# ASX Release – 2 September 2015



# Two new regional targets confirmed at Stark

- 2 new targets confirmed adjacent to and along strike from the Stark copper-nickel-PGE prospect
- Targets comprise a new EM anomaly and a newly identified structural feature adjacent to outcropping high grade copper-gold mineralisation (up to 12.85% copper and 6.97g/t gold in surface rock-chip samples)
- No previous drilling at either target
- Follow-up evaluation (including drilling) planned for the December 2015 Quarter following completion of the current Share Purchase Plan

Mithril Resources Ltd (ASX: MTH) is pleased to advise that recent ground electromagnetic (EM) surveying has confirmed two new targets (A and D) along strike from, and adjacent to the Stark copper-nickel-PGE prospect (located 80 kilometres south east of Meekatharra, WA – Figures 1 and 2).

The new regional targets are in addition to a series of bedrock EM conductors that have already been identified adjacent to semi-massive and massive sulphide mineralisation at Stark (ASX Announcements dated 1 June 2015).

**Target A** is a new 200-metre long EM anomaly that lies on the eastern margin of a NNW-trending, east dipping mafic / ultramafic unit within which blebby copper sulphides (*Figure 3 and 4*) have been identified in surface outcrops (0.55% copper, 0.04g/t gold in rock chip sample NAN1506-19, see ASX Announcement dated 15 July 2015). The target has not been previously drilled.

The significance of the new anomaly is unknown until follow-up fieldwork and drilling is carried out; however its position relative to outcropping mineralisation and favourable rocktypes suggest that it may be **indicative of further copper sulphide mineralisation beneath the surface**.

**Target D** is an area of poorly exposed copper-gold mineralised quartz veins (~1 metre true width) that can be mapped for approximately 130 metres at surface within a series of shallow historic prospecting pits approximately 2 kilometres ESE of Stark. The mineralisation has not been tested with two historic RAB holes failing to drill deep enough to reach the target.

Rock chip sampling of the mineralisation returned 12.85% copper, 6.97g/t gold in Sample NAN1506-04 and 7.91% copper, 2.95g/t gold in Sample NAN1506-07 (see ASX Announcement dated 15 July 2015).

Interpretation of the new EM data has identified a large-scale structure (characterised in the EM by a narrow linear zone of intense preferential weathering consistent with that seen in large scale structures) that occurs immediately adjacent to the surface mineralisation (*Figure 5*).

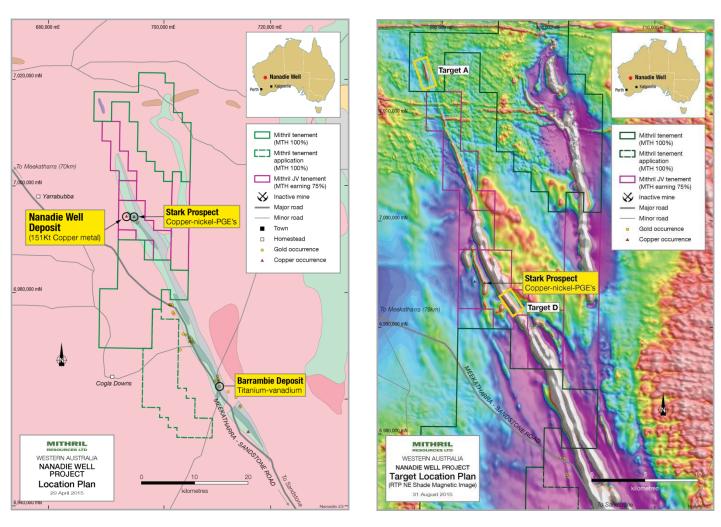
The structure is likely to be a major control on the distribution of copper-gold mineralisation within the area and as such, is a priority for follow-up.

Follow-up evaluation (including drilling) of both targets is planned for the December 2015 Quarter, subject to the successful completion of the Company's current capital raising (Share Purchase Plan) which closes at 5.00pm (Adelaide time) 21 September 2015.

Target A lies within a tenement that is wholly owned by Mithril Resources and is not part of the Nanadie Well Farmin and Joint Venture.

Stark and Target D lie within tenements subject to the Nanadie Well Farmin and Joint Venture with Intermin Resources Limited (ASX: IRC).

Under the terms of the joint venture, Mithril can earn an initial 60% interest in the project tenements by completing expenditure of \$2M by 14 April 2018, and an additional 15% by completing further expenditure of \$2M over a further 2 years (in total \$4M over 6 years for 75% - see ASX Announcement dated 6 December 2013).



Figures 1 (left) and 2 (right): Project location plan and target location plan (RTP NE Shade magnetic) image

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ASX Code: **Issued Shares:** Market Capitalisation: \$1.68 million

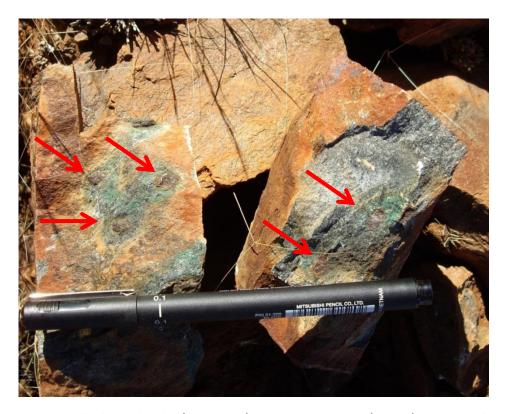


Figure 3: Weathered blebby sulphides (red arrows) and green malachite (copper) staining within mafic rocks.

