

LOG NO: 0210	RD.
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1987 Drill Programme Results

Assessment Report on the
Discovery 1 and Discovery 2 Claims

Liard Mining Division
British Columbia
Canada

N.T.S. 94 E/G
57 25' North Latitude
127 22" West Longitude

Owner: Duke Minerals Ltd.
Operator: Duke Minerals Ltd.

Work Done By:

Baseline Resources Ltd.
Drilcor

Report By: John Peters, B.Sc.

MINERAL BRANCH
ASSESSMENT REPORT

117,019

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ARIS SUMMARY SHEET

District Geologist, Smithers

Off Confidential: 89.01.19

ASSESSMENT REPORT 17019

MINING DIVISION: Liard

PROPERTY: Discovery
LOCATION: LAT 57 27 00 LONG 127 23 00
UTM 09 6368421 597018
NTS 094E06W

CLAIM(S): Discovery 1
OPERATOR(S): Duke Min.
AUTHOR(S): Peters, L.; Price, B.J.
REPORT YEAR: 1987, 41 Pages

COMMODITIES
SEARCHED FOR: Gold

GEOLOGICAL
SUMMARY: The claims are covered by glacial till up to 30 metres deep. Adjacent geology and drilling results indicate that the property is underlain by volcanics of the Toodoggone Group.

WORK
DONE: Drilling
DIAD 430.1 m 7 hole(s); BQ
Map(s) - 1; Scale(s) - 1:5000
ROCK 30 sample(s) ;ME

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	Drill Location Map	In Pocket
		In Pocket

Baseline Work Summary

Camp Set Up, Mob and Demob	15
Cut Drill, Chopper pads	10
Assist on Drill Moves	8
Split and Log Core	10
Camp Days (Office work, cut firewood, weather ext.)	<u>10</u>
Total	<u>53</u> man days

I Introduction

LOCATION AND ACCESS

The DISCOVERY 1 and 2 claims are a precious metals prospect located in the Toodoggone River area of north-central British Columbia approximately 300 km north of Smithers, B.C., as shown on Fig 1. The claims are in the Liard Mining Division at 57° 25' North Latitude and 127° 22' West Longitude.

The claims cover the gently sloping hillside immediately north of Metsantan Lake at an altitude of 1300 to 1350 m.

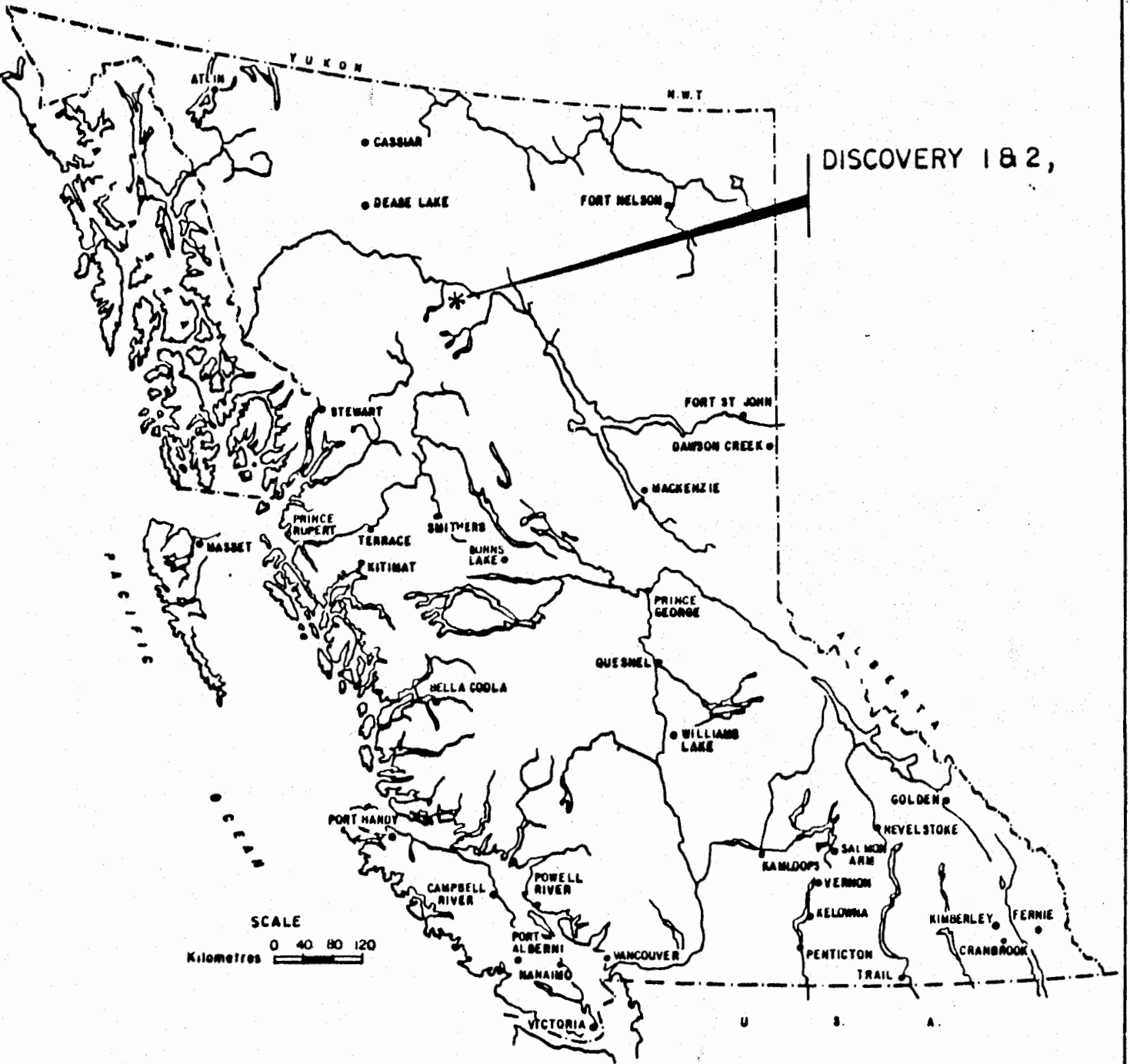
A 1600 m airstrip capable of handling aircraft as large as a Hercules is located at Sturdee Valley, approximately 20 km southeast from the claims. Alternately, fixed wing aircraft equipped with floats can land on Metsantan Lake.

PROPERTY

Duke Minerals Ltd. holds an option on two unpatented mineral claims, the DISCOVERY 1 and 2 in the Liard Mining Division:

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>
DISCOVERY 1	12	3254
DISCOVERY 2	20	3255

These claims consist of 32 units covering 800 hectares. Claim boundaries are shown on Fig. 1A



DISCOVERY 1 & 2,

SCALE
 0 40 80 120
 Kilometres

FIG. 1
DUKE MINERALS LTD.
DISCOVERY 1,2 LIARD MINING DIVISION BRITISH COLUMBIA
LOCATION MAP
NTS 94E/6 SCALE
BASELINE RESOURCES LTD.

