

ASX ANNOUNCEMENT

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Projects:

Fraser Range nickel-copper, gold

Polar Bear gold, nickel

Canyon Creek molybdenum, copper, gold

Youanmi nickel, copper, PGM's

Collurabbie nickel, copper, PGM's



ASSAYS CONFIRM SIGNIFICANT NICKEL AND COPPER IN KEY HOLES AT NOVA

And drilling continues to expand deposit

Sirius Resources NL (**ASX:SIR**) ("**Sirius**" or the "**Company**") advises that assays received for nickel, copper and cobalt from two key drill holes at its Nova nickel-copper deposit confirm the presence of exceptional widths and strong grades of mineralisation.

Preliminary (nickel, copper and cobalt only) results received late on Friday are as follows:

Hole SFRD0039, drilled 55 metres down dip of hole SFRD0037 (13.3m @ 3.9% Ni and 2.0% Cu) on the 600N line, intersected:

- 15.42 metres @ 2.74% nickel, 1.09% copper and 0.09% cobalt from 298.1 metres, including:
- 3.6 metres @ 4.83% nickel, 1.73% copper and 0.15% cobalt from 298.1 metres, and;
- 2.22 metres @ 5.92% nickel, 0.82% copper and 0.19% cobalt from 311.3 metres.

Hole SFRD0041, drilled 40 metres down dip of hole SFRD0039 (described above) also on the 600N line, intersected:

- **35.56 metres @ 3.47% nickel, 1.44% copper and 0.1% cobalt** from 293.4 metres. This bulk intercept comprises two broad zones which each include strongly mineralised cores, as follows:
- 15.43 metres @ 4.72% nickel, 1.98% copper and 0.15% cobalt from 293.4 metres, including;
 - 6.73 metres @ 6.11% nickel, 2.14% copper and 0.19% cobalt from 302.17 metres;
- 7.3 metres @ 4.78% nickel, 2.01% copper and 0.15% cobalt from 321.66 metres, including;
 - 5.02 metres @ 6.11% nickel, 2.57% copper and 0.19% cobalt from 321.66 metres.

In addition to the main zone described above, SFRD0041 also intersected two separate footwall zones comprising 3 metres @ 1.86% nickel, 1.26% copper and 0.06% cobalt from 341 metres and a 0.9 metre zone grading 6.15% nickel, 1.25% copper and 0.19% cobalt.

The assay results reinforce those announced on 18th September and put



beyond doubt the robust nature of the nickel-copper sulphide mineralisation in this part of the Nova deposit (see Table 1 and Figures 1 and 2).

Meanwhile, a further three diamond drill holes have been completed since Friday, as follows:

650N line

Hole SFRD0060, drilled 60 metres down dip from hole SFRD0055 (the 74 metre intersection announced on 26th September) on the 650N infill line, intersected a **70 metre thick zone of mineralisation** comprising:

- 45.4 metres of disseminated sulphides from 341 metres, followed by;
- 13 metres of mainly massive sulphides from 396.4 metres, followed by;
- 8.3 metres of unmineralised rock from 410.5 metres, followed by;
- 3.5 metres of breccia and stringer sulphides from 418.8 metres.

Mineralisation has now been defined over 150 metres down dip on this line (see Figures 1 and 3), and remains open - particularly down dip.

700N line

Hole SFRD0057, drilled 40 metres down dip from hole SFRD0054 (announced on 12th September) on the 700N line, intersected **39.5 metres of mineralisation** comprising:

- 3.3 metres of breccia sulphides from 392.5 metres, followed by;
- 14.7 metres of disseminated and stringer sulphides from 395.8 metres, followed by;
- 13 metres of massive and breccia sulphides from 410.5 metres, followed by;
- 8.5 metres of breccia, stringer and disseminated sulphides from 423.5 metres.

Mineralisation has now been defined over 200 metres down dip on this line (see Figures 1 and 4), and remains open both up and down dip.

800N line

Hole SFRD0059, the first hole to be drilled on the 800N line, intersected:

• 5.74 metres of massive, breccia and stringer sulphides from 416.48 metres.

This hole extends sulphide mineralisation a further 100 metres north and 150 metres northeast down plunge of all previous drilling (see Figure 1).

Diamond drilling of Nova is continuing and RC drilling of Conductor 4 (Nova West) has commenced. Induced polarisation (IP) geophysical surveying is continuing over the entirety of the Eye and regional exploration over other targets has commenced.

