

## ASX RELEASE | 13 JANUARY 2025

Harts Range Boasts Extended Mineralisation with Record-High Niobium, Dysprosium, and Terbium Grades

- Significant mineralisation confirmed at Harts Range Project in the Northern Territory with rock chip samples returning excellent grades including:
  - 12.52% and 8.49% U<sub>3</sub>O<sub>8</sub>
  - ✤ 31.48% and 19.73% Nb<sub>2</sub>O<sub>5</sub>
  - 1.68% and 1.25% Dy<sub>2</sub>O<sub>3</sub>
  - 0.26% and 0.16% Tb<sub>4</sub>O<sub>7</sub>
  - ✤ 9.13% and 5.81 % Ta<sub>2</sub>O<sub>5</sub>
- Additional rock chip samples returning the highest Niobium, Dysprosium and Terbium results to date have been sampled from the Cusp Prospect
- Elevated Yttrium levels up to 1022ppm Y<sub>2</sub>O<sub>3</sub> were recorded at the Big Jay Prospect highlighting potential for Heavy Rare Earth (HRE) mineralisation
- New copper discovery at Cusp North, circa 200m from the Cusp Prospect, with initial rock chip sampling returning up to 2.25% Cu

**New Frontier Minerals Ltd** ("New Frontier" or "the Company") (**ASX: NFM**) is delighted to announce the latest field work has identified additional sites and further validated the known Uranium, Niobium and HRE mineralisation at the Cusp Prospect.

In addition, visual Copper mineralisation was identified to the north of the Cusp Prospect, while elevated Yttrium levels (up to 1,022ppm  $Y_2O_3$ ) were recorded at the Big Jay Prospect, which is indicative of HRE mineralisation.

#### **NEW FRONTIER CHAIRMAN GED HALL COMMENTED:**

"Our geology team has had three site visits to the Harts Range Project, with subsequent findings continuing to reaffirm the significant exploration potential for Uranium, Niobium and HRE mineralisation. Our exploration campaign now moves into top gear, with the upcoming heliborne geophysical survey to play a critical role in identifying additional regional Uranium, Niobium and HRE targets for ground truthing and prioritisation for drilling."



## CUSP PROSPECT: STELLAR ASSAY RESULTS

Assay results from rock chips samples collected at the Cusp Prospect during the third reconnaissance trip were exceptional, reinforcing the significant exploration potential for Uranium, Niobium and HRE mineralisation (Figure 1). Refer to appendices for the full suite of assays.

Sample ID	U <sub>3</sub> O <sub>8</sub>	Nb <sub>2</sub> O <sub>5</sub>	Dy <sub>2</sub> O <sub>3</sub>	Tb₄O <sub>7</sub>	Ta₂O₅
HRS011	12.52%	31.48%	1.68%	0.26%	5.81%
HRS012	8.49%	19.73%	1.25%	0.16%	9.13%



Figure 1: Assay Results – Cusp Prospect Third Reconnaissance Trip

Figure 2: HRS011sample location site



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More significantly, the Niobium, Dysprosium and Terbium assay results were the highest recorded from the three reconnaissance trips to date. The additional high grade rock chip samples further validate the mineralisation at the Cusp Prospect (Figure 3 and 4).



Figure 3: Uranium-Niobium-HRE enriched sample collected from HRS011







Figure 4: Uranium-Niobium-HRE enriched sample collected from HRS012



## **CUSP NORTH PROSPECT: COPPER POTENTIAL**

Visual copper mineralisation associated with a felsic meta-sediment unit striking roughly northsouth and daylighting at the bottom of the creek bed was identified several hundred meters to the north of the Cusp Prospect (Figure 6). The copper was associated with a foliated felsic unit, comprised of biotite, quartz, orthoclase with disseminated malachite and azurite within matrix of the unit. Further validation may require the use of surface magnetic, IP or EM surveys to prioritise targets at depth for drilling.

Assay results from rock chip samples from the third field trip retuned the following (Figure 5).

