ARIS SUMMARY SHEET

District Geologist, Smithers   Off Confidential: 92.08.09

ASSESSMENT REPORT 21552   MINING DIVISION: Skeena

PROPERTY: Kerr
LOCATION: LAT   56 28 00   LONG   130 16 00
                 UTM   09 6258526 421954
                 NTS   104B08W

CAMP: 050   Stewart Camp

CLAIM(S):   Kerr 100,Kerr 104,Tedray 13,Kerr 101
OPERATOR(S):   Sulphurets Gold
AUTHOR(S):   Copland, H.
REPORT YEAR: 1991, 922 Pages
COMMODITIES
SEARCHED FOR: Copper,Gold
KEYWORDS: Triassic,Granodiorite,Monzonite,Lower-Middle Jurassic
                 Hazelton Group,Volcanic fragmental rocks,Shear zone
                 Phyllic alteration,Pyrite,Chalcopyrite,Arsenopyrite,Gold
WORK
DONE: Drilling,Geochemical,Physical
             DIAD 9748.0 m   73 hole(s);NQ
                 Map(s) - 27; Scale(s) - 1:1500,1:2500
             META   4 sample(s)
             ROAD   10.0 km
             SAMP 3000 sample(s) ;AU,CU
RELATED
REPORTS: 12471,13369,15493,16616,18406,19541
MINFILE: 104B 191

Diamond Drilling Report

on the

KERR PROPERTY

Skeena Mining Division
British Columbia

NTS: 104B/8
Latitude: 56°28'N   Longitude: 130°16'W

Placer Dome Exploration Limited
Whitehorse, Yukon

Hugh Copland
January 1991

TABLE OF CONTENTS

1.0	INTRODUCTION	4
2.0	SUMMARY	4
3.0	RECOMMENDATIONS	5
4.0	PROPERTY DEFINITION	8
	4.1 Location and Access	8
	4.2 Topography and Vegetation	8
	4.3 Claim Status	12
	4.4 History	15
5.0	REGIONAL GEOLOGY	16
6.0	PROPERTY GEOLOGY	18
	6.1 Rock Types	18
	6.1.1 Sedimentary Rocks	19
	6.1.2 Intrusive Rocks	19
	6.1.3 Volcanic Rocks	20
	6.1.4 Dyke Rocks	22
	6.1.5 Discrete Features	22
	6.2 Alteration	23
	6.3 Structural Geology	24
	6.4 Mineralization	25
	6.4.1 Quartz Replacement-Breccia	25
	6.4.2 Quartz Crackle Breccia	26
	6.4.3 Rubble Zone	26
	6.4.4 Quartz-Anhydrite/Gypsum	27
7.0	DIAMOND DRILLING	28
	7.1 Procedure	28
	7.2 Core Logging	28
	7.3 Core Preparation	28
	7.4 Sample Analysis	29
	7.5 Results	31
8.0	METALLURGY	31
	8.1 Procedure	31
	8.2 Results	32
9.0	ENVIRONMENTAL STUDIES	33
	9.1 Procedure	33
10.0	CONCLUSIONS AND RECOMMENDATIONS	33
11.0	STATEMENT OF EXPENDITURES	34
12.0	REFERENCES	35
13.0	APPENDICES	36
	I Statement of Qualifications	36
	II 1990 Drill Logs	
	III 1990 Drill Log Summaries	
	IV Lab Assay Procedures	
	V Lab Results	
	VI Environmental Results	

Part 1 of 6

LIST OF FIGURES

Figure 1	Location Map	1:5,500,000	9
Figure 2	Location Map	1:250.000	10
Figure 3	Location Map	1:500,000	11
Figure 4	Claim Map	1:50,000	13
Figure 5	Placer Claims	1:50,000	14
Figure 6	Regional Geology	1:1,000,000	17
Figure 7	Property Geology	1:10,000	in pocket
Figure 8	Drilling Plan Map	1:2,500	"
Figure 9	Section 9270 N	1:1,000	"
Figure 10	Section 9400 N	"	"
Figure 11	Section 9510 N	"	"
Figure 12	Section 9560 N	"	"
Figure 13	Section 9600 N	"	"
Figure 14	Section 9630 N	"	"
Figure 15	Section 9700 N	"	"
Figure 16	Section 9760 N	"	"
Figure 17	Section 9795 N	"	"
Figure 18	Section 9850 N	"	"
Figure 19	Section 9900 N	"	"
Figure 20	Section 9950 N	"	"
Figure 21	Section 10000 N	"	"
Figure 22	Section 10080 N	"	"
Figure 23	Section 10130 N	"	"
Figure 24	Section 10200 N	"	"
Figure 25	Section 10300 N	"	"
Figure 26	Section 10360 N	"	"
Figure 27	Section 10400 N	"	"
Figure 28	Section 10500 N	"	"
Figure 29	Section 10550 N	"	"
Figure 30	Section 10600 N	"	"
Figure 31	Section 10680 N	"	"
Figure 32	Section 10785 N	"	"
Figure 33	Section 10880 N	"	"
Figure 34	Section 10970 N	"	"

1.0 INTRODUCTION

A total of 9,748.5 m of drilling was completed on the Kerr property over the period of 1985-1989. These programs had outlined significant Cu-Au mineralization in what is known as the B-Zone. Placer Dome Exploration Limited conducted a 73 hole, 14824.5 m, diamond drill program on the Kerr property from June 29 to October 30, 1990. The purpose of this drill program was to improve confidence in the size and grade of the B-Zone by infilling the previous drilling pattern.

The drill program was supervised by Hugh Copland with the assistance of John Kowalchuk, Robert Pease and Glenn Shevchenko. Prior to the commencement of the 1990 drill program it was decided to abandon the ridge top camp utilized in previous years. A campsite in the Sulphurets Creek valley was deemed a better location due to poor weather at the higher elevations.

This report will detail the results of the 1990 drilling.

2.0 SUMMARY

A total of 14824.5 m (73 holes) of infill diamond drilling was completed on the Kerr property in 1990. The purpose of this drilling was to increase the confidence in the grade and tonnages of the B-Zone obtained in previous years of drilling.

The B-Zone mineralization is hosted by volcanic rocks of the upper Triassic-lower Jurassic Unuk River Formation (Hazelton Group). These rocks have been extremely altered and sheared such that original textures have been obliterated. Quartz-sericite-pyrite with later anhydrite is the dominant alteration. Mineralization is strongly structurally controlled and has four dominate styles: i) quartz replacement-breccia, ii) quartz crackle breccia, iii) rubble zone and iv) quartz-anhydrite/gypsum. Pyrite and chalcopyrite are the dominant sulphide minerals on the property. Tennantite, bornite, chalcocite and covellite are also associated with the primary mineralization. Zones of crackle breccia containing between 50 to 100% quartz are narrow but carry the highest grades of copper and gold (averages 1.0 to 1.5% Cu and 0.5 to 0.9 g/t Au over 15 m). Rubble zones, areas of extreme fracturing and alteration, carry the bulk of reserves on the property. These individual zones vary in width from a few to 80 m, with average grades in the 0.5 to 0.8% copper and 0.25 to 0.35 g/t gold range. The distribution of the various types of mineralization is structurally controlled and complex. Ore reserve estimations are presently in progress.

In order to complete drilling on a 100 x 50 m grid on the Kerr property, approximately 4700 m of additional drilling is required. This does not include further exploratory drilling on the Tedray 13

claim where mineralization is known to trend. Any further drilling should be commenced as early as possible in the year with special attention paid to obtaining good recoveries in the rubble zone. Final recommendations should be pending the completion of an updated ore reserve calculation.

3.0 RECOMMENDATIONS

The following recommendations are all pending the completion of ore reserve calculations for the deposit. Priorities may change depending on the results of that study.

i) in order to complete infill drilling in the region between 9350 N and 10880 N approximately 4700 m of drilling is required. These proposed holes are listed in Table 1. Mineralized zones are not cutoff at depth. Present drilling has tested to a vertical depth of 300 m below surface on most sections. Open pit mining would probably not be feasible beyond this depth. It is not recommended at the present time to test below this depth. The area between 9800 N and 10100 N will be difficult to drill. Exact locations for drill sites in this area are best determined in the field. The small icefield is receding and chunks of ice and large boulders were observed to fall from it during the summer months. Drilling from or directly beneath the icefield is not recommended for safety reasons.

ii) Exploratory drilling north on the Tedray 13 claim should continue. Two holes every 100 m section would be sufficient to test this area at this point. Overburden in excess of 100 m is known to exist at 11200 N (Hole T89-17) and this may cause some drilling problems. Most of this area should be easily accessible by bulldozer. Snow will be gone from this region early in the spring and an early startup here would allow ample time for results to come back and allow for further infill drilling later in the season if warranted.

iii) Drilling should be commenced as early in the season as possible to avoid the poor fall weather. Late May - early June is a reasonable time to commence at the lower elevations. All drilling should be completed by the end of September as the number of days suitable for flying in supplies, moving fly drills, etc. is greatly reduced after this point.

iv) Poor recoveries in the rubble zone remain a problem. It is recommended that a qualified mud engineer be present at the beginning of the drill program to train drillers from the start on the proper procedures. The use of a

1.5 m core barrel at all times in poor ground is also recommended. The testing of a triple tube barrel has been suggested and should be tried. Less emphasis should be placed on production when recoveries are sacrificed.

v) The road from the lower camp to the cirque and up to the ridge top should be upgraded so that it can be traversed with 4WD pickups. This will greatly reduce helicopter time when it comes to crew changes and the maintenance of drills. Grades on the road are presently suitable for pickups; drainage is the big problem. The lower portions of the road on the Tedray 13 claim crosses wet clay material that is sloughing down from the deposit. Larger culverts should be installed on the creek crossings in order to handle the spring runoff and heavy fall rains. Ditching of the road with the use of a small portable excavator would greatly increase drainage and driveability of the road.

vi) A 3-D plexiglass model of the deposit should be constructed. The model would aid in the visualization of the complex relationships between the ore zones and topography of the deposit.

vii) The majority of the old camp on the ridge top was cleaned up in 1990. The remaining floors should be disposed of in an approved manner. One tent frame should be left up for emergency purposes. It is recommended that all core from earlier drilling be moved down to the new camp and stacked with the recent core.