Mark Bennett, Managing Director and CEO



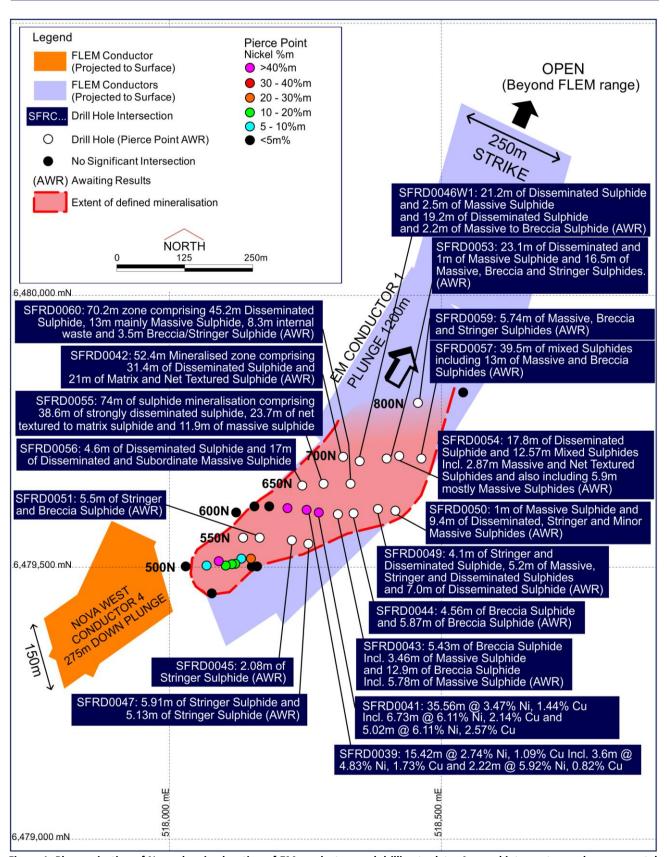


Figure 1. Plan projection of Nova showing location of EM conductors and drilling to date. Assayed intercepts are shown as metal factor (ie, estimated true width x grade, commonly referred to as %metre, %m or metal factor). Visual intercepts (awaiting assays) are shown as descriptive labels. Refer to Table 1 and previous announcements for specific details of assayed intersections.



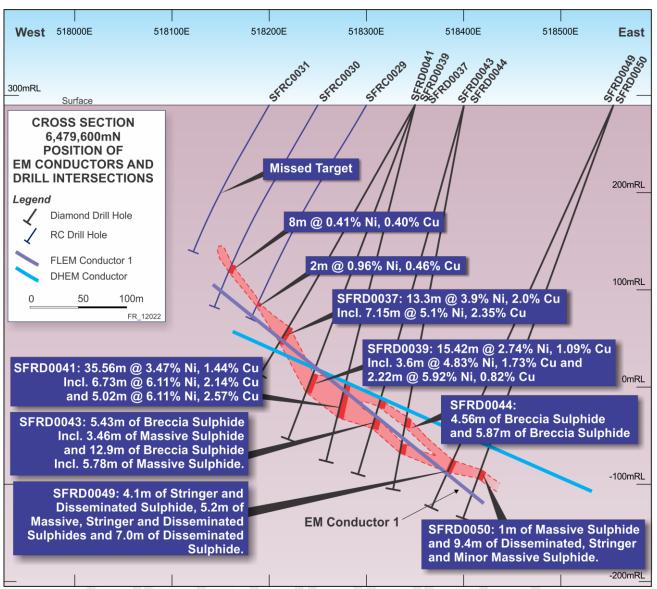


Figure 2. Cross section 600N showing drilling to date, with new assays.

About the Nova nickel discovery

- The Nova deposit is a blind (ie concealed by transported sediments) virgin discovery which vindicates Sirius' exploration methodologies and corporate strategy of identifying high leverage greenfields opportunities in stable jurisdictions.
- It was discovered by Sirius' target identification expertise and systematic use of geological, geophysical and geochemical exploration techniques.
- Based on the size of the associated EM conductor 1 (1,200 x 300 metres) and its close association
 with the nickel-copper mineralisation intersected to date, the Nova deposit could be a very large
 massive nickel-copper sulphide deposit. These deposits can be geometrically complex and our
 understanding of this will evolve with ongoing drilling and EM geophysics.
- The EM conductor that represents the Nova deposit is the first of four EM targets at the Eye nickel-copper prospect to be tested. The others have not yet been drilled but modelling by



Newexco Geophysical Consultants indicates that these also possess response characteristics indicative of massive sulphides.

