

## **Discovering & Developing Opportunities in Copper-Gold & Nickel**

Investor Presentation: 121 Mining Investment Forum, May 2017

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# Talisman overview



### Advanced projects in Western Australia

## 30% interest in Springfield Cu-Au Joint Venture

- High grade Monty deposit located 10km from DeGrussa Plant
- Monty Feasibility Study complete with outstanding forecast returns
- TLM Board approval to proceed to development
- First production targeted December quarter 2018
- Located in proven world-class VMS province with multiple prospective corridors and ongoing exploration

#### 100% owned Sinclair Nickel Project

- Extensive tenement holding in fertile nickel belt with potential to host significant deposits
- Multiple near-mine and regional exploration opportunities
  - Sinclair extension, Skye/Stirling, Delphi Nth
- Extensive infrastructure including processing plant with potential fast-track route to production

# Philosophy and core beliefs

#### **OWNERSHIP**

- Behave and act as business owners
- Be accountable for our decisions and actions
- What we say is what we do

#### ENGAGEMENT

- Engage with stakeholders in meaningful and clear way
- Cultivate beneficial two-way communication
- Share our journey to create value for all stakeholders

#### RELATIONSHIPS

- Develop mutually beneficial partnerships and opportunities
- Build strong commitment across our team and with stakeholders
- Collaborative approach to build solid relationships

## Corporate snapshot

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"Maximise value to shareholders through exploration, discovery and development of complementary opportunities in base and precious metals".

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Experienced	lanu	aiverse	Executive	leam and	Doard

#### Dan Madden – Managing Director

 +15 years experience across base and precious metals from exploration to operations

#### Tony Greenaway – General Manager Geology

 +25 years base and precious metal exploration experience from grass roots evaluation to advanced feasibility studies

#### Shaun Vokes – Chief Financial Officer and Company Secretary

 +25 years experience in senior commercial and financial roles from project evaluation to financing and metals marketing

#### Ben Wilson – General Manager, Project Development

 +20 years experience across multiple commodities from project evaluation to management of mining operations

Capital Structure	
Shares on Issue	185.7M
Unlisted Options	10.5M
Market Capitalisation (at 32c)	~A\$60M
Cash (31 Mar 2017)	A\$13.8M

Substantial Shareholders	
Kerry Harmanis	17%
Hunter Hall	12%
Board	
Jeremy Kirkwood (Non-Exec. Chair)	Investment Banking, Corporate Strategy
Daniel Madden (MD)	Financial and Resources Background
Karen Gadsby (NED)	Finance, Commercial & Board Experience
Brian Dawes (NED)	Operational Executive

**Resources Project Development** 

Alan Senior (NED)

# Springfield JV (30% Talisman)

## Home to the Monty deposit and a proven world-class VMS province

Focused Australlan mineral resources compan

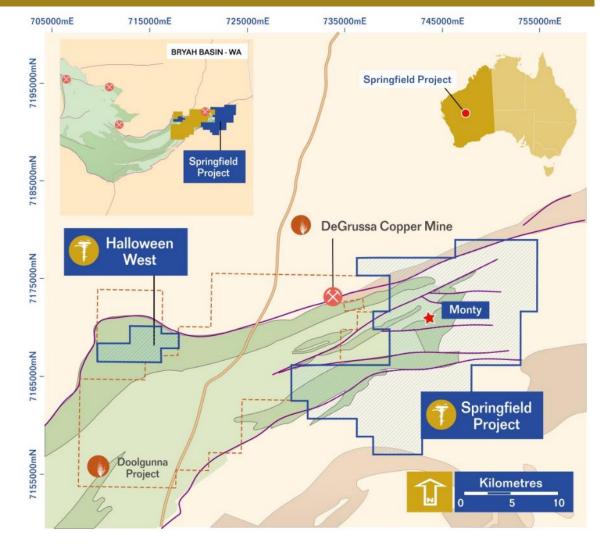


## Monty provides tremendous confidence in the exceptional exploration potential of the Springfield JV

- Talisman 30% interest in JV with Sandfire Resources NL (70%)
- 324km<sup>2</sup> tenement package located in Western Australia's Bryah Basin - proven world-class VMS province
- Multiple VMS horizons
- Includes high-grade and high value Monty Copper-Gold deposit:
  - TLM 30% share Monty Ore Reserve<sup>1</sup> = 280kt @ 8.7% Cu & 1.4g/t Au



<sup>1</sup> Refer to Appendix 1, Note ii

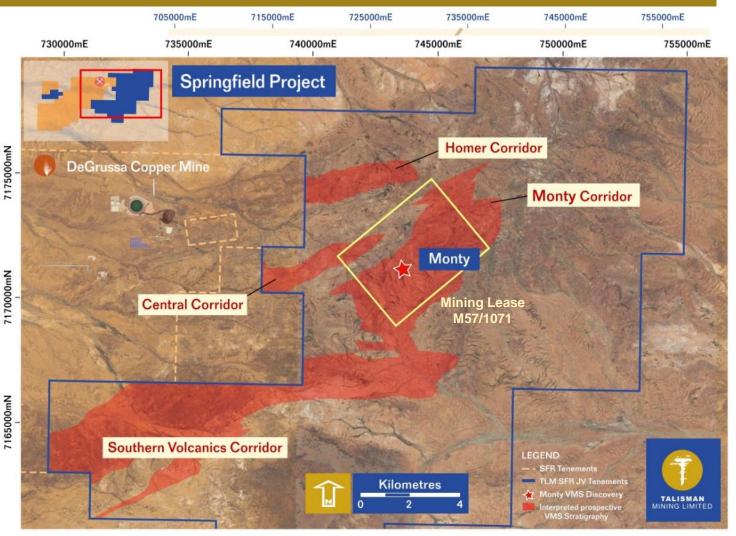


# The Monty Project: High grade, high value



## One of the highest grade copper deposits discovered globally in the last 20 years

- Fast-tracked towards development
  - Discovery hole June 2015
  - Mineral Resource April 2016
  - Feasibility Study completed April 2017
- Strong Feasibility Study outcomes
  - Technically sound and highly financially viable underground project
  - Low capital and low risk development pathway
  - Signed agreements to allow JV mining and ore sales to Sandfire
- Development approval from TLM Board April 2017
  - Debt fund 100% of development capital
  - Taurus Funds Management mandated May 2017
- Targeted first production from Monty in 4Q CY2018



