

81-#770-9581

A REPORT
ON THE
GEOLOGICAL MAPPING
GEOCHEMICAL SOIL SAMPLING
AND
MAGNETOMETRIC SURVEYS
ON THE
A & W
CLAIMS
SOWAQUA CREEK
HOPE AREA
NEW WESTMINSTER MINING DIVISION
BRITISH COLUMBIA
FOR
ALTAR GOLD & RESOURCES LTD.

BY

C.T. PASIEKA, P.ENG.

NOVEMBER 21, 1980

Reference Sheet: 92H/6

Coordinates: 49⁰ 23' N
121⁰ 11' W

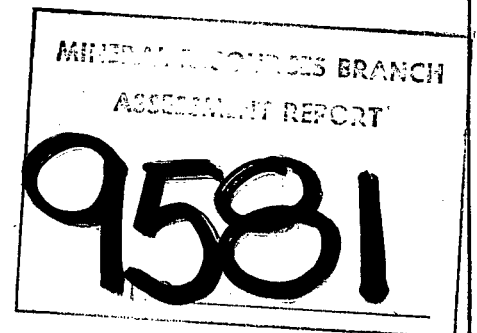


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SUMMARY

An exploration programme consisting of geological mapping, geochemical and magnetometric surveys has recently been completed on the A & W Claim 584 (9) in the Sowaqua Creek Area, New Westminster Mining Division, British Columbia. An area of interest has been located in the SW sector of the claim consisting of clusters of anomalously high gold values in an area underlain by highly altered pelites marginal to a serpentized granitoid intrusive. Assays derived from limited outcrop yielded significant gold values i.e. .01 ounces per ton. It is recommended that the area be further investigated by means of bulldozer stripping followed by detailed geological mapping and sampling. Should the surface results prove encouraging the ongoing programme would include sub-surface sampling by means of diamond core drilling.

The initial phase of this programme would entail the expenditure of an estimated \$10,260.00



ALTAR GOLD AND RESOURCES LTD

A and W CLAIMS

SOWAQUA CREEK AREA

NEW WESTMINSTER MINING DIVISION

BRITISH COLUMBIA

SHEET 2211/6 SCALE 1:50 000

PROPERTY

The property under discussion, hereinafter referred to as the A & W Claim, consists of 12 units located within the Sowaqua Creek valley, Hope area, New Westminster Mining Division, Province of British Columbia. A & W Claim, No. 584 (9) 12 units.

LOCATION AND ACCESS

The A & W Claim is situated 18km due east of Hope, B.C. and lies within the Sowaqua Creek valley. Access to the property is by means of a secondary road extending from Hope up the Coquihalla River to the outlet of Sowaqua Creek and thence by means of logging roads proceeding up the Sowaqua valley to the SE. Access is available during the summer months to four-wheel drive traffic, however some up-grading with a bulldozer would facilitate normal vehicular traffic. During the winter months the road would require extensive servicing and snow removal. The Town of Hope, B.C. is the nearest center to the property and offers a source of labour and supplies. Hope is serviced by the Trans-Canada Highway and Canadian Pacific Railway.

TOPOGRAPHY AND VEGETATION

The surface presented by the property is generally rugged with elevation varying from 1900' to 4400' ASL. The area of the property is generally timber covered, with commercial to sub-commercial fir, pine and hemlock along the upper reaches of the Sowaqua Creek valley and intermittent stands of deciduous trees occurring along the valley floor. Outcrop available for observation is generally limited due to the extensive overburden consisting of glacial till

and fluvioatile deposits along the valley floor and thin but continuous overburden along the upper flanks of the Sowaqua Creek Valley. Water and timber for mining and exploration purposes is in ample supply.

HISTORY

The early history of the exploration activity on the property is not known in detail. Placer activity in the area was wide spread during the early part of the century with interest declining during the '30's, and thence accelerating in the last decade. Exploration for vein deposits of base and precious metals has been restricted to prospecting by individuals due to difficult access until recent times. Some 10km to the north of the property gold in silicious veins has been known to occur near Fifteen Mile Creek. Currently, Caroline Mines Ltd. is readying a property for production at that site.

