RIMFIRE PACIFIC MINING LTD

ASX: RIM

"Critical Minerals Explorer"

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Multiple Thick Scandium Zones at Murga

Highlights

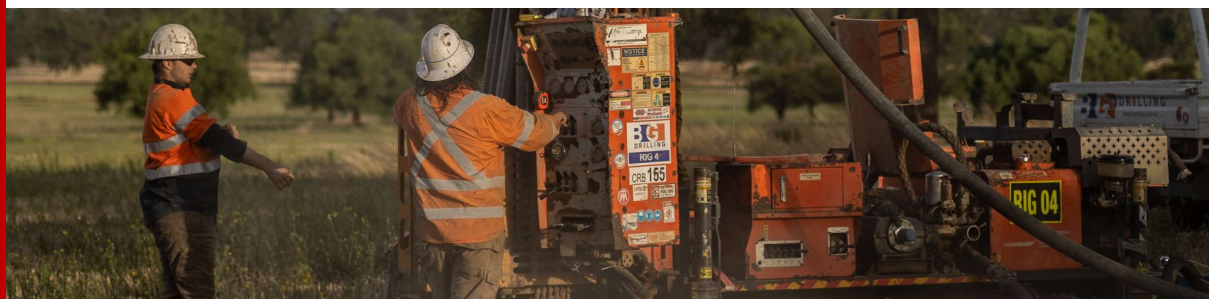
- **Thick zones of strong scandium anomalism defined from surface across multiple locations throughout 20km² Murga Intrusive Complex (true widths);**
  - **22m @ 232ppm Sc from surface *incl 12m @ 305ppm Sc*,**
  - **22m @ 156ppm Sc from 2m *incl 4m @ 220ppm Sc*,**
  - **28m @ 148ppm Sc from 5m *incl 6m @ 291ppm Sc,***
  - **13m @ 188ppm Sc from 3m *incl 4m @ 248ppm Sc,***
  - **18m @ 174ppm Sc from 1m incl 3m @ 226ppm Sc**
- **Drill Intercepts remain open in all directions with further air core and diamond drilling planned to determine the lateral extents of the scandium at each location**
- **Scandium occurs within a flat-lying weathered saprolite horizon developed on top of ultramafic (pyroxenite) intrusive rocks**

Rimfire Pacific Mining (**ASX: RIM**, "**Rimfire**" or "**the Company**") is pleased to advise that a recent 100-hole air core drilling program has successfully defined thick zones of strong scandium anomalism from surface, across multiple locations at the Murga Scandium Prospect which is located on Rimfire's Fifield Project 70kms NW of Parkes NSW (*Figure 1*).

Commenting on the announcement, Rimfire's Managing Director Mr David Hutton said: *"We are greatly encouraged by the latest air core drilling results at Murga. Building on last year's successful reconnaissance drilling we have now identified multiple locations at Murga where thick zones of strong scandium are present over large areas from surface.*

Rimfire's primary objective is to build a globally significant scandium resource inventory at our Fifield and Avondale Projects. The Murga intersections announced today in conjunction with the upcoming Melrose resource are the first components in satisfying that objective.

Rimfire offers unique ASX exposure to scandium and we feel that the shallow mineralisation which occurs over a large footprint gives rise to the potential for Murga to host a large-scale scandium resource".



Drilling details

100 Air core holes (FI2472 to FI2571 - 2,664 metres: *Table 1*) were drilled to determine the significance of a Rimfire 2023 reconnaissance air core drilling program which successfully intersected strongly anomalous scandium in multiple drillholes at Murga (*See Rimfire ASX Announcement dated 3 October 2023*).

At Murga, scandium occurs within a flat – lying weathered saprolite (clay) horizon overlying magnetic ultramafic (pyroxenite) intrusive rocks of the Ordovician-age **Murga Intrusive Complex,** which have been demonstrated from previous drilling at both Murga and the adjacent Melrose Prospect to be intimately associated with scandium mineralisation (*See Rimfire ASX Announcement dated 6 December 2023*).

The most recent air core holes were drilled on 100 x 100 metre centres at Murga North and on 400 x 400 metre centres over the remainder of the Murga Intrusive Complex. In total the drilling was carried out over an area of **approximately 20km²** with locations shown in *Figures 4 and 5*.

The drilling has successfully defined an initial 4 **areas** - **Murga North**, **Murga Northwest**, **Murga East** and **Murga South** within the Murga Intrusive Complex for immediate drill follow up *Figures 2 - 6*).

All are characterised by thick vertical widths of strong scandium anomalism (+100ppm) with little of no associated nickel and / or cobalt anomalism which is in contrast to other scandium prospects in the area.

Significantly all the **areas remain open** and further drilling is required to determine the lateral extents of the scandium at each location.

Also, several magnetic features within the Murga Intrusive Complex that were not assessed by this phase of air core drilling have (based on the latest drilling results) been subsequently identified as new scandium targets for drill testing. These **targets are additional to the 4 areas** detailed below and include a +1 kilometre – long, WNW trending linear magnetic feature immediately west of the Murga East scandium area (*Figure 2*).

Murga North

Murga North is an east-west trending elongate magnetic anomaly, drilling of which has returned multiple scandium drill intercepts over an area of approximately 2 kilometres strike length with widths ranging from 200 to 500 metres, and with intercepts remaining open along strike and to the north (*Figures 3, 5 - 6*);

- 22m @ 232ppm Sc from 0 metres in FI2475 *including 12m @ 305ppm Sc from 5 metres*,
- 22m @ 156ppm Sc from 2 metres in FI2480 *including 4m @ 220ppm Sc from 6 metres*,
- 28m @ 148ppm Sc from 5 metres in FI2482 *including 6m @ 291ppm Sc from 5 metres*,

- 23m @ 164ppm Sc from 3 metres in FI2487,
- 25m @ 147ppm Sc from 5 metres in FI2490 *including 5m @ 211ppm Sc from 4 metres*,
- 27m @ 143ppm Sc from 3 metres in FI2496 *including 4m @ 221ppm Sc from 4 metres*,

Murga Northwest

Murga Northwest is a sparsely drilled isolated magnetic anomaly located in the northwest corner of the Murga Intrusive Complex. Two air core holes drilled 400 metres apart during the recent program both returned anomalous scandium with the intercepts remaining open in all directions;

- 13m @ 188ppm Sc from 3 metres in FI2514 *including 4m @ 248ppm Sc from 7 metres*,
- 6m @ 111ppm Sc from 6 metres in FI2513,

Murga East

Murga East is a roughly east-west trending elongate magnetic anomaly located in the central eastern portion of the Murga Intrusive Complex, wide spaced (400m x 400m) drilling of which has returned multiple scandium drill intercepts over an area of approximately 1.5 kilometres strike length x 700 metres width with intercepts remaining open in all directions;

- 21m @ 106ppm Sc from 3 metres in FI2547,
- 3m @ 127ppm Sc from 13 metres in FI2549,
- 6m @ 106ppm Sc from 9 metres and 6m @ 108ppm Sc from 24 metres in FI2549

Several magnetic features in the Murga East area have not been drilled and represent targets for future drilling.

