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**MINING LEASE 22624 "OONAGALABIE"**

**A POSSIBLE MINERALISATION VECTOR**

**AT OONAGALABIE PROSPECT**

**BASED ON MULTI-ELEMENT RESULTS**

**FROM QUARTER CORE SAMPLING OF ONT-79-1 & ONT-79-2**

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## Table of Contents

ABSTRACT .....	1
1.0 INTRODUCTION .....	1
2.0 MULTI-ELEMENT PATTERNS .....	2
2.1 Au.....	2
2.2 Ag.....	2
2.3 Al.....	2
2.4 As B Ba Be.....	2
2.5 Bi.....	2
2.6 Ca.....	2
2.7 Cd.....	3
2.8 Co Cr .....	3
2.9 Cu.....	3
2.10 Fe .....	3
2.11 Ga Hg .....	3
2.12 K.....	4
2.13 La .....	4
2.14 Mg.....	4
2.15 Mn.....	4
2.16 Mo.....	4
2.17 Na.....	4
2.18 Ni.....	5
2.19 P .....	5
2.20 Pb.....	5
2.21 S .....	5
2.22 Sb .....	5
2.23 Sc.....	5
2.24 Sr.....	6
2.25 Th.....	6
2.26 Ti.....	6

*A POSSIBLE MINERALISATION VECTOR AT OONAGALABIE PROSPECT  
 BASED ON MULTI-ELEMENT RESULTS FROM QUARTER CORE SAMPLING OF ONT-79-1 & ONT-79-2*

<b>2.27</b>	<b>Ti U .....</b>	<b>6</b>
<b>2.28</b>	<b>V .....</b>	<b>6</b>
<b>2.29</b>	<b>W .....</b>	<b>6</b>
<b>2.30</b>	<b>Zn .....</b>	<b>7</b>
<b>3.0</b>	<b>CONCLUSIONS &amp; RECOMMENDATIONS .....</b>	<b>7</b>

## List of Digital Files

ML22624\_200906\_ONT-79-1&2\_report.pdf

## Abstract

ML 22624 "Oonagalabie" is held by Silex Exploration Australia Pty Ltd. Previous work programmes undertaken by Silex at Oonagalabie prospect include geological mapping and a pole-dipole IP surveys. In November 2008, Silex undertook quarter-core sampling of BQ and NQ core from holes ONT-79-1 and ONT-79-2, drilled by Amoco at Oonagalabie prospect in 1979. Results from multi-element analyses of quarter core from ONT-79-1 & ONT-79-2 were received in late January 2009. Based on multi-element patterns, the Oonagalabie deposit can be characterised by a Zn Cu Ag Au W Bi metal association. A possible vector towards higher grades and the possible mineralised centre of the Oonagalabie system is indicated in ONT-79-1.

## 1.0 Introduction

ML 22624 "Oonagalabie" is held by Silex Exploration Australia Pty Ltd. Previous work programmes undertaken by Silex at Oonagalabie prospect include geological mapping and a pole-dipole induced polarisation (IP) survey during 2008.

In November 2008, quarter-core sampling of BQ and NQ core from holes ONT-79-1 and ONT-79-2, was undertaken. ONT-79-1 and ONT-79-2 were drilled by Amoco at Oonagalabie prospect in 1979. Results from multi-element analyses of quarter core from ONT-79-1 & ONT-79-2 were received in late January 2009. A possible vector to mineralisation based on these multi-element data is presented in this report.

Results from multi-element analyses of BQ / NQ quarter core from ONT-79-1 & ONT-79-2 were finally received in late January 2009, two months after the core was cut. Drill core was analysed for Au by method AA22 (fire assay) and a 35 element suite of:

Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	
Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S
	Sb	Sc	Sr	Th	Ti	Tl	U	V	W	Zn	by the	ME-ICP41

(inductively coupled plasma) method.

## **2.0 Multi-element Patterns**

### **2.1 Au**

ONT-79-1 is Au-rich compared to ONT-79-2; hole 2 contains anomalous Au (> 50 ppb) only in a thin supergene zone, where malachite and chalcocite were logged. This is despite hole 2 having intersected broader zones of calc-silicates than hole 1.

### **2.2 Ag**

ONT-79-2 contains more Ag than ONT-79-1 by virtue of hole 2 having intersected more and broader zones of calc-silicates than hole 1. However, individual Ag values are higher in ONT-79-1.

### **2.3 Al**

Anomalously low Al values appear to be characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2; apart from defining the calc-silicate units, Al is not useful for vectoring.

### **2.4 As B Ba Be**

As has a flat response in both ONT-79-1 and ONT-79-2, while B is below detection in both holes. Ba has sporadic, weakly elevated values, some on the boundaries of lithological units. Be appears to follow Ba.

### **2.5 Bi**

Bi values have a spike-like character in calc-silicates zones; individual Bi values are higher in ONT-79-1.

### **2.6 Ca**

Obviously, high Ca values are characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2. ONT-79-2 contains more Ca than ONT-79-1 by virtue of hole 2 having intersected more and broader zones of calc-silicates than hole 1. Individual Ca values are higher in ONT-79-2. Apart from defining the calc-silicate units, Ca is not useful for vectoring.

