# 4th April 2019 ASX ANNOUNCEMENT

# Four New High Priority Targets Identified at Lamil Project - Paterson Province

# **Highlights**

Four high priority targets identified in airborne magnetic survey

- Large dome structure (Target P1 "Lamil Dome")
  - Major dome (double plunging antiform) trending NNW over 8km in strike
  - **Depth of cover** interpreted to be **100m** (Permian)
  - No previous exploration (drilling or geophysical)
  - Magnetic processing suggests a deep intrusion at depth potentially indicating a mineralising source
  - Target has similar dome size, trend and host rocks to the Telfer Au – Cu deposit (32Moz Au, 1Mt Cu resource), a large dome structure which lies 30km to the northeast
- Large southeast plunging synform (Target P2)
  - A series of magnetic targets highlighted along the hinge zone of a major southeast plunging synform
  - **Depth of cover** interpreted to be **50 100m** (Permian). Sub cropping siltstone (Lamil Group) occurs near the target area
  - No previous exploration (drilling or geophysical)
  - Target has similar characteristics to the Nifty Cu Deposit (2Mt Cu resource) which lies 60km to the northwest
- Northeast structure and dome (Targets P3 and P4)
  - Northeast structure (P3) with significant demagnetisation (alteration and fluid flow) – NE structures known for mineralisation (upgrade overprint at the Nifty Cu deposit)
  - Partial domal, closure and ovoid structures immediately east of Target P1 ("Lamil Dome")
  - No previous exploration at P3 or P4 (drilling or geophysical)

### **Next Steps**

 These significant, high order magnetic and structural targets under shallow cover (up to 100m) will be followed up by definition gravity surveys and subsequent drill testing



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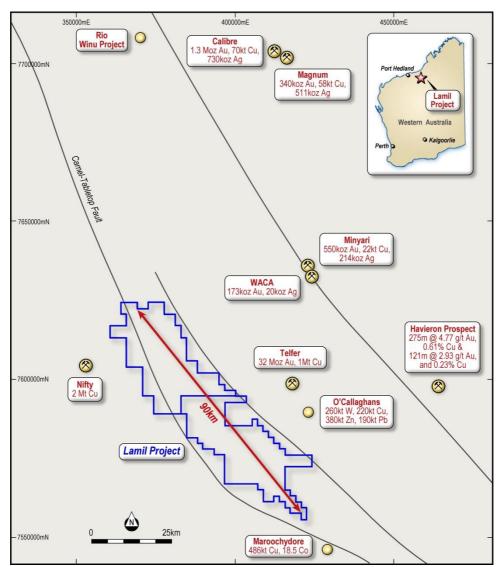
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Rumble Resources Ltd (ASX: RTR) ("Rumble" or "the Company") is pleased to announce the results of a recently flown airborne magnetic survey conducted over the southeast portion of the Lamil Project, located in between the major mining operations of the Nifty Cu mine and the large Telfer Au-Cu mine within the Paterson Province, East Pilbara, Western Australia.



**Image 1** - Lamil Project – located in between Nifty Cu mine and large Telfer Au-Cu mine and within the same region as the recent Winu copper-gold and Havieron gold-copper discoveries within the Paterson Province.

### Paterson Province – Highly Mineralised, Underexplored Region

The Paterson Province is a globally recognised mineralised belt hosting the world-class Telfer gold and copper (32Moz Au, 1Mt Cu resource) and Nifty copper (2 Mt Cu resource) deposits. Other deposits in the province include the Magnum and Calibre gold and copper deposits and the O'Callaghans tungsten deposit.

The highly mineralised Paterson Province region is largely underexplored but has recently been subject to exploration from various groups targeting large scale stratiform Cu, sediment hosted Zn-Pb, potential iron oxide copper gold (IOCG) and sediment hosted vein copper - gold Telfer Style deposits.

Recent developments in the region include mining major Rio Tinto Limited (ASX: RIO) announcing the large **Winu copper-gold discovery** and Greatland Gold plc defining the **Havieron gold-copper discovery**, which has recently been subject to a US\$65m farm in agreement with mining major Newcrest Mining (ASX: NCM).



#### Lamil Project Overview (see image 2)

The Lamil Project (Project) (area of 1375 km²) lies over partly covered siltstones, sandstones and carbonate rocks of the Neoproterozoic Lamil Group which is a part of the Yeneena Basin within the Paterson Province of Western Australia. The Project is located between the major mining operations of the large Telfer gold mine owned by Newcrest Mining and the Nifty copper mine owned by Metals X Limited (ASX: MLX). The Telfer Au – Cu deposit, which lies some 30km to the northeast of the Lamil Project, is hosted by rocks of the Lamil Group. Younger highly fractionated granitic intrusions of the Mt Crofton, Minyari, Wilki and O'Callaghans Suites intrude into the Lamil Group.

