



ASX RELEASE

27th May 2014

ASX: MGV

Musgrave Confirms New Nickel Targets at Pallatu 6 and 7

- **Two new nickel sulphide targets confirmed in an area of known nickel sulphide mineralisation**
- **The targets are located within the Musgrave Province – the same geological domain that host the large Nebo-Babel nickel-copper sulphide deposits**
- **Targets modelled on favourable geological contacts**
- **Heritage survey completed and drilling to commence in July**

Musgrave Minerals Ltd ("Musgrave Minerals" or "the Company") (ASX:MGV) is pleased to announce that it has confirmed and extended the ground electromagnetic (EM) conductor at the Pallatu 7 target on its Deering Hills project in the Musgrave Province of South Australia (Figure 1). Musgrave has also defined the Pallatu 6 EM conductor to the north-east.

The Pallatu targets are within Musgrave Minerals' wholly owned tenement EL5317.

Commenting on the Pallatu results the Company's Managing Director Rob Waugh said "These two EM targets are very exciting. Massive and disseminated nickel sulphide has been intersected only 1km away on a parallel mafic/ultramafic intrusive at Pallatu 3. Pallatu 6 and 7 are larger targets. We have proven that the targeting model and process is working to identify massive nickel-copper sulphide and are currently planning a diamond drilling program to commence in July to test these targets."

Musgrave recently completed a detailed ground electromagnetic survey over both the Pallatu 6 and Pallatu 7 targets (Figure 2) originally identified from a regional airborne VTEM (versatile time-domain electromagnetic) survey. Both conductors are interpreted to be on the contact of Giles complex mafic/ultramafic intrusive rocks in areas of thin sand cover. Similar rocks host the Nebo-Babel nickel-copper sulphide deposit further west in the Musgrave region.

The Pallatu 7 target is a late time conductor modelled at up to 350m in strike length at a depth of approximately 250m using a fixed loop transient electromagnetic (FLTEM) survey methodology. The Pallatu 6 conductor is modelled at less than 100m in strike length but significantly shallower at approximately 40-50m depth.

In December 2013 Musgrave intersected massive and disseminated nickel and copper sulphide in diamond core at the Pallatu 3 target (Figure 2) (see ASX release dated 9th December 2013). The Pallatu 6 and 7 targets have coincident gravity and magnetic responses consistent with massive sulphide mineralisation elsewhere in the region and are located in a very favourable geological and structural setting.

Ground EM over the Smeagol target at the Bryson Hill project has not identified a basement conductor. Our ground EM crew are continuing to complete field EM surveys over additional targets on our Musgrave projects throughout June, including the Valerii and Baltar targets at Mimili where we have coincident magnetic, gravity and surface nickel-copper soil geochemical anomalies.

A successful heritage survey has been completed and Musgrave plans to undertake a diamond drilling program to test these targets early next quarter.

Musgrave is in a strong financial position to follow up these targets at Pallatu.

