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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



## NOVA DRILLING UPDATE

Sirius Resources NL (**ASX:SIR**) ("**Sirius**" or the "**Company**") advises that a further two diamond drill holes have been completed at its Nova nickel-copper discovery. Details follow, and are summarised in Figure 1:

Hole SFRD0046W1, drilled 40 metres down dip from hole SFRD0042 (announced on 10<sup>th</sup> September) on the northernmost drill line (700N) intersected:

- An upper zone comprising 21.2 metres of disseminated sulphides and 2.5 metres of massive sulphides from 343.6 metres.
- A second zone of 19.2 metres of disseminated sulphides from 367.3 metres.
- A third zone of 2.2 metres of massive sulphides from 402.8 metres.

Together, this hole and SFRD0046W1 have defined a thick (40-50 metre) zone of mineralisation including massive, matrix, net textured and disseminated sulphides where predicted by the EM model. Drilling is continuing on this line (700N), with several more holes planned.

Hole SFRD0047, the second hole drilled on the 550N infill line towards the southern end of the target, intersected:

- An upper zone of 5.91 metres of stringer sulphides from 266.76 metres.
- A lower zone of 5.13 metres of stringer sulphides from 296.11 metres.

The remainder of this line will be drilled during the coming week.

Drilling on the next stepout line (800N) will also commence late next week following the completion of a down hole electromagnetic (DHEM) geophysical survey.

Assay results for the first of the thick sulphide intercepts on the 600N line are also expected late next week.



**Mark Bennett, Managing Director and CEO**

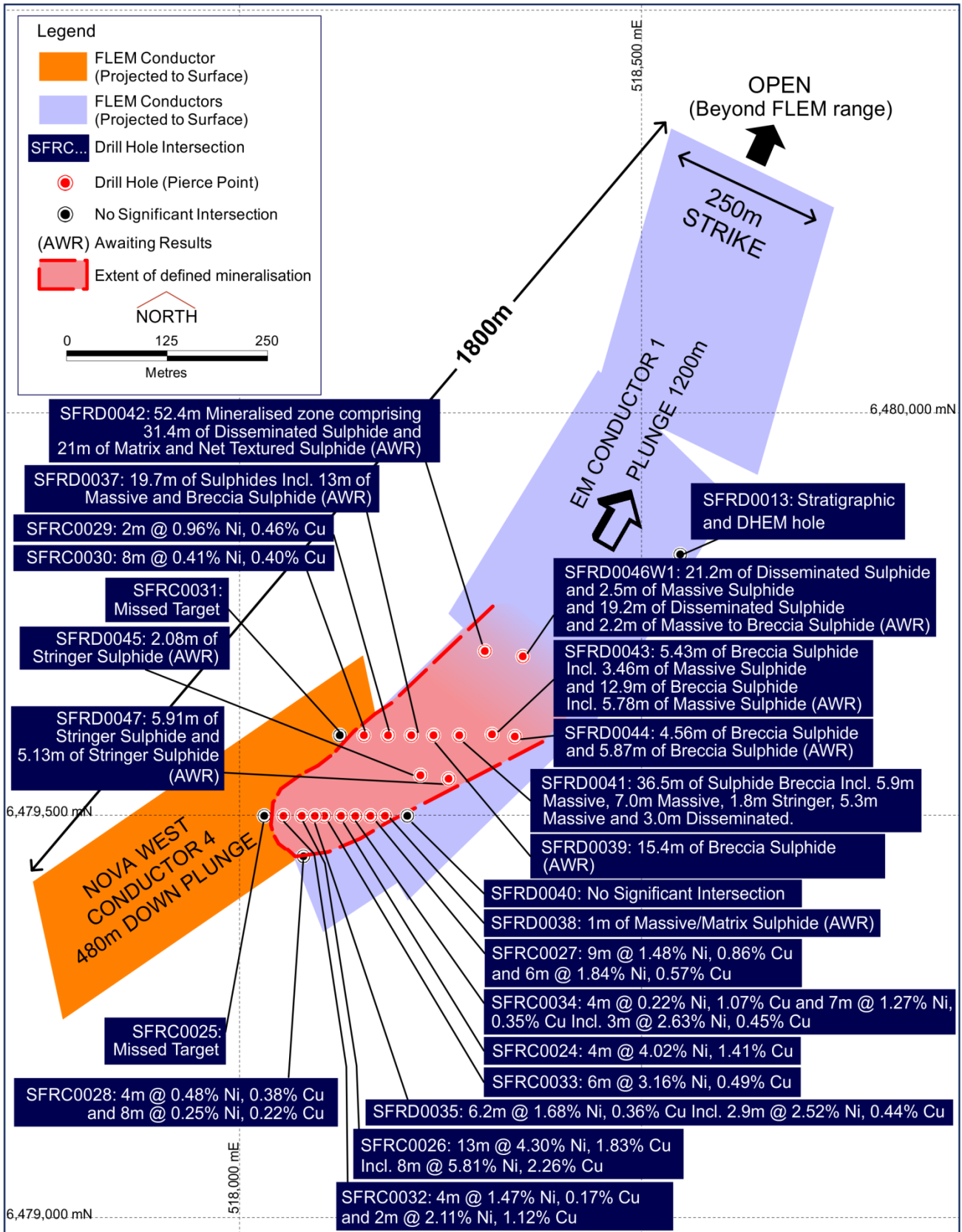


Figure 1. Plan projection of Nova showing location of EM conductors and drilling to date, with assays (where received) and visual intercepts (where assays awaited).

### **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.
- 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.
- 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
And					178	181	3	0.31% Ni, 0.68% Cu, 0.01% Co, 1.4g/t Ag, 21ppb Au, 20ppb Pd, 10ppb Pt
And					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	<b>4.30% Ni, 1.83% Cu, 0.12% Co, 3.1g/t Ag, 36ppb Au, 90ppb Pd, 76ppb Pt</b>
Including					128	136	8	<b>5.81% Ni, 2.26% Cu, 0.16% Co, 3.7g/t Ag, 39ppb Au, 0.12g/t Pd, 0.12g/t Pt</b>
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					229	232	3	1.45% Cu, 0.4% Ni, 4.9g/t Ag, 0.34g/t Au
And					232	238	6	1.84% Ni, 0.57% Cu
Including					236	237	1	4.70% Ni, 0.40% Cu, 0.12% Co
SFRC0028	6479450		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	<b>3.16% Ni, 0.49% Cu, 0.10% Co, 1.12g/t Ag</b>
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	<b>2.63% Ni, 0.45% Cu, 0.08% Co, 1.13g/t Ag</b>
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	<b>2.52% Ni, 0.44% Cu, 0.08% Co, 0.5g/t Ag</b>

**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. 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 0.3% Ni and 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.