



I.M. WATSON & ASSOCIATES LTD.

87-223-16025  
3/88

Reconnaissance Geochemical Survey  
of the  
SCOT PROPERTY  
Scottie Creek, Kamloops M.D., B.C.

92I/14W

50°59.4' 121°23.8'

For:

Operator: Granges Exploration Ltd.

Owner(s): Granges Exploration Ltd.  
Valhalla Energy Corp.

By:

I. M. Watson & Associates Ltd.

FILMED

16,025

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

I. M. Watson, P.Eng.  
Vancouver, B.C.

30 April 1987

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GRANGES EXPLORATION LTD.

SCOT GROUP  
INDEX MAP

Figure 1

## INTRODUCTION

The SCOT property is situated on Chrome Creek, the northern tributary of Scottie Creek, 20 kilometres north of Cache Creek in south central B.C.

Chromite bearing ultrabasic intrusions along the Scottie/Chrome Creek valleys have been explored since the early 1900's. Recent increases in the price of platinum and old reports of platinum-bearing stream sediments in Chrome and Scottie Creeks prompted renewed interest in the area.

During the period September 16th to October 21st, 1986, I.M. Watson & Associates Ltd. carried out a reconnaissance geochemical survey of the SCOT Group on behalf of Granges Exploration Ltd. The purpose of the programme was to test the area for the presence of platinum group metals in stream sediments, soils and rocks. This report summarises the results of the work.

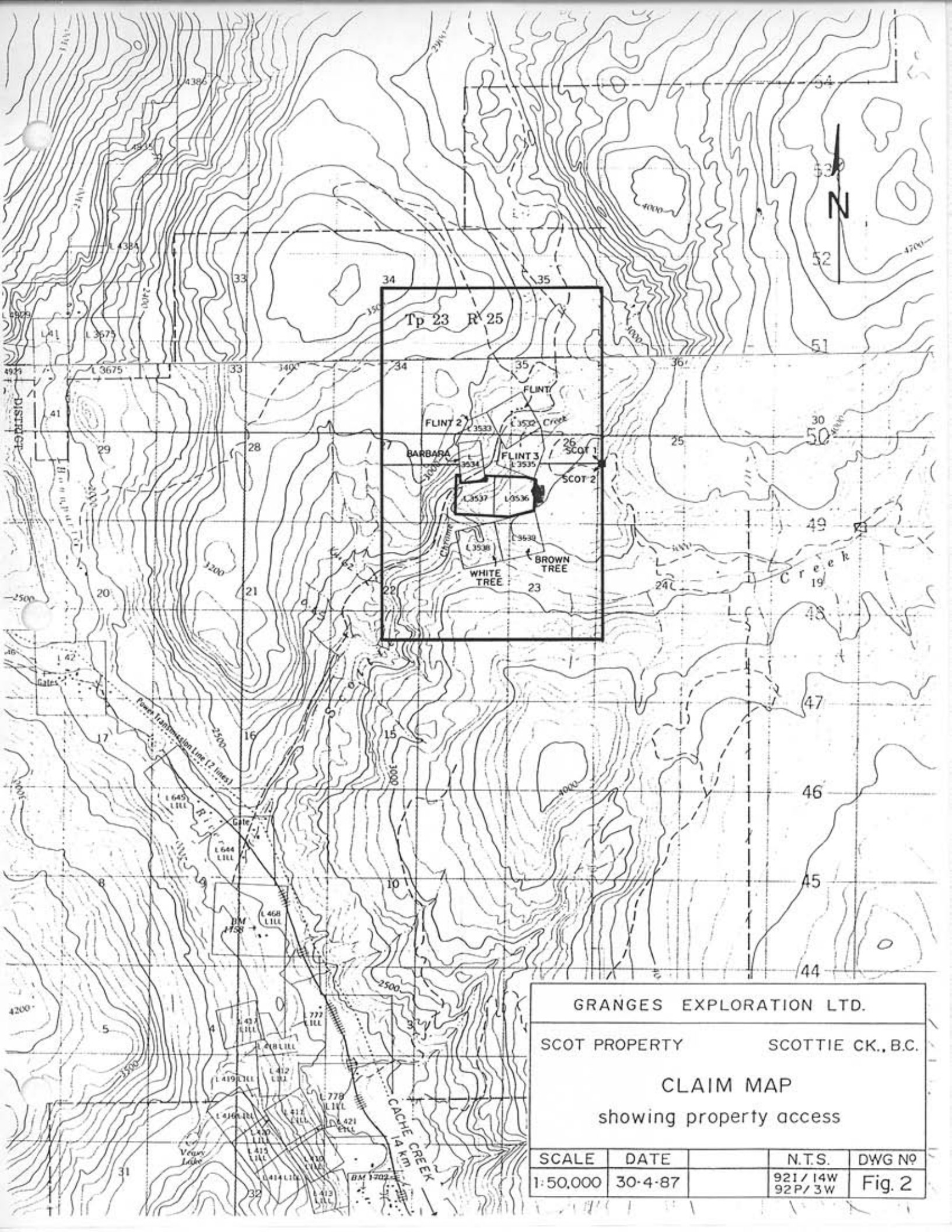
## LOCATION, ACCESS AND PHYSIOGRAPHY (Fig. 1, 2)

The SCOT Group straddles the steep sided valleys of Chrome and Scottie Creeks at their confluence 20 kilometres north of Cache Creek in the Kamloops Mining Division, B.C.

The centre of the property is at 50°59'30"N and 121°23'30"W. The NTS Map reference is 921/14W.

Access to the claims is by gravel road from Highway 17 where it crosses Scottie Creek approximately 19 kilometres north of Cache Creek. The road follows the creek northeast for about 5.5 kilometres to the southern boundary of the property.

The property lies within the Thompson Plateau, which is here deeply incised by the steep sided valleys of Scottie and Chrome Creeks. Elevations range from 975 metres on the ridge tops above the creeks to 700 metres along Scottie Creek at the southwestern boundary of the property. Outcrop is abundant along the steeper valley walls, but thick glacial overburden masks bedrock elsewhere.



Tp 23 R 25

GRANGES EXPLORATION LTD.			
SCOT PROPERTY		SCOTTIE CK., B.C.	
CLAIM MAP			
showing property access			
SCALE	DATE	N.T.S.	DWG N <sup>o</sup>
1:50,000	30-4-87	921/14W 92P/3W	Fig. 2

Vegetation reflects the arid climate; grassy slopes are dotted with widely spread pine trees. Denser growth and underbrush are confined to creek courses in valley bottoms.

The flow of Scottie Creek is controlled for ranch irrigation, and the upper reaches of the creek, west of the SCOT property, are dammed. Chromite Creek is no more than a swampy ditch and drains from a large, fairly stagnant swamp.

### CLAIMS (Fig. 2)

Information supplied by Granges Exploration Ltd. shows that the claims comprising the SCOT property are owned 50/50 by Granges Exploration Ltd. and Valhalla Energy Corporation Ltd. The claims are as follows:

<u>Claim Name</u>	<u>Number of Units</u>	<u>Record Number</u>	<u>Recording Date</u>
SCOT 1	20	1711	Feb. 12, 1979
SCOT 2	20	1712	Feb. 12, 1979
Flint	1	1696	Feb. 7, 1979
Flint No. 2	1	1697	Feb. 7, 1979
Flint No. 3	1	1698	Feb. 7, 1979
Barbara	1	1699	Feb. 7, 1979
White Tree	1	1700	Feb. 7, 1979
Brown Tree	1	1701	Feb. 7, 1979

The SCOT 1 and 2 are each 20-unit claims. The other six claims in the group are reverted Crown Grants.

### HISTORY

The chromite bearing ultrabasic intrusions on Chrome Creek were discovered in 1901. No significant work was done until 1918 when the war-time demand for chrome resulted in small scale mining from open cuts. None of the 500 tons of material mined was shipped. (Duffell & McTaggart, 1952.)

In 1927 Consolidated Mining and Smelting Company optioned and staked claims on Scottie/Chrome Creeks; several short adits were driven, and concentration tests were carried out. The tests indicated an adversely high iron content and the chromite appeared to be limited to small isolated pods of variable grade. CM & S stopped work

in the area in 1931, but retained eight claims covering the area at and immediately appeared to be limited to small isolated pods of variable grade. CM & S stopped work in the area in 1931, but retained eight claims covering the area at and immediately north of the junction of Chrome and Scottie Creeks; six of these claims form the core of the present SCOT Group.

During World War II the Federal Bureau of Mines carried out further concentration tests on material from Scottie Creek and from Ferguson Creek, three kilometres to the south.

In 1979, Jaarl Whist acquired six reverted Crown Grants (Flint, Flint Nos. 2 and 3, Barbara, White Tree and Brown Tree) and staked the SCOT 1 and 2 claims. In 1980, Granges Exploration Ltd. acquired a 50% interest in the property, and the other 50% interest was transferred to Valhalla Minerals Inc., later renamed Valhalla Energy Corp. Also in 1980, Granges carried out a magnetometer survey over the area containing the outcrops of the Chrome Creek ultrabasic intrusions (White, 1980) and in late 1981 a two-hole 312 metre diamond drilling programme tested the chromite bearing ultrabasics on the west side of Chrome Creek (Zbitnoff, 1981). Results did not warrant further work.

### SUMMARY OF 1986 GEOCHEMICAL RECONNAISSANCE PROGRAMME

The 1986 geochemical reconnaissance of the SCOT Group was prompted by the rise in the price of platinum, and by old reports of platinum in Chrome and Scottie Creeks, and in chromite zones of the Chrome Creek intrusion. A three-man crew (geologist and two sampler/prospectors) started work on the reconnaissance programme on September 16th, 1986.

#### Phase I

The first phase of the programme consisted of a rapid geological reconnaissance of the property to establish the disposition and extent of the ultrabasic rocks within the property (Fig. 4). Concurrently the Chrome and Scottie Creek drainages were sampled (Fig. 5), taking care to sample these locations where platinum had been panned, according to former reports.



The stream sediment sampling procedure involved the collection of sufficient gravel/silt to provide a panned concentrate of at least 10 - 15 grams. The material was panned at the sample site and record was made of the number of 'levelled' standard pans required to obtain the sample. Samples were collected at 100-metre intervals along the length of Scottie Creek within the property boundary, and at 300 metre intervals for about one kilometre south of the claims. All tributaries of the creek were also sampled. Regular sampling of Chrome Creek proved impractical as the flow diminished to a swampy trickle immediately above the confluence with Scottie Creek; presumably road building/ranching activity has reduced the creek's size since samples were panned in the 1920's.

A total of 44 stream samples was collected.

### Phase II

Phase II of the programme consisted of grid-controlled soil and rock sampling traverses (Figs. 6 - 9). A 12.7 kilometre chain and compass sampling grid was oriented northwest-southeast to provide full coverage of the areas known to be underlain by ultrabasic intrusions, as indicated by the Phase I geological reconnaissance (Fig. 4). Samples were collected at 50 metre intervals along lines 250 metres apart. Samples were taken from the 'B' horizon, wherever possible, by digging holes about 30 cms deep using a 'tree planters' spade. Sufficient sample was collected to fill a standard gusseted soil sample envelope. The soil sampling programme yielded a total of 252 samples from the 12.6 kilometre grid.

Concurrently with the soil sampling, outcrops of ultrabasic rock were sampled as they were encountered on the grid traverses (Figs. 10 - 13). Old trenches and adits were also selectively sampled. Where possible a representative 1 - 2 kilogram sample of chips was taken from a 'panel' of outcrop. A total of 45 rock samples was collected. This phase of the work was completed on September 23rd, 1986.

