

# Quarterly Activities Report

## 30 September 2018



- IP survey program detected chargeable and resistivity anomaly responses
- Implications for further geophysical exploration throughout Peako's deeply weathered and structurally complex East Kimberley tenements
- Field season activities included siteworks and helicopter sampling
- New East Kimberley Tenement granted

### PROJECTS

#### East Kimberley Projects

Peako has interests in two exploration licences in the East Kimberley Province, E80/4990 (the Eastman Project) in which it is earning a 60% interest and the newly granted E80/5182 in which it has a 100 % interest.

The tenements are largely located on Louisa Downs Station, 120 km southwest of Halls Creek, Western Australia. Access to the tenement is via the Great Northern Highway and station tracks.

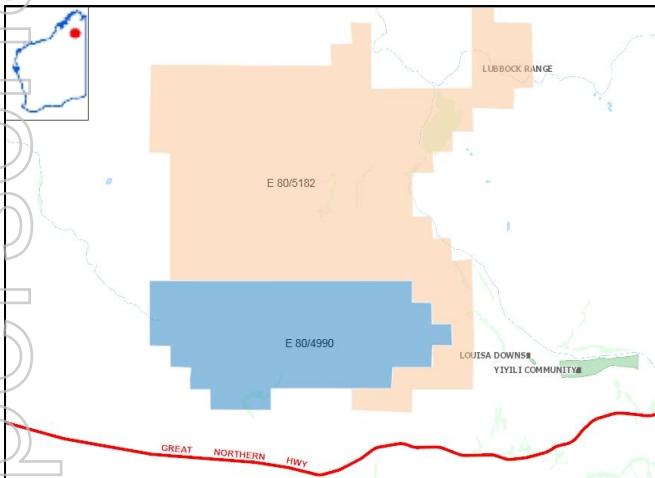


Figure 1 Location of East Kimberley Tenements.

Historical exploration in both tenements has been primarily guided by surface gossans and geochemistry and only the more significant geochemical anomalies have been tested by limited drilling.

Most previous exploration in the Eastman Project tenement was carried out in the southeastern part. Geochemical and geophysical targets in the central and western part of the tenement remain largely untested beneath transported sand and gravel regolith cover.

Previous exploration in E80/5182 has been sparse and sporadic, with a small number of explorers having pursued a wide range of mineralisation styles and different commodities over a large area.

Wide-spaced and generally shallow drill intercepts of strongly anomalous gold and base metal mineralisation have been identified, but not been effectively followed up in either tenement.

Field work conducted during the quarter included compilation of historical exploration data and reports, siteworks, reprocessing of geophysical data sets, induced polarisation (IP) surveying, and geological reconnaissance and a helicopter sampling survey conducted across both tenements.



Figure 2 Helicopter sampling survey.

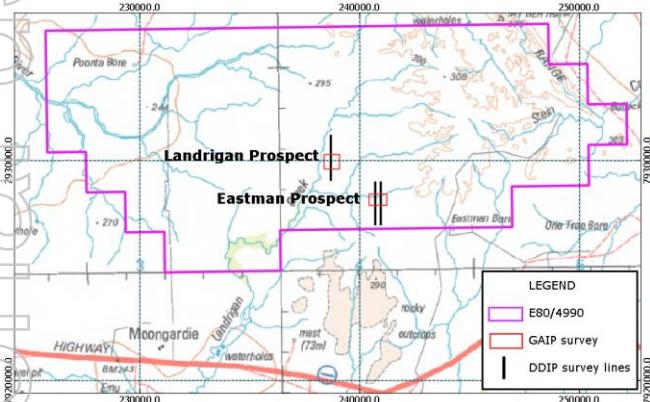


Figure 3 Field season activities.



**Figure 4** Copper outcropping in E80/5182.

The IP geophysical survey in the Eastman project tenement was acquired by Moombarriga Geoscience Pty Ltd, and was comprised of two gradient array IP (GAIP) survey grids and three dipole-dipole IP (DDIP) survey lines (Figure 5).



