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10/87

GEOLOGICAL REPORT
ON THE
RACHEL AND CASCADE
MINERAL CLAIMS

NTS 93L/14W

Omineca Mining Division

Latitude 54°47'N Longitude 127°16'W

October 20, 1986

Robert Holland, B.Sc., F.G.A.C.
Holland Geoservices Ltd.

TABLE OF CONTENTS

LIST OF FIGURES

SUMMARY

The Rachel-Cascade mineral property, consisting of nine claim units, is located on Hudson Bay Mountain, five kilometers west of Smithers, and is accessible by four wheel drive road. At least ten silver-gold-lead-zinc mineral occurrences have been reported within the claims in the past, and these have previously been explored by at least six adits, a shaft and numerous open cuts and trenches. Five of these occurrences were relocated, mapped and sampled during 1985-86 to evaluate their mineral potential. Results indicate good grades for silver-gold-lead-zinc over narrow widths, ranging up to 30cm, within shear zones ranging up to 10 meters wide. Several of these shears showed good strength and continuity along strike, and reconnaissance work has indicated the presence of several additional rusty weathering shear zones. Scattered mineralized talus debris was found in several areas, including below at least one of these shears. The source of this debris is not yet known. Work to date has been preliminary in nature and more detail is required to fully assess the mineral potential. Further work in the form of geological mapping, sampling, prospecting and geophysics is recommended.

INTRODUCTION

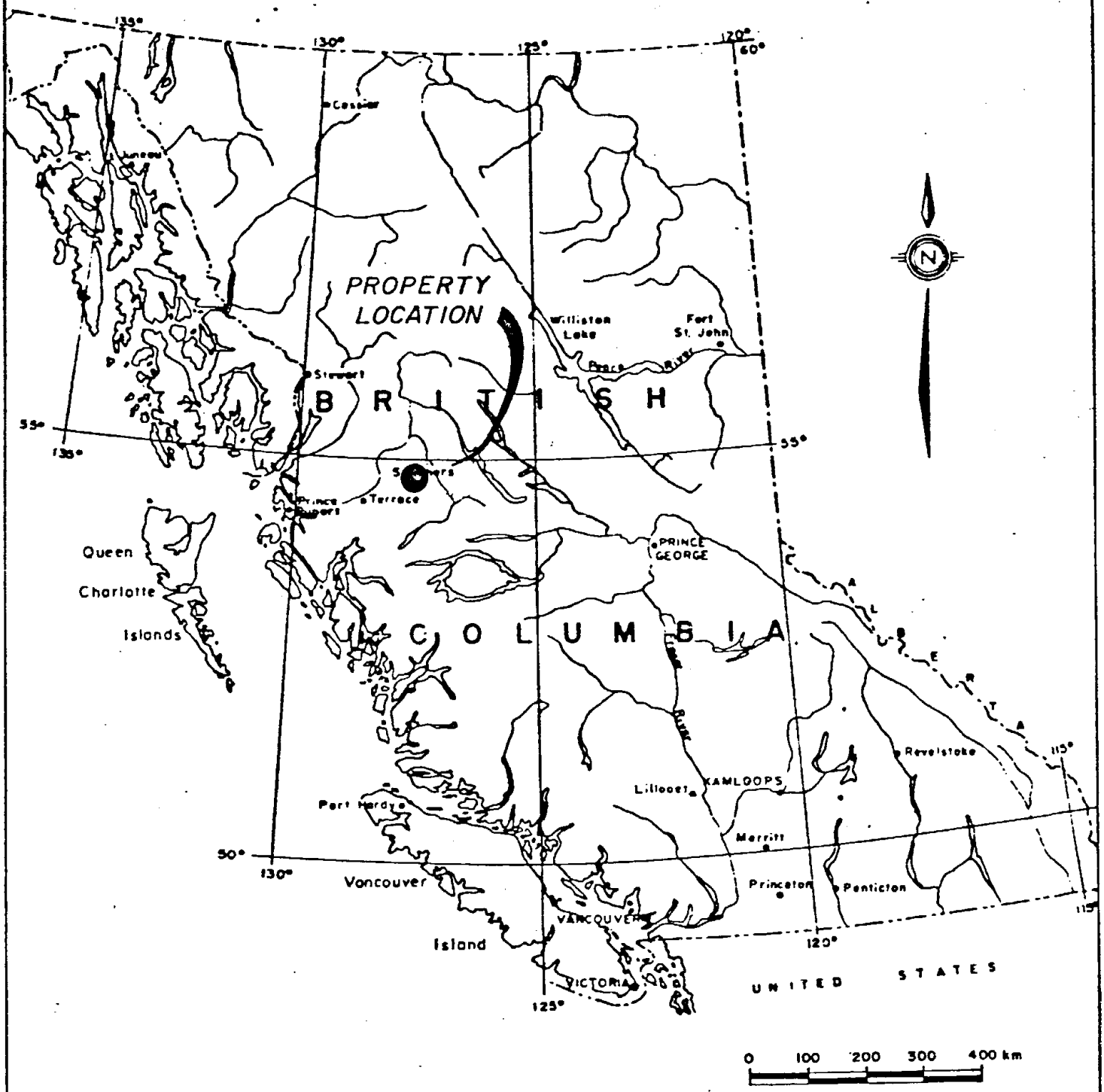
The Smithers-Hazelton area has seen a great deal of mineral exploration activity since the early 1900's, and numerous gold-silver mineral occurrences have been located and investigated over the years. Several of these prospects, including the Cronin-Babine, Duthie, Rocher Debould and Silver Standard mines have, in the past, produced significant quantities of silver, copper, lead, zinc and gold from narrow but high grade veins.

At least 50 mineral occurrences have been discovered and investigated on Hudson Bay Mountain since 1908, and development work has continued intermittently to the present on many of the properties. The most significant producer to date has been the Duthie (Sil Van) Mine, located on the southwest side of the mountain within 5 kilometers of the Rachel Group. Intermittant operations during the period from 1923 to 1957 removed in excess of 81,000 tons of ore averaging 21.3 oz/ton Ag, 0.04 oz/ton Au, 4.87% Pb, 4.02% Zn, with minor Cu and Cd. This property is currently being operated on a small scale.

Work in the immediate vicinity of the current Rachel and Cascade claims began as early as 1909, and three tons of ore were shipped in 1914 from the Empire Group (Rachel claim). The main period of development, however, occurred between 1923 and 1931, during which several exploratory adits and numerous open cuts were established on many of the known showings, including the Empire, Dorothy, Heather and Cascade occurrences (see figure 2). Low metal prices, particularly for gold and silver, resulted in many of the claims lapsing or reverting until the early 1950's, when further work including bulldozer trenching and stripping was carried out. Much of the ground was again tied up during the 1960's and 1970's as a result of the interest in the Climax molybdenum property just to the north, however, little significant work was reported on these occurrences during this time. The Empire, Dorothy, Heather and Cascade mineral occurrences were restaked in July 1985 as the Rachel-Cascade claim group. Several of the old showings were relocated, mapped and sampled during 1985-86.

