ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 94.11.09

ASSESSMENT REPORT 23121 MINING DIVISION: Nelson Fort Steele

PROPERTY: Zinc and Eagle
LOCATION: LAT 49 22 30 LONG 116 10 00
UTM 11 5469259 560494
NTS 082F08E

CAMP: 001 Purcell Belt (Sullivan)

CLAIM(S): Zinc 5,Eagle 1-8
OPERATOR(S): Johnstone, G. Gass, N.
AUTHOR(S): Gass, N.
REPORT YEAR: 1993, 16 Pages
COMMODITIES
SEARCHED FOR: Gold,Silver,Lead,Zinc,Tungsten
KEYWORDS: Proterozoic,Creston Formation,Metasediments,Faults,Folds
Quartz veins,Alteration

WORK
DONE: Geophysical,Drilling
DIAD 18.3 m 1 hole(s);Wink
MAGG 5.3 km
Map(s) - 1; Scale(s) - 1:2500
MINFILE: 082FSE003

Filmed

ASSESSMENT REPORT

ZINC #5 AND EAGLE 1-8

Gordon Johnstone
1200 2Ave. S.
Cranbrook, B.C.
ph 426-2805

Fort Steel Mining Div.
82F/8
49° 22' 30" N
116° 10'W

by

N. Gass
Gass and Associates
2604 Exshaw Rd. N.W.
Calgary Alberta
ph 282-6179

November, 1993.

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Pocket - Map #5 Geological and Geophysical

AR 23121

Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S): Drilling/Geophysical/Geological — TOTAL COST: 6400

AUTHOR(S): NICK GASS — SIGNATURE(S): N. Gass

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED: ..... YEAR OF WORK: 93

PROPERTY NAME(S): Zinc #1-5 Eagle #1-8

COMMODITIES PRESENT: Gold, lead, zinc, silver, tungsten

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN:

MINING DIVISION: NELSON/FORT STEEL — NTS: 82 F8

LATITUDE: 49° 23' N — LONGITUDE: 116° 10' W

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

ZINC #1-5 EAGLE #1-8

OWNER(S)

(1) GORDON JOHNSTONE
FRANK FAIRCLOUGH

(2) NICK GASS

MAILING ADDRESS

1200-2nd Ave. S. Cranbrook B.C. V1C2B3
402 Briar Ave. Cranbrook B.C. V1C4B5

2604 EXSHAW Rd. N.W. Calgary AB. T2M4E5

OPERATOR(S) (that is, Company paying for the work)

(1) GORDON JOHNSTONE
FRANK FAIRCLOUGH

(2) NICK GASS

MAILING ADDRESS

As Above

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude): The zinc & Eagle claims are underlain by Proterozoic middle & lower Creston siltites & quartzites which have been folded & faulted by the RICHMOND L. fault in a compressional phase. Subsequently it has become a normal fault. Low grade metamorphism occurs in the folds east of the fault & quartz veins have been injected along plains of weakness. Creston beds dip steeply east west of the fault & steeply west east of the fault

REFERENCES TO PREVIOUS WORK: The area was mapped by J.E. Reesor in '80 & '81 a syndicate from Kimberley drilled a DDH in the 50's. The author did evaluation reports in '91 & 92

(over)

INTRODUCTION

Two main projects were undertaken in the 1993 field season. A reconnaissance magnetometer survey consisting of three lines totalling 5.25 km was done. A diamond drill hole was cored to 20M using a rebuilt Winkie drill.

