



## **ANNUAL INFORMATION FORM**

**FOR THE FISCAL YEAR ENDED JUNE 30, 2015**

**September 9, 2015**

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## GLOSSARY OF TERMS

The abbreviations set forth below have the following meanings in this Annual Information Form (the “AIF”).

“**2015 Fiscal Year**” means the financial year of the Company ending June 30, 2015

“**Ag**” chemical symbol for silver

“**Au**” chemical symbol for gold

“**ASX**” means the Australian Securities Exchange

“**Lion One**” or the “**Company**” means Lion One Metals Limited and its subsidiaries

“**Board of Directors**” or “**Board**” means the board of directors of the Company

“**Common Shares**” means the common shares of the Company

“**diamond drilling**” means Rotary drilling technique using diamond set or impregnated bits, to cut a solid, continuous core sample of the rock. The core sample is retrieved to the surface, in a core barrel, by a wireline

“**External Auditor**” means Davidson & Company, LLP Chartered Accountants

“**Fe**” chemical symbol for iron

“**Indicated mineral resource**” means that part of a mineral resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed

“**Inferred mineral resource**” means that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes

“**mineral deposit**” means an identified in-situ mineral occurrence from which valuable or useful minerals may be recovered. Mineral deposit estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence of mineralization and on the available sampling results

“**mineralization**” means the concentration of metals and their chemical compounds within a body of rock

“**Mineral Reserve**” means the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined

“**Mineral Resource**” means a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in

or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge

“**Mn**” chemical symbol for manganese

“**NI 43-101**” means National Instrument 43-101 - Standards of Disclosure for Mineral Projects, of the Canadian Securities Administrators

“**NI 52-110**” means National Instrument 52-110 – *Audit Committees* of the Canadian Securities Administrators

“**NSR**” means Net Smelter Return

“**Qualified Person**” has the meaning given to it in NI 43-101

“**SPL**” means Special Prospecting License as governed by the Mineral Resources Department of Fiji

“**TSX-V**” means the TSX Venture Exchange

## METRIC CONVERSION TABLE

For ease of reference, the following conversion factors are provided:

<u>Metric Unit</u>	<u>U.S. Measure</u>	<u>U.S. Measure</u>	<u>Metric Unit</u>
1 hectare (ha)	2.471 acres	1 acre.....	0.4047 hectares
1 meter (m)	3.281 feet	1 foot.....	0.3048 meters
1 kilometer (km)	0.621 miles	1 mile .....	1.609 kilometers
1 gram (g)	0.032 troy ounces	1 troy ounce .....	31.1 grams
1 kilogram (kg)	2.205 pounds	1 pound.....	0.454 kilograms
1 tonne (t)	1.102 short tons	1 short ton .....	0.907 tonnes
1 gram/tonne (g/t)	0.029 troy ounces/ton	1 troy ounce/ton.....	34.286 grams/tonne

## FORWARD LOOKING INFORMATION

This Annual Information Form may contain “forward-looking information” which may include, but is not limited to, statements with respect to the future financial or operating performances of Lion One, its subsidiaries and its projects (including the Tuvatu Gold Project); the ability to continue exploration and development plans on the Company’s Projects (including the Tuvatu Gold Project); the future price of gold, iron ore and uranium; the estimation of mineral reserves and resources; the realization of mineral reserve estimates; the timing and amount of estimated future production revenues, margins, costs of production, capital, operating and exploration expenditures; costs and timing of the development of new deposits; costs and timing of future exploration; cost and timing of plant and equipment; requirements for additional capital; the ability to raise capital; government regulation of mining operations; environmental risks, reclamation and rehabilitation expenses; title disputes or claims; limitations of insurance coverage; and the timing and possible outcome of pending litigation and regulatory matters. Often, but not always, forward-looking information statements can be identified by the use of words such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes”, or variations (including

negative variations) of such words and phrases, or state that certain actions, events or results “may”, “could”, “would”, “might”, or “will” be taken, occur or be achieved.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Lion One and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include, among others, general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities; the high degree of operational risk involved in mining operations; inherent exploration, development and operating risks; fluctuations in the value of the Canadian or US dollar or Australian dollar or Fijian dollar; competition in the mining industry; regulatory risks; risks associated with additional financing required to advance exploration properties; price volatility of the Company’s Common Shares, as well as those factors discussed in the section of this Annual Information Form entitled “Description of the Business - Risk Factors”.

Although Lion One has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Forward-looking statements contained herein are made as of the date of this Annual Information Form based on the opinions and estimates of management, and Lion One disclaims any obligation to update any forward-looking statements, whether as a result of new information, estimates or opinions, future events or results or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

## **FINANCIAL INFORMATION AND ACCOUNTING PRINCIPLES**

Unless otherwise indicated, all references to “CDN \$” or “Canadian dollars” in this Annual Information Form refer to the Canadian dollar. All financial information in this AIF is prepared in accordance with International Financial Reporting Standards (“IFRS”).

The Company reports its financial results and prepares its financial statements in Canadian dollars. All currency amounts in this AIF are expressed in Canadian dollars, unless otherwise indicated. The Canadian exchange rates for the Company’s principal operating currencies against the Canadian dollar are as follows:

<b>As at June 30</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Fijian dollar (F\$)	0.5601	0.5842	0.5997
Australian dollar (AUD\$)	0.9636	1.0063	0.9637

## **CLASSIFICATION OF MINERAL RESOURCES**

In this AIF, the definitions of indicated and inferred resources are those used by Canadian Securities Administrators and conform to the definitions utilized by the CIM and CIM Guidelines.

# LION ONE METALS LIMITED ANNUAL INFORMATION FORM

For its financial year ended June 30, 2015

## CORPORATE STRUCTURE

### NAME, ADDRESS, AND INCORPORATION

The Company was incorporated in British Columbia under the *Business Corporations Act* on November 12, 1996 under the name X-Tal Minerals Corp. (“**X-Tal**”). The Company changed its name to Lion One Metals Limited on January 28, 2011.

On January 31, 2011 the Company completed the reverse takeover (the “RTO”) of American Eagle Resources, Inc. (“**AME**”). AME was a private British Columbia corporation holding five Special Prospecting Licenses (SPL’s) in the Fijian Islands under its subsidiary Lion One Limited (Fiji). The SPL’s were previously owned by the Emperor Gold Mining Company of Australia and cover approximately 38,000 hectares on the islands of Viti Levu and Vanua Levu.

On June 19, 2013, the Company acquired 100% of the outstanding shares of Avocet Resources Limited (“**Avocet**”), a mineral exploration company based in Perth, Western Australia, through the issuance of 11,006,421 CHESS Depository Interests (“CDI”). Each CDI represents one common share of the Company. The CDI’s began trading on the ASX on June 20, 2013 under the trading symbol “LLO”. Avocet subsequently changed its name to Lion One Australia Pty Ltd. (“**Lion One Australia**”).

The Company’s head office and principal and registered and records address is 311 West 1st Street, North Vancouver, BC, Canada, V7M 1B5. The address of the Company’s registered and records office is 20th Floor, 250 Howe Street, Vancouver, BC, V6C 3R8. Lion One Australia is located on Level 2, 55 Carrington St., Nedlands WA, 6009 Australia.

### DESCRIPTION OF BUSINESS

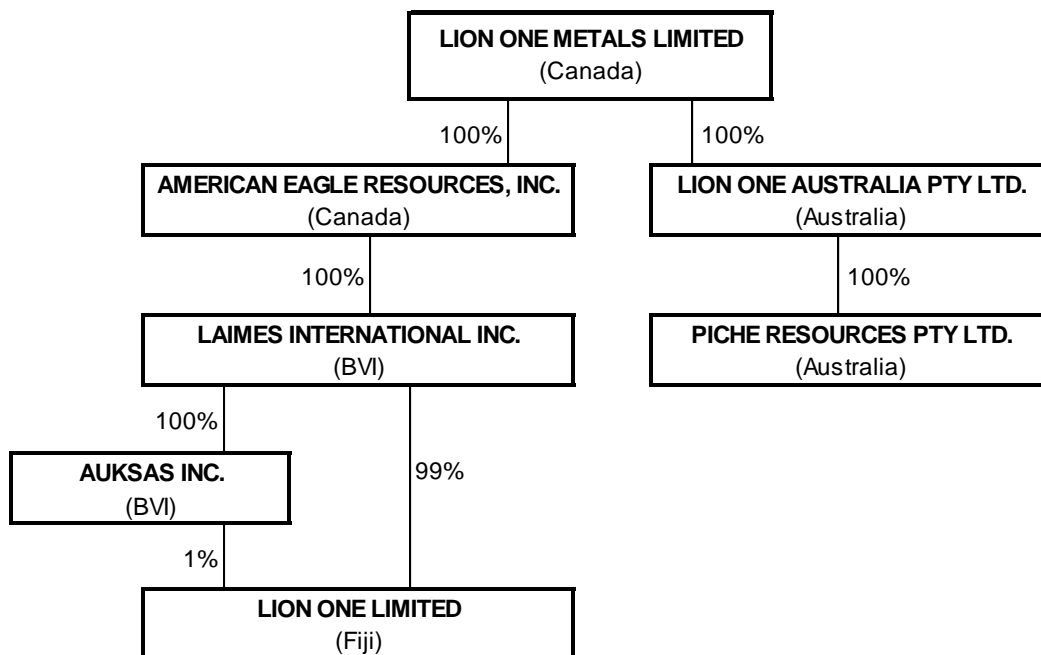
The Company carries on the business of acquiring, exploring, and developing mineral properties internationally. The Company’s material mineral property is the Tuvatu Gold Project located on the island of Viti Levu in Fiji. The Company also has non-material exploration properties including a 51% tenement interest (47% interest in the Fe and Mn rights) in the Olary Creek iron project in South Australia, and two early stage exploration properties covering 27,489 hectares within two SPL’s on the island of Vanua Levu in Fiji.

The Company’s primary objective is to explore and advance its existing mineral properties. Its secondary objective is to locate, evaluate and acquire other mineral properties, and to finance their exploration, either through equity financing, by way of joint venture or option agreements or through a combination of both. There are currently no known economic resources on any of the existing properties.

The Company’s current main focus is the advancement of its Tuvatu Gold Project, a resource stage project in Fiji. The Company will also seek further opportunities to expand its resource base through the exploration for, and acquisition of, additional projects.

### INTERCORPORATE RELATIONSHIPS

The following organization chart shows the intercorporate relationships among the Company and its subsidiaries:



## GENERAL DEVELOPMENT OF THE BUSINESS

### THREE YEAR HISTORY

#### Fiscal Year Ended June 30, 2013

#### Project Updates

##### *Tuvatu*

On July 15, 2013 the Company announced further positive results from its ongoing drill programs which continued to extend high grade mineralization at Tuvatu West, and reported that its Environmental Impact Assessment (“EIA”) and Mining Lease application for Tuvatu had been filed with Fiji’s Mineral Resources Department and Department of Environment.

On July 25, 2013 the Company announced successful assay results from its drill program at Tuvatu which had completed 37 step-out and infill diamond drill holes for a total of 8,063 meters, mineralization west of the main mineralized zone at Tuvatu.

##### *Olary Creek, South Australia*

On July 30, 2013 the Company announced it increased its ownership of the Olary Creek Iron Project in South Australia by acquiring a further 22% participating interest in the project, in addition to its 25% carried interest. It also announced the signing of a joint venture agreement with partner Henan Yukuang for the ongoing exploration and development of the project.

#### Corporate Updates

On February 25, 2013 the Company announced the appointment of Ms. Samantha Shorter as the new Chief Financial Officer of the Company



On June 10, 2013 the Company announced that approval from the shareholders of Avocet was obtained for a merger by Scheme of Arrangement by which Lion One would acquire all of the outstanding shares of Avocet.

On June 19, 2013, the Company acquired all of Avocet's outstanding shares through the issuance of 11,006,421 CHES Depository Interests ("CDI") with each CDI representing one common share of the Company. The CDI's began trading on the ASX on June 20, 2013 under the symbol "LLO".

On June 26, 2013 the Company announced the successful implementation of the merger with Avocet and the issuance of Lion One CDI's to Avocet shareholders.

### **Fiscal Year Ended June 30, 2014**

#### **Project Updates**

##### ***Tuvatu***

In December 2013, the company was notified by Fiji's Director of Mines that the Company's Notice for a Mining Lease Application was published in the Fiji Government Gazette and two national newspapers, No public objections were lodged during the subsequent proscribed thirty day window.

On February 11, 2014 the Company announced that Fiji's Department of Environment approved the EIA for Tuvatu. In addition to ongoing exploration activities, the EIA contemplated the impact of both surface and underground mining at Tuvatu. Fiji's Department of Environment notified the Mineral Resources Department ("MRD") that the EIA is approved and recommended to the MRD that mining related activities proceed at Tuvatu.

On June 4, 2014 the company announced the results of the NI 43-101 Mineral Resource Estimate for the Tuvatu Gold Project, and subsequently filed the technical report entitled "Independent Technical Report and Resource Estimate on the Tuvatu Gold Deposit" dated May 6, 2014 prepared by Mining Associates Pty Ltd. At a 3.0 gram cutoff, the indicated resource increased by 90 percent over the previous estimate in 2010 to 1,102,000 tonnes at 8.46 grams per tonne (g/t) for 300,000 oz. Au, while the grade of the inferred resource increased by 31 percent to 1,506,000 tonnes at 9.67 g/t for 468,000 oz. Au, using a 3 g/t Au cut off. (see Table 1).

**Table 1 - Resource Summary, Tuvatu Gold Project**

<b>Cut-off</b>	<b>Indicated</b>		
<b>g/t</b>	<b>Tonnes</b>	<b>g/t</b>	<b>Ounces</b>
1.0	1,943,000	5.61	350,300
2.0	1,435,000	7.07	326,200
3.0	1,101,000	8.46	299,500
5.0	683,000	11.25	247,000

<b>Cut-off</b>	<b>Inferred</b>		
<b>g/t</b>	<b>Tonnes</b>	<b>g/t</b>	<b>Ounces</b>
1.0	3,022,000	5.80	561,000
2.0	2,156,000	7.50	520,000
3.0	1,506,000	9.70	468,000
5.0	872,000	13.90	390,000

On May 22, 2014 the Company announced that it reached an agreement with Fiji's iTaukei Land Trust Board regarding terms of a 21 year Surface Lease for Tuvatu with local landowners, after three years and over 200 consultations and meetings with local communities and landowners.

## **Olary Creek**

On March 6, 2014 the Company announced the results of the initial NI 43-101 Mineral Resource Estimate for the Olary Iron Project, and subsequently filed the technical report entitled "Olary Iron Project Mineral Resource Estimate, South Australia NI 43-101" dated August 20, 2013 prepared by SRK Consulting (Australasia) Pty Ltd on SEDAR.

The estimate was based on assay results from 55 diamond and reverse circulation drill holes totalling 16,281 meters drilled on the northern end of the target zone on the Olary Property. Iron mineralization on the Olary Creek Property is related to ironstones of the Braemar Iron Formation, a regional magnetite belt extending approximately 180 km through eastern South Australia. To-date only one-third of the 7km strike length of the Olary iron target zone has been drilled and the deposit remains open for expansion.

Highlights of the technical report included new indicated mineral resources of 214 million at a grade of 26.3% iron (Fe) and inferred mineral resources of 296 million tonnes at a grade of 26.4% Fe.

**Table 2 - Summary of Olary Iron Project Resource Estimate using cutoff grade of 20% Fe**

<b>Olary Iron Project Resource Estimate Summary</b>									
<b>Category</b>	<b>Tonnage</b>	<b>Fe %</b>	<b>SiO2%</b>	<b>Al2O3%</b>	<b>LOI%</b>	<b>S%</b>	<b>P%</b>	<b>DTR%</b>	<b>Density</b>
<b>Indicated</b>	214,000,000	26.3	40.8	6.9	3.9	0.029	0.24	26.4	3.12
<b>Inferred</b>	296,000,000	26.4	41.3	6.9	3.7	0.027	0.25	27.3	3.10

**Table 3 - Davis Tube Recovery (DTR) test results and Fe content for the magnetic concentrate for composite RC and Diamond drillhole samples at grind size of 38 microns and 10% DTR cut-off grade**

<b>Category</b>	<b>Concentrate Tonnage</b>	<b>DTR Concentrate Grades</b>					
		<b>Fe %</b>	<b>SiO2%</b>	<b>Al2O3%</b>	<b>LOI%</b>	<b>S%</b>	<b>P%</b>
<b>Indicated</b>	57,000,000	69.6	2.9	0.3	-3.1	0.008	0.01
<b>Inferred</b>	81,000,000	69.8	2.6	0.2	-3.1	0.009	0.008

## **Corporate Updates**

On October 3, 2014 the Company announced the appointment of Mr. Kevin Puil to the board of directors.

On June 27, 2014 the Company announced the resignation of Mr. David Duval from the board of directors.

## **Fiscal Year Ended June 30, 2015**

### **Project Updates**

#### ***Tuvatu***

On March 23<sup>rd</sup>, 2015 the Company announced that the Fijian Minister of Lands and Mineral Resources had approved the grant of a Special Mining Lease (SML) for the Tuvatu Gold Project. SML 62 provides exclusive rights for the potential development, construction, and operation of mining, processing, and waste management infrastructure at Tuvatu and the surrounding lease area. The grant represents the final step in permitting process under Fiji's Mining Act. The Company filed its Mining Lease application in 2013 and has been notified by Mineral Resources Director Malaki Finau that all of the requirements for the Mining Lease have been satisfied and the grant has been approved. The Mining Lease area nominally covers 373 hectares and contains all of the current NI 43-101 Resource.

On June 1<sup>st</sup>, 2015 the Company announced the result of the NI 43-101 Preliminary Economic Assessment (PEA), and subsequently filed the technical report entitled "Tuvatu Gold Project Preliminary Economic

Assessment" dated June 1<sup>st</sup>, 2015 prepared by Canenco Canada Inc. on SEDAR. Highlights of the PEA are below. (all amounts are quoted in \$USD utilizing a base case gold price of \$1,200 per oz.)

**Table 4 - PEA Summary (reported in US\$)**

Project Life (Years)	7.4
Total Gold Produced (oz. Au)	352,931
Average Annual Production (oz. Au)	57,320
Capital Costs (millions)	\$48.6
Average Mining Cost ( per tonne)	\$76.50
Processing Costs (per tonne)	\$43.80
Mining Dilution	20%
Metallurgical Recovery	86.3%
Inferred resources as percentage of tonnage	55.1%
Inferred resources as percentage of ounces	62.7%

**Table 5 - Summary Economics**

Total LOM Undiscounted Revenue	\$423,516,000
Total LOM Pre-Tax Cash Flow	\$148,726,000
Average Annual Pre-Tax Cash Flow	\$33,222,000
Total LOM After-Tax Free Cash Flow	\$112,540,000
Average Annual After-Tax Free Cash Flow	\$20,079,000

Discount Rate	5%
Pre-Tax NPV	\$116,991,000
Pre-Tax IRR	67%
Pre-Tax Payback (Years)	1.25
After-Tax NPV	\$86,542,000
After-Tax IRR	52%
After-Tax Payback (Years)	1.50

Cash Costs per oz. Au	\$567
Cash Costs per oz. Au including Sustaining Capex	\$779

The PEA is based on an Indicated and Inferred mineral resource estimate by independent Qualified Person Ian Taylor, BSc (Hons), MAusIMM(CP) of Mining Associates Pty Ltd. For further details, see the technical report released July 9, 2014.

The summary review of geology, resource models, and estimates and the site visit were conducted by Mr. Taylor, who visited the site from Feb. 25-28<sup>th</sup>, 2014. Mr. Taylor viewed the geological setting, located some drill collars, and inspected drill core and sample storage.

**Table 6 - Estimated Operating Costs**

<b>Operating Costs (per tonne milled)</b>	<b>US\$ per tonne milled</b>
Mining Costs	76.50
Processing Costs	43.83
General & Administrative	19.49
Exploration	1.53
<b>Direct Operating Costs before Taxes and Royalties</b>	<b>141.35</b>

<b>Operating Costs (per oz. Au)</b>	<b>US\$ per ounce Au</b>
Mining Costs	243.98
Processing Costs	139.78

General & Administrative	62.16
Exploration	4.89
Refining & Transport	2.40
Royalty	114.00
<b>Total US\$ Cash Costs</b>	<b>567.21</b>

<b>Cash Costs Including All-in Sustaining Costs</b>	<b>Per tonne at Mill</b>	<b>Per oz. recovered</b>
Onsite Mining	76.50	243.98
On-Site Processing	43.83	139.78
G&A	19.49	62.16
Exploration	1.53	4.89
Refining	0.75	2.40
Royalties	35.76	114.00
<b>Total Costs</b>	<b>117.86</b>	<b>567.21</b>
Capex	66.28	211.38
<b>All-in Cash + Sustaining Costs</b>	<b>244.14</b>	<b>778.59</b>

**Table 7 - Capital Costs**

<b>Pre-Production Capital</b>	<b>US\$ ('000s)</b>
Capitalized Development	8,984
Mining Equipment	5,906
Processing	13,255
Infrastructure	7,578
Indirect Costs	2,564
EPC	2,064
Owner Costs	2,109
Contingency (14.5%)	6,142
<b>Total US\$</b>	<b>48,603</b>

All-inclusive pre-production capital is estimated at \$48.6 million, including \$27.6 million for the processing plant and surface infrastructure, and an added contingency and allowance for taxes and duties of \$4.7 million. A further \$26 million will be spent after the pre-production period as sustaining capital. LOM capital totals approximately \$74.6 million, or \$211 per ounce gold. Sustaining capital consists of capitalized waste development after the initial production start-up, major equipment purchases, and tailings facility development.

The capital cost (CAPEX) estimate includes all costs required to develop, sustain, and close the operation for an initial planned 6.2 year life of mine. The construction schedule is based on an approximate 15 month build period. The accuracy of this estimate is +/-30%.

## OUTLOOK

The Company is focused on the advancement of its primary asset, the Tuvatu Gold Project in Fiji. Lion One has received all of the mandatory regulatory approvals required to commence development and mining at Tuvatu.

The first phase of proposed development work includes both dewatering and refurbishment of the existing decline, which accesses mineralization targeted for development in the initial years of the proposed mine plan in the 2015 PEA. The Company has previously conducted water inflow studies and has a renewed dewatering license first obtained in 2011. The second phase of proposed underground work includes the

development of a new western portal and 500 meter decline to be driven into the central mineralized zone of the Tuvatu resource.

## COMPETITIVE CONDITIONS

The Company's business of the acquisition, exploration and development of mineral properties is intensely competitive. The Company may be at a competitive disadvantage in acquiring additional mining properties or financing to further the development of its assets because it must compete with other individuals and companies, many of which have greater financial resources, operational experience and technical capabilities than the Company. The Company may also encounter increasing competition from other mining companies in efforts to hire experienced mining professionals. Competition for exploration resources at all levels is currently very intense, particularly affecting the availability of manpower and equipment. Increased competition could adversely affect the Company's ability to attract necessary capital funding or acquire suitable producing properties or prospects for mineral exploration in the future.

## ENVIRONMENTAL CONSIDERATIONS

The Company's operations are subject to environmental regulations promulgated by government agencies from time to time. Environmental legislation provides for restrictions and prohibitions of spills, releases or emissions of various substances related to mining industry operations, which could result in environmental pollution. A breach of such legislation may result in imposition of fines and penalties. In addition, certain types of operations require submissions to and approval of environmental impact assessments. Environmental legislation is evolving, which means stricter standards and enforcement, fines and penalties for non-compliance are becoming more stringent. Environmental assessment of proposed projects carries a heightened degree of responsibility for companies and directors, officers and employees. The cost of compliance with changes in governmental regulations has a potential to reduce the profitability of operations. Lion One's policy is to conduct its business responsibly and in a manner designed to protect its employees, adjacent communities and the natural environment. The Company is committed to achieving a safe, productive and healthy work environment and to uphold the values of human rights. These commitments are described in the Company's Environmental, Health and Safety and Social Responsibility Mission Statement.