Sample ID	Cu
HRS008	2.15%
HRS009	2.15%
HRS010	1.65%
HRS013	2.25%

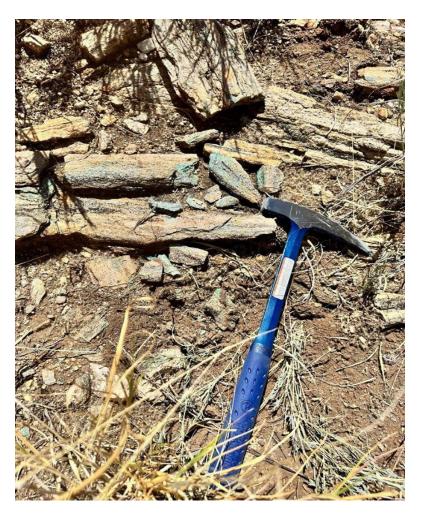


Figure 5: Copper Assay Results – Cusp North Prospect Third Reconnaissance Trip

Figure 6: Enriched copper sample HRS008



### **NRG XPLORER SURVEY DETAILS**

To further propel exploration efforts, NFM will commence the **Heliborne Geophysical Surveying** in mid-**January 2025**. The survey will provide critical data to better understand the geological features of the Harts Range Project and further help define future drill targets, including extensions to Cusp and Bobs Prospects as well as new areas of interest such as the Big Jay and Cusp North targets.

The results from this survey will be instrumental in advancing the project to the next stage of exploration and resource definition.

#### **Next Steps:**

- Completion of the Heliborne Geophysical Survey starting mid-January 2025,
- Ongoing rock chip sampling and fieldwork at the Big Jay and Cusp North Prospects, and
- Planning and formulating the inaugural drilling campaign through reconciling the geophysical survey results and further assay data.

#### ENDS

This announcement was approved for release by the Board of New Frontier Minerals Limited.

#### COMPETENT PERSONS STATEMENT

I, Mark Biggs, confirm that I am the Competent Person for the Competent Person Report from which the information to be publicly released has been obtained and confirm that:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition) and the relevant sections of Chapter 5 and Guidance Note 31 from the ASX Listing Rules.
- I am a Competent Person as defined by the JORC Code 2012 Edition, having 35 years of experience that is relevant to the REE, industrial mineral, and copper mineralisation types, quality and potential mining method(s) of the deposit(s) described in the Report. In addition, I have 21 years of experience in the estimation, assessment and evaluation of Exploration Results and Mineral Resource Estimates, the activity for which I am accepting responsibility.
- I am a Member of The Australasian Institute of Mining and Metallurgy (Member # 107188).
- I have reviewed the Report or Excerpt from the Report to which this Consent Statement applies.
- I am a consultant working for ROM Resources and have been engaged by New Frontier Minerals Limited to prepare the documentation for various prospects within the Harts Range Prospect area on which the Report is based.

#### In addition:

- I have disclosed to New Frontier Minerals Limited the full nature of the relationship between myself and the Company, including any issues that could be perceived by investors as a conflict of interest. Mr Biggs is a director of ROM Resources, a company which is a shareholder of New Frontier Minerals Limited. ROM Resources provides ad-hoc geological consultancy services to New Frontier Minerals Limited.
- I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to exploration results and any Mineral Resource Estimates.
- I consent to the release of the Report and this Consent Statement by the Directors of New Frontier Minerals Limited.



#### For further information please contact

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## **NEW FRONTIER MINERALS**

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# **MEDIA & INVESTOR RELATIONS**

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#### **About New Frontier Minerals**

New Frontier Minerals Limited is an Australian-based focussed explorer, with a strategy to develop multi-commodity assets that demonstrate future potential as an economic mining operation. Through the application of disciplined and structured exploration, New Frontier has identified assets deemed core and is actively progressing these interests up the value curve. Current focus will be on advancing exploration activity at the Harts Range Niobium, Uranium and Heavy Rare Earths Project which is circa 140km north-east from Alice Springs in the Northern Territory.

Other interests include the NWQ Copper Project, situated in the copper-belt district circa 150km north of Mt Isa in Queensland and the Broken Hill Project in western New South Wales.

New Frontier Minerals is listed on the LSE and ASX under the ticker "NFM".



## APPENDIX A: GEOLOGICAL DISCUSSION

The purpose of the recent fieldwork was to assess historical prospects and areas of interest that were not visited during the October 2024 due diligence site visit. A total of thirteen (13) rock chip samples were collected during the November 2024 Harts Range site visit by a New Frontier Minerals Limited (NFM) geological team (NFM 2024a). All samples were bagged and submitted to Intertek Perth (Malaga) Laboratory to test for a broad multi-element sodium peroxide fusion (FP6) method of analysis. The sodium peroxide fusion (FP6) method is ideal for analysing and reporting the HREE's, Nb and U. Additionally, the Intertek Laboratory is equipped to deal with any highly radioactive samples.

