

Amended - Evidence Mounting for Copper Potential at Sandover

Please see attached an amended version of the announcement released on 3 June 2022 titled "Evidence Mounting for Copper Potential at Sandover – NT" providing additional information regarding the visual mineralisation observations as requested by ASX.

This announcement has been authorised for release by the Managing Director of Encounter Resources Limited

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ASX Announcement



Evidence Mounting for Copper Potential at Sandover - NT

- Additional surface sampling and field reconnaissance completed at Sandover in April 2022 confirmed further areas of surface copper oxide mineralisation
- Historical drill holes (drilled in 1968, 1971 & 1994) reviewed at Alice Springs Core Library
 - Key geological units and processes for the formation of sediment-hosted copper established
 - Nodules of copper sulphide minerals, including bornite, identified in historical drill core providing evidence of high grade mineralisation processes
- Encounter awarded a \$100,000 grant by the Northern Territory Geological Survey ("NTGS") to complete a gravity survey at Sandover which is scheduled to commence in the coming weeks
- Sandover has been expanded by 2,195km² to increase Encounter's portion of the Northern Arunta Pegmatite Province. The potential for lithium and other critical metals will be investigated in conjunction with copper exploration activities.

The directors of Encounter Resources Ltd ("Encounter") are pleased to provide an update on exploration activities at the 100%-owned Sandover project in the Northern Territory.

Commenting on Sandover's emerging copper potential, Managing Director Will Robinson said:

"Evidence of the processes that produce high grade copper mineralisation continue to mount at Sandover.

A field trip by our team in April 2022 confirmed further areas containing copper-bearing shale units. In addition, bornite nodules within a mineralised grey shale horizon were identified in both surface sampling and historical drill core at Sandover.

The shale units containing the outcropping copper at Sandover are only considered to be moderate reductants but have precipitated considerable copper which provides evidence that a highly copper charged fluid has been active at Sandover.

We have also significantly expanded our footprint over the Northern Arunta Pegmatite Province.

A detailed gravity survey is scheduled to commence in the coming weeks to inform the basin wide stratigraphic model for drill targeting. Encounter appreciates the co-funding support from the NTGS."



Photo 1 (left) – weathered copper rich nodules collected from surface at Area 1 (refer Figure 1) - containing malachite (interpreted after bornite-chalcopyrite), visual estimate 10% malachite in 2.5cm diameter nodule Photo 2 (right) – primary copper rich nodule from historical drillhole (Mt Skinner DDH3 203.3m) located adjacent to Area 4 (refer Figure 1) containing bornite-chalcopyrite, visual estimate 30% bornite-chalcopyrite over ~1cm width.

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CAUTIONARY STATEMENT ON VISUAL ESTIMATES OF MINERALISATION

References in this announcement to visual results are from historical diamond drilling from Sandover stored at the Alice Springs Core Library. Photos 1 & 2 provide information supporting the geological context of observations of mineral processes reported in this announcement.

Visual estimates of mineral percentages are based on preliminary visual observations of the drill core surface as presented in the core trays and may not be representative of potential mineralisation at Sandover. Visual estimates of mineral abundance are not considered to be a proxy or substitute for laboratory analyses where metal concentrations or grades are the factor of principal economic interest.

The Company does not intend to complete laboratory assays of the samples in Photos 1 and 2.

Background

Sandover is located 170km north of Alice Springs and covers a major structural corridor on the southern margin of the Georgina Basin. Access is excellent with the Stuart Highway and Ghan railway extending through the western margin of the project.

Sampling in October 2021 was conducted in four field areas located up to 6km apart (Figure 1). Each area confirmed the presence of an outcropping red-bed sandstone sequence with multiple narrow but strike extensive grey shale units containing copper oxide mineralisation (malachite). Sampling of copper mineralisation at surface returned assays up to 20.9% Cu and a suite of highly anomalous pathfinder elements (Zn, Ag, As, Bi, Mo and Pb) (*refer ASX announcement 16 December 2021*).

Copper Exploration Activity

Additional surface sampling and field reconnaissance was completed in April 2022. This program confirmed additional mapped areas containing surface copper oxide mineralisation (see Figure 1, Area 5). The surface mapping also identified small bornite nodules, interpreted to be zones of increased fluid flow after replacement of anhydrite, within the grey shale unit (Photo 1).

Surface samples were also collected from various outcropping stratigraphic horizons for chemical analysis and stratigraphic correlation.