## EMPLOYEES

During the fiscal year ended June 30, 2015, the Company had 3 employees in Canada, and 30 full and part-time employees in Fiji in addition to its directors and officers. The Company engages administrative, financial, legal, geological and engineering consultants from time to time as required to assist in maintaining corporate records and preparing reporting requirements, evaluating its interests and recommending and conducting work programs.

## FOREIGN OPERATIONS

The Company maintains offices for its subsidiaries, Lion One Limited (Fiji) in Nadi, Fiji, and in Perth, WA for Lion One Australia.

# TUVATU GOLD PROJECT

## OVERVIEW

At the date of writing the Company holds a 100% interest in 5 SPL's including the Tuvatu Gold Project, covering 39,655 hectares in Fiji. The SPL's are held in the Company's subsidiary Lion One Limited Fiji. Three of these SPLs (total area 11,794 ha) cover the current mineral resource at Tuvatu.

On 3rd March 2015, Lion One received notice from the Director of Mines of the MRD that the Minister of Lands and Mineral Resources has approved the grant of a Special Mining Lease Number 62 (“SML 62”) covering 373 hectares encompassing the Tuvatu Resource. The final terms of SML 62 are pending confirmation with the MRD.

Of the Company’s mineral property holdings, the Tuvatu Gold Project located in Fiji is considered material and is described further in the following sections.

## **TUVATU PROJECT TECHNICAL SUMMARY**

The disclosure set forth herein is the technical summary reproduced from a technical report entitled “Tuvatu Gold Project - Preliminary Economic Assessment” dated June 1, 2015 (the “Technical Report”) prepared by Mining Associates Pty Ltd in compliance with NI 43-101. The Technical Report is available on the SEDAR website at [www.sedar.com](http://www.sedar.com). The following information is of a summary nature and reference is made to the detailed disclosure contained in the Technical Report.

### **SUMMARY**

The Company’s Tuvatu Gold Project (the “Project”) involves the exploration and evaluation of the potential for development of a gold deposit located near the town of Nadi on the main island of Viti Levu in Fiji. The NI 43-101 compliant report on the Project was prepared by Mining Associates Pty Ltd, Canenco Canada Inc., AMC Consults Pty Ltd, and Knight Piésold Pty Ltd, and is based on work produced by the following independent consultants: Stacy Freudigmann, BSc.(Hons), P.Eng., David Lee, P.Eng Mining (Hons), FAusIMM (QP), Anthony Woodward, BSc (Hons), M.Sc., MAusIMM, MAIG., Ian Taylor, BSc (Hons) MAusIMM (CP), and David Morgan, MAusMM (CP).

### **PROPERTY DESCRIPTION AND LOCATION**

The Tuvatu Gold Project is located near Nadi on the island of Viti Levu in Fiji. Tuvatu was previously explored and developed by the Emperor Gold Mining Company of Australia which during the 1997-2000 period completed over 87,000 meters of drilling, a 1,600 meter exploration decline, and feasibility study. Tuvatu is one of several gold projects aligned along the Viti Levu lineament; a regional trend hosting Fiji’s known epithermal gold deposits.

The tenements and mining lease are located in the upper reaches of Sabeto Valley approximately 24 km northeast of Nadi on the west coast of Viti Levu, and 15 km from the Nadi International Airport. The Tuvatu gold deposit is located within SPL1283, the portal lies within SPL1296. SPL1465 is a contiguous lease with the existing Tuvatu leases extending to the south to cover additional prospective geology and to cover the area that was previously demarcated for a tailings dam by Tuvatu Gold Mines (TGM) in its 2000 mining study.

The Company was formally notified on Sept. 18, 2013 by the MRD that SPL’s 1283 and 1296 were renewed for a term of thirty six (36) months from September 3, 2013. The MRD subsequently notified the Company on January 16, 2014 that SPL 1465 (Nagado) was renewed for a period of three ending December 1, 2016.

### **PROPERTY OWNERSHIP**

The Tuvatu property is situated within three contiguous SPL areas covering 12,166 hectares. The SPL’s are 100% owned by the Company. The SPL’s were originally held by the emperor Gold Mining Company and acquired by Lion One Limited Fiji in 2009, before being acquired by Lion One Metals Limited in 2011. The properties are subject to production royalties of 5% payable to the Fijian government. The SPL’s carry minimum expenditure requirements as described in the following table.

**Table 8 - Tuvatu Project SPL Summary**

<b>SPL Number</b>	<b>Area (ha)</b>	<b>3 Year Expenditure Requirement (FJD\$)</b>	<b>Date of Grant</b>	<b>Expiry</b>	<b>Interest</b>
1283 Tuvatu	1,951	2,100,000	September 3, 2013	September 3, 2016	100%
1296 Yavuna	1,315	2,100,000	September 3, 2013	September 3, 2016	100%
1465 Nagado	8,900	1,800,000	December 1, 2013	December 1, 2016	100%

Title to the property is held by the Company's Fijian subsidiary Lion One Limited.

The Fijian Minister of Lands and Mineral Resources had approved the grant of a Special Mining Lease (SML) for the Tuvatu Gold Project. SML 62 provides exclusive rights for the potential development, construction, and operation of mining, processing, and waste management infrastructure at Tuvatu and the surrounding lease area. The Company filed its Mining Lease application in 2013 and has been notified by Mineral Resources Director Malaki Finau that all of the requirements for the Mining Lease have been satisfied and the grant has been approved. The Mining Lease area nominally covers 373 hectares and contains all of the current NI 43-101 Resource.

There are three types of land in Fiji; native land, crown land and freehold land. The project area lies mostly, if not all, within native land, classified as native reserve land. This means that Lion One has to acquire consent through signatures of a minimum of 75% of adult members of the Land Owning Unit ("LOU") for the land to be de-reserved. Lion One must then negotiate for a land lease that will require the consent of 50% of adults in the LOU.

There are also native Fijian leaseholders in the project area with whom Lion One must consult in its acquisition plans. Compensation agreements must be finalized with these leaseholders to gain access to their lease areas.

All land covered by the SPLs is native land which comes under the control of the Native Land Trust Board (NLTB) on behalf of the native owners. About 5% of the SPLs are under cane lease, through the Agricultural Land and Tenants Act (ALTA).

Native land is vested in the NLTB under the Native Land Trust Act which means that only the NLTB may grant any legal interest in native land. Most, if not all, the land required by Lion One for its mining tenements and native leases are within native land reserve which cannot be leased out to any non-Fijian unless such land is de-reserved.

#### ENVIRONMENTAL IMPACT AND LIABILITIES

The Company has incorporated certain health, safety, and environmental policies and procedures aimed at protecting the safety of its personnel and reducing the environmental impact of its operations.

The Company's EIA with respect to the Tuvatu Project has been approved by the MRD. The scope of the EIA includes ongoing exploration and drilling work, rehabilitation, community engagement, water quality monitoring, dewatering, and waste disposal and consideration for anticipated future development activities. Approval of the EIA permits the Company to proceed with mining related activities subject to ongoing permitting requirements of the MRD.

To the extent known, there are no environmental liabilities on the property.

## MINERAL RIGHTS, AGREEMENTS AND ROYALTIES

In the Republic of Fiji, a royalty is payable to the state government when a mineral is sold, disposed of or used. The Fiji Mineral Resources Act 1989 requires that the holder of a mining lease or mining claim lodge a royalty return and any royalty is payable at least annually for all leases and claims held, even if no production took place but saleable metal was won. The Minister allows samples with small quantities of gold to be sent for analysis, however, under the law in Fiji, trail mining and bulk sampling can be carried out and any significant gold won as determined by the Minister will be subject to royalties. Royalties for the Tuvatu Property will be 5% of the value of precious metal exported. This royalty is then split with parts compensating the community and other stakeholders.

In addition to the 5% NSR with the government of Fiji, the Fiji properties are subject to a perpetual production royalty of 0.5% to 1.5% of net smelter returns on the following schedule:

**Table 9 - Laimes Global Inc. Royalty Schedule**

0.5%	US\$ Au/oz < US\$500
1.0%	US\$ Au/oz > US\$500, <US\$1,000
1.5%	US \$Au/oz > US\$1,000

This NSR is payable to Laimes Global Inc., a company controlled by a common director.

## SECURITY OF TITLE

The Government acknowledges that security of land tenure is a critical issue for mineral sector investors. Hence Government is totally committed to enforcing investors land rights which are enshrined in both the 1990 Constitution and the Land Transfer Act (Cap. 131). The Land Lease itself is a legally binding document that guarantees security of land tenure.

## ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

### Accessibility

Tuvatu lies on the west coast of Viti Levu, 24 km northeast of Nadi town and approximately 17 km by road from the Nadi international airport. The area is steep and rugged, and access is via the Sabeto Road which is sealed for about half the journey.

The Sabeto road turnoff is located approximately 10 minutes north of the Nadi International Airport. The Sabeto road follows the Sabeto River on its western side. The electricity pylons of the Monasavu Hydro line can be seen. Further along the Sabeto road, the road forks, with the left fork going to Korobebe village, and on to Navilawa village. Tuvatu is located on the road to Navilawa.

SPL1283 and SPL1296 cover land areas in the upper catchment of the Sabeto River immediately south of Navilawa village. The tenements are bounded to the southeast by the Namotomoto ridge. Nagado village is located on this ridgeline. The Korobebe village is located on the banks of the Sabeto River about 4 km southwest of the Tuvatu prospect and further downstream are the villages of Naboutini, Koroyaca and Sabeto. On the opposite side of the river from Sabeto village is Natalau village. Indian cane farmers lease the land in between the Fijian villages.

Nadi is the closest city and is serviced by direct daily flights from Brisbane, Melbourne, Sydney and Auckland by several Australian airlines. Tuvatu is readily accessed from Nadi International Airport by the Sabeto Road. A network of local formed roads and pastoral tracks provides good access to most of the project area. During the wet season (November to March), major and minor creeks may be impassable for



some days. In wet weather, four wheel drive vehicles are required to access the tenements. Creeks and adjacent areas are generally thickly vegetated while the spurs and ridges are dominated by open grasslands.

### Climate

Fiji experiences a mild tropical South Sea maritime climate without great extremes of heat or cold. Winds are generally light to moderate and blow from E-SE during all seasons. Temperatures average 22°C for the cooler months (May to October) while November to April temperatures are higher with heavy downpours.

The islands lie in an area occasionally traversed by tropical cyclones. These are mostly confined to the period November to April, with greatest frequency around January and February. On average, some ten to twelve cyclones per decade affect some part of Fiji, with two or three causing severe damage. Specific locations may not be directly affected for several years but the dominant north-west tracks give some increased risk of damage in the outlying north-west island groups.

Viti Levu's climate is dominantly controlled by oceanic temperatures and winds, restricting the diurnal temperature range heavily and the average daily range is 8.5°C to 10.3°C. Average minimum temperatures for Nadi range from 18°C to 23°C while average maximums range from 28°C to 32°C; it can be expected that these are a good guideline for the Tuvatu area, given its close proximity to Nadi. Mean rainfall in the area varies from 50 mm in July to a high of 300-325 mm during the December to March wet season.

### Local Resources

Tuvatu is located within the upper reaches of the Sabeto Valley. The area hosts a number of small villages that are dependent on the local waterways (e.g. Sabeto River) to supply water for local sustainable agricultural practices such as sugar cane, coconut oil and fruits and vegetables. English is the official language. However, Fijian and Hindi are also taught in schools as part of the school curriculum.

The major towns in close proximity to the Tuvatu area are Lautoka, Nadi and Ba (Table 4). Lautoka, Fiji's second-largest city, is located 30 km from Tuvatu. The local economy still relies heavily on the sugar industry and the Lautoka Sugar Mill has been operating since 1903. Nadi is Fiji's third-largest city and a tourist and business hub due to the presence of the Nadi International Airport.

The major land use in the Tuvatu region is pastoral, with most income generated from sugar cane, copra and rice production. Fishing, manufacturing and tourism industries are also employers in the region. Any skilled workforce for a mining development in the region would be expected to be drawn from coastal Nadi-Lautoka-Ba region. There are also experienced former mine workers from the Vatukoula Gold Mine.

### Infrastructure

Fiji is one of the most developed of the Pacific island economies, although a large subsistence sector still exists. Sugar exports, remittances from Fijians working abroad, and a growing tourism industry (with 400,000 to 500,000 tourists annually) are the major sources of foreign exchange. Sugar processing makes up one-third of industrial activity.

Little infrastructure exists within the local area proximal to the Tuvatu project other than a small exploration facility. Local villages utilise a combination of traditional and modern practices but do not contain any significant infrastructure. The majority of regional infrastructure, such as transport, telecommunication and energy revolve around the nearby cities of Nadi and Lautoka.

Nadi is equipped with modern technology for both its internal and international telecommunications. All major towns have digital telephone exchanges and the islands are linked by cable and satellite to worldwide networks. The project area is covered by GSM mobile-phone reception.

The Fiji Electricity Authority (“FEA”) holds the monopoly in all facets of the energy sector including generation, transmission and distribution. Hydroelectric and diesel are the two sources of power generation for the FEA. Its supply capacity currently stands at 180 megawatts, however rising use of electricity has prompted government to call for submissions from independent power producers. The villages around Tuvatu chiefly utilise fuel wood and small diesel generators.

There is an 11kV transmission line crossing the Tuvatu site from a nearby Fijian Electricity Authority (FEA) hydroelectric plant. Due to the national shortfall in power supply from the grid, despite supplementary thermal generating capacity, the project will generate its own power. A containerized diesel power station, including switchgear and transformers, with 1,500kVA generator units, is proposed to suit the load of approximately 4MW, in an N+1 or N+2 redundancy configuration to ensure reliability of supply and provide enough reserve to start the larger ball mill motors.

Power supply costs (including maintenance factors) is based on delivered diesel fuel cost of USD\$0.90/L for a total cost of USD\$0.24/kWh.

The mine dewatering from underground pumping, will discharge to an intermediate settling pond prior to pumping to the raw water storage tank adjacent to the process plant, and will be used to provide the raw water requirements to service the project needs. The Coreshed Fault, one of the major fault structures identified on site, is a significant water bearing fault and can provide a supply during the dry season. It has been determined that raw water can further be managed by controlling the flows from the tailings facility catchment to allow storage of raw water make-up to the process in the impoundment.

Proximity to Nadi and local villages provides sufficient accommodation for contractors. Local landowners will be contracted to provide transportation of workers to site. It is not envisaged construction accommodation will be required on site, as the workforce will be sourced from local communities, with only key components of the contractor’s workforce mobilizing from elsewhere.

### Physiography

The upland areas of the Tuvatu project area are grassland. Stream valleys and their perimeters are heavily vegetated. Several intermittent and perennial streams are located within the prospecting licenses. Elevation of the Tuvatu property ranges from 50 m to a maximum of 700 m. The area is hilly with slopes of 15%-30 % being common.

## HISTORY

### Previous Ownership

Historical activities began during the early part of the 20th century with prospecting in the upper reaches of the Sabeto River with no evidence that the mineralized lodes at Tuvatu were discovered. Some pitting and limited underground work took place between 1945 and 1952 when Bayley and Bryant operated PL 689. Later work in the area was undertaken by the Nadele Syndicate.

In the period from 1977 to 1979 Aquitaine Fiji explored the Tuvatu area. In 1987, Geopacific Ltd pegged out SPLs 1283 and 1296. During the next ten years, Geopacific Ltd invested approximately \$1.5M in exploration at Tuvatu. For three of these years, Geopacific Ltd was in association with Noranda Pty Ltd. In December 1995, Geopacific Ltd entered into an option agreement with Emperor Mines Ltd. and in June 1997, Emperor exercised its option to purchase 100% of the tenements. Emperor then incorporated the Tuvatu Gold Mining Company Limited (“TGM”), a subsidiary of Emperor Gold Mining Company, to manage the property.

In 2007 following the closure of the Vatukoula gold mine Emperor Gold Mining Company (at the time a subsidiary of DRD Ltd), sold its Fijian assets including the Tuvatu property to Westech Gold Pty Ltd and Red Lion Management Ltd. Licenses covering the Tuvatu property were re-issued in the name of Lion One

by the Fijian Government. Subsequently American Eagle Resources gained control of Lion One Limited, the holder of the Tuvatu project. Lion One Metals is the product of the reverse takeover in January 2011 of X-Tal by American Eagle Resources.

### Previous Exploration

All historical work described in this section was conducted within the tenements currently held by Lion One Limited. Some pitting and limited underground work was undertaken by Bayley and Bryant between 1945 and 1952 when they operated PL 689. Later geological work undertaken by the Nadele Syndicate included the pitting of two lodes, trenching and driving an adit but no records of the syndicate's work have been located.

Aquitaine Fiji explored the area from 1977 to 1979 and located a soil anomaly of 1.4g/t Au, which was not pursued. In 1987, Geopacific Ltd pegged out SPLs 1283 and 1296 in the area and investigated the soil anomaly previously identified by Aquitane Fiji. Geopacific discovered the outcrop of what is now called the Tuvatu lode in the vicinity of the soil anomaly.

From 1995 to 2001 TGM conducted 3 phases of exploration at Tuvatu. The Phase 1 programs carried out between April 1996 and February 1998, involved initial regional geological mapping and stream sediment sampling which located the Tuvatu gold deposit in the SKL-Nasivi area. A number of geophysical surveys were also completed including a dipole-dipole IP survey and airborne magnetics/radiometrics survey. Phase 2 followed in March 1999 with subsurface exploration and development, including limited trial mining and metallurgical testing.

Phase 3 commenced in 2000 with work on a feasibility study but the study was suspended in late 2000 as part of a general cost-cutting exercise by Emperor due to the low gold price at the time.

The Phase 3 evaluation of the Tuvatu resource area included surface diamond and percussion drilling to test some peripheral anomalies as well as down-dip extensions of the various Upper Ridges lodes. The program included mine and metallurgical design, environmental plans and social acceptance issues. In addition, re-mapping of the underground development took place in order to develop a robust structural model for the area. Further metallurgical test work was also completed.

Overall there have been three programs of drilling at Tuvatu from exploration through to resource delineation. Drilling has been completed both on the surface and from the underground exploration decline. Drilling methods included both diamond drill (DD) and reverse circulation (RC).

In total TGM completed 51,484m of diamond core drilling and 9,265m of RC surface drilling, as well as 13,407m of underground drilling. A total of 1,341 m of decline, strike and rise development was also been undertaken in the project area including a 600m long exploration decline developed to a depth of 240m below surface in the region of the Upper Ridges lodes.

### Regional Exploration

Only limited regional exploration had been carried out in the area by explorers (primarily Aquitaine Fiji) before TGM's work. In the 2001-2003 period a regional exploration program was carried out by TGM that involved regional mapping, trenching, stream sediment and soil sampling. This work identified more than 10 new prospect areas outside the Tuvatu mine area.

Detailed exploration was carried out by TGM at Nubunidike, Ura Creek, Jomaki, Malawai, and Kubu prospects. The Nubunidike and Ura Creek prospects were the most advanced prospects. Exploration work commenced at Qualibua in June 2002. Subsequent ridge and spur soil geochemistry located high tenor gold-in-soil anomalies at the Korobebe prospect.

Upon gaining control of the Tuvatu property Lion One commenced detailed mapping and geochemical sampling. Work concentrated on the region south of the Tuvatu resource area and around Qalibua Creek to the north. Two surface diamond drillholes were completed in October 2008 at the Nubunidike prospect to test the Nubunidike/Hornet Creek/290 Vein system.

### Historic Resource and Reserve Estimates

A number of historical mineral resource estimates were carried out at Tuvatu by previous operators over the period from 1997 to 2000.

A resource figure was calculated internally by TGM in September 1997 for the Upper Ridges area as 904,000 tonnes @ 5.1 g/t Au (149,272 ounces). This was a vein-style polygonal estimate with 25 m radius polygons being drawn on long sections in the plane of each hole. No lower cut-off was applied.

The resource was updated using similar methodology in February 1998. Using a lower cut-off for each intersection of 2 m-grams, a boundary was drawn around all intersections greater than 2 m-grams. Continuity of veining beyond 25 m was assumed where no conflicting evidence occurred. Equal weighting was given to each intersection within the model boundary of the lode when calculating average width and average grade of the lodes. A density of 2.7 g/cm<sup>3</sup> was used. An overall resource figure for the Upper Ridges lodes of 602,000 tonnes at 8.2 g/t Au was calculated for a total of 159,362 ounces.

Between September 1997 and February 1998, resource consultants Geoval completed a resource calculation for the Tuvatu Lode and Nasivi-SKL stockwork area. Estimated used a 3D "service variable" block modeling technique using 2.0 m composites and a 1.0 g/t cut-off. A revised resource figure for the Murau Flatmake was calculated using the September 1997 Geoval block model after the area included in the February 1998 Geoval re-calculation of the Nasivi-SKL stockwork was excluded. An overall resource figure of 1,225,000 at 5.5 g/t Au was calculated for a total of 217,041 ounces.

After the completion of the Phase 2 work program by TGM in July 1999, an additional resource calculation was completed for the Upper Ridges area based upon data gained from underground development and surface and underground drilling. A polygonal estimation was carried out internally by TGM with 25 m radius polygons being drawn on longitudinal sections in the plane of each interpreted lode. Using a lower cut-off for each intersection of 2 m-grams a boundary was drawn around all intersections greater than 2 m-grams.

In contrast to previous calculations an upper cut of 30 m-grams was applied where applicable. This figure was established by plotting a log normal cumulative frequency plot of all available Upper Ridges data and measuring the m-gram figure at the 95 percentile level. Continuity of veining beyond 25 m was assumed where no conflicting evidence occurred. Equal weighting was given to each intersection within the model boundary of the lode when calculating average width and average grade of the lodes. A density of 2.7 g/cm<sup>3</sup> was used.

A resource of 983,300 tonnes at 7.8 g/t Au was calculated for 247,795 ounces, at a 2.0 m-g cutoff.

Two areas of indicated resource were calculated for the UR1 South strike drive area and the UR2 North strike drive area based on geological and channel sampling data on 2 m centres in the development underground. It was assumed that the structures could be extrapolated for a minimum of 25 m in the vertical orientation based upon results from the developed rise on the UR1 South and UR2 South lodes.

The resource figures calculated using development sampling data for the UR1 South and UR2 North development were found to be within 10% and 15% respectively of the figures calculated from drill holes. In addition it was found that the sampled grade of each of these areas was higher than indicated by drilling.

Upon completion of the Phase 3 drilling program, the geological model was updated and a new manual resource calculation was completed by TGM using the same parameters as for the July 1999 estimate. Figures previously calculated by Geoval for the Nasivi-SKL area were superseded by resource figures for

the GRF steep shear and the Murau lodes. Updated resource figures were not calculated for the SKL flatmakes. Preliminary figures were also calculated for the West lodes, located 500 m west of the Nasivi-SKL area.

In April 2000, Andrew Vigar of Vigar and Associates (“VA”) was commissioned to review the geology and resource estimates detailed by TGM. Further to this VA constructed a geological and resource model for the Upper Ridges lodes and estimated geological resources for each lode. Indicated resource estimates were subsequently converted to reserves using economic cut-offs, minimum mining widths and dilution.

In August 2000, following a verification of the Tuvatu database, it was found that a number of intercepts used in the April 2000 resource estimate had been excluded from the model and VA and Associates were commissioned to revise the resource calculation. Lodes, geological units, workings and resource zones in the Upper Ridges area (as well as the GRF lode) at Tuvatu were defined as a series of closed wire-frames. Each wire-frame is made up of a series of connected triangles which fully enclose a volume and is referred to as a “solid”. Lodes were modelled as mutually exclusive wire-frames, one for each lode (Table 8). The lode widths were taken from the wire-frames. All drill-holes intersecting the structure were used, whether mineralized or not.

