



**TALISMAN  
MINING LIMITED**

ASX Code: TLM



**30<sup>th</sup> April 2015**

**COMPANY SNAPSHOT**

**Board of Directors**

**Alan Senior**  
Non-Executive Chairman

**Gary Lethridge**  
Managing Director

**Brian Dawes**  
Non-Executive Director

**Karen Gadsby**  
Non-Executive Director

**Quarterly Activities Report  
March 2015**

***-Highlights-***

**Sinclair Nickel Project Acquisition**

- Completion of acquisition of the Sinclair Nickel Project from Xstrata Nickel Australasia Operations Pty Ltd (XNAO) following satisfaction of conditions precedent and payment by Talisman of \$8M.
- Receipt & payment of Stamp Duty Assessment from Western Australian Office of State Revenue (payment on April 10 2015).
- Lodgement of transfer of title documents to the Sinclair Nickel Project tenements with the Western Australian Department of Mines and Petroleum (DMP) following payment of Stamp Duty in April 2015.
- Finalised registration of transfer of title by DMP expected in April 2015.

**Sinclair Nickel Project**

- Geological modelling of the Sinclair deposit (including the extension) progressed during quarter following the receipt of additional Sinclair project data from XNAO on completion of acquisition.
- Appointment of General Manager – Sinclair Nickel Project.
- Commencement of work to clarify / understand potential development pathways and critical path issues.
- Initial desktop exploration activities undertaken by SRK and Newexco focused on the Skye and Stirling prospects completed during the quarter; exploration targets in near-mine areas being developed.
- EIS application lodged with the DMP for assessment of potential co-funding of a proposed exploration drill program at the Delphi prospect.

**Contact Details**

**6 Centro Avenue  
Subiaco, Western  
Australia, 6008**

**Telephone:**  
+61 8 9380 4230

**Facsimile:**  
+61 8 9382 8200

**Email:**  
info@talismanmining.com.au

**Website:**  
www.talismanmining.com.au

**Doolgunna Copper-Gold Projects – JV with Sandfire Resources**

- Aircore drilling programs and high powered ground electromagnetic surveys undertaken by Sandfire completed during quarter.
- Detailed interpretation by Sandfire of the geochemical and geological information to continue and anticipated to assist Sandfire in generating exploration targets at Springfield for potential drill testing in second half of 2015.

**Capital Structure**

**Shares on Issue:**  
131,538,627 (TLM)

**Options on Issue:**  
7,250,000 (Unlisted)

**ASX: TLM**



## **Sinclair Nickel Project**

The Sinclair Nickel Project is located in the prolific Agnew-Wiluna Greenstone Belt in WA's North-eastern Goldfields, one of the world's premier nickel provinces with over 9 million tonnes of reported contained nickel metal.

The Sinclair nickel deposit was discovered by the former highly successful nickel miner and explorer, Jubilee Mines NL, in October 2005. It was developed and commissioned in 2008 by Xstrata 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.

## **Transaction Update**

As announced on 20 October 2014, Talisman Nickel Pty Ltd, a wholly owned subsidiary of Talisman Mining Limited, entered into a binding Sale and Purchase Agreement with Xstrata Nickel Australasia Operations Pty Ltd (XNAO), a subsidiary of Glencore, to acquire 100% of the Sinclair Nickel Project in Western Australia.

On 4th February 2015 Talisman announced that it had completed the acquisition of the Sinclair Nickel Project from XNAO following the satisfaction of the conditions precedent and payment of the non-contingent purchase consideration of \$8 million in cash.

During the March 2015 quarter Talisman received the stamp duty assessment from the Western Australian Office of State Revenue (WAOSR) with regard to the purchase of the Sinclair Nickel Project. This stamp duty assessment was paid by Talisman on 10 April 2015.

As a consequence, Talisman lodged the stamped tenement transfers for formal registration in Talisman Nickel's name with the Western Australian Department of Mines and Petroleum (DMP) in April 2015.

To date, all but one of the Sinclair Nickel Project tenements have been registered in Talisman Nickel's name.

## **Sinclair Nickel Project – Care & Maintenance**

All necessary key statutory appointments and notifications were been made and registered with the DMP within required timeframes during the quarter following the acquisition of the Sinclair Nickel Project on 4 Feb 2015. All requisite statutory monitoring and reporting has been submitted in accordance with agreed timeframes.

The onsite caretakers were retained as part of the acquisition to ensure continuity of project knowledge. Fit for purpose management plans have been developed to ensure personnel safety and maintain asset security.

## **Sinclair Nickel Deposit – Geological Modelling**

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 (see **Figure 1**).

The underground operation extracted ore from the deposit to around 445m below surface and provides a near-mine nickel sulphide exploration opportunity within the down-plunge extensions of the Sinclair ore body.

Nickel mineralisation at Sinclair continues down-plunge beyond the current underground infrastructure and has been identified in drilling for a further 1km along strike beyond the current extent of the underground workings.

Talisman commenced work on compiling a Geological model of the entire Sinclair deposit during the quarter. The intent of this work is to improve understanding of the deposit, provide target vectors for drill programs and to be a pre-cursor to any potential Resource Estimate for the Sinclair deposit.



Following the completion of the Sinclair Nickel Project acquisition in February, further project data was received from XNAO which has substantially assisted Talisman in advancing its geological modelling of the Sinclair deposit and its known depth extension.

A review of potential development pathways for the Sinclair Nickel Project commenced during the quarter. This work will improve Talisman’s understanding of critical path issues that will need to be addressed should the operation be recommenced.

