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Mineral Industry Report 1971 and 1972 Volume 1 of 3 Yukon Territory EGS 1975-6

D. B. Craig
M. W. Milner

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MINERAL INDUSTRY REPORT

1971 and 1972

Volume 1 of 3

Yukon Territory

by

D.B. Craig
M.W. Milner

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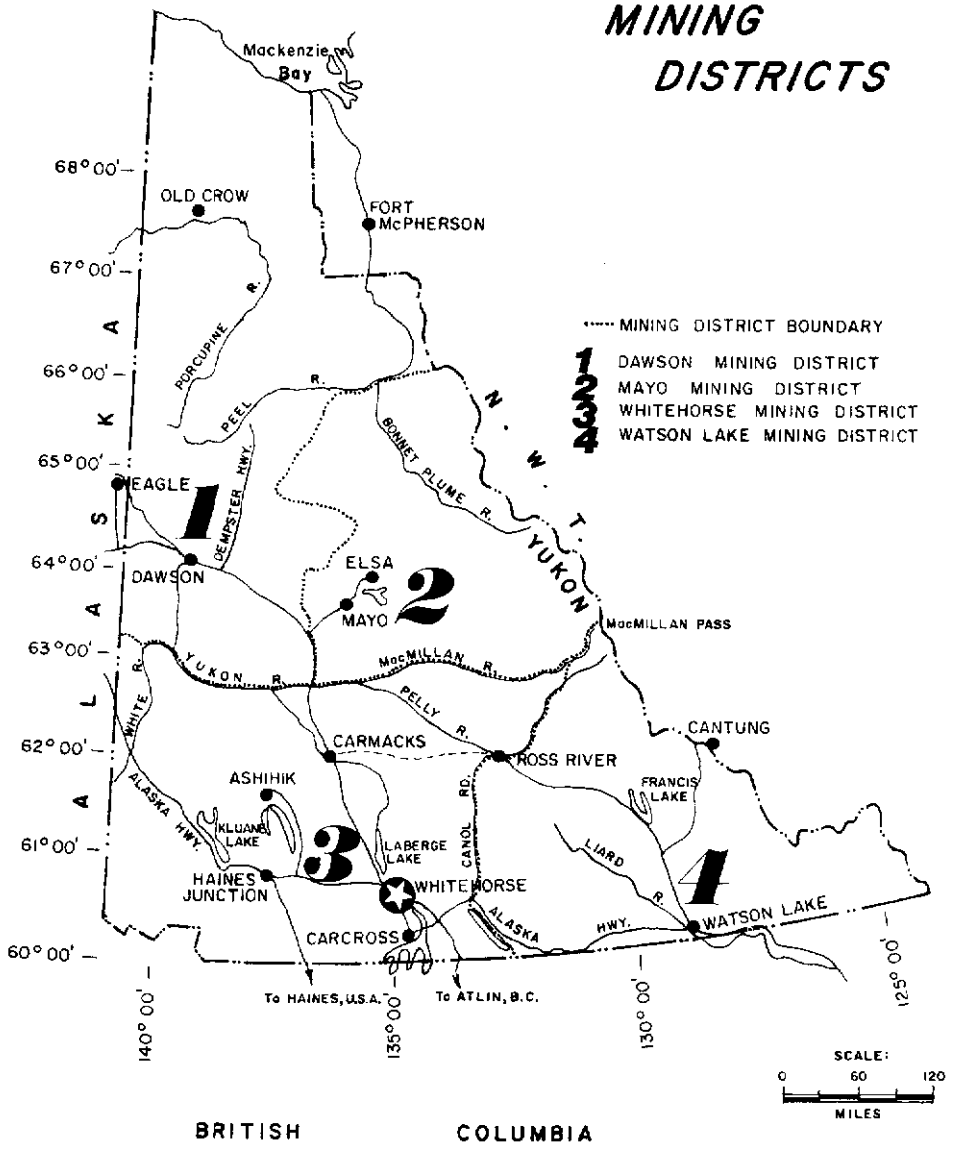
YUKON TERRITORY MINING DISTRICTS



ACKNOWLEDGEMENT

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ABSTRACT

This report is a summary of activity by the mineral industry in the Yukon Territory during 1971 and 1972.

The value of Yukon mineral production increased from $80 million in 1970 to $93 million in 1971. This increase reflects largely increased output of lead (up $6 million) and zinc (up $14 million) from Anvil Mine which more than offset declines in asbestos ($3 million) from Clinton and copper production ($6 million)due to temporary closure of New Imperial Mines operations at Whitehorse.

The increase in value of mineral output in 1972 to $106 million reflects increase in value of lead and zinc from Anvil Mine and production of nickel concentrates from the Wellgreen Mine of Hudson-Yukon Mines at Quill Creek.

Exploration activity was down slightly from the previous two years.

Placer gold production continued to decline with several operators who formerly worked claims full time, either not operating or mining only part time.

Coal exploration was also less than the preceding years, with most of the work being done in the vicinity of Carmacks and Braeburn.

INTRODUCTION

This report is a review of the Yukon mineral industry for 1971 and 1972 by the Northern Economic Development Branch of the Department of Indian Affairs and Northern Development. Earlier geological records are available in the Annual and Summary Reports of the Geological Survey of Canada (1898 to 1933). Many of these earlier reports have been annotated and republished in Geological Survey of Canada Memoir 284. Mineral industry records for the period 1934 to 1940 are summarized in Geological Survey of Canada Memoirs by Bostock (1935, 1936b, 1937, 1938, 1939 and 1941). Records from 1960 to 1968 are presented in an annual series of Geological Survey of Canada papers entitled The Mineral Industry of Yukon Territory and Southwestern District of Mackenzie. Information for 1969 and 1970 is contained in Mineral Industry Report of Indian Affairs and Northern Development.

The information was obtained from property visits, communication with company personnel, technical reports of companies, trade journals and reports of the Mining Recorders of the Dawson, Mayo, Whitehorse and Watson Lake Mining Districts.

The writers acknowledge with thanks the cooperation of the companies and individuals of the mineral industry who provided information. The cooperation of members of government agencies has also been most helpful.

TRANSPORTATION FACILITIES

Whitehorse (population roughly 11,000 in 1972), the capital of Yukon Territory and main distribution centre is serviced by ship and rail via Skagway, Alaska and by truck, bus and air from Vancouver, British Columbia and Edmonton, Alberta. A gravel highway system links the principal communities of Whitehorse, Watson Lake, Carmacks, Dawson City, Faro, Ross River and Haines Junction as well as points in between with regular bus and truck freight service available. Minor roads provide access to mining properties, ranches and timber leases. A few boats are available for charter and some fuels and heavy equipment are moved on the Yukon River. Fixed wing aircraft and helicopters are available for charter at Whitehorse, Watson Lake and Mayo throughout the year and at several other designated points during the summer.

YUKON MINERAL PRODUCTION

Current and cumulative values of Yukon mineral production are summarized in Table II. Comparison with the 1970 figures shows an increase of total production from $80 million to $93 million in 1971, reflecting increased value of lead (up $6 million) and zinc ($14 million) from Anvil Mine. Asbestos production declined moderately and reduced copper output reflects the temporary closure of New Imperial Mine at Whitehorse. The 1972 production shows a moderate increase in value of lead, zinc and asbestos as well as sales of nickel and platinum from Hudson-Yukon Mine.

TABLE I

REPRESENTATIVE TRANSPORTATION COSTS FOR YUKON TERRITORY 1972

Rail and Boat (Container ship every week). Ore and concentrates: Whitehorse to North Vancouver.

Commodity rate on 30,000 lb. car loads

Lead, zinc or copper concentrates .....$16. per ton
Asbestos fibre.....$17. per ton

Mining equipment and related supplies - North Vancouver to Whitehorse:
Commodity rate (dollars per 100 lb.)

	10,000	24,000	36,000
Machinery	3.35	2.95	2.90
Petroleum products (packaged)..... (gasolines and fuel oils are quoted f.o.b. Whitehorse)	3.50		
Drilling mud	3.20	2.95	2.85

Back haul rates on the above up to 12 months is 60 per cent.

Trucks

Basic rates - Whitehorse from Edmonton and Vancouver

	100 lb	5,000 lb	10,000 lb
From Edmonton (dollars per 100 lb)	6.82	5.62	4.97
From Vancouver(dollars per 100 lb)	11.35	6.33	5.74

Bus (3 times per week)

Express rates - Whitehorse	-Pounds- 0-2	2-10	40-50	90-100
From Edmonton	$3.65	$3.65	$8.95	$15.85
From Vancouver	3.40	3.65	9.95	18.00

Air (Edmonton - daily, Vancouver - twice daily except one flight Sunday)

Air Express and air freight - to Whitehorse from Vancouver and Edmonton.

	Min. 1-10 lb.	21-35 lb	100 lb.
Air Express from Edmonton	$8.00	$13.50	$38.75

	Min 1- 9 lb.	21-25 lb	100 lb.
Air Express from Vancouver	$8.00	$14.25	$43.50

		100	200	500
Air Freight from Edmonton	.22/lb (Min $11.50)	.22/lb	.21/lb	.20/lb
From Vancouver	.22/lb (Min $ 6.00)	.22/lb	.20	.19

CHARTER AIRCRAFT

Type	Rate/Hour	Rate/Mile
Fixed Wing		
CESSNA 150	$30.00	$ 0.30
172	55.00	0.45
180	70.00	0.60
185 (wheels)	80.00	0.60
185 (floats)	80.00	0.65
BEAVER	$ 90.00	$ 0.90
AZTEC 250	140.00	.70
OTTER	140.00	1.30
TWIN OTTER	260.00	1.60

Helicopters	Rate/Hour when carrier supplies fuel	Rate/Hour when charterer supplies fuel
BELL 47G-3B-1	$160.00	$150.00
BELL 206A (Jet Ranger)	250.00	240.00
HILLER 12E	165.00	155.00

TABLE II

Mineral Production of Yukon Territory

Product	1970	1971	1972	Cumulative Totals
Gold				
fine oz.	20,400	14,473	4,079	
$	746,000	511,534	234,983	268,611,319
Silver				
fine oz.	4,265,000	5,747,703	4,988,967	
$	7,890,250	8,966,417	8,331,575	163,425,172
Lead				
lb.	137,475,000	217,336,142	222,921,742	
$	21,748,500	29,340,379	34,392,366	146,034,247
Zinc				
lb.	155,975,600	233,134,144	237,225,560	
$	24,846,900	39,003,342	45,241,287	148,612,538
Cadmium				
lb.	63,000	59,100	32,711	
$	236,900	114,654	82,759	273,889
Copper				
lb.	15,500,000	5,132,000	1,748,093	
$	9,000,800	2,709,696	890,286	31,855,124
Tungsten				
lb.				
$				27,499
Nickel				
lb.			2,814,621	
$			3,996,762	3,996,762
Platinum				
fine oz.			3,625	
$			325,573	327,126
Asbestos				
tons	108,000	91,969	101,888	
$	15,173,000	12,374,380	13,006,476	61,568,878
Coal				
tons	16,700	21,026	18,435	
$	167,000	210,250	184,350	3,178,912
Totals	79,642,350	93,230,662	106,686,417	833,911,466

TABLE III

Mineral Claims Recorded, Yukon Territory

Mining District	1969	1970	1971	1972
Dawson	846	847	1,054	669
Mayo	1,466	768	1,026	1,784
Watson Lake	996	1,294	1,245	2,740
Whitehorse	12,927	8,609	4,380	1,922
Totals	11,519	7,705	6,845	9,383

WORK BY THE GEOLOGICAL SURVEY OF CANADA IN YUKON TERRITORY DURING 1971 and 1972

During 1971 and 1972 D. J. Tempelman-Kluit conducted Operation Snag-Yukon, the reconnaissance mapping of Aishihik Lake (115 H), Snag (115 J, 115 K E 1/2) and the western part of Stewart River (115 N E 1/2) map-areas. On the basis of this work improved sub-divisions and correlations are suggested for the Yukon Group and for some of the volcanic and intrusive units which will have applications in adjacent map-areas.

R.G. Garret completed the sampling phase of a regional geochemical study of plutonic rocks in eastern Yukon and western Mackenzie District, collecting 934 samples of acid plutonic rocks and the enclosing sediments.

O.R. Eckstrand as part of a study of Canadian nickel deposits examined and sampled the Canalask and Wellgreen properties. Both represent sulphide injection into wall rocks adjacent to ultramafic intrusions with some sulphide in the base of the ultramafic at Wellgreen as well.

L.D. Dyke mapped the White Mountain massif (at 1:50,000), a fault-bounded domal uplift in the northern Richardson Mountains, as the field component of a structural analysis of such features.

In 1972 S.L Blusson examined specific parts of Niddery Lake (105 O), Lansing (105 N) and Nadaleen River (106 C) map-areas in completion of Operation Stewart, most of the fieldwork for this having been done in 1969 and 1970. The Amax MacMillan Pass tungsten deposit is recognized as being in Ordovician calcareous shale.

J.A. Hunter did hammer seismic refraction studies on the Yukon Arctic coast as part of surficial mapping by the Terrain Sciences Division. Permafrost velocities were observed in several types of surficial materials and correlated with drill hole information.

The surficial mapping was done by V.N. Rampton who expanded on the surficial coastal stratigraphy established earlier.

B.C. MacDonald and C.P.Lewis studied the sedimentary and geomorphic processes of the rivers and coast proper of the Yukon Coastal Plain.

LODE EXPLORATION IN YUKON

Exploration activity in Yukon Territory during 1971 and 1972 was down moderately from preceding years. This reflects partly the decrease in exploration funds available and partly decreased incentive due to depressed metal prices.

Table III indicates the claims recorded during the period, the reduced number is consistent with the lack of major staking rushes during this time, in contrast to the staking activity in the Dawson Range in 1969-1970 and in the Anvil Range in 1965-1966. During 1969, 60 per cent of the claims recorded in the Territory for that year were in the Dawson Range.

In the Whitehorse Mining District Dawson Range Joint Venture explored the Williams Creek copper deposit, 20 miles north-northwest of Carmacks, with major trenching and diamond drilling programs, some 19,000 feet of drilling being done on copper-bearing gneissic zones in granodiorite.

Silver Standard Mines Limited/American Smelting and Refining Company explored the Minto prospect 45 miles northwest of Carmacks, doing 9,700 feet of diamond drilling during the two years as well as bulldozer trenching and construction of a winter access road and construction of an airstrip 2,300 feet long. Here also copper is in gneissic zones enclosed by unfoliated granitic rocks of fairly similar composition.

United Keno Exploration, on DEF claims immediately north of the Silver Standard property, continued the surface work started in 1971, including bulldozer trenching of a mineralized zone.

Area Exploration Corporation explored the Mt. Nansen property 45 miles west of Carmacks by conducting drilling programs in addition to surface work, to test the porphyry copper-molybdenum possibilities of the area.

Anvil Mining Corporation did exploration near the mine and in the immediate Swim Lakes area, using both diamond and overburden drilling in the search for further zinc-lead deposits.

In the Mayo Mining District Amax Exploration resumed work on the Macmillan Pass tungsten deposit, completing 8,000 feet of drilling in 1971 and 20,000 feet in 1972. The company later announced that they had outlined some 30 million tons of scheelite-bearing skarn having a grade of 0.9 per cent WO_3.

Dynasty Explorations staked and did test pitting and diamond drilling on the Plata property in the Hess Mountains. Silver-rich galena-sphalerite-tetrahedrite veins occur in argillaceous sediments.

In the Watson Lake District during 1972, Canex Placer staked galena- and sphalerite-bearing horizons in the Road River Formation in the Selwyn Mountains along the Yukon-Mackenzie border near Summit Lake and began exploration of the properties. A staking rush followed during the winter of 1972-73.

LODE MINING AND EXPLORATION

DAWSON MINING DISTRICT

CLEAR CREEK

NOP CLAIMS
United Keno Hill Mines Limited
405 Main Street
Whitehorse, Yukon Territory

Tungsten
115 P 14
(63°50'N,137°04'W)

References: Bostock (1948); Garrett (1971)

Claims: NOP 1-10

Location and Access:

The property is situated on West Ridge, at the headwaters of Left Clear Creek, about 20 miles north of the Stewart Crossing-Dawson Road. An old road extending up to the placer workings on Clear Creek, three miles from the property, is presently unsuitable for traffic. Current access is by helicopter.

History:

Near the property, eight claims were staked by T. Gergich in 1962. Alluvial gravels were worked up to 1964 for placer gold. In 1969, Archer, Cathro and Associates did chip sampling and geological mapping on and near the claim area. The release of Garrett's preliminary report prompted the staking of the NOP claims in March of 1971.

Description:

Yukon Group quartz-mica schists and quartzite are cut by acidic to basic stocks and dykes, from Paleozoic to Tertiary in age. The area is heavily covered by overburden. The metasediments, light brown and fine grained, display quartz veins, up to one foot wide, with no obvious scheelite. The intrusives consist of porphyritic monzonite and quartz monzonite in which are quartz veins carrying minor scheelite. Minor scheelite is disseminated in the porphyritic rock near the vein margins.

Current Work and Results:

In August 1971, UKHM geologically mapped the claims on the basis of sparse (1%) outcrop and rock fragment distribution. Soil samples, 90 in all, were taken on claim NOP 10 at 100 foot intervals on lines 300 feet apart. Samples were analysed by colorimetric methods and data plotted and contoured. An overall northwesterly trending tungsten anomaly with a secondary northerly trend is recognized. A weak molybdenum anomaly shows a slight correlation with the overall tungsten pattern.

LUGDUSH GROUP
Chevron Standard Oil Company Limited
225 Bush Street
San Francisco, California

Tungsten
115 P 15
(63°45'N,136°57'W)

Claims: LUGDUSH 1-16

Location and Access:

The claims are on the headwaters of Vancouver Creek. Chevron conducted a three day investigation from a base camp on the Clear Creek road, using a helicopter from Mayo.

History:

The claims were staked in June of 1971 to cover a tungsten stream sediment anomaly recognized by Archer, Cathro and Associates in 1969.

Description:

In unglaciated terrain above timberline, rock fragments in the soil indicate that bedrock is porphyritic granite, in contact, to the west of the claims, with mica schist and phyllite. A small granodiorite stock occurs to the southeast. Diopside skarn float found over the central part of the claim block contains scheelite and pyrrhotite with minor arsenopyrite and chalcopyrite.

Current Work and Results:

A soil geochemistry and rock fragment study in July 1972, indicated two skarn zones, each greater than 1,500 feet in length, from which selected samples assayed up to one per cent WO_3.

SCROGGIE CREEK

SCROGGIE CREEK C CLAIMS
Silver Standard Mines Limited
806 - 602 West Hastings Street
Vancouver 2, British Columbia.

Molybdenum, Copper
115 J 15
(62°56'N, 138°31'W)

Reference: Cairnes (1917).

Claims: C 1-4, 33-36

Location and Access:

The claims are situated on the southwest trending ridge between Scroggie Creek and the north bank tributaries to the Yukon River near Isaac Creek. Access during exploration was by boat from Minto on the Yukon River to the mouth of Isaac Creek and then by helicopter six miles north to the property.

History:

The creeks to the north of the divide were worked for gold in the early decades of this century. The C claims were staked by Silver Standard Mines Limited in 1971.

Description:

The area, as described by Cairnes, consists of mica gneiss and schist with granite, pegmatite and rare basic intrusions. Reconnaissance mapping in 1971 revealed medium-grained quartz feldspar porphyry containing finely disseminated chalcopyrite and pyrite. A 400-foot wide, quartz-rich breccia zone contains molybdenite as fine disseminations and fracture coatings. Biotite schist and rhyolite occur to the north of the claim group.

Current Work and Results:

During 1971 soil sampling and geological mapping was done on the claims, samples being taken at 200 foot intervals along east-west lines 400 feet apart. A weak copper anomaly roughly 3,000 feet by 1,200 feet and a roughly coincident molybdenum anomaly some 2,400 feet by 800 feet were recognized. The extension of the sampling grid in 1972 to 4,000 by 4,000 feet extended the molybdenum anomaly a further 600 feet to the south and closed it. The copper anomaly was not changed significantly. 43,000 line feet of AVLF-EM survey was completed over the grid but response was weak and data did not show a correlation with either mineralization or geology.

LADUE RIVER

LAD
Occidental Minerals Corporation
of Canada
801, 161 Eglinton Avenue East
Toronto 12, Ontario

Copper, Zinc
115 N 7
(63°27.5'N,140°52'W)

Reference: Tempelman-Kluit (1973, G.S.C. Open File 161).

Claims: LAD 1-36

Location and Access:

The claims straddle the Ladue River, about 14 miles upstream from the confluence with the White River. Access is by helicopter.

History:

The 36 claim group was staked on the basis of a 1970 regional geochemical silt survey.

Description:

Precambrian and Mesozoic sedimentary rocks are cut by Tertiary intrusives and two generations of volcanics.

The Nasina Group consists of chlorite-sericite schist and quartz-sericite schist with minor quartzite, sericite schist and banded quartzite. Mesozoic units are schistose quartzite, pebble conglomerate and minor shale and greywacke. These younger strata rest with angular unconformity on the older metamorphic complex. The intrusive rocks consist of a quartz monzonite dyke and quartz porphyry plugs, the latter found at the unconformity.

The older volcanic suite is represented by andesitic agglomerate with minor andesitic porphyry,flat-lying and unconformable on the Mesozoic rocks. Late Tertiary rhyolite and trachyte porphyries form the younger volcanic suite.

Pyrite and minor pyrrhotite occur in all of the rock units except the acidic volcanics. A pronounced alteration zone with gossan occurs near the monzonite.

Current Work and Results:

1971 work consisted of a soil geochemical survey and the examination of the alteration zone and gossan.

KLONDIKE

DAW, HUN, SON, NUG, SUL,
ROD, PUP and JEN GROUPS
Sullivan and Rodgers
Vancouver, British Columbia

Copper, Lead, Silver
Gold, molybdenum,
arsenic
115 O 14, 15
116 B 3
(64°00'N. 139°00'W)

References: Bostock (1937); Green (1972).

Claims: DAW 1-23, HUN 1-16, SON 1-48, NUG 1-28, SUL 1-32, ROD 1-22, PUP 1-71, JEN 1-64, a total of 304

Location and Access:

This series of eight, non-contiguous claim groups is in the Klondike goldfield, south of Dawson City. Roads provide convenient vehicle access from the Klondike Highway. The most distant claims are roughly 20 miles from Dawson City. Work on the SON and PUP groups was supported by helicopters based in Dawson City during the summer.

History:

The claims were staked in the spring of 1972 over aeromagnetic anomalies. In some cases, hardrock mineral occurrences were also known. The PUP group surrounds the TOM claim group on which old trenching and two small shafts explored a galena-chalcopyrite showing.

Description:

The area is underlain by rocks mapped by Bostock (Map 711A, 1937) and Green (Map 1284A, 1972) as Klondike Schist. These rocks are quartz-muscovite-chlorite schist and schistose quartzite with minor quartz-biotite gneiss.

On the PUP 33 claim, at the heads of Soda and Independence creeks, a fine-grained quartz porphyry was found to contain two to three per cent pyrite and minor malachite. The showing on the TOM claims is a two-inch galena-chalcopyrite bearing quartz vein in a schist host rock.

On the NUG claims, on Bonanza Creek, two miles from the mouth, a coarse grained porphyry contains disseminated pyrite and narrow quartz veins contain up to 50 per cent massive pyrite.

Current Work and Results:

During 1972 soil samples were taken at 500 foot intervals along claim lines 3,000 feet apart and, where the widely spaced samples were anomalous, at 100 foot intervals on lines 500 feet apart. All samples were analysed for copper, lead and silver and some for gold, molybdenum and arsenic. Although no attractive targets were found, this reconnaissance geochemical method did define small anomalies and is regarded as an effective prospecting tool over most of the area.

CLINTON CREEK

CLINTON MINE
Cassiar Asbestos Corporation Limited
85 Richmond Street
Toronto, Ontario

Asbestos
116 C 7
(64°27'N, 140°42'W)

References: Green and Roddick (1962); Green and Godwin (1964, pp. 19-21); Green (1965, pp. 25-27; 1966, pp. 25-26); Christian (1966); Findlay (1967, pp. 27-29; 1969a, pp. 31-32; 1969b, pp. 18-20); Craig and Laporte (1972, pp. 30-31).

Location and Access:

The open pit is five miles up Clinton Creek which is a left bank tributary to the Fortymile River, three miles from its confluence with the Yukon River. The mine and townsite are connected by a 60-mile all-weather road to the Yukon River at Dawson City.

History:

Staked in 1957, explored in 1957 and 1958 and later from 1963 on, the mine has been producing since October 1967.

Description:

The orebody is a southwesterly plunging, northwesterly dipping lens in the hanging wall of a serpentinite mass. It is separated from conformable, black, limy argillites by a 100 foot zone of rusty weathering quartz-carbonate rock. There is sheared or fish scale serpentinite in the footwall.

Current Work and Results:

Contract stripping and development continued over the southwest portion of the Porcupine ore body in 1972. Development drilling was also done on the Snowshoe and Bear Creek fibre zones, and exploration drilling on Wolverine Hill. Drilling for ore control was done in the pit.

CZ fibre production was started in 1972. Recovery of this short fibre, from what was formerly discarded as waste, resulted in a higher rate of recovery.

Testing for new uses for the company's products included surfacing short sections of the Klondike Highway, near the Whitehorse Junction, with experimental asphalt-asbestos mixtures.

The floor of the pit was at the 1,380-foot level in early 1972, 330 feet below the initial 1,710 foot bench at which mining started in 1967.

Operating Summary:

	1969	1970	1971	1972
Mined (tons)	1,012,937	1,480,522	1,733,405	1,788,976
Milled (tons)	952,889	1,335,087	1,447,863	1,267,178
Daily Average	3,048	4,049	4,640	4,440
Waste Removal (tons)	3,410,710	4,536,738	11,145,856	14,309,837
Production (tons fibre)	87,820	104,386	92,962	102,347
Grade (% mill recovery)	9.22	7.82	6.42	8.08
Sales	$16.3 million	$20.8 million	$18.1 million	$18.7 million

Rock rejection varied from 5-35% and this together with storage and stockpiling accounts for differences between tonnages mined and milled.

FIFTEENMILE RIVER AREA

PLATA FIFTEENMILE RIVER
(Silver City Property)
L. Patnode
Whitehorse, Yukon Territory

Silver, Lead, Zinc
116 B 5
(64°18'N, 139°52'W)

References: Cockfield (1928, pp. 8A-10A); Green and Godwin (1963, p. 20; 1964, pp. 18-19); Green (1965, pp. 23-25; 1966, pp. 23-24); Green (1972, pp. 138-139).

Claims: PLATA 1-4

Location and Access:

The property is 22 miles northwest of Dawson City, on the north side of the Yukon River, 2-1/2 miles downstream from the mouth of the Fifteenmile River. Access is possible by river-boat.

History:

The property has been explored at various times since 1900. Cockfield reports that five tons of argentiferous galena float were shipped prior to 1928. From 1962 the prospect was known as the Silver City Property, optioned from owner J. Risco of Dawson City and actively explored from 1962 to 1965 by Silver City Mines Limited.

In 1962, an adit was started 300 feet above the river and driven north, into talus, being completed in 1963 at 276 feet. During 1963, 1964 and 1965, cuts were made in the talus mantle by monitor, some 75,000 cubic yards in all being moved. The hydraulic work in 1964 exposed an adit driven by Risco in 1929 and two still older adits. During 1965 another adit, collared 425 feet above the river and 125 feet east of the Risco adit, was driven north 4° east for 185 feet.

Two holes were diamond drilled from this adit.

Description:

The area of these claims, three miles southwest of the Tintina Trench, is underlain by rocks of Unit C (Green, 1972) here represented by greenstone, chloritic quartz-mica schists, phyllite and limestone. A steep, thickly talus-covered slope extends back from the Yukon River, with mineralized quartz-carbonate float being found up to 300 feet above the river. The adit driven in 1962 and 1963 penetrated 92 feet of talus before reaching crumpled schist bedrock. The talus included blocks of quartz-carbonate containing nickeliferous serpentine, disseminated galena and specks of tetrahedrite (Green, 1963, p. 20). Of the hydraulic cuts, one near river level, below the 1963 adit, exposed galena-bearing talus. Basic or ultrabasic rock, largely altered to dolomite, was exposed in one cut 400 feet above the river. On the slope above the cut is grey phyllite 300 feet thick followed by 100 feet of limestone with limy slate and 100 feet of altered greenstone.

Current Work and Results:

After the earlier claims lapsed, the ground was restaked by L. Patnode of Whitehorse in June 1971. During July and September of 1971, E.M. and magnetometer surveys were conducted on the property, readings being taken at 50-foot intervals on lines 200 feet apart in the vicinity of the float occurrences and exploratory adits, and at 50-foot intervals on lines 400 feet apart on the northern part of the property. Five west to west-northwest trending conductors were recognized, two of which had magnetic correlation.

MAYO MINING DISTRICT

HESS MOUNTAINS AREA

HORN CLAIMS
Canadian Industrial Gas
and Oil Limited
640 - 8th Avenue Southwest
Calgary 2, Alberta.

Copper
105 O 12
(63°40'N, 131°30'W)

Reference: Craig and Laporte (1972).

Claims: HORN 1-9

Location and Access:

Lying in a north-facing cirque about four miles east of the junction of Old Cabin Creek and Rogue River, the claims can be reached by helicopter from Sheldon Lake on the Canol Road about 100 miles from Ross River, a flight of about 80 miles.

History:

The area was staked in 1968 and mapped in 1970. Some geochemistry was carried out in the past.

Description:

The HORN claims are in unforested alpine terrain ranging in elevation from 3,400 feet to 7,100 feet. The claims are underlain by a series of carbonate-bearing shales and banded cherts of Silurian-Ordovician age, capped unconformably by volcanic rocks of Tertiary age.

The shale is buff-colored, fissile, strikes 340°-350° and dips east; it is truncated at the 6,000 foot level by the angular unconformity. The rocks are folded and faulted. Chlorite and pyrite are sparsely distributed in these rocks.

The volcanic rock is fine-grained, dark grey-green and intensely jointed. It contains disseminated pyrite cubes, pods and lenses of pyrite and pyrrhotite, veins of pyrite and pyrrhotite with minor chalcopyrite and shear zones containing euhedral quartz. Gypsum-bearing gossans are present.

A crushed, quartz-carbonate vein system trending 340° across an arête at the southern end of the property, and which appears to exist only in the volcanic unit - not penetrating the chert - contains up to 40% pyrrhotite with pyrite and rare chalcopyrite. What appears to be a branch of the main vein outcrops south of it.

Current Work and Results:

The company conducted a six-day geological examination and channel sampling program in 1970. The vein deposit is small and low grade.

SCOT GROUP
Cima Resources Limited
330 - 355 Burrard Street
Vancouver 1, British Columbia.

Zinc, Copper, Silver
105 O 6
(63°20'N, 131°17'W)

Claims: SCOT 1-6, 19, 24, 26, 29 and 30

Location and Access:

The claims are on the north side of the Hess River about three miles north-northeast of Niddery Lake and 100 air-miles from Ross River. Access is by float plane to Jake Lake, one and one-half miles northeast of the property.

History:

Claims SCOT 1-24 were staked late in the 1967 season, as a result of a strong zinc soil geochemical anomaly. In 1968, geological mapping, soil geochemistry, magnetic and EM surveys, and silt sampling were carried out. In 1969 more soil geochemistry was done.

Description:

Geochemical soil and silt sampling outlined a large high magnitude zinc anomaly on the SCOT claim group. The claims are underlain by steeply dipping, southeasterly trending graphitic chert, shale and slate, with minor limestone, quartzite and phyllite. The best geochemical response is in an area of deep overburden cover. Travertine occurs as float and is also being deposited from ground water over much of the zinc anomaly. The travertine assayed as much as 1% zinc. No sulphide minerals have been found in the vicinity of the soil anomaly.

The zinc causing the soil anomaly has apparently been transported in ground water, concentrated at the surface, and precipitated with the travertine.

Current Work and Results:

A gravity survey was conducted on the SCOT claims in 1971. A residual gravity anomaly with peak values of 0.9 milligals was defined. This anomaly does not appear to be the result of surface topographic effects.

The large zinc anomaly in soils is slightly downslope from the gravity anomaly.

PLATA
Dynasty Explorations Limited
330 - 355 Burrard Street
Vancouver 1, British Columbia.

Silver, Lead, Zinc
105 N 9
(63°35'N, 132°02'W)

Reference: Blusson and Tempelman-Kluit (1970, pp. 29-32).

Claims: PLATA 1-232, 241-288; INCA 1-32

Location and Access:

The PLATA property, at 3,000 to 6,500 feet in elevation is in the Bostock Range of the Hess Mountains between the Rogue and the Hess rivers, 115 miles east of Mayo and 108 miles north of Ross River. Access is by float plane to a lake 2,500 feet long, seven miles to the south and by helicopter to the property.

History:

The property was staked in August and September of 1972; the area of the main silver-lead-zinc showing having been previously held as the GREG claims, staked by Atlas in 1969.

Description:

The PLATA claims are underlain by argillaceous low-rank metasedimentary rocks ranging in age from Proterozoic to Mississippian. A sequence of red and green slate with minor quartzite and limestone (unit 2? and 7, Blusson and Tempelman-Kluit, 1970) is unconformably overlain by Devono-Mississippian argillite, slate and chert-pebble conglomerate (unit 12, op. cit.). These rocks are intruded by quartz-muscovite porphyry and aplite dykes and sills of probable Cretaceous age (unit 14, op. cit.).

The rocks strike west to west-northwest, are isoclinally folded with amplitudes of a few hundred feet and are displaced along bedding plane faults. One prominent fault system trends northeast, containing a breccia with quartz, carbonate and pyrite. A second fault system trends north-northwest, has right lateral displacement and includes the Plata fault zone which strikes 150° and dips 65° southwest.

Mineral showings are localized on the north flank of an anticlinal structure with four distinctly different sets of faults and fractures. It is not known which set most strongly controls the mineralization, but the Plata zone has the most promising showings associated with it.

Several mineralogical assemblages are represented by various vein types: galena, quartz-tetrahedrite, galena-sphalerite-tetrahedrite, siderite-spahlerite-galena replacement and arsenopyrite-pyrite-galena-boulangerite-tetrahedrite. Six major showings and several smaller ones have been discovered. The main showing (No. 4) strikes 80°, dips 45° south and has been traced over a strike length of 700 feet with a true width of five to 18 feet.

Current Work and Results:

Following staking, 17.5 miles of line were cut for geophysical and geochemical surveys. Aerial photography was flown to provide coverage of 54 square miles at a scale of one inch to 1,000 feet. Ground control was established for topographic map preparation. Thirteen hand pits were dug, blasted and sampled. Six holes totalling 1,315 feet were diamond drilled between mid-September and the end of October. This drilling demonstrated the continuity of the main vein system for at least 750 feet down dip and a slight flattening from 45° at surface to 35° to 40° at depth. Assays from the six-foot vein intersection in Hole No. 4 indicated 3.4 to 8.0 per cent lead, 10.8 to 15.3 per cent zinc and 10 ounces per ton silver. The silver:lead ratio declined from roughly 5:1 at surface to 2:1 at depth.

