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20 May 2022

Company Announcements
ASX Limited

Spargoville – Pathway Towards Nickel Sulphide Production - Amended

Estrella Resources Limited (**Company or ESR**) provides this amended announcement being an updated version of the announcement released to the ASX on 20 May 2022 titled "Spargoville – Pathway Towards Nickel Sulphide Production". This amended announcement removes the Appendix 1 JORC tables that are not required.

ENDS

This announcement was approved for release by the Board of Directors of Estrella Resources Limited.

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20 May 2022

Spargoville - Pathway Towards Nickel Sulphide Production

HIGHLIGHTS

- Following major appreciation in the nickel price Estrella will seek to rapidly transition its 100% owned Spargoville nickel sulphide project to a ***producing asset***
- Mining professionals ***engaged to begin development activities*** at Spargoville
- Diamond drill rig secured to confirm Spargoville Mineral Resource Estimate and provide metallurgical sampling material
- Commencement of ***Definitive Feasibility Study (DFS)*** on 5A open pit mine (Spargoville)
- Previous ESR drill results from 5A Nickel Deposit in 2018 included[1]:
  - ***15m @ 10.45% Ni & 0.78% Cu***, 0.20% Co, 0.87g/t Pd, 1.15g/t Pt from 20m in KWC0004
  - ***5m @ 11.32% Ni & 0.54% Cu***, 0.21% Co, 0.42g/t Pd, 0.22g/t Pt from 61m in KWC0001
  - ***3m @ 12.90% Ni & 1.37% Cu***, 0.29% Co, 1.86g/t Pd, 0.67g/t Pt from 69m in KWC0002
- ***Scoping Study*** on the pre-developed ***5B Nickel Deposit to commence***
- Spargoville development to run concurrently with ongoing exploration at Carr Boyd Project

Estrella Managing Director Chris Daws commented:

"Timing is everything and the time is right for Estrella to kick-off development activities for our Spargoville nickel sulphide assets. Estrella bought the rights to mine and explore four nickel sulphide deposits, located 20km South-West of Kambalda, when nickel projects were out of favour. Nickel prices are now at high levels that provide strong financial metrics to warrant mine development. In response, we have put together an experienced team of mining professionals to assist the Company transition through to producer status. It is a very exciting development, with drilling and a number of technical studies set to get underway which hold the potential to fast-track access to early cashflow and place Estrella as the next nickel producer in Australia."

Estrella Resources Limited (ASX: ESR) (Estrella or the Company) is pleased to announce that following a major appreciation in the global nickel price, the Company is seeking to transition its Spargoville nickel sulphide project, which is located approximately 20km South-West of Kambalda, into a producing asset.

About Spargoville

The Spargoville nickel sulphide project was acquired by Estrella via the purchase of WA Nickel Pty Ltd (see ASX release 4 September 2017). Nickel sulphides were first discovered in the area by Selcast Exploration in the late 1960s. Since then, the 1A, 5A, 5B, and 5D deposits were discovered and partially developed on two of the three mining leases for which the Nickel Rights were purchased (Figure 2). All these mines have remnant nickel sulphide mineralisation left behind and extensive exploration potential at depth.

[1] Refer ASX announcement 6 December 2018 (ASX: ESR)

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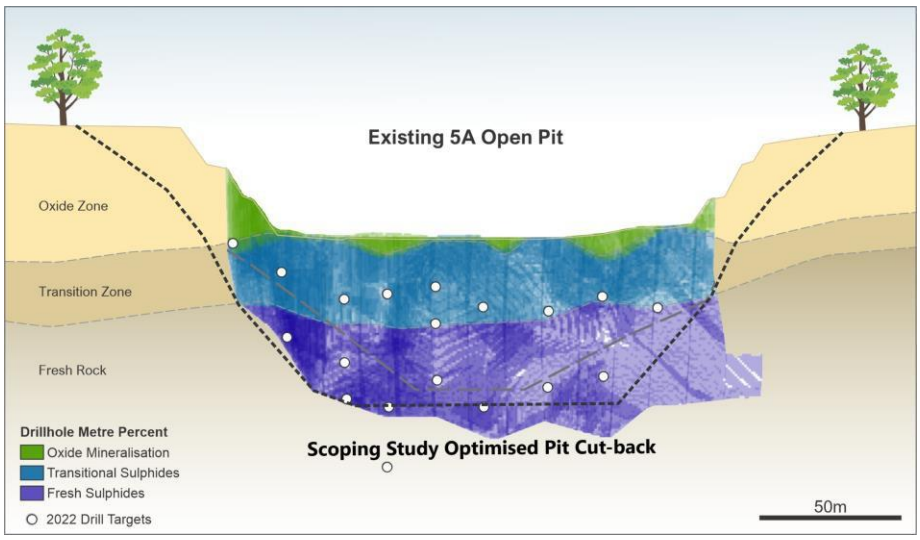


