ZMI Acquires Highly Prospective Cascade Project

Highlights:

- ZMI Acquires 100% of a large strategic landholding in an emerging Rare Earth Element (REE) province.
- Limited exploration with no drilling below ~3m from surface.
- Historical shallow auger drilling encountered mineralisation of over 1000ppm Total Rare Earth Element Oxide (TREO) at surface (0-3m maximum drill depth), which may represent a conservative reading compared to the bedrock TREO composition.
- Two (2) large REE anomalies have been identified and are ready for immediate drill testing.
- The Cascade Project is contiguous or adjacent to peer ASX listed REE projects.
- Low cost entry acquisition with a simple exploration model being applied presenting a strong foundation for future growth with significant near term catalysts.
- Additional complimentary projects are currently under review.

Zinc of Ireland NL (ASX: ZMI) (ZMI) is pleased to advise that it has entered into a binding tenement sale agreement (Agreement) with Syndicate Minerals Pty Ltd (ACN 124 140 889) (Seller) and Gneiss Results (ABN 15 721 611 229) (Gneiss) to acquire the legal and beneficial ownership of two (2) granted exploration licences, being E74/690 and E74/691, that cover 183km^2, are located 70km northwest of Esperance, Western Australia and are well served by sealed roads and other key infrastructure (Tenements or Cascade Project) and all related mining information, assets and other information, free from any encumbrances (Sale Assets) (Proposed Transaction).

Cascade Project Details:

The Cascade Project Tenements are favorably located within the Munglinup Gneiss Terrane, contiguous to license blocks held by Meeka Metals Ltd (ASX: MEK) and adjacent to OD6 Metals Ltd's (ASX: OD6) 'Splinter Rock REE Project' (Figure 1), who have recently reported encouraging REE results in this emerging province.[1]

The Cascade Project covers significant areas of TREO enrichment in regolith as defined by shallow (0-3m) auger drill traversing by AngloGold Ashanti Australia Ltd (AngloGold) during gold exploration in 2010-2012 (Figure 2).[2] This historical auger drilling encountered near surface enrichment in REE's with widespread

[1] For example, see OD6 Metals Ltd's ASX announcement dated 18 April 2023.
[2] Refer to Combined Annual Report to DMIRS for the Viking 4 project, C3/2010 (E63/1313, E63/1338, E63/1352, E63/1417, E63/1487, E63/1535, E74/426, E74/430 & E74/432–34), for the period 1/10/2011 to 30/9/2012.

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anomalism (up to 1031ppm TREO) over a considerable area. AngloGold only sampled to a maximum depth of ~3m and targeted the most calcretised pedogenic horizon. The resultant TREO auger anomalies generated, may therefore under-represent potential underlying REE mineralisation.

For the purposes of assessing the AngloGold geochemical data ZMI calculated TREO from the original multi element REE assays using public domain element-to-stoichiometric-oxide conversion factors (refer to: https://www.jcu.edu.au/advanced-analytical-centre/resources/element-to-stoichiometric-oxide-conversion-factors), which were applied to a basket containing La, Ce, Nd, Pr, Sm, Eu, Gd, Tb, Dy, Ho, Tm, Er, Yb, Y and Lu.[3] ZMI will endeavor to determine saprolite and upper bedrock REE levels with a low cost drill program as soon as possible after completion of the Proposed Transaction.

The AngloGold auger results on E74/691 show a large coherent 6km by 3km anomaly while E74/690 hosts similarly anomalous TREO enrichment along a 5km road traverse. Both areas represent encouraging targets for the discovery of deeper mineralisation and will be subject to drill testing as soon as access agreements are confirmed.

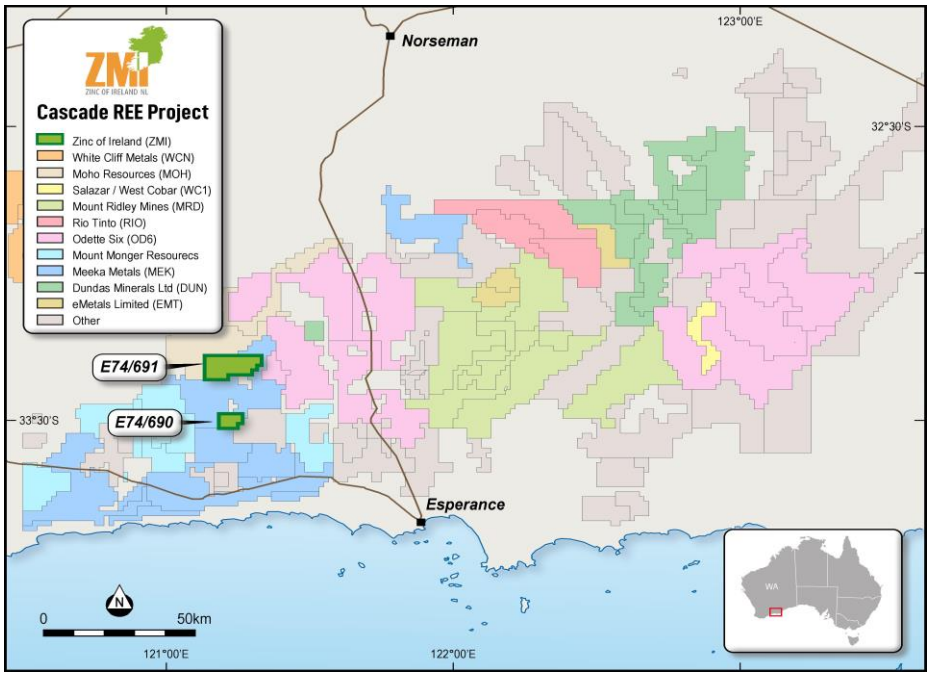

Figure 1. ZMI's Cascade Project Location

[3] Lu results were not reported for all AngloGold samples.

