NI 43-101 Technical Report

of the

Buckell Li-Sn-Ta Project Manono, Tanganyika Province Democratic Republic of Congo

prepared for

Tantalex Resources Corporation

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prepared by

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Summary

The Tantalex Resources Corporation Buckell Li-Sn-Ta Project is a lithium, tin and tantalum exploration project located 600 km north of Lubumbashi near the town of Manono, Tanganyika province, Democratic Republic of Congo. The Project is comprised of two green field mineral licenses, 12447 and 12448, that total 920 km^2. License 12447 is adjacent to and east of the world class Sn-Ta-Li Manono-Kitotolo deposit and the site of former large scale mining that lasted from 1916 to the early 1990's. License 12448 shares a common boundary with license 12447 and lies down strike southwest of the Manono-Kitotolo deposits a maximum of 35 km. Sn-Ta mineralization on 12447 and 12448 is thought to be directly related to the emplacement of highly zoned rare-element complex type pegmatites into Proterozoic rocks of the Kilbara Belt. The Manono-Kitotolo pegmatites are oriented N40-60^{O}E with dips of 50^{O}N to 50^{O}S, but predominantly subvertical and associated with undeformed granites of the same age. The pegmatite contacts are largely parallel to the regional foliation. The pegmatite geometry has been described as a laccolith based on field observation and core data. Unweathered pegmatite total resource estimates for the Manono-Kitotolo pegmatites are 344.7-347.4 kt tin, 13,150 mt tantalite and 0.3 – 3.3 Mt lithium metal (Li). Artisanal miners have extracted cassiterite and tantalite from pits on tract 12447 that exposed pegmatite adjacent to undeformed granite. The presence of cassiterite and tantalite in alluvium, the occurrence of quartz-feldspar-mica pegmatite in artisanal miner pits and the exposure of proximal undeformed type 3 granite provide strong evidence of rare-element pegmatite at depth. Basic mapping field work and aerial geophysical surveys are needed to obtain an overview of the two green field tracts. Grid soil sampling on 100 meter spacing is recommended in the vicinity of the artisanal miner pits. A budget of USD$ 679,300 is estimated for the Phase I exploration program. Certain logistical factors are to be considered for preparation of a work program. Although Manono has been a booming mining city for most of the 20th century, the city has been through a large reduction in population and services since the mine has ceased operations. Most equipment and materials need to be brought in from Lubumbashi. Manono is located 250km off the paved national road N5 joining Lubumbashi to Kalemie. The portion of road leading to Manono may be subject to washout and difficulties during rainy seasons. Other project factors to consider are the National elections which are planned for December 19th which may cause tension, unrest and manifestations in certain areas of the country. Nevertheless, the Katanga province is known for its political stability and is more than 800 km away for potential tension zones.

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1. Introduction

1.1 Terms of Reference and Purpose of the Report

This Technical Report was prepared in general accordance with the guidelines provided by the National Instrument 43-101 (NI 43-101) Standards of Disclosure for Mineral Projects (OSC Staff Notice 43-704). This Technical Report is intended for the use of Tantalex to further evaluate the Project.

1.2 Qualifications of Consultants

Raymond P. Spanjers is an independent geological consultant, a Registered Professional Geologist (SME No. 3041730) and holds a M.S. Degree in Geology. The author has 36 years of experience in the field, which includes 17 years in high purity quartz pegmatites, and 15 years in lithium pegmatite and lithium brine exploration and development in the US and South America. The author is independent of the Property and Tantalex, and is a Qualified Person according to NI 43-101.The author visited the site on August 6-8, 2016.

1.3 Reliance on Other Experts (Item 3)

The author has relied on Tantalex for information contained in Sections 2.1 (Property Description and Location), 2.2 (Mineral Titles), 17 (Environmental Studies, Permitting and Social or Community Impact), and 20 (Adjacent Properties).

1.4 Sources of Information and Extent of Reliance

The background studies and additional references for this Technical Report are listed in Section 25. The author has reviewed the project data and, where appropriate, incorporated the results into this Technical Report. The level of detail used was appropriate for this level of study.

1.5 Effective Date

The effective date of this report is January 10, 2017

1.6 Units of Measure

The metric (SI System) units of measure are used in this report unless otherwise noted. A glossary of terms used in this report is provided in Section 25 of this report.

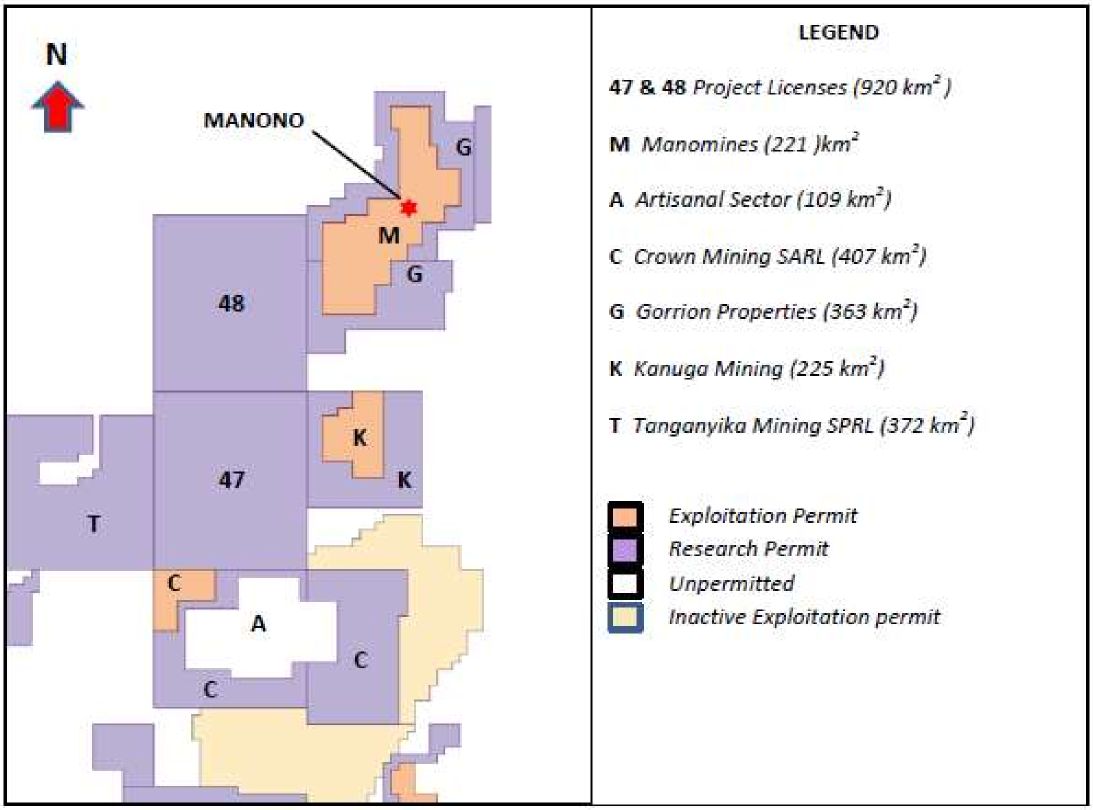
2. Property Description and Location

2.1 Property Description and Location

The Buckell Sn-Ta-Li Project (Tin-Tantalum-Lithium) is located approximately 600 km north of Lubumbashi near the town of Manono, Tanganyika Province, Democratic Republic of Congo, Latitude 7.2880^{O} S, Longitude 27.4321^{O} E (Figure 1). The project is comprised of 2 mineral leases, 12447 and 12448. The two tracts are green field sites, each encompassing an area of 460 km^{2,} and lay down strike a maximum of 35 km from the Manono and Kitotolo deposits; rare-element and complex zoned pegmatites of world class size. The pegmatite extends over an area 15 km long and 800 m wide and hosts the former site of large scale cassiterite (Sn) and columbite-tantalite (Nb-Ta) mining in alluvium and pegmatite laterite during the mid to late 20th century. The license locations are shown in Figure 2.

Figure 1. Location of Manono in the Democratic Republic of Congo.

Figure 2. Project mineral lease locations (http://www.cami.cd v.2012)



2.2 Mineral Titles

2.2.1 Cominiere SA – Sandstone Worldwide Joint Venture

The DRC owns all mineral titles. The Project is a Joint Venture (JV) between the United Cominiere (UC) state-owned company Cominière SA and Sandstone Worldwide (a wholly owned subsidiary of Tantalex Resources), which control 30% and 70%, respectively (Appendix F). The JV contract was signed in July 2016. Tantalex paid Cominiere SA USD $50,000 thirty days after the signing of the contract.

2.2.2 Contract Milestones

The Cominiere- Tantalex JV is a 5-year, open ended, exploration contract that allows Tantalex to explore for niobium (Nb), tantalum (Ta), lithium (Li), tin (Sn), tungsten (W) and cobalt (Co). A feasibility study must be completed 18 months from November 2016, the date of receipt of the official mining titles, (Appendix G). Upon completion of a conclusive feasibility study Tantalex has 18 months to secure financing.

2.3. Environmental Liabilities

The author is not aware on any environmental liabilities.

2.4. Other Significant Factors and Risks

There is general unrest in the DRC at this time over the postponement of November 2016 elections, possibly until 2018, due to the failure to implement voting system upgrades throughout the DRC. The project area is 800 km to the south of where there are known conflict mining areas. It is unlikely that either of these factors will affect the Project during the exploration phases.

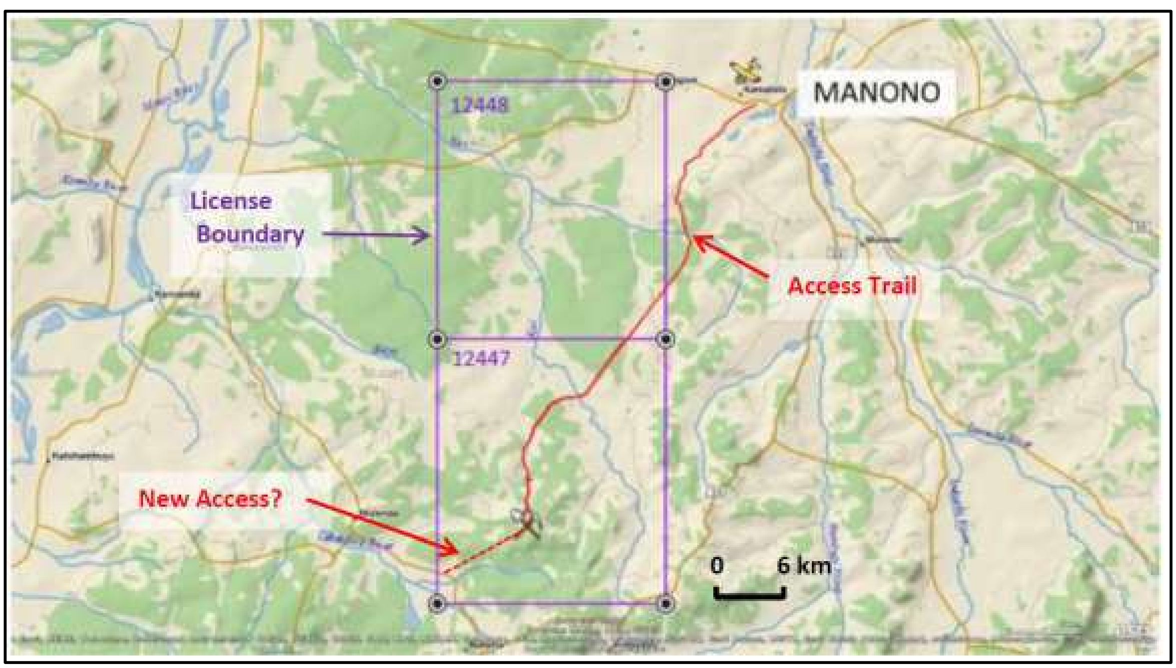
3. Accessibility, Climate, Local Resources, Infrastructure and Physiography

3.1. Accessibility

The Project is accessible by air and ground routes. Manono maintains a dirt airstrip for prop planes, approximately 1.5 hours' flight time from Lubumbashi. Road access to Manono is via National Route N5 from Lubumbashi northeast to Kansimba, and then a secondary unimproved road to Manono (Figure 3). Access on the secondary road may be problematic during the rainy season, which is not unfamiliar in these regions, but can easily be maintained. An alternate route from Lubumbashi is via National Route N1 north to N33, a secondary road, which travels northeast to Manono. The preferred route for access and export of minerals will be from Lubumbashi.