A test EM survey demonstrated a marked response at high frequency over the main showing.

The geochemical survey consisted of samples taken at 100-foot intervals along the cut lines, spacing being 100 feet near the main showing and 400 feet on the rest of the grid. The most prominent lead anomaly overlies the vein system of the main showing. Zinc response is low. Two downslope zinc anomalies do occur at the east and west ends of a known vein system. A second prominent lead-zinc anomaly occurs in the northwest part of the grid. Three small showings account for part of this anomaly but much of it remains to be explained by further work.

A major program of bulldozer trenching, geological mapping and soil sampling is planned for 1973.

McQUESTEN RIVER

TED GROUP
Quintana Minerals Corporation Limited
1215 Two Bentall Centre
Vancouver, British Columbia.

Gold, Silver, Copper, Lead, Zinc
115 P 15
(63°50'N, 136°45'W)

References: Green (1971; 1972); Bostock (1964).

Claims: TED 1-8, 11-68

Location and Access:

The property is between Boulder and Fortymile creeks, tributaries of McQuesten River, 30 miles west-northwest of Mayo at from 3,500 to 5,800 feet elevation in moderately rugged terrain of the Syenite Range. Access is by helicopter from Mayo.

History:

Earlier work consisted of bulldozer trenching by H. Triggs in the late 1960's and sampling of mineralized outcrops by I.B. Gray in 1970.

Description:

The oldest rocks on the property occur southwest of a prominent, northwest-trending southwest-dipping thrust fault. These rocks are correlated with the Grit division in the McQuesten Lake area to the northeast (units 3 and 4, Green, 1971, Map 1268A) and on the TED property consist of micaceous quartzite, quartz-chlorite-muscovite schist and quartz-chlorite-muscovite-graphite schist forming a gently southwesterly plunging antiform. North of the thrust fault and underlying most of the property is a northwest-dipping homoclinal succession of quartzitic rocks tentatively correlated with the Lower Schist division and Keno Hill Quartzite (units 7 and 8, op. Cit.). The Lower Schist division rocks here consist of some 700 feet of calc-silicate quartzite, micaceous quartzite and minor quartz-muscovite-chlorite schist. Probably Keno Hill Quartzite consisting of micaceous and limy quartzite with minor phyllite overlie the Lower Schist division rocks.

A stock of biotite granite to granodiorite some 3,000 feet wide by at least two and one-half miles long trends north, intruding Lower Schist division rocks on its east and west sides and Grit unit rocks on the south end. The intrusion post-dates the thrust fault. Contact metamorphic effects, notably conversion of pelitic rocks to hornfels and development of pyrrhotite and andalusite, are apparent up to 3,500 feet from the stock.

The calc-silicate quartzite and micaceous quartzite of the Lower Schist division contain erratically disseminated pyrite, pyrrhotite, sphalerite, chalcopyrite, arsenopyrite and galena. Sphalerite and chalcopyrite additionally occur adjacent to the major thrust fault.

Current Work and Results:

During 1971, M.R. Wolfhard did a brief reconnaissance. In 1972 geological mapping was done by Dr. C.L. Smith at one inch to 1,000 feet over nine square miles and at one inch to 400 feet over two square miles in the southwestern part of the property to illustrate metamorphic and alteration features. A geochemical survey consisted of chip sampling of mineralized outcrops, soil and rock sampling at 200-foot intervals on lines 400 feet apart on an area 4,000 by 7,000 feet, and silt sampling of streams. A ground magnetometer survey was done over the same grid as the geochemical sampling.

Earlier grab samples taken from the mineralized calc-silicate quartzite returned attractive assays for Au, Ag, Cu, Pb, Zn, Sn and W.

HANSON LAKE

NOMAD GROUP
Lacanex Mining Company Limited
Box 354, Royal Trust Tower
Toronto Dominion Centre
Toronto 111, Ontario.

105 M 13, 14
106 D 3
(63°58'N, 135°25'W)

Reference: Boyle (1965).

Claims: NOMAD 84-90, 102-110, 123-132, 144-151, 153, 166, 168-175, 192-201, 213-221

Location and Access:

The property is in McQuesten Valley near Hanson Lake and accessible from Highway No. 2.

History:

In April, 1970, an aeromagnetic survey was done over NOMAD claims, west of Keno Hill.

Description:

Precambrian and/or Paleozoic metamorphic and sedimentary rocks are found both north and south of the drift-covered central area of the claims. Mesozoic intrusive rock, including granodiorite, granite, diorite, quartz-feldspar porphyry and granite porphyry are mapped along the northern and southern limit of the area. Metadiorite and metagabbro (greenstone are also present.

Current Work and Results:

The purpose of the 1970 aeromagnetic survey was to determine the distribution of intrusive rocks and the geologic structure. The survey and interpretation, suggest numerous geological features and extensions of known features.

SCHEELITE DOME

DARK CLAIMS
Internation Minerals and Chemicals
Corporation (Canada) Limited
400 - 55 Yonge Street
Toronto, Ontario.
M5E 1J4

Tungsten
115 P 16
(63°47'N, 136°15'W)

Reference: Green (1971).

Claims: DARK 1-72

Location and Access:

This block of 72 contiguous claims is about 18 miles northwest of Mayo, on Scheelite Dome near the head of Savage Gulch, Scheelite Gulch and Randolph Gulch, on the divide between McQuesten River and Minto Creek. A summer access road leaves Highway 2 about ten miles north of Mayo.

History:

In 1969 R.J. Cathro did soil geochemistry in the Scheelite Dome area for G. Elvins (then owner of DARK 1-24) and established the application of soil geochemistry as a satisfactory method for tungsten exploration. Elvins optioned his claims to the present owners.

Description:

Precambrian phyllitic quartzite, schist and minor limestone underlie Scheelite Dome and, to the east, are intruded by Cretaceous plutonic rocks (quartz monzonite, granodiorite, or minor granite and quartz diorite).

Current Work and Results:

The area was soil sampled in 1971 and the resulting anomalous zones, at the heads of Randolph, Savage and Scheelite gulches, were explored by bulldozer trenches totalling 1,500 feet. The exposed rock was chip sampled. The assay results indicated that although scheelite is associated with quartz veins, the mineralized zone does not approach economic grade.

PAN, ARPA
C. Provencher
Whitehorse, Yukon Territory

Tungsten
106 D 4
(64°02'N, 135°47.5'W)

References: Keele (1904); MacLean (1914, pp. 127-152); Cockfield (1919); Green and Godwin (1963, pp. 9-10); Boyle (1965); Poole (1965); Gleeson et al (1965); Gleeson (1967); Green (1968, p. 17); Craig and Laporte (1972, pp. 18-19).

Claims: PAN 1-68; ARPA 57-88

Location and Access:

The property, 3,000 to 4,500 feet in elevation, covers the southwestern spur of the Potato Hills, including the upper part of Dublin Gulch. Access is by the 20 mile road from the Dublin Gulch placer workings which joins the Mayo-Elsa road 12 miles west of Elsa.

History:

The area has a long mining history; placer mining for gold having started in 1898 and lode exploration of gold-bearing stibnite-quartz-arsenopyrite veins dating from 1904 (Keele, 1904; MacLean, 1914). Keele reported placer scheelite and the search for sources led to trenching of ten occurrences in 1918 (Cockfield, 1919). Interest in vein occurrences was renewed with the finding of scheelite in large blocks of float in 1942. During 1960, Prospectors Airways staked the area and explored the gold-bearing veins. Consolidated Mining and Smelting Company Limited explored cassiterite-bearing veins at the mouth of Dublin Gulch in 1945. In 1962, Rio Plata Silver Mines Limited staked the western part of the property, did a Turam survey and cut bulldozer trenches exposing a silver-bearing vein and a gold-bearing arsenopyrite vein.

The Pan and ARPA claims were staked in 1968 and early 1969 for tungsten. A brief examination was made in 1969.

Description:

The area is underlain by Yukon Group quartz-mica schist, graphitic schist, phyllitic quartzite, minor limestone and skarn (unit 3, Boyle, 1965). Cretaceous granodiorite (unit 10, op. cit.) intrudes the older rocks as a northeast-trending stock three miles long by one-half to one mile wide. Altered, decomposed granite and diabase dykes also intrude the Yukon Group rocks. Veins with a variety of minerals have been found: gold, arsenopyrite, pyrite, jamesonite, cassiterite, scheelite and wolframite in quartz gangue.

The gold-bearing veins are within the metasediments at the northwest contact of the stock. Most of the veins are in clusters or swarms, trending northeast and dipping southeast and northwest in faults, fissures and irregular shatter zones. Scheelite is present in small quartz-vein stockworks in the

granitic rocks and is disseminated in marble, calcareous schist and calcareous quartzite at the eastern margin of the intrusion.

Current Work and Results:

During 1970, Canex Placer did a soil gold-silver-tungsten geochemical survey over the southwestern part of the claim group, sampling at 100-foot intervals on lines 400 feet apart. The distribution of high assays is erratic without well defined anomalies being recognized. Scattered high readings for gold were returned near the west end of the stock, above and south of Dublin Gulch. High silver readings are associated with an area of known silver veins on the Olive Crown Grant. The pattern of tungsten distribution, while erratic, does suggest a series of linear highs, consistent with scheelite in veins or shears within the stock. No correlation of the gold, silver and tungsten patterns is recognized. During 1971, Canex cut twenty bulldozer trenches across the quartz-scheelite vein system and diamond drilled roughly 2,000 feet in holes 300 feet to 400 feet long. This work further established the quartz-scheelite vein pattern. Tungsten assays over significant intersections are below economic grade.

KENO CITY

DUNCAN, AVENUE
Canadian Reserve Oil and Gas Limited
1600 - 639 - 5th Avenue Southwest
Calgary, Alberta.

Lead, Zinc, Silver
105 M 14
(63°58'N, 135°06'W)

Reference: Green (1971).

Claims: DUNCAN 1-6; AVENUE 1-6

Location and Access:

The claims are just west of Beauvette Hill some eight miles northeast of Keno City. The property can be reached by 4-wheel drive vehicle over a ten-mile road from Keno City, which is six miles east of Elsa.

History:

The claims are owned by Silver Spring Mines Limited and were held under option by Canadian Reserve Oil and Gas Limited.

Description:

The claim area is underlain by graphitic phyllite and schist and phyllitic, thin-bedded quartzites of the Jurassic Lower Schist division (Green, 1971). Cretaceous greenstone sills and lenses intrude these rocks. Foliation typically trends east and dips southerly at 40 to 60 degrees.

Current Work and Results:

An evaluation report was prepared in 1971 by R.G. Hilker Limited of Whitehorse. In 1972, a geological examination and a

geochemical survey were made. Soil samples were taken at 200-foot intervals on lines 800 feet apart over most of the property and at 50-foot intervals on lines 100 feet apart in a small area north of the grid baseline in the vicinity of some old trenches. Samples were analysed by AA methods for Cu, Pb, Zn and Ag. A few isolated highs were recognized with the source suggested to be a small vein. No sulphides were seen in the old trenches. A four-inch pyrrhotite vein found in the course of prospecting is ten feet long.

ALBERTA AND YUKON GROUPS
Canadian Reserve Oil and Gas Limited
1600 - 639 - 5th Avenue Southwest
Calgary 1, Alberta.

Silver, Lead
105 M 13
(63°54'N, 135°41'W)

Reference: Green (1971).

Claims: ALBERTA 1-17; YUKON 1-20

Location and Access:

The property is east of Haldane Creek and south of Corkery Creek, adjacent to the Mayo-Elsa road, 20 miles north of Mayo.

History:

No work is known prior to 1971.

Description:

The claims are covered by glacial overburden. Inferred bedrock geology is Upper Schist separated from Keno Hill Quartzite to the north by an east-west thrust.

Current Work and Results:

During 1971, a VLF-EM survey was conducted over bulldozed grid lines in an attempt to establish drill targets. This survey was considered unsuccessful due to the masking effect of the thick overburden.

In 1972, reconnaissance vertical loop EM (SE-300) surveying was done over 14.4 line miles followed by 3.9 miles of detailed EM surveying with the same equipment which defined two east-west conductors. Three holes were diamond drilled; information from one of these showed graphite to be the cause of the EM conductor.

GALENA HILL

JOAN CLAIM
United Keno Hill Mines Limited
Elsa, Yukon Territory

Silver, Lead, Zinc
105 M 14
(63°55'N, 135°20'W)

Reference: Boyle (1965).

Claims: JOAN

Location and Access:

Situated on the eastern slope of Galena Hill the claim is connected to the Calumet-Keno City road by rough bush roads.

History:

Initially staked in 1924, the showing was known as the Eagle Vein. Jersey Yukon Mines Limited held the ground since the 1950's. Trenching and diamond drilling were done in 1964 with disappointing results. When the claim lapsed in 1971 it was restaked by the present owners.

Description:

The property is underlain mainly by bedded quartzite with minor graphite schist and phyllite (Boyle, 1965). Several greenstone bodies form resistant ridges in the area.

The Eagle Vein system contains siderite, quartz, pyrite, galena, sphalerite, arsenopyrite, freibergite, limonite and manganese oxides.

Current Work and Results:

Soil geochemistry in 1971 traced the Eagle Vein to the northeast where it is tentatively correlated with the Tin Can and Rico Vein systems.

UNITED KENO HILL MINES LIMITED
Elsa, Yukon Territory
and
Box 40, Commerce Court West
Toronto, Ontario.

Silver, Lead, Zinc
105 M 14
(63°55'N, 135°25'W)

References: Boyle (1956; 1957; 1965; 1968); Green and McTaggart (1960); Skinner (1961, pp. 21-25; 1962, pp. 22-27); Green and Godwin (1963, pp. 5-8; 1964, pp. 7-12); Green (1965, pp. 7-12; 1966, pp. 10-17); Gleeson (1966; 1967); Findlay (1967, pp. 18-21; 1969a, pp. 20-24; 1969b, pp. 10-12); Craig and Laporte (1972, pp. 11-13).

Claims: 668 claims, five surface leases and two Crown Grants

Location and Access:

The properties of United Keno Hill Mines Limited are on Keno and Galena hills, 32 road miles north of Mayo. Concentrates are trucked the 277 miles to Whitehorse, and transferred to the White Pass and Yukon Route Railway for the remaining 110 miles to the port of Skagway, Alaska.

History:

The Galena Hill-Keno Hill district has the longest lode production history of any part of the Yukon. Discovered in 1906, with minor production from 1913-1919, and following the discovery of the No. 9 vein on Keno Hill in 1919, there has been continuous production since, except for the period 1942 to 1946.

Description:

The silver-lead-zinc deposits of the Galena Hill-Keno Hill district occur in erratic shoots and lenses in northwest-trending vein faults which cut southeast-dipping finely-bedded to massive quartzites, intercalated schistose rocks and greenstone sills and lenses. The mineral assemblage is galena-sphalerite-freibergite-pyrite-chalcopyrite in a siderite gangue.

Current Work and Results:

During 1971, of 94,754 tons ore, roughly half came from the Calumet Mine with most of the remainder coming equally from the Elsa and Husky mines. A total of 5,485 feet of lateral development was completed. No ore was developed from 285 feet of lateral work in Hector Calumet. In the Elsa Mine, 953 feet of work developed a 36-foot ore shoot. In the No Cash the 100 foot-level adit was rehabilitated and preparations were made for stoping. The main development was in the Husky Mine where 3,730 feet of work developed 328 feet of ore. A crosscut was driven to explore the School Vein and the Tick Vein. Overburden drilling was continued on several vein systems in the area.

During 1972, the remaining ore in the Hecla and Calumet mines was extracted; further development did not prove ore and these mines closed. The No Cash and Elsa mines continued

production. About 130 feet of lateral development in the Elsa, exploring gravity anomalies failed to intersect ore. From the Townsite adit a crosscut was completed at 1,131 feet and drifts on the strong vein structure (567 feet north, 179 feet south) cut weakly mineralized zones. From the Dixie adit, the crosscut was completed at 1,011 feet. A drift to the north developed 15 feet of ore; the target was 59 feet further. The Husky Mine, under development since 1968, achieved full production by the end of 1972. Lateral development cut 108 feet of ore. The drift on the Tick vein was advanced 200 feet with no ore cut. The southwest drift was advanced 1,004 feet on a weak structure, with the target zone a further 1,200 feet.

Surface exploration consisted of further diamond drilling in the Shamrock area and overburden drilling on the southwest part of the Husky area.

Operating summary for 1970, 1971 and 1972 from information provided by the company:

	1970	1971	1972
Milled (tons)	93,213	94,754	80,646
Daily Average (tons)	255.4	259.6	220.3
Flotation Heads:			
Silver (oz/ton)	29.22	31.80	32.54
Lead (per cent)	3.65	4.47	3.96
Zinc (per cent)	4.35	3.83	2.66
Metal Production:			
Silver (oz)	2,601,960	2,919,693	2,503,921
Lead (lb)	6,583,652	8,220,513	6,108,042
Zinc (lb)	7,467,164	6,533,208	3,307,178
Cadmium (lb)	98,687	84,432	46,731
Metal Sales (Dollars)	6,854,728	6,714,042	6,120,944
Proven Reserves (tons)	142,260	86,000	65,000
Silver (oz/ton)	50.6	51.6	56.8
Lead (per cent)	6.7	5.3	6.4
Zinc (per cent)	4.6	2.4	1.5

DAVIDSON RANGE

SILVER SPRING
Canadian Reserve Oil and Gas Limited
Suite 1600, Standard Life Building
639 - 5th Avenue Southwest
Calgary 1, Alberta.

Silver, Lead
106 D 3
(64°04'N, 135°15'W)

References: Green (1971); Wilson (1971; 1972).

Claims: SILVER 11-16, 23-28; SPRING 7-12; IRENE 1-6; COPPER 1-6; NAT 1-16; BEAR 1-8; LUCKY 1-8; OTTER 1-8; PUNCH 1-8; BOBI 1-8; TIGER 1-8

Location and Access:

The area extends from the western edge of the Davidson Range down to McQuesten Lake and straddles Cache Creek. A secondary road connects with the highway at Elsa and bush roads give access to most of the property.

History:

The Rambler Hill property in the eastern part of the claim group is described by Cockfield (1921) as having a flooded shaft and an adit directed at limonitic quartz-galena veins with pyrite, siderite, cerrusite, anglesite, malachite, and chalcopyrite.

Description:

Graphitic schists of the Lower Schist unit, (Jurassic), underlie the claims. Diorite, gabbro and greenstone occur in a sequence of thin bedded quartzitic phyllite and graphitic phyllite.

Faults cut the area in a northerly direction and a north trending fault is associated with this lead occurrence.

Current Work and Results:

EM and magnetometer surveys outlined shallow dipping graphitic schists as well as other steeply dipping conductors of unknown cause. Magnetic greenstone bodies were also outlined by the magnetometer survey. Twelve holes were diamond drilled on the IRENE claims in 1972, cutting sporadically mineralized schists.

CLARK
Bullion Mountain Mining Limited
1400 - 1030 West Georgia Street
Vancouver 1, British Columbia.

Lead, Zinc, Silver
106 D 2
(64°08'N, 134°57'W)

References: Green (1962); Craig and Laporte (1972).

Claims: CLARK 1-86

Location and Access:

The claims are 18 miles northwest of Keno City, immediately south of Clark Lakes in the Davidson Range. Access is by helicopter or float plane from Mayo and by winter tote road from McQuesten Lakes.

History:

The claims were staked in 1967 and more added in 1968. The property was purchased by Bullion in 1970, and optioned by Scurry Rainbow Oil Limited in 1972.

Description:

The rocks are black to grey mottled limestone, graphitic schist and schistose, gritty quartzite (unit 3, Green, 1962) of Precambrian or Cambrian age. Work by Bullion in 1969 and 1970 indicated a quartzite antiform trending northwest within which the graphitic schist and limestone are crumpled (Craig and Laporte, 1972, p. 20). Galena, with lesser sphalerite and minor pyrite and chalcopyrite occur in drag folds and pipe-like replacements in the limestone, and as narrow veins in the quartzite and phyllite.

Current Work and Results:

During the 1971 season, Bullion built a tote road to the property, did further stripping and trenching of the discovery zone, completed a gravity survey and did diamond drilling. During 1972 the company reopened the road and conducted an I.P. survey over two zones, the first, the discovery area, the second over a gravity anomaly. Diamond drilling of gravity anomalies gave negative results; drilling targeted on combined gravity-I.P. anomalies, intersected galena.

WERNECKE MOUNTAINS

CON GROUP
Rackla River Mines Limited
605, 535 Thurlow Street
Vancouver, British Columbia

Silver, Lead, Zinc
106 D 8
(64°17'N,134°15'W)

Reference: Green (1972)

Claims: BUD 1-24, 33-48; DAGO 3, 5; CON 1-40, 43-80

Location and Access:

The property is in the Wernecke Mountains, two miles north of Kathleen Lakes and 70 miles northeast of Mayo. The area is one of rolling hills with local relief of 2,000 feet and a maximum elevation of 4,500 feet. A 45-mile tote road from McQuesten Lake is passable by light tracked vehicles late in the season. Kathleen Lakes are used by float or ski-equipped aircraft.

History:

Claims CON 1-40, and 43-80 were staked in April 1972.

Description:

The claims are underlain by Ordovician and Silurian limestone and dolomite (Green, Unit 8, Map 1282A) and an unconformity separates these rocks from Proterozoic dolomite (Unit 2, op.cit.). Locally flat thrusts and tight folds are present. Mineral showings consist of calcite-filled fractures containing galena, sphalerite, siderite and pyrite.

Current Work and Results:

During the period late June to mid-August geochemical sampling was completed along claim lines over the property and on 400 by 400 foot grids in areas of limestone. A broad area, anomalous in lead and zinc was recognized on claims CON 22, 26, 36, 37 and 38. One packsack diamond drill hole was put down 39 feet, cutting banded and brecciated dolomite containing sphalerite.

SOUTH MACMILLAN

PDM GROUP
Phelps Dodge Corporation of Canada
1112 West Pender Street
Vancouver, British Columbia.

Copper
105 J 13
(62°51'N, 131°38'W)

References: Roddick and Green (1961); Sanford (1969, U.B.C. B.SC. Thesis).

Claims: PDM 14, 16, 18, 37, 39-44, 46, 113-114, 130

Location and Access:

The claims are five miles north of the South Macmillan River and 24 miles west of mile post 62, on the North Canol Road, about 66 miles north northeast of Ross River. Beaver aircraft can land on a small lake three miles north of the group; a helicopter was employed from this lake in 1972.

History:

The original 144 claims were staked in the fall of 1971 over an intrusive plug that has an associated geochemical anomaly.

Description:

Ordovician and Silurian chert, shale, quartzite and a chert pebble conglomerate trend northwest through the property. The sediments are cut by a biotite-hornblende granodiorite or monzonite of probable Cretaceous age, and have been conspicuously metamorphosed by it. The intrusion, which does not appear to be altered except in the mineralized zones, bears xenoliths and has a silicious margin.

Pyrite and minor chalcopyrite are related to the metamorphic rocks. Arsenopyrite and pyrite are associated with mafic mineral schlieren in the intrusion. The most prominent sulphides occur along fractures in the zones of disseminated sulphides.

Current Work and Results:

In 1972, geological mapping, silt and soil sampling, a magnetometer survey, blasting and trenching revealed very sparsely distributed chalcopyrite and pyrrhotite within the intrusion. Copper is abundant in soil above the intrusion as are copper and molybdenum in the soil developed around the margins. High PH and abundant iron hydroxides in the soil enhanced the geochemical anomalies which, along with the magnetic response due to associated pyrrhotite, resulted in good definition of the metalliferous areas.

MACMILLAN TUNGSTEN
Amax Northwest Mining Company Limited
601, 535 Thurlow Street
Vancouver, British Columbia

Tungsten, Copper
105 O , 105 P
(63°17'N, 130°07'W)

References: Green (1965, pp. 48-50)
Findlay (1969a, p.88; 1969b, pp.52-53)
Allan and Findlay (1972, pp.97-101)

Claims: PAT, BETTY, BORDER, PAR, PIT, DONNA, GULL
A total of 89 in Yukon

Location and Access:

The property is on the Yukon-Northwest Territories border in the Selwyn Mountains, seven miles north of MacMillan Pass at elevations ranging from 4,500 feet in the valleys to 7,280 feet on the border near the deposit. A seven mile access road links the property to the North Canol Road providing for vehicle access during the summer, a total of 410 miles from Whitehorse. A 2,000 foot airstrip beside the Canol Road, five miles southwest of MacMillan Pass is 20 road miles from the claims.

History:

The property was discovered in 1962 by prospectors of Southwest Potash Corporation, a subsidiary of American Metals Climax. Preliminary surface exploration was done in 1963 and 1964. Geochemical reconnaissance and geological mapping in 1967 were followed by 4,600 feet of diamond drilling in five holes in 1968,

Description:

A sedimentary succession ranging in age from Proterozoic to Devono-Mississippian is present in the area. The Proterozoic rocks, consisting of phyllite and muscovite schist are unconformably overlain by 1,000 to 1,500 feet of argillite, argillaceous siltstone, impure limestone and dolomite of Ordovician Road River Formation. The overlying, younger sedimentary rocks occur south of the property and consist of shale, argillite, argillaceous limestone, limestone and a conglomerate having a dark, argillaceous matrix with elongate quartzite and chert clasts. Two Cretaceous quartz-monzonite intrusions, referred to as the Peak 7280 and Rockslide Creek Stocks, intrude the Road River Formation. The company has locally subdivided the Road River into seven units (Allan and Findlay, 1972, p.99).

Contact metamorphism has produced an aureole in which the argillaceous sediments are converted to hornfels and the calcareous rocks to calc-silicate skarn and marble. Two skarn types are recognized: one a dark skarn consisting of dark pyroxene with minor amounts of garnet, hornblende, plagioclase,

and quartz; the other a lighter coloured rock essentially of diopside with minor quartz and plagioclase.

Scheelite is present in two zones; the lower is in the B unit which strikes west and dips 30° south, and the upper, 350 feet higher in section, involves units D, E and F. Most of the scheelite is in the dark skarn phase of these units, fairly evenly disseminated as 0.5-1 mm grains. It is also present as larger crystals in quartz and quartz-plagioclase veins cutting light coloured skarn and the quartz-monzonite intrusion. Chalcopyrite occurs with scheelite in the dark coloured skarn of the B zone.

Current Work and Results:

Major drilling programs were conducted in 1971 and 1972: 8,000 feet in 1971 and 20,000 feet in 1972. This work indicated the B zone to be at least 600 by 1,300 feet and ranging from 40 to 70 feet thick. The upper mineralized zone is 900 by 1,300 feet and 30 to 200 feet thick.

The company announced that the drilling outlined some 30 million tons having a grade of 0.9 percent WO_3 (Northern Miner February 8, 1973).

WHITEHORSE MINING DISTRICT

WHITE RIVER

LIBRA
Marguerite Lake Mines Limited
1710, 1177 West Hastings Street
Vancouver, British Columbia

Copper, Molybdenum
115 N 1
(63°03'N, 140°13'W)

Reference: Bostock (1942, Map 711A)

Claims: LIBRA 1-113

Location and Access:

Aircraft for the airborne geophysical survey were based at Beaver Creek, Mile 1203 on the Alaska Highway 50 miles south of the claims.

Description:

The geological information on the claims is that provided by government maps. On the basis of geological results and detailed geology on claims adjacent to the LIBRA group, the suggestion is that the aeromagnetic anomalies are caused by Tertiary basic volcanics of the Carmacks group. The surrounding Yukon Group gneisses and quartzites have low magnetic susceptibilities as does an intrusive Jurassic monzonite.

Current Work and Results:

An aeromagnetic survey flown early in 1971 was used, along with the information from the adjacent ARIES claims, to interpret the rock units, faults and contacts.

WRANGELL
Kennco Explorations (Western) Ltd.
730, 505 Burrard Street
Vancouver, British Columbia

Copper, Molybdenum
115 K 2
(62°01'N,140°56'W)

Reference: Muller (1967)

Claims: WRANGELL 7-10, 17-22

Location and Access:

The claims are situated in a strongly dissected part of the Kluane Ranges, adjacent to the Alaskan Border, about 30 miles south of Beaver Creek at Mile 1203 on the Alaska Highway and 15 miles west of the Highway bridge over the White River. In 1970 and 1971, access was by helicopter from White River and Beaver Creek.

History:

The claims were staked in 1970.

Description:

The area is underlain by Upper Jurassic to Lower Cretaceous stocks of the Kluane Ranges intrusions (unit 18, Muller, 1967) and by Lower Cretaceous Dezadeash Group sediments (unit 16, op. cit.). Company work suggest that syntectonic granodiorite bodies are concordant with the main trends of older gneiss and schist. The intrusives are of several phases, including porphyry and breccia. Discordant quartz-feldspar porphyry and granite of probable Tertiary age cut the Mesozoic granodiorite. Minor sills of andesite and porphyritic andesite are present in the Dezadeash Group sediments. Basalt dykes, the youngest rocks, cut the granitic rocks. Rare breccia zones, occurring near the eastern margin of the granodiorite, are barren. Weak alteration products are chlorite and epidote. Pyrrhotite is present on joint and fracture surfaces. Rare chalcopyrite, malachite, chalcocite and molybdenite are present.

Current Work and Results:

Reconnaissance geology and silt geochemistry demonstrated several copper and molybdenum anomalies. Later work, applying rock geochemistry confirmed that copper, molybdenum and gold occur where later leucocratic phases intrude a major granodiorite stock.

RAY
Imperial Oil Enterprises Limited
500 - 6th Avenue Southwest
Calgary, Alberta.

Copper
115 F 15
(61°59'N, 140°46'W)

Reference: Muller (1967).

Claims: RAY 1-6

Location and Access:

The claims are seven miles west of Mile 1169 on the Alaska Highway, near the headwaters of Sandpete Creek, on a northwest trending ridge between 5,200 and 6,600 feet elevation. Access is by helicopter from the Alaska Highway.

History:

The claims were staked in 1970 following discovery of copper minerals in an area indicated to be favourable by a 1966 regional geochemical survey.

Description:

The regional pattern of this area, southwest of the Shakwak Trench, is one of elongate, northwest trending belts of volcanic and sedimentary rocks from Permian to Cretaceous in age,

which have been folded, thrust-faulted and intruded by sill-like intrusions. The intrusions range from ultrabasic to granitic composition and are Cretaceous to Tertiary in age.

The oldest rock unit recognized on the property, probably of the Mush Lake Group, consists largely of dark green and brown, massive andesite with minor amounts of porphyritic, amygdaloidal, and altered varieties. Porphyritic dykes and quartz veins cut the andesite. Minor shale and basalt occur within the unit.

Unconformably overlying the andesite is a bed of light grey, massive limestone, more than 300 feet thick, containing black chert nodules. This limestone is cut by porphyry dykes and intruded by a diorite stock. Contact effects include the development of epidote-garnet skarn and altered xenoliths containing sparse copper minerals.

Overlying the limestone is a light brown to black, banded chert unit which contains minor pyrrhotite and pyrite near porphyry dyke contacts. The main intrusive rock, outcropping in the northeast part of the claims, is typically diorite. Locally, a gabbro phase contains minor pyrite and pyrrhotite.

Current Work and Results:

The company did prospecting and geological mapping on the claims in 1971. Some malachite, chalcopyrite, pyrite, pyrrhotite and magnetite occur in narrow, discontinuous skarn zones.

LEP
Imperial Oil Enterprises Limited
500 - 6th Avenue Southwest
Calgary 1, Alberta.

Copper, Zinc, Lead
115 F 15
(61°50'N, 140°33'W)

Reference: Muller (1967).

Claims: LEP 1-30

Location and Access:

The claims are 15 miles southwest of Koidern, Mile 1167 on the Alaska Highway. Access was by helicopter from Koidern during 1971 exploration. The claims are on a southwest facing slope above Moose Creek, from 3,500 to 5,500 feet in elevation.

History:

The claims were initially staked in 1966 following the discovery of chalcopyrite and sphalerite during a geochemical reconnaissance survey by Geophoto Limited in the Kluane Range. Magnetic, E.M. and soil geochemical surveys were conducted in 1967. Some lapsed claims were restaked in 1970.

Description:

The LEP claims are underlain by a series of volcanic and sedimentary rocks intruded by a diorite stock, small mafic

bodies and diabase dykes. A sequence of andesite and rhyolite flows in the western part contain disseminated pyrrhotite, pyrite, chalcopyrite and magnetite. Topographically above and essentially conformable with the volcanics, a sequence of limestone, chert, quartzite, rusty shale and siltstone contains sphalerite, pyrite and galena; most of the sulphides are in the limestone.

The coarse-grained diorite stock in the eastern part contains disseminated pyrite, pyrrhotite and magnetite. Lamprophyre and pyroxenite dykes intrude the volcanics and sediments. Numerous fine-grained diabase dykes cut all rocks except these small mafic bodies. A prominent fault passes through the southern part of the claims.

Current Work and Results:

The 1971 work consisting of magnetic and I.P. surveys, and geological mapping revealed small narrow lenses of sphalerite, pyrite and minor galena in limestone and disseminated chalcopyrite at numerous places in the volcanics.

NICK
Rainbow Lake Explorations Limited
814 - 510 West Hastings Street
Vancouver, British Columbia.

Copper, Molybdenum
115 O 4
(63°11'N, 139°53'W)

Reference: Bostock (1942).

Claims: NICK 1-30

Location and Access:

The NICK claims block lies at the north end of the Dawson Range, one mile south of the White River and eight miles west of its confluence with the Yukon River. Access is by river boat from Dawson or Stewart River, or by helicopter staged from Casino airstrip 70 miles to the southeast. At certain times of high water a float plane could land on the White River.

History:

These claims were staked during the 1969-1970 Dawson Range rush on the basis of an aeromagnetic anomaly.

Description:

Rocks of the area consist of Yukon Group schist and quartzite intruded by a stock of granitic porphyry. Locally the schists trend west. The intrusive material, probably of the early Klotassin plutonic suite, is a medium- to coarse-grained hornblende granodiorite, in part porphyritic. Minor saussuritization of feldspar is observed, but alteration is not strong.

Current Work and Results:

Following staking in early 1970, geological mapping and a soil geochemical survey was completed with essentially negative results. The claims lapsed early in 1972.

SILVER CITY MINES LIMITED
580 Howe Street
Vancouver, British Columbia

Copper
115 F 15
(61°47'N, 140°47.5'W)

References: Findlay (1967, pp. 51-52; 1969a, pp. 68-70; 1969b, pp. 40-41); Craig and Laporte (1972, pp. 98-100).