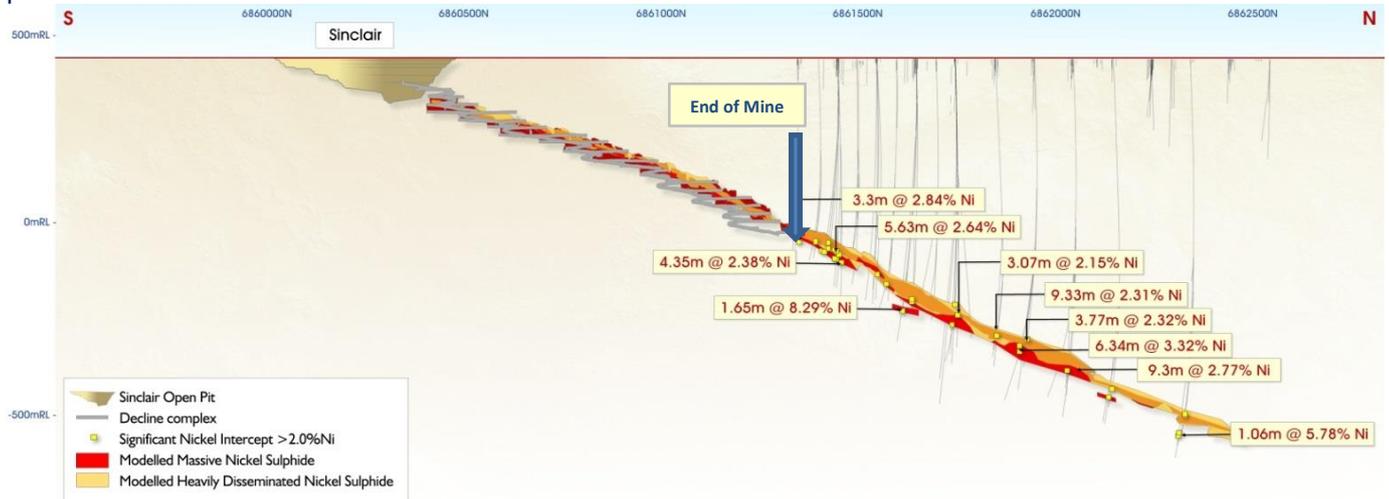


Figure 1: Sinclair Nickel deposit longitudinal projection with mine development showing mineralised Ni drill intercepts greater than 2% Ni beyond the limit of existing mine development (previously reported to ASX on 20 October 2014 – Talisman to Acquire Sinclair Nickel Project)

## Exploration Update

During the Quarter, Talisman continued to pursue a series of exploration activities focused upon identifying potential exploration drill targets to assist in exploration planning.

### Stirling and Skye Prospects – Near-Mine Exploration Potential

The **Stirling and Skye** Prospects comprise two mineralised ultramafic channels parallel to, and beneath the main Sinclair orebody, in relatively close proximity to the Sinclair underground mine development.

Stirling and Skye show strong similarities to the Sinclair orebody, with massive nickel sulphides associated with at least two positions at the base of a complexly folded ultramafic sequence. Both prospects have returned significant nickel intersections at their near-surface positions, but are largely untested down-plunge beneath Sinclair. (see **Figure 2**).

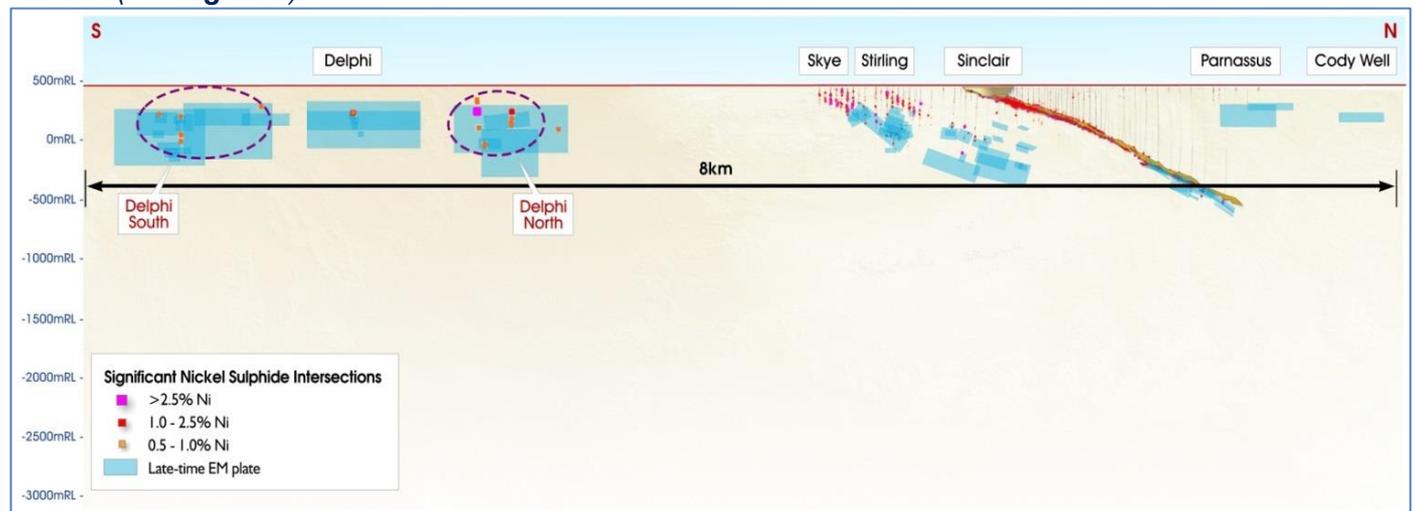


Figure 2: Sinclair Trend longitudinal projection showing 8km of strike extent, late-time EM plates and historical mineralised intercepts.



Late in 2014, Talisman engaged expert consultants to assist with the development of exploration targets at Skye and Stirling, through the preparation of three-dimensional geological models and the re-processing and assessment of historical electromagnetic data.

This work has both confirmed existing EM targets and identified a number of previously unrecognised EM targets that support the continuation of massive nickel sulphides along both the Stirling and Skye basal contacts, and confirm the highly prospective nature of the near-mine environment.

Talisman has now integrated the new 3D geological and electromagnetic models, together with historical drill-hole data, and is developing potential drill programs to test the highest priority EM drill targets in optimal geological positions along the Stirling and Skye mineralised channels. (see **Figure 3**).