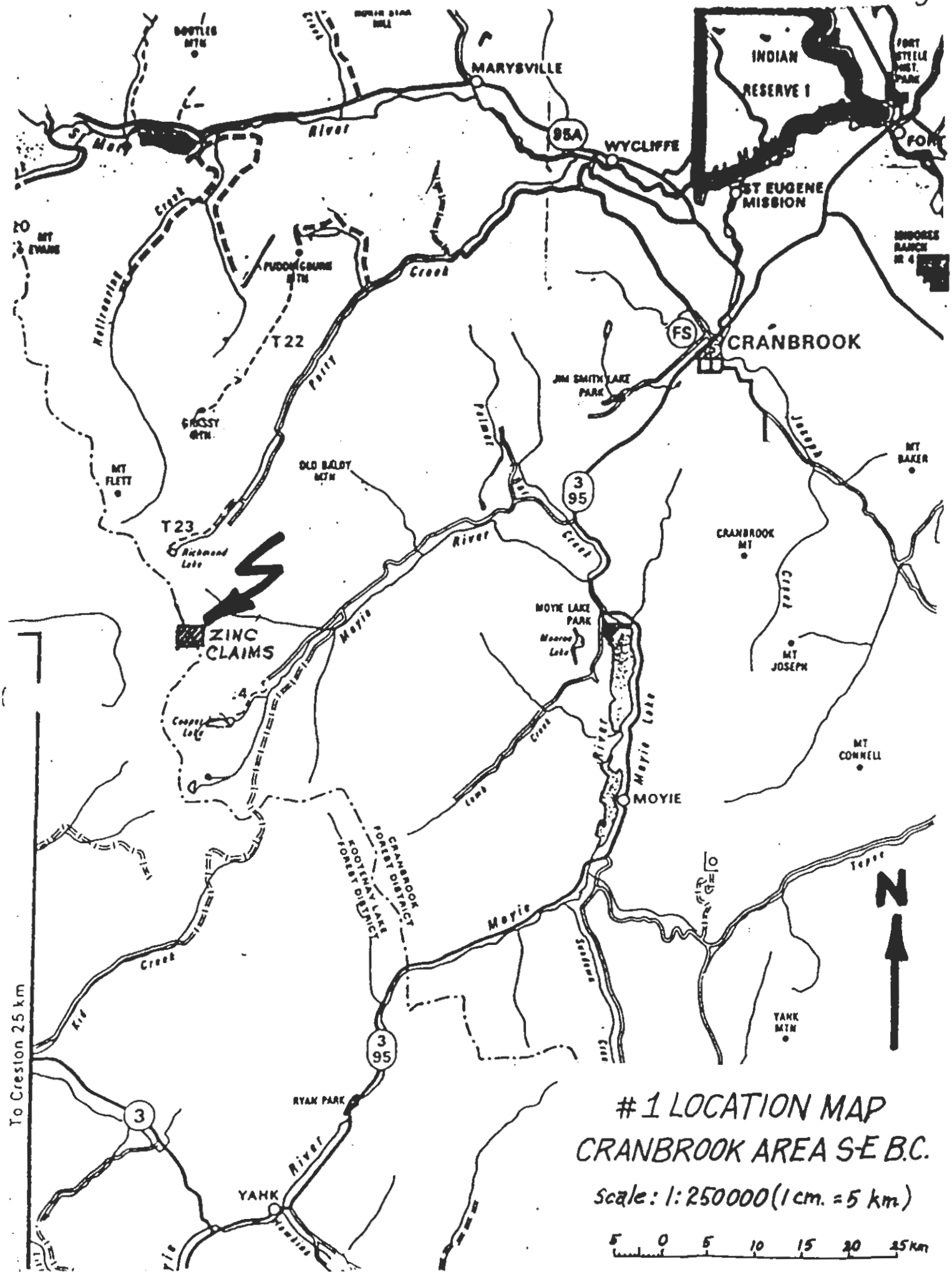
LOCATION AND ACCESS

The claims are located on NTS map 82F/8 latitude 49° 22' 30" North, longitude 116° 10 ft. West, approx. 2 1/2 km south of Richmond Lake, south of the headwaters of North Moyie Cr. See #1 location map and #2 claims map.

The block consists of 5 Zinc and 8 Eagle claims. It can be reached by travelling 12km south of Cranbrook on B.C. 3/95 to Lumberton. Turn west at Lumberton and travel west and south along the Moyie River for 20km to the North Moyie Cr. bridge on an all weather logging road. From this junction travel west for 5km along the North Moyie Cr. summer logging road. From there a steep 4 wheel drive road travels south and west for two kilometres to an outcrop of carbonitite at 6500'.