Figure 1: Longsection looking west through the 5A Nickel Resource showing abundance of Oxide, Transitional and Fresh Metallurgical Zones as well as an outline of the optimised pit shell from the 2020 Scoping Study.

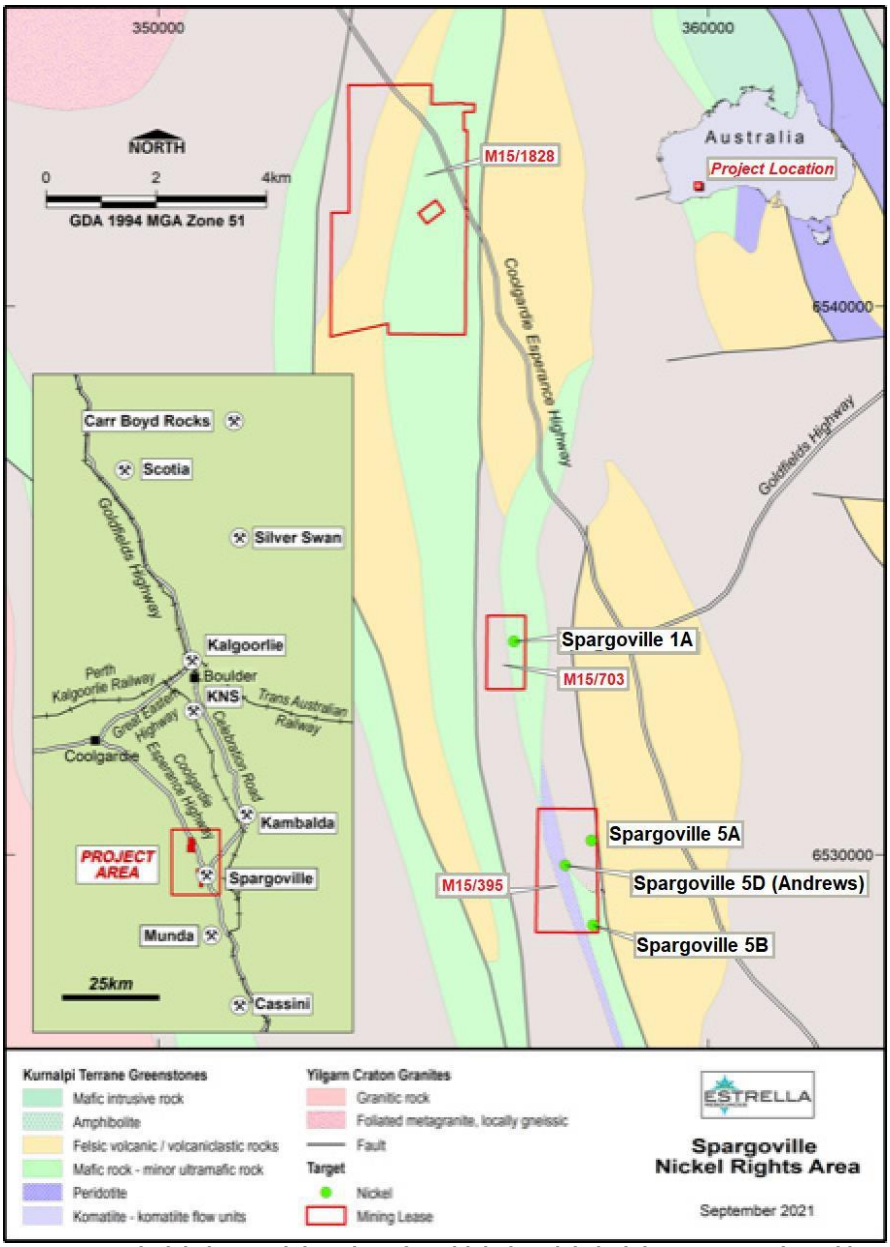


Figure 2: Mining Leases and Nickel Deposit locations for which the Nickel Rights were purchased by Estrella in 2017

Within the Spargoville area, three ultramafic units can be mapped. Mining Leases 15/395 and 15/703 lie over these ultramafic units which are separated by basalts and graphitic shales. Within the ultramafic units, Kambalda-style channels have formed in which nickel sulphides have been deposited. Historical ore zones have consisted of significantly high nickel tenor. Arsenic and gold can also occur within the nickel mineralisation. It is expected that significant advances in the treatment of arsenic-nickel ores will assist the Company to realise the current value of the remaining deposits.