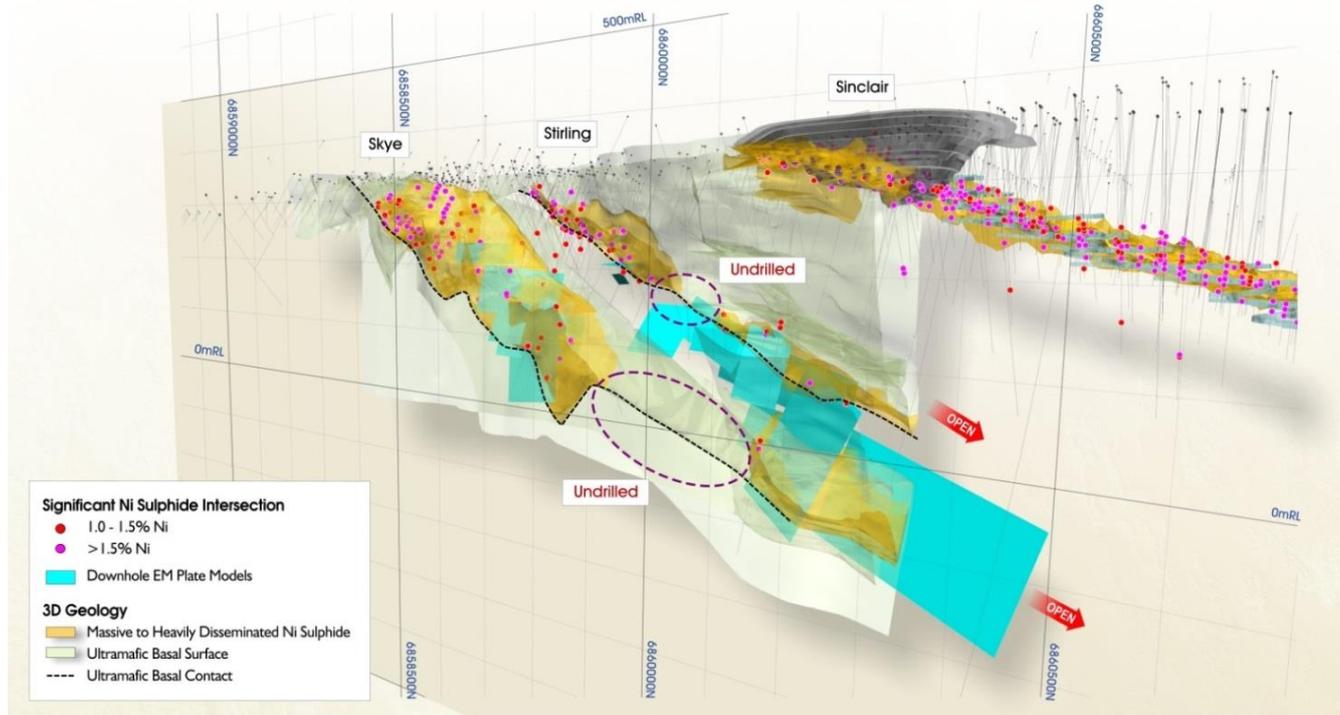


Figure 3: Perspective view of Skye-Stirling 3D geology (looking southwest) with north-plunging basal ultramafic contact (green) and associated nickel sulphide mineralised envelope (yellow).

### **Delphi Prospect – EIS Application**

The Delphi Prospect and surrounding area hosts the southern continuation of the prospective Sinclair ultramafic sequence. Several nickel sulphide intersections in limited drilling over a strike length of at least 3.5km highlights the prospectivity of the area (see **Figure 2**).

Newexco have assisted Talisman with a review of the historical ground and down-hole electromagnetic (DHEM) data along the Delphi trend and as previously reported on 16 February 2015 this work has identified two main areas of follow up drill testing and DHEM, namely Delphi North and Delphi South.

At Delphi South, an electromagnetic conductive zone with evidence of nickel sulphide enrichment, has been identified in historic ground EM and DHEM data over 900m strike, where limited historical drilling has intersected fertile ultramafic rocks and disseminated nickel sulphide mineralisation. A prominent magnetic body is noted in this area and is interpreted to represent a major ultramafic channel with potential to host basal massive nickel sulphide mineralisation. This zone remains untested, and the electromagnetic conductive zone is interpreted to be strengthening to the north.

An application has been lodged with the WA Department of Mines and Petroleum under the Exploration Incentive Scheme for Co-funded exploration drilling on the Delphi South Prospect.



The EIS application proposes partial drill testing of this electromagnetic target and the gathering of further geological and geochemical data. Feedback from the DMP on whether this application has been successful is anticipated in the June 2015 quarter.

### ***Parnassus and Cody Well***

The Parnassus and Cody Well prospects represent the northern continuation of the prospective Sinclair ultramafic sequence (see **Figure 2**). There have been several anomalous, historic nickel intersections reported in sparse drilling as well as anomalous soil geochemistry and geophysics.

A number of potential drill targets have been highlighted through a detailed review in the area undertaken during the quarter and Talisman is currently working to develop potential drill targets to test the most prospective areas.

### **Doolgunna Copper-Gold Projects (Farm-in JV with Sandfire Resources)**

*Talisman has a portfolio of high-quality VMS copper-gold exploration projects in the Bryah Basin region of Western Australia. Leading Australian copper producer Sandfire Resources NL (ASX: SFR) is funding active exploration at these projects as part of a joint venture farm-in. Sandfire has the right to earn up to a 70% interest in Talisman's Doolgunna Projects by spending \$15 million on exploration over five-and-a-half years.*

Talisman's Doolgunna Projects comprise the **Springfield, Halloween and Halloween West Projects** (see **Appendix 1 and Figure 4**), which abut Sandfire's DeGrussa-Doolgunna tenements and contain extensions of the volcanic rock package which hosts the DeGrussa VMS deposits.

