



#### Corporate Details

**Zenith Minerals Limited (ASX:ZNC)**

ABN: 96 119 397 938

Issued Shares	294.4M
Unlisted options	9.6M
Mkt. Cap. (\$0.14)	\$41M
Cash (30 Sep 20)	\$5.0M
Debt	Nil

#### Directors

Peter Bird	Exec Chairman
Michael Clifford	CEO
Stan Macdonald	Non-Exec Director
Julian Goldsworthy	Non-Exec Director
Graham Riley	Non-Exec Director
Mike Joyce	Non-Exec Director
Melinda Nelmes	CFO & Co Sec

#### Major Shareholders

Directors	~13%
HSBC Custody. Nom.	9.5%
J P Morgan	5.3%
Miquilini	3.4%
Abingdon	3.5%

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## RED MOUNTAIN GOLD PROJECT – HIGH GRADES CONFIRMED

➤ New 1m re-sample results confirm and upgrade high-grade gold intervals from the Western Zone at the Red Mountain gold project in Queensland, including

- 5m @ 10.4 g/t Au previously reported as 20m @ 0.4 g/t Au\*
- 12m @ 4.9 g/t Au previously reported as 8m @ 3.9 g/t Au\*  
(\*previously reported from initial 4m composite sampling)

New results are in addition to previously announced near surface high-grade drilling intersections, including:

- 13m @ 8.0 g/t Au from surface, incl. 6m @ 16.7 g/t Au
- 15m @ 3.5 g/t Au, incl. 2m @ 22.4 g/t Au
- 5m @ 3.5 g/t Au & 54.3 g/t Ag, incl. 2m @ 8.0 g/t Au & 109.4 g/t Ag
- 10m @ 2.7 g/t Au from surface, incl. 4m @ 4.9 g/t Au

➤ Strong silver (Ag) grades associated with gold mineralisation; results include:

- 7m @ 2.6 g/t Au with 11.0 g/t Ag
- 6m @ 1.7 g/t Au with 13.2 g/t Ag
- 2m @ 1.9 g/t Au with 11.0 g/t Ag
- 1m @ 1.0 g/t Au with 26.1 g/t Ag

Supporting previous high-grade silver intersections including:

- 5m @ 3.5 g/t Au & 54.3 g/t Ag from 64m, incl. 2m @ 8.0 g/t Au & 109.4 g/t Ag.

➤ New soil samples grading 3.3 g/t Au suggest an emerging additional gold target located 600m north of the Western Breccia Pipe Zone.

➤ Gold mineralisation has only been defined to approximately 100m depth and remains open with two initial RC pre-collars now in place for diamond core tails. Assay results from a further 5 RC holes including the two pre-collars are awaited.

➤ Diamond drilling will commence in mid-November, following completion of the maiden drill program at the Snook copper prospect an exciting new target at the Company's Develin Creek VMS copper-zinc project located near Rockhampton in Queensland.

#### Significance of these new assay results

Ongoing exploration activity at the 100% owned Red Mountain gold project located in Queensland (Figure 1) is continuing to provide highly encouraging drill assay results. Drilling to date has outlined a discrete sub-vertical high-grade gold zone (Western Zone) to a vertical depth of 100m, with the zone remaining open and the subject of ongoing drill testing (see Figures 2 -4).

These new 1m resample assay results confirm and upgrade previously reported intersections that were initially sampled as 4m composite intervals. The new results include 5m @ 10.4 g/t Au including 1m @ 49.9 g/t Au from hole ZRMRC023 and 12m @ 4.9 g/t Au including 6m @ 9.4 g/t Au (incl 1m @ 25.0 g/t Au & 1m @ 12.0 g/t Au) from drill hole ZRMRC021, both intersections remain open, clearly demonstrating the potential for the high-grade zone to continue at depth (refer to Table 1 for a complete listing of both new and previous Zenith gold results). The 1m resamples use a more robust sampling method and assay results from these samples are therefore considered of higher quality than the original 4m composite samples.

New silver assay results from drill holes ZRMRC011 to ZRMRC024 show strong silver values associated with the gold mineralised intervals and have the potential to add further value to the Project. The results included 7m @ 2.6 g/t Au and **11.0 g/t Ag** and 6m @ 1.7 g/t Au and **13.2 g/t Ag** (refer to Table 1 for a complete listing of silver results).

Assay results from the eastern zone of the breccia pipe show some early encouragement with new results including 4m @ 0.5 g/t Au, 1m @ 0.7 g/t Au and 1m @ 0.9 g/t Au (refer to Table 1).

