

MineQuest Report #252
MineQuest Ref: RM1021

520592
92H/15

KEN CLAIMS, ASPEN GROVE CAMP
A Property Summary
prepared to inform prospective optionees

by
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of
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KEN, ASPEN GROVE CAMP

The KEN claims (76 units) cover a central portion of the Aspen Grove Camp, at the south end of the Quesnel Trough. Three shafts and three tunnels were driven at the beginning of the century to explore what was recognised at the time as extensive low grade copper. Exploration in more recent times (most of it in the early 70's for porphyry copper deposits) has been noticeably lacking in both induced polarization and drilling.

The property is prospective for copper-gold alkaline porphyry deposits.

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2 Quesnel Trough and Copper-Gold Alkaline Porphyries	2
3 Aspen Grove Camp, Significant Prospects NTS 92H/NE	2
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Maps of Aspen Grove camp (reduced from full size maps
at 1:50,000 scale)

4 Reported Mineral Occurrences	(Plan #1577)	Rolled
5 Old Workings	(Plan #1576)	Rolled
6 Claims	(Plan #1578)	Rolled
7 Assessment Work Reported	(Plan #1574)	Rolled
8 Reported Drilling	(Plan #1575)	Rolled
9 Geology (from Preto, 1979)	(Plan #1579)	Rolled
10 Imaged Magnetic Data	(Plan #1580)	Rolled

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VI	Ken Claims - Cost Estimate
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ATTACHMENTS

I	Excerpts from Ministry of Mines Annual Reports
II	List of Microfiche Reports

1. LOCATION AND ACCESS

The hamlet of Aspen Grove and the nearby mineral camp of the same name lie by Highway No 5, some 20 km south of Merritt in south central British Columbia (Figure 1).

2. REGIONAL SETTING

The mineral occurrences of Aspen Grove fall within the main trend of the Quesnel Trough, (Figure 2) a belt of alkaline volcanic rocks and related intrusives known for their association with Copper-gold Alkaline Porphyry deposits. The nearest of these to Aspen Grove is Copper Mountain, 70 km to the south. The most recent of these deposits to be developed to significant tonnage is Mt. Milligan, some 600 km to the north.

3. CLAIMS

The Ken claims (shown in Figures 3, 6 & 6A and listed in Table VII) consist of 76 M.G.S. units five kilometres southeast of Aspen Grove.

4. HISTORY

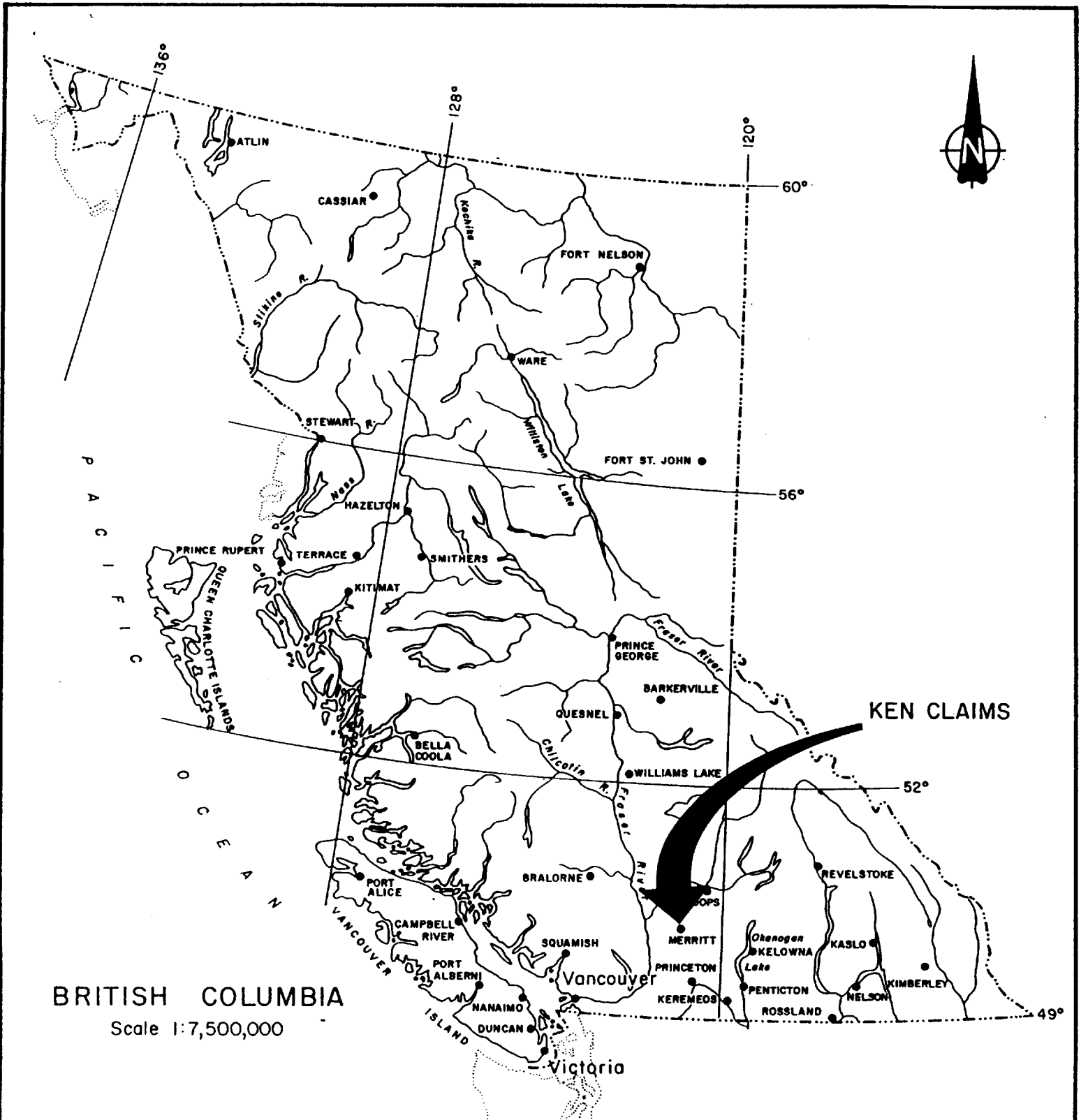
The Aspen Grove camp was actively explored at the beginning of the century. At that time reports of extensive low grade copper (Attachment I) led to underground exploration from several tunnels and shafts.

The first period of active exploration was between 1901 and 1916. The camp was again active during the search for porphyries in the 1970's. Surprisingly, and despite the concentration of reported occurrences and old workings, drilling appears to have touched only the edges of the main trend of copper occurrences.

The Ken and neighbouring claims cover 23 reported occurrences (listed in Table I and shown in Figure 6A).

Shafts and tunnels reported in publications of the B.C. Ministry of Mines, all of them driven at the beginning of the century, are shown in Figure 5.

Figure 7 shows exploration coverage described in Assessment Reports (summarized in Table II).



KEN CLAIMS			
LOCATION MAP			
Originator	Drawn c.d.	Plan No.	FIG. 1
Revised	Date Oct.'90	NTS	

Figure 8 shows the drilled areas which have been located from research to date. Other, unrecorded drill sites may be present.

5. GEOLOGY OF THE KEN CLAIMS

Mapping by Preto (1979), partially reproduced as Figure 9, shows a sequence of Triassic volcanics of intermediate and basaltic composition. Subvolcanic diorites are shown on Preto's map at the north and south of the claims, and (as a small plug) in the south centre. Imaged magnetic data (Figure 10) suggests the latter may be larger than indicated by the geologic map.

6. COPPER-GOLD ALKALINE PORPHYRIES

Table IV shows certain geologic features commonly associated with copper-gold alkaline porphyries. Based on such comparisons, the Aspen Grove camp in general and the vicinity of the Ken claims in particular are prospective for this class of deposit. Because the claims remain virtually untested, a routine exploration program for a large porphyry system is readily justified.

7. EVIDENCE FOR GOLD IN ASPEN GROVE CAMP


Sporadic testing for precious metals at the beginning of the century did little more than establish the presence of gold in the Aspen Grove Camp. Analyses for gold continued to be less than systematic during the porphyry search in the 1970's. More recently a few gold values have been reported from soils and rock. A listing of gold values from reports in the public domain is shown in Table III.

