

## **Talga Resources Ltd**

ABN 32 138 405 419 1st Floor, 2 Richardson St, West Perth, WA 6005 T: +61 8 9481 6667 F: +61 8 9322 1935 www.talgaresources.com

#### **Corporate Information**

ASX Code TLG/TLGO Shares on issue 138.36m Options (unlisted) 11.90m **Options** (listed) 7.71m

**Company Directors Keith Coughlan** Non-Executive Chairman

**Mark Thompson** Managing Director

Grant Mooney Non-Executive Director



# WIDE HIGH GRADE GRAPHITE DRILL RESULTS **AT TALGA'S JALKUNEN PROJECT**

# **Highlights:**

- Wide and high grade graphite intersections returned from 8 hole drill program at Talga's 2<sup>nd</sup> priority graphite project
- · Many of the best intersections are at shallow depth and grades up to 31.8% Cq
- Interpreted true width of graphite unit is between 50-60 metres
- Adds inventory potential to Talga's flagship JORC graphite resources 50kms to the NW at Vittangi
- Maiden resource estimate for Jalkunen now underway
- · Graphite characteristics visibly similar to Vittangi Talga to test for amenability to graphite-graphene processing method
- Expands Talga's deposit pipeline and strategy to supply high growth graphite-graphene markets

Australian technology materials development company, Talga Resources Ltd (ASX: TLG) ("Talga" or "the Company") is pleased to report large and high grade graphite intersections from its recently completed 8-hole diamond drilling program at it's second wholly owned major graphite project in northern Sweden ("Jalkunen")(Fig 1).

Key intercepts (downhole interpreted to be true width) include:

JALK02: 30m @ 19.5% Cg from 3m depth (collared in mineralisation)

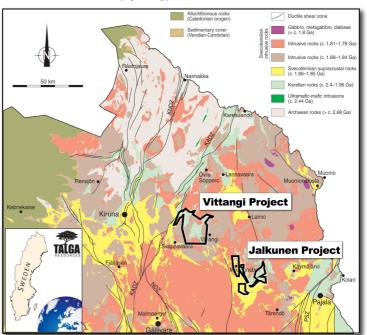
JALK03: 26m @ 16.6% Cg from 7m depth (collared in mineralisation)

JALK06: 54m @ 16.6% Cg from 76m depth

JALK07: 51m @ 15.0% Cg from 115m depth

JALK08: 66m @ 13.4% Cg from 9m depth

Fig 1 Talga's 100% owned Vittangi and Jalkunen graphite project locations and summary geology in northern Sweden.



## 4 JUNE 2015

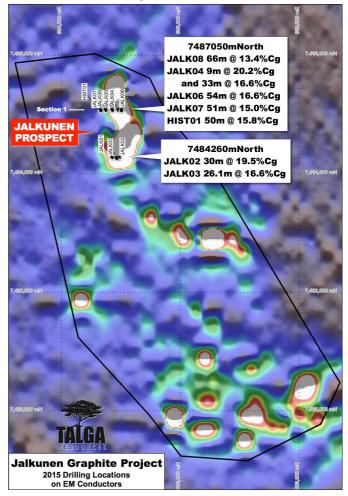
The **Jalkunen** project area is just 50 kilometres to the southeast of Talga's flagship Vittangi project and contains five graphite exploration targets: Jalkunen, Tiankijokki, Nybrännan, Suinavaara and Lautakoski. These have a combined total graphite exploration target ranging from 50-100Mt with average grades between 19-27% Cg based on historic drilling, trench sampling, historical mines/workings and electromagnetic ("EM") surveys (see ASX:TLG 26 Feb 2015 and Note 1).

The recently completed diamond drilling program was undertaken on the Jalkunen exploration target to:

- · Test for a potential mineral resource;
- Assess ability to liberate graphene using Talga's processing methodology; and
- Add potential future production capacity as high growth graphite-graphene markets develop.

The drilling targeted a prominent EM anomaly central to the 88km<sup>2</sup> Jalkunen project, and consisted of eight diamond holes totalling 1,082 metres (Fig 2 and Table 1) drilled over approximately 1,000m strike. Six holes successfully intersected the targeted graphite unit which averaged 50-60 metres true thickness and two holes failed to return graphite as they intercepted faulted footwall blocks (Table 2).