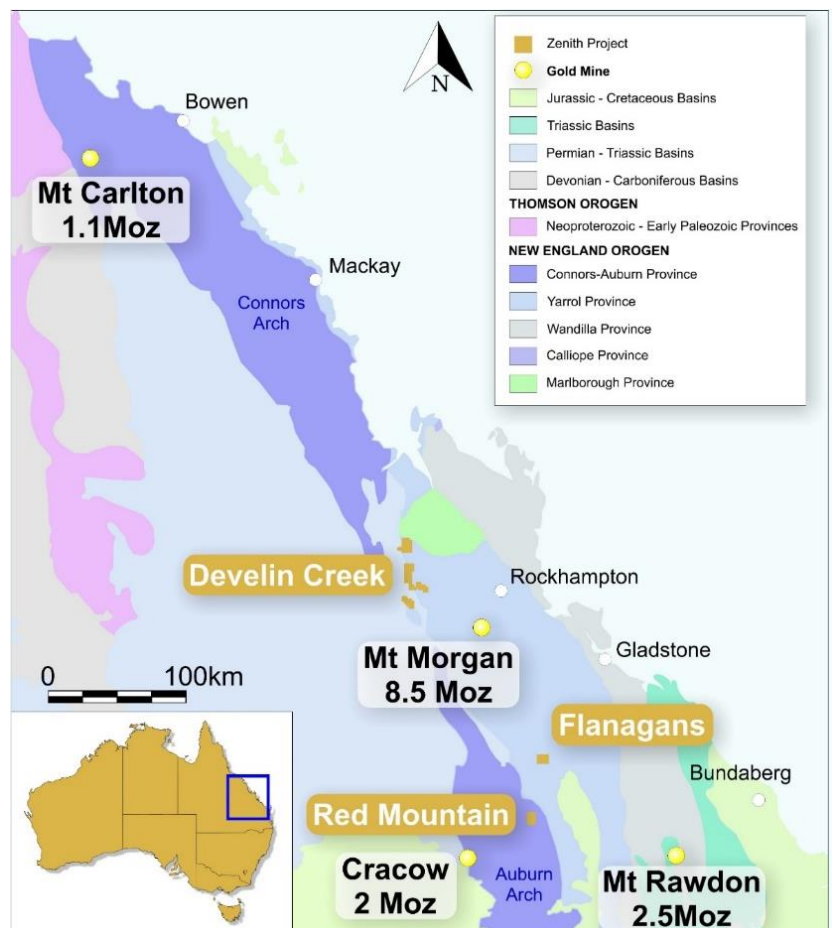
### **Infill Soil Sampling at the Project**

Infill and extensional soil sampling was recently completed to close off, and provide further definition of, gold soil geochemical anomalies surrounding the Red Mountain breccia pipe. New surface soil assay results of up to 3.3g/t Au located 600m north of the Western Zone have now been defined. This is an exciting development and highlights the potential for additional gold targets in the Project area. The 3.3g/t soil sampling assay result is on the end of a geochemical sampling line meaning that the result is currently open ended. Since this time follow up soil sampling has been completed and results are awaited.

