

87-239-16037

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A REPORT ON GEOLOGICAL AND GEOCHEMICAL SURVEYS

ON THE JON GROUP  
INCLUDING MINERAL CLAIMS JON, JON 2, JON 3, JON 4 and JON 5

FILMED

SITUATED IN  
THE NELSON MINING DIVISION

NTS 82F/2E

LATITUDE 49° 02.9' N  
LONGITUDE 116° 38.7' W

16,037

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

CLAIM OWNER: FRANK O'GRADY, P.Eng.  
OPERATOR: FRANK O'GRADY, P.Eng.  
AUTHOUR: FRANK O'GRADY, P.Eng.

STATEMENT OF EXPLORATION AND DEVELOPMENT  
SUBMITTED: MARCH 23, 1987

REPORT SUBMITTED: May 7, 1987

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REFERENCES

Minister of Mines Annual Report for 1929, page C360  
Assessment Report 13858 by Frank Whiting on SULLIVAN TWO

## INTRODUCTION

The JON Group consists of the JON mineral claim of 15 units and 4 two-post claims for a total of 19 units.

The claim group is situated 8 kilometers southwest of Creston, British Columbia on the lower eastern slopes of Mt. Rykerts. The altitude ranges from 1540 meters above sea level on the west side to 615 meters above sea level on the east side.

Access to the northeast portion of the claim block is by proceeding south from Highway 3 on a paved road on Nick's Island immediately west of the bridge crossing the Kootenay River. This road is followed for a distance of 3.8 kilometers to a T-junction. Proceed from this point west a distance of 300 meters and turn south on the first gravel road leading in that direction. This gravel road is followed 2.5 kilometers where it terminates in a cul-de-sac. A tote road is then followed south for approximately 400 meters where it crosses the north boundary of the JON Claim.

Access over the northern portion of the claim group is by foot on a network of overgrown and abandoned logging roads. Access to the southern portion of the claim group is by foot from various points on the Dodge Creek logging road.

Figure 1 is a general location map. Figure 2 is the claim location map. Figure 3 is the JON Group claim map.

During March 1987 a program of mapping and soil sampling was conducted. The program was limited by snow cover. The area was mapped at a scale of 1:4,000. Eighteen sediment and twenty-five soil samples were collected.

The work was performed on the following claims:

NAME	UNITS	TAG NO.	RECORD NO.	DATE OF STAKING
JON	15	66363	4330	21 March 1986
JON 2	2-post	520822	4331	12 April 1986
JON 3	2-post	520823	4332	12 April 1986
JON 4	2-post	520824	4333	12 April 1986
JON 5	2-post	520825	4334	12 April 1986

This property is 100% owned and operated by Frank O'Grady, P.Eng. of Box 56, Kimberley, B.C. V1A 2V5 (604-427-5670).

This property is a raw prospect. It was staked because of its proximity to the SULLIVAN TWO and the DODGE claims situated adjacent on the west side.

Prospecting has revealed lead and zinc sulphides on the claims west of the JON Group. In addition, a lead zinc anomaly is situated on the claim group to the west (Whiting Assessment Report 13858 on the SULLIVAN TWO). The thin bedded sediments underlying this area dip easterly at a slightly greater angle than the topographic slope. Therefore, ore hosting horizons may underlie the JON Group claims.

Also, the Minister of Mines Annual Report for 1929 on page C360 refers to lead mineralization being found in this area (see Appendix 1). The creek referred to in the description is called Long Creek, which is now known as Urmston Creek. The source of the mineralization was not located.

