11 March 2024

ANNOUNCEMENT MADE ON 29 FEBRUARY 2024

This announcement replaces the announcement made on 29 February 2024 by the company.

It has been revised by the addition of Section 2 of the JORC Table to the annexures to that announcement but there are otherwise no other changes thereto.

Yours faithfully
Ark Mines Ltd

Ian Mitchell
Company Secretary

STAGE 1 ASSAYS COMPLETED, CONFIRMING INCREASE IN REE AND HEAVY MINERAL GRADES AT SANDY MITCHELL

HIGHLIGHTS

- **100% of assays for the Stage 1 air core drill programme at Ark's 100%-owned Sandy Mitchell Project have now been received** (refer fig 2).
- **Results continue to confirm <u>significant Rare Earth Element (REE) and Heavy Mineral (HM) intercepts in every metre sampled, consistent with previous results.</u>**
- **Final assays returned an average grade per-metre for Total Rare Earth Oxide (TREO) + Yttrium (Y) + Scandium (Sc) of 511 parts-per-million (ppm), with a maximum grade of 3525 ppm[1]** (refer to fig 3).
- **At a cut-off grade of 200 ppm (only material of 200ppm TREO or greater is selected), results in TREO+Y+Sc now upgrade from 510.5 ppm to 535.5 ppm, with rejection of only 6.4% of results. This suggests that the majority of mineralisation in the Stage 1 area may be viable and result in a low-cost bulk mineable resource.**
- **The average Zirconium oxide grade for every metre assayed is now 445 ppm with a maximum grade of 7170 ppm[1].**
- **1,488 m were drilled in the stage 1 programme with 2,426m drilled in Stage 2 which extended average metre depths from 10.5m to 12.9 m** (refer to fig 4).
- **The ongoing receipt of consistent REE and HM grades from the Stage 1 programme continues to validate Ark's stated development strategy for Sandy Mitchell based on low-cost, straight-forward beneficiation by gravity processing.**
- **Assay results from Stage 1, along with Stage 2 drilling and ongoing test work, will form the basis of a Maiden Mineral Resource Estimate (MRE) for Sandy Mitchell under the 2012 JORC code later in 2024.**
- **The Maiden MRE is expected to form the basis of a Pre-Feasibility Study (PFS), which will be prepared in collaboration with third-party mineral processing specialists to optimise future project economics.**

Executive Director Ben Emery said: *"The final assays now banked by Ark from the 1st stage of drilling at Sandy Mitchell represent a significant milestone in the Sandy Mitchell Rare Earth story. These latest assays confirm the upgrade in TREO+Y+Sc reported in our previous announcement on 26 February, thus highlighting the emerging quality of the mineralisation at Sandy Mitchell. Importantly, these latest assays represent a significant increase in REE grades compared to the beneficiation trial material. In fact, the Stage 1 overall average grade is 76 ppm higher in TREO+Y+Sc than the test work sample, which bodes well for our stated downstream processing strategy. The field team will now focus on the next round of key operational milestones at Sandy Mitchell, commencing with the delivery of a maiden Mineral Resource Estimate later this year."*

[1] *Refer to Appendix A and Appendix B.*

Ark Mines Limited (ASX:AHK) is pleased to announce the receipt of the final assays from the 1st phase of drilling at the Company's 100% owned Sandy Mitchell Rare Earth and Heavy Mineral Project in North Queensland (see **Figure 1**).

These latest assays (from 1m intervals) for Ark's 144-hole Stage 1 drill programme continue to confirm that Rare Earth mineralisation is evident in every interval of every hole assayed to date (see Appendix B). In turn, the Company's remains committed to its stated development strategy for low-cost downstream processing following the recently announced beneficiation test work (*AHK ASX Announcement 24th of November 2023*) which has shown that the Sandy Mitchell sands make a high-grade rare earth concentrate with robust recoveries using low-cost gravity processes.

Drill works programme

100% of Stage 1 assays have now been received (see **Figure 2** and Appendix B). With no cut-off grade and no top cut grade, the average grade of Total Rare Earth Oxides (TREO) + Yttrium (Y) + Scandium (Sc) is now 510.5 ppm (see **Figure 3**). This represents an increase from the previous reported average of 498.7 ppm, based on the initial 82% of assays (*refer ASX Announcement 7 February 2024*).

Further, the assay grades received to-date continue to compare well with the material sent to Downer Mineral Technologies (**'**Downer**'**) for gravity concentration beneficiation testing (*refer ASX Announcement 24 November 2023*), which had raw grades at a lower 463.0 ppm, and yielded a 51.9% TREO (519,000ppm) concentrate with recovery of 84%.

Application of a typical experimental selection criterion demonstrates the overall homogeneity of the mineralisation: At a cut-off grade of 200 ppm (only material of 200ppm TREO or greater is selected), results in TREO+Y+Sc now upgrade from 510.5 ppm to 535.5 ppm, with rejection of only 6.4% of results. This suggests that the majority of mineralisation in the Stage 1 area may be viable and result in a low-cost bulk mineable resource.

The results are further bolstered by economically significant by-product grades in titanium and zirconium. With 100% of Stage 1 assays now received, the observed grades of raw, un-cut, $FeTiO_3$ now averages 11,882.1 ppm and go as high as 195,211.5 ppm (19.5%). TiO_2 grades contribute a further 650.5 ppm and go as high as 10,687.4 ppm. Raw ZrO_2 grades average 445.3 ppm and go as high as 7,169.6 ppm with a further contribution to zircon mineral grades from an average 10.7 ppm HfO_2, with a max of 162.1 ppm. All of these heavy mineral by-products are amenable to a similar beneficiation process by low-cost gravity concentration.

The assay returns together with geological logging and modelling of the data will inform Ark's maiden JORC 2012 estimation in the resource grid area. To reiterate the potential scale of the project, Stage 1 drilling to date covers an area of only 1.4 km^2; representing just 1% of the peak radiometric reading on the lease which covers 147km^2 (see **Figure 5**).

Work on the maiden MRE is set to commence as soon as the full set of assay results are returned, which will then be followed by results from the Stage 2 drill program which was completed in December 2023. Ark then plans to validate the data with a Stage 1 model that will precede a more detailed model of the total 360 ha grid area.

Resource drilling at Sandy Mitchell has been divided into two stages: Stage 1 (1,488.3 m on 144 air core holes by Saxon), and Stage 2 (2,425.8 m on 187 air core holes by AED). The full resource grid is now complete for a total of 3,914 m on 331 air core holes, covering an area of 3.6 km^2 on a staggered 120 m x 120 m pattern with a 0.7 km^2 higher resolution portion infilled at 60m x 120m, to support statistical investigations. Stage 1 is approximately a third of the total drilling grid and includes the high-resolution area (see **Figure 2**).

All holes were sampled by the metre and split to yield a representative sample, with 1 in 40 further split to yield a representative duplicate. All representative samples and duplicates have been dispatched to North Australian Laboratories for sodium peroxide fusion with an inductively coupled plasma mass spectrometer finish on a full multi-element REE, HM and accessory mineral suite, plus gravimetric bulk density and moisture.

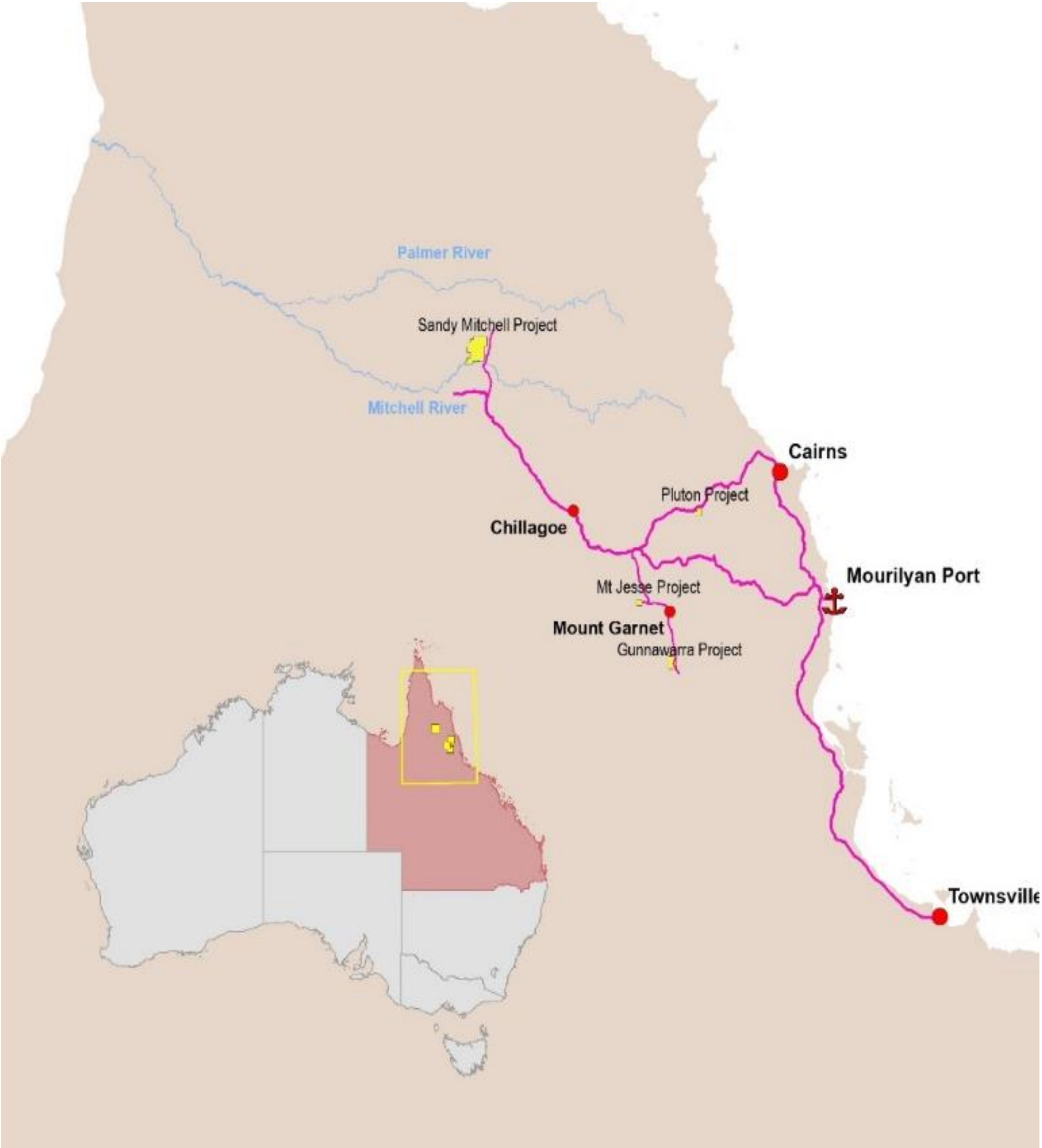

Figure 1: *Sandy Mitchell Rare Earth and Heavy Mineral Project location.*

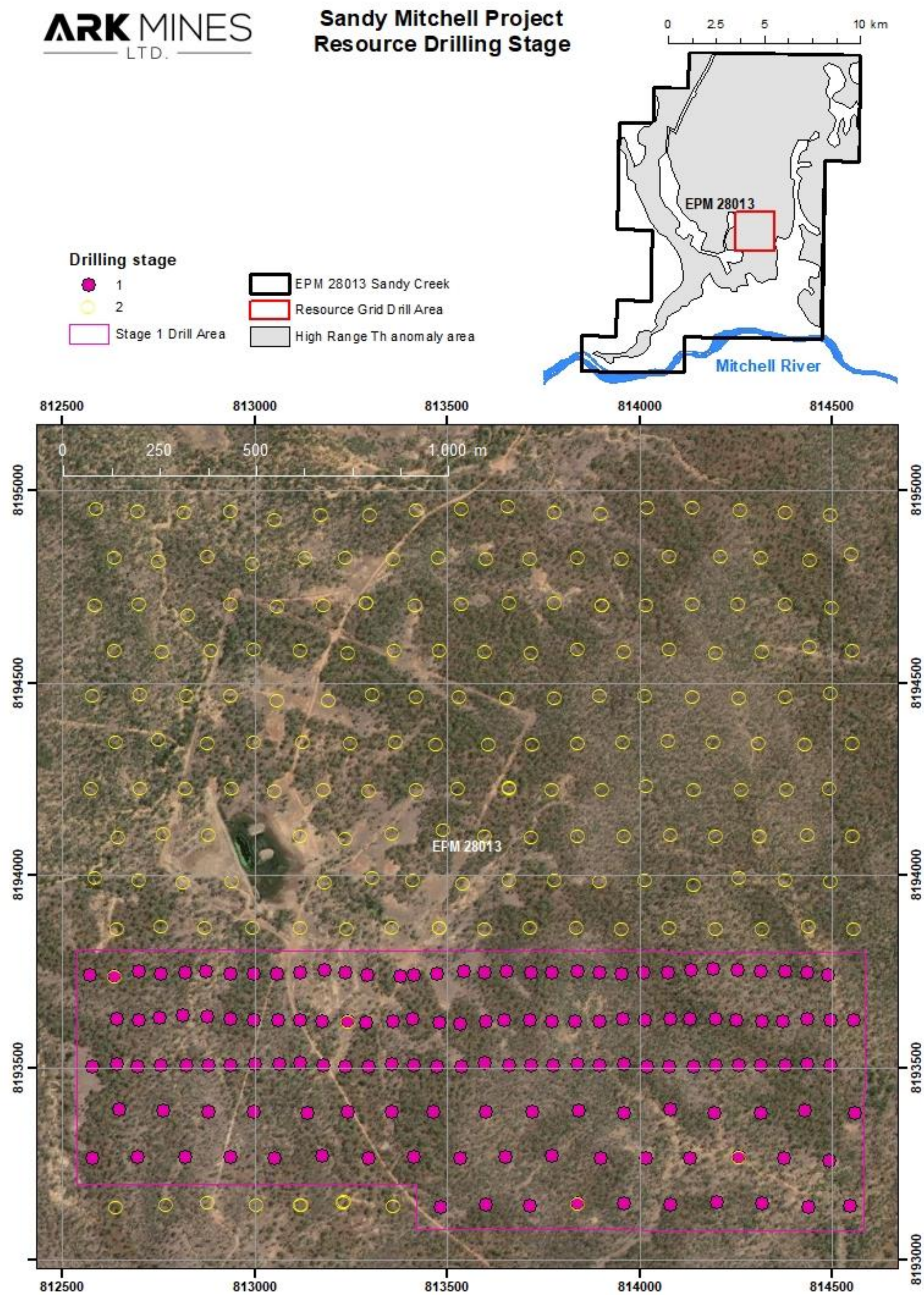

Figure 2: *Sandy Mitchell initial resource drilling area showing hole collar location, colour coded by drilling stage. All Stage 1 holes (pink) now have complete assays, covering a 1.4 km² area. Where the map shows a Stage 1 and 2 hole coinciding, a Stage 2 twin was drilled for quality control.*

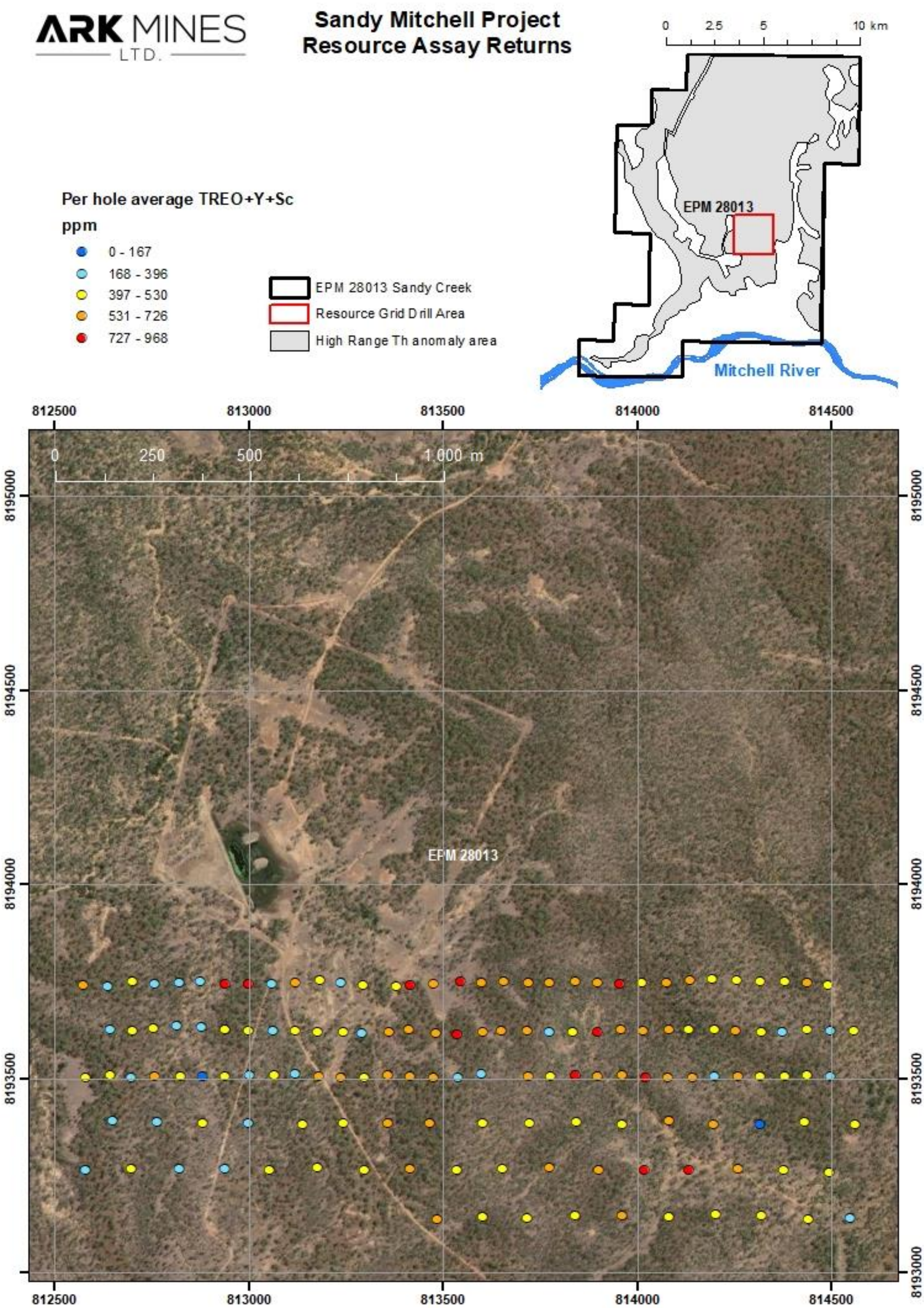

***Figure 3**: Sandy Mitchell completed Stage 1 drilling, showing TREO + Y + Sc grades averaged per drill hole, from natural surface to bedrock. No cut-off grade has been applied and the results represent the full sand column.*

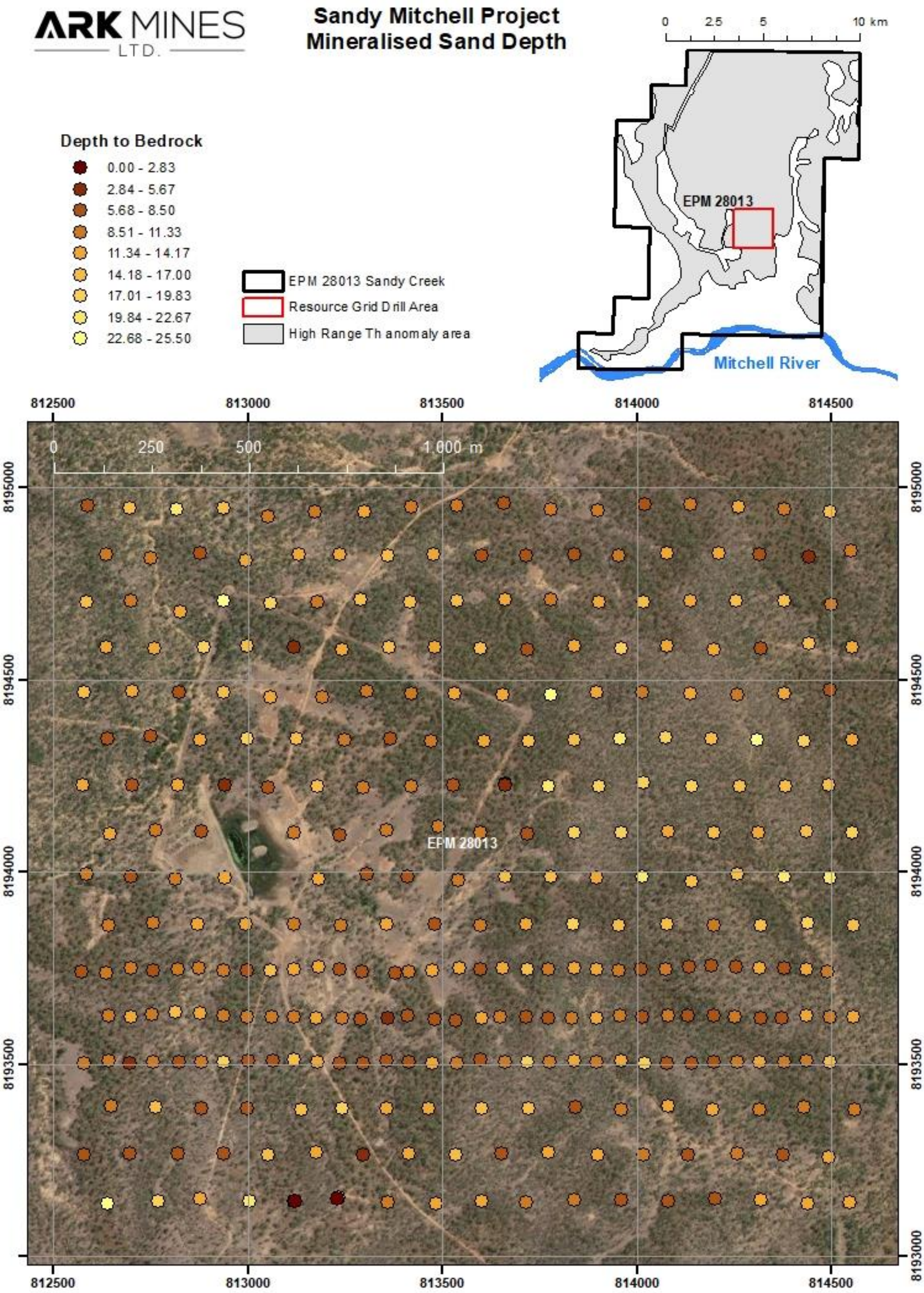

Figure 4*: Sandy Mitchell initial resource area showing completed hole collar locations, colour coded by depth to bedrock. This equates to depth of mineralised sand column, since logging and assay returns show no overburden and mineralisation is present in the whole sand column.*

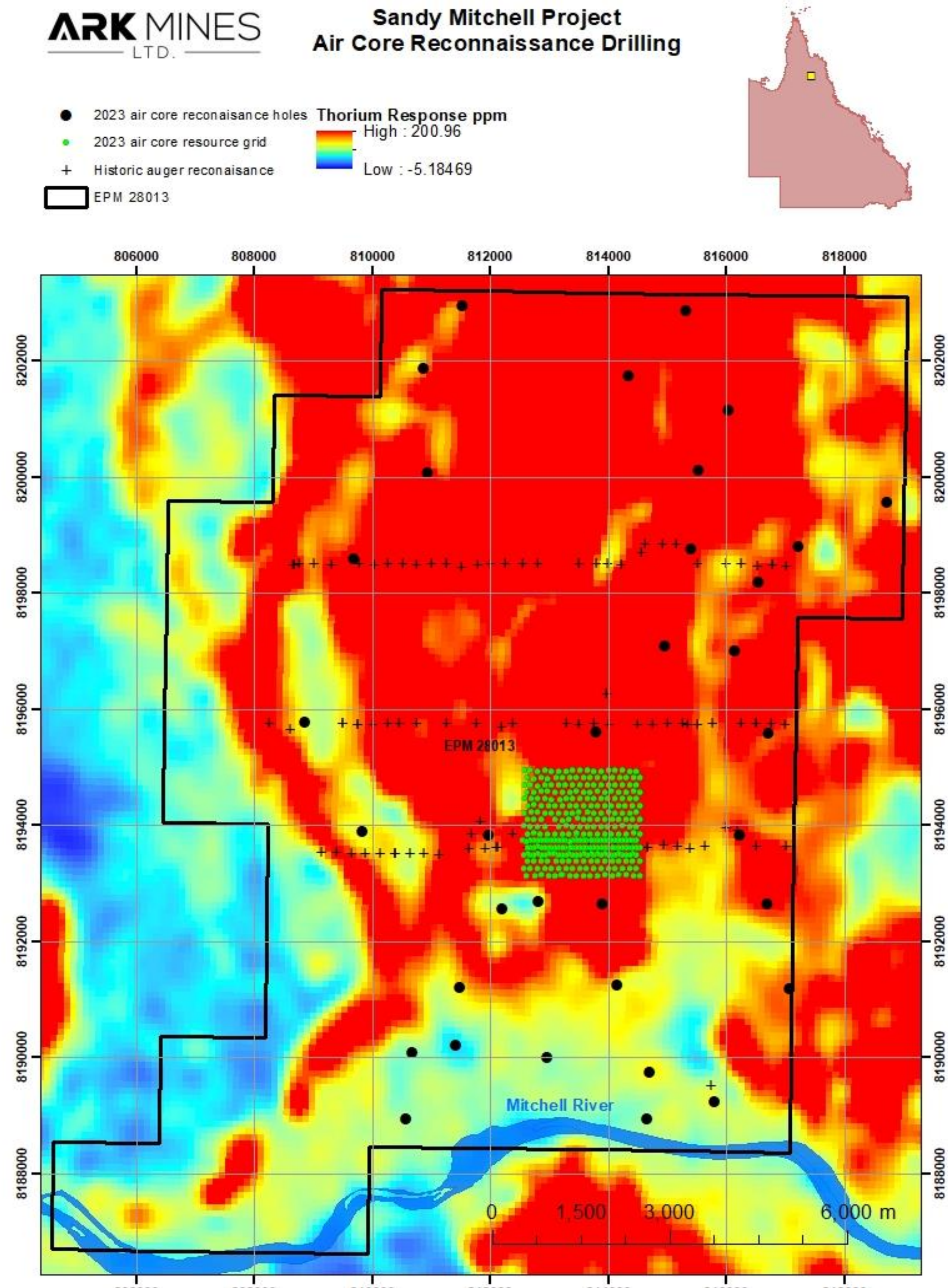

***Figure 5**: Sandy Mitchell 2023 air core reconnaissance drilling against the thorium radiometric response data. Historic auger reconnaissance and the 2023 air core grid drilling is also shown.*

AUTHORITY FOR RELEASE

This announcement has been approved for release to the ASX by the Board of Ark Mines Ltd.

Roger Jackson
Executive Chairman
29 February 2024

FURTHER INFORMATION

For further information please contact:

Roger Jackson
Executive Chairman
info@arkmines.com.au

Ben Emery
Executive Director
info@arkmines.com.au

Or visit our website and social media:
www.arkmines.com | www.twitter.com/arkmineslimited

ABOUT ARK MINES LIMITED

Ark Mines is an ASX listed Australian mineral exploration company focused on developing its 100% owned projects located in the prolific Mt Garnet and Greenvale mineral fields of Northern Queensland. The Company's exploration portfolio consists of three four quality projects that are prospective for copper, iron ore, nickel-cobalt porphyry gold and rare earth elements.

Sandy Mitchell Rare Earth and heavy Mineral Project

- Ark has recently Acquired the 147km2 EPM 28013 'Sandy Mitchell' – an advanced Rare Earths Project in North Queensland with additional 138km2 of sub blocks under application
- Project contains all critical Light Rare Earths as well as Heavy Rare Earths including dysprosium (Dy), terbium (Tb), holmium (Ho), erbium (Er), thulium (Tm) ytterbium (Yb), yttrium (Y) and excluding only Lutetium
- Up to 25% of the TREO is Nd and Pr (magnet metals)
- Rare Earths at 'Sandy Mitchell' are amenable to panning a concentrate; Planned low-cost, fast start up, straightforward beneficiation by gravity processing

Mt Jesse Copper-Iron project

- Project covers a tenure area of 12.4km2 located ~25km west of Mt Garnet
- Centered on a copper rich magnetite skarn associated with porphyry style mineralization
- Three exposed historic iron formations
- Potential for near term production via toll treat and potential to direct ship

Gunnawarra Nickel-Cobalt Project

- Comprised of 11 sub-blocks covering 36km2
- Borders Australian Mines Limited Sconi project - the most advanced Cobalt-Nickel-Scandium project in Australia
- Potential synergies with local processing facilities with export DSO Nickel/Cobalt partnership options

Pluton Porphyry Gold Project

- Located ~90km SW of Cairns near Mareeba, QLD covering 18km2
- Prospective for gold and associated base metals (Ag, Cu, Mo)
- Porphyry outcrop discovered during initial field inspection coincides with regional scale geophysical interpretation.

COMPETENT PERSONS STATEMENT

The Information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Roger Jackson, who is a Fellow of the Australian Institute of Mining and Metallurgy and a Fellow of the Australasian Institute of Geoscientists. Mr Jackson is a shareholder and director of the Company. Mr Jackson has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the `Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves ’(the JORC Code). Mr Jackson consents to the inclusion of this information in the form and context in which it appears in this report. Mr Jackson confirms information in this market announcement is an accurate representation of the available data for the exploration areas being acquired.

FORWARD LOOKING STATEMENTS AND IMPORTANT NOTICE

This report contains forecasts, projections and forward-looking information. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions it can give no assurance that these will be achieved. Expectations and estimates and projections and information provided by the Company are not a guarantee of future performance and involve unknown risks and uncertainties, many of which are out of Ark Mines ’control.

Actual results and developments will almost certainly differ materially from those expressed or implied. Ark Mines has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this announcement. To the maximum extent permitted by applicable laws, Ark Mines makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and takes no responsibility and assumes no liability for the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission from, any information, statement or opinion contained in this report and without prejudice, to the generality of the foregoing, the achievement or accuracy of any forecasts, projections or other forward looking information contained or referred to in this report.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company’s securities.

Appendix A: 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 (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.* • *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.* • *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.*	Ark Mines May to June 2023 Sandy Mitchell programme sampling techniques: • Samples are rock chips and accompanying bulk fines collected on 1m intervals by air core drill using 100mm bit. • Sample was passed through an 82.5: 12.5 riffle splitter to yield a representative aliquot of approx. 1.5 kg collected in prenumbered calico bag, and a remainder retained in a numbered plastic bag, with recoveries volumetrically estimated with periodic checks by mass using digital scale, compared against laboratory loose bulk density measurements. • Historic works by SGS (SGS Oretest Job No: S0580, 2010 for JOGMEC) shows mineralisation to have grainsize < = 125µm (very fine sand) and thus the sample mass is adequate for representivity. • Sample for total digest assay was sent to North Australian Laboratories for Assay. • Sample for pan concentration was sub-sampled by spade channel through the remainder sample to a mass of approx. 1kg per metre as determined by digital scales. These were then panned to a concentrate and the subsequent concentrates composited per hole. • Pan Con composite samples were sent to IHC Mining where samples were screened to -1mm, heavy minerals were further separated by heavy liquid separation with yields weighed at each stage. • The final heavy mineral concentrate was subject to Portable XRF analysis for a limited indicative assay. • Samples for preliminary metallurgical testing were sent to Downer Mineral Technologies and comprised the entire bulk metre remainder after riffle splitting the representative aliquot and removal of the 1kg pan concentrate aliquot. Ark Mines November to December 2023 Sandy Mitchell programme sampling techniques: • All sampling methodologies were as per the June programme, but the air core bit was exchanged for a reverse circulation face hammer to complete the end of hole. • The bedrock horizon was determined by geological chip logging supported by driller's run sheet records.
Drilling techniques	• *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-*	Ark Mines May to June 2023 Sandy Mitchell programme: • Drill was by Comacchio track mounted air core rig using 100mm air core bit. • All holes were vertical and drilled to refusal or 17.5m, whichever came first.

Criteria	JORC Code explanation	Commentary
	sampling bit or other type, whether core is oriented and if so, by what method, etc).	Ark Mines November to December 2023 Sandy Mitchell programme: • Drill was by AusRoc 4000 multi-purpose rig using 100mm Air Core and changing to slim line 100mm RC face hammer at depth. • All holes were vertical and drilled to complete the final metre in bedrock.
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.*	Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme: • Recoveries were assessed by volumetric estimation by the metre based on total sample weights using a digital scale with comparison made via laboratory loose bulk density measurements. • Sample was passed through a cyclone with a gated chute to allow fines to fall out of the air stream. The chute was kept closed until the end of each metre had been drilled, then opened to collect sample, and closed prior to recommencement of drilling. • No relationship between recovery and grade has yet been identified.
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.*	Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme: • Sample was logged by the metre for all drilling, by the site geology team for both qualitative and quantitative criteria. • Drill logs for 100% of drilling are available with overall length of 3914.2m. • Logging is sufficient to support resource estimation, mining and metallurgical studies.
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*	Ark Mines May to June 2023 Sandy Mitchell programme: • All sample passed through the drill cyclone dry. • Sub-sampling for laboratory assay was by 87.5:12.5 riffle splitter: the bulk sample was passed evenly through the riffles with the assay aliquot collected in a pre-numbered calico bag, and the reject collected in a numbered plastic bag. • Field duplicates were taken at 1:40 by 50:50 riffle splitter. • Historic works by SGS (SGS Oretest Job No: S0580, 2010 for JOGMEC) shows mineralisation to have grainsize < 125µm (very fine sand) and thus the sample mass is representative. • Sample for pan concentration was sub-sampled by spade channel through the reject to a mass of approx. 1kg per metre as determined by digital scales. • Sample for preliminary metallurgical testing was selected from the 11m twinned hole SMDH 00014b and comprised

Criteria	JORC Code explanation	Commentary
	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.*	the entire 87.5% bulk metre sample after riffle splitting to yield the representative sample and removal of the 1kg pan concentrate aliquot. Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme: • All sampling was conducted as per the June 2023 programme, but duplicates at 1 in 40 were taken by passing the total reject sample through an 87.5:12.5 riffle splitter in the same manner as the primary sample.

Quality of assay data and laboratory tests	• *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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*
		Ark Mines May to June 2023 Sandy Mitchell programme:
		• Metre samples were sent to North Australian Laboratories (NAL) for total digest assay:
		• Samples were weighed then kiln dried and re-weighed.
		• 1 in 5 samples was tested for moisture content.
		• 1 in 3 samples was tested for dry loose bulk density.
		• Sample was then pulverization in an LM-5 to 90% passing 75 µm with assay aliquot selected by laboratory splitter.
		• Al, Ca, Cr, Fe, Mg, P, S, and Ti were assayed by 4 acid digest with ICP-OES finish.
		• Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Th, U, Zr, Hf, Nb, Ta, Si, Sr, Pb were assayed by sodium peroxide fusion in nickel crucibles with ICP-MS finish.
		• Field duplicates were taken at 1:40 by 50:50 riffle split of the assay aliquot.
		• For total digest samples:
		    • Laboratory repeats were requested at no less than 1 in 40 but carried out by the laboratory at 1 in 10.
		    • Standard insertion was carried out by the laboratory at 1 in 12.
		    • Assay of blank quartz flushes was requested at 1 in 40.
		• For pan concentrate samples
		    • Laboratory repeats were requested at no less than 1 in 40.
		    • Standard insertion was requested of the laboratory at no less than 1 in 40.
		    • Assay of blank quartz flushes was requested at 1 in 40.
		• Total radiometric count was measured on all assay samples using a SAIC Exploranium GR-110G hand held scintillometer, hired from Terra Search Townsville, pre-calibrated.
		• Reading times were 10 second accumulations, which was the machine maximum, with 100x10 second background accumulations taken per day, per measuring station.
		• IHC Mining Laboratory procedures for pan concentrate composite samples was:
		    • Creation of duplicates by split at a rate of 1 in 24
		    • Screen to -1mm and weigh
		    • Heavy liquid separation and weigh
		    • Pulverization of the heavy mineral fines by extended grind

Criteria	JORC Code explanation	Commentary

		• Portable XRF analysis of the pulp
		• QAQC implemented is believed sufficient to establish accuracy and precision.
		• Mineral Technologies preliminary met' samples were processed at bench scale by:
		  • 55.2kg of individual samples were combined by rotary homogenisation then split to yield a representative aliquot of 38.3 kg for process testing.
		  • The composite sample was screened to 2000 µm, 500 µm and wet screened at 20 µm with the 500 to 20 µm fraction then passed through 2 stages of gravity separation using Wilfley table (rougher stage).
		  • The Wilfley concentrate was passed through a bromoform heavy liquid separation flask (cleaner stage).
		  • The HLS sinks were attrition cleaned for 5 minutes at a 65% wet weight density and deslimed, then passed through a Geoteknica FM3 froth floatation cell using starch depressant and sodium silicate surfactant.
		  • Both sinks and floats were separately processed through a dry induced Reading magnetic separator.
		  • This yielded 4 final streams of mag and non-mag floats (containing the bulk of REE) and mag and non-mag sinks, containing the bulk of zircon, as well as various tails from each previous stage.
		  • Percentages of material passing or rejecting at each stage were determined by mass.
		  • The float magnetic fraction was further refined by semi-lift magnetic separator to determine feasibility of individual mineral species separation, but the yields of this process were not assayed due to volumetric limits from this round of processing.
		• Mineral Technologies sent samples of the tails and product concentrates, excluding SLM stage products, to Bureau Veritas Brisbane for assay:
		  • Samples were dried and pulverised using tungsten carbide bowls in a vibrating pulveriser to 90% passing 75 µm with a BQF before each sample.
		  • Sample was fused to a glass bead to determine Fe, Si, Al, Cr, Mg, Mn, P, U, Th, V, Nb, S, Ca, K, Ce, Sn, Ti, and Zr oxides by XRF.
		  • LOI was determined by mass after heating to 105°C (drying temp) and 1000°C (fusing temp).
		  • Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sc, Sm, Tb, Tm, Y and Yb were determined by laser ablation of fused bead with ICP-MS finish.
		  • Standards were assayed at 1 in 3 to cover all elements in the suite for both assay methods.
		  • Laboratory repeats were carried out at 1 in 4.
		
		Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme:
		• Metre samples were sent to North Australian Laboratories

Criteria	JORC Code explanation	Commentary

		(NAL) for total digest assay:
		• Samples were weighed then kiln dried and re-weighed.
		• 1 in 5 samples was tested for moisture content.
		• 1 in 3 samples was tested for dry loose bulk density.
		• Sample was then pulverization in an LM-5 to 90% passing 75 µm with assay aliquot selected by laboratory splitter.
		• Al, Na, Ca, Cr, Fe, Mg, P, S, and Ti were assayed by 4 acid digest with ICP-OES finish.
		• Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Th, U, Zr, Hf, Nb, Ta, Si, Sr, Pb, K, Sn, W and As were assayed by sodium peroxide fusion in nickel crucibles with ICP-MS finish.
		• This represents a minor expansion on the June 2023 suite, with the inclusion of Na, K, As, W, Sn and As.
		• Field duplicates were taken at 1:40 by 50:50 riffle split of the assay aliquot.
		• For total digest samples:
		  ◦ Laboratory repeats were requested at no less than 1 in 40 but carried out by the laboratory at 1 in 10.
		  ◦ Standard insertion was carried out by the laboratory at 1 in 12.
		  ◦ Assay of blank quartz flushes was requested at 1 in 40.

Verification of sampling and assaying	• *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.*
		Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme:
		• Significant intersections have not yet been determined.
		• 11 twin holes have been drilled for a total of 104.85 twin metres Two of these twins are using power auger to twin air core, to support both resource and reconnaissance works.
		• Data was entered into MS excel then verified against hard copy data, followed by import into Datamine Studio RM for validation.
		• Primary data is stored as hard copy, electronic tables in CSV format and Datamine format.
		• Assay data yielding elemental concentrations for rare earths (REE) within the sample are converted to their stoichiometric oxides (REO) in a calculation performed using the conversion factors in the table below.
		• Rare Earth oxide is the industry accepted form for reporting rare earths. The following calculations have been used for reporting:
		  ◦ **TREO** = La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3+ Y_2O_3
		  ◦ **CREO** = Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Yb_2O_3
		  ◦ **LREO** = La_2O_3 + CeO_2 + Pr_6O_{11}
		  ◦ **HREO** = Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3+ Y_2O_3
		  ◦ ND/Pr = Nd_2O_3 + Pr_6O_{11}
		  ◦ TREO – Ce = TREO – CeO_2

Criteria	JORC Code explanation	Commentary
		• %NdPr + NdPr/TREO <table><tr><td>Element Name</td><td>Element Oxide</td><td>Oxide Factor</td></tr><tr><td>Ce</td><td>CeO2</td><td>1.2284</td></tr><tr><td>Dy</td><td>Dy2O3</td><td>1.1477</td></tr><tr><td>Er</td><td>Er2O3</td><td>1.1435</td></tr><tr><td>Eu</td><td>Eu2O3</td><td>1.1579</td></tr><tr><td>Gd</td><td>Gd2O3</td><td>1.1526</td></tr><tr><td>Ho</td><td>Ho2O3</td><td>1.1455</td></tr><tr><td>La</td><td>La2O3</td><td>1.1728</td></tr><tr><td>Lu</td><td>Lu2O3</td><td>1.1371</td></tr><tr><td>Nd</td><td>Nd2O3</td><td>1.1664</td></tr><tr><td>Pr</td><td>Pr6O11</td><td>1.2081</td></tr><tr><td>Sc</td><td>Sc2O3</td><td>1.5338</td></tr><tr><td>Sm</td><td>Sm2O3</td><td>1.1596</td></tr><tr><td>Tb</td><td>Tb4O7</td><td>1.1762</td></tr><tr><td>Th</td><td>ThO2</td><td>1.1379</td></tr><tr><td>Tm</td><td>Tm2O3</td><td>1.1421</td></tr><tr><td>U</td><td>U3O8</td><td>1.1793</td></tr><tr><td>Y</td><td>Y2O3</td><td>1.2699</td></tr><tr><td>Yb</td><td>Yb2O3</td><td>1.1387</td></tr></table>.
Location of data points	• *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.*	Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme: • An initial collar survey by hand held GPS was conducted as a failsafe, with expected accuracy of ±5000mm in x and y, and ±50000mm in z. • Full survey by Twine Surveys was subsequently carried out using RTKdGPS with accuracy of ±20mm in x and y, and ±200mm in z • Twine's professional RTK survey was implemented between drill collars and used to generate a digital terrain model for high quality topographic control. • All survey data is recorded in MGA 2020 zone 54 and AHD.
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.*	Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme: • Data spacing for 3 lines of drilling is 60m x 120m. • Data spacing for the remaining 13 lines is 120m x 120m • No compositing has been applied to 1m samples for total digest assay. • Pan concentrates were composited per drill hole. • Preliminary metallurgical sample was composited as discussed under *Laboratory Tests.* • Representative metre samples for total digest assay were not composited, residual sub-metre hole ends were similarly assayed separately to preserve geometric representation.
Orientation of data in relation to	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit*	Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme: • Deposit type is fluvial channel placer with channels believed oriented north to north-east and meso scale structure oriented sub-horizontal arcuate. The applied

Criteria	JORC Code explanation	Commentary
geological structure	*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.*	vertical sampling is the optimal orientation for the deposit type. • No bias by orientation or spatial relationships has been identified.
Sample security	• *The measures taken to ensure sample security.*	Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme: • Samples were collected after logging and transported at the end of each day to the company locked storage in Chillagoe. • Samples were boxed in closed pumpkin crates, wrapped in plastic for shipping by courier to the laboratory in Pine Creek, NT. • Samples for IHC Mining and Downer Mineral Technologies were similarly boxed, wrapped and couriered to the laboratories, but prior to shipping were stored on site at the Ark fenced bulk bag farm. • Bagged reject was stored on site in Ark's fenced secure bag farm and covered in UV resistant tarping for future use.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Ark Mines May to June 2023 and November to December 2023 Sandy Mitchell programme: • Full audit of sampling techniques and data available to date was carried out by geological consultants, Empirical Earth Science. • EES notes that the composited concentrate samples results in assay representing diluted material with no internal separation possible. • EES noted that the hand panning process of such fine material is prone to heavy mineral loss, with the possibility that concentrates underrepresent the total heavy mineral fraction. • ESS noted that the pXRF technique used in initial concentrate assays is not suited to yield full REE data, but that the results can inform approximate proxy calculations for the full REE suite. • EES noted that none of these factors apply to the representative metre samples and total digest assays, which meet best practice. • EES noted that the preliminary metallurgy was of insufficient volume and source dispersion to represent the entire eventual resource, but was well suited to its stated purpose of proof of concept, testing recovery technique, and process to inform the next stage of bulk metallurgy. • EES also noted that the preliminary metallurgy was selected from pan con composite results, representing a median grade material within that data set, and is thus a reasonable preliminary representation of grade and recovery performance.

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.*	• **EPM 28013 Sandy Mitchell** is 100% owned by Ark Mines Limited. It was purchased on the 23rd of February 2023. • This tenement was formally EPM18308 • There are no third party agreements • No known issues impeding on the security of the tenure of Ark Mines ability to operate in the area exist.

Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	A number of companies and individuals have explored the area for gold and base metals and for heavy minerals. The summaries presented below are from the IRTM source: • ATP 597M was granted to Laskan Minerals Pty Ltd in 1969 over the Reid Creek area, north of the Mitchell River. From assays of rock chip and stream sediment samples, it was concluded that there was little chance of economic mineralisation occurring in the Authority. Although good monazite grades were obtained, the samples were from creeks with little available wash. Good concentrations of monazite and ilmenite were present in large areas of sandy, alluvial sheet wash in the Reid's Creek area. It was believed that there was a potential for economic exploitation if the monazite concentrations occurred in a large enough volume of sandy material. No further work was reported. • In 1970, Altarama Search Pty Ltd was granted ATP 833M over the Mitchell River in the Reid Creek, Sandy Creek and Mount Mulgrave Homestead area. Four hundred stream sediment samples, at an average density of 1.25 samples/km^2, were collected for assay. Copper and lead contents were low. Half of the zinc results were considered to be possibly anomalous. A two population distribution was obtained for zinc, with a standard threshold of about 15 ppm. It was suggested that the two population distributions represented normal background ranges present in different strata. No other work was carried out. • ATP 2580M was granted to Tacam Pty Ltd over Sandy Creek and its tributaries. Stream sediment samples averaged 0.18% monazite (0.01 to 0.45%), 0.07% rutile (0.15% in terraces), and 0.06% zircon (0.14% in terraces). The area had low economic potential and the Authority was abandoned in August 1981. • The principals involved in Tacam Pty Ltd combined with Metcalfe Holdings Pty Ltd in 1986 to take up 4 Authorities to Prospect - 4400,4401,4402 and 4403 centred on Mt Mulgrave, Arkara Creek, Sandy Creek and the Kennedy River respectively. The investigations were for the possibility of locating large-scale heavy minerals in association with major drainages and lower slope eluvial deposits

associated with Cretaceous weathering as indicated in previous investigations. EPM 4400, 4401, 4402 and 4403

- Barron and O'Toole focused on Mt Mulgrave for Ilmenite, rutile, REE, Monzonite, Zircon, and Gold.Tenement EPM 4400 consisted of 96 sub-blocks centred on Mount Mulgrave (7665, 7765), EPM 4401 consisted of 97 sub-blocks centred on Arkara Creek (7665), EPM 4402 consisted of 100 sub- blocks centred on Sandy Creek (7665) and EPM 4403 consisted of 86 sub-blocks centred on Kennedy River (7666, 7766) were granted to P.T.C. Barron, A. O'Toole and Metcalfe Holdings Pty Ltd on 22 September 1986 to explore for heavy minerals and precious metals. After three years of exploration the EPMs were surrendered on 22 August 1989.
- Tenement EPM 10185 consisted of 157 sub-blocks was granted to Palmer Gold Pty Ltd on 25 October 1994 for an initial 2 year period. The exploration permit was renewed for a further 3 years on 25 October 1996 and surrendered on 3 October 2001.

The tenement was situated 200km west of Cooktown.

Rationale

Significant gold-silver, tin and base metal deposits are known from the Georgetown and southern Dargalong Inliers to the south of EPM 10185 (e.g. Etheridge, Croydon and Oaks goldfields), from the Hodgkinson Province to the east (e.g. Palmer, Hodgkinson, Russell River, Starcke, Jordon Ck, Mareeba and Mount Peter goldfields, and Herberton-Mt Garnet tinfield), and the Coen Inlier to the north (e.g. Alice River & Potallah goldfields). However, other than brief reference to sub-economic alluvial gold occurrences near the junction of the Palmer and Mitchell Rivers, and in the Staaten, Lynd and Walsh Rivers (Culpeper 1993), no precious or base metal deposits are known to occur within rocks of the Yambo Inlier.

Application for the area was made after structural interpretation of the region showed prospectivity for gold occurrence. Base metal anomalies delineated from previous exploration were also targeted for follow-up work.

- In 2007 exploration activity was carried out by BHP Billiton Minerals Pty Ltd under an extremely large area (2,850 sub-blocks) of the Coen Yambo area from 2005 to 2007. EPM's 14438 and 14445 covered the majority of the

Yambo Inlier. BHP targeted Ni sulphide and PGM and carried out AEM surveying, field mapping and sampling and drilling. The AEM targets were found to be related to sedimentary lithological units or obvious shear zones.

- In 2007 - 2009 - MTY Resources Ltd undertook bulk sampling program along with a Panned Concentrate sampling program as reported in this report.
- In 2012 Waverley Nominees undertook an Augur sampling program as set out in this report

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	The tenement covers portion of the southern extent of the Yambo Inlier, one of the several Proterozoic inliers to the west of the Palmerville Fault System. Rocks of the Yambo Inlier covered by the tenement comprise those of the middle Proterozoic Yambo Metamorphic Group of mainly amphibolites and gneisses ranging in age from ~1690 Ma to ~1585 Ma. These rocks have been intruded by Silurian-Devonian granites of the Lukinville Suite which form an integral part of the Cape York Batholith. Within the tenement they form a belt roughly 10 km wide trending NNW. Extensive intrusions of Carboniferous-Permian dolerites occur throughout the Inlier, with only a few occurrences within the tenement. The tenement is largely gold deficient except for the gold reporting to sediments within the Palmer River. Recent Governmental radiometric surveys have highlighted areas of anomalous radiometric emission within the Yambo Inlier. The project tenements cover the majority of the anomalous radiometric areas. There are many stream systems within the Mulgrave/Sandy Mitchell tenements and they contain concentrations of rare earth minerals. These minerals have been derived from the now denuded remnant Jurassic-Cretaceous sandstone-pebble conglomerates and quartz sandstones, with the greater volumes being associated with the breakdown of the Mesoproterozoic basement rocks. Isolated areas of high garnet concentrations are derived from irregular zones of highly garnetiferous dolerites and schists.

Criteria	JORC Code explanation	Commentary
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• All holes are vertical • Refer to Table in Appendices B • Survey to follow • Dip 180 • Azimuth 0 • Holes range up to 18m • Average depth 11m
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.*	• No high or Low-grade top/bottom-cut has been applied. • The total data set is reported in Appendix B • REE Equivalent TREO (total REE oxides) is reported as this is the industry standard for presentation of REE data. Stoichiometric calculation of REE oxide equivalents were performed in units of ppm, with TREO, LREO (light REE oxides), HREO (heavy REE Oxides), CREO (critical REE oxides) and Mag REO (magnet production REE oxides), as per Table 1 page 2 and 3, yielding these factors as concentrations and percentages of TREO concentration.

Criteria	JORC Code explanation	Commentary
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 (eg 'down hole length, true width not known').*	• All holes sample assays are based on sampling of the whole hole length. • The mineralisation is interpreted to be flat lying and drilling is vertical perpendicular to mineralisation. Any internal variations to REE distribution within the horizontal layering was not defined, therefore the true width is considered not known at the current stage of development. • Not relevant to soil 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.*	• See plan Figure 1,2, 3, 4.
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.*	• Results reported include all recovered assay, both low and high grade, for all holes. • See Appendix B
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.*	• All data material to this report that has been collected to date has been reported textually, graphically or both. • Absent material data includes, Drill collar RLs, bulk density, the nature, quality and appropriateness of the assaying and laboratory procedures , water table height and geotechnical characteristics is absent from the historical data record recovered so far, and current data is still undergoing analysis. These data are not relevant to the current pre-resource drill data release.
Further Work	• *The nature and scale of planned further work.*	• Ark plans to undertake further infill Augur drilling, further beneficiation test work, pilot plant test work. Resourcing and reserve studies.

Appendix B: Sandy Mitchell Stage 1 complete assay return

See Appendix A for stoichiometric oxide factors and REE calculations used.

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00013	0	1	25	649.2	696.9	681.7	648.3	633.1	48.6	16.1	158	155.5	15.2	32.5	147	304.8	32.1	114.3	19.5	2.1	13.3	1.6	7.5	1.3	3.2		2.5		53.5	4				1.1	313.9
SMDH 00013	1	2	50	297.9	336.1	327.4	293.5	284.8	42.6	13.1	93.6	77.1	8.7	29.5	63.6	128.6	15.1	54.8	11.1	2.1	9.5	1.2	6	0.9	2.6		2.4		19.3	2.5	40.1	240.2	4386.6	1.9	228.7
SMDH 00013	2	3	70	235	278.4	253.9	252	227.5	26.4	7.5	65.6	57.6	24.5	18.9	52	106.7	12.2	40.8	8.7	1.3	5.8	0.8	3.8	0.6	1.3		1		18.2	2.6	28.6	612.2	11181.9	5	199.9
SMDH 00013	3	4	70	421.1	479.2	440.9	451.6	413.3	27.6	7.8	100	100.2	38.3	19.8	96.1	199.1	21.9	72.6	13.5	1.9	8.2	1.1	4.6	0.7	1.4				39.5	5.8	54.1	342.6	6258.4	2	241.8
SMDH 00013	4	5	80	369.1	405	389.2	376.6	360.8	28.4	8.3	90.9	88.4	15.8	20.1	84.9	172.3	19.2	64.2	11	1.6	7.6	0.9	4.1	0.6	1.7		1		30.4	2.6	27.2	322	5882.4	4.4	179.4
SMDH 00013	5	6	90	257.5	323.9	288	281.1	245.2	42.8	12.3	85.3	66.6	35.9	30.5	53.4	112.6	13.3	46.7	10.4	1.5	7.3	1.1	5.5	1	2.9		1.8		17.6	1.9	27.2	922.4	16849	7.1	282.5
SMDH 00013	6	7	80	256.3	301.9	274.3	276.5	248.9	25.4	7.4	69.6	63.1	27.6	18	56.6	117.2	13.5	45.5	8.6	2	5.5	0.7	3.4	0.6	1.7		1		18.8	1.8	25.7	870.6	15901.6	6.8	278
SMDH 00013	7	8	80	330.5	382.9	350.1	354.6	321.8	28.3	8.7	84.3	81	32.8	19.6	75.1	152.2	17.8	58.3	10.4	1.5	6.5	0.9	4	0.6	1.8		1.4		26.6	2.4	24.3	979	17882.5	4.1	158.2
SMDH 00013	8	9	90	468.4	517.9	492.3	482.1	456.5	35.8	11.9	117.8	118.4	25.6	23.9	106.1	212.6	25.9	85.1	15.1	1.4	10.3	1.4	6	0.9	2.3		1.3		36.4	3.4	28.6	851.1	15545.6	5	217.7
SMDH 00013	9	10	70	743.9	826.3	780.3	774	728	52.3	15.9	179	179.4	46	36.4	164.8	354.3	38.7	130.2	23.5	1.9	14.6	1.9	8.6	1.1	2.3		2		63.7	8.3	50.4	440.9	8052.7	2.2	535.6
SMDH 00013	10	10.5	90	404.9	449.9	426.9	417.2	394.2	32.7	10.7	102.8	102.4	23	22	90.4	183.6	22.8	73.5	13.7	1.2	9	1.2	4.9	0.7	2.2		1.7		33	3.2	21.5	1172.2	21410.7	7.1	302.4
SMDH 00012b	0	1	40	567.5	625	608.1	567.9	551	57.1	16.5	150.1	137.6	16.9	40.6	122.8	266.9	29.8	99.4	19	1.7	11.4	1.4	7	1.3	3.1		3.1	0.6	53.1	9.2	28.6	267.4	4883.3	1.9	546.1
SMDH 00012b	1	2	50	691.9	761.5	738.5	694.7	671.7	66.8	20.2	186	172.6	23	46.6	149.1	322	35.3	127	22.6	2.1	13.6	1.8	8.5	1.5	3.7	0.6	3.5	0.6	62.1	9.7	31	327.2	5977.1	2.4	690
SMDH 00012b	2	3	80	418.2	456.6	443.7	421	408.1	35.6	10.1	104	98.5	12.9	25.5	94.8	199	21.3	71.2	13.1	1.3	7.4	1.1	4.9	0.8	1.9		1.4		31.1	3.9	27.2	743.3	13576.2	1.8	74.7
SMDH 00012b	3	4	80	649.7	720	701	652.7	633.7	67.3	16	161.6	138.4	19	51.3	150.8	323.2	29.7	100.3	18	1.6	10.1	1.4	7	1.1	3.7		2.8		49.6	6.1	22.9	817.1	14925.5	3.1	111.7
SMDH 00012b	4	5	70	412.2	463.8	437.7	429	402.9	34.8	9.3	107.4	101.2	26.1	25.5	90.7	190.6	21.6	73.8	14.8	2.3	9.1	1.1	4.7	0.8	1.8		0.9		37	7.1	42.6	330.2	6031.6	1.4	412.5
SMDH 00012b	5	6	70	402.7	460	432.4	417.8	390.2	42.2	12.5	111.3	101.5	27.6	29.7	84.8	185.9	21.6	73.2	14.1	1.7	8.9	1.2	5.5	1	2.4		2.4		37.2	5.9	33.3	336.2	6140.7	1.4	331.6
SMDH 00012b	6	7	80	338.1	381.7	361.8	348.1	328.2	33.6	9.9	90.4	83.4	19.9	23.7	72	157	18.1	60.3	11.9	1.4	7.5	0.9	4.1	0.8	1.9		2.2		33.3	3.9	27.2	333.2	6086.2	1.3	392.5
SMDH 00012b	7	8	80	498.9	561.6	541.2	506.9	486.5	54.7	12.4	126.4	104.6	20.4	42.3	111.5	252.2	22.1	75.8	14.7	1.6	8.6	1.1	5.6	0.9	2.5		2.3		37.7	5.4	32.9	995.5	18183.9	3.9	142.8
SMDH 00012b	8	9	80	496.5	557.9	527.2	514.7	484	43.2	12.5	129.6	123.9	30.7	30.7	105	229.5	27.1	89.2	19	2.1	12.1	1.4	6.2	1	2.4		1.5		44.7	4.8	40.9	450.5	8227.8	1.3	408.3
SMDH 00012b	9	10	90	325.5	382	362.1	336.1	316.2	45.9	9.3	102.3	81.3	19.9	36.6	66.1	152.4	17.2	59	11.9	1.6	8	0.9	4.2	0.8	1.7		1.7		27	2.7	24.7	299.7	5474.7	1.4	270.8
SMDH 00012b	10	11	80	356.4	405.6	384.1	369.7	348.2	35.9	8.2	99.8	89.7	21.5	27.7	74.4	165.5	19.3	65.7	13.1	1.7	8.5	0.9	3.8	0.7	1.3		1.5		31.5	2.7	24.7	327.7	5985.7	1.4	250.8
SMDH 00012b	11	12	75	348.9	409.6	382	368	340.4	41.6	8.5	101.5	85.4	27.6	33.1	72.8	165.1	18.4	61.9	12.5	1.4	8.3	0.9	4.2	0.7	1.6		1.1		31.6	3.9	25.6	423	7725.4	1.8	471.7
SMDH 00012b	12	13	85	384.1	466.9	418.9	423.6	375.6	43.3	8.5	99.3	81	48	34.8	87.5	192.1	17.5	58.3	12.5	1	6.7	0.8	4.4	0.7	1.6		1		29.2	4.6	30	998.5	18238.5	3.7	146.6
SMDH 00012b	13	14	80	422.7	480.4	457.4	436.1	413.1	44.3	9.6	117.9	103.9	23	34.7	90.1	198.6	22.4	75.9	14.8	1.7	9.6	1.1	4.5	0.8	1.7		1.5		35.7	3.1	24	358.5	6548.4	1.3	174.1
SMDH 00012	0	1	45	616.7	689.1	673.8	617.4	602.1	71.7	14.6	177.8	152.2	15.3	57.1	131.6	292	32.9	110.9	19.9	1.4	13.4	1.5	6.9	1.3	2.7		2.2		54.2	5.2	22.3	211.7	3867	2.8	742.3
SMDH 00012	1	2	60	403.4	466.6	440.5	420.5	394.4	46.1	9	112.3	94.7	26.1	37.1	85.1	198.1	21	68.9	12.3	1.5	7.5	0.8	4	0.8	1.7		1.7		36	2.9	19.5	429.4	7843.1	1.4	646.8
SMDH 00012	2	3	65	207.6	242.9	224.5	222.2	203.8	20.7	3.8	60.9	54.1	18.4	16.9	46.3	93.4	11.1	40.7	7	1	4.3		2.3		0.7		0.8		15.6	1.5	19.7	269.2	4917.8	0.9	533
SMDH 00012	3	4	70	351	408.1	388.2	362.2	342.3	45.9	8.7	106.9	86.5	19.9	37.2	75.1	166.2	18	63.1	11.6	1.2	7.1	0.9	4.5	0.8	1.7		0.8		29.2	3.4	23.5	374.9	6847	0.9	349
SMDH 00012	4	5	75	464	515.1	487.5	482.6	455	32.5	9	111	109.7	27.6	23.5	101.3	225.5	23.7	81.6	13.7	1.5	7.7	0.8	3.6	0.7	1.7		2.2		40.4	3.5	19.2	385.9	7047.9	1.3	445.2
SMDH 00012	5	6	90	370.4	428.9	407.4	382.2	360.7	46.7	9.7	102.7	81.7	21.5	37	83.5	180.5	17.2	59.5	11.9	1.2	6.9	0.8	4.2	0.7	2.1		1.9		30.2	6.6	18.6	883.5	16137	2.6	96.6
SMDH 00012	6	7	90	395.2	459.2	428.5	417.7	387	41.5	8.2	101.2	84.7	30.7	33.3	92.3	195.9	18.1	61.8	11.6	1.3	6	0.8	4	0.7	1.8		0.9		30	3.9	22.9	988.6	18057.6	2.9	109.8
SMDH 00012	7	8	90	411.7	458.3	441	418.3	401	40	10.7	109.4	99.6	17.3	29.3	92.2	194	20.8	73.5	12.3	1.3	6.9	0.8	4.5	0.9	2.6		1.9		35	2.6	21.5	1228.1	22432.8	4.1	165.7
SMDH 00012	8	9	85	464.5	513.3	493.1	471.7	451.5	41.6	13	121.3	116.2	20.2	28.6	101.3	216.6	25.1	84	14.1	1.6	8.8	1.2	5.9	1	3		1.9		43.1	2.2	20	1069.4	19533.2	2.9	109.8
SMDH 00012	9	10	90	479.6	527.5	507.3	488.1	467.9	39.4	11.7	117.7	113.6	20.2	27.7	107.8	227.7	25.3	81.6	14.8	1.7	9	1.1	5.6	0.9	2.5		1.6		43.2	2.5	22.9	1051.6	19208.8	3.2	115.4
SMDH 00011b	0	1	65	548.1	606.8	582.9	557.1	533.2	49.7	14.9	136.2	129.4	23.9	34.8	118	264.8	29.6	92.1	17.5	1.6	9.6	1.2	6.5	1.1	3.3		2.8		47.9	3.4	21.5	881.9	16108.3	4.1	142.8
SMDH 00011b	1	2	80	501.1	558.3	539.1	501.8	482.6	56.5	18.5	137	124.2	19.2	38	110.4	230.7	26.8	89.8	14.5	1.6	8.8	1.1	6.5	1.4	4.5	0.6	3.8	0.6	44.8	2.6	20	841.7	15373.4	3.3	146.6
SMDH 00011b	2	3	85	437.8	488.2	462.1	453.2	427.1	35	10.7	112.1	110.4	26.1	24.3	93.5	205.6	23.8	81.9	13.7	1.2	7.4	0.8	3.9	0.8	1.9		3.3		41.9	3.8	18.7	423.4	7734	0.7	372
SMDH 00011b	3	4	95	299	322.2	311.3	302	291.1	20.2	7.9	75.3	77.5	10.9	12.3	58.2	141.6	15.9	57.2	9.7	1.4	7.1	0.8	3.6	0.6	1.5		1.4		21.8	1.5	18.6	628.1	11471.9	1.9	67.1
SMDH 00011b	4	5	90	155.1	186.2	163.2	177	154	9.2	1.1	46.6	47.6	23	8.1	31.9	67.6	10.6	35.9	4.1	1.5	2.4		1.1						11.3	3.2	10	293.6	5362.7	0.9	290
SMDH 00011b	5	6	80	293	319.2	305.4	298.6	284.8	20.6	8.2	73.9	75.8	13.8	12.4	56.6	138.7	15.7	56	9.4	1.4	7	0.8	3.3	0.6	1.8		1.7		22.9	1.2	17.2	671.1	12258.5	1.2	42.4
SMDH 00011b	6	7	95	304.7	318.3	312.2	306	299.9	12.3	4.8	70.4	77.6	6.1	7.5	59.6	148.6	16.1	58.3	9.4	1.4	6.5	0.7	2.5		1		0.6		20.3	0.9	15.7	679.9	12419.3	1.5	49.7
SMDH 00011b	7	8	60	287.2	313.2	305.5	286.6	278.9	26.6	8.3	74.3	69.6	7.7	18.3	61.7	134.6	14.9	50.7	9.6	1.3	6.1	0.7	3.3	0.6	1.1		2.6		24.1	1.8	22.3	132.3	2417.2	0.6	322.3
SMDH 00011	0	1	50	640.2	677.2	666	635	623.8	42.2	16.4	159.9	166.8	11.2	25.8	125.6	301.8	34.4	122.5	21.5	1.7	16.3	2	7.9	1.3	3.3		1.9		54.3	3.5	18.6	718.3	13119.8	1.8	63.4
SMDH 00011	1	2	60	434.5	490.9	467.9	445.7	422.7	45.2	11.8	115.2	102.2	23	33.4	96.3	207.4	22.1	74.2	13.2	1.7	7.8	1.1	4.8	0.9	2.2		2.8		36.9	4.5	16.5	360.2	6580	1.3	274.5
SMDH 00011	2	3	85	555.2	581.8	571.1	555.8	545.1	26	10.1	133.4	144.7	10.7	15.9	109.5	264.7	29.1	108.5	17.9	1.9	13.5	1.5	5.6	0.8	1.6		0.6		38.2	2.5	18.6	689.8	12600.1	1.7	57.1
SMDH 00011	3	4	80	728.2	767.7	751.4	730.6	714.3	37.1	13.9	170.5	183.1	16.3	23.2	146.4	351.6	38.1	135.3	23	2.3	17.6	2	7.7	1	2.2		1		53.1	2.8	27.2	952.2	17391.6	2.7	98.3
SMDH 00011	4	5	70	457	484.5	471.6	460.2	447.3	24.3	9.7	108.2	115.8	12.9	14.6	88.8	221.5	24.2	85.1	14.5	2	11.2	1.3	5.2	0.8	1.6		0.8		34.1	1.7	24.3	863.2	15766.7	2.6	93.2
SMDH 00010b	0	1	60	769.4	821.3	800.4	768.7	747.8	52.6	21.6	201.1	210.9	20.9	31	140.7	360.2	42.3	155.1	27.1	1.5	20.9	2.7	10.8	1.7	4		2.4		60	6.6	34.3	1109	20256.7	2.7	95
SMDH 00010b	1	2	50	476.5	618.5	567.9	489.2	438.6	129.3	37.9	188.1	118.1	50.6	91.4	95.1	210.5	23.3	83.2	14.6	1.9	10	1.5	10.1	2.5	6.7	1.1	15	1	37	5.7	26.2	438.4	8006.8	2	333.8
SMDH 00010b	2	3	80	618.6	672.6	647.8	625.8	601	46.8	17.6	159.4	160.9	24.8	29.2	116.3	295.8	32.4	117.8	20.9	1.7	16.1	2	8.7	1.4	3.3		2.2		46.1	5.2	40.1	1194.5	21818.4	2.7	105.8
SMDH 00010b	3	4	90	463.2	495.7	482.8	463	450.1	32.7	13.1	120.2	124.3	12.9	19.6	85.4	218.2	25.3	91	15.9	1.6	12.7	1.6	6.4	1	2.5		1.6		31	3.1	32.9	844.5	15425	1.7	58.6
SMDH 00010b	4	5	85	407.5	459	432.9	422.3	396.2	36.7	11.3	104.4	98.4	26.1	25.4	88.4	192.6	21	72.6	12.4	1.6	7.6	0.8	4	0.8	1.7		4		34.7	3.4	17.6	377.2	6890	1.3	315.4
SMDH 00010b	5	6	85	411.3	454.2	428.4	430	404.2	24.2	7.1	96.6	97.7	25.8	17.1	92.7	198.6	20.1	73.5	11.1	1.9	6.3	0.7	3.4	0.6	1		1.4		33.2	2.4	21.5	943.4	17230.8	34.2	1401.6
SMDH 00010b	6	7	80	523.3	578.8	556.1	533.3	510.6	45.5	12.7	132.2	124	22.7	32.8	117	252.1	26.3	91	13.9	1.7	8.6	1.1	5.6	1	2.2		2.8		44.2	3.4	27.2	1153.2	21063.4	15.6	608.4
SMDH 00010	0	1	50	1013.2	1102.5	1081	1005.2	983.7	97.3	29.5	263.6	247	21.5	67.8	207.5	485.2	52.8	181	35	1.6	20.6	2.4	10.8	1.9	4.3	0.7	8.8	0.6	107.5	6.3	21.6	365.6	6677.6	1.3	354
SMDH 00010	1	2	55	287.6	332.5	308	303.6	279.1	28.9	8.5	79.8	74	24.5	20.4	61	130.6	15.6	54.1	10.6	1	6.2	0.7	3.6	0.7	1.8		1.7		30.8	1.5	22.7	435.4	7952.2	1.1	401.6
SMDH 00010	2	3	60	434.1	476.1	462.3	435.9	422.1	40.2	12	118.4	112.4	13.8	28.2	92.1	197.4	23.7	82.3	15.9	1.5	9.2	1.1	5.3	0.9	2.3		2.4		47.9	2.1	28.8	323.8	5913.9	1.2	478.9
SMDH 00010	3	4	95	561.7	612.7	594.8	567.7	549.8	45	11.9	132.1	123.9	17.9	33.1	133.5	271.8	26.8	91	16	1.9	8.8	1.2	4.9	0.9	2.2		2.7		42.9	2.6	40.1	595.7	10880.5	14.5	584.8
SMDH 00010	4	5	80	399.9	445.5	430.6	403.4	388.5	42.1	11.4	109	97.4	14.9	30.7	85.8	188.9	20.3	71.2	12.9	1.2	8.2	1.1	4.8	1	1.8		2.7		43	3.2	22.9	717.7	13108.3	12.1	466.4
SMDH 00010	5	6	90	445.2	481.9	476.7	437.1	431.9	44.8	13.3	118	108.1	5.2	31.5	93.9	211.9	23	78.1	14.8	1.4	8.8	1.1	5.9	0.9	2.3		3.1		47.5	2.8	25.7	812.4	14839.4	11.6	461.8