A total of 41 lodes were identified of which 37 had sufficient intercepts to be modelled in the resource estimate. True widths were used and a mining width of 1.2 m allowed, fully diluted at zero grade. One block model to accommodate the major lodes was created to contain the grade model and allow for tonnage, grade and reef width estimates. The blocks were set at 9.6m x 9.6m x 9.6m, with sub-blocking down to 1.2m. Ordinary Kriging estimation was used for the grade of each block. Data used for the calculation were drill lode composites where an upper cut of 75.0 Au m-grams was applied on the raw drill data prior to lode compositing.

Lode blocks were filled with grades using the estimation of a width\*grade accumulation using ordinary kriging and calculation of grade using the local block model width. This method also removed any bias with direct estimation of grades where wire-frame volumes were not adjusted. Each lode was filled separately only using drill intercepts from that lode. Estimates were made as width multiplied by grade and the grade back-calculated.

The extent of the search ellipse used in the Ordinary Kriging modelling of the lodes was based on analysis of the level data, geological controls and test runs to create a grade distribution that, based on experience with narrow vein deposits, was likely to be realistic. Resources were classified in regions as Indicated or Inferred based on drill spacing, kriging variance and number of holes used in estimation of each block. A density of 2.7 t/m<sup>3</sup>, a cut-off grade of 3.0 g/t Au and a minimum width of 1 m were applied.

In August 2000 using a 3.0 g/t Au cut-off, VA calculated a resource of 827,000 tonnes Indicated at 7.9 g/t Au for 208,743 ounces, and 812,800 tonnes Inferred at 9.1 g/t Au for 237,631 ounces. The resource was stated as being JORC compliant at the time. The resource estimate for the Murau and West lodes was not recalculated by VA in 2000 and is an original estimate undertaken by TGM internally in February 2000 for which there is no documentation available. No further resource drilling was conducted after 2000 until 2012.

#### Historic Underground Development and Sampling

A total of 1,341 m of decline, strike and rise development has been undertaken in the project area including a 600 m exploration decline.

During TGM’s Phase 1 an exploration decline was developed with minor crosscut and strike drive development to evaluate the continuity and grade of the gold mineralized structures. Underground development started in November 1997 and a total of 572.40 m of development was completed to a depth of 240m below surface. Geological mapping of the underground development and systematic channel sampling was carried out. A total of 588 samples were found to exceed 1.0 ppm and 214 samples were

found to exceed 10.0 ppm Au. The maximum value was found to be 0.6 m at 840 g/t Au for a vertical sample taken from H-Lode. In total 32 samples were found to exceed 100 g/t Au.

A number of the lodes were intersected and sampled and an underground drilling program was undertaken. In conjunction with the underground development, 17 underground diamond drill holes (TUG-01 to 17) were completed for a total of 1,108 m of HQ diameter core. Drilling was carried out using a Longyear LM-75 electric hydraulic drilling rig. The purpose of these holes was to infill surface drilling and to assist in planning future development.

Phase 2 of exploration work at Tuvatu started in March 1998 and involved deepening of the decline in order to access the Upper Ridges lodes in the southern part of the resource area. These lodes had previously been identified during Phase 1 by surface drilling at a broad spacing. In conjunction with the Phase 2 underground development, 26 more underground diamond drill holes (TUG-18 to 43) were completed for a total of 1,374 m of HQ diameter core. Drilling was carried out using a Longyear LM-75 electric hydraulic drilling rig. The purpose of these holes was to infill surface drilling and to assist in planning development. A bulk sample of Upper Ridges' ore from the underground development was dispatched to Vatukoula for metallurgical test work. In addition a small trial mining exercise was carried out on veining associated with the Nasivi/SKL stockwork.

During Phase 3 a series of 69 underground diamond drill holes (TUG045–113) were completed for a total of 10,926 m. Drilling was carried out using a Longyear LM-75 electric hydraulic drilling rig and a Kempe rig. These holes were drilled to infill and expand the Upper Ridges resource and test peripheral mineralized zones in the Murau area. This program successfully extended the Upper Ridges lodes (particularly UR2) and upgraded the Phase 2 resource.

## GEOLOGICAL SETTING AND MINERALIZATION

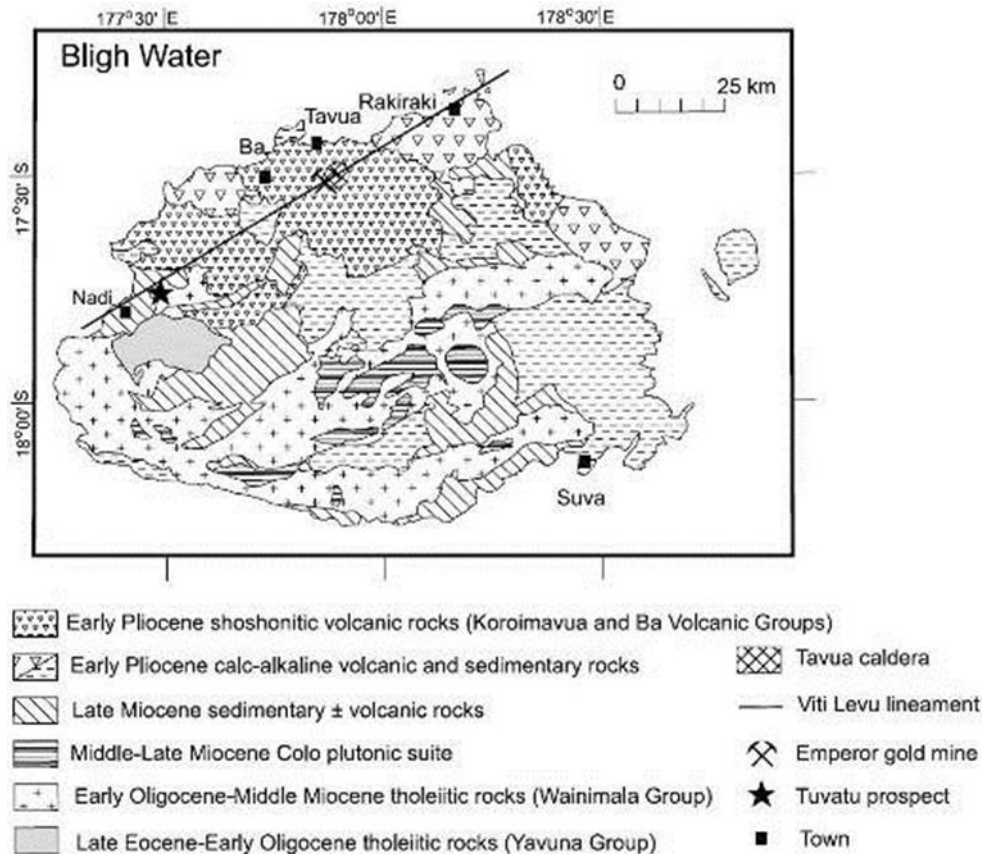
### Regional Geology

The information on regional geology is taken from Vigar, 2009.

Fiji lies on the boundary of the Indo-Australian and Pacific tectonic plates, a zone marked by seafloor spreading and transform faulting. The island is at the midpoint of the opposing Tonga Kermadec and New Hebrides convergence zones. It is separated from these actual convergence zones by two extensional back arc basins, the North Fiji Basin to the west and the Lau Basin to the east and a series of transform faults including the Fiji Fracture Zone and the Matthew Hunter Ridge. Approximately five million years ago (Miocene/Pliocene Period) the area was the site of a number of major shield volcanoes, formed along a northeast - southwest trend.

Tuvatu is one of several epithermal gold systems along the >250 km northeast trending Viti Levu lineament, which are genetically associated with alkalic magmatism (Figure 5). A number of gold deposits have been discovered along this trend including Tuvatu, Vatukoula and Raki Raki. The Vatukoula or Emperor Mine has produced some 7 million ounces since 1937.

**Figure 1- Regional Geology. Location of Tuvatu Project with Respect to Viti Levu Lineament is Indicated**



The oldest unit in the region is the Nadele Breccia (Late Oligocene -Middle Miocene, 29 to 23 Ma). Thin layers of sandstone and siltstone are interbedded with grits and often exhibit cross-bedding. Polymict breccias tend to be very coarse, compact and with generally angular clasts ranging from 5 mm to 200 mm (Niurou, 1997). Minor occurrences of limestone have also been noted. Pillow basalts occur as part of this sequence and can be seen in road cuttings on the project access road. The Nadele Breccia is part of the earliest volcanic activity in Fiji which took place during a period of island arc development. The volcanic units were deposited within an active fore-arc basin as proximal dispersal aprons of volcanic sediment derived from volcanic edifices (Hathway 1993).

Sabeto Volcanics (Late Miocene–Early Pliocene, 5.5 to 4.8 Ma) unconformably overlie the Nadele Breccia and represent the basal unit of the Korroimavua Volcanic Group, which is the oldest shoshonite volcanism in Fiji. The volcanics occur in a north east trending band across the north western side of Viti Levu and host a number of gold mines and prospects including Tuvatu, Vatukoula and Raki Raki. The unit consists of a series of interbedded andesitic volcanoclastics and flows. Hatcher (1997) subdivided this group into three units comprising a basal volcanoclastic breccia (30 m to 45 m), andesite porphyry flow (30 to 40 m) and volcanoclastic conglomerate (40m). The contacts were observed dipping at 50° to 60° to the east-southeast.

A clear contact can be observed in the field at the position of the unconformity and is often accompanied by a distinct change in soil types with the red brown Nadele Breccia contrasting the grey sandy soils of the Sabeto Volcanics. High ridges and cliffs emphasise this gradation due to the resistance of the Sabeto Volcanics to weathering.

The Navilawa Monzonite (Late Miocene – Early Pliocene, 4.85 Ma) intrudes the Nadele Breccia in the northeast of the project area and hosts the majority of the mineralization. The intrusive has been divided

into two phases, a central coarse to medium grain monzonite and peripheral micro monzonite. Abundant dykes cut the area ranging in composition from pegmatite to andesite, aplite and monzonite. The composition of the monzonite is equigranular with plagioclase (45%) and K-feldspar (45%) with lesser biotite and pyroxene. Considerable local variation in composition occurs with changes in grain size and inclusion of country rock. The overall intrusive complex is elongate in a north east orientation. Numerous small intrusive stocks, dominantly composed of micro monzonite also occur but tend to be elongated in a north northwest direction.

A-Izzeddin (1997) suggested that there is a spatial and temporal relationship between the emplacement of the intrusive complex and mineralization. The Tuvatu area appears to have had one to two kilometres of overburden removed since emplacement of the intrusive complex, which may represent the magma source for overlying volcanism. The gold mineralization therefore represents deep-seated hydrothermal fluids emplaced in the very upper portions of the magma complex during the waning phases of volcanism.

### Local Geology

Tuvatu is one of several gold prospects known from the Sabeto area of north-western Viti Levu. Other gold and gold copper prospects in the local region are at Vuda, Navilawa (Kingston Mine and Banana Creek) and Nawainiu Creek, all associated with known or presumed centres of volcanic activity and/or volcanic core complexes within the shoshonitic Koroimavua Volcanic Group of late Miocene to early Pliocene age.

Basal units of the Sabeto Volcanics (part of the Late Miocene-Early Pliocene Koroimavua Volcanic Group) unconformably overlie Nadele Breccia in the Sabeto Valley. Members of the Sabeto Volcanics found outcropping in the area have shoshonitic affinities and include andesitic and biotite-bearing dacitic lithic and crystal tuffs, grits, agglomerates and minor flows. Shoshonites belonging to the Koroimavua Volcanic Group have been age dated at 5.88 Ma.

The volcanoclastic units were subsequently intruded by a monzonitic stock (Figure 6). Mapping by Emperor geologists indicated that it is a composite intrusive body with several different phases of intrusion associated with it. The monzonite within the Tuvatu prospect area is locally brecciated and varies in grain size. A series of pegmatite dykes, andesitic dykes and stocks have also intruded the area. The monzonite has been dated at 4.85 Ma, and is interpreted to be co-magmatic with the volcanic units of the Koroimavua Volcanic Group. It probably represents the root of a caldera and is elongate in a northeast-southwest orientation.

Locally the geology is structurally complex with the area cut by a 60 m wide east-west striking fault zone referred to as the Core Shed Fault (CSF) which is exposed near the portal of the decline and can be traced for over 5 km along strike. Additional westerly striking structures locally offset veins.

### Mineralization

Mineralization is structurally controlled and occurs as sets and networks of narrow veins and cracks, with individual veins generally ranging from 1 mm to 200 mm wide (Figure 7, Figure 8). Zones of veining which comprise the lodes may be up to 5 m wide. The main mineralized zone (Upper Ridges) comprises eleven principal lodes with a strike length in excess of 500m and a vertical extent of more than 300 m. Another major zone of mineralization (Murau) strikes east-west and consists of two major lodes with a mapped strike length in excess of 400 m.

Although gold mineralization is primarily hosted in monzonite it can also occur in the volcanic units. Veins are narrow, generally less than 1 m up to a maximum of 7 m, and ore grades are erratic. Lode mineralogy is varied, with most veins containing quartz, pyrite, and base metal sulphides.

A very high proportion of the gold occurs as either free gold or is contained in quartz or pyrite composite particles that can be floated. Free gold present is both fine and coarse grained. Mineralization is clean with respect to deleterious elements such as arsenic, selenium, and uranium.



A number of different lode structures were identified by TGM geologists in the Tuvatu resource area, and zones of veining which comprise the lodes may be up to 5 m wide. The main lode structures identified by TGM are shown in Figure 9 and comprise 10 lodes in the Upper Ridges area, 2 lodes in the Murau area, 3 lodes in the West (Plant Site) area, 2 lodes in the Tuvatu area and 3 lodes in the SKL area. Lodes were re-interpreted by Lion One geologists following infill and resource extension drilling (Figure 10).

In addition a number of other lodes have been identified in the local area but remain untested. The grades of individual lodes vary considerably due to the “spotty” nature of the gold and the variability in width of the host structures. Average grades for the lodes range from 2.0 g/t to 10.0 g/t. Gold mineralization tends to be quite coarse and visible gold is often observed in mineralized sections of core.

### Structural Controls

Gold mineralization at Tuvatu is considered to have developed during an episode of northeast-southwest shearing and is intimately related to but postdates the emplacement of a high level monzonite intrusive.

### Dimensions and Continuity

Mineralization is generally hosted in a series of sub-vertical, north and north-northeast striking trending veins as well as shallow, south dipping veins (locally referred to as “flatmakes”). In spite of the narrow widths of individual veins the gross lode structures appear to be continuous for over one hundred metres. The majority of lodes vary in width from 0.5 m to 5.0 m with an average width of 1.1 m. (individual vein intercepts have been recorded as low as 4 cm).

The Tuvatu and H Lodes are up to 5 m wide and are characterized by porphyry-style copper mineralization. The H Lode is crosscut locally by epithermal gold veins, and the Tuvatu Lode is characterized by potassic alteration and hosts chalcopyrite and biotite.

### Paragenesis

Scherbarth and Spry (2006) suggest that the mineralized zone at Tuvatu may have originally developed as a porphyry copper system which was overprinted by epithermal gold mineralization. The style of mineralization is thought to have evolved as the local monzonite intrusives cooled and meteoric waters mixed with the magmatic fluids, resulting in the gradational changing of the mineralization and alteration styles.

Mineralization associated with the porphyry copper system is characterised by apatite-k feldspar-magnetite-biotite veins with intense potassic alteration selvages. These veins are considered to have developed as the monzonite intrusive was in the final stages of crystallisation and early stages of cooling. As the system cooled it was overprinted by a phase of phyllic alteration which was characterised by a quartz-muscovite-pyrite assemblage. The system was then overprinted by a set of quartz-adularia veins accompanied by lesser amounts of calcite, chalcopyrite, pyrite, galena, tellurides and native gold. These veins generally have narrow chlorite-smectite selvages and commonly exhibit banded textures.

Minor roscoelite (vanadium K-mica) has also been observed in association with the quartz-adularia veins. Roscoelite is commonly observed at Vatukoula and many major deposits around the world (eg Porgera, Hishikari) and invariably has a close association with gold mineralization. The precipitation of roscoelite generally requires the reduction of a vanadium-bearing mineralising fluid. Reduction of the mineralising fluid may also lead to the precipitation of gold, tellurides and pyrite. Also rare occurrences of fluorite have been observed associated with the veins. The presence of fluorite further demonstrates the strong magmatic volatile content of the mineralising fluids.

The following is an overview of the mineralization, modified after A-lzzeddin (2000).

- Hosted in structurally controlled sets of narrow quartz veins (generally less than 0.5m) which may form mineralized lodes up to 5m wide;
- Early porphyry-related mineralization overprinted by late epithermal episode;
- Bleaching and alteration halo of sericite and clay minerals becomes more pronounced with weathering;
- Gold is free-milling and generally associated with silica/quartz, adularia and minor base metals (galena and sphalerite) and tellurides;
- High grades may be encountered in lodes, e.g. 0.5m @ 1620 g/t & 0.3m @ 1130 g/t Au.

A-Izzeddin (1997) suggested that there is a spatial and temporal relationship between the emplacement of the intrusive complex and the mineralization. The Tuvatu area appears to have had one to two km of overburden removed since emplacement of the intrusive complex, which may represent the magma source for overlying volcanism. The gold mineralization is interpreted to have been derived from deep-seated hydrothermal fluids emplaced in the very upper portions of the magma complex during the waning phases of volcanism.

### Discussion

MA concludes the geological model is quite robust. Tuvatu is a low sulphidation epithermal deposit associated with the intrusion and subsequent cooling of a local monzonite. Stress regimes within epithermal/intrusive systems can be quite complex. The resulting veins and stockwork zones will pinch and swell along various strike orientations. This style of emplacement will always result in a risk to the tonnes and grade of any model developed. The mineralization is typical of epithermal deposits in being confined to narrow structures with little wall rock alteration which are hence “blind” outside of the mineralization. The grades decrease rapidly from very rich to barely detectable.

### Deposit Types

Scherbarth and Spry (2006) compare Tuvatu with Vatukoula. The Emperor deposit occurs along the margins of the Tavua volcano whereas the Tuvatu deposit may occur adjacent to an eroded shoshonite volcano. Both deposits are described as low-sulfidation, epithermal gold telluride mineralization occurring in flat-lying veins, steep faults, shatter zones, stockworks, and hydrothermal breccias. Mineralization formed in multiple stages and is characterized by the presence of quartz-roscoelite telluride veins in which gold-rich tellurides were deposited prior to silver-rich tellurides. Gold tellurides and vanadium minerals were deposited at approximately 250°C from moderately saline fluids.

The emplacement of epithermal deposits is characterised by late-stage, multiphase tectonic activity which creates a plumbing system and volcanic activity which provides a heat source. The general nature of these systems was first summarised by Buchanan (1981). The deposits were then divided on the basis of their alteration and mineralogy into two main types (Berger and Bethke 1985; Heald et al 1987) of acid-sulphate and adularia-sericite with a third minor but economically significant grouping of alkalic recently added (Bonham 1988; Richards and Kerrich, 1993). These types have now been included in a larger grouping low to high sulphidation systems and the links to gold and copper porphyries recognised.

## EXPLORATION

Lion One has undertaken exploration activities in the Tuvatu project in two main phases: surface work and limited exploration drilling from 2008 to 2010 and more extensive drilling in 2011-2013.

### 2008-2010 Lion One Limited (Fiji) Exploration

During 2008, Lion One completed extensive mapping and geochemical sampling. Two surface drill holes were also completed. Field work was carried out by Lion One staff, W. Kuruisaravi, R. Sulua, and S. Bulu under the direction of various expatriate consulting geologists. The mapping, rock chip and channel sampling program involved the hiring of a trained team of permanent workers from Korobebe Village.

Security staff at the Tuvatu Camp and core shed facility were hired from Korobebe, Nagado and Natawa Villages.

A number of highly prospective zones of mineralization that were identified in 2002-2003 were followed up. Detailed geological mapping, rock chip and channel sampling in the region south of the Tuvatu Resource Area and Qalibua Creek was carried out with about 11.5 line-km of creek mapping completed. Detailed 1:1000 scale geological mapping and sampling covered the area from Veto Creek to the boundary of SPL 1396 just north of the Tuvatu Resource Area. Lion One submitted 1,309 rock chip and channel samples between November 2008 and May 2010 to ALS Chemex laboratories in Brisbane. MA has not seen any reports on this mapping or sampling detailing geology, vein widths and assay results.

Two surface diamond drill holes (TUDDH-338 & TUDDH-340) totalling 375.90m were drilled during October 2008 at the Nubunidike Prospect, 1.6 km southwest of the Tuvatu Resource Area. Drilling was planned to intersect the Nubunidike/Hornet Creek/290 Vein system about 50 m below the surface over a strike length of 500 m and gain information on the dip and strike continuity of the vein system, as well as grade distribution within the structures.

### Lion One Metals Limited Exploration

Following a comprehensive review of historic data that began in August 2010, Cambria Geosciences ("Cambria") was contracted to assist in managing the exploration program at Tuvatu. In January 2011 Cambria mobilized a field team to the site to initiate a program of surface mapping, trenching and core re-logging and re-sampling of approximately 10,000 m of the total 60,000 m of core. In addition to the ongoing program of mapping, core re-logging and re-sampling, trenching and diamond drilling, this first phase exploration program was planned to include reconnaissance mapping, prospecting, stream sediment sampling, geophysical surveying, deposit modelling and dewatering of the decline.

Lion One reported that the review, along with ongoing mapping and prospecting conducted by Lion One geologists, resulted in the discovery of several near surface drill targets that became the focus of the trenching and surface mapping programs.

In excess of 1,200 m of trenching was completed to assess the near surface, open pit potential of the Tuvatu North area where drilling by previous operators had yielded several near surface high gold intervals in the northern portion of the Tuvatu Resource area. Principal objectives were to expose and confirm the presence of gold bearing veins and veinlets in the structures related to the Tuvatu Lode, H Lode and the Core Shed Fault (CSF).

Initial sampling was between the Core Shed Fault (CSF) and the Tuvatu and H Lodes from four benches and two trenches excavated adjacent to and directly south of the portal of the existing decline. Excavations were completed across the CSF, with subsequent trenching above the surface expression of the Tuvatu (1 and 2) and H Lodes. Trenches were up to 2 m deep with an average depth of 1.5 m. Several benches along road cuts were also sampled as a part of the program. Most samples were continuous or semi continuous chip samples with composite samples taken when necessary.

A core re-logging and re-sampling program was commenced with the objective of identifying mineralized intervals that were ignored by previous operators. As 3.0 g/t Au was the historical cut-off grade, Lion One geologists believed that the economic significance of many altered and mineralized zones within the hanging and foot walls were previously overlooked.

Lion One also completed 58 km of Induced Polarization ("IP") survey and prepared additional lines to obtain further readings over areas with prospective chargeability and resistivity anomalies, including five additional lines covering the First Porphyry Development Area. The survey was initially planned to cover known mineral occurrences before extension to outlying areas. Lion One also completed 36 line km of soil sampling across the IP survey grid area.

Extensions of the Murau and Far West Lodes were mapped at surface over 500 m to the west displaying consistent lateral continuity typical of many epithermal lode systems. Multiple sub-parallel near-surface, high-grade veins were encountered.

The surface sampling program was reported by Lion One as confirming the presence of gold bearing veins and veinlets within the CSF and the Tuvatu and H Lodes. Five samples were reported to return grades over 100 g/t Au, including 210 g/t Au across 0.05 m, 188 g/t Au across 0.87 m and 188 g/t Au across 0.70 m. Significant intervals included 8.7 g/t Au over 4.8 m from the surface expression of the north-west striking Tuvatu Lode

## DRILLING

Drilling campaigns were completed in several phases by TGM from 1995-2001 and by Lion One between 2008 and 2013. Completed drilling is summarised in Table 10.

