

ASX Announcement 26 April 2023

## Sampling Shows Excellent REE Potential from Kimberlites and Related Intrusives at Mt Ida-Ida Valley Project

- Up to 0.11% TREE Oxides identified from tailings, soil and outcrop sampling collected from the Turkey Creek Kimberlite province on the Company's E 29/1135.
- 680 orientation samples now collected from selected tenements comprising Mt Ida-Ida Valley.
- Over 40 aeromagnetic, radiometric and structural targets still requiring investigation and sampling.
- Field investigations confirm the presence of pegmatites within E's 29/1095, 1134 and 1135 with soil samples containing elevated Lithium up to 60 ppm.
- Geochemically elevated Gold (up to 0.004 ppm) and Nickel (up to 570 ppm) from soil and outcrop samples in remote and previously unexplored locality on E 29/1135.

Javelin Minerals Limited ("Javelin", ASX: JAV or "the Company") is pleased to provide an update on its orientation tailings, soil and outcrop sampling activities at the Mt Ida-Ida Valley region near Leonora, Western Australia.

The Mt Ida-Ida Valley Project currently comprises 20 Exploration Licences and Exploration Licence Applications totalling over 2,270 sq km in area (Figure 1).

The project area lies within the Eastern Goldfields region of the Archaean Yilgarn Block, which contains a stable nucleus of gneisses and granites and thin elongate greenstone occurrences. The granites and greenstone belts often contain layered successions of alternating mafic, ultramafic, felsic-clastic associations and pegmatite intrusives prospective for lithium, rare earth elements (REE), precious and base metals.





Figure 1. Location Plan of current Mt Ida-Ida Valley tenements and Turkey Creek Kimberlite Cluster.

Most of the historical exploration at the Company's project area has been for nickel by BHP Billiton and for diamonds by De Beers, the latter identifying a kimberlitic province within E29/1134 and E 29/1135. Recent exploration by Companies nearby to the Mt Ida-Ida Valley Project has identified significant lithium-rich pegmatitic intrusions and REE anomalism.

In addition to the sampling, exploration activities by Javelin have taken the form of a detailed aeromagnetic and radiometric survey, followed by targeting and target prioritisation of structurally anomalous aeromagnetic and radiometric targets.

In general, outcrop is poor over most of the project area with less than 5% of visible basement exposed. However, during the field visits, numerous outcrops of pegmatites were observed in E 29/1095, E 29/1134 and E 29/1135. Outcrop sampling over these pegmatitic occurrences will continue this month.

In May of 2022, an orientation sampling programme was initiated over selected suitable tenements of the Mt Ida-Ida Valley project. The orientation sampling program collected a total of 680 samples which initially comprised a small population of unsieved samples, in addition to a collection of samples sieved to minus 40 mesh. During January 2023, a selection of soil samples sieved to minus 80 mesh were also collected for comparison and contrast. All samples were submitted for analysis for a suite of 24 elements comprising lithium, REE, precious and base metals. Analytical results for some of the more elevated soil and outcrop samples are shown in Table 1.