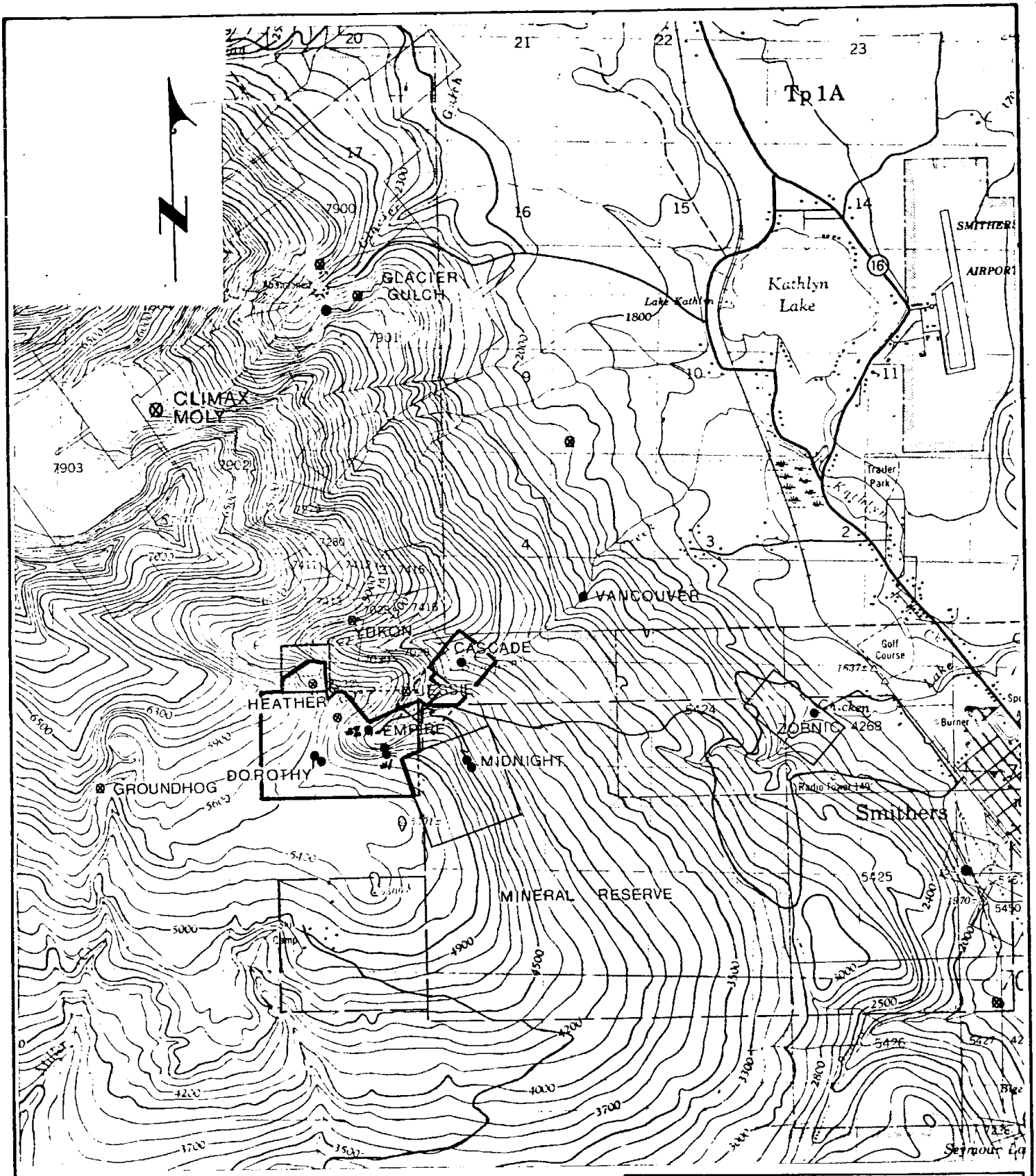
CLAIM STATUS

The Rachel-Cascade claim group is comprised of the



LOCATION MAP

FIGURE 1



● Mineral Occurrence – located

⊠ Mineral Occurrence – approx.

RACHEL AND CASCADE CLAIMS

TOPOGRAPHY AND MINERAL OCCURRENCES

Scale 1 : 50,000	Date JAN 1983	NTS 93L14
Revised	By R.H.	Fig 2

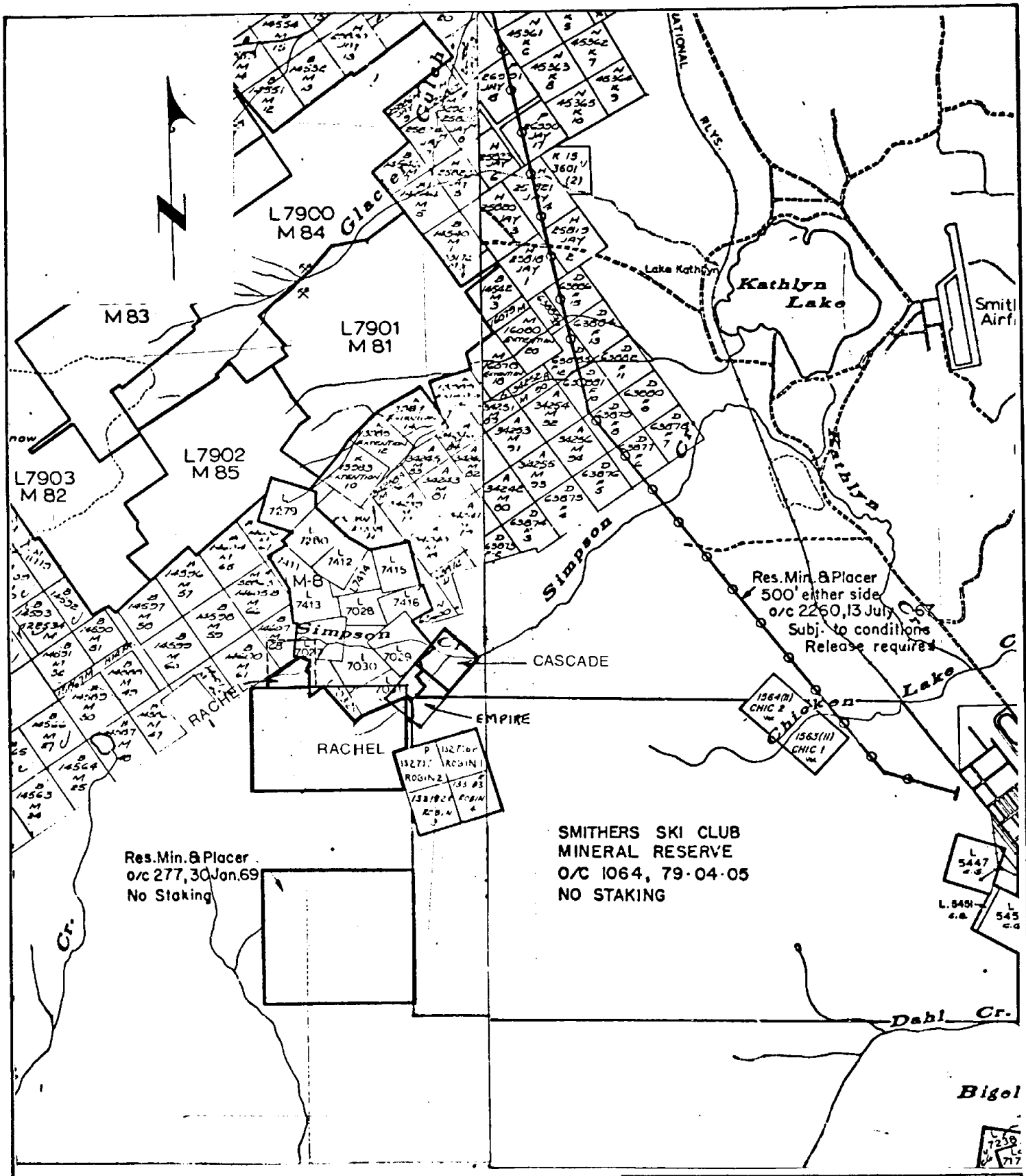
following mineral claims. These claims are currently owned and recorded in the name of the author (see figure 3).

