



ASX Media Release – 25 January 2017

## Quarterly Activities Report

December 2016



### Board of Directors

**Jeremy Kirkwood**  
Non-Executive Chairman

**Dan Madden**  
Managing Director

**Alan Senior**  
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**Karen Gadsby**  
Non-Executive Director

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### Capital Structure

Shares on Issue:  
185,699,879 (TLM)

Options on Issue:  
10,505,000 (Unlisted)

### Springfield Cu-Au Project - (JV with Sandfire Resources NL)

- ▶ On-ground exploration activities by the Springfield Joint Venture included:
  - Infill air-core drilling at Homer East, Monty NE and Southern Volcanics
  - Completion of Monty Deeps diamond drill hole and DHEM
  - Follow up RC drilling at Monty NE and Monty South
- ▶ Drilling of **deep diamond hole to provide a DHEM platform** below Monty commenced in September 2016 (completed October 2016). DHEM survey completed.
- ▶ **Feasibility Study on-track** with completion anticipated in first quarter of 2017 calendar year.
- ▶ **Joint Venture** planning for the next phase of exploration work to be completed in the immediate vicinity of the Monty Deposit and to include deep diamond drilling.

### Sinclair Nickel Project

- ▶ Productive period of on-ground exploration at the 100% owned Sinclair Nickel Project, testing five separate prospects including:
  - RC and diamond drilling at Delphi North Prospect
  - RC drilling at Sinclair East Prospect
  - RC and diamond drilling at Sinclair North Prospect
  - Diamond drilling at the Stirling Prospect
  - RC drilling at the Parnassus Prospect
- ▶ Drilling across the Sinclair Nickel Project continues to return zones of massive and stringer nickel sulphide mineralisation at **Delphi North** including:
  - **SND009: 2.57m @ 3.41% Ni** from 173.8m down-hole;
  - **SND010: 2.52m @ 3.35% Ni** from 206.6m down-hole; and **3.06m @ 1.60% Ni** from 224.1m down-hole.
- ▶ Additional Downhole EM (DHEM) conductors identified to the north and above SND010 at Delphi North.

Detailed litho-geochemical and 3D modelling of all results currently underway. Results to determine subsequent work program at Sinclair Nickel Project planned for the first quarter of 2017.

## Doolgunna Projects (Joint Venture with Sandfire Resources NL)

The Doolgunna Projects Joint Venture is between Talisman Mining Ltd (“Talisman” or the “Company” (ASX: TLM)) and Sandfire Resources NL (“Sandfire” (ASX: SFR)) (the “Joint Venture”) with Sandfire acting as Joint Venture Manager. The Joint Venture encompasses the Springfield Cu-Au Project (30%:70%, TLM:SFR) and the Halloween West Project (19%:81%, TLM:SFR) which are high quality VMS copper-gold exploration projects in the emerging world class Bryah Basin region of Western Australia (see Appendix 1). The discovery of exceptionally high grade copper-gold mineralisation and the maiden high grade Mineral Resource estimate for the Monty Copper-Gold Project (“Monty”) has confirmed the significant exploration potential of the Joint Venture.

### Springfield Cu-Au Project

Site and Perth-based activities for the Joint Venture (Appendix 1) focused primarily on the progression and completion of development studies to advance the high-grade Monty Copper-Gold deposit. On-ground exploration activities focused on enhancing geological, geochemical and structural knowledge both in and around the known Monty Deposit and across the broader Joint Venture project area.

During the quarter the Joint Venture completed one hole for 525m of diamond drilling; three holes for 1,344m of RC drilling; and 147 holes for 13,710m of air-core drilling during the quarter (Table 1 and Table 2).

### Exploration

On-ground exploration activity at the Springfield Project during the quarter, in addition to drilling, was focused around building on previous work through integration and detailed analysis of the considerable geological and geochemical datasets generated from the systematic drilling campaigns completed throughout the year.

The focus for the Joint Venture has been both in and around the immediate vicinity of the known Monty Deposit and the area potentially accessible from the proposed mine infrastructure, as well as the wider regional project area (Figure 1).

Diamond drilling activities comprised the completion of one deep drill hole beneath the known Monty mineralisation to act as a deep DHEM platform (Figure 2). The drill hole has been interpreted to have intersected the projected host horizon, however no significant copper mineralisation was intersected (Table 3). A subsequent DHEM survey of the hole did not show any off-hole anomalies. This was the first diamond hole to test, at depth, down dip of the known Monty Deposit. Further deep diamond drill holes and DHEM surveys are proposed to fully test the potential for additional mineralisation.

Two RC holes (TLRC057 and TLRC058) were completed to follow-up a previously reported copper anomaly encountered in air-core drilling (TLAC2694 – 5m @ 4.11% Cu<sup>1</sup> from 55m) at Monty North East. Both holes returned anomalous results for copper and other VMS path-finder elements (Figure 2). While neither hole returned any ore grade copper intercepts (Table 3), the mineralisation encountered to date remains open along strike and at depth.

A DHEM survey has been completed on one of the two drill holes, and did not show any on or off-hole conductors. The DHEM survey of the second hole will be completed as part of the next survey program early in 2017.

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<sup>1</sup> Refer to ASX September Quarterly Activities Report dated 31 October 2016, for full details including all appropriate JORC Tables.

Talisman is encouraged by the VMS geochemical signatures encountered in the drilling at Monty North East, and believes that further exploration is required to fully assess the prospectivity of this complex geological setting.

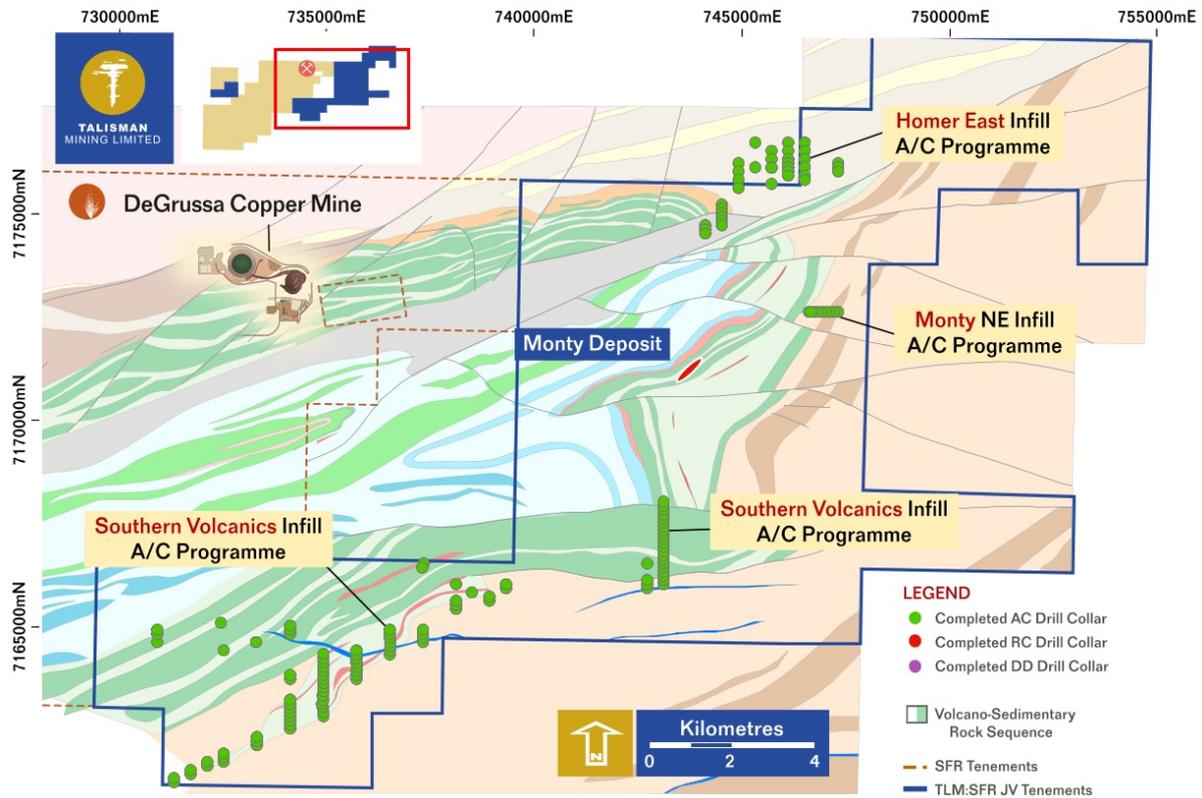


Figure 1: Springfield Project December Quarter Air-core drilling locations.

