

28 September 2022

FLEM DEFINES PRIORITY EARAHEEDY Cu-Pb-Zn TARGETS

HIGHLIGHTS

- FLEM identifies first drill targets at Earaheedy-Imbin
- FLEM bedrock conductors along strike from the Main Gossan copper occurrence, supported by associated historic gold-silver-copper anomalies and adjacent to major NW trending faults.
- An RC drilling program of ~1,000m will be fast-tracked following heritage clearance and statutory approvals.
- UFF+ geochemical results, expected in coming weeks, will assist in identifying additional targets from the remaining 27 discrete conductors identified by the airborne Xcite™ heli-EM survey.

Lodestar Minerals Limited (“Lodestar” or “the Company”, ASX:LSR) advises that the results of the fixed loop electromagnetic surveys (FLEM) completed over the SC-3, MC-8 and MC-9 conductors identified by the regional Xcite™ heli-EM survey¹ have confirmed and refined model conductors for priority drilling.

Lodestar holds a strategic land position on the northern margin of the Earaheedy Basin, 70km north east from Rumble Resources’ major Zn-Pb discoveries (see Figure 1). The Proterozoic sedimentary-mafic sequence within the project is stratigraphically below the Frere Iron Formation and is believed to have potential to host SEDEX, VMS-style and epigenetic, structurally controlled base metal mineralisation.

Fixed loop EM surveys over the SC-3, MC-8 and MC-9 conductors within the “Imbin corridor” have been modelled as potential massive sulphide Cu-Pb-Zn targets within the sedimentary sequence (see Figure 2). Surface mapping indicates consistent tight to open asymmetric folding about NNW trending fold axes and later folding about east-west trending fold axes. Folds are disrupted by anastomosing NNW trending shears interpreted as NE dipping thrust faults. The models resolved by the FLEM surveys appear to be consistent with these macro structural trends.

¹ See Lodestar’s ASX announcement dated 15th December 2021.

