EXPLORATION UPDATE

Key points

- **More nickel sulphide mineralisation intersected at Gwardar, Polar Bear, including 8.06 metres @ 1.33% nickel and 0.22% copper**
- **Exploration commenced on S2's Fraser Range project**
- **New exploration ground pegged over nickel sulphide targets on western edge of Yilgarn Craton, WA**

S2 Resources Ltd ("S2" or the "Company") advises that low cost exploration and project generation work is proceeding in Western Australia ("WA"), where its activities are not currently impacted by any COVID-19 pandemic countermeasures. The Company has received additional results from nickel drilling at its Gwardar prospect, (where it owns 100% of the nickel rights), has commenced reconnaissance exploration on its newly granted Fraser Range ground, and has applied for several large exploration licences over nickel sulphide targets recently identified along the western margin of the Yilgarn Craton in WA.

Polar Bear (100% nickel rights)

Assay results have been received from the second of two WA Government co-funded holes drilled at the Gwardar prospect in February. Hole SPBD0365 intersected numerous zones of disseminated nickel sulphides, including:

- **24.68m @ 0.88% nickel** from 241.0 metres, including **8.06 metres @ 1.33% nickel** from 241.94 metres, associated with a hangingwall cumulate ultramafic flow above the main basal flow unit,
- 6.00 metres @ 0.43% nickel from 292.00 metres
- 7.82 metres @ 0.61% nickel from 306.00 metres on the basal contact of the ultramafic package, and
- 3.13 metres @ 0.58% nickel from 348.87 metres within remobilised stringer mineralisation in the footwall rocks

These results extend the mineralisation defined by hole SPBD0364 located approximately 100 metres south along strike, which intersected numerous 1-5 metre wide intervals of disseminated nickel sulphide mineralisation and 1.63 metres of massive sulphide grading 2.22% nickel (refer to S2 ASX announcement dated 18 March 2020), and also extend the mineralised zone 100 metres down plunge from previous hole SPBD360, which intersected a broad disseminated sulphide zone (17.83 metres @ 0.69% nickel) with several narrower, higher grade intervals including 0.75 metres @ 2.41% nickel, 0.68 metres @ 3.31% nickel and 3.33 metres @ 1.38% nickel (refer to S2 ASX announcement dated 22 July 2019).

Of particular interest is that the high tenor disseminated mineralisation in hole SPBD0365 is primarily located within a hangingwall flow, indicating the presence of multiple mineralised horizons at Gwardar (see Figure 1).

Drilling has now defined a 100 metre thick nickel sulphide mineralised lava channel comprising multiple mineralised flows over a strike width of ~150 metres and at least 400 metres plunge extent, with the channel remaining open down plunge from deepest drilling. Such a large volume of mineralised ultramafic attests to the fertility and potential of this area, which is the strike continuation of the Widgiemooltha ultramafic package that hosts Mincor's Cassini nickel discovery further to the north.

Fraser Range (100%)

Exploration has commenced at the Fraser Range project, where two of the Company's three Exploration Licences have been granted. The granted tenements are considered prospective for magmatic nickel sulphides, being located between IGO's Nova Nickel Mine, approximately 80 kilometres to the southwest, and Legend Mining's recent Mawson discovery (refer to LEG ASX release dated 31 March 2020), approximately 70 kilometres to the northeast, and being surrounded by IGO, Mark Creasy and Legend (see Figure 2).

The granted tenements are situated in an area of extensive transported cover, obscuring the underlying prospective geology, and a review of limited historical exploration indicates there has been very little effective prior exploration within the company's landholdings.

Geological and geophysical mapping and a passive seismic survey is underway with the aim of determining the depth of transported cover prior to planning reconnaissance moving loop electromagnetic (MLEM) surveys over areas considered prospective for Nova-style nickel and palaeochannel-hosted gold.

New exploration initiatives (100%)

The company has recently applied for a number of exploration licenses along the western margin of the Yilgarn craton in Western Australia, including:

- Two exploration licenses, covering an area of approximately 350 square kilometres at the **Three Springs** project, located approximately 250 kilometres north of Perth, and
- Three exploration licenses, covering an area of approximately 690 square kilometres at the **West Murchison** project, located approximately 500 kilometres north of Perth

These areas were identified as having prospectivity for magmatic nickel-copper-cobalt-PGE style mineralisation on the basis of the interpreted presence of unexplored mafic-ultramafic intrusions within predominantly granite-gneiss terrain along the western edge of the Archaean Yilgarn Craton (see Figure 3). Regional government (GSWA) mapping has identified mafic-ultramafic intrusive rocks, and regional aeromagnetics indicates these intrusives may be considerably more extensive than previously thought due to the bodies being buried beneath younger transported cover. Chalice Gold's recent Julimar nickel-copper-PGE discovery further south attests to the potential of this margin.

