RIMFIRE PACIFIC MINING LTD

ASX: RIM

"Critical Minerals Explorer"

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Latest assays demonstrate significant increase in Murga Scandium grades

Highlights

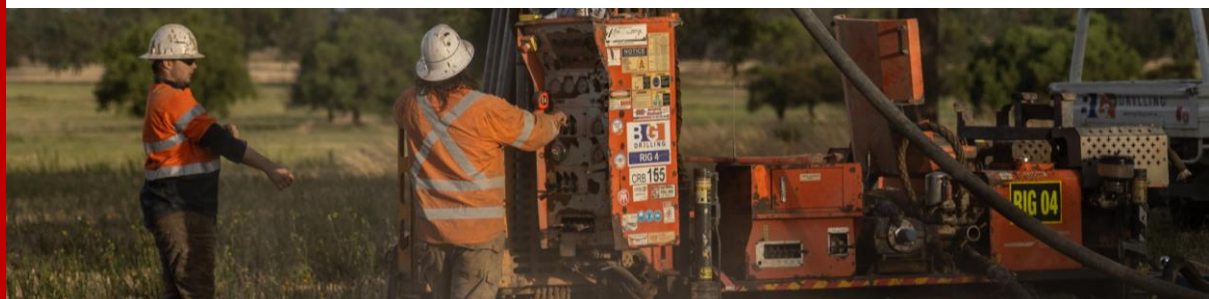
- **Re-assaying of March 2024 aircore drill samples increases average scandium grade by 11% with some samples achieving 25 – 50% increases**
- **Maiden Murga North JORC Resource to be estimated in conjunction with Melrose maiden JORC resource estimate**
- **Planning for further aircore and diamond drilling to determine the lateral extents and infill wide spaced anomalies of the scandium at Murga underway**
- **All scandium exploration funded by exploration partner GPR with a further $250K received during the last month**

Rimfire Pacific Mining (**ASX: RIM**, "**Rimfire**" or "**the Company**") is pleased to advise that re-assaying of aircore drill samples from the Murga Scandium Prospect has demonstrated a significant increase in scandium grade for the 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: *"Re-assaying of 260 aircore samples from the March 2024 Murga drill program using a total digest analytical method has increased scandium grades by an average of 11% across all of the samples, with several examples where grade increases of 25 – 50% were achieved.*

This is a significant development as the re-assay data demonstrate that the actual scandium grades for Murga could be significantly higher than the original drill intercepts previously reported by Rimfire and reinforces the potential of Murga to host a large-scale pure scandium resource.

On the back of these great results, Rimfire has decided to estimate a JORC resource for the Murga North portion of Murga, which will be carried out in conjunction with the upcoming Melrose JORC resource estimate".



Re-assaying of Samples

Original assaying of drill samples from the reconnaissance March 2024 Murga aircore drilling program was undertaken using a 4-acid digestion / ICP analysis technique which is considered a "partial digest" analytical method and was used by Rimfire to cost effectively "screen" large numbers of drill samples generated by the drill program (*see Rimfire's ASX Announcement dated 6 May 2024*) .

Having identified multiple scandium occurrences at Murga (i.e. Murga North, Murga Northwest, Murga East and Murga South, Rimfire subsequently resubmitted 260 of the most anomalous samples (greater than 120ppm Sc) from the drilling for additional scandium analysis using the more expensive lithium borate fusion XRF method.

This technique is a "whole digest" analytical method whereby a fused disk of the sample is created and analysed with XRF spectroscopy. The assay grade achieved by this method is considered to be a more representative scandium assay value.

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

As shown in Table 1, the most recent batch of lithium borate fusion XRF assaying returned an average increase in scandium assay values of 11% compared to the corresponding assay value obtained from the 4-acid digestion / ICP analysis method. There were also several individual samples that showed an increase in scandium grade of 25 – 50%.

The lithium borate fusion XRF results are important as they demonstrate that the **actual scandium grades for Murga could be significantly higher** than the original Murga drill intercepts (calculated using the 4-acid digestion / ICP analysis technique) previously reported by Rimfire (*see Rimfire's ASX Announcement dated 6 May 2024*).

For example, at Murga North, Rimfire reported multiple drill intercepts using the 4-acid / ICP analysis method (*see Rimfire's ASX Announcement dated 6 May 2024*):

- 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,

The corresponding drill intercepts using the lithium borate fusion XRF assay data are shown below;

- 22m @ 273ppm Sc from 0 metres in FI2475 including 12m @ 353ppm Sc from 5 metres,
- 22m @ 172ppm Sc from 2 metres in FI2480 including 5m @ 226ppm Sc from 6 metres,
- 28m @ 158ppm Sc from 4 metres in FI2482 including 6m @ 320ppm Sc from 5 metres,
- 23m @ 179ppm Sc from 3 metres in FI2487,
- 25m @ 163ppm Sc from 2 metres in FI2490 including 5m @ 242ppm Sc from 4 metres,
- 27m @ 162ppm Sc from 3 metres in FI2496 including 4m @ 270ppm Sc from 4 metres,

Going forward Rimfire will submit future drill samples from areas of known scandium mineralisation at Murga for analysis using the lithium borate fusion XRF method.

Next Steps for the Murga Scandium Prospect

The company is greatly encouraged by the latest re-assay results and strongly believes that Murga has the potential to host a large-scale scandium resource.

At Murga, scandium occurs within a flat – lying weathered saprolite (clay) horizon overlying magnetic ultramafic (pyroxenite) intrusive rocks of the Early Silurian-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*).

Based on aircore drilling undertaken by the Company (*see ASX Announcement 6 May 2024*),four (4) initial areas - Murga North, Murga Northwest, Murga East and Murga South have been identified as priorities for immediate follow-up exploration work (Figures 2 - 6).

Infill aircore drilling (on nominal 100 metres centres) will be undertaken over the Murga Northwest, Murga East and Murga South areas with regulatory and landowner approvals currently being sought.

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

At Murga North, aircore drilling has already been undertaken on approximately 100 x 100 metre centres over an east-west trending elongate magnetic anomaly which has 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);

As a result of the previous drilling results and the latest re-assay data, Rimfire has now decided to estimate a JORC Resource for Murga North. This work will be undertaken in conjunction with the Melrose JORC Resource estimate where precursor work (such as geological wire framing and collection of density measurements) is currently underway (note all Melrose samples from last drilling campaign required to complete the resource estimate are currently being assayed using the lithium borate fusion XRF method).