### Phase III

The final stages of the geochemical programme, consisting of follow-up soil sampling and hand pitting, was carried out during the period 18th to 21st October, 1986. Pt, Pd, Rh and Au anomalies detected by the September programme were investigated by

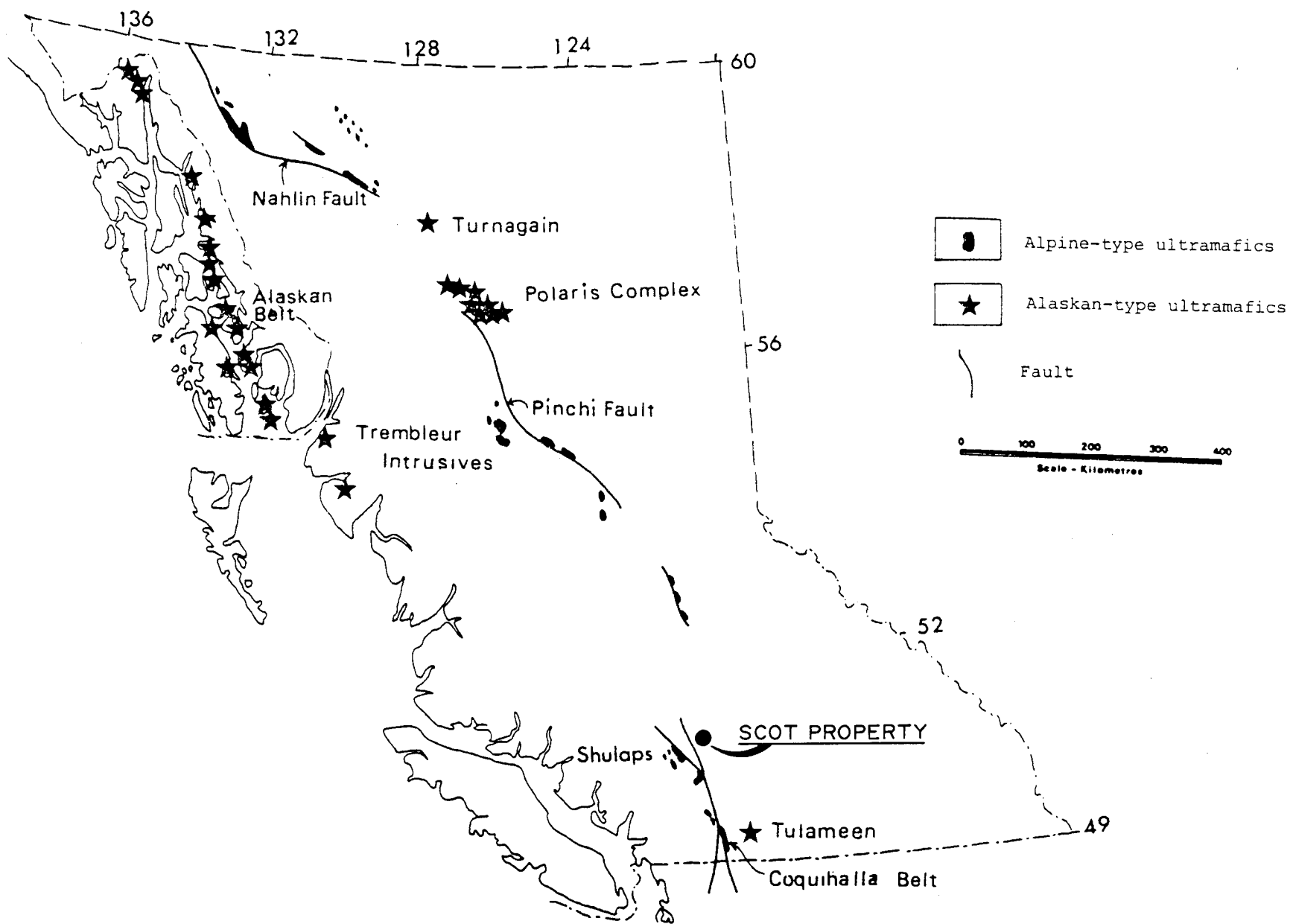


Fig. 3 Alaskan and Alpine-Type Ultramafic Complexes in British Columbia (after McTaggart, 1971).

prospecting, hand pitting, and by small sampling grids (25 metre centres). 124 samples were collected from four anomalous areas.

### Sample Analysis

Analyses were carried out by Acme Analytical Laboratories in Vancouver. Samples from Phase I and II were analysed by the inductively coupled argon plasma method (ICP) for 30 elements, and by fire assay and atomic absorption (AA) analysis for Au, Pt, Rd, and Rh.

Samples from the follow-up programme were analysed for Au, Pt, Pd, and Rh only, by the fire assay and AA method.

For the ICP analyses, 0.5 grams of pulverised sample is dissolved in hot aqua-regia (3:1:3, nitric acid: hydrochloric acid: water) at 95°C for one hour. This is diluted to 10 ml. with water and converted to an aerosol.

A brief description of the ICP analysis is as follows: high frequency currents in a few turns of induction coil (powered by a frequency generator) surround a plasma cell and generate a magnetic field. The cell consists of argon plasma enclosed between two concentric quartz tubes surround a glass sample injector. The plasma gas is seeded with electrons - resulting temperatures range from 7,000° to 10,000°C.

The sample, in aerosol form, is injected into the centre of the cell and rises into the doughnut-shaped plasma ring. The high temperatures vaporise the sample and dissociate molecular species. Spectral intensities of the excited samples are then recorded and compared with standards by a computer-controlled spectrometer.

The analytical procedure for gold and platinum group elements consists of a fire assay concentration of 10 grams of the pulverised sample followed by a nitric acid leach, aqua regia digestion and graphite furnace AA analysis.

On the accompanying plans (Figs. 6 - 13), analyses for Au, Pt, Pd, and Rh have been plotted. Certificates of analyses, showing the full range of results, are reproduced in Appendix 1.

## REGIONAL GEOLOGICAL SETTING

The SCOT claim group is situated near the eastern margin of the Cache Creek Assemblage within B.C.'s Intermontane Belt.

The Cache Creek rocks are Pennsylvanian to Triassic in age and consist of oceanic sediments, basalts and ultrabasic rocks. The north westerly trending belt is bound to the east by Tertiary dacite and basalt flows of the Kamloops Group, and to the west by the Fraser River Fault. The numerous small serpentinised ultra basic intrusions associated with the Cache Creek rocks form a northerly trending belt along the Bonaparte River Valley from Cache Creek to Clinton (Duffell and McTaggart, 1952; Rublee, 1986). The intrusions are dominantly dunites, with subordinate peridotites and less common dyke like pyroxenites (Wright et al, 1982).

The ultrabasics of the Cache Creek area (Fig. 3) have been classified as Alpine types - dismembered basal portions of ophiolites that have been tectonically emplaced in an orogenic belt (Rublee, 1986). In Alpine type intrusions, platinum group elements are associated with chromites, and/or magnetite and sulphides.

## SCOT PROPERTY GEOLOGY

The reconnaissance geological mapping was undertaken primarily to establish the distribution of ultrabasic rocks within the property so as to provide a measure of control for the geochemical soil and rock sampling surveys (Fig. 4).

Outcrop is limited to the steep slopes along Chrome and Scottie Creeks. The ultrabasic rocks (**Ubs**) form distinctive steep, rounded knolls largely devoid of vegetation, and characterised by fine grey, green, yellow and brown weathering serpentinous material. The main outcrops occur in the central part of the property, on Chrome Creek, and on the southern boundary of the SCOT 2 claim, along a westerly draining 'dry' tributary gulch of Scottie Creek.

The Chrome Creek ultrabasic intrusion is generally highly sheared, and variable in texture and degree of alteration. Contacts are obscured. There are few structural

features to indicate the trend or shape of the body; weak, local, compositional layering has a northerly strike and easterly dip.

Chromite occurs in several small lenses, pods, and zones of disseminated crystals in the serpentinised peridotites on both sides of Chrome Creek. Several trenches, open-cuts and at least two adits have tested the chromite zones.

There is no record of chromite being found in the serpentinites on the south boundary of the property, and traverses across this area failed to reveal any mineralisation or indications of previous work.

Although Cache Creek sediments and volcanics (CC) are exposed along the road and on the valley slopes south of the property, the only outcrop within the claim group is in the road cut immediately north and east of the Chrome Creek 'serpentinite'. Here, highly sheared and contorted calcareous argillites and altered volcanic? sediments suggest that there is a faulted contact between the sediments and the intrusion. Bedding/banding attitudes are very variable in the Cache Creek rocks, but a generally northwesterly trend prevails.

Kamloops Group basalts and basalt breccias (Trvb & Trvbx) outcrop on the west side of Chrome Creek south of the serpentinite and along both walls of the Scottie Creek valley. The flows/breccias are generally flat lying or show gentle dips towards the west. Contacts between the serpentinites and the younger volcanics are not exposed, but the southern contact of the Chrome Creek serpentinite with the basalts appears to be faulted.

## DISCUSSION OF RESULTS

The results of the geochemical reconnaissance stream, soil and rock sampling programmes are displayed by Fig. 5 to 13. Analyses are plotted for Pt, Pd, Rh and Au.

1. Drainage Sampling (Fig. 5)

Analyses of the panned concentrates failed to show any significant concentration of the platinum group elements. Two one-spot gold anomalies were detected; a sample from Scottie Creek, 600 metres east of the junction with the Chrome Creek, contains 651 ppb Au, and a 392 ppb Au content was obtained from a north draining tributary of Scottie Creek, 200 metres to the east. Both sample locations are within the steep-walled gulley of Scottie Creek where the outcrop consists entirely of Kamloops Group volcanics.

2. Soil Sampling (Fig. 6 - 9)

The anomalous populations of the platinum group elements and of gold require no statistical analysis; background populations for all the metals are relatively large and the threshold values low, allowing for clear demarcation of background and anomalous levels. In the accompanying figures, only the anomalous sample values are printed.

Palladium ('threshold' value 4 ppb) has the largest and most concentrated distribution of anomalous samples within the grid area (Fig. 6). Apart from an isolated 91 ppb Pd on line 192+25N at 191+50E, values are low, ranging from 4 ppb to 15 ppb.

The largest anomaly occurs along the steep east side of the Scottie Creek Valley between lines 180N and 190N. Outcrop is relatively abundant throughout this area and follow-up prospecting revealed only basalt flows of the Kamloops Group. The palladium anomaly in this area is partially coincident with a smaller and weaker platinum anomaly (Fig. 7).

Palladium is also present in weakly anomalous soils along line 202+50N, which crosses the main portion of the Chrome Creek serpentine zone. The stronger anomalies (up to 12 ppb) coincide with the chromite showings on either side of the road. Follow-up sampling at the eastern end of the line failed

to reveal any significant platinum content. Other anomalies occur at the eastern end of line 207+50N, and the western end of line 192+50N.

Platinum ('threshold' value 4 ppb) has a limited distribution in the area sampled (Fig. 7). Apart from the east side of Scottie Creek (described above), there is a one-spot high (249 ppb) at 193+50E on line 192+50N. This sample is also weakly anomalous in rhodium (8 ppb). There is no outcrop in the area and the slopes here bear a heavy burden of till. A hand pit at the anomaly site encountered a hard pan pebble layer at one metre depth, and profile sampling of the pit wall failed to confirm the platinum or gold content of the original sample.

Rhodium (threshold value 2 ppb). Only four one-spot high anomalies have been detected (Fig. 8); line 192+50N at 193+50E (see above) and at 201E (28 ppb); 202+50N 203E (43 ppb); and 207+50N 202+50E (10 ppb). Re-sampling and hand pitting failed to confirm or extend the anomalies.

### 3. Rock Sampling (Fig. 10 - 13)

None of the rock samples show any significant content of platinum group elements or gold. An eyeball threshold value of 4 ppb has been adopted for all metals. Palladium and platinum are weakly anomalous (up to 19 ppb Pd and 12 ppb Pt) in samples taken from chrome bearing serpentinite in the open cuts and the two adits flanking Chrome Creek in the centre of the property. The Cache Creek sediments exposed in the road cut immediately east of the Chrome Creek serpentinite are also very weakly anomalous in both platinum and palladium.

## SUMMARY

A preliminary geochemical reconnaissance survey of the SCOT Group was carried out to test for the presence of platinum group metals and gold associated with the Chrome/Scottie Creeks Alpine type ultrabasic intrusions.

Stream sampling (panned concentrates) failed to confirm the presence of platinum reported by early workers. Soil and rock sampling reveals weak platinum and palladium anomalies. Some of these anomalies can be directly correlated to zones of chromite bearing serpentinite in the Chrome Creek ultrabasic intrusion. Others occur in areas of heavy glacial overburden and have no obvious correlation with any intrusive rocks. A broad weak Pt/Pd anomaly on the east side of Scottie Creek is underlain by apparently barren Tertiary age Kamloops Group basalts.



**COST STATEMENT SCOT GROUP**

**Geological Geochemical Reconnaissance**

Period a) September 16th to September 23rd, 1986.

Period b) October 18th to October 21st, 1986.

**- Salaries and Fees**

I.M. Watson, (geologist supervisor) (a+b)		
5.5 days* @ \$400.00/day	\$2,200.00	
J.H. Randa (prospector/sampler) (a+b)		
12.0 days @ \$175.00/day	2,100.00	
D. Whalen (prospector/sampler) (a)		
8.0 days @ \$175.00/day	<u>1,400.00</u>	\$ 5,700.00

**- Accommodation and Board** 1,320.41

**- Telephone, Freight** 14.14

**- Vehicle Rental/Fuel**

Toyota 4X4 Landcruiser 12 days @ \$30.00/day	360.00	
Fuel	<u>170.29</u>	530.29

**- Equipment Purchase** 53.00

**- Geochemical Analyses (30 element ICP + Pt, Pd, Rh, Au)** 7,603.91

**- Reproduction, Maps** 63.85

**- Draughting**

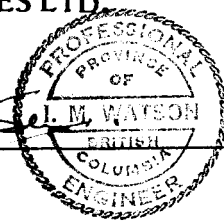
D.L. Phillips Drafting Services		
24 hrs. @ \$20.00/hr.		<u>480.00</u>

Total \$15,765.60

\*Includes 2 days report preparation

**I. M. WATSON & ASSOCIATES LTD.**

I. M. Watson, P.Eng.



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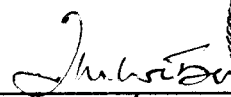
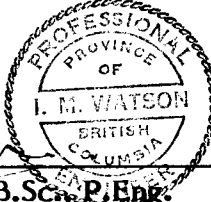
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- |      |            |
|------|------------|
| 1901 | P 1091     |
| 1902 | P 198      |
| 1915 | P 285      |
| 1918 | P 227      |
| 1920 | P 24       |
| 1927 | P 211      |
| 1928 | P 220, 229 |
| 1930 | P 198      |
| 1931 | P 198      |

CERTIFICATE OF QUALIFICATIONS

I, **Ivor Moir Watson**, of 584 East Braemar Road, North Vancouver, hereby certify that:

1. I am a consulting geologist with offices at 816 - 675 West Hastings Street, Vancouver, B.C.
2. I am a graduate of the University of St. Andrews, Scotland (B.Sc., Geology, 1955).
3. I have practised my profession continuously since graduation.
4. I am a member in good standing of the Association of Professional Engineers of B.C., and a Fellow of the Geological Association of Canada.
5. Work on the SCOT Group was carried out under my personal supervision during the period September 16th to September 23rd, 1986, and October 18th to 21st, 1986 by the following personnel:  
    J.H. Randa - Prospector/Sampler  
    D. Whalen - Prospector/Sampler (September 16 to 23, 1986)
6. I have no interest nor do I expect to receive any interest, direct or indirect, in the SCOT Property or in the securities of Granges Exploration Ltd. or its subsidiaries.