Figure 3. Transportation routes in Project area.

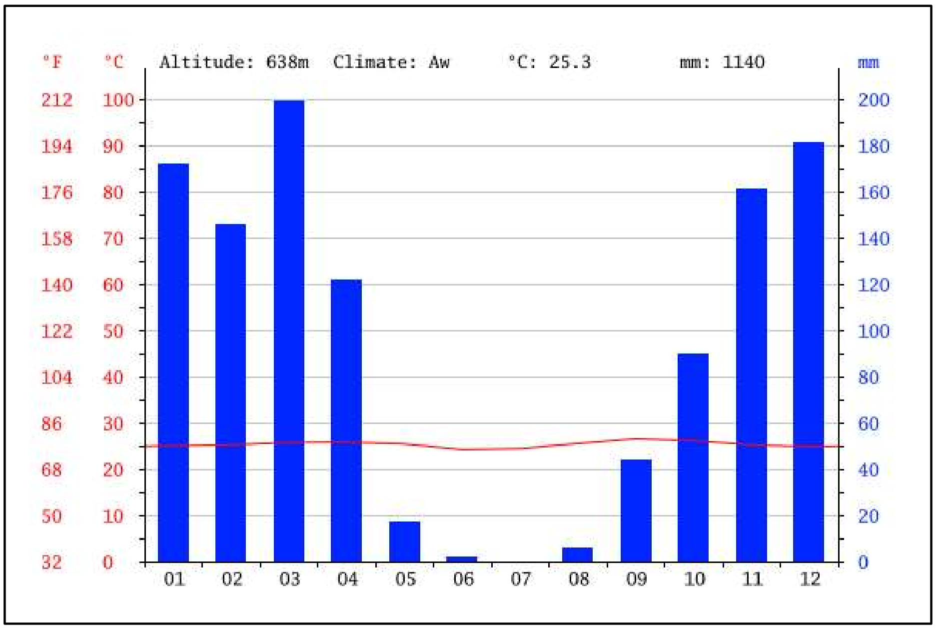
Figure 4. Existing and proposed access trail to licenses 12447 and 12448 from Manono.



3.2 Climate

The tropical savanna climate is characterized by year round warm temperatures and rainy/dry seasons. The average annual temperature is 25.3 ^{O}C with an average fluctuation of 2.3 ^{O}C. Average annual rainfall is 1140 mm which occurs during the September-April rainy season, typically through afternoon thunderstorms. Climate data are shown in Figure 5.

Figure 5. Climate Data for Manono, DRC.



3.3 Local Resources

Manono was once a booming mining town but since closure of the mine in the 1990's the population and services have been greatly affected. To this day, we can still witness the wealth that the city once had. At this time however. Satellite internet and cellular phone coverage is available. Most resources will have to be brought in from Lubumbashi. Nearby cities where resources may also be found are: Kabalo, 8 hours (487 km) north via R630/N33 where the railroad is accessible; Bukama, pop. 43,000, also with railroad access, located 5 hours (361 km) southwest of Manono on national route N33/N1; Kalemie, pop. 147,000, 7 hours (437 km) northeast of Manono on Lake Tanganyika via N5; Kamina, pop. 157,000, located 6 hours (416 km) southwest of Manono.

Water is available from two streams that flow through the Project on License 12448. The water table appears to be near surface based on field observation of a small flowing stream near the artisanal pits on 12448.

3.4 Infrastructure

3.4.1 Power and Water

Infrastructure in Manono is limited. There is no readily available power on either license. Electric power generated from a newly constructed MW ground-mounted solar panel array, backed with 3 MWh batteries, will supply the region. This production capacity is being coupled with several km of medium and low voltage transmission lines, in order to power street lights and households and to enhance the development of new small and medium industries in the area (Enerdeal S.A. 2016). The Piana-Minango hydroelectric plant, located 90 km east of Manono, provided electricity to Manono and the mining operation there. The plant could be rehabilitated to once again provide industrial power to the region.

3.4.2 Mining Personnel

Many of the local people are artisanal miners and will be hired as needed during the alluvial production and mineral exploration phases of the Project. Additional personnel would be hired from the Manono area should the Project develop into more advanced stages adequate. Manono-Kitotolo mine employed up to 2,000 workers until the early 90's.

3.4.3 Potential Waste Disposal Sites

The Project encompasses 920 km^2 and has sufficient space for waste disposal sites.

3.4.4 Potential Processing Plant Sites

The Project encompasses 920 km^2 and has sufficient space for a processing plant.

3.5 Physiography

The Project area is located on the southwest side of the Central Congo Plateau, a broad topographic high plateau characterized by rolling grasslands typical of tropical savanna. Elevations range from 633 m (2077 ft) at the Manono airport to (2538 ft) on License 48. Scattered to occasionally dense growths of trees 10m in height or less are interspersed with brush and grassland. Infrequent shallow streams, wetlands and drainages dissect the project area.

4 History

4.1. Licenses 12447 and 12448

Historical information on mineral leases 12447 and 12448 is sparse as these are new exploration targets and previously unheralded. It is likely that Geomines, Companie Geologique et Miniere de Ingenieurs et Industriels Belges, explored this area between 1915-1916, during which time they discovered the world class Manono-Kitotolo Sn-Ta-Li pegmatite to the northeast of the Project (license "M" in Figure 2). The Manono-Kitotolo pegmatites were mined for cassiterite (Sn) and tantalum (Ta) up until the early 1990's when production ceased due to lack of proper equipment spare parts combined with market pricing for tin which had drastically reduced. Spodumene, and the primary lithium mineral, was not recovered.

4.2 Manono-Kitotolo Deposit

The Manono-Kitotolo deposit is the geological model upon which Tantalex is basing exploration on licenses 12447 and 12448. The NE pegmatite body, generally referred to as "Manono", is some 5 km in strike length (12 km^2 surface area), and the SW body, referred to as "Kitotolo", is shown as being slightly longer (and is some 13.5 km^2 in surface area). The width of the pegmatite bodies is recorded as "from 50 m to 700 m". Some blocks of dolerite and xenoliths of mica schist are contained within the pegmatite body. The two bodies described above are also separated by the Lukushi River, which flows around and quite close to the NE or Manono pegmatite body.

Although there is still insufficient information for very precise definitions and measurements, the above dimensions are certainly very impressive, and one can appreciate why Bassot and Morio described the deposit as "undoubtedly the largest pegmatitic deposit of cassiterite, columbotantalite and spodumene ever worked". So despite the marked shortage of published data, it would appear that the Manono deposit, in terms of its cassiterite, columbotantalite and spodumene content, is of major economic importance.

4.2.1 Mine History

Two companies operated or controlled the mines at Manono-Kitotolo between 1916 and 1980s (UNESC, May 1984). Geomines, a Belgian company, operated from 1916 to 1966, the year of Zaire's independence from Belgium. A new company, Zairetain, was formed in 1967 and operated the mines under a 50%-50% ownership with Geomines. The company name was changed to Congo Etain in 1967 when the country was renamed Democratic Republic of Congo.

Production at Manono-Kitotolo began in Sn-Ta rich laterites and alluvial gravels shortly after discovery in 1916. Cassiterite production was less than 1000 mt/year from 1916 to 1932. Between

1933 and 1938 production reached 10,000 mt/yr, and exceeded 17,000 mt/yr during the peak years of World War II. From 1949 to 1956 Sn-Ta was recovered from hard pegmatite at Kitotolo after operations were terminated and the company turned to reworking mine tailings and dumps (UNESC, April 1984). Total production from 1916-1980s is estimated to be 140 kt of cassiterite (Sn) and 4,500 tons of columbite-tantalite (Nb-Ta) (BRGM, 1980). Production between 1985 and 1995 was reported as 1.6 Mmt SnO_2, 47,500 mt columbite-tantalite and 351 kt tantalum slag (International Business Publications, 2011). Spodumene (Li) was not recovered and went into the dumps with other tailings. Artisanal miner concentrate production from 2011-2014 in the Manono area is reported to be 182,054 kg (182 mt) Sn, 326,860 kg (327 mt) Sn/Ta and 8591 kg (8.6 mt) Ta (OECD, 2015).

4.2.2 Reserves

The Manono-Kitotolo deposit is the geological model upon which Tantalex is basing exploration on licenses 12447 and 12448. As such the resources of the deposit are described in this section.

4.2.2.1 Tin

The mineral reserve and resource estimates presented in this section are for conceptual purposes only. The methods used to calculate mineral reserve and resource estimates cannot be verified and, as such, do not meet the standards as set forth in National Instrument 43-101F1.

In late 1980 a 40-hole drilling program was completed on the Manono-Kitotolo deposits. Bassot et al. (1980) reported SnO_2 reserves at Kitotolo of 26,500 mt (Table 1). The calculations were based on the kriging of data from 39 drill holes on a 150 m x 100 m grid (probably rotary air versus core; the drill logs are labeled “RD”). Samples were collected at 1 m intervals and analyzed for SnO_2. The average grade was 2.2 kg/m^3 (2200 ppm) and ranged from 0.95 (950 ppm) to 3.56 kg/m^3 (3560 ppm). The precision is about 20% for mineral tonnage and average grade, and 25% for the metal tonnage at 95% confidence, which they considered good, but they did not rule out systematic bias.

4.2.2.2 Tantalum

The mineral reserve and resource estimates presented in this section are for conceptual purposes only. The methods used to calculate mineral reserve and resource estimates cannot be verified and, as such, do not meet the standards as set forth in National Instrument 43-101F1.

The total tin and tantalum reserves for Manono-Kitotolo are 344.7 - 347.7 mt and 13,150 mt, respectively (Table 1). Matubila (2010) used 12 NE-SW cross-sections of the same drill data as Bassot, et al. (1980) to calculate reserves. He reported combined Manono-Kitotolo SnO_2 reserves of 22,600 mt Proven, a figure close to the Bassot et al. (1980) kriged tons. He then added 142,250 mt probable and 137,030 mt possible, which includes the dumps, east and west sides of Kitotolo and pegmatite-schist contact zones. Matubila included 10,000 mt Ta_2O_5 as a total possible reserve.

Table 1. Tin and tantalum reserve estimates for Manono-Kitotolo (Bassot et al. 1980, Matubila 2010).

	KITOTOLO WEST HARD PEGMATITE		KITOTOLO EAST HARD PEGMATITE		MANONO HARD PEGMATITE		DUMPS-TAILINGS-LATERITE-ALTERED PEGMATITE		ALL PEGMATITE WITH SCHIST		Total Reserves	
	SnO_2	Ta_2O_5	SnO_2	Ta_2O_5	SnO_2	Ta_2O_5	SnO_2	Ta_2O_5	SnO_2	Ta_2O_5	**SnO_2**	**Ta_2O_5**
PROVEN (mt)	**22,600[A]** **26,500[B]**		-	-	-	-	**41,800[B]**	**3,150[B]**	-	-	**64,400 - 68,300**	**3,150**
m^3	*130,030*		-		-		-		-			
Grade (Kg/m^3)	*2.0*		-		-		-		-			
PROBABLE (mt)	**18,830[B]**		**38,330[B]**		**78,569[B]**				**6,521[B]**		**142,250**	
m^3	*9,414,620*		*22,547,400*		*49,102,500*		*60,000,000*		*95,589,320*			
Grade (Kg/m^3)	*2.0*		*1.7*		*1.6*		-		*1.69*			
POSSIBLE (mt)	**7,320[B]**		**2,440[B]**		**58,820[B]**		**17,760[B]**		**50,690[B]**		**137,030**	**10,000[C]**
m^3	3,662,500		1,435,300		*36,763,430*		*60,000,000*		*71,098,325*			
Grade (Kg/m^3)	2.0		1.7		*1.6*		-		*1.68*			
									Total Resource (mt)		***344,680 - 347,680***	***13,150***

A Bassot (1980) includes Manono and Kitotolo hard rock. Calculated by kriging.
B Matubila (2010).
C Matubila (2010) included northern mineralized limit; 400,000 mt SnO_2 x 5%.