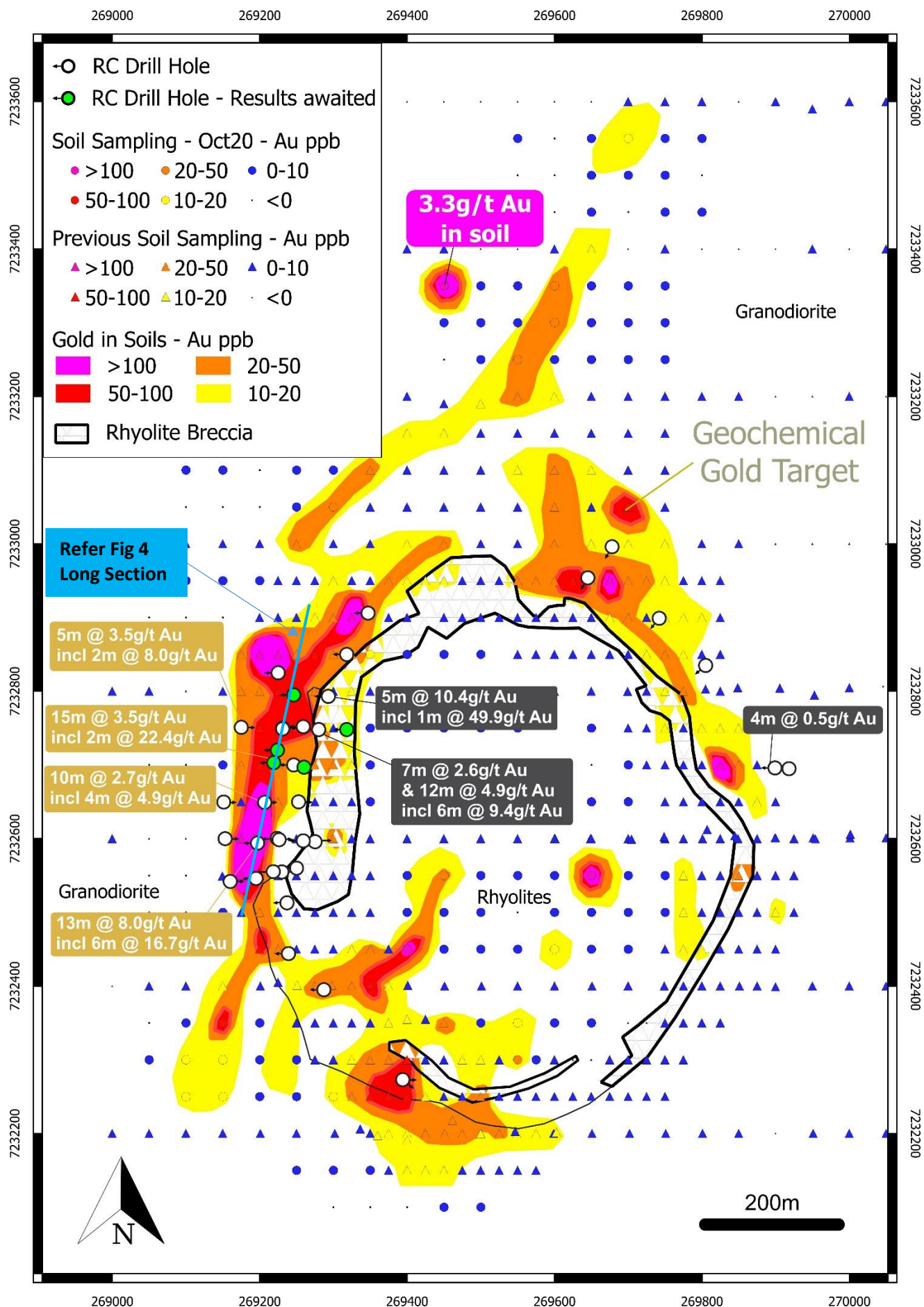
## **CEO COMMENTS**

**Commenting on the Red Mountain gold project results, Executive Charman Peter Bird said “.** *As we continue to undertake further work at Red Mountain positive news continues to flow from both drilling assays and surface sampling activities. The new 1m resample drilling results that we are reporting herein have thrown up some very positive surprises with high-grade gold now identified in adjacent drill holes 21 and 23. These intervals may or may not be connected, but are clearly open at depth increasing the size of the high grade gold target zone that we will be following up. This geological region located in Queensland (see Figure 1) has a high level of gold endowment with a number of high-quality deposits having been brought into commercial production. The Red Mountain Project forms an important part of our value-based strategy!*

*Our team are now drilling at the Snook copper target, which is part of the Develin Creek copper-zinc VMS project located nearby in Queensland and will shortly return the drill rig to Red Mountain to continue work on these exciting high-grade gold results with diamond drilling being a key priority.”*



**Figure 1: Red Mountain Project – Location Map**



**Figure 2: Red Mountain Plan Showing New Soil Sample Results, Gold Zones, Targets, Planned Drilling and Long Section Location (refer to Figure 4)**



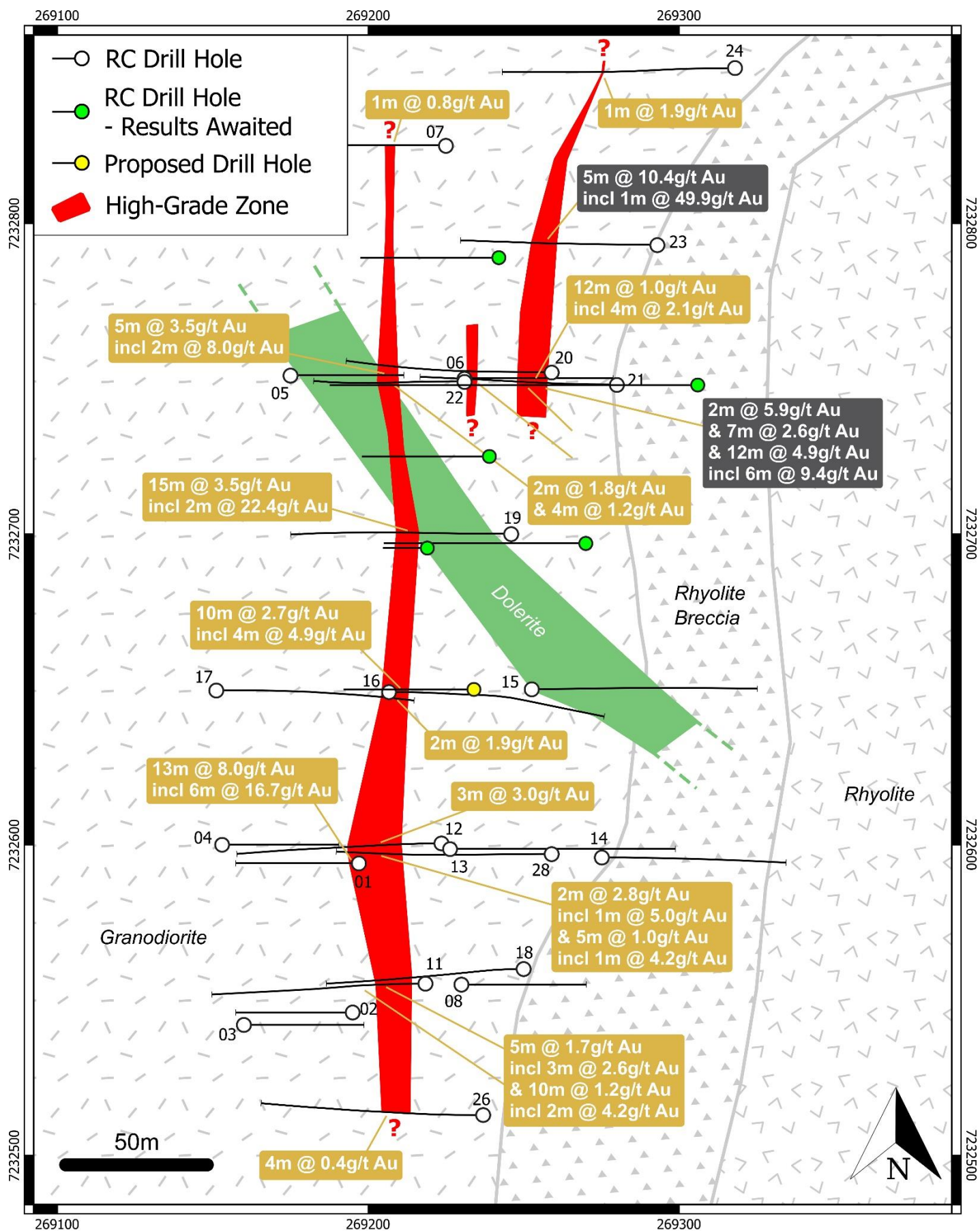
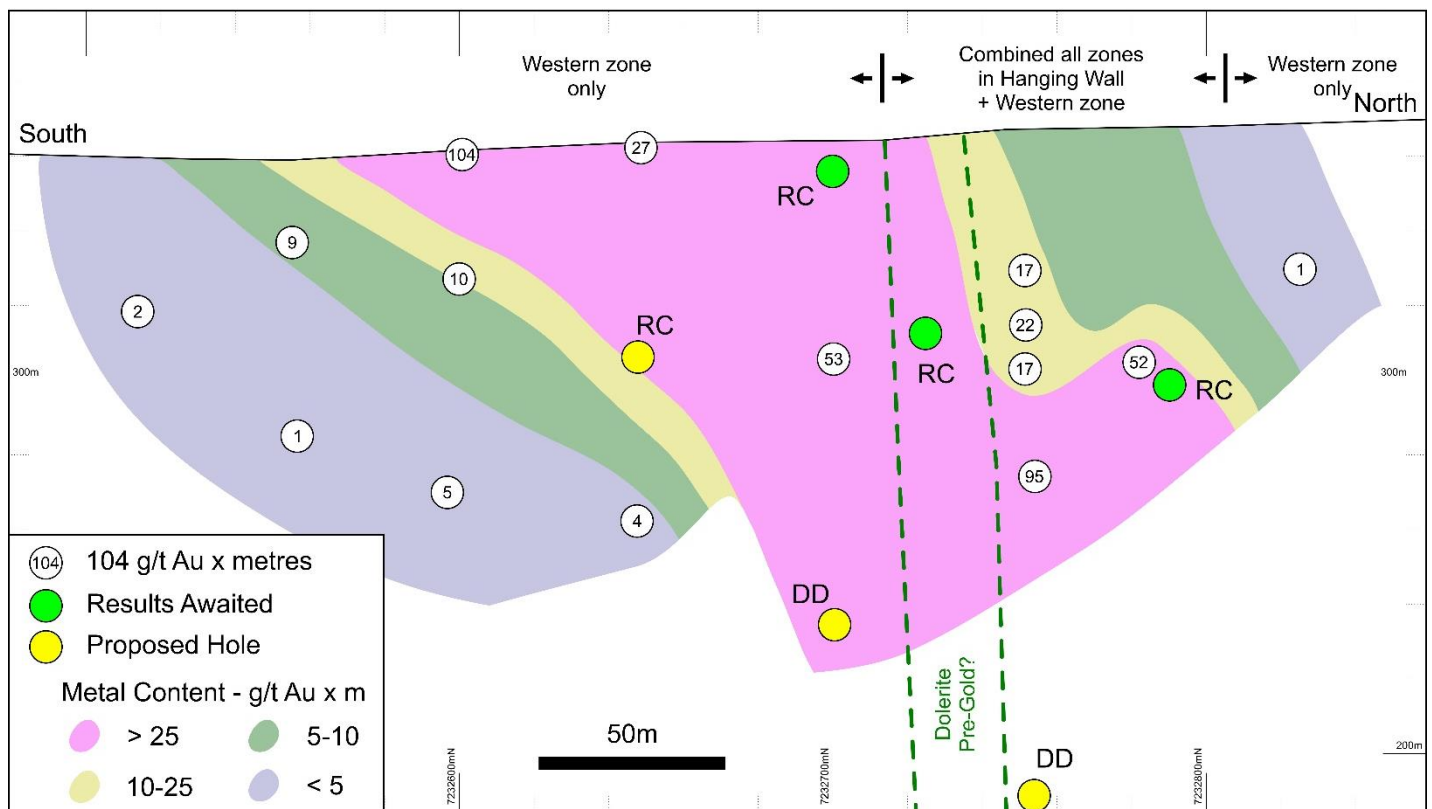


