0.001	1.71
GPD0001-017	2.521	-0.001	0.008	17.281	0.018	0.001	0.003	-0.001	2.16	1.184	1.082	0.087	-0.001	0.459	0.004	0.002	0.052	-0.001	1.138
GPD0001-018	3.039	-0.001	0.024	14.942	0.014	0.001	0.005	-0.001	2.436	1.211	1.149	0.071	-0.001	0.739	0.005	0.005	0.057	-0.001	1.403
GPD0001-020	3.128	-0.001	0.022	21.407	0.016	0.001	-0.001	0.002	3.422	1.86	1.793	0.106	-0.001	0.365	0.003	-0.001	0.062	-0.001	1.395
GPD0001-022	3.004	-0.001	0.003	21.728	0.049	0.001	0.003	0.005	5.542	0.197	4.892	0.174	-0.001	0.459	-0.001	-0.001	0.065	-0.001	0.484

Sample ID	Al %	As %	Ba %	Ca %	Cl%	Co %	Cr %	Cu %	Fe %	K%	Mg %	Mn %	Mo %	Na%	Nb %	Ni%	P%	Pb %	S%
GPD0001-023	6.946	-0.001	0.03	7.673	0.027	0.005	0.008	0.01	8.3	1.842	4.394	0.116	-0.001	1.656	-0.001	0.002	0.216	-0.001	0.942
GPD0001-024	1.734	-0.001	0.004	24.164	0.02	0.003	0.003	0.007	4.714	0.19	5.201	0.253	-0.001	0.232	-0.001	-0.001	0.043	-0.001	1.043
GPD0001-025	1.49	-0.001	0.004	27.807	0.016	0.001	-0.001	-0.001	3.269	0.074	1.409	0.105	-0.001	0.151	-0.001	-0.001	0.035	-0.001	0.776
GPD0001-026	4.776	-0.001	0.02	15.007	0.018	0.004	0.003	0.011	6.49	0.792	2.959	0.108	0.002	1.533	0.002	-0.001	0.1	-0.001	2.903
GPD0002-001	4.122	<0.001	0.034	17.158	0.005	0.001	0.005	0.004	2.337	1.548	3.269	0.080	<0.001	1.179	<0.001	0.004	0.065	0.002	0.606
GPD0002-002	3.799	<0.001	0.025	14.270	0.007	0.003	0.003	0.012	2.991	1.768	2.824	0.058	0.002	0.894	0.008	0.008	0.100	<0.001	1.384
GPD0002-003	3.384	<0.001	0.014	16.562	0.005	0.002	0.002	0.002	3.547	0.574	4.802	0.103	0.002	1.447	0.006	0.005	0.076	<0.001	0.179
GPD0002-004	2.968	<0.001	0.008	22.153	0.004	0.002	0.004	0.002	2.299	0.063	1.652	0.069	<0.001	0.043	0.004	0.008	0.068	<0.001	0.302
GPD0002-005	3.165	<0.001	0.016	14.274	0.006	0.005	0.005	0.017	5.627	0.657	6.333	0.109	<0.001	1.048	0.005	0.013	0.095	<0.001	1.304
GPD0002-006	5.264	<0.001	0.022	13.492	0.004	0.003	0.009	0.057	7.139	1.006	3.407	0.084	0.004	1.641	0.008	0.012	0.135	0.002	3.590
GPD0002-007	2.775	<0.001	0.042	19.977	0.004	0.002	0.003	0.018	3.932	1.084	3.046	0.102	<0.001	0.382	0.006	0.006	0.085	<0.001	1.832
GPD0002-008	3.976	<0.001	0.022	9.308	<0.001	0.002	0.006	0.004	3.706	2.010	2.028	0.064	0.003	0.256	0.011	0.008	0.093	<0.001	2.045
GPD0002-009	2.000	<0.001	0.015	21.011	0.006	<0.001	<0.001	0.002	2.729	0.983	4.344	0.144	<0.001	0.166	0.002	0.003	0.056	<0.001	1.421
GPD0002-010	1.818	<0.001	0.006	22.775	0.003	0.002	0.001	0.002	2.360	0.911	3.141	0.126	<0.001	0.279	0.005	0.003	0.058	<0.001	1.216
GPD0002-011	3.522	<0.001	0.017	15.498	0.002	0.002	0.006	<0.001	3.143	1.625	1.949	0.075	0.002	0.543	0.007	0.007	0.058	<0.001	1.679
GPD0002-012	2.466	<0.001	0.013	23.868	0.003	<0.001	0.001	0.002	2.471	1.098	1.983	0.086	<0.001	0.474	0.003	0.004	0.044	<0.001	1.323
GPD0002-013	3.400	<0.001	0.027	21.717	0.006	<0.001	0.003	0.002	3.682	1.606	2.344	0.090	<0.001	0.478	0.004	0.004	0.063	<0.001	1.455
GPD0002-014	2.846	<0.001	0.011	21.443	0.004	0.003	0.004	0.008	5.343	0.695	2.035	0.111	<0.001	0.569	0.003	0.003	0.075	<0.001	1.774
GPD0002-015	4.551	<0.001	0.073	12.370	0.002	0.002	0.019	0.014	5.500	1.621	1.155	0.071	0.003	0.683	0.006	0.021	0.070	<0.001	2.642
GPD0002-016	5.032	<0.001	0.084	6.164	0.002	0.003	0.010	0.021	7.230	2.524	1.117	0.044	<0.001	0.902	0.004	0.013	0.066	<0.001	3.720
GPD0002-017	6.665	<0.001	0.032	7.801	0.011	0.005	0.005	0.013	7.798	1.599	3.955	0.088	<0.001	1.749	0.003	0.010	0.129	<0.001	3.270
GPD0002-018	5.058	<0.001	0.059	4.208	0.006	0.003	0.013	0.020	7.806	2.704	0.832	0.040	0.005	1.133	0.007	0.019	0.052	<0.001	4.385
GPD0002-021	3.561	<0.001	0.036	11.801	0.002	0.001	0.012	0.015	6.367	1.644	0.692	0.086	0.004	0.346	0.002	0.019	0.043	<0.001	3.779
GPD0002-022	3.444	<0.001	0.027	12.169	<0.001	0.004	0.012	0.012	6.956	1.368	0.631	0.091	0.008	0.376	0.004	0.021	0.040	<0.001	4.390
GPD0002-023	3.773	<0.001	0.030	10.692	0.004	0.003	0.013	0.013	6.932	1.653	0.716	0.086	0.003	0.424	0.006	0.023	0.042	<0.001	4.143
GPD0002-024	3.938	<0.001	0.033	7.424	0.002	0.004	0.018	0.014	9.359	1.769	0.918	0.074	0.001	0.296	0.003	0.028	0.055	<0.001	5.419
GPD0002-026	4.880	<0.001	0.059	6.630	0.002	0.002	0.021	0.007	6.131	2.118	0.744	0.057	0.006	0.389	0.003	0.029	0.064	<0.001	3.222
GPD0002-027	5.855	<0.001	0.027	8.293	<0.001	0.003	0.017	0.010	5.675	0.721	1.242	0.125	0.004	0.453	0.005	0.007	0.075	<0.001	1.999
GPD0002-028	6.738	<0.001	0.042	5.997	<0.001	0.006	0.009	0.021	9.321	1.673	1.385	0.129	0.005	1.084	0.007	0.009	0.059	<0.001	5.024
GPD0002-029	8.593	<0.001	0.021	6.248	0.003	0.004	0.006	0.011	6.772	1.222	1.905	0.142	0.001	1.395	0.003	0.006	0.073	<0.001	3.097
GPD0002-030	8.565	<0.001	0.045	1.432	0.005	0.006	0.008	0.013	7.884	3.116	0.789	0.098	0.004	2.708	0.006	0.006	0.037	<0.001	4.141