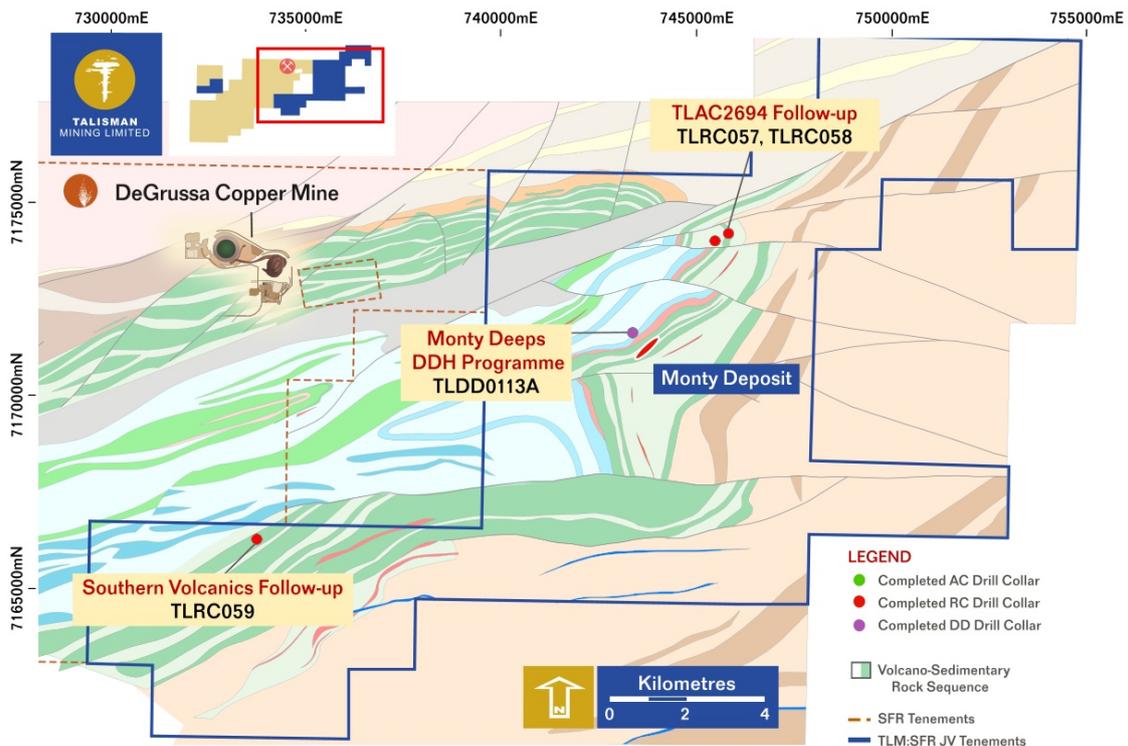


Figure 2: Springfield Project December Quarter Diamond and RC drilling locations.

A third RC drill-hole completed during the quarter was drilled to follow-up a discrete bottom-of-hole air-core litho-geochemical anomaly returned from the first pass regional air-core across the Southern Volcanics (*Figure 2*). Results for this hole (TLRC059) are yet to be received.

### **Planned Exploration Activity**

The Joint Venture has approved a \$2.3M exploration budget for the first quarter of 2017, with the focus of on-ground exploration activities to complete the first pass (400m x 100m) regional air-core drilling campaign over the Southern Volcanics area.

In keeping with the systematic exploration approach adopted by the Joint Venture, once this initial program over the Southern Volcanics is complete, all data will be assessed prior to the commencement of infill air-core with follow-up RC and/or diamond drilling as required.

In addition to this regional exploration, the Joint Venture is currently assessing options, including additional drilling, to test at depth the immediate vicinity along strike and down dip of the known Monty Deposit. Three deep (circa 1,400m) holes are currently under consideration (with one in the approved budgeted for March 2017), aimed at providing additional DHEM platforms that could potentially be accessed from the proposed Monty Mine infrastructure.

An ongoing program of soil-auger sampling is being completed over the Monty Deposit following the completion of an initial orientation programme in the September quarter. The initial samples were collected over an area of moderate paleo-drainage, which did not provide an optimal sample for the programme. Samples are currently being collected for additional multi element geochemical analysis.

### **Monty Development Studies**

The Monty Feasibility Study progressed during the December quarter and remains on schedule to be completed in the March 2017 quarter. Several work streams are currently in progress including:

- Conducting risk assessments for the various disciplines;
- Completing infrastructure design work;
- Completion of mine schedule optimisation to maximise Monty NPV;
- Continuing metallurgical test work and investigations into the geometallurgical properties of Monty;
- Progressing the approvals process;
- Commencement of peer reviews; and
- Preparation of capital and operating cost estimates and compiling the Feasibility Study.

In parallel with Feasibility Study activities, Sandfire and Talisman continue to progress formal exploration and mining joint venture agreements and potential ore process routes and terms.

## Sinclair Nickel Project

### Overview

*The 100% owned Sinclair Nickel Project is located in the world-class Agnew-Wiluna Greenstone Belt in WA's North-eastern Goldfields (Appendix 2). 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% Ni. Sinclair has extensive infrastructure and includes a substantial 290km<sup>2</sup> tenement package covering more than 80km strike of prospective ultramafic contact within a 35km radius of the existing processing plant and infrastructure.*

Talisman continued to advance the Sinclair Nickel Project during the December quarter through cost efficient, staged exploration, focused on targets at the Delphi North, Sinclair East, Sinclair North, Stirling and Parnassus prospects.

On-ground exploration activities included both RC and diamond drilling, comprising eight holes for 1,924m and five holes for 1,717m respectively. DHEM surveys were completed following RC and diamond drilling at Delphi North, Sinclair North, Parnassus and Stirling. A list of holes completed during the December quarter is provided in Table 4.

Talisman continues to be encouraged with results from the Sinclair Project and will continue with a cost efficient, staged and focused exploration program throughout the forthcoming year. Work will focus on high priority targets in the near mine Sinclair Trend, including the Delphi North Prospect. A complete list of assay results from drilling completed during the December quarter is provided in Table 5.

### Delphi North

A total of three diamond drill holes (SND010, SND012 and SND013) were completed for 877.3m which built on the results of a program of two RC fences completed and reported in September 2016 (*Figure 3 & Figure 4*).

Diamond drill hole SND010 was completed to test the potential for mineralisation down plunge from the previous RC drill program which intersected **4m @ 4.79% Ni** from 154m down-hole (SNRC010<sup>2</sup>) and **9m @ 4.20% Ni** from 131m down-hole (SNRC019<sup>3</sup>).