Figure 3: Plan Showing Red Mountain Project High-Grade Gold Zone, New 1m Drill Results (dark text boxes) and Planned Drilling



**Figure 4: Long Section - Red Mountain Western Zone High-Grade Gold with Gold Metal Content Contours Updated with new 1m resample results (Location of proposed holes subject to change)**

## Red Mountain - Drill Program Rationale

Results from drilling to date at the Red Mountain Gold Project outline a zone of high-grade near surface gold mineralisation in a steep easterly dipping zone hosted by altered granitoid rocks, on the western margin of a sub-vertical felsic volcanic breccia pipe. The project is in south east Queensland, lying about halfway between two gold mines Cracow (ASX:AUR) and Mount Rawdon (ASX:EVN) (Figure 1).

Mineralisation at Red Mountain is considered by Zenith to be analogous to known gold deposits in Queensland. Evidence includes a zoned system with geochemistry like that documented at third party owned Queensland gold deposits such as Mt Wright which is located 65km east of Charters Towers and the nearby Mount Rawdon Gold Mine. The Mt Wright gold deposit was exploited by Resolute Mining Limited as an underground operation, with mineralisation having a strike length of only 200m but vertical extent of over 1.2km.

The current drill program has focus on the western part of the prospect area (Figures 2 & 3). This area is part of a larger total target zone extending some 2.2 km around the rim of the breccia pipe (Figure 4).

For further background on the Red Mountain project refer to recent ASX releases by the Company on the 22<sup>nd</sup> Jul 2020, 3<sup>rd</sup> Aug 2020, 24<sup>th</sup> Aug 2020 and 9<sup>th</sup> & 21<sup>st</sup> & 28<sup>th</sup> Sep 2020 & 13<sup>th</sup> Oct 2020).