April, 1987  
Vancouver, B.C.

  
  
Ivor M. Watson, B.Sc., P.Eng.

## APPENDIX













## I.M. WATSON &amp; ASSOCIATES PROJECT-SCOT FILE # 86-2871

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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	Hg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au# PPB	Pt# PPB	Pd# PPB	Rh# PPB
187+50M 202+00E	1	25	3	76	.1	116	21	578	4.01	5	5	ND	2	61	1	2	2	60	.53	.034	12	69	1.45	180	.22	5	1.90	.09	.20	1	1	2	8	2
187+50M 202+50E	1	27	3	71	.1	75	17	518	4.21	2	5	ND	2	62	1	2	2	68	.67	.072	15	48	1.05	213	.24	6	1.54	.11	.18	1	4	3	9	2
187+50M 203+00E	1	29	2	70	.1	69	17	486	4.32	4	5	ND	2	76	1	2	2	76	.73	.080	14	47	1.25	142	.24	6	1.55	.14	.12	1	2	5	15	2
187+50M 203+50E	1	23	7	70	.2	77	18	571	4.04	5	5	ND	3	56	1	2	3	66	.53	.039	13	57	.89	151	.25	5	1.63	.12	.22	1	1	6	11	2
187+50M 204+00E	1	27	5	68	.1	77	16	541	3.62	2	5	ND	2	67	1	2	3	65	.66	.070	14	54	1.04	164	.22	6	1.40	.12	.23	1	1	2	8	2
187+50M 204+50E	1	24	4	80	.2	66	16	737	3.53	2	5	ND	2	58	1	2	2	62	.56	.034	11	55	.73	179	.23	5	1.48	.11	.22	1	1	2	5	2
187+50M 205+00E	1	17	6	78	.1	46	14	692	3.18	2	5	ND	1	48	1	2	3	55	.44	.030	10	48	.58	135	.21	7	1.49	.09	.21	1	1	2	2	2
185+00M 200+00E	1	23	5	63	.1	49	15	514	3.31	2	5	ND	2	65	1	2	2	66	.69	.086	11	43	.86	146	.22	8	1.18	.11	.21	1	2	2	2	2
185+00M 200+50E	1	33	7	69	.1	76	16	496	3.61	5	5	ND	2	84	1	2	2	76	1.20	.116	16	52	1.47	111	.21	3	1.18	.14	.15	1	1	2	7	2
185+00M 201+00E	1	35	2	85	.1	43	12	1315	2.46	3	5	ND	2	65	1	2	2	50	1.49	.174	21	39	.68	124	.12	9	.80	.08	.21	1	1	2	9	2
185+00M 201+50E	1	48	6	78	.2	68	18	665	3.78	2	5	ND	3	81	1	2	2	80	.89	.137	18	60	1.27	115	.19	5	1.27	.13	.14	1	1	4	8	2
185+00M 202+00E	1	30	3	66	.1	97	16	415	3.71	2	5	ND	3	65	1	2	2	75	.79	.078	16	64	1.25	109	.26	10	1.44	.13	.18	1	1	3	6	2
185+00M 202+50E	1	36	2	69	.2	106	20	557	4.22	2	5	ND	2	96	1	2	2	69	.73	.060	13	65	1.43	215	.25	6	1.70	.14	.15	1	1	2	3	2
185+00M 203+00E	1	18	9	86	.1	68	16	721	3.61	2	5	ND	2	44	1	2	2	61	.43	.058	11	50	.74	140	.19	4	1.45	.09	.21	1	1	3	5	2
185+00M 203+50E	1	26	3	95	.1	109	19	861	3.99	2	5	ND	2	56	1	2	3	60	.47	.035	12	69	1.26	198	.20	8	1.86	.08	.34	1	1	2	10	2
185+00M 204+00E	1	20	4	102	.1	76	18	1009	3.52	2	5	ND	2	46	1	2	3	52	.44	.036	8	50	.92	148	.19	4	1.51	.09	.24	1	1	2	6	2
185+00M 204+50E	1	29	6	86	.1	90	19	716	4.07	2	5	ND	2	58	1	2	4	65	.57	.052	15	57	1.11	159	.22	9	1.65	.10	.30	1	1	4	4	2
185+00M 205+00E	1	12	2	92	.1	47	13	1017	3.34	2	5	ND	3	51	1	2	7	50	.57	.102	17	28	.55	193	.16	10	1.19	.08	.23	1	1	2	2	2
182+50M 200+00E	1	25	6	77	.1	92	17	530	4.09	2	5	ND	2	64	1	2	2	76	.64	.057	13	60	1.09	106	.26	6	1.46	.12	.20	1	1	5	2	2
182+50M 200+50E	1	25	3	72	.1	166	21	651	3.70	2	5	ND	2	56	1	2	2	54	.45	.039	12	82	2.14	196	.19	6	1.64	.08	.26	1	1	2	4	2
182+50M 201+00E	1	28	5	78	.1	103	20	698	4.04	2	5	ND	2	70	1	2	2	74	.63	.057	15	58	1.22	161	.24	4	1.56	.13	.23	1	1	2	6	2
182+50M 201+50E	1	41	3	70	.1	143	20	622	3.96	3	5	ND	2	106	1	2	2	76	1.35	.082	14	68	2.38	172	.22	6	1.61	.11	.25	1	3	4	4	2
182+50M 202+00E	1	37	2	75	.1	129	21	603	4.37	2	5	ND	3	62	1	2	2	77	.64	.047	14	69	1.28	128	.26	8	1.71	.11	.26	1	1	5	2	2
182+50M 202+50E	1	23	8	84	.1	112	20	731	4.04	3	5	ND	2	58	1	2	2	65	.57	.043	12	70	1.14	124	.24	6	1.67	.11	.27	1	1	2	9	2
182+50M 203+00E	1	31	16	92	.2	194	25	866	4.29	4	5	ND	3	52	1	3	2	64	.43	.032	12	88	2.09	182	.17	6	2.24	.05	.20	1	3	3	2	2
182+50M 203+50E	1	12	2	109	.1	48	13	1074	3.32	5	5	ND	2	55	1	2	2	52	.47	.058	11	36	.62	148	.15	10	1.20	.07	.14	1	1	3	2	2
182+50M 204+00E	1	13	12	99	.1	60	17	1680	3.53	2	5	ND	2	86	1	2	2	52	.52	.044	14	35	.74	202	.14	6	1.54	.06	.20	1	1	5	2	2
182+50M 204+50E	1	7	2	93	.1	30	13	1521	3.87	3	5	ND	3	53	1	2	2	48	.38	.064	17	17	.49	141	.13	3	.96	.08	.14	1	1	2	9	2
182+50M 205+00E	1	6	3	77	.1	11	11	1064	3.61	4	5	ND	3	75	1	2	2	40	.49	.113	18	8	.39	124	.13	5	.76	.08	.13	1	1	3	2	2
180+00M 198+50E	1	25	7	62	.1	56	16	512	3.77	4	5	ND	2	79	1	2	2	81	.77	.084	15	48	.96	144	.25	5	1.27	.13	.13	1	1	2	3	2
180+00M 199+00E	1	52	15	107	.2	80	26	660	5.43	2	8	ND	3	165	1	2	2	119	.95	.152	18	92	1.95	143	.19	14	1.80	.08	.19	1	1	3	2	2
180+00M 199+50E	1	24	7	84	.1	50	17	709	3.68	2	5	ND	2	114	1	2	2	60	.87	.060	12	28	.83	176	.29	5	1.55	.11	.28	1	1	4	2	2
180+00M 200+00E	1	25	10	72	.1	52	20	763	3.88	3	5	ND	2	100	1	2	2	63	.76	.040	10	28	1.15	172	.24	6	1.76	.09	.36	1	1	6	2	2
180+00M 200+50E	3	45	8	94	.2	42	16	509	3.45	2	6	ND	4	100	1	2	2	95	.85	.154	31	34	1.06	151	.20	11	1.53	.07	.24	1	1	3	2	2
180+00M 201+00E	1	43	5	88	.1	41	15	610	3.10	2	5	ND	3	81	1	2	2	78	.96	.181	31	38	.98	112	.20	6	1.06	.07	.19	1	1	2	5	2
180+00M 201+50E	1	49	12	87	.1	54	15	551	3.25	3	5	ND	3	74	1	2	2	85	.68	.134	30	38	.88	93	.22	4	1.20	.07	.17	1	1	2	4	2
9TD C/FA-SX	21	59	38	135	6.9	70	30	1020	3.95	42	17	8	33	48	18	15	20	63	.48	.105	37	58	.88	179	.08	34	1.73	.06	.14	13	98	102	100	20

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 %	M PPM	AuII PPB	PtII PPB	PdII PPB	RhII PPB
180+00N 202+00E	1	40	7	84	.1	63	15	523	3.34	4	5	ND	2	74	1	2	3	75	.80	.107	22	56	1.04	102	.17	9	1.22	.07	.25	1	3	2	2	2
180+00N 202+50E	1	39	6	71	.1	90	17	575	3.57	4	5	ND	1	74	1	2	2	74	.90	.097	16	68	1.68	109	.18	2	1.03	.10	.15	1	1	2	2	2
180+00N 203+00E	1	55	7	75	.3	200	24	731	4.78	7	5	ND	2	66	1	2	2	97	.66	.047	13	98	2.32	94	.19	8	1.73	.07	.25	1	4	2	3	2
180+00N 203+50E	1	76	2	82	.2	133	30	968	5.59	9	6	ND	2	230	1	2	2	141	1.65	.119	13	48	2.79	66	.20	2	2.22	.07	.27	1	4	2	3	2
180+00N 204+00E	2	65	6	82	.1	98	30	1299	6.80	9	5	ND	1	140	1	2	2	116	.94	.116	12	51	3.66	68	.24	3	2.08	.10	.18	1	2	2	2	2
180+00N 204+50E	1	54	9	81	.1	67	23	1007	6.20	7	5	ND	1	99	1	2	2	147	1.24	.137	14	46	3.13	69	.28	2	1.72	.13	.14	1	3	2	2	2
180+00N 205+00E	2	69	6	85	.1	93	34	1197	6.12	4	5	ND	1	79	1	2	2	100	1.09	.173	12	51	3.86	70	.22	6	1.86	.10	.17	1	4	2	4	2
2N 187+00E	1	17	2	107	.1	43	14	1339	2.96	2	5	ND	1	44	1	2	3	54	.48	.037	9	42	.56	181	.21	3	1.33	.10	.18	1	5	2	2	2
2N 187+50E	1	16	6	84	.1	45	14	684	3.09	2	5	ND	1	40	1	2	2	51	.45	.035	8	42	.66	125	.20	5	1.28	.09	.21	1	2	2	2	2
2N 188+00E	1	16	4	104	.1	46	14	1184	2.99	2	5	ND	1	43	1	2	2	48	.50	.024	8	45	.58	164	.21	7	1.44	.10	.20	1	2	2	2	2
2N 188+50E	1	18	2	76	.1	51	15	738	3.34	3	5	ND	1	42	1	2	2	51	.47	.031	11	49	.60	101	.22	2	1.48	.09	.26	1	1	2	2	2
2N 189+00E	1	22	8	80	.1	44	15	1044	3.17	3	5	ND	1	50	1	2	2	54	.56	.042	9	43	.62	132	.23	4	1.30	.11	.19	1	1	2	5	2
2N 189+50E	1	15	6	108	.2	35	12	1335	2.71	3	5	ND	1	39	1	3	2	44	.45	.037	8	36	.45	157	.17	2	1.33	.08	.21	1	1	2	2	2
2N 190+00E	1	21	7	104	.1	52	16	1245	3.37	3	5	ND	2	46	1	2	2	51	.51	.036	10	49	.62	191	.22	4	1.52	.09	.29	1	2	2	2	2
2N 190+50E	1	16	2	84	.1	47	14	1050	3.11	2	5	ND	2	41	1	2	2	49	.46	.038	14	45	.53	164	.21	4	1.53	.08	.20	1	2	2	2	2
2N 191+00E	1	19	10	117	.1	45	13	1359	2.91	3	5	ND	1	50	1	2	2	47	.55	.038	9	42	.49	220	.20	5	1.34	.09	.22	1	1	2	2	2
2N 191+50E	1	21	5	77	.1	49	15	711	3.37	2	5	ND	1	45	1	2	2	52	.49	.033	10	52	.57	130	.22	6	1.48	.09	.23	1	2	2	2	2
2N 192+00E	1	22	7	82	.1	55	16	654	3.54	2	5	ND	1	45	1	2	2	59	.48	.031	11	56	.63	149	.23	2	1.58	.09	.19	1	1	2	3	2
2N 192+50E	1	18	4	76	.1	54	16	1018	3.12	6	5	ND	2	42	1	3	4	52	.46	.032	10	48	.53	149	.21	4	1.36	.09	.24	1	1	2	2	2
2N 193+00E	1	18	5	75	.1	67	16	768	3.46	2	5	ND	1	44	1	2	2	57	.46	.029	11	55	.58	149	.23	2	1.56	.09	.25	1	1	2	2	2
2N 194+50E	1	23	5	68	.1	91	19	681	3.97	2	5	ND	2	50	1	2	2	60	.58	.054	13	62	.87	151	.23	10	1.63	.10	.36	1	1	2	3	2
2N 195+00E	1	21	7	72	.1	62	16	609	3.41	4	5	ND	2	49	1	2	2	59	.45	.022	11	54	.64	159	.22	4	1.59	.10	.17	1	1	2	2	2
2N 195+50E	1	21	7	79	.1	76	16	778	3.76	3	5	ND	2	50	1	2	2	57	.50	.033	13	52	.70	147	.22	5	1.65	.09	.29	1	1	2	2	2
2N 196+00E	1	22	2	90	.1	71	16	874	3.53	2	5	ND	2	50	1	2	3	54	.44	.036	11	49	.77	180	.19	8	1.48	.08	.29	1	1	2	2	2
2N 196+50E	1	24	7	88	.1	97	19	758	4.13	4	5	ND	2	54	1	2	2	58	.49	.027	12	63	.87	174	.22	4	1.81	.09	.23	1	1	2	2	2
2N 197+00E	1	21	11	110	.1	82	17	1005	3.60	2	5	ND	2	60	1	2	2	51	.52	.044	11	53	.84	202	.19	7	1.56	.08	.37	1	1	2	3	2
2N 197+50E	1	28	2	78	.1	108	21	782	4.07	4	5	ND	2	55	1	2	2	60	.46	.034	13	57	1.03	248	.20	2	1.66	.08	.24	1	1	2	2	2
2N 198+00E	1	28	2	74	.1	97	19	690	4.01	3	5	ND	2	81	1	2	2	58	.58	.052	13	54	1.20	310	.19	9	1.61	.10	.30	1	1	2	2	2
2N 198+50E	1	33	2	68	.2	77	18	572	4.02	4	5	ND	1	108	1	2	2	60	1.24	.098	13	44	1.49	119	.20	2	1.51	.14	.14	1	2	2	3	2
2N 199+00E	1	34	2	75	.1	88	19	635	4.28	5	5	ND	2	107	1	2	2	58	.70	.069	13	48	1.38	176	.21	4	1.65	.11	.22	1	1	2	2	2
STD C/A-SX	21	59	39	131	6.8	67	29	994	3.95	40	20	8	32	47	16	16	22	61	.48	.103	35	59	.88	175	.08	37	1.73	.06	.13	14	95	98	100	20