Claim Name	Units	Record No.	Record Date
Rachel	6	7204	Aug. 1/85
Rachel 1	1	7250	Aug. 1/85
Cascade	1	7203	Aug. 1/85
Empire	1	7725	July 30/86

LOCATION AND ACCESS

The Rachel-Cascade claims are located on the south-eastern slope of Hudson Bay Mountain, 5 kilometers west of the town of Smithers in north central British Columbia. The Rachel and Rachel 1 claims straddle the south fork of Simpson Creek near its head, ranging in elevation from 4100 to 6100 feet. The Cascade claim is located just to the northeast at the junction of the north and south forks of Simpson Creek at elevations 3400 to 4100 feet. The Empire claim also straddles the south fork, connecting the Rachel and Cascade claims. The terrain is generally steep and rugged, with the Rachel claims being largely above treeline and the Cascade and Empire claims below treeline.

A four wheel drive road of about 6 kilometers length leads from the northern edge of Smithers, through the Empire claim, to the center of the Rachel claim (see figure 2). This same road passes within 100 meters of the Cascade claim. Access can also be made to the upper portions of the Rachel claims from the local ski hill, one kilometer to the south, by an easy hike over gentle alpine terrain. Helicopter access is also available from several bases in Smithers.



RACHEL AND CASCADE CLAIMS

CLAIM MAP

Scale 1 : 50,000	Date JAN. 1983	NTS 93L14
Revised	By R.H.	Fig 3

The Smithers area lies along major northern highway and railway systems which connect the region to important urban centers to the east, south and west. These routes plus a major power transmission line pass within four kilometers of the claims. Daily direct air service to Vancouver, Prince George and other points is also available.

GEOLOGY

The Hudson Bay Mountain area is underlain largely by variegated red, maroon, and grey-green basaltic to rhyolitic breccias, tuffs, and flows of the lower Jurassic aged Telkwa formation. Overlying these rocks in several areas is a relatively thin unit of red fine-grained tuffs and breccias called the 'Red Tuff Member'. These tuffs and breccias are also of lower Jurassic age and are conformably overlain by the middle Jurassic aged Smithers formation of greywackes, lithic sandstones, siltstones, shales, tuffs, breccias, grits, and minor conglomerates. All three of these units form part of the regionally extensive Hazelton Group. Unconformably overlying the Hazelton Group rocks are black to dark grey shales, chert pebble conglomerate, and greywacke of the lower Cretaceous Red Rose formation of the Skeena Group.

Intruding the volcanic and sedimentary stratigraphy are a series of small porphyritic granodiorite and quartz monzonite stocks and dykes of the late Cretaceous aged Bulkley Intrusions. At least ten of these bodies have been noted in the Hudson Bay Mountain vicinity and all appear to be related to the larger stock located at depth on the Climax MoS_2 property. Alaskite dykes are common also and are probably a later phase of the Bulkley Intrusions.

Within the Rachel and Cascade claims, the rocks are

principally purple and green andesite and rhyolite flows and breccias. No intrusive stocks or major dykes have been noted in this area; however, the country rocks are largely hornfelsed and rusty. At least one narrow Alaskite dyke has been reported.

MINERALIZATION

Mineralization on Hudson Bay Mountain occurs primarily in shear controlled veins forming a concentric distribution around the Climax porphyry molybdenum deposit and its related intrusive core. The veins commonly consist of silicified and altered wall rock with some quartz, containing variable amounts of mainly pyrite, galena, arsenopyrite, sphalerite, and chalcopyrite. Silver values occur largely associated with galena, and gold with arsenopyrite and pyrite.

There are at least nine known mineral occurrences in the immediate Simpson Creek area as shown in figure 2. Three of these, the Empire, Cascade and Dorothy occurrences, lie within the Rachel-Cascade property and include nine reported mineralized showings. A fourth occurrence, the Heather, has not yet been accurately relocated, but also appears to lie within the claims. Of the remaining five occurrences, three, the Jessie, Yukon and Midnight, lie within 500 meters of the property.

1) Empire - The Empire workings are located on the Rachel claim in a small, steep-walled basin near the head of the south fork of Simpson Creek between elevations 4700 and 5200 feet (see figure 2). Most of the work was carried out between 1909 and 1929 by D.C. Simpson and during this time at least three adits, a 3 meter shaft, and numerous open cuts were excavated on four mineralized structures.

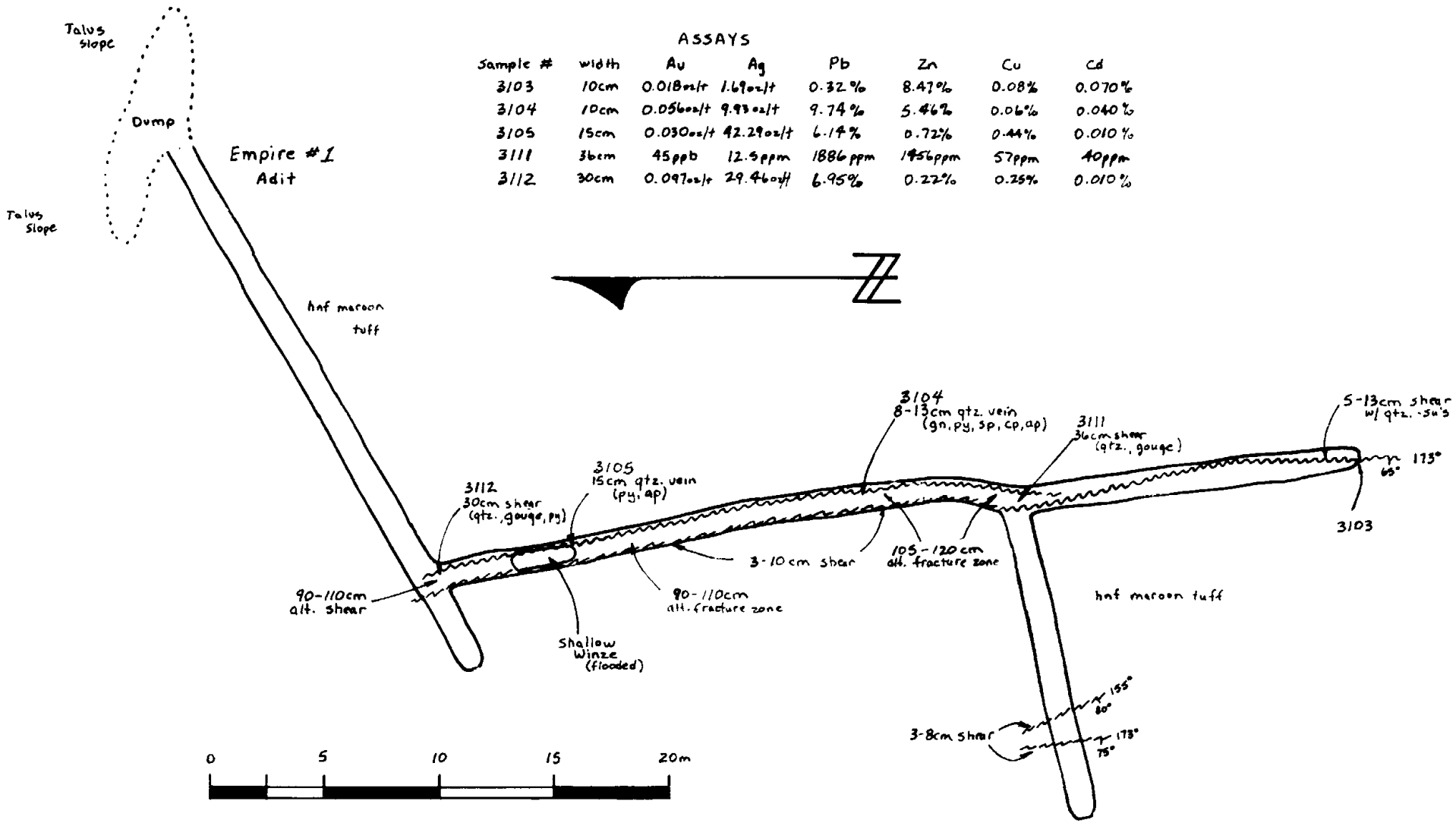
In 1914, a three ton shipment of ore assaying 245 oz/ton Ag and 40% Pb was made from the shaft. In 1952, one hundred eighty meters of bulldozer trenching was carried out in talus below the Empire #1 vein, and some stripping was done at the Empire #2 vein.