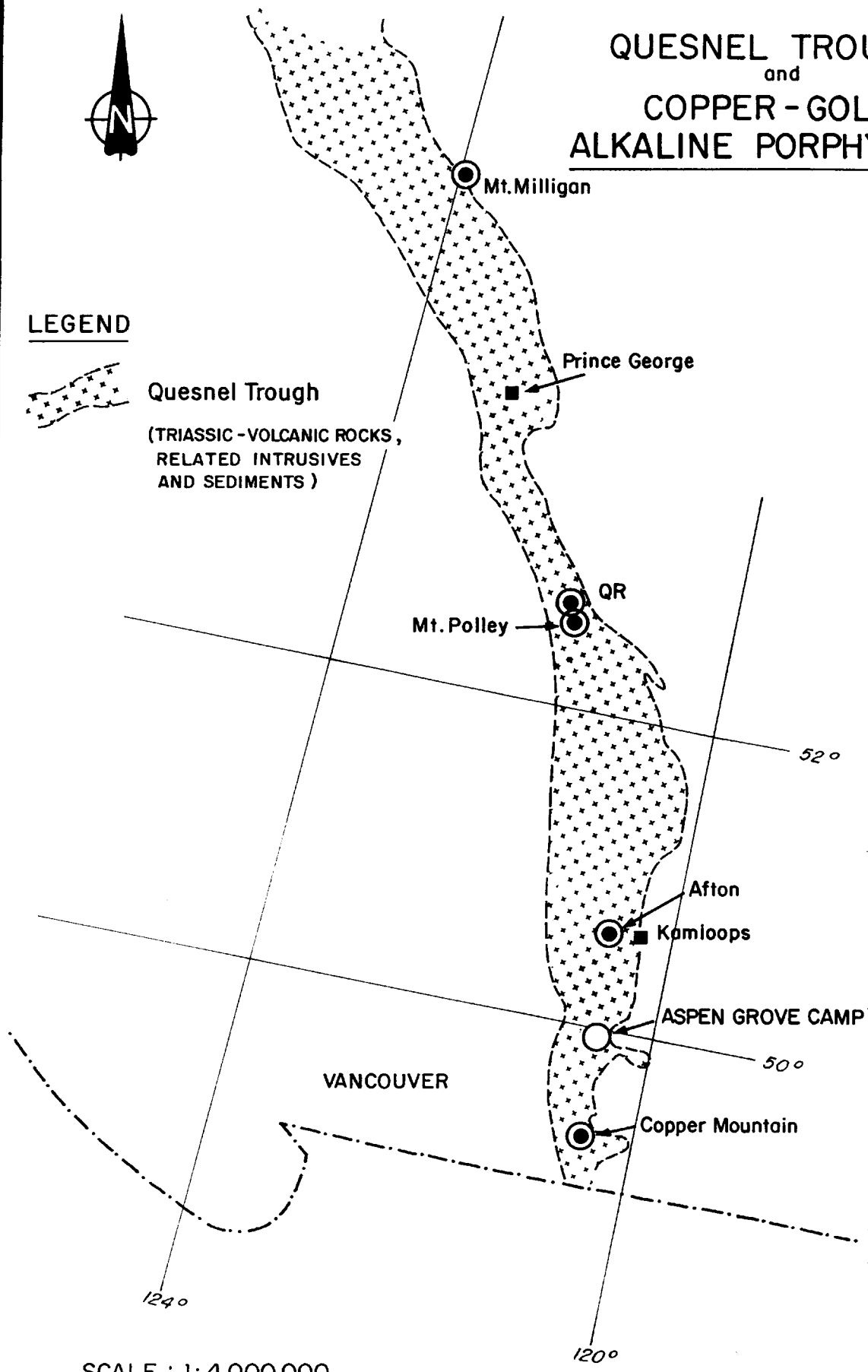
Neighbouring properties go a long way to establish that the Aspen Grove camp is auriferous. Values of 0.15 opt Au over 60 feet are reported (A.R. 14141) for the Snowflake property to the north of the Ken claims. Twenty kilometres to the south the Sadim claims, which cover a gold-bearing quartz stockwork, are being explored by Laramide Resources.

QUESNEL TROUGH and COPPER - GOLD ALKALINE PORPHYRIES



LEGEND

 Quesnel Trough
(TRIASSIC - VOLCANIC ROCKS,
RELATED INTRUSIVES
AND SEDIMENTS)



SCALE : 1 : 4,000,000

Figure 2

ASPEN GROVE CAMP SIGNIFICANT PROSPECTS

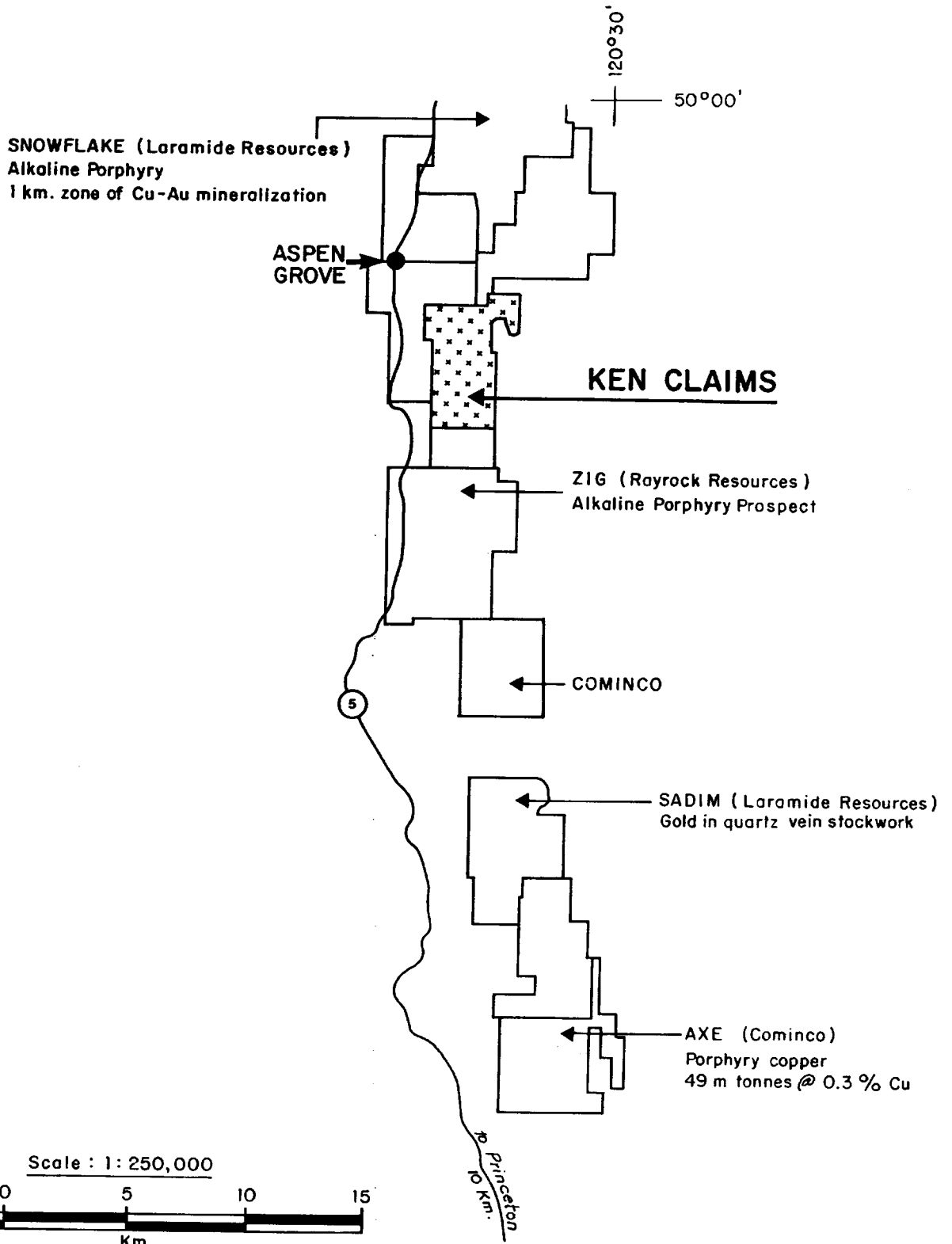
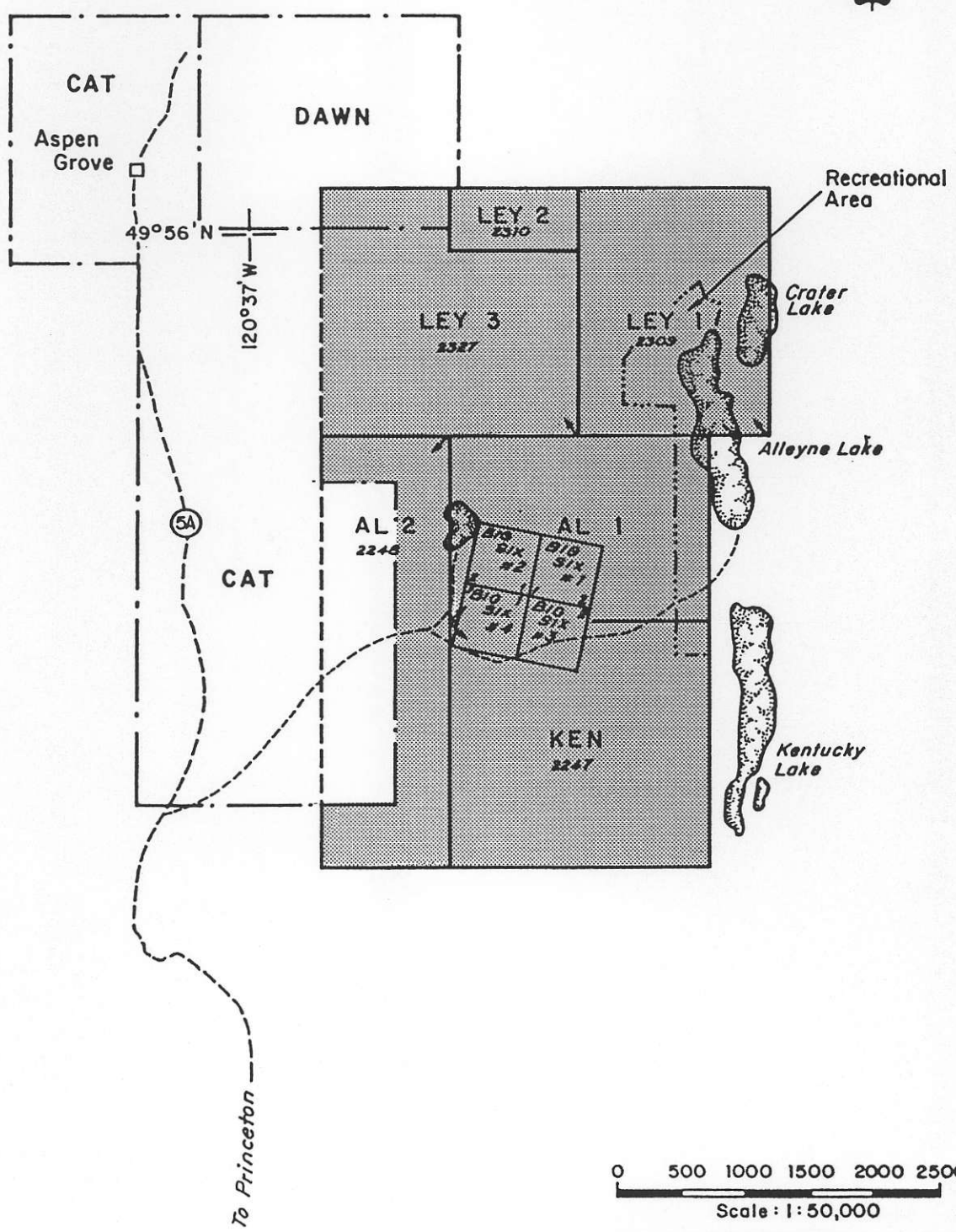


