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REPORT ON WORK COMPLETED  
 ON THE YOSIE CLAIMS  
 1990 FIELD SEASON  
 SLOCAN MINING DIVISION  
 BRITISH COLUMBIA  
 FOR  
 MINISTRY OF ENERGY, MINES  
 AND RESOURCES  
 PROVINCE OF BRITISH COLUMBIA

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 VANCOUVER, B.C.

Chris C. Young, B.Sc.  
 September 7, 1990

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

20,296

N.T.S. 82F/11W  
Latitude 49° 44' N  
Longitude 117° 18' W

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## 1. INTRODUCTION

A work program was carried out this past field season on the Yosie claim group within the Slocan Mining Division of B.C. The work was jointly funded by Crawford C. Young and by a Prospectors Assistance Program Grant sponsored by the Ministry of Energy, Mines and Resources.

The purpose behind the work was to better evaluate certain areas which were indicated to have relatively high potential for containing gold-bearing quartz veins and silver-bearing galena veins. Based upon previous exploration work, two main targets were selected for further work. Prospecting and sampling would also be undertaken in conjunction with reassessing known targets.

The field work was carried out from June 10, 1990 to June 25, 1990, with a total of 42 man days having been spent on the property. The crew consisted of one geologist and two prospectors. At the conclusion of the program, two small grids had been established roughly totalling 3 km of line. On these grids a program of geological mapping, soil sampling and prospecting were carried out. Additional prospecting was also conducted outside the area of the grids in a regional manner. At the conclusion of the field work, a total of 92 soil samples, 40 rock samples and 13 silt samples had been collected. These were subsequently analyzed for gold plus a suite of 30 trace and minor elements.

The results of this past field work were, for the most part, quite successful. A number of gold-bearing quartz occurrences were discovered and strike lengths for known gold-bearing quartz veins were increased. Furthermore, five silver-bearing galena veins were re-evaluated.

To date, six gold-bearing quartz occurrences and five silver-bearing galena/sphalerite veins have been recognized. The highest gold values of the property obtained was 2.25 oz/ton, 0.86 oz/ton and 0.44 oz/ton. These values were taken from three separate, large quartz dumps which were represented by the Yosie 3 quartz vein. The possible extension of this vein is roughly 75 m away. One sample at this location contained 0.37 oz/ton Au. Four additional gold-bearing quartz veins and float, located across the property, range from 876 ppb to 2992 ppb

Au. Four out of five silver-bearing, galena - sphalerite veins, range in silver content from 4.19 oz/ton to 16.96 oz/ton. Each of the veins are located by fault zones within the Nelson Granodiorite.

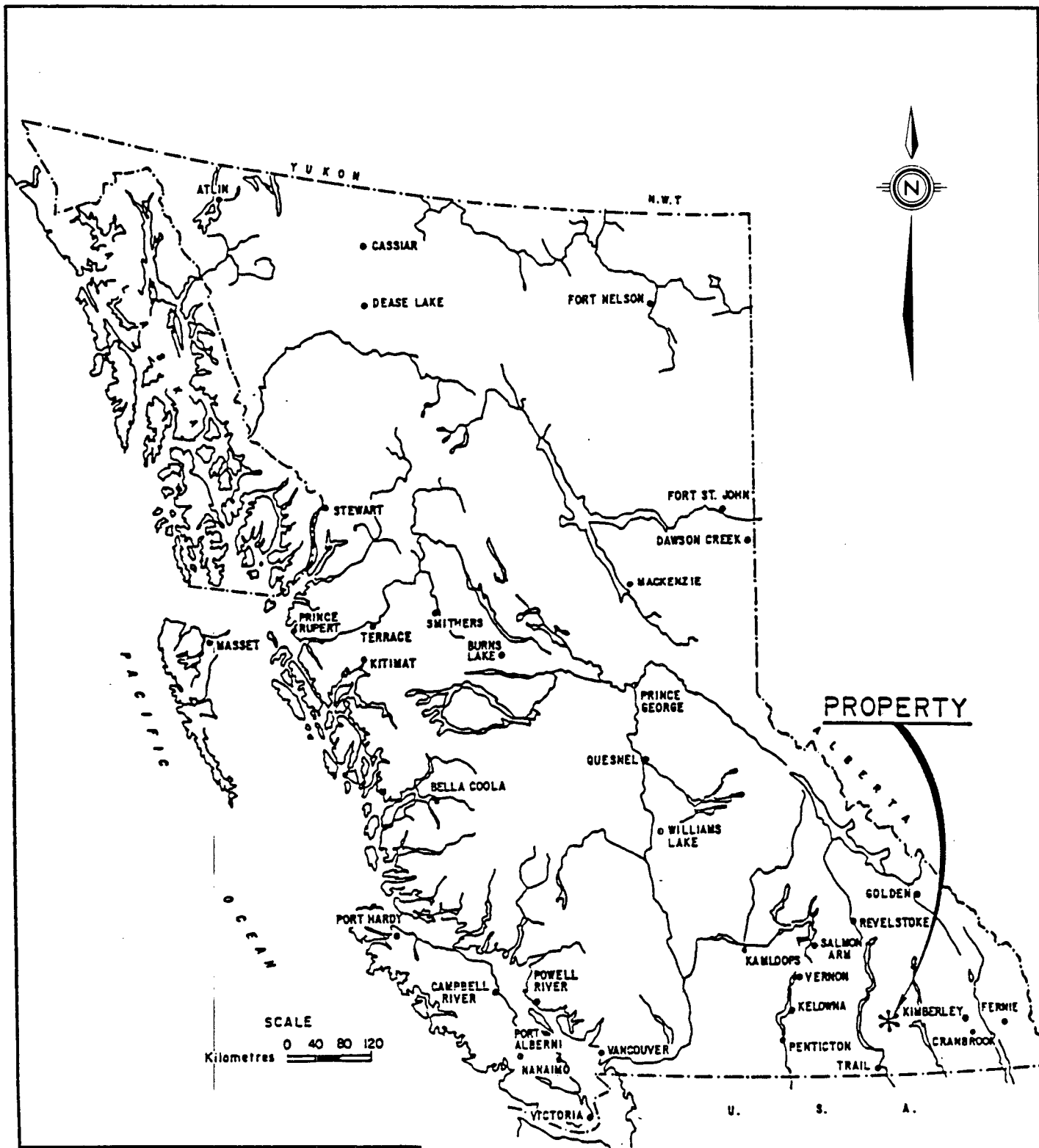
Based upon the results gathered to date, further work is recommended on the property. More specifically, this work should entail additional grid work which would blanket the property.

### 1.1 Location, Physiography and Access

The Yosie claims are located approximately 25 km north of Nelson and 10 km southeast of Slocan. More specifically, it occupies the upper reaches of Crusader Creek which is a southerly flowing tributary of Lemon Creek. The property is in the Slocan Mining Division of B.C. (NTS 82F/11W; latitude 49°44'N, longitude 117°18'W).

The topography of the property varies from 4,500 to 6,000 feet above sea level. Large sections of the property have been completely logged and burnt off (except for some of the stream areas) prior to the 1972 staking of the claims. The western border of the Kokanee Glacier Provincial Park is located 2 km east of the Yosie claim group.

Access to the property is by way of 22 kms of a fair to good logging road (Lemon Creek Road) which joins Highway 6. This junction is roughly 10 kms south of Slocan. A two-wheel drive truck can access the property, although a four wheel drive vehicle is recommended.



YOSIE PPROJECT	
PROPERTY LOCATION MAP	
SLOCAN M.D.	
JULY 1990	FIG. 1

## 1.2 Claim Information

The property was located and staked by the late Crawford C. Young (Sr.) of Nelson. Ownership of the claims currently resides with Crawford C. Young (Jr.) of 5282 Saratoga Drive, Delta, B.C. V4M 2E9.

Seven two-post claims comprise this property. The expiry dates given on Table 1 however, do not include work contained in this report.

**TABLE 1**  
**Claim Information**

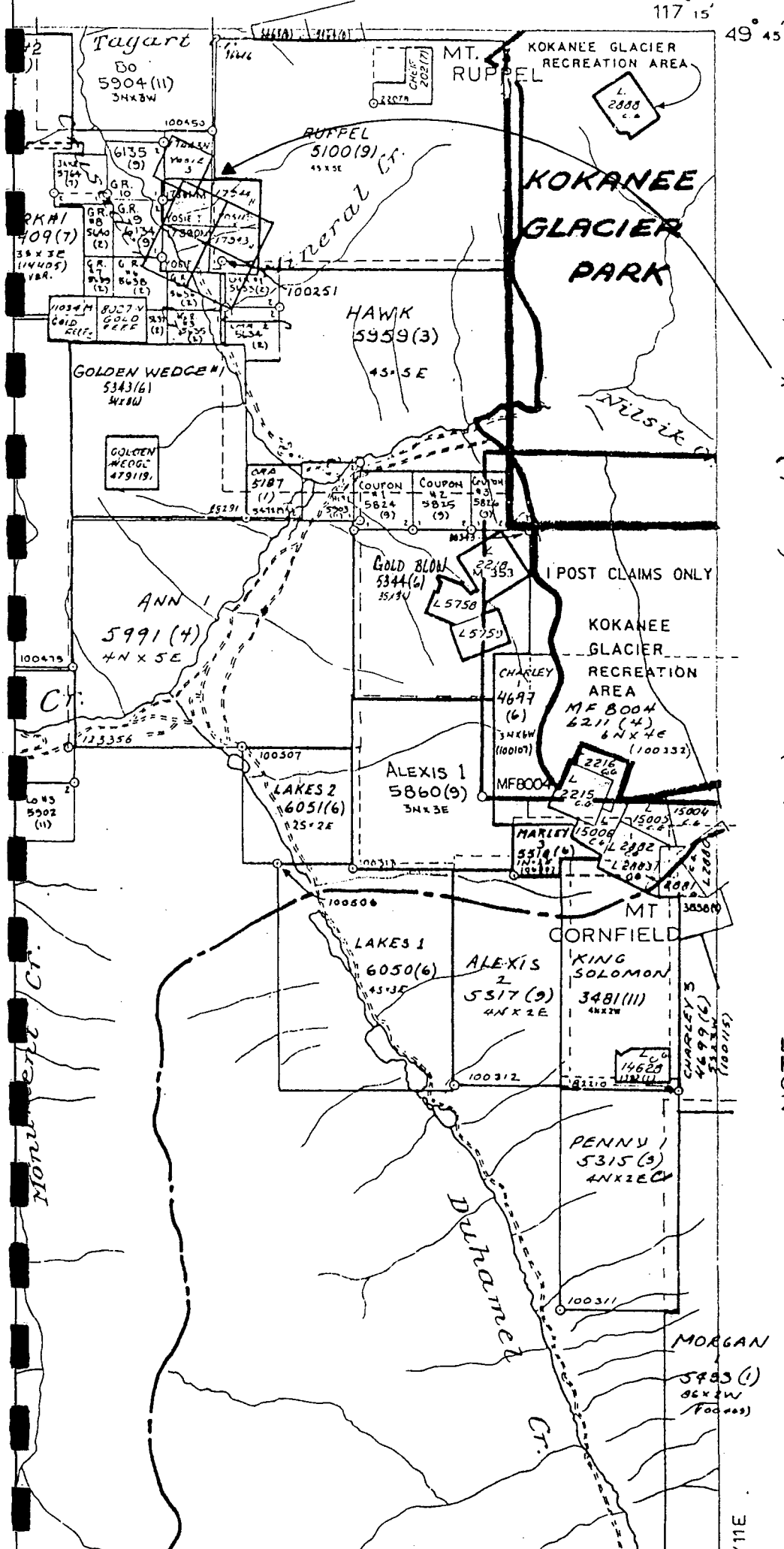
<u>Claims</u>	<u>Record No.</u>	<u>Units</u>	<u>Date Staked</u>	<u>Date of Record/Issue</u>	<u>Expiry Date</u>
Yosie 1	17390	1	Sept 16, 1972	Sept 22, 1972	Sept 22, 1990
Yosie 2	17391	1	Sept 16, 1972	Sept 22, 1972	Sept 22, 1990
Yosie 3	17443	1	Oct 22, 1972	Oct 26, 1972	Oct 26, 1990
Yosie 4	17943	1	July 6, 1972	July 8, 1972	July 8, 1991
Yosie 5	17944	1	July 6, 1972	July 8, 1972	July 8, 1991
Yosie 6	6417	1	June 23, 1990	June 26, 1990	June 23, 1991
Yosie 7	6418	1	June 23, 1990	June 26, 1990	June 23, 1991

## 1.3 Property History

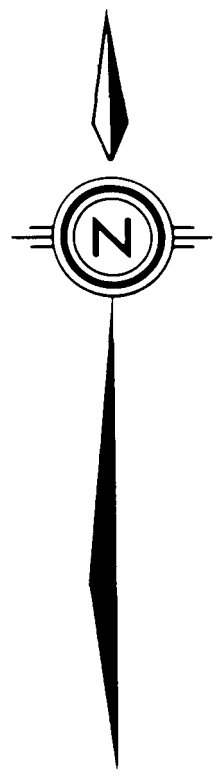
Initial staking of three claims in 1972 was undertaken by Crawford C. Young (Sr.) after discovering a number of float and outcrop occurrences of massive galena. An additional two claims were staked in 1974 after extensive prospecting over the area of the present claims.

Most of the work undertaken by Crawford C. Young (Sr.) through the 1970's comprised of prospecting, trench-blasting and mucking, physical stripping and sampling. Although in 1978, a property examination of the main prospect pits and trenches was performed by District Geologist George G. Addie. A brief VLF-EM 16 survey was performed over the main exploration area. One grab sample was also taken and subsequently analyzed.

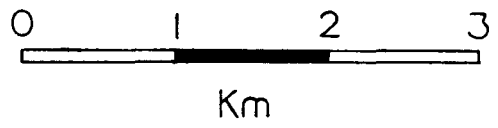




117 15' 49° 45'



NOTE: Angled claims indicated (arrow) are corrections made (June 26/90) to the Yosie claim group and have yet to be drafted by the Ministry.



CRAWFORD YOUNG'S PROPERTY  
 YOSIE PROJECT  
 MINERAL CLAIM MAP  
 SLOCAN M.D.

DATE: AUG 1990 FIG 2

A small exploration soil sampling survey (gridless) was also initiated by C.C. Young (Sr.) within Yosie 1 and 2. Approximately 40 soil samples were collected between 1978 and 1980. Although their locations are sketchy, there is 2 anomalous lead samples over 100 ppm and 4 anomalous zinc samples over 200 ppm.

Geochemical analysis of the various galena veins proved encouraging. The highest silver analysis contained 46.5 oz/ton. This sample was taken from the Main Ore Zone located in Yosie 1. Also near this location a sample contained 65.361% lead.

From 1980 to 1985, the work performed by Crawford C. Young (Sr.) was focused on: (1) removing overburden and exposing to a greater degree the "Main Ore Zone"; and (2) collecting a bulk of samples of high grade ore for testing purpose.

The removal of overburden was best accomplished in 1982 upon contracting a small bulldozer. This was followed by hydraulic stripping to clean dirt from the area surrounding the mineralized zones. This work, which was confined to a promising exposed vein system resulted in the extraction of approximately 8,000 pounds of massive galena, collected over the course of ten years (1975 to 1985).

The overall values for the Main Ore Zone vein was best represented by the results of the bulk sample of lead ore submitted by C.C. Young (Sr.) in the Fall of 1985. The assay results are shown below.

Net Weight: 7,980 pounds; Assays: Gold 0.0170 oz/ton; Silver 11.2 oz/ton; Copper 0.04%; Lead 33.4%; Zinc 4.7%.

A large quartz vein containing encouraging gold values of 0.28 oz/ton, 0.71 oz/ton, 1.40 oz/ton and 1.60 oz/ton was located by Crawford Young (Sr.) within Yosie 3. A property examination by D.K. Makeplace of Dickenson Mines Ltd. in 1983 confirmed the presence of anomalous gold. Values from the vein and the quartz dumps located downslope generated 0.091 oz/ton (chip), 0.642 oz/ton (grab), 0.202 oz/ton (grab) and .374 oz/ton (grab) gold.

Work completed on the Yosie claims from 1986 to 1989 entailed labour intensive trenching to bedrock, limited road construction and relocating attempts to sketchy described veins.

## 2. REGIONAL GEOLOGY

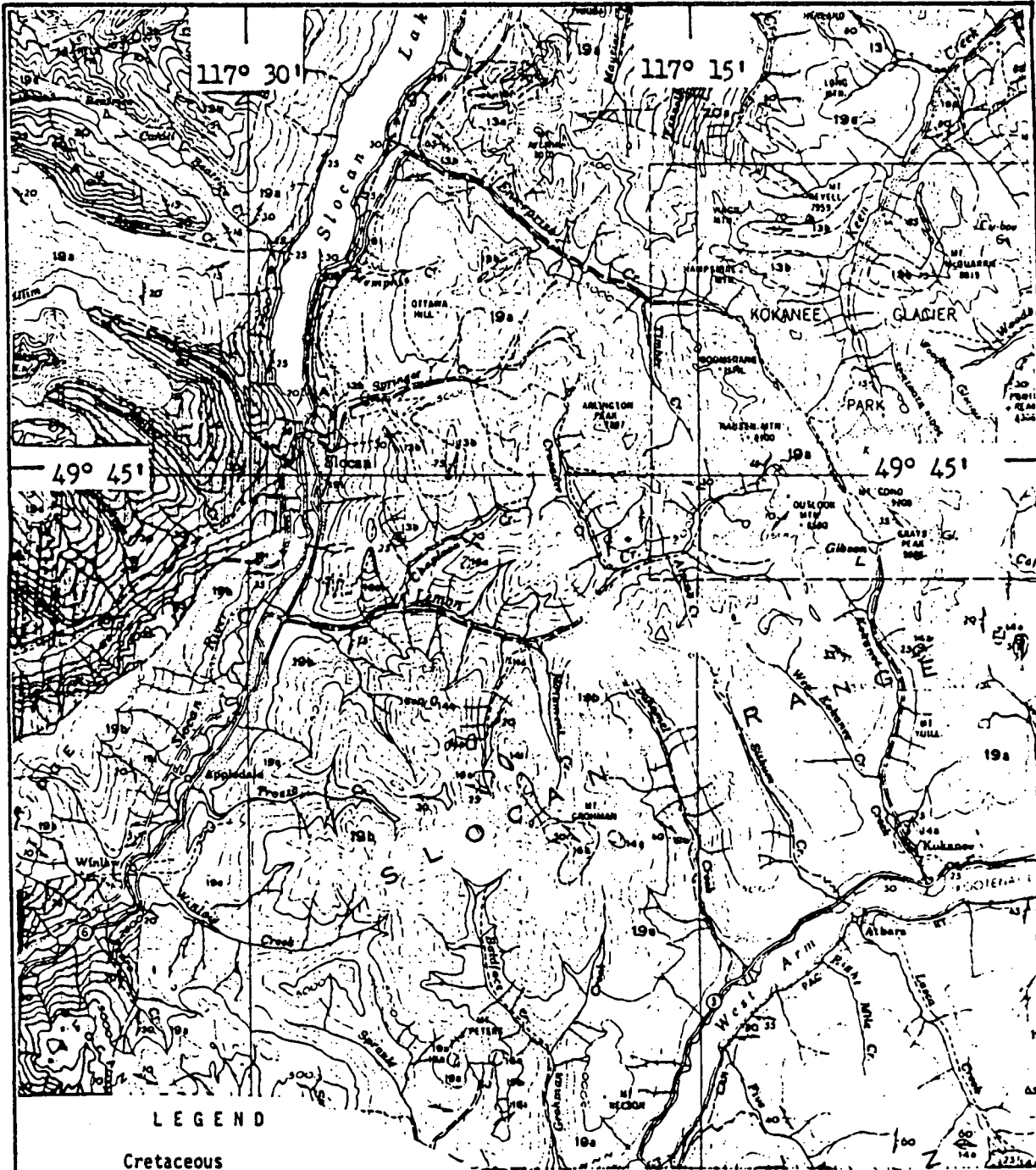
A brief description of the rock formation within a 30 km radius of the community of Slocan comprises of the Milford Group, Slocan Group, Nelson Plutonic Rocks and Valhalla Complex.

### 2.1 Stratigraphy and Lithology

The oldest rocks of the area belong to the Milford Group. The rock units consist of thin bedded grey quartzite, argillaceous quartzite, chert, marble, paragneiss and calc-silicate rock (LeClair, A.D., 1983). Identification of fossil conodonts within the Milford Group has dated these rocks as Carboniferous in age (Orchard, M.J., 1985).

The Slocan Group consists of a thick sequence of black argillite and limestone, fine grained quartzite and some tuffaceous beds and conglomerates (Little, H.W., 1985). Within the area it consists of isolated roof pendants completely enclosed by the Nelson Intrusives. Fossil conodonts within the limestone have dated this group as Triassic in age (Orchard, M.J.). Additional fossil evidence has indicated that the upper part of the group may be Lower Jurassic.

Overlying most of the area is the Nelson Intrusives. This rock is mainly porphyritic with large phenocrysts of alkali feldspar. Compositionally, this unit ranges from granite, where phenocrysts are abundant, to biotite hornblende granodiorite. Other rocks within this unit include quartz monzonite, quartz diorite, diorite and white to pinkish hornblende syenite (Little, H.W., 1985).



LEGEND

- Cretaceous
- [20] VALHALLA PLUTONIC ROCKS
- [19] NELSON PLUTONIC ROCKS
- Jurassic
- [16] ROSSLAND FORMATION
- Triassic
- [13] SLOCAN FORMATION
- Permian and Pennsylvanian
- [A] MILFORD SERIES



Geology by H.W. Little, GSC Memoir 308  
Map 1090A

Project Title: <b>YOSIE</b>	
GEOLOGIC MAP LEMON CREEK AREA Slokan Mining Division B.C., Canada	
DATE: JULY / 90	SCALE: 1 in = 4 Mi
FIG. 3	

NOTE: Some Rock Unit Ages of the above 1090A map have been reinterpreted.  
 MAP D.F. 1195 G.S.C. AND GEOLOGIC NOTES NELSON WEST HALF B2F. W/8 MAP AREA  
 (1171E H W 1985)

After many age determinations of the Nelson Intrusives, evidence suggests this rock is most probably 165 Ma, or Middle Jurassic in age (Little, H.W., 1985).

The Valhalla Complex is a gneiss domal structure complex. It has been divided into several units that comprise either metasedimentary or intrusive bodies (Little, H.W., 1985). The intrusive rock consists of pegmatitic granite that intrudes usually the Nelson Plutonic Rocks (Santos, P.J., 1986). In the area they comprise of small stocks, dikes and isolated pods within the Nelson Intrusion.

Structural reinterpretation and U-Pb age determination on zircons have suggested the Valhalla Complex is late Cretaceous and early Tertiary in age (Parish, R.R., et al, 1985).

## 2.2 Mineral Deposits

In the area between Lemon Creek to the south and Enterprise Creek to the north, 19 mining properties have produced 67,293 tons of ore that yielded 2,634 ounces of gold, 4,138,002 ounces of silver, 6,545,826 pounds of lead and 2,845,673 pounds of zinc (Santos, P.J., 1986). These past producers are listed on Table 2. The host rocks of these deposits is the granite of the Nelson Intrusions.

**TABLE 2**  
**Production of Mines**  
**in the Springer-Chapleau Creek Area**  
**Slocan Mining Division, British Columbia**

<u>Mine</u>	<u>Tons Mined</u>	<u>Gold (oz)</u>	<u>Silver (oz)</u>	<u>Lead (lb)</u>	<u>Zinc (lb)</u>
Ottawa	26,610	31	1,797,747	793,498	28,027
Arlington	21,180	23	1,010,509	1,899,263	262,049
Little Tim	550	-	39,396	53,614	17,778
Republic	270	108	13,447	401	304
Tamarack	90	-	11,839	18,717	-
Hamilton	50	9	4,284	4,235	-
Anna	190	-	29,828	2,841	326
Myrtle (Alma)	60	-	2,425	1,188	1,999
Happy Medium	10	3	2,155	2,228	-
Enterprise	11,780	65	1,050,596	3,691,593	2,354,233
Whiterhose	80	4	825	25,185	24,365
Chapleau	326	947	13,104	-	-
Kilo	2,330	952	870	105	46
Piedmont	520	-	2,297	52,955	156,546
King Jack	170	29	5,343	-	-
Meteor	2,910	422	151,279	-	-
Joan Duplex	6	7	520	-	-
Howard Fr.	127	12	1,544	-	-
Goldstream	40	22	23	-	-
<b>Total</b>	<b>67,293</b>	<b>2,634</b>	<b>4,138,002</b>	<b>6,545,286</b>	<b>2,845,673</b>

### 3.0 PROPERTY GEOLOGY

During the course of the field work, geological mapping was carried out at a scale of 1:2000. The purpose of this mapping was to roughly determine the stratigraphic and structural relationships of the grids and other points of interest outside the grids. Outcrops were also mapped for mineralization and/or alteration assemblages.

Shown on Figures 4, 7 and 16 is the geological interpretation of this program's mapping.

#### 3.1 Stratigraphy, Lithology and Structure

Based upon the geological mapping of the grids and the overall stratigraphic picture of the property, the Nelson Intrusives comprise a very high percentage of the surface area. This is the oldest unit on the property. For the most part, outcrops of this unit are compositionally granodiorite to quartz diorite (Jn). Characteristically it is medium to coarse grained and sometimes faintly foliated. Quartz crystals are commonly larger and better developed in most outcrops. This porphyritic texture tends to be better developed and associated with an increase in mafic minerals. Biotite predominates over hornblende in most places.

A second rock unit located near the Main Ore Zone part of the property appears to be a fine grained syenite. This rock is quite pinkish in colour due to the feldspar content. Other areas of this unit tend to resemble a moderately altered and iron stained granodiorite. One exposure of this syenitic-granodioritic unit, has been observed and is most likely a part of the Nelson Intrusions.

