85-1155-14696
12/86

GEOLOGICAL REPORT ON THE

CASSIDY NO. 6 GROUP

G.W.P. 1, 41, 200 CLAIMS

OMINECA MINING DIVISION

N.T.S. 94E/6E, 94E/7W

Lat. 57° 21.5' Long. 127° 01'

OWNER: CASSIDY RESOURCES LTD.
OPERATOR: CASSIDY RESOURCES LTD.

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,696

Willard D. Tompson
December, 1985

Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
Geological	$13,297.90

AUTHOR(S) Willard D. Tompson SIGNATURE(S) Willard D. Tompson

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED December 16 YEAR OF WORK 1985

PROPERTY NAME(S) Cassidy No. 6 Group, G.W.P. No. 1 prospects

COMMODITIES PRESENT Gold and Silver

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION Omineca NTS 94 E/6 and 7

LATITUDE 57° 21' N LONGITUDE 127° 00' W

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

G.W.P. No. 1; Record No. 2870

G.W.P. No. 41; Record No. 3520

G.W.P. No. 200; Record No. 4731

OWNER(S)

(1) Cassidy Resources Ltd. (2)

MAILING ADDRESS

#303-535 Thurlow Street

Vancouver, B.C. V6E 3L2

OPERATOR(S) (that is, Company paying for the work)

(1) Same (2)

MAILING ADDRESS

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

G.W.P. No. 1 prospect is underlain by volcanic rocks in which the original identity of the rocks is completely obscured by sericitic alteration.

Large quartz veins and quartz-sericite veins strike N. 55°W. across the area and are up to 60 meters long and 10 meters wide. Strong clay zones strike parallel to the veins and are upto5 or 6 meters wide. Barite occurs locally in the quartz veins.

Ther altered volcanic rocks are intruded by granodiorite dikes which are younger that the hydrothermal events. The dikes strike northwest, parallel to the clay zones and quartz veins.

REFERENCES TO PREVIOUS WORK

Carter, N.C., 1971, Toodoggone River area: G.E.M., B.C. Dept. of Mines and Petrol. Res. pp. 63-70.

(over)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground	1:200, 400 x 750 m	G.W.P. No. 1	$ 4,584.84
Photo	1:10,000, 2 sq. km	G.W.P. No. 1	4,584.84
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ....)			
Soil			
Silt			
Rock	4: ag, Au, As, Sb; 27 Ag,Au	G.W.P. No. 1	405.00
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying	31 rock & petrographic & Mineralogic	G.W.P. No. 1	659.36
Petrographic	10	G.W.P. No. 1	586.50
Mineralogic	Stereoscopic examinations	G.W.P. No. 1	1,040.00
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)	1:10,000 2 sq km	G.W.P. No. 1	778.00
Photogrammetric (scale, area)			
Line/grid (kilometres)	Selection of location for grid	G.W.P. No. 1	
~~Road, local access (kilometres)~~	400 x 750 m, control points		659.36
Trench (metres)			
Underground (metres)			
		TOTAL COST	$13,297.90

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date	Rept. No.			Information Class

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SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

G.W.P. No. 1 prospects occur in alpine terrain about 6 kilometers southwest of Toodoggone Lake.

The area is underlain by rocks of the Toodoggone volcanics in which the original identity of the rocks is obscured by advanced sericitic alteration. The rocks are yellowish to rusty-brown in outcrop due to a high limonite content. Fresh surfaces are white to light grey and buff.

Silicification is widespread and quartz-pyrite-barite veins are prominent. Strong, clay-filled structures strike parallel to the silicified zones and quartz veins.

Post-alteration granodiorite dikes strike northwesterly and are mostly parallel to existing veins and clay zones.

Quartz veins and silicified volcanic rocks contain anomalous concentrations of precious metals.

A three phase exploration program is recommended:

1. Expand detailed mapping and sampling to the limits of alteration
2. Trench and sample
3. Conduct petrographic and fluid inclusion studies.

Estimated cost of the exploration program is $28,520.

Geology of the G.W.P. No. 1 Prospect
Toodoggone Gold-Silver Mining Area
Omineca Mining Division
British Columbia

PROPERTY

G.W.P. No. 1 gold-silver prospect lies in mineral claim G.W.P. No. 1 in the Toodoggone mining area of the northern interior of British Columbia (Figure 1). G.W.P. No. 1 is in Cassidy No. 6 claim group which also includes G.W.P. No. 41 and G.W.P. No. 200.

Cassidy No. 6 Group

Claim Name	Record Number	Units
G.W.P. No.1	2870	20
G.W.P. No.41	3520	18
G.W.P. No.200	4731	8

Cassidy No. 6 group lies southwest of Toodoggone Lake at distances of 3 1/2 to 8 kilometers from the lake. Elevations vary from about 1225 m to 1850 m. Mineral claim G.W.P. No. 41 lies mostly below treeline and is densely forested with spruce and balsam. G.W.P. No. 1 and G.W.P. No. 200 lie mostly above treeline and have only scattered populations of scrub spruce and willows growing along small creeks.

OWNERSHIP AND HISTORY

Cassidy No. 6 group is owned by Cassidy Resources, Ltd., 303 - 535 Thurlow Street, Vancouver, B.C.

Cassidy Resources, Ltd. also owns Cassidy No. 1 to No. 5 claim groups in the Toodoggone area;

Cassidy No. 1 Group

Claim Name	Record Number	Units
G.W.P. No.27	3514	18
G.W.P. No.28	3515	12
G.W.P. No.30	3517	20
G.W.P. No.40	3519	8
G.W.P. No.42	3898	12
Bear	3899	1
Doug's	3897	1

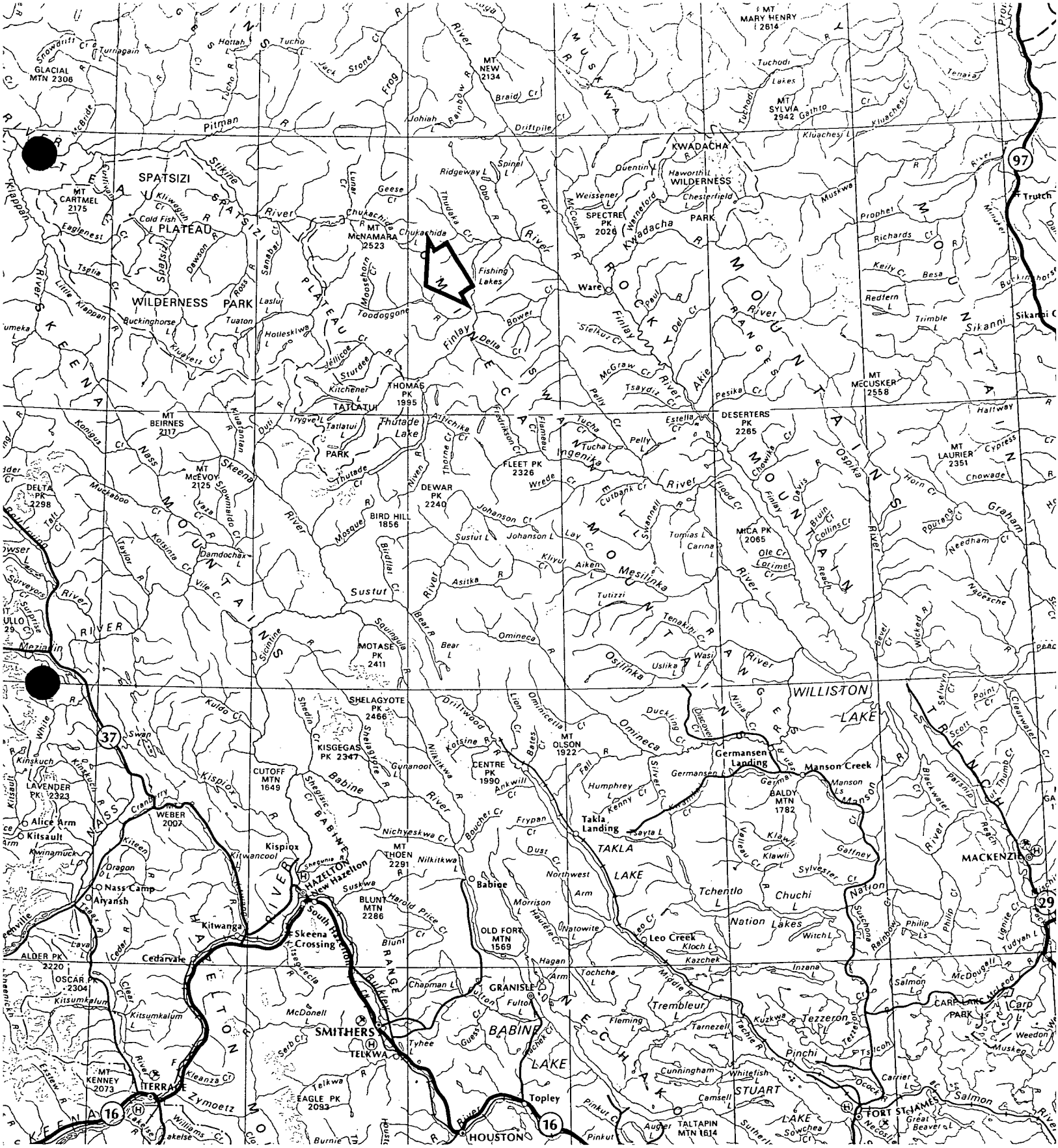


Figure 1. - Map showing location of Toodoggone gold-silver mining area.

