

84-#712 - 12495

GEOLOGICAL AND SAMPLING
REPORT ON THE
EAGL CLAIM GROUP

RECORD NO. 2912, 2917

LATITUDE: 59°04'N

LONGITUDE 129°28'W

NTS 104P/3W

LIARD MINING DIVISION
BRITISH COLUMBIA

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

by

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12,495

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TABLE OF CONTENTS

	<u>PAGE</u>
SUMMARY	1
INTRODUCTION	3
LOCATION, ACCESS AND TOPOGRAPHY	4
CLAIM REGISTER	6
REGIONAL GEOLOGY	8
GRID ESTABLISHMENT	10
PROPERTY GEOLOGY	11
STRUCTURE	12
MINERALIZATION	14
GEOCHEMISTRY AND ASSAYS	16
HAND TRENCHING	19
EM-16 SURVEY	28
CONCLUSIONS AND RECOMMENDATIONS	32
STATEMENT OF EXPENDITURES	34
APPENDIX I	SAMPLE DATA SHEETS
APPENDIX II	SAMPLE PREPARATION AND ANALYSIS
APPENDIX III	STATEMENTS OF QUALIFICATIONS

LIST OF ILLUSTRATIONS

<u>MAP</u>	<u>TITLE</u>	
I	GEOLOGY Scale 1:8,000	IN POCKET OF REPORT
II	GEOLOGY Scale 1:2,000 SOUTHEAST GRID AND STIBNITE LAKE GRID	
III	GEOLOGY Scale 1:2,000 SOUTH PLATEAU GRID	
IV	AIR PHOTO LINEARS Scale 1:8,000 and SAMPLE LOCATIONS 1984	
V	EM-16 SURVEY SOUTHEAST GRID & STIBNITE L. SEATTLE STATION	
VI	EM-16 SURVEY SOUTHEAST GRID & STIBNITE L. CUTLER, MAINE STATION	
VII	EM-16 SURVEY SOUTH PLATEAU GRID SEATTLE STATION	
VIII	EM-16 SURVEY SOUTH PLATEAU GRID CUTLER, MAINE STATION	

<u>FIGURE</u>		<u>PAGE</u>
1.	LOCATION MAP 1:250,000	5
2.	CLAIM MAP 1:50,000	7
3.	REGIONAL GEOLOGY 1"-4 mi.	9
4.	TRENCH 1 1:50	20
5.	TRENCH 2 1:20	22
6.	TRENCH 5 1:40	25
7.	TRENCH 6 1:40	27

SUMMARY

The 40 unit EAGL Claim group is located some thirty-five kilometres southeast of Cassiar B.C. and lies south of the main McDame (Cassiar) gold camp. The property was staked in 1983 to cover carbonate alteration and weakly mineralized quartz veins associated with strong linear structures. Sampling carried out in 1983 indicated anomalous gold and silver values associated with manganese coated drusy quartz veins with variable pyrite, stibnite, sphalerite, galena, chalcopyrite and/or arsenopyrite mineralization.

The mineralization, typically present only in frost heaved float rather than outcrop, was noted at several locations on the claims.

Work carried out in 1984 was aimed at a more systematic prospecting of the claims as well as re-assessing the known showings. Picket lines were established in three areas of the claims totalling 24 kilometres of line covering 1.7 kilometres square. Geological mapping at a 1:2000 scale and an EM-16 survey were carried out in the grid areas. A 1:8000 scale geological map of the entire property was also prepared on an enlargement of the air photo. Eight small hand trenches were blasted on some of the mineralized zones. Many of the showings found previously were still covered by snow at the time and could not be trenched.

The results of the 1984 work were mixed. A few new showings were located but appear to be similar in mineralization and geochemistry to those found in 1983. A few pieces of massive pyrite - galena - sphalerite float were found in a swampy area which might be underlain by shales. Although the sulphide float might be of glacial origin the potential for shale hosted sulphide deposits similar to Midway or the Cottonwood properties should not be overlooked.

Several of the 73 rock samples collected in 1984 carried anomalous gold and silver values up to 0.072 ounces per ton gold and up to a few ounces per ton silver as well as significant Sb, Pb, Zn, Cu or As values.

The EM-16 data was difficult to interpret and it appears that the 50 metre station interval was too coarse to define anomalies associated with the linear structures.

The trenching permitted somewhat more systematic samples of some of the mineralized zones. The sheared and fractured nature of the rock in the iron carbonate alteration zones was quite obvious in the trenches.

The tenor, size and strength of the mineralized zones found to date is certainly not of economic significance but the potential for ore grade veins being present at greater depth is of interest.

The uniformity of tenor and type of the mineralization found suggests that further exposure of surface showings by either hand trenching or backhoe trenches would likely not return higher assays. It might be useful in better defining the mineralized structures. A more tightly spaced EM-16 might also be useful for defining the structures.

INTRODUCTION

The 40 unit EAGL claim group is located some twenty kilometres south of the McDame lode and placer gold camp in the Cassiar district of B.C. The property was staked in 1983 to cover zones of iron carbonate - silica alteration and weakly mineralized quartz veining associated with strong lineaments within predominately volcanic rocks of the Sylvester Group.

The results of geological mapping, prospecting and geochemical sampling carried out in 1983 are reported in the previous assessment report

Work carried out in 1984 included establishing 24 kilometres of picket lines in three grids covering approximately 1.7 square kilometres, 1:2000 geological mapping and an EM-16 survey of the three grids, 1:8000 geological mapping, detailed prospecting and further geochemical sampling over the entire claim block using an air photo enlargement as a base map, and hand trenching and sampling of some of the zones of interest. A total of 81, rock and 31 soil and talus samples were collected and analysed for Au, Ag ± As, Sb. This work was carried out in early July and persistent snow banks in the gullies prevented blasting and hampered prospecting.

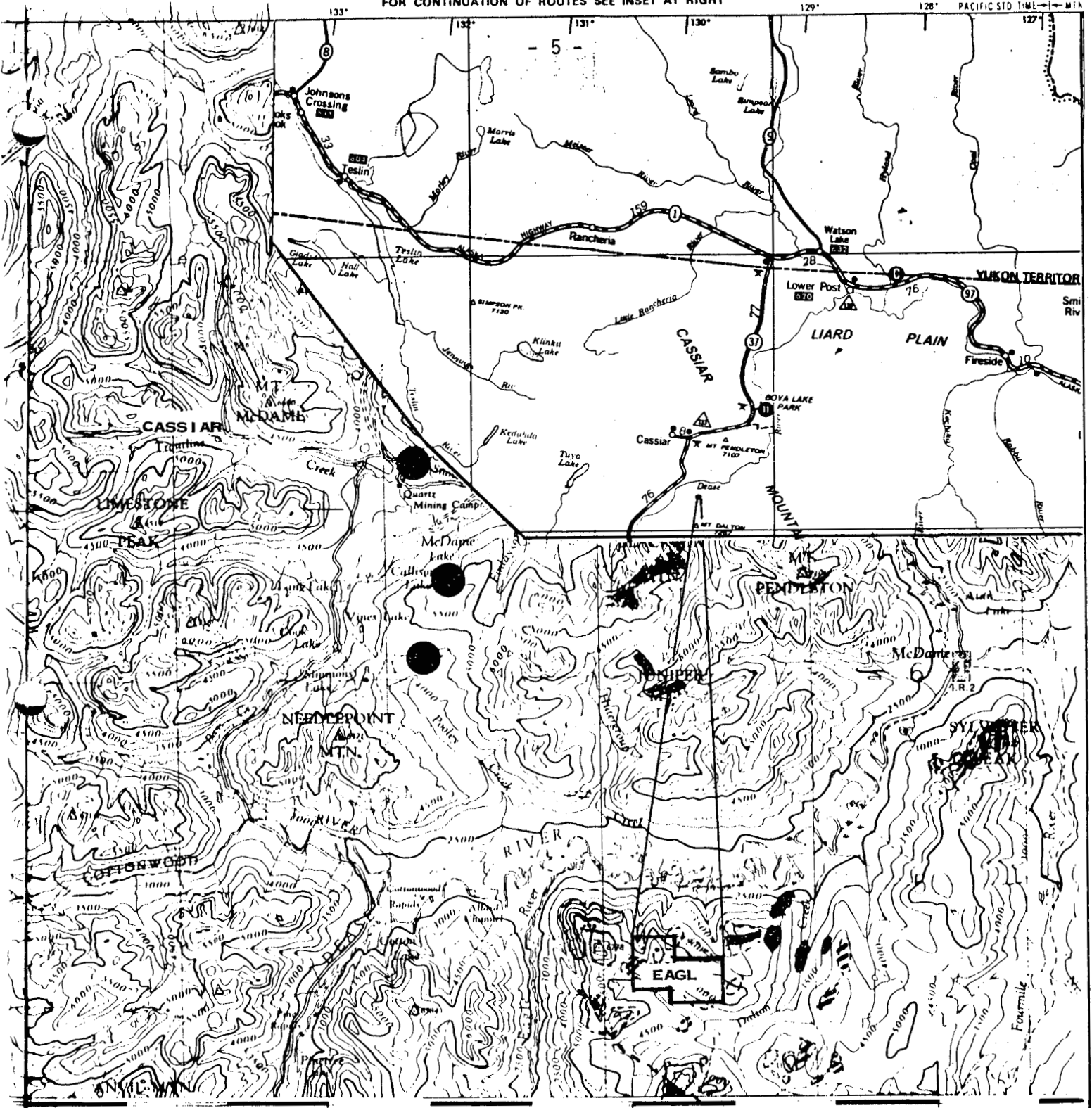
LOCATION, ACCESS AND TOPOGRAPHY

The EAGL claim group is located in the Liard Mining Division, B.C. and is some 35 kilometres southeast of Cassiar B.C., as shown in Figure 1. The junction of the Eagle River with the Dease River lies 5 kilometres northwest of the property.

Access to the claims has been by helicopter. The closest helicopter ferrying site is on the Stewart-Cassiar Highway, 15 kilometres west of the claims. Helicopter bases are located in Dease Lake, B.C. and Watson Lake, Y.T.

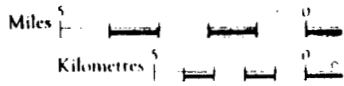
Elevations on the property range from 4600 feet (1400 metres) to 5900 feet (1800 metres). The claim area is on a gently rolling grassy plateau with numerous small ponds. Scrubby timber is present in the northerly draining creek valleys which cut the plateau. Several suitable camp sites are present along the creeks or by the ponds.

Much of the area has a thin mantle of glacial drift but small "roche moutonee" outcrops and frost-heaved subcrop are common. Low lying depressions and gullies are filled with glacial boulders.



10° 00' 45' 10' 15'

South west area by Dept. of Mines and Technical Surveys, Ottawa.
 by and Lower Dease by Dept. of Lands and Forests, British Columbia.
 sheet surveyed by the Army Survey Est. R.C.E. Dept. of National Defence, 1948.
 topography by the R.C.A.F. 1948.
 drawn and printed by the A.S.E. 1949-50.



Universal Transverse Mercator Projection.
 Inclination 11° 40' East at centre of sheet, 1950.
 If the compass needle is decreasing 3 minutes annually

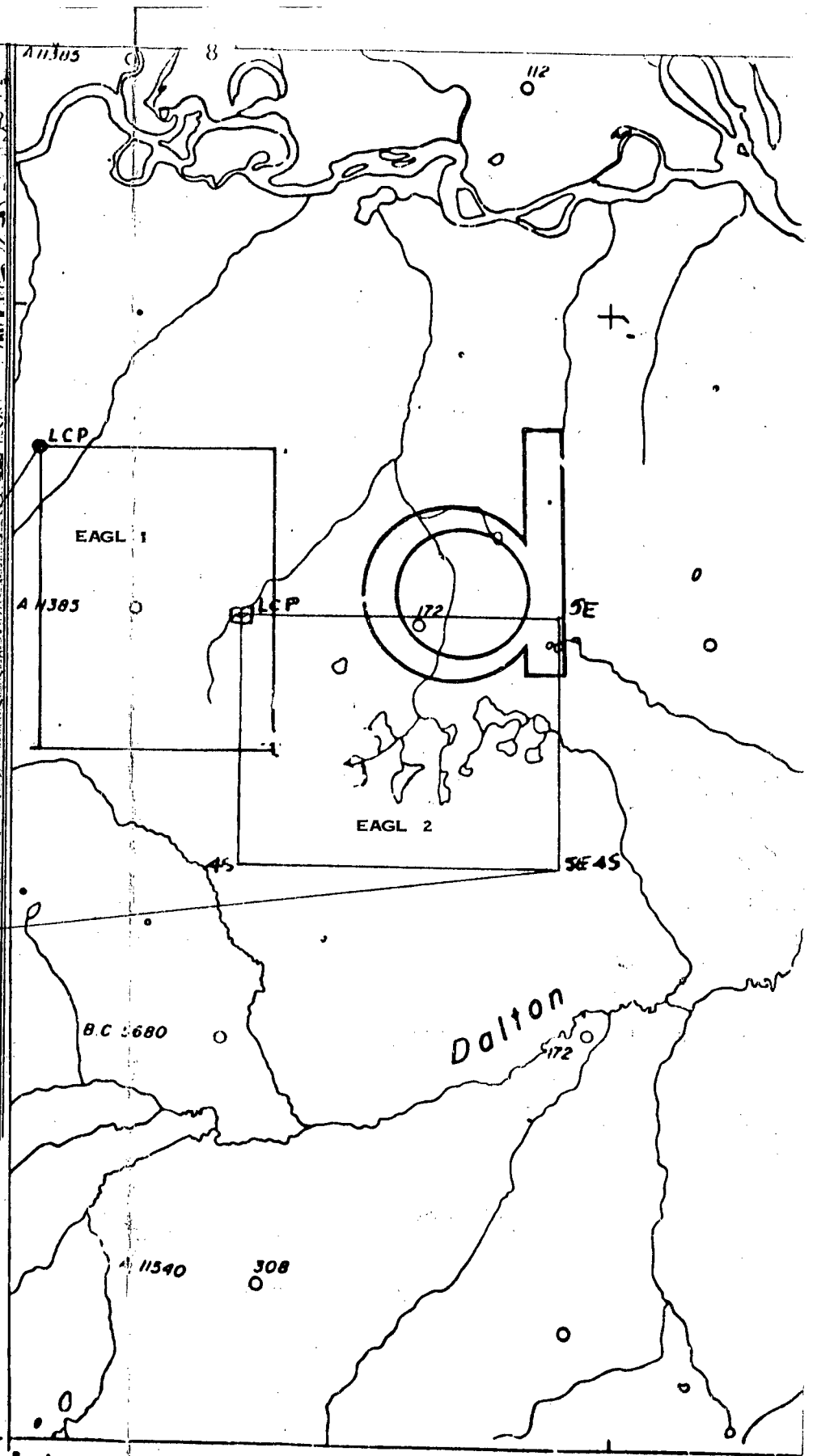
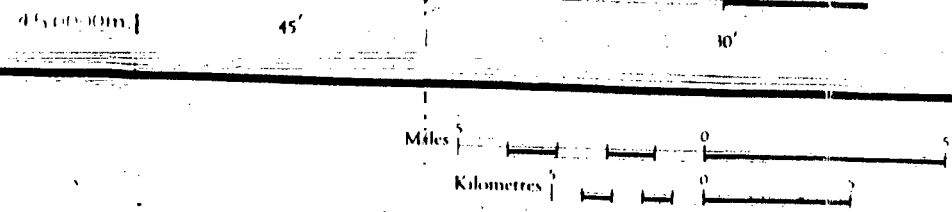
TO GIVE A STANDARD REFERENCE ON THIS SHEET TO NEAREST 1000 METERS.
 LOCATION SAMPLE POINT CABIN