With the additional resource estimate work, Rimfire expects to finalise a combined Melrose / Murga North JORC resource in July 2024, with assay results from the recent infill RC / Diamond drilling at Melrose program expected to be reported shortly.

Exploration Partner

Rimfire's scandium prospects are located on the Fifield and Avondale Earn-in areas, with all exploration work funded by Rimfire's exploration partner - Golden Plains Resources (GPR). At the time of this ASX Release there were no outstanding cash call payments owed to Rimfire, with $250K received from GPR over the last month. It is expected that further cash calls will be made later in June / July as work ramps up on the Melrose and Murga Scandium Prospects.

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: Direct sample comparison of the results from the two analytical methods

Hole_ID	Easting	Northing	From	To	Sample	Sc_ppm (ME-ICP61)	Sc_ppm (ME-XRF12n)	Variation_%
FI2472	540,949	6,371,393	9	10	FC29070	121	130	7%
FI2472	540,949	6,371,393	11	12	FC29072	153	160	5%
FI2472	540,949	6,371,393	13	14	FC29074	157	160	2%
FI2472	540,949	6,371,393	14	15	FC29075	142	140	-1%
FI2472	540,949	6,371,393	15	16	FC29076	137	160	17%
FI2472	540,949	6,371,393	17	18	FC29078	148	150	1%
FI2472	540,949	6,371,393	18	19	FC29079	137	150	9%
FI2472	540,949	6,371,393	21	22	FC29083	126	130	3%
FI2472	540,949	6,371,393	22	23	FC29084	148	150	1%
FI2472	540,949	6,371,393	23	24	FC29085	131	140	7%
FI2472	540,949	6,371,393	24	25	FC29086	123	120	-2%
FI2472	540,949	6,371,393	25	26	FC29087	133	130	-2%
FI2472	540,949	6,371,393	27	28	FC29089	150	150	0%
FI2472	540,949	6,371,393	28	29	FC29090	134	140	4%
FI2472	540,949	6,371,393	29	30	FC29091	126	140	11%
FI2472	540,949	6,371,393	31	32	FC29093	137	140	2%
FI2475	540,863	6,371,159	2	3	FC29218	131	280	114%
FI2475	540,863	6,371,159	3	4	FC29219	238	330	39%
FI2475	540,863	6,371,159	4	5	FC29220	207	270	30%
FI2475	540,863	6,371,159	5	6	FC29222	239	350	46%
FI2475	540,863	6,371,159	6	7	FC29223	246	300	22%
FI2475	540,863	6,371,159	7	8	FC29224	417	440	6%
FI2475	540,863	6,371,159	8	9	FC29225	343	440	28%
FI2475	540,863	6,371,159	9	10	FC29226	383	490	28%
FI2475	540,863	6,371,159	10	11	FC29227	362	410	13%

FI2475	540,863	6,371,159	11	12	FC29228	326	380	17%
FI2475	540,863	6,371,159	12	13	FC29229	300	330	10%
FI2475	540,863	6,371,159	13	14	FC29230	247	280	13%
FI2475	540,863	6,371,159	14	15	FC29231	262	300	15%
FI2475	540,863	6,371,159	15	16	FC29232	243	280	15%
FI2475	540,863	6,371,159	16	17	FC29233	284	330	16%
FI2475	540,863	6,371,159	17	18	FC29234	217	260	20%
FI2475	540,863	6,371,159	18	19	FC29235	130	140	8%
FI2475	540,863	6,371,159	19	20	FC29236	123	140	14%
FI2477	540,672	6,371,183	5	6	FC29280	124	130	5%
FI2480	540,751	6,371,297	2	3	FC29358	237	260	10%
FI2480	540,751	6,371,297	3	4	FC29359	230	240	4%
FI2480	540,751	6,371,297	5	6	FC29362	158	160	1%
FI2480	540,751	6,371,297	6	7	FC29363	216	230	6%
FI2480	540,751	6,371,297	7	8	FC29364	239	240	0%
FI2480	540,751	6,371,297	8	9	FC29365	220	230	5%
FI2480	540,751	6,371,297	9	10	FC29366	202	220	9%
FI2480	540,751	6,371,297	13	14	FC29370	187	210	12%
FI2480	540,751	6,371,297	14	15	FC29371	147	160	9%
FI2480	540,751	6,371,297	15	16	FC29372	183	200	9%
FI2480	540,751	6,371,297	16	17	FC29373	138	160	16%
FI2480	540,751	6,371,297	17	18	FC29374	148	160	8%
FI2480	540,751	6,371,297	18	19	FC29375	135	150	11%
FI2480	540,751	6,371,297	19	20	FC29376	129	140	9%
FI2480	540,751	6,371,297	20	21	FC29377	128	140	9%
FI2480	540,751	6,371,297	21	22	FC29378	120	130	8%
FI2481	540,559	6,371,346	2	3	FC29384	134	140	4%
FI2481	540,559	6,371,346	3	4	FC29385	135	140	4%
FI2481	540,559	6,371,346	5	6	FC29387	163	200	23%
FI2481	540,559	6,371,346	6	7	FC29388	169	180	7%
FI2481	540,559	6,371,346	7	8	FC29389	210	210	0%
FI2481	540,559	6,371,346	8	9	FC29390	136	170	25%
FI2481	540,559	6,371,346	9	10	FC29391	150	160	7%
FI2481	540,559	6,371,346	10	11	FC29392	176	200	14%
FI2481	540,559	6,371,346	11	12	FC29393	184	180	-2%
FI2481	540,559	6,371,346	12	13	FC29394	188	200	6%
FI2481	540,559	6,371,346	13	14	FC29395	170	180	6%
FI2481	540,559	6,371,346	14	15	FC29396	132	130	-2%
FI2481	540,559	6,371,346	16	17	FC29398	122	130	7%
FI2482	540,655	6,371,345	4	5	FC29414	185	210	14%
FI2482	540,655	6,371,345	5	6	FC29415	283	310	10%
FI2482	540,655	6,371,345	6	7	FC29416	306	340	11%
FI2482	540,655	6,371,345	7	8	FC29417	350	390	11%
FI2482	540,655	6,371,345	8	9	FC29418	274	290	6%
FI2482	540,655	6,371,345	9	10	FC29419	263	290	10%
FI2482	540,655	6,371,345	10	11	FC29420	271	300	11%
FI2482	540,655	6,371,345	11	12	FC29422	144	150	4%
FI2482	540,655	6,371,345	13	14	FC29424	141	150	6%
FI2482	540,655	6,371,345	14	15	FC29425	161	180	12%
FI2482	540,655	6,371,345	23	24	FC29434	122	150	23%
FI2483	540,653	6,371,451	4	5	FC29448	195	200	3%
FI2483	540,653	6,371,451	5	6	FC29449	211	210	0%
FI2483	540,653	6,371,451	6	7	FC29450	179	180	1%
FI2483	540,653	6,371,451	7	8	FC29451	141	150	6%

