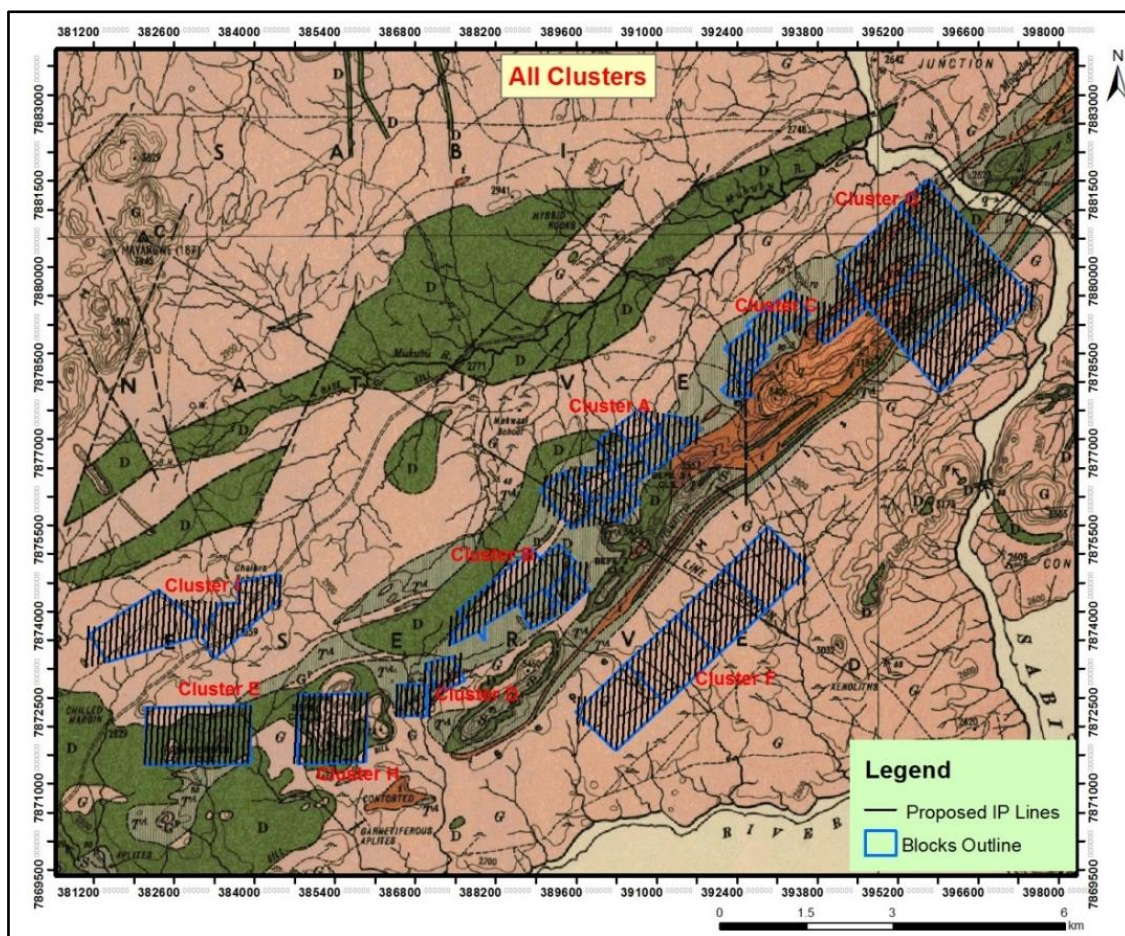


# MEZZOTIN MINERALS INC.'S SABI STAR TANTALITE CLAIMS VALUATION



Sabi Star Claim Clusters

**Prepared for:**

**Mezzotin Minerals Inc.**  
150 York Street,  
Suite 1600 Toronto,  
ON. M5H 3S5  
Canada

**Prepared by:**

**SRK Consulting Zimbabwe**  
28 Kennedy Drive,  
P.O. Box GD773,  
Greendale, Harare  
Zimbabwe

**Tel: +263 (4) 331 293**  
**Cell: +263 (4) 779 746 722**

Sabi Star Tantalite Claims Valuation

June 2018

**Author:**

**Arimon Ngilazi**  
MAusIMM, MSAIMM, MBA,  
CFSG (Mining Geostatistics),  
BSc (Hons) Geology

The Directors

Mezzotin Minerals Inc.  
150 York Street,  
Suite 1600 Toronto,  
ON. M5H 3S5  
Canada

14 June 2018

**RE: REPORT ON THE EVALUATION OF SABI STAR TANTALITE CLAIMS**

Please find attached our Evaluation Report on Mezzotin Minerals Inc's Sabi Star Tantalite claims. We have prepared this Report in accordance with our understanding of the requirements of Mezzotin Minerals Inc.

