

28th July 2016

The Manager Company Announcements Australian Stock Exchange Level 10, 20 Bond Street SYDNEY NSW 2000

#### **QUARTERLY REPORT TO 30 June 2016**

#### **UPDATE OF PROGRAMS VICTORIA**

### **EL006303 Eildon JRV (Antimony-Gold Project)**

Jervois has applied for Exploration Licence 006303 (Eildon JRV) covering approximately 300 sq km south of the town of Eildon, Victoria. The focus of exploration will be antimony and gold. Areas of this tenement were previously held by BHP and CRA respectively. The application has been accepted by the Department of Economic Development, Jobs, Transport & Resources (Victoria) and information and maps have been placed in the form of advertisements in Herald Sun on June 29, Mansfield Courier on July 6 and the Mountain View Mail on July 5, 2016. A copy of the advertisement is also in the News Section of the Jervois website: <a href="http://jervoismining.com.au/">http://jervoismining.com.au/</a>

The Company is awaiting confirmation of securing the Exploration Licence and will advise shareholders when this happens. Initial exploration of this area is anticipated to commence in January 2017.

### **METALLURGY**

# EL006303 Eildon JRV (Antimony-Gold Project) - Preliminary Characterisation Tests

China is the world leader in the production of antimony; reaching 110,000 t in 2010. Antimony is mainly used for making alloys with lead for lead-antimony plates in lead—acid batteries. The other uses for antimony are in the manufacture of solders and additives for chlorine and bromine-containing fire retardants. The price of antimony is often quoted in Chinese Yuan (RMB). In April 2016, a metric ton of F.O.B stibnite concentrate of 50-60% purity was worth 26,000 RMB (Au\$5,198) and antimony oxide (99.8% purity) 34,000 RMB (Au\$6,797). <a href="http://www.metal.com/metals/productinfo/201308090008">http://www.metal.com/metals/productinfo/201308090008</a>).

At Eildon, antimony occurs in the form of narrow veins and veinlets. Securing this prospect will be exciting news for the shareholders as in addition to antimony the veins also contain gold. In Australia, it is not uncommon to find significant amounts of gold in association with antimony ores (Refer to Table 1. Schedule of Assays)

The Eildon deposit occurs in the monzogranite ring dyke of the Cerberean Volcanic Complex. The primary target will be a narrow (<10 cm) stibnite-bearing vein which has an alteration zone several metres wide on its eastern side. The alteration appears to be of a sericitic type and is associated with sporadic quartz vein development and disseminated pyrite. Preliminary assays from a historically collected drill core and hand specimens, accessed

advantageously by Jervois from previous holders, show that a zone about 5 m wide (downhole) contains gold to about 1.1 g/t. There is potential for a larger gold deposit either along strike or at depth.

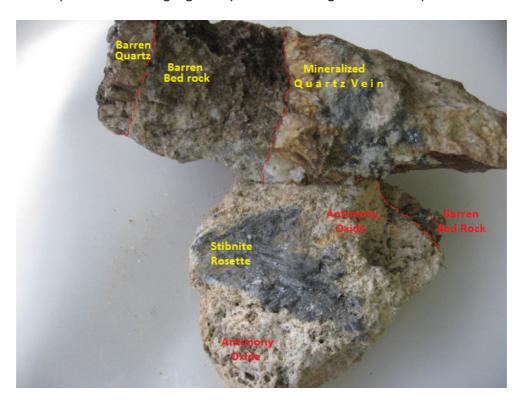


Figure 1. General appearance of antimony mineralization in two samples.

Nine (9) hand-sorted samples, collected from the prospective area, were submitted for XRF and fire assay gold analyses to determine whether gold is enclosed in the ore minerals, antimony sulphide  $(Sb_2S_3)$  and/or antimony oxide  $(Sb_2O_3)$  mineral phases, and/or as free gold in quartz. These samples were made available to Jervois Mining by the previous holder who collected the samples during their exploration of the tenement. Initial assays from these samples are shown in Table 1 below.

Table 1. Schedule of assays on samples from EL 006303 obtained from a previous holder.

Assay Technique	Au-AA25				
Assayed for	Au				
Description of Sample	ppm				
Stibnite-1	1.11				
Stibnite-2	9.69				
Stibnite-3	3.13				
Quartz-1	0.02				
Quartz-2	0.04				
MUD	0.49				
SERICITE	1.04				
ALTERED	0.07				
ALTERED2	0.62				

Characterisation studies employing x-ray diffraction (XRD) on a sample showed the presence of stibnite (antimony sulphide) and senarmontite, valentinite and stibiconite as major antimony oxide minerals. The XRD pattern of this sample is shown below.