FI2483	540,653	6,371,451	8	9	FC29452	157	160	2%
FI2483	540,653	6,371,451	9	10	FC29453	204	210	3%
FI2483	540,653	6,371,451	10	11	FC29454	163	160	-2%
FI2483	540,653	6,371,451	11	12	FC29455	165	160	-3%
FI2483	540,653	6,371,451	12	13	FC29456	158	170	8%
FI2483	540,653	6,371,451	13	14	FC29457	132	130	-2%
FI2483	540,653	6,371,451	21	22	FC29466	138	150	9%
FI2483	540,653	6,371,451	22	23	FC29467	141	150	6%
FI2483	540,653	6,371,451	23	24	FC29468	121	130	7%
FI2483	540,653	6,371,451	24	25	FC29469	126	140	11%
FI2483	540,653	6,371,451	25	26	FC29470	136	140	3%
FI2483	540,653	6,371,451	26	27	FC29471	133	140	5%
FI2483	540,653	6,371,451	27	28	FC29472	138	140	1%
FI2483	540,653	6,371,451	29	30	FC29474	129	140	9%
FI2483	540,653	6,371,451	30	31	FC29475	142	150	6%
FI2483	540,653	6,371,451	31	32	FC29476	139	160	15%
FI2483	540,653	6,371,451	32	33	FC29477	128	140	9%
FI2483	540,653	6,371,451	33	34	FC29478	130	140	8%
FI2484	540,744	6,371,405	0	1	FC29482	131	140	7%
FI2484	540,744	6,371,405	1	2	FC29483	174	170	-2%
FI2484	540,744	6,371,405	2	3	FC29484	166	200	20%
FI2484	540,744	6,371,405	3	4	FC29485	210	210	0%
FI2484	540,744	6,371,405	7	8	FC29489	158	170	8%
FI2484	540,744	6,371,405	8	9	FC29490	159	160	1%
FI2484	540,744	6,371,405	9	10	FC29491	142	140	-1%
FI2484	540,744	6,371,405	10	11	FC29492	152	160	5%
FI2484	540,744	6,371,405	11	12	FC29493	143	190	33%
FI2484	540,744	6,371,405	12	13	FC29494	151	160	6%
FI2484	540,744	6,371,405	13	14	FC29495	131	170	30%
FI2484	540,744	6,371,405	14	15	FC29496	150	150	0%
FI2484	540,744	6,371,405	16	17	FC29498	128	130	2%
FI2484	540,744	6,371,405	17	18	FC29499	142	150	6%
FI2484	540,744	6,371,405	18	19	FC29500	135	150	11%
FI2484	540,744	6,371,405	19	20	FC29502	124	130	5%
FI2484	540,744	6,371,405	20	21	FC29503	124	140	13%
FI2484	540,744	6,371,405	21	22	FC29504	121	140	16%
FI2484	540,744	6,371,405	23	24	FC29506	128	130	2%
FI2485	540,855	6,371,451	9	10	FC29529	137	140	2%
FI2485	540,855	6,371,451	10	11	FC29530	150	170	13%
FI2485	540,855	6,371,451	11	12	FC29531	153	160	5%
FI2485	540,855	6,371,451	12	13	FC29532	128	140	9%
FI2485	540,855	6,371,451	13	14	FC29533	146	160	10%
FI2485	540,855	6,371,451	14	15	FC29534	145	160	10%
FI2485	540,855	6,371,451	15	16	FC29535	136	140	3%
FI2487	540,748	6,371,500	3	4	FC29592	157	170	8%
FI2487	540,748	6,371,500	5	6	FC29594	186	200	8%
FI2487	540,748	6,371,500	6	7	FC29595	145	160	10%
FI2487	540,748	6,371,500	7	8	FC29596	162	180	11%
FI2487	540,748	6,371,500	8	9	FC29597	186	210	13%
FI2487	540,748	6,371,500	9	10	FC29598	199	220	11%
FI2487	540,748	6,371,500	10	11	FC29599	165	180	9%
FI2487	540,748	6,371,500	11	12	FC29600	153	170	11%
FI2487	540,748	6,371,500	12	13	FC29602	196	220	12%
FI2487	540,748	6,371,500	13	14	FC29603	224	250	12%