Cassidy No. 2 Group

Claim Name	Record Number	Units
G.W.P. No.29	3516	20
G.W.P. No.34	3518	15

Cassidy No. 3 Group

Claim Name	Record Number	Units
G.W.P. No.22	3509	16
G.W.P. No.24	3511	20
G.W.P. No.25	3512	18
G.W.P. No.26	3513	18

Cassidy No. 4 Group

Claim Name	Record Number	Units
G.W.P. No.13	3500	6
G.W.P. No.15	3502	12
G.W.P. No.17	3504	12
G.W.P. No.21	3508	15
G.W.P. No.23	3510	16

Cassidy No. 5 Group

Claim Name	Record Number	Units
G.W.P. No.11	3498	3
G.W.P. No.12	3499	6
G.W.P. No.14	3501	12
G.W.P. No.16	3503	16
G.W.P. No.18	3505	16
G.W.P. No.19	3506	19
G.W.P. No.20	3507	20

G.W.P. No. 6 group lies directly across Toodoggone River from the Belle Creek gold placer mining camp which was active in the 1930's. The rusty outcrops which are so prominent in the alpine areas of G.W.P. No. 1 were no doubt prospected by the early prospectors, as several old claim posts were found during the field season of 1985.

In 1968, Quebec Cartier Mining Company conducted a geochemcial survey on the Spartan claims, which includes what is now G.W.P, No. 1. They discovered a copper-molybdenum anomaly on part of the G.W.P. No. 1 claim in the same locality as the prospects described herein.

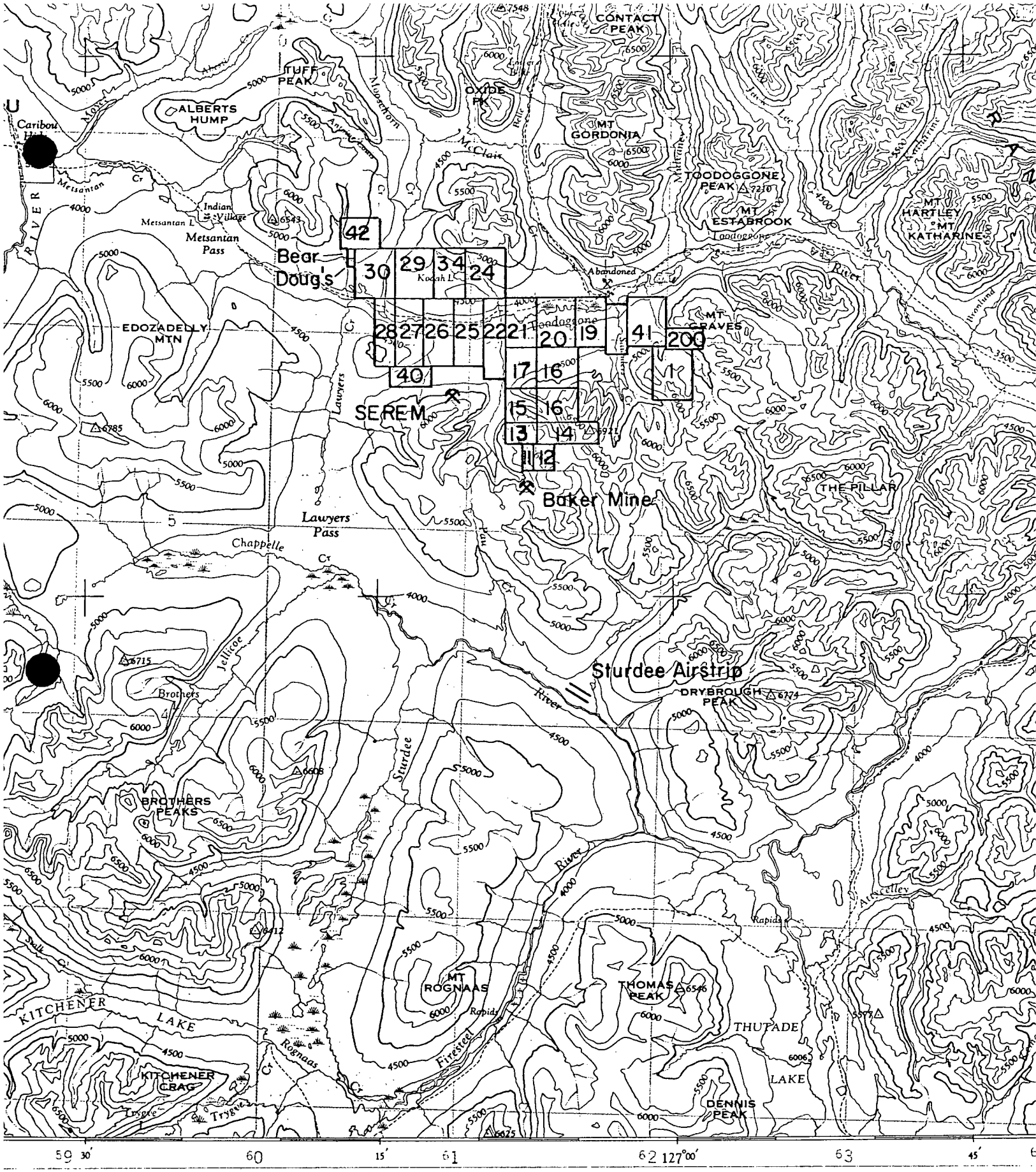


Figure 2. - Map showing G.W.P. claims owned by Cassidy Resources, Ltd.

Three or four diamond drill holes were drilled from the same setup with negative results. The core was not assayed for gold and silver.

Great Western Petroleum, Ltd. conducted a geochemical survey on the claims in 1981 and identified strong anomalies in gold and silver in the same area in which the G.W.P. No. 1 prospects lie (Eccles, 1982).

Forster (1984, p.113) conducted petrographic work and X-ray diffration studies on the rocks from G.W.P. No. 1.

LOCATION

Toodoggone area lies in the central interior of British Columbia, about 285 kilometers north of Smithers in the Omineca Mountains of the Central Plateau and Mountain Area.

The prospects at G.W.P. No. 1 claim lie about 3 kilometers southwest from the peak of Mount Graves and 3 kilometers east of Saunders Creek. The valley of Toodoggone River is clearly visible from the area of the prospects, as are the valleys of Belle Creek and Mulvaney Creek. Mount Graves' highest peak stands at an elevation of 2061 meters. Tarn lakes occupy northeast facing cirques at elevations of about 1630 meters.

There are no roads in the Toodoggone area at this time, but plans are underway to extend the Omineca road northward from Johanson Lake to the SEREM gold-silver property, starting in 1986 or 1987. G.W.P. No. 1 lies 11 kilometers east of the SEREM property.

Present access to the Toodoggone area is via fixed wing aircraft to Sturdee airstrip and thence by helicopter to the many prospect areas (Figure 2). Work on the G.W.P. No. 1 claim would be supported by the Cassidy Resources, Ltd. camp at Moosehorn Creek, 15 kilometers to the west. This camp is established on the east side of Moosehorn Creek, 2 kilometers north of Toodoggone River and has accomodation for 12 to 15 people.

GEOLOGY

Areal Geology

The Toodoggone area is underlain by lavas and tuffs of the Toodoggone volcanics, a thick sequence of felsic to intermediate flows and tuffs which are Upper Jurassic in age (Carter, 1971).

Panteleyev (1983) identified six map units of the Toodoggone volcanics;

Unit 1	Tuff and tuffaceous sandstone "red beds"
Unit 1a	Volcanic flow exposed only in Moosehorn Creek
Unit 2	Andesite flows
Unit 3	Andesite flows and tuffs
Unit 4	Quartzose andesitic pyroclastic rocks
Unit 5	Andesite and trachyandesite flows
Unit 5a.b.c.	A basaltic sequence
Unit 5ai	Pyroxene basalt intrusion
Unit 6	Grey dacite

Forster (1984) used eleven map units in mapping a slightly different area of the Toodoggone volcanic rocks.

