LOG NO: //- 26	RD.
ACTION:	
FILE NO:	

Geological Report on the Mineral Potential of the Ophir-Lade Property

(4) (天

S

(F)

| 五

H H H H

Lade Peak-Badshot Mountain Area Revelstoke Mining Division B.C., Canada

For:

Sherrin Stewart 1240 Industrial Road Kelowna, B.C. V1Z 1G5

Covering:

Ophir-Lade Claim Group

	Units	Record No.
Goldenville	1 cg	L 4720
Ophir	1 cg	L 4721
Olive Mabel	1 cg	ь 4723
Foundation	1 cg	L 4725
Sherrin 1	18	2462 (9)
Fred 1	14	2506 (12)

Located:

Latitude 50° 44' NTS 82K/11W Longitude 117° 20'

Elevation 5000' - 8400' (1524 m - 2560 m) Above Sea Level

Prepared By:

P. J. Santos, P. Eng. 626 - 9th Avenue Castlegar, B. C. V1N 1M4 Canada

Nov. 15, 1990

TABLE OF CONTENTS

		Page
1.	Summary and Conclusion	1 - 2
2.	Introduction	3
3.	Location and Access	4 - 5
4.	Property Description and History	6 - 8
5.	Regional Geology	9 - 12
6.	Local Geology and Mineralization	13 - 20
	(a) Gold-bearing Quartz Vein	16 - 18
	(b) Breccia Zones	18
	(c) Intersection of two Vein Systems	18 - 19
	(d) Replacement Deposits	19 - 20
7.	Recommendations	21
8.	Statement of Costs and Days Worked	22 - 23
9.	Bibliography	24
10.	Statement of Qualifications	25
11.	Appendix	26 - 36
	(a) Maps and Illustrations	27 - 29
	(b) Assay Certificates	29 - 31
	(c) Photographs	32 - 36

TABLE OF MAPS AND ILLUSTRATIONS

Plate		I	Page
1 2 3	Index Map Claim Map		27 28
3	Geologic Map of Lade Peak- Badshot Mountain Area		29
4	Geology and Assay Plan, East Side	In	Pocket
5	Geology and Assay Plan, South Side	In	Pocket
Figure			
1	Photograph of Geologic Structures on Lade Peak		32
2	Photograph of Quartz Stockworks in the Index Formation at Sta 90-2		33
3	Photograph of Quartz Stockworks in the Index Formation at Sta 90-4		33
4	Photograph of Replacement Deposits in the Lade Peak Formation		34
5	Photograph of Lade Peak Formation Along Strike		34
6	Panoramic View of Replacement Deposits in the Lade Peak and Triune Formations	\$	35
7	Photograph of Replacement Deposits in the Lade Peak Formation		36

1. SUMMARY AND CONCLUSION

On Aug. 15, 1990 and Sept. 14, 15, & 16, 1990 geologic mapping and sampling were conducted by P. J. Santos, P. Eng. and a crew on the Fred 1 and Sherrin 1 mineral claims which are located in the Revelstoke Mining Division of British Columbia, Canada.

Nine ore samples and five rock-type samples were collected in 1990. The ore samples were fire assayed for gold and silver, wet assayed for lead and zinc and geochemically analyzed (ICP) for 30-metal elements.

In 1990 two major faults, four quartz breccia zones, one quartz vein system and two replacement deposits were mapped and sampled when mineralized. The two major faults mapped were unmineralized because they are post-mineral and the quartz breccia zones oriented parallel to the schistocity are essentially barren of gold and silver. The quartz veins oriented northeast have fairly consistent gold and silver content but are lenticular hence limited in strike length. The replacement deposits were found to contain significant lead, zinc, silver and gold.

The property has four gold potentials and one very good potential for lead, zinc, and silver. Three of these gold potentials were studied previously, these are (a) in veins, (b) in breccia zones, and (c) intersections of two vein systems. The fourth gold potential, (d) in replacement deposits, were studied in 1990. The property has also an excellent potential for lead, zinc, and silver in the replacement deposits.

The mineralized breccia zones, the intersections of the vein systems, and the replacement deposits have excellent large tonnage potential.

A program of further geologic mapping, geochemical soil sampling and diamond drilling is recommended to assess further the mineral potential of the property.

2. INTRODUCTION

This report was prepared at the request of Sherrin Stewart, one of the owners of the Ophir-Lade Claim Group who resides at 1240 Industrial Road, Kelowna, British Columbia, Canada, V1Z 1G5.

Geologic sampling was conducted by Sherrin Stewart and Fred Beruschi on Aug. 15, 1990 on the Sherrin 1 claim while P. J. Santos conducted geologic mapping and ore sampling on the Sherrin 1 on Sept. 14, 15, and 16, 1990 assisted by Sherrin Stewart, Fred Beruschi and Mickey Jones. The results of this work is the subject of this report including an evaluation of the overall mineral potential of the property in the light of all the work that have been done on the property.