Figure 3



KEN CLAIMS			
CLAIMS			
Originator e.v.	Drawn c.d.	Plan No.	FIG. 6A
Revised	Date Oct.'90	NTS 92H/15	
- MINEQUEST EXPLORATION ASSOCIATES LTD. -			

Placer gold is not reported but this should be noted in the context of all significant streams being on glacial material, not on bedrock. Well concentrated placer occurrences, if present, will be at the bedrock surface, buried beneath the overburden.

8. DISCUSSION

The discoveries at Mt. Milligan changed the industry's perception of copper-gold alkaline porphyries in two ways:

- First: it became apparent that, in the Quesnel Trough of British Columbia, such deposits could be very large
- Second wide spaced (400 metre) Induced Polarization came to be recognised as an effective way of testing for such deposits.

The Aspen Grove camp was identified (Preto, 1972) as part of an alkalic and calcalkalic porphyry system containing numerous mineral occurrences. The Ken claims cover a section in the middle of the camp where significant grades and widths of copper have been reported. A search of the records of previous work suggests the ground covered by the claims has been tested by only limited drilling on the margins of the system (Figure 8).

First stage exploration, directed at testing for the presence of a large porphyry system, can be carried out for approximately \$120,000.

9. NEXT STEP

Proposed Program:

- 1) June - July, 1991
 - Induced Polarization 40 km at 400m spacing to be followed by a more detailed survey in the vicinity of anomalies.
 - Cost Estimate (Table VI): \$120,000
 - A program (Table V) of geologic mapping and location of old showings.
- 2) August - September, 1991
 - Drilling

10. TERMS

Terms for an option to buy a 100% interest in the claims, subject to royalties, are shown in Table VIII.

11. BACKGROUND DATA

Public domain data from previous work on the ground now covered by the Ken claims has been compiled as follows:

- 1) A binder labelled "Ken Claims Compilation" contains:
 - i) page-size data organized by MINFILE number. This includes the MINFILE summary page for each occurrence together with pages from the B.C. Ministry of Mines Annual Reports and its successors "Geology, Exploration and Mining" ("GEM") and Exploration in B.C.
 - ii) microfiche copies of assessment reports.

- 2) A report by Sherwin F. Kelly, . obtained from Energy Mines and Petroleum Resources in Ottawa, is bound separately.

12. CAUTION

Documentation on the Payco property (MINFILE No. 172) contains mention of spectacular intersections and established tonnage. MineQuest has been able to find no technical support for these claims.

TABLE I

LIST OF REPORTED MINERAL OCCURRENCES ON AND NEAR THE KEN CLAIMS

MINFILE NUMBER NAME
(Preceded by 92HNE)

Within Boundaries of Ken Claims

79	Copper Standard
80	Golden Gate
81	Georgia (Emerald)
82	Lytton (Emerald)
83	Bank of England
84	Cincinnati
85	Little Lottie
87	Boomerang
166	AM, (Den)
170	Laverne (Cap)
172	Payco (Pay Group)
175	HH (Misc.)
177	AR

Adjacent to Ken Claims

04	Dote 1 (Bix Sioux)
05	Dote 2 (Bix Sioux, Bluebird)
77	Blue Bird
78	Copper Belle
86	Tom Cat
88	Portland
89	Bunker Hill
109	Dago
164	Blak
165	(No name)

KEN CLAIMS

LIST OF PUBLISHED REPORTS

ASSESSMENT REPORTS			
ASSESSMENT REPORT NUMBER	MINFILE NUMBER TO WHICH REPORT APPLIES	YEAR OF REPORT	TYPE OF WORK
	Prefix: 92H/NE		
AR 161		1957	Ground Magnetometry
AR 856		1966	Ground Magnetometry
AR 1850	175		Ground Magnetometry
AR 1910	005, 004		Soil Geochemistry
AR 2028		1969	Ground Magnetometry Ground EM
AR 2468	005	1970	Soil Geochemistry Ground Magnetometry Ground EM
AR 2581	175	1970	Ground EM
AR 3051	005, 004	1971	Geology
AR 3637		1972	Ground Magnetometry
AR 3686	175	1972	Ground Magnetometry
AR 3687	005,004,109	1972	Soil Geochemistry
AR 3758	079,080,083 081,084,109	1972	Soil Geochemistry Ground Magnetometry
AR 3787	172	1972	Induced Polarization
AR 3788		1972	Gravity
AR 3789	109	1972	Soil Geochemistry Ground Magnetometry Diamond Drilling (14 holes) Gravity Induced Polarization
AR 4078	004	1972	Line Cutting
AR 4079	005, 004	1972	Ground Magnetometry
AR 4081	087, 089	1972	Soil Geochemistry Ground Magnetometry
AR 4082	087, 089		Ground Magnetometry