Sampled	East	North	Au	Ni	Li	Zn	CeO 2	Dy2 O3	Er2O 3	Eu2 O3	Gd2O 3	Ho2O 3	La2O 3	Lu2O 3	Nd2 O3	Pr60 11	Sm2O 3	Tb4O 7	Tm2 O3	Y2O 3	Yb2O 3	TREO
A21261	272128	6804005	-	40	10	110	48	2.3	1.2	0.5	2.4	0.4	2.3	0.2	17.0	4.8	2.4	0.5	0.2	10.1	1.6	93.9
A 21262	272032	6803993	-	40	<10	170	22	1.2	0.6	0.5	1.8	0.3	9.6	0.2	9.6	2.4	1.8	0.2	0.1	1.2	0.5	-
A21263	271933	6803988	-	25	<10	90	24	1.2	0.8	0.2	1.2	0.2	12.0	0.2	9.6	2.4	1.2	0.2	0.1	1.2	1.1	-
A21264	271834	6803974	-	30	<10	30	21	1.2	0.7	0.2	1.2	0.2	9.6	0.2	7.2	2.4	1.2	0.4	0.1	2.4	0.5	-
A21265	271734	6803970	-	45	40	30	50	2.3	2.1	0.9	4.2	0.7	26.4	0.2	21.6	6.0	4.2	0.5	0.3	14.4	1.6	-
A21266	271639	6803955	-	45	30	40	30	1.8	1.8	0.6	2.4	0.3	1.6	0.2	15.6	4.2	3.0	0.5	0.3	8.7	1.6	-
A21267	271534	6803964	-	50	20	50	38	2.3	1.1	0.6	2.4	0.6	18.0	0.2	15.6	4.8	3.0	0.5	0.3	7.2	1.6	-
A 21268	271474	6804051	-	55	10	40	101	4.6	2.2	1.7	6.0	0.8	92.0	0.4	55.2	16.8	11.4	0.8	0.3	12.0	2.2	307.4
A 21269	271415	6803930	-	125	<10	80	99	1.8	0.7	1.2	3.6	0.2	54.0	0.2	42.0	13.8	6.6	0.5	0.1	1.2	0.6	226.7
A 21270	271419	6803931	-	15	10	30	10	1.2	0.6	1.2	1.2	0.2	6.0	0.2	4.8	1.2	0.6	0.2	0.1	3.6	1.1	
A 21271	271339	6803982	-	940	10	730	259	16.7	6.7	10.0	26.4	2.5	374.4	0.6	254.4	74.4	37.8	3.5	1.0	31.2	4.4	1103
A 21308	266867	6804259	0.004	30	20	40	246	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A 21311	269817	6807208	0.004	570	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A 21173	261872	6804850	0.002	20	60	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table 1. Geochemically Elevated REE, Gold and Base Metal Analyses from Soil and Rock Cip Sampling (all data in PPM)

The Company's E 29/1134 and E 29/1135 cover the historic Turkey Creek and Wilbah kimberlite cluster discovered by De Beers in the mid 1990's. Whilst these kimberlites (all strongly altered and metasomatized) contained uneconomic minor trace quantities of diamonds, no work was ever conducted on the REE potential of the kimberlites and any associated carbonatitic intrusions. In general, discoveries of kimberlites within the Archaean of the Yilgarn Block are usually associated with carbonatites and the Turkey Creek kimberlite cluster most likely also contains magmatic carbonate-rich lithologies.

In addition to more sampling to delineate the REE potential within the Turkey Creek kimberlite field, the Company will follow up geochemically elevated lithium, precious and base metals anomalism identified from the sampling programme.

Commenting on the results of the sampling, Javelin's Executive Director Mr Matthew Blake said "The Company has now secured a very strategic tenure of over 2,000 square kilometres just west of Leonora which includes the Turkey Creek kimberlite field. It is pleasing to record the presence of anomalous REE in this same locality and we will progress our understanding of the REE potential here as a priority. Likewise, we have much further work to complete on lithium on the vast pegmatite occurrences within Mt Ida-Ida Valley."

This ASX announcement is authorised by the Board of Javelin Minerals Limited.

#### For more information:

Please visit our website for more information: www.javelinminerals.com.au

Or

Contact Matthew Blake, Executive Director on +61 419 944 396

#### COMPETENT PERSON

The information in this report is based on information compiled by Mr Rob Mosig who is a Fellow of the Australasian Institute of Mining and Metallurgy (F.AusIMM). Mr Mosig has sufficient experience which is relevant to the style of mineralisation and type of deposit underconsideration and to the activity which he is undertaking 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 Mosig consents to the inclusion in the report of thematters based on his information in the form and context in which it appears.