On the south side of the basin, a strong shear zone can be traced up a large cliff face between elevations 4735 and 5100 feet. The shear is referred to in this report as the Empire #1 vein. The shaft and a 6 meter drift were driven on this shear near the top of the bluffs at elevation 5100 feet. Narrow streaks and a few bunches of galena and sphalerite were exposed in a siliceous vein up to 30 centimeters wide. A selected high grade specimen from the adit assayed 0.06 oz/ton Au, 207 oz/ton Ag, 25.3% Pb and 18.6% Zn (1914).

Near the base of the cliffs at elevation 4735 feet, is the Empire #1 crosscut adit which was driven at S60°W for 26.0 meters as shown in figure 4. The shear vein was intersected at 21.5 meters and drifted on for 41.5 meters at S10°E. A 14.0 meter crosscut was also run at S77°W from a point 26.5 meters along the drift. The shear dips approximately 65-75° west and consists of a 90-120 centimeter altered fracture zone with a well mineralized 8-30 centimeter quartz-sulfide vein, with gouge, along the footwall. At 26.5 meters along the drift, the fracture zone narrows substantially with the footwall vein pinching out and reappearing on the hanging wall. To the south, this shear vein continues, with little fracturing, to the face where it consists of 5-13 centimeters of shearing with quartz-sulfides. Sulfides consist of sparse to abundant pyrite with locally abundant galena, sphalerite, arsenopyrite, and lesser chalcopyrite and tetrahedrite. Five chip samples, four from the vein and one from the fracture zone, were collected from

ASSAYS

Sample #	width	Au	Ag	Pb	Zn	Cu	Cd
3103	10cm	0.018oz/t	1.69oz/t	0.32%	8.47%	0.08%	0.070%
3104	10cm	0.056oz/t	9.93oz/t	9.74%	5.46%	0.06%	0.040%
3105	15cm	0.030oz/t	42.29oz/t	6.14%	0.72%	0.44%	0.010%
3111	36cm	45ppb	12.5ppm	1886ppm	1956ppm	57ppm	40ppm
3112	30cm	0.097oz/t	29.46oz/t	6.95%	0.22%	0.25%	0.010%



qtz. - quartz
Su's - sulfides
hnf - hornfelsed
alt. - altered
~~~ - shear
~~~ - shear-vein

py - pyrite
gn - galena
sp - sphalerite
ap - arsenopyrite
cp - chalcopyrite

Rachel-Cascade Claims
Empire #1 Adit

Scale 1:250 NTS 93L/14W
September 1986

Figure 4

R. Holland

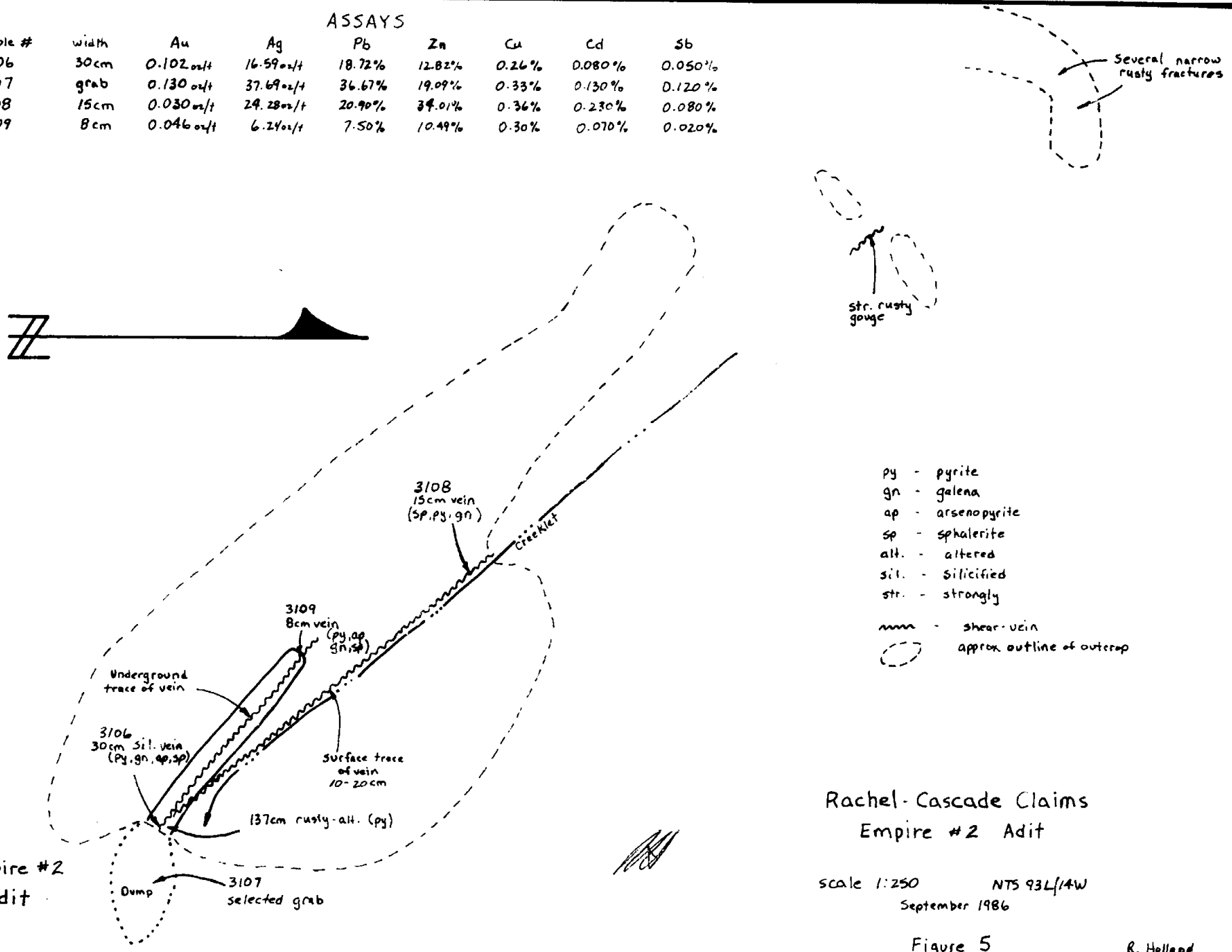
the drift as shown in figure 4. The vein samples ranged in grade from 0.018-0.097 oz/ton Au, 1.69-42.29 oz/ton Ag, 0.32-9.74% Pb, 0.22-8.47% Zn with minor Cu and Cd values. These results are comparible to a 1929 sample from the face which ran 0.04 oz/ton Au, 12.0 oz/ton Ag, 7.6% Pb and 8.2% Zn over 23 centimeters. The fracture zone contained anomalous but uneconomic values for Ag, Pb and Zn.

