

Date: 20 August 2014 ASX Code: JRV

# **EL 7805 SYERSTON (FLEMINGTON) RESOURCE**

#### **Highlights**

- Jervois Mining Limited announces an 'indicated' resource for the known mineralisation of the metal scandium at EL 7805. This indicated resource is located near Syerston on the edge of, and contiguous with, the old 'Black Range Minerals' nickel/cobalt laterite (this latter is now owned by IvanPlats Syerston).
- Main resource block: 981,640 tonnes @513g/t Sc. (504 tonnes of scandium metal)
- The scandium grades encountered are very high for this type of resource and almost 30% higher than anything else reported from laterites in NSW. Platinum is pervasive but its refractory nature degrades any perceived value. Cobalt and nickel are potential by-products and in any event will have to be recovered from any commercial metallurgical circuit.
- This is exciting news for Jervois shareholders and coincides with intensifying interest in this metal from the Asian and USA markets.
- The Company will look to a pilot plant operation as soon as possible, targeting production of up to 5 tonnes per annum of scandium oxide.

### **EL 7805 Syerston Scandium Project Resource Calculation**

A Mineral Resource Calculation for Jervois Mining Limited Syerston/Flemington Scandium Project (EL 7805) was recently undertaken by Rangotts Mineral Exploration Pty. Ltd.

The calculation was based on data from 25 vertical air core drill holes and two diamond drill holes, which were part of a larger group of exploration holes drilled during the 2013 and 2014 drilling campaigns. The locations of these holes are shown in Figure 1.

The drilling intersected four broad lithotypes - (top to bottom) hematitic laterite, limonitic laterite, transitional laterite and saprolite. Only the hematitic (part), limonitic and transitional materials were included in the resource calculations.

The 1m samples were analysed for Scandium by ALS in Brisbane, using a fusion ICPAES method (technique Sc-ICP06).

Two vertical PQ (diamond) core holes, JSD-001 and JSD-002, were drilled 5 m away from the collars of aircore holes SY-37 and SY-35 respectively, reaching several metres into saprolitic bedrock. The objective of drilling these holes was to obtain solid samples to determine the bulk densities (SGs) and moisture content of the various laterite types, and to use them in metallurgical testing.

The final resource calculation gave the following resource figures:

**Hematitic Laterite** 

313,775 tonnes @ 316 ppm Sc (for 99.2 tonnes of contained Sc)

**Limonitic Laterite** 

981,640 tonnes @ 513 ppm Sc (for 503.6 tonnes of contained Sc)

**Transitional Laterite** 

321,373 tonnes @ 335 ppm Sc (for 107.7 tonnes of contained Sc).

The overall resource comprises 1,617,000 tonnes at a weighted mean grade of 439 ppm Sc, containing approximately 710.5 tonnes of Scandium metal, which equates to 1089 tonnes of scandium oxide ( $Sc_2O_3$ ).

This confirms that the resource can sustain a mining operation that would last +40 years, assuming a production rate of 20 tonnes of  $Sc_2O_3$  per year, the present estimated world consumption. The present market value of scandium oxide varies from US\$2 million/tonne to US\$4+ million/tonnes AUD depending on the purity.

Due to undulations in the lithotype boundaries and the present uncertainty regarding the boundaries of the palaetopography, the resource is classified as an Indicated Mineral Resource. Shareholders are advised that the known Indicated Resource will be upgraded to a Measured Mineral Resource by carrying out a modest additional program of infill drilling. This will result in better definition of the boundaries of the palaetopographic features.

#### **INAA Assay Results**

Re-analysis of 10% of the samples from the 2013-2014 EL 7805 Syerston drilling programs was undertaken in Canada using split sample pulps retrieved from ALS Brisbane. The method used was Instrumental Neutron Activation Analysis (INAA). Samples were randomly selected from both high and low grade intervals and all three laterite types. Forty four single gram samples were assayed.

Re-analysis was done to verify the assay grades and compare them to the grades obtained from the ME-ICP61 and Sc ICP-AES results previously reported.

Comparison of the INAA and Fusion methods showed an average difference of only 4.0%. The Board is satisfied that any discrepancies are not material as they are considered to be within the range of sampling and analytical errors.

In brief, the INAA results confirm the unusually high grades of the JRV's Syerston resource and also verified the validity of the use of the fusion method (where the best interval was 1000ppm Sc from drill hole Sy 53 14-15m (INAA 980ppm) as a practical method for assaying scandium.