Inspection of historical drill core from Sandover in the Alice Springs core library was completed in April 2022. A number of historical drill holes (drilled in 1968, 1971 and 1994) were reviewed and confirmed key geological units and processes to enable the formation of sediment hosted copper deposits are present. Significantly, narrow zones of copper sulphide minerals, including bornite, were identified in historical drill core (Photo 2).

It is interpreted that the copper rich nodules identified at the surface represent the weathered form of the bornite nodules observed in historical drill core. This provides encouraging evidence that processes capable of forming high grade copper mineralisation are present in the basin.

Furthermore, shale units containing the outcropping copper mineralisation at Sandover are considered to be only moderate reductants yet have precipitated considerable copper. This suggests that a highly copper charged fluid has been active at the project.

Accordingly, exploration activities at Sandover are focused on identifying more reduced units within the basin. There will be a particular emphasis on where these units intersect long-lived basin forming structures which are areas with the potential to host major mineral deposits.



Hole Name	MGA 94 Zone 53	MGA 94 Zone 53	RL	Dip/azimuth	Туре	Total Depth m
	Easting	Northing				
CMS1	431070	7540117	600	-90 vertical	Diamond	762
CMS2	436758	7539644	525	-90 vertical	Diamond	535.8
CMS4	425749	7545960	525	-90 vertical	Diamond	300.5
DD94MG01	396968	7573137	525	-90 vertical	Diamond	416.9
DD94MG02	375514	7600330	525	-90 vertical	Diamond	175
MT SKINNER 3	428202	7543140	575	-90 vertical	Diamond	365.7
MT SKINNER 1	428300	7548030	550	-90 vertical	Diamond	30.3
MT SKINNER 2	427960	7548155	550	-90 vertical	Diamond	76.2

Table 1.Historic diamond drillholes at Sandover inspected by Encounter Resources geologists at the Alice Springs core library.

NTGS Funding

All available geophysical datasets have been compiled, integrated and evaluated by Encounter's geophysical consultant Terra Resources. As a result of this exercise, 1x1km spaced gravity data has been identified as a key dataset to be collected. Encounter has been awarded a \$100,000 grant to complete this gravity survey at Sandover under the Northern Territory Geological Survey Geophysics and Drilling Collaborations Program.

Sandover Lithium and Critical Minerals Potential

Sandover sits within the Northern Arunta Pegmatite Province. NTGS interpret that these pegmatites are Lithium-Caesium-Tantalum (LCT) pegmatites similar to the host pegmatites of the lithium deposits at Greenbushes in Western Australia and the Finnis deposit in the NT*. The presence of LCT type pegmatites is further supported at Sandover by two tin-tantalum occurrences in the south-east of the project area which also occur within these pegmatite mineral systems. The region's lithium prospectivity has also been recognised by a number of other companies including Core Lithium Ltd (ASX:CXO) who hold the Anningie and Barrow Creek Lithium Projects in the district.

Sandover has been expanded by 2,195km² to increase the portion of the Northern Arunta Pegmatite Province controlled by Encounter. The new tenure contains additional mapped pegmatites with lithium potential (Figure 4). The potential for lithium and other critical metals will be investigated in conjunction with copper exploration activities.

Next Steps

The development of a basin wide stratigraphic model is in progress and a NTGS co-funded gravity survey is scheduled to commence in June/July 2022.

Data compilation of historical tin-tantalum exploration will assess the potential for LCT (Lithium-Cesium-Tantalum) pegmatites at Sandover.





* NTGS Report 16, Tin-tantalum pegmatite mineralisation of the Northern Territory (Frater, 2005)

Figure 1 – Geological map showing cupiferous outcrop, drillhole locations and surface sampling (compiled from company reports and Haines 2004) *Source: NTGS Geology and Mineral Resources of the Northern Territory. Special Publication 5. Compiled by Ahmad, M. and Munson, T.J., June 2013.*

Areas 1-4 sampled by Encounter in October 2021, Area 5, 6, 7 sampled in April 2022.





Figure 2 – Location of field mapping and sampling



Figure 3 – Sandover Schematic Cross





Photo 3 – Sample SA0000068 of surface scree containing malachite (Area 5)



Figure 4 – Northern Arunta Pegmatite Province – LCT pegmatite occurrences sourced from NTGS Report 16 Tintantalum pegmatite mineralisation of the Northern Territory (Frater 2005).