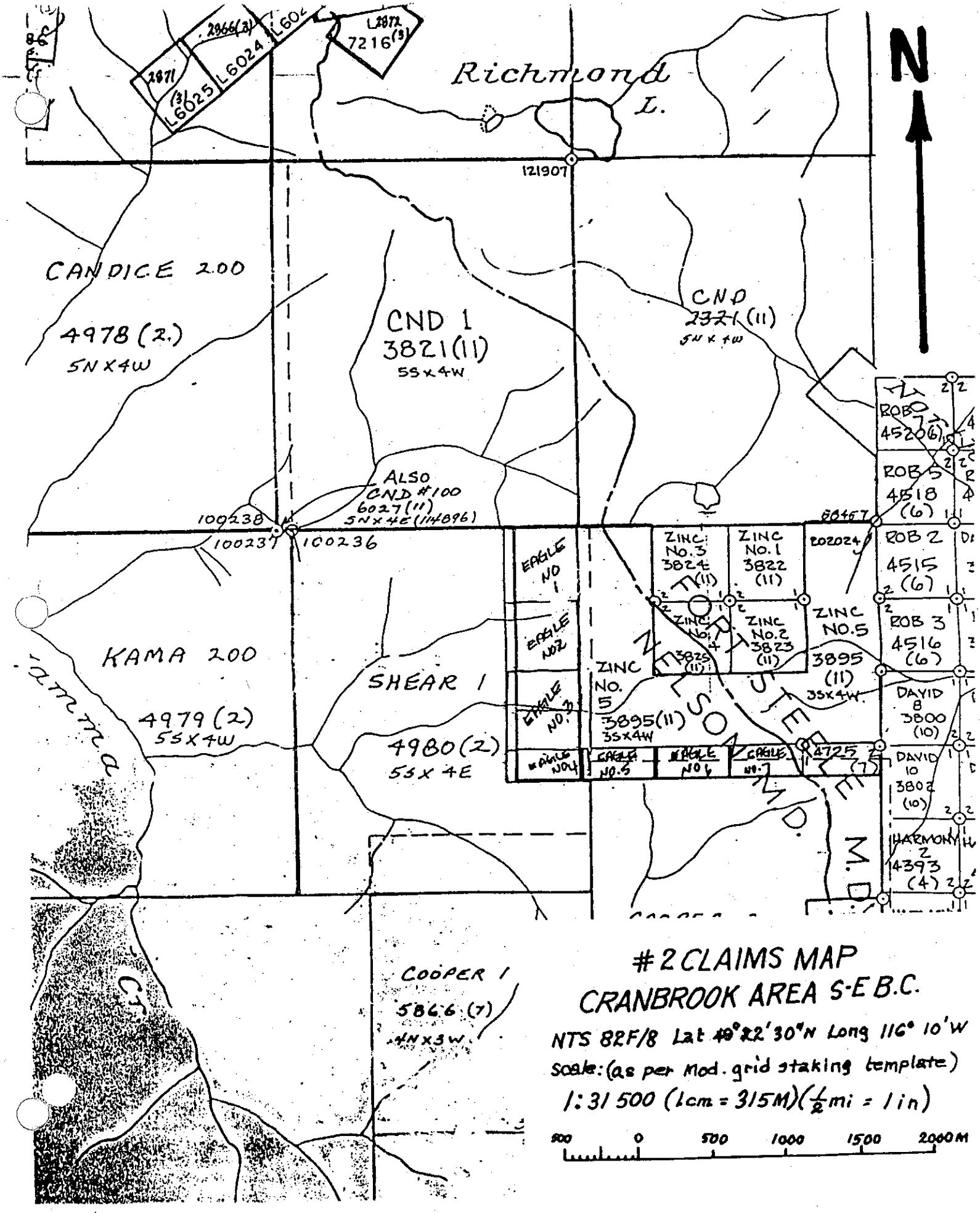
HISTORY

The carbonitite occurrence on the Zinc claims appears to have been first explored by a syndicate of miners from Kimberley. A diamond drill hole was drilled at about 45° inclination, along strike to the north and to a depth of about 60ft. The best reported assays from this effort were 1.4oz/t Ag, 4.58% Pb, 1.09% Zn, .34% WO_3. No other references to the occurrence have been uncovered.



#1 LOCATION MAP
CRANBROOK AREA S-E B.C.

Scale: 1:250000 (1 cm. = 5 km.)



#2 CLAIMS MAP
CRANBROOK AREA S-E B.C.

NTS 82F/8 Lat 49°22'30"N Long 116° 10'W

Scale: (as per Mod. grid staking template)

1:31 500 (1cm = 315M)($\frac{1}{2}$mi = 1in)

500 0 500 1000 1500 2000M

REGIONAL GEOLOGY

The regional geological setting is presented on map #3 Composite Map of Regional Geology Cranbrook B.C. This map was compiled from provincial, federal, and corporate maps of the area and presented on a 1cm=1000m format. The map shows the location of the Zinc claims in relation to the main rock units and major faults. As well, it shows the major decollment produced by thrusting related to intrusion of the Bayonne batholith west of the Goat River. This major discontinuity is believed to be represented at the surface by the Old Baldy and Palmer Bar faults. The thick resistive Aldridge turbidites incorporating structurally resistive Moyie diorite sills appears to have acted as a "Massif." The Upper Aldridge argillite then played the role of a glide plane between the lower unit and the Creston and later arenites/argillites in the upper plate. This latter block of sediments is characterized by folding and imbricate faulting.