FI2487	540,748	6,371,500	14	15	FC29604	133	140	5%
FI2487	540,748	6,371,500	15	16	FC29605	170	180	6%
FI2487	540,748	6,371,500	16	17	FC29606	190	210	11%
FI2487	540,748	6,371,500	17	18	FC29607	174	190	9%
FI2487	540,748	6,371,500	18	19	FC29608	173	190	10%
FI2487	540,748	6,371,500	19	20	FC29609	179	190	6%
FI2487	540,748	6,371,500	20	21	FC29610	157	180	15%
FI2487	540,748	6,371,500	21	22	FC29611	134	150	12%
FI2487	540,748	6,371,500	22	23	FC29612	140	150	7%
FI2487	540,748	6,371,500	23	24	FC29613	139	150	8%
FI2487	540,748	6,371,500	24	25	FC29614	138	150	9%
FI2487	540,748	6,371,500	25	26	FC29615	164	190	16%
FI2488	540,644	6,371,556	1	2	FC29618	166	180	8%
FI2488	540,644	6,371,556	30	31	FC29649	133	150	13%
FI2488	540,644	6,371,556	31	32	FC29650	136	140	3%
FI2489	540,558	6,371,598	36	37	FC29696	168	170	1%
FI2489	540,558	6,371,598	37	38	FC29697	144	160	11%
FI2489	540,558	6,371,598	38	39	FC29698	137	160	17%
FI2489	540,558	6,371,598	40	41	FC29700	153	170	11%
FI2490	540,549	6,371,502	2	3	FC29709	150	150	0%
FI2490	540,549	6,371,502	4	5	FC29711	179	200	12%
FI2490	540,549	6,371,502	5	6	FC29712	222	250	13%
FI2490	540,549	6,371,502	6	7	FC29713	195	210	8%
FI2490	540,549	6,371,502	7	8	FC29714	259	310	20%
FI2490	540,549	6,371,502	8	9	FC29715	202	240	19%
FI2490	540,549	6,371,502	9	10	FC29716	166	190	14%
FI2490	540,549	6,371,502	12	13	FC29719	120	140	17%
FI2490	540,549	6,371,502	13	14	FC29720	176	200	14%
FI2490	540,549	6,371,502	14	15	FC29722	135	150	11%
FI2490	540,549	6,371,502	15	16	FC29723	139	160	15%
FI2490	540,549	6,371,502	18	19	FC29726	126	140	11%
FI2490	540,549	6,371,502	20	21	FC29728	149	170	14%
FI2490	540,549	6,371,502	21	22	FC29729	144	170	18%
FI2490	540,549	6,371,502	22	23	FC29730	160	180	13%
FI2490	540,549	6,371,502	23	24	FC29731	154	160	4%
FI2490	540,549	6,371,502	24	25	FC29732	154	170	10%
FI2490	540,549	6,371,502	25	26	FC29733	137	160	17%
FI2490	540,549	6,371,502	26	27	FC29734	138	160	16%
FI2491	540,555	6,371,252	3	4	FC29738	135	150	11%
FI2491	540,555	6,371,252	4	5	FC29739	123	150	22%
FI2495	540,231	6,371,314	6	7	FC29819	123	140	14%
FI2495	540,231	6,371,314	9	10	FC29823	120	140	17%
FI2495	540,231	6,371,314	14	15	FC29828	123	140	14%
FI2496	540,154	6,371,343	4	5	FC29854	312	340	9%
FI2496	540,154	6,371,343	5	6	FC29855	136	190	40%
FI2496	540,154	6,371,343	6	7	FC29856	232	260	12%
FI2496	540,154	6,371,343	7	8	FC29857	189	290	53%
FI2496	540,154	6,371,343	8	9	FC29858	227	250	10%
FI2496	540,154	6,371,343	9	10	FC29859	228	250	10%
FI2496	540,154	6,371,343	10	11	FC29860	151	180	19%
FI2496	540,154	6,371,343	11	12	FC29862	153	180	18%
FI2496	540,154	6,371,343	12	13	FC29863	145	170	17%
FI2496	540,154	6,371,343	13	14	FC29864	142	170	20%
FI2496	540,154	6,371,343	14	15	FC29865	129	140	9%

FI2496	540,154	6,371,343	15	16	FC29866	121	130	7%
FI2496	540,154	6,371,343	16	17	FC29867	127	140	10%
FI2496	540,154	6,371,343	19	20	FC29870	142	160	13%
FI2496	540,154	6,371,343	20	21	FC29871	133	150	13%
FI2496	540,154	6,371,343	21	22	FC29872	123	140	14%
FI2496	540,154	6,371,343	24	25	FC29875	120	130	8%
FI2496	540,154	6,371,343	29	30	FC29880	123	140	14%
FI2499	539,849	6,371,549	5	6	FC29950	128	140	9%
FI2499	539,849	6,371,549	6	7	FC29951	179	190	6%
FI2499	539,849	6,371,549	7	8	FC29952	162	180	11%
FI2499	539,849	6,371,549	8	9	FC29953	122	130	7%
FI2501	539,957	6,371,652	9	10	FC29992	129	140	9%
FI2501	539,957	6,371,652	12	13	FC29995	121	130	7%
FI2501	539,957	6,371,652	13	14	FC29996	125	130	4%
FI2501	539,957	6,371,652	18	19	FC30001	126	130	3%
FI2501	539,957	6,371,652	22	23	FC30006	121	130	7%
FI2503	540,040	6,371,594	12	13	FC30062	123	140	14%
FI2504	540,155	6,371,545	11	12	FC30090	158	170	8%
FI2506	540,255	6,371,452	12	13	FC30148	121	130	7%
FI2506	540,255	6,371,452	14	15	FC30150	131	140	7%
FI2506	540,255	6,371,452	15	16	FC30151	135	140	4%
FI2506	540,255	6,371,452	17	18	FC30153	130	130	0%
FI2510	540,353	6,371,493	3	4	FC30303	152	160	5%
FI2510	540,353	6,371,493	4	5	FC30304	179	210	17%
FI2510	540,353	6,371,493	5	6	FC30305	159	180	13%
FI2510	540,353	6,371,493	6	7	FC30306	142	170	20%
FI2510	540,353	6,371,493	7	8	FC30307	137	150	9%
FI2510	540,353	6,371,493	8	9	FC30308	142	160	13%
FI2510	540,353	6,371,493	11	12	FC30311	125	140	12%
FI2510	540,353	6,371,493	12	13	FC30312	139	150	8%
FI2510	540,353	6,371,493	17	18	FC30317	129	140	9%
FI2510	540,353	6,371,493	18	19	FC30318	121	140	16%
FI2511	540,457	6,371,440	9	10	FC30348	149	170	14%
FI2511	540,457	6,371,440	10	11	FC30349	144	160	11%
FI2511	540,457	6,371,440	11	12	FC30350	130	140	8%
FI2513	538,398	6,371,999	6	7	FC30382	158	160	1%
FI2513	538,398	6,371,999	9	10	FC30385	121	150	24%
FI2513	538,398	6,371,999	10	11	FC30386	144	150	4%
FI2514	538,008	6,371,999	4	5	FC30437	141	210	49%
FI2514	538,008	6,371,999	5	6	FC30438	181	230	27%
FI2514	538,008	6,371,999	6	7	FC30439	176	280	59%
FI2514	538,008	6,371,999	7	8	FC30440	282	320	13%
FI2514	538,008	6,371,999	8	9	FC30442	230	300	30%
FI2514	538,008	6,371,999	9	10	FC30443	213	290	36%
FI2514	538,008	6,371,999	10	11	FC30444	266	300	13%
FI2514	538,008	6,371,999	11	12	FC30445	167	190	14%
FI2514	538,008	6,371,999	12	13	FC30446	185	200	8%
FI2514	538,008	6,371,999	13	14	FC30447	180	200	11%
FI2514	538,008	6,371,999	14	15	FC30448	169	180	7%
FI2514	538,008	6,371,999	15	16	FC30449	132	150	14%
FI2539	542,509	6,368,985	36	39	FC30888	145	160	10%
FI2547	541,396	6,370,597	6	9	FC30947	120	130	8%
FI2547	541,396	6,370,597	21	24	FC30952	122	130	7%
FI2549	541,200	6,370,196	3	6	FC30973	173	180	4%