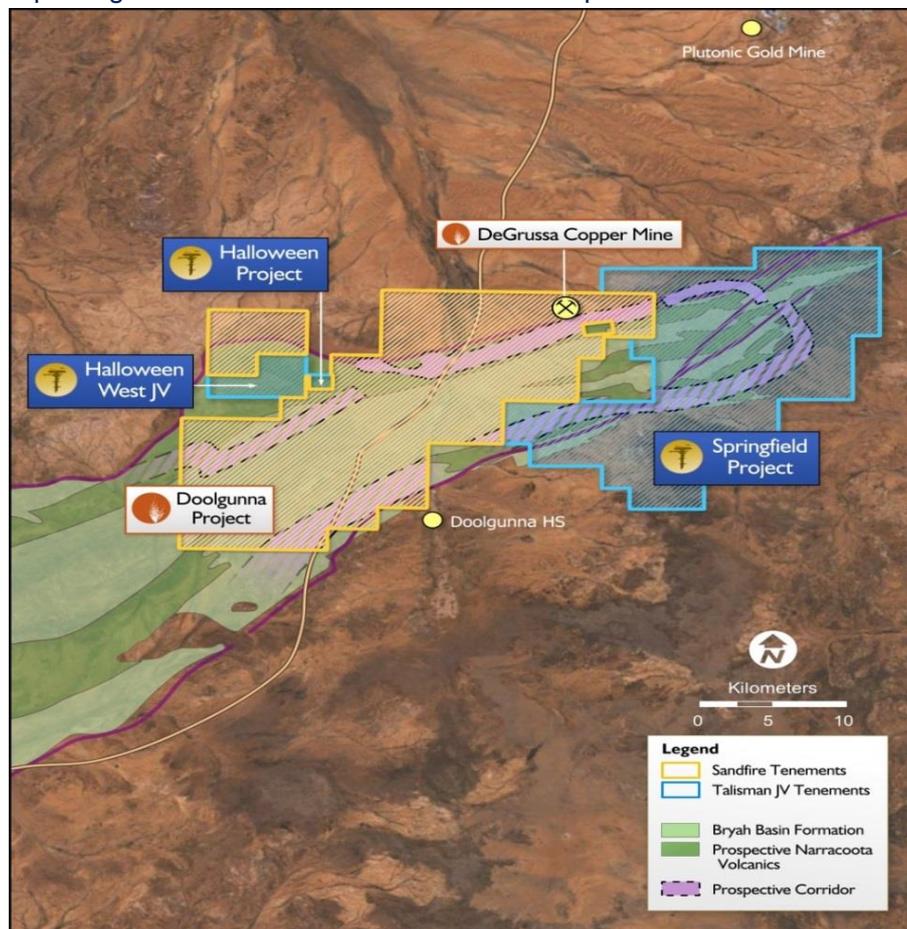


Figure 4: Talisman Mining Ltd Springfield, Halloween and Halloween West JV Project Locations



Preliminary observations from the initial phases of exploration at the Springfield Project have delivered significant geological encouragement, confirming that the Springfield project contains interpreted extensions of the volcanic rock package which hosts the DeGrussa VMS deposits.

During the March Quarter, exploration continued at the Springfield Prospect with Sandfire undertaking a total of 321 Aircore drill holes (AC) for an aggregate advance of 28,747 metres. (see **Figure 5**). The AC drilling undertaken was primarily focused during the quarter over the interpreted fold hinge south of the Red Bore East/Homer prospect areas with drilling continuing east from the Southern Volcanics Package towards the end of the quarter.

