Geochemical Sampling and Prospecting on the Kwadacha Recreation Area Claim CU8090 in the Omineca Mining Division British Columbia

NTS 94F/10W and 94F/11E

Latitude 57°37'N Longitude 125°00'W

BY

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FOR:

ECSTALL MINING CORPORATION

JANUARY 1995

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SUMMARY

The CU8090 claim is located within the Kwadacha Recreation Area in the Omineca Mining Division of British Columbia. It consists of one 16 unit modified grid claim 2 km x 2 km in size. The claim is 100% owned by Ecstall Mining Corporation and is located 22 kilometres of the Mt. Alcock sedex massive sulfide deposit and located 20 kilometres of the world class Cirque deposit, both owned by Teck Corp.

All of the above mentioned deposits and the Kwadacha barite deposit (claim CU8090) are underlain by upper Devonian (Gunsteel Formation) siliceous, pyritic, baritic black argillites. Claim CU8090 also contains the multi-million ton Kwadacha bedded barite sedex deposit discovered and mapped originally by MacIntyre and Diakow of the B.C. Geological Survey.

A previous geochemical survey by Ecstall in 1990, consisting of 44 soil samples, along a single 2.1 kilometre long ridgetop line, indicated that the northern half of the Kwadacha barite deposit was anomalous in lead (up to 309 ppm) and zinc (up to 3,800 ppm).

Ground work carried out by Ecstall in 1994 consisted mainly of geological mapping, soil sampling, prospecting and rock sampling. A total of 43 soil samples and 31 rock samples were taken and analyzed by ICP for 12 elements including lead and zinc. Anomalous values of up to 163 ppm lead, 2,859 ppm zinc, 5,970 ppm barium, 149 ppm copper, 53.3 ppm cadmium, 6.3 ppm silver, 231 ppm nickel and 900 ppm arsenic were obtained from the soil samples.

The rock samples contained only background lead and zinc contents. Similar low lead-zinc results were found by MacIntyre and Diakow who sampled and assayed one bedded barite section.

The 1994 soil sampling was done along three lines. The first line was run west directly downslope from a position 400 metres west of 1990 sample 90KD-33 and consisted of seven samples taken at 25 metre spacings across outcropping barite beds.

The second line was run roughly horizontal at 1,700 metres elevation for 1.7 kilometres across the northern and western sidehill slopes of the property. This second line, consisting of 22 samples (DS410 - DS432) taken at 50 metre spacings, started roughly 1,000 metres west of and 300 metres below the 1990 (ridgeline) soil sample line and angled southeast across the hill until sample DS432 where it ended on the ridge top near 1990 sample 90KD-19.

The third line started 600 metres further south on the ridge top 50 to 100 metres west and downslope of 1990 sample 90KD-8 and consisted of eight samples (DS433 - DS440) taken at 50 metre spacing.

Based upon the anomalous soil results obtained in 1994 and 1990, it is recommended that a follow up program be carried out, which should consist of further geochemical surveying, geological mapping, blast trenching and claim staking over anomalous areas.

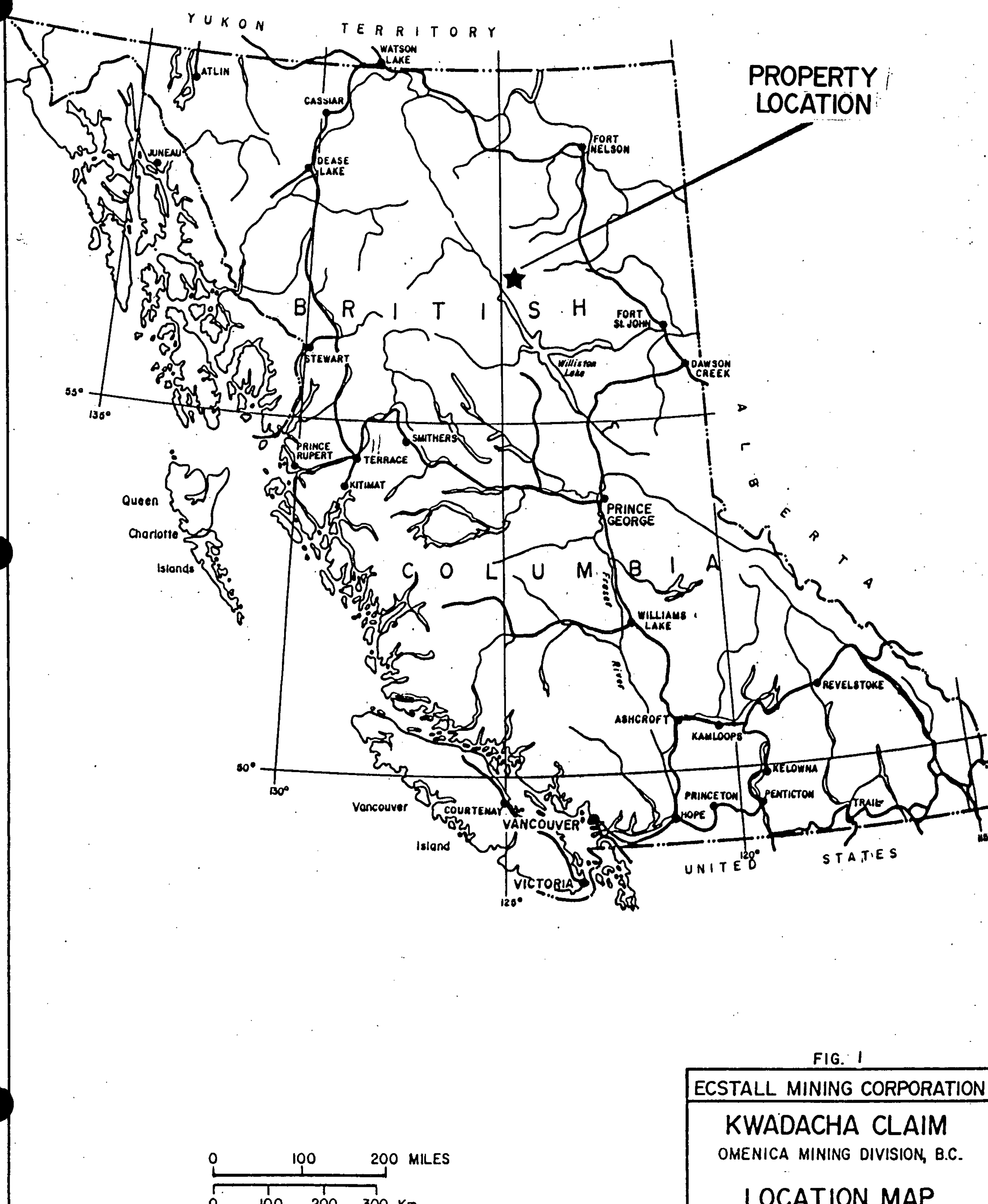


FIG. 1

ECSTALL MINING CORPORATION

KWADACHA CLAIM

OMENICA MINING DIVISION, B.C.

LOCATION MAP

INTRODUCTION

The Kwadacha claim is in the Omineca Mining Division, roughly at longitude 125°00'W and latitude 57°37'N in the Kwadacha Recreation Area on N.T.S. Mapsheets 94F/10 and 94F/11. The claim consists of a single one post claim, CU8090, that consists of 16 units. The claim is held 100% by Ecstall Mining Corporation.

The claim covers the major Kwadacha bedded barite deposit that was previously discovered and described in 1980 by Don MacIntyre and Larry Diakow of the B.C. Geological Survey. This deposit is hosted by the Gunsteel Shale Formation and occurs in the eastern fork (graben) of the southern Kechika Trough.

In 1990, Ecstall collected soil samples along a 2.2 kilometre long line along the ridge top across the bedded barite outcrops. These soil samples contained anomalous contents of lead up to 309 ppm and zinc up to 3,800 ppm.