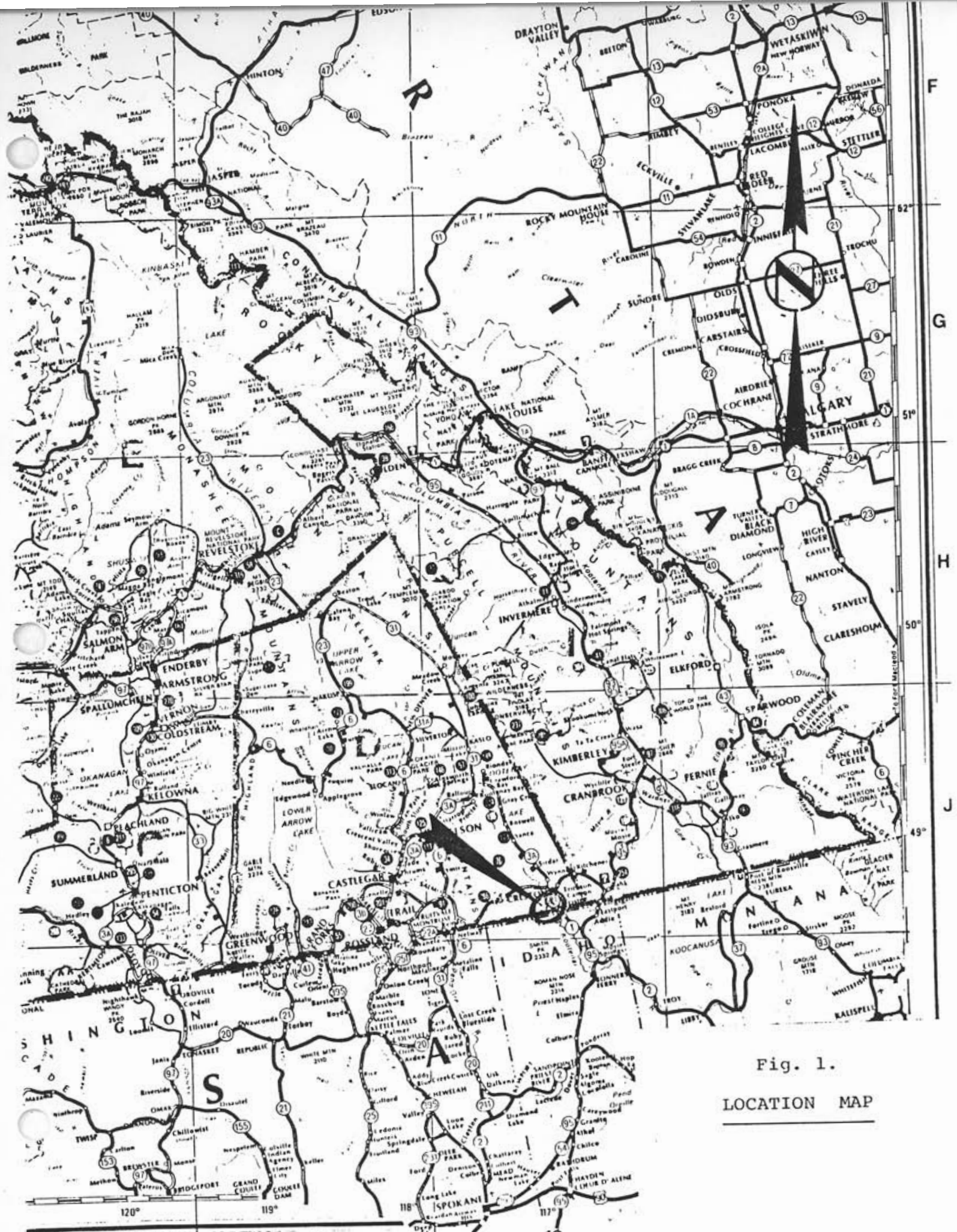