Road, Hard Surface, Heavy Duty	3 or more Lanes	Partially complete
.. Hard Surface, Heavy Duty	2 Lanes	Route No.
.. Hard Surface, Medium Duty	2 or more Lanes	12
.. Loose Surface, Graveled and Drained	3 or more Lanes	1 Lanes
Other Roads		Not less than 14 ft wide
		Post condition

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 CASAU SURVEY
 EAGL CLAIM GROUP
 LOCATION MAP
 1:250,000 FIGURE 1

CLAIM REGISTER

<u>Name</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Current Expiry Date</u>	<u>New Work Being Applied</u>
EAGL 1 20 units	2912(7)	July 25 1983	July 25 1986	1 year
EAGL 2 20 units	2917(9)	Sept. 2 1983	Sept. 2 1985	3 years



129°30' LIARD MINING DIVISION

Mining Division Boundary
 Indian Reservation
 Mineral and Pledge Reserve
 Ecological Reserve
 Park Boundary

Crown Granted
 Revested C.G. Mineral Claim

CASAU SURVEY
 CLAIM MAP
 104P/3W
 Scale 1:50,000 FIGURE 2

REGIONAL GEOLOGY

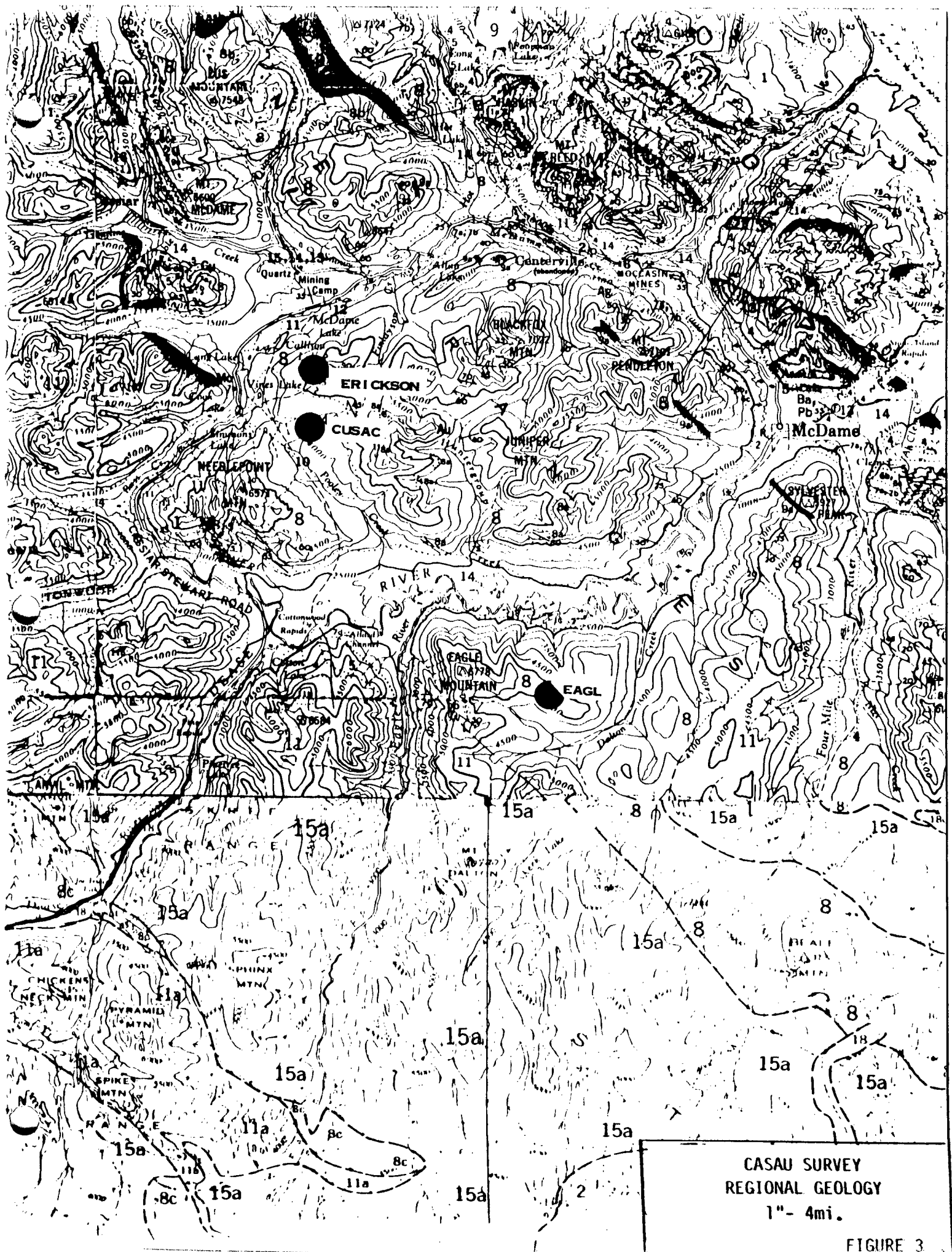
The regional geology as shown in Figure 3 is taken from GSC Map 1110A (Gabrielse, 1963) which accompanies Memoir 361 McDame and from GSC Map 29-1962 Cry Lake.

The EAGL claims lie entirely within Gabrielse's Unit 8, the Sylvester Group, consisting of Upper Devonian to Mississippian greenstone, chert arenite, chert, argillite, slate and quartzite. This package is now considered to be an allocthonous oceanic terrane which has been thrust onto the late Precambrian to Devonian platformal carbonate and clastic rocks (Monger, 1977).

The property lies just west of the axial trace of the southeast plunging McDame synclinorium. Quartz monzonite and granodiorite of the Cretaceous Cassiar Batholith outcrops about four kilometres southwest of the EAGL 1 claim while the Four Mile River Batholith, of similar composition and age, outcrops about ten kilometres east of the EAGL 2 claim.

A small rusty weathering pyritic felsic porphyry stock of uncertain age outcrops in Dalton Creek just east of the EAGL 2 claim.

The geological setting of the EAGL claims is very similar to that of the lode gold deposits in the Cassiar (McDame) gold mining camp located twenty kilometres to the north. The Sylvester Group also hosts several other precious metal and base metal prospects including the Midway deposit.



CASAU SURVEY
 REGIONAL GEOLOGY
 1" - 4mi.

FIGURE 3

GRID ESTABLISHMENT

Picket line grids were established on three areas of the EAGL 1 and 2 claims as shown on Map IV Grid North was set at 030° and the baseline and grid lines were turned off using a Brunton compass. Spacing between the north lines is 100 metres with a 50 metre station spacing. A polychain was used to chain distances with no slope correction.

The three grids; SE Grid, Stibnite Lake Grid and South Plateau Grid, cover approximately 1.7 square kilometres with 24 line kilometres of picketing.

PROPERTY GEOLOGY

A 1:8000 scale geological map of the entire claim block was prepared on an enlargement of the aerial photograph. (Map I, back pocket). Although at a smaller scale than the 1:5000 map produced in 1983 the outcrops are more accurately plotted. More detailed 1:2000 scale maps were produced of each of the grid areas (Maps II, III).

No major changes have been made to the property geology as a result of the 1984 work. The rock units include:

Unit Vx: Andesitic volcanic tuffs and breccias

Epidote, chlorite, calcite and albite alteration is ubiquitous. Bedding is rarely visible. May contain irregular pods of limestone or chert.

Unit Ar: Argillite

Black phyllitic argillite with minor interbeds of siltstone, calcareous shale and chert.

Unit Ct: Chert:

White to black chert, argillaceous chert, tuffaceous chert and/or sericite chert. Thin exhalative lenses.

Unit Um: Serpentinite

Small pods of black, sheared, serpentinite. Formed by metasomatic alteration of volcanic rocks along faults.

STRUCTURE

Bedding was observed in a few outcrops of fine grained tuff on EAGL 2. It varies in attitude from 120 to 160° strike and 35 to 50° N dip. A weak foliation noted in some other outcrops of the volcanics shows a similar range in attitudes. Exposures of argillite and chert on EAGL 1 are too limited to define bed attitudes. A roddy cleavage is present in the argillite but the subcrops are frost heaved.

Within the volcanics several sets of joints are normally present but the only regular joint is a strong "spaced cleavage" set of joints which consistently strike $090^{\circ} \pm 10^{\circ}$ and are subvertical over much of the claim area. However near the eastern edge of EAGL 2 this joint set appears to strike more northeasterly averaging 060 to 070°. In some areas barren white bull quartz \pm chlorite veins, generally 10 to 30 cm wide, are present along some of these joints.

On a gross scale several sets of linear structures are apparent (Map IV).

- (a) the claim group occurs on a plateau area lying between two apparent linear structures trending 305° which lie to the northeast and southwest of the mapped area. Some iron-carbonate alteration occurs in outcrops along the northeast linear structure but no mineralization is noted.
- (b) linears trend from 345° within EAGL 1 to 355° within EAGL 2. These are apparently more closely spaced within EAGL 2 and, in the vicinity of Shark and Bottle Lakes, contain iron carbonate alteration, quartz veining and some indication of precious metals mineralization.
- (c) fractures trend at 75° to 85° through the south Plateau Grid, Stibnite Lake Grid and the south central portion of EAGL 2. Precious metals mineralization occurs on these structures in Trench 6 and west of Stibnite Lake.

- (c1) Apparently related fractures trending 60° to 75° are apparent through much of EAGL 2, sometimes producing curved elongation of the 75° to 85° set of fractures.
- (d) fractures at 015° to 030° contain mineralization in Trench 4 area, South Plateau Grid, north of Stibnite Lake, and at 28E 10N.
- (e) less prominent fractures occur at about 48 to 55° .

Curved and/or deflected fracture zones occur where fractures of similar direction intersect. Several isolated fractures of significant length do not appear to fit into any of the above sets.

Persistent remnants of snow prevented detailed prospecting of many linear gullies and, as a result, correlation of mineralization with particular fracture sets is tentative at best. Near the lake within South Plateau Grid mineralization occurs with fractures of sets c (75° to 85°) and d (15° to 30°).

Mineralization in float west of Stibnite Lake may be associated with fractures of set c and a fracture of this trend occurs near the sphalerite galena float (in samples 7586E, 87E) west of Shark Lake.

Gold silver values (7577E to 79E) appear to be associated with a zone of set d. In each of these cases, however, an argument can be made that the mineralization occurs at intersections of fractures of sets c and d.

MINERALIZATION

The property was systematically prospected as it was mapped. Although particular attention was paid to the frost heaved material along the lineaments this was hampered by the remnant snow banks which occupied many of those zones. Several of the mineralized showings found in 1983 were still buried under snow in mid July. Thus it seems fairly likely that other showings could still be undiscovered.

The most significant new mineralization found on the property was a few pieces of massive sulphide (pyrite, galena, sphalerite) float found in a swampy area west of the camp. The sulphides were coarsely crystalline and appeared brecciated. The only similar mineralization found on the claims previously was the sphalerite - galena showing on the south Plateau area. Most of the float in the area of these boulders was rounded glacial erratics but there was some black shale float that may be frost heave. Whether this sulphide material is local or a glacial train its possible similarity to shale hosted sulphide deposits such as on the Cottonwood River and at Midway should not be overlooked.

A new occurrence of a stibnite mineralized drusy quartz was located a few hundred metres west of the massive stibnite vein at Stibnite Lake. The new vein is only 10 cm wide but of similar mineralogy and texture to the larger vein. It is truncated to the north by a steep easterly trending fault and either is faulted or pinches out to the south. It is significant for its lack of wallrock alteration. There is none of the usual iron carbonate alteration that is typically associated with the other mineralized veins. The vein float is coated by manganese and the vein is not particularly visible. There is good potential for other similar veins remaining undetected due to their subtle appearance.

The other minor showings and float found were similar to the mineralization found in 1983 consisting of black coated drusy quartz vein float often containing minor pyrite, stibnite, sphalerite, galena, arsenopyrite and/or chalcopyrite. This float is associated with the distinctive iron carbonate zones and with the air photo lineaments.

A few occurrences of black stained colloform textured quartz veins were also found but were generally barren.

GEOCHEMISTRY AND ASSAYS

As in 1983 the emphasis of the geochemical sampling was on rock geochem. A total of seventy three rock samples were analyzed for Au and Ag \pm As, Sb, Pb, Zn, Cu. This figure includes four assayed samples. Thirteen soil and talus samples and three silt samples were also collected.

The sample data sheets are included as Appendix I. The details of sample preparation and analysis are in Appendix II. Sample locations and results are plotted on Map IV and/or the individual grid maps (Maps II and III).

As can be seen in the results samples of the white bull quartz veins which often contain traces of pyrite, chalcopyrite or galena, are barren of precious metals. Glacial float boulders of a very pyritic, sericite altered quartzite were also barren.

Anomalous gold and silver values are directly associated with visible mineralization in the form of fine grained drusy to vuggy quartz veins containing trace to significant amounts of pyrite, stibnite, arsenopyrite, sphalerite, galena and/or chalcopyrite. As noted in 1983 the material has a black manganese coating. However some samples of quartz carbonate veins where the carbonate had weathered black were analysed and contain no gold or silver. (7530, 81, 82).

Table I lists the geochemistry of the mineralized drusy quartz veins sampled. The analysis are similar in tenor to those obtained in 1983. There is no strong correlation of the various elements and the gold and silver values are fairly erratic.