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00010	6	7	95	392.7	441.8	434.9	382.9	376	58.9	16.7	121.4	97.2	6.9	42.2	82.3	182.5	19.7	70	12.1	1.7	7.7	1.1	6.4	1.3	3	0.6	4.3		37.6	2.6	22.9	853.9	15597.3	11.1	432.3
SMDH 00010	7	8	80	460.9	505.2	493.8	459.2	447.8	46	13.1	123.9	113	11.4	32.9	98.9	215.8	23.6	82.8	16.1	1.6	9	1.2	5.4	1	2.2		3.3		47.6	2.7	27.2	817.9	14939.9	45.6	1840.9
SMDH 00009b	0	1	55	1077.4	1175.6	1143.4	1080.9	1048.7	94.7	28.7	279.1	269.7	32.2	66	235.1	502.3	58.6	195.4	34.7	2	20.6	2.6	13.1	2.2	5	0.8	4.3	0.7	99.6	6.4	21.2	514.6	9399.1	2	726.6
SMDH 00009b	1	2	60	812.6	875	845.9	827.6	798.5	47.4	14.1	195	203.3	29.1	33.3	185.4	378.8	43.7	150.2	24.4	2.1	13.9	1.6	7.8	1.3	2.4		1		70.4	3.2	21.3	450.3	8225	0.9	360.5
SMDH 00009b	2	3	75	684.6	726.5	713.6	685.5	672.6	41	12	163.4	168	12.9	29	152.3	326.3	35.3	124.8	20.6	1.7	11.6	1.5	6.4	0.9	1.7		1.5		59.6	3.2	27.2	1158.4	21158.1	25.7	1055.5
SMDH 00009b	3	4	90	688.5	734.7	711.7	700.5	677.5	34.2	11	157.1	168.5	23	23.2	152.9	328.1	36.6	124.8	20.4	2	12.7	1.4	5.7	0.8	2.1		1		62.4	2.7	25.7	1001.5	18293	2.8	131.6
SMDH 00009b	4	5	80	770.3	809.3	803.6	760.8	755.1	48.5	15.2	185.4	191.1	5.7	33.3	169	362.3	41.1	141.1	24.5	2.1	15	1.6	7.3	1.3	3		2		70.9	3.7	27.2	1002.3	18307.4	4	173.7
SMDH 00009b	5	6	90	731.9	793.2	774.6	732.5	713.9	60.7	18	186.5	181.3	18.6	42.7	158.3	344.8	39.5	131.8	22.6	2	14.9	1.6	8.4	1.4	3.9		2.7		70.7	4	22.9	882.2	16114	2.8	126.3
SMDH 00009b	6	7	75	598.1	678.5	640.6	616.3	578.4	62.2	19.7	159.9	148.4	37.9	42.5	129.5	276.5	33	106.1	19	2	12.3	1.4	7.9	1.5	4.3	0.6	3.4	0.6	56.3	3.1	18.6	872.6	15938.9	2.7	114.4
SMDH 00009b	7	8	75	623	684.8	660.3	632.2	607.7	52.6	15.3	161.9	154.7	24.5	37.3	140.1	287.1	32.5	113.7	19.9	2.4	12	1.4	7.1	1.3	3		2.5		58.4	3.3	23.9	450.3	8225	1.1	381.2
SMDH 00009	0	1	45	475.2	538.3	518.4	477	457.1	61.3	18.1	139.3	119.6	19.9	43.2	101.3	218.7	24.9	86.3	15	1.4	9.5	1.3	7.1	1.4	3.7	0.6	3.4	0.6	42.2	3.3	18.9	361.8	6608.7	1.2	480.2
SMDH 00009	1	2	55	649	734.2	697.5	666.3	629.6	67.9	19.4	174.7	158.3	36.7	48.5	145.3	299.6	33.8	114.3	21.5	1.7	13.4	1.6	8.6	1.5	4.3		3.4		58.5	4.1	22.9	838.5	15315.9	3.7	155.5
SMDH 00009	2	3	80	696.2	776.1	750.6	696.6	671.1	79.5	25.1	195.9	176.2	25.5	54.4	148.5	319.3	36.6	128.3	22.1	1.9	14.4	1.9	9.4	1.9	5.6	0.7	4.9	0.7	61.6	4.2	30	1055.4	19277.7	3.1	135.5
SMDH 00009	3	4	90	650.8	698	690.5	640	632.5	58	18.3	168.7	161.6	7.5	39.7	142.4	302.4	34.3	117.8	20.9	1.7	13	1.5	8	1.4	4		3.4		58.8	2.9	30	1181.6	21583	3.5	149.7
SMDH 00009	4	5	90	529.7	641.3	566.5	587.3	512.5	54	17.2	142.5	132.8	74.8	36.8	116.2	241.4	29.1	95.6	17.3	2	10.9	1.4	6.7	1.4	4.1		3	0.6	48.2	2.4	27.2	1051.3	19203.1	2.5	95.4
SMDH 00009	5	6	90	409.3	463.1	439	424.1	400	39	9.3	108.4	97.6	24.1	29.7	91.1	195.1	21	71.2	11.8	2.1	7.7	1.2	4.2	0.7	1.8		1.4		35.5	2.4	25.7	794.2	14506.4	1.9	74.4
SMDH 00009	6	7	95	574.2	654.3	628.2	583.7	557.6	70.6	16.6	156.3	129.7	26.1	54	127	279.7	29.1	92.1	17.9	1.7	10.1	1.5	7	1.3	3.8		3		49.7	3.9	31.5	1389.7	25384	2.9	126.7
SMDH 00009	7	8	95	605.6	727.4	684	626.4	583	101	22.6	184.7	132.5	43.4	78.4	135.8	293.6	27.8	94.5	18.9	1.6	10.8	1.8	8.4	1.6	4.8	0.6	4.7	0.7	48.9	5.3	32.9	1278.8	23357.2	4.2	183.3
SMDH 00009	8	9	95	556.1	646.5	602.8	589.5	545.8	57	10.3	138.5	115.3	43.7	46.7	129.9	281.4	25.1	84	15	1.6	8.8	1.3	4.9	0.8	1.9		1.4		43.2	5.1	34.3	1199.1	21901.7	2.6	111.6
SMDH 00009	9	10	90	502.9	588.8	545.2	537.1	493.5	51.7	9.4	126.7	106.9	43.6	42.3	115.5	251.2	23.9	77	15.5	1.4	9	1.2	4.8	0.7	1.7		1		41.2	4.5	30	1338.6	24451	3.1	128.9
SMDH 00009	10	11	95	637	713.9	676.5	662	624.6	51.9	12.4	150.2	140.3	37.4	39.5	145.9	312.8	31.3	101.5	19.5	1.7	11.9	1.5	6	0.9	2.4		1.6		54.4	4	35.8	1741	31800.3	4	174.8
SMDH 00009	11	12	95	572.4	657.8	619.1	596.4	557.7	61.4	14.7	150.4	130.3	38.7	46.7	128.2	275.3	28.3	94.5	19	1.7	10.7	1.6	5.9	1.1	3.3		2.8		50.5	3.8	30	1151	21023.2	3.2	134.3
SMDH 00009	12	13	95	632.2	763.7	731.3	636.6	604.2	127.1	28	227	158.8	32.4	99.1	132.4	292	32.6	113.1	19.4	1.7	13	2.9	10.2	2.2	5	0.9	6	0.8	58.5	3.3	32.9	905.9	16547.5	3.7	142.4
SMDH 00008b	0	1	50	417.4	474.2	451.2	425.5	402.5	48.7	14.9	119.9	107.3	23	33.8	90.1	189.4	22.5	77.3	13.5	1.3	8.4	1.1	6.4	1.1	2.7	0.6	3		37.9	2.4	17.2	554.7	10131.2	1.5	478.5
SMDH 00008b	1	2	85	648.7	752.9	713.5	670.5	631.1	82.4	17.6	189.5	157.3	39.4	64.8	138.7	309.6	34.3	113.1	21.1	1.7	12.6	2.4	7.5	1.4	2.9	0.6	2.8		60.1	3.3	28.6	1212.7	22151.4	3.2	124
SMDH 00008b	2	3	90	421.3	481.7	452.3	443.3	413.9	38.4	7.4	112.5	102.8	29.4	31	91.9	202.3	22.8	74.6	13.2	1.5	7.6	1.4	4		1		1		38.9	2.5	24.3	972.6	17764.8	2.6	102.9
SMDH 00008b	3	4	70	592.9	676.3	638.4	618.9	581	57.4	11.9	165.2	148.9	37.9	45.5	128.2	281.4	31.2	109.6	17.2	2	11.4	2	6.1	0.9	1.6		1.3		55.6	3.1	28.6	920.7	16817.4	3.3	136.6
SMDH 00008b	4	5	85	607.8	685.8	661.1	619.1	594.4	66.7	13.4	176.1	152.6	24.7	53.3	133.9	283.6	31.8	112	19.2	2	11.9	2	6.8	1	1.8		1.8		56.1	2.8	32.9	938	17133.2	2.2	90.5
SMDH 00008b	5	6	90	250.4	293.2	268.7	265.3	240.8	27.9	9.6	63.9	72.4	24.5	18.3	51.8	105.5	28.5	39.7	8.3	1.7	5.3	0.8	3.4	0.9	2.5		2		17.9	3.1	28.6	863.7	15775.3	4.7	201.7
SMDH 00008b	6	7	90	551.1	631	600.8	568	537.8	63	13.3	160.3	139	30.2	49.7	121	256.6	30.3	100.3	16.9	1.9	10.8	2.1	6.3	1	2.1		1.8		50.5	2.6	34.3	685.3	12516.9	1.5	62.1
SMDH 00008b	7	8	95	662.8	756.2	720.2	683.1	647.1	73.1	15.7	189.9	165.3	36	57.4	144	313.5	34.7	120.1	20.1	1.9	12.8	2.6	7.9	1.1	2.3		1.8		61.2	2.9	34.3	864	15781	2.5	103.5
SMDH 00008b	8	9	98	565.1	619.6	619.6	544.1	544.1	75.5	21	163.9	137.4		54.5	120	264.2	29.7	98	19	1.7	11.5	1.8	7.9	1.5	4.5	0.6	4.1	0.6	50.9	3.4	32.9	959.4	17523.6	2.2	92.8
SMDH 00008b	9	10	95	560.6	657	629.9	565	537.9	92	22.7	178.2	135.4	27.1	69.3	120.7	263.2	28.2	96.8	16.6	1.7	10.7	1.8	8.6	1.6	5	0.6	4.4	0.7	48.1	4.2	35.8	807.9	14756.1	2.2	94.3
SMDH 00008b	10	10.5	95	526	636.9	603	538	504.1	98.9	21.9	173	120	33.9	77	115.4	250.1	25.6	85.1	16.5	1.6	9.8	1.6	7.7	1.5	4.9	0.7	4.9	0.6	43.4	4.7	34.3	868.2	15858.5	2.9	141
SMDH 00008	0	1	50	489.2	580.9	542.7	514.9	476.7	66	12.5	137.3	106	38.2	53.5	110.9	242.5	23.6	75.8	14.3	1.4	8.2	1.3	5.3	0.9	2.6		2.4		42.7	4.1	30	823.6	15043.2	2.7	112.3
SMDH 00008	1	2	65	390.1	473	431.6	414.1	372.7	58.9	17.4	118.1	95.8	41.4	41.5	86.1	177	20.5	68	12.1	1.3	7.7	0.9	6.4	1.3	3.4	0.6	4.1	0.7	41.9	2.2	21.9	481.9	8802	1.5	248.4
SMDH 00008	2	3	90	390.7	481.8	455.7	400.4	374.3	81.4	16.4	132.4	84.5	26.1	65	88.4	188.3	18.4	59.5	11.5	1.3	6.9	1.1	5.5	1.1	3.9	0.6	3.6	0.6	32.1	4.6	32.9	770.3	14070	3.8	144.9
SMDH 00008	3	4	95	504.1	608.7	568.4	526.2	485.9	82.5	18.2	154.7	112.7	40.3	64.3	112	242.5	23.9	80.5	15.4	1.6	10	1.5	6.8	1.3	3.9		4.1	0.6	40.3	4.7	28.6	908.1	16587.7	3.3	134.3
SMDH 00008	4	5	95	491.9	591.7	550.3	515.9	474.5	75.8	17.4	148.7	112.9	41.4	58.4	108.1	235.7	24.2	80.5	15.2	1.6	9.2	1.4	6.8	1.3	4		3.9		40.6	4.6	28.6	650.1	11873.8	2.8	114.5
SMDH 00008	5	6	95	415.9	495.7	458.4	438.3	401	57.4	14.9	127.5	105.7	37.3	42.5	86.8	190.5	22.4	75.8	15	1.7	8.8	1.4	6.1	1	3.3		3.1		36.6	2.9	24.3	742	13553.2	2.1	90.4
SMDH 00008	6	7	95	593.6	705.7	674.4	591.7	560.4	114	33.2	204.5	154.2	31.3	80.8	121.2	263	32.4	108.5	20.1	1.9	13.3	2.2	11.1	2.2	7.8	1	7.6	1.3	52.5	3.2	34.3	846.5	15462.4	2.4	98.2
SMDH 00007b	0	1	45	673.1	772	745.9	679.3	653.2	92.7	19.9	203.6	164.6	26.1	72.8	142.6	318.8	35.5	119.2	21.6	1.7	13.8	1.6	8.3	1.5	3.5	0.6	3.8	0.6	58.8	4.2	22.5	326	5954.1	1.4	873
SMDH 00007b	1	2	5	354.8	448.7	416.5	371.4	339.2	77.3	15.6	135.2	89.4	32.2	61.7	72.7	163.3	17.9	64.4	11.4	2	7.5	1.1	6	1.3	3	0.6	3	0.6	29.9	3.7	26.6	366.4	6691.9	0.7	489.5
SMDH 00007b	2	3	40	94.2	137.6	109.2	118.3	89.9	19.3	4.3	34.4	23.1	28.4	15	21.6	40	5	16.3	3.2	1.3	2.5		1.8		1		1.5		5.1	1.7	28.6	812.9	14848	2.9	140.1
SMDH 00007b	3	4	85	109.9	195.3	143.3	152	100	43.3	9.9	59.4	29.9	52	33.4	19.4	44.1	5.4	19.8	5.7	1.5	4.1	0.8	3.9	0.8	2.5		1.9		2.4	1.9	37.2	804.3	14690.1	3.3	149.5
SMDH 00007b	4	5	95	130.2	185.1	159	146.3	120.2	38.8	10	58	34.5	26.1	28.8	25.1	53.8	6.6	23.3	5.7	1.3	4.4	0.8	3.8	0.8	2.4		2.2		3.6	1.3	47.2	937.7	17127.4	0.9	35.8
SMDH 00007b	5	6	95	110.4	170.6	137.3	134.2	100.9	36.4	9.5	54	30.9	33.3	26.9	19.1	43.4	5.4	21	6.1	1.6	4.3	0.7	3.8	0.7	2.5		1.8		2.4	1.3	37.2	1118.9	20437.5		13
SMDH 00007b	6	7	90	124.2	196.1	172.8	130.7	107.4	65.4	16.8	79.3	35.1	23.3	48.6	20.6	47.2	5.8	22.2	5.5	1.4	4.7	0.9	6.2	1.3	4.2	0.6	3.6		2.2	1.2	28.6	941.5	17196.3	0.9	32.8
SMDH 00007	0	1	60	519.7	596.3	564.7	533.8	502.2	62.5	17.5	152	134.3	31.6	45	106.5	238.6	28.6	96.8	18.9	1.3	11.5	1.9	7	1.3	3.7		3	0.6	46	3.5	22.9	601.7	10989.6	1.8	70.2
SMDH 00007	1	2	50	310.3	375.6	348	329.2	301.6	46.4	8.7	100.3	77.2	27.6	37.7	67.2	143.2	16.6	56.1	10.2	2	6.3	0.8	3.7	0.8	1.6		1.8		25	2.2	14.4	312	5698.6	0.9	499.7
SMDH 00007	2	3	70	382.2	445.6	422.6	394.6	371.6	51	10.6	119.8	98	23	40.4	81.2	176.3	20.5	72.1	12.2	1.9	7.4	0.8	4.6	0.8	2.1		2.3		31.1	2.1	30.6	304	5552.2	0.7	448.9
SMDH 00007	3	4	75	281.8	331.3	298.6	308.7	276	22.6	5.8	73.9	70.9	32.7	16.8	60.2	131.7	15.9	51.3	9.2	2.1	5.6	0.8	2.9		1.1		1		23.3	2.1	22.9	675.7	12341.8	2.4	102.9
SMDH 00007	4	5	75	411.4	449	431.8	419.7	402.5	29.3	8.9	102.8	102.9	17.2	20.4	89.1	192.1	22.2	75.8	13.8	1.7	7.8	0.8	4.1	0.8	1.8		1.4		36.5	2	17.2	378.5	6913	7.5	337.3
SMDH 00007	5	6	80	522.3	618.8	565.3	557.1	503.6	61.7	18.7	146.7	129.8	53.5	43	111.2	242	28	93.3	16.5	1.9	10.7	1.3	7.2	1.4	4.2	0.7	3.3	0.6	44.6	3.2	21.5	737.6	13472.9	4.8	220.6
SMDH 00007	6	7	90	393.2	477	428.4	433.6	385	43.4	8.2	99.6	80.6	48.6	35.2	98.6	190.9	17.2	58.3	12.3	1	6.7	0.9	4.2	0.7	1.5		0.9		29.2	4.1	30	635.6	11609.7	3.8	146.8
SMDH 00007	7	8	95	413.2	467.7	446.2	422.8	401.3	44.9	11.9	99.4	82.4	21.5	33	98.3	206.4	17.2	59.5	11.8	1.2	6.9	1.3	4.4	1.5	1.9	0.6	2.2		29.9	6.8	20	861.6	15738	2.6	101.9
SMDH 00007	8	9	95	410.7	438	428.2	409	399.2	29	11.5	108.7	112.8	9.8	17.5	78.3	187.9	23.1	82.8	14.5	1.5	11.1	1.3	5.6	0.9	2.1		1.6		31.3	2	20	867	15835.6	1.4	50.1
SMDH 00007	9	10	95	296.8	340.7	323.7	302.9	285.9	37.8	10.9	84.8	72.2	17	26.9	63.3	138.9	15.7	51.3	9.2	1.4	6.1	0.8	4.4	0.8	2.7		2.2		26.1	1.9	14.3	438.5	8009.7	5.8	292.2
SMDH 00007	10	11	90	358.6	378.5	373.3	354.4	349.2	24.1	9.4	91.9	95.8	5.2	14.7	71.2	165.8	19.9	70	11.8	1.3	9.2	1.2	4.7	0.8	1.7		1		20.9	1.4	18.6	509.1	9298.7	1.5	54.3
SMDH 00006b	0	1	65	570.9	664.6	636.7	583.3	555.4	81.3	15.5	178.1	136.1	27.9	65.8	128.3	268.8	25.3	102.6	17.7	1.5	11.2	1.3	6.9	1.3	2.9		3.1		45.3	4	24.3	648.3	11842.2	2.6	535.6
SMDH 00006b	1	2	55	662.1	779.5	753.4	664.1	638	115.4	24.1	225.6	166.7	26.1	91.3	141.8	303.8	36.1	118.7	20.8	3.7	13.1	1.9	10	2.1	4.3	0.7	4.4	0.7	45.5	3.7	24.2	333	6083.3	0.7	549.5
SMDH 00006b	2	3	80	763.3	814.4	793.8	763.7	743.1	50.7	20.2	198.3	208.5	20.6	30.5	144.7	366.4	42.3	154	13.5	1.6	20.6	1.3	10.9	1.8	3.8		2.4		71.3	1.9	34.3	680.6	12430.7	2.9	96.6
SMDH 00006b	3	4	90	485.3	594.4	564.3	495.9	465.8	98.5	19.5	163.5	104.2	30.1	79	107.2	239	21.3	74.6	13.5	1.6	8.6	1.5	6.8	1.5	4.2	0.7	4.2	0.6	33.7	4.7	34.3	327.2	5977.1	8	363
SMDH 00006b	4	5	75	432.8	504.9	481.9	444.5	421.5	60.4	11.3	135.4	107.6	23	49.1	91.6	206.2	22.7	78.6	12.6	1.4	8.4	0.9	5.4	1	2.2		1.8		34.7	2	14.9	275.5	5032.6	0.6	486.8
SMDH 00006b	5	6	85	798.7	909	868.5	820.7	780.2	88.3	18.5	211.8	176.9	40.5	69.8	180.8	396.5	36.9	129.5	21.5	2	13	1.8	8.7	1.6	3.7		2.7		54.5	4.6	31.5	562.8	10280.5	13.7	586.1
SMDH 00006b	6	7	90	620.6	707.5	678.8	633.4	604.7	74.1	15.9	170.3	139.1	28.7	58.2	137.8	305.5	28.9	101.5	18.3	1.9	10.8	1.4	7.3	1.1	2.9		3.2		43.6	4.5	25.7	636.1	11618.3	13.9	592.6
SMDH 00006b	7	8	85	828.8	935.1	895.2	850.8	810.9	84.3	17.9	216.5	185.8	39.9	66.4	187.3	409.8	37.7	137.6	22.8	2	13.7	1.8	8.7	1.4	3.2		2.8		56.7	4.6	31.5	633.6	11572.4	9.9	433.5
SMDH 00006b	8	9	70	720.4	831.9	804.3	726.7	699.1	105.2	21.3	234.9	185.7	27.6	83.9	151.5	334.7	37.7	137.1	21.5	3	13.6	1.5	9.4	1.8	3.8	0.6	3.6	0.6	57.2	3.5	22.3	327.1	5974.2	0.8	508.6
SMDH 00006b	9	10	90	619.4	712.1	675	637.5	600.4	74.6	19	173.2	146.7	37.1	55.6	134.5	296.7	31.1	106.1	19.2	2	10.8	1.5	8	1.5	3.4	0.6	3.4	0.6	44.4	3.3	25.7	772.2	14104.4	14.4	653.4
SMDH 00006b	10	11	90	540.5	596.2	577.5	540	521.3	56.2	19.2	184.4	171.9	18.7	37	112.4	233.8	26.8	136.5	0.9	2.3	8.6	1.8	6.8	1.1	4.5	0.6	3.8	0.6	63.6	2.6	21.5	795.8	14535.1	3.2	151.3
SMDH 00006b	11	11.5	45	763.2	902.8	847.6	796	740.8	106.8	22.4	238	191.4	55.2	84.4	161.1	359.8	40.6	139.6	23.2	2.8	13.7	1.6	9.6	1.8	4.1	0.7	4	0.6	58.9	3.4	22.7	378.6	6915.9	0.7	636.4

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00006	0	1	40	548.2	642.8	612.7	561.2	531.1	81.6	17.1	175.3	137.8	30.1	64.5	110.8	262.1	28.5	100.3	17.4	1.5	10.5	1.9	7.1	1.3	3	0.6	3.2		49.6	2.8	28.6	422.3	7714	23.5	1112.8
SMDH 00006	1	2	60	401.7	475.2	443	424.5	392.3	50.7	9.4	124.5	104.5	32.2	41.3	86.3	185.9	22.2	77	12.4	0.9	7.6	1.2	4.1	0.8	1.6		1.7		42.6	2.1	31.5	644.9	11779.1	16.4	833.3
SMDH 00006	2	3	70	672.3	787.7	760.1	680.4	652.8	107.3	19.5	235.7	181.4	27.6	87.8	157	284.6	37.2	133	23.1	3.7	14.2	2.2	9	1.5	3.3	0.7	2.8		50.8	2.6	34.3	532	9717.8	17.9	873.6
SMDH 00006	3	4	85	506.5	591.3	559.6	525.9	494.2	65.4	12.3	159	130.7	31.7	53.1	107.5	235.4	26.5	96.8	16.8	1.7	9.5	1.5	5.9	0.9	2.2		1.8		48.6	3.2	40.1	480.9	8784.8	22.3	1040.9
SMDH 00006	4	5	70	534.3	632.9	587	568.1	522.2	64.8	12.1	159.2	133.2	45.9	52.7	115.5	251	28.4	98	17.5	1.7	10.1	1.5	5.3	0.9	2.2		2.2		52.3	2.6	32.9	353.6	6459.4	9	405.4
SMDH 00006	5	6	85	576	730.1	677.6	603.3	550.8	126.8	25.2	221.3	149.1	52.5	101.6	122.8	259.3	31.1	105	18.3	1.7	12.6	2.4	10.6	1.8	4.2	0.8	4.8	0.6	52.3	2.7	48.6	675.1	12330.3	9.3	447
SMDH 00006	6	7	90	540.9	665.4	620.3	565.6	520.5	99.8	20.4	188	134.8	45.1	79.4	113.6	252.7	27.9	96.8	17.2	1.7	10.6	1.8	8.3	1.6	3.4	0.7	4	0.6	49.2	2.6	42.9	513.3	9376.2	10.3	462.8
SMDH 00006	7	8	80	557.1	662.8	632.7	568.7	538.6	94.1	18.5	192.3	145.1	30.1	75.6	116.1	256.1	30.3	105	17.7	1.9	11.5	2	7.8	1.5	3.1	0.6	3.5		53.6	2.6	37.2	573.7	10478.6	10.6	475.2
SMDH 00006	8	9	90	489.9	597.2	546.3	525.9	475	71.3	14.9	146.5	112	50.9	56.4	103.1	241.6	23.3	81.6	15.5	1.4	8.5	1.4	5.7	1.3	2.9		3	0.6	38	3.4	28.6	584.8	10682.4	6.8	315.1
SMDH 00006	9	10	90	482.4	571.9	541.2	499.1	468.4	72.8	14	145.3	107.3	30.7	58.8	103	240.8	22.2	78.1	14.3	1.4	8.6	1.3	5.7	1.1	2.9		3		37	3.7	30	569.8	10406.8	9.8	431.7
SMDH 00005b	0	1	20	622.3	668.3	657.6	616.3	605.6	52	16.7	139.9	133.2	10.7	35.3	111.4	338.3	29.8	95.4	17.7	1.2	11.8	1.3	6.7	1.5	3	0.6	3	0.6	56.1	3.3	18.6	465.1	8494.8	0.8	786.6
SMDH 00005b	1	2	25	518.3	576	543.8	538.8	506.6	37.2	11.7	124.6	125	32.2	25.5	106.5	253.4	27.5	91.3	16	1.6	10.3	1.2	5	0.9	2.1		2.5		44.4	2.7	17.6	478.6	8741.7	0.8	507.5
SMDH 00005b	2	3	65	476.1	548.1	515.6	500.2	467.7	47.9	8.4	122.9	104.3	32.5	39.5	105.7	239.5	22.1	77	14.5	1.2	7.7	1.1	4.1	0.7	1.4		1.1		37.8	3.7	32.9	995.4	18181	10.5	454.7
SMDH 00005b	3	4	90	528.3	606.7	576.3	547.7	517.3	59	11	143.2	118.2	30.4	48	119.7	259.8	24.4	87.5	15.5	1.4	9	1.3	5	0.8	2.2		1.7		36.4	3.3	27.2	610.1	11144.6	9.1	393.5
SMDH 00005b	4	5	90	520.7	588.1	563.4	533.7	509	54.4	11.7	137.2	117.1	24.7	42.7	116.1	257.2	24.3	86.3	15.2	1.7	8.2	1.2	5.3	0.8	2.2		2.2		37.4	3.1	22.9	652.6	11919.7	9.7	453.5
SMDH 00005b	5	6	95	530.2	614.3	576.4	555.9	518	58.4	12.2	139.7	116.5	37.9	46.2	118.1	264	24.6	85.1	15.5	1.6	9.1	1.3	5.5	0.9	2.2		2.3		38.8	3.4	28.6	659.2	12040.3	10.5	464.9
SMDH 00005	0	1	50	448.8	533.7	491.5	478.3	436.1	55.4	12.7	126.3	103.7	42.2	42.7	93.6	222.6	21.4	75.8	14	1.3	7.4	1.2	5.3	0.9	2.7		2.6		35	2.9	24.3	468.4	8555.1	10.1	426.3
SMDH 00005	1	2	40	382.1	437.4	400.6	412.6	375.8	24.8	6.3	90.6	90.7	36.8	18.5	84.6	184.1	20.1	66.5	11.5	1.5	7.5	0.7	3.4	0.7	1.5				32.3	3.1	19.2	621.6	11354.2	1.4	770.9
SMDH 00005	2	3	60	675.1	760.8	718.8	702.9	660.9	57.9	14.2	171.4	160.2	42	43.7	142.7	328.1	34.2	119	23	1.7	12.2	1.5	5.5	1	3		3.2		50.8	2.7	22.9	643.3	11750.4	8.7	381.6
SMDH 00005	3	4	65	476	536.4	506	494.3	463.9	42.1	12.1	124.9	117.8	30.4	30	105.6	222.8	24.3	87.5	15.3	1.4	7	1.1	4.9	0.9	2.2		3		41.9	2.1	20	606.7	11081.5	7.9	344.3
SMDH 00005	4	5	65	522.3	568.6	557.1	520.3	508.8	48.3	13.5	136	126.6	11.5	34.8	114.9	247	26.7	93.3	16.4	1.3	9.2	0.9	5.7	1.1	2.4		3.4		44.9	2.4	22.9	631.4	11532.2	8.1	352.7
SMDH 00005	5	6	80	517.4	576.2	553	527.1	503.9	49.1	13.5	135.9	124.1	23.2	35.6	118.5	241	25.1	92.1	16.4	1.3	9.5	1.2	5.7	1	2.3		3.3		40.5	2.4	28.6	541.9	9898.7	8.5	369.8
SMDH 00005	6	7	75	486.3	552.9	526.7	495.5	469.3	57.4	17	138.9	121.4	26.2	40.4	103.4	225.8	24.4	88.6	16.4	1.5	9.2	1.2	7.2	1.3	2.6	0.6	4.1		41.8	2.9	28.6	672.5	12284.3	6.1	259.5
SMDH 00005	7	8	85	521.9	582.7	558.2	531.8	507.3	50.9	14.6	138.7	127.1	24.5	36.3	113.1	246.4	26.1	93.3	17	1.4	10	1.2	6.5	1.3	2.2		3.4		47.1	2.4	34.3	587	10722.6	9.9	419.6
SMDH 00005	8	9	90	476.1	536.3	512.5	485.8	462	50.5	14.1	129.5	116.2	23.8	36.4	103.4	223.9	24.4	84	16	1.3	9	1.3	6.5	1.1	2.1		3.1		42.9	2.1	32.9	455.2	8314	8	360.5
SMDH 00005	9	10	92	516.4	587.5	554.5	534.2	501.2	53.3	15.2	144.7	131.8	33	38.1	110.7	239.4	26.8	96.8	16.6	1.6	9.3	1.2	7	1.1	2.3		3.6		48.1	2	35.8	602.9	11012.6	8.5	383.1
SMDH 00004b	0	1	40	372.8	403.6	401	362.7	360.1	40.9	12.7	101.8	92.3	2.6	28.2	76.6	175.9	19.7	66.5	12.9	1	7.5	0.9	5.2	0.9	3.1		2.6		38.2	2.2	18.6	888.5	16228.9	2.2	84.7
SMDH 00004b	1	2	45	564.6	647.7	594.8	605.8	552.9	41.9	11.7	137.3	134	52.9	30.2	114.1	283.1	29	99.1	15.7	2.1	9.8	1.1	4.8	0.9	2.7		2.2		41.4	2.5	35.8	804.6	14695.8	2	89.4
SMDH 00004b	2	3	90	387.9	424.9	414.6	388	377.7	36.9	10.2	102.7	94.4	10.3	26.7	84.8	182.7	19.7	70	11.8	1.3	7.4	0.8	3.9	0.8	2.4		2.3		37.4	2.2	21.5	845.4	15442.3	2.1	92
SMDH 00004b	3	4	85	377.6	417.6	406.9	377.2	366.5	40.4	11.1	102.3	91.8	10.7	29.3	87.4	172	19.8	66.5	12.2	1	7.6	0.9	4.6	0.8	2.6		2.2		37.3	2.4	21.5	839.6	15336	1.8	74.3
SMDH 00004b	4	5	85	561.8	621.3	608.9	553	540.6	68.3	21.2	166	146.5	12.4	47.1	121	245.9	30	106.1	21.5	2.4	13.7	1.6	8.8	1.6	4.7	0.6	3.9		45.9	2.2	24.3	948.9	17331.3	2.2	91.3
SMDH 00004b	5	6	80	351.3	393.3	380.1	353.9	340.7	39.4	10.6	101.4	90.5	13.2	28.8	78.5	154.8	19.6	65.3	12.4	1.7	8.4	0.9	4.7	0.9	2.5		1.6		30	1.9	24.3	825	15069.1	1.7	74.2
SMDH 00004b	6	7	60	455.8	510	489.3	462.3	441.6	47.7	14.2	123.9	113.3	20.7	33.5	100.6	208.1	24.3	81.6	15.5	1.4	10.1	1.3	6.1	1	3.1		2.7		44.3	2.1	30	847.8	15485.3	2.1	92
SMDH 00004b	7	8	65	512.4	583.8	580.6	499	495.8	84.8	16.6	175.7	133.2	3.2	68.2	109.4	231.6	27.2	96.8	16.9	1.5	12.4	2.2	7	1.3	2.7	0.6	2.8		53	3.1	27.2	1050.7	19191.6	2.5	98.6
SMDH 00004	0	1	45	306	372.5	348.3	321.9	297.7	50.6	8.3	103.8	76.8	24.2	42.3	60	147.7	16.2	56	10.4	0.9	6.5	1.2	3.4	0.7	1.4		1.6		32.4	3.2	15.7	844.2	15419.3	2.4	90.8
SMDH 00004	1	2	45	192.3	267	240.2	213.3	186.5	53.7	5.8	86.2	46.8	26.8	47.9	43	88.7	9.9	33.8	5.9	1.4	3.8	0.7	2.4		1.1		1.6		14.3	3.3	15.7	684	12493.9	1.3	47.1
SMDH 00004	2	3	40	242.1	306.8	275.5	269.4	238.1	37.4	4	83.2	61.1	31.3	33.4	57	110.3	12.9	45.5	6.8	1.6	4	0.7	2		0.6		0.7		20	2.6	11.4	632.1	11546.5	1.1	45.4
SMDH 00004	3	4	60	587.4	670.1	648.5	598.7	577.1	71.4	10.3	170.3	135.7	21.6	61.1	138.9	281.1	28.5	101.5	15.3	2	9.8	1.5	4.2	0.7	1.7		2.2		46.1	3.9	21.5	755.1	13791.5	2.1	97
SMDH 00004	4	5	55	517	599	569.1	537	507.1	62	9.9	149	121.9	29.9	52.1	117.3	248.1	26.7	89.8	14.7	1.7	8.8	1.3	4.1	0.8	1.7		2		45.2	3.1	20	900	16438.4	2	83.3
SMDH 00004	5	6	75	427	497.2	467.8	449.3	419.9	47.9	7.1	127.2	107.8	29.4	40.8	95.6	198.6	23.1	80.5	12.9	1.7	7.5	1.2	3		1.4		1.5		38	2.9	15.7	703.2	12844.1	1.5	67.8
SMDH 00004	6	7	70	303.2	384.5	334.2	348.6	298.3	35.9	4.9	89.5	72.9	50.3	31	66.8	145.4	16.1	53.7	9.5	1.7	5.1	0.9	2.2		0.9		0.9		27.5	2.4	14.3	648.5	11845.1	1.7	72.1
SMDH 00004	7	8	85	438.8	477.6	457	453.8	433.2	23.8	5.6	111.6	117.6	20.6	18.2	95.7	198.5	26.3	87.5	14.8	2.1	8.3	0.9	2.9		1		0.8		43.4	1.2	11.4	534.4	9760.9	1.5	63.6
SMDH 00003b	0	1	60	506.9	567.6	550.1	509.3	491.8	58.3	15.1	152.6	137.1	17.5	43.2	102.7	230.1	28.9	100.3	17.5	1.2	11.1	1.5	6.4	1	3.1		3.1		55.9	2.8	17.2	752.9	13751.3	2.4	99.7
SMDH 00003b	1	2	80	565.6	683.2	649.5	570.5	536.8	112.7	28.8	215.2	162.4	33.7	83.9	125.8	223.1	34	115.5	21	2.9	14.5	2.2	10.7	2.1	5.8	0.9	6.3	0.8	53.6	2.2	21.5	835.7	15264.3	2.4	96.6
SMDH 00003b	2	3	85	370.7	440.6	399.8	402.5	361.7	38.1	9	110.8	100.8	40.8	29.1	83	159.7	21.4	74.6	12.3	2.3	8.4	1.1	3.7	0.7	1.9		1.6		33.9	1.8	18.6	479.8	8764.7	1.5	60.2
SMDH 00003b	3	4	65	454.6	537	494.7	482.8	440.5	54.2	14.1	137.5	121.7	42.3	40.1	94.5	202.4	26	88.6	16.8	1.7	10.5	1.4	5.7	1	3		3		49.5	2.2	15.7	486.8	8891	2.7	125.5
SMDH 00003b	4	5	70	492.6	579.7	556.2	493.1	469.6	86.6	23	169.8	131.2	23.5	63.6	99.3	219	26.7	93.3	17.4	1.7	12.2	2	9.2	1.8	4.6	0.7	4.1	0.6	52.2	2.8	25.7	611.6	11170.4	2.8	122.7
SMDH 00003b	5	6	88	449.5	551.3	522.8	452.7	424.2	98.6	25.3	173	122.9	28.5	73.3	92.1	191.9	24.9	86.3	15.8	1.7	11.5	2.1	9.6	1.9	5.5	0.8	4.8	0.6	45.1	2.7	30	706.6	12907.3	3.3	141.7
SMDH 00003b	6	7	75	500.4	678.5	565	591.2	477.7	87.3	22.7	177.8	139.3	113.5	64.6	99.3	217.5	28	100.3	18.4	1.9	12.3	1.9	9.1	1.7	4.5	0.6	4.3	0.6	50.9	2.6	24.3	620.8	11339.8	3.2	136.6
SMDH 00003b	7	8	70	446.7	529.7	481.5	486	437.8	43.7	8.9	121.7	108.7	48.2	34.8	102.3	208.8	23.8	79.3	13.3	2	8.3	1.2	4.4	0.7	1.6		1		43.5	2.2	15.7	451.4	8245.1	1.5	61.2
SMDH 00003b	8	9	85	300	346.5	327.8	313.5	294.8	33	5.2	86.5	72.3	18.7	27.8	69.9	140.8	15.3	53.7	8.3	1.7	5.1	0.7	2.6		1.1		0.8		26.1	2.6	17.2	546.8	9987.7	2.1	87.9
SMDH 00003	0	1	45	377.3	442.2	425.8	385.3	368.9	56.9	8.4	114.3	82.8	16.4	48.5	82.6	190.2	17.6	60.7	10.9	0.6	6.3	0.9	3.6	0.6	1.6		1.7		35.8	4.4	14.3	333.5	6091.9	3.3	142.4
SMDH 00003	1	2	50	486.5	573.6	541.2	507.1	474.7	66.5	11.8	148	116.9	32.4	54.7	115.6	223	25.3	85.1	14.7	1.7	9.3	1.2	5.3	0.9	2.2		2.2		36.5	4.1	20	703	12841.3	3.1	117.5
SMDH 00003	2	3	55	398.3	484.3	454.4	414.3	384.4	70	13.9	135.6	98.4	29.9	56.1	88.5	181.8	20.3	72.3	12.6	1.4	7.5	1.1	4.7	1	3.1	0.6	3.4		36.3	3.7	18.6	743.6	13582	2.8	112.1
SMDH 00003	3	4	50	404.6	482.6	454.5	419.9	391.8	62.7	12.8	133	103.4	28.1	49.9	89.1	183.5	21.6	75.8	12.8	1.3	7.7	1.2	4.8	0.9	2.9		3		38.5	3.2	17.2	661.2	12077.6	3.4	140.3
SMDH 00003	4	5	35	427.8	524.6	492.4	441.9	409.7	82.7	18.1	149.4	105.9	32.2	64.6	93.1	195.2	22.4	75.8	13.3	1.3	8.6	1.3	6.4	1.4	4.1	0.6	4.3		41.4	3.7	17.2	440.1	8038.4	2.5	98.9
SMDH 00003	5	6	50	393.7	477.2	449.3	404	376.1	73.2	17.6	141.1	105.8	27.9	55.6	80.9	174.1	21.7	75.8	13.3	1.4	8.9	1.4	6.9	1.4	3.4	0.7	3.8		38.7	2.7	20	654	11945.6	3.3	131.3
SMDH 00003	6	7	75	399.8	478.1	458.3	397.9	378.1	80.2	21.7	147.1	109.8	19.8	58.5	80.8	172.3	22.6	78.1	13.7	1.4	9.2	1.5	7.6	1.6	4.8	0.8	4.8	0.6	43.9	2.2	18.6	523.2	9557	3.3	132.8
SMDH 00003	7	8	65	314.3	395.4	376.1	310.2	290.9	85.2	23.4	132.7	86.9	19.3	61.8	62.2	131.7	17.3	60.7	10	1.3	7.7	1.4	7.5	1.7	5.3	0.9	5.8	0.8	33.3	2.2	18.6	420.3	7676.6	2.6	97
SMDH 00003	8	8.5	45	450.2	547.2	517.9	454.7	425.4	92.5	24.8	166.5	122.8	29.3	67.7	89.4	195.1	25.3	87.5	15.9	1.3	10.9	1.9	8.1	1.8	5.7	0.9	5.7	0.7	49.2	2.9	22.9	574.9	10501.5	2.5	97.1
SMDH 00002b	0	1	45	508.4	580.4	555.1	517.5	492.2	62.9	16.2	156.8	136.6	25.3	46.7	102.7	231.7	28	100.3	16.2	1.5	11.8	1.6	6.7	1.1	3.1	0.6	3.1		53.4	2.9	15.7	367.3	6709.2	3.7	143.9
SMDH 00002b	1	2	50	571.6	639.7	615.2	582.4	557.9	57.3	13.7	149.4	134.1	24.5	43.6	124	278.6	30.2	96.8	16.5	1.9	9.9	1.4	5.7	1	2.6		3		49.2	2.4	24.3	840.1	15344.7	3.4	142.6
SMDH 00002b	2	3	90	113.1	152.1	128.3	134.3	110.5	17.8	2.6	40.6	30.8	23.8	15.2	27.3	46.4	6.9	22.2	3.7	1.5	2.5		1.7		0.9				9.3	1.3	12.9	496.2	9063.2	1.7	69.4
SMDH 00002b	3	4	85	589.4	636.4	611.4	606.8	581.8	29.6	7.6	145.7	156.4	25	22	133.5	267.1	34.7	116.6	17.5	2	10.4	1.3	3.8	0.6	1.1		0.8		62.6	1.8	10	424.4	7751.3	1.3	54.6
SMDH 00002b	4	5	80	55.5	62.2	57.9	59.1	54.8	3.1	0.7	16.1	15.5	4.3	2.4	11.1	24.3	3.1	11.7	2	1.3	1.3		0.7						2.6		12.9	511.3	9338.9	0.8	30.5
SMDH 00002b	5	6	90	367	392.3	375.1	380.4	363.2	11.9	3.8	80.7	91.6	17.2	8.1	83.7	174.3	20.2	68.8	9.2	1.2	5.8	0.6	2		0.6		0.6		36.8	0.9	15.7	931.4	17012.6	11.6	459.7
SMDH 00002b	6	7	95	373.5	405.2	384.8	389.1	368.7	16.1	4.8	83.9	91.9	20.4	11.3	85.6	177.1	20.7	68.8	9.6	1.4	5.5		2.4		1.4		1		36.8	1.1	14.3	733.2	13392.5	9.9	430.6
SMDH 00002b	7	7.5	50	145.3	167.6	152.3	159	143.7	8.6	1.6	36.7	36.3	15.3	7	33.1	66.8	8.1	27.2	4.5	1.5	2.5		1		0.6				12.2	2	12.7	312.8	5713	0.6	285.8
SMDH 00002	0	1	40	493.6	543.5	523.7	498.8	479	44.7	14.6	129.2	124.7	19.8	30.1	103.6	230.1	26.8	91	15.7	1.2	10.6	1.2	5.7	0.9	3.4		2.8	0.6	48.7	2.6	14.3	657	12000.1	18.5	705.7
SMDH 00002	1	2	70	253.5	288.5	267.8	269	248.3	19.5	5.2	65.9	64.2	20.7	14.3	57.3	115.7	13.8	47.8	7.5	1.2	5		2.6		1.6		1		23.1	1.4	15.7	667.8	12198.2	11.7	516.5
SMDH 00002	2	3	65	37.9	58.1	41.7	53.7	37.3	4.4	0.6	12.6	9.7	16.4	3.8	10.2	16.2	2.1	7		1.2	0.6		0.6						2.4		8.6	442.1	8075.7	7.3	333

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00002	3	4	80	216.7	239.7	227.4	225.4	213.1	14.3	3.6	53.1	53.6	12.3	10.7	49.6	101.3	12.1	39.7	5.6	0.9	3.9		1.8		0.9		0.9		20.3	0.8	12.9	521.7	9528.3	8.3	335.4
SMDH 00002	4	5	90	388.9	447.3	420	400.8	373.5	46.5	15.4	109.1	98.2	27.3	31.1	84.1	177.5	21	71.2	11.2	0.8	7.7	0.8	5.2	0.9	4		3.8	0.7	37	1.8	11.4	790.9	14446.1	12.7	469.1
SMDH 00002	5	6	90	429.2	489.3	461.5	441.3	413.5	48	15.7	117.8	107.8	27.8	32.3	90.9	199	23.3	78.1	12.8	1	8.4	0.9	5.5	1	4.2		3.5	0.6	41.6	2.2	17.2	596	10886.2	12.6	504.7
SMDH 00002	6	7	95	89.5	122.1	97.4	111.6	86.9	10.5	2.6	25.1	21.1	24.7	7.9	19.2	44.3	4.8	15.2	0.9	0.9	1.6		1.1		0.7		0.8		7.3	1.3	17.2	530	9680.5	11.2	476.7
SMDH 00002	7	8	98	429.7	494.7	464	443.8	413.1	50.9	16.6	121.5	108.5	30.7	34.3	93.1	196.2	23	79.3	12.3	1.7	7.5	0.8	5.4	1	4.3	0.6	3.9	0.6	39.8	1.7	22.9	695	12694.9	14.7	592.1
SMDH 00002	8	9	98	614.9	670.9	645.1	623.5	597.7	47.4	17.2	160.7	159.3	25.8	30.2	116.7	291	32.3	116.6	20.9	3.5	16.7	1.9	8.5	1.4	3.4		2		45.9	5.2	40.1	747.5	13653.7	2.8	102.8
SMDH 00002	9	10	90	895.1	989.6	949.1	910.7	870.2	78.9	24.9	229	222.8	40.5	54	192.3	421.2	49.5	161	26.9	1.7	17.6	2.1	10.2	1.7	5.5	0.7	4.1	0.6	86.5	3.8	45.8	742.8	13567.6	16.7	663.9
SMDH 00002	10	11	95	891	1004	964.1	895.8	855.9	108.2	35.1	253.2	226.4	39.9	73.1	189.3	406.7	47.8	164.5	27.5	1.5	18.6	2.2	11.9	2.4	8.6	1.3	7.2	1.5	90.3	3.8	48.6	782.7	14296.8	10.5	425.6
SMDH 00002	11	12	98	601.8	697.1	660	610.9	573.8	86.2	28	180.3	152.5	37.1	58.2	126.5	271.2	32.1	109.6	19.1	1.7	13.6	1.6	9.2	1.7	7	1	6.4	1.1	55.9	3.7	28.6	735.6	13435.5	17	710.5
SMDH 00002	12	13	95	561.2	641	606.2	573.6	538.8	67.4	22.4	158.9	142.9	34.8	45	118.7	253.7	30.4	103.8	18.6	1.4	12.2	1.4	7.3	1.4	5.5	0.8	5.1	0.9	54.8	3.1	20	798.4	14583.9	13.9	580.8
SMDH 00002	13	14	90	475.4	542.6	512.5	485.8	455.7	56.8	19.7	133.4	120.5	30.1	37.1	99.8	216.7	25.7	87.5	14.6	1.5	9.9	1.2	6.1	1.1	5.3	0.7	4.4	0.9	44.9	2.5	17.2	892.7	16306.4	13.4	533.3
SMDH 00001b	0	1	65	436.7	502.3	470.1	454.9	422.7	47.4	14	124.7	113.6	32.2	33.4	92.8	199.1	23.9	82.8	13.6	1.6	8.9	0.9	6	0.9	3.4		2.8		39.4	2.5	20	1246.9	22774.4	18.5	757.7
SMDH 00001b	1	2	50	180.1	231.7	204.1	200.1	172.5	31.6	7.6	66.4	51.3	27.6	24	52.7	60.1	10.6	37.3	5.5	1.7	4.6		3.4		2.6		1.6		9.6	0.6	21.5	1542.8	28180.2	5.8	259.2
SMDH 00001b	2	3	60	178.1	228.7	197	202.9	171.2	25.8	6.9	57.2	46.6	31.7	18.9	38.5	78.7	9.8	33.8	4.6	1.5	4.3		3	0.6	1.9		1.4		11.6	0.7	30	1698.1	31016.6	7	329.5
SMDH 00001b	3	4	70	216.3	305.9	253.4	251.8	199.3	54.1	17	88	58.9	52.5	37.1	34.7	95.7	11.1	39.7	7.9	3.1	7.1	1.1	7	1.1	4.2	0.6	3		6.6	1.1	51.5	2955.5	53983.3	6.3	276.8
SMDH 00001b	4	5	60	206.9	291.2	245.3	235.9	190	55.3	16.9	84.3	53.8	45.9	38.4	34.5	93.6	9.8	36.2	7.3	1.9	6.7	1.1	6.7	1.1	4.1	0.6	3.3		8.1	0.9	45.8	3015.7	55082.9	6.5	286.9
SMDH 00001b	5	6	75	392.2	489.1	444	413	367.9	76.1	24.3	129.2	95.9	45.1	51.8	79.6	180.8	20.2	66.5	10.8	1.7	8.3	1.2	8	1.6	6.2	0.8	5.5	1	29.7	1.4	31.5	1274.4	23276.8	11.2	482.2
SMDH 00001b	6	7	70	312.6	370.1	340	330.4	300.3	39.7	12.3	88.9	76.6	30.1	27.4	67.8	146.2	16.6	54.8	8	1.5	5.4	0.7	4.5	0.8	3.7		2.6		26.3	1.2	14.3	589.4	10765.7	10.1	425.8
SMDH 00001b	7	8	85	322.9	383.8	353.4	340.2	309.8	43.6	13.1	95.4	80.6	30.4	30.5	71	147	17.2	58.3	8.5	1.5	6.3	0.7	4.4	0.9	3.5		3	0.6	25.3	1.4	22.9	1060.4	19369.6	10.7	430.2
SMDH 00001b	8	9	90	382.1	462.5	424.5	399.6	361.6	62.9	20.5	119.6	96.6	38	42.4	84.8	166.8	21.5	67.7	11	2.1	7.7	1.2	6.2	1.4	5.3	0.8	4.8	0.8	26.9	1.7	48.6	1214.9	22191.6	9.8	401.2
SMDH 00001b	9	9.5	80	277.1	336.9	306.2	294.8	264.1	42.1	13	85	68.3	30.7	29.1	62.3	125.5	14.3	49	6.6	1.9	4.5	0.6	4.4	0.8	3.4	0.6	2.6	0.6	20.4	0.8	24.3	666.7	12178.1	9.2	380
SMDH 00001	0	1	40	379.9	443.9	407.1	406.1	369.3	37.8	10.6	103.4	94.7	36.8	27.2	85.3	171.9	19.7	69.5	13.5	1.2	8.2	0.9	4.6	1	2.4		1.7		37.6	4.5	17.9	518.8	9476.7	1.8	745.4
SMDH 00001	1	2	55	578.2	652.1	619.6	589.9	557.4	62.2	20.8	151.4	140.3	32.5	41.4	114	282.4	31.9	99.1	16.6	1.6	11.8	1.5	7.8	1.5	4.8	0.7	3.8	0.7	48.7	3.1	18.6	978.2	17868.1	19.2	773.3
SMDH 00001	2	3	60	410.6	462.1	437.4	423.7	399	38.4	11.6	105.6	98.9	24.7	26.8	84.1	200	21	72.3	12.2	0.9	8.5	0.8	4.8	0.8	2.7		2.5		37.9	2.1	10	740.6	13527.4	16.9	712.7
SMDH 00001	3	4	50	390.1	454.8	416.9	416.4	378.5	38.4	11.6	104.5	97.8	37.9	26.8	86.2	179.8	21.3	71.2	11	1.2	7.8	0.8	4.5	0.8	3.2		2.3		33.7	2.5	17.2	752.4	13742.7	10.1	404
SMDH 00001	4	5	90	301.6	364.8	322.6	334.3	292.1	30.5	9.5	81.4	75.7	42.2	21	68.6	136.7	16.6	54.8	8.2	1.3	5.9	0.6	3.7	0.6	2.3		2.3		26.3	2	20	806.8	14736	8.4	347.4
SMDH 00001	5	6	85	251.6	313.4	271.4	284.6	242.6	28.8	9	71.7	64.2	42	19.8	56.8	113	13.5	46.7	6.7	1.2	4.7	0.6	3.4	0.6	2.2		2.2		20.1	1.8	18.6	581.2	10616.4	9.7	374
SMDH 00001	6	7	80	345.4	402.1	363.3	376.3	337.5	25.8	7.9	86.6	85.5	38.8	17.9	77.9	161	18.2	63	9.4	1.4	6.6	0.6	3.7		2.1		1.5		29.6	2.2	20	694.2	12680.5	8.3	353
SMDH 00001	7	8	95	334.1	384.7	354.3	356.1	325.7	28.6	8.4	86.6	83.6	30.4	20.2	74.4	155	18.6	60.7	9.4	1.4	6.2	0.7	3.6		2.4		1.7		28.6	1.8	17.2	749.2	13685.3	8.5	368.9
SMDH 00001	8	9	85	406.9	454.7	431.5	419.2	396	35.5	10.9	107.6	104.6	23.2	24.6	86.1	187.7	22.8	77	13.5	1.2	7.7	0.8	4	0.7	2.9		2.5		36.8	2.1	15.7	730.5	13343.7	8.6	402.7
SMDH 00001	9	10	90	349.5	395.8	370.5	365.3	340	30.5	9.5	93.6	91.1	25.3	21	72.6	160.9	19.7	66.5	11.6	1.2	7.5	0.7	4.2	0.6	2.1		1.9		33.3	1.7	18.6	871.5	15918.8	10.6	427.5
SMDH 00001	10	11	60	400.5	447.6	423.1	414.1	389.6	33.5	10.9	106.2	104.7	24.5	22.6	85.1	183.8	22.1	77	12.6	1	8	0.8	4.8	0.7	2.4		2.2		34.8	2.6	20	914.4	16702.6	11.1	440.9
SMDH 00001	11	12	65	382.2	425.3	401.5	396.8	373	28.5	9.2	99.2	100.4	23.8	19.3	80.6	175.7	21.4	74.6	12.3	0.9	7.5	0.7	3.7	0.6	2.3		1.9		35.2	1.9	14.3	965.4	17632.7	8.8	380.4
SMDH 00001	12	13	75	414.5	442.5	426.1	425.5	409.1	17	5.4	95.8	105.9	16.4	11.6	92.5	193.8	23.2	79.3	11.9	1.5	6.9	0.6	2.8		1		1		39.3	0.9	10	897.1	16386.8	5.5	249.1
SMDH 00001	13	14	70	374.3	408	387.6	389.9	369.5	18.1	4.8	89.7	95.9	20.4	13.3	82	175.2	20.8	72.3	10.9	1.3	7		2.8		1.1		0.9		35.5	1.2	15.7	801.1	14632.7	8	345.5
SMDH 00205	0	1	45	482.5	534.7	513.2	488.4	466.9	46.3	15.6	126.5	119.9	21.5	30.7	99.3	226.3	25.6	87.1	17	1.5	10.1	1.2	6	1.1	2.9		4.4		41.5	3.5	19.9	432.4	7897.7	1.4	545
SMDH 00205	1	2	50	438	482.6	461.1	450.6	429.1	32	8.9	114.2	114.3	21.5	23.1	102.5	194.5	24.4	85.1	12.6	1.2	8.8	0.8	4		2.1		2		37.6	1.8	10	1495.7	27318.9	9.1	398.9
SMDH 00205	2	3	50	164.7	186.5	170.9	178.4	162.8	8.1	1.9	38.6	40.7	15.6	6.2	38.4	78	9.1	30.3	3.7	0.8	2.5		1.3				0.6		14.2	0.7	11.4	652.4	11916.9	11.1	465.4
SMDH 00205	3	4	60	59.9	75.3	64.6	69.3	58.6	6	1.3	18.1	15.4	10.7	4.7	15.1	26.9	3	11.7		1	0.9		0.7				0.6		3.8		11.4	416.5	7607.7	8.5	386.1
SMDH 00205	4	5	40	24.1	39.1	26.8	36.4	24.1	2.7		7.2	5.5	12.3	2.7	6.9	9.8	1	4.5	1.2		0.7								1.1	0.6	8.9	218.2	3984.7		200.5
SMDH 00205	5	6	45	163.7	183.5	171.1	173.6	161.2	9.9	2.5	40	40.5	12.4	7.4	38.6	76	8.9	30.3	3.5	1	2.9		1.3		0.6		0.6		12.9	0.6	10	484.6	8850.8	5.7	255.7
SMDH 00205	6	7	70	253.3	281.4	268.2	260.5	247.3	20.9	6	63.6	61.6	13.2	14.9	57.5	117.2	13.5	45.5	7.4	0.6	5.6		2.6		1.5		1.9		22.9	1.3	10	875.6	15993.5	6.3	277.9
SMDH 00205	7	8	75	355.9	400.1	379.4	365.6	344.9	34.5	11	97.4	92.2	20.7	23.5	78.3	160.2	19.3	67.7	10.8	1	7.6	0.8	4.4	0.6	2.5		2.7		32.1	2	14.3	859.4	15697.8	9	359.3
SMDH 00205	8	9	80	384.1	434.6	411	395	371.4	39.6	12.7	103.9	96.2	23.6	26.9	84.6	175.9	20.4	70	11.1	1.2	8.2	0.9	4.9	0.7	3		3.2		34.1	2.1	18.6	963	17589.7	9.7	459.8
SMDH 00205	9	10	80	425.8	476	451.8	438	413.8	38	12	115.8	111.5	24.2	26	90.1	192.5	22.7	82.8	13.5	1	11.2	1.4	4.6	0.8	2.5		2.7		39.9	2.1	15.7	769.8	14061.4	7.5	370.3
SMDH 00205	10	11	90	421.1	478.3	451.5	435.4	408.6	42.9	12.5	119.4	110.3	26.8	30.4	88.8	191.3	22.5	81.6	13.3	1.2	9.9	1.3	4.9	0.9	2.7		2.7		39.8	2.4	18.6	792.5	14474.8	10.4	461.7
SMDH 00205	11	12	40	490	565.2	533.9	503.6	472.3	61.6	17.7	147.6	127.9	31.3	43.9	102.4	219.8	25.7	93.3	16.2	1.5	13.4	1.8	7.1	1.3	4		3.5		45.2	2.9	25.7	1495.7	27318.9	11	487.6
SMDH 00205	12	13	60	352.7	409.2	387.6	359.6	338	49.6	14.7	109.4	91.4	21.6	34.9	72.8	158.7	18.2	66.5	11.2	1.3	9.3	1.2	5.5	1	3.1		3.9		32.9	2.1	21.5	654.3	11951.3	10.5	491.3
SMDH 00205	13	14	55	523.8	599.8	569.9	533.2	503.3	66.6	20.5	154.1	133.2	29.9	46.1	109	238.7	27.3	96.8	16.1	2.1	13.3	2	7.1	1.6	4.1	0.6	4.4	0.7	48.7	2.9	28.6	1015.5	18548.5	12	573.4
SMDH 00205	14	15	90	469.9	537.8	508.4	483.2	453.8	54.6	16.1	137.8	123.5	29.4	38.5	102.3	206.7	25.6	91	15	1.4	11.8	1.4	5.5	1.4	4		3.8		39.7	2.2	28.6	970.7	17730.3	10.4	497.6
SMDH 00205	15	16	90	356.6	444.4	394.1	390	339.7	54.4	16.9	115.1	94.3	50.3	37.5	75.5	155.1	18.4	68.8	11.1	1.7	9.1	1.4	5.7	1.1	4	0.6	3.5	0.6	24.4	1.8	25.7	1637.9	29917	9.2	412.8
SMDH 00205b	0	1	40	348.2	385.1	367.9	357.3	340.1	27.8	8.1	90.9	88.1	17.2	19.7	68.8	167.6	17.5	66.5	10.7	0.6	8.4	0.8	3.3	0.6	1.6		1.8		38.7	1.7	11.4	963	17589.7	9	399.3
SMDH 00205b	1	2	50	358.8	422.8	402.2	368.3	347.7	54.5	11.1	124.4	100.8	20.6	43.4	76.5	154.9	20.8	74.6	11.9	1	8	1.5	3.9	0.8	2.3		2.6		33.7	1.2	11.4	469.3	8572.3	6.7	315.3
SMDH 00205b	2	3	60	309.6	374.1	356.6	316.1	298.6	58	11	116.2	86.1	17.5	47	65.1	133.9	17.9	63	10.2	1	7.5	1.4	3.8	0.8	2.3		2.7		29.4	1.4	10	590.2	10780	8.4	387.9
SMDH 00205b	3	4	60	464.5	561.4	527.7	484.1	450.4	77.3	14.1	163.9	125.5	33.7	63.2	97.1	210.4	26	93.3	13.2	1.2	9.2	1.6	4.6	1.1	3.3		3.5		42.3	1.8	11.4	570.4	10418.3	10.8	528.3
SMDH 00205b	4	5	60	467.5	544.5	512.3	489.2	457	55.3	10.5	143.6	123.7	32.2	44.8	100.5	214	26.5	92.1	13.2	1.6	9.1	1.4	3.7	0.8	2.1		2.5		45.6	1.4	14.3	552	10082.4	13.2	562.5
SMDH 00205b	5	6	80	512.5	622.9	580.6	538	495.7	84.9	16.8	177.1	135	42.3	68.1	105.2	232.2	27.7	99.1	17.4	1.7	12.4	2.1	6.1	1.3	3.7		3.6		57.4	2.4	22.9	909.4	16610.7	18	789.1
SMDH 00205b	6	7	90	430.5	481.4	457.9	447.1	423.6	34.3	6.9	117.4	112.4	23.5	27.4	92.1	200.2	24	84	13.1	1.6	8.6	1.4	3		1.1		1.4		45.6	1.4	18.6	602.4	11003.9	12.3	560.4
SMDH 00205b	7	8	90	247.9	292.8	264.3	273.4	244.9	19.4	3	67.9	63.9	28.5	16.4	56.1	116	13.4	49	5.6	1	3.8		1.5		0.7		0.8		22.9	0.8	14.3	606.1	11070	14.7	663.6
SMDH 00205b	8	9	80	517.6	576.8	546.9	539.6	509.7	37.2	7.9	138.6	136.9	29.9	29.3	112.6	236	29	102.6	17.3	1.4	10.8	1.5	3.8	0.6	1.1		0.9		51.4	1.9	31.5	674.3	12315.9	16	745.1
SMDH 00205b	9	9.8	65	697.7	778.3	730.1	730.5	682.3	47.8	15.4	179.3	182.6	48.2	32.4	145.4	319.4	36.6	136.5	23.9	0.9	19.6	2.5	7	1	2.9		2		72.7	4.1	62.9	1315.8	24034.7	38.7	1584.8
SMDH 00206	0	1	40	368.6	424.8	397.2	384.8	357.2	40	11.4	105.8	96.2	27.6	28.6	76.8	167.9	20.2	70.2	13.2	1.2	7.7	0.9	4.9	1	2.2		2.4		34.7	2.8	19	235.6	4303.4	1.3	504.8
SMDH 00206	1	2	40	296.2	346.4	327.7	303.4	284.7	43	11.5	99.9	82.9	18.7	31.5	64.2	124.1	15.9	61.8	9.6	1.4	7.7	1.2	4	0.8	2.9		2.6		30	1.7	18.6	824.7	15063.3	6	278.5
SMDH 00206	2	3	55	255.9	301.8	285.4	260.7	244.3	41.1	11.6	85.7	69.5	16.4	29.5	51.7	112.4	14	50.2	8.6	0.7	6.7	0.9	4.4	0.9	2.7		2.7		27.4	1.5	15.7	401.1	7326.4	5.3	234.4
SMDH 00206	3	4	75	421.6	506.2	473.8	432.4	400	73.8	21.6	140.2	108.5	32.4	52.2	84	189.5	21.7	78.1	14.3	1.2	11.2	1.6	7.1	1.8	5.4	0.7	4.4	0.6	42.6	2.7	24.3	528.7	9657.5	9.1	395.6
SMDH 00206	4	5	80	492.2	563.5	526.2	514.7	477.4	48.8	14.8	137.1	126.3	37.3	34	102.7	225.3	25.1	93.3	16.5	1.9	12.6	1.8	6.1	1	3.2		2.7		49.8	2.7	24.3	626.3	11440.3	10.7	465.8
SMDH 00206	5	6	95	471.7	519.2	491.1	491.6	463.5	27.6	8.2	114.5	118.5	28.1	19.4	101.6	221.1	24.9	88.6	15.3	1.5	10.5	1.3	3.7	0.7	1.5		1		46.9	2.7	21.5	497.6	9089.1	11.8	566.8
SMDH 00206	6	7	90	498.9	563.5	531.3	516.9	484.7	46.6	14.2	137	129.7	32.2	32.4	103.2	228.2	26.6	95.6	18.1	1.5	11.5	1.6	5.9	1	2.9		2.8		53.3	3.1	17.2	405.8	7412.5	9.6	436.8
SMDH 00206	7	8	80	393.4	464.6	436.7	404.1	376.2	60.5	17.2	127.4	103.3	27.9	43.3	79.6	176.6	20.5	74.6	12.8	1.3	10.8	1.5	6.7	1.4	3.8		3.8		41.9	2.4	22.9	551.8	10079.5	9.3	371.6
SMDH 00206	8	9	90	301.6	354.5	334.7	308.4	288.6	46.1	13	97.2	78.7	19.8	33.1	61.9	135.2	15.5	57.2	9.6	0.9	8.3	1.1	4.9	1	3		3		31.2	1.5	18.6	564.1	10303.5	8.4	329.5
SMDH 00206b	0	1	30	485.6	531.4	512.1	493.3	474	38.1	11.6	124.2	122.2	19.3	26.5	100.4	229	25.3	91	16	0.8	11.5	1.5	4.4	0.8	2.4		2.5		49.7	2.6	14.3	774.1	14138.9	21.8	932.1