3. LOCATION AND ACCESS

The Ophir-Lade Property is located in the Lade Peak-Badshot Mountain area 12 aerial kilometers northeast of Ferguson the Revelstoke Slocan Mining Divisions and of British Columbia (see Plate 1), on the highlands between the headwaters of Gainer Creek and Marsh Adams Creek at an elevation of 5000' (1524 m) -8400' (2560 m) above sea level. The property lies at latitude 50° 44' and longitude 117° 20' and is plotted on NTS 82K/11W (see Plate 2). The claims are largely on the Slocan Mining Division, but the LCP (Legal Corner Post) of both the Sherrin and Fred claims are on the Revelstoke Mining Division of British.

The topography of the property is moderate to very steep and mostly lies above the treeline and hence largely alpine with minimal timber cover. Ground access to the property is limited to a trail which reaches the eastern end of the property from the Triune Mine road east of Ferguson at 10-Mile. This trail was upgraded to a bulldozer trail in the early 1980's when the adjoining property was prepared for a drilling program which was subsequently not undertaken

due to the recession that occurred at that time. This is the same trail that the oldtimers used when the property was worked in the mid 1920's which leaves Ferguson 18 miles (28.8 km) away and follows the Lardeau River to 10-Mile, then follows Gainer Creek to the face of Badshot Mountain, then up the narrow valley between Badshot Mountain and Lade Peak to the alpine The only other access highlands. helicopter from either Castlegar, Nelson, Revelstoke. The alpine highlands property are largely on tree-less plateaus and there are numerous areas suitable for helicopter landing, two of which are indicated on Plates 5 and 6.

4. PROPERTY DESCRIPTION AND HISTORY

The Ophir-Lade Property owned by a group headed by Sherrin Stewart consists of four (4) crown-granted claims and two (2) located claims totalling 32 claim units. These claims are plotted on Plate 2 and details are listed below:

Claims	Record No.	<u>Area</u>	<u>Due Date</u>
Goldenville cg. Ophir cg. Olive Mabel cg. Foundation cg.	L.4720 L.4721 L.4723 L.4725	19.64 hec 20.48 hec 13.06 hec 20.90 hec	June Annually June Annually June Annually June Annually
Sherrin 1	2462 (9)	18 claim units	Sept.25, 1990
Fred 1	2506 (12)	14 claim units	Dec. 1, 1990

The located claims, Sherrin 1 and Fred 1, overlap the crown-granted claims and other claims on the northeast corner of the property. Except for the crown-granted claims, no legal surveys have been done on the property and therefore the exact acreage (or hectarage) included within this claim group is available at this time. The property approximately covers a maximum of 32 claim units of approximately 800 hectares (1976 acres) which includes 74.08 hectares (183 acres) of crowngranted claims.

The four crown-granted claims were originally part of a large group of 11 crowngranted claims which were either staked or controlled by the Lade brothers (Lade Peak was named after them) in the late 1890's. the property was described as "spasmodic" prior to 1925. The 1905 Annual Report of the British Columbia Department of Mines records a stamp mill being operated for 12 months in 1904 and the property equipped with an aerial wire-rope tramway, compressor and power drills. probably at this time that most of the surface cuts and underground drifting were done. 1924, the property was acquired by Goldenville Mines Limited of Vancouver, British Columbia which in 1925 did some development, built a trial from Gainer Creek up Bunker Hill Creek to property, installed a stamp concentrating table, and an oil engine and built a cabin beside these installations. A total production of 13 tons was recorded up to this From 1926 to the present, the property time. has essentially remained dormant. In 1950, four the claims were crown-granted to ofBeruschi of Revelstoke, British Columbia, the father of Sherrin Stewart. After his passing,

the claims were inherited by his children Sherrin and her brother Fred. The area surrounding the crown-grants were staked by others at one time. The Sherrin 1 and Fred 1 were staked as the Gainer, Piton, etc. Any work done if any on these claims are not known or available to this author. When these claims lapsed in 1987, the Sherrin 1 And Fred 1 claims were staked by Sherrin Stewart. The work done on the Ophir-Lade group of claims in 1987 and 1988 is the subject of an assessment report dated November 30, 1988 written by P. J. Santos, Additional work was done on the Р. Enq. property in 1990 and is the subject of this report.

5. REGIONAL GEOLOGY

The area in which the Ophir-Lade Property is located is near the northern end of the Kootenay Arc, belt of highly deformed sedimentary and volcanic rocks extending southeast from north of Revelstoke, south along Kootenay Lake, and southwest across the US-Canada border to northeastern Washington.

The general geology of the area is shown on Plate 3 which was taken from Bulletin No. 45 by J. T. Fyles and G. E. F. Eastwood (1957). The area is underlain by rock units which are intensely sheared and folded into complex folds that generally trend to the northwest. The folds are complex folds which are the composite aggregates of smaller folds of varying sizes.

Pre-mineral faulting occurs commonly in two directions, one parallel to the schistocity and the regional trend (northwest) and the other trends to the northeast which are usually vertical. In a minor extent some pre-mineral faulting trend east-west with a steep dip while another trends to the southeast and almost flat lying. These pre-mineral faulting are now occupied by quartz veins, siderite, and

sulfides. Pre-mineral faults also occur and trend to the northwest and the northeast. These have no associated mineralization but usually have prominent topographic expression. Two of these faults are shown on Fig. 1.