A moderate to highly altered chlorite / chlorite-sericite quartz diorite (Jngd) can be located near the Main Ore Zone and Yosie 3 quartz vein. This unit presumably was once a quartz diorite that has undergone hydrothermal alteration. The rock is generally green-blue in colour on a fresh surface. Most outcrops exhibit a metamorphosed quartz crystal porphyry amongst a medium to coarse grained matrix.

A moderately chlorite altered and iron-stained granodiorite (Jng) can be located along the upper road roughly 40 m west of the Main Ore Zone. This granodiorite has also been altered and metamorphosed to a moderate extent. Compositionally, this rock unit contains quartz, feldspar and hornblende in roughly equal proportions. The grain size is medium to coarse.

Varying sized pegmatitic dykes (Jnp) have been observed in several locations of the property intruding the granodiorite and quartz diorite rock units. These dykes are presumably late stage intrusive events associated with the Nelson Plutonic rocks. This interpretation is based primarily upon the contact relationships that appear intrusive in origin. Compositionally, the pegmatites are granitic. Most feldspar and quartz grains are greater than 1 cm in diameter.

Located near the Yosie 3 vein are subcrop exposures of what appears to be a lamprophyre dyke. The subcrop and float pieces suggest the vein is trending northeasterly. Inconclusive contact relationships between the lamprophyre dyke and granitic rock has made timing correlation difficult, although it is thought to post-date the Nelson Intrusions. The mafic dyke consists mostly of medium grained pyroxene and to a lesser extent hornblende and feldspar.

As a result of the geologic mapping undertaken, few structural features were discovered. This lack of structure is especially true for foliation or gneissic textures within the Nelson Intrusive rocks.

A greater degree of structural patterns were observed in faults. One area where faulting had taken place is within the Main Ore Zone (Figure 25). Here nine separate faults were observed, five of which hosted significant sulphide mineralization and gouge. This fault zone is spread over a 10 metre area and trends east-west, to 15 degrees south of east. Each of the faults observed indicate a north dip from 40 to 85 degrees, with an average dip of 55 degrees north. The general sense of movement across these faults was not determined. This fault system also coincides with a weak VLF-EM 16 anomaly. This abbreviated 1978 geophysical survey suggested a possible fault control of the creek (Addie, G.G., 1979).



Additional faults were observed in outcrop along the upper logging road located in the Yosie 4 claim. Three small shears were noted over a 15 metre area. Two trend due north, while the third trends southeast. These faults were hosted by granodiorite which locally appeared oxidized and iron stained.

Northerly trending slickensides were observed in the altered host rock of the Yosie 3 quartz vein (16+75N, 3+60E). It is evident this texture was the result of faulting, as opposed to glacial striations. The slickensides or fault planes tend to plunge 50 degrees southerly from a strike-slip movement.

### 3.2 Mineralization

During the course of the field project, a number of mineralized zones were located. The rediscovery of old workings, together with new areas of interest, could be generally divided into gold-bearing quartz veins and silver-lead bearing galena veins.

Of the 40 rock samples submitted for analysis, 24 were found to contain gold values considered to be anomalous (over 100 ppb Au). Of these, 10 were found to have greater than 1000 ppb Au and four were greater than 10,000 ppb Au (0.29 oz/ton). Although a number of those high values were collected off the same vein, six different locations were represented by values greater than 876 ppb Au.

Silver values were also encouraging. Ten of the 40 rock samples taken were greater than 1 oz/ton. Four samples exceeded 10 oz/ton Ag from the Main Ore Zone.

Anomalous gold and silver values tended to correspond with one another. The rock samples representing these values are located across the property within a 200 m x 1,500 m area. Six interesting mineralized zones within this relatively linear area are described in Chapter 3.2.1 through 3.2.6.

Included as Appendix A is a field description of all the rocks submitted for analysis.

### 3.2.1 Yosie 3 Vein

The Yosie 3 vein is a large subcropping quartz vein that was initially discovered by the late Crawford Young (Sr.) in the mid-1970's. It was relocated, mapped and sampled during this year's program. Three separate large (approximately 1.5 m x 2 m) quartz dumps from this vein represent the highest gold values of the property with 2.25 oz/ton, 0.86 oz/ton and 0.44 oz/ton (CR-46, CR-47, CR-43 respectively). There is a total of four prominent quartz dumps downslope from the main quartz vein, all of which containing significant gold values. These dumps are spread over a 50 m area and are located between L16+50N and L17+00N in the vicinity of the baseline 3+50E.

The large subcrop to outcrop section of the Yosie 3 quartz vein is located in the vicinity of 16+75N, 3+60E. The vein, which is considerably concealed by overburden, appears to be in place and striking  $175^{\circ}/25^{\circ}W$ . The exposed section of quartz is 1.5 m x 1.0 m x 0.55 m in size. A 50 cm chip sample taken from this vein contained 0.127 oz/ton Au (CR-29). The 55 cm width is comprised of predominantly white to crystalline quartz, separated by a 10 cm section of highly altered and metamorphosed host rock. The vein is hosted to the south by an equigranular granodiorite. The apparent host rock to the north of the vein is a moderate to highly altered quartz diorite. Sections of the vein are mildly vuggy which can contain subhedral pyritic crystals up to 1 cm across. Fine pyrite veinlets (1%) and moderate iron staining is also present.

Three separate north/south trending slickensides can also be noted over a two metre area within the altered quartz diorite host. It is evident this texture was the result of faulting as opposed to glacial striations. The slickensides or fault planes tend to plunge 50 degrees southerly from a strike-slip movement.

Three additional samples represented by CR-30, CR-42 and CR-45 were taken from quartz dumps and boulders adjacent to the Yosie 3 vein. They contained 0.156 oz/ton Au, 2073 ppb Au and 1811 ppb Au respectively.

In addition to gold, the Yosie 3 vein and the surrounding quartz dumps were also found to be anomalous in silver and lead. Samples CR-46, CR-47 and CR-43 respectively contained 160.4 ppm Ag, 30.8 Ag, 28.2 ppm Ag; and 2830 ppm Pb, 2413 ppm Pb, 405 ppm Pb. Sample CR-42 also contained 15.6 ppm Ag, 742 ppm Pb and 134 ppm As. Arsenic was also present with 107 ppm in Sample CR-46.

Most of the quartz found in and around the Yosie 3 vein have similar characteristics. Mild to moderate iron and manganese staining with trace to 2% pyrite. A considerable amount of quartz is vuggy with well developed quartz crystals ranging from 5 to 25 mm in length. Some quartz exhibits ribboning and fracture textures.

### 3.2.2 Yosie 3 Vein Extension

A second area of interest was relocated approximately 75 metres north of the Yosie 3 vein in the vicinity of 17+50N, 3+45E. Here several old, shallow prospect pits have uncovered more quartz closely resembling the quartz found at the Yosie 3 vein. The fourth highest gold value of the property (0.37 oz/ton) is represented here by CR-18. This sample was taken from a moderately sized (approximately 1 m x 1 m) quartz dump, adjacent to a subcrop quartz vein within a prospect trench. The subcrop quartz vein appears to be hosted by a mild to moderately chlorite altered quartz granodiorite to diorite.

Three additional samples (CR-19, CR-20, CR-21) were taken in this area from other smaller quartz occurrences. These samples analyzed considerably lower for gold, only averaging 93 ppb Au.

It appears that the quartz from this area may well be an extension from the main Yosie 3 vein. Not only is the quartz similar in appearance, characteristics and gold content, it is also (by projecting the Yosie 3 vein north) on strike.

### 3.2.3 Main Ore Zone

The Main Ore Zone can be located just south of the Yosie 1 and 2 claim line, approximately 150 m northwest from the initial claim post. In relation to the grid, the zone is exposed over a 10 m area from 9+83N, 5+85E to 9+93N, 5+85E. The zone comprises of several massive galena veins hosted by small faults or shears within altered Nelson Granodiorites.

Work up to the mid-1980's had progressed to the point where an exploration road-cut crossed the Main Ore Zone. Over the years, overburden sloughing has covered up many areas of interest. To better expose the Main Ore Zone, a three hour excavation job was performed by a four-wheel drive backhoe. The improved exposure of the Main Ore Zone enabled a detailed mapping and sampling program to be undertaken (Figure 25, 26, 27).

Five massive galena and sphalerite veins were identified across a 10 metre area, all of which were separately hosted by east/west striking faults. The vein hosted faults all dipped to the north from 40 to 70 degrees.

Four of the five veins are hosted by a moderate to highly altered, chlorite / chlorite-sericite, quartz diorite, green-blue in colour. This unit presumably was once a quartz diorite that has undergone hydrothermal alteration. These four galena -sphalerite veins pinch and swell irregularly from 2 to 8 cm in width. Silver values from these veins were the highest of the property and averaged 11.77 oz/ton (CR-01, DR-01, DR-16, DR-17, DR-18). Other values averaged from the five samples include 507 ppb Au, 1030 ppm Cu, 2.7% Pb and greater than 10% Zn.

The largest of the massive galena - sphalerite veins is located at 9+84N, 5+83E. This vein ranges from 5 to 15 cm in width and can be traced up to two metres in length. It too occupies a fault plain striking east-west and dipping north. The vein has a 10 to 30 cm sericite to chlorite envelope, all of which is hosted by a moderate to highly silicified rock. A rock sample represented by DR-11 analyzed for 205 ppb Au, 2.52 oz/ton Ag, 1133 ppm Cu, 2.5% Pb and greater than 10% Zn.

Additional samples taken from the Main Ore Zone included highly silicified rock containing disseminated pyrite up to 5% and traces of chalcopyrite. Gold and silver values from these rocks were not as pronounced compared to other samples from the zone, although they still are considered anomalous. Sample DR-13 contained 308 ppb Au with 1.86 oz/ton Ag.

Two other elements which are anomalous within the samples taken from the Main Ore Zone are arsenic and cadmium. The average concentrations for arsenic was 316 ppm and 6605 ppm for cadmium, based on 12 samples.

For the most part, the Main Ore Zone appears to represent an area of structural weakness in which one or more series of hydrothermal events contributed to the emplacement of mineralized veins, alteration minerals and assemblages.

#### **3.2.4 DR-9 Vein**

The DR-9 vein is located near the eastern property boundary within the Yosie 4 claim. An outcrop along side an old tote road hosts the vein, roughly 50 m upslope from the main upper logging road.

A grab sample taken from this quartz vein represented by DR-09, contain 2992 ppb Au (0.087 oz/ton) The vein is white in colour with moderate iron and manganese staining. The vein is striking 120°/20°NE and is hosted by a granodiorite to quartz diorite. Some pods of pyrite were also noted. Silver and lead values were also anomalous with 51.9 ppm Ag (1.5 oz/ton) and 1124 ppm Pb. Other nearby rock samples contained only background levels of gold and silver.

#### **3.2.5 Claim Line Vein**

This quartz vein is located on the claim line of Yosie 3, roughly 250 m northeast from the initial post. If the Yosie 3 grid was to be extended north, the approximate grid location for the vein would be L18+50N, 2+40E.

A chip sample across this 7 cm wide, cream white coloured quartz vein contained 1966 ppb Au (CR-03). The vein is striking 60°/30°NW and is hosted by a muscovite rich, porphyritic (feldspar) granodiorite. The quartz is mildly vuggy with sub- to euhedral quartz and pyrite crystals (up to 1 cm across). Other values from this vein were only of background concentrations.

A football sized, quartz float sample, represented by CR-04, was located at 17+75N, 2+75E. This sample is roughly situated between the Claim Line vein and the Yosie 3 extension (described in 3.2.2). This crumbly textured quartz, with weathered-out pyrite crystals, contained 876 ppb Au. Similarities in the locations and gold content of the CR-04 sample and the Claim Line vein can be interpreted as possible extensions of the Yosie 3 vein system.

A 15 cm wide quartz vein, 5 m downslope from the Claim Line vein may also be a part of the Yosie 3 vein system. This vein is striking due north and dipping 65 degrees west. The gold content, however is only of background concentrations.

### **3.2.6 CR-54 Quartz**

A random grab sample was taken from a local appearing group of quartz boulders. These boulders are roughly 15 cm x 20 cm x 20 cm in size and are located on the bank of a southwesterly flowing creek in the Yosie 2 claim. If the Yosie 1 grid were extended to the north, the quartz would be roughly located at 11+75N, 5+50E.

The sample contained 936 ppb Au. Some vugs with quartz crystals 5 to 8 mm in length were observed along with trace amounts of pyrite.

### **3.2.7 Bob's Bismuth Float**

A local appearing, quartz float sample (BR-01) taken downslope from the Main Ore Zone contained anomalous silver and bismuth values. Located at L9+50N, 5+25E, this sample contained 261.7 ppm Ag (7.63 oz/ton) and 1668 ppm Bi. Gold was also anomalous with 191 ppb. Small mineralized veinlets of presumably bismuthinite and pyrite were noted. Trace amounts of what was believed to be argentite

together with specular hematite were also observed. Only one angular, 20 cm piece of this mineralized quartz float was found.

#### 4. STREAM SEDIMENT GEOCHEMISTRY

During the course of the field work, a total of 13 silt samples were collected. Most all of these were collected from active portions of any drainage that was encountered. The purpose was to ascertain whether stream geochemistry would be a useful exploration tool.

##### 4.1 Results

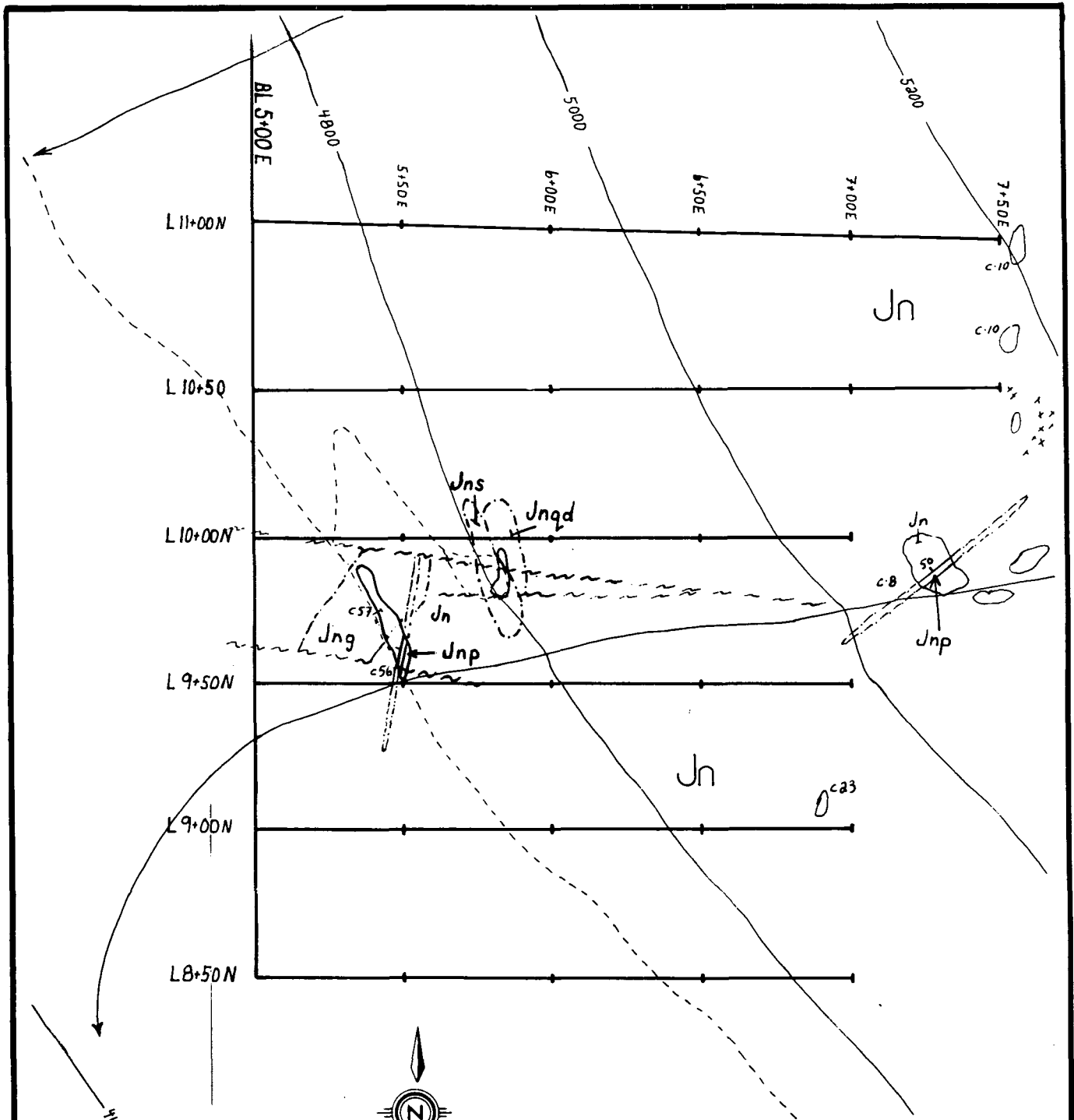
For the most part, the results of the stream geochemistry was somewhat disappointing. All the stream sediment samples contained only background levels of gold, with TS06 representing the highest at 12 ppb.

#### 5. SOIL GEOCHEMISTRY

A total of 92 soil samples were collected at intervals of roughly 25 m over most of the two grids. The line spacing used was 50 m. The purpose behind the soil sampling was to outline any areas of anomalous geochemistry which could be related to gold and silver mineralization.

##### 5.1 Results

As a result of the soil sampling, a number of places on the property contained anomalous soil sample values for a variety of elements. For the most part, these anomalous concentrations were somewhat diffuse, although some elements did correspond directly to the areas of known mineralization. The soil geochemistry was relatively successful when one considers the limited grid size and the small sized (less than 2 m wide) targets sought.



NELSON INTRUSIONS - JURASSIC

- Jnp PEGMATITE
- Jng CHLORITE ALTERED GRANODIORITE (Fe stained)
- Jnqd CHLORITE/SERICITE ALTERED QUARTZ DIORITE (pale green-blue)
- Jns FINE GRAINED SVENITE to ALTERED GRANODIORITE (pinkish)
- Jn GRANODIORITE to QUARTZ DIORITE

--- GEOLGIC CONTACT (inferred)

