



## LION ONE EXPANDS GOLD MINERALIZATION AT TUVATU MINE IN FIJI

### Wall Sampling Returns 18.70 g/t Au over 17.8 m, Peak Value of 150.77 g/t Au

North Vancouver, B.C., July 27, 2023 - Lion One Metals Limited (TSX-V: LIO) (OTCQX: LOMLF) (ASX: LLO) (“Lion One” or the “Company”) is pleased to report high-grade gold results from underground sampling and announces the expansion of gold mineralization at its 100% owned Tuvatu Alkaline Gold Project in Fiji.

Sampling along the walls of the URW1a and URW1b mine drives at Tuvatu has returned high-grade gold results, indicating that the gold mineralization associated with both the URW1a and URW1b lodes extends beyond the walls of the current drives. As reported on [July 13, 2023](#), the grades associated with the URW1a and URW1b lodes are higher than anticipated and the results reported here indicate that the high-grade gold mineralization associated with these lodes is also greater in width than that which was estimated from drilling.

#### Highlights of wall sampling, parallel to sub-parallel to strike-drives, on URW1a and URW1b:

- **18.70 g/t Au over 17.8 m** (including 91.15 g/t Au over 1.0m) (URW1b – Right Wall)
- **32.34 g/t Au over 10 m** (including 149.86 and 80.11 g/t Au over 1.0m each) (URW1b – Left Wall)
- **17.11 g/t Au over 18 m** (including 150.77 g/t Au over 1.0m) (URW1a – Right Wall)
- **20.72 g/t Au over 11 m** (including 107.56 g/t Au over 1.0m) (URW1a – Left Wall)
- **24.76 g/t Au over 7 m** (including 67.06 g/t Au over 1.0m) (URW1a – Left Wall)

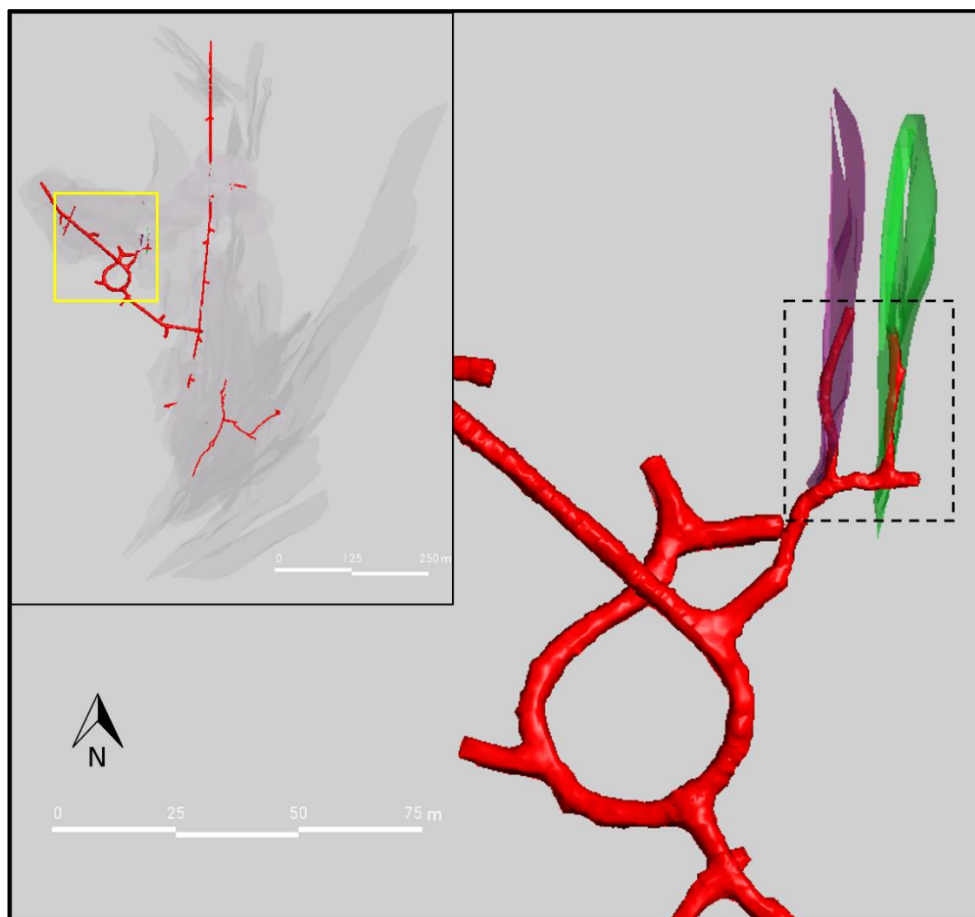
Lion One Chairman and CEO Walter Berukoff commented: “We’re very pleased with the results from our wall sampling program. The program was initiated following the identification of coarse visible gold in veinlets in the walls of both the URW1a and URW1b mine drives. The results indicate that there is significant gold mineralization present in the walls of both drives, and that the mineable width of both drives is therefore considerably wider than we expected based on drill results. An investigation is now underway to determine how far this additional gold mineralization extends into the walls of both drives and how much additional high-grade material we can expect to mine from these lodes. Mining is ongoing in both drives and we’re hopeful that this additional gold mineralization will provide a further boost to our growing stockpile in advance of our plant commissioning later this year.”

