

SIRIUS RESOURCES NL
ASX: SIR
ABN: 46 009 150 083

 Unit 5, 5 Mumford Place,
 Balcatta 6021,
 Western Australia

 PO Box 1011
 Balcatta 6914,
 Western Australia

 Telephone +61 8 9240 8914
 Facsimile +61 8 9240 8915

admin@siriusresources.com.au
www.siriusresources.com.au
Contact

 Mark Bennett, Managing Director
 +61(0)407 470 648

Fraser Range:

Gold, base metals

Polar Bear:

Nickel, gold

Youanmi:

Nickel, copper-zinc, PGM's

Lawlers:

Nickel

Collurabbee:

Nickel, copper, PGM's



NICKEL SULPHIDES INTERSECTED IN FIRST DRILLING AT POLAR BEAR PROJECT, WA

Gold mineralisation also intersected

Sirius Resources (**ASX:SIR**) is pleased to advise that it has intersected disseminated nickel sulphide mineralisation in four holes drilled as part of its first reconnaissance aircore drilling program at its 100 per cent-owned Polar Bear project in Western Australia.

These intersections are from the first batch of results received from holes drilled in the vicinity of the nickel sulphide gossans reported in previous ASX announcements. The holes terminated at shallow depths so the thickness and extent of the mineralisation is not yet known. Details are given in Figure 1 and Table 1 and key intersections are summarised below:

- **9m @ 0.81% Ni and 0.2% Cu from 2m to the end of hole**, including **1m @ 1.08% Ni and 0.31% Cu** from 3m in hole SPBA0005 at Halls Knoll.
- **12m @ 0.69% Ni and 0.32% Cu from 16m to the end of hole**, including **4m @ 1.06% Ni and 0.74% Cu from 24m to the end of hole** in SPBA0024, 115m northwest of SPBA0005.
- **3m @ 0.55% Ni from 3m to the end of hole**, including **1m @ 0.82% Ni and 0.15% Cu from 5m to the end of hole** in SPBA0039, 300m northwest of SPBA0024. The hole *terminated in gossanous material grading 0.91% Ni and 1.0% Cu*.

Aircore drilling is designed primarily for weathered rock and overburden, so the presence of relatively fresh rock and hard gossan just a few metres below the lake surface prevented the holes from reaching their intended target depths. Therefore, the full width and extent of the mineralisation intersected in drilling is unknown at this stage.

These intersections are within ultramafic rock containing disseminated sulphides and gossanous material. This, together with the high copper values, indicates that the intersections are real (ie, magmatic sulphides) and not just a result of enrichment of nickel in the weathered zone.

Mineralised intervals are to be re-assayed as one metre split samples for better definition of grade distribution and also assayed for platinum group metals (PGM's), which are known to be highly enriched in the nearby gossan outcrops at Halls Knoll and Dundas Island (see previous ASX releases). The re-split assays and PGM values from these zones will be reported separately as results come to hand.

Results are awaited for a number of other holes drilled in this program (*see Figure 1*), but many of these are not necessarily expected to contain significant nickel mineralisation because they were drilled as part of a systematic program designed to map the distribution of the ultramafic rock beneath the lake sediments and not to test specific target zones.

The results reaffirm the prospectivity of the Halls Knoll area. Showings of nickel mineralisation, as disseminated sulphides and gossans derived from massive sulphides, have now been identified along a 1km-long corridor beneath shallow salt lake sediments (*see Figure 1*). Zones of disseminated nickel sulphides often form larger halos surrounding smaller, higher grade massive sulphide orebodies, so defining the extent of the disseminated mineralisation is an important first step in the exploration for these deposits. A lot more drilling will therefore be required to scope out the extent of these disseminated zones to provide vectors to any higher grade zones of matrix and/or massive sulphides.

Sirius will commence a diamond drilling program as soon as possible to pursue this objective.

Gold mineralisation also intersected at Yogi

In addition to the nickel focussed drilling, two lines of holes were drilled to test selected gold targets (*see Figure 1*). Results have been received for the first two of these holes which were prioritised for assaying on the basis of alteration and quartz veining seen in geological logging (*see Table 2*). Two of these holes intersected low-grade gold mineralisation at the Yogi target, as follows:

- **28m @ 0.25g/t Au from 2m to the end of hole**, including 4m @ 0.61g/t Au from 12m in hole SPBA0056.
- **8m @ 0.4g/t Au** from 4m in hole SPBA0054.