TABLE II CONTINUED

ASSESSMENT REPORTS			
AR 4087		1972	Soil Geochemistry
AR 4089		1972	Soil Geochemistry
AR 4474		1973	Ground EM
AR 6215	109	1977	Percussion Drilling (2 holes)
AR 6302	087, 089	1976	Soil Geochemistry Ground EM
AR 6642	109	1977	Percussion Drilling (2 holes)
AR 6761	177	1978	Soil Geochemistry Ground EM
AR 6821	166	1978	Soil Geochemistry Ground EM
AR 7029	083,084,172	1978	Ground EM
AR 7050	079,080,081 084,172	1978	Ground EM Ground Magnetometry
AR 7654	084, 172	1979	Diamond Drilling (2 holes)
AR 7679	087, 089	1979	Soil Geochemistry
AR 8522		1980	Soil Geochemistry Ground Magnetometry
AR 9250		1980	Induced Polarization
AR 9251		1980	Induced Polarization
AR 14141		1985	Soil Geochemistry Geology Rock Sampling
DOCUMENTS OTHER THAN ASSESSMENT REPORTS			
EMR MRD Corp File (Payco Mining Ltd.) by S.F. Kelly	172	1963	Trenching Diamond Drilling (8 holes)
No Report Found (Mentioned in AR7654)	084, 172	1978	Diamond Drilling (14 holes)

Table IIIREPORTED GOLD ANALYSES FROM KEN CLAIMS & NEIGHBOURING GROUND

<u>Date</u>	<u>Source</u>	<u>Minfile Number</u>	<u>Current Property Name</u>	<u>Material</u>	<u>Au opt</u>	<u>Cu % Width</u>
1901	B.C. Min. Mines Ann. Report p.1182	80	Golden Gate	Rock	0.02	1.2% ?
1902	B.C. Min. Mines Ann. Report	83	Ken	Rock	0.04	1.50 15 ft
1902	B.C. Min. Mines Ann. Report p.1181	04	Dawn 100	Rock from Dump	0.02	12.6%
1907	B.C. Min. Mines Ann. Report	87	Ken	Grab Sample	0.12	14.7%
1915	B.C. Min. Mines Ann. Report p.230	86	Dawn 100	"Shipping ore"	Trace	6.5%
1916	B.C. Min. Mines Ann. Report p.226	84	Ken	Rock	0.02 0.04 Trace	1.2% 1.5% 1.5%
1985	AR14141 p.4	145	Snowflake	Drill Core	0.15	0.48 60 ft

TABLE IV

GEOLOGICAL FEATURES OF COPPER-GOLD ALKALINE PORPHYRIES

<u>FEATURE</u>	<u>TYPICAL DEPOSIT</u>	<u>MOUNT MILLIGAN</u>	<u>KEN CLAIMS</u>	<u>ASPEN GROVE CAMP</u>
Diorite-gabbro	/	/	/	/
Porphyritic monzonite	/	/	nearby	/
Intrusive breccia	/	/	nearby	/
K-spar alteration	/	/	*	*
Albitization	/	/	/	/
Propylitization	/	/	/	/
Copper	/	/	/	/
Gold	/	/	/	/

* Note: K-spar alteration can go undetected until staining techniques are used.

TABLE V

KEN CLAIMS

PROGRAM DESCRIPTION FOR 1991

Objectives:

Copper-Gold Alkaline Porphyries

Methods:

- 1) Line cutting to establish a baseline and winglines and to cut lines for reconnaissance IP program.
- 2) Reconnaissance IP at lines spaced 400 metres apart. (The Milligan orebody has reported dimensions of 2000 metres and is therefore detectable by a wide-spaced program such as this).
- 3) Prospecting to identify and locate (on 1:5,000 scale maps) all outcrops, and to locate and sample former trenches, adits, shafts etc.
- 4) Geological mapping to compile and tie together existing mapping, to complete gaps in such mapping and to identify alteration zones.

Estimated Cost:

\$120,000

Period:

July - August, 1991

TABLE VI

KEN CLAIMS

COST ESTIMATE

Line Cutting:	40 km @ \$ 500		\$20,000
Induced Polarization	40 km @ \$1400		\$56,000
Mapping, Prospecting and Compilation			
Fees & Labour	25 days @ \$235	\$5,575	
	20	185	3,700
	10	425	4,250
	5	525	2,625
		<hr/>	
		16,150	\$16,150
Transportation & fuel		3,000	
Equipment Rental		700	
Food & Accommodation	50 @ \$65	3,250	
Analyses	300 @ \$ 12	3,600	
	50 @ \$ 20	1,000	
Claim renewal		390	
Communications		250	
Drafting and Reprogrphics		3,500	
10 % on disbursements		1,569	
		<hr/>	
		17,259	\$17,259
		<hr/>	
TOTAL			\$ 109,409
	ALLOW		\$ 120,000

TABLE VII

LIST OF CLAIMS

KEN CLAIMS

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Due Date</u>
Big Six #1	01	2201	Apr. 21, 1992
Big Six #2	01	2202	Apr. 21, 1992
Big 6 #3	01	2203	Apr. 21, 1992
Big 6 #4	01	2204	Apr. 21, 1992
Al 1	12	2246	Aug. 31, 1991
Al 2	14	2248	Aug. 31, 1991
Ken	16	2247	Aug. 19, 1991
Ley 1	12	2309	Dec. 10, 1991
Ley 2	02	2310	Dec. 10, 1991
Ley 3	16	2327	Feb. 08, 1992

TABLE VIII

KEN, CAT, DAWN CLAIMS

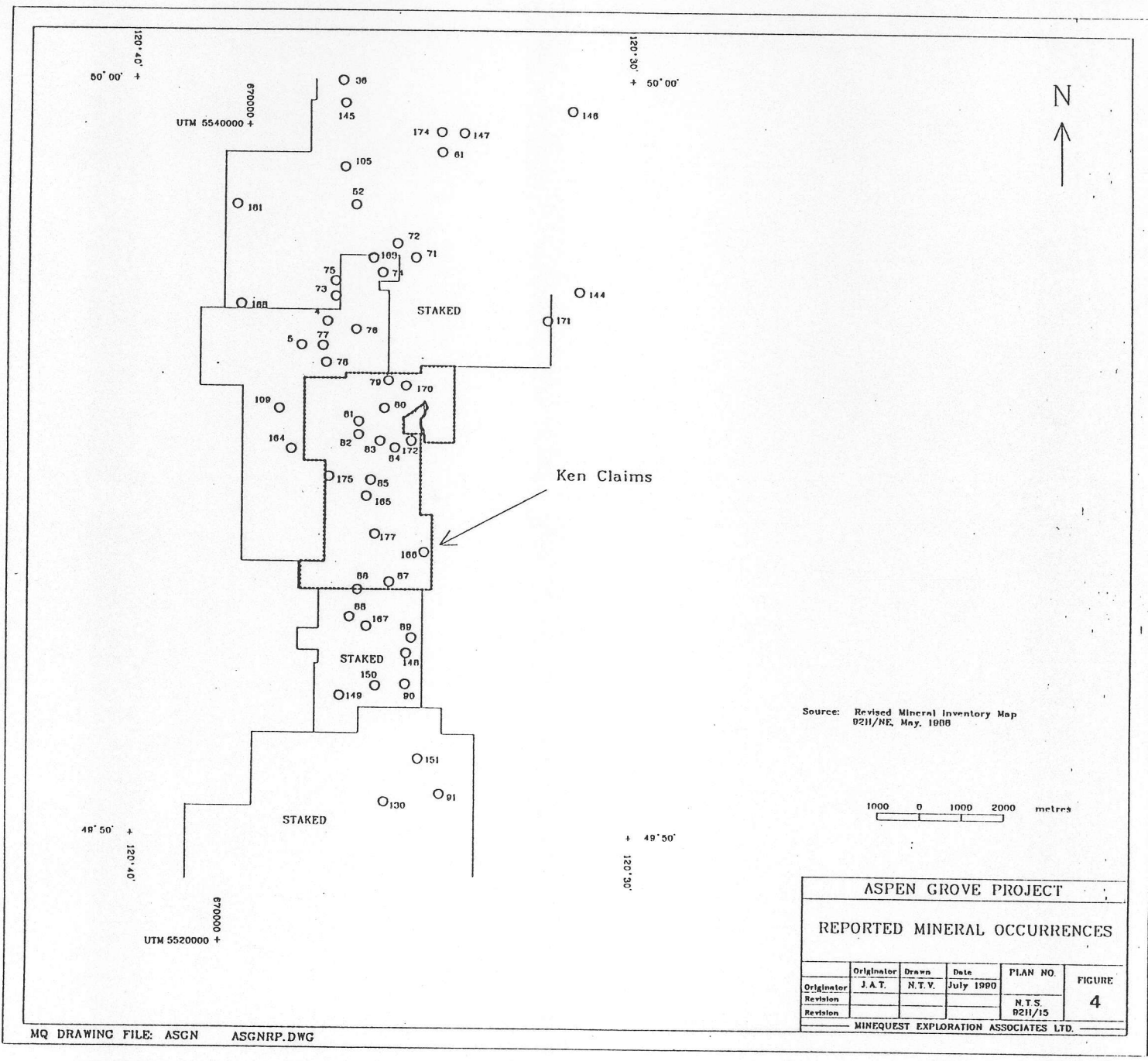
O P T I O N T E R M S

C A S H P A Y M E N T S (Note 6) WORK (Note 1)