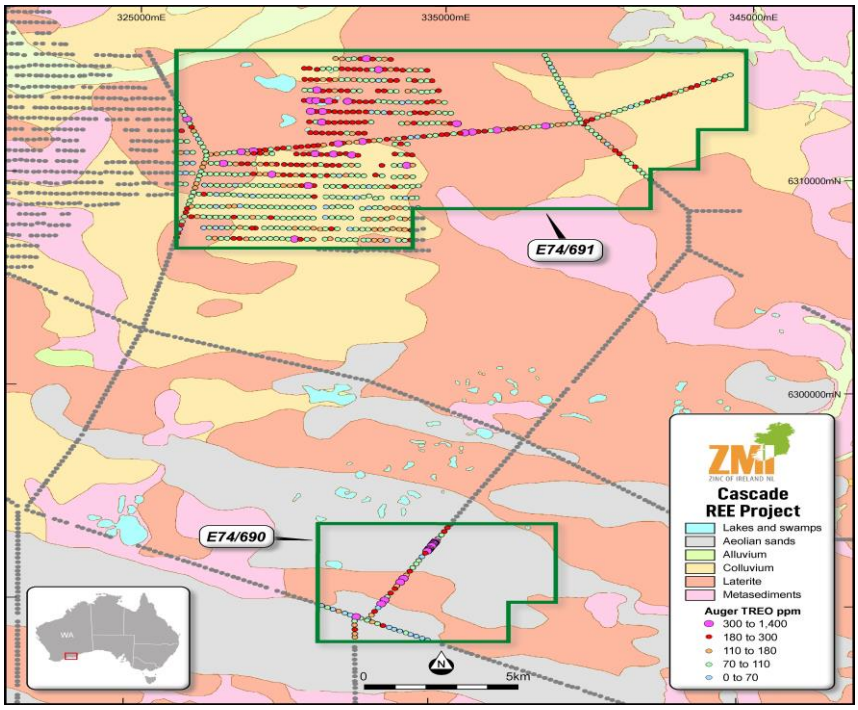

Figure 2. TREO anomalism calculated from AngloGold auger Au-multi element sample results (max drill depth of ~3m)

Next Steps:

- Completion of the Proposed Transaction.
- ZMI plans to engage with all relevant stakeholders to confirm access agreements and to obtain the social licence to operate.
- Finalise technical drillhole planning and source quotes from suitable RAB/Aircore drilling contractors to test known REE anomalies. Regolith mapping along with clay mineralogy testwork will be conducted in conjunction with drilling.

Rare Earths Market:

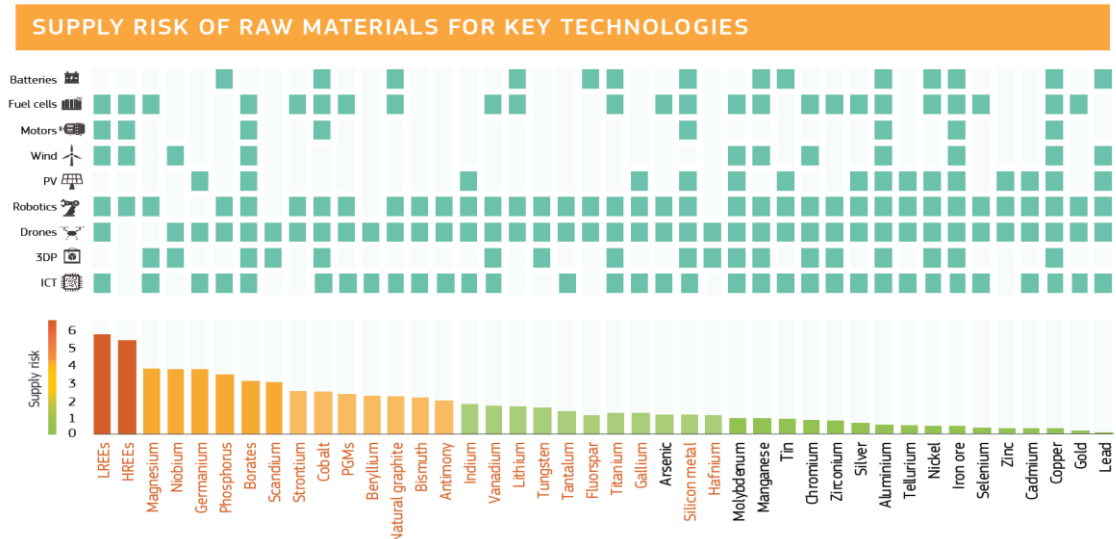

Figure 3. REE have the highest supply risk of raw materials for key technologies required for the energy transition (Source: European Commission Joint Research Centre 2022).

The Sale Assets are to be purchased from the Seller and Gneiss for consideration of:

- 3,100,000 fully paid ordinary shares in the issued share capital of ZMI at a deemed issued price of $0.024 per share (deemed value of $74,400), with 2,500,000 of those shares to be allocated to the Seller (or their nominee(s)) and 600,000 of the shares to Gneiss (or their nominee(s)) (Consideration Shares); and

- a 1.5% net smelter royalty to the Seller on standard commercial terms, including a partial buy back clause in favour of ZMI (Royalty),

(together, the Consideration Shares and the Royalty are the Consideration).

Note that the Consideration Shares will be issued out of ZMI's existing capacity in accordance with ASX Listing rule 7.1.

Comment from Non-Executive Chairman, Peter Huljich:

"ZMI is pleased to have expanded into the green metals sector through this low cost acquisition. The exploration model that will be applied offers immediate and significant leverage to shareholders, at a time when the Esperance REE province continues to deliver exciting results and many countries seek to guarantee their own supply of REE metals from outside of China. We look forward to exploring this project and any other complimentary projects that ZMI may acquire.

ZMI is also excited about the potential of our brownfield's Rathdowney Irish base metal project, which is being actively explored. We remain focused on unlocking value for shareholders through this project, which contains over 1mt of contained zinc and lead metal.[4]

The company looks forward to updating shareholders in the near future."

The Board of Directors of ZMI have authorised this announcement for release to the market.

Yours faithfully,

Peter Huljich
Non-Executive Chairman
Zinc of Ireland NL

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[4] Refer to ZMI's ASX announcement dated 8/09/2020.

Competent Persons Statement

The information in this announcement that relates to vendor information (geological mapping and interpretation) is based on information compiled and prepared by Mr Roland Gotthard, a Competent Person who is a Member of the Australasian Institute of Mining And Metallurgy. Mr Gotthard is an exploration geologist with sufficient experience relevant to the styles of mineralisation under consideration and to the style of activity being reported to qualify as a Competent Person as defined within the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Gotthard has verified the information contained within this announcement and agrees to its inclusion in the form and context in which it appears.