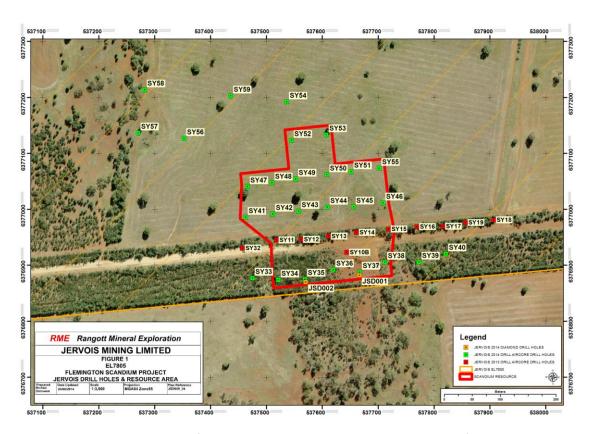


Fig 1 Location of the 24 drill holes that constitute the area of the Mineral Resource Calculation, 2013 and 2014 Drilling Programs

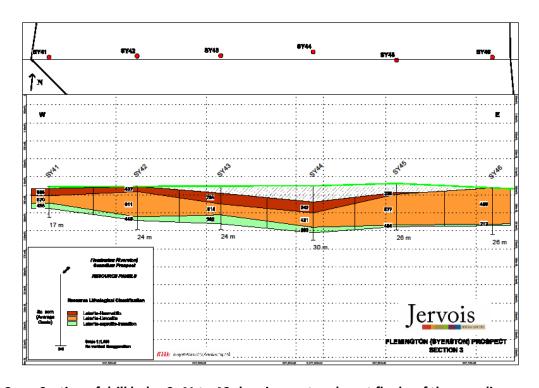


Fig 2 Cross Section of drill holes Sy41 to 46 showing east and west flanks of the scandium resource are exposed at the surface. The laterite layer (white) above the hematitic (red) laterite layer contains on average about 140-150 g/t scandium

#### **Future Exploration**

Shareholders are advised that the Indicated Resource can be upgraded to a Measured Mineral Resource by small additional program of closely spaced infill drilling.

**Target Area 1**: Further exploration drilling to the immediate northwest, north and northeast of the known resource boundary will be undertaken this year. There are strong indications from soil sampling and 2013 scout drilling in this area to indicate well mineralized laterite beneath the soil cover. Follow up drilling could result in a substantial increase in the size of the total resource. Refer to Table 1 and the Target Area 1 in Fig 2 below.

Table 1 Scandium assay grades and thickness for 'scout drilling' holes not included in the 2014 Resource Calculation.

Hole number	MGA E	MGA N	From (m)	To (m)	Total (m)	Fusion Sc assay (ppm)
Sy52	537651.8926	6377067.127	12	25	13	430
Sy 54	537544.9263	6377123.183	8	29	21	328
Sy 56	537701.758	6377073.367	0	17	17	458
Sy 57	537352.5977	6377126.569	0	11	11	602
Sy 58	537270.7514	6377136.411	7	17	10	410

200ppm lower cutoff used

**Target Area 2**: The resource boundary is expected to expand even further west to the Target Area 2 shown in Fig. 3. This is due to the similarity between the geomagnetic signatures of the presently drilled and the target areas.

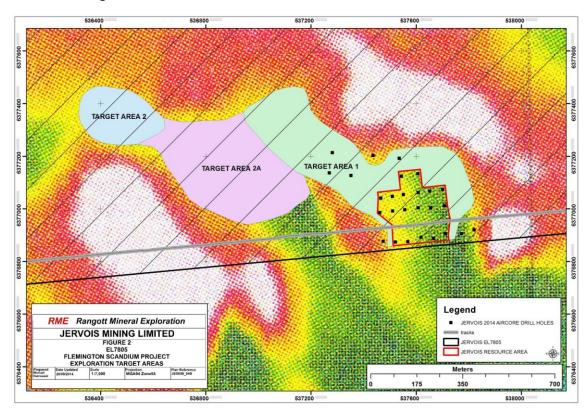


Fig 3 Approximate boundaries for future exploration EL 7805 Syerston

By order of the Board.

Duncan Pursell.