~ ~ ~ FAULT

0 25 50 75 metres

SCALE 1:2000

CRAWFORD YOUNG'S PROPERTY

B.C. PROSPECTORS ASSISTANCE PROGRAM

**YOSIE PROJECT**

YOSIE-1 GRID

**GEOLOGY**

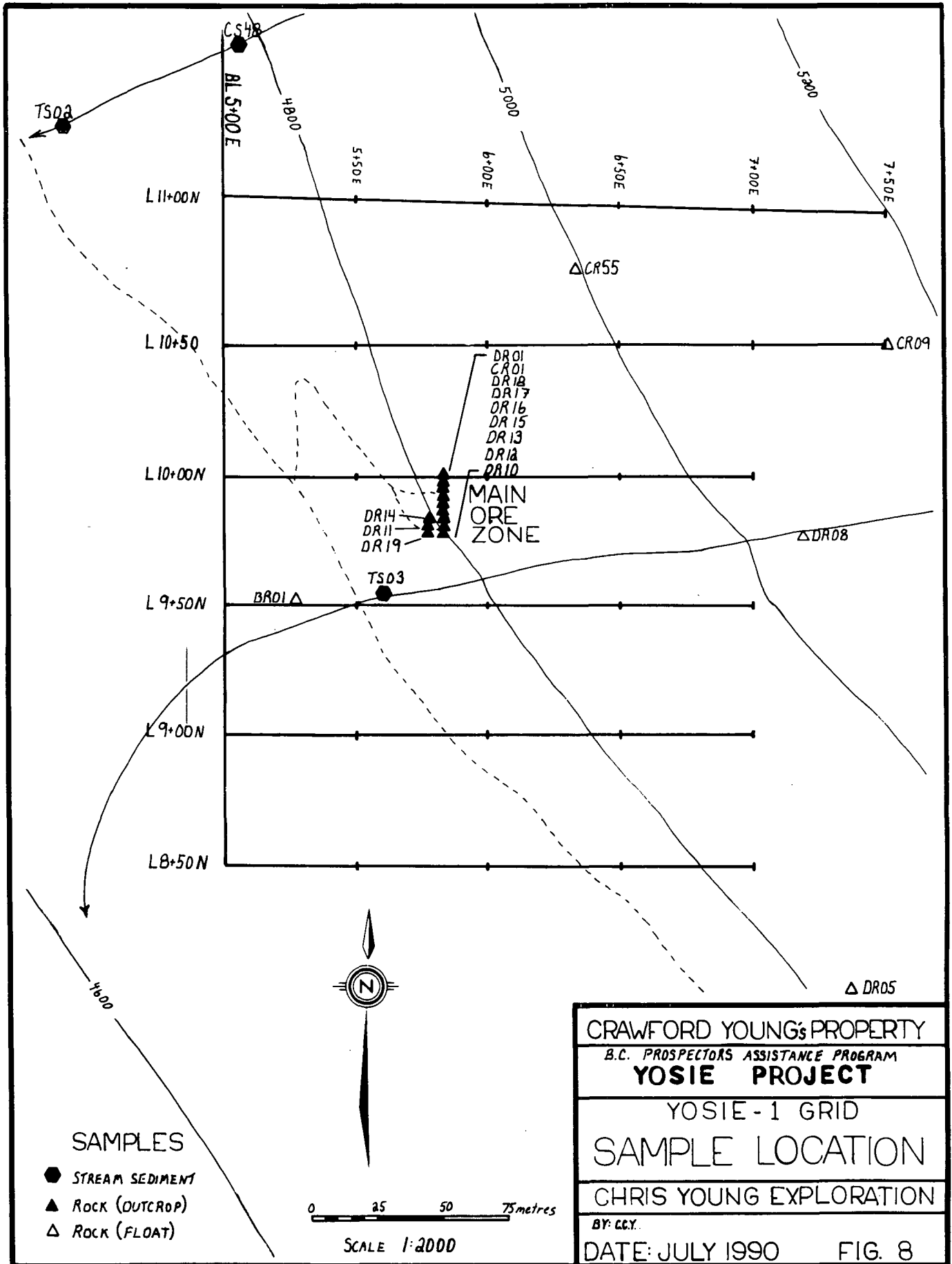
CHRIS YOUNG EXPLORATION

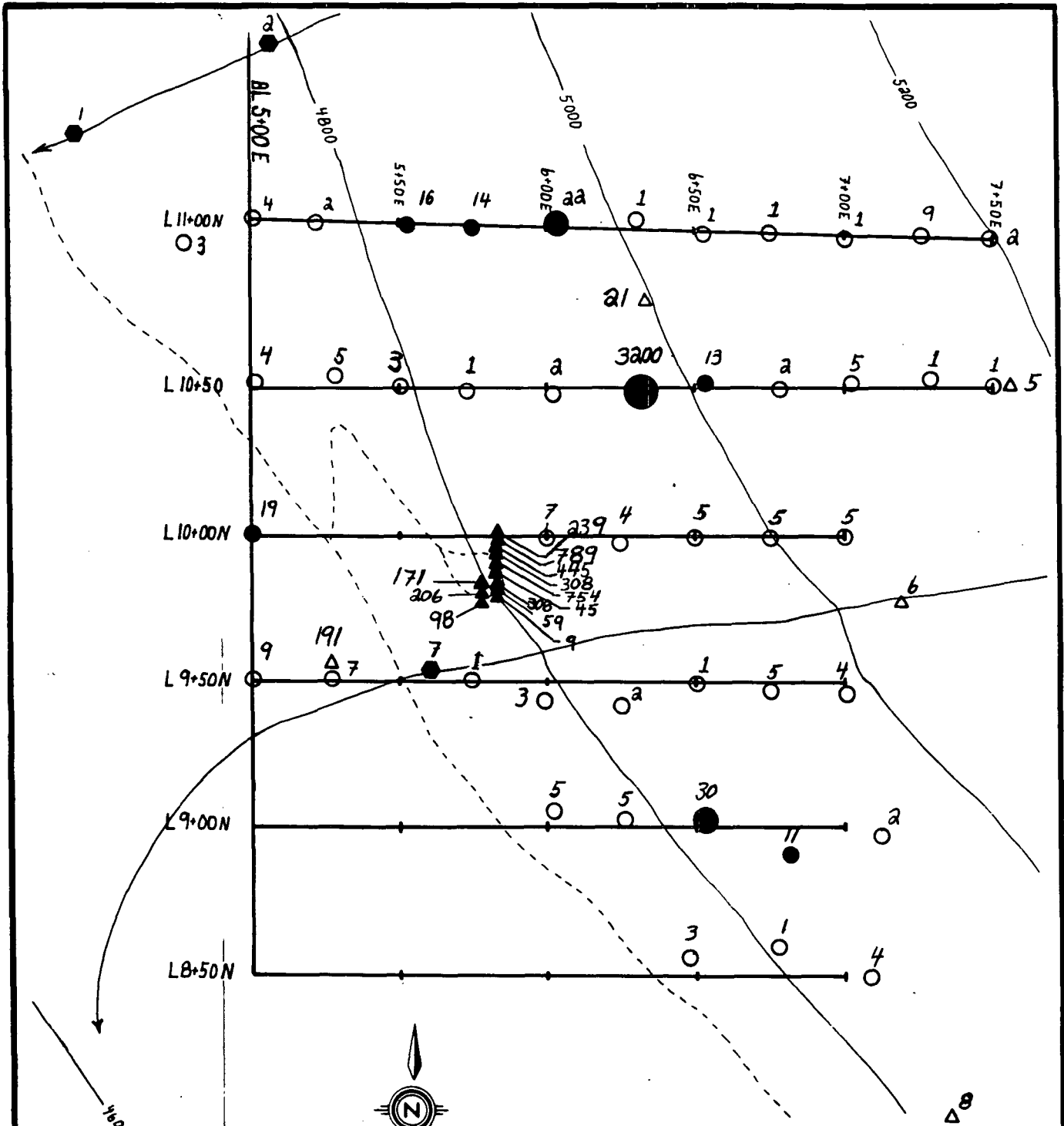
BY: CCY

DATE: JULY 1990

FIG. 7







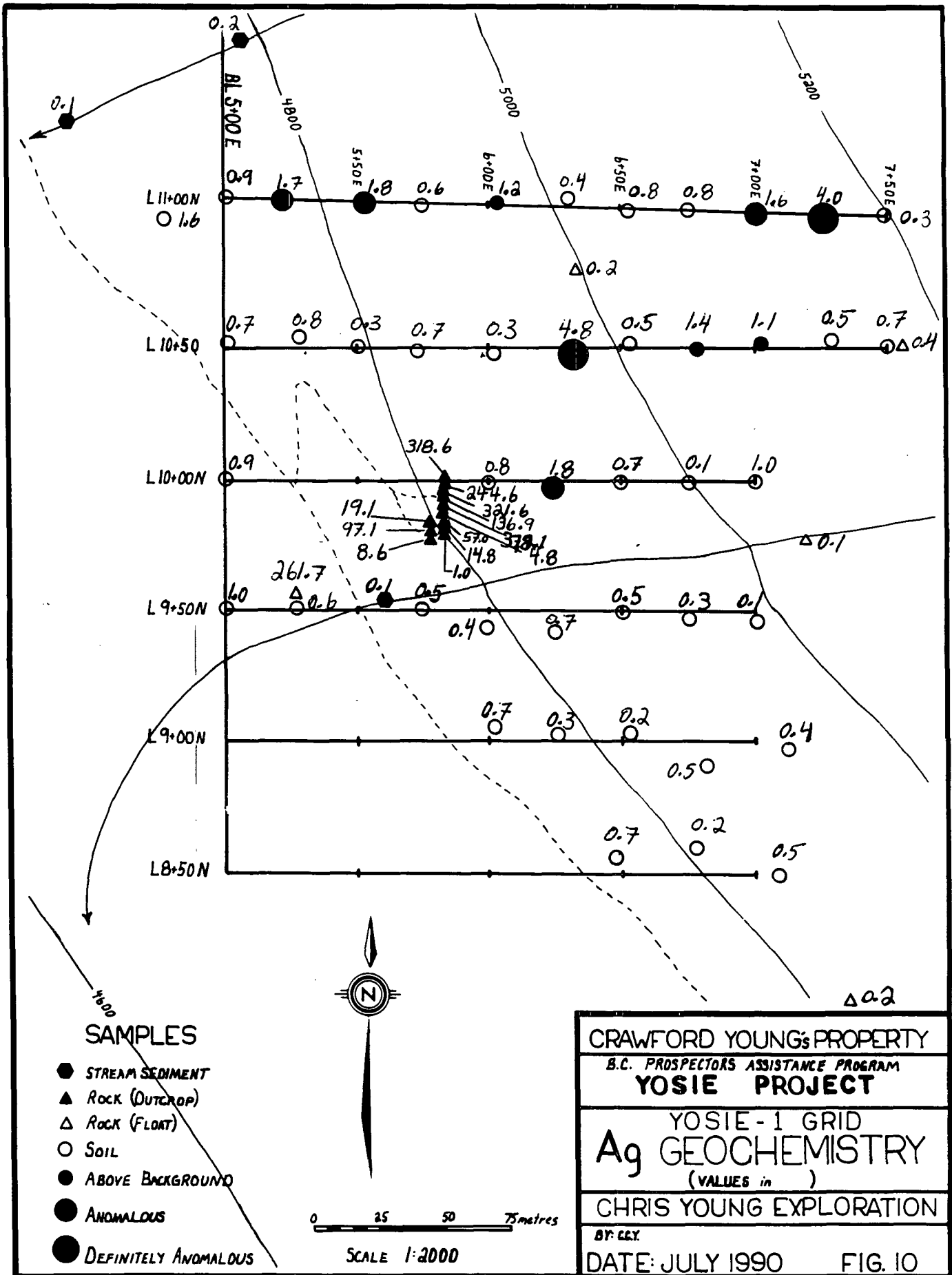
**SAMPLES**

- STREAM SEDIMENT
- ▲ Rock (OUTCROP)
- △ Rock (FLOAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



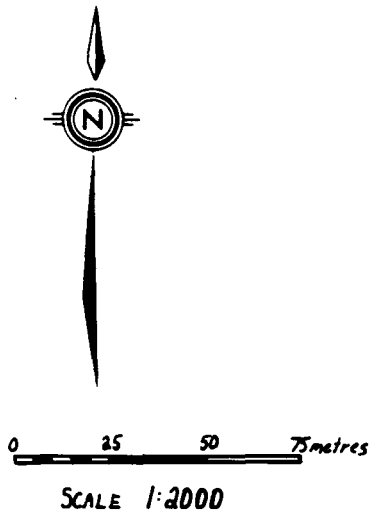
0 35 50 75 metres  
SCALE 1:2000

CRAWFORD YOUNG'S PROPERTY	
B.C. PROSPECTORS ASSISTANCE PROGRAM	
<b>YOSIE PROJECT</b>	
YOSIE - 1 GRID	
<b>Au GEOCHEMISTRY</b>	
(VALUES in ppb)	
CHRIS YOUNG EXPLORATION	
BY: CCY.	
DATE: JULY 1990	FIG. 9

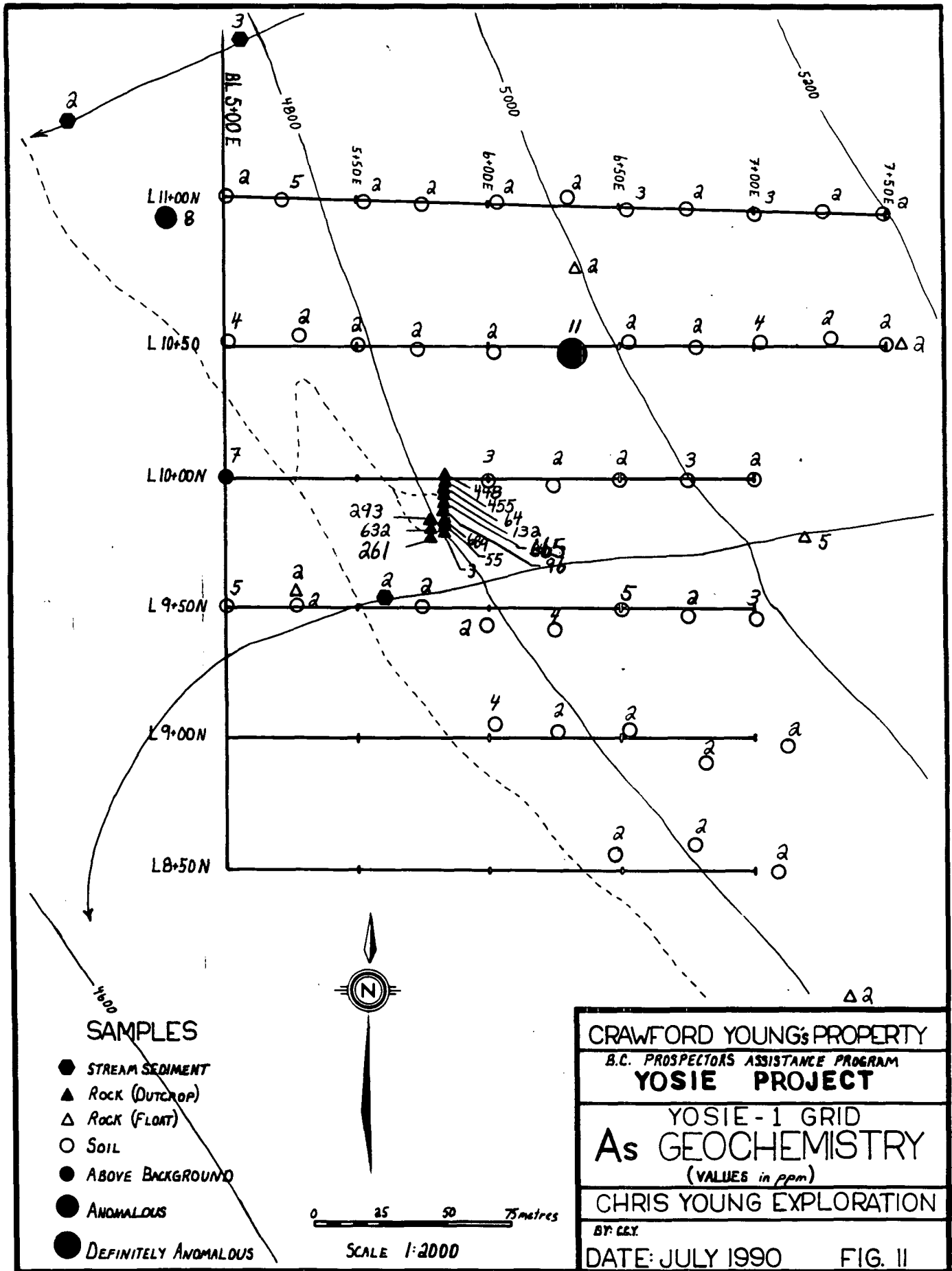


**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLOAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



CRAWFORD YOUNG'S PROPERTY	
B.C. PROSPECTORS ASSISTANCE PROGRAM	
<b>YOSIE PROJECT</b>	
YOSIE-1 GRID	
<b>Ag GEOCHEMISTRY</b>	
(VALUES in )	
CHRIS YOUNG EXPLORATION	
BY: CCY.	
DATE: JULY 1990	FIG. 10



L11+00N  
● 8

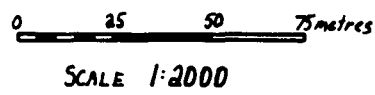
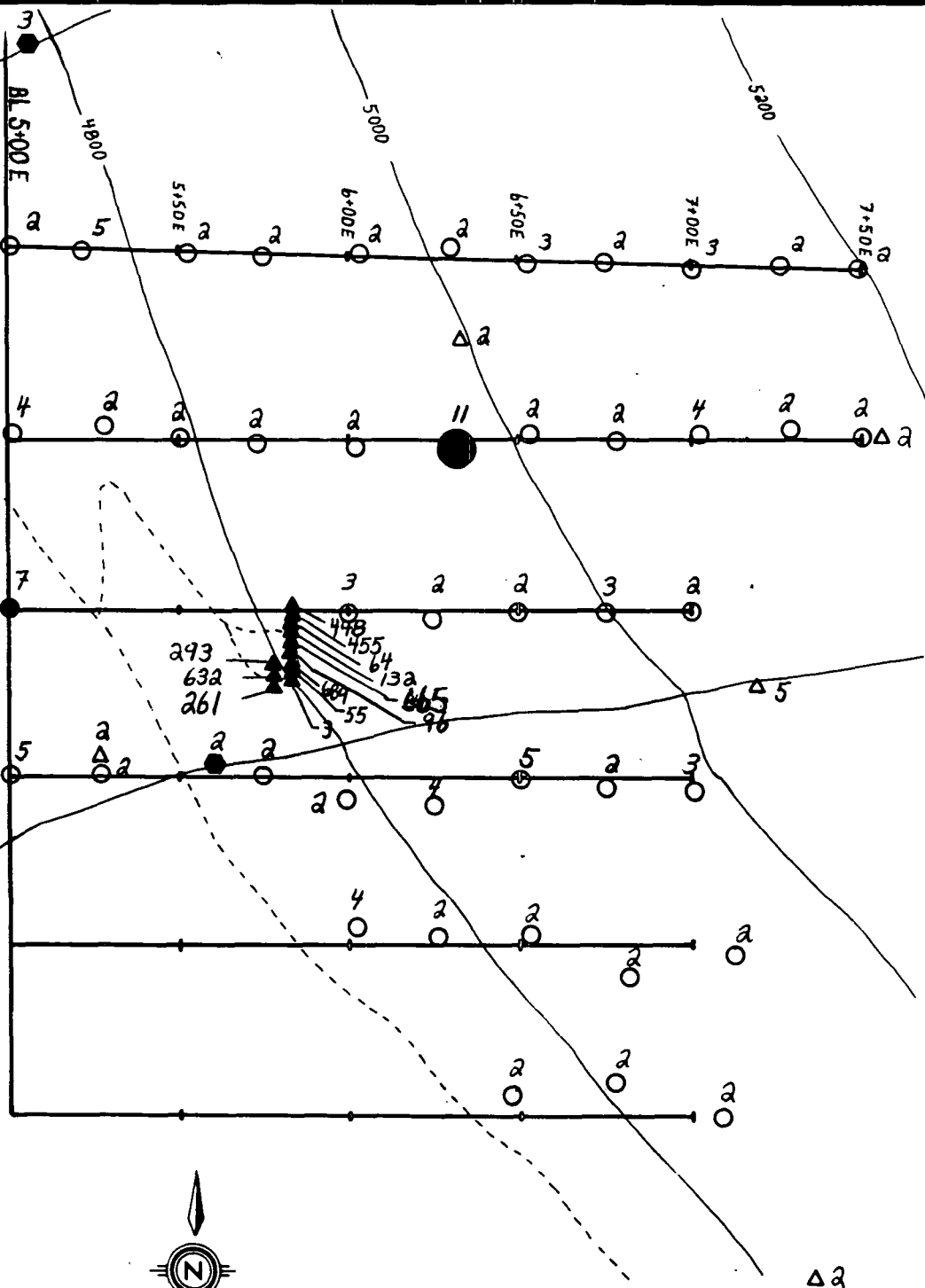
L10+50

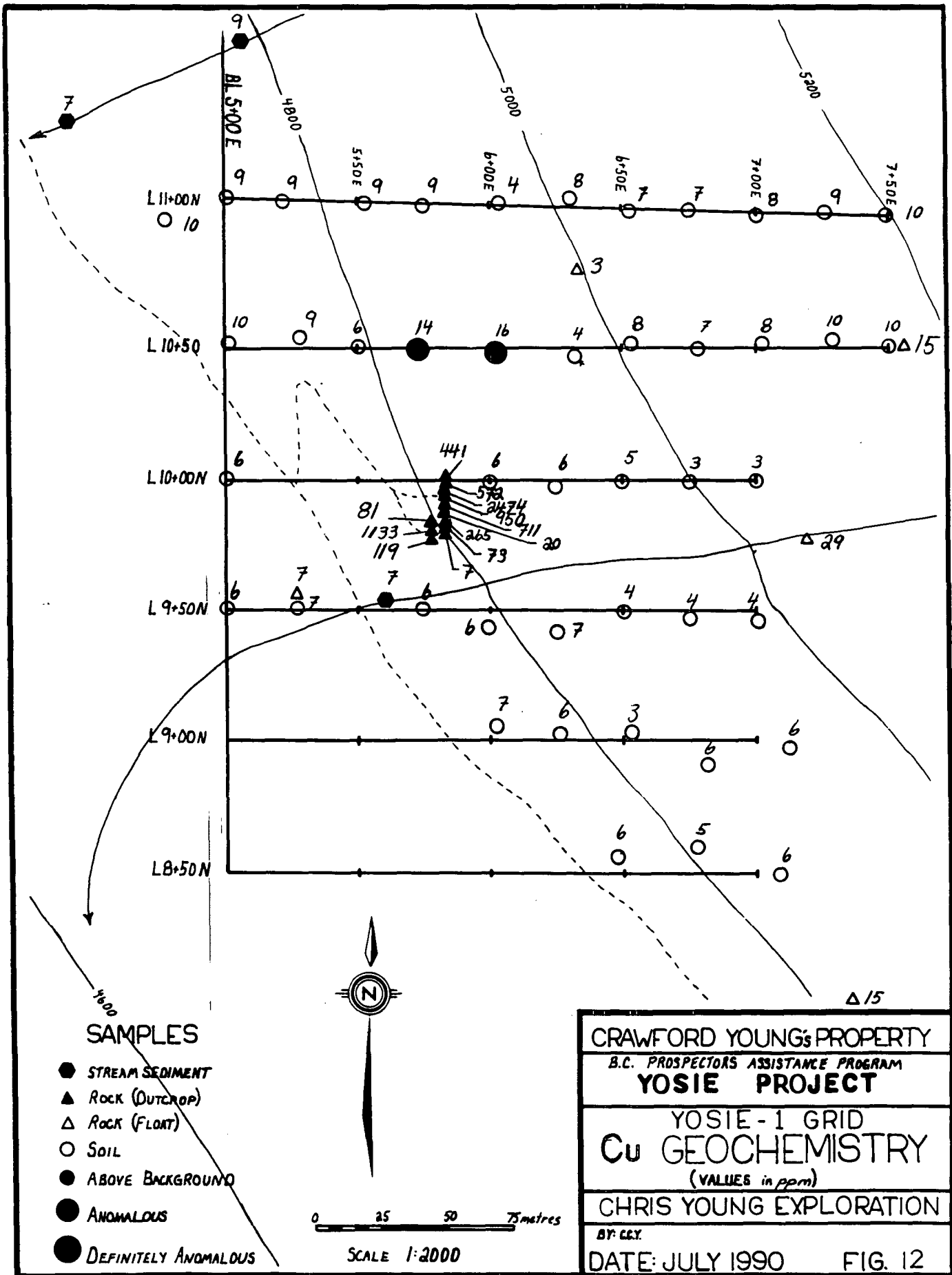
L10+00N

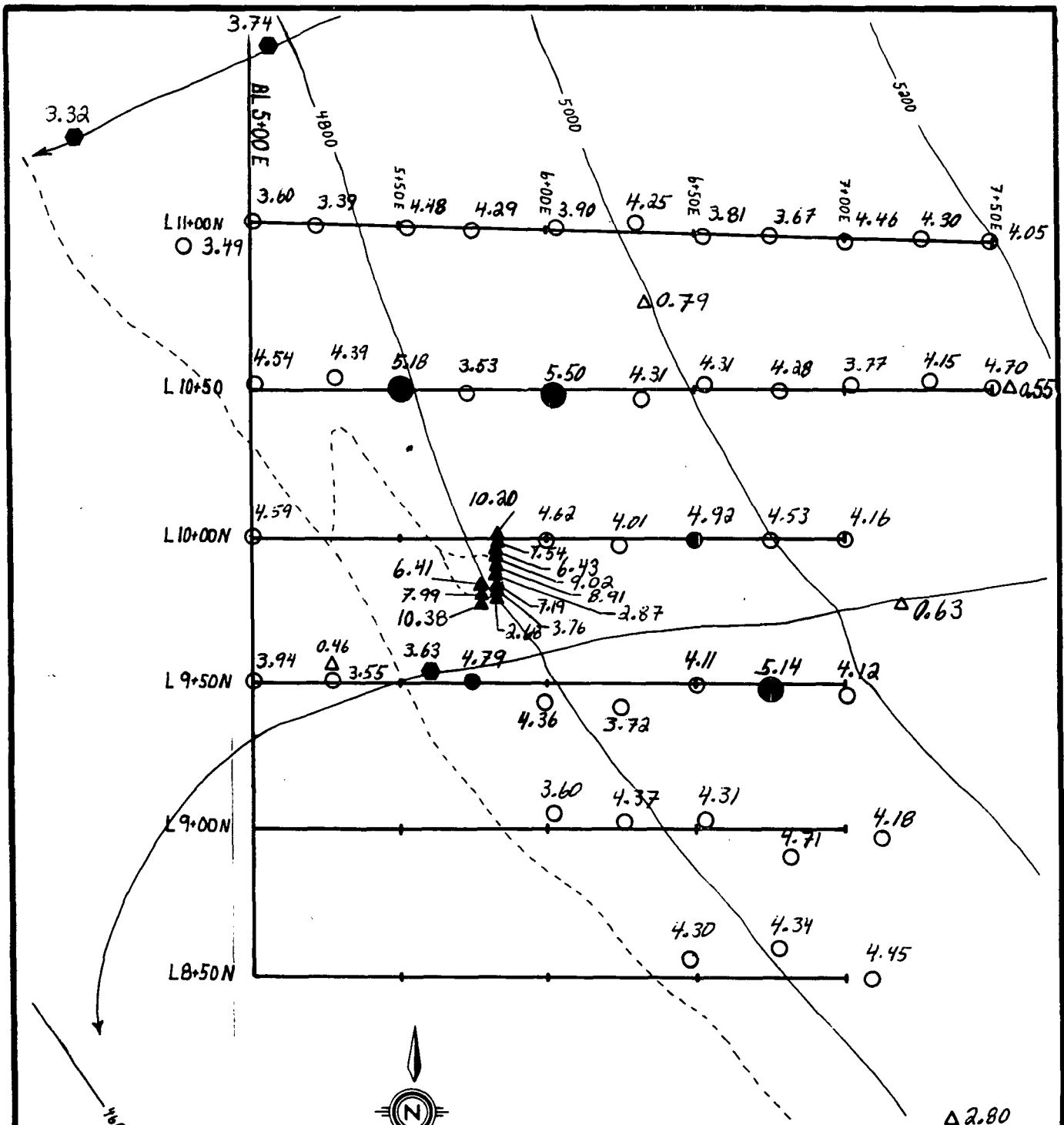
L9+50N

L9+00N

L8+50N

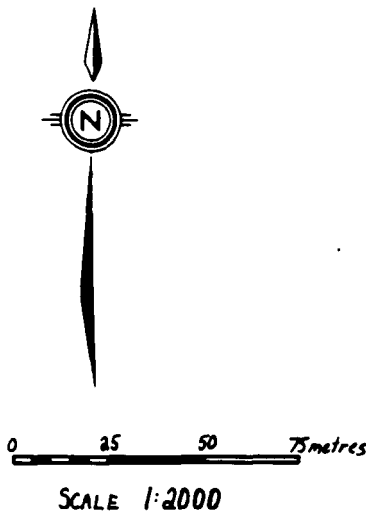




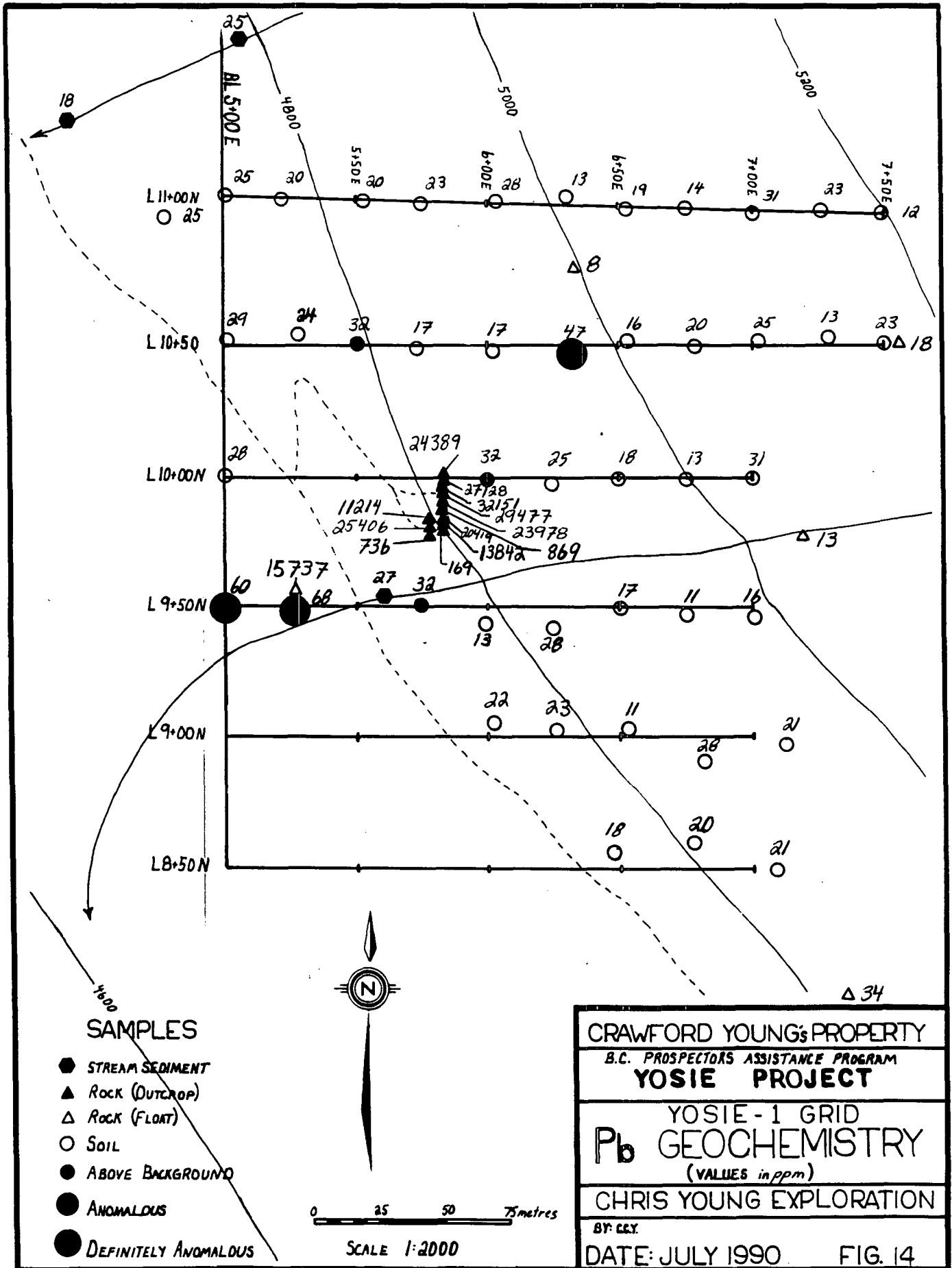


**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLOAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



CRAWFORD YOUNG'S PROPERTY	
B.C. PROSPECTORS ASSISTANCE PROGRAM	
<b>YOSIE PROJECT</b>	
YOSIE-1 GRID	
<b>Fe GEOCHEMISTRY</b>	
(VALUES in WEIGHT %)	
CHRIS YOUNG EXPLORATION	
BY: C.Y.	
DATE: JULY 1990	FIG. 13