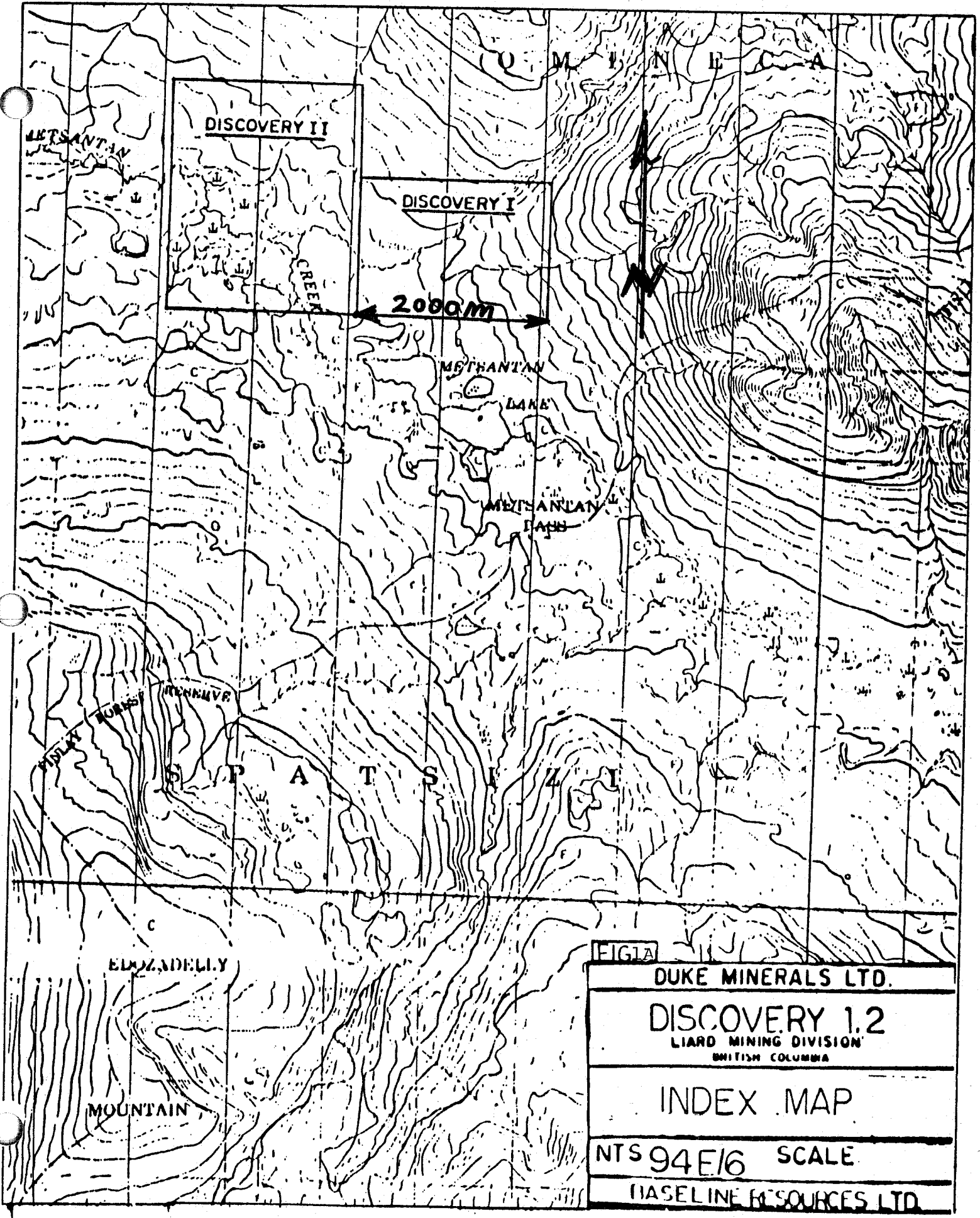


FIG 1A

DUKE MINERALS LTD.

DISCOVERY 1.2

LIARD MINING DIVISION
BRITISH COLUMBIA

INDEX MAP

NTS 94E/6 SCALE

BASELINE RESOURCES LTD.

HISTORY

Placer gold was first found and mined in the Toodoggone River area near the junction of McClair Creek and Toodoggone River by Charles McClair in 1925. Placer mining was continued on a larger scale during the 1930's. In the 1930's Cominco found and explored several lead-zinc occurrences: near the head of Thutade Lake, and 1,500 metres southwest of the Chappelle (Baker Mine) gold-silver deposit.

Mineral exploration in the area was relatively quiet until the late 1960's when numerous companies began searching for large tonnage copper and molybdenum porphyry deposits. In 1969, Kennco Explorations found the gold and silver mineralization on the Chappelle property. Subsequent exploration during 1969-1974 by Kennco resulted in the discovery of most of the gold and silver occurrences on what are now the Baker and Lawyers properties. Other gold and silver occurrences were found by other mining companies working the district at the same time.

In 1974, DuPont of Canada optioned the Chappelle claims from Kennco, and in March 1980, placed the Baker Mine into production at a rate of 100 tons per day. The mine closed in 1982 due to the exhaustion of the known ore reserves.

In 1979, Serem Inc. optioned the Lawyers gold-silver prospect and has continued both surface and underground exploration since then. Kidd Creek Mines Ltd. explored the AL claim for several years and made a number of discoveries. These claims are now held by Energex. Other exploration companies active in the area in recent years include Newmont (SHAS and GOLDEN LION prospects), St. Joe (SILVER POND), DuPont (BILL), Anaconda (RON prospect) and Lacana (METSANTAN).

The Toodoggone River area (NTS 94E) was one of the last regions of British Columbia to be geologically mapped and studied by either the Geological Survey of Canada or the B.C. Department of Mines. The Toodoggone volcanics had not been recognized as a

separate formation at the time of Kennco's gold discovery in 1969. The only regional geological map of the district is a comparatively recent (1977) 1:125,000 scale Open File (No. 483) map by the officers of the Geological Survey of Canada. Eisbacher of the GSC had been in the area between 1969-1971, but was mainly concerned with the Sustut sediments to the west (GSC Paper 70-68). Carter of the B.C. Department of Mines began mapping in 1971, and Schroeter has continued that work from 1974 to the present.

The B.C. Ministry of Energy, Mines and Petroleum Resources has published a comprehensive 1:50,000 scale geological map of the area of present interest in 1986, which includes all geological mapping to date, and locates all known mineral occurrences, structures, gossans, and alteration zones.

There is no record of previous exploration on the Discovery 1 and 2 claims.

The Discovery property was staked in 1985 to explore areas that appeared favourable relative to the adjacent Energex claim block on which several promising gold discoveries had been made in recent years. Duke Minerals Ltd. subsequently acquired options on the property.

GEOLOGY

The descriptions in Regional Geology and in Local Geology are based on recent geological mapping by the Geological Survey of Canada and the B.C. Ministry of Energy, Mines and Petroleum Resources which are published in G.S.C. Open File 438 and in the Ministry of Energy, Mines and Petroleum Resources publications, on Assessment Reports by various companies, and on our own observations. The Regional Geology is shown on the attachment marked. The local geology in the property area is shown on the attachment marked.

REGIONAL GEOLOGY

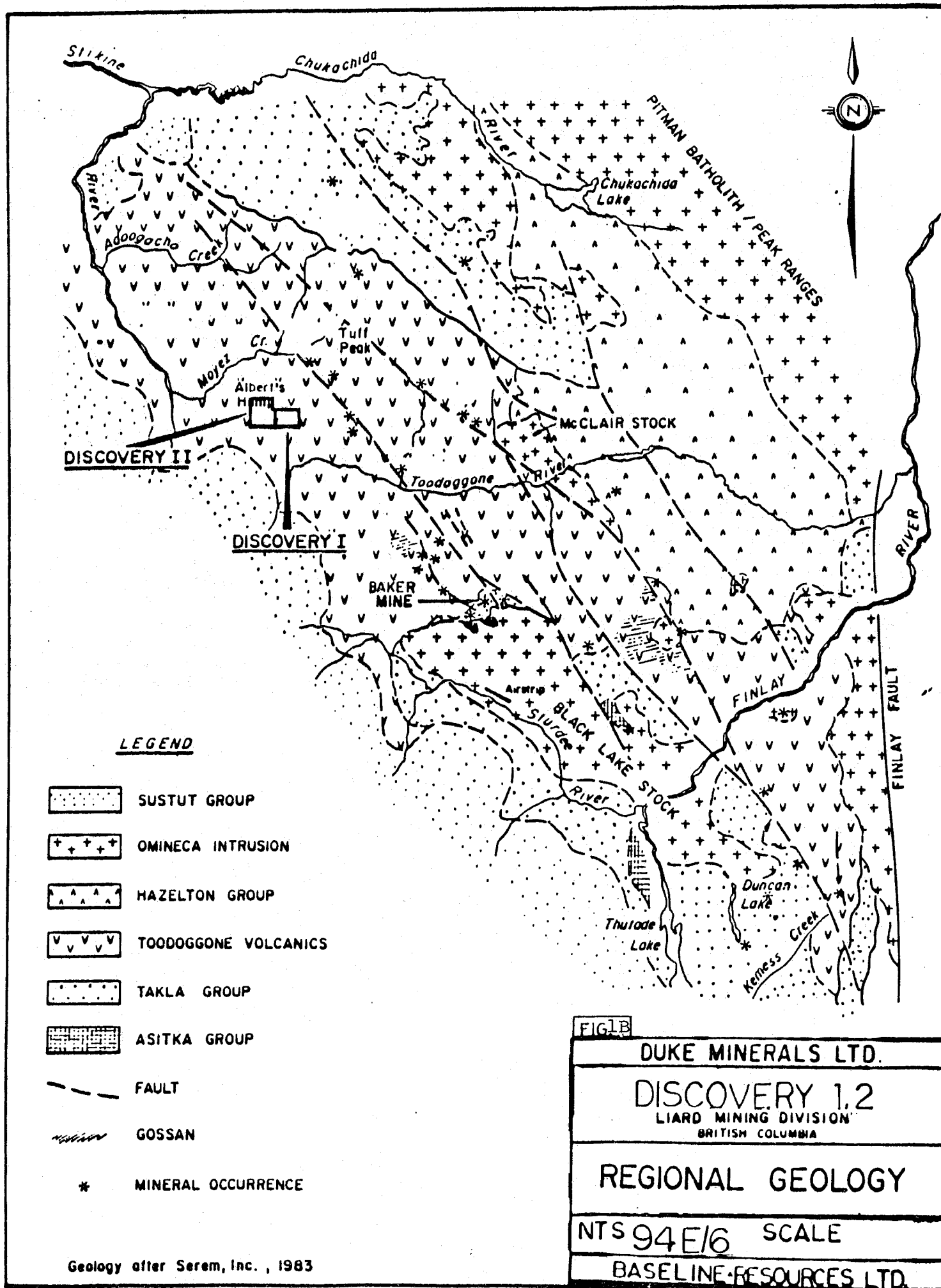
The Toodoggone River district lies within the eastern margin of the Intermontane Belt. It is on the Spatsizi Plateau, an open, gently rolling upland surface dissected by wide valleys. Treeline extends to about 1,400 m elevation, with tree cover being confined mainly to some of the major valleys. Outcrops are generally confined to steeper portions of ridges and to banks of creeks in deeply incised valleys.