Murga South

Murga South is a sparsely drilled isolated magnetic anomaly located in the southern portion of the Murga Intrusive Complex. Air core drilling on nominal 200 x 200m centres (including several reconnaissance holes drilled by Rimfire in 2023) has returned multiple scandium drill intercepts over an area of approximately 400 metres strike length x 400 metres width with intercepts remaining open in all directions;

- 18m @ 174ppm Sc from 1 metre in FI2561 *including 3m @ 226ppm Sc from 7 metres*,
- 27m @ 188ppm Sc from 0 metres in FI2434 *including 12m @ 224ppm Sc from 3 metres*,

Next Steps

Assaying of the Murga drill samples was undertaken using a 4-acid digestion technique which is an analytical method typically employed to cost effectively “screen” large numbers of drill samples.

Now that the initial 4 areas have been identified, Rimfire has resubmitted 270 of the most anomalous samples for additional scandium analysis using the lithium borate fusion digestion method.

The additional assaying aims to confirm and potentially increase the scandium assay values obtained from the 4-acid digestion method. Where the two methods have been previously employed on other Rimfire scandium prospects in the area, the lithium borate fusion method can increase the scandium values by 5 – 10%.

Further air core drilling to determine the lateral extents of the scandium at Murga North, Murga Northwest, Murga East and Murga South, as well as testing the significance of the additional magnetic targets is also planned (subject to regulatory approval) for late June 2024 Quarter.

Diamond drilling is also planned to obtain samples for metallurgical test work and to provide further geological information about the underlying ultramafic rock types.

Murga lies on land that is used for grazing activities (cattle and sheep) and as such Rimfire's activities are not constrained by broad acre cropping practices (*Figure 7*).

Rimfire looks forward to providing the market with further updates as new information comes to hand.

Market Significance of scandium and the air core drilling results

For further information (and a downloadable Scandium Fact Sheet), readers are encouraged to visit Rimfire's website https://www.rimfire.com.au/scandium-the-path-to-innovative-solutions-and-sustainable-technologies

The purchase of the Owendale Scandium Project (which lies 10 kilometres north of Murga and Melrose) by Rio Tinto Ltd.'s dedicated scandium business unit Element North 21 (https://www.elementnorth21.com/) highlights growing market interest in Australian scandium projects (*see Platina Resources' ASX Announcement dated 28 April 2023*).

Renamed the "Burra Project" the acquisition aligns with Rio Tinto's strategic goal to grow in materials essential for the low-carbon transition and as the demand for cleaner, lighter, and more durable materials continues to rise, Rio expect the use of scandium to continue to grow along with this demand (*https://www.riotinto.com/en/news/releases/2023/rio-tinto-acquires-high-grade-scandium-project-in-australia*).

The location of Rio Tinto's Burra Project in relation to Rimfire's Fifield and Avondale Projects is shown in *Figure 1*.

The global demand for Scandium is increasing with its usage as one of the primary materials in Hydrogen electrolysis solid oxide fuel cell technology as well as being used in the manufacture of lightweight and high-strength scandium - aluminium alloys.
Scandium is included in both Australia's 2023 Critical Minerals List and the United States Geological Survey's (USGS) 2022 List of 50 mineral commodities critical to the economy and national security of both countries. (*https://www.industry.gov.au/publications/australias-critical-minerals-list and https://www.usgs.gov/news/national-news-release/us-geological-survey-releases-2022-list-critical-minerals*).

Incorporation of scandium in materials has environmental benefits across multiple industrial sectors, particularly in decarbonisation of energy. One pathway to mitigate greenhouse gas emissions is to generate electricity using hydrogen or synthetic liquid fuels, which are more efficient than combustion engines. This application currently represents the single largest use for scandium (*https://straitsresearch.com/report/scandium-market*).

A competing demand for scandium (that is increasing) is its usage in the manufacture of high-strength aluminium alloys. When applied as an addition to aluminium alloys, scandium can produce stronger, more corrosion resistant, and more heat tolerant, weldable and 3D printable aluminium products.

Aluminium alloys are used extensively in the global transportation industry. Aircraft manufacturers are particularly interested, with the two leading global aircraft manufacturers increasingly working to incorporate scandium aluminium alloys into their future designs and manufacturing processes. Aircraft designers believe use of these alloys can reduce aircraft weights by 15 to 20%. Additionally, the ability to employ weldable structures promises similar cost reduction potential.

It's also important to note that the United States is totally dependent on imports of scandium primarily from Europe, China, Japan, and Russia to meet its domestic needs (*USGS Scandium Fact Sheet 2022*) and as such **rising demand for scandium is supply constrained**.

Rimfire believes that advanced manufacturers are looking to secure long-term supplies of scandium within favourable jurisdictions like Australia before committing to the greater use scandium-alloyed aluminium materials in their products.

Rimfire's Fifield and Avondale Projects are ideally positioned to take advantage of the growing demand for scandium and offer significant opportunities both in terms of deposit size and grade.

Table 1: Air core drillhole specifications (MGA94_55) & significant intercepts (calculated using a 100ppm Sc cutoff grade). All holes were drilled vertically (i.e. -90°). Rimfire's 2023 Murga Air core drill holes also shown (Fi2425 to Fi2435).