Table I Proposed Fill In Holes

NORTHING	EASTING	AZIMUTH	ANGLE	LENGTH(m)
9350	9875	090	-60	130
9350	9750	090	-60	200
9510	9780	---	-90	300
9697	9458	090	-60	300
10008	9721	270	-50	300
10000	9450	090	-60	300
10084	9636	---	-90	250
10130	9600	090	-60	200
10130	9550	090	-60	250
10130	9500	090	-60	300
10200	9750	090	-60	100
10200	9400	090	-60	300
10300	9470	090	-60	300
10396	9570	090	-60	250
10397	9504	090	-60	300
10600	9400	090	-60	400
10680	9660	090	-60	100
10785	9670	090	-60	100
10880	9475	090	-60	300

4.0 PROPERTY DEFINITION

4.1 Location and Access

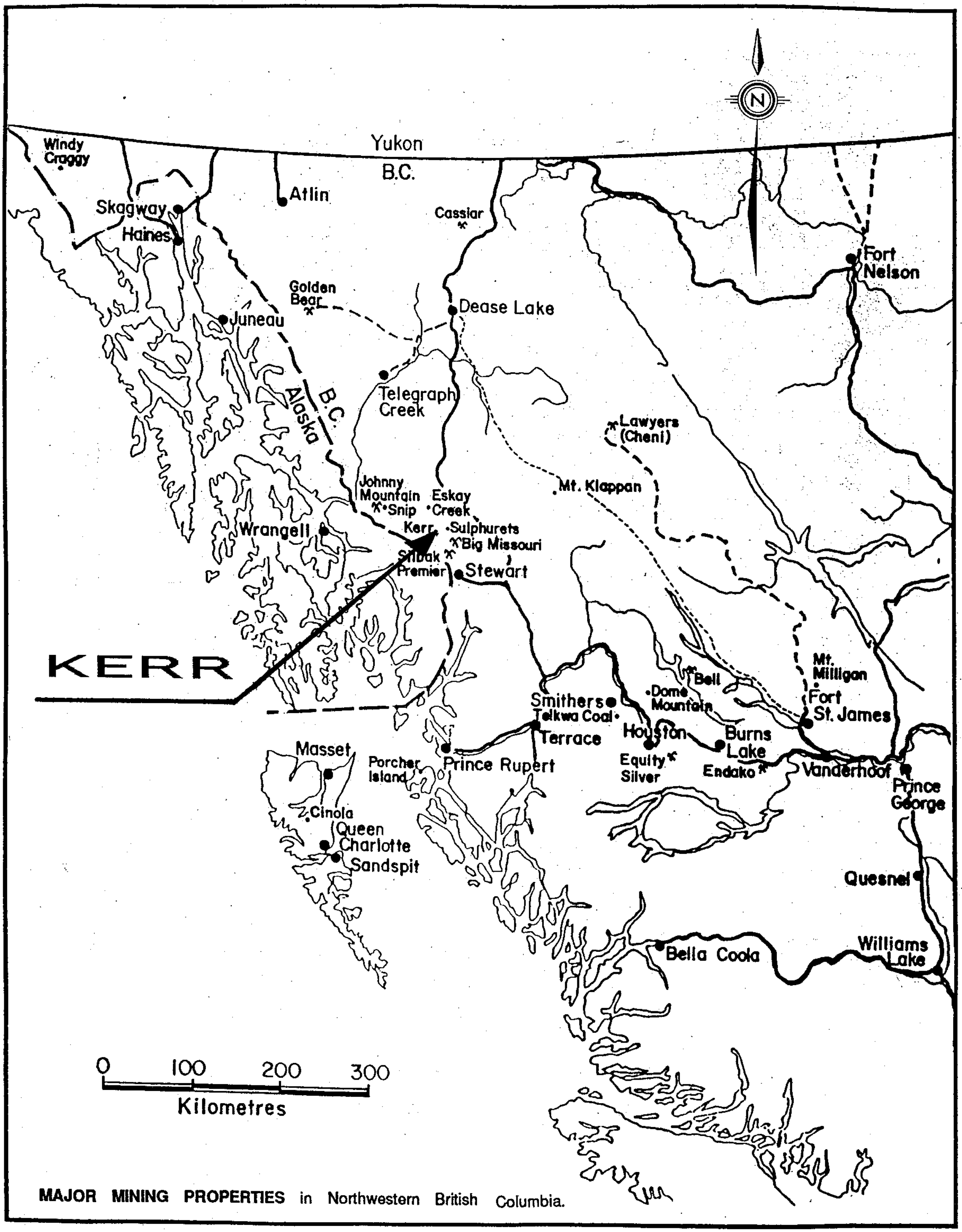
The Kerr property (Latitude 56°28'N, Longitude 130°16'W; NTS 104B/8) is located approximately 62 km north-northwest of the town of Stewart, British Columbia (see figures 1 and 2). The claims lie at the headwaters of Sulphurets Creek adjacent to the Sulphurets Glacier.

Access to the property is by helicopter from bases at both Stewart, British Columbia (62 km from the property) or from Bell II on the Stewart-Cassiar Highway (42 km from the property). During the 1990 program the Tide Lake Strip located at the end of the Granduc road (45 km from Stewart) was utilized as the mobilization/demobilization point for the project. It is a 28 kilometre helicopter flight to the property from the Tide Lake Strip (see Figure 3).

4.2 Topography and Vegetation

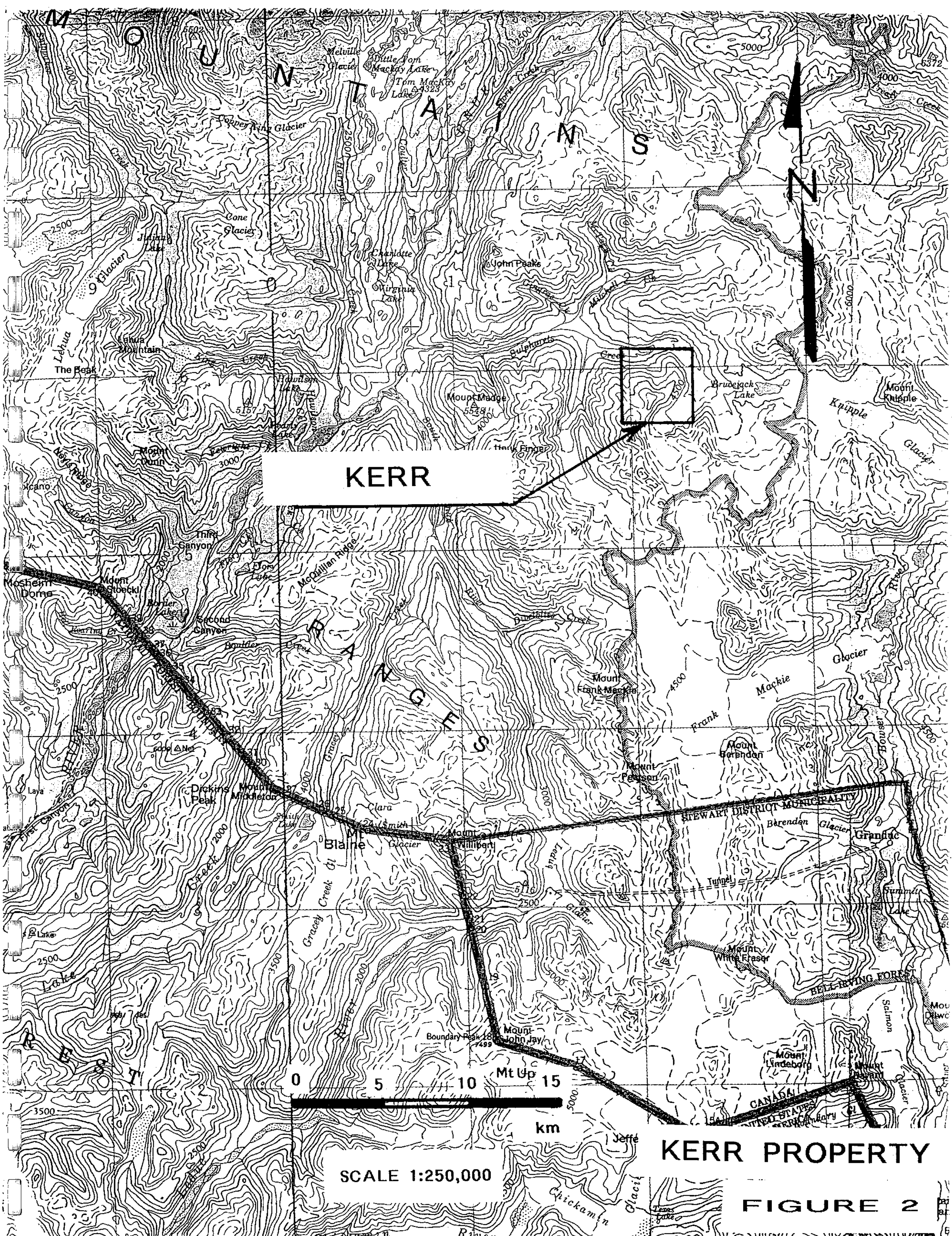
The Kerr property lies within the Boundary Range of the Coast Mountains. the terrain is rugged with peaks in the 1800 to 2300 m range with glaciers and icefields common. The elevation on the claims varies from 600 m at Sulphurets Lake to 2300 m in the southwest corner of the property. Drainage on the property is into Sulphurets Creek which flows into the Unuk River 10 km downstream of the property. The Unuk River flows to the southwest into Alaska and finally into Burroughs Bay, 55 km from the mouth of Sulphurets Creek.