The claims are located with respect to the local physiography on map #4 North Moyie topographic map.

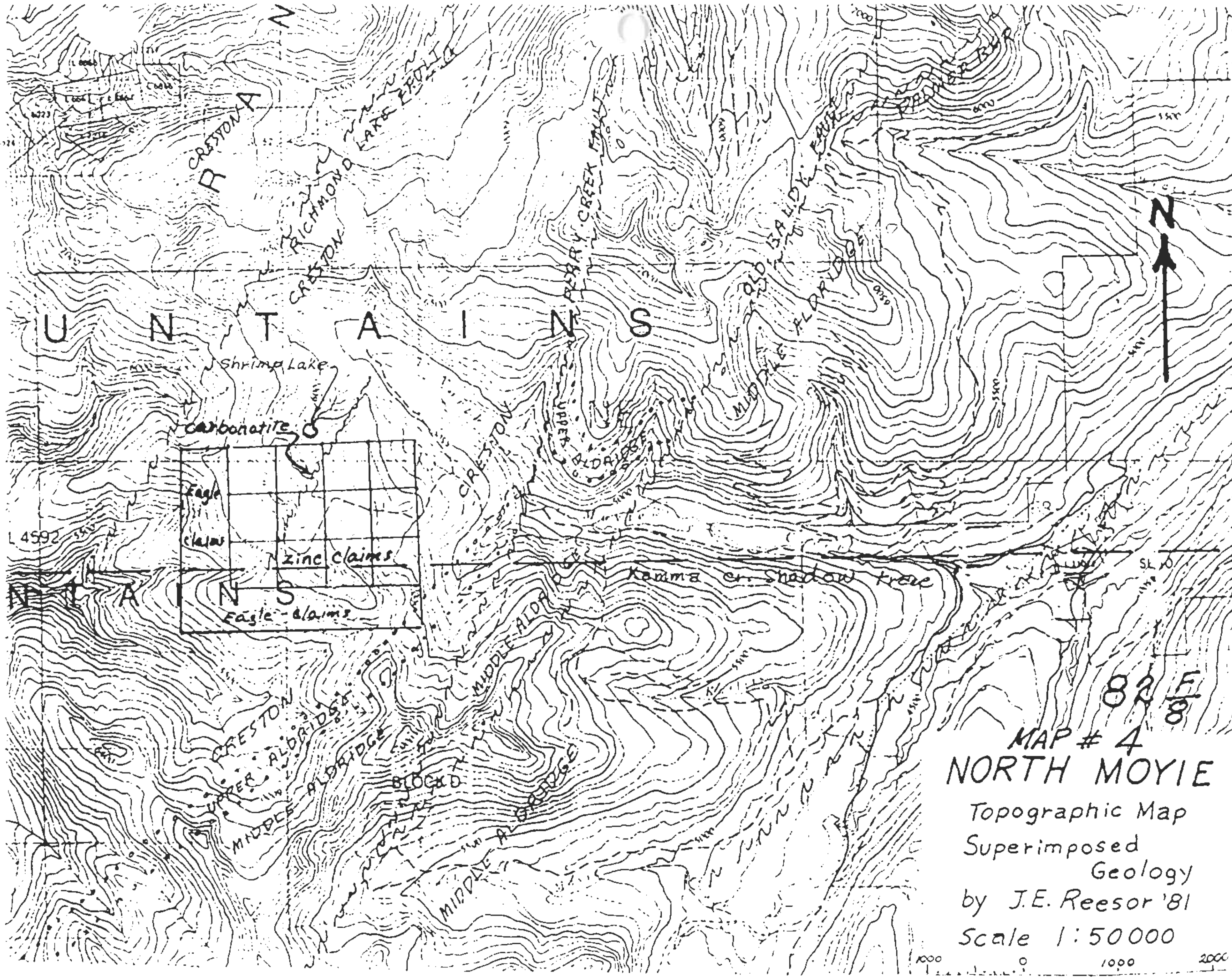
MAP #3 REGIONAL GEOLOGY

CRANBROOK AREA B.C.