**Table 10 - Summary of Tuvatu Exploration Drilling**

Company	Surface RC Drilling		Surface Diamond Drilling		Underground Diamond Drilling	
TGM Phase 1	5,225 m (44 holes)	TURC101 to 171	42,783 m (193 holes)	TUDDH013 to 205	1,108 m (17 holes)	TUG01 to 17
TGM Phase 2					1,374 m (26 holes)	TUG18 to 43
TGM Phase 3	4,040 m (37 holes)	TURC172 to 208	8,702 m (24 holes)	TUDDH206 to 229	10,926 m (69 holes)	TUG45 to 113
TGM 1995-2000 Total	9,265 m (81 holes)		51,484 m (217 holes)		13,408 m (112 holes)	
Lion One 2008			376 m (2 holes)	TUDDH338 & 340		
Lion One 2012- 2013			13,842m (65 holes)	TUDDH341 to 405		

### TGM Drilling 1995-2001

TGM completed three phases of drilling at Tuvatu from exploration through to resource delineation. Drilling was carried out both on the surface and from the 600 m underground exploration decline which was developed to a depth of 240 m below surface. Drilling methods included both diamond drill core and reverse circulation (RC). Overall, TGM completed 51,484m of diamond core and 9,265m of RC surface drilling, as well as 13,407m of underground drilling.

Up to six drilling rigs operated in the Tuvatu resource area during Phase 1. During this period 193 diamond holes (TUDDH-013 to 205) and 44 RC holes (TURC-101 to 171) were completed. A total of 42,783 m of diamond core (HQ and PQ diameter) and 5,225 m of 5¼" RC drilling were completed in the area. This program delineated an area of mineralization that extends over a distance of 800 m. In conjunction with the underground development, 17 underground diamond drill holes (TUG01 to 17) were completed for a total of 1,108 m of HQ diameter core. The purpose of these holes was to infill surface drilling and to assist in planning future development.

During the 2nd phase of work by Emperor, 26 underground diamond drill holes (TUG-18 to 43) were completed for a total of 1,374 m of HQ diameter core. The purpose of these holes was to infill surface drilling and to assist in planning development.

During Phase 3 a reverse circulation drilling program was initiated to test various anomalies in the local area as well as the near-surface potential of the Upper Ridges area. Thirty-seven holes (TURC172 – 208) were completed for a total of 4,040 m. Drill holes TURC174 and TURC 179 encountered significant

mineralization associated with a previously untested lode structure located approximately 500 m west of the resource area. Follow-up drilling and trenching demonstrated that mineralization was associated with two sets of veins trending E-W and NW-SE. The lodes may be up to 5 m wide. A series of 69 underground diamond drill holes (TUG045 – 113) were completed for a total of 10,926 m. These holes were drilled to infill and expand the Upper Ridges resource and test peripheral mineralized zones in the Murau area. This program successfully extended the Upper Ridges lodes (particularly UR2) and upgraded the Phase 2 resource.

A series of surface diamond holes were also drilled to target various deeper drill intersections encountered in Phase 1 as well as the newly identified zone of mineralization located 500 m west of the current resource area. Twenty-four holes (TUDDH206 –229) were completed for a total of 8,702 m.

#### Lion One Limited (Fiji) Drilling 2008

Two surface diamond drill holes (TUDDH-338 & TUDDH-340) totalling 375.90 m were drilled during October 2008 to test the Nubunidiike / Hornet Creek / 290 Vein system over a strike length of 500 m at the Nubunidiike Prospect, 1.6 km southwest of the Tuvatu Resource Area. Drilling was planned to intersect the veins about 50 m below the surface and gain information on the dip and strike continuity of the vein system, as well as grade distribution within the structures.

#### Lion One Metals Limited Drilling 2012-2013

In response to the results from the trenching program Lion One changed its focus to broad zones of low grade mineralization potentially exploitable by surface mining methods. Lion One commenced a systematic program to delineate the extent of near surface gold mineralization. The Lion One exploration team planned and executed the drilling program under the supervision of Lion One's Tuvatu Project Manager, Mr. David Pals.

Drilling re-commenced in June 2012 with a combination of infill and step out holes. The program had three objectives: (i) infill drilling to increase the confidence level of the existing resource; (ii) step out drilling to expand the resource base; and (iii) exploratory drilling to test additional targets. Infill drill holes were planned to test areas of the intersections of the east-west trending Murau-Far West Lodes with the N-S trending Upper Ridge Lodes west of the north-south trending UR structural corridor and current resource.

Step out holes tested for mineralized extensions of the Tuvatu and H Lodes in the northern portion of the Tuvatu resource area, where surface mapping has identified continuous mineralization along a strike length of 300 m.

#### Drilling Procedures TGM 1995-2001

Up to six drilling rigs operated in the Tuvatu resource area during Phases 1, 2, and 3 but MA has no details on the type of surface rigs used.

During Phase 1 and Phase 2 the underground diamond drilling was carried out using a Longyear LM-75 electric hydraulic drilling rig from the Emperor Gold Mine in Vatukoula. Underground drilling in Phase 3 was carried out using a Longyear LM-75 electric hydraulic drilling rig and a Kempe rig.

Although Mr. Vigar of MA originally worked on the deposit from 1999 to 2000, which included logging core, no detailed sampling or QAQC report is available on the sampling done by TGM.

However the following points were noted:

- Adjacent host rock material may be barren and forms internal waste within the lode structure. Where this internal waste was not assayed it was assumed to carry no grade.
- Individual veins within the lode structure were often sampled using half core samples.

- Selected drill core sections were halved with a core saw and samples were dispatched to the Emperor Gold Mining Company laboratory at Vatukoula.
- Waste intervals were not assayed.
- TGM used the assay laboratory at the Vatukoula mine operated by the Emperor Gold Mining Company. Monthly re-assays and checks on standards, mill products, mine and exploration samples are conducted with external commercial laboratories as part of the standard operating procedure at Vatukoula.
- The whole sample was pulverised in a 5 kilogram ring mill prior to splitting. A 50 g sub-sample was analysed for gold by fire assay with an AAS finish.
- All samples above 1 g/t Au were re-assayed.
- Samples within the interpreted lode structure were composited to obtain an overall grade for the lode.

All drill collars were picked up by TGM surveyors on a regular basis using a Leica TPS 300 theodolite. Data was downloaded in digital form and entered into the database. Where possible the collar azimuth and dip was also calculated by the surveyor to compare with the planned orientation and downhole survey data. The majority of diamond drill holes were also surveyed by downhole camera at 50 m intervals using an Eastman downhole survey camera. Percussion drill holes generally were not surveyed down hole due to the difficulties in surveying inside RC drill rods.

#### Lion One Drilling Procedure 2008 and 2012-2013

Drilling by Lion One was diamond core drilling from surface and the following procedures were used:

- Drill core was digitally photographed and placed onto the database.
- Core was logged manually onto log sheets and all data entered into the database.
- Information included hole number, date drilled, name of driller/company, location, coordinates, core recovery, lithology, structure, RQD values, alteration, gangue minerals, sulphide minerals, mineralization, sample numbers, intervals samples, analytical values, comments, date logged and by whom. Specific gravity of selected intervals and lithologies were measured.
- A summary log was prepared after the hole was logged.

Drill core was cut in half with a core saw for sampling and half-core samples were dispatched to the ALS sample preparation facility in Suva, Fiji. Samples were first crushed and pulverised at Suva, Fiji prior to analysis at ALS Minerals, an independent and qualified analytical laboratory in Brisbane, Australia. Gold is determined by fire assay and silver by Aqua regia digestion and AAS. Consistent with industry standard practice, sample standards and blanks and other control methods are used to ensure quality control.

#### Lion One Limited (Fiji) Results 2008

Drill holes passed through bad ground with shear zones showing slickensided contacts. Faults are almost parallel to the core axis. The host rock is coarse grained to medium grained Nadele Breccia. Only visually identifiable mineralized intervals were assayed for gold. A total of 59 samples ranging in length from 0.23 m to 1.0 m were collected from the 376 m of drilling. Best intersection was 0.25 m containing 1.06 g/t gold in hole TUDDH-338. Hole TUDDH-340 returned insignificant results. Following a field inspection in 2009 Andrew Vigar of MA suggested that the two drill holes may have missed their intended target as the holes were not orientated properly relative to the vein being tested.

#### Lion One Metals Limited Results 2012-2013

Initial results confirmed high grades. Figure 14 shows the collar locations of drill holes with significant intersections at Tuvatu West. Figure 15 is a north-south representative section along 1876260E in the Tuvatu West locality.

There has been no independent review of the drill hole sampling, geological logging and geological interpretations done by TGM or Lion One. Although it is expected that this work was done to an industry acceptable standard there is always a risk involved with structural interpretations, grade and geological continuity. However, MA believes that the information revealed in the exploration decline mitigates the impact of this risk to a large extent. Core recovery is overall very high, although within sheared and broken intervals it is somewhat less so. Unfortunately these intervals may coincide with mineralized zones.

## SAMPLE PREPARATION

During pre-2000 drilling by TGM all samples were dispatched to the Emperor Mine laboratory at Vatukoula for preparation and analysis. The whole sample was pulverised in a 5 kg ring mill prior to splitting.

In the Lion One 2008 and 2012-2013 programs diamond drill core was logged and sampled on site at Tuvatu by Lion One staff. Core samples were delivered by the Company to Suva, Fiji sample preparation facility of ALS Minerals (ALS), a division of Australian Laboratory Services Pty. Ltd., an independent accredited analytical laboratory.

The samples were finely crushed (>75% passing through -2mm) and a 1 kg split then pulverized (>85% passing through -75 microns) prior to dispatch to ALS Minerals Brisbane, an independent accredited analytical laboratory in Brisbane, Australia, for analysis.

## SAMPLE SECURITY

No particular security measures were used during the life of the Tuvatu project as visible free gold is rare and off-site laboratories have been used throughout. Half-core splits of most drill core were retained on-site. This core is well catalogued and is available for inspection.

## SAMPLE ANALYSES

### Laboratory Analysis Procedures

All pre-2000 assaying by Emperor for TGM used a 50 g sub-sample which was analysed via fire assay with an atomic absorption spectrometry ("AAS") finish at the mine laboratory at Vatukoula. All samples above 1 g/t Au were re-assayed.

All analysis in the exploration programs by Lion One in 2008, and 2012-2013 was carried out by ALS Minerals at their laboratories, in Brisbane, Australia. Gold was analysed by fire assay with a 30 gram charge and AAS finish. Samples with higher grade gold (greater than 3 g/t Au) were re-assayed. Silver was analysed by Aqua regia digestion and AAS.

Exploration samples were analysed for 33 elements using a four acid digestion and Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES).

### Laboratory Independence and Certification

The laboratory at the Vatukoula gold mine used by TGM was a private laboratory operated by Emperor Gold Mining Company. The ALS Minerals laboratories used by Lion One are part of the worldwide ALS Limited group of companies.

## QUALITY CONTROL

### QC Program

There are no detailed sampling QA/QC reports available on the sampling carried out by TGM for the pre-2000 drilling. According to Vigar (2009), monthly re-assays and checks on standards, mill products, mine

and exploration samples were conducted with external commercial laboratories as part of the Emperor standard operating procedure. Laboratory certificates for these assays and checks were not provided to MA. There was no evidence of the implementation of a QA/QC program utilizing field duplicates, blanks and standards.

The laboratory at Vatukoula is a private laboratory, and it is considered unlikely that they conducted an internal QC program for the samples submitted. However, the Vatukoula mine has relied on the results of its laboratory in order to run its operations since the 1930s and it can be reasonably assumed that the laboratory provides accurate assaying work.

No information was provided to MA regarding the QA/QC program for the 2008-drilling by Lion One.

The assay analyses performed during Lion One's 2012-2013 drilling programs was subject to a formal quality assurance and quality control (QA/QC) program that was under the supervision of Lion One's Tuvatu Project Manager, Mr David Pals.

Certified reference materials ("CRM"), blanks, and field duplicates samples were inserted prior to shipment from site to monitor the quality control of the data. MA understands that 3 CRM samples were inserted every 100 samples and 2 field duplicates were inserted in every batch of 100 samples. MA received and reviewed QAQC summary reports (for CRM's, field duplicates, and assay laboratory duplicates) from rOREdata Pty Ltd. database consultants.

#### QC PROGRAM RESULTS

##### Standards Results - Accuracy

Accuracy is identifying the true grade of a sample, often achieved by submitting certified reference material ("CRM") commonly referred to as standards ("STD").

Ten different gold CRM standards supplied by Rocklabs Ltd. of New Zealand were used by Lion One for quality control in core sampling. Seven of the standards were submitted more than 5 times. A total of 216 CRM gold standards and 26 silver standards were submitted during the Lion One drilling program.

#### DATA VERIFICATION PROCEDURES

The data verification involved database integrity checking, site visit, and independent sample collection.

##### Drill Hole Database

Lion One provided MA with a large amount of data relating to the Project. Lion One's current drill hole database, historic block models and geological wireframes were used, as were reports on resource estimation. MA also accessed archived data used for resource estimation in 2000 and 2009.

#### DRILL HOLE DATABASE REVIEW

MA was provided with an export of Lion One's current drill hole database in MS Access format, named Database ExportDrillHoles.mdb. The database contained tables for Collar details, Collar metadata, downhole surveys, assays, weathering, lithology, alteration, geotechnical, SG data and lode tags.

##### Database Validation

MS Access queries were used to perform basic validation checks, and holes were then loaded into Surpac for a second round of validation. Table 11 summarises the basic validation checks performed and the results.



**Table 11 - Summary of Database Validation**

Check	Results	Comment
Missing / out of range coordinate data	Six holes with missing z coordinates	All old DDH holes (1970s). Need to confirm locations and assign z coordinates from topography DTM.
Missing downhole surveys	Four holes with no downhole surveys	Lion One checking, one hole corrected. Holes without confirmed orientation must be excluded from resource estimates.
Sample overlaps / to < from depth / no depths	A few assay intervals with null from-to depths.	QAQC results mistakenly included in assay table.
Downhole survey validation check, Access query	71 drill holes with survey deviation >5° in azimuth or dip in adjacent surveys. Note that all RC holes have only collar surveys.	Data sent to Lion One for correction / checking.
Data not drill holes	Two trenches and one channel included in drill hole data	Removed from drill hole database.

### Assessment of RC Drill Holes

Sample assay data from diamond (surface plus underground, all dates) and RC drilling were compared statistically by the following method:

1. Raw sample data composited downhole to 1 m intervals to create comparable samples of identical volume (reduce effects of sample volume variance)
2. 1 m composites were restricted to cover the same area (roughly corresponding to the 2000 resource model extents) as a crude method of compensating for possible spatial clustering of data. The following spatial filtering methods were used:
  - a. Boundary drawn in plan view to cover extent of most RC drilling;
  - b. DD data restricted in z extent to cover the same depth range as RC data
  - c. DD and RC data restricted to depths > 20m below surface (to reduce effects of shallow RC drilling near-surface);
  - d. Data plotted north and south of 3920700N, which marks the approximate limit of clustered high grade DD intercepts.
3. Q-Q (percentile) plots generated for RC versus DD data above a cut-off of 1 g/t Au for each of the spatial filters described above. Cut-off was used to compensate for the effects of mostly selective sampling of DD holes.

In general, grade distributions match reasonably well up to the 50th percentile (about 2.5 g/t Au), with DD samples reporting slightly higher grades than RC. After the 50th percentile there is more positive bias towards DD samples, and after the 75th percentile the bias is more pronounced. There is a slight improvement in the correlation of percentiles across the first three graphs, corresponding to limiting the extent of DD data used. The data is difficult to assess in too much detail because the RC and DD samples are not exactly spatially equivalent. The last two graphs illustrate that spatial bias accounts for a significant part of the difference seen between RC and DD grade distributions, with the southern portion of the data better correlated (with a positive bias to RC data) and the northern part of the data showing positive bias towards DD data.

Spatially equivalent RC and DD samples were then selected via an approach that used a nearest neighbour method with a small search ellipse to assign grade values to a fine scale block model. Values were exported only for those blocks that contained values for RC and DD data and the results examined. This approach yielded a data set that was too small to draw any conclusions.

Limited conclusions can be drawn from the existing data. Spatial clustering appears to be a more important contributor to bias than drilling method. Other factors that may be important are:

- Sample recovery – it is not known how sample recovery compares between RC and DD samples. Some instances were identified where RC mineralized intersections coincided with not sampled DD intervals, presumably due to core loss.
- RC drilling sub-sampling – the method and possible introduction of bias during sub-sampling is not known.
- RC drilling QA/QC measures – in particular the efforts made to ensure that no sample contamination occurred during drilling and later sample processing.
- DD drilling sub-sampling – possible introduction of bias during core cutting, especially if core was not cut at a consistent orientation relative to veining.
- Directional bias – there are some examples of bias occurring where drill holes sample a vein at a low angle versus drill holes sampling veins in a perpendicular orientation.

From the available data, MA concludes that there appears to be no major problem with utilising RC samples as part of a resource estimate. However, the following should be taken into consideration:

- RC samples are inherently more likely to have lower grade variability and show less effects of high grade outliers due to the larger volume of sample taken compared with DD core.
- Due to the fixed 1 m sampling interval for RC, there will be a tendency for narrow, high-grade vein intersections to be over-estimated for thickness and under-estimated for grade (i.e. wall rock dilution will be included in the sample) compared with DD.
- For lower-grade veins the opposite problem will apply, with thickness under-estimated and grade possibly slightly over-estimated.
- Vein thickness in RC intersections can only be practically resolved to the nearest m using grades.
- The only way to compare DD and RC drill samples and assess potential risks to resource estimation is to undertake a small program of drill hole twinning.

## SITE VISIT

The Tuvatu deposit was visited by Mr. Ian Taylor, BSc (Hons) MAusIMM (CP) during the period 25th to 28th February 2014. In the course of the site visit, Mr Taylor viewed mineralized drill core and examined the drill core processing and storage facilities. He also viewed and sampled the mineralized vein systems and outcrops. Stacy Freudigmann, BSc.(Hons), P.Eng, visited the Project from the 8th to the 14th of April, 2014. David Lee, P.Eng Mining (Hons), FAusIMM (QP) visited the Project from 8 to 11 September 2014. Anthony Woodward, BSc (Hons), M.Sc., MAusIMM, MAIG visited the Project on several occasions between 1995 and 2001 while employed by the Emperor Gold Mining. David Morgan, MAusIMM (CP), visited the Project from the 8th to the 19th of September, 2014.

## Independent Samples

For the Tuvatu Report, Mr. Taylor collected two independent samples, one from outcrop and one from core. The selected samples were selected by Mr. Taylor, at no time prior to the sampling were any employees or other associates of Lion One were advised of sample locations or identification of any of the samples to be collected. Sample remained in the custody of Mr. Taylor, the samples were documented, bagged and sealed with packing tape and were shipped by DHL couriers to ALS Chemex Laboratories in Suva Fiji for sample preparation. The prepared samples were sent to ALS in Brisbane for analysis for gold by 30g fire assay (ALS method Au-AA25). Table 13 lists the samples and description the gold assay results.

The assay results are consistent with the gold mineralization typical of the prospect. A previous sample (TU13421) assayed 12.5 g/t Au from the same section of drill core as MA\_TV\_02 although MA highlights that the sample lengths were different. Mr. Taylor only visited selected surface drill collars and surface outcrops. Access to the underground workings was not possible. Based on the data verification performed, it is MA's opinion that the data reviewed is adequate for the purposes used in this technical report.

## MINERAL RESOURCE ESTIMATES

A number of historical mineral resource studies have been carried out at Tuvatu by previous operators over the period from 1997 to 2010.

The previous published resource has been developed with classic techniques suited to board zones of mineralization of relatively homogenous mineralization. Specifically the compositing of individual samples to one m down hole and utilising inverse distance cubed (ID3) linear weighting techniques of the capped data.

MA considers that a two dimensional estimate using grade and thickness across the narrow vein is a better method. The model has to incorporate a level of conceptual interpretation (implicit modelling) as the veins are very narrow. Traditional cross section interpretation (explicit modelling) is near impossible.

The methodology used in this style of resource estimates is chosen as it facilitates better models of vein thicknesses and does not have the problems introduced by attempting to construct very narrow wireframes: vein walls crossing and too many small blocks. The 2D re-folded model provides a more realistic vein model ideal for underground design or open pit design where veins come to surface.

The vein model has been diluted to a minimum mining width of 1.2 m, there are examples where one sample was high and less than 1.2 m, and a neighbouring sample with elevated grade (>0.2 g/t) was incorporated, the intention was that locally the vein was diluted before estimation and not post estimation with zero grade.

## GEOLOGIC INTERPRETATION

Tuvatu is one of several gold prospects known from the Sabeto area of north-western Viti Levu. Mineralization is structurally controlled and is hosted by a series of sub-vertical veins, shallow dipping veins and stockworks. The main mineralized zone (Upper Ridges) comprises eleven principal lodes with a strike length in excess of 500m and a vertical depth of more than 300m (Figure 20). Another major zone of mineralization (Murau) strikes east-west and consists of two major lodes with a mapped strike length in excess of 400m. Although gold mineralization is primarily hosted in monzonite it can also occur in the volcanic units.

Lodes are narrow, generally less than 1 m up to a maximum of 7 m, and ore grades are erratic. Lode mineralogy is varied, with most veins containing quartz, pyrite, and base metal sulphides. A total of 39 different lode structures were identified in the resource area including 11 lodes in the Upper Ridges area, 3 lodes in the Murau area, 4 lodes in the West area, 2 lodes in the Tuvatu area and the stockwork veins in

the SKL area. A minimum of 5 intercepts are needed for a vein to be defined with a number of other lodes having been identified but remain to be further tested before inclusion in resource estimates.

Veins were identified as intercepts greater than 0.5 g/t Au, however due to the tight nature of the veins relatively few assays less than 1.0 g/t are incorporated. The low grade boundary allowed networks of narrow veins (1 mm to 200 mm wide) to be “bulked” into substantial vein intersections. In areas where the vein has propagated as a single thin veinlet assays as low as 0.3 g/t were incorporated as edge dilution, notably where veins/assay composites were less than 1m thick. Portions of the vein were selected based on lithology logs or interpreted strike extensions despite supporting assay data in these situations consisting of values below 0.3 g/t Au.

## DATA PREPARATION AND STATISTICAL ANALYSIS

Prior to a statistical analysis, grade domaining is normally required to delineate homogeneous areas of grade data, at Tuvatu the individual veins are assumed to represent sufficiently homogenous mineralisation. Statistical analysis does not take into account the spatial relationships of the data.

The purpose of statistical analysis is to define the main characteristics of the underlying grade distribution to assist with the geological and grade modelling work. This process is important as the statistics of the individual sample populations can influence how the grade data is treated and the application of the grade estimation techniques. For example highly skewed data may require special grade capping and indicator semivariogram analysis.

The drill hole database is stored in an MS Access relational database. The Tuvatu database is connected directly to Surpac for data display, vein compositing, wire-framing, unfolding, estimation refolding storing in a 3D block model.

Statistical analysis of the grade data was principally carried out using the Surpac™ Software package. Surpac™ was used to export composite drill hole data as a comma separated file (CSV) for importation into Supervisor™. More detailed spatial analysis (variograms) was conducted within Supervisor. The Supervisor package is an internationally recognised geological and mining software toolbox which incorporates geostatistical tools that can be used at all stages of the mining process from initial feasibility studies through to production control.

### Drill Hole Spacing

Drill hole data spacing is variable within each domain. Above 50 m RL the drill spacing in Upper Ridges (UR) is reasonably tight on a 25 m grid and below 50 m RL the drill spacing increases to approximately 50 m grid. UR western lodes are less well drilled. Development exists on UR2, UR5 and GRF veins. Murau veins are shallower and are generally drilled at 25 m spacing.

### Domains and Stationarity

A domain is a three-dimensional volume that delineates the spatial limits of a single grade population, has a single orientation of grade continuity, and is geological homogeneous and has statistical and geostatistical parameters that are applicable throughout the volume (i.e. the principles of stationarity apply). Typical controls that can be used as the boundaries to the domains include structural features, weathering, mineralization halos and lithology. Within the Tuvatu deposit individual veins were used to define the domain. It is understood that the average grade of veins vary along strike and down dip as a result of high grade shoots, which are controlled by search ellipses, variography, and the number of informing intercepts selected.