Target Area	Hole_ID	Easting	Northing	EOH	From	Width	Sc_ppm	Max dhole Sc
Murga North	FI2472	540,949	6,371,393	51	9	24	129	157
Murga North	FI2473	540,949	6,371,302	55	42	1	117	117
Murga North	FI2474	540,882	6,371,167	42	No Significant Intercept			84
Murga North	FI2475	540,863	6,371,159	22	0	22	232	417
Including					***5***	***12***	***304***	
Murga North	FI2476	540,763	6,371,120	34	No Significant Intercept			81
Murga North	FI2477	540,672	6,371,183	23	5	4	110	124
Murga North	FI2478	540,657	6,371,244	15	9	2	102	105
Murga North	FI2479	540,856	6,371,251	39	25	1	100	100
Murga North	FI2480	540,751	6,371,297	24	2	22	156	239
Including					***6***	***4***	***220***	
Murga North	FI2481	540,559	6,371,346	27	2	16	147	210
Murga North	FI2482	540,655	6,371,345	32	4	28	148	350
Including					***5***	***6***	***291***	
Murga North	FI2483	540,653	6,371,451	36	2	34	133	211
Including					***4***	***7***	***175***	
Murga North	FI2484	540,744	6,371,405	36	0	25	136	210
Murga North	FI2485	540,855	6,371,451	27	7	13	127	153
Murga North	FI2486	540,848	6,371,358	39	20	7	101	117
Murga North	FI2487	540,748	6,371,500	27	3	23	164	*224*
Murga North	FI2488	540,644	6,371,556	39	30	8	110	136
Murga North	FI2489	540,558	6,371,598	46	35	9	120	168
Murga North	FI2490	540,549	6,371,502	27	2	25	147	259
Including					***4***	***5***	***211***	
Murga North	FI2491	540,555	6,371,252	24	2	19	107	135
Murga North	FI2492	540,615	6,371,052	21	No Significant Intercept			59
Murga North	FI2493	540,551	6,371,124	14	No Significant Intercept			58
Murga North	FI2494	540,442	6,371,217	15	No Significant Intercept			90
Murga North	FI2495	540,231	6,371,314	35	4	16	103	123
Murga North	FI2496	540,154	6,371,343	30	3	27	143	312
Including					***4***	***6***	***221***	
Murga North	FI2497	540,047	6,371,414	24	9	1	103	103
Murga North	FI2498	540,044	6,371,414	36	5	2	108	115
and					24	10	100	
Murga North	FI2499	539,849	6,371,549	25	5	6	135	179
Murga North	FI2500	539,857	6,371,662	11	2	9	102	106
Murga North	FI2501	539,957	6,371,652	24	9	14	108	129
Murga North	FI2502	540,358	6,372,097	39	No Significant Intercept			90
Murga North	FI2503	540,040	6,371,594	28	12	15	103	123

Murga North	FI2504	540,155	6,371,545	33	11	2	182	206
Murga North	FI2505	540,245	6,371,553	21	No Significant Intercept			76
Murga North	FI2506	540,255	6,371,452	24	4	19	113	135
Murga North	FI2507	540,347	6,371,404	48	4	10	104	110
Murga North	FI2508	540,345	6,371,600	40	No Significant Intercept			29
Murga North	FI2509	540,434	6,371,591	44	33	1	116	116
Murga North	FI2510	540,353	6,371,493	37	3	17	123	179
Including					***3***	***6***	***152***	
Murga North	FI2511	540,457	6,371,440	18	7	10	118	149
Murga North	FI2512	548,613	6,271,395	17	No Significant Intercept			87
Murga Northwest	FI2513	538,398	6,371,999	55	6	10	111	158
Murga Northwest	FI2514	538,008	6,371,999	16	3	13	188	282
Including					***7***	***4***	***248***	
Murga North	FI2515	539,196	6,370,995	28	9	4	102	115
Murga North	FI2516	539,401	6,371,400	6	No Significant Intercept			74
Murga North	FI2517	539,804	6,371,401	10	No Significant Intercept			69
Murga North	FI2518	540,000	6,370,997	36	No Significant Intercept			53
Murga North	FI2519	539,602	6,371,003	21	No Significant Intercept			38
Murga North	FI2520	540,404	6,370,995	10	No Significant Intercept			29
Murga North	FI2521	540,791	6,370,975	44	No Significant Intercept			47
Murga North	FI2522	541,199	6,370,996	54	No Significant Intercept			56
Murga North	FI2523	541,398	6,371,396	40	No Significant Intercept			28
Murga East	FI2524	541,805	6,370,626	22	No Significant Intercept			29
Murga East	FI2525	542,193	6,370,603	22	No Significant Intercept			54
Murga	FI2526	539,990	6,368,462	27	No Significant Intercept			48
Murga	FI2527	539,748	6,367,697	43	6	3	120	120
Murga	FI2528	540,148	6,367,083	26	No Significant Intercept			83
Murga	FI2529	540,596	6,368,209	9	No Significant Intercept			81
Murga	FI2530	540,995	6,368,198	42	No Significant Intercept			100
Murga	FI2531	541,598	6,368,611	25	No Significant Intercept			84
Murga	FI2532	542,006	6,368,671	58	No Significant Intercept			86
Murga	FI2533	540,803	6,368,600	22	No Significant Intercept			29
Murga	FI2534	540,800	6,369,492	26	No Significant Intercept			80
Murga	FI2535	541,204	6,369,399	14	No Significant Intercept			38
Murga	FI2536	541,396	6,369,098	24	No Significant Intercept			19
Murga	FI2537	541,793	6,369,000	13	No Significant Intercept			64
Murga	FI2538	542,195	6,369,010	33	No Significant Intercept			71
Murga	FI2539	542,509	6,368,985	52	33	9	115	145
Murga	FI2540	542,011	6,369,384	14	No Significant Intercept			63
Murga	FI2541	541,601	6,369,400	23	No Significant Intercept			58
Murga	FI2542	541,819	6,369,792	16	No Significant Intercept			65
Murga	FI2543	542,240	6,369,787	23	No Significant Intercept			57
Murga East	FI2544	542,200	6,369,785	15	No Significant Intercept			52

Murga East	FI2545	542,003	6,370,211	18	No Significant Intercept			34
Murga East	FI2546	542,246	6,370,201	30	No Significant Intercept			50
Murga East	FI2547	541,396	6,370,597	39	3	21	106	120
Murga East	FI2548	540,990	6,370,588	27	15	6	108	116
Murga East	FI2549	541,200	6,370,196	16	13	3	127	173
Murga East	FI2550	540,805	6,370,210	41	9	6	106	110
and					24	6	108	
Murga East	FI2551	540,895	6,369,800	28	No Significant Intercept			70
Murga East	FI2552	540,599	6,369,802	41	24	3	110	110
Murga	FI2553	540,614	6,370,599	3	No Significant Intercept			59
Murga	FI2554	539,798	6,369,901	37	No Significant Intercept			11
Murga	FI2555	539,989	6,370,200	22	No Significant Intercept			91
Murga	FI2556	540,207	6,369,798	52	No Significant Intercept			32
Murga East	FI2557	540,398	6,370,196	19	No Significant Intercept			94
Murga	FI2558	540,201	6,370,598	6	No Significant Intercept			39
Murga	FI2559	540,266	6,368,102	41	No Significant Intercept			46
Murga	FI2560	540,167	6,367,979	28	No Significant Intercept			59
Murga South	FI2561	540,262	6,367,852	19	1	18	174	269
Including					***7***	***3***	***226***	
Murga	FI2562	538,942	6,371,525	2	No Significant Intercept			99
Murga	FI2563	539,031	6,371,514	6	1	1	111	111
Murga	FI2564	539,174	6,371,520	10	No Significant Intercept			61
Murga	FI2565	539,281	6,371,500	4	No Significant Intercept			53
Murga	FI2566	539,497	6,371,537	5	No Significant Intercept			73
Murga	FI2567	539,548	6,371,431	12	No Significant Intercept			98
Murga	FI2568	539,649	6,371,547	20	10	3	102	120
and					15	5	103	
Murga	FI2569	539,759	6,371,552	5	No Significant Intercept			95
Murga	FI2570	539,630	6,371,675	6	No Significant Intercept			95
Murga	FI2571	539,546	6,371,630	9	No Significant Intercept			93
Murga East	Fi2425	541,788	6,370,469	36	3	3	132	132
Murga North	Fi2426	540,741	6,371,208	25	0	18	164	216
Including					***3***	***6***	***208***	
Murga North	Fi2427	540,460	6,371,363	48	3	15	125	136
Murga North	Fi2428	539,000	6,371,430	19	15	3	101	101
Murga North	Fi2429	539,535	6,371,679	22	15	6	131	132
Murga South	Fi2430	540,303	6,367,700	35	3	6	106	107
Murga South	Fi2431	540,301	6,368,023	27	No Significant Intercept			77
Murga South	Fi2432	540,494	6,368,014	37	No Significant Intercept			45
Murga South	Fi2433	540,500	6,367,876	31	No Significant Intercept			76
Murga South	Fi2434	540,309	6,367,862	38	0	27	188	257
Including					***3***	***12***	***224***	
Murga South	Fi2435	540,496	6,367,722	30	0	6	173	187