The assay results have been recently returned and continue to highlight highly anomalous U, Nb, W, Pb and various heavy rare earth elements (particularly Dy, Tb, and Tm). These results also highlighted four (4) surface samples exceeding 1.5% copper at the Cusp North Prospect.

## FIELDWORK CONDUCTED

The NFM Team inspected the main accessible prospects and areas of interest on western margins of the Entia Dome between 18th-22nd November 2024 (See Figure AA-1).

The project was accessed using a Toyota Landcruiser and on foot as required. The aim was to assess historic prospects and areas of interest that were not visited during October 2024 due diligence site visit.

A total of thirteen (13) samples have been submitted to Intertek Perth (Malaga) Laboratory to test for a broad multi-element suite. Intertek are equipped to deal with the highly radioactive samples. All samples and field data have been recorded and backed up (Das 2024a). The terrain in the area can be steep and rocky, and the grass cover is thick.

Pegmatite dykes in the area are reasonably plentiful and intrude into various rock-types of various ages. There is potential for them to have been derived by partial melting of underlying geology or younger granites and have been seen with extreme enrichment in Uranium, Niobium and HREEs.

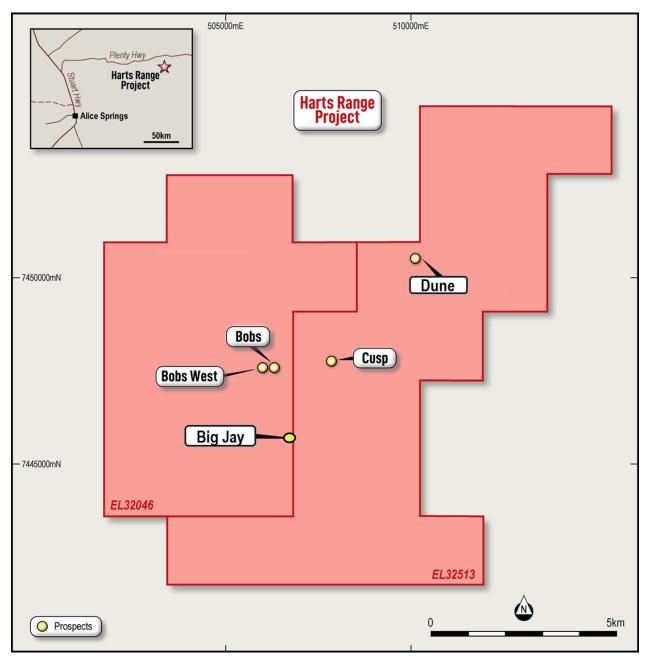
There are almost certainly more pegmatites with a similar U-REE signature in the district. They are not always visible in airborne imagery. Several previously unmapped pegmatites were encountered fortuitously along tracks whilst driving around. The utilisation of close-spaced radiometric imagery will also be a potentially useful method to identify new pegmatites.

Locations and descriptions of the samples collected are given in Figure AA-2, with selected laboratory results given for various elements in Figures AA-3 and AA-4.





#### FIGURE AA-1: HARTS RANGE MINERAL PROSPECTS



Source: NFM geology team



#### FIGURE AA-2: LIST OF SAMPLES COLLECTED 19<sup>TH</sup> -21<sup>ST</sup> NOVEMBER 2024

Prospect	Sample ID	Easting	Northing	Date Collecte	Description	Radioactivity (
Dune	HRS006	510106	7450427	19/11/24	Amphibolite schist.	0.4
Dune	HRS007	510122	7450655	19/11/24	Granite/pegmatite	-
Cusp North	HRS008	507726	7448141	19/11/24	Felsic schist, copper enriched	-
Cusp North	HRS009	507730	7448076	19/11/24	Felsic schist, copper enriched	-
Cusp North	HRS010	507737	7448047	19/11/24	Felsic schist	-
Cusp	HRS011	507848	7447749	19/11/24	Biotite pegmatite	-
Cusp	HRS012	507848	7447755	19/11/24	Muscovite pegmatite	-
Bobs North	HRS013	505947	7448424	20/11/24	Biotite pegmatite, copper enriched	-
Bobs West	HRS014	506097	7447593	20/11/24	Muscovite pegmatite, 2% K from P	1.5
Bobs West	HRS015	506104	7447590	20/11/24	Muscovite pegmatite, 6% K from P	
Big Jay	HRS016	506736	7445987	21/11/24	Pegmatite	0.50
Big Jay	HRS017	506775	7445989	21/11/24	Pegmatite	0.70
Big Jay	HRS018	506686	7445972	21/11/24	Pegmatite	0.50