In 1994 Ecstall carried out follow up soil sampling, prospecting and rock sampling fieldwork. A total of 43 soil samples and 31 rock samples were collected and sent to Min-En Labs Ltd. for 12 element ICP analysis.

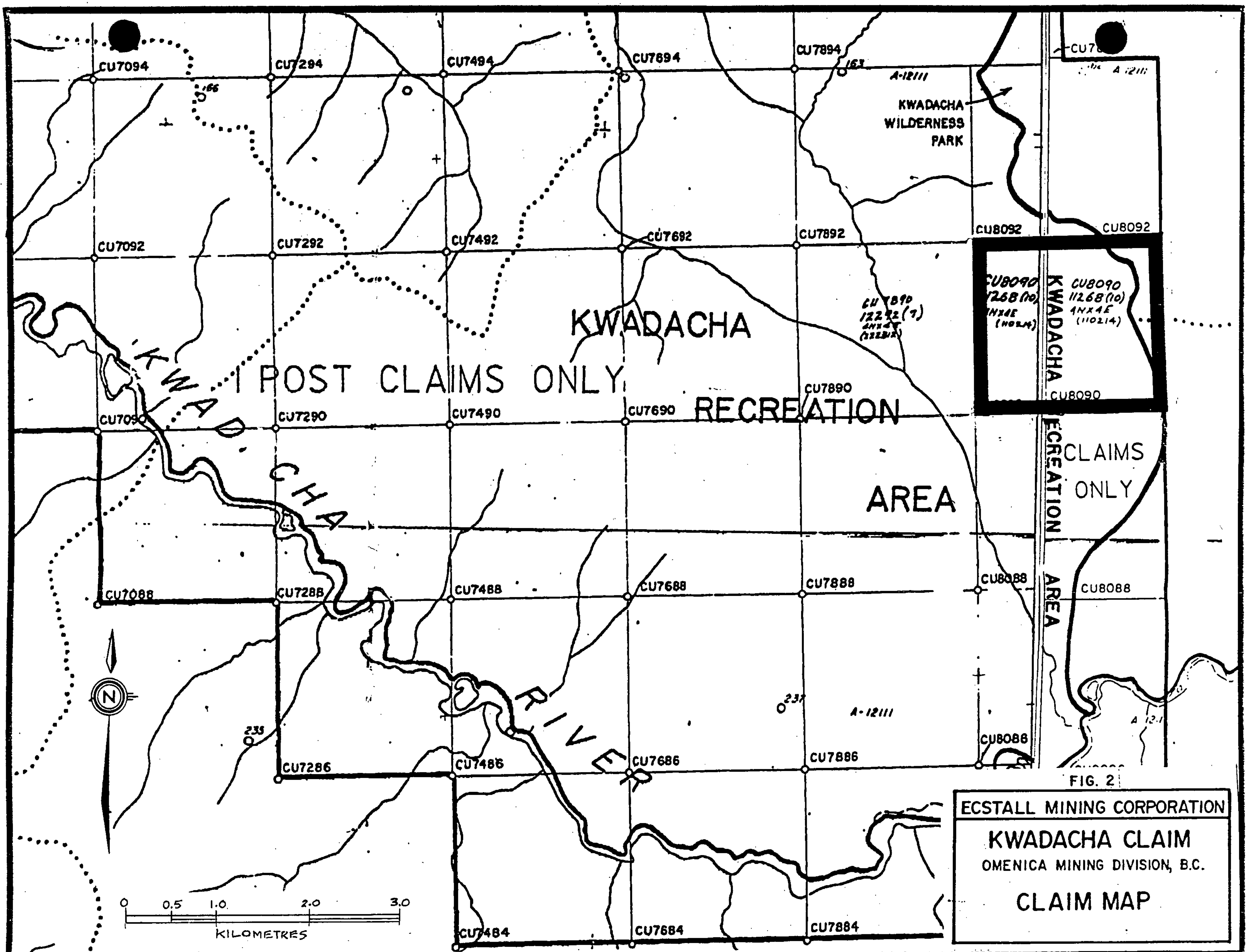


FIG. 2

ECSTALL MINING CORPORATION

KWADACHA CLAIM

OMENICA MINING DIVISION, B.C.

CLAIM MAP

LOCATION AND ACCESS

The Kwadacha claim is located within the Kwadacha Recreation area, 22 kilometres southeast of Teck Corp.'s Mt. Alcock sedex deposit and 20 kilometres east of Teck's world class Cirque sedex deposit. The center of the claim is situated at longitude 125°00'W and latitude 57°37'N on NTS mapsheets 94F/10 and 94F/11 in the Omineca Mining Division (see Figure 1). Access to the claims can be gained by helicopter from either Prophet River, at mile 233 on the Alaska Highway, or from the Finbow airstrip 60 kilometres west of the claim.

Fixed wing aircraft fly daily scheduled flights from MacKenzie north up the Rocky Mountain Trench to the Finbow Airstrip where a large Fletcher Challenge Corp. logging camp is located. Food and lodging can be obtained at this camp at reasonable rates and a helicopter is based there during normal working periods.

A mine road runs from the Finbow airstrip to Teck's Cirque deposit located 20 kilometres west of the property.

CLAIM INFORMATION

The Kwadacha claim CU8090, was staked in October 1989 by Ecstall Mining Corp. It was staked in accordance with the modified grid system and in accordance to the regulations for claims staked in recreation areas which specifies that only one post is to be placed and on the southwest corner of the claim. All such claims are bounded by and numbered/named from UTM coordinates. Claim CU8090 is 16 units in size (2 km x 2 km).

PHYSIOGRAPHY AND TOPOGRAPHY

The Kwadacha claim is located in the Muskwa Ranges within the Rocky Mountains, approximately 50 kilometres east of the Rocky Mountain trench. Elevations on the claim varies from 1,000 metres to 2,120 metres. Valley sidehills are steeply sloped and covered with much vegetation making them slippery and hazardous to traverse. Valley bottoms, as well as the lower slopes of valley sides, are generally covered by a blanket of unconsolidated glacial, alluvial and colluvial sediments ranging from a few centimetres to several metres in thickness.

Water is plentiful, in the form of snowmelt and ground water seepage. The claim is partly covered with tall spruce, abundant deadfall and dense underbrush at lower elevations, but the upper half of it is thickly covered in alpine meadow, succulent plants and flowers up to one metre high.

A continental climate prevails in the region, characterized by cold winters and short, warm summers. Snowfall accumulations are moderate to heavy, and may be up to several metres depending on elevation and seasonal variations. The area experiences the occasional winter Chinook. The property is readily workable from early June to mid October.

REGIONAL GEOLOGY

The Kwadacha property is located within the Rocky Mountain (Foreland) thrust and foldbelt of the Columbian Orogen, about 50 kilometres east of the Northern Rocky Mountain trench. Rocks in this area are Cambrian to late Devonian clastic and carbonate rocks (MacIntyre, 1981), and the major geological structure is the north-west trending Kechika Trough, which represents a southern extension of the Selwyn Basin. The Kechika trough shale basin is truncated to the west by transcurrent faults of the Rocky Mountain trench system, and bounded to the east by time facies equivalent platform carbonates and uplifted Proterozoic rocks forming the Muskwa anticlinorium (Taylor, et al., 1979).

The Kechika Trough has a **Y** or wishbone shape roughly 150 kilometres long and up to 20 kilometres wide between the two branches. These are defined as a single graben splitting or branching along strike into two grabens separated by an uplifted (horsted) area. The present outcrop and original depositional pattern of the Gunsteel Shale Formation reflects this forked, **Y** or wishbone shape. The northern portion of the Kechika Trough, containing the Driftpile Creek sedex massive sulfide-barite deposits, consists of a single graben, which continues for 50 kilometres southeast to near the Mt. Alcock sedex deposit in the Kwadacha

Recreational Area where the Kechika Trough splits into two separate southeasterly trending grabens (Akie and Kwadacha) which gradually angle or split apart.