Should you have any queries please do not hesitate to contact us on the following numbers:

(Tel) +263(0)4 331 293

(Cell) +263(0) 779 746 722

(Email) [angilazi@gmail.com](mailto:angilazi@gmail.com) ; (Mr. Arimon Ngilazi – Principal Consultant)



**Arimon Ngilazi**

Principal Consultant

SRK Consulting Zimbabwe

**TABLE OF CONTENTS**

EXECUTIVE SUMMARY	i
Introduction	i
Summary of Findings	ii
1 INTRODUCTION AND TERMS OF REFERENCE	1
1.1 Introduction	1
1.2 Qualifications of SRK	2
1.3 Background	2
2 DATA AVAILABLE FOR THE VALUATION	3
2.1 Claims Ranking	3
2.2 Highest Ranking Cluster Drilling Data	4
3 SRK VALUATION	6
3.1 Conclusions	10
ABBREVIATIONS	11
UNITS	11

**LIST OF TABLES**

Table E1: Summary of Mezzotin Minerals Inc tantalite claim holdings	i
Table 1.1: Summary of Tantalite claims	1
Table 2.1: Analytical results from the 2016-2017 drilling campaign	5
Table 2.2: Other analytical results from the 2016-2017 campaign at 250 g/t Ta <sub>2</sub> O <sub>5</sub> cut-off	5
Table 3.1: SRK Valuation Methodologies	6
Table 3.2: Optimistic Valuation of the Sabi Star Claims	8
Table 3.3: Pessimistic Valuation of the Sabi Star Claims	9

**LIST OF FIGURES**

Figure E1: Location of drill hole and trenches within the explored pegmatites	i
Figure 2.1: Mezzotin Minerals Inc claims ranked as Cluster 'A' to 'I'	3
Figure 2.1: Cluster 'A' showing the drill lines	4
Figure 3.1: Valuation thermometer	10

## EXECUTIVE SUMMARY

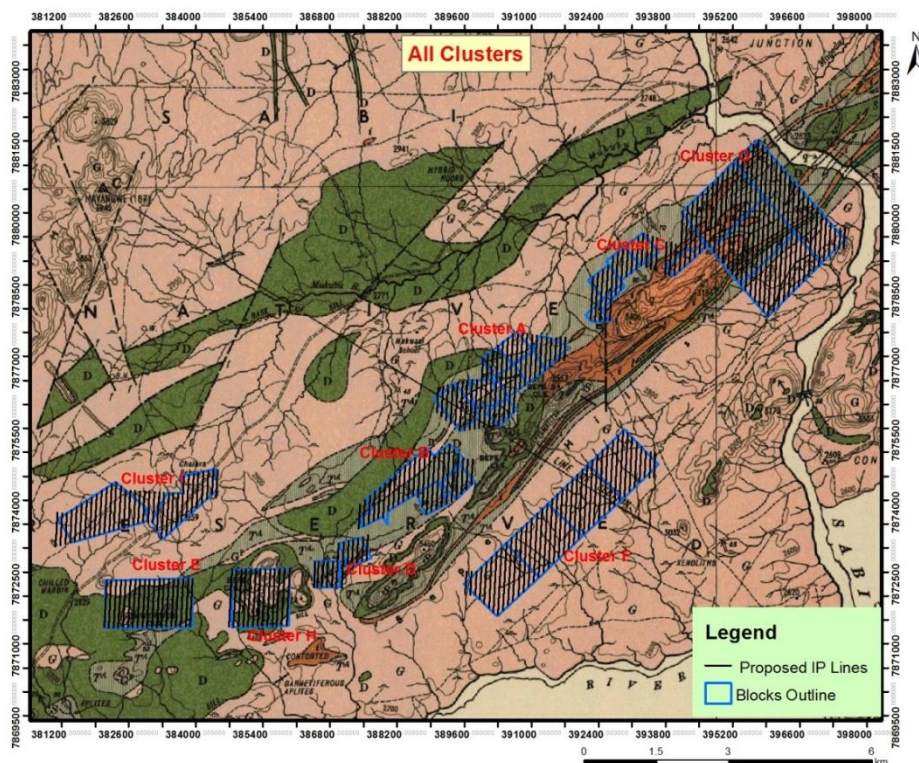
### Introduction

Mezzotin Minerals Inc (“Mezzotin”), commissioned SRK Consulting Zimbabwe (“SRK”) to carry out an Independent valuation of the company’s thirty (30) tantalite claims as summarised in Table E1 below.