Vegetation on the property ranges from dense alder, willow and Devil's Club in the wetter creek valleys to large spruce, hemlock and aspen stands on the lower slopes. The trees give way to typical alpine shrubs and grasses above the 1200 m mark. There appears to be no marketable timber on the property.



MAJOR MINING PROPERTIES in Northwestern British Columbia.

FIG. 1



KERR PROPERTY

FIGURE 2

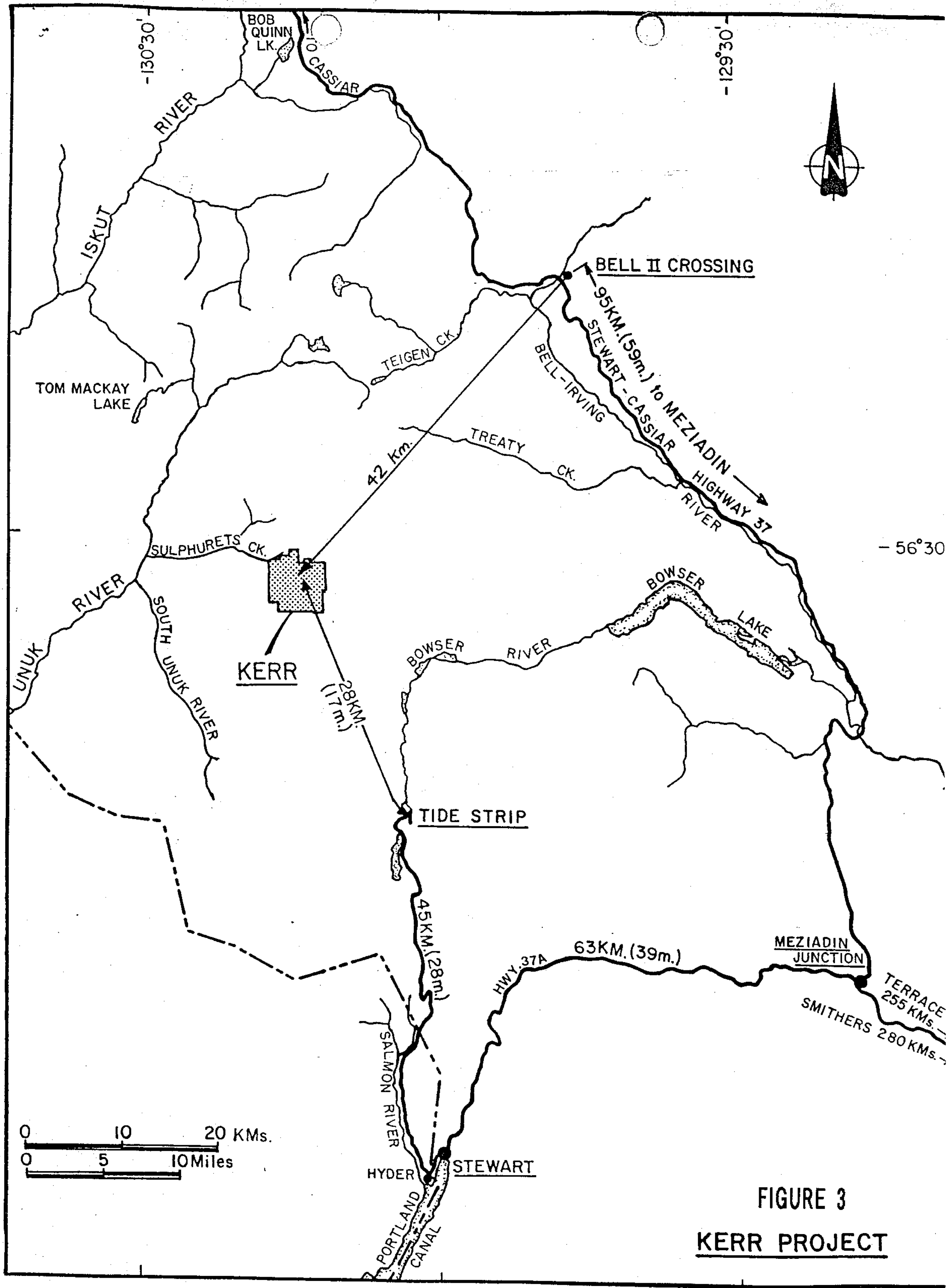


FIGURE 3

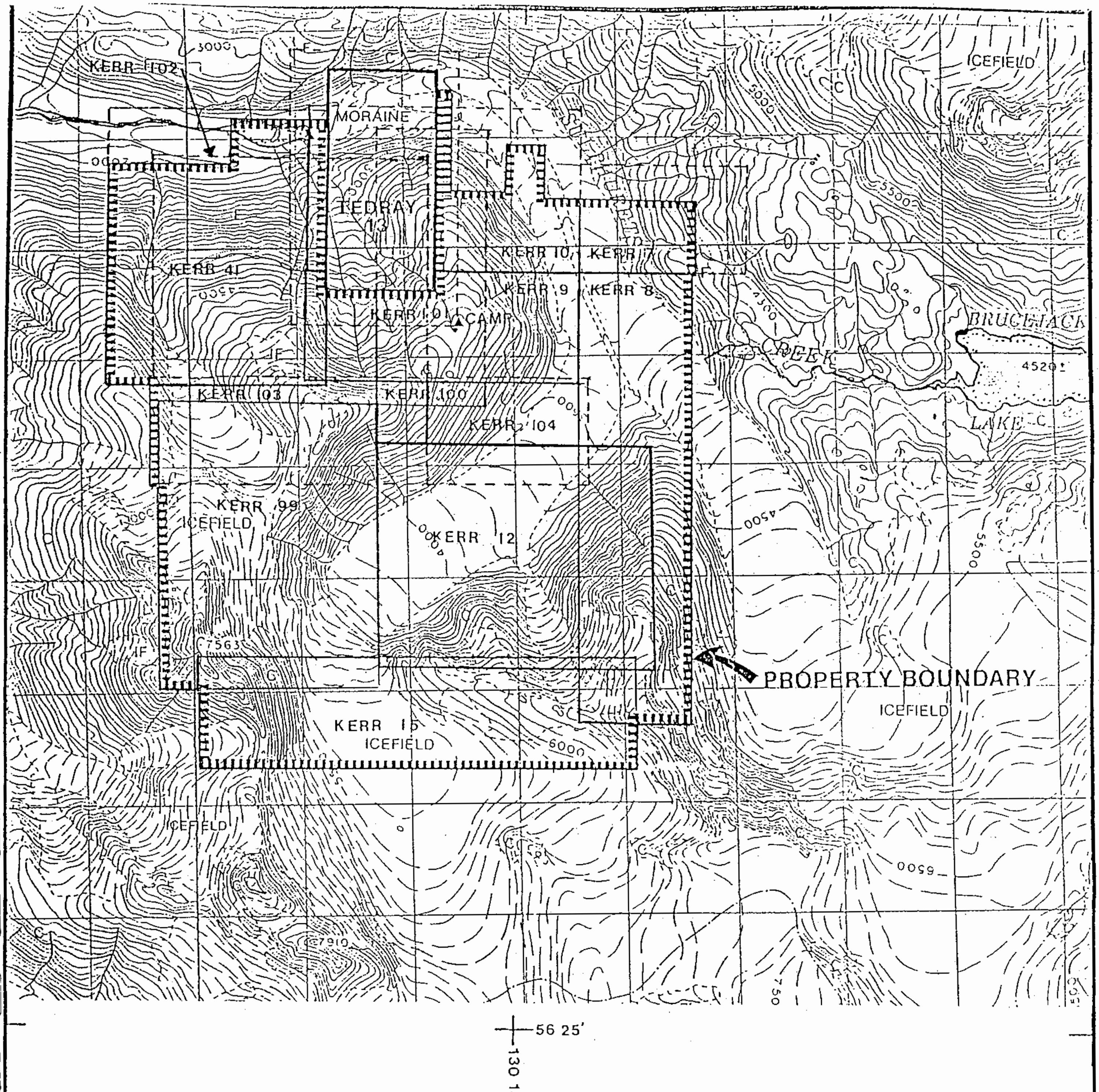
KERR PROJECT

4.3 Claim Status

The Kerr property consists of 18 mineral claims (190 units) and 10 placer claims (figures 4 and 5). All claims except for Tedray 13, are owned equally by Sulphurets Gold Corporation and Placer Dome Inc. The Tedray 13 claim is 50% owned by Sulphurets Gold Corp. and 50% by Newhawk Gold Mines Ltd. and Granduc Mines Ltd. A complete list of claim data can be found in Table 2.