GEOLOGY

The A & W Claim overlies a portion of a series of rocks extending in age from Carboniferous to Lower Cretaceous. Mesozoic sediments and volcanics are frequently intruded by acidic rocks of the Coast Intrusive Series and earlier intrusives.

The various facies present within the limits of the property are summarized as follows:

1. Pelite and volcanic sandstone. Underlying the bulk of the map area this unit varies widely with a gradation from east to west. In most outcrops east of the access road a distinctly banded nature is evident with medium

light grey bands to one centimeter comprising between 20% and 30% of the mass within a very dark grey to black more massive ground mass. Both are very fine grained and while the banding appears to be a primary structure, the lighter bands may be in fact, a product of bleaching adjacent to fracture planes. The banded nature decreases somewhat to the south-westward. On the western flank, several outcrops of a lighter grey distinctly coarser facies with a trace of calcareous and occasionally weakly haematite stained facies, termed 1B in the more pelitic 1A. Benched outcrops suggest that these are slightly more resistant beds within the same unit, which tend to form the benches while the softer pelite shows a stronger tendency to erosion. Less regular variations within this unit include minor quartz veinlets particularly evident in the vicinity of 14+00N and 11+50W. Also present are minor secondary pyrite veinlets both here and elsewhere observed in float material. In addition, intense limonite staining is evident adjacent to sills of granodiorite.

2. Dark green, chloritized pelite. This rock type is confined to the SW corner of the property and is almost certainly an alteration product of unit 1. Light, pastel green patches in indistinct, irregular contact with varying shades of grey. It is uniformly very fine grained to amorphous with the lithology varying from cherty through partially devitrified to more wide spread distinctly softer fluidy composition.
3. Dark coloured, porphoritic dyke. This rock type is very limited in aerial extent and is probably of volcanic origin. The rock is very dark greenish grey, with a fine grained silicious ground mass with deep green pyroxene and hornblend phenocrysts to 3mm in length comprising 5% to 10% of the

total mass. This unit is not readily distinguishable from facies of unit 1 when observed in outcrop.

4. Granodiorite. This rock type is particularly well exposed in the NE sector of the map area. It is generally bone white in colour, and occurs as outcrops of low relief and rarely as more prominent bluffs. Accessory minerals are rare and occasionally absent. The manner of occurrence is that of sill like bodies, trending N-S and dipping shallowly to the east. The northern most outcrops depict very weak foliation.
5. Serpentinized granitoid intrusive. This facies is confined to the SE corner of the map area. The granitic texture is preserved in lithology however the rock is now almost entirely altered to a very soft chloritic and talcy aggregate containing minor clusters of radiating acicular crystals occurring in the manner of andalusite.
6. Alluvium. The alluvium generally consists of poorly sorted, unconsolidated cobbles, boulders and minor fines of outcropping lithologies with minor coarse conglomerates and rare boulders of peridotite.

WORK PROGRAMME

During the period October 13 to November 4th, 1980, an exploration programme consisting of line cutting, geological mapping, geochemical soil sampling and magnetometric survey was carried out over the A & W Claim, Sowaqua Creek Area, New Westminster Mining Division, British Columbia. The field work was carried out by Mr. N.W. Stacey, Geologist, under the direction of Mr. L.B. Goldsmith, P.Eng.

A control grid was laid out over the property with a NS baseline laid out with it's origin coincident with the legal corner post and striking astronomic north. Grid lines were laid out at 100 meter intervals and stations established along the grid lines at 25 meter intervals.

At each 25 meter station on the grid a soil sample was extracted from the B Horizon, i.e. the soil immediately below the humus layer. Sample depth varied from a few inches to 1.5'. Individual samples were placed in high-strength manila envelopes, catalogued, air dried. The samples were dispatched to Acme Analytical Laboratories of Vancouver, B.C. where the soils were ground and screened to -80 mesh, extracted with hot aquaesia and analysed for gold content using the atomic absorption method under the direction of Mr. Dean Toy. Analyses were then plotted in their appropriate geographic position on the accompanying plan.