# Key Monty Feasibility Study outcomes (TLM 30% basis)



#### Low capital and low risk development pathway with outstanding forecast returns Total payable production = **Forecast pre-tax free cash flow Initial ore production life** = 30 months 20kt Cu and 6koz Au = A\$64M **Pre-production capital cost** Pre-tax NPV (8% discount rate) **Pre-tax IRR** = A\$22M = A\$46M = 78% Notional C1 cash cost Notional AISC Payback period (from 1<sup>st</sup> prod) = 17 months = A\$1.90/lb payable Cu (US\$1.37) = A\$1.56/lb payable Cu (US\$1.13)

## *Early site works commenced and first Monty production targeted by Q4 calendar 2018*

Target Monty project development timeline	1Q CY17	2Q CY17	3Q CY17	4Q CY17	1Q CY18	2Q CY18	3Q CY18	4Q CY18
Detailed design and engineering								
Early mobilisation and preliminary site activities								
Final project approval								
Decline development								
First ore production								

# Excellent capital intensity and all-in unit operating costs



100%

## Very low upfront capital intensity ~US\$2,000/tpa (~US\$0.90/lbpa) and forecast low AISC

#### Production (%) 25% 50% 15 Possible Producing Committee 300 Probable 250 Mirador Constanc Red Chris Pulang Wafi-Gé Cobre P Zafrana Chita Tampa (ql/\$) 200 Qulot Udob 150 100 50 1000 3000 Cumulative Copper Capacity, ktpa 1.305 2.610 3,91 5,220 6.525 7.830 Cumulative Paid Copper (kilotonnes) Source: AME Research, 2015 **MONTY FEASIBILITY STUDY MONTY FEASIBILITY STUDY**

#### Initial capital intensity (US\$/lbpa) of global copper mine developments (2015)

#### Global copper production All-In-Sustaining-Cost (AISC) curve (2016)

9.135

10.440

11,745

13.050

Note: Data is presented in constant 2016 US Dollars.

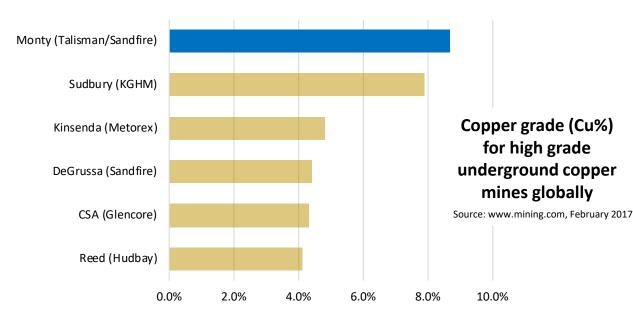
Source: SNL mine cost data 2016

75%



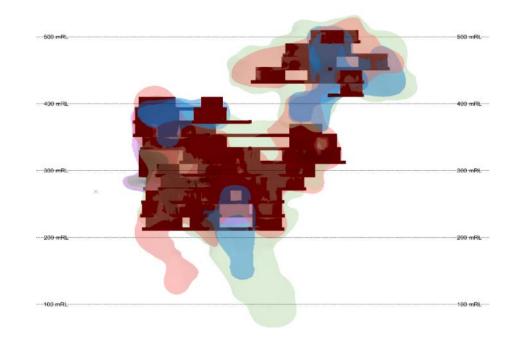
## Exceptionally high grade underground copper-gold Ore Reserve

- Maiden Ore Reserve<sup>2</sup> of 920kt @ 8.7% Cu & 1.4g/t Au (100%)
  - TLM 30% share Ore Reserve = 280kt @ 8.7% Cu & 1.4g/t Au
  - Attributable contained metal of 24kt copper and 13koz gold
  - Represents resource conversion of approx. 88% of tonnes and 82% of contained copper
- Set to be one of the highest grade copper mines globally



## Monty Ore Reserve<sup>2</sup> as at 31 March 2017

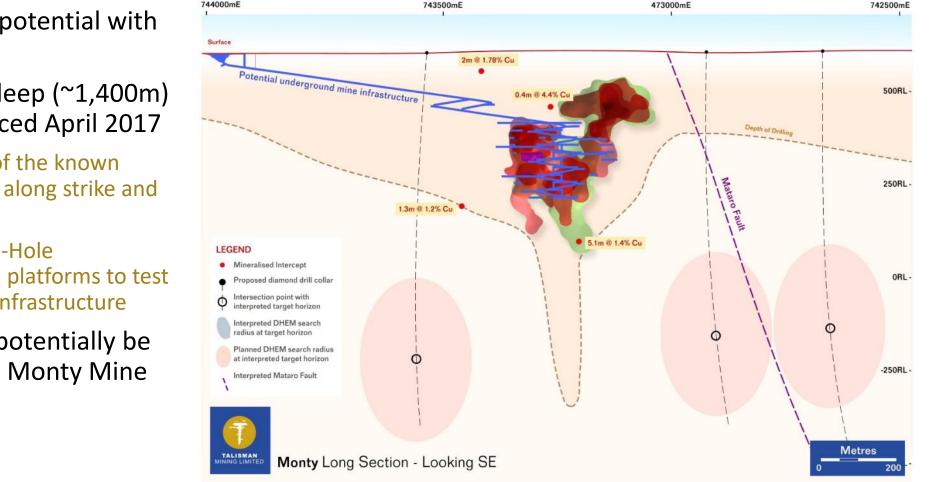
Deposit	Reserve Category	Tonnes (t)	Copper (%)	Gold (g/t)	Cont. Cu (t)	Cont. Au (oz)
	Proved	-	-	-	-	-
Monty (100% basis)	Probable	920,000	8.7	1.4	80,000	42,000
(100% basis)	Total	920,000	8.7	1.4	80,000	42,000



# Strong upside potential for Monty mineral inventory



## Significant untested potential for further mineralisation in Monty near mine environment



- Lower Zone (LZ) growth potential with grade control drilling
- Drilling of first of three deep (~1,400m) diamond holes commenced April 2017
  - Test immediate vicinity of the known Monty deposit at depth, along strike and down dip
  - Provide additional Down-Hole
    Electromagnetic (DHEM) platforms to test
    zones proximal to mine infrastructure
- Area to be tested could potentially be accessed from proposed Monty Mine infrastructure