This announcement does not include the results of any new or previously unreleased samples.

JORC CODE, 2012 EDITION – TABLE 1

Section 1 Sampling Techniques and Data

Criteria in this section apply to all succeeding sections

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 sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *Description of 'industry standard' work*	• Geochemical auger sampling for multi-element and gold determination
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).*	• Reporting of historical auger drilling undertaken using vehicle mounted auger drilling rigs • Open hole drilling to 3m targeting pedogenic calcretes within soil horizon
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• No drill recovery data was logged
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Soil characterised by reactivity, colour and simple logging • Historical data includes a simple log of geological units
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Drill chips and spoils sampled from the most carbonate reactive section of the drill hole • 200-500g samples collected in the field by scoop and were not sieved • The sample method is appropriate for broad scale reconnaissance drilling to determine surficial geochemical anomalism in the regolith • QA/QC control of historical information unknown • It is unknown if the historical sampling is the most appropriate to the style of mineralisation and nature of the regolith

JORC CODE, 2012 EDITION – TABLE 1

Section 1 Continued

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Quality of assay data and laboratory tests</td><td>

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
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.
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.

</td><td>

Samples were assayed via aqua regia for Au (Genalysis AR25/EGF) and aqua regia for multi-elements including REE's (AR25/MS)
This is considered a partial digest of the target REE's
Field duplicates and certified reference materials were submitted by the previous operator
The QA/QC performance was not reviewed by Gneiss Results for accuracy or precision as part of this study
Historical operator described lower detection limits varied from batch to batch and reported the highest lower detection limit
Lower detection limit does not constrain the position or magnitude of the anomalous results

</td></tr>
<tr><td>Verification of sampling and assaying</td><td>

The verification of significant intersections by either independent or alternative company personnel.
The use of twinned holes.
Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.
Discuss any adjustment to assay data.

<table>
<tr><th>Element</th><th>Ratio</th><th>Oxide</th><th>Element</th><th>Ratio</th><th>Oxide</th></tr>
<tr><td>La</td><td>1.1728</td><td>La_2O_3</td><td>Dy</td><td>1.1447</td><td>Dy_2O_3</td></tr>
<tr><td>Ce</td><td>1.2284</td><td>CeO_2</td><td>Ho</td><td>1.1455</td><td>Ho_2O_3</td></tr>
<tr><td>Pr</td><td>1.2082</td><td>Pr_6O_{11}</td><td>Er</td><td>1.1435</td><td>Er_2O_3</td></tr>
<tr><td>Nd</td><td>1.1664</td><td>Nd_2O_3</td><td>Tm</td><td>1.1421</td><td>Tm_2O_3</td></tr>
<tr><td>Sm</td><td>1.1596</td><td>Sm_2O_3</td><td>Yb</td><td>1.1387</td><td>Yb_2O_3</td></tr>
<tr><td>Eu</td><td>1.1579</td><td>Eu_2O_3</td><td>Lu</td><td>1.1371</td><td>Lu_2O_3</td></tr>
<tr><td>Gd</td><td>1.1526</td><td>Gd_2O_3</td><td>Y</td><td>1.2669</td><td>Y_2O_3</td></tr>
<tr><td>Tb</td><td>1.1762</td><td>Tb_2O_3</td><td></td><td></td><td></td></tr>
</table>
</td><td>

Not applicable
Assay data are as received from the relevant WAMEX reports
Assays below detection limit were replaced with a value of half of the detection limit
Lutetium was not reported for all samples in the dataset. Lu_2O_3 for reported samples averages 0.2ppm. The omission of Lu_2O_3 where unreported is not considered to materially affect the magnitude of the anomalism as depicted
Rare Earth Elements are converted to oxides using publicly available oxide conversion ratios (at left)

</td></tr>
<tr><td>Location of data points</td><td>

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.
Specification of the grid system used.
Quality and adequacy of topographic control.

</td><td>

Historical auger holes were fixed with a Garmin GPS2000 handheld unit
The location accuracy is assumed +/-3m for an instrument of this type

</td></tr>
</table>

Section 1 Continued

Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• *Geochemistry results not intended for estimation of Mineral Resources*
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.* • *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.*	• *Not possible to assess from historical results*
Sample security	• *The measures taken to ensure sample security.*	• *Not possible to assess from historical results*
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• *Not possible to assess from historical results*

JORC CODE, 2012 EDITION – TABLE 1

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	• *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.* • *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.*	• E74/690 • E74/691 • Tenements owned 100% by Syndicate Minerals Pty Ltd • All tenure is granted
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Syndicate Minerals has undertaken regolith mapping • Historical results reported herein from WAMEX Reports A88744 A96138
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Sedimentary gneisses and granite gneisses form the basement to the Munglinup Terrane • Regolith units including marine sediments of Cenozoic age are known to cover portions of the region • REE mineralisation is known within the region hosted in regolith sediments and saprolite
Drill hole Information	• *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:* • *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.* • *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.*	• Auger drill holes are all vertical and range in depth from 1-3m • Auger drilling is classified as a geochemical sampling technique. It is not used for mineral resource definition. As such, depth of sampling is not considered material. • No sampling interval or depth was given. The sample which was assayed may have been taken from anywhere in the 1 to 3m hole length • The exclusion of this information is justified as the auger technique is equivalent to soil sampling and soil sampling results ordinarily are used to define anomalies, not mineralisation • A tabulation of all auger samples within the 5th quintile of 210ppm Total Rare Earth Oxide (TREO) is included in order to substantiate the location and tenor of the historical soil anomaly • See Appendix 1 for a tabulation of all auger holes reporting a Total Rare Earth Oxide (TREO) concentration of >210ppm,