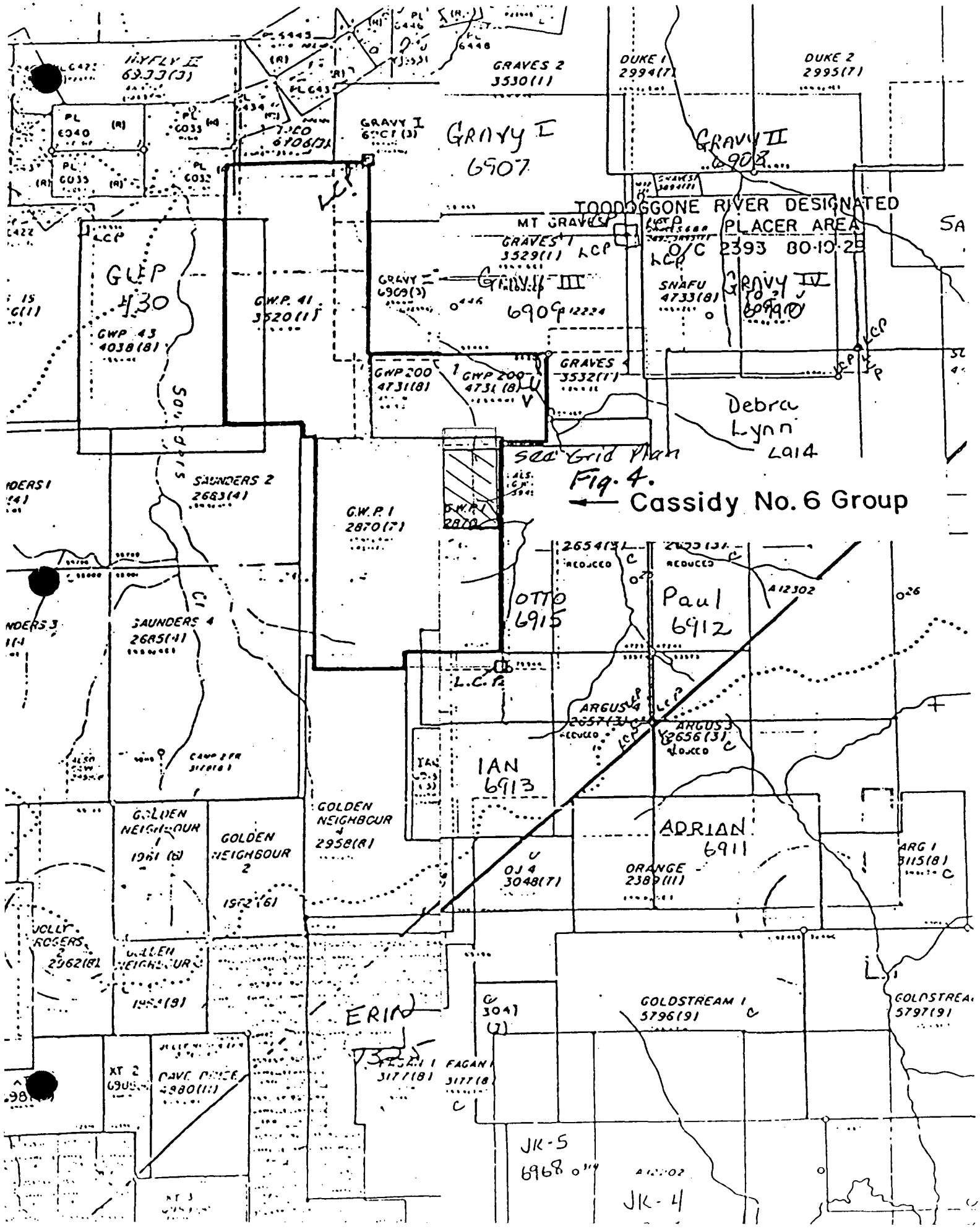
Diakow, Panteleyev, and Schroeter (1985) show nine map units with several variations in each of the units. These correspond closely to those of Panteleyev (1983).

Rocks which underlie the G.W.P. No. 1 prospect are mapped by Diakow, et.al.(1985) as Lawyers-Metsantan quartzose andesite (Unit 3) of the Toodoggone volcanics.

The effects of alpine glaciation are prominent throughout the area. Toodoggone River, Belle Creek and Mulvaney Creek have broad "U" shaped profiles. Eskers along Toodoggone River are long and well defined. Saunders Creek originates in several cirques which face northward toward Toodoggone River.

Percent of Outcrop

An area of about 400 by 700 meters (Figures 3 and 4) was mapped in detail. The area has low relief and ranges from 1600 to 1740 m in elevation. Outcrops of bedrock occur in only 10 to 20 percent of the area. Otherwise, bedrock is covered by loose rock debris from upslope.


GRAVY I
6907
GRAVY II
6908
GRAVY III
6909
GRAVY IV
6910
TODD GGONE RIVER DESIGNATED PLACER AREA
O/C 2393 80-10-25
GRAVES 1
3529(1)
GRAVES 2
3530(1)
GRAVES
3532(1)
DUKE 1
2994(7)
DUKE 2
2995(7)
GWP 41
3520(1)
GWP 43
4038(8)
GWP 200
4731(8)
SNAFU
4733(8)
Debra Lynn
6914
Sea Grid Plan
Fig. 4.
Cassidy No. 6 Group
SAUNDERS 2
2683(4)
SAUNDERS 4
2685(4)
G.W.P. 1
2870(7)
OTTO
6915
Paul
6912
ARGUS 4
ARGUS 3
IAN
6913
ADRIAN
6911
GOLDEN NEIGHBOUR
2958(8)
GOLDEN NEIGHBOUR 2
ORANGE
2389(11)
OJ 4
3048(7)
GOLDSTREAM 1
5796(9)
ERIN
JK-5
JK-4

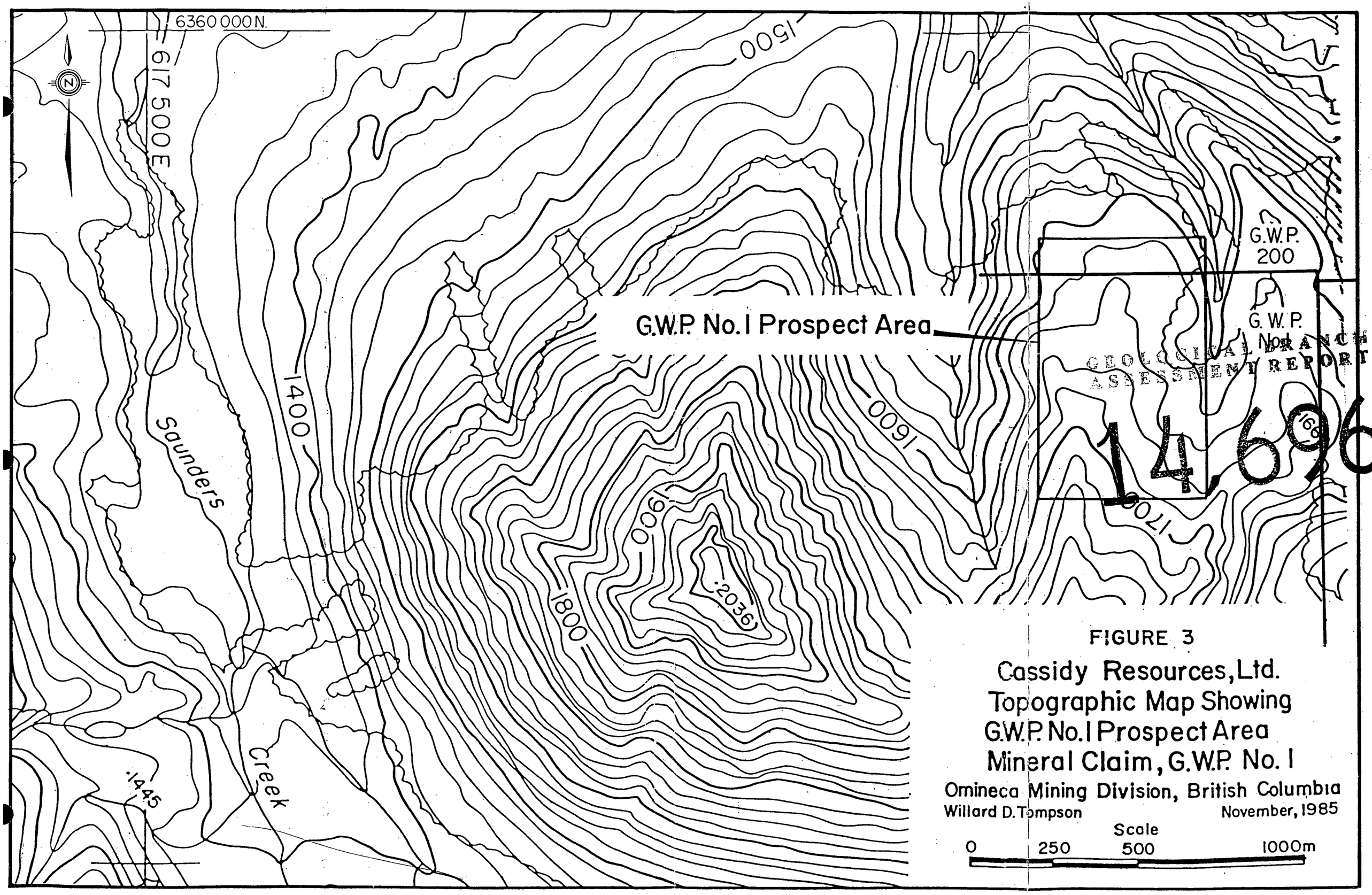
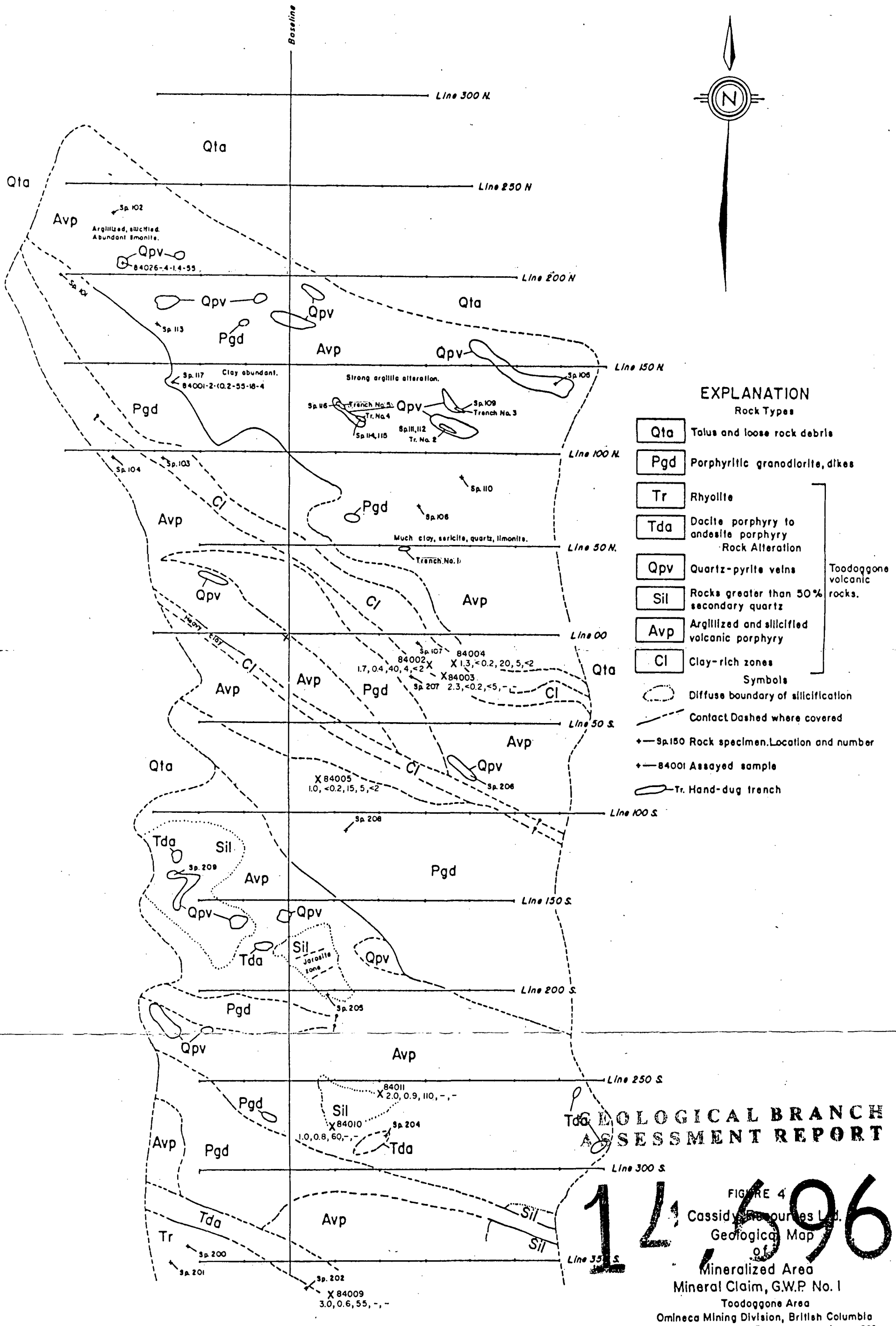