4.2.2.3 Lithium

The mineral reserve and resource estimates presented in this section are for conceptual purposes only. The methods used to calculate mineral reserve and resource estimates cannot be verified and, as such, do not meet the standards as set forth in National Instrument 43-101F1.

Several lithium resource estimates for the Manono-Kitotolo pegmatite vary between 0.3 and 3.1 Mt of Li (Table 2). Mohr (2010) had the highest estimate of 3.3 Mt at 0.6 Li. Anstett (1990) had the lowest Li tonnage (0.3), but highest Li content (0.98). Though lithium tonnage and grade estimates by the BRGM were not available, by using the 25% spodumene composition of the deposit and 0.577 Li grade reported by Iloko (1982), and the volumes calculated by Matubila (2010), we come to an estimate that approximates the values of Kessler (1978) and (Mohr (2010).

Table 2. Lithium Metal (Li) and Lithium Carbonate (LCE) Resource Estimates for Manono-Kitotolo.

	Manono-Kitotolo			
	Li (Mt)	Ore (Mt)	Grade (%Li)	LCE (Mt)
Kessler (1978)	3.1	520	0.6	17.1
Anstett (1990)	0.3	50	0.98	1.7
Yaksic & Tilton (2009)	2.3		0.58	12.7
Clarke & Harben (2010)	1.1		0.58	6.1
Mohr et al. (2010)	3.3		0.6	6.3-18.2
USGS (2010)	1		0.58	5.5
Evans (2010)	2.3			12.7
Gruber et al. (2011)	1.14		0.58	6.3

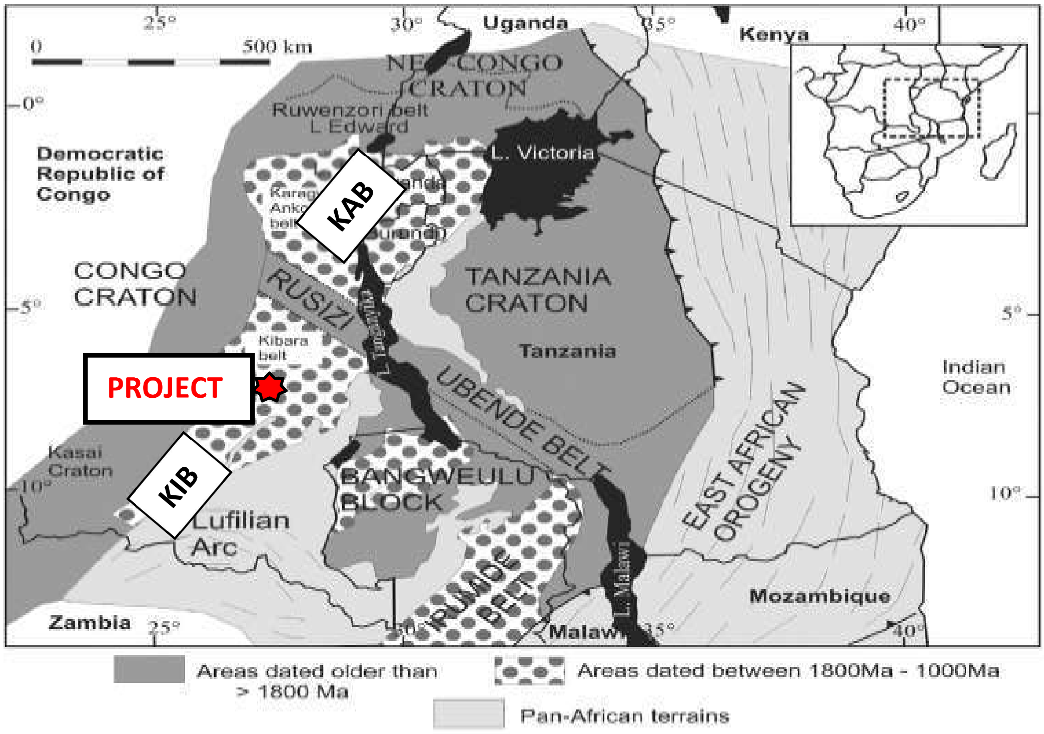
5. Geological Setting and Mineralization

5.1. Regional Tectonic Setting

The Project is located in the Central African Kilbara Belt (KIB), which together with the Karagwe-Ankole belt (KAB), forms a Mesoproterozoic (1.8-1.0 Ga) geological structure that extends from the southern part of Katanga, DRC to the southwestern part of Uganda. Separating the belts is a Ruzizian basement rise that represents the northwest extension across Lake Tanganyika of the Paleoproterozoic (>1.8Ga) Ubende belt (Figure 6). The KIB and the separate but coeval KAB formed and evolved among three pre-Mesoproterozoic domains: the Archean-Paleoproterozoic Congo Craton to the west and north, the Archean Tanzania Craton to the east and the Bangweulu Block to the south.

The Kilbara belt is composed mostly of metasedimentary, with minor volcanic rocks, intruded by large volumes of Mesoproterozoic "S-type" granitoid massifs and subordinate mafic bodies. The Kilbara and Karagwe-Ankole belts host a large metallogenic province that contains numerous granite-related Sn-W-Nb-Ta mineralization, primarily in pegmatites or quartz veins. Pegmatites may contain Nb-Ta minerals, cassiterite (Sn), amblygonite and spodumene (Li), beryl and others while cassiterite and wolframite (W) are found in quartz veins. The pegmatites were emplaced very late during the climax of the Kilbaran orogeny, probably during the transition from orogenic collapse to extensional tectonics, based on their structural position.

Figure 6. Regional tectonic setting of the Project in the Kilbara belt (KIB) and the Karagwe-Ankole belt (KAB) in Central Africa. (Dawaele, et.al, 2015).



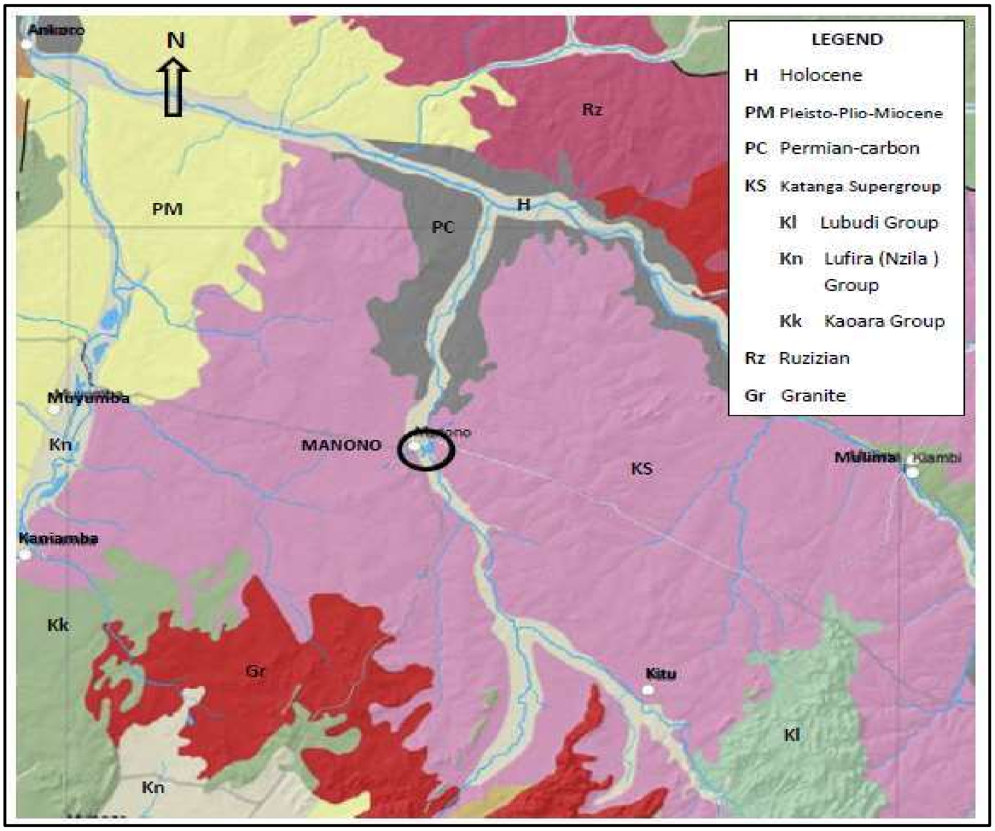
5.2. Regional Geology

5.2.1. Kilbara Belt

The Project lies within the KIB, a folded belt that consists dominantly of Paleo-Mesoproterozoic metasediments covered by Neoproterozoic and Phanerozoic sedimentary rocks (Figure 7). The stratigraphy of the southern KIB is well studied but the northern section (8^{O}-5^{O}) has only been mapped by satellite (ERTS, 1981). The formal stratigraphy for the Kilbara Supergroup consists of from top to bottom of the Kiaoro Group, the Lufira (or Nzilo) Group, the Mount Hakansson Group and the Lubudi Group, each separated by an unconformity and/or basal conglomerate. The Kiaoro Group is composed of (quartzo-) phyllites and schists, with quartzitic horizons and with rhyolites on top. The Group is estimated to be 1700-4300 m in thickness. The Lufira or Nzilo Group has a thickness between 2700 and 7000 m and is dominantly quartzitic, with locally (quartzo-) phyllitic levels and an important sequence of doleritic lavas and sills at the top. The Mount Hakansson Group is 1900 to 4000 m thick and contains dark-colored slates and quartzites. The Lubudi Group, which is 600 to 1850 m thick, consists of dark-colored arkoses and conglomeratic lenses, black graphitic shale with sandstone and an upper part with limestones and dolomites.

Ngulube (1994) observed two structural orientations that he interpreted to be two deformation events. The first and most prominent event, D1, formed an S1 foliation parallel to S0 bedding oriented N40-70^{O}E in the metasediments and foliated porphyritic granite at Manono. A second event, D2, is fold-related, is oriented NW, intersects the S1 foliation but does not completely overprint the first event.

Figure 7. Regional geology of Project area.