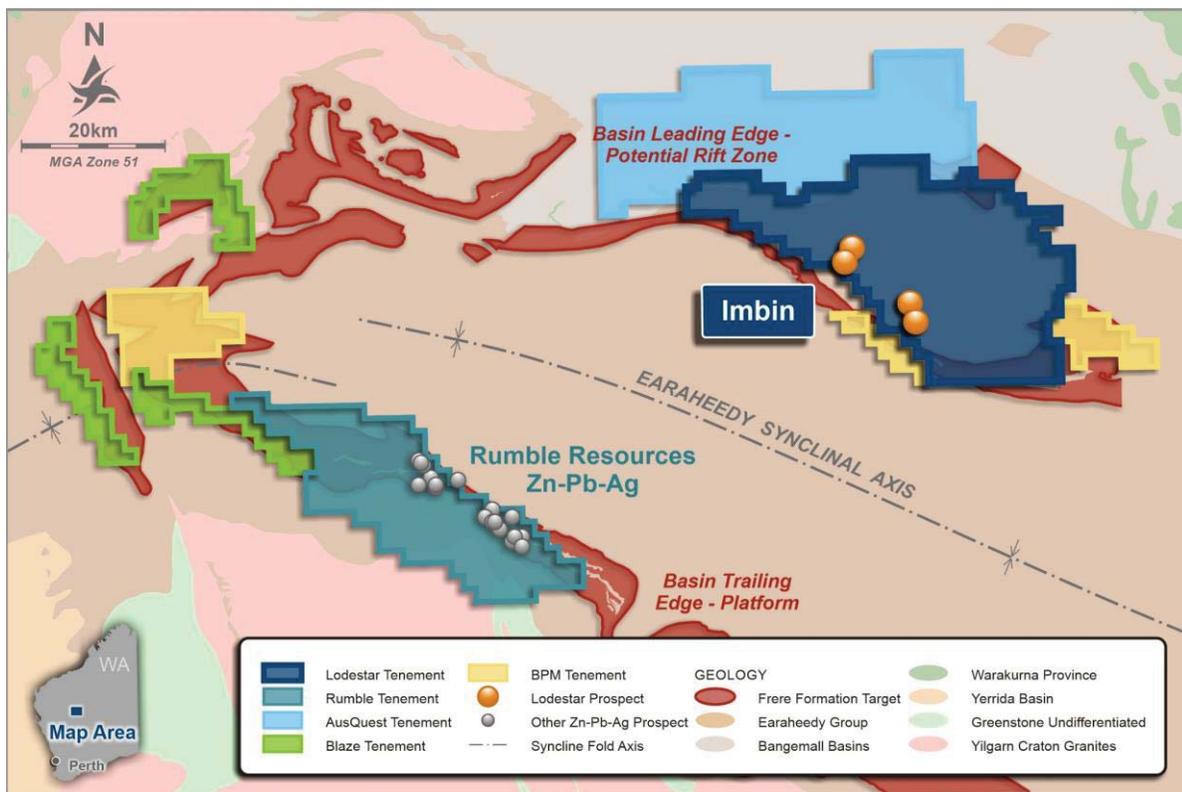


Figure 1 Location of the Earraheedy-Imbin Project.

The SC-3 conductor is located 3.5km southeast of “Main Gossan” copper prospect in an area where historic Zn and Pb anomalies were identified in rock samples². The FLEM survey has resolved a moderate strength conductor (600m x 300m, ~1200-1500S) target dipping 15-25deg to the N-NNE.

The MC-8 conductor is located along strike and 700m north west from the “Main Gossan” copper prospect in an area of deflection in the regional geology. The MC-8 FLEM plate model is interpreted to reflect a folded sequence with north and south dipping limbs/plates; the target plates dip 30-55deg to the SSW (900m x 300m, moderate to high conductance ~1400-4000S) and 40-50deg to the N (600m x 150m, moderate conductance ~2000-2500S), respectively.

The MC-9 conductor is located on the southern fold limb of the ‘North Chert’ prospect. North Chert is an historic prospect where surface copper and gold anomalies have been targeted by wide spaced shallow drilling, generally within the zone of oxidation. The MC-9 target also resolved into an interpreted fold with limbs/plates dipping 10-20deg to the NE (600m x 400m, moderate conductance ~1250-1750S) and 40-60deg to the SW (1000m x >600m, moderate conductance 1000-2000S).

² See Lodestar’s ASX announcement dated 15th December 2021.

There is no previous drilling in the immediate area of the target conductors.