A few other samples contained anomalous gold and silver values. These included iron carbonate - silica altered volcanics containing up to 430 ppb Au and more significantly a piece of white quartz vein float with an unidentified black mineral (7572E) which ran 2250 ppb Au, >100.0 ppm Ag, >1000 ppm Sb and 4600 ppm As. This

TABLE I

GEOCHEMISTRY OF MINERALIZED DRUSY QUARTZ VEINS

<u>Sample</u>	<u>Location</u>	<u>Type</u>	<u>Au</u>	<u>Ag</u>	<u>Sb</u>	<u>As</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>
7566E	West EAGL 1	float	80	87.0	>1000	23	-	>1000	50
7573E	New showing W of Stibnite L.	chip sample	140	38.0	>1000	400	-	-	-
7574E	"	grab sample	1000	42.0	>1000	1500	2300	940	26
7575E	W of Stibnite Lake	float)	3250	17.4	880	170	-	-	-
)	combined in lab preparation						
7576E	N of Stibnite Lake	float)							
7577E	"	float	>5	9.3	67	17	-	-	-
7578E	"	float	150	63.0	530	100	-	-	-
7579E	"	float	1150	18.5	710	180	-	-	-
7590	south plateau	float	0.003 oz/t	7.40 oz/t	-	-	-	-	-
7591E	"	float	0.072 oz/t	10.01 oz/t	-	-	-	3.1%	-

piece of float was found in a creek south of Stibnite Lake and was associated with iron carbonate altered float.

Two samples of massive sulphide float were assayed and contained: 8.38% Pb, 7.16% Zn, 3.62 oz/ton Ag, 0.003 oz Au/ton and 12.20% Pb, 1.51% Zn, 6.16 oz/ton Ag, <0.003 oz/ton Au. The Ag:Pb ratio is fairly low but the base metal values are of interest. A sample of pyritic shale from the same general area ran 42 ppm Pb, >10,000 ppm Zn, 4.0 ppm Ag and 55 ppb Au. Silt and soil samples from from the area were also collected (Q-1, 2, 3, As-3,4).

Table II summarizes those samples which returned significant precious metals values from samples taken in 1984.

SAMPLER

PROJECT CASAU SURVEY - EAGL CLAIM GROUP

TABLE II

DATE JUNE-JULY 1984

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	ADDITIONAL REMARKS	APPARENT WIDTH	ASSAYS						
							ZN PPM	PB PPM	Au. PPM	Ag PPM	SB PPM	AS PPM	
7521E	S.W.EAGL 2	TUFF	SILICIFICATION	Po-Py	SILICIFIED TUFF WITH QUARTZ VEINS CUTTING OUTCROP				170	0.5			
7527E	DALTON DOME	PHYLLITE	SILICIFICATION FE OXIDES LIM	PY GALENA	QUARTZ VEIN IN PHYLLITE RUSTED AND OXIDE STAINED			2450	145	>100			
7532E	N.W.EAGL	VOLCANIC	FE CARB, WEAK SILICIFICATION	PY, CPY IN DISC SMALL QTZ VNS	SMALL DISC QTZ VEINS IN ALTERED TUFF				430	1.9			
7539E	TRENCH 6	HIGHLY FRACT ALTERED VOL	FE CARB FRACTURED RK	PY GAL SPHAL VEINLETS	CHANNEL SAMPLE	3.2M	>10000	10000	300	>100	570	1400	
7540E	TRENCH 6	SAME	SAME	SAME	OF GRAVELLY	4 M	>10000	5600	290	>100	350	1350	
7541E	TRENCH 6	SAME	SAME	SAME	SUBCROP	1.8M	6800	1900	110	72	480	700	
7549E	TRENCH 2	STIBNITE QUARTZ VEIN		STIB SPHAL MN PY ASP	CHIP SAMPLE ACROSS SB VEIN	0.5M			110	88	790	2200	
7550E	TRENCH 2	LIMONITE ALT AND QTZ VN	HIGHLY FRACT AND ALT	VEIN FRAGS AS 7549E	CHIP CHANNEL SAMPLE ALT ROCK AND 25CM VIEN AT 0300	0.6 M	.59%	.40%	.0100OZ	4.68	5.42%		
7566E	ABOVE WEST SHOWING 1983	SUGARY QTZ		PY SPHAL STIB FLOAT	ABOVE STEEP OUTCROPS WITH MIN AND ALT FOUND IN 1983			1000	80	87	>1000	23	
7572E	EAGL 1	QTZ VEIN		PY 2%BLACK MIN TETRAHEDRITE?	IN AREA OF FE CARB ALT FLOAT IN STREAM	15CM			2250	100	>1000	4600	
7573E	NEW SHOWING W OF STIBNITE L.	BLK MIN VN IN VOL	OR TO BLK CLAY CARB GOUGE	15CM FG MIN VEIN 60°/65E	CHIP SAMPLE ACROSS BOTH VEIN AND ALTERED ROCK	60CM			140	38	>1000	400	
7574E	NEW SHOWING W OF STIB L	BLACK F G QUARTZ VEIN	MN COATING	ASP PY STIB SPHAL	GRAB SAMPLE OF 10-15CM VEIN FLOAT			940	2300	1000	42	>1000	1500
7575E	W OF STIBNITE LAKE	BLK SUGARY QTZ VEIN	MN COATING	PY ASP SPHAL FLOAT	FEW PIECES IN TALUS ZONE WITH FE CARB ALT	2CM			3250	17.4	880	170	
7578E	N OF STIBNITE L AT LINEAR INTERSECTION	FG GREY QUARTZ		TRACES PY ASP BLK MIN	FLOAT				150	63	530	100	
7579E	SAME	QUARTZ VEIN FLOAT	FG GREY WHITE BRECCIATED QUARTZ	PY ASP	WITH FE CARB MARIPO SITE				1150	18.5	710	180	
7583E	S OF SHARK L-EDGE OF EAGL 2	TALUS BLACK GRAVEL	MN COATING	MN	RESAMPLING OF 1983 TALUS SAMPLE OUTCROP OF VOLCANIC				215	>100	0.1	16	
7586E	500M WEST OF SHARK LAKE	MASSIVE SULPHIDE	FLOAT	50% PY 5%GAL SPHAL	GLACIAL 25CM DIAMETER				OZ	OZ			
7587E	IN SWAMPY AREA	MASSIVE SULPHIDE	DECOMPOSED FLOAT	PY GAL SPHAL	GLACIAL				7.16%	8.38%	.003	3.62	
7590E	SOUTH OF 1983 SP GAL SHOW	VEIN F G QTZ PY	RUSTY FLOAT	50% PY ASP SPAHL	FROST HEAVE BOULDER WITH FE CARB BOULDERS				.003	7.40			
(1) 7591E	S OF 1983 SP GAL SHOWING	VEIN FLOAT	BLACK COATED	VER FG PY SPHAL QUARTZ	FROST HEAVED BOULDER WITH FE CARB BOULDERS			3.01%	OZ	OZ	10.04		
(2) 7592E	SW CORNER EAGL 1	QTZ VEIN		CPY GAL??	20CM FE CARB ON EITHER SIDE			CU PB	2250 3	170	12.3	660	22
(3)													
(4) 84GAS-5	SOUTH OF PONDS	C HORIZON	FINE OR BRN CLAY SOIL		TRENCH 4 IN FE CARB ZONE				240	3.4	34	680	
(5) 84BAT-1	EAST OF 2W POST	BC HORIZON	GRAVEL FINES KILL ZONE		5MX10M ZONE FE CARB AND QTZ VEIN GRAVEL				200	0.1		500	
(6) 84GAT-3	S EDGE OF EAGL 2	BC HORIZON	FINEST BLACK GRAVEL						270	60	54	1800	
(7) 84GAT-5	11_50E, ?N	B HORIZON	FINEST GRAVEL		ORANGE FE CARB ALT ZONE FROST HEAVE GRAVEL AND TALUS				200	2.4		2600	

HAND TRENCHING

Blasting and hand trenching was attempted at eight localities on the EAGL claims. Persistent snow in the area of several of the showings discovered in 1983 prevented trenching. Three of the trenches failed to reach bedrock and/or subcrop and rock exposure in several of the other trenches was not good. Trench locations are shown on Map I.

TRENCH 1 BOTTLE LAKE SHOWING

This trench is located on the east shore of Bottle Lake on the EAGL 2 claim. The purpose of the trench was to expose bedrock across an 8 metre wide zone of iron carbonate altered volcanic rocks striking approximately $050 \pm 20^\circ$. Black (manganiferous?) weathering siderite and traces of galena were noted in somewhat vuggy, white, quartz vein float within the zone [7580, 7581E].

Figure 4 is a sketch of Trench 1. The trench is 7.5 x 0.5 m and about 0.60 metres deep. Gravelly subcrop is exposed along most of the trench bottom but the sides are loose overburden material.

The iron carbonate altered volcanic rock is highly fractured and sheared. The fresh rock is pale greenish grey, quite soft and weathers to a bright orange colour. Limonite and/or hematitic clay gouge zones alternate with fractured limonitic gravel. Four quartz carbonate (black weathering manganiferous siderite and/or ankerite) veins, from 35 to 70 cm wide, are present in the trench. No visible mineralization was noted in the veins which strike approximately perpendicular to the trench.

AU
PPB AG
PPM

7542E

20 3.3

7543E

20 1.7

7544E

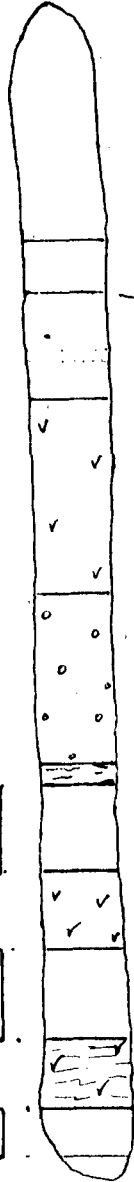
-10 1.0

7545E

-10 1.0

7546E

-10 0.6



LIMONITIC GOUGE WITH PATCHES OF BLACK AND
RED IRON & MANGANESE OXIDES

FRACTURED & BRECCIATED QUARTZ CARBONATE VEIN

THIN LIMONITE GOUGE BAND
VEIN 1 QTZ SIDERITE 30%, MINOR GREEN MINERAL - SERPENTINE?
VUGS IN CARBONATE LINED WITH DRUSY QUARTZ

INTENSELY FRACTURED AND SHEARED VOLCANIC ROCK
ORANGE AND BLACK STAINING, LIMONITIC

TRENCH BOTTOM IN OVERBURDEN MATERIAL

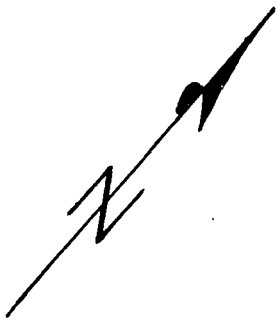
RED ORANGE GOUGE ADJACENT TO VEIN
VEIN 2 QUARTZ CARBONATE 50%, 1% VUGS
CARBONATE FORMS ANGULAR FRAGMENTS

SHEARED ALTERED VOLCANICS

RED GOUGE ZONE
VEIN 3 REBRECCIATED CARBONATE QUARTZ VEIN. ORANGE COATING

SHEARED ZONE IN VOLCANIC ROCKS

VEIN 4 SIMILAR TO VEIN 3



BOTTLE LAKE AREA

J C STEPHEN EXPLORATIONS LTD
 CASAU SURVEY
 EAGL CLAIM GROUP
 TRENCH 1
 SCALE 1:50 JULY 1984

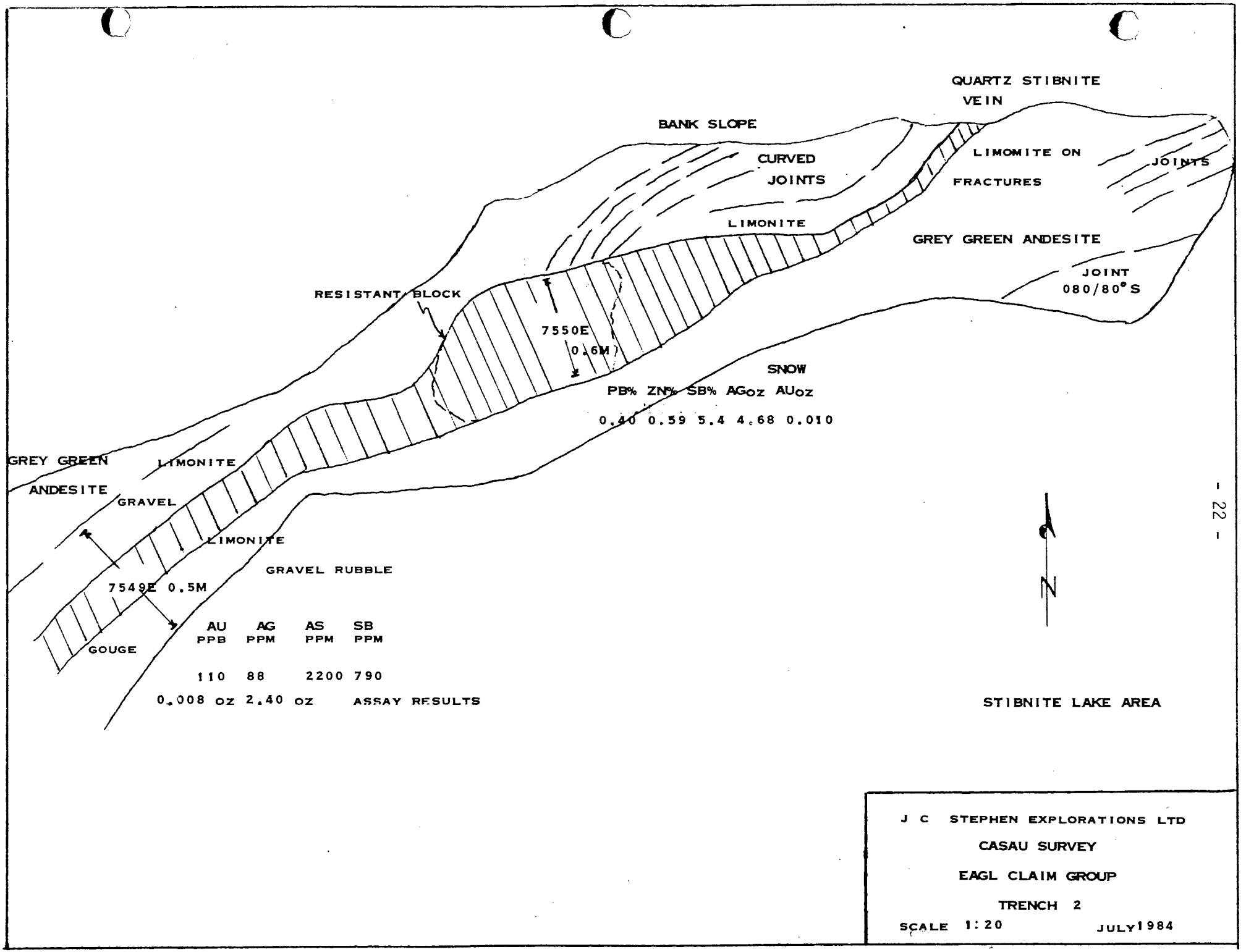
TRENCH 2 STIBNITE LAKE SHOWING

Most of the areas of interest on the south shore of Stibnite Lake and to the west of Stibnite Lake [where the highest gold rock geochem value, 1080 ppb, was obtained in 1983] were buried under several metres of snow. The massive stibnite vein was exposed on the edge of a snow bank and this showing was blasted to determine the width, strike and strength of the vein.