The first hole completed at Delphi North (SND010) returned several mineralised massive sulphide intersections (*Table 5*) including:

- **2.52m @ 3.35% Ni** from 206.66m down-hole including **1.55m @ 4.85% Ni** from 206.66m; and
- **3.06m @ 1.60% Ni** from 224.08m down-hole.

A subsequent DHEM survey completed on this hole identified an elongated, north plunging, high conductance EM plate at 15,000 Siemens, centred to the north and above SND010 (*Figure 4*).

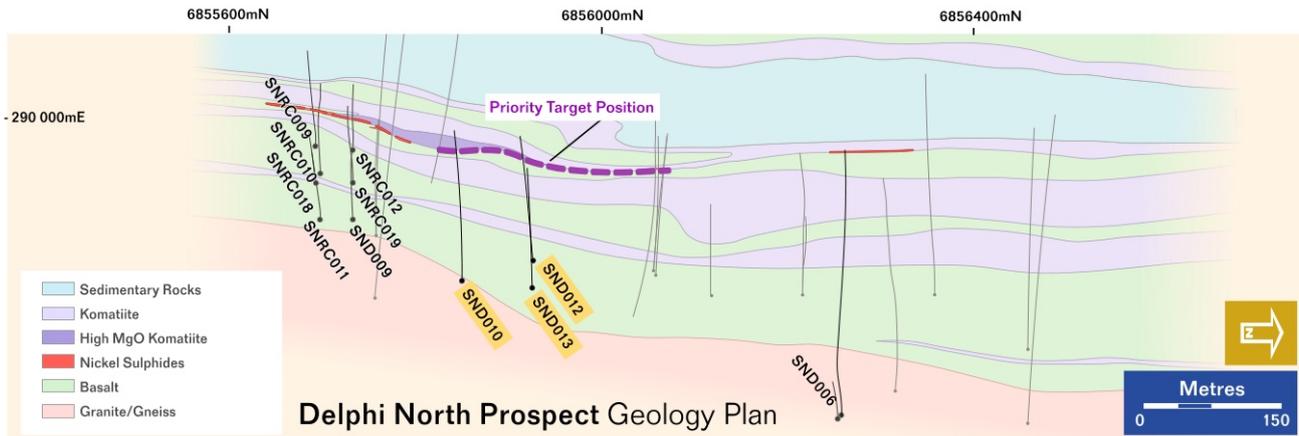
A further two holes (SND012 and SND013) were drilled approximately 75m north of SND010 to test the interpreted EM conductor position generated from hole SND010. The two holes intersected a complex folded ultramafic sequence as observed in previous drilling. Hole SND013 intersected a narrow 0.3m

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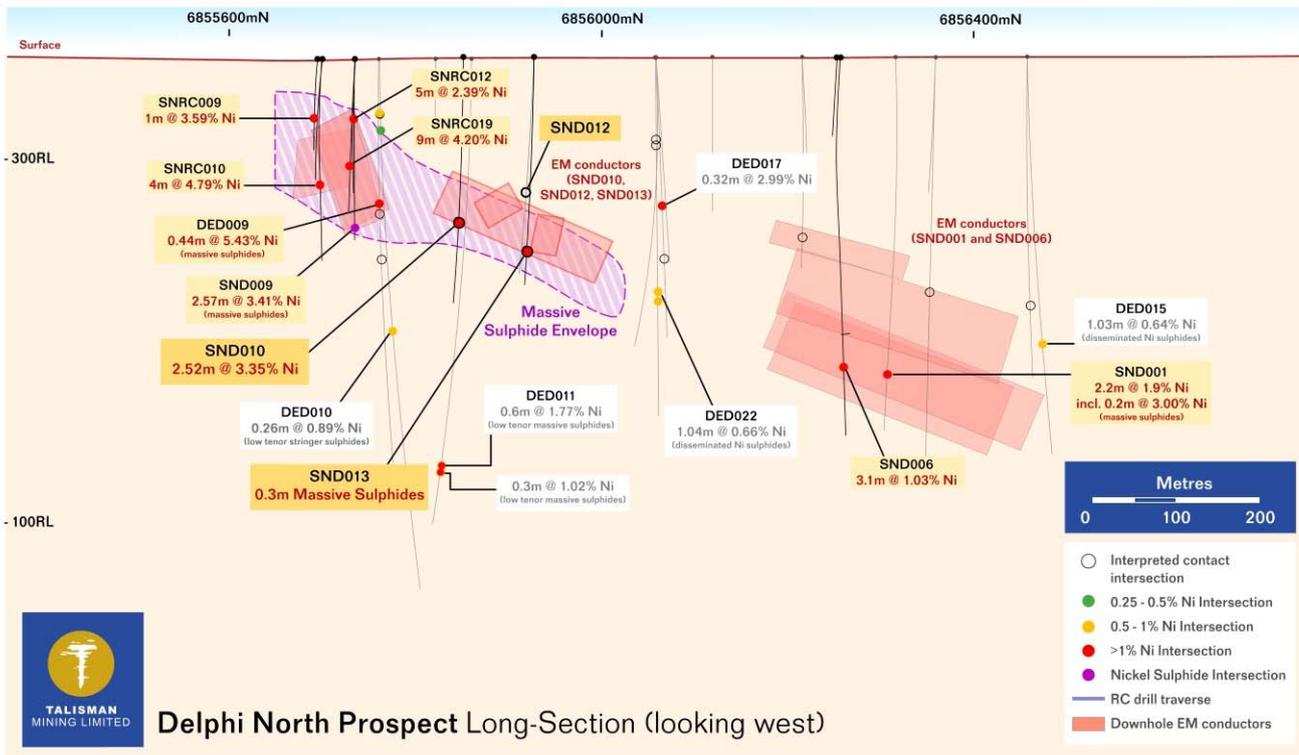
<sup>2</sup> Refer to ASX release dated 7 October 2016 for full details including all appropriate JORC tables

<sup>3</sup> Refer to ASX release dated 27 October 2016 for full details including all appropriate JORC tables

zone of visible massive nickel sulphides from 241.12m down hole, however assay results did not return any significant intersections greater than 1% nickel.



**Figure 3: Delphi North drill collar plan showing recent and historic collar locations, simplified geology and Priority Target position**



**Figure 4: Delphi North projected long section showing new and existing nickel massive sulphide intersections, newly modelled (and historic) DHEM conductors for SND010, SND012 and SND013, and an interpreted Massive Sulphide Envelope.**

Although the holes were successful in intersecting the initial interpreted EM target location from the survey undertaken on hole SND010, the recent drilling and DHEM results from SND012 and SND013 have significantly modified the previous EM interpretation and conductor position.

DHEM surveys of SND012 and SND013 have recorded two separate, smaller but very high conductance, off-hole EM plates on either side of the drilled section (Figure 4). The complex folded nature of the geology logged in all three drill holes, along with these modelled small, very high conductance EM plates, may indicate that the Delphi mineralised horizon has a highly deformed and

discontinuous nature. Further integration and analysis of all available recent and historic data will be undertaken prior to planning the next phase of exploration.

## **Stirling**

A single diamond hole (SND011) was completed at Stirling to a downhole depth of 358.3m (*Figure 5*). The hole was targeting an interpreted mineralised position based on recent reinterpretation by Talisman of historic DHEM and lithologies.

The diamond hole intersected stringer nickel sulphides in a basal contact position from 240.6 to 242.2m as well as visible disseminated and matrix nickel sulphide mineralisation within a high MgO ultramafic sequence from 246.8 to 247.7m. The nickel sulphide intervals are interpreted to represent a zone of highly deformed sulphides proximal to the targeted folded basal contact position. Assay results from sampling did not return any significant results greater than 1 metre at 1% nickel.