Claims: NUK, MARC, GOLDEN HORNE, SLAGGARD and HANNA groups, a total of 224 claims

Location and Access:

The White River property is on the east side of the White River 18 miles south of Mile 1168 on the Alaska Highway. Heavy equipment and fuel are brought in before break-up by a 20-mile tote road from the highway. Summer servicing is done by light float aircraft using a one-mile long lake on the property.

History:

Copper occurrences (native copper and chalcocite with minor chalcopyrite) have been known on the White River since the turn of the century. Part of the present property was first staked in 1905. Modern exploration consisted of 2,600 feet of diamond drilling, ground magnetometer and I.P. surveys in 1968, followed by 10,000 feet of diamond drilling and an I.P. survey in 1969. During 1970, Silver City Mines tested the mineralized zones indicated by surface exposures and diamond drilling, by an adit with north and south drifts, totalling 1,124 feet (Craig and Laporte, 1972).

Description:

The rocks on the White River property are volcanics of the Cache Creek Group (units 10 and 11, Muller, 1967) and the Mush Lake Group (unit 13, op. cit.). Rocks are brown to grey porphyritic andesite, purplish red amygdaloidal andesite and dark green, sheared, amygdaloidal basalt. The area is strongly faulted with the scarp of the north-northwest trending Generc-Tchawsahman Thrust being immediately southeast of the property. A probable major fault in Upper White River Canyon separates Cache Creek rocks on the west from Mush Lake rocks on the east. A north 20° east trending fracture zone offset by east trending small faults may control the copper mineralization. Numerous small faults and shear zones are obvious in the drill core and underground workings.

Current Work and Results:

The property was inactive during 1971. In 1972 the company diamond drilled 20 holes, totalling 2,900 feet from four stations in the drifts. The holes were fanned outwards and downwards to test the extent and grade of two mineralized zones in the south drift, one in the north, and one at the intersection of the two drifts. Assays from drill core and sludge samples confirmed the earlier work; high-grade intersections were found, but copper distribution is erratic in these sheared, volcanic rocks.

DONJEK RANGE

WELLGREEN MINE
Hudson-Yukon Mining Company Limited
Box 28 Toronto Dominion Centre
Toronto, Ontario.

Nickel, Copper
115 G 5
(61°28'N, 139°32'W)

References: Campbell (1960); Muller (1958; 1967); Findlay (1967, pp. 52-53; 1969b, p. 43); Craig and Laporte (1972, pp. 100-101).

Claims: 91 Claims

Location and Access:

The mine is on Nickel Creek in the Kluane Ranges at 4,200 feet elevation. A nine-mile access road from Mile 1110 of the Alaska Highway follows Quill Creek Valley to the property.

History:

Copper-nickel bearing massive sulphides were discovered in this Quill Creek tributary in 1952 by prospectors W.B. Green, C.A. Aird and C.H. Hankins of the Yukon Mining Company Limited. Hudson Bay Exploration and Development Company optioned the property and formed the subsidiary, Hudson-Yukon Mining Company Limited to explore and develop it. Major exploration from 1953 to 1956 consisted of 14,000 feet of underground workings on four levels and 65,000 feet of surface and underground diamond drilling. Reserves were quoted as 738,000 tons grading 2.04 per cent nickel, 1.42 per cent copper with minor cobalt, platinum and palladium. Exploration was resumed in 1968 with a ground geophysical survey followed by 2,500 feet of diamond drilling directed towards the discovery of disseminated sulphides near the previously explored massive sulphide zone. In March of 1970, the company announced that the property would be placed in production with concentrates going to Sumitomo Metal Mining Company of Japan. Development work, started in February 1970, consisted of slashing the exploration adit for mine haulage, sinking an internal shaft and driving of lateral openings in preparation for stoping. On surface, a mine dry and powerhouse were built at the portal; a mill was built and townsite established beside the Alaska Highway.

Description:

Two peridotite dykes (unit 12, Muller, 1967) striking east and dipping steeply south intrude northwest trending Cache Creek basic volcanics and cherty tuff (unit 10, op. cit.) and argillite (unit 11, op. cit.). The southern dyke, 200 to 300 feet thick, consists of serpentinized peridotite and feldspathic peridotite with a footwall marginal zone of fine to medium grained, altered, anorthositic gabbro or diorite (Findlay, 1967, p. 53). Massive to heavily disseminated lenses of pyrrhotite with chalcopyrite, pentlandite and violarite occur in this gabbro and to a lesser extent, in a bordering hornfels. Irregular ore shoots roughly parallel the ultramafic-gabbro contact.

Current Work and Results:

During 1971 and early 1972, surface and underground preparation were completed and milling began in May at 360 tons per day.

Operating Summary:

	1972 (8 months)
Milled (tons)	112,451
Daily Average	356
Grade	
Nickel (%)	2.05
Copper (%)	1.35
Platinum metals (oz/ton)	0.065
Cobalt (%)	0.073

Numerous small faults with displacements of a few feet to a few tens of feet offset blocks of ore making stoping and drawing of ore difficult. The weak hanging wall of peridotite and gabbro contributed further problems. In the fall of 1972 the company announced that the mine would close in 1973 due to lack of continuity of the orebody and poor ground conditions.

AMP
Nicanex Mines Limited
821 - 602 West Hastings Street
Vancouver, British Columbia.

Copper
115 G 5, 6
(61°25'N, 139°30'W)

Reference: Muller,(1967).

Claims: AMP 103, 105-109, 111, 113, 115, 127-136, 138, 140, 142, 144, 146-151, 153

Location and Access:

The claims are between Tatamagouche and Wade creeks ten miles west of the Duke River bridge. Vehicle access is possible from Mile 1110, by the Hudson-Yukon mine road to Nickel Creek and along the bed of Quill Creek to within one mile of the claims. The AMP claims are near the Cork property of Imperial Oil Company Limited.

History:

The area has been staked several times and the claims allowed to lapse.

Description:

This part of the Kluane Range is underlain by Paleozoic and Mesozoic volcanic and sedimentary rocks, intruded by nickel-bearing ultramafic intrusions and Cretaceous and Tertiary granitic rocks.

Triassic Mush Lake andesites and basalts occur adjacent to

the claims.

Current Work and Results:

The 1970 work outlined several copper anomalies but their source was not established. Possibilities include minor sulphides in volcanics, sulphide mineralization in limestone or volcanics, or porphyry type mineralization in acid intrusions.

WHITEHORSE AREA

ARK GROUP
Canadian Occidental Petroleum Limited
801 - 161 Eglinton Avenue East
Toronto 12, Ontario.

Molybdenum
105 D 12
(60°36'N, 135°39'W)

Claims: ARK 1-56

Location and Access:

The ARK claims are about 21 miles west-southwest of Whitehorse. Access is by helicopter although there is an old trail south from the Alaska Highway. The claim block includes Mount Arkell, 7,245 feet, in the northeast corner and is drained by a north-trending valley, at 4,100 feet.

History:

The claims were staked as a result of a 1971 reconnaissance stream geochemistry survey.

Description:

The property is in an area of hornblende-biotite granodiorite of probable Mesozoic age, cut in the south by biotite granite. Swarms of north trending dykes of varying composition cut the granodiorite and are spatially related to chlorite and epidote alteration in the granodiorite.

Molybdenite occurs in quartz stringers and is disseminated throughout the granodiorite and dykes. Minor chalcopyrite occurs with epidote within a chloritized porphyry dyke. Magnetite veinlets and stringers cut the granodiorite. Finely disseminated magnetite is common in the acidic dykes.

Current Work and Results:

Geological mapping and soil geochemistry, intended to explain the copper and molybdenum stream sediment anomalies, revealed minor copper, zinc, and molybdenum sulphides in the area. High zinc results correlate with pyritic parts of the intrusions, as confirmed by rock geochemistry.

WAT, SON, RIV
Phelps Dodge Corporation
of Canada Limited
404 - 1112 West Pender Street
Vancouver 1, British Columbia.

Copper, Molybdenum
105 D 5
(60°20'N, 135°20'W)

Reference: Wheeler (1961).

Claims: WAT 1-8; SON 1-8; RIV 1-8

Location and Access:

The property is on the north side of Watson River, two miles southeast of Alligator Lake and 27 miles south-southwest of Whitehorse. Bush roads extending west from Robinson, on the Carcross road, pass near the property. Most work was serviced by helicopters from Whitehorse.

History:

The claims were staked to cover a copper-molybdenum soil geochemical anomaly found in July 1970.

Description:

The property is underlain by biotite granodiorite of the Coast Intrusions (unit 8, Wheeler, 1961). Numerous intermediate to mafic intrusive dykes are present. These are porphyritic with phenocrysts of feldspar, quartz and biotite. A few small bodies of fine-grained granodiorite and biotite granite are present.

Shear and fracture zones are common, especially in the vicinity of a gossan on a rock cliff in the southeast part of the property. Small amounts of chalcopyrite, malachite, azurite and ferrimolybdite are associated with quartz veins in shear zones. Pyrite is the major cause of the gossan but is not closely related to the copper or molybdenum minerals.

Except for the steep rock face, there is little outcrop on the property.

Current Work and Results:

In 1971 a consultant did geological mapping and a geochemical soil survey on the property. The small, scattered occurrences of copper and molybdenum minerals did not justify further work.

HAWK, NICH
M. Nichiporich
Whitehorse, Yukon Territory

Copper
105 D 9
(60°35'N, 134°24'W)

Reference: Wheeler (1961).

Claims: HAWK 1-3; NICH 3

Location and Access:

The claims are roughly two miles north of Marsh Lake and 24 miles east-southeast of Whitehorse. Access in 1971 was by a 2.7-mile road which leaves the Alaska Highway at Mile 887.2.

History:

The claims were staked by M. Nichiporich in 1969. The occurrence has been known for some time as there are a number of old test pits and shafts on the property, many of which are now sloughed in. The occurrence is also referred to by Wheeler (1961, p. 143). In 1970, the present owner drilled an 87-foot X-ray diamond-drill hole which cut minor sulphides assaying from 0.03 to 0.05 per cent copper.

Description:

The property is underlain by metamorphosed volcanic rocks of uncertain age (unit Aa, Wheeler, 1961), consisting mainly of hornblende porphyry and andesite. These two rock types appear to be gradational. A volcanic breccia consisting of fragments of buff-coloured siliceous volcanic rock cemented by quartz and calcite is also present. Thin bands of light-green to dark-grey banded chert occur locally within andesite and appear to be associated with local lenses of garnet-epidote-calcite skarn. Aphanitic, light-grey to green aplite occurs as dykes from one-inch to ten feet wide cutting andesite. The aplite dykes may, in fact, be rhyolite flows as the relationship to the andesite is not clear.

Copper showings consist of chalcopyrite with lesser bornite associated with disseminated pyrite and occur in chert at or near the contact with andesite and with quartz in the brecciated volcanic rocks.

Current Work and Results:

The occurrence was examined briefly in 1971 at which time a number of rock and soil samples were collected. The four rock samples collected, assayed: 0.02, 0.10, 0.03 and 0.03 per cent copper.

VIC
Lewes River Mines Limited
514 - 355 Burrard Street
Vancouver, British Columbia.

Copper
105 D 10
(60°38'N, 134°50'W)

References: Kindle (1964); Wheeler (1961); Findlay (1969b, pp. 34-35); Craig and Laporte (1972, pp. 112-113).

Claims: VIC 46-49, 55-62

Location and Access:

The claims are at the south end of Cantlie Lake, nine miles southeast of Whitehorse. Access in 1971 was via helicopter from Whitehorse.

History:

The VIC claims were staked during the 1960's and subsequently acquired by Lewes River Mines Limited. In 1968, a low level aeromagnetic survey outlined a linear magnetic anomaly on the porperty.

Description:

Although largely covered by overburden, the area lies near the eastern contact of the Whitehorse Stock (unit 8, Wheeler, 1961) with Lewes River sediments (unit 3, op. cit.) and could be favourable for contact metamorphic copper deposits such as occur in the Whitehorse Copper Belt.

Current Work and Results:

Geological mapping and soil sampling were carried out on the property in 1971. A single outcrop of diorite in contact with shale and limestone was found. The attitude of the contact indicates that Lewes River sediments underlie most of the property.

The soil sampling failed to outline any copper anomalies.

GREEN EAGLE, JOY
Charta Mines Limited
230, 890 West Pender Street
Vancouver, British Columbia

Copper, Molybdenum
115 A 8
(60°15'N, 136°22'W)

Reference: Kindle (1953)

Claims: GREEN EAGLE 1-16: JOY 1-12

Location and Access:

The claims are situated on the west side of Kusawa Lake and southeast of Frederick Lake. Access in 1971 was by fixed-wing aircraft to Kusawa Lake from Whitehorse, 56 miles to the east-northeast, and then via helicopter to the property itself.

History:

The GREEN EAGLE claims were originally staked by J.B. O'Neill in 1969 and subsequently acquired by Charta Mines Limited. The JOY claims were added in 1971.

Description:

The property lies entirely within an area underlain by Cretaceous Coast Intrusions (Unit 7, Kindle, 1953).

The oldest rocks in the area are biotite schist and amphibolite of the Yukon Group which occur as xenoliths in the intrusive rocks.

Rocks of the Coast Intrusions consist of hornblende granodiorite and biotite granite intruded by granite and quartz-orthoclase porphyry. Altered rocks, highly brecciated and mylonitized, occur locally as a small breccia plug and along fault zones.

Tertiary diabase and dacite dykes cut the Coast Intrusions.

Current Work and Results:

Geological mapping, soil sampling and a ground magnetic survey were carried out on the property during the 1971 field season.

Soil sampling showed higher than background values for copper, molybdenum, silver, lead and zinc throughout the surveyed area in a zonal pattern with copper and molybdenum in the centre and haloed by lead, zinc and silver values.

The magnetic survey showed relatively flat relief for which no distinct trends were observed.

WHITEHORSE COPPER MINES LIMITED
1695 - 555 Burrard Street
Vancouver, British Columbia
-and-
Mile 905 Alaska Highway
Whitehorse, Yukon Territory

Copper, Silver, Gold
105 D 10, 11
(60°33'N, to 60°45'N,
134°53'W to 135°10'W)

References; Kindle (1964);
Green (1965, pp.40-41, 1966, pp.50-51)
Green and Godwin (1964, pp.33-39)
Findlay (1967, pp.41-43;1969, pp.49-54)
Hilker (1967)
Craig and Laporte (1972, pp.110-111)

Claims: 677 claims in the Whitehorse Copper Belt

Location and Access:

The deposits of Whitehorse Copper Mines are in the Whitehorse Copper Belt, an arcuate area four miles by 20 miles trending northwest to north three miles west of the city of Whitehorse. The open pit deposits are linked to the mill by mine haulage roads.

History:

Copper occurrences have been known at least as early as 1897 and most of the presently known occurrences were first staked in 1898 and 1899. A few tons of hand-picked ore were produced between 1900 and 1909; one shipment from the Copper King in 1900 graded 46.4 percent copper.

More significant production took place from 1912 until 1920 when low copper prices made mining in the Copper Belt uneconomic. Richmond Yukon Company did diamond drilling in 1927 and Noranda did geophysical work, trenching and diamond drilling on the Little Chief, Middle Chief, Big Chief and Valerie from 1946 to 1948.

Imperial Mines and Metals Limited, formed in 1954 to explore the deposits did magnetometer surveys and diamond drilling on the Arctic Chief and Best Chance prospects. Reorganized as New Imperial Mines Limited in 1957, the company completed further diamond drilling in 1963 and 1964. Mining began in 1966 from the Little Chief open pit and milling started in May of 1967. Production from 1967 to 1970 was from the Little Chief, Arctic Chief and War Eagle pits. Deep drilling on the Little Chief outlined 2.8 million tons of ore grading 2 percent copper. A decline to gain access to this underground ore was started in November, 1969 and continued throughout 1970.

Description:

Whitehorse Copper Belt deposits are irregular, contact metasomatic lenses in skarn zones developed in Triassic Lewes River limestone at the contact with diorite to granodiorite rock of the Coast Range Intrusions. The gangue mineral assemblage at the Little Chief is diopside, epidote, tremolite-actinolite, garnet, serpentine magnetite, hematite and rare asbestos. Ore minerals are chalcopyrite, bornite, chalcocite, vallerite and rare native copper.

Current Work and Results:

Production in 1971 was from Black Cub South pit during January until stopped by poor ground conditions with the pit almost completed. The Keewenaw pit was readied for production and provided mill feed from late February until June, when low copper prices made mining of 1.06 percent copper uneconomic and operations ceased.

Operating summary provided by the Company:

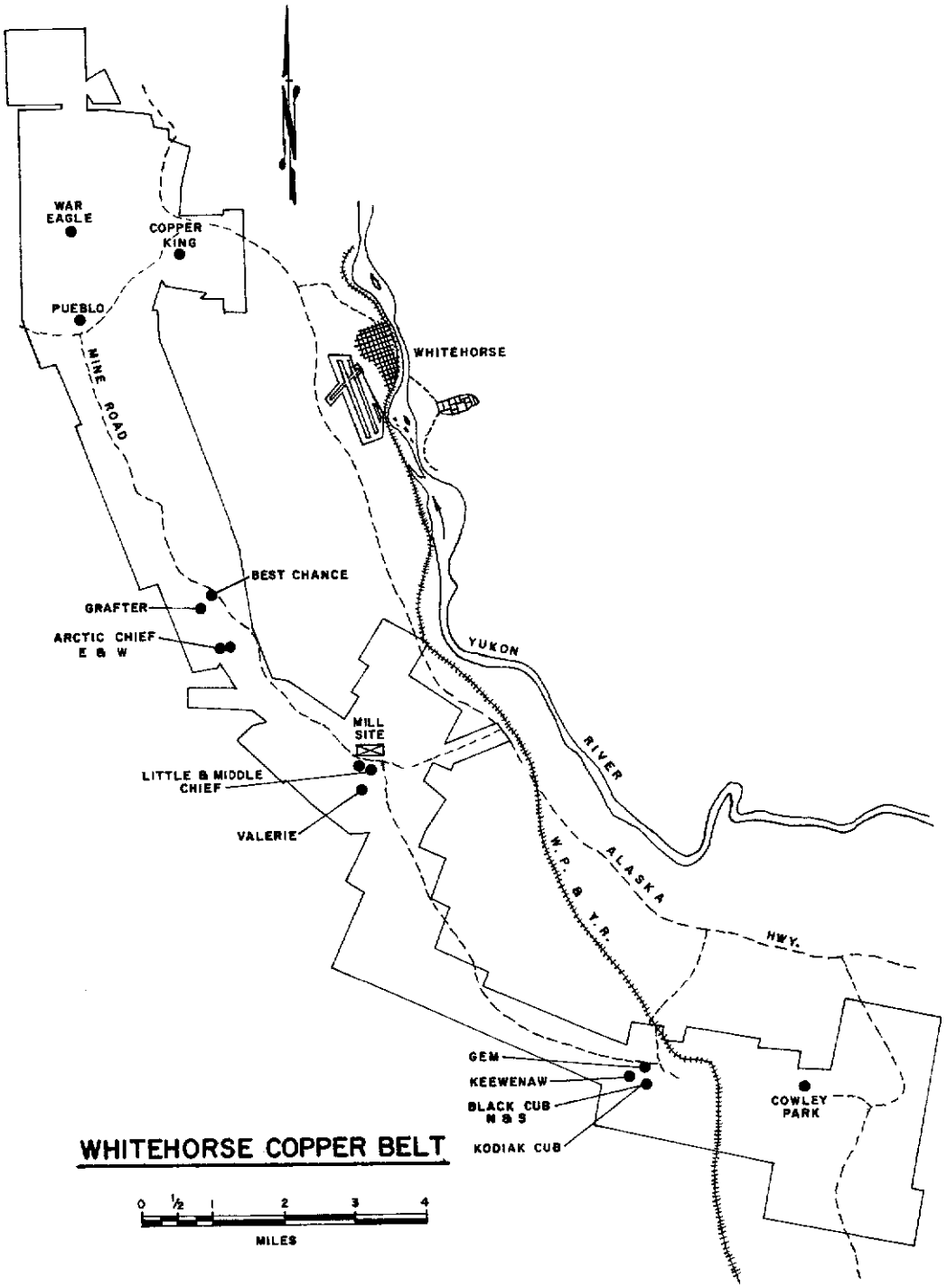
		1971 (Jan. to June)		1972 (December)
Milled (tons)		337,758		10,707
Grade (percent)		1.02		1.92
Reserves (tons) and Grade (percent)	at	2,702,274 2.38	at	3,216,703 2.47

Development work continued with the driving of the decline started in late 1969, stope preparation and the sinking of a 14-foot diameter vertical shaft to be connected with the decline. The shaft was completed in May, 1972; other development continued and milling resumed in December.

Corporate reorganization in August, 1971 involved an operating joint venture agreement with Hudson Bay Mining and Smelting Company Limited and Anglo American Corporation of Canada Exploration Limited and a change of name from New Imperial Mines Limited to Whitehorse Copper Mines Limited.

During 1971 company exploration consisted of I.P. and magnetometer surveys on the War Eagle property followed by surface diamond drilling of an I.P. anomaly north of the open pit mined in 1969 and 1970.

By further joint venture agreement made in May 1972, Hudson Bay Exploration and Development and Anglo American are to undertake exploration of the present company holdings in the Whitehorse Copper Belt north of the Little Chief area.


WAR EAGLE
COPPER KING
PUEBLO
MINE ROAD
WHITEHORSE
BEST CHANCE
GRAFTER
ARCTIC CHIEF E & W
MILL SITE
LITTLE & MIDDLE CHIEF
VALERIE
YUKON
RIVER
ALASKA
HWY.
W. P. & Y. R.
GEM
KEEWENAW
BLACK CUB N & S
KODIAK CUB
COWLEY PARK
WHITEHORSE COPPER BELT
0 ½ 1 2 3 4
MILES

WAR EAGLE, PUEBLO
Hudson Bay Exploration and Development Company Limited
Box 28, Toronto Dominion Centre
Toronto, Ontario.

Copper
105 D 11
(60°44'N, 135°11'W)

References: Kindle (1964); Green (1965, pp. 40-41; 1966, pp. 50-51); Green and Godwin (1964, pp. 33-39); Findlay (1967, pp. 41-43; 1969, pp. 49-54); Hilker (1967); Craig and Laporte (1972, pp. 110-111).

Claims: WE, PUEBLO

Location and Access:

The two properties are five miles northwest of Whitehorse near the north end of the Copper Belt. Access is by mine haulage roads.

History:

The prospects were originally staked in 1898 to 1899. The PUEBLO was worked between 1912 and 1917. The main production of New Imperial Mines from July of 1969 to December 1970 came from the WAR EAGLE open pit - 1,200,000 tons grading 1 per cent copper.

Description:

The WAR EAGLE deposit is in garnet diopside skarn with minor epidote and tremolite-actinolite, adjacent to granodiorite of the Coast Intrusions. The main sulphide minerals are chalcopyrite and bornite. The Pueblo skarn carries abundant specularite as well.

Current Work and Results:

During 1972, following the joint venture agreement with Whitehorse Copper Mines Limited, Hudson Bay Exploration and Development explored beneath the WAR EAGLE open pit with six holes totalling 4,710 feet, drilled from the west and north of the pit. The drilling intersected skarn and Lewes River limestone and quartzite. At the PUEBLO, five holes totalling 3,362 feet cut quartz diorite and limestone. No significantly mineralized intersections were reported from this drilling.

GROUSE CLAIMS
S. Takacs and E. Kreft
Whitehorse, Yukon Territory

Copper
105 D 11
(60°41'N, 135°21'W)

Reference: Wheeler (1961).

Claims: GROUSE 1-4, 7-14; ROY 1-8; LUNAR 1-8

Location and Access:

The showings are situated on a steep south-facing hillside north of Jackson Creek, about two miles west of Franklin Lake. In dry weather, four-wheel drive vehicles can reach the claims from the Fish Lake-Jackson Lake road.

History:

The showings have been explored by hand trenching, blasting and bulldozer stripping since their discovery in 1969.

Description:

The claims cover a part of the contact between Coast Intrusions of granitic composition and Lewes River limestone. Where exposed in trenches, the contact is irregular and cut by east-west faults. The granitic rocks vary from bleached and chloritized hornblende granite to altered quartz monzonite and porphyritic diorite. The limestones vary from coarsely crystalline marble to black, stylolitic, limestone.

The chalcopyrite-bearing skarn is coarse-grained actinolite-magnetite and diopside-magnetite with minor chlorite, serpentine and epidote. Pyrite, pyrrhotite and scheelite are present.

Several north trending andesite dykes up to ten feet wide cut the skarn zone. In places, they contain disseminated pyrite.

Malachite staining is abundant in the skarn and occurs in limonite-cemented rubble below the showing.

Current Work and Results:

New Jersey Zinc Exploration Company (Canada) Limited optioned the property and, in August, 1972, drilled six holes with a total length of 1,500 feet, intersecting three zones with a total length of 31 feet, in which the highest assays were: 0.26 per cent copper, 0.005 ounces gold per ton and 0.16 ounces silver per ton.

IDAHO HILL PROPERTY
Whitehorse Silver Mines Limited
c/o T.R. Tough and Associates Limited
602 West Hastings Street
Vancouver, British Columbia.

Gold, Silver, Lead, Zinc, Arsenic
105 D 6
(60°18'N, 135°04'W)

Claims: HP 1-27; KAY 1-8; HARLOS 1-2; DARLENE 3-6; SAIL 1-2

Location and Access:

Reached by way of the Annie Lake Road, the claims cover Idaho Hill and Folle Mountain on the west side of Corwin Valley. The property is about 28 miles south of Whitehorse.

History:

Silver minerals were discovered in 1893. A 140-foot drift cut low grade silver, lead, zinc and arsenic vein material. Cominco mapped and sampled four claims in 1964. During 1969, Whitehorse Silver Mines Limited did geochemical and geophysical surveys over a two-claim area covering most of the known showings.

Description:

The claims are underlain mainly by Lower Jurassic Laberge Group rocks consisting of massive silicified arkose, greywacke, and interbedded tuffs. These rocks form a northwesterly plunging anticline and are faulted and sheared. Porphyritic granodiorite outcrops on Idaho Hill and feldspar porphyry dykes are exposed in lower Schnabel Creek Canyon.

The showings are in veins consisting of pyrite, arsenopyrite, quartz and calcite with galena and sphalerite. The known veins are sheared and range from one to 40 feet in width along a strike length of 1,200 feet.

A strongly oxidized zone is present to a depth of 15 feet, as seen in trenches. Chip samples taken by Whitehorse Silver Mines assayed: 0.05 oz/ton gold, 2.22 oz/ton silver, and 0.36 per cent Pb.

Current Work and Results:

The company conducted a soil geochemical survey in 1971. Results were consistent with the geophysical response, being anomalous over the known showings. Few new showings were found.

CARCROSS AREA

VENUS MINES LIMITED
440 - 890 West Pender Street
Vancouver, British Solumbia.

Gold, Silver, Lead,
Zinc, Cadmium
105 D 2
(60°01'N, 134°38.2'W)

References: Cairnes (1908, pp. 16-17; 1909, p. 31); Wheeler (1961, pp. 129-130); Findlay (1967, pp. 48-50; 1969a, pp. 62-64; 1969b, pp. 37-39); Craig and Laporte (1972, pp. 115-117).

Claims: 40 claims owned and optioned of which 8 are Crown Grants

Location and Access:

The property is on the west side of Windy Arm, Tagish Lake, ten miles southeast of Carcross. A 17-mile access road connects the property to Carcross.

History:

The Montana Mountain area was explored for gold and silver from 1904 to 1918, with small production coming from several properties (Findlay, 1969b, p. 37) including 6,000 tons reportedly coming from Venus (Cairnes, 1917).

Modern work began in 1966. From 1966 to 1969 two adits, with drifts and crosscuts were driven on the 2,700-foot and 2,800-foot levels. The 2,650-foot sublevel was driven from a raise on the main vein between the two levels. Following a production decision in 1969, underground development consisted of establishing the 2,800-foot level and in 1970, the 2,850-foot sublevel by means of raises from the 2,700-foot level. Ore passes were built for stoping and 30,000 tons of development ore was stockpiled. The mill, of 300 tons per day capacity, was built on the shore of Windy Arm, five miles northeast of the mine, and was completed in time for milling to start in September, 1970,

Description:

The Venus vein system trends north 20° east and dips 30° west. The veins consist of coarsely crystalline quartz and carbonate up to six feet thick with bands and lenses of pyrite, arsenopyrite, galena, sphalerite and minor chalcopyrite. Ruby silver is present in some parts of the main vein. The host rocks are andesite and andesite breccia of the Cretaceous Hutshi Group (unit 7, Wheeler, 1961).

Current Work and Results:

Narrow vein widths, commonly less than minimum mining widths, contributed to dilution problems. It was found to be impossible to maintain either the projected 300 tons per day mine production or the anticipated grades. Mining and milling ceased in June, 1971, and the company went into receivership.

Operating Summary:

	1970 (Sept - Dec)	1971 (Jan - June)
Milled (tons)	23,491	41,435
Daily Average (tons)	246	250

CHIEFTAIN HILL
Secord Investments Limited and
Laura Development Limited
Vancouver, British Columbia.

Copper
105 D 3
(60°11'N, 135°23'W)

Reference: Wheeler (1961).

Claims: RACA 1-14

Location and Access:

The property is 40 miles south-southwest of Whitehorse, on Chieftain Hill, immediately west of Wheaton River, in rugged terrain, between 5,000 and 5,500 feet in elevation. An abandoned tote road, 30 miles long, extends from Robinson Station to the south side of Chieftain Hill. Work in 1972 was supported by helicopter from Whitehorse.

History:

Yukon Antimony Limited staked the Chieftain Hill copper prospect in 1966 and did geological mapping and an I.P. survey in 1967. One 750 foot diamond-drill hole put down in 1967 on an I.P. anomaly intersected pyrite. The claims were allowed to lapse.

Description:

Chalcopyrite, pyrite, malachite and azurite are present as grains, patches and fragments in a breccia zone up to 200 feet wide between Tertiary Skukum Group pyroclastics (Wheeler, 1961, unit 10) and Cretaceous granodiorite (op. cit. unit 8). The zone is regarded by the company consultants as an intrusive breccia in a fault zone between these two units.

Current Work and Results:

The claims were staked by the present owners in February, 1971, and briefly sampled during the following field season. In 1972, a series of 16 chip samples were taken over the ground on which grab samples of 1971 had suggested a grade of 0.1 to 0.5 per cent copper for the mineralized zone. The 1972 results gave an average of 0.11 per cent copper (high of 0.25 per cent) and 0.7 oz silver per ton.

LAKE LABERGE

TUV
United Keno Hill Mines Limited
Exploration Department
Whitehorse, Yukon Territory

Copper, Molybdenum
105 E 7
(61°18'N, 134°49'W)

Reference: Bostock and Lees (1938).

Claims: TUV 1-24

Location and Access:

The claims are 16 miles east of Lake Laberge and 42 miles northeast of Whitehorse. The Teslin River is five miles to the east. During the 1972 field season access was by helicopter from Braeburn, 34 miles to the northwest. A winter tote road from Lake Laberge to Livingstone Creek passes four to five miles south of the property.

History:

The claims were staked in July, 1972. No previous work in the area, other than the G.S.C. mapping (Bostock and Lees, 1938) is reported.

Description:

The claims cover the southwest part of a Cretaceous stock consisting mainly of syenite, monzonite and granodiorite (units 11 and 12, Bostock and Lees, 1938). The stock intrudes sediments of the Laberge Series (unit 6, Bostock and Lees, 1938) which consist of argillite, shale, siltstone, limestone, arkose, sandstone and pebble conglomerate. The northwest trending Teslin lineament lies four miles to the east of the property.

Chalcopyrite occurs as thin coating on fractures and as disseminated grains in quartz veins and dolomite veins. Malachite and minor azurite occur as oxidation products of the chalcopyrite.

Current Work and Results:

The 1972 field work consisted of geological mapping and soil sampling. The soil sampling outlined isolated copper and molybdenum anomalies.

KART
Caltor Syndicate
Whitehorse, Yukon Territory

Copper
105 E 3
(61°04'N, 135°03'W)

References: Bostock and Lees (1938); Findlay (1967, p. 43; 1969a, pp. 55-56).

Claims: KART 1-16

Location and Access:

The property is one mile east of Lake Laberge, roughly 25 miles north of Whitehorse. In 1972, a 27-mile road constructed by Pine Lake Mining Company Limited was passable by four-wheel drive vehicles only. Float-equipped aircraft were able to land at a small lake known locally as Dirty Dick Lake although they were restricted to light loads in mid-summer due to low water level.

History:

A number of old pits and trenches have been found on the property and probably date back to the early 1900's. Copper mineralization was discovered in some of these pits by R. Granger in 1966, and the JAC, TEA and MTC claim groups were staked. In 1967, Pine Lake Mining Company Limited carried out a drilling program on the property including three holes totalling 322 feet on the copper showings. All three holes were reported to have cut minor chalcopyrite. The claims subsequently lapsed and in 1971 Caltor Syndicate restaked the old copper showings as the KART claims.

Description:

The property is underlain mainly by north trending, east-dipping limestone and argillite of the Triassic Lewes River Series (unit 5, Bostock and Lees, 1938). The sediments are intruded by a feldspar porphyry stock of Jurassic or younger age and are converted to skarn at the contact. Patchy bornite, chalcopyrite and lesser pyrite are present within the skarn. Tertiary dykes of quartz porphyry and andesite intrude the older rocks.

Current Work and Results:

Geological mapping was carried out on the property in 1972. Four separate showings were discovered consisting mainly of patchy bornite, chalcopyrite, and minor pyrite in calcite-diopside-epidote-garnet skarn. Chalcopyrite and bornite were also noted in closely-spaced quartz veins within the feldspar porphyry intrusive.

DAWSON RANGE

PDY GROUP
Phelps Dodge Corporation of
Canada Limited
404 - 1112 West Pender Street
Vancouver 1, British Columbia.

Copper, Lead, Zinc
115 I 5
(62°25'N, 137°55'W)

Reference: Bostock (1936);

Claims: PDY 1, 2, 3, 5, 7, 33-48

Location and Access:

The property is on the west side of the southern fork of Hayes Creek, near its headwaters, on the east flank of Apex Mountain. Helicopters have been employed from the Casino airstrip or from the Minto airstrip in the past. A winter road to the lower courses of Hayes Creek was also used.

History:

The claims were staked over copper-lead-zinc anomalies discovered during reconnaissance geochemistry in 1969. The property is adjacent to the west boundary of the FROG group.

Description:

The claims cover a plug of biotite quartz monzonite of variable composition and grain size, enclosed by Mount Nansen volcanics that show only mild thermal alteration (minor chlorite and epidote). The granite margins show an increased amount of hornblende and pyrite with a concommitant decrease in biotite. Fine quartz veins and minor amounts of sphalerite and galena are present in the contact zone.

Younger rhyolite dykes up to 20 feet wide trend north-northeast and show trace amounts of copper, molybdenum and zinc associated with minor iron sulphides.