**Table E1:** Summary of Mezzotin Minerals Inc. tantalite claim holdings

Claim Size (ha)	Number	Total Area (ha)
5	1	5
18	1	18
25	15	375
150	13	1,950
<b>Total</b>	<b>30</b>	<b>2,348</b>

Since 2009, SRK has been engaged on several occasions before to work on the claims, albeit under different ownership. In a separate mandate in February 2017, SRK carried out an analysis of the drilling done by Max Mind (Private) Limited, a company registered in Zimbabwe, on two of the targets in the most prospective cluster of claims. SRK has used this knowledge and its October 2013 ranking of the prospectivity of the claims to come up with an independent valuation of the claims. The ranked clusters are shown in Figure 2.1 where Cluster A is the most prospective and Cluster I is the least prospective.



**Figure E1:** Location of drill hole and trenches within the explored pegmatites

There are other elements besides tantalite in the pegmatites namely, lithium, beryllium, niobium, germanium, tin, tungsten, rubidium, caesium and titanium. The samples have not been analysed for gold although it is possible that there are low gold grades that can contribute economic value.

The valuation has been carried out on the basis that these are primarily tantalite claims and the process recovery would be aimed at optimising recovery of tantalite. Consideration of the other elements largely indicates that the recovery of economic levels of lithium is possible where it is collocated with tantalite. However, this is not always the case and the contribution of the other elements, including lithium, is in the 8% to 12% range assuming secondary processes are put in place after tantalite recovery.

### **Summary of Findings**

The valuation has been carried out using two approaches

1. Using the drilled data from Cluster A and assuming it is true for the other eight clusters. This has been called the optimistic valuation.
2. Using the drilled data from Cluster A only for that cluster, and downgrading the other eight clusters. This has been called the conservative valuation.

From these approaches SRK obtained a range of values from which a determination was made that the Sabi Star claims valuation is US\$118,000 ± US\$1,200.



## 1 INTRODUCTION AND TERMS OF REFERENCE

### 1.1 Introduction

Mezzotin Minerals Inc (Private) Ltd. ("Mezzotin") commissioned SRK Consulting Zimbabwe ("SRK") to prepare an Independent Valuation Report of the Sabi Star tantalite claims with 30 claims in total, as detailed in Table 1.1.

**Table 1.1:** Summary of Tantalite claims

Item	Claim number and name	Area (ha)	New Inspection Date
1	M3834BMGONDA 90	25	25-Mar-18
2	M1445BMBEPE E	25	25-May-18
3	M1446BMBEPE F	25	25-May-18
4	M1461BMMAJERE 46	25	24-Jun-18
5	M1456BMGONDA 68	25	24-Jun-18
6	M1457BMGONDA 69	25	24-Jun-18
7	M1458BMGONDA 70	18	24-Jun-18
8	M1459BMGONDA 71	25	24-Jun-18
9	M1460BMGONDA 72	25	24-Jun-18
10	M1462BMGONDA 73	25	24-Jun-18
11	M1463BMGONDA 74	25	24-Jun-18
12	M690BMGONDA 50	25	24-Jun-18
13	M689BMMAJERE 34	25	24-Jun-18
14	M691BMGONDA 51	25	24-Jun-18
15	M747BMMAJERE 38	25	8-Nov-17
16	M748BMMAJERE 39	25	8-Nov-17
17	M749BMMAJERE 40	5	8-Nov-17
18	M750BMMAJERE 41	150	8-Nov-17
19	M751BMMAJERE 42	150	8-Nov-17
20	M752BMMAJERE 43	150	8-Nov-17
21	M768BMGONDA 58	150	8-Nov-17
22	M769BMMAJERE 44	150	8-Nov-17
23	M772BMGONDA 59	150	4-Dec-17
24	M773BMGONDA 60A	150	4-Dec-17
25	M774BMMWERIHARI 11	150	4-Dec-17
26	M777BMMWERIHARI 12	150	4-Dec-17
27	M788BMGONDA 60	150	5-Jan-18
28	M789BMGONDA 61	150	5-Jan-18
29	M790BMGONDA 62	150	5-Jan-18
30	M791BMGONDA 63	150	5-Jan-18
<b>Total Area</b>		<b>2,348</b>	

## 1.2 Qualifications of SRK

SRK Consulting offers expertise in a wide range of resource engineering disciplines. The SRK Group's independence is ensured by the fact that it holds no equity in any project. This permits the SRK Group to provide its clients with conflict-free and objective recommendations on crucial judgment issues. The SRK Group has a demonstrated record of accomplishment in undertaking independent assessments of resources and reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with a large number of major international mining companies and their projects, providing the mining industry with consultancy service inputs.

Neither SRK nor any of its employees and associates has any beneficial interest in Mezzotin Minerals Inc or in the assets of Mezzotin. SRK are to be paid a fee for this work in accordance with normal professional consulting practice.

Mr. Arimon Ngilazi, an independent technical consultant to Mezzotin and the author of this report, is a "qualified person" as that term is defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators and has prepared all scientific and technical information contained in this report.