FIGURE 3

Cassidy Resources, Ltd.
Topographic Map Showing
G.W.P. No.1 Prospect Area
Mineral Claim, G.W.P. No. 1
Omineca Mining Division, British Columbia
Willard D. Tompson — November, 1985

Scale
0 250 500 1000m



EXPLANATION

Rock Types

Qta	Talus and loose rock debris
Pgd	Porphyritic granodiorite, dikes
Tr	Rhyolite
Tda	Dacite porphyry to andesite porphyry

Rock Alteration

Qpv	Quartz-pyrite veins
Sil	Rocks greater than 50% secondary quartz
Avp	Argillized and silicified volcanic porphyry
Cl	Clay-rich zones

Toodoggone volcanic rocks.

Symbols

- Diffuse boundary of silicification
- Contact Dashed where covered
- Sp.150 Rock specimen. Location and number
- 84001 Assayed sample
- Tr. Hand-dug trench

ASSAY SEQUENCE

Sample No., Width (metres), Ag (ppm), Au (ppb), As (ppm), Sb (ppm)

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FIGURE 4

Cassidy Resources Ltd.

Geological Map

of

Mineralized Area

Mineral Claim, G.W.P. No. 1

Toodoggone Area

Omineca Mining Division, British Columbia

Willard D. Tompson and Earl Mosorsky August, 1985

Scale

0 50 100 metres

BASELINE

LINE 300 N.

LINE 250 N.

LINE 200 N.

100W 50W 50E 100E 150E

LINE 150 N.

LINE 100 N.

LINE 50 N.

LINE 00

LINE 50 S.

LINE 100 S.

LINE 150 S.

LINE 200 S.

LINE 250 S.

LINE 300 S.

LINE 350 S.

APPROX. 2250 METRES,
S. 25° E. TO LCP OF CLAIM,
G.W.P. No. 1

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Figure 4A
Cassidy No. 6

CASSIDY RESOURCES LTD.

GRID PLAN

m 0 50 100 m

The volcanic rocks are argillized and strongly fractured and are relatively incompetent. Thus, they are easily eroded and do not make many outcrops. However in areas of silicification the rocks are more resistant to weathering and stand in gentle relief above the argillized rocks.

Rocks of G.W.P. No. 1 Prospect

The G.W.P. No. 1 prospect is underlain by volcanic rocks in which the original identity of the rocks is largely obscured by sericitic alteration.

In outcrops, the rocks are yellowish to rusty brown in color and on freshly broken surfaces are white to light grey and buff. In composition, they are about 50 to 70 percent quartz, 20 to 50 percent sericite with some clay, and up to 5 percent limonite, which is a product of the oxidation of fine grained, disseminated pyrite. Jarosite was observed in some specimens.

Petrographic descriptions of the rocks are shown in the Appendix, page 19. Rock specimen locations are shown on Figures,4,5,7 and 9.

Large quartz veins and quartz-sericite veins strike N.55 W. across the area and are up to 60 meters long and 10 meters wide (Figures 4-9). Strong clay zones strike parallel to the veins and are up to 5 or 6 meters wide. Barite occurs locally in the quartz veins (see specimens 103 and 116).

The altered volcanic rocks are intruded by granodiorite dikes (Figure 4) which are younger than the hydrothermal events. The dikes strike northwest, parallel to the clay zones and quartz veins.

ROCK ALTERATION AND MINERALIZATION

Rocks which underlie the G.W.P. No. 1 prospect display advanced hydrothermal alteration. Sericite replaces original rock-forming minerals and quartz occurs replacing rock-forming minerals and as veins with pyrite and barite.

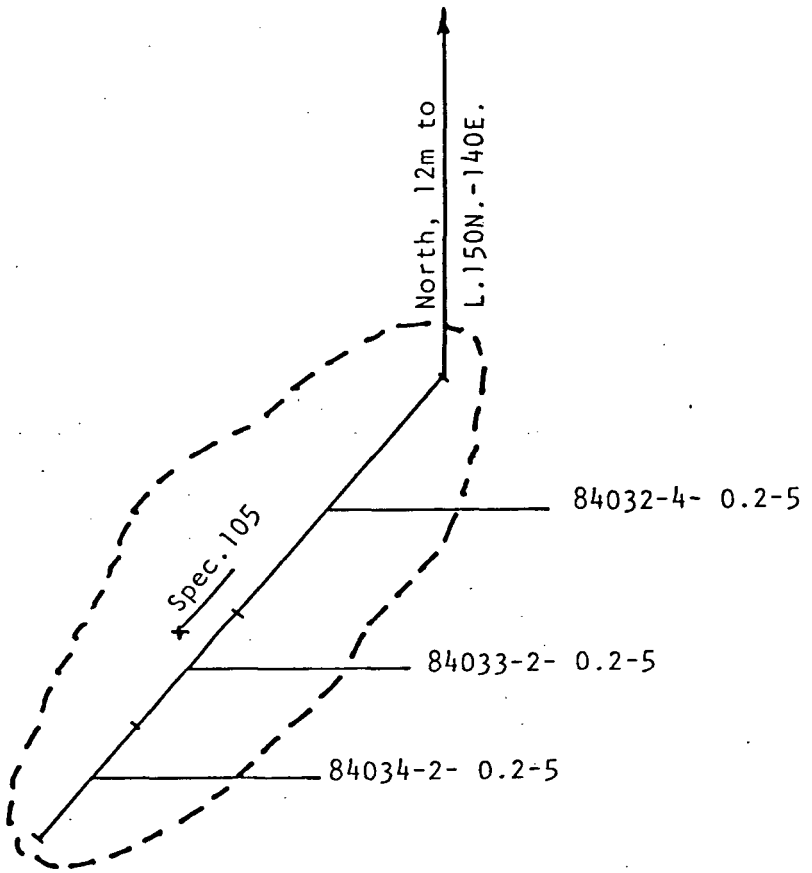
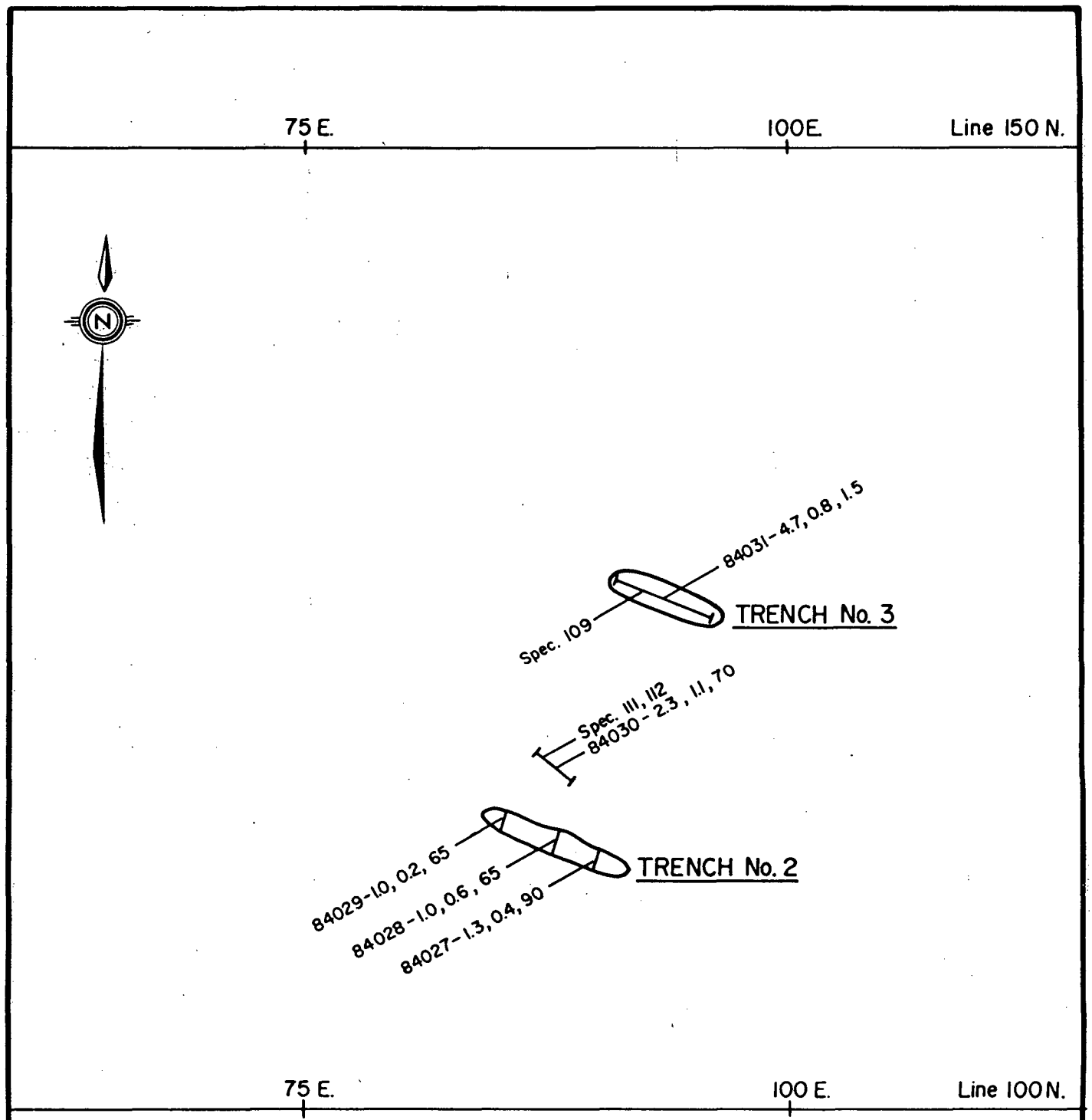