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##	Pt##	Pd##	Rh##
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPH	PPH	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB	PPB	PPB	PPB
6WS-102	7	21	8	35	.1	1436	59	600	3.80	7	5	ND	1	83	1	4	2	12	1.49	.015	4	285	18.33	33	.01	8	.31	.01	.01	1	1	2	10	2
6WS-103	7	24	5	37	.2	1517	58	570	3.78	7	5	ND	1	37	1	2	3	10	.59	.022	3	196	19.13	23	.01	21	.24	.01	.01	1	1	3	2	2
6WS-014	7	18	8	29	.1	1587	56	489	3.68	11	5	ND	1	76	1	4	2	9	1.02	.013	4	151	18.41	28	.01	9	.32	.01	.01	1	1	2	9	2
6WS-015	7	32	2	39	.2	1425	62	660	3.71	9	5	ND	1	59	1	5	3	11	.87	.018	4	221	16.59	45	.01	12	.38	.01	.03	1	1	2	3	2
6WS-016	6	32	2	42	.2	1430	65	768	3.62	6	5	ND	1	47	1	4	2	14	1.32	.016	4	223	16.72	25	.02	10	.36	.01	.03	1	5	2	11	2
6WS-020	7	14	3	17	.2	1621	53	416	3.70	7	5	ND	1	15	1	2	5	9	.17	.010	4	449	19.89	35	.01	25	.31	.01	.01	1	1	6	10	2
6WS-021	7	15	2	17	.1	1620	58	438	3.80	7	5	ND	1	11	1	3	2	9	.18	.007	4	448	20.32	16	.01	27	.30	.01	.01	1	1	6	6	2
STD C/FA-5X	20	59	41	129	6.9	69	28	973	3.94	41	22	8	32	46	16	15	20	59	.48	.106	34	56	.88	172	.08	34	1.73	.06	.13	13	98	100	96	21

Silt



## I.M. WATSON &amp; ASSOCIATES PROJECT - SCOT FILE # 86-2871

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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	Pt# PPB	Pd# PPB	Rh# PPB
6WS-012C	8	19	2	46	.1	1255	60	603	6.28	7	5	ND	1	71	1	2	2	24	1.12	.014	2	364	18.53	25	.02	8	.29	.01	.01	1	1	4	2	2
6WS-013C	7	26	2	60	.1	1251	58	581	5.17	4	5	ND	1	37	1	2	2	20	.47	.033	2	243	17.95	40	.04	11	.37	.03	.02	1	1	5	6	2
6WS-014C	7	21	4	45	.1	1396	62	546	4.82	3	5	ND	1	74	1	2	2	15	1.14	.015	2	211	18.05	33	.02	14	.43	.02	.02	1	1	5	3	2
6WS-015C	8	28	2	61	.1	1272	63	681	7.26	6	5	ND	1	43	1	2	2	35	.65	.022	3	317	17.53	31	.04	12	.42	.02	.02	1	1	9	2	2
6WS-016C	7	26	5	55	.1	1366	65	706	4.43	6	5	ND	1	29	1	2	2	21	.67	.018	2	308	19.91	18	.02	16	.37	.02	.02	1	2	3	9	2
6WS-020C	7	558	3	62	.1	1376	52	536	5.62	6	5	ND	1	11	1	2	2	10	.12	.008	2	849	18.76	27	.01	21	.26	.01	.01	1	1	7	14	2
6WS-021C	8	50	3	32	.1	1531	61	576	5.44	5	5	ND	1	12	1	2	4	15	.16	.009	2	683	21.79	21	.01	24	.29	.01	.01	1	1	10	6	2
STD C/FA-5X	21	58	38	135	6.8	70	29	1026	3.95	39	18	8	33	48	17	15	21	63	.48	.111	37	58	.88	178	.08	38	1.73	.06	.13	13	97	100	95	18

I. M. WATSON & ASSOCIATES PROJECT - SCOT FILE # 86-2871

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	Ault	Pttt	Pdtt	Rhtt
	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	%	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	PPH	%	%	PPH	PPH	%	PPH	%	PPH	%	%	%	PPH	PPB	PPB	PPB	PPB
202+50N 197+40E-R	1	5	7	53	.1	9	1	183	.75	2	5	ND	5	57	1	2	2	4	.26	.014	3	4	.43	425	.03	3	.38	.06	.13	1	1	2	4	8
202+50N 198+00E-R(A)	6	22	8	25	.1	1090	46	1031	3.88	8	5	ND	1	161	1	4	2	62	2.90	.007	4	391	16.44	160	.02	10	2.59	.01	.01	1	1	2	2	2
202+50N 198+00E-R(B)	6	6	2	17	.1	1010	31	2478	2.00	3	5	ND	3	1250	1	4	2	5	10.32	.013	3	93	12.14	625	.01	12	.07	.01	.01	1	1	2	4	2
202+50N 198+00E-R(C)	1	9	7	44	.1	24	3	186	.61	4	5	ND	1	35	1	2	2	7	.37	.017	2	9	.39	68	.08	2	.25	.13	.04	1	1	2	2	2
200+00N 195+30E-R	1	46	6	77	.1	155	26	547	4.73	2	5	ND	1	41	1	2	2	18	.63	.094	10	14	2.84	26	.14	2	.68	.16	.03	1	1	2	2	2
200+00N 199+50E-R	3	4	2	10	.2	1247	14	249	1.06	2	5	ND	1	23	1	2	5	17	.60	.001	2	4215	6.50	8	.01	13	1.66	.01	.01	1	1	2	5	2
200+00N 200+10E-R	7	7	10	22	.1	1428	57	487	4.08	8	5	ND	1	26	1	5	2	12	.49	.009	4	394	20.09	10	.01	18	.17	.01	.01	1	1	5	6	2
197+50N 197+00E-R	5	1	2	17	.1	1054	40	510	3.02	4	5	ND	1	33	1	3	2	2	1.59	.006	3	125	10.17	45	.01	15	.07	.01	.01	1	1	10	6	2
197+50N 197+20E-R	1	8	5	27	.1	47	5	165	1.12	5	5	ND	1	10	1	2	2	19	.90	.034	2	34	.53	17	.08	2	.76	.06	.04	1	1	2	5	2
197+50N 197+50E-R	2	4	4	26	.1	1591	61	1182	5.93	20	5	ND	1	36	1	2	2	8	1.72	.009	3	58	2.57	44	.01	4	.04	.01	.01	1	1	8	5	2
195+00N 195+00E-R	1	21	4	41	.1	16	9	235	2.64	4	5	ND	1	125	1	2	2	104	.92	.133	14	17	.25	78	.26	2	1.01	.23	.09	1	1	2	2	2
195+00N 196+00E-R	1	19	5	38	.1	18	8	219	2.67	2	5	ND	1	135	1	2	2	110	.89	.143	14	15	.28	141	.28	2	1.04	.22	.11	1	1	2	3	2
192+50N 202+50E-R	1	37	8	62	.1	89	17	379	2.17	2	5	ND	2	67	1	2	2	92	.64	.064	13	34	.74	221	.22	5	1.41	.07	.15	1	1	2	2	2
197+75N 203+50E-R	1	31	5	79	.1	45	17	268	3.99	6	5	ND	2	105	1	2	2	84	1.50	.181	24	67	1.20	48	.12	2	.81	.19	.17	1	1	2	2	2
65N-19R	3	12	4	12	.2	935	12	195	.92	2	5	ND	1	109	1	2	4	15	.63	.004	2	4636	6.29	40	.01	11	1.76	.02	.02	1	1	2	4	2
65N-20R	8	38	2	15	.2	1492	46	492	2.00	4	5	ND	1	15	1	4	2	6	.15	.005	2	1286	19.14	10	.01	51	.20	.01	.01	1	1	2	3	2
65N-21R	4	10	2	12	.3	1166	20	258	1.13	3	5	ND	1	127	1	4	7	18	.93	.007	2	5128	8.14	26	.01	13	1.21	.01	.01	1	1	2	2	2
65N-23R	5	84	2	27	.2	1464	15	292	.99	21	5	ND	1	18	1	5	8	16	.13	.001	2	4675	10.06	16	.01	11	1.43	.01	.01	1	1	2	2	2
65N-25R	6	39	10	16	.2	1410	44	383	2.98	5	5	ND	1	91	1	5	2	8	1.20	.005	3	626	17.15	94	.01	12	.46	.01	.01	1	1	2	2	2
65N-001R	4	4	2	13	.1	920	33	518	2.14	4	5	ND	1	6	1	4	2	21	.87	.016	2	262	10.41	4	.01	9	.11	.01	.01	1	1	2	2	2
65N-002R	6	33	18	68	.2	60	11	207	2.71	12	7	ND	5	213	1	2	2	149	1.57	.055	21	55	.95	92	.10	7	1.87	.16	.20	1	2	2	2	2
65N-003R	8	2	7	35	.2	1653	61	616	4.02	5	5	ND	1	2	1	2	2	17	.11	.009	3	665	21.51	1	.01	41	.18	.01	.01	1	1	6	5	2
65N-004R	1	20	12	64	.7	27	17	805	4.74	6	5	ND	2	54	1	2	2	153	5.79	.016	6	55	2.74	8	.11	3	6.03	5.28	.02	1	1	2	5	2
65N-005R	31	115	18	476	1.3	130	11	329	2.54	24	5	ND	3	177	6	3	3	33	4.79	.092	5	18	.50	38	.01	8	.63	.02	.16	1	8	2	9	2
65N-006R	3	83	12	130	.4	27	15	751	4.39	12	5	ND	2	159	1	2	2	35	3.63	.078	8	13	.98	500	.01	5	.82	.06	.17	1	5	2	3	2
65N-007R	3	30	4	41	.4	1616	133	1406	4.56	11	5	ND	3	89	3	2	3	9	20.93	.088	4	244	.95	454	.01	4	.57	.03	.04	2	2	4	6	2
65N-008R	2	42	2	25	.3	1140	38	740	3.19	7	5	ND	4	113	1	2	2	21	19.05	.020	3	198	3.11	313	.02	2	1.49	.02	.03	1	1	3	3	2
65N-009R	3	7	2	20	.2	971	45	765	3.25	6	5	ND	3	178	1	2	2	14	19.24	.015	3	183	4.70	345	.01	2	.30	.01	.03	1	1	2	6	2
65N-010R	4	32	11	21	.3	977	58	892	3.88	6	5	ND	3	157	2	2	3	20	21.93	.021	4	274	2.27	191	.01	4	.42	.01	.01	2	1	4	5	2
65N-011R	4	15	2	17	.3	767	53	866	3.04	11	5	ND	2	79	3	2	3	17	25.37	.016	2	183	.67	310	.01	2	.28	.01	.02	1	2	8	10	2
65N-012R	3	21	4	32	.2	1131	50	859	4.07	7	5	ND	4	147	2	2	3	15	19.77	.018	4	291	2.96	694	.01	3	.46	.02	.03	1	2	3	6	2
65N-013R	5	20	4	44	.2	1043	42	691	3.35	8	5	ND	4	118	1	4	2	14	11.70	.010	3	277	10.16	248	.01	9	.32	.01	.02	1	2	7	6	2
65N-014R	7	8	2	24	.2	1428	55	474	3.34	7	5	ND	1	31	1	3	2	4	3.27	.007	2	134	16.84	100	.01	21	.11	.01	.01	1	1	3	4	2
65N-015R	7	9	8	22	.2	1423	47	510	3.18	9	5	ND	1	72	1	4	2	18	4.43	.011	3	233	15.78	259	.01	11	.96	.01	.01	1	1	2	4	2
65N-016R	6	4	3	12	.1	1499	38	396	2.39	6	5	ND	3	124	1	4	2	10	9.64	.031	2	237	11.66	217	.01	9	.09	.01	.01	2	1	2	3	2
65N-017R	6	5	2	17	.3	1280	40	416	2.61	5	5	ND	2	338	1	5	2	17	5.84	.010	2	80	14.31	417	.01	7	.10	.01	.01	1	1	2	3	2
SFD C/FA-5X	20	55	42	129	6.9	66	28	982	3.95	41	21	8	32	46	17	16	19	60	4.46	.103	35	55	.83	172	.08	35	1.73	.06	.13	13	95	99	101	19