WET CLAIMS
Minto Mining Limited
c/o Alrae Engineering Limited
846 West Hastings Street
Vancouver, British Columbia

Copper
115 I 7
(62°17'N, 136°37'W)

Reference: Bostock (1934).

Claims: WET 1-33, 35-48

Location and Access:

The claims are 18 miles northwest of Carmacks and three miles southeast of the Williams Creek property. The area is accessible by gravel road from Carmacks.

History:

The claims were staked in the summer of 1971 as part of the activity stimulated by exploration on the nearby Williams Creek property.

Description:

The area is underlain by granodiorite (Bostock, 1934).

Current Work and Results:

During June and early July of 1972 the company completed a geochemical copper survey of much of the claim group. A total of 1,084 soil samples were taken on east-west lines 400 feet apart. Sampling interval was 100 feet on the west side of a central north-south baseline and 200 feet on the lines east of the baseline. The survey defined several small but distinct anomalies.

ORI
NRD Mining Limited
305 - 535 Thurlow Street
Vancouver, British Columbia.

Copper
115 I 11
(62°42'N, 137°16'W)

Reference: Bostock (1936).

Claims: ORI 1-64

Location and Access:

The claims are 15 miles west of Minto. Access is by helicopter from the Klondike Highway at Minto.

History:

The claims were staked in october of 1971. Several small pits and trenches were found in the course of the 1972 work; believed to date from about 1900.

Description:

Outcrop is scarce, probably less than one per cent. The predominant rock type is a medium to coarse-grained biotite-hornblende granodiorite, similar to that on the MINTO claims, four miles to the northeast. A weakly developed foliation of mafic minerals trends north to northwest. Foliation-parallel quartz veins are present; aplite and simple pegmatites are common. Alteration involves weak chloritization of hornblende grains and minor epidote veining. Fragments only of schistose hornblende-biotite gneiss, similar to the rocks which are mineralized with copper on the MINTO claims, were found. The northeast part of the property is underlain by Tertiary Selkirk volcanics - vesicular basalt with minor breccia and tuff having rare, disseminated pyrite.

Current Work and Results:

During the last week of August, 1972, geological mapping and geochemical sampling were done on the claim group. Geochemical samples were taken from the B or B & C soil horizon at 400-foot intervals on lines 400 feet apart and analysed for copper, molybdenum and silver. No copper anomalies were detected and of the few assays above threshold, most were over the volcanic rocks of slightly higher copper background near faults having some pyrite.

PELLY
Occidental Minerals Corporation
of Canada
801, 161 Eglinton Avenue East
Toronto 12, Ontario

Copper
115 I 14
(62°49'N, 137°18'W)

Reference: Bostock, 1936, G.S.C. Mem. 189

Claims: PELLY 8,10,12, 22-32, 34,36, 45-60, 64-94; DARY 1-20

Location and Access:

The property is situated at the junction of the Pelly and Yukon Rivers, largely on the circular area outlined by the last bend in the Pelly River. It can be reached by a 33 mile road on the north side of the river, from Pelly Crossing to Pelly River Ranch, by a 35 mile road from Minto to the claims on the south side of the river, or by river boat.

History:

The claims were staked late in the 1970 exploration season on the basis of stream geochemistry done earlier that year.

Description:

The western half of the plateau area within the river bend is underlain by granites and the eastern portion by older, Mount Nansen volcanics and Yukon Group metasediments. The granitic rocks consist of granodiorite, quartz diorite and granite; the Mount Nansen Group is represented by andesite, dacite, and pyroxenite. The Yukon Group rocks consist of chlorite schist, quartzite and quartz sericite schist. Younger basic dykes, gabbro to amygdaloidal basalt, intrude the older rocks.

Calcite veins occur in the chlorite schist, and quartz-calcite veins are present in the area of granitic rocks. The alteration products chlorite, epidote and clay minerals, are abundant in the hornblende-bearing intrusive rock. Xenoliths of andesite and pyroxenite are scattered throughout the granites.

Sparsely distributed pyrite, chalcopyrite and minor chalcocite occur mainly in the western portion of the granitic rocks.

Current Work and Results:

Geological mapping and soil geochemistry for copper, zinc and molybdenum were completed early in the 1971 season, and magnetometer and I.P. surveys were done in the fall.

Geochemical anomalies, supported by the geophysical surveys were recognized on the northern and southern flanks of the plateau. In 1972, the most favourable ground was tested with three diamond drill holes, having a total footage of 1,400 feet.

WILLIAMS CREEK
Dawson Range Joint Venture
c/o Archer, Cathro and Associates Limited
685 Two Bentall Centre
Vancouver, British Columbia.

Copper
115 I 7
(62°21'N, 136°42'W)

References: Bostock (1936a); Abbot (1971); Tempelman-Kluit (1973).

Claims: BOY, WAR, WILL, MAN, MAC, DUN, TODY, ZORO, a total of 420 claims

Location and Access:

The property is four miles southwest of the Yukon River, 20 miles northwest of Carmacks. It is reached by an eight mile tote road, built in 1971, starting from Mile 20 on the Carmacks-Freegold road.

History:

Reports of copper in the area date back to 1887; claims were staked in 1898 on Williams and Merrice creeks and a few tons of material from copper-bearing quartz veins were shipped in 1917. Modern work began in 1970 with the discovery by G. Abbot, Dawson Range Joint Venture, of mineralized outcrops immediately north of Williams Creek (Abbot, 1971) on the BOY claims, held under option from G. Wing and A. Arsenault of Whitehorse.

Work that season consisted of continued prospecting, reconaissance geochemistry and grid soil sampling resulting in the staking of additional adjacent claim blocks. The two showings were bulldozed, trenched and tested with two X-ray diamond drill-holes totalling 103 feet.

Description:

The Williams Creek property is underlain by medium to coarse-grained biotite-hornblende granodiorite (unit 10, Bostock, 1936a) lithologically identical to certain granitic rocks found in the Aishihik Lake map area (unit 3, Tempelman-Kluit, 1973). Within these granitic rocks are planar, strongly foliated gneissic zones trending north-northwest parallel with the Teslin lineament. The No. 1 (discovery) zone is a biotite rich, quartz-feldspar gneiss.

Sulphide mineralization is simple, the primary minerals being chalcopyrite and bornite in a 2:1 ratio, occurring as 0.1 to 0.2 mm interstitial grains, elongate, parallel with the foliation, and concentrated in bands, also parallel with the gneissic foliation. At depth the primary sulphides are altered to chalcocite. A prominent zone of surface oxidation is present in which most of the copper occurs as malachite and azurite and in an amorphous mixture of copper and iron oxides referred to as pitch copper (Abbot, 1971).

Current Work and Results:

During 1971 the joint venture partners continued prospecting, geochemical surveying and geological mapping of the property. Grid geochemistry was done at 200 foot intervals on lines 800 feet apart, and 14,000 feet of diamond drilling were completed.

The No. 1 zone was delineated as a north-northwest trending planar body some 100 feet thick and 1,600 feet long, dipping 70° to the east. It is terminated at the ends by faults. Grade is persistent with depth, one 80 foot intersection containing 1.5 per cent copper 700 feet below surface. Later drilling, targeted on combined geochemical and EM-16 anomalies or on geochemistry and bulldozed trenches, penetrated mineralized zones which were too low in grade (about 0.1% copper) to be of economic interest. In all, 13 zones were trenched or drilled. The 1972 drilling, 5,000 feet, was aimed largely at delineating the No. 4 zone.

BAY
Hudson's Bay Oil and Gas Company Limited
320 - 7th Avenue Southwest
Calgary 2, Alberta.

Copper
115 I 7

Reference: Bostock (1936).

Claims: BAY 1-204

Location and Access:

The property straddles Hoochekoo Creek about three miles north of the Dawson Range Joint Venture Williams Creek property to which there is summer road access. Helicopter was used during the 1971 season.

History:

The 204 BAY claims were staked late in 1970 over favourable ground to the north of the Williams Creek property.

Description:

Mount Nansen Group volcanics underlie the northeast part. Amphibolites occur where porphyritic granite cuts the andesites. Two leucocratic granite stocks have associated quartz veins and pegmatite dykes. A fresh basaltic dyke is probably of Carmacks volcanics age. Locally, Laberge conglomerate outcrops.

Current Work and Results:

During 1971, reconnaissance geological mapping, soil geochemistry and a ground magnetic survey were followed by detailed soil sampling and trenching of the copper anomalies demonstrated in the initial work in the northeast part of the property. In the diamond drilling program, one hole, targeted on a combined I.P.-gravity feature, penetrated zones of pyrite and pyrrhotite with minor lead and silver content in phyllite and phyllitic quartzite.

The 1971 work consisted of structural studies and soil geochemistry on the northern claim blocks.

TRI and TOP GROUPS
Kennco Explorations (Western) Limited
One Bentall Centre
Suite 730 - 505 Burrard Street
Vancouver 1, British Columbia.

Molybdenum, Silver, Gold
115 I 3
(62°15'N, 137°25'W)

Reference: Bostock (1936).

Claims: TRI 1-98; TOP 1-120

Location and Access:

The claims are immediately east of Tritop Peak (6,079 feet), about 40 miles west-northwest of Carmacks. Besides helicopter from Carmacks, access is made by a secondary road from Carmacks to Mount Nansen or to Mount Freegold (30 to 35 miles), and the remaining 15 miles by helicopter.

History:

The initial TRI and TOP claim groups were staked in 1970.

Description:

The rock types in the area are pink granite, granite porphyry, rhyolite (quartz, feldspar porphyry) andesite porphyry, dacite and granodiorite. Age relationships are uncertain.

No sulphide minerals other than pyrite were seen; garnet-magnetite-pyrite occurs on fractures near granitic intrusions.

Current Work and Results:

Initial soil sampling in 1971 demonstrated silver, molybdenum and gold anomalies. More detailed work was done on the coincident molybdenum-gold anomalies.

TASLAR GROUP
Taseko Mines Limited
248 Second Avenue
Kamloops, British Columbia

Copper
115 I 7
(62°20'N, 136°37'W)

Reference: Bostock (1936a).

Claims: TASLAR 2, 4, 6, 8, 10, 12, 17-22, 27-60

Location and Access:

The claims abut the Williams Creek property to the north, and lie on the divide south of Williams Creek. Access is by a 3.6-mile road which turns off the Williams Creek tote road five miles north of the Carmacks-Freegold road.

History:

The property was staked early in 1971.

Description:

The claims, underlain by porphyritic granitic rocks, lie two miles west of recognizable Mount Nansen volcanics. Remnants

of Tertiary Carmacks volcanics are found adjacent to the property.

Current Work and Results:

Soil geochemistry demonstrated copper anomalies. Trenching and further geological mapping were recommended by the consultant.

TK GROUP
Mitsubishi Metal Corporation
No. 2766 - 200 Granville Street
Vancouver 2, British Columbia.

Copper
115 I 7
(62°23'N, 136°40'W)

Claims: TK 1-8

Location and Access:

The claims are 20 miles northwest of Carmacks. Access during exploration was by helicopter from Carmacks and from Williams Creek.

History:

The claims were staked over a negative magnetic anomaly, during the rush associated with the Casino copper-molybdenum discovery.

Description:

The property is described with the Williams Creek property of Dawson Range Joint Venture.

Current Work and Results:

During the 1971 season, a geochemical soil survey was completed with samples taken at 250 foot intervals on lines 500 feet apart. Prior to the 1972 season the property was optioned to Dawson Range Joint Venture, holders of the surrounding ground. This group completed one diamond-drill hole.

MINTO
American Smelting and Refining Company
Canadian Division
504 - 535 Thurlow Street
and
Silver Standard Mines Limited
808 - 602 West Hastings Street
Vancouver, British Columbia

Copper
115 I 11
(62°36'N, 137°14'W)

Reference: Bostock (1936).

Claims: MINTO 1-73, 75-79, 94-97 Fr

Location and Access:

The MINTO claim block is 12 miles west of Minto and six miles south of the Yukon River. During 1971 access was by helicopter. In the spring of 1972, fuel and heavy equipment were brought to the property over a tote road from Minto along the northwest side of the Yukon River, across an ice bridge at Ingersoll Islands and south to the claims on a tote road. An airstrip 2,300 feet long was built on the property during August, 1972.

History:

The MINTO claims were staked by Silver Standard Mines Limited during the 1971 field season on the basis of a reconnaissance geochemical stream silt survey.

Description:

The area is underlain by rocks of a granitic suite, (unit 10, Bostock, 1936) ranging from quartz diorite to granite, within which are biotite-rich zones or layers several hundred feet wide trending northwest and dipping gently to moderately northeast. The gneisses are roughly similar in composition to the non-foliated rocks, being slightly higher in quartz and orthoclase and lower in plagioclase. Primary mineralization is simple, consisting of chalcopyrite, bornite (ratio 10:3) and rare chalcocite, essentially restricted to the gneissic zones, largely as finely disseminated grains (0.1 mm) but including irregular masses up to 3 cm in length locally aligned parallel with the foliation. Secondary minerals - malachite, chalcocite, tenorite and azurite are present in an oxidation zone of variable thickness. Below the zone of oxidation the secondary minerals are present in shear and fault zones.

Current Work and Results:

During the 1971 field season, geological mapping, grid geochemistry and geophysics (magnetometer, E.M. and I.P.) were conducted on the property. During October, 3,600 feet of diamond drilling was done in seven holes. The drilling was continued in June and July of 1972, with a further 13 holes totalling 6,100 feet. Because of the limited outcrop of less than 2 per cent and shallow overburden over much of the area, bulldozer trenching was done extensively; 57 trenches totalling 20,800 lineal feet with an average depth of six feet were mapped and sampled. Further grid geochemistry was completed. The geophysics was not

effective in accurately delineating sulphide zones. The trenching and two seasons of diamond drilling outlined four separate zones of low-grade copper.

DEF CLAIMS
United Keno Hill Mines Limited
405 Main Street
Whitehorse, Yukon Territory.

Copper, Silver, Molybdenum
115 I 11
(62°38'N, 137°15'W)

Reference: Bostock (1939).

Claims: DEF 1-78

Location and Access:

The DEF claims are 50 miles northwest of Carmacks, 13 miles west of Minto on the Klondike Highway. Access during 1971 was by helicopter but one can walk to the property from the Yukon River roughly four miles northeast of the claims.

History:

Malachite was found in 1971, north of the Silver Standard/Asarco MINTO property which was discovered using stream sediment geochemistry. No previous work appears to have been done in the area aside from regional geochemical surveys.

In 1971, soil geochemistry, EM, IP, magnetic and geological surveys were undertaken. Grab samples assaying up to 0.6 ounces of silver per ton and 1.98 per cent copper were obtained. Geochemistry and geophysical orientation studies further delineated the anomalies and indicated a northwest trending shear zone.

Description:

There is little rock exposure in the area. It appears to be underlain mainly by quartz-feldspar-biotite gneiss, with variable amounts of hornblende and biotite plus minor schist, porphyritic granodiorite, monzonite, quartz monzonite, fine-grained schistose intrusive rocks and dykes of aplite and pegmatite.

Malachite and minor azurite are present in surface showings and bulldozer trenches.

Current Work and Results:

In 1972, the company completed a geochemical survey of the claim group and put in about 2,000 feet of bulldozer trenching across the main mineralized zone.

MINTO PROPERTY
Dawson Range Joint Venture
c/o Archer, Cathro and Associates Limited
P.O. Box 4127
Whitehorse, Yukon Territory.

Copper
115 I 11
(62°42'N, 137°12'W)

Reference: Bostock (1936a).

Claims: PAL 1-65, 66Fr-72Fr; KAP 1-2; BEN 1 Fr-14Fr, 27-28, 29Fr-53Fr, 54-58, 59 60Fr, 66Fr-72Fr

Location and Access:

Claims are about ten miles west of Minto; access in 1972 was by helicopter. A winter road runs along the creek, at the north end of the property. The claims are adjacent to the Silver Standard/Asarco MINTO claim group.

History:

The property was staked in September, 1971, by G. Wing and optioned in October, 1971, to Dawson Range Joint Venture.

Description:

Outcrop, occurring sparingly on ridges and in stream cuts, is mostly granodiorite of the Klotassin Batholith capped by Tertiary Carmacks volcanics in the southwest corner. The biotite-hornblende granodiorite is porphyritic, with magnetite and epidote present as accessory minerals. It is weakly foliated and cut by aplite dykes.

The Carmacks volcanics include basalt, andesite and porphyritic dacite. Chlorite occurs in vesicles. On the western part of the property, copper occurs in northwest trending, biotite-quartz rich gneissic zones.

Malachite staining, minor amounts of chalcopyrite, bornite and chalcocite and traces of pyrite and molybdenite were observed.

Current Work and Results:

In 1972, geological mapping and soil geochemistyy outlined one copper anomaly to the west, in an area of copper stained gneiss.

AL CLAIMS
Northair Mines Limited and
Bow River Resources Limited
333 - 885 Dunsmuir Street
Vancouver, British Columbia.
V6C 1N5

115 I 11
(62°39'N, 137°08'W)

Claims: AL 1-24

Location and Access:

The property, on the left bank of the Yukon River, is four miles east of the Silver Standard and Keno Hill properties and eight miles northwest of Minto.

History:

The property was first staked as AL claims in October, 1971, by Northair Mines Limited and Bow River Resources Limited with the ROD claims being added to the north in September, 1972.

Description:

Canyon exposures and pebbles from soil samples indicate that the area is underlain by coarse-grained granitic rocks, principally biotite-hornblende quartz monzonite and diorite. Hornblende altered to biotite and magnetite changing to red hematite stain appear to be the only alteration reactions.

No sulphide minerals were found on the claims.

Current Work and Results:

The claims were explored by grid soil sampling in 1972. Weakly anomalous copper values indicate a northwest linear feature about 2,000 feet long. Two isolated spot highs were recommended by the consultants for bulldozer trenching.

WAIN GROUP
Wainoco Oil Limited
312 - 4th Avenue Southwest
Calgary, Alberta.

115 I 11
(62°38'N, 137°20'W)

Claims: WAIN 1-64

Location and Access:

The claims are in the Wolverine Creek drainage basin about three miles west of the copper occurrences held by United Keno Hill Mines and Silver Standard/Asarco and ten miles south of Pelly River mouth. Access is by helicopter.

History:

The claims were staked in September 1971.

Description:

Outcrop and near-outcrop float consists of coarse-grained biotite-hornblende granite of Jurassic or later age. The granite is cut by aplite dykes and is in places strongly foliated. Volcanic breccia, tuff and dark vesicular basalt belonging to the Selkirk series occurs in the west, lying unconformably on the plutonic rocks.

No copper minerals are known in the area.

Current Work and Results:

Reconnaissance soil sampling in 1972 showed no anomalous silver or molybdenum samples, although it did reveal several above threshold in copper. The copper response may be related to volcanic rocks or possibly to a glacially transported source. A weak northwest-trending linear belt of high copper assays does occur.

B, SEE GROUP
Consolidated Standard Mines Limited
333 - 885 Dunsmuir Street
Vancouver, British Columbia.

115 I 11
(62°40'N, 137°13'W)

Claims: B 2-12, 17-40; SEE 1-24

Location and Access:

The claims border the Yukon River about ten miles upstream from Pelly mouth and about 12 miles northwest of Minto. Access could be by boat, but helicopters have also been used. A winter road to the Silver Standard/Asarco property passes through the southernmost claims.

History:

The property was staked in October, 1971, by Adera Mining Limited in joint venture with Consolidated Standard Mines Limited.

Description:

A coarse grained biotite-hornblende granodiorite of Jurassic age is the predominant rock type. Foliation is defined by the mafic minerals and distinct banding in a quartz-rich phase. Pegmatite and aplite dykes are common. The quartz content decreases from west to east across the claims. Chloritization of hornblende and minor epidote is common.

Dense, green altered andesite occurs in the southeast and probably represents roof pendants of the Carmacks group of Tertiary age.

Current Work and Results:

Geology and soil geochemistry did not outline significant copper, molybdenum or silver anomalies in this potentially copper-bearing environment.

AZTEC, SQUAW, TLINGITS GROUP
Trans Columbia Explorations Limited
211 - 217 West Pender Street
Vancouver, British Columbia.

Copper, Molybdenum
115 J 10
(62°45'N, 138°55'W)

References: Cairnes (1917); Craig and Laporte (1972, pp. 54-55).

Claims: AZTEC 1-151; SQUAW 1-12; TLINGITS 1-12; NEW 5-6, 103-150; GAP 1-16 (dropped in 1971 - AZTEC 1, 2, 7, 8, 9-12, 25-32, 39-42, 55-57, 62-65, 82-85)

Location and Access:

Located immediately southeast of the confluence of Coffee Creek and the Yukon River, these claims are reached by helicopter from the Casino airstrip, six miles to the west.

History:

The land was staked in 1969 for the present owners. During the 1970 season, reconnaissance and detailed soil geochemical surveys were carried out with encouraging results (Craig and Laporte, 1972, pp. 54-55). Recommended at that time were: an aeromagnetic survey, detailed geological mapping with emphasis on alteration and mineral zoning, an I.P. survey, ground magnetic mapping, location of diamond drill targets, trenching and drilling.

Description:

The claims are situated in unglaciated, ash-covered terrain, underlain by hydrothermally altered quartz-sericite-pyrite rock and sub-porphyritic biotite-hornblende quartz monzonite, (Cairnes, 1917), Klotassin granodiorite (Craig and Laporte, 1972), slightly altered granodiorite and light coloured porphyry. The monzonite contains disseminated chalcopyrite and quartz microveinlets with associated molybdenite.

Current Work and Results:

In 1971, no field work was reported and about 30 claims lapsed.

PRO GROUP
Occidental Minerals Corporation of Canada
801 - 161 Eglinton Avenue East
Toronto 12, Ontario.

Copper, Zinc, Lead
115 I 5
(62°27'N, 137°46'W)

Claims: PRO 29-44, 57-72, 85-94, 96-100, 113-128, 141-156, 169, 171, 173, 175, 177, 179, 181, 183

Location and Access:

The property is east of the upper part of Hayes Creek, on the northern slope of Prospector Mountain and is accessible by helicopter from Minto, about 25 miles southeast, or from the Freegold-Carmacks road.

History:

The staking of the 196 PRO claims in 1970 resulted from a reconnaissance geochemical program.

Description:

The claims cover Mesozoic igneous rocks, minor Precambrian meta-sedimentary rocks and Tertiary volcanics. Country rock in the northeast consists of light to dark grey to white, crystalline, epidote-bearing limestone of the Yukon Group and dark green to grey-green andesite, basalt, flow breccias and amygdaloidal and tuffaceous volcanics of the Mount Nansen Group. Intrusive rocks occur in the eastern and west-central parts and have been described as syenite grading to monzonite. Clays, chlorite and tourmaline occur as secondary minerals with primary biotite and hornblende in the locally gneissic, hornblende syenite-quartz monzonite with quartz as large particles and gneissic bands. Acid dykes rich in tourmaline and quartz, cut all other rocks.

Volcanics of the Carmacks Group, in either a graben or syncline in the western part of the area, are vesicular and porphyritic, dark blue-green, dark brown and black andesite, andesitic tuff and breccia.

Minerals found are minor chrysocolla in andesite; chrysocolla, native copper, tetrahedrite, malachite, and neotocite along the syenite contact; and fine pyrite, tetrahedrite and minor enargite with malachite, fine proustite and sphalerite in the acidic dykes. Locally, minor disseminated pyrite occurs in both Mount Nansen volcanic rocks and syenite.

Current Work and Results:

During the 1971 season work consisting of geological mapping and soil geochemistry, revealed copper showings related to the Mount Nansen Group and the syenite contact.

STAR GROUP
Starbird Mines Limited
309 - 850 West Hastings Street
Vancouver, British Columbia.

Copper
115 I 5
(62°26'N, 137°47'W)

Reference: Bostock (1936).

Claims: STAR 1-40

Location and Access:

Situated on the south flank of Prospector Mountain, about 30 air miles west-southwest of Minto, the property is accessible by helicopter.

History:

The claims were recorded in February 1970 and were surveyed by airborne magnetometer in February 1971.

Description:

The area is unglaciated and the upland surface with round hills and prominent monadnocks is dissected by deep valleys. Regionally, bedrock consists of altered sedimentary rocks of the Yukon Group intruded by porphyritic granitic rocks of Mesozoic or later age. No detailed geology is available.

Current Work and Results:

Aeromagnetic mapping suggests a plug-like intrusion in the centre of the project area. Soil geochemistry conducted over part of the block indicates the north-central corner of the property to be the highest in copper.

CAN, TIP, TIN, ROSS, GENE,
GERRY, TOM and NORA GROUPS
Acroll Oil and Gas Limited
660 Calgary Place One
330 - 5th Avenue Southwest
Calgary 1, Alberta.

Copper, Molybdenum
115 J 15
(62°47'N, 138°57'W)
(62° 48'N, 138°46'W)

References: Cairnes (1916); Bostock (1944); Mackenzie (1970); Craig and Laporte (1972, p. 47).

Claims: CAN, TIP,TIN, ROSS, GENE, GERRY, TOM, LIN, NORA (about 113 claims); all lapsed in 1971

Location and Access;

The western and eastern blocks of the property are situated on Canadian Creek, four and one-half miles northwest and three and one-half miles northeast of the Casino prospect respectively and may be reached by a four-wheel drive vehicle from the Yukon River or from the Casino airstrip.

History:

In December, 1970, the Canadian Creek-Excelsior Creek area was surveyed by airborne magnetometer to check for lithologic contacts, faults and shear zones. The previously known contact was more accurately determined but no other structures were detected. At that time, recommendations were made for a soil geochemical and I.P. survey as well as geological mapping and prospecting, if warranted.

Description:

The claim blocks are situated on the contact zone between the Klotassin Batholith, to the south, and the older rocks, to the north. The eastern block is in meta-igneous rocks of Paleozoic age with mica, chlorite, and amphibole schists; the western block is within acidic intrusives of Mesozoic age, similar to those of the Casino area. Photo interpretation reveals linears, perhaps related to structural features (Mackenzie 1970).

Current Work and Results:

No work has been reported from the 1971 field season and the claims have lapsed.

FOLLY and RAIN GROUPS
Brewster Lake Mines Limited
626 West Pender Street
Vancouver, British Columbia

Copper
115 J 15
(62°45'N, 138°30'W)

References: Cairnes (1917); Bostock (1944); Craig and Laporte (1972, p. 50).

Claims: FOLLY 23-32, 45-54, 67-76, 89-98; RAIN 1-9 (total of 49)

Location and Access:

The claims lie between Sunshine and Isaac creeks, about six miles east of the Casino Silver Mines property, and are reached by helicopter from the Casino airstrip.

History:

The property was staked in 1969 during the Dawson Range staking rush and soil geochemistry was performed during the 1970 field season (Craig and Laporte, 1972, p. 50).

Description:

The claims are underlain by granodiorite (Bostock, 1944) Klotassin granodiorite and, to the north, Yukon Group metasediments. In the eastern part of the claim block, bedrock is mantled by thick overburden in an area of permafrost.

Current Work and Results:

The last work on this property was done in 1970.

AXE and HILL GROUPS
Montana Mines Limited
Box 302
Whitehorse, Yukon Territory.

Copper, Molybdenum
115 J 10
(62°40'N, 138°32'W)

References: Cairnes (1917); Bostock (1944); Craig and Laporte (1972, p. 61).

Claims: AXE 1-6; HILL 1-24 (lapsed in 1971)

Location and Access:

The claims lie adjacent to the southeast corner of the Casino Silver Mines property, on the northwest slope of Mount Cockfield ten miles from the Casino airstrip. Access was by helicopter from the Casino airstrip.

History:

Staked late in 1969, and explored by reconnaissance rock and soil sampling in 1970 (Craig and Laporte, 1972, p. 61), the claims were allowed to lapse the following year. In 1966, Nordex Exploration Limited explored the ground for silver-lead deposits.

Description:

Unglaciated, the area is underlain by medium to coarse-grained, leucocratic granite of Mesozoic age, (Klotassin Batholith) in part bearing phenocrysts of orthoclase. Different phases of the intrusion have variable amounts of biotite, augite and hornblende.

Volcanic float (Mount Nansen Group) was found on the eastern edge of the claim group.

Current Work and Results:

The 1970 sampling revealed one geochemical anomaly. The claims were allowed to lapse in 1971.

SOMME PROPERTY
Dawson Range Joint Venture
c/o Archer, Cathro and Associates Limited
Box 4127
Whitehorse, Yukon Territory.
or
685 Two Bentall Centre
Vancouver, British Columbia.

Copper, Molybdenum
115 J 8
(62°25'N, 138°28'W)

Reference: Craig and Laporte (1972, p. 72).

Claims: TOM 3-6, 8-10, 12, 15, 17, 19 and 20

Location and Access:

The property is located on Tom Creek, a right bank tributary of Somme Creek. In 1970 access was by helicopter from Casino airstrip.

History:

The property, discovered by reconnaissance stream sediment and soil geochemical surveys in 1969, was soil sampled and geologically mapped in 1970. Claims staked in 1970 cover areas of weak, non-coincident copper and molybdenum anomalies.

Description:

Craig and Laporte (1972, p. 72)

Minor molybdenite was found but pyrite mineralization, rock alteration or leaching that might be expected near a porphyry-type occurrence was not seen.

Current Work and Results:

The last reported work was done in 1970.

KLOT and CHRIS GROUPS
Canadian Occidental Petroleum Limited
801 - 161 Eglinton Avenue East
Toronto 12, Ontario.

Molybdenum, Copper
115 J 7
(62°18'N, 138°50'W)

Claims: KLOT 1-88; CHRIS 1-40

Location and Access:

The claims are situated eight miles southwest of the junction of Klotassin River and Somme Creek. Access in 1971 was by helicopter from Wellesley Lake.

History:

The 128 claim property was staked in 1970 following reconnaissance stream geochemistry done the same year.

Description:

The area mapped lies on relict upland between Nisling River and Klotassin River drainages. The rock types of the area are: quartzite of the Yukon Group, a Cretaceous to Tertiary intrusive varying in composition from granodiorite in the east to quartz diorite and quartz porphyry in the west, dacite and basalt of the Carmacks Volcanics, and a Tertiary intrusive consisting of leuco-granite and quartz porphyry.

The property is underlain mostly by rocks of the younger, acid intrusion. Rocks of the older intrusion form an east-west trending ridge across the south-central part of the property. Small bodies of volcanic rocks occur in the vicinity of the older intrusion. The Yukon Group quartzite occurs as a roof pendant in the southwest part of the property.

Molybdenum and chalcopyrite are common in the older intrusive. Molybdenite occurs in thin films on fractures and as rosettes along quartz veins in siliceous rocks, and is disseminated in the intrusive together with chalcopyrite and pyrite.

No evidence of supergene enrichment was found and only minor malachite and chalcocite are present.

Current Work and Results:

Work in 1971 consisted of geological mapping, prospecting and a detailed geochemical soil survey of the claim groups. Several small copper, zinc and molybdenum anomalies were outlined by the soil survey. The northeast half of the KLOT claims lapsed in September 1971.

HAYES GROUP
Delta International Minerals Limited
929 - 470 Granville Street
Vancouver, British Columbia.

Copper, Molybdenum
115 I 12
(62°37'N, 137°55'W)

References: Bostock (1944); Craig and Laporte (1972, pp. 70-71).

Claims: HAYES 21-32

Location and Access:

Situated about 40 miles west of Minto on the east bank of Hayes Creek, the property is reached by helicopter from the International Mine Services airstrip, six miles to the southeast. Alternate access is by a 35-mile tote-road from the end of the Discovery-Carmacks road.

History:

A geochemical survey, resulting from a 1965 stream sediment anomaly, was completed late in 1969 and the land was staked. A geochemical survey was carried out in 1970 by the present owners.

Description:

The property is on a contact zone between Tertiary-Jurassic granitic bodies and schist and gneiss of the Yukon Group. A band of limestone has been traced for 2,800 feet in the northeast corner of the claims. A monzonitic porphyry, 1,000 feet by 6,000 feet, trends northwest across the cental portion of the claims and an altered monzonite occupies a 1,000-foot 2,200-foot area in the southwest.

Minor disseminated pyrite occurs in both intrusive and country rock. Finely disseminated chalcopyrite and molybdenite occur in a highly altered porphyritic intrusive on the west side of Hayes Creek; the copper-molybdenum geochemical response appears to correlate with this rock type.

Current Work and Results:

The 1970 soil survey, in unglaciated terrain, shows high geochemical values for lead,silver, molybdenum and copper and was encouraging enough to warrant further work. No assessment work was recorded for the 1971 field season, however, and the claims have lapsed.

GB GROUP
Alrae Engineering Limited
c/o Chatex Industries Limited
1700 - 1055 West Georgia Street
Vancouver, British Columbia.

115 I 12
(62°35'N, 137°52'W)

References: Bostock (1936a); Craig and Laporte (1972, p. 74).

Claims: GB 1-96 (only GB 25-28, 39-45 in good standing early in 1972)

Location and Access:

The claims are situated 30 miles west of Minto, at the head of Hayes Creek, equidistant from airstrips at Minto, Casino and Revenue Creek.

History:

Chataway Exploration Company Limited had the ground staked in 1969. Reconnaissance geology and soil geochemistry were done in 1970.

Description:

Little outcrop is found on this part of the partially dissected rolling uplands of the Yukon Plateau, most of the geology being inferred from float. Quartzite, schist and gneiss of the Yukon Group are overlain in places by limestone and volcanics (in part clastic), and intruded by north-trending acidic to intermediate plutonic rocks. Post erosional basic extrusives and tuffs cover part of the area.

Current Work and Results:

No significant mineralized zones or soil anomalies are known.

TAD
International Mine Services Limited
1601 Royal Bank Building
8 King Street
Toronto 1, Ontario.

Molybdenum, Copper, Lead, Zinc
115 I 12
(62°34'N, 137°55'W)

Reference: Bostock (1936).

Claims: TAD 1-216, 224, 225, 227, 228 staked from August of 1969 through December of 1970

Location and Access:

The property is on Hayes Creek, on the north side of Prospector Mountain, on the northeast side of the Dawson Range, 35 miles west of Minto.

Access during exploration was by truck to Minto, at Mile 148 of the Klondike Highway, then by fixed wing aircraft to the Revenue Creek air strip. Helicopters were used for logistical

support on the claims and for the trip from Minto when the Revenue Creek strip was unserviceable. Drilling equipment and some fuel supplies were brought in by way of a 30-mile tote road off the Freegold-Carmacks road, a total distance from Carmacks of 65 miles

History:

Some placer exploration took place at the turn of the century, but there was little activity until the current exploration began. The discovery leading to the staking of the TAD group was made by International Mine Services personnel in August of 1969 in the course of the regional geochemical surveying and prospecting program of the Dawson Range.

Description:

Geology of the TAD property is essentially that of Yukon Group metamorphic rocks intruded by Mesozoic granitic rocks and partly overlain by Carmacks volcanics and intruded by young porphyries.