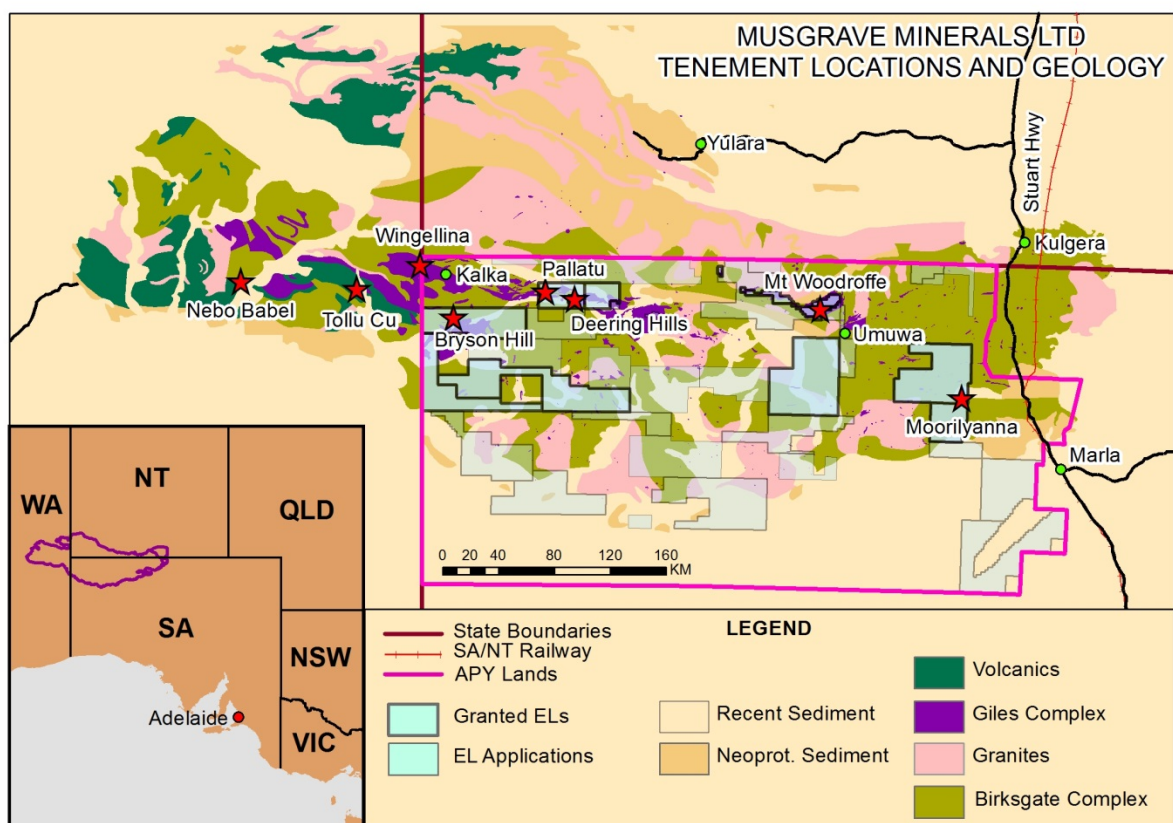


Figure 1: **Location of Musgrave Minerals' Exploration Licences in the Musgrave Region of South Australia.**