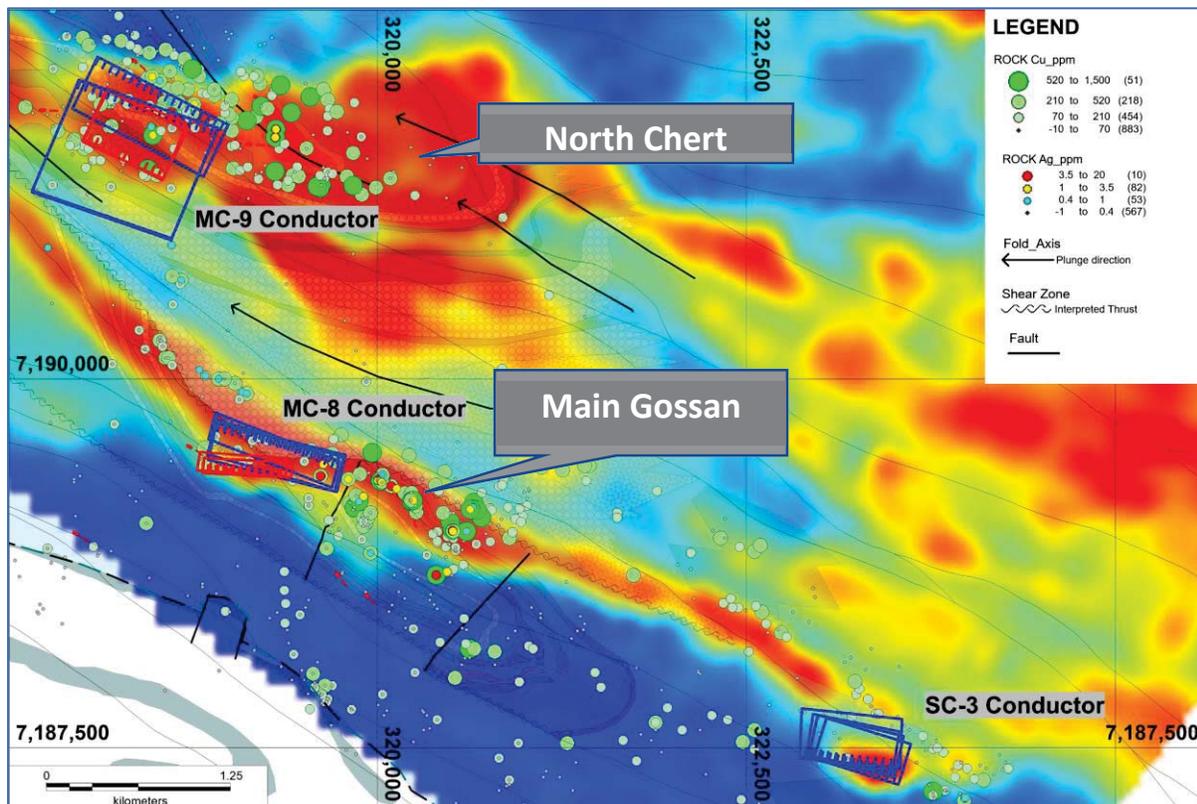


Figure 2 Target FLEM conductors with historic prospects and rock Cu-Ag geochemistry, Background – EM conductivity B-field late-time, SE shade. MGA94 Zone 51.

Next Steps

- A drilling program of ~1,000m in total is designed to intersect each of the target conductors below the base of oxidation. Requests for heritage clearance surveys and statutory approvals will be submitted and site preparation and drilling will commence once approvals are in place.
- The three FLEM conductor targets (SC-3, MC-8 & MC-9) were selected from 30 regional discrete conductors identified within the 20km by 8km area of the Xcite™ heli-EM survey because of proximity to known mineralisation at Main Gossan and historic geochemistry. Results from the regional UFF+™ ultrafine fraction soil sampling are expected in coming weeks and will guide selection of targets to be tested in the main phase of exploration drilling within the Imbin corridor.

This announcement has been authorised for release by the Board of Directors of the Company.

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About Lodestar

Lodestar Minerals is an active Western Australian gold and base metal explorer.

Lodestar's projects comprise the advanced Nepean Nickel Project JV, the Ned's Creek JV and the 100% owned Camel Hills, Earraheedy-Imbin, Jubilee Well, Bulong and Coolgardie West projects.

The Earraheedy-Imbin Project is a major strategic land holding in the emerging Earraheedy Province, site of Rumble Resource's recent and potentially world-class Zinc-Lead discoveries. The Imbin Project is located on the northern margin of the prospective basin and is the site of significant historic copper intersections in drilling and approximately 20km of strike of the target Yelma-Frere unconformity.

Lodestar discovered multiple zones of syenite intrusion-related gold mineralisation at the Ned's Creek Project on the Yilgarn craton margin, 150km west of Imbin. Vango Mining Limited is earning a 51% interest in the Ned's Creek JV by contributing \$5M of expenditure over 3 years.

Bulong and Jubilee Well are located in highly endowed gold districts; first-pass drill programs have been planned and completed at Jubilee Well. Coolgardie West, located 12km west of Coolgardie, has potential for greenstone hosted gold, nickel and LCT pegmatite mineralisation with priority lithium and gold drill targets identified by soil geochemistry.

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Bill Clayton, Managing Director, who is a Member of the Australasian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities 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 Clayton consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information in this announcement that relates to previously released exploration results was disclosed under JORC 2012 in the ASX announcements dated

- 15th December 2021 "Earraheedy-Imbin Exploration Update".