Rock units of the March Adams Formation,
Mohican Formation, Index Formation, Triune
Formation, and Ajax Formation underlie the map
area as shown on Plate 3.

The Marsh Adams Formation is a series of interbedded grey and brown quartzites, argillaceous quartzite and grey and black phyllites which underlie the Mohican Formation. This formation is exposed on the northeast side of the map area.

The Mohican Formation consists of grey phyllite and black argillaceous limestone lying between the badshot and Marsh Adams formations. This formation is exposed on the northeast side of the map area.

The Badshot Formation, known locally as the "lime dyke" is a series of light grey, thick-bedded to massive, finely crystalline limestone with bands and small lenses of white to cream-

coloured marble. The Badshot is exposed as high, wedge-shaped peaks extending for several miles along the formational strike (northwest) on the northeast side of the map area. One of these peaks is Badshot Mountain which is essentially a tightly folded "cathedral anticline" with the limbs of the anticline dipping almost vertically.

The Lade Peak Formation is composed of limestone, argillaceous limestone, and limy phyllite with lenses of white marble which resembles closely the Badshot Formation. Fyles and Eastwood have correlated the Lade Peak Formation equivalent the as to Badshot The mountain peak located on the Formation. of east side the Ophir-Lade Property comprised of limestones of the Lade Peak Formation. This formation occurs as the core of several isoclinal anticlines that trend to the northwest across the map area as shown on Plate 3. Replacement deposits of siderite occurring in the Lade Peak Formation weathers to rusty brown giving rise to distinctive rusty bands along the strike of the formation (see Fig. 6).

The Index Formation consists of a thick

sequence of grey and green schists, phyllites, dark grey argillites and carbonaceous slates with thin bands of dark grey limestone and metavolcanic rocks. This formation underlies most of the map area and overlies the Badshot and Lade Peak Formations.

The Triune Formation which overlies the Index Formation is comprised of black siliceous argillites which commonly contain disseminations of pyrite and masses of siderite that weathers rusty brown giving rise to rusty cliffs such as those shown on Fig. 6. This formation occur on the southwest side of the map area.

The Ajax Formation consists of grey, massive and blocky quartzites commonly cut by irregular quartz veins. This formation occurs on the southwest side of the map area.

6. LOCAL GEOLOGY AND MINERALIZATION

The Ophir-Lade Property is underlain principally by three formational units; The Badshot Formation, The Lade Peak Formation, and The Index Formation.

The Badshot Formation occurs on the northeast side of the property. It is composed essentially of grey, thick-bedded limestone interlayered with white to cream-coloured marble that forms a tightly folded "cathedral anticline" which trends to the northwest.

The Badshot Formation is overlain by a thick sequence of green, chloritic schist, grey sericitic schist, grey micaceous argillites with thick bands of grey argillaceous limestone, and black carbonaceous slates belonging to The Index Formation. This formation underlies a major part of the property. Near the base of the formation are several thick beds of pyritic, green (when fresh) schists that are probably volcanic in origin and have been altered further. These beds weather to light brown forming distinctive parallel bands. Alteration consists of the formation of siderite (which

weather to rusty brown) and chrome mica

(mariposite) resembling green copper staining.

The top of the formation is marked by the presence of black carbonaceous slates and argillites. The Index Formation on the property contains a high proportion of quartz boudins in boudinage structure which are quartz lenses or layers that have undergone plastic deformation and are elongated along the direction of schistocity.

The Lade Peak Formation exposed at Lade Peak in the northeast corner of the property (Elev. 8466') resembles closely the Badshot Formation in that it consists primarily of grey, fine-grained limestone with bands of white coarse crystalline marble. It forms a steep-sided anticline (Lade Peak anticline) west of the "cathedral anticline" that comprise Badshot Mountain.

On the southwest side of the Sherrin 1 claim, the Lade Peak Formation re-occurs due to folding, forming the core of an anticline that trends to NW-SE. This is one of the northwest extensions of the Silver chief anticlines exposed on the east side of Gainer Creek (see Plate 3). In this area the Lade Peak Formation

consists of light grey, fine-grained limestone, argillaceous limestone, and limy phyllite. The formation is contorted, the anticline being a composite aggregate of smaller tight folds of varying sizes. The crest of the anticline is brecciated with quartz and calcite forming vein stockworks (see Fig. 7).

All the rock formations in the property are steeply dipping, contorted into tight folds, the formational strike trending to the northwest. Post-mineral jointing and faulting are usually perpendicular to or almost perpendicular to the bedding (and schistocity) and have characteristic topographic expressions (see Fig. 1). Pre-mineral jointing and faulting occurred along the bedding (and schistocity) and at an angle to the bedding and are now occupied by quartz veins (see Fig. 2 and Fig. 3).