Criteria	JORC Code explanation	Commentary
		being the top quartile • Auger samples below 210ppm are not reported as they are not material exploration results, are publicly available information, are historical information, and the omission of this information does not materially detract from the understanding of report
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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• *Not applicable to geochemical exploration samples*
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').*	• *Not applicable to geochemical exploration samples*
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.*	• A map showing tenement locations has been included • Maps showing the distribution of and anomalies has been provided
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 data points within the tenure have been reported • Geochemical trends and relationships can be observed from the mapped data points
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 meaningful exploration data pertaining to rare earth elements has been conducted • Syndicate Minerals completed a regolith interpretation map of the tenement which forms the base map as depicted
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.*	• Drilling of RAB/AC holes to sample the whole regolith profile to Top Of Fresh Rock is recommended as a first-pass assessment of the anomalies depicted herein

APPENDIX 1 – Significant auger geochemical results from WAMEX A88744 and A96138

SampleID	MGA North	MGA East	RefRL	La2O3	CeO2	Nd2O3	Pr6O11	Sm2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Tm2O3	Er2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO
	z51S	z51S		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
VKU17453	6292495	334820	173.2	133.3	471.6	164.2	40.9	32.7	8.0	28.0	3.9	25.7	4.7	1.7	12.1	10.9	-	93.3	1031	205
VKU16227	6312454	338308	198.5	212.5	280.9	217.8	59.4	36.1	6.8	24.1	3.5	16.3	2.9	1.1	8.2	7.1	-	56.8	934	277
VKU17128	6289310	332513	162.4	226.5	234.8	176.6	51.8	25.9	5.1	17.6	2.2	10.8	1.8	0.6	4.6	3.5	-	40.5	802	228
VKU16514	6291133	334028	171.1	129.4	167.1	144.2	37.7	26.6	5.2	24.5	3.4	17.0	3.4	1.1	9.3	6.3	-	90.5	666	182
VKU16513	6290957	333927	171.9	101.7	146.0	104.3	27.3	19.6	4.3	18.2	2.6	13.1	2.6	0.9	7.2	4.8	-	72.2	525	132
VKU29621	6313000	330621	214.2	110.7	133.3	100.2	28.8	18.6	4.4	16.3	2.1	12.1	2.4	0.8	6.0	4.2	0.6	70.4	511	129
VKU29894	6310512	327810	219.5	86.8	220.1	75.2	22.4	14.1	3.1	11.9	1.7	9.5	1.8	0.7	4.7	3.8	0.5	50.4	507	98
VKU17451	6292425	334779	165.6	57.0	136.8	84.5	19.3	18.1	5.1	19.2	2.6	16.9	3.1	1.2	8.6	7.0	-	79.2	458	104
VKU16303	6312572	326590	224.4	86.8	167.8	73.4	19.7	14.4	3.6	12.3	1.8	9.8	2.0	0.7	5.6	4.0	-	41.6	444	93
VKU17452	6292463	334801	173.2	54.9	128.6	81.1	18.7	19.1	4.8	17.6	2.6	17.2	3.3	1.3	9.3	8.1	-	72.8	439	100
VKU17449	6292424	334780	166.1	59.4	140.7	67.1	16.2	15.1	4.0	15.7	2.4	13.8	2.8	1.0	8.1	6.3	-	73.4	426	83
VKU30289	6311015	331400	229.8	100.3	121.7	81.4	22.4	13.8	3.2	11.5	1.6	7.9	1.6	0.5	3.9	2.7	0.4	49.5	422	104
VKU17464	6292894	335049	181.6	101.2	86.8	87.4	22.1	16.0	3.7	14.4	1.8	11.4	2.2	0.7	5.6	4.2	-	64.5	422	110
VKU16507	6289926	333323	167.4	90.2	81.0	89.8	22.0	16.6	3.2	15.7	2.2	12.1	2.5	0.8	6.9	4.5	-	73.0	421	112
VKU29729	6312515	335397	211.7	90.3	91.7	84.1	23.0	15.6	3.5	13.8	1.9	10.2	2.1	0.7	5.4	4.0	0.6	70.6	417	107
VKU17462	6292827	335011	169	93.2	89.4	79.4	20.4	14.1	3.2	12.0	1.5	10.1	1.9	0.7	4.9	3.8	-	53.7	388	100
VKU30292	6310983	331997	220.1	94.1	88.7	75.9	20.3	13.3	3.1	11.5	1.6	8.0	1.7	0.5	4.1	3.0	0.4	54.5	381	96
VKU29715	6313501	331821	216.7	88.4	73.8	74.8	21.6	13.3	3.2	12.2	1.6	8.8	1.7	0.5	4.4	3.1	0.5	56.5	364	96
VKU16258	6311620	332327	216.1	86.8	81.0	75.3	19.5	14.0	3.2	12.1	1.8	8.9	1.7	0.6	4.7	3.3	-	43.5	356	95
VKU29624	6313513	330794	214.5	72.0	104.1	68.0	19.5	12.6	3.0	11.2	1.4	8.1	1.5	0.5	4.0	2.9	0.4	46.2	355	88
VKU17454	6292546	334848	163	57.3	101.1	63.4	14.9	13.3	3.2	13.0	1.7	11.8	2.4	0.9	6.3	5.2	-	59.2	354	78
VKU16235	6312233	336719	202.1	84.9	84.2	75.7	20.0	13.4	3.0	11.2	1.6	8.2	1.6	0.5	4.3	3.1	-	39.0	351	96
VKU17457	6292724	334947	182.3	71.8	90.1	72.2	18.1	13.2	3.0	11.5	1.4	9.0	1.7	0.6	4.5	3.3	-	49.2	350	90