PERIOD	Units	<u>KEN</u>	
		76	
On Signing		\$15,000	\$120,000 (Note 2)
6 Months		\$15,000	\$100,000
1st. Anniv.		\$35,000	\$200,000
2nd. Anniv.		\$50,000	\$400,000
3rd. Anniv.		\$75,000	\$400,000
4th. Anniv.		\$75,000	\$152,000
5th. Anniv.		\$75,000	\$152,000
Cash to Exercise (Note 5)		\$1,000,000	
Royalties: Annual Advance (Note 4)		\$75,000	
N.S.R.		2	

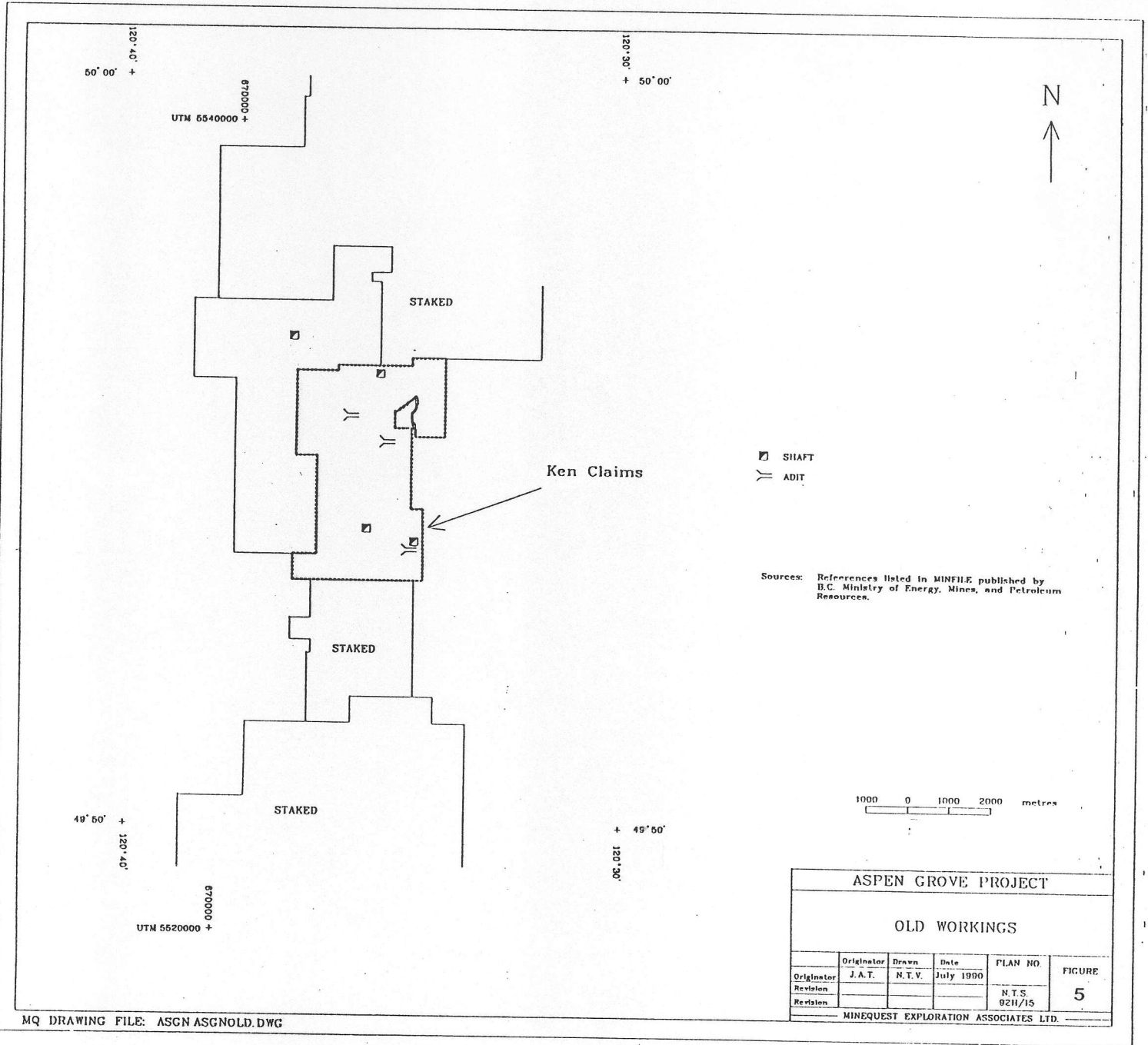
NOTES:

- Note 1: Work program to be completed by end of period. 50% to be committed at start of period. Expenditures in Year 2 and beyond may be reduced to claim maintenance cost by doubling cash payments.
- Note 2: Target identification. No drilling.
- Note 3: All claims to have two years of assessment credits before being returned. (The proposed first program is more than sufficient for this.)
- Note 4: Advance Royalties continue until exceeded by Net Smelter Return or Net Profit royalties.
- Note 5: Purchase payments (inflation indexed) to be exercised prior to production but need not be exercised unless there is production.
- Note 6: All exploration work for first four years to be by MineQuest but for the second and subsequent years Optionee may take over as exploration contractor by paying a displacement fee for each year in which MineQuest is not the exploration contractor.
- Note 7: Area of Mutual Interest to apply.