It is well known that mineral deposits in the Lardeau district fall into three belts, known as the "lime dyke" mineral belt, the central mineral belt, and the southwest mineral belt. These mineral deposits are gold-and-silver-bearing lead and zinc deposits and deposits that produced mainly gold. The Ophir-

Lade property lies within the "lime dyke" mineral belt.

The Ophir-Lade property was originally known for gold, the property having produced ore that contained free gold. Work previous to 1990 on the property revolved essentially around the gold-bearing veins and breccia zones. Work done by the current owners and the author in 1987 and 1988 showed three types of mineral potential in the property which are (a) the gold-bearing quartz veins, (b) the gold-bearing breccia zones, and (c) the intersection of the quartz vein system. The work done on the property in 1990 showed that a fourth mineral potential exist in the Ophir-Lade Property which is (d) replacement deposits in limestone (Lade Peak Formation) that contain lead, zinc, gold and silver.

(a) Gold Bearing Quartz Veins

These are quartz veins cutting rock units of the Index Formation.

One set that trend to the northeast cuts across the strike of the bedding

and schistocity of the rock units. Work done by the old timers in 1932 and subsequent work done by this author in 1987, 1988, and 1990 showed the presence of gold as free gold in these quartz veins and in association with pyrite in the quartz. However, the continuity of these veins along strike appears to be limited. Further mapping and sampling along the strike of the gold-bearing vein exposed at the Lade Adit in 1990 showed that the silver gold and decreased significantly from .87 oz per ton Au/.14 oz per ton Ag to .032 oz per ton Au < .01 oz per ton Ag in direct proportion to the decrease of pyrite content of the veins (see Plate 6). The Lade vein feather out after a strike length of 40 meters (131 feet). The NE-trending veins on the north side of the Sherrin 1 claims similarly lenticular in shape value but a vein was mapped for 70 meters (230 feet) in 1988.

The quartz veins also cut the rock units parallel to the schistocity and are quite continuous along strike (see Plate 2 and Plate 3). Sampling in 1990 and in 1987 and 1988 however showed that these veins are essentially barren of gold and silver.

(b) Mineralized Breccia Zones

Due to the intense structural deformation that the rocks units in the property have undergone, breccias are quite common (see Plate 7). Sampling on one of these breccia zones in 1988 indicated the presence of significant gold. These mineralized breccia zones have large tonnage potential. Further sampling of other breccia zones in the property was not done in 1990 since this requires bulk sampling and suitable equipment and funding were not available. Either trenching or closely-spaced bigdiameter rotary drilling will required to test these breccia zones.

(c) Intersection of Two Vein Systems

Α thick, fairly continuous, and flat-lying quartz relatively vein with significant values in gold, silver, lead, and zinc that was mapped and sampled in 1988 if continuous down-dip will intersect the various veins and breccia zones on the north side of the Sherrin 1 claim. This constitute a significant mineral potential of the property since the intersections well could be large lodes or large replacement deposits if they continue into the underlying limestones. Exploration for this mineral potential will require deep drilling. The work in 1990 did not include further assessment of this mineral potential.

(d) Replacement Deposits

The exploration work conducted on the property in 1990 led to the discovery of replacement deposits in the Lade Peak Formation which is equivalent to the Badshot Formation (see Fig. 4, 6, & 7). In the Kootenay Arc, this type of mineralization constitute the major

deposit found in this region of British Columbia Economic mineral deposits of this type ranged from a few thousand tons up to an aggregate of 10 million tons of ore containing lead, zinc, and silver. In this part of the Kootenay Arc, gold also occurs in significant amounts.

Preliminary surface sampling of two of these deposits (see Plate 6) gave assays of .010 ounce per ton Au, .41 ounce per ton silver, .40% Pb, and 1.00% Zn. These sample were taken from surface outcrops that have undergone considerable weathering and leaching. Geochemical analyses (ICP) of the samples indicated elevated values in manganese, arsenic, strontium, calcium, tungsten, and copper which are characteristic to replacement deposits in the Kootenay Arc. certificates and qeochemical (Assav assays are found in the Appendix of this report).

7. RECOMMENDATION

In view of the excellent mineral potential of the property, a program of diamond drilling, detailed geologic mapping, and trenching are recommended. An estimated drilling footage of 5,000 feet (1524 meters) should be done using a helicopter for transport to avoid expending a large budget in road building in the initial stages of serious exploration.

If the results are encouraging, a bulldozer track can be pioneered along the pack horse trail taken by the old timers to the Ophir-Lade Mine so that more suitable equipment can be brought up to assess the property further. If an economic orebody is indicated, the bulldozer track can be upgraded to an access road and a rotary drill can be brought up to assess the large tonnage potential of the breccia zones and a larger diamond drill to assess further the down-dip potential of the replacement deposits.