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00206b	1	2	50	589.9	669.4	640.1	597.3	568	72.1	21.9	184.2	164.3	29.3	50.2	131.4	240.3	32.7	121.3	22.5	2.4	17.4	2.4	7.9	1.6	4.6	0.6	4.2	0.6	55	2.1	27.2	821.9	15011.6	11.3	457
SMDH 00206b	2	3	65	519.3	582.8	557.5	528.2	502.9	54.6	16.4	153.4	141.4	25.3	38.2	102	233.4	27.7	105	18.9	1.5	14.4	1.9	6.8	1.1	3.8		2.8		57.8	2.2	25.7	880.3	16079.6	10	418.1
SMDH 00206b	3	4	60	459.2	512.5	488	471.5	447	41	12.2	127.2	122	24.5	28.8	91.8	209.9	24.9	91	16.2	1.3	11.9	1.3	4.8	0.8	3		2.3		50.4	1.4	17.2	818.7	14954.2	10.3	425.5
SMDH 00206b	4	5	80	536.9	591.8	565.3	549.9	523.4	41.9	13.5	145.2	144.1	26.5	28.4	106	244.9	28.5	108.5	21.2	1.2	13.1	1.6	5.5	1	2.6		2.8		62.4	2	18.6	801.6	14641.3	9.8	437.7
SMDH 00206b	5	6	75	356.6	426.5	381.1	391.4	346	35.1	10.6	113.9	109.8	45.4	24.5	70	150.7	21.6	82.6	13.9	1.2	6	1.1	4.5	1	1.4		2.6		54.4	2.1	15.7	662	12092	11.1	455.5
SMDH 00206b	6	7	80	383.6	463.2	411.8	423.3	371.9	39.9	11.7	122.7	117.4	51.4	28.2	74.5	162.3	23.9	87.5	16.8	1	5.9	1.2	4.8	0.7	1.4		3.6		52.9	1.9	15.7	729.9	13332.2	13	472.5
SMDH 00206b	7	8	85	451.5	530.6	478	494.9	442.3	35.7	9.2	138	137.4	52.6	26.5	87.7	195.3	27.2	105.6	17.4	1.3	7.8	1.3	3.3	0.8	1.3		2.5		69.4	2.2	18.6	786.5	14365.7	15.1	624.7
SMDH 00206b	8	9	90	357.1	416.9	373	395.9	352	21	5.1	102	108.2	43.9	15.9	74.7	154.2	23.3	81.1	12.3	1.2	5.2	0.9	2.9		0.7		0.6		46.2	1.8	14.3	673.3	12298.7	12.7	490.9
SMDH 00206b	9	10	80	417.8	477.5	437.9	449.5	409.9	28	7.9	125	129.8	39.6	20.1	84	176.8	26.1	98.7	17	1.2	6.1	1.2	3.8	0.7	0.7		1.5		55.3	1.9	15.7	709.2	12953.2	12.1	370.1
SMDH 00206b	10	11	90	427.9	501.3	453.3	466.1	418.1	35.2	9.8	133.8	133.5	48	25.4	84	180.3	26.3	101.2	18.4	1.2	6.7	1.1	4.9	0.8	1		2		44.9	1.7	15.7	701.6	12815.4	12	473.2
SMDH 00206b	11	12	90	417.9	496.2	445.7	456.6	406.1	39.6	11.8	128.8	126.3	50.5	27.8	82.9	180.1	26.2	94.6	14.8	0.9	6.6	1.3	4.2	1	1.7		3.6		58.3	1.9	12.9	763.9	13952.3	15.4	607
SMDH 00207	0	1	50	395.7	457.9	412.8	433.9	388.8	24	6.9	65.6	63.2	45.1	17.1	61.2	251.3	15.5	44.3	9.6	0.8	6.1	0.6	2.8	0.6	1.6		1.3		41.8	2	15.7	788.7	14405.9	10.3	489.5
SMDH 00207	1	2	65	616.3	699.6	645.3	658.9	604.6	40.7	11.7	126.5	122.8	54.3	29	113.6	346.5	27.2	89.1	15.1	1.9	11.2	1.1	5.4	0.7	2.6		1.9		52.9	2.7	18.6	613.6	11207.8	5.8	306.1
SMDH 00207	2	3	55	556.7	651.4	596.2	596.5	541.3	54.9	15.4	129.7	112	55.2	39.5	103.4	305.7	23.2	81.5	16.2	1.4	9.9	1.1	6.2	1	3.5		3.6		54.5	3.4	15.7	673.8	12307.3	11.8	492
SMDH 00207	3	4	70	954.2	1068	1011.7	986.9	930.6	81.1	23.6	213.8	194.4	56.3	57.5	167.2	533.7	40.1	142.8	27.6	2	17.2	1.6	9.9	1.3	6.1		4.1	0.6	56.1	5.7	27.2	749.1	13682.4	13.7	587.5
SMDH 00207	4	5	60	476.4	555.7	507.5	513.8	465.6	41.9	10.8	108.4	97.8	48.2	31.1	84	262.6	21.4	70.9	16.8	0.9	9	0.9	4.6	0.6	2.9		1.8		47.5	3.5	17.2	657	12000.1	11.3	523.6
SMDH 00207	5	6	85	557.7	646	593.1	596.2	543.3	49.8	14.4	124.5	112.3	52.9	35.4	98.3	311.4	24.4	80.9	16.5	1.2	10.6	0.9	6.1	0.9	3.2		3.3		54.7	3.4	14.3	764.2	13958	12.3	551.9
SMDH 00207	6	7	75	691.4	784	722.5	739	677.5	45	13.9	141.3	139.3	61.5	31.1	125.5	385.6	30.8	101.9	19.1	1.7	12.9	1.1	5.5	1	3.5		2.8		71.9	2.9	15.7	929.8	16983.9	18.2	795.1
SMDH 00207	7	8	60	694.2	778.7	728.5	727.2	677	51.5	17.2	144.7	139.3	50.2	34.3	122.3	391.4	30.4	101.6	17.7	1.5	12.1	1.1	6.2	1	4.1	0.7	3.5	0.6	47.9	2.1	14.3	711.5	12996.3	11.9	524.1
SMDH 00207	8	9	80	204.9	254.7	213.3	243.5	202.1	11.2	2.8	34.9	34.8	41.4	8.4	37.2	123.9	8.3	25.1	4.5		3.1		1.4		0.7		0.7		18.8	1.4	8.6	667.7	12195.3	9	328.8
SMDH 00207	9	10	90	201.9	262.2	213.1	247.1	198	15.1	3.9	35.9	32.7	49.1	11.2	33.7	126.8	8	23.2	3.8		2.5		1.5		1.4		1		18.1	1.8	8.6	643.2	11747.5	10.7	424.8
SMDH 00207	10	10.5	40	175	198.2	182.9	187.6	172.3	10.6	2.7	42.9	42.1	15.3	7.9	37.5	83.4	9.1	31.6	5.6	2	3.1		1.4		0.6		0.7		14.6	1.1	18	260.3	4754.1	0.6	313.7
SMDH 00207b	0	1	45	161.7	227.3	174.7	210	157.4	17.3	4.3	35.6	29.7	52.6	13	30.7	92.7	7.1	20.8	3.6		2.5		1.8		1.1		1.4		24.5	1.8	7.2	469.6	8578.1	19.8	833.4
SMDH 00207b	1	2	15	169.5	232.3	177.9	221.1	166.7	11.2	2.8	32.2	31.7	54.4	8.4	29.6	100.6	7.9	22.7	3.8		2.1		1.1		0.7		1		19.9	1.7	10	3012.1	55016.8	13.4	541.5
SMDH 00207b	2	3	45	170.8	238.7	182.7	223.3	167.3	15.4	3.5	37.4	31.8	56	11.9	31	100	6.3	24.1	3.5		2.4		1.4		1		1.1		20	1.3	8.6	592.2	10817.3	8.8	359.3
SMDH 00207b	3	4	95	320.1	385.7	330.8	371.8	316.9	13.9	3.2	53.5	53.9	54.9	10.7	63.4	192.6	11.7	40.6	5.5	0.6	2.5		1.6		0.8		0.8		22.3	1.1	18.6	575.3	10507.3	9.3	361.5
SMDH 00207b	4	5	87	145.3	207.7	157.7	191.1	141.1	16.6	4.2	32.4	25.9	50	12.4	26.2	84.9	5.9	18.2	3.2		2.7		1.8		1.1		1.3		19.9	1.2	8.6	1027.9	18775.3	8.7	373.4
SMDH 00207b	5	6	45	84.9	162.2	104.7	135.7	78.2	26.5	6.7	33.8	17.1	57.5	19.8	16.1	42.9	3.7	10.6	2.3	0.6	2		2.8	0.6	1.6		1.7		16.3	1.8	18.6	2006.8	36654.9	7.9	343
SMDH 00207b	6	7	50	621.7	724.9	657.6	670.9	603.6	54	18.1	137.4	126.3	67.3	35.9	106.8	350.6	26.3	90.2	18.2	1.5	10	1.3	8.5	1.1	3.5	0.6	3.1		10.6	2.8	14.3	591.9	10811.6	6.6	264.1
SMDH 00208	0	1	55	536.2	626.1	575.3	573.6	522.8	52.5	13.4	123.3	105.1	50.8	39.1	93.6	306.1	23.4	75	13.3	2.5	8.9	1.1	5.6	1	3		2.7		52.6	2.4	17.2	535.2	9775.2	15.3	609.6
SMDH 00208	1	2	60	568.4	649.3	609.4	593	553.1	56.3	15.3	131	111.5	39.9	41	100	322.1	24.6	79.3	13.6	3.1	10.4	1.3	6.3	1.3	3.4		3		30.4	2.7	18.6	578.2	10561.8	7	246.7
SMDH 00208	2	3	95	660.6	764.8	701.9	709.1	646.2	55.7	14.4	145.4	132.1	62.9	41.3	121.7	371.2	29.2	95.3	16.5	1.2	11.1	1.4	6.2	1.3	3.1		2.4		63.9	3.3	27.2	786.5	14365.7	15	622
SMDH 00208	3	4	70	753.4	872	800.5	806.5	735	65.5	18.4	172.4	154.8	71.5	47.1	149.6	404.9	30.8	114.8	20.3	1.3	13.3	1.5	7.7	1.3	3.8	0.7	2.8	0.6	81.7	3.5	28.6	807.1	14741.8	19.1	695.9
SMDH 00208	4	5	90	590.7	678.2	627.1	627.2	576.1	51	14.6	135.6	124.6	51.1	36.4	104.7	330.7	26.9	90.2	12.9	1.5	9.2	1.3	6.2	1.3	3.4		2.4		44.9	3.1	21.5	714.2	13045.1	13.9	591
SMDH 00208	5	6	50	333.8	406.8	361.1	369.2	323.5	37.6	10.3	78.3	64.5	45.7	27.3	61.7	186.8	14.5	44.9	9.4	1	5.2	0.7	4.4	0.9	2.4		1.9		25.7	2	15.7	514.6	9399.1	11.1	460.9
SMDH 00208	6	7	70	501	677.3	553.8	609.6	486.1	67.7	14.9	152.8	125.1	123.5	52.8	109.7	234	27.1	89.1	14.7	2	9.5	1.8	7.1	1	2.4	0.6	2		39.9	1.9	21.5	541.5	9890.1	10.4	493.4
SMDH 00208	7	8	85	513.8	706.7	575.4	628.4	497.1	78.3	16.7	162.1	125.7	131.3	61.6	109.9	239.8	27.1	90.9	18.3	1.9	9.2	1.8	5.9	1.1	2.7	0.8	3.8	0.6	41.9	2	30	580	10593.4	12	506.6
SMDH 00208	8	8.5	45	436.9	614.2	494.9	538.8	419.5	75.4	17.4	143.4	107.9	119.3	58	91.6	203.1	23.7	75.9	14.1	1.2	9.9	2	6.3	1.3	3.3	0.6	3.9		34	2.4	20	578.4	10564.7	9.4	383.8
SMDH 00208b	0	1	45	393.7	541.6	433.6	492.8	384.8	48.8	8.9	116.8	95.2	108	39.9	87.3	185.4	19.5	71.3	13.3	1.2	6.8	1.3	3.1	0.7	1.6		2.2		38.3	2.7	12.9	459.4	8391.5	13.2	573.4
SMDH 00208b	1	2	55	490.8	631.9	550	560.3	478.4	71.6	12.4	148.5	113.6	81.9	59.2	107.4	241.6	25.3	82	12.8	1	8.3	1.4	4.9	0.9	2.4		2.8		37.9	3.1	18.6	689.2	12588.6	8.5	381.6
SMDH 00208b	2	3	65	650.5	894.8	770.4	743.5	619.1	151.3	31.4	253.8	165.4	124.4	119.9	133.9	299	33.7	115.2	21.8	2.2	13.3	3.5	13	2.6	4.9	0.8	6	0.6	46.8	3.7	25.7	600.9	10975.2	12.1	541.4
SMDH 00208b	3	4	70	506.3	696.2	584.5	595.8	484.1	100.4	22.2	177.3	124.7	111.7	78.2	103.1	238.7	26.9	85.4	17.4	1.3	11.3	2.6	9.8	1.6	3.4	0.6	4.2		41	2.7	21.5	560.6	10240.3	11.6	504.4
SMDH 00208b	4	5	65	562.6	730.1	628.3	646.3	544.5	83.8	18.1	178.7	141.6	101.8	65.7	117	264	30.2	100.9	18.8	1.6	12	2.5	8	1.4	3		3.2		50.5	3.1	21.5	653.8	11942.7	10.5	453.9
SMDH 00208b	5	6	90	449.6	616.7	508.1	543.6	435	73.1	14.6	148.9	113.5	108.6	58.5	99.6	207.4	24.3	80.6	12.3	1.2	9.6	1.9	6.7	1.1	2.4		2.5		43.9	2.6	15.7	581.5	10622.1	13.3	605.6
SMDH 00208b	6	7	90	492.5	664.6	576.1	558.8	470.3	105.8	22.2	181.1	122.7	88.5	83.6	104.1	224.7	26.8	84.3	17.2	1.6	11.6	2.4	9.2	1.6	3.7	0.7	4	0.6	31	2.4	20	546.8	9987.7	14.3	600.3
SMDH 00209	0	1	40	1539.7	1853.5	1692.1	1657.6	1496.2	195.9	43.5	471.2	400	161.4	152.4	309.4	731.4	82.8	292.5	47.7	1.6	30.8	6.1	18.6	2.7	6.9	1.3	6.8	1.1	156.3	6.5	20	338.2	6178.1	46.1	1989.5
SMDH 00209	1	2	55	393.6	550.4	449.3	480.6	379.5	69.8	14.1	129.8	92.5	101.1	55.7	88.8	183.5	20.1	65.7	12.1	1.7	7.6	1.4	5.3	0.9	2.6	0.7	3.2		29.2	2.6	21.5	726.9	13277.6	25.2	1182.5
SMDH 00209	2	3	90	161.5	307	197.8	261.9	152.7	45.1	8.8	68.1	39.6	109.2	36.3	36.8	72.5	8.7	25.5	4.6	0.9	3.7	0.8	4.6	0.7	1		1.7		10.6	2	17.2	467.7	8543.6	34.3	1616.2
SMDH 00209	3	4	80	150.6	271.4	176	241.2	145.8	30.2	4.8	50.7	32.3	95.4	25.4	36.7	71	8	21.1	4.5	1	3.5	0.6	2.6		0.6		1		14.1	1.8	14.3	417.1	7619.2	32	1487.4
SMDH 00209	4	5	60	240.2	385.7	252.6	370.1	237	15.6	3.2	52.9	52	133.1	12.4	50.9	122.7	12.3	38	6.7	0.8	5.6		1.7		0.6		0.9		19.6	1.3	17.2	650.9	11888.2	43.9	1469
SMDH 00209	5	6	80	595.3	762.8	637.2	703.5	577.9	59.3	17.4	143	130.1	125.6	41.9	122.2	305.6	30.4	91.4	16.6	1.4	10.3	1.8	6.5	1.1	3.1	0.6	4.3		54.7	2.6	22.9	802.4	14655.7	24.8	845.5
SMDH 00209	6	7	98	824.3	1021	889.6	927.3	795.9	93.7	28.4	218.4	191.3	131.4	65.3	166	411.6	40.2	137.4	22.4	2	16.3	2.6	11.1	1.8	5.5	0.9	5.7	0.8	74.3	3.2	42.9	803.9	14684.4	68.8	2387.8
SMDH 00209	7	8	95	647.2	854.2	703.7	775.8	625.3	78.4	21.9	173.1	147.6	150.5	56.5	133.2	326.3	32.5	105.3	15.2	1.5	11.3	1.9	7.9	1.7	4.1	0.7	4.7	0.9	88.2	2.8	22.9	789.5	14420.2	67.3	2140.9
SMDH 00209	8	9	95	742	915.4	794.2	842	720.8	73.4	21.2	194.2	176.6	121.2	52.2	146.7	373.1	36.5	129.6	17.3	1.9	15.7	2.2	8.3	1.6	3.5	0.7	4.3	0.6	67.8	2.1	18.6	768.4	14035.5	47.5	1560.7
SMDH 00209	9	10	92	1072.3	1266.5	1124.9	1194.9	1053.3	71.6	19	257.3	251.4	141.6	52.6	210.9	565.2	49.4	191.9	20.5	2.7	12.7	1.8	8.3	1.4	3.3	0.6	3.6		71.2	2.7	37.2	1361.3	24864.4	59.8	1925
SMDH 00209	10	11	88	512	708.3	580.4	614.5	486.6	93.8	25.4	161.1	116.1	127.9	68.4	106.1	248.5	24.9	81.1	13.3	1.5	11.2	1.6	8.5	1.9	4.7	0.8	6.9	1	45.4	2.4	20	829.7	15155.2	42	1402.7
SMDH 00209	11	12	90	496.6	677.9	559	589.9	471	88	25.6	150.9	109.8	118.9	62.4	100	247.6	22.7	76.3	12.9	1.4	10.1	2	8.8	2.1	4.9	1	6	0.8	33.1	2	20	755.5	13800.1	27.8	894
SMDH 00209	12	13	95	788.2	889.5	834.6	820.5	765.6	69	22.6	168.1	155.7	54.9	46.4	134.9	452.5	35.5	110.1	20.6	1.5	10.5	1.5	8.6	1.6	4.6	0.8	4.6	0.9	60.2	2.7	22.9	1129	20621.3	10	481.3
SMDH 00209	13	14	50	714.1	808.1	757	751.5	700.4	56.6	13.7	151.1	136.8	51.1	42.9	136.7	405.4	30.8	98.9	17.5	2.2	8.9	1.2	5.9	1.1	2.9		2.6		58.6	3.4	21.5	882.2	16114	10.7	518.6
SMDH 00209	14	15	90	793.9	901.6	842.9	835.6	776.9	66	17	160.6	144.2	58.7	49	148.9	459.2	34.2	102.6	18.9	1.6	11.5	1.3	6.1	1.5	4.8		3.3		75.1	3.9	25.7	1007.3	18399.2	13.1	616.1
SMDH 00209	15	16	95	755.8	863.7	807.4	790	733.7	73.7	22.1	174.3	152.9	56.3	51.6	134.5	430.7	31.4	110.5	15.1	1.2	10.3	1.8	9.2	1.7	5.4	0.6	3.4		68.4	4.1	18.6	851.4	15551.4	23.1	1142.4
SMDH 00209	16	17	90	629.3	722.6	667.5	674.7	619.6	47.9	9.7	132.1	120.7	55.1	38.2	114.7	365.6	28.3	87.4	14.4	1.5	7.7	0.9	4.1	0.7	2.5		1.5		62.9	3.9	20	777.7	14204.9	2.1	93.7
SMDH 00209	17	17.5	80	361.5	451.6	389.3	416.6	354.3	35	7.2	79.2	65.1	62.3	27.8	68.3	209.4	14.9	47.2	8.2	1.2	5.1		3	0.6	2.1		1.5		34.9	3.4	18.6	914.7	16708.3	2.6	108.2
SMDH 00209b	0	1	70	645.7	751.5	690.3	687.6	626.4	63.9	19.3	141.8	124	61.2	44.6	107.2	376.6	27.8	87	17.2	1	9.6	1.2	8	1.7	3.8		4	0.6	63	3.5	15.7	591	10794.4	2.6	97.8
SMDH 00209b	1	2	40	494.3	588.2	533.9	530.7	476.4	57.5	17.9	117.6	96.2	54.3	39.6	103.1	265.8	19.5	69.2	11	1.3	6.5	1.1	6.4	1.5	4.6	0.7	3.6		40.7	2.1	22.9	630.4	11514.9	1.4	58.2
SMDH 00209b	2	3	85	398	495.1	441.7	433.3	379.9	61.8	18.1	111.1	83.2	53.4	43.7	72.1	212.6	16.7	59.1	11	0.9	7.5	0.9	6.5	1.5	4.5	0.6	3.4	0.7	33.7	2	18.6	533.1	9737.9	7.9	340.9
SMDH 00209b	3	4	50	555.6	648.9	601.7	581.6	534.4	67.3	21.2	136.4	112.9	47.2	46.1	98.2	308.9	23.8	80.6	12.1	1.2	9.6	1.2	7.3	1.5	5.5	0.6	4.4	0.7	40.7	2.7	24.3	486	8876.6	9.9	347.6
SMDH 00209b	4	5	60	688.4	781.8	722.3	734.9	675.4	46.9	13	148.4	144.1	59.5	33.9	120.6	387.6	30.9	106.8	16.8	1.3	11.4	1.2	5.2	1.1	3		2.5		59.9	2.5	24.3	686.7	12542.7	12.6	504.5
SMDH 00209b	5	6	65	778.2	875.8	815.5	822.9	762.6	52.9	15.6	161.3	157.1	60.3	37.3	141.8	435.5	34.3	114.5	20.8	1.2	14.5	1.2	7.1	1.1	3.3		2.3	0.6	65.2	2.8	27.2	691.4	12628.8	14.3	527.8
SMDH 00209b	6	7	80	822.1	938.3	886	843.9	791.6	94.4	30.5	196.1	168.1	52.3	63.9	139.9	458.2	37.6	118.6	20.4	1.7	15.2	1.9	10	1.8	7.5	0.9	6.9	1.5	64.1	2.9	30	769.8	14061.4	11.9	486
SMDH 00209b	7	8	90	766.9	870.4	806.1	814.2	749.9	56.2	17	162.2	155.8	64.3	39.2	137.8	431.5	34.2	113.1	19.2	1.4	12.7	1.5	7	1.4	4		3.1		76.2	2.7	24.3	683.5	12485.3	14.9	555.4

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00209b	8	9	95	334.9	403.6	350.1	382.6	329.1	21	5.8	69.4	67.7	53.5	15.2	64	184.3	14.5	50.3	9.6	1	5.4		2.9		1.9		1		27.8	2	12.9	603.5	11024	11.7	502.6
SMDH 00209b	9	10	80	382.5	453.9	407.6	418.4	372.1	35.5	10.4	86.5	76.6	46.3	25.1	71.2	211.5	16.7	56	9.6	1.5	5.6	0.7	3.2	1	2.9		2.6		24.2	2	24.3	738.4	13487.2	11.3	482.5
SMDH 00209b	10	11	90	238.7	390.8	275.3	348.4	232.9	42.4	5.8	82.5	57.6	115.5	36.6	52.3	110.7	13	41.4	8.9	1.3	5.3	0.8	2.4	0.7	1		0.9		28.8	2.1	20	727.9	13294.9	13.4	575
SMDH 00209b	11	11.5	20	466.9	676.9	537.8	591.4	452.3	85.5	14.6	157.9	112.5	139.1	70.9	102.3	222.2	26.5	78.4	13.5	1	8.4	1.5	6.1	1.3	2.7	0.6	2.4		59.6	3.3	15.7	556.2	10159.9	16.5	646.5
SMDH 00210	0	1	10	471.3	655.4	531.5	584.5	460.6	70.9	10.7	157.6	122.1	123.9	60.2	99.9	216.1	26	89.5	18.7	1.3	9.1	1.9	4.7	1	1.5		1.6		51.8	3.9	17.2	632	11543.7	9.8	392
SMDH 00210	1	2	40	288.8	503.8	374.8	404.6	275.6	99.2	13.2	145.1	73.5	129	86	66.7	121.2	15.9	51.9	11	1.5	7.4	1.1	4.6	1.3	2.9	0.6	2.7		28.3	3.4	21.5	548.5	10019.2	10.7	412.7
SMDH 00210	2	3	98	581.2	830.3	682.4	709.3	561.4	121	19.8	182.3	98.6	147.9	101.2	243.4	212.1	19	71.9	8.2	1.5	5.3	1.4	6.3	1.7	4.6	0.7	4.4	0.7	20.8	3.3	47.2	520.7	9511.1	17.5	688.4
SMDH 00210	3	4	70	409.4	653.7	520.4	519.5	386.2	134.2	23.2	192.7	101.2	133.3	111	83.9	186	20.8	70.6	15.2	1.3	8.4	1.8	8	1.7	4.9	1.1	5	0.7	44.2	4.2	24.3	684.6	12505.4	13.7	501.3
SMDH 00210	4	5	48	336.3	576.3	439.9	452.4	316	123.9	20.3	167.5	80.5	136.4	103.6	72.1	152	17.6	53.1	12.5	1	7.7	2.1	7.7	1.6	3.3	0.9	4.1	0.6	30.8	4.2	22.9	537.7	9821.2	10.7	471.8
SMDH 00210	5	6	90	164.4	401.7	264.7	277.5	140.5	124.2	23.9	133	39.2	137	100.3	36.5	65.6	8	20.5	5.3	1.5	3.1	1.4	9.3	2.2	4.5	0.9	4.9	0.7	9.2	2.1	24.3	471.4	8609.7	11.1	526.8
SMDH 00210	6	7	80	190.8	313	255.6	217.1	159.7	95.9	31.1	91	30.8	57.4	64.8	33.3	94.1	6	15.2	4.9	1.4	4.8	0.9	8.7	2.4	7.2	1.1	8.8	2	24.9	1.7	25.7	634.2	11583.8	16	552.3
SMDH 00210	7	8	90	568.7	672	601.6	622.3	551.9	49.7	16.8	126.3	117.3	70.4	32.9	100.7	313.6	25.4	84.2	17.2	1.5	9.3	1.2	6.5	1.3	3.8	0.6	3.4		48.4	3.9	20	592.5	10823.1	17.5	628.4
SMDH 00210	8	9	95	651.2	745.4	683.3	698.2	636.1	47.2	15.1	137.2	132.2	62.1	32.1	114.5	367.8	28.4	97.4	16.8	1.3	9.9	0.8	5.6	1.1	3.8		3.2	0.6	49.5	2.2	21.5	622.6	11371.4	10.5	406.2
SMDH 00210	9	10	95	615.1	717	653.8	659.7	596.5	57.3	18.6	140.8	125.8	63.2	38.7	125.5	329	25	93.5	13.2	1.3	9	0.9	6.4	1.1	3.9	0.6	4.8	0.9	44	2.5	25.7	665.9	12163.8	15.6	589.2
SMDH 00210	10	11	80	602.2	682.4	625.6	649.4	592.6	33	9.6	111.4	113.4	56.8	23.4	113.4	345.7	26.9	81.2	15	1.5	8.9	0.9	4.4	0.8	2.1		1.4		47.7	2.2	21.5	632.6	11555.1	15.2	518.8
SMDH 00210b	0	1	85	724.9	824.3	757.4	777.7	710.8	46.6	14.1	147.1	144	66.9	32.5	134.3	411.8	30.8	104.5	16.2	1.4	11.8	1.2	7.5	1.3	2.4		1.7		60.2	3.2	12.9	522.4	9542.7	20.6	727
SMDH 00210b	1	2	55	1267.7	1356.1	1315.1	1287	1246	69.1	21.7	259.3	265	41	47.4	224.6	712.6	55	198.9	31.7	1.9	21.3	2	9.1	1.6	5.1		3.9		62.7	4.1	20	637.6	11647	12.6	637.7
SMDH 00210b	2	3	45	512.8	599.1	551.2	546	498.1	53.1	14.7	122.2	104.4	47.9	38.4	93.9	285	22.1	75.8	11.4	1.5	8.4	1.1	5.4	1	3.9		2.7	0.6	63.7	3.3	17.2	604.6	11044.1	11.6	541
SMDH 00210b	3	4	85	539.2	622.7	570.2	582.2	529.7	40.5	9.5	111.3	102.2	52.5	31	99.2	309.1	23.3	73.8	14.4	1.4	8.5	0.7	4.4	0.8	2.2		1.4		199.5	3.4	18.6	581.1	10613.5	18.5	964.2
SMDH 00210b	4	5	90	512.7	593.5	544.1	556.3	506.9	37.2	5.8	105	95.1	49.4	31.4	95.8	298.4	23.1	67.9	12.3	1.6	7.8	0.8	3.3		1.1		0.6		54.8	3.9	15.7	466.5	8520.7	13	596.2
SMDH 00210b	5	6	80	657.5	750.4	695.5	700.2	645.3	50.2	12.2	139.1	126.7	54.9	38	120.2	379	27.3	93.8	13.7	1.7	9.6	1.2	4.4	0.8	2.7		3.1		79.5	4.1	21.5	684.6	12505.4	16.2	860.3
SMDH 00210b	6	7	50	553.8	641.1	586.7	597.1	542.7	44	11.1	116.8	105.7	54.4	32.9	98	319.6	23.4	76.7	13.9	1.6	9.5	0.8	4.8	0.7	2.6		2.2		65.3	3.1	18.6	658.1	12020.2	13.3	646.1
SMDH 00210b	7	8	95	755.2	849.7	804	779.5	733.8	70.2	21.4	167.2	149	45.7	48.8	135.7	425.1	32.5	108.2	18.1	1.9	12.3	1.3	7	1.6	5.3	0.6	4.8	0.8	66.7	3.4	22.9	780.5	14256.6	15.7	776.8
SMDH 00210b	8	9	95	675.1	764.9	715.7	705.3	656.1	59.6	19	146	132.2	49.2	40.6	120.4	380.3	28.5	95.2	18.4	1.7	11.6	1.3	7.2	1.3	4.3	0.7	3.5	0.7	73.3	4.8	22.9	863.7	15775.3	18	826
SMDH 00210b	9	10	80	1112.3	1223.7	1141.5	1181.7	1099.5	42	12.8	261.1	281.2	82.2	29.2	298.7	482.6	52.8	221.8	28.8	3.5	11.3	1.2	5.4	1.1	2.1		3		37.2	2.4	58.7	684.5	12502.5	15.7	418.3
SMDH 00210b	10	11	90	464.8	578.2	485.1	549.8	456.7	28.4	8.1	111.6	114.9	93.1	20.3	122.3	200.5	24.9	84.6	15	1.3	8.1	0.8	4.6	0.6	1.3		0.8		38.7	2.2	21.5	758.4	13851.8	20.6	526.7
SMDH 00210b	11	12	95	473.9	625.7	499.6	589.9	463.8	35.8	10.1	127.8	125.9	126.1	25.7	119.5	199.1	25	95.5	15.2	1.2	8.3	0.9	4.5	0.8	1.6		2.3		50.2	3.3	22.9	738.9	13495.8	21.8	619.5
SMDH 00210b	12	13	95	518.3	672	546.2	634.1	508.3	37.9	10	130.5	128	125.8	27.9	140.9	221.6	27.1	95.1	13.5	1.7	8.4	0.9	4.9	0.8	1.5		1.9		48	3.5	30	643.8	11759	17.1	495.3
SMDH 00210b	13	14	95	418.8	555.8	450.4	511.7	406.3	44.1	12.5	115.3	105.1	105.4	31.6	107.9	177.5	22.7	75.3	13.2	1.3	8.4	1.1	6	1	2.1		2.3		41.2	3.4	21.5	633.2	11566.6	17.9	526.4
SMDH 00211	0	1	20	609.2	686.6	659	617.4	589.8	69.2	19.4	168	148	27.6	49.8	128.2	291.9	31.2	107.3	18.4	1.4	11.4	1.5	8	1.6	3.5	0.6	3.6	0.6	56.2	4	21.5	370.6	6769.4	1.7	531.5
SMDH 00211	1	2	50	333.2	486.4	371.8	434.4	319.8	52	13.4	100	76.8	114.6	38.6	89.8	143.1	16.6	53.9	8.9	1.2	6.3	0.8	5.5	1.4	2.4		3.3		80.9	3.5	28.6	589.6	10768.5	16.9	408.2
SMDH 00211	2	3	70	397.8	569	457.2	488.3	376.5	80.7	21.3	139.5	97.8	111.8	59.4	105	164.5	19.2	69.1	9.9	1.5	7.3	1.2	8.3	1.9	3.8	0.6	4.8	0.7	50.1	2.6	25.7	704.1	12861.4	13.6	395
SMDH 00211	3	4	50	176.6	329.7	212.2	281.3	163.8	48.4	12.8	65	36.5	117.5	35.6	53.5	69.3	8.6	22.6	5.3	1.5	3	0.6	4.7	1.1	2.6		3.8		15.4	1.5	22.9	648.3	11842.2	16.3	434.4
SMDH 00211	4	5	90	187.8	325.6	225.6	276.2	176.2	49.4	11.6	64.2	31.6	100	37.8	48.1	94.5	6.4	20.2	3	1.2	2.8		5	1.3	2.6		2.7		9.9	1.8	8.6	544.8	9950.3	12.5	312.4
SMDH 00211	5	6	90	586	742.3	632.5	677.8	568	64.5	18	139.8	109.2	109.8	46.5	139.3	312.6	18.1	83.4	8	2.2	4.4	0.7	7	1.6	3.7	0.6	4.4		8.1	1.9	15.7	533.9	9752.3	10.3	294.9
SMDH 00211	6	7	95	141.7	336.7	193	265.5	121.8	71.2	19.9	73	24.3	143.7	51.3	33.1	65.6	4.1	12.9	2.9	1.5	1.7	0.6	6.7	1.7	4.2	0.7	6		6.4	2	10	495.6	9051.8	15.3	423.1
SMDH 00211	7	8	85	118.1	283.3	171.8	208.8	97.3	74.5	20.8	72.5	21.3	111.5	53.7	26.2	51.1	3.7	10.8	2	1.2	2.3	0.6	6.2	1.8	4.6	1	6	0.6	11.4	1.8	7.2	533.9	9752.3	17.1	478.6
SMDH 00211	8	9	95	311.4	467.9	340	429.7	301.8	38.2	9.6	75.8	57.9	127.9	28.6	73.8	163.1	11.7	42	6.4	1	3.8	0.6	3.6	1	1.8		2.6		64.5	1.9	8.6	572.4	10455.6	18	503
SMDH 00211	9	10	95	372.7	517.2	398.5	481.6	362.9	35.6	9.8	80.2	68.3	118.7	25.8	90.2	196.2	14.6	49	7.5	0.7	4.7	0.6	4.1	0.9	1.7		2.5		78.5	2.1	8.6	692	12640.3	15.6	421.4
SMDH 00211	10	11	80	226.6	352	244.3	329.6	221.9	22.4	4.7	50.7	40.1	107.7	17.7	54.7	119.3	8.3	29.5	5.7	1.2	3.2		2.3		0.9		1.5		48.8	1.7	5.7	546.3	9979	14.4	405.9
SMDH 00211b	0	1	75	343	459.4	367.8	425	333.4	34.4	9.6	81.6	68.2	91.6	24.8	81.4	174.7	12.2	51.2	8	0.8	5.1	0.7	4.1	0.8	1.7		2.3		51.8	2.1	10	767.9	14026.9	15.2	437.9
SMDH 00211b	1	2	50	479.2	621.7	500.8	588	467.1	33.7	12.1	97.7	94.4	120.9	21.6	110.9	250.5	19.3	69.1	9.4	1	6.9	0.8	5.2	1.1	2.3		2.7		71.6	1.8	10	623.7	11391.5	16.6	436
SMDH 00211b	2	3	70	310.7	470.6	325	447.9	302.3	22.7	8.4	67.4	64.5	145.6	14.3	75.5	153.2	12.4	47.7	7.9	1	4.6	0.6	3.8	0.8	1.3		1.9		70.5	1.3	7.2	570.1	10412.5	18.4	481.2
SMDH 00211b	3	4	75	364.6	490.4	376.7	473	359.3	17.4	5.3	70.6	72.8	113.7	12.1	89.4	185	15.1	54.9	8.5	0.8	5.6		2.8	0.6	0.9		1		61.9	1.2	5.7	700.4	12792.5	16.9	521.8
SMDH 00211b	4	5	65	392	512.3	412.3	480.6	380.6	31.7	11.4	83.6	77.6	100	20.3	95.1	196.3	15.2	57.3	10.2	0.9	5.6	0.7	4.4	1	2.2		3.1		59.1	1.4	8.6	669.7	12232.7	15.4	445.2
SMDH 00211b	5	6	95	374.5	489.1	389.2	465.4	365.5	23.7	9	78.9	78	99.9	14.7	99.3	180.3	14.7	59.1	6.7	0.9	4.5	0.6	3.6	0.7	1.5		2.6		51.5	1.1	10	616.1	11253.7	12.5	405.8
SMDH 00211b	6	7	90	334.3	464.5	346.6	445.4	327.5	19.1	6.8	64.7	64.2	117.9	12.3	81.9	172.6	13	47.6	6.8	1.2	4.4	0.6	3	0.6	1.3		1.3		61.2	1.2	7.2	599.1	10943.7	17.8	484.8
SMDH 00211b	7	8	90	307.7	440.2	320.9	420	300.7	20.2	7	65.5	63.6	119.3	13.2	74	154.4	12.2	48.3	6.5	0.9	4.4		3.1	0.7	1.5		1.7		54.6	1.1	5.7	545.5	9964.7	14.2	454.4
SMDH 00211b	8	9	98	331.5	488.6	346.1	465.8	323.3	22.8	8.2	71	69.2	142.5	14.6	79.8	163.4	13.8	51.6	8.7	1	5	0.7	3.1	0.8	1.3		2.3		58.5	1.2	5.7	574.6	10495.8	17.3	335.9
SMDH 00211b	9	10	96	618.6	851.8	663	782	593.2	69.8	25.4	140.7	122.6	188.8	44.4	107.2	343	27.7	83.7	18.3	1.4	11.9	1.6	9.6	1.7	5.8	0.6	4.6	1.5	41.1	3.3	27.2	525.1	9591.5	12.7	383.1
SMDH 00211b	10	11	70	595	856.7	627.1	807.1	577.5	49.6	17.5	122.1	113	229.6	32.1	132.5	313.9	24.5	80.2	15.1	1.5	9.8	1.2	7.1	1.3	3.5		3.3	1.1	46.2	2.8	31.5	479.1	8750.3	15.2	462.8
SMDH 00211b	11	12	85	618	797.4	656.9	737.6	597.1	59.8	20.9	140	126.3	140.5	38.9	111.3	338.9	26.8	90	17.4	1.6	11.1	1.5	8	1.4	4.7		3.8	1.5	35.7	2.9	18.6	618.6	11299.6	9.1	261.5
SMDH 00211b	12	13	95	777.3	1033.8	829.2	955	750.4	78.8	26.9	171.9	150.4	204.6	51.9	155.7	422.9	32.6	106.1	18.8	2.2	12.1	2.2	9.5	1.6	6.6	0.7	4.4	1.9	49	3.5	32.9	748.8	13676.7	15.4	422.3
SMDH 00211b	13	14	95	805.4	1055.4	857.5	978.3	780.4	77.1	25	182.5	163.5	197.9	52.1	143.4	447.3	35.3	117.7	21.9	2.2	12.6	2	8.5	1.7	5.3	0.6	4.7	2.2	44.3	4.6	31.5	761.3	13906.4	13.9	419.8
SMDH 00211b	14	15	96	867.7	1143.9	920.3	1062	838.4	81.9	29.3	195.8	179.5	223.6	52.6	153.3	484.2	38.2	126.8	19.1	1.9	14.9	2	12.5	1.9	5.3	0.8	4.9	1.9	53.6	4.2	28.6	855	15617.4	22.6	587.1
SMDH 00211b	15	16	95	878.4	1126.3	918.5	1063	855.2	63.3	23.2	175.4	170.3	207.8	40.1	156.6	500.1	37	122.1	22.5	2	14.9	2.5	8.7	1.3	5.3	0.6	3.3	1.5	57.6	3.1	22.9	739.2	13501.6	17.2	489.4
SMDH 00211b	16	17	90	571.7	788.6	594.4	757.8	563.6	30.8	8.1	108.2	108.7	194.2	22.7	114.2	320.5	26	78.5	14.1	2.8	7.5	0.8	3.4	0.6	1.8		0.8	0.7	41.1	2.4	20	514.9	9404.9	15.4	418.3
SMDH 00211b	17	17.5	85	627.2	837.5	653.6	800.4	616.5	37.1	10.7	116.4	116.5	183.9	26.4	123.6	359.2	28.2	81.4	14.8	1.7	7.6	0.9	6	0.7	1.6		0.6	0.9	45.2	2.9	18.6	496.8	9074.7	16.9	480.1
SMDH 00212	0	1	65	1069	1321.8	1147.1	1203.2	1028.5	118.6	40.5	242.7	209.5	174.7	78.1	212.6	580.9	47.6	146.3	22.3	2.7	16.1	2.2	13.4	2.7	12	1.1	6.9	2.2	58.6	4.5	31.5	643.6	11756.1	21.6	570.4
SMDH 00212	1	2	75	697.8	953.1	744.7	884.1	675.7	69	22.1	152.8	135.7	208.4	46.9	132.5	388.9	31.7	94.4	15.5	1.9	10.8	1.5	8.1	1.6	5.6	0.7	3	1.6	52.7	3.8	27.2	670	12238.4	18.6	481.2
SMDH 00212	2	3	70	786.7	1020.7	829	956.1	764.4	64.6	22.3	173.6	165.2	191.7	42.3	144.1	436.5	35.5	119.8	16.8	1.6	10.1	1.3	8.6	1.7	5.9	0.6	2.5	1.7	50.2	3.2	28.6	726.1	13263.3	15.4	459.5
SMDH 00212	3	4	75	809.7	1064.3	849.7	1005.4	790.8	58.9	18.9	161.4	157.6	214.6	40	156.9	455.6	38.2	110.5	14.8	2	12.8	1.2	7.7	1.9	4.6	0.6	1.9	1	53.1	3.1	24.3	670	12238.4	16	476.4
SMDH 00212	4	5	90	790.4	1005.3	834.1	937	765.8	68.3	24.6	166.1	157.7	171.2	43.7	147.5	444.7	36.6	109.8	15.1	1.3	10.8	2	9.3	2.1	6.5	0.7	2.7	1.3	47.3	3.1	27.2	772.3	14107.3	15.7	435.6
SMDH 00212	5	6	90	535.2	751.6	625.4	639.8	513.6	111.8	21.6	197.7	134	126.2	90.2	111.3	246.9	28.2	95.1	19.5	1.7	10.9	1.4	9.3	1.7	3.8	0.7	3.6	1.1	51.1	4.8	30	764.2	13958	13.3	575.2
SMDH 00212	6	7	95	466.4	709.1	556.6	597.1	444.6	112	21.8	183.9	118.1	152.5	90.2	97.2	212.4	26	82.2	15.7	1.6	9.5	1.3	8.6	1.8	3.7	0.9	4.1	1.4	50.3	2.9	28.6	638.7	11667.1	11.1	543.2
SMDH 00212	7	8	98	1080.6	1241.5	1086.1	1234.7	1079.3	6.8	1.3	141.7	182.6	155.4	5.5	142.5	732.4	47.7	133.6	16.6	1.3	5.2		1.3						53.4	0.7	655.2	786.5	14365.7	13.3	648.9
SMDH 00212	8	9	98	442.4	644.7	503.7	570	429	74.7	13.4	133.6	91.6	141	61.3	76	250.7	20.2	66.7	10.8	0.9	3.7		4.7	1.1	2.6	0.6	3.3	1.1	50.6	1.5	151.6	625.1	11417.3	14.7	699.2
SMDH 00212b	0	1	40	418.1	536.6	451.8	496.2	411.4	40.4	6.7	104.9	90.2	84.8	33.7	73.3	237.1	19	67.2	8		6.8	0.6	3.4		1.1		0.9	0.7	51.1	1.2	155.9	692	12640.3	13.1	572.6
SMDH 00212b	1	2	60	215.4	340.1	243.3	305.9	209.1	34.2	6.3	63.9	46.1	96.8	27.9	41.2	114.2	10.8	32.1	7.1	0.7	3		3.2		0.9		1.6	0.6	31.5	1.2	64.4	527.2	9628.8	8	373.2
SMDH 00212b	2	3	65	158.1	297.9	184.6	267.2	153.9	30.7	4.2	58.6	40.1	113.3	26.5	33.1	77.5	8	30	3.1		2.2		2.1		0.8		0.7	0.6	45.4	1.1	31.5	655.9	11980	10	473.2
SMDH 00212b	3	4	65	144.9	279.6	171.8	248.6	140.8	31	4.1	52.5	33.5	107.8	26.9	29.9	72.4	7.9	23.3	4.5		2.8		2.3		0.9		0.9		49	1.2	21.5	736.7	13455.6	11.6	513.6

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00212b	4	5	80	134.3	195.9	149.4	176.9	130.4	19	3.9	34.3	27.5	46.5	15.1	31.7	61.9	8.3	17.7	7.8		3		1.5	0.6	1.1		0.7		40.4	1.4	20	806.5	14730.3	8.7	364.2
SMDH 00212b	5	6	50	127.5	190.2	140.8	172.8	123.4	17.4	4.1	38.3	32.7	49.4	13.3	30.3	54.2	7.7	23	5.2		3		2		1.3		0.8		43.6	1.7	93	1295.9	23670.1	12.9	552.5
SMDH 00212b	6	7	70	183.6	239.1	198.1	221.4	180.4	17.7	3.2	41	35.8	41	14.5	36.5	98.8	9.3	24.8	7.3		3.7		1.7		0.9		0.6		36.3	1.5	28.6	810.2	14799.2	9.9	541.1
SMDH 00212b	7	8	85	167.6	227.9	176.7	217.8	166.6	10.1	1	38.8	37.1	51.2	9.1	47.1	69.7	8.6	27.5	8.7	1.2	3.8		1						47.9	1.2	22.9	609	11124.5	8.8	417
SMDH 00213	0	1	30	412.3	490.7	451	438.5	398.8	52.2	13.5	127.6	111.7	39.7	38.7	95	175.3	23.7	81.2	14.1	0.9	8.6	1.6	5.2	0.8	2.9		2.2	0.8	51.1	3.9	17.2	436.5	7972.3	15.8	649.6
SMDH 00213	1	2	30	121.8	197.4	143.6	170.7	116.9	26.7	4.9	42.4	27.6	53.8	21.8	31	51.5	7	17.6	6.5		3.3	0.6	2.4		0.9		1		47.9	3.1	24.3	817.8	14937	11.1	486.3
SMDH 00213	2	3	40	45.5	110.9	52.9	102.5	44.5	8.4	1	14.7	10.6	58	7.4	10.3	20.8	3.3	6.3	3.2		0.6		1						41.1		12.9	463	8457.5	8.6	400.8
SMDH 00213	3	4	45	98.5	153.2	109.3	140	96.1	13.2	2.4	23.6	19.1	43.9	10.8	28.3	43	6.3	11.9	4.6		2		0.9		0.9			0.6	33	0.9	12.9	406.1	7418.3	6.6	301.1
SMDH 00213	4	5	40	116.4	253.9	128.6	236.2	110.9	17.7	5.5	34.1	28.9	125.3	12.2	24.2	48.6	7.7	18.5	6.5	0.7	4.7	0.6	2.1		1.4		0.8	0.6	38.7	1.2	12.9	374.1	6832.6	10.8	441.3
SMDH 00213	5	6	70	142.7	274.4	154.3	259.2	139.1	15.2	3.6	39.4	37	120.1	11.6	33.7	60.3	9.2	26.4	6		3.5		1.4		0.7		0.7	0.8	43.1	1.3	12.9	403.1	7363.7	11.3	456.7
SMDH 00213	6	7	75	128.4	236.3	136.4	223.5	123.6	12.8	4.8	36.7	37	99.9	8	18.1	58.7	8.3	26.9	7.5		4.1		1.8		0.9		1.3	0.8	43.5	1.4	10	603.4	11021.2	10.8	435.5
SMDH 00213	7	8	60	180.2	312.3	201.3	283	172	29.3	8.2	56.8	46.1	111	21.1	39.2	77.4	10.4	31.3	10.4		3.3	0.6	3.8	0.6	1.6		0.8	0.8	42.6	1.8	11.4	517.1	9445.1	10.7	482.1
SMDH 00213	8	9	40	159.5	277.7	170.9	262.3	155.5	15.4	4	43.4	41.5	106.8	11.4	35.8	68.3	9.5	30.3	8		3.6		1.7		0.9		0.6	0.8	42	1.3	12.9	502.5	9178.1	8.1	340.1
SMDH 00213	9	10	70	111.5	286.9	118.2	277.5	108.8	9.4	2.7	32.3	32.4	168.7	6.7	25.2	45.5	7.4	23.7	3.9	0.6	2.5		1.3				0.6	0.8	47	1.1	11.4	520.1	9499.6	11.7	560.2
SMDH 00213b	0	1	50	562.3	652	613.7	578.6	540.3	73.4	22	164.5	139.8	38.3	51.4	113.2	267.4	28.3	101.2	17.2	1.6	11.4	1.5	8.8	1.9	3.9	0.8	4.4	0.7	51.8	4.7	28.3	424.5	7754.1	1.5	572.6
SMDH 00213b	1	2	45	101.5	225.9	109.8	214.8	98.7	11.1	2.8	30.5	27.3	116.1	8.3	22.5	36.7	5.7	20.2	9.9	0.6	3.1		1.4		0.8			0.6	44.6	0.8	12.9	541.9	9898.7	10.3	417.7
SMDH 00213b	2	3	80	7.3	132.6	9.3	130	6.7	2.6	0.6	2	1	123.3	2	2.5	3.2	1											0.6	52.8		5.7	439.8	8032.6	13.8	539.2
SMDH 00213b	3	4	40	625.9	748.7	691.8	655.1	598.2	93.6	27.7	164.6	123.7	56.9	65.9	107.8	347.5	26.6	85.6	16.8	1.6	12.3	1.5	10	2.1	7	0.7	5.6	0.8	43.1	4.1	30	663	12109.2	11.4	462.2
SMDH 00213b	4	5	35	645.4	773	703.4	693.4	623.8	79.6	21.6	165	132.9	69.6	58	116.3	357.6	28	93.9	14	2.1	11.9	1.6	9.4	1.6	5.3	0.7	3		53.6	4.4	31.5	683.1	12476.7	15	519.1
SMDH 00213b	5	6	50	1139.6	1269.1	1219.7	1152.8	1103.4	116.3	36.2	268.8	237.9	49.4	80.1	198	638.4	53	165	28.6	3.8	16.6	2.9	17	3	6.2	1.1	4.9	1.1	50.5	4.5	34.3	691.9	12637.4	12.9	436.2
SMDH 00213b	6	7	65	554.3	680.6	614.2	599.9	533.5	80.7	20.8	148.6	110.8	66.4	59.9	99.3	307.7	23.8	77.7	13.8	1.7	9.5	1.2	8.1	1.5	4.6	0.6	4	0.8	52.9	6.1	25.7	669.7	12232.7	16.6	523.4
SMDH 00213b	7	8	55	650.4	765.9	697.5	701.5	633.1	64.4	17.3	149.3	127.3	68.4	47.1	113.8	373.2	27.3	90.7	15	2.2	10.9	1.5	7.8	1.3	4		2.7		55.4	4.5	25.7	951.7	17383	17	677.4
SMDH 00213b	8	9	55	1201.1	1311.6	1254.1	1234	1176.5	77.6	24.6	346	374.9	57.5	53	443.3	315	86.5	276	33.9	4.6	17.2	2.2	10.2	1.9	6.1	0.6	3.6		45.6	3.8	93	772.7	14113.1	15	563.1
SMDH 00213b	9	10	55	515.9	690.7	564.9	621	495.2	69.7	20.7	157.9	134.1	125.8	49	120.7	222.6	26.9	97	15.7	1.7	10.6	1.5	8.7	1.6	3.3	0.7	4.9		42.2	3.4	21.5	537.5	9818.3	12.4	350.3
SMDH 00213b	10	11	20	455.9	521.2	496.7	464.3	439.8	56.9	16.1	137	118	24.5	40.8	93.4	211.3	23.7	86.4	14.5	1.9	8.6	1.2	6.7	1.6	2.9		3.1	0.6	38.3	3.1	24	354.9	6482.4	1.1	540
SMDH 00213b	11	12	60	343.9	533.7	380.2	482.8	329.3	50.9	14.6	101.4	81.4	153.5	36.3	80.5	153.3	17.9	56.9	10.9	1.6	8.2	0.9	5.7	1.4	2.6	0.6	3.4		41	2.2	14.3	565.8	10335	16.5	548.4
SMDH 00213b	12	13	75	494.9	716.6	546.2	645.9	475.5	70.7	19.4	152.8	125.6	170.4	51.3	116.7	216.1	26	89.5	15.5	1.9	9.8	1.4	8.7	1.6	2.7	0.6	4.4		58.3	3.3	20	909.6	16613.6	14.5	377.4
SMDH 00214	0	1	40	584.4	748.8	635.6	677.1	563.9	71.7	20.5	167.3	144.8	113.2	51.2	136.9	259.2	30.2	104.5	19.7	1.5	11.9	1.3	8.8	1.5	3.7	0.6	4	0.6	53.6	3.9	21.5	527.6	9637.4	13.9	400.6
SMDH 00214	1	2	45	412.8	574.7	448.6	524.8	398.7	49.9	14.1	117.2	101.1	126.1	35.8	99.7	181.1	20.9	73.2	13.7	1.2	8.9	1.1	5.9	1.4	2.3		3.4		53	2.9	17.2	696	12712.1	15.4	402
SMDH 00214	2	3	50	463.7	649	505.9	589.7	446.6	59.3	17.1	137.2	117.4	143.1	42.2	110.2	201.9	24	85.3	14.8	1.6	8.8	1.2	6.9	1.5	2.7		4.8		52.5	3.7	17.2	587	10722.6	12	337.7
SMDH 00214	3	4	70	436.6	627.8	483.3	562.1	417.6	65.7	19	129.8	104.2	144.5	46.7	106.3	192	22.5	73.6	14.3	1.4	7.5	1.3	6.8	1.5	4	0.7	4.7		43.6	2.8	18.6	605.4	11058.5	12.3	342.2
SMDH 00214	4	5	45	404.4	622.9	456.8	549.6	383.5	73.3	20.9	137.2	103.7	166.1	52.4	93.9	173	20.3	74.2	11.9	1.4	8.8	1.2	8	1.8	3.7	0.7	5.5		52.7	3.3	17.2	633.7	11575.2	12.4	360.3
SMDH 00214	5	6	60	340.5	528.9	374.3	483.2	328.6	45.7	11.9	99.9	83.3	154.6	33.8	88.3	145.8	18.1	59.5	9.5	0.9	6.5	0.7	5	0.9	2.1		3.2		59.7	2.2	35.8	680.2	12425	15.8	458.1
SMDH 00214	6	7	60	308.6	485.6	345.7	434.1	294.2	51.5	14.4	99.5	77	139.9	37.1	80.7	125.9	15.5	55.6	10.2	0.9	5.4	0.6	5.3	1.1	3.1		4.3		53.5	2.5	31.5	590	10777.1	12.1	365.4
SMDH 00214	7	8	75	318.7	491.5	357.6	439	305.1	52.5	13.6	105.5	81.8	133.9	38.9	82.1	130.2	16.2	59.3	10.1	1	6.2	0.8	5.5	1.1	2.6		3.6		47.2	2.9	41.5	576.2	10524.5	12.9	380.4
SMDH 00214b	0	1	50	316.4	507.5	356.9	456.4	305.8	51.1	10.6	105.2	78.4	150.6	40.5	82.7	132.8	14.6	59.1	9.7	0.9	6	0.6	4.1	1	1.9		3		37.7	5	28.6	440.1	8038.4	15.7	470.8
SMDH 00214b	1	2	45	571.8	753.7	611.2	700.8	558.3	52.9	13.5	154.8	142.3	142.5	39.4	151.5	240.5	28.3	107	20.1	1.4	9.5	0.9	6.1	1.1	2.3		3.1		79.2	4.7	40.1	648.3	11842.2	18.5	552.2
SMDH 00214b	2	3	45	603.4	793.1	640	742	588.9	51.1	14.5	161.9	154.8	153.1	36.6	156.6	253.3	30.8	115.9	19.7	1.3	11.3	1.2	6.9	1.3	2.6		2.5		102.4	4.5	30	613.6	11207.8	14.5	435.6
SMDH 00214b	3	4	60	394.5	540.1	438.7	476.9	375.5	63.2	19	125	99	101.4	44.2	102.6	162.9	19.2	70.7	11.7	1	7.4	1.2	7.9	1.4	3.5	0.6	4.4		38.7	3.2	47.2	426.3	7785.7	11.1	305.3
SMDH 00214b	4	5	85	333.6	510.8	378.3	449.3	316.8	61.5	16.8	112.1	83.4	132.5	44.7	85.8	137.8	16.9	59.1	9.2	0.9	7.1	0.9	6.5	1.5	3.2	0.6	4.1		53.7	2.8	42.9	752.5	13745.6	13.2	381.6
SMDH 00214b	5	6	70	450.1	650.4	514	560.6	424.2	89.8	25.9	154.2	111.1	136.4	63.9	102.3	195.7	22.8	77.8	15	2	8.6	1.3	9.2	1.9	4.7	0.9	7.3	0.6	50.3	3.5	58.7	852.7	15574.3	13.8	390.9
SMDH 00214b	6	7	90	361.4	552.8	434.2	452.8	334.2	100	27.2	149.3	93.2	118.6	72.8	78	153.2	17.9	63.8	13.2	1.2	6.9	1.3	10.2	2.1	5.1	1	6.7	0.8	44.4	3.3	48.6	791.8	14463.3	10.7	317.8
SMDH 00214b	7	8	98	334.8	491.5	383.4	423.2	315.1	68.3	19.7	113.5	81.8	108.1	48.6	76.5	145.4	17.5	57	11.5	0.6	6.6	0.8	6.5	1.6	3.7	0.8	5.7	0.6	41.8	2.6	41.5	719.1	13134.1	12.3	379.8
SMDH 00215	0	1	40	347.4	490.5	365.2	466.3	341	24.2	6.4	82.3	80.8	125.3	17.8	87.8	159.6	17.9	60.1	8.7	1.6	5.3		2.8	0.7	1.3		1.6		39.6	1.7	52.9	528.6	9654.6	12.3	334.3
SMDH 00215	1	2	45	553.1	662.2	572.5	635.2	545.5	27	7.6	131.9	141.2	89.7	19.4	135.8	247.4	30.1	106.5	16.2	1.4	8.1	0.8	3.8	0.6	1.3		1.1		23.4	2	31.5	514.7	9402	10.4	311.8
SMDH 00215	2	3	45	119.6	248.4	129.8	235.4	116.8	13	2.8	31.1	26	118.6	10.2	30.7	53.9	5.9	18.7	4.4	0.8	2.4		1.4		0.6		0.8		16.6	1.3	14.3	357.6	6531.2	5.9	155.2
SMDH 00215	3	4	75	273.4	397.3	293.6	370	266.3	27.3	7.1	73.5	66.4	103.7	20.2	66.1	122.2	14.3	48.9	8.9	1.2	4.7	0.6	2.6	0.6	1.4		1.9		41.3	1.5	24.3	622.7	11374.3	9.1	244.4
SMDH 00215	4	5	90	547.4	652	581.1	605.5	534.6	46.5	12.8	116.2	105	70.9	33.7	104	306.6	23.4	76.2	15.5	0.9	8	0.7	4.7	1	4.1		2.3		44.3	2.5	12.9	697.7	12743.7	8.1	350
SMDH 00215	5	6	75	440.2	551.2	474.5	505.4	428.7	45.8	11.5	105.1	88.8	76.7	34.3	80.9	244.6	19.3	64.3	12.3	1.3	6	0.7	4.5	0.9	3		2.4		32.4	2.7	11.4	587.4	10728.3	5.9	251.9
SMDH 00215	6	7	90	566.6	683.9	618.3	612.5	546.9	71.4	19.7	138	110.8	65.6	51.7	102.4	315.6	25.3	78.4	13.9	0.8	10.5	0.8	6.3	1.5	5.1	0.8	4.1	1.1	41.4	3.3	17.2	754.9	13788.7	8.4	328.9
SMDH 00215	7	8	85	344.3	442.5	375.8	402.5	335.8	40	8.5	80.1	61.6	66.7	31.5	67.1	192.6	14.4	43.6	11.4	1.4	5.3	0.6	3	0.6	2.6		1.7		24.7	3.2	22.9	699.6	12778.1	6.7	317.4
SMDH 00215b	0	1	45	681.4	795.4	731.6	729.2	665.4	66.2	16	159.4	136.6	63.8	50.2	122.7	381.5	28.6	100	19.5	1.2	11.9	1.5	6.5	1.3	3.8		2.3	0.6	46.3	5.2	17.2	409.9	7487.2	9.7	443.1
SMDH 00215b	1	2	40	545.6	650	585.1	599	534.1	51	11.5	122.5	105.2	64.9	39.5	103.1	304.2	23.7	75.9	15.8	1.5	9.9	0.9	4.7	0.9	3.2		1.8		38.8	4.1	32.9	504.5	9215.4	8.7	399.8
SMDH 00215b	2	3	50	423.1	503.1	446.3	474.9	418.1	28.2	5	83.7	77.5	56.8	23.2	85.6	239.3	18.5	55.5	10.8	1.5	6.9	0.6	2.9		0.9		0.6		28.6	3.3	18.6	455.3	8316.8	8.1	348.1
SMDH 00215b	3	4	50	82.7	158.4	87.1	154	82.7	4.4		11.5	9.8	71.3	4.4	15	54.5	2.7	7.1	1.7		1.7								32		18.6	315.1	5756	9.1	348.6
SMDH 00215b	4	5	60	1373.3	1431	1391.3	1404.3	1364.6	26.7	8.7	268.7	308.2	39.7	18	282.1	732	60.5	241.7	33	3	12.3	1.3	4.7	0.6	1.1		1		32.9	3.7	436.3	381.1	6961.8	9.8	210.9
SMDH 00215b	5	6	45	673.1	740.7	705.1	694	658.4	46.7	14.7	190.6	192.2	35.6	32	177.1	256.7	34.9	150.9	28.4	1.3	9.1	1.2	5.2	0.9	2.9		3.9	0.6	18.1	4.4	344.8	87.2	1593.3	13.9	316.4
SMDH 00215b	6	7	90	426	489.2	446.4	460.4	417.6	28.8	8.4	129.8	136.4	42.8	20.4	68	181.3	28.3	103.1	26.7	1.3	8.9	1.2	3.8	0.6	1.3		1.5		29.5	4.4	180.2	440.2	8041.2	19.5	383.1
SMDH 00215b	7	8	85	576.1	647.4	608	601.9	562.5	45.5	13.6	178.4	184.9	39.4	31.9	96.8	241.9	39.7	138	34.1	1.3	10.7	1.6	5.6	0.9	2.1		3.4		29.7	5.5	233.2	412.1	7527.3	14.2	296
SMDH 00216	0	1	30	459.3	542.9	488.6	500.3	446	42.6	13.3	148.3	151.6	54.3	29.3	74.8	187.2	34.1	110.6	27.3	1.5	10.5	1.3	5.6	0.9	2.2		3.3		33.8	6	115.9	213.8	3904.3	20.3	421.9
SMDH 00216	1	2	45	852.5	935.5	891.6	876.8	832.9	58.7	19.6	273.4	292.6	43.9	39.1	142.1	339.5	59.9	221.5	52.2	1.6	16.1	2.4	8.8	1.4	2.9		3.5	0.6	59.2	7.2	118.7	204	3726.4	16.7	410.1
SMDH 00216	2	3	40	1217.4	1305.6	1270.6	1226.7	1191.7	78.9	25.7	372.8	402.1	35	53.2	194.8	509.3	84.7	302.1	75.8	2.2	22.8	3.2	12.1	2.1	3.8	0.6	3.9		66.8	7.9	77.2	166	3031.6	12.3	260.4
SMDH 00216	3	4	75	691.6	770.7	732	712.6	673.9	58.1	17.7	210.1	212.1	38.7	40.4	113.6	307.2	43.9	158.7	35.4	1.5	13.6	2	7.5	1.3	3.1		3.8		53.9	5.3	178.8	514.9	9404.9	16.2	243.8
SMDH 00216	4	5	40	292.3	348.8	312	320.7	283.9	28.1	8.4	78.2	72.6	36.8	19.7	62.6	136.6	15.1	52.6	9.5	1	6.5	0.8	4.1	0.7	1.5		1.3		23.6	2.9	23	263.3	4808.7	2.2	400.1
SMDH 00216	5	6	85	426.3	495.4	449.8	460.2	414.6	35.2	11.7	110	102	45.6	23.5	71.4	228	17	79.1	10.7	1.5	6.9	0.9	5	0.8	2.6		2.4		24.7	2.4	20	432.1	7891.9	9.9	387
SMDH 00216	6	7	50	346	411.7	360.5	390.2	339	21.5	7	85.3	83.1	51.2	14.5	59.5	184.6	13.8	65.6	8.8	1.5	5.2	0.6	3.1	0.6	1.6		1.1		21.7	1.9	17.2	508.1	9281.4	12	464.5
SMDH 00216	7	8	95	388.9	445.8	407.1	418.8	380.1	27	8.8	95	91	38.7	18.2	66.3	211	15.7	70.8	9.6	1.5	5.2	0.8	3.7	0.6	1.8		1.9		17.3	2.2	21.5	344.8	6298.6	10.3	431.2
SMDH 00216	8	9	95	390.6	450.3	406	427.2	382.9	23.1	7.7	93.6	92.6	44.3	15.4	67.6	209.1	15.9	72.6	10.2	1.5	6	0.7	3.4	0.6	1.5		1.5		21.1	2.2	20	516.6	9436.5	8.5	386.3
SMDH 00216	9	10	98	386	457.9	400.5	436.8	379.4	21.1	6.6	95.7	95.6	57.4	14.5	64.3	205.8	15.7	75.9	10.6	1.3	5.8	0.7	3.3		1.6		1		29.6	2.2	24.3	595.4	10874.8	13.2	577.1
SMDH 00216	10	11	90	412.6	482.7	430.4	455.9	403.6	26.8	9	100.2	97.2	52.3	17.8	76.7	216.3	16.3	76	10.2	1.5	6.6	0.8	4.1	0.6	1.8		1.7		22.4	2.4	31.5	713.6	13033.6	15.8	721.2
SMDH 00216	11	12	90	413.6	484.1	433.2	455.4	404.5	28.7	9.1	102	97.2	50.9	19.6	72.8	221.7	16.1	76.4	10.1	1.3	6.1	0.7	4	0.8	1.8		1.8		26.6	2.2	21.5	622.4	11368.5	13.6	702

