Ministry of Energy, Mines & Petroleum Resources Mining & Minerals Division	Assessment Report
BC Geological Survey	Title Page and Summary
TYPE OF REPORT [type of survey(s)]: Geology & Geophysics (magn	etics, IP) TOTAL COST: \$100,000
AUTHOR(S): Gerald G. Carlson	SIGNATURE(S):
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A	YEAR OF WORK: 2009
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):	4371008 - 2009/OCT/10
PROPERTY NAME: Nicoamen	
CLAIM NAME(S) (on which the work was done): 506513 (ZAK3), 5088	30 (ZAK4), 511667, 511671, 528760 (ZAK5), 528761 (ZAK6),
557587 (ZAK7), 557588 (ZAK8), 557589 (ZAK9)	
COMMODITIES SOUGHT: Gold	
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: No Minfile	
MINING DIVISION: Kamloops	NTS/BCGS: 921/03
LATITUDE: <u>50</u> ° <u>10</u> ' <u>00</u> " LONGITUDE: <u>121</u>	<u>° 20</u> ' <u>00</u> " (at centre of work)
1) Almaden Minerals Ltd.	2)
	· · ·
MAILING ADDRESS: 1103 - 750 West Pender Street	
Vancouver, BC V6C 2T8	
OPERATOR(S) [who paid for the work]:	
1) Fairmont Resources Inc.	2)
MAILING ADDRESS: 9285 - 203b Street	
Langley, B.C. V1M 2L9	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, Lower Cretaceous Spence's Bridge Group; epithermal gold; silic	alteration, mineralization, size and attitude): ification; veins and mineralized structures; Au-Ag-As-Hg

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: AR 28146



TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping App. 1,000	ha (incl. proj. supervision)	506513; 511667; 511671	\$17,500
Photo interpretation			-
GEOPHYSICAL (line-kilometres) Ground			-
Magnetic 21.0 line km		506513; 511667; 511671	\$8,250
Electromagnetic			
Induced Polarization 21.0	line km	506513; 511667; 511671	\$37.125
Radiometric			
Seismic			-
Other			-
Airborne			-
GEOCHEMICAL (number of samples analysed for)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres) 21.0 line l	km	506513; 511667; 511671	\$37,125
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/tr	ail		
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	\$100,000
			1

ASSESSMENT REPORT

Geological, Magnetic and Induced Polarization Surveys on the Nicoamen Property

Kamloops Mining Division British Columbia, Canada

BC Geological Survey Assessment Report 31354

NTS - 92I/03 619000E; 5559000N (UTM ZONE 10; NAD 83) 50°10' N Latitude ; 121° 20' W Longitude

Claim List

Tenure Number	Claim Name
506513	Zak 3
508830	Zak 4
511667	
511671	
528760	Zak 5
528761	Zak 6
557587	Zak 7
557588	Zak 8
557589	Zak 9

<u>Claim Owner</u> Almaden Minerals Ltd.

1103 – 750 West Pender Street Vancouver, B.C. V6C 2T8

Program Operator

Fairmont Resources Inc.

9285-203b Street Langley, B.C. V1M 2L9

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1740 Orchard Way West Vancouver, B.C. V7V 4E8

February 10, 2010

Table of Contents

1	Introduc	tion	1
2	Property	Description and Location	4
	2.1 Proj	perty Location	4
	2.2 Proj	perty Description	5
3	Accessib	ility, Climate, Local Resources, Infrastructure and Physiography	6
	3.1 Acc	essibility	6
	3.2 Clir	nate	6
	3.3 Loc	al Resources & Infrastructure	6
	3.4 Phy	siography	7
4	History		7
5	Geologic	al Setting	8
	5.1 Reg	ional Geology	8
	5.2 Proj	perty Geology	. 11
	5.2.1	Mount Lytton Igneous Complex	. 11
	5.2.2	Spences Bridge Group	. 11
	5.2.3	Structure	. 13
	5.2.4	Alteration	. 13
6	Minerali	zation	. 13
	6.1 Dise	covery Zone	. 13
	6.2 We	st Zone	. 14
7	Deposit '	Гуреs	. 15
8	Explorat	ion	. 16
	8.1 Geo	schemistry	. 16
	8.1.1	2003 to 2005 Programs	. 16
	8.1.2	2006 Program	. 16
	8.2 200	9 Geophysical Survey	. 18
	8.2.1	Magnetics	. 19
	8.2.2	IP	. 19
9	Interpret	ation and Conclusions	22
	9.1 Inte	rpretation	. 22
	9.2 Cor	clusions	. 23
1() Recon	nmendations	. 24
11	Staten	nent of Qualifications	. 25
12	2 Refere	ences	. 26

List of Figures

Figure 1. Nicoamen project location map	4
Figure 2. Nicoamen property claim map.	5
Figure 3. Nicoamen property regional geology	9
Figure 4. Areal extent of Spences Bridge Group	. 10
Figure 5. Nicoamen property geology with locations of petrographic samples	12
Figure 6. Nicoamen property - gold in soil geochemistry	17

Figure 7. Nicoamen property - arsenic in soil geochemistry	. 17
Figure 8. Nicoamen property - 2009 geophysical grid.	. 19
Figure 9. Nicoamen property IP - stacked modeled resistivity profiles.	. 20
Figure 10. Nicoamen property IP - stacked modeled chargeability profiles	21

List of Tables

Table 1. Nicoamen property claim list	6
Table 2. Discovery Zone sample summary	14
Table 3. West Zone grab sample summary	14
Table 4. Nicoamen Project Expense Summary	24

List of Appendices

Appendix I - Geophysical Field Report Appendix II – Petrographic Report

Software Programs Used: Microsoft Word Microsoft Excel MapInfo 8.5 Corel Draw 11.0 Adobe Acrobat

1 Introduction

This report describes the exploration history, geology, mineralization, 2009 exploration program and exploration potential on the Nicoamen gold property (the "Property") near Lytton, British Columbia. The objective of the 2009 program, consisting of mapping and a 21 km magnetometer and IP geophysical survey, was to define targets for drill testing.

The Nicoamen property is located within the Kamloops Mining Division, British Columbia. The centre of the Property lies 18 kilometres southeast of Lytton and 34 kilometres northeast of Boston Bar. The Property is owned by Almaden Minerals Ltd. ("Almaden") and consists of nine claims totalling 3,331.843 hectares. Fairmont Resources Inc. ("Fairmont") entered into an option to acquire up to a 60% interest in the Property by issuing an aggregate of 300,000 Fairmont shares to Almaden, paying an aggregate of \$25,000 cash and by incurring an aggregate of \$2.0 million in exploration expenditures on the Property in two stages.

The Property lies within the Interior Plateau physiographic province of British Columbia, consisting of rolling uplands dissected by steep valleys. The topography is moderate to locally steep, with elevations ranging from 750 metres above sea level in the north in the steep-walled canyon of the Nicoamen River, climbing steadily to 1750 metres above sea level on the southern boundary of the claim group. The climate of this part of the province is typical of the southern interior of British Columbia. The summer field season is generally warm and dry, with daily high temperatures ranging from 20° to $+30^{\circ}$ C and extends from mid to late April through to late October. Winters are cold with significant snow accumulations.

The logistics of working in this part of the province are excellent. Gravel road access allows the movement of supplies and equipment by road to all parts of the Property. Heavy equipment is available locally in Boston Bar or Merritt, as are supplies, fuel and lodging. Unskilled labour is also available locally. Skilled labour and exploration contractors are available from Kamloops, Vancouver and the Okanagan. Depending on the type of exploration program to be conducted, the field season generally extends from late April to early November.

Placer gold was discovered along the Thompson River at the mouth of the Nicoamen River in 1858, sparking the Fraser Canyon Gold Rush and the subsequent rush to the gold fields of the Cariboo. The Nicoamen property lies near the headwaters of Nicoamen River and within the Spences Bridge Gold Belt, a northwest trending belt of Cretaceous volcanics of island arc affinity.

The Property was acquired by Almaden in 2003 as a result of a regional exploration program. Reconnaissance exploration in 2004 resulted in the identification of numerous significant gold-bearing quartz float occurrences, including two local strongly altered subcrop exposures, the Discovery and West Zones, carrying anomalous precious metal values. In 2004, Almaden crews collected two pieces of iron-stained chalcedonic angular

quartz float from a location 600m northwest of the Discovery Zone, that in a composite sample (MC-R194) assayed 64.87 g/t gold.

A larger program was conducted by Almaden in 2005, consisting of an initial grid soil geochemical sampling survey, further prospecting and reconnaissance geochemical sampling and limited hand trenching with related bedrock mapping and sampling of the Discovery and West Zones. In May, 2006, the Property was optioned to Tanqueray Resources Ltd. ("Tanqueray"). Tanqueray completed a program of grid soil sampling, collecting 1,975 samples on a detailed grid. The 2005 and 2006 soil geochemical surveys produced a weak geochemical expression over the Discovery Zone, a moderate anomaly over the West Zone and two other trends with anomalous gold and arsenic in soils. Tanqueray returned the Property to Almaden in May 2007.

In December 2007, the Property was optioned to Zenith Industries Corp. ("Zenith"). Zenith did no exploration on the Property before returning it to Almaden in December 2008.