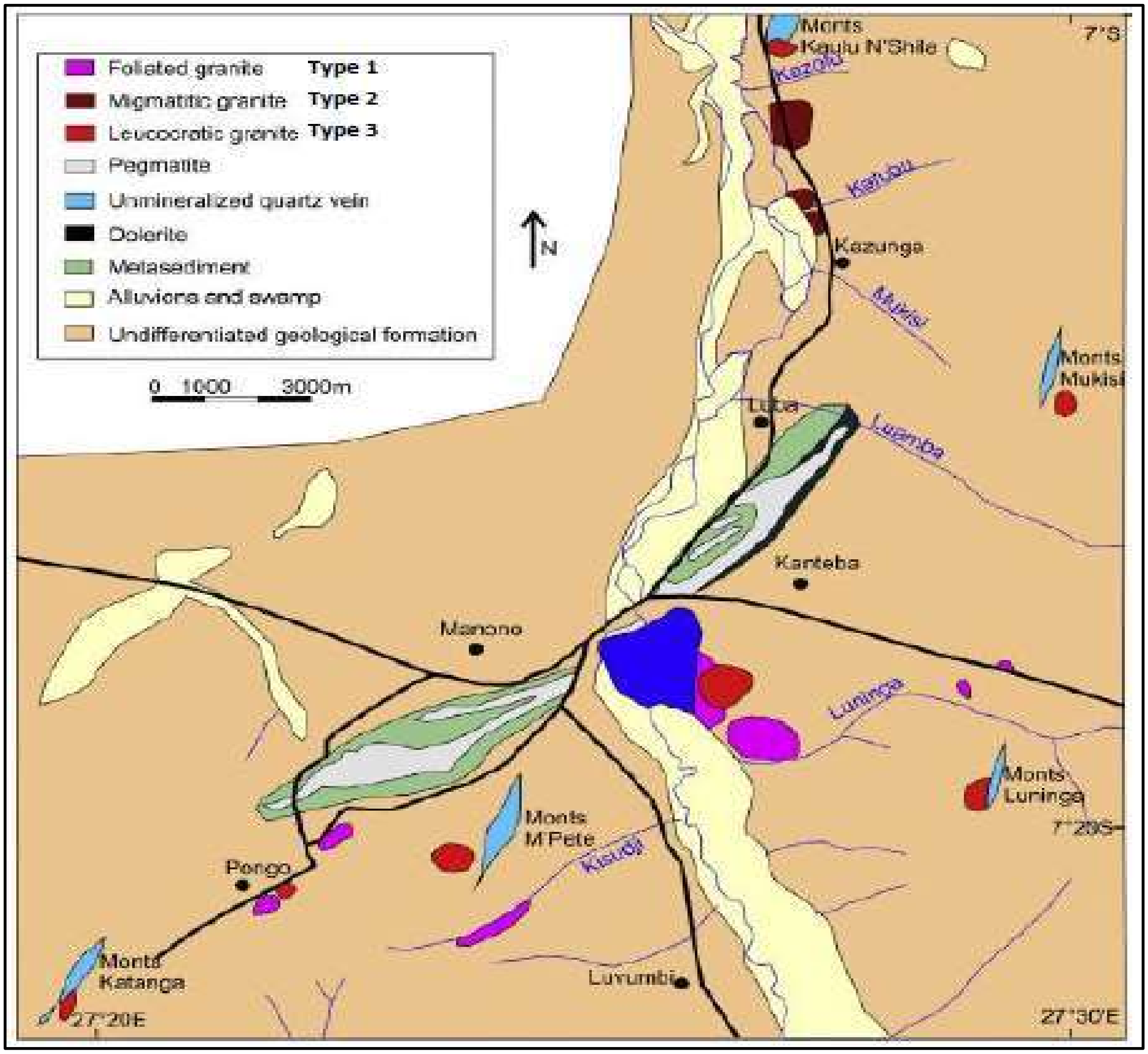


5.2.2. Granites

Granites in the KIB are divided into two groups based on age dating. The original A to E classification was based on degree of deformation and age dating. Group 1, the main group A to D, was emplaced around 1381 $\pm$ 8 Ma during the Kilbaran orogeny. Granites of this age exhibit deformation and gneiss formation. Group 2, the E-granites, were dated at around 986 Ma, are undeformed and emplacement was post-orogeny. These granites are interpreted as the parental granite for pegmatites and quartz veins with or without rare metal mineralization.

Three different granites types have been identified in the Manono area. The first granite, Type 1, is foliated gray colored and porphyritic that exhibits both S1 and S2 foliation as exemplified by the Lukushi, Kisudji and Pongo granites (Figure 8). The granites are holocrystalline, inequigranular with phenocrysts of perthite, microcline, plagioclase and quartz, with porphyroblasts of dominantly biotite and muscovite. Pegmatites in this granite type follow the NW orientation of the D^2 deformation.

Figure 8. Detailed geological map of the larger Manono-Kitotolo area (Dewaele, 2015).



The second granite, Type 2, is the migmatitic Kazungu and Mukishi-Mukusuke suite. This granite is dark to light gray with a subequigranular migmatitic to (sub-) porphyritic texture and exhibits different directions of foliation. The granites are holocrystalline, hypidiomorphic, slightly inequigranular with euhedral microcline, perthite or plagioclase minerals in a quartz matrix, plagioclase, perthite, biotite and minor muscovite. Barren quartz veins and small cassiterite-bearing pegmatite veins crosscut these migmatitic granites.

The third granite, Type 3, is characterized by reddish, equigranular and hypidiomorphic leucocratic crystal textures. They consist of quartz, microcline, plagioclase, perthite, muscovite and biotite together with abundant tourmaline, garnet, and minor chlorite or sericite. At Lukushi, the leucogranites also crosscut the foliated and porphyritic granites. Aplites and miarolitic cavities containing muscovite and tourmaline can occur at crosscutting contact zones. The type three granites are thought to be post-deformation and possibly E-type granites.

5.3. Local Geology

5.3.1. Manono-Kitotolo Deposit

The Manono-Kitotolo deposit is composed of two main highly fractionated and zoned pegmatites that extend over an area 15 km long and 800 m wide, Manono to the northeast and Kitotolo to the southwest (Figure 9). Man-made Lake Lukushi separates the two deposits. The pegmatites were injected into phyllites, schists and metasandstones, but crosscut metadolerites in the Manono deposit. The general structural orientation in the metasediments is N30-60^{O}E with dips from 50^{O}S to subvertical (Bassot et al., 1980). The pegmatites are oriented N40-60^{O}E with dips of 50^{O}N to 50^{O}S, but predominantly subvertical. The Manono-Kitotolo pegmatites were originally described as a laccolith, an igneous rock intruded concordantly into enclosing schists and gneisses, with a plano-convex shape and ancillary feeder dikes (Figure 10). The pegmatite contacts are largely parallel to the regional foliation. Post-emplacement fracturing often results in complex block displacement.

Figure 9. A. Detailed geological map of the Manono-Kitotolo quarries. B. Simplified cross-section through the southwest Kitotolo quarry. (Dewaele, 2015).

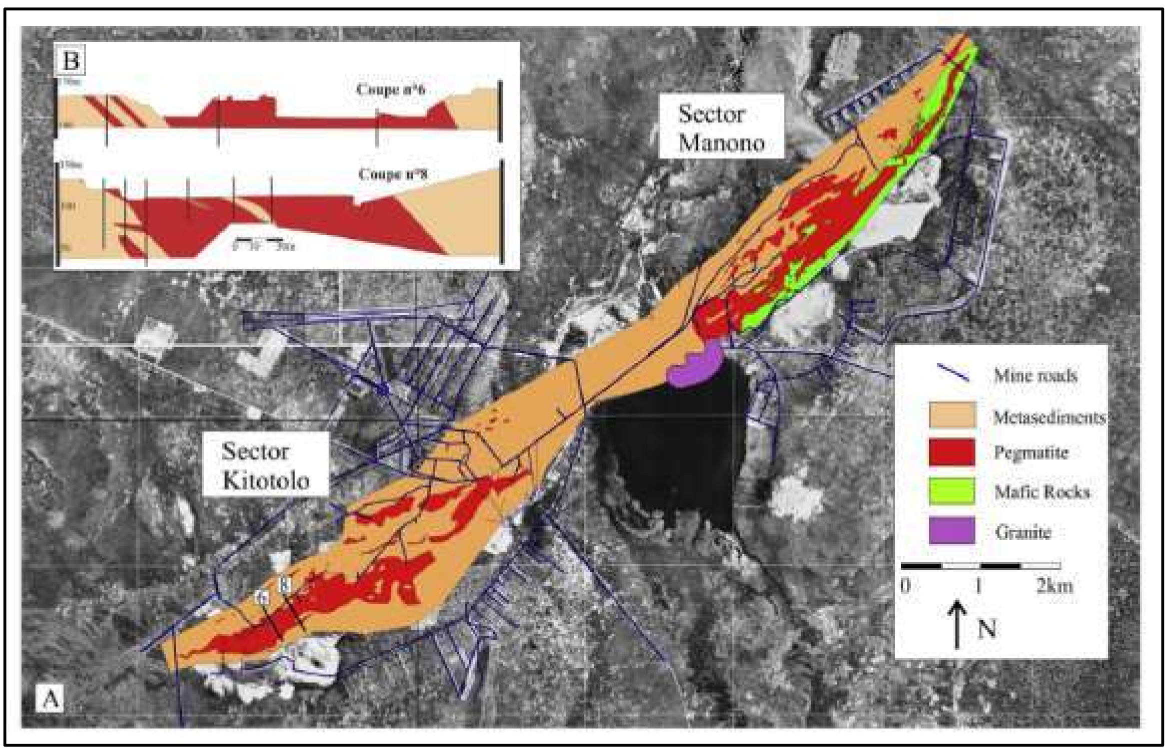
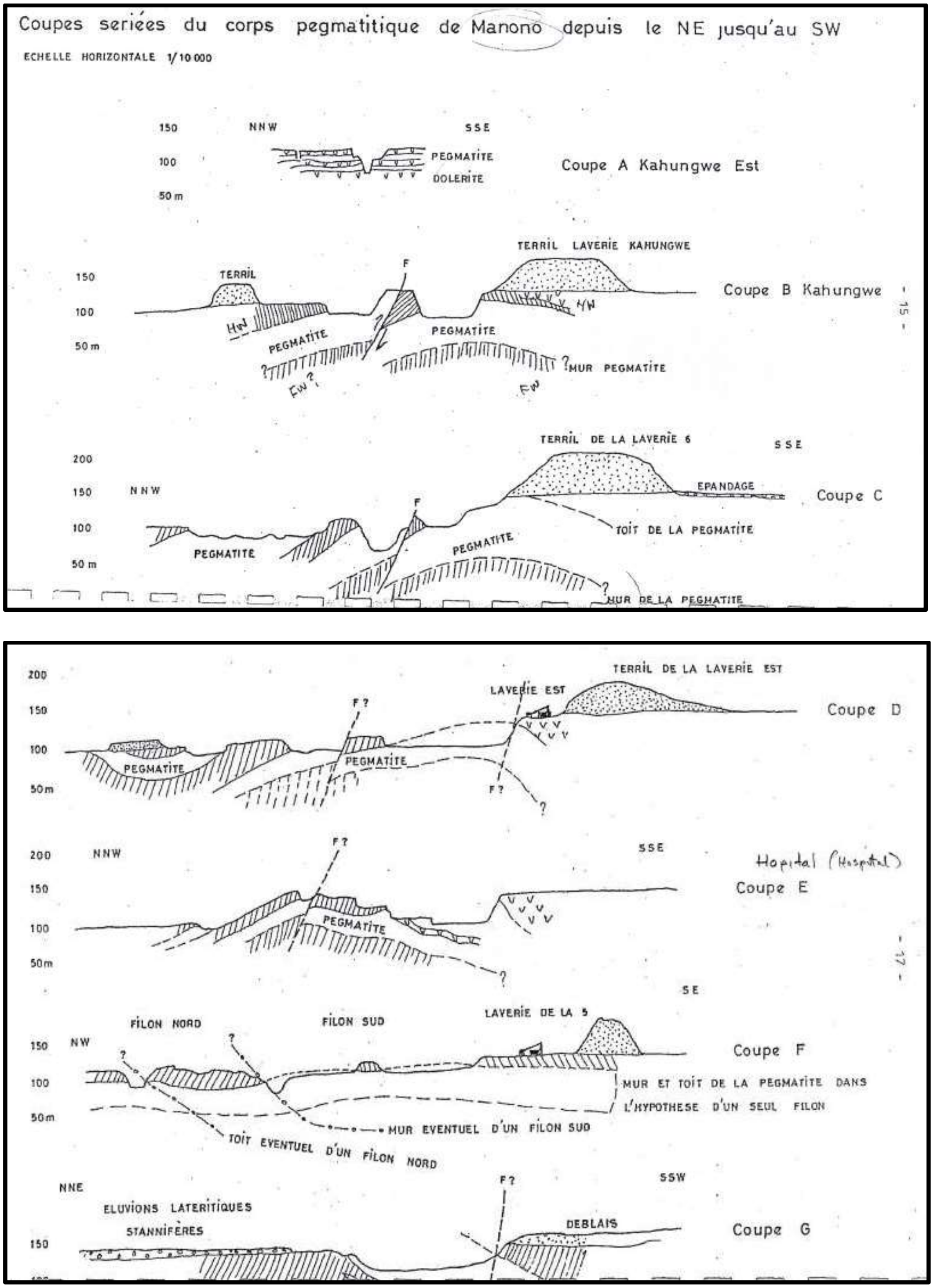


Figure 10. Generalized sections of the Manono-Kitotolo pits (Bassot et al., 1980). Sections move from Manono deposit south through the Kitotolo deposit.