Source: NFM geology team

#### FIGURE AA-3: SIGNIFICANT ROCK CHIP ASSAYS FROM OCT-NOV 2024 FIELD TRIPS

Sample ID	Nb <sub>2</sub> O <sub>5</sub>	U₃O8	Dy <sub>2</sub> O <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	Ta₂O₅	Gd₂O₃	Sm <sub>2</sub> O <sub>3</sub>
Units	%	%	%	%	%	Ppm/ %	Ppm/ %
HRS001	9.11%	13.48%	1.55%	0.20%	20.95%	6,503.3	2,095
HRS002	10.07%	14.04%	1.63%	0.22%	23.02%	7,072.7	2,265.6
HRS003A	29.80%	10.10%	1.29%	0.21%	6.26%	8,424.3	3,976.2
HRS004	25.46%	8.54%	1.13%	0.18%	4.77%	7,283	3,279.9
HRS011	31.48%	12.52%	1.68%	0.26%	5.81%	1.04%	0.46%
HRS012	19.73%	8.49%	1.25%	0.16%	9.13%	0.57%	0.21%

Source: Intertek (Perth)<sup>3</sup>



# FIGURE AA-4: SIGNIFICANT CU, PB, AND W-ENRICHED ROCK CHIP ASSAYS FROM THE OCT-NOV 2024 FIELD TRIPS

Sample ID	Ag	Cu	Pb	W
	g/t	%	ppm	ppm
HRS001	<2	nr	7,963	1,194
HRS002	<2	nr	6,279	1,305
HRS003A	14	nr	4,460	8,136
HRS003B	<2	nr	47	82
HRS004	12	nr	4,073	7,565
HRS008	5	2.15%	41	2
HRS009	7	2.15%	22	3
HRS010	6	1.65%	29	3
HRS011	12	0.04%	5,404	8,311
HRS012	8	0.03%	16,204	4,982
HRS013	<2	2.26%	78	9

Source: Intertek (Perth).

Regarding the results, the Cusp samples are in line with previously reported Nb-U-HREE values. As noted, there are some high-grade (>1.5%) copper, results (north of Cusp) over a significant strike length. Further fieldwork is required to fully understand this occurrence.



The location of all samples is given in Figure AA-5 across the Harts Range project.

#### FIGURE AA-5: NFM ROCK CHIP SAMPLE LOCATIONS AT ALL PROSPECTS



Notes: Coordinate system in MGA94-Z53S Source: NFM geology team

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### **CUSP NORTH PROSPECT: COPPER POTENTIAL**

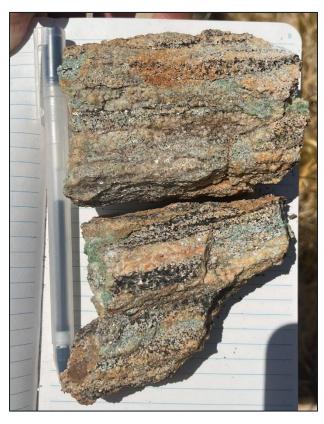
The Cusp North copper zone is a foliated felsic unit, with the foliations comprised of biotite, quartz, and orthoclase. Malachite and azurite are disseminated within matrix of the unit. Broken pieces up to 30cm below surface indicate the mineralisation was not surface staining.



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Assay results from rock chip samples from the third field trip returned anomalous silver and copper (refer to Figure AA-2 and see Figure AA-6 as an example).





Source: Das 2024

#### **GEOPHYSICAL SURVEYING**

New Resolution Geophysics (NRG) has been engaged to model and interpret airborne magnetic and radiometric geophysical data at the Harts Range Project, Northern Territory (NFM 2024b).

A high-resolution, helicopter-borne radiometric and magnetic survey will accelerate exploration over untested areas within the Harts Range project, aiming to identify potential extensions to known uranium, niobium, and rare earth mineralisation. The survey will employ Xplorer, an advanced gradient magnetic system, to cover 2,253-line kilometres across tenements EL32513 and EL32046 and the technique boasts improved precision and efficiency.

NFM will fly the first airborne survey since the mid-1990s over the region and the first highresolution (50m spaced) survey over the Harts Range project area and will use results from the survey to define high-priority drill targets or to plan advanced ground geophysics surveys. The survey has been scheduled to be commenced in January 2025.



