

INTRODUCTION

As a result of the reconnaissance survey and mineral prospecting at the scale of 1/25,000 over an area of 250km² within the licensed area of the joint venture between Viet - Lao Minerals Joint-Stock Company and the Mining Division of the Ministry of Defense of Lao PDR, several areas with potential in Au, Fe mineralization and other related minerals. The obtained data have allowed to continue carrying out investigation on mineral resources in order to clarify the potential and prospect of areas delineated on the basis of the results of 1/25,000 scale investigation. The further main objectives and tasks in the areas with mineral potential are:

1) To clarify the potential of the Au, Fe and other related minerals, serving as the basis for further expanded survey to clarify their extent.

2) To delineate perspective areas for exploration and evaluation of reserves and resources serving for further mining operation.

In order to fulfill the above - mentioned tasks, the further works to be carried out should include mineral prospecting at different degrees of detail for each area according to mineral indications. On the basis of available data, the survey work will be implemented at two different levels of detail:

- Detailed mineral prospecting at the scale of 1/10,000, mostly by field traversing, pan concentrate sampling, detailed stream sediment sampling, and simple excavation works such as outcrop cleaning, pitting, shallow trenching with the aim of delineating perspective areas for further more detailed prospecting and evaluation.

- Preliminary exploration at the 1/10,000 - 1/5,000 scale in the areas having more detailed data in order to clarify geological structure, characteristics of ore bodies and their extent by different methods such as detailed field traversing, pan concentrate sampling from slope and stream sediments following high order water courses, trenching for controlling ore bodies in accordance with technical procedures, followed by geophysical survey and drilling to determine the extent of the ore bodies in depth. As a result of the preliminary exploration, concrete areas must be delineated for calculation of the reserves and resources and for reserve upgrading exploration.

To carry out the above mentioned works, the Viet - Lao Minerals Joint Stock Company has signed contract No 53/QD – VDCKS dated 10 May 2010, with the Institute of Geosciences and Mineral Resources on designing the ***preliminary exploration*** of areas with potential in gold, iron ore and other minerals in the areas selected from the results of the geological prospecting at 1/25,000 scale.

As a result of preliminary exploration in the set out areas we hope to delineate exactly the ore bodies and prognosticate exactly the mineral potential to save time, budget and increase the economic value of the minerals by carrying out the

exploration in accordance with the specified technical procedure with application of proper methods in the Vang Tat area – San Xay – At Ta Pu

CHAPTER I
GEOGRAPHICAL LOCATION AND GEOLOGICAL CHARACTERISTICS
AND MINERALS OF PRELIMINARILY EXPLORED PROSPECTS

The preliminary prospecting at 1:25,000 scale over an area of 250 km² (including 3 km³ of exploration) defined some potential ore ranges where specific areas with mineral occurrences are distributed in W-E and N-S direction (Drawing No.1):

1 – 1st area (Au – I):

It is located in the northwest with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
A1	751,486	1,659,467	16.75	Au - I	I – 1 - 1
A2	754,395	1,659,468			
A3	754,395	1,653,722			
A4	751,484	1,653,720			

This area consists of the Devonian light granite rocks, primarily granodiorite and leucocratic granite of massive structure which are composed of mostly plagioclase, feldspar K and quartz. These granite formations are intersected by mafic and ultramafic dikes.

The Au – I area is intersected by NW-SE trending faults.

The investigation and prospecting at 1:25,000 scale defined dispersion haloes of Au graded I to III and of low-grade hematite as well as geochemical contours of antimony, nickel, zinc, lead, tungsten, arsenic and bismuth graded I to III.

The above heavy minerals dispersion haloes and geochemical contours are mostly distributed along the contact area between two NW-SE trending faults located at the centre.

According to the initial data, this area seems to be indicative of Au mineralization with further investigation warranted so that the mineral potential is properly evaluated.

2 – 2nd area (Au – II - I) :

The Au – II – 1 area is located in the second ore range of the Vang Tat Nhay region, in the north of 250 km² area with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			

B1	755,498	1,661,698	10.20	Au – II - 1	II – 1 – 1
B2	757,844	1,661,700			
B3	757,844	1,657,362			
B4	755,498	1,657,362			

This area is composed of mostly quartzitic sandstone, quartz-sericite schist, sandstone-siltstone intercalated with layers of shale and lenses of limestone, lime-dolomite, dolomite layers and acid and mafic extrusions. These rocks are believed to be of the formation similar to the Nui Vu Formation (PR₃ - €₁ nv) within the same structure of the Central Vietnam.