- Arimon Ngilazi, MAusIMM, MSAIMM, MBA, CFSG (Mining Geostatistics), BSc (Hons) Geology

## 1.3 Background

The entire Sabi Star pegmatite is covered by claims. However, there are no known records of systematic exploration on the claims. Neither are there previous resource estimates although mining for tantalite and other pegmatite minerals in the area has been taking place intermittently since 1951. The continuity of the pegmatites to depths beyond 60 m has been indicated from two unsampled water boreholes.

In 2010, SRK was commissioned by a different client to compile an Independent Technical Report on the Sabi Star claims. SRK's limited sampling work on 100 kg samples confirmed that tantalite is present at Sabi Star and that parts of the pegmatite could sustain a profitable mining operation. However, it was SRK's finding at that time that the geological controls on the mineralisation and the internal structure of the pegmatites are poorly constrained, and the tantalite grades are not known. To determine these would require detailed exploration.

During the period spanning from late 2016 and early 2017, Max Mind (Private) Limited, a company registered in Zimbabwe, carried out some limited drilling as a first phase of an extensive exploration project. SRK has used the analytical results from this drilling campaign and geological reconnaissance mapping of the claims in the valuation.



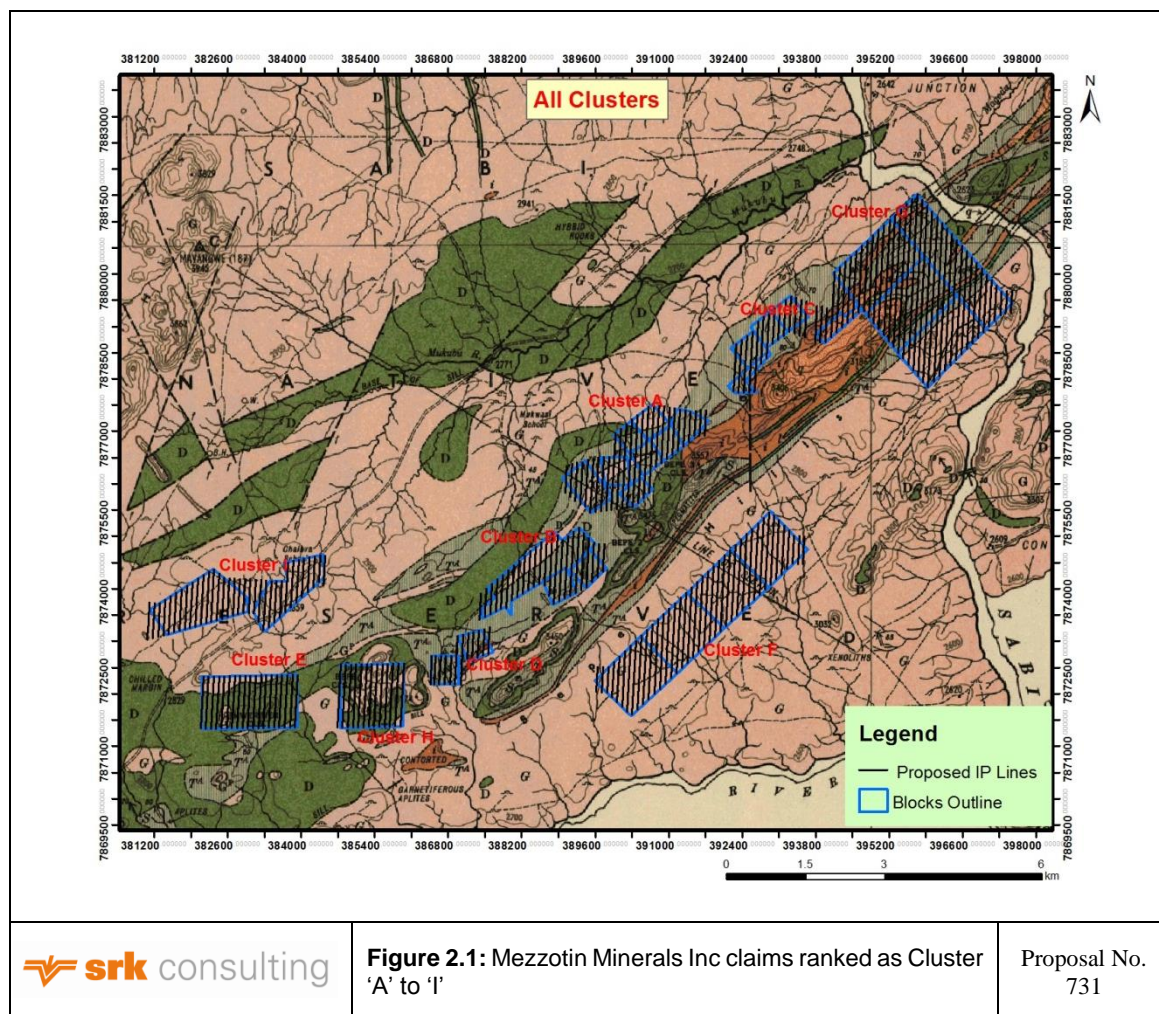
## 2 DATA AVAILABLE FOR THE VALUATION

Two sources of data were used for the valuation. The first source was from SRK's 2013 ranking of the claim clusters and the second was from the drilling carried out in 2016-2017 on the most prospective, or highest ranking, cluster.