Figure 5 is a sketch of Trench 2. The vein has been exposed along strike for approximately 5 metres. It is irregular with an average strike of 030° to 050° and appears to dip steeply to the northwest. It varies in width from 5 to 45 centimetres and has an average width of approximately 25 centimetres. In the widest section of the vein (Sample 7550E) the vein includes a 15 centimetre barren white coarse crystalline carbonate (ankerite?) vein. The mineralized vein consists of fine to coarse stibnite mineralization, (up to +50% Stibnite) in a fine crystalline drusy quartz \pm sphalerite (5%) \pm fine pyrite (1-2%) \pm fine arsenopyrite (?). The mineralization shows weak banding parallel to the vein walls. Another texture observed was rounded ovoid "clasts" of stibnite quartz mineralization in a less well mineralized matrix.

The wall rock of the vein is a moderately sheared, carbonate \pm clay altered, reddish orange weathering, green grey andesitic tuff. On either side of the vein is a 15 to 30 cm wide zone of highly sheared limonite gravel and/or gouge. Sample 7549E is a "channel" sample in gravel material across both the 25 cm wide vein and the 15 and 20 cm limonite envelope.

The vein is lost under talus overburden at either end of the trend. It may pinch out to the north but is approximately 20 cm wide at the southwest limit of the trench where it is covered by snow on frozen overburden.



J C STEPHEN EXPLORATIONS LTD
 CASAU SURVEY
 EAGL CLAIM GROUP
 TRENCH 2
 SCALE 1:20 JULY 1984

FIGURE 5

TRENCH 3

This trench is located west of Stibnite Lake on a grassy bench beside a grass covered talus slope. The trench is located where a 025° striking 2 to 3 metre wide iron carbonate zone crosses the bench. A few pieces of black coated drusy quartz - arsenopyrite vein float (7575E) were located on the bench and on the talus slope just above the bench.

A 4.5 metre by 1 metre trench was excavated to a depth of 1.5 metres. The bottom of the trench is in till and talus material with no indication of nearing bedrock. Several orange patches present in the trench soil appear to be decomposed carbonatized rock. A soil sample was collected of the limonite soil. 84GAS-6 ran -10 ppb Au, 1.5 ppm Ag, 130 ppm As, 40 ppm Sb.

TRENCH 4

Trench 4 is located on the south plateau area of the EAGL 1 claim. It lies in a zone of yellow orange clay and gravel containing angular frost heaved boulders of very fine grained quartz - pyrite (15%) + sphalerite vein material (7590, 91E). This linear alteration zone can be traced to the north and may also run through the sphalerite galena mineralized zone there.

The 1 by 5 by 3 metre trench was excavated to a depth of 1.5 metres before being flooded by groundwater. At that depth the floor consisted of limonitic orange clay with no rock material. The clay appears to be derived from the iron carbonate altered rocks but no sign of the mineralized veins was found.

A sample of the clay from the bottom of the trench (84GAS-5) ran 3.4 ppm Ag, 240 ppb Au, 680 ppm As, 34.0 ppm Sb.

TRENCH 5

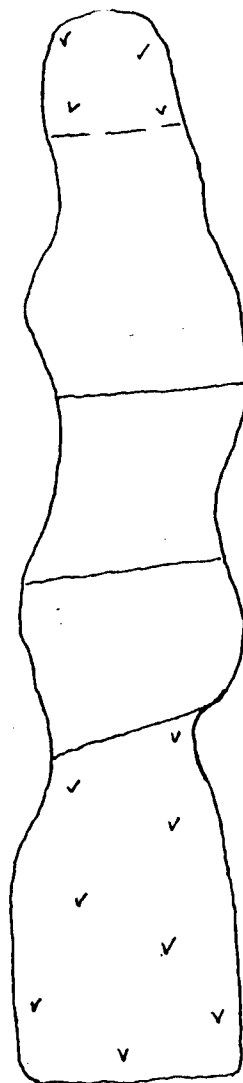
This trench strikes across the trend of an easterly (095°) striking, 4 metre wide zone of iron carbonate altered, frost heaved gravel. In the area of the trench minor float of black stained quartz carbonate vein material was noted.

The final size of the trench was 6 metres by 1 metre by 1 metre. The exposure in the trench is poor with the sides and bottom consisting of in situ gravel and rock rubble.

The geology of the trench is shown in Figure 6. The alteration and vein exposed in this trench is very similar to that seen in Trench 1 at Bottle Lake. A 1 metre wide, highly fractured white quartz carbonate sericite vein is bordered by 0.8 metre and 1.4 metre wide zone of clayey to silty limonitic gouge. The sideritic(?) carbonate is colloform to coarse crystalline in texture and white to tan colored on fresh faces but weathers a dark brown or black color.

AU	AG	AS	SB
PPB	PPM	PPM	PPM

20	1.7	245	55
10	2.0	150	13.8
40	9.8	650	92



FRACTURED ANDESITE
YELLOW BROWN ON FRACTURES

LIMONITIC GOUGE
10% FRAGMENTS OF QUARTZ CARBONATE VEIN

QUARTZ CARBONATE SERICITE VEIN
BRECCIA AND GOUGE.

LIMONITIC GOUGE

FINE GRAINED GREEN GREY ANDESITIC TUFF
MODERATE CHLORITE ALTERATION
BLOCKY, CALCITE ON FRACTURES

TRENCH DEPTH 1M
WALL MATERIAL RUBBLY ROCK



EAGL SOUTH PLATEAU

1 METRE

J C STEPHEN EXPLORATIONS LTD
CASAU SURVEY
EAGL CLAIM GROUP
TRENCH 5
SCALE 1:40 **JULY 1984**

TRENCH 6 GALENA - SPHALERITE SHOWING

This trench is located to the north of trench 4. It was blasted out along the edge of a snowbank covering the sphalerite galena showing found in 1983. A few small pieces of black coated float was the only surface indication of mineralization before the trenching.

The trench is a "T" shape as shown below.

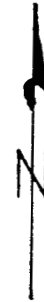
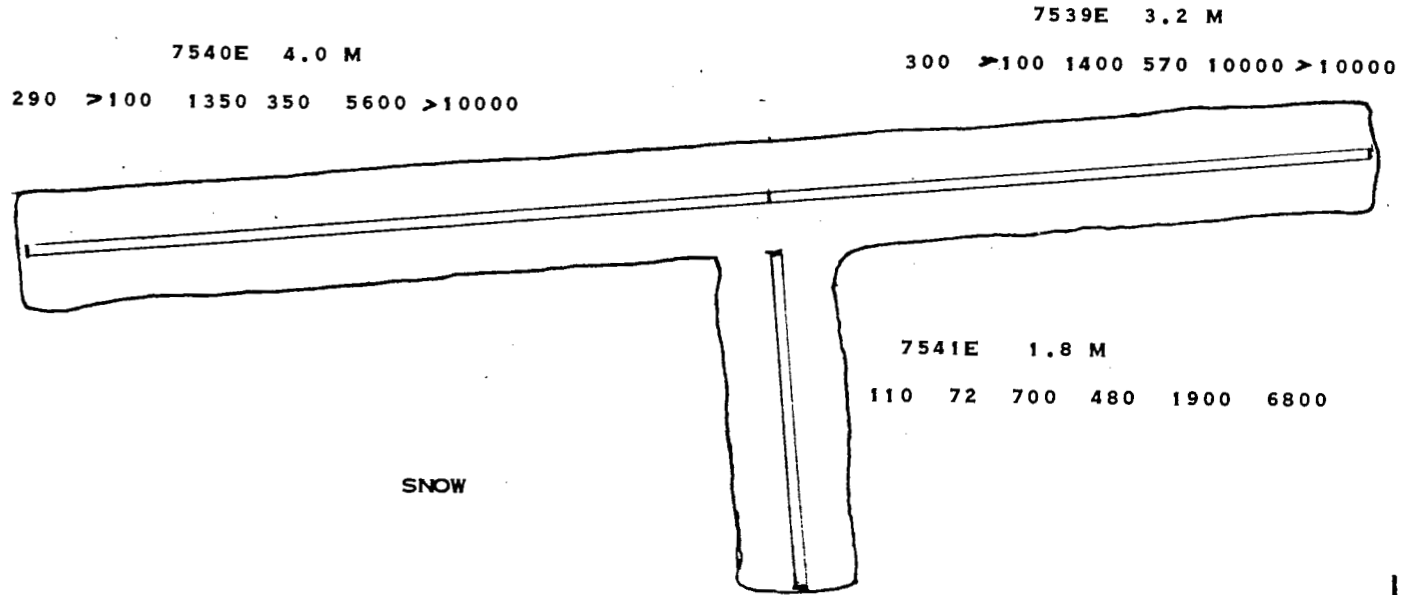
TRENCH 7

The purpose of this trench was to expose the source of a +50 centimetre wide block of manganese banded glassy quartz vein float [7550E]. The trench was cut into a moderately steep talus slope below a snow bank. The trench was some 3 metres long and the upper wall was approximately 1.5 metres high. The trench exposed some unaltered andesite tuff with no sign of any veining. The vein must be farther upslope. An outcrop of a white quartz vein some 2 metres wide is present above the snowbank but contain no manganese although it does have traces of chalcopyrite and malachite.

TRENCH 8

This trench is located on the east shore of the pond south of Shark Lake. It was located just upslope of several pieces of manganese stained quartz carbonate vein float. The trench was blasted into the slope to a size of 3 metres by 1.5 metres by 1 metre. Mineralized talus was present in the top 30 centimetres of the talus but the deeper material consisted of glacial boulders. No indication of bedrock was present and the source of the manganese stained vein was apparently further upslope the trenching effort was abandoned.

AU AG AS SB PB ZN
PPB PPM PPM PPM PPM PPM



J C STEPHEN EXPLORATIONS LTD
CASAU SURVEY
EAGL CLAIM GROUP
TRENCH 6
SCALE 1:40 JULY 1984

FIGURE 7

EM-16 SURVEYS

The EM-16 Survey using Seattle station indicates relatively weak linear anomalies:

- (a) trending N30°E through the lake between lines 10E and 11E which corresponds to an air photo linear.

On the south side of the lake the following assays were obtained from frost heave material.

7590E 7.40 oz Ag 0.003 oz Au/ton
7591E 10.04 oz Ag 0.072 oz Au/ton 3.01% Zn

Trench 4 at this location failed to reach bedrock. Sample GAS-5 at the bottom of the trench ran 3.4 ppm Ag, 240 ppb Au, 680 ppm As, 34 ppm Sb.

East of the lake, within an east trending linear, Trench 6 sample results are:-

	<u>Ag ppm</u>	<u>Au ppb</u>	<u>As ppm</u>	<u>Sb ppm</u>	<u>Pb ppm</u>	<u>Zn ppm</u>
7539E	>100	300	1400	570	10,000	>10,000
7540E	>100	290	1350	350	5,600	>10,000
7541E	72	110	700	480	1,900	6,800

This east trending linear is not indicated by the EM-16 survey using Seattle Station but is indicated, rather poorly by reading Cutler, Maine. Detail readings on north trending lines would help to detail this zone.

- (b) trending N10°W through the pond at about 12N 15E. An air photo linear through this location trending about N15°W, corresponds. Geological mapping does not seem to have recognized this zone.

No alteration is noted or samples taken. Near the pond at 15E, 12N the EM-16 (Seattle) anomaly seems to turn south. This may correspond to a south trending linear in an area noted to contain abundant Fe-carb alteration and some quartz veining. No sampling appears to have been done.

Again more detailed EM-16 surveying might define the anomalous zone more closely.

The EM-16 (Cutler) readings indicate a zone trending N60°E through 15+50E 13N. No distinct airphoto linear nor geologically mapped structure has been noted to explain this zone.

STIBNITE LAKE GRID

The EM-16 (Seattle) survey indicates a distinct anomaly trending east through Stibnite Lake. On the east shore sample 7597E of quartz float with minor stibnite, pyrite and kermisite? ran 40 ppb Au 6.5 ppm Ag. Sample 7514E of moderately Fe-carb altered volcanics, ran <5 ppb Au, 0.1 ppm Ag.

Sample 7575E, some distance west of the lake, consists of black sugary quartz vein float which ran 3250 ppb Au, 17.4 ppm Ag, 170 ppm As and 880 ppm Sb. This sample, however, was mixed with 7576E during sample preparation at Chemex. Sample 7576 E comes from a zone some distance north of Stibnite Lake.

Other samples in that northern area are: -

	<u>Au ppb</u>	<u>Ag ppm</u>	<u>As ppm</u>	<u>Sb ppm</u>
7577E	5	9.3	17	67
7578E	150	63.0	100	530
7579E	1150	18.5	180	710

In spite of this confusion regarding 7575E other samples in its vicinity west of Stibnite Lake are: -

	<u>Au ppb</u>	<u>Ag ppm</u>	<u>As ppm</u>	<u>Sb ppm</u>	<u>Zn ppm</u>	<u>Pb ppm</u>
7573E	140	38.0	400	>1000		
7574E	1000	42.0	1500	>1000	940	2300
7561E	5	1.6	160	-		
AS2	50	1.7	110	47		

indicating gold and silver values may be associated with the east trending EM-16 anomaly. Trench 3 in this area failed to find bedrock.

The EM-16 (Cutler) survey shows a north trending zone through Stibnite Lake which appears to reflect an air photo linear with which samples 7576 - 7579E appear to be related. If this zone is projected south through the lake it intersects east of the stibnite vein in Trench 2. Heagy indicates this area of interest was largely covered by snow. This area provided some of the more highly anomalous samples found in 1983.

SOUTHEAST GRID

The EM-16 (Seattle) survey shows five anomalous zones which trend slightly west of north. The first is a small zone about 400 metres west of the south end of Shark Lake. This is near the margin of the survey area and may extend further north. No distinct air photo linears are noted. Samples in the general vicinity include: -

	<u>Au ppb</u>	<u>Ag ppm</u>	<u>As ppm</u>	<u>Sb ppm</u>	<u>Pb</u>	<u>Zn</u>
7584E	<5	1.7				
7586	0.003 oz	3.62 oz			8.38%	7.16%
7587	<0.003 oz	6.16 oz			12.20%	1.51%
7588E	<5	0.4				
7569E	35	0.2	140	7.0		

All these samples are from float material.