Sample ID	Al %	As %	Ba %	Ca %	Cl%	Co %	Cr %	Cu %	Fe %	K%	Mg %	Mn %	Mo %	Na%	Nb %	Ni%	P%	Pb %	S%
GPD0003-001	4.247	<0.001	0.044	11.560	0.010	0.004	0.005	0.005	5.076	1.926	2.230	0.176	0.002	0.153	0.006	0.002	0.104	<0.001	2.515
GPD0003-002	4.366	<0.001	0.025	15.248	0.014	0.004	0.001	<0.001	4.969	2.095	2.233	0.193	<0.001	0.055	0.004	<0.001	0.324	<0.001	2.340
GPD0003-003	2.855	<0.001	0.021	20.679	0.014	0.001	<0.001	0.004	4.058	1.069	1.936	0.150	<0.001	0.096	0.001	<0.001	0.062	<0.001	1.118
GPD0003-004	4.518	<0.001	0.019	13.023	0.014	0.003	<0.001	0.007	6.815	1.216	3.111	0.202	<0.001	0.022	0.003	<0.001	0.191	<0.001	2.209
GPD0003-005	5.160	<0.001	0.042	11.654	0.011	0.004	0.003	0.006	7.081	1.111	3.669	0.143	<0.001	0.614	0.001	<0.001	0.120	<0.001	1.193
GPD0003-006	5.711	<0.001	0.022	9.124	0.008	0.006	0.007	0.004	7.607	2.400	2.468	0.204	<0.001	0.250	0.003	0.003	0.115	<0.001	4.374
GPD0004-001	2.436	<0.001	0.009	18.293	0.021	0.002	0.004	0.002	2.285	1.386	6.508	0.090	<0.001	0.096	0.004	<0.001	0.070	<0.001	1.125
GPD0004-002	2.749	<0.001	0.010	19.102	0.011	0.002	0.002	0.002	1.808	1.537	2.149	0.056	<0.001	0.118	0.002	<0.001	0.059	<0.001	1.134
GPD0004-003	3.198	<0.001	0.012	18.098	0.011	0.001	0.002	0.004	2.333	1.736	2.491	0.078	<0.001	0.165	0.005	0.002	0.070	<0.001	1.397
GPD0004-004	2.452	<0.001	0.008	20.176	0.013	0.001	<0.001	0.003	3.033	1.344	3.951	0.141	0.002	0.182	0.003	<0.001	0.088	<0.001	1.654
GPD0004-005	3.446	<0.001	0.017	15.260	0.012	0.002	0.003	<0.001	2.866	1.468	1.371	0.071	0.002	0.709	0.006	0.004	0.069	<0.001	1.644
GPD0004-006	3.083	<0.001	0.012	21.656	0.013	0.002	<0.001	0.002	2.754	1.608	1.967	0.079	0.002	0.423	0.005	<0.001	0.050	<0.001	1.533
GPD0004-007	2.947	<0.001	0.027	23.410	0.023	<0.001	0.002	0.006	3.730	1.215	1.849	0.103	<0.001	0.533	0.003	0.003	0.066	0.002	1.402
GPD0004-008	3.326	<0.001	0.012	22.560	0.015	0.005	0.004	0.007	4.917	0.882	2.283	0.128	<0.001	0.906	0.004	<0.001	0.069	<0.001	1.986
GPD0004-009	4.073	<0.001	0.027	7.550	0.012	0.003	0.016	0.013	7.703	1.553	0.731	0.069	0.005	0.034	0.006	0.018	0.040	<0.001	4.901
GPD0004-010	4.638	<0.001	0.034	7.542	0.012	0.004	0.016	0.014	6.081	1.495	1.015	0.084	0.003	0.801	0.003	0.013	0.060	0.002	2.468
GPD0004-012	8.226	<0.001	0.073	1.225	0.010	0.003	0.006	0.006	4.500	3.364	1.150	0.048	<0.001	2.481	<0.001	0.002	0.041	0.003	0.477
GPD0004-013	8.875	<0.001	0.074	1.066	0.009	0.003	0.007	0.010	4.963	3.979	0.973	0.065	0.002	1.958	0.001	0.002	0.038	0.002	1.716
GPD0005-001	3.681	<0.001	0.020	12.051	0.011	0.003	0.005	0.004	3.297	1.893	2.309	0.066	<0.001	0.218	0.006	0.005	0.075	<0.001	1.955
GPD0005-002	1.916	<0.001	0.007	21.397	0.013	0.001	0.001	0.003	2.848	0.790	3.681	0.132	<0.001	0.146	0.003	<0.001	0.058	<0.001	1.451
GPD0005-003	4.063	<0.001	0.020	15.507	0.013	<0.001	0.003	<0.001	2.838	1.890	1.969	0.072	<0.001	0.216	0.005	0.003	0.054	<0.001	1.594
GPD0005-004	2.476	<0.001	0.017	23.103	0.014	0.001	0.003	0.005	3.037	0.725	1.685	0.109	<0.001	0.390	0.003	<0.001	0.067	0.002	1.163
GPD0005-005	3.143	<0.001	0.005	20.629	0.018	0.004	0.004	0.013	6.085	0.342	2.384	0.107	<0.001	0.631	<0.001	<0.001	0.066	<0.001	2.012
GPD0005-006	5.273	<0.001	0.023	8.754	0.010	0.004	0.009	0.017	6.461	1.841	1.024	0.052	0.002	0.357	0.006	0.007	0.082	<0.001	3.444
GPD0005-007	5.615	<0.001	0.031	4.585	0.017	0.005	0.009	0.022	7.801	2.376	0.890	0.052	<0.001	0.190	0.009	0.009	0.079	0.002	4.469
GPD0005-008	4.794	<0.001	0.041	5.858	0.015	0.004	0.020	0.016	8.547	1.895	0.690	0.058	0.005	0.493	0.007	0.017	0.045	0.002	5.127
GPD0005-009	3.806	<0.001	0.042	11.018	0.012	0.002	0.013	0.007	5.786	1.813	0.623	0.090	<0.001	0.301	0.004	0.014	0.043	<0.001	3.568
GPD0005-010	4.449	<0.001	0.036	9.377	0.015	0.001	0.017	0.004	3.754	2.123	0.881	0.075	0.006	0.493	0.004	0.027	0.064	<0.001	2.055
GPD0005-012	5.066	<0.001	0.065	7.520	0.016	0.003	0.015	0.007	4.940	1.901	0.715	0.079	0.002	0.640	0.003	0.029	0.089	<0.001	2.684
GPD0005-013	6.033	<0.001	0.051	6.079	0.021	0.003	0.014	0.010	6.415	1.370	2.090	0.101	0.002	1.135	0.005	0.012	0.106	<0.001	3.434
GPD0005-014	5.992	<0.001	0.136	2.862	0.014	0.001	0.023	0.006	3.882	3.093	1.410	0.060	0.004	0.919	0.003	0.007	0.065	0.002	1.741

Sample ID	Al %	As %	Ba %	Ca %	Cl%	Co %	Cr %	Cu %	Fe %	K%	Mg %	Mn %	Mo %	Na%	Nb %	Ni%	P%	Pb %	S%
GPD0005-015	7.208	<0.001	0.037	6.062	0.013	0.002	0.017	0.013	6.432	1.875	2.578	0.115	<0.001	1.261	0.005	0.010	0.121	<0.001	3.573
GPD0005-016	5.183	<0.001	0.024	4.400	0.012	0.003	0.018	0.009	3.990	0.900	0.961	0.065	0.002	0.764	0.004	0.006	0.050	0.002	1.558
GPD0005-017	7.115	<0.001	0.027	8.142	0.015	0.002	0.015	0.012	5.472	1.160	3.712	0.162	<0.001	1.782	0.002	0.005	0.131	<0.001	2.292
GPD0005-018	6.035	<0.001	0.020	7.928	0.017	0.004	0.017	0.016	6.175	0.631	0.929	0.074	<0.001	0.145	0.002	0.008	0.080	0.003	1.758
GPD0005-019	5.533	<0.001	0.052	5.389	0.017	0.005	0.013	0.025	7.189	1.956	0.523	0.053	<0.001	0.747	0.004	0.006	0.072	<0.001	3.489
GPD0005-022	5.595	<0.001	0.022	4.758	0.014	0.005	0.010	0.023	9.135	1.518	2.294	0.164	<0.001	0.340	0.003	0.006	0.091	0.002	4.858
GPD0005-024	5.126	0.001	0.025	9.119	0.015	0.003	0.009	0.017	6.522	1.313	1.793	0.172	<0.001	0.545	0.003	0.005	0.057	<0.001	3.156
GPD0005-025	6.389	<0.001	0.041	6.179	0.014	0.004	0.008	0.019	8.125	1.898	2.422	0.190	<0.001	0.621	0.003	0.005	0.088	0.006	3.965
GPD0006-001	3.019	<0.001	0.005	19.340	0.013	0.001	0.003	<0.001	2.690	0.480	4.243	0.105	0.002	0.051	0.005	<0.001	0.083	0.141	0.843
GPD0006-002	5.302	<0.001	0.028	10.807	0.030	0.004	0.002	0.006	7.347	1.105	4.032	0.101	<0.001	0.578	0.002	<0.001	0.176	0.008	1.663
GPD0006-003	2.351	<0.001	0.009	23.300	0.034	0.001	0.002	0.007	4.715	0.312	3.591	0.193	<0.001	0.208	<0.001	<0.001	0.062	<0.001	0.641
GPD0006-004	6.767	<0.001	0.038	8.206	0.053	0.006	0.011	0.009	9.160	1.275	4.016	0.135	<0.001	1.600	<0.001	0.006	0.117	<0.001	0.942
GPD0006-005	6.097	<0.001	0.024	8.104	0.025	0.005	0.007	0.010	9.044	0.813	3.787	0.153	<0.001	1.423	0.002	0.002	0.143	0.002	1.342
GPD0006-006	4.635	<0.001	0.021	11.211	0.010	0.002	0.006	0.011	7.232	1.055	1.674	0.094	<0.001	1.011	0.003	0.007	0.092	0.008	3.781

Appendix 2: continued with XRF analyses.