## JORC COMPLIANCE TABLE

De Ruell

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Drilling techniques	Drill type (eg core, reverse circulation, open-hole	Air core vertical drilling with core
Drining teeriniques	hammer, rotary air blast, auger, Bangka, sonic, etc)	diameter 90mm standard tube
	details (eg core diameter, triple or standard tube,	didiffecer 50mm standard tabe
	depth of diamond tails, face-sampling bit or other	
	type, whether core is oriented and if so, by what	
	• • •	
Duilleannale	method, etc).	12 F/97 F anditton/avalone mater
Drill sample	Method of recording and assessing core and chip	12.5/87.5 splitter (cyclone meter
recovery	sample recoveries and results assessed.	intervals), plastic sample bags for up
	Measures taken to maximise sample recovery	to 20kg, chip tray reference, sample
	and ensure representative nature of the samples.	recovery weight recorded every meter
	Whether a relationship exists between sample	Negligible sample bias expected
	recovery and grade and whether sample bias may	
	have occurred due to preferential loss/gain of	
	fine/coarse material.	
Logging	Whether core and chip samples have been	Core and chip samples have been
	geologically and geotechnically logged to a level of	geologically and geotechnically logged
	to support appropriate Mineral Resource	to a level of detail for a future Mineral
	estimation, mining studies and metallurgical	Resource estimation.
	studies.	Logging is qualitative in nature
	Whether logging is qualitative or quantitative in	100% of intersections logged – 585
	nature. Core (or costean, channel, etc)	meters
	photography.	
	The total length and percentage of the relevant	
	intersections logged.	
Sub-sampling	If core, whether cut or sawn and whether quarter,	12.5/87.5 splitter (cyclone meter
techniques and	all core taken.	intervals) to ensure representative
sample preparation	If non-core, whether riffled, tube sampled, rotary	sample taken
	split, etc and whether sampled wet or dry.	All samples initially
	For all sample types, the nature, quality and	submitted to ALS
	appropriateness of the sample preparation	Laboratory, Brisbane
	technique.	Sample preparation of all samples has
	Quality control procedures adopted for all sub-	been completed by an independent
	sampling stages to maximise representivity of	commercial laboratory to accepted
	samples.	industry standards.
	Measures taken to ensure that the sampling is	All subsampling conducted by the
	representative of the in situ material collected,	independent commercial laboratory
	including for instance results for field duplicate/	to acceptable industry standards.
	second-half sampling.	1 field duplicate per hole submitted
	Whether sample sizes are appropriate to the grain	(approximately one duplicate per 22m).
	size of the material being sampled.	Sample sizes are considered suitable
	size of the material being sampled.	Sample sizes are considered suitable

		for surface geochemical studies.
Quality of assay data	The nature, quality and appropriateness of the	Analysis for Ni/Co/Sc suite 4 acid
laboratory tests	assaying and laboratory procedures used and whether the technique is considered partial or	digest ME ICP-61, ALS Brisbane
	total. For geophysical tools, spectrometers, handheld	Fusion analysis ICP-AES (Sc-ICP06)ALS Brisbane
	XRF instruments, etc, the parameters used in	
	determining the analysis including instrument	INAA Instrumental Neutron Activation
	make and model, reading times, calibrations	Analysis, ActLabs, Canada
	factors applied and their derivation, etc. Nature of quality control procedures adopted	
	(eg standards, blanks, duplicates, external	One standard and one blank routinely
	laboratory checks) and whether acceptable levels	inserted into each drill core sample
	of accuracy (ie lack of bias) and precision have	suite during laboratory procedures and
	been established.	samples sent to ALS (Australia) and
		ActLabs (Canada).
Verification of sampl	•	Exploration results verified by Rangotts
assaying	either independent or alternative company personnel.	Mineral Exploration Pty. Ltd. along with acceptable standards with appropriate
	The use of twinned holes.	QA QC control measures.
	Documentation of primary data, data entry	Data collected in the field and data
	procedures, data verification, data storage	entry completed in the office by
	(physical and electronic) protocols.	experienced personnel.
	B	No adjustments made.
Location of data noin	Discuss any adjustment to assay data.  Accuracy and quality of surveys used to locate drill	Drill collar positions determined by
Location of data poin	(collar and down-hole surveys), trenches, mine	Drill collar positions determined by hand held Trimble Geoexplorer 600
	workings and other locations used in Mineral	differential GPS with accuracy of
	Resource estimation.	100mm horizontal and 200mm vertical
		Coordinated determined in GDA94
	Specification of the grid system used.	Zone 55.
	Quality and adequacy of topographic control.	Quality adequate for relevant data acquisition.
	Quality and adequacy of topographic control.	acquisition.
Data spacing and	Data spacing for reporting of Exploration Results.	27 aircore holes drilled on a 50-75 m
distribution	Whether the data spacing and distribution is	spacing x 50-75 m sample lines
	sufficient to establish the degree of geological	(augmenting a present drilling line)
	and grade continuity appropriate for the Mineral	Spacing considered acceptable to
	Resource and Ore Reserve estimation procedure(s) classifications applied.	establish a degree of grade and consider a future indicated Mineral
	Whether sample compositing has been applied.	Resource estimation
	The same same same same special specia	No composite sampling applied.
Orientation of data	Whether the orientation of sampling achieves	Sample lines oriented approximately
in relation to	unbiased sampling of possible structures and the	normal to interpreted geological
geological structure	extent to which this is known, considering the	features.
	deposit type. If the relationship between the drilling orientation	Not applicable.
	and the orientation of key mineralised structures	
	is considered to have introduced a sampling bias,	
	this should be assessed and reported if material.	

