Second High Purity Mixed Rare Earth Carbonate Produced from Column Leach

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ANSTO has produced second mixed rare earth carbonate (MREC) sample product from Deep Leads deposit in northern Tasmania

Quality is even better than maiden MREC – more heavy rare earths and less of the most important impurities

Results provide ABx with broad flexibility and scope for project optimisation

On behalf of ABx Group Limited (ASX: ABX) (**ABx** or the **Company**), the Australian Nuclear Science and Technology Organisation (ANSTO) has produced the second mixed rare earth carbonate (MREC) sample from the Deep Leads resource in northern Tasmania. This sample was produced from the leachate generated in the recently reported column leach testwork.[1] Compared to the maiden ABx MREC, this MREC contains even higher proportions of the most valuable heavy rare earths, such as dysprosium (Dy) and terbium (Tb) (Table 1), and significantly lower amounts of the key impurities, aluminium and iron.

Table 1: Proportions of REO in ABx MRECs. Full results in Table 2

Rare earth oxide (REO)	Maiden MREC	Second MREC
La_2O_3	17.5%	16.7%
CeO_2	5.6%	1.1%
Pr_6O_{11} + Nd_2O_3	28.3%	28.3%
Sm_2O_3 + Eu_2O_3 + Gd_2O_3	10.9%	12.0%
Tb_4O_7 + Dy_2O_3	4.6%	5.4%
Other HREO	5.2%	6.5%
Y_2O_3	27.8%	30.0%
Total	100.0%	100.0%

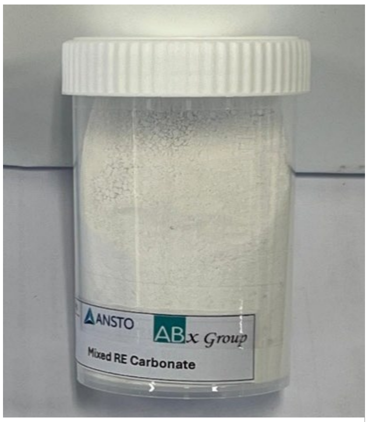

Figure 1: Second MREC sample produced from Dee Leads

ABx Group Managing Director and CEO Mark Cooksey said:

"This is another example of the high purity MREC that can be produced from Deep Leads using the simple three-step process that has been used commercially for many decades. Significantly, it indicates that ABx can produce a high quality MREC using either a tank leach or a column leach. This provides ABx with broad flexibility and scope for project optimisation.

[1] ASX Announcement, 23 January 2026

Bulk Sample Material

The source of the material for the MREC sample is a 100 kg bulk sample from trial pit DLP002 from the Deep Leads resource (Figure 1).[2]

Mixed Rare Earth Carbonate Product Quality

See Table 2 for detailed composition. Compared to the maiden ABx MREC, this MREC contains even higher proportions of the most valuable heavy rare earths, such as dysprosium (Dy) and terbium (Tb), and lower amounts of cerium (Ce), the least valuable rare earth.

The most important impurities in MRECs are typically aluminium and iron. The levels of both are incredibly low, with the iron below the detection limit.

The uranium and thorium contents are very low and similar to the maiden MREC, which has already been shown to meet the exemption criteria for control as set by the International Atomic Energy Agency.[3]

Next Steps

The second MREC enables ABx to provide samples to even more prospective customers and offtake partners. The results are also valuable input to the engineering studies underway with external experts.

Strategic Importance of MREC Production

Existing and prospective rare earth refineries are seeking high quality MRECs produced at low cost. MRECs with high proportions of heavy rare earths such as Dy and Tb are in particular demand because these elements have the most acute supply risk.[4] ABx has excellent prospects of meeting these requirements because:

1. ABx achieved high extractions at ambient temperatures and pressures with minimal acid in a short time, which is likely to lead to lower cost and lower impurities in the MREC product. For most clay-hosted rare earth deposits globally, minimal rare earth extraction is achieved using these process conditions;
2. The ABx MREC has a significantly higher proportion of Dy and Tb compared to peers. Magnet rare earth prices remain high, with Benchmark[5] reporting Dy oxide (DDP China) at over US$200/kg and Tb oxide (DDP China) at over US$900/kg. Furthermore, CIF Europe prices for Dy and Tb are over four times higher than Chinese domestic prices, illustrating the potential premium for non-China sources of rare earths.

[2] ASX Announcement, 6 August 2025
[3] ASX Announcement, 2 March 2026
[4] ASX Announcement, 23 April 2025
[5] Benchmark Mineral Intelligence, 5 March 2026

ABx has already executed a Memorandum of Understanding with Ucore Rare Metals Inc. (TSXV: UCU) (OTCQX: UURAF),[6] which is focussed on rare-earth processing facilities in North America, and ABx is also in discussions with additional potential offtake partners.