## Compositing

The two-dimensional technique used by MA to estimate resources at Tuvatu uses a single down-hole (or along channel) composite sample extracted from the drill hole database for each intercept within the vein. True thickness was calculated using the overall dip and dip direction of the vein. It is assumed that the grade of the vein at each location is the grade of the intercept thus reducing concerns of volume variance and negating the need for constant length samples. Scatter plots showed no correlation between grade and thickness, thus grade and thickness are treated as independent samples.

## Channel Samples

Channel samples were used to guide the location, grade and thickness of veins at surface. In areas of intense channel sampling or where channels were sampled twice only, one channel was selected to inform the estimate. The following are examples where one channel is selected.

- Channel 17 and 18 are parallel only channel 18 is used
- Channel 31 and 33 are parallel only Channel 33 is used

## Summary Statistics

Summary statistics for vein gold and thickness by area are presented in Table 12, Table 13, and Table 14. Informing sample grades (uncapped) for the upper ridges veins range from 2.16 g/t Au and 0.52 m for UR7 and 13.53 g/t and 4.65 m URW1 (Table 12), in the Murau Area veins range from 1.89 g/t Au and 1.95 m thick for Nasivi West to 3.74 g/t Au and 2.01 m thick for Snake vein (Table 13) and SKL veins have a very high vein at 23.36 g/t (Table 14).

**Table 12 - Summary Statistics for Upper Ridges Veins**

	Vein	GRF1	H1	T1	T2	UR1	UR1_A	UR2	UR4	UR5	UR6	UR7	UR8	URW1	URW2	URW3
Gold	Count	71	22	29	45	43	64	241	78.00	79.00	35.00	20.00	9.00	65.00	61.00	93.00
	Minimum	0.02	0.01	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.03	0.01	0.01	0.01
	Maximum	47.5	16.9	11.7	14.8	121.0	107.5	198.6	57.4	174.0	24.0	8.0	15.8	285.5	26.2	75.4
	Mean	8.17	3.49	3.15	3.64	7.38	7.10	7.41	5.47	7.67	3.32	2.16	5.28	13.53	2.73	8.02
	Median	3.12	2.02	2.55	2.48	2.28	3.35	2.51	1.84	2.12	1.80	0.83	2.70	1.85	0.68	2.61
	Std Dev	9.73	4.60	2.78	3.46	18.9	14.2	19.7	10.09	22.29	4.94	2.61	5.73	41.25	4.89	14.53
	CV	1.19	1.32	0.88	0.95	2.56	1.99	2.66	1.84	2.91	1.49	1.21	1.08	3.05	1.79	1.81
True Thickness	Count	68	22	29	45	44	62	237	78	80	35	22	9	67	57	89
	Minimum	0.04	0.09	0.09	0.08	0.09	0.00	0.11	0.01	0.07	0.01	0.13	0.02	0.01	0.15	0.07
	Maximum	3.45	4.59	6.24	6.18	5.58	3.93	6.24	4.52	2.66	2.07	1.35	0.57	4.65	4.50	5.81
	Mean	1.47	1.25	1.61	1.83	1.04	0.50	1.34	0.74	0.75	0.51	0.52	0.29	0.82	0.80	1.34
	Median	1.22	1.09	0.82	1.01	0.70	0.25	1.10	0.53	0.50	0.45	0.44	0.34	0.51	0.57	0.93
	Std Dev	1.09	1.03	1.75	1.76	0.99	0.70	1.04	0.74	0.62	0.37	0.34	0.17	0.95	0.74	1.26
	CV	0.74	0.83	1.08	0.96	0.95	1.40	0.78	1.00	0.82	0.73	0.66	0.59	1.15	0.93	0.94

**Table 13 - Summary Statistics for Murau Veins**

	Vein	M1	M2	M3	N1	N2	NV	NW	S1	S1_FW	S1_HW	SKL1
Gold	Number of samples	52	37	13	7	14	5	6	19	18	13	12
	Minimum	0.01	0.02	0.12	0.14	0.01	0.50	0.71	0.10	0.03	0.10	0.40
	Maximum	12.52	30.08	11.73	7.15	15.34	7.20	3.20	51.04	8.84	22.80	36.75
	Mean	2.61	2.71	3.74	3.51	3.01	2.48	1.89	7.57	2.52	6.19	8.47
	Median	1.66	1.39	2.31	3.36	1.22	1.68	1.89	3.74	1.28	3.71	5.37
	Standard Deviation	2.86	4.87	3.60	2.62	4.21	2.45	0.92	11.80	2.54	6.84	9.86
	Coefficient of variation	1.09	1.79	0.96	0.75	1.40	0.99	0.49	1.56	1.01	1.11	1.16
True Thickness	Number of samples	46	35	11	7	14	5	6	19	18	13	12
	Minimum	0.09	0.02	0.00	0.16	0.08	0.47	0.57	0.24	0.19	0.21	0.17
	Maximum	5.51	9.86	0.93	1.53	5.43	2.21	4.44	4.93	3.73	4.53	1.55
	Mean	1.35	1.37	0.37	0.86	1.28	1.33	1.95	2.01	1.33	1.66	0.64
	Median	0.77	1.33	0.32	0.93	0.86	1.27	1.70	1.56	0.97	1.02	0.58
	Standard Deviation	1.37	1.60	0.29	0.47	1.39	0.68	1.27	1.31	1.13	1.30	0.45
	Coefficient of variation	1.01	1.17	0.78	0.54	1.08	0.51	0.65	0.65	0.85	0.78	0.70

**Table 14 - Summary Statistics for SKL Veins**

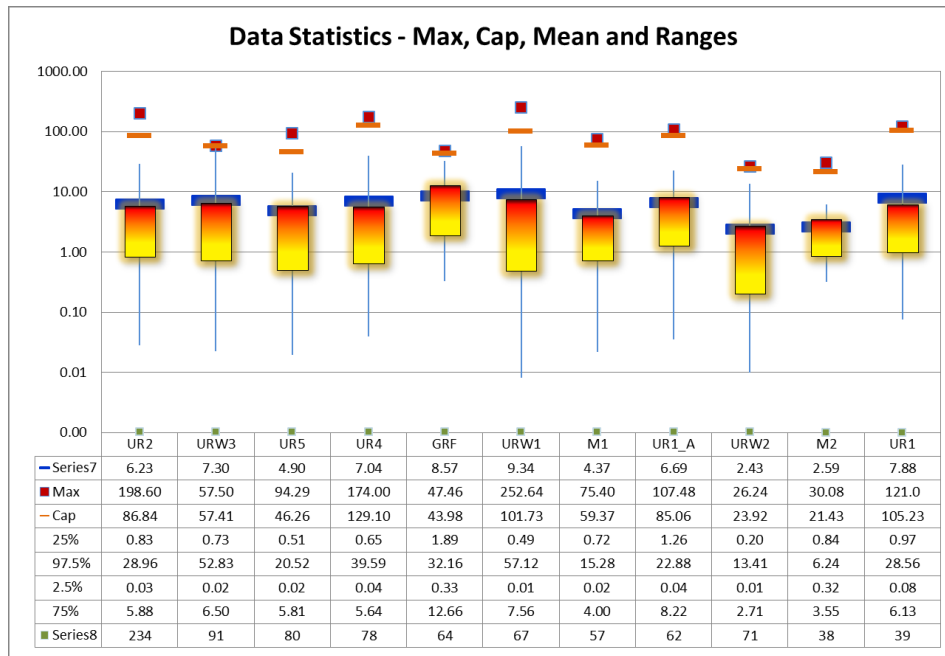
	Vein	M1	M2	M3	N1	N2	NV	NW	S1	S1_FW	S1_HW	SKL1
Gold	Number of samples	52	37	13	7	14	5	6	19	18	13	12
	Minimum	0.01	0.02	0.12	0.14	0.01	0.50	0.71	0.10	0.03	0.10	0.40
	Maximum	12.52	30.08	11.73	7.15	15.34	7.20	3.20	51.04	8.84	22.80	36.75
	Mean	2.61	2.71	3.74	3.51	3.01	2.48	1.89	7.57	2.52	6.19	8.47
	Median	1.66	1.39	2.31	3.36	1.22	1.68	1.89	3.74	1.28	3.71	5.37
	Standard Deviation	2.86	4.87	3.60	2.62	4.21	2.45	0.92	11.80	2.54	6.84	9.86
	Coefficient of variation	1.09	1.79	0.96	0.75	1.40	0.99	0.49	1.56	1.01	1.11	1.16
True Thickness	Number of samples	46	35	11	7	14	5	6	19	18	13	12
	Minimum	0.09	0.02	0.00	0.16	0.08	0.47	0.57	0.24	0.19	0.21	0.17
	Maximum	5.51	9.86	0.93	1.53	5.43	2.21	4.44	4.93	3.73	4.53	1.55
	Mean	1.35	1.37	0.37	0.86	1.28	1.33	1.95	2.01	1.33	1.66	0.64
	Median	0.77	1.33	0.32	0.93	0.86	1.27	1.70	1.56	0.97	1.02	0.58
	Standard Deviation	1.37	1.60	0.29	0.47	1.39	0.68	1.27	1.31	1.13	1.30	0.45
	Coefficient of variation	1.01	1.17	0.78	0.54	1.08	0.51	0.65	0.65	0.85	0.78	0.70

### Grade Capping

Capping is the process of reducing the grade of the outlier sample to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample grade minimises the overestimation of adjacent blocks in the vicinity of an outlier grade value. At no stage are sample grades removed from the database if grade capping is applied.

Veins with more that contain more than 50 intercepts were assessed for outliers, via histograms log probability plots and metal loss. Uncapped and capped summary statistics are graphically represented in Figure 2. Veins with less than 50 intercepts were consider unreliable representations of the distribution, and the grade cap was selected at the 97.5th percentile which often resulted in only one value being capped.

**Figure 2 - Box and Whisker Plot for Veins with more than 50 Intercepts**



## GRADE ESTIMATION

The drilling and channel data were examined using Surpac™ software package, using the MA proprietary Narrow Vein Modelling system.

The MA Proprietary System for Narrow Vein Modelling estimates the grades and true widths of veins. This is done in unfolded space using 5 m x and y grid spacing. The estimation area is extended beyond the outer data points by expansion of a fixed distance to create a boundary perimeter; the boundary is then smoothed with the result that the expansion is reduced to less than the target thickness at the extremities. The expansion distance is therefore a maximum, rather than a fixed value. The expansion for Tuvatu is maximum 20 m. Thickness at the extension boundary is set to 0.2 m.

Grade estimations are made using 5 different methods so that the results can be compared; these are Nearest Neighbour (capped), Inverse Distance Squared (capped), Ordinary Kriging (uncapped) and Ordinary Kriging (capped) and metal content (gram-metres). True widths are estimated directly using Ordinary Kriging (no capping).

One block model was created, covering the entire project. The final 3D block model utilised 10 m cubic blocks sub-blocked down to 0.625 m cubes.

## Methodology

MA Proprietary System for Narrow Vein Modelling was used which consists of the following steps.

1. **Database** – validation of the drill-hole database. Selection of down-hole composites lengths, for each vein.
2. **Intercept Selection.** The drill hole data is displayed in section and elevation slices showing assays. Intercepts are selected and coded for each vein based on the following selection criteria, in priority order;

- a. Grade – select intervals with a value above cut-off, in this case 0.5 g/t Au. Also, internal waste of < 0.3 g/t Au intervals and/or geologically continuous intervals just below cut-off may be included.
  - b. Continuity – waste (<0.5 g/t Au) values in the projected plane of continuity of a particular vein being modelled will be coded as that vein.
  - c. No assays but a “vein” lithology code in the expected location
3. **Basic Statistics and Upper Cuts.** The basic statistics of the vein composites for each vein are then examined using basic statistics for grades, true width and gram.metres (metal). The mean, median, standard deviation and variance are calculated for both normal and log-transformed data. A cumulative probability plot is prepared for each data set in both normal and log-transformed formats. Breaks in the plot indicating more than one population are highlighted and their spatial position relative to the total data set examined in 3D space. If more than one population is considered possible, the total population is decomposed into its component populations and these are highlighted again in 3D space. If a small high-grade population is indicated, and this cannot be physically domained from the remainder, then an estimate with an upper cut will be included in the resource estimates.
  4. **Unfolding and Variography.** The vein composites are unfolded into a single plane, such that NS striking veins are projected to the X axis, EW veins projected to the Y axis and flat veins projected to the Z axis. The original coordinates are stored in the model so the model may be refolded post estimation. Variography is then undertaken in this 2D space. Values for anisotropy and a variogram models are recorded for gold and thickness. Where no directional variograms are clearly determined (as commonly happens with less than 50 data points, or where the data is unevenly distributed) isotropic variograms were used or variograms from similar veins sets where utilised.
  5. **Unfolded Grid Model and Extension** – Generates a model of the vein centre using the coded intercepts, and estimates grades, vein true widths and gram.metres. This is done in unfolded space using selectable x and y grid spacings. The estimation area is extended beyond the outer data points by expansion of a fixed distance (in this case 20 m) to create a boundary perimeter, the boundary is then smoothed with the result that the expansion is reduced to less than the target expansion at the extremities. The expansion distance is therefore a maximum, rather than a fixed value. In extreme cases, say where the extension is based on a single drill hole, no extension will occur at all. Expanded wireframes are checked in 3D space to ensure the expansion does not intersect waste drill holes. The thickness of this boundary is set to 0.2m. This prevents an overflow of grade contours past the limits of estimation. The grade estimates are made using 5 different methods so that the results can be compared. These are Nearest Neighbour Capped, Inverse Distance Squared Capped, Ordinary Krige Uncapped and Ordinary Krige Upper Capped and gram.metre estimates. The true widths are estimated directly using Ordinary Kriging.
  6. **Minimum Width application and consequent Grade Dilution** – Every 10 x 10m block in unfolded space with a vein width (in the perpendicular direction to strike) less than 1.2m is set to a width of 1.2m. The grades for each block are then diluted according to the original width and waste grade ( 0.0 g/t), using the following formula:

$$Diluted\ Grade = \left[ grade \times \left( \frac{true\ thickness}{minimum\ thickness} \right) \right] + \left[ 0\ g/t \times \left( \frac{dilution\ thickness}{minimum\ thickness} \right) \right]$$

Blocks with a width greater than 1.2 m have no change. This dilution will raise the tonnes and reduce the grade of the model; however, the total ounces of gold will remain about the same. The process of applying a minimum width is to reflect the minimum mining width and apply an appropriate dilution where veins are thinner than the mining width.



7. **Refolding and True Width Correction** – The grid is re-folded to its original 3D position. This is done by replacing the unfolded coordinates with the stored real coordinates. Some smoothing of the surface using surface modelling algorithms (not geostatistics) is undertaken; this removes local spikes and steps due to clustering of data. Changes are small, generally less than half the grid spacing. The “slope” of the surface in 3D space relative to the 2D surface is then measured as a percentage gradient; this value is recorded as it is similar to that used in “Connolly Diagrams” (Schwartz 1986). The True Width value is then corrected using this factor. Note that “slope” value is measured at each node of the grid and is a function of the surface geometry; the more the surface moves from the projection plane the greater the correction – in effect an “auto-correction”. This is much better than using an average strike and dip for the surface (too general), a drill core measurement (too local) or geostatistics (too smoothed).
8. **Solid Creation** – The 3D centre plane of the vein is then converted to a closed 3D solid. Footwall and hanging wall surfaces are created by translating the 3D centre plane half the width of the vein to create footwall and hanging wall surface. These are then joined at the edge, which is a common boundary, to create a vein solid. If more than one vein is being estimated, then the interaction between the resultant solids is examined and portions of the minor veins removed via “clipping”.
9. **Block Model** – The volumes from the final closed 3D solids are used to flag blocks in the final 3D block model for each vein. The variables from the solids, including grades, widths, slope, kriging variance, number of informing samples, nearest drill hole name and distances, etc., are all stored in the block model. Each vein block is given a vein name and number.
10. **Bulk Density** – The bulk densities for each block below the topographical surface are set to a constant value.
11. **Missing Blocks** – blocks that are not present are flagged as air (above the original topography), pit (mined out in an open pit), stoped (removed by underground mining).
12. **Mineral Resource categories** – the resource categories are defined in long-section view for each vein, based on a combination of the number of informing samples, sample distances and kriging variance. The mineral resource categories are stored in the block model field.
13. **Validation** – The values within the block model are compared to the informing drill composites. Basic statistics for block model and drill composites are compared. Distributions of grades in space (by elevation and northing) are compared. Blocks nearest to drill holes are compared with the informing drill holes. The estimates using the different estimation methods are compared in total and above cut-off.
14. **Reporting** – the resource can be reported by resource category, by vein, by cut-off grades, by different methods (sensitivity to method and upper cuts), by elevation (tonnes per vertical m), by x and y dimensions.

### Block Model

The Tuvatu block model uses regular shaped blocks measuring 10 m x 10 m x 10 m (Table 24). The choice of the block size was patterned with the trend and continuity of the mineralisation, taking into account the dominant drill pattern and size and orientation of the veins. The orientation of the block model is normal to the direction of the local grid. To accurately measure the volume of the mineralized wireframe inside each block, volume sub-blocking to 0.625m cubes was used. Blocks above the topography were tagged and excluded from the model estimation.

### Informing Samples and Search Parameters

Informing samples are composited across the vein, providing a local average across the vein width before estimation. Using average grades across a vein requires careful consideration of the number of informing samples used to prevent over smoothing of the estimate. A minimum of one vein composite and a maximum of eight vein composites were permitted to inform a block. The number of samples per vein composites

depends on the thickness of the vein and the orientation of the drill hole to the vein. Search radii were found to be optimal at or near the distance that the variogram reached the sill. Thus the variogram ranges will be utilised in the maximum search distances. The isotropy apparent in the variogram analysis is reflected in the search ellipse. Only one pass was used to inform the blocks.

### Discretisation

The Krig estimate used a 4 x 4 x 4 discretisation (XYZ), giving discretisation nodes spaced evenly within the block, the projection plane direction has no thickness (2D unfolded space) thus one discretisation point is applied.

### Block Model Attributes

Interpreted mineralised veins were coded to the block model. Sufficient variables were added to allow grade estimation, resource classification and reporting. Blocks above the original topography were coded as air and not estimated. Blocks that have been mined were flagged in the final block model; these blocks were estimated for reconciliation purposes. To simplify and reduce the size of the block model several attributes were removed from the final model. Final block model attributes are defined in Table 15

Table 15 - Final Block Model Attributes

Attribute Name	Type	Background	Description
dist_near	Real	0	distance to nearest sample
gold_f_gm	Real	0	derived from g.m
gold_ids	Real	0	IDS value for gold uncut, diluted for min thickness
gold_krig_capped	Real	0	krig value for gold top c according to vein, diluted for min thickness
gold_krig_uncapped	Real	0	krig value for gold uncapped, diluted for min thickness
gold_nn	Real	0	gold value of nearest sample, diluted for min thickness
gold_undiluted_uncapped	Real	0	original gold krig uncapped value undiluted by minimum thickness
hole_id	Character	UNDF	name of nearest drill hole
hole_length	Real	0	length of nearest sample downhole
krig_var	Real	0	kriging variance
minimum_thickness	Real	0	horizontal width across whole vein set at a minimum
num_samp	Integer	0	number informing samples
silver_krig_capped	Real	0	krig value for silver top c according to vein, diluted for min thickness
silver_nn	Real	0	gold value of nearest sample, nearest neighbour
silver_undiluted_uncapped	Real	0	original silver krig uncapped value undiluted by minimum thickness
slope	Real	0	percentage gradient of the vein in 3D, capped at 300%
true_width	Real	0	true width across whole vein
vein_name	Character	UNDF	name of vein
x_width	Real	0	horizontal width across whole vein in x direction

### Validation

Block models were validated by visual and statistical comparison of drill hole and block grades and through grade-tonnage analysis. Initial comparisons occurred visually on screen, using extracted composite samples and block models.

Alternative estimation methods were utilised to ensure the krig estimate was reporting a global bias, such as nearest neighbour and ID2 and back calculated grades from grams x m (g.m) estimates. The alternate estimates provided expected correlations. Nearest neighbour shows less tonnes and higher grade as it does not employ averaging techniques to assign the block grade. The ID2 estimate is closer to kriging as it does use averaging weighted by distance, but cannot assign anisotropy nor have the ability to decluster the input data. The gold grades back-calculated from g.m appeared over smoothed, a likely consequence of using the thickness variogram for both g.m and thickness. The ordinary krig estimate is the most reliable due to the ability of kriging to decluster data and weight the samples based on a variogram (which incorporates anisotropy).

Vein thickness estimates are particularly troublesome for veins sets not striking north-south, east-west or flat, such as the Nasivi vein and Snake vein sets (“flatmakes”). These vein sets are oblique and shallow to moderately dipping, and informed by very few intercepts, one of which is usually thicker and high grade. These veins are over estimated in thickness and represent a small fraction of the overall tonnes. Thickness capping could have been applied to these vein sets to limit overestimation, but the low number of samples made assessment of caps difficult, the estimated grades within these shallower dipping veins appears reasonable.

Reflecting the uncertainty in estimation, Nasivi veins are classified as Inferred. T2 and H1 are oblique veins but are steeply dipping thus the vein thickness is better estimated, but do show some overestimation. Using rotated block models would be a solution to the problem of calculating true thickness, however a compromise of block model orientation had to be reached as one un-rotated model is required for mining optimisation.

MA recommends further work (drilling) targeting oblique veins, such as Nasivi, Snake and Tuvatu lodes. At the completion of drilling the significance of the vein size should be assessed. If these veins become sufficiently large, a rotated block model should be considered to better enable the estimation of thickness, or a cap should be applied to the thickness estimate.

MA highlights a high grade shoot defined in URW1. There is evidence for shoots within this lode but not as high grade as the two intercepts 100 g/t and 252 g/t Au might suggest, the supporting intercepts, (19.78 and 81.90 g/t Au) provide guidance on the size and potential grade. This vein is only 0.73m wide on average, thus dilution will be a major factor in the final grade. Currently a minimum mining width of 1.2 m with 0 g/t Au dilution has been applied to the model. Only the top of this high grade shoot is classified as Indicated.

#### ECONOMIC CUT-OFF PARAMETERS

Resources have been reported above a 3 g/t Au cut-off assuming potential underground mining of veins with narrow widths from 1 m to 8 m. The assumed mining method is Shrinkage stoping or hand held miners: both methods are selective mining methods ideal for high grade, steeply dipping narrow deposits. Selective mining will maximize recovery and minimize dilution. An advantage of a shrinkage operation is that no back fill is required. The average stope parameters are 60 m long x 60 m tall x vein thickness. Assumed required head grade is 5.0g/t Au and as is shown in Figure 14.7 the average head grade above a 3g/t cut-off is 8.17 g/t in the Indicated resource. It is assumed low grade ore (<5g/t) mined during development will be stock piled.

The global resource reported above various cut off is presented in Table 16, at the higher cut off for all material of 3 g/t Au there is an Indicated resource of 1,120,000 tonnes at 8.17 g/t Au for 294,000oz and an Inferred resource of 1,300,000 tonnes at 10.6 g/t Au for 445,000 ounces of Au.

Table 16 - Tuvatu Resource Reported at Various Cut-offs

Cut-Off g/t	Indicated			Inferred		
	material (t)	Au (g/t)	Au (oz)	material (t)	Au (g/t)	Au (oz)
1.0	1,933,000	5.52	342,900	2,589,000	6.4	524,500
2.0	1,442,000	6.90	319,700	1,903,000	8.1	492,900
3.0	1,120,000	8.17	294,000	1,300,000	10.6	445,000
5.0	689,000	10.80	239,300	793,000	15.0	382,100

The reporting of tonnages and grade figures reflects the relative uncertainty of the estimate, and rounding to the appropriately significant figures have been reported, some discrepancy in the addition of rounded figures may occur.