To the north, it is Devonian intrusions comprised of mostly plagioclase, feldspar K, quartz of granodiorite and leicocratite granite in massive structure.

The western and souther parts are represented by presence of mafic intrusions intersecting terrigenous formations composed of pyroxenite rocks with petrographic composition of altered plagioclase, tremolite, sericite, minor actinolite, epidote and carbonate. These rocks are fine grained and massive structured, belonging to the early phase of the Middle-Triassic Cha Val Formation.

The Au II-1 area is commonly controlled by a sub-meridian fault occurred to the eastern edges of mafic and ultramafic intrusions. Acting as both a deep and major fault, this fault is the development direction of the intrusions and concurrently intersects the entire prospecting area. This sub-meridian fault reacted for many times throughout this area.

Occurred within this area are many dispersion haloes of Au graded I and II; geochemical contours of antimony, bismuth, copper, lead, zinc, arsenic and nickel graded I, II, III; occurrences of Au-bearing quartz-sulphide orebodies with various grades, for example outcrops No. VL. 0093 and VL. 5034, H.01; and limonite iron occurrence No. VL.3113.

3 – 3rd Area (Au – II - 2) :

The Au – II – 2 Area is located in the south of the second ore range and in the west of 3 km² area explored within the Vang Tat Nhay region, controlled by the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
B5	755,720	1,656,649	4.80	Au – II - 2	II – 2 – 1
B6	757,725	1,656,649			
B7	757,725	1,654,281			
B8	755,720	1,654,281			

This area consists of mainly metasedimentary rocks of geological formations similar to the ones aged PR₃ - €₁ intercalated with thin layers of mafic extrusion; thinly to moderately bedded siltstone; and there is occurrence of quartzite in the upper parts.

To the west, there is a small part of batolite intrusion composed of granodiorite, leicogranite rocks with massive structure. These rocks are composed of the Devonian age plagioclase, feldspar K and quartz as defined by the analytical data of JICA.

The east consists of discontinuous intrusions which are comprised of mainly the Triassic mafic rocks corresponding to formations of the Cha Val mafic intrusions composed of pyroxene, altered plagioclase, tremolite, actinolite, minor sericite and epidote, carbonate and massive, fine-grained rocks.

To the south, kersantite dikes with unknown age intersect metasedimentary rocks.

The entire area subjected to preliminary prospecting has been intersected by the sub-meridian fault system and divided into small units by NE-SW trending faults.

The mineralization occurred in this area is represented by high grade-Au dispersion haloes concentrated on the south, associated with hematite and magnetite haloes, and thus forming paragenesis pairs. Geochemical contours of high-grade (graded II and III) Cu, Zn, Ni and As and low-grade Sb (graded I) surround the Au dispersion haloes. Besides these, there are also geochemical contours of W and Sn possibly formed by kersantite dikes?

4 – 4th Area (Au – III - 1) :

The area is situated in the northern Vang Tát Nhày, with a mineralization occurrence area of 4.80 km², and is limited by the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
C1	759,500	1,667,700	4.80	Au – III - 1	III – 1 – 1
C2	761,276	1,667,700			
C3	761,276	1,664,993			
C4	759,500	1,664,993			

This area consists of primarily terrigenous sedimentary and extrusive rocks corresponding to the metasedimentary formations of the Neoproterozoic-Cambrian (PR₃ - €₁) Nui Vu Formation which is composed of quartzitic sandstone, quartz-sericite schist, siltstone intercalated with layers of shale and lenses of limestone and lime-dolomite intercalated with lenses of acid and mafic extrusions.

It was commonly controlled by a meridian fault system. The rocks have formed an anticline with axis coincident with the above fault whilst two walls steeply dip at angle of 70 – 80°.

There are two ore outcrops indicative of Au mineralization. The first one is Outcrop No.3010 with 22.10 g/t Au occurred in the gossan, of which an extension to G.01 has fairly stable Au grade (24.40g/t according to the assay result). The second one is Trench N°. 02 with 0.7g/t Au as defined by the fire assay results.