Results from the DHEM survey of SND011 have indicated that a moderate conductance off-hole anomaly is located below and to the south of the drill hole. A weak in-hole anomaly has also been interpreted in the data, which is correlated to the narrow zone of nickel sulphides logged in the drill core.

SND011 is the first hole drilled by Talisman to test the conceptual position at Stirling. Further interpretation and incorporation of the new data into the existing exploration model is currently underway prior to planning the next phase of exploration.

## **Sinclair East**

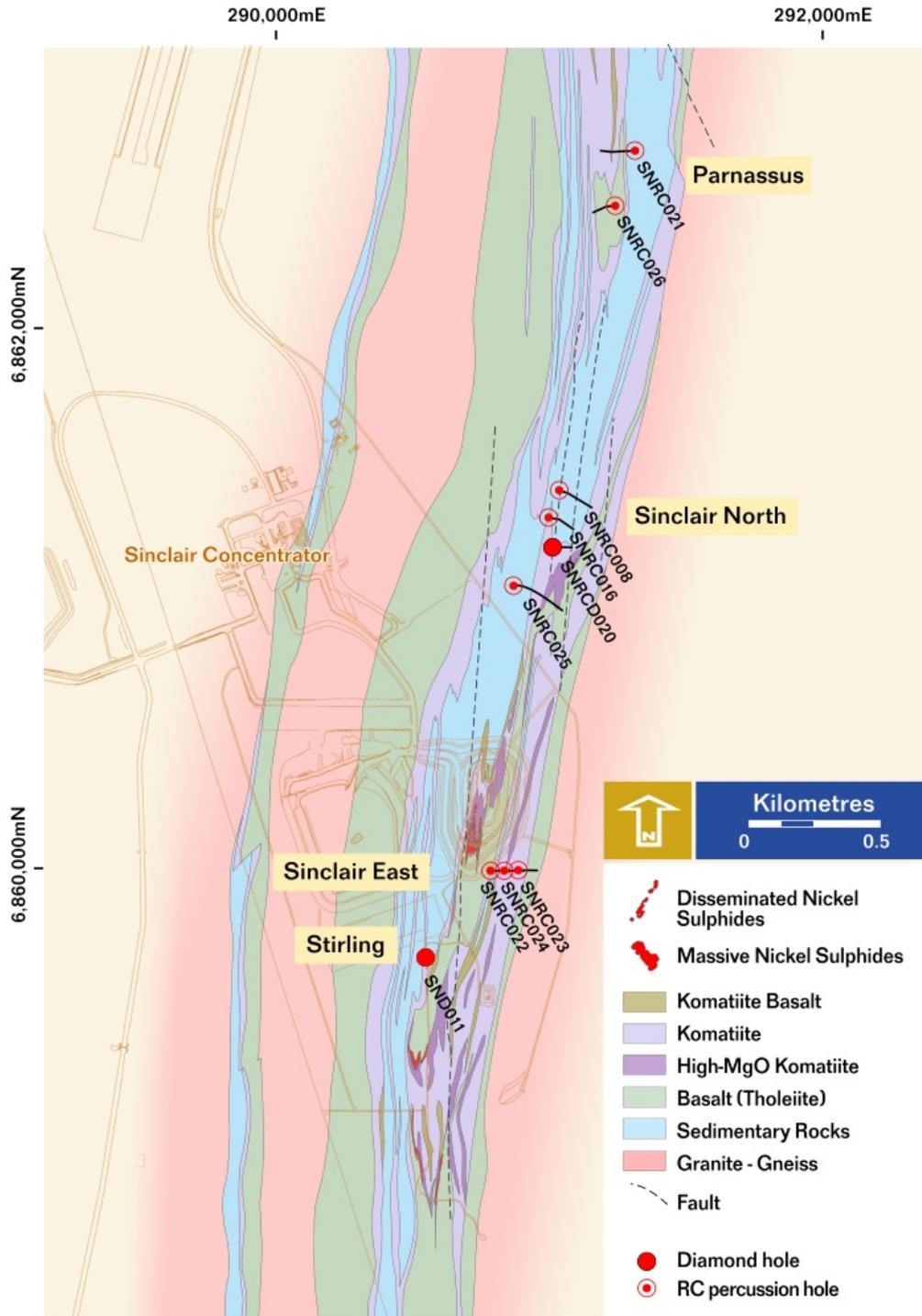
A fence of three RC drill holes for 426m was completed (*Figure 5*) to test the shallow up-plunge position of the fertile ultramafic unit immediately east of the Sinclair deposit and existing mine infrastructure. Historic drilling at depth in this area returned 2.16m @ 2.12% Ni (CWD536B<sup>4</sup>).

Drilling in this shallower position intersected thick sequences of high MgO ultramafic rocks and an interpreted basal contact position. Assay results did not return any significant mineralisation.

There remains limited drilling to test the potential Sinclair East mineralised position and detailed analysis of the geological units encountered and litho-geochemical results, will inform Talisman's ongoing interpretation of this area.

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<sup>4</sup> Refer to ASX June 2016 Quarterly Activities Report dated 26 July 2016 for full details including all appropriate JORC tables



**Figure 5: Sinclair Project drill collar location plan showing recent RC and diamond drill collars, mine infrastructure and simplified geology.**

## Sinclair North

A total of four RC drill holes for 898m and a follow-up diamond tail of 70.9m in one hole was completed (Figure 5) at Sinclair North.

The program was testing the up-dip position of the Sinclair host ultramafic unit where very limited historic drilling has been completed. The target area is proximal to a historic drill intersection of disseminated nickel sulphides in a magnetic high anomaly.

Two of the holes intersected the interpreted basal contact position as well as the Sinclair ultramafic host unit and narrow intervals of stringer sulphides. Assay results have been received for three of the four holes, with no significant results returned to date. Results for the final outstanding drill hole are expected by the end of January. No visual mineralisation was logged in this hole.

DHEM surveys were completed in holes SNRC025 and SNRCD020. No new anomalies were observed in the data. A broad distant off-hole conductor was identified in the data from SNRC025, which is interpreted to coincide with the stratigraphic conductor (sediments) located to the west of the drill-hole.

### **Parnassus**

Two RC holes (SNRC021 and SNRCD026) for 445m were completed at Parnassus (*Figure 5*) where historical drilling (CWWS003<sup>5</sup>) has intersected an interpreted basal contact position and narrow intervals of disseminated nickel sulphides.

The two holes were targeting an interpreted overturned basal contact position and both holes intersected the target contact. Stringer nickel sulphides were intersected in one hole (SNRC026) internal to the ultramafic unit from 134 to 145 metres downhole, however assay results did not return any significant intersections.

### **Planned activity**

All results from the recent two campaigns of RC and diamond drilling across the Sinclair Nickel Project have now been integrated into the existing historical geological database. Talisman has commenced a review of this updated dataset to critically analyse the existing targets, and revise the current target selection and ranking criteria.

Previous geochemical analysis of the drill assay data at Sinclair has identified several litho-geochemical criteria which can be used to identify the prospective ultramafic host corridor or channel environment. The criteria include the MgO and nickel content of the host ultramafic unit as well as MgO/Ti, MgO/Al<sub>2</sub>O<sub>3</sub>, MgO/V and Ni/Cr ratios. The recent litho-geochemical review and three-dimensional visualisation exercise has proved very useful for identifying broader zones or corridors of prospective ultramafic host units.