## Details of New Results

Sampling from the current drill campaign was completed on a routine 4m composite basis with selected 1m sampling based on visual estimates of alteration, sulphides and other geological criteria. Assaying of 1m samples for gold mineralised 4m composites will now be completed. Results for the initial 4m samples for all holes are included. Mineralised composite samples will now be resubmitted for a few outstanding 4m intervals at 1m samples for analysis of gold and silver.

**Table 1: Significant Gold Intersections from Red Mountain**

Hole	Original 1-4m Samples				1m Samples					Comments
	From (m)	To (m)	Interval (m)	Original Au Grade (g/t)	From (m)	To (m)	Interval (m)	Au Grade (g/t)	Ag Grade (g/t)	
ZRMRC001	0	14	14	5.5	0	13	13	8.0	3.2	Previous results
incl	0	6	6	12.3	0	6	6	16.7	5.3	
ZRMRC002	0	6	6	0.6	0	3	3	0.7	0.2	
incl					1	2	1	1.2	0.5	
and	26	30	4	0.7				NSR		
ZRMRC003					67	68	1	0.8	10.2	
ZRMRC004				NSR						
ZRMRC005					64	69	5	3.5	54.3	
incl					64	66	2	8.0	109.4	
ZRMRC006					12	14	2	2.6	7.8	
and	25	29	4	0.9	26	27	1	3.1	13.6	
and	42	54	12	1.0	42	54	12	1.0	9.8	
incl					42	44	2	1.2	17.7	
and incl					47	48	1	0.6	13.5	
and incl					50	54	4	2.1	14.2	
incl					50	51	1	6.0	20.2	
and incl					53	54	1	2.0	26.5	
ZRMRC007					36	37	1	0.8	45.0	
ZRMRC008					64	65	1	0.4	65.1	
ZRMRC009				NSR				NSR		
ZRMRC010				NSR	43	44	1	0.0	51.6	
ZRMRC011					25	30	5	1.7	3.5	New Ag
incl					25	28	3	2.6	5.5	New Ag
and	35	43	8	1.4	37	47	10	1.2	1.7	New Ag
incl	35	39	4	2.4	37	41	4	2.4	3.4	New Ag
incl					37	39	2	4.2	5.4	New Ag
ZRMRC012					15	16	1	0.4	0.5	New Ag
and					29	33	4	0.8	4.8	New Ag
incl					32	33	1	1.5	4.3	New Ag
and	39	44	5	0.9	38	44	6	1.7	13.2	New Ag
incl					40	43	3	3.0	15.1	New Ag
and					77	80	3	0.5	1.0	New Ag
ZRMRC013				NSR						
ZRMRC014				NSR						
ZRMRC015				NSR						
ZRMRC016	0	12	12	2.2	0	10	10	2.7	3.4	New Ag
incl	0	8	8	3.1	0	4	4	4.9	3.4	New Ag
incl					5	6	1	1.4	3.3	New Ag
incl					7	9	2	2.4	5.2	New Ag
ZRMRC017					77	78	1	1.0	21.8	New Ag
and					86	87	1	0.7	5.3	New Ag
and	99	101	2	0.9	100	109	9	0.3	7.9	New Ag