VKU16262	6311509	331549	212.5	84.2	71.7	78.4	20.1	14.0	3.2	12.3	1.8	9.0	1.7	0.6	4.7	3.4	-	44.4	349	98
VKU30395	6310521	333799	220.8	61.6	169.0	50.3	14.1	8.1	1.8	6.4	0.9	5.0	0.9	0.3	2.4	2.1	0.3	23.4	347	64
VKU16239	6312121	335914	205.1	70.1	74.3	74.4	18.6	14.3	3.3	13.3	2.0	10.2	2.0	0.7	5.6	4.2	-	50.4	343	93
VKU29909	6310024	329403	218.7	65.0	128.4	56.8	15.7	10.5	2.4	8.9	1.2	6.6	1.3	0.5	3.3	2.7	0.4	36.9	341	72
VKU29619	6313005	331001	212.7	65.3	141.4	55.4	16.7	9.7	2.2	7.8	1.1	5.7	1.1	0.4	2.6	2.0	0.3	27.6	339	72
VKU29631	6314009	330796	210.1	69.4	97.3	63.5	18.7	11.7	2.8	10.6	1.4	7.9	1.5	0.5	3.9	2.7	0.4	43.8	336	82
VKU29602	6312503	330997	208.5	76.6	89.0	64.1	18.4	11.3	2.7	10.0	1.3	7.3	1.4	0.5	3.6	2.5	0.4	43.8	333	83
VKU16278	6311070	328386	214	52.7	161.5	47.1	12.7	9.1	2.0	7.4	1.2	6.1	1.1	0.4	3.2	2.7	-	22.4	330	60
VKU17459	6292775	334983	177.2	53.9	120.0	54.5	13.8	11.4	2.6	9.8	1.4	8.4	1.6	0.6	4.3	3.5	-	38.3	324	68
VKU17461	6292814	335004	172.9	63.7	97.3	59.0	15.0	11.1	2.5	9.5	1.3	8.5	1.6	0.6	4.3	3.5	-	44.0	322	74
VKU29626	6313494	331203	215.5	58.5	146.6	46.5	14.1	8.2	2.0	6.8	0.9	5.2	1.0	0.3	2.4	1.8	0.3	25.7	320	61
VKU17456	6292663	334920	164.5	37.6	158.3	45.2	10.8	9.3	2.2	8.0	1.1	7.3	1.3	0.5	3.6	3.2	-	30.3	319	56
VKU29672	6315509	332400	206.5	49.8	155.8	42.6	12.6	7.7	1.9	6.7	0.9	5.3	1.0	0.3	2.7	2.1	0.3	28.2	318	55
VKU29876	6311021	330798	207.5	73.6	93.6	57.2	15.7	10.4	2.3	9.2	1.2	6.5	1.3	0.4	3.3	2.2	0.3	38.4	315	73
VKU17460	6292795	334990	179.7	55.4	111.1	57.2	14.6	11.0	2.5	9.2	1.3	8.0	1.5	0.5	3.9	3.3	-	35.0	314	72
VKU29670	6315006	332798	211.9	72.0	76.9	61.6	17.8	10.6	2.5	9.4	1.2	6.9	1.4	0.4	3.5	2.5	0.4	42.5	310	79
VKU29919	6309521	330597	217.7	48.8	161.0	39.6	11.4	7.2	1.6	5.8	0.8	4.4	0.9	0.3	2.2	1.9	0.3	22.6	309	51
VKU16276	6311124	328774	215.7	76.7	69.3	67.0	17.3	12.3	2.7	10.3	1.5	7.7	1.5	0.5	4.0	2.8	-	34.3	308	84
VKU16523	6292674	334923	171	49.7	89.9	57.7	13.9	11.8	2.9	10.9	1.6	9.1	1.9	0.7	5.4	4.1	-	47.5	307	72
VKU16508	6290103	333429	171.1	74.7	84.9	63.6	16.6	10.9	2.4	8.8	1.2	6.1	1.2	0.4	3.4	2.4	-	30.9	307	80
VKU30034	6307003	330198	208.2	70.0	80.6	56.2	15.8	10.4	2.5	9.7	1.3	7.2	1.4	0.4	3.6	2.6	0.4	43.7	306	72
VKU16240	6312088	335669	207.4	63.3	86.6	62.6	16.3	11.5	2.6	9.9	1.5	7.4	1.4	0.5	4.1	3.1	-	33.6	305	79
VKU29623	6313509	330606	213.1	67.2	85.1	57.7	16.7	10.0	2.5	9.0	1.2	6.5	1.3	0.4	3.1	2.2	0.3	38.6	302	74
VKU29918	6309527	330793	214.5	71.7	65.5	60.1	16.2	10.9	2.4	9.5	1.3	6.9	1.4	0.5	3.6	2.8	0.4	45.9	299	76
VKU29669	6315016	333007	211.2	65.9	83.1	56.5	16.4	9.7	2.3	8.7	1.2	6.5	1.3	0.4	3.3	2.4	0.4	40.3	298	73
VKU16329	6307598	326488	203.5	57.6	122.1	44.6	13.2	8.2	2.0	7.4	1.2	5.4	1.1	0.4	3.1	2.5	-	27.2	296	58
VKU29620	6312999	330800	212.4	56.9	112.8	46.5	13.9	8.3	1.9	7.3	1.0	5.7	1.1	0.4	2.9	2.1	0.3	32.2	293	60
VKU17458	6292759	334973	172.9	55.3	95.2	54.4	13.9	10.6	2.4	8.8	1.1	7.5	1.4	0.5	3.5	2.9	-	35.3	293	68
VKU29877	6310994	331006	214.1	62.3	80.6	55.9	14.8	10.0	2.3	8.7	1.1	6.0	1.2	0.4	3.2	2.3	0.3	43.6	293	71
VKU16332	6307013	326346	205	59.2	110.6	45.4	13.3	8.6	2.1	8.0	1.3	6.0	1.2	0.5	3.5	3.1	-	28.5	291	59
VKU17455	6292595	334877	164.2	38.2	95.3	53.8	12.7	11.9	3.0	11.0	1.5	9.5	1.8	0.7	4.6	4.0	-	42.0	290	67
VKU29595	6311994	331222	215.5	57.8	74.5	57.4	16.1	10.6	2.6	9.5	1.3	7.2	1.4	0.5	3.6	2.7	0.4	43.5	289	73
VKU16271	6311261	329761	208.7	56.6	91.3	54.3	14.3	10.6	2.4	9.3	1.4	7.2	1.3	0.4	3.6	2.8	-	30.0	286	69
VKU29883	6310491	330017	217.2	56.1	72.7	51.5	13.7	9.9	2.4	9.2	1.3	7.0	1.4	0.5	3.7	2.8	0.4	49.3	282	65
VKU29665	6314498	333207	209	41.6	145.3	35.7	11.1	6.4	1.5	5.4	0.8	4.4	0.8	0.3	2.2	1.7	0.3	22.3	280	47
VKU29617	6313003	331401	203	58.4	77.1	50.0	14.4	9.3	2.2	8.8	1.2	6.6	1.3	0.4	3.4	2.5	0.4	42.8	279	64
VKU16237	6312176	336319	199	59.2	91.8	53.1	14.2	9.3	2.1	7.7	1.1	5.7	1.1	0.4	3.1	2.3	-	27.2	278	67
VKU16219	6312777	339812	200.5	61.3	68.7	56.7	14.7	10.5	2.2	9.3	1.3	6.8	1.3	0.4	3.6	2.7	-	34.3	274	71
VKU16241	6312064	335526	199.1	61.3	65.8	59.8	15.5	10.9	2.4	9.2	1.3	6.9	1.3	0.5	3.7	2.8	-	30.5	272	75
VKU29879	6310503	330813	212.1	63.6	84.0	50.4	13.7	8.7	1.9	7.3	0.9	4.9	1.0	0.3	2.4	1.7	0.3	28.8	270	64
VKU29607	6312508	331995	215.8	58.1	69.3	53.2	15.5	10.0	2.4	8.9	1.2	6.8	1.3	0.4	3.3	2.5	0.4	35.2	268	69