### 2.1 Claims Ranking

In the period between September and October 2013, SRK carried a desktop study based on the available information and four-day a field reconnaissance work to assess the terrain, exposure and capabilities of the plant and machinery on site in relation to further exploration work.

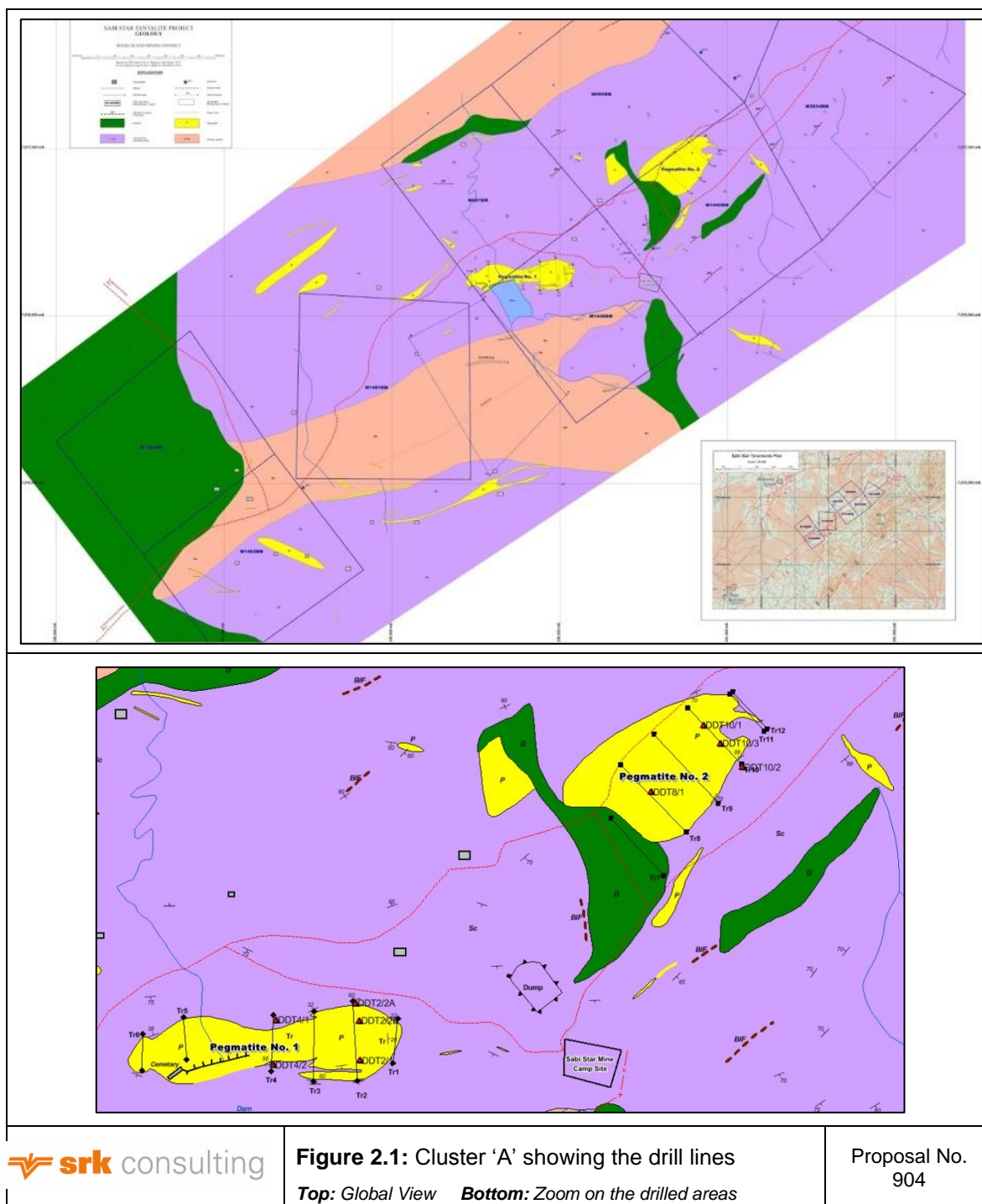
The reconnaissance work identified 9 clusters of claims and ranked them according to prospectivity as Cluster 'A' to Cluster 'I', where Cluster 'A' is the most prospective (Figure 1). Cluster 'A' covers the Sabi Star claims where the plant is currently located. However, the plant and machinery are non-operational and obsolete.



