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GEOLOGICAL REPORT  
ON THE  
OSPREY 6&7 CLAIMS

<b>SUB-RECORDER</b>	
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VANCOUVER, B.C.	

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,456**

OMINECA MINING DIVISION  
LATITUDE: 56 DEGREES 7 MINUTES N  
LONGITUDE: 124 DEGREES 51 MINUTES W  
NTS MAP 94C2W  
BY: W. HALLERAN  
NOVEMBER 6 1990

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## INTRODUCTION

The Osprey 6 and 7 claims were staked on September 2 1989 by A.D. Halleran to cover recently discovered lead and zinc carbonate hosted mineralization.

The 1990 program was carried out to determine similarities between this showing and the showings hosted on the Osprey 1 to 4 claims to the west. The program consisted of geological mapping of the showing and sampling representative mineralization to determine the silver content.

## PROPERTY

The Osprey 6 and 7 property consists of two 2 post claims as shown in figure 1. Statistics are tabulated below.

<u>CLAIM NAME</u>	<u>RECORD #</u>	<u>STAKING DATE</u>	<u>OWNER</u>
Osprey 1	11101	Sept.2/89	W. Halleran
Osprey 2	11102	Sept.2/89	W. Halleran

## LOCATION ACCESS AND PHYSIOGRAPHY

The property is located at Latitude 56° 07' and Longitude 124° 51' on NTS map sheet 94C2W in the Omineca Mining Division. The property is accessible via good gravel logging roads from either Mackenzie or Fort St. James, both approximately 9 hours travel time.

The claims are situated on an east facing slope from 1000 meters to 1300 meters above sea level. Vegetation is mostly open forest with occasional bare rock slopes. (figure 1+2)

## HISTORY

The claims themselves have no known history. However the surrounding area contains numerous deposits and has been explored since the mid 1900's. Figure 3 shows locations of the showings to the south, table 1 has descriptions.

## GEOLOGY

### REGIONAL GEOLOGY

The area was recently mapped by the B.C.G.S.,\* Ferri and Melville 1990. Ferri and Melville feel the area is an anticlinal and synclinal structure consisting of Pennsylvannian and Permian argillites, cherts, gabbro sills, quartz-chert wackes and quartz bearing felsic tuffs in the center of the syncline. On the side are Devonian Earn Group shales and Mcdame group limestones and dolomites. Flanking these units are the Ordovician to Lower Devonian Sandpile, Road River, and Kechika Groups consisting of dolomites, limestones, shales and quartzites. In contact with these is