Figure 5
Cassidy Resources, Ltd.
Claim, G.W.P. No.1
Assay Map of Outcrop
Near 150N-150E
W.D. Tompson Sept. 2, 1985
Scale; 1:100

0 1 2 3 4 5 m.

Assay order:
Sample number-width(m)-Ag(ppm)-Au(ppb)



NOTE.
Trench No.1 is 75 m South of Trench No.2. It is not shown because it did not reach bedrock.

FIGURE 6

CASSIDY RESOURCES LTD.

Mineral Claim, G.W.P. No.1

ASSAY MAP OF TRENCHES 2 & 3

m 0 5 10 15 m

ASSAY SEQUENCE: Sample No.-Width(m), Ag(ppm), Au (ppb)

Revised May 9, 1986 W. D. Tompson

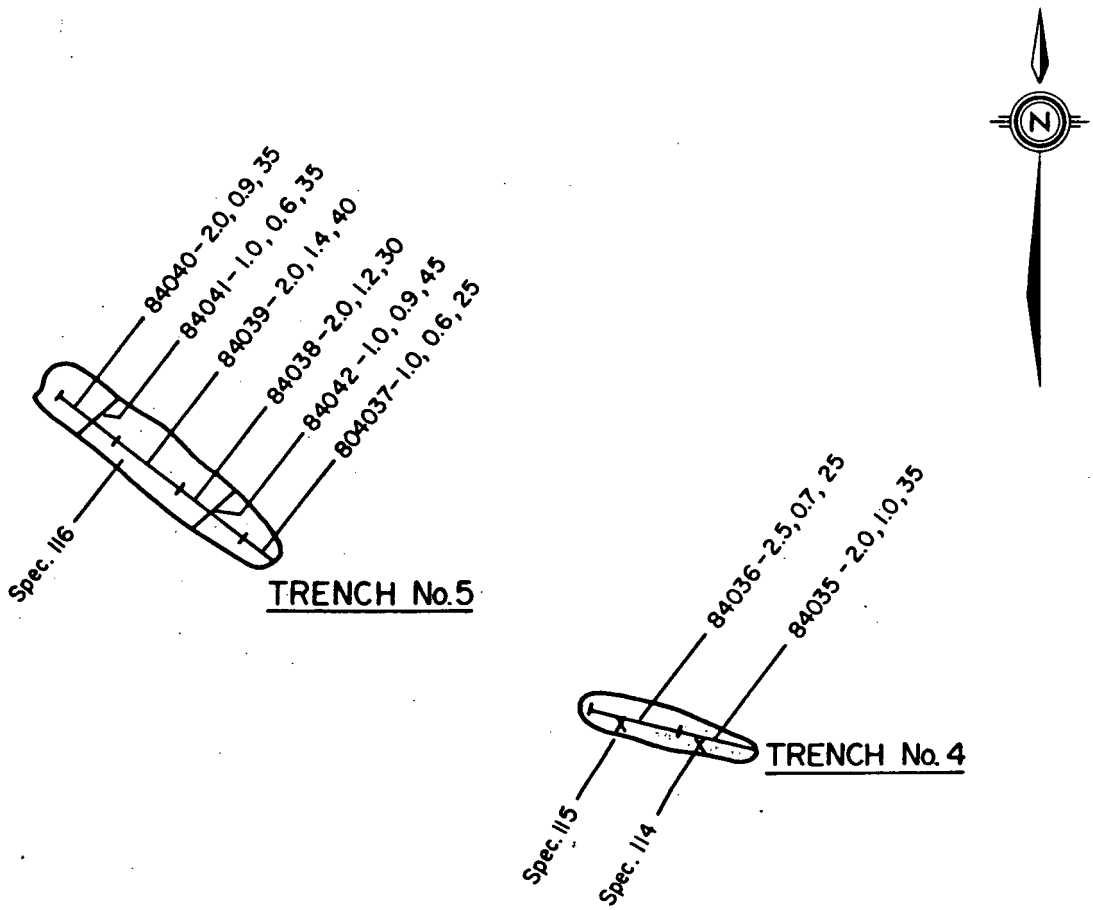


FIGURE 7

CASSIDY RESOURCES LTD.

Mineral Claim, G.W.P. No.1

ASSAY MAP OF TRENCHES 4 & 5

m 0 1 2 3 4 5 10 m

ASSAY SEQUENCE: Sample No.- Width(m), Ag(ppm), Au(ppb)

Revised May 9, 1986 W. D. Tompson

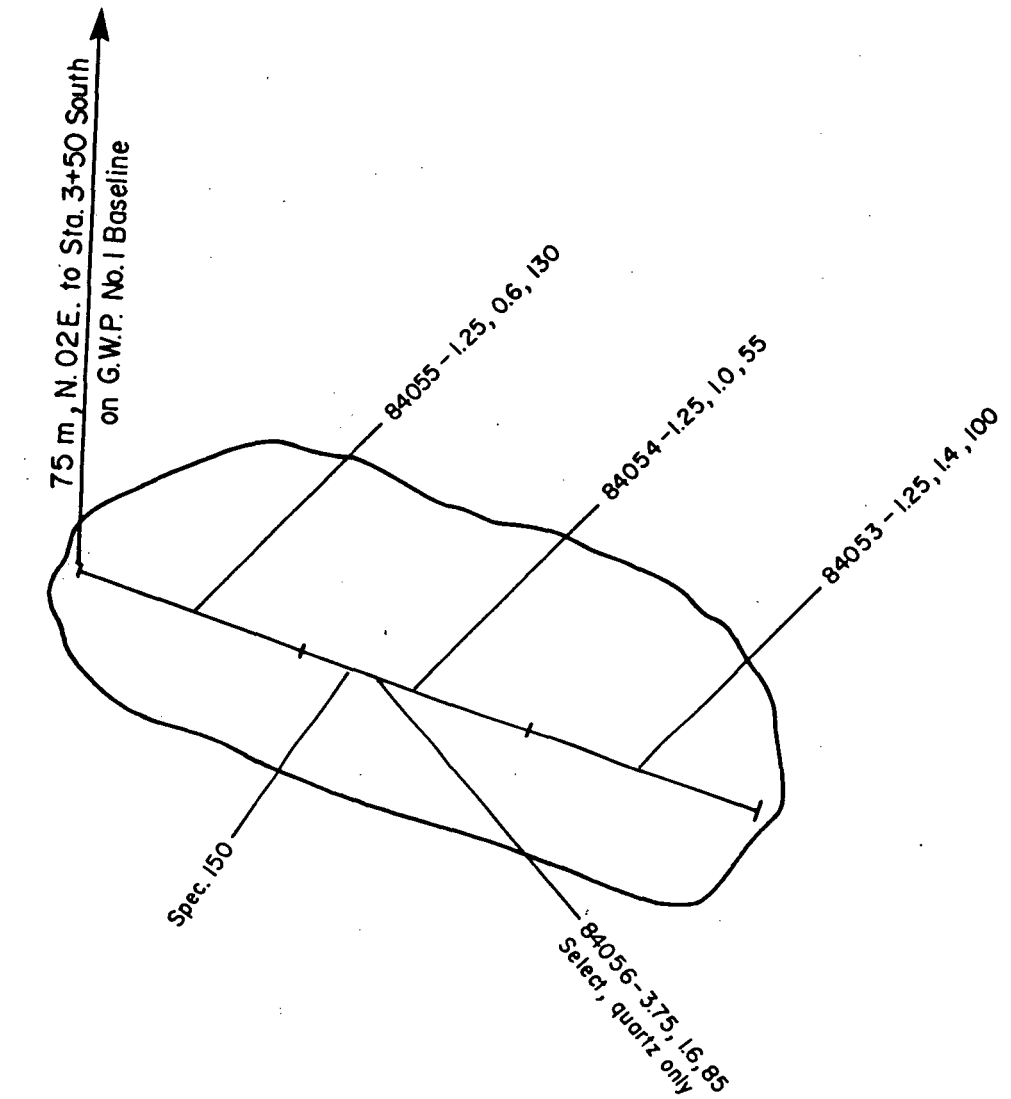


FIGURE 8

CASSIDY RESOURCES LTD.