5.3.2. Mineral Licenses 12447 and 12448

The geology of mineral licenses 12447 and 12448 can only be surmised from sparse granite outcrops and artisanal miners' pits on the tract. The author is unaware of any reports for these areas, published or otherwise. Several exposures of undeformed granite were found in the south center portion of lease 12448 (Figure 11). A miner's pit located approximately 100 m northeast of a granite outcrop terminated in a quartz-feldspar-mica pegmatite, possibly greisen (Figure 12). The miners were extracting coarse angular tantalite from coarse quartz alluvium that indicates close proximity to the source.

Figure 11. Undeformed type 3 granite exposed on license 12447.

Figure 12. Exposed quartz-feldspar-mica pegmatite in pit on License 12447.

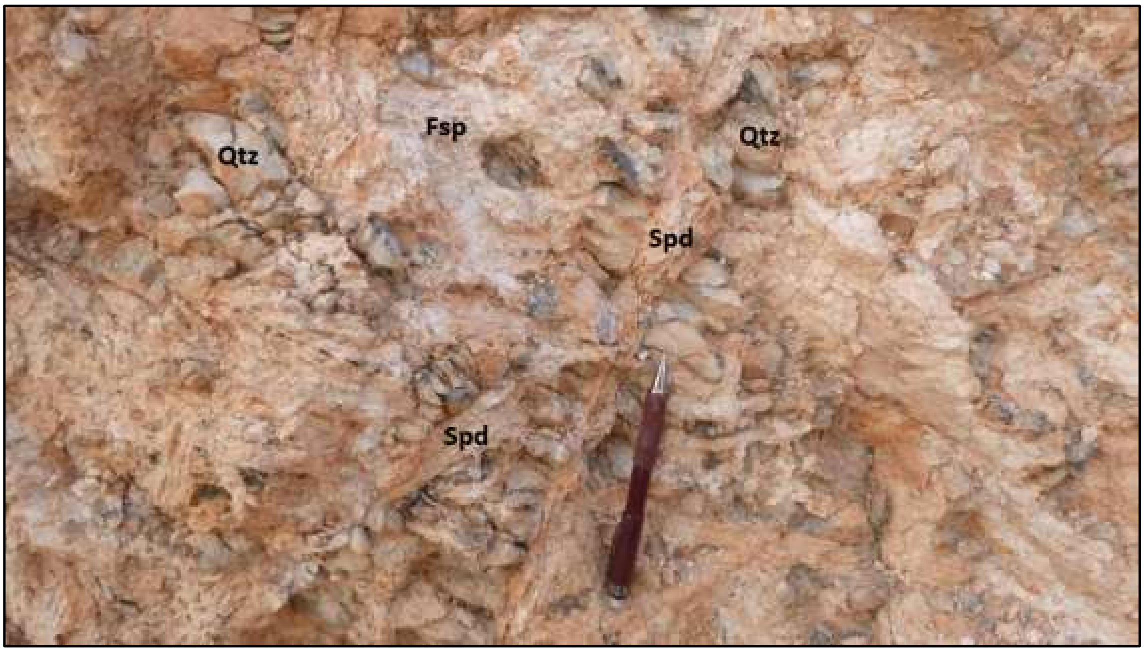
5.4. Mineralization

Mineralization in the Project area is associated with the emplacement of the Manono-Kitotolo pegmatites. Previous mining in deeply weathered pegmatite laterites and surface gravels, up to 80 m thick (Figure 12), and in the sub-weathered and unmined hard (dure roche) pegmatite, contained cassiterite (SnO_2), columbotantalite ($(Fe,Mn)(Nb\text{-}Ta)_2O_6$), thoreaulite ($SnTa_2O_7$) and lollingite ($FeAs_2$). Cassiterite and columbotantalite are extracted in alluvium from the artisan pits on 12448.

Spodumene is the primary lithium mineral and ranges between 10-25% in the deposit with minor amounts of lepidolite (Li-mica) and petalite. Most of the spodumene mineralization is concentrated into a lens or zone, varying up to a few meters thick, paralleling the pegmatite contacts. This appears to be a late crystallizing unit, within which very long spodumene crystals (up to 40 cm long), are orientated normal to the pegmatite contacts. The last mineral assays performed on spodumene date from 50 years ago and indicated that the Li content in spodumene in its fresh form contains around 6.4-6.9% Li2O (Chaput and Aguttes, 1966), while in the altered rock this falls to around 1% Li2O. Exposed pegmatite in the Manono pit exhibits high concentrations of spodumene in a matrix of feldspar and quartz (Figure 13).

Figure 13. Laterite-pegmatite contact at southeast edge of Manono pit.

Figure 14. Weathered spodumene pegmatite in quartz (Qtz) and feldspar (Fsp) matrix, southeast Manono mine. (Note spodumene crystallized along a joint parallel to the pen)



6. Deposit Types (Item 8)

6.1. Pegmatite Classification

A pegmatite is essentially an "igneous rock, commonly of granitic composition, that is distinguished from other igneous rocks by its extremely coarse but variable grain size, or by an abundance of crystals with skeletal, graphic or other strongly directional growth habits" (London, 2008). Pegmatites are further distinguished by Class, Family (Appendix A) and Type (Appendix B) based on typical minor elements, metamorphic environment, relationship to granites and structural features (Cerny, 1991). In this classification scheme the Manono area pegmatites fall into the rare-element complex LCT (Lithium-Cesium-Tantalum) sub-type.

All LCT pegmatites were emplaced into orogenic settings, are products of plate convergence and represent the most highly fractionated and last to crystallize components of certain granitic melts (Bradley and McCauley, 2013). They are generally concentrically, but irregularly, zoned (Figure 15) with increasing distance from the parental granite (Figure 16).

The preponderant minerals are quartz, plagioclase, potassium feldspars and mica with rare element minerals such as beryl, spodumene, elbaite, columbite-tantalite, pollucite and lithium phosphate.

Figure 15. Zoning in an idealized pegmatite (Bradley and McCauley, 2013).

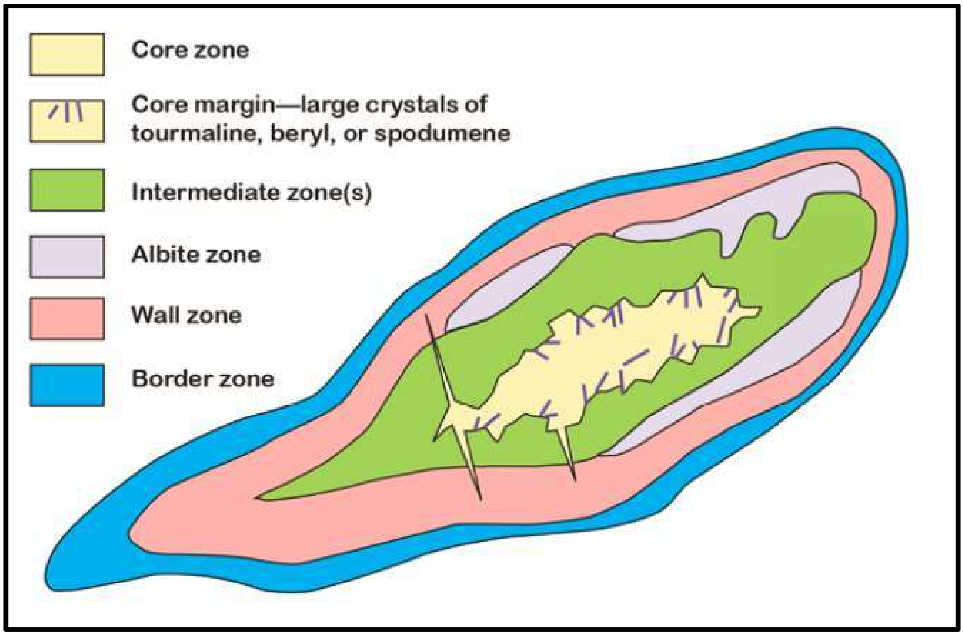
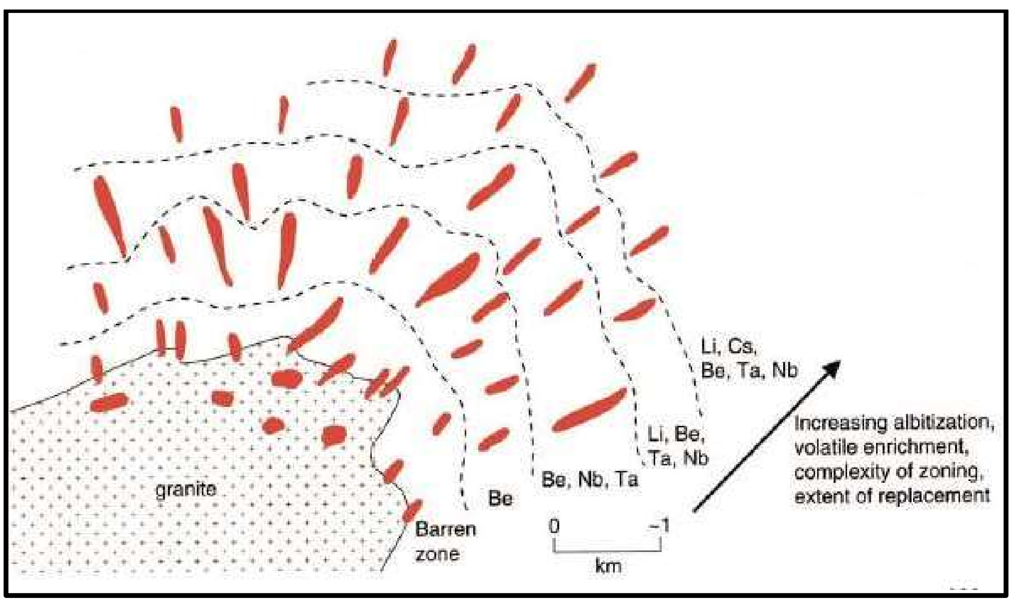


Figure 16. Magmatic differentiation of pegmatites from granite parent (Sinclair, 1991).



6.2. LCT Pegmatites at Manono-Kitotolo

The Manono-Kitotolo pegmatites exhibit the mineralogy, metamorphic environment, structure and granite relationship that are characteristic of the rare-element complex (REC) pegmatite type. REC pegmatites are complexly zoned and often exhibit distinct identifiable units. Bassot et al. (1980) documented zoning in two pegmatite veins in the Manono pit and developed a general three-zone scheme (Figure 17A):

Zone 1: Pegmatite-hanging wall contact contains a 0-0.5 m alteration zone with staurolite, apatite, tourmaline, hornblende and biotite (often perpendicular to the contact); barren quartz 0.1-5 m max; purple fine-grained albite-mica aplite 0-3 m in thickness; often with metasomatic greisen alteration containing topaz, fluorite, tourmaline, apatite and cassiterite, total thickness < 10 m.

Zone 2: Spodumene, albite and microcline in various percentages. Spodumene lathes have oriented or random textures with varying percentages. Drill hole logs report abundant cassiterite columbite-tantalite, thoreaulite and lollingite.

Zone 3: Albite aplite, fine-grained clevelandite.

Dawaele (2015) used mine hand samples (exact locations unknown) and the typical theoretical internal zoning model (Figure 17B) for describing the Manono-Kitotolo deposits due to the high degree of weathering, lack of dark minerals, orientation of the pegmatite veins and limited exposure in the mines due to flooding. The zoning is described as:

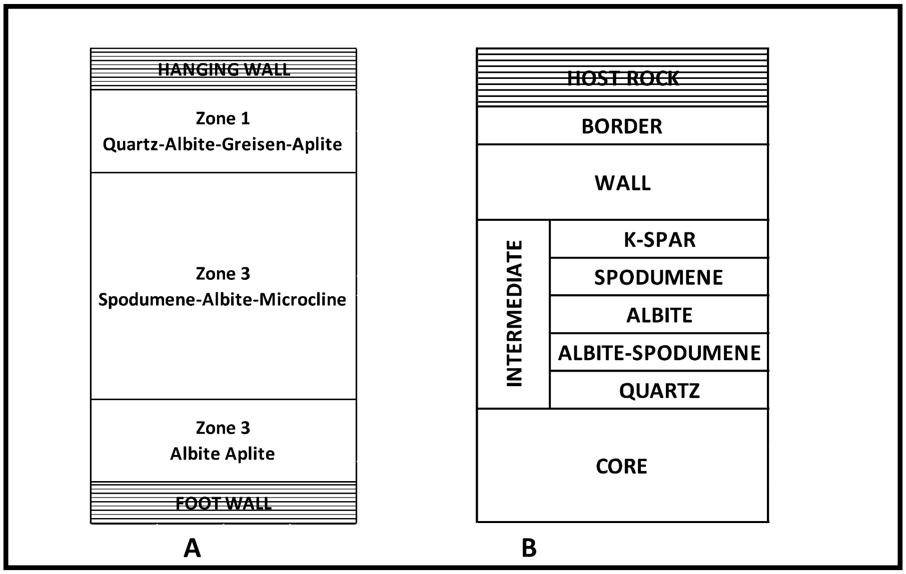
Border Zone: Fine-grained quartz, muscovite, microcline and albite with minor beryl.