The Nicoamen project area lies within the Intermontane Belt of the central interior of British Columbia. The southwestern part of the map area is underlain by Permian to upper Triassic Mount Lytton Complex granodiorite, diorite and amphibolites as well as an unnamed Permian to Jurassic diorite. The eastern part of the map area is underlain by upper Triassic Nicola Group western volcanic facies rocks intruded by late Triassic to early Jurassic intrusions. The centre of the map area is underlain by the lower Cretaceous Spences Bridge Group, the focus of the precious metal exploration.

The Nicoamen property lies at the western boundary of the Spences Bridge Group with the basement Mt. Lytton Igneous Complex. The dominant lithology on the northeastern half of the Property is Spences Bridge Group volcanics, volcaniclastics and conglomerates. Outliers of Princeton Group dacite are shown on the regional geology map but were not observed during the current mapping program. The southwestern half of the Property is underlain by the Mt. Lytton Igneous Complex, predominantly quartz diorite with local exposures of meta-sedimentary rocks.

The current program that is being applied for assessment on the Nicoamen property was completed during the period from August 11 to September 25, 2009. The program included geological mapping and a ground geophysical survey of line cutting, magnetics and Induced Polarization (IP) at a cost of \$106,233 (\$100,000 filed for assessment credit). East-west lines were spaced 200m apart and ranged from 1,700m to 4,350m in length, with one 1,300m north-south line, for a total of 21.0 km of surveying. The mapping, hampered by a lack of rock exposure in many parts of the Property, confirmed previous geological observations. The ground magnetic survey was useful in identifying underlying lithologies, as the Mount Lytton diorite is mainly non-magnetic, while the Spences Bridge Group rocks are typically magnetic.

The IP survey was successful in defining a number of high contrast resistivity anomalies. Highly resistive zones within or related to Spences Bridge Group volcanics may be associated with zones of silicification or quartz flooding that are possibly related to epithermal precious metal mineralization. Resistivities as high as 2500 ohm-m were recorded with high resistivity zones typically in the 500 to 1500 ohm-m range. Chargeabilities are generally low, in the range of 1 to 5 milliseconds (ms). Higher chargeabilities in the range of 6 to 12 ms are believed to reflect weakly disseminated sulphides, as within the West Zone.

Four anomalous zones were identified. The Discovery Zone is marked by a weak, linear resistivity and chargeability anomaly. The West Zone is defined by a broad, strong resistivity anomaly on two lines, with associated weak chargeability on the northerly of those lines. The Canyon Zone is a newly defined, linear, north-south trending strong resistivity anomaly, with associated weak chargeability and an anomalous Au-As soil geochemical trend. The Central Zone is a newly defined, northwest trending resistivity and weak chargeability anomaly, over two lines, with an associated weak to moderate strength Au-As soil geochemical anomaly.

Bedrock mineralization has been found in two locations on the Property. Two structures have been explored in the past, the Discovery Zone and the West Zone. Within the Discovery Zone, narrow, rhythmically banded, chalcedonic quartz veinlets occur in altered quartz diorite basement rock. Values of 524 ppb Au across 4.9 m and 3.19 g/t Au across 0.2 m were obtained in check samples. The West Zone is in a broader area of disseminated pyrite mineralization in a locally silicified and brecciated quartzofeldspathic rock. Anomalous values of 112 ppb Au across 1.6 m and 140 ppb Au across 1.3 m were obtained in check samples.

The assay of 64.87 g/t gold from angular chalcedonic quartz vein float collected northwest of the Discovery Zone demonstrates the potential for the discovery of high grade epithermal gold mineralization on the Nicoamen property.

The exploration target for the Nicoamen Project is a low sulphidation epithermal precious metal deposit.

A drill program of six to eight holes, for a total of 1,000 m, is recommended to test four zones as described above, at an estimated budget of \$255,000.

2 **Property Description and Location**

2.1 Property Location

The Nicoamen property is located within NTS Map Sheet 92I/03 and TRIM claim sheet 092I014 in the Kamloops Mining Division, British Columbia. The centre of the Property lies 18 kilometres southeast of Lytton and 34 kilometres northeast of Boston Bar.



Figure 1. Nicoamen project location map.

2.2 Property Description

The Property consists of nine claims totalling 3,331.843 hectares. The geographic centre of the Property is approximately 619000E and 5559000N (UTM ZONE 10; NAD 83) and at 50°10' N Latitude and 121° 20' W Longitude. The Nicoamen claims were staked by Almaden using British Columbia's Mineral Titles Online ("MTO") system.



Figure 2. Nicoamen property claim map.

Tenure Number	Claim Name	Owner	Good To Date	Area (ha)
506513	Zak 3	Almaden Minerals Ltd.	31-Dec-13	517.419
508830	Zak 4	Almaden Minerals Ltd.	31-Dec-13	496.391
511667		Almaden Minerals Ltd.	31-Dec-13	413.932
511671		Almaden Minerals Ltd.	31-Dec-13	517.418
528760	Zak 5	Almaden Minerals Ltd.	31-Dec-13	331.282
528761	Zak 6	Almaden Minerals Ltd.	31-Dec-13	331.191
557587	Zak 7	Almaden Minerals Ltd.	15-Dec-13	455.12
557588	Zak 8	Almaden Minerals Ltd.	15-Dec-13	82.82
557589	Zak 9	Almaden Minerals Ltd.	15-Dec-13	186.27
Total Area				3,331.843

Table 1.	Nicoamen	property	claim list.
I abic I	, i theoamen	property	ciann not.

3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

3.1 Accessibility

The Property can be reached from Boston Bar or Lytton, both located within the Fraser River canyon on Trans Canada Highway 1. Boston Bar and Lytton are located 215 km and 255 km respectively along Highway 1 east and then north from Vancouver.

The Property lies 17 km southeast of Lytton and 34 kilometres northeast of Boston Bar. From Lytton, drive north and east on the Trans Canada Highway along the Thompson River for 17 km to the mouth of the Nicoamen River. From this point, travel south for 24.5 km on the Nicoamen Forest Service Road ("FSR") to a junction with the Ainslie North–Mowhokam FSR. From Boston Bar, travel north on the Trans Canada Highway for 11 km to the Ainslie North–Mowhokam FSR and thence along this road north-northeast for 27.5 km to the Nicoamen FSR. These forestry roads join near the southwest corner of the Property. From this point the main branch roads lead to networks of logging spurs which extend for several kilometres northeasterly into the central and southern claim areas.

3.2 Climate

The climate of this part of the province is typical of the southern interior of British Columbia. The summer field season from mid to late April to late October is generally warm and dry, with daily high temperatures ranging from 20° to $+30^{\circ}$ C. Winters are cold with significant snow accumulations. Temperatures can drop to minus 20° C for extended periods.

3.3 Local Resources & Infrastructure

The logistics of working in this part of the province are excellent. Gravel road access allows the movement of supplies and equipment by road to all parts of the Property. Heavy equipment is available locally in Boston Bar or Merritt, as are supplies, fuel and lodging. Unskilled labour is also available locally. Skilled labour and exploration contractors are available from Kamloops, Vancouver and the Okanagan. Depending on the type of exploration program to be conducted, the field season generally extends from late April to early November.

3.4 Physiography

The Property lies within the rolling uplands and steep dissected valleys of the Interior Plateau physiographic province. Topography is moderate to locally steep, with elevations ranging from 750 metres above sea level (ASL) in the north in the steep-walled canyon of the Nicoamen River, climbing steadily to 1750 metres above sea level on the southern boundary of the claim group. The Property covers part of the drainage of Nicoamen River, which flows northward to join the Thompson River 15 km east of Lytton. Vegetation consists mainly of widely spaced lodgepole pine and Douglas fir changing to dense balsam, fir, spruce, and cedar along creek valleys. Thick brush consisting of alder and willow is common along most of the stream gullies and road cuts, and in swales between topographic highs. Approximately 60% of the Property area has been logged since 1990.

Soil and glacial till cover is extensive and generally shallow, but includes locally relatively deeper deposits of glacial till. Overall bedrock exposure is poor to moderate, but is locally abundant in road cuts and in some of the stream gullies, as well as on steep upper slopes, ridge crests, and in the Nicoamen River canyon.

4 History

Placer gold was discovered along the Thompson River at the mouth of the Nicoamen River in 1858, sparking the Fraser Canyon Gold Rush and subsequent rush to the gold fields of the Cariboo. The Nicoamen property lies near the headwaters of Nicoamen River and within the Spences Bridge Group rocks, a northwest trending belt of Cretaceous volcanics of island arc affinity. The belt, which stretches from Princeton northwesterly to Lillooet, with smaller outliers continuing further northwesterly to Gang Ranch (see Figure 4), has recently been shown to be the locus of several epithermal style gold occurrences.

The Nicoamen property was discovered by Almaden in 2003 as part of a regional exploration program evaluating the 1994 Regional Geochemical Survey results for gold for Sheet 092I. Prior to staking in 2004, Almaden re-visited the area twice, taking an additional 41 stream sediment, 15 reconnaissance soil and 16 rock grab samples. This program included detailed road cut and stream gully prospecting in conjunction with further geochemical sampling. The 2004 work resulted in the identification of numerous significant gold-bearing quartz float occurrences, including two altered outcrop exposures at the Discovery and West Zones, each carrying anomalous precious metal values. (Balon and Hylands, 2006).