ABx Rare Earth Resource

The Deep Leads – Rubble Mound and Wind Break discoveries contain a resource estimate of 89 million tonnes[7] averaging 844 ppm total rare earth oxides (TREO). The resource contains 36 ppm Dy+Tb (Dy+Tb is 4.4% of TREO), the highest of any ionic clay deposit in Australia and among the highest globally.[8]

This resource estimate has been defined from only 29% of the project's mineralised outline.

This announcement is approved for release by the board of ABx Group Limited.

Go to the ABx Investor Hub to watch a video of this announcement and ask any questions of management.

For further information please contact:

Dr Mark Cooksey
MD & CEO
ABx Group
+61 447 201 536
mcooksey@abxgroup.com.au
www.abxgroup.com.au

Media
Chapter One Advisors
David Tasker / Alex Baker
+61 433 112 936 / +61 432 801 745
dtasker@chapteroneadvisors.com.au /
abaker@chapteroneadvisors.com.au

About ABx Group Limited

ABx Group Limited (ABx) is a uniquely positioned Australian company delivering materials for a cleaner future.

The three priority projects are:

- **Heavy rare earths**: Supplying light and heavy rare earths from Tasmania into Western supply chains
  - Maiden mixed rare earth carbonate produced
  - Processing Options Analysis conducted in partnership with external experts
- **Clean fluorine chemical production**: Producing industrial chemicals from aluminium smelter by-product (ALCORE)
  - Continuous pilot plant under construction in Bell Bay, Tasmania

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[6] ASX Announcement, 4 September 2024
[7] 41 Mt inferred, 42 Mt indicated and 6 Mt measured
[8] ASX Announcement, 2 May 2024

- **Near-term bauxite production**: Mining bauxite resources for the aluminium, cement and fertiliser industries
    - Agreements executed with Good Importing International for bauxite projects in Queensland and New South Wales, and $2.7 million initial payment has been received
    - Approvals well advanced for DL130 bauxite project in northern Tasmania

ABx endorses best practices on agricultural land and strives to leave land and environment better than we find it. We only operate where welcomed.

Disclaimer Regarding Forward Looking Statements

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance, or achievements to differ materially from the expectations described in such forward-looking statements.

ABx does not give any assurance that the anticipated results, performance, or achievements expressed or implied in those forward-looking statements will be achieved.

Competent Persons Statement

The information in this report that relate to Exploration Information and Mineral Resources are based on information compiled by Ian Levy who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Levy is a qualified geologist and a director of ABx Group Limited.

Mr Levy has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of exploration Results, Mineral Resources and Ore Reserves. Mr Levy has consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

Appendix

Mixed Rare Earth Carbonate (MREC) Production

This MREC was produced using the standard three-step process for ionic rare earths: leaching, impurity removal and precipitation. The leaching was via a column leach with conditions as follows:[9]

- Ore was homogenised and screened at 10 mm, followed by agglomeration to a 10 mm feed to consolidate fines and ensure suitable bed structure and permeability
- Two identical columns, each 2.4 metres high and 150 mm in diameter (Figure 1)
- Approximately 26 kg of ore per column to a 'bed height' of 2m
- Two ammonium sulfate (AMS) leachate concentrations:
  - Test C1: 0.30 M ammonium sulfate
  - Test C2: 0.15 M ammonium sulfate
- Irrigation rate of ore with leachate: 5.0 L/m^2/hour (approximately 2.12 L / day)
- Ambient temperature (~21°C ambient conditions)
- Target pH: 4.0 (actual feed pH ~3.8).
- Test duration: 24 days
- Discharge liquor collected daily (except Sunday) and stored separately
- Post-test treatment: Column flushed with 8 L of tap water at 15 L/m^2/hour (~30hrs). Column allowed to discharge under gravity for >13-15 days. Solid residue discharged (Figure 1)

Following the column leaching, all discharge liquor from both columns was combined to produce 95L of rare earth enriched liquor.

Impurity removal was performed by addition of 150 g/l ammonium bicarbonate solution to the liquor to achieve a target pH 6.2 and allowing 30 minutes for impurity precipitation. The solution was filtered to separate the clean liquor from the minor residue.

Rare earth precipitation was achieved by further addition of the ammonium bicarbonate solution to achieve a target pH of 7.5 which was held for 2 hours. The MREC product was separated from the barren liquor by filtering and flushing to ensure maximum recovery. The damp filter cake was dried at 55°C to produce119g of MREC. A sub-sample of the MREC is undergoing gamma-counting to determine its total radioactivity, with results expected in May.

