

# ASX ANNOUNCEMENT 26 APRIL 2022

#### NICKELX CONFIRMS HIGH PRIORITY DRILL TARGETS AT COSMOS SOUTH

#### **HIGHLIGHTS**

- NickelX has identified significant magnetic anomalies from a recent close spaced magnetic survey at the Cosmos South Project, located within the world class Nickel producing Wiluna Greenstone Belt (WGB), WA.
- The magnetic survey was undertaken by Drone Geoscience Pty Ltd at 25 m E/W traverses at a height of 30m delivering very detailed geophysical data.
- The survey has confirmed that very strong conductors defined by Moving Loop Electromagnetic (MLEM) and Fixed Loop Electromagnetic (FLEM) surveys are associated with prominent magnetic features consistent with buried channelised komatiite volcanic rocks prospective for nickel sulphide mineralisation.
- The ongoing compilation of geophysical, geochemical and geological data has now defined high priority drill targets for which the Company is now progressing the permitting process and engagement of drilling contractors to test.
- The Wiluna Greenstone Belt (WGB) is currently the subject of one of the world's largest Nickel producing district consolidations with the proposed takeover of Western Areas Limited (ASX:WSA) by IGO Limited (ASX:IGO) and expansion of the BHP Nickel West Leinster Nickel operations.

NickelX Limited ("NickelX", "NKL" or "The Company") is pleased to report that a recent magnetic survey across the Cosmos South Nickel Project has confirmed that very strong conductors defined by MLEM and FLEM surveys are associated with prominent magnetic features consistent with buried channelised komatiite volcanic rocks prospective for nickel sulphide mineralisation.

NickelX contracted Drone Geoscience Pty Ltd to undertake a Drone Magnetic survey in the June Quarter and Southern Geoscience Consultants Pty Ltd to process the data to further map ultra-mafic rocks and identify drill targets.

The Cosmos South Nickel Project is located 10km south of the world-class high-grade Cosmos Nickel operations (Western Areas Limited – IGO Limited) and 20km North of the world class Leinster Nickel operations (BHP – Nickel West), within the prolific Wiluna Greenstone Belt (WGB), WA.

#### NickelX Managing Director Matt Gauci commented:

"The Cosmos South Nickel project ranked highly on our target list and following our due diligence, approval of shareholders and exercise of the Option, the team are excited to have received some very positive results from the close spaced drone magnetic survey indicating prospective magnetic characteristics for ultramafic rocks and co-incident with the existing highly conductive MLEM and FLEM conductors."



### **Cosmos South Nickel Project Summary**

Cosmos South M36/580 is situated within a highly endowed nickel rich region of the Wiluna Greenstone Belt (WGB). The WGB hosts world class nickel deposits of the Leinster Nickel Operations, Mt Keith, Yakabindie, Honeymoon Well and Cosmos (Figure 1).

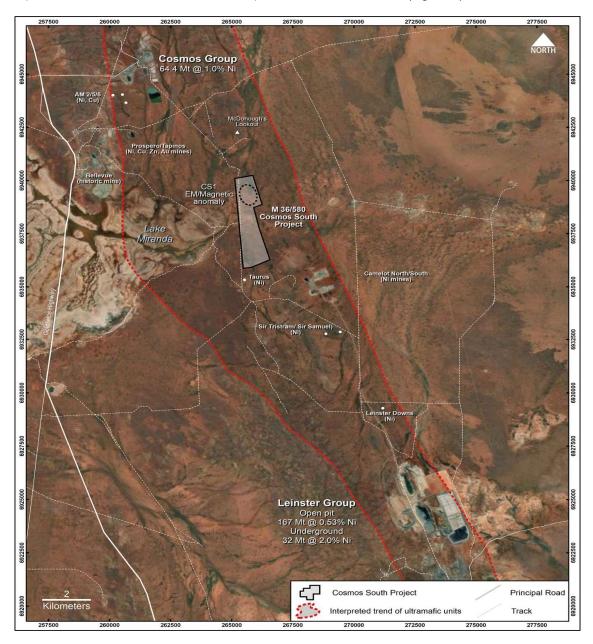


Figure 1. Cosmos South project location within the Wiluna Greenstone Belt (WGB)

The Cosmos South project is covered by recent transported cover sequences associated with the Lake Miranda drainage system. Mapping of subsurface lithology is dependent on interpretation of geophysical data.