These gold intersections occur within a broader halo of anomalous arsenic (1,000-2,700ppm As) which is typical of many West Australian gold deposits. Arsenic is formed by the same process as the gold mineralisation and is often used as a pathfinder for shear zone-hosted gold mineralisation. The presence of such high concentrations of gold and arsenic on an interpreted shear zone is therefore an encouraging sign. The next round of drilling will continue to scope out these mineralised trends.

The area is prospective for gold because it is located on the Higginsville gold trend, which contains Avoca's Trident mine along strike to the northwest.

Further gold reconnaissance drilling will continue in parallel with the next nickel drilling program, as soon as a rig becomes available.



Mark Bennett, Managing Director and CEO

For further information:

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|---------------------------------------|------------|---------------------------|------------|---------------------------|
| Mark Bennett, Sirius Resources | Tel | +61 (0)8 9240 8914 | Mob | +61 (0)407 470 648 |
| Nicholas Read, Read Corporate | Tel | +61 (0)8 9388 1474 | Mob | +61 (0)419 929 046 |

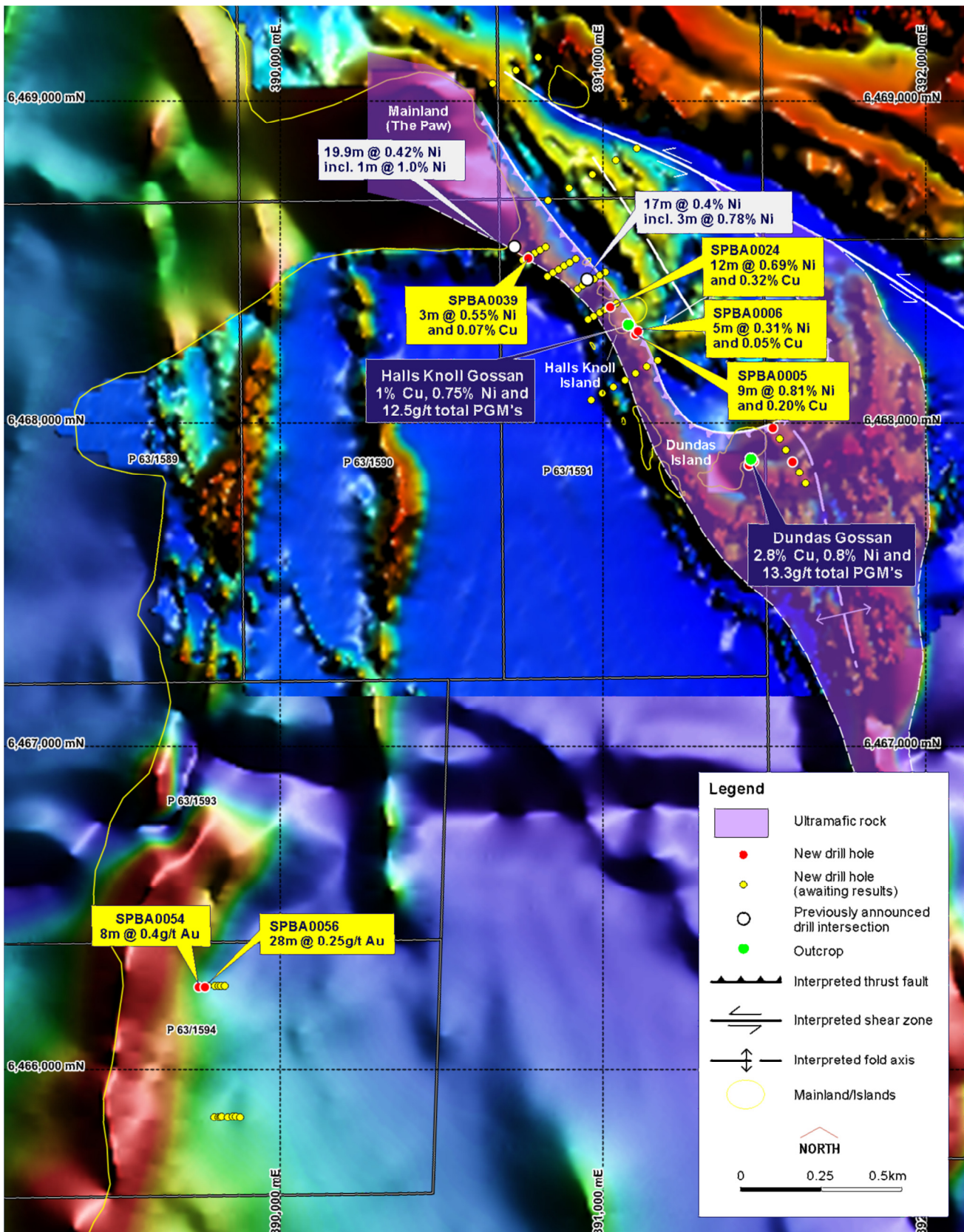


Figure 1. Location of new drill intersections relative to known nickel gossans and previous drill intersections.

| Drillhole | Northing | Easting | Dip | Azimuth | From, m | To, m | Width, m | Ni, % | Cu, % | Comments |
|-----------|----------|---------|-----|---------|---------|-------|----------|-------|-------|---|
| SPBA0001 | 6467881 | 391460 | -60 | 320° | NSA | NSA | NSA | NSA | NSA | EOH @ 8m in mafics |
| SPBA0002 | 6467876 | 391452 | -60 | 320° | NSA | NSA | NSA | NSA | NSA | EOH @ 6m in ultramafic |
| SPBA0003 | 6467887 | 391467 | -60 | 320° | NSA | NSA | NSA | NSA | NSA | EOH @ 7m in ultramafic |
| SPBA0004 | 6467889 | 391457 | -60 | 320° | NSA | NSA | NSA | NSA | NSA | EOH @ 3m in ultramafic |
| SPBA0005 | 6468280 | 391101 | -60 | 035° | 2 | 11 | 9 | 0.81 | 0.20 | EOH @ 11m in ultramafic & disseminated sulphide |
| SPBA0006 | 6468290 | 391108 | -60 | 215° | 4 | 9 | 5 | 0.31 | 0.05 | Ultramafic to 9m |