## ASSUMPTIONS FOR 'REASONABLE PROSPECTS FOR EVENTUAL ECONOMIC EXTRACTION'

Assumptions for reasonable prospects for eventual economic extraction applied to this deposit include but may not be limited to the following:

- Gold pricing at US\$1324.75, 12mth average to April 2014 (Kitco.com)
- Assumed open pit mining costs of \$1.60 per tonne;
- Assumed underground mining costs of \$40.00 per tonne;
- Assumed processing costs of \$20.00 per tonne;

Material below 75 m of the surface is considered amenable for underground mining, either hand held or shrinkage mining. Underground mining costs are higher and require a higher cut-off grade. A cut-off of 3 g/t Au is considered reasonable based on similar small scale underground operations.

### BULK DENSITY

A total of 1955 bulk density measurements were reported from drill hole core at Tuvatu, with an average reported bulk density of 2.61 t/m<sup>3</sup> (Table 31). The statistical average of the bulk density measurements is assigned to all lithologies for this mineral resource estimate. This is lighter than the bulk density used in the 1998 NI43-101 (A-Izzeddin 1998) of 2.83 t/m<sup>3</sup> based on 171 samples.

Bulk density data is stored in the drill hole database with a rock type code associated with each reading, the majority of material is logged as either monzonite (MZ) or medium grained monzonite (MMZ) each reporting average densities of 2.61 t/m<sup>3</sup> and 2.62 t/m<sup>3</sup> respectively. Mineralised samples are likely to be from vein breccia (VBX) or unaltered veins (UV) with a density of 2.58 t/m<sup>3</sup> and 2.50 t/m<sup>3</sup> respectively.

### MINING STUDY

The Study considered Indicated and Inferred Mineral Resources. There are no Measured Mineral Resources. Inferred Mineral Resources comprise 55% of the projected mined tonnes and 63% of the projected contained ounces in the mine plan developed in the Study.

The Study is based on a metal price of US\$1,200/oz gold.

Due to the high amount of Inferred Mineral Resources in the mine plan and the preliminary nature of the Study, no Mineral Reserves are reported.

There are four main zones contained in the Mineral Resource model. Snake/Murau zone is steep-dipping and strikes east-west. The Tuvatu zone is steep-dipping and strikes north-west by south-east, and is located north of the Coreshed Fault. The SKL zone is flat-dipping. The Upper Ridge zone is steep-dipping, striking north-south and contains over 80% of the conceptual mined gold.

### Geotechnical

The geotechnical study involved data processing from 21 resource drill-holes followed by an empirical analysis for underground designs.

No site visit was undertaken by the geotechnical engineer, and no dedicated geotechnical holes have been drilled.

Anticipated ground conditions can be described as "fair" to "very good". The majority of ground can be characterized as "good".

Very limited information is available on hydrogeology. The rock mass itself, particularly in the fresh rock exposed in the Upper Ridge zone, is impermeable and dry. Significant water inflows are reported from a major fault, the Coreshed Fault, located on the northern end of the mineralization.

The standard stoping panel size is based on a 60 m level interval and 60 m strike length. Sill pillars between the stope panels should be at least 6 m high.

The recommended standard ground support for development drives in good ground is friction bolts installed on a regular pattern. Areas where ground conditions are blocky will require surface support. Welded wire sheet mesh is recommended as the standard surface support in these areas. Larger spans are formed at the intersection of development drives. In these areas deeper anchorage for ground reinforcement using 6 m cable bolts is recommended.

Developing through and in the vicinity of the Coreshed Fault is expected to be challenging and require heavy ground support.

AMC has identified the presence of smectite (swelling clay) associated with mineralization. If present in sufficient quantities, this may adversely affect the mineralized material draw in shrinkage stoping panels. As the broken material forms the working platform for stoping activities, the presence of clay could lead to 'false floors' and pose a significant safety risk to personnel. AMC strongly advises that additional analysis be undertaken to understand the true extent, occurrences and the impact of the swelling clay.

## **Underground**

Mine access will be via a main decline located in the footwall, with a gradient of 1:7 and dimensions of 4.5 mW x 4.5 mH. Access to the mineralization will be made from two declines from surface and internal declines. Two ventilation raises to surface are included.

Level access drives are designed at 4.0 mW x 4.0 mH and draw-points at 3.5 mW x 4.0 mH. These dimensions enable use of medium-sized loaders for improved productivity (width) and truck loading close to the stoping area.

The primary planned mining method is shrinkage stoping (air-leg method) with limited breast stoping (air-leg method) for flat dipping lodes.

Shrinkage stoping is a manual overhand method that relies on broken mined material being left in the stope to provide a 'working floor' and support the stope walls. Man and material access into the stope is from pre-developed raises. Production drilling is performed using air-legs (jack-legs). Mineral extraction is from crosscuts driven at closely spaced intervals into the bottom of the stope. During the mining cycle only 30% to 35% of the blasted material is extracted, equivalent to the broken swell factor. When mining to the top horizon is completed, the remaining material is extracted.

Breast mining is a method suitable for shallow-dipping orebodies of uniform narrow width and larger horizontal extent, usually represented in conglomerate gold reefs such as those mined in South Africa. This method is also used in flatter-lying lodes at the nearby Vatukoula mine. Material is extracted via a number of panels mined along strike from an initial raise line position, with drilling being accomplished using handheld rock drills. The blasted material is mucked using scrapers to slusher gullies and eventually to a muck-bay, from where it is loaded onto trucks and hauled out of the mine.

## **Schedules**

The conceptual underground mineralization mining schedule is shown in Table 17. Indicated Mineral Resources comprise 45% of the material based on tonnes, and 37% of the material based on gold ounces.

**Table 17 - Conceptual mining schedule**

Item	Unit	Year								Total
		-1	1	2	3	4	5	6	7	
<b>Underground</b>										
<b>Indicated</b>										
Tonnes	kt	16.3	68.9	65.7	61.9	75.6	111.2	93.6	12.4	505.6
Grade	g/t Au	7.31	13.60	12.99	9.15	8.01	7.04	7.31	6.18	9.15
Contained ounces	koz	3.9	31.5	28.5	18.7	19.8	25.4	22.4	2.5	152.7
<b>Inferred</b>										
Tonnes	kt	5.7	71.6	106.3	136.4	121.3	85.8	73.5	19.2	619.9
Grade	g/t Au	6.53	18.05	17.96	16.60	8.70	7.07	7.39	7.33	12.66
Contained ounces	koz	1.3	42.4	62.8	73.3	34.4	19.6	17.9	4.5	256.3
<b>Indicated and Inferred</b>										
Tonnes	kt	22.0	140.5	172.0	198.3	196.8	197.0	167.2	31.7	1,125.5
Grade	g/t Au	7.38	16.36	16.49	14.44	8.57	7.11	7.49	6.87	11.30
Contained ounces	koz	5.2	73.9	91.2	92.1	54.3	45.0	40.3	7.0	409.0

The tonnage/grade estimates that comprise the conceptual production schedule do not represent estimates of Mineral Reserves. Values may not compute exactly due to rounding

## Costs

All costs are expressed in US dollars (US\$).

Mining costs are based on:

- Owner underground mining.
- Owner management and technical services.
- Costs have been estimated using:
  - Current supplier quotation.
  - Lion One supplied inputs, including equipment costs, personnel costs and key consumables.
  - Recent AMC information.

Allowance for minor items on the basis of AMC database information or experience.

The estimated underground costs total US\$123M, comprising of US\$31M capital and US\$92M operating, with an average estimated operating cost of US\$82/t of mineralized material produced. The underground owner mining operating cost estimate was prepared from first principles.

Underground mining capital costs include:

- Purchase of the mining fleet.
- Rebuilds (major overhaul) of the mining fleet.
- Capital lateral development.
- Capital vertical development.
- Underground infrastructure.

The mining operations are envisaged as being supported by a technical services department. Costs for this department are allocated to underground capital and operating mining based on the cost ratio of these areas.

## MINERAL PROCESSING AND METALLURGICAL TESTING

A total of nine metallurgical testwork campaigns have been undertaken on variability samples, composites and bulk samples from the Tuvatu mineralized lodes. The mineralogy indicates a bimodal distribution of the gold particles and due to the variability in the test work results; gold recovery would potentially be more

efficient by adopting a flowsheet with a combination of gravity, flotation and leaching. Comminution characteristics suggest that the mineralized material is relatively competent, requiring comparatively more crushing and ball milling energy to effect the size reduction required.

The gold recovery is based on variability results from samples with >3g/t Au head grade, in an effort to be representative of the resource and potential mill feed grades. This approach was found to be conservative; as to include the lower grade material increased the overall recovery result. Due to only one test being undertaken on leaching the flotation tails, returning a recovery of 75.3%, the leach stage recovery from the gravity/leach variability tests, from two campaigns was used to predict the variable leach response in the flotation tails CIL circuit. This brought the recovery for the flotation tails CIL circuit to 56.9%.

A gold recovery balance was then undertaken using the Metcon Laboratories Pty. Ltd. gravity/flotation/concentrate leach variability results, in order to calculate the gold that would be potentially recovered with the selected process flowsheet. The median gold recovery using this approach was 86.8%, which was decreased by 0.5% to account for solution losses that will typically occur in the commercial plant. This PEA recovery value of 86.3% is calculated only from consideration of the variability leach results and assumes that the samples tested are moderately representative of the ore to be mined, but at this level of study, does not weight the results based on proposed mine plan.

The processing facility flowsheet has been selected based on the criteria defined by the mineralogical characteristics of the mineralized material and metallurgical testwork undertaken to date. The comminution facility is a conventional two-stage crushing and screening circuit, followed by two-stage grinding to achieve a target grind P80 of 75µm. The grinding circuit, which includes gravity recovery, then feeds flotation where a sulphide concentrate is produced and reground to 20µm prior to entering the Carbon-In-Leach (CIL) circuit. Both the flotation tails and concentrate are leached, with the concentrate CIL tails recirculating to the feed of the flotation tails CIL circuit, the combined discharge being pumped to detoxification and tails deposition.

The process facility is designed with a nominal capacity of 219,000tpa for a nominal design rate of 600tpd based on an overall availability of 91% with a life of mine average feed grade of 11.3g/t Au. The plant is designed to operate 365 days/year, 24 hours/day. The crushing circuit is designed with a mechanical equipment availability of 75%, however it has been sized to process 1000tpd to accommodate any future expansion.

The proposed process plant will include the following unit operations:

- Primary Crushing – A dump pocket, vibrating grizzly and jaw crusher in open circuit producing a final product of 80% passing 105 mm.
- Secondary Crushing - A vibrating double deck screen and cone crusher operating in closed circuit.
- Primary Grinding – A ball mill in open circuit producing a final product of 80% passing 1000µm.
- Secondary Grinding – A ball mill in closed circuit with hydrocyclones producing a final product of 80% passing 75µm.
- Gravity Concentration – Gravity concentration of cyclone underflow from the secondary milling circuit to produce a gold concentrate for tabling, followed by direct smelt.
- Flotation – Sulphide flotation of the hydrocyclone overflow to produce a gold concentrate for regrinding.
- Regrinding – A regrind mill fed by open circuit hydrocyclones producing a final product of 80% passing 20µm.
- Thickening - Both the flotation tails and concentrate are thickened to 50% solids prior to regrinding and leaching.
- Carbon-in-leach (CIL) – Gold leaching of the flotation tails and reground concentrate through the two CIL circuits, where absorption of solution gold onto carbon particles occurs. Leaching is facilitated by oxygen and air.
- Cyanide Detoxification – Detoxification of cyanide slurry via the SO<sub>2</sub>/Air process with addition of copper sulphate, to produce tailings with a target of <1ppm CNWAD (Weak Acid Dissociable) and disposal of detoxified tailings in the conventional tailings storage facility.

- Absorption, Desorption, and Refining (ADR) – The absorption occurs in the CIL circuit, acid wash of carbon to remove inorganic contaminants, elution of carbon to produce a gold rich solution for electrowinning (sludge production), filtration, drying, and smelting to produce gold doré, and thermal regeneration of stripped carbon to remove organic contaminants.

At the preliminary level of this study, test work results, industry data and assumptions have been used to make reasonable estimates for equipment sizing. These inputs will be reviewed in the next phase of engineering. The design criteria include the calculations or information basis for each piece of major equipment.

Process plant tailings will be pumped to a tailings storage facility (TSF). Geochemical testing of the tailings has not yet been undertaken, but on review of the data available, it has been predicted by Knight Piesold that the tailings will likely be potentially acid generating (PAG), however there is no information pertaining to the neutralization potential (NP) of the mineralized material, so for this study, storage of the tailings in a sub-aqueous facility is proposed to prevent oxidation of the solids

### **Processing and G&A**

The process operating cost or expenditure (OPEX) of the project has been estimated based on the scope defined in this report and is based on a variety of sources including cost service data, vendor quotes, first principle calculations, metallurgical testwork and reference projects.

Plant operating costs have been determined at \$43.8/t milled, for a facility with a nominal throughput of 219,000tpa at a grind size of 80% passing 75 µm, based on a 24 hour per day operation, 365 days per year and a 91% overall plant availability.

The G&A costs include provisions for office administration, potable water supply and treatment, non-process related and off-site power costs, insurance, HSEC equipment and related stakeholder engagement costs, contracts for IT, site security, bussing, off-site road maintenance, running costs associated with the site mobile equipment fleet, site fuel costs, PPE supplies and laboratory consumables. Costs associated with business travel and training have been allowed, as well as for ongoing use of consultants.

The G&A costs for the supporting facilities and administration are estimated to be \$13.75/t milled. These costs are assumed to consist of both fixed and partially variable, changing to reflect the plant operations.

Operating and G&A costs are summarized in and are considered to have an accuracy of +30 / -10%.



**Table 18 - Process and G&A OPEX Summary**

Description	\$/year	\$/t (milled)
Labour	415,257	1.9
Power	2,666,880	12.18
Consumables - subtotal	5,001,263	22.84
<i>Reagents</i>	4,561,989	20.83
<i>Liners</i>	323,867	1.48
<i>Media</i>	115,408	0.53
Maintenance	1,021,576	4.66
Miscellaneous (e.g. Laboratory)	493,718	2.25
<b>Total Process Operating Cost</b>	<b>9,598,696</b>	<b>43.83</b>
G&A Labour	351,409	1.6
G&A Expenses	2,659,616	12.14
<b>Total G&amp;A Operating Cost</b>	<b>3,011,025</b>	<b>13.75</b>
<b>Total Operating Cost</b>	<b>12,609,721</b>	<b>\$57.58</b>

## ECONOMIC ANALYSIS

### Financial Projections

A discounted cash flow model was prepared based on the mining schedule and estimated capital and operating costs. The early mine operating costs (pre-production) are capitalised. The current mining schedule results in a period of low production towards the end of the current mine life from the shrink stoping areas. This results in disproportionately high operating costs for this period. Low grade stockpiles are not accounted for in this study and will be used to supplement throughput towards the end of the mine life (as currently defined) and will improve the project returns.

At a gold price of US\$1,200 per ounce (advised by Lion One), the project is estimated to have a before-tax IRR of 67.1% and a pay-back period of 1.25 years after start of production. At a discount rate of 5%, the before-tax NPV is estimated at C\$116.99 million.

A sensitivity analysis on the financials indicates that the project is most sensitive towards gold price, followed by the project capital cost.

**Table 19 - Project Production Summary**

	Basis of Estimate	
Total ore mined and processed	1,125,548	t (dry)
Average head grade	11.30	g Au/t ore
Contained gold in mined ore	408,958	oz Au
Recovered gold	352,931	oz Au
Average gold recovery	86.3	%
Production mine life	6.16	years
Nominal production rate	219,000	t/y
Average annual production	182,802	t/y
	57,320	oz Au/y

**Table 20 - Project Cash Flow Summary**

	Project US\$ Million	US\$/t ore*	US\$/oz Au**
Mine operating cost	86.11	76.50	243.98
Processing cost	49.33	43.83	139.78
Exploration costs	1.73	1.53	4.89
General and Administration cost	21.94	19.49	62.16
Smelting and Refining cost	0.85	0.75	2.40
<b>Subtotal Cash Operating Cost</b>	<b>159.95</b>	<b>142.11</b>	<b>453.21</b>
Royalties and Export Taxes	40.23	35.75	114.00
<b>Total Cash Operating Cost</b>	<b>200.19</b>	<b>177.86</b>	<b>567.21</b>
<b>Revenue</b>	<b>423.52</b>	<b>376.28</b>	<b>1,200.00</b>
Total Cash Cost	200.19	177.86	567.21
<b>Operating Cash Flow (EBITDA)</b>	<b>223.33</b>	<b>198.42</b>	<b>632.79</b>

\* Basis is LOM tonnes

\*\* Basis is recovered not contained ounce

**Table 21 - Project Financial Measures Summary**

Basis of Estimate		
Revenue from gold (based on US\$1,200/oz)	423.52	US\$ M
Total cash cost excluding royalties	453.21	US\$ / oz Au
Total cash cost (including royalties)	114.00	US\$ / oz Au
All-in cost	778.60	US\$ / oz Au
Capital expenditure (Life-of-Mine)	74.60	US\$ M
Initial capital investment (excl working capital)	48.60	US\$ M
Peak funding	55.83	US\$ M
Deferred and sustaining capital	25.10	US\$ M
Closure Cost	0.90	US\$ M
<b>Pre-Tax Economics</b>		
Free cash flow after cost allocation (undiscounted)	148.73	US\$ M
Internal rate of return (IRR)	67.1	%
Project NPV (discounted at 5.0%)	116.99	US\$ M
Payback period	1.50	years
<b>After-Tax Economics</b>		
Free cash flow after cost allocation (undiscounted)	112.54	US\$ M
Internal rate of return (IRR)	52.3	%
Project NPV (discounted at 5.0%)	86.54	US\$ M
Payback period	1.50	years

## RECOMMENDATIONS

The following recommendations have been made as a result of this study. Individual recommendations have been made by each consultant based on the technical data on the Tuvatu Gold Project.

### General

- Exploration work to be ongoing, both surface channel sampling and mapping, particularly in areas where veins outcrop, and areas which may be amenable to open pit mining.

- As Lion One develops a mine at the Tuvatu Project, exploration drilling would continue to expand the current identified resources present.

### Underground

The use of shrinkage stoping should be reviewed at the next project stage. Whilst it provides lower dilution compared to mechanized methods, it also has a slower production rate, and the majority of the production material is locked up in the stope until the stope is completed. Shrinkage stoping must also be assessed from the personnel safety point of view, and particularly for the potential hazard associated with swelling clays, which can also lead to broken material locked up in stopes.

The method of developing the longer vertical raises should be further considered. Two methods are available: raise-boring or Alimak, with Alimak assumed for the study. Raise-boring has advantages of safety and speed of excavation but would require the regular mobilization of a raise-boring machine from Australia or New Zealand, which would incur a significant mobilization cost.

### Recovery methods

In the next phase of study, metallurgical samples from the veins in the first 3 years of operation should be included in any testwork programs to better define the precious metal recoveries through this period. The flowsheet proposed in the current study will also need to be confirmed.

Engineering work should include:

- Updated design criteria
- Detailed mass and process water balance calculations
- Equipment sizing and specifications
- Detailed operational and capital cost estimates
- Updated flow sheets for each unit operation

Through each test work campaign, a number of recovery improvement programs were conducted in an effort to explain the variable recoveries, however no conclusive reason was evident.

The samples with lower gold recoveries (higher leach residue grades), generally have relatively higher sulphur grades, but a relatively higher sulphur grade does not always result in lower recoveries.

With this in mind, the following metallurgical testwork programs are recommended moving forward:

- A more comprehensive mineralogical study, including gold deportment, in an attempt to characterize the gold association variability.
- Additional crushing and grinding work indices through the different lodes,
- BWi, CWi, abrasion testing
- More detailed GRG work with vendors,
- Flotation testwork, (reagent selection, variable optimization, lock-cycle),
- Flotation Tailings and Concentrate regrind / leach characterizations,
- Aeration and leaching optimization,
- Thickening testwork,
- Cyanide detoxification testwork based on optimized process,

## EXPLORATION AND DEVELOPMENT

The Company is currently contemplating several phases of work on the Tuvatu Project. The first phase of work includes both dewatering and refurbishment of the existing decline, which accesses mineralization targeted for development in the initial years of the proposed mine plan in the Technical Report. The Company has previously conducted water inflow studies and has also recently renewed the dewatering license it first received in 2011.

The second phase of proposed underground work includes the development of a new western portal and 500 meter decline to be driven into the central mineralized zone of the Tuvatu resource.

Mineralization targeted in the first two years of the proposed mine plan can be accessed from the existing decline, and as a result, its immediate dewatering and refurbishment has been recommended to minimize development costs during the early stages of the project.

Surface work will be carried out by Lion One Limited staff in Fiji, with the help of several domestic contractors. The development of the second decline will be undertaken using experienced miners within Fiji.

## RISK FACTORS

### OVERVIEW

An investment in securities of Lion One is speculative and involves significant risks and uncertainties which should be carefully considered by prospective investors before purchasing such securities. The occurrence of any one or more of these risks and uncertainties could have a material adverse effect on the value of any investment in Lion One and the business, prospects, financial position or operating results of the Company. The risks noted below do not necessarily comprise all those faced by the Company. Each risk factor identified below should, unless specifically referring to one or more of the mineral projects of the Company, be considered in the context of each mineral project of the Company and the Company as a whole. In addition to the other information set forth elsewhere in this Annual Information Form, including, without limitation, the financial statements and notes, prospective investors should carefully review the following risk factors:

Resource exploration is a speculative business and involves a high degree of risk. There is a significant probability that the expenditures made by the Company in the exploring its properties will not result in discoveries of commercial quantities of minerals. A high level of ongoing expenditures is required to locate and estimate ore reserves, which are the basis for further development of a property. Capital expenditures to attain commercial production stage are also very substantial.

The following sets out the principal risks faced by the Company:

#### *Lion One is subject to government regulation*

The Company's mineral exploration is, and any development activities will be, subject to various laws governing exploration, development, production, taxes, labour standards and occupational health, mine safety, environmental protection, toxic substances, land use, water use and other matters. Failure to comply with applicable laws and regulations may result in civil or criminal fines or penalties or enforcement actions, including orders issued by regulatory authorities curtailing the Company's operations or requiring corrective measures, any of which could result in the Company incurring substantial expenditures. No assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail exploration or development. The Company continues to work in conjunction with the Government of Fiji and its regulatory departments to ensure compliance and proactive measures are taken wherever possible. The management of Lion One

has experience working in the countries where the Company holds tenements and will work to be proactive in the face of any increased legal or political uncertainty.

***The Company is subject to regulatory risks.***

Exploration and development activities and mining operations are subject to laws and regulations governing health and worker safety, employment standards, environmental matters, mine development, prospecting, project development, mineral production, permitting and maintenance of title, exports, taxes, labour standards, reclamation obligations, heritage and historic matters and other matters. It is possible that future changes in applicable laws, regulations, agreements or changes in their enforcement or regulatory interpretation could result in changes in legal requirements or in the terms of permits and agreements applicable to the Company or its properties which could have a material adverse impact on the Company's current exploration program and future development projects. Where required, obtaining necessary permits and licenses can be a complex, time consuming process and there can be no assurance that required permits will be obtainable on acceptable terms, in a timely manner or at all. The costs and delays associated with obtaining permits and complying with these permits and applicable laws and regulations could stop or materially delay or restrict the Company from proceeding with the development of an exploration project or the operation or further development of a mine. Any failure to comply with applicable laws and regulations or permits, even if inadvertent, could result in interruption or closure of exploration, development or mining operations or fines, penalties or other liabilities.