LEGEND

- Kgr — CRETACEOUS granite
- Eec — CAMBRIAN Eiger and Cranbrook Formations
- HELIKIAN Purcell Super Group
- Hgr — Purcell or Moyie intrusive granite or pegmatite
- Hk — Kitchener & Dutch Cr. equivalents of Siyeh
- Hd
- Hc — Creston
- Ha2 — Aldridge middle & upper
- Ha1 — Aldridge lower
- Anticline
- Monocline
- Anticline overturned
- Formation boundary
- Major fault
- Minor fault
- E-W shadow trace
- mineral occurance or mine

Scale 1in = 4mi



CRESTON
RICHMOND LAKE FAULT
CRESTON
PERRY CREEK FAULT
OLD BALDY FAULT
U. ALDRIDGE
MIDDLE ALDRIDGE
U N T A I N S
Shrimp Lake
carbonatite
UPPER ALDRIDGE
CRESTON
Eagle claims
L 4592
zinc claims
N T A I N S
Eagle-claims
Kamma cr. Shadow tree
MIDDLE ALDR
CRESTON
UPPER ALDRIDGE
MIDDLE ALDRIDGE
BLOCKD
MIDDLE ALDRIDGE
82 F/8
MAP # 4
NORTH MOYIE
Topographic Map
Superimposed
Geology
by J.E. Reesor '81
Scale 1:50000
1000
0
1000
2000

1993 FIELD SEASON

Diamond drilling. The diamond drill hole was collared in light green middle Creston siltstone and quartzite on a bearing of 097° and 36° inclination. The objective was to intersect a small fault determined from air photos, at 23M.

Drilling was slow but steady in the very hard rock. Unfortunately, the hole had to be abandoned at 18.3M (60') for lack of a sharp bit. No significant quartz veins were intersected (see core log).

Magnetometer survey. Previous success, with the McPhar M700 vertical field magnetometer, in delimiting faulty zones as magnetically positive and quartz veins as negative prompted the attempt to obtain similar data on the Zinc/Eagle claims. Accordingly, three lines were run across the claims. Unfortunately the largest meteor storm in decades occurred at the same time. The effect of this solar phenomenon was to cause a very erratic background precluding using the 1K or 3K scales. The 30K scale functioned reasonably reliably but, of course, suppressed the detail that had been hoped for. All readings were rationalized and only the residuals were plotted. These require a somewhat variable interpretation. A $\pm$.3 (x30K) value was considered anomalous along any line. Correlation between the lines has been done on the basis of orientation rather than the residual values themselves.

Anomaly #1, in the S.E. corner of the property points up the dubiousness of selecting an arbitrary value as anomalous. Discrimination between the -.3K values and the surrounding -.2K values suggest that this is not anomalous.

Anomaly #2 shows a discrimination of up to .6K and appears to be two thin magnetic beds in the lower Creston.

Anomaly #3 is the main magnetic zone in the lower Creston that appears on the regional aeromagnetic maps.

Anomaly #4 is probably another thin magnetic bed in the lower Creston.

Anomaly #5 is a gravity strike fault near the middle-lower Creston contact that has probably fixed varying amounts of the lower Creston magnetic material along its length.

Anomaly #6 and 7 would appear to be quartz veins, possibly the same one. This vein was projected from a previous soil sample gathered just north of this location which showed a small gold value.

Anomaly #8 is probably a small fault on the west limb of the anticline.

Anomaly #9 is the Richmond Lake #2 fault. Interestingly enough the large amount of quartz associated with this major fault tends to make it appear neutral or slightly negative except for the one reading on the most northerly line.

The most southerly line shows very little discrimination probably as the result of increasing depth of overburden. An attempt to come in from the west, up Kamma Creek, in order to run

a fourth line was frustrated by being unable to locate the correct road. The effort cost a valuable day of fine weather.

GEOLOGY

The majority of the geology was previously reported in the evaluation report of January 1992. Additional strikes and dips underscore the regionality of the strike. Dips vary somewhat depending on proximity to faults or the minor folds.