The development of Clusters 'B' to 'I' would depend on the company's corporate investment strategy. Nevertheless, after the initial mapping and magnetic survey, SRK estimated that to develop all clusters to resource evaluation stage this would take approximately 370 actual working days at a cost of US\$3.3 million dollars excluding consumables and non-skilled labour.

## 2.2 Highest Ranking Cluster Drilling Data

SRK reviewed Cluster 'A' data from ten drill holes of which seven had analytical values of tantalum, lithium and eight other elements Figure 2.1.



A tantalite cut-off of 100 g/t  $Ta_2O_5$  and lithium cut-off of 0.80%  $Li_2O$  was used for a global resource delineation and 250 g/t  $Ta_2O_5$  to estimate a tentative mineable resource down to between 50 m and 60 m below surface. From the four sections analysed, two of them in the western area (Pegmatite Number 1) appear economically mineralised while the two sections in the eastern portion

(Pegmatite Number 2) do not appear to have economic mineralisation.

However, the drilling was insufficient to confidently delineate a resource or build a three dimensional model. There was only one resource outline based on two drill holes whereas the rest were based on single drill hole intersections. Therefore, there was little confidence the shape and continuity of the mineralisation.

Nevertheless, the analytical data gave an insight into the possible global and mineable resource grades (Table 2.1). While the resource envelope is about 40 m to 50 m wide, the mineable resource splits this into two or three zones of 5 m to 7 m wide, which translates to 10% to 18% by volume or tonnage.

**Table 2.1:** Analytical results from the 2016-2017 drilling campaign

	Resource @ 100 g/t Ta <sub>2</sub> O <sub>5</sub>		Mineable @ 250 g/t Ta <sub>2</sub> O <sub>5</sub>	
<b>HWOB</b>	Ta <sub>2</sub> O <sub>5</sub> (g/t)	%Li <sub>2</sub> O	Ta <sub>2</sub> O <sub>5</sub> (g/t)	%Li <sub>2</sub> O
Samples	69	69	17	17
Minimum	2.564	0.203	27.106	0.203
Maximum	1,016	6.42	1,016	6.29
<b>Mean</b>	<b>153</b>	<b>3.21</b>	<b>399</b>	<b>2.55</b>
<b>FWOB</b>				
Samples	52	52	26	26
Minimum	6.471	0.048	15.263	0.048
Maximum	1,056	2.2	1,056	2.2
<b>Mean</b>	<b>249</b>	<b>0.41</b>	<b>365</b>	<b>0.47</b>
<b>FWOB + HWOB</b>				
Samples	121	121	43	43
Minimum	2.564	0.048	15.263	0.048
Maximum	1,056	2.2	1,056	2.2
<b>Mean</b>	<b>194</b>	<b>2.01</b>	<b>378</b>	<b>1.29</b>

\*FWOB = Footwall Orebody HWOB = Hangingwall Orebody

**Table 2.2:** Other analytical results from the 2016-2017 campaign at 250 g/t Ta<sub>2</sub>O<sub>5</sub> cut-off

<b>FWOB + HWOB</b>	BeO (g/t)	Nb <sub>2</sub> O <sub>5</sub> (g/t)	GeO <sub>2</sub> (g/t)	SnO <sub>2</sub> (g/t)	WO <sub>3</sub> (g/t)	Rb <sub>2</sub> O (g/t)	Cs <sub>2</sub> O (g/t)	%TiO <sub>2</sub>
Count	43	43	43	43	43	43	43	43
Minimum	0.003	5.722	1.441	7.618	15.764	19.911	4.770	0.00167
Maximum	2,997	1,144	37	1,006	1,091	10,940	7,696	0.00167
<b>Mean</b>	<b>477</b>	<b>156</b>	<b>14.55</b>	<b>151</b>	<b>391</b>	<b>3,412</b>	<b>1,243</b>	<b>0.00167</b>

The samples have not been analysed for gold although it is possible that there are low gold grades that can contribute economic value.

### 3 SRK VALUATION

The pertinent finding from the drilling campaign was that the 250 g/t Ta<sub>2</sub>O<sub>5</sub> cut-off envelopes were based on single drill hole intersections and it was not possible to construct a three-dimensional model as neither shape nor continuity of mineralisation could be interpreted with any level of confidence. Hence, it is not possible to assess the impact of pursuing tantalite as if it were the only mineral of economic interest in the deposit despite this appearing to be sub-optimal for the HWOB that hosts potentially economic levels of lithium and potentially economic applicable to the lithium-poor FWOB. Therefore, the appropriate value to use is the average of the HWOB and FWOB grades.