The Toodoggone River district is underlain by volcanic rocks of the Takla Group of Upper Triassic age, which are intruded by granitic stocks of the Omineca Intrusions, and overlain by Jurassic and younger volcanics and sedimentary rocks.

The Takla Group rocks are mainly andesitic flows and pyroclastic rocks including augite porphyries and crystal and lapilli tuffs. Associated with the Takla rocks are fault block wedges of white crystalline limestone, up to 150 metres thick, belonging to the Asitka Group which is of Permian age. The Omineca Intrusions, of Jurassic and Cretaceous age, include medium-grained, equigranular pink to grey quartz monzonite and granodiorite. Some syenomonzonite bodies and quartz feldspar porphyry dykes may be feeders to the Toodoggone volcanic rocks which unconformably overlie the Takla Group.

The Toodoggone volcanics are a Jurassic, subaerial, intermediate, calcalkaline to alkaline, predominantly pyroclastic assemblage. This assemblage forms a northwesterly-trending belt 100 km long by 25 km wide, preserved between the Hazelton Group to the east, and the Sustut Group to the west.

To the west, flat-lying to gently west dipping Upper Cretaceous to Tertiary pebble conglomerates and sandstones of the Tango Creek Formation of the Sustut Group unconformably overlie Takla Group and Toodoggone volcanic rocks.



LEGEND




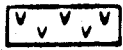





-  SUSTUT GROUP
-  OMINECA INTRUSION
-  HAZELTON GROUP
-  TOODOGGONE VOLCANICS
-  TAKLA GROUP
-  ASITKA GROUP
-  FAULT
-  GOSSAN
-  MINERAL OCCURRENCE

FIG. B

DUKE MINERALS LTD.

DISCOVERY 1,2
LIARD MINING DIVISION
BRITISH COLUMBIA

REGIONAL GEOLOGY

NTS 94E/6 SCALE

BASELINE RESOURCES LTD.

Geology after Serem, Inc., 1983

The Toodoggone volcanics dip gently to the west. The most obvious and probably most important structures in the area are long northwesterly trending fault systems (e.g., McClair System). Associated with these larger faults are abundant smaller splays. Northerly trending faults and block faults are also common.

Epithermal gold-silver mineralization has been found at several locations in the Toodoggone River area. At the Baker Mine, mineable reserves were reported to be 100,000 tons grading 0.92 oz. gold and 18.7 oz. silver per ton. At the Lawyers property, total reserves are reported to exceed 1,000,000 tons containing 0.21 oz. gold and 7.1 oz. silver. Kidd Creek Mines discovered six structurally controlled, gold mineralized alteration zones on the AL property.

No mineralization is presently known to occur within this claim area.

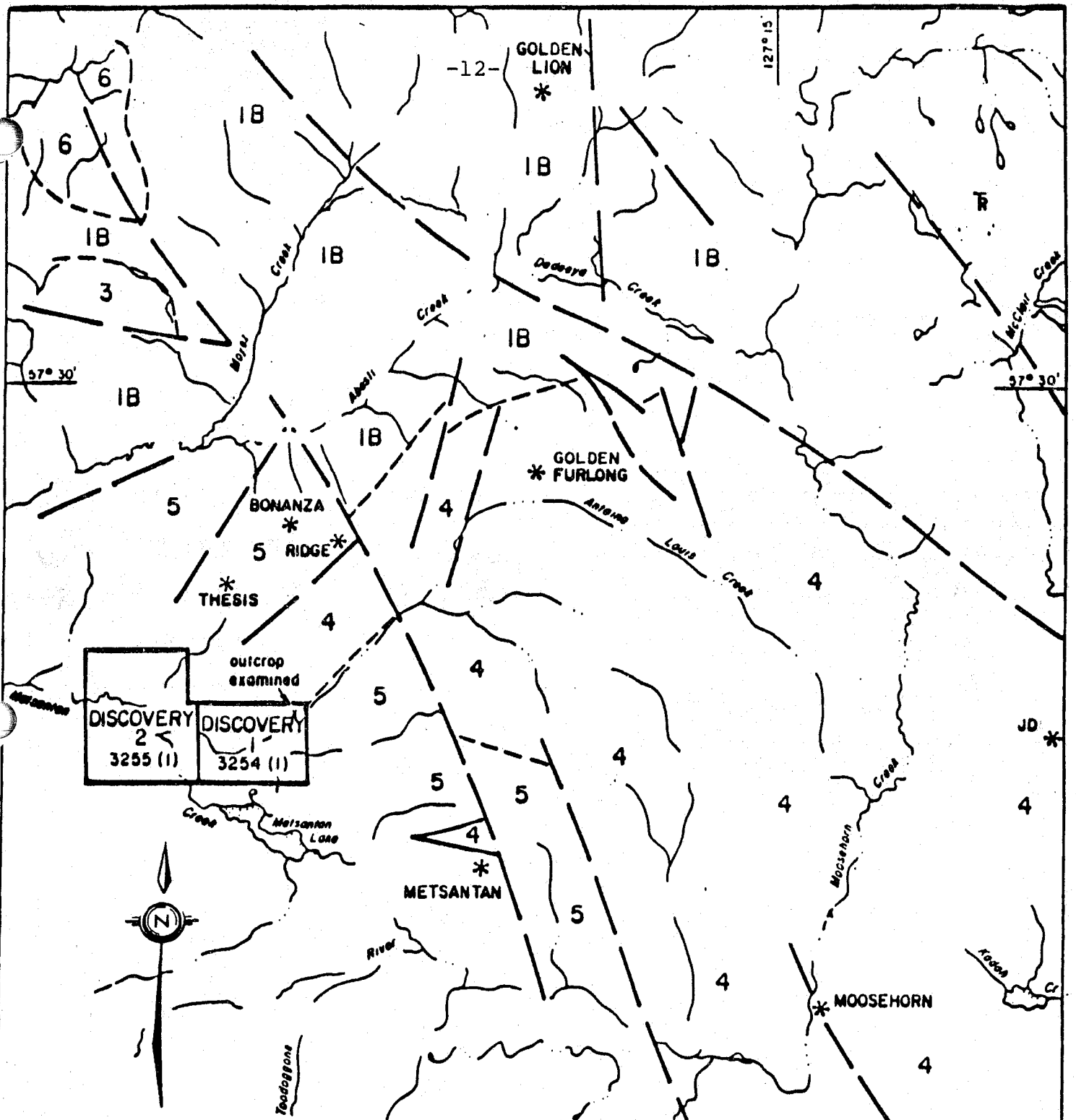
Kidd Creek Mines completed soil sampling surveys (100 x 50 m spacing) on their AL 5 and 6 claims, about 200 metres north of the north boundary of Discovery 1 and 2 claims, in 1981 and 1982. Their work showed the occurrence of both gold and silver soil anomalies, with gold values up to 50 ppb and silver values up to 4.1 ppm occurring on the AL 5 claim, west of the large southwest flowing creek, at about 1,300 m elevation.

In 1980-81 Lacana Mining found and explored the Metsantan gold-silver prospects, on the southeast flank of Metsantan Mountain, about 3,000 metres east of the Discovery 1 and 2 claims. A quartz stockwork zone with minor amounts of galena, sphalerite, chalcopyrite and pyrite cuts crystal to lithic tuff, which is locally pervasively epidotized. Lacana conducted both trenching and diamond drilling of these prospects, which were traced on surface for about 600 metres.

PROPERTY GEOLOGY

These claims cover low-lying gently sloping ground to the north of Metsantan Lake. Pits dug for the purpose of doing soil profiles and cut-banks along streams show that nearly all of this area is covered by a thick (up to 30m) layer of ablation glacial till. Only along the northern boundary of Discovery 1 where the slope steepens does the till layer become thin enough for soil geochemistry to be useful.

Correlation of outcrop on surrounding properties indicate that the Discovery 1 and 2 claims are underlain by volcanics of the Toodoggone Group. Extrapolation of the strike of Au-Ag mineralized shear zones on Energex's AL claims adjacent to the north indicate that they may cross the Discovery claims.



LEGEND

- | | | | |
|-----------|---------------------------|--|------------------------|
| T | Takla Group | | Gold - Silver Prospect |
| 6 | Pyroxene basalt intrusive | | Fault |
| 5 | Quartz - andesite flows | | Geological Contact |
| 4 | Andesitic lava flows | | |
| 3 | Crystal - lapilli tuffs | | |
| 1B | Ash flow sheets, tuffs | | |

Geology after Diakow (1983), & Panteliev (1982).

FIG 1C	
DUKE MINERALS LTD.	
DISCOVERY 1.2	
LIARD MINING DIVISION	
BRITISH COLUMBIA	
LOCAL GEOLOGY	
NTS 94E/6	SCALE
BASELINE RESOURCES LTD.	