<b>incl</b>					<b>100</b>	<b>101</b>	<b>1</b>	<b>1.0</b>	<b>0.6</b>	New Ag
<b>and</b>					<b>116</b>	<b>118</b>	<b>2</b>	<b>1.9</b>	<b>11.0</b>	New Ag
ZRMRC018	8	12	4	0.6	9	12	3	0.5	<b>awaited</b>	New Au
<b>and</b>					60	61	1	0.7	<b>awaited</b>	New Au
<b>and</b>					76	77	1	0.5	<b>awaited</b>	New Au
<b>and</b>					85	86	1	0.8	0.5	<b>New Ag</b>
ZRMRC019	12	16	4	0.6	<b>12</b>	<b>13</b>	<b>1</b>	<b>2.9</b>	<b>awaited</b>	<b>New Au</b>
					18	19	1	0.5	<b>awaited</b>	<b>New Au</b>
	56	60	<b>4</b>	<b>1.6</b>	<b>57</b>	<b>72</b>	<b>15</b>	<b>3.5</b>	<b>awaited</b>	<b>Previous Au</b>
	68	80	<b>12</b>	<b>8.9</b>						
<b>incl</b>	68	72	<b>4</b>	<b>25.9</b>	<b>70</b>	<b>72</b>	<b>2</b>	<b>22.4</b>	<b>awaited</b>	<b>Previous Au</b>
					96	97	1	0.6	<b>awaited</b>	New Au
	104	108	<b>4</b>	<b>0.6</b>					<b>9.2</b>	<b>New Ag</b>
ZRMRC020					2	3	1	0.5	<b>awaited</b>	<b>New Au</b>
	36	40	4	0.7	<b>39</b>	<b>40</b>	<b>1</b>	<b>1.3</b>	<b>awaited</b>	<b>New Au</b>
					<b>46</b>	<b>47</b>	<b>1</b>	<b>3.2</b>	<b>1.7</b>	<b>New Ag</b>
					56	58	2	0.5	<b>awaited</b>	New Au
	60	64	<b>4</b>	<b>1.0</b>	62	71	9	0.6	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					<b>62</b>	<b>63</b>	<b>1</b>	<b>2.7</b>	<b>awaited</b>	<b>New Au</b>
	84	88	4	0.7	86	89	3	0.8	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					<b>86</b>	<b>87</b>	<b>1</b>	<b>1.2</b>	<b>awaited</b>	<b>New Au</b>
					<b>99</b>	<b>100</b>	<b>1</b>	<b>2.0</b>	<b>awaited</b>	<b>New Au</b>
	114	120	<b>6</b>	<b>2.6</b>	114	122	8	0.6	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					114	115	<b>1</b>	<b>1.0</b>	<b>6.3</b>	<b>New Ag</b>
<b>and incl</b>	116	120	<b>4</b>	<b>3.7</b>	117	118	<b>1</b>	<b>3.1</b>	<b>awaited</b>	<b>New Au</b>
<b>and incl</b>					121	122	1	0.5	<b>awaited</b>	<b>New Au</b>
ZRMRC021					40	41	1	0.4	<b>awaited</b>	<b>New Au</b>
	48	52	<b>4</b>	<b>4.6</b>	<b>49</b>	<b>51</b>	<b>2</b>	<b>5.9</b>	<b>awaited</b>	<b>New Au</b>
	<b>61</b>	<b>76</b>	<b>15</b>	<b>1.4</b>	61	69	<b>8</b>	<b>2.3</b>	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					<b>61</b>	<b>68</b>	<b>7</b>	<b>2.6</b>	<b>11.0</b>	<b>New Ag</b>
					74	80	6	0.5	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					<b>78</b>	<b>79</b>	<b>1</b>	<b>1.2</b>	<b>awaited</b>	<b>New Au</b>
					87	89	2	0.9	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					<b>88</b>	<b>89</b>	<b>1</b>	<b>1.2</b>	<b>awaited</b>	<b>New Au</b>
	<b>100</b>	<b>108</b>	<b>8</b>	<b>3.9</b>	102	114	<b>12</b>	<b>4.9</b>	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					103	109	<b>6</b>	<b>9.4</b>	<b>awaited</b>	<b>New Au</b>
					<b>140</b>	<b>141</b>	<b>1</b>	<b>1.6</b>	<b>awaited</b>	<b>New Au</b>
	144	148	4	0.5	146	148	2	0.8	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					147	148	<b>1</b>	<b>1.2</b>	<b>awaited</b>	<b>New Au</b>
ZRMRC022	0	12	12	0.4	1	2	1	0.6	<b>awaited</b>	<b>New Au</b>
					7	9	2	0.8	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					<b>8</b>	<b>9</b>	<b>1</b>	<b>1.1</b>	<b>awaited</b>	<b>New Au</b>
					20	26	6	0.9	<b>7.3</b>	<b>New Ag</b>
<b>incl</b>					<b>20</b>	<b>22</b>	<b>2</b>	<b>1.8</b>	<b>7.2</b>	<b>New Ag</b>
					<b>31</b>	<b>32</b>	<b>1</b>	<b>1.6</b>	<b>awaited</b>	<b>New Au</b>
					42	52	10	0.7	<b>awaited</b>	<b>New Au</b>
<b>incl</b>					42	43	<b>1</b>	<b>1.2</b>	<b>3.7</b>	<b>New Ag</b>

	48	52	4	1.2	48	52	4	1.2	14.6	New Ag
incl					48	49	1	1.0	26.1	New Ag
and incl					50	52	2	1.5	9.4	New Ag
	60	64	4	0.7	61	62	1	1.9	awaited	New Au
					69	70	1	0.5	1.8	New Ag
ZRMRC023					23	24	1	0.7	awaited	New Au
					32	33	1	0.6	awaited	New Au
					67	72	5	10.4	awaited	New Au
					67	68	1	49.9	awaited	New Au
					71	72	1	1.4	0.5	New Ag
					78	86	8	0.7	awaited	New Au
incl					78	81	3	1.3	awaited	New Au
incl	68	88	20	0.5	85	86	1	1.3	awaited	New Au
					103	104	1	0.7	awaited	New Au
ZRMRC024	14	16	1	0.6					awaited	Previous Au
					84	85	1	1.9	13.2	New Ag
ZRMRC025				NSR						
ZRMRC026					2	3	1	0.5	awaited	New Au
					23	28	5	0.2	awaited	New Au
	52	56	4	0.4	53	54	1	0.9	awaited	New Au
ZRMRC027				NSR						
ZRMRC028					84	86	2	2.9	awaited	Previous Au
incl					84	85	1	5.0	awaited	Previous Au
					99	100	1	0.5	awaited	Previous Au
					105	110	5	1.0	awaited	Previous Au
incl					109	110	1	4.2	awaited	Previous Au
					122	123	1	0.8	awaited	Previous Au
ZRMRC029					5	7	2	0.6	awaited	New Au
ZRMRC030					24	25	1	0.7	awaited	New Au
ZRMRC031					8	9	1	0.9	awaited	New Au
ZRMRC032				NSR						
ZRMRC033				NSR						
ZRMRC034	92	96	4	0.5					awaited	New Au
ZRMRC035										

High-grade intersections are length weighted average grades with minimum cut-off grade of 1.0g/t Au and no internal dilution, whilst lower grade intersections are length weighted average grades with minimum cut-off grade of 0.4g/t Au and maximum internal dilution of 4m. High-grade silver with low gold reported above 30 g/t Ag cut-off grade.

Mineralised envelopes for holes ZRMRC20-22 reported on page 1 of the 28<sup>th</sup> September 2020 report are length weighted average grades with minimum cut-off grade of 0.2g/t Au and maximum internal dilution of 14m. Note a transcription error was made in reporting the interval for ZRMRC021 previously reported as 108m @ 1.1 g/t Au. That intersection is incorrect and should have been reported as 68m @ 1.1g/t Au. All other results were correctly stated.