A strong anomaly trends through Shark Lake. This zone appears wider within the lake which may be due to the method of assigning values to station locations within the lake when applying the Fraser filter. An air photo linear which appears to be offset right hand at intervals seems to correspond with this anomaly. Only sample 7585E from a 30 cm wide quartz vein at the south end of the lake is in close proximity. It ran <5 ppb Au, 4.1 ppm Ag.

A circular anomaly with a south trending tail occurs 150 metres west of Southeast Lake. Several smaller airphoto linears intersect in this area but none appear to follow the anomalous trend. No samples are reported. An apparently strong anomaly trends from within Southeast Lake and to the south. A depression, which may be part of the air photo linear system follows this trend. Samples associated with this trend include: -

	<u>Au ppb</u>	<u>Ag ppm</u>	<u>As ppm</u>
7510E	<5	0.1	
7580E	5	0.8	
7581E	<5	1.8	
7562E	45	0.6	3

Trench 1 was excavated on the east side of Bottle Lake but no significant values were obtained. No alteration or veining is noted on the geological map.

Associated with N30°E trending air photo linears at 28E 10N, but outside the area covered by the EM-16 survey, are two anomalous samples: -

	<u>Au ppb</u>	<u>Ag ppm</u>	<u>As ppm</u>	<u>Sb ppm</u>
7583E	215	>100	16	0.1
AT-3	270	60	1800	54.0

EM-16 (Cutler) readings produced rather amorphous anomalous zones which only partially correspond to EM-16 (Seattle) anomalies. It is assumed the direction of the more detailed readings is inappropriate for the trend of the linear structures in this area.

Immediately east of Shark Lake however these readings produce an anomalous zone which coincides closely with an area containing considerable iron-carbonate alteration and some quartz veining.

CONCLUSIONS AND RECOMMENDATIONS

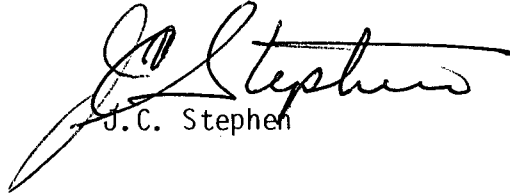
The EAGL property covers an area of the Sylvester volcanic rocks criss-crossed by strong linear structures which appear to be steep fault zones. The rocks along the lineaments are highly fractured and are recessive weathering and rarely exposed. There is a strong correlation between the linears and zones of iron carbonate alteration. Drusy quartz veins mineralized with stibnite, pyrite, sphalerite, galena, arsenopyrite and chalcopyrite were located in several separate areas on the claims. These veins carry gold and silver values with assays ranging up to 0.1 ounce per ton gold and a few ounces per ton silver. Most of the mineralized material was seen in float only but vein widths appear to be approximately 10 to 50 cm.

Although there is good potential for extending the known mineralization through extensive trenching of the linear gullies it seems unlikely that higher grade mineralization will be found on surface. The EM-16 survey conducted was too coarse to define the electromagnetic signature of the linear zones but a closer spaced survey may provide useful information. Such a survey would also be useful in assessing the potential for a shale hosted massive sulphide deposit.

Although the EAGL property still appears to have good potential for hosting a precious metal bearing quartz vein system it is difficult to determine what the next stage of exploration should be. The value of further blasting or back-hoe trenching must be weighed against the mobilization costs. However no drill targets have been defined. A M.Sc. thesis on the lithogeochemistry of the nearby Erickson Gold Mine should be finished by the end of the year (Sketchley UBC) and may be useful in assessing the significance of the EAGL mineralization. In the meantime a more detailed EM-16 survey of the three grid areas and some additional prospecting in the areas which were covered by snow in July is recommended. As previously proposed some time should be spent prospecting the open ground between Eagle River, Dalton Creek and the Dease River.

A statement of expenditures incurred during this program follows this report.

Respectfully submitted,
J.C. Stephen Explorations Ltd.



J.C. Stephen

CASAU SURVEY - 1984

STATEMENT OF EXPENDITURES

EAGL 1, 2 MINERAL CLAIMS

104P/3

June - July 1984

WAGES

A.E. HEAGY Geologist	June 22-July 17	@ \$100/day + 15%	\$2990.00
C. Lormand Technician	" "	@ \$1900/m + 15%	1895.00
H. Wahab Technician	" "	@ \$1800/m + 15%	1795.00
D. Cone Technician	" "	@ \$1800/m + 15%	1795.00

FOOD AND CAMP SUPPLIES

CAMPGROUND SERVICES	26 days x 4 persons x \$12	1248.00
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POWDER AND BLASTING SUPPLIES

Erickson Gold Mines Ltd	348.80
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HELICOPTER SERVICE

Northern Mountain Helicopters	
7.1 hours @ \$450/hr plus fuel	3745.00

ASSAY AND GEOCHEM ANALYSIS

CHEMEX LABS LTD.

4 rock samples assayed for Au,Ag,Pb,Zn Inv. 413776	76.05
78 rock samples analysed for Au,Ag and one or more of Cu,Zn,Pb,Sb,As. Inv. 413772,777;414319,321.	932.12
31 soil samples for Au,Ag,As,Sb Inv. 413773,778	189.40

TOTAL FIELD COSTS	\$15014.37
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J.C. STEPHEN EXPLORATIONS LTD.

J.C. Stephen

A P P E N D I X I

SAMPLE DATA SHEETS

SAMPLER LORMAND

PROJECT CASAU - EAGL

LINE _____

DATE JUNE 84.

AIR PHOTO No. _____

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH		ASSAY	
							TRUE WIDTH	Au ppb	Ag ppm	
(1) 07510E	N.E. CORNER EAGL 2	VOLCANIC	Fe-CARB SOME SERICITE(?)	Py		QZ. VN IN ALTERED TUFF - TUFF NOT SILICIF. TALUS MATERIAL			<5	0.1
(2) 07511E	"	VOLCANIC	FE-CARB	-		TREATED AS ROCK SAMPLE			<5	0.1
(3) 07512E	"	"	FE-CARB.	-		"			<5	0.3
(4) 07513E	"	VOLCANIC	Py-Po-MN FE-CARB ON WALL ROCK	Py-Po-MN		QZ. VN. IN FE-CARB ALTERED VOLCANIC			<5	0.2
(5) 07514E	"	VOLCANIC	FE-CARB - SILICIFICATION	Py-Po		OIL MODERATELY FE-CARB & SILICIFIED			<5	0.1
(6) 07515E	S.E. EAGL 2	ALTERED DALITE	FE-CARB.	MN-Dis. Py. & (ARS.?)		INTENSELY ALTERED DALITE.			<5	0.1
(7) 07516E	NORTH EAGL 2	SILICIFIED VOLCANIC	SILICIFICATION	MN. Py & (CPY?)		- QZ. STRINGERS ALONG STRIKE OF O/L.			<5	0.1
(8) 07517E	"	VOLCANIC	WEAK FE-CARB - SILICIFIED	Py-CPY		QZ. VEINING THROUGH FE-CARB ZONE			<5	0.1
(9) 07518E	"	VOLCANIC	WALL ROCK FE-CARB ALTERED	Py-CPY (E. GALR.)		QZ. VN. WITHIN FE-CARB ZONE			<5	0.1
(10) 07519E	S.E. LAKE EAGL 2	DALITE	FE-CARB SILICIFICATION	Py-Po-MN. + MARIPOSITE		SILICIFIED ZONE WITHIN FE-CARB ALTERED TUFF CHIP SAMPLE SILICIFIED ZONE			35	0.9
(11) 07520E	S.W. EAGL 2	VOLCANIC	SILICIFICATION	Py-Po		IN O/L 10M X 5M			<5	0.1
(12) 07521E	S.W. EAGL 2	TUFF	SILICIFICATION	Po-Py		SILICIFIED TUFF WITH QZ. VNS. CUTTING O/L			170	0.5
(13) 07522E	"	FRONT (VOLCANIC)	SILICIFICATION. MN STAINING	MARIPOSITE-MN DIS. SULFIDE		SILICIFIED FRONT & MUGGY QZ VEIN			80	0.3
(14) 07523E	"	ALTERED VOLCANIC	Py-Po FE-CARB	Dis. Py - Po		SMALL O/L OF FE-CARB.			75	0.2
(15) 07528E	N.E. CORNER OF EAGL I	ALTERED VOLCANIC	FE-CARB. WEAKLY SILICIFIED. SOME EPIDOTE	Py-CPY & MARIPOSITE		SMALL FE-CARB. ALTERED ZONE IN TUFF.			<5	0.1
(16) 07529E	"	SILICIFIED VOLCANIC	SILICIFICATION & MARIPOSITE	Py-MN. IN QZ.		VNS. CRISS CROSSING O/L OF SILICIFIED VOLCANIC.			<5	0.3
(17) 07530E	N.W. EAGL	ALTERED TUFF-QZ VN	FE-CARB ON WALL ROCK	Py-MN		SMALL DISC. QZ VNS IN ALTERED TUFF			<5	0.4
(18) 07531E	"	VOLCANIC	WK. SILICIFICATION	Py-MN-SMALL QZ (CPY?) VNS		WEAKLY SILICIFIED TUFF W/ VNS CONTAINING Dis. Py. - MN.			<5	10 0.3
(19) 07532E	"	VOLCANIC	FE-CARB WK. SILICIFICATION	Py-CPY. IN DISC. SMALL QZ VNS		SMALL DISC. QZ VNS IN ALTERED TUFF			430	1.9

SAMPLER HEAGY

PROJECT CASAU - EAGL

LINE

DATE JUNE-JULY 1984

AIR PHOTO No.

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS			
									AI PPB	Ag PPM	AS PPM	SB PPM
07561E	West of St. John's LK	aplastic gray S. tuff	ferrous silica-sericite	few pyrite veins fine py. grains	float	glacial			-5	1.6	160	
62	S of pond S of Bottle LK	quartz in shist v.t. tuff		qtz veins to 40cm thick, py	060/55N	Composite sample of ferrous veins	10 to 40cm		45	0.6	3	
63		quartz "aplastic"	Silica	spots of fine gr py ~10% py	float				-5	3.7	67	
64		quartz feldspar sandstone	sericite/clay alter	0-15% fine pyrite	float				-5	3.4	5	
65	S edge of Facies I	silicified volcanic	peroxide inclusion	trace of cubes	float	chip sample 2m area			-5	0.1		
66	above "Wor" showing (1983)	sugary qtz		py, sphal, sulfate?	float	above steep slope with min. sulf. in ground in 1983	CU ZN 1000	50	80	87.0	23	>100
67		bull quartz vein		minor sp. py in matrix	float				-5	0.8		
68		Fe-Carb qtz veins							15	0.5		
69	Facies 2	altered volcanic	Fe-Carb, magnetite minor magnetite	Silicy pyrite 1%	float	first massive zone	1m dia.		35	0.2	140	7.0
7570	Facies 1	schist, feld? volcanic	dk rusty weathering minor fine gr. sulfates	minor py, CPY, magnetite		minor sulf. patches over (25 m) ² area	CU 2100		-5	3.0	7	
71		quartz vein		py, black metal 22% (???)	1 piece of float	in matrix float 100m	5cm		-5	0.5	9	2.2
72		quartz vein							2250	>100	4600	>100
73	New showing West of St. John's LK	dk min vein in and of dx	or, red to bk clay-carb gouge	fine min vein to 15cm wide	060/65E	chip sample across both sides of vein	60cm		140	38	400	>100
74	New showing west of St. John's LK	black fine qtz vein	Mn coating	aspy, py, sphal, sulfates		grab sample vein 10-15 cm	CU PB ZN 2300 940	26	1000	42	1500	>100
75	W of St. John's Lake	black sugary qtz vein	Mn-coating	py, aspy, sphal?	float	few pieces on surface 20-25 cm Fe-C alter	2cm		3250	17.4	170	880
76	North of St. John's LK linear structure	fine qtz vein	bx frags of Fe-C alter	trace py, aspy	float	75 & 76 COMBINED IN PREPARATION	COMBINED WITH 7575E					
77		qtz vein	bull qtz banded vein. Fe qtz	trace aspy, py	float	+ 30cm thick			-5	9.3	17	67
78		fine gray quartz		trace py, py, bk mineral	float				150	63	100	530
79		quartz vein float	fine gray-white altered	py, aspy	float	with Fe-C alteration in places			1150	18.5	180	710
C7590E	Bottle LK Landing	qtz vein, Fe-C alteration	orange-brown Fe-C alteration	fine py float		chip sample at 100m	3m		5	0.8		

NTS 124 SW

SAMPLER HEAGY

PROJECT CASAU - FAGL

LINE

DATE July 1934

AIR PHOTO No.