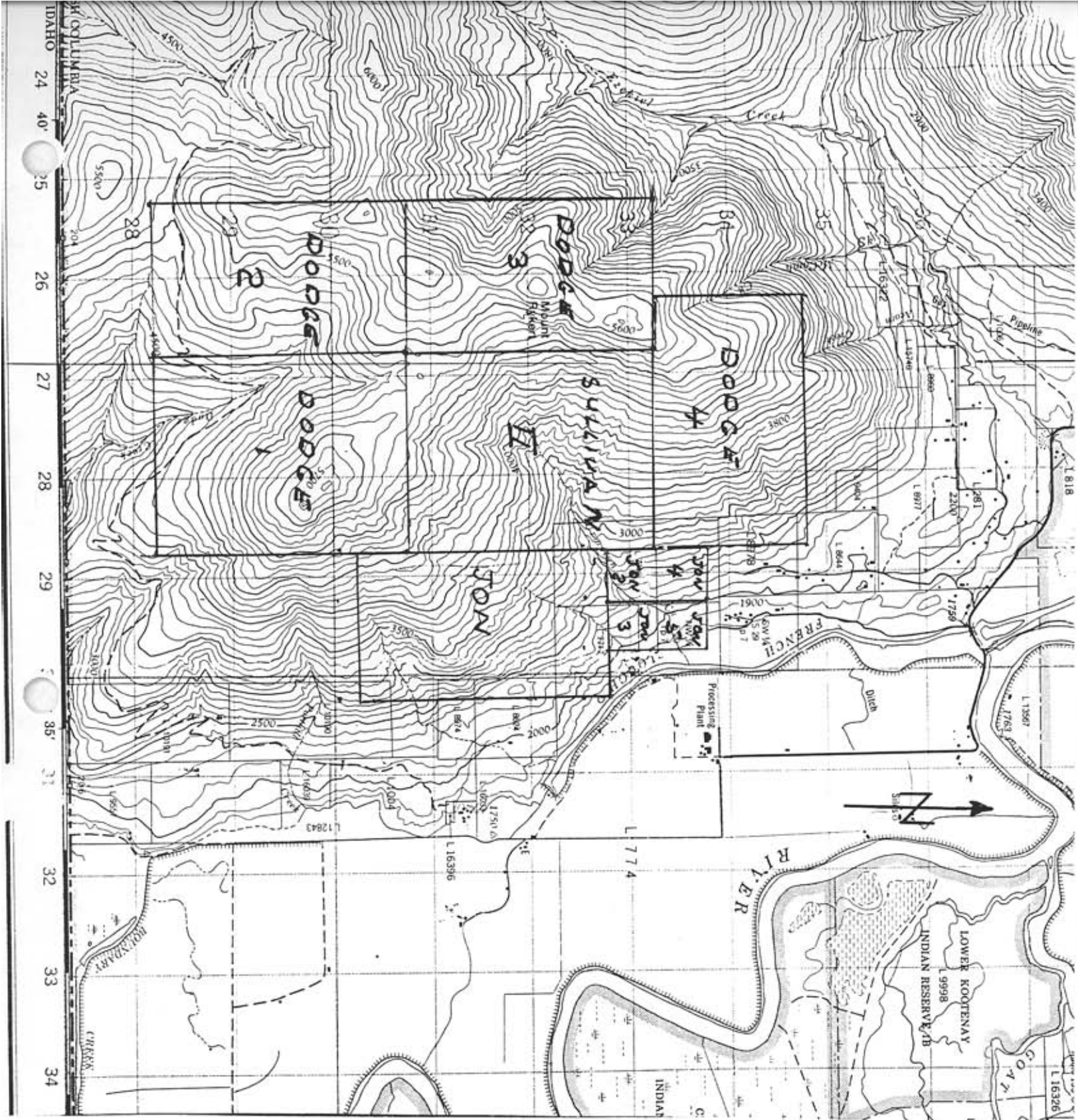