The oldest rock unit consists of quartz-mica schist and quartzite of the Yukon Group. The schist occurs on the southern boundary of the property. Adjacent to these rocks are Yukon Group gneisses. A distinctly sheared, recrystallized granite is identified on the north-western and south-eastern part of the property (Bostock,unit 10, Map 340A). A medium-grained quartz monzonite with slight metamorphic effects is also recognized and considered part of the older granitic suite. Carmacks volcanics occupy the northeast part of the property, on the north side of Hayes Creek and consist of basalt, basalt-porphyry and breccia. Tentatively, the youngest rocks are quartz monzonite porphyry and biotite granite porphyry.

Current Work and Results:

The initial discovery of disseminated galena and sphalerite was made in a gossan-covered outcrop of altered quartz monzonite porphyry in Hayes Creek and 60 claims were staked. Soil geochemical samples were taken along claim lines and on traverses at right angles to these. With recognition of two significant anomalies, more claims were added and a sampling grid established. Samples were taken at 100-foot intervals on lines 800 feet apart throughout the property and 400 feet apart in areas shown to be anomalous by the initial sampling. Further sampling was done on lines 200 feet apart in core areas considered highly anomalous. A total of 6,000 soil samples were analysed from the TAD claims.

Three distinctly anomalous zones were found. The first, an irregular molybdenum anomaly with random, weak copper highs, extends for one and one-half miles between 2,900 and 3,000 feet in elevation, on a smooth ridge east of Hayes Creek. The second is a broad lead-zinc anomaly with a coincident I.P. chargeability high and a magnetic high on the south side, the strike length of the geochemical anomaly being 4,800 feet. The third anomaly, also lead-zinc, occurs near the southwest end

of the cut grid and has an east-west strike length of 6,500 feet.

Although there is less than one per cent outcrop, surface scree and residual material is fairly abundant and the claims were mapped geologically at a scale of one inch equals 600 feet.

The anomalies were tested with 18 diamond drill holes totalling 8,800 feet. Five holes were drilled on the molybdenum zone, the deepest being 750 feet. The coarse-grained quartz monzonite has propylitic alteration and contains quartz veinlets up to three inches thick. Flakes of molybdenite occur in the veinlets and, rarely, in the quartz monzonite with pyrite and chalcopyrite.

Zone 2, the more promising lead-zinc anomaly, was tested with 13 holes, the deepest, 637 feet. The host rock is faulted, brecciated, typical argillically-altered quartz monzonite porphyry, containing disseminated galena and sphalerite.

Assays of residual material in bulldozer trenches over the molybdenum zone gave modestly higher results than the soil sampling. Lead-zinc trench assays were significantly higher, with lead typically two to four times the value obtained from auger sampling of the B and C soil horizons, 12 to 18 inches below the surface. In all, 25 bulldozer trenches were cut.

Results of the exploration program - a combination of geological mapping, geochemical and geophysical surveying and diamond drilling - suggest that a porphyry mineral deposit may be present. Possibly, the initial drilling, to roughly 700 feet, in the lead-zinc zone with its abundant argillic alteration was on the peripheral zone of such a deposit. A recommendation was made for further diamond drilling and modest extension of the geophysical and geochemical grids by the company geologists.

CHART
Charta Mines Limited
c/o R.G. Hilker Limited
Box 4008
Whitehorse, Yukon Territory.

Copper, Molybdenum
115 I 4
(62°15'N, 137°45'W)

References: Cairnes (1916); Bostock (1936; 1944); Johnston (1937).

Claims: CHART 1-49

Location and Access:

Situated on a bend of the Klaza River at its confluence with Cindy Creek below Magpie Creek, the claim group is reached by helicopter from Minto airstrip 40 miles to the northeast. Casino airstrip is 45 miles to the northwest and the nearest tote trails are within 15 miles of the property.

History:

The showing was first reported by Bostock in 1936 and was first staked in 1969 as the JUDY group during the Dawson Range

rush. The claims lapsed and the ground was restaked and obtained by the present owners early in 1971.

Description:

The property is underlain by Jurassic Mount Nansen rocks intruded by a Tertiary granite-granodiorite complex. A prominent limonite gossan is present.

The Mount Nansen rocks consist of fine-grained dark grey to black andesite with minor dacite and basalt. In places they are porphyritic and locally epidote and chlorite are recognized. Pyrite is abundant in the ground mass and on fractures as well as in minor, intercalated beds of sandstone, siltstone, arkose and argillite. The intrusive rocks are typically coarse-grained hornblende granodiorite to biotite granite with a later porphyritic phase present. Minor aplite dykes cut these rocks. Pyrite occurs as films and on fractures in both the volcanic and granitic rocks. Minor malachite stain is present.

Current Work and Results:

During the 1971 field season, Charta Mines Limited geologically mapped and soil sampled the property and completed a magnetometer survey. A coincident copper-molybdenum anomaly also corresponds with a magnetic low and parallels the magnetic trends. It is interpreted as being caused by a late porphyritic dyke in the granitic intrusives.

ALP
B.A. Copper Mines Limited
1403 - 1030 West Georgia Street
Vancouver, British Columbia.

Copper
115 H 9
(61°37'N, 136°11'W)

Reference: Green (1966, pp. 44-46).

Claims: ALP 3-73

Location and Access:

The ALP claims surround a block of six leased claims known as the Mack's prospect, located about eight miles southwest of Mile 72 on the Klondike Highway. An 11-mile winter road, built to the property in 1965, is passable to within five miles of the ALP group. The claims lie along a north-trending ridge on the plateau between Nordenskiold River and Kirkland Creek.

History:

The leased claims (Mack's) were explored prior to 1908 with a trench and a 38 foot adit. Late in 1964, Arctic Mining and Exploration optioned the Mack's claims, staked additional ground and explored the showing with four diamond-drill holes totalling 860 feet (Green, 1966). Newmont Mining Corporation and Alice Lake Mines Limited held the ground, explored it with magnetic and geophysical surveys, trenched the resulting anomalies and subsequently allowed the claims to lapse.

Description:

The claims lie near the contact between Triassic andesite and Cretaceous quartz monzonite, with most of the property being underlain by the dark green andesite; the monzonite occurring on the western edge.

Current Work and Results:

The ALP claims were staked in late 1971 and early 1972 by Armand Arsenault of Whitehorse and optioned to South Yukon Joint Venture. The property was geologically mapped at a scale of one inch equals 500 feet and soil sampled at intervals of 200 feet on east-west lines 400 feet apart. Samples were analysed for copper, molybdenum and silver by AA methods. A soil anomaly some 1,000 feet by 1,700 feet occurs on ALP 14 and 18 claims, on a hill 4,260 feet in elevation. Chip samples of andesite from the area of the anomaly showed traces of disseminated chalcopyrite under microscopic examination. Bleached, pyritized, and weakly leached zones, up to 50 feet by 200 feet, are also present.

MOUNT NANSEN
Area Exploration Corporation Limited
555 South Flower Street
Los Angeles, California
U.S.A. 90071

Copper, Molybdenum, Gold, Silver
115 I 3
(62°03'N, 137°07'W)

References: Bostock (1936); Craig and Laporte (1972, pp. 88-89).

Claims: 347 claims

Location and Access:

The property, 30 miles west of Carmacks, is accessible by a 40-mile road which leaves the Carmacks-Laforma road about one mile west of the Nordenskiold River bridge at Carmacks.

History:

Sulphide-bearing vein structures have been known since before 1946 when the Brown-McDade property was explored. Following discovery of the Webber system in 1962, and additional showings in 1963, by Mount Nansen Mines Limited, underground exploration was done by Peso Silver Mines Limited on the Webber and Heustis prospects in 1964, and on the Webber, Heustis and Brown-McDade in 1965 and 1966. The Heustis property was brought into production in September of 1968 and closed in April of 1969, milling from 70 to 100 tons per day.

Description:

Quartz-biotite schist and gneiss (unit 1, Bostock, 1936) are overlain by Mount Nansen basic volcanics and pyroclastics (unit 7, op. cit.) and both are intruded by quartz-feldspar porphyry bodies. The gold-silver bearing vein systems, targets of the earlier exploration, cut altered quartz-feldspar porphyry and the schist and gneiss. The sulphide assemblage is arseno-pyrite, pyrite, galena, and sphalerite with minor amounts of

silver minerals in a largely quartz gangue.

Current Work and Results:

The Area exploration targets were the altered quartz-feldspar porphyries. During 1971, the company did 3,000 feet of rotary drilling and 2,000 feet of diamond drilling. During 1972 they did 6,000 feet of diamond drilling in 10 holes.

NISLING RANGE

THATCH GROUP
Canadian Occidental Petroleum Limited
801 - 161 Eglinton Avenue East
Toronto 12, Ontario.

Copper, Zinc,
Molybdenum
115 H 12
(61°35'N, 137°38'W)

Claims: THATCH 1-42

Location and Access:

Aishihik Lake and the end of the Aishihik road are five miles to the east of the claims. Access is by helicopter.

History:

The claims were staked in 1971 following a reconnaissance geochemical program, which revealed stream sediment copper, zinc and molybdenum anomalies.

Description:

The area has undergone glaciation from both the continental Reid ice sheet and the local, younger Ruby ice sheet. Quartzite, marble and minor schist of the Yukon Group underlie the area and are cut by a porphyritic granite. The sedimentary rocks are in places ferruginous, as indicated by limonitic weathering. They have been metamorphosed to garnet grade in places, with garnetiferous biotite-chlorite-schist being locally abundant. The Mesozoic intrusives, minor in extent, are pink to yellow-white, medium-grained, leucocratic granite. The granite contains quartz and orthoclase phenocrysts, and in some places pyrite.

The metasedimentary rocks strike north-northwest, dip 35° east. No significant showings were found on the claims.

Current Work and Results:

Some 870 soil samples taken at 800-foot intervals, from the B horizon below the recent volcanic ash, showed the following: high copper readings over micaceous quartzite with marble, high zinc readings over pyritiferous micaceous quartzite, and high molybdenum readings over quartzite and possibly over granite.

TYR GROUP
Canadian Occidental Petroleum Limited
801 - 161 Eglinton Avenue East
Toronto 12, Ontario.

Copper, molybdenum
115 G 16
(61°50'N, 138°10'W)

Claims: TYR 1-96

Location and Access:

The claims are five miles east of the RYE claims on Tyrrell Creek and 42 miles northeast of Burwash Landing. Access is by helicopter from Burwash Landing.

History:

The TYR group was staked in 1971, as a result of regional geochemistry done that year.

Description:

The claims are in unglaciated terrain and are underlain by flat-lying quartzite and marble of the Yukon Group, and several sills of porphyritic andesite of the Nisling Range volcanics. The northwestern and southeastern sectors have been intruded by granodiorite and the northern by an alaskite stock.

In the north a skarn zone, 1,800 feet in diameter, encloses an area of chalcopyrite showings, which occur with tremolite in quartz-filled fractures in quartzite.

Current Work and Results:

Geological mapping and rock and soil geochemistry outlined copper-zinc mineralization in quartzite and molybdenum-bearing quartz veins in granodiorite, as well as a hornfels skarn zone. The consultants recommended further prospecting in the vicinity of the granodiorite stock in the southeast part of the property, and more detailed geology and geochemistry on the west half of the property.

ONI Group
Canadian Occidental Petroleum Limited
801 - 161 Eglinton Avenue East
Toronto 12, Ontario.

Molybdenum, Copper
115 G 15
(61°53'N, 138°39'W)

Reference: Muller (1967).

Claims: ONI 1-113

Location and Access:

Immediately west of MAX group, covering an L-shape ridge southeast of Onion Creek in the Nisling Range, the claims are 43 miles north of Burwash. Access is by helicopter.

History:

The ONI group was staked in 1971 as a result of regional stream sediment geochemistry for copper and molybdenum done that year.

Description:

The claims, in unglaciated terrain, are underlain by banded quartzite of the Yukon Group, which is cut by numerous rhyolite dykes and by a large alaskite pluton in the south. Porphyritic basalt dykes, displaying zeolites and cut by north trending felsic dykes, are present in the northwest. A circular, buried, granitic intrusive is indicated in the central part of the claims, near a known quartz monzonite porphyry rock mass.

Topographic lineaments have been interpreted to indicate early northwest faults cut by northeast fractures and faults.

Minor molybdenite, found along fractures and quartz stringers in a small quartz monzonite mass in the centre of the property, and minor chalcopyrite in quartzite are the only indications of economic minerals. The quartzite and rhyolite locally contain minor pyrrhotite.

Current Work and Results:

Soil geochemistry has outlined two anomalous zones: one related to an intrusion east of the property and the second to quartzite and rhyolite along a northeast-trending fracture zone. No economically significant showings were found.

BIR
Canadian Occidental Petroleum Limited
Minerals Division
801 - 161 Eglinton Avenue East
Toronto, Ontario.

Copper, Zinc,
Molybdenum
115 G 9
(61°40'N, 138°20'W)

Reference: Muller (1967)

Claims: BIR 1-214

Location and Access:

The property is on a ridge north of Talbot Creek, 31 miles northeast of Burwash Landing and 12 miles east of the north end of Talbot Arm. Access during 1972 was by helicopter from Burwash Landing.

History:

The BIR claims were staked in September, 1971, to cover an area anomalous in copper, molybdenum and zinc discovered during a geochemical reconnaissance survey.

Description:

Stocks of Nisling Range Alaskite (unit 7, Muller, 1967)

and Nisling Range Granodiorite (unit 6, Muller, 1967) intrude Yukon Group metasediments (unit 1, Muller, 1967). Numerous rhyolite dykes, mafic and quartz-porphyry dykes, breccia pipes and small bodies of diorite and quartz-feldspar porphyry intrude the alaskite and older rocks.

The Yukon Group rocks occurring around the margins of the alaskite stock and as erosional remnants or roof pendants, consist of banded, biotite quartzite; garnet-mica schist; thinly banded, medium-grained marble; and skarn. The quartzite contains disseminated pyrite and pyrrhotite as well as small veins carrying chalcopyrite, molybdenite and galena. Chalcopyrite is also disseminated locally in the skarn.

Locally the alaskite consists of five phases. The oldest is a coarse-grained, light coloured granite with feldspar forming 55% and smokey quartz phenocrysts 40%, with minor magnetite and chlorite. This intrudes a fine-grained granite and a medium- to coarse-grained granite, with biotite, chlorite, hornblende and magnetite as accessory minerals. The fourth phase is a porphyritic granite with coarse feldspar phenocrysts. The youngest phase is a fine- to medium-grained granite with clear quartz fracture fillings.

Minor amounts of molybdenite occur with the quartz stringers. Pyrite and pyrrhotite are sparsely disseminated in the younger dykes and sills.

Current Work and Results:

During 1972 the company did detailed geological mapping, soil geochemistry and rock geochemistry. The soil survey defined 14 anomalies, several of which were coincident for copper, zinc and molybdenum. The major soil anomalies are related either to sulphide occurrences or to high geochemical values in the underlying rocks.

RYE
Canadian Occidental Petroleum Limited
Minerals Division
801 - 161 Eglinton Avenue East
Toronto, Ontario.

Copper, Zinc, Molybdenum
115 G 16
(61°50'N, 138°25'W)

Reference: Muller (1967).

Claims: RYE 1-54

Location and Access:

The property lies to the north of Dwarf Birch Creek, 16 miles northeast of the north end of Talbot Arm. Access is by helicopter from Burwash Landing, 38 miles to the southwest.

History:

The claims were staked during September, 1971, to cover copper, zinc and molybdenum stream sediment anomalies discovered during a reconnaissance geochemical survey.

Description:

The northeast half of the property is underlain by porphyritic andesite, basalt and rhyolite of probable Triassic age (unit 4, Muller, 1967). These are in contact to the southwest with Yukon Group quartzite and minor interbedded marble (unit 1, Muller, 1967). Two small granodiorite bodies intrude the metasediments in the southeast part of the property.

The quartzite is fine- to medium-grained and massive, consisting of sericite and quartz with small amounts of biotite and muscovite. Traces of pyrite and pyrrhotite produce brown to black staining on weathered surfaces.

The basalt and andesite cover most of the northeastern part of the property, and contain plagioclase, hornblende, biotite and quartz phenocrysts in a fine-grained matrix.

The rhyolite occurs on the eastern half of the property between the quartzite on the south and the basalt-andesite on the north.

Several northwest-trending topographic lineaments cross the area of quartzite outcrop. Fractured quartzite near one of the lineaments contains small amounts of pyrite and pyrrhotite. Traces of azurite are visible along the fractures in the quartzite. A small showing at the east end of the property contains massive sphalerite, pyrrhotite and pyrite, as well as disseminated pyrite, pyrrhotite, sphalerite and chalcopyrite in the rhyolite host rock. The showing is near the quartzite contact.

Current Work and Results:

In 1972, the company did geological mapping and rock and soil geochemistry. The soil survey outlined several small copper, zinc and molybdenum anomalies. A strong coincident copper, zinc and molybdenun anomaly was found over the sphalerite showing described above. This anomaly is open to the southeast of the claim group.

The consultant recommended that additional claims be staked to the east and south to cover the extension of the mineralized zone and the soil anomaly.

An I.P. survey and diamond drilling would depend on the results of additional geological and geochemical work in the vicinity of the sphalerite occurrence.

MAX
Imperial Oil Enterprises Limited
500 - 6th Avenue Southwest
Calgary, Alberta.

Copper, Molybdenum
115 G 15
(61°52'N, 138°34'W)

References: Muller (1967); Craig and Laporte (1972, pp.

Claims: MAX: total of 148 claims and fractions

Location and Access:

The property lies near the headwaters of Rhyolite Creek roughly 45 miles northeast of Burwash Landing and 65 miles west-southwest of Carmacks. Access in 1971 was by helicopter from Burwash Landing or Carmacks.

History:

The claims were staked originally by Atlas Explorations Limited, in 1970, to cover a copper-molybdenum prospect discovered during a regional exploration program. Atlas subsequently carried out geological mapping, soil sampling, hand trenching and a ground magnetic survey on the property. In 1971, the claims were held under option by Imperial Oil Enterprises Limited.

Description:

The property is underlain by Yukon Group rocks which are intruded by Mesozoic and Tertiary granitic rocks. On the claims the Yukon Group consists mainly of micaceous quartzite, amphibolite gneiss and minor marble. To the east, these rocks are overlain by porphyritic andesite flows and pyroclastic breccias of early Mesozoic age.

The rocks intruding the Yukon Group have been divided into three groups: Nisling Range Alaskite, Nisling Range Granodiorite and basic dyke rocks. Nisling Range Alaskite is a coarse-grained, rarely porphyritic alaskite with associated felsite dykes, mainly in the southern and central parts of the property. Nisling Range Granodiorite exists on the property as two small stocks and two small occurrences of hornblende biotite quartz monzonite. The small basic dykes range in composition from diorite to lamprophyre.

Structure on the property is dominated by two northwest-trending faults, interpreted as normal faults, which are disrupted by smaller, northeast-trending cross-faults.

Molybdenite is present in quartz veins and as minor disseminations in the quartz monzonite plug on the western part of the property and also as rosettes in quartz veins cutting quartzite. Chalcopyrite occurs with pyrite and pyrrhotite in rusty breccia pockets in quartzite, in white to grey felsite dykes and their immediate host rocks and with molybdenite in the quartz monzonite plug.

Samples of mineralized quartz monzonite assayed: 0.009 per cent molybdenum and 0.033 per cent copper. Grab samples of rusty breccia in Yukon Group rocks assayed: 0.003 per cent molybdenum and 0.31 per cent copper.

Current Work and Results:

In 1971, Imperial Oil carried out a program of detailed geological mapping, soil sampling and induced polarization surveys in two areas designated Grid 1 and Grid 3, and diamond drilled 4 holes totalling 1,501 feet on Grid 1.

The soil sampling outlined a number of copper and molybdenum anomalies, some of which were high considering the low grade of the underlying mineralization discovered. The induced polarization surveys showed a number of anomalies, most of which appeared to be caused by disseminated iron sulphides which would effectively mask any copper or molybdenum concentrations. The diamond drilling on Grid 1 over the western quartz plug cut rocks sparsely mineralized with molybdenite and chalcopyrite. There appeared to be no variation in grade with depth in the holes.

KL, MAK
Mitsubishi Metal Corporation
2766 - 200 Granville Street
Vancouver, British Columbia.

Copper
115 H 7
(61°29'N, 136°45'W)

Reference: Tempelman-Kluit (1974).

Claims: KL 1-9; MAK 4, 6, 8, 15-28, 37, 38, 40

Location and Access:

The property lies roughly four miles north of the north end of Long Lake, approximately 75 miles northwest of Whitehorse. Access in 1971 was by helicopter.

History:

The KL claims were staked in 1969. Geological and geochemical surveys carried out in 1970 outlined a copper anomaly 800 feet long by 350 feet wide trending northeast. An induced polarization survey later the same year outlined a chargeability anomaly roughly coincident with the geochemical anomaly. The MAK claims were staked in August, 1970, subsequent to the foregoing work.

Description:

Regional mapping by Tempelman-Kluit (1974) indicates the claims are underlain by Tertiary volcanics consisting mainly of tuffaceous rocks but including feeder plugs and necks. In detail, the rocks on the property consist of granitic rocks of Cretaceous to Jurassic age which have been intruded by dioritic rocks of roughly the same age. The dioritic rocks are locally brecciated, altered, and pyritized. Malachite staining is prominent in the brecciated diorite.

Current Work and Results:

Detailed geochemical and geological surveys in conjunction with bulldozer trenching were carried out in 1971. The results of this work indicated a geochemical anomaly coincident with that outlined in 1970. The trenching exposed abundant malachite staining associated with brecciated diorite which assayed around 0.3 per cent copper.

Seven holes totalling 2,590 feet were also drilled in 1971. The drilling outlined a mineralized zone trending northeast in which chalcopyrite, molybdenite and pyrite accompanied by various alteration products, including carbonate, biotite and chlorite occur in brecciated diorite. The copper content is generally on the order of 0.1 to 0.2 per cent with traces of molybdenum.

ANVIL RANGE

ARROW
Canadian Reserve Oil and Gas Limited
639 - 5th Avenue Southwest
Calgary, Alberta.

Lead, Zinc
105 L 9
(62°35'N, 134°15'W)

Reference: Campbell (1967).

Claims: ARROW 1-50

Location and Access:

The claims cross the lower part of the Tay River near its junction with the Pelly, about 30 miles northwest of Faro. Access is by helicopter from Faro.

History:

A gravity survey was conducted over the claims in 1970.

Description:

The claims are in an area of Mississippian Anvil Range Group rocks, consisting of andesite and basalt flows, breccia, tuff, carbonaceous shale, locally quartz-mica schist and lime-silicate rocks. These rocks are intruded by biotite granodiorite and quartz monzonite, minor biotite-hornblende quartz diorite and leuco-quartz monzonite all of Jurassic and/or Cretaceous age.

Northwest trending faults on the claims have been interpreted from the gravity data.

Current Work and Results:

During 1971 further gravity surveys and geochemical sampling were done on the property, followed by diamond drilling of three holes. In 1972, further geological mapping and geochemical sampling were completed and an I.P. survey done on a small area.

ANVIL MINING CORPORATION LTD.
Faro, Yukon Territory
-and-
510 West Hastings Street
Vancouver, British Columbia

Lead, Zinc
105 K 6
(62°21.5'N, 133°22'W)

References: Chisholm (1957, pp.269-277)
Roddick and Green (1961a)
Green and Godwin (1964, pp.31-32)
Green (1965, pp.36-37; 1966, pp.47-50)
Aho (1966, pp.127-149)
Roddick (1967)
Findlay (1967, pp.35-39; 1969a, pp.43-45
1969b, pp.29-30)
Tempelman-Kluit (1968, pp.48-52)
Craig and Laporte (1972, pp.94-96)

Claims: Approximately 2,000 claims in the Faro Area.

Location and Access:

The Anvil Mine is in the Anvil Range,130 air miles northeast of Whitehorse. Concentrates are trucked in 30-ton capacity containers via a 17 mile access road to the Campbell Highway, to Carmacks and to Whitehorse by the Klondike and Alaska Highways, a total distance of 230 miles. The containers are transferred to railroad cars and delivered, via the White Pass and Yukon Route, the 110 miles to the port of Skagway, Alaska.

History:

The Faro deposit was discovered during the 1965 field season by a Dynasty Explorations Limited program involving airborne magnetometer and EM surveys, ground magnetometer, EM, gravity and geochemical surveys and geological mapping, followed by rotary and diamond drilling. The Faro No. 1 zone was delineated in 1966 by diamond drilling and an adit for bulk sampling driven in late 1966 and early 1967. A production decision was announced on March 20, 1967. Preproduction work on mine, mill and townsite went forward from 1967 to 1969 and the first concentrates were produced in September, 1969.

Description:

Strong stratigraphic controls of Pb-Zn mineralization have been found in Eocambrian pelitic rocks of the Anvil metamorphic belt. This belt has undergone two periods of regional dynamo-thermal metamorphism of greenschist to middle amphibolite grade. The superposed deformations have produced a regional nappe structure encompassing the southwest flank of Anvil Range. Both metamorphic events post-date massive Pb-Zn mineralization.

Current Work and Results:

Exploration Review:

Exploration was conducted at the mine site and in a 150 square mile area on the south flank of the Anvil Range.

Exploration in 1971 and 1972 by Anvil Mining Corporation included regional geological, geophysical and geochemical ground surveys accompanied by overburden rotary drilling and diamond drilling of specific targets. Controls of mineralization were established by this program and various exploration methods were evaluated in the district. During the 1971 and 1972 programs 227 rotary drill holes totalling 15,000 feet and 14 diamond drill holes totalling 7,200 feet were completed.

Development work on the Faro deposits over the same time period consisted of 23 diamond drill holes totalling 11,875 feet. Most of these holes were drilled for ore control information. In general, only minor modifications of published reserve figures are indicated by this development work.

The operating summary for 1970, 1971 and 1972 is as follows:

	1970	1971	1972
Milled (tons)	1,963,085	2,673,000	3,060,168
Rate (tons per day)		7,299	7,935
Mill Heads			
Lead (per cent)		4.9	4.6
Zinc (per cent)		6.9	6.2
Silver (oz/ton)		1	1
Reserves	63,473,000	58,404,000	59,940,000

CAPA, ECHO, DELTA
Dynasty Explorations Limited
330, 355 Burrard Street
Vancouver British Columbia

Lead, Zinc
105 K 2
(62°14'N, 132°45'W)

References: Green (1966, pp.47-49)
Tempelman-Kluit (1972)

Claims: CAPA 1-67; ECHO 1-39; DELTA 1-146, 148-155

Location and Access:

The property is located among and adjacent to Swim Lakes, 18 miles east of Faro and 20 miles northwest of Ross River. Float planes can land at any of five lakes on and near the property. Numerous tote trails provide for fairly easy movement on the property, with bombardier-type tracked vehicles. Physiographically, the property is at the southeast end of the Anvil Range.

History:

In 1964 and 1965, Dynasty conducted airborne and ground geophysical surveys (aeromagnetic, ground magnetic and limited gravity work) over the area then held as the CUB and NASTY claim groups. Eight rotary drill holes, three on the NASTY claims and five on the CUB, were put down over gravity and magnetic anomalies. The ground was restaked in 1971.

Description:

The Anvil Range, about 50 miles long and 20 miles wide, comprises a belt of Proterozoic and Paleozoic strata. The dominant structure, the Anvil Arch, is a northwest trending, asymmetric antiform with the Anvil Batholith in its core (G.S.C. Map 1261A by Tempelman-Kluit). In the southeast, the amplitude of the arch diminishes resulting in a broad, shallow basin, the structural setting of the CAPA.-ECHO - DELTA claims. The stratigraphic section consists of quartz mica schists and calc-silicates overlain by phyllite (Map 1261A, Unit 3), which is unconformably overlain by late Paleozoic volcanics and sediments. The known deposits in the area are in the quartz-rich phyllites at the base of Unit 3.

The CAPA and ECHO claim groups are underlain by the favourable quartz-rich lower part of the phyllite unit. Bedrock geology of the DELTA claims consists of phyllite higher in the section.

Current Work and Results:

The 1971 and 1972 exploration activity consisted of geochemical surveys, extensive further geophysical work, geological mapping at one inch equals 1,320 feet and diamond drilling of seven holes, totalling 3,566 feet.

Geochemical surveys were done to evaluate several techniques. Since much of the area is covered with deep, transported overburden, in some places to depths greater than 300 feet, conventional soil sampling is not reliable. Soil geochemical response was found to be weak and spotty. Silt samples from streams and the numerous ponds and lakes were found to give anomalous results which could be correlated with known gravity anomalies and electromagnetic conductors. Thus, lake silt analysis will be a useful prospecting tool in the district. Rock geochemical samples, consisting of chips from ten foot intervals in the rotary holes and chips every foot for 25-foot intervals from the diamond-drill core were found to reflect distinctly different background values for copper, lead and zinc in the rock units studied. The method should provide an aid in logging and may be used to establish geochemical trends within single units.

During the 1971 and 1972 field season, Dynasty Explorations Limited completed ground magnetometer and deep penetrating C.E.M. electromagnetic surveys over most of the claims. Gravity surveys were then conducted over magnetic and electromagnetic anomalies. A program of seven drill holes testing major coincident geophysical anomalies was undertaken during the fall of 1972.

ZAN, MX, AC, KD, TIM, JET, TAF, AM
Kangaroo Exploration Corporation
555 South Flower Street
Los Angeles, California,
U.S.A.

Zinc, Copper, Lead
105 K 6
(62°27'N, 133°12'W)

References: Tempelman-Kluit (1968;1972); Craig and Laporte (1972); Campbell (1967); Roddick and Green (1961).

Claims: MX 1-13, 25-28, 30, 56-62, 119-122, 178-195, 186A, 187A; TIM 1-32; ZAN 1-48; AM 1-14; TAF 1-64; AC 67-72, 75-96, 111, 112; KD 1-26; JET 1-16, 18, 20, 22, 24, 45, 47, 49-64, 93, 95, 97-104

Location and Access:

The property is 8 miles northeast of the Anvil Mine and 16 miles north of Faro. Access is by helicopter from Faro.

History:

During 1966 the AC and JET claims were staked by Giant Yellowknife Mines Limited which flew airborne MAG/EM and conducted soil geochemical and geological surveys that year. Galena bearing veins were discovered in an area staked as the KD claims that fall. The original AM claims were tied on to the KD claims late in 1966 by Altair Mining Corporation Limited.

In 1967 Altair Mining Corporation Limited conducted geological, soil geochemical, J.E.M., and gravity surveys and put down three diamond-drill holes totalling 1,161 feet on the AM claims.

In 1968 Mercury Explorations Limited worked in the area and carried out prospecting and small geochemical surveys. This work uncovered a small lead-zinc-silver vein in the Anvil Batholith near the schist contact. The ZAN claims were staked to cover a favourable unit extending into the drift-covered area downhill from the vein. Mercury optioned the Giant Yellowknife claims. Altair Mining Corporation Limited conducted some additional soil geochemical, J.E.M. and gravity surveys on the AM claims.

In 1969 Mercury Explorations Limited staked a large block of ground as the TIM and MX claims which in combination with previous claims gave them control of an approximately 15 mile long strip of favourable ground near the Anvil Batholith. In early 1969, a large reconnaissance gravity survey was conducted over overburden covered, or poorly exposed areas, along approximately seven miles of this favourable zone. This survey outlined three anomalous areas in a broad, overburden covered valley, including one large anomaly of moderate intensity near the geochemical anomaly and mineralization discovered in the previous season on the ZAN claims.

In 1970 Kangaroo Exploration Corporation, a subsidiary of Cyprus Mines Corporation, optioned the joint Mercury-Giant claims and conducted I.P. and geochemical surveys over the gravity anomalies in the fall. During the winter, three diamond-drill holes totalling 1,948 feet tested the gravity and geochemical anomalies near the ZAN showings. These holes intersected biotite-muscovite schists and minor greenstone with only minor pyrite and pyrrhotite in the schists. Drilling also showed highly variable depths to bedrock.

Description:

Claims are underlain by quartz-muscovite-biotite schist, calc-silicate gneiss and marble; quartz-chlorite-sericite phyllite, chlorite phyllite, calcareous phyllite and phyllitic marble; graphitic schist and greenstone corresponding to Tempelman-Kluit's (1972) units 3B and 2, 3, 7? and 3a and 12 respectively and distributed essentially as shown by Tempelman-Kluit. These rocks are structurally overlain by foliated, fragmental, pillowed and amygdaloidal metavolcanics with lesser interlayered slaty tuffs and sediments (Tempelman-Kluit's unit 8b), which contain all deformational fabrics developed in the underlying phyllites and pass laterally into the phyllites by increasing deformation. These volcanics are thought to be Ordovician or older and roughly coeval with the phyllites as suggested by Roddick and Green (1961) and Campbell (1967) but contrary to the unconformable relationship described by Tempelman-Kluit (1972).

Current Work and Results:

In 1971, systematic geochemical coverage was started on the entire claim block and reconnaissance geological mapping was done. Numerous geochemical anomalies were discovered including a large and intense one on the KD claims. In 1972 Turam magnetometer and gravity surveys were conducted over the geochemical

anomalies outlined in 1971, and the geology of the entire property was mapped in detail. Four diamond-drill holes totalling 2,064 feet were put down that fall. The last of these holes cut widespread, low-grade zinc and copper sulphides in metavolcanic rocks on the KD zlaims. The minerals are sphalerite and chalcopyrite with carbonate in deformed veinlets, in amygdules, and as disseminations within a large zone of pre-metamorphic quartz sericite carbonate alteration.

TRY
Spartan Explorations Limited
3165 Dunbar Street
Vancouver 1, British Columbia.

Lead, Zinc
105 K 6
(62°28'N, 133°21'W)

Reference: Tempelman-Kluit (1972).

Claims: TRY 1-96

Location and Access:

The property is in the upper part of Anvil Creek seven miles northeast of Anvil. Access is by helicopter.

History:

The claims were staked in 1971 to cover an area opposite the Faro orebodies with respect to the Anvil Batholith, and underlain by the favourable quartzose phyllites section of the metasediments. Previous work in the area was done on the nearby ZAN, MC and AC claims, on the southeast boundary of the TRY claims.

Description:

In this area of phyllite and acid intrusions the most prominent stratigraphic unit is a bluish sericitic quartz phyllite which strikes northwest and dips moderately to the northeast. Graphite, pyrrhotite and pyrite occur as disseminations in the lower sections. Below this unit are biotite-muscovite schists, and above, andesite flows with some tuffs predominate.

Current Work and Results:

In the 1971 season an I.P. survey was done over the claims with the delimiting of three chargeability highs. Further I.P. and magnetometer surveys were recommended to define drill targets.

TOP and SANK
Citex Mines Limited
310 - 890 West Pender Street
Vancouver, British Columbia.

Lead, Zinc
105 K 2
(62°05'N, 132°40'W)

Reference: Findlay (1968).

Claims: TOP 17-24 (TOP 1-16 and SANK 13-44 lapsed by late 1972)

Location and Access:

The property is 15 miles north of Ross River and 15 miles southeast of the Swim Lakes property of Kerr-Addison. Access is by float plane or by tote road along the north side of the Pelly River.