[9] ASX Announcement, 23 January 2026

Table 2: Normalised[1] composition of ABx MRECs (wt%)

	Oxide	Maiden MREC[10]	Second MREC	Chinese Standard[2]
REO	La_2O_3	16.90	15.79	-
	CeO_2	5.36	1.07	-
	Pr_6O_{11}	4.93	4.84	-
	Nd_2O_3	22.33	21.88	-
	Sm_2O_3	4.47	4.67	-
	Eu_2O_3	1.22	1.55	-
	Gd_2O_3	4.84	5.09	-
	Tb_4O_7	**0.64**	**0.74**	**-**
	Dy_2O_3	**3.83**	**4.36**	**-**
	Ho_2O_3	0.77	1.02	-
	Er_2O_3	2.20	2.60	-
	Tm_2O_3	0.27	0.36	-
	Yb_2O_3	1.58	1.90	-
	Lu_2O_3	0.22	0.28	-
	Y_2O_3	26.80	28.28	-
	TREO	96.37	94.42	93.4
	NdPr[3]	27.26	26.71	-
	DyTb[3]	4.47	5.10	-
Impurities	Al_2O_3	0.45	0.084	1.5
	CaO	0.52	1.93	-
	Fe_2O_3	0.21	<0.002	-
	MgO	0.030	<0.026	-
	SiO_2	0.67	0.19	1.5
	SO4	1.48	2.95	
	U_3O_8	0.0057	0.0062	-
	ThO_2	<0.002	<0.002	-
	Total[4]	3.63	5.58	-

[1] MREC is normalised to MREO by calculating the expected product composition after calcination to a moisture-free and hydration-free mixed oxide state, i.e. containing only rare earth oxides and impurity oxides
[2] Chinese Standard has been normalised to remove 1.5% loss on ignition
[3] NdPr = Pr_6O_{11} + Nd_2O_3, DyTb = Tb_4O_7 + Dy_2O_3
[4] Includes other impurities not individually listed

[10] ASX Announcement, 2 December 2025

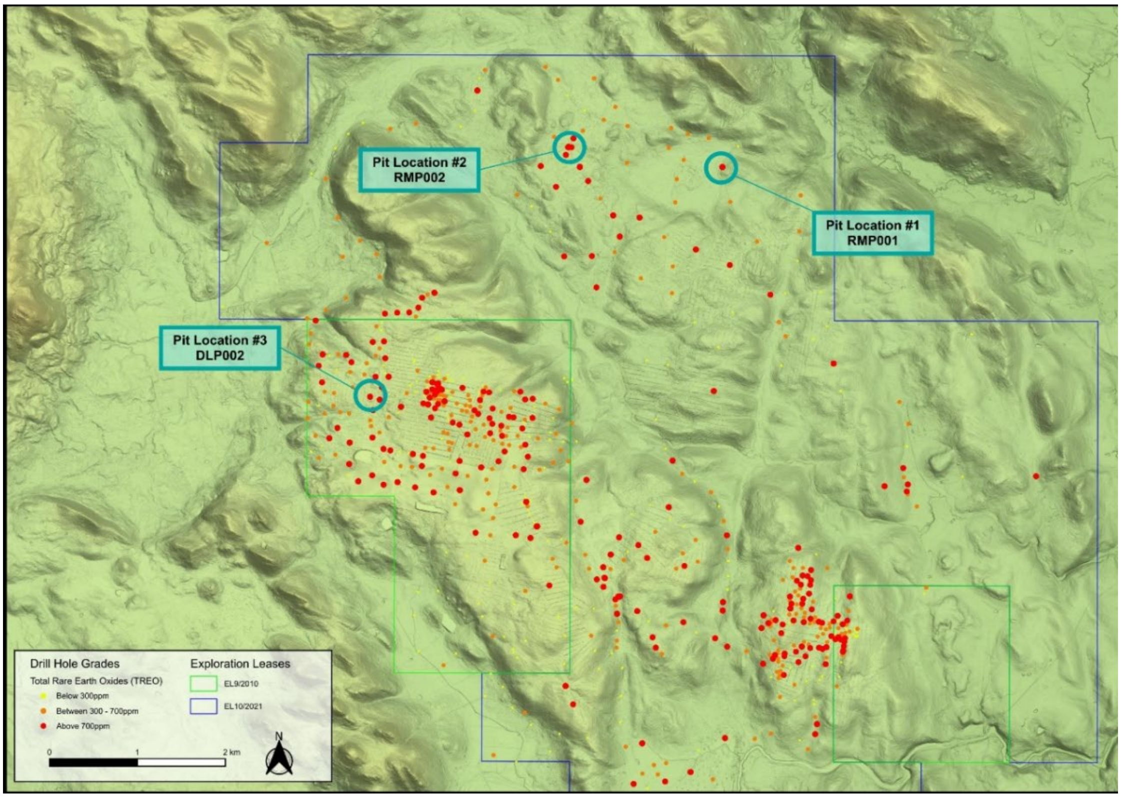

Figure 2: Trial pit locations at Deep Leads

Table 3: Summary of sampling information referred to above, in accordance with LR 5.8.1