Sample security	The measures taken to ensure sample security.	Not applicable as samples delivered dire the laboratory.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews conducted.

**Section 2 Reporting of Exploration Results** 

Section 2 Reporting of Exploration Results			
Criteria	JORC Code explanation	Commentary	
Mineral	Type, reference name/number, location and ownership	EL 7805 is 100% held by Jervois Mining	
tenement and	including agreements or material issues with third	Limited (JRV). JRV manages the project.	
land tenure	parties such as joint ventures, partnerships, overriding		
status	royalties, native title interests, historical sites,		
	wilderness or national park and environmental settings.		
	The security of the tenure held at the time of reporting	Tenure of tenement at time for drilling	
	with any known impediments to obtaining a licence to	was pending	
	operate in the area.		
Exploration	Acknowledgment and appraisal of exploration by	Not applicable	
done by other	other parties.		
parties			
Geology	Deposit type, geological setting and style of	Laterite formed over ultra basic	
	mineralisation.	intrusive Tout Complex (Late	
		Ordovician). The Tout Complex has a	
		core of dunite, with pyroxenite,	
		hornblende quartz monzonite,	
		hornblende pyroxenite, gabbro, olivine	
		pyroxenite and monzo-diorite. This	
		intrusive is classified as an Alaskan type	
		ultramafic body by the GSNSW.	
Drill hole Inform	A summary of all information material to the	Collar location related to holes	
	understanding of the exploration results including a tab	referred to in published assay data is	
	of the following information for all Material drill holes:	included on the map and the assay	
	easting and northing of the drill hole collar	table in the body of the report.	
	elevation or RL (Reduced Level – elevation above sea	RL, dip/azimuth and total hole length	
	level in metres) of the drill hole collar	are not deemed relevant to the	
	dip and azimuth of the hole	reporting of this data at present as it	
	down hole length and interception depth	does not detract from the	
	hole length.	understanding of the report. Further	
	If the exclusion of this information is justified on the	results will be released in a more	
	basis that the information is not Material and this	comprehensive report when they	
	exclusion does not detract from the understanding of	become available.	
	the report, the Competent Person should clearly		
	explain why this is the case.		
Diagrams	Appropriate maps and sections (with scales) and	Appropriate map is included in the	
	tabulations of intercepts should be included for any	body of the report.	
	significant discovery being reported These should		
	include, but not be limited to a plan view of drill hole		
	collar locations and appropriate sectional views.		
Balanced reporti	Where comprehensive reporting of all Exploration	Not applicable. Further results will be	
-	Results is not practicable, representative reporting of	released in a more comprehensive	
	both low and high grades and/or widths should be	report when they become available.	

	practiced to avoid misleading reporting of Exploration Results.	
	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.	Not applicable
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale 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.	To be determined once further results are available

The information in this report that relates to Exploration Results is based on information compiled by D.C. Pursell (MAusIMM) and Mr D. Foster, (MAusIMM). D.C. Pursell and D. Foster have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Pursell is a full time employee and Managing Director of the Company and Mr Foster is geological consultant to the Company. Both have consented to the inclusion.

The information in this report that relates to Mineral Resources is based on information compiled by Max Rangott (MAusIMM). M Rangott has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Rangott is a Consultant Geologist and principle of Rangott Mineral Exploration Services. He has consented to the inclusion.