12th April 2022



Unlisted options	14.3M	
Mkt. Cap. (\$0.39)	A\$134M	
Cash (31 st Dec 21)	A\$4.4M*	
Equities (31 st Dec 21)	A\$9.1M	
Debt	Nil	
*Excludes \$6M placement to EVM (ASX Release 13-Jan-22)		

Directors

Michael CliffordManaging DirectorStan MacdonaldNon-Exec DirectorJulian GoldsworthyNon-Exec DirectorNicholas OngCo SecNick Bishop.......CFO

Major Shareholders (31st Dec 21)

Directors	3.4%	
HSBC Custody Nom.	9.4%	
Citicorp Nom	9.0%	
BNP Paribas Nom	5.8%	
Granich	3.7%	

Our Vision

Zenith has a vision to maximise shareholder value through superior project generation and exploration activities.

Focus is on 100% owned Zenith projects, whilst partners progress multiple additional opportunities.

Contact Us

Level 2, 33 Ord Street WEST PERTH WA 6005 PO Box 1426 WEST PERTH WA 6872 Telephone: (08) 9226 1110 Email:info@zenithminerals.com.au Web:www.zenithminerals.com.au

SECOND NEW QLD GOLD PROJECT

- **2** Auburn gold project in Queensland secured via 100% owned exploration licence.
- Zenith's reconnaissance sampling has confirmed the presence of high-grade gold at surface. Of a total of 49 rock samples, 9 returned results greater than 1 g/t Au with a peak value of 23.3 g/t Au.
- An initial soil sampling program over the central portion of the project area has defined several strong gold anomalies. Three of which are associated with and extending from historic gold mines, with strike lengths of up to 600m, and another three anomalies away from known gold workings. Peak soil result of 1.1 g/t Au.
- Government mining records confirm historic gold mining in the 1880s up to 1915. Many of these old workings were covered by small mining leases in the 1970s and into the 1980s.
- **2** No on-ground exploration has been reported for over 25 years.
- Mineralisation is hosted within sheared granitic rocks. All gold mineralised rock specimens (> 1 g/t Au) are strongly altered with no or very rare quartz veining. Host rocks, alteration, paucity of quartz veining and trace elements indicate potential for an intrusion related gold system (IRGS).
- To allow the Zenith team to focus on activities to generate Battery Minerals projects, ZNC is planning to demerge the non-Battery Minerals projects, including Auburn into one or more new companies to be listed on ASX. Any such demerger will be subject to ZNC Board approval, tax advice favourable to ZNC, shareholders, ASX, ASIC and other regulatory approvals.
- ZNC shareholders to benefit by way of an in-specie distribution of the shares in the new listed vehicle/s. Further updates and information on the Demerger will be provided by Zenith in due course. (ASX Release 13-Jan-22).

Commenting on the Auburn gold project, Managing Director Mick Clifford said: "*I am pleased to report on this second new Queensland gold project that the Company has recently secured through its ongoing project generation activities.*

Initial on-ground exploration sampling by the Zenith team has confirmed the presence of widespread gold mineralisation at surface in association with historic gold workings, confirming its exploration potential. Follow-up exploration is clearly warranted in this project area that has had no previous systematic assessment."

Background on the Auburn Gold Project

The Company's new Auburn and existing Red Mountain and Privateer gold projects are located within the Auburn portion of the Connors-Auburn Arc, a tectonic unit which is part of the New England orogenic belt extending from Queensland into northern New South Wales. The Auburn and Conners Arcs are host to several economic gold and base metal deposits including the Cracow epithermal gold deposit to the northwest and Mt Rawdon gold mine to the north east (Figure 1).

The Auburn tenement covers the eastern margin of an area historically known for epithermal gold and silver. Government Mining Journals (April 15, 1914, and May 1915) record gold mineralisation in the Cadarga Creek area, which runs through the tenement and was worked in the 1880s up to 1915. Many of these old workings were covered by small mining leases in the 1970s and into the 1980s (Figure 2).



Figure 1: Auburn Project Location Map

Previous work has consisted of reconnaissance sampling and mapping around the old prospects by Newmont in the early 1980s, Kirk River in the mid-1980s and Compass Resources in the mid-1990s. In addition, some poorly documented historic trench sampling and drill hole summaries provide encouragement but cannot be relied upon. No exploration has been conducted for over 25 years.



Figure 2: Auburn Geological Map and Gold Occurrences

First pass reconnaissance mapping and rock sampling along with systematic soil sampling over the central portion of the project area, by Zenith, has returned encouraging results.