***Lion One will require various permits to enable it to conduct its current and anticipated future operations.***

The Company's current and anticipated future operations, including further exploration and development activities and the commencement of production from the Company's portfolio of exploration and evaluation assets in Fiji, Australia and Argentina require the granting of the necessary permits from various federal and local authorities. The granting, continuing validity and enforcement of the terms of such concessions and permits are, as a practical matter, often subject to the discretion of the applicable governments or government officials. There can be no assurance that all concession and permits that the Company requires will be obtainable on reasonable terms, or at all, or will continue to be valid. Further, delays or failure to obtain such concession and permits, the withdrawal, expiry or non-renewal of existing concessions and permits, or failure to comply with the terms of such concessions and permits could have a material adverse impact on the Company.

The Company's 5 special prospecting licenses in Fiji have been granted by the Fijian government. During the year ended June 30, 2015, the Company received notice its application for a Special Mining License for the Tuvatu Gold Project had been approved. The Company has complied with all requests from the MRD and associated governmental organizations. The Company works with its Fijian stakeholders on an on-going basis to ensure the successful grant of all required permits. Changes in government personnel can cause procedural delays and additional requests.

***There is no assurance that the Company's title to its mineral properties will not be challenged.***

The acquisition of title to mineral properties is a very detailed and time consuming process. Title to and the area of mineral properties may be disputed. While the Company has diligently investigated title to its mineral properties and has received a title opinion with respect to the Tuvatu Gold Project, this should not be construed as a guarantee of title to any of the Company's mineral properties. The Company's mineral properties may be subject to prior unregistered agreements or transfers and title may be affected by undetected defects. The Company has not surveyed the boundaries of all of its mineral properties and consequently the boundaries of the properties may be disputed. The Company's mineral properties may also be subject to prior unregistered agreements of transfer or aboriginal land claims, and title may be affected by undetected defects.

***Mining operations involve a high degree of operational risk.***

Lion One's operations will be subject to all the hazards and risks normally encountered in the exploration, development and production of gold, iron ore and uranium, including, without limitation, unusual and unexpected geologic formations, seismic activity, rock bursts, pit wall failures, cave ins, flooding and other conditions involved in the drilling and removal of material, any of which could result in damage to, or destruction of, mines and other facilities, damage to life or property, environmental damage and legal liability. Milling operations are subject to various hazards, including, without limitation, equipment failure and failure of retaining dams around tailings disposal areas, which may result in environmental pollution and legal liability.

***The Company is subject to a number of inherent exploration, development and operating risks.***

Lion One is a development stage Company engaged in mineral exploration and development. Mineral exploration and development is highly speculative in nature and involves many risks and is frequently not economically successful. Increasing mineral resources or mineral reserves depends on a number of factors including, among others, the quality of a Company's management and their geological and technical expertise and the quality of land available for exploration.

Once mineralization is discovered it may take several years of additional exploration and development until production is possible during which time the economic feasibility of production may change. Substantial expenditures are required to establish proven and probable reserves through drilling or drifting, to determine the optimal metallurgical process and to finance and construct mining and processing facilities. At each stage of exploration, development, construction and mine operation various permits and authorizations are required. Applications for many permits require significant amounts of management time and the expenditure of substantial amounts for engineering, legal, environmental, social and other activities. At each stage of a project's life delays may be encountered because of permitting difficulties. Such delays add to the overall cost of a project and may reduce its economic viability. As a result of these uncertainties, there can be no assurance that a mineral exploration and development Company's programs will result in profitable commercial production.

Companies engaged in mining activities are subject to all of the hazards and risks inherent in exploring for and developing natural resource projects. These risks and uncertainties include, but are not limited to, environmental hazards, industrial accidents, labour disputes, increases in the cost of labour, social unrest, fires, changes in the regulatory environment, impact of non-compliance with laws and regulations, encountering unusual or unexpected geological formations or other geological or grade problems, unanticipated metallurgical characteristics or less than expected mineral recovery, encountering unanticipated ground or water conditions, cave ins, pit wall failures, flooding, rock bursts, periodic interruptions due to inclement or hazardous weather conditions, earthquakes, seismicity, natural disasters and other acts of God or unfavourable operating conditions and losses. Should any of these risks or hazards affect a Company's exploration, development or mining activities it may: cause the cost of development or production to increase to a point where it would no longer be economic to produce metal from the Company's mineral resources or expected reserves; result in a write-down or write-off of the carrying value of one or more mineral projects; cause delays or stoppage of mining or processing; result in the destruction of mineral properties, processing facilities or third party facilities necessary to the Company's operations; cause personal injury or death and related legal liability; or result in the loss of insurance coverage — any or all of which could have a material adverse effect on the financial condition, results of operations or cash flows of the Company.

***The Company's potential profitability is partly dependent upon factors beyond the Company's control.***

As with other enterprises in the mining industry, the Company's mineral exploration and development related activities are subject to conditions beyond the Company's control that may impact upon the potential profitability of its mineral projects. For instance, world prices of and markets for minerals are unpredictable, highly volatile, potentially subject to governmental interference, currency pegging and/or controls and

respond to changes in domestic, international, political, social and economic environments. Another factor is that a decline in the market price of metals including gold, iron ore and/or uranium could also have a material adverse impact on the ability of the Company to finance the exploration and development of its existing projects.

Profitability will also depend on the costs of operations, including costs of labour, equipment, electricity, environmental compliance, diesel prices, cost of sulphuric acid and other production inputs, the discovery and/or acquisition of additional mineral reserves and mineral resources, the successful conclusion of feasibility and other mining studies, access to adequate capital for project development and sustaining capital, design and construction of efficient mining and processing facilities within capital expenditure budgets, securing and maintaining title to concessions and other mining rights, obtaining permits, consents and approvals necessary for the conduct of exploration, development, construction and production, the ability to procure major equipment items and key consumables in a timely and cost-effective manner. Such costs will fluctuate in ways the Company cannot predict and are beyond the Company's control, and such fluctuations will impact on profitability and may eliminate profitability altogether. Additionally, due to worldwide political and economic uncertainty, the availability and cost of funds for development and other costs have become increasingly difficult, if not impossible, to predict. These changes and events may materially affect the Company's financial performance.

***The Company has limited operating history and the Company is expected to continue to incur losses.***

The Company has a limited operating history in the mineral exploration and development business and there can be no assurance that the Company will ever be profitable.

***The Company has no history of mineral production.***

The Company currently has no advanced exploration projects other than the Tuvatu Gold Project. The Tuvatu Gold Project is an exploration project that has no operating history upon which to base estimates of future cash operating costs, future capital spending requirements or future site remediation costs or asset retirement obligations.

***The Company's properties, including the Tuvatu Gold Property, may not be brought into a state of commercial production.***

Development of mineral properties involves a high degree of risk and few properties that are explored are ultimately developed into producing mines. The commercial viability of a mineral deposit is dependent upon a number of factors which are beyond the Company's control, including the attributes of the deposit, commodity prices, government policies and regulation and environmental protection. Fluctuations in the market prices of minerals may render resources and deposits containing relatively lower grades of mineralization uneconomic. There is no assurance that the Company's mineral exploration activities will result in the discovery of a body of commercial ore on any of its properties, including the Tuvatu Gold Property, and several years may pass between the discovery of a deposit and, if at all, its exploitation. Most exploration projects do not result in the discovery of commercially mineable mineralized deposits.

***The Company's resource estimates are based on interpretations and assumptions and may yield less mineral production under actual conditions than is currently estimated.***

Mineral resource estimates for development projects are, to a large extent, based on interpretations of geological data obtained from drill holes and other sampling techniques. There is significant uncertainty in any mineral resource estimate and the actual deposits encountered may differ materially from the Company's estimates. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

Estimated mineral resources are periodically recalculated based on changes in prices of mineral products, changes in expected operating and capital costs and asset retirement obligations, further exploration or development activity or actual production experience. Such recalculations could materially and adversely affect estimates of the volume or grade of mineralization or other important factors which influence mineral resources.

The inclusion of mineral resource estimates should not be regarded as representation that these amounts can be economically exploited and no assurance can be given that such resource estimates will be converted into mineral reserves.

***The Company's properties contain no known mineral reserves.***

All of the Company's properties are in the exploration stage, meaning that the Company has not determined whether such properties contain "mineral reserves". Only those mineral deposits that the Company can economically and legally extract or produce, based on a comprehensive evaluation of cost, grade, recovery and other factors, are considered mineral reserves. The resource estimates contained in the PEA are inferred and indicated resource estimates only and no assurance can be given that any particular level of recovery of gold or other minerals from mineralized material will in fact be realized or that an identified mineralized deposit will ever qualify as a commercially mineable (or viable) reserve. Further, the PEA is preliminary in nature, and actual capital costs, operating costs, production, economic returns and other estimates contained in studies or estimates prepared by or for the Company may differ from those described in the PEA, and there can be no assurance that actual costs will not be higher than anticipated. Substantial additional work, including mine design and mining schedules, metallurgical flow sheets and process plant designs, would be required in order to determine if any economic deposits exist on the Company's properties. Substantial expenditures would be required to establish mineral reserves through drilling and metallurgical and other testing techniques. The costs, timing and complexities of upgrading the mineralized material at the Tuvatu Gold Project to proven or probable reserves may be greater than the Company anticipates and may not be undertaken prior to development, if at all. Failure to discover economically recoverable reserves on a mineral property will require the Company to write-off the costs capitalized for that property in its financial statements. No assurance can be given that any level of recovery of any mineral resources will be realized or that any identified mineral deposit will ever qualify as a commercially mineable ore body that can be legally and economically exploited.

***Currency fluctuations.***

Fluctuations in currency exchange rates (principally the Australian dollar/CDN \$, the United States dollar/CDN\$ and Fijian dollar/CDN \$ exchange rates) may significantly impact the Company's exploration and development costs. The appreciation of the Argentinean peso and/or Australian dollar against the Canadian dollar would increase the cost of exploration and development of the Company's mineral properties located in Australia and Argentina which could have a material adverse effect on the financial condition of the Company. The appreciation of the Fijian dollar against the Canadian dollar would increase the cost of exploration and development of the Company's mineral properties (including the Tuvatu Gold Project) located in Fiji which could have a material adverse effect on the financial condition of the Company.

***Competition in the mining industry could adversely affect the Company's ability to acquire mineral claims, leases and other mineral interests.***

There is aggressive competition within the mining industry for the discovery and acquisition of properties considered to have commercial potential. The Company will be competing with other mining companies, many of which have greater financial resources than it does, for the acquisition of mineral claims, leases and other mineral interests as well as for the recruitment and retention of qualified employees and other personnel. There can be no assurance that the necessary funds can be raised or that any projected work will be completed.



***The Company is subject to environmental risk and environmental regulations which may negatively affect exploration and development activities.***

Mining operations have inherent risks and liabilities associated with the pollution of the environment and the disposal of waste produced as a result of mineral exploration and production. Open pit mining and ore processing is subject to risks and hazards, including discharge of toxic chemicals, breach of tailings dams, fire, flooding, rock falls and subsidence. The occurrence of these hazards can increase operational costs and result in liability to the Company. Such incidents may also result in a breach of the conditions of a mining lease or other consent or permit of a relevant regulatory regime, with consequent exposure to enforcement procedures, including the possible revocation of such leases, consents and permits. Environmental hazards may exist on the properties on which the Company holds interest which are unknown to the Company at present and which have been caused by previous or existing owners or operators of the properties.

The Company's current or future operations, including exploration, development and production activities, are subject to environmental regulations which may negatively affect their economic viability or prohibit them altogether. The Company is subject to potential risks and liabilities associated with pollution of the environment and the disposal of waste products which could occur as a result of mineral exploration, development and production.

To the extent that the Company is subject to environmental liabilities, the payment of such liabilities or the costs that it may incur to remedy environmental pollution would reduce the funds otherwise available to it and could have a material adverse effect on the financial condition, results of operations or cash flow results of the Company. If the Company is unable to fully remedy an environmental problem, it may be required to suspend operations or enter into interim compliance measures pending completion of the required remedy. The potential exposure may be significant and could have a material adverse effect on the financial condition, results of operations or cash flows of the Company. The Company has not purchased insurance for environmental risks (including potential liability for pollution or other hazards as a result of the disposal of waste products occurring from exploration and production) as it is not generally available at a reasonable price.

***The Company is subject to litigation risks and judgments obtained in Canadian courts may not be enforceable in foreign jurisdictions.***

The Company may be subject to legal claims, with and without merit and the cost to defend and settle such legal claims can be substantial, regardless of the merit of the claim. Substantially all of the Company's assets are located outside of Canada. It may be difficult or impossible to enforce judgments obtained in Canadian courts predicated upon the civil liability provisions of the securities laws of the various Canadian provinces against the Company's assets located outside of Canada.

***The Company's insurance coverage may not cover all losses and liabilities and certain risks are uninsured or uninsurable.***

The mining industry is subject to significant risks, including unexpected or unusual geological formations or operating conditions, rock bursts, cave ins, fires, floods, earthquakes and other environmental occurrences, and political and social instability, which could result in damage to, or destruction of, mineral properties or producing facilities, personal injury or death, environmental damage, delays in mining and monetary losses and possible legal liability. Accordingly, the Company may become subject to losses, liabilities, delays or damages against which it cannot insure or against which it may elect not to insure because insurance costs are too expensive relative to the perceived risk.

Of the risks which the Company may elect to insure, the liability could exceed the policy limits or otherwise determined to be excluded by the coverage. The impact of the potential cost associated with any liabilities in excess of the Company's insurance coverage or of any uninsured liabilities may have a material adverse effect on the financial condition, results of operations or cash flows of the Company. The Company has not purchased insurance for environmental risks (including potential liability for pollution or other hazards as a result of the disposal of waste products occurring from exploration and production) as it is not generally available at a reasonable price.

***The Company is reliant upon management and other key personnel and employees.***

The Company is heavily reliant on the personal efforts, experience and expertise of its directors and senior officers. If any of these individuals should cease to be available to manage the affairs of the Company, its activities and operations could be adversely affected. Recruiting and retaining qualified personnel is critical to the Company's success. The number of persons skilled in acquisition, exploration and development of mining properties is limited and competition for such persons is intense. As the Company's business activity grows, the Company will require additional key financial, administrative and mining personnel as well as additional operations staff. Although the Company believes that it will be successful in attracting, training and retaining qualified personnel, there can be no assurance of such success. If the Company is not successful in attracting and training qualified personnel, the efficiency of its operations could be affected, which could have an adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.

***The Company may not be able to raise additional financing if required to advance exploration properties.***

As the Company's exploration efforts on the Tuvatu Gold Project proceed, additional funds may be required to continue exploration and to develop an economic ore body and place it into commercial production. Exploration and future development of these mineral properties may depend on the Company's ability to obtain adequate financing through the joint venturing of projects, debt financing, equity financing or by other means. There can be no assurance that the Company will be successful in obtaining the required financing. Failure to obtain such financing would result in delay or indefinite postponement of exploration and future development work on the Tuvatu Gold Project.

***Fluctuating Metals Prices***

The Company's revenues, if any, are expected to be in large part derived from the extraction and sale of gold and other metals or interests related thereto. The price of those commodities has fluctuated widely, particularly in recent years, and is affected by numerous factors beyond the Company's control including international, economic and political trends, expectations of inflation, currency exchange fluctuations, interest rates, global or regional consumptive patterns, speculative activities and increased production due to new extraction developments and improved extraction and production methods. The effect of these factors on the price of gold, and therefore the economic viability of any of the Company's exploration projects, cannot accurately be predicted.

***The Company's Common Shares may experience price volatility and the market price of the Common Shares cannot be assured.***

There can be no assurance that an active market for the Common Shares will be sustained. Securities of mining companies have experienced substantial volatility in the past, often based on factors unrelated to the financial performance or prospects of the companies involved. These factors include macroeconomic developments in North America and globally, and market perceptions of the attractiveness of particular industries. The price of the securities of the Company is also likely to be significantly affected by short-term changes in commodity prices, other precious metal prices or other mineral prices, currency exchange fluctuation, the political environment in Fiji or Argentina, or in its financial condition or results of operations as reflected in its quarterly earnings reports.

Other factors unrelated to the performance of the Company that may have an effect on the price of the securities of the Company include the following: the extent of analyst coverage available to investors concerning the business of the Company may be limited if investment banks with research capabilities do not follow the Company's securities; lessening in trading volume and general market interest in the Company's securities may affect an investor's ability to trade significant numbers of securities of the Company; the size of the Company's public float may limit the ability of some institutions to invest in the Company's securities; and a substantial decline in the price of the securities of the Company that persists for a significant period of time could cause the Company's securities to be delisted from an exchange, further reducing market liquidity. If an active market for the securities of the Company does not continue, the liquidity of an investor's investment may be limited and the price of the securities of the Company may decline and investors may lose their entire investment in the Common Shares.

As a result of any of these factors, the market price of the securities of the Company at any given point in time may not accurately reflect the long-term value of the Company. Securities class-action litigation often has been brought against companies following periods of volatility in the market price of their securities. The Company may in the future be the target of similar litigation. Securities litigation could result in substantial costs and damages and divert management's attention and resources.

***Conflicts of interest may arise between Lion One's directors and officers.***

Certain of the directors and officers of Lion One also serve as directors and/or officers of other companies involved in natural resource exploration and development and consequently there exists the possibility for such directors and officers to be in a position of conflict.

***Any future acquisitions by the Company may not be successful or acceptable.***

Lion One's business strategy includes continuing to seek new property and corporate acquisition, merger and joint venture opportunities. In pursuit of such opportunities, Lion One may fail to select appropriate acquisition candidates or negotiate acceptable arrangements, including arrangements to finance acquisitions or integrate the acquired businesses and their personnel into Lion One. Lion One cannot assure that it can complete any acquisition or business arrangement that it pursues, or is pursuing, on favourable terms, or that any acquisitions or business arrangements completed will ultimately benefit Lion One's business.

***Lion One does not have a dividend history or policy.***

No dividends on the Common Shares have been paid by Lion One to date. Lion One anticipates that for the foreseeable future it will retain future earnings and other cash resources for the operation and development of its business. Payment of any future dividends will be at the discretion of Lion One's board of directors after taking into account many factors, including Lion One's operating results, financial condition and current and anticipated cash needs.

Further, Lion One conducts its major operations through subsidiaries. Lion One's ability to obtain dividends or other distributions from subsidiaries may be subject to restrictions on dividends or repatriation of earnings under applicable local law, monetary transfer restrictions and credit facilities. There can be no assurance that there will be no future restrictions on repatriation, the payment of dividends or other distributions from subsidiaries which are necessary to enable the Company to pay dividends in the future.

## DIVIDEND POLICY

Lion One has not, since the date of its incorporation, declared or paid any dividends on its Common Shares and currently has no policy with respect to the payment of dividends. For the foreseeable future, Lion One anticipates that it will retain future earnings and other cash resources for the operation and development of its business. The payment of dividends in the future will depend on the earnings, if any, and Lion One's financial condition and such other factors as the directors of Lion One consider appropriate.

## DESCRIPTION OF CAPITAL STRUCTURE

The Company is authorized to issue an unlimited number of common shares without par value of which, as of June 30, 2015 and as of the date of this report, 60,175,608 common shares are issued and outstanding. The common shares do not carry any pre-emptive, subscription, redemption, retraction, conversion or exchange rights, nor do they contain any sinking or purchase fund provisions.

The holders of Common Shares are entitled to receive notice of any meeting of Lion One shareholders and to attend and vote thereat. Each Common Share entitles its holder to one vote. The holders of Common Shares are entitled to receive on a *pro rata* basis such dividends as the board of directors of Lion One may declare out of funds legally available therefor. In the event of the dissolution, liquidation, winding-up or other distribution of the assets of Lion One, such holders are entitled to receive on a *pro rata* basis all of the assets of Lion One remaining after payment of all of Lion One's liabilities. The Common Shares carry no pre-emptive, conversion, redemption or retraction rights. The Common Shares carry no other special rights and restrictions other than as described herein.

Lion One is authorized to issue securities for quotation on the ASX in the form of CHESD Depository Instruments ("CDIs"). The Company's CDIs are listed and freely tradable on the ASX with each CDI representing a beneficial ownership interest in one common share of the Company and have materially the same rights as common shares of the Company. CDIs are issued as regulatory constraints do not allow for the listing and trading of common shares of foreign corporations on the ASX.

## MARKET FOR SECURITIES

### MARKET

The common shares of the Company are listed and posted for trading on the TSX-V under the symbol "LIO". As at June 30, 2015 a balance of 9,912,653 CDIs remain listed on the ASX under the symbol "LLO". Each CDI represents one common share of the Company.

Country	Symbol	Exchange/Market	Securities Identifier
Canada	LIO	TSX Venture Exchange	CUSIP: 536216104
USA	LOMLF	OTCQX Market	CIK: 0001509397
Germany	LY1	Frankfurt Stock Exchange	ISIN: CA5362161047
Australia	LLO	Australia Securities Exchange	ISIN: AU000000LLO8

## TRADING PRICE AND VOLUME

The Company's common shares traded on the TSX-V (trading symbol "LIO") during fiscal year ended June 30, 2015. The table below presents the high and low trading range, closing prices, and monthly trading volumes on the TSX-V for the period from July 1, 2014 to June 30, 2015. All prices are in Canadian dollars.

Month	High	Low	Close (as at month end)	Trading Volume (Monthly)
July 2014	\$0.49	0.315	0.0445	3,083,300
August 2014	0.465	0.38	0.40	416,904
September 2014	0.295	0.42	0.30	323,719
October 2014	0.31	0.23	0.245	708,057
November 2014	0.275	0.18	0.24	258,821
December 2014	0.31	0.18	0.22	375,774
January 2015	0.29	0.20	0.25	331,017
February 2015	0.29	0.21	0.27	157,620
March 2015	0.335	0.17	0.24	1,128,809
April 2015	0.32	0.23	0.275	1,211,507
May 2015	0.54	0.27	0.275	1,508,624
June 2015	0.56	0.41	0.50	921,216

The Common Shares are listed for trading on the ASX under the trading symbol "LLO". The table below presents the high and low trading range, closing prices, and monthly trading volumes for CDI's on the ASX for the period from July 1, 2014 to June 30, 2015. All prices are in Australian dollars.

Month	High	Low	Close (as at month end)	Trading Volume (Monthly)
July 2014	0.40	0.34	0.39	184,300
August 2014	0.40	0.35	0.40	118,000
September 2014	0.40	0.30	0.30	110,600
October 2014	0.30	0.24	0.25	202,300
November 2014	0.24	0.20	0.23	89,500
December 2014	0.24	0.16	0.16	23,300
January 2015	0.18	0.16	0.16	2,600
February 2015	0.28	0.18	0.22	40,000
March 2015	0.26	0.17	0.25	270,600
April 2015	0.30	0.20	0.28	273,900
May 2015	0.51	0.28	0.50	487,900
June 2015	0.55	0.42	0.50	86,400

## PRIOR SALES

The only securities the Company has outstanding which are not listed or quoted on the market place are stock options granted under the Company's stock option plan. No stock options were granted during the fiscal year ended June 30, 2015.

As at June 30, 2015 the Company had no common share purchase warrants issued.

## ESCROWED SECURITIES AND SECURITIES SUBJECT TO CONTRACTUAL RESTRICTION ON TRANSFER

As at June 30, 2015, the Company had no shares held in escrow. The following securities of the Company are subject to contractual restrictions on transfer as of June 30, 2015:

Designation of Class	Number of Securities Subject to Contractual Restriction on Transfer	Percentage of Class
Stock Options	3,535,000 <sup>(1)</sup>	100%
Shares in Trust	100,000 <sup>(2)</sup>	100%

<sup>(1)</sup> Contractual restrictions on transfer apply pursuant to the Company's stock option plan.

<sup>(2)</sup> Pursuant to a Trust Agreement dated April 1, 2010, the Company has issued and allotted 1,000,000 common shares from treasury at a deemed value of \$0.40 per share to a designated trustee in connection with certain share-based incentive initiatives for management of the Company. The Trust Agreement stipulates the release of the shares to the beneficiaries upon vesting dates.