A review of open file exploration reports indicates the there has been no meaningful historical exploration for nickel sulphide mineralisation within the project areas.

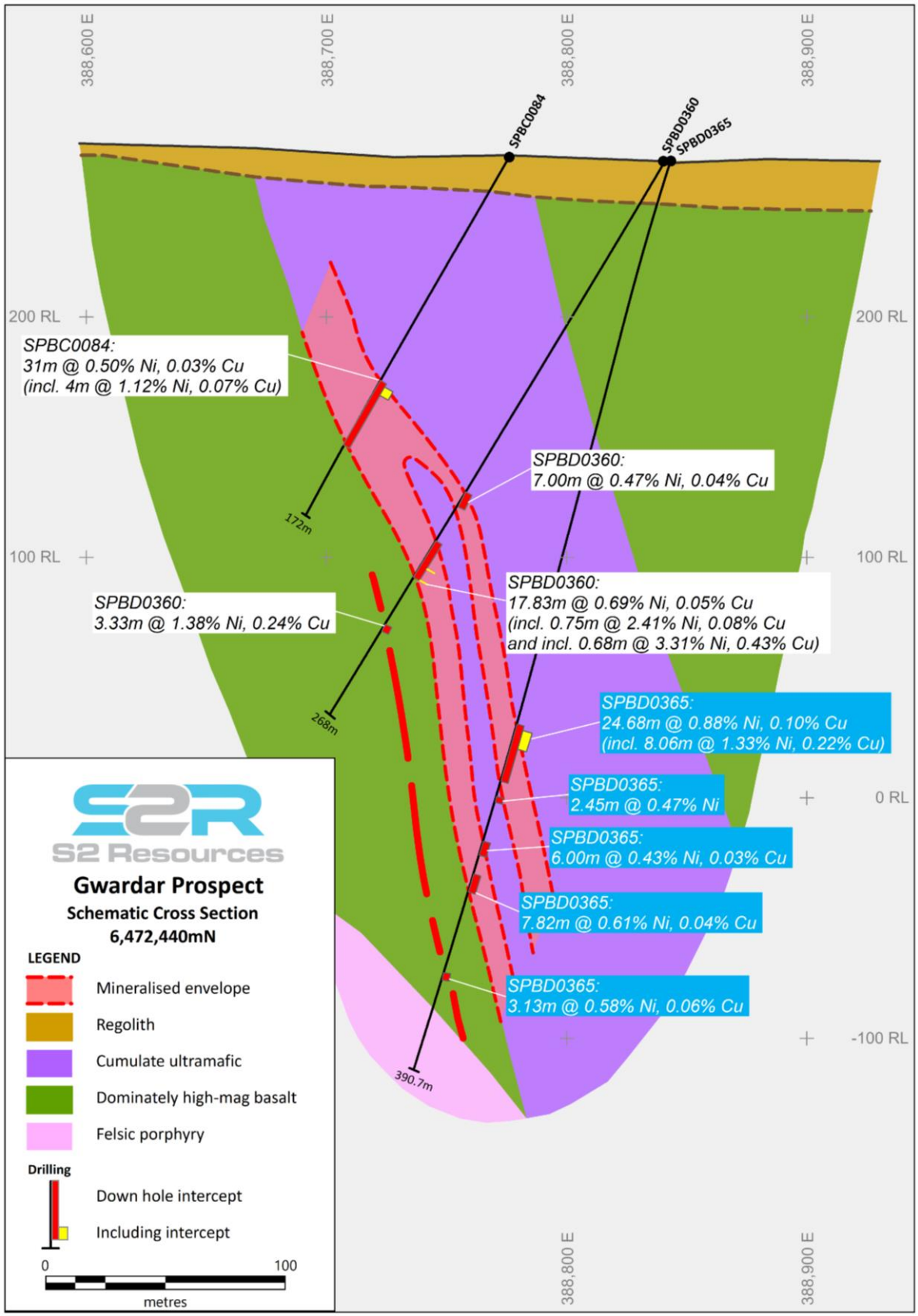

Figure 1: Cross section 6,472,440mN of Gwardar prospect, showing drill hole SPBD0365 relative to earlier drilling.