Zenith sampling has confirmed the presence of high-grade gold at surface. Of a total of 49 rock samples, 9 returned results greater than 1 g/t Au, with results including: 3.0g/t Au, 4.4 g/t Au, 6.2 g/t Au, 6.2 g/t Au and a peak value of 23.3 g/t Au (Figure 3 & Table 1). All gold mineralised rock specimens (> 1 g/t Au) are strongly altered and are associated with ferruginous boxwork after sulphides with no or very rare quartz veining (Figure 4). Anomalous trace elements associated with the gold mineralised samples include: Ag, As, Bi, Pb and Te consistent with an intrusion related gold system (IRGS).

Soil sampling has defined several gold anomalous zones with a strong gold in soil anomaly (10ppb Au contour, peak value 1.1 g/t Au) extending from the high-grade rock sampling areas over a strike length of 600 metres (Figure 2) associated with the Blast and New Camp historic gold workings.



Figure 3: Auburn Gold Prospects – Significant Rock and Soil Geochemical Results (Gold Soil Anomalies – pink polygons over coloured image of Arsenic with black polygon outline of Bismuth anomaly)



Rock Sample ARK010 (6.21 g/t Au)

Rock Sample ARK021 (23.3g/t Au)

Figure 4: Auburn – Example of Gold Mineralised Rock Samples

The Auburn tenement geology consists of late Permian Cadarga Creek Granodiorite (part of the Rawbelle Batholith). In the Auburn River area, the Delubra Quartz Gabbro and the Cadarga Creek Granodiorite crop out as north-east-trending ridges. The Delubra Quartz Gabbro is intruded by, or is comagmatic with, granitoids of the Cadarga Creek Granodiorite. Breccias and network veining mark the eastern contact of the gabbro with the Cadarga Creek Granodiorite. Major east and south-east-trending structures and dykes are important influences in localising gold mineralisation in these units.

Sample	Easting	Northing	Au (g/t)
ARK001	303546	7150079	0.11
ARK002	303552	7150083	0.02
ARK003	303557	7150087	0.05
ARK004	303499	7150117	0.54
ARK005	303477	7150114	0.01
ARK006	303484	7150145	0.01
ARK007	303449	7150195	1.17
ARK008	303835	7150695	0.03
ARK009	303825	7150686	0.01
ARK010	303882	7150692	6.21
ARK011	303817	7150688	6.18
ARK012	303776	7150711	0.93
ARK013	303777	7150720	0.04
ARK014	303776	7150705	0.04
ARK015	303779	7150769	4.36
ARK016	303766	7150770	3.01
ARK017	303757	7150767	0.05
ARK018	304161	7150448	0.7
ARK019	304170	7150454	0.98

Table 1: Auburn Rock Chip Results

ARK020	304156	7150475	0.29
ARK021	304164	7150467	23.3
ARK022	304179	7152130	0.07
ARK023	302197	7151893	0.05
ARK024	304061	7151693	0.03
ARK025	304053	7151702	0.02
ARK026	303348	7151701	0.01
ARK027	303308	7151707	0.01
ARK028	301748	7151696	0.01
ARK029	304257	7151131	0.01
ARK030	303131	7151275	0.06
ARK031	303101	7151296	2.15
ARK032	303076	7151302	1.66
ARK033	303364	7150907	0.01
ARK034	303404	7150892	0.01
ARK035	303481	7150901	0.04
ARK036	303666	7150918	-0.01
ARK037	303914	7150527	-0.01
ARK038	303681	7150545	0.01
ARK039	303446	7150299	0.12
ARK040	303087	7151222	0.01
ARK041	303115	7151232	0.02
ARK042	303563	7149894	-0.01
ARK043	303087	7151310	0.3
ARK044	303082	7151325	2.37
ARK045	303089	7151323	0.96
ARK046	303101	7151295	0.55
ARK047	303110	7151290	0.01
ARK048	303106	7151288	0.01
ARK049	303104	7151285	0.02

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources 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.

Authorised for release by the Zenith Minerals Limited Board of Directors – 12th April 2022

For further information contact Zenith Minerals Limited:

Managing Director: Michael Clifford E: info@zenithminerals.com.au Phone +61 8 9226 1110

ABOUT ZENITH

Zenith Lithium Joint Venture

Zenith is being developed as a pure lithium company to refocus on minerals containing lithium and related metals required for rechargeable lithium-ion batteries for electric vehicles and renewable energy storage ("**Battery Minerals**"), backed by a new alliance with the EV Metals Group (EVM), as detailed in ASX Release 14-Jan-22.