Rock chip sample NAN1506-19 taken at this locality.

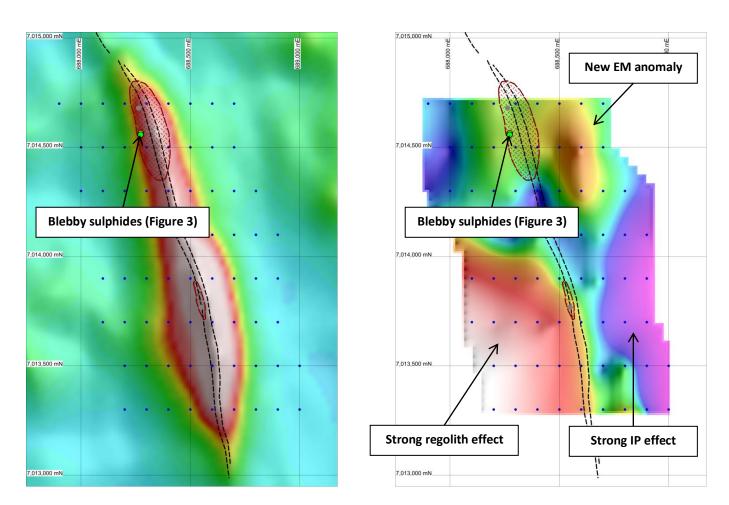
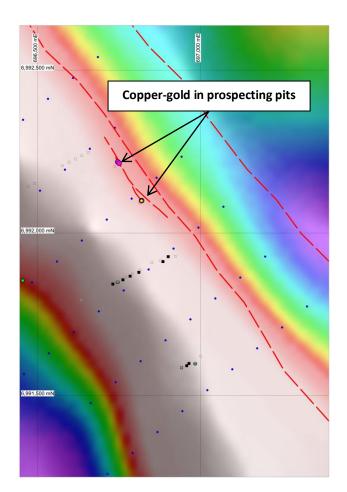


Figure 4 (Target A): Left - RTP magnetic image showing magnetic trend (black dashed lines), rock chip sample locations, outcrop boundaries (brown) and EM stations (blue dots). Right – EM image (ch15) showing location of new geophysical features.

Both figures at same scale – 500 metre grid squares.



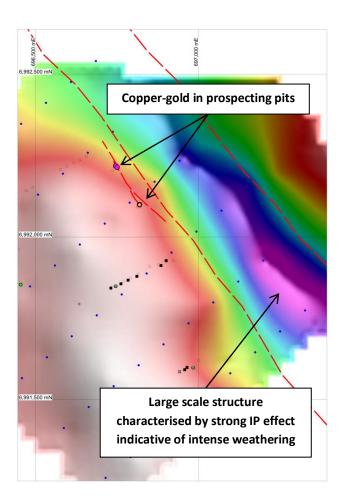


Figure 5 (Target D): Left - RTP magnetic image showing historic drilling (squares), rock chip sample locations, and EM stations (blue dots). Right - EM image (ch20) showing location of zone of intense preferential weathering (strong IP effect). Boundaries of the prospective large scale structure shown as red dashed lines. Both figures at same scale – 500 metre grid squares.

# JORC Code, 2012 Edition - TABLE 1 (Section 1: Sampling Techniques and Data)

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.	Moving Loop electromagnetic (MLTEM) geophysical surveying was undertaken over 5 regional targets along strike from, or adjacent to the Stark copper-nickel-PGE prospect (see ASX Announcement dated 15 July 2015).  GEM Geophysics carried out the work for Mithril Resources.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The geophysical surveys were undertaken to identity bedrock EM conductors potentially indicative of buried massive sulphide mineralisation. The surveys were designed to ensure that they were a representative test of the individual targets.
	Aspects of the determination of mineralisation that are Material to the Public Report. 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.	The geophysical surveys were undertaken to identity bedrock EM conductors potentially indicative of buried massive sulphide mineralisation. No new drilling was carried out.
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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Not Applicable as no drilling was undertaken.
	Method of recording and assessing core and chip sample recoveries and results assessed.	Not Applicable as no drilling was undertaken.
Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not Applicable as no drilling was undertaken.
,	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.	Not Applicable as no drilling was undertaken.
	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.	Not Applicable as no drilling was undertaken.
Logging	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography	Not Applicable as no drilling was undertaken.
	The total length and percentage of the relevant intersections logged.	Not Applicable as no drilling was undertaken.
	If core, whether cut or sawn and whether quarter, half or all core taken.	Not Applicable as no drilling was undertaken.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not Applicable as no drilling was undertaken.
Sub- sampling	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Not Applicable as no drilling was undertaken.
techniques and sample preparation	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not Applicable as no drilling was undertaken.
	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.	Not Applicable as no drilling was undertaken.
	Whether sample sizes are appropriate to the grain size of the material being sampled	Not Applicable as no drilling was undertaken.
Quality of assay data	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not Applicable as no drilling was undertaken.
and laboratory tests	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading	The geophysical survey utilised the following geophysical equipment:  Transmitter – Zonge ZT-30 (Current – 45 to 47Amps /