The shear vein is hosted in a hornfelsed fine-grained maroon to pale maroon-grey tuff which weathers rusty in outcrop. On surface west of the portal, the shear outcrops as a recessive, rusty weathering cleft in the cliff. Here the zone is at least 3.0 meters wide and strikes approximately S20°E, dipping 80°W. Manganese staining is common and the zone contains abundant strongly bleached and silicified tuff. A second shear at approximately S55°E, dipping 45°S, intersects the main shear in the cliffs above the portal.

On the northwest side of the basin, a vein striking N50°W and dipping 50°SW has been explored by surface stripping for 20 meters and by an 11 meter drift adit (Empire #2 adit) as shown in figure 5. This vein, referred to here as the Empire #2 vein, consists of 8-30 centimeters of silicified wall rock and some quartz with abundant to near massive pyrite-galena-sphalerite-arsenopyrite in varying proportions. In the portal, the vein is enclosed within a rusty, weakly to moderately altered and bleached fracture zone containing up to 5% disseminated pyrite over 137 centimeters. This fracture zone can be traced to the northwest along a small creeklet and linear depression for at least 45 meters at which point suboutcrop of strongly rusty gouge material was noted. Three chip samples across the vein, as well as a selected high grade sample from the dump, were collected. Assay results ranged from 0.030-0.130

ASSAYS

Sample #	width	Au	Ag	Pb	Zn	Cu	Cd	Sb
3106	30cm	0.102 oz/t	16.59 oz/t	18.72%	12.82%	0.26%	0.080%	0.050%
3107	grab	0.130 oz/t	37.69 oz/t	36.67%	19.09%	0.33%	0.130%	0.120%
3108	15cm	0.030 oz/t	29.28 oz/t	20.90%	39.01%	0.36%	0.230%	0.080%
3109	8cm	0.046 oz/t	6.24 oz/t	7.50%	10.49%	0.30%	0.070%	0.020%



Rachel-Cascade Claims
Empire #2 Adit

scale 1:250 NTS 93L/14W

September 1986

Figure 5

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oz/ton Au, 6.24-37.69 oz/ton Ag, 7.50-36.67% Pb, and 10.49-34.01% Zn with significant values also for Cu, Cd and Sb as shown in figure 5. The dump sample ran similar to two previous dump grab samples by the Ministry of Mines in 1920 and 1938.

West of the Empire #1 shear and on the same side of the basin are several other fracture zones delineated by distinct clefts in the cliffs. One of the more prominent of these trends S40°E, dipping roughly 60°SW and appears to be on strike with the Empire #2 zone several hundred meters to the northwest. Just below the base of the cliffs, this fracture zone is intersected from the south and west by at least three aditional fracture zones forming a radiating pattern. Access to these was difficult due to steep terrain, snow packs and debris. No vein material was noted in place where examined; however, several pieces of strongly rusty silicified debris with local remnant galena were noted in the talus fan immediately below these zones.

Several other mineralized occurrences have been reported in the past in the vicinity of the Empire veins. None of these were located or visited in 1986. The following descriptions are summarized from previous reports (Minister of Mines):

1) at 5200 feet elevation is an apparently wide zone which is traceable for considerable distance striking north-south and dipping west. A 61 centimeter vein sample from a small cut assayed 0.30 oz/ton Au, 6 oz/ton Ag, 1% Cu and 25.2% Pb (1929). Another sample from a small cut about 200 meters north assayed 0.76 oz/ton Au, 7 oz/ton Ag, 1% Cu and 23.4% Zn over 13 centimeters (1929)

2) a flat lying andesite bed, slightly impregnated with galena, sphalerite and pyrite, is cut by several small open cuts

3) 30 meters north of 2) is a 15 centimeter vein with

arsenopyrite

4) a felsite dyke, 10-15 centimeters wide with sparse arsenopyrite, galena and sphalerite

2) Dorothy - The Dorothy occurrence lies west of the Empire showings, above the basin at the head of the south fork of Simpson Creek (elevation 5400 feet). This showing was visited briefly in 1985. Past work consisted of surface stripping and several open cuts which trace a rusty, manganese stained zone for several tens of meters. This zone strikes N55°W, dips 58° southwest and contains several small veins. Several arsenopyrite-rich, arsenic-stained lenses were noted locally with galnea-pyrite-sphalerite-chalcopyrite seams and stringers. A dump grab sample with galena-pyrite-sphalerite assayed 0.230 oz/ton Au, 1.79 oz/ton Ag, 2.09% Pb, 1.42% Zn, 0.02% Cu (1985). An arsenopyrite-rich sample assayed 0.264 oz/ton Au and 0.76 oz/ton Ag. A sample of disseminated pyrite returned only low gold and silver values.

3) Heather - The Heather showing occurs at elevation 5350 feet, on the north side of the ridge separating the two forks of Simpson Creek. Here, an open cut exposes a 1.3 meter wide shear zone cutting volcanics at about N10°W and dipping about 50° southwest. Mineralization, in the form of arsenopyrite and sphalerite, occurs over an 84 centimeter width of the shear, and a sample taken across this assayed 0.10 oz/ton Au, 0.5 oz/ton Ag, and 3.4% Zn (1931). This showing was not located but appears to lie within the Rachel 1 claim.

4) Cascade - The Cascade mineral occurrences, located on the Cascade claim, occur at approximately 3550 feet elevation along the south fork of Simpson Creek, at its junction with the north fork. This area is steep, rugged and over-

grown with thick underbrush. Work was initiated in 1912, with most of the development occurring during the early to middle 1920's. Three adits were driven during this period, including a 97 meter long crosscut. All three tunnels are accessible although the upper two are partially blocked at the portal, and the lowermost is making considerable water.