The main cover sequence is Permian fluvio-glacial sediments. In the central and north-western portions of the Project area, the Permian cover is deep, however, in the south-eastern portion of the Project area, Lamil Group sediments outcrop and regional geophysics (airborne Tempest EM survey and recently flown magnetics) **indicate the cover is shallow, averaging 50 – 100m.** 

Open File review of the Lamil Project has indicated only 15 drill holes have been completed within the two tenements (ELA45/5270 and ELA45/5271) that form the Lamil Project. In addition, only wide-spaced (400m line spacing) airborne magnetics have previously been conducted over the main Project area.

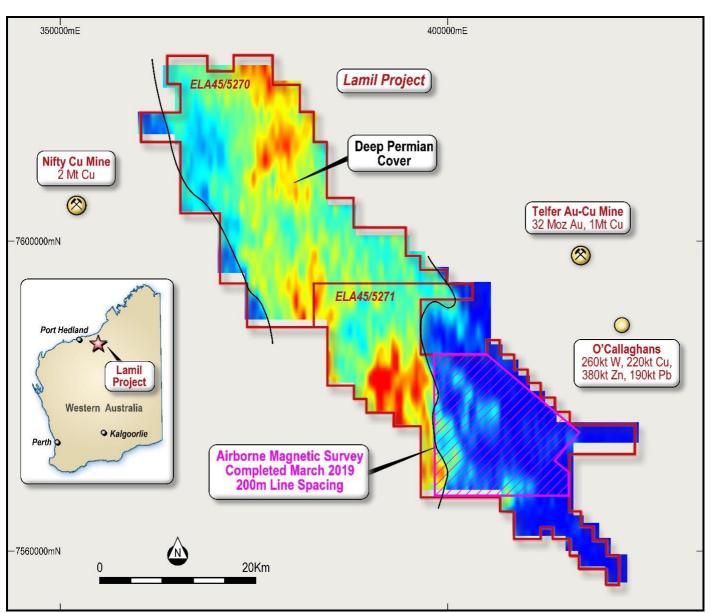


Image 2 - Lamil Project – location with area of new airborne magnetic survey and Tempest Airborne EM (ch15) highlighting area of deep cover

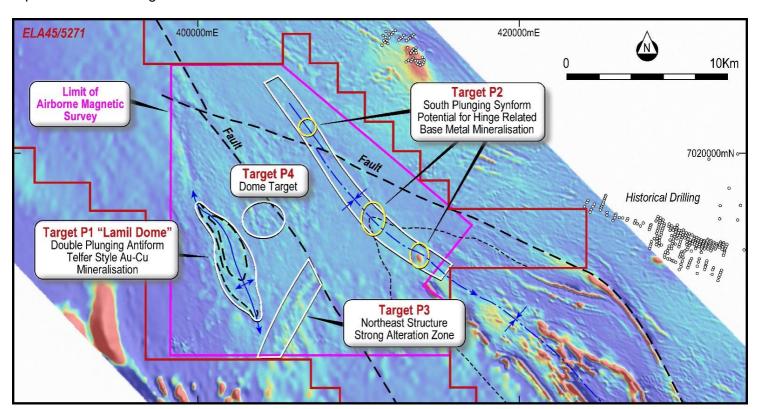


#### Airborne Magnetics Survey (Feb/Mar 2019)

Rumble completed a 1565 line-km survey on 200m line spacing bearing 050 (normal to regional geology) over the southeast portion of the Lamil Project (ELA45/5271). The area is covered by shallow Permian and recent sediments. Sub-cropping siltstones of the Lamil Group have been mapped within the survey area.

#### Four High Priority Targets identified (see image 3)

Four high priority target areas have been delineated from the processed airborne magnetics. Processing included a series of upward continued images designed to highlight deeper magnetic sources which potentially could represent mineralising intrusions.



**Image 3 -** Lamil Project – High priority targets with interpreted structure over merged TMI airborne magnetics, all untested by previous exploration (drilling or geophysical)

#### Rumble's Technical Director Brett Keillor commented:

"The airborne magnetic survey identified 4 high priority targets that have importantly not been tested by previous exploration (drilling and geophysical) and have similar characteristics to significant ore deposits in the region.

The survey has highlighted a major dome structure under relatively shallow cover (up to 100m) which has many characteristics to the world class Telfer Au – Cu deposit which lies some 30km to the northeast.

