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# Springfield Drilling Program Expanded After Initial Results Confirm Potential for VMS Copper-Gold Discoveries

Highlights:

- Prospective mineralised VMS horizons now confirmed along three volcanic trends: Monty, Homer and Central Corridor
- Drilling to date confirms validity of Talisman's 3D lithostructural geological model for the Bryah Basin
- Initial 73-hole/11,000m targeted RC and Diamond drilling program significantly expanded to 100 holes/15,000m to systematically test along favourable VMS horizons
- Large copper-gold soil anomaly associated with multiple prospective volcanic horizons identified at the Abraham Prospect by extensive soil sampling programme

# • Reconnaissance RC drilling programme to commence at the Abraham Prospect during the September 2012 Quarter

Talisman Mining Limited (ASX: TLM) is pleased to advise that it has decided to significantly expand the ongoing drilling program at its Springfield Copper-Gold Project in Western Australia following encouragement from the initial exploration results received to date.

Drilling has been underway at Springfield, which is located adjacent to Sandfire Resource's DeGrussa VMS Copper-Gold Project (*Appendix 1*), since mid-April, focusing on 20 priority areas identified earlier this year as part of a fully integrated and intensive targeting review by Talisman's geological team (see *Figure 1*).

Significantly, with approximately 40 per cent of assay results for the original planned programme received to date, this drilling has confirmed the presence of multiple prospective VMS horizons (the host for potential VMS deposits) across three trends drilled to date – **Homer**, **Monty** and **Central Corridor**.

These trends will now become the focus of the next phase of drilling programmes targeting DeGrussa-style VMS copper-gold deposits across the Springfield Project. As a result, the initial drill programme of 11,000m (73 holes) is being significantly expanded to approximately 15,000m (100 holes).

Results received to date have confirmed the validity and effectiveness of Talisman's systematic approach to exploration in this region, where it has invested substantially over the past two years in extensive reconnaissance exploration activities.

This systematic and methodical approach has resulted in the compilation of a comprehensive and regionally unique database which has in turn underpinned the development of a 3D litho-structural geological model. This model is a vital tool to identify targets and focus exploration activities in the Bryah Basin.

Earlier this year, Talisman also completed a 2km by 2km fixed loop electromagnetic survey (FLEM) over the eastern portion of the Homer Trend which better defined drill target areas and identified a further two late-time conductors that were drill tested as part of the current drill program.

# 2012 Target Drilling Update

Talisman has so far completed 64 RC drill holes (10,642m) out of the original planned 73-hole programme to test several integrated geological and structural target areas along the Homer, Monty and Central volcanic sedimentary trends (see *Appendix 2*).

In addition, a further six diamond holes (*SPD036-041;* see *Appendix 2*) have been drilled for a total of 1,667 metres to test several discrete magnetic geophysical targets for massive copper-gold sulphides along the interpreted Red Bore volcanic horizon which is located in the southern portion of the Homer Trend.

So far results have been received and assessed for the first 31 RC drill holes (SPRC161-191) and all six diamond drill holes (SPD036-041). These results are discussed in more detail below.



Figure 1 – Geological interpretation showing tier-one target areas within the Springfield Project (each area contains one or more targets)



#### **Homer Trend**

RC drilling along the **Homer Trend** has consistently intersected disseminated copper-sulphide mineralisation associated with a well-defined volcani-clastic sedimentary horizon at the contact between sediments of the Karalundi Formation and the overlying Narracoota Mafic Volcanics (see *Figure 2*).

The mineralised shales show strong silica and jasperoidal chert development together with manganese and magnetite enrichment which are interpreted to be indicative of exhalative processes that might host a VMS Cu-Au deposit along strike or at depth.

Further RC drilling is currently being planned to systematically drill prospective volcanic sediment horizons over the eastern extension of the **Homer Trend** where a major NW-trending transfer fault cuts the sequence and may have focussed significant VMS activity (see *Figure 2*).



Figure 2 - Homer Trend geological interpretation showing significant copper intercepts and proposed follow up drilling

Strong demagnetisation of the mafic volcanic sequence is interpreted to be associated with pervasive hydrothermal alteration similar to that noted at Sandfire's DeGrussa deposit and may be indicative of a large mineralised system. This additional drilling is planned to commence later this month.