Figure 5 – Encounter Northern Territory - Project Location Plan





About Encounter

Encounter is one of Australia's leading mineral exploration companies listed on the ASX. Encounter's primary focus is on discovering major copper dominant deposits in Australia.

Encounter partners with leading mid-tier and major producers to advance its extensive project pipeline with more than \$25m of project funding contributed by partners over the past decade. Currently, Encounter has farm-in agreements in place with world leading clean energy metals companies to provide up to \$40m in initial exploration funding.

Encounter's assets include:

- A large project portfolio in the Paterson Province of WA where it is exploring for copper-gold deposits at its 100% owned Lamil Project and for copper-cobalt deposits at the Yeneena project with IGO Limited (ASX:IGO);
- A series of camp scale, first mover copper opportunities in the Northern Territory. This includes the Elliott copper project which is being advanced in partnership with BHP Limited (ASX:BHP) via a \$25m earn-in and joint venture; and
- The Aileron IOCG project in the West Arunta region of WA.

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The information in this report that relates to Exploration Results is based on information compiled by Mrs Sarah James who is a Member of the Australasian Institute of Mining and Metallurgy. Mrs James holds shares and options in and is a full time employee of Encounter Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mrs James consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed.

This announcement has been authorised for release by the Board of Encounter Resources Limited.



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 sounds, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Areas 5-7 at the Sandover project were sampled by Encounter staff by surface rock chips. Rock chip samples were taken of outcropping and float rocks including copper bearing mineralisation contained within grey shale units. Rock chips are random, subject to bias and often unrepresentative for the typical widths required for economic consideration. This announcement also includes initial visual observations from historical diamond drill core inspected from Sandover stored at the Alice Springs Core Library. Photos 1 & 2 provide information supporting the geological context of observations of mineral processes reported in this announcement. Visual estimates of mineral percentages are based on preliminary visual observations of the drill core surface as presented in the core trays and may not be representative. The Company does not intend to complete laboratory assays of the samples in Photos 1 and 2.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sample locations were recorded by handheld GPS, which has an estimated accuracy of +/- 5m.
	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	Rock chip samples were sent to Bureau Veritas Minerals Pty Ltd Laboratories in Perth, where they will be dried, crushed, pulverised and split to produce a sub – sample for ICP (OES) (MS) 4 Mixed Acid Digest.
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).	No drilling was undertaken by Encounter. Historical drill core inspected from Sandover region was inspected at the Alice Springs Core Library. Diamond core varied between AQ and BQ diameters. Core was not oriented
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	No drilling undertaken by Encounter. Historical drill core from Sandover region was inspected at the Alice Springs Core Library. Core loss did not appear to be a major issue in the historic core sample
	Measures taken to maximise sample recovery and ensure representative nature of the samples	No drilling was undertaken by Encounter. Historical drill core from the Sandover region was inspected at the Alice Springs Core Library.
	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.	Rock chips are random, subject to bias and often unrepresentative for the typical widths required for economic consideration.



Criteria	JORC Code explanation	Commentary
Logging	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.	A geological description was recorded and photograph taken of each surface sample prior to submission to the lab for analysis. Historical core was viewed at the Alice Springs core facility and photographed in detail to support exploration targeting at the project. As this is early phase exploration no detailed studies are warranted.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging is qualitative in nature and records interpreted lithology, alteration, mineralisation, structure, veining and other features of the samples.
	The total length and percentage of the relevant intersections logged	All surface samples have been logged by Encounter geologists. Core has also been inspected and photographed by Encounter geologists.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Historical drill core from the Sandover region was inspected at the Alice Springs Core Library. No additional sampling was completed by Encounter staff.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No non-core drilling
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	For rock chip samples, sample preparation is being completed at Bureau Veritas Minerals Pty Ltd Laboratories in Perth. Samples will be dried, crushed, pulverised (90% passing at a \leq 75µM size fraction) and split into a sub – sample for ICP (OES) (MS) 4 Mixed Acid Digest.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Field QC procedures involve the use of commercial certified reference materials (CRMs) and in house blanks. The insertion rate of these will be at an average of 1:33.
	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.	No duplicate samples were taken. Rock chips are random, subject to bias and often unrepresentative for the typical widths required for economic consideration.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The rock chip sample sizes are considered appropriate to give an indication of the outcropping geological units at Sandover.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The rock chip samples will be analysed by ICP using a 4 mixed acid digest including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids. This extended digest approaches a total digest for many elements however some refractory minerals are not completely attacked. Assays will be determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry (OES)(AI, Ca, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, P, S, Sc, Ti, V, Zn) and ICP – Mass Spectrometry(MS) (Ag, As, Bi, Cd, Co, Ga, Hf, In, La, Mo, Nb, Pb, Rb, Sb, Sn, Sr, Ta, Te, Th, Tl, U, W, Y, Zr) plus additional elements including Be, Cd, Ce, Cs, Dy, Er, Gd, Ho, In, Lu, Nd, Pr, Re, Sm, Tb, Tm, Yb No sampling of the drill core has been completed by Encounter staff to date
	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.	No geophysical tools utilised.