The large southeast plunging synform with a number of magnetic and structural targets along the fold hinge zone has similar characteristics to the nearby Nifty Cu deposit.

Northeast mineralising structures have been delineated from the latest magnetics and these structures are thought to be important for upgrading and overprinting the Nifty Cu mineralisation.

The latest airborne magnetics completed by Rumble has highlighted at least two potential target styles in an area which has been overlooked due to the previous perception of ubiquitous deep cover."



# Target P1 - Large NNW Trending Dome (informally named the "Lamil Dome") - Image 4

A large NNW trending dome (double plunging antiform) has been inferred over a **strike of 8km** under Permian and recent cover. **Importantly:** 

- The depth of cover is approximately 100m.
- No previous exploration (drilling or geophysical) has tested the target.
- The upward continued magnetic imagery at 500m (UC500m) has highlighted an increase in the magnetic response which may indicate a potential underlying intrusion (image 4).
- The dome has similar characteristics to the Telfer Dome with respect to orientation of the main axial plane, inferred host rocks and size.

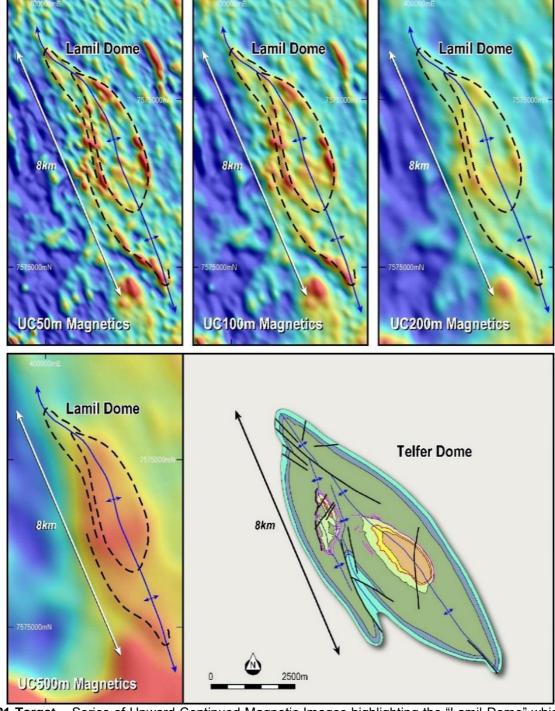


Image 4 - P1 Target – Series of Upward Continued Magnetic Images highlighting the "Lamil Dome" which has similar dome size, trend and host rocks to the Telfer Au – Cu deposit (32Moz Au, 1Mt Cu resource) a large dome structure which lies 30km to the northeast of Rumble's Lamil Dome Target.



#### Target P2 - Large Southeast Plunging Synform (image 3)

A large synform with a southeast plunge has at least three magnetic targets located along the inferred hinge zone of the main fold axis. The host rocks are the Lamil Group (sub-crop has been mapped). **Importantly:** 

- The target has **similarities to the Nifty Cu deposit** (2Mt Cu resource) which lies 60km to the northwest. The Nifty deposit is hosted shales and carbonates of the Broadhurst Formation (older than the Lamil Group) and is a sediment hosted Cu system lying within the keel/hinge zone of a southeast plunging synform with a northeast trending overprint (epigenetic).
- **Depth of cover** interpreted to be **50 100m** (Permian). Sub cropping siltstone (Lamil Group) occurs near the target area.
- No previous exploration (drilling or geophysical)

#### **Target P3 - Northeast Structure (image 3)**

Inferred strong pervasive (demagnetisation) alteration can be delineated along a significant northeast structure immediately south of the "Lamil Dome". Later northeast trending structures (fluid bearing) are thought to have modified and upgraded copper mineralisation at the Nifty deposit (chalcopyrite replacement of earlier metalliferous pyrite).

No previous exploration (drilling or geophysical)

## Target P4 - Dome Target (image 3)

Immediately east of the "Lamil Dome", partial dome structures and closures along with ovoid features potentially reflect deformed domal targets.

No previous exploration (drilling or geophysical)

# **Next Steps**

#### Target P1 - "Lamil Dome"

- Proposed gravity survey to aid in delineating the core of the domal structure and to highlight potential palaeo-topographical highs beneath the cover which may reflect indurate zones of alteration and mineralisation.
- Follow up drilling of targets delineated.

#### Target P2 - Southeast Plunging Synform

- Proposed gravity survey to delineate the hinge/fold axis zone. Structural thickening of known carbonate units within the Lamil Group may potentially outline the trace of the hinge zone.
- Follow up drilling of combined gravity and magnetic targets.