**Table 2: Red Mountain Drill Collars**

Hole_ID	Hole_Type	Easting	Northing	RL	Depth (m)	Azimuth	Dip
ZRMRC001	RC	269197	7232594	360	79	270	-60
ZRMRC002	RC	269195	7232546	360	75	270	-60
ZRMRC003	RC	269160	7232542	360	75	90	-60
ZRMRC004	RC	269153	7232600	360	75	90	-60
ZRMRC005	RC	269175	7232751	360	73	90	-60
ZRMRC006	RC	269231	7232750	360	97	90	-60
ZRMRC007	RC	269225	7232825	360	73	270	-60
ZRMRC008	RC	269230	7232555	360	79	90	-60
ZRMRC009	RC	269394	7232273	360	64	130	-60
ZRMRC010	RC	269394	7232273	360	90	90	-60
ZRMRC011	RC	269218	7232555	359	151	270	-60
ZRMRC012	RC	269224	7232600	362	145	270	-60
ZRMRC013	RC	269226	7232599	363	151	90	-60
ZRMRC014	RC	269275	7232596	364	127	90	-60
ZRMRC015	RC	269253	7232650	366	151	90	-60
ZRMRC016	RC	269207	7232649	364	145	90	-60
ZRMRC017	RC	269151	7232650	363	127	90	-60
ZRMRC018	RC	269250	7232560	360	140	270	-60
ZRMRC019	RC	269235	7232700	360	157	270	-60
ZRMRC020	RC	269259	7232752	362	151	270	-60
ZRMRC021	RC	269280	7232748	361	151	270	-60
ZRMRC022	RC	269231	7232749	361	103	270	-58
ZRMRC023	RC	269293	7232793	360	151	270	-58
ZRMRC024	RC	269318	7232850	361	157	270	-58
ZRMRC025	RC	269347	7232906	355	151	270	-58
ZRMRC026	RC	269237	7232513	363	157	270	-58
ZRMRC027	RC	269239	7232444	351	157	270	-58
ZRMRC028	RC	269259	7232597	363	151	270	-58
ZRMRC029	RC	269287	7232395	363	109	270	-58
ZRMRC030	RC	269645	7232954	352	151	210	-63
ZRMRC031	RC	269678	7232996	352	157	210	-63
ZRMRC032	RC	269742	7232899	363	157	220	-60
ZRMRC033	RC	269805	7232835	363	151	230	-60
ZRMRC034	RC	269899	7232696	363	151	270	-60
ZRMRC035	RC	269918	7232695	363	151	270	-60
ZRMRC036	RC	269224	7232720	363	103	270	-75
ZRMRC037	RC	269246	7232795	367	109	270	-60
ZRMRC038	RC/DD	269318	7232748	378	90	270	-60
ZRMRC039	RC	269219	7232703	363	49	<b>270</b>	<b>-60</b>
ZRMRC040	RC/DD	269260	7232697	367	75	270	-70

For further information please refer to the Company's website or contact the Company directly.

**Authorised for release by the Zenith Minerals Limited Board of Directors – 9<sup>th</sup> November 2020**

## For further information contact:

### Zenith Minerals Limited

Directors Michael Clifford or Peter Bird

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### Media Enquiries

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## Competent Persons Statement

*The information in this report that relates to Exploration Results is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## Material ASX Releases Previously Released

*The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release and that the material assumptions and technical parameters remain unchanged.*

## About Zenith

Zenith has a vision to build a gold and base metals business with a team of proven project finders. Focus is on 100% owned Zenith projects, whilst partners progress multiple additional opportunities using third party funds.

Zenith is continuing to focus on its core Australian gold and copper projects including:

- **Red Mountain Gold Project** in Queensland (100% owned) where ongoing drilling is following-up the high-grade near surface gold and silver intersected in the maiden drill program (ASX Releases 3 Aug 20 & 13 Oct 20), including:
  - 13m @ 8.0 g/t Au & 3.2 g/t Ag from surface, incl. 6m @ 16.7 g/t Au & 5.3g/t Ag
  - 15m @ 3.5 g/t Au, incl. 2m @ 22.4 g/t Au
- **Split Rocks Gold Project** in Western Australia (100% owned), where recent drilling returned, high-grade near surface gold mineralisation at multiple targets (ASX Release 5 Aug 20, 19-Oct-20, 28-Oct-20), including:
  - Dulcie North: 32m @ 9.4 g/t Au, incl 9m @ 31.4 g/t Au with the highest individual 1m sample returning 199.2 g/t Au.
  - Dulcie Laterite Pit:
    - 2m @ 14.5 g/t Au, incl. 1m @ 20.8 g/t Au,
    - 18m @ 2.0 g/t Au (EOH) incl. 1m @ 23.7 g/t Au &
    - 16m @ 3.7 g/t Au
  - Estrela Prospect: 2m @ 9.8 g/t Au (open to north & south)
  - Dulcie Far North: 5m @ 5.6 g/t Au incl. 4m @ 6.8 g/t Au
- **Develin Creek Copper-Zinc Project** in Queensland (100% owned) – maiden drill test of the new Snook copper target located 30km south of Zenith's JORC resources in progress.
- **Jackadgery Gold Project** in New South Wales (option to earn initial 90%), historic trenching returned 160m @ 1.2 g/t Au. No drilling to date. Zenith planning maiden drill test (ASX Release 10 Sep 20)