Wall Zone: Coarser grained quartz, microcline, albite and micas with minor beryl identical to border zone only coarser. Cassiterite and columbite-tantalite present.

Intermediate Zone: Large crystals of quartz, spodumene, petalite, microcline, albite and micas. All zones were subjected to intense alteration, albitization and greisenization.

- **K-feldspar subzone:** Predominantly orthoclase and microcline, minor albite, quartz and micas with cassiterite and columbite-tantalite.
- **Spodumene subzone:** Quartz and large prismatic green-pink-beige spodumene with minor K-feldspar subzone minerals.
- **Albite subzone:** Consists of large, 1->10 cm albite crystals with minor quartz and cassiterite.
- **Albite-Spodumene Subzone:** Predominantly albite with spodumene, quartz and muscovite, columbite-tantalite present.
- **Quartz Subzone:** Quartz and lepidolite with spodumene and albite.
- **Core:** No classic quartz core zone has been identified at Manono-Kitotolo.

Figure 17. General zoning in the Manono mine. A. (Bassot, 1980), B. (Dawaele 2015).



7. Exploration

Exploration to date consists of scattered artisanal miners' pits (Figure 18) on License 12448 and brief reconnaissance of exposed granites is the vicinity of the pits. No formal exploration program has been initiated.

Figure 18. Artisanal miner pit 2 on licence 12447. Note pegmatite boulders.

8. Drilling

Not applicable at the early stage of the Project.

9. Sample Preparation, Analyses and Security

Not applicable at the early stage of the Project.

10. Data Verification

Not applicable at the early stage of the Project.

11. Mineral Processing and Metallurgical Testing

Not applicable at the early stage of the Project.

12. Mineral Resource Estimate

Not applicable at the early stage of the Project.

13. Mining Methods

Not applicable at the early stage of the Project.

14. Recovery Methods

Not applicable at the early stage of the Project.

15. Project Infrastructure

Not applicable at the early stage of the Project.

16. Market Studies and Contracts

Not applicable at the early stage of the Project.

17. Environmental Studies, Permitting and Social or Community Impact

17.1. Environmental Studies

Not applicable at the early stage of the Project.

17.2. Permitting

Prior to proceeding with exploration works on the license areas, a permit must be obtained from the Tanganyika Mining Division. No additional permits are required besides this.

17.3. Social or Community Impact

The social impact on the town of Manono and surrounding villages can only be positive. According to the World Bank (2014) 63% of the DRC population lives in poverty, and the per capita income was USD$380 per year (2012). The influx of exploration money will provide jobs and additional taxes for Manono.

18. Capital and Operating Costs

Not applicable at the early stage of the Project.

19. Economic Analysis

Not applicable at the early stage of the Project.

20. Adjacent Properties

There are 6 active and 1 inactive properties in the vicinity of the Project that have exploitation or research permits Nb-Ta-W (Figure 2). Manomines (M) has an exploitation permit for the 221 km2 Manono-Kitotolo former mine site for Nb-Ta-W-Li. Gorrian Properties (G) has research permits for 363 km^2 surrounding the Manomines license. These lie adjacent to License 12447. The remaining properties lie adjacent to and surround License 48.

West of 12448, Tanganyika Mining SPRL has a research permit for 372 km^2. To the east Kanuga Mining controls 225 km^2 with a research permit. About one third of the interior of the property is inactive. South of 12448 Crown Mining SARL has research and exploitation permits for 407 km^2. Crown's licenses surround a 109 km^2 reserved for Artisanal miners.

21. Other Relevant Data and Information (Item 24)

Tantalex is compliant with the International Tin Resource Institute (ITRI) procedures and regulations for production and sale of Conflict Free minerals with an audited and verified system of resource traceability per discussions with Tantalex. ITRI has a permanent office in Manono.

22. Interpretation and Conclusions (Item 25)

The Project area lies adjacent to and along strike to the south of the world class Manono-Kitotolo LCT pegmatite deposits, the former site of large scale cassiterite and columbotantalite mining. The tracts are covered with laterite and alluvium similar to the original surface at Manono-Kitotolo. There the tropical climate created deep weathering, up to 80 m in places, that includes kaolinisation of the pegmatites and granites and laterite formation. A few type 3 granites have been identified on License 12448 approximately 35 km to the southwest and along strike from the Kitotolo deposit. Artisanal miners have mined and extracted tantalum and cassiterite from fine to coarse alluvium in pits in the Project area, and quartz-feldspar-mica pegmatite has been identified on the floors of two artisanal pits with type 3 granite exposures nearby.

The Project area has geological and mineralization characteristics Identical to those of the Manono-Kitotolo deposits: the presence and extraction of Sn-Nb-Ta in alluvium and laterite, the occurrence of undeformed type 3 granites, and the identification of a quartz-feldspar-mica pegmatite, possibly greisen, in close proximity to the type 3 granites. These characteristics suggest an LCT pegmatite is the source of that Sn-Nb-Ta in the Project area, and that a rare-element Li pegmatite exists below laterite and alluvial cover. It is worth noting that the Manono-Kitotolo pegmatites were not discovered until the thick laterites and alluvium were removed. Intermittent internal and external political unrest, and transportation issues, may be factors in project development.

23. Recommendations

Licenses 12447 and 12448 are expansive areas that each encompasses 460 km^2 each. The following exploration work is recommended. A budget of $USD $679,300 is proposed.

23.1. Aerial Geophysics

Aero-geophysical surveys would be useful in identifying Sn-Ta-Li mineral hotspots and geology to an extent. A magnetic survey should be completed with an optically plumbed magnetometer, with either alkali or helium vapor. This technique has high accuracy, wide dynamic range, and is the most widely used. The flight lines should be oriented perpendicular to the regional structure on and at a suitable elevation and spacing to ensure suitable results.

23.2 Field Work

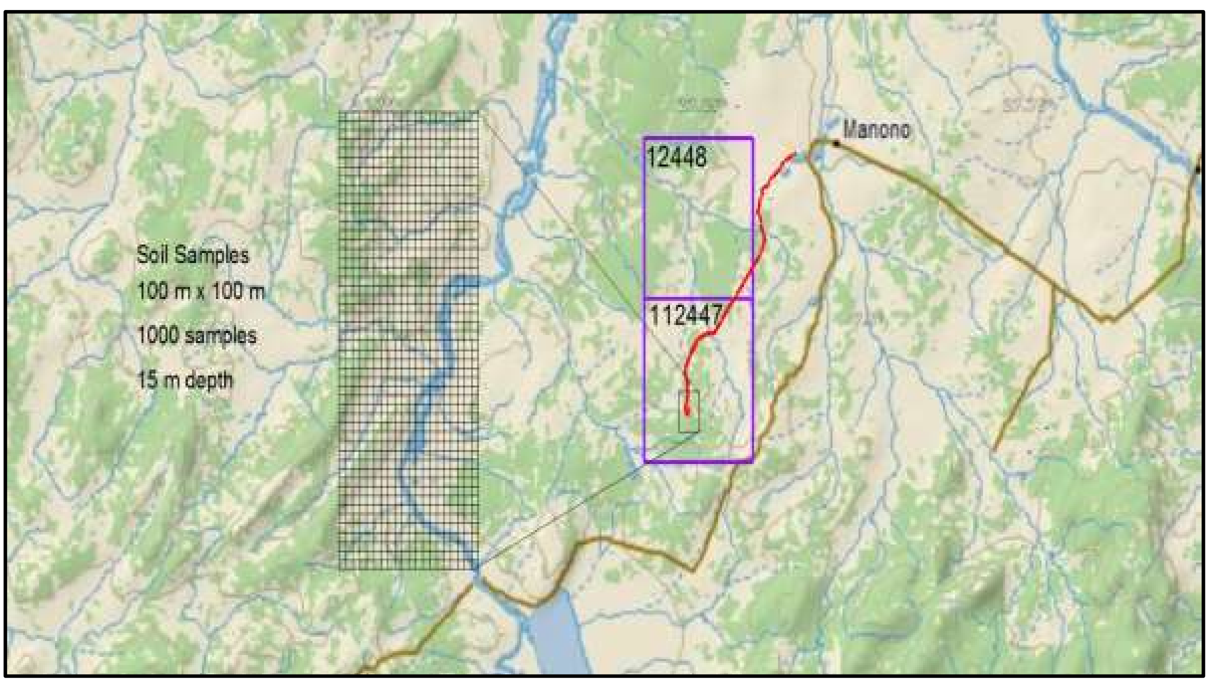
Field reconnaissance and geological mapping are requisite for the two licenses. Documentation would include photographs, descriptions, samples, and GPS coordinates of granitic bodies and other lithologies. Satellite imagery should be used to delineate major structures. A drone may be useful in acquiring site specific photographs and general mapping of the area.

23.3 Soil Samples

23.3.1 Soil Sampling

The presence of tin and tantalum in existing artisanal pits suggests a great starting point for close-spaced grid soil sampling. The proposed north-south grid is centered on the known mineralization occurrences in the pits (Figure 20). The samples should be taken on 100 m centers for 1 km in four perpendicular compass directions and is designed to find an orebody that may be different from Manono-Kitotolo in geometry, inclination and lateral extent. An ATV-mounted auger drill with 15 m depth capacity is recommended. Samples should be taken every 3 meter in depth until bedrock is reached, bagged, and labeled appropriately. All samples can be analyzed with a portable handheld XRF unit for immediate metal content. At least one sample per hole should be sent to a certified laboratory. Duplicate samples should be sent to one or more laboratories for analytical verification.

Figure 19. Proposed soil sample grid locations.



23.3.2 Sample Processing and Analysis

Soil samples should be weighed, crushed and treated by heavy mineral separation techniques. The heavy mineral separates should be magnetically treated, and both weighed and analyzed.

23.4 Access Improvements

Access to the licensed tracts must be improved to facilitate exploration activities. The existing access is 35 km along a trail that widens when villages are approached, and crosses two streams. Improvement of the existing road or alternate access from surrounding roads is required. An alternate 15 km road connecting N33 to license 47 is suggested (Figure 4). Consider purchasing versus leasing a truck and ATVs.

Table 3. Proposed Phase I exploration budget.

