# drake resources

ASX Announcement 1<sup>st</sup> September 2014

# VTEM Survey Completed at Sulitjelma And Løkken Drilling Final Assays. Drake / Panoramic JVs

- VTEM surveying over JV claims at Sulitjelma region completed
- Sulitjelma has been a major historic copper producer with 25Mt @ 1.8%Cu and 0.86% Zn previously mined
- Five Løkken drill-tested EM conductors explained by "vasskis" exhalative iron sulphides with minor associated copper / zinc mineralisation interpreted to be part of the regional massive sulphide bearing horizon

Drake, with its joint venture partner, Panoramic Resources Limited, advises that VTEM+ electromagnetic and magnetic surveying, was completed on 31<sup>st</sup> August at its **Sulitjelma Project** in Northern Norway. The 767 line kms program, funded by Panoramic Resources, is the first exploration program in the area for 20+years. The area has had significant historical copper production of 25 million tonnes of ore containing 1.8% copper, 0.86% zinc, 10 g/t silver and 0.25 g/t gold between 1887 and 1991. Results are expected in September.

At the **Løkken Project** in central western Norway, assay results for the drillholes drilled to test the 5 selected EM conductors identified by the 2012 VTEM survey have been received (Table 1).

Four of the drillholes, Halsetåsen, Kong Karl, Jordhus and Damlia intersected at least one and in some cases numerous "vasskis" horizons within the modelled target EM conductor plates which explained the EM anomaly. At Kviknan the EM conductor was a graphitic unit with minor pyrite and pyrrhotite mineralisation.

"Vasskis" is the Norwegian term for an exhalative iron formation unit and is comprised largely of pyrite +- magnetite, cherty silica, jasper.

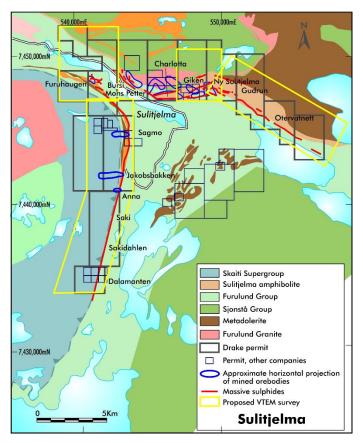
Vasskis horizons occur lateral to the main Løkken orebody within the dominant basaltic pillow lava sequence typical of the classic Cyprus type copper orebodies. They may be proximal or distal to the orebody. A study of the geochemistry of the vasskis in more detail might provide indicators and vectors to ore grade copper zinc mineralisation in the vicinity.

The next steps at Løkken will be considered as part of the broader Drake/Panoramic JV strategy once the Sulitjelma VTEM survey results are interpreted.

#### **Drake Portfolio and Panoramic JVs**

Drake has three projects in JVs with Panoramic Resources – Nordgruva, Løkken and Sulitjelma. . Under the JV terms for each project, Panoramic has the right to sole-fund exploration to earn a 70% interest in the projects. Panoramic sole funded the recent work at all three projects. At Nordgruva and Løkken recent spend exceeded Panoramic's earn-in hurdle to attain a 70% interest with Drake electing to dilute its 30% remaining interest as described under the JV terms. The 70% hurdle at Sulitjelma has not been reached.

Drake's primary assets are the highly prospective Seimana Gold Project in Guinea; the Granmuren near-surface nickel sulphide discovery in Sweden and the Joma copper/zinc project in Norway. Recent results and plans for the three priority projects are summarised in a recent Drake presentation accessible from Drake's website or via the following link.



#### http://www.drakeresources.com.au/videos.html

Figure One: Sulitjelma Plan view showing Drake and other company claims, geology and outline of VTEM survey

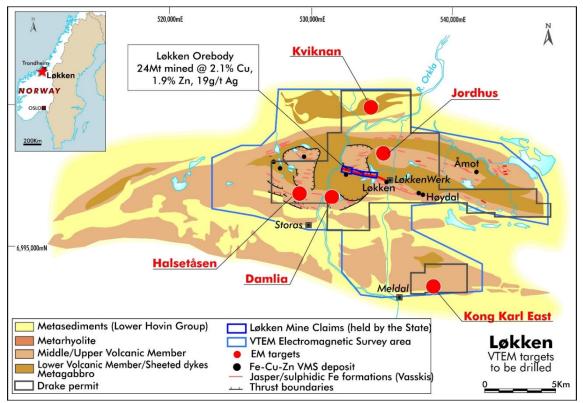


Figure Two: Plan of Løkken claims outline on geology plan showing fixed loop ground EM conductors on which drilling was conducted.