Fig. 1.  
LOCATION MAP

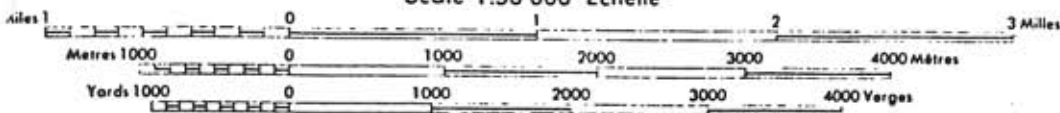


**CRESTON**  
 KOOTENAY LAND DISTRICT  
 BRITISH COLUMBIA

Scale 1:50 000 Échelle

FIG. 2

CLAIM MAP.



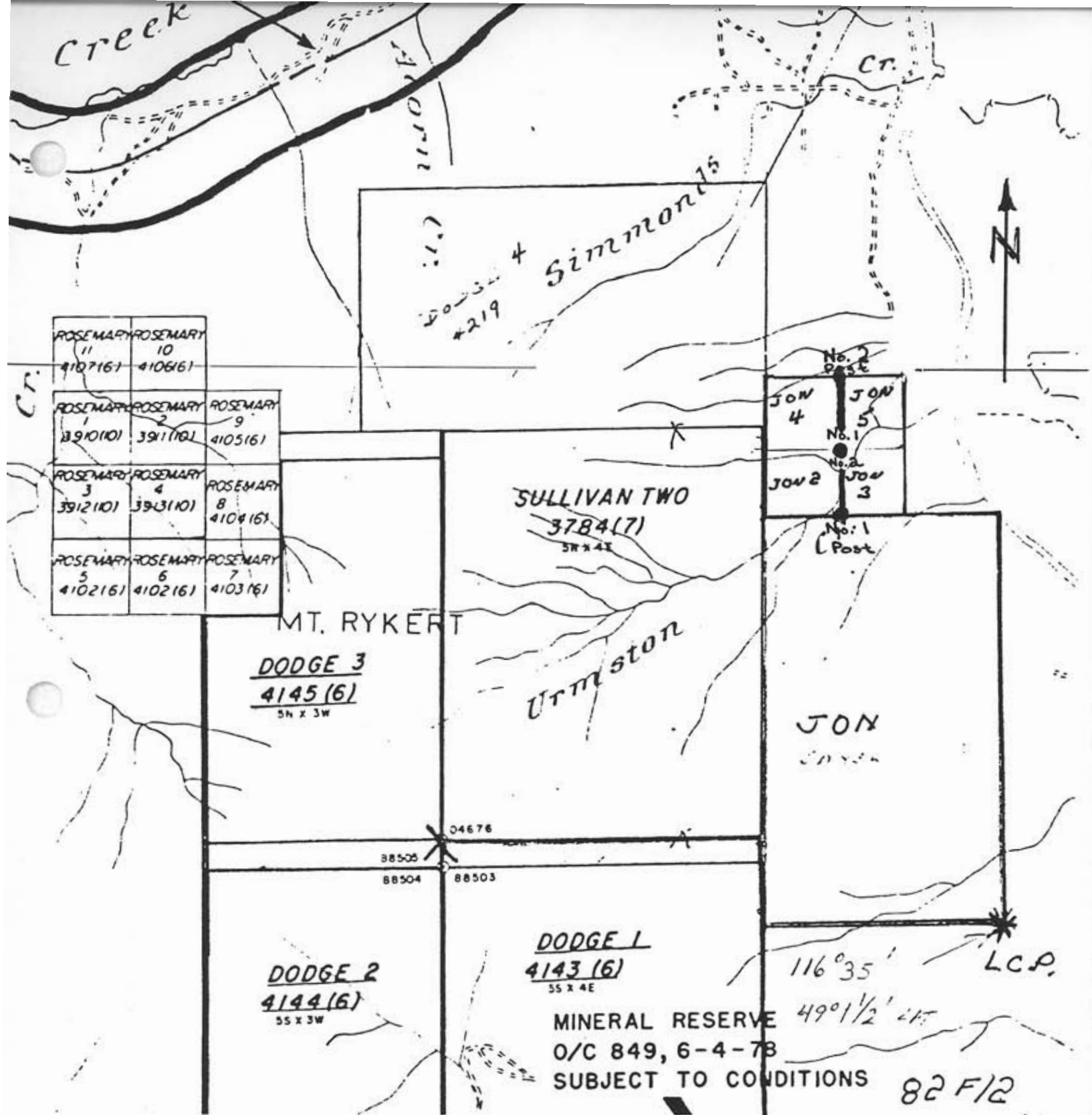


FIGURE 3

JON GROUP  
 CRESTON BC.  
 1" = 1/2 MILE

At this time it is difficult to make an economic assessment of the property as there is very little exploration data available. However, the underlying rocks are of Precambrian age and composed of the Aldridge formation. The Aldridge formation hosts the Sullivan ore body at Kimberley, British Columbia.

#### GEOCHEMICAL SURVEY

The claim group is traversed by numerous small creeks and contains many minor springs seeping out of the hillside. During the course of future exploration all these streams and springs will be sediment sampled.