The Richmond Lake #2. This fault appears to be of the type reported by Trygvie Hoy in Bulletin 84, January 1993. The compressional folding east of the fault is indicative of the early eastward thrust along this structure. Subsequently, tensional forces have transformed the feature into a gravity fault bringing Upper Middle Creston to the west in juxtaposition with Middle to Lower Middle Creston in the anticline on the east side.

The expansion of the alteration zone along the fault to the south west may be a function of the fault cutting down section into the core of the anticline. This zone shows a good deal of phyllite probably more related to the fold than the fault. Considerable earthy haematite is probably also indicative of the pyrite developed by the low grade metamorphism of the tight fold. Contorted quartz veining courses throughout the zone plugging all fractures and forming an impermeable barrier to the subsequent gold bearing hydrothermal solutions.

The Shrimp Lake fault. This fault is parallel to the Richmond Lake #2 fault but is the result of only the tensional phase of the deformation. No compressional folds are in evidence and it is a normal fault with lower Middle Creston on the west side against upper Lower Creston on the east.

CONCLUSIONS

1. The meteor storm severely limited the magnetic definition obtainable.

2. The -15K value along the road is probably a quartz vein. Being located directly north of the 35PPB Au soil sample, this vein could be the source of the gold.

3. This probable vein appears to be associated with a second small fault parallel to the one being drilled.

4. The Richmond Lake #2 fault appears to intersect the anticline in Zinc #5 and Eagle #2 exposing an extensive shear zone with considerable quartz veining.

RECOMMENDATIONS

1. Detailed magnetometer work should be done across the two parallel faults by the drill site.

2. Detailed magnetometer work should be done south west of the ridge on the east side of the Richmond Lake fault.

3. Detailed soil sampling should be carried out along the parallel faults.

4. DDH #4 should be deepened to 30M.

5. DDH #5 should be drilled on the eastern most of the two faults.

6. Another attempt should be made to come into the property from the Kamma Creek side to do a magnetometer survey over the S.W. extension of the Richmond Lake #2 fault.

7. A soil sample line should be run along the Richmond Lake #2 fault to the S.W.

REFERENCES

Annual Reports of Department of Mines, Province of British Columbia

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1922	p. 188
1923	p. 207
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Leech, G.B. St. Mary Lake, B.C., G.S.C. Map #15

Hoy, Trygve Geology of the Cranbrook Sheet and Sullivan Mine Area (Preliminary Map No. 54).

Reesor, J.E. Grassy Mt., B.C., G.S.C. Open File #820

Rice, H.M.A. G.S.C. Memoir #207, 1937

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Schofield, S.J. G.S.C. Memoir #76, pp. 147-152.

McMechan, M.E. & Price R.A. Can. Jour. Earth Sciences, 1982 Vol 19 #3 P.P. 476 - 489 ; # 5 P.P. 1011 - 1024

McMechan, M.E. Bul. Can. Pet. Geol. Vol. 29, #4 (Dec. 81), P. 583-621

Hoy, Trygve Bul. 84 Geol. of Purcell Supergroup Fernie W. half S.E. B.C. 1993

QUALIFICATIONS

14.1 The writer, N. Gass, obtained his B.Sc. in geology from Dalhousie University, Halifax, N.S. in 1955 and his M.Sc. in geology from the same institution in 1957.

14.2 Experience

1955 Detailed mapping & prospecting American Smelting and Refining Ltd., Newfoundland.

1956 Regional mapping and detailed study of Pegmatites of the Winnipeg River, Manitoba Department of Mines.

1957-62 Surface and subsurface exploration, mapping, wellsite and special projects in Saskatchewan, Alberta, & British Columbia. Chevron Standard Oil Co. Ltd.

1963 Wellsite consultant, Chevron Standard.

1964 Developed House Mt. Oil field for Chevron Standard.

1971 Uranium and base metal exploration in Saskatchewan for V. Zay Smith and Associates, Calgary.

1976 Uranium exploration northern Saskatchewan for Rio Alto Exploration Ltd.

1979 Drilling program on fossil placer, Gay's River, N.S., Calgary syndicate.

1980 Drilling program Nelson, B.C. for Dekalb Mining.

1981 Geological mapping and geophysical survey, La France Creek, B.C., Dekalb Mining.

1982 Lithium, tantalium, gemanium prospecting and reconnaissance survey, Winnipeg River, Manitoba, Dekalb Mining.

1983-90 Base metals, gold/silver prospecting, Cranbrook, B.C.