**Fig 2** Jalkunen prospect 2015 drilling and historical drillhole locations over electromagnetic anomalies



The graphite unit is interpreted to be shallow dipping at approximately **18°** (Fig 3), offering superior mining geometry and >**150m horizontal width** of outcrop. The mineralisation is visually similar to that of Vittangi (see TLG:ASX 13 April 2015) and core has been despatched for testing amenability to Talga's graphite-graphene processing method. Drillhole depths ranged from 80 to 270m depth and the graphite unit is present from subcrop to approximately 600m down dip and remains open. Graphite grades average approximately 16% Cg and reach up to 31.8% Cg.

The wide intersections coupled to the shallow dip of the intersected graphite units suggest that a very large tonnage target is present. Additionally, the geometry combined with high average grade and 1,000m strike length, suggest potential for a very high volume of **contained graphite per vertical metre**. Talga has moved immediately on the back of these successful results to the estimation of a maiden JORC mineral resource for Jalkunen and this is expected by the end of June 2015.

**Talga Managing Director, Mr Mark Thompson**: *"Pleasingly, the calibre of the new results demonstrates the strong growth potential of our high quality development pipeline in and around the Vittangi region. This is important from a graphite perspective but equally if not more so in a graphene production sense, where Talga is developing a pipeline of deposits in northern Sweden suitable for the high growth graphene sector."* 

#### For further information, please contact:

#### Talga Resources Ltd.

Mark Thompson Managing Director Tel +61 (08) 9481 6667 Email admin@talgaresources.com

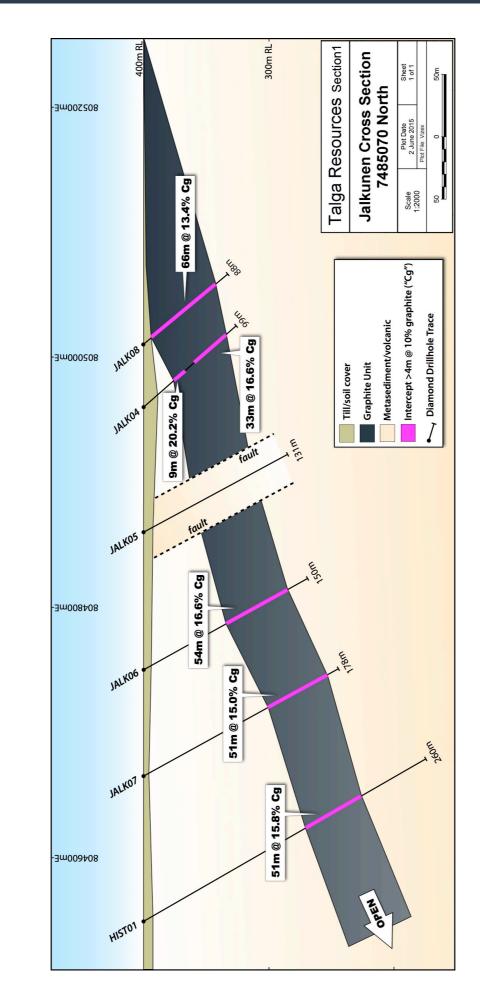


Fig 3 Section (from Fig 2) with Talga and historic drilling, EM contours showing shallow dipping graphite unit open at depth.

Hole ID	From (m)	To (m)	Intersection	Note
JALK01	-	-	NSR	Fault
JALK02	3.0	33.0	30.0m @ 19.5% Cg	
JALK03	6.9	33.0	26.1m @ 16.6%Cg	
JALK04	33.1	42.3	9.15m @ 20.2% Cg	
JALNU4	54.9	88.0	33.10m @ 16.6% Cg	
JALK05	-	-	NSR	Fault
JALK06	76.0	130.0	54.0m @ 16.6% Cg	
JALK07	115.0	165.6	50.6m @ 15.0% Cg	
JALK08	9.0	75.0	66m @ 13.4% Cg	

 Table 1 Jalkunen exploration drilling results/significant graphite intercepts\*.

 Table 2 Jalkunen project diamond drillhole location and hole data.