FI2549	541,200	6,370,196	9	12	FC30975	135	150	11%
FI2549	541,200	6,370,196	12	15	FC30976	129	150	16%
FI2561	540,262	6,367,852	1	2	FC31144	155	170	10%
FI2561	540,262	6,367,852	2	3	FC31145	181	190	5%
FI2561	540,262	6,367,852	3	4	FC31146	145	160	10%
FI2561	540,262	6,367,852	4	5	FC31147	153	160	5%
FI2561	540,262	6,367,852	5	6	FC31148	193	220	14%
FI2561	540,262	6,367,852	6	7	FC31149	176	180	2%
FI2561	540,262	6,367,852	7	8	FC31150	201	190	-5%
FI2561	540,262	6,367,852	8	9	FC31151	207	220	6%
FI2561	540,262	6,367,852	9	10	FC31152	269	290	8%
FI2561	540,262	6,367,852	10	11	FC31153	155	170	10%
FI2561	540,262	6,367,852	11	12	FC31154	181	190	5%
FI2561	540,262	6,367,852	12	13	FC31155	163	170	4%
FI2561	540,262	6,367,852	13	14	FC31156	180	180	0%
FI2561	540,262	6,367,852	14	15	FC31157	152	160	5%
FI2561	540,262	6,367,852	15	16	FC31158	142	160	13%
FI2561	540,262	6,367,852	16	17	FC31159	146	160	10%
FI2561	540,262	6,367,852	17	18	FC31160	165	180	9%

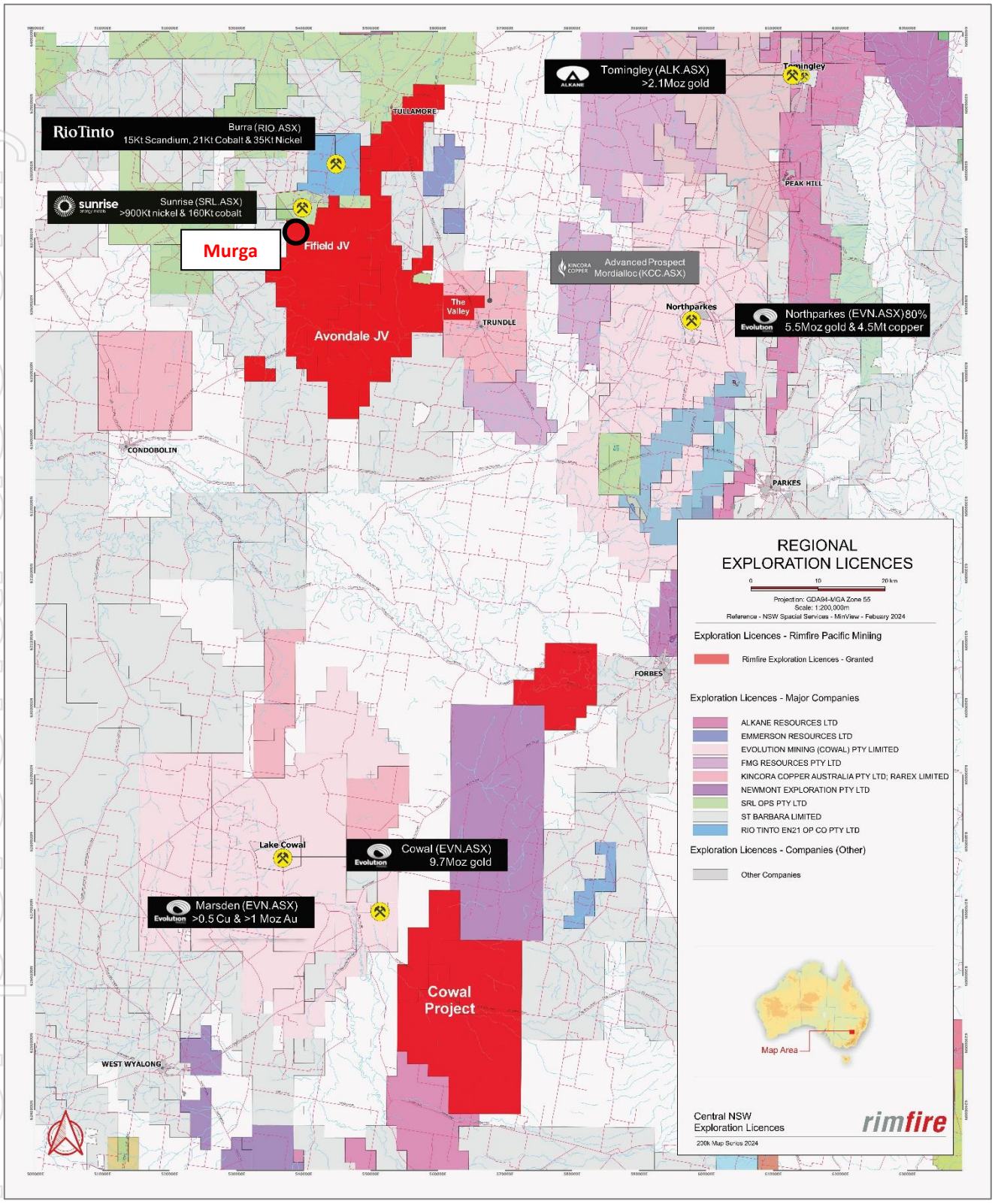


Figure 1: Rimfire Project Locations and key prospects.