\* BCGS report of activities 1989, Paper 1990-1



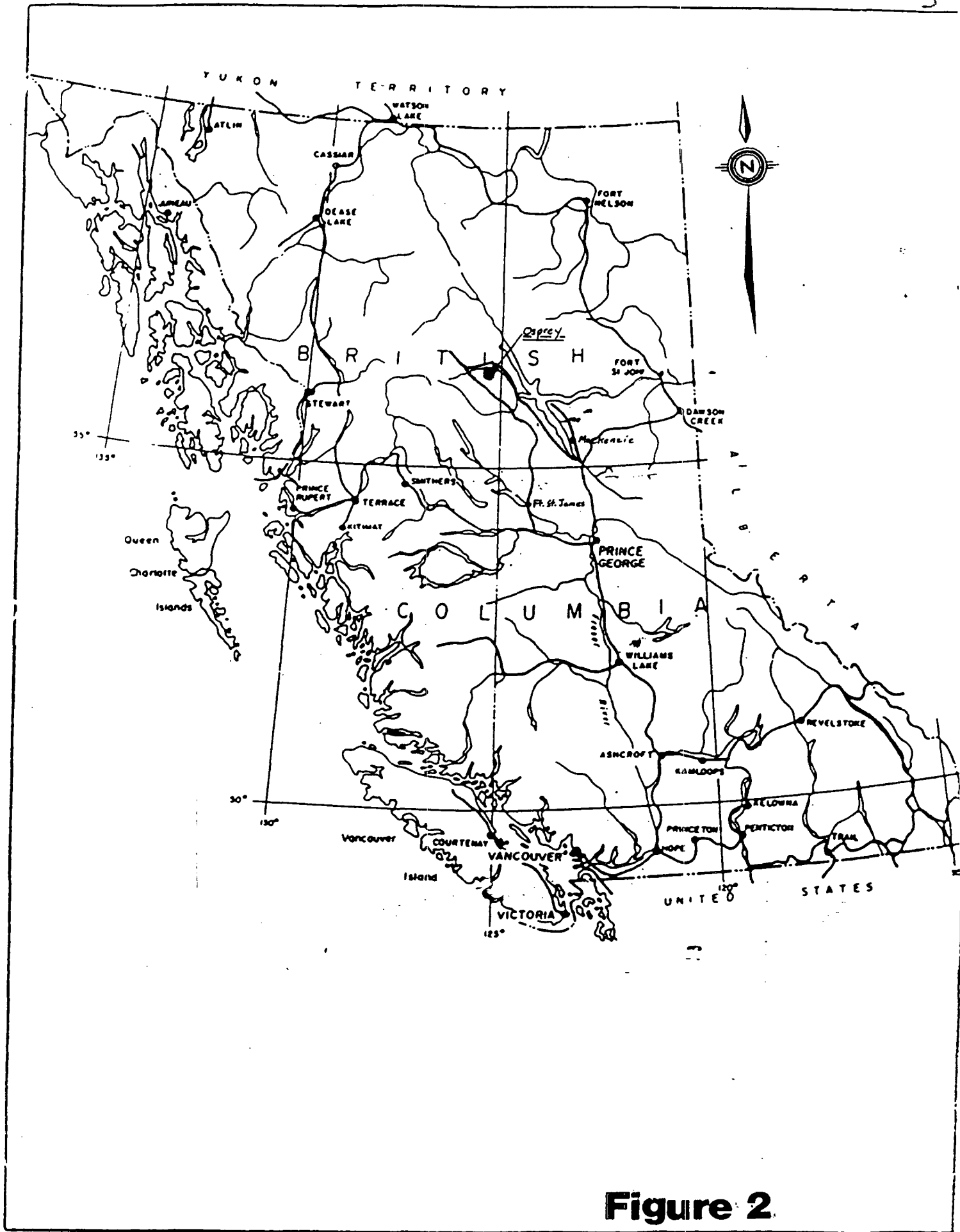


Figure 2



# LEGEND

**QUATERNARY**  
**Gal** alluvium

**TERTIARY**  
**Tbi** BLUE LAKE VOLCANICS: massive basalt, volcanic breccia

**UPPER TRIASSIC TO LOWER JURASSIC**  
**TAKLA GROUP**  
**TJta** argillite, siltstone, volcanic sandstone  
**TJtb** volcanic sandstone, augite porphyry basalts, agglomerate, minor siltstone, argillite

**DEVONIAN TO TRIASSIC(?)**  
**PPhr** HARPER RANCH GROUP: argillite, siltstone

**PENNSYLVANIAN TO PERMIAN**  
**SLIDE MOUNTAIN GROUP**  
**UPPER DIVISION**  
**PPsmua** Massive and pillowed basalt, volcanic breccia  
**PPsmub** Chert, argillite and gabbro  
**PPsmuc** Ultramafite  
**LOWER AND MIDDLE DIVISION**  
**PPsmlb** Gabbro  
**PPsmla** Argillite at base, siliceous argillite, massive to ribbon chert, minor gabbro

**UPPER DEVONIAN TO MISSISSIPPIAN**  
**DMea** EARN GROUP; blue grey fissile shale, argillite, minor sandstone

**MIDDLE DEVONIAN**  
**Dmc** MCDAME GROUP; dark grey fetid dolomite, grey dolomite and limestone, breccia

**ORDOVICIAN TO LOWER DEVONIAN**  
**CODsrk** SANDPILE, ROAD RIVER AND KECHIKA GROUPS:  
 Sandpile Group: upper part is sandy dolomite, dolomite and minor quartzite, lower massive to thickly bedded limestone to dolomitic limestone  
 Road River Group: slate, calcareous slate  
 Kechika Group: dark grey argillaceous dolomite

**LOWER CAMBRIAN**  
**ATAN GROUP**  
**Cro** ROSELLA FORMATION: thickly bedded to platy limestone  
**Cbo** BOYA FORMATION: basal orthoquartzite succeeded by olive green siltstones and shales, minor sandstone

**PROTEROZOIC**  
**INGENIKA GROUP**  
**Pin** Undifferentiated; garnet - staurolite - sillimanite schist and gneiss, marble and calcisilicate  
**Pst** STELKUZ FORMATION: basal part is shale, siltstone grading up to sandstone and minor limestone  
**Pes** ESPEE FORMATION: massive to thinly bedded limestones and recrystallized limestone, marble.  
**Pts** TSAYDIZ FORMATION: grey green slates, phyllites, minor siltstone, wackes and limestone  
**Psw** SWANNELL FORMATION: shale, phyllite, feldspathic wacke, limestone, garniferous schists, gneiss

**MINERAL ISOGRADS**  
 —■—■— BIOTITE  
 —◆—◆— GARNET  
 —■—■— STAUROLITE  
 —●—●— SILLIMANITE

Figure 1:3b. Geological legend to accompany Figure 3a.