Ore occurrences primarily develop along the sub-meridian, in spite of being folded in places due to influences of faults or joints. The remote sensing images indicated that the mineralization zone of this area extends for over 1.5km along the above-mentioned direction.

The whole area comprises one geochemical contour of III-graded Sb which encompasses the north and north-west and is coincident with the axis of the anticline. However, heavy minerals and ore occurrences over this contour have not been found yet, possibly due to being covered?

5 – 5th area (Au –III - 2):

This area is an NS-trending extension of the Au-mineralized range No. III. Its central part was believed to have reserve categorized 122 according to the exploration and reserve assessment results. It also extends to the southern Vang Tat Nhay. The proposed preliminary exploration area is 3.42 km² limited in the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
C5	758,814	1,656,000	3.42	Au – III - 2	III – 2 – 1
C6	760,200	1,656,000			
C7	760,200	1,653,690			
C8	758,814	1,653,690			

It consists of metamorphic sedimentary and extrusive sedimentary rocks of the formation similar to the Early Neoproterozoic – Paleozoic (PR₃ - €₁ nv) Formation composed of quartzitic sandstone, quartz-sericite schist, siltstone intercalated with layers of shale and lenses of limestone and lime-dolomite intercalated with lenses of acid and mafic extrusion.

To the NW and SW are mafic intrusions of dark, foliated and altered rocks close to cataclastic zones. These rocks are composed of pyroxene, altered plagioclase, tremolite, actinolite, minor sericite and epidote and carbonate; and are of massive and fine-grained texture. There is a talcification indication in places of the area.

There are 3 main destructive systems observed in the area:

- Sub-meridian system: considered the oldest destructive one characterized by discontinuous fractures which are clearly observed in the NE and SE.

- Sub-parallel destructive system: intersects the entire area and combines with other systems to form structures with different mineralization occurrences within the area.

- NW-SE system: is a discontinuous and not large system, primarily distributed in the central area.

Some Au veins have been found in this area. There are some Au outcrops occurred from the west to the east, the north down to the south:

No.	Sample No.	Assay results Au, Ag (g/T), Fe (%)		
		Au	Ag	Fe
1	VL. 3105	8,5	<10	54,28
2	VL. 1097	0,6	<10	
3	VL. 3099	4,0	<10	
4	VL. 3099/1	0,8	<10	
5	VL. 1108	0,4	<10	

However, the indication of heavy minerals and sediment geochemistry is not high. There is only one geochemical contour of low-grade As.

While observing airborne photos and satellite images, ore occurrences associated with the above outcrops are indicative of existence of fractured zones which extend and form mineralization zones. These indications are of importance.

6 – Sixth Area (Au –III - 3) :

It is a south-trending extension of the ore range No. III, adjacent to the fifth area and encompasses an area of 7.92 km² limited by the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
C9	758,225	1,653,690	7.92	Au – III - 3	III – 3 – 1
C10	760,200	1,653,690			
C11	760,200	1,649,688			
C12	758,225	1,649,688			

It is a south-trending extension of sedimentary and metamorphic extrusive sedimentary formations which are composed of quartzitic sandstone, quartz-sericite schist, sandstone mixed with layers of shale and lenses of limestone and lime-dolomite intercalated with lenses of acid and mafic extrusive rocks. These rocks are believed to be of formation similar to the Early Neoproterozoic – Paleozoic (PR₃ - €_{1 nv}) Nui Vu Formation.

The major destruction observed in this area is represented by sub-meridian faults extending from the Au – III – 2 area downwards and commonly controls the mineralized zones and intrusions exposed within this area.

The rocks distributed in the general structure plan have formed an anticline which trends to be folded in the geometry of mafic intrusions and thus influencing the mineralization distribution scope.

The mafic intrusions of this area are the Early Mesozoic in age and of the largest area out of intrusions. They are:

+ Mafic intrusions located in the NW and SW: composed of dark colored, foliated and altered rocks near cataclastic zones. These rocks are composed of pyroxene, altered plagioclase, tremolite, actinolite, minor sericite and epidote, carbonate and of massive and fine-grained structure. A talcification occurrence is seen in places.

+ Acid intrusion occurred to the SE: consists of rocks of the formation similar to the Jurassic Ba Na Formation which is composed of plagioclase, feldspar K, quartz, muscovite and tourmaline. The rocks are greizenized at the contact boundary between this intrusion and the country rocks, where is rich in tourmaline.