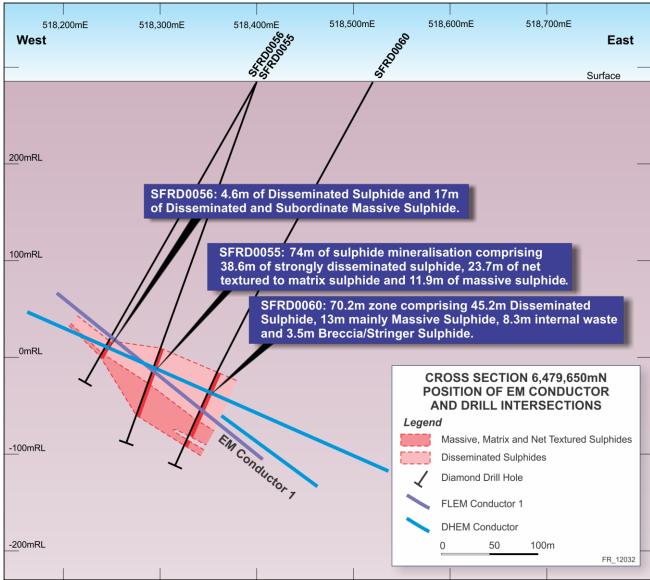


Figure 3. Cross section 650N showing drilling to date.

- The mineralisation comprises pyrrhotite, pentlandite and chalcopyrite within very strongly
 metamorphosed rocks termed granulites. The sulphide minerals are high tenor and will likely
 produce a high value concentrate and the accompanying silicate minerals are likely to be highly
 amenable to conventional separation techniques.
- The sulphides occur in a variety of styles typical of magmatic sulphide deposits. These include massive, matrix, net textured, breccia, blebby and disseminated sulphides.
- The host rock is a hypersthene-augite-garnet-hornblende-labradorite-quartz gneiss interpreted to represent a strongly metamorphosed mafic-ultramafic precursor of predominantly gabbroic composition.



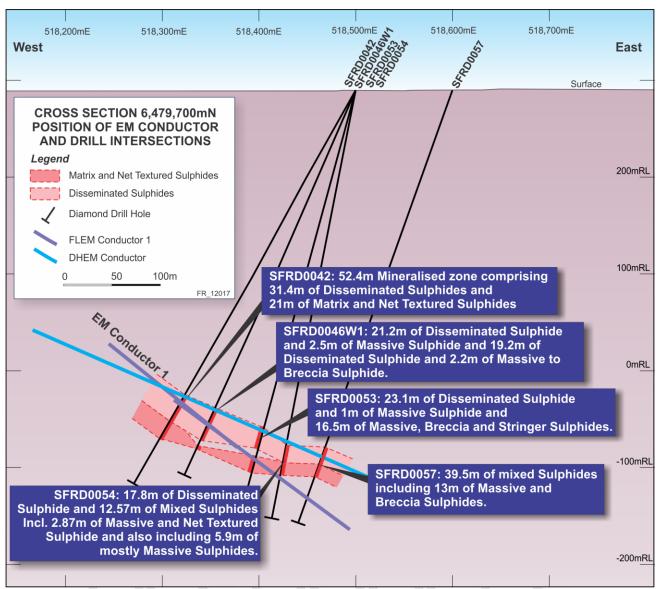


Figure 4. Cross section 700N showing drilling to date.

- The deposit is only 40km north of the Eyre Highway and closer, via sealed road, to the port of Esperance than any operating nickel sulphide mine in Western Australia.
- Planned metallurgical testwork will better quantify the mineralisation in terms of its crushing, grinding and flotation characteristics, the deportment of nickel and copper within the sulphides and the level (if any) of any deleterious or penalty elements in such a concentrate.

About the Fraser Range Joint Venture

The Fraser Range Joint Venture is a joint venture between Sirius Resources (70%) and companies of the Creasy Group (30%), owned by Mark Creasy who is also Sirius' major shareholder through his investment company, Yandal Holdings Pty Ltd.

The joint venture ground covers over 100 strike kilometres of the prospective belt and Sirius, together with various private companies owned by Mark Creasy, control the majority of this new nickel province. Sirius



acknowledges the assistance provided by the WA Government co-funded drilling program, which sponsored a previous reconnaissance drill hole on the project area (see previous ASX announcements).