The theory behind the technique of geochemical soil sampling is that metallic ions may migrate through the overburden cover from their source by means of solution and capillary action. These metallic ions are absorbed to grains of soil near surface and are amenable to chemical detection. Soil with anomalously high metallic content is usually indicative of a nearby bedrock source of that particular mineral. Gold is normally insoluble in inorganic reagents, however in the presence of certain organic acids, may form covalent chelate compounds and may thus behave similarly to base metals.

A Sharpe MF-1 flux gate magnetometer was used during the course of the magnetometric survey. This instrument is capable of measuring the vertical component of the earth's magnetic field. Most rocks have differing magnetic susceptibility so that a magnetic survey would normally indicate the loci of

points of demarcation between various rock types.

During the course of the magnetometric and geochemical soil sampling survey, geological observations were carried out. All outcrops were plotted in their appropriate geographical positions as well as data pertaining to the lithology, minerology and orientation.

DISCUSSION OF RESULTS

The geological mapping, geochemical soil sampling and magnetometric survey indicate an area worthy of further investigation in the SW quadrant of the property. Geological mapping indicates that the area is underlain by chloritized pelites marginal to a partially serpentinized granitoid intrusive. The magnetic survey indicates only minor differences in magnetic susceptibility with no apparent linearity visible. The geochemical analyses indicate clusters of anomalously high readings, however no lineal trend is indicated. The tenor of the geochemical readings warrants further investigation in the area by means of bulldozer stripping. Additional information derived from a stripping programme could then lead to a programme of sub-surface sampling by means of diamond drilling.

Sampling of outcrop in the SW quadrant were available and consistently yielded .01 ounces of gold per ton, so that an extensive sampling programme in that sector is warranted.

On occasion, isolated readings of up to 8 times background are indicated by the geochemical survey occurring at random over other sectors of the property. These anomalous readings usually do not have any build up or continuity and are thus treated as erratics.

CONCLUSIONS AND RECOMMENDATIONS

The recently completed exploration programme consisting of geological mapping and geochemical and magnetometric surveys indicate an area in the SW quadrant of the A & W Claim worthy of further investigation. Further exploration efforts on the property in that sector would consist of extensive bulldozer stripping followed by detailed geological mapping and sampling. Should the results of the above work prove favourable the area would be sampled at depth by means of diamond drilling.

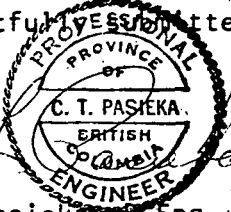
Estimated costs for carrying out the above programme are presented as follows:

PHASE 1

1. Bulldozer stripping, 50 hrs. D8 with rippers @ \$95.00 per hr.	\$ 4,750.00
2. Detailed geological mapping	1,200.00
3. Sampling and assaying	1,000.00
4. Transport and Accomodation	1,600.00
5. Contingency @ 20%	<u>1,710.00</u>
Total	<u>\$10,260.00</u>

Contingent upon the results a diamond drilling programme entailing some 1500' of BQ Wireline core drilling would follow.

Respectfully submitted,


C.T. Pasieka, P.Eng.

ADDENDUM

The following notes are to be attached and become part of a report entitled, " A Report on the Geological Mapping, Geochemical Soil Sampling and Magnetometric Surveys on the A & W Claims, Sowaga Creek, New Westminster Mining Division, British Columbia, for Altar Gold and Resources, Ltd., by C. T. Pasieka, P.Eng., November 21, 1980."

A review of available data indicates that a diamond drilling programme would be necessary to complete an economic assessment of the property. Estimated costs for carrying out the proposed drilling programme are estimated as follows:

PHASE 2

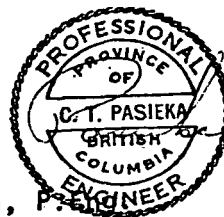
1. Diamond Drilling 2000' BQ Wireline @ \$26/ft.	\$52,000.00
2. Sampling and assaying	3,000.00
3. Consulting and drill supervision	9,400.00
4. Camp and Transport	6,200.00
5. Contingency	<u>14,120.00</u>
Total Phase 2	<u>\$84,720.00</u>

Total Phase 1 and Phase 2

\$94,980.00

March 26, 1981.