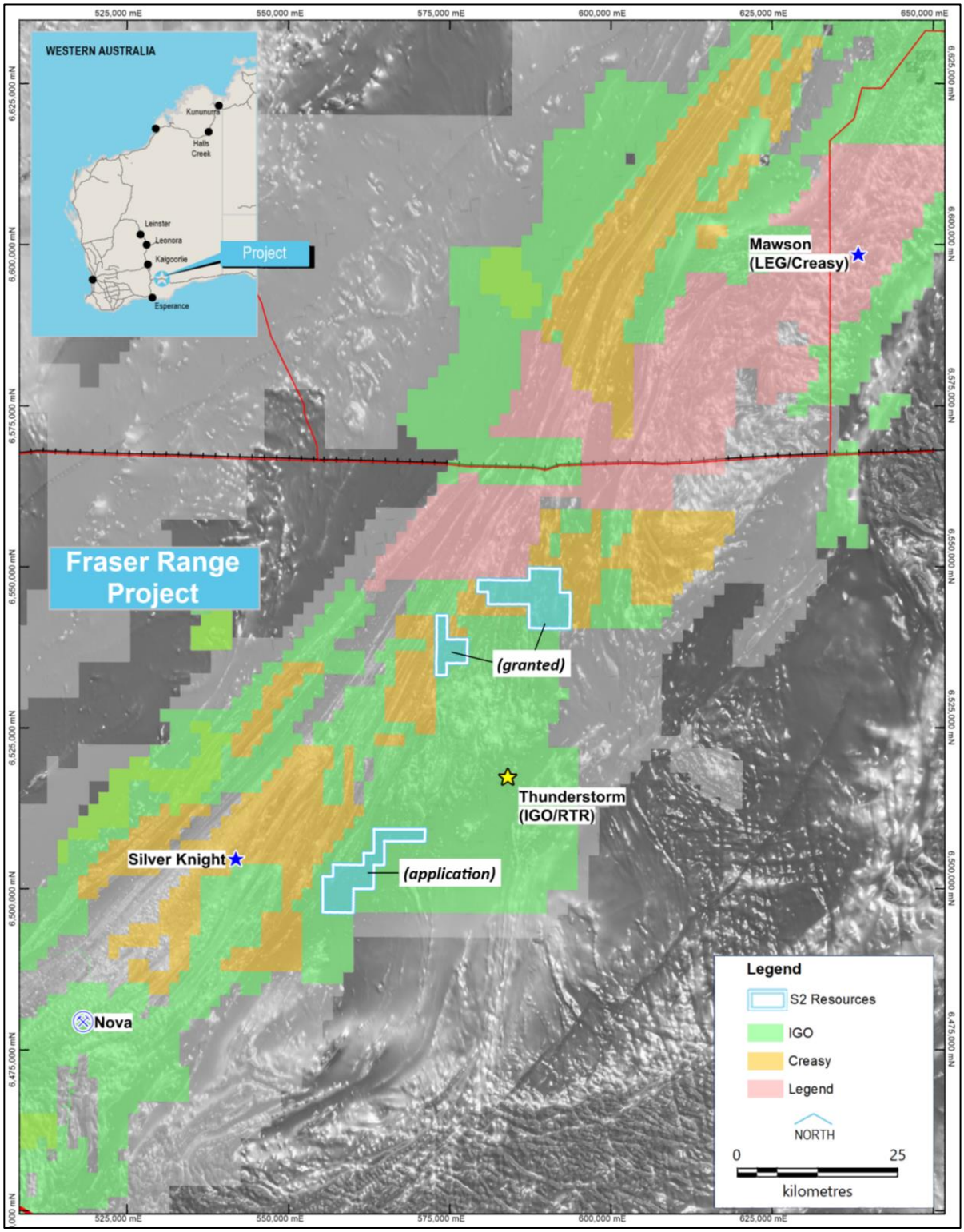

Figure 2: Fraser Range showing S2 and competitor tenure and known mines/prospects over aeromagnetics.