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. Laboratory QAQC involves the use of internal lab standards using certified reference material and blanks as part of in-house procedures.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No sampling of the drill core has been completed to date by Encounter staff.
	The use of twinned holes.	No sampling of the drill core was conducted during this phase of exploration and no twinned holes, historic or otherwise have been completed at the project to date
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary location data was collected for Sandover surface samples on a field ipad and GPS. All data collected are loaded into Encounter's Database (Datashed software), which is backed up daily.
	Discuss any adjustment to assay data.	Not applicable as no new assay data is being reported
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.	Historical drill hole collar locations are collated from exploration reports into the Northern Territory open file database COREDAT
	Specification of the grid system used.	The grid system used is MGA_GDA94, zone 53.
	Quality and adequacy of topographic control.	Estimated RLs were assigned to be corrected at a later stage using a more detailed DTM.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Rock chips at the Sandover prospect have been collected in seven areas, over 15km apart.
	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.	Mineralisation has not yet demonstrated to be sufficient in both geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications to be applied.
	Whether sample compositing has been applied.	No sample compositing has been applied
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.	No sampling of the drill core has been completed to date by Encounter Resources. Historic drilling has intersected lithologies at approximately true width
	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.	No sampling of the drill core has been completed to date by Encounter Resources Historical drilling has intersected lithologies at approximately true width
Sample security	The measures taken to ensure sample security.	The chain of custody is managed by Encounter. Samples were delivered by Encounter personnel to the assay laboratory.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on Sandover data.



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 including joint ventures, partnerships, overriding	The areas sampled at the Sandover project are located within the tenements EL32374 and EL32421 which are 100% held by Encounter.	
	royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The sampling areas are contained within the Mount Skinner Pastoral Lease.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Historical drilling exploration activity at Sandover was completed during the late 1960s and early 1970s. In 1966 Kennecott completed a three hole percussion drilling program (BH1-3) for a total of 610m together with regional costean sampling. In 1968, a program of 4 diamond holes for 662m (Mt Skinner 1-4) was drilled by the Mines and Water Resource Branch, NT. In 1970 Centamin N.L. drilled 4 diamond holes (CMS1-4) in the wider Sandover area for 1781m Other parties including Utah Developments Co, Alcoa Australia Ltd and CRA completed regional reconnaissance mapping, geochemical surface sampling and small geophysical surveys in the area. 	
Geology	Deposit type, geological setting and style of mineralisation	Sedimentary rocks at Sandover form the south western margin of the Georgina Basin. The Upper Proterozoic Central Mt Stuart bed and Upper-Proterozoic to Lower Cambrian Grant Bluff Formation lie unconformably on the basement metamorphics of the Arunta block.	
		Sandover is interpreted to represent a locally preserved Neoproterozoic depocentre, overlain by more extensive Cambrian Georgina Basin sediments. A number of the major elements of the classic Zambian style sediment-hosted copper system are present at Sandover.	
Drill hole information	 A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes: Easting and northing of the drill hole collar Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar Dip and azimuth of the hole Down hole length and interception depth Hole length 	Refer to tabulation in the body of this announcement.	



Criteria	JORC Code explanation	Commentary
Data aggregation methods	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.	No sampling of the drill core has been completed by Encounter staff to date
	Where aggregated 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.	No sampling of the drill core has been completed by Encounter staff to date
-	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been reported in this announcement.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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').	The geometry of the mineralisation is not yet known due to insufficient drilling in the targeted area.
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 plane view of drill hole collar locations and appropriate sectional views.	Refer to body of this announcement
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All meaningful and material information has been included in the body of the text.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; 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 meaningful and material information has been included in the body of the text. No metallurgical or mineralogical assessments have been completed.
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The next phase of work will be designed following collection of geophysics and extensive analysis of historical data.