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00216	12	13	90	298.8	375.8	314.4	354.4	293	21.4	5.8	72.9	72.9	61.4	15.6	51	153.7	16.8	52.7	12.1	1.2	5.5	0.6	2.8		1.1		1.3		28.2	2.1	20	836	15270	17.7	239.4
SMDH 00216	13	14	80	519.3	603.2	544.3	568.3	509.4	34.9	9.9	148.6	156.4	58.9	25	85.8	239.8	34.4	116.1	22.8	1.6	8.9	1.1	4.8	0.7	1.9		1.4		48.2	3.4	22.9	708.7	12944.6	18	263
SMDH 00216b	0	1	30	328	372.3	347.8	344	319.5	28.3	8.5	85.9	81	24.5	19.8	69.1	155.3	16.3	60.1	11	1.4	6.3	0.8	3.8	0.7	1.5		1.7		27.2	2.9	16.9	296.7	5420.2	1.5	295.8
SMDH 00216b	1	2	30	127	189	143	167.9	121.9	21.1	5.1	50.1	42.5	46	16	20.6	50.4	9.2	30.9	7	0.8	3		2.4		1.4		1.3		8.3	3.2	18.6	490.9	8965.6	7.9	111.4
SMDH 00216b	2	3	70	44.6	91.6	58.8	73.6	40.8	18	3.8	27.2	15.8	32.8	14.2	5.9	15	3.4	10.8	3.7	0.6	1.4		1.6		1.1		1.1		2.3	4.5	7.2	427.2	7802.9	7.9	98.5
SMDH 00216b	3	4	50	226.5	290.1	238.4	274.4	222.7	15.7	3.8	68.2	70.4	51.7	11.9	37.6	101.7	15.6	52.8	9.6	1.5	3.9		2		0.9		0.9		19.6	2.7	11.4	621	11342.7	53.5	1025.9
SMDH 00216b	4	5	50	207.9	279.2	220.3	263.1	204.2	16.1	3.7	60.6	61.8	58.9	12.4	34.2	96.9	14.4	45.3	9	0.8	3.6		2.1		0.9		0.7		24.5	2.5	11.4	496.5	9069	50.6	894.4
SMDH 00216b	5	6	85	241.9	302.1	254.2	286	238.1	16.1	3.8	66.6	68.9	47.9	12.3	40.8	116.7	15.5	51.4	9.3	0.9	3.5		2		1		0.8		29.6	2.1	8.6	510.7	9327.4	45.6	805.8
SMDH 00216b	6	7	55	320.9	386.1	352.4	343.8	310.1	42.3	10.8	98.6	83.3	33.7	31.5	69.5	144.8	17.6	60.1	10.1	1.4	6.6	0.9	4.7	1	2.6		1.6		27.1	4.4	18.5	352.9	6445	1.3	58.2
SMDH 00216b	7	8	65	264.2	342.6	291.8	303.8	253	38.8	11.2	79.9	65	50.8	27.6	45.3	133.2	13.9	45.4	8.1	1.2	5.9	0.8	4.9	0.8	2.3		2.4		21.1	2.6	14.3	771.6	14093	31	845.2
SMDH 00216b	8	9	90	339.2	432.9	370.6	388.7	326.4	44.2	12.8	84.2	65.3	62.3	31.4	62.5	187.9	13.7	45.3	8.2	1.2	7.6	0.8	5.5	0.9	3		2.6		25	2.6	18.6	564.9	10317.8	41.2	1169.5
SMDH 00216b	9	10	70	341.4	422.7	365.5	387.9	330.7	34.8	10.7	81.6	70.3	57.2	24.1	65.1	183.2	14.3	50.6	9	1.5	7	0.8	4.6	0.8	2.2		2.3		26.3	2.7	18.6	874.4	15970.5	44.5	1122.8
SMDH 00216b	10	11	90	263.9	357.9	295.8	312.1	250	45.8	13.9	78.6	56.6	62.1	31.9	45.5	137.7	11.2	39.1	8.2	1.3	7	0.8	5.5	0.9	3.3		3.4		18.4	2.1	21.5	801	14629.8	33.1	772.9
SMDH 00216b	11	12	85	250.9	319.9	278.5	281.1	239.7	38.8	11.2	80.9	65.2	41.4	27.6	54.1	109.9	13.5	45.5	8.3	1.6	6.8	0.9	5.3	0.9	2.2		1.9		18.5	1.5	21.5	545.1	9956.1	7.2	792.8
SMDH 00216b	12	13	95	293.7	393.1	334.8	333.5	275.2	59.6	18.5	103.1	74.9	58.3	41.1	62.7	125.7	14.6	51.3	10.2	1.7	9	1.2	7.8	1.4	3.3	0.6	3.5	0.7	20.8	2.2	25.7	774.7	14150.4	8.5	637
SMDH 00216b	13	14	85	292.6	351.4	322.3	310.1	281	41.3	11.6	86.9	71	29.1	29.7	64.6	132.7	15.2	50.2	10.3	1.4	6.6	0.9	4.7	1	2.4		2.6		24	2.7	20	585.2	10688.1	13.8	715.7
SMDH 00216b	14	14.5	80	321.5	352.7	337.4	329	313.7	23.7	7.8	78.2	78.5	15.3	15.9	72.5	147.2	17.6	56	11.6	1.4	7.4	0.9	4	0.6	1.3		1		27.2	2.5	22.9	663.3	12115	7	399
SMDH 00217	0	1	25	292.2	331.9	310.4	305.8	284.3	26.1	7.9	78.2	73	21.5	18.2	62.6	136.5	14.7	54	9.3	1.7	5.5	0.7	3.6	0.7	1.5		1.4		20.5	2.4	22.6	414.9	7579	2.5	415.1
SMDH 00217	1	2	30	775.5	818.1	792	794	767.9	24.1	7.6	140.5	160.1	26.1	16.5	205	378.1	38.9	116.6	16.6	2.8	9.9	0.9	3.7	0.6	1.4		1		31.3	2.2	48.6	771.4	14090.1	10.5	490.3
SMDH 00217	2	3	20	381.6	443.8	413.1	400.1	369.4	43.7	12.2	104.3	90.8	30.7	31.5	81.4	182	19.6	64.5	12.5	1.6	7.8	1.1	5.6	1.1	2.1		2.3		32.1	4.4	28.8	439.8	8032.6	1.4	398.8
SMDH 00217	3	4	50	297.2	360.7	331.6	314.6	285.5	46.1	11.7	91.6	71.1	29.1	34.4	67.6	135.7	15.1	50.2	9.5	1.2	6.2	0.8	5	1	2.6		2.3		24	2.9	18.6	374.7	6844.1	8.7	449.4
SMDH 00217	4	5	30	331.1	374.1	349.6	347.4	322.9	26.7	8.2	80.7	78.1	24.5	18.5	75.3	155.4	17.3	56	10.4	1.4	7.1	0.8	4	0.7	1.4		1.3		27.7	2.8	21.5	563	10283.4	9.8	459.5
SMDH 00217	5	6	65	378.8	411.1	394.2	388.6	371.7	22.5	7.1	86.7	91	16.9	15.4	85.5	179.1	21.1	65.3	11.8	1.4	7.5	0.9	3.7	0.6	1.1		0.8		33.2	3.1	21.5	623.2	11382.9	7.2	322.2
SMDH 00217	6	7	70	265.9	304	279.5	284.3	259.8	19.7	6.1	66.9	65.6	24.5	13.6	61.1	121.6	13.8	47.8	9.2	1.5	4.8	0.6	3.4		1.1		1		19.3	1.9	24.3	595.5	10877.6	9.4	427.5
SMDH 00217	7	8	80	249.2	299	271.4	267.4	239.8	31.6	9.4	72.1	61.9	27.6	22.2	57.1	112.5	13.3	43.2	7.3	1.3	5.1	0.7	4.7	0.7	1.6		1.7		20	2	20	470.4	8592.4	7.4	392.5
SMDH 00217	8	8.5	80	203.2	241.8	220.3	217.9	196.4	23.9	6.8	56.4	49	21.5	17.1	45.3	94.3	11	33.8	6.6	1.3	4.1	0.6	3.6		1.3		1.3		16.6	2	17.2	373	6812.5	8.4	391.3
SMDH 00217b	0	1	40	440.1	483.6	462.1	451.5	430	32.1	10.1	107.1	106.8	21.5	22	98.7	207.1	23.9	77	13.1	2.2	8	0.9	5	0.8	1.7		1.7		37.1	2.9	11.4	508.3	9284.3	9.4	413.6
SMDH 00217b	1	2	50	298.8	322.7	310.4	305.8	293.5	16.9	5.3	70.4	73.5	12.3	11.6	66.6	140.8	16.2	53.7	9.7	1.5	5	0.6	3		0.8		0.9		25.3	1.4	8.6	355.7	6496.7	5.8	261.4
SMDH 00217b	2	3	75	269	294.5	285.3	270.9	261.7	23.6	7.3	69.5	65.6	9.2	16.3	59.5	123.8	14.4	46.7	9.5	2	5.8	0.7	3.8	0.6	1.1		1.1		21.3	1.1	7.2	153.7	2807.7	2.2	134.5
SMDH 00217b	3	4	25	191.7	219.6	204.3	203.3	188	16.3	3.7	51.7	47.5	15.3	12.6	40.3	91.3	10	34.5	6.4	1.6	3.9	0.6	2.4		0.7				23.3	3.3	9.4	123.1	2247.9	1.5	160.6
SMDH 00217b	4	5	35	156.7	182.1	171.4	162.4	151.7	19.7	5	45.5	37	10.7	14.7	35.9	70	8.5	25.7	6	2.3	3.3		2.8		1.1		1.1		37.8	1.4	10	329.3	6014.4	3.9	170.1
SMDH 00217b	5	6	50	392.8	418.1	407.4	396.8	386.1	21.3	6.7	91.1	95.5	10.7	14.6	88.9	183.6	21.5	68.8	13.1	2.5	7.7	0.8	4.4		0.9		0.6		32.9	1.5	7.2	222.6	4065.1	2.7	138.3
SMDH 00217b	6	7	70	539.8	586.3	567.9	545.9	527.5	40.4	12.3	138	136.5	18.4	28.1	114.1	250.8	29	99.1	19.5	2.4	12.6	1.4	7	1	1.8		1.1		53.5	5.8	22.9	600.1	10960.9	1.9	100.2
SMDH 00217b	7	7.5	65	294.3	352.1	323	311.5	282.4	40.6	11.9	87.7	72.1	29.1	28.7	62.4	133.5	15.1	50.2	11.4	2	7.8	1.1	5.7	1	1.9		2.2		22.9	1.5	28.6	1023.2	18689.2	1.2	83.9
SMDH 00218	0	1	30	482.6	546.9	520.8	491.6	465.5	55.3	17.1	131.8	116.9	26.1	38.2	107.3	223.6	24.8	84	14.4	1.5	9.9	1.3	6.8	1.3	3.1	0.6	3.4	0.6	43.7	3.8	15.7	410.2	7492.9	10.1	422.4
SMDH 00218	1	2	25	481.6	654.5	608.5	475.9	429.9	178.6	51.7	235.1	129.1	46	126.9	92.5	192.6	23.1	84	19.1	2.2	16.4	2.7	19.3	4.1	10.5	1.8	11.7	1.6	30.7	3.9	21.5	664.8	12143.7	8	379.2
SMDH 00218	2	3	40	413.4	556.4	511.9	417	372.5	139.4	40.9	187.6	107.9	44.5	98.5	82.6	169.9	20.1	71.2	15.2	1.3	12.2	2	14.6	3.2	8.1	1.4	10.1	1.5	29	4.7	24.3	690.8	12617.4	8.4	358.2
SMDH 00218	3	4	50	866	966.4	934.2	868.9	836.7	97.5	29.3	215.7	186.2	32.2	68.2	222	404.5	41.2	131.8	21.3	2.5	13.4	1.8	11.4	2.2	5.1	1	6.8	1	46	6.8	52.9	694.4	12683.4	7.5	351.5
SMDH 00218	4	5	50	414	488.2	460.6	422.5	394.9	65.7	19.1	126.7	99.5	27.6	46.6	92.8	186.8	20.7	70	13.3	1.3	10	1.2	7.6	1.5	3.7	0.6	3.9	0.6	33.1	3.8	18.6	489.3	8936.9	5.9	279.2
SMDH 00218	5	6	90	303.6	353.9	335.5	308.8	290.4	45.1	13.2	94.6	77.5	18.4	31.9	66.7	133.9	15.8	54.8	10.8	1	7.4	0.9	6	1	2.7		2.6		24.9	2.1	15.7	337.4	6163.7	3.5	215.5
SMDH 00218	6	7	90	446.9	513.4	488.9	452.9	428.4	60.5	18.5	127.6	106.7	24.5	42	96.8	208.6	22.5	75.9	13.7	1.4	9.5	1.3	7	1.5	3.2	0.6	4.3	0.6	39.3	5.1	23.7	508.1	9281.4	2.1	378
SMDH 00218	7	8	50	558.2	586.4	575.7	560	549.3	26.4	8.9	123.2	132.2	10.7	17.5	130.2	261.9	28.9	96.8	18.4	2.4	10.7	1.3	5.2	0.6	1.1		0.7		55.6	2.7	11.4	260.3	4754.1	2.8	147.5
SMDH 00218	8	9	60	509	540.6	528.3	512.4	500.1	28.2	8.9	120.8	127.2	12.3	19.3	118.3	231.4	27.8	93.3	16.6	2.1	10.6	1.2	4.9	0.8	1.3		0.7		48.2	2.7	17.2	326.9	5971.4	12	216
SMDH 00218	9	10	90	484.7	558.7	526.5	499	466.8	59.7	17.9	138.7	120.8	32.2	41.8	108.1	217.8	25.3	86.3	16.6	1.4	11.3	1.4	7.8	1.4	3.3	0.6	3.4		44.5	3.7	21.5	553.2	10105.4	7	354.2
SMDH 00218	10	11	80	162.7	263.6	196.1	216.5	149	47.1	13.7	72	45.1	67.5	33.4	31.2	66.8	7.9	30.3	6.4	1.4	5	0.9	6	1.1	2.9		2.8		9.7	1.9	12.9	947.3	17302.6	3.7	183.8
SMDH 00218	11	12	80	445.5	520.4	488.2	457.9	425.7	62.5	19.8	129.9	109.4	32.2	42.7	99.8	199.7	23.4	77	14.7	1.2	9.9	1.3	7.7	1.4	3.7	0.7	4.4	0.6	37.7	3.5	17.2	477	8713	8.3	394.3
SMDH 00218	12	13	90	299.8	353	330	310.3	287.3	42.7	12.5	92.9	77	23	30.2	65.7	133.6	15.8	54.8	9.3	1.5	6.6	0.9	5.5	1	2.7		2.4		25.5	2	14.3	387.1	7070.9	4.8	250.4
SMDH 00218	13	14	90	518.3	613.8	577	530.7	493.9	83.1	24.4	151	115.6	36.8	58.7	123.8	241	24.9	79.3	14.1	1.6	9.2	1.4	10	1.9	4.2	0.8	5.4	0.7	34.6	3.5	42.9	663.4	12117.8	17.8	420.5
SMDH 00218	14	15	90	238.7	312.6	277.3	259.3	224	53.3	14.7	87.6	59.6	35.3	38.6	51.4	104	11.8	40.8	8.2	1.2	6.6	0.9	6.1	1.3	2.6	0.6	3.2		18	2.6	25.7	545.1	9956.1	11.1	281.2
SMDH 00218	15	16	90	517.5	598.2	567.5	527	496.3	71.2	21.2	150.7	125.7	30.7	50	116.6	235.5	26.6	88.6	15.9	1.6	11.5	1.5	9	1.7	3.8	0.8	4.4		44.8	3.4	24.3	514	9387.7		422.4
SMDH 00218	16	17	90	490.8	602.9	567.6	494	458.7	108.9	32.1	173.3	120.5	35.3	76.8	105.4	218.2	25.4	81.6	15.3	1.4	11.4	1.8	11.7	2.7	5.9	1.3	7.6	1.1	41.6	3.2	24.3	511.8	9347.5	18.4	429.3
SMDH 00218	17	17.5	60	395.2	482.8	452.1	402.3	371.6	80.5	23.6	133.4	95.7	30.7	56.9	87.3	176.4	20.2	65.3	13.1	1	8.3	1.4	8.8	1.9	4.3	0.9	5.6	0.7	33.9	4.4	27.2	598	10923.6	18.8	418.1
SMDH 00218b	0	1	30	157.5	187.2	170.3	170.5	153.6	16.7	3.9	44.4	38.5	16.9	12.8	34.6	71.9	8.5	27.8	5.7	1.6	3.5		2.2		0.9		0.8		14.2	4.8	11.9	243.8	4452.7	2.8	246.3
SMDH 00218b	1	2	45	74	92.4	80.1	84.3	72	8.1	2	22.8	19.3	12.3	6.1	17.9	31.1	4	14	2.1	1.4	1.5		1.3				0.7		5.6	0.8	11.4	252.6	4613.4	10.3	262.6
SMDH 00218b	2	3	70	43.3	58.5	49.3	51	41.8	7.5	1.5	15.2	9.8	9.2	6	11.1	18.1	1.9	7	1.5	1.3	0.9		0.9				0.6		2.6	0.6	8.6	192.4	3513.9	7	186.1
SMDH 00218b	3	4	50	77.7	96.9	86.2	85.6	74.9	11.3	2.8	23.3	17.1	10.7	8.5	19.6	33.7	4	11.7	2.6	1.7	1.6		1.4		0.6		0.8		3.9	0.7	14.3	222.6	4065.1	5.2	147.2
SMDH 00218b	4	5	65	89.5	110.9	97.1	100.5	86.7	10.4	2.8	27.2	22.6	13.8	7.6	21.5	37.2	4.7	16.3	3.1	1.7	2.2		1.6		0.6		0.6		3.9	0.8	25.7	405.5	7406.8	4	211.7
SMDH 00218b	5	6	65	67.3	79.6	71.9	73.9	66.2	5.7	1.1	18.8	16.2	7.7	4.6	15.6	30.2	3.4	11.7	2.2	1.4	1.7		1.1						5.3		7.2	153.7	2807.7	4.5	212.2
SMDH 00218b	6	7	85	67.9	85.5	76.3	73.9	64.7	11.6	3.2	23.1	16.8	9.2	8.4	16.7	28.1	3.4	11.7	2	1.3	1.5		1.7		0.6		0.9		3.5	0.6	14.3	205.7	3757.9	5.3	284.2
SMDH 00218b	7	8	90	89.4	116.3	99.4	102.9	86	13.4	3.4	28.2	21	16.9	10	21.1	39.7	4.2	15.2	2.4	1.4	2		1.6		0.8		1		6.7	1.1	22.9	473.2	8644.1	14.5	705.7
SMDH 00218b	8	9	85	99.3	119.7	105.9	110.1	96.3	9.6	3	28.4	25.7	13.8	6.6	21.2	44.7	5.3	18.7	2.7	1.4	2.3		1.7		0.6		0.7		7.9	1.1	14.3	421.2	7693.9	9.8	456.6
SMDH 00219	0	1	40	301.1	331.7	317.9	309.5	295.7	22.2	5.4	75.2	70.9	13.8	16.8	65.4	145	14.6	52.6	10.1	2.1	5.9	0.7	3	0.7	1				28.2	4.6	13.6	286.7	5236.4	2.4	341.8
SMDH 00219	1	2	40	385.7	407.7	397	391.4	380.7	16.3	5	81.9	86.6	10.7	11.3	97.6	182.2	18.8	64.2	8.8	2.8	6.3	0.6	3		0.8		0.6		20	0.9	18.6	226.3	4134	3.8	184.9
SMDH 00219	2	3	60	229.3	247.1	237.9	235.4	226.2	11.7	3.1	52.7	54.3	9.2	8.6	53.9	107.2	12.1	39.7	6.7	1.9	4.7		2.5		0.6				19.7	0.8	12.9	164.6	3005.8	2.2	125.5
SMDH 00219	3	4	50	769.9	791.5	782.3	773.3	764.1	18.2	5.8	134.8	156.2	9.2	12.4	211.3	373.4	37	114.3	15.2	3.2	9.7	0.9	4		0.9				25.7	1.1	47.2	196	3579.9	2.6	147.6
SMDH 00219	4	5	50	270.6	289.2	280	276.3	267.1	12.9	3.5	63.5	66.4	9.2	9.4	65.4	124.4	13.9	50.2	7.5	1.6	4.1		2.3		0.6		0.6		21.2	0.9	18.6	162.5	2968.5	2.2	141.3
SMDH 00219	5	6	60	732.6	757.5	748.3	734.4	725.2	23.1	7.4	141.4	158.6	9.2	15.7	186.9	354.9	35.8	117.8	18.4	2.9	8.5	0.9	4.1	0.6	1		0.8		38.8	1.4	40.1	182	3324.4	2.1	126.7
SMDH 00219	6	7	70	216.8	234.8	228.7	218.9	212.8	15.9	4	54.1	52.3	6.1	11.9	49.5	101.2	11.5	38.5	6.1	1.4	4.6		2.3		0.8		0.9		18.4	2.1	12.9	125	2282.3	2.2	106
SMDH 00219	7	7.5	80	227.2	253.2	245.5	226.4	218.7	26.8	8.5	64.3	56.2	7.7	18.3	51.6	102.4	11.8	39.7	6.8	1.6	4.8	0.7	4	0.7	1.4		1.7		19.5	1.2	8.6	119	2173.2	2.4	124.4
SMDH 00219b	0	1	45	257.9	285.9	276.7	260.3	251.1	25.6	6.8	70.8	64.1	9.2	18.8	58.1	118.8	13	47.8	7.9	0.9	4.6		3.3	0.7	1.4		1.4		23.2	2.1	11.4	199	3634.5	6.5	332.3
SMDH 00219b	1	2	45	327	356.7	344.4	332	319.7	24.7	7.3	81.2	78.8	12.3	17.4	76.1	152.1	16.2	58.3	10.4	1.2	5.4	0.7	3.6	0.6	1.1		1.3		26.9	1.9	12.9	253.5	4630.7	6.7	348.1

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00219b	2	3	50	327.2	353.9	337	339.9	323	14	4.2	70.2	76.1	16.9	9.8	77.5	156.1	17.2	56	8.8	1.5	5.9	0.6	2.3		0.6		0.7		30.7	1.9	28.6	428.3	7823	9.6	481.2
SMDH 00219b	3	4	55	176.2	186.3	184.8	174.9	173.4	11.4	2.8	15.7	10.4	1.5	8.6	17.4	144	3.3	5.8	1.6		1.3		1.3		0.7		0.8		1.4	4.1	2.9	445	8127.4	10	
SMDH 00219b	4	5	90	1072.7	1115.9	1094.4	1083.6	1062.1	32.3	10.6	199.5	228.2	21.5	21.7	285.5	513.5	53.6	168	25	3.2	13.3	1.1	5.5	0.7	1.8		1.5		59.9	2.2	65.8	871.7	15921.7	14	569.2
SMDH 00219b	5	6	90	737.9	821.7	769.6	775.2	723.1	46.5	14.8	165.8	169.2	52.1	31.7	186.9	341.7	38.2	123.6	18.8	3.1	10.8	1.3	6.1	1.1	2.6		3	0.7	42.3	3.4	52.9	1205	22010.7	21.6	946.4
SMDH 00219b	6	7	90	572.7	715.8	666.7	577.7	528.6	138.1	44.1	201.1	132	49.1	94	131.8	249.6	27.3	92.1	15.1	2.4	10.3	1.5	11.1	3.2	9.7	1.9	14.1	2.6	34.7	3.2	45.8	1010.1	18450.9	23.9	1015.8
SMDH 00219b	7	8	85	585.8	871.3	800.7	552	481.4	319.3	104.4	330.7	138.6	70.6	214.9	114.8	222.3	25.1	87.5	15.2	2.3	14.2	2.6	23.4	7	24.6	4.7	35.5	6.6	26.5	3.4	44.3	1070.2	19547.6	30.3	1243.8
SMDH 00219b	8	9	85	664.9	800.2	752.7	665.8	618.3	134.4	46.6	210.1	150.8	47.5	87.8	156.6	294.7	31.4	106.1	16	2.9	10.6	1.5	11.8	2.9	10.1	1.9	15.4	3	34.4	1.1	44.3	1229.6	22458.6	22.9	986.4
SMDH 00220	0	1	70	341.2	444.8	389.6	373.3	318.1	71.5	23.1	117.3	84.3	55.2	48.4	74.1	146.3	17.4	58.3	11.2	2	8.8	1.3	7.3	1.8	4.8	0.9	5.9	1.1	22.1	1.5	25.7	1891.6	34550.6	11.2	493.4
SMDH 00220	1	2	45	108.3	218	145.9	165.9	93.8	52.1	14.5	68.6	33.3	72.1	37.6	15	38.8	5.1	21.1	5.8	2.8	5.2	0.9	6.2	1.4	3		3		2.8	2.5	13.6	1030.3	18818.4	0.7	331.5
SMDH 00220	2	3	90	96.9	242.8	133.9	192	83.1	50.8	13.8	64.3	30.1	108.9	37	13.5	33.8	4.5	18.9	5.6	1.7	5.1	0.8	5.9	1.4	2.9		2.8		2.5	2.7	11.7	1005.1	18359	1.2	402.3
SMDH 00220b	0	1	50	521.4	593.7	561.5	534.8	502.6	58.9	18.8	137.1	122.1	32.2	40.1	121.5	241.6	26.6	87.5	14.6	1.5	9.3	1.3	6.7	1.5	3.7	0.6	4.4	0.6	46.2	2.7	18.6	1066.6	19481.5	15.1	689.9
SMDH 00220b	1	2	55	345.4	388.5	368.6	355	335.1	33.5	10.3	88.8	82.4	19.9	23.2	81.3	158.7	18	59.5	10.1	1.2	6.3	0.7	4.2	0.9	1.9		2.6		30.6	2.1	21.5	718.4	13122.6	10.8	506.4
SMDH 00220b	2	3	70	435.7	496.8	472.3	444.8	420.3	52	15.4	125.1	110	24.5	36.6	98.5	195.2	23	79.3	14.3	1.5	8.5	1.2	6.5	1.1	3.3		3.3		39.1	3.7	25.7	696.1	12715	11.6	517.4
SMDH 00220b	3	4	85	439.9	487.8	466.3	450.3	428.8	37.5	11.1	108	103	21.5	26.4	100.6	207.7	23	73.5	13.5	1.6	8.9	1.2	5.3	0.9	1.9		1.8		39.4	3.4	24.3	678.5	12393.4	12.5	520.7
SMDH 00220b	4	5	85	427.4	507.3	479.7	432.2	404.6	75.1	22.8	135.3	102.8	27.6	52.3	93	192.6	21.4	72.3	13.9	1.6	9.8	1.3	7.8	1.8	4.8	0.8	5.7	0.6	36.2	3.4	24.3	751	13716.9	10.4	472.4
SMDH 00220b	5	6	70	496.5	578.1	544.4	508.2	474.5	69.9	22	146.4	122.2	33.7	47.9	109.4	224.7	25.7	86.3	16.1	2	10.3	1.6	8.6	1.8	4.1	0.6	4.7	0.6	45.7	4.1	30	668.6	12212.6	15.6	686.3
SMDH 00220b	6	7	75	350.8	412.1	384.5	362.6	335	49.5	15.8	102.4	85.3	27.6	33.7	78	158.6	18	61.8	11.1	1.4	6.1	0.8	4.7	1.3	3.4	0.6	4.4	0.6	31.2	2.1	24.3	747.2	13648	12.4	522.6
SMDH 00220b	7	8	75	441.6	501.8	477.3	450.3	425.8	51.5	15.8	119.4	104.5	24.5	35.7	99.9	203.8	22.5	74.6	14.3	1.7	9	1.1	6.3	1	3.2	0.6	3.6		39	2.2	21.5	684.8	12508.3	10.3	490.2
SMDH 00220b	8	9	70	448.3	516.7	484.5	463.9	431.7	52.8	16.6	121	105.2	32.2	36.2	104	207.5	22.5	74.6	12.6	2.1	8.4	1.2	6.9	1.3	2.6	0.6	3.4	0.6	37.1	2.2	67.2	784.6	14331.2	9.3	437
SMDH 00221	0	1	35	577	624.5	607.6	580.1	563.2	44.4	13.8	145.2	143.1	16.9	30.6	132.1	267.3	30.1	105	16	1.6	11.1	1.2	6.8	1.1	2.2		2.5		57.4	3.1	15.7	446.1	8147.5	17.2	809.4
SMDH 00221	1	2	50	638	703.3	675.7	648.6	621	54.7	17	171.4	165.2	27.6	37.7	140.6	289.2	33.6	122.5	20.4	2.1	12.6	1.5	7.6	1.3	3	0.6	3		61.3	3.7	22.9	756.8	13823.1	22.5	998.2
SMDH 00221	2	3	90	222.1	299.8	246.1	265.5	211.8	34.3	10.3	70.8	55.3	53.7	24	49.7	97.3	10.8	38.5	7.3	2.3	5.9	0.8	5.2	0.8	1.5		2		10.2	1.1	54.4	1478.2	27000.3	23.3	1097.5
SMDH 00221	3	4	90	319	401.7	337.3	375.9	311.5	25.8	7.5	77.1	70.9	64.4	18.3	79.9	149.3	15	51.3	7.8	2.9	5.3	0.7	3.9	0.6	1		1.3		14.1	0.7	61.5	1933.1	35308.5	15.7	732
SMDH 00221	4	5	90	207	282	228.3	251.9	198.2	30.1	8.8	63.1	49.3	53.7	21.3	52.5	89.1	10	33.8	5.5	2.5	4.8	0.8	4.7	0.7	1.3		1.3		6.4	0.6	60.1	1683	30741	21.1	950.8
SMDH 00221	5	6	85	200.1	292.9	231.5	249.5	188.1	43.4	12	74.5	50	61.4	31.4	44.7	84	9.7	32.7	7.5	2.8	6.7	1.2	6.4	1	1.8		1.6		2.3	0.7	70.1	1837.7	33565.9	20.8	941.4
SMDH 00221	6	7	95	222	331.1	272.8	259.2	200.9	71.9	21.1	102.2	58.9	58.3	50.8	43.9	89.4	10	39.7	8.7	2.5	6.7	1.2	8	1.6	4.1	0.8	4.7	0.7	6.7	1.3	57.2	1518.8	27741	19	902.7
SMDH 00221	7	8	35	491.8	562.3	528.6	510.8	477.1	51.5	14.7	130.9	117.7	33.7	36.8	113.9	224.4	26	82.8	16.4	2.4	11.2	1.4	7.5	1.3	2.6		1.9		31.1	1.5	37.2	831.8	15192.5	15.2	731.2
SMDH 00221	8	9	80	430.1	494.4	462.2	448.1	415.9	46.3	14.2	120.7	109.1	32.2	32.1	94.8	193.7	22.6	78.1	15	2.1	9.6	1.3	7.1	1.3	2.3		2.2		28.1	1.9	30	923.7	16871.9	11.7	564.1
SMDH 00017	0	1	40	345.9	382	366.7	353.3	338	28.7	7.9	85.3	79.7	15.3	20.8	82.6	159.9	18.2	57.2	10.6	3	6.5	0.7	3.6	0.6	1.5		1.5		21.4	1.1	15.7	336	6137.9	2.2	141.3
SMDH 00017	1	2	48	125.5	142.9	132.2	134.9	124.2	8	1.3	31.1	28.8	10.7	6.7	31	57.9	6.5	21	3.6	2.1	2.1		1.3						8.9		14.3	378.5	6913	2.2	143.9
SMDH 00017	2	3	40	222.4	234.8	228.7	226.2	220.1	8.6	2.3	48.9	51.3	6.1	6.3	53.5	104	11.2	38.5	7.1	2.5	3.3		1.6		0.7				20.3	0.6	11.4	197.1	3600	1.5	92.7
SMDH 00017	3	4	70	272.3	291.6	280.9	279.6	268.9	12	3.4	60.7	64.9	10.7	8.6	64.2	126.8	15	47.8	8.2	2.2	4.7		2.1		0.7		0.6		24.8	0.9	11.4	313.1	5718.7	3.2	164.8
SMDH 00017	4	5	65	428.6	467.9	452.6	433.2	417.9	34.7	10.7	108	103.8	15.3	24	99.3	197.3	22.5	75.8	12.8	2.7	7.5	0.8	4.7	0.8	1.9		2.5		36.6	1.7	17.2	484.9	8856.5	7.5	387.7
SMDH 00017	5	6	90	316.4	344.6	327.7	327.9	311	16.7	5.4	70.3	73.3	16.9	11.3	64.6	161	15.9	53.7	8.2	1.6	6	0.6	3.1		1		0.7		24.6	1.1	17.2	586.6	10714	8.4	376.9
SMDH 00017	6	7	75	377.5	439.6	415.1	383.5	359	56.1	18.5	112.2	90.7	24.5	37.6	72.4	183.6	18.1	64.2	10.6	2	8.1	1.1	7.3	1.5	3.9	0.6	3.5	0.6	27.5	1.7	22.9	579.5	10584.8	7.9	346.6
SMDH 00017	7	8	95	337.3	398.8	372.7	347.1	321	51.7	16.3	102.5	81.5	26.1	35.4	63.9	162.4	16.4	57.2	10.9	2	8.2	1.1	6.8	1.3	3.2	0.6	3.3		23.9	1.5	42.9	707.6	12924.5	9.7	429.4
SMDH 00017	8	9	80	310.3	355.7	335.8	317.6	297.7	38.1	12.6	89	77.5	19.9	25.5	59.2	149	15.6	54.8	9.7	1.6	7.8	0.9	6.2	1	2.1		2.4		21.8	1.5	22.9	578.1	10559	7.4	374.7
SMDH 00017	9	10	60	535.8	598.9	572.8	543.9	517.8	55	18	133.6	119.6	26.1	37	111.7	268.5	25.5	85.1	13.8	2.5	10.7	1.5	7.5	1.4	3.7	0.6	3.3		24	1.5	38.6	793.4	14492	8.3	385.7
SMDH 00016b	0	1	35	348.9	398.8	380.4	353.2	334.8	45.6	14.1	99	82.5	18.4	31.5	63.9	174.4	16.6	58.3	11	1.6	9	1.2	6.4	1.1	2.9		2.5		24.5	1.5	17.2	571.2	10432.6	6.5	336.1
SMDH 00016b	1	2	40	265.5	297.4	282.1	273.2	257.9	24.2	7.6	69.9	65.1	15.3	16.6	54.3	126.6	13.7	46.7	8.6	1.9	6.1	0.8	3.9	0.6	1.3		1		17.9	0.8	14.3	701.9	12821.2	5.8	307.8
SMDH 00016b	2	3	75	407	432	415.1	420.1	403.2	11.9	3.8	81.8	92	16.9	8.1	83.9	210.9	20.2	68.8	10.6	1.9	6.9	0.6	2.4		0.8				32.8	0.9	14.3	502.2	9172.3	4.8	243.5
SMDH 00016b	3	4	85	430.4	453	439.2	440.8	427	12.2	3.4	89.5	101.1	13.8	8.8	101.8	205.1	22.6	75.8	12.2	2.2	7.3	0.6	2.1		0.7				40.1	1.4	15.7	467.4	8537.9	5.9	282.2
SMDH 00016b	4	5	65	289.3	308.4	297.7	297.7	287	10.7	2.3	63.8	68.8	10.7	8.4	69.7	135.1	15.8	51.3	8.2	2.4	4.5		1.7				0.6		25.7	0.7	12.9	271.1	4952.2	1.7	103.5
SMDH 00016b	5	6	60	382.4	431.9	407.4	396.8	372.3	35.1	10.1	99	91.9	24.5	25	86.9	177.3	19.9	66.5	11.9	2	7.8	1.1	4.4	0.8	2.1		1.7		32.4	1.9	24.3	598.8	10937.9	8.1	362.6
SMDH 00016b	6	7	90	520	568.3	545.3	531.8	508.8	36.5	11.2	127.8	129	23	25.3	117.4	240.6	28.2	94.5	16.1	1.7	10.3	1.1	5.2	0.8	2.1		2		48.9	2.6	20	753.8	13768.6	10.5	421.6
SMDH 00016b	7	8	90	562.5	616	589.9	576.2	550.1	39.8	12.4	137.3	138.1	26.1	27.4	127.4	259.9	30.1	101.5	17.9	1.9	11.4	1.1	5.4	0.9	2.3		2.7		52.9	2.9	22.9	612.7	11190.5	11.7	525.7
SMDH 00016b	8	9	98	479	523.6	502.1	490.1	468.6	33.5	10.4	117.8	118.4	21.5	23.1	109	221.7	25.1	87.5	14.8	1.4	9.1	0.9	4.9	0.8	1.9		1.9		45.5	2.6	21.5	618.3	11293.9	10.5	462
SMDH 00016b	9	10	75	213.8	271.5	250	221.5	200	50	13.8	80.9	54.5	21.5	36.2	44.6	93.4	11.2	36.2	7	1.4	6.2	0.9	6.2	1.1	2.9		2.7		12.5	1.2	27.2	529.7	9674.7	7.9	358.4
SMDH 00016b	10	11	90	259	326.6	294.4	277	244.8	49.6	14.2	96	72.4	32.2	35.4	55.7	107	13.5	51.3	8.5	1.7	7.1	1.1	6.5	1.3	2.6		2.7		18.5	1.1	37.2	643.2	11747.5	7.5	444.4
SMDH 00016b	11	12	85	283.8	331.4	308.4	296.8	273.8	34.6	10	86.7	75.9	23	24.6	62.2	123.3	15.5	54.8	10.3	1.7	6	0.8	4.8	0.9	1.8		1.7		25.1	1.3	22.9	578.1	10559	6	369.2
SMDH 00016b	12	13	85	294.9	342.7	316.6	311.9	285.8	30.8	9.1	84.2	76.7	26.1	21.7	67.1	130.3	15.6	56	9.5	1.4	5.9	0.7	4.4	0.7	1.6		1.7		28.8	1.4	27.2	529.2	9666.1	8.1	445.8
SMDH 00016	0	1	5	473.2	503.5	488.2	482	466.7	21.5	6.5	99.5	105.6	15.3	15	118.1	227.4	22.4	79.3	11.4	1.3	6.8	0.7	3.2	0.6	0.9		1.1		32.3	2	42.9	277.9	5075.6	5	302.7
SMDH 00016	1	2	50	371.5	417.8	399.4	379.6	361.2	38.2	10.3	81.4	67.1	18.4	27.9	152.6	132.9	15.1	46.7	7.3	1.5	5.1	1.2	4.1	0.9	2.1		2		23.8	2.9	32.9	376.9	6884.3	7.2	427.5
SMDH 00016	2	3	40	192.9	231.5	217.7	198.6	184.8	32.9	8.1	66.9	51	13.8	24.8	47.9	77.1	10.3	36.2	7.2	1.4	4.7	0.7	3.8	0.7	1.5		1.4		14.9	2.7	37.2	530.8	9694.8	9.3	493.7
SMDH 00016	3	4	70	190.7	219.4	208.7	194.5	183.8	24.9	6.9	56.6	47.5	10.7	18	43.9	84.4	9.8	33.8	6.7	0.9	4.3	0.7	3.2	0.6	1.1		1.3		15.7	4	40.1	371.1	6778.1	7.9	431.4
SMDH 00016	4	5	55	359.3	487	447.1	362.5	322.6	124.5	36.7	160.2	88.2	39.9	87.8	75.8	152.8	17.3	57.2	10.2	1.5	7.8	1.5	12.2	3	8.2	1.5	9.3	1	25.1	3.9	35.8	763.4	13943.7	16.3	632.7
SMDH 00016	5	6	90	783.8	921.3	867.6	798.2	744.5	123.1	39.3	236.6	187.4	53.7	83.8	182.8	354.3	38.1	134.1	19.4	3.5	12.3	1.8	13.4	2.9	8.5	1.5	9.9	1.3	43.7	1.5	47.2	1371.5	25051	23.7	946.6
SMDH 00016	6	7	80	507	658	605.9	513.8	461.7	144.2	45.3	201	123.6	52.1	98.9	110.6	218.7	24.2	82.8	12.8	2.7	9.9	1.8	14.8	3.4	10.5	1.8	11.5	1.5	26.4	1.4	40.1	1049.8	19174.4	20.8	859.2
SMDH 00016	7	8	55	560.1	680.6	625.4	588.2	533	92.4	27.1	170.4	129.3	55.2	65.3	133.5	254.4	27.3	91	13.9	3.1	9.8	1.5	9.5	2.2	6.1	1	5.9	0.9	24.5	1.3	67.2	1209.1	22085.4	23.9	1000.5
SMDH 00016	8	9	65	384.1	529.4	484.9	387	342.5	142.4	41.6	179.8	93.3	44.5	100.8	82.4	163.5	16.6	60.7	8.8	2.3	8.2	1.5	14.5	3.3	9.4	1.5	10	1.4	17.4	1.5	34.3	938.6	17144.7	22.1	887.7
SMDH 00015b	0	1	40	636.3	709.7	680.6	646.1	617	63.6	19.3	160.1	144.1	29.1	44.3	159.4	293.2	31.3	103.8	16.4	3	9.9	1.3	7.7	1.5	4.1	0.7	4		33.1	2.1	47.2	735.1	13426.9	10.6	442.7
SMDH 00015b	1	2	30	415.7	455.2	436.8	424.4	406	30.8	9.7	101.3	100.1	18.4	21.1	86.3	204.2	21.3	73.5	11.8	1.4	7.5	0.9	4.4	0.7	1.7		2		47.1	2	21.5	431.8	7886.2	5.7	238.6
SMDH 00015b	2	3	70	364.5	416	394.5	374.1	352.6	41.9	11.9	105.5	91.7	21.5	30	80.3	166	18.2	67.7	11.7	2	6.7	0.8	5	1	2.5		2.6		31.3	1.9	27.2	451.6	8247.9	7.9	337.3
SMDH 00015b	3	4	65	238	263	247.7	249.9	234.6	13.1	3.4	58.3	60.6	15.3	9.7	52.5	109.6	13.4	45.5	7	1.4	5.2		1.7		0.8		0.9		21.2	0.9	22.9	708.7	12944.6	8.4	374.4
SMDH 00015b	4	5	45	287.7	311.5	297.7	297.6	283.8	13.9	3.9	70.8	75.5	13.8	10	60.8	132.9	16.4	56	8.9	1.7	7.1	0.7	2.4		0.8				25.6	1.3	17.2	827.2	15109.2	6.7	305.6
SMDH 00015b	5	6	85	271.4	322.2	299.2	283.2	260.2	39	11.2	88.2	73.8	23	27.8	54.8	119.2	14.7	53.7	9.4	1.3	7.1	0.8	4.6	0.9	2.5		2.4		24.2	1.9	21.5	533.6	9746.5	7	299.3
SMDH 00015b	6	7	75	376.6	444.8	420.3	381.4	356.9	63.4	19.7	126.5	101.2	24.5	43.7	75.5	163.3	19.7	72.3	14.1	1.3	10.7	1.5	7.7	1.4	4.1	0.6	3.8	0.6	34	3.1	34.3	577	10538.9	11	448.7
SMDH 00015b	7	8	70	353.4	436.9	410.8	355.6	329.5	81.3	23.9	132.9	92	26.1	57.4	70.7	152.8	17.9	64.2	12.8	1.4	9.7	1.4	8.5	1.8	5.6	0.9	5	0.7	32.2	2.7	28.6	506.9	9258.5	9.3	418.2
SMDH 00015b	8	9	70	309.9	379.8	352.2	318.2	290.6	61.6	19.3	109.9	82.9	27.6	42.3	61.9	133.8	16.3	58.3	10.7	1	8.6	1.2	7.1	1.5	4.3	0.7	3.9	0.6	27.5	1.7	22.9	345.2	6304.4	9	397.8
SMDH 00015b	9	10	90	346	407.6	384.6	350.8	327.8	56.8	18.2	117.3	95.9	23	38.6	68.5	148.9	18.5	68.8	12.5	1.3	9.3	1.3	7.3	1.4	4	0.7	3.5		32.7	1.9	22.9	530.3	9686.2	9.6	369.4
SMDH 00015b	10	11	80	282.3	338	311.9	294.8	268.7	43.2	13.6	88.4	72.5	26.1	29.6	60.3	125.3	14.9	51.3	9	1.2	6.7	0.9	5.4	1	3		3.3		21.2	1.7	21.5	705.4	12884.3	7.8	333.9

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00015b	11	12	95	403	463.6	434.5	418.3	389.2	45.3	13.8	116.8	104.9	29.1	31.5	85.4	180.9	21.3	77	13.7	1.7	9.2	1.2	5.4	1.1	3		3.1		30.7	1.5	24.3	668.5	12209.7	5.2	274.2
SMDH 00015b	12	13	60	314.8	349	327.5	331.1	309.6	17.9	5.2	79.3	82.6	21.5	12.7	68.1	144.5	17.5	61.8	9.6	1.5	6.6	0.7	2.6		1.1		0.8		28.4	1.4	22.9	539.7	9858.5	10.3	473.6
SMDH 00015b	13	14	50	251.7	275.7	257.3	267.9	249.5	7.8	2.2	58.8	65.6	18.4	5.6	56.4	116.5	13.8	50.2	6.4	1.4	4.8		1.6		0.6				20.3	0.7	21.5	340	6209.6	11.1	512
SMDH 00015b	14	15	55	148.6	168.3	153	162.9	147.6	5.4	1	34.6	37.7	15.3	4.4	33.8	68.7	8.7	28	4.1	1.2	3.1		1						12.7	0.6	15.7	516.6	9436.5	10.5	514.8
SMDH 00015	0	1	25	357.8	404	384.1	367.7	347.8	36.3	10	96.5	88	19.9	26.3	75.6	169.2	19.1	63.7	11.4	1.3	7.5	0.8	4.4	0.9	1.9		2		32.1	4	10.7	239.2	4369.4	2.1	594.6
SMDH 00015	1	2	65	709	772.7	748.2	713.5	689	59.2	20	168.6	163.2	24.5	39.2	175.5	327.2	36.5	117.8	17.3	2.7	12	1.4	7.5	1.5	4	0.7	4.2	0.7	30.3	2.5	50.1	254.1	4642.2	5.9	276.9
SMDH 00015	2	3	75	427.1	488.9	462.8	435.1	409	53.8	18.1	118.5	102.3	26.1	35.7	99.1	191.8	21.6	73.5	11.8	2.1	9.1	1.3	5.9	1.4	4	0.7	4.1	0.7	24.4	2	28.6	269.1	4914.9	6.3	316.8
SMDH 00015	3	4	50	258.4	291.1	277.3	263.6	249.8	27.5	8.6	76	68.2	13.8	18.9	54.5	113.6	13.4	50.2	9.2	2.3	6.6	0.8	3.8	0.6	1.7		1.7		21.8	1.4	14.3	67.7	1237.3	4.6	246.8
SMDH 00015	4	5	65	324.3	402.6	378.1	326.7	302.2	75.9	22.1	121.5	83.4	24.5	53.8	65.7	141.5	16.6	56	11.1	0.9	10.4	1.5	9.3	1.8	4.3	0.7	3.9	0.6	25.1	3.2	27.2	724.6	13234.6	7.9	339.6
SMDH 00015	5	6	90	226.7	268.1	251.2	233.1	216.2	35	10.5	72.5	59.3	16.9	24.5	47.6	99.7	12.1	42	7.5	0.8	6.5	0.8	4.4	0.9	2.5		1.9		19.3	2.2	22.9	571	10429.8	6.1	232.7
SMDH 00015	6	7	45	328	383.4	361.9	334.5	313	48.9	15	104	86.6	21.5	33.9	68.3	145.8	17.4	61.8	10.4	0.9	8.4	1.2	6.2	1.3	3.2		3.1		28.7	2.6	22.9	592.5	10823.1	8.4	337.6
SMDH 00015	7	8	75	131.6	156.5	147.3	135	125.8	21.5	5.8	43	34.3	9.2	15.7	27.4	58	7	24.5	5		3.9		2.8	0.6	1.4		1		11	0.9	10	475.3	8681.4	4.1	188.4
SMDH 00015	8	9	45	101.8	124	116.3	104.3	96.6	19.7	5.2	36.7	27.4	7.7	14.5	21.3	43.6	5.2	19.8	3.8		2.9		2.4		1.7		1.1		7.2	0.8	10	236.1	4312	4	194.4
SMDH 00015	9	10	50	222.3	273.6	259.8	222.7	208.9	50.9	13.4	83.2	56	13.8	37.5	49	96.4	11.2	38.5	7.1	0.9	5.8	0.9	5.4	1.3	3.3		2.5		15.9	1.9	20	186.6	3407.7	6.6	292.6
SMDH 00015	10	11	60	236.8	282	271.3	235.2	224.5	46.8	12.3	84.4	60.7	10.7	34.5	51.1	103.3	12.2	42	7.9	1.4	6.6	0.9	5.6	1.1	2.7		2		19.6	2.9	22.9	349.9	6390.5	6.8	307
SMDH 00015	11	12	90	242.6	283.9	271.6	243.4	231.1	40.5	11.5	79	61.3	12.3	29	52.8	107.7	12.3	43.2	7.9	1	6.2	0.9	4.9	1	2.5		2.2		20.5	2.6	21.5	183.3	3347.4	8.1	344
SMDH 00015	12	13	60	282.5	353.9	330.9	284.5	261.5	69.4	21	107.3	71.8	23	48.4	57.7	121.9	13.9	49	10	1	8	1.2	7.7	1.5	4.6	0.7	4.6	0.7	24.2	2.8	18.6	500.1	9135	5.4	279.1
SMDH 00014b	0	1	50	284.4	315.7	303.4	288.1	275.8	27.6	8.6	81.8	77.1	12.3	19	60.6	125.3	15.2	57.2	9.3	0.9	7.3	0.8	3.9	0.6	1.8		1.5		31.5	2.1	11.4	448.9	8199.1	6.6	333.6
SMDH 00014b	1	2	50	317.8	349.7	334.4	325.5	310.2	24.2	7.6	80.4	78.4	15.3	16.6	73.4	143.1	16.6	57.2	11	2	6.9	0.8	3.8	0.6	1.3		1.1		24.6	2.1	31.5	1830.3	33431	6.5	291
SMDH 00014b	2	3	65	286.7	307.3	298.1	291.1	281.9	16.2	4.8	71.4	73.1	9.2	11.4	63.8	130.7	15	54.8	9.7	1.9	6	0.7	2.6		0.9		0.6		25.6	1.7	10	448.9	8199.1	3.4	159.4
SMDH 00014b	3	4	80	159.7	171.2	166.6	162	157.4	9.2	2.3	40.1	40.8	4.6	6.9	36.1	73.1	8.8	30.3	4.3	1.2	3.6		1.7		0.6				13.1	0.8	5.7	788.8	14408.8	1.4	79
SMDH 00014b	4	5	60	311.6	327.9	321.8	314.1	308	13.8	3.6	76.2	82.6	6.1	10.2	69.4	140.3	17.9	61.8	9.7	1.3	7.6	0.6	2.3		0.7				28.2	1.4	7.2	972.1	17756.2	3.1	121.8
SMDH 00014b	5	6	95	414.4	434.5	426.8	416.3	408.6	18.2	5.8	99.7	108.8	7.7	12.4	89.7	188.4	23	81.6	14.8	1.5	9.6	0.9	3.3	0.6	1				41.9	2.1	8.6	265.8	4854.6	5.9	225.6
SMDH 00014b	6	7	80	813.2	846.7	834.4	813.2	800.9	33.5	12.3	193.6	216	12.3	21.2	175.7	370.5	46	161	26.1	2.4	19.2	2	7	0.9	1.7		0.7		81.7	3.2	15.7	10687.4	195211.5	6.3	248.7
SMDH 00014b	7	8	70	710	744.4	733.7	709.3	698.6	35.1	11.4	173	186.4	10.7	23.7	152.1	323.9	39.4	138.8	24.7	2.3	17.4	1.9	6.3	0.8	1.5		0.9		71.2	3.3	11.4	231	4220.1	9.2	372.6
SMDH 00014b	8	9	75	439.5	462.7	455	439.4	431.7	23.3	7.8	107.3	113.9	7.7	15.5	94.9	202.2	23.8	85.1	13.7	1.7	10.3	1.1	3.9	0.6	1.4		0.8		39.9	1.7	10	371.4	6783.8	4.1	169.9
SMDH 00014b	9	10	60	379.3	398.9	391.2	381.4	373.7	17.5	5.6	89.4	96.2	7.7	11.9	84.1	174.8	20.9	71.2	11.7	2.2	8.8	0.8	3.3		0.9		0.6		32.5	1.8	8.6	231	4220.1	3.9	165.1
SMDH 00014b	10	11	60	396.2	416.9	409.2	397.9	390.2	19	6	96.1	102.7	7.7	13	86.7	181.9	21.5	77	12.3	1.9	8.9	0.9	3.3		1.1		0.7		35.6	2.2	8.6	5	91.9	3.8	147.6
SMDH 00014bt	0	1	60	344.7	374.4	360.6	351.1	337.3	23.3	7.4	86.8	88.3	13.8	15.9	72.1	160.8	18.6	65.3	11.6	1.2	7.7	0.8	3.6	0.6	1.4		1		31.5	2	10	89.1	1627.8	7.8	326.9
SMDH 00014bt	1	2	50	374.9	396.2	388.5	377	369.3	19.2	5.6	91.9	96.8	7.7	13.6	83.4	171.1	20.5	72.3	11.5	2	8.5	0.8	3.2		1		0.6		31.5	1.4	8.6	71	1297.6	3.3	155.7
SMDH 00014bt	2	3	50	367.6	386.8	377.6	372.6	363.4	14.2	4.2	82.1	89.7	9.2	10	87	171.6	19.8	66.5	9.4	2.2	6.9	0.8	2.6		0.8				27.4	1.5	27.2	79.2	1446.9	2.9	121.4
SMDH 00014bt	3	4	70	475.9	494.7	488.6	474.1	468	20.6	7.9	101.6	106.3	6.1	12.7	102.6	236.3	20.5	80.5	14.6	3.1	10.4	1.2	4.1	0.6	1.4		0.6		43.7	2.1	11.4	280.6	5124.5	3.2	174.7
SMDH 00014bt	4	5	40	546.1	569.8	562.1	546.4	538.7	23.4	7.4	125.5	132.5	7.7	16	122.1	257	25.7	101.5	18.3	2.7	11.4	1.3	4	0.6	0.9		0.6		44.4	2.6	11.4	224.8	4105.3	4.6	219.6
SMDH 00014bt	5	6	80	509.6	532.8	525.1	510.6	502.9	22.2	6.7	109.2	115.5	7.7	15.5	117.2	245.9	24.2	86.3	16.2	2.4	10.7	1.1	3.9	0.6	1.1				38.3	2.4	12.9	207.5	3789.5	3.9	174.1
SMDH 00014bt	6	7	65	553	575.5	569.4	551.1	545	24.4	8	121.7	128.1	6.1	16.4	126.2	263.4	25.6	96.8	17.9	2.8	12.3	1.2	4.5	0.6	1.1		0.6		43.6	2	10	181.5	3315.8	2.5	117.8
SMDH 00014bt	7	8	80	562.7	589.7	580.5	563.6	554.4	26.1	8.3	130.1	136.4	9.2	17.8	127.1	264.2	26.8	103.8	18.3	2.7	11.5	1.3	4.5	0.6	1.3		0.6		43	3.3	12.9	283.5	5179	3.9	173.8
SMDH 00014bt	8	9	80	536.2	562.8	553.6	537	527.8	25.8	8.4	120	125.2	9.2	17.4	120.2	257.2	24.9	94.5	17.4	2.3	11.3	1.2	4.6	0.6	1.1		0.9		47.2	5	111.6	281.8	5147.4	4	194.4
SMDH 00014bt	9	10	70	374.6	404.2	391.9	379.9	367.6	24.3	7	94.6	85.2	12.3	17.3	86.4	182.5	10.4	71.2	6.3	2.5	8.3		3.6	0.6	1.5		1.3		28.9	3.4	47.2	294.1	5371.3	4.5	197.9
SMDH 00014bt	10	11	85	189.6	206.2	198.5	194.2	186.5	12	3.1	45.8	44.8	7.7	8.9	44.3	86.2	10.4	32.7	6.3	2.5	4.1		1.7		0.7		0.7		16.6	1.7	64.4	311.2	5684.3	3.2	154.4
SMDH 00014	0	1	35	413.8	462.2	440.7	422.6	401.1	39.6	12.7	108.1	101.2	21.5	26.9	94.1	187.6	21.9	73.5	14.3	1.9	7.8	0.8	5	0.9	2.6		2.8	0.6	31.6	2.8	40.1	297.4	5431.6	11.1	443.6
SMDH 00014	1	2	80	295.2	325.8	307.4	308.4	290	17.4	5.2	70	72.5	18.4	12.2	67.2	136.6	16.1	53.1	9.5	1.4	6.1	0.7	2.6		1.1		0.8		25.5	2.6	25.2	495.7	9054.6	1.4	360.8
SMDH 00014	2	3	80	1616.4	1665.9	1642.9	1626.1	1603.1	39.8	13.3	271.9	317.8	23	26.5	461.3	774.9	79.1	230.9	33.9	6.7	16.3	1.4	6.4	1	2.3		2.2		29.5	1.5	42.9	762.4	13926.5	7.3	308.4
SMDH 00014	3	4	85	237.1	260.4	246.6	246.7	232.9	13.7	4.2	57.2	59.7	13.8	9.5	53.5	108.7	13	44.3	7.3	1	5.1		2.4		0.8		1		19.1	2	24.3	414.3	7567.5	13.8	534.4
SMDH 00014	4	5	80	312.2	339.8	324.5	321.8	306.5	18	5.7	72.6	74.4	15.3	12.3	72.4	145.6	15.7	54.8	10.1	1.6	6.3	0.7	3.2		1		0.8		25	2	32.9	802.2	14652.8	11.7	459.1
SMDH 00014	5	6	95	408.2	446	427.6	417.7	399.3	28.3	8.9	98.9	99.9	18.4	19.4	91.2	188.4	22.1	72.3	15	1.7	8.6	0.9	4.6	0.7	1.6		1.1		34.8	2.7	28.6	900.8	16452.8	12.4	489.1
SMDH 00014	6	7	90	327.1	370.5	352.1	334.8	316.4	35.7	10.7	90.3	81.1	18.4	25	72.5	148.4	17.4	58.3	11.2	1.6	7	0.9	4.5	0.8	2.3		2.2		27	2	24.3	584.4	10673.8	10	464
SMDH 00014	7	8	95	346.4	405.7	381.2	355.3	330.8	50.4	15.6	100.4	81.3	24.5	34.8	77.6	158.7	17.6	57.2	10.2	1.9	7.6	0.9	5.6	1.1	3.2	0.6	3.6	0.6	23.4	1.8	75.8	506.6	9252.7	9.3	434.8
SMDH 00014	8	9	95	376.9	457.5	420.7	393.8	357	63.7	19.9	116.8	90.5	36.8	43.8	84.4	167.3	19.6	63	11.4	2.1	9.2	1.1	6.8	1.4	4.2	0.7	5	0.7	27.1	2.6	42.9	1526.6	27884.5	11.4	521.5
SMDH 00013b	0	1	50	456.7	505.5	484	466.2	444.7	39.3	12	117.6	112.6	21.5	27.3	99.7	213	24	81.6	14.6	1.7	10.1	1.1	5.9	0.9	2.1		2		39.5	3.1	25.7	416.7	7610.6	11.7	491.2
SMDH 00013b	1	2	65	433.3	479.3	453.2	450.5	424.4	28.8	8.9	106.1	107.5	26.1	19.9	97.7	199.7	23	79.3	14.6	1.7	8.4	1.1	4.1	0.7	1.5		1.5		35.6	3.7	12.9	854.1	15600.2	12.3	582.1
SMDH 00013b	2	3	70	234.3	265.3	253	238.6	226.3	26.7	8	66	58.5	12.3	18.7	54.7	104.7	12.1	42	7.4	0.9	4.5	0.6	3.8	0.6	1.5		1.5		19.2	1.9	15.7	755.5	13800.1	8.1	334.2
SMDH 00013b	3	4	90	177.6	205.6	191.8	186.4	172.6	19.2	5	46.9	41.1	13.8	14.2	40.3	83.3	9.4	29.2	5.6	1	3.8		2.5		1.1		1.4		13.9	1.4	18.6	409.7	7484.3	9.6	415.4
SMDH 00013b	4	5	85	415.1	445.3	428.4	427.5	410.6	17.8	4.5	80	84.1	16.9	13.3	112.8	200.5	19.9	61.8	8.1	2.5	5		2.4		1.1		1		13.7	1.4	57.2	867.9	15852.8	17.7	773.5
SMDH 00013b	5	6	95	131.4	165.4	148.5	141.6	124.7	23.8	6.7	45	32.5	16.9	17.1	28.4	57.4	6.2	23.3	4.8	1.6	3		3	0.7	1.5		1.5		8.2	1.1	32.9	681.3	12445.1	12.6	548
SMDH 00013b	6	7	70	233.3	286	261.5	246.2	221.7	39.8	11.6	77.1	58.7	24.5	28.2	49	104.9	11.5	40.8	7.9	1.7	5.9	0.8	5.6	1	2.4		1.8		18.9	1.5	74.4	665.6	12158	9	387.7
SMDH 00013b	7	8	98	100.9	132	115.1	113.1	96.2	18.9	4.7	34.5	23.7	16.9	14.2	22.5	43.6	5.3	16.3	3.7	1.9	2.9		2.1		1.3		1.3		6.1	1.1	32.9	243.8	4452.7	13.9	641
SMDH 00013b	8	9	85	219.5	300.6	269.9	226.9	196.2	73.7	23.3	96.1	53.9	30.7	50.4	45	89.3	10.3	35	8	2.1	6.5	1.1	7.5	1.7	4.9	1	6.3	0.8	11.7	1.7	50.1	748.6	13673.8	10.4	472.2
SMDH 00013b	9	10	85	207.4	292.3	258.6	218.4	184.7	73.9	22.7	94.2	50.9	33.7	51.2	42.2	85.9	9.5	32.7	7.2	1.6	5.6	1.1	7.6	1.7	4.8	1	5.7	0.8	11.2	1.8	38.6	781.5	14273.8	4.7	221.4
SMDH 00013b	10	11	95	302.3	382	354.4	306.7	279.1	75.3	23.2	118	77.7	27.6	52.1	64.3	125.9	13.9	53.7	10.3	2.1	8.9	1.3	8.8	1.7	4.7	0.9	5.1	0.7	18.2	1.9	35.8	544.6	9947.5	4.8	232.7
SMDH 00034	0	1	45	540.9	566.3	555.6	544.4	533.7	21.9	7.2	117.7	128.2	10.7	14.7	128.3	255.3	27.9	95.6	14.8	2.7	9.1	0.8	3.9	0.6	1		0.9		46.1	1.5	28.6	584.4	10673.8	4.1	187.8
SMDH 00034	1	2	40	1144.7	1171.2	1162	1143.9	1134.7	27.3	10	191.8	221.1	9.2	17.3	266.1	615.1	51	163.3	22	4.4	12.8	1.3	5.5	0.7	1.7		0.8		48.9	1.1	55.8	9757.9	178233.4	2.2	127.7
SMDH 00034	2	3	90	481.4	508.2	497.5	484.9	474.2	23.3	7.2	98.7	104.1	10.7	16.1	102.4	251.9	23.1	77	10.8	1.6	7.4	0.7	3.3	0.6	1.5		1.1		36.3	1.1	15.7	295.6	5400.1	7.4	355.4
SMDH 00034	3	4	90	422.8	447.8	434	432.1	418.3	15.7	4.5	85.6	93.6	13.8	11.2	88.7	221	20.5	70	9.9	1.3	6.9	0.6	2.5		0.8		0.6		32.5	1.3	17.2	838.5	15315.9	11.9	549.9
SMDH 00034	4	5	90	399.7	462.5	433.4	412.5	383.4	50	16.3	107.9	92.1	29.1	33.7	78.1	198.6	19.2	66.5	11.4	1.3	8.3	1.1	5.3	1.3	3.9	0.7	4		27.9	1.4	21.5	916.3	16737	11.9	524.8
SMDH 00034	5	6	95	555.8	583.2	569.4	563.7	549.9	19.5	5.9	108.8	119.4	13.8	13.6	120.3	291	25.9	89.8	12.8	1.7	8.4	0.8	2.9		1.3		0.9		40.9	1.2	21.5	6253.4	114222.2	7.3	341.1
SMDH 00034	6	7	90	402	421.6	410.9	409.1	398.4	12.5	3.6	77.8	85.9	10.7	8.9	84.7	211.7	18.7	64.2	10.6	1.7	6.8	0.6	2.4		0.6				32.8	0.9	12.9	658.7	12031.7	5.2	261.1
SMDH 00034	7	8	85	459.3	480.1	467.8	467.7	455.4	12.4	3.9	90.6	102.7	12.3	8.5	95	241	22.6	77	10.9	2	6.9	0.7	2.4		0.8				37	0.8	12.9	900.8	16452.8	5.8	264.5
SMDH 00033b	0	1	50	597	649.7	629.8	602.2	582.3	47.5	14.7	139.2	133.5	19.9	32.8	116.6	308.6	28.5	96.8	16.9	1.4	13.5	1.4	6.8	1	2.9		2.6		51	2.9	28.6	1008.3	18416.5	13.4	609.2
SMDH 00033b	1	2	30	220.1	245.3	230	231.6	216.3	13.7	3.8	51.8	51.8	15.3	9.9	50.9	103.7	11.5	38.5	6.4	1.6	3.7		1.8		0.9		1.1		19.5	1.8	12.3	384.1	7016.3	1.1	543.6
SMDH 00033b	2	3	85	163.4	180.2	169.5	172.7	162	7.5	1.4	36.6	36.3	10.7	6.1	40.3	78.1	8.1	26.8	3.9	2.3	2.5		1.4						14.5	0.6	17.2	686.5	12539.8	7.4	363.4
SMDH 00033b	3	4	80	124.7	140.2	129.5	134.4	123.7	5.8	1	28.4	29	10.7	4.8	30.1	58.3	7	21	3.6	1.6	2.1		1						10.6	0.6	11.4	558.7	10205.8	7	370.7