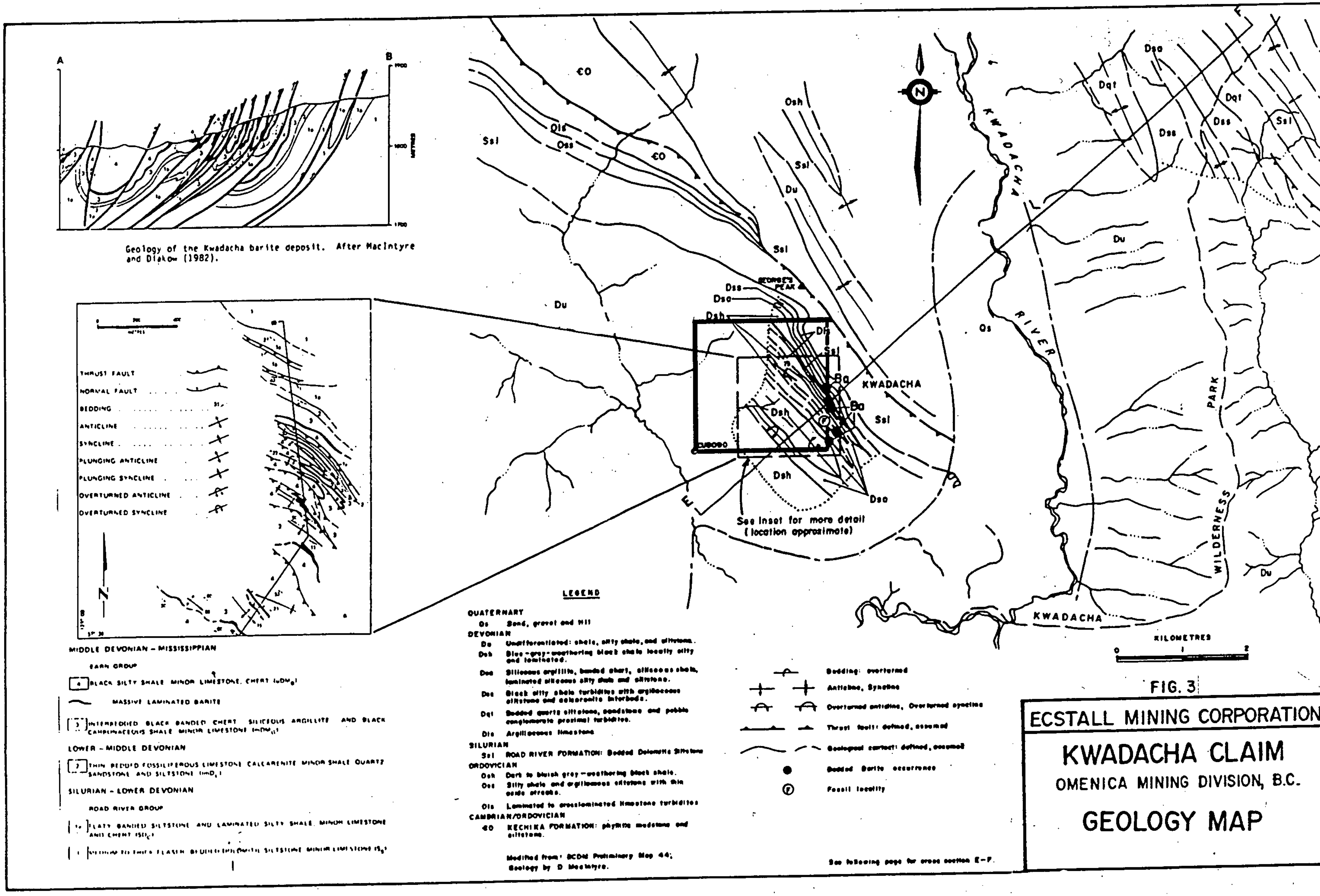
The known sedex lead-zinc bedded barite deposits including Mt. Alcock, Cirque, Pie, Fluke, Akie, and Elf all occur in the more westerly (Akie graben) branch of the southern Kechika Trough while the Kwadacha barite deposit is in the eastern branch (Kwadacha graben). Identical siliceous, pyritic, baritic Gunsteel Formation shales occur in both grabens, however to date, no lead-zinc deposits have been found in the eastern Kwadacha graben of the southern Kechika Trough.

All the rock units have been folded into a series of northwest-trending asymmetric, overturned antiforms and synforms that have both southwest and northeast-dipping axial surfaces. The latter are somewhat enigmatic in that structural transport is generally to the northeast with most of the thrust movement occurring along the southwest-dipping axial surfaces of major fold structures. The various formations of the area are arranged in a series of narrow discontinuous belts bounded by northwest-trending thrust faults.

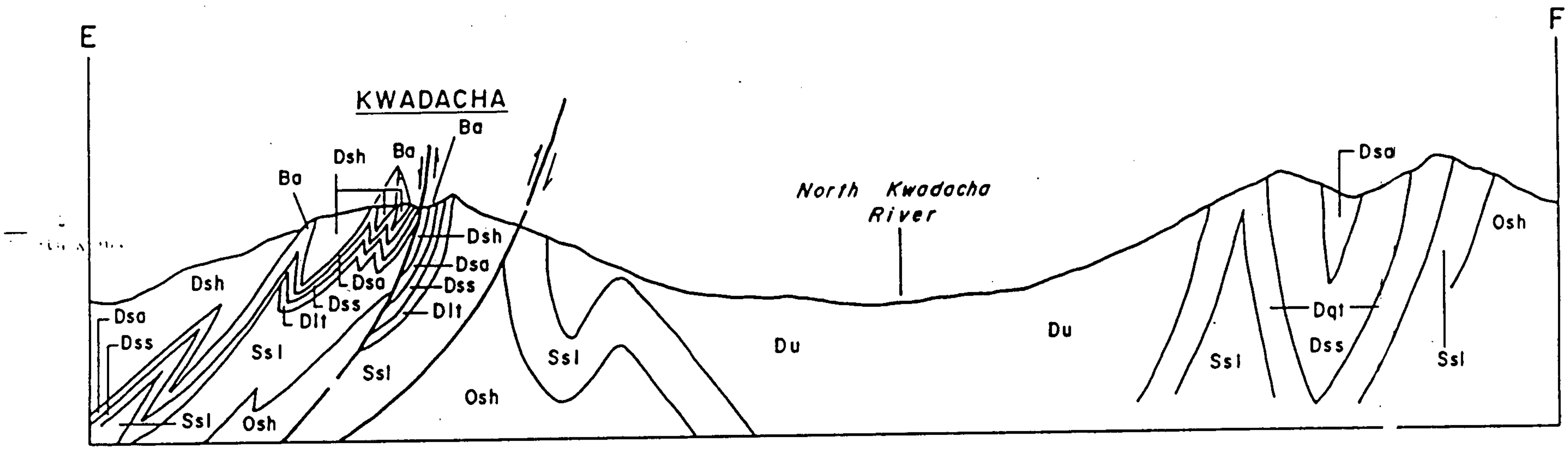
Eight major shale-hosted bedded barite occurrences are known in the Kechika Trough and all those except the Kwadacha barite deposit are known to have associated laminar banded pyrite-zinc-lead-silver mineralization. These are the Driftpile Creek, Bear, Mount Alcock, Cirque, Akie, Pie, Fluke and Elf deposits. Beds of massive and/or blebby/nodular barite occur on a regional scale hosted by the Gunsteel Shale Formation throughout the entire Kechika Trough.

PROPERTY GEOLOGY/PREVIOUS WORK

The claim is underlain by a northwest-southeast striking sequence of sedimentary rocks ranging from oldest Silurian siltstones on the northeast side, through lower to middle Devonian limestones conglomerates, sandstones and siltstones to upper Devonian black siliceous, pyritic, baritic shales of the Gunsteel Formation in the central and western area. The Kwadacha bedded barite deposit occurs in the lower portion of the Gunsteel shale sequence in a large, open, northwest plunging syncline and thrust fault repeats.