**SAMPLES**

- STREAM SEDIMENT
- ▲ Rock (OUTCROP)
- △ Rock (FLOAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



0 25 50 75 metres

SCALE 1:2000

CRAWFORD YOUNG'S PROPERTY

B.C. PROSPECTORS ASSISTANCE PROGRAM

**YOSIE PROJECT**

YOSIE-1 GRID

**P<sub>b</sub> GEOCHEMISTRY**

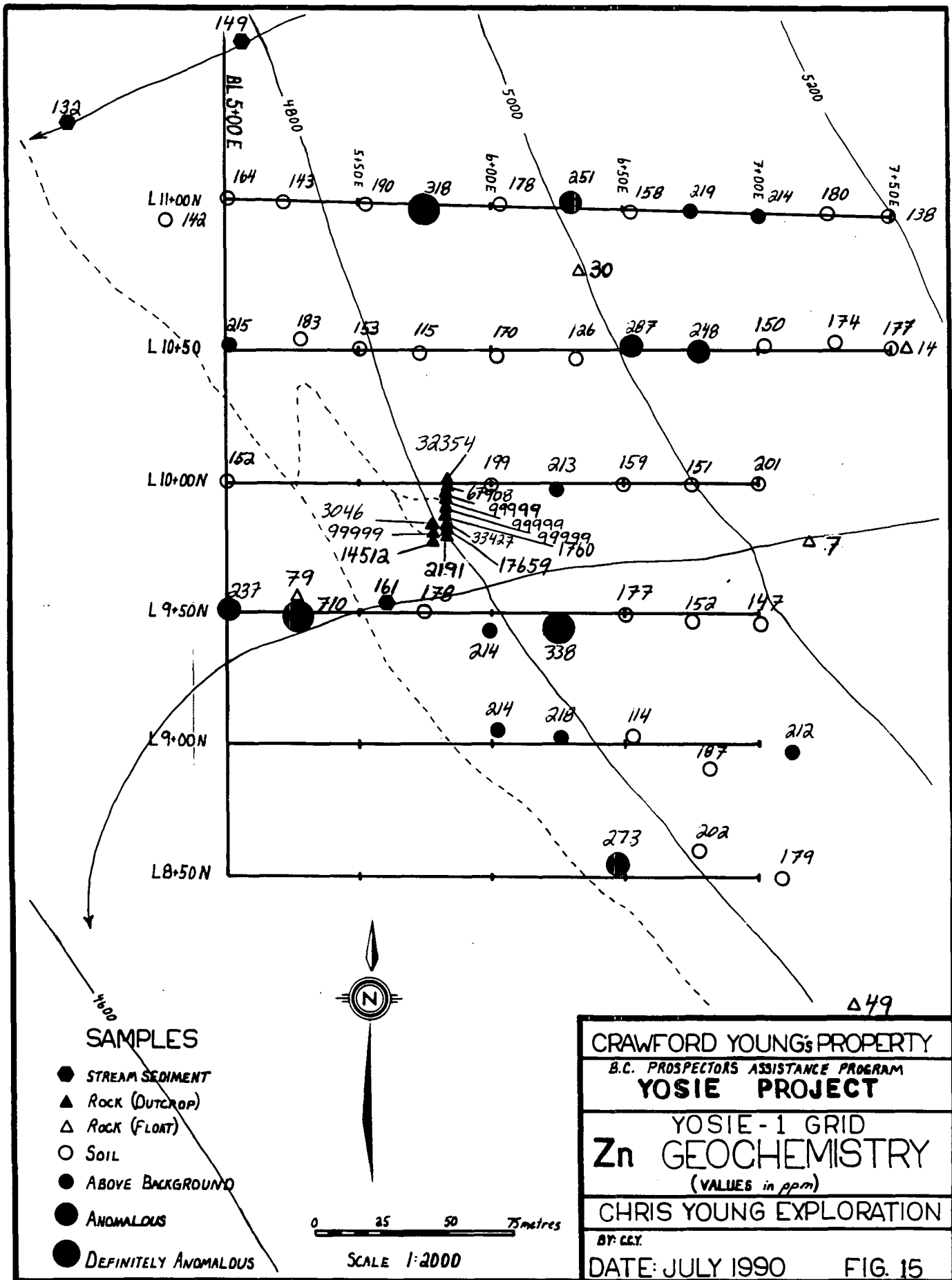
(VALUES in ppm)

CHRIS YOUNG EXPLORATION

BY: CCY.

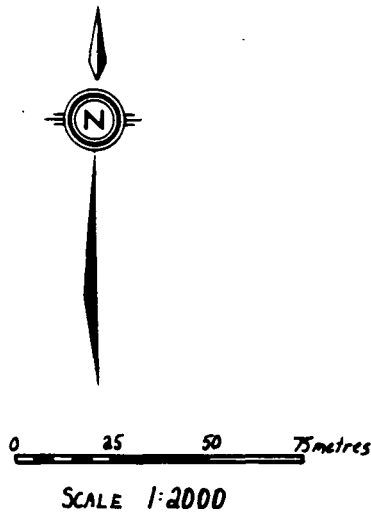
DATE: JULY 1990

FIG. 14



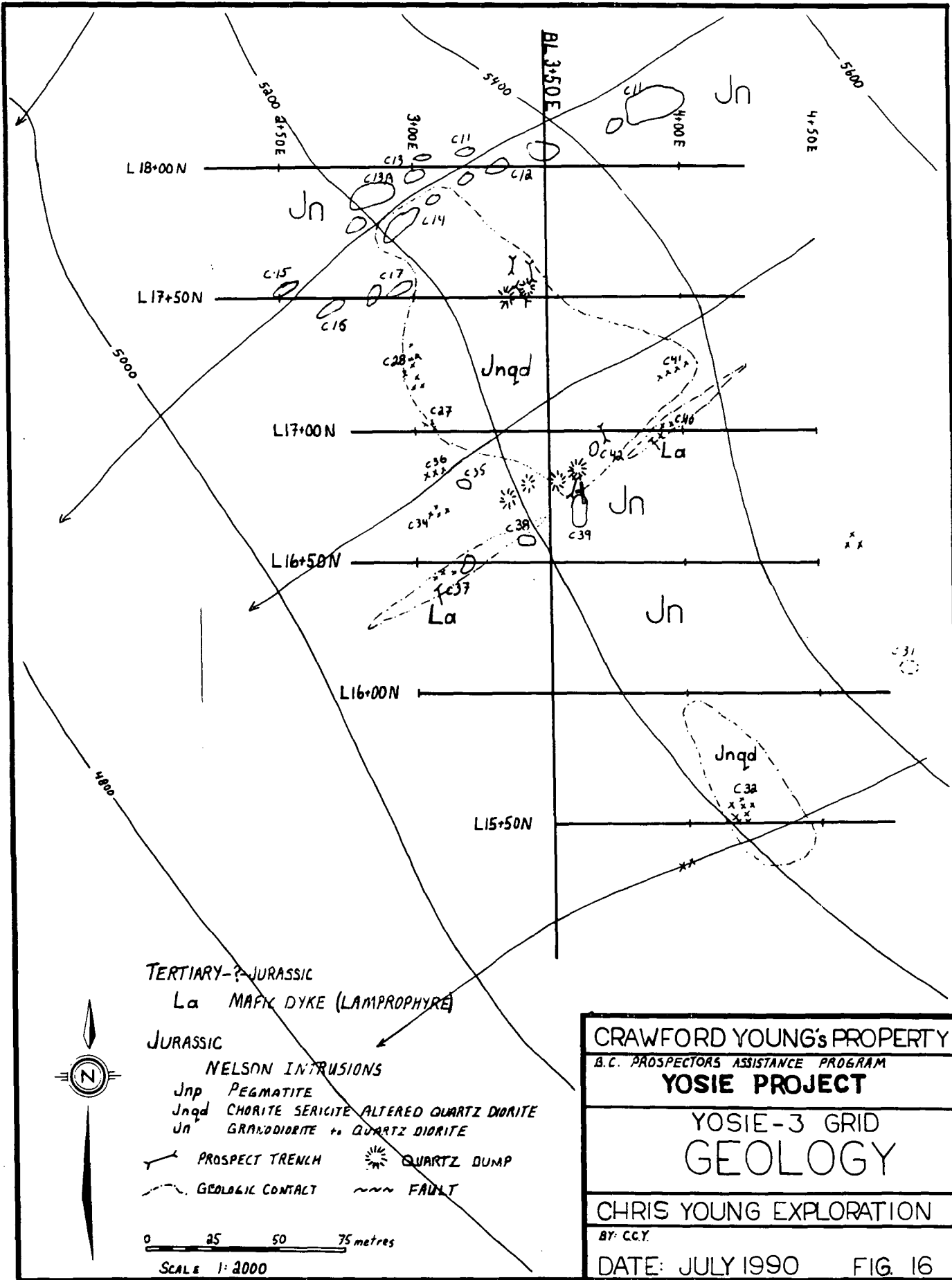
**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLOAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



CRAWFORD YOUNG'S PROPERTY	
B.C. PROSPECTORS ASSISTANCE PROGRAM	
<b>YOSIE PROJECT</b>	
YOSIE-1 GRID	
<b>Zn GEOCHEMISTRY</b>	
(VALUES in ppm)	
CHRIS YOUNG EXPLORATION	
BY C.E.Y.	
DATE: JULY 1990	FIG. 15





TERTIARY-?-JURASSIC

La MAFIC DYKE (LAMPROPHYRE)

JURASSIC

NELSON INTRUSIONS

Jnp PEGMATITE  
 Jnqd CHORITE SERICITE ALTERED QUARTZ DIORITE  
 Jn GRANODIORITE + QUARTZ DIORITE

PROSPECT TRENCH      QUARTZ DUMP  
 GEOLOGIC CONTACT      FAULT

0 25 50 75 metres

SCALE 1:2000

CRAWFORD YOUNG'S PROPERTY

B.C. PROSPECTORS ASSISTANCE PROGRAM

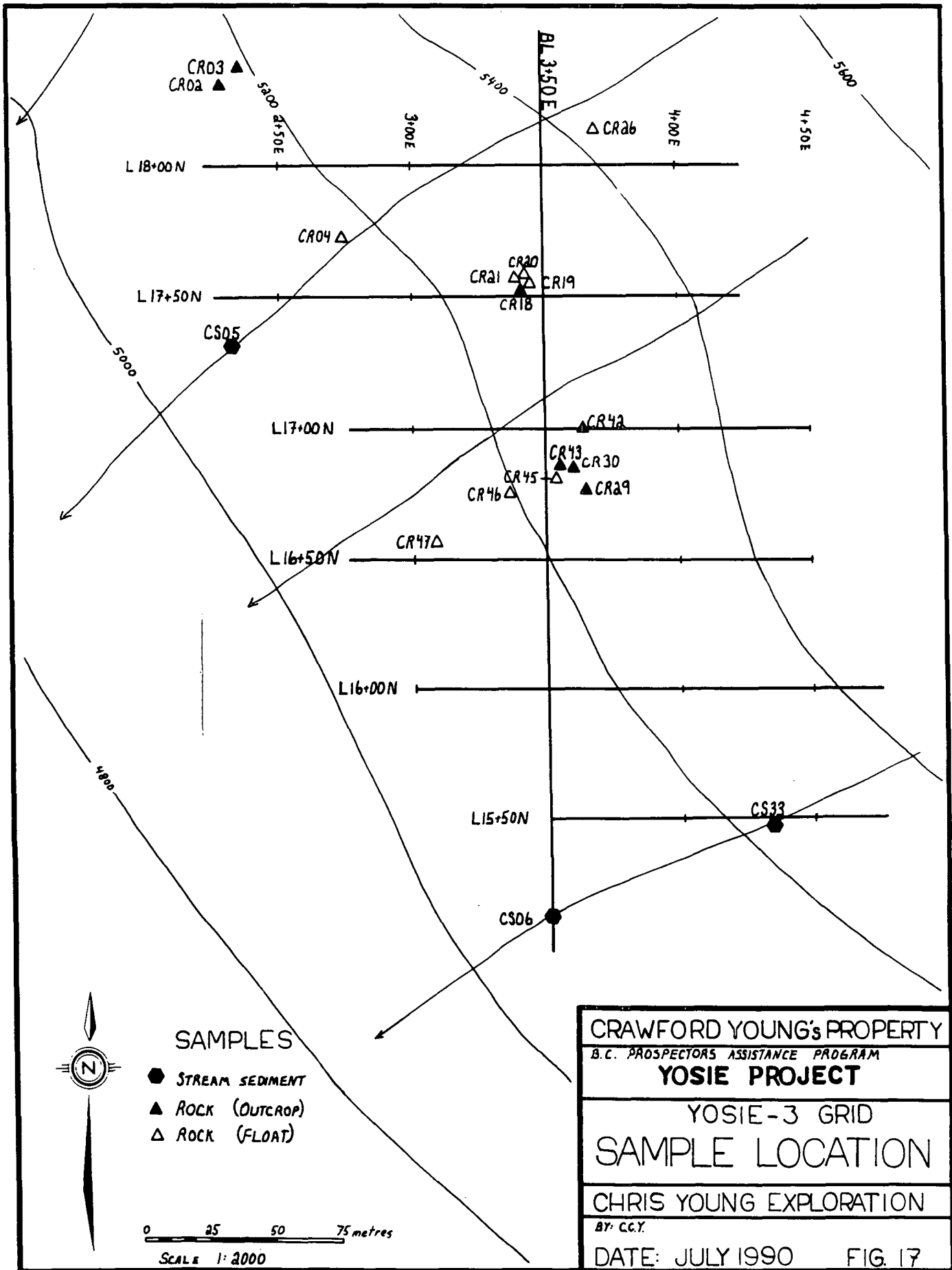
**YOSIE PROJECT**

YOSIE-3 GRID  
**GEOLOGY**

CHRIS YOUNG EXPLORATION

BY: CCY.

DATE: JULY 1990      FIG. 16



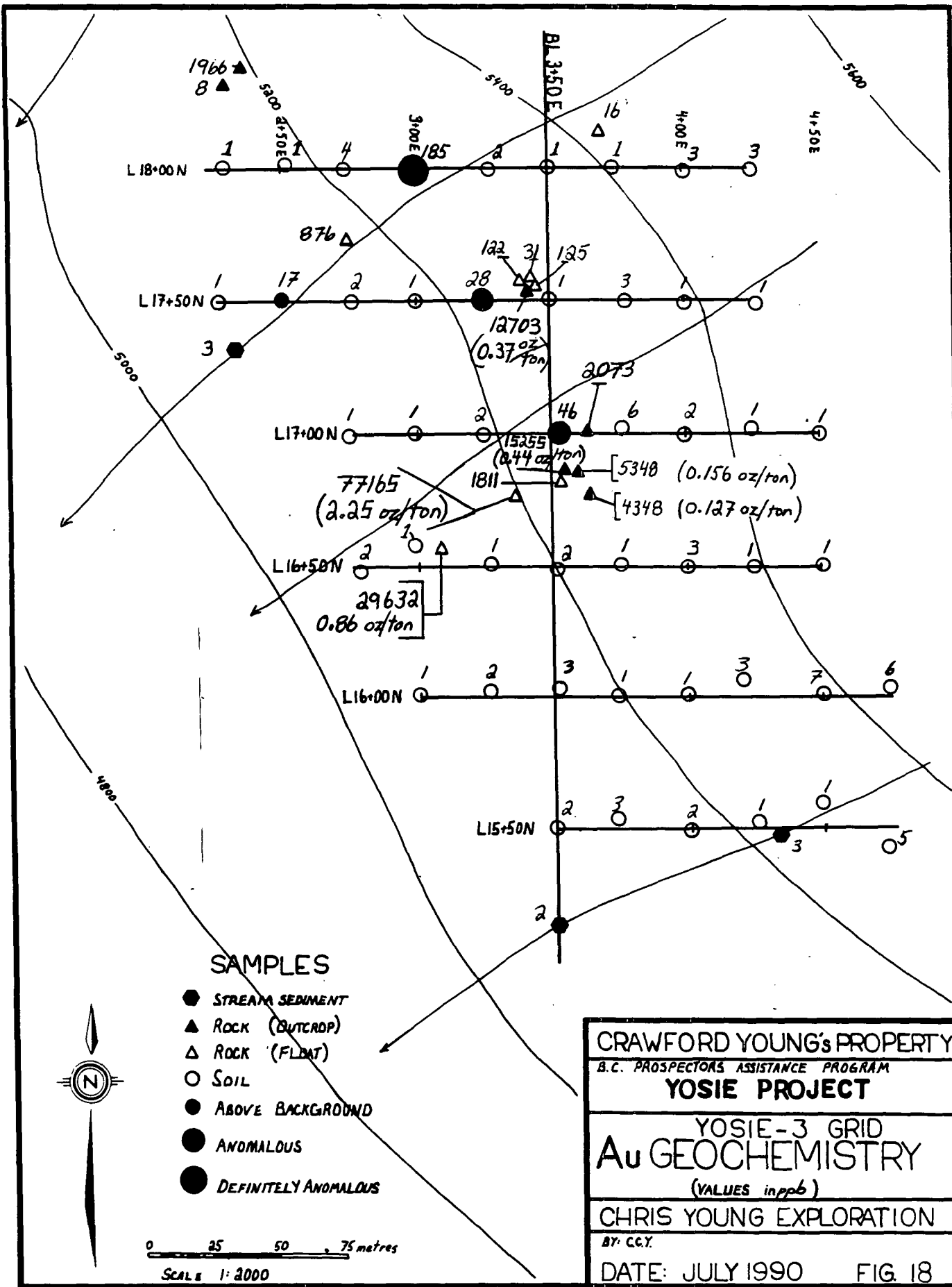
**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLOAT)



0 25 50 75 metres  
SCALE 1:2000

CRAWFORD YOUNG'S PROPERTY
B.C. PROSPECTORS ASSISTANCE PROGRAM
<b>YOSIE PROJECT</b>
YOSIE-3 GRID
SAMPLE LOCATION
CHRIS YOUNG EXPLORATION
BY: C.C.Y.
DATE: JULY 1990      FIG. 17



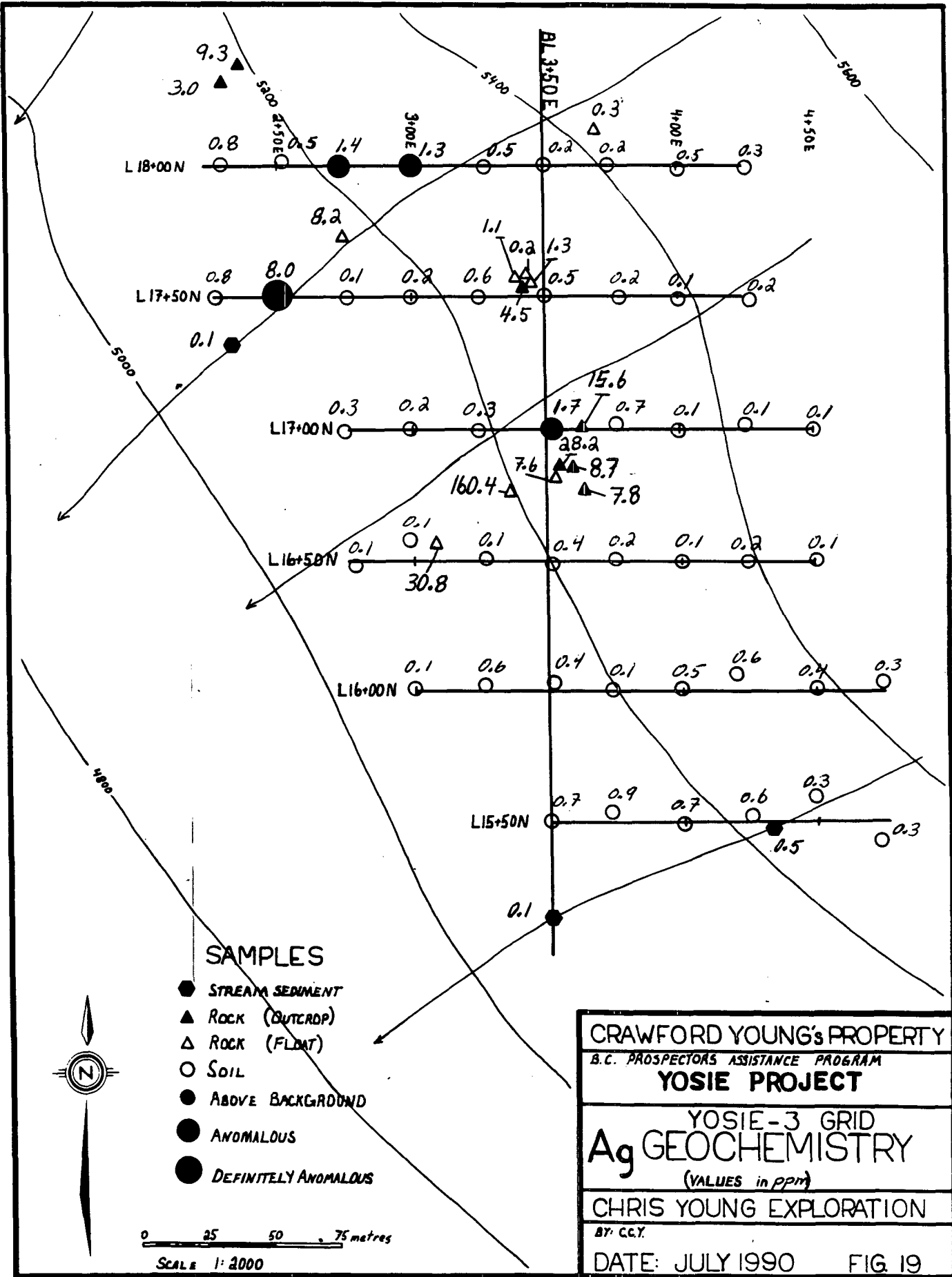
**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLDAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



0 25 50 75 metres  
SCALE 1:2000

CRAWFORD YOUNG'S PROPERTY
B.C. PROSPECTORS ASSISTANCE PROGRAM
<b>YOSIE PROJECT</b>
YOSIE-3 GRID
<b>Au GEOCHEMISTRY</b>
(VALUES in ppb)
CHRIS YOUNG EXPLORATION
BY: CCY.
DATE: JULY 1990
FIG. 18



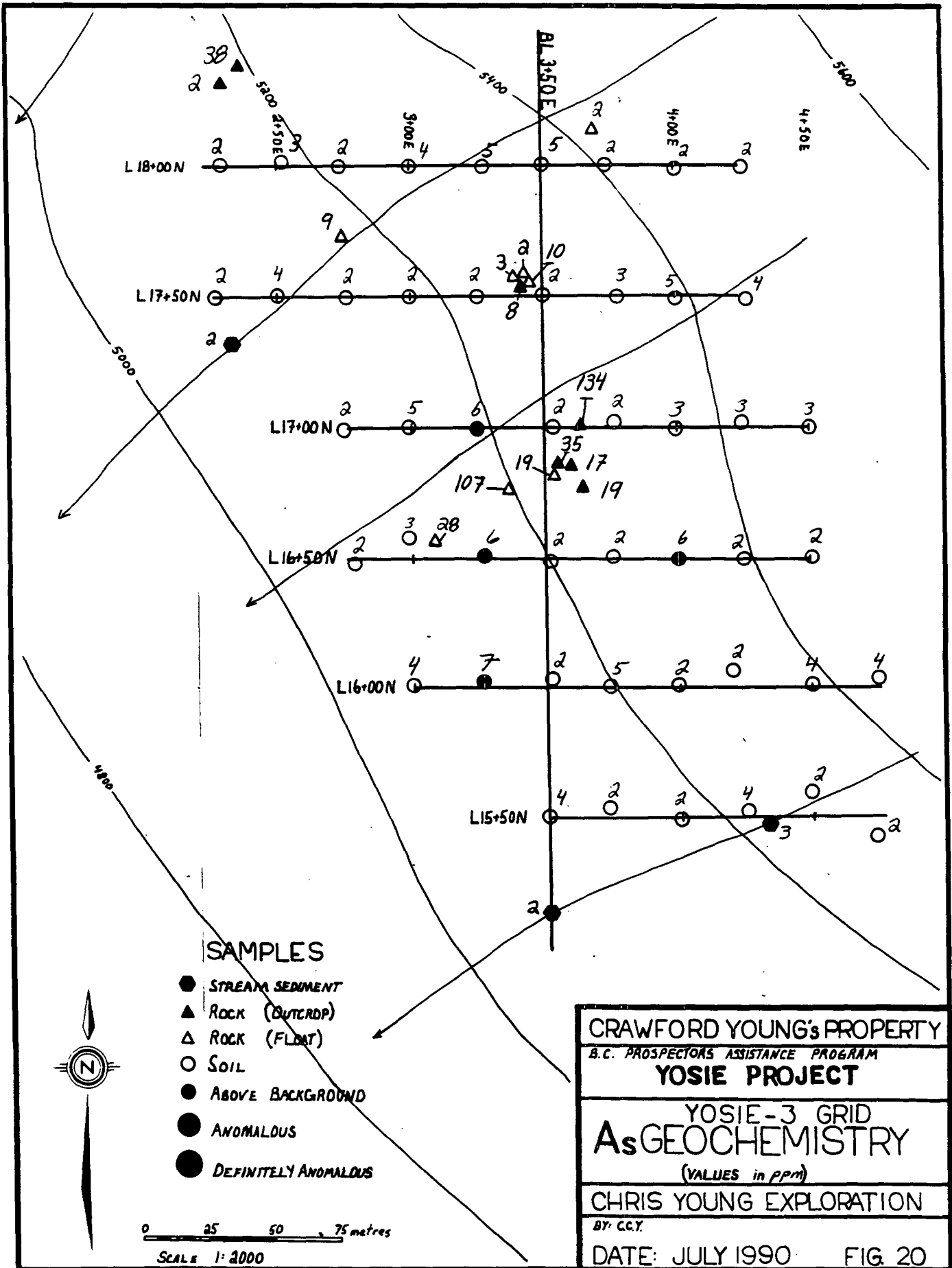
**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLOAT)
- SOIL
- ◐ ABOVE BACKGROUND
- ◑ ANOMALOUS
- DEFINITELY ANOMALOUS