Sample ID	Sb%	Si%	Sn %	Sr%	Ta%	Ti %	V%	W %	Zn %	Zr %
GPD0001-001	0.004	21.246	<0.001	<0.001	<0.001	0.551	0.094	0.002	<0.001	0.033
GPD0001-002	<0.001	21.505	<0.001	<0.001	<0.001	0.441	0.156	0.002	0.003	0.013
GPD0001-003	0.003	22.547	<0.001	0.002	<0.001	1.912	0.048	0.003	0.004	0.035
GPD0001-004	<0.001	23.593	<0.001	<0.001	<0.001	0.422	0.141	0.002	0.006	0.023
GPD0001-006	0.005	19.075	<0.001	<0.001	<0.001	0.463	0.096	0.004	0.015	0.012
GPD0001-007	0.002	22.415	<0.001	<0.001	<0.001	1.788	0.043	0.002	0.012	0.021
GPD0001-008	<0.001	23.524	<0.001	<0.001	<0.001	1.820	0.037	0.002	0.014	0.021
GPD0001-009	<0.001	20.314	<0.001	<0.001	<0.001	0.612	0.068	0.003	0.005	0.012
GPD0001-010	<0.001	25.276	<0.001	<0.001	<0.001	0.467	0.018	<0.001	0.002	0.030
GPD0001-011	<0.001	23.633	<0.001	<0.001	<0.001	1.977	0.036	0.002	0.006	0.030
GPD0001-012	0.002	28.002	<0.001	0.014	<0.001	0.922	0.020	<0.001	0.002	0.021
GPD0001-013	<0.001	26.225	<0.001	0.002	<0.001	0.619	0.011	<0.001	0.003	0.025
GPD0001-015	0.002	18.897	-0.001	-0.001	-0.001	0.177	0.024	0.005	0.002	0.035
GPD0001-016	0.005	17.943	-0.001	-0.001	-0.001	0.198	0.022	0.005	0.002	0.037
GPD0001-017	0.011	18.54	-0.001	-0.001	-0.001	0.179	0.028	0.002	-0.001	0.029
GPD0001-018	0.003	20.558	-0.001	-0.001	-0.001	0.243	0.029	0.006	-0.001	0.038
GPD0001-020	0.007	13.513	-0.001	0.004	-0.001	0.393	0.021	0.007	-0.001	0.019
GPD0001-022	-0.001	12.524	-0.001	-0.001	-0.001	0.363	0.024	0.008	0.002	0.015
GPD0001-023	0.002	21.398	-0.001	0.004	-0.001	1.61	0.034	-0.001	0.007	0.016
GPD0001-024	0.003	8.924	-0.001	0.01	-0.001	0.207	0.017	0.005	0.002	0.018
GPD0001-025	0.007	8.839	-0.001	-0.001	-0.001	0.208	0.01	0.007	-0.001	0.006
GPD0001-026	0.003	16.404	-0.001	0.002	-0.001	1.081	0.027	0.004	-0.001	0.018
GPD0002-001	0.007	18.207	<0.001	0.014	<0.001	0.195	0.007	0.005	0.003	0.019
GPD0002-002	0.006	20.609	<0.001	0.006	<0.001	0.320	0.030	0.002	<0.001	0.069
GPD0002-003	0.002	21.719	<0.001	0.014	<0.001	0.246	0.028	0.005	0.006	0.049
GPD0002-004	<0.001	21.441	<0.001	<0.001	<0.001	0.215	0.036	0.002	<0.001	0.029
GPD0002-005	<0.001	22.625	<0.001	0.007	<0.001	0.267	0.034	0.002	0.007	0.045
GPD0002-006	<0.001	18.295	<0.001	0.015	<0.001	0.563	0.038	0.002	0.002	0.046
GPD0002-007	0.006	16.418	<0.001	0.004	<0.001	0.269	0.021	0.003	0.002	0.028
GPD0002-008	<0.001	25.093	<0.001	<0.001	<0.001	0.321	0.036	0.002	<0.001	0.060
GPD0002-009	0.003	15.956	<0.001	<0.001	<0.001	0.156	0.011	0.006	<0.001	0.035
GPD0002-010	0.007	13.050	<0.001	<0.001	<0.001	0.124	0.020	0.007	<0.001	0.021
GPD0002-011	0.008	19.605	<0.001	<0.001	<0.001	0.285	0.024	0.004	<0.001	0.037
GPD0002-012	<0.001	13.743	<0.001	0.008	<0.001	0.206	0.024	0.004	<0.001	0.021
GPD0002-013	0.004	14.144	<0.001	0.011	<0.001	0.459	0.018	0.005	<0.001	0.023
GPD0002-014	0.006	13.677	<0.001	<0.001	<0.001	0.573	0.020	0.005	<0.001	0.015
GPD0002-015	0.008	19.791	<0.001	<0.001	<0.001	0.625	0.074	0.004	<0.001	0.030
GPD0002-016	<0.001	22.741	<0.001	<0.001	<0.001	0.779	0.118	0.003	<0.001	0.032
GPD0002-017	<0.001	20.964	<0.001	<0.001	<0.001	1.598	0.037	0.004	0.002	0.021
GPD0002-018	<0.001	23.743	<0.001	<0.001	<0.001	0.515	0.150	0.002	<0.001	0.040
GPD0002-021	0.003	20.198	<0.001	<0.001	<0.001	0.250	0.136	0.003	<0.001	0.020
GPD0002-022	<0.001	19.774	<0.001	<0.001	<0.001	0.214	0.152	0.003	<0.001	0.018
GPD0002-023	0.003	19.869	<0.001	<0.001	<0.001	0.260	0.160	0.004	0.003	0.019
GPD0002-024	0.003	19.700	<0.001	<0.001	<0.001	0.297	0.165	0.002	<0.001	0.019
GPD0002-026	<0.001	22.865	<0.001	<0.001	<0.001	0.293	0.190	0.005	0.002	0.016