Phase I Budget		
Task	$USD	**$USD**
Aerial Geophysics (Mag and radiometric)		**200,000**
Field Reconnaissance and Mapping		**65,000**
Satelite Imagery	15,000	
Topographic and contour mapping	15,000	
Drone, hardware and software	20,000	
2 field crews with 1 geo +2 helpers/crew (60 days)	15,000	
Soil Sampling/Exploration Pits		**140,000**
2 - ATV Auger Rig; 50 days @ $2,500/day	125,000	
2 field crews with 1 geo +2 helpers/crew (60 days)	15,000	
Sample Analysis		**52,000**
1,000 samples @ $50/sample	50,000	
Shipping @ $2/sample	2,000	
Support		**59,800**
dging/Catering field crews 60 days (incl. Intl. Contractors)	30,000	
Fuel (60 days @ 80 L/day @ $1.4/liter)	7,800	
Sample Storage	12,000	
In country transportation	10,000	
Road Improvement & Construction		**25,000**
Supplies/Equipment Rental		**55,500**
1 - pick-up truck	30,000	
2 - ATV 4wd	20,000	
2 - Auger & Bits (3 m)	500	
Supplies (bags, shovels, etc.)	5,000	
Contingency 15%		**82,000**
Total		***679,300***

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Definitions

Cs	Cesium	mm	millimeter
°C	degrees Centigrade	Mn	Manganese
$(Fe,Mn)(Nb,Ta)_2O_6$	Columbite	M.S.	Master of Science
D1	1st deformational event	mt	metric ton
D2	2nd deformational event	Mt	Million metric ton
DRC	Democratic Republic of Congo	mt/yr	metric tons per year
ERTS	Earth Resources Technology Satellite	Nb	Niobium
°F	degrees Fahrenheit	O	Oxygen
Fe	Iron	OSC	Ontario Securities Commission
$FeAs_2$	Lollingite	S0	Structural surface-original bedding
ft	Foot	S1	Structural surface 1st deformation event
Ga	billion years	S2	Structural surface 2nd deformation event
kg	kilograms	SME	Society for Mining, Metallurgy and Exploration
kg/m^3	kilograms per cubic meter	Sn	Tin
km	kilometer	SnO_2	Tin Oxide
km^2	square kilometer	$SnTa_2O_7$	Thoreaulite
K-Spar	Potassium Feldspar	Ta	tantalum
kt	kiloton	Ta_2O_5	Tantalum Oxide
LCE	Lithium Carbonate Equivalent	$(Fe,Mn)(Ta,Nb)_2O_6$	Tantalite
Li	lithium	UNESC	United Nations Economic and Security Council
m	meter	USD	US Dollar
Ma	Million years	W	Tungsten

Appendix A

Certificate of Qualifications

I, Raymond P. Spanjers, as an author of this report entitled "NI 43-101 Technical Report, Buckell Sn-Ta-Li Project, Manono, Tanganyika Province, Democratic Republic of Congo", dated January 25, 2017 and effective January 10, 2017 (the "**Technical Report"),** prepared for Tantalex Resources Corporation (the "**Issuer**"), do hereby certify that:

- I am a Consulting Geologist residing at 891 Ridge Vista Road, P.O.Box 85, Gerton, North Carolina 28735.
- This Certificate applies to the Technical Report.
- I am a graduate of North Carolina State University with a M.Sc. in Geology. I am a Registered Member of the Society for Mining, Metallurgy and Exploration, Inc. (SME) in the USA, No. 3041730RM and a Licensed Geologist in North Carolina (No.940) USA. I have practiced my profession in mineral exploration, mining and mineral processing continuously since graduation. I have 36 years of experience in profession in mineral exploration, mining and mineral processing in a variety of mineral commodities.
- I am familiar with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") and by reason of education, experience and professional registration I fulfill the requirements of a "qualified person as defined in NI 43-101.
- I visited the Tantalex Buckell Project site on August 6-8, 2016.
- I am independent of the Issuer with the meaning of Section 1.5 of NI 43-101. My compensation, employment or contractual relationship with the Issuer is not contingent on any aspect of the Report.
- I am independent of the Vendor/s and the property and have not had prior involvement with the property that is the subject of the Technical Report**.**
- As of the date of this Certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 10th day of January, 2017

Raymond P. Spanjers

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Raymond P. Spanjers, P.Geo.

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APPENDIX B

The Four Classes of Granitic Pegmatites (Czerny 1991, Table 2)

Table 2 The four classes of granitic pegmatites.

Class	Family*	Typical Minor Elements	Metamorphic Environment	Relation to Granites	Structural Features	Examples
Abyssal	—	U,Th,Zr,Nb,Ti,Y, REE,Mo poor (to moderate) mineralization	(upper amphibolite to) low- to high-P granulite facies; ~4-9 kb, ~700-800°C	none (segregations of anatectic leucosome)	conformable to mobilized cross-cutting veins	Rae and Hearne Provinces, Sask. (Tremblay, 1978); Aldan and Anabar Shields, Siberia (Bushev and Koplus, 1980); Eastern Baltic Shield (Kalita, 1965)
Muscovite	—	Li,Be,Y,REE,Ti, U,Th,Nb>Ta poor (to moderate)** mineralization; micas and ceramic minerals	high-P, Barrovian amphibolite facies (kyanite-sillimanite); ~5-8 kb, ~650-580°C	none (anatectic bodies) to marginal and exterior	quasi-conformable to cross-cutting	White Sea region, USSR (Gorlov, 1975); Appalachian Province (Jahns *et al.*, 1952); Rajahstan, India (Shmakin, 1976)
Rare-element	LCT	Li,Rb,Cs,Be,Ga,Sn, Hf,Nb≷Ta,B,P,F poor to abundant mineralization; gemstock; industrial minerals	low-P, Abukuma amphibolite (to upper greenschist) facies (andalusite-sillimanite); ~2-4 kb, ~650-500°C	(interior to marginal to) exterior	quasi-conformable to cross-cutting	Yellowknife field, NWT (Meintzer, 1987); Black Hills, South Dakota (Shearer *et al.*, 1987); Cat Lake-Winnipeg River field, Manitoba (Černý *et al.*, 1981)
	NYF	Y,REE,Ti,U,Th,Zr, Nb>Ta,F; poor to abundant mineralization; ceramic minerals	variable	interior to marginal	interior pods, conformable to cross-cutting exterior bodies	Llano Co., Texas (Landes, 1932); South Platte district, Colorado (Simmons *et al.*, 1987); Western Keivy, Kola, USSR (Beus, 1960)
Miarolitic	NYF	Be,Y,REE,Ti,U,Th, Zr,Nb>Ta,F; poor mineralization; gemstock	shallow to sub-volcanic; ~1-2 kb	interior to marginal	interior pods and cross-cutting dykes	Pikes Peak, Colorado (Foord, 1982); Idaho (Boggs, 1986); Korosten pluton, Ukraine (Lazarenko *et al.*, 1973)

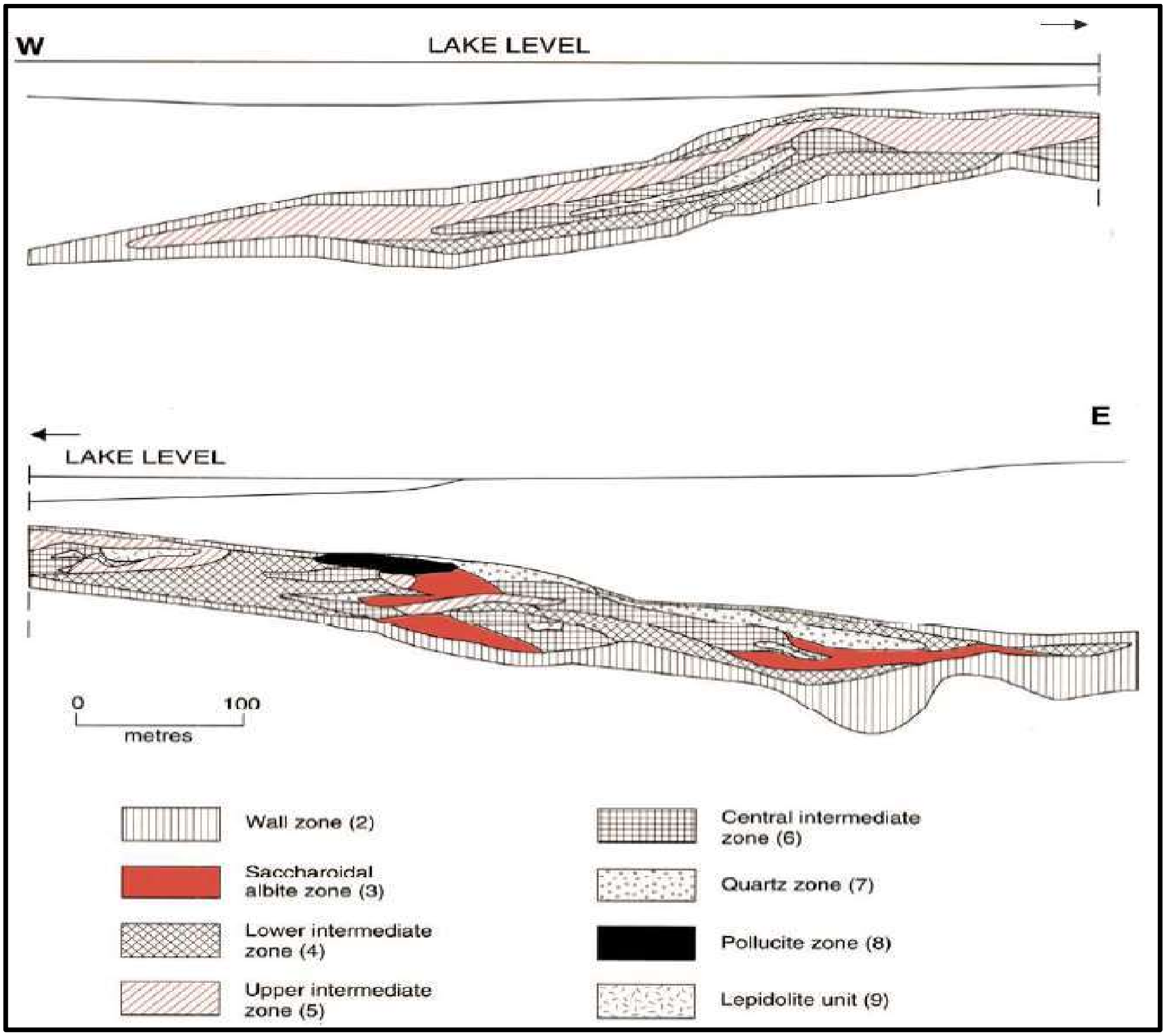
APPENDIX C

Classification of Rare-Element Pegmatites (Cerny 1991, Table 3)