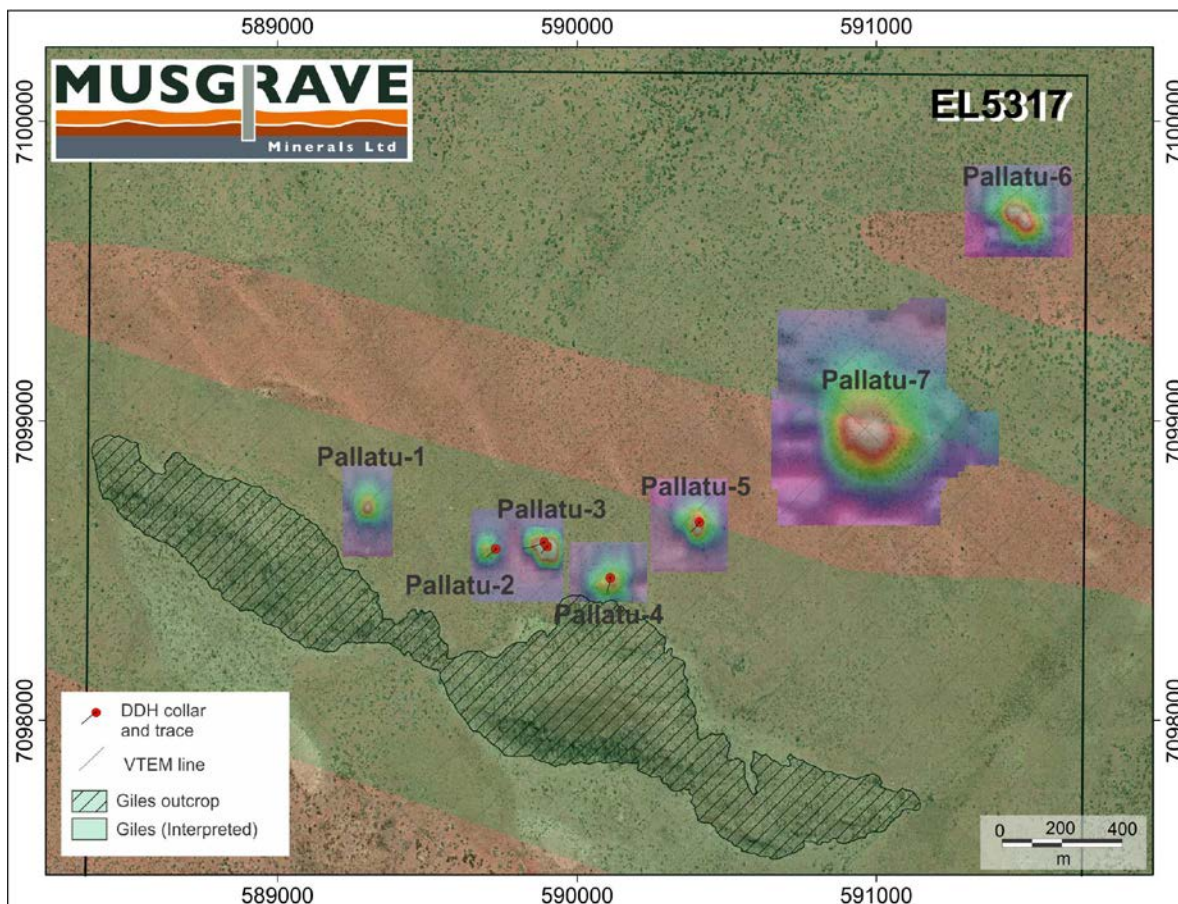


Figure 2: **Location of ground EM targets (Pallatu 6 & 7) and existing drill holes on Landsat backdrop. Background image is late-time FLTEM response on Landsat. Interpreted Giles (mafic/ultramafic) host rocks are shown in green. The majority of the area is under shallow sand cover.**

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Competent Person's Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled and/or thoroughly reviewed by Mr Robert Waugh, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Member of the Australian Institute of Geoscientists (AIG). Mr Waugh is Managing Director and a full-time employee of Musgrave Minerals Ltd. Mr Waugh has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration 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 Waugh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

About Musgrave Minerals

Musgrave Minerals Ltd is an active Australian base metals explorer with a large exploration footprint in the Musgrave Province in South Australia, with tenements covering an area of approximately 50,000km². The Company also has an active advanced stage exploration project, Menninnie Dam in the prospective silver and base metals province of the southern Gawler Craton of South Australia. Musgrave has a powerful shareholder base with six mining and exploration companies participating as cornerstone investors.

Musgrave Project
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Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	No drilling or sampling has yet been undertaken on the Pallatu 6 and 7 targets
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	All co-ordinates are in UTM grid (GDA94 Z52) and have been measured by hand-held GPS with an accuracy of ± 4 metres.
	<i>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 (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	No drilling or sampling has yet been undertaken on the Pallatu 6 and 7 targets
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	No drilling or sampling has yet been undertaken on the Pallatu 6 and 7 targets
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No drilling or sampling has yet been undertaken on the Pallatu 6 and 7 targets
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	N/A
	<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>	N/A
Logging	<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>	No drilling or sampling has yet been undertaken on the Pallatu 6 and 7 targets
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	N/A
	<i>The total length and percentage of the relevant intersections logged.</i>	N/A
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No drilling or sampling has yet been undertaken on the Pallatu 6 and 7 targets
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	N/A
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	N/A
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	N/A
	<i>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.</i>	N/A
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	N/A
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	No drilling or sampling has yet been undertaken on the Pallatu 6 and 7 targets
	<i>For geophysical tools, spectrometers, handheld XRF</i>	N/A