Sample ID	Sb%	Si%	Sn %	Sr%	Ta%	Ti %	V%	W %	Zn %	Zr %
GPD0002-027	0.002	22.909	<0.001	0.008	<0.001	0.537	0.138	<0.001	0.004	0.021
GPD0002-028	<0.001	20.396	<0.001	0.003	<0.001	0.608	0.045	0.004	0.002	0.022
GPD0002-029	0.004	21.481	<0.001	0.006	<0.001	0.825	0.022	0.002	0.003	0.024
GPD0002-030	<0.001	25.117	<0.001	0.003	<0.001	0.604	0.016	<0.001	0.002	0.031
GPD0003-001	0.002	19.301	<0.001	0.009	<0.001	0.670	0.030	0.002	0.002	0.035
GPD0003-002	0.003	15.681	<0.001	0.018	<0.001	1.392	0.024	0.006	0.002	0.031
GPD0003-003	0.007	12.960	<0.001	0.006	<0.001	0.306	0.017	0.007	<0.001	0.016
GPD0003-004	<0.001	16.685	<0.001	0.005	<0.001	1.130	0.019	0.002	0.005	0.019
GPD0003-005	0.006	17.070	<0.001	0.008	<0.001	1.215	0.028	0.002	0.005	0.016
GPD0003-006	0.002	18.255	<0.001	0.010	<0.001	1.318	0.032	0.005	0.007	0.021
GPD0004-001	0.010	16.002	<0.001	<0.001	<0.001	0.182	0.014	0.005	<0.001	0.030
GPD0004-002	<0.001	17.945	<0.001	<0.001	<0.001	0.170	0.020	0.006	<0.001	0.034
GPD0004-003	0.006	18.692	<0.001	<0.001	<0.001	0.212	0.023	0.004	0.002	0.035
GPD0004-004	0.003	16.412	<0.001	<0.001	<0.001	0.165	0.016	0.005	<0.001	0.034
GPD0004-005	0.009	20.572	<0.001	<0.001	<0.001	0.250	0.028	0.005	<0.001	0.036
GPD0004-006	0.010	14.955	<0.001	0.004	<0.001	0.292	0.024	0.004	<0.001	0.026
GPD0004-007	0.007	13.034	<0.001	0.011	<0.001	0.353	0.023	0.005	<0.001	0.021
GPD0004-008	0.003	13.212	<0.001	<0.001	<0.001	0.626	0.021	0.003	<0.001	0.015
GPD0004-009	<0.001	20.972	<0.001	<0.001	<0.001	0.311	0.140	<0.001	0.002	0.027
GPD0004-010	0.007	21.455	<0.001	<0.001	<0.001	0.467	0.126	0.002	0.003	0.018
GPD0004-012	<0.001	26.927	<0.001	0.002	<0.001	0.631	0.012	<0.001	0.008	0.022
GPD0004-013	<0.001	27.705	0.002	0.003	<0.001	0.512	0.009	0.003	0.003	0.022
GPD0005-001	0.012	23.048	<0.001	<0.001	<0.001	0.282	0.034	<0.001	<0.001	0.048
GPD0005-002	0.005	14.947	0.004	<0.001	<0.001	0.140	0.018	<0.001	<0.001	0.026
GPD0005-003	0.012	19.376	<0.001	<0.001	<0.001	0.258	0.034	0.003	<0.001	0.046
GPD0005-004	0.003	14.131	<0.001	0.009	<0.001	0.323	0.018	0.007	<0.001	0.018
GPD0005-005	<0.001	14.317	<0.001	0.002	<0.001	0.548	0.021	0.005	<0.001	0.016
GPD0005-006	0.002	22.070	<0.001	<0.001	<0.001	0.724	0.069	0.004	<0.001	0.038
GPD0005-007	<0.001	23.176	<0.001	<0.001	<0.001	0.816	0.079	<0.001	0.002	0.036
GPD0005-008	<0.001	22.964	<0.001	<0.001	<0.001	0.411	0.164	0.002	0.002	0.027
GPD0005-009	0.004	20.938	<0.001	<0.001	<0.001	0.285	0.147	0.003	<0.001	0.020
GPD0005-010	<0.001	20.855	<0.001	<0.001	<0.001	0.273	0.184	<0.001	<0.001	0.014
GPD0005-012	<0.001	21.274	<0.001	<0.001	<0.001	0.337	0.154	0.002	<0.001	0.013
GPD0005-013	<0.001	22.919	<0.001	0.002	<0.001	1.112	0.107	0.002	0.005	0.021
GPD0005-014	<0.001	24.611	<0.001	0.003	<0.001	0.452	0.169	<0.001	0.003	0.038
GPD0005-015	<0.001	22.233	<0.001	0.004	<0.001	1.400	0.122	<0.001	0.004	0.025
GPD0005-016	0.003	26.576	<0.001	<0.001	<0.001	0.352	0.160	<0.001	0.006	0.020
GPD0005-017	0.002	23.353	0.003	0.005	<0.001	1.584	0.046	<0.001	0.012	0.020
GPD0005-018	0.002	21.833	<0.001	0.003	<0.001	0.472	0.127	0.002	0.017	0.019
GPD0005-019	0.002	20.792	<0.001	<0.001	<0.001	0.419	0.105	0.003	0.016	0.016
GPD0005-022	<0.001	20.389	0.002	<0.001	<0.001	0.799	0.083	<0.001	0.006	0.022
GPD0005-024	0.004	19.518	<0.001	<0.001	<0.001	0.533	0.057	<0.001	0.003	0.015
GPD0005-025	0.002	20.048	<0.001	<0.001	<0.001	0.882	0.051	0.004	0.010	0.021
GPD0006-001	<0.001	13.253	<0.001	<0.001	<0.001	0.286	0.014	0.007	0.549	0.040
GPD0006-002	0.006	18.769	<0.001	0.004	<0.001	1.155	0.022	0.005	0.031	0.023
GPD0006-003	<0.001	10.786	<0.001	0.009	<0.001	0.289	0.026	0.007	0.002	0.011
GPD0006-004	0.004	21.353	<0.001	0.003	<0.001	1.479	0.039	0.003	0.006	0.016
GPD0006-005	0.005	20.433	<0.001	<0.001	<0.001	1.543	0.033	0.002	0.006	0.018

Sample ID	Sb%	Si%	Sn %	Sr%	Ta%	Ti %	V%	W %	Zn %	Zr %
GPD0006-006	<0.001	18.808	<0.001	<0.001	<0.001	0.829	0.055	<0.001	0.011	0.026

Appendix 3: Gapyeong Channel Sampling Analyses and Location Details
Gapyeong Project Channel Sample Location Details

ChannelID	Sample ID	East	North	mRL	From	To	Channel Length (m)	Channel True Width	Lith
GC0001	GPC0005	371120.4	4180496	118.9128	0	0.56	0.56	0.50	Pgmb
GC0001	GPC0006	371119.9	4180496	119.0996	0.56	1.07	0.51	0.49	Pgmb
GC0001	GPC0007	371119.5	4180496	119.2948	1.07	1.47	0.4	0.31	Pgmb
GC0001	GPC0007B	371119.3	4180496	119.4226	1.47	1.67	0.2	0.10	NS
GC0001	GPC0008	371119	4180496	119.656	1.67	2.45	0.78	0.71	Pgmb
GC0001	GPC0009	371118.1	4180496	119.8491	2.45	3.43	0.98	0.85	Pgmb
GC0001	GPC0009B	371117.6	4180496	119.9838	3.43	3.58	0.15	0.08	NS
GC0001	GPC0010	371117.1	4180496	120.1495	3.58	4.74	1.16	0.99	Pgmb
GC0001	GPC0012	371116.2	4180495	120.4903	4.74	5.74	1	0.79	Pgmb
GC0001	GPC0013	371115.6	4180495	120.8811	5.74	6.34	0.6	0.47	Pgmb
GC0001	GPC0014	371115	4180495	121.0282	6.34	7.06	0.72	0.52	Pgmb
GC0001	GPC0014B	371114.7	4180494	121.1395	7.06	7.27	0.21	0.11	NS
GC0001	GPC0015	371114.3	4180494	121.2567	7.27	7.97	0.7	0.53	Pgmb
GC0001	GPC0016	371113.7	4180494	121.2951	7.97	8.72	0.75	0.58	Pgmb
GC0001	GPC0016B	371113.3	4180494	121.4013	8.72	8.88	0.16	0.08	NS
GC0001	GPC0017	371113	4180494	121.4813	8.88	9.5	0.62	0.44	Pgmb
GC0001	GPC0018	371112.3	4180494	121.4987	9.5	10.5	1	0.77	Pgmb
GC0001	GPC0019	371111.3	4180493	121.3881	10.5	11.49	0.99	0.58	Pgmb
GC0001	GPC0021	371110.4	4180493	121.2159	11.49	12.5	1.01	0.70	Pgmb
GC0001	GPC0021B	371109.9	4180493	121.0019	12.5	12.84	0.34	0.17	NS
GC0001	GPC0022	371109.6	4180493	120.7986	12.84	13.605	0.765	0.47	Pgmb
GC0001	GPC0023	371108.9	4180492	120.6727	13.605	14.495	0.89	0.50	Pgmb
GC0002	GPC0024	371157.2	4180595	120.2073	0	1.16	1.16	1.02	Pgmb
GC0002	GPC0025	371156.4	4180596	120.4202	1.16	1.8	0.64	0.63	Pgmb
GC0002	GPC0026	371155.6	4180596	120.6996	1.8	2.8	1	0.92	Pgmb
GC0002	GPC0027	371154.6	4180596	120.8387	2.8	3.8	1	0.89	Pgmb
GC0002	GPC0028	371153.6	4180596	120.8909	3.8	4.8	1	0.85	Pgmb
GC0002	GPC0030	371152.6	4180596	120.8909	4.8	5.8	1	0.85	Pgmb
GC0002	GPC0031	371151.6	4180596	120.8909	5.8	6.8	1	0.84	Pgmb
GC0002	GPC0032	371150.7	4180596	120.8024	6.8	7.82	1.02	0.72	Pgmb
GC0002	GPC0033	371149.6	4180595	120.6829	7.82	9	1.18	0.95	Pgmb
GC0002	GPC0033B	371149	4180595	120.797	9	9.29	0.29	0.15	NS
GC0002	GPC0034	371148.7	4180595	120.9464	9.29	9.79	0.5	0.43	Pgmb
GC0002	GPC0034B	371148.5	4180595	120.7658	9.79	10.16	0.37	0.19	NS
GC0002	GPC0035	371148.3	4180595	120.5969	10.16	10.53	0.37	0.32	Pgmb