vnich drilling was conducted.									
Drillhole	East	North	Dip	Azimuth	From (m)	To (m)	Width (m)	Cu (%)	Zn (%)
LH001 Halsetåsen	528982	6998550	-65	245	100.61	100.71	0.1	0.03	0.03
					102.75	102.96	0.21	0.03	0.09
					102.96	104.15	1.19	0.02	0.04
					144	144.17	0.17	0.02	0.01
					147.33	147.54	0.21	0.05	0.03
					150.63	150.89	0.26	0.02	0.03
LK001 Kviknan	533230	7004405	-75	180	75.63	75.74	0.11	0.01	0.01
LKK001 Kong Karl	538543	6991822	-45	0	126.95	127.06	0.11	0.02	0.00
LJ001 Jordhus	534750	7001580	-70	180	113.85	113.97	0.12	0.01	0.03
					116.33	116.76	0.43	0.01	0.04
					167.65	169.47	1.82	0.01	0.06
					171.36	171.66	0.3	0.01	0.01
LD001 Damlia	531452	6998522	-50	235	195.87	196	0.13	0.03	0.03
					199.28	199.9	0.62	0.04	0.03

Table One: Drill results from sulphide intercepts at target depths at the 5 Løkken Drill holes.

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#### **Competent Persons Statement**

The information in this report that relates to exploration results is based on, and fairly represents, information and supporting documentation compiled by Dr Bob Beeson. Dr Beeson is a member of the Australasian Institute of Geoscientists, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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). Dr Beeson consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

#### Caution Regarding Forward Looking Information.

This document contains forward looking statements concerning Drake. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes. Forward looking statements in this document are based on Drake's beliefs, opinions and estimates of Drake as of the dates the forward looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments

## **APPENDIX 1 - JORC Code, 2012 Edition – Table 1 report template – Løkken Drill Results**

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

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

Criteria	JORC Code explanation C	ommentary
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>	

Criteria	JORC Code explanation Co	ommentary
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>	<ul> <li>Diamond Core (NQ) drilled to intersect modelled conductor plates.</li> <li>Drill core was placed in wooden boxes, the boxes labelled according to drill hole number and metres and closed for transport.</li> <li>Core was oriented at the end of each run.</li> <li>Plan view and plot of drill section was done in Mapinfo/Discover using downhole survey data obtained by the drillers using Reflex EZ-TRACK survey equipment at 3m interval.</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>Recoveries were logged and recorded in a drilling database</li> <li>As almost all core recovery was excellent (100%), it was unnecessary to take additional measures to improve recovery and the representivity of samples.</li> <li>As almost all core recovery was excellent (100%), there appear to be no sampling or recovery factors that could materially bias the accuracy or reliability of the sampling results.</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>All core was logged at the Løkken core library on the project site, where major lithological units, structure, alteration, and mineralogy is recorded using text, numeric codes, or percentages and entered into Excel spread sheet daily.</li> <li>Prior to being sampled, all core sections were photographed using a digital camera and the wet and dry photos are downloaded to the main office computer.</li> <li>The final logs include a header sheet with collar coordinates and down hole survey data.</li> <li>There has been no geotechnical testing completed on the diamond core.</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 sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in</li> </ul>	<ul> <li>Technicians at NGU Løkken facility saw the core in half longitudinally using core saws with a diamond blade. Half core was used in all sample preparation and assays.</li> <li>Sample lengths are based on mineralisation intervals and so sample thicknesses were variable. Standards or blanks are inserted by the laboratory. Pulps will be re assayed by another laboratory.</li> <li>Drill core samples analysed at ALS Global were first prepared at ALS' preparation lab in Pitea, Sweden. There samples were logged in their</li> </ul>