*Cr require fusion for correct total value.*

I.M. WATSON & ASSOCIATES PROJECT - SCOT FILE # 86-2871

PAGE 12

SAMPLE#	Mo PPH	Cu PPH	Pb PPH	Zn PPH	Ag PPH	Ni PPH	Co PPH	Mn PPH	Fe %	As PPH	U PPH	Au PPH	Th PPH	Sr PPH	Cd PPH	Sb PPH	Bi PPH	V PPH	Ca %	P %	La PPH	Cr PPH	Mg %	Ba PPH	Ti %	B PPH	Al %	Na %	K %	M PPH	Au## PPB	Pt## PPB	Pd## PPB	Rh## PPB
6SM-018R	4	9	2	19	.2	1513	24	304	1.23	5	5	ND	1	115	1	5	7	17	1.56	.003	2	4433	8.58	35	.01	18	1.35	.03	.03	1	3	8	19	6
6SM-022R	8	3	2	17	.1	1429	60	358	3.50	2	6	ND	1	28	2	2	2	6	.87	.007	3	350	19.66	24	.01	12	.08	.01	.01	1	5	9	15	2
6SM-024R	2	5	2	3	.1	323	9	192	.81	2	5	ND	1	13	1	2	2	4	.50	.006	2	1791	2.81	6	.01	2	.15	.01	.01	1	3	12	8	10
6SM-026R	1	11	2	8	.1	130	8	105	.67	3	5	ND	1	75	1	2	2	8	.67	.009	2	35	1.90	44	.05	2	.48	.30	.05	1	5	7	16	3
6SM-027R	7	3	3	14	.3	1227	44	437	2.77	11	7	ND	1	171	1	4	2	6	1.71	.005	3	184	16.50	265	.01	11	.36	.01	.01	1	2	6	12	4
6WS-008R	3	4	2	8	.1	585	22	246	1.43	7	5	ND	1	2	1	2	2	13	.04	.012	2	59	6.02	4	.01	9	.02	.01	.01	1	5	6	14	2
6WS-009R	8	3	2	25	.3	1111	48	513	3.24	9	5	ND	1	32	1	2	2	10	1.26	.007	2	320	20.77	4	.01	35	.29	.01	.01	1	1	6	2	2
6WS-017R	9	2	5	18	.1	1743	71	411	4.03	2	5	ND	1	17	1	2	2	2	.17	.003	2	123	22.04	7	.01	14	.06	.01	.01	1	1	2	2	2
6WS-019R	7	38	2	26	.2	1179	57	610	3.51	7	5	ND	1	57	1	2	2	26	1.49	.007	2	505	18.94	22	.01	14	.37	.01	.01	1	1	10	5	2
STD C/FA-5X	22	56	38	135	7.2	69	30	1023	3.97	42	21	8	33	47	18	16	22	63	.48	.108	37	59	.88	177	.08	36	1.73	.06	.13	14	100	97	98	22



ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS, VANCOUVER B.C.  
PH: (604) 253-3158 COMPUTER LINE: 251-1011

DATE RECEIVED OCT 30 1986

DATE REPORTS MAILED *Nbv 10/86*

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : P1-ROCK P2- PAN CONC P3-SOILS  
AUX\* F1\*\* PD\*\* & RH\*\* - 10GM FIRE ASSAY CONCENTRATION, HNO3 LEACHED.  
AQUA REGIA DIGESTION, GRAPHITE FURNACE AA ANALYSIS.

ASSAYER: *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

J.M. WATSON PROJECT SCOT FILE# 86-3475

PAGE# 1

SAMPLE	Au** ppb	Pt** ppb	Pd** ppb	Rh** ppb
L202+50N 203+50E	4	2	2	2

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
192+50N 201+00EA	1	2	2	2
192+50N 201+00EB	1	2	2	2
DETECTION LIMIT	1	2	2	2

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
SB 0+50E	6	5	8	2
SB 1+00E	1	6	5	2
SB 1+50E	1	5	2	2
SB 2+00E	1	6	3	2
SB 2+50E	1	3	4	2
SB 3+00E	1	2	2	2
SB 3+50E	1	5	3	2
SB 4+00E	1	4	3	2
SB 4+50E	1	3	2	2
SB 5+00E	1	4	2	2
SB 5+50E	1	4	2	2
SB 6+00E	4	2	4	2
SB 6+50E	4	2	2	2
SB 7+00E	3	2	2	2
SB 7+50E	2	2	3	2
SB 8+00E	6	2	2	2
L192+25N 190+00E	1	2	2	2
L192+25N 190+25E	3	2	5	2
L192+25N 190+50E	2	2	2	2
L192+25N 190+75E	6	2	2	2
L192+25N 191+00E	1	2	3	2
L192+25N 191+25E	4	2	2	2
L192+25N 191+50E	159	2	91	2
L192+25N 191+75E	4	2	2	2
L192+25N 192+00E	2	2	2	2
L192+25N 192+25E	1	2	3	2
L192+25N 192+50E	3	2	3	2
L192+25N 192+75E	1	2	2	2
L192+25N 193+00E	1	2	2	2
L192+25N 193+25E	1	2	2	2
L192+25N 193+50E	1	2	2	2
L192+25N 193+75E	7	2	3	2
L192+25N 194+00E	3	2	2	2
L192+25N 194+25E	1	2	2	2
L192+25N 194+50E	2	2	2	2
L192+25N 194+75E	2	2	2	2
DETECTION LIMIT	1	2	2	2

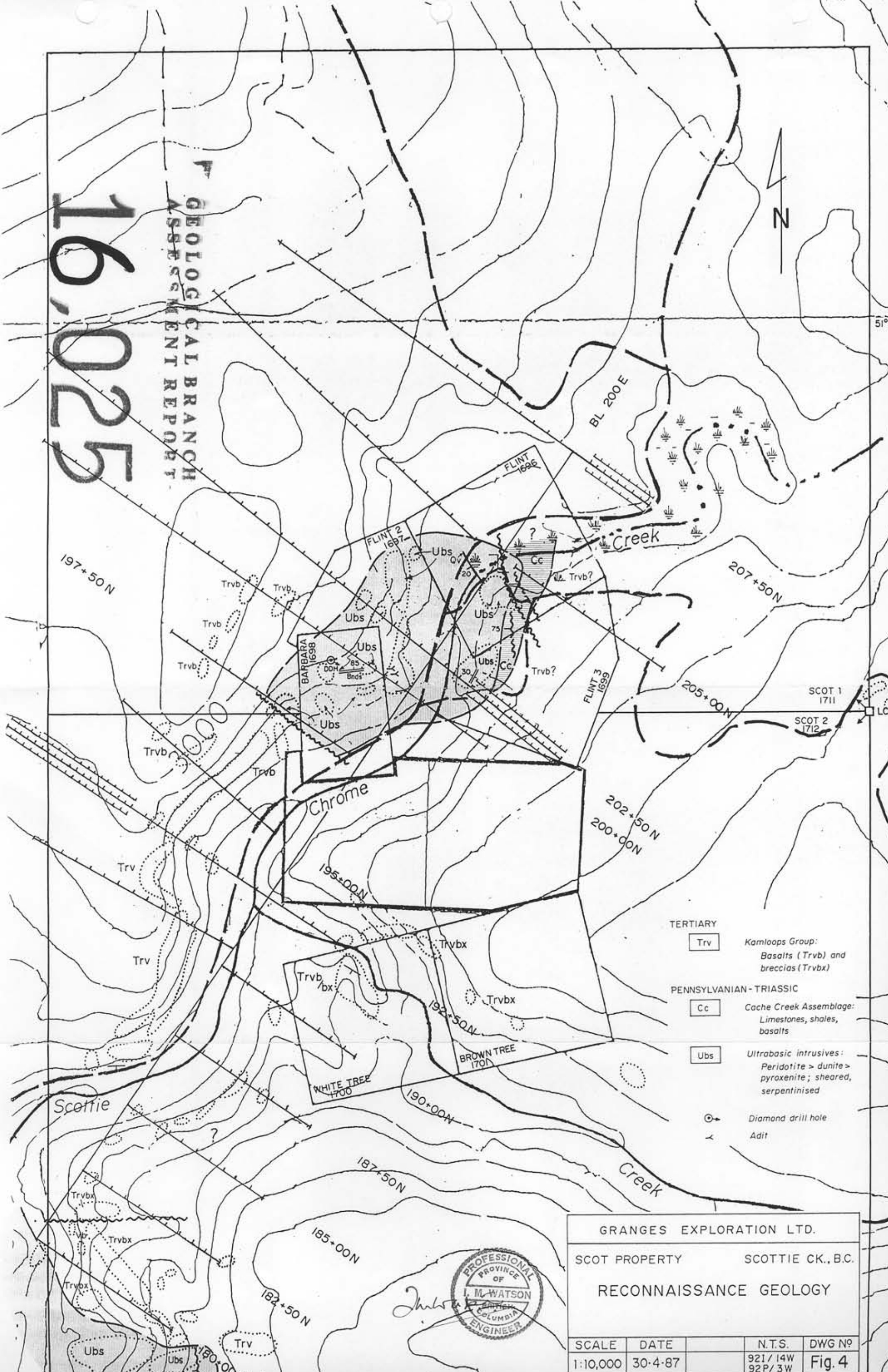
SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
L192+25N 195+00E	3	2	2	2
L192+50N 190+00E	2	2	2	2
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L192+50N 190+50E	1	2	2	2
L192+50N 190+75E	33	2	4	2
L192+50N 191+00E	1	2	2	2
L192+50N 191+25E	1	2	2	2
L192+50N 191+50E	1	2	2	2
L192+50N 191+75E	1	2	2	2
L192+50N 192+00E	1	2	2	2
L192+50N 192+25E	1	2	2	2
L192+50N 192+50E	1	2	2	2
L192+50N 192+75E	1	2	2	2
L192+50N 193+25E	1	2	2	2
L192+50N 193+75E	1	2	2	2
L192+50N 194+25E	1	2	2	2
L192+50N 194+75E	1	2	2	2
L192+75N 190+00E	1	2	2	2
L192+75N 190+25E	1	2	2	2
L192+75N 190+50E	2	2	2	2
L192+75N 190+75E	1	2	2	2
L192+75N 191+00E	1	2	2	2
L192+75N 191+25E	13	2	8	2
L192+75N 191+50E	12	2	7	2
L192+75N 191+75E	8	2	4	2
L192+75N 192+00E	1	2	2	2
L192+75N 192+25E	1	2	2	2
L192+75N 192+50E	6	2	3	2
L192+75N 192+75E	8	2	4	2
L192+75N 193E	4	2	2	2
L192+75N 193+25E	3	2	2	2
L192+75N 193+50E	1	2	2	2
L192+75N 193+75E	7	2	2	2
L192+75N 194E	4	2	2	2
L192+75N 194+25E	3	2	2	2
L192+75N 194+50E	1	2	2	2
DETECTION LIMIT	1	2	2	2