A comprehensive targeting exercise over the entire Sinclair project is underway, and it is anticipated that this work will be completed during the first quarter of 2017, and will form that basis of planning for on-going exploration at Sinclair.

## **ENDS**

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<sup>5</sup> Refer to ASX release dated 9 January 2017 for drill collar details.

## Competent Persons' Statement

*Information in this report that relates to Exploration Results and Exploration Targets as defined under the 2012 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves", is based on information compiled 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 deposit 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.*

## 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 forecasts. Actual values, results or events may be materially different to those expressed or implied in this report. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this report speak only at the date of issue of this report. 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 report or any changes in events, conditions or circumstances on which any such forward-looking statement is based.*

**Table 1 – Budget Vs Actual drilling details for quarter ending 31 December 2016, Springfield Cu-Au Project**

	October		November		December		Total		
	Budget meters	Actual meters	% Completed						
Diamond Drilling	280	525	520	-	-	-	800	525	66%
RC Drilling	300	896	1,200	-	2,400	448	3,900	1,344	34%
AC Drilling	8,200	10,937	16,400	2,773	5,500	-	30,100	13,710	46%
<b>Total:</b>	<b>9,530</b>	<b>12,358</b>	<b>18,440</b>	<b>2,773</b>	<b>7,900</b>	<b>448</b>	<b>34,800</b>	<b>15,579</b>	<b>45%</b>

**Table 2 – Drill-hole Information Summary, Springfield Cu-Au Project**

Details and co-ordinates of drill-hole collars for diamond and RC drilling completed during the December 2016 quarter:

Hole ID	Grid ID	Dip	Azimuth	East (m)	North (m)	RL (m)	Hole Type	Max Depth	Hole Status
TLDD0113A*	MGA94_50	-66°	132°	743,242	7,171,497	595	RC/DDH	1,213	Complete
TLRC0057	MGA94_50	-62°	324°	745,361	7,173,859	611	RC	448	Complete
TLRC0058	MGA94_50	-60°	323°	745,705	7,174,067	617	RC	448	Complete
TLRC0059	MGA94_50	-60°	175°	733,600	7,166,125	578	RC	448	Complete

\*TLDD0113A commenced in the September 2016 quarter and was completed in the December 2016 quarter. Diamond drilling meters quoted in Table 1 are those drilled during the December 2016 quarter only.

**Table 3: Drill-hole Assay Intersections >1% Copper for the Springfield Cu-Au Project**

Details of relevant intersections received by Talisman during the December 2016 quarter at the Springfield Cu-Au Project are provided below.

Calculation of relevance for inclusion into this table is based on a 0.5% Cu cut-off, no more than 3m of internal dilution and a minimum composite grade of 1%Cu. Intersection length, Cu (%), Au (ppm), Ag (ppm) and Zn (%) are rounded to 1 decimal point.

Hole ID	Depth From (m)	Depth To (m)	Interval (m)	Cu (%)	Au (ppm)	Zn (%)
TLDD0113A	No Significant Intercepts					
TLRC0057	No Significant Intercepts					
TLRC0058	No Significant Intercepts					
TLRC0059	Assays Pending					

**Table 4 – Drill-hole Information Summary, Sinclair Nickel Project**

Details and co-ordinates of drill-hole collars for diamond and RC drilling completed during the December 2016 quarter:

<i>Hole ID</i>	<i>Grid ID</i>	<i>Dip</i>	<i>Azimuth</i>	<i>East</i> (m)	<i>North</i> (m)	<i>RL</i> (m)	<i>Hole Type</i>	<i>Max Depth</i>	<i>Prospect</i>
<b>Diamond Drilling</b>									
SND010	MGA94_51	-60°	270°	290,177	6,855,850	412	DDH	315.3	Delphi North
SND011	MGA94_51	-85°	0°	290,546	6,859,680	411	DDH	358.2	Stirling
SND012	MGA94_51	-60°	270°	290,155	6,855,925	411	DDH	273.8	Delphi North
SND013	MGA94_51	-60°	270°	290,185	6,855,925	411	DDH	288.2	Delphi North
<b>RC/DDH Drilling</b>									
SND009*	MGA94_51	-62°	265°	290,116	6,855,734	412	RC/DDH	252.9	Delphi North
SNRCD020	MGA94_51	-68°	90°	291,009	6,861,190	422	RC/DDH	267.9	Sinclair North
<b>RC Drilling</b>									
SNRC008	MGA94_51	-60°	90°	291,035	6,861,405	422	RC	208	Sinclair North
SNRC013*	MGA94_51	-61°	100°	287,377	6,827,674	387	RC	196	Schmitz Well South
SNRC014*	MGA94_51	-61°	100°	287,302	6,827,674	387	RC	208	Schmitz Well South
SNRC016	MGA94_51	-60	100°	291,000	6,861,300	422	RC	201	Sinclair North
SNRC021	MGA94_51	-60°	270°	291,327	6,862,650	422	RC	238	Parnassus
SNRC022	MGA94_51	-60°	90°	290,785	6,860,000	422	RC	190	Sinclair East
SNRC023	MGA94_51	-60°	90°	290,886	6,860,000	422	RC	88	Sinclair East
SNRC024	MGA94_51	-60°	90°	290,835	6,860,000	422	RC	148	Sinclair East
SNRC025	MGA94_51	-60°	90°	290,879	6,861,050	422	RC	292	Sinclair North
SNRC026	MGA94_51	-60°	270°	291,240	6,862,450	422	RC	208	Parnassus

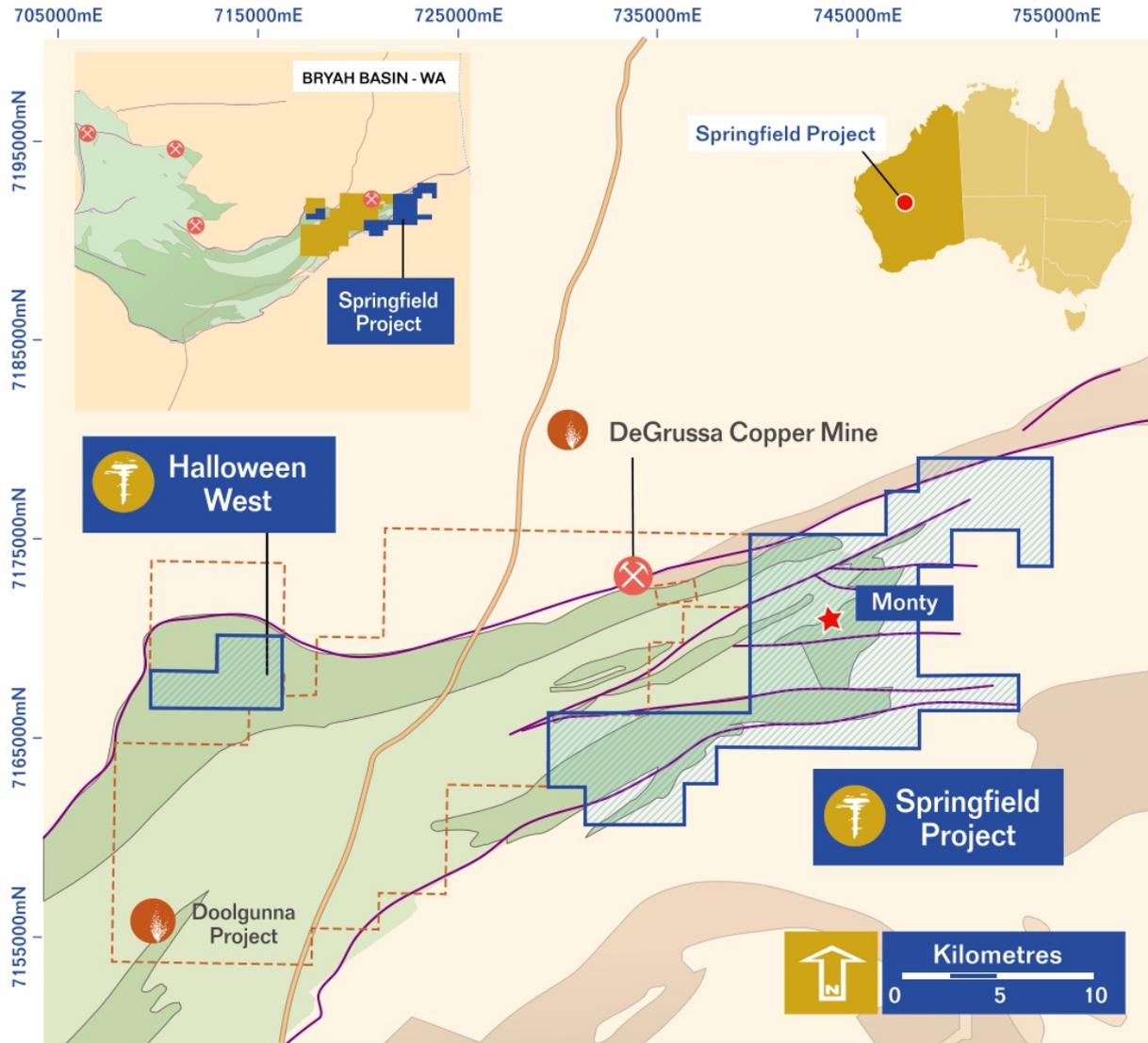
\* Drill holes completed and reported in the September 2017 Quarter.