Criteria	JORC Code explanation	Commentary		
	<ul> <li>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 materia being sampled.</li> </ul>	<ul> <li>tracking system, then weighed and the entire sample was fine crushed to better than 70% -2mm. A split off 1000 gram sample was then pulverized to better than 85% passing 75 microns. These pulps were then shipped to Vancouver, B.C by commercial aircraft for completion of analytical work.</li> <li>Sample sizes are considered appropriate to give an accurate indication of mineralisation.</li> <li>No field duplicates were taken but duplicate pulp check swill be sent to another laboratory</li> </ul>		
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laborato 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 accuracy (ie lack of bias) and precision have been established.</li> </ul>	method MEICP 61a Quality Assurance/Quality Control (QA\QC) according to the ALS Minerals Quality Management System included standards and blanks routinely inserted into the sample stream with at least one standard sample inserted per sample batch submitted to the laboratory.		
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>An independent geologist and technical personnel at Drake Resources visually verified significant intersections of the core.</li> <li>Primary data was collected using a standard excel template with lookup codes</li> <li>Assay results for samples and quality assurance/quality control (QA/QC) materials are entered into the IO Global database when received. All assay and QA/QC results are received electronically and uploaded.</li> <li>No adjustment of assay data, nor twinned holes were undertaken.</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 use in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Collar locations for the drill holes were established using a handheld Global Positioning System (GPS) with an accuracy of approximately 3m.</li> <li>A Reflex EZ Track survey instrument was utilized for surveying deviations of drill hole. Surveys were progressively taken typically at 3 metre increments down the hole.</li> <li>Drill hole collar location are surveyed in Universal Transverse</li> </ul>		

Criteria	JORC Code explanation	Commentary
		Mercator (UTM) coordinates, WGS84 UTM Zone 32N.
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 classification applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	1.82m.
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>	of
Sample security	The measures taken to ensure sample security.	<ul> <li>Core was logged and stored at The Løkken core library prior to being cut, sampled there and sent by courier to ALS laboratory and sample preparation facility in Piteå Sweden, prepared and then despatched by airfreight to Vancouver Canada for analysis.</li> <li>Once the core has been cut, the unused core and half core will remain in the Løkken core library in Norway.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• No audits or reviews have been conducted at this stage.

## 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>Løkken is part of the Drake Resources Ltd / Panoramic Resources Joint Venture Løkken exploration claims (Løkken 1 – 26) covering about 96.9 square kilometres, in the historical mining district of Løkken in central westernNorway. The Løkken claims are covered by a joint venture arrangement with Panoramic Resources under which Panoramic can earn-in to 70% ownership by reaching certain spend targets.</li> <li>The claims were issued 15th March 2011 and have a duration of 7 years. An extraction licence is required to secure ongoing tenure over any resources established on which development may be anticipated.</li> <li>Advice from the Norwegian Mining Directorate is that there are no prior claims or mining titles and that there are no environmental liabilities other than for work programs conducted by Drake during the tenure of the claim.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Prior exploration in the district has been conducted historically by Orkla Industries who mined Løkken and a joint venture between Orkla and Gulf Oil and later Outokumpu in the 1980s. The mine ceased operating in 1986. Operational production figures quoted for the Løkken Mines were obtained from the Norwegian Geological Survey (NGU).</li> <li>The EM conductors drilled in this program were identified by the 2012 VTEM survey and had not previously been identified or drilled by these prior exploration groups.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>The Løkken Cu Zn mines occur within an inverted pillowed lava basalt sequence intruded in part by gabbro dykes or sills, metamorphism is of amphibolite grade. Mineralisation is dominated by the sulphides pyrite, chalcopyrite sphalerite and pyrrhotite. The closest modern day analogue would appear to be the Cyprus Type deposit in the Mediteranean Sea where black smoker vents and exhalations and associated sea floor and sub sea floor replacement deposits formed at depth on a sea floor.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The area has been substantially deformed during the Caledonide orogeny with mineralisation and host rocks contained with thrusts and knappes.</li> <li>Mineralisation at Lokkken is expected to be of Cyprus type.</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>	• Refer to table in body of text
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>	<ul> <li>No top cuts have been applied to Table 1, and no composite grades have been calculated.</li> <li>No metal equivalent values are used</li> <li>The results are sufficiently low that cut offs have not been employed.</li> </ul>
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	<ul> <li>The orientation of mineralised structures was ascertained and therefore orientation based sampling was conducted.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being</li> </ul>	Refer to figure in body of text

Criteria	JORC Code explanation	Commentary
	reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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>	• All mineralised intercepts are reported in Table 1.
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.	<ul> <li>A VTEM survey over the broader area identified numerous anomalies within the Roros claim area. The particular target chosen for this hole was a very large and deep ground based Fixed Loop EM conductor</li> <li>No metallurgical work has been conducted</li> </ul>
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>	• Further work on the Kongens South conductor is unlikely