5A Nickel Deposit

The Company's initial focus will be on the remaining resource at the 5A Nickel Deposit. The mineralisation at 5A consists of a 30m deep Oxide Zone, which was mined in an open pit by Amalg Resources NL in 1996-1997. Beneath this, and which will be the focus of the DFS, remains a 20m thick Transitional Zone (dominated by the nickel mineral violarite), underlain by another 30m of Fresh Sulphides (dominated by pentlandite) as can be seen in Figure 1. The metallurgical significance of this will be outlined later.

Historical intercepts through the 5A mineralisation are shown in Figure 3 below.

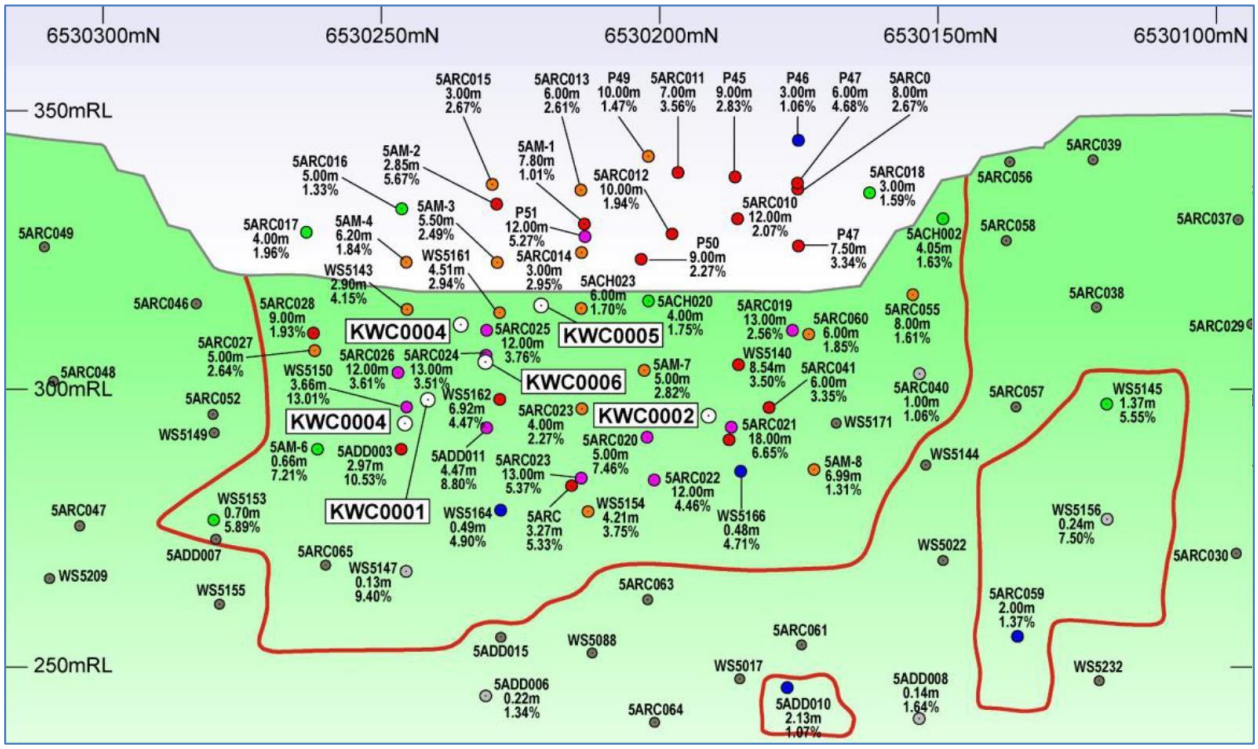


Figure 3: Historical significant intersections below the 5A Open Pit

Estrella conducted a new resource estimation released to the market on 18 October 2019 as follows:

Table1 – 5A October 2019 Mineral Resource Estimate (0.5% Nickel Cut-off)

Type	Indicated Mineral Resource				
	Tonnage kt	Ni %	Cu %	Ni t	Cu t
Saprolite	12	1.0	0.10	120	10
Saprock	38	2.2	0.19	830	70
Fresh	19	3.7	0.24	680	40
Total	**69**	**2.4**	**0.19**	**1,630**	**130**
Type	**Inferred Mineral Resource**				
	Tonnage kt	**Ni %**	**Cu %**	**Ni t**	**Cu t**
Saprolite	11	0.9	0.10	100	10
Saprock	17	1.0	0.14	170	20
Fresh	29	1.6	0.10	470	30
Total	**58**	**1.3**	**0.11**	**730**	**70**

Type	Total Mineral Resource				
	Tonnage kt	Ni %	Cu %	Ni t	Cu t
Saprolite	24	0.9	0.10	220	20
Saprock	55	1.8	0.17	1,000	100
Fresh	48	2.4	0.15	1,140	70
Total	**127**	**1.9**	**0.15**	**2,370**	**190**

5A Deposit Metallurgical Drilling and Testing; Impact on the DFS

The planned diamond drilling program to commence shortly will accomplish several aims, including updating the Oct 2019 Resource estimate. The major objective is to confirm the metallurgical "Top of Fresh" zone for the DFS. This depth, where the Transitional Zone ends, and Fresh mineralisation starts (refer to Figure 1) is critical to the final economics of the project.

Fresh Zone Sulphides

Fresh mineralisation is dominated by two minerals, pyrrhotite (iron sulphide) and pentlandite (nickel sulphide). The combination of these two minerals in a nickel concentrate is important for both the flotation and recovery of nickel, and for the smeltability of the concentrate. As such, off-take and payment terms are derived from the quality of the concentrate, whilst the quantity of nickel is a function of recovery and grade. These have a direct effect on the revenue from the project. It is therefore necessary to estimate the amount of nickel in the Fresh Zone to a high degree of certainty to de-risk the project.

These variables along with their associated positive or negative influences on revenue will impact the final optimised pit size and shape in the DFS.

As a necessary step in the DFS process, the Company will utilise mineralised core from the Fresh Zone blended from across the length of the deposit to estimate concentrator recoveries and monitor potential deleterious elements such as arsenic and magnesium. Optimum crush and grind size and power consumption will also be studied. The results will then be supplied to potential buyers of the ore and resulting concentrate for indicative payment terms.

Transitional Zone Sulphides

The Transitional Zone occurs from partial weathering of fresh sulphides near to the surface. Sulphide mineralogy at 5A is dominated by pyrite (iron sulphide) and violarite (nickel sulphide) as well as pyrrhotite and pentlandite. As the name suggests, the deposit mineralogy is transitioning from Oxide near surface to Fresh some 50m to 60m below surface, and its composition will vary (transition) with depth.

The composition of the Transitional Zone is important for metallurgical testwork. Whilst pyrite will float well through a traditional nickel circuit, violarite flotation can be inhibited by the surface properties of the mineral. A resulting, "traditionally floated" concentrate from Transition Zone feed could therefore be lower in nickel, impacting recovery.

Core from the Transition Zone will undergo testing to ascertain the level below surface where "traditional flotation" becomes profitable through improved nickel recovery, and this potential feed can then be included in the mining schedule to add to projected sales revenue.

Additional test material will be supplied to third parties or potential buyers of the Transitional Zone material prior to mining of the Fresh Zone . These companies operate processors using various leach technologies which can and are successfully treating Transitional and Oxide feeds in Western Australia. Deleterious elements do not impact recovery or nickel concentrate quality through these processors.

Successful testing of the 5A Transition and Oxide material may well lead to additional revenue to be realised over and above that gained by treating the Fresh Sulphides as defined in the DFS.

5A Scoping Study Update

Indicative offers from the recent asset sales process of the Spargoville Nickel Rights conducted by Estrella did not reach the threshold set by the Company whereby shareholders would receive fair value from the sale.

This deficit was heightened by the recent rise in the nickel price coupled with a more favourable exchange rate, a position that the Company estimates may be sustained for a significant period of time.