# **Target P3 - Northeast Structure Zone**

- Proposed gravity survey to highlight main structure in association with magnetic targets (demagnetised alteration zones).
- Follow up drilling of targets.

#### **Target P4 - Dome Target**

- Proposed gravity survey (done in conjunction with the "Lamil Dome").
- Follow up drilling of new targets.

Ends -



#### **About Rumble Resources Ltd**

Rumble Resources Ltd is an Australian based exploration company, officially admitted to the ASX on the 1st July 2011. Rumble was established with the aim of adding significant value to its current gold and base metal assets and will continue to look at mineral acquisition opportunities both in Australia and abroad.

#### **Forward Looking and Cautionary Statement**

The information in this report that relates to historic exploration results was collected from DMP reports submitted by government agencies and previous explorers. Rumble has not completed the historical data or the verification process. As sufficient work has not yet been done to verify the historical exploration results, investors are cautioned against placing undue reliance on them.

#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Brett Keillor, who is a Member of the Australasian Institute of Mining & Metallurgy and the Australian Institute of Geoscientists. Mr Keillor is an employee of Rumble Resources Limited. Mr Keillor has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Keillor consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



# **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</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 (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>	Not applicable - no drilling completed.
Drilling techniques	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, facesampling bit or other type, whether core is oriented	Not applicable - no drilling completed.
Drill	and if so, by what method, etc.)	. Not appliable, no drilling
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>Not applicable - no drilling completed.</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>	Not applicable - no drilling completed.
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,</li> </ul>	Not applicable - no drilling completed.

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Criteria	JORC Code explanation	Commentary
	<ul> <li>including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain</li> </ul>	
	size of the material being sampled.	
Quality of assay data and laboratory tests	<ul> <li>Size of the material being sampled.</li> <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>	Not applicable - no drilling completed.
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>	Not applicable - no drilling completed.
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>	Not applicable - no drilling completed.
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>	Not applicable no drilling completed.
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>Not applicable no drilling completed.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Not applicable no drilling completed.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Not applicable no drilling completed.</li> </ul>



# **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 project comprises of two pending exploration licenses – ELA 45/5270 and ELA45/5271</li> <li>The tenements lie between the Telfer Au – Cu and Nifty Cu deposits within the Paterson Province, East Pilbara, Western Australia.</li> <li>ELA45/5270&amp;5271 are 100% owned by Rumble.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Exploration solely completed by Rumble Resources</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Telfer Au – Cu Deposit Style –         Multiple sheeted/conjugate vein         style. Structurally controlled</li> <li>Nifty Cu deposit style. Cu         sediment hosted with structural         and epigenetic overprint.</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>Within the entire project area,         Open File has highlighted only         15 drill holes were completed.         No mineralization is associated         with these holes.</li> <li>No historic drill hole is related to         the new high priority targets         presented in 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>	Not applicable, no drilling or results reported.
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</li> </ul>	<ul> <li>Not applicable, no drilling or results reported.</li> </ul>



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Criteria	JORC Code explanation	Commentary
	are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Image 1 - Lamil Project – located in between Nifty Cu Mine and large Telfer Au-Cu Mine and same region as the recent Winu copper-gold and Havieron gold-copper discoveries within the Paterson Province.
		<ul> <li>Image 2 – Lamil Project –         Location with Area of New         Airborne Magnetic Survey and         Tempest Airborne EM (ch15)         highlighting area of deep cover</li> </ul>
		<ul> <li>Image 3 – Lamil Project – High Priority Targets with Interpreted Structure over Merged TMI Airborne Magnetics</li> </ul>
		<ul> <li>Image 4 – P1 Target – Series of Upward Continued Magnetic Images highlighting the "Lamil Dome" Structure and Comparison with the Telfer Dome</li> </ul>
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Not applicable
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.	During Feb/Mar 2019, a 1565 line km airborne magnetic survey was completed on 200m line spacing by Thomson Aviation Airborne Geophysical Surveys using 20hz (0.05sec) sampling rate and sensor height of 45m. The heading was 050.
		<ul> <li>New 200m line data merged with publicly available 400m line data.</li> </ul>
		<ul> <li>Processing of corrected data by Armada Exploration Services</li> </ul>
		<ul> <li>The government sponsored Tempest airborne EM survey (North Paterson) covers the project area. Channel 15 outlines the deeper Permian cover.</li> </ul>
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> </ul>	<ul> <li>Further work will include ground gravity over the four main targets with drilling follow up of</li> </ul>