A
B
Geology of the Kwadacha barite deposit. After MacIntyre and Diakow (1982).
THRUST FAULT
NORMAL FAULT
BEDDING
ANTICLINE
SYNCLINE
PLUNGING ANTICLINE
PLUNGING SYNCLINE
OVERTURNED ANTICLINE
OVERTURNED SYNCLINE
MIDDLE DEVONIAN – MISSISSIPPIAN
EARN GROUP
4 BLACK SILTY SHALE MINOR LIMESTONE, CHERT
MASSIVE LAMINATED BARITE
3 INTERBEDDED BLACK BANDED CHERT SILICEOUS ARGILLITE AND BLACK CARBONACEOUS SHALE MINOR LIMESTONE
LOWER – MIDDLE DEVONIAN
2 THIN BEDDED FOSSILIFEROUS LIMESTONE CALCARENITE MINOR SHALE QUARTZ SANDSTONE AND SILTSTONE
SILURIAN – LOWER DEVONIAN
ROAD RIVER GROUP
1a PLATY BANDED SILTSTONE AND LAMINATED SILTY SHALE, MINOR LIMESTONE AND CHERT
€O
Ssl
Ols
Oss
Osh
Du
Dss
Dsa
Dsh
GEORGE'S PEAK
Ba
KWADACHA
Os
Dqt
KWADACHA RIVER
PARK
WILDERNESS
See inset for more detail (location approximate)
E
F
LEGEND
QUATERNARY
Os Sand, gravel and till
DEVONIAN
Du Undifferentiated: shale, silty shale, and siltstone.
Dsh Blue-grey-weathering black shale locally silty and laminated.
Dsa Siliceous argillite, banded chert, siliceous shale, laminated siliceous silty shale and siltstone.
Dss Black silty shale turbidites with argillaceous siltstone and calcarenite interbeds.
Dqt Bedded quartz siltstone, sandstone and pebble conglomerate proximal turbidites.
Dls Argillaceous limestone
SILURIAN
Ssl ROAD RIVER FORMATION: Bedded Dolomitic Siltstone
ORDOVICIAN
Osh Dark to bluish grey-weathering black shale.
Oss Silty shale and argillaceous siltstone with thin oxide streaks.
Ols Laminated to crosslaminated limestone turbidites
CAMBRIAN/ORDOVICIAN
€O KECHIKA FORMATION: phyllite mudstone and siltstone.
Modified from: BCDM Preliminary Map 44; Geology by D MacIntyre.
Bedding: overturned
Anticline, Syncline
Overturned anticline, Overturned syncline
Thrust fault: defined, assumed
Geological contact: defined, assumed
Bedded Barite occurrence
Fossil locality
See following page for cross section E-F.
KILOMETRES
0
1
2
FIG. 3
ECSTALL MINING CORPORATION
KWADACHA CLAIM
OMENICA MINING DIVISION, B.C.
GEOLOGY MAP



DEVONIAN

Du	Undifferentiated: shale, silty shale, and siltstone.
Dsh	Blue-grey-weathering black shale locally silty and laminated.
Dsa	Siliceous argillite, banded chert, siliceous shale, laminated siliceous silty shale and siltstone.
Dss	Black silty shale turbidites with argillaceous siltstone and calcarenite interbeds.
Dqt	Bedded quartz siltstone, sandstone and pebble conglomerate proximal turbidites.
Dlt	Bedded limestone turbidites and debris flows.

SILURIAN

Ssl	ROAD RIVER FORMATION: Bedded dolomitic siltstone.

ORDOVICIAN

Osh	Dark to bluish grey - weathering black shale.

KILOMETRES

0 1 2

FIG. 4

ECSTALL MINING CORPORATION

KWADACHA CLAIM

OMENICA MINING DIVISION, B.C.

CROSS SECTION
E-F

Detailed mapping performed by the BCDM during the 1981 field season, of the area of claim CU8090 and the region surrounding it, outlined and described the major Kwadacha barite deposit. Figures show the geology of the claim and the area surrounding it; taken from BCDM Preliminary Map 44 (D. MacIntyre). Relevant information from that report (MacIntyre & Diakow, 1981) is presented below:

> *"The stratigraphic setting of the Kwadacha barite deposit is similar to that of other barite-sulphide deposits in the Driftpile Creek-Akie River District (see MacIntyre, 1981). In general, the baritic zone occurs near the top of a resistant unit of rhythmically bedded black chert, siliceous argillite, silty shale and minor limestone. This unit is overlain by black shale and underlain by grey fossiliferous limestones and calcarenites."*
>
> *"Some of the silica in surrounding silica rich sediments may have been introduced by submarine exhalitive activity that preceded and accompanied formation of the Kwadacha barite deposit."*
>
> *"Bedded barite is repeated by imbricate thrust faults and folding along the crest of a north-trending ridge. The barite is resistant and outcrops in two zones."*

1994 GEOCHEMICAL SAMPLING PROGRAM AND RESULTS

In 1990 a soil line 2,150 metres long, with samples collected at 50 metre intervals, was established along the top of the ridge on claim CU8090 crossing the Kwadacha barite deposit (see Figure 6). A total of 44 soil samples were taken and analysis of these samples revealed that a total of 34 were anomalous in lead >50 ppm and zinc > 500 ppm. There were eight samples containing >100 ppm lead and >1,000 ppm zinc. Values of up to 309 ppm lead 3,800 ppm zinc were obtained, [both these were from the same sample (90KD-20)] and the potential for a lead-zinc sedex deposit to occur associated with the Kwadacha barite deposit was further explored by the 1994 soil sampling work.

Ground work carried out by Ecstall in 1994 consisted mainly of geological mapping, soil sampling, prospecting and rock sampling. This follow up program consisted of taking 43 soil samples and 31 rock samples. These rock and soil samples were all sent to Min-En Labs in Vancouver for 12 element ICP analysis including lead and zinc. Anomalous values of up to 163 ppm lead, 2,859 ppm zinc, 5,970 ppm barium, 149 ppm copper, 53.3 ppm cadmium, 6.3 ppm silver, 231 ppm nickel and 900 ppm arsenic were obtained from the soil samples.

The 1994 soil sampling was done along three lines. The first line was run west directly downslope from a position 400 metres west of 1990 sample 90KD-33 and consisted of seven samples (DS402 - DS409) taken at 25 metre spacings across outcropping barite beds.

The second line was run roughly horizontal at 1,700 metres elevation for 1.7 kilometres across the northern and western sidehill slopes of the property. It consisted of 22 samples (DS410 - DS432) taken at 50 metre spacings, starting roughly 1,000 metres west of and 300 metres below the 1990 (ridgeline) soil sample line and angled across the hill until sample DS432 where it ended on the ridge top near 1990 sample 90KD-19.

The third line started 600 metres further south on the ridge top 50 to 100 metres west and downslope of 1990 sample 90KD-8 and consisted of eight samples (DS433 - DS440) taken at 50 metre spacing.

The analytical results show that the rock samples only contained background contents of lead or zinc.

Anomalous contents of lead (> 50 ppm) were found in four soil samples, anomalous zinc (> 1,000 ppm) in eight samples, anomalous cadmium (> 10 ppm) in ten samples, anomalous arsenic (> 300 ppm) in 17 samples, anomalous nickel (> 100 ppm) in ten samples, anomalous copper (> 128 ppm) in two samples and anomalous silver (> 3 ppm) in five samples. The manganese contents were not high relative to the general background for the Gunsteel Shale (< 688 ppm Mn) but in this survey the highest values of manganese occur in those samples with highest zinc contents. The low manganese contents and low iron contents (< 2%) indicate the high zinc values have not been scavenged and re-concentrated in gossans. All the samples with high zinc contents also have high cadmium contents which indicates a sphalerite sulfide source.