Diamond drilling along the **Homer Trend** also included three diamond drill holes (SPD037-039) to test an interpreted volcano-sedimentary horizon thought to host the **Red Bore** massive copper sulphide occurrence, located west of and along strike of the Springfield Project.

Drilling encountered quartzites and shales overlying fine-grained volcanic sediments, basalts and dolerites with pervasive epidote-carbonate-pyrrhotite alteration. Weak copper sulphide mineralisation was intersected in SPD038 (see *Table 1*) in fine grained volcanic siltstone and altered basalt lithologies respectively.



Anomalous gold mineralisation was noted in SPD038 and SPD041 and in both holes appears to be associated with brecciated sediments at the faulted unconformity between the Narracoota Volcanics and overlying quartzites.

Two diamond holes (SPD040 and SPD041) were drilled to test a strong ENE-trending electro-magnetic conductive zone identified by previous Moving Loop Electromagnetic (MLEM) and Fixed Loop Electromagnetic (FLEM) surveys. Both holes intersected a thick sequence of black sulphidic shales overlying unconsolidated sandstone/quartzite.

Although the underlying **Red Bore** position was not intersected, the down-hole electro-magnetic (DHEM) survey indicated that the probable source of the strong conductor was the black sulphidic shale unit. Further work is warranted to better define the prospective Red Bore volcano-sedimentary horizon and to identify targets for follow up RC drilling.

Better copper-gold results from the recent RC and Diamond drilling along the **Homer Trend** are listed in **Table 1** below:

HOLE	FROM (Metres)	TO (Metres)	DOWNHOLE WIDTH (M)	GRADE	INTERCEPT
SPRC165	100	102	2	0.16% Cu	2m @ 0.16% Cu
SPRC167	118	120	2	0.10g/t Au	2m @ 0.10g/t Au
SPRC171	0	2	2	0.18g/t Au	2m @ 0.18g/t Au
SPRC173	34	38	4	0.18g/t Au	4m @ 0.18g/t Au
SPRC173	42	46	4	0.25g/t Au	4m @ 0.25g/t Au
SPRC174	138	140	2	0.10g/t Au	2m @ 0.10g/t Au
SPRC184	32	34	2	0.12% Cu	2m @ 0.12% Cu
SPRC184	120	122	2	0.13% Cu	2m @ 0.13% Cu
SPRC185	218	220	2	0.15% Cu	2m @ 0.15% Cu
SPD038	124	126	2	0.16g/t Au	2m @ 0.16g/t Au
SPD038	148	156	8	0.28g/t Au	8m @ 0.28g/t Au
SPD038	340	346	6	0.09% Cu	6m @ 0.09% Cu
SPD041	103	108	5	0.44g/t Au	5m @ 0.44g/t Au
SPD041	186.2	187	0.8	0.22g/t Au	0.8m @ 0.22g/t Au

Table 1 – Significant Intercepts from RC and Diamond Drilling at the Homer Trend (see Appendix 2 for drill co-ordinates)

# Monty Trend

Three RC holes (SPRC180-182) have been drilled to test a discrete magnetic anomaly associated with the eastern extension of the prospective **Monty** sedimentary horizon and a coincident cross-cutting NW fault transfer zone (see *Figure 3*). Drilling intersected the **Monty** sequence with strong copper anomalism at the contact between the Monty granodiorite intrusive and a pyroxenitic dolerite with better results tabulated in *Table 2* below.

Previous drilling along the Monty trend has intersected **0.3m** @ **7.6%** Cu (SPD020), plus additional lower order anomalous results in a similar geological setting, increasing the prospectivity of the Monty trend.

The target sedimentary horizon was intersected in the recent drilling but without any noted anomalism. It is interpreted that these intrusive rocks have scavenged and remobilised significant copper, probably derived from the **Monty Horizon** and as such may act as a vector towards the centre of a possible VMS system.

The **Monty** target horizon is currently undergoing review and re-assaying with low-level analytical techniques to help better define follow-up drill targets and to vector towards a potential mineralized VMS position. It is likely that further in-fill drilling will be conducted in the coming months.

Three RC holes (SPRC177-179) were drilled to test for mineralized volcanics associated with an offset block of the **Monty** trend (see *Figure 3*). Drilling encountered purple shales, jasperoidal chert and medium grained dolerites. An unexpected change in dip direction of the target horizon led to the planned drilling being postponed until the necessary earthworks was completed to allow for drilling at a revised orientation.