#### Wall Sampling

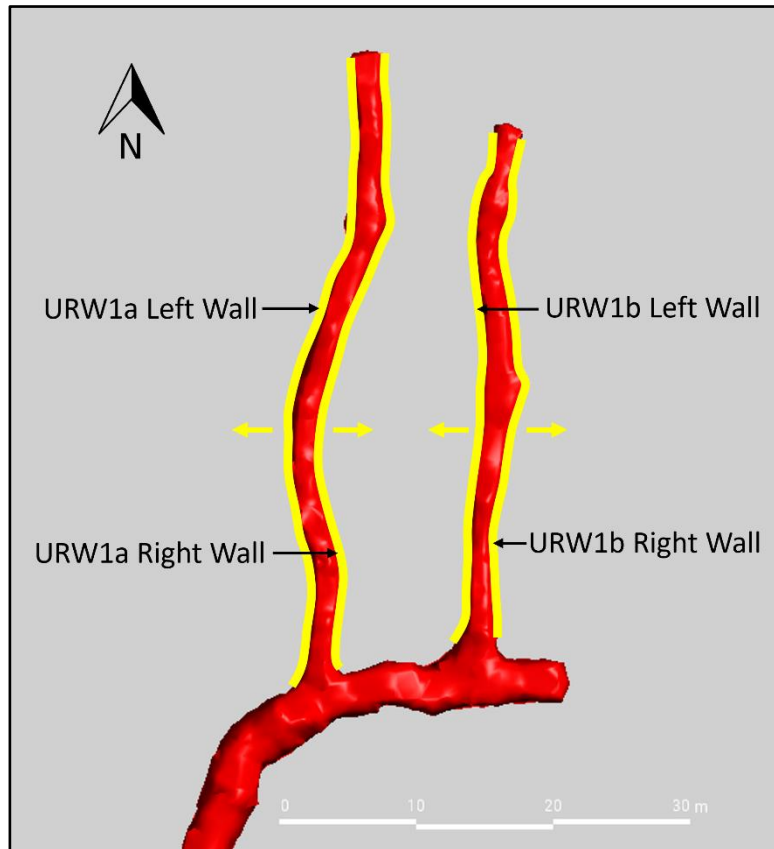
**Table 1.** Highlights of Wall Sampling, parallel/subparallel to strike drives from the URW1a and URW1b lodes

Location		From	To	Interval (m)	Au (g/t)
<b>URW1a Left Wall</b>		<b>0</b>	<b>7</b>	<b>7</b>	<b>24.76</b>
	<i>including</i>	0	2	2	46.71
	<i>which includes</i>	1	2	1	67.06
	<i>and also including</i>	3	6	3	24.65
<b>URW1a Left Wall</b>		<b>12</b>	<b>29</b>	<b>17</b>	<b>14.55</b>
	<i>including</i>	18	29	11	20.72
	<i>which includes</i>	18	22	4	17.54
	<i>and</i>	23	26	3	50.84
	<i>which includes</i>	25	26	1	107.56
<b>URW1a Right Wall</b>		<b>9</b>	<b>27</b>	<b>18</b>	<b>17.11</b>
	<i>including</i>	9	10	1	35.90
	<i>and</i>	11	12	1	10.46
	<i>and</i>	13	24	11	23.54