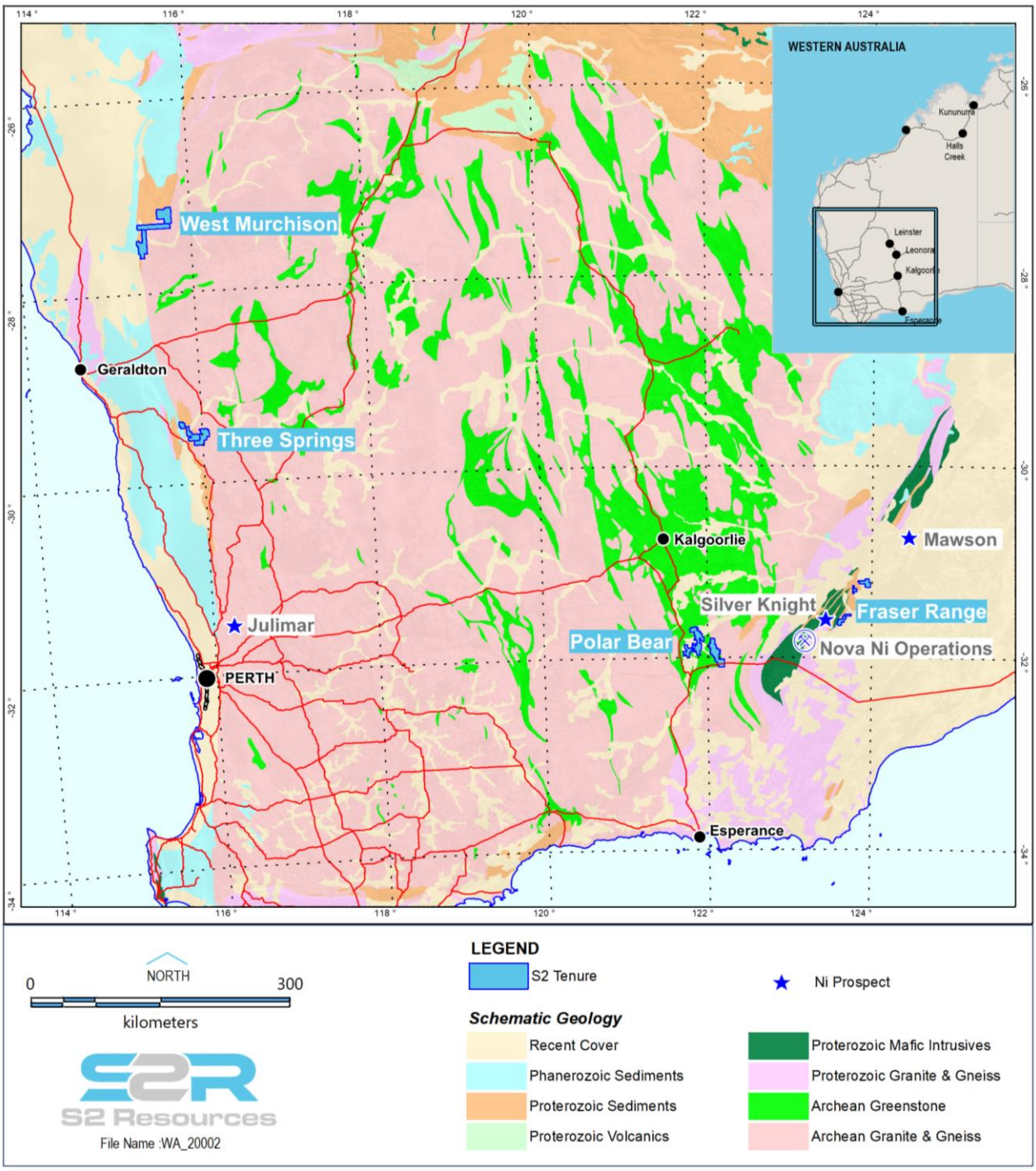

Figure 3: Location of S2's Western Australia's exploration projects over simplified regional geology. The new tenement applications at Three Springs and West Murchison are situated along the western margin of the Archaean Yilgarn craton (as is Chalice Gold's recent Julimar nickel-copper-PGE discovery), whereas its Fraser Range tenements are situated along the southeastern margin of the Yilgarn Craton.

This announcement has been provided to the ASX under the authorization of Mark Bennett, Managing Director & CEO.

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Past Exploration results reported in this announcement have been previously prepared and disclosed by S2 Resources Ltd in accordance with JORC 2012. The Company confirms that it is not aware of any new information or data that materially affects the information included in these market announcements. The Company confirms that the form and content in which the Competent Person's findings are presented here have not been materially modified from the original market announcement. Refer to www.s2resources.com.au for details on past exploration results.