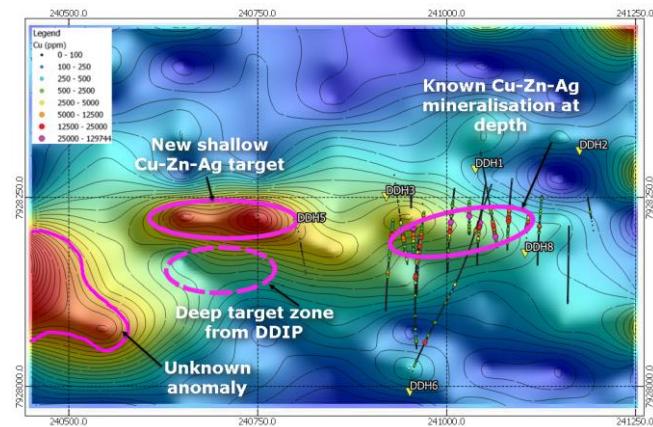
**Figure 5** Eastman tenement over 1:250,000 topography map showing location of GAIP surveys and DDIP survey lines.

The IP survey program was designed to target subsurface base metal sulphide mineralisation and improve our understanding of the structure and geology of the Eastman and Landigan prospects. The prospects were originally defined by historic drillhole intersections, including: 7m @ 0.58g/t Au, 35.2g/t Ag, 1.2% Cu, 2.3% Pb and 3.4% Zn at Eastman, and 9.6m at 2.7% Cu, 1.5% Zn, 0.3% Pb, 12.6 g/t Ag and 1.5 g/t Au at Landigan<sup>1</sup>.

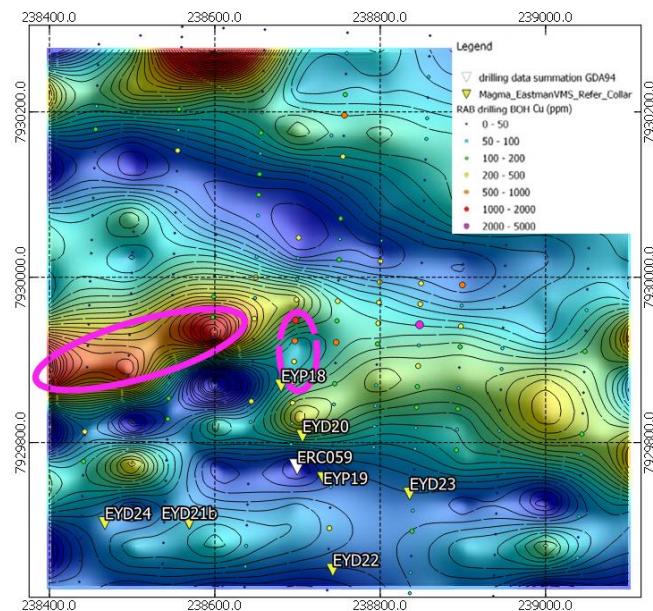
A further objective was to enable Peako to assess the applicability of IP survey methods to detect chargeable and resistive anomaly responses within the Eastman and Landigan prospect areas. The positive results from the IP survey have implications for further geophysical exploration throughout both of Peako's East Kimberley tenements, where past exploration has been inhibited

by significant superficial transported regolith cover, deep weathering and structural complexity.

The IP survey data highlighted weak chargeable anomalies and shallow resistive anomalies coincident with known mineralisation, with additional stronger shallow and deep chargeable anomalies identified which have not yet been tested by drilling at both prospects (Figures 6 and 7).



**Figure 6** Eastman GAIP survey area map showing chargeability response, contours, historical drilling Cu assay results and new target outlines.



**Figure 7** Landigan GAIP survey area map showing chargeability response, contours, historical drilling Cu assay results, and new target outlines.

Geophysical consultants, Resource Potentials Pty Ltd, are presently processing, modelling and interpreting the IP data, in conjunction with other exploration information which has been compiled by the Company. The geophysical interpretation and targeting results will be used by the Company to plan deep drillholes for a maiden drilling program at the Eastman Project

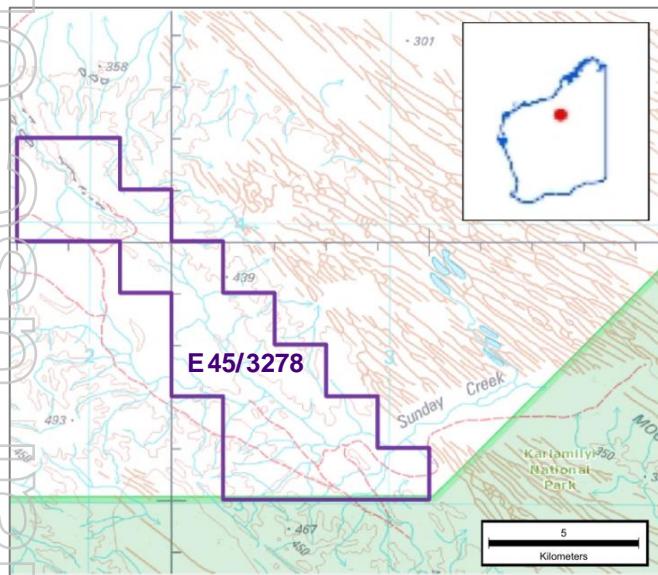
<sup>1</sup> Refer to the Company's ASX Announcement dated 15 August 2018