8. STATEMENT OF COSTS AND DAYS WORKED

Geologist: 2 1/2 days field work @ 8 days research, drafti report writing, & con	ng,
@ \$250	2,000.00
Assays and Freight	205.00
Labour Costs:	
Labourer 8 X 9 X \$11.50	\$ 828.00
Drafting 2 X 10 X \$14	280.00
Typing & secretarial	$\begin{array}{ccc} & 200.00 \\ & 308.00 \\ & 1,308.00 \end{array}$
Camp Costs	
3 X \$45 X 1 4 X \$45 X 2	\$ 135.00 360.00 \$ 495.00 495.00
Truck Rentals & Diesel Fuel	
4 days @ \$50 Diesel Fuel	\$ 200.00 54.50 \$ 254.50 254.50
Materials, photocopying, blueprin	ting 227.74
Film Processing and laminating	82.76
Helicopter Rental	

 $1.8 \times \$700 = \$1,260.00$

Total Cost

1,260.00

\$ 6,958.00

DAYS WORKED:

P. J. Santos (Geologist)

Sept. 14, 15, 16, 1990 Sept. 18, 19, 20, 21, 22, 23, 1990 Nov. 14 & 15, 1990

Sherrin Stewart (Helper)

Aug. 15, 1990 Sept. 15 & 16, 1990

Mickey Jones (Helper)

Sept. 15 & 16, 1990

Fred Beruschi (Helper)

Aug. 15, 1990 Sept. 15 & 16, 1990

Genevieve Santos (Drafting, typist)

Sept. 23 & 24, 1990 Nov. 15, 1990

9. BIBLIOGRAPHY

Fyles, J. T. and Eastwood, G.E.P. 1962

Minister of Energy, Mines, & Petroleum Resources, British Columbia

1964

Santos, P.J. 1987

1990

Stewart, Sherrin 1987

Walker, J.F., Bancroft, M.F. and Gunning, H.C. 1929 Geology of the Ferguson area, Lardeau District, British Columbia; British Columbia Department of Mines and Petroleum Resources Bulletin No. 45, 92 pp

Annual reports: 1898, p.1071; 1899, p.602,634; 1900, p.822; 1903, p.114, 244; 1904, p.121; 1922, p.217, 308; 1925, p.263; 1932, p.25, 159, 182.

Minfile NTS 82K

Preliminary evaluation of the Ophir-Lade Property; Revelstoke Mining Division, British Columbia, Canada 7 pp

Geological report on the Ophir-Lade property, Lade Peak-Badshot Mountain area, Revelstoke mining division, B.C. Canada; 27 pp. B.C. Assessment report

Application for prospector's assistance for the Foundation, Olive Mabel, Goldenville, and Ophir crown granted claims; 4 pp

Lardeau map-area, British Columbia; Geological Survey of Canada Memoir 161; 96 pp

10. STATEMENT OF QUALIFICATIONS

I, Perfecto J. Santos, of 626 - 9th Avenue, of the city of Castlegar, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geological Engineer with the firm of Anginel Resources Ltd. whose offices are located at 626 - 9th Avenue, Castlegar, British Columbia, Canada,

That I am a registered Professional Engineer in the Province of British Columbia, Canada,

That I am a graduate of the College of Engineering, University of the Philippines with a Bachelor of Science degree in Mining Engineering (Geology Option),

That I have been practising my profession continuously for the past twenty-nine years,

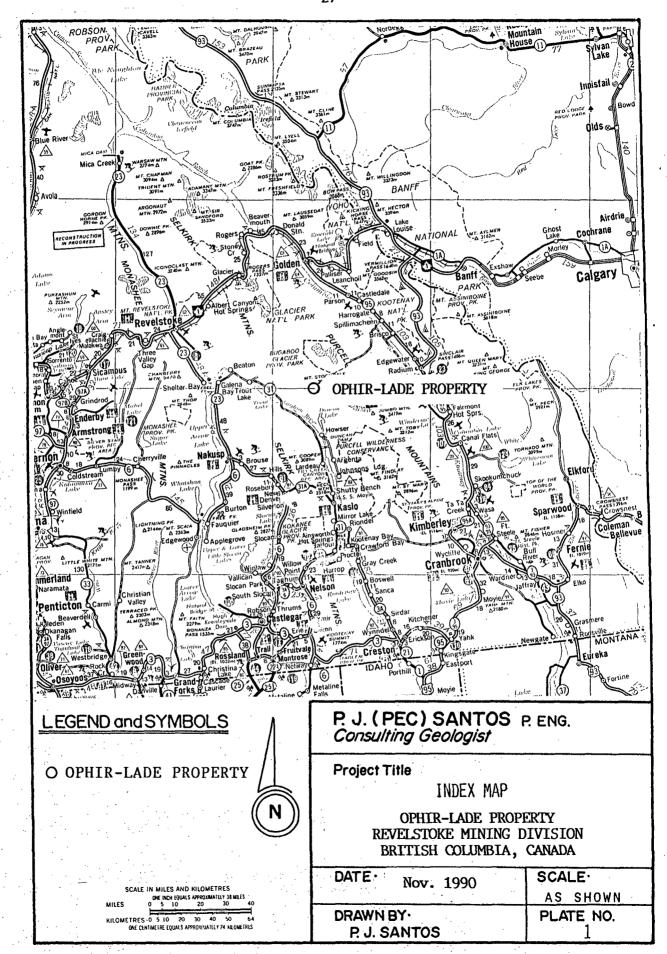
That I have prepared this report based on personal work conducted during the period Sept. 15-16, 1990 as described in this report on the Ophir-Lade Property owned by Sherrin Stewart of Kelowna, British Columbia, Canada,

