



18 February 2019

## *Sinclair Nickel Project Update: Commencement of Regional Drilling Campaign*

### Highlights

- Commencement of **regional air-core and RC drill campaign**, targeting selected structural, geophysical and geochemical targets across the project.
- Drilling to comprise an estimated **5,000m of air-core** and **1,500m of RC** drilling testing multiple target areas.
- Planning underway for a potential campaign of deep (+800m) **diamond drilling** designed to upgrade the existing Sinclair Mineral Resource<sup>1</sup> which comprises:
  - **Indicated Mineral Resource** of **250,000t @ 2.4% Ni** for **6,000t<sup>1</sup>** of contained nickel representing remnant mineralisation adjacent to existing mine workings; and
  - **Inferred Mineral Resource** of **460,000t @ 2.2% Ni** for **10,200t<sup>1</sup>** of contained nickel representing extensional mineralisation.
- Ongoing assessment of potential exploration activities to target extension of the Exploration Target<sup>1</sup> at the Sinclair deposit and the Skye and Stirling prospects.
  - **Exploration Target<sup>1</sup>** ranging between approximately **670,000t @ 2.0% Ni** for **13,700t** of contained nickel and **790,000t @ 2.5% Ni** for **19,900t** of contained nickel.



Figure 1: Sinclair Nickel Project – regional air-core drilling campaign

<sup>1</sup> Refer to TLM ASX announcement dated 31 August 2018 “Sinclair Nickel - Talisman Maiden JORC Mineral Resource” for full details and JORC Tables in respect to the quoted Mineral Resource.





Talisman Mining Ltd (ASX: TLM, **Talisman**) is pleased to announce the commencement of an extensive regional air-core and reverse circulation (**RC**) drilling campaign designed to test various new structural, geophysical and geochemical target areas across the Sinclair Nickel Project (**Sinclair**) tenement package.

In addition to this regional exploration work, Talisman is currently finalising details of a proposed deep diamond drilling programme designed to facilitate the upgrade and increase of the existing Sinclair JORC Mineral Resource.

Assessment is also underway of potential drill programmes targeting the current Sinclair Exploration Target and to test for extensions of the mineralised ultramafic channels at the Skye and Stirling prospects. These programmes will be considered as part of future work activities at Sinclair.

Sinclair has extensive, well-maintained infrastructure including an existing 350ktpa sulphide flotation processing plant, airstrip, camp and accommodation facilities. The Sinclair Nickel Mine was developed and commissioned in 2008 and operated successfully before being placed on care and maintenance in August 2013, having produced approximately 38,500 tonnes of nickel at an average life-of-mine head grade of 2.44% Ni.

Nickel mineralisation at the Sinclair deposit continues beyond the current underground mine infrastructure and has been identified in drilling for a further 1,200m down-plunge from the end of previous mine development.

Sinclair has a JORC **Indicated and Inferred Resource**<sup>1</sup> of **720,000t @ 2.3% Ni** for **16,200t of contained nickel** which incorporates remnant nickel sulphide mineralisation adjacent to existing mine development, and extensional mineralisation continuing immediately down plunge of existing mine workings.

In addition to the Indicated and Inferred Resource, Sinclair has an **Exploration Target**<sup>1</sup> ranging between approximately **670,000t @ 2.0% Ni** for **13,700t of contained nickel** and **790,000t @ 2.5% Ni** for **19,900t of contained nickel**<sup>1</sup> based on wide spaced extensional drilling of further down-plunge continuation of Sinclair mineralisation.

The Indicated and Inferred Resources provide a solid base for a nickel inventory that has near-term growth potential from the Exploration Target immediately down plunge, plus other near mine opportunities such as Skye and Stirling (Appendix 1). Talisman has been undertaking ongoing assessment of these opportunities in a cost effective and targeted way as part of its overall exploration strategy which is also focused on other exploration targets in the near mine and wider regions of Sinclair.

The unique combination of Sinclair's established infrastructure, existing nickel resources and near-term exploration potential offers optionality to fast-track a return to production, subject to prevailing nickel prices. As such Talisman has also been continuing to advance a "development ready" strategy for Sinclair through scenario planning and desktop assessment, while also continuing to evaluate all potential pathways aimed at maximising value to Talisman shareholders from this highly strategic nickel asset and comprehensive surface infrastructure.





## **Regional Exploration Campaign**

Consistent with Talisman's strategy of considered strategic exploration at Sinclair, an extensive campaign of air-core and RC drilling has commenced on site. This work is designed to test a number of *Stage 1*, *Stage 2* and *Stage 3* exploration targets across the tenement package.

Targets are classified based on corroborating geological information and classified in five stages:

- *Stage 1*: Conceptual targets.
- *Stage 2*: Prospect areas with anomalies defined from surface sampling programmes.
- *Stage 3*: Prospect areas with known nickel mineralisation intersected in bedrock drilling in addition to anomalies defined from surface sampling programmes.
- *Stage 4*: Prospect areas with economic grade mineralisation and/or economic width intersection.
- *Stage 5*: Prospect areas with economic grade and width mineralisation that are subject to targeted resource drilling.

A total of 18 separate target areas (*Figure 2* and *Figure 3*) will be tested over the coming weeks with drilling to be undertaken in two stages, commencing with air-core drilling followed by RC drilling. The planned work flow is designed to allow flexibility for rapid follow-up of any anomalous intersections from the shallow air-core drilling with additional RC drilling.

The areas to be tested with air-core drilling range from:

- *Stage 1* conceptual targets derived from detailed geophysical survey data;
- *Stage 2* targets with existing surface geochemical anomalies (soils, rock chips); and
- *Stage 3* target areas with existing shallow historical drilling (RAB/air-core), that have returned anomalous nickel intersections that have not been followed-up with recent drilling.

An estimated 5,000m of air-core drilling is planned to be completed.

In addition to this work, a number of deeper (100-200m) RC drill holes are planned to test areas along strike from existing nickel mineralisation where there is known deeper transported cover. These areas include Amy Rix, Cody Well, Delphi, Outcamp Well and Schmitz Well South.

A total of 1,500m of RC drilling is planned.