SAMPLE NUMBER	LOCATION	ROCK TYPE	ALTERATION	MINERALIZATION	STRIKE / DIP	ADDITIONAL REMARKS	APPARENT WIDTH	TRUE WIDTH	ASSAYS			
									Au. PPM	AG PPM	AS PPM	SB PPM
7581E	Bottle LK	vein	bk siderite - qtz				20cm		-5	1.8		
82	Blau Point SE LK		Mn stained carb- qtz vein		talus	in worn F.C. zone talus 15cm	15cm		-5	4.3		
83	SE SHANK LL edge of FACE 2	black qtz	Mn staining	Mn	talus	remains of 83 talus sample about volcanic			215	>100	16	0.1
84	POW S at Camp	quartz vein			flat	in F.C. zone			-5	1.7		
85	East of Camp	quartz vein		Mn			30cm		-5	4.1		
86	SE corner of camp	quartz vein		pyrite galena	flat	25cm	PB 8.38% ZN 7.16%			.003	3.62	
87	SE corner of camp		discoloration of quartz	pyrite galena			PB 12.2% ZN 1.51%			.003	6.16	
88	SE corner of camp	pyrite vein					PB 42 ZN >10000		-5	0.4		
89	SE corner of camp	pyrite vein					PB 42 ZN >10000		55		4.0	
7590E	SE corner of camp	vein w/ gr qtz py?	rusty weathering	pyrite galena	flat	fractured boulder with some banding				.003	7.40	
91		vein w/ gr qtz py?	bk color	py - spr qtz	flat		ZN 3.01			.072	10.04	
92	SW corner FACE 1	quartz vein		pyrite galena		30cm 10 CM	CU 2250 PB 3		170	12.3	22	660
93	13m SW of camp	quartz vein					PB 63		10	3.1		
94	SE grid 13N 32E	quartz vein		Mn					-5	0.7		
95	POW south of camp	Mn-siderite discoloration	discoloration black dust qtz	vein	flat				-5	4.8		
96	NE corner SE grid 40E	qtz - siderite vein	vein/breccia		flat				-5	0.4		
97	SE corner of camp	entire white qtz vein	discoloration vein		flat		20+ cm		40	6.5		
98	SW of Stag Lake	quartz vein	mod phos vein		CLC		45cm		-10	0.6		
07599E	SW of Stag Lake	quartz vein				spite change W.M.			-10	0.1		
07600E	SE corner FACE 1								-10	1.1		

SAMPLER LORMAND

LINE _____

DATE June 1994

PROJECT EAGL - CASAK
84 - GCS -

AIR PHOTO NO. _____

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Au	Ag	ppm	
84-G-C-501	S.E. EAGL SOUTH OF CLAIMS	05	B	YELLOW	SANDY CLAY	5%				Gossan surrounding intensely altered float.	5	0.5	20.75	
84B-C-501	"	05	B	YELLOW	SANDY	5%				Gossan zone	5	0.7	32.15	
84BC502	"	05	B	BROWN	SAND	45%				Talus	15	0.6	7.75	
84BC503	"	05	B	RED BROWN	SAND	45%				Talus para near exposed Qt. veins	5	2.2	11.75	
84-GCT - LORMAND TALUS SAMPLES													As	Sb
84-gct-1	NE EAGL	5		orange	talus	-		mod			-5	0.4	30	1.2
-2	S of EAGL DALTON DOME	5		"	"			"			5	10.0	41	-
-3	"	5		"	"			"			10	6.5	23	
-4	North of EAGL 2	5		"	"			"			10	0.4	29	
84-GAS - HEAGY SOIL SAMPLES														
84 GAS-1	SE corner EAGL 2	20	BC	br	silt	10+		mod	grassy	Bottom of Fe-carb vein subcropping sample includes frags of Fe-carb	5	1.0	350	21.0
-2	W. of Stibnite Lake	10	B	Or-br	fine	5		gentle	"	Fe-carb frost heave, frags of blk coated vein, qtz asp (07575E)	50	1.7	110	470
-3	500 m SW of camp	10		Gr-br	silt	10		"	mossy	Silt/soil sample from wet bank/brt green moss.	10	1.1		
-4	west of camp	15	B	reddish Or-br	silt	-5		"	grassy	Near massive sulphide flt. (7586E) Anomalous red-orange soil	10	0.6		
-5	South of ponds	150	C	Or-br	fn clay	0	flat			Orange soil at bottom of trench on Fe-carb zone	240	3.4	680	34
-6	West of Stibnite L.	150	B/C	Or-br	fine	-		gentle	grassy	Limonitic soil from bottom of trench on zone (84GAS-2)	10	1.5	130	40

Factor some

273
72
205
67

SAMPLER HEAGY

PROJECT CASAU Recce

CREEK

DATE July 1984

84-BAQ -

AIR PHOTO NO.

SAMPLE NO.	VOLUME		VELOCITY	PH	TYPE OF SAMPLE	COLOUR	TEXTURE	% ORGANIC MATERIAL	PETROLOGY OF BEDROCK AND/OR FLOAT	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS				
	Width	Depth									Au	Ag	Pb	Zn	
84-BAQ-1	1.0	20	fast		silt	gray brown	gravel & fines	2	till, Vx, sh sed, diorite	150m upstream from 83 CHZ-240 1 piece limestone flint, (170 Au)	410	0.1	11		
-2	0.5	10	mod		silt	brown	finest gravel	5	Vx, arg white chert		410	0.1	16		
-3	1.0	dry	dry		silt	gray	sorted gravel	2	siltst. c, Vx Fe-carb	old slide area	30	0.1	29		
CASAU - EAGL CLAIM GROUP 84-GAQ June 1984														Zn	Pb
84-GAQ-1	0.5	25	mod fst		silt	redsh cl & sand	sandy	5	glacial sand	Active stream thru swamp 28+50E; 15+00 N	5	0.3	89	18	
-2	.5	15	mod		silt	brn to red	sand	5	glacial and volcanic	Black stain on rocks	5	0.8	350	51	
-3	.1	1	slow reduced		silt	black	clay & silt	+15		Bog iron? py? flakes in dark organic muck, seep from pond	5	1.1	468	42	

NTS 109 P 3w

SAMPLER HEAGY

LINE

DATE July 1989

PROJECT SASAU - Recce
84-BAT

AIR PHOTO NO.

SAMPLE NO.	LOCATION	Depth	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS				
				Colour	Part Size	% ORG.	Ph				Au	Ag	As	Sb	
84-BAT-1	East of 2W post creek, gullies above 195 170 Au anomaly	5	BC	orange	gravelt fines	trace	/	gentle	kill zone?	5m x 10m zone Fe-carb, 2v gravel	205	.1	500		
-2		5	BC	"	"	/		"	grassy	Fe-carb zone in argillite top of ridge	210	.1	46		
-3		5	C	Yw-br	finest coarse	5		mod. steep	/		gully, weak to moderate Fe-carb alt in along fault in gully, vx float	210	.1	11	
-4		5	BC	brown	soil / talus	10		"	grassy		Vx, till float / talus	210	.1	17	
-5		5	BC	"	fine + gravel	5		"	/		Vx, argillite float, ± Fe-carb alt. minor till	210	.1	10	
-6		5	BC	"	Sand + silt	5		gentle			old slide, largely till material Vx, qm, chert, argillite, siltstone	10	.1	10	
HEAGY EACL CLAIM GROUP TALUS SAMPLES 84-GAT-															
84-GAT-1	North of 5S, 3E	5	C	Or-Br	fine talus	-		Bank	-	6m x 4m zone Fe-carb alt. Minor qtz vein	35	1.7	730	73.0	
-2	West of snowy ponds	5	B	Or-br	finest gravel	-		gentle	grassy	No mineralization Small Fe-carb frost heave zone on E-W linear north of ponds	10	1.0	83	-	
-3	South edge of Eacl 2	5	BC	Or and black	finest bl. gravel	-		"	"		270	60	1800	54	
-4	South of camp									Fe-carb frost heave zone in gully 030°	75	1.3	340	180	
-5	11+50E, ?N	5	B	Or-br	finest gravel	-		gentle	-	Orange Fe-carb alt. zone frost heave gravel and talus.	200	2.4	2600	-	

APPENDIX II

SAMPLE PREPARATION AND ANALYSIS

GEOCHEMICAL PREPARATION
AND
ANALYTICAL PROCEDURES

1. Geochemical samples (soils, slits) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% HClO₄ and concentrated HNO₃. Digestion time = 2 hours.
3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.
4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper - 1 ppm
Molybdenum - 1 ppm
Zinc - 1 ppm
*Silver - 0.2 ppm
*Lead - 1 ppm
*Nickel - 1 ppm
Chromium - 5 ppm

*Ag, Pb & Ni are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, ie. Ag - 0.1 ppm

GEOCHEM PROCEDURES

PPM Antimony: a 1.0 gm sample digested with conc. HCl in hot water bath. The iron is reduced to Fe⁺² state and the Sb complexed with I⁻. The complex is extracted with TOPO-MIBK and analyzed via A.A. Correcting for background absorption 0.2 ppm ± 0.2 Detection limit.

PPM Arsenic: a 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with NaBH₄ and the arsenic content determined using flameless atomic absorption.
Detection limit - 1 PPM

PPB Gold: 5 gm samples ashed @800°C for one hour, digested with aqua regia - twice to dryness - taken up in 25% HCl⁻, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.
Detection limit - 10 PPB

ASSAY PROCEDURES

Gold: - Fire Assay Method.

0.5 assay ton sub samples are fused in litharge, carbonate and silicious fluxes. The lead button containing the precious metals is cupelled in a muffle furnace. The combined Ag & Au is weighed on a microbalance, parted, annealed and again weighed as Au. The difference in the two weighing is Ag.

APPENDIX III

STATEMENTS OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

AUDREY E. HEAGY

ACADEMIC

1981 Graduated from Queen's University at Kingston Ontario.
B.Sc. Honors Geology, First Class
Medalist in Geological Sciences

EXPERIENCE

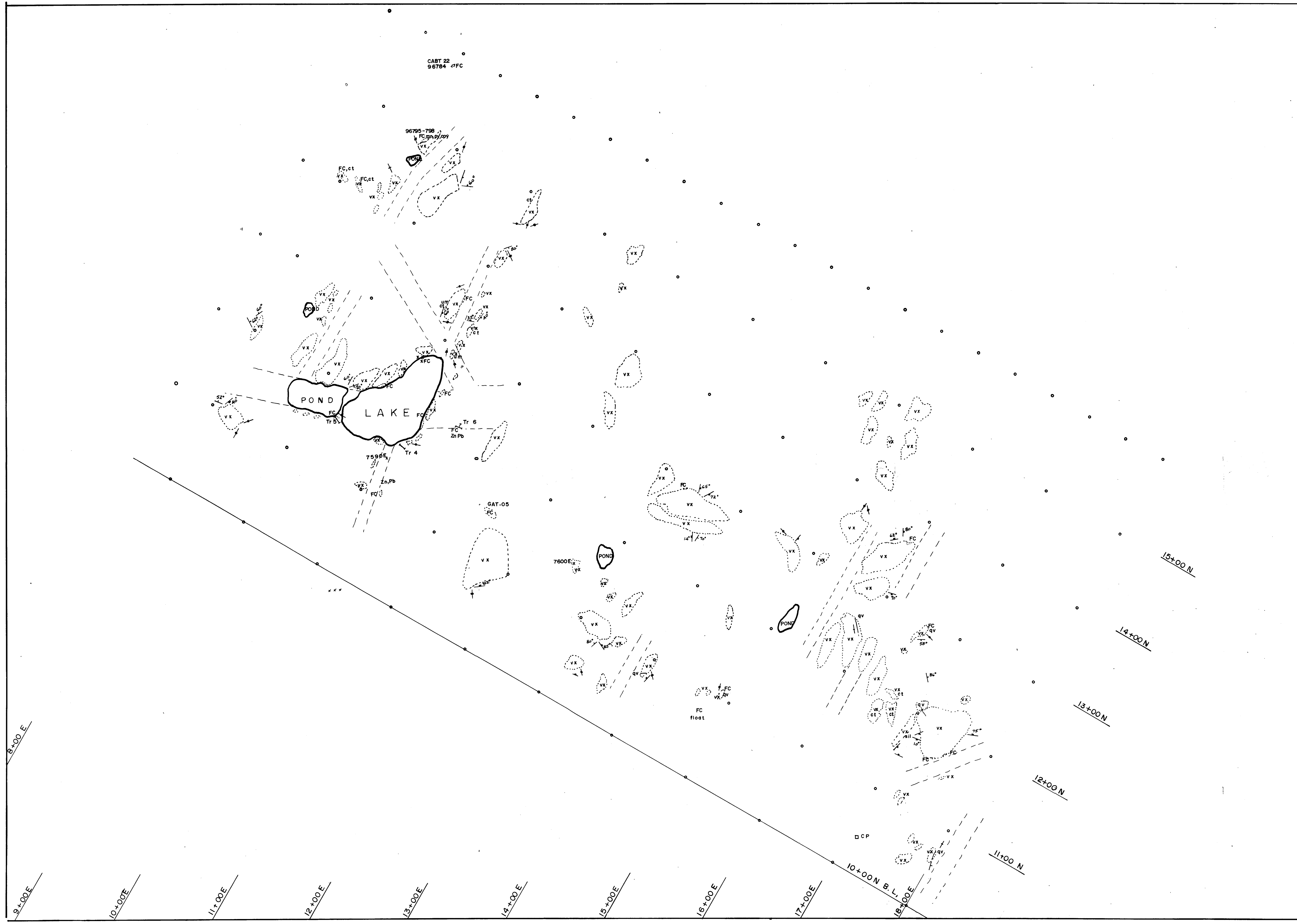
1979 Assistant geologist on traverse, drafting, cooking
Ontario Geological Survey

1980 Detailed geological mapping, reconnaissance, prospecting
and sampling on Queen Charlotte Islands, Vancouver Island
J.C. Stephen Explorations Ltd.

1981 Reconnaissance exploration, primarily for tungsten, also
1982 molybdenum and base metals, northern B.C. and Yukon
Amax Mineral Exploration Ltd.

1983 Petrographic descriptions, data compilation and minor research
related to tungsten, tin and molybdenum deposits in Canada
Geological Survey of Canada

May
1983 to Present - Reconnaissance exploration for precious metals in
the Cassiar district, B.C.
J.C. Stephen Explorations Ltd.