# Talisman's underlying operating and economic interest in Monty



#### Springfield JV exposure



Ore haulage to DeGrussa plant



#### OPEX variables (ex royalties):

- Underground mining costs
- Ore haulage costs to DeGrussa
- Closure costs

Fixed exposure (with indexation):

 Ore Treatment Fee (OTF) – covers all Sandfire downstream costs and plant usage charge

#### **REVENUE** variables:

- Ore volumes and grades
- Metal prices

#### Fixed exposure:

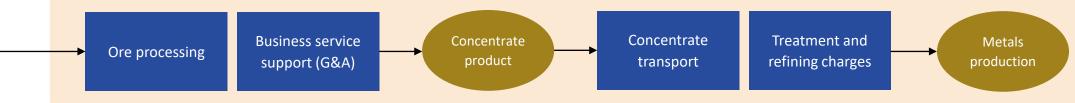
- Process recovery formulae
- Metal payabilities

#### **Talisman economics**

Monty Feasibility Study OPEX <u>estimates</u> (TLM 30% basis) 239kt mined ore Underground mining + ore haulage cost = A\$126/t (~A\$30.2M) Fixed JV management fee = equates to ~A\$1/t (~A\$0.2M) Sandfire Ore Treatment Fee (OTF) = A\$211/t (~A\$50.4M) Implied operating cost (excl. royalties & closure) = A\$338/t (~A\$81M)

Monty Feasibility Study REVENUE <u>estimates</u> (TLM 30% basis) 239kt mined ore sold containing 22.3kt Cu, 11.5koz Au & 124koz Ag LOM average prices: US\$6118/t Cu, US\$1369/oz Au, US\$18.7/oz Ag & 0.723 A\$ Implied gross revenue = A\$758/t (~A\$181M) Implied operating margin = A\$420/t (~A\$100M) Copper revenue received / metal-in-ore value = 89.0%\* \* Feasibility Study LOM average copper recovery of 92.8% multiplied by payability of 95.9%

#### Sandfire exposure (cost volatility mitigated with indexation of OTF)



# Full exposure to key upside scenarios



## Talisman benefits fully if Monty mining or capital cost estimates prove to be conservative

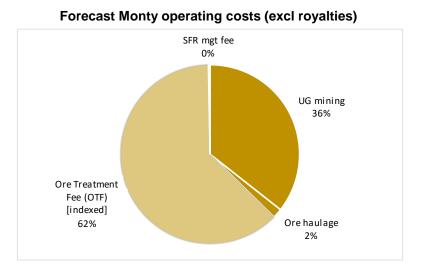
 Retain exposure to any actual variation from Monty FS revenue and cost estimates on:

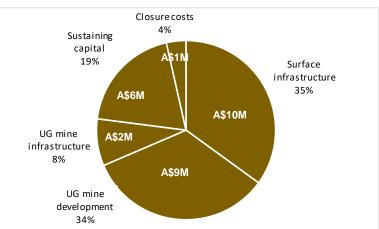
#### REVENUE

- Total ore mined and delivered
- Ore head grades
- Metal prices
- Development timeline

#### COSTS

- Underground mining costs
- Ore haulage costs
- Closure costs
- Capital costs
- Net revenue forecast of A\$513 per tonne ore delivered
  - Forecast payable revenue (A\$758/t) minus OTF (A\$211/t) minus royalties (A\$34/t)
  - Forecast payable revenue retains full exposure to:
    - Higher/(lower) prices; eg copper market tightens
    - Greater/(lesser) ore volumes; eg extensions, Upper Zone extraction
    - **Grade** overcall/(undercall); eg grade control drilling uplift





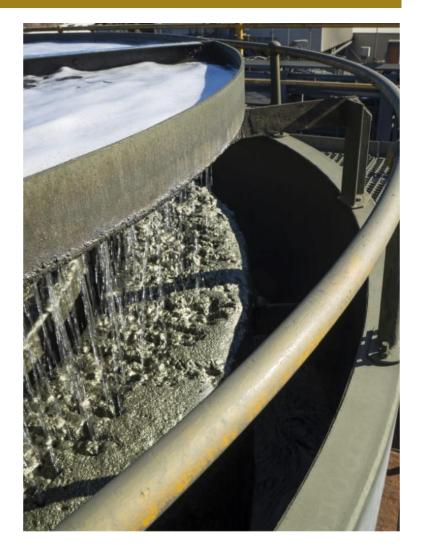
Forecast Monty capital costs

# Key OSPA benefits for Talisman



## A low capital, exposure minimising and high returning development route for Talisman

- OSPA limited to Monty deposit and near-Monty extensions
  - Maintain optionality in relation to any future discoveries on the Springfield JV
- No plant build requirement
  - Highly attractive pre-production capital intensity
  - Considerably lower risk than typical minority JV development project interest
- Independent calculation of head grade by third party
- ► Relatively high fixed metal recovery formulae and high fixed payables
  - Recognition of expected Monty ore processing performance and concentrate quality parameters
  - ► No Talisman exposure to metallurgical processing and product marketing risks
- Commercially negotiated and highly competitive Ore Treatment Fee (OTF)
  - Recognises all downstream costs of processing ore plus transport and treatment/refining of concentrate
  - Deducted from payable revenue on an equivalent cost per tonne of ore basis
  - Transparency of OTF cost components (linkage to annual industry determined benchmark, eg TC/RCs, or annual indexation from an agreed basis)



# A highly competitive Ore Treatment Fee (OTF)



- Ore Treatment Fee (OTF) of approx. A\$211/t ore
- Recognises <u>all downstream costs</u> post ore sale:
  - Ore processing and associated G&A overheads;
  - Product conc. haulage, shipping and refining costs;
  - A dedicated plant usage charge.
- Closely aligned with actual DeGrussa processing,
  G&A and downstream costs
- Appears elevated on a per tonne of ore basis due to the extremely high grade nature of Monty ore
  - Downstream costs actually levied per tonne of conc/Cu
  - Equates to U\$0.86/lb payable Cu metal (at spot A\$)
- Modest plant usage charge allows Talisman to avoid a substantial investment in dedicated processing, site services, transport and marketing infrastructure

DeGrussa: 1HFY17 opex (ex mining)	A\$/t ore	4	A\$/lb Cu	US\$/lb Cu
Processing	33		0.36	0.27
Business services	18		0.20	0.15
Transport, treatment and refining	57		0.61	0.46
C1 cost pre-credits (excl mining costs)	108		1.17	0.88
OTF components implied by DeGrussa 1HFY17 opex	A\$/t ore	1	A\$/lb Cu	US\$/lb Cu
Processing	33		0.18	0.14
Business services	18		0.10	0.08
Transport, treatment and refining	113	>	0.61	0.46
Implied OTF components (excl implied usage charge)	164		0.89	0.67
Monty: Ore Treatment Fee (OTF)	A\$/t ore	1	\$/lb Cu	US\$/lb Cu
OTF (from the OSPA)	211		1.15	0.86
Implied usage charge (based on DeGrussa 1HFY17)	47		0.25	0.19
Implied usage charge, existing life-of-mine cost (A\$m)	11.2			

DeGrussa opex as per quarterly US\$ operating data released by Sandfire and avg. 1HFY17 A\$/US\$ rate of 0.75; all A\$/US\$ conversions above at this rate.