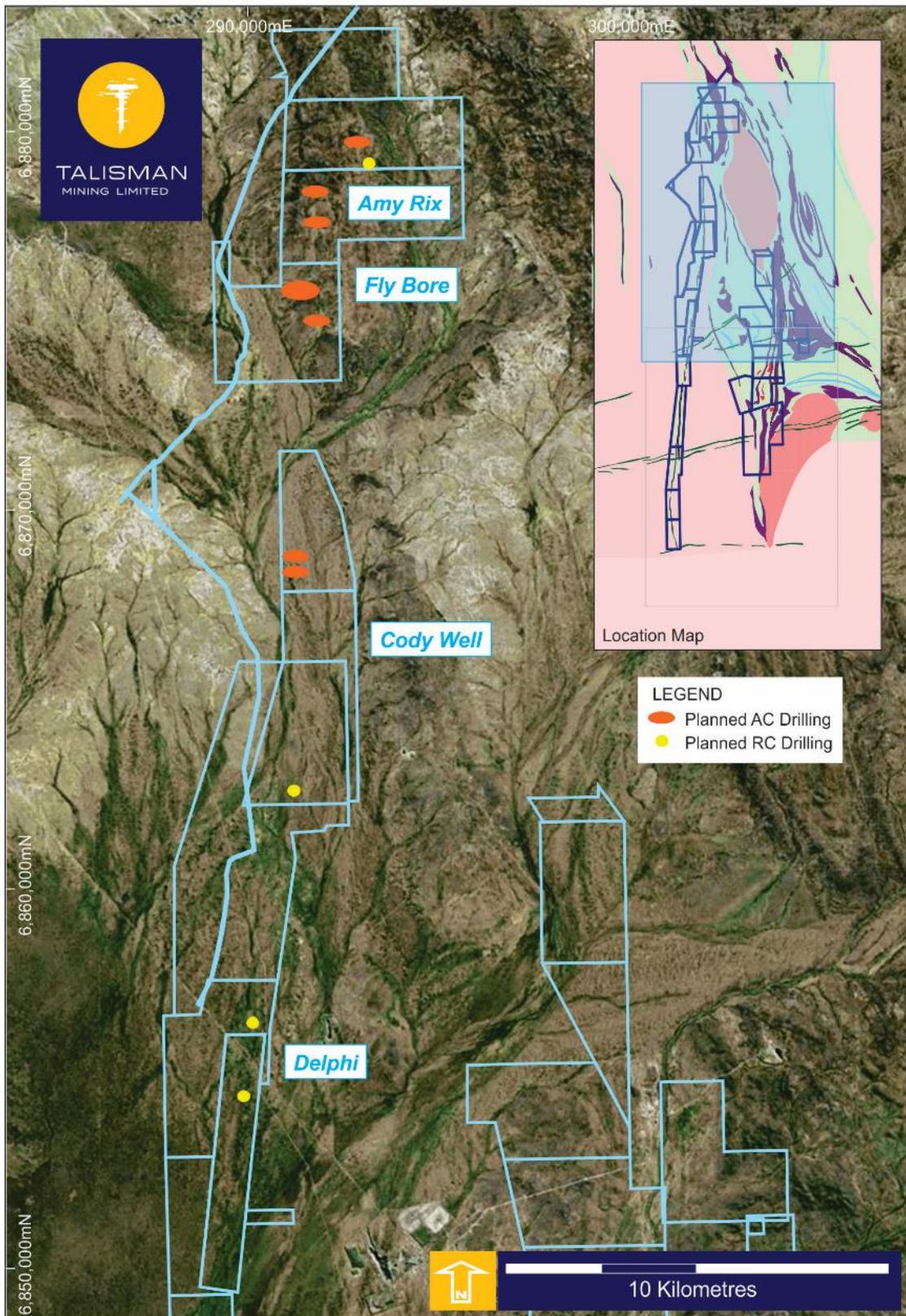


Figure 2: Sinclair Nickel Project (North) – regional air-core/ RC drilling target areas.