Continued

SampleID	MGA North	MGA East	RefRL	La2O3	CeO2	Nd2O3	Pr6O11	Sm2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Tm2O3	Er2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO
	z51S	z51S		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
VKU16254	6311735	333133	217.2	48.6	117.7	42.7	11.5	7.9	1.7	6.5	1.0	4.9	0.9	0.3	2.6	2.2	-	19.6	268	54
VKU29869	6311000	328799	217.6	40.4	146.6	33.4	9.6	6.0	1.3	4.7	0.7	3.4	0.7	0.2	1.7	1.4	0.2	17.3	267	43
VKU16529	6293709	335523	178.7	39.9	109.0	45.3	11.6	9.4	2.0	8.1	1.2	6.7	1.3	0.4	3.5	2.7	-	25.9	267	57
VKU17465	6292934	335073	176.2	57.2	71.4	54.4	13.5	10.3	2.3	8.6	1.1	6.9	1.3	0.4	3.3	2.6	-	32.9	266	68
VKU29714	6313497	332007	216.9	58.3	76.4	47.8	14.0	8.7	2.1	7.7	1.0	5.7	1.1	0.4	2.9	2.1	0.3	34.1	263	62
VKU30290	6311032	331603	220.5	59.5	74.6	47.2	12.2	8.5	2.0	7.4	1.0	5.3	1.1	0.4	2.7	2.0	0.3	35.1	259	59
VKU29652	6315000	332205	215.7	52.0	66.1	49.4	14.1	9.3	2.3	8.6	1.2	6.6	1.3	0.5	3.5	2.6	0.4	40.2	258	63
VKU29593	6311998	331617	215.5	56.1	72.7	46.5	13.6	8.4	2.0	7.7	1.0	5.7	1.1	0.4	2.9	2.2	0.3	35.2	256	60
VKU16632	6311339	340604	196.2	53.2	67.5	53.9	13.7	9.6	2.1	8.6	1.2	6.4	1.2	0.4	3.3	2.4	-	31.5	255	68
VKU29694	6314509	333992	204.8	61.6	55.9	49.0	14.3	8.8	2.1	7.9	1.1	6.1	1.2	0.4	3.1	2.4	0.3	38.5	253	63
VKU29612	6313008	332431	211.6	32.1	118.8	34.3	10.0	7.0	1.7	6.2	0.9	5.5	1.1	0.4	2.9	2.7	0.4	26.5	251	44
VKU29630	6313973	331007	212.3	45.9	87.2	42.9	12.4	8.1	1.9	7.2	1.0	5.6	1.1	0.4	2.9	2.1	0.3	31.4	250	55
VKU17133	6288915	333401	159	41.4	114.8	38.8	10.9	7.1	1.6	5.8	0.8	4.5	0.8	0.3	2.2	1.8	-	18.7	250	50
VKU29596	6312000	331012	212.3	48.8	86.6	43.7	12.7	8.0	1.9	6.9	0.9	5.2	1.0	0.3	2.5	2.0	0.3	28.3	249	56
VKU16510	6290443	333630	170.9	41.4	99.8	42.3	11.0	7.7	2.0	6.9	1.1	5.4	1.1	0.4	3.0	2.3	-	24.3	249	53
VKU29597	6312003	330820	211.9	50.6	88.2	41.2	12.2	7.4	1.8	6.6	0.9	5.0	1.0	0.3	2.4	1.8	0.3	28.7	248	53
VKU16265	6311423	330890	210	56.8	71.9	50.1	13.1	8.9	2.0	7.7	1.1	5.4	1.0	0.3	2.8	2.0	-	24.5	248	63
VKU30291	6311047	331810	222.5	49.9	99.2	38.7	10.4	7.1	1.7	5.9	0.9	4.5	0.9	0.3	2.2	1.8	0.3	23.0	247	49
VKU29603	6312500	331206	211.3	51.8	82.5	41.5	12.4	7.5	1.8	6.6	0.9	5.0	1.0	0.3	2.5	1.8	0.3	28.6	244	54
VKU29681	6314993	334399	203.9	47.3	102.0	38.5	11.6	6.7	1.5	5.4	0.7	4.3	0.8	0.3	2.1	1.8	0.3	21.1	244	50
VKU29920	6309518	330387	211	54.9	64.4	45.9	12.3	8.4	1.9	7.4	1.0	5.4	1.1	0.4	2.9	2.2	0.3	35.5	244	58
VKU16522	6292507	334829	176.2	32.2	99.0	44.2	10.9	8.6	2.0	7.7	1.1	5.8	1.1	0.4	3.2	2.7	-	24.8	244	55
VKU30035	6306999	330392	206.8	54.5	70.2	43.7	12.4	8.1	2.0	7.2	1.0	5.6	1.1	0.4	2.8	2.0	0.3	32.6	244	56
VKU16275	6311152	328974	207.8	46.6	93.0	41.9	11.0	7.7	1.7	6.8	1.0	5.2	1.0	0.3	2.7	2.1	-	22.6	244	53
VKU29649	6315501	332206	208.5	43.0	107.1	35.4	10.7	6.2	1.5	5.5	0.7	4.2	0.8	0.3	2.1	1.7	0.3	23.1	243	46
VKU29616	6312990	331586	213.1	50.4	64.1	45.4	12.9	8.7	2.1	7.8	1.1	5.9	1.1	0.4	3.0	2.3	0.3	36.3	242	58
VKU30403	6311536	333593	225.5	39.6	89.9	41.2	11.9	8.2	1.7	6.9	1.0	5.7	1.1	0.4	3.0	2.4	0.3	28.0	241	53
VKU16263	6311483	331350	207	49.3	82.7	43.9	11.7	8.0	1.8	6.7	1.0	5.1	1.0	0.3	2.8	2.1	-	23.4	240	56
VKU29716	6314005	331598	213.7	42.7	102.1	37.2	11.1	6.9	1.7	5.7	0.8	4.2	0.8	0.3	2.0	1.5	0.2	22.0	239	48
VKU29594	6312000	331405	215.3	49.9	88.7	38.0	11.5	7.0	1.7	6.0	0.8	4.7	0.9	0.3	2.3	1.8	0.3	24.7	239	49
VKU29634	6314516	330402	209.6	50.5	64.0	45.8	12.9	8.4	2.0	7.5	1.0	5.6	1.1	0.4	2.8	2.1	0.3	33.5	238	59