DeGrussa opex expressed on a per pound contained metal basis; Monty OTF and implied usage charge expressed on a per pound payable metal basis.

This is an indicative analysis only. The calculation of specific OTF components is notional and derived solely on an implied basis utilising DeGrussa 1HFY17 actual opex. Talisman does not warrant that these implied component amounts align in any way with the specific component amounts of the aggregate OTF within the OSPA.

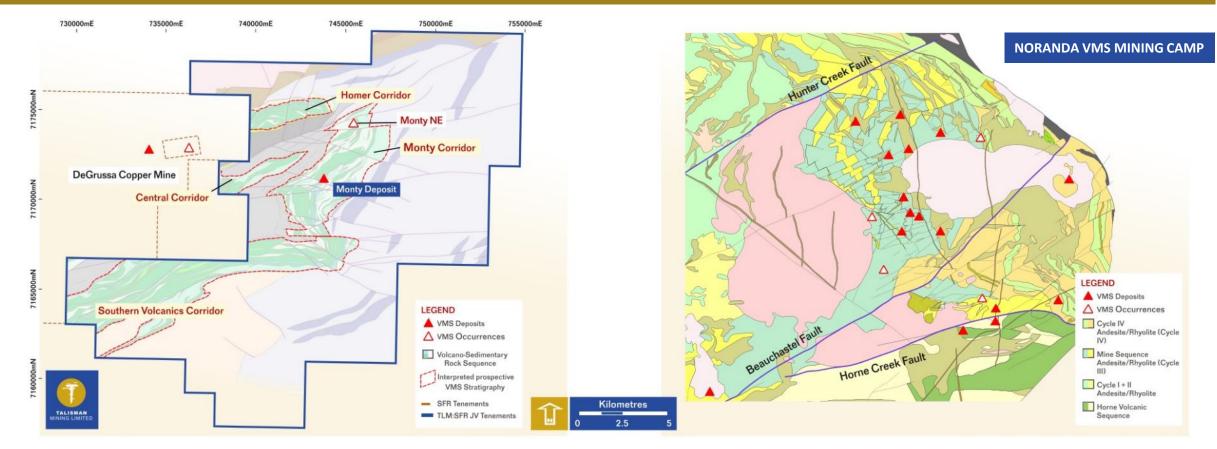
#### Adjustments to reflect high Monty ore grade

DeGrussa processing/G&A costs applied to Monty Feasibility Study operating parameters to arrive at notional per pound unit costs.

DeGrussa transport, treatment and refining cost notionally adjusted back to a per tonne ore cost utilising Monty Feasibility Study parameters.



## Monty Deposit provides 'proof of concept' for Doolgunna VMS Camp

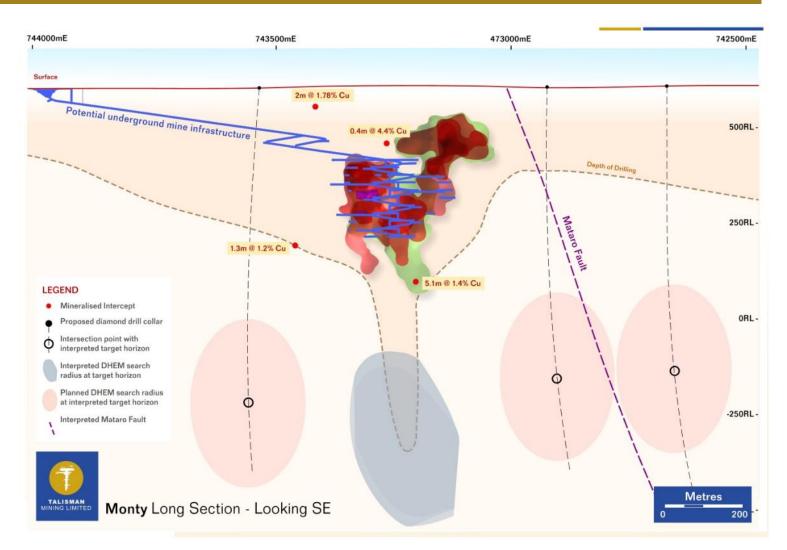


- VMS deposits can and do occur at multiple stratigraphic levels within the prospective sequence, e.g. Noranda VMS mining camp
- Bryah Basin VMS Camp now with three VMS Deposits and four VMS occurrences at different stratigraphic levels within the prospective Karalundi sequence DeGrussa, Monty, Horseshoe Lights Copper Mine
- Potential for multiple host horizons within prospective corridors Monty, Homer, Southern Volcanics



## On-going near mine exploration around Monty

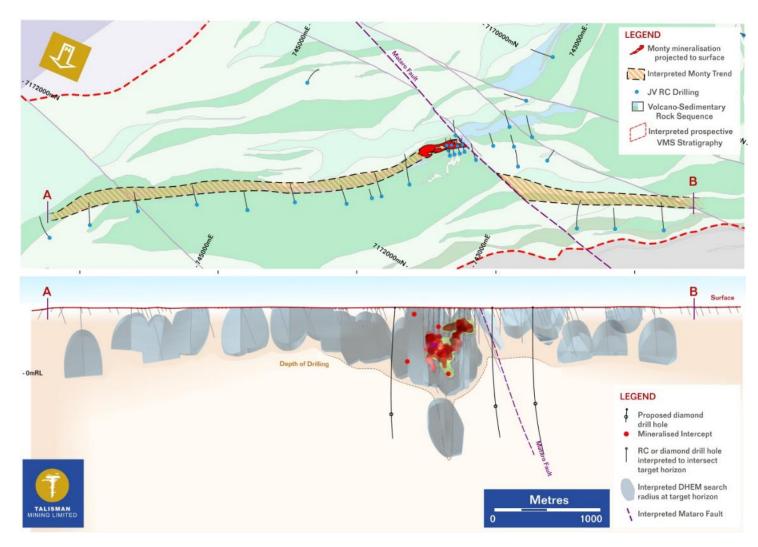
- Limited drill testing below existing Monty Resource
  - Significant untested potential remains both laterally and at depth
- Three deep diamond drill holes and DHEM surveys scheduled
  - ▶ Two RC pre-collars completed
  - Commencement of first diamond drill hole in April 2017
  - Placement of third hole guided by DHEM results
- Area to be tested could potentially be accessed from proposed Monty Mine infrastructure