Mineral Claim G.W.P. No.1
ASSAY MAP OF TRENCH No. 1

Sampled, Sept. 18, 1985
Trench Cut Sept. 18, 1985

m 0 .5 1 2 m

NOTE. Elevation approx. 1660 m

ASSAY SEQUENCE: Sample No. - Width(m), Ag(ppm), Au(ppb)

Revised May 9, 1986 W. D. Tompson

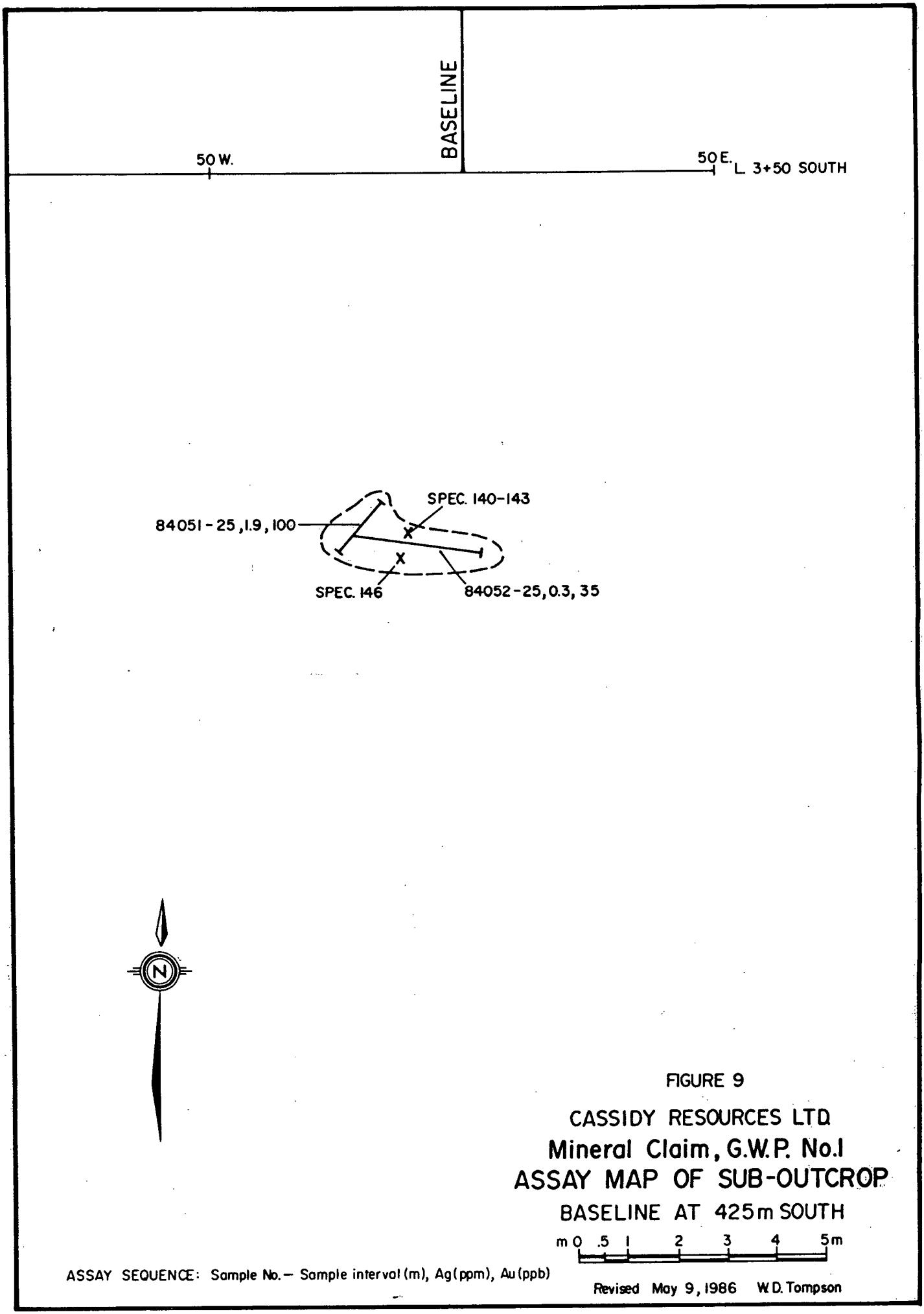


FIGURE 9

CASSIDY RESOURCES LTD.

Mineral Claim, G.W.P. No.1

ASSAY MAP OF SUB-OUTCROP

BASELINE AT 425m SOUTH

m 0 .5 1 2 3 4 5m

ASSAY SEQUENCE: Sample No.— Sample interval (m), Ag (ppm), Au (ppb)

Revised May 9, 1986 W.D. Tompson

Gold and silver anomalies were discovered by Louise Eccles in a regional geochemical exploration program in 1981 (Eccles, 1981). Geochemical analyses showed precious metal concentrations up to 3.5 ppm silver and 535 ppb gold. Eccles (1981) identified a zone 500 by 2000 meters where a series of geochemical anomalies contain greater than 2 ppm silver and 50 ppb gold. The zone strikes about N. 10° W. The anomalous zone includes the area described in this report (Figures 3 and 4).

During August 1985, Cassidy Resources, Ltd. conducted a geological mapping and outcrop sampling program in an area in which many pyritized quartz veins occur (Figures 3 and 4). A base grid was established for mapping control and the area was mapped at a scale of 1:1,000. Quartz-pyrite outcrops were drilled and blasted and were sampled. Trenches and assays are shown on Figures 4 to 9. Geochemical values are promising; silver analyses range from less than one part per million to 4 ppm. Gold values are from 5 to 130 ppb.

CONCLUSIONS

Sericitic alteration of volcanic rocks at the G.W.P. No.1 prospect is characteristic of rock alteration in epithermal systems which are host to precious metal deposits.

Quartz-pyrite-barite veins, silicified zones and clay-filled faults(?) strikes N.50° W. to N. 60° W. across the soft, brown stained volcanic rocks. Post-alteration granodiorite dikes transect the volcanic rocks striking northwesterly through the area and may follow fractures which functioned as channels for hydrothermal fluids.

Geochemical values in quartz veins and in areas of silicification are anomalous for gold and silver.

Rocks at G.W.P. No. 1 prospect are strongly sericitized and silicified and are moderately anomalous in concentrations of precious metals. The prospects require more geological work and more surface exploration prior to diamond drilling.

RECOMMENDATIONS

A three phase exploration program is recommended;

1. Expand the control grid to the claim boundary or to the limits of the altered rocks and complete the geological mapping of the claim
2. Cut trenches, drill and blast outcrops as required and cut samples
3. Conduct petrographic studies and fluid inclusion thermometry.

The exploration program on G.W.P. No. 1 may be supported from the Cassidy Resources, Ltd. camp at Moosehorn Creek. However a small camp should be installed at G.W.P. No. 1 for the use of personnel who are working there in order to reduce the requirement for helicopter transport of field crews.

The exploration cost estimate which follows is based upon mobilizing the work on G.W.P. No. 1 from the Moosehorn Creek base camp:

Prospecting and trenching	$ 7,500
Management and geology	9,000
Sample and assay	1,250
Tools and supplies	770
Fuel	150
Food	2,700
Fixed wing aircraft	965
Helicopter	4,800
Trucking	150
Communications	200
Administration, insurance	1,035
Total	$28,520

Respectfully submitted

Willard D. Tompson

Willard D. Tompson
Consulting Geologist

REFERENCES CITED

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Diakow, L.J., Penteleyev, A., and Schroeter, T.G., 1985; Geology of the Toodoggone River area, NTS 94 E: B.C. Min. Energy, Mines and Petrol. Res., prelim. map 61, 2 sheets.

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CERTIFICATE

I, Willard D. Tompson, of Smithers, British Columbia do hereby certify:

1. THAT I am a consulting geologist residing at Van Gaalen Road, Smithers, British Columbia;

2. THAT I hold a Master of Science Degree (Geology) from Montana State University;

3. THAT I am a Fellow of the Geological Association of Canada;

4. THAT I have practiced my profession for more than 26 years;

5. THAT I have examined and mapped the geology of the prospect on mineral claim, G.W.P. No. 1 and have personally supervised trenching and sampling in the prospect area;

6. THAT I have not received, directly or indirectly nor do I expect to receive any interest, direct or indirect, in the property of the company or any afficliate of the company, nor do I beneficially own, directly or indirectly any securities of the company or any affiliate of the company;

7. THAT this report may be used for any corporate purpose the Company deems necessary, including its insertion, in whole or in part, in any Filing Statement, Statement of Material Facts or Prospects of the Company.