It is the authour's experience that where such creeks and springs occur on faults and shear zones transecting mineralized horizons in the Aldridge formation they usually contain anomalous lead and zinc values.

The geochemical survey conducted during March 1987 consisted of collecting 18 sediment samples and 25 soil samples. These 43 samples were analyzed for lead and Zinc by Chemex Labs Ltd. of North Vancouver. The certificate of analysis forms Appendix 2 of this report.

All soil samples were taken from the B soil horizon. The survey was restricted to the northeast portion of the claim group because of snow cover.

Most of the overburden covering the claim group consists of glacial till. It will be sampled at various intervals utilizing, where possible, the grown over logging roads on the claim group. Fill in sampling between the roads will be done where necessary by chain and compass traverses.



Historically lead has been a more reliable prospecting tool than zinc because of the lower mobility of lead. However, lead values of greater than 20 ppm and zinc values greater than 100 ppm will be treated as anomalous and be investigated.

A total of 10 geochemical samples from the survey are considered anomalous. Of these 10 anomalous samples, 8 lie on the 4 northern units, JON 2 to JON 5 inclusive. Therefore, the general vicinity of the 5 anomalous soil samples will be examined and prospected in detail. The three creeks in this area that yielded the anomalous sediment samples will be prospected in detail for mineralization.

The one anomalous zinc sample situated on the southern end of the easterly road is probably a result of a barbed wire fence and buried galvanized irrigation pipes situated in that area and it can, therefore, be discounted.

#### GEOLOGICAL SURVEY

The rocks underlying the claim group consist of the Aldridge formation.

Historically, in the Aldridge formation the rock types proximal to the sulphide mineralization are conglomerates and cherts (tourmalinite). On the portion of the claim group that was mapped, neither of these rock types were encountered.

The outcrops mapped consist of quartzites, phyllites and argillites. In most cases the units strike northwesterly to northeasterly with an easterly dip. No lead or zinc mineralization was found in these outcrops.

The outcrops are shown on Figure 4. The geological mapping was limited because of snow cover.

Further mapping and prospecting of the claim group utilizing air photos will be carried out later during 1987, the object being to find favourable rock types or mineralization.

#### CONCLUSIONS

A program of mapping and geochemical sampling conducted on the northeast portion of the claim group revealed a weak anomaly in that area. No lead or zinc mineralization was encountered.

The program was restricted to the northeast portion of the claim group because of snow cover. Further geological and geochemical investigations will be conducted on the remainder of the claim group during 1987.

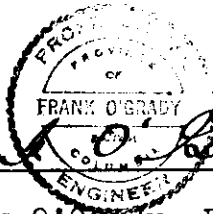
ITEMIZED COST STATEMENT

	TOTAL COST
Geological and Geochemical Surveys Frank O'Grady, P.Eng., March 8, March 10 & 11, 1987 3 days @ \$300/day	\$900.00
Report Preparation Frank O'Grady, P.Eng., March 13 & 14, 1987 2 days @ \$300/day	600.00
Transportation, two-wheel drive March 8, March 10 & 11, 1987 3 return trips Kimberley to claims, 320 km x 3 trips x \$.20/km	192.00
Laboratory Costs 18 sediment samples & 25 soil samples, 43 total samples @ \$3.85/sample	165.55
Delivery	8.65
Supplies: Flagging & Soil sample bags	15.20
Office Expenses: Copying, map printing, postage, report binders	17.68
Typing	20.00
	<hr/>
TOTAL	\$1,919.08

AUTHOUR'S QUALIFICATIONS

I, Frank O'Grady, address Box 56, Kimberley, B.C.,  
604-427-5670, hereby certify that:

- 1) I am a graduate of the University of British Columbia,  
B.Sc. in Geology 1969.
- 2) I am a graduate of the University of Missouri - Rolla  
(Missouri School of Mines), B.S. in Mining Engineering  
1977.
- 3) I am a registered Professional Engineer in the province  
of British Columbia since 1978.
- 4) I have practiced my profession as a Geologist since  
1969 and as a Geologist-Mining Engineer since 1977.