The upper showing outcrops in the creek approximately 100 meters above the forks. At this point, it consists of a 8-15 centimeter quartz vein at S80°E, dipping 42°S, with abundant pyrite and lesser arsenopyrite, sphalerite, galena and minor chalcopyrite. The vein is hosted in a fine-grained hornfelsed and often bleached maroon to grey tuff. Just above the upper adit portal, twelve meters east of the creek showing, is a 10 centimeter wide quartz-carbonate vein with arsenopyrite, pyrite and lesser galena striking roughly S80°E and dipping 10°S. The vein seems to be on strike with the creek showing but appears to be complicated by small scale cross fracturing. The Upper Adit, as shown in figure 6, consists of two short crosscuts, totalling 20 meters, connected by 10 meters of drifting. The vein, which appears to be the same one as on surface, was intersected about 7 meters from the portal. In the drift, it ranges in width from 3-10 centimeters, striking N77°E and dipping 50°S. The Lower Adit consists of a 28 meter crosscut run southerly approximately 5 meters vertically below the Upper Adit. At least four shear or fracture zones were intersected ranging from 3-60 centimeters wide. None of these zones showed any appreciable sulfides although some rusty alteration was noted. The continuation of the vein from the Upper Adit appears to be a 3-5 centimeter shear with gouge striking S80°E and dipping 60°S.

Two chip samples were taken from the vein, one from the creek and one from the Upper Adit. In addition, two