TABLE 2 CLAIM STATUS

CLAIM	UNITS	TAG NO.	RECORD NO.	DUE
Mineral Claims:				
Kerr 7	6	61374	3662	17 Dec 1999
Kerr 8	16	61375	3663	17 Dec 1999
Kerr 9	10	61376	3664	17 Dec 1999
Kerr 10	9	61377	3665	17 Dec 1999
Kerr 12	20	61379	3666	17 Dec 1999
Kerr 15	16	61382	3669	17 Dec 1999
Kerr 41	20	57706	3697	20 Dec 1999
Kerr 99	20	92544	4690	30 Oct 1999
Kerr 100	10	103775	6286	17 Jul 1999
Kerr 101	15	299770	6725	30 Jun 1999
Kerr 102	20	100946	6884	23 Aug 1999
Kerr 103	10	100947	6885	23 Aug 1999
Kerr 104	6	100948	6886	23 Aug 1999
Tedray 13	8	29504	165	26 Aug 1999
Kerr 2P1	1	636390M	9063	10 Aug 1991
Kerr 2P2	1	636386M	9064	10 Aug 1991
Kerr 2P3	1	636385M	9065	10 Aug 1991
Kerr 2P4	1	636389M	9066	10 Aug 1991
Placer Claims:				
Sul 1	1	67221	-	27 Sep 1991
Sul 2	1	67222	-	26 Sep 1991
Sul 3	1	67230	-	26 Sep 1991
Sul 4	91	67229	-	27 Sep 1991
Sul 5	1	67219	-	29 Sep 1991
Sul 6	1	67228	-	29 Sep 1991
Sul 7	1	67227	-	29 Sep 1991
Sul 8	1	67226	-	29 Sep 1991
Sul 9	1	67220	-	29 Sep 1991
Sul 10	1	67225	-	29 Sep 1991



NTS 104B/8

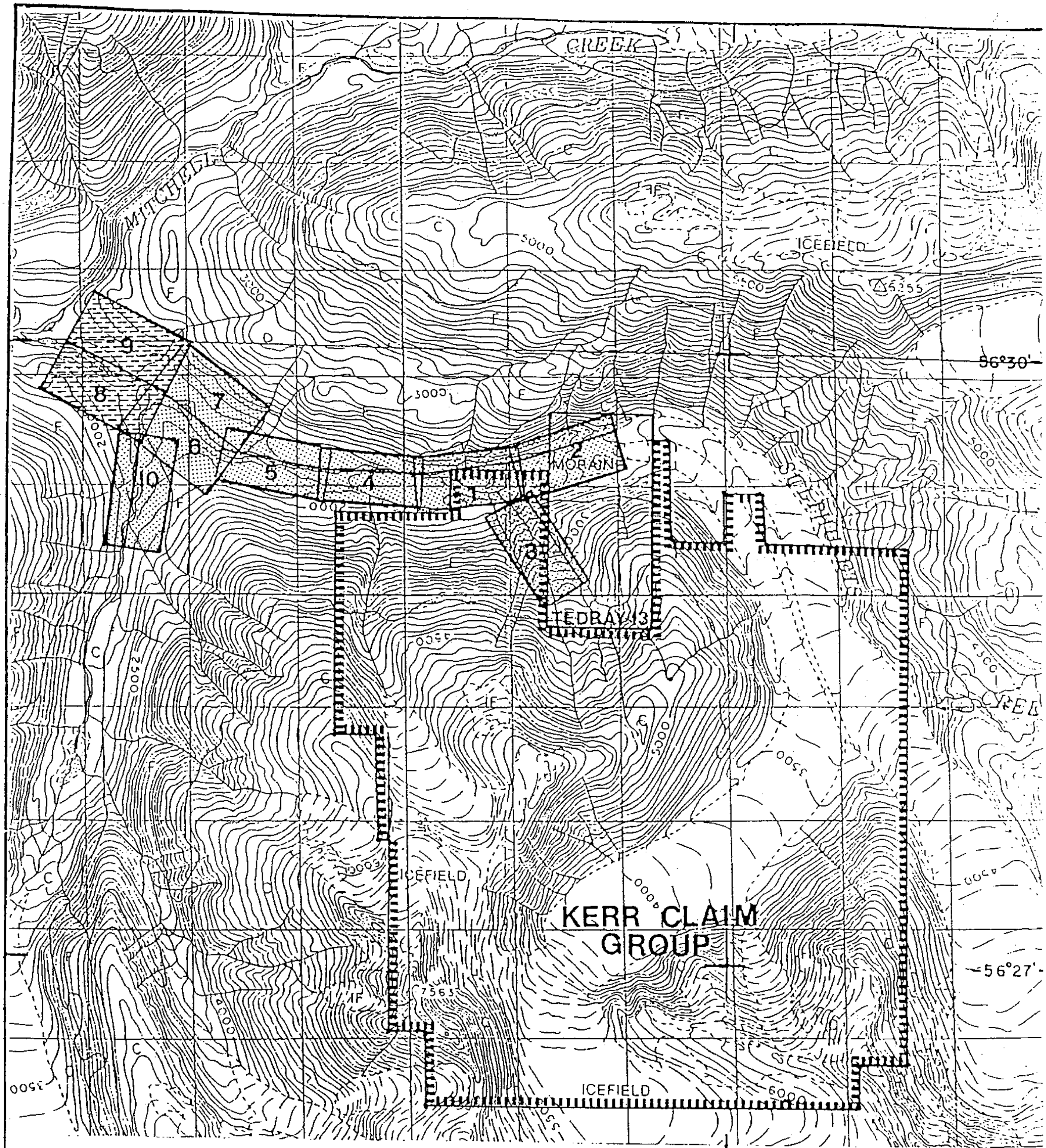
PLACER DOME

KERR PROPERTY
CLAIM MAP

Scale 0 1 2 KM

SKEENA M.D.

FIGURE 4



N.T.S. 104B/8

PLACER DOME

KERR PROJECT

PLACER CLAIMS

Scale 0 1 2 KM

SKEENA M.D. RPT:

FIGURE 5

4.4 History

The Sulphurets area was first explored for its placer potential in the late 19th and early 20th centuries by several individuals and syndicates. Several gold and silver bearing veins were located and geology similar to that in the Stewart camp was recognized. The inaccessibility and poor weather prevented any serious attempts at any economic ventures.

In the early 1960's Newmont Mines conducted geological and airborne geophysical surveys in the area and subsequently staked the Red River claims near Brucejack Lake. In association with Granduc Mines Ltd., Newmont conducted exploration on the claims until 1979 when the ground was optioned to Esso Resources Canada Ltd. Esso did minor exploration on surrounding ground including what is now the Kerr property. The actual Kerr claims were not staked until 1982 when the ground was picked up by the Alpha joint venture. Geological and geochemical surveys were carried out by the joint venture in 1983 and encouraged by anomalous gold geochemistry on the property, Brinco Mining Ltd. optioned the property in 1984. The Alpha joint venture retained a 30% working interest in the property.

Brinco earned its 70% interest by conducting a short drill program (3 holes, 189.9 m). The Kerr joint venture was set up and only minor assessment work was carried out in 1986. In 1987 Brinco underwent a reorganization and changed its name to Western Canadian Mining Corporation. The Alpha joint venture sold its interest in the property to a new company, Sulphurets Gold Corporation and, combined with Western Canadian, completed a 14 hole (1604 metre) drill program, IP surveys and trenching in 1987. With the realization of the significance of the B-Zone in 1987, an extensive drill program (22 holes, 3,589.9 m) was undertaken in 1988.

In early 1989 Sulphurets Gold acquired Western Canadian's 70% interest in the property and, in exchange, Western Canadian acquired approximately 74% of Sulphurets Gold's issued shares. A further 20 holes (4,364.7 m) were drilled later that year.

Late in 1989 Placer Dome Inc. acquired all of Western Canadian's holdings in Sulphurets Gold along with those of most of the minority shareholders.

5.0 REGIONAL GEOLOGY

The Kerr property is located within the Iskut Belt of the Intermontane Terrain of northwestern British Columbia (Figure 6) The belt is flanked on the east by the Jurassic Bowser Basin and on the west by the Cretaceous Coast Plutonic Belt. The region is predominately underlain by Pennsylvanian to Middle Jurassic volcanic rocks and related sediments that have been folded and faulted during Cretaceous time. These units are cut by at least four Jurassic to Tertiary intrusive events.

In the immediate Sulphurets area (104B/8,9) Hazelton Group volcanic and sedimentary units dominate. The Hazelton stratigraphy is summarized below:

Salmon River Formation:	(lower-Middle Jurassic) Black siltstones with minor interbedded sandstone and limestone lenses.
Mount Dilworth Formation:	(lower Jurassic) Felsic pyroclastics, tuffs, flows and agglomerates.
Betty Creek Formation:	(lower Jurassic) Volcanic tuffs and flows with intercalated conglomerate, wackes, and siltstones; minor basaltic lavas.
Upper Unuk River Formation:	(lower Jurassic) Feldspar porphyry, feldspar-hornblende porphyry, Premier porphyry, crystal tuff and minor intercalated siltstones.
Lower Unuk River Formation:	(upper Triassic-lower Jurassic) intercalated siltstone, conglomerate, crystal tuff and feldspar hornblende porphyry.

Although they are not prominent on the Kerr property, a number of intrusive bodies occur in the Sulphurets area. Most are quartz poor, ranging from quartz monzonite to diorite. Synvolcanic intrusive rocks are generally porphyritic while post-volcanic intrusives are coarse crystalline. A number of mafic dykes (andesite and diabase) are also seen throughout the area.