The valuation has been carried out on the basis that these are primarily tantalite claims and the process recovery would be aimed at optimising recovery of tantalite. Consideration of the other elements largely indicates that the recovery of economic lithium is possible were it is collocated with tantalite. However, this is not always the case and the contribution of the other elements, including lithium, is in the 8% to 12% range assuming secondary processes are put in place after tantalite recovery.

There are two ways of valuing the claims based on the combination of the ranking and grades from the drilling campaign of Cluster A as summarised in Table 3.1.

**Table 3.1: SRK Valuation Methodologies**

Cluster	Method 1 (Optimistic)	Method 2 (Pessimistic)
A	1% on situ value taking into account relative confidence level and global mass pull	1% on situ value taking into account relative confidence level and global mass pull
B - I	1% on situ value taking into account relative confidence level and global mass pull	1% on situ value taking into account relative confidence level and global 10% mass pull, but apply a factor to reflect lack of drilling/sample data 1. 0.6 factor for Minimum value 2. 0.7 factor as Average Value 3. 0.8 factor as Maximum value

Note that the optimistic value just refers to the fact that the grades of the drilled area are applied to the rest of the claims as if the grades were uniform throughout. The fact that there is no objective basis (or evidence) for this assumption makes it optimistic. Similarly, the pessimistic values discount the optimistic values by a relative factor of confidence (0.6, 0.7 and 0.8). These factors are relative but adjust for information effect.

The constant parameters for the scenarios are as follows:

1. 5 m mineralised zone width
2. 60 m vertical depth of mineralised zone
3. 2.70 t/m<sup>3</sup> in situ density

4. 10% mass pull i.e. the tantalum in the concentrate as percentage of the total tantalum in ore
5. Tantalum price per kg: US\$131 minimum, US\$131 average and US\$139 maximum (2017 prices as at end of 2017).
6. Only 10% credit extra credit have been given to lithium and other accessory minerals on the presumption that the recovery of tantalite is pursued to the detriment of the other elements.

The variable parameters are

1. The number of mineralised zones
2. The strike of the mineralised zones
3. The ranking probability between 0.50 for the least and 0.90 for the most prospective cluster of claims.

**Table 3.2:** Optimistic Valuation of the Sabi Star Claims

Cluster	Probability	Strike (m)	Zones	Volume	Tonnes	Expected Content		In Situ Value (USD)			Undeveloped Value (USD)		
						Ta <sub>2</sub> O <sub>5</sub> (g/t)	Ta (kg)	Minimum*	Average*	Maximum*	Minimum	Average	Maximum
A	0.90	200	5	300,000	729,000	378	225,686	3,053,525	3,252,128	3,450,731	30,535	32,521	34,507
B	0.85	200	5	300,000	688,500	378	213,147	2,883,885	3,071,454	3,259,024	28,839	30,715	32,590
C	0.80	150	3	135,000	291,600	378	90,274	1,221,410	1,300,851	1,380,293	12,214	13,009	13,803
D	0.75	50	2	30,000	60,750	378	18,807	254,460	271,011	287,561	2,545	2,710	2,876
E	0.70	175	2	105,000	198,450	378	61,437	831,237	885,302	939,366	8,312	8,853	9,394
F	0.65	200	3	180,000	315,900	378	97,797	1,323,194	1,409,256	1,495,317	13,232	14,093	14,953
G	0.60	150	6	270,000	437,400	378	135,411	1,832,115	1,951,277	2,070,439	18,321	19,513	20,704
H	0.55	100	3	90,000	133,650	378	41,376	559,813	596,223	632,634	5,598	5,962	6,326
I	0.50	200	2	120,000	162,000	378	50,152	678,561	722,695	766,829	6,786	7,227	7,668
<b>Totals</b>								<b>12,638,200</b>	<b>13,460,197</b>	<b>14,282,194</b>	<b>126,382</b>	<b>134,602</b>	<b>142,822</b>

Ta= Ta<sub>2</sub>O<sub>5</sub>/1.221

\*10% Mass Pull

The optimistic value of the claims is between US\$126,300 and \$142,900, giving a value of \$134,600 as a fair valuation.