| Hole No. | North | East | Dip | Azim | From, m | To, m | Width m | Grade, % |
|---|-----------|---------------|----------------|-----------------|---------------------|--|---|--|
| SFRC0024 | 6479500 | 518210 | 60 | 270 | 174 | 175 | 1 | 0.76% Ni, 1.36% Cu, 0.03% Co, 4.0g/t Ag, 23ppb Au, 25ppb Pd, 6ppb Pt |
| | | | 178 | 181 | 3 | 0.31% Ni, 0.68% Cu, 0.01% Co, 1.4g/t Ag, 21ppb Au, 20ppb Pd, 10ppb Pt | | |
| | | | 191 | 195 | 4 | 4.02% Ni, 1.41% Cu, 0.12% Co, 2.2g/t Ag, 44ppb Au, 68ppb Pd, 32ppb Pt | | |
| SFRC0025 | 6479500 | 518080 | 60 | 270 | - | - | - | Missed target |
| SFRC0026 | 6479500 | 518140 | 60 | 270 | 123 | 136 | 13 | 4.30% Ni, 1.83% Cu, 0.12% Co, 3.1g/t Ag, 36ppb Au, 90ppb Pd, 76ppb Pt |
| Including | | | | | 128 | 136 | 8 | 5.81% Ni, 2.26% Cu, 0.16% Co, 3.7g/t Ag, 39ppb Au, 0.12g/t Pd, 0.12g/t Pt |
| SFRC0027 | 6479500 | 518250 | 60 | 270 | 229 | 238 | 9 | 1.48% Ni, 0.86% Cu, 0.05% Co, 2.5g/t Ag, 0.15g/t Au |
| | Including | | | | | 232 | 3 | 1.45% Cu, 0.4% Ni, 4.9g/t Ag, 0.34g/t Au |
| | And | | | | | 238 | 6 | 1.84% Ni, 0.57% Cu |
| | | luding | | | 236 | 237 | 1 | 4.70% Ni, 0.40% Cu, 0.12% Co |
| SFRC0028 | 6479450 | 518140 | 60 | 270 | 116 | 120 | 4 | 0.48% Ni, 0.38% Cu, 0.02% Co, 0.09g/t Ag |
| And | | | | | 156 | 164 | 8 | 0.25% Ni, 0.22% Cu, 1.5g/t Ag |
| SFRC0029 | 6479600 | 518300 | 60 | 270 | 234 | 236 | 2 | 0.96% Ni, 0.46% Cu, 1.3g/t Ag |
| SFRC0030 | 6479600 | 518250 | 60 | 270 | 188 | 196 | 8 | 0.41% Ni, 0.40% Cu, 0.02% Co, 1.78g/t Ag |
| SFRC0031 | 6479600 | 518200 | 60 | 270 | - | /- | | Missed target |
| SFRC0032 | 6479500 | 518085 | 75 | 270 | 60 | 64 | 4 | 1.47% Ni, 0.17% Cu, 0.05% Co, 0.25g/t Ag |
| and | | | | | 80 | 82 | 2 | 2.11% Ni, 1.12% Cu, 0.07% Co, 4.25g/t Ag |
| SFRC0033 | 6479500 | 518155 | 75 | 270 | 165 | 171 | 6 | 3.16% Ni, 0.49% Cu, 0.10% Co, 1.12g/t Ag |
| SFRC0034 | 6479500 | 518230 | 60 | 270 | 200 | 204 | 4 | 0.22% Ni, 1.07% Cu, 0.01% Co, 2.8g/t Ag |
| And | | | | | 212 | 219 | 7 | 1.27% Ni, 0.35% Cu, 0.04% Co, 0.84g/t Ag |
| Including | | | | | 216 | 219 | 3 | 2.63% Ni, 0.45% Cu, 0.08% Co, 1.13g/t Ag |
| And | | | | 220 | 224 | 4 | 0.18% Ni, 0.47% Cu, 1.1g/t Ag | |
| SFRD0035 | 6479500 | 518155 | 70 | 270 | 146.70 | 152.90 | 6.20 | 1.68% Ni, 0.36% Cu, 0.05% Co, 0.3g/t Ag |
| Including | | | | 149.20 | 152.90 | 2.90 | 2.52% Ni, 0.44% Cu, 0.08% Co, 0.5g/t Ag | |
| SFRC0036 | 6479800 | 518500 | 90 | n/a | n/a | n/a | n/a | abandoned |
| SFRD0037 | 6479600 | 518300 and | 60 | 270 | 263.90 | 268.40 | 4.50 | 0.23% Ni, 1.16% Cu, 0.01% Co, 3.9g/t Ag |
| | | | 268.40 | 281.70 | 13.30 | 3.9% Ni, 2.0% Cu, 0.12% Co, 3.7g/t Ag | | |
| 65000000 | | luding | | 270 | 271.90 | 279.00 | 7.10 | 5.1% Ni, 2.36% Cu, 0.15% Co, 4.0g/t Ag |
| SFRD0037 | 6479600 | 518300 | 60 | 270 | 263.90 | 268.40 | 4.50 | 0.23% Ni, 1.16% Cu, 0.01% Co, 3.9g/t Ag |
| SFRD0038 | 6479500 | 518300 | 70 | 270 | 285.4 | 286.1 | 0.7 | 2.85% Ni, 0.33% Cu, 0.08% Co |
| SFRD0039 | 6479600 | 518350 And | 69 | 270 | 270.0 | 271.0 | 1.0 | 1.71% Ni, 0.51% Cu, 0.06% Co |
| | | | 272.97 | 273.24 | 0.27 | 6.58% NI, 0.98% Cu, 0.21% Co | | |
| | | | 298.1 | 313.52 301.7 | 15.42 3.6 | 2.74% Ni, 1.09% Cu, 0.09% Co | | |
| | | | 298.1 311.3 | 301.7 | 2.2 | 4.83% Ni, 1.73% Cu, 0.15% Co 5.92% Ni, 0.82% Cu, 0.19% Co | | |
| SFRD0041 | 76 | 270 | 293.4 | 313.5 | 35.6 | 3.47% NI, 1.44% Cu, 0.10% Co | | |
| SFRD0041 6479600 518350 76 270 Including | | | | | 293.4 | 329.0 | 35.6 15.5 | 3.47% NI, 1.44% CU, 0.10% CO 4.72% NI, 1.98% Cu, 0.15% Co |
| | | | 302.17 | 308.9 | 6.73 | 4.72% NI, 1.98% CU, 0.15% CO 6.11% Ni, 2.14% Cu, 0.19% Co | | |
| | | | 302.17 | 308.9 | 5.02 | 6.11% NI, 2.14% Cu, 0.19% Co | | |
| | | | 341.0 | 344.0 | 3.0 | | | |
| | | | | | 0.9 | 1.86% Ni, 1.26% Cu, 0.05% Co | | |
| | | | 349.6 | 250.5 | 0.9 | 6.15% Ni, 1.25% Cu, 0.19% Co | | |