## DIRECTORS AND OFFICERS

### NAME, OCCUPATION AND SECURITY HOLDINGS

The name, province, state of residence, position and principal occupation within the five preceding years for each of the directors and officers of the Company at the date of this report are set out in the following table.

Name, Province/State and Country of Residence, and Position with the Company	Principal Occupations During The Five Preceding Years <sup>(1)</sup>	Director or Officer Since
<b>Walter H. Berukoff</b> <sup>(3)</sup> West Vancouver, BC, Canada <i>Chairman, CEO and Director</i>	Merchant banker; President of Red Lion Management Ltd., a Vancouver-based merchant banking company	December 1, 1997
<b>George S. Young</b> <sup>(2)</sup> Texas, USA  <i>Director</i>	Mining industry consultant focused on project acquisitions, financings, and venture capital	December 21, 2010
<b>Stephen Mann</b> <sup>(3)</sup> Perth, Western Australia, Australia <i>Director</i>	Managing Director of Avocet Resources Limited (formerly U3O8 Limited) in Perth, Australia, from 2006 to 2012	October 11, 2012
<b>Kevin Puil</b> <sup>(1)(2)(4)</sup> Vancouver, BC, Canada <i>Director</i>	Portfolio Manager at Gissen & Associates, and Senior Analyst at the Encompass Fund in San Francisco from 2008 to 2013, Managing Partner at RIVI Capital LLC since 2014	Sept. 30, 2013

Name, Province/State and Country of Residence, and Position with the Company	Principal Occupations During The Five Preceding Years <sup>(1)</sup>	Director or Officer Since
<b>Hamish Greig</b> <sup>(2)(3)</sup> Vancouver, BC, Canada <i>Vice-President, Corporate Secretary and Director</i>	VP and Corporate Secretary of Lion One Metals Limited since 2010	June 22, 2012
<b>Richard J. Meli</b> <sup>(1)(2)(3)(4)</sup> New York, New York, USA <i>Director</i>	Independent businessman focused on mining industry	February 12, 2004
<b>Stephanie Martel</b> North Vancouver, BC, Canada <i>VP Administration</i>	Chief Operating Officer of Red Lion Management, a private investment firm, and VP Admin of Lion One Metals Limited	November 2, 2011
<b>Samantha Shorter</b> Vancouver, BC, Canada <i>Chief Financial Officer</i>	Since 2011 an independent consultant in the industry of mineral exploration and development. Previously an Audit Manager with a Vancouver-based accounting firm.	February 25, 2013

- (1) Member of the Company's Audit Committee
- (2) Member of the Company's Compensation Committee
- (3) Member of the Company's Corporate Governance Committee
- (4) Independent in accordance with the definition of 52-110
- (5) The information as to principal occupation, business or employment and Common Shares beneficially owned or controlled has been provided by the respective directors and officers.

Each director elected will hold office until the conclusion of the next annual general meeting of the Company at which a director is elected, unless the director's office is vacated earlier in accordance with the Articles of the Company or the provisions of the *Business Corporations Act* (British Columbia).

As of the date of this AIF, the directors and executive officers of the Company and its subsidiaries as a group beneficially owned or controlled or directed, directly or indirectly, or exercised control or direction over 21,299,172 common shares of the Company, representing 35.39% of the issued and outstanding common shares, and options to acquire 3,535,000 common shares. This total includes 20,235,772 common shares beneficially owned or controlled, directly or indirectly, by Walter H. Berukoff, Chairman and Chief Executive Officer, representing 33.63% of the issued and outstanding common share of the Company. As of the date of this AIF, no directors or executive officers of the Company hold any warrants.

#### CEASE TRADE ORDERS, BANKRUPTCIES, PENALTIES OR SANCTIONS

To the best of the Company's knowledge, other than as set forth below, no director or executive officer of the Company is, as at the date of this AIF, or was, within ten years before the date of this AIF, a director, chief executive officer or chief financial officer of any company (including the Company), that (a) was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under the securities legislation, for a period of more than 30 consecutive days, or (b) was subject to an order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer.

To the best of the Company's knowledge, other than as set forth below, no director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company (a) is, as at the date of the AIF, or has been within the 10 years before the date of this AIF, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets, or (b) has, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder, except as set out below.

#### **PENALTIES OR SANCTIONS**

To the best of the Company's knowledge, no director, or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company, has been subject to (a) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or (b) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

#### **CONFLICTS OF INTEREST**

To the best of the Company's knowledge, except as otherwise noted in this AIF, there are no existing or potential conflicts of interest among the Company, its directors, officers, or other members of management of the Company except that certain of the directors, officers and other members of management serve as directors, officers and members of management of other public companies and therefore it is possible that a conflict may arise between their duties as a director, officer or member of management of such other companies and their duties as a director, officer or member of management of the Company.

The directors and officers of the Company are aware of the existence of laws governing accountability of directors and officers for corporate opportunity and requiring disclosure by directors of conflicts of interest and the Company will rely upon such laws in respect of any directors' or officers' conflicts of interest or in respect of any breaches of duty to any of its directors and officers. All such conflicts must be disclosed by such directors or officers in accordance with the *Business Corporations Act* (British Columbia).

#### **LEGAL PROCEEDINGS AND REGULATORY ACTIONS**

The Company or its subsidiaries is not a party, nor are any of the Company's properties subject to any pending legal proceedings the outcome of which would have a material adverse effect on the Company. Management has no knowledge of any material legal proceedings in which the Company may be a party which are contemplated by governmental authorities or otherwise.

#### **INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

The management of the Company is not aware of any material interest, direct or indirect, of any insider of the Company, or any Associate or Affiliate of any such Person, in any transaction during the Company's three last completed financial years, or during the current financial year, except as set out elsewhere in this AIF, that has materially affected or is reasonably expected to materially affect the Company.



## **TRANSFER AGENT AND REGISTRAR**

Lion One's registrar and transfer agent for its Common Shares is Computershare Trust Company of Canada at its principal offices in Vancouver, British Columbia.

## **MATERIAL CONTRACTS**

On November 8, 2011, the Company entered into a Management and Corporate Services Agreement ("Services Agreement") with Cabrera Capital Corp. ("Cabrera"), a company controlled by a director of the Company. Under the Services Agreement, Cabrera agrees to provide a fully furnished and equipped business premises as well as management, business administration, shareholder services, securities administration, and corporate and general administration services to the Company for an initial period of five years from the date of the Services Agreement.

The Company has agreed to pay Cabrera a monthly fee equal to the actual out of pocket expenses incurred by Cabrera, its advisers, sub-agents and employees in connection with the provision of these services and any additional direct costs associated with providing these services. In addition, the Company has agreed to pay \$15,000 per month in rent for its office premises.

The Company can terminate the Services Agreement at any time by paying Cabrera a year's worth of fees based on the average monthly fee paid to Cabrera since January 31, 2011.

There are no other material contracts.

The Company did not enter into any contract during the most recently completed financial year, and has not entered into any contract before June 30, 2015 that is still in effect that may be considered material to the Company, other than the material contracts entered into in the ordinary course of business not required to be filed under National Instrument 51-102 Continuous Disclosure Obligations.

## **INTERESTS OF EXPERTS**

The following are names of persons or companies (i) that have prepared a or certified a report, valuation statement or opinion described or included in a filing, or referred to in a filing made under NI 51-102 by the Company during, or relating to the Company's most recently completed financial year; and (ii) whose profession or business gives authority to the report, valuation statement or opinion made by the person or company:

- (a) Canenco Canada Inc. author of the "Tuvatu Gold Project Preliminary Economic Assessment" dated June 1<sup>st</sup>, 2015; and
- (b) Robert McLeod, P.Geo. – acting Qualified Person for the Company and responsible for all technical information subsequent to the Tuvatu Technical Report.

Based on information provided by the experts, none of the experts named above, when or after they prepared the statement, report or valuation, has received or will receive any registered or beneficial interests, direct or indirect, in any securities or other property of the Company or of one of the Company's associates or affiliates (based on information provided to the Company by such experts). As at the date hereof, the aforementioned persons, and the directors, officers, employees and partners, as applicable, of each of the aforementioned companies and partnerships beneficially own, directly or indirectly, in total, less than one percent of the securities of the Company.

The auditors of the Company are Davidson & Company LLP, Chartered Accountants, of Vancouver, British Columbia. Davidson & Company LLP, has advised the Company that it is independent within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of British Columbia.

Neither the aforementioned persons, nor any director, officer, employee or partner, as applicable, of the aforementioned companies or partnerships, is currently expected to be elected, appointed or employed as a director, officer or employee of the Company or of any associate or affiliate of the Company.

## INFORMATION ON AUDIT COMMITTEE

The Company is subject to National Instrument 52-110 *Audit Committees* (“**NI 52-110**”), which has been adopted by the Canadian Securities Administrators and which prescribes certain requirements in relation to audit committees. NI 52-110 requires the Company to disclose annually certain information concerning the constitution of its Audit Committee and its relationship with its independent auditors, which is set forth below.

### AUDIT COMMITTEE CHARTER

The Company’s Audit Committee is governed by an audit committee charter, the text of which is set out in Appendix “A” of this AIF.

### COMPOSITION OF THE AUDIT COMMITTEE

The Company’s Audit Committee is comprised of three directors: Richard J. Meli, Kevin Puil and George S. Young. All members are considered independent members of the Audit Committee pursuant to the meaning of “independent” provided in NI 52-110, except for George S. Young, as he served as President of the Company until December 2013 and all members of the Audit Committee are considered financially literate as provided for in NI 52-110. Mr. Richard Meli acts as chair of the Audit Committee. Following the completion of the Avocet acquisition and the Company’s listing on the ASX the Company ceased to be a venture issuer and is required under NI 52- 110 to have a fully independent Audit Committee. The Company’s board of directors is reviewing the composition of the Audit Committee and plans to identify and appoint a new director to serve on the Audit Committee.

### RELEVANT EDUCATION AND EXPERIENCE

This section described the education and experience of the Company’s Audit Committee members that is relevant to the performance of their responsibilities in that role.

#### *Richard J. Meli*

Mr. Meli earned a B.S. in Economics in 1969 and a M.S. in Accounting in 1971, both from the Wharton School at the University of Pennsylvania. Mr. Meli began his career with PricewaterhouseCoopers (former known as Price Waterhouse & Co.) in 1971, spending eight years in the firm’s New York office, becoming a CPA and reaching the level of audit manager. Mr. Meli was President of La Mancha Resources Inc. from September, 2004 until May, 2006; President of Luzenac America, a subsidiary of Rio Tinto plc. from 1999 to 2001; Senior Executive Business Development of Rio Tinto plc from 1996 to 1999.

#### *Kevin Puil*

Mr. Puil holds a degree in Economics from the University of Victoria in British Columbia, and is a Chartered Financial Analyst (CFA). He has held the positions of advisor and analyst with Goepel McDermid (now Raymond James), and was a partner and portfolio manager at Bolder Investment Partners (now Haywood Securities), both located in Vancouver, British Columbia. From 2008 to 2014 he was a portfolio manager at

Gissen & Associates, and the Senior Analyst at the Encompass Fund in San Francisco, focusing on the natural resources industry. He is currently Managing Partner at RIVI Capital LLC in San Francisco.

*George S. Young*

Mr. Young started his career as a metallurgist at Kennecott in Utah and has thirty five years' experience in the mining industry, focused on debt and equity finance, and the legal and business management of natural resource companies. Previous positions include President of MAG Silver Corporation, General Counsel of Bond International Gold Corp., and CEO of Oro Belle Resources Corp. He received a J.D. from the University of Utah, College of Law, in 1979 and a B.S. in Metallurgical Engineering from the University of Utah in 1975. Mr. Young has practiced private law in Salt Lake City, UT, and is a former Chair of the Utah Section of the Society of Mining Engineers and a member (inactive) of the State Bar Associations of Colorado, Utah, and Texas.

#### AUDIT COMMITTEE OVERSIGHT

Since the commencement of the Company's most recently completed financial year ended June 30, 2015, the Company's board of directors has not failed to adopt a recommendation of the Audit Committee to nominate or compensate an external auditor.

#### RELIANCE ON CERTAIN EXEMPTIONS

Since the commencement of the Company's most recently completed financial year ended June 30, 2015, the Company has not relied on the exemptions contained in Section 2.4 "De Minimis Non-Audit Services" or Section 8 "Exemptions" of NI 52-110. Section 2.4 provides an exemption from the requirement that the Audit Committee must pre-approve all non-audit services to be provided by the auditor, where the total amount of fees related to the non-audit services are not expected to exceed 5% of the total fees payable to the auditor in the fiscal year in which the non-audit services were provided. Section 8 permits a company to apply to a securities regulator authority for an exemption from the requirements of NI 52-110, in whole or in part.

The Company has not relied on and is not currently relying on any of the exemptions to the requirement to have all audit committee members be independent (as contained in sections 2.4, 3.2, 3.3(2), 3.4, 3.5 and 3.6 of NI 52-110) or that all committee members be financially literate (as contained in section 3.8 of NI 52-110) or the exemption from NI 52-110, in whole or in part, granted under Part 8 of NI 52-110.

#### PRE-APPROVAL POLICIES AND PROCEDURES

The Audit Committee has not adopted specific policies and procedures for the engagement of non-audit services. Subject to the requirements of NI 52-110, the engagement of non-audit services is considered by the Company's board of directors, and where applicable the Audit Committee, on a case-by-case basis.

#### EXTERNAL AUDIT SERVICE FEES

The fees paid by the Company to its auditor in each of the last two financial years, by category, are as follows:

<b>Financial Year Ending</b>	<b>Audit Fees</b>	<b>Audit Related Fees</b>	<b>Tax Fees</b>	<b>All Other Fees</b>
June 30, 2015	\$30,000 <sup>(1)</sup>	\$Nil	\$Nil	\$Nil
June 30, 2014	\$30,000	\$Nil	\$Nil	\$Nil

<sup>(1)</sup> Accrued in the 2015 Fiscal Year.

## ADDITIONAL INFORMATION

Additional information relating to the Company may be found on SEDAR at [www.sedar.com](http://www.sedar.com). Additional information, including the remuneration and indebtedness of the directors and officers of the Company, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans, compliance with securities law and corporate governance assessment will be contained in the Company's management information circular for its upcoming annual meeting of shareholders of the Company. Additional financial information is provided in the Company's consolidated financial statements and management discussion and analysis for the 2015 Fiscal Year.

When the securities of the Company are in the course of a distribution pursuant to a short form prospectus, or a preliminary short form prospectus has been filed in respect of a distribution of its securities, copies of the following documents may be obtained via SEDAR ([www.sedar.com](http://www.sedar.com)) or upon request from the Corporate Secretary of the Company, Lion One Metals Limited, 311 West 1<sup>st</sup> Street, North Vancouver, British Columbia, V7M 1B5 Canada:

- (a) this Annual Information Form, together with one copy of any document, or the pertinent pages of any document, incorporated by reference in this Annual Information Form;
- (b) Lion One's comparative financial statements for its most recently completed financial year for which financial statements have been filed, together with the Company's report of the auditor and a copy of the most recent interim financial statements of the Company that have been filed, if any, for any period after the end of its most recently completed financial year;
- (c) Lion One's information circular in respect of its most recent annual meeting of shareholders; and
- (d) any other documents that are incorporated by reference into the preliminary short form prospectus or the short form prospectus that is not required to be provided under paragraphs (a), (b) or (c).

At any other time, copies of any other documents referred to in paragraphs (a), (b) and (c) above may be obtained upon request from the Corporate Secretary of the Company. A person who is not a security holder of the Company may be required to pay a reasonable charge for such copies.

## APPENDIX A

### AUDIT COMMITTEE CHARTER

National Instrument 52-110 (the “**Instrument**”) relating to the composition and function of audit committees applies to every TSX Venture Exchange listed company, including the Company. The Instrument requires all affected issuers to have a written audit committee charter (the “**Charter**”) which must be disclosed, as stipulated by Form 52-110F2, in the management information circular of the Company wherein management solicits proxies from the security holders of the Company for the purpose of electing directors to the Board.

This Charter has been adopted by the Board in order to comply with the Instrument and to more properly define the role of the Audit Committee in the oversight of the financial reporting process of the Company. Nothing in this Charter is intended to restrict the ability of the Board or Audit Committee to alter or vary procedures in order to comply more fully with the Instrument, as amended from time to time.

#### **1.0 PURPOSE**

The purpose of the Audit Committee (the “**Committee**”) is to: a) assist the Board in fulfilling its oversight responsibilities with respect to financial reporting and disclosure requirements; b) ensure that an effective risk management and financial control framework has been implemented by management of the Company; and c) be responsible for external and internal processes.

#### **2.0 COMPOSITION AND MEMBERSHIP**

The Board will appoint the members (“**Members**”) of the Committee after the annual general meeting of shareholders of the Company. The Members will be appointed to hold office until the next annual general meeting of shareholders of the Company or until their successors are appointed. The Board may remove a Member at any time and may fill any vacancy occurring on the Committee. A Member may resign at any time and a Member will cease to be a Member upon ceasing to be a director. The Committee will consist of three directors that meet the criteria for independence and financial literacy established by applicable laws and the rules of the stock exchange upon which the Company’s securities are listed, including Multilateral Instrument 52-110 Audit Committees. In addition, each director will be free of any relationship which could, in the view of the Board, reasonably interfere with the exercise of a member’s independent judgment. The Board will appoint one of the Members to act as the Chairman of the Committee. The secretary of the Company (the “**Secretary**”) will be the secretary of all meetings and will maintain minutes of all meetings and deliberations of the Committee. In the absence of the Secretary at any meeting, the Committee will appoint another person who may, but need not, be a Member to be the secretary of that meeting.

#### **3.0 MEETINGS**

Meetings of the Committee will be held at such times and places as the Chairman may determine. Twenty-four (24) hours advance notice of each meeting will be given to each Member orally, by telephone, by facsimile or email, unless all Members are present and waive notice, or if those absent waive notice before or after a meeting. Members may attend all meetings either in person or by conference call. At the request of the external auditors of the Company, the Chief Executive Officer or the Chief Financial Officer of the Company, or any member of the Committee, the Chairman will convene a meeting of the Committee. Any such request will set out in reasonable detail the business proposed to be conducted at the meeting so requested. The Chairman, if present, will act as the Chairman of meetings of the Committee. If the Chairman is not present at a meeting of the Committee, then the Members present may select the acting Chairman of the meeting. A majority of Members will constitute a quorum for a meeting of the Committee. Each Member will have one vote and decisions of the Committee will be made by an affirmative vote of the majority. The Chairman will not have a deciding or casting vote in the case of an equality of votes. Powers of the Committee may also be exercised by written resolution signed by all Members. The Committee may

invite from time to time such persons as it sees fit to attend its meetings and to take part in the discussion and consideration of the affairs of the Committee. In advance of every regular meeting of the Committee, the Chairman, with the assistance of the Secretary, will prepare and distribute to the Members and others as deemed appropriate by the Chairman, an agenda of matters to be addressed at the meeting together with appropriate briefing materials. The Committee may require officers and employees of the Company to produce such information and reports as the Committee may deem appropriate in order to fulfill its duties.

#### **4.0 DUTIES AND RESPONSIBILITIES**

The duties and responsibilities of the Committee are as follows:

##### *4.1 Financial Reporting and Disclosure*

- a) Review and recommend to the Board for approval, the quarterly financial statements, management discussion and analysis, financial reports and any public release of financial information through press release or otherwise.
- b) Review and recommend to the Board for approval, the audited annual financial statements, including the auditors' report thereon, management discussion and analysis and financial reports.
- c) Review and recommend to the Board for approval, where appropriate, financial information contained in any prospectuses, annual information forms, material change disclosures of a financial nature and similar disclosure documents.
- d) Review with management of the Company and with external auditors significant accounting principles and disclosure issues and alternative treatments under Canadian generally accepted accounting principles ("GAAP") all with a view to gaining reasonable assurance that financial statements are accurate, complete and present fairly the Company's financial position and the results of its operations in accordance with Canadian GAAP.

##### *4.2 Internal Controls and Audit*

- a) Review and assess the adequacy and effectiveness of the Company's system of internal control and management information systems through discussions with management and the external auditors.
- b) Satisfy itself that adequate procedures are in place for the review of the Company's disclosure of financial information extracted or derived from the Company's financial statements.
- c) Periodically assess the adequacy of such systems and procedures to ensure compliance with regulatory requirements and recommendations.
- d) Review and discuss the Company's major financial risk exposures and the steps taken to monitor and control such exposures, including the use of any financial derivatives and hedging activities.
- e) Review annually insurance programs relating to the Company and its investments.

##### *4.3 External Audit*

- a) Review the performance of the external auditors who are accountable to the Committee and the Board as representatives of the shareholders and recommend to the Board the external auditors to be nominated for the purpose of preparing or issuing an audit report.
- b) Oversee the work of the external auditors appointed by the shareholders of the Company with respect to preparing and issuing an audit report.

c) Review the results of the external audit and the report thereon including, without limitation, a discussion with the external auditors as to the quality of accounting principles used, any alternative treatments of financial information that have been discussed with management of the Company, the ramifications of their use as well as any other material changes.

d) Review the reasons for any proposed change in the external auditors which is not initiated by the Committee or Board and any other significant issues related to the change, including the response of the incumbent auditors, and enquire as to the qualifications of the proposed auditors before making its recommendations to the Board.

e) Review the independence of the external auditors, including a written report from the external auditors respecting their independence and consideration of applicable auditor independence standards.

#### *4.4 Associated Responsibilities*

Establish, monitor and periodically review a whistleblower policy and associated procedures for the receipt, retention and treatment of: a) complaints received by the Company regarding accounting, internal accounting controls or auditing matters; and b) the confidential, anonymous submission by directors, officers and employees of the Company of concerns regarding questionable accounting or auditing matters.

#### *4.5 Non-Audit Services*

Pre-approve all non-audit services to be provided to the Company or any subsidiary entities by its external auditors. The Committee may delegate to one or more of its members the authority to pre-approve non-audit services but pre-approval by such member or members so delegated shall be presented to the full audit committee at its first scheduled meeting following such pre-approval.

#### *4.6 Oversight Function*

While the Committee has the responsibilities and powers set forth in this Charter, it is not the duty of the Committee to plan or conduct audits or to determine that the Company's financial statements are complete and accurate or are in accordance with GAAP and applicable rules and regulations. These are the responsibilities of Management and the external auditors. The Committee, the Chairman and any Members identified as having accounting or related financial expertise are members of the Board, appointed to the Committee to provide broad oversight of the financial, risk and control related activities of the Company, and are specifically not accountable or responsible for the day-to-day operation or performance of such activities. Although the designation of a Member as having accounting or related financial expertise for disclosure purposes is based on that individual's education and experience, which that individual will bring to bear in carrying out his or her duties on the Committee, such designation does not impose on such person any duties, obligations or liability that are greater than the duties, obligations and liability imposed on such person as a member of the Committee and Board in the absence of such designation. Rather, the role of a Member who is identified as having accounting or related financial expertise, like the role of all Members, is to oversee the process, not to certify or guarantee the internal or external audit of the Company's financial information or public disclosure.

### **5.0 REPORTING**

The Chairman will report to the Board at each Board meeting on the Committee's activities since the last Board meeting. The Secretary will circulate the minutes of each meeting of the Committee to the members of the Board.

## **6.0 ACCESS TO INFORMATION AND AUTHORITY**

The Committee will be granted unrestricted access to all information regarding the Company and all directors, officers and employees will be directed to cooperate as requested by members of the Committee. The Committee has the authority to retain, at the Company's expense, independent legal, financial and other advisors, consultants and experts, to assist the Committee in fulfilling its duties and responsibilities. The Committee also has the authority to communicate directly with internal and external auditors.

## **7.0 REVIEW OF CHARTER**

The Committee will review and assess, on an annual basis, the adequacy of this Charter and recommend any proposed changes to the Board for approval.