The high arsenic contents and the high silver contents indicate that there was significant metalliferous component to the sedex hydrothermal system which generated and deposited the Kwadacha barite beds.

CONCLUSIONS AND RECOMMENDATIONS

Further exploration work should be carried out on the CU8090 claim to investigate the bedrock source of the lead-zinc anomalies. A grid should be established and additional geological mapping, prospecting, soil sampling and rock sampling surveys be carried out in order to define drill targets.

REFERENCES

1990 BC DM Assess Report # 20,494, Geochemical Soil Sampling Survey on the Kwadacha Claim CU8090 by Ecstall Mining Corporation.

Gabrielse, H. (1977): Geological Map of Ware West Half and Toodoggone River Map-Areas, Geological Survey, Canada, Open File Report 483.

MacIntyre, D.G. (1980a): Geological Compilation and Mineral Occurrence Map, Driftpile Creek - Akie River Ba-Pb-Zn Districts, B.C. Ministry of Energy, Mines & Petroleum Resources, Preliminary Map 38.

MacIntyre, D.G. (1980b): Driftpile Creek - Akie River Project: B.C. Ministry of Energy, Mines & Petroleum Resources, Geological Fieldwork, 1979, Paper 1980 - 1, pp. 55 - 67.

MacIntyre, D.G. (1981): Cirque Barite-Zinc-Lead-Silver Deposit; B.C. Ministry of Mines and Petroleum Resources, Geological Fieldwork, 1979, Paper 1980, pp. 69 - 74.

MacIntyre, D.G. (1981): Akie River Project, B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1980, Paper 1981 - 1, pp. 33 - 47.

MacIntyre, D.G. and Diakow, L. (1981): Kwadacha Barite Deposit; B.C. Ministry of Mines and Petroleum Resources, Geological Fieldwork, 1981, Paper 1982, pp. 149 - 155.

APPENDIX I

GEOCHEMICAL ANALYSIS RESULTS

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MIN-EN LABS — ICP REPORT

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TEL:(604)980-5814 FAX:(604)980-9621

FILE NO: 4V-0903-SJ5+6
DATE: 94/09/12
* soil * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CD PPM	CU PPM	FE %	K %	MN PPM	NA %	NI PPM	PB PPM	ZN PPM
DS-385	.6	1	103	.1	9	1.10	.11	8	.01	15	22	90
DS-386	.4	1	95	.1	5	.32	.11	6	.01	5	15	39
DS-387	1.3	1	595	5.8	54	2.58	.25	174	.01	85	177	737
DS-388	.1	1	183	.1	22	1.21	.22	21	.01	27	41	175
DS-389	.1	1	150	.1	19	1.81	.16	98	.01	24	61	151
DS-390	1.1	1	132	.1	9	.60	.12	13	.01	10	20	76
DS-391	.3	1	141	1.2	59	2.47	.15	221	.01	78	126	690
DS-392	.1	1	104	.1	30	1.56	.10	89	.01	50	61	371
DS-393	.2	1	204	1.6	57	2.17	.17	142	.01	48	99	515
DS-394	.7	1	169	.1	23	1.63	.17	42	.01	29	76	204
DS-395	.3	1	170	.1	11	.77	.15	19	.01	13	33	79
DS-396	.7	1	184	.3	45	2.00	.07	52	.01	20	76	105
DS-397	.1	1	87	.1	7	.48	.13	4	.01	5	77	36
DS-398	.1	1	257	.7	63	2.27	.26	136	.01	40	116	373
DS-399	.1	1	224	.1	56	3.04	.25	191	.01	38	83	351
DS-400	.1	1	252	.1	6	.43	.08	17	.01	9	11	66
DS-401	.1	1	362	.1	24	1.64	.11	52	.01	32	58	251
DS-402	1.1	184	496	.2	48	1.48	.31	24	.01	32	22	188
DS-403	4.8	1	202	3.6	88	6.08	.89	38	.02	44	33	224
DS-404	6.3	653	231	7.8	149	5.77	.97	109	.01	62	67	368
DS-405	4.6	414	1607	16.5	128	3.14	.58	203	.01	104	39	766
DS-406	4.0	900	638	53.3	85	1.89	.63	191	.01	231	39	2859
DS-407	1.8	390	398	.3	59	1.68	.36	14	.01	77	24	551
DS-408	2.2	433	1112	39.8	47	1.17	.31	688	.01	89	87	2414
DS-409	3.6	319	241	18.7	70	1.51	.52	313	.01	121	47	1469
DS-410	.7	1	413	10.2	25	1.44	.22	258	.01	78	35	889
DS-411	1.0	1	252	21.6	26	1.49	.22	346	.01	66	34	1092
DS-412	.1	1	404	11.6	22	1.20	.27	536	.01	54	27	696
DS-413	.1	1	374	2.4	31	1.57	.27	76	.01	66	27	623
DS-414	1.0	353	931	8.6	51	1.74	.50	244	.01	114	42	1342
DS-415	.7	640	547	5.2	47	1.75	.36	138	.01	90	35	894
DS-416	2.1	729	461	10.9	47	1.49	.37	230	.01	111	163	2441
DS-417	1.3	617	1239	1.7	44	1.65	.26	102	.01	78	41	612
DS-418	2.3	471	1661	6.5	75	2.44	.30	132	.01	111	30	1078
DS-419	.1	1	536	3.8	30	1.70	.24	435	.01	73	35	724
DS-420	.1	1	646	5.1	29	1.52	.16	366	.01	63	39	611
DS-421	2.1	555	398	10.8	48	1.62	.30	631	.01	158	36	1870
DS-422	.2	129	884	1.9	26	1.32	.17	83	.01	65	25	467
DS-423	2.3	659	473	.1	44	1.83	.24	22	.01	82	21	530
DS-424	.3	1	3377	.4	16	.84	.17	18	.01	32	13	180
DS-425	.8	456	4016	.1	24	1.62	.23	46	.01	74	27	484
DS-426	.6	1	5507	.7	23	1.50	.13	26	.01	106	36	526
DS-427	.2	312	5970	.1	16	1.36	.17	44	.01	99	15	397
DS-428	.3	333	4615	.9	16	1.66	.15	64	.01	123	8	588
DS-429	1.3	796	2643	1.4	70	2.25	.36	90	.01	158	22	850
DS-430	1.6	1	1990	.2	98	2.67	.20	57	.01	49	33	233
DS-431	1.4	1	3235	1.9	59	1.45	.27	65	.01	36	37	194
DS-432	.1	1	2220	.4	28	1.36	.29	46	.01	25	60	177