#### Completed Drone Magnetic Surveys at Cosmos South Nickel Project

Existing airborne magnetic survey data at Cosmos South was not optimal for use in targeting, having been acquired at 200 m line spacing at a height of 80 m above ground and flown on a bearing sub-parallel to strata of 160-340 degrees. The recent Drone Magnetics survey (Figure 2) was completed on 25 m spaced east-west traverses at a height of approximately 30m above ground, offering significantly better data resolution.

The survey objective of the Drone Magnetics was to better define the magnetic characteristics of the strata associated with the identified MLEM and FLEM conductivity anomaly's and to better map subsurface structure (faults, etc) and lithology based on the results. The resolution of the existing magnetic data was insufficient to map local variations in the interpreted buried komatiite vocanic lithologies that may represent channelised environments within the larger komatiite sequence. Such channelised volcanic flows are critical to formation of nickel sulphide deposits.

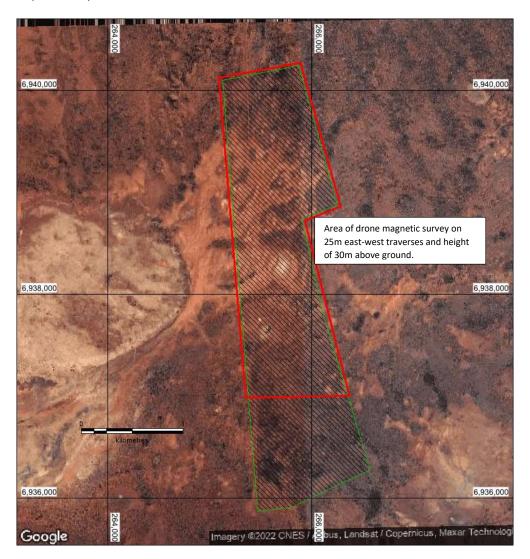


Figure 2: Completed Drone Magnetic Survey traverses at Cosmos South Nickel Project



Approximately 75% of the project area was flown with the drone magnetic survey, adverse weather having forced termination of the survey before the remaining southern portion of the M36/580 tenement could be completed. NickelX plan to complete the remainder of the survey as soon as possible.

### **Drone Magnetic Survey Results**

The results of the drone magnetic survey are depicted in Figure 3.

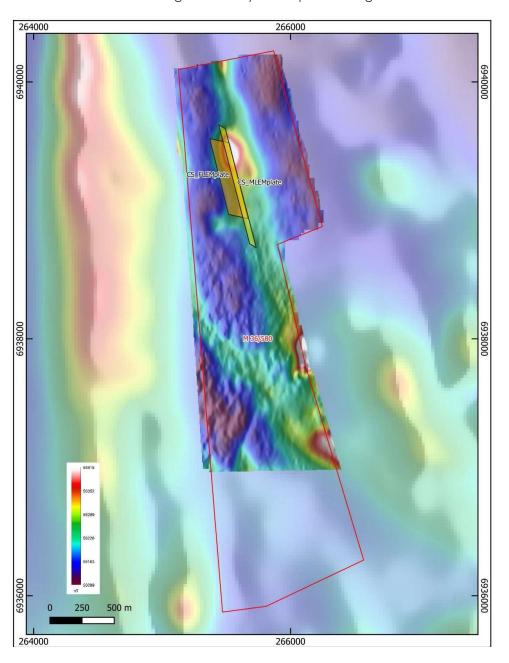


Figure 3: RTP magnetic anomaly map with EM plates modelled from the MLEM and FLEM surveys



The magnetic data has delineated a clear north-northwest magnetic anomaly trend through the centre of the project and coincident with the conductivity plates modelled from the MLEM and FLEM surveys. Furthermore, the refined resolution of the drone survey shows there is a substantial thickening of the magnetic strata and an increase in the magnetic anomaly intensity associated with the northern part of the modelled conductivity anomalies.

Such thickening of the magnetic strata accompanied by an increase in magnetic anomaly intensity is consistent with channelised ultramafic komatiite systems where the thickened sequence of olivine cumulates in the channel environment have been serpentinised, leading to growth of substantial secondary magnetite. Such magnetic responses are considered key exploration criteria for komatiite channel associated nickel sulphide systems such as at Kambalda, Leinster and Cosmos.