- Key commercial terms of the Zenith Lithium Joint Venture with EVM includes:
 - EVM may earn a 60% interest in the lithium rights in two initial 100% owned Zenith projects, namely Waratah Well and Split Rocks, by sole funding the completion of a feasibility study within 24 months, with Zenith retaining a 40% project share.
 - On and from completion of a feasibility study, Zenith and EVM will form a joint venture in respect of the project lithium rights. EVM will sole fund expenditure to a decision to mine, following which the parties will be required to fund future joint venture expenditure in accordance with their respective percentage shares.
 - EVM must arrange all financing for the development, construction and commissioning of any future mine including Zenith's share. Zenith must repay its proportionate share of the project finance including interest from the sale of its proportionate share of minerals produced.
 - EVM to spend a minimum of A\$7M on exploration on the projects, in 24 months, before being able to voluntarily withdraw provided that if EVM does not complete a feasibility study within 24 months it will be deemed to have withdrawn and will not earn an interest in the project lithium rights.
- The agreement includes a joint venture over Zenith's Split Rocks and Waratah Well projects in Western Australia, as well as a non-exclusive right to bring additional projects to the joint venture by either party, to explore for lithium/EV metals.
- To allow the Zenith team to focus on activities to generate Battery Minerals projects, ZNC is planning to demerge the non-Battery Minerals projects, including base metals and gold assets into one or more new companies to be listed on ASX. Any such demerger will be subject to ZNC Board approval, tax advice favourable to ZNC, shareholders, ASX, ASIC and other regulatory approvals. ZNC shareholders to benefit by way of an in-specie distribution of the shares in the new listed vehicle/s. Further updates and information on the Demerger will be provided by Zenith in due course.

Zenith Minerals Limited (ASX:ZNC)

Zenith has a vision to maximise shareholder value through superior project generation and exploration activities.

Key Australian gold and base metal projects include:

Faraboody	Zinc	Western	25% free carry to BES
Lalaneeuy	200	Australia	

New major zinc discovery to be fast tracked with extensive accelerated exploration program underpinned by a recent \$40M capital raising by partner Rumble Resources Limited (ASX:RTR) (ASX Releases 28-Apr-21, 2-Jun-21, 8-Jun-21, 18-Oct-21, 13-Dec-21, 21-Dec-21, 31-Jan-22, 7-Feb-22, 21-Feb-22, 9-Mar-22).

Develin Creek	Copper - Zinc	Queensland	100% Owned

Inferred Mineral Resource 2.57Mt @ 1.76% Cu, 2.01% Zn, 0.24g/t Au & 9.6g/t Ag (ASX Release 15-Feb-15). Massive sulphides intersected at 2 new prospects Wilsons North & Snook.

Sulphide City (ASX Release 5-Jul-21).	34m @ 3.5% Cu+Zn	29m @ 3.5%	Cu+Zn
	incl 10m @ 6.0% Cu+Zn	incl 12.3m @	6.7% Cu+Zn
Red Mountain	Gold	Queensland	100% Owned

Drilling is following-up the high-grade near surface gold and silver intersected in the maiden & subsequent drill programs (ASX Releases 3-Aug-20 & 13-Oct-20, 9-Nov-20, 21-Jan-21, 19-May-21).

Results incl:	13m @ 8.0 g/t Au	15m @ 3.5 g/t Au
	5m @ 10.4 g/t Au	12m @ 4.9 g/t Au
		111 -

Split Rocks	Gold	Western Australia	100% Owned

Zenith drilling returned - high-grade near surface gold mineralisation at multiple targets (ASX Release 5-Aug-20, 2-Sep-20, 19-Oct-20, 28-Oct-20, 15-Jan-21, 11-Mar-21, 21-Apr-21, 24-Jun-21, 30-Sep-21, 18-Jan-22). Results include:

Dulcie North	32m @ 9.4 g/t Au, incl 9m @ 31.4 g/t Au	16m @ 1.3 g/t Au
Dulcie Laterite Pit	2m @ 14.5 g/t Au	18m @ 2.0 g/t Au
	14m @ 3.5 g/t Au	
Estrella	2m @ 9.8 g/t Au	
Dulcie Far North	5m @ 5.6 g/t Au	3m @ 70 g/t Au
Water Bore	3m @ 6.6 g/t Au	
Scotts Grey	8m @ 4.1 g/t Au	4m @ 4.8 g/t Au



Section 1 Sampling Techniques and

Data

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

Criteria	JORC Code explanation	Comme	entary
	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.	Zenith: - -	Systematic grid-based soil sampling Selective rock chip sampling.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Zenith: - -	Systematic soil sampling no calibration of tools required. Selective rock chip sampling, representative of material sampled only.
Sampling techniques	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.	Zenith: - -	Soil samples (were sieved to -1.6mm fraction) on 50 x 200m spaced grid lines. Selective rock chip sampling 49 samples.
Drilling techniques	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.).	-	No drilling reported
	Method of recording and assessing core and chip sample recoveries and results assessed.	-	No drilling reported
Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	-	No drilling reported
	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.	-	No drilling reported