Follow- up drilling is currently underway to test geochemical and structural targets along the interpreted target horizon.



Figure 3 - Monty Trend geological interpretation showing significant copper intercepts and proposed follow up drilling

HOLE	FROM (Metres)	TO (Metres)	DOWNHOLE WIDTH (M)	GRADE	INTERCEPT
SPRC182	86	88	2	0.12 g/t Au	2m @ 0.12 g/t Au
SPRC182	190	192	2	0.28% Cu	2m @ 0.28% Cu
SPRC182	200	202	2	0.19% Cu	2m @ 0.19% Cu
SPRC182	208	210	2	0.18% Cu	2m @ 0.18% Cu
SPRC182	214	216	2	0.13% Cu	2m @ 0.13% Cu
SPRC182	224	226	2	0.15% Cu	2m @ 0.15% Cu

Table 2 – Significant Intercepts from RC Drilling at the Monty Trend (see Appendix 2 for drill co-ordinates)

# **Central Corridor**

Three RC drill traverses (SPRC187-194) have been completed as part of the recent drilling campaign to test a prospective mafic-sediment contact at the southern margin of the **Central Corridor** (see *Figure 4*). It is interpreted that this horizon represents a stratigraphically equivalent position to the DeGrussa sequence on the southern limb of a major syncline and, therefore, has the potential to host VMS-style copper-gold mineralisation.



Previous drilling has also returned elevated copper-sulphide occurrences along this position.

Assay results have been received and assessed for drill holes SPRC187-191 and report anomalous copper sulphide, gold and malachite (secondary copper oxide) development associated with strongly altered and sheared mafic volcanic sediments and basalts, with coincident jasperoidal chert and magnetite development along the prospective horizon. Better copper-gold results from these holes are listed in **Table 3** below.

Recently completed DHEM surveys of drill holes SPRC190-192 also detected a late-time off-hole conductor which appears to be located to the east of the drill traverse along the prospective host horizon (see *Figure 4*).

Further drilling is currently being planned to test this position and to systematically drill test the **Central Corridor** in areas of structural complexity coincident with cross-cutting NW faulting and associated strong demagnetisation (see *Figure 4*).

HOLE	FROM (Metres)	TO (Metres)	DOWNHOLE WIDTH (M)	GRADE	INTERCEPT
SPRC188	116	118	2	0.17 g/t Au	2m @ 0.17 g/t Au
SPRC189	72	76	4	0.35 g/t Au	4m @ 0.35 g/t Au
SPRC189	136	138	2	0.24 % Cu	2m @ 0.24 % Cu
SPRC191	134	136	2	0.12 % Cu	2m @ 0.12% Cu

Table 3 – Significant Intercepts from RC Drilling at the Central Volcanic Trend (see Appendix 2 for drill co-ordinates)



Figure 4 – Central Corridor Trend geological interpretation showing significant copper intercepts and proposed follow up drilling



# Abraham Trend

A detailed structural and 3D geological interpretation undertaken at the start of 2012 has led to an enhanced understanding of the southern portion of the Springfield Project, particularly the **Abraham Trend**. The **Abraham** volcanics are now interpreted to comprise prospective basalts, volcanic sediments and dolerites in close proximity to the Goodin Fault Zone – a major basin boundary structure and possible focus for VMS mineralisation (see *Figure 5*).

In order to define drill targets, an extensive detailed 100m x 25m soil sampling program of approximately 5,000 samples has been completed across much of the western **Abraham Trend** with the aim of identifying and delineating co-incident areas of anomalous copper and gold soil geochemistry.

The results of the soil sampling have generated a significant copper-gold anomaly over the central portion of the **Abraham Trend** with a maximum copper value of 189ppm and gold values up to 61ppb against a very low geochemical background.

Detailed geological mapping has been conducted over the anomalous area and has clearly identified multiple anomalous volcanic sedimentary horizons for drill testing.

It is envisaged that an initial reconnaissance 3,000m RC drilling program will commence during the September quarter 2012 as an initial test of these new target areas.