## HARTS RANGE NEXT STEPS

To recap, the geology team intends to fully understand the potential of the Harts Range Niobium, Uranium, Copper, and Heavy Rare Earth Project through undertaking a systematic and rigorous exploration strategy that will encompass the following steps in subsequent visits:

- Full historic and spatial database compilation
- Reconnaissance mapping programs
- Close spaced geophysical survey
- Detailed mapping and rock chip sampling across prospects
- Regional soil sampling campaigns as required
- Mineral characterisation studies and petrological analysis
- Trenching and bulk sample test work
- Target generation and prioritization; and
- Drill-testing



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## APPENDIX B: JORC CODE, 2012 EDITION - TABLE 1

The following JORC Code (2012 Edition) Table 1 is primarily supplied to provide background for a geological mapping, and rock chip sampling program, conducted by New Frontier Minerals geologists, from several prospects within the Harts Range Project in late November 2024.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Surface samples were collected from approximately a 3m radius around the recorded coordinate location. The rock chip fragments that were collected to make up the sample included fragments that approximately ranged from 2-5cm and 0.2 - 3kg in weight. A total of thirteen (13) rock chip samples were collected in calico bags and were progressed for laboratory analysis (sample numbers range from HRS006 to 18). Samples were collected from rock outcrops, soils, and occasionally mullock heaps in the vicinity of west to east trending pegmatite dykes. Many of the surface samples contained the U-bearing mineral samarskite. Samples (e.g. Figure A1-1) were collected from rock outcrops in the vicinity of west to east trending pegmatite dykes. Many of the surface samples contained the U-bearing mineral samarskite. The radioactivity of the samples was determined by a RadEye instrument in the field.</li> <li>Figure AA-1 HRS008 Amphibolite Schist at the Cusp North Prospect</li> </ul>
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Not Applicable – no exploration drilling results as none were drilled.</li> </ul>



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Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Not Applicable – no exploration drilling results as no holes were drilled.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Descriptions of the rock chip and soil samples are given in a table contained in Appendix A of this CCZ'S ASX Announcement dated the 13<sup>TH</sup> of January 2025.</li> <li>Where appropriate strike and dip measurements were taken at several sites, additional to the thirteen (13) rock chip sample sites. Measuring bedding is difficult because of the high metamorphically - disturbed rock types.</li> </ul>
Subsampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Of the sample collected about 0.3-2kg of rock chip were presented for analyses.</li> <li>Assays were done by independent laboratory Intertek Pty Ltd at Malaga in Perth WA during November -December 2024, with the final reported dated 10/1/2025.</li> <li>The received samples were sorted and dried. Primary preparation was then by crushing the whole sample. The whole sample was pulverised in a vibrating disc pulveriser.</li> <li>All samples were initially crushed to 4 mm then pulverised to 75 microns, with at least 85% passing through 75 microns. Standard sample preparation (including crushing) and analyses procedures were performed on all samples and are considered appropriate techniques for the type and size of surface rock chip samples collected.</li> </ul>
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.	<ul> <li>Analytical Methods are described in detail as follows:</li> <li>Au, Pt, Pd</li> <li>The samples have been analysed by firing a 40g (approx.) portion of the sample. This is the classical fire assay process</li> </ul>



• 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.

and will give total separation of Gold, Platinum, and Palladium in the sample. These have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. The sample(s) have been digested with a mixture of acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric Acids. This digest approaches a total digest for many elements however some refractorv oxides are not completely attacked.

- The mineral Cassiterite is not efficiently attacked with this digest.
- If Barium occurs as the Sulphate mineral, then at high levels (more than 4000 ppm) it may re-precipitate after the digest giving seriously low results. Using this digest, some sulphur losses may occur if the samples contain high levels of sulphide.

Cu, Zn, Co, Ni, Mn, P, Sc, V, Al, Ca, Na, K, S have been determined by Inductively Coupled Plasma

(ICP) Optical Emission Spectrometry. As, Ag, Ba, Be, Bi, Cd, Ga, Li, Mo, Pb, Sb, Sn, Sr, W, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Th, U, Se, In, Te, Cs, Re, Tl

> have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. The samples have been fused with Sodium Peroxide and subsequently the melt has been dissolved in dilute Hydrochloric acid for analysis. Because of the high furnace temperatures, volatile elements are lost. This procedure is particularly efficient for determination of Major element composition (Including Silica) in the samples or for the determination of refractory mineral species.