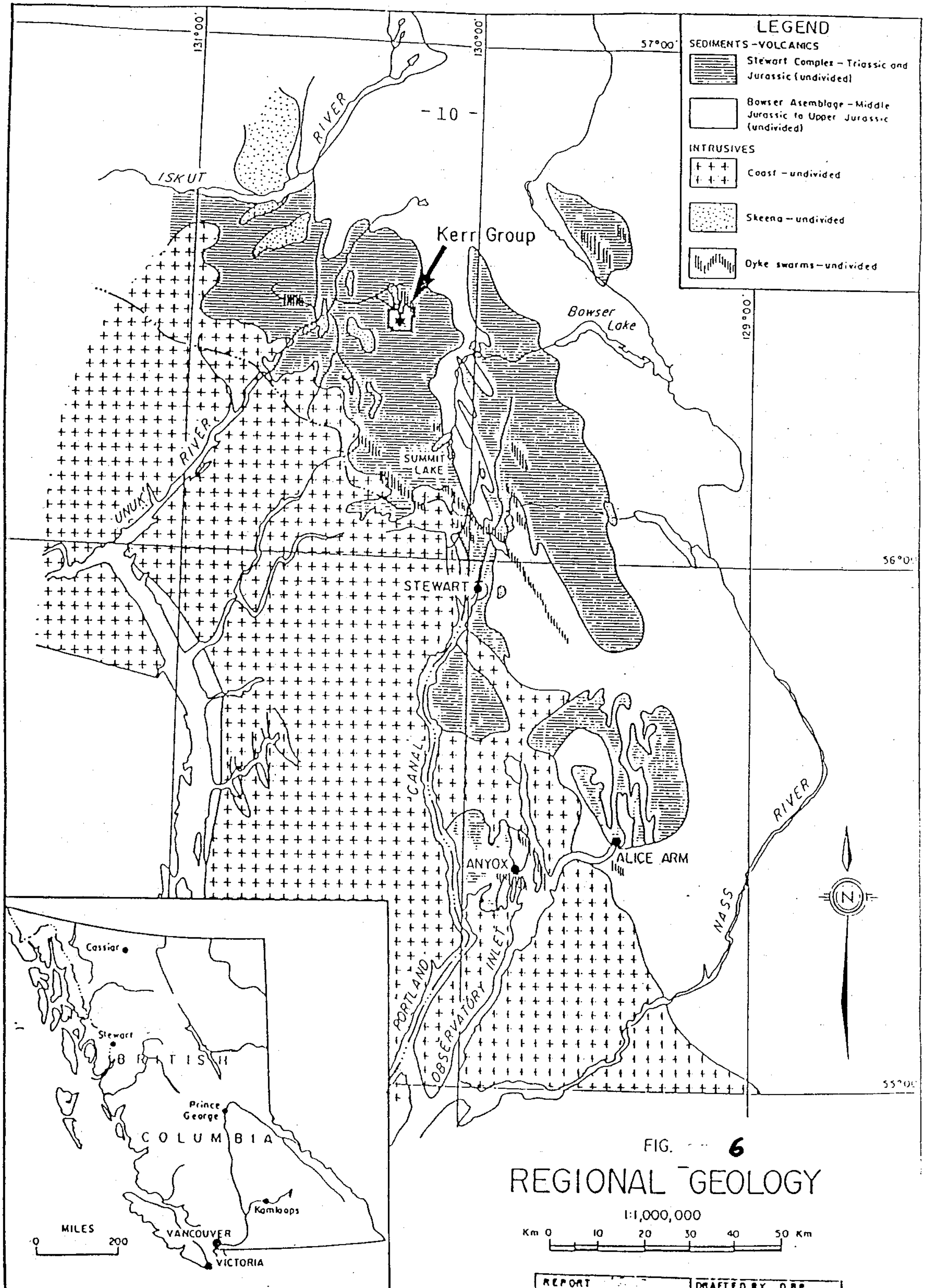


FIG. 6

REGIONAL GEOLOGY

1:1,000,000

Km 0 10 20 30 40 50 Km

6.0 PROPERTY GEOLOGY

Numerous reports have described the geology of the property in detail in previous years (figure 7) (Payne 1989, Hewton et al. 1988, 1989; Kowalchuk et al. 1987). This report will describe the units used in the 1990 drill logs and update the geological picture of the property.

6.1 Rock Types

The property is underlain primarily by rocks of the lowest member of the Hazelton Group, the Unuk River Formation. In this area the unit consists of andesitic volcanic rocks: ash to lapilli tuffs and breccias intercalated with argillite and conglomerate. It is within the pyroclastic units that the B-Zone mineralization is located. The alteration and mineralization will be discussed in detail in later sections.

The oldest rocks on the property were determined by Payne (1989) to be inclusions of quartz diorite and latite found in later andesites of the Unuk River Formation. This unit crops out on the southeastern corner of the property and was not intersected by drilling.

The eastern portion of the property is largely underlain by carbonaceous sedimentary rocks of the Unuk River Formation. The sediments comprise mainly a grey to black argillite (ARGL) with minor siltstone and sandstone (SAND) components and a pebble conglomerate (CONG). Outcrops of these units indicate that they are moderately folded with a general north-south strike and moderate westerly dip. Drill holes into the footwall of the deposit (KS-99 and KS-101) intersected the sedimentary package. Intercalated tuffs, argillite and conglomerate were encountered. Contacts between the volcanic and sedimentary units were all sharp. The orientation of the bedding in the argillites is fairly consistent indicating a moderate dip to the east with no small scale folding indicated in the core. Contacts between the volcanic and sedimentary units are very near the same orientation as the bedding, indicating deposition of the two was contemporaneous.

Payne (1989) has subdivided the remaining rocks on the property into an Upper Volcanic-Sedimentary Unit and a Lower Volcanic Unit. The Lower Volcanic Unit, which hosts the B-Zone, consists mainly of intermediate pyroclastics including: ash tuffs(TFAH), crystal tuffs(TFXL), lapilli tuffs(TFLP), latite(LATT) and various other minor volcanic units that will be described in detail later. Rapid facies changes occur within the volcanic pile. Correlation of the different units within the pile is difficult even between closely spaced holes. Alteration discussed in the next section complicates the interpretation even further.

The Upper Volcanic-Sedimentary Unit crops out on the western portion of the claims. This unit consists of intercalated dacite/andesite flows, tuffs, argillites and siltstones. The sedimentary rocks are stratigraphically higher than the volcanic rocks in this unit. There is no defined boundary between the Upper and Lower Volcanic Units. Lithologies are similar and in all probability came from the same volcanic source. The sedimentary rocks are similar to those found on the eastern part of the property. These sediments have a moderate to steep westerly dip. A north-south trending anticline may run through the centre of the property.

Following is a brief description of the units that were intersected in the 1990 drill program:

6.1.1 Sedimentary Rocks

i) Argillite (ARGL): Dark grey to black, well bedded, finely disseminated pyrite to five percent throughout, abundant quartz-carbonate and/or pyrite veinlets.

ii) Sandstone (SAND): Lithic arenite, light green(sericite?), medium to coarse-grained, disseminated pyrite.

iii) Conglomerate (CONG): Polymictic pebble conglomerate, subrounded clasts of chert, mudstone, volcanic and intrusive rocks averaging one cm in size, disseminated pyrite, fuchsite common, minor quartz-carbonate veinlets.

iv) Ferricrete (FECT): Rusty limonitic colour, composed of subrounded to subangular fragments of volcanic rocks up to ten cm in size, matrix typical vuggy limonitic cement.

v) General Sediments (SEDM): Undifferentiated sediments; greywacke, conglomerate, siltstone, sandstone; usually with disseminated pyrite and minor quartz-carbonate veining.

6.1.2. Intrusive Rocks

i) Syenodiorite (SYDR): Typically this unit is medium grained and ranges in composition from a syenite to diorite, the unit also exhibits a porphyritic nature with feldspar and minor hornblende phenocrysts up to one cm in size, propylitic alteration common.

ii) Granodiorite (GRDR): This unit may have been included with the above description in some instances, generally the rock is medium to coarse-grained with plagioclase and hornblende phenocrysts and minor biotite, hornblende is commonly altered to chlorite.

6.1.3 Volcanic Rocks

i) Latite (LATT): Dark green, fine-grained, minor plagioclase phenocrysts (not as abundant as LAPP) subhedral to five mm in size, groundmass chlorite altered.

ii) Latite Porphyry (LAPP): Dark green, fine-grained matrix with subhedral, tabular, plagioclase phenocrysts two to five mm in size, up to 20% of the rock, pervasive and veinlet chlorite.

iii) Aphanitic Latite (LAAP): Dark green, aphanitic, chlorite altered, similar to above units without phenocrysts.

iv) Lapilli Tuff (TFLP): Medium to dark grey, textural variations ranging between ash tuff and volcanic breccia, generally clasts range in size from one to six cm and are composed of felsic to mafic fine-grained volcanic rocks, clasts comprise from 5 to 70% of the rock and are elongate in direction of foliation, matrix very fine-grained, chlorite alteration pervasive throughout matrix and clasts, finally disseminated pyrite from one to ten percent common, intense quartz-carbonate-sericite alteration in places, gypsum/anhydrite veinlets locally abundant.

v) Crystal Tuff (TFXL): Light to medium green, fine-grained matrix with lath shaped phenocrysts of feldspar and subrounded quartz phenocrysts two to four mm in size, 10-15% of the rock, dacitic in composition, feldspars altered to green sericite and a green clay, intense chloritic alteration and minor epidote alteration locally.