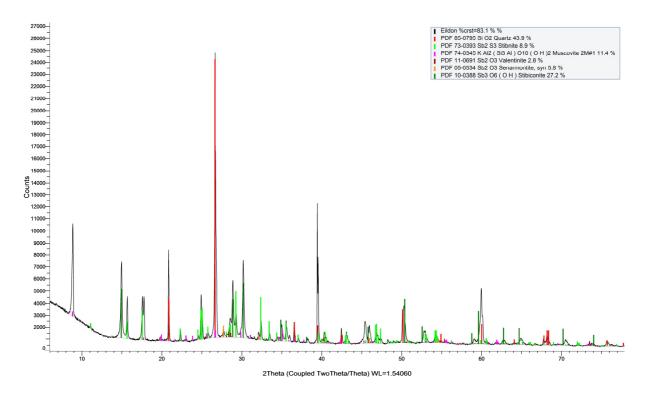


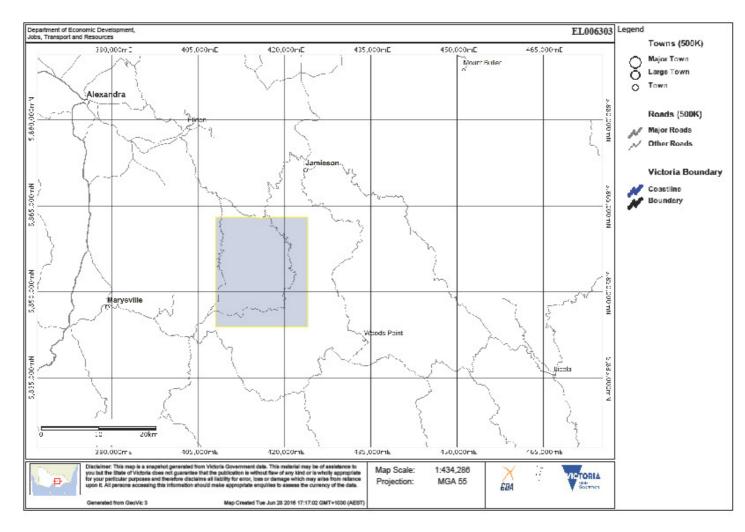
Figure 2. X-ray diffraction pattern to show the mineralogical constitution of the Eildon sample. Note that this sample also contains approximately 15% non-crystalline minerals possibly clay minerals.

A chemical composition of the same sample is shown in Table 2 below. This data show the analysed sample consisted of 75.7% silica, 11.45% antimony, 2.62% sulphur, 2.39g/t gold and lesser amounts of other elements. Recalculations on sulphur and antimony grades suggest that this particular sample would contain approximately 9.3% antimony sulphide and 5.7% antimony oxide. The gold grade is expected to increase once the barren rock is removed by metallurgical treatment.

Table 2. Chemical composition of a target sample from EL006303 Eildon JRV

%	$Al_2O_3$	As	Au (ppm)	BaO	CaO	Fe	K <sub>2</sub> O	MgO	$P_2O_5$	S	Sb	SiO <sub>2</sub>
Eildon	3.8	0.05	2.39	0.06	0.41	0.95	0.9	0.08	0.04	2.62	11.45	75.7

Initial steps are taken to make clean concentrates of antimony sulphide and antimony oxide by applying simple methods like gravity concentration and flotation. A bulk sample weighing approximately 7 kg has been prepared and shipped to a commercial lab in South Australia for flotation and gravity concentration tests.



Map 1. Map of EL006303 Eildon JRV showing area applied for.

#### **UPDATE OF PROGRAMS NSW**

# SYERSTON SCANDIUM PROJECT (near Fifield NSW) Exploration Licence 7805

There has been an approach from various groups for a Joint Venture or outright purchase of this resource. Thus far offers are not quite attractive enough but a positive outcome is still possible.

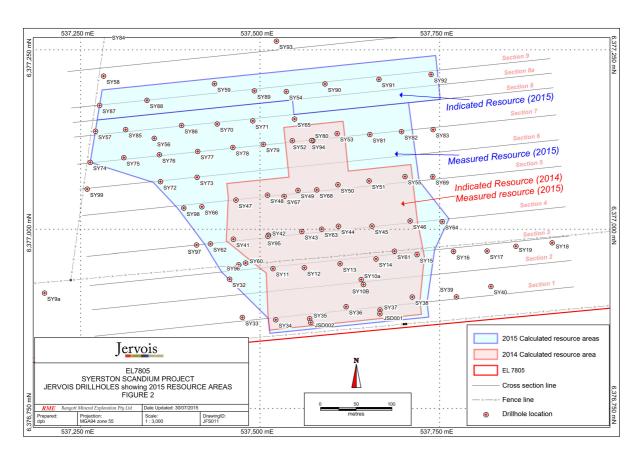
The next exploration on this tenement will be a surface sampling program in the northern units to relocate and evaluate the viability of an alluvial copper and gold show. A surface sampling and mapping program for these units on the Exploration Licence is planned for late September 2016.