aimed at extending known Zn-Cu-Pb-Ag-Au mineralisation at depth and along strike, which remains open, based on analysis of historical drilling.

## Paterson Province

### Sunday Creek Project

Peako's Sunday Creek tenement is located in the Rudall River area of the Paterson Province of Western Australia, known for its gold, base metals and uranium potential.



**Figure 8 Sunday Creek Project Location.**

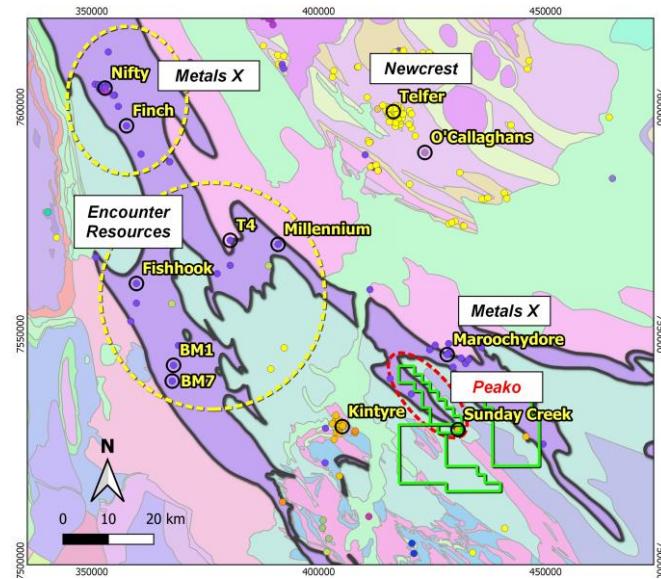
Historically, the Sunday Creek Project has mainly been explored for uranium mineralisation in the eastern part of the project area, with little exploration carried out for base metal mineralisation.

According to historical geological mapping, the bedrock geology of the project area is entirely made up of carbonaceous shales and siltstones of the Broadhurst Formation, and quartz sandstones and siltstones of the underlying Coolbro Sandstone Formation.

The location of Broadhurst Formation shales are shown in regional GSWA bedrock geology maps to extend along strike to the north west of Sunday Creek, where the shale units host the Metals X Nifty Cu deposit, as well as several Cu and other base metal prospects (mainly Pb-Zn) held by Encounter Resources and others (Figure 9).

Peako is using geophysical methods to identify base metal target zones for investigation. Previously acquired open-file airborne EM data acquired along 1km spaced east-west flight lines has been re-processed to assist with highlighting broad scale

conductivity patterns, estimating thickness of regolith and Permian Paterson Formation sedimentary cover, and estimating depth to top of conductive Broadhurst Formation shale units.

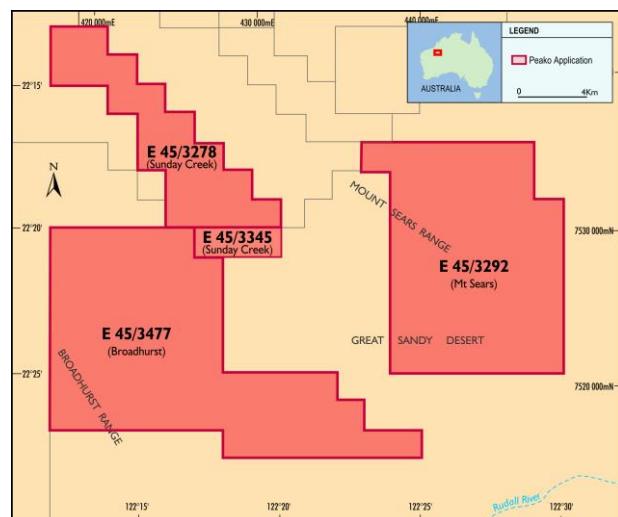


**Figure 9 Broadhurst Formation (yellow) overlain on aeromagnetic image mosaic.**

3D inversion modelling has been carried out on a high-resolution airborne magnetic survey data set acquired by Peako in 2008. As well as allowing for the identification of relatively shallow pyrrhotite rich beds within the Broadhurst Formation sitting below regolith cover, the resulting magnetic inversion models can be used to assist with mapping and targeting of prospective fold and fault structures within the Broadhurst Formation.