PEGMATITE TYPE [feldspar + mica content]	*Pegmatite subtype,* geochemical signature	Typical minerals	Economic potential	Typical examples
RARE-EARTH [Kf>plg to ab; bi≥msc]	*allanite-monazite* (L)REE,U,Th (P,Be,Nb>Ta)	allanite monazite	(REE)	Upper Tura River, Ural Mtns. (Fersman, 1940) West Portland, Quebec (Spence and Muench, 1935) Kobe, Japan (Tatekawa, 1955)
	gadolinite Y,(H)REE,Be,Nb>Ta F(U,Th,Ti,Zr)	gadolinite fergusonite euxenite (topaz) (beryl)	Y,REE,U (Be,Nb-Ta)	Shatford Lake group, Manitoba (Černý *et al.*, 1981) Ytterby, Sweden (Nordenskjöld, 1910) Evje-Iveland field, Norway (Bjørlykke, 1935) Barringer Hill, Texas (Landes, 1932) Pyörönmaa, Finland (Vorma *et al.*, 1966)
BERYL [Kf>ab; msc>bi]	*beryl-columbite* Be,Nb≳Ta (±Sn,B)	beryl columbite-tantalite	Be (Nb-Ta)	Meyers Ranch, Colorado (Hanley *et al.*, 1950) Greer Lake group, Manitoba (Černý *et al.*, 1981) Donkerhoek, Namibia (Schneiderhöhn, 1961) Ural Mtns., USSR (Kuzmenko, 1976)
	beryl-columbite-phosphate Be,Nb≳Ta,P (Li,F,±Sn,B)	beryl, columbite-tantalite triplite triphylite		Hagendorf-Süd, Germany (Strunz *et al.*, 1975) Dan Patch, South Dakota (Norton *et al.*, 1964) Connecticut localities (Cameron and Shainin, 1947) Crystal Mtn. field, Colorado (Thurston, 1955)
COMPLEX [Kf≳ab; msc≳lep]	*spodumene* Li,Rb,Cs,Be,Ta≳Nb (Sn,P,F,±B)	spodumene beryl tantalite (amblygonite) (lepidolite) (pollucite)	Li,Rb, Cs,Be Ta, (Sn,Ga,Hf)	Harding, New Mexico (Jahns and Ewing, 1976) Hugo, South Dakota (Norton *et al.*, 1962) Mongolian Altai #3 (Wang *et al.*, 1981) Etta, South Dakota (Norton *et al.*, 1964) White Picacho, Arizona (London and Burt, 1982a) Manono, Zaire (Thoreau, 1950)
	petalite Li,Rb,Cs,Be,Ta>Nb (Sn,Ga,P,F,±B)	petalite beryl tantalite (amblygonite) (lepidolite)		Tanco, Manitoba (Černý, 1982c) Bikita, Zimbabwe (Cooper, 1964) Varuträsk, Sweden (Quensel, 1956) Luolamäki, Finland (Neuvonen and Vesasalo, 1960) Londonderry, Australia (McMath *et al.*, 1953) Hirvikallio, Finland (Vesasalo, 1959)
	lepidolite F,Li,Rb,Cs,Be Ta>Nb (Sn,P,±B)	lepidolite topaz beryl microlite (pollucite)	Li,Rb, Cs,Ta Be (Sn,Ga)	Brown Derby, Colorado (Heinrich, 1967) Pidlite, New Mexico (Jahns, 1953b) Himalaya district, California (Foord, 1976) Khukh-Del-Ula, Mongolia (Vladykin *et al.*, 1974) Wodgina, Australia (Blockley, 1980)
	amblygonite P,F,Li,Rb,Cs Be,Ta>Nb (Sn,±B)	amblygonite beryl tantalite (lepidolite) (pollucite)	Li,Rb Cs,Ta Be (Sn,Ga)	Viitaniemi, Finland (Lahti, 1981) Malakialina, Madagascar (Varlamoff, 1972) Peerless, South Dakota (Sheridan *et al.*, 1957) Finnis River, Australia (Jutz, 1986)
ALBITE-SPODUMENE [ab>Kf; ((msc))]	Li (Sn,Be,Ta≳Nb, ±B)	spodumene (cassiterite) (beryl) (tantalite)	Li,Sn (Be,Ta)	Kings Mountain, North Carolina (Kesler, 1976) Preissac-Lacorne, Quebec (Mulligan, 1965) Peg Claims, Maine (Sundelius, 1963) Volta Grande, Brazil (Heinrich, 1964)
ALBITE [ab>>Kf; (ms,lep)]	Ta≳Nb,Be (Li,±Sn,B)	tantalite beryl (cassiterite)	Ta (Sn)	Hengshan, China (Černý, 1989a) USSR (Solodov, 1969) Tin Dyke, Manitoba (Chackowsky, 1987)

APPENDIX D

Zoning in the Tanco LCT pegmatite (Sinclair, 1991).



APPENDIX E

Conversion Table for Lithium Chemicals and Common Minerals

	Formula	% Li	% Li_2O	% Li_2CO_3
Lithium metal	Li	1.000	2.152	5.322
Lithium carbonate	Li_2CO_3	0.188	0.404	1.000
Lithium oxide	Li_2O	0.465	1.000	2.473
Lithium hydroxide	LiOH	0.290	0.624	1.542
Lithium chloride	LiCl	0.164	0.352	0.871
Lithium bromide	LiBr	0.080	0.172	0.425
Butyllithium	C_4H_9Li	0.108	0.233	0.577
Spodumene	$LiAlSi_2O_6$	0.037	0.080	0.199
Petalite	$LiAlSi_4O_{10}$	0.023	0.049	0.121
Lepidolite	$KLi_2AlSi_3O_{10}(OH,F)_2$	0.019	0.041	0.102

APPENDIX F

Cominiere SA – Sandstone Worldwide Joint Venture Contract Title Page

République Démocratique du Congo

CONTRAT DE JOINT VENTURE

ENTRE

LA CONGOLAISE D'EXPLOITATION MINIÈRE SA

(« COMINIÈRE SA »)

ET

SANDSTONE WORLDWIDE LTD.

(« SWL »)

Relatif à l'exploitation des Permis n° 12447,12448,12460 et 12462
dans la Province de Tanganyika (ex Katanga, RDC)

JUILLET 2016

APPENDIX G

License Transfer from United Cominiere to Cominiere SA

CONTRAT

ENTRE

LA CONGOLAISE D'EXPLOITATION MINIERE, COMINIERE SA

ET

LA UNITED COMINIERE SAS

RELATIF

A LA CESSION DES PERMIS DE RECHERCHES 12447,12448, 12460 ET 12462

NOVEMBRE 2016

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CONTRAT DE CESSION DE DROITS MINIERS

Entre :

La Congolaise d'Exploitation Minière, Société Anonyme, en abrégé, « COMINIERE SA », immatriculée au Registre de commerce et de crédit mobilier de Kinshasa n° CD/KIN/RCCM/14-B-5938, numéro d'identification nationale 01-128-N57838Y, numéro Impôt A1113407L et ayant son siège social situé au n° 56 de l'avenue Colonel Ebeya, Immeuble bon coin, Appartement n° 8, Kinshasa-Gombe, ici représentée par Monsieur Athanase MWAMBA MISAO, Directeur Général ad intérim, dûment habileté à l'effet des présentes ;

Ci-après dénommée « **COMINIÈRE SA** », ou la « Cédante », d'une part ;

Et

UNITED COMINIERE, Société par Actions Simplifiée, en sigle « UC SAS », dont le siège est établi au Plazza-Carrefour, Avenue Lumumba & Salo, dans la Commune et Ville de Lubumbashi., Province du Haut-Katanga, en République Démocratique du Congo, immatriculée au Registre de commerce et de Crédit Mobilier de Lubumbashi sous le n° CD/TRICOM/LSHI/RCCM/16-B-4420, représentée aux fins des présentes par Monsieur Dave B.GAGNON, en qualité de Président, ci-après dénommée « UC SAS » ou la « Cessionnaire », d'autre part ;

Ci-après désignées collectivement « Parties » et individuellement « Partie ».

PREAMBULE :

A) Attendu que COMINIERE SA est titulaire des droits et titres miniers sur les périmètres miniers couverts par les Permis de Recherches (PR) 12447,12448, 12460 ET 12462 (les "Permis de Recherches") bien décrits en annexes 1,2,3 et 4, situés dans les territoires de Manono, Kongolo, Nyunzu et Kalemie ;

B) Considérant que COMINIERE SA et SANDSTONE WORLDWIDE LIMITED ont manifesté un intérêt commun à mettre en valeur et à exploiter les gisements localisés sur le périmètre minier couverts par les Permis de Recherches appartenant à la COMINIERE SA, obtenus pour la recherche (prospection), l'exploitation des minerais stannifères et ses accompagnateurs incluant le Nb, Ta, Li, Sn, W, Co (tableau périodique) et autres minerais valorisables ;

C) Attendu que la COMINIERE et SANDSTONE WORLDWIDE LTD « SWL » ont signé, en date du 27 Juillet 2016, la convention de joint-venture relative à l'exploitation des gisements localisés dans les périmètres des PR 12447, 12448, 12460 et 12462 au travers d'une

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entreprise commune dénommée la société par actions simplifiée UNITED COMINIERE, en abrégé « UC SAS » ;

D) Attendu que le cessionnaire est une société de droit congolais, régulièrement constituée, ayant son siège social à Lubumbashi dans la Province du Haut-Katanga, en République démocratique du Congo et dont l'objet social porte sur les activités minières et sur le traitement métallurgique des minerais ainsi que la commercialisation de ces produits ;

E) Attendu qu'à ce titre, elle est éligible à requérir et à détenir les droits miniers, tels que les Permis de Recherches et d'en transformer en permis d'exploitation ou d'exploitation de petites mines de la Cédante mieux identifiés dans le présent contrat ;

F) Attendu qu'en vue de formaliser leur consentement sur l'offre et l'acceptation, les parties conviennent de conclure le présent contrat de cession.

IL EST CONVENU ET ARRETE CE QUI SUIT :

Article 1er : Objet du contrat

Conformément à l'article 182 de la Loi n°007/2002 du 11 juillet 2002 portant Code Minier Congolais ci-après « Code Minier », la Cédante cède totalement, de manière définitive et irrévocable, et transporte, sous toutes les garanties de fait et de droit, totalement les Permis de Recherches tels que délimités par les croquis et coordonnées géographiques en annexe.

Article 2 : Obligations de la Cessionnaire

La cessionnaire s'engage à respecter les dispositions légales relatives aux obligations de la Cédante vis-à-vis de l'Etat découlant des Permis de Recherche considérés, telles que prévues par l'article 182 alinéa 5 du Code Minier, dans le cadre des activités de prospection et d'exploitation desdits périmètres miniers.

Article 3 : Effets de la Cession et Garantie de la Cédante

Après l'accomplissement des formalités d'enregistrement au Cadastre Minier relatives à la cession des permis considérés, la Cessionnaire deviendra titulaire desdits droits miniers, sans préjudice de l'application des articles 186 du Code Minier et 374 à 380 du Décret n°038/2003 du 26 mars 2003 portant Règlement Minier. De plus, la Cédante certifie au cessionnaire que les Permis de Recherches ne font pas l'objet d'aucunes revendications de tierces parties, litiges ou suspensions d'ordres ministériels et qu'ils sont libres de toutes charges ou droits réels immobiliers quelconques.

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Article 4 : Enregistrement de la cession

La Cédante s'engage à satisfaire aux exigences légales relatives à l'enregistrement de la présente cession qui se fait à sa diligence tel qu'organisé par les dispositions précitées du Code et du Règlement Miniers.

Article 5 : Règlement des différends

5.1. Le présent Contrat est régi par, et sera interprété selon, le droit de la République Démocratique du Congo.

5.2. Tout différend ou litige découlant de l'exécution ou de l'interprétation des termes du Contrat de cession ou se rapportant ou concernant le non-respect de celui-ci, sera réglé à l'amiable. A défaut d'un règlement à l'amiable dans un délai de 30 jours, à compter de la date de la notification du litige par une partie à l'autre, le litige sera soumis à la compétence du Tribunal de Commerce de Lubumbashi.

Article 6 : Formalités

Conformément à l'article 4 du contrat de cession, les parties désignent Monsieur …aux fins de procéder à l'authentification du contrat de cession et à l'accomplissement des formalités d'usage auprès du Cadastre Minier conformément aux dispositions des articles 12 alinéa 12 et 182 du Code Minier.

Article 7 : Notifications

Toutes notifications, requêtes, demandes, approbations et autres communications à faire en vertu du Contrat de cession seront faites aux adresses suivantes :

Pour la COMINIERE SA :

A SON SIEGE SOCIAL SITUE AU N° 56 DE L'AVENUE COLONEL EBEYA, IMMEUBLE BON COIN, APPARTEMENT N° 8, KINSHASA-GOMBE, REPUBLIQUE DEMOCRATIQUE DU CONGO

Pour la UNITED COMINIERE SAS :

A SON SIEGE SOCIAL SITUE PIAZZA-CARREFOUR, AVENUE LUMUMBA & SALO, DANS LA COMMUNE ET VILLE DE LUBUMBASHI., PROVINCE DU HAUT-KATANGA, EN REPUBLIQUE DEMOCRATIQUE DU CONGO

Article 8 : Loyauté, frais et entrée en vigueur

8.1. Chacune des parties s'engage à exécuter de bonne foi et à respecter loyalement les clauses du Contrat de cession qui sort ses effets à la date de sa signature par les parties.

8.2. Les frais et droits du Contrat de cession et à ceux qui en seront la conséquence seront à la charge de la Cessionnaire qui s'y oblige.

En foi de quoi, les Parties ont signé, à Kinshasa, le 16 Novembre 2016, le Contrat de cession en quatre (4) exemplaires originaux, chacune des Parties reconnaissant en avoir retenu un, le troisième étant réservé au Cadastre Minier et le dernier au Ministère des Mines.

Pour la COMINIERE SA	Pour la UNITED COMINIERE SAS
Par : Athanase MWAMBA MISAO, Directeur Général *ai*	Par : Dave B. GAGNON, Président

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ANNEXE AU CONTRAT DE CREATION DE LA JV COMINIERE-SWL
CROQUIS ET COORDONNEES GEOGRAPHIQUES

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