#### B, Cr, Si, Fe, Mg, Ti

 have been determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry.

Ge, Ta, Hf, Zr, Nb, Rb

- have been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.
- The assay results were in line with previous rock chip and drilling results obtained since 2006 at Harts Range, and the batch of five rock chip samples collected in October 2024.



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#### **ASX: NFM**

Varification	The verification of significant	- Independent Lebergtowy account by
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Independent Laboratory assaying by Intertek has confirmed, within acceptable limits, the occurrences of high-grade Nb, U, and REE from the initial in field XRF readings. Laboratory standards, duplicates and blanks were used in accordance with standard procedures for geochemical assaying as noted below.</li> <li>It has met the recommended insertion rates for the company QAQC controls (standards, blanks) with an overall insertion rate of 20%. However, no field duplicates were included in the two (2) batches and is recommended that 3% be included in future sampling programs.</li> <li>Both the laboratory standards and blanks were verified for elements Nb, U and Dy and returned results within 2 standard deviations (SD). Field duplicates are not present in the batch therefore were not reviewed.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The spatial location for the rock chips and soils collected during the November 2024 fieldwork were collected by handheld GPS (-/+ 5m accuracy) [MGA94 Zone53]: The table of reported rock chip locations and descriptions are given in throughout the ASX release and in Figure AA-1 (at the end of the section).</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The Harts Range licenses lie north-west of the Entia Dome and are underlain by the Harts Range Group (Harts Range Meta-igneous Complex), which predominantly consists of feldsparbiotite-amphibole-garnet gneisses. The Harts Range region at has undergone repeated and substantial crustal reworking between Proterozoic and Palaeozoic times and is now thought to represent an ancient and strongly altered/metamorphosed version of a continental collision zone.</li> <li>Most of the observed mineralisation is related to a swarm of west to east and southeast-trending pegmatite dykes, with an anomalous occurrence of the Ubearing mineral samarskite.</li> </ul>



- At the Cusp Prospect, niobium-HREE-Tantalum identified in pegmatites running approximately east-west, up to 10 metres thick and over 70 metres long.
- At Bob's Prospect niobium-HREE-Tantalum mineralisation in pegmatites trend east-west and is several metres thick and over 30 metres long, with similar geological setting to the Cusp Prospect.
- 200m west of Bobs (Bobs West), outcropping pegmatite along the same orientation, hosted exclusively within felsic gneiss of the Irindina Gneiss. The pegmatite is semi-continuous for ~300m with a similar geological setting and has notably large green muscovite flakes present.
- The Dune (previously Niobium Anomaly) Prospect is another variant with high Niobium results but low in rare earths and uranium. Elevated radiometrics located with the scintillometer recorded 1.300 cps within a small historic pit at the top of a knoll. Anomalies appear to correlate with intrusions of porphyritic "granitoid" and granitic gneiss. which are geologically consistent with the pegmatites mapped at Bob's and the Cusp Prospects.
- The Thorium Anomaly Prospect was previously located via airborne radiometric images. The radiometric anomalies are low order (10 to 20x background) compared to the spot anomalies at Bob's and Cusp (50-200x background). Anomalies appear to correlate with intrusions of porphyritic "granitoid" and granitic gneiss, which presumably are geologically features like the pegmatites at Bob's and the Cusp Prospects.
- In general, the strata of the area surrounding the pegmatite dykes in the Harts Range Meta-Igneous Complex dip steeply (>45 degrees) to the north and strike between east to southeast.
- Rock chip samples were taken at areas of interest from observed mineralisation along and across strike of the line of lode



Orientation

relation

geological

structure

of data in

to

Whether

sampling

drilling

orientation

the

achieves

sampling of possible structures and

the extent to which this is known,

If the relationship between the

kev

considering the deposit type.

orientation

of

orientation of

and

mineralised

unbiased

the

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	structures is considered to have	of the mineralised pegmatite dyke,
	introduced a sampling bias, this	secondary structures, surrounding spoil
	should be assessed and reported if	heaps, and across the six (6) anomalous
	material.	areas originally identified in the planning
		stage.
		However, no modern systematic
		exploration has been conducted, nor any
		of the U, Nb, Cu, and HREE mineralised
		prospects have ever been drilled in the
		prospects described in this ASX release.
Sample	The measures taken to ensure	• The rock chip samples taken during the
security	sample security.	current fieldwork were securely locked
		within the vehicle on site until delivered to
		Alice Springs by the field personnel for
		despatch to the laboratory (Intertek in
		Perth WA) by courier.
Audits or	• • The results of any audits or	The sampling techniques and the data
reviews	reviews of sampling techniques and	generated from the laboratory assay
	data.	results have been peer reviewed by
		consultant geologists independent of
		New Frontier Minerals Limited (Audax
		Resources and ROM Resources) familiar
		with the overall Harts Range Project and
		deemed to be acceptable.
		<ul> <li>No other external audits sampling</li> </ul>
		techniques and data have yet been
		planned or undertaken.