0 25 50 75 metres  
SCALE 1:2000

CRAWFORD YOUNG'S PROPERTY	
B.C. PROSPECTORS ASSISTANCE PROGRAM	
<b>YOSIE PROJECT</b>	
YOSIE-3 GRID	
<b>Ag GEOCHEMISTRY</b>	
(VALUES in ppm)	
CHRIS YOUNG EXPLORATION	
BY: CCY.	
DATE: JULY 1990	FIG. 19



**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



0 25 50 75 metres

SCALE 1:2000

CRAWFORD YOUNG'S PROPERTY

B.C. PROSPECTORS ASSISTANCE PROGRAM

**YOSIE PROJECT**

**YOSIE-3 GRID  
As GEOCHEMISTRY**

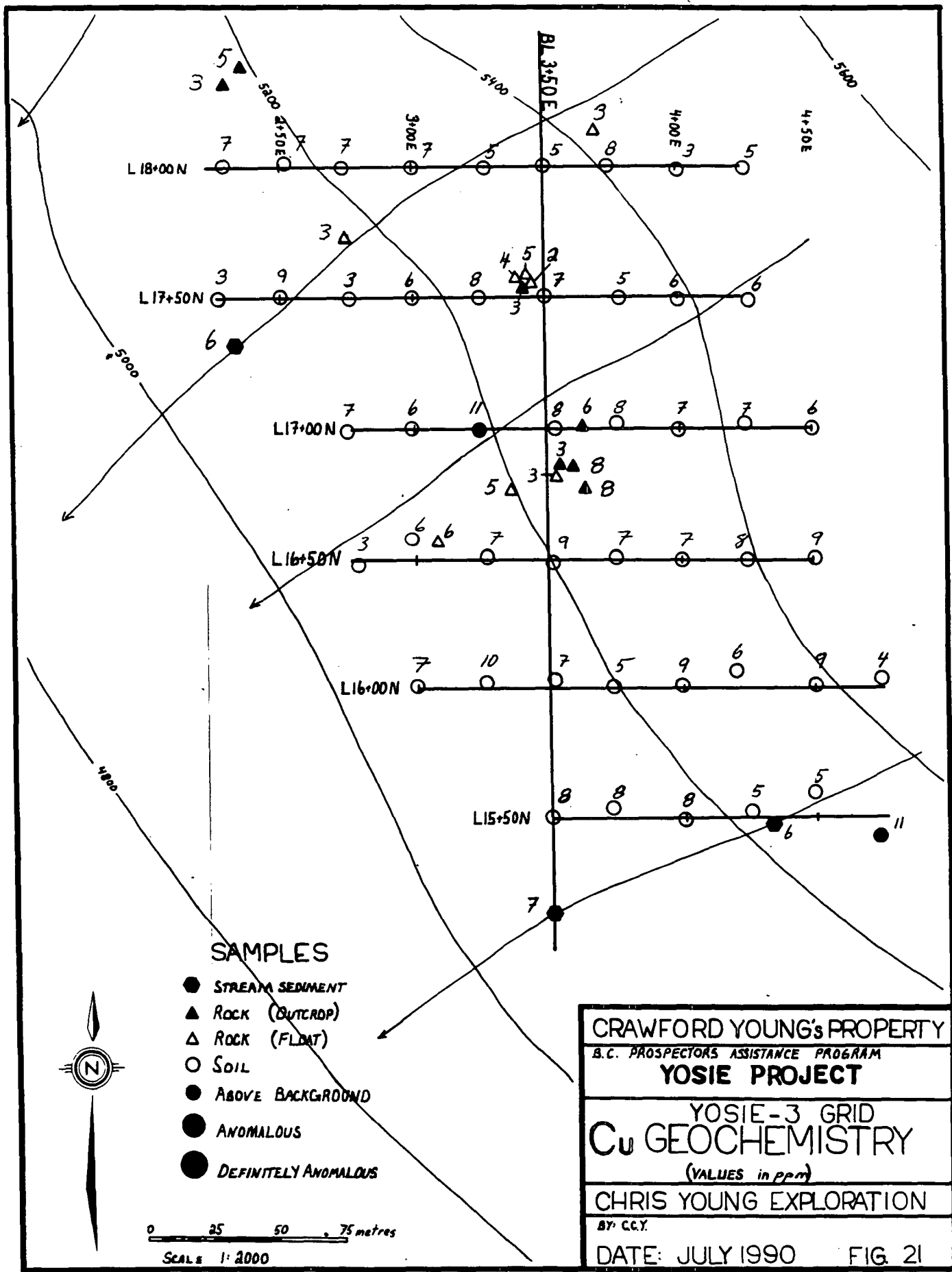
(VALUES in ppm)

CHRIS YOUNG EXPLORATION

BY: C.C.Y.

DATE: JULY 1990

FIG. 20



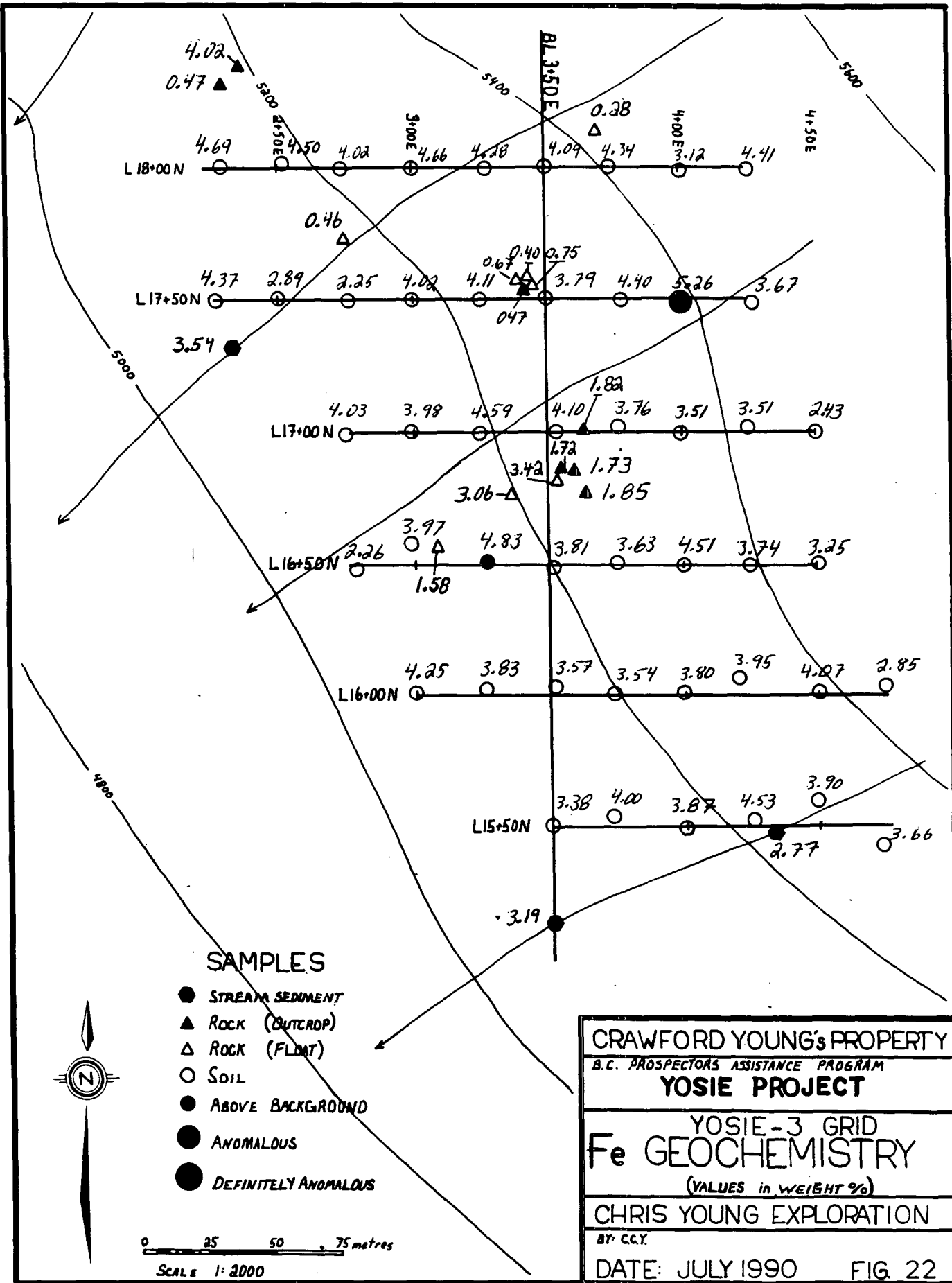
**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



0 25 50 75 metres  
SCALE 1:2000

<b>CRAWFORD YOUNG'S PROPERTY</b>	
<small>B.C. PROSPECTORS ASSISTANCE PROGRAM</small>	
<b>YOSIE PROJECT</b>	
YOSIE-3 GRID <b>Cu GEOCHEMISTRY</b> <small>(VALUES in ppm)</small>	
<b>CHRIS YOUNG EXPLORATION</b>	
<small>BY CCY</small>	
DATE: JULY 1990	FIG. 21



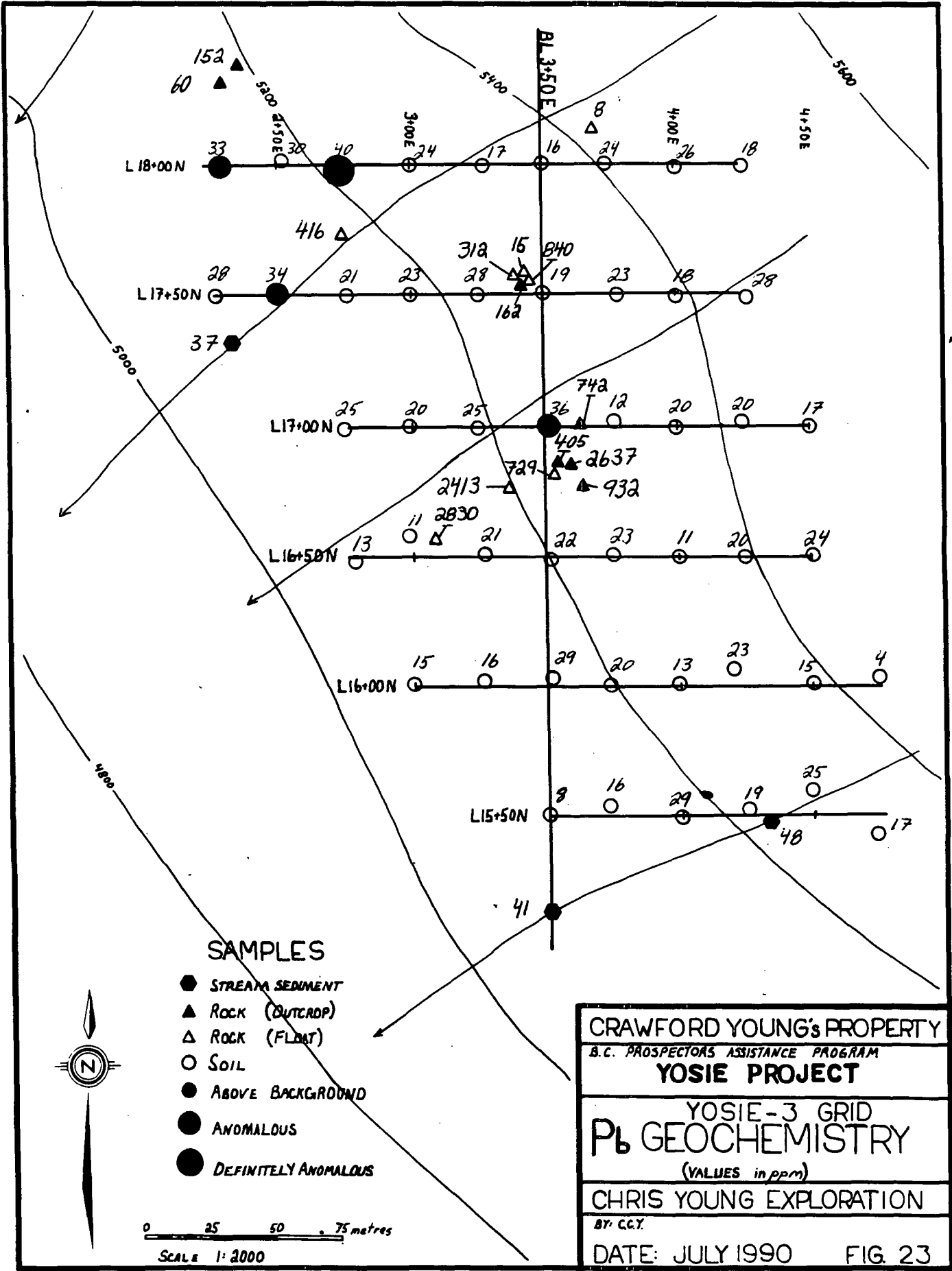
**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLDAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS



0 25 50 75 metres  
SCALE 1:2000

<b>CRAWFORD YOUNG'S PROPERTY</b> B.C. PROSPECTORS ASSISTANCE PROGRAM <b>YOSIE PROJECT</b>
YOSIE-3 GRID <b>Fe GEOCHEMISTRY</b> (VALUES in WEIGHT %)
<b>CHRIS YOUNG EXPLORATION</b> BY: CCY.
DATE: JULY 1990      FIG. 22



**SAMPLES**

- STREAM SEDIMENT
- ▲ ROCK (OUTCROP)
- △ ROCK (FLAT)
- SOIL
- ABOVE BACKGROUND
- ANOMALOUS
- DEFINITELY ANOMALOUS

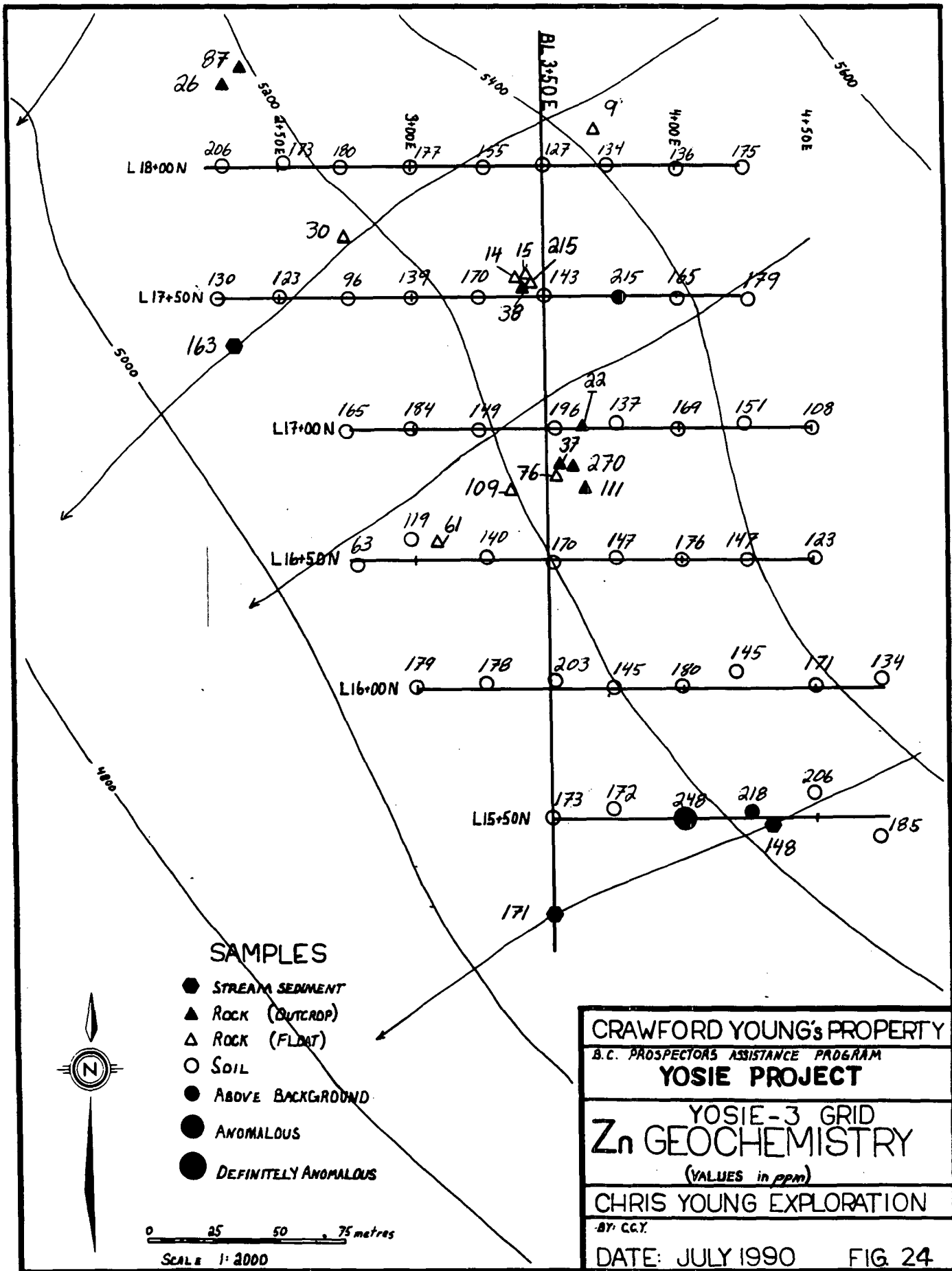


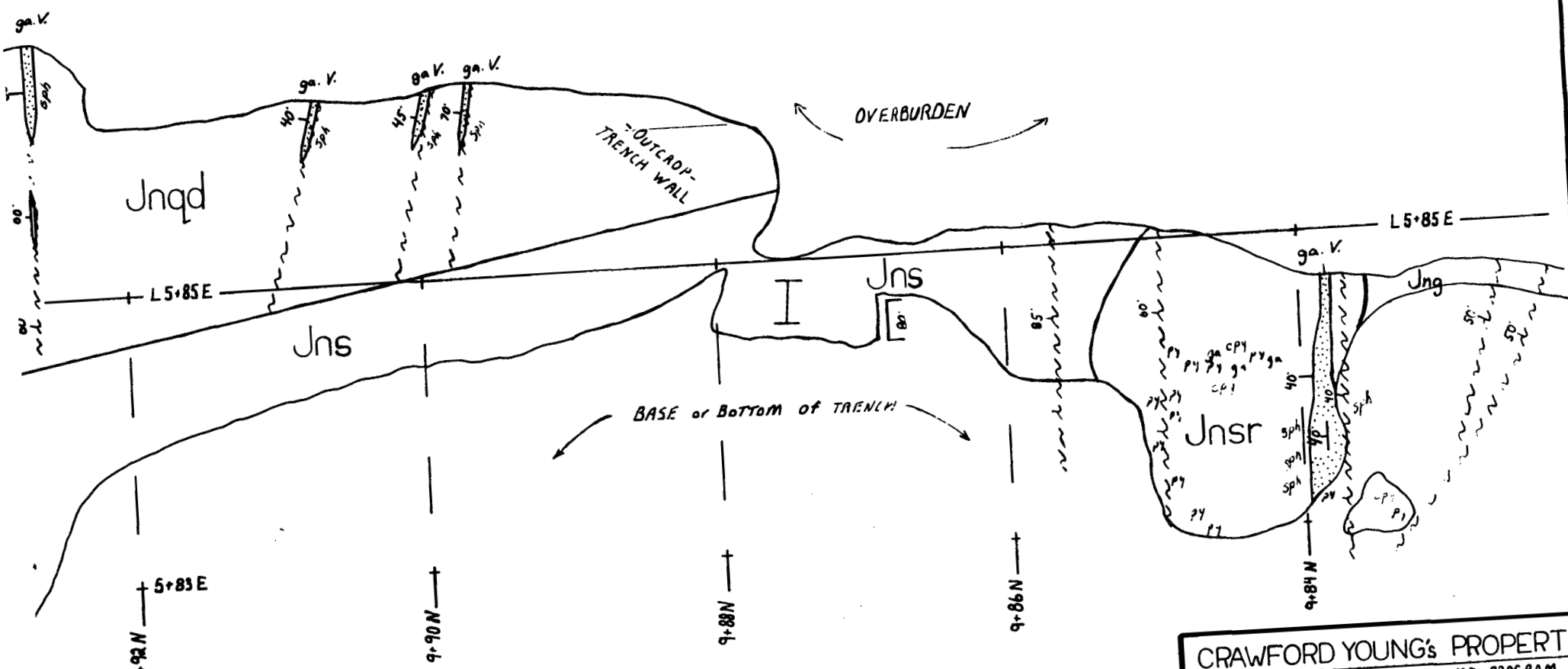
0 25 50 75 metres

SCALE 1:2000

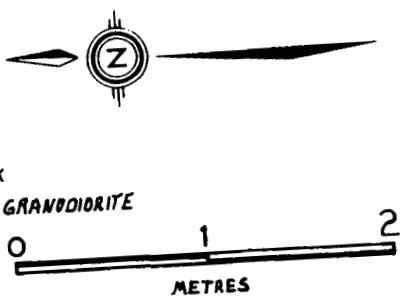
CRAWFORD YOUNG'S PROPERTY  
 B.C. PROSPECTORS ASSISTANCE PROGRAM  
**YOSIE PROJECT**  
 YOSIE-3 GRID  
**Pb GEOCHEMISTRY**  
 (VALUES in ppm)  
 CHRIS YOUNG EXPLORATION  
 BY: C.C.Y.  
 DATE: JULY 1990 FIG. 23



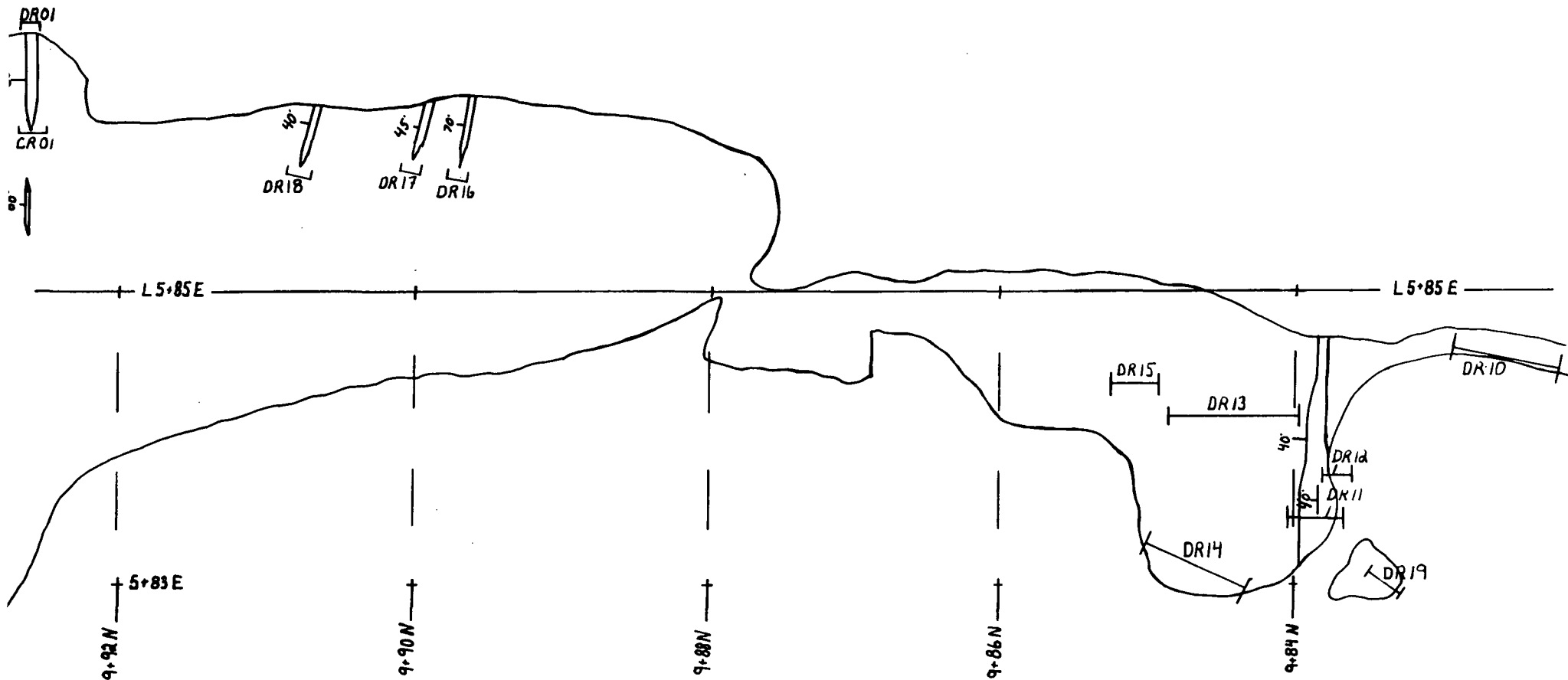




- VEIN (INCLINED)
- FAULT
- GEOLOGIC CONTACT
- JOINTING (INCLINED, VERTICAL)
- ga.V. GALENA VEIN
- py PYRITE
- cp CHALCOPYRITE
- sph SPHALERITE
- Jnqd - CHLORITE SERICITE ALTERED QUARTZ DIORITE (pale green-blue)
- Jng - CHLORITE ALTERED GRANODIORITE (Fe stained)
- Jnsr - MODERATE to HIGHLY SILICEOUS ROCK
- Jns - FINE GRAINED SYENITE to ALTERED GRANODIORITE (pinkish)