**TABLE 1**  
**KNOWN MINERAL OCCURRENCES**  
**(93N/15-NORTH HALF and 94C/02-SOUTH HALF)**

Map No.	Type	MINFILE Number	Name	Commodities	Geological Description
1	Statabound carbonate-hosted base metals	093N 172	Sheila	Zn, Ba, Pb, Ag	Sphalerite occurs disseminated within a fine-grained dolomite and massively with coarse galena in a barite-cemented dolomitic breccia of the McDame Group.
2	"	093N 075	W. Vernon	Zn, Pb, Ba, Ag	Sphalerite occurs as disseminated grains in fine-grained dolomite and as brecciated pods in arenaceous dolomite. Galena primarily occurs massively with barite in small localized shear zones with varying amounts of sphalerite. The hostrocks are primarily dolomites and dolomitic breccias of the McDame Group.
3	"	093N 076	Vernon	Zn, Pb, Ba, Ag	"
4	"	093N 114	Biddy	Zn, Pb, Ge, Ag	"
5	"	093N 158	Crin	Pb, Zn	"
6	"	093N 010	Jemima	Zn, Pb	Sulphide mineralization occurs in discontinuous and irregular shaped pods within arenaceous dolomites of the McDame Group.
7	"	new	new	Zn, Pb, Ba	Sphalerite, galena, barite and pyrite occur within a coarsely crystalline dolomite of the McDame Group.
8	Stockwork-hosted base metals	093N 170	Osi	Pb, Zn, Ag	A stockwork of siderite and hematite veinlets within massive limestone and dolomitic limestone in the upper unit of the Sandpile Group contains disseminated galena and sphalerite.
9	Shear-zone-hosted base and precious metals	093N 011	Nina	Au, Ag, Cu	Sulphide mineralization with varying gold, silver and base metal concentrations occurs as podiform lenses within a shear zone. The hostrocks are predominantly fine-grained gabbros or basalts(?) with lesser argillaceous cherts within the middle unit of the Slide Mountain Group.



the Lower Cambrian Atan Group comprised of the Rosella Formation (limestone) and the Boya Formation consisting of orthoquartzites to shales. ( figure 3)

### PROPERTY GEOLOGY AND MINERALIZATION

The property is underlain by the Lower Cambrian Atan Group. At the base of the slope outcrops of phyllites, siltstones, and quartzites fit into the Boya Formation. These rocks give a foliation of  $159^{\circ}/20' W$  and bedding of  $186^{\circ}/40' W$ .

Topographically above these scattered outcrops are a series of cliffs trending  $02^{\circ}$  of grey to white limestone. These rocks have well developed jointing of  $120^{\circ}$  and  $60^{\circ}$ . Occasional siderite "veins" cut through these outcrops. At least one large cave is present and much of the rock is very vuggy often with well formed calcite crystals. Irregular patches of tan weathering dolomite occur especially near the bottom of the cliffs.