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MIN-EN LABS — ICP REPORT

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FILE NO: 4V-0904-SJ1+2
DATE: 94/09/01
* * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CD PPM	CU PPM	FE %	K %	MN PPM	NA %	NI PPM	PB PPM	ZN PPM
DS-433	.1	1	587	.1	55	7.25	.27	866	.01	145	81	169
DS-434	.1	1	707	.1	25	2.45	.40	41	.01	22	65	53
DS-435	.1	1	726	.1	50	3.26	.47	231	.01	62	69	177
DS-436	.5	1	809	.1	8	1.85	.38	3	.01	6	45	20
DS-437	.5	1	408	.1	10	.87	.09	13	.01	13	17	84
DS-438	.2	1	743	.1	1	.42	.10	1	.01	2	15	28
DS-439	.4	1	369	.1	2	.60	.15	21	.01	3	23	28
DS-440	1.2	1	1471	.1	17	1.89	.06	382	.01	42	25	294
DS-441	1.4	960	227	3.2	69	1.67	.09	165	.01	82	39	415
DS-441A	.1	1	368	.1	30	2.41	.04	216	.01	38	21	246
DS-442	.5	1	292	.1	12	1.40	.12	56	.01	17	45	89
DS-443	.3	1	166	.1	19	1.99	.13	10	.01	24	35	90
DS-444	.4	1	213	.1	5	.99	.23	4	.01	2	37	15
DS-445	.4	1	308	.1	18	1.94	.30	80	.01	13	60	69
DS-446	.1	1	627	.1	139	3.87	.36	293	.01	52	65	248
DS-447	.1	1	554	.1	175	4.53	.36	177	.01	70	79	312
DS-448	.4	1	202	.1	22	2.63	.22	13	.01	34	140	342
DS-449	.7	1	151	.1	3	.81	.15	4	.01	3	68	34
DS-450	.1	1	162	.1	11	1.60	.15	25	.01	11	53	82
DS-451	.8	1	207	.1	11	2.79	.15	78	.01	14	78	90
DS-452	.9	189	329	.1	22	2.65	.17	37	.01	26	230	167
DS-453	.5	4	169	.1	17	1.20	.09	13	.01	13	123	83
DS-454	.8	222	245	.1	24	1.77	.14	7	.01	22	392	145
DS-455	1.4	1	268	.1	27	1.87	.17	18	.01	23	176	165
DS-456	1.0	1	267	.1	31	1.87	.18	16	.01	30	282	190
DS-457	4.0	1	383	.1	28	2.51	.18	118	.01	21	194	126
DS-458	.8	1	329	.1	18	1.98	.15	18	.01	16	451	124
DS-459	.5	1	284	.1	11	1.27	.12	20	.01	12	343	89
DS-460	.3	1	186	.1	11	1.05	.10	15	.01	8	445	102
DS-461	.6	1	322	.1	7	1.33	.18	1	.01	5	204	32
DS-462	.4	1	299	.1	8	1.17	.16	3	.01	6	279	37
DS-463	1.4	1	398	.1	15	2.58	.24	29	.01	11	489	101
DS-464	1.0	1	997	.1	329	6.44	.17	44	.01	85	184	883
DS-465	1.7	62	613	.1	14	2.28	.30	1	.01	6	290	35
DS-466	3.0	1	595	.1	21	2.54	.30	11	.01	12	415	76
DS-467	1.5	1	392	.1	16	1.85	.20	61	.01	12	166	92
DS-468	.2	1	391	.1	34	1.92	.15	137	.01	20	108	225
DS-469	.8	1	324	.1	23	2.09	.19	124	.02	18	144	169
DS-470	.1	1	235	.1	36	2.36	.15	279	.01	25	377	171
DS-471	.2	1	369	.1	26	1.90	.19	64	.01	17	124	203
DS-472	.1	1	395	.1	52	3.34	.21	89	.01	32	111	244
DS-473	.5	1	213	.1	25	1.79	.19	57	.01	18	68	138
DS-474	.1	1	172	.1	29	2.35	.16	74	.01	29	117	179
DS-479	.1	1	329	21.8	41	>15.00	.06	9866	.01	877	8	5540
DS-480	.1	1	487	>100.0	39	6.48	.06	1123	.01	718	61	7505
DS-481	.1	1	226	.1	54	13.29	.06	5745	.01	286	90	3045
DS-482	.1	1	136	10.7	253	10.21	.08	1312	.01	244	85	3142
DS-483	.3	1	70	.1	34	3.11	.04	287	.01	44	35	192

Rock Samples

COMP: ECSTALL
PROJ:
ATTN:

MIN-EN LABS — ICP REPORT
705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
TEL:(604)980-5814 FAX:(604)980-9621

FILE NO: 4V-0967-RJ3+4
DATE: 94/09/20
* * (ACT:F31)

SAMPLE NUMBER	AG PPM	AS PPM	BA PPM	CD PPM	CU PPM	FE %	K %	MN PPM	NA %	NI PPM	PB PPM	ZN PPM
KWADACHA-01	.1	12	3134	.1	28	.65	.04	12	.01	31	3	144
KWADACHA-02	.1	1	3280	.6	9	.21	.03	4	.01	12	2	29
KWADACHA-03	.1	64	3041	1.0	6	.22	.04	6	.01	14	6	34
KWADACHA-04	.1	1	3232	.5	7	.18	.03	3	.01	3	1	16
KWADACHA-05	.1	40	2970	.1	6	.18	.01	8	.01	7	5	42
KWADACHA-06	.1	121	3134	.1	11	1.00	.07	16	.01	11	11	50
KWADACHA-07	.1	105	3436	.1	8	.18	.03	6	.01	3	6	41
KWADACHA-08	.9	206	4182	.4	11	.21	.02	19	.01	12	7	58
KWADACHA-09	1.4	345	4086	.1	13	.51	.04	12	.01	10	7	38
KWADACHA-10	.8	188	3073	.9	14	.36	.02	14	.01	12	7	31
KWADACHA-11	.6	178	3904	.1	12	.19	.03	5	.01	4	4	20
KWADACHA-12	1.1	1	3816	1.6	10	.32	.01	28	.01	31	4	143
KWADACHA-13	1.6	432	4865	7.4	26	.49	.34	22	.01	21	14	228
KWADACHA-14	1.1	481	4025	2.8	38	.23	.04	24	.01	16	4	188
KWADACHA-15	1.7	462	2052	3.9	33	.67	.35	41	.01	27	16	220
KWADACHA-16	.5	68	3467	.3	4	.27	.07	5	.01	4	9	14
KWADACHA-17	.6	114	3467	.1	4	.29	.09	8	.01	4	11	14
KWADACHA-18	.2	176	3190	.1	7	.26	.05	4	.01	7	8	48
KWADACHA-19	.7	359	3628	.1	9	.40	.07	27	.01	13	9	20
KWADACHA-20	1.0	121	6102	.5	5	.15	.04	5	.01	6	4	16
KWADACHA-21	1.0	162	3935	.9	4	.20	.03	6	.01	6	2	19
KWADACHA-22	1.0	49	4240	1.3	10	.47	.08	5	.01	17	5	53
KWADACHA-23	.6	165	3777	.3	6	.34	.03	9	.01	13	8	21
KWADACHA-24	2.3	1198	>10000	10.8	7	.34	.07	75	.01	16	9	288
KWADACHA-25	.6	178	3482	.8	3	.12	.02	10	.01	11	3	50
KWADACHA-26	.9	124	5374	1.7	27	.60	.05	27	.01	35	9	95
KWADACHA-27	.9	272	4063	.2	21	.40	.07	22	.01	21	22	65
KWADACHA-28	1.4	184	3520	4.3	20	.54	.28	21	.01	19	18	156
KWADACHA-29	1.1	333	5684	4.4	36	.54	.19	31	.01	27	23	157
KWADACHA-30	.7	257	>10000	.2	7	.14	.02	37	.01	8	5	28
KWADACHA-31	.4	308	3755	.1	11	.24	.03	18	.01	20	4	70

Silt/Soil Samples

KWADACHA-1	1.0	1	1864	.1	95	2.91	.29	178	.01	114	31	348
KWADACHA-2	2.4	1	1391	.1	79	2.66	.35	116	.01	145	74	591
KWADACHA-3	.2	1	1024	.1	85	3.53	.29	110	.01	77	63	267
KWADACHA-4	.1	1	362	.1	104	5.72	.62	444	.01	105	88	133