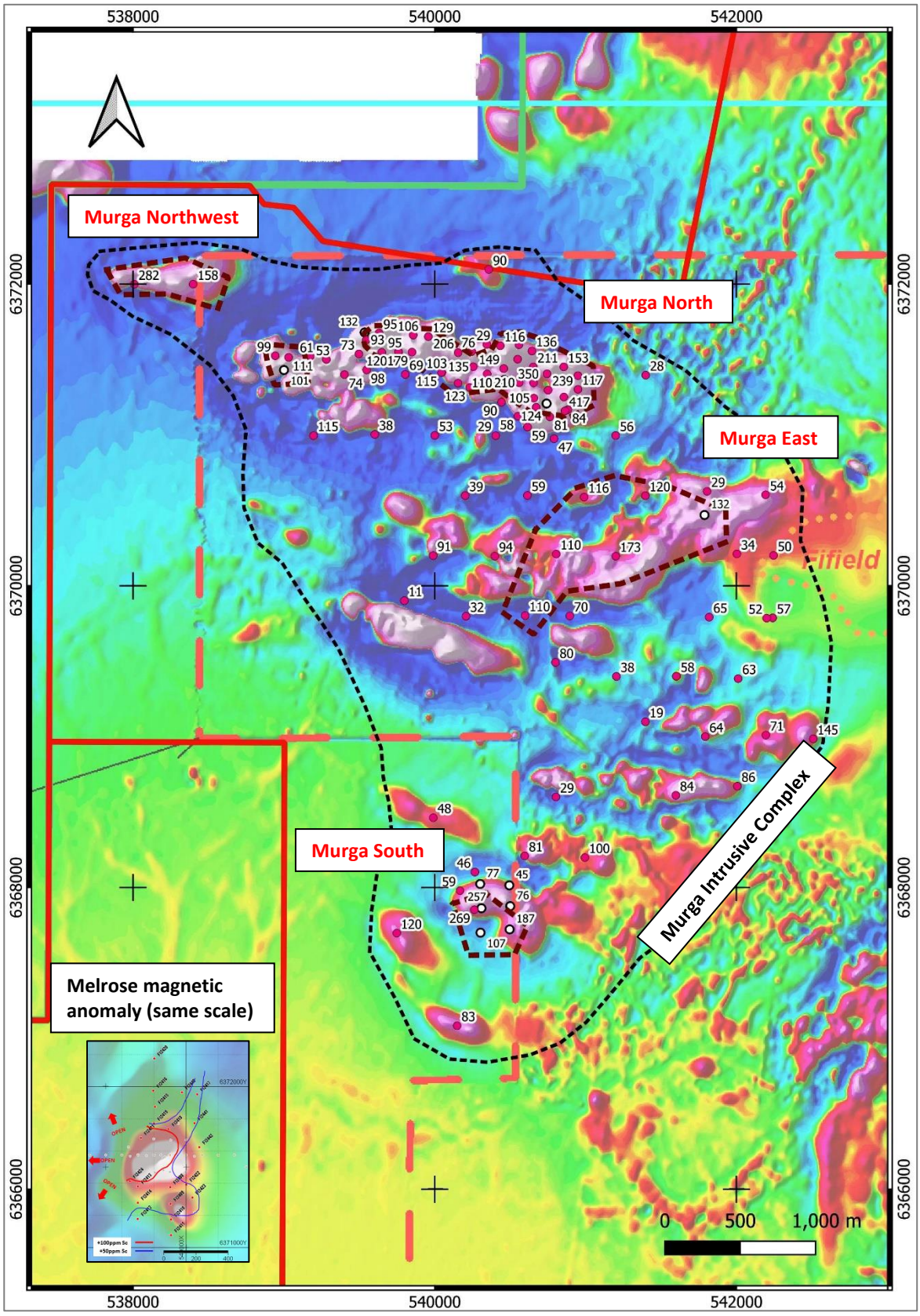


Figure 2: Murga drill collars TMI image - max downhole Sc_ppm & +100ppm Sc zones (ME-ICP61) assay data

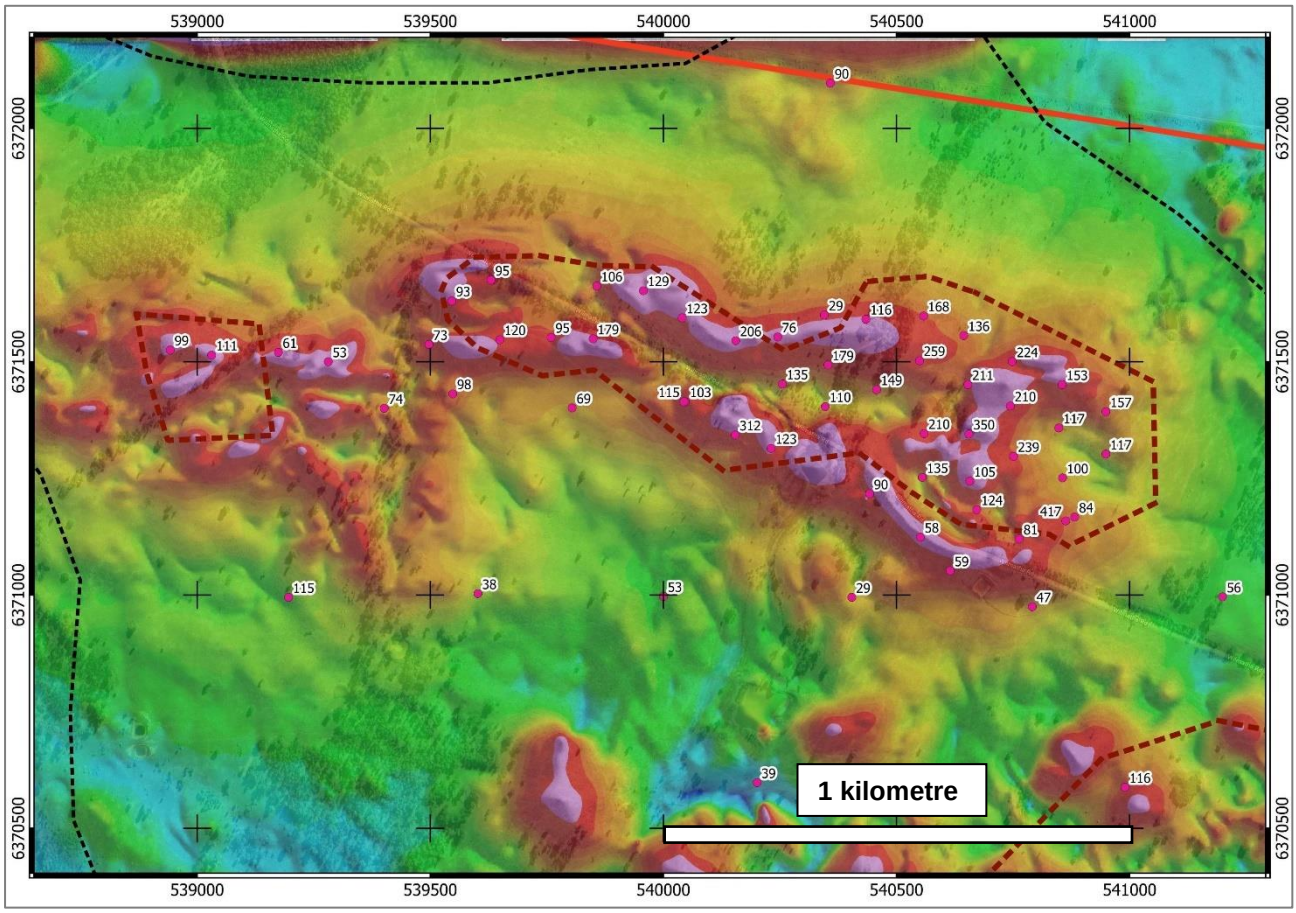


Figure 3: Murga North TMI magnetics image with maximum downhole scandium values and +100ppm Sc (red) outline. (ME-ICP61) assay data