Competent Persons statements

The information in this report that relates to Exploration Results from Australia is based on information compiled by John Bartlett, who is an employee and shareholder of the Company. Mr Bartlett is a member of the Australian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bartlett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Annexure 1

Hole ID	Zone	Depth	North	East	RL	Azi	Dip	From (m)	To (m)	Interval (m)	Ni (pct)	Cu (pct)
SPBD0083	Gwardar	286.23	6472647	388748	266	272	-60	NSI				
SPBD0360	Gwardar	268.02	6472440	388840	266	270	-60	159.00	166.00	7.00	0.47	0.04
and								183.00	200.83	17.83	0.69	0.05
including								194.53	195.28	0.75	2.41	0.08
and, including								200.15	200.83	0.68	3.31	0.43
and								223.67	227.00	3.33	1.38	0.24
SPBD0361	Gwardar	286.9	6472470	388825	266	290	-60	248.90	254.6	5.70	0.57	0.07
SPBD0362	Gwardar	240.26	6472400	388870	266	250	-55	186.30	188.09	1.79	0.60	0.04
and								211.20	212.42	1.22	1.38	0.05
including								212.27	212.42	0.15	6.16	0.09
SPBD0363	Gwardar	57.6	6472400	388877	266	230	-79	Hole Abandoned				
SPBD0364	Gwardar	491.8	6472400	388879	266	230	-77.5	313.43	318	4.57	0.53	<0.01
and								348.06	349.00	0.94	0.54	0.01
and								375.00	376.00	1.00	0.54	<0.01
and								397.00	398.00	1.00	0.42	<0.01
and								403.00	404.00	1.00	0.50	0.01
and								424.27	425.25	0.98	0.66	0.04
and								429.37	431.00	1.63	2.22	0.19
SPBD0365	Gwardar	390.7	6472440	388841	266	260	-74	241.00	265.68	24.68	0.88	0.10
including								241.94	250.00	8.06	1.33	0.22
and								272.55	275.00	2.45	0.47	<0.01
and								292.00	298.00	6.00	0.43	0.01
and								306	313.82	7.82	0.61	0.04

and	348.87	352	3.13	0.58	0.06

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

SECTION 1: SAMPLING TECHNIQUES AND DATA

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.*	The Gwardar prospect was sampled in four diamond drill holes, undertaken by DDH1 Pty Ltd. Drilling is orientated in a westerly direction, with specific azimuth modified to gain desired separation along strike. Sampling has been carried out by cutting and sampling half core through areas of visible mineralisation, with sample intervals to lithological contacts, to a maximum length of 1.2 metres. All are forwarded for analyses by Minanalytical Laboratories Services Australia Pty Ltd or Bureau Veritas Laboratories in Perth.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling and QAQC procedures are carried out using S2 protocols as per industry best practice.
	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 diamond core is HQ and NQ2 size, sampled on geological intervals (0.2 m to 1.2 m), cut into half (NQ2) or quarter (HQ) core to give sample weights under 3 kg. Samples were crushed, dried and pulverised (total prep) to produce a sub sample for analysis by four acid digest with an ICP/OES
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).*	Drilling is standard diamond coring, using either HQ triple tube or NQ2 core diameter. The core has been orientated using a an Ace orientation tool.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Diamond core recoveries are logged and recorded in the database. Overall recoveries are >>95%.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.
	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.	No relationship has been seen to exist
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.*	Logging of diamond core and RC samples records lithology, mineralogy, mineralisation, structural (DDH only), weathering, colour and other features of the samples logging uses a standard legend developed by S2 which is suitable for wireframing of the basement interface. Exploration holes are not routinely geotechnically logged but resource holes are.