TABLE 12

Geochemistry of the Kwadacha Barite Deposit

Metres above base	SiO2 %	TiO2 %	Al2O3 %	Fe2O3 %	K2O %	P2O5 %	Org C %	Ba %	Sr %	Mn ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Co ppm	Ni ppm	Hg ppb
31.5	44.68	0.430	8.55	0.70	2.480	0.02	0.97	21.42	0.05	24	0.60	23	7	6	2	2	147
31.5	28.90	0.150	1.74	3.44	0.580	0.16	-0.10	36.01	0.07	7	0.30	35	4	67	1	5	142
29.1	40.62	0.110	0.88	0.22	0.190	0.05	0.50	32.85	0.03	7	0.30	7	5	10	1	6	28
28.9	43.18	0.080	0.30	0.16	0.030	0.02	0.10	32.18	0.04	9	0.30	5	4	23	1	8	15
28.8	37.07	0.120	0.90	0.57	0.190	0.07	0.32	35.05	0.04	8	0.30	18	5	93	2	33	18
28.3	28.58	0.110	0.65	0.38	0.100	0.05	0.20	40.91	0.04	6	0.30	14	5	45	1	19	23
28.0	30.97	0.110	0.62	0.20	0.100	0.05	0.39	39.17	0.04	2	0.30	8	5	18	1	13	20
27.9	33.68	0.130	1.08	0.52	0.200	0.07	0.32	36.89	0.04	5	0.30	28	6	67	4	24	53
27.4	25.08	0.100	0.45	0.11	0.050	0.04	0.47	38.54	0.09	50	0.30	4	4	16	1	6	15
27.3	0.86	0.130	0.39	0.19	0.080	0.05	-0.10	57.70	0.05	4	0.30	8	2	22	1	6	15
27.1	38.64	0.090	0.46	0.16	0.040	0.03	0.28	35.49	0.04	2	0.30	10	4	6	1	4	15
26.9	35.09	0.140	1.25	0.75	0.320	0.04	0.51	35.40	0.04	15	0.30	22	3	101	1	42	35
26.9	35.43	0.140	1.31	0.76	0.320	0.05	0.52	35.35	0.04	12	0.30	24	6	99	2	38	37
26.7	30.09	0.110	0.56	0.30	0.100	0.03	-0.10	40.23	0.04	2	0.30	9	5	26	1	14	15
26.0	5.37	0.130	0.39	0.15	0.080	0.08	-0.10	55.80	0.04	2	0.30	7	6	17	1	12	15
19.0	3.13	0.120	0.41	0.16	0.060	0.21	-0.10	56.18	0.12	5	0.60	9	4	42	1	12	15
10.0	21.84	0.100	0.44	0.10	0.040	0.02	-0.10	44.95	0.10	2	0.30	8	7	17	1	6	15
9.0	47.11	0.090	0.53	0.21	0.080	0.03	0.14	29.89	0.14	4	0.30	17	4	23	1	11	15
4.4	62.85	0.120	1.41	0.45	0.270	0.05	0.77	17.86	0.08	12	0.30	83	12	87	1	32	84

massive ~~bedded~~ barite

nodular barite

All analyses done in the B.C. Geological Survey Analytical Laboratory

Thee Section is ~~located~~ towards N. end of showing area across the first section of barite you come across going towards the South

Panel of Sil. Siltstone → Ls ~~debris flows~~ → Cherty argillite → bedded barite

N → S

Appendix II

STATEMENT OF EXPENDITURES

Property examination, prospecting, rock and soil geochemical sampling (July 15, 1994) by C. Graf, P.Eng and D. Sharp (Ecstall Mining Corporation).

Expenditures

Helicopter	2.5 hours x $800.00	$2,000.000
Wages	Graf	$500.000
	Sharp	$300.000
Analytical Costs		$300.000
Camp costs		$100.000
	Total Expenditures	**$3,200.000**

APPENDIX III

STATEMENT OF QUALIFICATION

Statement of Qualifications

I, Chris Graf, of 307 - 475 Howe Street, Vancouver, British Columbia, Canada, hereby certify that:

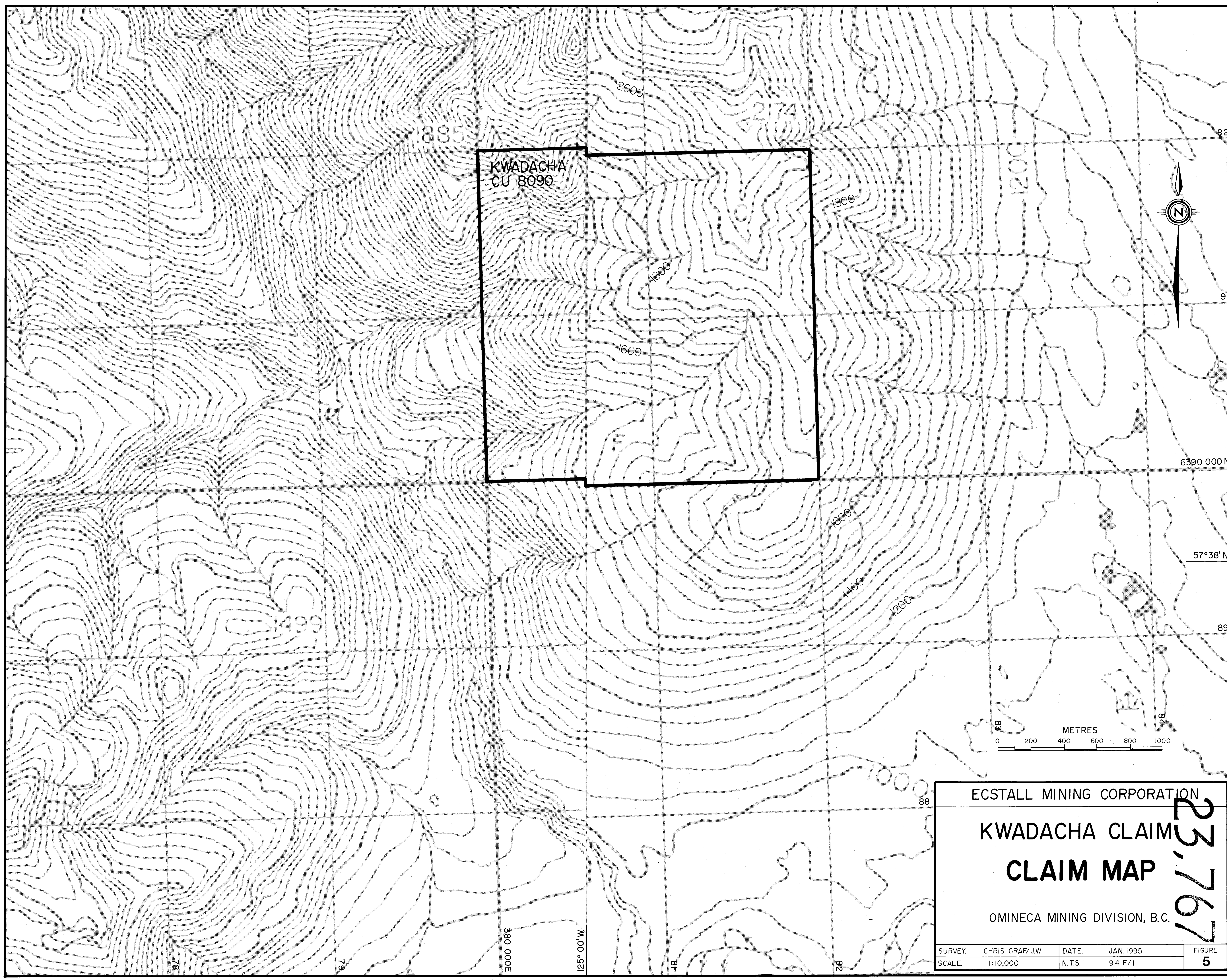
1. I graduated with a B.A.Sc. (Geological Engineering) from the University of British Columbia.

2. I am a registered member of the Association of Professional Engineers of British Columbia, and have been since 1980.

3. I have been practicing my geological engineering profession since 1974.

Signed in Vancouver, British Columbia, on the 24th day of January, 1995.

Chris Graf, B.A.Sc., P.Eng.