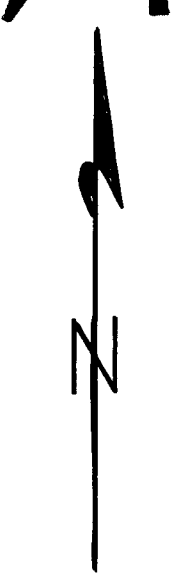


LEGEND

- fc Iron-carbonate alteration
- vx Andesitic tuffs, breccia
- ct Chert
- um Serpentinite
- Linear gullies
- qv Quartz vein

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,495

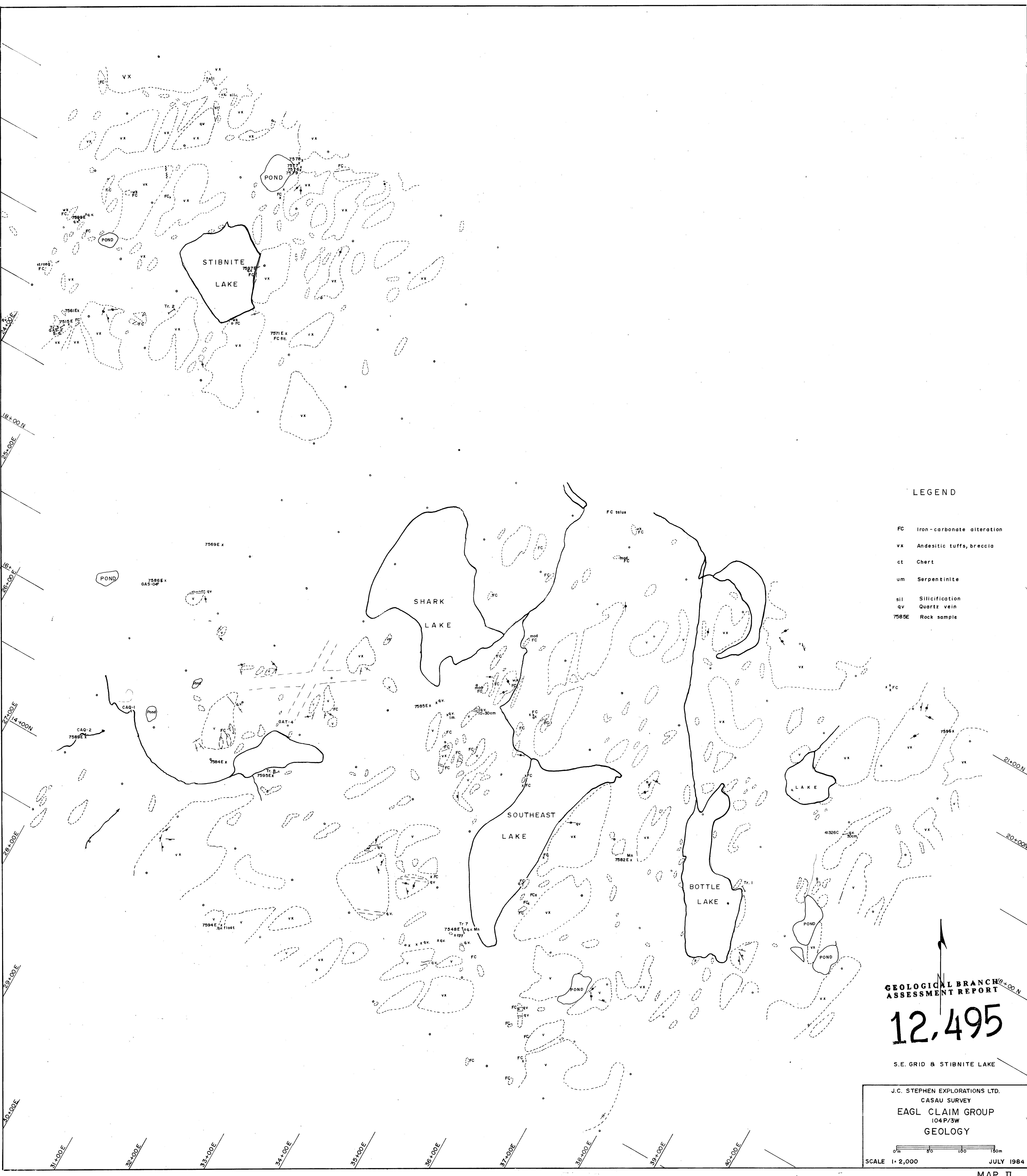


SOUTH PLATEAU ZONE

J.C. STEPHEN EXPLORATIONS LTD.
CASAU SURVEY
EAGL CLAIM GROUP
104 P/3W
GEOLOGY

SCALE 1:2,000

JULY 1984



LEGEND

- FC Iron-carbonate alteration
- vx Andesitic tuffs, breccia
- ct Chert
- um Serpentinite
- sil Silicification
- qv Quartz vein
- 7585E Rock sample

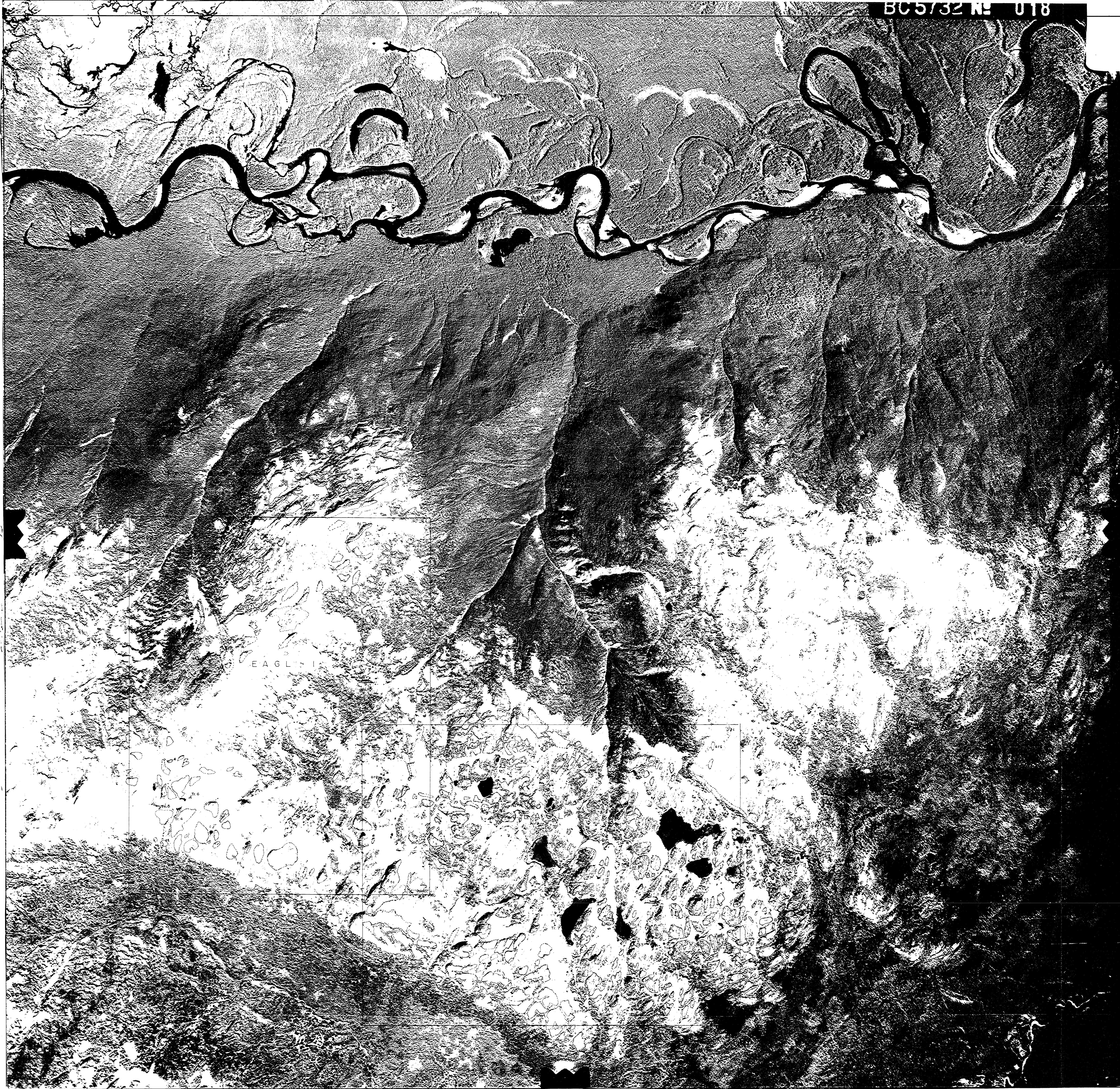
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ASSESSMENT REPORT

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S.E. GRID 8 STIBNITE LAKE

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CASAU SURVEY
EAGL CLAIM GROUP
104P/3W
GEOLOGY

SCALE 1:2,000 JULY 1984



EAGL CLAIM GROUP

LEGEND

- fc Iron-carbonate alteration
- vx Andesitic tuffs, breccias
- grc Phylitic argillite
- ct Chert
- sm Serpentinite

NOTE: All outcrops volcanic unless otherwise indicated.

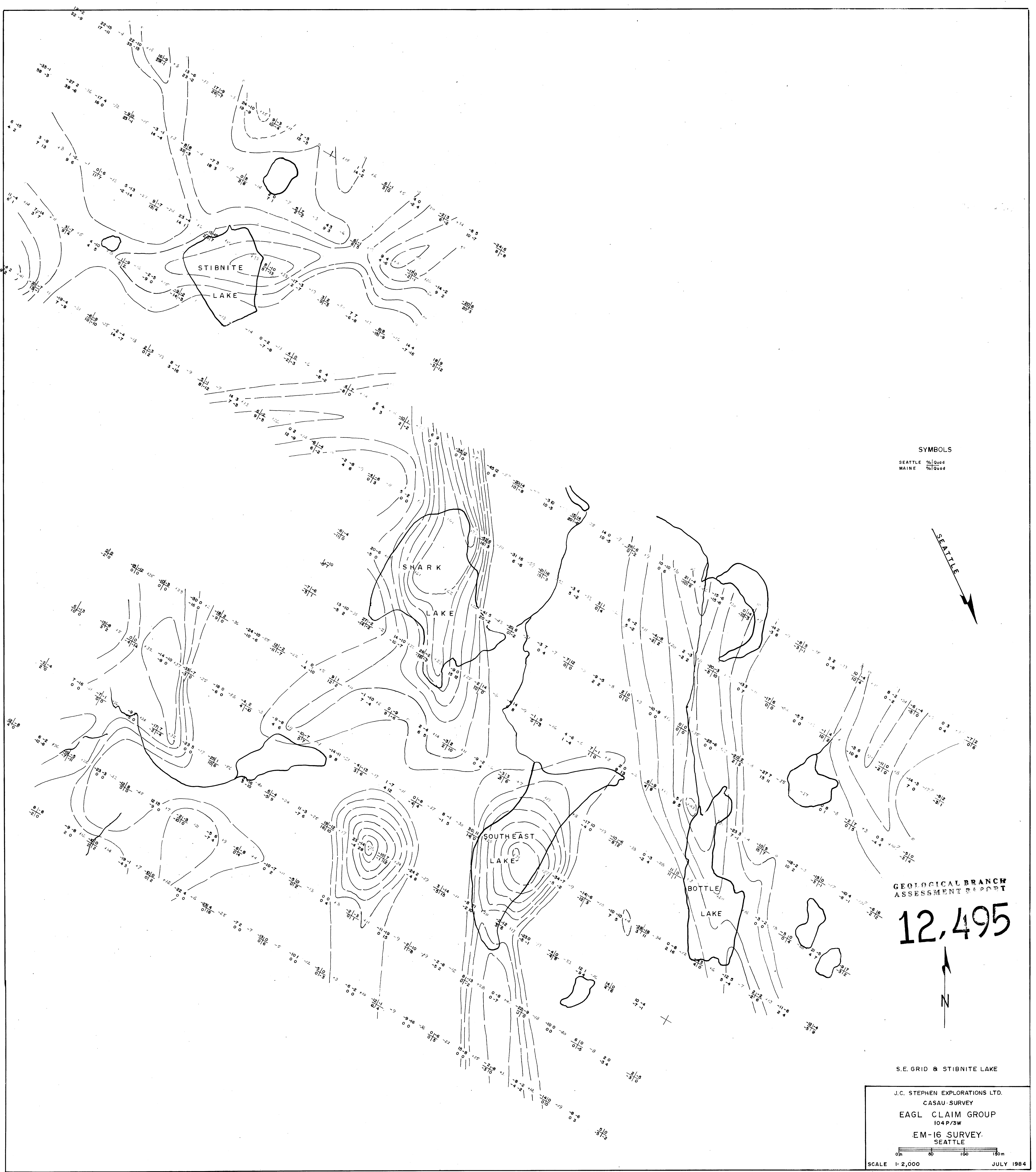
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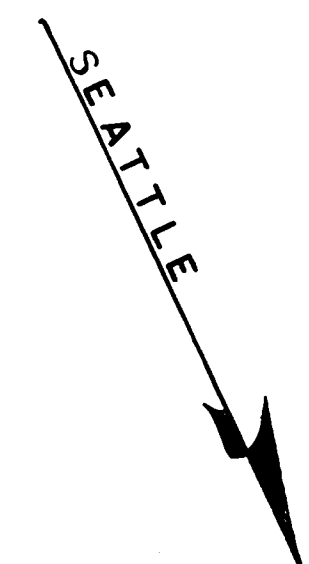
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CASAU SURVEY
EAGL CLAIM GROUP
104P/3W
GEOLOGY

SCALE 1:8,000 (approx) JULY 1984



SYMBOLS

SEATTLE %Quod
 MAINE %Quod



GEOLOGICAL BRANCH
 ASSESSMENT REPORT

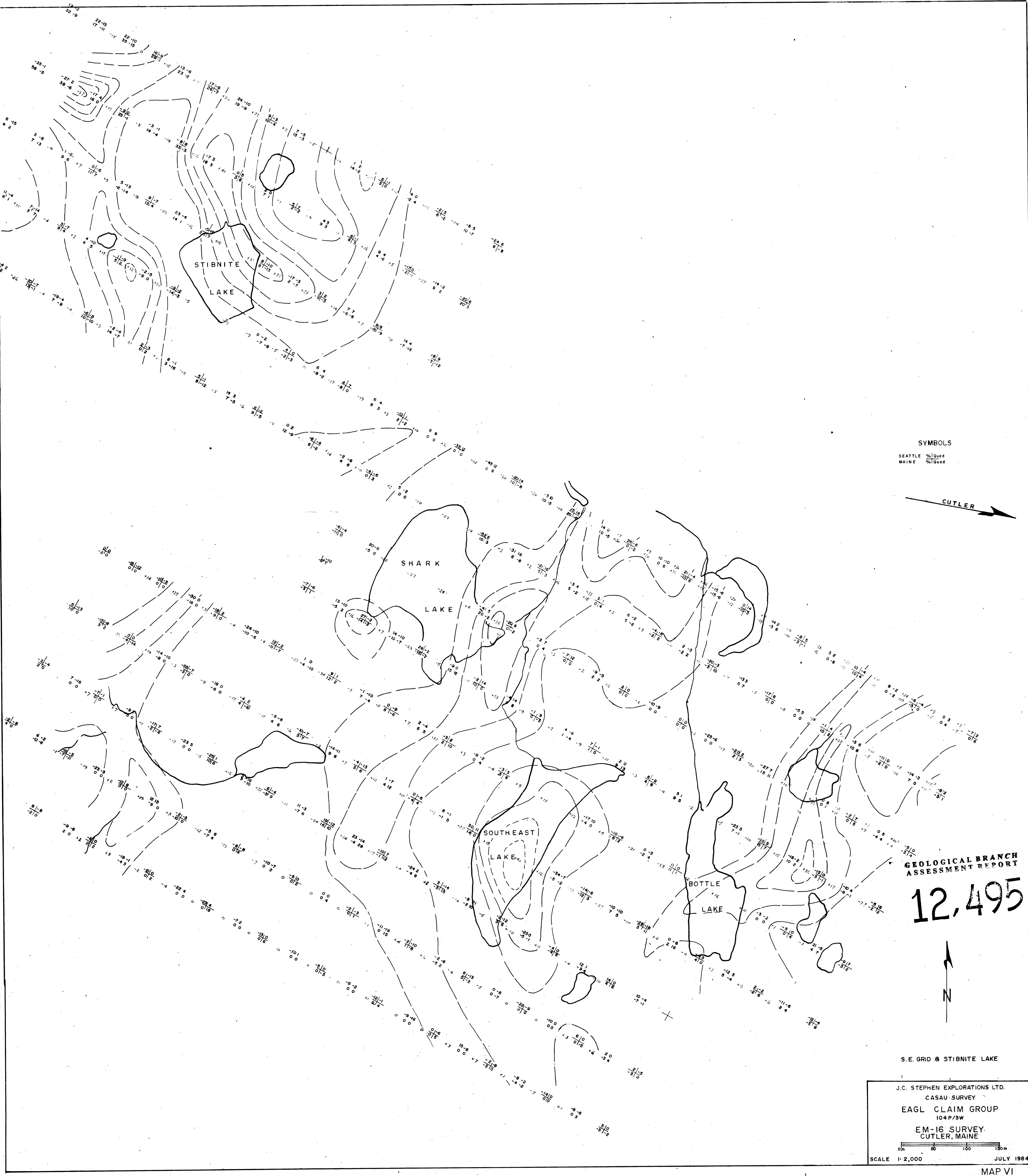
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S.E. GRID & STIBNITE LAKE