A larger program was conducted by Almaden in 2005, consisting of an initial grid soil geochemical sampling survey (771 samples), further prospecting and reconnaissance geochemical sampling (7 stream sediment, 56 soil, 5 rock samples), and limited hand

trenching with related bedrock mapping and sampling of the Discovery and West Zones (15 trench rock samples - Balon and Hylands, 2006).

In May, 2006, the Property was optioned to Tanqueray Resources Ltd. ("Tanqueray"). Tanqueray completed a program of grid soil sampling, collecting 1,975 samples on a detailed grid. They also collected 4 rock samples (Henneberry, 2007). The Property was returned to Almaden in May 2007.

In December 2007, the Property was optioned to Zenith Industries Corp. ("Zenith"). Zenith did no exploration on the Property before returning it to Almaden in December 2008. The Spences Bridge Gold Belt has seen an exponential growth is exploration activity since the initial discovery of the Nicoamen River mineralization in 2003. Almaden has also discovered several additional epithermal occurrences including Skoonka Creek (now a joint venture with Strongbow Exploration Inc.) and Prospect Valley (now sold to Consolidated Spire Ventures Ltd.

Approximately 85% to 90% of the Belt is controlled by three exploration companies: Almaden Minerals Ltd. (AMM-TSX) – Merritt, Brookmere and Ponderosa properties, Strongbow Exploration Inc. (SBW-TSX V) – Skoonka and Shovelnose properties and Consolidated Spire Ventures Ltd. (CZS-TSX V) – Prospect Valley property.

5 Geological Setting

5.1 Regional Geology

The Nicoamen project area lies within the Intermontane Belt of the central interior of British Columbia. The regional geology as shown in Figure 3 is taken from the BC Geological Survey's Map Place web site. The southwestern part of the map area is underlain by Permian to upper Triassic Mount Lytton Complex granodiorite, diorite and amphibolites as well as an unnamed Permian to Jurassic diorite. The eastern part of the map area is underlain by upper Triassic Nicola Group western volcanic facies rocks intruded by late Triassic to early Jurassic intrusions. The centre of the map area is underlain by the lower Cretaceous Spences Bridge Group, the focus of the precious metal exploration.

Volcanics and sediments of the Eocene Princeton and Kamloops groups occur as outliers within the Mount Lytton Complex and unconformably overlie the Spences Bridge Group. Quaternary sediments occur as thick drifts along the main rivers and some of the larger creeks. Related (?) Eocene feldspar porphyries locally intrude Nicola and Spences Bridge Group rocks.

The middle to upper Cretaceous Spences Bridge Group (see Figure 4) has recently been identified as a significant target for epithermal precious metal mineralization. This group, first described by Duffell and McTaggart (1952) forms a northwest trending volcanic belt consisting of a thick sequence of gently folded volcanics with lesser sediments, dipping shallowly to the northeast. Rocks of the Spences Bridge Group are believed to have formed



as a chain of stratovolcanoes associated with subsiding, fault-bounded basins (Thorkelson, 1985).

Figure 3. Nicoamen property regional geology.

It forms a northwest trending belt from 3 to 24 kilometres wide extending from north of Princeton to east of Lillooett. A faulted extension of the belt occurs as a series of outliers in the Churn Creek - Empire Valley area west of 100 Mile House (Thorkelson, 2006). The group is estimated to be up to 3400 metres in thickness (Thorkelson, 2006).

The Spences Bridge Group is thought to be the volcanic representation of the closure of the oceanic basin between Wrangellia to the west and the assemblage of Intermontane terranes (the accreted part of ancestral North America) to the east. Spences Bridge rocks were deposited on two main basement types: west of the village of Spences Bridge, they overlie the mainly Paleozoic Cache Creek terrane; to the east and in the area of the Property, they overlie plutonic and volcanic rocks of the late Triassic Nicola Arc, part of the Quesnellia terrane and plutonic rocks of the Triassic Mount Lytton Intrusive Complex (Thorkelson 2006).

Shortly after initial eruption of the Spences Bridge Group, tectonism led to the deposition of a basal conglomerate that contains clasts of Triassic granitoids and Nicola volcanic rocks. These clasts commonly show foliations and lower greenschist metamorphism which are not evident in the Spences Bridge Group, suggesting Spences Bridge Group rocks were

deposited on the basement after deposition of the Nicola Group, deformation, metamorphism, and exhumation (Thorkelson, 2006).



Figure 4. Areal extent of Spences Bridge Group.

The Spences Bridge Group consists of two formations: the lower Pimainus Formation and the overlying Spius Formation. The Pimainus Formation is highly variable, containing lava, tephra, fanglomerate, lahar, sandstone and coal. Volcanic compositions range from basalt to rhyolite, but the unit is mostly characterized by thick flow units of medium grained, pyroxene-bearing and feldspathic phyric andesite, felsic pyroclastics, and at least three separate horizons of interlayered conglomerate. It is considered to be a stratovolcano assemblage deposited in a tectonically active basin.

The overlying Spius Formation consists almost entirely of thinly bedded, fine-grained amygdaloidal andesitic lava, ranging from pahoehoe to aa types. In some places the contact with the underlying Pimainus Formation is conformable and difficult to identify, while in other occurrences lacustrine beds separate the two formations (Thorkelson, 2006).

The Spences Bridge Group is preserved in the Nicoamen structural depression, a complex synclinorium crosscut by normal faults. The basin appears to have been forming at the same time as the Spences Bridge Group. Exposures of the Spius Formation are largely confined to the centre of the structural depression. The Formation appears to be the relic of an extensive shield volcano with a few cinder cones (Thorkelson, 2006).

Structurally, the Spences Bridge Group is generally gently tilted with dips from 10° to 40° to the northeast. Individual flows and beds do not appear to extend for appreciable distances. There appears to be some faulting within the group but the lack of marker horizons makes measurement of any displacement difficult (Duffel and McTaggart, 1952).

5.2 Property Geology

The Nicoamen property lies at the western boundary of the Spences Bridge Group with the basement Mt. Lytton Igneous Complex. The dominant lithology on the northeastern half of the Property is Spences Bridge Group volcanics, volcaniclastics and conglomerates. Outliers of Princeton Group dacite are shown on the regional geology map but were not recognised during the current mapping program. The southwestern half of the Property is underlain by the Mt. Lytton Igneous Complex, predominantly quartz diorite with local exposures of metasedimentary rocks. A number of specimens collected during the 2009 mapping program were submitted for petrographic descriptions (Harris, 2009; Appendix II). Sample locations are shown on Figure 5.

Mapping of the Property has not been thorough. In many parts of the Property outcrop is scarce. As a result, details of the Property geology are only generally known at present. The following descriptions are taken from Henneberry (2007), augmented by mapping of portions of the Property during the current program (Carlson, 2009).

5.2.1 Mount Lytton Igneous Complex (MLIC)

The Mount Lytton rocks include mainly a coarse-grained biotite and hornblende-bearing quartz diorite that is typically fresh to slightly propylitically altered. The rock consists of 60-65% plagioclase, 20-25% quartz, 5-10% biotite plus hornblende, minor K-feldspar and sericite and traces of sphene, apatite and opaques (Harris, 2009). In general the diorite is massive and shows no internal structure or foliation.

Locally within the basement rocks a sequence of thin-bedded or foliated metasedimentary rocks are exposed. They range from slate through to quartzite and generally contain chlorite and some bleaching in the coarser units. The rocks contain rusty horizons that may indicate weathered sulphide mineralization. These units may occur as windows within the Mount Lytton diorite but no contacts were observed.

5.2.2 Spences Bridge Group (SBG)

The SBG lies unconformably on the MLIC basement rocks. Although no attitudes of the generally massive SBG units were observed on the Property, regionally it has been described as dipping gently to the northeast. The unconformity has been observed or inferred over significant vertical distances throughout the Property, suggesting that either the erosional surface was topographically steep and irregular during the time of deposition of the SBG or it has subsequently been disrupted by high angle faults. It is interpreted from the current mapping that both factors have influenced the contact (Carlson, 2009). Basal SBG rocks are coarse poorly sorted conglomerates with abundant fine matrix, suggesting a high

energy sub-aerial environment, while some contacts appear to be steep and linear, suggesting faults.



Figure 5. Nicoamen property geology with locations of petrographic samples and magnetic domains.

Within the SBG, both Pimainus and Spius Formation rocks have been observed, although flows of the Spius Formation appear to predominate. Pimainus Formation rocks include both coarse, unsorted conglomerate and volcaniclastics. The conglomerates include fragments of both MLIC and volcanic rocks that are typically well rounded and range from a few cm to 20 cm diameter in a fine to coarse clastic matrix. Conglomerate has been observed at a number of localities throughout the Property; the exposures do not appear to be more than a few tens of metres in thickness and are observed close to what is inferred to be the unconformity.

The volcaniclastics are predominantly fine-grained tuffs with or without plagioclase lapilli. On fresh surface the rock is grey green. These units generally consist of a dark green, aphanitic matrix with local white plagioclase lapilli. One sample examined petrographically included 75% cryptocrystalline feldspar with minor quartz, carbonate, biotite, amphibole, opaques and hematite (Harris, 2009). This sample showed a faint fragmental texture and a light flow banding or layering. There is moderate to strong alteration in the volcaniclastics consisting primarily of hematite.