	<i>which includes</i>	15	22	7	35.47
	<i>which includes</i>	15	16	1	150.77
<b>URW1b Left Wall</b>		<b>2</b>	<b>12</b>	<b>10</b>	<b>32.34</b>
	<i>including</i>	6	8	2	76.85
	<i>which includes</i>	6	7	1	149.86
	<i>and also including</i>	9	12	3	54.50
	<i>which includes</i>	9	10	1	80.11
	<i>and</i>	10	11	1	23.20
	<i>and</i>	11	12	1	60.18
<b>URW1b Left Wall</b>		<b>14</b>	<b>19</b>	<b>5</b>	<b>7.48</b>
	<i>including</i>	14	17	3	11.51
<b>URW1b Right Wall</b>		<b>0</b>	<b>17.8</b>	<b>17.8</b>	<b>18.70</b>
	<i>including</i>	5.8	10.8	5	30.24
	<i>which includes</i>	5.8	6.8	1	27.71
	<i>and</i>	9.4	9.8	0.4	50.76
	<i>and</i>	9.8	10.8	1	91.15
	<i>and also including</i>	11.8	17.8	6	28.57
	<i>which includes</i>	14.8	17.8	3	44.53



**Figure 1. Location of the URW1a and URW1b lodes in relation to the Tuvatu system.** Mining is progressing north along both the URW1a lode (modelled in purple) and the URW1b lode (modelled in green). Inset image shows the location of the URW1a and URW1b lodes in relation to the Tuvatu system, with all other lodes shown in pale grey. Underground developments are shown in red. The dashed black square is the area highlighted in Figure 2. The URW1 mineralized trend has a N-S strike length of approximately 300 m and a vertical extent also of approximately 300 m. The URW1a and URW1b lodes occupy approximately 75m of this mineralized strike length. Extensional drilling is ongoing.



**Figure 2. Location of URW1a and URW1b wall samples.** Yellow lines indicate the location of the wall sample lines in relation to the URW1a and URW1b mine drives, shown in red. Sample lines start with 0 m at the southern (bottom) end of the mine drives and progress north along the drives. Yellow arrows indicate the possible expansion of the mine drives, pending investigation into the lateral extent of additional gold mineralization.