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00033b	4	5	90	156.3	173.6	161.3	167.6	155.3	6	1	34.9	35.7	12.3	5	38.2	73.7	7.9	26.8	4.2	2.1	2.4		1						13.1	0.6	17.2	567.9	10372.4	6.5	312.4
SMDH 00033b	5	6	95	134.4	149.2	138.5	144.1	133.4	5.1	1	31.1	32.5	10.7	4.1	33.8	61.1	7	24.5	3.1	1.5	2.4		1						10	0.6	24.3	25.1	459.3	6.3	299.1
SMDH 00033b	6	7	65	399.6	444.6	427.7	404.2	387.3	40.4	12.3	106.7	97.4	16.9	28.1	88.7	184.8	21	70	12.2	2.2	8.4	1.1	5.3	1	2.6		2.3		36.3	2.8	27.2	723	13205.9	8	344.5
SMDH 00033b	7	8	98	418.9	473.5	453.6	423.8	403.9	49.7	15	119.3	103.7	19.9	34.7	93.7	189.9	21	75.8	13.6	1.9	8	0.9	6	1.1	3.3	0.6	3.1		38.1	3.1	25.7			11.1	435.5
SMDH 00033b	8	9	98	383.5	447.6	429.2	381.9	363.5	65.7	20	123.2	95.4	18.4	45.7	82.6	170.1	19.6	66.5	14.4	1.7	8.6	1.3	8	1.5	4.2	0.6	4.4		34.3	3.2	27.2	743.4	13579.1	9.8	432.4
SMDH 00033b	9	10	85	407.7	464.2	442.7	414.5	393	49.7	14.7	116.5	101.2	21.5	35	90.2	185.4	21.3	72.3	13.1	1.6	9.1	1.2	6.4	1.3	3.1		2.7		37.9	3.4	28.6	136.9	2500.5	9.9	466.3
SMDH 00033b	10	11	98	345.5	392.7	374.3	352.5	334.1	40.2	11.4	97.9	85.3	18.4	28.8	74.5	160.1	17.5	61.8	10.7	1.3	8.2	1.1	4.9	0.9	2.6		1.9		32	2.9	25.7	693.6	12669	12	415.8
SMDH 00033b	11	12	95	313.1	360.3	340.4	321.1	301.2	39.2	11.9	91.6	78.8	19.9	27.3	68.6	141.9	15.8	57.2	9	1.3	7.4	0.9	4.9	0.9	2.7		2.5		28.7	2.2	24.3	656.2	11985.8	8.8	336.9
SMDH 00033b	12	13	98	465.8	540.4	512.8	472.6	445	67.8	20.8	134.8	108.7	27.6	47	104.8	215.6	22.8	77	12.2	1.9	10.7	1.3	7.6	1.6	4.5	0.7	4.4	0.7	36.2	3.4	34.3	269.2	4917.8	16.2	549.6
SMDH 00033	0	1	45	542.8	586.3	571	545.5	530.2	40.8	12.6	139.3	138.1	15.3	28.2	120.6	247.6	28.3	102.6	17.2	1.3	12.6	1.3	5.9	0.8	2.4		2.2		49.6	2.1	14.3	218.2	3984.7	13.2	460.5
SMDH 00033	1	2	45	957.9	1026.5	1002	961.9	937.4	64.6	20.5	203	201	24.5	44.1	250.2	458.1	45.9	144.6	20.3	3.8	14.5	1.9	8.6	1.6	4.2	0.7	3.5		31.9	2.1	78.7	844.8	15430.8	11.9	405
SMDH 00033	2	3	80	701.6	765.1	742.1	706.4	683.4	58.7	18.2	155	144.2	23	40.5	184	336.3	32.5	102.6	14	2.8	11.2	1.4	7.7	1.4	3.8	0.6	3.3		19.7	1.8	71.5	723	13205.9	8.4	307.7
SMDH 00033	3	4	55	293.6	363.7	340.7	295.6	272.6	68.1	21	107.8	72.9	23	47.1	61.1	127.3	13.7	49	10.3	1.5	9.7	1.5	8.7	1.5	4.5	0.6	4.2		15.1	1.8	37.2	789.8	14426	8.7	301.9
SMDH 00033	4	5	85	325.2	403.5	375.9	331.3	303.7	72.2	21.5	120.2	84.8	27.6	50.7	67.7	139.8	16.8	57.2	11.1	1.5	9.6	1.5	9.3	1.6	3.9	0.6	4	0.6	23.1	2.5	27.2	844.8	15430.8	13.4	438.7
SMDH 00033	5	6	50	421.1	472.8	449.8	431.8	408.8	41	12.3	109.9	100.5	23	28.7	100	192.7	21.7	72.3	12.1	2.4	7.6	1.1	5.4	1	2.1		2.7		27.9	1.4	24.3	717.2	13099.7	8.7	290.8
SMDH 00033	6	7	45	393.1	416.8	406.1	398.8	388.1	18	5	90.1	95.7	10.7	13	91.6	183.9	21.3	71.2	11.1	2.7	6.3	0.6	2.6		1		0.8		37.1	0.7	8.6	281	5133.1	2.4	106.8
SMDH 00033	7	8	40	310.1	345.8	328.9	319.3	302.4	26.5	7.7	77.6	73.5	16.9	18.8	74.1	141.5	16.8	52.5	9.3	2.1	6.1	0.6	3.6	0.7	1.4		1.4		26.3	0.9	20	281	5133.1	7.1	243.5
SMDH 00033	8	9	45	267	313.2	288.7	282.8	258.3	30.4	8.7	75.1	65.4	24.5	21.7	60	120.6	14	46.7	9.2	2	5.8	0.7	4	0.8	1.6		1.6		21.4	0.9	20	809.4	14784.8	8.3	310.3
SMDH 00033	9	9.5	60	275.4	301.8	288	284.6	270.8	17.2	4.6	66.6	66.4	13.8	12.6	63.2	128	14.4	49	9.2	2	5	0.6	2.4		0.8		0.8		26.3	0.6	11.4	471.5	8612.5	3.3	133.7
SMDH 00032b	0	1	50	429	464.8	451	433.1	419.3	31.7	9.7	106.4	106.6	13.8	22	95.8	198.5	22.8	78.1	14.6	0.6	8.9	1.1	4.6	0.7	1.7		1.6		42.6	3.2	8.6	444	8110.1	19.8	666.2
SMDH 00032b	1	2	45	489	522.6	510.3	491.2	478.9	31.4	10.1	114.1	117.5	12.3	21.3	106.4	234.6	25.5	86.3	14.4	0.8	10.9	1.3	4.4	0.8	2.1		1.5		47	2.9	17.2	396.9	7248.9	11.4	373.2
SMDH 00032b	2	3	45	253.7	329.7	300.6	265	235.9	64.7	17.8	101.3	65.6	29.1	46.9	55.1	105.9	12.7	44.3	8.7	1.5	7.7	1.3	7.3	1.4	3.9	0.6	3.3		18.3	1.7	34.3	784	14319.8	8.4	302.8
SMDH 00032b	3	4	70	260.4	322.1	296	271.7	245.6	50.4	14.8	88	64.5	26.1	35.6	55.1	116.7	13.3	44.3	8.1	1.2	6.9	1.2	5.7	1.1	3.4		3.4		21.6	1.2	4.3	415.4	7587.6	7.1	285
SMDH 00032b	4	5	50	240.5	276.9	257	252.5	232.6	24.4	7.9	64.3	58.7	19.9	16.5	52.8	110.6	12.1	42	8.1	1.2	5.8	1.2	3.4	1.1	1.1		1.1		19.3	1.2	10	603.9	11029.8	7.1	272.9
SMDH 00032b	5	6	70	193.8	227.4	209	206.6	188.2	20.8	5.6	53.6	46.9	18.4	15.2	43.4	89.7	9.7	33.8	5.8	1.2	4.6		3.4		1.1		1.1		17.1	1.2	4.3	458.8	8380	8.3	322.8
SMDH 00032b	6	7	90	278.9	311.3	292.9	290.5	272.1	20.8	6.8	71.1	70.4	18.4	14	62.2	127.8	14.5	51.3	9.3	1.2	5.8	1.2	3.4		1.1		1.1		26.2	1.2	5.7	532	9717.8	4.7	228.3
SMDH 00032b	7	8	60	122	139	128.3	131.6	120.9	7.4	1.1	31.9	29.3	10.7	6.3	29.3	55.3	6	22.2	3.5	2.3	2.3		1.1						9.1		2.9	298.9	5460.3	4.7	232.3
SMDH 00032	0	1	40	215.3	234.7	225.5	220	210.8	14.7	4.5	52.2	52.9	9.2	10.2	52.8	94.6	12.1	38.5	7	1.2	4.6		2.3		1.1		1.1		14.8	1.2	11.4	287	5242.2	4.7	208
SMDH 00032	1	2	35	244.5	259.8	252.1	248.8	241.1	11	3.4	54.3	58.8	7.7	7.6	55.1	116.7	13.3	43.2	7	1.2	4.6		2.3		1.1				21.6	1.2	4.3	236.9	4326.4	3.5	137.8
SMDH 00032	2	3	40	258.7	278.1	268.9	264.5	255.3	13.6	3.4	60.4	62.3	9.2	10.2	59.8	121.6	13.3	46.7	8.1	1.2	4.6		2.3		1.1				22.8	1.2		183.9	3358.9	3.5	116.2
SMDH 00032	3	4	65	333.8	403.1	369.4	353.8	320.1	49.3	13.7	103.2	84.5	33.7	35.6	71.5	153.6	18.1	59.5	9.3	1.2	6.9	1.2	5.7	1.1	2.3		3.4		26.2	1.2	22.9	1062.5	19406.9	13	533.6
SMDH 00032	4	5	95	276.3	296.9	287.7	281.5	272.3	15.4	4	65.4	66.3	9.2	11.4	64.7	128.6	14.6	48.6	8.3	2.3	5.2	0.6	2.5		0.9				24.8	2.1	11.3	149.8	2735.9	1.5	210.3
SMDH 00032	5	6	90	156.8	173.6	164.4	162.6	153.4	11	3.4	40.3	40	9.2	7.6	36.4	70	8.5	29.2	4.6	1.2	3.5		2.3		1.1				12.5	1.2		234.8	4289	3.5	116.2
SMDH 00032	6	7	60	274.2	296.1	286.9	278.9	269.7	17.2	4.5	66.3	65.8	9.2	12.7	59.8	129	14.5	49	9.3	2.3	5.8		2.3		1.1		1.1		23.9	1.2		273	4986.7	3.5	122.9
SMDH 00032	7	8	80	63.4	79.2	68.5	73	62.3	6.2	1.1	19	15.2	10.7	5.1	14.1	28.3	3.6	10.5	2.3	2.3	1.2		1.1						4.6			278.2	5081.4	4.7	154
SMDH 00032	8	9	80	70.3	90.2	77.9	79.3	67	10.9	3.3	22.7	16.4	12.3	7.6	15.2	30.7	3.6	11.7	2.3	2.3	1.2		1.1		1.1		1.1		4.6		4.3	323.5	5908.2	3.5	162.1
SMDH 00032	9	10	70	245.8	263.7	256	250.1	242.4	13.6	3.4	52.2	53	7.7	10.2	55.1	120.4	14.5	36.2	8.1	3.5	4.6		2.3		1.1				14.8	1.2	15.7	203.5	3717.7	2.4	94.6
SMDH 00031b	0	1	25	321.8	357	344.7	325	312.7	32	9.1	87	79.8	12.3	22.9	70.4	148.6	16.9	58.3	10.4	1.2	6.9	1.2	3.4	1.1	1.1		2.3		28.4	2.4	5.7	271.3	4955.1	10.6	443.1
SMDH 00031b	1	2	90	387.4	425.6	410.3	391.2	375.9	34.4	11.5	103.3	99.8	15.3	22.9	88	170.7	21.7	72.3	12.8	2.3	8.1	1.2	4.6	1.1	2.3		2.3		30.7	2.4	12.9	440.6	8047	10.6	435
SMDH 00031b	2	3	85	319.2	347.2	331.9	327.7	312.4	19.5	6.8	77.9	81	15.3	12.7	73.9	142.5	18.1	58.3	10.4	2.3	6.9	1.2	3.4		1.1		1.1		28.4	2.4	7.2	358.2	6542.7	5.9	235
SMDH 00031b	3	4	75	300.4	324.4	310.6	310.8	297	13.6	3.4	70.8	75.2	13.8	10.2	69.2	136.4	16.9	56	10.4	2.3	5.8		2.3		1.1				27.3	2.4	7.2	358.2	6542.7	4.7	179.7
SMDH 00031b	4	5	80	286.1	310.3	295	298	282.7	12.3	3.4	66	70.5	15.3	8.9	65.7	131.4	15.7	52.5	9.3	2.3	5.8		2.3		1.1				26.2	1.2	4.3	494.2	9025.9	4.7	160.7
SMDH 00031b	5	6	90	233.2	257.2	243.4	242.5	228.7	14.7	4.5	58	58.8	13.8	10.2	52.8	104.4	13.3	43.2	8.1	2.3	4.6		2.3		1.1		1.1		20.5	1.2	1.4	455	8311.1	4.7	216.1
SMDH 00031b	6	7	50	304.9	331.2	318.9	310.4	298.1	20.8	6.8	76.9	77.5	12.3	14	72.7	135.1	16.9	56	9.3	2.3	5.8	1.2	3.4		1.1		1.1		25	1.2	4.3	319.2	5830.7	4.7	190.5
SMDH 00031b	7	8	90	232.2	249	239.8	238	228.8	11	3.4	53	55.2	9.2	7.6	55.1	106.9	12.1	40.8	7	2.3	4.6		2.3		1.1				20.5	1.2		224.4	4099.6	3.5	163.4
SMDH 00031b	8	9	655	320.4	342.5	331.8	324.3	313.6	18.2	6.8	76.6	81	10.7	11.4	73.9	143.7	18.1	58.3	10.4	2.3	6.9	1.2	3.4		1.1		1.1		30.7	2.4		298.6	5454.6	4.7	189.1
SMDH 00031b	9	10	85	293	314.2	301.9	301.8	289.5	12.4	3.5	70.7	76.4	12.3	8.9	69.2	127.8	16.9	56	10.4	2.3	6.9	1.2	2.3						28.4	2.4		250.1	4567.5	4.7	185.1
SMDH 00031	0	1	45	296.3	326.4	314.1	301.8	289.5	24.6	6.8	81.9	78.7	12.3	17.8	68	127.8	16.9	57.2	10.4	2.3	6.9	1.2	3.4		1.1		1.1		27.3	2.4	1.4	396.2	7237.4	7.1	318.8
SMDH 00031	1	2	40	378.9	416.1	399.2	385.5	368.6	30.6	10.3	98.4	96.3	16.9	20.3	91.5	163.4	20.5	70	12.8	2.3	8.1	1.2	4.6	1.1	1.1		2.3		31.9	3.5	15.7	448.1	8184.8	9.4	390.4
SMDH 00031	2	3	45	612.2	655.8	638.9	617.7	600.8	38.1	11.4	152.5	158.5	16.9	26.7	140.7	271.5	35	116.6	20.9	2.3	13.8	1.2	5.7	1.1	2.3		1.1		61.4	5.9	10	611.6	11170.4	15.3	649.7
SMDH 00031	3	4	65	162.6	189.1	175.3	171.9	158.1	17.2	4.5	47.7	43.5	13.8	12.7	36.4	70	9.7	31.5	5.8	1.2	3.5		2.3		1.1		1.1		14.8	3.5	14.3	603.9	11029.8	15.3	699.7
SMDH 00031	4	5	95	164.9	190.1	176.3	174.2	160.4	15.9	4.5	46.4	43.5	13.8	11.4	37.5	71.2	9.7	31.5	5.8	1.2	3.5		2.3		1.1		1.1		14.8	2.4	20	813.5	14859.5	17.7	656.5
SMDH 00031	5	6	95	269	299.9	283	280.2	263.3	19.7	5.7	70	70.5	16.9	14	63.3	116.7	15.7	51.3	9.3	1.2	5.8	1.2	2.3		1.1		1.1		22.8	3.5	37.2	813.5	14859.5	21.2	1015.8
SMDH 00031	6	7	85	449.9	498.4	467.7	472.7	442	25.7	7.9	107.5	112.8	30.7	17.8	102	206.4	25.4	82.8	13.9	2.3	9.2	1.2	3.4	1.1	1.1		1.1		37.6	3.5	25.7	948.7	17328.4	21.2	883.4
SMDH 00031	7	8	55	426	470.6	447.6	438.7	415.7	31.9	10.3	105.6	107	23	21.6	97.3	192.9	24.2	77	13.9	1.2	9.2	1.2	4.6	1.1	2.3		1.1		36.4	2.4	15.7	743.1	13573.3	15.3	640.3
SMDH 00031	8	9	98	599.4	660.2	631.1	614.8	585.7	45.4	13.7	154	152.6	29.1	31.7	134.9	272.7	32.6	110.8	19.7	2.3	12.7	1.2	8	1.1	2.3		1.1		52.3	4.7	22.9	895.9	16363.8	17.7	764.6
SMDH 00031	9	10	95	3135.9	3319	3288.3	3152.9	3122.2	166.1	13.7	286.4	259.8	30.7	152.4	1145.8	1685.4	128.1	122.5	22	2.3	16.1	1.2	8	1.1	2.3		1.1		105.8	10.6	28.6	867.6	15847.1	16.5	1438.6
SMDH 00031	10	11	98	3290.3	3525	3489.7	3308.4	3273.1	216.6	17.2	341.6	275.2	35.3	199.4	1190.4	1776.3	135.3	129.5	23.2	2.3	16.1	2.4	8	1.1	3.4		2.3		114.9	15.3	31.5	1012.8	18499.7	16.5	1527.8
SMDH 00030b	0	1	80	2416.7	2604.1	2570.4	2437.8	2404.1	166.3	12.6	251.6	195.8	33.7	153.7	889	1298.4	99.1	89.8	16.2	1.2	10.4	1.2	5.7	1.1	2.3		2.3		84.2	8.3	22.9	807.2	14744.6	15.3	1512.9
SMDH 00030b	1	2	55	1737.4	1891	1861.9	1753.9	1724.8	137.1	12.6	194.5	140.1	29.1	124.5	655.6	915.2	71.3	63	11.6	1.2	6.9	1.2	4.6	1.1	2.3		3.4		59.2	4.7	22.9	608.6	11115.9	11.8	1161.7
SMDH 00030b	2	3	90	474.2	492.3	483.1	478.9	469.7	13.4	4.5	78.8	88.1	9.2	8.9	91.5	273.9	20.5	65.3	10.4	2.3	5.8		2.3		1.1		1.1		36.4	1.2	11.4	287	5242.2	3.5	118.9
SMDH 00030b	3	4	70	303.3	333.6	319.8	311.4	297.6	22.2	5.7	59.7	54.1	13.8	16.5	58.6	174.4	12.1	39.7	7	1.2	4.6		2.3		1.1		2.3		19.3	1.2	14.3	327.2	5977.1	5.9	259.4
SMDH 00030b	4	5	50	292.5	322.1	305.2	304.9	288	17.2	4.5	55.9	54.1	16.9	12.7	55.1	168.3	12.1	39.7	7	1.2	4.6		2.3		1.1		1.1		19.3	1.2	12.9	478.3	8736	8.3	379.6
SMDH 00030b	5	6	98	344.2	376.1	353.1	362.7	339.7	13.4	4.5	60.2	64.6	23	8.9	63.3	199	14.5	47.8	8.1	1.2	5.8		2.3		1.1		1.1		22.8	2.4	15.7	687.9	12565.7	11.8	495.7
SMDH 00030b	6	7	85	238.3	269.4	251	252.2	233.8	17.2	4.5	48.9	44.7	18.4	12.7	43.4	136.4	9.7	32.7	5.8	1.2	4.6		2.3		1.1		1.1		14.8	1.2	14.3	471.5	8612.5	5.9	279.6
SMDH 00030b	7	7.5	80	135.7	157.8	147.1	141.9	131.2	15.9	4.5	33.6	27	10.7	11.4	25.8	73.7	6	18.7	3.5	1.2	2.3		2.3		1.1		1.1		6.8	1.2	11.4	270.2	4935	1.2	74.3
SMDH 00030	0	1	20	562.9	607.3	585.8	573	551.5	34.3	11.4	104.4	104.6	21.5	22.9	109.1	316.9	25.4	72.3	15.1	2.3	10.4	1.2	5.7	1.1	2.3		1.1		39.8	2.4	27.2	583.9	10665.2	10.6	418.7
SMDH 00030	1	2	50	257.5	286.8	271.5	267.1	251.8	19.7	5.7	56	51.7	15.3	14	45.7	146.2	10.9	37.3	7	1.2	3.5	1.2	2.3		1.1		1.1		15.9	1.2	15.7	476.5	8704.4	7.1	295.8
SMDH 00030	2	3	40	149.1	168.7	158	156.5	145.8	12.2	3.3	32.2	28.1	10.7	8.9	27	84.8	6	21	3.5	1.2	2.3		1.1		1.1		1.1		9.1	1.2	11.4	381.9	6976.1	5.9	249.9
SMDH 00030	3	4	60	149.1	174.9	158	162.7	145.8	12.2	3.3	31	26.9	16.9	8.9	27	86	6	19.8	3.5	1.2	2.3		1.1		1.1		1.1		9.1	1.2	12.9	434.3	7932.1	9.4	448.5
SMDH 00030	4	5	60	446.4	498.9	466.7	468.3	436.1	30.6	10.3	89.1	86.9	32.2	20.3	79.8	254.3	19.3	61.8	11.6	1.2	8.1	1.2	4.6	1.1	2.3		1.1		28.4	2.4	34.3	785.7	14351.3	9.4	363.4

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00030	5	6	85	229.8	262.4	242.5	245.2	225.3	17.2	4.5	47.7	43.5	19.9	12.7	42.2	131.4	9.7	31.5	5.8	1.2	3.5		2.3		1.1		1.1		13.7	1.2	21.5	476.5	8704.4	8.3	389
SMDH 00030	6	7	80	193.8	221.1	202.7	207.7	189.3	13.4	4.5	38.1	36.5	18.4	8.9	35.2	110.6	8.5	25.7	4.6	1.2	3.5		2.3		1.1		1.1		12.5	1.2	17.2	388.7	7099.6	11.8	520.1
SMDH 00030	7	8	85	202.2	237.3	217.4	217.6	197.7	19.7	4.5	45.5	37.6	19.9	15.2	36.4	116.7	8.5	26.8	4.6	1.2	3.5		2.3		1.1		1.1		12.5	1.2	20	432.5	7900.6	11.8	512
SMDH 00030	8	9	98	286.3	332.7	306.6	303.3	277.2	29.4	9.1	67	57.6	26.1	20.3	49.3	162.1	12.1	39.7	7	1.2	5.8	1.2	4.6	1.1	1.1		1.1		18.2	1.2	21.5	651.5	11899.6	9.4	409.3
SMDH 00030	9	10	90	441	574	509.6	480.2	415.8	93.8	25.2	155.9	108	64.4	68.6	95	197.8	23	74.6	13.9	2.3	9.2	2.4	8	2.3	4.6	1.1	5.7	1.1	34.1	2.4	44.3	837.7	15301.6	11.8	494.4
SMDH 00030	10	11	90	261.5	357	311	291.6	245.6	65.4	15.9	101.9	64.5	46	49.5	56.3	115.5	13.3	44.3	8.1	1.2	6.9	1.2	5.7	1.1	3.4	1.1	3.4		19.3	1.2	51.5	688.7	12580	10.6	456.6
SMDH 00030	11	12	75	226.2	303.7	259.2	259.2	214.7	44.5	11.5	78.5	56.4	44.5	33	48.1	103.2	12.1	38.5	7	1.2	4.6	1.2	4.6	1.1	2.3		2.3		18.2	2.4	60.1	737	13461.4	14.2	563.3
SMDH 00030	12	13	95	162.8	207.5	176.8	187.8	157.1	19.7	5.7	46.7	40	30.7	14	36.4	74.9	8.5	28	4.6	1.2	3.5	1.2	2.3		1.1		1.1		12.5	1.2	31.5	845.7	15448	11.8	509.3
SMDH 00030	13	14	90	299.3	359.4	327.2	320	287.8	39.4	11.5	81.6	68.2	32.2	27.9	71.5	138.8	15.7	46.7	8.1	1.2	5.8	1.2	4.6	1.1	2.3		2.3		17.1	1.2	45.8	678.7	12396.3	11.8	521.4
SMDH 00030	14	15	96	388.2	440.9	407.2	415.1	381.4	25.8	6.8	91.3	92.8	33.7	19	88	184.3	21.7	66.5	11.6	1.2	8.1	1.2	3.4		1.1		1.1		34.1	2.4	35.8	938.3	17138.9	11.8	530.9
SMDH 00030	15	15.5	90	524.5	573.9	544.8	544.4	515.3	29.5	9.2	120.6	125.8	29.1	20.3	119.6	246.9	27.8	91	16.2	2.3	11.5	2.4	4.6		1.1		1.1		45.5	3.5	25.7	698.8	12763.8	10.6	475.5
SMDH 00029b	0	1	40	475.7	521.8	504.9	481.1	464.2	40.7	11.5	117.9	112.9	16.9	29.2	105.6	226	25.4	80.5	15.1	1.2	10.4	2.4	4.6	1.1	2.3		1.1		41	3.5	14.3	304.1	5555.1	11.8	559.2
SMDH 00029b	1	2	35	448.6	502.1	479.1	459	436	43.1	12.6	109.8	101.1	23	30.5	93.8	224.8	23	71.2	12.8	1.2	9.2	1.2	5.7	1.1	2.3		2.3		36.4	3.5	17.2	447.5	8173.3	13	557.9
SMDH 00029b	2	3	50	299.6	335.8	318.9	308.5	291.6	27.3	8	79	74.8	16.9	19.3	65.7	137.5	16.1	53.9	10.8	1	6.6	0.8	4	0.7	1.6		0.9		29.8	3.5	11.2	220	4019.2	1.5	376.2
SMDH 00029b	3	4	40	502	548.5	530.1	508	489.6	40.5	12.4	129	126.9	18.4	28.1	108.8	230.7	27.3	92.6	18.2	1.3	10.7	1.3	5.7	0.9	2.3		2.2		48.2	4.7	14.4	258.2	4716.8	2.2	347.7
SMDH 00029b	4	5	80	631	701.3	669.1	646.1	613.9	55.2	17.1	139.5	125.7	32.2	38.1	113.8	351.3	26.6	91	17.4	2.3	11.5	1.2	6.9	1.1	3.4	1.1	3.4		42.1	3.5	28.6	834.6	15244.2	10.6	428.2
SMDH 00029b	5	6	90	530.6	580.3	549.6	552.2	521.5	28.1	9.1	102.9	104.6	30.7	19	95	303.4	23	75.8	12.8	2.3	9.2	1.2	4.6	1.1	1.1		1.1		35.3	2.4	27.2	1009.8	18445.2	10.6	430.9
SMDH 00029b	6	7	65	608.6	674.4	639.1	629.1	593.8	45.3	14.8	122.5	115.1	35.3	30.5	111.4	347.6	25.4	82.8	15.1	2.3	9.2	1.2	5.7	1.1	3.4		3.4		34.1	2.4	42.9	911.3	16645.1	9.4	406.6
SMDH 00029b	7	8	65	516.9	582.7	547.4	538.5	503.2	44.2	13.7	113.2	102.1	35.3	30.5	91.5	289.9	21.7	73.5	13.9	2.3	10.4	1.2	5.7	1.1	3.4		2.3		33	2.4	27.2	806.1	14724.6	10.6	472.8
SMDH 00029b	8	9	50	510.7	581.2	547.5	527.3	493.6	53.9	17.1	118.4	101	33.7	36.8	91.5	283.8	21.7	71.2	13.9	2.3	9.2	1.2	6.9	1.1	3.4	1.1	3.4		31.9	2.4	28.6	751.3	13722.6	9.4	405.2
SMDH 00029b	9	10	95	550.4	619.2	588.5	564	533.3	55.2	17.1	126.6	109.2	30.7	38.1	99.7	307.1	23	78.1	13.9	2.3	9.2	1.2	6.9	1.1	3.4	1.1	3.4		34.1	2.4	32.9	760.1	13883.4	10.6	441.7
SMDH 00029b	10	11	50	533.6	596	565.3	549.5	518.8	46.5	14.8	117.9	105.6	30.7	31.7	96.2	298.5	21.7	77	13.9	2.3	9.2	1.2	5.7	1.1	3.4		3.4		34.1	2.4	65.8	874	15964.8	13	517.4
SMDH 00029b	11	12	95	456	520.7	491.6	470.3	441.2	50.4	14.8	112.5	96.2	29.1	35.6	85.6	240.8	20.5	68.8	13.9	1.2	10.4	1.2	5.7	1.1	3.4		3.4		31.9	2.4	24.3	707.6	12924.5	11.8	479.5
SMDH 00029b	12	13	85	429.4	510.2	468.8	457.1	415.7	53.1	13.7	122.1	103.4	41.4	39.4	97.3	196.5	23	73.5	13.9	2.3	9.2	1.2	5.7	1.1	2.3		3.4		31.9	2.4	40.1	644.4	11770.5	11.8	536.3
SMDH 00028b	0	1	30	475	526.7	509.8	476.9	460	49.8	15	127.3	116.3	16.9	34.8	104.7	218.8	25.3	83.2	16.1	1.5	10.4	1.3	6.5	1.1	2.9		3.2		43	6	18.5	309.9	5661.3	2.8	454.8
SMDH 00028b	1	2	60	321.8	392.1	359.9	341.4	309.2	50.7	12.6	101	78.6	32.2	38.1	70.4	148.6	16.9	54.8	10.4	1.2	6.9	1.2	5.7	1.1	2.3		2.3		26.2	2.4	27.2	593.2	10834.6	9.4	380.9
SMDH 00028b	2	3	40	155.6	192.3	170.8	171.4	149.9	20.9	5.7	45.6	37.7	21.5	15.2	35.2	71.2	8.5	25.7	4.6	1.2	3.5	1.2	2.3		1.1		1.1		12.5	1.2	24.3	424.5	7754.1	5.9	237.7
SMDH 00028b	3	4	70	251.5	307.6	276.9	273.1	242.4	34.5	9.1	73.2	59.9	30.7	25.4	55.1	119.2	13.3	42	7	1.2	4.6	1.2	3.4	1.1	1.1		2.3		22.8	1.2	18.6	568.5	10383.8	9.4	401.2
SMDH 00028b	4	5	75	214.2	259.3	233.2	233.5	207.4	25.8	6.8	59.8	49.4	26.1	19	48.1	100.7	10.9	35	5.8	2.3	4.6	1.2	2.3	1.1	1.1		1.1		19.3	1.2	21.5	509.9	9313	8.3	356.6
SMDH 00028b	5	6	80	102.5	186.3	134.2	143.1	91	43.2	11.5	55	26.9	52.1	31.7	19.9	41.8	4.8	16.3	3.5	1.2	3.5	1.2	4.6	1.1	2.3		2.3		5.7	1.2	17.2	1150.3	21011.7	3.5	167.5
SMDH 00028b	6	7	90	103.2	201.9	137.5	156.1	91.7	45.8	11.5	65.8	35.1	64.4	34.3	16.4	35.6	4.8	24.5	4.6	1.2	4.6	1.2	4.6	1.1	2.3		2.3		3.4	1.2	25.7	1254.7	22917.9	4.7	175.6
SMDH 00028b	7	8	80	103.4	174.3	139	128.4	93.1	45.9	10.3	60.1	28.1	35.3	35.6	21.1	38.1	4.8	18.7	4.6	1.2	4.6	1.2	3.4	1.1	2.3		2.3		4.6	1.2	24.3	944	17242.3	3.5	132.4
SMDH 00028b	8	8.5	20	83.6	122	106.7	90.4	75.1	31.6	8.5	44.1	23.4	15.3	23.1	15.1	32.7	4.1	14.8	3.8	1.7	2.9	0.6	3.9	0.7	1.8		1.5		3.4	1.3	8.6	235.1	4294.8		108.5
SMDH 00028	0	1	25	317.2	354.6	343.9	319.9	309.2	34.7	8	88.5	77.5	10.7	26.7	73.9	146.2	16.9	54.8	9.3	1.2	6.9	1.2	4.6		1.1		1.1		28.4	2.4	7.2	188.1	3436.4	5.9	258
SMDH 00028	1	2	60	646.1	737.4	715.9	645.8	624.3	91.6	21.8	196.9	159.7	21.5	69.8	146.6	294.8	33.8	115.5	18.6	1.2	13.8	1.2	9.2	1.1	4.6	1.1	4.6		58	3.5	21.5	802.4	14655.7	14.2	603.8
SMDH 00028	2	3	50	441.8	494.3	477.4	447.2	430.3	47.1	11.5	121.9	109.3	16.9	35.6	104.4	201.5	24.2	79.3	11.6	1.2	8.1	1.2	4.6	1.1	2.3		2.3		42.1	1.2	22.9	589.2	10762.8	9.4	387.7
SMDH 00028	3	4	45	294.4	337.6	322.3	299.4	284.1	38.2	10.3	83.9	70.5	15.3	27.9	68	135.1	15.7	50.2	8.1	1.2	5.8	1.2	3.4	1.1	2.3		2.3		29.6	1.2	12.9	553.4	10108.2	7.1	297.2
SMDH 00028	4	5	50	341.2	387.3	370.4	347.8	330.9	39.5	10.3	93.3	81	16.9	29.2	80.9	158.5	18.1	58.3	8.1	1.2	5.8	1.2	3.4	1.1	2.3		2.3		30.7	1.2	11.4	630.4	11514.9	8.3	364.7
SMDH 00028	5	6	75	344.7	390	370.1	356.7	336.8	33.3	7.9	91.8	82.2	19.9	25.4	82.1	159.7	18.1	59.5	9.3	2.3	5.8	1.2	3.4	1.1	1.1		1.1		28.4	1.2	17.2	567.9	10372.4	7.1	308
SMDH 00028	6	7	85	300.7	331.2	315.9	312.6	297.3	18.6	3.4	73.5	72.8	15.3	15.2	68	143.7	15.7	54.8	8.1	1.2	5.8		2.3		1.1				25	1.2	12.9	474	8658.5	7.1	289.1
SMDH 00027b	0	1	50	510.2	586.3	564.8	515.7	494.2	70.6	16	153.6	122.1	21.5	54.6	109.1	245.7	25.4	88.6	13.9	2.3	9.2	1.2	6.9	1.1	3.4		3.4		44.4	2.4	17.2	732.9	13386.7	13	502.5
SMDH 00027b	1	2	20	304	347.6	330.7	310.7	293.8	36.9	10.2	88.5	76.2	16.9	26.7	65.9	139.1	16.7	54.1	9.5	2.3	6.2	0.8	4.6	0.8	2.3		1.7		23.4	2.1	19.3	346.4	6327.3	0.7	223.8
SMDH 00027b	2	3	70	339.6	428.7	398	353.2	322.5	75.5	17.1	127.2	84.5	30.7	58.4	72.7	156	16.9	59.5	9.3	1.2	6.9	1.2	6.9	1.1	3.4	1.1	3.4		26.2	1.2	31.5	754.7	13785.8	8.3	345.8
SMDH 00027b	3	4	85	405.2	511.1	478.9	413.4	381.2	97.7	24	154.1	98.5	32.2	73.7	85.6	185.5	19.3	70	10.4	1.2	9.2	1.2	8	2.3	4.6	1.1	5.7	1.1	30.7	1.2	28.6	833.2	15218.3	13	495.7
SMDH 00027b	4	5	98	466	538.3	509.2	482.5	453.4	55.8	12.6	134	111.5	29.1	43.2	100.9	223.6	23	81.6	12.8	2.3	9.2	1.2	5.7	1.1	2.3		2.3		39.8	2.4	28.6	875.1	15984.9	13	522.8
SMDH 00027b	5	6	90	551.3	617.7	593.2	563.2	538.7	54.5	12.6	142.1	125.7	24.5	41.9	124.3	269	27.8	91	13.9	2.3	10.4	1.2	5.7	1.1	2.3		2.3		47.8	2.4	31.5	776.7	14187.7	11.8	489
SMDH 00029	0	1	20	547.9	636.6	622.8	543	529.2	93.6	18.7	188.3	140.9	13.8	74.9	116.5	249.9	29.2	102.1	18.4	1.7	11.4	1.5	8.1	1.6	3.5	0.6	3.4		49.8	4.6	27.3	234.2	4277.6	1.8	670.3
SMDH 00029	1	2	75	333.1	384.5	366.1	341.2	322.8	43.3	10.3	92.5	75.2	18.4	33	73.9	160.9	16.9	53.7	9.3	1.2	6.9	1.2	3.4	1.1	2.3		2.3		28.4	2.4	15.7	601.7	10989.6	8.3	333.6
SMDH 00029	2	3	70	401.3	454.5	433	411.3	389.8	43.2	11.5	106.4	94	21.5	31.7	91.5	189.2	20.5	67.7	11.6	1.2	8.1	1.2	4.6	1.1	2.3		2.3		33	2.4	34.3	696.4	12720.7	8.3	336.3
SMDH 00029	3	4	85	341.7	407.3	387.4	350.1	330.2	57.2	11.5	106.4	77.6	19.9	45.7	70.4	167.1	18.1	53.7	11.6	1.2	8.1	1.2	4.6	1.1	2.3		2.3		28.4	2.4	22.9	693.6	12669	8.3	328.2
SMDH 00029	4	5	95	336.6	419.5	395	346.2	321.7	73.3	14.9	120.2	78.7	24.5	58.4	66.8	163.4	18.1	52.5	11.6	1.2	8.1	2.4	5.7	1.1	3.4		2.3		28.4	2.4	21.5	673.2	12295.8	9.4	341.8
SMDH 00029	5	6	98	415.9	491	468	425.1	402.1	65.9	13.8	125.6	94	23	52.1	85.6	205.1	21.7	64.2	13.9	1.2	10.4	2.4	5.7	1.1	2.3		2.3		36.4	2.4	21.5	729	13315	11.8	472.8
SMDH 00029	6	7	90	359.6	407.4	387.5	371.6	351.7	35.8	7.9	90.9	82.3	19.9	27.9	76.2	176.9	20.5	57.2	11.6	1.2	8.1	1.2	3.4	1.1	1.1		1.1		31.9	2.4	28.6	689.8	12600.1	10.6	413.3
SMDH 00029	7	8	50	323.5	371.3	351.4	335.5	315.6	35.8	7.9	85	74	19.9	27.9	68	158.5	18.1	51.3	10.4	1.2	8.1	1.2	3.4	1.1	1.1		1.1		29.6	2.4	22.9	727.2	13283.4	9.4	366.1
SMDH 00029	8	9	75	334.4	386	366.1	346.4	326.5	39.6	7.9	91.2	77.6	19.9	31.7	69.2	164.6	19.3	53.7	10.4	1.2	8.1	1.2	3.4	1.1	1.1		1.1		30.7	2.4	20	777.5	14202.1	9.4	366.1
SMDH 00029	9	10	95	389.5	467.9	440.3	402.1	374.5	65.8	15	122	91.7	27.6	50.8	79.8	187.9	21.7	60.7	12.8	1.2	10.4	2.4	6.9	1.1	2.3		2.3		33	2.4	30	831.6	15189.6	10.6	412
SMDH 00029	10	11	95	362.4	446.9	413.2	381.1	347.4	65.8	15	124.3	91.6	33.7	50.8	76.2	163.4	19.3	63	12.8	1.2	11.5	2.4	6.9	1.1	2.3		2.3		30.7	2.4	32.9	832.1	15198.2	11.8	451.2
SMDH 00029	11	12	90	354.1	439.4	408.7	369.8	339.1	69.6	15	129.3	92.8	30.7	54.6	72.7	158.5	19.3	64.2	12.8	1.2	10.4	2.4	6.9	1.1	2.3		2.3		27.3	2.4	30	811.6	14825	10.6	402.5
SMDH 00027	0	1	45	692.6	839.2	799.3	701.6	661.7	137.6	30.9	245.4	175	39.9	106.7	146.6	316.9	37.5	122.5	22	1.2	15	3.5	11.5	2.3	5.7	1.1	5.7	1.1	62.6	4.7	31.5	878.3	16042.3	17.7	711.9
SMDH 00027	1	2	35	606.4	717.6	683.9	619.5	585.8	98.1	20.6	201	153.8	33.7	77.5	129	278.8	32.6	109.6	19.7	2.3	13.8	2.4	9.2	1.1	3.4	1.1	3.4		53.5	3.5	28.6	752.4	13742.7	11.8	521.4
SMDH 00027	2	3	45	608.3	700.7	665.4	627.5	592.2	73.2	16.1	177.2	150.4	35.3	57.1	133.7	283.8	32.6	108.5	18.6	2.3	12.7	2.4	6.9	1.1	2.3		3.4		53.5	2.4	28.6	896.8	16381	13	607.9
SMDH 00027	3	4	65	562.8	655.5	618.7	584.6	547.8	70.9	15	167.8	139.8	36.8	55.9	122	262.9	30.2	100.3	17.4	2.3	12.7	2.4	6.9	1.1	2.3		2.3		51.2	3.5	25.7	908	16584.9	13	557.9
SMDH 00027	4	5	60	698.8	810.5	773.7	713.9	677.1	96.6	21.7	213.6	173.9	36.8	74.9	151.3	323.1	37.5	124.8	22	2.3	16.1	2.4	9.2	1.1	3.4	1.1	3.4	1.1	61.4	3.5	42.9	967.2	17667.2	11.8	547.1
SMDH 00027	5	6	60	391.4	449.2	423.1	408.4	382.3	40.8	9.1	108.6	95.1	26.1	31.7	86.8	183	20.5	70	11.6	2.3	8.1	1.2	3.4	1.1	2.3		1.1		34.1	1.2	28.6	854.2	15603	11.8	545.7
SMDH 00027	6	7	70	566.1	625.7	596.6	581.5	552.4	44.2	13.7	108.6	101.1	29.1	30.5	103.2	332.9	24.2	70	12.8	1.2	8.1	1.2	5.7	1.1	3.4		2.3		36.4	2.4	24.3	842.3	15384.8	9.4	483.6
SMDH 00027	7	8	95	703.2	781.1	748.9	711.4	679.2	69.7	24	156.4	138.6	32.2	45.7	123.1	395.5	30.2	98	17.4	2.3	12.7	1.2	9.2	1.1	5.7	1.1	4.6	1.1	47.8	2.4	24.3	850.9	15542.7	13	540.3
SMDH 00027	8	9	80	787.4	951.3	891.5	796.8	737	154.5	50.4	229.9	157.2	59.8	104.1	133.7	428.7	32.6	107.3	19.7	1.2	13.8	2.4	14.9	3.4	13.7	2.3	11.4	2.3	51.2	3.5	35.8	991.6	18112.1	16.5	690.3
SMDH 00026b	0	1	35	664.7	735.7	714.2	664.6	643.1	71.1	21.6	153.1	130.3	21.5	49.5	116.1	374.7	29	92.1	17.4	2.3	11.5	1.2	8	1.1	5.7	1.1	3.4	1.1	47.8	3.5	20	557.5	10182.9	11.8	537.6
SMDH 00026b	1	2	50	449.6	502.8	481.3	456.2	434.7	46.6	14.9	105.1	90.4	21.5	31.7	78.6	251.8	19.3	63	11.6	2.3	8.1	1.2	6.9	1.1	3.4		2.3		33	2.4	17.2	587	10722.6	8.3	371.5
SMDH 00026b	2	3	40	433.7	497.3	474.3	438.4	415.4	58.9	18.3	111.7	86.9	23	40.6	75.1	239.5	18.1	60.7	11.6	2.3	8.1	1.2	6.9	1.1	4.6	1.1	3.4		30.7	1.2	17.2	552.3	10088.1	8.3	348.5
SMDH 00026b	3	4	85	662.3	746.3	715.6	666.6	635.9	79.7	26.4	157	130.4	30.7	53.3	113.8	369.7	29	91	17.4	2.3	12.7	1.2	9.2	2.3	6.9	1.1	4.6	1.1	47.8	2.4	21.5	811	14813.5	11.8	549.8

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00026b	4	5	80	478	581.6	555.5	480	453.9	101.6	24.1	175.3	117.2	26.1	77.5	99.7	217.4	21.7	85.1	16.2	2.3	11.5	2.4	8	2.3	4.6	1.1	4.6	1.1	35.3	2.4	32.9	578.6	10567.6	10.6	430.9
SMDH 00026b	5	6	80	477.3	564	539.5	484.6	460.1	79.4	17.2	160.1	117.3	24.5	62.2	104.4	219.9	21.7	86.3	15.1	2.3	10.4	2.4	6.9	1.1	3.4		3.4		34.1	2.4	35.8	466.5	8520.7	9.4	375.5
SMDH 00026b	6	7	95	582.7	702	672.9	586.6	557.5	115.4	25.2	205.6	139.7	29.1	90.2	123.1	272.7	26.6	101.5	18.6	2.3	12.7	2.4	9.2	2.3	5.7	1.1	3.4	1.1	47.8	3.5	32.9	645.4	11787.7	14.2	568.7
SMDH 00026b	7	8	50	573.1	691.1	662	576.9	547.8	114.2	25.3	200.8	136.1	29.1	88.9	125.5	265.3	25.4	99.1	18.6	1.2	12.7	2.4	9.2	2.3	4.6	1.1	4.6	1.1	42.1	3.5	37.2	723.9	13223.1	11.8	506.6
SMDH 00026b	8	9	50	559	665.9	635.2	570.2	539.5	95.7	19.5	183.4	130.3	30.7	76.2	123.1	264.1	25.4	94.5	18.6	2.3	11.5	2.4	8	1.1	4.6		3.4		42.1	3.5	37.2	596.9	10903.5	11.8	489
SMDH 00026b	9	10	80	663	801.9	769.7	664.2	632	137.7	31	236	157.2	32.2	106.7	139.6	312	30.2	112	20.9	2.3	15	3.5	11.5	2.3	6.9	1.1	4.6	1.1	51.2	4.7	32.9	754.1	13774.3	11.8	505.2
SMDH 00026b	10	11	75	628.7	735.3	706.2	637.1	608	98.2	20.7	197.6	147.9	29.1	77.5	134.9	299.7	29	107.3	20.9	1.2	15	2.4	9.2	1.1	4.6		3.4		48.9	3.5	35.8	734	13406.8	14.2	605.2
SMDH 00026b	11	11.5	50	414.2	476	456.1	422.9	403	53.1	11.2	123.2	102.2	19.9	41.9	90.9	191.6	22.1	74.2	14	1.2	9	1.1	4.8	0.9	1.9		2.5		37.8	3.7	15.2	387.7	7082.4	1.2	729.6
SMDH 00026	0	1	35	541.4	637.8	608.7	553.3	524.2	84.5	17.2	168.7	129.2	29.1	67.3	117.3	259.2	29	89.8	16.2	1.2	11.5	2.4	8	1.1	3.4		2.3		51.2	3.5	18.6	516.3	9430.7	11.8	517.4
SMDH 00026	1	2	15	470.2	575.8	545.1	481.5	450.8	94.3	19.4	165.7	112.7	30.7	74.9	100.9	219.9	24.2	78.1	13.9	2.3	11.5	2.4	8	1.1	3.4	1.1	3.4		43.2	3.5	22.9	628.8	11486.2	9.4	409.3
SMDH 00026	2	3	45	497.7	613.2	576.4	510.4	473.6	102.8	24.1	179	125.7	36.8	78.7	104.4	227.3	26.6	87.5	15.1	1.2	11.5	2.4	9.2	2.3	3.4	1.1	4.6	1.1	45.5	3.5	24.3	724.7	13237.5	13	520.1
SMDH 00026	3	4	90	466.3	592.7	559	474.7	441	118	25.3	188.2	117.4	33.7	92.7	96.2	210.1	24.2	81.6	15.1	2.3	11.5	2.4	9.2	2.3	4.6	1.1	4.6	1.1	41	3.5	21.5	711.7	12999.2	10.6	432.3
SMDH 00026	4	5	95	532.1	668	631.2	541.4	504.6	126.6	27.5	205.1	131.5	36.8	99.1	112.6	242	27.8	91	16.2	2.3	12.7	2.4	10.3	2.3	4.6	1.1	5.7	1.1	46.7	3.5	27.2	695.2	12697.7	11.8	502.5
SMDH 00026	5	6	90	630.1	768.8	722.8	648.6	602.6	120.2	27.5	219.6	158.4	46	92.7	132.5	287.4	33.8	110.8	19.7	2.3	16.1	3.5	10.3	2.3	4.6	1.1	4.6	1.1	56.9	3.5	32.9	789.2	14414.5	16.5	618.7
SMDH 00026	6	7	90	592.5	706.1	666.2	611.8	571.9	94.3	20.6	189.1	144.5	39.9	73.7	126.7	277.6	31.4	101.5	17.4	2.3	15	2.4	9.2	1.1	3.4	1.1	3.4		55.8	2.4	22.9	781.8	14279.6	13	489
SMDH 00026	7	8	85	808.6	934.8	887.3	829.8	782.3	105	26.3	240.6	203.1	47.5	78.7	179.4	368.5	43.5	145.8	24.4	2.3	18.4	3.5	10.3	2.3	3.4	1.1	4.6	1.1	67.1	3.5	55.8	1010.5	18456.6	16.5	676.8
SMDH 00026	8	9	90	763.6	873.8	838.5	782.8	747.5	91	16.1	198.5	152.7	35.3	74.9	171.2	400.5	31.4	112	17.4	2.3	12.7	2.4	6.9	1.1	3.4		2.3		53.5	2.4	34.3	971	17736.1	13	536.3
SMDH 00026	9	10	95	735.6	886.7	849.9	749.5	712.7	137.2	22.9	234.3	146.7	36.8	114.3	159.5	385.7	29	106.1	17.4	2.3	12.7	2.4	9.2	1.1	5.7	1.1	3.4		54.6	2.4	11.4	868.9	15870	8.3	436.3
SMDH 00026	10	11	70	886.1	1020.9	982.6	904.8	866.5	116.1	19.6	241	178.4	38.3	96.5	193.5	468	36.2	130.6	20.9	2.3	15	2.4	9.2	1.1	4.6		2.3		70.5	3.5	25.7	971	17736.1	16.5	683.5
SMDH 00026	11	12	90	859.7	970.2	933.4	881.6	844.8	88.6	14.9	212.4	172.6	36.8	73.7	191.2	453.3	36.2	127.1	20.9	2.3	13.8	2.4	6.9	1.1	3.4		1.1		66	3.5	27.2	1118.6	20431.8	15.3	655.1
SMDH 00025b	0	1	45	438.9	526.4	504.9	446.7	425.2	79.7	13.7	139.4	90.3	21.5	66	98.5	223.6	18.1	65.3	10.4	1.2	8.1	1.2	5.7	1.1	3.4		2.3		34.1	2.4	12.9	449.2	8204.9	8.3	358
SMDH 00025b	1	2	55	503.3	610.3	585.8	511.8	487.3	98.5	16	169.9	106.7	24.5	82.5	114.9	250.6	20.5	78.1	12.8	1.2	9.2	1.2	6.9	1.1	3.4		3.4		34.1	2.4	31.5	594.6	10860.4	7.1	294.5
SMDH 00025b	2	3	85	584.2	678.5	654	595	570.5	83.5	13.7	160.7	113.9	24.5	69.8	144.3	296	24.2	82.8	12.8	1.2	9.2	1.2	5.7	1.1	3.4		2.3		36.4	2.4	38.6	579.7	10587.7	7.1	325.5
SMDH 00025b	3	4	90	517.6	622.1	597.6	529.5	505	92.6	12.6	157	96.3	24.5	80	117.3	275.2	20.5	70	11.6	1.2	9.2	1.2	4.6	1.1	3.4		2.3		37.6	2.4	20	650.2	11876.7	8.3	372.8
SMDH 00025b	4	5	85	281.3	327.6	309.2	287.1	268.7	40.5	12.6	89.7	73.9	18.4	27.9	73.9	106.9	13.3	53.7	9.3	1.2	10.4	1.2	5.7	1.1	2.3		2.3		14.8	1.2	25.7	616.4	11259.4	7.1	148.6
SMDH 00025b	5	6	98	432.2	515.4	489.3	445.7	419.6	69.7	12.6	149.2	111.4	26.1	57.1	113.8	178.1	20.5	84	13.9	1.2	8.1	1.2	5.7	1.1	2.3		2.3		31.9	2.4	18.6	461	8420.2	8.3	358
SMDH 00025b	6	7	85	466.7	562.3	537.8	475.1	450.6	87.2	16.1	172.5	120.8	24.5	71.1	119.6	192.9	21.7	89.8	13.9	2.3	10.4	2.4	6.9	1.1	2.3		3.4		31.9	2.4	18.6	464.6	8486.2	10.6	397.1
SMDH 00025b	7	7.5	70	433.6	528.7	499.6	449	419.9	79.7	13.7	153.4	106.7	29.1	66	111.4	185.5	20.5	79.3	12.8	1.2	9.2	1.2	5.7	1.1	2.3		3.4		30.7	2.4	15.7	468.2	8552.2	9.4	385
SMDH 00025	0	1	20	489.8	563.5	548.2	491.3	476	72.2	13.8	157.5	119.6	15.3	58.4	130.2	208.8	21.7	89.8	13.9	1.2	10.4	1.2	6.9	1.1	2.3		2.3		36.4	2.4	8.6	365.1	6669	9.4	407.9
SMDH 00025	1	2	35	320	375.9	360.6	323.8	308.5	52.1	11.5	105.9	78.6	15.3	40.6	85.6	132.7	14.5	58.3	9.3	1.2	6.9	1.2	4.6	1.1	2.3		2.3		22.8	1.2	17.2	298.3	5448.9	7.1	279.6
SMDH 00025	2	3	90	469.2	555.9	531.4	478.7	454.2	77.2	15	161.3	119.6	24.5	62.2	123.1	195.3	21.7	88.6	13.9	1.2	10.4	2.4	6.9	1.1	2.3		2.3		34.1	1.2	18.6	468.2	8552.2	9.4	335
SMDH 00025	3	4	95	472.4	583.8	556.2	478.3	450.7	105.5	21.7	181.7	118.4	27.6	83.8	124.3	192.9	21.7	86.3	13.9	1.2	10.4	2.4	8	1.1	3.4	1.1	4.6	1.1	30.7	2.4	21.5	450.1	8222.1	8.3	321.5
SMDH 00025	4	5	98	399.2	456.5	433.5	410.7	387.7	45.8	11.5	97.3	78.7	23	34.3	71.5	224.8	16.9	56	10.4	1.2	6.9	1.2	4.6	1.1	2.3		2.3		30.7	1.2	14.3	371.7	6789.5	7.1	285
SMDH 00025	5	6	85	415.1	506.2	478.6	426.7	399.1	79.5	16	120.6	77.6	27.6	63.5	70.4	238.3	21.7	47.8	12.8	1.2	6.9	1.2	6.9	1.1	3.4		3.4		29.6	2.4	22.9	463.3	8463.2	7.1	326.9
SMDH 00025	6	7	90	459	550.6	527.6	463.7	440.7	86.9	18.3	142	91.5	23	68.6	80.9	254.3	19.3	63	12.8	1.2	9.2	1.2	8	1.1	4.6		3.4		33	2.4	24.3	398.1	7271.8	5.9	256.7
SMDH 00025	7	8	90	497.9	614.6	585.5	499.6	470.5	115	27.4	173.8	105.5	29.1	87.6	85.6	266.6	20.5	72.3	13.9	1.2	10.4	2.4	10.3	1.1	5.7	1.1	5.7	1.1	36.4	2.4	22.9	465.1	8494.8	9.4	397.1
SMDH 00025	8	9	98	579.2	685.6	650.3	593.8	558.5	91.8	20.7	169	121	35.3	71.1	102	318.2	25.4	84	15.1	2.3	11.5	2.4	9.2	1.1	4.6		3.4		43.2	2.4	25.7	616.6	11262.3	10.6	425.5
SMDH 00025	9	10	94	499.7	616.8	586.1	507.5	476.8	109.3	22.9	168	100.9	30.7	86.4	89.1	275.2	20.5	70	11.6	1.2	9.2	2.4	8	1.1	4.6	1.1	4.6	1.1	36.4	2.4	22.9	454.5	8302.5	9.4	375.5
SMDH 00025	10	11	95	665	740.6	714.5	667.1	641	73.5	24	150.9	128	26.1	49.5	114.9	379.6	27.8	89.8	16.2	1.2	11.5	1.2	9.2	1.1	5.7	1.1	4.6	1.1	52.3	3.5	28.6	720.3	13157.1	13	520.1
SMDH 00025	11	11.5	80	601	667.4	642.9	606.1	581.6	61.3	19.4	137.4	120.9	24.5	41.9	102	339	26.6	85.1	16.2	1.2	11.5	1.2	8	1.1	4.6	1.1	3.4		48.9	3.5	24.3	633.1	11563.8	10.6	456.6
SMDH 00024b	0	1	35	1114.1	1200.4	1178.9	1103.5	1082	96.9	32.1	236.1	218.4	21.5	64.8	192.3	640	48.3	155.1	26.7	1.2	18.4	2.4	12.6	2.3	6.9	1.1	5.7	1.1	92.2	4.7	15.7	568	10375.2	20	787.5
SMDH 00024b	1	2	45	562	604.8	584.9	571.6	551.7	33.2	10.3	110.4	111.7	19.9	22.9	99.7	321.8	25.4	80.5	13.9	1.2	9.2	1.2	4.6	1.1	2.3		1.1		50.1	2.4	21.5	679.5	12410.7	10.6	440.4
SMDH 00024b	2	3	40	554.9	592.3	573.9	563	544.6	29.3	10.3	105.2	108.1	18.4	19	100.9	318.2	24.2	78.1	12.8	2.3	8.1	1.2	4.6	1.1	2.3		1.1		44.4	2.4	22.9	668.3	12206.8	7.1	281
SMDH 00024b	3	4	65	356.2	381.2	368.9	364	351.7	17.2	4.5	67.5	69.3	12.3	12.7	65.7	205.1	15.7	51.3	8.1	1.2	4.6		2.3		1.1		1.1		28.4	1.2	12.9	391.7	7154.1	3.5	135.1
SMDH 00024b	4	5	50	416.3	453.2	437.9	420.1	404.8	33.1	11.5	86.9	81.1	15.3	21.6	73.9	237.1	18.1	57.2	10.4	2.3	5.8	1.2	4.6	1.1	2.3		2.3		33	2.4	15.7	516	9425	5.9	255.3
SMDH 00024b	5	6	95	541.3	599.3	579.4	545.2	525.3	54.1	16	124.4	109.3	19.9	38.1	92.7	305.9	24.2	77	13.9	1.2	10.4	1.2	6.9	1.1	3.4		3.4		44.4	3.5	21.5	629.3	11494.9	9.4	383.6
SMDH 00024b	6	7	75	373.5	439.7	416.7	380.5	357.5	59.2	16	105	77.5	23	43.2	68	202.7	16.9	52.5	9.3	1.2	6.9	1.2	6.9	1.1	3.4		3.4		28.4	2.4	22.9	722.1	13188.7	10.6	399.8
SMDH 00024b	7	8	50	240.8	328.4	291.6	257	220.2	71.4	20.6	92.8	50.5	36.8	50.8	43.4	121.6	9.7	32.7	5.8	1.2	5.8	1.2	6.9	1.1	4.6	1.1	4.6	1.1	17.1	1.2	35.8	1032.3	18855.7	14.2	580.8
SMDH 00024b	8	9	90	391.5	453.6	432.1	397	375.5	56.6	16	105.9	81	21.5	40.6	72.7	211.3	16.9	56	9.3	1.2	8.1	1.2	6.9	1.1	3.4		3.4		33	2.4	21.5	609.5	11133.1	9.4	399.8
SMDH 00024b	9	10	85	413.4	461.7	446.4	416.1	400.8	45.6	12.6	100.6	84.5	15.3	33	76.2	227.3	18.1	59.5	10.4	1.2	8.1	1.2	5.7	1.1	2.3		2.3		37.6	3.5	20	511.6	9344.6	9.4	359.3
SMDH 00024b	10	11	90	351.6	421.6	398.6	354	331	67.6	20.6	106.4	73.9	23	47	62.2	186.7	15.7	49	9.3	1.2	6.9	1.2	8	1.1	4.6	1.1	4.6		28.4	3.5	30	644.6	11773.3	8.3	359.3
SMDH 00024b	11	12	98	496.4	559	534.5	504.9	480.4	54.1	16	118.6	102.3	24.5	38.1	89.1	273.9	23	71.2	12.8	1.2	9.2	1.2	6.9	1.1	3.4		3.4		43.2	2.4	22.9	692.5	12648.9	10.6	445.8
SMDH 00024b	12	13	95	671.7	751.4	716.1	687.7	652.4	63.7	19.3	152.8	137.4	35.3	44.4	123.1	371	30.2	98	17.4	1.2	11.5	1.2	8	1.1	3.4	1.1	3.4	1.1	51.2	2.4	34.3	949.3	17339.9	13	499.8
SMDH 00024b	13	14	98	327.2	373.1	342.4	353.4	322.7	19.7	4.5	67.6	64.6	30.7	15.2	61	185.5	14.5	47.8	7	2.3	4.6		2.3		1.1		1.1		25	2.4	58.7	1353.7	24726.6	31.8	1290
SMDH 00024b	14	15	98	772.4	844.7	815.6	782.1	753	62.6	19.4	163.3	152.7	29.1	43.2	138.4	441	33.8	108.5	17.4	1.2	12.7	2.4	8	1.1	3.4	1.1	3.4		56.9	2.4	21.5	728	13297.7	13	512
SMDH 00024	0	1	95	557.9	631.4	602.3	565.3	536.2	66.1	21.7	133	111.6	29.1	44.4	95	314.5	24.2	77	13.9	1.2	10.4	2.4	8	1.1	3.4	1.1	4.6	1.1	44.4	3.5	21.5	646	11799.2	14.2	537.6
SMDH 00024	1	2	60	440.6	506.8	483.8	445.3	422.3	61.5	18.3	117.8	91.6	23	43.2	77.4	239.5	19.3	63	11.6	2.3	9.2	2.4	6.9	1.1	3.4	1.1	3.4		33	2.4	20	516.5	9433.6	7.1	299.9
SMDH 00024	2	3	75	483	556.1	530	488.5	462.4	67.6	20.6	126.3	97.5	26.1	47	83.3	266.6	20.5	67.7	12.8	2.3	9.2	2.4	6.9	1.1	3.4	1.1	4.6	1.1	35.3	2.4	35.8	552.9	10099.6	9.4	390.4
SMDH 00024	3	4	50	652	707.3	681.2	663.1	637	44.2	15	137.7	136.3	26.1	29.2	112.6	366.1	29	98	17.4	1.2	12.7	2.4	6.9	1.1	2.3		2.3		51.2	2.4	25.7	750	13699.7	14.2	526.8
SMDH 00024	4	5	80	638.7	688.4	665.4	649.1	626.1	39.3	12.6	129.2	128	23	26.7	112.6	363.6	27.8	92.1	16.2	2.3	11.5	2.4	5.7	1.1	2.3		1.1		48.9	2.4	28.6	691.6	12631.7	10.6	456.6
SMDH 00024	5	6	90	685.8	745.4	716.3	701.1	672	44.3	13.8	141.3	139.8	29.1	30.5	120.8	389.4	30.2	101.5	17.4	1.2	11.5	2.4	5.7	1.1	2.3		2.3		52.3	2.4	20	855.8	15631.7	14.2	537.6
SMDH 00024	6	7	95	777.9	823.8	800.8	789.5	766.5	34.3	11.4	149.9	160.9	23	22.9	147.8	431.2	36.2	116.6	19.7	2.3	12.7	2.4	5.7	1.1	1.1		1.1		63.7	2.4	21.5	539.7	9858.5	9.4	397.1
SMDH 00024	7	8	80	630.8	708.2	671.4	649.3	612.5	58.9	18.3	146.7	133.9	36.8	40.6	114.9	344	29	94.5	16.2	1.2	12.7	2.4	8	1.1	3.4		3.4		51.2	2.4	24.3	635.4	11606.8	11.8	490.3
SMDH 00024	8	9	90	716	781.9	752.8	729	699.9	52.9	16.1	161.5	156.2	29.1	36.8	133.7	385.7	33.8	112	19.7	2.3	12.7	2.4	8	1.1	2.3		2.3		56.9	2.4	25.7	635.4	11606.8	10.6	463.3
SMDH 00023b	0	1	40	670.7	725	697.4	684.5	656.9	40.5	13.8	138.6	142.1	27.6	26.7	123.1	369.7	31.4	102.6	17.4	1.2	11.5	2.4	5.7	1.1	2.3		2.3		55.8	2.4	27.2	555.8	10151.3	13	530.9
SMDH 00023b	1	2	35	405.1	455	436.6	415.2	396.8	39.8	8.3	113.4	103.1	18.4	31.5	88.9	187.7	22.4	76	12.8	1.2	7.8	0.9	3.8	0.7	1.5		1.4		41.9	3.8	20.5	395	7214.4	0.9	461.7
SMDH 00023b	2	3	50	361.7	414.7	387.1	379	351.4	35.7	10.3	94.2	84.6	27.6	25.4	79.8	173.2	18.1	60.7	10.4	2.3	6.9	1.2	4.6	1.1	1.1		2.3		18.2	1.2	21.5	661.5	12083.4	14.2	607.9
SMDH 00023b	3	4	70	431.3	472.6	446.5	449.5	423.4	23.1	7.9	87.5	91.6	26.1	15.2	82.1	233.4	20.5	66.5	11.6	1.2	8.1	1.2	3.4	1.1	1.1		1.1		31.9	1.2	21.5	810.5	14804.9	11.8	495.7
SMDH 00023b	4	5	65	702.3	746.2	720.1	719.3	693.2	26.9	9.1	132	144.5	26.1	17.8	132.5	391.9	32.6	106.1	17.4	2.3	10.4	1.2	4.6	1.1	1.1		1.1		56.9	2.4	18.6	752.2	13739.9	11.8	552.5
SMDH 00023b	5	6	75	529.2	571.8	545.7	547.4	521.3	24.4	7.9	98	103.4	26.1	16.5	100.9	297.3	24.2	74.6	12.8	2.3	9.2	1.2	3.4	1.1	1.1		1.1		38.7	2.4	17.2	661.9	12089.1	9.4	437.7
SMDH 00023b	6	7	80	527.7	576.9	557	540.3	520.4	36.6	7.3	139.8	137.7	19.9	29.3	120	239.9	28.8	103.6	16.8	1.6	9.7	1.1	4.2	0.7	1.3				46.4	3.8	25.2	304.3	5558	1.2	483