#### **SECTION 2 REPORTING OF EXPLORATION RESULTS**

NEW FRONTIER MINERALS

(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. in the area.	<ul> <li>The Harts Range Project lies in the southeast of the Northern Territory, roughly 120 kilometres northeast of Alice Springs. Two granted tenements (EL 32046 and 32513) comprising a total 110 km tenement package is located near essential infrastructure and accessible via the Plenty. Highway. Refer to Figure AB-1, below:</li> <li><b>Figure AB-1: Harts Range Location</b></li> <li>A check on the tenures status was completed in the NTGS system 'Strike' on the 10<sup>th</sup> of October 2024, to validate the currentness of the exploration areas. All are current.</li> <li>The Harts Range Project lies in the southeast of the Northern Territory, roughly 120 kilometres northeast of Alice Springs. The region is serviced by excellent roads (Stuart Highway), train (the famous Ghan rail) and bus links connect the area.</li> <li>Domestic and some international flights are available from Alice Springs (1 hour drive south of Harts Range) while all international flights are available direct from Darwin.</li> <li>As a major regional centre, the town of Alice Springs provides public and private schools. There are churches, supermarkets, speciality shops hotels, motels, cafés &amp; restaurants, medica centres.</li> <li>There is a professional police and emergency services presence throughout the area. Loca professional and trade services support the community and the mining industry. Mobile phone and internet access are good.</li> </ul>



	TOTAL TOTAL THE	
Exploration done by other parties	• Acknowledgment and appraisal of exploration by	<ul> <li>Historical "Strike"-based mineral exploration reports have been reviewed for historical tenures that</li> </ul>
	other parties.	cover or partially cover the Project Area in this
		announcement. Federal and State Government
		reports supplement the historical mineral exploration
		reporting (QDEX open file exploration records).
		• Most explorers were searching for either Cu-Au-U,
		gemstones, or industrial minerals in the 1990's, and
		proving satellite deposit style extensions to the several
		small subeconomic uranium or copper deposits.
		The project is flanked by Independence Group
		(IGO) to the north, south and west. IGO is exploring for
		a raft of critical battery minerals.
Geology	<ul> <li>Deposit type, geological</li> </ul>	Regional Geology
	setting, and style of	• The Harts Range Niobium, Uranium-Heavy Rare
	mineralisation.	Earth Project lies north-west of the Entia Dome (Figure
		A2-1) and is underlain by the Harts Range Group (Harts
		Range Meta-igneous Complex), which predominantly
		consists of feldspar-biotite-amphibole-garnet
		gneisses.
		The Harts Range region has undergone repeated
		and substantial crustal re-working between
		Proterozoic and Palaeozoic times. As a result, it is now believed to represent an ancient and strongly
		altered/metamorphosed version of a continental
		collision zone.
		<ul> <li>Magnetotellurics data interpreted by a team</li> </ul>
		consisting of Adelaide University and NTGS geologists
		(Selway et al, 2006) <sup>1</sup> suggests the Entia Dome system
		is a deep-crustal feature that can be shown extending
		to the mantle.
		<ul> <li>The map below (Figure AB-2) shows the</li> </ul>
		distribution of regional stratigraphic units.
		Figure AB-2: Regional Geology
		Georgina Basin
		Harts Range Project Area
		Entia Dome
		Calencoic Udale Annabus Bain Udale Formanga Bain • Danelt
		Utafic Georgia Bain Utafic Georgia Bain Hearnorphi Confack Brun Sortes Shere Zone Hott Snop Meal Hott Sn
		<b>Local Geology</b> The main rock types mapped and sampled at various REE
		Prospects include:





С	Biotite Schist/Granofels: brown-blackish
	biotite-rich rock; thin (5-10cm) poorly
	exposed zone on N side of ~6m thick
	unit/zone of similar rock (e.g. HR398,
	HR399 sites) (on N side of HR399).