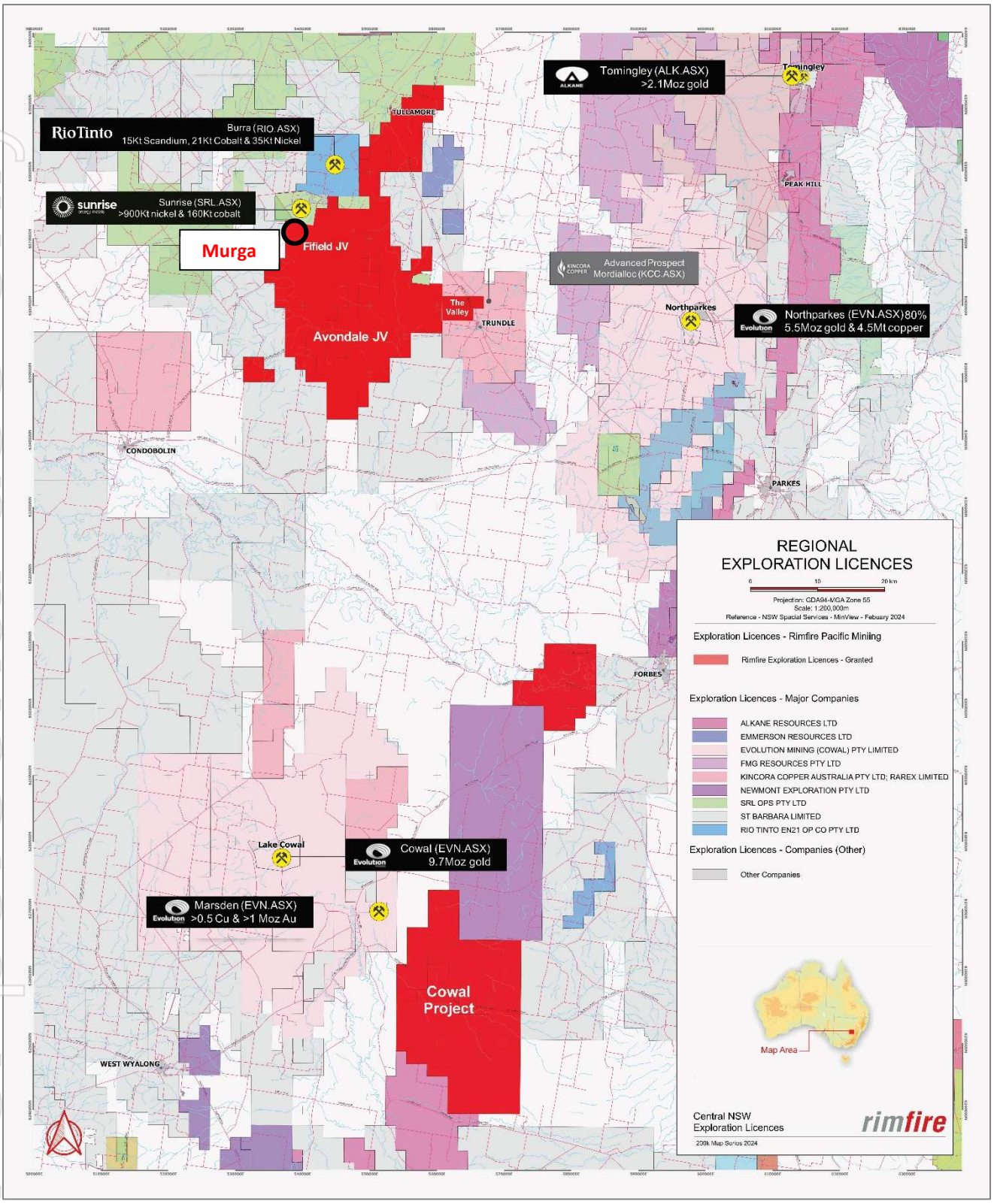


Figure 1: Rimfire Project Locations and key prospects.