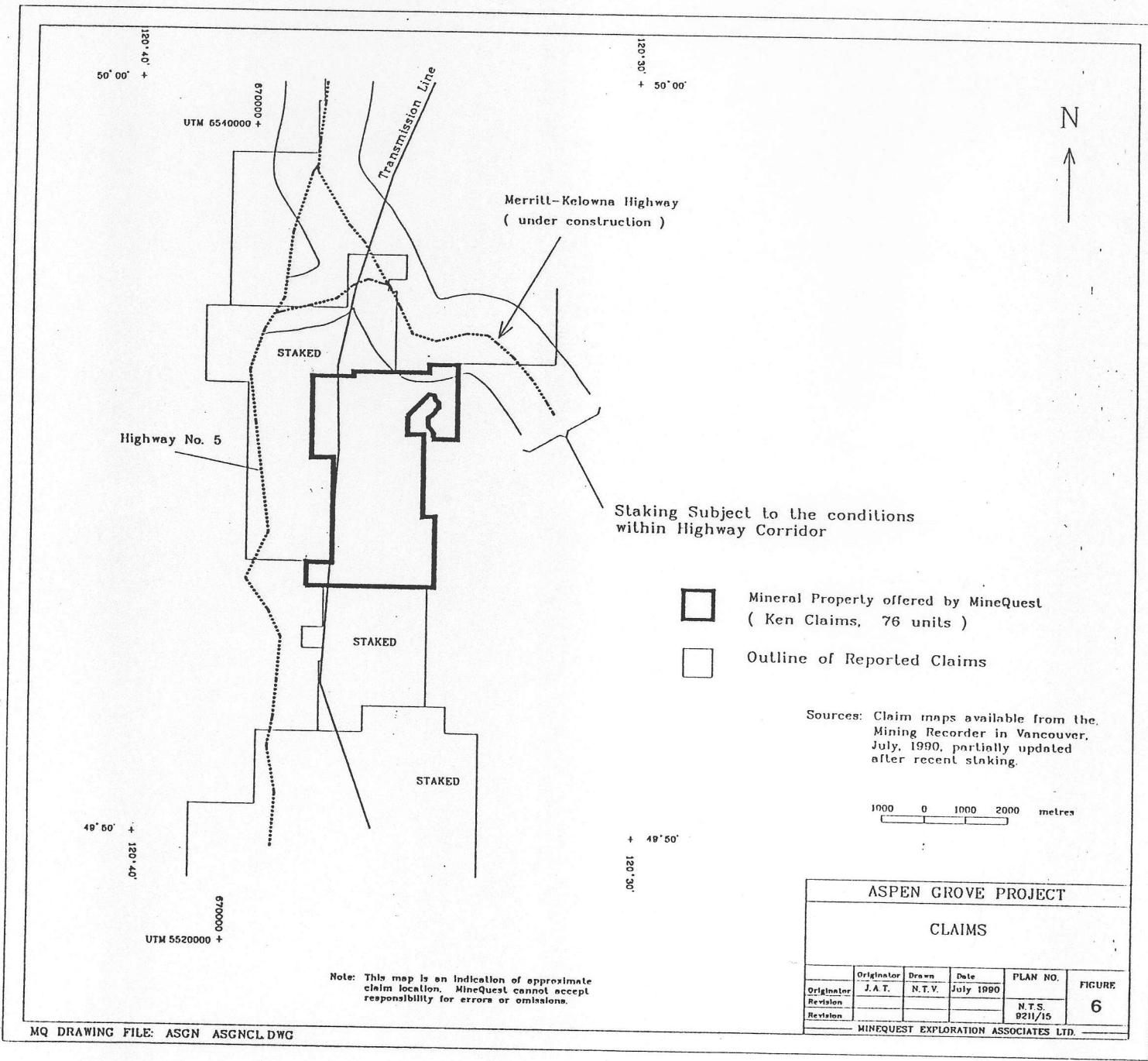
MQ DRAWING FILE: ASGN ASGNRP.DWG

SEE FULL SIZE MAP

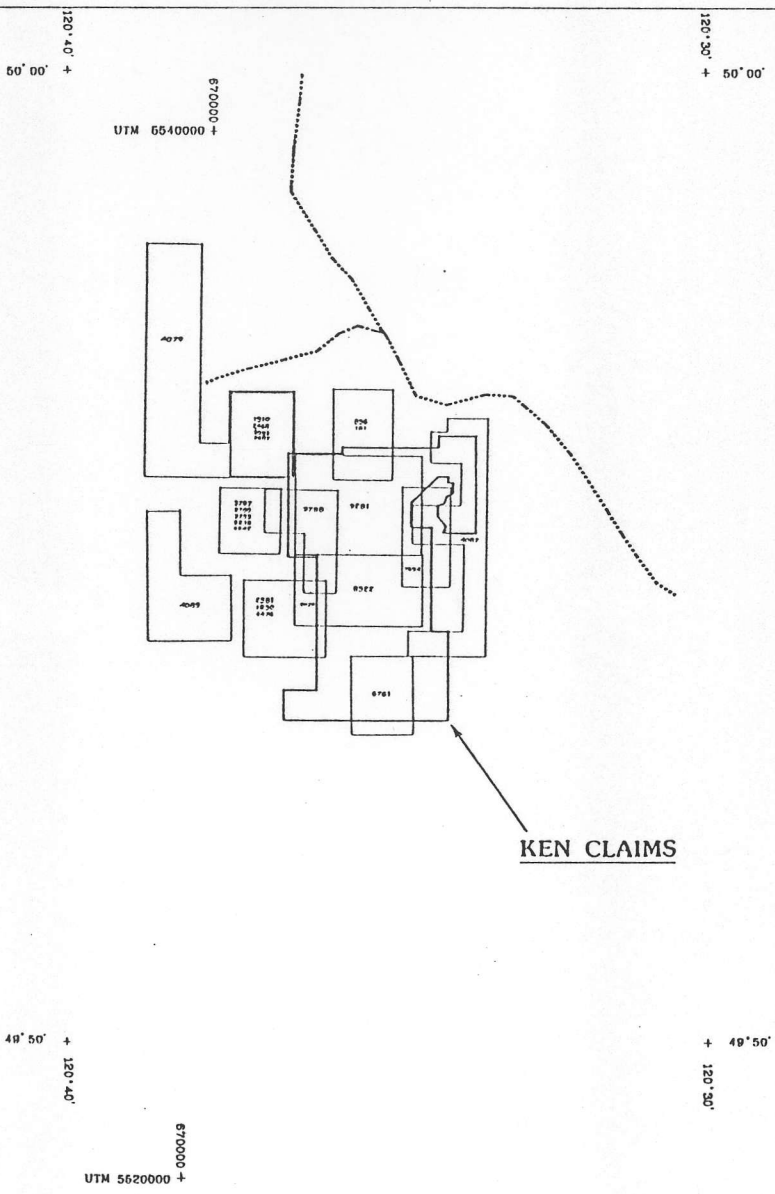


MQ DRAWING FILE: ASGN ASGNOLD.DWG

SEE FULL SIZE MAP

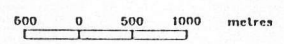


SEE FULL SIZE MAP



ASSESSMENT REPORT NUMBER	MINFILE NUMBER TO WHICH REPORT APPLIES	YEAR OF REPORT	ASSESSMENT REPORTS
			TYPE OF WORK
AR 181		1957	Ground Magnetometry
AR 256		1956	Ground Magnetometry
AR 1850	275		Ground Magnetometry
AR 1910	009, 006		Soil Geochemistry
AR 1028		1969	Ground Magnetometry
AR 2168	003	1970	Soil Geochemistry
AR 2591	173	1970	Ground EM
AR 3031	003, 004	1971	Geology
AR 3637		1972	Ground Magnetometry
AR 3686	173	1972	Ground Magnetometry
AR 3687	003, 004, 109	1972	Soil Geochemistry
AR 3750	079, 080, 083	1972	Soil Geochemistry
AR 3750	081, 084, 109	1972	Ground Magnetometry
AR 3787	173	1972	Induced Polarization
AR 3788		1972	Gravity
AR 3789	103	1972	Soil Geochemistry
AR 4078	004	1972	Line Cutting
AR 4079	003, 004	1972	Ground Magnetometry
AR 4091	087, 089	1972	Soil Geochemistry
AR 4091		1972	Ground Magnetometry
AR 4092	087, 089	1972	Ground Magnetometry
AR 4097		1972	Soil Geochemistry
AR 4099		1972	Soil Geochemistry
AR 4476		1973	Ground EM
AR 6225	109	1977	Perception Drilling (2 holes)
AR 6302	087, 089	1976	Soil Geochemistry
AR 6302		1976	Ground EM
AR 6462	109	1977	Perception Drilling (2 holes)
AR 6761	177	1978	Soil Geochemistry
AR 6761		1978	Ground EM
AR 6921	164	1978	Soil Geochemistry
AR 6921		1978	Ground EM
AR 7039	082, 084, 172	1978	Ground EM
AR 7039	079, 080, 081	1978	Ground Magnetometry
AR 7656	084, 172	1979	Diamond Drilling (2 holes)
AR 7679	087, 089	1979	Soil Geochemistry
AR 8522		1980	Soil Geochemistry
AR 8522		1980	Ground Magnetometry
AR 1230		1980	Induced Polarization
AR 1231		1980	Induced Polarization
AR 11161		1983	Soil Geochemistry
AR 11161		1983	Geology
AR 11161		1983	Rock Sampling