Toodoggone 1987 Drill Results

In June and July of 1987, a grid was cut into the Discovery 1 claim; north-south lines between 9+00 W and 18+00 W at fifty meter spacings extending from 11+50 N down to 3+00 N, and east-west lines including lines 11+00 W, 10+00 W, 9+00 W, and 8+00 W.

An induced polarization geophysical survey was conducted on the grid using a Schlumberger array at 25m spacings, to determine suitable drill targets.

From September 1st through to 27th, 1987, a total of 1401' were drilled at 7 locations, using a diamond drill by Drilcor. Of the 1401' drilled, 472' were found to be overburden, leaving 929' drilled, composed mainly of the toodoggone volcanics.

The first drill hole, D-87-1, was located at 10+95 N 12+95 W, inclined at 45° due south and drilled a total of 297'. The second, D-87-2, was drilled at the same location, inclined 45°, due west reaching a depth of 160'.

D-87-3 and D-87-4 were drilled at 10+25 N 13+00 W, D-87-3 to a depth of 285', due south, at 55°, and D-87-4 to a depth of 289', due west at 45° inclination.

Holes D-87-5, located at 5+50 N 9+25 W, were abandoned at a depth of 114' and 25' respectively, due to the problems with the drill incurred by the overburden.

Hole D-87-7, at 9+75 N 13+00 W, was drilled due west to 215' at 50° inclination.

The core is stored at the drill site.

The toodoggone volcanics, i.e., Crystallithic Andesite Tuff with occasional orthoclase megacrysts, were found to be highly hematitic near fractures and were interrupted by calcitic breccias. Very few sulphides or quartz were noted. Assays of samples taken showed little or no gold present in areas drilled. See attached assay sheet.

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-1
 Co-ordinates: 10 + 95N, 12 + 95W
 Bearing: 180°
 Inclination: 45°

Depth (Ft.)	Description
0 - 82'	Dark grey boulder/pebble till including black-frey-white chert and orange jasper conglomerate boulders.
82 - 88'	Crystallithic tuff - purple with pinkish fragments - feldspars altered to clay (yellow and white - soft) - fairly fresh - minor magnetite and some calcite
88 - 97'	As above with minor faults and bleached sections - minor pyrite
97 - 112'	As above - hematitic faults and feldspars, corroded away - minor pyrite in bleached areas
112 - 132	Massive Crystallithic tuff - minor calcite veining - hematite and magnetite specks - fault gouge at 126 - 127'
132 - 147	As above - softer hematite staining - minor faulting
147 - 197	Massive Crystallithic tuff - few fractures - approximately 10% calcite in lacy fracture infillings - minor silica (jasper) in fracture at 187 - 188
197 - 239.5	Very massive Crystallithic tuff - purple - very fresh, almost no fractures
239.5 - 267	Crystallithic tuff - slightly bleached - minor slips coated with fine red hematitic mud - minor pyrite and chlorite - hematite increases downward - 265 - 267 - hematitic gouge
267 - 272	Faulted section with abundant chlorite, clay, fault breccia and gouge
272 - 297	Massive Crystallithic Tuff - minor hematite sPams (beyond fault zone) - slight bleaching - feldspars altered to clay - small patches of calcite

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-2
Co-ordinates: 10 + 95N, 12 + 95W
Bearing: 270°
Inclination: 45°

Depth	Description
0 - 97	Clay pebble/boulder till including red and green volcanics and diorites - hematite particles in clay at bedrock surface
97 - 135	Crystallithic Tuff - purple, andesitic, hematitic - hematite patches and fracture fillings with hematite (specularite) crystals - crackle fractures white white calcite 130.25 - 130.5 - minor drusy banded Quartz-calcite vein and speck of malachite
135 - 160	Hematitic Crystallithic Tuff - hematite in specularite plates replacing mafics - little fracture hematite - feldspars fresh and rock competent - minor calcite stringers - no sulphides

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-3
 Co-ordinates: 10 + 25N, 13 + 00W
 Bearing: 180°
 Inclination: 55°

Depth	Description
0 - 43'	Clay pebble/boulder till - dark brown to red; poor recovery including red and green volcanics, volcanic tuff rocks and chert Hematite clay abundant within 2' of bedrock
45 - 50'	Crystallithic tuff (androcite) - slightly leached Feldspars altered to yellow and white clays. 49 - 50' - fracture zone - high percentage of hematite clay and some calcite stringers.
50 - 55'	Purple/pink crystallithic tuff - competent and fairly fresh - few calcite stringers, hematite spotting with some magnetite
55 - 62'	Same as above - higher hematite content (specularite)
62 - 67'	Tuff is more leached 62 - 63' - dark, incompetent (easily crumbles); little or no hematite, calcite or quartz 65 - competent - leached tuff - small stringers of hematite, minor magnetite and chlorite
67 - 88'	Leeched crystallithic tuff - minor calcite stringers - traces of yrite and chalcopyrite 82 and 88' - minor faults - hematite replacement and gouge
88 - 90'	Tuff replaced almost completely with hematite; minor chlorite, almost no feldspars visible - no calcite, quartz, etc.
90 - 94'	Crystallithic tuff, hematite in stringers, abundant calcite
94 - 95'	Fault gouge - hematite clay
95 - 115'	Crystallithic Tuff - leached uniformly, feldspars altered to clays - approximately 50%, minor hematite; fairly fresh looking

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-3 Continued

Depth	Description
115 - 120'	As above with more hematite stringers and calcite with minor chlorite and magnetite
120 - 125'	Tuff - fractured, broken, incompetent - calcite stringers with hematite stringers and hematite days; some chlorite
125 - 150.5'	Purplish crystallithic tuff - slightly leached - feldspars altered to clays - small lacy calcite stringers - minor slips at 128 and 138
150.5 - 164'	Darker crystallithic tuff - higher percentage of feldspars altered to clays (yellow and white) - abundant, lacy calcite stringers - hematite increases with depth
164 - 169.5'	Almost completely hematite
169.5 - 177'	Crystallithic Tuff - high percentage of hematite, abundant chlorite, some calcite
177 - 188'	Competent crystallithic tuff - little alteration in feldspars Calcite/hematite vein (approximately 1" wide) at 186'
188 - 257'	Dark crystallithic tuff - fresh - low percentage hematite, some calcite stringers
257 - 265'	Crystallithic tuff - feldspars altered to clays - minor lacy calcite stringers - 259' - high percentage hematite - replacement
265 - 285'	Same as above

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-4
 Co-ordinates: 10 + 25N, 13 + 00W
 Bearing: 270°
 Inclination: 45°

Depth	Description
0 - 50'	Pebble/boulder clay till - includes tuffs, diorite, conglomerates and green volcanics
50 - 70'	Crystallithic Tuff (androcite) - leached. Fairly fresh, some feldspar alteration to yellow clays Minor calcite stringers, hematite and magnetite - little hematite clay
70 - 89'	Crystallithic Tuff - slightly more altered than above - more lacy calcite stringers - more hematite clays, abundant chlorite - slight breccia in calcite vein at 86'
89 - 115'	Crystallithic Tuff - leached more than above. Feldspars more well preserved Hematite and calcite stringers (small, lacy) - a little breccia
115 - 136'	Dark brown crystallithic tuff, most feldspar altered to clays - higher percentage hematite clays, some chlorite - minor calcite stringers
136 - 150'	Purple/pink crystallithic tuff - more calcite veining 144' - large calcite vein - breccia - hematite in calcite
150 - 169'	Dark crystallithic tuff, approximately 50 percent hematite replacement - abundant chlorite - little calcite
169 - 181'	Mostly hematite, some magnetite and chlorite - few calcite stringers

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-4 Continued
 Co-ordinates: 10 + 25N, 13 + 00W
 Bearing: 270°
 Inclination: 45°

Depth	Description
181 - 203'	Series of calcite veins in crystallithic tuff Tuff - competent, fresh, not leached - 20% feldspar altered - low percentage of hematite clays, brecciated at calcite veins Calcite - 181 - 183' - large, well-formed crystallithic, milky coloured, hematite present 186' - 4" wide - good crystallithic formation 191 - 192.5' - hematite increases with depth 196 - 197' - well-formed crystallithi 199' - 6" vein, some quartz present 200' - 6" vein - brecciated 203.4 - lower hematite percentage
203 - 207'	Dark Crystallithic tuff - minor hematite and chlorite - some lacy calcite stringers 207 - brecciated to claicte vein below
207 - 214'	Calcite and calcite tuff breccia - large well-formed crystallithic, cavities present - hematite and chlorite in breccia zone
214 - 217'	Hematite and hematite clays - hematite gouge at 215'
217 - 229'	Crystallithic tuff - high percentage hematite with abundant hematite clay and chlorite - little or no calcite
229 - 235'	Dark Crystallithic tuff - less hematite - some calcite and chlorite in stringers
235 - 289'	Crystallithic Tuff - slightly leached, fresh looking, little hematite and calcite stringers - minor magnetite and some chlorite - little hematite clays

In both holes, calcite and hematite were found in abundance.
 Little quartz and almost no massive sulphides were found to be
 present.

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-5
Co-ordinates: 5 + 50N, 9 + 25W
Bearing: 0° (N)
Inclination: 50°

0 - 114' Sandy, silty conglomerate till

It is estimated, from the observations of topography and the drilling, that the anomaly recorded by the I.P. survey is little more than sediment accumulation by the creek.