Pimainus Formation rocks are exposed adjacent to the presumed unconformity with the MLIC basement rocks and at lower elevations in the northeastern part of the Property.

The Spius Formation includes mainly basalt to andesite flows, green to green-black on fresh surfaces and weathering grey. It ranges from porphyritic (with plagioclase laths to 2 mm in size) to aphanitic and is often vesicular or amygdaloidal. Composition is 75 to 85% calcic plagioclase as fine microcrystalline lathes and phenocrysts, sometimes glomeroporphyritic from 0.2 to 2 mm in size, with 10 to 15% pyroxene, rarely as phenocrysts, 3 to 7% olivine, altered to iddingsite and other secondary minerals, and 2 to 3% opaques, probably magnetite. The rock is typically moderately magnetic.

5.2.3 Structure

The Nicoamen Fault is a major planar structure trending along the Nicoamen River. Several sub-parallel north-northeasterly trending structures are interpreted from topography, geophysics, and geology to trend through the Property. None of these structures were actually mapped in outcrop and the nature of offset is not known. Some of these structures are expected to be the focus of hydrothermal fluids and possibly epithermal-style precious metal mineralization.

5.2.4 Alteration

Two different styles of alteration were noted on the Property. While most of the MLIC diorite was fresh, with varying degrees of weathering, in the vicinity of the Discovery Zone and at other locations adjacent to structures, moderate to strong propylitic alteration was noted. In this case, plagioclase is largely altered to sericite and mafic minerals to chlorite, carbonate and epidote (Harris, 2009).

At the West Zone occurrence, alteration is more extreme, such that the original lithology is not discernable. The rock typically consists of a fine intergrowth of granular quartz with fine sericite and clays (Harris, 2009), with disseminated pyrite from trace to 2-3% and locally up to 5%. Also locally, the rock is more extremely silicified and has been hydrothermally fractured and brecciated.

6 Mineralization

The exploration target for the Nicoamen Project is a low sulphidation epithermal precious metal deposit. Bedrock mineralization has been found in two locations on the Property.

Two structures have been explored in the past (Balon and Hylands, 2006), the Discovery Zone and the West Zone. Within the Discovery Zone, narrow, rhythmically banded, chalcedonic quartz veins occur in altered quartz diorite basement rock. The West Zone is a broader area of disseminated pyrite mineralization in a locally brecciated quartzofeldspathic rock.

6.1 Discovery Zone

The Discovery Zone consists of narrow, rhythmically banded, chalcedonic quartz veins in parallel shear zones within altered quartz diorite. The location is believed to be close to the unconformity or possibly near a fault contact with overlying SBG rocks. Alteration consists of kaolinization, silicification, iron oxides and ankerite. Sulphides were not observed in the

Discovery Zone. Hand trenching (Balon and Hylands, 2006) traced the zone a distance of approximately 75 metres. The individual quartz veins range from 1 cm to 20 cm in width, with one vein continuous in excess of 10 metres of length.

Trench	Description	Au (ppb)
1	grab	1604
1	grab	94
1	grab	1176
1	0.65 m	360
1	0.06 m	544
1	0.5 m	95
2	1.1 m	498
3	Grab	48
3	Grab	843
3	0.30 by 0.30 m	728
3	0.30 by 0.30 m	961
3	2.0 m	1828
3	0.30 by 0.45 m	893
3	0.30 by 0.45 m	909
4	grab	333
4	1.0 m	497
4	0.5	1046
5	grab	26
5	1	342

 Table 2. Discovery Zone sample summary.

In 2004, Almaden crews collected two small pieces of iron-stained angular chalcedonic quartz float from a location 600m northwest of the Discovery Zone. A composite sample (MC-R194) of this material assayed 64.87 g/t gold (Balon and Hylands, Sec. 5.4, 2006). These fragments appeared to be derived locally and may have been eroded from an extension of the Discovery Zone. This sample demonstrates the potential for the discovery of bonanza grade epithermal style mineralization on the Property.

6.2 West Zone

The West Zone is hosted in an altered, quartzofeldspathic rock of unknown origin. Alteration ranges throughout the exposed trench from silica with kaolinite or argillic alteration in the northern end to patchy argillic and silica alteration with increasing limonite to the south. Quartz occurs as clasts or sweats in the West Zone. Mineralization consists of up to 5% disseminated pyrite and possible traces of arsenopyrite.

Trench	Au (ppb)	As (ppm)	Sb (ppm)
1	19.3	108.7	3.5
1	414.9	440.8	7.5
1	7.5	28.4	1.8
1	22.3	102	4.7
1	63.2	240.9	6.4

 Table 3. West Zone grab sample summary.

7 Deposit Types

The Nicoamen property is being explored for low sulphidation epithermal precious metals deposits. The following summary in this section is condensed from British Columbia Ore Deposit Models (Panteleyev, 1996).

Low sulphidation epithermal deposits are typically hosted in volcanic island and continentmargin magmatic arcs and continental volcanic fields with extensional structures. These deposits can form in most types of volcanic rocks, though calc-alkaline andesitic compositions predominate. Low sulphidation deposits can be any age, though Tertiary deposits are the most abundant. Jurassic deposits are important in British Columbia (Toodoggone).

Mineralized zones are typically localized in structures, but may occur in permeable lithologies. Upward-flaring zones centred on structurally controlled hydrothermal conduits are typical. Large (> 1 m wide and hundreds of metres in strike length) to small veins and stockworks are common with lesser disseminations and replacements. Vein systems can be laterally extensive but shoots with economic mineralization have relatively restricted vertical extent. High-grade deposits are commonly found in dilational zones in faults at flexures, splays, and in cymoid loops.

In some districts the epithermal mineralization is tied to a specific metallogenic event, either structural, magmatic, or both. The veins are emplaced within a restricted stratigraphic interval generally within 1 km of the paleosurface. Mineralization near surface takes place in hot spring systems, or in the deeper underlying hydrothermal conduits. Normal faults, margins of grabens, coarse clastic caldera moat-fill units, radial and ring dike fracture sets, and both hydrothermal and tectonic breccias are all ore fluid channelling structures. Through-going, branching, bifurcating, anastomosing and intersecting fracture systems may be mineralized. Hanging wall fractures in mineralized structures are particularly favourable traps for high concentrations of metals.

Veins are comprised of quartz, amethyst, chalcedony, quartz pseudomorphs after calcite, and calcite. They may contain lesser amounts of adularia, sericite, barite, fluorite, calciummagnesium-manganese-iron carbonate minerals such as rhodochrosite, hematite and chlorite. Veins commonly exhibit open-space filling, symmetrical and other layering, crustification, comb structure, colloform banding, and multiple brecciation.

Mineralization within the veins consists of pyrite, electrum, gold, silver, and argentite, with lesser chalcopyrite, sphalerite, galena, tetrahedrite, silver sulphosalt and/or selenide minerals. Deposits can be strongly zoned along strike and vertically. Deposits are commonly zoned vertically over 250 to 350 m from an upper base metal-depleted Au-Ag-rich top to a relatively Ag-rich base metal zone and an underlying base metal-rich zone, grading at further depth into a sparse base metal, pyritic zone. From an upper edge to depth, metal zones contain: Au-Ag-As-Sb-Hg, to Au-Ag-Pb-Zn-Cu, to Ag-Pb-Zn.

Alteration is an important component in low sulphidation epithermal deposits. Silicification is extensive as multiple generations of quartz and chalcedony are commonly accompanied by adularia and calcite. Pervasive silicification in vein envelopes is flanked by sericite-illite-kaolinite assemblages. Intermediate argillic alteration [kaolinite-illite- montmorillonite (smectite)] forms adjacent to some veins; advanced argillic alteration (kaolinite-alunite) may form along the tops of mineralized zones. Propylitic alteration dominates at depth and peripherally.

Prospecting for mineralized siliceous and silica-carbonate float or vein material with diagnostic open-space textures is an effective exploration method. VLF-EM (very low frequency electromagnetics) can be effective in tracing structure, while radiometric surveys may outline potassic alteration of wall rocks Geochemical sampling is also an effective exploration method to detect elevated values of the potentially economic metals Au, Ag, Zn, Pb, Cu, as well as elevated values of pathfinder elements As, Sb, Ba, F, Mn, and locally Te, Se, and Hg. Finally, silver deposits generally have higher base metal contents than Au and Au-Ag deposits.

Low sulphidation epithermal deposit examples include: Creede, Colorado USA; Toodoggone Camp, B.C.; Blackdome, B.C.; Premier, B.C.; Comstock Lode, Nevada USA.

8 Exploration

The following section describes the key exploration results from the Property, with the exception of geological mapping (described above in Section 5.2), including historical soil geochemical exploration programs and the 2009 geophysical surveys.

8.1 Geochemistry

Reconnaissance rock, soil and stream sediment sampling and grid soil sampling were carried out over the Property area in 2003 through 2005 by Almaden. In 2006, additional grid soil sampling was conducted by Tanqueray.

8.1.1 2003 to 2005 Programs

Geochemical sampling on and surrounding the Property area between 2003 and 2005 included the collection of 54 reconnaissance stream sediment samples, 71 reconnaissance soil samples, 771 grid soil samples, 21 reconnaissance rock samples and 15 trench samples. All samples were analysed for 36 elements at Acme Analytical Laboratories in Vancouver (Balon and Hylands, 2006). Results of the grid soil sampling are discussed below.