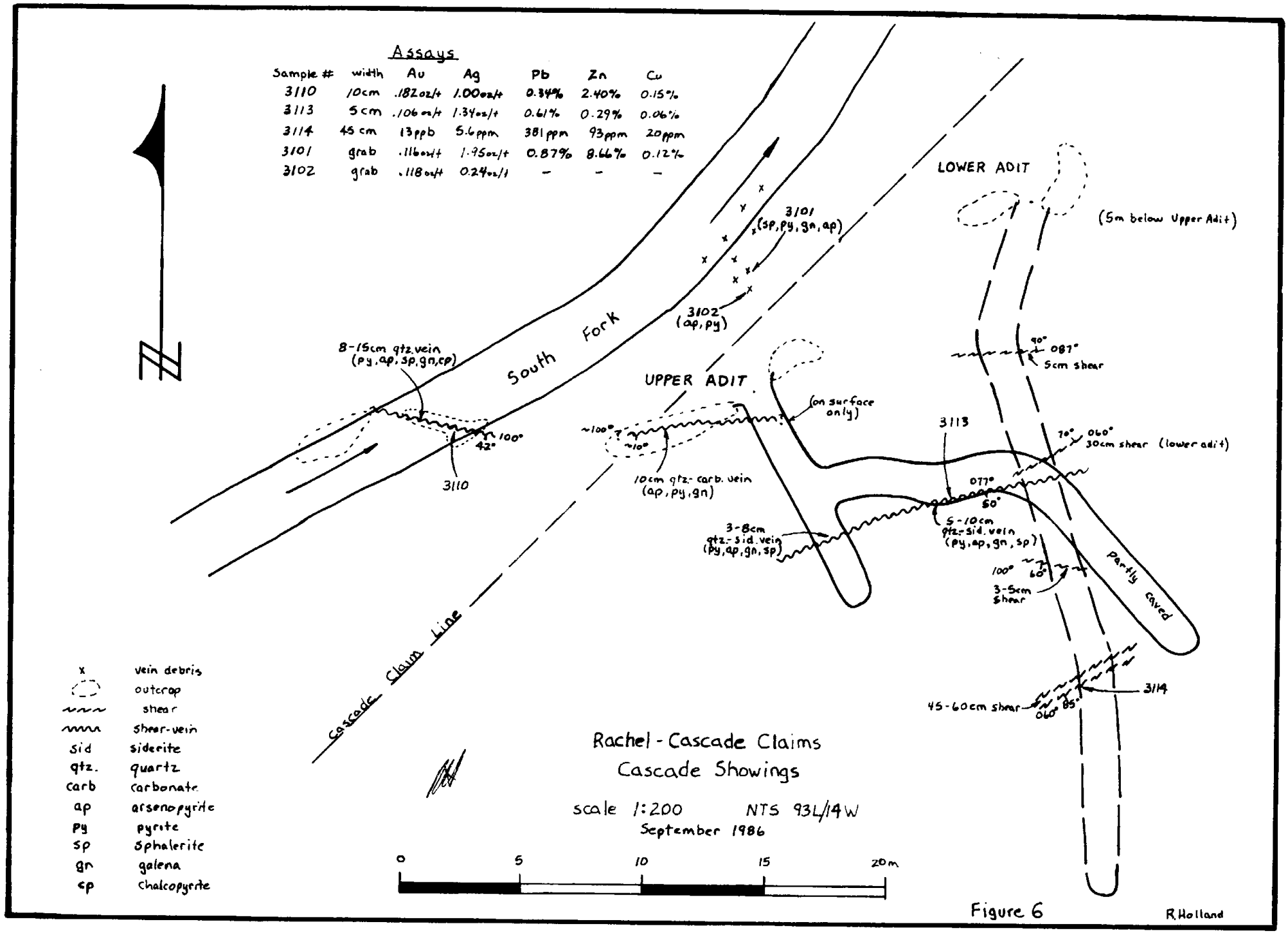


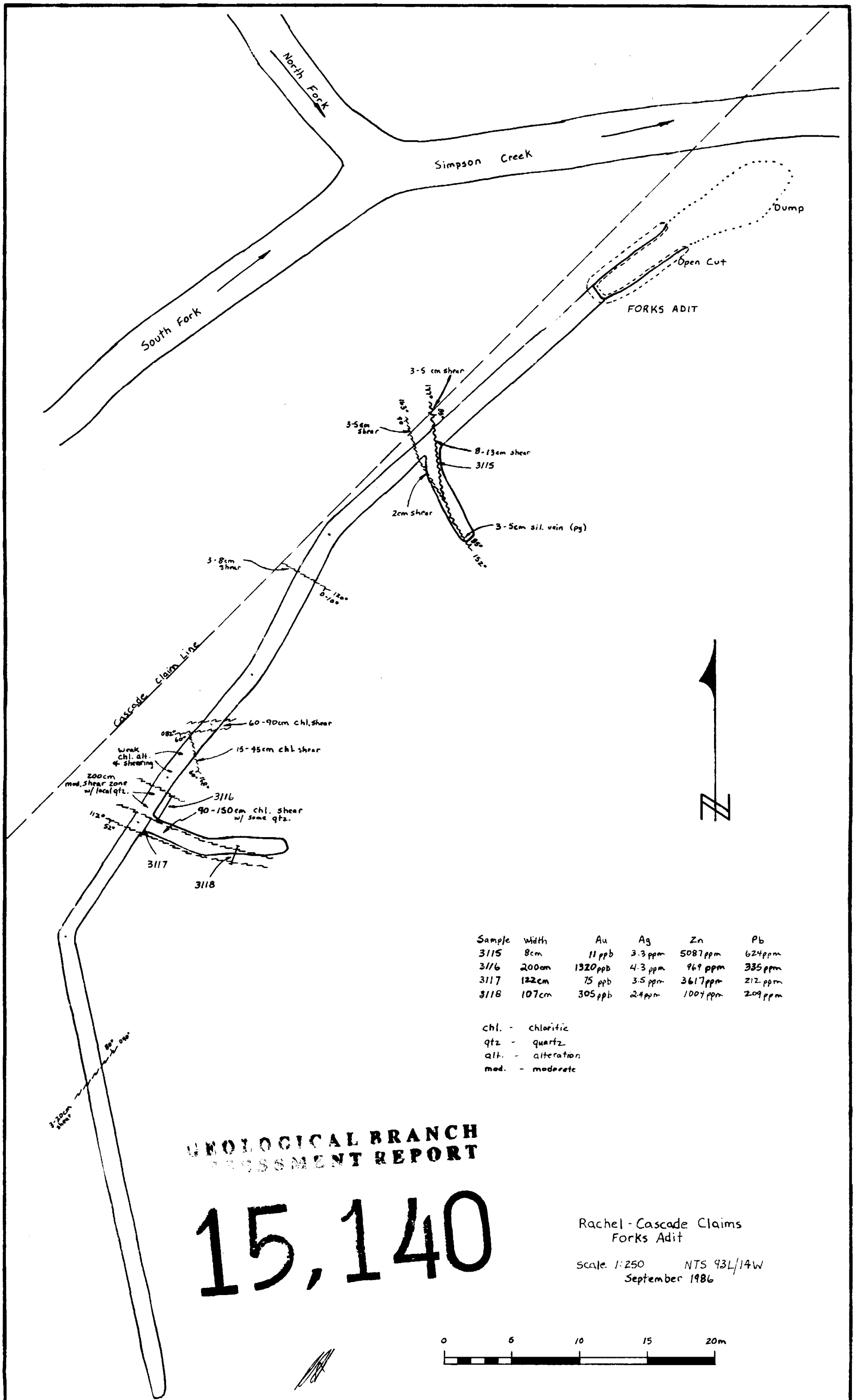
Figure 6

R. Holland

selected grab samples were collected from scattered dump debris below the Upper Adit portal. These four samples assayed from 0.106-0.182 oz/ton Au and 0.24-1.95 oz/ton Ag, with up to 8.66% Zn and 0.87% Pb as shown in figure 6. A 45 centimeter chip sample was also collected from a rusty shear in the Lower Adit but returned only low values.

The lowermost tunnel, referred to here as the Forks Adit and shown in figure 7, was driven as a 97 meter crosscut from approximately 20 meters below the junction of the forks of Simpson Creek. This adit was originally driven to intersect a 5-6 meter wide shear zone which reported some quartz stringers and sparse pyrite and arsenopyrite with minor sphalerite. This zone was encountered approximately 42 meters from the portal and is exposed for a width of about 10 meters. The zone consists of weak to moderate fracturing and shearing with chloritic alteration. The footwall shear zone ranges from 60-90 centimeters wide, striking N82°E and dipping 60°S. The hangingwall shear ranges from 90-150 centimeters wide, with locally abundant quartz stringers, and strikes S78°E and dips 52°S. This shear was drifted on for about 12 meters. Three chip samples were taken from the area of the hangingwall shear, as shown in figure 7. Anomalous but uneconomic values were obtained for gold, silver, zinc and lead.

Several other narrow shears were intersected in the crosscut. Two of these converged to the southeast and this junction was investigated by an 8 meter drift. The shears ranged from 3-13 centimeters wide, containing some silicified wall rock and pyrite. A chip sample from one of these shears returned anomalous but uneconomic values for silver, lead and zinc. The crosscut was also extended south to try and intersect the upper vein; however, this effort appears to have fallen short of its objective.



Sample	Width	Au	Ag	Zn	Pb
3115	8cm	11 ppb	3.3 ppm	5087 ppm	624 ppm
3116	200cm	1320 ppb	4.3 ppm	969 ppm	335 ppm
3117	122cm	75 ppb	3.5 ppm	3617 ppm	212 ppm
3118	107cm	305 ppb	2.4 ppm	1004 ppm	209 ppm

chl. - chloritic
qtz - quartz
alt. - alteration
mod. - moderate

Rachel - Cascade Claims
Forks Adit

scale 1:250 NTS 93L/14W
September 1986

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of geological assessment, mapping, sampling and prospecting carried out in 1985-86 on five of the known mineral occurrences within the Rachel-Cascade property, the following observations have been made:

1) Mineralization found to date is contained mainly within quartz veins or silicified shears within larger shear or fracture zones and consists of varying amounts of pyrite-arsenopyrite-galena-sphalerite-minor chalcopyrite with related gold and silver values. This style of mineralization is typical of the region and is likely related to the implacement and generation of the nearby Climax porphyry molybdenum system.

2) Economically significant grades were obtained from four of the visited showings; however, mineralized widths are narrow, generally less than 30 centimeters. The enclosing shear or fracture zones often showed much better widths ranging up to 10 meters.

3) Mineralization within the region tends to occur as small shoots or zones within the shear separated by zones of weakly mineralized or barren rock. Previous development work on the Rachel-Cascade has been focused primarily on near surface evaluation around the surface exposure. Several zones, primarily the Empire #1 shear, show good strength, width and continuity and may host better mineralization along strike or to depth.

4) The presence of mineralized talus debris, strongly rusty alteration and hornfelsing of the country rock, and numerous apparently unmineralized shear zones, suggest a potential for the discovery of additional mineralized zones.

5) Work to date is insufficient to fully assess the property; however, the presence of ore grade material is encouraging and warrants further work. This work should be in the form of more detailed mapping and prospecting with

a focus on locating other known mineral occurrences and on tracing known occurrences along strike. Attempts should also be made to trace mineralized talus debris and to map and evaluate the numerous shear zones and topographical linears, particularly in the south fork basin area. Magnetic and VLF electromagnetic surveys may aid tracing of structures and some testing of these methods should be done.

REFERENCES

B.C. Dept. of Mines Annual Report of the Minister of Mines, 1909, p. 84; 1912, p. 115; 1914, p. 225; 1920, p. 90; 1921, p. 272; 1923, p. 110; 1924, p. 96; 1925, p. 136-7; 1926, p. 132; 1928, p. 161; 1929, p. 164; 1931, p. 73; 1938, p. B37, C49; 1952, p. 94.

Geol. Surv. Can. Sum. Rpt. 1925A, p. 120A-143A, Geology and Ore Deposits of Hudson Bay Mountain, Coast District, B.C., R.H.B. Jones, 1925.

Geol. Surv. Can. Memoir 223, Mineral Resources, Hazelton and Smithers Areas, Cassiar and Coast Districts, British Columbia, E.D. Kindle, 1940.

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STATEMENT OF COSTS

The following costs were incurred on the Rachel-Cascade claim group near Smithers, B.C. Work, including geological mapping, sampling, prospecting and evaluation of several known mineral occurrences, was carried out during the period from July 7, 1985 to October 20, 1986.

