

CHAPTER I

INTRODUCTION

1.1 Background

Exploration and exploitation of metallic minerals include activities that have a high risk. This activity has opportunities failure is often the case, so that it can cause losses among investors in the form of lost time and significant capital which in turn can affect the performance and viability of the company.

Preliminary exploration is one of the important steps that must be done to get a preliminary overview of potential mineral deposits that can be found in the area, thus a comprehensive study is needed to obtain an exploration of methods and appropriate steps in order to increase the odds of success in exploration activities.

Vang Tat Gold Mine operating since 2009 where preliminary exploration start on 2008 cooperate with some geologist consultant. Based on previous data on Vang Tat Gold Mine, the client wish to verified the mineralization of the area especially on gold and its economic potential. The client requested an independent geologist to ascertain the gold potential within the area and to prepare the next stage exploitation and production.

1.2 Objectives of The Mission

The main goals and objectives to be achieved in this field trip activities are:

- Conduct an evaluation to determine the geological potential of the gold reserves to be exploited as well as a model system of mining is planned. Geologic evaluation conducted includes verification of existing data and field checks to match the existing information.
- Visits to the field were also performed to mapped out the locations of other is potential of existing mineralization in addition to those already planned to be mined. Field trips both in the form of surface geological mapping of areas that are considered to have mineralization, which is later be recorded as geological data supporting the existence of mineralization, as well as rock

samples gathering in order to identify the levels of basic metals (especially Au-gold)

- Identifying mineralization boundary of the area surveyed in order to determine potential area that can be exploited

1.3 Location and Regional Accomplished

The Vang Tat gold mine is situated at the SE of San Xay district, Attapu province. This area borders with Vang Tat Noi about 6 km to the North, about 4 km to the South with Dak Doong (Douk Ben) village and about 20 km far from Vietnam-Laos border to the east. The Vang Tat-San Xay exploration area is located about 50 km E-NE far from the Attapu provincial center.

Vang Tat gold mine is reachable by road from the Vientiane capital city with distance of 1200 km to the South from Vientiane. Access to the Vang Tat gold mine exploration area with a distances of 80 km is by passing through a gravel roads.

Table 1. The coordinates position of the Vang Tat-Vang Xay area (250km²)

Point	X	Y
A	107° 25' 02"	15° 04' 09"
B	107° 30' 37"	15° 04' 02"
C	107° 30' 36"	15° 01' 52"
D	107° 27' 49"	15° 1' 53"
E	107° 27' 46"	14° 58' 38"
F	107° 28' 18"	14° 56' 28"
G	107° 33' 50"	14° 53' 10"
H	107° 32' 09"	14° 51' 33"
I	107° 29' 22"	14° 51' 35"
J	107° 29' 24"	14° 54' 13"
K	107° 21' 36"	14° 54' 22"
L	107° 21' 37"	14° 56' 32"
M	107° 20' 30"	14° 56' 33"
N	107° 20' 33"	15° 00' 53"
O	107° 24' 59"	15° 00' 50"



Figure 1. Administrative map of Laos, () is the location where the Vang Tat Gold Mine

Table 2. The coordinates position of 3 km² exploration area at the West

Point	X	Y
A	107° 24' 10"	14° 59' 36"
B	107° 24' 44"	14° 59' 36"
C	107° 24' 44"	14° 57' 58"
D	107° 24' 10"	14° 57' 58"

1.4 Scope Work

Preliminary investigation carried out geological mapping of the surface areas of alteration that occurs, and carried out rock samples gathering to identify mineralization occurrences

1.5 Methods and Equipment Used

The survey method is by using a good surface geological mapping and laboratory analysis. Geological mapping carried out are in general surrounding and the emphasis is given on the areas that experienced alteration. Rock samples gathering were later conducted on the mineralization occurrence in order to analyze its metal content, specifically Au-gold. A detail mapping is made to point out rock sample position which shows potential level by channel sampling. Laboratory analysis of the sample is performed by a laboratory that is independent and internationally licensed

Equipment used during the field activities are geological type Brunton compass, Gamin GPS 60 CSX, geological hammer, 20x magnification Loupe, measuring tape (50 feet), ribbons, camera and stationery.



Figure 2. The equipment used in exploration activities

1.6 Preparation and Analysis of samples

Preparation and testing of rock samples taken be done on a laboratory specified by the client. The laboratory analysis is done to determine the mineral content parameter and its associated minerals.

1.7 Exploration Activity Schedule

Exploration activities carried out include trips, field data collection, sample preparation. Activity lasted for 23 days, with the following sequence of events as

No	Date	Schedule Activity
1	17 February 2012	Departure to Kuala Lumpur-Malaysia
2	18 February 2012	Departure to Vientiane-Laos
3	19 February 2012	Departure to Attapu-Province of Lao
4	20 February 2012	Go to Exploration Area-Vang Tat Gold Mine
5	21 February 2012	Trip 1 : Exploration of area spot 8 and spot 1
6	22 February 2012	Trip 2 : Exploration of area spot 7, spot 6, spot 4, spot 10, spot 3, and spot 2
7	23 February 2012	Trip 3 : Exploration of area River 1
8	24 February 2012	Trip 4 : Exploration of area River 2
9	25 February 2012	Trip 5 : Exploration of area River 3
10	26 February 2012	Preparation, labelling and colecting sample
11	27 February 2012	Trip 6 : Exploration of Spot 3, spot 7 and West block 3 km ²
12	28 February 2012	Trip 7 : Exploration of South Block 3 km ²
13	29 February 2012	Trip 8 : Exploration of North Block (NKO)
14	1 March 2012	Trip 9 : Exploration of spot 8
15	2 March 2012	Trip 10 : Exploration of spot 8
16	3 March 2012	Trip 11 : Exploration of South Block 3 km ²
17	4 March 2012	Preparation, labelling, and colecting sample
18	5 March 2012	Trip 12 : Exploration of North Block (NKO)
19	6 March 2012	Trip 13 : Exploration of River 4
20	7 March 2012	Colecting data and colecting sample
21	8 March 2012	Go to Vientiane-Laos
22	9 March 2012	Go to Kuala Lumpur-Malaysia
23	10 March 2012	Back to Makassar-Indonesia