Table 1. Drill results at the Nova deposit based on assayed intersections. Visual estimates are not included here until assays are received.

Competent Persons statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Dr Mark Bennett, who is an employee of the company. Dr Bennett is a Member of the Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2004 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Bennett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Exploration results are based on standard industry practices, including sampling, assay methods, and appropriate quality assurance quality control (QAQC) measures. Reverse circulation (RC), aircore (AC) and rotary air blast (RAB) drilling samples are collected as composite samples of 4 or 2



metres and as 1 metre splits (stated in results). Mineralised intersections derived from composite samples are subsequently re-split to 1 metre samples to better define grade distribution. Core samples are taken as half NQ core or quarter HQ core and sampled to geological boundaries where appropriate. For soil samples, PGM and gold assays are based on an aqua regia digest with Inductively Coupled Plasma (ICP) finish and base metal assays may be based on aqua regia or four acid digest with inductively coupled plasma optical emission spectrometry (ICPOES) or atomic absorption spectrometry (AAS) finish. In the case of reconnaissance RAB, AC, RC or rock chip samples, PGM and gold assays are based on lead or nickel sulphide collection fire assay digests with an ICP finish, base metal assays are based on a four acid digest and inductively coupled plasma optical emission spectrometry (ICPOES) and atomic absorption spectrometry (AAS) finish, and where appropriate, oxide metal elements such as Fe, Ti and Cr are based on a lithium borate fusion digest and X-ray fluorescence (XRF) finish. For strongly mineralised RC or core samples, base metal assays are based on a high precision four acid digest and AAS finish, sulphur is analysed on a special purpose carbon sulphur analyser and precious metals are based on a fire assay digest and an ICPOES finish. Sample preparation and analysis is undertaken at Genalysis Intertek and Ultratrace laboratories in Perth, Western Australia.

The quality of RC drilling samples is optimised by the use of riffle and/or cone splitters, dust collectors, logging of various criteria designed to record sample size, recovery and contamination, and use of field duplicates to measure sample representivity. The quality of analytical results is monitored by the use of internal laboratory procedures together with certified standards, duplicates and blanks and statistical analysis where appropriate to ensure that results are representative and within acceptable ranges of accuracy and precision. Exploration results obtained by other companies and quoted by Sirius have not necessarily been obtained using the same methods or subjected to the same QAQC protocols. These results may not have been independently verified because original samples and/or data may no longer be available.

Where quoted, nickel-copper intersections are based on a minimum threshold grade of 0.5% Ni and/or Cu, gold intersections are based on a minimum gold threshold grade of 0.1g/t Au unless otherwise stated. Sulphide intersections are length and density weighted as per standard industry practice. Sample and drill hole co-ordinates are based on the GDA/MGA grid and datum unless otherwise stated.