## Paterson Province Application Areas

Peako also has three long standing applications for exploration licences located close to its Sunday Creek Project (Figure 10).



**Figure 10 Paterson Province tenements and application areas.**

## **Runton Project and Durack Ranges Project**

Late in the quarter Peako entered into terms sheet arrangements providing it with a 25% interest in exploration licence E45/3637, as well as a 45% interest in Exploration Licence Application E80/5080.

### **CORPORATE**

During the quarter a line of credit facility was arranged on arms length terms with Peako's chairman Mr. E.G. Albers to provide working capital for the Company's activities.

The Company's share register advised its new business and mailing addresses during the quarter, which are now:

*Office address:* Automic  
Level 5, 126 Phillip Street  
Sydney NSW 2000

*Mailing address:* Automic  
GPO Box 5193  
Sydney NSW 2000

Rae Clark  
Director

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

The information in this report that relates to Geophysical Results is based on information compiled by Dr Jayson Meyers who is a Fellow of the Australian Institute of Geoscientists. Dr Meyers is a consultant to Peako Limited 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. Dr Meyers consents to the inclusion in this quarterly report of the matters based on information provided by him and in the form and context in which it appears.

## Appendix 1: JORC 2012 Table 1

### Eastman Project Tenement Induced Polarisation (IP) Survey

The following information follows the requirements of the JORC 2012 Table 1 Section 1 and 2 and as applicable for the commentary in Peako's Quarterly Activities Report 30 September 2018 related to the results of the IP survey conducted at the Eastman Project Tenement.

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<p>This report relates to the results of induced polarisation (IP) surveys conducted in September 2018. Surveys were conducted by Moombarriga Geoscience Pty Ltd and supervised by Peako and Resource Potentials Pty Ltd personnel. The surveys targeted known mineralization at the Eastman and Landigan prospect at the Company's Eastman Project tenement (E80/4990).</p>

Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> <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>	The ASX release does not report exploration drilling
Drill sample recovery	<ul style="list-style-type: none"> <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>	The ASX release does not report exploration drilling
Logging	<ul style="list-style-type: none"> <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>	The ASX release does not report exploration drilling
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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>	<p>The technical equipment used in the survey was:</p> <p>Gradient Array Induced Polarisation (GAIP) survey sampling information: Surveying carried out by Moombarriga Geophysics using a high powered transmitter with electrode pits aligned along north to south survey lines, spaced at 100m, and using receiver pot electrodes pairs separated by 50m, and using 50m spacing between electrode pairs, with locations surveyed using handheld GPS accurate to +/- 5m.</p> <p>Dipole-Dipole Induced Polarisation (DDIP) survey sampling information: Surveying carried out by Moombarriga Geophysics using</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>a high powered transmitter with north to south survey lines having electrode pot separation of 100m and increments of 100m spacing between electrode pairs, with locations surveyed using handheld GPS accurate to +/- 5m.</p> <p>Both IP survey systems were networked to acquire multiple receiver dipole separations and spacings along individual survey lines for analysing data at wider separations of 100m, 150m, and 200m for increased depth penetration.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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>	Acquired IP data is of high quality – QAQC conducted by Nigel Cantwell of Resource Potentials Pty Ltd, Geophysics Consultant.
Verification of sampling and assaying	<ul style="list-style-type: none"> <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>	N/A
Location of data points	<ul style="list-style-type: none"> <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> </ul>	N/A

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• Quality and adequacy of topographic control.</li> </ul>	
Data spacing and distribution	<ul style="list-style-type: none"> <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>	GAIP surveying using 100m spaced survey lines orientated north-south and 50m electrode pair separation and 50m electrode pair station spacing. DDIP surveying using 100m electrode pair separation and transmitter-receiver pair separation using increments of 100m based on a networked acquisition array.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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>	Survey lines designed to run perpendicular to strike of interpreted geological stratigraphy and mineralisation trends.
Sample security	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	Raw data emailed to consultant geophysicist daily
Audits or reviews	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	N/A