8.1.2 2006 Program

The 2006 soils sampling program included the collection of 1,975 soil samples on 25m by 50m grid spacings within and around the original Almaden soil grid. All samples were analysed for 36 elements at Acme Analytical Laboratories in Vancouver (Henneberry, 2007).



Figure 6. Nicoamen property - gold in soil geochemistry.



Figure 7. Nicoamen property - arsenic in soil geochemistry.

Results of the 2005 and 2006 grid soil surveys for gold and arsenic are shown in Figures 6 and 7 as bubble plots. Four anomalous zones have been identified in conjunction with the IP survey and known showing areas – Canyon, Discovery, Central and West.

On Figures 6 and 7, the areas covered by the 2006 soil geochemistry are those that are represented by the denser sampling grids. It is noted that gold and arsenic values within the 2006 grids appear to be higher than the values obtained from the 2005 sampling. The reason for the apparent difference between the sampled areas is not known.

8.1.2.1 Canyon Zone

The Canyon Zone, as defined by soil geochemistry and geophysics, has a strike length of between 600 and 800 m. Gold values range from 1 to 30 ppb within the anomaly, with one strongly anomalous value of 376 ppb. Arsenic values range from 8 to 75 ppm. The anomaly trends along the axis of a strong resistivity anomaly and weak chargeability anomaly (Figures 9 & 10) and appears to be associated with the eastern contact of a north-south trending tongue of MLIC diorite. Carlson (2009) collected 7 soil samples at 50 m centres along L58400N across the axis of the resistivity anomaly. The soils from each end of this line ran 2.5 and 7 ppb, while the 5 middle samples ranged from 12.9 ppb to 35.1 ppb, suggesting that the resistivity anomaly may reflect a gold mineralized structure.

8.1.2.2 Discovery Zone

The Discovery Zone has a weak geochemical expression, with gold values ranging from 1 ppb to 22 ppb, but mainly in the 3 to 10 ppb range. Arsenic values are also low.

8.1.2.3 Central Zone

The Central Zone is defined mainly by an arsenic soil anomaly with moderately high resistivity and weak chargeability at depth. Arsenic values range from 30 ppm to 151 ppm, while gold values range from 1 ppb to 49 ppb, but with most values in the 3 to 12 ppb range. Like the Canyon Zone, the Central Zone may be related to the contact between volcanics and diorite, although the zone is less well defined.

8.1.2.4 West Zone

The West Zone is reasonably well defined by soil geochemistry, with gold values ranging from 1 to 44 ppb and arsenic values ranging from 3 to 50 ppm. The more anomalous values occur in a covered area, just south of the known showing area, but this may partly be a function of higher density sampling in that area.

8.2 2009 Geophysical Survey

During the period August 11 to September 25, 2009, a ground geophysical survey including line cutting, magnetics and Induced Polarization (IP) was carried out on the Property. East-west lines were spaced 200m apart and ranged from 1,700m to 4,350m in length, with one 1,300m north-south line, for a total of 21.0 km of surveying. The survey was carried out by Prospec MB Inc. (2009).

The magnetic survey was helpful in delimiting the magnetic SBG volcanic rocks from the typically, but not always, non-magnetic MLIC intrusive rocks. The IP survey successfully outlined areas of potentially disseminated sulphide mineralization by detection of weak chargeability anomalies and high resistivity zones of possible quartz flooding.



Figure 8. Nicoamen property - 2009 geophysical grid.

8.2.1 Magnetics

There are two main magnetic domains recognised in the survey data: a high magnetic domain with a range of 55,800 to over 60,000 nanoteslas (nt), believed to reflect underlying Spius Formation basalts and a lower magnetic domain (below 54,000 to 55,500 nt), believed to reflect underlying MLIC quartz diorite. Local higher values appear to reflect areas of outcropping or near-outcropping basalts while local areas of extremely low magnetic signature may reflect areas of hydrothermal alteration along structures.

There is often a gentle transition between the volcanic and intrusive magnetic domains and this may reflect a gradual thickening of the magnetic volcanics along a gently dipping unconformity surface.

The magnetic domains are shown on the geophysical plan map (see Figure 8).

8.2.2 IP

The IP survey was successful in defining a number of high contrast resistivity anomalies. Highly resistive zones within or related to SBG volcanics are associated with zones of silicification or quartz flooding possibly related to epithermal precious metal mineralization. Resistivities as high as 2500 ohm-m were recorded with high resistivity zones typically in the 500 to 1500 ohm-m range.

Chargeabilities in the survey are generally low, in the range of 1 to 5 milliseconds (ms). Higher chargeabilities, in the range of 6 to 12 ms, are believed to reflect weakly disseminated sulphides. This was confirmed in the West Zone, where 1 to 3% disseminated pyrite was observed disseminated in the altered bedrock, over a reasonably wide area, as reflected by the chargeability anomaly that extends virtually to surface directly below the observed West Zone on L59200N.

The data presented in Figures 9 and 10 below has been modelled using the IP inversion modelling program developed by the University of British Columbia. The raw pseudosections are included in Appendix I.



Figure 9. Nicoamen property IP - stacked modeled resistivity profiles.



Figure 10. Nicoamen property IP - stacked modeled chargeability profiles.

8.2.2.1 Discovery Zone

As can be seen from the stacked inverse-modelled pseudosections, the Discovery Zone gives only a weak resistivity and chargeability expression at depth that does not appear to extend to surface. This feature is apparent on lines 58600N 19,325E and 58800N 19,325E, which cross directly over the zone. It does not appear to extend further south.

8.2.2.2 Canyon Zone

The Canyon Zone is a newly defined target defined by a north-south trending zone of anomalously high resistivity and weakly anomalous chargeability, roughly 50 to 200 m in width and a strike length of at least 600 m (L58200N 20,050E to L58800N 19,800E). No evidence was observed in outcrop as to the cause of this high resistivity feature, but it appears to follow the eastern edge of a zone of basement quartz diorite outcrop and may be associated with a fault contact between the intrusive and SBG volcanics to the east. It has the appearance of a silica-flooded zone, resulting in high resistivity with increasing chargeability, perhaps reflecting disseminated sulphide mineralization at depth. The inverse-modelled pseudosection on L58400N suggests a vertical, high resistivity structure flanked by disseminated sulphide zones as indicated by the chargeability.

8.2.2.3 Central Zone

The Central Zone is a north-northeast trending linear resistivity zone detected on L58000N at 19050E and L58200N at 18,950E that appears to occur within or along the flank of basement diorite. It may represent a fault contact, but due to lack of outcrop exposure the cause of the anomaly was not observed.

8.2.2.4 West Zone

The geophysical expression of the West Zone is observed on L58800N (16,650E to 16,950E) and most strongly on L59000N (16,700E to 16,950E). It is marked by both high resistivity and weakly anomalous chargeability. Alteration of bedrock, including silicification, brecciation and disseminated pyrite mineralization, with anomalous precious metals values, explains this anomaly. Although it has an apparent north-south trend, it is also more laterally widespread than the other defined anomalies.

9 Interpretation and Conclusions

9.1 Interpretation

Low-sulphidation epithermal gold mineralization occurs at various locations in the district, hosted within volcanics of the Spences Bridge Group.

Anomalous amounts of gold mineralization in outcrop occur at two locations on the Nicoamen property. At the Discovery Zone in trench DTZ05-2 gold with arsenic is hosted in a fractured and silicified granitic rock, possibly partly in a fault slice of altered felsic volcanics. A quartz vein in trench DTZ05-3 contains 3.19 g/t Au. At the West Zone anomalous amounts of gold occur in a brecciated silicified felsic volcanic.

Soil geochemistry has been successful in outlining broad dispersions of gold and arsenic in the Nicoamen property.

The ground magnetic survey was useful in identifying underlying lithologies, as the Mount Lytton diorite is mainly non-magnetic, while the Spences Bridge Group rocks are typically magnetic.

The IP survey was successful in defining a number of high contrast resistivity anomalies. Highly resistive zones within or related to Spences Bridge Group volcanics are associated with zones of silicification or quartz flooding that are possibly related to epithermal precious metal mineralization. Resistivities as high as 2500 ohm-m were recorded with high resistivity zones typically in the 500 to 1500 ohm-m range. Chargeabilities are generally low, in the range of 1 to 5 milliseconds (ms). Higher chargeabilities in the range of 6 to 12 ms are believed to reflect weakly disseminated sulphides, as within the West Zone.

Four anomalous zones were identified. The Discovery Zone is marked by a weak, linear resistivity and chargeability anomaly. The West Zone is defined by a broad, strong resistivity anomaly on two lines, with associated weak chargeability on the northerly of those lines. The Canyon Zone is a newly defined, linear, north-south trending strong resistivity anomaly, with associated weak chargeability and an anomalous Au-As soil geochemical trend. The Central Zone is a newly defined, northwest trending resistivity and weak chargeability anomaly on two lines, with an associated weak to moderate strength Au-As soil geochemical anomaly.