Geology and geological interpretation	REE mineralisation occurs in clay layers that overlie a Jurassic age dolerite basement in a district with some residual weathered Tertiary age alkali basalt.
Sampling and sub-sampling techniques	Pit sampling was done at 1 metre intervals using a large excavator with an 8 metre boom. Subsampling of ~100kg was performed by fractional shovelling. This sample was lightly disaggregated and hand-screened at 10mm without drying.
Drilling techniques	Not applicable (N.A.). Bulk pit sampling by excavator
Criteria used for resource classification, drill & data spacing & distribution.	N.A.
Sample analytical method	Assay samples are analysed by standard NATA-approved induction coupled plasma analytical methods for rare earth elements at ALS labs in Brisbane (method ME-MS81). Interlab comparisons were satisfactory.
Estimation methodology, cut-off grade, mining, metallurgy & other modifying factors	All N.A.

ABx Group

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling* • *Include reference to measures taken to ensure sample representivity* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *Industry standard work:*	• Bulk pit dug by excavator • Samples taken at 1 metre intervals by cleaning pit at the metre interval, then taking full 1 metre slice for the samples. • Subsampling the metre samples done as per ISO bauxite sampling processes
Drilling techniques	• *Drill type*	• Not applicable to bulk pits excavated by excavator with 8 metre boom
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Not applicable to bulk pits
Logging	• *Whether samples have been geologically and geotechnically logged to an appropriate level for metallurgical studies.* • *Whether sampling is qualitative or quantitative.* • *Total length & percentage of the relevant intersections logged.*	• Pits sampled, assayed, logged, photographed & stored to ISO standards. See below • All 8 metres was logged and sampled • Depth 5m to 6m selected – see below
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn, quarter, half or all core.* • *If non-core, sample method, whether sampled wet or dry.* • *Nature, quality & appropriateness of the sample preparation.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Depth 5m to 6m selected for the sample to be used to produce a mixed carbonate rare earth carbonate (MREC) • 100kg sub-sample obtained by homogenisation and fractional shovelling on a tarp followed by light disaggregation and hand-screening at 10mm. Manually identified clasts (<5% of sample) were removed by hand.Separate subsamples assayed the same
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.* • *Geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis* • *Nature of quality control procedures adopted.*	• Assaying done by NATA-registered ALS laboratories, Brisbane • N.A. Assays are by ALS which is a major mineral laboratory • ALS is industry-standard and publishes its QA/QC protocols and results on its website
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.*	• Pit sampling supervised by 4 ABx senior staff – see Competent Person & Expert Statement for details. • Repeated subsampling assayed the same. • Metal assays from ALS converted to oxides as per industry standards for reporting
Location of data points	• *Accuracy & quality of surveys used to locate drill holes & pits.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Location by GPS • Pit DLP002 location: 477720E , 5410126N (WGS 84 56S grid). RL 287.675m by LiDAR.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient.* • *Whether sample compositing has been applied.*	• Bulk pit sampling at 1m intervals considered appropriate and sufficient
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *Does the drilling orientation introduce a sampling bias*	• Vertical bulk pit sampling is appropriate for the horizontal layers of REE mineralisation
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody protocols were applied to secure the bulk bag samples.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Two bulk samples taken simultaneously assayed the same

Section 2 Reporting of Exploration Results (Criteria listed in 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.* • *Security of tenure and impediments to obtaining a licence to operate.*	• EL7/2010 100% owned and unencumbered. Pit located in a pine plantation with approvals from owner and government agencies.
Exploration by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• ABx sole discoverer and first to explore this area.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• REE mineralisation occurs in clay layers that overlie a Jurassic age dolerite basement in a district with some residual weathered Tertiary age alkali basalt.
Drill hole Information	• *Summary of information for understanding exploration results including a tabulation of the following information for all material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres)* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If exclusion of this information is justified, the Competent Person should clearly explain why this is the case.*	• Pit DLP002 location: 477720E , 5410126N (WGS 84 56S grid). RL 287.675m by LiDAR.
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 aggregation or any cutting of assays done • Metal assays from ALS converted to oxides as per industry standards for reporting
Relationship between mineralisation widths & intercept lengths	• *These relationships are particularly important.* • *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').*	• Vertical bulk pit sampling is appropriate for the horizontal layers of REE mineralisation
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 report
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All data to date is reported in this report
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 to date is reported in this report
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• ANSTO labs are engaged to undertake the processing on the 100kg sample to produce a mixed rare earth carbonate (MREC)