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
L192+75N 194+75E	1	2	2	2
L192+75N 195E	1	2	2	2
L202+25N 201E	1	2	3	2
L202+25N 201+25E	1	2	2	2
L202+25N 201+50E	2	2	2	2
L202+25N 201+75E	1	2	2	2
L202+25N 202E	1	2	2	2
L202+25N 202+25E	1	2	2	2
L202+25N 202+50E	1	2	5	2
L202+25N 202+75E	4	2	8	2
L202+25N 203+00E	1	2	2	2
L202+25N 203+25E	1	2	2	2
L202+25N 203+50E	5	2	6	2
L202+25N 203+75E	2	2	3	2
L202+25N 204+00E	1	2	2	2
L202+25N 204+25E	1	2	2	2
L202+25N 204+50E	1	2	2	2
L202+25N 204+75E	1	2	2	2
L202+25N 205+00E	1	2	2	2
L202+50N 201+25E	1	3	4	2
L202+50N 201+75E	2	2	2	2
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L202+50N 203E	1	2	2	2
L202+50N 203+25E	4	2	3	2
L202+50N 203+75E	1	2	2	2
L202+50N 204+25E	1	2	2	2
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L202+75N 201+75E	1	2	2	2
L202+75N 202E	1	2	2	2
L202+75N 202+25E	2	2	2	2
L202+75N 202+50E	1	2	2	2
L202+75N 202+75E	1	2	2	2
L202+75N 203E	1	2	3	2
DETECTION LIMIT	1	2	2	2

SAMPLE#	Au PPB	Pt PPB	Pd PPB	Rh PPB
L202+75N 203+25E	4	2	3	2
L202+75N 203+50E	1	2	2	2
L202+75N 203+75E	1	2	2	2
L202+75N 204E	1	2	2	2
L202+75N 204+25E	2	2	6	2
L202+75N 204+50E	1	2	2	2
L202+75N 204+75E	1	2	2	2
L202+75N 205E	2	2	5	2
L207+25N 201+00E	1	2	2	2
L207+25N 201+25E	1	2	2	2
L207+25N 201+50E	3	2	2	2
L207+25N 201+75E	3	2	4	2
L207+25N 202+00E	2	2	2	2
L207+25N 202+25E	1	2	4	2
L207+50N 201+25E	1	2	2	2
L207+50N 201+75E	4	2	6	2
L207+50N 202+25E	1	2	3	2
L207+50N 202+50E	2	2	2	2
L207+75N 201E	2	2	2	2
L207+75N 201+25E	1	2	2	2
L207+75N 201+50E	1	2	3	2
L207+75N 201+75E	2	2	2	2
L207+75N 202E	1	2	4	2
L207+75N 202+25E	1	2	2	2
L207+75N 202+50E	2	2	3	2
193+50E192+50NPO-22	1	2	2	2
193+50E192+50NP22-37	2	2	2	2
193+50E192+50NP37-50	2	2	2	2
193+50E192+50NP50-90	1	2	2	2
DETECTION LIMIT	1	2	2	2

# 16,025

GEOLOGICAL BRANCH  
ASSESSMENT REPORT



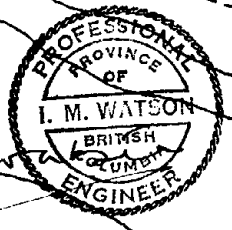
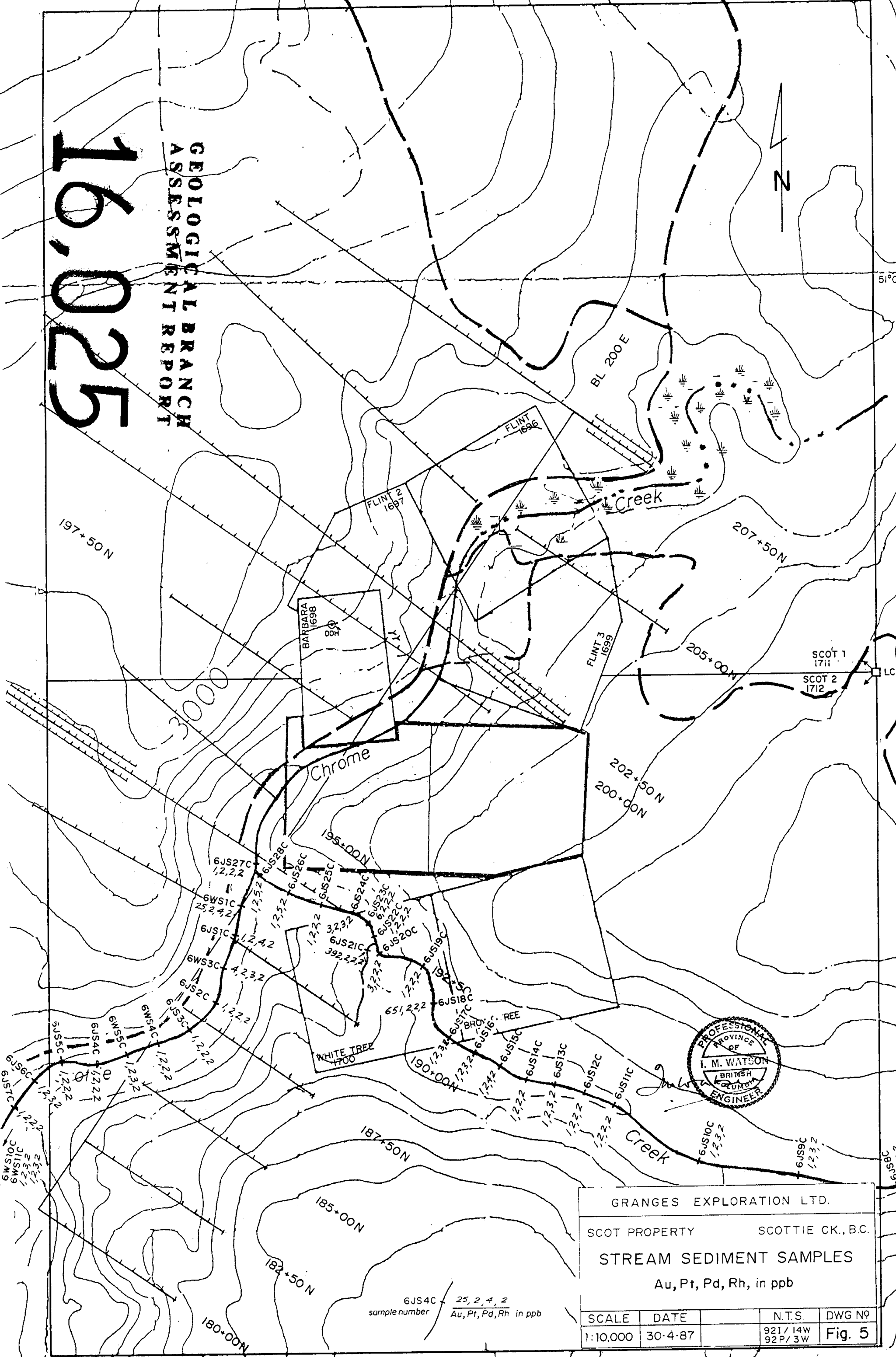
- TERTIARY**
- Trv Kamloops Group:  
Basalts (Trvb) and breccias (Trvbx)
- PENNSYLVANIAN-TRIASSIC**
- Cc Cache Creek Assemblage:  
Limestones, shales, basalts
  - Ubs Ultrabasic intrusives:  
Peridotite > dunite > pyroxenite; sheared, serpentinised
  - Diamond drill hole
  - x Adit

GRANGES EXPLORATION LTD.			
SCOT PROPERTY		SCOTTIE CK., B.C.	
RECONNAISSANCE GEOLOGY			
SCALE	DATE	N.T.S.	DWG N <sup>o</sup>
1:10,000	30-4-87	921/14W 92P/3W	Fig. 4



# 16,025

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**



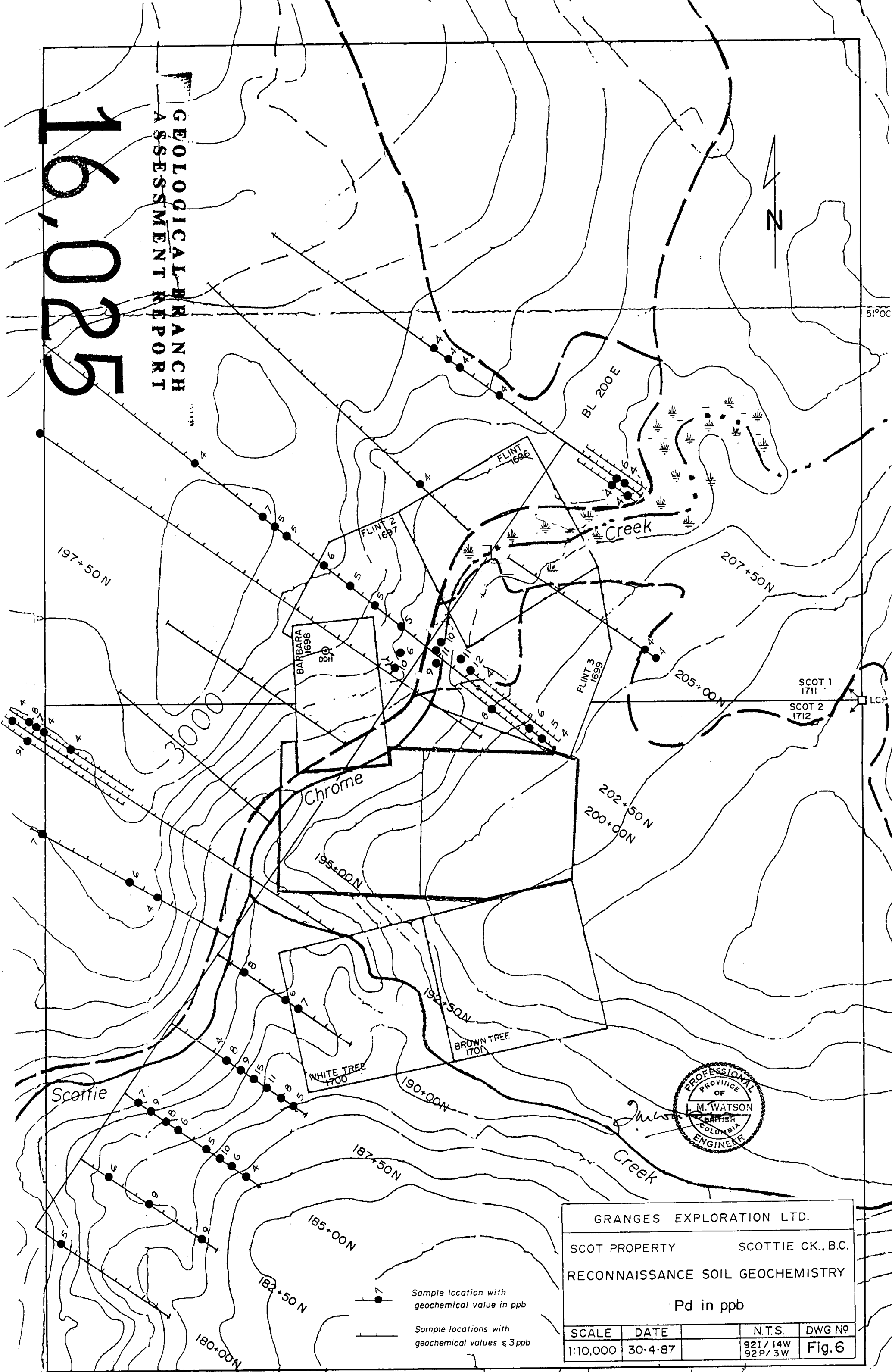
GRANGES EXPLORATION LTD.			
SCOT PROPERTY		SCOTTIE CK., B.C.	
STREAM SEDIMENT SAMPLES			
Au, Pt, Pd, Rh, in ppb			
SCALE	DATE	N.T.S.	DWG No
1:10,000	30-4-87	921/14W 92P/3W	Fig. 5