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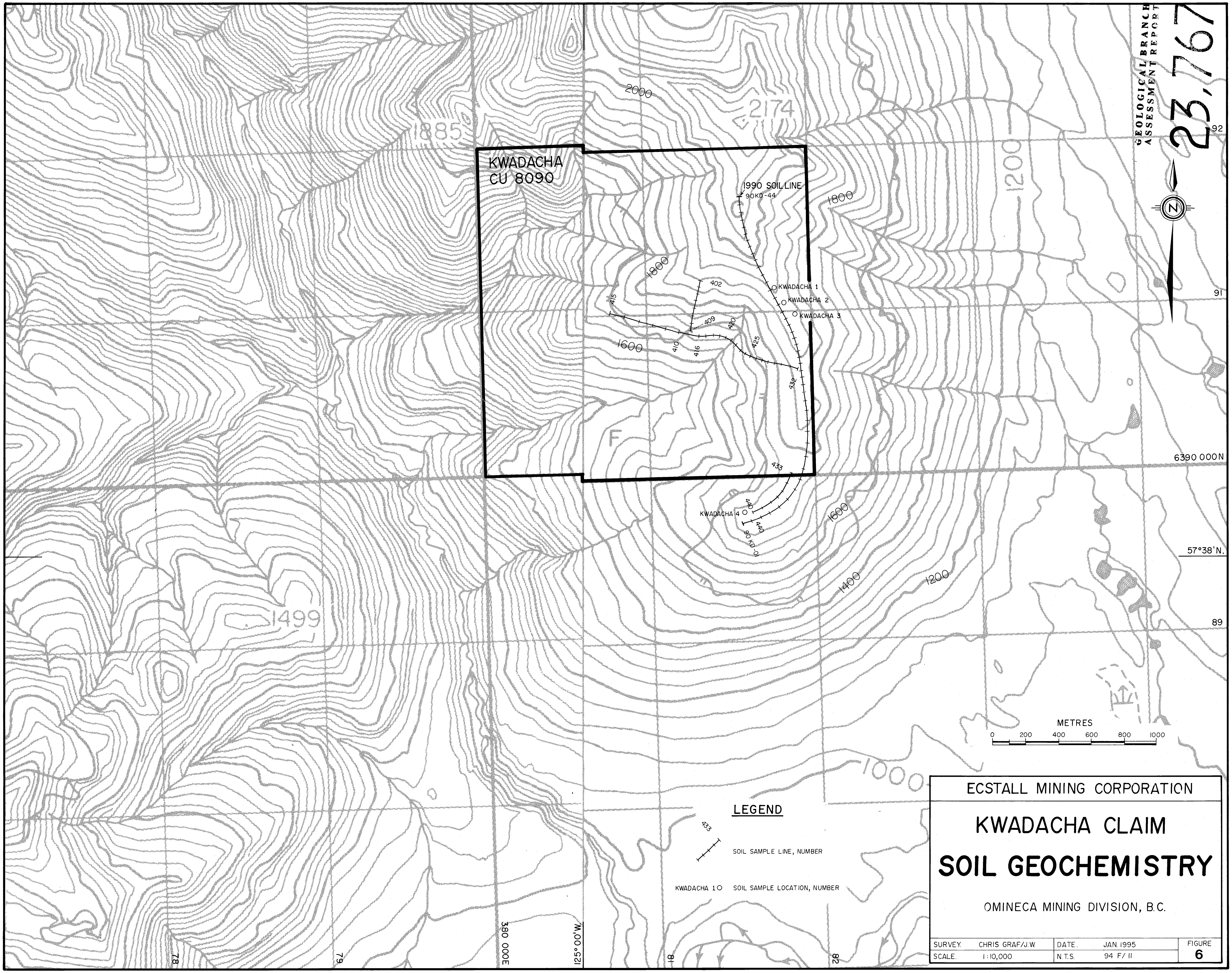
GEOLOGICAL BRANCH
ASSESSMENT REPORT



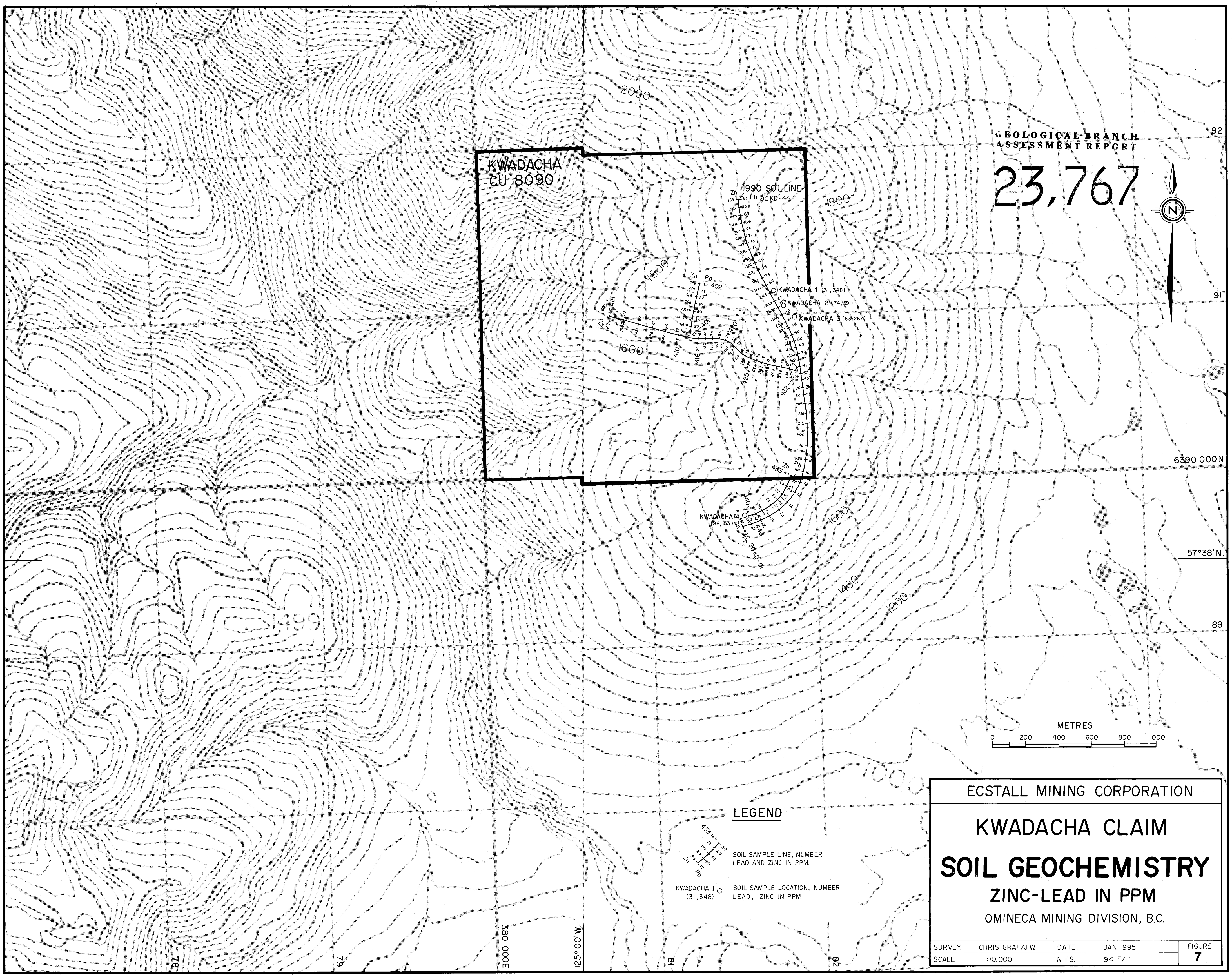
ECSTALL MINING CORPORATION

KWADACHA CLAIM

SOIL GEOCHEMISTRY

OMINECA MINING DIVISION, B.C.

SURVEY.	CHRIS GRAF/J.W.	DATE.	JAN 1995	FIGURE
SCALE.	1:10,000	N.T.S.	94 F/ 11	6



ECSTALL MINING CORPORATION

KWADACHA CLAIM

SOIL GEOCHEMISTRY

ZINC-LEAD IN PPM

OMINECA MINING DIVISION, B.C.

SURVEY	CHRIS GRAF/J.W.	DATE	JAN 1995	FIGURE
SCALE	1:10,000	N.T.S.	94 F/11	7