The coupling of the magnetic anomaly with the strong conductivity anomalies from the MLEM and FLEM data define a clear high-priority drill target for nickel sulphide mineralisation.

#### **NEXT STEPS**

The Company is currently in the process of obtaining the required access agreements, permits and contractor engagement to drill test the targets identified. Four drill holes are planned (in two sets of two drill holes) to test the near-surface and down dip extension of the conductivity and magnetic features identified (Figures 4 and 5).

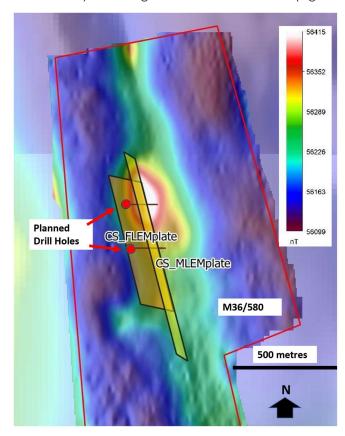


Figure 4: Indicative Drill plan at Cosmos South Nickel Project. Four planned drill holes (2 per drill pad) will test both modelled conductive plates, interpreted as potential Ni-bearing strata at a range of depths.



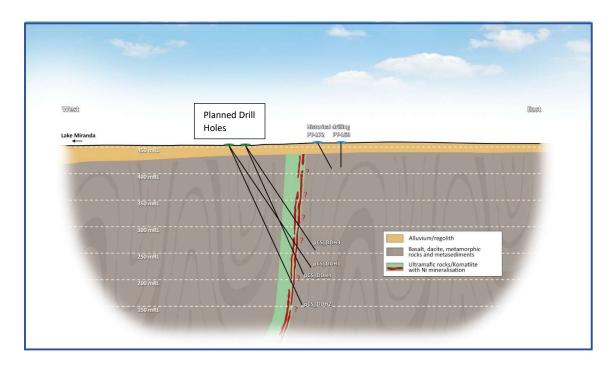


Figure 5: Interpretive cross section showing historical and planned drilling at the Cosmos South prospect. Four planned drill holes (2 per drill pad) will test both modelled conductive plates, interpreted as potential Ni-bearing strata at a range of depths.





This announcement is authorised for ASX release by Matt Gauci, Managing Director of the Company.

ENDS.

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#### **ABOUT NICKELX LIMITED**

NickelX Limited is an Australian, ASX listed, Nickel and Copper exploration company primarily exploring for high-grade Nickel and Nickel-Copper sulphide deposits in Western Australia. The Company is developing an inhouse Nickel prospectivity database, generating projects in the South East and South West Yilgarn district including the prolific Wiluna Green Stone Belt, where the Company has recently acquired the Cosmos South Nickel Project, located in Western Australia.

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

The information in this announcement that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Tony Donaghy who is a Registered Professional Geoscientist (P.Geo) with the association of Professional Geoscientists of Ontario (PGO), a Recognised Professional Organisation (RPO). Mr Donaghy is an employee of CSA Global, an ERM Company, and is contracted as Exploration Management Consultant to NickelX Limited. Mr Donaghy has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Donaghy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statements**

Some statements in this announcement regarding estimates or future events are forward-looking statements. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Statements regarding plans with respect to the Company's mineral properties may also contain forward looking statements.

Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results expressed or implied by such forward-looking statements. These risks and uncertainties include but are not limited to liabilities inherent in exploration and development activities, geological, mining, processing and technical problems, the inability to obtain exploration and mine licenses, permits and other regulatory approvals required in connection with operations, competition for among other things, capital, undeveloped lands and skilled personnel; incorrect assessments of prospectivity and the value of acquisitions; the inability to identify further mineralisation at the Company's tenements, changes in commodity prices and exchange rates; currency and interest rate fluctuations; various events which could disrupt exploration and development activities, operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions; the demand for and availability of transportation services; the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks and various other risks. There can be no assurance that forward-looking statements will prove to be correct.