vi) Ash Tuff (TFAH): Light to medium green, massive, very fine to fine-grained, chlorite alteration common, local intense carbonate and sericitic alteration, grades into crystal and lapilli tuffs, extremely silicified in places resembling chert.

vii) Tuff (TUFF): Fine to medium grained, includes tuffaceous units that do not fit neatly into the above categories.

viii) Brecciated Lapilli Tuff (BXLP): Similar to TFLP with intense pervasive and vein, quartz and quartz-carbonate stockwork appearance with brecciation of veins and adjacent wall rock, usually more than one phase of veining, pyrite and chalcopyrite common as blebs and stringers in most of these zones.

ix) Brecciated Tuff (BXTF): Similar to TUFF with quartz and quartz-carbonate stockwork and brecciation as described under BXLP.

x) Agglomerate (AGLM): Medium to dark grey, typically bedded and gradational from TUFF or TFLP, clasts rounded to subrounded and elongate in direction of foliation, averaging one half to two cm in size, closely packed fragments average 60 to 80% of rock, dominant fragments are both a felsic volcanic unit and soft black argillaceous unit, locally interstitial graphite and pyrite, weak to intense pervasive chloritic and sericitic alteration.

xi) Epivolcaniclastic Conglomerate (CGEV): Medium to dark grey, fragments range from pebble to cobble in size, composed of rounded to subrounded bedded tuffs and flows in fine-grained tuffaceous matrix, fine grained disseminated pyrite in matrix, minor pervasive chlorite and sericitic alteration which is more intense in the matrix compared to the clasts.

xii) Dacite Flow (DA-F): Light green, very fine to fine grained matrix of plagioclase and minor quartz, minor plagioclase phenocrysts, anhedral tabular to five mm in size 10% of the rock, disseminated fine grained pyrite one to two percent, chlorite altered.

xiii) Dacite Porphyry (DCPP): Light green, similar to DA-F but with plagioclase phenocrysts two to eight mm in size, up to 15% of the rock.

xiv) Plagioclase-Hornblende Porphyry (PHPP): Medium green to light grey, fine to medium grained granular appearance, anhedral plagioclase and hornblende phenocrysts to five mm up to 50% of the rock, hornblende commonly altered to chlorite, pervasive pyrite typical to five percent.

6.1.4 Dyke Rocks

i) Andesite Plagioclase Porphyry (ANPP): Premier Porphyry; medium green to grey fine-grained groundmass, distinct euhedral K-spar phenocrysts up to 10 mm in size, one to two percent of rock, anhedral to subhedral plagioclase phenocrysts one to five mm in size 10 to 15 %, chlorite altered groundmass and minor chlorite stringers.

ii) Amygdaloidal Andesite Dyke (ANDY): Dark green to grey, variable hornblende and plagioclase phenocrysts less than three mm in size to 20% of rock, calcite filled amygdules up to 10 mm in size zero to five percent, chlorite altered, minor calcite veinlets, magnetic.

iii) Andesite Dyke (ANDK): Dark green, fine to medium grained, small hornblende and plagioclase phenocrysts less than two mm in size to 50% of the rock, distinguished from ANDY by lack of amydules, chlorite altered, minor epidote alteration, moderate ervasive carbonate alteration.

6.1.5 Discrete Features

i) Rubble Zone (RBZN): These are distinct zones occurring primarily in the mineralized tuffaceous units. They are characterized by the extreme fractured nature of the rock and typical poor recoveries in drill core, the core can range from small angular fragments less than one cm in size to a thin tabular "poker chip" fracturing, chlorite and/or sericitic alteration is usually intense throughout these zones as is copper-gold mineralization, possible origins of the rubble zone will be discussed under the mineralization section.

ii) Crackle Breccia (KRBX): Typically occurring in the tuffaceous units, sections composed of 50 to 100% white to glassy brecciated quartz and carbonate, pyrite, chalcopyrite, bornite, tennantite occurring in fractures in quartz, the broken crackled appearance to unit is distinct, and it is usually spatially related to rubble zone.

6.2 Alteration

Widespread alteration on the Kerr property appears to be transitional between that of a quartz deficient porphyry system and a gold rich quartz diorite model. Alteration can range from replacement of distinct minerals, usually phenocrysts, with little destruction of the original textures to intense alteration where all the textures of the original rock have been obliterated. The degree of alteration varies over short distances. Pods of intensely altered material are commonly found within wider zones of similiar but less intense alteration.

A distinct alteration zonation has been observed by previous workers on the property (Kowalchuk, 1987 and Payne, 1989). The western portion of the property represented by the A-Zone is characterized by a quartz-chlorite-sericite-pyrite-carbonate assemblage. This becomes a strong quartz-sericite-pyrite-chlorite mix in the B-Zone and finally a weaker chlorite-carbonate-epidote alteration in the sedimentary package to the east.

Quartz-sericite-pyrite is by far the most prominent and intense of the alteration types related to the mineralized zone. The host rock has in the past been called a quartz-sericite-pyrite schist due to the intense alteration and very strong fabric that has developed in the rock. Weathering gives a distinct yellow-green colour to the unit on surface. Both the groundmass and phenocrysts of the original rock have been altered to sericite, up to 80% sericite in some extreme cases. The sericite occurs as an extremely fine-grained alteration of the plagioclase in the original rock. Quartz is also very fine-grained. Pyrite occurs as small isolated grains and wispy stringers. Minor amounts of chlorite (after hornblende) and carbonate (ankerite, calcite and dolomite) are also observed in thin sections done on specimens taken from these areas.

Footwall rocks which consist of interfingering volcanic and sedimentary rocks are primarily altered to a carbonate-chlorite-epidote assemblage where intersected in 1990 drilling. Carbonate alteration occurs as a patchy texture throughout argillites, conglomerate and the various tuffaceous units. The andesitic units all show some degree of chloritization of the matrix.

Anhydrite and gypsum are also an significant alteration product related to the B-Zone mineralization. Both occur as veinlets, stockwork and as discontinuous patches within the volcanic units. Gypsum occurs below the rubble zone. Anhydrite is found further below that, where hydration has yet to occur.

Mineralization and alteration are highly structurally controlled. The intensity of alteration in the B-Zone and the nature of the rubble zone confirm the fact of an intense fracturing event that prepared the ground for hydrothermal fluid circulation. Prior to this intense event there was probably a broad propylitic phase of alteration that affected the complete package of the Kerr stratigraphy. This pervasive event resulted in chloritereplacement of mafic minerals and sericite-carbonate replacement of plagioclase phenocrysts. The matrix of these rocks underwent patchy replacement by chlorite and carbonate. Similar alteration to this is evident in the footwall today.

The second phase of alteration occurred contemporaneously with the fracturing of the B-Zone. A complete overprinting of the previous alteration occurred. Sericite replaced relic plagioclase and pyrite replaced accessory magnetite. Introduction of the copper and gold mineralization probably also occurred at this time. The quartz rich crackle breccias are possibly a later stage of this second phase of alteration. Anhydrite was introduced as the last stage in the alteration process.

6.3 Structural Geology

Payne (1989) describes the structural characteristics of the property in detail and these will not be repeated here. It should be noted however that on Payne's map (Figure 7) a number of the bedding orientations shown in the B-Zone probably more accurately reflect a foliation rather than bedding. The intense foliation in the B-Zone has obliterated many of the earlier phases of deformation that are observed on either side of the B-Zone. In the vicinity of the trace of the B-Zone fault the dominate east-west fabric evident in the relatively unaltered rocks is cut by the strong northerly trending braided nature of the B-Zone deformation. This braided nature is evident in certain areas of the B-Zone where intense foliation wraps around relatively undeformed sections of chlorite altered tuffs (A.J. MacDonald, personal communication).

Drilling on the northerly section of the Kerr property did not show strong evidence that the so named B-Zone fault extends to the northwest beyond Line 10400 North. The fault may trace further to the east or may not be present at all in this area. The volcanic/sedimentary footwall contact appears to be a gradational interfingering of the units rather than a distinct fault contact.

The rubble zone is the most distinct and intense structural element on the property. It is probably a series of tightly spaced steep angle north-south trending shears which served as conduits for the intense hydrothermal alteration. As mentioned previously, the shearing has a braided nature possibly due to the influence of pre-mineralization dykes or differing competencies of the rocks within the volcanic pile.

6.4 Mineralization

Four dominant styles of mineralization have previously been identified on the Kerr Property: i) quartz replacement-breccia, ii) quartz crackle breccia, iii) rubble zone, iv) quartz-anhydrite/gypsum. The characteristics of each will be described below:

6.4.1 Quartz Replacement-Breccia: This mineralization is predominant in the A-Zone. First identified in 1987 drilling these zones tend to range from narrow vein like structures with good copper-gold and significant lead and zinc values to broader disseminated style mineralization with moderate copper and low gold values. Varying degrees of quartz and sericite altered tuffs contain disseminated and patchy chalcopyrite with minor chalcocite and tennantite. Hole KS-062 intersected vein like mineralization from 14.40 to 16.30 m (1.9 m) assaying 2.83% Cu, 7.73 g/t Au, 617 ppm Ag, 1064 ppm Zn, and 222 ppm Pb. These narrow structures appear to be discontinuous and not a significant drill target in themselves, although in mining of the B-Zone their existence should not be discounted.

Hole KS-063 intersected a broader zone of mineralization from 132.0-180.0 m (48.0 m) containing 0.52% Cu, and 0.57 g/t Au. This zone is characterized by very finely disseminated pyrite and chalcopyrite in silicified sericite and chlorite altered tuffaceous rocks. Narrow widths (10 to 15 cm.) within this interval contain brecciated quartz veins with up to ten percent pyrite and chalcopyrite infilling fractures.