The drill is now being moved to 8 + 00N, 15 + 00W to the next site.

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-6
 Co-ordinates: 8 + 00N, 15 + 00W
 Bearing: 270°
 Inclination: 45°

Depth	Description
0 - 25'	Boulder/pebble clay till.

Drill jammed due to overburden and the hole was abandoned.

Hole: D-87-7
 Co-ordinates: 9 + 75N, 13 + 00W
 Bearing: 270°
 Inclination: 50°

Depth	Description
0 - 45'	Boulder/pebble clay till overburden, includes chert, tuffs, diorite, green volcanics, basalt, porphyries and conglomerates
45 - 65'	Crystallithic tuff porphyry - purple/pink with small (approximately 1 mm.) feldspars (fresh, unaltered) - also large orthoclase megacrysts (up to 6") - hematite clays at 47 - 48' and 64' - calcite veins (approximately 1" wide) at 49, 52 and 57' - well-formed crystals - minor stringers of calcite and hematite throughout - traces of malachite and chlorite
65 - 75'	As above - tuff less competent - feldspar altered to clays - hematite increases with depth - hematitic fault gouge at 70 and 73 - 75' - minor chlorite
75 - 85'	As above - tuff has more orthoclase megacrysts - bleached, 70% feldspar altered to clays - minor calcite and hematite stringers - 84.5 - 85 hematitic gouge

1987 TOODOGGONE DRILL HOLE LOG

Hole: D-87-7 Continued

Depth	Description
85 - 115'	Crystallithic tuff porphyry - darker and more altered than above - large orthoclase phenocrysts partly altered - abundant hematite and calcite stringers - abundant specularite and magnetite crystals - calcite veining (approximately 2") 111 - 112' - minor malachite and chlorite - no sulphides
115 - 135'	Crystallithic Tuff - bleached - feldspars fresh - drusy calcite stringers pervasive throughout - tuff breccia in calcite veins (1 - 4" wide) at 115, 124, 127, 134' - minor hematite, chlorite - hematite stringers 133 - 135'
135 - 138'	Crystallithic Tuff - altered, high percentage hematitic clays, minor calcite
138 - 185'	Crystallithic Tuff - no orthoclase phenocrysts - tuff is fresh, unaltered - lacy drusy calcite stringers throughout 168 - 169 - calcite/tuff breccia - several hematite stringers and clays - hematite increases toward 185'
185 - 205'	Hematitic Porphyritic Crystallithic Tuff/Calcite Breccia Zone - intermittant calcite veining (with hematite associations) with tuff breccia - well formed large calcite crystals - minor chlorite - tuff is bleached with fresh, competent feldspars - no sulphides
205 - 215'	Crystallithic Tuff - slightly bleached - mostly fresh and competent - approximately 1/2" calcite veins every foot - calcite and hematite stringers throughout - minor hematite clays

Sample descriptions: Toodoggone

Hole No. D-1-87 St. 11 - 00N, 13 + 00W 297' depth, 45°
angle, Asmuth 180°

Core Sample:

001 - 67' - 77' Clay and alluvial 5 feet from bedrock

002 - 88' - 89.5' Bleached. Slightly altered volcanics.
Crystal tuff

003 - 91' - 92' Same as 002, slightly less alteration,
calsidic

004 - 100' - 102' Lightly bleached volcanics, 1 - 2% pyrite,
minor clay alteration. Hematite.

005 - 102' - 107' Strongly fractured, fault, clay, hematite,
alteration, some magnetite

006 - 110' - 111.5' Sheared partly, silicified partly, clay
altered, some graphite

007 - 128' - 129' 80% volcanics, calcsidic feldspars, some
chlorite, some silicified fillings.

008 - 145' - 147' Volcanics, calcsidic veining, approximately
45% calcsite, 5% cilica.

009 - 180.3'-181.3' Volcanics, calcsidic veining.

010 - 240.5'-242.5' Volcanics, calcsite feldspars, hematite,
chlortie, some pyrite.

Hole No. D-2-87 St. 11 - 00N, 13 + 00W 160' depth, 45°
angle, Asmuth 270°

Core Sample:

011 Quartz, calcsite veinlet, trace of malachite
129.5' - 130'

Sample Descriptions: Toodoggone

Hole No. D-3-87 St. 10 - 30N, 13 + 00W 285' depth, 55° angle, Asmuth 180°

Core Sample:

012 - 64.8' - 65.8' Specularite hematite, replacement, some chlorite, some calsite

013 - 94' - 95' Fault gouge, hematite, calsite infilling.

014 - 124.5'-125.5' Calsite veining faulting zone, some hematite. Random sample.

015 - 165.5'-175' Random grab. Hematite, chlortie, vuzy material.

016 - 185.5'-185.7' Calsite infilling.

Hole No. D-4-87 St. 10 - 32N, 13 + 00W 289' depth, 45° angle, Asmuth 270°

Core Sample:

018 - 140' - 140.5' Calsite veinlet.

017 - 143.8'-144.6' Calsite, breccia zone.

019 - 178' - 179' Hematitic alteration.

020 - 181' - 183' Calsite vein, hematite stringers.

021 - 191' - 192' Calsite veining

022 - 192' - 193.5' Hematitic alteration

023 - 197' - 198' Calsite vein

024 - 212' - 214' Calsite tuff breccia.

025 - 214.5'-215.5' Hematitic gouge zone.

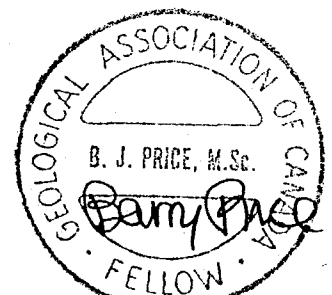
026 - 217' - 219' Tuff chlorite alteration.

027 - 220' - 222' Tuff hematite zone.

028 - 209' - 212' Calsite vein and breccia.

029 - 232' - 234' Tuff with hematite and calsite.

Prepared by D. Brett under the supervision of



DUKE MINERALS LTD.

Discovery Property - Goodoggone Gold Camp

Discussion:

Rocks outcropping sparsely on the Discovery property and seen in the seven drill holes totalling 1360 feet (415 m) are all maroon colored sub-aerial crystal-lithic tuff. In the area of drilling, overburden varies from 43 to 114 feet deep, and thus it is unlikely that the geochemical anomalies found in 1986 sampling result from mineralization in bedrock.

The volcanics have weak to moderate carbonate and clay alteration with chlorite and hematite, comparable with the weaker zones of alteration at the Al gold-bearing zones to the north. The most interesting looking altered sections were sampled from the core. Numerous silica-calcite-fluorite bearing veins are present in steep fractures. Six samples have gold content in excess of 25 ppb., and the highest value 133 ppb is certainly strongly anomalous compared with background. No other elements are strongly anomalous, with the possible exception of Tungsten. (As dissolution for tungsten and some other elements is imperfect with the ICP method, the significance of this is uncertain.)

This style of mineralization is not typical of low temperature epithermal gold-silver systems, but is more indicative of a high temperature porphyry type association, supported by the presence of fluorite. It has often been suggested that the magnetic signature of the mountain indicates a buried igneous source, and the epithermal "Al" type deposits are the uppermost manifestation of this system.

CONCLUSIONS:

Results of surface exploration and drilling have not been encouraging to date. Considering the depth of overburden, shallow VLF and IP systems or geochemistry are of limited use, with overburden effects masking any true bedrock response.

Deeper geophysical methods and magnetic surveys may be of some use in outlining intrusive or hydrothermal systems.

With the diamond drilling program filed as assesment, keeping the ground in good standing for several years, as long as option payments are not excessively high, it is probably justifiable for Duke Minerals to retain the property, pending improvement of access and development of the adjacent gold deposits.

RECOMMENDATIONS:

No further work is recommended at present. If road access is gained by Energex, permitting less expensive mobilization to the property, magnetometer surveys and deep IP surveys may be recommended in the future.

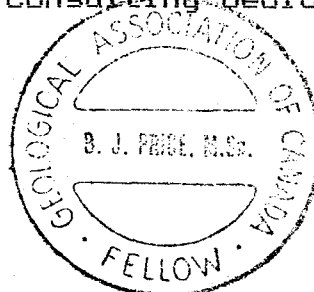
Duke Minerals should monitor exploration developments in the camp, and particularly on adjacent claims to the east and north.

respectfully submitted

Barry Price

Barry J. Price, M.Sc., FGAC.

Consulting Geologist.



CERTIFICATE

I, Barry J. Price, with business address at 3447 W.7th Avenue, Vancouver, B.C. do hereby certify that:

1) I am a Consulting Geologist registered with the Geological Association of Canada as a Fellow and I am entitled to use their seal, which has been affixed to this report. I am a member of the Society of Exploration Geologists, and several other professional organizations.

2) I hold a B.Sc. (Honors) Degree in Geology (1965) and a M.Sc. in Geology (1972), both from the University of British Columbia., Vancouver, B.C.