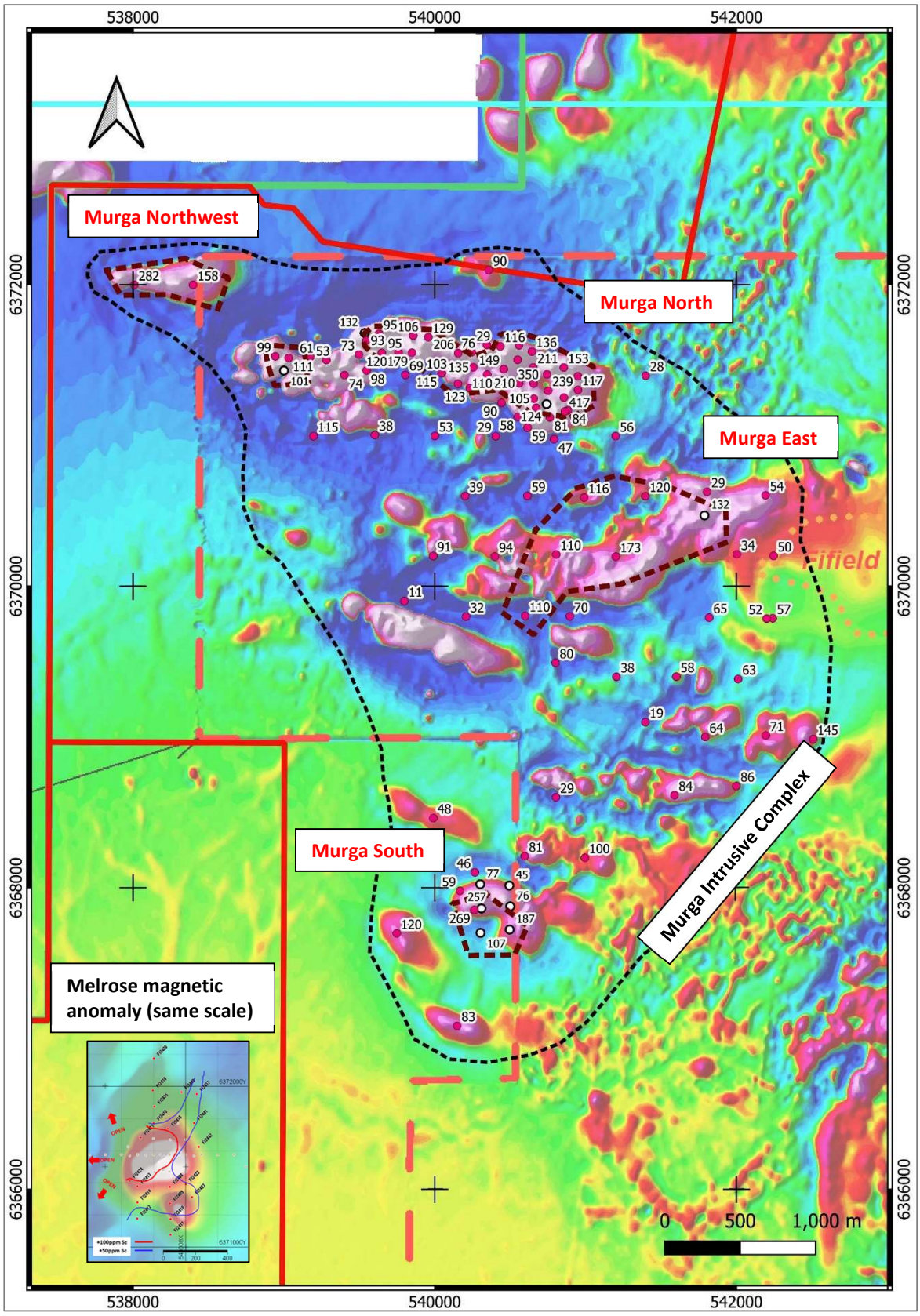


Figure 2: Murga drill collars on TMI image - max downhole Sc (ppm) & +100ppm Sc zones

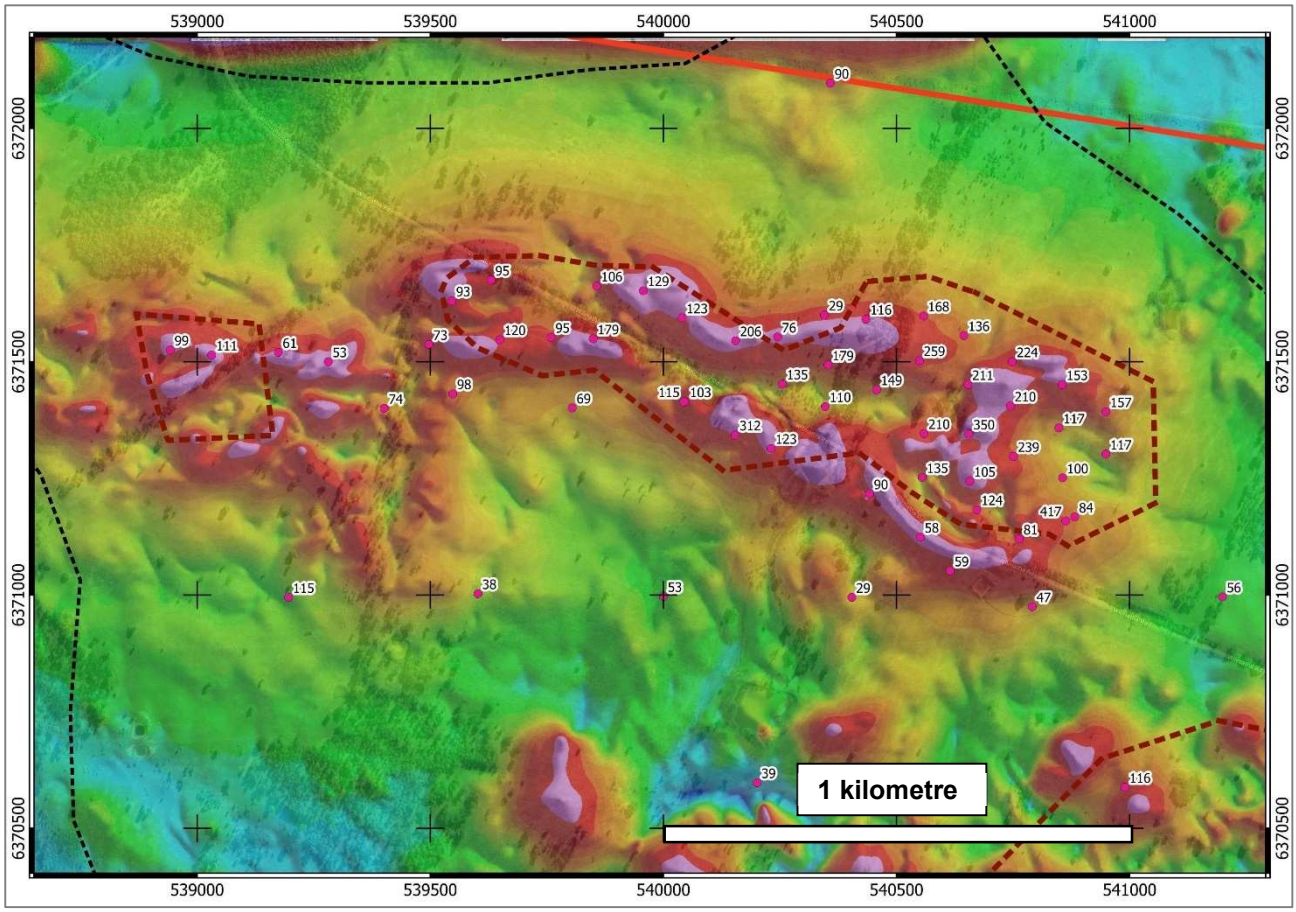


Figure 3: Murga North TMI magnetics image with maximum downhole scandium values and +100ppm Sc (red) outline.