VKU30025	6306994	328406	202.8	45.6	69.3	39.8	11.3	8.2	2.0	7.9	1.1	6.3	1.2	0.4	3.2	2.5	0.3	36.0	235	51
VKU29735	6313535	334589	218.6	43.1	70.3	43.1	11.2	8.2	2.0	7.3	1.0	5.5	1.1	0.4	2.9	2.3	0.3	35.7	234	54
VKU29738	6312984	334403	218.4	49.3	79.4	41.4	11.4	7.4	1.7	6.1	0.8	4.4	0.8	0.3	2.2	1.7	0.3	25.8	233	53
VKU29604	6312494	331407	218	45.8	75.5	40.6	12.0	7.7	1.8	6.7	0.9	5.2	1.0	0.3	2.6	2.1	0.3	30.2	233	53
VKU29688	6314056	334782	207	48.0	86.6	39.2	11.7	6.7	1.6	5.6	0.7	4.2	0.8	0.3	2.0	1.5	0.2	23.2	233	51
VKU29629	6313996	331204	215.2	46.9	71.9	42.7	12.3	7.5	1.8	6.8	0.9	5.1	1.0	0.3	2.6	1.9	0.3	29.8	232	55
VKU29698	6314014	333009	216.4	50.0	67.9	42.2	12.1	7.6	1.8	6.7	0.9	5.2	1.0	0.4	2.7	2.1	0.3	30.9	232	54
VKU29682	6314507	334567	211.7	43.5	63.5	41.2	11.6	7.7	1.9	7.6	1.0	6.1	1.2	0.5	3.3	2.6	0.4	39.0	231	53
VKU29986	6307998	328201	211.7	57.7	58.5	40.2	11.7	7.5	1.8	6.9	0.9	5.3	1.0	0.3	2.7	2.0	0.3	34.2	231	52
VKU29651	6314984	332421	209.1	49.8	60.4	44.2	12.7	8.0	1.9	7.2	1.0	5.5	1.1	0.4	2.8	2.1	0.3	33.4	231	57
VKU29722	6312516	334006	213.9	47.5	89.2	34.8	10.9	6.2	1.4	5.6	0.8	4.3	0.8	0.3	2.1	1.6	0.3	24.9	231	46
VKU29615	6312993	331812	213	39.6	106.2	33.1	10.2	6.1	1.4	5.1	0.7	4.0	0.8	0.3	1.9	1.5	0.2	19.5	231	43
VKU16232	6312317	337301	219.3	48.0	60.4	46.5	11.8	8.8	2.0	7.8	1.2	5.8	1.2	0.4	3.3	2.6	-	30.3	230	58
VKU16199	6314433	343235	191.7	45.7	93.8	39.0	10.7	7.0	1.4	5.6	0.8	4.1	0.8	0.3	2.1	1.8	-	16.6	230	50
VKU29914	6309999	330399	210.2	48.4	64.7	42.7	11.4	8.1	1.8	7.1	0.9	5.0	1.0	0.4	2.6	2.0	0.3	32.4	229	54
VKU29622	6313517	330398	222.4	49.6	65.0	43.9	12.5	7.8	1.9	6.9	0.9	4.9	0.9	0.3	2.4	1.7	0.3	28.5	227	56
VKU29708	6312983	333204	215.9	42.8	80.3	38.2	11.1	7.1	1.7	6.4	0.9	5.0	1.0	0.3	2.6	2.0	0.3	27.2	227	49
VKU29642	6314980	330801	209.3	49.3	65.3	41.5	12.4	7.5	1.7	6.8	0.9	5.0	1.0	0.3	2.6	2.0	0.3	29.8	226	54
VKU30397	6311017	333970	223.3	13.8	143.4	21.7	5.3	5.3	1.3	4.6	0.8	4.8	0.9	0.4	2.6	2.5	0.3	18.5	226	27
VKU30297	6310483	331591	219.4	48.9	67.1	41.9	10.9	7.7	1.8	6.8	0.9	4.8	1.0	0.3	2.4	1.8	0.3	29.3	226	53
VKU16209	6313652	341616	185.1	50.0	58.4	47.5	12.4	8.9	2.0	7.5	1.1	5.5	1.0	0.4	2.8	2.2	0.0	26.0	226	60
VKU30312	6309502	331806	220.1	57.7	53.1	44.6	11.6	7.9	1.8	7.0	1.0	4.9	1.0	0.3	2.5	1.9	0.3	29.6	225	56
VKU29676	6315495	333193	207.3	40.3	90.9	35.4	10.6	6.4	1.6	5.6	0.8	4.3	0.8	0.3	2.1	1.7	0.2	24.1	225	46
VKU29627	6313492	331402	212.8	45.5	78.4	37.9	11.3	7.0	1.7	6.2	0.8	4.6	0.9	0.3	2.2	1.6	0.2	26.3	225	49
VKU16247	6311896	334335	203.2	42.9	87.3	39.4	10.5	7.5	1.7	6.3	0.9	4.6	0.9	0.3	2.4	1.9	-	18.0	225	50
VKU16196	6314695	343774	196	41.2	81.5	40.4	10.6	7.8	1.6	6.7	1.0	5.1	1.0	0.4	2.8	2.1	-	22.4	224	51
VKU29614	6312999	332005	214.3	34.3	109.4	30.1	9.2	5.7	1.3	4.8	0.7	4.0	0.8	0.3	1.9	1.6	0.2	19.2	224	39
VKU16261	6311533	331712	204.1	47.5	77.2	40.8	10.8	7.5	1.7	6.4	0.9	4.7	0.9	0.3	2.5	1.8	-	20.2	223	52
VKU16524	6292852	335026	170.8	34.9	87.3	38.3	9.7	7.9	1.9	7.0	1.0	5.5	1.1	0.4	2.9	2.1	-	22.0	222	48
VKU30401	6311061	333412	220.8	45.4	70.7	41.5	11.8	7.5	1.6	6.2	0.8	4.5	0.9	0.3	2.3	1.8	0.3	25.8	221	53
VKU29957	6309011	330805	213.7	54.9	56.2	40.4	11.5	7.4	1.8	6.5	0.9	5.0	1.0	0.3	2.5	1.8	0.2	29.7	220	52
VKU29667	6315020	333395	205.7	48.6	56.9	40.8	11.9	7.3	1.8	6.8	0.9	5.2	1.0	0.4	2.7	2.1	0.3	33.2	220	53
VKU29711	6313495	332622	215.3	35.3	91.5	33.6	9.7	6.7	1.6	5.9	0.9	4.8	0.9	0.3	2.4	1.9	0.3	23.9	220	43