As a result, the 2019 5A Scoping Study was recently revisited by Estrella who have engaged a professional mining team to coordinate the generation of a mining reserve once the updated resource model is complete. The following work has already been completed:

- Open pit geotechnical assessment;
- Aerial digital survey; and,
- Initial environmental approval assessment.

Once a mining reserve is identified, the mining engineering team will complete the task of assembling the appropriate permits and approvals so that mining can recommence.

5B Nickel Deposit

The 5B Nickel Deposit is another Kambalda-style komatiite deposit similar to 5A with massive and matrix sulphides accumulating at the base of a lava channel. The deposit outcropped at surface and has been drilled to 340m vertical depth. The deposit is open below that depth (Figure 5).

The deposit was mined between 1975 and 1982 and again between 1992 and 1993 via an open pit (Figure 9), targeting the existing gold and nickel mineralisation. Approximately 14,000t of nickel was produced between the two mining campaigns.

A 600m long decline (120m vertical depth) was established post the open pit mining phase to allow drilling of the nickel and gold mineralisation from underground, yet no nickel was ever mined. The decline remains intact and accessible for refurbishment to allow mining activities to proceed.

A drilling program completed by Minotaur Exploration Ltd in 2014 (see ASX announcement MEP: 23 July 2014) confirmed historic nickel intercepts, with results including:

- 15m @ 1.41% Ni in hole SPRC001
- 16m @ 0.98% Ni in hole SPRC002
- 16m @ 1.82% Ni (including 6m @ 3.60% Ni) in hole SPRC003
- 24m @ 1.53% Ni (including 6m @ 3.08% Ni) in hole SPRC005

Mineral Resource estimates were completed on 5B by previous operators, but they were not completed to JORC Code 2012 reporting standards and therefore cannot be stated here.

There is a lack of survey control on the location of underground drill collars and drillhole deviation information. To rectify this, the decline would need to be dewatered and survey control re-established. A campaign of downhole surveying would follow for the deeper drillholes along with additional diamond drilling and metallurgical classification before a JORC 2012 compliant resource could be established.

Additional metallurgical work would need to be conducted to explore the potential of rejecting arsenic (associated with gold mineralisation) to keep a potential concentrate within smelting parameters. Alternatively, other processes, such as HPAL, may yield better nickel recovery whilst negating the deleterious effects of arsenic.