CRAWFORD YOUNG'S PROPERTY  
 B.C. PROSPECTORS ASSISTANCE PROGRAM  
**YOSIE PROJECT**  
 MAIN ORE ZONE  
 GEOLOGY  
 CHRIS YOUNG EXPLORATION  
 B.Y.C.C.Y.  
 DATE: JULY 1990 FIG. 25



CRAWFORD YOUNG'S PROPERTY

B.C. PROSPECTORS ASSISTANCE PROGRAM

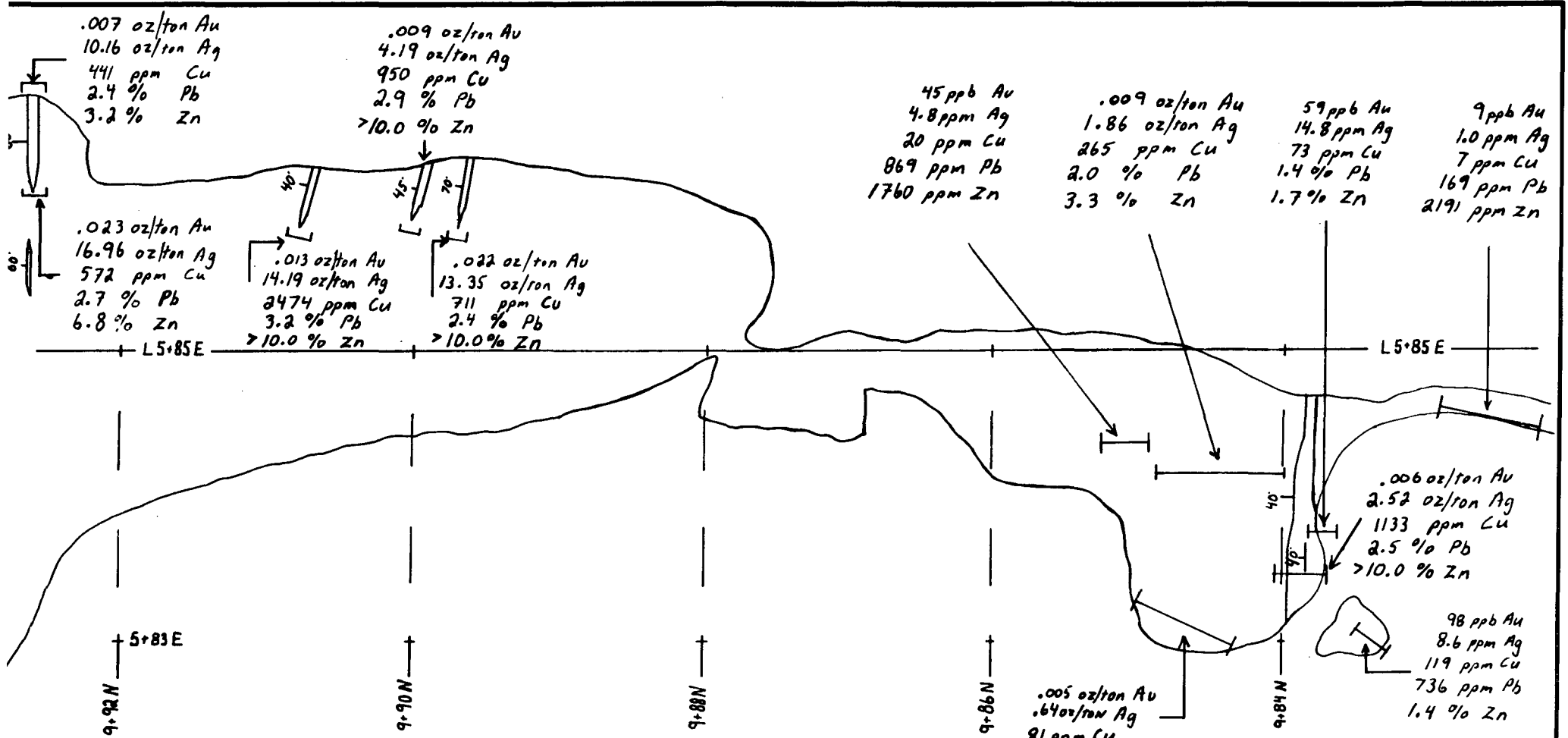
**YOSIE PROJECT**

MAIN ORE ZONE  
SAMPLE LOCATION

CHRIS YOUNG EXPLORATION

BY C.C.Y.

DATE: JULY 1990 FIG. 26



CRAWFORD YOUNG'S PROPERTY	
B.C. PROSPECTORS ASSISTANCE PROGRAM	
<b>YOSIE PROJECT</b>	
MAIN ORE ZONE	
VALUES	
CHRIS YOUNG EXPLORATION	
BY C.C.Y.	
DATE: JULY 1990	FIG. 27

In the case of gold, the highest individual value of the property was 3200 ppb. This exceptional soil sample was located in the vicinity of L10+50N, 6+25E. Field notes indicated this sample is of residual nature containing fine to medium rock particles with some clay. The sample was collected from the BF horizon and was light orange-brown in colour. Four other samples, beside and adjacent to L10+50N, 6+25E, contain above background concentrations of gold. Together these samples consist of a small anomalous area in gold which may extend off the Yosie 1 grid to the north (Figure 9).

The L10+50N, 6+25E sample location was also the highest silver (4.8 ppm) and arsenic (11 ppm) value of the Yosie 1 grid. Lead was also found to be anomalous (Figures 10, 11, 14).

The second highest individual gold value of the property (185 ppb) was located in the vicinity of L18+00N, 3+00E. This sample value was the northern limit of an apparent northwesterly trending gold anomaly. Two other samples contributing to the apparent trend are located at L17+50N, 3+50E and L17+00N, 3+50E. Silver anomalies also coincide with two of the high gold values. This narrow soil anomaly most likely represents the gold and silver mineralization present in the Yosie 3 quartz vein. This quartz vein can be located 5 to 10 metres upslope and parallel to the soil anomalies (Figures 18, 19).

A moderately developed silver anomaly appears to be trending northeasterly from L10+00N, 6+25E to L11+00N, 7+25E for roughly 150 metres on the Yosie 1 grid. It appears this anomaly may continue off the grid to the north (Figure 10).

A second smaller silver anomaly can be observed in the northwest corner of the Yosie 3 grid. Three sample values greater than 1.3 ppm Ag comprise this anomaly. One silver value was 8.0 ppm which is the highest individual value of the property. Two anomalous lead values also coincide with the silver anomaly (Figures 19, 23).

Zinc represents an irregular shotgun-like pattern which tends to cover many sample locations within the Yosie 1 grid. Two sample locations where both anomalous zinc and lead values coincide is L9+50N, 5+00E and L9+50N, 5+25E. This location is

directly downslope from the Main Ore Zone which is most likely the source of the anomalies (Figures 14, 15).

## 6.0 CONCLUSION AND RECOMMENDATIONS

As mentioned earlier, several mineralized zones were located this past field season. Six gold-bearing quartz occurrences and five silver-bearing galena-sphalerite veins have been recognized. Four separate locations produced gold values greater than 1900 ppb (0.05 oz/ton). Of these four, two locations produced gold values greater than 12,000 ppb (0.35 oz/ton). Three of the five galena-sphalerite veins produced silver values greater than 10.0 oz/ton.

In terms of stratigraphy, the most important rock unit for hosting gold and silver is the Nelson Intrusives, in particular, granodiorites and chlorite-sericite altered quartz diorites.

The soil survey conducted over the two grids proved somewhat successful in locating mildly defined gold and silver anomalies. The survey was useful in outlining one known gold occurrence and brought to light the potential for discovery of a new gold occurrence. Other soil anomalies outlined by the survey proved to be somewhat inconclusive.

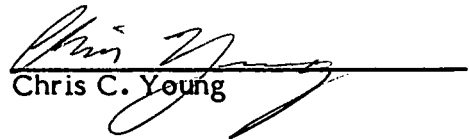
Based upon the favourable results generated to date, the potential exists for achieving even better results in the future. Consequently, more work is recommended on the property. This work should attempt to accomplish two goals: (1) evaluate in greater detail the gold and silver bearing zones found to date and (2) evaluate those portions of the property which were not covered by the 1990 field work.

To obtain a better understanding of the property, further grid expansion should be initiated. New grid work should blanket 80% - 90% of the property. Soil sampling, geological mapping and prospecting should be carried out. A VLF-EM survey should also be carried out to help identify fault zones which could host galena veins.

Coinciding with grid work, further backhoe excavating would be undertaken with emphasis on the Yosie 1 grid.

The cost to do this work would be roughly \$60,000.

Respectfully submitted,

  
Chris C. Young

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APPENDIX A

DESCRIPTION OF ROCK SAMPLES  
SUBMITTED FOR ANALYSES

<u>Sample</u>	<u>Location</u>	<u>Description</u>
90 BR 01 191 ppb Au	Y-1 L9+50N 5+25E	Grab sample from mineralized quartz float. Fractured veinlets of galena (1-2%), pyrite (trace), possible argentite and specular hematite. Mild iron staining.
90 CR 01 789 ppb Au	Main Ore Zone 9+90N 5+85E	Grab / chip sample across massive galena vein 6 to 15 cm in width, striking roughly 60/80 NW. High in galena and zinc, heavy in weight. The vein appears to be hosted by a possible fault zone within a moderate to highly chlorite-carbonate altered granodiorite to quartz diorite. Cream-orange to dark rusty orange coloured gouge clay.
90 CR 02 8 ppb Au	Y-3 Approximately 18+50N 2+40E	Grab / chip sample across 15 cm cream white coloured quartz vein hosted by medium grained granodiorite. The vein is striking 000/65W. Minor vuggy fractures and iron staining.
90 CR 03 1966 ppb Au	Y-3 18+50N 2+40E	Five metres from CR 02. Grab / chip sample across a 7 cm wide quartz vein hosted by muscovite rich granodiorite which is somewhat porphyritic (feldspar). Quartz is mildly vuggy with sub- to euhedral crystals. The vein is striking 60/30 NW. Sub- to euhedral pyrite crystals also present (up to 10 mm cubes).
90 CR 04 876 ppb Au	Y-3 17+75N 2+75E	Grab sample from local appearing, football sized quartz float. Quartz is mild to moderately oxidized and crumbly in texture. Approximately 2% of the quartz contained euhedral pyrite crystals which have been partially to totally oxidized and weathered out. Possible trace speck of galena. Host rock is presumably granodiorite.
90 CR 09 5 ppb Au	Y-2 L10+50N 7+50E	Grab sample from bread loaf size quartz and feldspar rich rock presumably pegmatitic in origin. The rock is mildly altered with trace pyrite.
90 CR 18 12703 ppb Au	Y-3 L17+50N 3+45E	Random grab sample from quartz dump next to prospect trench. The subcrop quartz vein appears to be hosted by a mild to moderately chlorite altered quartz granodiorite to diorite. Slickensides are evident on host. Quartz crystals 5-10 mm in length within vugs. Mild to moderate chlorite alteration within quartz. Trace pyrite as subhedral crystals and moderate iron staining.

<u>Sample</u>	<u>Location</u>	<u>Description</u>
90 CR 19 125 ppb Au	Y-3 L17+50N 3+45E	Random grab sample consisting predominantly of highly chlorite altered, silicified host rock from prospect trench / dump. Sample rock is light brownish-green in colour with fine disseminated pods of galena-?-sphalerite.
90 CR 20 31 ppb Au	Y-3 17+55N 3+45E	Random grab sample from a second prospect trench quartz dump. Quartz averages 10 cm in diameter. Mild iron staining.
90 CR 21 122 ppb Au	Y-3 17+55N 3+45E	Grab sample from 10-12 cm wide quartz float pieces. Host is the same chlorite altered, silicified rock described in CR 19. Some ribboning texture present in quartz, trace subhedral pyrite crystals and iron staining.
90 CR 24 1 ppb Au	Y-4 Approximately 150 m E of Y-1 & 2, IP	Grab sample from pegmatitic quartz vein hosted by granite to quartz monzonite. Vein approximately one metre wide with mild iron staining. Strike 360/55W.
90 CR 25 132 ppb Au	Y-4 Approximately IP	Random grab sample from mildly stained quartz float boulder 20 x 25 x 30 cm. Minor vugs with 9 mm quartz crystals. Trace pyrite.
90 CR 26 16 ppm Au	Y-3 18+10N 3+70E	Random grab sample from subcrop quartz float pieces hosted by granodiorite to quartz diorite. Limited feldspar associated with quartz. Quartz float shape indicates vein 5 to 8 cm in width.
90 CR 29 4354 ppb Au 0.127 oz/t Au	Y-3 16+75N 3+60E	A 50 cm chip sample taken across a large quartz vein or what appears to be a boulder portion of a large quartz vein. The exposed section of quartz is 1.5 m x 1.0 m x 0.55 m in size. This quartz vein which appears to be in place is striking 175/25W. The 55 cm width is comprised of predominantly white to crystalline quartz, separated by a 10 cm section of highly altered and metamorphosed host rock. The vein is hosted on its southerly exposure by equigranular granodiorite. The host rock on its northerly exposure is a moderate to highly altered quartz diorite. The vein is mildly vuggy with subhedral pyrite crystals up to 12 mm across. Fine pyrite veinlets, 1-2% and moderate iron also present. Some north/south trending slickensides can also be noted in 3 to 4 locations within the altered quartz diorite host.

<u>Sample</u>	<u>Location</u>	<u>Description</u>
90 CR 30 5348 ppb Au 0.156 oz/t Au	Y-3 16+80N 3+60E	Grab sample taken from main quartz dump adjacent to large quartz vein/boulder. The quartz dump could easily fill a pick-up truck bed. The quartz is moderately oxidized and iron stained. Most of the quartz in the sample taken was vuggy with well developed quartz crystals 5 to 25 mm in length. Trace pyrite present.
90 CR 42 2073 ppb Au	Y-3 L17+00N 3+70E	A 30 cm chip sample across a quartz boulder measuring 30 cm x 30 cm x 40 cm. The sample was taken across the ribboning and fracture textured width. The boulder is mildly vuggy with well developed quartz crystals. Moderate iron and manganese staining.
90 CR 43 15255 ppb Au 0.445 oz/t Au	Y-3 16+80N BL3+50E	Random grab sample from three subcrop boulders of moderately iron stained quartz averaging 40 cm x 40 cm x 40 cm in size. Approximately 2% pyrite as subhedral crystals.
90 CR 45 1811 ppb Au	Y-3 16+80N BL3+50E	Random grab sample from moderate to highly iron stained boulder (20 cm x 30 cm x 50 cm) of apparent host rock which has been caught up in the main quartz vein. Sample contained roughly 10 to 15% quartz. Sample from 2nd quartz dump.
90 CR 46 77165 ppb Au 2.25 oz/t Au	Y-3 16+80N BL3+40E	Random grab sample from highly iron stained quartz dump (3rd). Quartz sample is quite vuggy with good quartz crystal development from 1 to 8 mm in length. Rich "grape Koolaid" purpose hematitic staining also present.
90 CR 47 29632 ppb Au 0.864 oz/t Au	Y-3 16+55N 3+05E	Random grab sample from large quartz float boulder (30 cm x 40 cm x 50 cm) which has rolled downslope from the main quartz dumps. Moderately vuggy with good quartz crystal development (2 to 15 mm). Trace subhedral pyrite crystals and trace speck of galena. Moderate iron staining.
90 CR 50 29 ppb Au	Y-2 Approximately 6+80E	Chip/grab sample across 4 to 8 cm wide subcropping blue-grey quartz vein presumably hosted by or near pegmatitic rock. Quartz closely associated with feldspar. The quartz is quite easily broken up into sharp angled pieces. Mild iron staining.

<u>Sample</u>	<u>Location</u>	<u>Description</u>
90 CR 52 45 ppb Au	Y-2 Approximately 12+25N 6+75E	Random grab sample from local, blue-grey coloured quartz float subcrop averaging 10 to 15 cm in size. Host rock is equigranular granite to granodiorite. Minor iron staining and trace, subhedral pyrite crystals and veinlets.
90 CR 54 936 ppb Au	Y-2 Approximately 11+75N 5+50E (in creek bed)	Random grab sample taken from four quartz boulders white in colour. The boulders average 15 cm x 20 cm x 20 cm. Trace subhedral pyrite crystals, generally at quartz/host contacts. Some vugs with 5 to 9 mm length quartz crystals.
90 CR 55 21 ppb Au	Y-2 10+75N 6+35E	Random grab sample from 20 cm x 20 cm x 20 cm quartz boulder. The quartz is bull white in colour with minor iron staining. Trace pyrite.
90 DR 01 789 ppb Au	Main Ore Zone 9+90N 5+85E	Chip / grab sample from subcrop massive galena veins (fingerlike) and highly oxidized, limonitic rock, very crumbly in nature. Host is a highly chlorite altered granodiorite to diorite. Galena sphalerite 5 to 10%; pyrite 1 to 2%. Some quartz present along apparent host/galena contact.
90 DR 05 8 ppb Au	Y-4 Approximately 8+00N 7+00E	Float grab sample of moderately altered rock from a dry wash creek. Moderate to high iron staining North side of upper road.
90 DR 08 6 ppb Au	Y-4 9+75N 7+20E	Grab sample from quartz-feldspar (potassic) pegmatitic vein hosted by granodiorite. Sample taken within creek that flows southwest through Yosie 1 grid.
90 DR 09 2992 ppb Au	Y-4 E. property Boundary area	Grab / chip sample from moderately iron and manganese stained quartz vein hosted by granodiorite to quartz diorite. Vein is striking 120/20NE. Pyrite 1%.
90 DR 10 9 ppb Au	Main Ore Zone 9+83N 5+85E	One metre chip sample across moderate chlorite/sericite altered and faulted granodiorite rock. Mild iron staining and trace pyrite. Two faults cross sample area which are somewhat gougey.
90 DR 11 206 ppb Au	Main Ore Zone 9+84N 5+83E	15 cm chip sample across massive galena vein with high sphalerite content. Approximately 2% pyrite and trace chalcopyrite. The vein is striking 90/40N and pinches and swells in width. The vein is hosted predominantly along the footwall side of a fault.

<u>Sample</u>	<u>Location</u>	<u>Description</u>
90 DR 12 59 ppb Au	Main Ore Zone 9+84N 5+83E	Random grab sample across a 30 cm area of host and mineralized rock on the hangingwall side of the main galena vein. The sample rock is highly sericitized having a pale green to white colour and chaulky texture. Small stringer galena veins (2-4%) also within sample. This sample area and the main galena vein (Sample CR 11) are separated by an east/west fault. Pyrite 2%.
90 DR 13 308 ppb Au	Main Ore Zone 9+85N 5+84E	80 cm chip sample across a highly sericitized and chlorite altered rock with small 2 cm wide, galena and pyrite stringer veins. The stringer veins are irregular and discontinuous generally with a quartz envelope. The sample rock ranges from softer, highly sericite-chlorite altered rock to hard, silicified, pyritic rock. These sericite-chlorite-quartz alteration patterns develop respectively as you move north from the fault described in CR 11 and 12.
90 DR 14 171 ppb Au	Main Ore Zone 9+85N 5+83E	50 cm chip sample from highly silicified rock containing 5% pyrite and moderate chlorite alteration. The sample also contains a portion of a 2 cm wide irregular and discontinuous galena vein. The sample is similar in appearance and trend as DR 13 although a lesser degree of alteration.
90 DR 15 45 ppb Au	Main Ore Zone 9+85N 5+84E	50 cm chip sample across a moderately to highly silicified rock on hangingwall side of a fault. Similar to DR 13 and 14 though less alteration. A 15 cm portion of the sample is highly silicified with 3% pyrite and trace galena.
90 DR 16 754 ppb Au	Main Ore Zone 9+90N 5+85E	8 cm wide sample across a similar sized massive galena pod, hosted by a fault within a highly chlorite-sericite altered dioritic to granitic rock, bluish colour. Sample area is highly oxidized and moderately gougey. The galena vein pinches and swells into pods along the shear. Sample is the richest purple colour and highest density compared to the other samples. Some pods of quartz and pyrite also present.
90 DR 18 445 ppb Au	Main Ore Zone 9+91N 5+85E	Very similar to DR 16 and 17. Random grab sample from small vein/pod of galena hosted by a shear-fault.

<u>Sample</u>	<u>Location</u>	<u>Description</u>
90 DR 19 98 ppb Au	Main Ore Zone 9+84N 5+85E	15 cm chip sample across highly siliceous rock near main galena vein on footwall side. Navy blueish-green colour on fresh surface with fine disseminated pyrite - 5% and chalcopyrite - trace. Blue colour could be due to an impure, very finely mineralized form of sphalerite and/or galena; although the sample is lacking higher density.
90 TR 12 14 ppb Au	Y-4 NE quarter of Yosie 4	Random grab sample from quartz vein 7 to 10 cm wide, hosted by quartz diorite to granodiorite. Trace pyrite and minor iron staining. The vein is striking 000/45E.
90 TR 13 9 ppb Au	Y-4 central Yosie 4	Random grab sample from float pieces of rock across/in and ditch sides of the upper road. Appears local. Moderate to highly iron stained rock - possible siderite - with distinct, 1 mm wide, siliceous ringed texture similar to tree rings. This rock may be petrified. Some rings contain specks of sphalerite as blackjack.

APPENDIX B

SAMPLING PROCEDURES AND ANALYTICAL METHOD



## A-1 Rock Samples

Depending upon circumstances, two different types of rock samples were collected; 1) grab, and 2) chip.

The use of grab samples was the most prevalent form of sampling carried out this past field season. These samples were generally collected to achieve an approximation as to what sort of values a particular type of mineralization could produce. In general, this type of sample consisted of one to ten representative pieces which totalled 0.5 to 1.0 kg in weight. Often this type of sample contained weathered surfaces which were not totally removed.

Chip samples were commonly taken across portions of some of the larger veins. Samples of this sort generally consisted of at least five pieces of rock all roughly the same size. Often these rock chips are collected in a straight line, perpendicular to the strike of the mineralization. In addition, the weathered surfaces are also generally removed.

Upon collection, all the 40 rock samples were placed in heavy plastic bags. Upon conclusion of the project, the samples were delivered to Acme Analytical Laboratories Ltd. of 852 E. Hastings Street, Vancouver, B.C.

The samples were first pulverized to -150 mesh using jaw breakers and a shatter box. For the gold analyses a 10.0 gram portion of the -150 mesh material was used. After concentrating the gold through the standard fire assay methods, the resulting bead was then dissolved in aqua-regia for one hour at 95°C. The resulting solution was then analyzed by atomic absorption using a graphite furnace unit. The analytical results were then compared to prepared standards for the determination of the absolute amounts.

For the determination of the remaining trace and major elements Inductivity coupled Argon Plasma was used. In this procedure 0.500 gram portions of the -150 mesh material was dissolved in a mixed acid solution of hydrochloric, hydrofluoric, nitric and perchloric acid for one hour at 95°C. The resulting solution was then diluted to a volume of 10 mls with distilled water and analyzed using Inductivity Coupled Argon Plasma. Again, the absolute amounts were determined by comparing the analytical results to those of prepared standards.

### **A-2 Stream Sediment Samples**

Each of the stream sediment samples were collected from the active portions of the channels at a minimum of four different locations. The samples were also taken from the lower energy portions of the streams to ensure as much consistency as possible between different samples.

Once collected, the samples were placed in high-strength Kraft paper envelopes and field dried for approximately one week. At the conclusion of the project, the samples were delivered to Acme Analytical Laboratories of Acme Ltd., 852 E. Hastings Street, Vancouver, B.C.

At Acme, the samples were first dried over night, then sieved to -80 mesh. They were then analyzed geochemically in the same manner as the rock samples.

### **A-3 Soil Samples**

Using a mattock, the soil samples were collected for the most part from either the BF or BM horizons. In rare cases some material from the A and/or C horizons was sometimes included in areas of poor soil development. Upon collection the samples were placed in Kraft high-strength paper envelopes and field dried for one week. Once more the samples were delivered to Acme Analytical.

At Acme, the samples were first dried over night, then sieved to -80 mesh and analyzed in the same manner as the rock samples.