## Targeted drilling and DHEM along Monty Trend

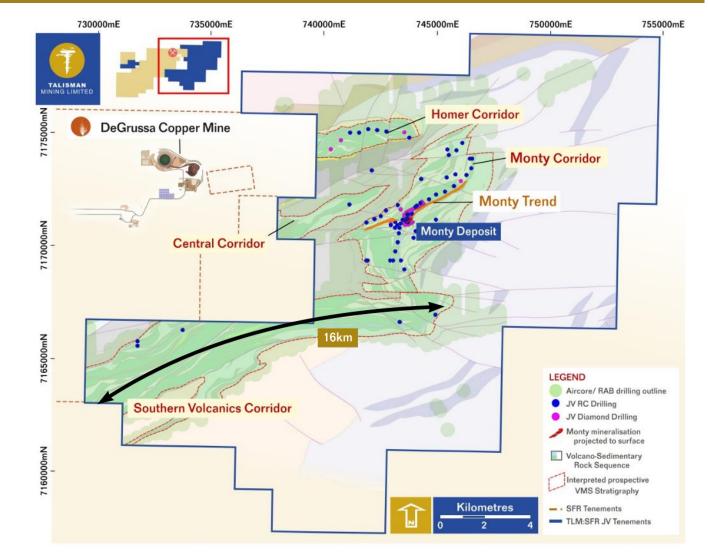
- Monty deposit sits within an 8km trend
- Monty Trend subject to targeted RC/diamond drilling and DHEM
- Monty Trend represents one limited stratigraphic package within the wider prospective Monty Corridor





## Limited advanced exploration on a regional scale

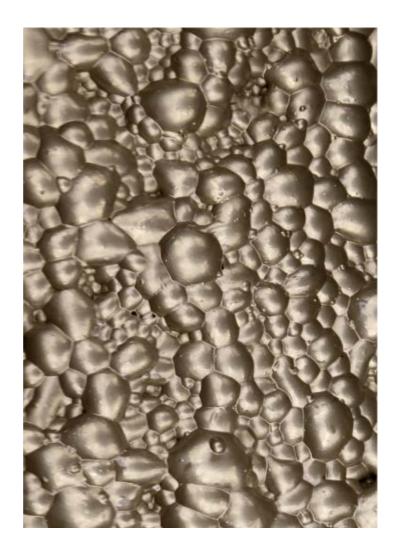
- Limited RC drilling by JV outside of Monty Resource
  - 93% of JV diamond drill holes for resource definition
- Potential for multiple host horizons within prospective corridors
  - Monty Corridor
  - Homer Corridor
  - Southern Volcanics Corridor
- 16km Southern Volcanics Corridor with only 5 RC and no diamond drilling-to-date
- Talisman believes the Southern Volcanics Corridor represents a high priority for the next phase of systematic exploration by the Springfield Joint Venture





## Monty is a low risk, high returning copper project with outstanding potential upside

- **Low capital, low risk** development path via ore sales to Sandfire
- Outstanding projected returns (TLM 30% basis) of A\$64M pre-tax free cashflow, A\$46M pre-tax NPV<sub>8</sub> and 78% pre-tax IRR
- First production targeted for December quarter 2018
- Monty Deeps diamond drilling over coming months
- Monty Trend exploration potential remains high
- Springfield JV tenure in a proven world-class VMS province with multiple prospective corridors



# Sinclair Nickel Project

## Advanced opportunity in a proven nickel province

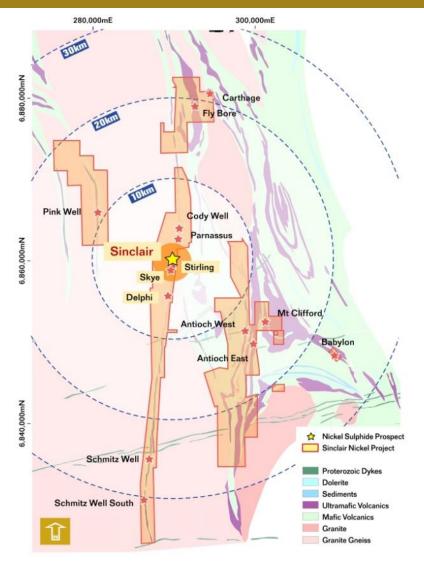
Focused Australlan mineral resources company

# Sinclair: A low cost, fast track nickel production option



## High class surface and underground assets with extensive infrastructure

- Located in the world-class Agnew-Wiluna Greenstone belt
  - +9Mt historical nickel production
- \$8M acquisition from Glencore in Nov 2014
- Previous Sinclair mine production (2008-13)
  - 1.58Mt @ 2.44% Ni for 38,599t of contained Ni
- Existing asset base includes:
  - OP and UG mine workings, +300ktpa plant and infrastructure, 200 room village & sealed airstrip
  - Approx. A\$120M Replacement Value
- ► Low capital, fast track option to nickel production
- Excellent exploration prospectivity
  - Prospects in close proximity to existing infrastructure
  - Along the broader Sinclair trend (8km basal contact)
  - Impressive regional opportunities
  - Results at Delphi North incl. 9m @ 4.2% Ni