  
*Frank O'Grady*  
Frank O'Grady, P.Eng.  
May 7, 1987

## APPENDIX 1

C 360

REPORT OF THE MINISTER OF MINES, 1929.

values are mainly in gold, which occurs partly as free gold in the quartz and partly in association with iron pyrites. The main vein has been traced through two claims by some thirty open-cuts and is developed by two drift-tunnels, known as the upper, or *Bayonne*, and the lower, or *Ohio* tunnel. The *Bayonne* tunnel, at about 6,900 feet elevation, was in 500 feet at the time the property was examined in 1915 and throughout that distance the vein was found to be well mineralized and to contain some good shoots of ore. This drift, temporarily inaccessible on account of caving at the portal, is reported to have been continued some distance with satisfactory results, and the footage on this level is now said to amount to about 1,000 feet.

The *Ohio* tunnel, at an elevation of 6,400 feet and about 2,500 feet to the south-west (measured between portals), has attained a length of 950 feet. Systematic sampling by the management in this working indicates two well-defined ore-shoots. The first one, about 300 feet long and averaging 3 feet in width, is encountered at 50 feet in from the portal, and the second shoot at the inner extremity of the tunnel is 115 feet long and about 3¾ feet wide on the average. Good ore extends across the full width of the face of this tunnel. Between the two ore-bodies mentioned there are spots of low-grade mineralization not considered commercial. Just east of the first-mentioned shoot and against a fault there is a length of 6 feet of good ore over a width of 3½ feet. Values for the two shoots, as computed separately from the higher-grade ore in the zone of oxidation near the surface, average \$10.20 to the ton for the easterly, or 115-foot, shoot and about \$14 to the ton for the portal shoot. In the outcrop workings, along the somewhat flat side-hill above this tunnel, the values are understood to average around \$25 to the ton.

Another lower crosscut tunnel, mostly driven since the previous published report, is 1,050 feet long, consisting of 350 feet of crosscut and 700 feet of drift. On this new lower level, which is at an elevation of 6,240 feet, the results of exploration have been indefinite. In the drift, which develops the ground below the 300-foot shoot in the *Ohio* tunnel, the ore is confined to short lengths. It is considered possible that this tunnel is not driven along the main vein and may follow a parallel minor fracture. Some crosscutting on this level would be advisable to clear up this point. Though handicapped by the existing difficult transportation conditions, the property affords an example of a very efficient small-scale operation. Transportation will probably be improved in proportion to the results obtained by the further development which will be necessary to assure sufficient tonnage of ore for a milling operation.

## CRESTON AREA.

**Delaware.**

This group of three Crown-granted claims is situated on the Arrow Creek slope of Rolfe mountain near Creston. The property, described in the Annual Report for 1928, was worked under option by G. A. M. Young and J. E. Hayden during the early part of the year and some 17 tons of silver-lead ore was shipped. Briefly recapitulating information previously given, the formation consists of Aldridge quartzites which have been invaded by igneous rocks of the Purcell sills. Quartz veins occur in a wide zone of shearing and the principal ore-mineral is galena. George Young states that small specimens of pyromorphite, or lead phosphate, are found and minor amounts of copper pyrites occur in one lead. In December the group was rebonded to F. S. Rivers, of Vancouver, and work is expected to be resumed in the spring.

**Goat Mountain.**

E. W. and F. J. Klingensmith and James Compton have driven about 50 feet of tunnel on their claims near the *Alice* and are now working on a crosscut tunnel at a lower level. The values are reported to be in copper, gold, silver, and some lead. The country-rock at the tunnels is said to be greenstone, presumably one of the Purcell sills, and the vein-filling is quartz.

Other minor activities which have occurred in the vicinity of Creston include: Continuation of work by A. Desireau on his property at Duck creek; the driving of over 130 feet of tunnel by J. E. Hayden and associates on the McKelvey claim in the same vicinity; prospecting by Angus Currie and associates, who staked four claims at the head of Long creek, following the discovery of a large quantity of float after a forest fire which burned over this area last fall. These claims are about 2 miles west of the Kootenay flats, Long creek being a small stream between Corn and Boundary creeks. The float is a milling-ore consisting of galena in a quartz gangue and the formation is probably Aldridge. A large granitic dyke is said to cross the ground from north to south. The owners intend to do some stripping to find the lead as soon as the snow goes off.