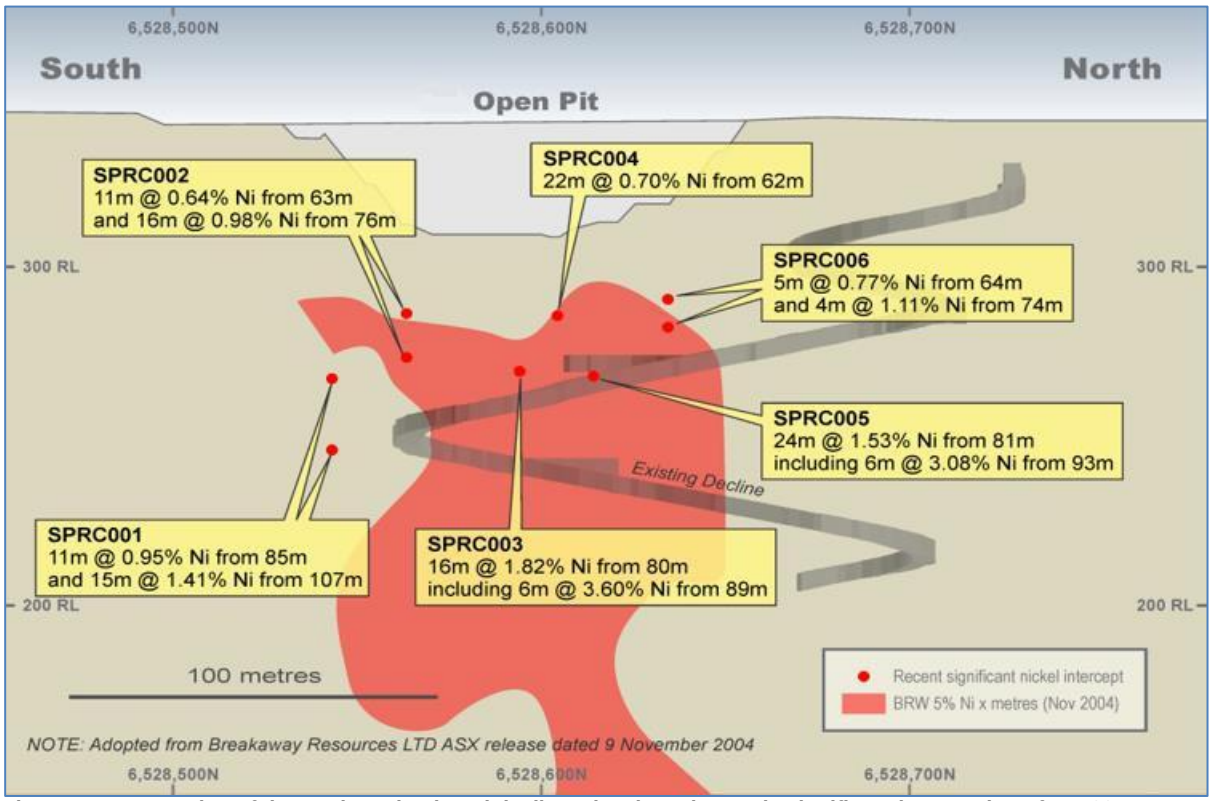


Figure 4: Long section of the 5B deposit, pit and decline, showing Minotaur's significant intersections from 2014.

5D Andrew's Nickel Deposit

The 5D Nickel Deposit is thought to be a westerly continuation of the 5A komatiite channel. The deposit is larger and more continuous than both 5A and 5B. The estimated pre-mining resource was around 18,000 tonnes of nickel metal at a grade of 2.48% Ni (Minotaur 2016) of which around 7,800 nickel tonnes were extracted. The last drive excavated at Andrew's 11 Level was 320m long, averaging 2m ore width at 3.04% nickel.

The deposit was mined via a 250m deep shaft (Figure 6) and previous work has identified several remnant pillars that were left behind, including the unmined Oxide Zone identified in drilling by Amalg Resources NL in 1999.