As outlined in the Jervois September 2015 Quarterly Report a calculated Measured Resource for scandium on EL7805 was completed and released to the ASX on the 19<sup>th</sup> August 2015.

Calculated Measured Resource: 2,675,000 tonnes@435ppm Sc. Calculated Indicated Resource: 468,000 tonnes @426ppm Sc. Calculated Total Resource: 3,143,000 tonnes@434ppm Sc.

Total Contained Scandium Metal: 1,363 tonnes.

Several new Exploration Licences have been applied for, north of EL 7805. These new licenses will target Group 1 metals, gold and platinum. Shareholders will be advised when these new licenses have been granted.



Map 2. Drilling locations – 2014 Resource Area, Syerston Scandium Project Area shown in pink indicates 2014 indicated resource area.

# **METALLURGY**

# **EL 7805 Syerston-Flemington Scandium Project**

### Occurrence of scandium in the limonitic fraction of a mineralised laterite

The Company is sponsoring a PhD thesis study in France, which has made recognizable progress in determining the mode of occurrence of scandium. The spectroscopic data, supported by Syncrotron X-ray diffraction, microscopic and chemical analyses, indicate that about 75% of the scandium occurred in goethite; the remainder being mainly associated with hematite. These studies show that scandium in hematite is incorporated in the crystal lattice, substituting for Fe<sup>3+</sup>, whereas scandium in goethite was found adsorbed on the crystal surfaces and grain boundaries. These findings are important for the development of efficient exploration strategies and metallurgical extraction processes.

# **Extraction by hydrometallurgical treatment**

The metallurgical test work to leach scandium from Syerston-Flemington lateritic ores is complete. Based on this work a full patent application has been lodged. It was demonstrated that 85 to 90% of scandium can be leached by applying Jervois Mining's patented process. The bulk leach solution (so-called pregnant leach solution, PLS) prepared according to the patented method contained hardly any titanium. The presence of titanium in PLS is undesirable as it makes it difficult (and therefore costly) to make a high purity scandium oxide product. This is due to the similarities in the chemistry of titanium and scandium. Further work is scheduled to start in September 2016 which will include further refinement of the process and condensation of the flue gases for reuse.

### Solvent Extraction (SX)

A straightforward method with 96% scandium extraction and 98% stripping efficiency has been developed. A high purity (99.7-99.8%)  $Sc_2O_3$  precipitate was made at a SX recovery rate of 94%. The recovery is expected to improve even further through test work involving optimization and material recycling.



Figure 3. High purity (99.7%) scandium oxide produced from Syerston-Flemington ore.

# Ion Exchange (IX)

Ion Exchange tests have also been equally successful. Preliminary tests show that, compared to SX, IX needed highly concentrated reagents during sorption, scrubbing, desorption, and polishing stages. The test work also indicated that recovering scandium from strip solution required the use of a second (different) resin. The regeneration of this resin was possible but it required large volumes of a very concentrated acid.

At this stage, no decision is made on the use of IX or SX methods for production of high purity scandium oxide product. Such a decision will be made later during techno-economic evaluations.

### **UPDATE OF PROGRAMS WESTERN AUSTRALIA**



Map 3. Project Location Plan

During the June Quarter Jervois announced to the ASX that an agreement had been entered into with Australian Mines Ltd (ASX:AUZ) in relation to the Arunta West Project.

The Arunta West Project consists of three Exploration Licences: E80/4820 (granted) and applications ELA80/4987 and ELA80/4986, which cover a total area of approximately 345 sq km. The Project is located approximately 600 km west-northwest of Alice Springs within the Gibson Desert of Western Australia, near the Western Australian Northern Territory Border. (See Map 3)

Key terms of the agreement with Australian Mines Ltd (AUZ) include:

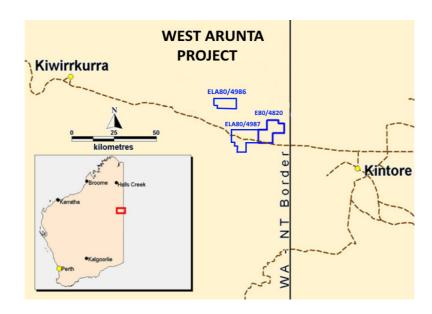
-Expenditure of a minimum of \$350,000 on exploration within 24 months to acquire a 51% interest in the project. At which point AUZ may elect to acquire a further 29% interest in the project by spending \$3.15 million on exploration on the Project within a further 24 month period, to bring the total AUZ interest to 80%.

Once AUZ has satisfied earn-in requirements, resulting in an interest of either 51% or 80%, Jervois may elect to contribute on a pro rata basis, or dilute using an industry formula based on expenditure.