Au mineralization occurrences are found in this area, according to the previous assay results:

No.	Sample No.	Assay results Au, Ag (g/T), Fe (%)		
		Au	Ag	Fe
1	VL. 3114	3,4	<10	
2	VL. 4132	1,0	<10	
3	VL. 4133	0,4	<10	
4	VL. 4135/1	0,4	<10	

Along with the exposure of Au mineralization bodies, there is also presence of high-grade Cu and Pb according to the assay results of sediment geochemical samples, existence of dispersion haloes of magnetite and hematite as well as tourmaline occurred in metamorphic zones near the light granite intrusions.

Upon observing the outcrops, they were believed to develop along the wings of folds and their bedding attitude is relatively steeply dipping and conformable with the country rocks. Profiles of the pre-existent geological formations have not been observed yet. The ore veins are of significant thickness along the long strike, being up to approximately 1.0m thick in places.

7 – Seventh Area (Fe – IV - 1) :

It is the area with the clearest occurrence of magnetite iron mineralization which is represented by iron ore bodies lying conformably with the country rocks and dipping relatively steeply. It is located in the northern Vang Tay Nhay and covers an area of 4.75 km² limited by the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
C2	761,276	1,667,700	4.75	Fe – IV - 1	IV – 1 – 1
D2	762,206	1,667,700			
D3	762,206	1,662,591			
D4	761,276	1,662,591			

It consists of terrigenous rocks and terrigenous and metamorphic extrusive rocks with the age similar to (PR₃ - €₁ nv) Nui Vu Formation as described above. These rocks are composed of quartzite sandstone, quartz-sericite schist, sandstone intercalated with layers of shale, lenses of limestone, lime-dolomite and metamorphic iron ore sills?

It is commonly controlled by an arc-shaped fault coincident with the main stream system, and therefore it has iron ore locations conformable with the country rocks.

Iron mineralization is mostly seen in the central area where many 6m-thick iron ore sills have been found and preserved along the strike with the same dip direction. However, due to the post-ore formation destruction, these sills were displaced in a consistent interval. The assay results of mineral composition indicated that magnetite is in the majority and the next is hematite altered by martitization. The following table shows the assay results of iron ore in the outcrops:

No.	Sample No.	Assay result Au, Ag (g/T), Fe (%)		
		Au	Ag	TFe
1	VL. 1002			53,33
2	VL. 001/1			48,64
3	VL. 002			48,07

According to the assay results, the grades of unuseful components like P, S, Si are low.

8 – Eighth Area (Au – V - 1) :

It is located in the northern Vang Tat Nhay and covers an area of 5 km² with the following coordinates

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
E1	762,206	1,667,111	5.00	Au – V - 1	V – 1 – 1

E2	763,405	1,667,111			
E3	763,405	1,662,990			
E4	762,206	1,662,990			

Like the iron mineralization area, this area is composed of quartz-sericite schist and quartzite in the upper layers, intercalated with thinly to moderately bedded siltstone and sandstone. These rocks are of the formation similar to the Neoproterozoic - Cambrian (PR₃ - €₁ nv) Nui Vu Formation.

The destruction – fracture is reflected by sub-meridian faults, in spite of not being as strong as that in other areas while sub-parallel and E-NE and W-SW faults are reflected by cross ones dividing the area's structure.

The mineralization in this area is primarily reflected by vein and stockwork typed gold (Noong Kay Uc) developing along the sub-meridian strike. To the north, there are occurrences of weathered limonite iron ore in sulphide formations.

The prospecting at 1:25,000 scale showed occurrence of II-graded Au dispersion haloes and sediment geochemical contours (of high-grade Sb, Bi and As) associated with occurrence of Au mineralization.

9 – Ninth Area (Au – V - 2) :

It is located in the south of the eighth area, an extension of the Au-mineralized range No. IV. The mineralization area is 3.03 km² with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
E5	762,011	1,661,658	3.03	Au – V - 2	V – 2 – 1
E6	763,301	1,661,658			
E7	763,301	1,659,336			
E8	762,011	1,659,336			

This area consists of terrigenous and extrusive rocks of the formation similar to the Early Neoproterozoic – Cambrian (PR₃ - €₁ nv) Nui Vu Formation. These rocks are composed of quartzitic sandstone, quartz-sericite schist, sandstone intercalated with layers of shale and lenses of limestone and lime-dolomite.