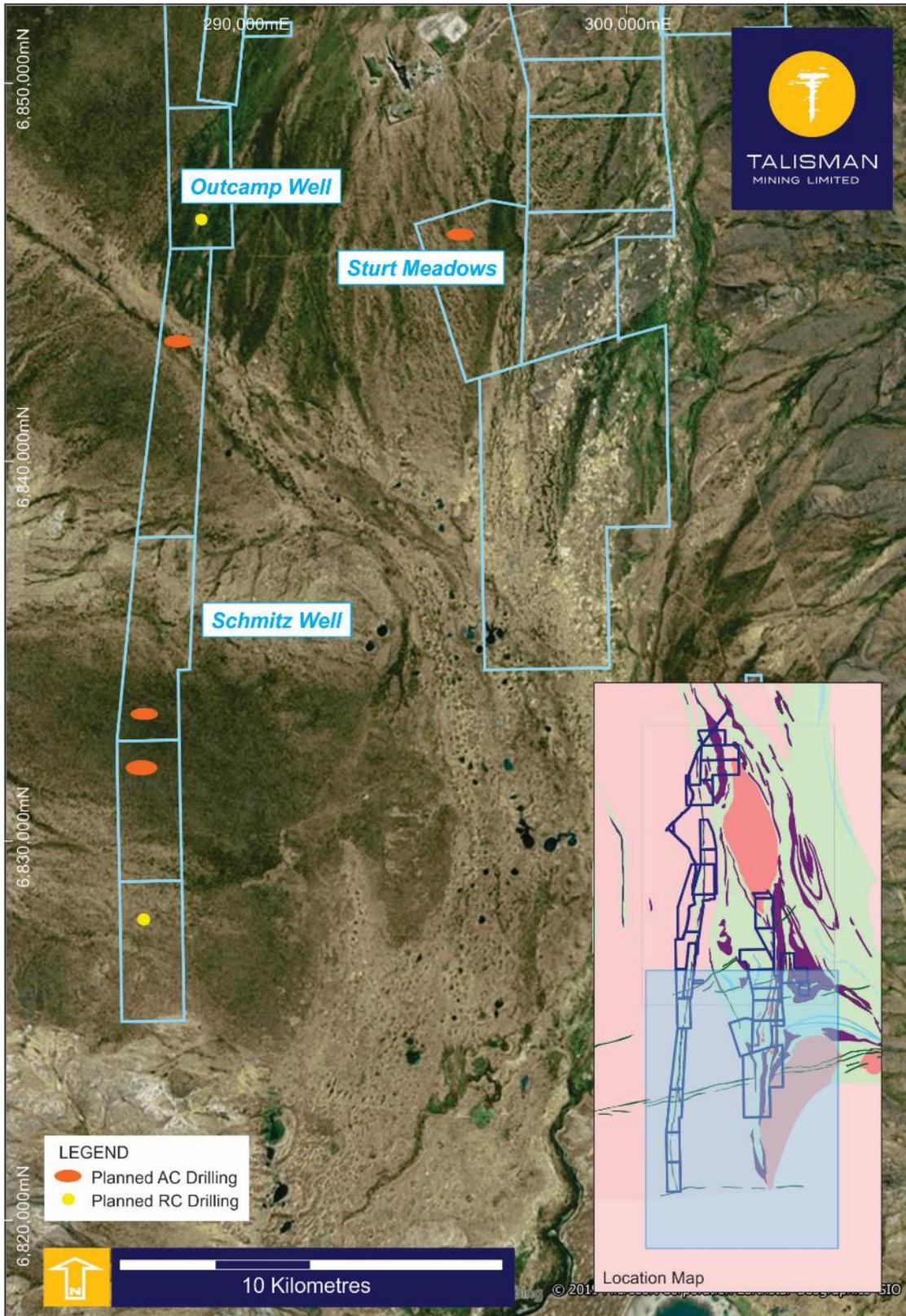


Figure 3: Sinclair Nickel Project (South) – regional air-core/ RC drilling target areas.





## Diamond Drilling Campaign

The compilation and planning of a potential deep (*circa 800m*) diamond drilling programme is nearing completion. The proposed drilling is planned to intersect and provide additional data from the current JORC Inferred Mineral Resource area below the existing Sinclair Mine workings (*Figure 4*).

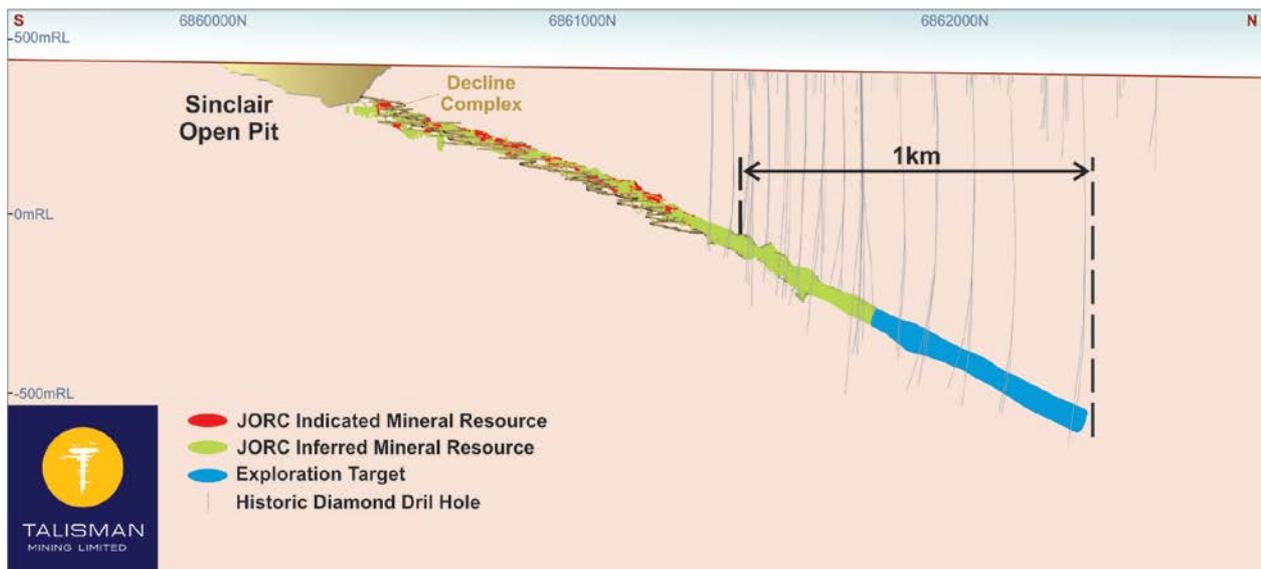


Figure 4: Sinclair Nickel Project – Mineral Resource Estimate: Resource Classification.

The Sinclair deposit comprises an elongated body of massive and heavily disseminated sulphide mineralisation with a shallow plunge of around 20 degrees to the north (*Figure 4*). The previous underground operation mined the deposit to approximately 445m below surface.

Nickel mineralisation continues beyond the current underground mine development and has been identified in drilling for a further 1,200m down-plunge from the end of previous mining (*Figure 4*). The existing Mineral Resource is based on historic RC and diamond drilling completed by Xstrata Nickel Australasia Operations Pty Ltd (XNAO) and incorporates remnant nickel sulphide mineralisation adjacent to existing mine development, and extensional mineralisation continuing immediately down-plunge of existing mine workings. Further to the north the continuation of the Sinclair deposit down-plunge has only limited drilling for a further 700m on a 100-200m spaced drill pattern and this mineralisation currently forms an Exploration Target (*Figure 4*),

Historic underground mining by XNAO in some of the final mining levels yielded significant increases in mineralised volume compared with the geological model (as defined by surface diamond drilling). These additions were realised where the vertical extent of mineralisation was greater than could be identified with 15-20m spaced drilling from surface.

It is Talisman's opinion that the existing historical broadly-spaced drill traverses across the mine extensions are sufficiently wide to have missed potentially significant high-grade shoots of massive sulphide mineralisation. Due to the complexity of the Sinclair ore body, drilling needs to be closely-spaced in order to better define these higher-grade shoots associated with tight folding and remobilised massive sulphide. As such it is intended that directional drilling techniques will be utilised. In addition, it is proposed that multiple wedge holes be drilled from the initial parent hole to save costs and provide additional massive sulphide intersections.





Holes will be designed based on the current resource model wire-frames along with existing downhole electromagnetic (**DHEM**) survey data, which has returned numerous strong off-hole conductors highlighting the possibility of additional massive sulphide mineralisation outside of the current resource model. (*Figure 5*).