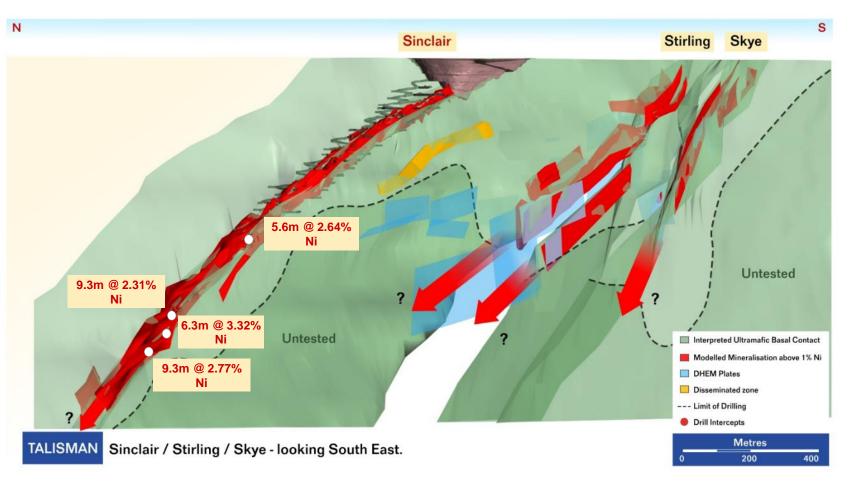


# Sinclair: Regional and near-mine exploration potential



## Potential for discovery of nickel sulphide mineralisation close to existing infrastructure

- Potential Resource target for known mineralization at Sinclair mine extension and Sinclair remnants
  - Assessment of potential JORC 2012 compliant Resource underway
- Other potential resource targets at Skye/Stirling
- Drill ready exploration targets
  - Delphi, Skye & Stirling, Schmitz Well
- Regional prospects at early stages
  - Mount Clifford, Antioch Trend, Schmitz Well South
- Future exploration work to include regional aircore, RC/DD & geophysics – surface & DHEM

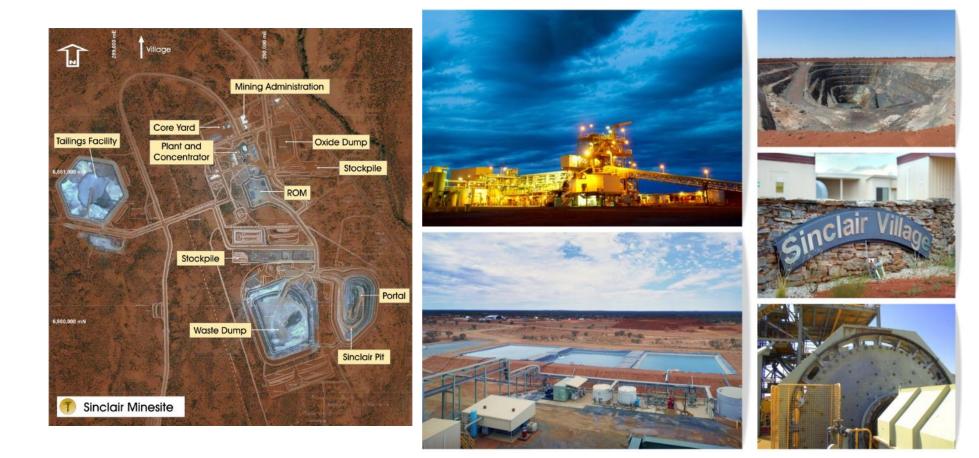


# Sinclair: Development potential under right scenario



## Significant infrastructure in place with replacement value of approx. A\$120M

- ► 300ktpa concentrator
  - ► Operated at ~440ktpa
- Open pit and underground mine
- 200-person accommodation village
- Administration buildings and stores
- Exploration office and core yard
- Mining contractor facilities



A re-commencement of operations at Sinclair, subject to near-mine exploration success, has the potential for reduced capital intensity and fast-tracked transition to production

# The Talisman Investment Case

Emerging metals producer with exceptional prospectivity

Focused Australlan mineral resources company

## The Talisman investment case



## Advanced production opportunities in Western Australian base metals

- Monty a high-grade, high-return copper-gold project
  - Low risk, low capital driven by ore sales agreement
  - First production targeted December quarter 2018
  - Outstanding exploration potential still to be tested
- Sinclair a low cost, fast track nickel production option
  - Within a highly endowed exploration address
  - Established infrastructure
- Upcoming activities
  - Monty deeps diamond drilling (2Q/3Q CY17)
  - Final Monty mining approvals and debt facilities (2Q/3Q CY17)
  - Sinclair field activities planned for Q2 CY2017
- Seeking quality opportunities to create value which are complementary to our assets, experience and expertise







TALISMAN MINING LIMITED ASX Code: TLM

# **THANK YOU**

# **Discovering & Developing Opportunities in Copper-Gold & Nickel**

Investor Presentation: 121 Mining Investment Forum, May 2017

#### **Note i: Mineral Resources**

Information in this presentation that relates to the Monty JORC Mineral Resource estimate is information previously published by Sandfire Resources NL ("Sandfire") and is available on the Sandfire and ASX websites (see announcement "Maiden High-Grade Mineral Resource for Monty VMS Deposit: 99,000t of Copper and 55,000oz of Gold", dated 13 April 2016 (Sandfire Announcement)). For full details of the Monty Resource estimate, including the Competent Person's Statement related to the estimation of the Monty Mineral Resource, please refer to the Sandfire Announcement.

Talisman confirms that it is not aware of any new information or data that materially affects the information included in the Sandfire Announcement, and that all material assumptions and technical parameters underpinning the estimates in the Sandfire Announcement continue to apply and have not materially changed and confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original Sandfire Announcement.