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers  
 212 BROOKSBANK AVE., NORTH VANCOUVER,  
 BRITISH COLUMBIA, CANADA V7J-2C1  
 PHONE (604) 984-0221

## CERTIFICATE OF ANALYSIS A8712522

To: O'GRADY, MR. FRANK, P. ENG.

BOX 56  
 KIMBERLEY, B.C.  
 VIA 2Y5

Page No. : 1  
 Tot. Pages: 2  
 Date : 23-MAR-87  
 Invoice # : I-8712522  
 P.O. # : NONE

Project :  
 Comments :

SAMPLE DESCRIPTION	PREP CODE	Pb ppm	Zn ppm										
2-5 N	201	---	15	124									
2-6 S	201	---	4	87									
2-11 S	201	---	4	41									
3-17 S	201	---	4	96									
J-01	201	---	7	52									
J-03	201	---	8	54									
J-05	201	---	5	56									
J-07	201	---	4	39									
J-08	201	---	9	64									
J-10	201	---	5	70									
J-12	201	---	8	106									
L-0	201	---	15	106									
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L-2	201	---	8	61									
L-3	201	---	3	31									
L-4	201	---	5	89									
L-5	201	---	5	76									
L-6	201	---	10	90									
L-7	201	---	9	223									
L-8	201	---	10	80									
L-9	201	---	21	116									
R2-3 S	201	---	1	48									
R3+20 W	201	---	8	77									
R3+120 W	201	---	15	72									
R3+220 W	201	---	11	132									
SEJ-01	201	---	1	30									
SEJ-02	201	---	6	48									
SEJ-03	201	---	6	47									
SEJ-04	201	---	3	23									
SEJ-05	201	---	1	23									
SEJ-06	201	---	2	36									
SEJ-07	201	---	4	26									
SEJ-08	201	---	3	24									
SEJ-09	201	---	6	29									
SEJ-10	201	---	4	29									
SEJ-11	201	---	1	32									
SEJ-12	201	---	1	30									
SEJ-20	201	---	21	60									
SEJ-21	201	---	6	65									
SEJ-22	201	---	15	72									

APPENDIX 2

CERTIFICATION : Hart Buchler



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1  
PHONE (604) 984-0221

## CERTIFICATE OF ANALYSIS A8712 22

To: O'GRADY, MR. FRANK, P. ENG.