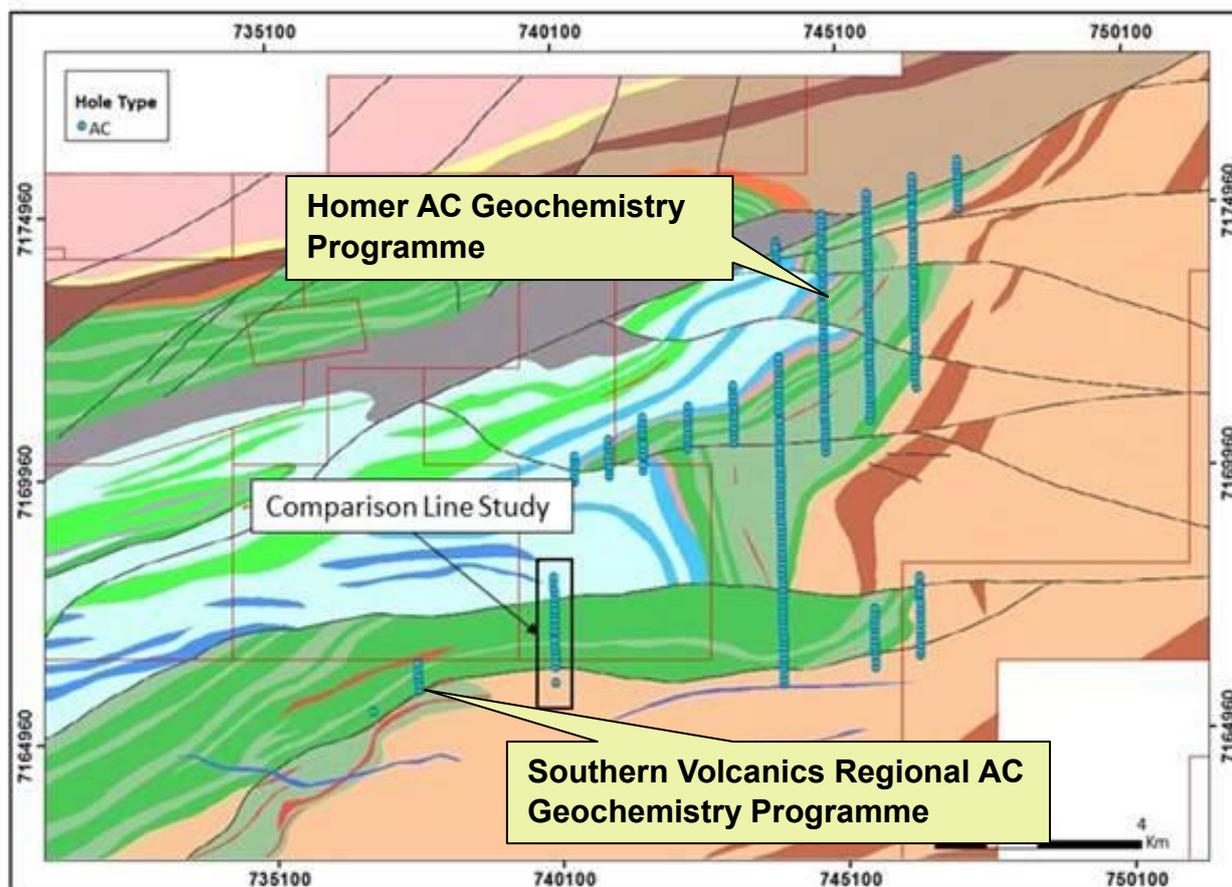


Figure 5: Springfield Project interpreted geology showing completed regional Aircore drills completed during the quarter.

Sandfire also drilled 21 new AC holes in close proximity to historical Talisman AC drill holes (see **Figure 5**) in order for Sandfire to assess the compatibility of historical AC and RAB drilling conducted in the Springfield Project area. Sandfire intends to use this data to undertake a direct comparison between historical geological logging, drill-hole depths and assay results to determine how to proceed with the historical dataset. The results from this study are currently under review by Sandfire.

At the end of the March quarter all planned Fixed Loop Electromagnetic (FLEM) surveying over the main prospective sequences of the Springfield Project had been completed by Sandfire. Final data interpretation is ongoing, however to date no additional geophysical targets have been advised to Talisman.

### Looking Forward

Ongoing work by Sandfire at the Springfield Project in the first half of the 2015 calendar year is designed to continue to allow for holistic geological, geophysical and geochemical targeting across the entire prospective Narracoota mafic volcanic sequences at Springfield.



Sandfire will continue to undertake a comprehensive data review of the extensive datasets being generated covering geophysics, geology and litho-geochemistry including the assessment and integration of datasets with historic Talisman drill hole data.

It is anticipated that the integration and assessment of the final data from the multi-disciplined exploration campaigns undertaken will assist Sandfire in generating robust DeGrussa-style exploration targets at Springfield.

## **Murchison Exploration Projects**

### **Livingstone Project (TLM 80%)**

*The Livingstone Project is located approximately 130km to the north-west of Meekatharra and covers an area of 208 km<sup>2</sup>. The Project straddles the western extension of the prospective Bryah Basin at the northern margin of the Yilgarn Craton. A major mineralized shear zone traverses the entire Project with widespread gold intercepts returned by historical drilling programs over a strike length of more than 31km.*

### **Muddawerrie Gold Project (TLM 80%)**

*The Muddawerrie Project is located approximately 100km north-west of Meekatharra in the Murchison Region of Western Australia (see **Appendix 1**). The Project covers an area of approximately 52km<sup>2</sup> and comprises a prospective Archaean greenstone belt with significant potential to host high-grade, banded iron formation (BIF) and mafic-hosted shear zone gold deposits, similar to those at Mt Magnet and Southern Cross.*

Following a technical review undertaken during the March Quarter, and in light of the recent acquisition of the Sinclair Nickel Project, the Livingstone and Muddawerrie Projects were interpreted to be of a lower prospectivity and consequently of low priority to the Company.

Consistent with the Company's focus on minimising non-core expenditure Talisman notified Zebina Minerals Pty Ltd, it's Joint Venture Partner in the Livingstone and Muddawerrie projects, of its intention to withdraw from the Joint Venture during the Quarter. Under the terms of the Joint Ventures Talisman must provide 60 days to Zebina Minerals of its intention to withdraw from a Joint Venture, Talisman provided notice on 13 March 2015.

## **Corporate**

At the end of the Quarter, Talisman held cash of **\$5.9 million**.

During the quarter Talisman appointed Ben Wilson as General Manager of the Sinclair Nickel Project. Ben is a mining engineer with over 20 years' of industry experience in all facets of mining including project evaluations, pre-feasibility and feasibility studies and the development and management of mining operations across a range of commodities. Prior to joining Talisman Ben has worked in Australia and overseas with Gold Fields, OZ Minerals, Oxiana, Newmont and HWE.

**ENDS**

For further information, please contact:  
Gary Lethridge – Managing Director  
on +61 8 9380 4230