9.2 Conclusions

Bedrock mineralization has been found in two locations on the Property. Two structures have been explored in the past, the Discovery Zone and the West Zone. Within the Discovery Zone, narrow, rhythmically banded, chalcedonic quartz veinlets occur in altered quartz diorite basement rock. Values of 524 ppb Au across 4.9 m and 3.19 g/t Au across 0.2 m were obtained in check samples. The West Zone is in a broader area of disseminated pyrite mineralization in a locally silicified and brecciated quartzofeldspathic rock. Anomalous values of 112 ppb Au across 1.6 m and 140 ppb Au across 1.3 m were obtained in check samples.

The assay of 64.87 g/t gold from angular chalcedonic quartz vein float, collected from 600 m northwest of the Discovery Zone (Balon and Hylands, 2006), demonstrates the potential for the discovery of high grade epithermal gold mineralization on the Nicoamen property.

Coincident soil geochemical and geophysical responses are associated with the Discovery and West Zones. In the Canyon and Central Zones where outcrop is not exposed the soil geochemical and geophysical responses suggest that precious metal mineralization may be present in Spences Bridge Group volcanics below overburden.

These results, when combined with previous exploration by Almaden and Tanqueray, indicate the potential for the discovery of deposits of low-sulphidation epithermal-style gold mineralization on the Nicoamen Property.

Preliminary exploration has been successful in identifying gold mineralization.

10 Recommendations

Adequate exploration has been completed and encouraging results have been obtained. Drilling is warranted as the next phase. A program of six to eight holes of large (HQ) core diameter for a total of 1,000 m is recommended as a preliminary drill test of the four target areas described above, at an estimated cost of \$255,000.

11 Statement of Expenditures

The following table outlines the expenditures incurred for the geological mapping, line cutting and geophysical survey programs for the period August 1, 2009 to September 30, 2009 and for report preparation.

Geological Mapping, Supervision and Report Preparation				
G. Carlson	22 days	\$800/dy	\$17,600	
Related field expenses		_	\$9,453	
		_		
Linecutting and Geophysics	(Prospec MB Ir	າc.)		
Mob/Demob	4 days	\$1,200/dy	\$4,800	
Linecutting & chaining	23 days	\$1,200/dy	\$27,600	
IP and Mag surveys	17 days	\$2,000/dy	\$34,000	
Related field expenses		_	\$12,780	
		_		
TOTAL			\$106,233	

 Table 4. Nicoamen Project Expense Summary

12 Statement of Qualifications

I, Gerald G. Carlson, hereby certify that:

- 1. I am a consulting mineral exploration geologist and President of KGE Management Ltd. of 1740 Orchard Way, West Vancouver, B.C., V7V 4E8.
- 2. I am a graduate of the University of Toronto, with a degree in Geological Engineering (B.A.Sc., 1969). I attended graduate school at Michigan Technological University (M.Sc., 1974) and Dartmouth College (Ph.D., 1978). I have been involved in geological mapping, mineral exploration and the management of mineral exploration companies continuously since 1969, with the exception of time between 1972 and 1978 for graduate studies in economic geology.
- 3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia, Registration No. 12513 and of the Association of Professional Engineers of Yukon, Registration No. 0198.
- 4. I am the author of this report on the 2009 Geological, Magnetic and Induced Polarization Surveys on the Nicoamen Property.
- 5. The report is based on a literature review, on private company reports and on field visits to the Property during the 2009 field program.
- 6. I am a Director of Fairmont Resources Inc., and I own shares in the company.
- 7. I was personally involved in the planning, execution and interpretation of the exploration programs discussed in this report.

Dated at Vancouver, B.C. this 10th day of February, 2010,

Gerald G. Carlson, Ph.D., P. Eng.



13 References

<u>www.almadenminerals.com/projects.html</u>. The Almaden Minerals Ltd. website provides news releases and exploration summaries on their various projects in the Spences Bridge Group Epithermal Camp.

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Appendix I - Geophysical Field Report

NICOAMEN PROJECT GEOPHYSICAL FIELD REPORT

DATE:	23 October 2009
TO:	Fairmont Resources Inc. 9285 203b Street Langley, B.C. V1M 2L9
FROM:	PROSPEC MB INC. 2760 Du Manege Canton d'Hatley Quebec CANADA Cell.Canada.U.S.A :1-819-565-4097 Cell Mexico: 011-52-1-771-109-3096

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SUBJECT: Nicoamen Project Geophysical Survey

Between August 11 and September 25, 2009, Prospec MB Inc. completed a program of 21 km of line cutting, ground magnetics and a time domain IP survey under contract from Fairmont Resources Inc. on the Nicoamen gold property, located 20 km southeast of Lytton, British Columbia. The crew included Marc Beaupre, party chief, Ricardo Hernandez, geophysicist and five labourers.

Equipment included a BRGM Elrec 6 receiver, GDD Tx11 3600 watt transmitter, Honda 5kw generator and two Gem system GSM-19 Overhauser magnetometers. The poledipole IP array utilized a 50m dipole spacing with separations of n=1 to n=6. Magnetics readings were taken every 12.5m along each line, with a continuously reading base station for diurnal corrections.

Daily Diary:

11,12,13 aug preparing project and equipment
14 aug. Mob to Litton and recon.
15 aug.Cut,chain, prep.Line 58000N
16 aug.Cut,chain ,prep.Line 58000N
17 aug.Prep.infinity and IP(geophysic) LN:58000N
18 aug.IP(geophysic) LN:58000N
19 aug IP(geophysic)finish LN:58000N strart LN:19000E
20 aug.Cut,chain,prep.LN:19000E
21 aug.IP(geophysic)LN:19000E
22 ,23,24,25,26,27 aug.Line cutting with chainsaw
28 aug.Cut,chain,prep.LN:58200N
29 aug.Prep.infinity ,Wire,cut LN:58200N
30 aug. IP (geophysic) LN:58200N
31 aug. IP (geophysic) LN:58200N fin

01 sept.Cut,chain LN:58400N 02 sept.Cut,chain and prep.LN:58400N 03 sept.IP (geophysic) LN:58400N 04 sept.IP (geophysic) LN:58400N 05 sept.Cut. 06 sept.Cut,office 07 sept.Cut,prep.Line 08 sept.Cut,chain,prp.Line 58600N 09 sept.IP (geophysic) LN:58600N 10 sept.IP (geophysic) LN:58600N 11 sept.Cut,chain (ext. west 58600n),ln58800n 12 sept.Cut,chain ln58800n,ln59000n,ln59200n 13 seot.Cut,chain,prep.infinity. 14 sept.Cut,chain prep. EXT west .LN:58600N 15 sept. IP (geophysic) EXT west LN:58600N 16 sept. IP (geophysic) LN:58800N 17 sept. IP (geophysic) LN:58800N 18 sept.Prep.new infinity and EXT.east LN:58800N 19 sept. IP (geophysic) LN:58800N 20 sept. IP (geophysic) LN:58800N fin 21 sept.cut,chai n,prep.LN:59000N 22 sept. IP (geophysic) LN:59000N 23 sept. IP (geophysic) LN:59200N 24 sept. pick up all wire ,packing ,org .eguip. 25 sept. DEMOB

IP Inversion Modeling:

Raw pole-dipol.e chargeability and resistivity data were inverted with the smoothnessconstrained least-squares method technique using RES2DINV (ver. 3.55, Geotomo Software) to produce the inverted sections. Horizontal plans and N-S sections were derived from a three-dimensional geophysical model created from the same data using RES3DINV (ver. 2.15).

Attached – Pseudo-sections with magnetic profiles

















CONTOUR INTERVALS

Resistivity: Logarithmic ohm-metres Chargeability: 1 milliseconds

IP SURVEY PARAMETERS

Survey Mode: Time Domain Array: Pole-Dipole Dipole Length: 50 meters Dipole separation: n=1 to n=8 Arithmetic mode :Time=2000ms Delay: 600ms Window :120ms

Infinity:0631300E/2156000N

INSTRUMENTATION

Receiver: ELREC 6 Transmitter: GDD 3600watts Generator: HONDA 5kw

Pole-Dipole Array	
a na a	
• • •	
Copper Ridge Exploration Inc.	
Almaden Mineral Inc.	
COARSE GRID.	
NICOAMEN RIVER PROPERTY	
BRITISH COLOMBIA CANADA	
& RESISTIVITY PSEUDOSECTIO	NS
& RESISTIVITY PSEUDOSECTIO	NS



Appendix II – Petrographic Report



MINERALOGY AND GEOCHEMISTRY

534 ELLIS STREET, NORTH VANCOUVER, B.C., CANADA V7H 2G6

TELEPHONE (604) 929-5867

Report for: KGE Management Ltd

Report 09-13

October 2^{nd} , 2009

PETROGRAPHIC EXAMINATION OF ROCK SAMPLES FROM THE NICOAMEN PROJECT OF FAIRMONT RESOURCES INC.

Introduction:

A suite of seven rocks was submitted by Gerry Carlson. Typical portions of each were prepared for microscopic examination as standard thin sections. Samples are numbered as follows:

GC-11 GC-17 GC-19 GC-26 GC-31 GC-68 GC-90

Summary:

These rocks can be classified as follows on the basis of the petrographic observations:

(a) Granitoid intrusives: Samples GC-19 and GC-90

These two samples are medium-grained quartz diorites composed dominantly of plagioclase and accessory quartz. Mafics (biotite and hornblende) are of relatively low abundance. Low levels of K-feldspar are also present.