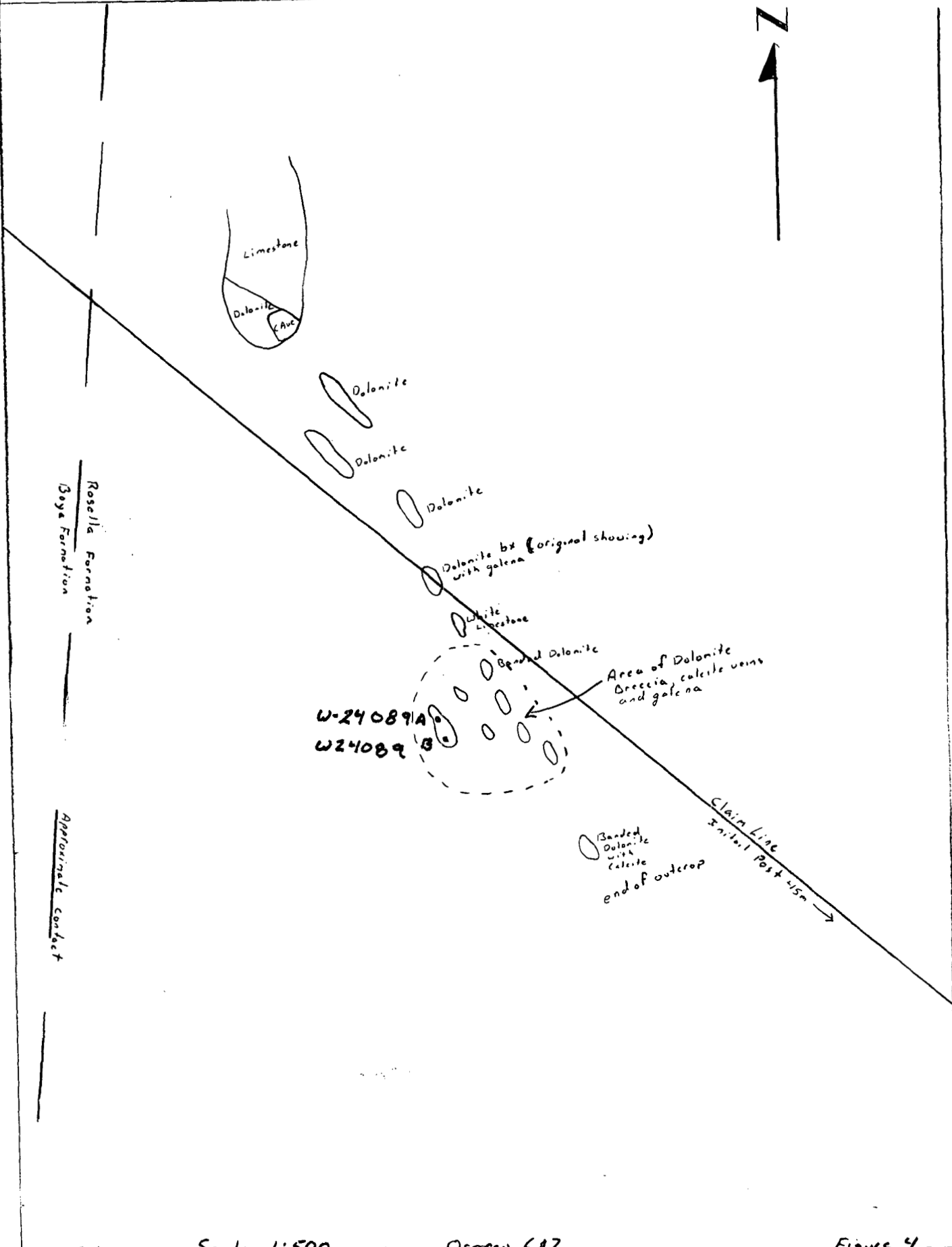
Mineralization occurs as disseminated galena+sphalerite+pyrite in brecciated limestone and dolomite. Galena seems more concentrated at a boundary between dark grey dolomite at the top, and fragments of the above cemented by white crystalline to cream cryptocrystalline calcite. Also present in varying amounts are yellow and orange iron oxides.

The area immediately around the showing has little exposure (figure 4 ). The cliffs end 28 meters to the south, to the north the hill slopes down to a creek gully. Mineralization was first discovered under an overturned tree. Pits dug down to rock in a ten meter radius from this showing uncovered galena mineralization. A typical zone would be a 10 centimeter wide galena zone in iron oxide rich breccia. Samples of these zones returned 19887 ppm Pb and 65.4 ppm Ag and 21148 ppm Pb and 13.3 ppm Ag.

### CONCLUSIONS AND RECCOMENDATIONS

The mineralized zone is not well exposed but appears to be associated with dolomitization and brecciation. It occurs in the Rosella formation near the contact with the Boya Formation. The mineralization is a lead-silver system structurally similar to the Osprey 1-4 showings.

Hand trenching over the showing area would be helpful in determining mineralization controls, attitudes and grades.



GEOCHEMICAL ANALYSIS CERTIFICATE

A.D. Halleran File # 90-3902

Box 793, Fort St. James BC V0J 1P0

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*		
W 240890-A	1	11	19887	✓	13	65.4	✓	2	1	949	1.13	32	5	ND	1	111	2.7	15	2	2	20.97	.007	2	2	8.50	312	.01	3	.03	.01	.02	1	4
W 240890-B	1	9	21148	✓	7	13.3	1	1	830	1.18	37	5	ND	2	76	1.8	8	2	1	21.58	.005	2	1	9.25	348	.01	4	.02	.01	.01	1	1	

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 5-1-2 HCL-HNO3-H2O 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 NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: AUG 28 1990 DATE REPORT MAILED: *Sept 1/90* SIGNED BY: *C. Leong* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

/ ASSAY RECOMMENDED

STATEMENT OF COSTS

## LABOUR:

A.D. Halleran...August 20 1990...1 day @ 300/day..300.00  
W. Halleran.....August 20 1990...1 day @ 300/day..300.00

## GEOCHEMICAL ANALYSIS:

2 rocks for 30 element ICP and gold A.A...10/ea....20.00

## OFFICE COSTS:

report writing, drafting, etc...1 day labour.....300.00

TOTAL.....920.00

CERTIFICATION OF QUALIFICATIONS

I, Will Halleran, of 406-1250 Comox Street, Vancouver B.C. do hereby declare:

- 1) I am a 1983 graduate of the University of British Columbia with a B.Sc. degree in Geology
- 2) I have practised my profession continuously since graduation in the Yukon, B.C. and N.W.T.
- 3) This report is based on my field examinations of the property and available government reports.