3) I have practised my profession as a geologist continuously since 1965, having worked in Canada, The United States of America, Mexico, and the Republic of the Phillipines, for a number of large and small companies and consulting firms, including Manex Mining Ltd., J.R.Woodcock and Associates, Archer Cathro and Associates and P.A.Christopher and Associates.

4) I have based this report on available geological data and a field examination of the property from September 4-8, 1987.

I have considerable personal knowledge of the area, having supervised the 1985 exploration program of Energex Minerals Ltd. on the adjacent property.

Core logging and preparation of the bulk of this report were done by D.Brett under my direct supervision. The Discussion, Recommendations and Conclusions were prepared by me alone based on the data assembled by Duke Minerals Ltd. and on my field observations of the core.

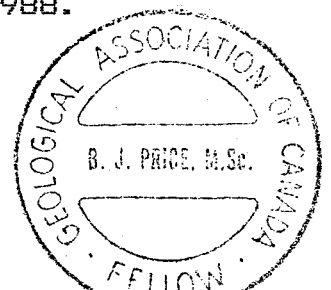
5) I have no interest in the claims described in the report nor in the securities of Duke Minerals Ltd., and will receive only normal consulting fees for the preparation of this report.

6) I have a direct 1.25 % net profits interest and an indirect 40 % of 1.25 % net profits interest (through Petra Gem Explorations of Canada Ltd.) in the adjacent claims held by Energex Minerals Ltd.

7) I consent to the use of this report by Duke Minerals Ltd., for the purposes of a Drilling assessment report.

Barry Price.

Barry James Price, M.Sc.
Consulting Geologist.
January 19, 1988.



Cost Statement

Mobilization:

Helicopter: 27 hrs. + fuel + oil	\$ 26,668.19
Fixed Wing to-from Mets Lake	17,800.00

Consulting:

Barry Price: 3 days @ \$350/day (as per attached invoice)	1,050.00
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Contract Services:

Baseline Resources Ltd.:

Camp set-up, cut drill pads, assist on drill moves, split & log core. Camp days (office work, cut firewood, weather ext.) as per attached invoice	24,280.00
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Drilcor Drilling as per attached invoice	60,924.49
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Analytical Costs:

Acme Analytical Labs - 30 core samples as per attached invoice	<u>143.00</u>
-------------------------------------------------------------------	---------------

Total	<u>130,280.00</u>
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ACME ANALYTICAL LABORATORIES LTD.

PHONE: 253-3158

852 East Hastings St., Vancouver, B.C. V6R 1R6

File: 87-4800

Date: OCT. 19 1987

DUKE MINERALS
#510 - 700 W. FENDER ST.
VANCOUVER B.C.

TERMS:
NET TWO WEEKS -
1½% PER MONTH CHARGED ON
OVERDUE ACCOUNTS.

NUMBER	ASSAY	PRICE	AMOUNT
30 ⑨	ICP ANALYSIS @	6.00	54.00
	CORE SAMPLE PREPARATION @	3.00	27.00

			81.00
↑	SURCHARGE FOR UNDER 20 SAMPLES PER BATCH		5.00

	TOTAL		86.00

PK
57
1413.00

RECEIVED
10/22

✓

PLEASE PAY LAST AMOUNT →

ACME ANALYTICAL LABORATORIES LTD.

PHONE: 253-3158

852 East Hastings St., Vancouver, B.C. V. 6 1R6

File: 87-4422

Date: OCT. 3 1987

DUKE MINERALS

510 - 700 W. FENDER ST.
VANCOUVER B.C.

TERMS:

NET TWO WEEKS -
1½% PER MONTH CHARGED ON
OVERDUE ACCOUNTS.

NUMBER	ASSAY	PRICE	AMOUNT
19	ICP ANALYSIS @	6.00	114.00
19	GEOCHEM AU BY FA+AA @	5.75	109.25
19	CORE SAMPLE PREPARATION @	3.00	57.00

			280.25
	SURCHARGE FOR UNDER 20 SAMPLES PER BATCH		5.00

	TOTAL		285.25

31

✓

RECEIVED
10/13

PLEASE PAY LAST AMOUNT →

DRILCOR

17 - 7449 Hume Ave.
Tilbury Ind. Park
Delta, B.C., Canada
V4G 1C3

TEL. (604) 946-5521
TELEX 04-357519

October 13, 1987.

NET: 15 DAYS

Duke Minerals Ltd.,
510 - 700 W. Pender Street,
Vancouver, B.C.
V6C 1G8

Invoice: 8723/3

re: Diamond drilling Metz property: Sept. 16-25/87

Footage

<u>Hole #</u>	<u>Interval</u>	<u>BW Casing</u>	<u>BQ Coring</u>
87-4	154-289		135
87-5	0- 85 85-130	85	45
87-6	0- 25 25- 35	25	10
87-7	0- 45 45-215	45	170
		<u>155</u>	<u>360</u>

Total: 515' BQ Coring @ 23.50/ft.

\$12,102.50

/...2

Duke Minerals Ltd.
October 13, 1987.

b/f

\$12,102.50

Labor & Equipment Hours

<u>Date</u>	<u>Man Hrs.</u>	<u>Mach.Op.Hrs.</u>
Sept. 16	2	1
17	16	
18	8	
19	24	
20	22	
21	22	
22	9	
23	8	
24	6	
25	-	
	<hr/>	<hr/>
	117	1
	<hr/>	<hr/>

Total: 117 Man hrs. @ 32.00/hr.
1 hr. mach. op @ 30.00/hr.

3,744.00
30.00

Consumables

Hole 4: 10 x 5' Casing @ 69.50	695.00
Hole 4: 1 x 2' Casing @ 38.50	38.50
Hole 5: 17 x 5' Casing @ 69.50	1,181.50
Hole 6: 7 x 5' Casing @ 69.50	486.50
Hole 7: 9 x 5' Casing @ 69.50	625.50
6 BW Casing Shoes @ 200.00	1,200.00
	<hr/>
	4,227.00
B.C. 6%	253.62
	<hr/>

4,480.62 + 15%

5,152.71

Motorways Freight: 339.27
173.40

512.67

512.67

Helicopter Insurance: 4 moves @ 150.00

600.00

Less: Job Advance

ck no 7/79

\$22,141.88

15,000.00 ✓

\$ 7,141.88

34

DRILCOR

17 - 7449 Hume Ave.
Milbury Ind. Park
Delta, B.C., Canada
V4G 1C3

TEL. (604) 946-5521
TELEX 04-357519

September 24, 1987.

Net: 15 Days

Duke Minerals Ltd.,
510 - 700 W. Pender Street,
Vancouver, B.C.
V6C 1G8

Invoice: 8723/2

re: diamond drilling Metz property: Sept. 1 - 15/87.

Footage

<u>Hole #</u>	<u>Interval</u>	<u>BW Casing</u>	<u>BQ Coring</u>
87-1	0- 69 69-297	69	228
87-2	0- 30 30-160	30	160
87-3	0- 39 39-285	39	246
87-4	0- 54 54-154	54	100
		<u>192</u>	<u>704</u>

Total: 896' BQ @ 23.50/ft.

\$21,056.00

/...2

35

2.

Duke Minerals Ltd.
September 24, 1987.

b/f \$21,056.00

Labor & Equipment Hours

<u>Date</u>	<u>Man Hrs.</u>	<u>Mach.Op.</u>
Sept. 2	34	
3	57	
4	4	
5	14	1
6	26	
7	22	
8	42/6	
10	14	2
13	20	
14	12	
15	8	
	<hr/>	<hr/>
	253	3

Total: 253 man hrs. @ 32.00/hr. 8,096.00
 3 Mach. Op. Hrs. @ 30.00/hr. 90.00

Mob.Demob - fixed price 5,000.00

Helicopter Insurance: 4 moves @ 150.00 600.00

Consumables

4 BW Casing shoes @ 200.00	800.00
7 Bags Bentonite @ 10.00	70.00
34 - 5' BW Casing @ 69.50	<u>2,363.00</u>
	3,233.00
B.C. 6%	<u>193.98</u>
	3,426.98 + 15%
	<u>3,941.02</u>

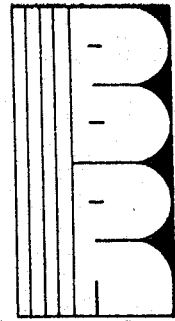
\$39,783.02

ADDING ERROR

→ 38,783.02

BASELINE RESOURCES LTD.

MINING EXPLORATION SERVICES



I N V O I C E

DUKE MINERALS LTD.
510 - 700 West Pender St.
Vancouver, B.C. V6C 1G8

Re: Toodoggone and Cassiar Projects, 1987

Account for Services Rendered:

TOODOGGONE PROJECT

Accommodation, including camp set-up and tear down, maintenance, management, room and board.

- June 17 - July 16, field crew and IP crew, 132 man days @ \$60.00/w.d.	\$ 7,920.00
- August 31, - Sept. 27, field crew, drillers, pilots, geologists, 238 man days @ \$60.00/w.d.	<u>14,280.00</u>

Total Accommodation \$22,200.00

Exploration Services, including linecutting, grid-establishment, drill set-ups, coordination of I.P. survey and drill program, other expediting and general labour.