Criteria	JORC Code explanation	Commentary
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All core is photographed in both dry and wet form.
	The total length and percentage of the relevant intersections logged	All drillholes were logged in full to end of hole.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Core was cut in half (NQ2) and quarter core (HQ) onsite using an automatic core saw. All samples were collected from the same side of the core.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No non-core sampling was completed
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation follows industry best practice in sample preparation involving oven drying, coarse crush and pulverisation of entire sample to minimum of 85% passing -75um.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Full QAQC system in place to determine accuracy and precision of assays
	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.	Non-biased sampling using the orientation line as a guide for cutting with the same half used for all sampling. No duplicate samples have been collected at this stage
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate to correctly represent the sought after mineralisation style
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.*	For core samples the analytical techniques used a four acid digest multi element suite with ICP/OES or ICP/MS finish (25 gram or 50 gram FA/AAS for precious metals). The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. The method approaches total dissolution of most minerals.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools were used to determine any element concentrations.
	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.	Full QAQC system in place including Certified Standards and blanks of appropriate matrix and levels.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	The S2 Exploration Manager has personally inspected all sampled core and assay results.
	The use of twinned holes.	No twinned holes were drilled within the main infilled anomaly.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary sampling data is collected in a set of standard Excel templates. The information is managed by S2's database manager for validation and compilation into S2's central database.
	Discuss any adjustment to assay data.	No adjustments made

Criteria	JORC Code explanation	Commentary
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drill hole collar locations were recorded using handheld Garmin GPS. Elevation values were in AHD RL and values recorded within the database. Expected accuracy is + or – 5 m for easting, northing and 10m for elevation coordinates. Downhole surveys using an Axis north-seeking gyro with readings at surface and then every 30m downhole.
	Specification of the grid system used.	The grid system is MGA_GDA94 (zone 51), local easting and northing are in MGA.
	Quality and adequacy of topographic control.	Topographic surface uses handheld GPS elevation data, which is adequate at the current stage of the project.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal drillhole spacing is project specific, refer to figures in text
	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.	Data spacing, sampling technique and distribution is not sufficient at this stage to allow the estimation of mineral resources.
	Whether sample compositing has been applied.	No sample compositing has been applied.
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.*	Geochemical sampling of basement interface only.
	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.	Drilling of diamond core is on a nominal 60 degrees to the west, which is broadly orthogonal to the mineralisation.
Sample security	*The measures taken to ensure sample security.*	Chain of custody is managed by S2 personnel. Drill samples and core is visually checked at the drill rig and then transported to S2's logging and cutting facilities on site at the S2 remote camp. Bagged samples are transferred to Minanalytical Laboratory in Kalgoorlie by S2 personnel.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits or reviews have been conducted at this stage.

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.	The Gwardar prospect is located on tenement M63/230 owned by Polar Metals Pty Ltd (a wholly owned subsidiary of Royal Nickel Corp) and is part of the Polar Bear Project. S2 retains rights to nickel mineralisation within the Polar Bear project. M63/230 is located within the Ngadju Native Title Claim (WC99/002).
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	All of the Exploration Licences are in good standing and no known impediments exist on the tenements being actively explored.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical drilling by Anaconda Nickel Ltd drilled a number of diamond and percussion drill holes along the interpreted ultramafic basal contact. Collar locations from historical drill holes have not been field verified. INCO conducted a reconnaissance small loop Slingram type EM survey. Six diamond holes were drilled (none at Gwardar). Sirius Resources undertook MLEM and RC and diamond drilling along the Taipan – Gwardar trend, with a total of one diamond hole and six RC holes within the Gwardar prospect. The collar locations for all INCO and Sirius drill holes have been verified by S2 personnel.
Geology	Deposit type, geological setting and style of mineralisation.	The geology at Polar Bear is dominated by complexly deformed Achaean greenstone assemblages of the Norseman-Wiluna Greenstone Belt which have been metamorphosed to upper greenschist facies. The Eundynie Mafic Sequence (EMS) consists of tightly folded ultramafic and mafic intrusives and extrusives with minor interflow sediments. The rocks are frequently talc-carbonate altered and moderately well foliated. The ultramafic rocks are typically komatiites and komatiitic basalt. The deposit style sought after is analogous to Kambalda-style nickel copper sulphide deposits.
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 • hole length.	Refer Annexure 1.
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.	Reported assay results for diamond drilling have been length and bulk density weighted. Intervals have been calculated using a 0.4% nickel lower cut-off, with maximum of 2m internal dilution.
	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.	Individual sample intervals vary between 0.2 and 1.2 metres, selected based on lithological contacts.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No reporting of metal equivalent has been used.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. 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').	The trend of mineralisation at the prospects described is broadly NNW, dipping at approximately 60 degrees to the ENE. RC and Diamond drilling has been used to determine this. Refer to figures in body of text.
Diagram	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.	Refer to Figures in body of text.
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 to avoid misleading reporting of Exploration Results.	All results considered significant are reported.
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.	No other exploration data present.
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Detailed assessment of all available data, including DHEM and petrology prior to planning any future work programs.

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