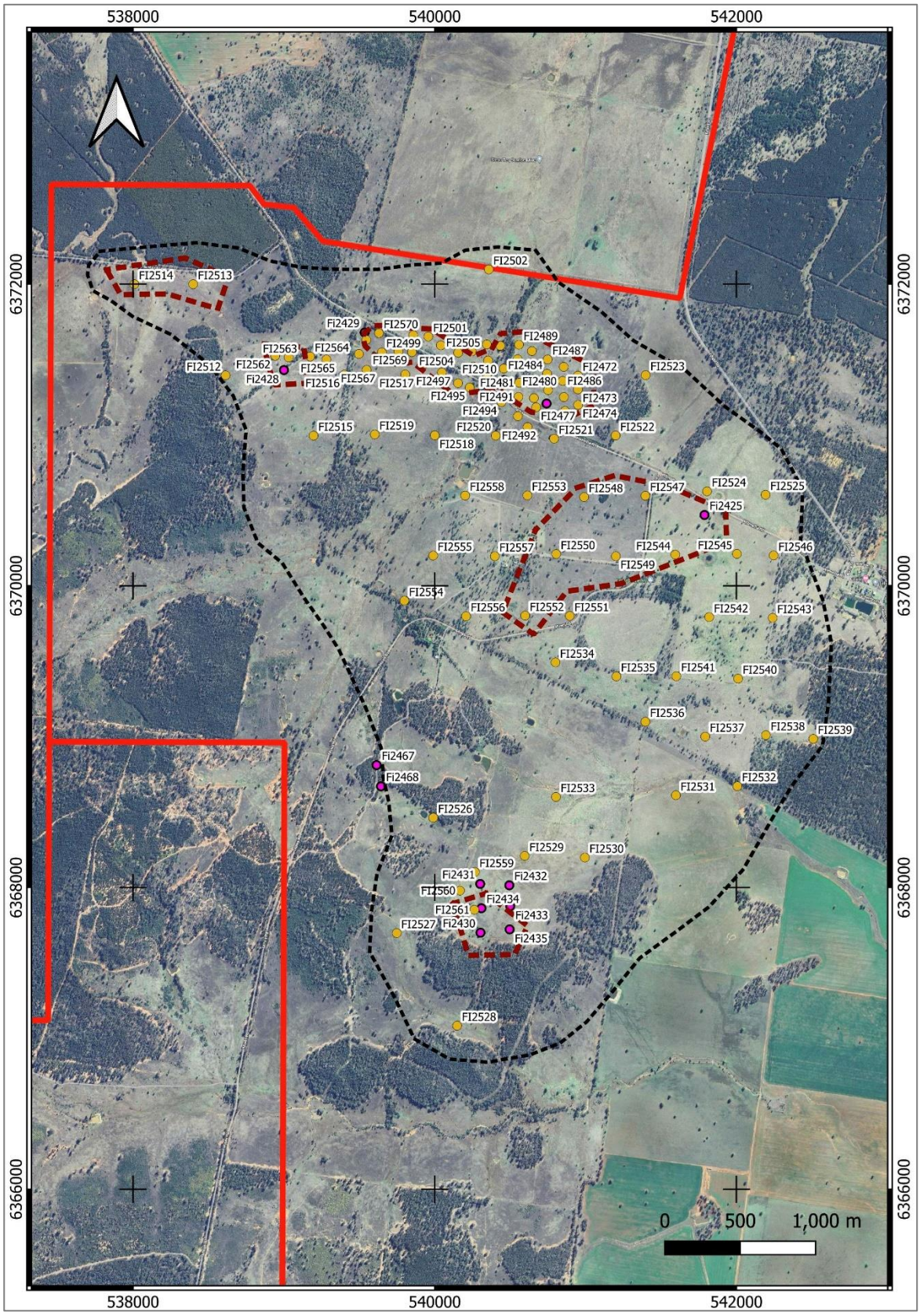


Figure 4: Murga drill collars on aerial photo - max downhole Sc (ppm) & +100ppm Sc zones (red). (ME-ICP61) assay data