The two samples are of closely similar primary composition but differ substantially in their degree of alteration. GC-90 shows only faint sericite/clay alteration of the plagioclase, and mafics are fresh. In GC-19, by comparison, the plagioclase is about 40%

converted to pervasive sericite and clays, and both biotite and hornblende are almost totally altered (to chlorite, epidote, or carbonate).

(b) Basaltic volcanics/sub-volcanics: Samples GC-17, 26, and 68.

These three rocks are of essentially identical character, having fine-grained meshwork to sub-trachytic textured groundmasses composed of tiny plagioclase laths with minor interstitial pyroxene. These host small phenocrysts of plagioclase and lesser mafics (pyroxene and pseudomorphs believed to represent original olivine). The plagioclase and pyroxene in all three of these rocks are strikingly fresh.

(c) Other rocks: Samples GC-11 and GC-31.

GC-11 is a porcellanitic rock having the aspect of a fine-grained felsic volcanic or tuff. It is composed principally of a matrix of cryptocrystalline to minutely microlitic plagioclase, in which apparent fragmental and flow fabrics are locally discernable. It contains scattered microphenocrysts or crystal clasts of quartz, carbonate, biotite, and probable altered hornblende.

GC-31 is an intergrowth of quartz and a sericite/clay component. It exhibits pseudoclastic textural features but is of uncertain origin. It possibly represents a strongly altered felsic igneous rock (dacite?) in which orginal feldspar has been totally converted to sericite and clays. This is the only sample of the suite containing recognizable sulfides; these take the form of sparse, concordant strings of pyrite (or possibly arsenopyrite) grains, now largely oxidized to limonite.

Typical fields of the above seven samples are illustrated in the attached photomicrographs.

Photomicrographs:

Photos are in cross-polarized transmitted light. Scale: the long dimension of the photos represents approximately 2 mm, except in the case of GC-11 where it represents 1 mm.

Sample GC-11

Photo IMG-1542. Felsic volcanic or tuff. Note the feathery/microlitic texture and possible fragmental character of the minutely fine-grained feldspathic matrix (dark greys) in this rock. Coarser elongate flakes are biotite; buff-coloured grain at upper right is carbonate; adjacent grey/white grain is quartz.

Sample GC-17

Photo IMG-1543. Porphyritic diabase. Note the meshwork texture of tiny plagioclase laths (greys) making up the groundmass. Coarser prismatic grains (lower left; top, right of centre) are phenocrysts of fresh plagioclase. Yellow/brown phenocrysts

(lower left) are pyroxene. Dark speckled grains with black rims and networks (top right) are probable altered olivine.

Sample GC-19

Photo IMG-1544. Altered quartz diorite. Right half of field is plagioclase in which the characteristic lammelar twinning is largely obscured by strong pervasive alteration to sericite and clays (yellowish and grey flecks). Coloured grains at centre are biotite (olive green) extensiely replaced by epidote (pink/blue/yellow). The dark area at bottom left is biotite totally altered to chlorite. The shadowy grey area at upper left is polygranular quartz.

Sample GC-26

Photo IMG-1545. Porphyritic diabase. Shows meshwork-textured groundmass of tiny plagioclase laths, and subhedral phenocrysts of plagioclase (greys; upper centre, top right) and fresh pyroxene (yellows; lower left).

Sample GC-31

Photo IMG-1546. Altered rock of uncertain origin. Shows pseudoclastic texture of quartz grains (smooth surfaced greys) with intimately intergrown sericite (colours) and clays (speckled grey).

Photo IMG-1547. Shows part of a string of limonitized sulfide grains (opaque;black) fringed with lamellar-textured, redistributed quartz (white, greys). The finer grey/orange (quartz/sericite) intergrowth in the peripheral parts of the field is the hosting matrix, as illustrated in Photo IMG-1546.

Sample GC-68

Photo IMG-1548. Porphyritic basalt. Shows trachytic (flow-related?) fabric of oriented, very fine-grained plagioclase laths making up the groundmass of this sample (e.g. upper part of field). Also note examples of relatively large subhedral/euhedral phenocrysts of fresh plagioclase (greys, showing lamellar twinning); minor pyroxene (yellow/brown; bottom right); and iddingsite pseudomorphs (orange-brown/black; left half of field).

Sample GC-90

Photo IMG-1549. Quartz diorite. Shows minimal alteration of plagioclase (greys, with lamellar twinning) typifying this sample. Field also includes interstitial grains of fresh hornblende (orange and olive brown; centre and bottom centre). The dark grey area at lower left is quartz.

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FELSIC VOLCANIC OR TUFF

Estimated Mode:

- Cryptocrystalline feldspars 76
 - Quartz 5
 - Carbonate 8
 - Biotite 3
 - Secondary amphibole(?) 3
- Dust-sized opaques/sub-opaques 3
 - Limonite 2

The off-cut of this sample has the appearance of a minutely fine-grained feldspathic aggregate, essentially homogenous but for scattered, tiny phenocrysts and clumpy features. An incipient parallelism is defined by the distribution of minute brown flakes, and a possible flow-texture is discernable in the feldspathic matrix.

Petrographic examination confirms that the dominant constituent is a cryptocrystalline, feathery-textured to locally microlitic aggregate of feldspar, within which an apparent fragmental texture is locally distinguishable (see photo).

The strong white etch and weak yellow stain developed on the off-cut suggests that this rock matrix is composed of plagioclase, possibly with a minor intergrown component of K-feldspar.

Accessories consist of quartz, as randomly scattered microphenocrysts or crstal clasts, 50 -100 microns in size; biotite as individual, slender, parallel-oriented flakes up to 300 or 400 microns in long dimension; an olive-brown, minutely felted material tentatively identified as secondary amphibole; and carbonate, as dispersed flecks and local clumpy concentrations up to 500 microns in size, sometimes with intergrown biotite and/or the possible secondary amphibole.

A more or less dense dispersion of minute opaque/sub-opaque dust occurs throughout the cryptocrystalline matrix. The sectioned area also includes a few localized networks of limonitic impregnation.

This rock is of felsic composition and near-glassy, porcellanitic igneous character. It may be of extrusive origin but is more likely a form of tuff.

PORPHYRITIC BASALT OR DIABASE

Estimated Mode:

Plagioclase 80 Pyroxene 10 Altered Olivine(?) 6 Opaques 3 Sub-opaques Limonite 1

The off-cut of this sample has the appearance of a fine-grained, feldspathic igneous rock speckled with tiny phenocrysts and phenocryst clumps. The sectioned area is traversed by a system of thin, parallel zones demarked by concentrations of limonite.

Thin section examination reveals that the rock is of basaltic composition, being composed dominantly of calclc plagioclase and accessory mafics.

The groundmass hosting the macroscopically visible phenocrysts is made up of a finegrained aggregate of slender, meshwork-textured laths of plagioclase, 50 - 200 microns in length, with intergrown tiny granules of pyroxene and opaques (probably Fe/Ti oxides), 30 - 100 microns in size.

The phenocrysts are euhedral, prismatic grains of plagioclase 0.3 - 1.5 mm in size, and, less commonly, similar sized grains of fresh clinopyroxene. These two minerals are also seen intimately intergrown as glomeroporphyritic clumps.

The plagioclase and most of the pyroxene in this rock – both in the groundmass and as phenocrysts – are notably fresh. However, there is an additional minor mafic constituent which occurs as tiny individual phenocrysts, 0.2 - 0.5 mm in size,totally pseudomorphed by unidentified, greenish, minutely felted secondary material, rimmed and netted by oxidic opaques. The morphology of some of these pseudomorphs suggests that they may have originated as olivine.

The dark, laminar features in the off-cut are found, on the microscopic scale, to consist of localized networks of limonite penetrating the grain boundaries of the silicate matrix. These probably represent the supergene deposition of hydromorphic Fe in zones of incipient microfracturing.

This rock is clearly of basaltic composition, but its petrographic features do not permit definitive classification as to whether it is of extrusive or sub-volcanic intrusive character.

QUARTZ DIORITE

Estimated Mode:

Quartz 20 K-feldspar 5 Plagioclase 37 Sericite/clays 26 Altered amphibole 7 Altered biotite 4 Sphene 0.5 Apatite trace Opaques trace

The off-cut of this sample exhibits the typical textural appearance of a medium-grained plutonic igneous rock.

Petrographic examination shows that the principal constituent is plagioclase (whiteetched in the off-cut), as an aggregate of subhedral grains 0.5 - 5.0 mm in size. These show moderate to strong pervasive alteration in the form of an even, more or less dense dusting of minutely fine-grained sericite and clays.

Quartz is the most abundant accessory, as interstitial anhedral grains similar in size to the plagioclase, and as coarser polygranular segregations.

A little K-feldspar (yellow stained in the off-cut) is a minor felsic accessory, in local finegrained rimming and network relationship to the plagioclase.

Mafics – originally hornblende and biotite – are now almost totally altered to pseudomorphs of chlorite/carbonate and chlorite/epidote respectively. These appear in the off-cut as scattered blackish clumps, darker in colour than the unetched, glassy-looking quartz.

Sphene is a trace accessory, as occasional euhedral grains 0.1 - 1.0 mm in size, closely associated with with tiny grains of opaques – which are probably Fe or Fe/Ti oxides.