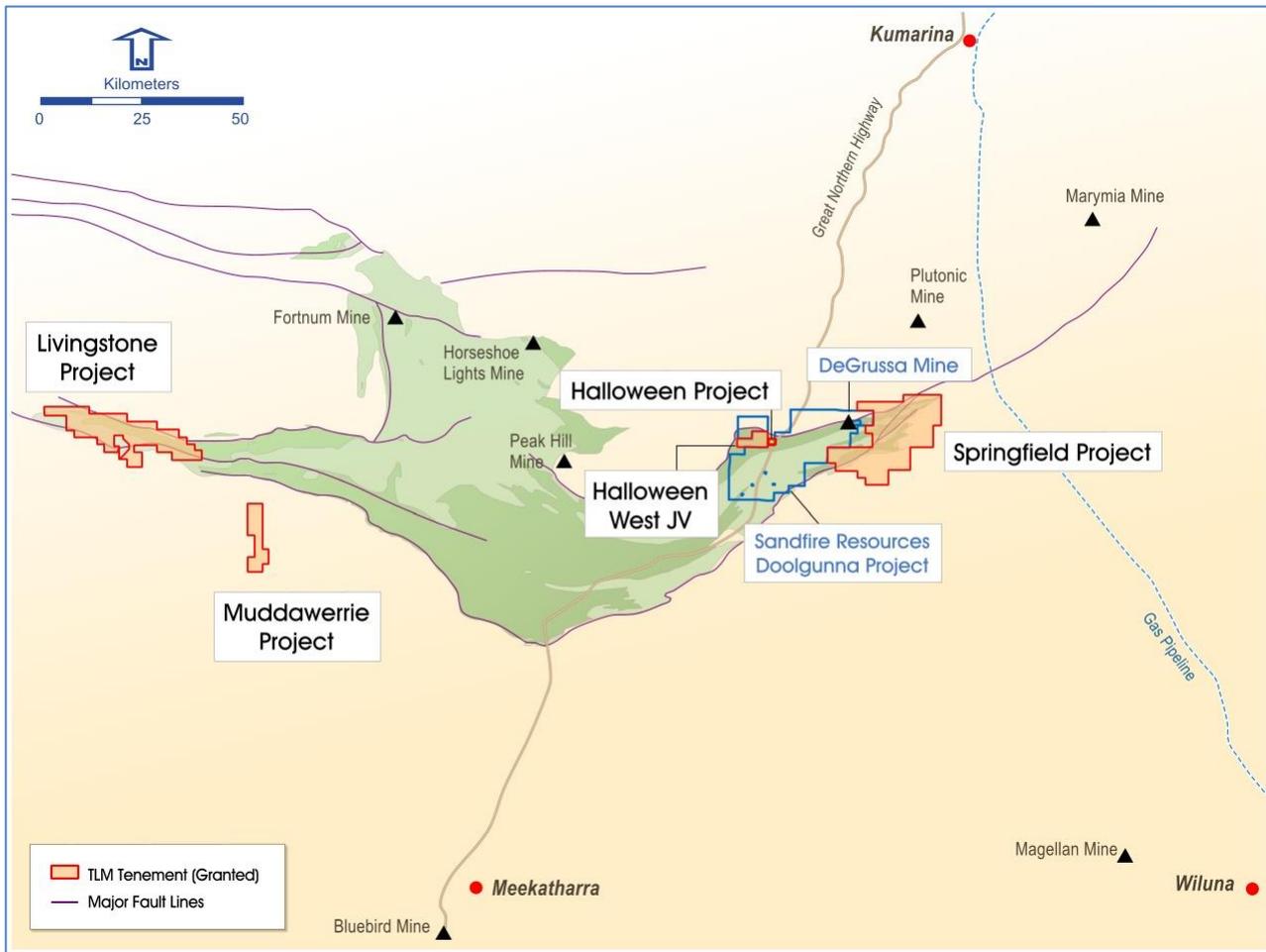
For media inquiries, please contact:  
Nicholas Read – Read Corporate  
on +61 419 929 046



## Competent Persons' Statement

Information in this ASX release that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Graham Leaver, who is a member of the Australian Institute of Geoscientists. Mr Leaver 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 Leaver consents to the inclusion in this report of the matters based on information in the form and context in which it appear

## Appendix 1 – Talisman Mining Limited Bryah Basin exploration project locations



**NOTE:** On 13 March 2015, Talisman notified its Joint Venture partner (Zebina Minerals Pty Ltd) of its intention to withdraw from the Livingstone and Muddawerrie Projects. Under the terms of the Joint Venture formal withdrawal is 60 days from the date of notification.



Appendix 2 – Talisman Mining Tenement Schedule as at 31 March 2015

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					
E52/2275	6	63%	63%	-	-	JV and Farm-in - Sandfire Resources Ltd
<b>HALLOWEEN</b>	W.Australia					
P52/1241	(200 HA)	100%	100%	-	-	Sandfire Resources Ltd
<b>LIVINGSTONE</b>	W.Australia					
E52/2565	15	80%	80%	-	****On 13 March 2015, Talisman notified its Joint Venture partner (Zebina Minerals Pty Ltd) of its intention to withdraw from the Livingstone and Muddawerrie Projects. Under the terms of the Joint Venture, formal withdrawal is 60 days from the date of notification.	
E52/2566	31	80%	80%	-		
E52/2593	24	80%	80%	-		
P52/1423	(195 HA)	100%	100%	-		
E52/2931	2	100%	100%	-	-	
<b>MUDDAWERRIE</b>	W.Australia					
E51/1447	17	80%	80%	-	See ****above	
<b>SPRINGFIELD</b>	W.Australia					
E52/2282	70	100%	100%	-	-	Sandfire Resources Ltd
E52/2313	14	100%	100%	-	-	Sandfire Resources Ltd
E52/2466	14	100%	100%	-	-	Sandfire Resources Ltd
<b>SINCLAIR NICKEL PROJECT</b>	W.Australia					*The acquisition of the Sinclair Nickel Project and associated tenements from Xstrata Nickel Australasia Operations completed on 4 February 2015.  Talisman paid stamp duty on the tenements and registered the transfer of title with the WA DMP on 10 April 2015.  As at the end of April 2015 transfer of title of the majority of tenements had completed.
E37/538	6	0%	100%*	-	-	
E37/903	13	0%	100%*	-	-	
E37/1012	5	0%	100%*	-	-	
L36/198	(103.10 HA)	0%	100%*	-	-	
L37/175	(83.90 HA)	0%	100%*	-	-	
M36/444	(568 HA)	0%	100%*	-	-	
M36/445	(973 HA)	0%	100%*	-	-	
M36/446	(843 HA)	0%	100%*	-	-	
M37/362	(981.50 HA)	0%	100%*	-	-	
M37/383	(841.75 HA)	0%	100%*	-	-	
M37/384	(536.70 HA)	0%	100%*	-	-	
M37/385	(926.85 HA)	0%	100%*	-	-	
M37/386	(983.80 HA)	0%	100%*	-	-	
M37/424	(891 HA)	0%	100%*	-	-	
M37/426	(505 HA)	0%	100%*	-	-	
M37/427	(821 HA)	0%	100%*	-	-	
M37/590	(120.05 HA)	0%	100%*	-	-	
M37/692	(136 HA)	0%	100%*	-	-	
M37/735	(959 HA)	0%	010%*	-	-	



Appendix 2 – Talisman Mining Tenement Schedule as at 31 March 2015 (Continued)