## **JORC Code, 2012 Edition – Table 1**

## **Section 1 Sampling Techniques and Data**

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

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 down hole 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.</li> <li>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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Drone aeromagnetic survey carried out by Drone Geoscience (DG) over project in March 2022.</li> <li>Data acquired along E-W survey lines spaced 25m apart covering the northern and central part of the tenement M36/580. 131 lines were surveyed for a total of 130 line kms. The sensor was flown at an average of 16m above land surface.</li> <li>No drilling, drill sampling or assays reported.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg 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).</li> </ul>	No drilling, drill sampling or assays reported
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>	No drilling, drill sampling or assays reported
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> </ul>	No drilling, drill sampling or assays reported

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <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> <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 sub-sampling 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> </ul>	No drilling, drill sampling or assays reported
0 1" 1	Whether sample sizes are appropriate to the grain size of the material being sampled.	
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>No drilling, drill sampling or assays reported</li> <li>See link Magnetometer - Drone Geoscience</li> <li>Magnetometer is Custom UAV MFAM</li> <li>Laser pumped cesium vapor (Cs133 non-radioactive) total field magnetometer</li> <li>Operating Range: 20,000 to 100,000 nT</li> <li>Gradient Tolerance: 10,000nT/m</li> <li>Noise/Sensitivity: 0.005nT/ Hz rms typical</li> <li>Sample Rate: 1000 Hz. synchronized to GPS 1PPS</li> <li>Bandwidth: 400Hz</li> <li>Heading Error: ± 5 nT (heading error can be effectively reduced to sub 0.1nT by compensation pre flight calibrations)</li> <li>GPS located for Northing and Easting</li> <li>Radar controlled flight elevation (ie Terrain Hugging) from 2 meters AGL to 80m AGL</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>	Final magnetic data reviewed, processed and interpreted by external geophysical consultants Southern Geosciences.

Criteria	JORC Code explanation	Commentary
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>Data acquired using GDA94 datum and MGA zone 51.</li> <li>GPS located for Northing and Easting</li> <li>Radar controlled flight elevation (ie Terrain Hugging) from 2 meters Above Ground Level (AGL) to 80m AGL</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>See Sampling Techniques section</li> <li>Drone Magnetomer survey line spacing is considered appropriate for style of target mineralisation.</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>Drone Magnetometer survey lines designed to be near-perpendicular to the general geological strike and are considered to be appropriate for the project area.</li> </ul>
Sample security	The measures taken to ensure sample security.	No drilling, drill sampling or assays reported
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No drilling, drill sampling or assays reported

## **Section 2 Reporting of Exploration Results**

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

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>Cosmos South Project comprising tenement M36/580, 100% owned by NickelX Limited. Tenement is in good standing.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>NKL purchased the tenement April, 2022. Previous owner MG Resources Pty Ltd conducted the following exploration:</li> <li>A MLEM, completed by Vortex Geophysics at M36/580 prospect in</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>April 2017, was primarily designed to identify massive sulphide targets. A total of 68 stations encompassing a total of 6 line kilometres were completed at the M36/580 Prospect.</li> <li>The MLEM survey was followed up by a Fixed Loop EM survey.</li> <li>See NKL ASX Announcements for details of past exploration: <ul> <li>20 January 2022. NickelX Defines High-Priority Nickel Targets at Cosmos South.</li> <li>25 November 2021. NickelX To Acquire Cosmos South in The Leinster Nickel Belt</li> </ul> </li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	Komatiite volcanic-hosted magmatic nickel sulphide mineralisation
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>No drilling, drill sampling or assays reported</li> <li>Geophysics data sampling is GPS located for Northing and Easting</li> <li>Radar controlled flight elevation (ie Terrain Hugging) from 2 meters AGL to 80m AGL</li> </ul>
Data aggregation methods	<ul> <li>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.</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>	No drilling, drill sampling or assays reported
Relationship between mineralisation widths and intercept	<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 (eg 'down hole length, true</li> </ul>	<ul> <li>No drilling, drill sampling or assays reported</li> <li>Subsurface geology is speculative until drill testing can be caried out.</li> </ul>

Criteria	JORC Code explanation	Commentary
lengths	width not known').	
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>	Relevant maps are shown in the announcement
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>No drilling, drill sampling or assays reported</li> <li>All magnetic data is freported</li> </ul>
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>	Relevant details are given in the announcement
Further work	<ul> <li>The nature and scale of planned further work (eg 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>Drill testing of the anomalies defined. Relevant details are given in the announcement.</li> </ul>