## **2.7 Cd**

Cd values have spike-like to consistent character in calc-silicates zones; individual Cd values are higher in ONT-79-2. Not surprisingly, Cd appears to partly follow Bi.

## **2.8 Co Cr**

Both Co and Cr have flat profiles, with minor spike-like values in both ONT-79-1 and ONT-79-2.

## **2.9 Cu**

As already mentioned for Au, ONT-79-1 contains a thin supergene zone, this is absent in ONT-79-2. Cu values are most anomalous in mineralised calc-silicates zones, although there are Cu-anomalous amphibolite units. Individual Cu values are higher in ONT-79-1.

## **2.10 Fe**

Fe has a variable response, with high values co-incident with some amphibolite units. Both ONT-79-1 and ONT-79-2 have similar Fe values (~5 %), apart from a zone of gneiss and amphibolite (17-29 m) , below the supergene zone in ONT-79-2, where the peak Fe value is 11.9 %.

## **2.11 Ga Hg**

Ga has a flat response, barely above detection in both ONT-79-1 and ONT-79-2, while Hg is mostly below detection in both holes.

## **2.12 K**

Anomalously low K values appear to be characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2; apart from defining the calc-silicate units, K is not useful for vectoring.

## **2.13 La**

La has a flat response in both ONT-79-1 and ONT-79-2.

## **2.14 Mg**

Obviously, high Mg values are characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2. ONT-79-2 contains more Mg than ONT-79-1 by virtue of hole 2 having intersected more and broader zones of calc-silicates than hole 1. Individual Mg values are higher in ONT-79-2. Apart from defining the calc-silicate units, Mg is not useful for vectoring.

## **2.15 Mn**

Mn appears to closely follow Mg.

## **2.16 Mo**

Mo has a variable response, with high values co-incident with various lithological units, including quartzite, amphibolite and schist. Individual Mo values are higher in ONT-79-2.

## **2.17 Na**

Anomalously low Na values appear to be characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2; apart from defining the calc-silicate units, Na is not useful for vectoring.



## **2.18 Ni**

Anomalously low Ni values appear to be characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2, while not surprisingly, high Ni values were returned from amphibolite units. Individual Ni values are lower in ONT-79-2. Apart from defining lithological units, Ni is not useful for vectoring.

## **2.19 P**

Anomalously low P values appear to be characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2. There are also unexplained spike-like high values within several lithological units outside the calc-silicate zones. Individual P values are lower in ONT-79-1.

## **2.20 Pb**

Pb values are anomalous only in mineralised calc-silicates zones. Peak Pb values are remarkably similar in both ONT-79-1 and ONT-79-2 (~2700 ppm).

## **2.21 S**

High S values define the supergene zone in ONT-79-2 and the sulphide-mineralised calc-silicates zones. Peak S values are similar in both ONT-79-1 and ONT-79-2 (~3.4 %).

## **2.22 Sb**

Sb has a flat response in both ONT-79-1 and ONT-79-2.

## **2.23 Sc**

Anomalously low Sc values appear to be characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2. Peak Sc values are similar in both ONT-79-1 and ONT-79-2 (~20 ppm).

## **2.24 Sr**

High Sr values are characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2. ONT-79-2 contains more Sr than ONT-79-1 by virtue of hole 2 having intersected more and broader zones of calc-silicates than hole 1. Individual Sr values are higher in ONT-79-2. Apart from defining the calc-silicate units, Sr is not useful for vectoring.

## **2.25 Th**

Th has similar flat responses in both ONT-79-1 and ONT-79-2.

## **2.26 Ti**

Anomalously low Ti values appear to be characteristic of granulite/marble units in both ONT-79-1 and ONT-79-2.

## **2.27 Tl U**

Tl is below detection in both ONT-79-1 and ONT-79-2 and U is at the detection limit in both holes.

## **2.28 V**

Anomalously low V values appear to be characteristic of granulite/marble units and some other lithological units in both ONT-79-1 and ONT-79-2. Peak V values are lower in ONT-79-1.

## **2.29 W**

ONT-79-1 is W-rich compared to ONT-79-2; this is despite hole 2 having intersected broader zones of calc-silicates than hole 1. ONT-79-2 contains anomalous W (50-70 ppm) only in a zone

below the supergene zone, whereas ONT-79-1 has several W-anomalous zones, co-incident with calc-silicates.

## **2.30 Zn**

Zn values are most anomalous in mineralised calc-silicates zones in both ONT-79-1 and ONT-79-2, although there are Zn anomalies associated with contact positions between lithological units and the supergene zone in ONT-79-2 contains anomalous Zn. Individual Zn values are higher in ONT-79-1.

## **3.0 Conclusions & Recommendations**

Based on multi-element patterns, the Oonagalabie deposit can be characterised by the following association:

Zn    Cu    Ag    Au    W    Bi.

Comparing only two holes within a prospect is somewhat limiting. However, a possible, yet clear vector towards higher grades and the possible mineralised centre of the Oonagalabie system is indicated in ONT-79-1.