**Table 5 – Drill-hole Assay Intersections >0.5% Nickel for the Sinclair Nickel Project**

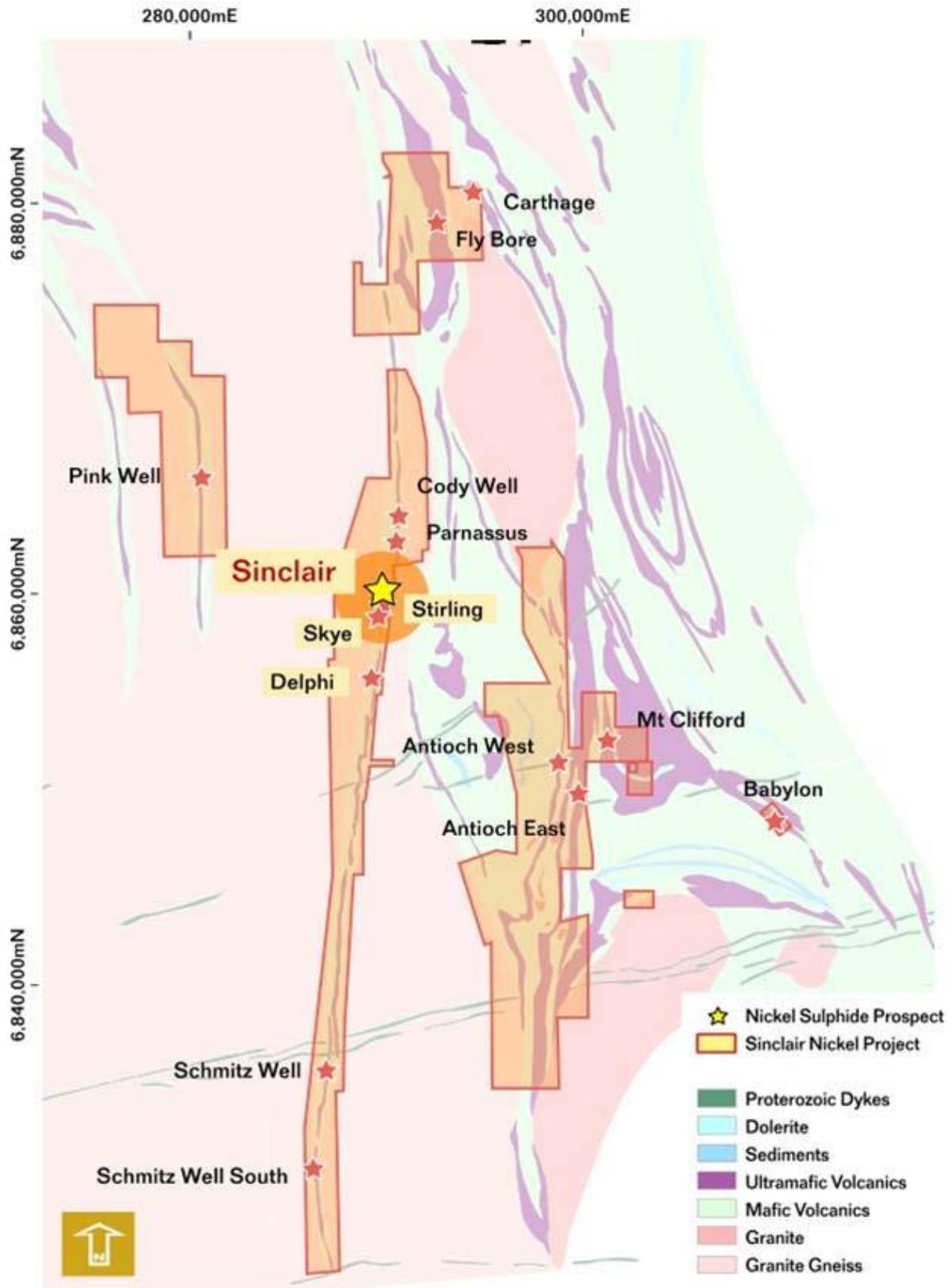
Significant intersections reported for the Sinclair Nickel Project are based on greater than 0.5% Ni and may include up to 1m of internal dilution, with a minimum composite grade of 1% Ni

Hole ID	Depth From (m)	Depth To (m)	Interval (m)	Ni (%)	Cu (ppm)	Co (ppm)
SND009	173.8	176.37	2.57	3.41	1131	973
	195.22	197.19	1.97	2.11	485	873
SND010	206.66	209.18	2.52	3.35	1376	1175
	224.08	227.14	3.06	1.6	685	308
SND011	No Significant Intercepts					
SND012	No Significant Intercepts					
SND013	No Significant Intercepts					
SNRCD020	No Significant Intercepts					
SNRC008	No Significant Intercepts					
SNRC013	No Significant Intercepts					
SNRC014	No Significant Intercepts					
SNRC016	No Significant Intercepts					
SNRC021	No Significant Intercepts					
SNRC022	No Significant Intercepts					
SNRC023	No Significant Intercepts					
SNRC024	No Significant Intercepts					
SNRC025	Assays Pending					
SNRC026	No Significant Intercepts					

**Appendix 1: Springfield Project Location and Simplified Geology**



**Appendix 2: Talisman's Tenement Holding at the Sinclair Nickel Project and Simplified Geology**



### Appendix 3: Talisman's Tenement Holding

Project / Tenement	Location and Blocks (Area)	Interest at Beginning Quarter	Interest at End Quarter	Acquired during Quarter	Surrendered during Quarter	Joint Venture Partner / Farm-In Party	
<b>HALLOWEEN WEST</b>	W Australia					JV - Sandfire Resources NL	
E52/2275	6	18.8%	18.8%	-	-		
<b>HALLOWEEN</b>	W Australia					JV - Sandfire Resources NL	
P52/1528	(200 HA)	0%	0%	Application			
<b>SPRINGFIELD</b>	W Australia					JV - Sandfire Resources NL	
E52/2282	42	30%	30%	-	-		
E52/2313	8	30%	30%	-	-		
E52/2466	14	30%	30%	-	-		
E52/3423	1	0%	0%	Application	-		
E52/3424	1	0%	0%	Application	-		
E52/3425	6	0%	0%	Application	-		
E52/3466	12	0%	0%	Application	-		
E52/3467	20	0%	0%	Application	-		
L52/170	(246.4HA)	0%	0%	Application	-		
M52/1071	(1,642HA)	0%	0%	Application	-		
E51/1767	14	0%	0%	Application	-		N/A