 Pegmatite, ?apatite-bearing: scree frags near W end of E-W pegmatite, near intersection with north-south calcite vein; very coarse-grained feldspar-quartz with common coarse ?apatite - pale semitranslucent slightly greenish (rare honeybrown) blocky/tabular/hexagonal, some intergrown with feldspar/quartz.

 Garnet-?Cummingtonite rock: coarsegrained rock; with abundant interstitial pale greenish malachite-?magnesite material; small patch of subcrop amongst scree.

 Gneiss: weathered, moderately banded, fine-to-medium grained quartz-feldsparhornblende-garnet; some coarser quartzgarnet rock; some brown haematite on fractures; sample below HR444.

 ULTRAMAFIC: slightly weathered medium grained, greenish/brownish ?amphibole/olivine-dominated ?metaultramafic.

 Amphibolite: grey fine-grained hornblende -quartz rock; (approx. adjacent rough channel samples: HR461 (1m) above HR462 (3m) above HR463 (3m) above HR464 (1m)).

 Samarskite (or similar), being a dense brittle blackish lustrous radioactive mineral; cluster of 10+ fragments, most over 1cm (or broken weathered larger piece - ca. 5-10 cm?) in chalky white feldspar, beside weathered coarse mica beneath soil cover along southern side of quartz vein in a pegmatite core.

		quartz vein in a pegmatite core.
Drillhole	• A summary of all	<ul> <li>Not Applicable – no exploration drilling results</li> </ul>
Information	information material	presented.
	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	



	• 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.	
Data aggregation	• In reporting	Independent Laboratory Assay results for the 13
methods	Exploration Results,	rock chip samples from various Harts Range
	weighting averaging	Prospects were averaged if more than one reading or
	techniques,	determination was given. There was no cutting of high-
	maximum and/or	grade REE results as they are directly relatable to high
	minimum grade	grade mineralisation styles readily visible in the
	truncations (e.g.	relevant samples.
	cutting of high	• There were no cut-off grades factored into any
	grades) and cut-off	reporting of the laboratory assay results.
	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.	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These         relationships are         particularly         important in the         reporting of         Exploration Results.</li> <li>If the geometry of         the mineralisation         with respect to the         drill hole angle is         known, its nature         should be reported.</li> <li>If it is not known and only     the down hole lengths are     reported, there should be     a clear statement to this     effect (e.g. 'down hole     length, true width not     known').</li> </ul>	<ul> <li>The current rock chip samples were taken at areas of interest from observed mineralisation along the line of lode of the mineralised pegmatite dyke, secondary structures, and surrounding spoil heaps. Thirteen (13) rock chip samples were collected from rock faces and/or outcrops.</li> <li>As no drilling nor costeans have been completed the relationship of the samples to the underlying geology is not yet fully understood.</li> </ul>
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.	<ul> <li>Appropriate diagrams are presented in the body and the Appendices of the current ASX Release. Where scales are absent from the diagram, grids have been included and clearly labelled to act as a scale for distance.</li> <li>Maps and Plans presented in the current ASX Release are in MGA94 Zone 53, Eastings (mN), and Northing (mN), unless clearly labelled otherwise.</li> </ul>
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	<ul> <li>Rock chip samples were taken at areas of interest from observed mineralisation along the line of lode of the mineralised pegmatite dyke, secondary structures, surrounding spoil heaps, and to the north and south of the line of lode to check the validity of the defined four (4) anomalous map areas.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological	• The area is covered by regional airborne government and private radiometric, gravity, magnetic, and hyperspectral surveys. Unfortunately, other than the 2006 radiometric ground survey, no other ground surveys have been undertaken.



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	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.	<ul> <li>Substantial historical and current ground geochemical (stream sediment, soil, and rock chip samples have been undertaken and two episodes of shallow drilling, mostly for industrial minerals (gemstones and vermiculite) by the owners of the leases, since 2006.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>A future exploration strategy should encompass the following steps in subsequent field programs:</li> <li>Reconnaissance mapping programs.</li> <li>Close-spaced radiometric geophysical surveys.</li> <li>Detailed mapping and rock chip sampling across prospects.</li> <li>Regional soil sampling campaigns.</li> <li>Mineral characterisation studies and petrological analysis.</li> <li>Trenching and bulk sample test work.</li> <li>Target generation and prioritisation; and</li> <li>Exploratory drill-testing.</li> </ul>