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					<p>*The acquisition of the Sinclair Nickel Project and associated tenements from Xstrata Nickel Australasia Operations completed on 4 February 2015.</p> <p>Talisman paid stamp duty on the tenements and registered the transfer of title with the WA DMP on 10 April 2015.</p> <p>As at the end of April 2015 transfer of title of the majority of tenements had completed.</p>
M37/816	(818.40 HA)	0%	100%*	-	-	
M37/818	(806.50 HA)	0%	100%*	-	-	
M37/819	(380.18 HA)	0%	100%*	-	-	
M37/1063	(604 HA)	0%	100%*	-	-	
M37/1089	(574 HA)	0%	100%*	-	-	
M37/1090	(478 HA)	0%	100%*	-	-	
M37/1126	(603 HA)	0%	100%*	-	-	
M37/1127	(603 HA)	0%	100%*	-	-	
M37/1136	(986 HA)	0%	100%*	-	-	
M37/1137	(850 HA)	0%	100%*	-	-	
M37/1148	(44.78 HA)	0%	100%*	-	-	
M37/1168	(190 HA)	0%	100%*	-	-	
M37/1223	(675 HA)	0%	100%*	-	-	
M37/1275	(1,961 HA)	0%	100%*	-	-	
P37/7228	(61.57 HA)	0%	100%*	-	-	
P37/7233	(116.01 HA)	0%	100%*	-	-	
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Appendix 3 – JORC Table 1

**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 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling techniques employed at the Sinclair project include saw cut diamond drill core (DD) samples and reverse circulation (RC) rock chip samples.</li> <li>Diamond core is HQ and NQ2 size, and was sampled on geological intervals (0.2 m to 2 m), cut into half (NQ2) or quarter (HQ) core to give sample weights under 3 kg. RC drill samples were collected using a cone or riffle splitter for each metre drilled. Composite samples were taken on occasion via a second sampling chute and collected into calico bags.</li> <li>Sampling was guided by XNAO protocols and QAQC procedures as per industry standard.</li> <li>All drill samples were crushed, dried and pulverised (total prep) to produce a sub-sample for analysis by four acid digest with an ICP-MS or AAS finish.</li> <li>All drilling referenced in this report were drilled by XNAO between 2005 and 2012.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Sampling techniques employed by Sandfire on the Doolgunna Project include 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 and AC 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>Pulp samples are fused into a glass bead by the combination of 0.4g of assay sample plus 9.0g flux XRF analysis. A 40g and 0.15g assays charges are used for FA and mixed acid digest respectively.</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 drilling (DD) on the Sinclair project employed both HQ and NQ2 diameter holes using conventional wireline, wedging and directional drilling techniques as appropriate.</li> <li>All drill core was routinely orientated where possible at nominal 6m intervals using an EzyMark core orientation system</li> <li>Reverse Circulation (RC) drilling at Sinclair utilised face sampling configurations with a nominal hole diameter of 5 3/8"</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Sandfire Air Core (AC) drilling is completed using industry standard practices with a blade bit.</li> </ul>



<p>Drill sample recovery</p>	<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>• XNAO diamond core and RC sample recoveries were logged and recorded in the Sinclair Dashed database. Core photography shows overall recoveries &gt;95</li> <li>• XNAO 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>• For RC drilling the volume of sample material collected is routinely inspected and recorded on a metre by metre basis, and indicates approximate sample recovery. Actual sample weights are routinely recorded at the laboratory and stored in the XNAO database.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Sandfire AC sample recovery is noted and recorded should sample return be diminished or wet. This information is recorded digitally in the Sandfire database. AC rig cyclone is regularly cleaned by drilling contractors to minimise sample smearing.</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>
<p>Logging</p>	<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>• XNAO logging of drill samples records lithology, mineralogy, mineralisation, alteration, structure, weathering, colour and other primary features of the rock samples.</li> <li>• Logging 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> <hr/> <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 to end of hole</li> <li>• All cores are digitally photographed and stored.</li> </ul>



Sub-sampling techniques and sample preparation

- *If core, whether cut or sawn and whether quarter, half or all core taken.*
  - *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*
  - *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*
  - *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*
  - *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.*
  - *Whether sample sizes are appropriate to the grain size of the material being sampled.*
- XNAO diamond core is HQ and NQ2 size, sampled on geological intervals (0.2 m to 2 m), sawn in half (NQ2) or quarter (HQ) core to give sample weights under 3 kg.
  - XNAO RC drill samples were collected using a cone or riffle splitter for each metre drilled. Composite samples were taken on occasion via a second sampling chute and collected into calico bags. The majority of RC samples were dry.
  - XNAO samples were submitted to ALS Chemex for preparation. The sample preparation follows industry best practice where all drill samples are crushed and split to 1kg then dried, pulverized and (>85%) sieved through 75 microns to produce a 25g/30g charge for 4-acid digest with an ICP-MS or AAS finish.
  - Field duplicates are routinely taken for both DD core and RC chip samples. XNAO procedures include a minimum of one duplicate per 25 samples
  - Sample size is appropriate for nickel mineralisation.
- 
- Sandfire AC samples consist of 5m composite spear samples produced from 1m drilling and weights average approximately 3kg. In certain locations after composite samples are received additional sampling at 1m intervals may be completed.
  - Sandfire sample preparation at UltraTrace in Perth involves the original samples being 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.
  - Sandfire has protocols that cover auditing of sample preparation at the laboratories and the collection and assessment of data to ensure accurate steps in producing representative samples for the analytical process. Key performance indices include contamination index of 90% (that is 90% blanks pass); Crush Size index of P95-10mm; Grind Size index of P90-75µm and Check Samples returning at worse 20% precision at 95% confidence interval and bias of 5% or better.
  - Duplicate analysis is routinely completed.
  - The sample size is appropriate for the VHMS and Gold mineralisation styles.