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00023b	7	8	55	572.2	628.5	596.3	594.1	561.9	34.4	10.3	118.5	117.5	32.2	24.1	106.7	316.9	25.4	86.3	15.1	2.3	9.2	1.2	4.6	1.1	1.1		2.3		45.5	2.4	25.7	797.5	14566.7	13	563.3
SMDH 00023b	8	9	80	528.7	599.2	565.5	545.2	511.5	54	17.2	126.6	112.8	33.7	36.8	93.8	288.7	24.2	79.3	13.9	1.2	10.4	2.4	6.9	1.1	3.4		3.4		44.4	2.4	28.6	618.9	11305.4	11.8	468.7
SMDH 00023b	9	10	65	545.7	620.8	590.1	555.8	525.1	65	20.6	131.8	111.6	30.7	44.4	96.2	302.2	25.4	75.8	13.9	1.2	10.4	2.4	8	1.1	3.4	1.1	4.6		47.8	2.4	24.3	626	11434.6	11.8	506.6
SMDH 00023b	10	11	80	491.3	560.6	534.5	496.8	470.7	63.8	20.6	124.9	102.2	26.1	43.2	88	266.6	21.7	71.2	12.8	1.2	9.2	2.4	6.9	1.1	3.4	1.1	4.6	1.1	43.2	2.4	21.5	534.1	9755.1	9.4	407.9
SMDH 00023b	11	12	75	498.3	574.7	544	505	474.3	69.7	24	128.5	104.6	30.7	45.7	85.6	269	23	71.2	13.9	1.2	10.4	2.4	8	1.1	4.6	1.1	5.7	1.1	45.5	2.4	27.2	562.4	10271.9	11.8	453.9
SMDH 00023	0	1	15	863	931.5	902.4	873.8	844.7	57.7	18.3	168.8	166.9	29.1	39.4	153.6	498.7	38.7	117.8	20.9	1.2	13.8	2.4	8	1.1	3.4		3.4		72.8	3.5	18.6	493.4	9011.6	23.6	1118.5
SMDH 00023	1	2	20	634.9	693.5	662.8	651.8	621.1	41.7	13.8	134	135.1	30.7	27.9	111.4	352.6	30.2	96.8	17.4	1.2	11.5	2.4	5.7	1.1	2.3		2.3		58	2.4	17.2	659.5	12046.1	17.7	765.9
SMDH 00023	2	3	30	454.4	499.7	479.8	462.8	442.9	36.9	11.5	124.5	123.3	19.9	25.4	100.9	199	25.4	92.1	15.1	1.2	9.2	1.2	4.6	1.1	2.3		2.3		46.7	1.2	11.4	582	10630.7	8.3	336.3
SMDH 00023	3	4	50	635	693.8	669.3	644.7	620.2	49.1	14.8	170.7	171.4	24.5	34.3	139.6	282.5	36.2	128.3	19.7	1.2	12.7	1.2	5.7	1.1	3.4		3.4		63.7	2.4	15.7	769.2	14049.9	13	517.4
SMDH 00023	4	5	30	516	552.2	533.8	527.6	509.2	24.6	6.8	122.7	132.7	18.4	17.8	116.1	238.3	29	99.1	15.1	1.2	10.4	1.2	3.4		1.1		1.1		51.2	1.2	14.3	693.1	12660.4	11.8	490.3
SMDH 00023	5	6	90	485.1	523.8	505.4	494.4	476	29.4	9.1	182.4	189.9	18.4	20.3	91.5	180.6	29	154	13.9	1.2	5.8	1.2	5.7		1.1		1.1		46.7	1.2	17.2	632.8	11558	5.9	637.6
SMDH 00023	6	7	98	528.3	567.6	546.1	538.4	516.9	29.2	11.4	176.3	192.4	21.5	17.8	107.9	201.5	36.2	149.3	13.9	2.3	5.8	1.2	5.7	1.1	2.3		1.1		52.3	1.2	20	647.9	11833.6	7.1	548.4
SMDH 00023	7	8	90	284.8	312.6	298.8	292.9	279.1	19.7	5.7	70	70.5	13.8	14	64.5	131.4	15.7	51.3	8.1	1.2	6.9	1.2	2.3		1.1		1.1		26.2	1.2	8.6	483.3	8827.8	7.1	236.4
SMDH 00023	8	9	95	614.2	679.3	654.8	623.9	599.4	55.4	14.8	160.7	151.5	24.5	40.6	138.4	287.4	32.6	112	17.4	1.2	10.4	1.2	5.7	1.1	3.4		3.4		55.8	2.4	17.2	870	15890.1	13	557.9
SMDH 00023	9	10	94	363.8	398.7	380.3	373.1	354.7	25.6	9.1	88.8	91.6	18.4	16.5	82.1	167.1	20.5	66.5	10.4	1.2	6.9	1.2	3.4	1.1	2.3		1.1		34.1	1.2	11.4	660.3	12060.4	8.3	281
SMDH 00023	10	11	90	515.5	578.6	558.7	519.5	499.6	59.1	15.9	146.9	130.3	19.9	43.2	116.1	234.6	27.8	95.6	15.1	1.2	9.2	1.2	5.7	1.1	3.4		3.4	1.1	46.7	1.2	12.9	630.1	11509.2	8.3	371.5
SMDH 00023	11	12	95	487.1	544.2	522.7	494.9	473.4	49.3	13.7	134.7	124.5	21.5	35.6	107.9	223.6	26.6	92.1	13.9	1.2	8.1	1.2	4.6	1.1	3.4		3.4		44.4	1.2	15.7	704.1	12861.4	10.6	447.1
SMDH 00023	12	13	98	425	467.5	449.1	434.3	415.9	33.2	9.1	110.4	109.3	18.4	24.1	96.2	194.1	24.2	80.5	12.8	1.2	6.9	1.2	3.4	1.1	2.3		1.1		43.2	1.2	12.9	617.7	11282.4	9.4	374.2
SMDH 00023	13	14	90	475.4	529.7	502.1	491.5	463.9	38.2	11.5	123.5	123.4	27.6	26.7	100.9	219.9	27.8	89.8	13.9	1.2	10.4	1.2	4.6	1.1	2.3		2.3		50.1	1.2	21.5	805	14704.5	11.8	479.5
SMDH 00022b	0	1	20	737.7	812.5	795.6	739.4	722.5	73.1	15.2	204.5	185.8	16.9	57.9	154.1	353.9	40.1	137.5	23.1	0.9	12.9	1.5	6.7	1.3	2.7		3		75.4	5	16	250.1	4567.5	0.8	583
SMDH 00022b	1	2	45	534.7	576.7	553.7	549.8	526.8	26.9	7.9	126.2	136.3	23	19	131.4	237.1	31.4	100.3	15.1	2.3	9.2	1.2	3.4	1.1	1.1		1.1		52.3	1.2	40.1	617.7	11282.4	8.3	363.4
SMDH 00022b	2	3	80	330.2	362.8	350.5	334.6	322.3	28.2	7.9	86.8	83.4	12.3	20.3	73.9	151.1	18.1	60.7	10.4	1.2	6.9	1.2	3.4	1.1	1.1		1.1		28.4	1.2	20	364.5	6657.5	5.9	262.1
SMDH 00022b	3	4	50	672.4	745	714.3	686	655.3	59	17.1	180.5	175	30.7	41.9	144.3	307.1	38.7	127.1	22	2.3	13.8	1.2	8	1.1	3.4		3.4		69.4	2.4	28.6	897.8	16398.3	14.2	599.8
SMDH 00022b	4	5	75	576.6	639.8	612.2	588.2	560.6	51.6	16	158	153.8	27.6	35.6	120.8	261.6	32.6	113.1	18.6	1.2	12.7	1.2	6.9	1.1	3.4		3.4		61.4	2.4	18.6	646.8	11813.5	11.8	448.5
SMDH 00022b	5	6	95	686.2	773.2	739.5	694.8	661.1	78.4	25.1	195.5	178.5	33.7	53.3	145.4	308.3	37.5	130.6	22	1.2	16.1	1.2	9.2	1.1	5.7	1.1	5.7	1.1	70.5	2.4	18.6	651	11891	10.6	433.6
SMDH 00022b	6	7	90	617.7	713.9	671	634.4	591.5	79.5	26.2	185	165.5	42.9	53.3	130.2	271.5	35	120.1	19.7	1.2	13.8	1.2	9.2	1.1	5.7	1.1	6.8	1.1	63.7	3.5	22.9	745.2	13610.7	11.8	456.6
SMDH 00022b	7	8	85	1520.5	1822.4	1713.5	1525.3	1416.4	297.1	104.1	492.2	380.3	108.9	193	317.8	670.7	83.4	260.1	44.1	2.3	38	4.7	32.1	6.9	20.6	3.4	31.9	4.5	158.2	5.9	27.2	452.2	8259.4	8.3	301.2
SMDH 00022b	8	9	95	890.3	1015.6	966.5	900.6	851.5	115	38.8	260.3	230.1	49.1	76.2	191.2	395.5	48.3	166.8	29	2.3	18.4	2.4	12.6	2.3	9.1	1.1	10.2	1.1	87.6	3.5	17.2	669.9	12235.5	8.3	425.5
SMDH 00022b	9	10	95	871.2	1037.8	970.3	889.5	822	148.3	49.2	268	213.7	67.5	99.1	187.6	389.4	47.1	149.3	26.7	2.3	19.6	2.4	14.9	3.4	12.6	1.1	12.5	2.3	84.2	3.5	21.5	508.6	9290	11.8	536.3
SMDH 00022	0	1	15	648.4	758	727.3	658.4	627.7	99.6	20.7	209.4	162.9	30.7	78.9	134.3	306.9	33.8	119.3	19.9	1.4	12.1	1.5	8.3	1.6	3.7	0.7	4.1	0.8	65.8	4.8	21.5	385.1	7033.6	1.2	593.9
SMDH 00022	1	2	25	589.6	709.5	669.6	608.5	568.6	101	21	194.4	143.3	39.9	80	121.9	282.2	30.2	104	18.2	1.3	10.8	1.4	7.7	1.7	4	0.7	4.6	0.9	53.9	4	24.6	499.7	9126.4	0.8	417.5
SMDH 00022	2	3	25	617.1	694	660.3	630.2	596.5	63.8	20.6	171.4	160.8	33.7	43.2	134.9	276.4	33.8	117.8	19.7	1.2	12.7	1.2	8	1.1	4.6		4.6	1.1	55.8	2.4	20	889.6	16249	13	533.6
SMDH 00022	3	4	25	4.9	4.9	4.9	4.9	4.9								1.1			3.8												1.4	651.2	11893.9		5.7
SMDH 00022	4	5	45	4.5	4.5	4.5	3.1	3.1	1.4	1.4	1.4	1.4				1.7			1.4				1.4								5.7	366.7	6697.7		1.9
SMDH 00022	5	6	90	523.5	583	558.5	531.8	507.3	51.2	16.2	122.3	107	24.5	35	92.8	293.8	20.9	78.7	12.6	1.2	7.3	1.1	6.3	1.4	4.1		3.3		36.1	1.8	27.2	505.2	9226.9	10.1	428.7
SMDH 00022	6	7	98	467.3	520.1	497.9	475.2	453	44.9	14.3	108.2	95.4	22.2	30.6	81.5	261.8	19.2	69.8	12.2	1.4	7.1	0.9	5.5	1	3.9		3		31.1	1.5	15.7	415.4	7587.6	9	395.2
SMDH 00021b	0	1	60	436.9	484.9	460.8	450	425.9	34.9	11	92.1	83.5	24.1	23.9	66.7	263.2	16.1	62.4	10.2	0.8	6.5	0.8	4.2	0.8	2.7		2.5		35.8	1.7	14.3	634.3	11586.7	14	607.6
SMDH 00021b	1	2	55	442	487.4	458.9	461.8	433.3	25.6	8.7	83.8	82.8	28.5	16.9	72.5	264	16.7	61.9	11.6	0.8	5.8	0.6	3.6	0.6	2.2		1.7		45.9	1.3	17.2	623	11380	10.4	464.1
SMDH 00021b	2	3	80	379.8	413.3	394.3	390.7	371.7	22.6	8.1	73	74.1	19	14.5	67.9	217.4	16.3	54.2	9.7	0.7	5.5	0.6	3	0.6	2.1		1.8		40.6	0.9	14.3	484.6	8850.8	9.1	374.7
SMDH 00021b	3	4	95	360.9	400.6	379.3	373.7	352.4	26.9	8.5	72.4	67.1	21.3	18.4	58.8	216.1	13.8	50.5	8	0.7	4.5		2.8	0.6	2.5		2.6		39.3	1.1	15.7	651.2	11893.9	12.6	526.5
SMDH 00021b	4	5	75	685.4	740.2	717.3	692	669.1	48.2	16.3	139.4	133.2	22.9	31.9	113.5	402.4	27.2	98.8	15.8	1.5	9.9	1.1	6.1	1	4		4.1		50.5	1.4	15.7	641.7	11721.7	12	503.7
SMDH 00021b	5	6	5	608.5	697.3	668.8	613.5	585	83.8	23.5	168.7	132	28.5	60.3	113.2	322.8	24.9	97.9	13.3	1.3	11.6	2.1	7.1	1.7	4.5	0.6	6.6	0.9	45.1	1.4	44.3	601.3	10983.8	13.3	510.6
SMDH 00021b	6	7	90	656.7	725.5	692.5	673.9	640.9	51.6	15.8	152.9	142.9	33	35.8	119.5	357	27.2	107.1	16.8	1.4	11.9	1.9	6.7	1	2.7		3.5		52.9	1.2	31.5	759.5	13871.9	15.9	654.6
SMDH 00021b	7	8	20	620.2	674	648.4	634.7	609.1	39.3	11.1	137.5	133.8	25.6	28.2	113.5	340.4	25.5	102.3	15.9	1	10.5	1.5	4.5	0.8	1.9		2.4		48.9	1.2	27.2	676.9	12364.7	11.7	498.3
SMDH 00021b	8	9	65	620.4	703.5	644.3	671.7	612.5	31.8	7.9	181	199.8	59.2	23.9	99.3	299.1	43.7	151.9	10.9	1	6.6	1.1	3.1	0.6	1.6		1.5		35.3		42.9	754.9	13788.7	8.7	529.9
SMDH 00021b	9	9.5	70	364.8	401.6	384.4	374.7	357.5	26.9	7.3	85.4	79.5	17.2	19.6	68.8	196.2	14.9	60.8	9.3	1.2	6.3	0.9	2.9	0.6	1.5		1.4		27	0.6	17.2	438.7	8012.5	10	397.4
SMDH 00021	0	1	20	478.7	551.3	526.8	490.3	465.8	61	12.9	139.1	114	24.5	48.1	96.9	236.8	24.2	83.2	14.6	1.2	8.9	1.2	5.4	1.1	2.5		2.7		50.2	2.9	18.2	392.9	7177.1	1.1	698.2
SMDH 00021	1	2	20	230.1	267.5	252.2	238	222.7	29.5	7.4	79.7	68.3	15.3	22.1	63.1	81.1	12.3	52.1	7.4	1.6	5.1	0.8	3.1	0.6	1.4		1.5		9.7		11.4	380.8	6956.1	8.6	376.2
SMDH 00021	2	3	90	248	288.1	266.9	263.1	241.9	25	6.1	65.7	55.9	21.2	18.9	55.8	122	10.3	42.1	5.5	1.2	5	0.7	2.8		1.3		1.3		13.8		17.2	728.2	13300.6	13.7	600.2
SMDH 00021	3	4	80	791.4	881	840.4	810	769.4	71	22	178.5	158.6	40.6	49	144.1	444.4	30.4	118.2	18.2	1.3	12.8	2.4	7.6	1.5	4	0.6	5.2	0.7	55	1.2	18.6	799.5	14604	16.6	672.7
SMDH 00021	4	5	45	616.1	660.9	640	626.6	605.7	34.3	10.4	133.2	129.6	20.9	23.9	107.7	349.5	21.9	102.2	14.5	1.6	8.3	0.6	4.9	0.8	2.2		1.9		45.5	0.6	20	759.9	13880.5	17	450.1
SMDH 00021	5	6	95	543.9	574.5	556.6	556.9	539	17.6	4.9	109.1	115.3	17.9	12.7	94.5	310.4	20.4	91.7	12.5	1.5	8		3.2		1		0.7		43.2	0.8	14.3	720.2	13154.2	18.2	443.3
SMDH 00021	6	7	55	728.2	758.5	740.4	741.7	723.6	16.8	4.6	139.6	151.9	18.1	12.2	127.4	421.7	26.1	122.1	15.8	1.6	8.9	0.6	3.1		0.9				56	0.6	27.2	896.4	16372.4	23	577.6
SMDH 00021	7	8	95	449.8	488.9	471.4	459.3	441.8	29.6	8	103.1	95.7	17.5	21.6	80	251.7	15.9	75.7	10.2	1.7	6.6		4.1	0.7	1.8		1.4		35.3		28.6	704.8	12872.9	15.2	378.5
SMDH 00020b	0	1	35	294.8	322.3	311.7	299.5	288.9	22.8	5.9	65.6	58.3	10.6	16.9	47.9	172.5	10.3	44.8	7.4	0.7	5.3		3.2		1.4		1.3		24.5	0.8	10	264.4	4828.8	13.8	384.7
SMDH 00020b	1	2	70	303.6	340	326.2	309.9	296.1	30.1	7.5	81.1	70.1	13.8	22.6	58.2	154.5	12.9	53.3	9.4	1.3	6.5		3.9	0.7	1.6		1.3		28.6	0.7	22.9	376.6	6878.5	8.5	227.6
SMDH 00020b	2	3	80	547.8	618.3	599.6	547.2	528.5	71.1	19.3	153.8	119.3	18.7	51.8	92.3	297.1	19.5	89.3	15.9	2.2	12.2	0.9	9.6	1.6	4.1		3.1		31.1	0.9	24.3	456	8328.3	12.1	312.7
SMDH 00020b	3	4	85	7.1	16.8	11.3	9.9	4.4	6.9	2.7	7.2	3.7	5.5	4.2		1	1.7	0.7		1			1.3				1.4				2.9	539.6	9855.6		3.4
SMDH 00020b	4	5	65	807.3	875.7	852.5	813.3	790.1	62.4	17.2	194.2	174.9	23.2	45.2	139	443.8	28.4	137.1	23.2	2.5	16.1	1.1	8.3	1.5	3.7		2.6		59.6	1.5	61.5	746.6	13636.5	17.6	462.5
SMDH 00020b	5	6	70	369.8	396.6	381.7	380.3	365.4	16.3	4.4	77	79.5	14.9	11.9	64.5	204.9	15.6	61.1	12.2	1.2	5.9		2.8		1		0.6		26.2	0.8	17.2	348.5	6364.7	6.3	265.2
SMDH 00020	0	1	30	576.2	622.5	601	585	563.5	37.5	12.7	126.8	124.8	21.5	24.8	95.5	320.7	23.8	94.9	18	1	9.6	0.8	5.3	0.9	3.4		2.3		41.1	3.1	12.9	375.5	6858.4	22.6	1014.5
SMDH 00020	1	2	45	428.7	455.2	439.7	439.5	424	15.7	4.7	86.8	92.1	15.5	11	79	238.8	17.6	71.9	9.9	1.3	5.5		2.6		1.4		0.7		28	1.1	12.9	460.2	8405.8	7.3	324.2
SMDH 00020	2	3	65	353.2	373.6	360.7	363	350.1	10.6	3.1	71.2	77	12.9	7.5	63.1	196.2	14.6	60.9	9.4	1.3	4.6		1.5		0.8		0.8		23.8	0.6	10	385.1	7033.6	6.5	262.3
SMDH 00020	3	4	20	78.5	88.2	83.6	82.4	77.8	5.8	0.7	21.1	17.7	4.6	5.1	19.2	35.7	3.9	13.1	2.3	2.2	1.4		0.7						4.3	1.4	11.3	165.7	3025.9		113.7
SMDH 00020	4	5	35	442.8	482	460.5	453.7	432.2	28.3	10.6	96	94.7	21.5	17.7	77.9	247.6	17.4	72.7	10	1	5.6	0.6	4	0.8	2.5		2.7		30.2	0.9	10	492.9	9003	7.7	310.1
SMDH 00020	5	6	70	570.7	609.3	589.2	580.2	560.1	29.1	10.6	116.5	120.1	20.1	18.5	99.2	322.3	23.3	91.8	14.5	1.2	7.8	0.6	4.4	0.8	2.6		2.2		39.9	1.9	15.7	585.3	10691	8.1	373.6
SMDH 00020	6	7	95	488	509.4	497.1	496.7	484.4	12.7	3.6	92.2	103.6	12.3	9.1	83.7	278.5	21.3	80.5	13	0.8	6.6		1.8		0.9		0.9		33.9	1.2	10	498.7	9109.2	8.4	367.3
SMDH 00020	7	8	92	231.9	256.5	240.4	244.5	228.4	12	3.5	42.9	41.3	16.1	8.5	37.2	141.5	8.1	31.8	5.6	1.2	3		1.4		1.1		1		11.9	0.7	8.6	348.5	6364.7	6.3	281.8
SMDH 00019b	0	1	5	692.8	719.1	703.3	703.7	687.9	15.4	4.9	123.7	139.7	15.8	10.5	124	399.8	27.9	108	18	1.4	8.8	0.6	3.2		1.1				48.8	1.4	10	427.5	7808.7	8.8	432.8
SMDH 00019b	1	2	40	267.7	294.3	279.1	278.1	262.9	16.2	4.8	48.7	45.8	15.2	11.4	41.6	167.3	9.8	33.9	5.7	1.3	3.3		2.1		1.3		1.4		15	0.6	8.6	329.6	6020.2	5.7	268.4
SMDH 00019b	2	3	45	259.1	298.2	280.1	268	249.9	30.2	9.2	70.4	58.9	18.1	21	44.9	135.9	11.1	44.9	6.7	1.6	4.8		2.9	0.7	3.1		2.5		18.3	0.6	8.6	348.1	6358.9	5.8	248.3

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00019b	3	4	35	339.3	383.4	363.3	346.6	326.5	36.8	12.8	80.3	69.8	20.1	24	58.6	187.1	15	50.3	8.6	1.5	5.4	0.6	3.9	0.8	3.5		4		26.6	0.9	11.4	496	9060.4	14.3	587.5
SMDH 00019b	4	5	70	137.9	163	146.4	150.8	134.2	12.2	3.7	31.7	28.2	16.6	8.5	25.2	73.9	6.3	20.5	4.8	1.3	2.2		1.4		1.3		1		8.9		27.2	492.9	9003	9	371.5
SMDH 00019b	5	6	65	569.9	631.1	608.9	576.6	554.4	54.5	15.5	146.4	133.5	22.2	39	103.4	294.2	27.7	98.8	18.2	1.6	10.5	1.1	5.9	1.1	4	0.6	2.8		50	2.5	14.3	806.5	14730.3	10.8	471.3
SMDH 00019b	6	7	92	540.8	611.6	581.7	553.6	523.7	58	17.1	139.6	123.3	29.9	40.9	101.1	276.4	25.9	90.2	17.9	1.3	10.9	1.3	5.9	1.4	4.1	0.6	3.2	0.6	45.2	2.2	20	752.5	13745.6	11.2	480.6
SMDH 00019b	7	8	80	559.4	628.9	598.4	575.3	544.8	53.6	14.6	135.3	121.1	30.5	39	109.3	294.4	26.3	88.2	15.4	1.5	9.7	1.3	5.3	1.3	3.7		3		44.5	2.1	31.5	852.5	15571.4	13.1	527.8
SMDH 00019b	8	9	90	587.7	661.6	628.2	604.3	570.9	57.3	16.8	140.7	125.9	33.4	40.5	112.8	308	27.1	91.2	19.7	1.4	10.7	1.3	6.3	1.1	4.1	0.6	2.8	0.6	47.7	2.4	21.5	764	13955.2	12.3	525.5
SMDH 00019b	9	10	85	539.9	615.5	580.7	556.9	522.1	58.6	17.8	137.2	121.5	34.8	40.8	101.4	281.4	26.1	87.2	15.2	1	9.8	1.4	6.8	1.4	4.2	0.7	3.3		46.1	2.5	20	829.6	15152.3	11.3	464.8
SMDH 00019b	10	11	98	191.1	245.4	207.1	223.8	185.5	21.6	5.6	52.8	45.9	38.3	16	42.1	88.7	10.3	33.1	6.1	1.2	4		2.5		1.4		1.7		17.3	3.9	27.9	613.1	11199.2	1.1	404.3
SMDH 00019b	11	12	85	221	267.2	236.1	246.5	215.4	20.7	5.6	55.5	50	31.1	15.1	43.3	113.6	10.8	36.4	6.1	1.2	4	0.6	2.2		1.7		1.1		19.2	1.5	32.9	1393.3	25450	18.8	842
SMDH 00019b	12	13	90	172.1	214.1	181.1	201.9	168.9	12.2	3.2	38	36.1	33	9	34.4	90.2	8.5	26	4.9	1.4	3.5		1.6		0.8		0.8		14.8	0.9	35.8	1445.4	26400.3	17.5	797.9
SMDH 00019b	13	14	95	398.1	451.4	428.5	410	387.1	41.4	11	97	84.8	22.9	30.4	76.3	211.4	19.5	60	11.5	1.3	7.1	0.9	4.4	0.9	2.9		1.9		33.8	2	21.5	800.6	14624.1	12	498.3
SMDH 00019	0	1	30	461.2	499.6	488.9	460.1	449.4	39.5	11.8	109.4	102.5	10.7	27.7	80.6	247.6	22.1	73.9	14.7	1.3	9.2	1.3	5.2	0.9	2.7		1.7		46.2	5	17.7	471.5	8612.5	1.3	452.5
SMDH 00019	1	2	40	495.1	542.2	523.2	503.4	484.4	38.8	10.7	125	120.4	19	28.1	113.9	230.4	25.6	88.9	14.3	2.1	9.2	1.1	4.8	0.9	2.5		1.4		37.3	1.2	18.6	633.2	11566.6	8.8	369
SMDH 00019	2	3	45	168.5	194.3	179.9	180.7	166.3	13.6	2.2	47.3	43.8	14.4	11.4	45.6	68.3	9.9	32.5	5.1	2	2.9		1.4		0.8				8.1	0.6	44.3	903.9	16510.2	13.6	373.4
SMDH 00019	3	4	40	80	113.4	91.9	98.2	76.7	15.2	3.3	28.9	20.3	21.5	11.9	17.1	36.7	4.3	14.3	1.7	1	1.6	0.6	1.1		0.7		0.9		6.5	3.2	20	906.3	16553.3	15.4	424.4
SMDH 00019	4	5	70	314.7	356.9	337.7	327.4	308.2	29.5	6.5	84.5	76.7	19.2	23	71.4	147.4	16.4	56.7	9.6	1.2	5.5	0.8	2.8	0.6	1		1.3		30.6	0.9	12.9	721.1	13171.4	13	380.3
SMDH 00019	5	6	98	432.1	495.4	471.2	446.2	422	49.2	10.1	122.1	104.3	24.2	39.1	95	202.3	22.6	75.8	15.7	1.3	9.3	1.8	4.1	0.8	1.9		1.5		41.8	1.1	12.9	738.2	13484.3	12.6	366.5
SMDH 00019	6	7	95	499.5	575.3	547.2	514.3	486.2	61	13.3	149.9	127.1	28.1	47.7	108	230.4	26.2	94.2	16.2	1.3	9.9	1.8	4.9	1	2.5		3.1		49.8	1.5	11.4	769.8	14061.4	16.4	502.8
SMDH 00019	7	8	85	438.4	502.7	479.2	450.7	427.2	52	11.2	128.5	110.1	23.5	40.8	94.4	205.1	23.3	80.8	13.7	0.9	9	1.4	4.6	0.8	2.1		2.3		46.4	1.4	10	716.2	13082.4	14.5	389.4
SMDH 00019	8	8.5	50	461.2	521.7	498.5	473.8	450.6	47.9	10.6	129	114.2	23.2	37.3	99.1	218.2	23.8	84.6	15.5	1.3	8.1	1.4	4.4	0.8	2.1		1.9		47.6	1.2	11.4	704.1	12861.4	12.5	369.3
SMDH 00018b	0	1	40	468.5	526.1	505.1	478.9	457.9	47.2	10.6	128.1	113	21	36.6	94.5	232.5	22.5	84.6	13.9	1	8.9	1.8	4.1	0.8	1.9		2		42	2.1	11.4	631	11526.4	18.3	508.2
SMDH 00018b	1	2	25	968.4	1030.3	1001.3	978.9	949.9	51.4	18.5	183.2	189.8	29	32.9	177.4	547.7	41.9	138	26.2	2.4	16.3	1.8	8.1	1.3	3.3	0.7	3.3		68.2	2.8	21.5	761.3	13906.4	19.1	687.2
SMDH 00018b	2	3	45	701.7	753.7	729.9	709.8	686	43.9	15.7	144.7	144.6	23.8	28.2	125.1	392.5	30.1	106.5	17.9	2	11.9	1.5	6.5	0.9	3.1	0.6	3.1		51.5	2.4	20	756.9	13826	14.9	557.5
SMDH 00018b	3	4	45	583.1	635	614.6	585.1	564.7	49.9	18.4	123.6	116.1	20.4	31.5	103.4	321.6	25.7	83	18.1	1.7	11.2	1.3	6.1	1.1	4.8	0.7	3.8	0.6	43.5	2.1	18.6	635.9	11615.4	15	564.2
SMDH 00018b	4	5	40	603	663	637.8	609.4	584.2	53.6	18.8	130.1	120.2	25.2	34.8	103.7	337.3	26.5	85.3	18.2	1.6	11.6	1.4	7	1	4.3	0.6	3.9	0.6	44.7	2.9	21.5	616.1	11253.7	13.8	518
SMDH 00018b	5	6	90	549.4	599.6	578.6	553.7	532.7	45.9	16.7	116	109.6	21	29.2	97.2	307.6	23.7	79.1	14.3	0.9	9.9	1.2	5.6	1.1	4.6	0.6	3.6		39.6	2	18.6	543.5	9927.4	13.4	506.7
SMDH 00018b	6	7	90	370.1	411.3	391.8	378.6	359.1	32.7	11	80.7	73.9	19.5	21.7	65.4	207.4	16.1	53.4	9.5	1.2	6.1	0.7	3.7	0.7	2.6	0.6	2.7		25.6	1.3	18.6	547.9	10007.8	14.3	525.2
SMDH 00018b	7	8	30	540.9	606.5	579.4	548.5	521.4	58	19.5	123.7	106.8	27.1	38.5	98.2	298.9	23.3	74.6	14.3	1.7	10.4	1.4	7.5	1.3	4.6	0.7	4		38.1	3.1	27.2	556.7	10168.5	15.3	509
SMDH 00018b	8	9	98	514.9	584.9	552.7	528.2	496	56.7	18.9	119.8	101.8	32.2	37.8	92.4	284.7	22	72.4	13.1	2.2	9.2	1.2	6.2	1.4	4.9	0.7	3.9	0.6	37.3	2.2	24.3	635.9	11615.4	14.9	590.2
SMDH 00018b	9	10	80	492.6	554	526.5	503.2	475.7	50.8	16.9	112	99	27.5	33.9	92.2	267.4	22.8	68.7	14.5	1.9	8.2	1.2	6.3	1.3	4.2	0.6	3.3		28.4	2	51.5	534.7	9766.6	10.4	379.4
SMDH 00018b	10	11	80	313.2	397.7	360.7	337.5	300.5	60.2	12.7	111.5	78	37	47.5	65.9	145.6	15.3	56.7	9.4	1.3	6.3	1.4	4.6	1.1	2.6		3		25.8	1.4	41.5	632.6	11555.1	11.6	516
SMDH 00018b	11	12	75	328.8	424.8	372.7	368.3	316.2	56.5	12.6	105.9	76.8	52.1	43.9	71.4	156.6	16.3	53.9	9.4	1.5	7.1	1.3	5.3	0.9	2.5		2.6		26.7	1.7	57.2	1017.9	18591.6	17.2	756.4
SMDH 00018b	12	13	80	297.9	370.4	325.6	335.9	291.1	34.5	6.8	85.5	72.3	44.8	27.7	67.3	139.1	15.8	52.4	9.4	1.3	5.8	1.1	3		1.3		1.4		22.9	1.5	60.1	766.1	13992.5	12.5	581.1
SMDH 00018	0	1	60	322.2	378.3	360.2	330.9	312.8	47.4	9.4	95.1	72.1	18.1	38	67.1	161.8	15.9	50.9	9.6	0.9	6.6	1.2	4.1	0.7	1.6		1.8		28.3	1.8	28.6	444	8110.1	14.4	645.3
SMDH 00018	1	2	30	299	351.8	329.1	314.1	291.4	37.7	7.6	83.6	67.1	22.7	30.1	63.1	149.5	14.3	48.9	9.6	0.7	5.3	0.9	3	0.6	1.6		1.5		26.3	1.5	21.5	411.5	7515.9	13.8	617.7
SMDH 00018	2	3	40	173.9	212.2	199.9	180.6	168.3	31.6	5.6	61.8	43.3	12.3	26	38.1	79.7	8.8	31.7	5.7	1.3	3	0.6	2.2		1.5		1.3		14.3	0.9	17.2	416.8	7613.5	7.5	333.1
SMDH 00018	3	4	75	423.4	520.7	456.3	477.7	413.3	43	10.1	114.5	100.4	64.4	32.9	95.8	200.6	20.8	74.1	10.9	2	9.1	1.8	3.7	0.8	1.9		1.9		35.4	2.7	61.5	912.2	16662.4	16.7	780.6
SMDH 00018	4	5	90	309.9	410.3	362	342.6	294.3	67.7	15.6	112.8	74.5	48.3	52.1	66.4	140.9	15.2	52.1	11.4	1.4	6.9	1.5	5.7	1.1	3.1	0.6	3.6		24.8	2	44.3	611.7	11173.3	14.2	607.9
SMDH 00018	5	6	98	300.3	389	334.6	344.9	290.5	44.1	9.8	93.2	72.7	54.4	34.3	66.6	140.4	15.2	51.8	8.6	1.4	6.5	1.5	4.2	0.6	1.8		1.7		21.8	2	54.4	679.5	12410.7	12.3	547.1
SMDH 00018	6	7	90	383.6	496	446	412	362	84	21.6	137.2	91.3	50	62.4	77.6	176.5	18.1	65.8	14.3	1.6	8.1	1.1	6.3	1.4	4.5	0.9	6.6	0.8	32.5	2	45.8	781.3	14271	12.5	647
SMDH 00018	7	8	85	478.8	612.3	562.9	500.3	450.9	112	27.9	176.1	112.3	49.4	84.1	98.3	219.4	21.9	81.4	17.5	1.6	10.8	1.4	7.6	1.9	6.6	1.1	8.3	1	39.9	2.6	40.1	738.9	13495.8	13.4	685.3
SMDH 00018	8	9	95	387.4	497.2	442.9	422.2	367.9	75	19.5	129.2	88.6	54.3	55.5	82.8	179.7	17	63.9	13.9	2.1	8.5	1.2	6.5	1.1	3.8	0.7	5.6	0.6	32.1	2	48.6	852.8	15577.2	11.4	609.2
SMDH 00222	0	1	40	593.9	658.7	631.7	607.3	580.3	51.4	13.6	150.4	137.8	27	37.8	122.6	292.4	26.8	104.3	20.8	1.6	11.8	1.5	5.2	1	2.6		3.3		49	2.5	40.1	680.6	12430.7	15.7	833
SMDH 00222	1	2	45	512	553.6	534.7	518.9	500	34.7	12	111.7	111.6	18.9	22.7	99.2	271	24.2	80.9	13.5	1.6	9.6	1.2	5.3	0.8	2.7		2		37.1	2.6	24.3	684.6	12505.4	15.9	663
SMDH 00222	2	3	40	516.1	571	551.5	517	497.5	54	18.6	130.1	114.5	19.5	35.4	98	264.1	21.9	85.5	15.2	2.1	10.7	1.5	5.6	1.3	5.3	0.7	3.5	0.7	37.2	3.3	28.6	551.7	10076.7	12.4	549.9
SMDH 00222	3	4	75	585.4	634.6	611.3	595.7	572.4	38.9	13	123.1	122.3	23.3	25.9	111.2	318.3	27.2	88.2	15.1	2.1	10.3	1.4	5.5	0.8	3		2.3		44.2	3.7	37.2	741.2	13538.9	20.5	821.3
SMDH 00222	4	5	65	434.5	465.9	444.9	450.3	429.3	15.6	5.2	83.6	92.3	21	10.4	86.4	234.9	21.1	68	10.9	2	6	0.6	2.6		0.9		1.1		33.5	1.5	18.6	656.4	11988.6	14.9	567.7
SMDH 00222	5	6	75	388.3	446.1	414.2	405.7	373.8	40.4	14.5	90.5	81.4	31.9	25.9	73.9	208.7	18.5	56	8.5	1.7	6.5	1.2	5.7	1	3.4	0.6	2.6		27.9	2.6	15.7	967.6	17672.9	13.9	500.9
SMDH 00222	6	7	50	201	300.4	249	228.1	176.7	72.3	24.3	91.7	49.2	51.4	48	31.3	87.1	8	31.5	8.8	2.5	7.5	1.3	8.4	1.7	6.9	0.8	4.2	1	7.5	1.9	21.5	1830.4	33433.8	6.8	300
SMDH 00222	7	8	50	210.5	258.5	232.1	226.7	200.3	31.8	10.2	58.9	43.7	26.4	21.6	39.3	109.1	8.6	31	5.6	2.2	4.5	0.7	3.4	0.8	3.1		2.2		11.5	0.7	24.3	826.1	15089.1	9.6	387
SMDH 00222	8	9	55	116	151.1	136.4	120.5	105.8	30.6	10.2	41.4	24.9	14.7	20.4	22.6	55.9	4.8	17.3	2.6	0.9	1.7		2.8	0.8	3.3		2.7	0.6	6	0.8	11.4	495.1	9043.2	14.2	637.6
SMDH 00223	0	1	5	1261.6	1345.4	1321.3	1253.7	1229.6	91.7	32	285.3	283.8	24.1	59.7	245.3	652	60.5	209	34.2	2.3	26.3	3.1	11.2	2.2	8.2	1.1	5.4	0.8	112.8	6.4	17.2	738.4	13487.2	46.2	1792.4
SMDH 00223	1	2	48	225.2	268.7	250.9	236.3	218.5	32.4	6.7	75.9	61.3	17.8	25.7	52.9	95.7	12.1	44.7	8.1	1	4	0.9	3.6		1.1		1.1		19.6	0.8	35.8	441	8055.6	12.1	447
SMDH 00223	2	3	40	332.2	376	356.8	342.8	323.6	33.2	8.6	99.3	91.4	19.2	24.6	73.4	143.8	18.2	67	12.2	1.5	7.5	1.2	5		1.1		1.3		29.7	1.2	35.8	603.7	11026.9	11.4	486.6
SMDH 00223	3	4	45	275.9	324.6	305.1	285.5	266	39.1	9.9	85.1	69.8	19.5	29.2	59.3	125.1	14.9	48.8	10	1	6.9	1.2	4.9	0.7	1.5		1.6		28	1.4	12.9	353.5	6456.5	9.7	386.7
SMDH 00223	4	5	70	355.9	423.8	398.3	368.1	342.6	55.7	13.3	115.3	90.2	25.5	42.4	79.5	160.2	18.2	64.2	12.1	0.9	7.5	1.5	6.3	0.8	2.3		2.4		32.4	1.5	17.2	559.8	10225.9	13.7	541.4
SMDH 00223	5	6	40	323	381.2	360.3	331.1	310.2	50.1	12.8	101	80.5	20.9	37.3	72.1	145.3	17.6	55.1	11.6	0.8	7.7	1.4	6.4	0.8	2.2		2		31.1	2	15.7	531.7	9712.1	11.1	445
SMDH 00223	6	7	40	300.6	341.4	323.3	311.8	293.7	29.6	6.9	79.2	71	18.1	22.7	66.3	143.1	15.8	50.5	11.2	1.3	5.5	0.8	3.9		1.3		0.9		32.7	0.9	20	732	13369.5	16.3	660.8
SMDH 00223	7	8	45	354.7	422.1	396.5	366.8	341.2	55.3	13.5	113.7	88.1	25.6	41.8	79.4	161.8	17.4	63.3	11.9	1.2	6.2	1.3	6.1	0.9	2.5		2.7		34.5	1.1	18.6	559.8	10225.9	13.1	542.3
SMDH 00223	8	9	90	425.7	495.4	472.7	433.2	410.5	62.2	15.2	136.3	109.3	22.7	47	94.8	193	21.3	79.8	12.3	1.3	8	1.4	6.8	0.9	2.7	0.6	2.8		42.6	1.4	20	763.2	13940.8	16.5	684.5
SMDH 00224	0	1	20	241.2	263	252	246.9	235.9	16.1	5.3	47.1	46.3	11	10.8	41.5	140	10.6	33.5	5.9	0.6	3.8		2.2	0.6	1.4		1.1		20.7	0.9	7.2	360.9	6591.5	8.5	386.3
SMDH 00224	1	2	30	172.2	201.3	185.5	182.7	166.9	18.6	5.3	43	35.9	15.8	13.3	31.3	92.9	7.9	25.7	4.2	1.7	3.2		2.3		1.5		1.5		10	0.6	11.4	490.2	8954.2	3.3	167.1
SMDH 00224	2	3	70	146	181.9	158.6	164.5	141.2	17.4	4.8	36.7	29.2	23.3	12.6	25.3	81.8	6.4	20.8	3.1	1.3	2.5		2		1.7		1.1		10.1	1.1	12.9	614.5	11225	10	497.2
SMDH 00224	3	4	30	134.5	175.2	151.4	150.6	126.8	24.6	7.7	40.3	28	23.8	16.9	24.4	70.3	5.8	19.7	2.6	1.2	2.8		2.5	0.6	2.4		2.2		8.3	0.8	14.3	564.9	10317.8	11	495.6
SMDH 00224	4	5	70	80	96.1	85.7	87.8	77.4	8.3	2.6	18.1	15	10.4	5.7	16.7	43.1	3.4	10.6	1.5	0.8	1.3		1		0.6		1		3.6	0.6	20	535	9772.3	10.3	497.1
SMDH 00224	5	6	65	83.7	109.9	90.7	99.9	80.7	10	3	20.5	16.1	19.2	7	16.2	46.1	3.6	11.2	1.2	1	1.4		1.3		0.9		0.8		5	0.6	14.3	592.2	10817.3	11.6	537.8
SMDH 00224	6	7	60	115.7	176.7	143.4	137.7	104.4	39	11.3	48.9	24.6	33.3	27.7	19	58.1	4.7	15.9	2.6	1.3	2.8	0.6	3.4	1	3.5		2.8		6.7	0.8	12.9	709.2	12953.2	12.3	568
SMDH 00224	7	8	65	135.2	192.4	166.2	147.6	121.4	44.8	13.8	54.7	27.8	26.2	31	22	69	5.4	17.7	3	1.3	3	0.6	4.1	1.3	3.9		3.9		7.6	0.7	18.6	607.2	11090.1	11.9	535.9
SMDH 00224	8	9	85	97.9	140.5	117.2	113.8	90.5	26.7	7.4	35	18.5	23.3	19.3	17.5	52.3	4	12.1	1.7	1.2	1.7		2.4	0.6	2.2		2.2		6	0.8	12.9	641.9	11724.5	11.1	545.6
SMDH 00224	9	10	95	69.3	100.4	81.2	81.2	62	19.2	7.3	24.7	14.9	19.2	11.9	15.1	30	3.3	9	1.6	1.2	1.8		2.6	0.7	2.1		1.9		3.2	0.8	14.3	768.4	14035.5	16.3	789.3
SMDH 00225	0	1	4	546.4	604.1	577	552.9	525.8	51.2	20.6	129.5	126.6	27.1	30.6	118.2	258.7	29.8	86.2	16.4	2.1	14.4	1.5	9.1	1.6	4.5		3.3	0.6	43.1	2.9	18.6	624.8	11411.6	16.6	819.4

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00225	1	2	45	492.5	543.2	517.6	502	476.4	41.2	16.1	113.5	112.9	25.6	25.1	107.8	234.7	26.2	78.6	15.4	1.7	12	1.4	6.7	1.5	4		2.5		38.5	2.1	22.9	624.8	11411.6	12.7	648.5
SMDH 00225	2	3	35	536	600.7	570.9	548.6	518.8	52.1	17.2	145.7	138.8	29.8	34.9	116.6	239.9	29.6	100.5	18.7	1.6	11.9	1.5	7.2	1.3	4		3.2		52	1.8	34.8	3315.4	60557.6	11.7	475.9
SMDH 00225	3	4	50	649.4	704.2	674.8	663.4	634	40.8	15.4	143.1	151.8	29.4	25.4	149.1	303.4	36.9	105.9	20.9	2.8	15	1.3	7.7	1.4	3.1		1.9		48	1.9	41.5	833	15215.5	14.9	807.2
SMDH 00225	4	5	60	644.9	714.5	678.8	654.2	618.5	60.3	26.4	151.2	150.5	35.7	33.9	137.2	303	34.9	103.7	20.8	1.7	17.2	1.8	10.1	1.9	5.8	0.8	5.4	0.6	51.8	2.4	27.2	837.3	15293	14.3	757
SMDH 00225	5	6	70	697	764.3	734.2	702.9	672.8	61.4	24.2	165.9	165.6	30.1	37.2	149.4	330.3	38.9	115.5	19.1	2	17.6	1.8	9.4	2.2	5	0.8	4.3	0.7	58.4	2.6	25.7	847.6	15482.5	15.3	770.8
SMDH 00225	6	7	65	595.9	645.8	619.1	606.3	579.6	39.5	16.3	137.8	144.7	26.7	23.2	127.5	281.4	32.4	102.8	17.9	2.3	15.3	1.4	8.1	1.4	3.2		2.2		49	2	24.3	745.6	13619.3	13.3	672.2
SMDH 00225	7	8	80	611.6	668.8	639.7	622.8	593.7	46	17.9	138.2	140.4	29.1	28.1	132.1	293.5	32.4	98.8	19.2	2.1	15.6	1.6	7.6	1.5	4.1	0.6	2.5		51.3	1.8	22.9	770.6	14075.7	15	751.2
SMDH 00225	8	9	75	668.6	744	711.8	672.8	640.6	71.2	28	179.3	165.7	32.2	43.2	130.2	321.1	32.3	120.5	19.6	2.7	14.2	1.4	11.5	1.4	8.8	0.8	3.3	0.8	46.5	2	30	847.8	15485.3	15.4	1048.2
SMDH 00225	9	10	85	723.2	784.8	753.7	733.6	702.5	51.2	20.7	171.2	175.7	31.1	30.5	142.3	356.1	37.9	125.9	20.1	2.9	17.3	1.8	10.1	1	5.5		2.3		58	2.1	30	964.9	17624.1	17.6	1086.3
SMDH 00225	10	11	40	655.4	720.4	688.3	665.7	633.6	54.7	21.8	159.6	156.7	32.1	32.9	128.7	322	32.4	113.4	20.8	2.4	13.9	1.4	9.5	1.1	6.3	0.6	2.3	0.6	47.6	2.4	28.6	960.2	17538	20.6	1286.9
SMDH 00225	11	12	35	574.5	637.5	607.1	580.8	550.4	56.7	24.1	148.3	142.6	30.4	32.6	108.2	274.1	29.2	104	18.1	2.3	14.5	1.5	7.9	1.3	8.2	0.6	3.8	0.8	41.6	1.7	31.5	967.2	17667.2	17.9	1232.9
SMDH 00226	0	1	45	840.6	900.8	878.6	840.6	818.4	60.2	22.2	175.1	174.3	22.2	38	126.5	489.9	38.5	124.6	22.5	1.3	15.1	2	9.2	1.6	4.8		3.9	0.7	65	2.8	22.9	616.9	11268.1	20.5	1132.5
SMDH 00226	1	2	50	658.8	727.6	695.2	672.7	640.3	54.9	18.5	141.9	134.6	32.4	36.4	104.4	379.7	31.1	93.9	17.7	2	11.5	1.5	8.1	1.5	4.2		3.2		43.2	2.6	22.9	670	12238.4	12.6	744.7
SMDH 00226	2	3	60	569.4	633.3	608.8	575.1	550.6	58.2	18.8	129.8	114.2	24.5	39.4	88	330.3	25.3	80.1	15.8	1.5	9.6	1.6	7.2	1.6	3.8	0.7	3.9		37.9	2.9	22.9	664.1	12129.3	10.1	588
SMDH 00226	3	4	80	397.3	437.2	422.8	398.4	384	38.8	13.3	89.9	82.2	14.4	25.5	61.5	227.9	18.7	56.9	11	0.9	7.1	1.1	5.5	1	2.9		2.8		27	1.9	14.3	434.3	7932.1	8.4	443.1
SMDH 00226	4	5	60	490.9	545.7	523.8	497.1	475.2	48.6	15.7	115.6	103.3	21.9	32.9	75.2	281.4	22	73.8	13	1.4	8.4	1.3	6.2	1	3.5	0.6	3.1		32.4	2.1	17.2	542.2	9904.4	11.7	675.9
SMDH 00226	5	6	80	451.2	499.3	478	460.1	438.8	39.2	12.4	92.5	85.2	21.3	26.8	69.9	268.7	20.7	58.4	12.5	1.2	7.4	0.9	5.2	0.9	2.6		2.8		31.4	1.5	20	536.4	9798.2	11	668.4
SMDH 00226	6	7	95	538.5	589	567.1	547.3	525.4	41.7	13.1	121.2	116	21.9	28.6	80.3	310	24.6	84.6	15.1	1.2	9.6	1.4	5.4	1	2.6		2.7		37.9	1.7	17.2	607.2	11090.1	13	766.4
SMDH 00226	7	8	80	517	568.1	549.4	520	501.3	48.1	15.7	115.5	105.3	18.7	32.4	77.5	302.9	23.4	73.6	14.1	1.2	8.6	1.4	6.9	1.3	3.1		3		34.4	1.5	17.2	579.7	10587.7	9.7	545.6
SMDH 00226	8	9	98	488.7	558.3	530.1	495.4	467.2	62.9	21.5	122.2	101.7	28.2	41.4	73.3	277.6	22.2	70.2	14	1.3	8.6	1.3	8	1.5	4.8	0.7	4.6	0.6	32.8	1.5	17.2	560.9	10246	10.3	586.9
SMDH 00226	9	10	95	460.2	557.9	535	461.5	438.6	96.4	21.6	169.4	116.8	22.9	74.8	102	204.2	23.8	81.8	15.1	1.6	10.1	2.2	9	1.4	5.3	0.6	3.1		37.8	1.9	27.2	591	10794.4	10.1	454.9
SMDH 00226	10	11	85	457.1	543.4	516.7	466.4	439.7	77	17.4	154.2	116.7	26.7	59.6	99.8	205.9	23.6	84	13.8	1.5	11.1	2.1	7	1.3	4.3		2.7		40.1	1.8	27.2	626.3	11440.3	10.5	451.4
SMDH 00226	11	12	95	534.1	633.5	602.5	544.6	513.6	88.9	20.5	177.2	134.7	31	68.4	122	237.7	27.4	96.7	16.8	1.5	11.5	2.7	7.9	1.4	4.8	0.7	3		45.3	2	35.8	666.3	12169.5	11.2	473.3
SMDH 00226	12	13	98	233.7	275.3	255.2	247.5	227.4	27.8	6.3	66.9	55.5	20.1	21.5	54.8	107.5	11.7	40.5	6.6	1.6	4.7	0.7	2.6		1.7		1.3		19.1	0.9	20	586.3	10708.2	8.5	379
SMDH 00227	0	1	10	689.1	731.6	725.5	679.8	673.7	51.8	15.4	174.2	173.1	6.1	36.4	147.5	325.5	37	127.4	21.6	1.7	13	1.5	7.2	1.1	3		2.6		65.7	5.7	32.8	451.6	8247.9	0.6	268
SMDH 00227	1	2	35	284	328.5	306	299.4	276.9	29.1	7.1	77.1	68.5	22.5	22	69.1	127.3	14.3	50.5	9.2	0.9	5.6	0.9	2.8	0.6	1.9		0.9		24.5	0.8	18.6	456.7	8342.7	6.4	283.8
SMDH 00227	2	3	50	219.3	262.5	242.3	232.1	211.9	30.4	7.4	68.9	55.6	20.2	23	50.7	96.7	10.9	41.3	6.7	1.2	4.4	0.9	2.5	0.6	2.1		1.3		18.5	0.9	18.6	412.1	7527.3	7.2	321.1
SMDH 00227	3	4	50	310.3	339.3	324.4	320.8	305.9	18.5	4.4	76.6	77.6	14.9	14.1	72	144.2	15.9	58.3	10	0.8	4.7	1.1	2.3		1				29.7	0.9	8.6	362.6	6623	8.1	318.5
SMDH 00227	4	5	60	389	428.5	411.2	399.6	382.3	28.9	6.7	99.3	97	17.3	22.2	90.3	180.5	20.9	72.1	10.9	1	6.6	1.4	2.6	0.6	1.3		0.8		37.4	1.1	11.4	341.4	6235.5	9.8	422.9
SMDH 00227	5	6	55	643.1	684.9	665.3	647.5	627.9	37.4	15.2	127.1	129.8	19.6	22.2	116.7	361.4	26.6	95.5	17.2	1.7	8.8	1.5	6.2	1.1	3.7		2.7		57.5	1.5	8.6	513	9370.4	11.2	392.9
SMDH 00227	6	7	60	523.7	552.5	536.7	530.5	514.7	22	9	93.6	100.2	15.8	13	94.2	303	21.1	74.1	14.7	1.5	6.1	0.8	4.2	0.8	1.5		1.7		48.5	1.4	8.6	440.1	8038.4	11.1	432.9
SMDH 00227	7	8	95	673	725.8	701.1	679.4	654.7	46.4	18.3	140.7	138	24.7	28.1	120.4	376.3	27.1	103	17.6	1.7	8.6	1.6	6.3	1.5	4.8		4.1		60.3	1.3	12.9	628.7	11483.4	13.1	455.9
SMDH 00227	8	9	98	661.2	720.3	693.3	665.3	638.3	55	22.9	149.5	142.2	27	32.1	114.9	360.9	26.7	105.9	19	1.9	9	1.8	7.8	1.5	5.8	0.6	4.8	0.6	56.9	1.4	12.9	490.4	8957	9	347.7
SMDH 00227	9	10	98	479.3	523.7	505.1	481.6	463	42.1	16.3	104.4	96.8	18.6	25.8	86.3	264.2	19.8	70.7	14.1	1.6	6.3	1.3	5	1.1	4.5		4.4		42.8	1.3	10	399.8	7303.4	8.3	317.6
SMDH 00228	0	1	18	958.5	1031.5	1011.6	953.7	933.8	77.8	24.7	247.4	239.3	19.9	53.1	232.4	428.1	47.5	180.8	27.3	2.5	15.2	1.8	9.2	1.8	4.6	0.8	5.8	0.7	66.6	6	45.8	576.4	10527.4	1.4	402.3
SMDH 00228	1	2	50	450.4	499.7	477.3	456.5	434.1	43.2	16.3	105.3	95.4	22.4	26.9	84.7	239.2	19.2	68.5	12.8	2.2	7.5	1.3	6.4	1.1	4.2		3.3		37.1	2.6	28.6	875.1	15984.9	16.3	626.9
SMDH 00228	2	3	30	119.8	157.5	133.4	136.5	112.4	21	7.4	36.1	26.3	24.1	13.6	23.6	57.7	5.2	18.3	3.7	1.4	2.5		2.8	0.6	2.1		1.9		8.3	1.4	21.5	734.3	13412.6	15.9	628.1
SMDH 00228	3	4	50	324.4	365.8	349.4	327	310.6	38.8	13.8	77.9	64.9	16.4	25	57.2	179.5	13.2	45.5	9.6	1.2	4.4	0.9	5.3	1.1	3.7		2.8		26.4	1.5	11.4	422.5	7716.8	10.1	340.5
SMDH 00228	4	5	99	435.8	475.6	461.2	433	418.6	42.6	17.2	99.3	90.4	14.4	25.4	80.1	236.2	17.9	65.2	12.6	1.4	5.2	1.3	6	1.3	4.6		4		34.9	1.7	11.4	578.4	10564.7	10.7	381.3
SMDH 00228	5	6	98	98.7	115	105.8	104.5	95.3	10.5	3.4	24.7	20.3	9.2	7.1	19	54.3	3.6	14.7	1.6	0.9	1.2		2		0.7		0.7		7.6	0.6	12.9	480.9	8784.8	5.8	354.2
SMDH 00228	6	6.5	90	84.8	102.8	91.8	94.4	83.4	8.4	1.4	21.8	17	11	7	17.2	46.4	3.5	12.8	1.3	1.3	0.9		0.7		0.7				5.9	0.6	14.3	480.9	8784.8	7.2	390.8
SMDH 00229	0	1	25	491.2	525	511.8	494.4	481.2	30.6	10	94.8	92.9	13.2	20.6	102.6	273.6	18.7	68.8	11.2		6.3	0.7	4.7	0.8	2.1		1.7		49.2	2.1	12.9	521.8	9531.2	10.5	528.3
SMDH 00229	1	2	30	959.2	1032.1	998.4	975.8	942.1	56.3	17.1	191.7	191.7	33.7	39.2	193.9	532.5	40.8	140.4	22	1.6	10.9	1.4	9.1	1.1	3.1		2.4		93.1	3.1	27.2	980.8	17914.1	14.4	780
SMDH 00229	2	3	70	236.3	259.4	245.4	247.1	233.1	12.3	3.2	46.8	46.2	14	9.1	50.9	129.7	9.5	35	4.5	1	2.5		1.7		0.7		0.8		20.4	1.1	12.9	608.1	11107.3	5.2	305.4
SMDH 00229	3	4	75	131.3	157.4	140.4	145	128	12.4	3.3	29.6	25	17	9.1	28.7	69.3	6	17.6	3.1	1.5	1.8		1.4		0.8		1.1		10	1.3	15.7	723	13205.9	7.7	451.6
SMDH 00229	4	5	50	110.3	128.8	115.9	121.5	108.6	7.3	1.7	23.5	21.8	12.9	5.6	22.8	60.7	4.8	15.9	1.9	0.9	1.6		1.1				0.6		8.6	1.2	10	490.4	8957	10.1	482.1
SMDH 00229	5	6	70	52.5	68.7	58.1	62.5	51.9	6.2	0.6	13.1	8.8	10.6	5.6	11.3	28.5	2.2	6.6	1.5	0.9	0.9						0.6		3.1		8.6	405.5	7406.8	5.4	312.8
SMDH 00229	6	7	50	149.4	166.4	155.2	157.9	146.7	8.5	2.7	28.9	28.2	11.2	5.8	31.1	82.7	6	20.8	3.5	0.9	1.7		1.4		0.7		0.6		12.7		10	484.1	8842.2	6.6	378.2
SMDH 00229	7	8	95	236.1	265.6	244.6	252.9	231.9	12.7	4.2	46.3	45.9	21	8.5	42.3	134.9	10.1	33.8	5.1	2	3.7		2		1.1		1.1		15.2	0.9	14.3	570.7	10424	9.3	370.5
SMDH 00229	8	9	95	588.9	632.8	611	600.2	578.4	32.6	10.5	119	121.6	21.8	22.1	108.5	329.7	26.2	89.5	13.2	1.5	9.8	1.1	4.8	0.8	2.2		1.6		41.5	2.2	25.7	697.2	12735.1	9.6	483.6
SMDH 00229	9	10	95	408.2	445.6	427.2	417.4	399	28.2	9.2	88	86.2	18.4	19	70.4	228.5	18.5	63.1	10.1	1.3	7.1	0.7	3.9	0.7	2.4		1.5		34.4	1.7	18.6	568.5	10383.8	9.9	433.6
SMDH 00229	10	11	92	638.8	689.9	669.2	645.7	625	44.2	13.8	130.5	125.8	20.7	30.4	110.7	367.2	27.4	90.7	16.2	1.7	11.1	1.2	6.5	0.9	3.2		2		49.7	1.9	22.9	678.7	12396.3	8	409.4
SMDH 00229	11	12	85	626.6	691.6	664.3	637.1	609.8	54.5	16.8	138.9	127.2	27.3	37.7	107.8	354.1	27.7	91.3	16.4	1.7	10.8	1.2	7	1.1	4		2.8	0.7	47.8	1.8	24.3	754.7	13785.8	9.7	495.9
SMDH 00229	12	13	95	616.5	672.7	650.2	622.6	600.1	50.1	16.4	130.9	121.8	22.5	33.7	105.3	354.9	26.5	87.8	13.8	1.9	9.9	1.1	6.4	1	4.1		3.2	0.6	47.2	1.9	20	685.4	12519.7	9.1	490.2
SMDH 00229	13	14	98	770.7	831.4	808.7	774.3	751.6	57.1	19.1	168.8	162.7	22.7	38	129.8	436.1	33.5	120.8	17.9	1.6	11.9	1.4	7	1.3	5.4		3.4	0.6	64.2	1.9	17.2	736.8	13458.5	9.9	494.9
SMDH 00229	14	15	98	684.8	740.3	721.1	687	667.8	53.3	17	147.1	140.1	19.2	36.3	115.4	390.9	30.6	101.5	16.6	1.3	11.5	1.2	6.8	1.1	4.6		3.3		55.3	1.7	18.6	718.9	13131.2	8	411.6
SMDH 00229	15	16	98	712.4	780.2	752.1	719.8	691.7	60.4	20.7	156.4	146.1	28.1	39.7	116.3	406.2	30.9	106.1	18.9	1.5	11.8	1.3	7.8	1.4	5	0.6	3.9	0.7	59.2	1.7	21.5	730.2	13337.9	9.3	473.5
SMDH 00230	0	1	25	550.2	598.7	578.9	557.1	537.3	41.6	12.9	120.3	115.2	19.8	28.7	92.3	310.3	24.8	83.7	15.4	1.2	9.6	1.2	5.5	0.8	3.2		2.2		45.3	2.6	12.9	589.1	10759.9	10.8	541
SMDH 00230	1	2	90	434.6	472.1	458	438.1	424	34	10.6	96	90.8	14.1	23.4	74.4	240.5	19.8	65.2	14.1	1.6	8.4	1.1	4.7	0.8	2.4		1.6		33.7	1.7	15.7	512.9	9367.6	6.3	331.1
SMDH 00230	2	3	75	547.4	612.8	592.7	546.1	526	66.7	21.4	146	123	20.1	45.3	97.7	285	25.7	87.6	15.4	3.4	11.2	1.4	8.3	1.7	5.4		3.8	0.8	36	1.7	18.6	519.6	9491	7	373.8
SMDH 00230	3	4	92	371	445.5	422.8	380.6	357.9	64.9	13.1	130.4	97.2	22.7	51.8	80.2	165.2	19.9	69.8	12.6	1.3	8.9	2.1	5.4	1.1	2.2		2.3		38.2	1.7	22.9	651	11891	12.5	522.4
SMDH 00230	4	5	85	370.3	437.3	416.4	379	358.1	58.3	12.2	121.3	93.1	20.9	46.1	80	170.5	19.5	67.1	11.6	1.6	7.8	1.6	4.9	1	2.3		2.4		39.4	1.8	20	488.8	8928.3	12.1	474.9
SMDH 00230	5	6	98	482.1	574.5	546.6	492.4	464.5	82.1	17.6	163.1	121.5	27.9	64.5	100.3	222.5	24.8	87.7	17.4	1.9	9.9	2.1	6.9	1.6	3.2		3.1	0.7	49.6	2.7	28.6	484.4	8847.9	11.9	516.5
SMDH 00230	6	7	99	372.4	442.1	424.2	376.8	358.9	65.3	13.5	130.4	96.5	17.9	51.8	78	169.6	19.3	70	12.2	1.4	8.4	1.6	5.6	1.1	2.7		2.5		37.3	2.1	18.6	482.4	8810.6	11.7	417.8
SMDH 00230	7	8	98	305.8	352.2	341	308.3	297.1	43.9	8.7	99.7	79.1	11.2	35.2	63.6	140.4	15.8	57.9	11.1	1.2	7.1	1.4	4	0.8	1.4		1.1		32.1	2	24.3	590.5	10785.8	12.1	693.6
SMDH 00230	8	9	98	290.8	358.1	340.5	296.2	278.6	61.9	12.2	108.7	73.4	17.6	49.7	60.2	132.7	15.7	50.9	10.7	1.3	7.1	1.6	5.2	1	2.2		2.2		28.8	2	25.7	631.5	11535	11.8	496.8
SMDH 00230	9	10	98	270.6	329.8	315.8	273.5	259.5	56.3	11.1	102.9	71.3	14	45.2	57.5	120.4	15	50.4	8.5	1.4	6.3	1.2	4.7	1.1	1.9		2.2		24.2	1.7	30	581.9	10627.9	11.7	520.1
SMDH 00230	10	11	90	367.2	474.9	447.6	371.9	344.6	103	22.6	157.9	94.2	27.3	80.4	75.6	163.1	18.2	65.6	11.5	1.5	9.1	2	8.4	1.9	4.3	0.8	4.4	0.8	34.5	2.4	22.9	601.3	10983.8	11.4	519.1
SMDH 00230	11	12	98	294.9	330	314.2	301.6	285.8	28.4	9.1	68	60.5	15.8	19.3	51.8	163.9	13	43	8.1	1.2	4.8	0.9	3.6	0.7	1.9		2		25.6	1.7	24.3	797.2	14560.9	11.2	450.8
SMDH 00230	12	13	88	495.4	544.5	522.1	504.7	482.3	39.8	13.1	106.4	99.8	22.4	26.7	84.4	280.1	21.7	71.6	13.9	1.6	9	1.3	5.2	0.9	3.2		2.5		43.1	2.1	21.5	711.7	12999.2	9.1	401.1
SMDH 00230	13	14	95	614.3	673.5	648.5	621.1	596.1	52.4	18.2	138.2	128.9	25	34.2	105.4	340.8	26.6	93.5	17	1.7	11.1	1.8	7	1.4	3.7	0.6	3.1	0.6	55.3	2.7	27.2	759.5	13871.9	8.5	370