BVL/ee
BLES
B1ASQW355
September 20, 1990



ASPEN GROVE PROJECT

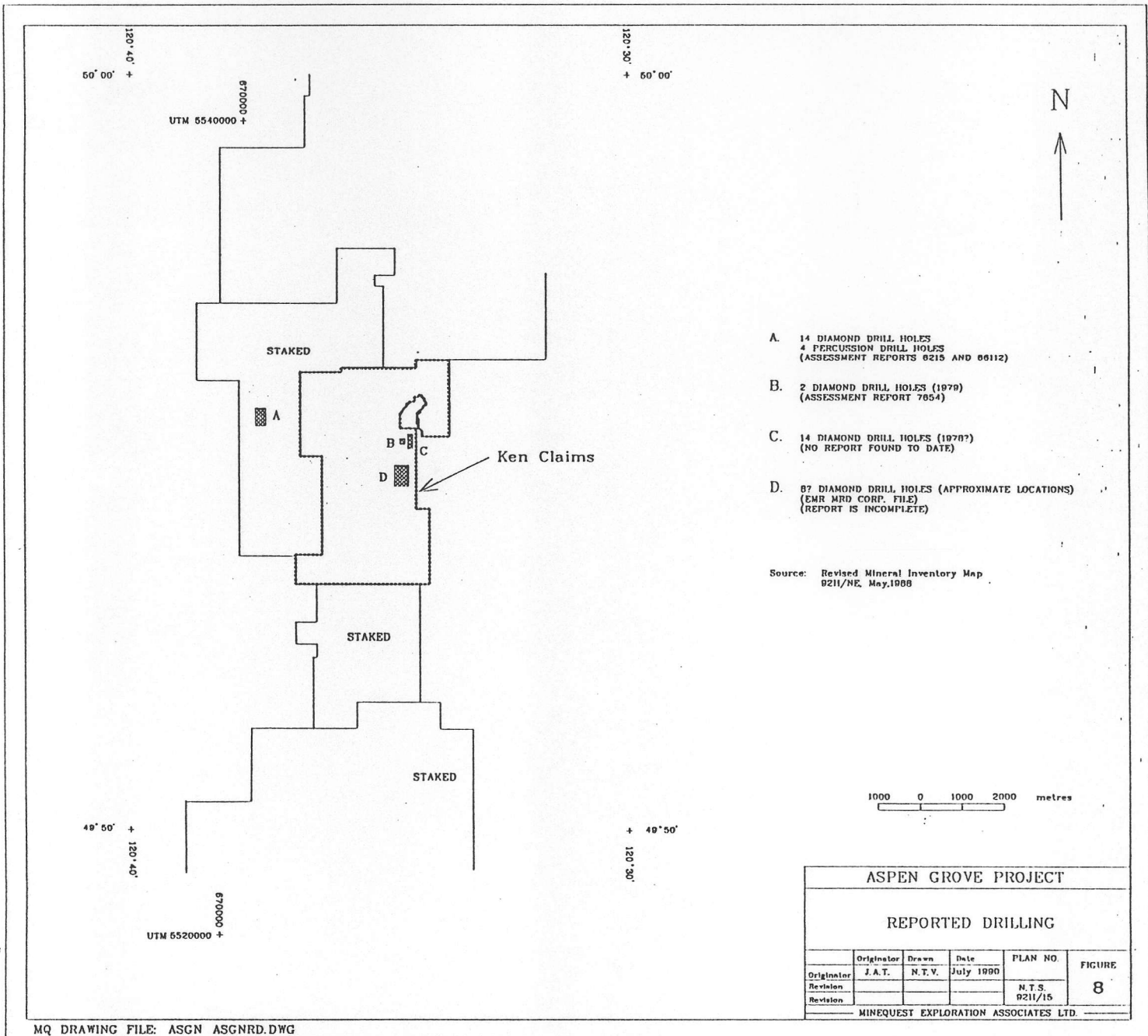
ASSESSMENT WORK REPORTED

Originator	Drawn	Date	PLAN NO.	FIGURE
Originator	N.T.V.	Aug 1980			7
Revision			N.T.S. 8211/15	
Revision				

MINEQUEST EXPLORATION ASSOCIATES LTD.

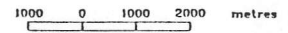
MQ DRAWING FILE: ASGN ASGNASS.DWG

SEE FULL SIZE MAP



- A. 14 DIAMOND DRILL HOLES
4 PERCUSSION DRILL HOLES
(ASSESSMENT REPORTS 0215 AND 06112)
- B. 2 DIAMOND DRILL HOLES (1979)
(ASSESSMENT REPORT 7654)
- C. 14 DIAMOND DRILL HOLES (1978?)
(NO REPORT FOUND TO DATE)
- D. 87 DIAMOND DRILL HOLES (APPROXIMATE LOCATIONS)
(EMR MRD CORP. FILE)
(REPORT IS INCOMPLETE)

Source: Revised Mineral Inventory Map
0211/NE, May, 1988



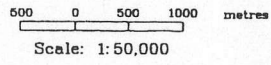
ASPEN GROVE PROJECT					
REPORTED DRILLING					
	Originator	Drawn	Date	PLAN NO.	FIGURE
Originator	J.A.T.	N.T.V.	July 1990		8
Revision				N.T.S.	
Revision				0211/15	
MINEQUEST EXPLORATION ASSOCIATES LTD.					

MQ DRAWING FILE: ASGN ASGNRD.DWG

SEE FULL SIZE MAP



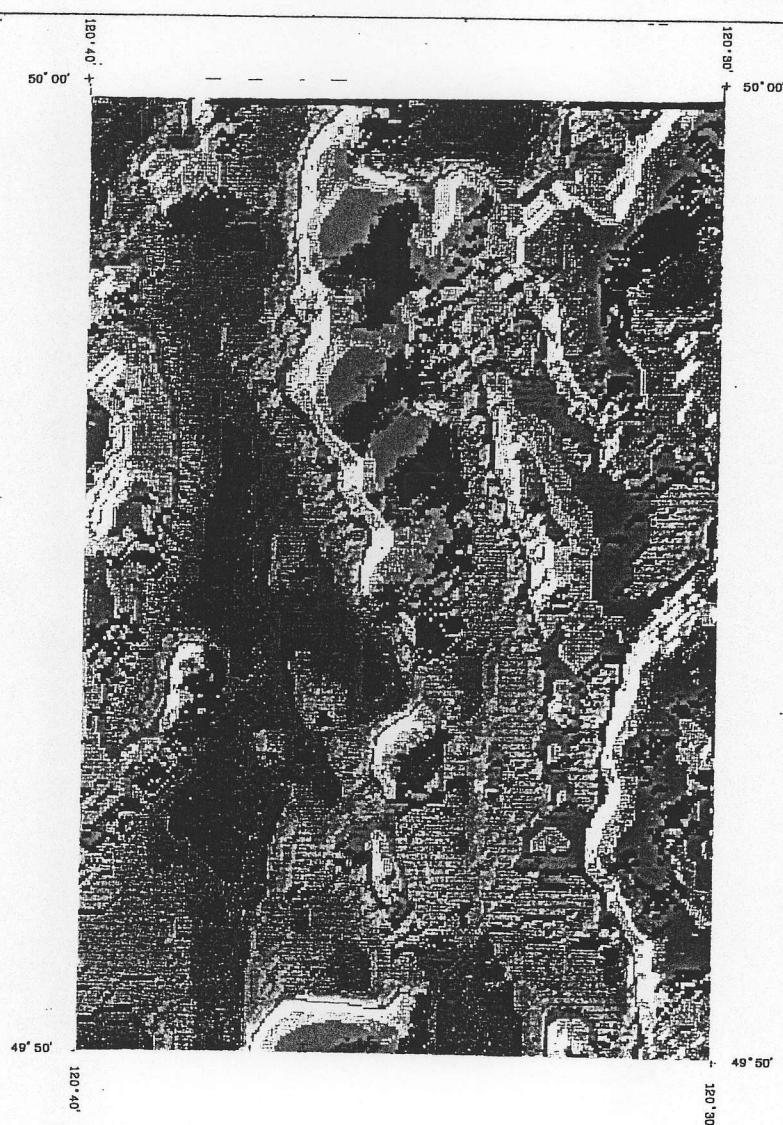
- FLYSHOES AND DEBRIT**
- 11 VALLEY BASIN**
- 12 MIDDLE FOLDS**
- 13 PALISADES**
- 14 POST LOWER ONTARIO**
- 15 LOWER ONTARIO**
- 16 LOWER ONTARIO**
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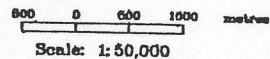
ASPEN GROVE PROJECT					
GEOLOGY					
From PRETO, 1979					
	Originator	Drawn	Date	PLAN NO.	FIGURE
Originator	JAT	JAT	July 1990	57-9	9
Revision				N.T.S.	
Revision				82H/16	
MINEQUEST EXPLORATION ASSOCIATES LTD.					

MQ DRAWING FILE: ASGN ASGNMAG.DWG

SEE FULL SIZE MAP



Source of Data: Geophysical Data Centre,
 Imaging by MineQuest
 OTTAWA



ASPEN GROVE PROJECT					
IMAGED MAGNETIC DATA					
	Original	Drawn	Date	PLAN NO.	FIGURE
Original:	JAY	JAY	July 1990	1580	10
Revised:				N.T.R.	
Checked:				SEP/15	
MINEQUEST EXPLORATION ASSOCIATES LTD.					

MQ DRAWING FILE: ASGN ASGNMAG.DWG

SEE FULL SIZE MAP

ATTACHMENT I

Excerpts from Ministry of Mines Annual Reports

Attachment I - Excerpts from Ministry of Mines Annual Reports

From Ministry of Mines Annual Report 1901 p K 117

Minfile number

ASPEN GROVE CAMP.

Aspen Grove camp was, at the date visited, practically only a year old and the time of prospectors had been more occupied in securing new locations than in developing those they had. Of the hundred or more claims located only a few had had anything more than the barest assessment done on them, a notable exception being those of Bate and partners, who have "lived" with their claims and are putting in all their time on their various properties. These are so numerous that when the work is spread over all it is a rather small amount on each claim. Their work on the *Cincinnati*, while extensive for prospectors, has not as yet borne fruit. It must be considered then that, so far, the showings in this camp are only indications and considerably more work must be done before any conclusions can be arrived at, except in a very general way. Among these general conclusions would seem to be that, from Copper mountain, 10 miles south of Princeton, northerly at least as far as Nicola, and following a fairly straight line, there is a wide belt of later igneous rocks which, for that whole distance, are more or less mineralised with copper sulphides, not uniformly but along bands or zones, several intermediate points recent locations have been made on the same class of deposits.