History:

In 1966, Archer, Cathro and Associates and A.O. Hall did a reconnaissance copper-zinc geochemical survey and an aeromagnetic survey and geological mapping.

Description:

The claims are underlain by Cambrian phyllite, Mississippian clastics and Pennsylvanian volcanics, all cut by Anvil Mesozoic intrusions of varying compositions. These rocks of the Anvil Batholith underlie much of the northern half of the property.

Current Work and Results:

An aeromagnetic survey in 1971 confirmed the geological trend, with a prominent anomaly outlining a granite-quartzite contact. An intrusive plug or an area of thick overburden is interpreted to be the cause of a prominent magnetic low..

HOHO, BRAM
Dynasty Explorations Limited
330 - 355 Burrard Street
Vancouver, British Columbia.

Lead, Zinc
105 K 3
(62°15'N, 133°02'W)

Reference: Tempelman-Kluit (1972)

Claims: HOHO 1-8, 17-48; BRAM 9-16

Location and Access:

The claims form a contiguous block along Blind Creek, seven miles up from its confluence with the Pelly River. A 4-1/2-mile tote road suitable for tracked vehicles runs through the property along the northwest side of Blind Creek from the Vangorda-Swim Lakes road. Access in 1971 was by helicopter from Faro, ten miles to the west.

History:

The claims were staked initially as part of the DY claims in 1964, and the following year airborne surveys outlined magnetic and electromagnetic anomalies in the area. The claims lapsed and were restaked in 1966 as part of the LUK group. These claims also lapsed and were restaked in 1971 as the HOHO and BRAM claims by Dynasty Explorations Limited.

Description:

The area is underlain by Lower Paleozoic strata, mainly sericite-biotite schist and quartz phyllite (unit 3, Tempelman-Kluit, 1972). To the northwest, these rocks are intruded by granitic rocks of the Anvil Batholith (unit 11, op. cit.).

The property itself has few outcrops except along Blind Creek where a sequence of phyllitic rocks is exposed. At the base of the section is a dark-grey, quartz-rich phyllite. This grades upward through pale-grey to pale-greenish sericite-chlorite phyllite which in turn grades into a limy, carbonate phyllite at the top of the section. The middle and upper sections of the phyllite contain lenses of greenstone up to tens of feet thick, varying from massive amphibolite at the core to well-foliated chlorite schist near the margins. These lenses frequently contain pyrrhotite and pyrite and sparse chalcopyrite in quartz veins.

Current Work and Results:

Work on the property in 1971 consisted of geological mapping, soil sampling and a ground electromagnetic survey.

The airborne surveys in 1965 outlined two electromagnetic anomalies now covered by the HOHO and BRAM claims. The 1971 ground electromagnetic survey was carried out over these anomalies with a Crone C.E.M. instrument using a horizontal loop configuration. This survey outlined a number of anomalies including a strong anomaly in the area of one of the airborne anomalies, located west of Blind Creek.

Soil sampling in the vicinity of the ground electromagnetic anomalies outlined an area of coincident copper, lead and zinc anomalies near the northwest border of the property.

MARK,LEE
Canadian Reserve Oil and Gas Limited
for Anvil Project Group
1600 - 639 - 5th Avenue Southwest
Calgary, Alberta.

105 K 5, 105 L 8

References: Roddick and Green (Map 13-1961); Tempelman-Kluit (1972).

Claims: MARK 1-130; LEE 1-8

Location and Access:

The claims straddle Anvil Creek, between Rose Creek and Pelly River. Access is by helicopter from Faro, 23 miles to the southeast.

History:

During 1970, initial work on the property was done by Overland Exploration Services (1969) Limited, another member of the Anvil Project Group. work consisted of reconnaissance gravity surveys over prepared grids with readings taken at 250-foot intervals on lines 750 feet apart. Additional work consisted of limited geological mapping, prospecting and geochemical sampling.

Description:

The property is divided into eastern and western parts for description. Of the eastern part, the southern half is flat and deeply overburden covered. The sparse outcrop, largely restricted to Anvil Creek and tributaries is biotite-quartz phyllite, locally graphitic (as unit 3, Tempelman-Kluit, 1972). The northern part is distinguished from the south by a west-northwest trending break from the flat to a uniform slope with thinning overburden and abundant outcrop of biotite-quartz monzonite of the Anvil Batholith (unit 11, op. cit.). On the western part of the property abundant outcrop consists largely of foliated, metamorphosed intermediate to basic volcanic rocks (unit 8 op. cit.). A small area is underlain by biotite-quartz phyllite; quartzite and graphitic chert outcrop in Anvil Creek. Both of these areas are near the southern edge of the property.

Current Work and Results:

Exploration of the claims groups was continued in 1971 and 1972 with geological mapping, prospecting, and geochemical sampling. Emphasis was on evaluating two prominent co-linear gravity anomalies on the eastern part of the property. Soil samples taken at 200-foot intervals on lines 750 feet apart and silt samples from the major drainages were analysed for copper and zinc. A magnetometer survey was conducted over the area of the two prominent gravity anomalies in the eastern part, using the same grid lines as the geochemical survey.

Analyses for copper, lead and zinc in the silt samples for the eastern part were all within the background range. The soil results showed no response over the western part of the two major gravity anomalies. The eastern anomaly is in an area which is higher in copper and zinc than elsewhere in the Anvil Creek area although well defined anomalies were not recognized. The axis of the gravity anomalies is essentially coincident with the intrusion-metasediment contact. The magnetic profiles are flat with no features which can be correlated with either gravity anomalies or geological contacts. No sulphide showings were found in the eastern part of the property.

On the western part all samples collected over gravity anomalies had concentrations within background range for lead and zinc. Samples above threshold for copper are scattered over the area, but most are near outcrops of metamorphosed andesites. No significant sulphide showings were found.

The gravity anomalies seem to reflect topographic highs and thin overburden. Prospecting and soil and silt samples did not indicate any targets worthy of further work.

COLT, BLUE, ALTA, KING
Canadian Reserve Oil and Gas Limited
for Anvil Project Group
1600 - 639 - 5th Avenue Southwest
Calgary, Alberta.

105 K 2
(62°37'N, 133°35'W)

Reference: Tempelman-Kluit (1972).

Claims: BLUE 1-65; COLT 1-14; KING 1-27; ALTA 1-26, a total of 132, in five closely-spaced but non-contiguous blocks.

Location and Access:

The claim groups are 30 miles north-northwest of Faro. Access was by helicopter from Faro.

History:

During 1970 initial work consisted of reconnaissance gravity surveying and limited geological mapping, prospecting and geochemical sampling.

Description:

The area of the claim groups is bounded on the south and east by blocky, unaltered, medium- to coarse-grained Cretaceous granodiorite of the Anvil Batholith. West and north of the granodiorite, the rocks are intimately interbedded graphitic shale and argillite, black to grey quartzite, minor black to grey limestone, black chert and andesite. Adjacent to the intrusion, the sediments have been converted to a hornfels in a zone of varying width characterized by rusty weathering and the occurrence of andalusite and sillimanite.

Current Work and Results:

Exploration of the claim group was continued in 1971 and 1972 with further mapping, prospecting and geochemical sampling. Gravity surveys were conducted on the BLUE 30-64 and COLT 1-14 claim blocks. One gravity anomaly on the BLUE claims was tested with a series of I.P. traverses. The prospecting, mapping and geochemical surveys were to evaluate the gravity anomalies recognized in the 1972 and earlier surveys. Silt samples from most drainages were analyzed for copper, lead and zinc with some samples being checked for molybdenum as well.

On the gravity anomalies on the ALTA claims, where soil geochemistry indicated anomalous copper and zinc concentrations, the source was found to be pyritic, amygdaloidal andesite. Of two gravity anomalies on the KING claims, high values for copper and zinc are most closely associated with the intrusive contact. For a gravity anomaly completely within the granodiorite intrusion (BLUE 1-20 group) there was no associated geochemical anomaly. The I.P. test of one gravity anomaly on the BLUE 30-64 block suggested the gravity anomaly to be caused by rugged bedrock topography. Where the underlying rock is highly graphitic, the I.P. results were inconclusive. For several gravity anomalies, based on the work done, there was no satisfactory explanation. For all of the area examined there is a high proportion of bedrock exposed and as careful examination found no sulphides other than minor disseminated pyrite in shales, the company geologist recommended that no further work be done on these claims.

FOTO
Dynasty Explorations Limited
330 - 355 Burrard Street
Vancouver, British Columbia

Lead, Zinc
105 K 2, 7
(62°15'N, 132°44'W)

Reference: Tempelman-Kluit (1972).

Claims: FOTO 1-224

Location and Access:

The claims are situated in a single block 2 miles northeast of a small lake known locally as Cub Lake. Faro is 20 miles southeast. Access is by fixed-wing aircraft to Cub Lake or by helicopter to the property itself.

History:

The claims were staked in the spring and summer of 1972 following regional geological mapping and airborne magnetic and electromagnetic surveys in the area.

Description:

The property is underlain by Proterozoic and Lower Paleozoic strata which have been intensely deformed. The

oldest rocks are quartz-biotite-garnet schist with staurolite and andulusite porphyroblasts and quartz-mica schist of Hadrynian to Cambrian (?) age (unit 2, Tempelman-Kluit, 1972). These are overlain by well-foliated quartz-sericite-biotite-chlorite graphite phyllite and sericite-chlorite-graphite phyllite of Lower Cambrian (?) age which contain greenstone lenses up to several hundred feet thick (unit 3, Tempelman-Kluit, 1972). East of the claims, these rocks are intruded by Cretaceous quartz monzonite to granodiorite of the Anvil Batholith (unit 11, Tempelman-Kluit, 1972).

No lead or zinc sulphide occurrences have been found on the property although disseminated pyrite was noted locally in quartz-graphite phyllite.

Current Work and Results:

Work on the property in 1972 consisted of geological mapping, rock and soil sampling and magnetic, electromagnetic (Turam) and gravity surveys.

The soil sampling failed to outline any anomalous areas, probably because of thick overburden cover. Rock geochemical sampling also did not indicate any significant lead-zinc trends.

The magnetic survey indicated four anomalous areas, three of which were coincident with electromagnetic and gravity response.

ROTO, LORNA, GRAN, JEAN, ARO
Dynasty Explorations Limited
330 - 355 Burrard Street

Lead, Zinc
105 K 5
(62°25'N, 133°45'W)

Reference: Tempelman-Kluit (1972).

Location and Access:

The property lies along Anvil Creek 7 miles northwest of Rose Mountain. Access is normally via helicopter from Faro, 18 miles to the southwest.

History:

The claims were staked late in 1970 following the discovery of several airborne magnetic and electromagnetic anomalies.

Description:

The property lies on the southwest limb of the Anvil Arch, a northwest-trending antiform with the elongate Anvil Batholith in the core. The section consists of Proterozoic and Paleozoic strata which have undergone complex structural deformation.

The ROTO, LORNA, GRAN, JEAN and ARO claims are underlain by a belt of phyllitic rocks of Lower Cambrian (?) age (unit 3, Tempelman-Kluit, 1972) bordered on the north and south by Cretaceous granitic rocks (unit 11, op. cit.).

Current Work and Results:

In 1970, preliminary geological mapping and geochemical reconnaissance were carried out in the area. Ground magnetic, electromagnetic and gravity surveys and soil sampling were undertaken in the areas of the airborne magnetic and electromagnetic anomalies outlined during previous surveys. Late in 1970, a coincident magnetic-gravity anomaly outlined on the LORNA group was tested by a single, 576-foot diamond-drill hole, which penetrated massive greenstone and chlorite schist throughout.

In 1972, work on the property consisted of detailed geological mapping. Although much of the property is covered by up to 200 feet of overburden, the claims do appear to be underlain by a sequence of south-dipping schist and phyllite, including the favourable quartz-rich phyllite. Minor amounts of pyrite and pyrrhotite as well as traces of galena were observed in phyllitic rocks on the ROTO, LORNA and ARO claim groups.

ACME
Dynasty Explorations Limited
330 - 355 Burrard Street
Vancouver, British Columbia.

Lead, Zinc
105 K 2
(62°07'N, 132°47'W)

Reference: Tempelman-Kluit (1972).

Claims: ACME 1-24

Location and Access:

The claims are situated two miles west of Orchay Lakes, roughly 20 miles east-southeast of Faro. Access in 1971 was by helicopter or by float plane to a small unnamed lake on the claim group.

History:

The area was previously staked as the LEES, COME, PAL and LET claims on which a number of airborne magnetic and electromagnetic anomalies were outlined in 1966. There was some further work on the property but the claims were subsequently allowed to lapse in 1971, at which time they were restaked by Dynasty Explorations Limited as the ACME claim group.

Description:

The claims lie on the southwestern limb of a large anticline, the core of which is formed by the Anvil Batholith of Cretaceous age.

The oldest rocks on the property are dark slate and phyllite and black, banded hornfels of Hadrynian to Cambrian age (unit 2, Tempelman-Kluit, 1972). To the south and west, these rocks are bounded by faults trending southeast and north. Rocks in fault contact with the slate and phyllite to the south and east are mainly volcanics of Upper Pennsylvanian to Lower Permian age consisting of tuffaceous chert overlain by basalt (unit 8, Tempelman-Kluit, 1972). These rocks are resistent to erosion and form a prominent ridge on the southwestern portion of the claim group. Pyroxene gabbro of Upper Permian to Lower Triassic age (unit 9, Tempelman-Kluit, 1972) occurs as fault-bounded intrusions along the Vangorda Creek Fault, a strong, southeast-trending system of shears which crosses the southern part of the property. Small dykes of granodiorite related to the Anvil Batholith (unit 11, Tempelman-Kluit, 1972) intrude the volcanics.

Two mineral occurrences have been observed on the property. One consists of chalcopyrite with minor bornite associated with a quartz vein in a shear zone cutting gabbro. The second is a rhyolite dyke heavily impregnated with pyrrhotite in an area of volcanic rock.

Current Work and Results:

In 1971, a program of geological mapping, soil sampling and geophysical surveys were completed. Several coincident magnetic, electromagnetic and gravity anomalies were outlined. The soil sampling failed to outline any anomalies.

PELLY MOUNTAINS

LYN GROUP
Cyprus Exploration Corporation
510 West Hastings Street
Vancouver, British Columbia.

105 K 3
(62°06'N, 133°13'W)

Claims: LYN 3-16, 29-32, 81-82, 89-106, 119-134, 136, 138, 139-149, 151-152, 154

Location and Access:

The claims are eight miles south-southwest of Faro. Road access is possible from the Campbell Highway, two miles north of the claims.

History:

Previously held by Kerr-Addison Mines, the claims were mapped gravimetrically in 1970 and 1971. Steep gradients suggested likely drill targets.

Description:

The claims are underlain by calc-silicate gneiss and schist, some of which contain garnet and graphite which are well displayed on foliation surfaces. These rocks are strongly folded with deformations tentatively assigned to three or more generations. A granitic mass to the southwest appears to be deformed by the later tectonic movements.

Current Work and Results:

Cyprus carried out further geological mapping and drilled a gravity anomaly with three holes totalling 1,500 feet. The rocks are garnet-bearing metasediments, locally graphitic, with veins of siderite in brecciated calc-silicate horizons which contain minor amounts of sheared galena.

PAT
A. Arsenault, P. Versluce
Whitehorse, Yukon Territory

Tungsten, Copper
105 F 14
(61°57'N, 133°27'W)

Reference: G.S.C. Map 7-1960.

Claims: PAT 5-8

Location and Access:

The claims are situated 3-1/2 miles northwest of Fox Mountain on the northwest side of the valley of a northeasterly-flowing tributary of the Magundy River. The area is rugged and the claims lie above timberline at elevations between 5,300 and 6,000 feet. Access in 1972 was by helicopter from Ross River, 34 miles to the east.

History:

The claims were staked in 1971. Some trenching was carried out on the claims subsequent to the staking.

Description:

The claims are underlain by metamorphosed sediments (unit A, G.S.C. Map 7-1969) which have been intruded by Jurassic and/or Cretaceous granitic rocks (unit 9, op. cit.) to the southwest.

The metamorphosed sediments consist mainly of well-bedded, hard, dark-grey, slightly micaceous quartzite which locally approaches siliceous slate or hornfels in appearance. The sediments strike northwest and dip 35° to 70° to the north.

The granitic rocks intruding the sediments consist mainly of medim-grained quartz monzonite, part of a large pluton present northwest and southeast of the property. Vertical dykes of quartz monzonite up to 100 feet wide also cut the sediments.

Two areas of scheelite with associated sulphides occur on the property. The first occurrence consists of a number of northwest trending lenses of pyrrhotite two to five feet wide along a strike length of 30 feet. Fine scheelite is distributed unevenly throughout the pyrrhotite. Minor amounts of fine chalcopyrite are also present. Host rock for this occurrence is quartzite.

The second occurrence consists of massive pyrrhotite up to 20 feet wide and conformable with quartzite host rocks trending west-northwest. Traces of scheelite are associated with the pyrrhotite.

Current Work and Results:

Geological mapping of the property and detailed examination of the showings were conducted in 1972. Detailed lamping of the first occurrence indicated some areas should contain about one per cent tungsten oxide but that distribution is erratic. Sampling of the second showing indicated traces of scheelite.

SOUTH MACMILLAN

CASCA PROJECT
Phelps Dodge Corporation of
Canada Limited
404 - 1112 West Pender Street
Vancouver 1, British Columbia.

Copper, Lead, Zinc
105 J 12
(62°43'N, 131°53'W)

Claims: PDR 1-48

Location and Access:

The PDR claim group is about 65 miles north of Ross River, between the South Macmillan and Riddell River, about eight miles east of their junction. A winter road follows the Riddell River from Dragon Lake on the Canol Road. Wing Lake (local name), in the Riddell Valley, south of the claim block, is suitable for float plane use.

History:

Atlas Explorations Limited, as part of their Hess Project, first staked in this area in 1968. The claims lapsed in 1970. The WING claims were staked in the same year to cover copper, lead and zinc mineral occurrences in intrusive rock. The present group of claims covers an aeromagnetic anomaly to the south of the WING group.

Description:

A variety of intrusive and metasedimentary rock is found on the property. A Proterozoic sequence of grit, quartzite and dark shale is unconformably overlain by an Ordovician and Silurian sequence of chert and shale with conglomerate, quartzite and limestone. The Paleozoic rocks are represented on the property by a major chert-limestone unit in the southwest part, and by abundant, coarse, siliceous grits, clastic breccias and arkose, with metasiltstone,chert and argillite, on the remainder of the property. Chert and skarn, argillite and slate, limestone and meta-volcanics are also found on the property.

Mesozoic granodiorite forms a large circular stock west of the northeast flank of Klingit Peak. Syenite phases, probably of the same intrusion, occur in the southeast and minor syenite dykes are present in the north. A non-magnetic gabbro, and related diorite, serpentine and greenstone occur southwest of the property. Various dykes, mainly of quartz-porphyry, felsite, and altered feldspathic, pyrrhotite-bearing, granodiorite are present. The granodiorite dykes contain minor occurrences of copper, lead and zinc minerals.

East trending structures in both Proterozoic and Paleozoic rocks control the sulphide occurrences.

Current Work and Results:

Work in 1971 consisted of geological mapping, geochemical soil surveys, soil profile studies and a magnetometer survey.

A brief drilling program was completed late in the 1971 season.

WATSON LAKE MINING DISTRICT

CASSIAR MOUNTAINS

SILVER SEVEN
Silver Seven Exploration Limited

Tungsten, Lead, Zinc
105 B 1
(60°07'N, 130°26'W)

References: Little (1959, p. 37); Poole, Roddick and Green (1960); Green and Godwin (1963, pp. 31-32); Green (1966, pp. 80-82); Cathro (1969); Craig and Laporte (1972, pp. 134-137).

Claims: LUCK, SEVEN, SUSAN, MORN (a total of 88)

Location and Access:

The property is in the Boulder Creek drainage basin, in the eastern Cassiar Mountains, 57 miles west of Watson Lake and three miles north of the Alaska Highway. Access is by four-wheel drive vehicle.

History:

Wolframite veins were found in 1943, in what has been called the Fiddler Zone. During 1951 to 1953, Yukon Tungsten Corporation drove a 530-foot adit and 235 feet of raises on these veins. In 1971, the LUCK lead-zinc-silver showing was discovered and optioned to Scurry Rainbow Oil Company, which did trenching, geophysics, geochemistry and diamond drilling (three holes totalling 2,597 feet).

Description:

Two small quartz diorite dykes, the only intrusive rocks exposed on the property, cut lower Cambrian calcareous schists, phyllites and marble. Regional metamorphism is related to the Cassiar Batholith to the west. En echelon quartz veins of the Fiddler Zone contain galena, wolframite, cassiterite, scheelite, fluorite, stannite, sphalerite, chalcopyrite and pyrite. A 2,000 foot long silicified breccia zone contains scheelite. Previously drilled replacement-type lead-zinc showings and narrow quartz-galena-sphalerite veins occur in the area.

Current Work and Results:

During 1971, Amax Exploration Incorporated did a preliminary evaluation consisting of geological mapping and soil sampling and rock geochemical sampling, which provided further information on the grade and distribution of the tungsten-bearing rock. Amax did not option the property.

L, LOLA
Mark V Petroleums and Mines Limited
301 - 540 Burrard Street
Vancouver 1, British Columbia.

Lead, Silver
105 B 1, 2
(60°01'N, 130°30'W)

Reference: Green (1966, pp. 79-80).

Claims: LOLA 1, 2; L 1-6, 11-16

Location and Access:

A four-mile tote road leaves the Alaska Highway near Mile 706 and follows the valley of Freer Creek to the property.

History:

In 1958, previous owners drove an adit about 590 feet long some 600 feet below the main surface showing. Nine tons of hand sorted galena were shipped from the quartz-carbonate-sulphide veins in 1968. Trenching and sampling were done by the present owners in 1970.

Description:

The area is within the Cassiar Batholith, local phases being a porphyritic quartz diorite in contact with a finer grained diorite. Dark brown diabase dykes, up to ten feet thick, cutting the quartz diorite, trend 70 degrees, parallel to one of two regional fracture directions. The main showing consists of strongly mineralized rubble and gouge in a fault zone. Epidote and chlorite occur as alteration products, and are widespread near the main showing.

Current Work and Results:

In 1971, in the course of detailed geological mapping, several scattered minor occurrences of galena were found.

DAN, MOD, LUX, OMO
Boswell River Resources Limited
803 - 1177 West Hastings Street
Vancouver, British Columbia.

Silver, Lead, Zinc, Copper
105 B 2, 3
(60°14'N, 131°18'W)

References: Poole, Roddick and Green (Map 10-1960); Craig and Laporte (1972, pp. 137-138).

Claims: DAN, MOD, OMO, LUX, TIDE, SAM, MAX (a total of approximately 800)

Location and Access:

The property is on the Swift River in the Cassiar Mountains, 80 miles west of Watson Lake and lies northeast of Mile 722 of the Alaska Highway. Access is by a 12-mile tote road from Mile 722, north past Pine Lake airstrip to Daughney Lake.

History:

Silver-bearing galena and sphalerite float was found by Hudson Bay Mining and Smelting Company prospectors in 1946. That company did an E.M. survey in 1952 and diamond drilled the most promising anomalies, finding them to be related to graphitic schist. Cominco Limited examined the ground in 1962. In 1968 Boswell River restaked the area, (DAN 1-10), did E.M., I.P. and magnetometer surveys and staked more claims. During 1969 some 4,300 feet of diamond drilling was completed. During 1970, airborne E.M. and magnetometer surveys were flown over a nine-square mile area on and adjacent to the claim blocks, on the basis of which additonal claims were staked from the original property eastward to the Pine Lake airstrip. Some 3,000 lineal feet of trenches were cut on magnetic highs, on the DAN, BUD and TAM claims. Nine holes totalling 1,900 feet were diamond drilled on the DAN claims where sphalerite and chalcopyrite were found in the trenches. Ground magnetometer and geochemical surveys were made - the geochemical samples being taken at 200-foot intervals on lines 400 feet apart. Geological mapping was completed on roughly 100 claims in the northern part of the property, including the original DAN showings.

Description:

The property is largely underlain by chert, hornfels, argillite, slate and phyllite (unit 10, Poole et al, 1960) having northwest trending, steeply dipping foliation. These rocks are separated from the biotite quartz monzonite of the Cassiar Batholith (unit 15a, op. cit.) to the north by the west-northwest trending Swift River Fault. Two plugs of diorite are also present on the mapped part of the claims.

Pyrrhotite, in some places accompanied by sphalerite, occurs as disseminations and as massive sulphide in foliation parallel bands up to a few tens of feet wide, in phyllite and hornfels host rock. Magnetite-pyrite-rich bands or zones are also present. Minor chalcopyrite is present as small blebs, fracture coatings and veinlets within both the pyrrhotite and pyrite zones.

Current Work and Results:

During January, 1971, 28 of the LUX, OMO claims, that part of the property immediately west of the Pine Lake airstrip, were surveyed by the Turam method. Some 15.3 line miles were completed to further define conductors detected by the 1970 airborne survey. Nine zones, having conductivities consistent with either massive sulphides or graphitic schist, were identified. Of these, five had fair magnetic correlation.

The diamond drilling to date has been disappointing. Of the pyrrhotite drilled in 1970, there were no intersections of economic significance. In 1971, three holes totalling 1,650 feet, targeted on the Turam survey, cut largely argillite, graphitic argillite, dolomite and limestone. An intersection of 1-1/2 feet in DDH 71-3 graded: 1.2 per cent zinc, 1.3 per cent lead and 3.7 ounces per ton silver.

FREER CREEK, LUCK — Silver, Lead, Zinc
Cone Mountain Mines Limited — 105 B 1
(60°00'N, 130°29'W)

Reference: Green (1966, pp. 79-80).

Claims: LUCK 7-22

Location and Access:

The property is on Freer Creek at the Yukon-British Columbia border. Access is from Mile 706 Alaska Highway via a bridge over the Rancheria River and an eight mile access road to the property.

History:

The property is on the south side of the Land LOLA claims where underground work was done in 1958 and bulldozer trenching in 1970.

Description:

The area is underlain by rocks of the Cassiar Intrusion, here largely medium-grained biotite quartz monzonite or granodiorite. Lamprophyre dykes up to 20 feet wide intrude the quartz monzonite. Silver-bearing galena, sphalerite and minor chalcopyrite occur in quartz veins and lenses along steep east trending fractures or shears.

Current Work and Results:

A total of 211 geochemical samples were taken at 100-foot intervals along East Freer Creek and at 200-foot intervals along a prominent ridge 2,000 feet to the east. Further samples were taken at 100-foot intervals along short east-west lines 800 feet apart crossing the creek and ridge.

Several small coincident lead and zinc anomalies occur on the ridge, two of which are associated with mineralized float

grading roughly ten per cent lead, one ounce silver per ton and less than one per cent zinc. Several small coincident lead, zinc and silver anomalies, most involving only a few samples, occur in the valley of Freer Creek. Copper response was essentially negative.

H
Arsenault, McKinnon, Versluce
Whitehorse, Yukon Territory.

Silver, Lead, Zinc, Tungsten
105 B 3
(60°13'N, 131°17'W)

Reference: G.S.C. Map 10-1960.

Claims: H 1-48

Location and Access:

The property is at Hidden Lake, 96 miles west of Watson Lake and 15 miles northwest of Mile 722 on the Alaska Highway. An older tote trail from Daughney Lake ends at Crescent Lake, three miles southeast of the claims. Float aircraft can operate from Hidden Lake.

History:

The claims were staked in 1970 on the basis of mineralized float found several years earlier by prospector W. McKinnon, and were optioned by Wolf Lake Joint Venture from owners Arsenault, Versluce and McKinnon.

Description:

The property is underlain by northwest trending belts of Lower Cambrian and possibly earlier, to Mississippian low grade metamorphic rocks (unit 1 - quartzite, unit 2 - muscovite-chlorite schist, unit 3 - phyllite and marble, unit 7 - quartz-feldspar-chlorite schist and unit 8 - massive and layered hornfels, G.S.C. Map 10-1960). These rocks are intruded on the southwest side by fine- to medium-grained biotite granodiorite of the Ram stock of the Cassiar Intrusions.

Current Work and Results:

Geological mapping and a reconnaissance geochemical survey were done on the property in 1971. Forty rock, soil and silt samples were taken, mostly in areas underlain by hornfels. Weak to moderately anomalous amounts of tungsten, copper, molybdenum, lead and zinc were found; however, results were discouraging. Sphalerite-pyrite veins in hornfels are narrow and discontinuous; rare grains of scheelite occur locally in skarn.

TUNG
Wolf Lake Joint Venture
c/o Rayrock Mines Limited
1011 - 2200 Yonge Street
Toronto, Ontario.

Tungsten
105 B 10
(60°37'N, 130°33'W)

Reference: Poole, Roddick and Green (1960).

Claims: TUNG 1-34

Location and Access:

The property is in the northeastern Cassiar Mountains between Cabin and Allan Creek, 40 miles north of Rancheria, Mile 170 on the Alaska Highway, and 75 miles northwest of Watson Lake. Access is by helicopter.

History:

The claims were staked in August, 1971. There is no record or evidence of earlier work.

Description:

Marble horizons (unit 16, Poole, Roddick and Green, 1960) in biotite schist and gneiss (unit 1d, op. cit.) are converted to skarn at the contact with a biotite-quartz monzonite and granodiorite stock (unit 15d, op. cit.). On the property, the skarn assemblage is garnet, diopside, tremolite, calcite and quartz with disseminated pyrrhotite and scheelite. The mineralized material occurs as float trains of felsenmeer and talus developed from two such skarn layers.

Current Work and Results:

Following staking, Wolf Lake Joint Venture did geological mapping, rock and geochemical sampling during part of August, 1971 and part of July, 1972. The skarn zones do not outcrop, but are suggested to be a maximum of 10 to 20 feet thick and 500 to 1,000 feet long.

WOLF LAKE

NITE, MID
Wolf Lake Joint Venture
c/o Rayrock Mines Limited
1011 - 2200 Yonge Street
Toronto, Ontario.

Tungsten, Molybdenum
105 B 7
(60°20'N, 131°40'W)

Reference: G.S.C. Map 10-1960.

Claims: NITE 1-24 25-64; MID 1-29

Location and Access:

The claims are situated on a northwest-trending ridge four miles southeast of Caribou Lake and roughly 20 miles north of Rancheria Lodge at Mile 710 on the Alaska Highway. Watson Lake is 70 miles southeast. The principal showings are mostly above tree line at elevations of about 5,000 feet. In 1971, access was by helicopter or by fixed wing to Caribou Lake or to Edgar Lake, three miles southwest of the property.

History:

The claims were staked for the Wolf Lake Joint Venture in 1971 to cover zones of scheelite and molybdenite-bearing garnet-diopside skarn. The MID claims cover an area of skarn which had been staked as the BASTILLE claims in 1948 by Great Northern Exploration Company Limited. The Wolf Lake Joint Venture is a consortium composed of Caltor Syndicate, Rayrock Mines Limited and Ashland Oil Incorporated.

Description:

The property is underlain mainly by Lower Cambrian or earlier schist and quartzite (unit 1a, G.S.C. Map 10-1960) which has been intruded by Cretaceous biotite quartz monzonite and granodiorite to the southwest (unit 15, G.S.C. Map 10-1960). The contact of the intrusive and metamorphic rocks is commonly marked by the development of marble and skarn (unit 1b, G.S.C. Map 10-1960).

Tungsten and molybdenum showings on the property consist of scheelite and molybdenite in garnet-diopside-quartz skarn developed in limy units within Lower Cambrian schist and phyllite. Silver-lead-zinc sulphide showings are also present on the MID claims in a black, porous gossan.

Current Work and Results:

The showings were discovered during a program of regional geochemical sampling and prospecting in the summer of 1971. More detailed work was carried out later in 1971, in the form of bulldozer trenching and 1,503 feet of diamond drilling in eight holes.

The NITE showing consists of a zone of garnet-quartz-diopside skarn up to 100 feet wide and 3,000 feet long. The zone strikes northwesterly and dips to the northeast at about 45°. Scheelite occurs as disseminated grains and veinlets and molybdenite occurs as disseminated grains. Minor amounts of pyrite and pyrrhotite are also present.

Surface sampling in the main showing area indicated an average grade of 0.5 per cent tungsten oxide, although sampling of a bulldozer trench in the same area returned only 0.22 per cent tungsten oxide over 25 feet. Drilling of the zone beneath the trench returned assays of 0.14 to 0.17 per cent tungsten oxide and drilling down dip returned even lower assays on the order of 0.1 per cent tungsten oxide. These results indicate a decreasing grade down dip and that a higher grade zone, indicated by residual material over the showing, has been eroded.

The MID zone skarn trends north and dips 35° to 65° east. It includes narrow bands of limy hornfels, marble and weakly to intensely altered skarn and schist. Tungsten and molybdenum mineralization occurs in a ten- to 15-foot thick skarn band near the southern end of the zone where assays of surface samples indicate a tungsten oxide content of about 0.25 per cent. Also present in the MID area is a northeast-trending zone containing lenses of black, porous gossan with visible galena. This zone is about 1,800 feet long and averages ten to 15 per cent gossan over a width of 200 to 300 feet. Two grab samples of better mineralized material assayed: 0.005 ounce per ton gold, 1.06 ounces per ton silver, 8.0 per cent lead and 1.8 per cent zinc and; trace gold, 7.92 ounces per ton silver, 18.5 per cent lead and 10.08 per cent zinc respectively.

MUNG
Wolf Lake Joint Venture
c/o Rayrock Mines Limited
1011 - 2200 Yonge Street
Toronto, Ontario.

Copper, Molybdenum
105 B 12
(60°42'N, 131°45'W)

Reference: Poole, Roddick and Green (G.S.C. Map 10-1960).

Claims: MUNG 1-20

Location and Access:

The property is on the north bank of the Wolf River, 1/2 mile west of the outlet from Wolf Lake, on the Nisutlin Plateau. Access during the exploration work was by float plane from Whitehorse, 112 miles west.

History:

No record is known of previous exploration in this area. MUNG 1-16 claims were staked in July, 1971, over an area of intrusive outcrop with a weak gossan that was found during reconnaissance exploration.

Description:

Bedrock consists of a stock or dyke of unit 15d (Poole, Roddick and Green, G.S.C. Map 10-1960), a biotite granodiorite, cutting chlorite schists and greenstone (unit 7a). The intrusive rock is bounded on the west by northwest striking, moderately to northeast dipping quartzite of unit 12a. Showings of interest consist of: traces of molybdenite in a quartz vein in granodiorite breccia, minor chalcopyrite on fractures in an intensely sheared part of the granodiorite, and an intrusive breccia containing sedimentary and igneous rock fragments anomalously high in copper. Pronounced alteration in these areas of brecciation is at the argillic stage, with plagioclase sericitized and most of the biotite altered to chlorite.