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00230	14	15	96	568.7	622.7	601.7	573.9	552.9	48.8	15.8	126.3	116.9	21	33	102	312.8	25.7	82.5	16.7	2.1	11.1	1.4	7.3	1.1	3.4		2.6		48.6	2.5	32.9	608.6	11115.9	6.6	300.6
SMDH 00230	15	16	98	515.9	569.4	550.7	518.7	500	50.7	15.9	117.4	103.6	18.7	34.8	87.7	290.6	22.6	73.5	15.1	1.6	8.9	1.4	6.1	1.3	3.9	0.6	2.6		45.2	2.7	25.7	588.5	10748.4	9.3	419.4
SMDH 00230	16	17	80	587.2	647	624	591.5	568.5	55.5	18.7	133.2	119	23	36.8	102.9	325.4	24.5	84.9	17.3	1.9	11.6	1.6	8	1.1	4.2	0.6	3.2		54.7	2.6	22.9	658.9	12034.6	10.8	476.6
SMDH 00231	0	1	15	666.5	722.3	703.7	668.2	649.6	54.1	16.9	145.4	135	18.6	37.2	117.3	376.5	28.4	97.5	17.9	1.6	10.4	1.6	7.5	1.1	3.9		2.8		55.5	3.2	10	729.3	13320.7	13.3	552.3
SMDH 00231	1	2	20	978.3	1055.8	1025.9	984.6	954.7	71.2	23.6	208.8	201.8	29.9	47.6	173.7	543.3	42.5	146.8	29.7	1.9	16.8	2.6	9.9	1.7	5.1	0.7	3.6		79.9	5.3	18.6	814.8	14882.4	19.2	855.2
SMDH 00231	2	3	55	626.6	695.2	659.2	647.9	611.9	47.3	14.7	130.2	121.7	36	32.6	101.3	369.5	25.7	87.7	16.4	1.6	9.7	1.8	6.5	1	3.7		1.7		50	3.2	21.5	792.2	14469	13.8	620.2
SMDH 00231	3	4	80	440.6	514.7	486.8	454.9	427	59.8	13.6	138.4	113.6	27.9	46.2	98.4	198.4	23.3	82	13.3	1.9	9.7	2	6.3	1.1	1.9		2.3		38.7	2.5	15.7	535.2	9775.2	9.6	387
SMDH 00231	4	5	20	376.4	450.7	420.6	394.3	364.2	56.4	12.2	119.5	93.9	30.1	44.2	81.4	171.5	20.3	67	14.1	1.7	8.2	1.6	5	1	1.9		2.7		33.1	2.1	14.3	564.6	10312.1	8	376.9
SMDH 00231	5	6	70	347.5	412.3	388.4	359.3	335.4	53	12.1	112.1	88.1	23.9	40.9	75.3	159.1	18.8	62.1	10.8	1.9	7.4	1.8	5.4	1	1.9		2		31.3	2	14.3	521.5	9525.5	8.4	358.6
SMDH 00231	6	7	90	339.2	400.9	378.2	351.1	328.4	49.8	10.8	114.5	91.3	22.7	39	73.7	150.5	17.4	67.9	10.6	1.6	6.7	1.4	4.6	0.9	2.1		1.8		28	1.7	14.3	523.7	9565.6	6.6	274.6
SMDH 00231	7	8	96	384.2	495.2	453.2	408.1	366.1	87.1	18.1	147.9	97.3	42	69	82	171.2	20.1	67.8	13.7	1.7	9.6	1.9	7.5	1.6	3	0.7	3.4		29.7	2	31.5	782.2	14288.2	12.7	592.1
SMDH 00231	8	9	98	400.3	539.2	495.3	419.5	375.6	119.7	24.7	178.7	102.7	43.9	95	84.6	176.5	20.4	70.1	12.2	1.4	10.4	2.6	9.6	1.9	4.3	0.8	4.7	0.8	31.4	2.5	24.3	709.6	12961.9	11.3	459
SMDH 00231	9	10	80	451.6	567.1	534.3	460.4	427.6	106.7	24	176.5	116.4	32.8	82.7	95.2	201.7	24.2	80.6	13.9	1.6	10.4	2.5	9.1	1.7	4.8	0.8	4.3	0.8	37.8	3.2	22.9	682.4	12465.2	11.8	488.3
SMDH 00231	10	11	30	501.2	635.4	595.4	514.4	474.4	121	26.8	199.6	128.9	40	94.2	105.3	222	25.4	91.6	16.2	1.9	12	2.7	9.2	2.3	5.3	0.9	5.8	0.6	43.6	3.2	22.9	677.9	12381.9	11	470.2
SMDH 00231	11	12	95	492.4	578.9	550.1	504.1	475.3	74.8	17.1	160.3	126.7	28.8	57.7	111.2	219.5	26.3	91	14	2.2	11.1	2.2	7.2	1.3	3.1		3.3		39.8	2.7	35.8	662	12092	9.7	432
SMDH 00231	12	13	50	474.2	521	494	492.1	465.1	28.9	9.1	102.1	101.5	27	19.8	104.6	240.8	21.1	74.6	13.2	1.9	8.9	1.4	4.4	0.8	1.5		1		41.6	1.9	31.5	744.4	13596.3	11.2	509.5
SMDH 00231	13	13.5	70	594.3	653.3	624	610.3	581	43	13.3	142.1	138	29.3	29.7	125.5	294.9	27.8	101.5	17.2	2.2	11.9	2	6.7	0.9	2.1		1.6		53	3.1	38.6	799.7	14606.8	10.5	498.6
SMDH 00232	0	1	20	795.4	856.3	841.1	789.6	774.4	66.7	21	187.9	176.4	15.2	45.7	169.7	400.7	35.5	129.7	21.9	1.3	15.6	2.6	8.6	1.6	3.7		3.9	0.6	72.4	4	12.9	651.3	11896.8	15.2	692
SMDH 00232	1	2	20	991.4	1065.9	1045	989.2	968.3	76.7	23.1	227	216.4	20.9	53.6	212.7	503.6	44.5	159.6	27.7	1.5	18.7	3.1	9.2	1.9	3.9	0.6	3.8	0.6	89.3	4.7	17.2	1131.6	20670.1	9.3	464.3
SMDH 00232	2	3	90	735.8	801.2	776.8	743.5	719.1	57.7	16.7	164.2	145.6	24.4	41	118.3	432.8	24.3	111.9	19	1.9	10.9	1.8	7.6	1.5	3.8		2		74.4	3.9	14.3	521.3	9522.6	9.1	383.8
SMDH 00232	3	4	55	863.9	916.8	893.6	874.1	850.9	42.7	13	195.2	194.6	23.2	29.7	222.7	403.4	31.9	155	24.2	2.8	10.9	1.4	6.3	1.1	3.2		1		42.2	1.9	21.5	696.3	12717.8	8.6	346.9
SMDH 00232	4	5	90	442	485.5	462.6	456.7	433.8	28.8	8.2	94.3	86.4	22.9	20.6	72.8	261.2	14.3	67.2	10.4	1.6	6.3	0.8	4.1	0.9	1.4		1		43	2.4	17.2	617.2	11273.8	11.2	473.7
SMDH 00232	5	6	85	327.8	368.4	347.5	340.2	319.3	28.2	8.5	77.6	67.2	20.9	19.7	51.3	191.5	10.8	51.9	8	1.5	4.3	0.6	3.9	0.7	1.9		1.4		32.1	1.7	12.9	428.9	7834.5	8.1	338.4
SMDH 00232	6	7	70	393.4	450.4	424.9	405.8	380.3	44.6	13.1	99.8	79.9	25.5	31.5	63.6	226.8	12.9	60.7	9.7	1.3	5.3	1.1	5.2	1.1	3.4		2.3		39.1	2.7	14.3	499.5	9123.5	10.8	447.2
SMDH 00232	7	8	70	405	479.6	447.9	418.7	387	60.9	18	115.6	83.9	31.7	42.9	63.8	230.4	12.7	63.7	8.9	1.5	6	1.1	6.4	1.4	4.8	0.6	3.1	0.6	38.9	2.6	24.3	551.7	10076.7	12	500.3
SMDH 00232	8	9	90	352.4	403.9	384.1	359.5	339.7	44.4	12.7	90.8	68.8	19.8	31.7	57.2	204.3	11.1	51.8	8.8	1.4	5.1	1.1	4.8	1.3	3.5		2		33.7	2.5	15.7	403.6	7372.3	8.3	373.2
SMDH 00232	9	10	98	339.3	398.6	371.8	352.1	325.3	46.5	14	93.1	69	26.8	32.5	53.7	192.9	10.4	52.6	8.9	2	4.8	0.8	5.2	1.1	3.8		2.5	0.6	30.5	2.6	22.9	454.1	8293.9	9.8	416.2
SMDH 00232	10	11	98	377.6	447.4	413.5	395.4	361.5	52	16.1	103.2	77.5	33.9	35.9	58.3	216	11.5	59.3	9.9	1.3	5.2	1.1	5.6	1.3	3.9	0.6	3	0.6	35.4	2.5	18.6	509.6	9307.3	10.8	462.5
SMDH 00232	11	12	99	448.4	520	492.7	458.4	431.1	61.6	17.3	137.2	115.1	27.3	44.3	97.1	203.9	24.2	81.6	12.4	2	9.9	2.1	7.2	1.5	3.1	0.6	2.8		37.9	2.9	27.2	690.8	12617.4	13.4	666.9
SMDH 00232	12	13	90	378.3	443	422.1	381.8	360.9	61.2	17.4	127.8	102.2	20.9	43.8	77.9	168.4	19.7	73.9	10.6	1.5	8.9	1.9	6.7	1.3	3	0.7	3.8		31.6	2.5	24.3	519.3	9485.3	10	490.2
SMDH 00233	0	1	25	385.2	436.4	413.1	396.7	373.4	39.7	11.8	107.4	98.2	23.3	27.9	82.8	178.7	19.9	72	10.4	1.2	8.4	1.9	4.4	0.8	2.3		2.4		33.1	2	20	536.1	9792.4	9.1	455.9
SMDH 00233	1	2	20	356	410.8	379.7	376.2	345.1	34.6	10.9	99.2	92.9	31.1	23.7	76.5	162.1	18.6	68.2	11.1	1.2	7.4	1.5	4.6	0.8	2.2		1.8		30.2	2	25.7	558	10191.5	9.2	407.7
SMDH 00233	2	3	65	374.9	416.9	394.2	389.7	367	27.2	7.9	96.2	95.8	22.7	19.3	82.7	174.2	20.4	70.7	9.9	1.5	7.6	1.5	3.2	0.6	1.3		1.3		32.8	2	18.6	623	11380	8.3	430
SMDH 00233	3	4	70	378.5	422.6	401	391	369.4	31.6	9.1	96.9	94	21.6	22.5	81.3	177.7	20.8	67.8	12.2	1.2	8.4	1.4	4	0.6	1.6		1.5		34	2.2	18.6	582	10630.7	9	423.2
SMDH 00233	4	5	70	412.3	461.9	437.8	425.5	401.4	36.4	10.9	109.3	104.1	24.1	25.5	92.8	188.3	21.9	75.3	12.6	1.6	8.9	2.1	4.8	0.7	1.8		1.5		34.9	2.7	44.3	545.9	9970.4	9.1	450.5
SMDH 00233	5	6	85	322.4	375	349.2	337.1	311.3	37.9	11.1	93.9	81.7	25.8	26.8	69.8	147.3	16.2	58.7	9.4	1.6	8.3	1.5	5.3	0.8	1.9		1.6		27	2.4	31.5	514.4	9396.3	11.4	485.3
SMDH 00233	6	7	85	348.6	413.6	386.6	362.4	335.4	51.2	13.2	94.5	70.3	27	38	60.6	191.9	15.1	48.8	10.2	1.3	7.5	1.1	5.3	0.8	3.5		2.5		30.7	2.4	20	576	10521.6	8	383.8
SMDH 00233	7	8	95	378.7	435.5	406.8	397	368.3	38.5	10.4	91.1	77.7	28.7	28.1	67.3	210.2	15.9	56.5	9.6	1.2	7.6	0.9	4.4	0.7	2.5		1.9		32.4	1.9	18.6	628.7	11483.4	6.3	330.4
SMDH 00233	8	9	92	328.4	370.3	349.9	340.7	320.3	29.6	8.1	74	65.6	20.4	21.5	58.8	183.5	14.3	46.4	9.5	1.2	6.6	0.8	4.1		1.9		1.3		29	1.8	15.7	516.3	9430.7	6	308.5
SMDH 00233	9	10	90	378.8	420.4	398	394.4	372	26	6.8	80.7	75.9	22.4	19.2	70.1	208.1	15.9	55.8	12.4	1.5	8.2	0.8	3.4	0.6	1.1		0.9		32.5	2	21.5	590.5	10785.8	7.1	328.8
SMDH 00233	10	11	98	337.6	372.5	355.5	347.5	330.5	25	7.1	73.7	69.1	17	17.9	62.3	187.8	14.3	50.3	8.6	1	6.2	0.9	3.6		1.6		1		30.5	1.8	14.3	485.2	8862.3	6.5	312.3
SMDH 00233	11	12	95	378.6	410.7	395.4	387.7	372.4	23	6.2	72.8	70.1	15.3	16.8	72	216.7	15.1	51.1	9.7	1	6.8	0.7	3.2		1.5		0.8		36.2	1.5	12.9	490.1	8951.3	6	296.1
SMDH 00233	12	13	98	475	526.9	499.6	492.5	465.2	34.4	9.8	99.4	93.5	27.3	24.6	91.5	264.7	20.4	67.5	12.3	1.7	7.1	1.1	4.5	0.8	1.9		1.5		37.8	1.9	25.7	621.5	11351.3	8.1	407.1
SMDH 00233	13	14	50	409.4	480.3	454.5	419.7	393.9	60.6	15.5	113.2	83.6	25.8	45.1	73.9	224.4	16.7	59.1	11	1.2	7.6	1.1	6.7	1.1	4.1		2.5		35.5	2.4	14.3	628.7	11483.4	6.1	333.5
SMDH 00233	14	15	70	281.2	319.7	300.8	292.6	273.7	27.1	7.5	67.3	59	18.9	19.6	51.5	154.2	12.1	43	6.8	0.8	5.3	0.7	3.2	0.6	1.7		1.3		23.7	1.5	11.4	499.7	9126.4	5.7	311
SMDH 00233	15	16	95	120.3	160.4	136.3	141.1	117	19.3	3.3	41.7	29.3	24.1	16	27.1	52.9	5.8	22	3.5	2.2	3.5		1.5		0.9		0.9		8.3	1.1	15.7	590.5	10785.8	11.9	445.4
SMDH 00233	16	17	98	327.6	401.3	368.5	349.1	316.3	52.2	11.3	109.4	85.1	32.8	40.9	68.8	151.1	17.4	60.9	9.2	0.8	8.1	1.6	5.2	0.8	1.8		1.9		30.5	2	15.7	544	9936	12.6	535.6
SMDH 00233	17	18	70	257.6	295.3	273.1	274.8	252.6	20.5	5	66.8	63.9	22.2	15.5	56.8	119.3	13.5	47	9.5	0.9	5.6	1.1	2.3		0.8		0.8		23.1	1.9	14.3	529.4	9669	12.7	524.5
SMDH 00234	0	1	30	520.1	584.5	572.5	517.2	505.2	67.3	14.9	160.9	134.5	12	52.4	115.1	232.4	27.2	98.6	17.6	1.2	13.1	2.8	5.9	1.1	2.7		2.4		47.3	3.8	12.9	337.4	6163.7	19.5	797.8
SMDH 00234	1	2	20	558.4	624.6	603.9	564.6	543.9	60	14.5	159.6	142.9	20.7	45.5	121.5	255.6	29.7	104	18.3	0.9	13.9	2.8	6.4	1	2.3		2		53	3.7	11.4	413	7544.6	14.6	565
SMDH 00234	2	3	25	481.9	532.4	510.3	495.4	473.3	37	8.6	133	131.5	22.1	28.4	101.3	221.6	28.5	97.5	13.6	1.6	9.2	1.8	3.7	0.8	1.3		1		40.3	1.9	15.7	495.7	9054.6	8.6	349
SMDH 00234	3	4	90	319.4	360.1	341.8	330.8	312.5	29.3	6.9	86.8	78.8	18.3	22.4	72.9	148.4	16.4	58.1	8.7	2	6	1.2	3.1	0.6	1.1		0.9		29.1	1.3	11.4	381.1	6961.8	9.6	399.4
SMDH 00234	4	5	35	466.9	501.9	495.2	464	457.3	37.9	9.6	125	120.1	6.7	28.3	104.7	213.1	25.6	88.2	13.9	2.2	9.6	1.8	4.5	0.7	1.5		1.1		42	1.1	14.3	183.3	3347.4	5	216.8
SMDH 00234	5	6	80	199.7	222	214	203	195	19	4.7	55.8	50	8	14.3	45.5	90.5	10.5	36.3	6.4	2	3.8	0.9	2.3		0.8		0.7		17.5	0.8	15.7	238.6	4357.9	5.5	225.7
SMDH 00234	6	7	80	201.8	231.6	215.6	214.1	198.1	17.5	3.7	59.6	56.5	16	13.8	44	89.4	11.5	42.6	6.1	0.8	3.7	0.7	1.7		0.7		0.6		17.4	1.1	14.3	462.1	8440.3	9.7	406.9
SMDH 00234	7	8	90	433.5	495.7	465.2	452.8	422.3	42.9	11.2	128	119.5	30.5	31.7	96.2	192.1	24.6	89.2	10.6	1.4	8.2	1.5	4.2	0.8	2.3		2.4		37.9	2.7	17.2	594.1	10851.8	8.5	347.2
SMDH 00234	8	9	98	387.3	446.4	420.2	401.8	375.6	44.6	11.7	117.9	106.5	26.2	32.9	84.7	171.5	22.5	77.8	10.6	1	7.5	1.8	4.4	0.8	2.3		2.4		34.7	3.1	15.7	517.1	9445.1	6.7	331.2
SMDH 00234	9	10	99	422	475	454.4	432.4	411.8	42.6	10.2	126.5	117.1	20.6	32.4	92.4	186.7	24.4	87	11.6	1.4	8.3	1.5	4.2	0.8	1.9		1.8		37.9	3.3	15.7	552.9	10099.6	7.7	305.7
SMDH 00234	10	11	85	438	473.3	458.4	444.9	430	28.4	8	91.2	86.2	14.9	20.4	74.2	254.8	17	64.3	11.1	1.6	7	0.9	4	0.6	1.6		0.9		27.7	2.7	21.5	338.9	6189.5	5.3	226.3
SMDH 00234	11	12	90	207.2	232.1	220.7	213.3	201.9	18.8	5.3	50.5	43.8	11.4	13.5	34.8	116.2	8.2	33.2	4.8	1.4	3.3		2.4		1.6		1.3		12.2	1.4	12.9	354.6	6476.6	5.3	229.8
SMDH 00234	12	13	98	408.7	432.4	421.4	413.8	402.8	18.6	5.9	83.7	84.9	11	12.7	66.4	238.1	15.5	65.2	8.9	1.6	7.1	0.8	3.4		0.9		0.8		24	1.7	14.3	494.9	9040.3	6.3	280.3
SMDH 00234	13	14	98	336.3	362.2	347.9	344.5	330.2	17.7	6.1	69	69.2	14.3	11.6	56.1	192.2	13.2	52	9.3	1.4	6	0.7	3.3		1.4		0.7		19.3	1.8	20	440.9	8052.7	7.7	336.9
SMDH 00234	14	15	98	350.5	383.6	367	359.6	343	24	7.5	75.6	72	16.6	16.5	56.8	202.2	13.9	54.1	8.1	1	6.9	0.6	3.4	0.6	1.8		1.1		20.7	1.8	14.3	368.9	6737.9	6	257.1
SMDH 00235	0	1	30	250	272.9	263.5	253	243.6	19.9	6.4	53.7	48.8	9.4	13.5	42.8	144.1	9.2	36.4	5.9	0.6	4.6		3.2	0.6	1.5		1.1		15.6	2	12.9	338.4	6180.9	3.8	174
SMDH 00235	1	2	40	281.8	326.4	312.9	281.5	268	44.9	13.8	80.6	59.7	13.5	31.1	47	154.2	11.1	42.6	6.3	0.9	5.9	0.8	5.2	0.9	3.5	0.6	2.8		15.2	3.5	17.2	365.3	6671.8	7.7	370.4
SMDH 00235	2	3	80	306.3	349.3	338.6	302.3	291.6	47	14.7	83.6	60.6	10.7	32.3	50.7	171.5	10.6	43.6	7.4	1.3	6.5	0.8	5.6	1	4.1		3.2		16.5	3.4	14.3	295.2	5391.4	7.3	320.5
SMDH 00235	3	4	50	281.5	338.1	322.6	277.3	261.8	60.8	19.7	88.2	56.2	15.5	41.1	43.4	154.8	10.5	38.8	7.5	1.4	5.4	0.9	6	1.3	5.1	0.6	5.1	0.7	14.7	3.1	11.4	253.8	4636.4	7	319.7
SMDH 00235	4	5	50	307.8	370.8	349.5	316.1	294.8	54.7	13	96.4	66.3	21.3	41.7	63.1	157.5	12.6	46.7	8.3	1	5.6	1.5	5.5	1	2.5		2.5		19.5	3.4	22.9	435.4	7952.2	9.8	384
SMDH 00235	5	6	55	269.5	328.8	310.9	274.1	256.2	54.7	13.3	88.7	57.5	17.9	41.4	55.4	136.8	11.2	40	6.5	1	5.3	1.3	5	1	2.7		2.7	0.6	16.6	3.2	15.7	332.7	6077.6	6.7	304.7
SMDH 00235	6	7	45	289	357.2	338.9	291.4	273.1	65.8	15.9	97.4	58.1	18.3	49.9	59.6	148.1	12	39.2	7.3	1.4	5.5	1.5	5.4	1.1	3.5	0.7	3.1	0.6	18.5	3.5	17.2	337.3	6160.8	6.4	280
SMDH 00235	7	8	60	316.5	391.4	369.2	323.6	301.4	67.8	15.1	108.5	67.9	22.2	52.7	63.6	162	13.3	47.5	7.8	1.2	6	1.5	5.6	1	2.9	0.6	3.5		20	3.9	14.3	387.4	7076.6	12.6	551.7

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00235	8	8.5	50	200	280	241.7	216.8	178.5	63.2	21.5	79.9	46.7	38.3	41.7	41.2	84.8	9.7	31.5	6.1	1.2	4	0.7	4.8	1.3	4.8	0.9	8	1	13.2	4.4	16.2	262.2	4788.6	3.4	179
SMDH 00236	0	1	40	494.3	623.3	580.4	510.4	467.5	112.9	26.8	169.5	102.9	42.9	86.1	101.1	248	21.4	70.1	14.7	1.9	10.3	2.2	9.2	2.2	5.5	1	5.7	1	31.4	2.8	34.3	553.9	10116.8	13.4	602.7
SMDH 00236	1	2	65	270.3	472.4	396.9	309.3	233.8	163.1	36.5	172.6	54.2	75.5	126.6	47.4	131.9	9.8	31.6	5.5	1.6	6	1.9	10.9	3	9	1.7	8.9	1.1	17.3	1.4	22.9	701.9	12821.2	9	387.7
SMDH 00236	2	3	65	276.6	617.9	486.5	343.8	212.4	274.1	64.2	265.8	64.1	131.4	209.9	44.1	110.9	9.8	31.8	7.1	1.6	7.1	3.1	19.4	4.9	14	2.7	17.1	3	14.9	2.1	41.5	1233	22521.8	20.8	882.9
SMDH 00236	3	4	85	217.2	409.8	315.2	282.4	187.8	127.4	29.4	137.1	46	94.6	98	40.1	100.7	8.6	26.9	5.1	1.7	4.7	1.8	8.7	2.5	6.7	1.4	7.3	1	12.2	1.9	57.2	1260.4	23021.3	28.1	1173.6
SMDH 00236	4	5	80	489.1	853.4	695.1	551.5	393.2	301.9	95.9	295.7	105.2	158.3	206	72.6	217.4	17.2	60.5	12.5	1.7	11.3	2.6	24.9	7.6	26	3.8	27.1	3.9	25.5	2.5	38.6	1161.8	21221.3	19.9	979.6
SMDH 00236	5	6	70	139.7	202	163.3	168.3	129.6	33.7	10.1	49.5	29.9	38.7	23.6	25.2	70.1	6	20.5	3.1	2	2.7		3.4	0.9	2.9		2.3	0.6	9.1	1.7	20	521.5	9525.5	11.6	498.3
SMDH 00236	6	7	75	206.7	281.8	229.2	249.1	196.5	32.7	10.2	60.8	44.3	52.6	22.5	37.3	108.2	8.2	32.1	4.6	2.2	3.9	0.6	3.4	0.8	2.6		2.8		12.1	2.4	32.9	851.6	15554.2	26.1	1113.6
SMDH 00236	7	7.5	50	219.2	285.9	235.1	264	213.2	21.9	6	52.2	42.7	50.8	15.9	40.5	121.5	8.5	31.3	5.8	2.1	3.5	0.6	2.3		1.6		1.5		12.6	2.2	40.1	1183.8	21623.2	29.7	1222.1
SMDH 00237	0	1	30	280.1	308.2	295.6	285.7	273.1	22.5	7	63.9	57.7	12.6	15.5	48.7	156.5	10.8	43.6	7.2	1.5	4.8		3.3	0.7	1.7		1.3		20.1	1.5	17.2	576.5	10530.3	8.6	365.4
SMDH 00237	1	2	90	298	326.1	309.7	309.2	292.8	16.9	5.2	61.7	62.6	16.4	11.7	55.2	165.3	13.4	46.4	7.1	0.8	4.6		2.8		1.5		0.9		20.5	2	17.2	598.5	10932.2	11.7	479.5
SMDH 00237	2	3	96	234.2	256.3	242.2	245.3	231.2	11	3	49.8	50.4	14.1	8	49.6	122.7	10.3	38.6	4.8	1.7	3.5		1.5		0.8		0.7		10.4	0.6	22.9	495.1	9043.2	3.2	178.7
SMDH 00237	3	4	85	274.1	293.6	282.2	282.9	271.5	10.7	2.6	51.8	53.4	11.4	8.1	61	146.7	12.2	39.8	5.8	2.5	3.5		1.4		0.6		0.6		10.8	0.8	37.2	301.5	5506.3	4.4	215.2
SMDH 00237	4	5	98	394.3	430.9	412.2	404.2	385.5	26.7	8.8	87.4	84.8	18.7	17.9	73.8	213.6	16.9	63.2	10.4	1.6	6	0.7	4	0.7	2.1		1.3		24.2	1.8	22.9	464.3	8480.5	9.4	379.3
SMDH 00237	5	6	95	442	478.5	462.1	452.1	435.7	26.4	6.3	103	103.3	16.4	20.1	106.1	211.7	21.4	77.3	10.8	1	7.4	1.6	3		0.8		0.9		38.1	2.5	18.6	406.1	7418.3	8.5	268
SMDH 00237	6	7	98	222.2	249.2	238.5	227.8	217.1	21.4	5.1	63.4	56.3	10.7	16.3	51.4	100.5	10	43.3	6.4	0.8	4.7	0.9	2.1		1		1.1		18.5	1.5	14.3	313.6	5727.3	5.8	181.8
SMDH 00237	7	8	90	280.2	298.9	290.2	284.8	276.1	14.1	4.1	63.6	65.1	8.7	10	65.8	135.1	12.4	49.2	7.3	0.9	5.4	0.9	2.6		0.6				25.4	1.3	8.6	216.6	3956	3.3	115.6
SMDH 00237	8	9	98	283.4	314.1	304.1	287.3	277.3	26.8	6.1	74.5	66.7	10	20.7	65.1	134.4	13.7	49.2	8.2	0.8	5.9	0.9	2.9		1.3		1		25.8	2.1	11.4	238.9	4363.7	5.5	179.8
SMDH 00237	9	10	98	195.8	229.8	216.8	202.1	189.1	27.7	6.7	40.5	29.3	13	21	50.3	102.4	10.8	14.5	5.7	1	4.4	0.9	3.1		1.4		1.3		19.9	2.2	17.2	356.9	6519.7	10.8	277.9
SMDH 00237	10	11	98	146.9	164.9	154.9	154.7	144.7	10.2	2.2	36.9	34.3	10	8	34.1	69.8	6.3	26.6	4.3	0.9	2.7		1.4		0.8				12.4	1.3	12.9	288.3	5265.1	6.7	219.5
SMDH 00237	11	12	95	119.6	137.4	125.6	130.6	118.8	6.8	0.8	28.3	27.2	11.8	6	27.3	58.7	5.6	20.8	3.4	0.7	2.3		0.8						10	1.1	21.5	373.3	6818.3	8	277.9
SMDH 00237	12	13	98	441.3	480.1	465.8	446.2	431.9	33.9	9.4	114.2	108.5	14.3	24.5	110.8	199.6	20.4	82.1	9.2	1.6	8.2	1.5	4.5	0.6	1.4		1.4		28	2.6	48.6	389.8	7119.7	9	275.4
SMDH 00237	13	14	98	236.5	260.3	250.2	242	231.9	18.3	4.6	59.2	55.6	10.1	13.7	54.7	112.4	11	41.3	6.3	0.9	5.3	0.8	2.5		0.7		0.6		22	1.9	18.6	386.8	7065.1	8.1	265.7
SMDH 00237	14	15	95	470.5	521.9	502.6	478.6	459.3	43.3	11.2	109.1	95.1	19.3	32.1	100.3	245.9	20.3	69.9	12.9	2.2	7.8	1.3	3.6	0.7	3.2		2.4		20.8	1.3	57.2	741.5	13544.6	7.4	346.9
SMDH 00238	0	1	45	186	202	193	194	185	8	1	37.9	38.3	9	7	40.7	98.6	8	29.3	5.1	0.6	2.7		1						11	1.2	21.5	405.7	7409.6	5.8	275.8
SMDH 00238	1	2	30	178.8	232.1	205.7	195.5	169.1	36.6	9.7	59.1	38.9	26.4	26.9	33.1	89.3	7.5	26.4	6.8	0.8	5.2	1.2	3.8	0.6	2.5		1.6		7.1	0.9	22.9	489.1	8934.1	2.1	77.9
SMDH 00238	2	3	45	214.2	324.4	275.3	246	196.9	78.4	17.3	113.9	62.8	49.1	61.1	40.9	84	11.5	42	9.5	1.5	7.5	1.8	7.5	1.4	3.9		2.7		9.2	1.3	8.6	260.7	4762.7	7.8	68.6
SMDH 00238	3	4	30	367.2	486.3	424.9	410.7	349.3	75.6	17.9	135.4	96.2	61.4	57.7	72.7	165	20.1	66.5	13.1	1.6	10.3	2.1	7.5	1.4	3.5	0.6	2.8		28.1	1.9	14.3	361.8	6608.7	4.2	39
SMDH 00238	4	5	40	166.2	279.6	224.4	203.4	148.2	76.2	18	98.8	47.3	55.2	58.2	29.1	64.5	8.3	30.3	7.9	1.6	6.5	1.6	7.1	1.4	4.1	0.6	3.2		10.8	1.1	10	298.5	5451.7	5.2	53.6
SMDH 00238	5	6	65	268.5	319.7	295.2	284.3	259.8	35.4	8.7	83.7	70.3	24.5	26.7	57.1	121.5	14.9	50.2	8.2	1.6	6.3	1.2	4	0.6	1.8		1.1		20.9	1.7	15.7	491.2	8971.4	10	238.4
SMDH 00238	6	7	50	191.4	218.1	202.8	203.3	188	14.8	3.4	51.1	48.2	15.3	11.4	43.6	87.1	10.5	35	5.9	2	3.9	0.7	2		0.7				16	0.8	10	406.4	7424	8.3	246.1
SMDH 00238	7	8	55	223.9	290.3	261.2	241.1	212	49.2	11.9	87.6	60.9	29.1	37.3	44.7	95.3	12.6	42	9.5	2	5.9	1.3	5	0.9	2.5		2.2		18.8	2.8	12.9	808.3	14764.7	10.6	243.8
SMDH 00238	8	9	50	157.2	183	167.7	170.3	155	12.7	2.2	43.4	39.3	15.3	10.5	35.4	72.2	8.5	29.2	4.9	2.1	2.7		1.6		0.6				13	0.7	10	399.5	7297.7	7.5	271.2
SMDH 00255	0	1	40	331.4	369.7	357.4	334.7	322.4	35	9	99.8	90.1	12.3	26	80.6	135.1	19.5	65.3	11.4	3.2	7.3	1.2	4.1	0.7	1.7		1.3		23.2	1.5	8.6	312.5	5707.2	6.7	197.4
SMDH 00255	1	2	45	232.9	270.7	258.4	237.2	224.9	33.5	8	76.6	62.6	12.3	25.5	50.8	101.6	13.4	44.3	7.4	1.9	5.5	1.2	3.7	0.6	1.5		1		16.3	1.1	7.2	326.6	5965.6	4.2	138.3
SMDH 00255	2	3	85	459	498.1	479.7	468.9	450.5	29.2	8.5	114.2	116.4	18.4	20.7	107.5	206.6	25	86.3	14	2.1	9	1.1	4	0.7	1.9		0.8		38.7	1.8	10	426.3	7785.7	7.1	162.1
SMDH 00255	3	4	90	369.1	394	383.3	374.6	363.9	19.4	5.2	87.4	90.5	10.7	14.2	87.7	168	19.5	67.7	12.2	2.2	6.6	0.7	2.6		1.1		0.8		31.6	1.3	7.2	340.4	6218.2	5.4	145.3
SMDH 00255	4	5	55	231.3	247.1	236.4	240.3	229.6	6.8	1.7	51.8	56.9	10.7	5.1	56.6	103.9	12.2	43.2	7.8	2	3.9		1.5	0.2					19.2	0.7	11.4	252.3	4607.7	3.9	127.5
SMDH 00255	5	6	90	418.5	441.3	430.6	423.6	412.9	17.7	5.6	95.8	104	10.7	12.1	101.3	189.3	22.4	78.1	12.4	2.1	7.3	0.7	2.8	0.2	1		0.9		36.2	1.2	14.3	320.9	5862.3	4.6	137.6
SMDH 00255	6	7	85	350.8	366.4	358.7	355.5	347.8	10.9	3	76.3	85.5	7.7	7.9	83.5	162.8	19.1	64.2	10.9	2	5.3		2.2	0.2	0.6				31	0.9	5.7	244.9	4472.8	5.2	99.1
SMDH 00254	0	1	40	527.5	567.5	549.1	536.2	517.8	31.3	9.7	117.4	118.5	18.4	21.6	112.5	265.9	25.5	87.5	15.2	2.8	8.4	0.9	4.6	0.7	2.1		1.4		35.4	1.8	14.3	680.9	12436.5	6.6	275
SMDH 00254	1	2	90	643.1	681.1	670.4	642.9	632.2	38.2	10.9	158.8	163.8	10.7	27.3	162.2	277.5	35.3	121.3	20.1	3	12.8	1.3	5.9	0.8	1.9		1		54.3	2.5	10	377.2	6890	8	222.5
SMDH 00254	2	3	85	454.4	487	477.8	455.2	446	31.8	8.4	111.4	109.5	9.2	23.4	111.3	207.5	23.7	80.5	13.3	2.2	7.5	0.9	4.4	0.6	1.6		0.9		39.4	1.8	7.2	240	4383.8	4.5	191.1
SMDH 00254	3	4	90	294.5	324.1	311.8	302.9	290.6	21.2	3.9	76.2	72.5	12.3	17.3	66.3	138.4	15.6	53.7	9.4	2	5.2	0.8	2.4		0.7				25.9	1.2	12.9	325.8	5951.3	5.7	233
SMDH 00254	4	5	70	313.8	343.5	325.1	329.4	311	14.1	2.8	74.7	77.9	18.4	11.3	73.4	145.9	16.8	58.3	8.7	2.3	5.6	0.8	2						26.1	1.3	40.1	621.9	11359.9	14.3	426.6
SMDH 00254	5	6	85	312.1	372.8	349.8	324.9	301.9	47.9	10.2	102.4	78.5	23	37.7	69.5	140.7	15.8	57.2	10	2	6.7	1.3	4.2	0.9	2.2		1.6		29.4	1.3	24.3	515.4	9413.5	8.6	329.3
SMDH 00254	6	7	95	332.8	375.4	355.5	345.5	325.6	29.9	7.2	88.7	82.5	19.9	22.7	74.9	153.7	18.2	59.5	11.1	1.7	6.5	1.2	3.6	0.6	1.1		0.7		30.5	1.4	24.3	660.3	12060.4	7.9	344
SMDH 00254	7	8	90	131.1	155.2	139.9	144.5	129.2	10.7	1.9	34.4	30.5	15.3	8.8	30.6	61.4	7	22.2	3.6	2.1	2.3		1.3				0.6		10.2	0.7	21.5	579.3	10581.9	6.7	294.3
SMDH 00253	0	1	40	454.2	517.5	497.6	462.8	442.9	54.7	11.3	134.8	113.5	19.9	43.4	101.7	209.7	24	82.8	13.6	1.9	9.2	1.8	4.9	0.8	1.9		1.9		38.2	2.4	20	649.6	11865.2	13.6	532.5
SMDH 00253	1	2	60	49	71.2	55.9	63.4	48.1	7.8	0.9	17.1	11.4	15.3	6.9	11.1	22.7	2.5	8.2	1.4	1.3	0.9		0.7		0.2				2.6	0.5	17.2	464.3	8480.5	11.2	474.5
SMDH 00253	2	3	70	190	211.8	198	202.4	188.6	9.4	1.4	47.1	47.4	13.8	8	42.9	89.1	9.8	36.2	5.8	1.5	3.3		1.4						15.5	0.7	20	553.7	10114	9.9	441.6
SMDH 00253	3	4	40	357.9	400.7	379.2	372.5	351	28.2	6.9	93.2	89.1	21.5	21.3	79.2	168	18.7	66.5	11.2	1.5	5.9	1.1	2.8	0.6	1.3		1.1		31.3	1.5	21.5	572.9	10464.2	11.8	530.3
SMDH 00253	4	5	70	293.8	334.7	314.8	307.3	287.4	27.4	6.4	80.8	73.6	19.9	21	65.4	136.1	15.2	54.8	9.2	1.4	5.3	0.8	2.8		1.7		1.1		27.3	1.1	15.7	644.7	11776.2	8.3	336.1
SMDH 00253	5	6	28	272.4	309.6	292.7	283.5	266.6	26.1	5.8	74.5	66.4	16.9	20.3	62.6	126.6	13.8	49	7.9	1.6	5.1	0.8	2.8		1.4		0.8		23.6	0.8	17.2	434.1	7929.3	7.2	304.2
SMDH 00252	0	1	35	345.8	398.6	389.4	341.9	332.7	56.7	13.1	110.4	81.7	9.2	43.6	74.8	161.8	16.9	58.3	11.5	2	7.4	1.2	5.3	0.9	3.2		2.5		26.2	2.7	10	276.6	5052.7	7	333
SMDH 00252	1	2	25	281.3	323.2	317.1	277.5	271.4	45.7	9.9	95.7	71.5	6.1	35.8	66.7	119.6	15	51.3	9.2	3.4	6.2	1.1	4.1	0.7	2.6		1.4		21.8	2.1	8.6	185.3	3384.7	3.7	127.1
SMDH 00252	2	3	70	274.2	332.5	315.6	279	262.1	53.5	12.1	97.8	67.9	16.9	41.4	61.3	120.5	14	47.8	9.7	2.5	6.3	1.2	4.9	0.8	2.9		2.3		21.4	2.5	14.3	416.4	7604.9	3.4	123.5
SMDH 00252	3	4	45	133.8	165.3	159.2	132.7	126.6	32.6	7.2	52.5	32	6.1	25.4	30	57.6	6.6	22.2	4.8	1.7	3.7	0.7	2.5	0.6	2.1		1.3		10.5	1.3	4.3	129.5	2365.6	3.7	82.4
SMDH 00252	4	5	45	160.9	183.6	180.5	159.9	156.8	23.7	4.1	50	36	3.1	19.6	38.4	73.2	7.1	26.8	6.1	1.5	3.7		2.1		1.1		0.9		12.1	1.2	4.3	141	2575.1	4.1	127.2
SMDH 00252	5	6	20	144.5	167.2	161.1	145.5	139.4	21.7	5.1	47.4	36	6.1	16.6	33.2	62.3	7.4	25.1	5.5	2.2	3.7	0.6	2.9	0.6	1				10.7	4.1	9.2	103.1	1883.3	1.9	121.8
SMDH 00251	0	1	45	695.7	759.7	745.9	694.1	680.3	65.6	15.4	187.5	171.8	13.8	50.2	154.7	323.3	36.2	126	23.3	1.7	15.1	2.4	7.2	1	2.9		1.9		60.7	4	12.9	385.9	7047.9	9.8	378.5
SMDH 00251	1	2	90	563.4	608.8	590.4	572.4	554	36.4	9.4	137.7	139.5	18.4	27	128.5	258.1	30.2	102.6	19.9	1.4	13.3	1.8	4.9	0.6	1.5		0.6		48.1	3.4	32.9	820	14977.2	9.3	397.9
SMDH 00251	2	3	95	580	630.2	607.2	593.2	570.2	37	9.8	147.1	149.7	23	27.2	128.3	265.1	31.7	110.8	19.6	1.9	12.8	2.2	5	0.8	1.1		0.7		48.1	2.9	22.9	689.7	12597.3	10.5	482.2
SMDH 00251	3	4	85	275.2	313.8	292.3	291.9	270.4	21.9	4.8	72.5	68.3	21.5	17.1	61.3	127.6	14.6	50.2	9.2	1.7	5.8	0.9	2.6		0.7		0.6		22.4	1.5	20	607	11087.2	10.7	461.2
SMDH 00251	4	5	80	174.2	223.2	203.3	186.9	167	36.3	7.2	67	45.4	19.9	29.1	37.9	75.9	8.9	32.7	5.9	1.4	4.3	0.9	2.9	0.6	1.4		1.4		13.5	1.7	24.3	654	11945.6	9.8	507.2
SMDH 00251	5	6	80	258.5	320.3	289.6	280	249.3	40.3	9.2	86.1	66.7	30.7	31.1	54.7	116.9	13.4	47.8	8.2	1.7	6.6	1.4	4.1	0.7	1.6		1.4		19.6	1.5	25.7	622.7	11374.3	6.3	347.7
SMDH 00251	6	7	90	379.8	436.3	405.6	398.1	367.4	38.2	12.4	100	92.3	30.7	25.8	77.8	180.9	19.8	66.5	12.1	1.7	8.6	1.1	4.9	0.9	3.1		2.4		31.1	1.9	25.7	638.1	11655.6	15.4	301.5
SMDH 00251	7	8	85	312	341.1	325.8	320.7	305.4	20.4	6.6	77.9	79.8	15.3	13.8	71.1	140.2	16.7	59.5	10.2	1	6.7	0.7	2.9	0.6	1.5		0.9		24.5	2.2	21.5	611.9	11176.2	11.8	312.7
SMDH 00251	8	9	90	418.6	447.4	432.1	427.5	412.2	19.9	6.4	96.5	105.4	15.3	13.5	95.2	191.4	23.3	78.1	14	0.9	9.3	0.8	3.2	0.6	1.1		0.7		35.7	2.7	25.7	674.3	12315.9	11.2	344.5
SMDH 00251	9	10	94	404.3	430.7	416.9	412	398.2	18.7	6.1	91.1	99.8	13.8	12.6	91.2	187.1	22.1	73.5	14.6	0.8	8.9	0.8	3.4		1.3		0.6		34.6	2.4	24.3	676.3	12353.2	11.2	361.3
SMDH 00251	10	11	98	375.2	410.3	393.4	383.5	366.6	26.8	8.6	90.5	91.7	16.9	18.2	84.2	172.6	20.7	66.5	13.3	1.3	8	0.9	3.6	0.7	2.1		1.3		31.7	2.6	22.9	569.6	10403.9	9.6	358.6