Assays and Geochemistry	
15 assays @ $21.50/sample	$322.50
8 rock geochem @ $11.68/sample	93.45
Office Costs	
secretarial - 4 hours @ $10/hr	40.00
report preparation	30.00
Wages	
R. Holland, geologist	
6 days @ $250/day	
July 7/85, July 20, 21,	
Sept. 21, 29, 30,	
Oct. 17, 19, 20	1500.00
Total	$1985.95

Estimated cost of work done prior to the claim record date of August 1, 1986 is $848.50. Of this, $800.00 was filed for assessment credit on July 30. 1986. The remaining $1137.45 was expended after August 1 and is filed for assessment credit for the following year.

QUALIFICATIONS

I, Robert Holland, of 13451 - 112A Avenue, Surrey, British Columbia, hereby certify that:

1. I am a graduate of the University of British Columbia (1976) and hold a B.Sc. degree in geology.

2. I am currently employed as a consulting geologist with Holland Geoservices Ltd. of 13451 - 112A Avenue, Surrey, British Columbia.

3. I have been employed in my profession by various mining exploration companies for the past ten years.

4. I am a Fellow of the Geological Association of Canada.

5. I have staked and recorded the Cascade, Rachel, Rachel 1 and Empire claims according to the mining laws of British Columbia, to the best of my knowledge, and own a 100% undivided interest in them.

6. The information contained in this report was obtained as a result of research and field work carried out on the property by the author during 1985 and 1986.

Robert Holland, B.Sc., F.G.A.C.
geologist

APPENDIX

ASSAY CERTIFICATES

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: (604)253-3158 COMPUTER LINE:251-1011

DATE RECEIVED JULY 25 1985

DATE REPORTS MAILED July 31/85

ASSAY CERTIFICATE

SAMPLE TYPE : ROCK - CRUSHED AND PULVERIZED TO -100 MESH.
AG** AND AU** BY FIRE ASSAY

ASSAYER V. Saundry DEAN TOYE OR TOM SAUNDRY, CERTIFIED B.C. ASSAYER

HOLLAND PROJECT RACHEL FILE# 85-1570 PAGE# 1

SAMPLE	Cu %	Pb %	Zn %	Ag** oz/t	Au** oz/t
3098	-	-	-	.76	.264
3099	-	-	-	.17	.008
3100	.02	2.09	1.42	1.79	.230
3101	.12	.87	8.66	1.95	.116
3102	-	-	-	.24	.118

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 TELEX 04-53124

ASSAY CERTIFICATE

1.00 GRAM SAMPLE IS DIGESTED WITH 5OML OF 3-1-2 OF HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR,
AND IS DILUTED TO 100ML WITH WATER. DETECTION FOR BASE METAL IS .01%.
- SAMPLE TYPE: ROCK CHIPS AU* 10 GRAM REGULAR ASSAY

DATE RECEIVED: JULY 30 1986 DATE REPORT MAILED: Aug 4/86 ASSAYER..D. Toye..DEAN TOYE. CERTIFIED B.C. ASSAYER.

HOLLAND GEOSERVICES PROJECT - RACHEL FILE # 86-1748A

SAMPLE#	Mo %	Cu %	Pb %	Zn %	Ag OZ/T	Ni %	Co %	Mn %	Fe %	As %	U %	Th %	Cd %	Sb %	Bi %	Au OZ/T
3103	.005	.08	.32	8.47	1.69	.01	.01	.28	11.08	.15	.002	.01	.070	.010	.010	.018
3104	.004	.06	9.74	5.46	9.93	.01	.01	.59	14.10	.18	.002	.01	.040	.020	.010	.056
3105	.350	.44	6.14	.72	42.29	.01	.01	.08	5.21	.38	.002	.01	.010	.060	.010	.030
3106	.006	.26	18.72	12.82	16.59	.01	.01	.18	18.80	.09	.002	.01	.080	.050	.010	.102
3107	.008	.33	36.67	19.09	37.69	.01	.01	.07	10.96	.05	.002	.01	.130	.120	.010	.130
3108	.010	.36	20.90	34.01	24.28	.01	.01	.11	8.37	.02	.002	.01	.230	.080	.010	.030
3109	.005	.30	7.50	10.49	6.24	.01	.01	2.50	16.92	.07	.002	.01	.070	.020	.010	.046
3110	.002	.15	.34	2.40	1.00	.01	.01	.34	27.91	4.86	.002	.01	.020	.010	.010	.182

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 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.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK CHIPS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JULY 30 1986 DATE REPORT MAILED: Aug 4/86 ASSAYER. D. Toye ..DEAN TOYE. CERTIFIED B.C. ASSAYER.

HOLLAND GEOSERVICES PROJECT - RACHEL FILE # 86-1748 PAGE 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
3111	1064	57	1886	1456	12.5	1	6	636	4.66	1200	5	ND	1	13	40	141	2	13	.06	.036	7	1	.03	57	.01	3	.30	.01	.13	1	45
3112	147	2199	27429✓	1741	386.3 ✓	2	15	394	14.63	5331	5	4	1	2	12	485	7	17	.02	.012	2	1	.04	13	.01	2	.16	.01	.10	1	2590 ✓
3113	17	501	4868	2259	40.5 ✓	1	10	27951	12.21	32422	5	ND	1	7	18	66	2	5	.66	.001	2	1	.13	9	.01	2	.05	.01	.03	1	2630 ✓
3114	22	20	381	93	5.6	1	3	1003	1.84	152	5	ND	1	29	1	8	2	3	2.12	.023	5	2	.36	45	.01	2	.35	.01	.15	1	13
3115	95	121	624	5087	3.3	86	36	32870	8.71	1064	7	ND	1	88	10	59	2	53	.33	.044	5	70	.29	135	.01	2	.87	.01	.20	1	11
3116	3	138	335	969	4.3	25	13	3854	2.62	557	5	ND	1	42	7	4	2	7	.59	.019	5	4	.18	84	.01	7	.28	.01	.15	1	1320
3117	5	98	212	3617	3.5	22	16	4283	2.96	3790	5	ND	1	54	26	6	3	7	.80	.018	4	5	.18	73	.01	3	.27	.01	.15	1	75
3118	2	59	209	1004	2.4	21	13	3191	3.17	2979	5	ND	1	33	6	4	2	7	.56	.027	3	3	.20	86	.01	4	.30	.01	.18	1	305

✓ Assay required for correct result

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 TELEX 04-53124

ASSAY CERTIFICATE

1.00 GRAM SAMPLE IS DIGESTED WITH 50ML OF 3-1-2 OF HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR.
AND IS DILUTED TO 100ML WITH WATER. DETECTION FOR BASE METAL IS .01%.
- SAMPLE TYPE: PULP AU* 10 GRAM REGULAR ASSAY

DATE RECEIVED: AUG 8 1986 DATE REPORT MAILED: Aug 11/86 ASSAYER. D. Toye ..DEAN TOYE. CERTIFIED B.C. ASSAYER.

HOLLAND GEOSERVICES PROJECT - RACHEL FILE # 86-1748

SAMPLE#	Mo %	Cu %	Pb %	Zn %	Ag OZ/T	Ni %	Co %	Mn %	Fe %	As %	U %	Th %	Cd %	Sb %	Bi %	Au OZ/T
3112	.014	.25	6.95	.22	29.46	.01	.01	.04	16.32	.59	.002	.01	.010	.050	.010	.097
3113	.001	.06	.61	.29	1.34	.01	.01	3.01	14.36	3.87	.002	.01	.010	.010	.010	.106