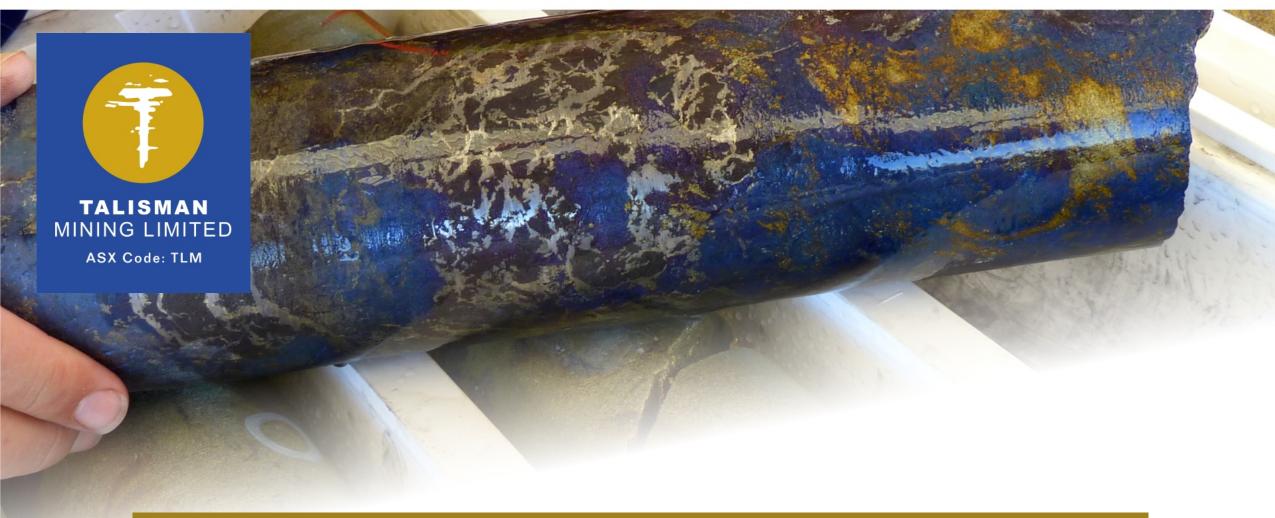
#### Note ii: Ore Reserves

Information in this presentation that relates to Ore Reserves and Exploration Results and Exploration Targets as defined under the 2012 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves", is information previously published by Talisman Mining Ltd ("Talisman") and is available on the Talisman and ASX websites (see announcement "Monty Feasibility Study Results", dated 5 April 2017 (Talisman Announcement)). For full details of the Ore Reserve estimate, including the Competent Person's Statement related to the estimation of the Ore Reserve, please refer to the Talisman Announcement.

Talisman confirms that it is not aware of any new information or data that materially affects the information included in the Talisman Announcement, and that all material assumptions and technical parameters underpinning the estimates in the Talisman Announcement continue to apply and have not materially changed and confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original Talisman Announcement.

#### **Exploration Results and Exploration Targets**

Information in this presentation 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.



# Appendix 2

**Additional Monty Feasibility Study detail** 



Mineralisation Style	Mineral Resource	Tonnes	Copper	Gold	Contained	Contained
	Category	(t)	(%)	(g/t)	Copper (t)	Gold (oz)
	Indicated	754,000	12.0	2.1	91,000	51,000
Massive Sulphides	Inferred	9,000	20.7	2.7	2,000	1,000
	Total	763,000	12.1	2.1	92,000	52,000
	Indicated	287,000	2.2	0.3	6,000	3,000
Halo	Inferred	-	-	-	-	-
	Total	287,000	2.2	0.3	6,000	3,000
	Indicated	1,041,000	9.3	1.6	97,000	54,000
Total	Inferred	9,000	20.7	2.7	22,000	1,000
	Total	1,050,000	9.4	1.6	99,000	55,000

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Reserve Category	Tonnes (t)	Copper (%)	Gold (g/t)	Contained Copper (t)	Contained Gold (oz)
Proved	-	-	-	-	-
Probable	920,000	8.7	1.4	80,000	42,000
Total	920,000	8.7	1.4	80,000	42,000
Mine Plan	800,000	9.4	1.5	74,000	38,000

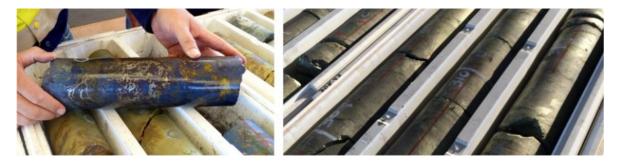
# Monty Feasibility Study operating and financial outcomes (30% basis)



## A technically sound and highly economic underground project

All costs borne by the Springfield Joint Venture under the OSPA are incorporated in the Monty financial analysis on a 100% basis. As such, Talisman's underlying economic interest in the development of Monty equates to its 30% interest in the Springfield Joint Venture and is therefore represented by its simple 30% share of forecast financial returns as outlined below.

Operating parameters (TLM 30% basis)	Units	FS (Mar 2017)
Pre-production mine development	months	12
Ore production mine life	months	30
Total mined and milled ore	kt	239
Copper head grade (LOM avg)	% Cu	9.35
Gold head grade (LOM avg)	g/t Au	1.50
Silver head grade (LOM avg)	g/t Ag	16.2
Total copper-in-ore mined	kt	22.3
Total gold-in-ore mined	koz	11.5
Total silver-in-ore mined	koz	124.0
Total payable copper metal	kt	19.9
Total payable gold metal	koz	5.7
Total payable silver metal	koz	56.2



Financial parameters (TLM 30% basis)	Units	FS (Mar 2017)
Forecast copper price (LOM avg)	US\$/t	6,118
Forecast gold price (LOM avg)	US\$/oz	1,369
Forecast silver price (LOM avg)	US\$/oz	18.76
Forecast A\$/US\$ (LOM avg)	USc	0.723
Total gross revenue	A\$M	181
Total net revenue (post royalties)	A\$M	173
Total cash operating costs	A\$M	89
Pre-tax operating cashflow	A\$M	92
Pre-production capital cost	A\$M	22
LOM sustaining capital cost	A\$M	5
Ungeared, pre-tax free cashflow	A\$M	64
Notional C1 cost <sup>1</sup>	A\$/lb pay Cu	1.56
Notional All-in-sustaining-cost (AISC) <sup>1</sup>	A\$/lb pay Cu	1.90
Pre-tax NPV (8% discount rate, real)	A\$M	46
Pre-tax IRR	%	78
Payback period (from first production)	months	17
Ore reserve life - to - payback period	x	1.8
NPV / pre-production capex	х	2.1

<sup>1</sup> C1 and AISC are calculated on the basis of notionally including the OSPA Ore Treatment Fee as a production cost. AISC is defined as the operating cash cost of production (net of by-product credits) plus royalties and sustaining capital and closure costs but exclusive of any finance costs or corporate overhead allocation.