Hole ID	Easting (Sweref99)	Northing (Sweref99)	RL	Azi	Dip	EOH Depth (m)
JALK01	804860	7484275	400	85	-60	270.2
JALK02	804970	7484268	400	85	-50	86.0
JALK03	804932	7484264	400	85	-50	80.0
JALK04	804960	7485075	400	80	-47	99.4
JALK05	804860	7485075	400	85	-60	130.5
JALK06	804750	7485075	400	85	-60	150.0
JALK07	804665	7485070	400	84	-60	177.9
JALK08	805010	7485070	400	84	-50	87.9

**Note 1** The Exploration Target is based on a number of assumptions and limitations with the potential grade and quantity being conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource Estimate in accordance with the JORC Code and it is uncertain if future exploration will result in the estimation of a Mineral Resource.

# About Talga

**Talga Resources Limited** ("Talga") (ASX: TLG) is a Perth headquartered technology materials company with its own source of integrated supply from multiple advanced and high grade graphite projects in northern Sweden. The flagship project "Vittangi" is at development stage and like the rest of the projects, it benefits from established high quality infrastructure in Sweden including proximity to grid power, road, rail and ports.

Two of the five graphite projects have unique ore that allows graphite and graphene to be liberated at an atomic level in a ground breaking and extremely cost effective way. The graphene produced is of a high quality and suitable for a range of large volume composite and additive applications as well as high technology applications.

Talga's legacy non graphite assets in Sweden and Australia, including a cobalt-rich IOCG deposit, are all to be commercialised to provide funds for the core graphite projects.

#### **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information compiled and reviewed by Mr Mark Thompson, who is an employee of the Company and a member of the Australian Institute of Geoscientists and Mr Simon Coxhell, a consultant to the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Thompson and Mr Coxhell have sufficient experience which is relevant to the activity which is being undertaken 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" ("JORC Code"). Mr Thompson and Mr Coxhell consent 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 report that relates to Resource Estimation is based on information compiled and reviewed by Mr Simon Coxhell. Mr Coxhell is a consultant to the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Coxhell has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this document 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" ("JORC Code"). Mr Coxhell consents to the inclusion in this report of the Matters based on this information in the form and context in which it appears.