Current Work and Results:

Initial geological mapping and soil sampling were done in 1971 and completed in 1972 with the preparation of a geological map on a scale of one inch equals 400 feet. Soil sampling was done at approximately 500-foot spacings with additional testing near the altered and weakly mineralized zones. Test pits were dug and copper distribution with depth established. Magnetic and I.P. surveys were run. The whole property showed a high chargeability, consistent with the hydrothermal alteration. Two anomalies were defined on the northeast contact of the stock. One anomaly is small and causative rocks are weakly altered and appear to have contained only pyrite. The larger anomaly has a strongly altered breccia within 300 feet and may be promising.

PELLY MOUNTAINS

BOT
Cima Resources Limited
330 - 355 Burrard Street
Vancouver, British Columbia.

Asbestos
105 G 10
(61°39'N, 130°55'W)

Reference: G.S.c. Map 8-1960.

Claims: BOT 48-69

Location and Access:

The claim block straddles Big Campbell Creek, about eight miles southwest of Finlayson Lake and 55 miles east-southeast of Ross River. The Campbell Highway passes within five miles of the property on the north side. Access during 1970 was by helicopter from the highway at Finlayson Lake.

History:

The claims were staked in1969 to cover an area of asbestos showings found by a company prospecting crew. Work on the property in 1969 consisted of geological mapping, prospecting and a ground magnetometer survey.

Description:

Asbestos occurs in a 200- to 500-foot wide serpentinite dyke that strikes about 290° and dips steeply to the north. Lateral displacement of the dyke is caused in several places by northeasterly trending right-lateral faults. Chrysotile veinlets are mantled by 1/2 to 1-inch wide alteration envelopes of magnetite. All exposures are below economic grade.

Current Work and Results:

In 1970 a ground magnetic survey outlined the areal extent of the serpentinite host rock beneath the overburden. Three test pits were dug over magnetic highs but these did not reach bedrock.

CPA
Charta Mines Limited
230 - 890 West Pender Street
Vancouver, British Solumbia.

Lead, Silver, Gold
105 F 8
(61°27'N, 132°26'W)

References: G.S.C. Map 7-1960; Craig and Laoorte (1972, pp. 132-133).

Claims: CPA 1-12

Location and Access:

The claims lie on the southwest edge of the St. Cyr Range within the Pelly Mountains, roughly 100 miles northeast of Whitehorse. Access in 1971 was by helicopter.

History:

The CPA claims were staked in 1969 to cover three zones in an area of known lead, silver and gold occurrences. Rock samples and some random soil samples were taken in 1970.

Description:

Regional mapping indicates the property to be underlain primarily by buff, rusty and pale-green felsic breccias and tuffs with minor chert and brown crinoidal limestone of Mississippian age (unit 6c, G.S.C. Map 7-1960). In detail, rocks underlying the property consist mainly of altered, partly migmatized, felsitic agglomerate and tuff with some fine-grained, massive to banded flows. Locally, metasediments consisting of phyllite and pelitic schist outcrop.

Foliation is a strong feature of the rocks and varies from cleavage to schistosity to migmatitic banding and trends roughly east-northeast with a southerly dip.

Three large gossans occur on the property. The largest is 3,750 by 1,200 feet and trends northeast across the central part of the property. A smaller gossan, 1,500 by 500 feet lies to the west and also trends northeast while the third, 1,000 feet by 700 feet, lies east and trends north-northwest. The

gossans appear to be caused by the oxidation of minor pyrite and hematite.

Current Work and Results:

Field work in 1971 consisted of geological mapping, soil sampling and a ground magnetometer survey.

Two coincident copper and lead anomalies, each roughly 2,000 feet by 600 feet were outlined parallel to the general foliation trend although there is no obvious correlation with rock types. Two other copper and lead anomalies were also outlined but were less well-defined.

The ground magnetic survey showed relatively strong magnetic response on the eastern portion of the claims and may reflect a hidden intrusive.

HO-HO
South Yukon Joint Venture
c/o Archer, Cathro and Associates Limited
685 Two Bentall Centre
Vancouver, British Columbia.

Zinc, Lead, Silver
105 G 12
(61°32'N, 131°33'W)

References: Wheeler, Green and Roddick (1960); Findlay (1967, p. 59).

Claims: HO-HO 1-245

Location and Access:

The claims are located 50 miles southeast of Ross River and 15 miles south of the Campbell Highway. The 1966 Northlake winter road passes two miles to the east. Access for the 1972 exploration was by float plane to small lakes just east of the property and by helicopter for local use. Physiographically, the property is on the Pelly Plateau and bordered to the southwest by the Tintina Trench.

History:

Sphalerite-galena float was found by Newmont prospectors in 1955. In 1966, Northlake Mines Limited staked 824 claims, including ground presently covered by the HO-HO claims, conducted airborne and ground, magnetic and EM surveys, silt sampled and prospected. Four diamond-drill holes, with total footage of 1,596 feet, drilled on the EM conductor south of the present HO-HO group, returned minor sulphides (pyrite, pyrrhotite, and chalcopyrite in a graphite schist).

Description:

Although the claims have negligible outcrop, the property is recognized to be underlain by metasedimentary rocks of unit A, (Wheeler, Green and Roddick, Map 8-1960), of probable Lower Cambrian or Hadrynian age, on the basis of float considered to be near source and reconnaissance mapping of a 200 square mile

area at a scale of 1:50,000. A thinly-bedded sequence of chlorite, muscovite and biotite schist, limestone, limy phyllite, graphitic phyllite and quartzite, trends southeast and dips gently. The mineralization, consisting of bands of disseminated sphalerite with minor galena and pyrite in a gangue of ankerite and calcite, occurs in a host of sugary textured quartzose parts of the limy phyllite.

Current Work and Results:

The claims were staked from August to November 1972. The area was prospected thoroughly and soil sampled at intervals of 400 feet on lines 400 feet apart, near the central part of the claim group, and 800 feet apart on most of the remainder. Samples were analyzed for copper, lead and zinc. Five zones of coincident lead and zinc response were recognized. Test pitting of these revealed residual float mineralized with sphalerite and minor galena and assaying six to nine per cent zinc, 0.3 to 0.5 per cent lead and 0.3 to 0.5 ounces silver per ton. These zones are the target for continuing work in 1973.

LOGAN MOUNTAINS

TANYA GROUP
Turner, Pete and Coutts
Watson Lake, Yukon Territory

Copper, Lead, Zinc, Tungsten
105 H 15
(61°50'N, 128°55'W)

Claims: TANYA 1-24

Location and Access:

The claims, in the Anderson Lake area, 120 miles north of Watson Lake, occupy a high level, easterly trending valley in the Logan Mountains. The property can be reached from Mile Post 81 on the Nahanni Range Road, 25 miles to the southeast.

History:

The ground was staked several years ago and the claims lapsed. Recently Spartan Explorations staked claims to the southeast.

Description:

The interest is in scattered, rusty weathering sulphide showings in a known base metal area. The sulphide zones appear confined to an argillaceous limestone which is part of a Cambrian sedimentary sequence cut by a Cretaceous granitic stock. Southeast trending andesite dykes cut the easterly trending, northerly dipping sediments.

Sulphides are present in tension fractures.

Current Work and Results:

A magnetometer survey followed prospecting and trenching of a pyrrhotite-bearing, highly weathered gossan. The surrounding

skarn contains pyrrhotite, chalcopyrite, galena, and sphalerite and, in the west end, minor scheelite.

VAGAS
Welland Consolidated Mining Limited
1064 A - Austin Avenue
Coquitlam, British Columbia.

Zinc, Lead
105 H 2
(61°15'N, 128°40'W)

Reference: G.S.C. Map 6-1966

Claims: VAGAS 1-8

Location and Access:

The claims are situated roughly 85 miles north of Watson Lake and can be reached by a 17-mile, four-wheel drive road which leads west from near Mile 59 of the Nahanni Range road.

History:

The claims were staked in December 1969.

Description:

The property is underlain by Devonian and Mississippian metasediments which comprise rusty, brown-weathering, fine-grained, schistose and spotted biotite hornfels, fine-grained quartzite, black pyritic argillite, dense light-green to grey, calc-silicate hornfels and fine-grained marble with minor slate, silty limestone and greywacke (unit 14, G.S.C. Map 6-1966).

Current Work and Results:

Soil sampling and a ground magnetic survey were carried out on the property in 1971.

Soil sampling outlined a number of zinc anomalies.

The magnetic survey failed to outline any distinct anomalous trends.

BROD
Wye Lake Resources Limited
715 - 850 West Hastings Street
Vancouver, British Columbia.

Lead, Zinc
105 H 9
(61°37'N, 128°21'W)

Reference: G.S.C. Map 6-1966.

Claims: BROD 1-8

Location and Access:

The claims lie roughly two miles west of Mile 77 on the Nahanni Range road. Access in 1971 was by helicopter from Watson Lake, 100 miles to the south.

History:

Lead-zinc sulphides were discovered and staked in 1970 by E.G. Brodhagen. These claims lapsed and were restaked by Mr. Brodhagen in 1971 as the BROD claims.

Description:

Regional mapping indicates that the property is underlain by a thick succession of Cambrian and/or earlier shale, slate, quartzite, conglomerate and sandstone with minor limestone.

The lead-zinc showing consist of banded sulphides containing pyrrhotite, sphalerite, galena and traces of chalcopyrite exposed near the base of a steep bluff. The sulphides occur at the contact between banded hornfels on the hanging wall and marble on the footwall. The enclosing sediments strike roughly northwest and dip 60° to 65° southwest.

Current Work and Results:

A detailed examination of the outcrop was made in 1971 and a number of soil and silt samples were taken in the general vicinity of the showing.

A chip sample across 6.2 feet from the main showing assayed: 6.5 per cent lead, 4.2 per cent zinc and 0.16 ounces per ton silver.

BAILEY GROUP
Morning Star Mines Limited
204 - 1420 Marine Drive
North Vancouver, British Columbia.

Tungsten, Copper
105 A 10, 15
(60°45'N, 128°20'W)

Reference: Gabrielse (1966).

Claims: BAILEY 1-32

Location and Access:

The group, two claims wide, trending north, lies about 50 miles north of Watson Lake and eight miles south-southwest of Mt. Murray at the southern end of the Selwyn Range. The claims are 14 miles east of the Campbell Highway and 12 miles south of the Nahanni Range Road. During 1971, the claims were reached by helicopter from Watson Lake.

History:

The claims were staked in 1971 to cover an earlier known showing (G.S.C. Map 19-1966)

Description:

The property lies on the southeastern contact of the granodiorite-quartz diorite batholith (Unit 12, Map 19-1966) which extends north through Mt. Murray and into Frances Lake map-area. Locally, skarn zones are developed where Paleozoic limestones (Unit 7, op. cit.) are intruded by the granodiorite The skarn contains pyrrhotite, chalcopyrite and minor scheelite.

Current Work and Results:

Following staking, two hand trenches were dug and blasted across the east trending "A" skarn zone. The company reported assays of 0.35 per cent WO_3 over ten feet in one trench. In a second trench 135 feet east of the first, assays of chip samples from five-foot intervals over 30 feet were from 0.10 to 0.56 per cent WO_3. Four trenches cut across the north trending "B" zone, one mile south of "A" were spaced at 75 feet, 250 feet and 175 feet. Assays were as follows:

Trench	Width	% WO_3
1	7.00	0.14
2	4.75	2.26
3	5.00	2.86
4	4.00	0.01

MAX, MAR
Dusty Mac Mines Limited
433 - 355 Burrard Street
Vancouver, British Columbia.

Lead, Silver, Zinc,
Tungsten
105 H 7
(61°17'N, 128°44'W)

Reference: G.S.C. Map 6-1966.

Claims: MAX 1-40; MAR 1-32

Location and Access:

The claims lie 20 miles east of the south end of Frances Lake. They can be reached by a 24-mile access road that leaves the Nahanni Range road at Mile 47 and runs west through the Monarch Metal Mines Limited camp.

History:

Showings were first reported in 1964 and the area has been prospected sporadically since then. Shallow trenching, geological mapping and ground geophysical surveys were conducted in 1965 and 1968. Two diamond-drill holes of approximately 100 and 150 feet were drilled in 1968 to test a weak magnetic anomaly associated with mineralization. Trenching was carried out in 1970.

Description:

The area is underlain by sedimentary and volcanic rocks of Devono-Mississippian age (unit 14, G.S.C. Map 6-1966). The main body of granitic rocks, mainly granodiorite and quartz monzonite, underlies the northern and western parts of the claims.

Isolated occurrences of galena, sphalerite are present and scheelite are present in skarn zones developed in metamorphosed calcareous sediments. Magnetite is locally present in these skarn zones.

Current Work and Results:

Field work during the 1972 season consisted of regional and detailed mapping, soil sampling, detailed magnetometer surveys over mineralized areas and some trenching. Several geochemical anomalies had minor associated sulphides and scheelite.

MATT, BERRY
Matt Berry Mines Limited
1102 - 347 Bay Street
Toronto, Ontario.

Silver, Lead, Zinc
105 H 6
(61°28.5'N, 129°25'W)

References: Findlay (1967, p. 63; 1969b, pp. 47-48); Craig and Laporte (1972, pp. 126-127).

Claims: MATT, BERRY, JIM, LAP, APEX, DON

Location and Access:

The original Thompson Creek property is on the east side of the East Arm of Frances Lake, 95 miles north of Watson Lake. The Campbell Highway passes along the west side of the West Arm. Heavy freight has been barged, from points of road access to Frances Lake, to the property. Lighter servicing is by float-equipped aircraft.

History:

Known since the late 1930's, galena-sphalerite showings were explored by COMINCO in 1943 and Datalaska Mines Limited in 1960. Matt Berry Mines Limited acquired the property in 1965, did trenching and stripping that year, followed by 2,120 feet of diamond drilling in 14 holes in 1966. In 1970, the Joint Venture partners, Canadian Nickel Company Limited, Metallgesellschaft and Matt Berry Mines Limited, renewed the exploration with geophysical orientation surveys (EM, magnetometer and I.P.), geological mapping and geochemical sampling of soils and silts. Following this work additional claims were staked, the DON group north of the original property, the LAP group to the south and the APEX group on the west side of the East Arm. The Joint Venture drilled four holes, totalling 1,400 feet on the original property late in 1970.

Description:

The rocks on the east side of the East Arm are argillites and phyllites trending northwest and dipping moderately northeast. East of these a belt of hornfels 3,000 to 5,000 feet wide is adjacent to a granodiorite stock (unit 15, G.S.C. Map 6-1966). The sequence on the western shore consists essentially of phyllites with layers of calcareous phyllite and probable intermediate meta-volcanic rock. Above this is black phyllite similar to that on the eastern shore, with an apparent thickness of 1,500 to 2,000 feet. An intense schistosity is developed in the phyllites at a slight angle to the bedding which typically obscures the bedding. The axial planes of small folds and the schistosity trend north-northwest and dip east more gently than does the bedding.

Current Work and Results:

During the 1971 field season surface exploration was continued with a geochemical and magnetometer survey of the claims on the west side of the lake. The lead-zinc anomalies detected to date are consistent with downslope dispersion from

bedrock sources. No significant mineral occurrences were found on the western shore of the East Arm. Joint Venture geologists are confident that although the galena-sphalerite veins, lenses or layers of the original occurrence are discontinuous, they do occur in a restricted stratigraphic interval of 40 to 60 feet of black phyllite just above a grey phyllite. The lower ten feet of this interval is the most strongly mineralized.

SHELDON LAKE

ROG
Hudson Bay Exploration and Development Company Limited
Box 4007
Whitehorse, Yukon Territory.

Zinc
105 J 15
(62°48'N, 130°55'W)

Claims: ROG 1-12

Location and Access:

The claims are about seven miles northeast of Mount Sheldon and two miles south of the North Canol Road and the South Macmillan River.

History:

The ROG claims were staked during the 1970 field season on the basis of favourable stream geochemical response. The following year the area was studied by means of soil geochemistry and the resulting anomaly, 1,500 feet long and 300 feet wide, was trenched.

Description:

The bedrock in this area of poor exposure is a cherty, graphitic argillite.

Current Work and Results:

During the 1972 field season the company put down five diamond drill holes totalling approximately 1,000 feet, and completed several hundred feet of bulldozer trenching. Results were largely negative.

SUMMIT LAKE

HOWARDS PASS PROPERTY
Canex Placer Limited
1030 West Georgia Street
Vancouver, British Columbia.

Lead, Zinc
105 I 6
(62°27'N, 129°10'W)

References: Blusson (1973); G.S.C. Map 8-1967

Claims: 450 claims

Location and Access:

The property lies along the crest of the Selwyn Mountains on the Mackenzie-Yukon border. Roughly half the claims are in the Mackenzie District. Access is by wheeled aircraft to a temporary airstrip on the property or by float plane to Summit Lake (12 miles from the site), which is 100 miles east-northeast of Ross River and 155 miles north of Watson Lake. The most northerly point on the Nahanni Range road (Cantung road) is 35 miles southeast

History:

Reconnaissance geochemistry was done in 1971. The initial showings of galena and sphalerite were discovered in July, 1972, and 450 claims were staked by the company between then and the end of August.

Description:

Galena and sphalerite occur in the Ordovician Road River Formation.

Current Work and Results:

A bulldozer was brought in late in the 1972 season and a series of open cuts were made across the mineralized zone.

COAL MINING AND EXPLORATION

WHITEHORSE MINING DISTRICT

CARMACKS COAL DISTRICT
Teslin Explorations Limited
5840 - 4th Street Southeast
Box 8592 Station F
Calgary, Alberta.

Coal
115 I 1
(62°00'N to 62°15'N
136°00'W to 136°22.5'W)

References: Dawson (1887); Bostock (1936); Cairnes (1910); Craig and Laporte (1972, pp. 154-155)

Licences: Territorial Coal Exploration Licences No. 15, 16 and 17

Location and Access:

The three licence-areas are contiguous, forming a 175 square-mile area lying immediately east, northeast and northwest of the community of Carmacks, 100 miles north of Whitehorse. The Klondike Highway lies immediately west of the western boundary of Licence-area 17 and passes through Licence-area 16. Access for drilling at the Five Fingers Mine was by a 3.5-mile tote road from Mile 106.8 of the Klondike Highway. Access to the drill site on Licence-area 17 is by a 2.4-mile access road southwest from near the Klondike Highway bridge over the Yukon River at Carmacks.

History:

Coal has been known in the Carmacks area since at least as early as 1887 when G.M. Dawson noted coal occurrences at the Five Fingers and Tantalus sites. Five Fingers Mine (62°12'N, 136°19'W) was staked in 1898 and produced coal irregularly from then until 1908. The Tantalus Mine (62°05'N, 136°16'W), about 100 yards west of the south end of the Yukon River bridge at Carmacks, was staked in 1903 and between 1904 and 1927 produced roughly 7,000 tons per year, operated by the Five Fingers Coal Company.

Modern exploration for coal beds has been by Anvil Mining which staked leases over the old properties in 1965 and from 1966 to 1968 built access roads, did geological and topographic mapping, trenching and diamond drilling. During 1970, N.H. Ursel and Associates measured coal-bearing stratigraphic sections in the area and sampled the seam at the old Tantalus Mine. P.A. Hacquebard, of the Geological Survey of Canada, correlated this Tantalus seam with the main seam of the Tantalus Butte Mine on the basis of reflectance characteristics.

Description:

The area is underlain by Jurassic to Lower Cretaceous rocks of the Laberge Group and Tantalus Formation. The Laberge here consists of sandstone and shale with thin conglomerate beds; the Tantalus is largely conglomerate with minor sandstone and

shale. Structural pattern is one of tight, northwest-trending folds. The sediments are overlain by Mt. Nansen and Carmacks volcanics. Coal seams are present in the upper part of the Laberge and lower beds of the Tantalus Formation.

Current Work and Results:

During 1971 Teslin Exploration Limited built the access road to the Five Fingers Mine site and diamond drilled one hole to test the upper Laberge rocks. The hole penetrated strongly fractured sandstone from 118 to 188 feet and was abandoned at this depth.

A second hole was drilled 2.4 miles southeast of the Tantalus Mine site, to a depth of 310 feet cutting the base of the Tantalus Formation and testing the top of the Laberge. Seams less than one foot thick and a 10-foot seam with mudstone layers were cut in the upper part of the Laberge. During 1972 Teslin Exploration prepared a photo-geological map of the licence-areas.

TANTALUS BUTTE MINE — Coal
Anvil Mining Corporation Limited — 115 I 1
Faro, Yukon Territory. — (62°08'N, 136°16'W)

References: Bostock (1936a, pp. 59-62); Wheeler (1961, p. 74); Green (1966, pp. 121-122); Findlay (1967, p. 88; 1969a, p.114 ; 1969b, pp. 66-67)

Location and Access:

The mine and storage facility are about 3 miles north of Carmacks, one-half mile east of the Klondike Highway.

History:

The Tantalus Butte Mine two miles north of the Tantalus Mine site operated from 1923 until 1967, supplying coal to Carmacks, Dawson City and United Keno Hill Mines north of Mayo. Anvil Mining Corporation Limited re-opened the mine in July 1969, producing 80 tons of coal per day, which is used at the Anvil Mine for plant heating and concentrate drying.

Description:

The coal at Tantalus Butte Mine is in the lower part of the Tantalus Formation. The main seam is 8 to 20 feet thick, strikes north and dips 45 to 59 degrees west. It is cut by northeast-trending, steeply southeast dipping faults. The coal rank is high volatile bituminous C, 11,000 to 12,000 BTU per lb.

Current Work and Results:

The mine continues to produce roughly 80 tons per day. During 1972 an exploration cross cut was driven west from the mine area to confirm drill intersections on a promising coal seam.

Operating Summary is as follows:

	1971	1972
Mined (tons)	21,026	18,435
Rate (tons/day)	83	80

NORDENSKIOLD COAL AREA
Arjay Kirker Resources Limited

Coal
115 H 8, 105 E 5
(61°18'N, 136°02'W)

References: Bostock (1934, Map 372A); Cairnes (1910); Craig and Laporte (1972, pp. 157-158)

Licences: Territorial Coal Exploration Licences No. 10, 11, 12

Location and Access:

The area is roughly 50 miles north of Whitehorse and 18 miles southwest of Braeburn (Mile 55 of the Klondike Highway). Access is from Braeburn, 13 miles south on the old Whitehorse-Dawson winter road and 4 miles west on a tote road built in 1970. The road is suitable for 4-wheel drive vehicles.

History:

During 1907, D.D. Cairnes examined three coal seams on the north side of Division Mountain and one roughly 3 miles to the northwest on Red Ridge.

In 1970 Arjay Kirker Resources did reconnaissance mapping on the Licence-areas and sampled the seams on Division Mountain. Five hundred and fifty feet of bulldozer trenches were cut for measurement and sampling of the coal. Coal was recognized in a 1,000 foot stratigraphic interval, part of which is covered in the 150 feet trenched. Eight coal seams had an aggregate thickness of 61 feet.

Description:

Jurassic Laberge Group sandstone and shale containing coal seams and minor pebble conglomerate are disconformably overlain by Lower Cretaceous Tantalus Formation chert and volcanic pebble conglomerate. Structural pattern is one of upright to slightly northeast overturned, northwest-trending folds. The Laberge outcrops on Division Mountain, on the northeast limb of a syncline, strikes north 50 degrees west and dips 60 to 70 degrees southwest. Cretaceous Hutshi Group andesite overlies the sedimentary rocks and is present within the units as sills and dykes.

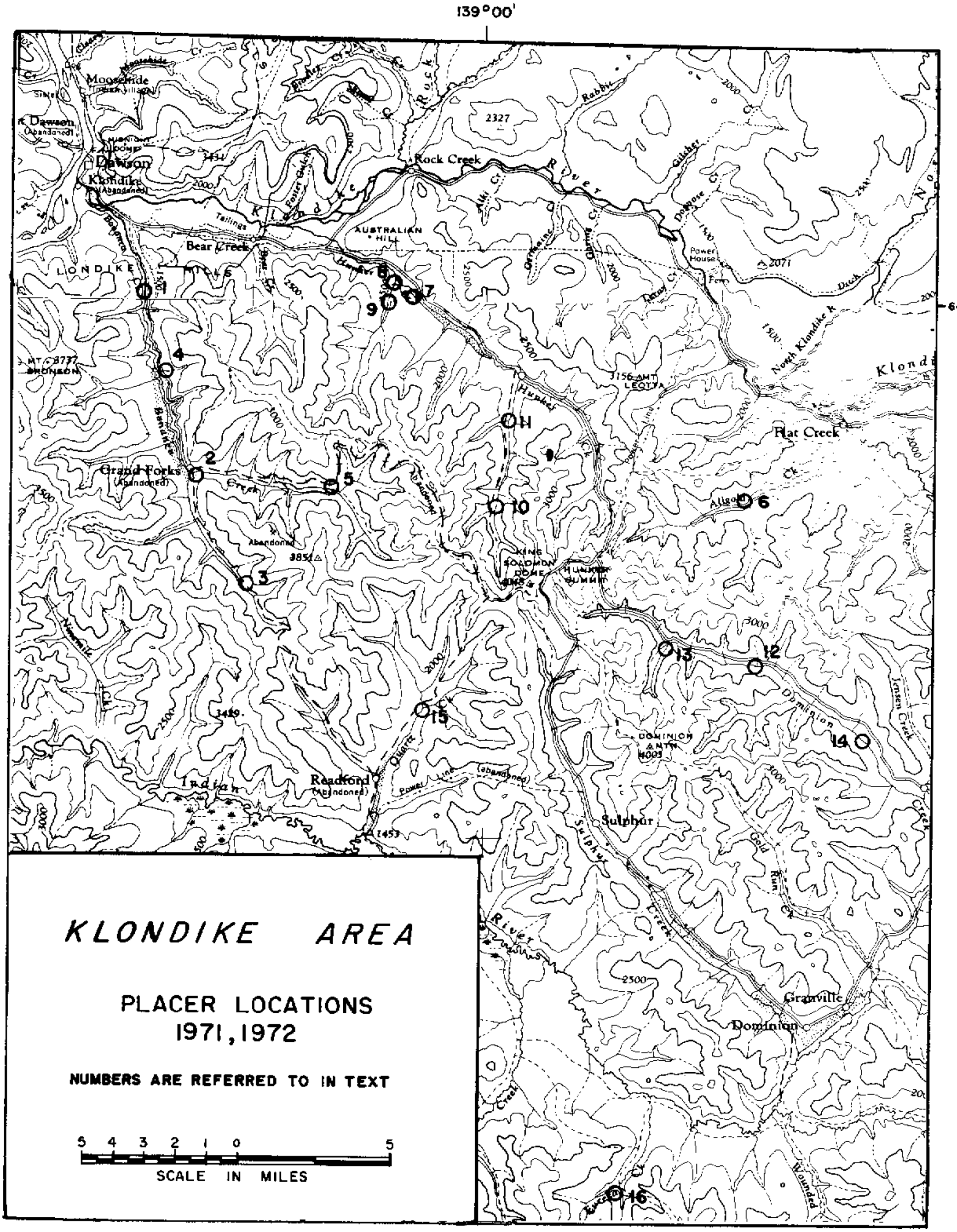
Current Work and Results:

In 1971 Arjay Kirker Resources Limited did a test I.P. survey over known coal outcrops on Division Mountain (Licence-area No. 10) with essentially negative results.

During 1972 the company diamond drilled the Division Mountain occurrence with six holes totalling 3,435 feet, trenched the most promising seam found to date, the Cairnes seam, and put in four shallow trenches 3 miles to the northwest, on Red Mountain, testing for continuation of the Division Mountain coal. The drilling and surface work demonstrated that the Cairnes seam is 1,500 feet stratigraphically below the base of the Tantalus on Division Mountain. The coal outcrops on Red Ridge are 800 feet below the base of the Tantalus. The Cairnes seam, 30 feet thick in outcrop, including two narrow, purple shale layers,is 31.6 feet thick in Hole No. 1, and, 1,500 feet to the northwest, is separated into two beds 1.9 feet and 15.4 feet thick respectively, with 11.4 feet of shale and sandstone between (Hole No. 6). Down dip the coal seam is reduced to one-half its thickness as measured in outcrop and Hole No. 1. A second seam lies 25 feet stratigraphically below the Cairnes seam and is demonstrated in both Hole No. 1 and Hole No. 6 to be 6.5 feet thick. Above the Cairnes seam, interbedded with the shale and sandstone, 27 seams were recognized, ranging in thickness from 0.6 to 8.0 feet. Thickness of these seams changes markedly down dip.

Reserves were calculated for the Cairnes seam using three blocks in which the seam is considered to be 30, 20 and 15 feet thick respectively from Hole No. 1 to Hole No. 6. Included are 500-foot projections beyond the 2,500-foot drilled interval and thicknessess within each block are considered to persist for 1,250 feet down dip. Reserves so calculated are 2.8 million tons with good potential for further reserves along strike.

The coal is low sulphur bituminous rank, 9,400 BTU per lb.


139°00'
KLONDIKE AREA
PLACER LOCATIONS
1971, 1972
NUMBERS ARE REFERRED TO IN TEXT
5 4 3 2 1 0 5
SCALE IN MILES
Moosehide
Dawson
Klondike
Rock Creek
Bear Creek
AUSTRALIAN HILL
Grand Forks (Abandoned)
KING SOLOMON DOME
HUNKER SUMMIT
Flat Creek
DOMINION MTN 4005
Sulphur
Readford (Abandoned)
Granville
Dominion
MT. BRONSON 3737
LEOTTA
Power House
1
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3
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16

PLACER MINING

DAWSON MINING DISTRICT

KLONDIKE AREA

(1) S. Berg — 116 B 3
Bonanza Creek — (64°00'N, 139°22'W)

Mr. S. Berg owns nine claims on Bonanza Creek. During 1971 and 1972 he prepared ground for future mining, stripping the bench on Sourdough Hill, on the left limit of Bonanza, 400 feet above the creek. He operated with one D-7 and one TD-24 bulldozer.

(2) A.T. Fry — 115 O 11
Bonanza Creek — (63°37'N, 139°22'W)

References: Findlay (1967, p.75;1969a, p.75;1969b, p.55)
Craig and Laporte (1972, p.144)

Mr. and Mrs. Fry continued mining on Bonanza Creek at Grand Forks, stripping with a monitor and feeding sluice with a D-7 bulldozer. These operators worked only part-time in the 1972 season.

(3) J. Lamontagne — 115 O 14
Eldorado Creek — (63°51'N, 139°15'W)

References: Craig and Laporte (1972, p.147)

Mr. Lamontagne mines on Eldorado Creek between Gay Gulch and Chief Gulch: he moved to this 28 claim property in 1970 During 1970, 1971 and 1972 he stripped up to 45 feet of overburden using spring run-off and a D-6 bulldozer in preparation for future mining.

(4) J. and R. Archibald — 115 O 14
Bonanza Creek — (63°58'N, 139°20'W)

References: Findlay (1969a, p.96; 1969b, p.56);
Craig and Laporte (1972, p.144)

The Archibald brothers mined high bench right limit gravels, 135 feet above Bonanza Creek on claims 39 and 40 Below Discovery. They used a diesel driven pump to provide water, moving 2,000 cubic yards of gravel with a TD-40 bulldozer in 1971 and 3,000 cubic yards in 1972 with a D-6 bulldozer.

(5) F. Perret — 115 O 14
Bonanza Creek — (63°55'N, 139°13'W)

References: Findlay (1967, p.76;1969a, p.97; 1969b,p.56)
Craig and Laporte (1972, p.145)

Mr. Perret holds claims on upper Bonanza Creek below the mouth of Victoria Gulch. Using an automatic gate and two TD-18 bulldozers this operator continued his right limit stripping in 1971, stripped in 1972 and sluiced a small amount of material, recovering 62 crude ounces of gold.

(6) K. and S. Placers — 115 O 15
Allgold Creek — (63°56'N, 138°59'W)

References: Findlay (1967, p.79;1969a, p.103;1969b,p.60)
Craig and Laporte (1972, p.147)

Mr. M. Kinakin holds the lower three miles of Allgold Creek consisting of Discovery claims and claims 1 to 30 A/D. Working with a D-7 bulldozer in each of 1971 and 1972 he mined 25,000 cubic yards of gravel, in full width cuts, 50 to 100 feet wide and 100 feet long, the work being done on claims 4 and 5 A/D.

(7) A. Kosuta — 116 B 3
Eighty Pup — (64°00.5'N,139°05'W)

Reference: Craig and Laporte (1972, p.146)

Mr. Kosuta owns four claims near the mouth of Eighty Pup, a left limit tributary of Hunker Creek, which cuts Preido Hill. Gold-bearing gravels occur at four levels on the property, the highest being a ridge about 50 feet above the Hunker Creek valley bottom. Beside this ridge and ten feet below are gravel-filled channels, followed successively by a bench and low gravels adjacent to dredge tailings off Hunker Creek.

During 1971 the operator, using a D-6 bulldozer, put in one cut 40 feet long by 65 feet wide; in 1972 he worked the property part-time and did little sluicing. About 30 feet of muck and slide rock were stripped and the lower three to five feet of gravel were sluiced.

(8) Miben Mining Limited — 116 B 3
Dago Hill — (64°00'30'N,139°06'W)

Principals of this company, M. Stutter and B. Warnsby in 1972 obtained and assembled equipment for a hydraulic operation on property consisting of 32 bench claims on the west side of Dago Hill, left limit of Hunker Creek 2-1/2 miles above the mouth. Pumping of Hunker Creek water is in two stages by diesel driven turbine pumps, one providing 230 feet of head, the second 130 feet. Capacity is 4,500 gallons per minute.

Test drilling established these bench gravels to be 45 to 90 feet thick with gold distributed throughout the section, fine in the upper part, coarser near bedrock.

(9) I. C. Bremner — 116 B 3
Last Chance Creek — (64°00'N, 139°07'W)

Reference: Craig and Laporte (1972, p.148)

Mr. Bremner works with a gravity-monitor system on a left limit bench of Last Chance Creek, here the downstream end of Discovery Hill. Water is brought five miles by ditch from the upper left limit tributaries of Last Chance Creek, stored in a shallow pond and dropped 50 feet by a ten inch diameter pipe. The four inch diameter monitor is used to undercut the bench gravel, which has a face of up to 50 feet, and to wash the gravel into the sluice. Floor of the cut is a grey clay resulting from the decomposition of a volcanic tuff bedrock.

(10) M. Crockett — 115 O 15
Gold Bottom Creek — (63°54'N, 138°59'W)

References: Findlay (1967,p.77;1969a, p.100;1969b,p.58)
Craig and Laporte (1972, p.145)

During 1971 Mr. Crockett continued mining upper Gold Bottom Creek. During 1972 he drill tested claims on lower Hunker Creek.