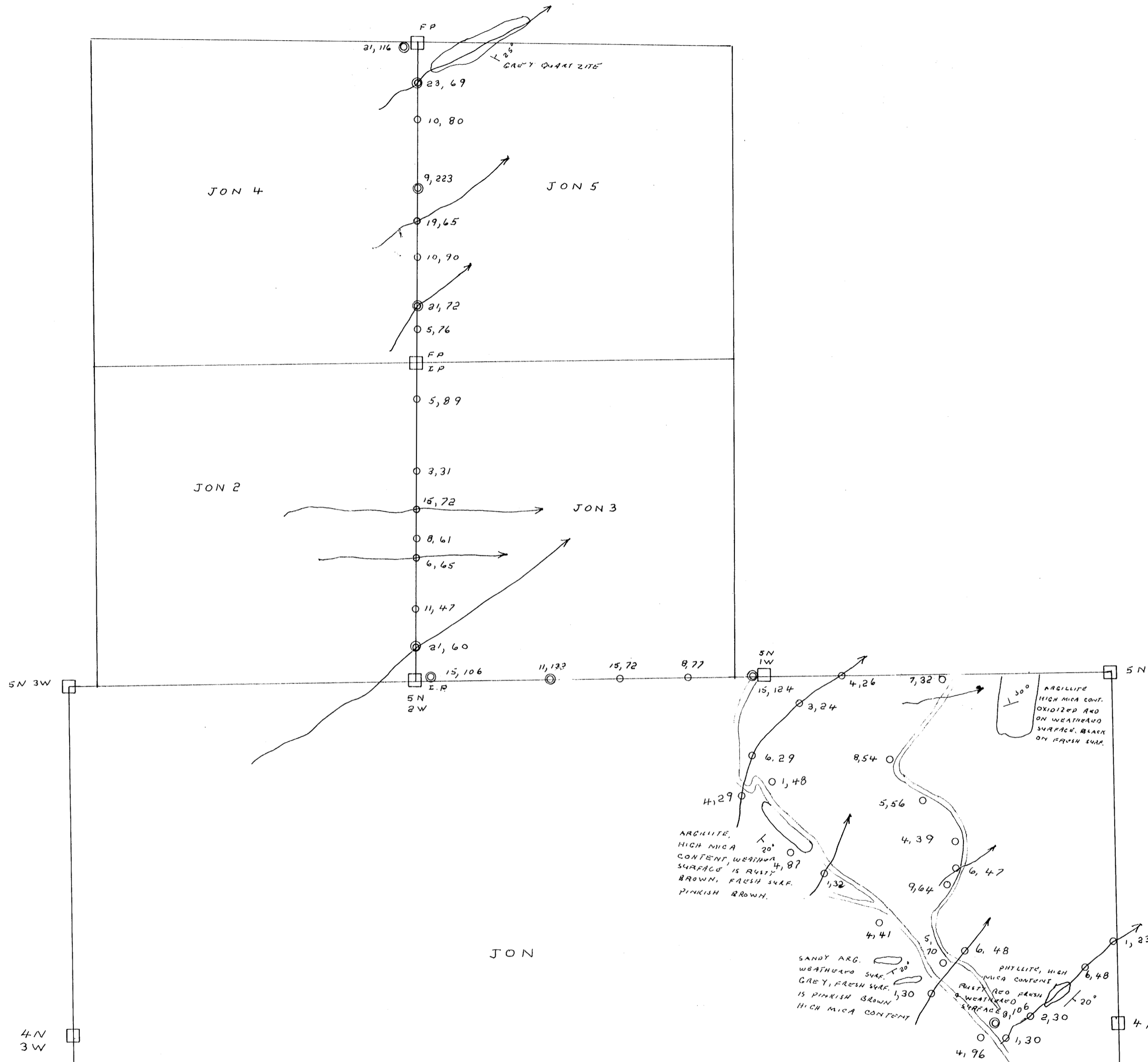
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KIMBERLEY, B.C.  
VIA 2Y5

Page No. : 2  
Tot. Pages: 2  
Date : 23-MAR-87  
Invoice # : I-8712522  
P.O. # : NONE

Project :  
Comments :

SAMPLE DESCRIPTION	PREP CODE		Pb ppm	Zn ppm							
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SEJ-24	201	---	19	65							
SEJ-25	201	---	23	69							

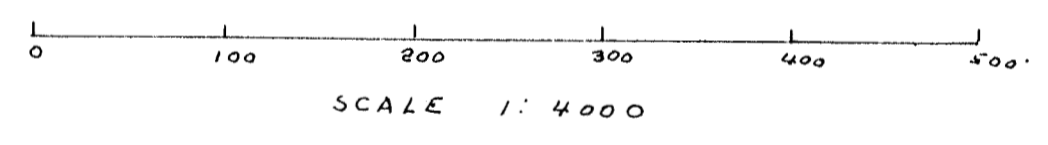
CERTIFICATION : Hart Buehler



**LEGEND**

Pb Zn  
4, 26

- SOIL OR SEDIMENT SAMPLE LOCATION & VALUES PPM
- ⊙ ANOMALOUS GEOCHEMICAL SAMPLE
- CREEK
- ▭ MAPPED OUTCROP
- CLAIM POST



**GEOLOGICAL BRANCH ASSESSMENT REPORT**

**16,037**

GEOLOGICAL AND GEOCHEMICAL PLAN  
JON GROUP  
CRESTON B.C.

DR. BY: F. O'GRADY	SCALE: 1:4000
DATE: 6 MAY 1987	APPRD. BY:
CHK'D. BY:	REV:
DWG. NO.: FIG. 4	NTS 82/F/2E