GC0002	GPC0036	371147.5	4180595	120.6238	10.53	11.76	1.23	1.02	Pgmb
GC0002	GPC0036B	371146.9	4180595	120.4895	11.76	12.05	0.29	0.15	NS
GC0002	GPC0037	371146.3	4180595	120.3336	12.05	13.3	1.25	1.07	Pgmb
GC0002	GPC0037B	371145.7	4180596	120.2177	13.3	13.51	0.21	0.11	NS
GC0002	GPC0038	371145.3	4180596	119.9952	13.51	14.27	0.76	0.51	Pgmb
GC0002	GPC0039	371144.5	4180596	119.8377	14.27	15.19	0.92	0.75	Pgmb
GC0003	GPC0041B	371188.5	4180686	106.1044	0	3.2	3.2	2.65	NS
GC0003	GPC0041C	371186.5	4180685	105.4779	3.2	4.6	1.4	1.01	NS
GC0003	GPC0041	371185.7	4180684	104.872	4.6	5.38	0.78	0.04	Pgmb
GC0003	GPC0042	371185.1	4180684	104.497	5.38	6.36	0.98	0.86	Pgmb
GC0003	GPC0043	371184.2	4180684	104.471	6.36	7.36	1	0.93	Pgmb
GC0003	GPC0044	371183.4	4180683	104.4536	7.36	8.76	1.4	1.24	Pgmb
GC0003	GPC0045	371182.6	4180682	104.4427	8.76	10	1.24	1.09	Pgmb
GC0003	GPC0046	371181.9	4180681	104.3451	10	11	1	0.86	Pgmb
GC0003	GPC0046B	371179.4	4180679	103.7851	11	16.45	5.45	4.72	NS
GC0003	GPC0046C	371175.1	4180677	102.3256	16.45	21.3	4.85	3.24	NS
GC0003	GPC0047	371172.5	4180676	101.2696	21.3	22.3	1	0.83	Pgmb
GC0003	GPC0048	371171.4	4180676	101.0856	22.3	23.5	1.2	0.98	Pgmb
GC0003	GPC0050	371170.2	4180676	100.722	23.5	24.83	1.33	0.82	Pgmb
GC0003	GPC0050B	371169.6	4180676	100.2636	24.83	25.25	0.42	0.14	NS
GC0003	GPC0051	371169.2	4180676	99.87992	25.25	26.27	1.02	0.74	Pgmb
GC0003	GPC0051B	371167.5	4180675	98.4327	26.27	29.87	3.6	1.16	NS
GC0003	GPC0051C	371164.9	4180674	96.94418	29.87	32.97	3.1	2.74	NS
GC0003	GPC0051D	371162.8	4180675	95.95591	32.97	35.97	3	0.40	NS
GC0003	GPC0051E	371160.4	4180674	95.21913	35.97	40.07	4.1	3.87	NS
GC0004	GPC0053B	371080.1	4180393	98.40515	0	5.4	5.4	4.82	NS
GC0004	GPC0053	371082.8	4180394	99.22291	5.4	6.35	0.95	0.73	Pgmb
GC0004	GPC0053C	371083.3	4180394	100.056	6.35	8.05	1.7	0.89	NS
GC0004	GPC0054	371083.7	4180394	101.0849	8.05	9.05	1	0.98	Pgmb
GC0004	GPC0055	371084.8	4180394	101.5083	9.05	10.3	1.25	1.23	Pgmb
GC0004	GPC0055B	371085.3	4180394	101.8659	10.3	10.53	0.23	0.15	NS
GC0004	GPC0056	371085.7	4180394	101.9793	10.53	11.17	0.64	0.52	Pgmb
GC0004	GPC0056B	371086	4180395	102.2043	11.17	11.62	0.45	0.24	NS
GC0004	GPC0057	371086.4	4180395	102.6085	11.62	12.62	1	0.97	Pgmb
GC0004	GPC0058	371087.3	4180395	102.8843	12.62	13.55	0.93	0.84	Pgmb
GC0004	GPC0058B	371087.8	4180395	103.1252	13.55	13.84	0.29	0.17	NS
GC0004	GPC0059	371088.3	4180395	103.2787	13.84	14.9	1.06	0.87	Pgmb
GC0004	GPC0059B	371088.8	4180395	103.4604	14.9	15.3	0.4	0.31	NS
GC0004	GPC0060	371089.2	4180396	103.9592	15.3	16.24	0.94	0.91	Pgmb
GC0004	GPC0061	371090.2	4180395	104.2988	16.24	17.74	1.5	1.07	Pgmb
GC0004	GPC0063	371091.3	4180395	104.3119	17.74	18.74	1	0.81	Pgmb
GC0004	GPC0063B	371093.3	4180395	104.5008	18.74	21.84	3.1	2.77	NS
GC0004	GPC0064	371095	4180396	104.7803	21.84	22.54	0.7	0.65	Pgmb
GC0004	GPC0065	371095.8	4180396	105.0273	22.54	23.61	1.07	1.02	Pgmb

GC0004	GPC0065B	371096.4	4180396	105.4194	23.61	24.11	0.5	0.38	NS
GC0004	GPC0066	371096.9	4180396	105.882	24.11	25.11	1	1.00	Pgmb
GC0004	GPC0066B	371101.4	4180395	108.1974	25.11	34.31	9.2	9.16	NS

Rock Codes

Pgmb Marble
NS No sample (offsets in the channel direction)

Gapyeong Channel Sample Leco Analysis Results Trench 1 and 2

Sample ID	Channel/ Hole Number	From (m)	To (m)	TGC%	TC%	S%	TCC%	TOC%
GPC0005	GC0001	0.00	0.56	5.2	5.2	<0.1	<0.1	<0.1
GPC0006	GC0001	0.56	1.07	8.0	8.4	<0.1	0.2	0.2
GPC0007	GC0001	1.07	1.47	16.1	16.4	<0.1	0.3	<0.1
GPC0008	GC0001	1.67	2.45	12.5	13.1	<0.1	0.5	<0.1
GPC0009	GC0001	2.45	3.43	5.6	5.6	<0.1	<0.1	<0.1
GPC0010	GC0001	3.58	4.74	13.8	14.7	<0.1	0.9	<0.1
GPC0012	GC0001	4.74	5.74	13.5	15.4	<0.1	1.9	<0.1
GPC0013	GC0001	5.74	6.34	11.8	12.2	<0.1	0.4	<0.1
GPC0014	GC0001	6.34	7.06	5.7	5.8	<0.1	<0.1	<0.1
GPC0015	GC0001	7.27	7.97	15.7	17.1	<0.1	1.3	0.1
GPC0016	GC0001	7.97	8.72	6.2	6.6	<0.1	0.4	<0.1
GPC0017	GC0001	8.88	9.50	16.9	18.6	<0.1	1.7	<0.1
GPC0018	GC0001	9.50	10.50	14.8	15.5	<0.1	0.7	<0.1
GPC0019	GC0001	10.50	11.49	12.6	13.1	<0.1	0.5	<0.1
GPC0021	GC0001	11.49	12.50	9.6	9.6	<0.1	<0.1	<0.1
GPC0022	GC0001	12.84	13.61	1.2	1.5	<0.1	0.2	0.1
GPC0023	GC0001	13.61	14.50	3.2	3.3	<0.1	<0.1	<0.1
GPC0024	GC0002	0.00	1.16	1.2	1.4	<0.1	<0.1	0.1
GPC0025	GC0002	1.16	1.80	22.1	25.2	<0.1	3.1	<0.1
GPC0026	GC0002	1.80	2.80	15.4	17.7	<0.1	1.8	0.5
GPC0027	GC0002	2.80	3.80	14.3	14.7	<0.1	0.4	<0.1
GPC0028	GC0002	3.80	4.80	15.8	17.7	<0.1	1.9	<0.1
GPC0030	GC0002	4.80	5.80	21.3	23.1	0.1	1.8	<0.1
GPC0031	GC0002	5.80	6.80	18.1	19.4	<0.1	1.3	<0.1
GPC0032	GC0002	6.80	7.82	15.5	15.9	<0.1	0.4	<0.1
GPC0033	GC0002	7.82	9.00	2.6	2.8	<0.1	<0.1	0.2
GPC0034	GC0002	9.29	9.79	7.2	8.0	<0.1	<0.1	0.8
GPC0035	GC0002	10.16	10.53	1.8	2.1	0.1	<0.1	0.3
GPC0036	GC0002	10.53	11.76	13.7	14.6	<0.1	0.5	0.4
GPC0037	GC0002	12.05	13.30	14.1	14.8	<0.1	0.4	0.3
GPC0038	GC0002	13.51	14.27	5.6	5.6	<0.1	<0.1	<0.1
GPC0039	GC0002	14.27	15.19	0.2	0.4	<0.1	<0.1	0.2