6JS4C    25, 2, 4, 2  
sample number    Au, Pt, Pd, Rh in ppb



# 16,025

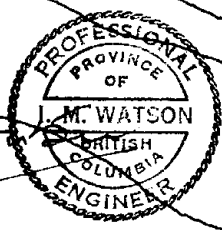
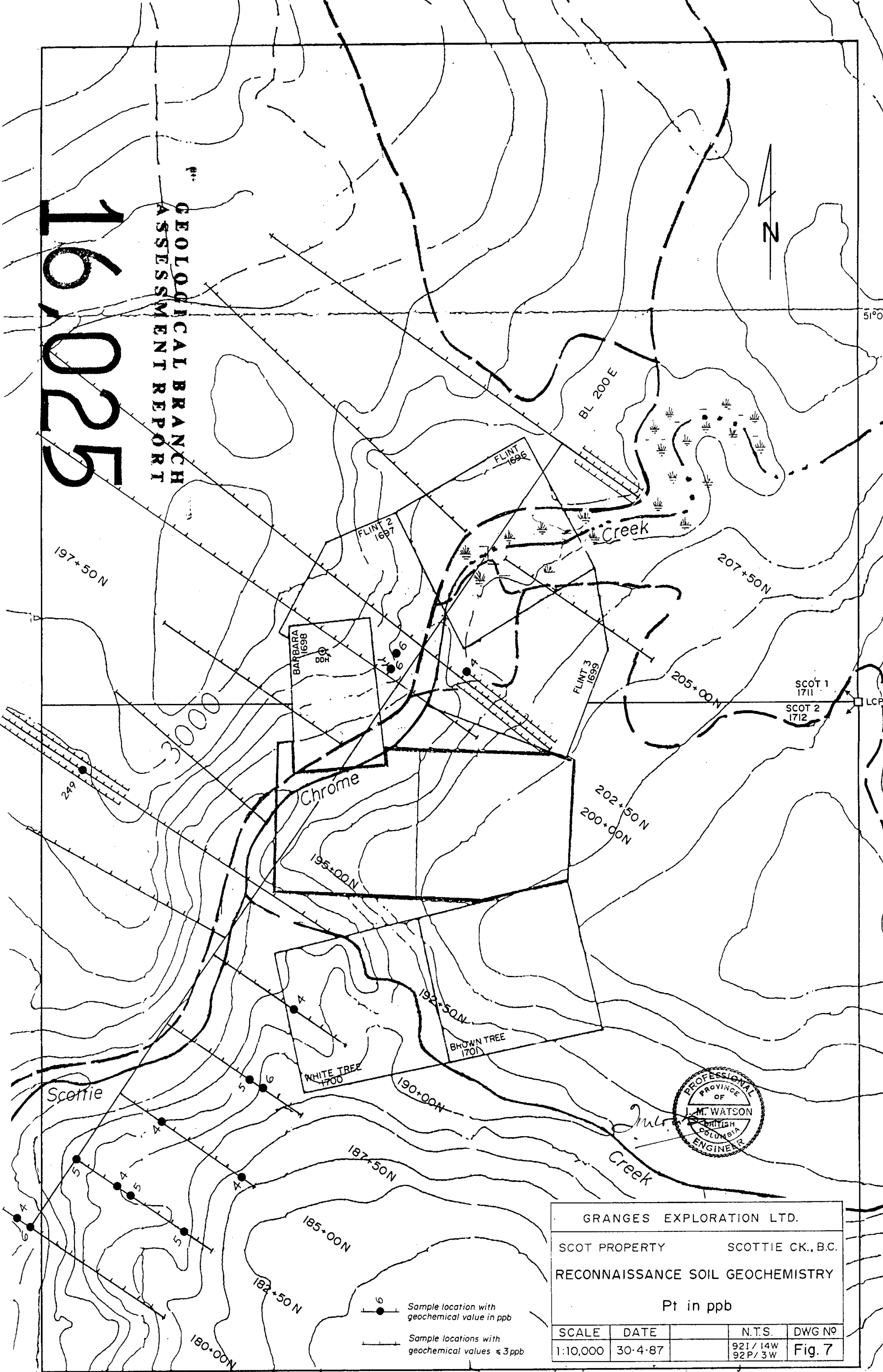
## GEOLOGICAL BRANCH ASSESSMENT REPORT



GRANGES EXPLORATION LTD.			
SCOT PROPERTY		SCOTTIE CK., B.C.	
RECONNAISSANCE SOIL GEOCHEMISTRY			
Pd in ppb			
SCALE	DATE	N.T.S.	DWG No
1:10,000	30.4.87	921/14W 92P/3W	Fig.6

# 16,025

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

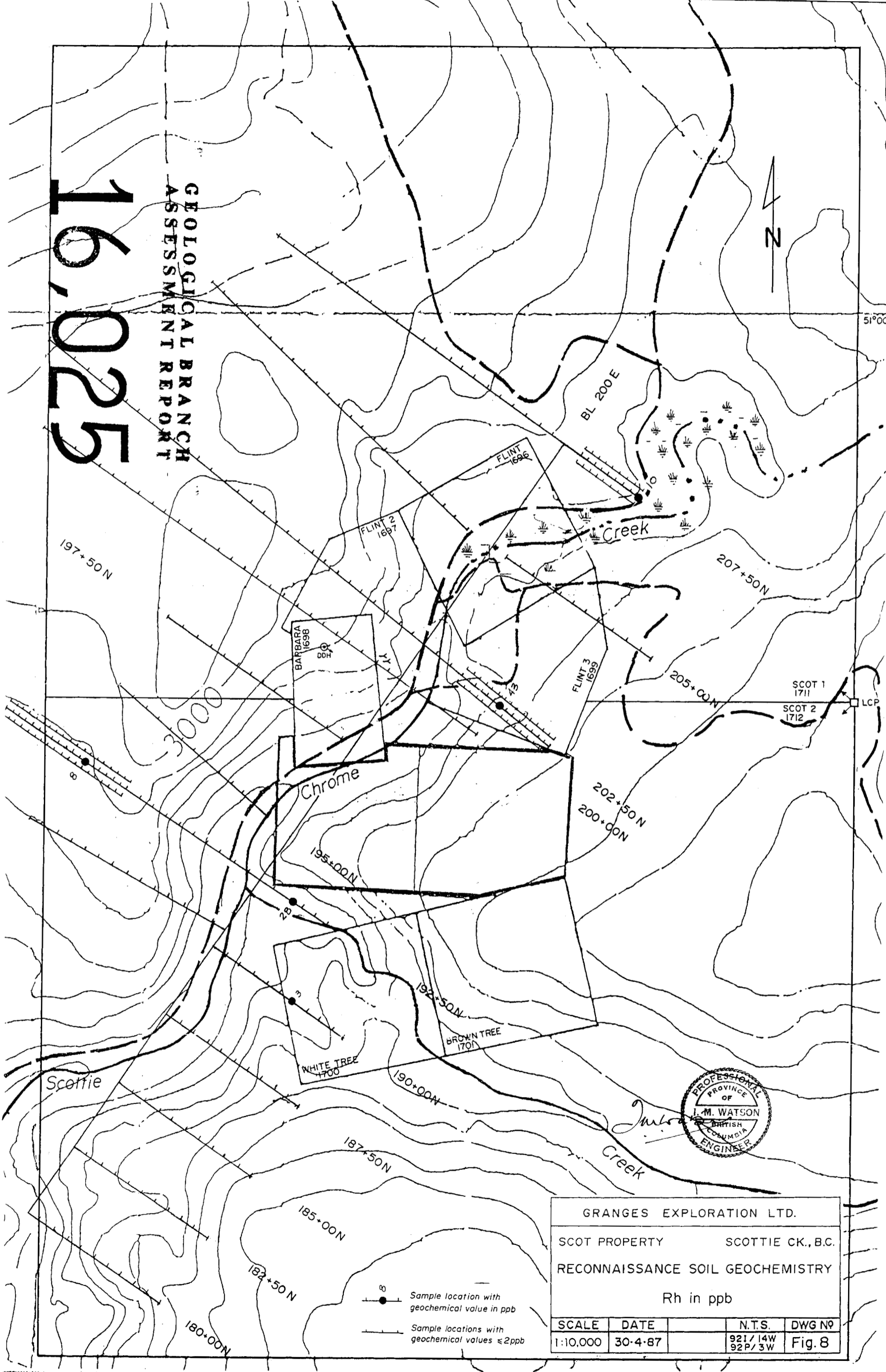


GRANGES EXPLORATION LTD.			
SCOT PROPERTY		SCOTTIE CK., B.C.	
RECONNAISSANCE SOIL GEOCHEMISTRY			
Pt in ppb			
SCALE	DATE	N.T.S.	DWG N <sup>o</sup>
1:10,000	30-4-87	92I/14W 92P/3W	Fig. 7

● Sample location with geochemical value in ppb  
 — Sample locations with geochemical values  $\leq 3$ ppb

# 16,025

## GEOLOGICAL BRANCH ASSESSMENT REPORT



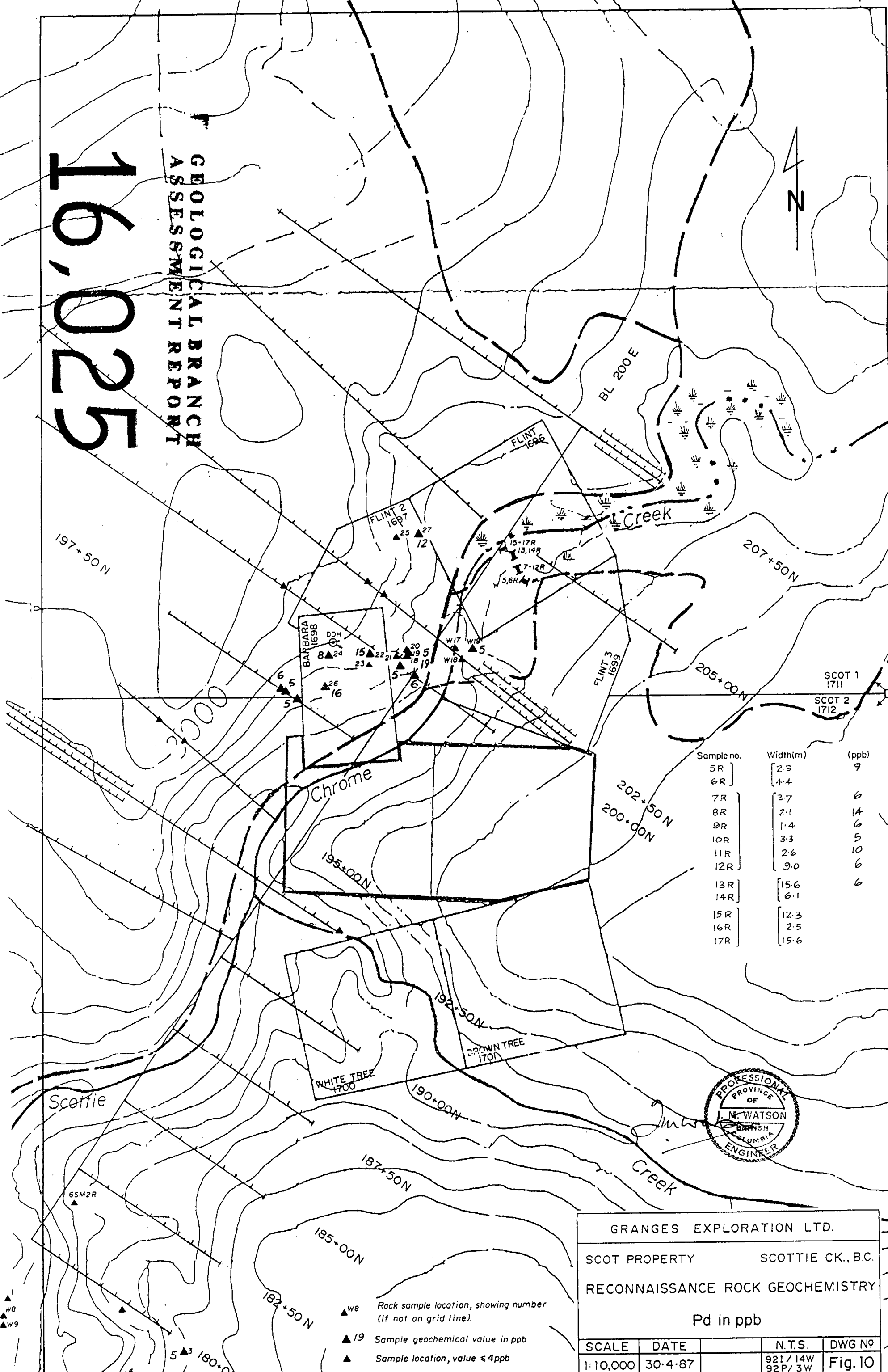
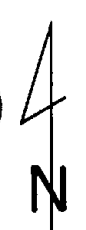
GRANGES EXPLORATION LTD.			
SCOT PROPERTY		SCOTTIE CK., B.C.	
RECONNAISSANCE SOIL GEOCHEMISTRY			
Rh in ppb			
SCALE	DATE	N.T.S.	DWG N <sup>o</sup>
1:10,000	30-4-87	921/14W 92P/3W	Fig. 8

Sample location with geochemical value in ppb  
 Sample locations with geochemical values ≤ 2ppb

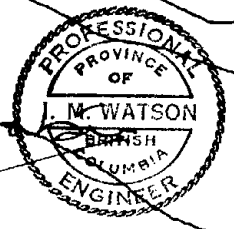


# 16,025

## GEOLOGICAL BRANCH ASSESSMENT REPORT



Sample no.	Width(m)	(ppb)
5R	2.3	9
6R	4.4	
7R	3.7	6
8R	2.1	14
9R	1.4	6
10R	3.3	5
11R	2.6	10
12R	9.0	6
13R	15.6	6
14R	6.1	
15R	12.3	
16R	2.5	
17R	15.6	