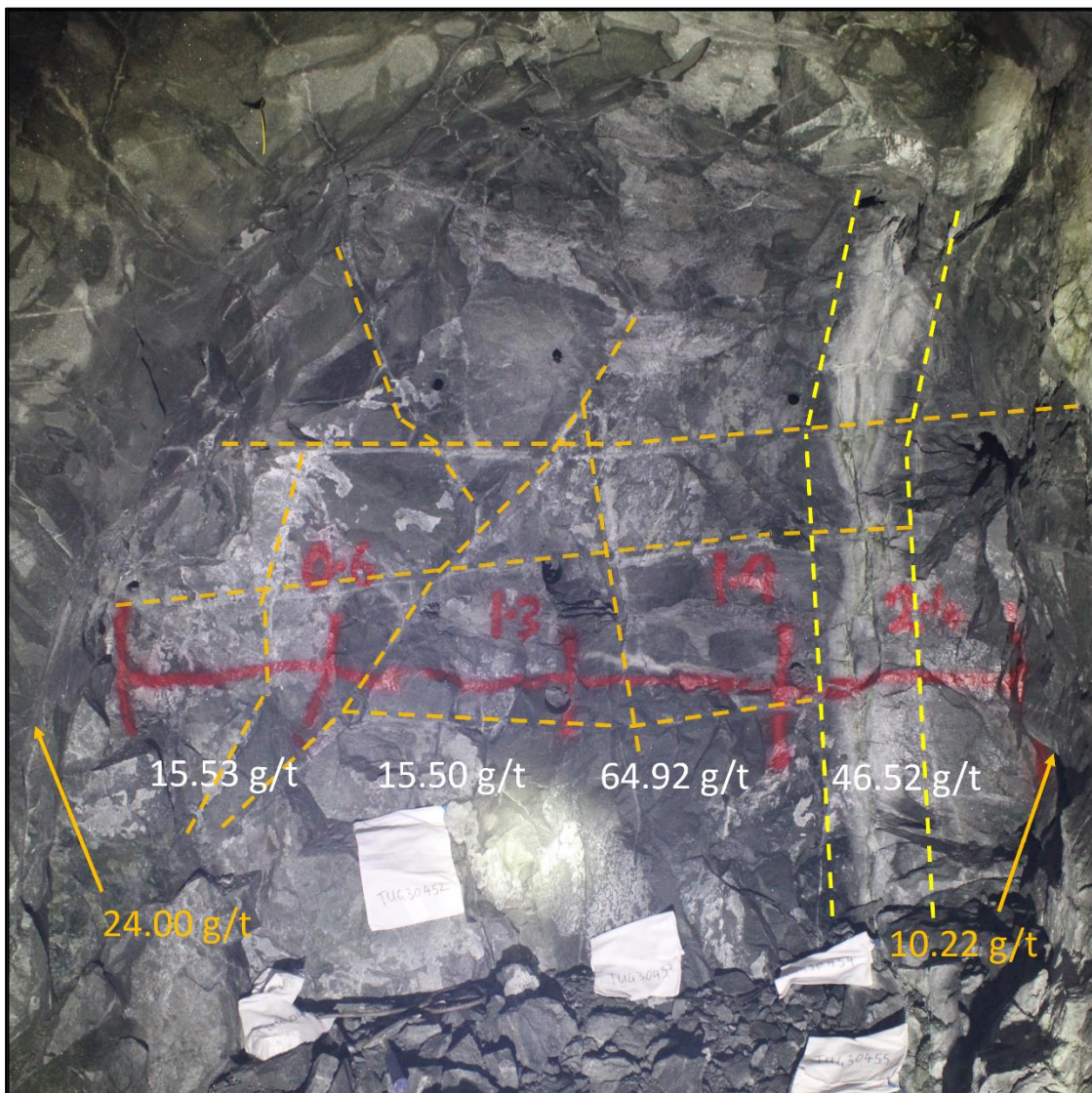
Mining of the URW1 lodes has been ongoing since [May 18th, 2023](#) and is being conducted through the use of airleg mining. Airleg mining is a very precise method of mining which is ideal for narrow vein mineralization such as at Tuvatu as it enables the extraction of the vein material with minimal dilution.

As mining progressed along the URW1a and URW1b lodes, gold mineralization was identified within narrow stockwork-style veining in the walls of both drives following extraction. A systematic program of wall sampling was therefore initiated to determine the extent of gold mineralization along the walls. Samples were collected at approximately 1m intervals along the entire length of both the lefthand and righthand walls of both the URW1a and URW1b mine drives. The samples were collected by chipping material off the face of the wall along a continuous horizontal line irrespective of veining, mineralization, alteration, or lithology. The sampling results are therefore considered representative of the wall material.

The wall sampling results indicate significant gold mineralization is present in the walls of both the URW1a and URW1b mine drives, yet the lateral extent of this mineralization is unknown. An investigation is underway to determine how far mineralization extends beyond the current walls of the drives and how much additional material can be mined from these drives. Information gained from this investigation will then be applied to adapt the mine design for these lodes moving forward. As a general strategy, the early recognition of gold-bearing stockwork-style veining beyond the primary vein is significant as it provides the opportunity for the mining team to take advantage of increased mining volumes early in the life of the mine. The mining method at Tuvatu is being assessed locally and where it can be demonstrated to be beneficial a switch from airleg to mechanized mining will be considered. The effect of mechanized mining as compared to airleg mining is that it has a higher production rate but wider minimum mining widths. It is therefore efficient for wide zones of mineralization but increases dilution in narrow zones.