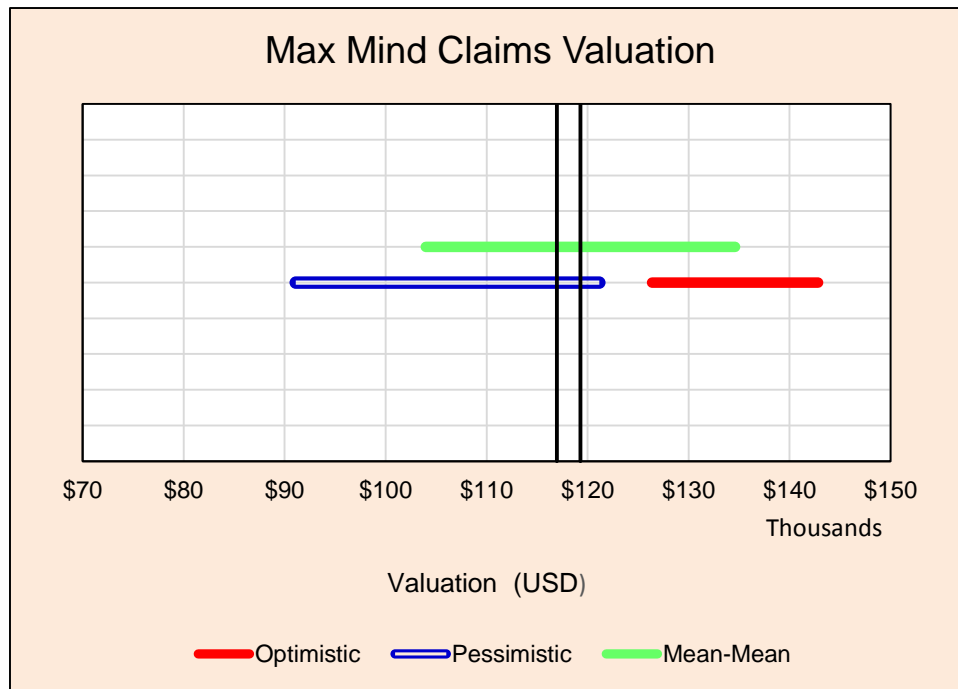
**Table 3.3:** Pessimistic Valuation of the Sabi Star Claims

Cluster	Resource Probability	Strike (m)	Zones	Volume	Tonnes	Expected Content		In Situ Value			Undeveloped Value		
						Ta <sub>2</sub> O <sub>5</sub> (g/t)	Ta (kg)	Minimum	Average	Maximum	Minimum	Average	Maximum
A	0.90	200	5	300,000	729,000	378	225,686	3,358,877	3,252,128	3,450,731	33,589	32,521	34,507
B	0.85	200	5	300,000	688,500	378	213,147	1,730,331	2,150,018	2,607,219	17,303	21,500	26,072
C	0.80	150	3	135,000	291,600	378	90,274	732,846	910,596	1,104,234	7,328	9,106	11,042
D	0.75	50	2	30,000	60,750	378	18,807	152,676	189,707	230,049	1,527	1,897	2,300
E	0.70	175	2	105,000	198,450	378	61,437	498,742	619,711	751,493	4,987	6,197	7,515
F	0.65	200	3	180,000	315,900	378	97,797	793,916	986,479	1,196,254	7,939	9,865	11,963
G	0.60	150	6	270,000	437,400	378	135,411	1,099,269	1,365,894	1,656,351	10,993	13,659	16,564
H	0.55	100	3	90,000	133,650	378	41,376	335,888	417,356	506,107	3,359	4,174	5,061
I	0.50	200	2	120,000	162,000	378	50,152	407,137	505,887	613,463	4,071	5,059	6,135
<b>Totals</b>								<b>9,109,683</b>	<b>10,397,776</b>	<b>12,115,901</b>	<b>91,097</b>	<b>103,978</b>	<b>121,159</b>

The pessimistic value of the claims is between US\$91,000 and \$121,200, giving a value of \$104,000 as a fair valuation.

A thermometer presentation of the valuation is in Figure 3.1.





**Figure 3.1:** Valuation thermometer

The valuation thermometer shows no overlap between the optimistic and pessimistic ranges. Hence the best estimate can be determined in two ways

1. the mean of the two range averages i.e. mid-point of the green bar. This value is approximately US\$119,300.00
2. the mean between the maximum value of the pessimistic valuation and the minimum of the optimistic valuation. This value is US\$117,000.00.
3. These compromise values are shown as the two vertical lines in Figure 3.1, and the compromise valuation is within this range.

### 3.1 Conclusions

The SRK valuation of the Sabi Star claims is US\$118,000 ± US\$1,200. This valuation is based on the average of the optimistic valuation of all the claims assuming the grades intersected in the Cluster A claims and a conservative valuation that accepts Cluster A grades but downgrades the rest of the clusters since they have no exploration drilling data.

## **ABBREVIATIONS**

AusIMM	Australasian Institute of Mining and Metallurgy
MAusIMM	Member of the Australasian Institute of Mining and Metallurgy
MSAIMM	Member of the Southern Africa Institute of Mining and Metallurgy
SAIMM	Southern Africa Institute of Mining and Metallurgy

## **UNITS**

cm	a centimetre
°	degrees
g/t	grams per tonne
kg	a kilogram
m	a metre
%	percent