APPENDIX C

SOIL AND SILT

SAMPLE ANALYSIS

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Chris Young** File # 90-1999 Page 1

316 - 1945 Woodway Place, Burnaby BC V5B 5S4

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
Y-3 L18+00N 2+25E	1	7	33	206	.8	5	8	660	4.69	2	5	ND	8	19	.5	2	2	42	.18	.098	19	9	.57	104	.12	4	3.87	.01	.09	1	1
Y-3 L18+00N 2+50E	1	7	30	173	.5	8	8	525	4.50	3	5	ND	11	21	1.1	2	2	41	.25	.121	27	10	.73	83	.13	2	4.68	.01	.11	1	1
Y-3 L18+00N 2+75E	1	7	40	180	1.4	8	8	403	4.02	2	5	ND	14	18	.6	2	2	36	.21	.112	27	10	.62	90	.11	2	4.01	.01	.10	1	4
Y-3 L18+00N 3+00E	1	7	24	177	1.3	6	8	407	4.66	4	5	ND	14	21	.7	2	2	40	.24	.129	27	11	.71	74	.11	4	3.78	.01	.13	1	185
Y-3 L18+00N 3+25E	1	5	17	155	.5	3	7	539	4.28	5	5	ND	18	69	.7	2	2	35	.60	.144	29	6	.69	59	.03	2	4.19	.01	.12	1	2
Y-3 L18+00N 3+50E	1	5	16	127	.2	3	8	377	4.09	5	5	ND	20	31	.2	2	2	29	.42	.186	37	5	.69	61	.01	2	3.87	.01	.08	1	1
Y-3 L18+00N 3+75E	1	8	24	134	.2	17	10	784	4.34	2	5	ND	13	96	.6	2	2	45	.61	.145	30	24	1.26	86	.12	3	3.68	.01	.15	1	1
Y-3 L18+00N 4+00E	1	3	26	136	.5	1	5	555	3.12	2	5	ND	12	53	.5	2	2	12	.41	.118	23	3	.41	87	.01	2	3.18	.01	.10	1	3
Y-3 L18+00N 4+25E	1	5	18	175	.3	3	7	576	4.41	2	5	ND	18	80	.6	2	2	28	.60	.138	25	6	.71	96	.04	2	5.35	.01	.12	1	3
Y-3 L17+50N 2+25E	1	3	28	130	.8	3	7	456	4.37	2	5	ND	14	43	.4	2	2	28	.47	.073	24	5	.79	37	.01	2	3.08	.01	.09	1	1
Y-3 L17+50N 2+50E	1	9	34	123	8.0	3	6	612	2.89	4	5	ND	22	179	.5	2	3	23	1.10	.144	67	4	.45	42	.01	2	4.39	.01	.14	2	17
Y-3 L17+50N 2+75E	1	3	21	96	.1	3	5	399	2.25	2	5	ND	14	43	.2	2	2	16	.42	.072	30	7	.69	36	.01	2	2.23	.01	.07	1	2
Y-3 L17+50N 3+00E	1	6	23	139	.2	3	7	722	4.02	2	5	ND	15	24	.4	2	2	28	.18	.076	42	6	.77	89	.01	2	3.86	.01	.10	1	1
Y-3 L17+50N 3+25E	1	8	28	170	.6	4	8	1157	4.11	2	5	ND	13	18	.2	2	2	32	.21	.114	24	6	.55	70	.01	2	3.28	.01	.09	2	28
Y-3 L17+50N 3+50E	1	7	19	143	.5	8	7	661	3.79	2	5	ND	7	34	.2	2	2	35	.29	.109	20	12	.55	90	.12	2	2.54	.01	.15	1	1
Y-3 L17+50N 3+75E	1	5	23	215	.2	10	8	937	4.40	3	5	ND	15	36	.5	2	2	37	.41	.111	40	14	.77	109	.15	7	4.02	.01	.15	1	3
Y-3 L17+50N 4+00E	2	6	18	165	.1	15	9	561	5.26	5	5	ND	9	44	.7	2	2	44	.42	.089	23	25	.97	82	.20	2	3.00	.01	.19	1	1
Y-3 L17+50N 4+25E	1	6	28	179	.2	8	7	672	3.67	4	5	ND	12	38	.4	2	2	30	.28	.105	24	9	.45	93	.10	3	4.57	.01	.12	1	1
Y-3 L17+00N 2+75E	1	7	25	165	.3	6	7	816	4.03	2	5	ND	13	23	.2	2	2	31	.18	.060	46	6	.45	138	.01	2	3.95	.01	.10	1	1
Y-3 L17+00N 3+00E	1	6	20	184	.2	6	7	522	3.98	5	5	ND	13	22	.2	2	2	33	.21	.093	44	7	.58	114	.01	3	3.98	.01	.12	1	1
Y-3 L17+00N 3+25E	1	11	25	149	.3	4	9	482	4.59	6	5	ND	17	62	.3	2	2	33	.49	.120	35	6	.79	103	.01	2	4.82	.01	.09	1	2
Y-3 L17+00N 3+50E	1	8	36	196	1.7	9	8	445	4.10	2	5	ND	13	32	.2	2	2	32	.32	.104	27	9	.66	70	.05	2	4.55	.01	.12	1	46
Y-3 L17+00N 3+75E	1	8	12	137	.7	10	8	430	3.76	2	5	ND	12	50	.2	2	2	34	.45	.237	28	11	.50	51	.13	2	5.05	.01	.06	1	6
Y-3 L17+00N 4+00E	1	7	20	169	.1	3	6	550	3.51	3	5	ND	13	126	.2	2	2	24	.80	.249	27	5	.49	89	.06	6	5.01	.01	.11	1	2
Y-3 L17+00N 4+25E	1	7	20	151	.1	9	6	697	3.51	3	5	ND	13	82	.4	2	2	28	.65	.178	34	9	.57	92	.12	3	3.81	.01	.20	1	1
Y-3 L17+00N 4+50E	1	6	17	108	.1	4	4	392	2.43	3	5	ND	11	189	.2	2	2	19	1.08	.098	25	5	.36	72	.09	2	4.80	.01	.18	1	1
Y-3 L16+50N 2+75E	1	3	13	63	.1	2	4	301	2.26	2	5	ND	10	261	.2	2	2	16	1.96	.102	19	3	.43	25	.01	2	5.44	.01	.15	3	2
Y-3 L16+50N 3+00E	1	6	11	119	.1	3	8	622	3.97	3	5	ND	14	78	.2	2	2	32	.87	.219	38	6	.75	73	.03	6	3.93	.01	.14	1	1
Y-3 L16+50N 3+25E	1	7	21	140	.1	5	9	537	4.83	6	5	ND	23	73	.8	2	2	34	.81	.243	46	7	.85	48	.04	2	4.15	.01	.09	1	1
Y-3 L16+50N 3+50E	1	9	22	170	.4	6	6	903	3.81	2	5	ND	9	32	.2	2	2	32	.26	.087	28	9	.48	100	.13	3	3.38	.01	.14	1	2
Y-3 L16+50N 3+75E	1	7	23	147	.2	9	6	497	3.63	2	5	ND	15	33	.3	2	4	31	.25	.152	26	9	.51	85	.15	2	4.64	.01	.13	1	1
Y-3 L16+50N 4+00E	1	7	11	176	.1	11	7	512	4.51	6	5	ND	11	49	.2	2	2	37	.33	.205	28	11	.69	103	.16	2	3.84	.01	.19	1	3
Y-3 L16+50N 4+25E	1	8	20	147	.2	6	7	884	3.74	2	5	ND	14	62	.6	2	2	31	.42	.102	31	7	.50	108	.16	3	4.42	.01	.18	1	1
Y-3 L16+50N 4+50E	1	9	24	123	.1	9	6	398	3.25	2	5	ND	16	91	.5	2	4	28	.49	.094	32	8	.51	102	.15	3	4.73	.01	.18	2	1
Y-3 L16+00N 3+00E	1	7	15	179	.1	9	8	719	4.25	4	5	ND	6	48	.2	2	2	36	.47	.083	21	11	.69	77	.06	2	3.64	.01	.10	1	1
Y-3 L16+00N 3+25E	1	10	16	178	.6	8	7	491	3.83	7	5	ND	8	29	.2	2	2	34	.28	.119	16	8	.51	73	.07	2	4.32	.01	.09	1	2
STANDARD C/AU-S	17	58	38	132	7.2	67	31	1040	4.11	41	24	7	36	47	17.1	15	22	56	.52	.096	36	60	.94	174	.07	36	2.00	.06	.14	11	50

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Soil -80 Mesh AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 25 1990 DATE REPORT MAILED: *June 29/90* SIGNED BY: *C. Young* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
Y-3 L16+00N 3+50E	1	7	29	203	.4	7	7	568	3.57	2	5	ND	8	27	.2	2	2	32	.24	.131	25	8	.59	98	.10	2	3.74	.01	.11	2	3
Y-3 L16+00N 3+75E	1	5	20	145	.1	4	6	804	3.54	5	5	ND	8	26	.3	2	2	32	.26	.111	26	9	.50	93	.13	5	2.75	.01	.14	2	1
Y-3 L16+00N 4+00E	1	9	13	180	.5	9	7	518	3.80	2	5	ND	9	42	.7	2	2	34	.33	.167	26	10	.57	123	.16	4	4.78	.01	.17	1	1
Y-3 L16+00N 4+25E	1	6	23	145	.6	6	7	453	3.95	2	5	ND	14	46	.2	2	2	32	.37	.147	31	9	.55	113	.15	2	4.18	.01	.19	1	3
Y-3 L16+00N 4+50E	1	9	15	171	.4	2	6	579	4.07	4	5	ND	10	78	.2	3	2	31	.44	.181	30	5	.54	136	.10	5	4.46	.01	.21	1	7
Y-3 L16+00N 4+75E	1	4	4	134	.3	3	5	1494	2.85	4	5	ND	6	114	.3	2	2	22	.70	.065	15	4	.38	125	.05	2	3.58	.01	.20	1	6
Y-3 L15+50N 3+50E	1	8	8	173	.7	6	8	1498	3.38	4	5	ND	7	32	.6	2	2	34	.33	.111	19	9	.42	109	.13	4	3.21	.02	.12	1	2
Y-3 L15+50N 3+75E	1	8	16	172	.9	6	6	494	4.00	2	5	ND	10	32	.6	2	2	36	.41	.145	33	9	.61	65	.14	10	3.46	.01	.12	1	3
Y-3 L15+50N 4+00E	1	8	29	248	.7	6	6	1268	3.87	2	5	ND	6	28	.2	2	3	33	.28	.137	27	9	.42	131	.05	2	3.13	.01	.10	1	2
Y-3 L15+50N 4+25E	1	5	19	218	.6	9	9	1084	4.53	4	5	ND	13	59	.9	2	2	34	.54	.183	43	10	.75	96	.03	3	4.13	.01	.13	1	1
Y-3 L15+50N 4+50E	1	5	25	206	.3	4	7	1446	3.90	2	5	ND	5	32	.6	2	2	25	.26	.150	22	6	.49	144	.02	2	3.00	.01	.17	1	1
Y-3 L15+50N 4+75E	1	11	17	185	.3	8	6	516	3.66	2	5	ND	15	75	.8	2	2	33	.51	.179	25	7	.48	122	.15	6	5.42	.01	.16	1	5
Y-1 L11+00N 4+75E	1	10	25	142	1.6	10	6	484	3.49	8	5	ND	7	19	.2	2	2	35	.17	.241	16	11	.40	89	.13	3	4.61	.01	.09	1	3
Y-1 L11+00N 5+00E	1	9	25	164	.9	9	7	549	3.60	2	5	ND	6	42	.6	2	2	35	.44	.220	18	13	.48	122	.13	2	4.64	.01	.10	1	4
Y-1 L11+00N 5+25E	1	9	20	143	1.7	9	7	327	3.39	5	5	ND	7	15	.5	2	4	33	.14	.187	17	12	.38	92	.14	6	5.24	.01	.08	1	2
Y-1 L11+00N 5+50E	1	9	20	190	1.8	10	8	521	4.48	2	5	ND	7	25	.7	2	2	36	.35	.305	29	13	.66	143	.10	9	3.62	.01	.13	1	16
Y-1 L11+00N 5+75E	1	9	23	318	.6	9	9	1438	4.29	2	5	ND	5	22	1.7	2	2	38	.24	.254	16	12	.51	120	.11	6	3.91	.01	.10	1	14
Y-1 L11+00N 6+00E	1	4	28	178	1.2	3	6	319	3.90	2	5	ND	8	18	.3	2	4	28	.19	.147	15	6	.30	77	.03	3	2.47	.01	.10	2	22
Y-1 L11+00N 6+25E	1	8	13	251	.4	11	8	603	4.25	2	5	ND	13	24	.2	2	2	36	.30	.149	27	10	.62	125	.13	10	3.60	.01	.17	1	1
Y-1 L11+00N 6+50E	1	7	19	158	.8	10	7	883	3.81	3	5	ND	8	25	.5	2	2	34	.33	.174	22	9	.43	110	.15	5	3.93	.01	.13	1	1
Y-1 L11+00N 6+75E	1	7	14	219	.8	7	7	1881	3.67	2	5	ND	9	22	.4	2	7	33	.26	.094	22	7	.48	161	.11	6	3.15	.01	.17	1	1
Y-1 L11+00N 7+00E	1	8	31	214	1.6	4	7	658	4.46	3	5	ND	12	21	1.0	2	5	38	.31	.190	30	8	.61	97	.17	2	3.14	.01	.19	1	1
Y-1 L11+00N 7+25E	1	9	23	180	4.0	5	7	596	4.30	2	5	ND	15	18	.8	2	2	38	.25	.186	35	9	.57	102	.19	5	3.66	.01	.16	1	9
Y-1 L11+00N 7+50E	1	10	12	138	.3	7	8	455	4.05	2	5	ND	17	22	.7	2	4	36	.25	.202	29	9	.58	101	.22	8	4.59	.02	.20	1	2
Y-1 L10+50N 5+00E	1	10	29	215	.7	9	8	720	4.54	4	5	ND	11	25	.9	2	4	38	.35	.393	27	13	.59	151	.12	4	4.01	.01	.14	1	4
Y-1 L10+50N 5+25E	1	9	24	183	.8	9	8	823	4.39	2	5	ND	18	32	.4	2	2	35	.45	.202	49	14	.75	108	.11	2	3.14	.01	.19	1	5
Y-1 L10+50N 5+50E	3	6	32	153	.3	4	8	534	5.18	2	5	ND	9	31	1.1	2	6	42	.29	.048	29	10	.79	43	.10	2	3.66	.01	.08	2	3
Y-1 L10+50N 5+75E	1	14	17	115	.7	3	5	485	3.53	2	5	ND	13	52	.6	2	4	24	.56	.108	13	5	.61	45	.01	2	3.52	.01	.05	2	1
Y-1 L10+50N 6+00E	1	16	17	170	.3	9	10	824	5.50	2	5	ND	21	53	1.0	2	4	39	1.00	.254	28	21	1.27	96	.02	2	3.40	.01	.17	1	2
Y-1 L10+50N 6+25E	6	4	47	126	4.8	3	6	434	4.31	11	5	ND	12	17	.2	2	2	19	.27	.104	20	4	.15	48	.01	3	1.50	.01	.07	1	3200
Y-1 L10+50N 6+50E	1	8	16	287	.5	14	7	778	4.31	2	5	ND	8	26	.8	2	4	36	.33	.215	29	13	.61	141	.14	10	3.17	.01	.18	1	13
Y-1 L10+50N 6+75E	1	7	20	248	1.4	14	7	818	4.28	2	5	ND	11	17	1.0	2	2	36	.20	.126	22	13	.53	163	.13	4	3.78	.01	.17	1	2
Y-1 L10+50N 7+00E	1	8	25	150	1.1	10	7	400	3.77	4	5	ND	10	16	.6	2	5	38	.18	.208	19	14	.45	84	.17	3	4.52	.01	.11	1	5
Y-1 L10+50N 7+25E	1	10	13	174	.5	11	8	625	4.15	2	5	ND	13	26	1.3	2	2	39	.26	.156	26	12	.59	114	.18	2	4.03	.01	.17	1	1
Y-1 L10+50N 7+50E	1	10	23	177	.7	7	8	454	4.70	2	5	ND	17	22	.5	2	4	37	.22	.159	35	9	.62	93	.18	3	4.08	.01	.20	1	1
STANDARD C/AU-S	17	58	37	132	7.2	66	29	1027	4.04	38	19	6	36	47	17.6	16	21	55	.51	.096	35	59	.93	174	.07	34	1.97	.06	.14	11	51

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
Y-1 L10+00N 5+00E	1	6	28	152	.9	5	7	496	4.59	7	5	ND	13	21	.3	2	2	33	.33	.257	37	13	.57	64	.09	2	2.74	.01	.11	1	19
Y-1 L10+00N 6+00E	2	6	32	199	.8	7	7	842	4.62	3	5	ND	4	44	.8	2	2	35	.36	.211	21	13	.41	90	.08	3	2.29	.01	.12	1	7
Y-1 L10+00N 6+25E	1	6	25	213	1.8	9	7	831	4.01	2	5	ND	8	33	.3	2	2	33	.36	.157	27	11	.50	90	.14	3	3.36	.01	.17	1	4
Y-1 L10+00N 6+50E	5	5	18	159	.7	6	8	1144	4.92	2	5	ND	11	56	.3	2	2	35	.38	.072	22	10	.44	95	.10	2	2.88	.01	.18	1	5
Y-1 L10+00N 6+75E	4	3	13	151	.1	5	6	832	4.53	3	5	ND	7	55	.3	2	2	22	.68	.142	43	6	.43	64	.03	2	1.89	.01	.18	1	5
Y-1 L10+00N 7+00E	1	3	31	201	1.0	2	6	660	4.16	2	5	ND	15	31	.4	2	3	32	.53	.203	49	7	.68	74	.18	3	2.71	.01	.16	1	5
Y-1 L9+50N 5+00E	1	6	60	237	1.0	5	6	568	3.94	5	5	ND	16	34	1.5	2	2	27	.56	.226	60	10	.60	82	.09	4	2.13	.01	.14	1	9
Y-1 L9+50N 5+25E	1	7	68	710	.6	8	7	753	3.55	2	5	ND	23	79	3.0	2	2	30	.96	.172	67	13	.78	65	.11	2	2.28	.01	.13	1	7
Y-1 L9+50N 5+75E	2	6	32	178	.5	5	7	561	4.79	2	5	ND	8	72	.5	2	2	35	.59	.118	34	9	.67	37	.05	2	3.23	.01	.12	1	1
Y-1 L9+50N 6+00E	1	6	13	214	.4	9	7	533	4.36	2	5	ND	12	26	.8	2	2	34	.35	.262	28	18	.72	97	.15	3	2.92	.01	.20	1	3
Y-1 L9+50N 6+25E	1	7	28	338	.7	10	7	1211	3.72	4	5	ND	7	31	1.2	2	2	31	.37	.418	20	14	.51	199	.15	2	3.78	.01	.17	1	2
Y-1 L9+50N 6+50E	1	4	17	177	.5	9	7	614	4.11	5	5	ND	12	28	.6	2	2	31	.44	.196	39	15	.73	96	.13	2	2.40	.01	.17	2	1
Y-1 L9+50N 6+75E	10	4	11	152	.3	8	6	348	5.14	2	6	ND	8	50	.5	2	4	34	.53	.121	23	13	.65	73	.06	2	2.59	.01	.25	1	5
Y-1 L9+50N 7+00E	1	4	16	147	.1	3	6	822	4.12	3	5	ND	10	40	.7	2	2	33	.50	.149	34	7	.61	52	.17	2	2.20	.01	.14	1	4
Y-1 L9+00N 6+00E	1	7	22	214	.7	10	7	1559	3.60	4	5	ND	5	21	1.2	2	2	31	.27	.380	19	12	.44	155	.14	3	3.89	.01	.15	1	5
Y-1 L9+00N 6+25E	3	6	23	218	.3	10	7	497	4.37	2	5	ND	10	24	.6	2	3	35	.37	.263	23	14	.64	134	.11	3	3.18	.01	.17	1	5
Y-1 L9+00N 6+50E	4	3	11	114	.2	2	5	183	4.31	2	5	ND	14	18	.2	2	2	21	.18	.091	18	4	.12	40	.01	3	1.53	.01	.05	1	30
Y-1 L9+00N 6+75E	1	6	28	187	.5	8	8	714	4.71	2	5	ND	8	56	.5	2	2	32	.58	.130	26	10	.71	141	.07	2	3.50	.01	.13	1	11
Y-1 L9+00N 7+00E	1	6	21	212	.4	7	6	1242	4.18	2	5	ND	8	25	.6	2	2	34	.32	.172	30	15	.62	121	.15	2	3.02	.01	.17	1	2
Y-1 L8+50N 6+50E	1	6	18	273	.7	8	8	940	4.30	2	5	ND	9	36	.7	2	2	33	.46	.313	30	9	.67	126	.14	3	3.14	.01	.22	1	3
Y-1 L8+50N 6+75E	2	5	20	202	.2	7	7	691	4.34	2	5	ND	7	37	.2	2	2	34	.46	.196	29	9	.59	108	.12	5	3.21	.01	.20	2	1
Y-1 L8+50N 7+00E	2	6	21	179	.5	7	7	948	4.45	2	5	ND	10	76	.7	2	2	29	.81	.221	34	7	.50	84	.08	3	2.49	.01	.15	1	4
STANDARD C/AU-S	18	58	37	133	7.1	66	29	1019	4.01	38	18	7	36	48	17.5	15	18	54	.51	.094	37	55	.92	173	.08	35	1.94	.06	.14	11	46

**GEOCHEMICAL ANALYSIS CERTIFICATE**

**Chris Young** File # 90-1998

316 - 1945 Woodway Place, Burnaby BC V5B 5S4

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
90 CS 05	1	6	37	163	.1	5	7	812	3.54	2	7	ND	16	87	.7	2	2	26	.99	.098	55	10	.74	40	.03	2	2.18	.01	.11	1	3
90 CS 06	1	7	41	171	.1	1	6	969	3.19	2	45	ND	10	95	1.0	2	2	33	1.37	.092	69	13	.60	24	.02	5	1.79	.01	.09	1	2
90 CS 07	2	9	30	131	.1	5	5	670	2.95	3	38	ND	5	144	1.3	2	2	34	1.77	.095	50	21	.57	41	.08	8	2.09	.02	.11	1	1
90 CS 33	1	6	48	148	.5	6	5	789	2.77	3	39	ND	9	173	1.1	2	3	31	1.61	.112	80	20	.60	51	.07	3	2.34	.01	.18	1	3
90 CS 48	1	9	25	149	.2	17	9	776	3.74	3	22	ND	14	114	.2	2	2	37	1.04	.137	55	41	1.09	83	.09	5	2.30	.01	.13	1	2
90 TS 01	1	11	18	121	.1	20	8	692	3.31	8	12	ND	23	132	.3	2	2	32	1.01	.212	70	31	.92	112	.12	4	1.74	.01	.19	1	3
90 TS 02	1	7	18	132	.1	11	7	614	3.32	2	8	ND	13	68	.2	2	2	31	.66	.083	44	32	.94	71	.11	9	1.88	.03	.15	1	1
90 TS 03	1	7	27	161	.1	4	6	765	3.63	2	9	ND	17	51	.6	2	3	30	.64	.084	47	13	.53	54	.12	8	1.43	.04	.20	1	7
90 TS 04	1	8	42	148	.4	5	5	1295	3.15	5	20	ND	13	91	.2	2	2	22	1.37	.213	110	8	.54	69	.08	7	1.62	.01	.15	1	2
90 TS 05	1	10	20	187	.4	6	6	611	4.07	9	5	ND	13	39	1.1	2	3	33	.43	.272	26	11	.55	106	.14	4	4.87	.01	.17	1	3
90 TS 06	1	4	23	96	.2	5	4	408	2.59	6	77	ND	9	67	.3	2	2	36	.67	.055	34	20	.40	68	.12	6	1.42	.01	.13	1	12
90 TS 09	1	10	39	173	.1	10	8	943	3.82	7	19	ND	15	114	.2	2	2	37	1.28	.141	68	25	.87	50	.07	3	2.64	.01	.12	1	2
90 TS 11	1	8	30	174	.1	8	7	884	3.91	3	13	ND	14	120	1.0	2	2	39	1.36	.136	66	24	.94	32	.07	6	2.64	.01	.10	1	3
STANDARD C/AU-S	18	58	41	132	7.1	67	28	1031	4.03	41	19	6	36	47	18.0	15	21	55	.51	.092	35	57	.92	171	.07	36	1.95	.06	.14	13	48

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

DATE RECEIVED: JUN 25 1990 DATE REPORT MAILED: *June 30/90* SIGNED BY *D. Toye* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