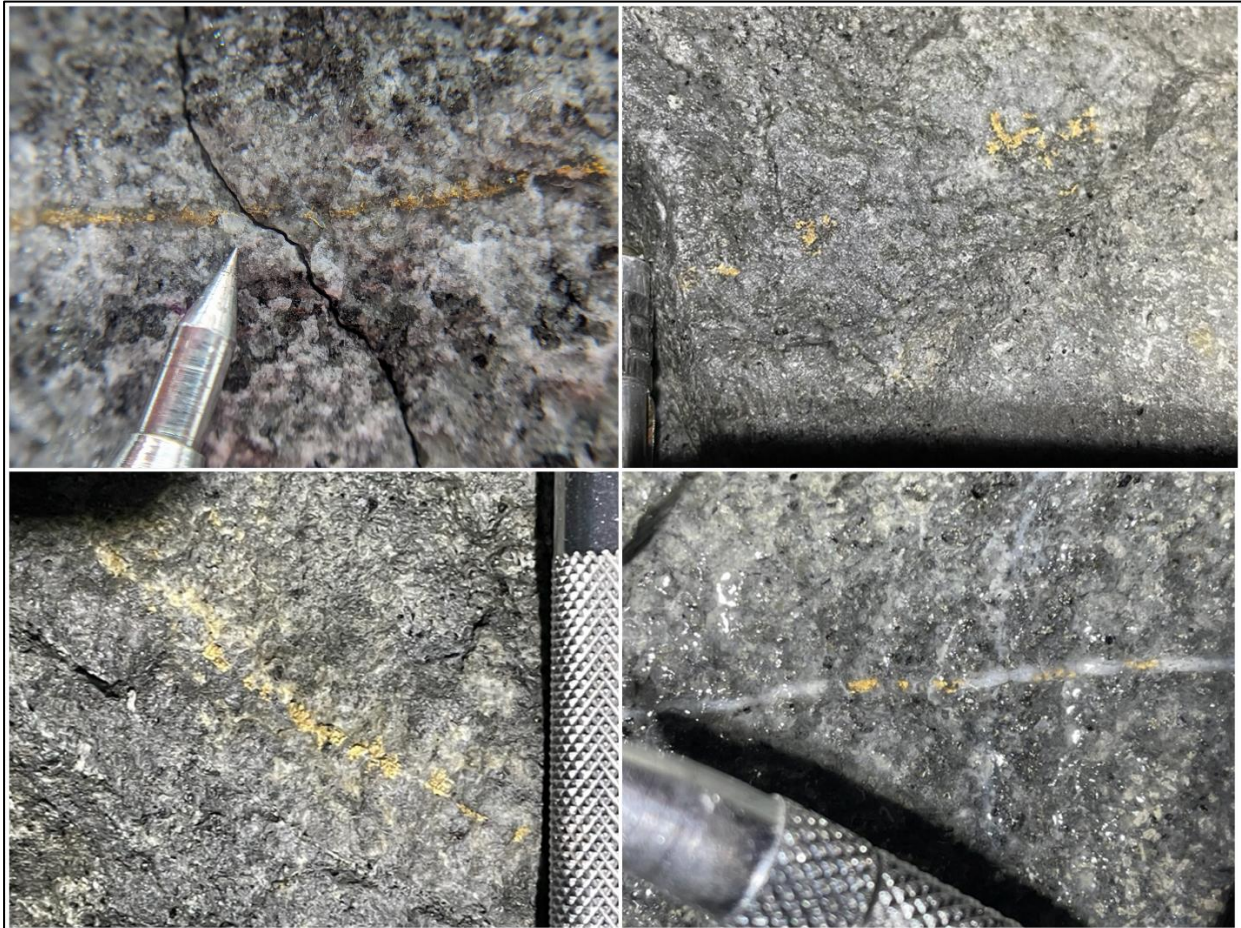
### Modes of Mineralization at URW1 lodes

The discovery of widespread gold mineralization in the walls of the URW1a and URW1b mine drives has indicated that high-grade gold mineralization extends for several meters on either side of the main URW1 lodes. This has led to an increased understanding of the gold grade distribution in this portion of the Tuvatu deposit. It is well established that high-grade gold mineralization at Tuvatu occurs within the main subvertical lodes, such as the URW1a and URW1b lodes, which are likely the primary fluid-flow pathways in this part of the system. Results from the wall sampling program confirm the presence of a secondary, but no less important, mode of occurrence of gold mineralization of considerable significance. This second mode of mineralization occurs as a network of stockwork-style veining that forms a halo of metric extent peripheral to the main sub-vertical lodes (Figure 3).