C.T. Pasieka, P.Eng.



C. T. Pasieka P.Eng.

BOX 175, MAIN POSTAL STATION

KAMLOOPS, B.C. V2C 5K6

CERTIFICATION

I, Clemens Terence Pasieka, of the City of Kamloops, in the Province of British Columbia, hereby certify that:

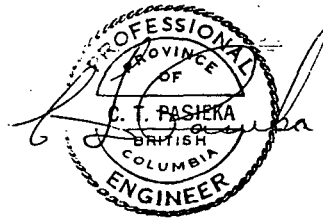
1. I am a geologist and reside at #7 - 1570 Freshfield Road, Kamloops, B.C.
2. I am a graduate of University College, Dublin, B.Sc. 1963.
3. I have been practicing my profession as a geologist for seventeen years.
4. That I am a member of the Associations of Professional Engineers of the Provinces of Alberta, Saskatchewan, and British Columbia.
5. I have no interest directly or indirectly in the property or securities of Altar Gold & Resources Ltd., nor do I expect to receive any such interest in the property or the securities of Altar Gold & Resources Ltd.
6. That this report is based on data derived from work carried out under my supervision on the property, from personal experience in the area, and from relevant government and private publications.

Dated this 21st day of November, 1980, in the City of Kamloops, in the Province of British Columbia.

C.T. Pasieka, P.Eng.

CONSENT

I, Clemens Terence Pasieka, P.Eng. hereby consent to the use of a report entitled " A Report on the Geological Mapping, Geochemical Soil Sampling and Magnetometric Surveys on the A & W Claims, Sowaqua Creek, Hope Area, New Westminster Mining Division, British Columbia, for Altar Gold & Resources Ltd. , dated November 21, 1980" in a submission to the Vancouver Stock Exchange and/or the British Columbia Securities Commission.



C.T. Pasieka, B.Sc. P.Eng.

BIBLIOGRAPHY

1. British Columbia Ministry of Mines Annual Reports, 1922 - 23.
2. Cairnes, C.E. G.S.C. Memoir 139, 1924.
3. Crickmay, Horwood & Snow, G.S.C. Map 737A, 1964.
4. Allen, Alfred R. - Report - October 23, 1979.
5. C.T. Pasieka, P.Eng. Report - May 4, 1980.

STATEMENT OF COSTS

I, Clemens Terence Pasieka, hereby certify that the following costs were incurred by, invoiced to and paid by Altar Gold and Resources Ltd. during the course of the September 1980 exploration programme on the A & W Claim (#584 (9)). New Westminster Mining Division, British Columbia.

Geological mapping and geochemical soil sampling programme
by L.B. Goldsmith, B.Sc. \$16,147.13

Sample analyses by Acme Laboratories Ltd.
539 soils @ \$3.25
5 rock geochem @ \$8.75 2,066.95

Report by C.T. Pasieka, P.Eng. 1,000.00

Total \$19,214.98

Signed,



C.T. Pasieka, P.Eng.

November 21, 1980

C. T. Pasieka P.Eng.

BOX 175, MAIN POSTAL STATION

KAMLOOPS, B.C. V2C 5K6

LIST OF PERSONNEL

Norman Stacey, B.Sc.	Vancouver, B.C.	Geologist	Sept. 7-14, 16-24, 1980 \$220.00/day
L.B. Goldsmith, B.Sc.	Vancouver, B.C.	Geologist	Sept. 6, 13, 14, 23, 1980 \$300.00/day
K. McIntosh	Vancouver, B.C.	Sampler	Sept. 7-25, 1980 \$130.00/day
I. Frances	Vancouver, B.C.	Sampler	Sept. 7, 13-25, 1980 \$130.00/day
J. Boucher	Vancouver, B.C.	Sampler	Sept. 11-13, 1980 \$130.00/day
G. Bennett	Vancouver, B.C.	Sampler	Sept. 14-23, 1980 \$130.00/day
D. Falkins	Vancouver, B.C.	Sampler	Sept. 11-13, 1980 \$130.00/day
M. Izard	Vancouver, B.C.	Drafts- Woman	Contract \$700.00
C.T. Pasieka	Kamloops, B.C.	Geologist	Sept. 4, 5, Nov. 20, 21, 1980 \$250.00/day

Signed,



C.T. Pasieka, P. Eng.