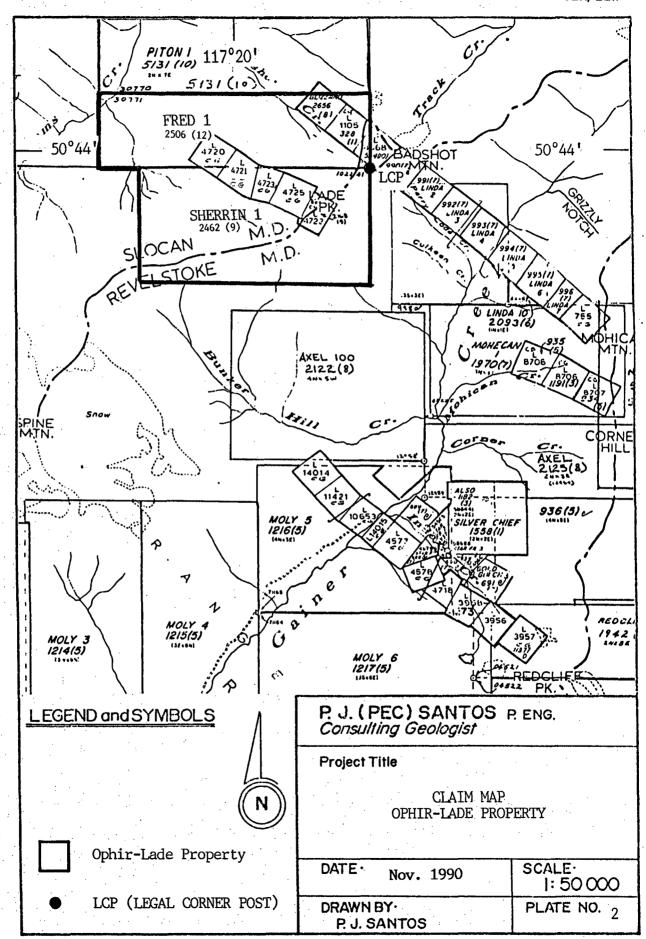
DATED at Castlegar, British Columbia, this 15th day of November, A.D. 1990.

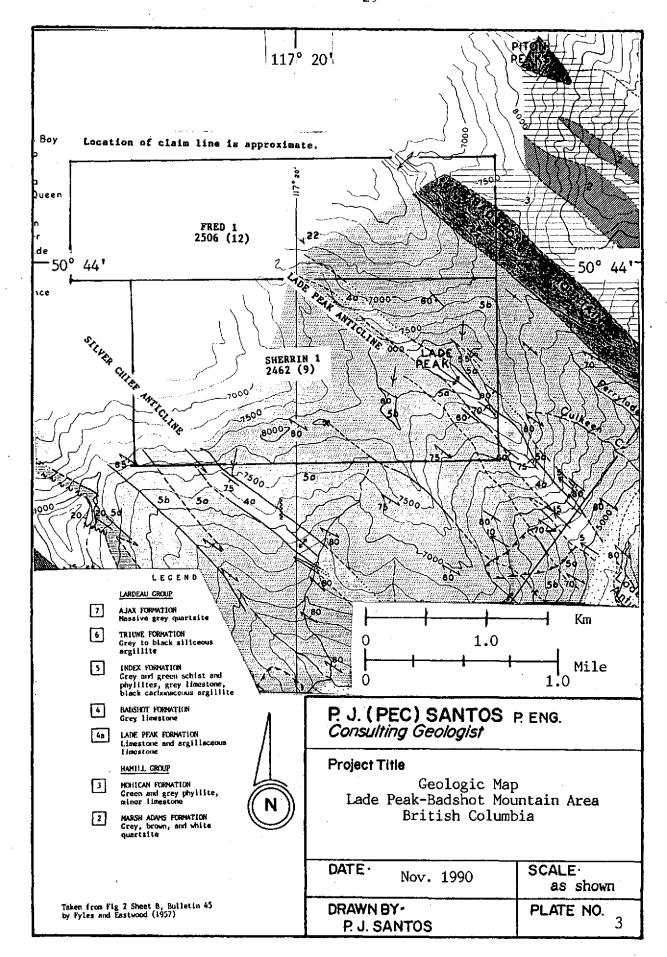
P. J. Santos, P. Eng.