Dated at Smithers, British Columbia, this 30th day of November, 1985.

Willard D. Tompson
Consulting Geologist

APPENDIX I

Petrographic Descriptions

103: QUARTZ - BARITE VEIN.

This sample consists of an intergrowth of quartz and barite with a few small sericitic patches, presumably derived from the alteration of included felsic volcanic material. Small vugs are present. Minerals are:

quartz	70%
barite	20
sericite	10 (with minor kaolinite)
Fe-Ti oxide	trace
zircon	trace

The sericitic patches are 1 to 5mm in size and also contain quartz. These patches are similar to sample 212 which appears to be a silicifed volcanic rock; the quartz and barite veining in this sample occured after the initial silicification. The sericite (mixed with extremely fine kaolinite in places) forms very fine flakes which occur in small patches intergrown with subrounded quartz grains about 0.2mm in size. Some of the quartz grains are full of fine sericite. Quartz and sericite occur in about equal amounts in these patches. Extremely fine Fe-Ti oxides are scattered in the sericitic patches and often coalesce into ragged aggreates up to 0.2mm in size. Rare zircons about 0.1mm in size are present in the sericitic patches.

In the vein system quartz forms shapeless interlocking grains 0.05 to 0.2mm in size occuring in small patches intergrown with subidiomorphic grains 0.5 to 2.0mm in size. Bladed grains of barite 0.2 to 1.0mm in size are intergrown with the subidiomorphic quartz grains. Shapless grains less than 0.2mm in size are also present and these tend to occur intergrown with the finer quartz. There is a patch of barite which ios several millimeters in size.

105: QUARTZ - SERICITE ROCK.

This sample consists of an intergrowth of quartz and sericite. There is nothing in the section to indicate whether this is a quartz-sericite vein or is a pervasively altered volcanic rock. Minerals are:

quartz	58%
sericite	40
goethite	2
Fe-Ti oxide	trace

Quartz forms subrounded to slightly elongated grains with somewhat irregular margins which are 1 to 1.5mm in size. Moderate strain is evident by the undulose extinction and some recrystallisation to much finer, rounded grains has occured. Sericite appears to have replaced this quartz. The sericite forms ragged flakes up to 0.1mm in size occuring in subrounded patches 1 to 2mm in size which are intergrown uniformly with the quartz and are partly interconnected. Within some of these there are remnants of the fine quartz. The edges of the larger quartz grains sometimes contain sericite. Extremely fine Fe-Ti oxides are scattered in the sericite.

Goethite occurs in a widely spaced network of thin discontinuous stringers and veinlets which are mostly less than 0.1mm wide and cut through both the quartz and the sericite. Diffuse patches occur within the sericite. In places there are clusters of subcubic "grains" up to 0.3mm in size; these are probabaly altered pyrite.

116: QUARTZ VEIN WITH PYRITE AND BARITE.

This sample consists dominantly of quartz. There have been two stages of quartz deposition. The earlier appears to be a replacement (?) and consists of very fine quartz intergrown with pyrite. Further quartz veining has occured and this quartz is much coarser and is associated with barite. Minerals are:

quartz	90%	
pyrite	5	(minor alteration to goethite)
barite	3	
sericite	2	

In the section about 65% of the quartz forms highly irregularly shaped interlocking grains 0.05 to 0.1mm in size, sometimes grading into small patches of slightly coarser grains. Extremely fine sericite is disseminated between and partly within the quartz grains, giving them a somewhat cloudy appearence. Cubic to rounded pyrite grains 0.1 to 0.2mm in size are intergrown with the quartz and tend to occur in elongated clusters.

Within the mass of fine quartz grains there are several thin veinlets of clear quartz and these grade into a vein-like patch making up about 35% of the section. The quartz in this forms idiomorphic or subidiomorphic grains 0.5 to 1.0mm in size. Small patches of the cloudy quartz, sometimes with pyrite, have been caught up in this.

Barite forms bladed grains 0.5 to 1.0mm i size which occur in clusters between the idiomorphic quartz grains. Barite has also penetrated into the finer quartz where it forms extremely fine grains occuring in small diffuse patches amongst the fine quartz, commonly enclosing pyrite. It is sometimes intimately mixed with sericite.

142: ALTERED (QUARTZ, SERICITE/KAOLINITE) PORPHYRITIC VOLCANIC ROCK.

This sample is a highly altered rock consisting mainly of quartz. It appears to have been a porphyritic volcanic rock but all the original feldspar has been replaced or has altered to sericite; all that remains are tabular to rounded aggregates of coarse sericite which were probabaly phenocrysts. Quartz phenocrysts were also present. Minerals are:

quartz	70%	
sericite/kaolinite	25	(sericite dominant)
limonite/goethite	5	
Fe-Ti oxide	trace	
zircon	trace	

The alteration has resulted in a patchy texture in which various types of quartz grains have developed. Patches are several millimeters in size and grade into one another. Much of the quartz forms shapeless to rounded grains 01 to 0.1mm in size which are intimately intergrown with very fine sericite. These grade into patches where the quartz forms rounded grains about 0.1mm in size. The sericite in these areas tends to form "poekiloblastic" aggregates up to 1mm in size or occur in a fine intergranular network. There are patches in which little sericite is present but the quartz has become cloudy. There are patches where quartz forms aggregates of subrounded grains about 0.5mm in size. The core of these is cloudy and has a radiating, spherulitic texture reminiscent of spherules of orthoclase-quartz found in some acid volcanic rocks. The outer part is clear but both parts are in optical continuity. The cloudiness appears to be a "ghost" of feldspar. Streaky patches of sericite may occur between the patches of quartz. Small amounts of fine kaolinite are often intimately mixed with the sericite.

In places tre broad tabular to rounded aggregates of coarse sericite, forming thin flakes up to 0.4mm in length. These appear to have been phenocrysts of plagioclase which were 1 to 3mm in size. The sericite is intergrown with goethite. Quartz phenocrysts are rounded with embayments and about 1mm in size. They are surrounded by a zone of cloudy quartz which is in optical continuity with the phenocryst. Remnant plagioclase phencrysts make up about 10% of the rock; quartz phenocrysts are minor.

There is a network of goethite veinlets up to 0.3mm wide (with limonite strain) throughout the rock. Close to these there are clusters of subcubic goethite "grains" 0.1 to 0.3mm in size. These are probabaly altered pyrite.

207: ALTERED (QUARTZ, SERICITE/KAOLINITE) PORPHYRITIC VOLCANIC ROCK.

This sample was a porphyritic volcanic rock containing large plagioclase phenocrysts. It has been highly altered so that all the groundmass has been pervasively replaced by quartz, sericite and kaolinite; the phenocrysts remain. Vein-like patches of quartz also occur. Alteration was accompanied by some brecciation and small vugs are present. Minerals are:

plagioclase	30%	
quartz	55	
sericite/kaolinite	12	(sericite dominant)
limonite/goethite	3	
jarosite	trace	
Fe-Ti oxide	trace	

Plagioclase forms broad euhedral grains 1 to 3mm in size, which make up over half of the plagioclase in the rock. They are cloudy with incipient sericite. These grains appear to be phenocrysts between which are diffuse remnant patches of the groundmass plagioclase. This forms subrounded to lath-like grains 0.1 to 0.2mm in size which have been pervasively replaced by quartz, along with sericite and kaolinite. A few quartz phenocrysts were also present, forming rounded grains with embayments, about 1mm in size.

The quartz forms subrounded interlocking grains 0.05 to 0.1mm in size with extremely fine sericite between the grains. Sometimes the sericite is concentrated in patches one or two millimeters in size where it may be intimately mixed with kaolinite. There are also a few small kaolinitic patches. In places there are vein-like patches of coarser quartz without any sericite or remnant plagioclase. Extremely fine Fe-Ti oxides are scattered in the sericitic patches.

A patchy network of limonite and goethite has developed with the limonite staining the rock in patches and the goethite occuring in discontinuous veinlets up to 0.2mm wide. Clusters of subcubic goethite "grains" are probably altered pyrite. The Fe-hydroxides are accompanied by small amounts of fine jarosite which may partly fill vugs.

212: QUARTZ - SERICITE ROCK.

This sample consists mainly of a patchy intergrowth of quartz and sericite (with kaolinite). It appears to be a pervasively silicified volcanic rock in which all the feldspar has altered to sericite and kaolinite. There are a few vein-like patches of quartz. Small vugs are present. Minerals are:

quartz	55%	
sericite + kaolinite	45	(sericite dominant)
Fe-Ti oxide	minor	
K-spar	trace	
clay	trace	(montmorillonite ??)

Quartz forms subrounded grains 0.1 to 0.3mm in size occuring in a patchy intergrowth with an intimate mixture of fine sericite and kaolinite. Vein-like patches up to 1mm wide are present. The sericitic patches are shapeless and of variable size from 0.3 to 1.0mm; they are partly interconnected. Sometimes there are tabular patches suggesting replacement of feldspar. Most of the patches consist of a compact mass of fine sericite with small, variable amounts of kaolinite mixed in with it, but in places there are kaolinitic patches. Extremely fine Fe-Ti oxides are scattered in the sericitic patches, often coalescing into small aggregates and clusters.

In some of the sericitic patches there is sometimes a patch of an extremely fine dirty brown clay with moderate relief. It could be montmorillonite. Adjacent to one sericitic patch there is a narrow zone of fine K-spar which appears to have replaced quartz.