This announcement is available to view on the Lodestar website. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <i>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.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Not applicable.
Drilling techniques	<ul style="list-style-type: none"> • <i>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i> 	<ul style="list-style-type: none"> • Not applicable.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Not applicable.
Logging	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Not applicable.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Not applicable.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	<ul style="list-style-type: none"> Not applicable. Transmitter: DRTX, Current ~57-78A) Receiver: EMIT SMARTem24 Sensor: EMIT SMARTfluxgate 3 component B field sensor Time base/frequency: 1.0Hz (250msec time base), ~1msec ramp. Not applicable.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Not applicable. Not applicable Not applicable. Not Applicable.
Location of data points	<ul style="list-style-type: none"> 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. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Not applicable. MGA94 Zone 51. Not applicable.
Data spacing	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> Not applicable.

Criteria	JORC Code explanation	Commentary
<i>and distribution</i>	<ul style="list-style-type: none"> 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. Whether sample compositing has been applied. 	
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	<ul style="list-style-type: none"> Not applicable.
<i>Sample security</i>	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Not applicable.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Not applicable.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> Geophysical surveys were carried out on exploration licences E69/3533 & E69/3952, held by Lodestar Minerals. E69/3533 expires on 29/11/2026 & E69/3952 expires on 22/05/2027. Lodestar operates under native title access and heritage agreements with the native title holders, Mungarlu Ngurrarankatja Rirraunkaja (Birriliburu) and the Tarlka Matuwa Piarku. Both exploration licences are in good standing and there are no known impediments to operations.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Several episodes of exploration for gold, diamonds and base metals have been carried out in the area, include surface geochemistry, aeromagnetics, EM surveys, vacuum, RAB, RC and diamond drilling. Systematic exploration completed by Sons of Gwalia, Aztec Exploration and MIM defined and tested the main targets, identifying anomalous gold and significant copper mineralisation in drilling at the Main Gossan prospect. Follow up drilling by Empire Resources has (to 2011) in the main targeted the outcropping, siliceous ironstones

Criteria	JORC Code explanation	Commentary
		<p>representing sulphide-bearing strata within complexly deformed metasediments and discrete magnetic anomalies within the regional aeromagnetic data. Large areas under shallow aeolian sand cover remain unexplored.</p>
<p><i>Geology</i></p>	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • The tenements are located on the northeastern margin of the Earraheedy Basin, a NW-trending asymmetric east-plunging synclinal basin 250km long and 150km wide. The northern margin has been locally strongly deformed by folding and faulting and was formerly known as the Stanley Fold Belt. Early explorers assigned the sedimentary sequence in the Imbin Project to the “Troy Creek Beds” that were thought to pre-date the Earraheedy Basin. The sediments have since been assigned to the Yelma Formation. MIM state that conformable dolerite sills intrude the sequence in the area of the North Chert prospect, raising the possibility of syn-sedimentary volcanic activity on the northern margin. Bunting (1986) regards the northern margin as tectonically active, the presence of mafic intrusives and ultramafic rocks indicates potential for a rifted margin and Besshi-style VMS mineralisation with SEDEX and epigenetic structurally controlled mineralisation styles also possible.
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Not applicable.
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>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</i> 	<ul style="list-style-type: none"> • Not applicable.

Criteria	JORC Code explanation	Commentary
	<p><i>such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> Not applicable.
<i>Diagrams</i>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Not applicable.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Not applicable.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <i>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.</i> 	<p>Detailed high quality aeromagnetic and XCITE HEM datasets have been used to assist targeting.</p> <ul style="list-style-type: none"> Southern Geoscience Consultants Pty Ltd completed high powered fixed loop electromagnetic (FLTEM) surveying over the Imbin Project. <p>FLTEM Details</p> <ul style="list-style-type: none"> Loop Sizes: 600 x 400m upto 650 x 400m single turn Line/Station Spacing: 100m spaced lines with 50m stations Transmitter: DRTX, Current ~57-78A) Receiver: EMIT SMARTem24 Sensor: EMIT SMARTfluxgate 3 component B field sensor Time base/frequency: 1.0Hz (250msec time base), ~1msec ramp
<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> 	<ul style="list-style-type: none"> Lodestar continues to review all Earraheedy-Imbin Project data to identify targets and determine if drilling is warranted. The completion

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<p>of regional airborne EM interpretation, followed by regional geochemistry (on-going) and recent FLEM over selected targets has identified near surface conductors requiring drill testing. The FLEM targets represent three of thirty discrete conductors located by the regional airborne EM system.</p>