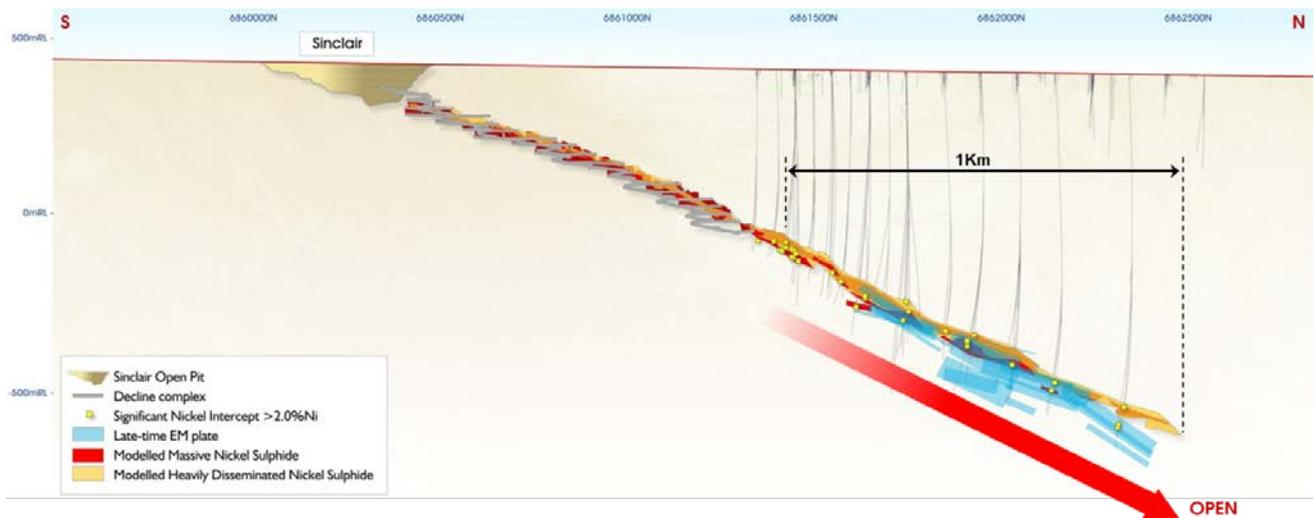


Figure 5: Sinclair nickel deposit longitudinal projection with mine development showing mineralised nickel drill intercepts greater than 2% Ni beyond the limit of existing mine development, and DHEM plates outside for the current resource model.

Any new intersections will be integrated into the resource model, increasing drill coverage and allowing for the potential increase and upgrade of the existing Mineral Resource. Additionally, Talisman is continuing ongoing assessment of potential exploration activities to target extensions of the Exploration Target at the Sinclair deposit.

## Skye and Stirling Prospects

The Skye Prospect together with the Stirling Prospect are two mineralised ultramafic channels identified in drilling to the south and directly beneath the main Sinclair ore body, in close proximity to the existing Sinclair underground mine (*Figure 6*).

The Skye and Stirling Prospects show strong similarities to the Sinclair ore body, with massive nickel sulphides associated with at least two positions at the base of a complexly folded high-MgO ultramafic body. Both channels show good down-plunge continuity and 3D geological modelling indicates that massive to heavily-disseminated nickel sulphide mineralisation is clearly developed along at least two well-constrained northerly-plunging basal ultramafic positions beneath, and immediately to the south of, the Sinclair mine infrastructure (*Figure 6*).

Both prospects contain drilling on a 50m x 20m pattern at their near-surface positions but are largely untested down-plunge and to the north beneath Sinclair.



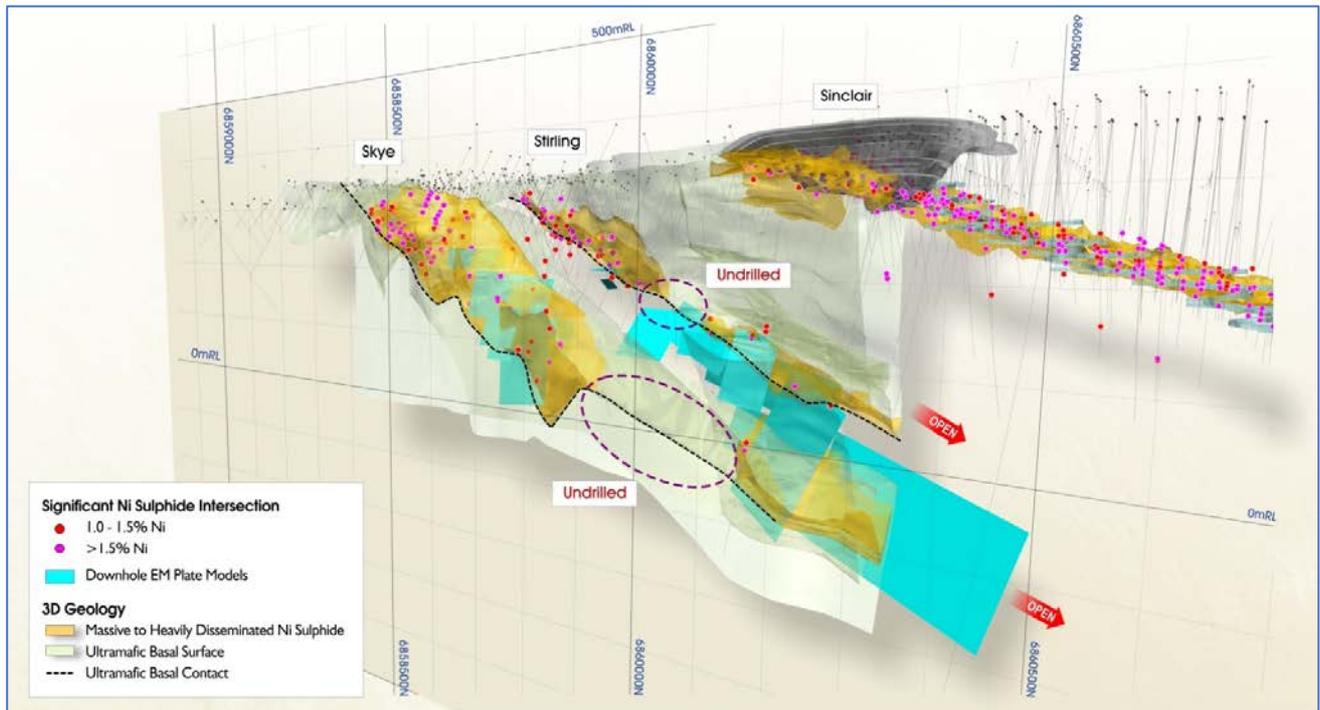


Figure 6: Perspective view of 3D geology (looking west-southwest) showing untested late time DHEM plate models for Skye and Stirling (blue) and nickel mineralised drill hole intersections.