APPENDIX II

Cassidy Group No. 6

Geochemical Sampling Descriptions

November, 1985

Appendix

Geochemical Sampling Descriptions

Sample No.	Sources	Sampling Width/meters	Description
84001	bed rock	2	Kaolinized pervasively altered felsic intrusive chip sample.
84002	rock	1.7	Highly silicified felsic intrusive pyrite stringers and dissemations chip sample.
84003	rock	2.3	Quartz vein chip sample.
84004	clay	1.3	Massive clay adjacent to quartz vein, channel.
84005	rock	1	Kaolinized intrusive, chip.
84009	rock	3	Highly argillized and silicified rock, with parallel quartz stringers Pervasive alteration, chip.
840010	rock	1	Silicified porphyritic granodiorite, chip.
840011	rock	2	Highly argilliezed and silicified, chip.
84026	outcrop	4	Grab sample, chip.
84027	bed rock	1.3	From trench, blasted.
84028	bed rock	1	From trench, blasted.
84029	bed rock	1	blasted trench.
84030	outcrop	2.3	chip across outcrop.
84031	rock	4.7	Trench #3, broken muck.
84032	outcrop	4	Chip. 135 N 140 E

Sample No.	Sources	Sampling Width/meters	Description
84033	outcrop	2	Chip, 135 N. 140 E.
84034	outcrop	2	Chip, 135 N. 140 E.
84035	muck	2.5	Blasted #4 trench.
84036	muck	2.5	From blasted #4 trench.
84037	muck	1.0	#5 trench, blasted.
84038	muck	2	#5 trench.
84039	muck	2	#5 trench.
84040	muck	2	#5 trench.
84041	muck	1.0	#5 trench.
84042	muck	1	#5 trench.
84051	rock outcrop	25	S. 16° W. from 3 + 50 S. on base line. Quartz breccia, chip.
84052	outcrop	25	2 M E of 84051, chip.
84053	rock	1.25	#6 trench.
84054	muck	1.25	#6 trench.
84055	muck	1.25	#6 trench.
84056	rock	3.75	Quartz, chip.

APPENDIX III

Cassidy Group No. 6

Geochemical Analytical Reports

Bondar - Clegg

November, 1985

Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 125-2819 (COMPLETE)

REFERENCE INFO:

CLIENT: CASSIDY RESOURCES LTD.
PROJECT: NONE GIVEN

SUBMITTED BY: UNKNOWN
DATE PRINTED: 18-SEP-85

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag Silver	26	0.2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
2	Au Gold - Fire Assay	26	5 PPB	FIRE-ASSAY	Fire Assay AA
3	As Arsenic	4	2 PPM	NITRIC PERCHLOR DIG	Colourimetric
4	Sb Antimony	4	2 PPM		X-RAY Fluorescence

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR RED ROCK	26	2 -150	26	CRUSH,PULVERIZE -150	26

REPORT COPIES TO: CASSIDY RESOURCES LTD.

INVOICE TO: CASSIDY RESOURCES LTD.

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North Vancouver, B.C.
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Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 125-2819 | PROJECT: NONE GIVEN | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Au PPB	As PPM	Sb PPM
R2 84001		<0.2	55	18	4
R2 84002		0.4	40	4	<2
R2 84003		<0.2	<5		
R2 84004		<0.2	20	5	<2
R2 84005		<0.2	15	5	<2
R2 84026		1.4	55		
R2 84027		0.4	90		
R2 84028		0.6	65		
R2 84029		<0.2	65		
R2 84030		1.1	70		
R2 84031		0.8	15		
R2 84032		<0.2	5		
R2 84033		<0.2	<5		
R2 84034		<0.2	5		
R2 84035		1.0	35		
R2 84036		0.7	25		
R2 84037		0.6	25		
R2 84038		1.2	30		
R2 84039		1.4	40		
R2 84040		0.9	35		
R2 84041		0.6	35		
R2 84042		0.9	45		

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Geochemical Lab Report

REPORT: 125-2942 (COMPLETE)

REFERENCE INFO:

CLIENT: CASSIDY RESOURCES LTD.

PROJECT: NONE GIVEN

SUBMITTED BY: UNKNOWN

DATE PRINTED: 26-SEP-85

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag Silver	12	0.2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption
2	Au Gold - Fire Assay	12	5 PPB	FIRE-ASSAY	Fire Assay AA
3	As Arsenic	4	2 PPM	NITRIC PERCHLOR DIG	Colourimetric
4	Sb Antimony	4	2 PPM		X-RAY Fluorescence

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	12	2 -150	12	CRUSH,PULVERIZE -150	12

REPORT COPIES TO: CASSIDY RESOURCES LTD.

INVOICE TO: CASSIDY RESOURCES LTD.

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Geochemical Lab Report

REPORT: 125-2942

PROJECT: NONE GIVEN PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM	Au PPB	As PPM	Sb PPM
R2 84009		0.6	55		
R2 84010		0.8	60		
R2 84011		0.9	110		
R2 84051		1.9	100		
R2 84052		0.3	35		

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Geochemical Lab Report

REPORT: 125-3183 (COMPLETE)

REFERENCE INFO:

CLIENT: CASSIDY RESOURCES LTD.
PROJECT: NONE GIVEN

SUBMITTED BY: UNKNOWN
DATE PRINTED: 9-OCT-85

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold - Fire Assay	19	5 PPB	FIRE-ASSAY	Fire Assay AA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	19	2 -150	19	CRUSH,PULVERIZE -150	19

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Geochemical Lab Report

REPORT: 125-3183

PROJECT: NONE GIVEN PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au PPB
R2 84053		100
R2 84054		55
R2 84055		130
R2 84056		85

Bondar-Clegg & Company Ltd.
730 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Telex: 04-352667

BONDAR-CLEGG

Geochemical Lab Report

REPORT: 225-3183 (COMPLETE)

REFERENCE INFO:

CLIENT: CASSIDY RESOURCES LTD.
PROJECT: NONE GIVEN

SUBMITTED BY: W. THOMPSON
DATE PRINTED: 25-OCT-85

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Ag Silver	19	0.2 PPM	HNO3-HCL HOT EXTR	Atomic Absorption

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	19	2 -150	19	CRUSH,PULVERIZE -150	19

REMARKS: ASSAY OF HIGH Ag TO FOLLOW ON 625-3183

REPORT COPIES TO: CASSIDY RESOURCES LTD.

INVOICE TO: CASSIDY RESOURCES LTD.

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Geochemical Lab Report

REPORT: 225-3183 | PROJECT: NONE GIVEN | PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Ag PPM
R2 84053		1.4
R2 84054		1.0
R2 84055		0.6
R2 84056		1.6

APPENDIX IV

Cassidy Group No. 6

Detailed Cost Report

November, 1985

Detailed Costing - Labour/Wages

Physical

J. Hemelspeck, Prospector July 12, Aug. 27-31, Sept. 1,5,13,18,25 11 days @ $156.00		$1,716.00
M. Melbourne, Prospectors Assistant Aug. 27-31, Sept. 1,5,12,18,25 10 days @ $104.00		$1,040.00
M. deGrasse, Cook/Caretaker (allocated) 5 days @ $68.92		$ 344.60
	26 Man Days Total	$3,100.60

Geological

W. Tompson, Geologist July 12, Aug. 27,28,29,30,31, Sept. 1,5,12,18,25 11 days @ $260.00		$2,860.00
E. Masarsky, Geologist Assistant Aug. 27,28,29,30,31, Sept. 1,5,12,18,25 10 days @ $69.68		$ 696.80
M. deGrasse, Cook/Caretaker (allocated) 5 days @ $68.92		$ 344.60
	26 Man Days Total	$3,901.40

TOTAL WAGES $7,002.00

Report Preparation	
W. Tompson 3 days @ $260.00	$ 780.00
Drafting 24 hrs. @ $25.00	600.00
Typing & assembly	100.00
	$1,480.00
Stereoscopic microscopic examination of rock samples, W. Tompson 4 days @ $260.00	$1,040.00

Transportation Costs

Helicopter Firm	Date	Hrs.	$
Okanagan Helicopter	July 12	0.5	$ 283.00
Northern	Aug. 27	1.3	793.00
Mountain	28	1.2	660.00
Helicpter Inc.	29	1.0	550.00
	30	1.1	560.00
	31	1.1	605.00
	Sept. 01	1.1	605.00
	05	1.2	660.00
	12	0.8	440.00
	18	0.8	440.00
	25	1.0	538.00
			$6,134.00

Allocate on basis of man days			
26 Geological, 26 Physical			
Physical ½	$3,067.00	Physical	$3,067.00
Geological ½	$3,067.00		
Fixed Wing			
Total for season	$24,054.00		
Allocated to Group No. 6	$ 740.00	Geological	$3,807.00

Miscellaneous Costs

Petrographic

Vancouver Petrographic Ltd.		
10 thin sections and report		
Invoice No. 5465	$586.50	$ 586.50

Explosives

B line - 1 roll	$146.00	
40% powder - 1 case	100.00	
	$246.00	$ 246.00

Geochemical Analysis - Bondar Clegg

27 Ag, Au	@ $12.00	$324.00	
4 Ag, Au, As, Sb	@ $20.25	81.00	
		$405.00	$ 405.00

Maps - Air photos	
McElhanney, Winfield	$ 778.00

con't.

Room & Board costs 52 field man days @ $50.00		$ 2,600.00
Physical plus Geological	TOTAL	$21,011.50