**Figure 3. Example of grade distribution in URW1a.** Photo of the face of the URW1a mine drive at approximately 24 m into the drive. The main lode is shown to the right of the photo within the dashed yellow lines. Stockwork style veining is shown to the left of the main lode, with some of the veining highlighted by dashed orange lines. Gold grades from face sampling are shown in white, while gold grades from the wall sampling at this location are shown in orange. The main lode at this part of the drive is quite close to the righthand wall of the drive so we can see that high-grade gold in the form of stockwork style veining extends at least 2 m to the lefthand wall of the drive, where wall sampling returned a grade of 24.00 g/t Au. High grade material at this location therefore extends beyond the lefthand wall, as well as beyond the righthand wall where the wall sample returned 10.22 g/t Au. The lateral extent of high-grade mineralization peripheral to the main subvertical lodes is currently unknown.

Gold mineralization in the main lodes typically occurs within chaledonic quartz veins both as native gold resulting from fluid flashing events and as a very fine-grained gold overprint in association with coarse grained pyrite and sphalerite. Gold mineralization within the halo of stockwork-style veining around the main lode occurs as native gold within a network of thin (<1 cm wide) quartz veinlets (Figure 4). The discovery of this second form of gold mineralization represents a potentially significant upside for gold grades and tonnage at the URW1a and URW1b lodes, and possibly for Tuvatu as a whole.



**Figure 4. Examples of different visible gold-bearing veinlets identified during sampling.** Examples of thin, visible gold-bearing veinlets from stockwork-style veining peripheral to the URW1a and URW1b main lodes. Scratchier pen used for scale.

#### **CAUTIONARY STATEMENT**

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where metal concentrations or grades are the factors of principal economic interest. At Tuvatu, coarse visible gold generally correlates well to high-grade mineralization. However, the actual grades can only be determined by systematic sampling and assaying.

#### **About Tuvatu**

The Tuvatu Alkaline Gold Project is located on the island of Viti Levu in Fiji. The January 2018 mineral resource for Tuvatu as disclosed in the technical report “Technical Report and Preliminary Economic Assessment for the Tuvatu Gold Project, Republic of Fiji”, dated September 25, 2020, and prepared by Mining Associates Pty Ltd of Brisbane Qld, comprises 1,007,000 tonnes indicated at 8.50 g/t Au (274,600 oz. Au) and 1,325,000 tonnes



inferred at 9.0 g/t Au (384,000 oz. Au) at a cut-off grade of 3.0 g/t Au. The technical report is available on the Lion One website at [www.liononemetals.com](http://www.liononemetals.com) and on the SEDAR website at [www.sedar.com](http://www.sedar.com).

#### **Qualified Person**

In accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“NI 43-101”), Sergio Cattalani, P. Geo, Senior Vice President Exploration, is the Qualified Person for the Company and has reviewed and is responsible for the technical and scientific content of this news release.

#### **QAQC Procedures**

Lion One adheres to rigorous QAQC procedures above and beyond basic regulatory guidelines in conducting its sampling, drilling, testing, and analyses. The Company utilizes its own fleet of diamond drill rigs, using PQ, HQ and NQ sized drill core rods. Drill core is logged and split by Lion One personnel on site. Samples are delivered to and analyzed at the Company’s geochemical and metallurgical laboratory in Fiji. Duplicates of all samples with grades above 0.5 g/t Au are both re-assayed at Lion One’s lab and delivered to ALS Global Laboratories in Australia (ALS) for check assay determinations. All samples for all high-grade intercepts are sent to ALS for check assays. All samples are pulverized to 85% passing through 75 microns. Gold analysis is carried out using fire assay with an AA finish. Samples that have returned grades greater than 10.00 g/t Au are then re-analyzed by gravimetric method. For samples that return greater than 0.50 g/t Au, repeat fire assay runs are carried out and repeated until a result is obtained that is within 10% of the original fire assay run. Lion One’s laboratory can also assay for a range of 71 other elements through Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES), but currently focuses on a suite of 9 important pathfinder elements. All duplicate anomalous samples are sent to ALS labs in Townsville QLD and are analyzed by the same methods (Au-AA26, and Au-GRA22 where applicable). ALS also analyses 33 pathfinder elements by HF-HNO<sub>3</sub>-HClO<sub>4</sub> acid digestion, HCl leach and ICP-AES (method ME-ICP61).