November 21, 1980

C. T. Pasieka P. Eng.

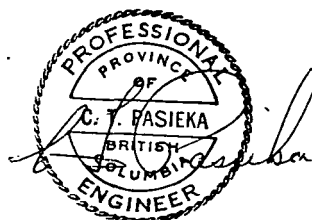
BOX 175, MAIN POSTAL STATION

KAMLOOPS, B.C. V2C 5K6

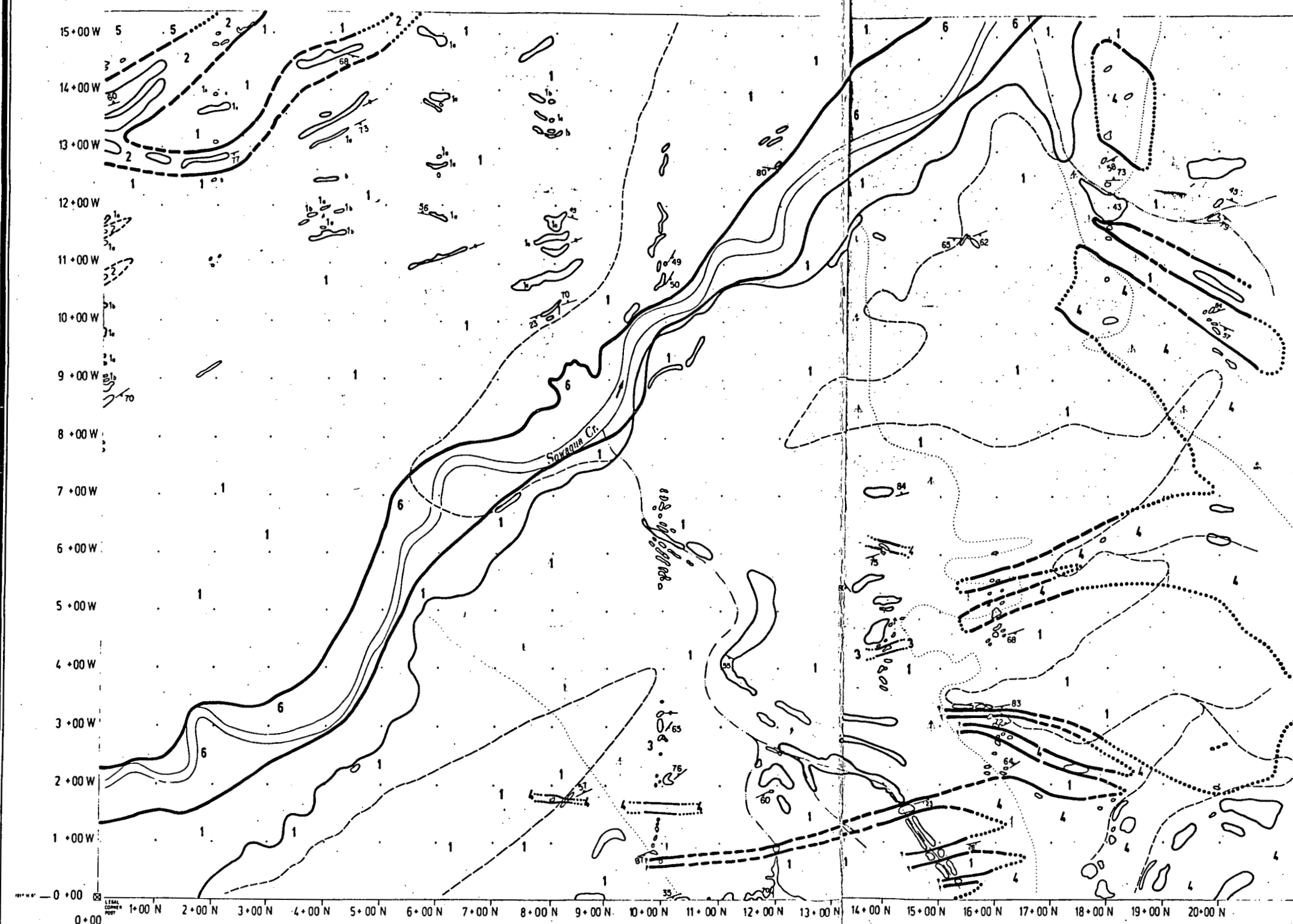
ADDENDUM

November 21, 1980.

Information from the field indicates the possibility of oversteaking of the A & W Claim No. 584 (9)/ As soon as weather conditions permit the A & W Claim boundaries should be verified by a certified land surveyor and the title verified.



C.T. Pasieka, P.Eng.



LEGEND

SYMBOLS

- STREAM
- REGULATED ROAD
- OVERPASS/LOADING ROAD
- TRAIL
- CLEARING WITH SP. VERTICAL STAKE AND SP
- OUTCROP
- CONTACTS: DEFINED, INFERRED, ASSUMED

LITHOLOGIES

- 6 RECENT ALLUVIUM
- 5 SOFT, PARTIALLY SERPENTINIZED GRANITOID INTRUSIVE
- 4 GRANODIORITE
- 3 DARK PORPHYRITIC DYKE
- 2 LIGHT GREEN AND DARK GREY MOTTLED WEAKLY CHLORITISED PELITE
- PELITE AND VOLCANIC SANDSTONE
- 1a PELITIC
- 1b ANCOSC

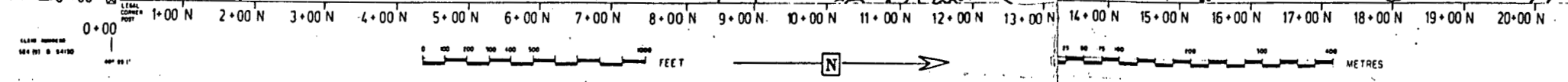
Surficial Geology

ALTAR GOLD & RESOURCES LTD.