| SPBA0015 | 6467988 | 391526 | -60 | 330° | NSA | NSA | NSA | NSA | NSA | Black shale to 9m and ultramafic to EOH @ 19m |
| SPBA0018 | 6467885 | 391588 | -60 | 330° | NSA | NSA | NSA | NSA | NSA | EOH @ 8m in ultramafic |
| SPBA0024 | 6468364 | 391022 | -60 | 240° | 16 | 28 | 12 | 0.69 | 0.32 | EOH @ 28m in ultramafic & disseminated sulphides |
| SPBA0039 | 6468515 | 390770 | -60 | 240° | 3 | 6 | 3 | 0.55 | 0.07 | EOH @ 6m in gossanous ultramafic |
| SPBA0070 | 6472158 | 391082 | -60 | 240° | NSA | NSA | NSA | NSA | NSA | EOH @ 95m in ultramafic |
| SPBA0075 | 6472231 | 391204 | -60 | 240° | NSA | NSA | NSA | NSA | NSA | EOH @ 21m in ultramafic |

Table 1. Results received for aircore drillholes testing nickel targets. All co-ordinates are GDA. EOH denotes end of hole.

| Drillhole | Northing | Easting | Dip | Azimuth | From, m | To, m | Width, m | Au, g/t | Comments |
|-----------|----------|---------|-----|---------|---------|-------|----------|---------|--------------------------------------|
| SPBA0054 | 6466258 | 389749 | -60 | 270° | 4 | 12 | 8 | 0.40 | EOH @ 13m in fresh mafics |
| SPBA0056 | 6466258 | 389768 | -60 | 270° | 2 | 30 | 28 | 0.25 | Quart veined weathered mafics |

Table 2. Results received for aircore drillholes testing gold targets. All co-ordinates are GDA. EOH denotes end of hole.

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 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 rockchip 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. Mineral Resources, if stated, have been estimated using standard accepted industry practices, as described in each instance. Top cuts have been applied to the composites based on statistical analysis and consideration of the nature and style of mineralization in all cases. Where quoted, Mineral Resource tonnes and grade, and contained metal, are rounded to appropriate levels of precision, which may cause minor apparent computational errors. Mineral Resources are classified on the basis of drillhole spacing, geological continuity and predictability, geostatistical analysis of grade variability, sampling analytical spatial and density QAQC criteria, demonstrated amenability of mineralization style to proposed processing methods, and assessment of economic criteria.