To date Talisman has undertaken one diamond drill hole at Skye and Stirling to test a fold hinge structure at Stirling and limited aircore and RC drilling to test the Skye East conceptual target, where RC drilling intersected massive sulphides in a number of holes, including:

- **SNRC045 4m @ 1.28% Ni from 16m down hole**
- **SNRC048 7m @ 3.54% Ni from 51m down hole**  
**Inc. 2m @ 7.47% Ni from 55m down hole**

Several strong, late-time DHEM conductors identified along the down-plunge basal extensions of the prospective Skye and Stirling mineralised ultramafic units remain untested and present as potential future drill targets (*Figure 6*).

Talisman is continuing ongoing assessment of potential exploration activities at the Skye and Stirling prospects including deeper drilling to target DHEM conductors and down-plunge targets as well as potential follow-up work at the Skye East position.

## Antioch AC Drilling

An air-core drilling campaign was completed in December 2018 to test for interpreted extensions of the prospective ultramafic basal contact along the Antioch Trend to the east of the Sinclair Nickel Mine (*Appendix 1 & Table 1*).

The Antioch tenement package covers an extensive, 35 kilometres of strike of the main prospective ultramafic rocks which host significant nickel mineralisation in the region. The majority of the Antioch trend is overlain by shallow transported cover, which deepens to the south along the Bannockburn Sheer (host to the historic Bannockburn Gold Mine). The air-core drilling was intended to drill through the transported overburden and sample the residual ultramafic rock sequences.





Drilling successfully confirmed the continuation of the interpreted ultramafic rock sequences under transported cover across the northern extensions of the Antioch Trend. While results from sampling did not return any significant nickel mineralisation, detailed analysis of trace element geochemistry has confirmed the intersected ultramafic rocks are consistent with the Sinclair host stratigraphy.

Drilling on the southern part of the tenement package, targeting the south eastern extensions of the Bannockburn Shear intersected deeper than anticipated transported cover sequences, and high water flows. The air-core drilling was unable to penetrate this transported cover, resulting in the cancelation of several of the proposed air-core drill traverses. These traverses will instead be RC drilled as part of future drilling campaigns. Analysis of the completed air-core drilling did not return any significant results.

## Ends

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## Competent Person's Statement

Information in this ASX release that relates to Exploration Results and Exploration Targets is based on information completed by Mr Anthony Greenaway, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Greenaway is a full-time employee of Talisman Mining Ltd and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Greenaway consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Information in this announcement that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Mr Brian Wolfe, Principal geologist of the firm International Resource Solutions Pty Ltd, which specialises in mineral resource estimation, evaluation and exploration. Mr Wolfe is a Member of the Australian Institute of Geoscientists. Mr Wolfe has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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 Resources and Ore Reserves (the JORC Code). Mr Wolfe has reviewed the contents of this news release and consents to the inclusion in this announcement of all technical statements based on his information in the form and context in which they appear.

## About Talisman Mining

Talisman Mining Limited (ASX:TLM, Talisman) is an Australian mineral development and exploration company. The Company's aim is to maximise shareholder value through exploration, discovery and development of complementary opportunities in base and precious metals.

Talisman holds 100% of the Sinclair Nickel Project located in the world-class Agnew-Wiluna greenstone belt in WA's north-eastern Goldfields. The Sinclair nickel deposit, developed and commissioned in 2008 and operated successfully before being placed on care and maintenance in August 2013, produced approximately 38,500 tonnes of nickel at an average life-of-mine head grade of 2.44% nickel. Sinclair has extensive infrastructure and includes a substantial 290km<sup>2</sup> tenement package covering more than 80km of strike in prospective ultramafic contact within a 35km radius of existing processing plant and infrastructure.

Talisman has also secured tenements in the Cobar/Mineral Hill region in Central NSW through the grant of its own Exploration Licenses and through separate farm-in agreements. The Cobar/Mineral Hill region is a richly mineralised district that hosts several base and precious metal mines including the CSA, Tritton, and Hera/ Nymagee mines. This region contains highly prospective geology that has produced many long-life, high-grade mineral discoveries. Talisman has identified a number of areas within its Lachlan Cu-Au Project tenements that show evidence of base and precious metals endowment which have had very little modern systematic exploration completed to date. Talisman believes there is significant potential for the discovery of substantial base metals and gold mineralisation within this land package.

## Forward-Looking Statements

This ASX release may include forward-looking statements. These forward-looking statements are not historical facts but rather are based on Talisman Mining Ltd.'s current expectations, estimates and assumptions about the industry in which Talisman Mining Ltd operates, and beliefs and assumptions regarding Talisman Mining Ltd.'s future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates", "potential" and similar expressions are intended to identify forward-looking statements. Forward-looking statements are only predictions and are not guaranteed, and they are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of Talisman Mining Ltd. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Talisman Mining Ltd does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement or any changes in events, conditions or circumstances on which any such forward looking statement is based.





**Table 1: Drill-hole information summary, Sinclair Nickel Project**

Details and co-ordinates of drill-hole collars for air-core drilling completed in December 2018:

Hole ID	Grid ID	Dip	Azimuth	East (m)	North (m)	RL (m)	Hole Type	Max Depth
SNAC0118	MGA94_51	-60°	270°	299,650	6,852,600	418	AC	2
SNAC0119	MGA94_51	-60°	270°	299,675	6,852,600	418	AC	1
SNAC0120	MGA94_51	-60°	270°	299,725	6,852,600	418	AC	1
SNAC0121	MGA94_51	-60°	270°	299,750	6,852,600	418	AC	1
SNAC0122	MGA94_51	-60°	270°	299,775	6,852,600	418	AC	1
SNAC0123	MGA94_51	-60°	270°	299,800	6,852,600	418	AC	1
SNAC0124	MGA94_51	-60°	270°	299,825	6,852,600	418	AC	6
SNAC0125	MGA94_51	-60°	270°	299,850	6,852,600	417	AC	4
SNAC0126	MGA94_51	-60°	270°	299,875	6,852,600	416	AC	3
SNAC0127	MGA94_51	-60°	270°	299,900	6,852,600	417	AC	2
SNAC0128	MGA94_51	-60°	270°	299,475	6,853,800	433	AC	1
SNAC0129	MGA94_51	-60°	270°	299,500	6,853,800	432	AC	2
SNAC0130	MGA94_51	-60°	270°	299,550	6,853,800	432	AC	4
SNAC0131	MGA94_51	-60°	270°	299,575	6,853,800	432	AC	2
SNAC0132	MGA94_51	-60°	270°	299,600	6,853,800	432	AC	3
SNAC0133	MGA94_51	-60°	270°	299,625	6,853,800	432	AC	2
SNAC0134	MGA94_51	-60°	270°	299,650	6,853,800	432	AC	1
SNAC0135	MGA94_51	-60°	270°	299,675	6,853,800	432	AC	9
SNAC0136	MGA94_51	-60°	270°	299,700	6,853,800	432	AC	16
SNAC0137	MGA94_51	-60°	270°	299,725	6,853,800	432	AC	15
SNAC0138	MGA94_51	-60°	270°	299,775	6,853,800	432	AC	1
SNAC0139	MGA94_51	-60°	270°	299,800	6,853,800	432	AC	1
SNAC0140	MGA94_51	-60°	270°	299,825	6,853,800	432	AC	1
SNAC0141	MGA94_51	-60°	270°	299,850	6,853,800	432	AC	1
SNAC0142	MGA94_51	-60°	270°	299,500	6,855,950	426	AC	14
SNAC0143	MGA94_51	-60°	270°	299,525	6,855,950	426	AC	15
SNAC0144	MGA94_51	-60°	270°	299,550	6,855,950	426	AC	22
SNAC0145	MGA94_51	-60°	270°	299,575	6,855,950	426	AC	45
SNAC0146	MGA94_51	-60°	270°	299,600	6,855,950	426	AC	24
SNAC0147	MGA94_51	-60°	270°	299,625	6,855,950	426	AC	60
SNAC0148	MGA94_51	-60°	270°	299,650	6,855,950	426	AC	25
SNAC0149	MGA94_51	-60°	270°	299,675	6,855,950	426	AC	16
SNAC0150	MGA94_51	-60°	270°	299,700	6,855,950	426	AC	26
SNAC0151	MGA94_51	-60°	270°	299,750	6,855,950	426	AC	51
SNAC0152	MGA94_51	-60°	270°	298,410	6,859,250	426	AC	23
SNAC0153	MGA94_51	-60°	270°	298,450	6,859,250	426	AC	26
SNAC0154	MGA94_51	-60°	270°	298,475	6,859,250	429	AC	26
SNAC0155	MGA94_51	-60°	270°	298,500	6,859,250	426	AC	28