## Capital and operating cost detail



#### Capital cost composition (TLM 30% basis)

Capital item	A\$M
Surface infrastructure	9.9
Underground mine development	9.5
Underground mine infrastructure	2.4
Total pre-production capital	21.8
Sustaining capital	5.5
Closure costs	1.0
Total capital cost	28.3

#### **Commodity Price Assumptions**

Commodity / FX	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021
Copper – U\$/t	5539	6031	6196	6119	5899
Gold – U\$/Oz	1310	1398	1375	1374	1296
Silver – U\$/Oz	17.95	19.14	18.84	18.83	17.75
Currency AUD:USD	0.733	0.730	0.725	0.720	0.715

#### Operating cost parameters (TLM 30% basis)

Operating item	A\$M	A\$/t ore
Underground mining	28.8	120.5
Ore transport to DeGrussa	1.4	5.8
Ore Treatment Fee (OTF)	50.4	211.0
Sandfire management fee	0.2	1.0
Royalties	8.1	34.0
Total operating cost	88.9	372.3

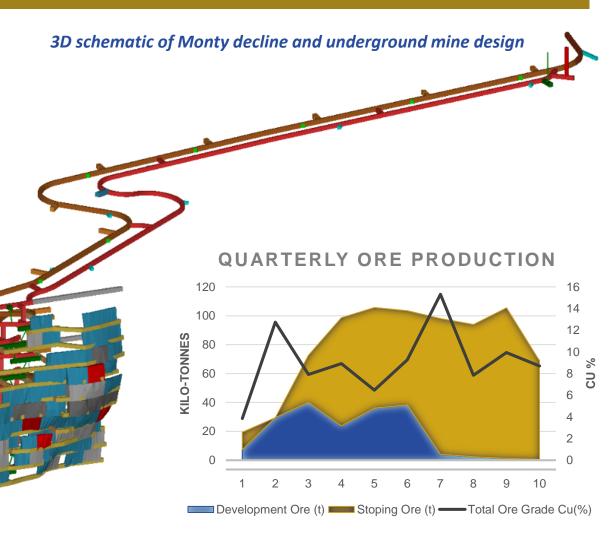
Operating item	A\$M	A\$/lb payable Cu
Underground mining	28.8	0.65
Ore transport	1.4	0.03
Ore Treatment Fee (OTF)	50.4	1.15
Sandfire management fee	0.2	0.01
Gold and silver credits	(12.3)	(0.28)
Notional C1 <sup>1</sup> cost	68.5	1.56
Royalties – gov't and native title	8.1	0.19
Sustaining capital	5.5	0.13
Closure costs	1.0	0.02
Total notional AISC <sup>1</sup>	83.1	1.90

<sup>1</sup> C1 and AISC are calculated on the basis of notionally including the OSPA Ore Treatment Fee as a production cost. AISC is defined as the operating cash cost of production (net of by-product credits) plus royalties and sustaining capital and closure costs but exclusive of any finance costs or corporate overhead allocation.

# Underground mining and ore haulage (Shared JV activity)

### A conventional underground operation

- Conventional 1-in-7 production size decline
- Life-of-Mine plan of 796kt at 9.35% Cu and 1.5g/t Au (100% basis)
- Lower Zone (LZ) the focus of the mine plan; UZ excluded at present
- No geotechnical issues with LZ stoping
- LZ commences from approx. 180m below surface
- First ore targeted for 12 months from portal cut
- Long-hole open stope mining method with backfill
- Maximum planned mining rate of approx.
  400ktpa
- Mined ore hauled to surface ROM pad at Monty and then to dedicated weighbridge at DeGrussa

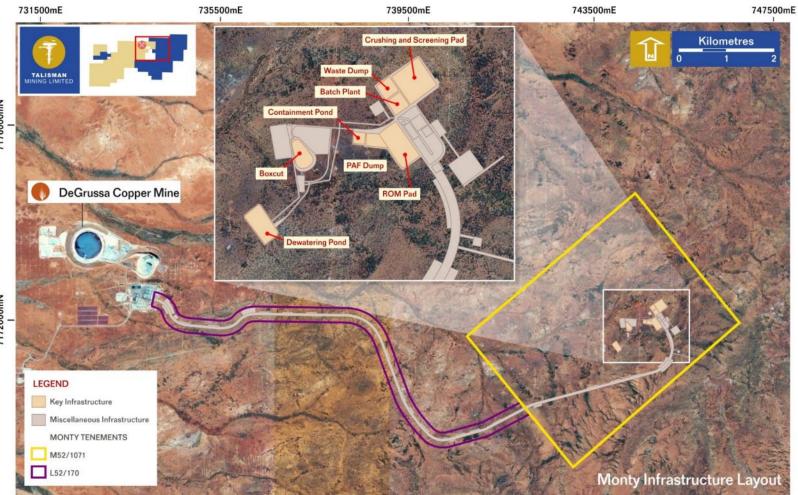


# Monty surface infrastructure



## *Fit for purpose and leverages off DeGrussa synergies*

- Mined ore from surface ROM pad at Monty transported to DeGrussa via 14km haul road
- Weighbridge near DeGrussa
- Raw water supply from DeGrussa pumped to Monty
- Communication connection to DeGrussa via fibre
- Monty ROM pad 50kt
- Waste and PAF dump
- Buildings: mining office, first aid, ablutions, crib/muster room plus contractor supplied workshops
- DeGrussa infrastructure synergies: mining change rooms, IT servers, bore fields, accommodation village facilities



#### Focused Australian mineral resources company

Schematic of Monty surface infrastructure

# Key agreements with Sandfire



## Logical and low risk pathway with economic benefits shared between JV partners

#### **Mining Joint Venture Agreement (MJVA)**

- Establishes the rights and obligations of the Springfield JV parties related to activities associated with the development, mining and ultimate decommissioning of mineral discoveries
- Development and mining of Monty will operate under the terms of this MJVA

#### **Exploration Joint Venture Agreement (EJVA)**

- Covers the ongoing exploration activities of the Springfield JV on the JV tenements and outlines the rights and obligations of the JV parties
- Provides a mechanism to progress future mineral discoveries, including the option to utilise the existing MJVA

#### **Ore Sale and Purchase Agreement (OSPA)**

- Applies to Monty ore (and near-Monty extensions)
- Potential future Springfield JV discoveries subject to separate
  OSPA at discretion of both JV parties
- Monty ore (at a max rate of approx. 0.4Mtpa) blended with Sandfire's existing DeGrussa ore feed
- Point of ore sale to Sandfire is at a dedicated weighbridge near DeGrussa ROM pad
- TLM receives net ore sale revenue payment on equivalent payable metal-in-concentrate basis after deduction of Ore Treatment Fee (OTF) per tonne of delivered ore and Royalties
- Ore sales revenue derived from (independently) calculated head grade, prevailing metal prices, fixed recovery formulae and fixed payabilities
- Certain components of OTF are subject to annual indexation and/or pegged to annual industry determined benchmarks

# The OSPA maximises simplicity and minimises dispute risk



#### Monty ore ownership and risks transfer at this point