Quality of assay data and laboratory tests

- *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
  - *For 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.*
  - *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.*
- All XNAO drill samples were submitted to ALS Laboratories in Perth for multi-element analysis using a 25g charge with a 4-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
  - XNAO 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 25 with a minimum of 2 per batch. OREAS and Geostats standards were selected on their grade range and mineralogical properties.
  - All drill assays were required to conform to the XNAO procedural QAQC guidelines as well as routine laboratory QAQC guidelines.
  - 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 2 standard deviation limit.
  - Lab checks (repeats) occurred at a frequency of 1 in 25. These alternate between both the pulp and crush stages.
  - 5% of all pulps were routinely submitted monthly to Genalysis Laboratories in Perth for Umpire Sampling.
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- Sandfire samples submitted to Ultra Trace in Perth are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g 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.
  - Sandfire DeGrussa QAQC protocol is considered industry standard with standard reference material (SRM) submitted on regular basis with routine samples.
  - Sandfire insert SRMs and blanks at a minimum of 5% frequency rate. A minimum of 2% of assays are routinely re-submitted as Check Assays and Check Samples through blind submittals to external and primary laboratories respectively. Adhoc umpire checks are completed annually.



<p>Verification of sampling and assaying</p>	<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>• No significant drilling intersections are reported in this report.</li> <li>• No twinned holes are being drilled as part of this programme.</li> <li>• XNAO logging and sampling Data was captured and imported using Maxwell's LogChief or Micromine Field Marshall software.</li> <li>• All XNAO drillhole, 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 were completed at regular time intervals.</li> <li>• All assay QAQC controls were checked on a monthly, quarterly and annual period, identifying any longer term trends or patterns.</li> </ul> <hr/> <ul style="list-style-type: none"> <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>
<p>Location of data points</p>	<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>• XNAO drillholes were initially located by hand held GPS or mine surveyors. All hole collars were surveyed using RTK-GPS on completion.</li> <li>• The majority of XNAO drilling has been down hole surveyed using industry standard north seeking gyro techniques. Where a gyro survey has not been completed, down hole surveys have been taken at nominal 30m intervals using Eastman and electronic single shot cameras.</li> <li>• For the Sinclair project the Coordinate system used is the Australian Geodetic Datum (AGD84). Coordinates are in the Australian Map Grid (AMG84) Zone 51.</li> </ul> <hr/> <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>• For the Degruessa project MGA94 Zone 50 grid coordinate system is used.</li> </ul>
<p>Data spacing and distribution</p>	<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>• XNAO drilling on the Sinclair deposit has been conducted on a nominal 50m x 20m spacing, stepping out to 100m/200m line spacing north of 6861750N. Drill spacing at Stirling, Skye and Delphi prospects ranges from 50m to 200m line spacing in localised areas as appropriate.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Sandfire AC drilling across the Homer / Degruessa trend is spaced on a nominal 250m x 100m pattern, and a nominal 800m x 100m pattern across the Southern Volcanics trend.</li> <li>• No drilling results are reported.</li> </ul>
<p>Orientation of data in relation to geological structure</p>	<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>• The orientation of XNAO drilling was designed to intersect either geophysical targets or geological contacts at high angle in order to reflect the true width of stratigraphy.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Sandfire exploration holes are oriented to achieve high angles of intersection. Diamond drilling is used as required to determine structural orientations in regional programs.</li> <li>• No known orientation-based sampling bias has been identified</li> </ul>



<p>Sample security</p>	<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>XNAO samples were stored at the Sinclair Nickel Mine Site prior to submission under the supervision of senior staff. Samples were transported to ALS Perth by an accredited courier service.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>Sandfire samples are prepared onsite under the supervision of Sandfire Geological staff.</li> <li>Sandfire samples are transported to the Perth Ultra Trace laboratory by Toll IPEC or Nexus transport companies in sealed bulka bags, or to the onsite laboratory by company personnel.</li> <li>The laboratories receipt received samples against the sample dispatch documents and issues a reconciliation report for every sample batch.</li> </ul>
<p>Audits or reviews</p>	<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>XNAO database was audited annually by an external consultant to ensure compliance.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>The Sandfire sampling techniques and data collection processes are of industry standard and have been subjected to multiple internal and external reviews.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<p>Mineral tenement and land tenure status</p>	<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>The XNAO diamond and RC drilling is located within tenements M37/1275, M37/818, M37/1223 and M37/818.</li> <li>The acquisition of the Sinclair Nickel Project and a 100% interest in associated tenements from Xstrata Nickel Australasia Operations completed on 4 February 2015.</li> <li>As at the end of April 2015 transfer of title of the majority of tenements had completed.</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> <hr/> <ul style="list-style-type: none"> <li>AC drilling by Farm-in partner Sandfire is on tenements E52/2313 and E52/2282. These leases are part of Talisman's 100% owned Springfield Project, 150km north-east of Meekatharra, WA. These tenements fall within the Department of Conservation-managed Doolgunna pastoral lease.</li> <li>All Springfield tenements are current and in good standing.</li> </ul>
<p>Exploration done by other parties</p>	<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>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>The Sinclair Nickel Deposit was discovered in 2005 by Jubilee Mines NL drill testing a ground EM anomaly.</li> <li>Exploration work on has included diamond, RC and Aircore drilling, ground and downhole EM surveys, soil sampling, geological interpretation and other geophysics (magnetics, gravity).</li> </ul> <hr/> <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>



<p>Geology</p>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<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> <hr/> <ul style="list-style-type: none"> <li>• Talisman's 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>
<p>Drill hole Information</p>	<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>• Detailed drill hole information is not included with this report. General locations of the AC drilling is indicated in Figure 2. No drilling results are being reported and it is not considered material to this report.</li> <li>• Drill hole information will be included in future reports when appropriate.</li> </ul>
<p>Data aggregation methods</p>	<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>• No drilling intersections reported.</li> </ul>



<p>Relationship between mineralisation widths and intercept lengths</p>	<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>• No drilling intersections reported.</li> </ul>
<p>Diagrams</p>	<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> <li>• No drilling intersections reported.</li> </ul>
<p>Balanced reporting</p>	<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>
<p>Other substantive exploration data</p>	<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. Further data collection will be reviewed and reported when considered material.</li> </ul>
<p>Further work</p>	<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>• Further work is contingent on the outcomes of current drilling and ground electromagnetic surveys.</li> </ul>