AUZ will be the operator and manager of the project. AUZ have shown success in similar projects such as at their Doolgunna-Marymia Project with Riedel Resources Ltd (RIE).

The West Arunta area represents an opportunity to explore for iron-oxide-copper-gold systems and for diamonds in an area that has favourable geology and significant evidence of mineralisation, but has seen limited exploration activity. At the nearby Pokali Prospect results include 36m @ 0.42% Cu, with up to 0.55g/t Au including 6m @ 1.68% Cu and 0.29g/t Au

The Arunta West Project is totally contained within Land Reserves which have been set aside for the Use and Benefit of Aboriginal Inhabitants (Nos 24923, 40783) under the jurisdiction of the Ngaanyatjarra Land Council. An Access agreement needs finalisation for E80/4820 and agreements to be negotiated for ELA80/4987 and ELA80/4986. AUZ as operator will now manage the negotiations.



Map 4. West Arunta location

### ACQUISITION OF EASTERN STATE ASSETS FROM EXPLAURUM LIMITED

Jervois Mining Limited announced to the ASX on the 6<sup>th</sup> of November 2015 the acquisition of exploration assets from Auzex, a wholly owned subsidiary of Explaurum Limited. The main Queensland tenements comprise the Khartoum, Khartoum North, Khartoum East, Three Mile, Carbonate Creek and Mt. Fairyland tin/tungsten project.

The exchange of ownership of the tenements from Explaurum Limited to Jervois Mining Limited, outlined above, is expected to be finalised this coming Quarter. The necessary paperwork has been completed and submitted to the Queensland Department of Natural Resources and Mines. Jervois is now awaiting confirmation.

A surface sampling and ground mapping program on these tenements will be the focus of Queensland-based field work in August 2016. The field work will aim to assess the viability of each unit in these tenements, collect surface samples for assaying, and assess the potential for tin, tungsten and for the metal lithium. Lithium is known to occur in the pegmatite-rich exposures in the area.

There has been some interest from outside parties regarding the possibility of lithium on these tenements. Shareholders will be kept updated with exploration results as they become available.

#### **UNMARKETABLE PARCELS OF SHARES**

During the Quarter the Company completed the compulsory acquisition of unmarketable parcels of shares. (Those shareholders with less than \$500 worth of shares. 10,000 shares and less at a value of 5 cents per share). At the same time shareholders were given the opportunity to purchase additional shares up to a value of \$15,000. Shareholders were also given the opportunity to retain their unmarketable parcel of shares. The purchase of additional shares by shareholders raised \$649,7850 for the Company.

The acquisition of unmarketable parcels resulted in the surrender of 6.537.273 shares which the Company is in

The acquisition of unmarketable parcels resulted in the surrender of 6,537,273 shares which the Company is in the process of selling. On the completion of sales an average price will be struck and the proceeds sent to individual shareholders free of brokerage charges.

The number of shareholders has been reduced to 1,423 from a total of 4,931 before the acquisition was commenced. This will result in considerable savings in the cost of maintaining the share register and communication with shareholders.

#### **ROYALTIES**

Jervois Mining Limited owns a spread of Royalty positions which encompass Gold at Bullabulling, WA and also at Forest Reefs, near Cadia in NSW. There is also the Royalty position over the Nyngan Scandium Resource, also in NSW.

In this investment climate it is difficult to judge which Royalty will ultimately be the first to yield 'cash flow' to the Company. At the time of writing, there are encouraging reports in the Nyngan local press on the future production of Scandium Oxide, by our former joint venture partner Scandium International Inc. Jervois retains a production royalty over the Nyngan project, of 1.7 % of the sale price for Scandium and any other products produced from the site. This royalty extends for a period of 12 years from the first production date. The minimum royalty payable, annually, would be based on production of ten tonnes of Scandium Oxide (Scandia).

The Bullabulling gold royalty is set at \$ 30.00 per oz. for the first 400,000 oz. and \$20.00 per oz. thereafter, unlimited for gold produced. This is obviously potentially valuable given the steadily rising gold price due to world market instability. The steadily weakening Australian Dollar should help this project.

Forest Reefs located in the shadow of Cadia Gold Copper mine near Orange in NSW, has some, albeit, distant, potential for gold/copper production. Resources of gold do exist in the oxide zone, identified by Jervois years ago. The Royalty is 1.5% Net Smelter Return.

#### **EXPENDITURE FOR QUARTER ENDED 30 June 2016**

Expenditure on Exploration, Research and Development for the Quarter was \$157,082

By order of the Board.

De Ruell

Duncan Pursell.

Managing Director.

The information in this report that relates to Exploration Results or Mineral Resources 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'. D.C. Pursell and D. Foster consent to the inclusion.