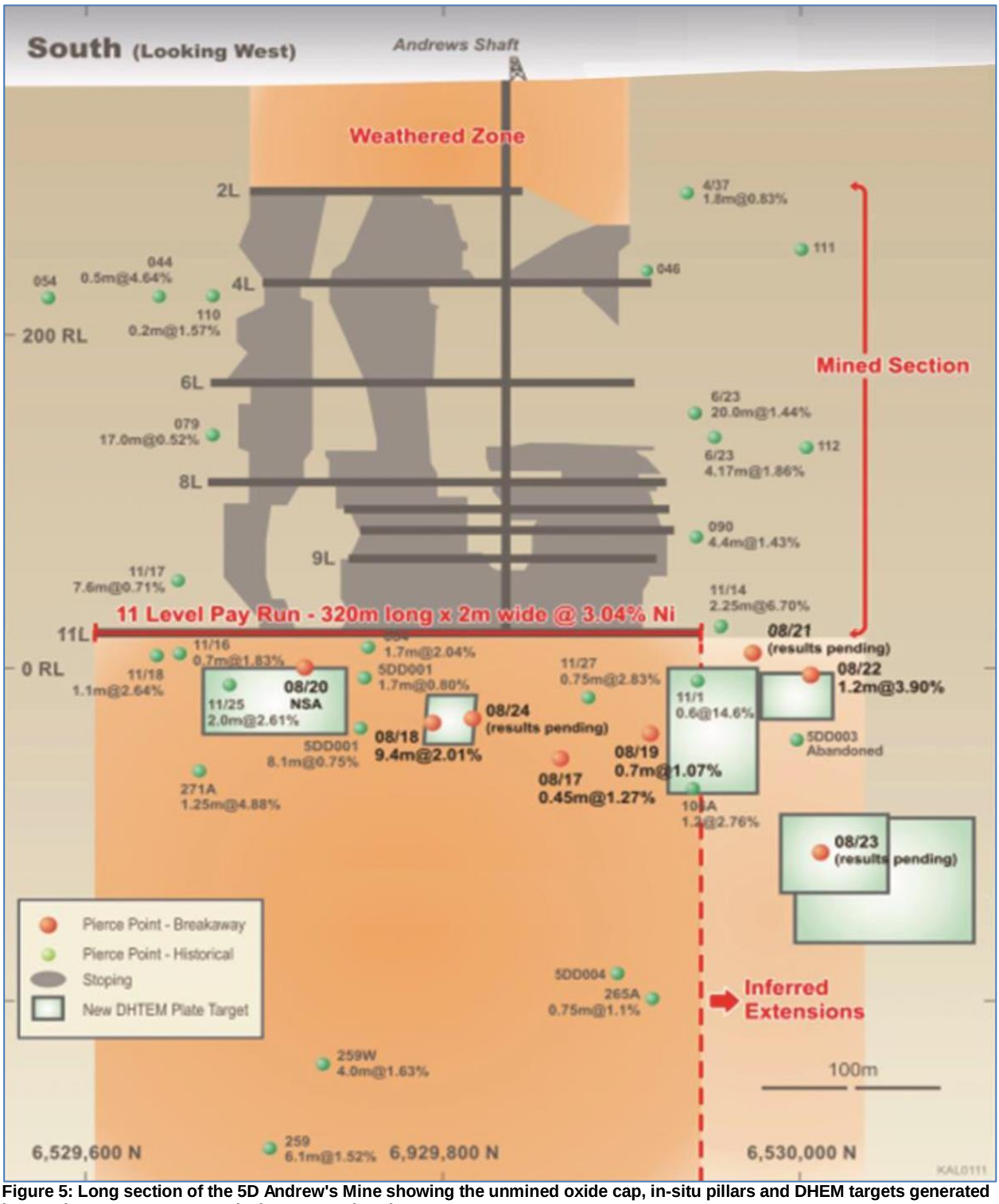


Figure 5: Long section of the 5D Andrew's Mine showing the unmined oxide cap, in-situ pillars and DHEM targets generated by Breakaway Resources and Minotaur Exploration

1A Nickel Deposit

This deposit is situated around 4km to the North of 5A, 5B and 5D on M15/703. It is another Kambalda-style channel deposit which has been structurally deformed, with at least three major, stacked thrusts dislocating mineralisation.

The deposit was mined between 1990 and 1992 via a 150m shaft and an internal decline down to 175m, seeing almost 4,300 nickel tonnes extracted at a grade of 3.8% Ni.

Remnant Inferred Resources have been calculated however they are not to JORC standards and so cannot be stated. Drill data shows good down-plunge intercepts close to the workings. However, the mineralisation

appears to break up shortly after on a fold nose and another thrust. Deeper intersections down to 550m below surface confirm the continuation of mineralisation at depth, meaning the deposit remains open.