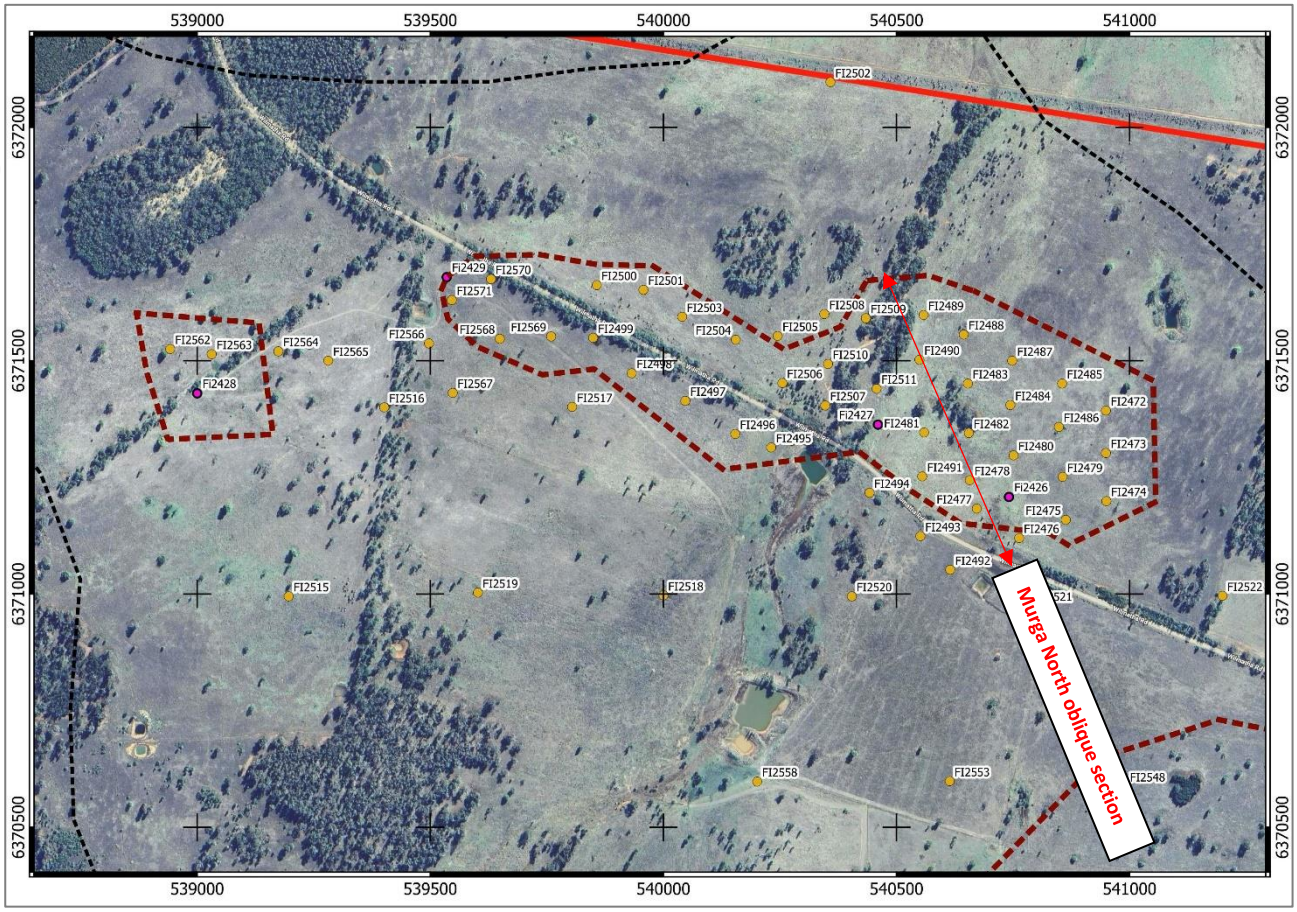


Figure 5: Murga North drill collars on aerial photo - max downhole Sc (ppm) and +100ppm scandium zones (red dashed lines). Section location (Figure 6) shown as red line. (ME-ICP61) assay data

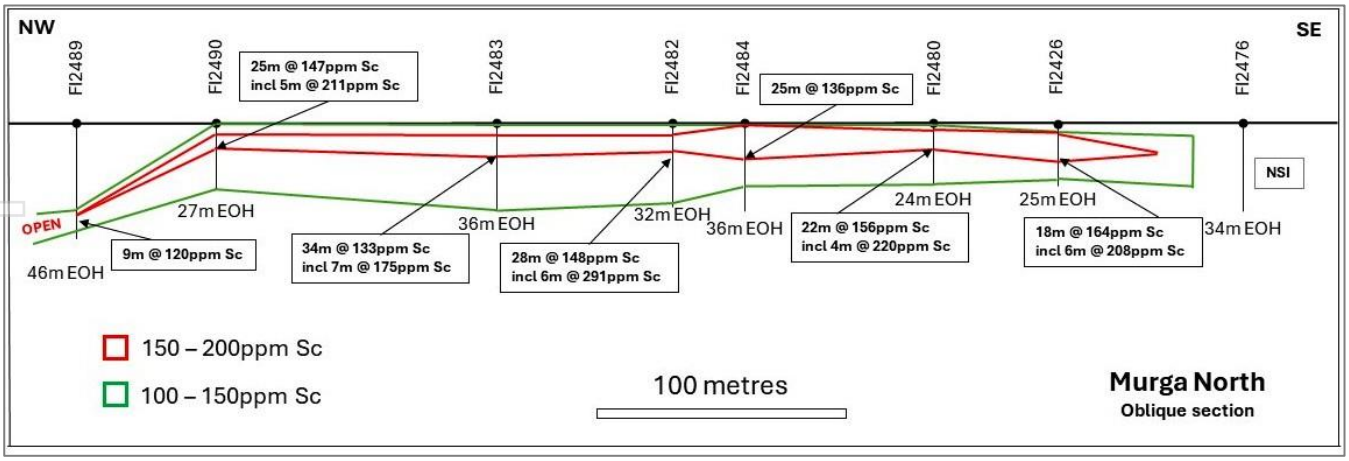


Figure 6: Murga North oblique cross section wit location shown in Figure 5. (ME-ICP61) assay data

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 a comparison between original Sc assay data and new re-assay data that was obtained using the ME-XRF12n laboratory method. The drilling specifications and JORC details of the March 2024 Murga aircore drilling program were originally reported in Rimfire's ASX Announcement dated 6 May 2024. The samples were originally obtained by the Company from an 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 (Sc) using ALS method ME-XRF12n, which is described below; A prepared sample (0.66 g) is fused with a 12:22 lithium tetraborate – lithium metaborate flux which also includes an oxidizing agent (Lithium Nitrate), and then poured into a platinum mold. The resultant disk is in turn analyzed by XRF spectrometry. The XRF analysis is determined in conjunction with a loss-on-ignition at 1000°C. The resulting data from both determinations are combined to produce a "total". The assay data quoted in this Report has been calculated using data obtained from the ME-ICP61 method.

Criteria	JORC Code explanation	Commentary
	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-XRF12n technique.
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).	All holes were drilled using air core drill rig. All 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.

Criteria	JORC Code explanation	Commentary
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 laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The methods used by ALS to analyse the air core samples for precious and base metals are industry standard. The ME-XRF12n method is considered to be a total 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 scandium re-assay results included in this Report were obtained using the ME-XRF12n method and compared to results previously 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	Sample locations are recorded using handheld Garmin GPS with a nominal accuracy +/- 3m.

Criteria	JORC Code explanation	Commentary
	estimation.	
	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 orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Due to the reconnaissance (early stage) nature of 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.
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.

Criteria	JORC Code explanation	Commentary
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%) For the re-assay work, samples that had a scandium grade of +120ppm (as determined using the ME-ICP61 method) were submitted for analysis using the ME-XRF12n method.
	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.
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.

Criteria	JORC Code explanation	Commentary
	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”.