Criteria	JORC Code explanation	Commentary
	times, calibrations factors applied and their derivation, etc.	Frequency – 3.571Hz / Time Base – 70msec  Receiver – SMARTem 24  Sensor – EMIT Fluxgate and CUT Coil
	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.	Not Applicable as no drilling and / or geochemical sampling was undertaken.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant Results detailed in this Report have been verified by the Company's geophysicist and Managing Director
	The use of twinned holes.	Not Applicable as no drilling was undertaken.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary geophysical data was captured electronically in the field and transmitted to the Company's Perth-based geophysicist on a daily basis. Quality control measures were undertaken both in the field and in the office.
	Discuss any adjustment to assay data	None undertaken.
Location of data points	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.	While no drilling was undertaken, the location of historic drillholes referred to in this Report have been confirmed by handheld GPS.
	Specification of the grid system used.	Data points have been quoted in this Report using the MGA Zone 50 (GDA94) coordinate system.
	Quality and adequacy of topographic control.	Level of topographic control offered by the handheld GPS was considered sufficient for the work undertaken.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	MLTEM data was acquired with a single turn 200 x 200m loop with nominal 100m station spacing on 200m-spaced lines.
	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.	The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s).
	Whether sample compositing has been applied.	Not Applicable as no drilling and / or geochemical sampling was undertaken.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The orientation of the geophysical surveys was designed to be unbiased with respect to know geology and structures.  MLTEM stations were typically orientated on east – west lines although for Target D, they were orientated northeast – southwest.
	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.	Not Applicable as no drilling was undertaken.
Sample security	The measures taken to ensure sample security.	Not Applicable as no drilling was undertaken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	All results were reviewed by Company personnel including the Senior Geophysicist and Managing Director. No negative issues were identified from these reviews.

# JORC Code, 2012 Edition - TABLE 1 (Section 2: Reporting of Exploration Results)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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 work described in this Report was undertaken on Exploration Licence 51/846 (which is wholly owned by Mithril) and E51/1040 which is owned by Intermin Resources and in which, Mithril has the right to earn up to a 75% interest by completing \$4M expenditure over 6 years (See ASX Announcement dated 6 December 2013).
	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.	There are no existing impediments to the tenements.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Intermin estimated a 2004 JORC Code Compliant Inferred Resource for the Nanadie Well Copper Deposit of 36.07Mt @ 0.42% Cu in September 2013.
		This work followed the completion of various previous RAB, RC and geophysical surveys throughout the area by Intermin and previous exploration companies.
		All previous drilling of the Stark Prospect drill targets has been undertaken by Mithril Resources.
	Deposit type, geological setting and style of mineralisation.	The Nanadie Well Copper Deposit is interpreted to be an Archaean – age, mafic-hosted magmatic copper-nickel deposit.
Geology		The Stark Prospect is interpreted to be an Archaean – age, mafic-hosted magmatic copper-nickel-PGE occurrence.
		Disseminated copper (+/- lead, zinc, nickel) sulphide mineralisation occurs within a package of structurally deformed mafic lithologies.
	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:	A summary of the geophysical work referred to in this Report is presented in Table 1 and Figures 2 – 5.
Drill hole Information	easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth, hole length.	
	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.	No information has been excluded.
	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.	Not Applicable as no drilling and / or geochemical sampling was undertaken.
Data aggregation methods	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.	Not Applicable as no drilling and / or geochemical sampling was undertaken.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not Applicable as no drilling and / or geochemical sampling was undertaken.
Relationship	These relationships are particularly important in the reporting of Exploration Results.	Widths of mineralisation have not been postulated.
between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The geometry of the mineralisation is not known.
	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').	Not Applicable as no drilling and / or geochemical sampling was undertaken.
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.	See Figures 2 - 5 of this Report.
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	All results are reported.

Criteria	JORC Code explanation	Commentary
	reporting of Exploration Results.	
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.	All relevant data has been included within this Report.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Detailed review of the geophysical survey results. A follow up drilling program will be completed as soon as possible.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Figures 2 - 5 display areas of interest within the Stark Prospect area.

#### **ENDS**

#### For Further Information Contact:

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#### **Competent Persons Statement:**

Mr Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Hutton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **About Mithril Resources Ltd:**

Mithril Resources Ltd is an Australian exploration company focused on the discovery and development of base metal deposits primarily copper. Mithril is a frontier explorer with a small but highly experienced team based in Adelaide. Combining advanced technology with a proven field-based approach ensures the bulk of the company's expenses go directly into the ground.

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MTH

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