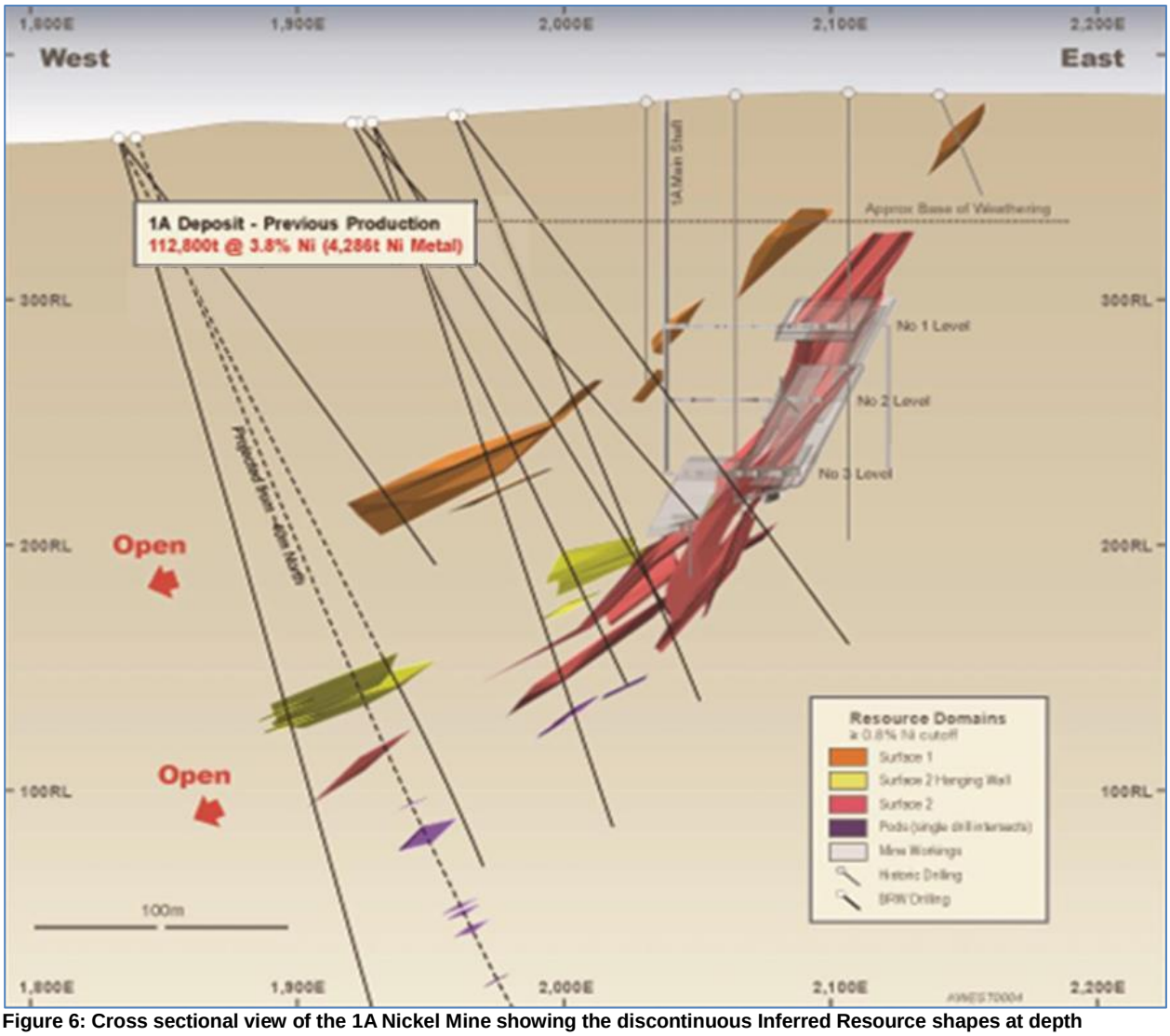


Figure 6: Cross sectional view of the 1A Nickel Mine showing the discontinuous Inferred Resource shapes at depth

Spargoville Development Plan

Considering favourable nickel prices and exchange rates are projected to continue, Estrella has elevated the priority of the Spargoville nickel project to run concurrently with exploration at the Carr Boyd Project. The Spargoville work plan developed by the Company consists of the following steps:

5A Nickel Deposit

1. Commence diamond drilling for metallurgical confirmation and potential expansion of the Fresh Sulphide JORC 2012 Resource of the 5A Nickel Mine.
2. Commence the Definitive Feasibility Study of the pit cut-back at 5A to mine and process the Transitional and Fresh Resource
3. Commence work and discussions on processing routes for the 5A Transitional and Oxide Resources
4. Submit Mining Approvals

5B Nickel Deposit

1. Commence Scoping Study on the viability of the remaining non-JORC Resource
2. Pending favourable results, drill test and acquire metallurgical samples for Transitional and Fresh mineralisation
3. Consider DFS level studies

5D Nickel Deposit

1. Compile or re-acquire data on the un-mined Oxide and Transitional mineralisation to JORC Resource standard
2. Seek processing routes for Oxide and Transitional material
3. Consider DFS level studies

1A Nickel Deposit – No work recommended at this time

The Company looks forward in providing further information as the various programs progress.

The Board has authorised for this announcement to be released to the ASX.

FURTHER INFORMATION CONTACT

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Competent Person Statement

The information in this announcement relating to Exploration Results is based on information compiled by Steve Warriner, who is the Exploration Manager of Estrella Resources, and a member of The Australasian Institute of Geoscientists. Mr. Warriner has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr. Warriner consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Compliance Statement

With reference to previously reported Exploration results and mineral resources, the company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Forward Looking Statements

This announcement contains certain forward looking statements which have not been based solely on historical facts but, rather, on ESR's current expectations about future events and on a number of assumptions which are subject to significant uncertainties and contingencies many of which are outside the control of ESR and its directors, officers and advisers.

Reliance on Third Party Information

Due care and attention has been taken in the preparation of this announcement. However, the information contained in this presentation (other than as specifically stated) has not been independently verified nor has it been audited. Accordingly, the company does not warrant or represent that the information contained in this presentation is accurate or complete. To the fullest extent permitted by law, no liability, however arising, will be accepted by ESR or its directors, officers or advisers, for the fairness, accuracy or completeness of the information contained in this announcement.