11. APPENDIX

- (a) Maps and Illustrations
- (b) Assay Certificates
- (c) Photographs







Application Andrea

Zerba

P

)). ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Kamloops Research & Assay Lab. PROJECT K-10250
912 - 1 Laval Crescent, Kamloops BC V2C 5P5

File # 90-4606

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe 🖁	AB	U	Au	Th	Sr	Cd	Sb	Bi	, v	Ca	P	La	Cr	Mg	Ba Ti	B	AL	Жa	K	u
	bbw	ppm	bbu	ppm	ppm	ppm	ppm	bbu	* *	ppm	ppm	ppm	ppm	ppm §	ppm	ppm	_bbu	ppm	%	×	ppm	ppm	X	ppm %	ppm	X	X	*	ppm
68601	T 1		14	31		21	15	1483	9.38	363	5	ND	2	3	7	2	. 3	2	.01	.005	,	103	.03	14 .01	,	.11	-01	.03	
68602	1 1	20	42	27	3 3	17	26	1386		192	5	ND	10	6	.2	ž	16	5	.01	022	20	59	.03	40 .01	Ž	.45	.01	.16	
68603	1	97	16	10	.3	16	16	244	5.33	174	5	ND	6	5 🖁	2	2	3	3	.02	.019	10	87	.07	21 .01	2	.36	.01	.09	1
68604	1	32	56	56	.1	23	14	1455	3.57	7	5	ND	3	25 🖇	.2	S	7	9	.26	.031	11	82	.41	54 .01	2	1.09	.02	.08	 1
68605	1	17	40	39	.1	20	9	637	3.11	21	5	ND	4	18	.2	5	6	4	.37	.021	9	97	.12	25 .01	2	.39	.01	.07	1
68606	,	10	332	45	.9	14	10	427	2.11	3	5	ND	2	15	.2	3	3	1	.37	.013	2	108	.08	11 _01	2	.08	-01	.03	•
68607	1	11	8	35	.1	10	6	956	2.84	-4	5	ND	Ž	80	.2	2	2	3	2.16	.071	7	65	.24	11 .01	2	.22	.01	.03	
68608	1	98	2548	3088	12.5	16	20	8591	24.22	425	5	ND	2	525 Ž	3.8	2	2	2	11.78	.027	3	8	.15	6 _01	2	.08	.01	.02	14
68609	1	208	5634	8805	20.4	15	19	8786	23.15	561	5	ND	1	243 5	2.2	4	2	1	7.54	2022	2	17	.12	8 .01	2	.10	.01	.02	
STANDARD C	18	57	44	131	6.8	70	31	1055	3.98	39	16	7	37	53 1	9.6	15	17	56	.53	.093	37	56	.91	179 .07	38	1.89	.06	.14	13

1CP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HN03-H20 AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR MA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.

KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

B.C. CERTIFIED ASSAYERS

912 - 1 LAVAL CRESCENT, KAMLOOFS, B.C. V2C 5P5 PHONE (604) 372-2784 FAX 372-1112

ASSAY CERTIFICATE

V

To:Mr. P. J. Santos 626 9th Ave., Castlegar, B.C. V1N 1M4 Number: 10250

DateSept. 20, 1990

Proj.OPHIR-LADE

Attn:

No.	Description	Au ozs/ton	Ag ozs/ton	Pb percent	Zn percent	
1	68601	.064	₹.01	-		-
2	68602	.031	<.01			
3	68603	.032	<.01			
4	68604	<.001	<.01			
5	68605	<.001	<.01			
6	68606	<.001	<.01			
7	68607	<.001	<.01			•
8	68608	.010	.41	.40	.41	
9	68609	.011	.70	.83	1.00	



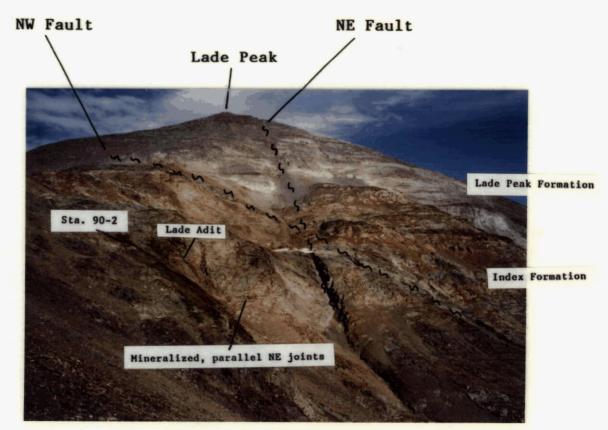


Fig. 1 Photograph of Lade Peak taken from Sta. 90-4 looking to the northeast showing the intersection of two major faults and the geological contact of the Lade Peak Formation and the Index Formation. The location of the old Lade adit is indicated. Discernible are parallel NE-trending parallel joints mineralized with quartz and gold-bearing pyrite.

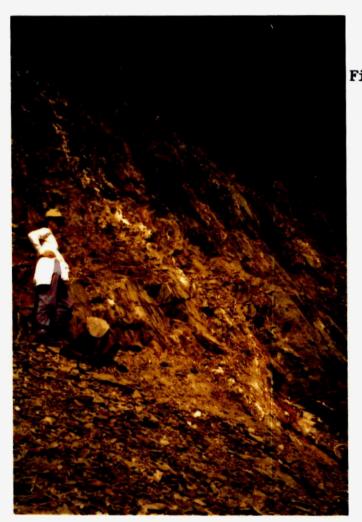


Fig. 2 Photograph of quartz vein stockwork at Sta. 90-2 (Sample # OL-90-4) cutting thin-bedded, green phyllites and schists of the Index Formation parallel to the schistocity. Some of the phyllites have disseminated pyrite and siderite and weather to brown.