Gapyeong Channel Sample XRF Analysis Results Trench 1 and 2

Sample ID	Al %	As %	Ba %	Ca %	Cl%	Co %	Cr %	Cu %	Fe %	K%	Mg %	Mn %	Mo %	Na%	Nb %
GPC0005	10.243	<0.001	0.047	0.543	0.008	0.006	0.028	0.123	9.959	1.017	0.725	0.075	0.009	0.306	<0.001
GPC0006	9.646	<0.001	0.032	0.609	0.014	0.003	0.030	0.114	7.609	0.863	0.141	0.020	0.005	0.138	0.001

GPC0007	7.642	<0.001	0.109	1.233	0.016	0.003	0.019	0.044	8.744	2.832	0.109	0.035	0.005	0.132	0.001
GPC0008	7.511	<0.001	0.049	2.152	0.014	0.008	0.020	0.034	11.775	1.267	0.346	0.121	0.003	0.869	<0.001
GPC0009	8.549	<0.001	0.074	2.693	0.011	0.004	0.026	0.025	5.242	2.080	0.538	0.122	0.008	1.678	0.004
GPC0010	7.179	<0.001	0.068	0.393	0.011	0.003	0.021	0.017	5.767	2.424	0.425	0.056	0.005	0.281	<0.001
GPC0012	6.108	<0.001	0.080	0.210	0.015	0.002	0.021	0.021	5.508	2.244	0.213	0.037	0.017	0.314	0.002
GPC0013	5.725	<0.001	0.059	0.122	0.008	0.004	0.023	0.034	16.761	1.291	0.225	0.053	0.013	0.077	<0.001
GPC0014	8.570	<0.001	0.050	2.223	0.013	0.005	0.024	0.038	9.720	1.183	1.247	0.096	0.004	0.516	<0.001
GPC0015	7.048	<0.001	0.089	0.727	0.013	0.001	0.019	0.011	5.660	2.696	0.551	0.050	0.001	0.332	0.002
GPC0016	7.780	<0.001	0.052	0.613	0.011	0.004	0.018	0.018	9.715	2.266	1.477	0.090	0.001	0.178	0.001
GPC0017	6.213	<0.001	0.078	0.048	0.013	0.002	0.023	0.008	3.980	3.180	0.292	0.024	0.003	0.113	0.001
GPC0018	6.280	<0.001	0.068	0.157	0.012	0.004	0.020	0.011	5.179	2.573	0.218	0.044	0.003	0.111	0.002
GPC0019	5.956	0.002	0.048	0.031	0.014	0.004	0.022	0.020	5.251	2.123	0.151	0.045	0.006	0.084	0.002
GPC0021	6.680	0.001	0.056	0.033	0.011	0.004	0.020	0.017	12.748	2.046	0.252	0.088	0.003	0.134	0.003
GPC0022	11.292	<0.001	0.056	0.090	0.016	0.008	0.011	0.017	11.688	2.190	1.162	0.059	<0.001	0.345	0.002
GPC0023	7.981	0.002	0.031	0.100	0.015	0.005	0.011	0.020	20.971	2.153	0.435	0.126	0.003	0.307	<0.001
GPC0024	14.170	<0.001	0.060	0.423	0.016	0.011	0.020	0.087	10.447	0.759	0.372	0.057	0.003	0.515	0.003
GPC0025	9.855	<0.001	0.037	0.174	0.012	0.007	0.019	0.076	8.391	0.853	0.137	0.025	0.006	0.150	0.001
GPC0026	8.087	<0.001	0.076	0.789	0.009	0.009	0.020	0.082	8.475	1.800	0.239	0.060	0.004	0.191	0.002
GPC0027	7.763	<0.001	0.062	0.206	0.010	0.009	0.020	0.079	13.448	2.190	0.174	0.068	0.004	0.142	<0.001
GPC0028	9.039	<0.001	0.065	0.504	0.010	0.004	0.018	0.073	7.350	2.204	0.178	0.047	0.003	0.158	<0.001
GPC0030	8.121	<0.001	0.101	0.232	0.014	0.004	0.019	0.066	4.729	3.480	0.156	0.026	0.003	0.238	<0.001
GPC0031	7.895	<0.001	0.062	0.102	0.013	0.006	0.020	0.094	7.561	2.061	0.155	0.035	0.004	0.135	0.002
GPC0032	7.506	<0.001	0.084	0.272	0.014	0.005	0.016	0.034	7.907	2.741	0.172	0.056	0.005	0.212	<0.001
GPC0033	10.545	<0.001	0.071	1.033	0.011	0.006	0.024	0.036	10.130	1.800	0.798	0.145	0.002	0.519	<0.001
GPC0034	8.870	<0.001	0.055	1.626	0.015	0.005	0.018	0.024	9.662	1.745	0.643	0.146	0.005	0.141	<0.001
GPC0035	11.705	<0.001	0.078	1.011	0.022	0.007	0.023	0.028	9.396	2.133	1.116	0.219	0.002	0.298	0.001
GPC0036	6.599	<0.001	0.068	0.367	0.004	0.002	0.022	0.007	7.000	2.413	0.387	0.055	0.005	0.087	0.002
GPC0037	6.131	<0.001	0.049	0.104	0.006	0.005	0.022	0.021	6.905	1.727	0.266	0.040	0.007	0.297	<0.001
GPC0038	7.438	<0.001	0.019	4.135	0.034	0.005	0.013	0.018	9.931	1.015	1.704	0.114	0.004	0.956	0.002
GPC0039	8.437	<0.001	0.021	4.380	0.044	0.005	0.010	0.014	10.853	0.840	3.299	0.081	0.002	1.418	0.003

Gapyeong Channel Sample XRF Analysis Results Trench 1 and 2

Sample ID	Ni%	P%	Pb %	S%	Sb%	Si%	Sn %	Sr%	Ta%	Ti %	V%	W %	Zn %	Zr %
GPC0005	0.010	0.127	0.004	0.035	<0.001	21.050	<0.001	<0.001	<0.001	1.810	0.097	<0.001	0.007	0.029
GPC0006	0.010	0.138	0.002	0.014	<0.001	23.754	<0.001	<0.001	<0.001	0.631	0.129	0.002	0.004	0.017
GPC0007	0.010	0.114	0.004	0.014	<0.001	20.448	<0.001	<0.001	<0.001	0.599	0.171	0.002	0.029	0.016
GPC0008	0.027	0.109	0.002	0.013	<0.001	19.626	<0.001	0.003	<0.001	0.545	0.239	0.003	0.043	0.021
GPC0009	0.017	0.082	0.002	0.010	<0.001	25.987	<0.001	0.014	<0.001	0.962	0.153	0.003	0.012	0.033
GPC0010	0.022	0.054	0.003	0.008	<0.001	24.704	<0.001	<0.001	<0.001	0.495	0.210	<0.001	0.005	0.022
GPC0012	0.018	0.047	0.002	0.005	<0.001	26.526	<0.001	<0.001	<0.001	0.374	0.177	<0.001	0.002	0.020
GPC0013	0.034	0.099	0.004	0.009	<0.001	20.125	<0.001	<0.001	<0.001	0.243	0.322	<0.001	0.009	0.013
GPC0014	0.041	0.085	0.002	0.012	<0.001	22.368	<0.001	<0.001	<0.001	1.192	0.131	0.002	0.008	0.019
GPC0015	0.013	0.052	<0.001	0.008	<0.001	23.584	<0.001	<0.001	<0.001	0.571	0.158	0.002	0.005	0.028
GPC0016	0.030	0.102	0.002	0.020	<0.001	23.051	<0.001	<0.001	<0.001	1.347	0.137	0.002	0.009	0.022
GPC0017	0.013	0.043	0.002	0.006	<0.001	25.828	<0.001	<0.001	<0.001	0.418	0.167	<0.001	0.002	0.017
GPC0018	0.017	0.049	0.003	0.010	<0.001	26.104	<0.001	<0.001	<0.001	0.390	0.192	<0.001	0.003	0.020
GPC0019	0.021	0.031	0.002	0.014	<0.001	27.939	<0.001	<0.001	<0.001	0.359	0.161	<0.001	0.002	0.018
GPC0021	0.024	0.078	0.003	0.017	<0.001	22.464	<0.001	<0.001	<0.001	0.620	0.271	<0.001	0.005	0.024
GPC0022	0.022	0.111	0.002	0.011	<0.001	19.437	<0.001	<0.001	<0.001	2.138	0.119	0.002	0.006	0.027
GPC0023	0.022	0.204	0.003	0.016	<0.001	16.436	<0.001	<0.001	<0.001	1.477	0.144	<0.001	0.012	0.028
GPC0024	0.012	0.104	0.003	0.023	<0.001	18.348	0.002	<0.001	<0.001	1.527	0.092	<0.001	0.005	0.025
GPC0025	0.011	0.057	0.003	0.004	<0.001	15.611	<0.001	<0.001	<0.001	0.588	0.080	<0.001	0.006	0.016
GPC0026	0.012	0.079	0.003	0.020	<0.001	20.211	<0.001	<0.001	<0.001	0.697	0.117	0.002	0.006	0.015
GPC0027	0.012	0.105	0.003	0.031	<0.001	18.143	<0.001	<0.001	<0.001	0.513	0.188	0.002	0.021	0.012
GPC0028	0.007	0.072	0.004	0.023	<0.001	19.850	<0.001	<0.001	<0.001	0.569	0.122	<0.001	0.010	0.015
GPC0030	0.008	0.057	0.005	0.011	<0.001	20.404	0.002	<0.001	<0.001	0.653	0.052	<0.001	0.003	0.019