70 days @ \$200.00/day	\$14,000.00
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Mobilization Expense

Gas, to/from Smithers, B.C.	\$ 500.00
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Rentals

1976 Dodge 4 x 4, 2 mo. @ \$700/mo.	\$1,400
1979 Dodge P.U., 2 mo. @ \$300/mo.	600
100 Watt H.F. radio, 3 mo. @ \$500/mo.	<u>\$1,500</u>

Total Rentals \$ 3,500.00

Total Toodoggone Project \$40,200.00

Total Drill Program \$24,280.00

.../2

37

B.J.PRICE - CONSULTING GEOLOGIST

(RAPITAN RESOURCES INC.)

3447 W. 7th Ave.,
Vancouver, B.C.
V6R 1W2
October 7, 1987.

David H. Brett, Director
DUKE MINERALS LTD.
Ste 510 - 700 West Pender St.,
Vancouver, B.C., V6C 1G8

INVOICE RE TOODOGGONE PROJECT (Discovery Claims):

Consulting Fees re Geological supervision of
Diamond drilling, Core Logging and Sampling
3 days x \$350 per day (Sept 4-8) \$1,050.00

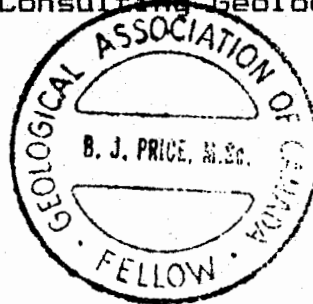
respectfully submitted

Barry Price

Barry Price, M.Sc. FGAC.
Consulting Geologist

50

PAID
46
OCT 28 1987



Dave.

Hope all finished well and
you get some results

cheers

Barry

30

Discovery

DUKE MINERALS

FILE # 87-4033

Page 2

SAMPLE#	AG PPM	BA PPM	AU* PPB
C.S. 001	.2	280	1
C.S. 002	.1	88	1
C.S. 003	.2	29	2
C.S. 004	.2	32	1
C.S. 005	.7	32	1
C.S. 006	.1	38	1
C.S. 007	.1	30	1
C.S. 008	.6	31	80
C.S. 009	.3	40	1
C.S. 010	.6	38	1
STD C/AU-R	7.0	179	500

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Core AU** ANALYSIS BY FA+AA FROM 10 GM SAMPLE.

DATE RECEIVED: SEPT 24 1987

DATE REPORT MAILED: Oct 5/87

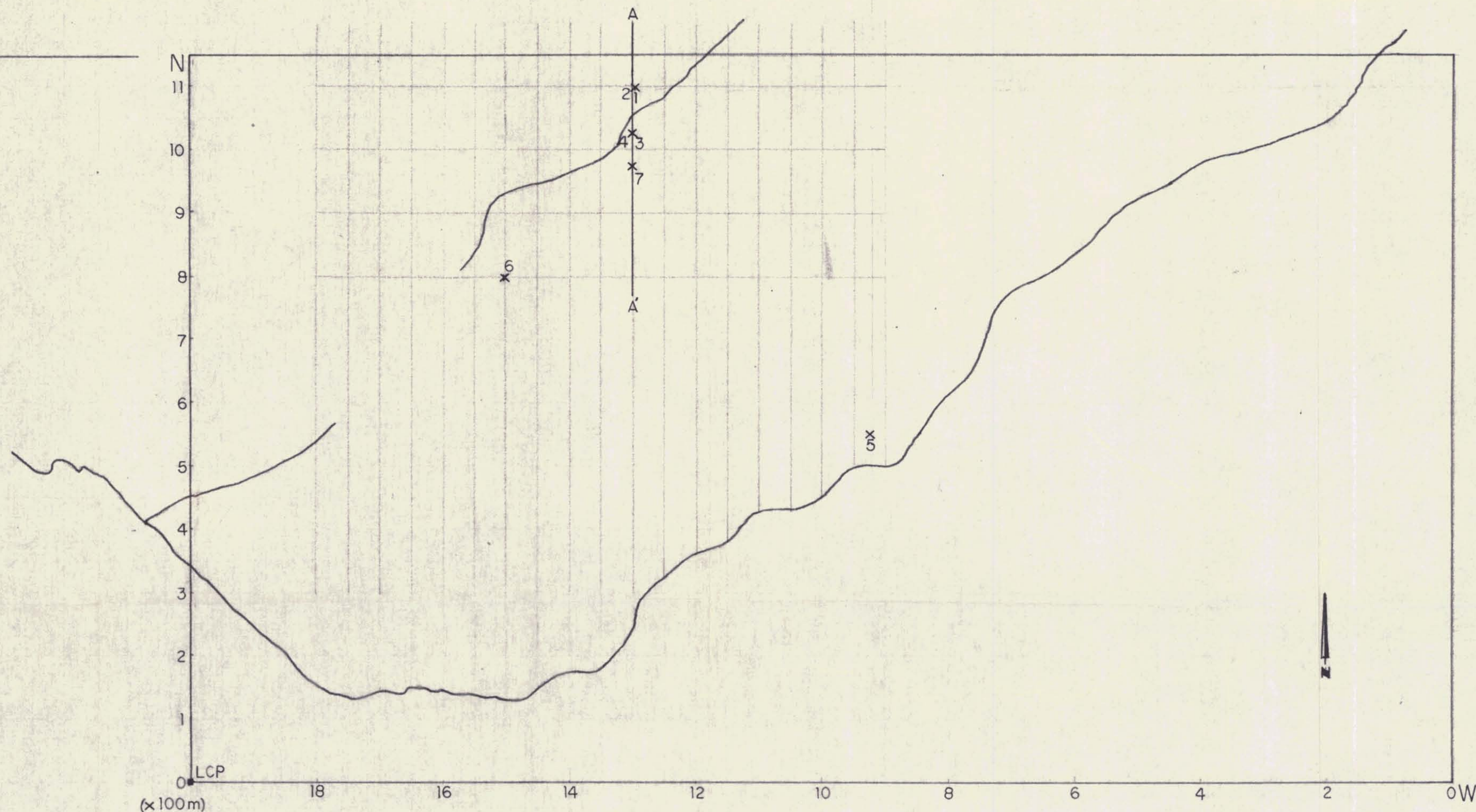
ASSAYER: *D. Jey.* DEAN TOYE, CERTIFIED B.C. ASSAYER