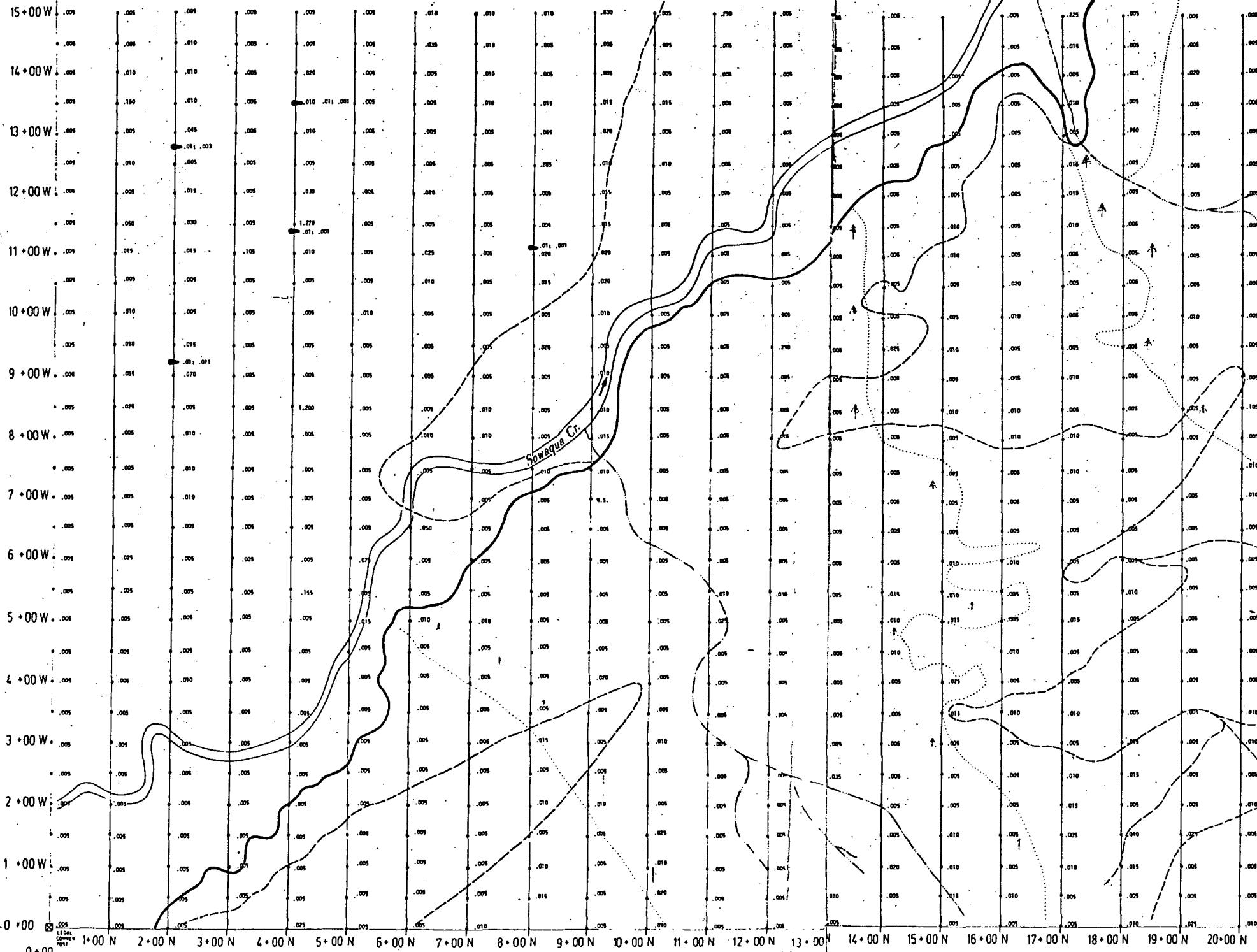
A & W PROPERTY
 HOPE, B.C. NEW WESTMINSTER M.D.
 N.T.S. 92.H 6

NW STACEY, CONSULTANT
 L.B. GOLDSMITH, P. ENG.
 CONSULTING ENGINEER







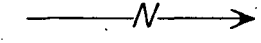
ARCTEX ENGINEERING SERVICES NOVEMBER 1980



MINERAL SERVICES BRANCH
 ASSESSMENT REPORT
9581
 NO.



LEGEND

-  STREAM
-  ROAD
-  SHOWN ON L.D.M. 1011
-  TREE LINE
-  SOIL SAMPLE LOCATION, Au ppm
-  ROCK SAMPLE LOCATION, Ag, Au, Pt, As, Cu, Zn
- 