Figure 5 – Abraham Trend geological interpretation showing significant copper intercepts, soil geochemistry and proposed RC drilling



# **Aircore Drilling Programme**

Additional upcoming exploration activities at Springfield include an extensive reconnaissance geochemical aircore drilling program.

This drill programme will be conducted over the eastern extension of the **Abraham** volcanics, which are located under alluvial cover, and will test a major cross-cutting NW transfer fault zone that is interpreted to traverse the Springfield Project and link-up with the DeGrussa copper-gold deposit. If successful, follow up RC drilling will be undertaken at prospective areas later this year or early next year.

Approximately 290 holes are planned for a total of 12,000m on a 400m x 160m grid pattern. This work is scheduled to commence in late August once statutory approvals have been received.

# Comment

Talisman's Managing Director, Gary Lethridge, said the Company was pleased with the progress of its 2012 exploration campaign at Springfield, which had significantly advanced the Company's geological knowledge and understanding of the project area and assisted in targeting higher ranked areas of prospectivity.

"Exploration this year has continued to give us considerable encouragement about the prospectivity of the Springfield Project and the effectiveness and validity of the exploration approach that Talisman has adopted," Mr Lethridge said.

"We have nearly completed a first pass test of our initial 20 target areas, which has delivered a level of conviction in the way we are going about our exploration strategy," Mr Lethridge said. "We have reduced or eliminated some areas in terms of their prospectivity but, more importantly, we have elevated other areas that warrant further, more focused follow-up exploration.

"This systematic and methodical approach is a critical part of the exploration process associated with making a potential discovery of a blind VMS deposit within the Bryah Basin region.

"We remain convinced that the secret to unlocking the exploration potential at Springfield and the wider Bryah Basin is the delineation of significant structural controls on mineralisation along prospective VMS horizons associated with coincident strong hydrothermal alteration and de-magnetised zones.

"The results we have received to date have given us sufficient encouragement to expand the current drilling programme and to continue closing in on key target areas at the Springfield Project, while at the same time expanding our wider exploration program to identify, confirm and test, new target areas."

#### Ends

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# **Competent Persons' Statement**

Information in this ASX release that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Graeme Cameron, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Graeme Cameron 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 2004 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Graeme Cameron consents to the inclusion in this report of the matters based on information in the form and context in which it appear.

TALISMAN MINING LIMITED

Springfield Exploration Update

#### Appendix 1 - Talisman Mining Ltd Doolgunna Project locations



Springfield Exploration Update

#### Appendix 2 - Talisman Mining RC and Diamond Drillhole Locations, April-June 2012

Hole ID	Hole Type	Depth (m)	East MGA94	North MGA94
SPD036a	DDH	677.5	741700	7177224
SPD037	DDH	354.4	740499	7173587
SPD038	RR_DDH	366.2	741203	7173858
SPD039	DDH	297.2	742232	7174337
SPD040	DDH	277.8	743003	7174200
SPD041	RC_DDH	252.5	743697	7174592
SPRC161	RC	174	739645	7174643
SPRC162	RC	186	743482	7175204
SPRC163	RC	132	743483	7175261
SPRC164	RC	144	743461	7175115
SPRC165	RC	204	743432	7175035
SPRC166	RC	120	743428	7174959
SPRC167	RC	156	743410	7174882
SPRC168	RC	180	744223	7173904
SPRC169	RC	72	743499	7175429
SPRC170	RC	150	743486	7175349
SPRC171	RC	168	743103	7175099
SPRC172	RC	156	743107	7174999
SPRC173	RC	180	744156	7174900
SPRC174	RC	168	744156	7174810
SPRC175	RC	174	744152	7174705
SPRC176	RC	55	743697	7174592
SPRC177	RC	97	744952	7173273
SPRC178	RC	97	744954	7173327
SPRC179	RC	264	744961	7173380
SPRC180	RC	223	745440	7172245
SPRC181	RC	132	745442	7172350
SPRC182	RC	438	745451	7172450
SPRC183	RC	198	740139	7174872
SPRC184	RC	336	740137	7174792
SPRC185	RC	240	742124	7175290
SPRC186	RC	222	742126	7175203
SPRC187	RC	186	742248	7172398
SPRC188	RC	384	742245	7172304
SPRC189	RC	186	742248	7172181
SPRC190	RC	174	739824	7171199
SPRC191	RC	228	739822	7171103