Continued

SampleID	MGA North	MGA East	RefRL	La2O3	CeO2	Nd2O3	Pr6O11	Sm2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Tm2O3	Er2O3	Yb2O3	Lu2O3	Y2O3	TREO	MREO
	z51S	z51S		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
VKU29625	6313507	331005	212.7	42.3	78.3	37.8	11.0	6.8	1.7	5.9	0.8	4.4	0.9	0.3	2.2	1.7	0.2	25.0	219	49
VKU16516	6291475	334228	173.2	35.2	80.9	38.4	9.9	7.7	1.7	7.0	1.1	5.6	1.1	0.4	3.0	2.3	0.0	24.1	218	48
VKU30391	6310046	332800	222.9	45.6	70.6	41.0	10.7	7.0	1.6	6.2	0.8	4.5	0.8	0.3	2.2	1.8	0.2	24.7	218	52
VKU29599	6312509	330589	220.5	40.9	71.2	39.7	11.5	7.5	1.8	6.5	0.9	5.1	1.0	0.3	2.4	1.9	0.3	27.2	218	51
VKU29608	6312519	332204	214.5	45.6	56.8	41.5	11.8	7.8	1.9	7.2	0.9	5.4	1.1	0.4	2.7	1.9	0.3	32.7	218	53
VKU16267	6311373	330563	213.7	43.6	81.2	38.8	10.3	7.1	1.6	5.9	0.9	4.3	0.8	0.3	2.2	1.8	-	18.8	218	49
VKU30054	6307509	331398	202.8	42.2	96.3	30.8	9.6	5.6	1.4	4.8	0.7	3.7	0.7	0.2	1.7	1.4	0.2	18.5	218	40
VKU29739	6312994	334209	220.9	46.8	52.5	42.0	11.2	7.9	1.8	7.0	1.0	5.2	1.1	0.4	2.8	2.2	0.3	34.9	217	53
VKU29881	6310485	330393	216.1	47.3	54.8	42.2	11.2	7.8	1.8	6.9	0.9	4.9	1.0	0.3	2.6	1.9	0.3	32.8	217	53
VKU16631	6311186	340740	195.2	45.3	55.3	46.1	11.7	8.5	2.0	7.5	1.1	5.8	1.1	0.4	3.1	2.3	-	26.4	217	58
VKU30398	6311038	333809	224	31.0	96.2	34.5	9.0	6.7	1.5	5.5	0.8	5.0	0.9	0.3	2.4	2.1	0.3	19.9	216	43
VKU16238	6312148	336115	194.4	40.4	74.2	41.0	10.7	7.5	1.8	6.4	1.0	5.0	0.9	0.3	2.6	2.0	0.0	21.9	216	52
VKU29673	6315496	332613	208.9	45.2	57.7	39.6	11.4	7.2	1.8	6.8	0.9	5.3	1.0	0.4	2.7	2.2	0.3	32.3	215	51
VKU17463	6292862	335030	179	37.1	83.5	38.5	9.4	7.3	1.8	5.9	0.8	5.0	0.9	0.3	2.3	1.9	0.0	19.5	214	48
VKU29728	6312513	335199	207.5	46.1	52.6	42.0	11.2	7.8	1.7	6.6	0.9	4.9	1.0	0.4	2.7	2.1	0.3	32.9	213	53
VKU16325	6308382	326674	207.7	49.6	62.8	41.2	11.6	7.0	1.6	6.4	0.9	4.3	0.8	0.3	2.3	1.6	-	21.8	212	53
VKU29618	6313010	331207	211.8	42.7	57.7	39.4	11.3	7.4	1.8	6.8	0.9	5.3	1.1	0.4	2.8	2.1	0.3	32.4	212	51
VKU29891	6310502	328415	219.7	46.2	67.6	37.3	10.3	6.8	1.5	5.7	0.8	4.2	0.8	0.3	2.2	1.7	0.2	25.9	212	48
VKU16244	6311980	334923	196.5	39.1	90.0	33.9	9.1	6.1	1.3	5.1	0.7	3.8	0.7	0.3	2.0	1.7	-	16.9	211	43
VKU29882	6310484	330213	209.6	46.1	54.8	39.7	10.6	7.3	1.6	6.5	0.9	4.7	1.0	0.3	2.5	1.9	0.3	32.4	210	50
VKU29609	6312532	332402	213.5	35.4	89.4	31.9	9.5	6.0	1.4	5.2	0.7	4.1	0.8	0.3	2.0	1.7	0.2	21.7	210	41