Sample ID	Ni%	P%	Pb %	S%	Sb%	Si%	Sn %	Sr%	Ta%	Ti %	V%	W %	Zn %	Zr %
GPC0031	0.011	0.075	0.004	0.013	<0.001	20.454	<0.001	<0.001	<0.001	0.781	0.088	<0.001	0.004	0.018
GPC0032	0.013	0.069	0.003	0.008	<0.001	22.105	<0.001	<0.001	<0.001	0.467	0.146	<0.001	0.033	0.015
GPC0033	0.021	0.119	0.002	0.011	<0.001	21.039	<0.001	<0.001	<0.001	1.978	0.114	0.002	0.020	0.022
GPC0034	0.020	0.092	0.002	0.023	<0.001	21.280	0.002	<0.001	<0.001	1.327	0.151	0.002	0.014	0.020
GPC0035	0.054	0.123	0.003	0.026	<0.001	19.625	<0.001	<0.001	<0.001	2.335	0.105	0.002	0.017	0.026
GPC0036	0.031	0.068	0.002	0.007	<0.001	24.451	<0.001	<0.001	<0.001	0.441	0.215	0.002	0.002	0.019
GPC0037	0.018	0.048	0.004	0.014	<0.001	26.843	<0.001	<0.001	<0.001	0.473	0.178	<0.001	<0.001	0.017
GPC0038	0.010	0.117	<0.001	0.025	<0.001	22.376	<0.001	<0.001	<0.001	1.463	0.086	0.003	0.002	0.026
GPC0039	0.010	0.111	<0.001	0.012	<0.001	21.120	<0.001	<0.001	<0.001	1.914	0.050	0.002	0.003	0.024

Gapyeong Channel Sample Leco Analysis Results Trench 3 and 4

ChannelID	Sample ID	From	To	Ch Length (m)	True length	TC%	S%	TIC%	TGC%	TOC%
GC0003	GPC0041B	0	3.2	3.2	2.65					
GC0003	GPC0041C	3.2	4.6	1.4	1.01					
GC0003	GPC0041	4.6	5.38	0.78	0.04	0.5	<0.1	0.2	0.1	0.2
GC0003	GPC0042	5.38	6.36	0.98	0.86	4.3	<0.1	<0.1	4.3	<0.1
GC0003	GPC0043	6.36	7.36	1	0.93	4.0	<0.1	<0.1	3.9	0.1
GC0003	GPC0044	7.36	8.76	1.4	1.24	4.3	<0.1	<0.1	4.3	<0.1
GC0003	GPC0045	8.76	10	1.24	1.09	14.5	<0.1	0.6	13.9	<0.1
GC0003	GPC0046	10	11	1	0.86	2.4	<0.1	0.1	2.3	<0.1
GC0003	GPC0046B	11	16.45	5.45	4.72					
GC0003	GPC0046C	16.45	21.3	4.85	3.24					
GC0003	GPC0047	21.3	22.3	1	0.83	0.2	0.5	<0.1	0.1	0.1
GC0003	GPC0048	22.3	23.5	1.2	0.98	13.4	0.3	0.4	12.9	<0.1
GC0003	GPC0050	23.5	24.83	1.33	0.82	15.9	<0.1	0.4	15.5	<0.1
GC0003	GPC0050B	24.83	25.25	0.42	0.14					
GC0003	GPC0051	25.25	26.27	1.02	0.74	2.8	0.2	<0.1	2.8	<0.1
GC0003	GPC0051B	26.27	29.87	3.6	1.16					
GC0003	GPC0051C	29.87	32.97	3.1	2.74					
GC0003	GPC0051D	32.97	35.97	3	0.40					
GC0003	GPC0051E	35.97	40.07	4.1	3.87					
GC0004	GPC0053B	0	5.4	5.4	4.82					
GC0004	GPC0053	5.4	6.35	0.95	0.73	1.2	<0.1	0.6	0.5	0.1
GC0004	GPC0053C	6.35	8.05	1.7	0.89					
GC0004	GPC0054	8.05	9.05	1	0.98	9.0	<0.1	0.9	8.1	<0.1
GC0004	GPC0055	9.05	10.3	1.25	1.23	8.3	<0.1	0.6	7.4	0.3
GC0004	GPC0055B	10.3	10.53	0.23	0.15					
GC0004	GPC0056	10.53	11.17	0.64	0.52	13.5	<0.1	0.3	13.2	<0.1
GC0004	GPC0056B	11.17	11.62	0.45	0.24					
GC0004	GPC0057	11.62	12.62	1	0.97	9.6	<0.1	0.3	9.3	<0.1
GC0004	GPC0058	12.62	13.55	0.93	0.84	12.2	<0.1	<0.1	12.1	<0.1
GC0004	GPC0058B	13.55	13.84	0.29	0.17					
GC0004	GPC0059	13.84	14.9	1.06	0.87	10.8	<0.1	0.1	10.4	0.3
GC0004	GPC0059B	14.9	15.3	0.4	0.31					
GC0004	GPC0060	15.3	16.24	0.94	0.91	13.7	<0.1	<0.1	13.7	<0.1

GC0004	GPC0061	16.24	17.74	1.5	1.07	15.7	<0.1	<0.1	15.7	<0.1
GC0004	GPC0063	17.74	18.74	1	0.81	1.1	<0.1	0.5	0.4	0.2
GC0004	GPC0063B	18.74	21.84	3.1	2.77					
GC0004	GPC0064	21.84	22.54	0.7	0.65	1.5	<0.1	0.9	0.4	0.2
GC0004	GPC0065	22.54	23.61	1.07	1.02	9.8	<0.1	<0.1	9.7	0.1
GC0004	GPC0065B	23.61	24.11	0.5	0.38					
GC0004	GPC0066	24.11	25.11	1	1.00	0.8	<0.1	0.3	0.4	0.1
GC0004	GPC0066B	25.11	34.31	9.2	9.16					