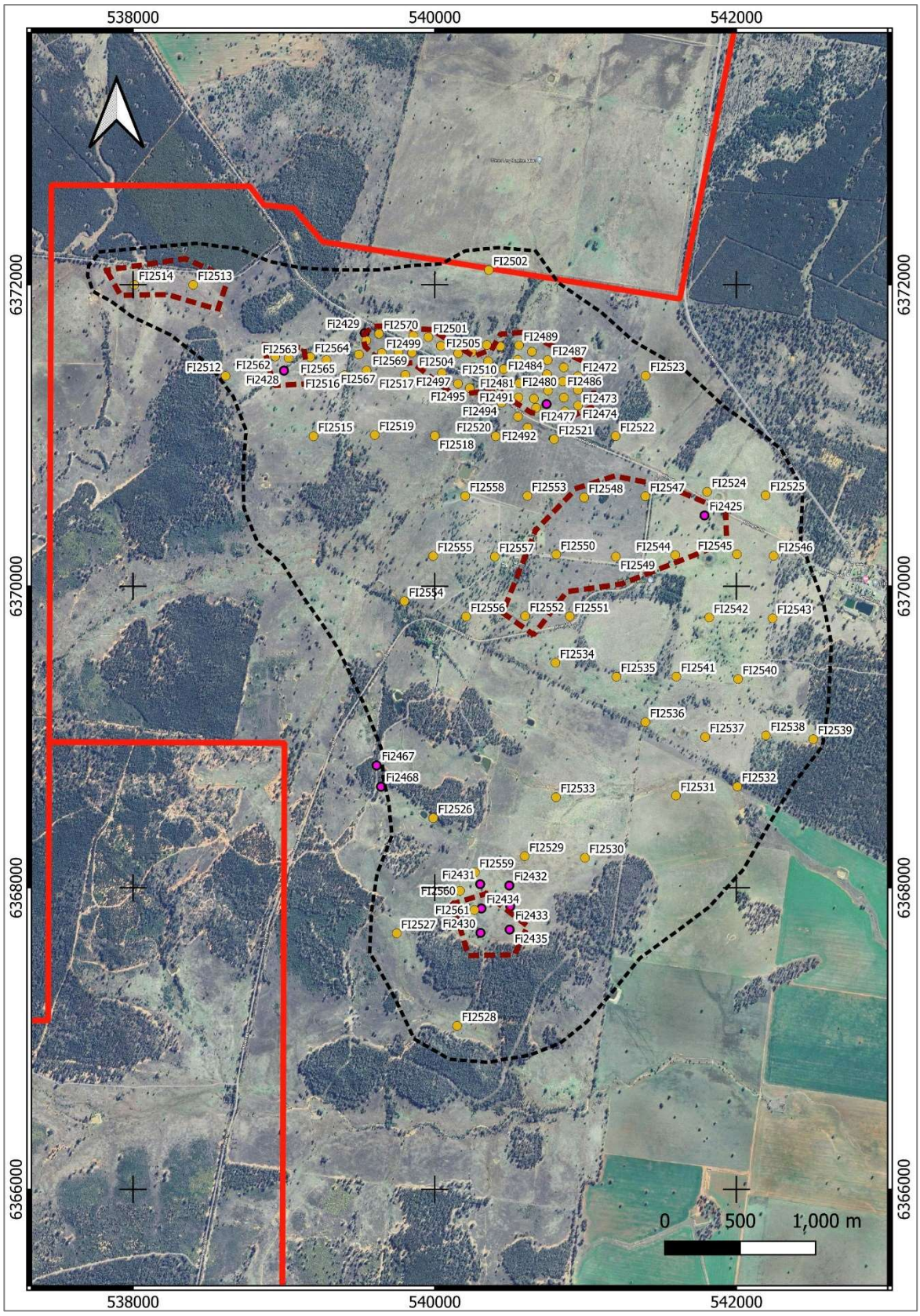


Figure 4: Murga drill collars on aerial photo - max downhole Sc (ppm) & +100ppm Sc zones (red)

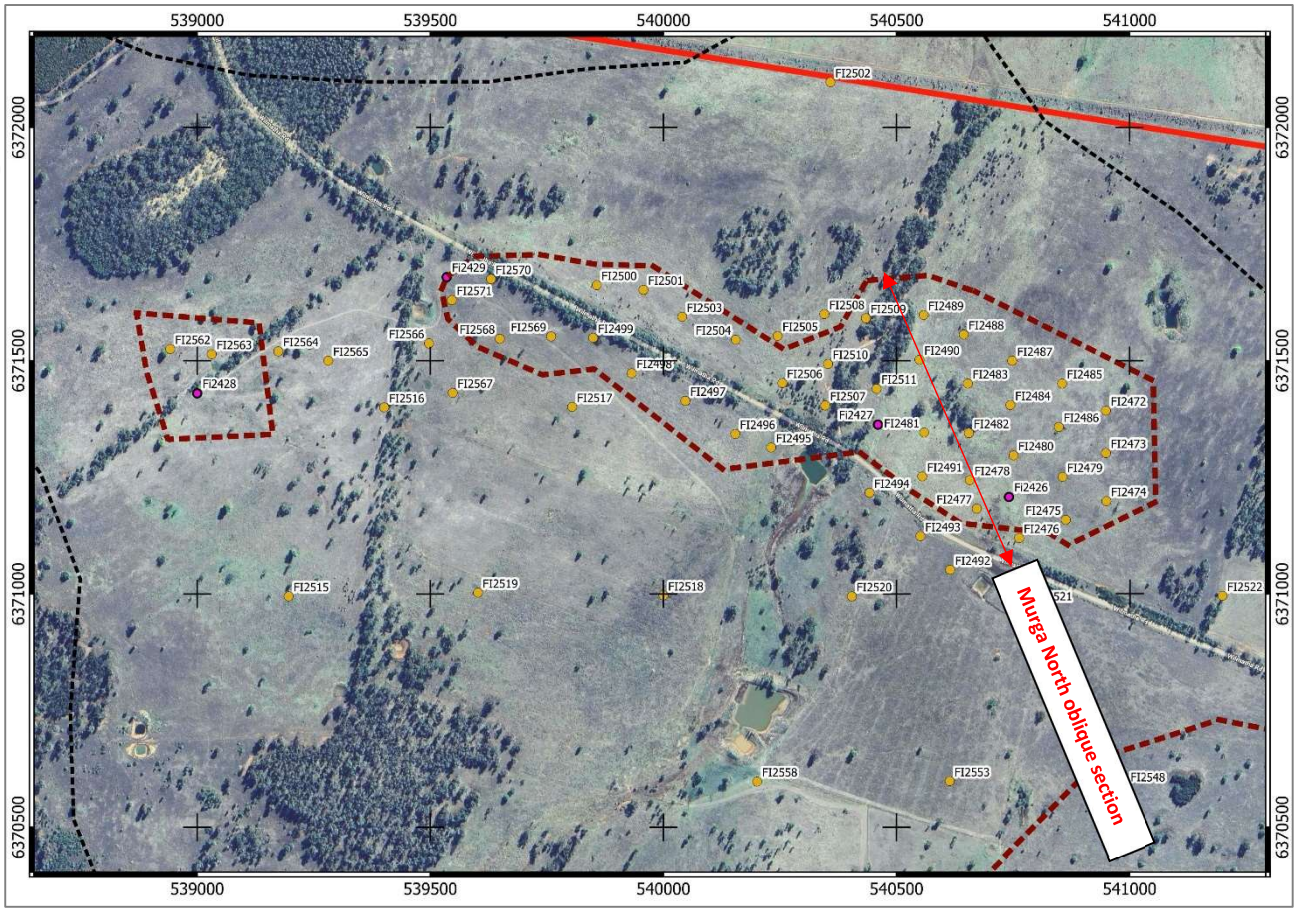


Figure 5: Murga North drill collars on aerial photo - max downhole Sc (ppm) and +100ppm scandium zones (red dashed lines). Section location (Figure 6) shown as red line.