Logging	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.	Zenith: Rock samples were geologically described
	quantitative in nature. Core (or costean, channel, etc.) photography.	Zenith: Rocks qualitatively logged
	relevant intersections logged.	No drilling reported
	If core, whether cut or sawn and whether quarter, half or all core taken.	No drilling reported
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	No drilling reported
Sub-sampling techniques and sample preparation	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	 Zenith: Soil samples were analysed at ALS laboratories in Townsville. Samples were pulverised and assayed for gold and trace elements. Gold via trace level, agua regia and other 48 elements via four acid ICP-MS. Rock samples were analysed at ALS Laboratories in Townsville. Samples were crushed, pulverised and assayed by Au-AA25 (30g Fire Assay, AA finish) for gold and ME-MS61 (ICP-MS after 4 acid digest) for trace elements. Over range gold was assayed by Au-AROR43.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	 Zenith: ~2kg of rock was crushed and pulverised and a sub-sample was taken in the laboratory and sent for analysis. ~100g soil samples and pulverised and a sub-sample was taken in the laboratory and sent for analysis.
Sub-sampling techniques and sample	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.	 Zenith: Rock sampling was selective and based on geological observations. Soil sampling on designated grid basis
preparation - continued	Whether sample sizes are appropriate to the grain size of the material being sampled.	Zenith: - Each rock sample was 1kg to 2kg in weight which is appropriate to test for the grain size of material.
Quality of assay	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	 Zenith: Soil samples were assayed after aqua regia digest which is considered a partial technique Rock samples were crushed and assayed for trace elements using 4 acid digest and gold using fire assay which are considered near total techniques
laboratory tests	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.	No geophysical tools used during this sampling program

	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.	Zenith: Certified reference material was included in the soil sample batch.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Zenith: Company personnel have observed the assayed samples and rock sample photographs.
	The use of twinned holes.	No twinning
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Zenith: Field data recorded into a Zenith database
	Discuss any adjustment to assay data.	No adjustments were made.
Location of data points	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.	Zenith: Sample location is based on GPS coordinates +/- 5m accuracy
	Specification of the grid system used.	The grid system used to compile data was MGA94 Zone 56
Location of data points - continued	Quality and adequacy of topographic control.	Topography control is +/- 10m.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	All samples are shown on Figure 2, all rocks results reported in Table 1.
	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.	The data alone will not be used to estimate mineral resource or ore reserve
	Whether sample compositing has been applied.	Zenith: No compositing
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	 Zenith: Rock samples were taken by a geologist of specific rock types in attempt to characterise mineralisation style. All soil samples on systematic grid lines.
	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.	As above
Sample security	The measures taken to ensure sample security.	Zenith: - Samples were kept in numbered and secured bags until delivered to the laboratory
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Zenith: - 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
Mineral tenement and land tenure status	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.	The Auburn Project is located within the 100% Zenith owned exploration permit for minerals EPM 27478. The project is located within private grazing properties.
	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.	The tenement is 100% held by a wholly owned Zenith subsidiary and is in good standing with no known impediment to future granting of a mining lease. Conduct and compensation access (CCA) agreements will be required to be negotiated with grazing property owners prior to any ground disturbing activities occurring on the project area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous work has consisted of reconnaissance sampling and mapping around the old prospects by Newmont in the early 1980s, Kirk River in the mid- 1980s and Compass Resources in the mid-1990s. In addition, some poorly documented historic trench sampling and drill hole summaries provide encouragement but cannot be relied upon. No exploration has been conducted for over 25 years.
		No historic results are reported herein as previously exploration activity is poorly documented and therefore deemed not to comply with JORC 12 code.
Geology	Deposit type, geological setting and style of mineralisation.	Based on rock styles and precious metal and trace element geochemical signatures the mineralisation style appears to be potential intrusion related gold system (IRGS).
	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:	No drilling reported
	o easting and northing of the drill hole	
	o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
Information	o dip and azimuth of the hole	
	o down hole length and interception depth	
	o hole length.	
	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.	
Data aggregation methods	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.	No data aggregation.

	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.	No aggregation used
Data aggregation methods - continued	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents used
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	No drilling reported
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	No drilling reported
	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').	As above
Diagrams	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.	Refer to descriptions and diagrams in body of text
Balanced reporting	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.	All rock results reported in Table 1, all soil results shown in Figure 2.
Other substantive exploration data	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.	No other meaningful or material exploration data to be reported at this stage
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further geological mapping and surface sampling (rock and soil samples) required prior to drill testing.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to figures in body of report.