# ASX ANNOUNCEMENT

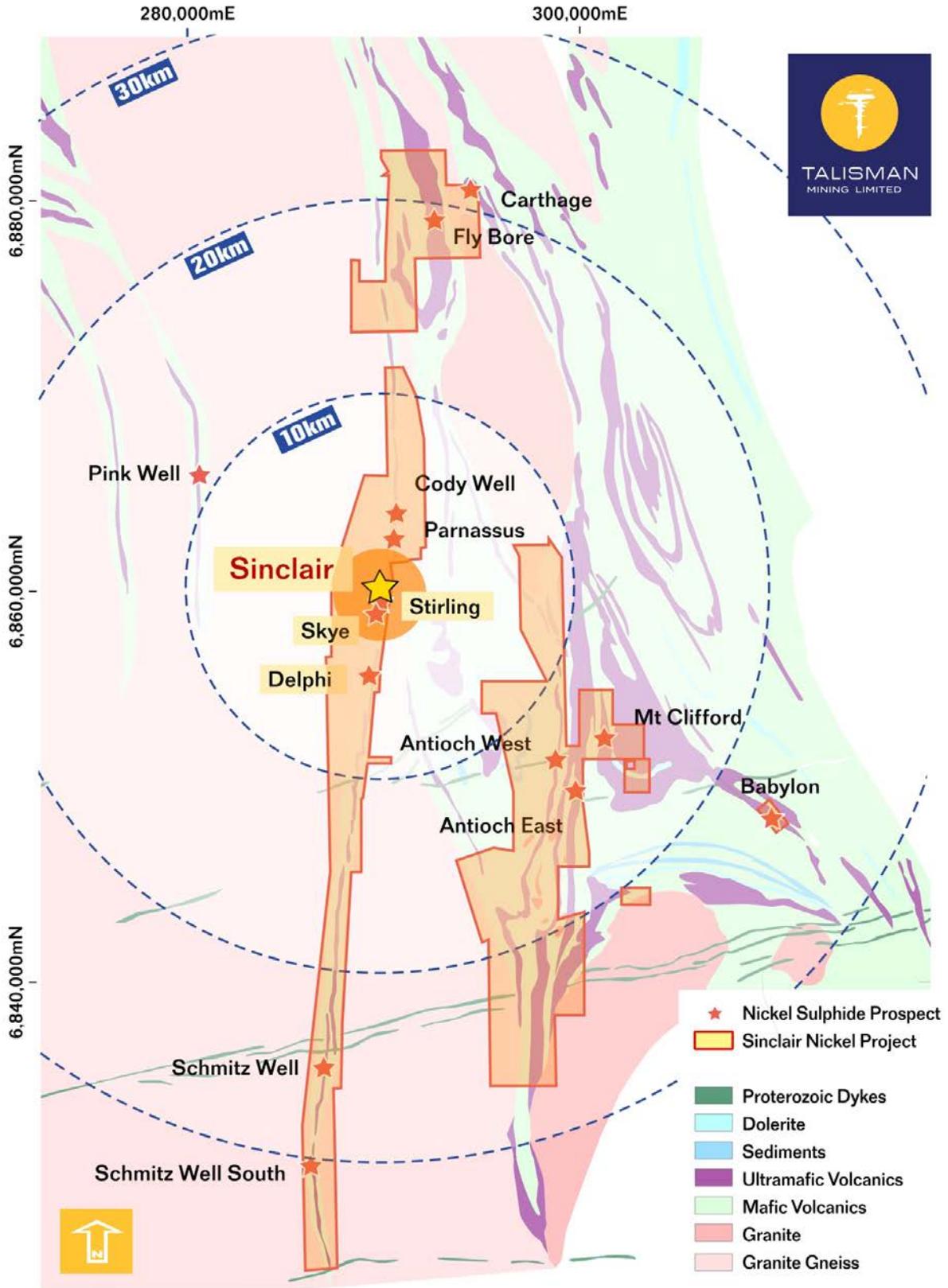


<i>Hole ID</i>	<b>Grid ID</b>	<b>Dip</b>	<b>Azimuth</b>	<b>East (m)</b>	<b>North (m)</b>	<b>RL (m)</b>	<b>Hole Type</b>	<b>Max Depth</b>
SNAC0156	MGA94_51	-60°	270°	298,525	6,859,250	425	AC	29
SNAC0157	MGA94_51	-60°	270°	298,550	6,859,250	426	AC	28
SNAC0158	MGA94_51	-60°	270°	298,575	6,859,250	426	AC	45
SNAC0159	MGA94_51	-60°	270°	298,600	6,859,250	426	AC	40
SNAC0160	MGA94_51	-60°	270°	298,625	6,859,250	426	AC	72
SNAC0161	MGA94_51	-60°	270°	298,650	6,859,250	426	AC	63
SNAC0162	MGA94_51	-60°	270°	298,675	6,859,250	426	AC	54
SNAC0163	MGA94_51	-60°	270°	299,725	6,855,950	426	AC	26
SNAC0164	MGA94_51	-60°	270°	299,350	6,850,450	428	AC	1
SNAC0165	MGA94_51	-60°	270°	299,400	6,850,450	428	AC	1
SNAC0166	MGA94_51	-60°	270°	299,450	6,850,450	428	AC	2
SNAC0167	MGA94_51	-60°	270°	299,500	6,850,450	428	AC	2
SNAC0168	MGA94_51	-60°	270°	299,550	6,850,450	428	AC	2
SNAC0169	MGA94_51	-60°	270°	299,600	6,850,450	428	AC	6
SNAC0170	MGA94_51	-60°	270°	299,650	6,850,450	428	AC	4
SNAC0171	MGA94_51	-60°	270°	299,700	6,850,450	428	AC	6
SNAC0172	MGA94_51	-60°	270°	299,750	6,850,450	428	AC	6
SNAC0173	MGA94_51	-60°	270°	299,800	6,850,450	428	AC	10
SNAC0174	MGA94_51	-60°	270°	299,450	6,848,350	402	AC	10
SNAC0175	MGA94_51	-60°	270°	299,500	6,848,350	402	AC	28
SNAC0176	MGA94_51	-60°	270°	299,550	6,848,350	402	AC	51
SNAC0177	MGA94_51	-60°	270°	299,600	6,848,350	402	AC	56
SNAC0178	MGA94_51	-60°	270°	299,650	6,848,350	402	AC	63
SNAC0179	MGA94_51	-60°	270°	299,700	6,848,350	402	AC	41
SNAC0180	MGA94_51	-60°	270°	299,725	6,848,350	402	AC	60
SNAC0181	MGA94_51	-60°	270°	299,750	6,848,350	402	AC	51
SNAC0182	MGA94_51	-60°	270°	299,775	6,848,350	402	AC	58
SNAC0183	MGA94_51	-60°	270°	299,800	6,848,350	402	AC	66
SNAC0184	MGA94_51	-60°	270°	299,450	6,845,940	397	AC	79
SNAC0185	MGA94_51	-60°	270°	299,490	6,845,950	397	AC	78
SNAC0186	MGA94_51	-60°	270°	299,530	6,845,975	398	AC	60
SNAC0187	MGA94_51	-60°	270°	299,570	6,845,995	397	AC	72
SNAC0188	MGA94_51	-60°	270°	299,610	6,846,000	397	AC	83
SNAC0189	MGA94_51	-60°	270°	299,650	6,846,000	397	AC	61





## Appendix 1 Sinclair Nickel Project tenure





## Appendix 2 JORC Tables Section 1 & 2

### Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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 3kg 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.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling cited in this report by both Talisman Mining Ltd and historically by Xstrata Nickel Australasia Operations Pty Ltd (XNAO) between 2007 and 2012.</li> <li>Sampling techniques employed at the Sinclair Nickel Project include saw cut diamond drill core (DD) samples in NQ2 size sampled on geological intervals (0.2 m to 2 m), cut into half (NQ2) core to give sample weights under 3 kg. Reverse Circulation (RC) drilling samples collected by a cone splitter for single metre samples or sampling spear for composite samples,</li> <li>Samples were crushed, dried and pulverised (total prep) to produce a 1g sub sample for analysis by four acid digest with an ICP/OES or AAS finish.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Surface diamond drill-holes at the Sinclair Nickel Project were completed using wedge drilling techniques with up to 4 daughter holes drilled from a single parent drill hole. Both HQ and NQ2 diameter core was collected for logging and sampling purposes. RC drilling is completed with a face sampling hammer of nominal 140mm size.</li> <li>All drill holes were routinely surveyed using downhole NSG Gyroscope survey tools.</li> <li>All drill core was routinely orientated where possible at nominal 6m intervals using an EzyMark-OriBlock core orientation system.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sinclair diamond core recoveries were logged and recorded in the Sinclair Datashed database. Historic core recoveries exceed 95%. Surface</li> <li>RC sampling is good with almost no wet sampling in the project area.</li> <li>Diamond core was reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths were checked against the depth given on the core blocks and rod counts were routinely carried out by the drillers.</li> <li>No known relationship exists between sample recovery and grade and no sample bias is known.</li> </ul>





Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Logging records lithology, mineralogy, mineralisation, alteration, structure, weathering, colour and other primary features of the rock samples and is considered to be representative across the intercepted geological units.</li> <li>Logging is both qualitative and quantitative depending on the field being logged.</li> <li>All drill-holes are logged in full to end of hole.</li> <li>DD core is routinely photographed digitally.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Sinclair 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 3kg. Samples were selected to weigh less than 3kg to ensure total preparation at the pulverization stage.</li> <li>RC samples are split using a cone or riffle splitter. A majority of RC samples are dry. On occasions that wet samples are encountered they are dried prior to splitting with a riffle splitter.</li> <li>Samples were submitted to ALS Chemex Laboratories for preparation. The sample preparation follows industry best practice where all drill samples are crushed and split to 1kg then dried, pulverized and (&gt;85%) sieved through 75 microns to produce a 1g charge for 4-acid digest with an ICP-MS or AAS finish.</li> <li>QAQC protocols for all diamond drill sampling involved the use of Certified Reference Material (CRM) as assay standards. The insertion ratio of CRM standards was 1 in 25 with a minimum of 2 per batch. OREAS and Geostats standards were selected on their grade range and mineralogical properties.</li> <li>All QAQC controls and measures were routinely reviewed and reported on a monthly, quarterly and annual basis by XNAO.</li> <li>Duplicate samples were inserted at a frequency of 1 in 25, with placement determined by Ni grade and homogeneity.</li> <li>Sample size is considered appropriate for nickel sulphide mineralisation</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sinclair drill samples were submitted to ALS Chemex Laboratories in Perth for multi-element analysis using a 1g charge with a multi-acid digest and ICP-MS or AAS finish (OG62). Analytes include Al, Fe, Mg, Mn, S, Ti, Ag, As, Co, Cr, Cu, Ni, Pb, V, Zn, Zr.</li> <li>QAQC protocols for all drill sampling involved the use of Certified Reference Material (CRM) as assay standards. The insertion ratio of CRM standards was 1 in 33 with a minimum of two per batch. OREAS and Geostats standards are selected on their grade range and mineralogical properties.</li> </ul>





Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>All drill assays are required to conform to the procedural QAQC guidelines as well as routine laboratory QAQC guidelines.</li> <li>All QAQC controls and measures were routinely reviewed and reported on a monthly, quarterly and annual basis. Historic results for all standards and duplicates indicate most performing well within the two standard deviation limit.</li> <li>Lab checks (repeats) occurred at a frequency of 1 in 25. These alternate between both the pulp and crush stages.</li> <li>Portable XRF instruments are used only for qualitative field analysis. No portable XRF results are reported.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Significant intercepts have been verified by alternate company personnel</li> <li>No twinned holes are being drilled as part of this programme.</li> <li>Logging and sampling data is captured and imported using OCRIS software.</li> <li>All drill-hole, sampling and assay data is stored in a SQL server (Datashed) database. Assay data is reviewed via DataShed, QAQCR and other customised software and databases. Datashed software has numerous validation checks which are completed at regular time intervals.</li> <li>Primary assay data is always kept and is not replaced by any adjusted or interpreted data.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill-holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Historic drill collars locations were picked up by Sinclair Mine Surveyors.</li> <li>Talisman drill collar locations are pegged using a hand held GPS and picked up by an independent survey contractor after completion of the drill hole.</li> <li>All drill holes were routinely surveyed using downhole NSG Gyroscope survey tools.</li> <li>The coordinate system used is the Geocentric Datum of Australia (GDA) 1994. Coordinates are in the Map Grid of Australia zone 51 (MGA).</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill spacing at Sinclair was nominally 200m x 25m.</li> <li>No mineral resource is being reported for the Sinclair Nickel Project.</li> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> </ul>	<ul style="list-style-type: none"> <li>The orientation of drilling is designed to intersect either geophysical targets or geological targets at high angle in order to best represent stratigraphy.</li> </ul>





Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No significant orientation based sampling bias at Sinclair is known at this time. Drill-holes may not necessarily be oriented perpendicular to intersected stratigraphy or mineralisation. All reported intervals are down-hole intervals, not true widths.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples were stored at the Sinclair Nickel Mine Site prior to submission under the supervision of the Senior Project Geologist. Samples were transported to ALS Chemex Laboratories Perth by an accredited courier service.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No external audits or reviews of the sampling techniques and data have been completed.</li> </ul>





## Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Sinclair Nickel Project is held 100% by Talisman Nickel Pty Ltd, a wholly owned subsidiary of Talisman Mining Ltd.</li> <li>There are no known Native Title Claims over the Sinclair Nickel Project.</li> <li>All tenements are in good standing and there are no existing known impediments to exploration or mining.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Sinclair Nickel Deposit was discovered in 2005 by Jubilee Mines NL drill testing a ground EM anomaly.</li> <li>M37/1275 hosts the Sinclair Nickel Mine which was operated by XNAO from 2007-2013 and produced approximately 38,500 tonnes of contained nickel metal.</li> <li>Exploration work on has included diamond, RC and Air Core drilling, ground and down-hole EM surveys, soil sampling, geological interpretation and other geophysics (magnetics, gravity).</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Sinclair Nickel Project lies within the Archean aged Norseman-Wiluna Greenstone Belt.</li> <li>The Sinclair Nickel Deposit is an example of an Archaean-aged komatiite-hosted nickel deposit, with massive nickel-iron sulphides hosted at or near the basal contact of high-MgO ultramafic lava channels with footwall basaltic volcanic and sedimentary rocks.</li> </ul>
Drill-hole Information	<ul style="list-style-type: none"> <li>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:                             <ul style="list-style-type: none"> <li>easting and northing of the drill-hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill-hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole information relating to the Sinclair Nickel Project is included in Table 1 Drill-hole Information Summary, Sinclair Nickel Project.</li> </ul>





Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Significant intersections reported from the Sinclair Nickel Project are based on greater than 0.5% Ni and may include up to 1m of internal dilution, with a minimum composite grade of 1% Ni.</li> <li>Ni grades used for calculating significant intersections are uncut.</li> <li>A minimum diamond core sample interval of 0.15m and a maximum interval of 1m is used for intersection calculations subject to the location of geological boundaries.</li> <li>Length weighted intercepts are reported for mineralised intersections.</li> <li>No metal equivalents are used in the intersection calculations.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i></li> <li><i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill-holes relating to the Sinclair Nickel project are reported as down hole intersections. True widths of reported mineralisation are not known at this time.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Appropriate maps with scale are included within the body of the accompanying document.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The accompanying document is considered to represent a balanced report.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>This report includes results from both historic and recent Geophysical Surveys. Results from these surveys are included in the body of this report.</li> <li>Parameters for the Delphi Prospect surface electromagnetic survey include:                             <ul style="list-style-type: none"> <li>Configuration: Moving Loop EM (MLEM)</li> <li>Line and station spacing: 200m x150m, infill 75m</li> <li>TX Loop size: 300x300m double turn</li> <li>Receiver: SMARTem</li> <li>Sensor: High Temp SQUID</li> </ul> </li> </ul>





Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none"><li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li><li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li></ul>	<ul style="list-style-type: none"><li>Planned future work at the Sinclair Nickel Project includes geophysical surveys, re-logging of historic diamond drill core and RC and Diamond Drilling.</li></ul>