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	Assays received for 35 reverse circulation drill holes.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	1m drill samples collected via a cyclone were split through riffle splitter. Routine sampling on 4m composites via spear sampling of the 1m riffle split samples. Selected 1m intervals were assayed as 1m samples based on visual logging of alteration and sulphide content.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 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.</i>	Reverse circulation drilling was used to obtain 1 m to 4m samples from which 2 to 3 kg was pulverised to produce a 30 g charge for fire assay
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	Reverse circulation
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Drill chips were sieved and logged by a qualified geologist on site, data recorded in field on paper logs and transferred to digital database
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Drilling produced generally dry samples with excellent recoveries, all 1m samples were riffle split on site and selected interval were 4m composite sampled using a spear from the 1m riffle splits to ensure a representative sample was collected for assay
	<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>	No indications of sample bias based on results to date

Logging	<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>	Drill chips were sieved and logged by a qualified geologist on site. No reporting of resources.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Drill chips logging is qualitative. Representative chip samples collected and stored in 20 compartment plastic chip trays and photographed.
	<i>The total length and percentage of the relevant intersections logged.</i>	All intervals logged and sampled
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No core
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Samples riffle split
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples were analysed at ALS Laboratories in Brisbane, the samples were crushed, pulverised and assayed by gold using fire assay and silver by ICP-AES.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	~2 to 3kg of drill sample was crushed and pulverised and a sub-sample was taken in the laboratory and analysed.
Sub-sampling techniques and sample preparation - continued	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	1m resampling of selected mineralised 2 and 4m composites to be completed
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Each sample was 2kg to 3kg in weight which is appropriate to test for the grain size of material.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The samples were crushed and assayed for gold using fire assay, which is considered a near total technique
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No geophysical tools used this sampling program
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Certified reference material and blanks was included in each sample batch and appropriate levels of precision and accuracy.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Company personnel have observed the assayed samples
	<i>The use of twinned holes.</i>	No twinning



	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Field data were all recorded in field laptops and sample record books and then entered into a database
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made.
<i>Location of data points</i>	<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>	Sample location is based on GPS coordinates +/-5m accuracy
	<i>Specification of the grid system used.</i>	The grid system used to compile data was MGA94 Zone 56
<i>Location of data points - continued</i>	<i>Quality and adequacy of topographic control.</i>	Topography control is +/- 10m.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	Drill holes shown in Figures 2 to 4 and Tables 1 & 2.
	<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>	The data alone will not be used to estimate mineral resource or ore reserve
	<i>Whether sample compositing has been applied.</i>	Results are reported as length weighted average composites at a minimum cut-off grade of 0.4 g/t Au or if silver only 30g/t Ag (refer to Table 1). Over range >100g/t Ag re-assayed using a 4 acid digest ICP-AES.
<i>Orientation of data in relation to geological structure</i>	<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>	Orientation of mineralisation is unsure at this stage and therefore true widths are uncertain, however drill holes were designed and orientated to intersect geological contacts, mapped veins and structures and IP geophysical chargeability anomalies normal to strike and therefore are more likely than not to represent near true widths
	<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>	As above
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Samples were kept in numbered and secured bags until delivered to the laboratory
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Sampling techniques are consistent with industry standards

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<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>	The Red Mountain Project is located within the 100% Zenith owned exploration permit for minerals EPM 26384.  The project is located within private grazing properties.
	<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>	All tenements are 100% held by Zenith and are in good standing with no known impediment to future granting of a mining lease.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	South Pine Mines Pty Ltd undertook regional scale reconnaissance rock chip sampling and a systematic stream sediment sampling program focused around the Rossmore silver occurrence from 1981 to 1982. Several companies held the ground in the following decades focusing on the porphyry copper / epithermal potential of the area with Archer Resources Limited the only company to have reported on ground exploration activity on the area of interest being reported herewith by Zenith. Anomalous silver and gold in soils was reported by Archer Resources Limited which has subsequently been confirmed by Zenith.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Based on the initial site visit and preliminary evidence the geological setting and geochemical association at Red Mountain is indicative of an epizonal intrusion related gold deposit like the Mt Rawdon gold mine.
<i>Drill hole Information</i>	<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>	Refer to Tables 1 & 2
	<i>o easting and northing of the drill hole collar</i>	
	<i>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	
	<i>o dip and azimuth of the hole</i>	
	<i>o down hole length and interception depth</i>	
	<i>o hole length.</i>	
	<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>	
<i>Data aggregation methods</i>	<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>	No high-grade cutting
	<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>	High-grade intersections are length weighted average grades with minimum cut -off grade of 1.0g/t Au and no internal dilution, whilst lower grade intersections are length weighted average grades with minimum cut-off grade of 0.4g/t Au and maximum internal dilution of 4m.

<i>Data aggregation methods - continued</i>	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents used.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Refer below
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	The intersections except holes ZRMRC005 & 006 are down hole lengths. The orientation of mineralisation is interpreted as steep easterly dipping.
	<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>	As above
<i>Diagrams</i>	<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>	Refer to descriptions and diagrams in body of text of this report and cross sections provided in ASX Release 24th August 2020.
<i>Balanced reporting</i>	<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>	Refer to descriptions and diagrams in body of text
<i>Other substantive exploration data</i>	<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>	No other meaningful or material exploration data to be reported at this stage
<i>Further work</i>	<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>	Follow-up drill planning in progress.
	<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>	Refer to figures in body of report.