Project / Tenement	Location and Blocks (Area)	Interest at Beginning Quarter	Interest at End Quarter	Acquired during Quarter	Surrendered during Quarter	Joint Venture Partner / Farm-In Party
<b>SINCLAIR NICKEL PROJECT</b>	W.Australia					N/A
E36/650	16	100%	100%	-	-	
E37/903	13	100%	100%	-	-	
E37/1231	3	0%	0%*	-	-	
L36/198	(103.1 HA)	100%	100%	-	-	
L37/175	(83.9 HA)	100%	100%	-	-	
M36/444	(568.0 HA)	100%	100%	-	-	
M36/445	(973.0 HA)	100%	100%	-	-	
M36/446	(843.0 HA)	100%	100%	-	-	
M37/362	(981.5 HA)	100%	100%	-	-	
M37/383	(841.7 HA)	100%	100%	-	-	
M37/384	(536.7 HA)	100%	100%	-	-	
M37/385	(926.8 HA)	100%	100%	-	-	
M37/386	(983.8 HA)	100%	100%	-	-	
M37/424	(891.0 HA)	100%	100%	-	-	
M37/426	(505.0 HA)	100%	100%	-	-	
M37/427	(821.0 HA)	100%	100%	-	-	
M37/590	(120.0 HA)	100%	100%	-	-	
M37/692	(136.1 HA)	100%	100%	-	-	
M37/735	(959.0 HA)	100%	100%	-	-	
M37/816	(818.4 HA)	100%	100%	-	-	
M37/818	(806.5 HA)	100%	100%	-	-	
M37/819	(380.2 HA)	100%	100%	-	-	



Project / Tenement	Location and Blocks (Area)	Interest at Beginning Quarter	Interest at End Quarter	Acquired during Quarter	Surrendered during Quarter	Joint Venture Partner / Farm-In Party
M37/1063	(604.0 HA)	100%	100%	-	-	
M37/1089	(574 HA)	100%	100%	-	-	
M37/1090	(478 HA)	100%	100%	-	-	
M37/1126	(603 HA)	100%	100%	-	-	
M37/1127	(603 HA)	100%	100%	-	-	
M37/1136	(986 HA)	100%	100%	-	-	
M37/1137	(850 HA)	100%	100%	-	-	
M37/1148	(44.78 HA)	100%	100%	-	-	
M37/1168	(190 HA)	100%	100%	-	-	
M37/1223	(675 HA)	100%	100%	-	-	
M37/1275	(1,961 HA)	100%	100%	-	-	
P37/7228	(61.57 HA)	100%	100%	-	-	
P37/7233	(116.01 HA)	100%	100%	-	-	

## 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>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sampling techniques employed by Sandfire on the Doolgunna Project include half core sampling of NQ2 Diamond Drill (DD) core, Reverse Circulation (RC) drilling samples collected by a cone splitter for single metre samples or sampling spear for composite samples, and Air Core (AC) sample collected using spear techniques for both composite and single metre samples.</li> <li>• Sampling is guided by Sandfire DeGrussa protocols and QAQC procedures as per industry standard.</li> <li>• RC sample size reduction is completed through a Boyd crusher to -10mm and pulverised via LM5 to nominal -75µm. Pulp size checks are completed.</li> <li>• Diamond core size reduction is through a Jaques jaw crusher to -10mm and all samples Boyd crushed to -4mm and pulverised via LM5 to nominal 90% passing -75µm using wet sieving technique.</li> <li>• Samples are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS.</li> <li>• Fire Assay is completed by firing 40g portion of the sample with ICPMS finish.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Drilling cited in this report was completed 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 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.</li> <li>• 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>• <i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sandfire drilling is completed using industry standard practices. RC drilling with a face sampling hammer of nominal 140mm size and diamond drilling is completed using NQ2 size coring equipment.</li> <li>• All drill collars are surveyed using RTK GPS.</li> <li>• All core, where possible is oriented using a Reflex ACT II RD orientation tool.</li> <li>• Downhole surveying is undertaken using a gyroscopic survey instrument.</li> </ul> <hr/> <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 historic drill holes completed by Xstrata were routinely surveyed using downhole NSG Gyroscope survey tools. Current drilling by Talisman is routinely surveyed using</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>an electronic single shot camera, at a nominal 30 intervals down hole.</p> <ul style="list-style-type: none"> <li>All historic drill core completed by Xstrata was routinely orientated where possible at nominal 6m intervals using an EzyMark-OriBlock core orientation system. Talisman routinely orients all drill core where possible at nominal 6m metre intervals using ACE ACTIII core orientation system.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sandfire core is meter marked and orientated to check against the driller's blocks, ensuring that all core loss is taken into account. Diamond core recovery is logged and captured into the database with weighted average core recoveries of approximately 99%.</li> <li>Surface RC sampling is good with almost no wet sampling in the project area. AC drilling recovery is good with sample quality captured in the database.</li> <li>Samples are routinely weighed and captured into a central secured database.</li> <li>No indication of sample bias with respect to recovery has been established.</li> </ul> <hr/> <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%.</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>
Logging	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sandfire geological logging is completed for all holes and is representative across the ore body. The lithology, alteration, and structural characteristics of drill samples are logged directly to a digital format following standard procedures and using Sandfire DeGrussa geological codes. Data is imported into the central database after validation in LogChief™.</li> <li>Logging is both qualitative and quantitative depending on field being logged.</li> <li>All drill-holes are logged in full.</li> <li>All cores are digitally photographed and stored.</li> </ul> <hr/> <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	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sandfire DD Core orientation is completed where possible and core is marked prior to sampling. Half core</li> </ul>

Criteria	JORC Code explanation	Commentary
and sample preparation	<ul style="list-style-type: none"> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>samples are produced using Almonte Core Saw. Samples are weighed and recorded.</p> <ul style="list-style-type: none"> <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>All samples are dried at 80° for up to 24 hours and weighed. DD Samples are then crushed through Jaques crusher to nominal -10mm. Second stage crushing uses Boyd crusher to nominal -4mm. Pulverising is completed using LM5 mill to 90% passing 75µm. RC samples are Boyd crushed to -4mm.</li> <li>Sample splits are weighed at a frequency of 1:20 and entered into the job results file. Pulverising is completed using LM5 mill to 90% passing 75µm using wet sieving technique.</li> <li>1:20 grind quality checks are completed for 90% passing 75µm criteria to ensure representativeness of sub-samples.</li> <li>Sampling is carried out in accordance with Sandfire protocols as per industry best practice.</li> <li>The sample size is appropriate for the VHMS and Gold mineralisation styles.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Sinclair diamond core is HQ and NQ size, sampled on geological intervals (0.2 m to 1.2 m), cut into half (NQ) 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 are routinely reviewed and reported on a regular basis whilst exploration campaigns are in progress.</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	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used</i></li> </ul>	<ul style="list-style-type: none"> <li>Sandfire samples are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g</li> </ul>