Fig. 3 Photograph of quartz vein stockworks at Sta. 90-4 (Sample # OL-90-7) cutting gray to green sericitic schist (Index) along the schistocity.

Replacement Deposits



Fig. 4 Photograph of the replacement deposits (indicated by brown weathering siderite and sulfides) in the Lade Peak Formation (equivalent to the Badshot Formation) taken looking west 150 meters from Sta. 90-5



Fig. 5 Photograph taken along the strike of the Lade Peak Formation from Sta. 90-7. The dark brown material in the foreground is the weathered replacement deposit which ca be traced under the thin grass cover downhill. Across the valley are the Silver Chief Anticlines.

Fig. 6 Panaromic view showing the occurrences of replacement deposits in the limestone (Lade Peak Formation) and quartzite (Triune Formation) in the "lime dyke" mineral belt of the of the Kootenay Arc in the Ferguson area of British Columbia, Canada.



Fig. 7 Photograph of one of the replacement deposits in the limestone of the Lade Peak Formation (equivalent to the Badshot Formation). The replacement deposit consists of siderite with masses of galena and sphalerite which weathers to dark brown (siderite) and bright orange (galena and sphalerite). Note the brecciated nature of the gray limestone indicated by white calcite and quartz vein stockwork. Assays of the replacement deposit show that it also contains significant gold and silver.

LEGEND √30 ✓ Dip & strike of quartz vein, bedding >= Portal of adit Jo Dip & strike of foliation, schistocity ~ ~ Dip 8 strike of fault Dip 8 strike of jointing .88-2 Survey station Oz per ton Au/Oz per ton Ag 24"(G1cm) Sample description, thick ness GEOLOGICAL BRANCH ASSESSMENT REPORT FRED I 2506(12) Claim Line location approximate CLIFF SHERRIN I 2462 (9) Elev. 7630'
(2325m) Green chlorite schist forming slabs QTz parallel Green chlorite Schist Parallel 9tz veins : ifi w/siderite 2"-12" (5-30-5cm) To schistocity
G" (15.2 cm) Elev. 7840 80 # 21144 (01-88-1) 4.001 / .04 Az. 103° To Lade Peak 12" (30.5 cm) CLIFE Quartz w/ siderite
w/ diss py, gal, Tet(?) Elev. 7850' (2341 m) Green chloritic schist Black Carbonaceous argillites WATER POOL FORMED IN SUMMER 1990 LADE PEAK Elev. 8466 (2580 m) GLACIER LADE PEAK parollel jointing Green schist . 88-6

W/ X-cutting 80

Qtz Veinlets in limestone HELICOPTER LANDING AREA Quartz Vein 12" (30.5 cm) LADE PEAK LIMESTONE Green schist 88-7 Grey & white x-talline limestone Quartz vein w/ mossive
Pyrite of portal of adit •8*8-8* areen chlorite schist X Elev. 8100' # 21/45 (OL-88-2) .87/.14 (2468m) Qtz cutting green schist 8" (20.3 cm) Black cerbonaceous

argillites INDEX FORMATION 80 Black Carbonaceous argillites Green schist Gray serecte White quartz! Lade Adit # 21148 (01-88-5) -406 | .04 composite, vein on Pyritic green gneiss Quartz vein W/ Elev. 8000'(2438m)

Pyrite /// 88-9 Thin, fissile, green weathers to light brown (3-meter bond) schist * 88-14 surface Green chlorite of end of adit schist 75 # 21146 (OL-88-3 .099 (.04 8" (20.3 cm) Parallel quartz veins
w/ Sid, py, occasional galena Black carbonaceous obundant sericite orgillites 5 1 Parallel Jointing 1/8/2 FREDI often w/ py, Qtz, sid. Brecciated and Contorted Zones 88-15 . 2506 (12) Cemented w/ quartz, Siderite, 111 60-16 Yuggy, rusty, pyritic in part # 21147(01-88-4) .095 / .02 Composite Quartz w/ concentrations of pyrite vuggy (boxworks due to leached out pyrite) occasional gal., sid. PLATE 4 PLATE 5 Black carbonaceous Lade∇ slates Peak PLATE 6 Black Carbonaceous slates SHERRIN STEWART SHERRIN I 2462(9) OPHIR - LADE PROPERTY GEOLOGY & ASSAY PLAN Meters Meters EAST SIDE 1000 1500 500 100 Feet Feet 100 200 300 ANGINEL RESOURCES LTD. 5000 Note: Drawn by: Date: Surveyed by Brunton Compass and Hip chain, PLATE NO. 5 Nov. 1988 P.J. Santos, P.Eng elevation by pocket Altimeter. Updated Sept. 1990 by P.J. Sontos, P. Eng.