Although showing relatively strong pervasive alteration, the sectioned portion of this sample exhibits no evidence of microfracturing or deformation.

PORPHYRITIC BASALT OR DIABASE

Estimated Mode:

Plagioclase 84 Pyroxene 12 Altered olivine(?) 2 Opaques 2 Limonite trace

This sample (compare off-cuts) is closely similar in macroscopic appearance to GC-17, except that it lacks the laminar zones of limonitization seen in that sample. Petrographic examination confirms the essentially identical composition and texture of these two rocks.

The principal component is fresh plagioclase. This occurs as a groundmass aggregate of randomly oriented (locally sub-parallel) laths 0.03 - 0.2 mm in length, incorporating tiny granules of fresh and altered matics as an interstitial accessory.

The groundmass hosts rather abundant subhedral phenocrysts of the same constituents, ranging up to 1.5 mm (rarely to 2.0 mm) in size.

The dominant accessory constituent in this rock is a colourless to pale brown clinopyroxene – typically fresh like the plagioclase. There are also minor proportions of a totally altered mafic, now represented by scattered, small pseudomorphs of minutely fine-grained, felted secondary material; these seldom exceed 0.2 or 0.3 mm in size. In a few cases these pseudomorphs show a morphology suggestive of altered olivine.

Evenly scattered, tiny, equant grains of opaques, 20 - 60 microns in size are the remaining constituent.

The sectioned area includes a few, small, irregular patches of intergranular impregnation by limonite.

QUARTZ/SERICITE/CLAY ALTERED ROCK

Estimated Mode:

Quartz50Sericite20Clays(?)27Limonite2Sulfides1

The lithology and texture of this sample are quite different from those of any other sample of the suite, and it is of uncertain genetic character.

The rock consists essentially of an intimate intergrowth of polygranular quartz with finegrained sericite and clays. It is probable that the latter are derived by alteration of original feldspar – though no remnants of this could be positively recognized in thin section.

The quartz occurs as anhedral grains 0.05 - 0.4 mm in size, and as vari-sized, coalescent aggregates of such grains. The sericite forms randomly oriented flakes, clumpy fine-grained aggregates, and minute dispersed flecks; it is intimately intergrown with felted aggregates of a mineral of lower birefringence believed to be a form of clay mineral(s).

The relative proportions of quartz and the sericite/clay component vary throughout, and the resultant texture ranges gradationally from quartz aggregates with interstitial sericite/clay to sericite/clay as a matrix to smaller, individual quartz grains. These two textural variants are, in part, developed as laminar alternations.

The fabric of this rock sometimes has a clastic look (resembling that of certain greywackes) but, overall, it is thought more likely to represent a product of the intense alteration of a quartz/feldspar aggregate of felsic igneous origin, possibly with some microstructurally controlled redistribution of quartz.

The sectioned area includes a pair of darker-coloured lamellae, 1 mm or so in thickness (see off-cut). In thin section these features are found to consist of strings of more or less strongly oxidized sulphide grains - netted, and in some cases, totally pseudomorphed by limonite. These are commonly mantled by fringes of comb-textured, redistributed quartz. The sulphide species cannot be identified in a standard thin section, but low power microscopic examination of the off-cut suggests that they are most likely pyrite or possibly arsenopyrite.

PORPHYRITIC BASALT

Estimated Mode:

Plagioclase 79 Pyroxene 16 Iddingsite (altered olivine) 3 Opaques 2

This sample (see off-cut) is essentially identical in macroscopic appearance to Samples 17 and 26.

Microscopic examination confirms the compositional similarity of this group but reveals that the present sample differs slightly in textural character – showing greater contrast in grain-size between the groundmass and phenocrysts.

The groundmass is a close-packed aggregare of tiny, slender laths of fresh plagioclase, 0.05 - 0.15 mm in length and 5 - 10 microns in thickness. These exhibit a distinctive trachytic fabric in which oriented swarms of these laths swirl around prominent, coarser phenocrysts (see photo). The latter are dominantly subhedra of perfectly fresh plagioclase 0.2 - 2.0 mm in size or, less commonly, glomeroporphyritic clumps of plagioclase and intergrown pyroxene.

Pyroxene also occurs as an accessory groundmass constituent, in the form of tiny, stumpy subhedra, 10 - 50 microns in size, interstitial to the plagioclase laths.

The minor altered mafic constituent noted in GC-17 and 26 is represented in distinctive form in the present sample, where it occurs as scattered pseudomorphs, up to 0.5 mm in size, not of olive-coloured, felted material, but of a translucent, red-brown mineral believed to be *iddingsite*.

Sample GC-68 (cont'd)

Iddingsite is a typical product of the alteration of olivine, a relationship confirmed by the characteristic morphology exhibited by some of the pseudomorphs in this sample.

The sub-trachytic fabric of this sample is suggestive of extrusive origin.

QUARTZ DIORITE

Estimated Mode:

Quartz 22 Plagioclase 65 K-feldspar 3 Sericite 2 Biotite 4.5 Hornblende 3 Sphene trace Opaques 0.5

This sample is closely similar to GC-19 in macroscopic appearance (see off-cut).

Thin section examination confirms the above observation, showing that the rock consists dominantly of plagioclase (white-etched in the off-cut), in the form of an aggregate of subhedral grains 0.5 - 4.0 mm in size. Accessories are quartz (unetched) and localized minor K-feldspar (yellow stained), interstitial to the plagioclase.

The plagioclase in the present sample differs from that of GC-19 in being essentially fresh but for incipient light dustings of minutely fine-grained sericite.

This difference is also reflected in the state of the minor mafic components - both biotite and hornblende being virtually unaltered.

This rock is a fresh, rather leucocratic quartz diorite of plutonic textural aspect. The sectioned portion is homogenous and shows no signs of fracturing or deformation.

Report for: Fairmont Resources Inc., 9285 203b Street, LANGLEY, B.C. V1M 2L9

> Report 09-12 October 23, 2009

PETROGRAPHIC EXAMINATION OF A ROCK SAMPLE FROM THE NICOAMEN PROJECT

Introduction:

A hand specimen labeled LG was submitted by Gerry Carlson. A typical portion of this was prepared for microscopic examination as a polished thin section.

Description:

FELSIC FRAGMENTAL

Estimated mode:

Felsite55Sericite4Quartz30Carbonate7Limonite1Rutile1.5Pyrite1.5

It is apparent, from macroscopic examination of the hand-specimen and of the off-cut block corresponding to the sectioned area, that this rock is of fragmental character. Distinct, sub-angular lithic clasts, ranging in size from 0.5 mm up to 3.0 cm or more are clearly visible. As is commonly the case with rocks of this kind, the texture on the microscopic scale appears more heterogenous, and differentiation of specific clast boundaries less clear.

Petrographic examination shows that there are two principal components. The most prevalent of these is fine-grained felsitic material, as compact aggregates of grain-size ranging from 1 - 20 microns; these are sometimes lightly dusted with sericite and are believed to consist of sodic feldspar and cherty quartz in varied proportions. The other major component is quartz as discrete, irregular-shaped grains 50 - 500 microns in size (and some polycrystalline clumps thereof) occurring, in varied abundance, scattered throughout the dominant felsite.

Carbonate is a significant accessory, occurring in similar textural mode to the quartz as discrete, irregular grains 50 - 300 microns in size. However, the distribution of the carbonate is much less even than that of the quartz, the bulk of it being concentrated in a few, irregular/elongate

Streaks and patches towards one end of the sectioned area. In these areas it forms more or less coalescent aggregates in which it locally constitutes the dominant component.

The carbonate locally shows partial oxidation to limonite. It is non-reactive to 10% HCl and may be of ankeritic composition

The rock contains minor proportions of pyrite and rutile. Both occur as disseminated, angular grains and grain clusters ranging in size from 5 microns and less up to 500 microns. The distribution of the pyrite appears to be independent of the fragmental texture of the rock

The origin of this rock is debatable. It shows local development of sub-oriented streaks which may be of cataclastic character; in addition much of the rock has the cryptomylonitic look of a crush breccia. It could also be a diatreme-like product of explosive volcanic activity. Volcanic activity – probably more or less modified by metasomatic processes (which may be responsible for the carbonate and part of the quartz).

Photomicrographs:

The attached two photos illustrate the observed petrographic features of a typical area of Sample LG. The long dimension of the photos equals approximately 2 mm.

Note that the photo descriptions refer to the electronic images rotated 90 degrees clockwise.

Sample LG

Photo IMG-1550; Cross-polarised transmitted light. Field exemplifies the heterogenous, fine-grained character of this rock matrix, with visible fragments (seen most clearly at upper left). The dark grey cryptocrystalline areas (e.g. fragment at upper left) are the chert-like, silica-rich variant. The lighter grey area surrounding that fragment is the felsitic variant, evenly dusted with minutely fine-grained sericite (tan-colours). Discrete tan- coloured grains (e.g. centre, upper left centre) are carbonate. The numerous, scattered, small, white and light grey, angular grains are quartz. Black (opaque) grains at right centre and upper centre are pyrite.

Photo IMG-1551; Reflected light. Same field as IMG-1550. The clusters of creamywhite, semi-matching grains are the disseminated pyrite.

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