#### **About Lion One Metals Limited**

Lion One’s flagship asset is 100% owned, fully permitted high grade Tuvatu Alkaline Gold Project, located on the island of Viti Levu in Fiji. Lion One envisions a low-cost high-grade underground gold mining operation at Tuvatu coupled with exciting exploration upside inside its tenements covering the entire Navilawa Caldera, an underexplored yet highly prospective 7km diameter alkaline gold system. Lion One’s CEO Walter Berukoff leads an experienced team of explorers and mine builders and has owned or operated over 20 mines in 7 countries. As the founder and former CEO of Miramar Mines, Northern Orion, and La Mancha Resources, Walter is credited with building over \$3 billion of value for shareholders.

#### **On behalf of the Board of Directors of Lion One Metals Limited**

*“Walter Berukoff”, Chairman and CEO*

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**Appendix 1: Complete Wall Sample Results and Location Information**

**Table 2. Wall Sample results from the URW1a lode**

URW1a - Left Wall				URW1a - Right Wall			
From	To	Interval (m)	Au g/t	From	To	Interval (m)	Au g/t
0	1	1	26.36	0	1	1	0.94
1	2	1	67.06	1	2	1	5.25
2	3	1	1.4	2	3	1	1.04
3	4	1	39.56	3	4	1	2.84
4	5	1	17.43	4	5	1	1.45
5	6	1	16.96	5	6	1	9.39
6	7	1	4.57	6	7	1	0.13
7	8	1	0.01	7	8	1	0.01
8	9	1	0.28	8	9	1	0.73
9	10	1	0.04	9	10	1	35.9
10	11	1	0.15	10	11	1	0.13
11	12	1	0.01	11	12	1	10.46
12	13	1	9.01	12	13	1	0.21
13	14	1	3.36	13	14	1	4.39
14	15	1	0.01	14	15	1	1.63
15	16	1	4.24	15	16	1	150.77
16	17	1	2.52	16	17	1	14.19
17	18	1	0.28	17	18	1	12.77
18	19	1	37.88	18	19	1	23.02
19	20	1	1.34	19	20	1	11.57
20	21	1	6.93	20	21	1	10.22
21	22	1	24	21	22	1	25.76
22	23	1	1.43	22	23	1	2.48
23	24	1	7.93	23	24	1	2.16
24	25	1	37.03	24	25	1	0.37
25	26	1	107.56	25	26	1	1.35
26	27	1	1.97	26	27	1	0.54
27	28	1	0.14	27	28	1	0.11
28	29	1	1.73	28	29	1	0.04
29	30	1	0.21	29	30	1	3.31
30	31	1	0.01	30	31	1	0.06

**Table 3. Wall Sample results from the URW1b lode**

URW1b - Left Wall				URW1b - Right Wall			
From	To	Interval (m)	Au g/t	From	To	Interval (m)	Au g/t
0	1	1	0.00	0	1	1	0.73
1	2	1	0.48	1	2	1	3.02
2	3	1	1.17	2	2.8	0.8	1.33
3	4	1	2.21	2.8	3.8	1	3.41
4	5	1	2.62	3.8	4.8	1	1.67
5	6	1	0.20	4.8	5.8	1	0.12
6	7	1	149.86	5.8	6.8	1	27.71





7	8	1	3.83
8	9	1	0.00
9	10	1	80.11
10	11	1	23.20
11	11.2	0.2	27.14
11.2	12	0.8	68.44
12	13	1	0.00
13	14	1	0.00
14	15	1	12.00
15	16	1	12.36
16	17	1	10.19
17	18	1	0.82
18	19	1	2.03
19	20	1	0.00
20	21	1	0.00
21	22	1	2.16

6.8	7.4	0.6	5.14
7.4	8.4	1	3.96
8.4	9.4	1	5.01
9.4	9.8	0.4	50.76
9.8	10.8	1	91.15
10.8	11.8	1	0.17
11.8	12.8	1	6.4
12.8	13.8	1	19.68
13.8	14.8	1	11.76
14.8	15.8	1	47.29
15.8	16.8	1	49.02
16.8	17.8	1	37.29

**Table 4.** Coordinates for wall sample lines reported in this release, using the end of the sample line as the reference point (i.e. the northern most point). Coordinates are in Fiji map grid.

Sample Line	Easting (m)	Northing (m)	Elevation (m)	Sample Line Length
URW1a - Left Wall	1876335	3920735	141	31
URW1a - Right Wall	1876338	3920736	141	31
URW1b - Left Wall	1876347	3920738	142	22
URW1b - Right Wall	1876350	3920737	142	17.8