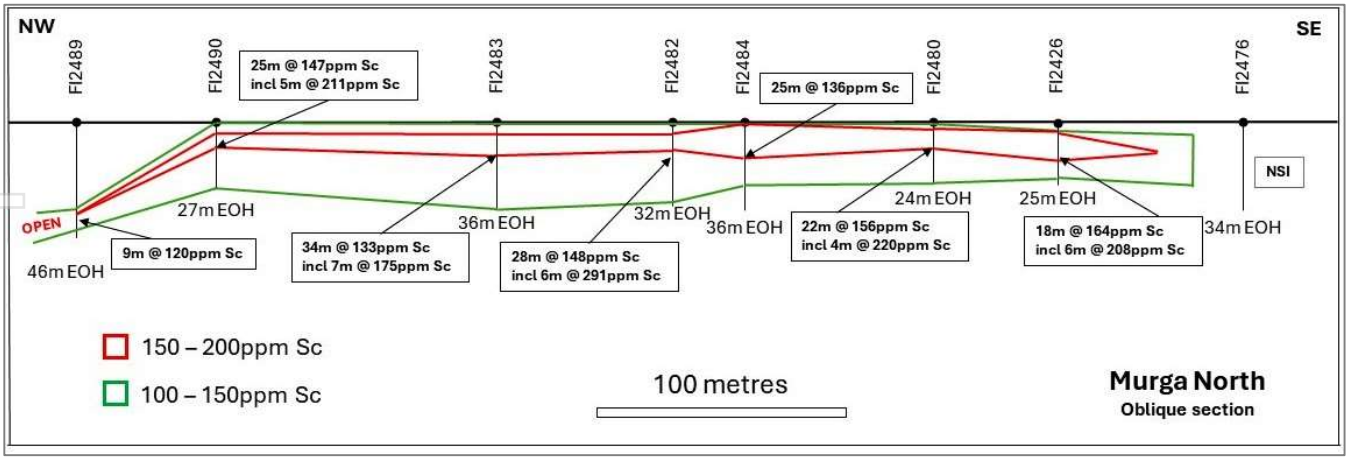


Figure 6: Murga North oblique cross section wit location shown in Figure 5.

Figure 7: Murga Scandium Prospect with air core drill rig – March 2024

This announcement is authorised for release to the market by the Board of Directors of Rimfire Pacific Mining Limited.

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JORC Reporting

Table 2: JORC Code Reporting Criteria

Section 1 Sampling Techniques and Data – Air core Drilling and Head Assay

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	This ASX Announcement details air core drilling undertaken during March April 2024 and carried out to test several magnetic anomalies within the Company's Fifield Project in NSW. Air core drillhole sampling. Each sample represents a scooped sample of cuttings generated via air core drilling. Each sample is representative of either 1 metre or 3m composite samples. The nature of the sample generation and collection process means the samples should be considered as indicative of grade rather than representative of a precise grade. Each air core drillhole was geologically logged and submitted to ALS Orange for analysis for base metals (Ni, Co, Sc) using ALS methods ME-ICP61 which utilises a 4-acid digest followed by an ICP finish. The intercepts quoted in this Report has been calculated using data obtained from the ME-ICP61 method.
	Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.	The nature of air core sampling means samples should be considered as an indictive rather than precise measure, aimed at defining areas of anomalism. Blank samples and reference standards were inserted into the sample sequence for QA/QC.
	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 (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.	The field collected samples were typically 1.0 to 2.0kg composite samples from a 3m interval from air core drilling. Industry standard preparation and assay conducted at ALS Pty Ltd in Orange, NSW, including sample crushing and pulverising prior to subsampling for an assay sample. 25 g of pulverized sample was utilized for multi-element assay via ALS' ME-ICP61 technique.
Drilling techniques	Drill type (e.g., core, reverse circulation, open-	All holes were drilled using air core drill rig. All

Criteria	JORC Code explanation	Commentary
	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).	holes were vertical, the specifications of which are included in Table 1.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	An approximate estimate of total sample quantity was recorded with each 1m interval by comparing volumes within each bucket of sample yielded from the cyclone. A visual estimate of 0, 25, 50, 75, 100, 125% was recorded for each metre.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The drillers adjusted penetration and air pressure rates according to ground conditions to optimise recoveries. The cyclone was cleaned regularly, and holes were reamed in between rod changes to reduce contamination.
	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.	Due to the reconnaissance nature of the air core drilling it cannot be determined 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.
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.	Sub-samples were collected for the purpose of geological logging, aimed primarily at assessing the lithological type and confirming sample represents insitu material.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging of is largely qualitative by nature.
	The total length and percentage of the relevant intersections logged.	Relevant intersections have been geologically logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A as no core samples were collected.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Air core drilling samples were scooped with PVC pipe from the total output of cuttings that passed through the cyclone on the rig.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Given the indicative nature of the sample medium (refer to sampling techniques section above) this process is considered appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All sampling equipment was cleaned between 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.	Blanks and standards were inserted in the sample stream before being submitted to the commercial laboratory. No issues have been identified.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size (typically ~ 2kg) of air core material is considered appropriate to the grainsize of material being sampled.
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used	The methods used by ALS to analyse the air core samples for precious and base metals are