1'=30.5cm

DRILL LOG DDH #4

Bearing 097° Inclination 36° TD 60'

0-9'	Middle Creston siltstone. med. grey argillaceous indistinct bedding at approximately 10°. Wavy foliation at 45°, minor haematite and epidote along shears parallel to foliation.
9-18'	Light grey, thin, regular bedded siltstone with slightly more argillaceous thin 1-5mm bands of darker grey. Occasional sheer at 45°. Some epidote on bedding plains.
18-26	Light grey massive siltstone with minor epidote on bedding plains. No foliation. One sheer at 80°.
26-26.1	Vuggy quartz vein with dark haematite in vugs.
26.1-29	Dark grey siltstone very fractured with haematite on fractures. Very little bedding.
29-35	Massive medium grey siltstone minor wispy epidote. Quite featureless.
35-40	Massive medium grey siltstone with silicified white patches. Thin (1mm) epidote banding with almost dendritic looking argillite patches.
40-48.5	Light grey siltstone moderately well thin bedded. One scour and interlaminar breccia for 1.5".
48.5-49	Massive pale green arenite.
49-51	Medium grey siltstone with indistinct argillaceous banding.
51-56.5	Massive pale grey very fine grained arenite with 4" band of .5mm argillaceous banding at 53.5'
56.5-60	light grey argillaceous siltstone. Irregularly banded with dark argillite. Several show courser up deposition.

APPENDIX B

ZINC CLAIM GROUP ASSESTMENT REPORT
1993

July 24th . Two men 8 hrs. cutting blowdown off old road and hauling diamond drill to Zinc Group drill site ----------$ 300.00

July 31st. Two men 8 hrs. setting up diamond drill and drilling 4 feet ----------$ 300.00

Aug. 1st. Two men 10 hrs. diamond drilling 21 feet ----------$ 375.00

Aug 2nd. Two men 8 hrs diamond drilling 10 feet ----------$ 300.00

Aug 7th. Two men 8 hrs diamond drilling 15 feet ----------$ 300.00

Aug. 14th. Two men 10 hrs diamond drilling 10 feet and hauling diamond drill back to town. ----------$ 375.00

Diamond drilling 60 feet @ $ 17.50 per foot ----------$ 1050.00

Transportation 3/4 ton 4x4 truck @ $ 50.00 per day ----------$ 300.00

TOTAL----------$ 3300.00


N
LEGEND
HELIKIAN (PROTEROZOIC)
Hc2 MIDDLE CRESTON gry. blky. sltstn/fin. qtzite. 30cm. bds. rpl. mkd. prpl. mkd. + lined mtld. blk./prpl. argil+fin bd. sltstn. wh. qtzite. assoc. prpl. mud chip breccias.
Hc1 LOWER CRESTON thin bd. dk. argil + grn. sltstn pinch + swell bdn. rpl. mkd. X-lam. md. crks. cut + fill grn. sltstn. intb of argillite.
Ha3 UPPER ALDRIDGE NOT PRESENT
Ha2 MIDDLE ALDRIDGE NOT PRESENT
Cliff edge + Mining Division Boundary
Claim Line with legal post
Road
Stream
Geological Boundary
Fault (established)
Fault (approx.)
Fault (projected)
Strike + dip of bedding
Strike + dip of foliation
Anticlinal Axis with Plunge
Synclinal Axis with Plunge
Magnetic Anomaly
Residual (X 30K)
Diamond Drill Hole #4
GEOLOGICAL BRANCH
ASSESSMENT REPORT
23,121
GEOLOGICAL & GEOPHYSICAL MAP #5
ZINC/EAGLE CLAIMS
by N. Gass
North Moyie Cr.
82F/8
Lat. 49° 22' 30" N Long. 116° 10' W
Scale: 1:2500 1cm. = 50M
EAGLE # 1
EAGLE # 2
EAGLE # 3
EAGLE # 4
EAGLE # 5
EAGLE # 6
EAGLE # 7
EAGLE # 8
ZINC # 1
ZINC # 2
ZINC # 3
ZINC # 4
ZINC # 5
SHRIMP LAKE FAULT
RICHMOND LAKE FAULT
sericite Phyllite + haematite zone with quartz veining
main magnetic zone of rusty brown quartzite
Nancy's Cr.
Jean's Creek
Christie's Creek
DDH 4
FT. STEEL
NELSON
LOCATION MAP
ZINC/EAGLE CLAIMS
North Moyie Creek
MOYIE RIVER