6.4.2 Quartz Crackle Breccia: This style typically contains the highest copper grades although widths are usually narrow. These zones tend to be lens-like and rarely traceable between multiple sections. Although not a rule, these zones tend to lie adjacent to rubble zones. The association, if any, between the two is not clearly understood. The influx of quartz may have been a later stage event that could not penetrate into the core of the rubble zone due to it becoming "choked" by previous pulses of hydrothermal activity.

The crackle breccia is characterized by zones ranging from 50 to 100% brecciated grey to white quartz with patchy pyrite, chalcopyrite, bornite and tennantite infilling fractures. Chalcocite and minor covellite are common secondary minerals in this zone. The majority of the bornite found in the deposit is associated with the crackle breccia. The breccia zones range in width from a few centimetres to tens of metres. The percentage of quartz does vary over the larger intervals with the better values associated with the increased quartz content. A typical crackle breccia zone was intersected in hole KS-067 from 147.0 to 172.70 metres (25.7 m).

Values over this interval averaged 0.88% Cu, and 0.84 g/t Au. An example of a crackle breccia zone with close to 100% quartz occurred in Hole KS-090 from 86.75-104.70 m (17.95 m) that averaged 1.46% Cu, and 0.65 g/t Au.

6.4.3 Rubble Zone: The rubble zone is the most extensive of the mineralized regimes on the Kerr Property. As described previously it consists of a highly fractured series of shear zones within the tuffaceous units of the B-zone. Pyrite, chalcopyrite, and tennantite are the primary minerals with minor bornite and secondary chalcocite and covellite occurring in the upper weathered portions of the rubble. The minerals occur as stringers and disseminated grains in fractures associated with quartz. Chalcocite occurs after chalcopyrite and as coatings on pyrite grains. The rubble zone varies in width from a few metres up to eighty metres in some cases. Hole KS-123 has one of the largest continuous rubble zones intersected, from 75.0-153.92 metres (78.92 m). This interval assayed 0.82% Cu, and 0.34 g/t Au. These values are typical for other rubble zones on the property.

6.4.4 **Quartz-Anhydrite/Gypsum:** These mineralized zones are the least well defined of the B-Zone. They typically occur below the rubble zones in numerous holes where quartz-gypsum/anhydrite form a stockwork and infill fractures. Disseminated pyrite, chalcopyrite, and minor tennantite occur within fractures of this zone associated with the quartz and sulphates. These zones can range from a few to 25 m in width. Hole KS-125 is typical of this type of mineralization. Immediately beneath the rubble zone in this hole intense quartz flooding commences giving way to fracture filling quartz and qypsum with minor chalcopyrite and chalcocite coatings. The interval from 161.0 to 179.0 m (18 m) averages 0.78% Cu, and 0.34 g/t Au. These zones grade very nearly the same as the rubble zone.

The cumulative effect of the various styles of mineralization is to produce a zone averaging between 50 and 250 m wide that dips to the west at an angle of 40 to 60 degrees. As can be observed on Figures 9 to 34, some high grade intervals (>0.8% Cu) can range from a few metres to almost 100 metres in width. The B-Zone mineralization can be traced over a strike length of 1700 m.

There appears to be no set pattern established between higher and lower grade zones. They can grade into one another or high grade zones can end abrubtly cut by non-mineralized dykes. Although not a major problem these dykes will lead to some dilution of the deposit.

7.0 DIAMOND DRILLING

7.1 Procedure

Diamond drilling on the Kerr property was carried out by J.T. Thomas Diamond Drilling of Smithers, British Columbia. Three different drill rigs were utilized at various times during the program. A JT-600 (modified JKS-300) light fly drill was used to drill BQ core on holes less than 200 m long. A Longyear 38 fly drill was used to drill NQ holes on longer holes where road access was not possible and a skid mounted Longyear 38 was used where the D6H Cat could get access to drill sites. Bell 206 and 205 helicopters were utilized to move the two fly drills around.

A total of 14,824.5 m of drilling was completed in 73 holes in 1990. Drilling production rates over the program averaged 74 metres/day (8749.8 m total) for the L-38's and 114.6 metres/day (6074.7 m total) for the JT-600.

As in previous years of drilling, core recoveries in the rubble zone were a problem. A mud engineer was brought in near the end of the program to test different mud mixtures and techniques in order to improve recoveries. It was found that recoveries over 90% could be achieved with care and the proper mud mixture.

Drill hole collars were surveyed on two occasions in August and October by Placer Dome personnel using EDM instrumentation. The survey coordinates are entered on the drill logs and are also shown on Table 3. A plan of all the drilling done thus far on the property is shown on Figure 8.

7.2 Core Logging

Core was logged using the Geolog Drill Hole Analysis System with Placer Dome's modifications and symbols. Core was logged directly onto the Geolog forms and the data entered into a computer on site. Once assay data was available the results were merged with the logs and the logs were printed out. These logs are included in Appendix II. Drill core was marked into three m intervals for sampling except where a change in lithologies necessitated a shorter interval. One page summaries of the logs are included in Appendix III.

7.3 Core Preparation

After logging all core was photographed then sent for splitting. All of the core was sawn in half using two, five horsepower electric diamond saws. One half of the core was then crushed on site to approximately -1 cm with a small electric jaw crusher. The crushed sample was then put through a splitter with one half being hermetically sealed in a plastic bag and sent to Placer Dome's lab in Vancouver, British Columbia. The sealed halves were placed in five gallon pails for storage in a warehouse in Stewart, British Columbia. Splits from Holes KS-062 to KS-101 are stored in the Stewart warehouse, the remainder are in the care of Placer Dome's lab in Vancouver.

In addition to the two saws, towards the end of the program due to a backlog in core preparation; a core splitter was pressed into action and the crushing/splitting stage was done in the Vancouver Lab. All remaining core from the 1990 drill program is stacked on site near the present camp. Most of the core from previous years of drilling remains stored at the old camp location on top of the ridge.

7.4 Sample Analysis

All core was assayed for copper and gold. A few of the initial holes were also analyzed for lead, zinc and silver. The sample preparation and analysis procedures of the Placer Dome Vancouver lab are included in Appendix IV.

As well as routine check assays done by the lab, some of the core was resampled and sent in as an independent check. The results of these checks showed an excellent correlation between the initial and check assays. A resampling of 53 samples from the ore zones of holes KS-074, KS-076, and KS-078 produced average variations between old and new samples of 0.01 g/t Au and 0.014 % Cu.

Since gold values are typically low it was decided to run 38 randomly selected samples geochemically for gold in order to determine if the cheaper method of analysis was feasible. The correlation between the assays and geochemistry was good. Overall assays tended to be five percent higher in value. It was decided to continue assaying all samples for gold as well as copper.

As a final check on assays a number of samples were sent out to four commercial labs for an additional check. These results are not yet available.

TABLE 3: KERR 1990 DIAMOND DRILLING

HOLE	NORTHING	EASTING	ELEVATION (metres)	AZIMUTH	ANGLE	DEPTH (metres)
KS-062	9697	9458	1777	090	-60	182.85
KS-063	9700	9571	1744	090	-60	198.10
KS-064	9705	9729	1727	090	-78	320.30
KS-065	9521	9582	1678	090	-60	106.70
KS-066	9678	9857	1638	---	-90	177.70
KS-067	9705	9729	1727	090	-60	256.30
KS-068	9515	9518	1683	090	-60	198.10
KS-069	9394	9932	1492	090	-60	198.10
KS-070	9617	9913	1591	090	-60	86.00
KS-071	9598	9767	1674	090	-75	281.90
KS-072	9617	9913	1591	090	-70	73.10
KS-073	9523	9862	1573	090	-60	198.10
KS-074	9598	9770	1674	---	-90	343.50
KS-075	9523	9862	1573	---	-90	251.50
KS-076	9391	9876	1513	090	-70	141.30
KS-077	9385	9758	1566	---	-90	256.00
KS-078	9785	9817	1771	090	-70	219.50
KS-079	9894	9745	1658	090	-60	100.50
KS-080	10008	9721	1619	090	-60	100.60
KS-081	10008	9721	1619	270	-70	143.30
KS-082	9902	9691	1656	090	-60	152.40
KS-083	9761	9590	1734	090	-60	306.90
KS-084	10129	9678	1548	090	-60	121.90
KS-085	10208	9693	1493	090	-55	140.20
KS-086	10208	9693	1493	---	-90	140.20
KS-087	10199	9500	1439	090	-50	204.20
KS-088	10199	9500	1439	090	-75	204.00
KS-089	9794	9712	1715	090	-68	282.50
KS-090	10287	9606	1436	090	-60	198.10
KS-091	10299	9660	1438	090	-60	159.80
KS-092	10315	9691	1438	090	-60	152.40
KS-093	10389	9701	1412	090	-60	121.92
KS-094	9705	9729	1727	270	-85	398.40
KS-095	10424	9755	1397	090	-60	100.60
KS-096	10501	9709	1367	090	-60	249.94
KS-097	10496	9818	1416	090	-60	190.90
KS-098	9761	9590	1734	---	-90	370.95
KS-099	10507	9891	1419	090	-60	152.40
KS-100	10501	9752	1386	090	-60	100.60
KS-101	10619	9881	1358	090	-60	152.40
KS-102	10607	9810	1336	090	-60	189.00
KS-103	9512	9700	1665	---	-90	305.40
KS-104	10607	9738	1326	090	-60	240.80
KS-105	10396	9569	1401	090	-60	94.49
KS-106	9900	9597	1660	090	-60	223.11
KS-107	10397	9504	1364	090	-60	124.05
KS-108	10397	9504	1364	090	-75	134.11
KS-109	9900	9597	1660	---	-90	252.07
KS-110	10591	9284	1262	090	-60	9.14
KS-111	10784	9609	1231	090	-60	170.69
KS-112	10897	9659	1177	090	-60	195.07
KS-113	10493	9620	1384	090	-60	59.43
KS-114	10493	9620	1384	090	-75	124.05
KS-115	10084	9636	1569	270	-70	352.65
KS-116	10307	9524	1401	---	-90	302.05
KS-117	10084	9636	1569	---	-90	111.86
KS-118	10307	9524	1401	090	-60	219.76
KS-119	10609	9602	1330	090	-60	258.17
KS-120	10598	9686	1323	090	-60	270.36
KS-121	10397	9412	1323	090	-60	288.64
KS-122	10678	9601	1286	090	-60	303.89
KS-123	10582	9524	1304	090	-60	337.41
KS-124	10492	9448	1321	090	-60	349.00
KS-125	10617	9481	1269	090	-60	367.89
KS-126	10781	9460	1190	090	-65	272.80
KS-127	10479	9557	1373	090	-60	282.85
KS-128	10679	9461	1236	---	-90	300.84
KS-129	10781	9460	1190	---	-90	303.89
KS-130	10393	9567	1402	090	-75	112.47
KS-131	10789	9512	1199	090	-60	249.94
KS-132	10591	9284	1262	090	-60	154.23
KS-133	10314	9688	1439	090	-75	69.00
KS-134	10314	9694	1439	090	-75	61.26