DUKE MINERALS

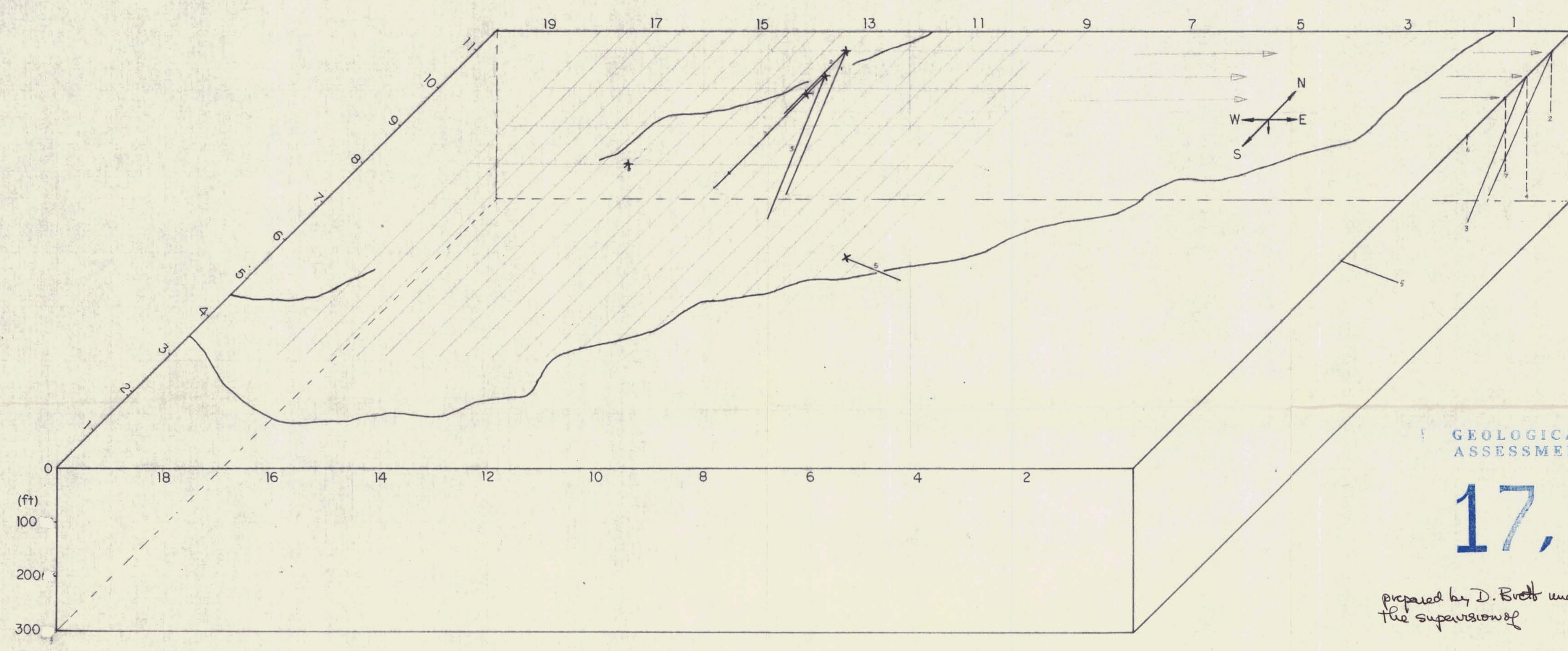
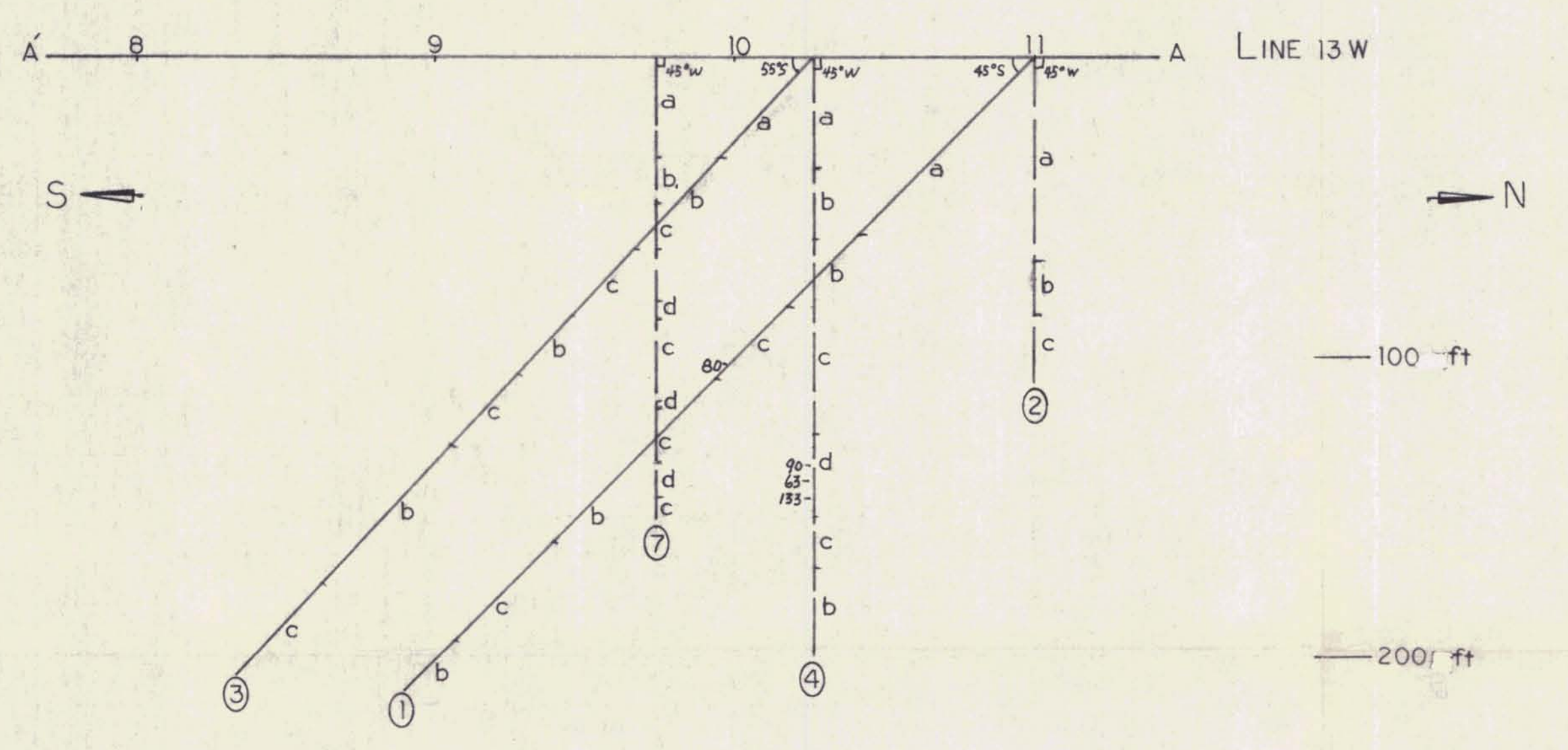
File # 87-4422

SAMPLE#	MO	CU	PB	ZN	AG	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	AL	NA	K	W	AU**
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM
CS-011	4	67	124	39	1.8	4	5	1570	3.63	82	5	ND	3	31	3	48	2	443	7.52	.042	11	2	.08	56	.05	14	.30	.01	.17	19	10
CS-012	1	31	52	33	.7	3	2	179	4.26	58	5	ND	3	25	1	99	2	411	.23	.055	7	5	.09	41	.05	14	.37	.02	.21	15	2
CS-013	1	23	29	43	.4	3	4	278	3.97	44	5	ND	4	28	1	44	2	361	.43	.057	8	5	.06	39	.08	12	.34	.02	.20	9	3
CS-014	1	8	46	44	.2	2	4	231	3.55	38	5	ND	3	29	1	61	2	507	.61	.067	7	3	.08	30	.05	5	.47	.02	.24	8	1
CS-015	1	10	90	72	.5	2	3	214	4.07	54	5	ND	4	18	1	89	2	600	.41	.088	10	5	.07	38	.04	16	.43	.02	.25	12	1
CS-016	1	7	69	24	.4	1	1	229	3.05	23	5	ND	1	23	1	69	2	686	9.90	.052	7	3	.04	26	.04	5	.25	.01	.17	9	1
CS-017	2	67	34	17	1.3	1	2	8380	1.88	28	5	ND	2	64	1	41	2	243	22.13	.023	13	2	.03	17	.03	2	.09	.01	.06	10	2
CS-018	1	10	24	25	.6	1	2	3412	2.31	36	5	ND	2	40	1	60	2	323	12.79	.044	11	3	.04	33	.05	14	.18	.01	.12	17	1
CS-019	2	4	31	47	.2	2	1	360	4.19	49	5	ND	5	15	1	53	2	160	2.02	.074	12	4	.07	38	.05	16	.41	.03	.24	12	31
CS-020	1	8	23	52	.3	1	1	2874	1.35	39	5	ND	1	49	5	43	2	134	28.84	.018	4	4	.03	15	.02	8	.08	.01	.05	8	90
CS-021	1	6	21	42	.3	1	1	3063	1.42	34	5	ND	1	55	7	43	2	137	31.57	.011	3	3	.02	8	.02	3	.08	.01	.04	13	63
CS-022	2	10	36	83	.3	2	3	484	3.91	40	5	ND	4	19	1	86	2	225	2.88	.074	11	6	.08	33	.05	7	.36	.02	.22	15	133
CS-023	1	4	21	89	.2	1	1	5140	.42	49	5	ND	1	57	10	8	3	26	34.36	.007	2	1	.03	4	.01	2	.04	.01	.02	2	10
CS-024	1	8	34	36	.5	1	2	1396	3.70	43	5	ND	3	35	2	91	2	432	10.56	.052	8	2	.05	41	.03	8	.36	.01	.20	17	41
CS-025	1	6	32	74	.4	1	3	1529	2.47	28	5	ND	3	26	1	35	2	191	4.75	.066	9	2	.08	22	.01	7	.51	.01	.25	10	6
CS-026	1	14	42	25	.6	1	2	225	3.02	26	5	ND	4	22	1	53	2	567	.75	.080	9	3	.07	29	.02	9	.50	.02	.25	10	2
CS-027	1	11	28	39	.2	1	3	125	3.00	32	5	ND	4	22	1	51	2	167	.49	.078	9	2	.06	68	.01	13	.47	.02	.25	12	1
CS-028	1	7	24	42	.5	1	1	2818	1.64	31	5	ND	1	58	3	52	2	258	24.69	.027	5	2	.03	18	.02	4	.26	.01	.13	11	1
CS-029	1	14	43	27	.9	1	2	375	3.53	43	5	ND	4	20	1	89	2	717	2.66	.070	9	2	.04	55	.03	8	.36	.02	.23	10	25
STD C/AU-R	18	57	36	131	7.0	67	26	1023	3.91	37	21	6	38	49	17	17	21	56	.49	.083	36	58	.87	174	.08	32	1.82	.08	.13	12	510

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- LEGEND**
- a OVERBURDEN: BOULDER/PEBBLE CLAY TILL
 - b CRYSTALLITHIC ANDESITE TUFF (TOODOGGONE VOLCANICS)
 - b TUFF WITH ORTHOCLASE MEGACRYSTS
 - c TUFF WITH CALCITIC AND HEMATITIC FRACTURES
 - d CALCITE/TUFF BRECCIA



GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,019

prepared by D. Brett under
the supervision of



DUKE MINERALS LTD
DISCOVERY 1 CLAIM LIARD MINING DIVISION
1987 DRILL PROJECT
SCALE 1:5000