# JORC Code, 2012 Edition – Table 1 report

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	680 Soil and outcrop samples were collected
Drilling techniques	<ul> <li>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).</li> </ul>	No drilling conducted
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	No drilling conducted
Logging	<ul> <li>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.</li> </ul>	No lithological logging conducted on samples

Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Orientation soil sampling programme conducted; most samples were sieved to minus 80 mesh, however, for orientation purposes, a limited number of samples were either left unsieved or sieved to minus 40 mesh.</li> <li>No sub-sampling has been undertaken</li> <li>The sample size of 1-4 kilograms is appropriate and representative of the grain size and potential mineralisation style of the deposit.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Rock chip samples were submitted to Nagrom Laboratories for analysis by 4 Acid digest with analytical methods ICP 003 and ICP 004 for a comprehensive suite of pegmatitic and related elements.</li> <li>Elements were: Ag, Ce, Co, Cu, Dy, Er, Eu, Ga, Ho, La, Li, Lu,</li> <li>Nb, Nd, Ni, P, Pb, Pr, Rb,</li> <li>Sm, Tb, Te, Th, Tl, Tm U, V, Y, Yb, Zn,</li> <li>Au by Au-FA 50.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Assay data was reviewed by 2 Company personnel</li> <li>All field data were collected manually and transferred to spreadsheets. Sample location coordinates were determined and recorded using a handheld GPS and by geotagged photographs.</li> <li>The REE assay data were converted from reported elemental assays to the equivalent oxide compound as applicable to rare earth oxides. The oxides were calculated from the element according to the following factors:</li> <li>CeO2 1.1526</li> <li>La2O3 1.1728</li> </ul>

Criteria	JORC Code explanation	Commentary
,		<ul> <li>Nd2O3 1.1664</li> <li>Pr6O111.2082</li> <li>Dy2O3 1.1477</li> <li>Er2O3 1.1435 Eu2O3 1.1579</li> <li>Gd2O3 1.1526</li> <li>Ho2O3. 1.1455</li> <li>Lu2O3. 1.1371</li> <li>Sm2O3. 1.1596</li> <li>Tb2O3. 1.1762</li> <li>Tm2O3. 1.1421</li> <li>Y2O3. 1.2699</li> <li>Yb2O3. 1.1387</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All locations determined by handheld GPS using GDA94 datum in UTM Zone 50.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Sample spacing for soil samples was predicated on a selected 100 metre spacing. Rock chip samples were determined by outcrop.</li> <li>No compositing was applied</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>All sampling conducted is inappropriate for use in a MRE</li> <li>Sampling was of a reconnaissance nature only and was not designed to achieve unbiased sampling. No drilling reported.</li> </ul>
Sample security	The measures taken to ensure sample security.	All soil and rock chip samples were placed in calico bags, taken to Perth and delivered to Nagrom Labs Kelmscott, Perth by courier.
Audits or	• The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been undertaken

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

	Criteria	JORC Code explanation	Commentary
	Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	Exploration Licences 29/1095, 29/1134 and 29/1135 are held by Cobalt Prospecting Pty Ltd, a wholly owned subsidiary of Javelin Minerals Limited. The tenements are located on the Sturt Meadows and Perrinvale Pastoral leases. All tenements are in good standing and no known impediments to conduct exploration are known to exist.
)	Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• Historical exploration and bulk sampling for diamonds was conducted by De Beers in the 1990's which ultimately led to Javelin commencing an assessment for REE over these tenements.
	Geology	• Deposit type, geological setting and style of mineralisation.	• The tenements are located in the Northern Goldfields centred 40 km to the west of Leonora. Dominant rock types are medium- to coarse- grained granites, gneisses and migmatites, and crosscutting dolerite dykes. There is extensive sandplain cover in morphologically high areas, colluvium and alluvium dominate around slopes and in drainage.
	Drill hole Information	<ul> <li>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: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	No drilling conducted
' 1 )	Data aggregation methods	<ul> <li>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.</li> <li>Where aggregate intercepts incorporate short lengths of high grade</li> </ul>	No aggregation methods have been used

Criteria	JORC Code explanation	Commentary
	<ul> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>No aggregation methods have been used</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Location maps of projects within the release with relevant exploration information contained.</li> </ul>
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.	<ul> <li>A total of 680 samples were collected with the geochemically elevated samples reported in this announcement</li> <li>The reporting of exploration results is considered balanced by the competent person.</li> </ul>
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.	No other data to report
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Further soil sampling to continue with RC drilling planned in near future