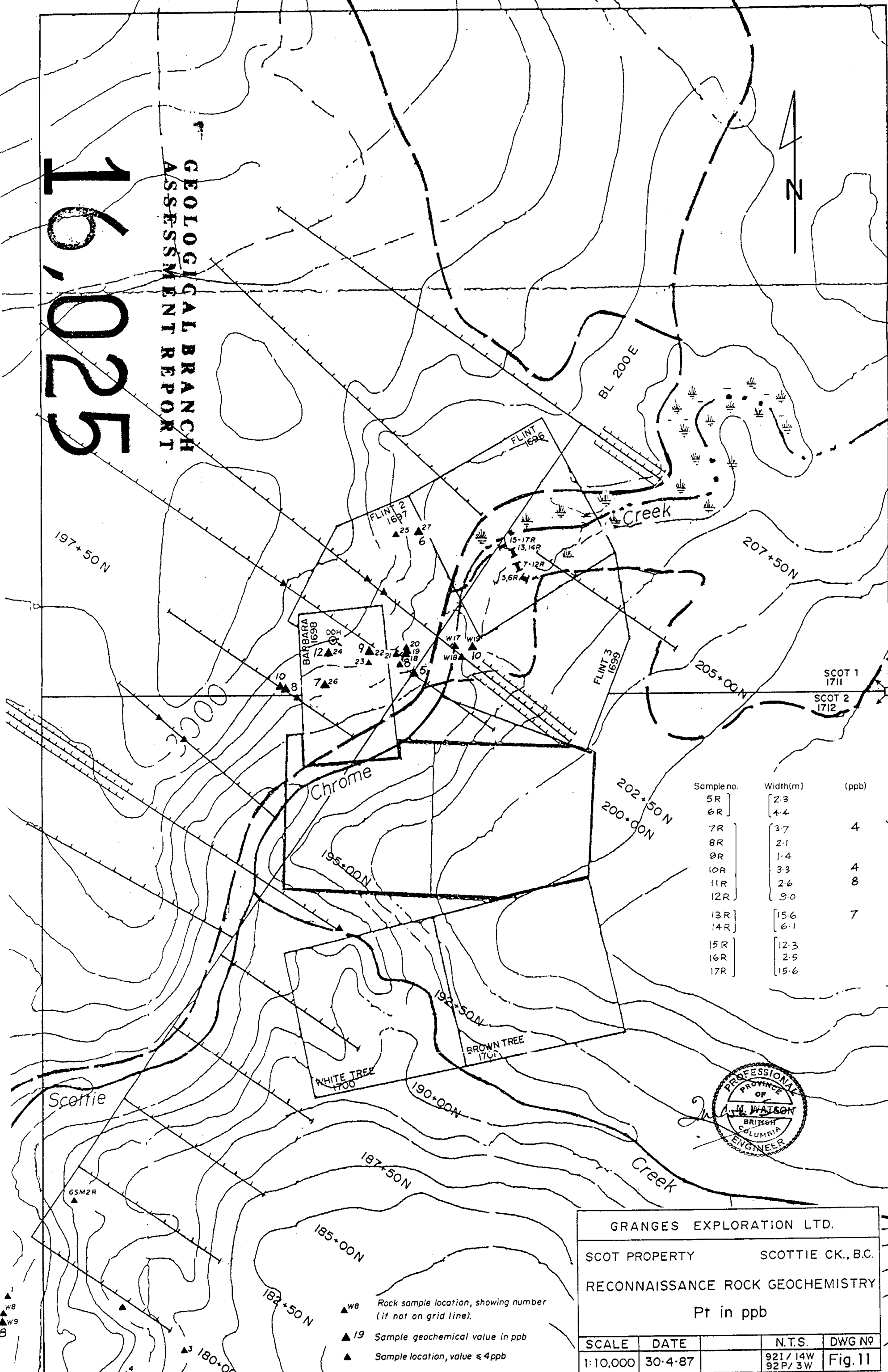


- ▲ w8 Rock sample location, showing number (if not on grid line).
- ▲ 19 Sample geochemical value in ppb
- ▲ Sample location, value ≤ 4ppb

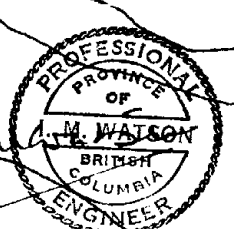
GRANGES EXPLORATION LTD.				
SCOT PROPERTY		SCOTTIE CK., B.C.		
RECONNAISSANCE ROCK GEOCHEMISTRY				
Pd in ppb				
SCALE	DATE		N.T.S.	DWG N <sup>o</sup>
1:10,000	30.4.87		921/14W 92P/3W	Fig.10

# 16,025

## GEOLOGICAL BRANCH ASSESSMENT REPORT



Sample no.	Width(m)	(ppb)
5R	2.3	
6R	4.4	
7R	3.7	4
8R	2.1	
9R	1.4	
10R	3.3	4
11R	2.6	8
12R	9.0	
13R	15.6	7
14R	6.1	
15R	12.3	
16R	2.5	
17R	15.6	



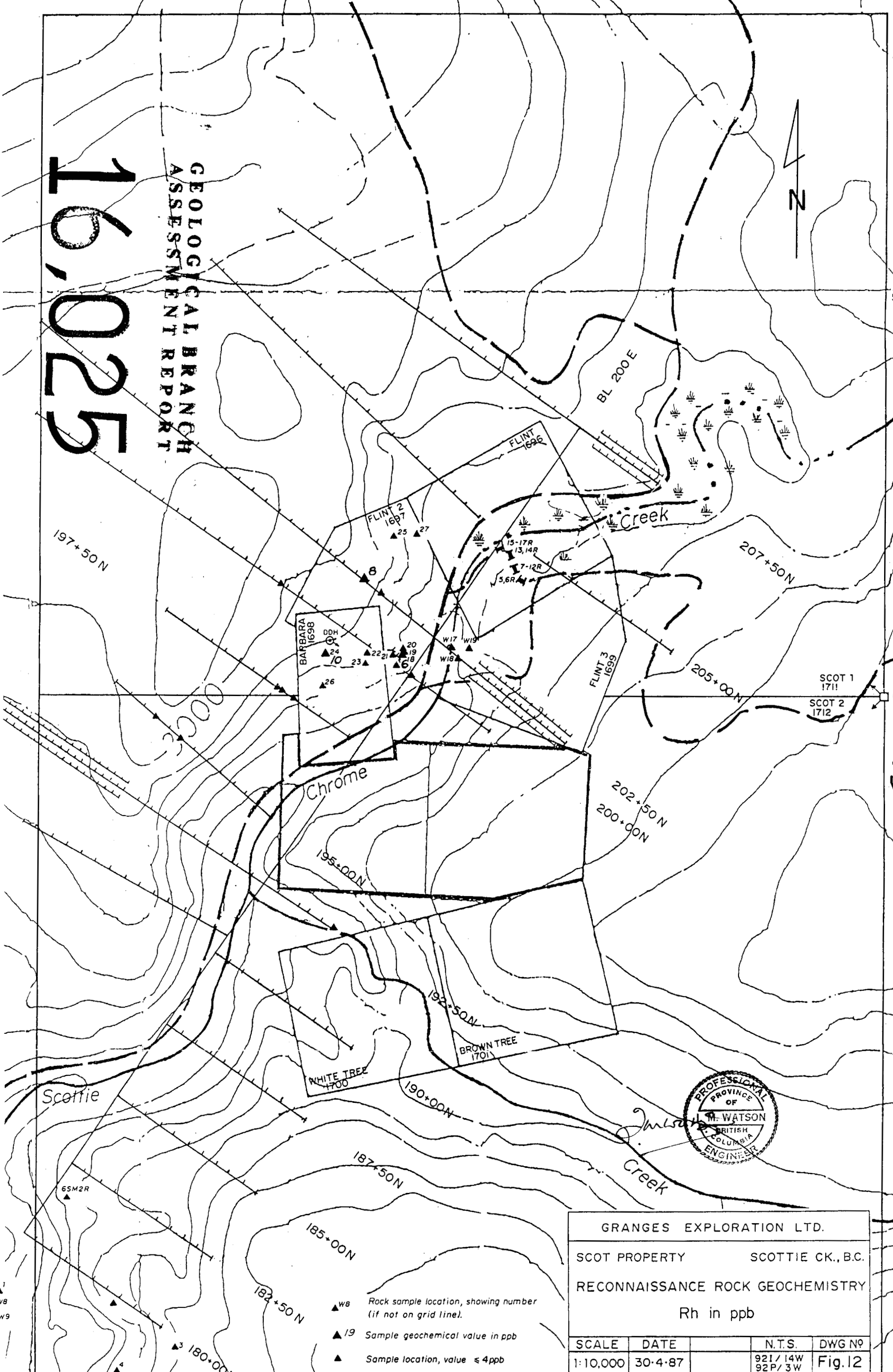
- ▲<sub>w8</sub> Rock sample location, showing number (if not on grid line).
- ▲<sub>19</sub> Sample geochemical value in ppb
- ▲ Sample location, value ≤ 4ppb

GRANGES EXPLORATION LTD.			
SCOT PROPERTY		SCOTTIE CK., B.C.	
RECONNAISSANCE ROCK GEOCHEMISTRY			
Pt in ppb			
SCALE	DATE	N.T.S.	DWG No
1:10,000	30-4-87	921/14W 92P/3W	Fig.11



# 16,025

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

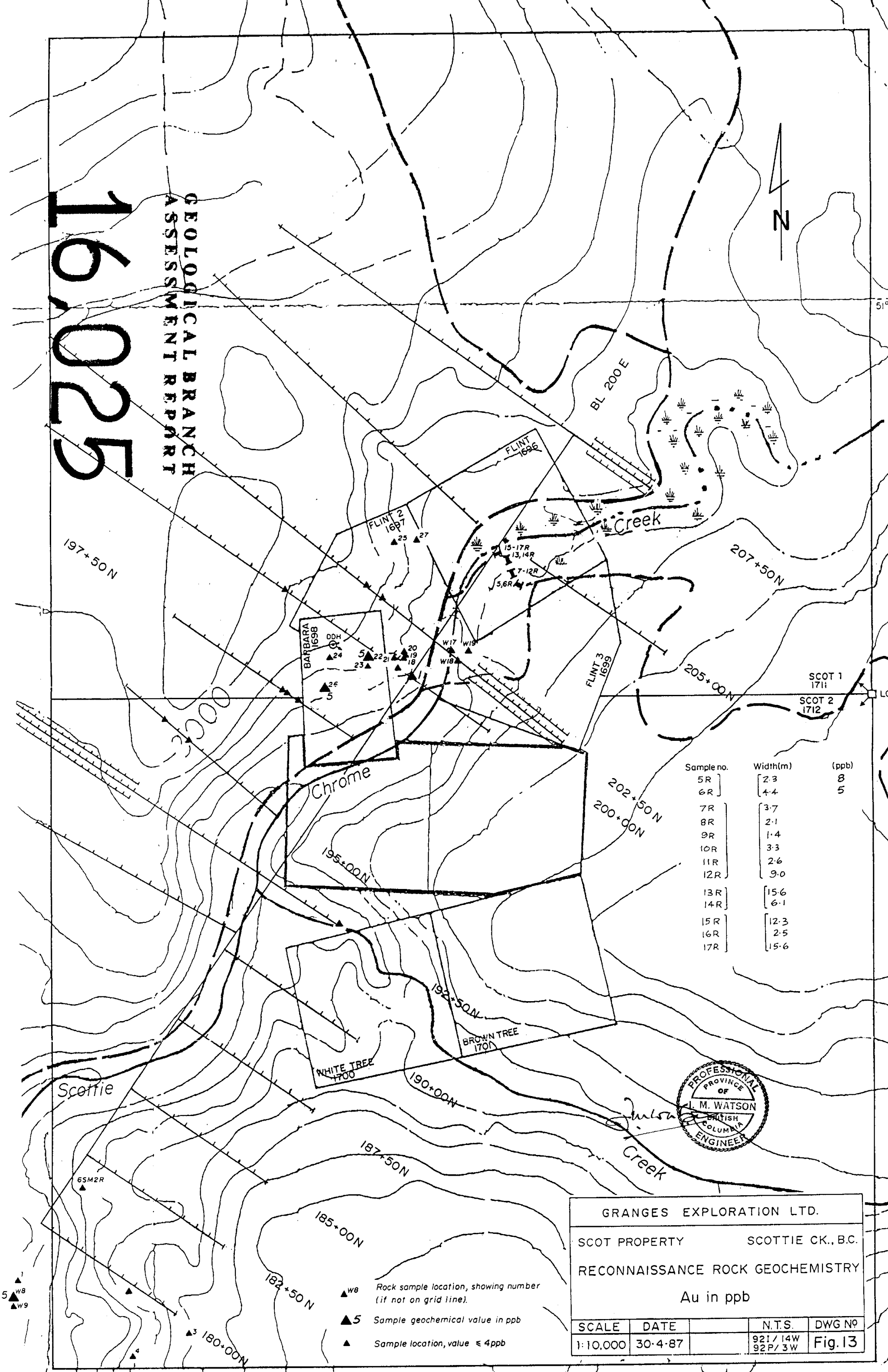


GRANGES EXPLORATION LTD.			
SCOT PROPERTY		SCOTTIE CK., B.C.	
RECONNAISSANCE ROCK GEOCHEMISTRY			
Rh in ppb			
SCALE	DATE	N.T.S.	DWG N <sup>o</sup>
1:10,000	30-4-87	921/14W 92P/3W	Fig.12

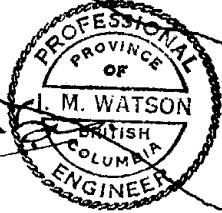
- ▲<sub>WB</sub> Rock sample location, showing number (if not on grid line).
- ▲<sub>19</sub> Sample geochemical value in ppb
- ▲ Sample location, value ≤ 4ppb

# 16,025

## GEOLOGICAL BRANCH ASSESSMENT REPORT



Sample no.	Width(m)	(ppb)
5R	2.3	8
6R	4.4	5
7R	3.7	
8R	2.1	
9R	1.4	
10R	3.3	
11R	2.6	
12R	9.0	
13R	15.6	
14R	6.1	
15R	12.3	
16R	2.5	
17R	15.6	



GRANGES EXPLORATION LTD.

SCOT PROPERTY SCOTTIE CK., B.C.

RECONNAISSANCE ROCK GEOCHEMISTRY

Au in ppb

SCALE	DATE	N.T.S.	DWG No
1:10,000	30-4-87	921/14W 92P/3W	Fig.13

- ▲wb Rock sample location, showing number (if not on grid line).
- ▲5 Sample geochemical value in ppb
- ▲ Sample location, value ≤ 4ppb