The sub-meridian fault system develops relatively strongly in this area, especially to the east (through satellite images), dividing this area into small ranges.

The mineralization occurrence is not clear, however, the prospecting at 1:25,000 scale indicated the presence of geological structure-trending geochemical contours associated with gold mineralization, like low-grade As, II-grade Bi, III-graded Sb and Pb with various grades and low-grade Cu.

10 – Tenth Area (Au – VI - 1) :

It is located in the northeastern Vang Tat Nhay and covers an area of 5.43 km² with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
F1	764,600	1,667,700	5.43	Au – VI - 1	VI – 1 – 1
F2	766,199	1,667,700			
F3	766,199	1,664,312			
F4	764,600	1,664,312			

Within the same structure of the Vang Tat Nhay, this area consists of sedimentary and metamorphic extrusive sedimentary rocks of the formation similar to the Early Neoproterozoic – Cambrian (PR₃ - €₁ nv) Formation. These rocks are composed of quartzitic sandstone, quartz-sericite schist, siltstone intercalated with layers of shale and lenses of limestone and lime-dolomite intercalated with lenses of acid and mafic extrusions. Along with these rocks, this area also comprises the Cenozoic extrusive formations composed of olivine basalt and tuff basalt rocks with massive structure occurred to the SW Au-VI-1 area.

Upon observing factual conditions and satellite photos, a NE-SW fault was found to be located to the E-NE along the main stream of this area.

Au and Fe mineralization zones were found in places with large exposure area, but the grades are not high.

No.	Sample No.	Assay results Au, Ag (g/T), Fe (%)			Heavy mineral and geochemical haloes	Ore- bearing area
		Au	Ag	TFe		
1	VL. 1091/1	4,0	<10		Sb – II, Au, II	Au - VI - 1
2	VL. 3049			46,23		
3	VL. 0061	0,9	<10			
4	VL. 4061	0,7	<10			

11 – Eleventh Area (Au – VII - 1) :

This area is located in the northeastern Vang Tat Nhay, over an area of 9.00 km² with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
G1	768,063	1,667,720	9.00	Au – VII - 1	VII – 1 – 1
G2	769,500	1,667,722			
G3	769,500	1,663,698			
G4	766,440	1,663,698			

It consists of terrigenous formations composed of rocks similar to the ones of the Nui Vu Formation in Vietnam. These rocks are composed of quartzitic sandstone, quartz-sericite schist, sandstone intercalated with layers of shale and lenses of

limestone and lime-dolomite. The schist is primarily distributed in the west while quartzite and quartzitic sandstone are concentrated on the east.

It is controlled by mostly the NE-SW arch fault along the stream and partly the fault with reverse direction which shears and displaces the above main fault.

The mineral occurrence in this area is placer gold and native gold.

No.	Sample No.	Assay results Au, Ag (g/T), Fe (%)			Heavy mineral and geochemical haloes	Ore-bearing area
		Au	Ag	TFe		
1	VL. 1047/1	0,7	<10		Sb – II, Au, II, III, Pb – III, Bi – I, As - I	Au - VII - 1
2	VL. 1050	0,4	<10			
3	VL. 0057	0,9	<10			

There have been some facilities of placer gold mining and landfill mining and some small-scale mining facilities of the locals in this area.

12 – Twelfth Area (Au – VII - 2) :

It is a southern-trending expansion of the seventh area within Vang Tat Nhay. The preliminary prospecting area is 2.13 km² with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
G5	763.778	1.662.595	2.13	Au – VII - 2	VII – 2 – 1
G6	764.486	1.662.595			
G7	764.486	1.659.590			
G8	763.778	1.659.590			

It consists of terrigenous sedimentary rocks and formations of acid and mafic extrusions, which are similar to the Neoproterozoic – Cambrian (PR₃ - €₁ nv) Nui Vu Formation occurred to the eastern Vietnam.

The occurrence of fracture-fault within this area is weak, and therefore it is difficult to define fracture-fault system over the general structure plan. The bedding attitude of rocks trends to form a small anticline.