Criteria	JORC Code explanation	Commentary
laboratory tests	and whether the technique is considered partial or total.	industry standard. The ME-ICP61 method is considered to be a partial technique. .
	For geophysical tools, spectrometers, handheld XRF instruments (pXRF), etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable as no geophysical tools were used or results of using geophysical tools were included in this Report.
	Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	Certified standards were submitted along half core samples to the laboratory. In addition, the nickel cobalt scandium results included in this Report were reported based on analytical results obtained using the ME-ICP61 method.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The significant intersections including in this Report have been verified by both Rimfire's Exploration Manager and Managing Director.
	The use of twinned holes.	Not applicable as no twinned holes drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Sampling data was recorded on field sheets at the sample site. Field data was entered into an excel spreadsheet and saved on Cloud server. Geological logging was recorded directly in LogChief program during drilling and backed up on Cloud server. Assay results are typically reported in a digital format suitable for direct loading into a Datashed database with a 3rd party expert consulting group.
	Discuss any adjustment to assay data.	There has been no adjustment to assay data.
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.	Sample locations are recorded using handheld Garmin GPS with a nominal accuracy +/- 3m.
	Specification of the grid system used.	GDA94 Zone 55.
	Quality and adequacy of topographic control.	Handheld GPS, which is suitable for the early stage and broad spacing of this exploration.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The location and spacing of drillholes discussed in this Report are given in Table 1 and various figures of this Report
	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.	The data spacing and distribution of drilling referred to in this Report is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s).
	Whether sample compositing has been applied.	Sample compositing has not been applied. All samples were of equal length – either 1 or 3 metre sample lengths.
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.	Given the early stage of exploration it is not yet known if sample spacing, and orientation achieves unbiased results.
	If the relationship between the drilling	Due to the reconnaissance (early stage) nature of

Criteria	JORC Code explanation	Commentary
	orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	the air core drilling it cannot be determined whether relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias
Sample security	The measures taken to ensure sample security.	Samples double bagged and delivered directly to the laboratory by company personnel.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The sampling techniques and data has been reviewed by senior company personnel including the Exploration Manager and Managing Director with no issues identified.

Section 2 Reporting of Exploration Results

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.	Reported results all from Exploration Licence EL EL8935 at Fifield NSW which is wholly - owned by Rimfire Pacific Mining Limited. The tenement forms part of the Company's Fifield Project which is subject to an Earn In and Joint Venture Agreement with Golden Plains Resources Pty Ltd (GPR) whereby GPR can earn up to a 50.1% interest by completing expenditure of $4.5M over 3 years and committing to fund the development of a mining project on the project, including Rimfire's portion. Rimfire will repay its share of the development costs from operating cash flows All samples were taken on Private Freehold Land. No Native Title exists. The land is used primarily for grazing and cropping.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	The tenement is in good standing, and all work is conducted under specific approvals from NSW Department of Planning and Energy, Resources and Geoscience.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Murga Intrusive Complex where the air core drilling was conducted has been largely explored historically for gold and platinum with most focus on the Sorpresa Gold Deposit which lies to the east of Murga.
Geology	Deposit type, geological setting and style of mineralisation.	The target area lacks geological exposure, available information indicates the bedrock geology across the project is a dominated by a central body of ultramafic intrusive and stepping out to more felsic units on the margins. The deposit type/style of mineralisation is a flat lying weathered zone developed on top of ultramafic hosting anomalous Sc.

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: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth.	All drillhole specifications are included within this ASX Announcement. All collar locations are shown on the figures included with this ASX Announcement.
	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.	Not applicable as no drill hole information has been excluded.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.	No data aggregation or weighting has been applied to the reported significant intercepts. The following low cut off grades have been used in determining the reported intercepts. • Scandium (100 ppm – 0.01%)
	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.	Not applicable as all sample intervals were the same, i.e., either 1 or 3 metre sample intervals
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the Reporting of Exploration Results.	The drill results included in this Report occur within a flat (horizontal) lying zone and given all the air cored holes are vertical, the significant intercepts are considered to represent true widths.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').	
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.	Included within the ASX Announcement
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.	All results are included in this ASX Announcement.

Criteria	JORC Code explanation	Commentary
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.	There is currently no other substantive exploration data that is meaningful and material to report.
Further work	The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).	Planned further work is discussed in this ASX Announcement in relation to the exploration results.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable at this stage

About Rimfire

Rimfire Pacific Mining (**ASX: RIM**, "Rimfire" or the "Company") is an ASX-listed Critical Minerals exploration company which is advancing a portfolio of projects within the highly prospective Lachlan Orogen and Broken Hill districts of New South Wales.

The Company has two 100% - owned copper – gold prospective projects that are located west of Parkes and Orange in central New South Wales:

- The Valley Project - located 5km west of Kincora Copper's Mordialloc porphyry copper gold discovery (KCC.ASX), and
- The Cowal Project - located to the east of Evolution's Lake Cowal Copper / Gold mine (EVN: ASX).

Rimfire also has the 100% - owned Broken Hill Cobalt (Green View) Project which is located immediately west and northwest of Broken Hill and covers several targets including the interpreted along strike extension to Cobalt Blue Holdings' Railway Cobalt Deposit (COB: ASX).

Rimfire has two additional projects in the Lachlan Orogen which are being funded by Rimfire's exploration partner - Golden Plains Resources (GPR):

- Avondale Project (GPR earning up to 75%) & Fifield Project (GPR earning up to 50.1%)
- ✓ Both projects are prospective for high-value critical minerals – nickel, cobalt, scandium, gold and PGEs - which are essential for renewable energy, electrification, and green technologies.
- ✓ The development ready Sunrise Energy Metals Nickel Cobalt Scandium Project (ASX: SRL) is adjacent to both projects.
- ✓ The Fifield Project hosts the historical Platina Lead mine, the largest producer of Platinum in Australia.

For more information on the Avondale and Fifield Earn In and Joint Venture Agreements see:

ASX Announcement: 4 May 2020 - Rimfire enters into $4.5m Earn-in Agreement
ASX Announcement: 25 June 2021 - RIM Secures $7.5m Avondale Farm Out

Competent Persons Declaration

The information in the report to which this statement is attached that relates to Exploration and Resource Results is based on information reviewed and/or compiled by David Hutton who is deemed to be a Competent Person and is a Fellow of The Australasian Institute of Mining and Metallurgy.

Mr Hutton has over 30 years' experience in the minerals industry and is the Managing Director and CEO of Rimfire Pacific Mining. Mr Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken 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 Hutton consents to the inclusion of the matters based on the information in the form and context in which it appears.

Forward looking statements Disclaimer

This document contains "forward looking statements" as defined or implied in common law and within the meaning of the Corporations Law. Such forward looking statements may include, without limitation, (1) estimates of future capital expenditure; (2) estimates of future cash costs; (3) statements regarding future exploration results and goals.

Where the Company or any of its officers or Directors or representatives expresses an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and the Company or its officers or Directors or representatives, believe to have a reasonable basis for implying such an expectation or belief.

However, forward looking statements are subject to risks, uncertainties, and other factors, which could cause actual results to differ materially from future results expressed, projected, or implied by such forward looking statements. Such risks include, but are not limited to, commodity price fluctuation, currency fluctuation, political and operational risks, governmental regulations and judicial outcomes, financial markets, and availability of key personnel. The Company does not undertake any obligation to publicly release revisions to any "forward looking statement".