# **JORC Code 2012 Edition**

# Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Recent exploration at the Jalkunen Graphite Project has comprised the diamond drilling (NTW size:56 mm) of 8 holes totaling 1082 metres. The drilling was completed on a prominent EM anomaly and in the vicinity of 3 historic holes previously drilled to test the anomaly.</li> <li>Drill hole collars are surveyed with a hand held GPS. Drill core systematically logged. Samples were logged for lithology, alteration, weathering and mineralisation.</li> <li>Diamond core of 56 mm diameter (NTW) was produced and cut in quarter half, with 1 meter samples (approx. 3kg/sample) being submitted for analysis. A total of 48 elements were analyzed for via ICP following 4 acid digest.</li> <li>Graphitic Carbon was analyzed via ALS method C- IR18, "Graphitic Carbon via Leco".</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</li> </ul>	<ul> <li>Conventional diamond drilling producing core with a diameter of 56 mm, classed NTW. Core was not orientated.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Diamond Core recoveries are logged and recorded in a database. In general excellent recoveries (&gt;95% returned).</li> <li>Careful drilling techniques in areas of broken ground are employed with communication between the geologist and drillers to maximise the understanding and recovery.</li> <li>Insufficient data is available, but given the nature of the competent diamond core, no sample bias expected.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological logging of diamond core captures lithology, mineralogy, mineralisation and structural observations. Core is photographed in both wet and dry states.</li> <li>Diamond core logging is a primarily a qualitative activity with pertinent relevant features recorded: lithology, mineralogy, mineralisation, structural, weathering, alteration, colour and other features of the samples.</li> <li>All samples were logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Core was cut in quarter, prepared into nominal 1 metre composite samples, with an average weight of 3-3.5 kilogram.</li> <li>All diamond core.</li> <li>The sample preparation for all samples follows industry best practice and was undertaken by ALS in Ojebyn, Sweden. The samples are dried and pulverised to produce a sub sample for analysis. Sample preparation involving oven drying, coarse crushing, followed by total pulverisation LM2 grinding mills to a grind size of 85% passing 75 microns.</li> <li>QC for sub sampling follows ALS procedures, and is reviewed by the company. In addition blanks and standards (1:30) are inserted into the sample runs, on a blind basis.</li> <li>No field duplicates have been taken.</li> <li>The sample sizes are considered to be appropriate to correctly represent the style of mineralisation.</li> </ul>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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 derivation, etc.</li> <li>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.</li> </ul>	<ul> <li>The laboratory uses a four acid digest multi-element suite with an ICP/MS and ICP/AES finish on a 25 gram sub sample. Both total carbon and graphitic carbon are analyzed. The technique is considered a total digest and analysis.</li> <li>No geophysical tools were used to determine any element concentrations at this stage.</li> <li>Laboratory QA/QC involves the use of internal lab standards using certified reference material, blanks, splits and duplicates as part of the in house procedures. Blind blanks and standards are inserted by the company at a rate of 1:30.</li> <li>Lab repeat or duplicate analysis for samples shows that the precision of samples is within acceptable limits.</li> <li>Grind size checks by the laboratory (1:25) reveals all samples have a grind size of &lt;75micron.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The Company's Exploration Manager has visually reviewed the diamond core samples and correlated results with the geology.</li> <li>No twin holes have been drilled.</li> <li>Data captured on logging sheets and transferred to a series of excel spreadsheets, prior to import into Micromine and merging of electronic sample analytical result data.</li> <li>No adjustments or calibrations were made to any assay data used in this report.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All samples have been located by GPS. Downhole surveys are captured using the Deviflex downhole system with readings every 3 metres captured.</li> <li>The grid system is Swedish Coordinate System Sweref 99, which correlates with WGS84 Z 34 Northern Hemisphere.</li> <li>Topographic control is based on broad topographic data and is adequate for the wide spaced exploration completed.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill hole spacing varied. See attached plans, cross sections and tables. A total of 2 sections were drilled.</li> <li>The work completed is at a scoping stage, the drilling was designed to verify and test the continuity of a stratigraphic graphite unit, interpreted from EM and indicated by rock chip samples. The data will be useful at verifying exploration targets in the area, and will assist with the estimation of inferred JORC compliant mineral resource.</li> <li>Regular one metre samples have been collected from the diamond drilling and submitted for analysis.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>At this stage the orientation is considered appropriate for the sampling completed, with the drill holes drilled perpendicular to the interpreted strike of the geological units and graphite mineralisation.</li> <li>No orientation based sampling has been identified at this stage of the exploration.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Chain of custody is managed by the Company.</li> <li>Samples are transported to the laboratory via registered couriers with samples safely consigned to ALS for preparation and analysis.</li> <li>Whilst in storage, they are kept in a locked yard. Tracking sheets are used track the progress of batches of samples.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No review of the data management system has been carried out.

# Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Jalkunen Graphite Project is located on licences Jalkunen nr 1 owned 100% by Talga Resources.</li> <li>The licence is wholly owned by the company and is located on forested areas. No native title issues, historical sites or environmental area are known to exist.</li> <li>The licence is in good standing with no known impediments.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	• The area has been intermittently explored over the last 30 years for graphite and copper base metal systems. LKAB completed drilling in the area in the late 1970s.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The graphite mineralisation is found in a shallowly dipping 50 metre wide stratigraphic unit interpreted to have developed in a shallow fresh water basin in the early Proterozoic (Circa 1.8 billion years) developed in a sedimentary/volcanic succession of Proterozoic aged rocks. Subsequent deformation has resulted in tectonic movement resulted in a steep to moderate dipping unit located around a central dome feature.</li> <li>The graphite is very fine grained and may be one of the earliest accumulations of organic compounds.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>Drill hole locations are shown in the figures and tables in the text of the report. Appropriate maps and plans also accompany this announcement.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No averaging techniques were used. For the reporting of results a nominal lower cut of 10% Graphitic carbon (Cg) has been used</li> <li>No top cuts have been applied to exploration results.</li> <li>No metal equivalent values are used in this report.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	The orientation or geometry of the mineralised zone is relatively well understood and the reported mineralised drillhole intersections are approximately true thickness of the mineralised zones.
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>The appropriate plans and sections have been included in the text of this document.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>All grades at a nominal 10% graphitic carbon are reported.</li> </ul>

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>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.</li> </ul>	All relevant exploration data is shown in the figures.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Future work at Jalkunen will involve mapping of any outcrops and additional interpretation of the data. A number of additional EM anomalies defined from both airborne surveys and ground based surveys are apparent, and untested at this stage.</li> </ul>