(11) O. and M. Lunde — 115 O 15
Gold Bottom Creek — (63°55'N, 138°59'W)

References: Findlay,(1967,p.77;1969a, pp.99-100;
1969b, p.58)
Craig and Laporte (1972, p.145)

Mr. and Mrs. Lunde mined on Gold Bottom Creek, a left limit tributary of Hunker Creek, during 1971 and 1972, working with a D-6 bulldozer, they stripped 12 to 20 feet of muck and sluiced three feet of gravel and two feet of schist bedrock from 30,000 bedrock square feet each year.

(12) A. and N. Sailor — 115 O 15
Dominion Creek — (63°48'N, 138°35'W)

Mr. and Mrs. Sailor mine a left limit bench on lower Dominion Creek below Nevada Creek. During 1971 and 1972 they stripped with monitor and D-6 bulldozer. Gravels are ten to 15 feet deep.

(13) A. and N. Burgelman — 115 O 15
Dominion Creek — (63°46'N, 138°34'W)

References: Findlay (1967, p.77; 1969a, p.100; 1969b, p.58)
Craig and Laporte (1972, p. 146)

Mr. and Mrs. Burgelman hold ground on Allgold Creek, lower Dominion Creek and Caribou Creek (a right limit tributary of Dominion). During 1971 and 1972 they sluiced on the Dominion Creek claims upstream from the mouth of Jenson Creek.

(14) Ballarat Mines Limited — 115 O 14
Dominion Creek

References; Findlay (1967, pp.72-73; 1969a, pp.92-93 1969b, p.55)
Craig and Laporte (1972, p.143)

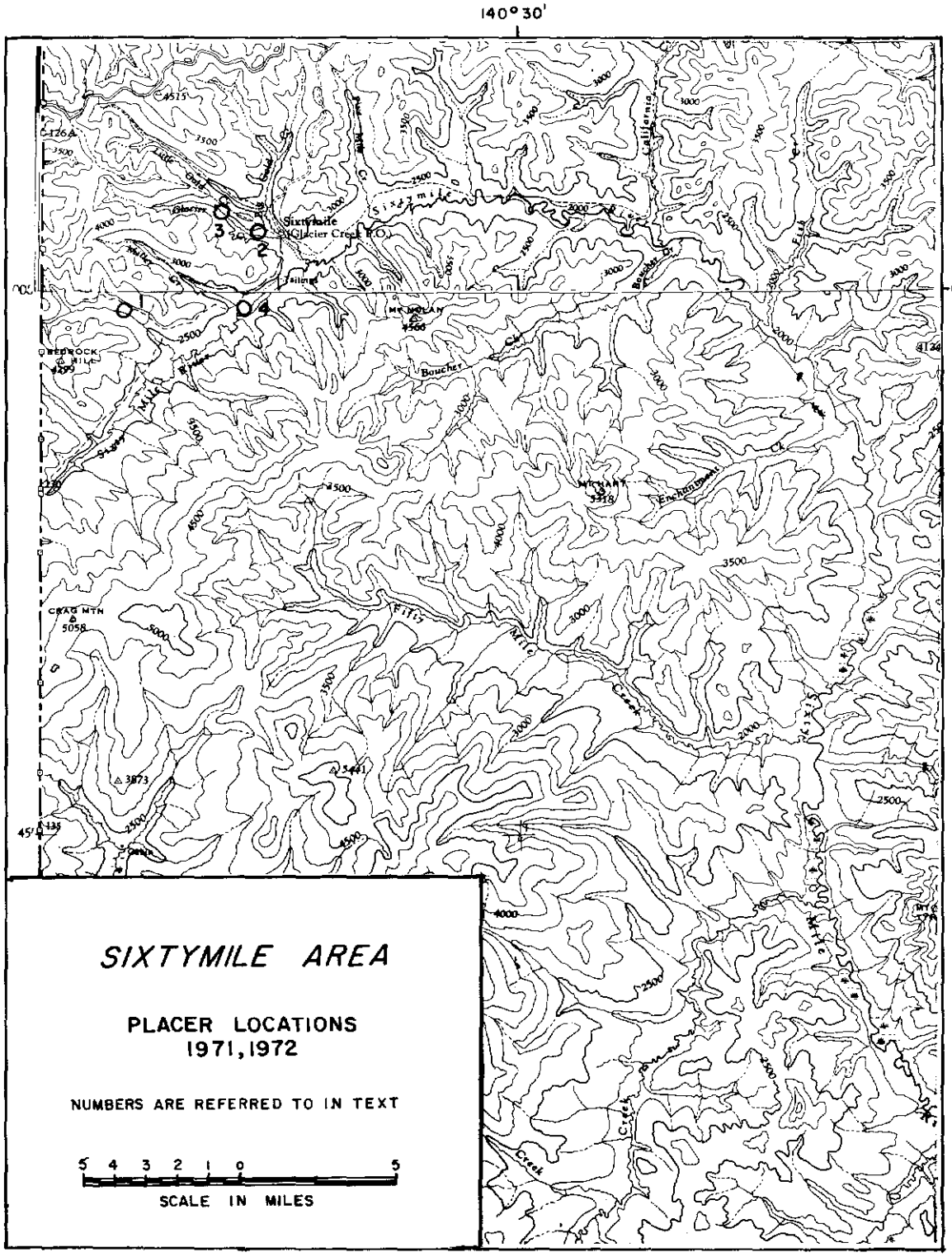
This company, owned and operated by Mrs. M. H. Schmidt of Dawson City, owns 14 claims and leases 48 contiguous claims of Yukon Consolidated Gold Corporation, on lower Dominion Creek. During 1971 and 1972 the company continued bulldozer-sluicing on claims 5, 6 and 7 above Lower Discovery.

(15) R and L. Mining Company — 115 O 14
Quartz Creek — (63°48'N, 139°04'W)

J. Lacross and W. Rasmusson operate on Quartz Creek below the mouth of Little Blanche Creek. In 1970 Rasmussen began stripping the claims using a D-9 Bulldozer. This work, continued in 1971 and 1972, included stripping of 22 to 24 feet of muck and digging a three quarter mile bedrock drain. Gravels are six to eight feet deep.

(16) L. M. Ross — 115 O 10
Eureka Creek — (63°35'N, 138°52'W)

Mr. Ross owns claims 12-20 above Left Fork Discovery. Working part-time during each of 1971 and 1972 he did stripping and mined one cut, full width of the creek, roughly 120 feet, by 100 feet long. Overburden is 12 feet thick; the underlying pay gravels are five to ten feet thick. Material is moved with a D-8 bulldozer.



SIXTYMILE AREA

PLACER LOCATIONS
1971, 1972

NUMBERS ARE REFERRED TO IN TEXT

5 4 3 2 1 0 5

SCALE IN MILES

SIXTYMILE AREA

(1) S. Prohaszka — 115 N 15
Bedrock Creek — (63°59'N, 140°56'W)

S. Prohaszka, who formerly mined on Dominion Creek, purchased ten claims on Bedrock Creek from E. Faucher in 1971. These lapsed, were restaked as part of a two mile prospecting lease and converted back into claims. Mr. Prohaszka staked a further two mile prospecting lease upstream from his claims. This operator works with a D-7 bulldozer and one yard capacity dragline. Inactive in placer mining in 1971, Mr. Prohaszka did stripping of ten feet of sand and gravel on the upstream two claims of his group in preparation for future sluicing.

(2) Glacier Creek Placers — 116 C 2
Glacier Creek — (64°02.2'N,140°49'W)

References: Findlay (1969a, p.104; 1969b, p. 61)
Craig and Laporte (1972, p.149)

L. Grimard and E. Faucher, owners of Glacier Creek Placers, continued to work a left limit bench of Glacier Creek on claims 7 and 8 during 1971 and 1972. The section consists of two to four feet of pay gravel on bedrock, overlain by 35 feet of clay. The partners mined roughly 60,000 bedrock square feet during these years using two D-6 bulldozers. Water shortage restricts sluicing to about two hours per day.

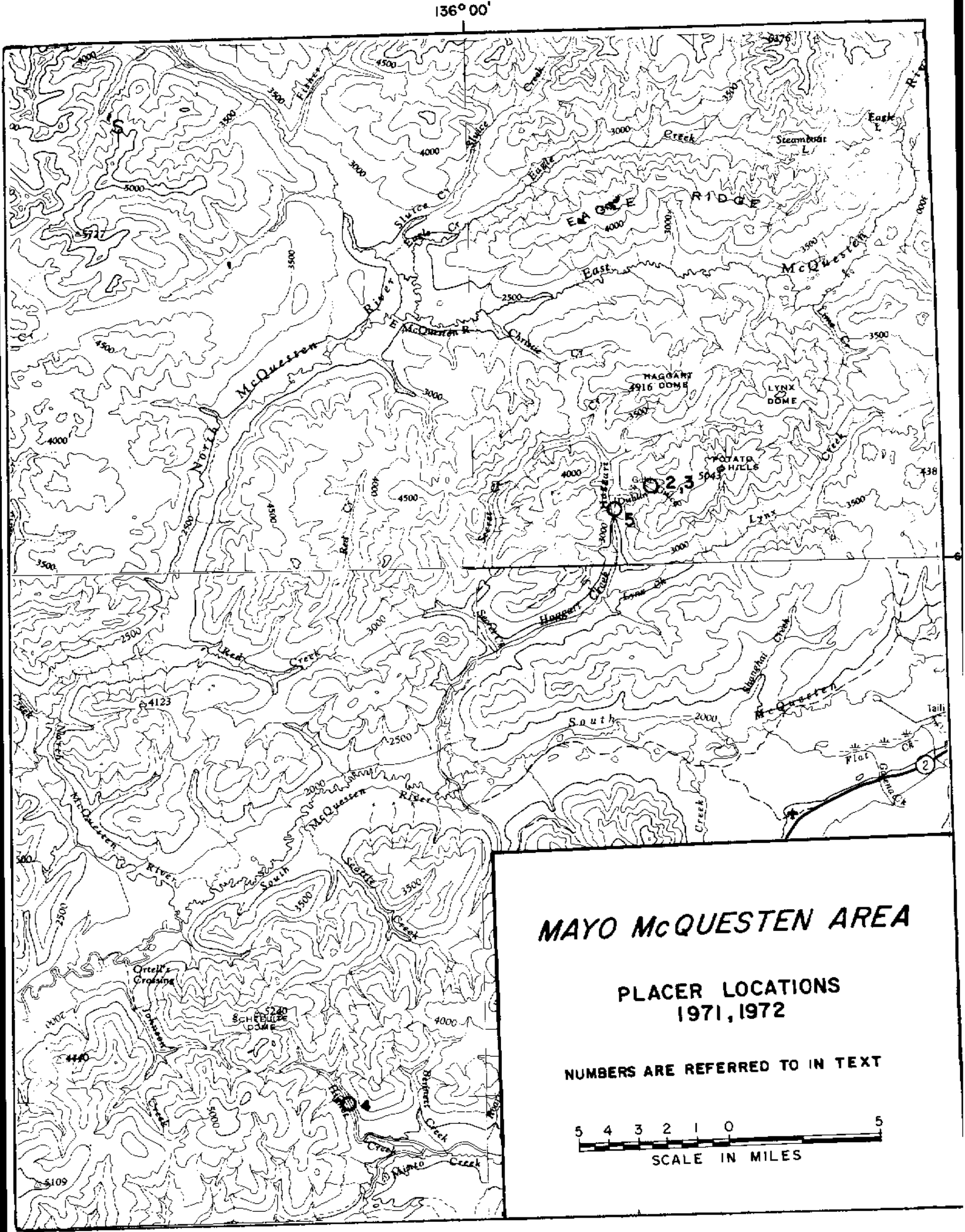
(3) J. Lynch — 116 C 2
Glacier Creek — (64°02'N, 140°53'W)

References: Findlay (1969a, p.105;1969b, p.61)
Craig and Laporte (1972, p. 150)

Mr. Lynch continued mining during 1971 and 1972 on Grimard Discovery and Faucher Discovery claims on Glacier Creek. Operating with two D-7 bulldozers, Mr. Lynch mines the bottom few feet of gravel and the top several feet of the deeply weathered bedrock.

(4) Sixtymile Enterprises Limited — 116 C 2
Sixtymile River — (64°00'N, 140°46'W)

Sixtymile Enterprises Limited, owned and operated by Mr. W. Yaremcio started mining on the Sixtymile River in 1971, on ground formerly held by North American Trading & Transportation Company. This operator works a left limit bench of the Sixtymile River from the mouth of Miller Creek to the mouth of Big Gold Creek. Using a D-7 bulldozer he mined a bench strip 600 feet by 100 feet during 1971 and 1972, sluicing virgin gravels and the top foot of bedrock.


136° 00'
MAYO McQUESTEN AREA
PLACER LOCATIONS
1971, 1972
NUMBERS ARE REFERRED TO IN TEXT
5 4 3 2 1 0 5
SCALE IN MILES
EAGLE RIDGE
HAGGART DOME
LYNX DOME
POTATO HILLS
SCHEELITE DOME
Ortell's Crossing
Sluice Cr
Eagle Cr
East McQuesten
E McQuesten R
North McQuesten River
South McQuesten River
Haggart Creek
Lynx Creek
Red Creek
Christie Cr
Steamboat L
Eagle L
Flat Ck
Galena Ck
Minto Creek
Shanghai Creek
2,3
5

MAYO MINING DISTRICT

(1) Bardusan Placers Limited
Thunder Gulch

105 M 14
(63°55'N, 135°15'W)

References: Findlay (1969a, pp.111-112;1969b, pp.64-65)
Craig and Laporte (1972, p.151)

H. Barchan owned eight claims on Thunder Gulch, the first being 1,000 feet up from Lightning Creek. In 1969 he staked a one mile prospecting lease immediately upstream from the claims and converted this to ten claims in 1972. During 1971 and 1972 he mined the No. 3 claim, using a D-6 bulldozer and 3/4 cubic yard capacity shovel, stripping slide rock overburden and sluicing 15 to 20 feet of gravel.

(2) F. Taylor
Haggart Creek, Dublin Gulch

106 D 4
(64°02'N, 135°50'W)

References: Findlay (1967, pp.83-84; 1969a, p. 108; 1969b, pp.63-64)
Craig and Laporte (1972, p.151)

Mr. F. Taylor held a seven claim property on Dublin Gulch upstream from the mouth. He mined this intermittently since 1937; in the early years by hand, in later years by a highly efficient monitor and bulldozer system. His last full year of operations was 1970. During 1971 he did minor ground sluicing and sold the property in the fall to D. Duensing and R. Holway.

(3) D. Duensing and R. Holway
Dublin Gulch

106 D 4
(64°02'N, 135°50'W)

References: Findlay(1967, pp.83-84; 1969a, p.108; 1969b, pp.63-64)
Craig and Laporte (1972, p.151)

These men purchased Taylor's property in 1971 and mined in 1972. They put in right limit cuts, sluicing 15,000 cubic yards of gravel having an average depth of nine feet and recovering approximately 400 crude ounces of gold. Fine scheelite and jamesonite are abundant in the placer concentrates.

(4) E. C. Bleiler — 115 P 16 (63°50'N, 136°20'W)
Highet Creek

References: Findlay (1967, pp.83-84; 1969a, p.108 1969b, pp.63-64)
Craig and Laporte (1972, p.151)

Mr. Bleiler operates with a four inch monitor, gravity fed with an 80 foot head from a ditch on the right limit of Highet Creek. The 30 foot gravel bank is caved by the monitor and washed to the sluice.

(5) K. Djukestein
Haggart Creek — 105 M 13, 106 D 6

Upper Duncan Creek — 106 D 4 (64°01'N, 135°51'W) 105 M 14 (63°52'N, 135°15'W)

References: Findlay (1967, pp.82-83; 1969a, p.106; 1969b, p.62)
Craig and Laporte (1972, p.150)

Mr. Djukestein, operating Spruce Creek Placers on Haggart Creek ceased operations in July 1971 after making two cuts by monitor and recovering 130 crude ounces gold. He moved to upper Duncan Creek, trenched by D-8 bulldozer, sluiced 12 hours and recovered ten crude ounces gold. No mining was done in 1972.

WHITEHORSE MINING DISTRICT

KLUANE AREA

(1) Burwash Mining Company Limited
Tatamagouche Creek — 115 G 6 (61°22.5'N,139°17'W)

References: Findlay (1967, pp.86-87; 1969a, pp.112-113; 1969b, p.65)
Craig and Laporte (1972, p.152)

Mr. H. Besner made centre cuts on claims 2 and 3 above the mouth of Tatamagouche Creek in 1971 and 1972, feeding the sluice with a 3/4 yard shovel and stacking tailings with a D-8 bulldozer. Both platinum and copper nuggets are recovered with the gold, platinum production being roughly 1 percent of gold in value.

(2) H. Thorsen
Bullion Creek

115 B 15
(60°58.5'N,138°39'W)

References: Findlay (1967, p. 87; 1969a, p.113
1969b, pp.65-66)
Craig and Laporte (1972, p.152)

Mr. H. Thorsen mined during part of the 1971 season, sluicing ground that was formerly hand mined. Gravel is about eight feet deep.

APPENDIX A

Reports accepted for assessment credit - 1971 and 1972

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
60-00-130-29 105 B 1	LUCK Cone Mountain Mines G.E. White	08/03/73	Geochem
60-02-130-30 105 B 1, 2	L, LOLA Mark V. Mines D. Arscott	21/10/71	Geol, Geochem
60-10-131-06 105 B 2, 3	SAM, DAN, WET, MAX Boswell River Mines Geophysical Contractor and Consultants	06/04/71	Airborne Mag
60-10-131-06 105 B 2, 3	SAM, DAN, WET, MAX Boswell River Mines MacDonald Consultants	14/04/71	Preliminary Rpt or Evaluation Rpt
60-14-131-18 105 B 2, 3	OMO,LUX,TIDE,NEIL Boswell River Mines MacDonald Consultants	14/10/71	EM
60-09-131-00 105 B 2, 3	LUX, OMO Boswell River Mines P.J. Fominoff, J.G. Baird	15/10/71	EM
60-14-131-18 105 B 3	H Wolf Lake Joint Venture R.J. Cathro	01/10/71	Geol, Geochem
60-30-131-40 105 B 4	NITE Wolf Lake Joint Venture R.J. Cathro	07/07/72	Geol,Geochem, Trenching,Drilling
60-35-134-24 105 B 9	HAWK, NICH Ogilvy 1971 Joint Venture A.C. Ogilvy	05/10/71	Exam
60-37-130-25 105 D 9, 10	RED Boswell River Mine R.O. Crosby, J.P. Steele (Seigel Assoc.)	20/05/71	Geophys
60-37-130-33 105 B 10	TUNG Wolf Lake Joint Venture R.J. Cathro	05/09/71	Geol, Geochem
60-43-131-45 105 B 12	MUNG Wolf Lake Joint Venture Archer, Cathro	07/07/72	Geol, Geophys, Geochem
60-11-135-23 105 D 3	RACA Archer,Cathro & Assoc. A.R. Archer	21/02/72	Geol,(Sampling)

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
60-11-135-23 105 D 3	RACA Secord Investments Ltd. and Laura Dev't. M.P. Phillips	22/05/73	Rock Geochem
60-20-135-20 105 D 6	WAT, SON, RIV Phelps Dodge Corporation of Canada R.R. Culbert	20/09/71	Geol
64-15-134-15 105 D 8	CON Rackla River Mines Ltd. A. Allan	14/06/73	Geol, Geochem
60-35-134-45 105 D 10	AZ, AC, TOADSTOOL Lewes River Mines R.W. Cannon	13/01/71	Geophys
60-39-134-49 105 D 10	VIC Lewes River Mines A.R. Archer	06/10/71	Geol, Geochem
60-40-135 105 D 10,11, 14	COWLEY PARK,WAR EAGLE New Imperial Mines D. Tenney	18/01/71	Geochem
60-41-135-09 105 D 11	PRINCE, SUE, SNELL Whitehorse Copper Mines D. Tenney	31/12/71	Geophys
60-36-135-39 105 D 12	ARK Canadian Occidental Petroleum C.F. Gleeson	13/10/72	Geol, Geochem
60-15-136-22 115 A 8	GREEN EAGLE, JOY Charta Mines G.G. Carlson, R.G. Hilker	15/10/71	Geol, Geochem, Geophys
61-15-128-40 105 H 2	VAGAS Welland Consolidated Mining Turnex Exploration Services	23/12/71	Mag, Geochem
61-30-129-30 105 H 6	MATT, BERRY Joint Venture CANICO Thalenhorst *et al*	22/03/71	Geol, Geophys
61-17-128-44 105 H 7	MAX, MAR Dusty Mac Mines Ltd. J.R. Glass	02/11/72	Geol, Geophys, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
61-37-128-21 105 H 9	BROD Wye Lake Resources H.S. Aikens	24/07/72	Exam Rpt
61-50-128-55 105 H 15	TANYA Turner, Pete, Coutts G.L. Lamont	11/07/72	Mag
61-40-130-55 105 G 10	BOT Atlas Explorations T.J. Adamson	29/07/71	Mag, Trenching
61-32-131-33 105 G 12	HOO South Yukon Joint Venture A.R. Archer	24/05/73	Geol, Geochem
61-27-132-26 105 F 8	CPA Charta Mines R.G. Hilker	21/10/71	Geol, Geochem, Geophys
61-57-133-27 105 F 14	PAT Conwest Exploration W.G. Grant	10/10/72	Geol
61-04-135-03 105 E 3	KART Caltor Syndicate M.P. Phillips	06/09/72	Geochem, E.M.
61-37-136-11 115 H 9	ALP Archer,Cathro & Assoc. R.J. Cathro	26/07/72	Geol, Geochem
61-37-136-11 115 H 9	ALP B.A. Copper Mines Ltd. A.R. Archer	/06/73	Geol, Geochem
61-29-136-45 115 H 7	KL Mitsubishi Metal Mining Geoterrex	09/02/71	I.P.
61-50-137-45 115 H 3	THATCH Canadian Occidental Petroleums D.M.S. Bhatia, C.F. Gleeson	26/10/72	Geol, Geochem
61-25-139-30 115 G 5,6	AMP Nicanex Mines T.L. Sadlier-Brown	04/02/71	Geochem
61-28-138-08 115 G 8	A, B, K Phelps Dodge Corporation of Canada	15/03/71	Geol, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
61-29-138-12 115 G 8	ED, ADD Phelps Dodge Corporation of Canada F.M. Smith	15/03/71	Geol, Geochem
61-40-128-20 115 G 9	BIR Canadian Occidental Petroleums W.D.B. Weinfield, C.F. Gleeson	26/10/72	Geol, Geochem
61-52-138-33 115 G 15	MAX Imperial Oil Enterprises P.E. Walcott	07/04/72	I.P.
61-52-138-33 115 G 15	MAX Imperial Oil Enterprises Trigg, Woollett & Assoc.	07/04/72	Geol, Geochem Diamond Drilling
61-53-138-39 115 G 15	ONI Canadian Occidental Petroleums J.T. Neelands, C.F. Gleeson	20/10/72	Geol, Geochem
61-50-138-25 115 G 16	RYE Canadian Occidental Petroleums C.F. Gleeson, D.M.S. Bhatia	20/10/72	Geol, Geochem
61-36-138-20 115 G 16	TYR Canadian Occidental Petroleums C.F. Gleeson, D.M.S. Bhatia	26/10/72	Geol, Geochem
61-50-140-33 115 F 15	LEP Imperial Oil Enterprises R.W. Oddy	24/08/71	Mag
61-50-140-33 115 F 15	LEP Imperial Oil Enterprises P.E. Walcott	14/09/71	I.P.
61-58-140-46 115 F 15	RAY Imperial Oil Enterprises R.W. Oddy	14/09/71	Geol
62-43-131-53 105 J 12	PDR Phelps Dodge Corporation of Canada R.R. Culbert	03/12/71	Geol, Geophys Geochem
62-51-131-38 105 J 13	PDM Phelps Dodge Corporation of Canada R.G. Hilker	10/11/72	Geol, Geochem, Geophys

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
61-48-132-55 105 J 15	ROG Hudson Bay Exploration and Development R.T. McIntosh	17/05/72	Geochem, Diamond Drilling
62-05-132-40 105 K 2	SANK, TOP Citex Mines S.V. Ramani	19/03/71	Mag
62-07-132-47 105 K 2	ACME Dynasty Explorations Ltd. P. Dean	02/12/71	Geol, Geophys
62-12-132-45 105 K 2	CAPA, ECHO, DELTA Dynasty Explorations Ltd. J.S. Brock, P. Dean	/07/72	Geol, Geochem, Gravity, Mag
62-12-132-45 105 K 2	CAPA, ECHO, DELTA Dynasty Explorations Ltd. J.S. Brock, W.J. Roberts	/01/73	Geol, Geochem, Gravity, Turam, Mag, D.D.
62-15-132-44 105 K 2,7	FOTO Dynasty Explorations Ltd. W.J. Roberts	25/06/73	Geol, Geochem, Geophys
62-06-133-13 105 K 3	LYN Kerr-Addison Mines R.B. Galeski	17/09/71	Gravity
62-18-133-00 105 K 3	HO HO, BRAM Dynasty Explorations Ltd. J.S. Brock, P. Dean	22/02/72	Geol, Geochem, Geophys
62-25-134-00 105 K 5	MARK Canadian Reserve Oil & Gas Overland Explorations Services	16/08/70	Gravity
62-25-133-55 105 K 5	LEE Canadian Reserve Oil & Gas Overland Exploration Services	16/08/71	Gravity
62-25-133-45 105 K 5	LORNA Dynasty Explorations Ltd. W.J. Roberts	29/07/71	Geol, Geophys, Geochem, Diamond Drilling
62-25-133-50 105 K 5	JEAN Dynasty Explorations Ltd. W.J. Roberts	27/08/71	Geophys
62-27-133-48 105 K 5	GRAN Dynasty Explorations Ltd. W.J. Roberts	27/08/71	Geol, Geophys, Geochem

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-26-133-43 105 K 5	ROTO Dynasty Explorations Ltd. W.J. Roberts	27/08/71	Geol, Geophys, Geochem
62-35-133-45 105 K 5	ROTO, GRAN Dynasty Explorations Ltd. J.S. Brock	23/06/72	Geol, Geophys, Diamond Drilling
62-25-133-50 105 K 5	MARK Canadian Reserve Oil & Gas Overland Exploration Services	07/07/72	Gravity
62-28-133-21 105 K 6	TRY Spartan Explorations J.S. Vincent	14/01/72	Geol
62-25-133-10 105 K 6	ZAN, MX, AC, KO, JIM, JET Kangaroo Exploration Corporation P.E. Walcott	18/02/71	Geophys
62-25-133-10 105 K 6	ZAN, MX, AC, TIM Kangaroo Exploration Corporation J.G. Simpson, Ian Turnbull	18/02/71	Geochem, Diamond Drilling
62-25-133-08 105 K 6	ZAN, TAF Kangaroo Exploration Corporation P.F. Lewis, J.G. Simpson	14/03/73	Geol
62-27-131-13 105 K 11	TIM, AM, KD Kangaroo Exploration Corporation R.B. Galeski	11/09/72	Gravity
62-27-133-13 105 K 11	TIM, AM, KD Kangaroo Exploration Corporation P.E. Walcott	11/09/72	E.M.
62-37-133-35 105 K 12	BLUE, COLT Canadian Reserve Oil & Gas Overland Exploration Services	18/08/72	Gravity
62-37-133-42 105 K 12	BLUE Canadian Reserve Oil & Gas Overland Exploration Services	18/08/72	Gravity
62-35-134-15 105 L 9	ARROW Canadian Reserve Oil & Gas Overland Exploration Services	18/08/72	Gravity

Coordinates and N.T.S.	Property, Company and Author	Date Filed	Work
62-35-134-15 105 L 9	ARROW Canadian Reserve Oil & Gas Overland Exploration Services	02/09/71	Gravity
62-39-134-00 105 L 9	ARROW,MARK,LEE,ALTA KING,COLT,BLUE Canadian Reserve Oil & Gas T.J. Adamson *et al*	14/12/72	Geol, Geochem, Geophys, (I.P.)
62-15-137-25 115 I 3	TRI, TOP Kennco Explorations (Western) K.A. Grace	22/09/71	Geochem
62-15-137-45 115 I 4	CHART Charta Mines R.G. Hilker	01/01/71	Geol
62-15-137-45 115 I 4	CHART Charta Mines R.G. Hilker	12/01/72	Geol, Geochem, Geophys
62-26-137-47 115 I 5	STAR Starbird Mines Geo X Surveys	27/05/71	Mag, Geochem
62-15-137-50 115 I 5	PDY Phelps Dodge Corporation of Canada F.M. Smith	19/07/71	Geol, Geochem
62-27-137-46 115 I 5	PRO Occidental Minerals Corporation of Canada G.C. Allebone, P.N. Mehrotre	14/09/71	Geol, Geochem
62-22-136-43 115 I 7	BOY, MAN, MAC, DUN Archer Cathro & Assoc. A.R. Archer	15/03/71	Geol, Geochem
62-16-136-41 115 I 7	BOY,WAR,WILL,MAC,MAN DVN, TK,TODY,ZORO Dawson Range Joint Venture A.R. Archer	09/05/73	Diamond Drilling Trenching, Geochem
62-23-136-37 115 I 7	TK Mitsubishi Metal Mining Archer, Cathro & Assoc.	08/06/71	Geochem
62-20-136-37 115 I 7	TASLAR Taseko Mines LaRonge Mining G.A. Dirom	23/11/71	Geochem

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62-17-136-37 115 I 7	WET Minto Mining Ltd. F.J.L. Guardia	20/12/72	Geochem
62-38-137-15 115 I 11	DEF United Keno Hill Mines R.J. Joy, R.E. Van Tassell	18/07/72	Geol, Geochem, Geophys
62-40-137-13 115 I 11	B, SEE Consolidated Standard Mines A.R. Archer	06/09/72	Geol, Geochem
62-39-137-08 115 I 11	AL Northair Mines A.R. Archer	06/09/72	Geol, Geochem
62-38-137-20 115 I 11	WAIN Wainoco Oil A.R. Archer	07/09/72	Geol, Geochem
62-42-137-16 115 I 11	ORI NRD Mining A.R. Archer	24/10/72	Geol, Geochem
62-35-137-52 115 I 12	GB Alrae Engineering Alrae Engineering	08/01/71	Geol, Geochem
62-35-138-00 115 I 12 115 I 9	TAD International Mine Services D.H. Waugh	13/01/71	Geochem,Geophys
62-38-137-50 115 I 12	HAYES Delta International Mines G. Gutrath	18/01/71	Geol, Geochem
62-49-137-18 115 I 14	PELLY Occidental Minerals Corporation of Canada D. Mutter, P. Mehrotra, C.F. Gleeson	23/09/71	Geol, Geochem
62-48137-20 115 I 14	DARY, PELLY Occidental Minerals Corporation of Canada P.E. Walcott	31/10/72	Mag, I.P.
62-49-137-18 115 I 14	PELLY, DARY, PRAT Canadian Occidental Petroleums P.N. Mehrotra	03/01/73	Geochem
62-18-138-50 115 J 7	KLOT, CHRIS Occidental Minerals Corporation of Canada J.T. Neelands, P.N. Mehrotra, C.F. Gleeson	27/09/71	Geol, Geochem

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62-25-138-28 115 J 8	TOM (SOMME) Dawson Range Joint Venture A.R. Archer	08/03/71	Geol, Geochem
62-37-138-28 115 J 9	DR, PATSY White, Hosford & Impey		Topgraphic Map
62-40-138-32 115 J 10	AXE, HILL Montana Mines B.C. Fulcher	18/01/71	Geol, Geochem
62-41-138-58 115 J 10	FIJI Selco Exploration D.C. Findlay	15/02/71	Geochem
62-45-138-55 115 J 10	AZTEC, SQUAW,TLINGITS Trans Columbia Explorations	30/09/71	Geol, Geochem
62-48-138-52 115 J 15	CAN,TIP TIN, ROSS, GENE Acroll Oil & Gas	19/02/71	Geophys
62-45-138-30 115 J 15	FOLLY, RAIN Brewster Lake Mines White, Radvak & Assoc.	19/02/71	Geochem
62-56-138-31 115 J 15	C Silver Standard Mines Ltd. R.C. McMichael	05/03/73	E.M. Geol, Geochem
63-20-131-17 115 O 6	SCOT Atlas Explorations T.J. Adamson	23/02/71	Geol, Geochem
63-40-131-30 105 O 12	HORN Canadian Industrial Gas & Oil Ltd. H. Morgensen	12/02/71	Geol
63-40-132-02 105 N 9	PLATA Dynasty Explorations W.J. Roberts P. Lane	14/06/72	Geol, Geochem, Aerial Photography Geophys,Trenching Diamond Drilling
63-54-135-41 105 M 13	ALBERTA, YUKON Spartan Aero Ltd. R.W. Stemp	05/03/73	E.M.
63-58-135-06 105 M 14	DUNCAN, AVENUE Canadian Reserve Oil & Gas T.J. Adamson	/12/72	Geol, Geochem

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63-57-135-11 105 M 14	LADIE, SILVERQUEEN Canadian Reserve Oil & Gas Spartan Aero	28/03/72	Geophys
63-45-136-57 115 P 10,15	LUGDUSH Archer, Cathro & Assoc. R.J. Cathro	15/02/72	Geochem, Prospecting
63-50-137-04 115 P 14	NOP United Keno Hill Mines R.J. Joy, R.E. Van Tassell	03/03/72	Geol, Geochem
63-50-136-45 115 P 15	TED Quintana Minerals Corporation	17/03/73	Geol, Geochem Mag
63-47-136-15 115 P 16	DARK International Minerals & Chemicals H.P. Pilkington	12/11/71	Geochem
63-11-139-53 115 O 4	NICK Rainbow Lake Explorations J.P. Elwell, D.C. Findlay	08/01/71	Evaluation
64-00-139-00 115 O 14,15	DAW,HUN,SON,NUG, SUL,ROD,PUP,JEN Sullivan & Rodgers	03/07/73	Geol, Geochem
63-00-140-15 115 N 1	LIBRA Marguerite Lake Mines R.K. Watson	12/03/71	Airborne Mag
63-29-140-55 115 N 7	LAD Occidental Minerals Corporation of Canada P. Mehrotra, C.F. Gleeson	13/09/71	Geol, Geochem
64-08-134-57 106 D 2	CLARK Bullion Mountain Mining D.C. Malcolm	10/01/72	Geol, Geochem Gravity
64-00-135-18 106 D 3	NOMAD Lacanex Mining R.O. Crosby	23/02/71	Airborne Mag
64-03-135-19 106 D 3	SILVER, SPRING Canadian Reserve Oil & Gas G.J.Neilson (Spartan Aero Services)	11/02/72	Geophys

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64-04-135-15 106 D 3	OTTER,SPRING, SILVER, ISA, PUNCH Spartan Aero Ltd. R.W. Stemp	05/03/73	E.M., Mag
64-02-135-47 106 D 4	PAN, ARPA Canex Aerial Explorations B. Ainsworth	13/10/71	Geochem
64-18-139-52 116 B 5	PLATA L. Patnode S. Presunka A.C. Ogilvy	29/06/72	Geophys

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