APPENDIX D

ROCK SAMPLE

ANALYSES AND ASSAY



GEOCHEMICAL ANALYSIS CERTIFICATE

Chris Young File # 90-2001  
 316 - 1945 Woodway Place, Burnaby BC V5B 5S4

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
90 BR 01	7	7	15737	79	261.7	157	1	152	.46	2	5	4	1	8	12.3	2	1668	1	.20	.002	2	6	.01	1	.01	4	.01	.01	.01	1	191
90 CR 02	2	3	60	26	3.0	4	1	371	.47	2	5	ND	5	10	.3	2	5	2	.13	.013	10	4	.04	39	.01	5	.25	.02	.07	1	8
90 CR 03	4	5	152	87	9.3	9	10	878	4.02	38	5	ND	3	5	1.0	2	14	5	.05	.015	5	6	.10	21	.01	3	.44	.01	.07	1	1966
90 CR 04	3	3	416	30	8.2	5	1	53	.46	9	5	4	6	4	.5	2	3	1	.06	.020	6	6	.01	12	.01	8	.17	.01	.13	1	876
90 CR 09	2	15	18	14	.4	5	1	98	.55	2	37	ND	38	3	.2	2	2	1	.03	.003	5	4	.01	4	.01	3	.13	.04	.04	1	5
90 CR 18	2	3	162	38	4.5	5	1	74	.47	8	5	4	3	2	.2	2	2	1	.03	.006	3	4	.01	5	.01	3	.07	.01	.06	1	12703
90 CR 19	1	2	840	215	1.3	3	2	136	.75	10	5	ND	11	17	1.6	2	2	1	.42	.032	19	2	.02	22	.01	3	.28	.01	.21	1	125
90 CR 20	3	5	15	15	.2	10	1	110	.40	2	5	ND	1	5	.2	2	2	1	.10	.005	4	8	.01	11	.01	3	.08	.01	.06	1	31
90 CR 21	2	4	312	14	1.1	7	1	207	.67	3	5	ND	1	4	.4	2	2	1	.21	.002	2	6	.03	4	.01	6	.11	.01	.02	1	122
90 CR 24	3	5	6	8	.1	8	1	60	.29	2	5	ND	9	2	.2	2	2	1	.02	.001	2	7	.01	2	.01	2	.09	.04	.04	1	1
90 CR 25	1	5	117	89	21.4	4	1	76	.27	6	5	ND	4	2	.2	2	2	1	.04	.002	2	3	.01	5	.01	5	.05	.01	.05	1	132
90 CR 26	2	3	8	9	.3	5	1	100	.28	2	6	ND	3	3	.2	2	3	1	.02	.001	2	5	.02	3	.01	4	.11	.02	.04	1	16
90 CR 42	9	6	742	22	15.6	9	1	40	1.82	134	5	6	1	1	.2	2	2	11	.01	.004	2	6	.01	8	.01	4	.09	.01	.06	1	2073
90 CR 43	4	3	405	37	28.2	5	2	40	1.72	35	5	29	1	1	.2	2	2	5	.01	.004	2	3	.01	2	.01	2	.03	.01	.03	1	15255
90 CR 45	4	3	729	76	7.6	6	3	48	3.42	19	5	ND	5	9	1.0	2	2	15	.02	.026	19	4	.02	31	.01	3	.27	.01	.19	1	1811
90 CR 46	7	5	2413	109	160.4	4	1	67	3.06	107	5	127	1	2	1.3	2	2	5	.01	.012	2	3	.01	5	.01	3	.07	.01	.04	1	77165
90 CR 47	3	6	2830	61	30.8	8	2	142	1.58	28	5	30	1	6	.7	2	3	3	.05	.006	2	5	.06	6	.01	3	.16	.01	.05	1	29632
90 CR 50	3	8	14	11	.3	6	1	68	.23	2	5	ND	3	2	.2	2	2	1	.01	.001	2	6	.01	6	.01	11	.07	.02	.04	1	29
90 CR 50 EXTRA	3	37	22	24	7.5	9	1	52	.65	10	5	ND	1	1	.2	2	2	1	.01	.001	2	6	.01	1	.01	3	.02	.01	.01	1	45
90 CR 54	2	7	44	126	.9	8	1	136	.66	5	5	ND	2	6	1.4	2	2	2	.04	.005	3	7	.09	16	.01	7	.17	.01	.05	1	936
90 CR 55	2	3	8	30	.2	7	1	173	.79	2	5	ND	2	4	.4	2	2	1	.22	.003	7	5	.01	10	.01	5	.09	.01	.05	1	21
90 DR 05	3	15	34	49	.2	27	10	602	2.80	2	5	ND	19	35	.2	2	2	24	.20	.096	65	12	.06	66	.01	2	.64	.05	.15	1	8
90 DR 08	3	29	13	7	.1	7	1	70	.63	5	29	ND	31	4	.2	2	2	2	.03	.005	6	6	.01	8	.01	2	.17	.04	.07	1	6
90 DR 09	3	6	1124	71	51.9	7	2	43	1.89	65	5	23	1	2	.7	2	2	1	.01	.008	2	4	.01	9	.01	6	.05	.01	.05	1	2992
90 DR 10	1	7	169	2191	1.0	4	5	1230	2.68	3	5	ND	11	164	11.5	2	2	13	2.45	.080	37	8	.57	21	.01	5	1.79	.02	.17	1	9
90 DR 12	2	73	13842	17659	14.8	5	7	2791	3.76	55	5	ND	12	30	138.0	2	2	9	.47	.097	30	6	.47	28	.01	6	1.46	.01	.24	2	59
90 DR 15	2	20	869	1760	4.8	7	6	1653	2.87	96	5	ND	9	35	12.9	2	2	6	.41	.036	16	5	.32	28	.01	4	.89	.01	.17	1	45
90 DR 19	1	119	736	14512	8.6	7	17	8807	10.38	261	8	ND	1	524	77.7	7	2	9	14.30	.007	7	15	.78	7	.01	6	1.57	.01	.02	1	98
90 TR 12	3	7	35	97	.2	9	1	104	.38	2	6	ND	3	4	.6	2	2	1	.06	.001	2	8	.01	3	.01	7	.12	.04	.03	1	14
90 TR 13	1	2	24	268	.2	4	5	813	2.36	2	5	ND	17	58	1.2	2	2	9	1.03	.090	74	4	.10	58	.01	8	.57	.03	.18	1	9
STANDARD C/AU-R	18	58	42	131	7.2	69	31	1032	3.78	42	17	7	37	53	18.4	16	19	54	.48	.096	37	56	.87	180	.07	35	1.84	.06	.14	14	541

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

DATE RECEIVED: JUN 25 1990 DATE REPORT MAILED: *June 30/90* SIGNED BY: *[Signature]* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ASSAY RECOMMENDED

**GEOCHEMICAL/ASSAY CERTIFICATE**

**Chris Young** File # 90-2002  
316 - 1945 Woodway Place, Burnaby BC V5B 5S4

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Ag** oz/t	AU** oz/t
90 CR 01	1	572	27128	67908	244.6	3	19	187	7.54	455	5	ND	1	47	435.4	70	6	2	.03	.004	3	1	.05	8	.01	11	.19	.01	.02	2	16.96	.023
90 CR 29	3	8	932	111	7.8	7	4	63	1.85	19	5	3	2	2	.2	2	2	6	.03	.009	4	6	.03	9	.01	2	.16	.01	.07	1	.25	.127
90 CR 30	4	8	2637	270	8.7	7	3	125	1.73	17	5	ND	1	2	1.6	2	2	7	.02	.009	3	7	.05	9	.01	9	.15	.01	.05	1	.33	.156
90 DR 01	1	441	24389	32354	318.6	2	16	1230	10.20	448	5	ND	2	48	207.1	54	2	5	.04	.012	4	2	.43	17	.01	5	.93	.01	.04	2	10.16	.007
90 DR 11	1	1133	25406	99999	97.1	2	34	1166	7.99	632	5	ND	1	12	2435.1	19	2	4	.03	.004	2	1	.13	4	.01	4	.33	.01	.02	1	2.52	.006
90 DR 13	3	265	20419	33427	57.0	7	12	393	7.19	689	7	ND	8	22	204.9	6	2	5	.06	.023	6	5	.07	19	.01	10	.53	.01	.16	3	1.86	.009
90 DR 14	2	81	11214	3046	19.1	8	14	2099	6.41	293	5	ND	4	101	17.3	7	2	5	1.47	.030	7	5	.51	19	.01	6	1.11	.01	.12	2	.64	.005
90 DR 16	2	711	23978	99999	372.1	6	37	446	8.91	665	6	ND	2	35	1061.5	24	2	2	.07	.004	5	2	.09	8	.01	4	.32	.01	.03	1	13.35	.022
90 DR 17	1	950	29477	99999	136.9	4	27	3016	9.02	132	7	ND	4	47	1116.4	2	4	12	.69	.025	12	2	1.26	9	.01	3	2.17	.01	.06	2	4.19	.009
90 DR 18	2	2474	32151	99999	321.6	5	12	1890	6.43	64	10	ND	3	21	1572.3	36	2	8	.12	.010	6	3	.45	5	.01	3	1.17	.01	.04	2	14.19	.013
STANDARD C/AG-1/AU-1	17	57	39	134	7.2	67	31	1050	4.05	40	19	7	37	47	17.1	15	19	56	.51	.097	36	60	.93	172	.07	33	1.94	.06	.14	11	1.04	.100

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: Rock AG\*\* + AU\*\* BY FIRE ASSAY FROM 1 A.T.

DATE RECEIVED: JUN 25 1990 DATE REPORT MAILED: *July 4/90* SIGNED BY: *C. Young* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ASSAY RECOMMENDED for Pb, Zn, > 1%

APPENDIX E

COST STATEMENT

**APPENDIX E**  
**COST STATEMENT**

**Personnel**

Chris C. Young (Project Geologist)  
June 10, 11, 13-25, 1990  
July 4(½), 5(½), 6(½), 25(½)  
August 1(½), 2(½), 3(½), 8(½), 9(½), 11(½), 20(½), 21(½),  
22(½), 23(½), 27(½), 28(½), 29(½)  
September 2, 3(½), 4(½), 6(½), 7(½)  
26½ days at \$220 per day \$ 5,830.00

Crawford C. Young (Prospector)  
June 14-19, 21, 22, 24, 25  
10 days at 8 hours at \$11.50/hr 920.00

Doreen Young (Prospector)  
June 10(½), 11, 13-25  
14½ days at 8 hrs at \$11.50/hr 1,334.00

**Food and accommodation**  
39½ man days at \$40/day 1,580.00

**Mobilization/demobilization**  
1988 GMC 1/2 ton 4x4  
1980 Dodge 1 ton Van 365.00

**Vehicle rentals**  
1988 GMC 1/2 ton 4x4: 12 days at \$35/day (all found) 420.00  
1980 Dodge 1 ton Van: 1 day at \$35/day (all found) 35.00

**Equipment and supplies** 208.80

**Laboratory analysis** 1,461.60

**Contract job**  
Rubber-tired, 4x4 backhoe / loader  
4 hrs at \$50/hr 200.00

**Office supplies** 56.05

**Report preparation** (typing and drafting) 377.60

**TOTAL** \$12,788.05

APPENDIX F

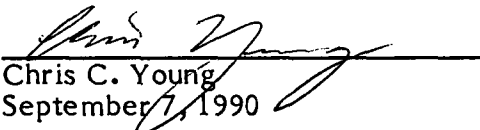
STATEMENT OF QUALIFICATIONS

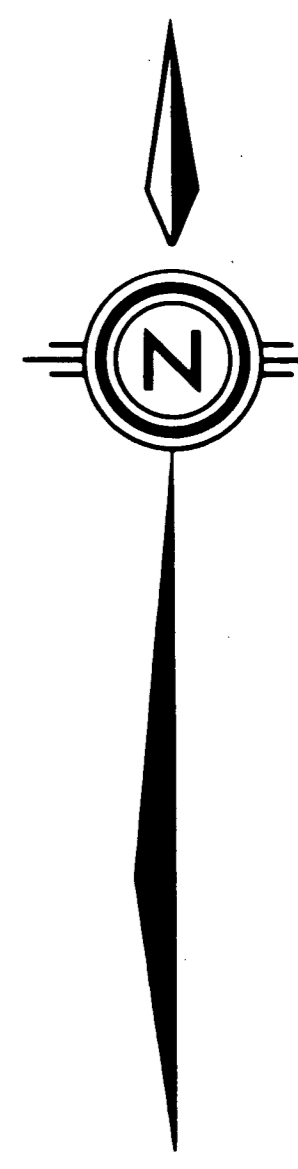
APPENDIX F

STATEMENT OF QUALIFICATIONS

I, Chris C. Young of #316 - 1945 Woodway Place, Burnaby, British Columbia, V5B 4S4, do certify that:

- 1) I am a graduate of Whitworth College (B.Sc., 1986) in geology.
- 2) I have practiced by profession for four years since my graduation from Whitworth College.
- 3) I have prepared this report based on personal field work and related research literature on the Yosie property owned by Crawford C. Young of 5282 Saratoga Drive, Delta, B.C., V4M 2E9, as described and dated September 7, 1990.
- 4) I have not received directly or indirectly nor do I expect to receive any interest direct or indirect in the property.

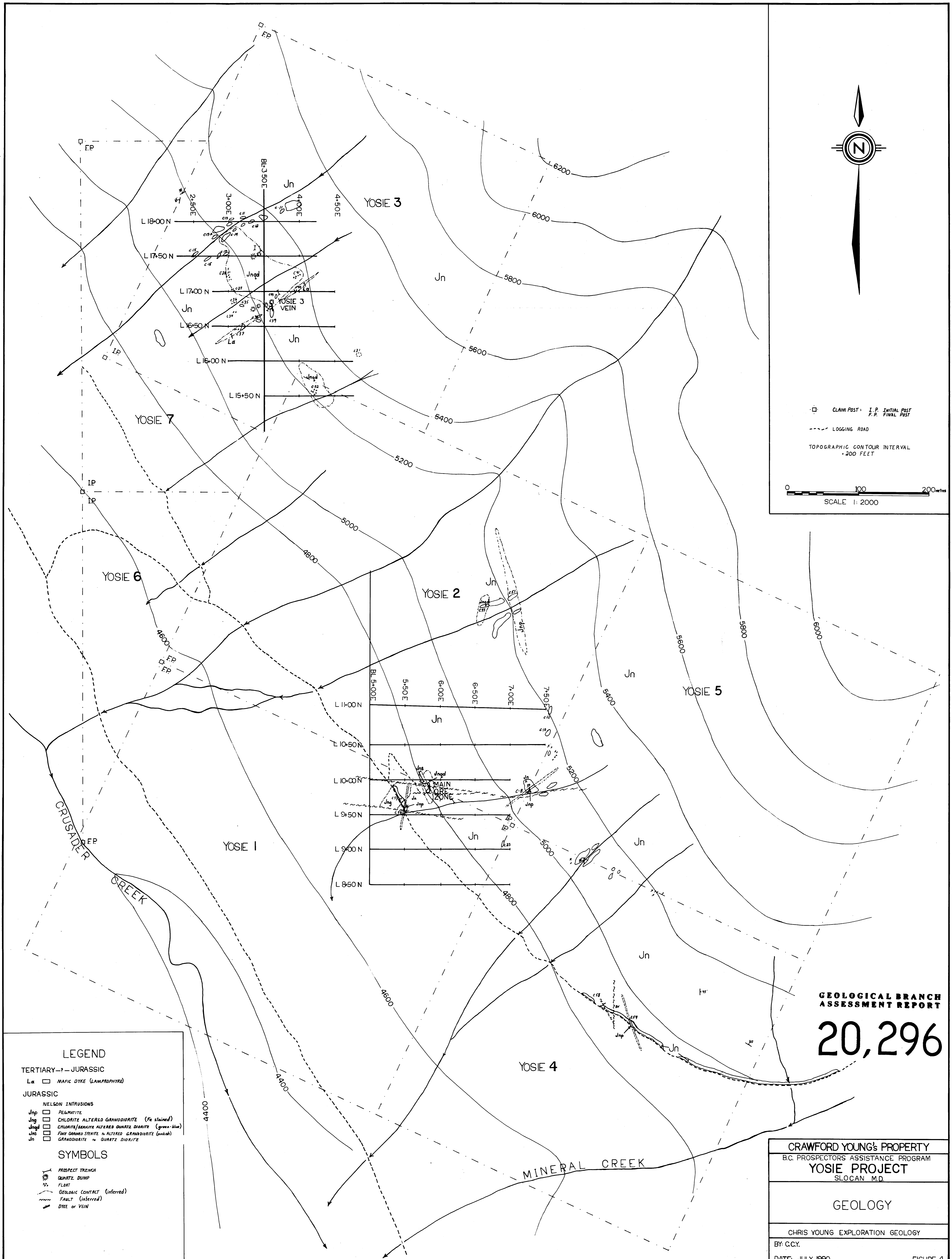
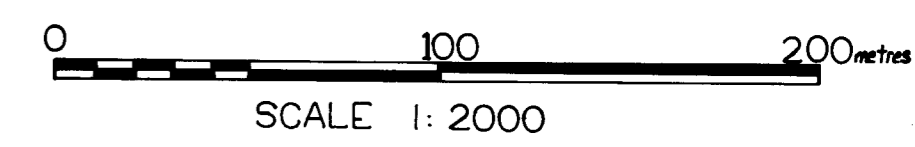
  
Chris C. Young  
September 7, 1990



□ CLAIM POST: I.P. INITIAL POST  
F.P. FINAL POST

--- LOGGING ROAD

TOPOGRAPHIC CONTOUR INTERVAL  
= 200 FEET



**LEGEND**

- TERTIARY-?-JURASSIC
- La □ MAFIC DYKE (LAMPROPHYRE)
- JURASSIC
- NELSON INTRUSIONS
- Jnp □ PEGMATITE
  - Jng □ CHLORITE ALTERED GRANODIORITE (Fe stained)
  - Jngd □ CHLORITE/SERICITE ALTERED QUARTZ DIORITE (green-blue)
  - Jns □ FINE GRAINED SERICITE & ALTERED GRANODIORITE (pinkish)
  - Jn □ GRANODIORITE to QUARTZ DIORITE
- SYMBOLS**
- PROSPECT TRENCH
  - QUARTZ DUMP
  - FLOAT
  - GEOLOGIC CONTACT (inferred)
  - FAULT (inferred)
  - DYKE or VEIN

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

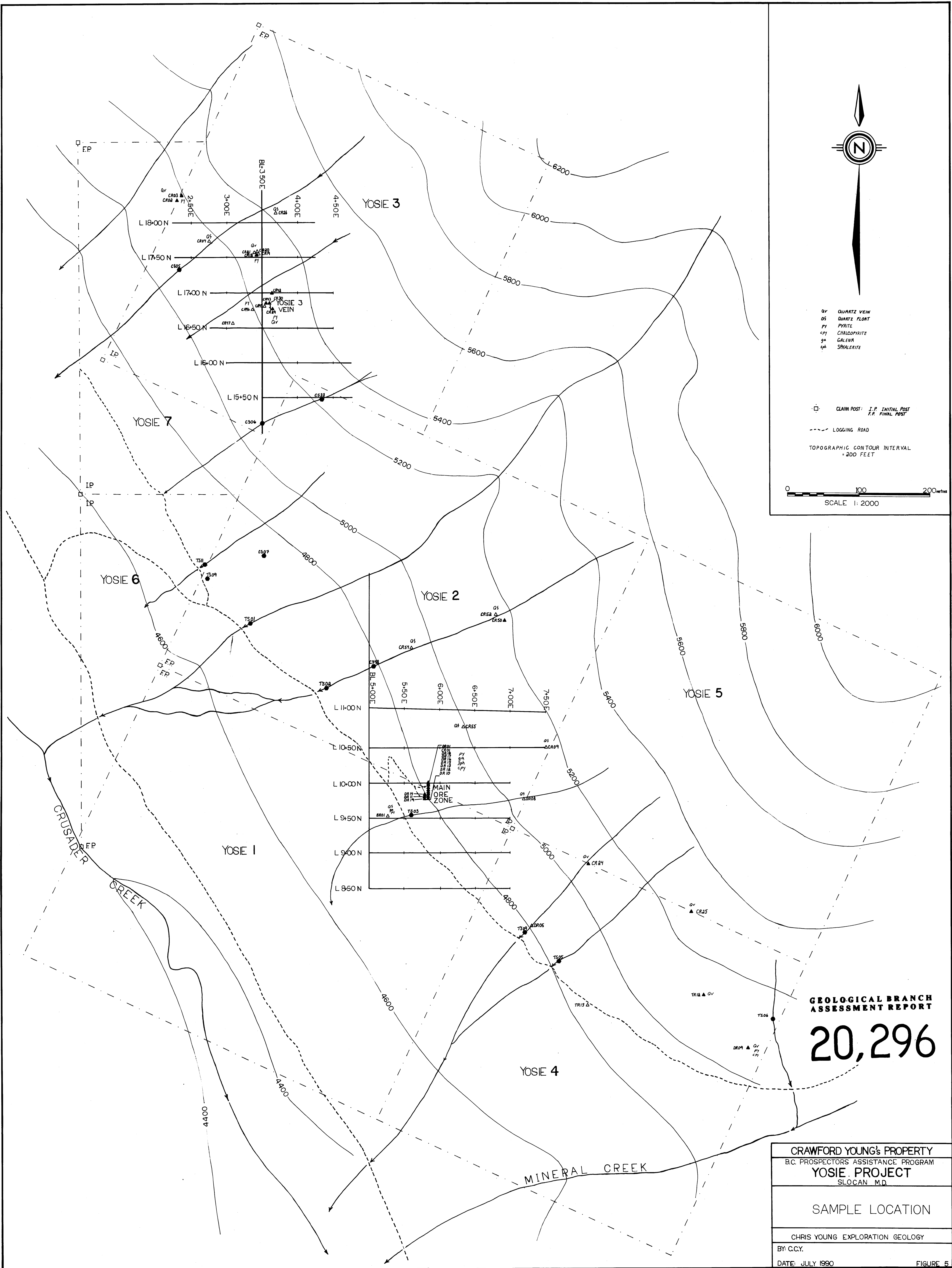
**20,296**

CRAWFORD YOUNG'S PROPERTY  
B.C. PROSPECTORS ASSISTANCE PROGRAM  
**YOSIE PROJECT**  
SLOCAN, B.C.

**GEOLOGY**

CHRIS YOUNG EXPLORATION GEOLOGY  
BY: C.C.Y.

DATE: JULY 1990 FIGURE 4



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,296**

CRAWFORD YOUNG'S PROPERTY  
B.C. PROSPECTORS' ASSISTANCE PROGRAM  
**YOSIE PROJECT**  
SLOCAN, B.C.

SAMPLE LOCATION

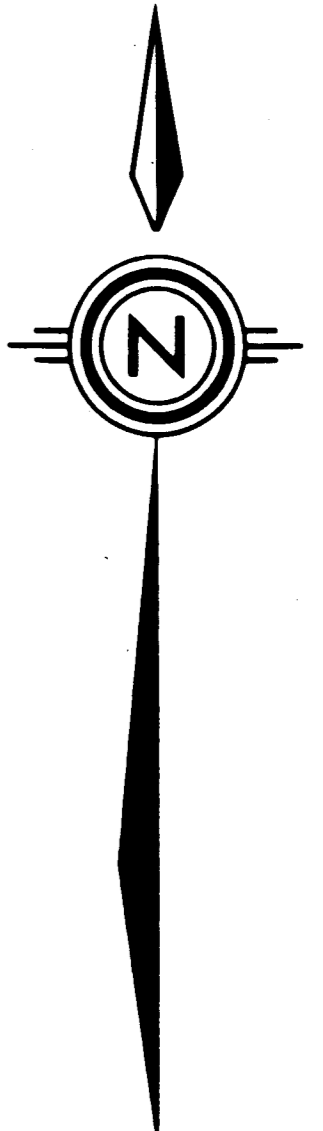
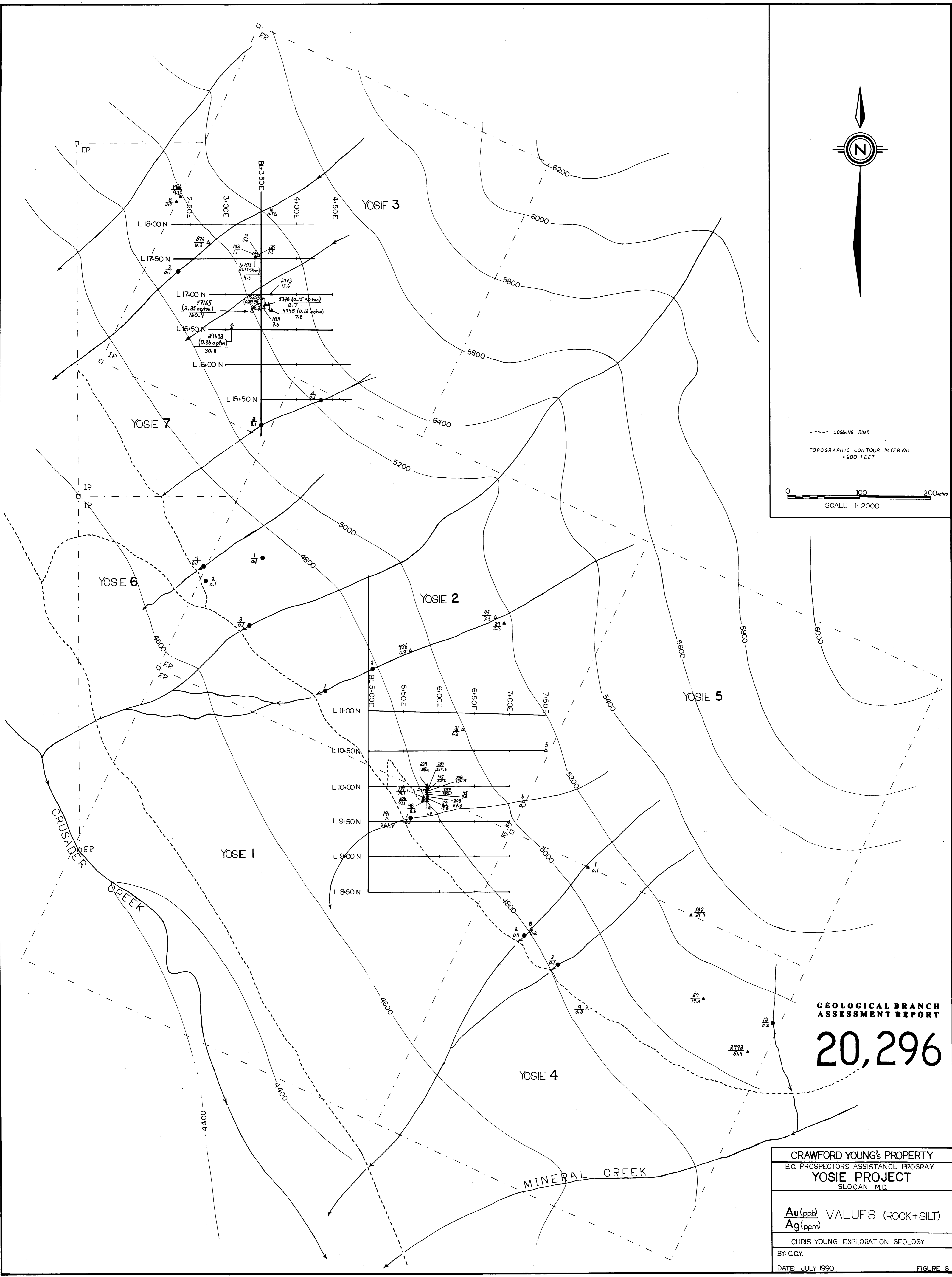
CHRIS YOUNG EXPLORATION GEOLOGY

BY: CCY.

DATE: JULY 1990

FIGURE 5





--- LOGGING ROAD  
 TOPOGRAPHIC CONTOUR INTERVAL  
 200 FEET

0 100 200 metres  
 SCALE 1: 2000

**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**

**20,296**

CRAWFORD YOUNG'S PROPERTY	
B.C. PROSPECTORS ASSISTANCE PROGRAM	
<b>YOSIE PROJECT</b>	
SLOCAN, M.D.	
<b>Au</b> (ppb)	VALUES (ROCK+SILT)
<b>Ag</b> (ppm)	
CHRIS YOUNG EXPLORATION GEOLOGY	
BY: C.C.Y.	
DATE: JULY 1990	FIGURE 6