Gapyeong Channel Sample XRF Analysis Results Trench 3 and 4

Sample ID	Al %	As %	Ba %	Ca %	Cl%	Co %	Cr %	Cu %	Fe %	K%	Mg %	Mn %	Mo %
GPC0041B													
GPC0041C													
GPC0041	9.261	<0.001	0.046	0.040	0.010	0.005	0.011	0.006	10.071	3.096	0.975	0.633	<0.001
GPC0042	10.296	<0.001	0.061	0.061	0.011	0.004	0.012	0.011	4.820	3.897	0.690	0.206	<0.001
GPC0043	9.031	<0.001	0.038	0.036	0.012	0.001	0.011	0.014	8.046	3.301	0.419	0.043	<0.001
GPC0044	9.626	<0.001	0.043	0.985	0.018	0.004	0.011	0.026	8.667	1.872	1.219	0.168	<0.001
GPC0045	8.855	<0.001	0.101	0.042	0.011	0.006	0.011	0.043	6.999	3.680	0.341	0.020	<0.001
GPC0046	9.600	<0.001	0.044	2.010	0.015	0.008	0.021	0.086	10.779	1.151	0.799	0.113	0.004
GPC0046B													
GPC0046C													
GPC0047	7.775	<0.001	0.029	0.721	0.015	0.006	0.007	0.016	12.322	0.954	2.795	0.172	<0.001
GPC0048	8.118	<0.001	0.060	0.540	0.014	0.004	0.020	0.062	6.004	2.830	0.568	0.037	<0.001
GPC0050	6.226	<0.001	0.074	0.505	0.010	0.002	0.030	0.016	3.797	2.529	0.420	0.025	0.005
GPC0050B													
GPC0051	8.079	<0.001	0.033	5.558	0.013	0.004	0.013	0.015	9.516	1.723	2.248	0.112	<0.001
GPC0051B													
GPC0051C													
GPC0051D													
GPC0051E													
GPC0053B													
GPC0053	8.191	<0.001	0.036	1.623	0.025	0.004	0.187	0.011	7.031	3.422	1.072	0.101	<0.001
GPC0053C													
GPC0054	8.021	<0.001	0.066	0.588	0.011	0.004	0.016	0.017	7.278	2.056	0.765	0.086	0.002
GPC0055	7.533	<0.001	0.050	0.607	0.007	0.004	0.024	0.018	9.797	1.656	0.748	0.115	<0.001
GPC0055B													

GPC0056	5.190	<0.001	0.094	0.045	0.014	0.002	0.021	0.009	2.566	4.483	0.123	0.019	0.003
GPC0056B													
GPC0057	7.029	<0.001	0.060	0.251	0.011	0.005	0.020	0.016	10.707	1.986	0.559	0.116	0.001
GPC0058	6.544	<0.001	0.073	0.219	0.010	0.003	0.021	0.010	8.218	2.517	0.619	0.106	0.005
GPC0058B													
GPC0059	5.703	<0.001	0.056	0.377	0.010	0.004	0.028	0.009	8.159	1.497	0.448	0.051	0.005
GPC0059B													
GPC0060	8.021	<0.001	0.025	0.514	0.009	0.002	0.027	0.018	9.676	0.764	0.510	0.043	0.003
GPC0061	8.072	<0.001	0.078	1.427	0.015	0.003	0.050	0.015	4.945	1.938	0.287	0.050	<0.001
GPC0063	8.272	<0.001	0.013	1.941	0.007	0.005	0.008	0.006	11.162	0.384	2.465	0.201	<0.001
GPC0063B													
GPC0064	9.868	<0.001	0.021	0.194	0.009	0.008	0.013	0.025	12.057	0.537	1.334	0.237	<0.001
GPC0065	8.055	<0.001	0.042	0.117	0.010	0.004	0.018	0.013	8.065	1.428	0.607	0.186	0.002
GPC0065B													
GPC0066	11.466	<0.001	0.059	0.272	0.012	0.004	0.011	0.006	7.377	4.407	0.737	0.288	<0.001
GPC0066B													

Sample ID	Na%	Nb %	Ni%	P%	Pb %	S%	Sb%	Si%	Sn %	Sr%	Ta%	Ti %	V%	W %	Zn %	Zr %
GPC0041B																
GPC0041C																
GPC0041	**0.100**	**<0.001**	**0.005**	**0.052**	**0.002**	**0.006**	**<0.001**	**25.490**	**<0.001**	**<0.001**	**<0.001**	**0.615**	**0.013**	**0.003**	**0.006**	**0.023**
GPC0042	**0.111**	**0.003**	**0.002**	**0.029**	**0.002**	**0.007**	**<0.001**	**26.153**	**<0.001**	**<0.001**	**<0.001**	**0.756**	**0.019**	**<0.001**	**0.002**	**0.035**
GPC0043	**0.060**	**0.001**	**0.003**	**0.033**	**0.003**	**0.013**	**<0.001**	**25.892**	**<0.001**	**<0.001**	**<0.001**	**0.719**	**0.027**	**<0.001**	**0.002**	**0.025**
GPC0044	**0.257**	**0.003**	**0.006**	**0.089**	**0.002**	**0.051**	**<0.001**	**22.938**	**<0.001**	**<0.001**	**<0.001**	**1.325**	**0.037**	**<0.001**	**0.007**	**0.027**
GPC0045	**0.536**	**<0.001**	**0.010**	**0.043**	**0.004**	**0.010**	**<0.001**	**21.935**	**<0.001**	**<0.001**	**<0.001**	**0.688**	**0.031**	**<0.001**	**0.006**	**0.019**
GPC0046	**2.055**	**<0.001**	**0.006**	**0.140**	**0.002**	**0.039**	**<0.001**	**22.116**	**<0.001**	**0.020**	**<0.001**	**1.028**	**0.102**	**<0.001**	**0.007**	**0.024**
GPC0046B																

GPC0046C																
GPC0047	0.788	<0.001	0.004	0.123	0.010	0.006	<0.001	23.417	<0.001	<0.001	<0.001	1.891	0.040	<0.001	0.071	0.021
GPC0048	0.122	0.002	0.005	0.058	0.011	0.010	<0.001	23.890	<0.001	<0.001	<0.001	0.709	0.097	<0.001	0.013	0.019
GPC0050	0.346	0.002	0.019	0.045	0.005	0.009	<0.001	26.718	0.005	<0.001	<0.001	0.551	0.147	<0.001	0.008	0.017
GPC0050B																
GPC0051	1.647	0.003	0.015	0.159	0.004	0.016	<0.001	20.963	0.002	0.003	<0.001	1.793	0.059	0.004	0.011	0.031
GPC0051B																
GPC0051C																
GPC0051D																
GPC0051E																
GPC0053B																
GPC0053	1.580	0.001	0.369	0.068	0.003	0.010	<0.001	26.941	<0.001	0.005	<0.001	0.729	0.029	0.002	0.005	0.011
GPC0053C																
GPC0054	0.357	0.002	0.019	0.064	0.002	0.010	0.002	24.373	<0.001	<0.001	<0.001	1.112	0.103	<0.001	0.007	0.026
GPC0055	0.281	0.001	0.046	0.079	0.003	0.009	<0.001	23.711	<0.001	<0.001	<0.001	0.861	0.155	0.003	0.006	0.016
GPC0055B																
GPC0056	0.307	<0.001	0.022	0.032	0.004	0.007	<0.001	29.671	<0.001	<0.001	<0.001	0.579	0.105	<0.001	<0.001	0.025
GPC0056B																
GPC0057	0.183	<0.001	0.038	0.079	0.003	0.016	<0.001	23.143	<0.001	<0.001	<0.001	0.709	0.163	<0.001	0.008	0.017
GPC0058	0.082	<0.001	0.042	0.085	0.002	0.006	<0.001	24.490	<0.001	<0.001	<0.001	0.390	0.216	0.002	0.010	0.017
GPC0058B																
GPC0059	0.242	<0.001	0.040	0.081	0.004	0.008	<0.001	26.589	0.002	<0.001	<0.001	0.628	0.163	<0.001	0.005	0.016
GPC0059B																
GPC0060	0.116	<0.001	0.022	0.066	<0.001	0.007	<0.001	21.135	<0.001	<0.001	<0.001	0.545	0.192	<0.001	0.003	0.020
GPC0061	0.232	0.002	0.061	0.063	0.002	0.003	<0.001	23.146	<0.001	<0.001	<0.001	0.607	0.138	<0.001	0.004	0.021
GPC0063	1.306	<0.001	0.007	0.170	<0.001	0.003	0.003	22.931	<0.001	0.004	<0.001	2.001	0.047	<0.001	0.014	0.023
GPC0063B																

GPC0064	0.458	0.001	0.008	0.107	0.002	0.014	<0.001	21.569	<0.001	<0.001	<0.001	2.318	0.072	<0.001	0.009	0.025
GPC0065	0.108	0.001	0.012	0.046	0.002	0.008	<0.001	24.306	<0.001	<0.001	<0.001	0.579	0.068	<0.001	0.006	0.021
GPC0065B																
GPC0066	0.186	<0.001	0.007	0.050	<0.001	0.012	<0.001	24.368	<0.001	0.004	<0.001	1.018	0.023	<0.001	0.005	0.028
GPC0066B																