	<i>instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	N/A
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	No drilling or sampling has yet been undertaken on the Pallatu 6 and 7 targets
	<i>The use of twinned holes.</i>	N/A
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	N/A
	<i>Discuss any adjustment to assay data.</i>	N/A
Location of data points	<i>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.</i>	All maps and locations are in UTM grid (GDA94 Z52) and have been measured by hand-held GPS with an accuracy of ± 4 metres.
	<i>Specification of the grid system used.</i>	All co-ordinates are in UTM grid (GDA94 Z52)
	<i>Quality and adequacy of topographic control.</i>	All RL's are approximate using hand held GPS.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Ground EM lines were optimally positioned to survey individual targets. Fixed loop ground EM configurations were used with variable 25-50m station spacings to allow accurate conductor models to be derived.
	<i>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.</i>	N/A
	<i>Whether sample compositing has been applied.</i>	N/A
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The precise dip and strike of the mineralisation is not yet known and it is unclear at this stage whether any sampling has a set bias.
	<i>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.</i>	No orientation based sampling bias is known at this time.
Sample security	<i>The measures taken to ensure sample security.</i>	Chain of custody is managed by MGCV. Samples are stored on site and transported to Intertek Genalysis in Wingfield, South Australia by a licenced reputable transport company. When at Genalysis samples are stored in a locked yard before being processed and tracked through preparation and analysis using the Lab Track system.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No external audits or reviews of modelling techniques and data have been undertaken.

Section 2 Reporting of Exploration Results

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	<i>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.</i>	All diamond drilling has been within wholly owned MGCV tenement EL5317 within the Musgrave Project area. The tenements are within APY aboriginal freehold lands.
	<i>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.</i>	The tenement is in good standing and no known impediments exist.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	No historical drilling prior to MGCV has been undertaken by any third party in this tenement.

Geology	Deposit type, geological setting and style of mineralisation.	Musgrave is exploring for multi commodity style deposits consistent with low MgO magmatic Ni-Cu systems.																		
Drill hole Information	<p>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:</p> <ul style="list-style-type: none">• 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.	Previous MGCV drilling was reported in ASX release dated 9 th December 2013																		
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	Previous MGCV drilling was reported in ASX release dated 9 th December 2013																		
	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.	Previous MGCV drilling was reported in ASX release dated 9 th December 2013																		
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are currently used for reporting of exploration results.																		
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg ‘down hole length, true width not known’).</p>	An accurate dip and strike and the controls on mineralisation are yet to be determined and the true width of the intercepts is not yet 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.	Refer to figures 1, 2 in the body 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 reporting of Exploration Results.	All previous drill results are reported in ASX release dated 9 th December 2013																		
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.	<p>All material results from geophysical surveys related to these prospects have been reported.</p> <p>EM Survey specifications:</p> <table><tr><td>Configuration</td><td>: Fixed-loop</td></tr><tr><td>Station Spacing</td><td>: 25-50m</td></tr><tr><td>Datum/Projection</td><td>: GDA94/MGA52</td></tr><tr><td>Receiver</td><td>: SMARTem24</td></tr><tr><td>Sensor</td><td>: SMART Fluxgate</td></tr><tr><td colspan="2">3-component magnetometer (B-field)</td></tr><tr><td>Stacks</td><td>: 128–256</td></tr><tr><td>Transmitter</td><td>: Terra Tx-50</td></tr><tr><td>Power Supply</td><td>: 100V (batteries)</td></tr></table>	Configuration	: Fixed-loop	Station Spacing	: 25-50m	Datum/Projection	: GDA94/MGA52	Receiver	: SMARTem24	Sensor	: SMART Fluxgate	3-component magnetometer (B-field)		Stacks	: 128–256	Transmitter	: Terra Tx-50	Power Supply	: 100V (batteries)
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Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	A range of exploration techniques are being considered to progress exploration including additional 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.	Refer to figure 2 in the body of this report.																		