These rocks probably belong to the volcanic part of Dawson's "Nicola Series of the Interior," and underlying the coal-bearing rocks of this section and containing beds of limestone and argillite, which are now much altered. This long basin appears to be bounded on the east and west by light-coloured granites, schists and crystalline rocks, which, in the Aspen Grove camp, appear on either side of the mineral belt, here about a mile wide and having two important "lime dykes" running through it, each some 300 feet wide and about 2,000 feet apart.

Such preliminary work as has been done on this belt indicates that the mineral zones are large but very low-grade, general samples from any of the exposures not running over about 2% copper, with very small additional values of the precious metals. One or two local concentrations have been noted, but these are as yet undeveloped and unproven as to extent.

It seems probable that, in this great extent of copper-bearing rocks, concentrations will eventually be discovered which will permit of profitable mining. At present these remain to be found, but it would seem as though this was one of the most promising fields in the Province for the prospector.

Attachment I - Excerpts from Ministry of Mines Annual Reports

From Ministry of Mines Annual Report 1901 p 1182

Minfile numbers: 92HNE083, 84

Principle name : Cincinnati

This group lies to the south-west of the *Big Sioux* and *Golden Sovereign* Cincinatti Group, and is owned by Bate *et al.* It consists of six mineral claims, viz.: *Bank of England*, *Cincinatti*, *Noble Five*, *Queen of West*, *Newport*, and *Copper Butte Fraction*.

On the *Bank of England* an open side-hill cut of about 15 feet, with a 15-foot face and a pit at the end 6 feet deep, shows a zone of the same class of igneous rock exposed for 15 feet, heavily mineralised with copper sulphides and some oxide. This zone apparently followed here along a slip or fracture in the rock, dipping at an angle of 70° to south-west, through which water percolated and possibly enriched the zone noted. The face of the cut was sampled and gave: copper, 1.5 %; gold, .04 oz. per ton; silver, trace.

Two similar cuts to the north on the same claim were not visited.

On the *Cincinatti* a zone 100 feet wide has been exposed and opened by cuts. This is apparently uniformly impregnated with copper glance all across, and was so reported by the owner, who claimed to have had average assays running over 10 % copper, but this statement is not borne out by samples taken at the time by the Provincial Mineralogist and which gave: copper, 1.53 %, while selected ore assayed 3.24 %.

A tunnel, started at 100 feet lower level, was being driven to cut this body of ore and had then been completed for 260 feet, but was not in far enough to strike it.

Attachment I - Excerpts from Ministry of Mines Annual Reports

From Ministry of Mines Annual Report 1916 p K 226

Minfile number: 92HNE084
Principle name: Cincinnati

The following is a list of assays made from samples taken from the various claims in the Cincinnati group of mineral claims at different times:—

SAMPLES TAKEN BY PROVINCIAL MINERALOGIST.			SAMPLES TAKEN BY ASSISTANT PROVINCIAL MINERALOGIST.			SAMPLES TAKEN BY WM. M. BREWER.		
Gold.	Silver.	Copper.	Gold.	Silver.	Copper.	Gold.	Silver.	Copper.
Oz.	Oz.	Per Cent.	Oz.	Oz.	Per Cent.	Oz.	Oz.	Per Cent.
0.02	Trace	1.2	...	...	1.5	Trace	0.2	1.5
...	...	1.53	...	...	2.3	...	...	...
0.04	Trace	1.5	...	...	1.1	...	...	...
...	...	...	...	...	1.7	...	...	...
...	...	...	...	...	0.5	...	...	...

When these results are compared, it is interesting to note how little difference there is between the various samplings, indicating the homogeneity of the material that makes up the mineral-bearing zone.

Attachment I - Excerpts from Ministry of Mines Annual Reports

From Ministry of Mines Annual Report 1917 p F 233

Minfile number: various
Names: Aspen Grove

The Aspen Grove Mining Company, of Vancouver, operating under options Aspen Grove. of purchase of some forty-odd claims in the northern camp, began operations in hope of developing concentrations of ore that would permit of shipping with profit. In this they were disappointed. The manager informs me that he was not authorized to follow up low-grade ore, and is therefore unable to make authoritative statements as to quantity and quality; but he is of the opinion that in this camp very large bodies of commercial ore will be found, and that with modern metallurgical practice—i.e., flotation—a very profitable industry will eventuate.

About the end of the year H. H. Schmidt signed a lease on the *Big Sioux* for a term of five years. The lessee is R. R. Hedley, of Vancouver.

Attachment I - Excerpts from Ministry of Mines Annual Reports

From Ministry of Mines Annual Report Number 1918 p K 239

Aspen Grove Camp

9 GEO. 5

CENTRAL DISTRICT (No. 3).

K 239

Crown-granted. This district first came into prominence about 1900, since which time there has been spasmodic attempts made at development, but no really serious work has been accomplished as yet. The mineralization is widespread and consists principally of chalcocite scattered through the volcanic country-rock, with considerable amounts of native copper in places. In a few places shafts have been sunk on fractures carrying high-grade ore consisting of native copper and chalcocite, probably largely the result of secondary enrichment. Shipments have been made from these workings, but the aggregate tonnage has not been of very great amount. The camp was reported on by W. Fleet Robertson, Provincial Mineralogist, in 1901; by A. A. Johnson, of the Canadian Geological Survey, in 1904; by J. D. Galloway, Assistant Provincial Mineralogist, in 1913; and by W. M. Brewer, M.E., in 1915. The writer spent several days in this district during the month of July. Samples were taken and forwarded to the Provincial Assay Office for assay; these results checked so closely with those published in the reports above referred to that it is considered superfluous to repeat them here, particularly as there has been no recent development-work of importance carried out.

During the past year a company was organized under the presidency of J. E. Bate, of Aspen Grove, for the purpose of consolidating sixty of the claims into one group. An option has recently been taken by Eastern interests on the holdings of this country, as well as on several other groups of claims, with the intention of thoroughly prospecting the ground by diamond-drilling. It is the intention to start operations in the spring.

Donohoe Mines, Stump Lake.—The workings at the *Joshua* shaft were unwatered early in the year to a depth of 300 feet for the purpose of having an examination made by Mr. Leedy, of Seattle. No further developments have been reported.

Mary Reynolds.—R. R. Hedley, of Nicola, has secured an option on this property and has been taking out ore and doing some development-work on the 45-foot level. Last reports mentioned 50 tons of ore on the dump, but no shipments made.

Attachment I - Excerpts from Ministry of Mines Annual Reports

From Ministry of Mines Annual Report

1928 p 222

Aspen Grove Camp

ASPEN GROVE.

Although no recent work has been carried on in this camp, it may be well to make mention of the wide distribution of low-grade copper mineralization that is identified with recent volcanic-flow rocks in this area. The camp was reported on by John D. Galloway in the Annual Report for 1913. For the greater part the mineralization is represented by sparse inclusions of native copper, chalcocite, chalcopyrite, and bornite in basalt and in fracture-planes in breccias and amygdaloids. Some zones of shearing are also developed in the underlying Nicola formation. Samples taken from the several claims range in content from silver nil to 22 oz. to the ton; copper, 0.2 per cent. to 22 per cent. Higher values may be found under favourable conditions and some shipments of native copper and chalcocite ore have been made in the past.

The mineralized zone covers an area of about 10 miles in length and from 1 to 2 miles wide, more or less paralleling the road between Merritt and Princeton and at a mean distance of approximately 18 miles from the former town. It is identified with a series of ridges reaching to an elevation of approximately 4,500 feet above sea-level that form a distinctive feature of the surrounding rolling upland country.

While no evidence of the outcrop of plutonic rocks, to which the mineralization might be related, has been found in the area, and, in general, it may be said that the mineralization is confined to recent effusives, there is some variety in the nature of its occurrence, as may be gathered from the following notes upon several of the mineral claims:—

At the southern extremity of the zone. A shear-zone about 80 feet wide, as exposed in a tunnel and two open-cuts, in dacite or latite. A sample taken across 30 feet, showing fairly general distribution of oxidized copper mineral, assayed: Gold trace; silver, 0.1 oz. to the ton; copper, 0.3 per cent.

About 2 miles north of *Daisy*, scattered mineralization in shear-zones in breccia-flow. Two shallow shafts and several open-cuts prove a length of about 350 feet on one zone; at a distance of approximately a quarter of a mile east from these workings a 4-foot zone of shearing with a north-east, south-west strike shows considerable oxidized mineralization where it crosses a band of crystalline limestone.