J.C. STEPHEN EXPLORATIONS LTD.
 CASAU SURVEY
 EAGL CLAIM GROUP
 104 P/3W
 EM-16 SURVEY
 SEATTLE

SCALE 1" = 2,000 JULY 1984



SYMBOLS
 SEATTLE %Quod
 MAINE %Quod



GEOLOGICAL BRANCH
 ASSESSMENT REPORT

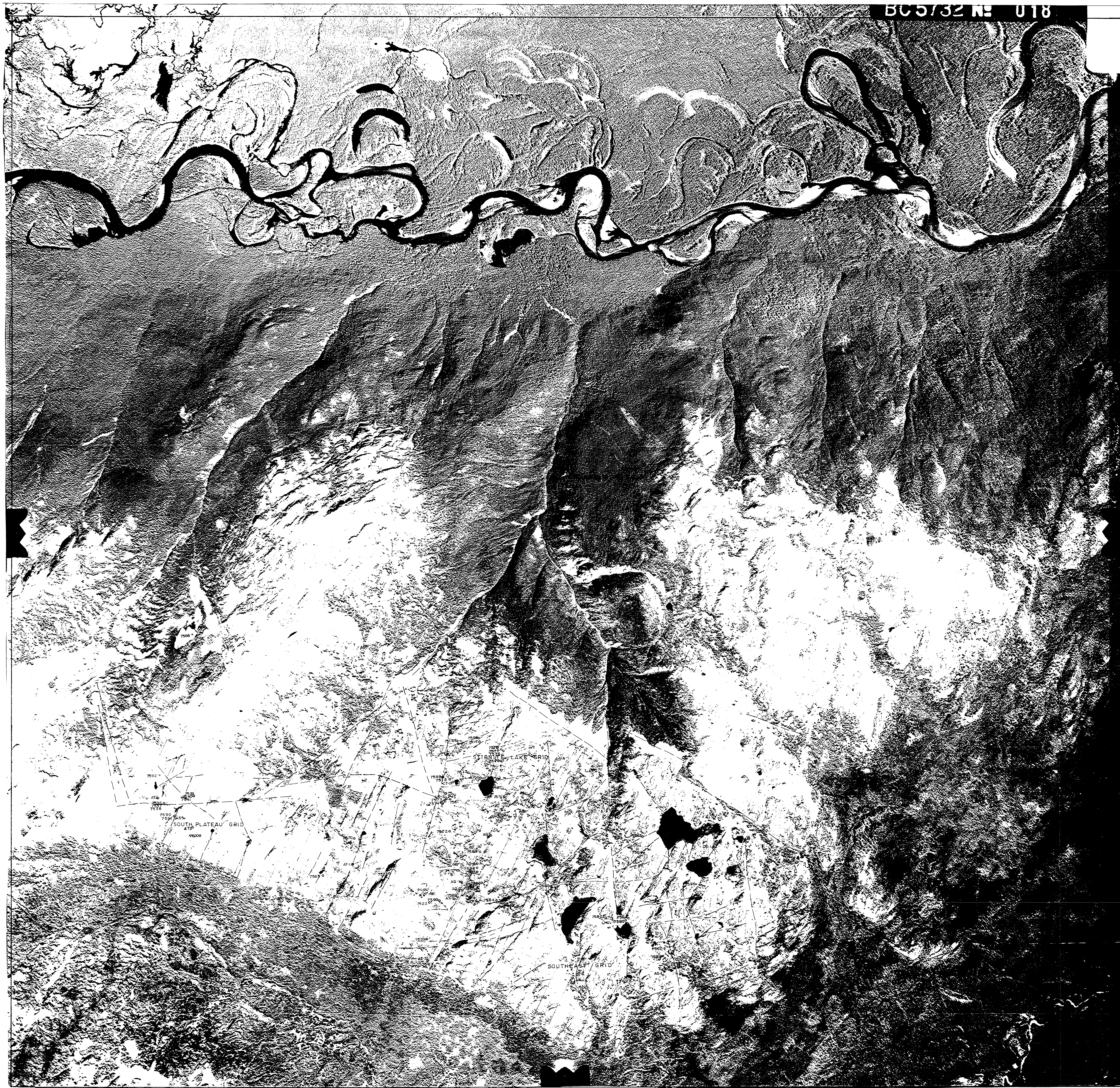
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S.E. GRID & STIBNITE LAKE

J.C. STEPHEN EXPLORATIONS LTD.
 CASAU SURVEY
 EAGL CLAIM GROUP
 104 P/3W
 EM-16 SURVEY
 CUTLER, MAINE

SCALE 1" = 2,000' JULY 1984



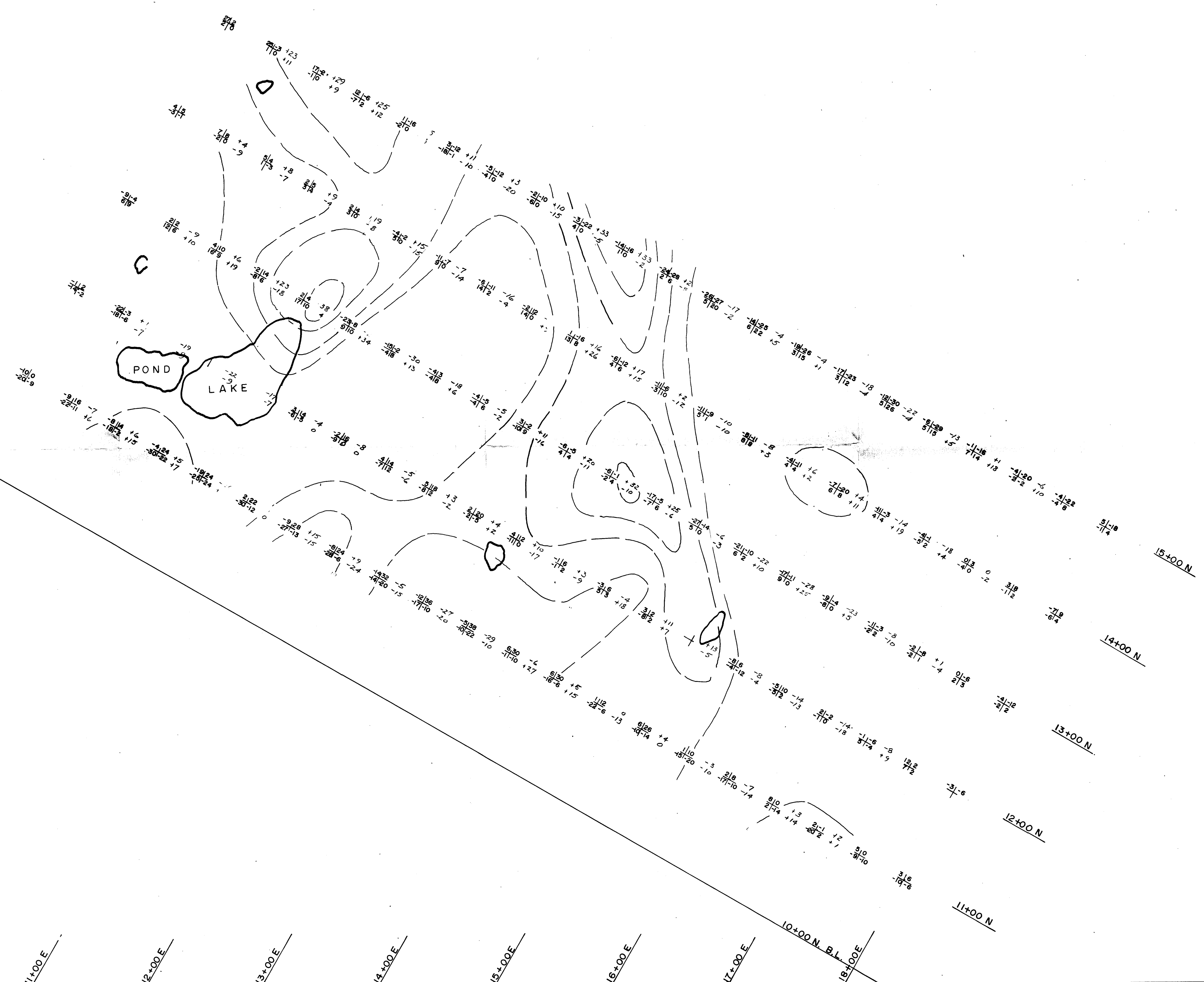
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ASSESSMENT REPORT

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J.C. STEPHENSON EXPLORATION LTD.
CASAU SURVEY
EAGL CLAIM GROUP
104P/3W
AIR PHOTO LINEARS
1984 SAMPLE LOCATIONS

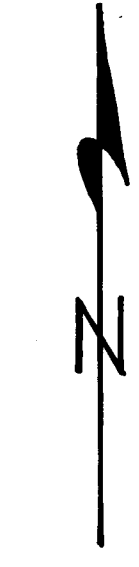
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SYMBOLS
 SEATTLE %10quad
 MAINE %10quad

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

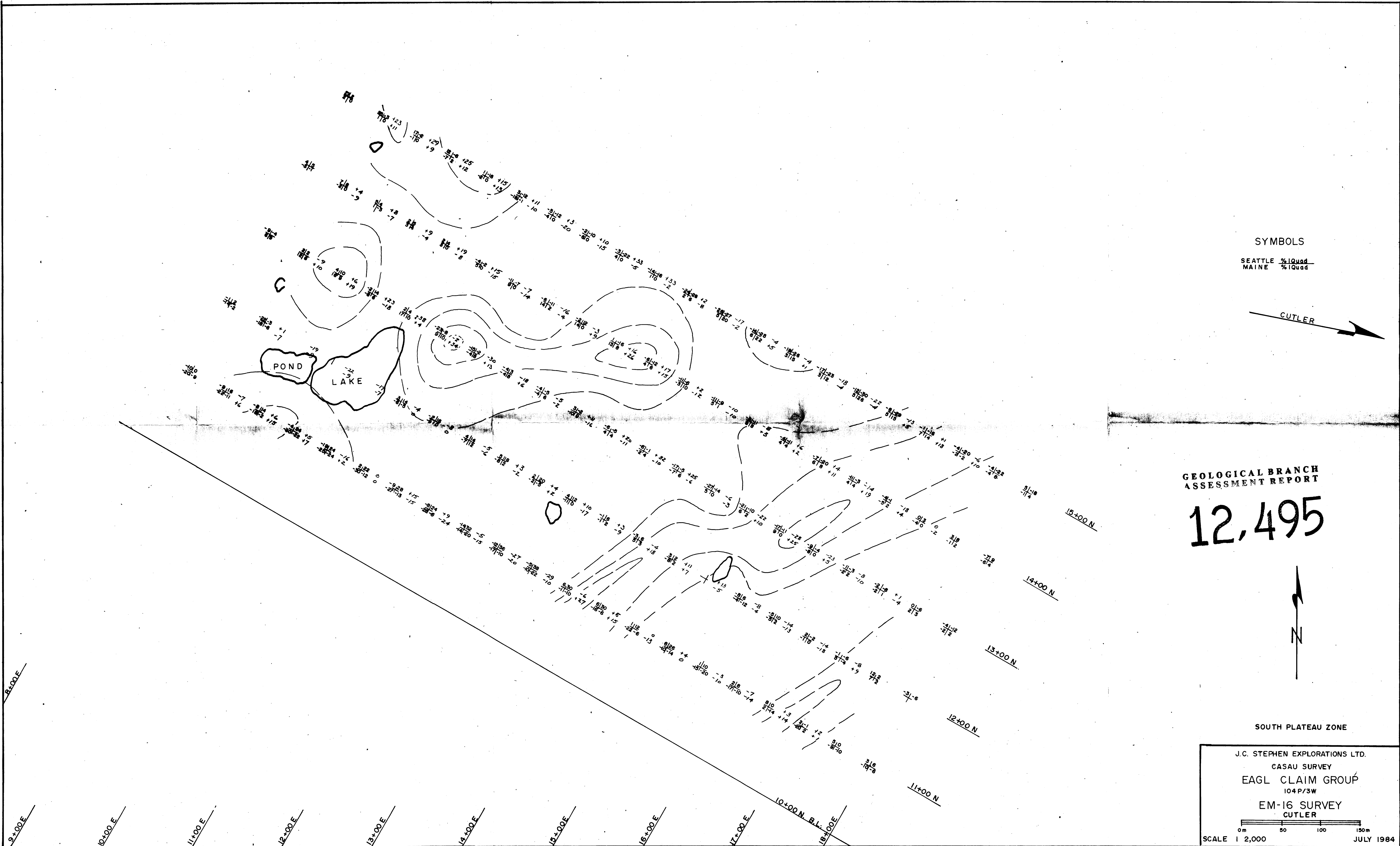
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SOUTH PLATEAU GRID

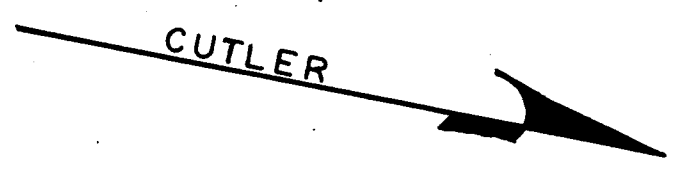
J.C. STEPHEN EXPLORATIONS LTD.
 CASAU SURVEY
 EAGL CLAIM GROUP
 104 P/3W
 EM-16 SURVEY
 SEATTLE

SCALE 1 2,000 JULY 1984



SYMBOLS

SEATTLE % IQuod
 MAINE % IQuod



GEOLOGICAL BRANCH
 ASSESSMENT REPORT

12,495



SOUTH PLATEAU ZONE

J.C. STEPHEN EXPLORATIONS LTD.
 CASAU SURVEY
 EAGL CLAIM GROUP
 104P/3W
 EM-16 SURVEY
 CUTLER
 SCALE 1:2,000
 JULY 1984