In this area, there are mineralization occurrences found in type of placer gold graded I and II concentrated on the outer rims of lifting dome, and sediment geochemical occurrences of Sb graded II and III, Pb graded I and II, and As graded I, surrounding the placer gold haloes mentioned above

13 – Thirteenth Area (Au – VIII - 1) :

It is located in the southeastern Vang Tat Nhay and covers an area of 6.20 km² with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
H1	764.975	1.652.845	6.20	Au – VIII - 1	VIII – 1 – 1
H2	766.935	1.652.845			
H3	766.935	1.649.695			
H4	764.975	1.649.695			

It consists of terrigenous rocks with the development sequence similar to the Nui Vu Formation as described above.

This area is controlled by the NW-SE fault system which is sheared and displaced by the NE-SW trending, younger fault one.

The mineralization in this area is represented by the presence of limonite iron orebodies occurred to the northwest, heavy mineral haloes (hematite) and stream geochemical haloes (comprising Sb, As, Pb, Zn, Cu, W, Ni and Co with various grades) distributed in the northwest and southeast.

The preliminary prospecting-investigation at 1:25,000 scale found the above mineralization occurrences. Along with this, the assay results of BLEG samples indicated that this area needs to be further investigated.

14 – Fourteenth Area (Au – VIII - 2) :

It is located in the southeastern Vang Tat Nhay and covers an area of 3.85 km² with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
I1	769.185	1.649.896	3.85	Au – VIII - 2	VIII – 2 – 1
I2	771.490	1.649.896			
I3	771.490	1.648.229			
I4	769.185	1.648.229			

It consists of coarse porphyric rocks and pink, coarse porphyric granite. These rocks are composed of biotite, feldspar K, plagioclase and quartz, of the formation similar to the Late Ordovician-Early Silurian Dien Binh Complex present in Vietnam.

It is controlled by mostly two NE-SW fault systems and partly sub-parallel fault system in the margin of the W-N-W of the area.

The mineralization in this area is represented by presence of dispersion haloes of low to high-grade hematite and magnetite. Besides these, there are also sediment geochemical contours of Sb and Zn with various grades, low to average-grade Pb and low-grade Cu.

The gold mineralization in this area is not clear, however, the geochemical occurrence was found in the central area. As a result, it is necessary to continue investigations over this area.

15 – Fifteenth Area (Au – IX - 1) :

It is a large area, located in the SE boundary of Vang Tat Nhay and covers an area of 7.72 km² with the following coordinates:

Point	Coordinate (m)		Area (km ²)	Signal	Drawing No.
	X	Y			
K1	773.060	1.649.170	7.72	Au – IX - 1	IX – 1 – 1
K2	773.995	1.648.078			
K3	770.302	1.644.709			
K4	768.450	1.644.705			

It consists of magma formations with different ages. According to the analytical data of JICA, the earliest formations is the Late Ordovician-Early Silurian ones similar to the Dien Binh Formation composed of coarse porphyric granite and pink phenocryst of feldspar K and biotite, plagioclase and quartz.

The later formations are The Carboniferous fine-grained biotite granite intrusions composed of feldspar K, plagioclase, quartz and biotite, intersecting the Dien Binh formation.

This area is controlled by the NE-SW fault system (the major and sole one).

The mineralization is represented by Au-bearing veins of quartz-sulphide developing to the northeast along the sub-meridian strike, to the north along the NE-SW and NW-SE strike. Despite not high-grade Au, there are many samples with remarkable grades.

Along with the Au occurrence in the above quartz-sulphide veins, there are also heavy minerals dispersion haloes and sediment geochemical contours of Se, Bi, Sb, As, Pb and Zn distributed surrounding the locations of Au veins. The following table showed the assay results.

No.	Sample No.	Assay results Au, Ag (g/T), Fe (%)			Heavy mineral and geochemical haloes	Ore- bearing area
		Au	Ag	TFe		
1	VL. 3144	3,4	<10		As – I, Ce – II, Zn – I, II; Pb – I,II,III, Sb – II, III	Au - IX -1
2	VL. 3143	0,5	<10			
3	VL. 4234	0,5	<10	22,45		
4	VL. 4233	0,4	<10	26,02		

In conclusion, the prospecting and investigation at 1:25,000 scale outlined 15 ore prospects with further investigation warranted. However, given the available documents and mineralization occurrences, it would be essential to define

investigation levels for these prospects in order to ensure the scientific logicality and appropriate investment.