**GEOCHEMISTRY
(GOLD)**

**ALTAR GOLD
& RESOURCES LTD.**

A & W PROPERTY
HOPE, B.C. NEW WESTMINSTER M.D.
N.T.S. 92 H 6

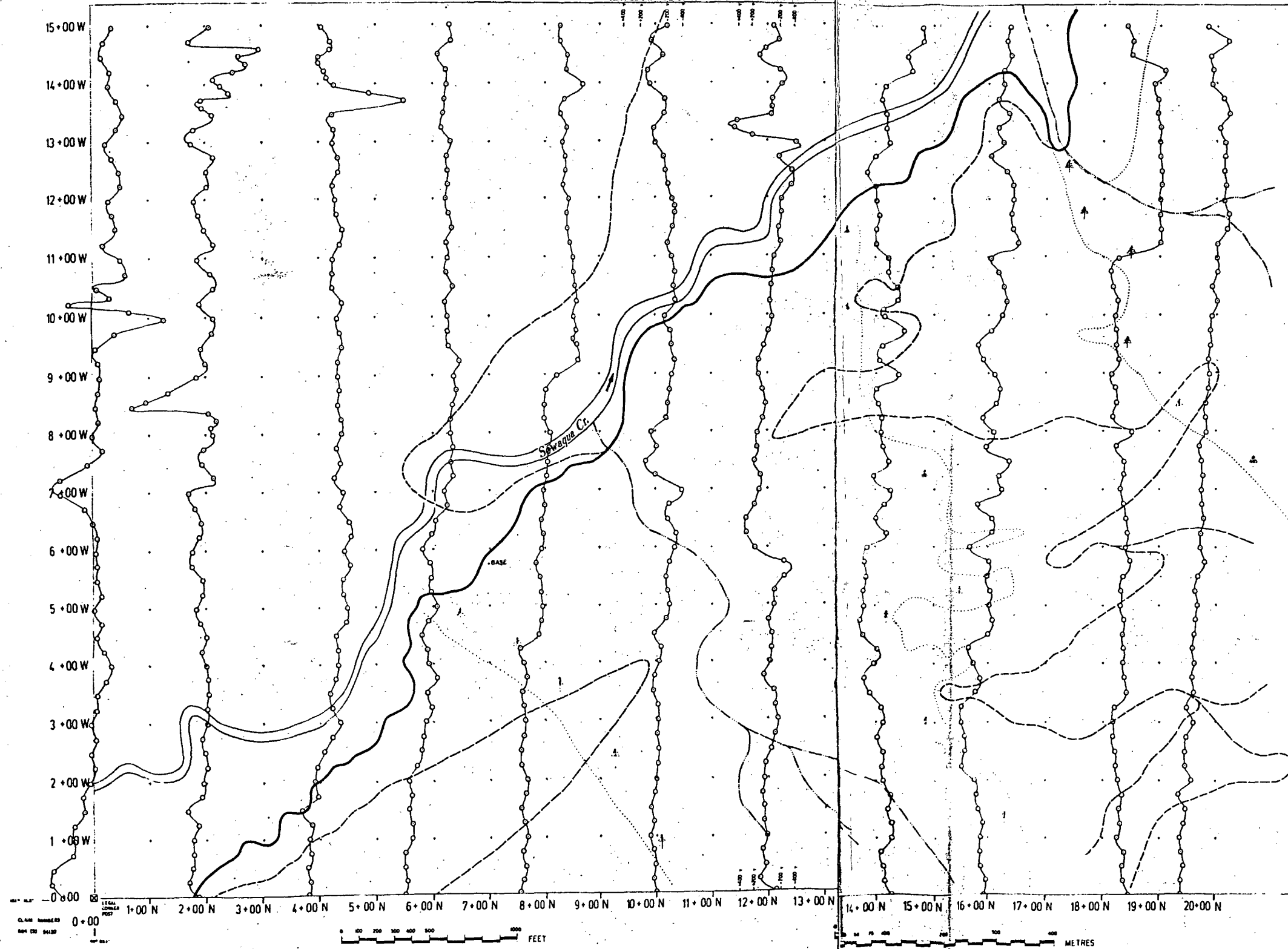
NW STACEY, REGISTERED
L.B. GOLDSMITH, P. Eng.
CONSULTING ENGINEER

ARCTEX ENGINEERING SERVICES NOVEMBER 1980

CLASSIFICATION
S44 (92) 3400

MINERAL RESOURCES BRANCH
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9581
NO.



LEGEND

STREAM
 READABLE ROAD
 OVERTHROW LOGGING ROAD
 GUIDELINE
 READING PROFILE
 TREE LINE

-400 +200 0 -200 -400
 N →

MINERAL RESOURCES BR
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 NO.

MAGNETIC PROFILES

ALTAR GOLD
 & RESOURCES LTD.

A & W PROPERTY
 HOPE, B.C. NEW WESTMINSTER M.D.
 N.T.S. 92 H 6

NW STACEY, GEOLOGIST
 L.B. GOLDSMITH, P. Eng.
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