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00251	11	12	98	338.7	371.6	354.7	348	331.1	23.6	7.6	82.7	84.6	16.9	16	76	155.4	18.7	61.8	11	0.8	7.4	0.8	3.3	0.6	1.6		1.3		31	2.6	25.7	650.2	11876.7	11.6	452.7
SMDH 00251	12	13	98	251.2	283	269.2	257.3	243.5	25.7	7.7	68.7	63.3	13.8	18	55.7	112.8	13.5	45.5	8.6	0.9	6.5	0.7	3.6	0.7	1.7		1		21.5	2.1	21.5	722.7	13200.1	10.8	375.8
SMDH 00251	13	14	99	363.2	392.9	376	373.5	356.6	19.4	6.6	84.1	89.8	16.9	12.8	82.4	167.2	19.7	66.5	12.5	1.2	7.1	0.8	2.8	0.6	1.5		0.9		31.4	2.4	22.9	591.8	10808.7	12.3	458.2
SMDH 00251	14	15	75	328.2	352.4	340.1	335.3	323	17.1	5.2	75.4	78.9	12.3	11.9	80	148.8	17.3	58.3	10	1.9	6.7	0.7	2.6		1.3		0.6		26.1	1.5	25.7	495.1	9043.2	9.9	330.3
SMDH 00250	0	1	20	340.8	389.5	378.8	335.6	324.9	53.9	15.9	105.9	83.9	10.7	38	74.4	152.1	17.5	59.4	12.2	1.5	7.8	1.1	5.9	1.3	3.3	0.7	3.6		27.8	3.1	27.6	409.4	7478.5	2.2	501.6
SMDH 00250	1	2	35	443.6	488.6	473.3	449.1	433.8	39.5	9.8	118.7	111	15.3	29.7	94.1	210.4	23	81.6	14	1	9.7	1.8	4.6	0.7	1.6		1.1		42.3	2.6	15.7	330.2	6031.6	9.7	304.7
SMDH 00250	2	3	65	361.7	402.8	381.3	377.1	355.6	25.7	6.1	88.8	87.4	21.5	19.6	79.4	173.2	19.1	64.2	11.1	0.9	7.7	1.1	3		1		1		32.4	2.7	22.9	594.7	10863.3	10.6	428.9
SMDH 00250	3	4	55	269.1	295.1	279.8	280.7	265.4	14.4	3.7	65.5	67.7	15.3	10.7	58.4	126.5	14.5	50.2	8.9	1.6	5.3	0.9	2.1		0.7				24.9	1.5	18.6	495.4	9048.9	8.4	220.5
SMDH 00250	4	5	70	201.8	226	212.2	212.8	199	13.2	2.8	50.7	49.3	13.8	10.4	44.9	95.4	10.6	36.2	6.3	1.6	4	0.8	1.7		0.3				18.1	0.9	12.9	410.8	7504.4	8.7	234.9
SMDH 00250	5	6	95	429.3	479.2	454.7	444.3	419.8	34.9	9.5	111.9	107.3	24.5	25.4	92.8	201.3	22.5	78.1	13.7	1.7	9.7	1.9	4.8	0.7	1.3		0.8		38.6	2.7	32.9	714.8	13056.6	9.8	334.7
SMDH 00250	6	7	98	412.8	455.3	433.8	427.1	405.6	28.2	7.2	104	103.5	21.5	21	88.2	196.3	21.9	75.8	12.8	1.4	9.2	1.8	4	0.6	0.8				37.9	2.7	25.7	759.9	13880.5	8.1	310.4
SMDH 00250	7	8	99	326.8	355.2	339.9	336.7	321.4	18.5	5.4	80.9	85.2	15.3	13.1	83.5	135.6	18.6	63	12.4	1.2	7.1	0.8	2.8		0.8		1		23.2	2.8	20	592.4	10820.2	7.8	221.3
SMDH 00250	8	9	90	353.6	388.5	365.5	372.4	349.4	16.1	4.2	83.4	88.6	23	11.9	76.9	169.3	18.5	66.5	10.6	1.4	6.2	1.2	2.4		0.6				31.3	1.8	22.9	668	12201.1	7.2	293.9
SMDH 00250	9	10	95	528	552.4	540.1	533.7	521.4	18.7	6.6	113.6	127.9	12.3	12.1	122.7	248.8	27.7	94.5	15.5	1.3	10.9	1.8	3.9		0.9				46.5	2.5	14.3	563.5	10292	10	318.4
SMDH 00250	10	11	92	393.2	418.7	403.4	403.7	388.4	15	4.8	85	93.4	15.3	10.2	94.5	183.8	20.7	68.8	11	2.1	7.5	1.3	2.6		0.9				30.6	1.7	25.7	575.1	10504.4	9.3	332.7
SMDH 00250	11	12	90	446.8	471.5	457.7	454.5	440.7	17	6.1	95.6	107.3	13.8	10.9	105.8	207.5	24.2	78.1	14.5	1.6	9	1.4	3.6		1.1				36.9	2.4	20	624	11397.2	9.2	293
SMDH 00249	0	1	45	535.7	597.1	575.6	537.6	516.1	59.5	19.6	147.7	134.4	21.5	39.9	115.2	244.7	28	95.6	18.4	1.4	12.8	2.5	8.3	1.4	4.7		2.7		56.2	3.1	22.9	605.4	11058.5	12.6	455.1
SMDH 00249	1	2	60	399	455.5	435.6	402.7	382.8	52.8	16.2	119.8	102	19.9	36.6	82.6	180.3	20.4	73.5	14.6	1.6	9.8	1.9	6.2	1.3	4.1		2.7		43.2	2.4	22.9	624	11397.2	11.4	407.4
SMDH 00249	2	3	40	394.6	454.5	433	399.8	378.3	54.7	16.3	118.3	99	21.5	38.4	84.4	179	20.7	70	14	1.6	8.6	1.9	6.4	1.3	4		2.7		41.8	2.5	24.3	544.9	9953.2	9.7	316
SMDH 00249	3	4	35	415.4	491.3	469.8	411.1	389.6	80.2	25.8	142.3	107.2	21.5	54.4	84.3	182.3	20.8	75.8	14.3	1.5	10.6	2.1	8.5	1.7	6.5	0.9	5.4	0.7	40.4	4	27.2	624	11397.2	9.1	385.7
SMDH 00249	4	5	30	484.6	557.6	534.6	482.9	459.9	74.7	24.7	145.2	118.7	23	50	101.7	220.6	25.1	82.8	16.7	1.6	11.4	2.1	8.7	1.6	6.5	0.8	4.3	0.7	47.9	4	25.7	624	11397.2	11	379.3
SMDH 00248	0	1	25	512.1	581.3	552.2	520.6	491.5	60.7	20.6	141.7	125.8	29.1	40.1	105.9	240.3	25.9	89.8	17	1.7	10.9	2.2	7.9	1.4	4.9	0.6	3.6		45.4	2.8	22.9	904.8	16527.4	17	516.7
SMDH 00248	1	2	50	534.1	647.3	609	551	512.7	96.3	21.4	185.9	136.7	38.3	74.9	110.7	244.9	27.7	98	17.6	2	11.8	2.6	8.4	1.6	4.8	0.7	3.3		47	2.8	28.6	894.9	16346.6	13.2	466.2
SMDH 00248	2	3	25	558.1	642.1	619.1	555.7	532.7	86.4	25.4	168.4	134.3	23	61	119.6	257.6	28.9	94.7	18.1	2	11.8	1.5	9.2	1.9	5.1	0.9	6	0.8	46.7	3.9	33.2	545.4	9961.8	1.8	287.9
SMDH 00248	3	4	75	517.4	627.9	594.2	529.5	495.8	98.4	21.6	184.5	133.4	33.7	76.8	111.5	232.9	27.7	94.5	16.5	2	10.7	2.6	8.6	1.6	5.1	0.6	3.1		44.3	3.3	32.9	777.1	14193.4	13.2	432.4
SMDH 00248	4	5	75	598.6	724.8	692.6	603.5	571.3	121.3	27.3	226.4	162.2	32.2	94	136.2	251.9	32.7	117.8	18.2	2.9	11.6	2.4	9.3	1.9	6.4	0.9	5.7	0.7	38.8	3.1	52.9	735.7	13438.4	13.2	458.6
SMDH 00248	5	6	80	415.8	538.7	509.6	419.1	390	119.6	25.8	181.9	108	29.1	93.8	86.9	181.1	21.4	75.8	14.3	1.5	9	2.1	8.7	1.9	6.9	0.9	4.6	0.7	35.4	2.7	34.3	616	11250.8	13.1	365.8
SMDH 00248	6	7	65	431.8	565.3	537.7	429.5	401.9	135.8	29.9	188.7	101.9	27.6	105.9	96.6	191.1	20.5	68.8	13.8	1.4	9.7	2.4	10.2	2.2	7.9	1	5.4	0.8	38.9	3.3	27.2	704.8	12872.9	12.4	463.1
SMDH 00248	7	8	85	470.6	626.2	581.7	485.4	440.9	140.8	29.7	209.8	120.3	44.5	111.1	98	209.1	23.1	85.1	13.6	1.5	10.5	2.5	9.6	2.3	7.9	1	5.7	0.7	40.6	3.3	32.9	868.1	15855.7	13.3	436.6
SMDH 00248	8	9	95	483.3	615.5	580.2	490.9	455.6	124.6	27.7	201.2	127.4	35.3	96.9	99.6	213	24.5	91	14.6	1.4	11.5	2.5	9.4	1.9	7.2	0.9	5.1	0.7	41.8	3.1	25.7	756.5	13817.4	10.4	383.1
SMDH 00248	9	10	55	552.1	664.7	631	562.3	528.6	102.4	23.5	194.5	142.2	33.7	78.9	117.4	248.9	28.6	102.6	17.2	2	11.9	2.5	8.5	1.7	5.4	0.8	3.9	0.7	50.6	2.8	32.9	857.7	15666.2	14.3	493.2
SMDH 00248	10	11	98	565.8	676.2	636.3	583.2	543.3	93	22.5	184.1	141.9	39.9	70.5	122.4	258.3	29.7	101.5	18.4	1.4	11.6	2.7	8	1.6	5.1	0.7	3.8	0.6	49	2.7	24.3	1016.9	18574.4	13.3	548.3
SMDH 00248	11	12	95	492.3	561	525.7	511.4	476.1	49.6	16.2	127.5	117.5	35.3	33.4	105.8	234.4	25.4	84	14.6	2	9.9	1.3	6.8	1	3.7		2.8	0.6	44.5	2.8	28.6	1079	19708.3	14.9	639.7
SMDH 00248	12	12.5	80	444.4	499.5	475	454	429.5	45.5	14.9	115.9	105.4	24.5	30.6	96.8	210.4	22	75.8	13.5	1.9	9.1	1.3	6.3	1.1	3.5		2.7		38.2	2.7	22.9	653.2	11931.2	13.3	505.9
SMDH 00247	0	1	25	541.2	601.9	577.4	549.3	524.8	52.6	16.4	135.9	125.6	24.5	36.2	110.9	265.3	27.5	89.8	17.6	1.6	12.1	1.4	6.9	1.1	4		3		50.1	2.7	28.6	793.4	14492	12	525.3
SMDH 00247	1	2	55	418.6	476.6	452.1	424.5	400	52.1	18.6	102.9	89.9	24.5	33.5	92.7	201	22.4	59.5	12.1	1.9	10.4	1.3	6.7	1.3	4.7	0.6	4		36.9	2.2	28.6	798.4	14583.9	26.7	486.2
SMDH 00247	2	3	35	370.3	434.5	413	370.7	349.2	63.8	21.1	113.6	88.6	21.5	42.7	80.2	164	19.2	60.7	14	1.5	9.6	1.2	7.5	1.5	4.6	0.7	4.7	0.9	36.5	2.4	25.7	721.7	13182.9	12.4	509
SMDH 00247	3	4	45	354.6	429.5	398.8	364.9	334.2	64.6	20.4	113.1	85	30.7	44.2	77.5	156.6	17.6	59.5	12.9	1.5	8.6	1.2	6.7	1.4	5.4	0.7	4.3	0.7	34.7	2.2	28.6	857.1	15654.7	13.1	609.3
SMDH 00247	4	5	25	403.6	468.1	443.6	409.3	384.8	58.8	18.8	118.3	97.1	24.5	40	88	179.7	20.8	68.8	15.5	2	10	1.2	6.3	1.5	4.6	0.6	3.9	0.7	41	2.6	25.7	757.9	13843.2	11.4	489.1
SMDH 00247	5	6	96	413.7	476.1	456.2	413.7	393.8	62.4	19.9	122.3	99.2	19.9	42.5	91.2	185.4	20.9	70	14.8	1.5	10	1.3	7	1.4	5.1	0.6	3.9	0.6	41	2.9	28.6	764.6	13966.6	9.3	477
SMDH 00247	6	7	85	383	432.9	413	389	369.1	43.9	13.9	104.9	92.9	19.9	30	82.2	175.4	19.6	66.5	13.5	1.6	10.3	1.2	5.6	1	3.4		2.7		39.1	2.4	24.3	676.6	12359	12.6	467.8
SMDH 00247	7	8	95	488.6	559.1	534.6	492.9	468.4	66.2	20.2	137.3	114.3	24.5	46	111.7	221.6	24.9	80.5	16.7	1.9	11.1	1.4	7.5	1.5	5	0.6	3.6	0.6	43.7	3.8	40.1	820.9	14994.4	11.3	575.3
SMDH 00247	8	9	95	477	551.5	525.4	479.6	453.5	71.9	23.5	138.3	110.9	26.1	48.4	106	215.7	23	78.1	17.9	2	10.8	1.4	8.4	1.6	5.8	0.7	5	0.6	43.6	3.2	27.2	836.8	15284.4	10.3	420.4
SMDH 00247	9	10	96	567.4	634.6	610.1	571.2	546.7	63.4	20.7	134	113.3	24.5	42.7	110.6	301.9	23.4	80.5	16.7	1.4	12.2	1.1	8.3	2.2	3.9	0.8	4.4		45.1	3.8	21.5	712.8	13019.3	12	710.9
SMDH 00247	10	11	98	513.6	572.3	555.4	516.1	499.2	56.2	14.4	144.5	127.5	16.9	41.8	116.6	228.9	26.3	92.1	20.2	1.5	13.6	2.1	7	1.3	2.2		1.8		52.1	2.5	18.6	546.6	9984.8	15.9	616.6
SMDH 00247	11	12	95	431.4	480.7	465.4	435.2	419.9	45.5	11.5	120.1	107.2	15.3	34	99.3	189.8	22.7	77	17.5	1.6	12	1.6	5.9	0.9	1.7		1.4		45.1	1.9	15.7	490.9	8965.6	13.1	424.2
SMDH 00247	12	13	98	382.9	445.5	427.1	386.9	368.5	58.6	14.4	123.6	98.1	18.4	44.2	85.1	166.2	20.1	70	14.8	1.4	10.9	1.8	6.2	1.1	2.5		2.8		41.2	2.1	18.6	537.6	9824	15.6	634.2
SMDH 00247	13	14	95	468.4	547.8	524.8	473.1	450.1	74.7	18.3	152.1	118.1	23	56.4	106	202.6	24	84	19.6	1.6	12.3	2.2	7.9	1.6	3.1		3.5		45.3	2.9	24.3	704	12858.5	17.3	683.8
SMDH 00247	14	15	98	321.8	370.6	355.3	325.9	310.6	44.7	11.2	98.1	79.1	15.3	33.5	74.6	141	15.7	57.2	12.3	1.2	8.6	1.3	4.9	1	1.8		2.2		31.3	1.4	15.7	448.3	8187.6	12.3	328.2
SMDH 00246	0	1	98	327.5	371.7	359.4	329	316.7	42.7	10.8	96.3	79.5	12.3	31.9	76.1	144.8	16.1	57.2	12.6	1	8.9	1.4	4.8	0.9	1.7		2		32.2	1.8	10	304.1	5555.1	10.8	332.3
SMDH 00246	1	2	20	365.9	419.2	400.8	372.4	354	46.8	11.9	110.1	92.6	18.4	34.9	85.8	158.1	18.8	66.5	13.7	1.4	9.7	1.4	5.9	0.9	1.8		1.9		34.9	1.8	27.2	536.4	9798.2	14.7	448.6
SMDH 00246	2	3	30	442	495.2	472.2	448.5	425.5	46.7	16.5	101	87.8	23	30.2	96.9	226.6	18.6	61.8	11.4	1.6	8.6	1.3	6.1	0.9	4	0.7	3.5		35.5	2.1	20	523.2	9557	17.5	584.6
SMDH 00246	3	4	40	646.4	724.9	698.8	652.1	626	72.8	20.4	166.1	144.7	26.1	52.4	137.7	316.8	33.1	101.5	19.6	2.1	15.2	2	8.1	1.6	4	0.6	3.5	0.6	57.6	2.9	25.7	679.3	12407.8	16.4	508.7
SMDH 00246	4	5	55	481.8	560.1	535.6	484.8	460.3	75.3	21.5	145.5	113.9	24.5	53.8	99.5	229	23.8	80.5	14.6	1.6	11.3	1.8	7.8	1.5	4.8	0.7	4.2	0.7	42.4	2.6	25.7	721.4	13177.2	13.8	458.6
SMDH 00246	5	6	90	448.5	530.1	502.5	454	426.4	76.1	22.1	133.6	100.2	27.6	54	94.4	215.1	22.2	68.8	12.8	1.6	11.5	1.6	7.6	1.5	4.9	0.7	5	0.8	40.1	2.7	25.7	616.7	11265.2	14.4	443.3
SMDH 00246	6	7	50	433.2	507.3	481.2	438.8	412.7	68.5	20.5	126.9	99.8	26.1	48	89.3	205.8	22.4	68.8	14.1	1.5	10.8	1.4	7.2	1.5	4.7	0.7	4.3	0.7	38	3.1	22.9	662.3	12097.7	13.6	425.1
SMDH 00245	0	1	15	922.9	1014.2	989.7	920.6	896.1	93.6	26.8	236.8	215.8	24.5	66.8	196.8	444.9	47.7	154	29.5	1.9	21.3	3.1	11	1.9	5.4	0.6	4.2	0.6	87.2	4.6	15.7	611.7	11173.3	14.2	576.3
SMDH 00245	1	2	25	772.2	863.2	835.6	775.2	747.6	88	24.6	205	178.9	27.6	63.4	167.6	374.2	39.4	128.3	20.6	2.1	15.4	2.1	9.1	1.7	5.3	0.7	4.9	0.8	70.5	3.3	22.9	707.9	12930.3	18.5	553.3
SMDH 00245	2	3	50	421.3	482.8	459.8	430.8	407.8	52	13.5	116.1	98	23	38.5	90.7	204.8	21.7	70	11.7	1.3	7.6	1.3	5	1	3.1		3.1		39.1	1.8	15.7	562.7	10277.6	12	324.3
SMDH 00245	3	4	40	400.7	456.3	433.3	411.3	388.3	45	12.4	105.8	92.4	23	32.6	83	197.5	20.5	65.3	12.4	1.3	8.3	1.2	5.4	0.9	2.5		2.4		38.6	1.8	17.2	517.1	9445.1	12.1	340.5
SMDH 00245	4	5	40	459.6	519.1	499.2	465	445.1	54.1	14.5	123.9	106.1	19.9	39.6	96.8	223.4	23.4	75.8	14.1	1.6	10	1.4	5.5	1	3.4		3.2		45.9	2.1	18.6	562.7	10277.6	10.3	330.8
SMDH 00245	5	6	95	386	431.2	411.3	393.6	373.7	37.6	12.3	100	94.3	19.9	25.3	88.1	172.8	20.9	67.7	13.3	1.3	9.6	0.9	4.8	0.9	2.9		2.8		41.3	1.9	21.5	639.7	11684.3	10.3	430.1
SMDH 00245	6	7	90	521.9	570.2	542.6	540.4	512.8	29.8	9.1	116.7	122.9	27.6	20.7	127.8	238.4	28.3	89.8	15.3	1.4	11.8	0.9	3.9	0.7	2.1		1.5		51.8	2.2	30	927.5	16940.8	14.2	502.1
SMDH 00245	7	8	75	471.9	507.3	488.9	482.5	464.1	24.8	7.8	108.5	114.3	18.4	17	114.8	212.6	24.5	85.1	14.7	1.7	10.7	0.9	3.8	0.6	1.5		1		43.8	1.9	37.2	671.9	12272.9	8.6	355.9
SMDH 00245	8	9	75	391.7	429.5	409.6	402.8	382.9	26.7	8.8	92.9	94.7	19.9	17.9	94.1	176.4	21.3	68.8	11.4	1.6	9.3	0.8	3.8	0.6	1.9		1.7		40.4	1.9	20	643.8	11759	8.1	322.3
SMDH 00245	9	10	95	428.9	465.6	447.2	437.8	419.4	27.8	9.5	103.5	106.4	18.4	18.3	103.6	189.8	22.6	78.1	12.8	1.4	11.1	0.9	4.8	0.7	1.8		1.3		42.7	2.1	20	615.6	11245.1	12.6	438.5
SMDH 00245	10	11	70	459.6	504.7	481.7	471.8	448.8	32.9	10.8	109.6	110.4	23	22.1	112.6	205.8	24.3	80.5	14.1	1.4	10.1	0.9	4.7	0.8	2.4		2		44.2	2.1	21.5	744.4	13596.3	9.9	348.6
SMDH 00245	11	12	98	472.2	516	497.6	478.7	460.3	37.3	11.9	104.2	98.9	18.4	25.4	104.3	237.8	21.6	71.2	14	1.5	9.9	0.9	5.2	0.9	2.7		2.2		38.1	2.1	22.9	665.9	12163.8	13.8	519.2
SMDH 00245	12	13	60	624.5	690.7	666.2	628.6	604.1	62.1	20.4	160.8	148.9	24.5	41.7	144.4	284.5	31.1	108.5	19.2	1.3	15.1	1.5	7.8	1.4	4.6	0.7	3.8	0.6	60.2	3.9	27.2	871.1	15910.2	15.2	617.6
SMDH 00244	0	1	55	429.1	487.4	467.5	430.4	410.5	57	18.6	122.2	104.5	19.9	38.4	99.7	186.7	22.2	74.6	14.3	1.5	11.5	1.3	6.4	1.4	4.3	0.7	3.9	0.6	44.5	3.1	24.3	684	12493.9	12.4	391.6
SMDH 00244	1	2	25	623.5	721	685.7	632.6	597.3	88.4	26.2	182.8	152.1	35.3	62.2	128.7	290.9	33.7	106.4	21.3	2.2	14.1	1.9	10.1	2.1	5.1	0.9	5.4	0.7	58.9	5.8	31.9	605.9	11067.1	1.8	438.2

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00244	2	3	95	536.1	620.8	593.2	533.4	505.8	87.4	30.3	146.1	111.2	27.6	57.1	115.4	262	23.8	75.8	15.2	1.6	12	1.3	10.3	2.1	7.7	1.7	6.5	0.7	40.7	4.1	22.9	799.7	14606.8	18.3	650
SMDH 00244	3	4	30	531.1	608	583.5	532.4	507.9	75.6	23.2	143	112.3	24.5	52.4	117.9	256.5	23.4	80.5	16.1	1.7	11.8	1.4	7	1.6	6.3	1.4	5.5		38	4.5	21.5	3634.6	66388.2	13.1	573.4
SMDH 00244	4	5	90	571.6	644.6	621.6	570	547	74.6	24.6	146	121	23	50	121.7	283.4	26.7	84	17.5	1.7	12	1.3	9	2.1	5.9	1.1	5.2		42.9	3.7	31.5	850.8	15539.9	13.9	544
SMDH 00244	5	6	98	533.8	601.8	572.7	543	513.9	58.8	19.9	126	109.3	29.1	38.9	116.8	266.3	24.3	75.8	16.6	2.1	12	1.2	8	1.7	4.5	0.9	3.6		39.9	3.1	32.9	882.2	16114	16.4	498.9
SMDH 00244	6	7	75	602	663.5	635.9	612.8	585.2	50.7	16.8	163	162.4	27.6	33.9	115.4	281.2	36.2	116.6	20.5	2.9	12.4	1.5	8.1	1.3	3.9		2		47.7	3.2	44.3	808.7	14770.5	11.7	481.6
SMDH 00244	7	8	70	491.7	550	525.5	500.2	475.7	49.8	16	129.6	119.9	24.5	33.8	109.9	226.1	26.5	85.1	16.2	2.4	9.5	1.3	7	1.1	3.8		2.8		38.9	2.6	28.6	730.7	13346.5	10.8	417
SMDH 00244	8	9	85	490.6	575	548.9	489.6	463.5	85.4	27.1	159.2	124.4	26.1	58.3	101	218.9	25.5	87.5	17	2	11.6	1.6	9.8	1.9	7.1	0.9	4.9	0.9	41.3	3.4	27.2	799.4	14601.1	12.1	439.3
SMDH 00244	9	10	98	460	543.7	513	466.7	436	77	24	144.6	113.7	30.7	53	95.1	208.8	23.8	80.5	15.7	1.7	10.4	1.3	8.1	1.8	6.6	0.7	4.6	0.9	39.1	3.2	25.7	706.6	12907.3	11.4	437.4
SMDH 00244	10	11	90	407.7	478.9	457.4	406.8	385.3	72.1	22.4	132.9	103.5	21.5	49.7	82.8	183.9	22.2	72.3	13.7	1.9	8.5	1.2	7.8	1.6	5.6	0.7	4.7	0.8	33.1	2.6	25.7	584.2	10670.9	162.1	397.8
SMDH 00244	11	12	98	376.9	439.8	415.3	383.4	358.9	56.4	18	114	94.1	24.5	38.4	77.9	173.6	19.9	66.5	11.8	1.4	7.8	1.2	6.5	1.4	4.3	0.6	3.3	0.7	33.2	2.1	15.7	552.6	10093.9	11	406.3
SMDH 00244	12	13	98	593	662.1	633	601	571.9	61.1	21.1	155.6	146.1	29.1	40	128.3	274.3	32.4	103.8	19.1	1.9	12.1	1.5	8.4	1.6	4.8	0.6	3.5	0.7	50.3	3.1	27.2	979.2	17885.3	13.2	477.9
SMDH 00244	13	14	75	573.4	640.2	609.5	586	555.3	54.2	18.1	150	143.6	30.7	36.1	123.6	265.8	31.4	103.8	18.3	1.7	10.7	1.3	7.1	1.3	4.3		3.4	0.7	49.3	2.9	27.2	986.7	18023.1	12.9	532.8
SMDH 00243	0	1	40	788.5	854.2	832.7	787.9	766.4	66.3	22.1	198.2	196	21.5	44.2	165.6	374.2	43.5	141.1	25.4	1.5	15.1	2	9.4	1.6	4.6	0.6	3.3	0.6	70.4	4.5	14.3	484.1	8842.2	20	907.3
SMDH 00243	1	2	50	616.1	686.9	659.3	628.1	600.5	58.8	15.6	163.1	152.5	27.6	43.2	134.9	287.1	34.2	109.6	21.8	1.6	11.3	2.2	6.5	1.1	3		2.8		55	2.7	15.7	420	7670.9	9.7	420.9
SMDH 00243	2	3	60	845.6	930	897.8	856.9	824.7	73.1	20.9	215.1	208.6	32.2	52.2	180.5	399.8	47.7	149.3	29.3	2	16.1	2.8	8.8	1.6	3.9	0.6	3.2		79.1	3.3	21.5	625.5	11426	11.2	489.9
SMDH 00243	3	4	30	712.4	796.6	762.9	726.6	692.9	70	19.5	188.9	177	33.7	50.5	154.1	334	40.5	126	22.8	1.9	13.6	2.7	7.8	1.4	3.7	0.6	3.3		60.7	2.5	32.9	691.7	12634.6	10.7	428.1
SMDH 00243	4	5	15	831.1	943.1	895.6	850.6	803.1	92.5	28	232.1	210.5	47.5	64.5	172.6	389.4	44.8	153.8	25.6	1.9	15	1.8	10.1	2.2	5.7	1	6.4	0.8	77.4	2.8	25.7	545.9	9970.4	1.3	477.4
SMDH 00243	5	6	95	681.8	765	731.3	697.3	663.6	67.7	18.2	179.1	166.5	33.7	49.5	143.8	324.3	38.9	117.8	23.1	2	13.7	2.7	7.1	1.5	3.5	0.6	2.8		61.8	2.2	30	798	14575.3	13.7	578.4
SMDH 00243	6	7	50	738.4	826.7	785.3	760.5	719.1	66.2	19.3	189.2	183.5	41.4	46.9	157.4	350	42.8	129.5	23.2	1.6	14.6	2.7	8.5	1.5	3.3		3.3		64.6	2.5	21.5	726.6	13271.9	11	471.4
SMDH 00243	7	8	95	789.5	887.3	847.4	806.5	766.6	80.8	22.9	210.9	195.4	39.9	57.9	167.4	371.8	44	138.8	27.3	1.6	15.7	3.2	9.4	1.6	4.1	0.7	3.9		74.4	2.8	27.2	825.8	15083.4	14	569.6
SMDH 00243	8	9	30	665.5	761.1	721.2	684.5	644.6	76.6	20.9	181.3	161.4	39.9	55.7	140.9	317.3	37.5	113.1	21	1.7	13.1	2.7	8.1	1.6	4.1	0.6	3.8		61.1	2.2	22.9	717.8	13111.1	11.1	558.3
SMDH 00242	0	1	20	607.7	682.7	658.2	612.3	587.8	70.4	19.9	167.6	149.6	24.5	50.5	125.8	287.1	34.2	105	20.6	1.7	13.4	2.7	7.7	1.5	3.8	0.6	3.6		51.3	3.5	17.2	439	8018.3	19.2	851.9
SMDH 00242	1	2	50	1477.7	1573.7	1549.2	1467	1442.5	106.7	35.2	361.3	368.1	24.5	71.5	328.4	685.6	80.6	268.3	44.2	2.3	33.1	3.4	15.8	2.4	6.9	0.8	5.1	0.8	163.7	7	14.3	599.3	10946.5	16.9	825.7
SMDH 00242	2	3	45	529.9	593.8	572.3	534.4	512.9	59.4	17	144.7	128.3	21.5	42.4	114.9	247.5	27.4	92.1	17.4	1.4	12.2	1.2	7.6	1.4	4.1		2.7		54.7	2.2	21.5	661.7	12086.2	12.5	406.2
SMDH 00242	3	4	95	411.3	469	449.1	415.2	395.3	53.8	16	119.3	101.3	19.9	37.8	91	185.6	21.3	72.3	13.2	1.5	10.4	1.2	6.5	1.3	4		3		42.2	1.5	20	565	10320.7	11.7	347
SMDH 00242	4	5	55	334.9	384.1	364.2	341.9	322	42.2	12.9	96.4	83.7	19.9	29.3	71	153.8	17.9	59.5	10.4	1.3	8.1	0.9	5.4	1	3.2		2.4		34.1	1.3	15.7	468.2	8552.2	9.4	374.6
SMDH 00242	5	6	35	565.7	656.6	633.6	560.1	537.1	96.5	28.6	177.6	136.4	23	67.9	124.9	256.9	28.6	95.6	16.2	1.9	13	1.6	10.6	2.1	6.9	0.9	5.7	0.8	55.2	2.8	25.7	859.3	15694.9	16.9	623.8
SMDH 00241	0	1	25	867.9	937	920.1	861.9	845	75.1	22.9	217.2	210.6	16.9	52.2	183.1	415.3	47.2	151.4	28.8	1.6	17.6	2.1	9.9	1.6	4	0.7	4.6		82.5	5.2	17.9	544.1	9938.9	2.7	727.7
SMDH 00241	1	2	35	794	861	841.1	792.2	772.3	68.8	21.7	206.1	200.5	19.9	47.1	178.7	360.3	42.8	147	24	1.3	18.2	2.1	8.6	1.5	4.9		4	0.6	79	3.8	11.4	524.2	9574.3	17.3	783.9
SMDH 00241	2	3	45	598	646.7	625.2	606	584.5	40.7	13.5	139.8	141.8	21.5	27.2	137.5	278	31.4	102.6	19.7	2.2	13.1	1.3	6.5	1	2.9	0.2	1.6		66.6	2.2	18.6	689.5	12594.4	9.8	401.5
SMDH 00241	3	4	45	290.9	317.4	302.1	301.4	286.1	16	4.8	62.5	64.9	15.3	11.2	67.9	140.8	15	46.7	8.5	1.4	5.8	0.6	2.6		0.9		0.7		32.3	0.8	11.4	431.8	7886.2	10.4	189.7
SMDH 00241	4	5	80	351.8	389.4	367.9	365.2	343.7	24.2	8.1	81.3	81.4	21.5	16.1	76.7	169.9	17.5	59.5	11	1.3	7.8	0.8	3.6	0.6	1.8		1.3		39	1.2	14.3	597.3	10909.2	15.3	372.8
SMDH 00241	5	6	80	453.2	515.5	484.8	473.1	442.4	42.4	10.8	122.7	114.5	30.7	31.6	97.8	209.2	25.1	82.8	15.9	1.7	9.9	1.8	4.8	0.8	1.9		1.5		46.7	1.5	17.2	665.8	12160.9	12.1	434
SMDH 00241	6	7	90	382.3	438.5	412.4	396.8	370.7	41.7	11.6	108	96.6	26.1	30.1	81.4	175.9	20.1	70	13.8	1.4	8.1	1.6	4.9	1	2.1		2		36.9	1.2	28.6	542.4	9907.3	12.6	374.4
SMDH 00241	7	8	45	495.3	587.9	548	514.9	475	73	20.3	152.9	124.6	39.9	52.7	103.6	226	26.1	88.6	18.3	1.7	10.7	2.2	7.7	1.5	3.7	0.6	3.9	0.7	49.2	1.7	31.5	687.3	12554.2	14.7	515.1
SMDH 00241	8	9	95	306.4	340	324.7	314.6	299.3	25.4	7.1	82.2	78.8	15.3	18.3	65.3	140.9	16.2	58.3	10.7	1.3	6.6	1.2	3.1	0.6	1.1		1.1		31.2	0.9	14.3	409.3	7475.7	10.5	364.4
SMDH 00241	9	10	95	441	490.5	466	455.7	431.2	34.8	9.8	114.1	109.9	24.5	25	99.6	201.6	22.4	81.6	15.4	1.6	9	1.4	4.5	0.7	1.9		1.3		44.4	1.4	20	618.8	11302.5	12.5	453.6
SMDH 00241	10	10.5	60	287.2	325.7	308.8	296.6	279.7	29.1	7.5	81.5	74	16.9	21.6	60.3	132.7	15.7	53.7	9.9	1.6	5.8	1.3	3.3	0.6	1.3		1		27.5	0.9	14.3	452.3	8262.3	12.3	362.8
SMDH 00240	0	1	15	399.2	452.4	429.4	411.5	388.5	40.9	10.7	107.7	98.1	23	30.2	84.1	190.5	21.9	70	12.3	1.3	8.4	1.6	4.6	0.7	1.8		2		38.5	1.8	12.9	430.8	7869	15	586.7
SMDH 00240	1	2	40	328.8	367.7	347.8	341.4	321.5	26.3	7.3	86.8	85.3	19.9	19	69.1	152.6	18.7	61.8	11.6	1.2	6.5	1.1	3.7		1.1		1.4		33.8	1.1	10	526.8	9623.1	12.7	320
SMDH 00240	2	3	50	438.1	504.9	475.8	453.7	424.6	51.2	13.5	127.7	112.8	29.1	37.7	88.8	203.8	23.8	81.6	15.2	1	10.4	1.9	5.5	1	2.5		2.6		46.2	1.5	12.9	538.5	9835.5	10.5	383
SMDH 00240	3	4	60	338.1	388.8	365.8	348.8	325.8	40	12.3	97.6	86.9	23	27.7	71	152.9	18	63	11.7	1	8.2	1.1	4.8	0.9	3		2.5		37.2	1.9	14.3	511.1	9336	10.7	358.6
SMDH 00240	4	5	40	466.9	530.7	507.7	469.2	446.2	61.5	20.7	129.3	112	23	40.8	89.1	224.2	25.4	78.1	15.7	1.9	11.8	1.6	6.9	1.5	5.3	0.6	4.2	0.6	50.9	1.5	12.9	631	11526.4	14.3	392.9
SMDH 00240	5	6	45	503.6	570.3	545.8	505.6	481.1	64.7	22.5	147.2	131.3	24.5	42.2	103	223.3	27.9	94.5	18.4	1.6	12.4	1.4	7.5	1.6	5.7	0.7	4.9	0.7	53.7	1.9	12.9	609.4	11130.3	9.7	313.3
SMDH 00240	6	7	48	492.8	555.2	529.1	498.9	472.8	56.3	20	139.4	128.9	26.1	36.3	100.9	219.3	27.5	93.3	18.2	1.7	11.9	1.4	6.7	1.4	5	0.6	4.3	0.6	54.2	1.9	17.2	717.3	13102.5	10.5	441.3
SMDH 00240	7	8	70	674.3	779.3	739.4	687.6	647.7	91.7	26.6	193.4	160.9	39.9	65.1	144.6	314.7	34.7	114.3	23	2.1	14.3	2.8	9.1	1.6	5.9	0.7	5.6	0.9	69	2.2	18.6	778.6	14222.2	15.8	480.7
SMDH 00239	0	1	40	682.2	782.6	750.4	688	655.8	94.6	26.4	198.1	162.3	32.2	68.2	148.2	317.5	34.4	116.6	22.1	2	15	1.8	9.5	1.8	6.7	0.7	5.2	0.7	63.2	3.1	22.9	761	13900.6	53.4	2925.3
SMDH 00239	1	2	40	312.9	381.3	349.1	331.4	299.2	49.9	13.7	97.7	76.4	32.2	36.2	66.5	144.6	16.1	53.7	9.7	1.2	7.4	0.9	5.7	1	3.5		2.6		31	2.1	15.7	504.8	9221.1	54.8	3234
SMDH 00239	2	3	40	455.5	553.8	510.9	478.9	436	74.9	19.5	137.6	102.4	42.9	55.4	95.5	220.3	21.4	72.3	15	1.2	10.3	1.4	7.3	1.5	4.5	0.6	3.6	0.6	47.5	2.5	24.3	668.8	12215.4	76.1	4202.1
SMDH 00239	3	4	30	341.1	420.2	383.4	363.3	326.5	56.9	14.6	106.4	79.9	36.8	42.3	72.1	162	16.8	56	11	1	7.6	1.2	5.9	0.9	4.1		2.5		33.3	1.8	20	443.4	8098.6	70	4175.1
SMDH 00239	4	5	45	437	542.1	485.3	477.1	420.3	65	16.7	133.6	106.2	56.8	48.3	96.2	199.4	22.8	75.8	14.7	1.9	9.5	1.3	6.3	1.1	4		3.3	0.7	30.3	3.3	42.9	430.5	7863.2	125	7169.6
SMDH 00239	5	6	70	345.7	415.1	395.2	348.6	328.7	66.5	17	121.1	89.1	19.9	49.5	70.5	154.4	18.8	61.8	13.5	1.3	8.4	1.3	7.2	1.1	4.1		3.3		33.5	2.6	21.5	412.6	7536	7.5	311.4
SMDH 00239	6	7	85	461.7	534	511	468.8	445.8	65.2	15.9	134.4	106.7	23	49.3	101.1	222.3	23.2	75.8	12.9	1.6	8.9	1.2	6.5	1.1	4.1		3		28.3	1.7	24.3	397.2	7254.6	8.4	335
SMDH 00239	7	8	80	442.9	498.9	475.9	452.1	429.1	46.8	13.8	121.9	109.5	23	33	92.8	209.1	22.5	80.5	13.5	1.9	8.8	1.2	5.3	0.9	3.4		2.4	0.6	33.5	1.4	30	626.5	11443.2	12.4	439.8
SMDH 00239	8	9	85	393.7	466.2	437.1	410.3	381.2	55.9	12.5	131.4	110.1	29.1	43.4	76.9	178.9	23.7	79.3	11.2	1.6	9.6	1.8	5.3	0.9	2.5		2		34	1.9	21.5	684.2	12496.8	17	503.3
SMDH 00239	9	10	55	426.6	504.4	476.8	439.4	411.8	65	14.8	142.2	115.8	27.6	50.2	83.4	195.1	25.1	82.8	13.5	1.3	10.6	1.9	6	1.3	2.6		3		44.2	1.9	18.6	739.5	13507.3	14.6	495.2
SMDH 00239	10	11	75	417.1	494.7	465.6	432.4	403.3	62.3	13.8	140.2	114.5	29.1	48.5	85	187.8	24.4	82.8	11.2	1.6	10.5	1.9	5.4	1.1	2.6		2.8		40.2	1.5	22.9	641.7	11721.7	9.4	329.6
SMDH 00239	11	12	70	447.7	537.7	504	464	430.3	73.7	17.4	156	125.6	33.7	56.3	85.1	201.5	26.9	89.8	14.6	1	11.4	2.2	6.7	1.4	3.3	0.6	3.2		49.7	2.8	22.9	721	13168.6	14.3	501.3
SMDH 00239	12	13	80	468	556.2	530.1	475.3	449.2	80.9	18.8	167.5	130.9	26.1	62.1	88.9	209.7	26.9	94.5	15	1.4	12.8	2.4	7.1	1.5	3.4	0.6	3.8		47.1	2.6	21.5	689.7	12597.3	13.9	449.5
SMDH 00239	13	13.5	40	406.2	484.8	455.7	421.1	392	63.7	14.2	136	109.2	29.1	49.5	80.3	184.6	24	78.1	13.3	1.3	10.4	1.6	5.5	1.1	2.9		3.1		42.2	2	17.2	650.9	11888.2	13	480.7
SMDH 00256	0	1	5	554.8	685.1	643.7	571.7	530.3	113.4	24.5	206.9	146.4	41.4	88.9	110.9	251.6	30.6	103.8	16.9	2.2	14.3	2.8	9.2	1.8	4.5	0.8	4.7	0.7	46.4	3.2	28.6	1071.3	19567.7	20	712.7
SMDH 00256	1	2	25	551.4	630.1	613.2	549.7	532.8	80.4	18.6	184.5	154	16.9	61.8	110.1	249.6	32.9	110.8	17.4	1.6	10.4	2.5	7.8	1.4	3.3	0.6	3		54.2	3.5	22.9	541.5	9890.1	15	449.3
SMDH 00256	2	3	35	147.3	176.7	166	153.8	143.1	22.9	4.2	49.2	34.5	10.7	18.7	32.4	68.4	6.4	25.7	4.8	2.4	3	0.7	1.7		0.9		0.9		14	1.1	5.7	442.6	8084.3	6.3	205.1
SMDH 00256	3	4	20	504.6	570.3	538.1	521.7	489.5	48.6	15.1	137.2	129.2	32.2	33.5	102.4	231.7	26.8	94.7	20.2	1.3	12.4	1.3	6.4	1.1	3		3.3		57.7	3.1	20.3	470.7	8598.2	1.5	599.3
SMDH 00256	4	5	30	232.8	285.9	273.6	234.7	222.4	51.2	10.4	93	59.5	12.3	40.8	46.7	102.3	10.4	43.2	9.7	3.1	7	1.4	4.5	0.7	2.1		1.7		22.4	2.1	11.4	389.8	7119.7	9.1	256.7
SMDH 00256	5	6	80	236	293.2	279.4	240	226.2	53.2	9.8	94.7	58.9	13.8	43.4	45.1	111.5	10.3	43.2	10.2	2.7	6.8	1.4	4	0.7	2.2		1.5		21.3	1.9	10	802.2	14652.8	8.1	253.4
SMDH 00256	6	7	40	210	265.9	253.6	211.8	199.5	54.1	10.5	94.7	58.9	12.3	43.6	40.1	87.1	10.3	43.2	10.1	2.5	6.2	1.5	3.9	0.7	2.4		2		19.2	1.7	8.6	492.9	9003	6.3	198.3
SMDH 00256	7	8	35	344.7	435.6	417.2	345.4	327	90.2	17.7	153.8	95.3	18.4	72.5	72.2	141	16.2	71.2	15.7	2.2	8.5	1.6	6.3	1.1	4.1	0.6	4		30.5	2.4	11.4	787.1	14377.2	11.1	326.1
SMDH 00256	8	9	90	333.8	404.1	385.7	340	321.6	64.1	12.2	126.1	87.6	18.4	51.9	68.7	145.3	17	64.2	14.5	3.6	8.3	1.8	4.6	0.8	2.5		2.5		29.1	1.9	8.6	704.1	12861.4	10.3	344
SMDH 00256	9	10	90	377.5	441.1	422.7	384.5	366.1	56.6	11.4	130.8	100.6	18.4	45.2	82.4	160.9	19.2	75.8	15.1	4.2	8.5	1.6	4	0.8	2.7		2.3		32.5	1.8	22.9	861.6	15738	12.4	452.5
SMDH 00256	10	11	40	220.7	258.4	247.7	225.2	214.5	33.2	6.2	79.6	60.6	10.7	27	48.1	92.6	10.4	46.7	9.3	2.4	5	0.9	2.6		1.3		1.4		19.5	1.2	10	754.4	13780	8.8	299.9

ARK MINES LTD

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	m	m	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SMDH 00256	11	12	98	284.3	311.3	302.1	288.3	279.1	23	5.2	82.8	76.7	9.2	17.8	59.2	124.6	14.9	58.3	12.3	3.2	6.6	1.1	2.4		0.8		0.9		27.2	0.9	11.4	628.7	11483.4	7.4	291.5
SMDH 00256	12	12.5	70	293.7	336.3	321	301.7	286.4	34.6	7.3	77.9	59.9	15.3	27.3	54.9	154.5	11.8	44.3	12.2	2.5	6.2	1.3	2.5	0.7	1.4		1.4		32.3	1.4	8.6	653.8	11942.7	7.3	381.3
SMDH 00257	0	1	15	631.6	692	673.6	631.8	613.4	60.2	18.2	167.5	158.2	18.4	42	134.8	294.6	34.2	114.8	20.8	1.5	12.7	1.5	7.7	1.4	3.1	0.6	3.3	0.6	57.6	4.1	17.3	451.2	8242.2	2.1	698.2
SMDH 00257	1	2	20	909.9	1000	969.3	913.9	883.2	86.1	26.7	239.5	228.7	30.7	59.4	193.9	421.2	50.7	165	31.9	2.1	18.4	2.2	10.8	1.9	4.9	0.9	5.2	0.8	83.2	5.1	21.5	517.9	9459.4	2.6	520.9
SMDH 00257	2	3	25	381.2	440.3	417.3	397.1	374.1	43.2	7.1	90.8	59.4	23	36.1	68.5	230.4	6.3	50.2	13	1.6	4.1		2.9	0.9	1.7		1.6		29.9	1.7	11.4	756.9	13826	6.4	327.7
SMDH 00257	3	4	20	67.4	79.3	71.6	74.5	66.8	4.8	0.6	18.8	16.2	7.7	4.2	16.5	29.5	3.5	12.1	2.1	1.9	1.2		0.6						5.2	1.8	11.3	143.7	2624		169.3
SMDH 00257	4	5	25	264.7	313.2	293.3	278.4	258.5	34.8	6.2	72.3	61.3	19.9	28.6	46.2	139.4	18.6	39.7	10	1	3.6	0.9	2.1	0.6	1.3		1.3		25.5	2.2	5.7	420	7670.9	6.1	311.4
SMDH 00257	5	6	38	176.6	194.2	186.5	183.2	175.5	11	1.1	45.4	41.8	7.7	9.9	38.4	86.8	6.9	33.8	5.9	0.6	3.1		1.1						21.3	0.8	8.6	470.3	8589.6	6.5	183.4
SMDH 00257	6	7	50	422.2	473.1	457.8	429.4	414.1	43.7	8.1	120.8	101.7	15.3	35.6	89.6	202.6	17.3	80.5	14.5	0.8	8.8	0.7	3.2	0.6	1.9		1.7		55.4	2	12.9	927.9	16949.5	14.5	415.2
SMDH 00257	7	8	35	267.4	314.4	303.7	270.1	259.4	44.3	8	91.4	62.3	10.7	36.3	61.5	124.6	8.2	50.2	8.5	1	5.4	0.9	3	0.6	1.5		2		24.4	0.9	10	512.7	9364.7	13.6	457.1
SMDH 00257	8	9	85	440.9	521.2	504.3	443.5	426.6	77.7	14.3	156	109.3	16.9	63.4	91	206.1	17.6	86.3	15.1	0.9	9.6	0.9	4.5	1	3.7	0.7	3.5		55.6	2.5	30	812.3	14836.5	14.9	450.6
SMDH 00257	9	10	80	491.7	582.7	556.6	502.7	476.6	80	15.1	165.6	119.5	26.1	64.9	103	230.6	19.7	93.3	17	0.9	12.1	1.2	5.3	1	3.7	0.6	3.3		66.9	2.9	22.9	1154.3	21083.5	13.8	570.6
SMDH 00257	10	11	90	366.9	418.8	400.4	378.1	359.7	40.7	7.2	109	89	18.4	33.5	78.7	175.2	14.4	71.2	11.9	0.9	7.4	0.6	2.8	0.6	1.8		1.4		46.8	2	18.6	877.7	16030.8	15.4	464.7
SMDH 00257	11	11.5	60	513.3	580.8	553.2	529.1	501.5	51.7	11.8	146.8	133.3	27.6	39.9	109.8	235.5	28	98	17.2	1.6	11.4	2	5.3	0.9	1.8		1.8		50.6	2.2	18.6	759.6	13874.8	14.4	506.1
SMDH 00258	0	1	20	1043.7	1140.6	1122.2	1036.5	1018.1	104.1	25.6	293.7	270.9	18.4	78.5	222.9	481.7	56.9	198.3	33.9	1.2	23.2	4.2	11.5	1.7	3.5	0.6	3.5	0.6	103.8	5.4	10	514	9387.7	42.7	1483.3
SMDH 00258	1	2	25	335.3	392.4	370.9	347.1	325.6	45.3	9.7	105.8	87.2	21.5	35.6	74.6	148.3	18.2	63	12.6	1.2	7.7	1.5	4.5	0.7	1.6		1.4		31.6	1.9	12.9	455	8311.1	8.8	291.4
SMDH 00258	2	3	30	374.1	442.7	416.6	388.5	362.4	54.2	11.7	122.2	98.6	26.1	42.5	80.2	166	20.4	71.5	14	1.5	8.8	1.7	5	0.8	2	0.3	1.6	0.3	35.9	1.9	32.3	664.4	12135.1	9.3	310.1
SMDH 00258	3	4	40	387.8	494.8	462.6	393.8	361.6	101	26.2	160.2	103	32.2	74.8	76.1	169.3	18.8	73.5	13.7	1.2	9	2.1	8.6	1.8	6.6	0.8	5.4	0.9	37.9	2.1	22.9	647.2	11822.1	19.9	329.7
SMDH 00258	4	5	40	299	346.7	325.2	308.9	287.4	37.8	11.6	90.9	78.1	21.5	26.2	60.8	136.2	14.6	58.3	10.3	1.2	6	0.8	4.4	0.8	3.2		2.4		30	1.4	12.9	495.3	9046	10.1	315.1
SMDH 00258	5	6	30	368.6	427.1	399.5	380.9	353.3	46.2	15.3	107	93.3	27.6	30.9	73.1	172.6	18.5	68.8	11.5	1.3	7.5	0.8	5.2	0.9	4.3	0.6	3.5		26.7	1.4	15.7	645.8	11796.3	9.2	351.9
SMDH 00258	6	7	25	435	508.1	469.8	454.7	416.4	53.4	18.6	123.5	108.5	38.3	34.8	91.1	201	21.1	80.5	13.2	1.3	8.2	0.9	6	1.1	4.7	0.7	4.4	0.8	43.7	1.4	18.6	707.3	12918.8	11.1	392
SMDH 00258	7	8	30	420.6	472.4	447.9	430.9	406.4	41.5	14.2	111.3	102.6	24.5	27.3	91.2	195.3	20.5	75.8	13.5	1.9	8.2	0.9	5.4	0.9	3.5		3.5		40.4	1.5	12.9	647.9	11833.6	10.6	408.9
SMDH 00258	8	9	80	289.5	324.3	301.3	307.3	284.3	17	5.2	72.1	73.3	23	11.8	63.7	136	14.3	56	8.3	1.3	4.7	0.6	2.4		1.4		0.8		28.4	1.3	17.2	818.2	14945.6	16.3	600
SMDH 00258	9	10	50	160.4	195.3	169.2	182.8	156.7	12.5	3.7	41	38.5	26.1	8.8	35.4	73.6	7.9	29.2	5.8	1.6	3.2		1.4		0.9		1.4		13.9	1.4	25.7	857.8	15669.1	20.8	673.2
SMDH 00258	10	11	95	366	406.1	389.2	372.7	355.8	33.4	10.2	100.8	94.8	16.9	23.2	77.9	167.1	18.7	71.2	12.3	1.5	7.1	0.9	4	0.8	2.6		1.9		35	1.8	15.7	570.5	10421.2	13.3	379.6
SMDH 00258	11	11.5	50	462.5	546.8	522.3	468.4	443.9	78.4	18.6	158.3	120.2	24.5	59.8	94.6	211	23	88.6	15	1.3	10.4	1.4	7.2	1.4	3.5	0.6	3.9	0.6	44.6	2.6	18.6	556.5	10165.7	21	491.4
SMDH 00259	0	1	5	694.7	783.6	766.7	692	675.1	91.6	19.6	189.1	146.7	16.9	72	211.1	276.1	30.8	106.1	30.6	1.2	19.2	2.9	6.9	1.1	4.2	0.7	3.8		96.5	4.5	12.9	386.2	7053.7	38.6	1421.9
SMDH 00259	1	2	20	367.6	447.7	410.9	393.5	356.7	54.2	10.9	106	76.9	36.8	43.3	110.6	146.2	15.6	56	16.2	1.4	10.7	1.6	3.7	0.7	2.4		2.5		48.1	2.2	25.7	814	14868.1	22.8	688.5
SMDH 00259	2	3	35	190	233.6	213.7	204.9	185	28.7	5	57.1	40.3	19.9	23.7	58.6	71.5	8.5	29.2	9.4	1.6	6.2	0.8	1.8		1.4		1		24.8	0.8	17.2	637.6	11647	8	234.2
SMDH 00259	3	4	25	234.5	274.6	257.7	245.7	228.8	28.9	5.7	63.9	49.3	16.9	23.2	75.8	88.2	10	36.2	9.9	1.4	7.3	0.9	2.2		1.6		1		30.2	0.9	21.5	540.7	9875.7	10.6	274.1
SMDH 00259	4	5	45	301.7	369.1	344.6	315.7	291.2	53.4	10.5	92.7	61.6	24.5	42.9	93.2	115.6	13	44.3	14.3	1.2	9.6	1.3	3	0.7	2.9		2.6		39.7	1.3	20	653.5	11937	9	370.4
SMDH 00259	5	6	55	275.7	329.7	308.2	288.8	267.3	40.9	8.4	81	58.9	21.5	32.5	85.3	103.7	11.7	43.2	13.2	1.3	8.9	1.2	2.8	0.6	1.9		1.9		35.8	1.4	21.5	643.6	11756.1	13.1	362.6
SMDH 00259	6	7	30	469.9	555.8	525.1	493.5	462.8	62.3	7.1	154.2	115.7	30.7	55.2	129.2	192.6	18	94.5	16.7	1.3	10.5	1.8	1.4	0.8	1.3		1.8		48	1.4	34.3	641.6	11718.8	15.2	432.9
SMDH 00259	7	8	50	713.5	818.7	778.8	736.4	696.5	82.3	17	208	176	39.9	65.3	167	325.3	35.5	130.6	23.7	2.2	12.2	2.4	7.5	1.3	2.6		3.2		59.6	1.4	73	714.8	13056.6	31.1	580
SMDH 00259	8	8.5	10	243.7	269.9	254.6	256.5	241.2	13.4	2.5	57.2	58.3	15.3	10.9	55	118.7	12.8	43.2	6.8	0.8	3.9	0.7	1.6				0.2		20.9	0.7	10	602	10995.3	14.7	199.2
SMDH 00260	0	1	15	500	552.4	532.5	507.9	488	44.5	12	135.4	126.8	19.9	32.5	108.5	233.2	25.5	94.2	15.5	1.6	9.5	1.2	5.9	1	2.5		1.4		46.7	4	19.2	325.3	5942.6	0.9	232.9
SMDH 00260	1	2	98	434	511.4	479.2	453.2	421	58.2	13	133.2	108.8	32.2	45.2	93.6	198.5	22.1	79.3	16.1	1.3	10.1	1.9	5.5	0.9	2.4		2.3		41.1	1.5	28.6	647.7	11830.7	20.8	378
SMDH 00260	2	3	90	340.2	403.8	377.7	356.5	330.4	47.3	9.8	106.2	85	26.1	37.5	75.5	156.4	17.6	61.8	10.7	1.3	7.1	1.4	4.2	0.8	1.7		1.7		30.2	1.3	17.2	594.1	10851.8	14.9	267.1
SMDH 00260	3	4	30	406.7	472.2	446.1	422.7	396.6	49.5	10.1	120	100.4	26.1	39.4	91.5	188.2	21.1	73.5	12.5	1.3	8.5	1.3	4.5	0.8	1.8		1.7		36	1.7	17.2	570.2	10415.4	13.7	294.1
SMDH 00260	4	5	75	305	351.9	332	317	297.1	34.9	7.9	86.8	74.2	19.9	27	69.4	142.6	15.7	53.7	8.6	1.3	5.8	1.2	3.6	0.6	1.4		1.1		25.8	1.2	12.9	425.2	7765.6	11.3	291.6
SMDH 00260	5	6	90	423.8	467.6	444.6	441.6	418.6	26	5.2	106.1	106.5	23	20.8	96.9	198.1	22.8	79.3	12.6	1.6	7.3	1.3	3.1		0.8				37	1.4	20	691.4	12628.8	23.1	453.5
SMDH 00260	6	7	85	296.9	320.8	308.5	306.8	294.5	14	2.4	64	66.7	12.3	11.6	69.7	145.4	15.3	49	8.2	1	5.9	0.8	1.6						29.9	1.2	8.6	514	9387.7	29.5	285.4
SMDH 00260	7	7.5	60	237.6	267.9	249.5	253	234.6	14.9	3	58.9	57.8	18.4	11.9	54.7	111.3	12.2	43.2	7.1	1.4	4.7	0.7	1.7		0.6				19.8	0.9	12.9	427.2	7802.9	17.8	381.9
SMDH 00261	0	1	8	566.2	624.8	607.9	570.1	553.2	54.7	13	153.2	140.3	16.9	41.7	114.8	277.2	29.6	102.6	17	0.8	11.2	2.1	6	0.9	2.2		1.8		51.2	2.9	14.3	313.9	5733.1	32.7	569.5
SMDH 00261	1	2	45	431.3	464.6	452.3	436.3	424	28.3	7.3	126.7	118.6	12.3	21	59.5	235.5	13.9	101.5	7	1	5.6	0.7	2.5	0.7	1.7		1.7		17.6	0.9	15.7	400.5	7314.9	13.7	305.8
SMDH 00261	2	3	40	525.9	569.3	550.9	535.7	517.3	33.6	8.6	148.8	139.2	18.4	25	68.3	296.9	16.2	119	9.3	0.8	6.8	1.1	2.9	0.8	2.2		1.6		23	1.4	15.7	439.3	8024	10.1	248.1
SMDH 00261	3	4	30	569.1	601	588.7	574.4	562.1	26.6	7	152.8	150.8	12.3	19.6	74	322.7	18.5	128.3	10.1	0.9	7.6	1.1	2.9	0.7	1.3		1		25.9	1.4	14.3	455.6	8322.6	13.2	243.8
SMDH 00261	4	5	50	641.5	675.8	660.5	650	634.7	25.8	6.8	170.3	169.6	15.3	19	85	363.2	19.9	145.8	10.6	1.6	8.6	1.1	2.8	0.7	1.4		0.8		28	1.7	25.7	533.3	9740.8	12.1	269.5
SMDH 00261	5	6	98	523.6	562	545.1	533.5	516.6	28.5	7	144.8	139.2	16.9	21.5	68.8	295.7	16.9	119	8.3	1	6.9	0.8	2.5	0.7	1.6		1.4		24	1.1	17.2	576.2	10524.5	15.9	263.9
SMDH 00261	6	7	85	485	521.6	506.3	492.8	477.5	28.8	7.5	72.2	68.1	15.3	21.3	75.2	323.3	18.4	45.5	9.2	1.2	4.7	1.1	3.1	0.7	1.6		1		25.9	1.2	12.9	425.2	7765.6	16.2	284.9
SMDH 00261	7	8	80	659.7	690.6	679.9	663.2	652.5	27.4	7.2	175.6	175.6	10.7	20.2	85.3	374.2	21	150.5	12.1	0.8	8.6	1.1	3	0.7	1.5		0.9		32.7	1.9	28.6	396.4	7240.3	20.6	286.4
SMDH 00262	0	1	30	569.6	618.7	606.4	569.8	557.5	48.9	12.1	166.6	146.4	12.3	36.8	74.2	324.2	17.5	123.6	8.8	0.9	8.3	1.3	4	1.1	2.9		2.8		25.6	2	18.6	472	8621.1	20.4	341.9
SMDH 00262	1	2	25	395	445.1	432.8	395.8	383.5	49.3	11.5	133	106.5	12.3	37.8	50.2	217.4	12.1	89.8	6.7	0.8	6.5	0.8	3.8	1.1	3.2		2.6		18	1.5	12.9	341.2	6232.6	7.5	199
SMDH 00262	2	3	85	515	655.7	618.9	524.1	487.3	131.6	27.7	210.9	131.1	36.8	103.9	107.5	232.3	26.2	92.1	15.8	2.1	11.3	2.7	10.1	2.2	5.4	0.8	5.8	0.7	42.4	3.1	32.9	724.3	13228.8	22.9	431
SMDH 00262	3	4	70	445.5	553.3	524.2	453.6	424.5	99.7	21	171.7	113.9	29.1	78.7	93.8	201.9	22.4	81.6	13.7	1.5	9.6	2.1	7.8	1.5	3.8	0.6	4.6	0.6	38	2.4	25.7	565.2	10323.5	20.3	328
SMDH 00262	4	5	70	474.7	602.4	568.7	482.6	448.9	119.8	25.8	191.5	119.9	33.7	94	101.1	212.4	24.3	84	14.4	1.9	10.8	2.2	9.4	1.8	5.3	0.8	5.6	0.7	38.1	2.5	34.3	664.1	12129.3	21.6	378.8
SMDH 00262	5	6	85	418.6	513.3	490.3	422	399	91.3	19.6	159.7	108.1	23	71.7	90.3	186.2	21.5	77	13.5	1.4	9.1	2.1	7.5	1.4	3.8	0.7	3.5	0.6	35	2.2	22.9	535	9772.3	24.2	334.1
SMDH 00262	6	7	25	435.5	517.9	494.9	440	417	77.9	18.5	149.9	113	23	59.4	91	195.6	24	80.5	14.7	1.5	9.7	1.6	6.9	1.3	4.2	0.6	3.3	0.6	38.3	2.2	21.5	580.4	10602	14.6	562.9
SMDH 00262	7	8	40	441.9	503.5	475.9	454.3	426.7	49.2	15.2	124.8	113	27.6	34	94.5	199	23.8	81.6	16.1	1.6	10.1	1.2	6.4	1	3.8		2.8		39.1	2.4	18.6	554.8	10134.1	12.6	441.2
SMDH 00262	8	9	90	381.8	427.5	407.6	389.5	369.6	38	12.2	106.2	99.2	19.9	25.8	81.6	171.6	20.5	72.3	13.1	1.7	8.8	0.9	5.5	0.9	3.1		1.8		34.3	2	15.7	512.7	9364.7	8.4	319.3
SMDH 00262	9	10	80	452.9	509.6	488.1	457.1	435.6	52.5	17.3	126.6	113.8	21.5	35.2	97.8	206.6	24	81.6	13.9	1.6	10.1	1.3	6.9	1.1	4.1	0.6	3.3		41	2.4	17.2	580.4	10602	12	409.3
SMDH 00262	10	11	25	368.5	415.9	397.5	372.9	354.5	43	14	105.1	94.5	18.4	29	80.7	165.5	20.1	67.7	10.4	1.7	8.4	1.1	5.6	1	3.5		2.8		32.1	1.8	18.6	463.3	8463.2	8	278.8
SMDH 00262	11	12	40	422.4	473.5	453.6	427	407.1	46.5	15.3	119.9	110.3	19.9	31.2	88.4	190.3	23.3	79.3	14.4	1.7	9.7	1.2	6.5	1.3	3.7		2.6		37.6	2.1	18.6	573.2	10470	12	380.1
SMDH 00263	0	1	30	551.8	608.1	588.2	554.5	534.6	53.6	17.2	148.6	140.3	19.9	36.4	118.8	251.3	29.7	101.5	18.9	1.6	12.8	1.5	7.6	1.3	3.8		3		48.5	3.1	18.6	545.7	9967.6	20.8	658.2
SMDH 00263	1	2	20	371.3	420.8	400.9	377.2	357.3	43.6	14	104.4	93.2	19.9	29.6	80	168.8	19.9	66.5	12.8	1.5	7.8	1.1	5.7	1.1	3.4		2.7		33.9	1.9	18.6	569.4	10401.1	8.3	331.9
SMDH 00263	2	3	35	487.6	539.4	516.4	499.6	476.6	39.8	11	129.3	127.6	23	28.8	100.4	225.3	28.6	92.1	17.5	1.5	11.2	1.3	5.6	0.8	2.2		1.1		48.1	2.4	27.2	600.6	10969.5	11.9	655.9
SMDH 00263	3	4	80	466.4	533.4	505.8	483	455.4	50.4	11	134.6	118.4	27.6	39.4	100.5	217.3	24.8	86.3	14.8	1.6	10.1	1.9	5.4	0.9	1.7		1.1		43.1	2	28.6	752.7	13748.5	10.8	568.6
SMDH 00263	4	5	30	449	512.9	486.8	464.2	438.1	48.7	10.9	131.6	116.4	26.1	37.8	95	207.1	24	85.1	15.4	1.4	10.1	2	5.3	0.8	1.5		1.3		43.8	2.2	22.9	630.1	11509.2	11.2	471
SMDH 00263	5	6	90	495.8	562.9	535.3	511.1	483.5	51.8	12.3	143.4	128.8	27.6	39.5	107.1	226.4	26.6	94.5	16.5	1.7	10.7	2	5.7	1	1.8		1.8		47.8	2.2	28.6	713.2	13027.9	13.3	589.4
SMDH 00263	6	7	50	414	498.1	472	423.4	397.3	74.7	16.7	142.6	104.2	26.1	58	86.3	189.1	21.3	74.6	14.4	1.7	9.9	2	6.3	1.4	3	0.6	3.4		38.5	2.2	24.3	599.5	10949.4	9	527.4
SMDH 00263	7	8	80	379.6	461.6	437.1	388.7	364.2	72.9	15.4	134.7	94.9	24.5	57.5	80.2	173.7	19.2	67.7	12.8	1.5	9.1	1.9	6.1	1.3	2.7		3.4		36.6	2.2	24.3	551.4	10070.9	10.7	427.4

BHID	FROM	TO	Rec	TREO	TREO+Y+Sc	TREO+Y	LREO+Sc	LREO	HREO+Y	HREO	CREO	MagREO	Sc_2O_3	Y_2O_3	La_2O_3	CeO_2	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3	Tb_4O_7	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3	ThO_2	U_3O_8	Nb_2O_5	TiO_2	$FeTiO_3$	HfO_2	ZrO_2
units:	*m*	*m*	*%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
SMDH 00263	8	9	90	394.3	480	450.9	407.8	378.7	72.2	15.6	139.9	102.2	29.1	56.6	81	180.1	20.3	73.5	12.1	1.4	10.3	2	6.4	1.3	2.7		3.2		39.5	2.6	28.6	582	10630.7	8.1	414.8
SMDH 00263	9	10	96	362.9	444.4	418.3	373.5	347.4	70.9	15.5	130.3	92.3	26.1	55.4	75.3	165	18.8	65.3	11.8	1.4	9.8	1.9	6.3	1.3	2.7		3.3		37.4	2.6	30	568	10375.2	0.5	432.9
SMDH 00263	10	11	90	384.3	460.3	438.8	386.6	365.1	73.7	19.2	137.3	99.6	21.5	54.5	73.3	179.1	18.2	72.3	12.2	1.4	8.6	1.8	7.3	1.3	3.3	0.6	4.3	0.6	33.6	2.7	30	529.5	9671.9	8.3	515.3
SMDH 00264	0	1	30	690.5	767.4	739.8	694.4	666.8	73	23.7	177.9	161.6	27.6	49.3	140.1	337.1	34.7	115.5	22.5	1.7	15.2	2	9.4	1.6	5.6	0.6	3.8	0.7	64.6	4.1	28.6	1138.9	20802.1	15.7	750.5
SMDH 00264	1	2	60	407.4	467.9	440.3	418.8	391.2	49.1	16.2	115.3	101.9	27.6	32.9	87.1	186.2	21.5	72.3	12.9	2	9.2	1.2	6.9	1.1	4		3		39.7	2.6	30	843.5	15407.8	10.7	492.8
SMDH 00264	2	3	90	432.2	501.3	472.2	442.7	413.6	58.6	18.6	131.5	112.4	29.1	40	91.6	190.4	23	80.5	15.4	2.1	10.6	1.3	7.6	1.4	4.3	0.6	3.4		45.5	3.1	31.5	659.3	12043.2	8.8	403.6
SMDH 00264	3	4	40	462	545.1	516	465.1	436	80	26	150.5	118.8	29.1	54	94.6	203.8	24	84	16.4	1.7	11.5	1.6	9.2	1.8	6.9	0.7	5.1	0.7	48.2	3.7	27.2	610.1	11144.6	8.6	406.9
SMDH 00264	4	5	55	440.2	533.8	500.1	447.5	413.8	86.3	26.4	149.7	110.8	33.7	59.9	92.8	194.7	22.7	77	13.5	1.7	11.4	1.8	9.3	1.9	6.7	0.8	5.2	0.7	45.7	3.7	28.6	652.9	11925.5	7.4	452.1
SMDH 00264	5	6	25	433.9	504.9	477.3	440.8	413.2	64.1	20.7	132.4	110.7	27.6	43.4	91.8	192.5	23.3	78.1	15.1	1.6	10.8	1.4	7.9	1.5	5.1	0.6	3.6	0.6	46.5	3.1	31.5	680.7	12433.6	9.7	463.5
SMDH 00264	6	7	50	438.3	503.6	480.6	441.8	418.8	61.8	19.5	128.9	108.9	23	42.3	94.6	197.9	23.8	75.8	14.7	1.5	10.5	1.4	7.9	1.5	4.6		3.5	0.6	45.5	3.3	32.9	552.3	10088.1	7.3	455.5
SMDH 00264	7	8	50	423	494.4	466.8	435.3	407.7	59.1	15.3	124.2	100	27.6	43.8	82.3	207	21.5	71.2	13.5	1.9	10.3	1.9	5.4	1	3.8		3.2		42	2.7	34.3	640.2	11692.9	31.6	443.9
SMDH 00264	8	9	98	371.1	416.8	396.9	378.8	358.9	38	12.2	98	90.7	19.9	25.8	79.2	170.1	19.9	65.3	13.9	1.4	9.1	0.9	4.6	0.8	3.3		2.6		40.5	2.1	54.4	498.9	9112.1	9	419.8
SMDH 00264	9	10	60	330.6	386.3	364.8	342.5	321	43.8	9.6	102.5	84.5	21.5	34.2	67.7	153.9	17.6	61.8	11	1.4	7.6	1.4	3.7	0.8	1.7		2		34.5	1.7	21.5	464.8	8489.1	9.1	493.4
SMDH 00264	10	11	70	274.7	326.9	305.4	286.8	265.3	40.1	9.4	86.7	69.5	21.5	30.7	55.7	127.8	14.7	50.2	9.2	1.2	6.5	1.2	3.4	0.7	2.1		2		28.8	1.4	17.2	415.4	7587.6	9.1	383.8
SMDH 00264	11	11.5	50	320	352.2	341.5	323.1	312.4	29.1	7.6	84.5	78.7	10.7	21.5	70.5	148	17.4	56.7	11.4	1.7	6.7	0.8	3.8	0.7	1.5		0.8		31.4	3.9	20	229.3	4188.6	0.9	115
SMDH 00265	0	1	20	329.9	371.2	362	329.4	320.2	41.8	9.7	98.9	84.2	9.2	32.1	70.4	152.9	17.9	60.7	10.2	0.5	7.6	1.5	4.1	0.8	1.8		1.5		34.3	2.4	10	333	6083.3	13	557.5
SMDH 00265	1	2	15	261.2	323.7	290	286.8	253.1	36.9	8.1	81.5	65.5	33.7	28.8	56.4	120.5	14.1	46.7	8.1	1.3	6	1.3	3.4	0.6	1.5		1.3		22.3	1.8	18.6	551	10065.2	8.6	355
SMDH 00265	2	3	80	398.7	491.5	459.3	414	381.8	77.5	16.9	141.3	99.6	32.2	60.6	83	183.6	20.3	71.2	13.1	1.4	9.2	1.9	6.2	1.3	3.5	0.6	3.4		33.9	2.2	22.9	596.3	10892	8.3	422.5
SMDH 00265	3	4	25	497.1	583.6	557.5	503.7	477.6	79.9	19.5	164.1	125.7	26.1	60.4	104.8	229	23.4	92.1	15.5	1.4	11.4	2.4	7.8	1.4	3.4	0.6	3.3	0.6	45.2	3.7	27.2	575.7	10515.9	12.4	683.2
SMDH 00265	4	5	30	343	422.9	399.9	351.6	328.6	71.3	14.4	127.8	87.5	23	56.9	70.7	157.2	17.9	61.8	11.7	1.3	8	1.6	6.2	1.1	2.9		2.6		30.2	2.7	22.9	532.5	9726.4	7.8	391.9
SMDH 00265	5	6	30	548.7	680.5	639.1	564.5	523.1	116	25.6	207.1	143.1	41.4	90.4	113.3	246	28.5	102.6	16.9	2.1	13.7	2.7	9.3	2.1	5.1	0.9	4.8	0.7	46.9	2.9	37.2	762.8	13932.2	9.3	555
SMDH 00265	6	7	30	584.2	722.7	684.4	594.1	555.8	128.6	28.4	219.1	147.3	38.3	100.2	121.2	267.4	30.3	103.8	17	1.9	14.2	2.9	10.3	2.2	5.7	0.9	5.7	0.7	51.1	3.3	30	732	13369.5	14.2	581.8
SMDH 00265	7	8	20	394.2	469.8	446.8	401	378	68.8	16.2	137.5	100.9	23	52.6	78.6	183.3	18.1	74.6	12.4	2.1	8.9	1.8	6.4	1.5	3.2		3.3		34.5	2.2	24.3	623.2	11382.9	9.8	407.8
SMDH 00265	8	9	30	432.7	541	505.7	445.5	410.2	95.5	22.5	168.2	113.8	35.3	73	85.3	198.1	20.2	82.8	13.6	1.6	8.6	2.1	8.7	1.8	4.1	0.7	4.4	0.7	36.1	2.6	31.5	1009.4	18436.6	10.6	517.2
SMDH 00265	9	10	40	543.9	671.3	642.2	541.8	512.7	129.5	31.2	218	142.9	29.1	98.3	105.9	246.7	25.1	103.8	17	1.9	12.3	2.6	11.4	2.5	5.7	1	7.2	0.8	46.1	2.9	31.5	921.5	16831.7	13.1	585.6
SMDH 00265	10	11	45	475.4	583.4	552.7	481.1	450.4	102.3	25	178.2	121.7	30.7	77.3	95	216.7	22.1	88.6	16.1	1.3	10.6	2	9	2.1	4.7	0.8	5.6	0.8	41.8	2.8	28.6	739.7	13510.2	11.7	544.5
SMDH 00265	11	11.5	40	550.1	619.8	590.7	560.3	531.2	59.5	18.9	145.9	133.4	29.1	40.6	111.9	266.1	30.3	93.3	16.6	2.2	10.8	1.9	7.9	1.3	4.2		3.6		50.5	4.1	25.7	845	15433.6	20.6	699.3