Criteria	JORC Code explanation	Commentary
assay data and laboratory tests	<p><i>and whether the technique is considered partial or total.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<p>charge methods with ICPOES or ICPMS. The samples are digested and refluxed with a mixture of acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric acids and conducted for multi elements including Cu, Pb, Zn, Ag, As, Fe, S, Sb, Bi, Mo, Re, Mn, Co, Cd, Cr, Ni, Se, Te, Ti, Zr, V, Sn, W and Ba. The MAD Hotbox method is an extended digest method that approaches a total digest for many elements however some refractory minerals are not completely attacked. The elements S, Cu, Zn, Co, Fe, Ca, Mg, Mn, Ni, Cr, Ti, K, Na, V are determined by ICPOES, and Ag, Pb, As, Sb, Bi, Cd, Se, Te, Mo, Re, Zr, Ba, Sn, W are determined by ICPMS. Samples are analysed for Au, Pd and Pt by firing a 40g of sample with ICP AES/MS finish. Lower sample weights are employed where samples have very high S contents. This is a classical FA process and results in total separation of Au, Pt and Pd in the samples.</p> <ul style="list-style-type: none"> <li>• No geophysical tools are used in the analysis.</li> <li>• Sandfire DeGrussa QAQC protocol is considered industry standard with standard reference material (SRM) submitted on regular basis with routine samples. SRMs and blanks are inserted at a minimum of 5% frequency rate.</li> </ul> <hr/> <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> <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 intersections have been verified by alternate Talisman personnel.</li> <li>• Sandfire primary data is captured on field tough book laptops using Logchief™ Software. The software has validation routines and data is then imported into a secure central database.</li> <li>• The primary data is always kept and is never replaced by adjusted or interpreted data.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<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 program.</li> <li>• Logging and sampling data is captured and imported using Maxwell LogChief 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>• Sandfire DeGrussa Survey team undertakes survey works under the guidelines of best industry practice. All surface drilling is located using RTK-GPS.</li> <li>• All drill collars are accurately surveyed using RTK GPS system within +/-50mm of accuracy (X, Y, Z).</li> <li>• For the Springfield project MGA94 Zone 50 grid coordinate system is used.</li> <li>• Topographic control was established using LiDar laser imagery technology.</li> </ul> <hr/> <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 historic drill holes completed by Xstrata were routinely surveyed using downhole NSG Gyroscope survey tools. Current drilling by Talisman is routinely surveyed using an electronic single shot camera, at a nominal 30 interval down hole.</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>• Infill drilling at Monty is based on a nominal 30m x 40m grid.</li> <li>• Resource definition drill spacing and distribution of exploration results is sufficient to support Mineral Resource Estimation procedures. Refer ASX:SFR 13/04/2016 Maiden High Grade Mineral Resource for Monty VMS deposit</li> <li>• Exploration drill spacing outside of the Monty Mineral Resource is not sufficient to estimate Mineral Resources.</li> <li>• No sample compositing has been applied to the exploration results.</li> </ul> <hr/> <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>

Criteria	JORC Code explanation	Commentary
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> <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>• At Monty, no significant orientation based sampling bias is known at this time.</li> <li>• The drill holes may not necessarily be perpendicular to the orientation of the intersected mineralisation.</li> </ul> <hr/> <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> <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>• Appropriate security measures are taken to dispatch samples to the laboratory. Chain of custody of samples is being managed by Sandfire Resources NL. Samples are stored onsite and transported to laboratory by a licenced transport company in sealed bulker bags. The laboratory receipts received samples against the sample dispatch documents and issues a reconciliation report for every sample batch.</li> </ul> <hr/> <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><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sandfire Resources NL and Talisman Mining Limited have formed a Joint Venture which covers Talisman's Doolgunna Project tenements (E52/2282, E52/2313, E52/2466, E52/2275).</li> <li>Sandfire and Talisman hold a 70%:30% interest respectively in the Joint Venture, with the exception of tenement E52/2275 where interests of approximately 81%:19% respectively are held.</li> <li>Both parties are contributing proportionately to expenditure.</li> <li>Sandfire Resources NL has been appointed as the Joint Venture Manager.</li> <li>All tenements are current and in good standing.</li> <li>The Talisman tenements are currently subject to a Native Title Claim by the Yungunga-Nya People (WAD6132/98). Sandfire currently has a Land Access Agreement in place with the Yungunga-Nya Native Title Claimants and have assumed management of Heritage Agreements which were executed by Talisman. These agreements allow Sandfire to carry out mining and exploration activities on their traditional land.</li> </ul> <hr/> <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><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Exploration work at Springfield completed prior to Talisman's tenure included geochemical soil and rock chip sampling combined with geological mapping. Some targeted RC drilling was completed over gold and diamond targets.</li> </ul> <hr/> <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 downhole EM surveys, soil sampling, geological interpretation and other geophysics (magnetics, gravity).</li> </ul>

Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <li><i>deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Doolgunna Project lies within the Proterozoic-aged Bryah rift basin enclosed between the Archaean Marymia Inlier to the north and the Proterozoic Yerrida basin to the south.</li> <li>The principal exploration targets at the Doolgunna Projects are Volcanogenic Massive Sulphide (VMS) deposits located with the Proterozoic Bryah Basin of Western Australia.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>The Sinclair 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><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill-hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill-hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill hole information relating to the Doolgunna Project is included in <i>Table 2: Drill-hole Information Summary, Springfield Project.</i></li> </ul> <hr/> <ul style="list-style-type: none"> <li>Drill hole information relating to the Sinclair Nickel Project is included in <i>Table 5: Drill-hole Information Summary, Sinclair Nickel Project.</i></li> </ul>
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 Springfield Project are based on greater than 0.5% Cu and may include up to a maximum of 3.0m of internal dilution, with a minimum composite grade of 1.0% Cu.</li> <li>Cu grades used for calculating significant intersections are uncut.</li> <li>Minimum and maximum DD sample intervals used for intersection calculation are 0.3m and 1.2m respectively.</li> <li>RC reported intersections are based on regular 1m sample intervals.</li> <li>No metal equivalents are used in the intersection calculation.</li> <li>Where core loss occurs; the average length-weighted grade of the two adjacent samples are attributed to the interval for the purpose of calculating the intersection. The maximum interval of missing core which can be incorporated with the reported intersection is 1m.</li> </ul> <hr/> <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> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <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-hole intercepts relating to the Doolgunna Project in this release are reported as both down-hole intersection widths and estimated true width intersections (refer Table 4: Drill hole assay intersections &gt;1% for the Monty Prospect).</li> <li>The geometry of the mineralisation has been interpreted using top of mineralisation surfaces that link mineralised zones, thought to be continuous, between neighbouring drill-holes. Given the variable, and often steeply dipping orientation of the mineralisation, the angle between mineralisation and drill-holes is not consistent. Downhole intercepts for each drill-hole are converted to estimated true widths using a trigonometric function that utilises the dip and dip direction of the interpreted top of mineralisation surface (at the intersection point of that drill-hole) as well as the dip and azimuth of the drill-hole at that position.</li> </ul> <hr/> <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>Other exploration data collected is not considered as material to this document at this stage. Other data collection will be reviewed and reported when considered material.</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 exploration across the Springfield Joint Venture Project area includes both surface and down-hole geophysical techniques and reconnaissance and exploration drilling with Diamond, Reverse Circulation and air-core drilling techniques.</li></ul> <hr/> <ul style="list-style-type: none"><li>Planned future work at the Sinclair Nickel Project includes RC and Diamond Drilling, geophysical surveys and geological mapping.</li></ul>