7.5 Results

Complete lab assay results are included in Appendix V. These values have also been entered on the drill log forms that are included in Appendix II. Section plans of the holes (Figs 9 to 26) graphically represent assay value composites broken down into the following intervals: less than 0.1%, 0.1 to 0.3%, 0.3 to 0.5% 0.5 to 0.8%, greater than 0.8%.

Due to poor recoveries in the rubble zone it was not known whether the assays received in these areas were representative of the actual values of the zone. Three holes were drilled adjacent to each other: KS-092, KS-133 and KS-134. The later two drilled with a mud engineer on the rig had much better recoveries, 85 to 100% compared to 15 to 70% on KS-092. Examination of results show that there is a 20% increase in gold and 25% increase in copper values on the later holes. The later two holes were drilled NQ whereas the earlier one was BQ. This may have some bearing on the results. More test drilling adjacent to some of the earlier holes could confirm whether the true grade of the rubble zone is higher than that obtained to date.

8.0 METALLURGY

8.1 Procedure

In order to get a representative sample of the mineralization, two bulk samples were taken. Bulk Sample #1 (BS-1) was taken from the crackle breccia zone at station 10305 N, 9688 E, between holes KS-091 and KS-092 . Bulk Sample #2 (BS-2) was taken from the supposed rubble zone at 10560 N, 9765 E, between holes KS-100 and KS-102 .

In both cases an area approximately 25 sq m was cleared and blasted. Grabs from the broken material were chosen at random and placed into clean 45 gallon snap lid drums and sealed. Approximately 550 kg (one drum) of material were taken from each site. The drums were shipped to Placer Dome's Vancouver lab for processing.

Earlier in the year four composites were put together from 1989 drill core rejects. A total of 560 samples were utilized and broken down into the four different ore types:

K-1: Quartz replacement-breccia: 128 samples, 505 kg, specific gravity 2.94, head grade 0.52% Cu, 0.26 g/t Au.

K-2: Rubble zone: 149 samples, 300 kg, specific gravity 2.90, head grade 0.59% Cu, 0.32 g/t Au.

K-3: Quartz anhydrite/gypsum: 259 samples, 1423 kg, specific gravity 2.96, 0.40% Cu, 0.29 g/t Au.

K-4: Quartz crackle breccia: 24 samples, 73.9 kg, specific gravity 2.90, head grade 1.30% Cu, 0.44 g/t Au.

The samples were processed by Placer Dome's metallurgical research lab in Vancouver, British Columbia. Complete procedures for the samples is discussed in Hall (1990). The following is only a very abbreviated summary of the procedures and results of those tests.

The composites as described above were split, crushed to -10 mesh in a ball mill, wet ground in a rod mill then put through various flotation and regrinding stages to produce a final concentrate.

8.2 Results

Results for the 1990 surficial bulk samples have yet to be received. Those for the 1989 core rejects are summarized below:

K-1: Problems with sericite/mica slimes producing lower grade concentrate, the problem may be supressed with the addition of desliming agents, more testing is necessary.

K-2: Similar problems with sericite to that of K-1, pyrite depression is also necessary.

K-3: Saleable copper concentrate produced after three cleaning stages.

K-4: High grade copper concentrate produced after three cleanings.

In general good copper and gold recoveries were achieved in all composites with flotation feeds in the 140 micron range. A much more comprehensive description of the results is presented in Hall (1990).

9.0 ENVIRONMENTAL STUDIES

9.1 Procedure

Norecol Environmental Consultants Ltd. began baseline studies on the Kerr property in late 1988. This program consisted of water quality sampling, hydrological data studies, climatic studies and acid rock drainage studies. In 1990 the water sampling program was continued. Samples were collected in February, May, September and November of 1990. These samples were tested for total and dissolved metals, cyanide, general physical properties and coliform.

In addition to the water sampling in September, a stream level recording station was installed on Sulphurets Creek and a recording weather station (air temperature and precipitation) was installed at the new camp located beside Sulphurets Creek. One snow gauge was installed on the ridge at the old camp site and one at the new camp site.

10.0 CONCLUSIONS AND RECOMMENDATIONS

The objective of the 1990 drill program was to increase confidence levels in tonnages and grades obtained in previous years drilling on the B-Zone. The infill drilling that was completed did establish that there is good continuity in grades throughout those portions of the zone previously drilled. At the present time drilling is fairly well established on 100 m sections with holes approximately every 50 m. A few sections require another hole or two to complete this pattern. The zone between 9800 N and 10100 N is hindered by steep topography and the presence of a small icefield and more drilling should be completed in this area (see 3.0 Recommendations). No drilling was done to the north on the Tedray 13 claim beyond that which was completed by Western Canadian Mining. This area remains wide open for further expansion of reserves. Thick overburden in this area is the only hinderance to drilling.

All 1990 data and data from previous years of drilling have been entered into computer and a complete set of data is now available in electronic form.

During 1990 a semi-permanent camp was established in the Sulphurets Creek valley which allowed a longer field season on the property. A cat trail was also established from the new camp into the northern facing cirque on the property and to the ridge where the old camp existed. This trail permitted access to a number of drill sites without the expensive use of helicopters. At present the trail is not useable by 4WD vehicles except at its lower end. Spring runoff will most likely destroy a good portion of this road in the lower portions below treeline.

11.0 STATEMENT OF EXPENDITURES

Site Costs:	
Site preparation: includes camp construction	$ 363,500
Maintenance	35,500
Camp operations: includes food, fuel, wages	320,000
Supplies and Equipment Purchases:	98,000
Communications:	32,800
Vehicles: includes maintenance and fuel:	22,100
Freight: samples, fuel, food, etc.	46,400
Aircraft: fixed wing	14,400
helicopter: includes fuel	870,500
Surveying	3,800
Geological: includes supplies and wages	166,000
Metallurgical:	12,000
Assays:	104,800
Drilling:	1,410,000
Environmental:	28,800
Expediting:	16,800
TOTAL:	$3,545,400

12.0 REFERENCES

Alldrick, D.J. and Britton, J.M.1988:
Geology and Mineral Deposits of the Sulphurets Area (104A/5,12; 104B/8,9);
BC Ministry of Energy, Mines, and Petroleum Resources; OF Map 1988-4.

Britton, J.M. and Alldrick, D.J.1988:
Sulphurets Map Area (104A/5,12; 104B/8,9); BCMEMPR, Geological Fieldwork 1987, Paper 1988-1.

Casselman, S.G.1988:
Geological and Geochemical Report on the Kerr Property; Western Canadian Mining Corporation.

Hall, D.R.1990:
Kerr Project: Bench Scale Grinding and Flotation Testing Six Composites; Placer Dome Metallurgical Research Centre, October 1990.

Hewton, R.S. et al.1989:
Kerr Project Report 1989; Sulphurets Gold Corporation.

Hewton, R.S. and Butterworth, B.P.1988:
Kerr Project Report 1988; Western Canadian Mining Corporation.

Kowalchuk, J. and Jerema, M.1987:
Geological, Geochemical, Geophysical, and Diamond Drilling Report on the Kerr Property; Western Canadian Mining Corporation.

Payne, J.1989:
Geological Report on the Kerr and Tedray Properties; for Sulphurets Gold Corporation.

13.0 APPENDICES

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Hugh J. Copland of Whitehorse, Yukon, hereby certify that:

1. I am a geologist residing at Kilometre 127.5 of the Klondike Highway, Yukon Territory, and am currently employed by Placer Dome Exploration Limited of 103 Platinum Road, Whitehorse, Yukon Y1A 5M3

2. I graduated from McMaster University, Hamilton, Ontario with a B. Eng (Mechanical) in 1976 and The University of British Columbia with a B.Sc (Honours Geology) in 1982.

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

4. I have practised my profession in British Columbia and the Yukon since graduation.

5. I supervised field activities on the Kerr Project in 1990.

John Kowalchuk
For.

Hugh J. Copland

Dated at Whitehorse, Yukon

this day of ~~January,~~ 1991.