

DIAMOND DRILLING REPORT

ON

BARBARA #1698

CACHE CREEK AREA

KAMLOOPS MINING DIVISION

N.T.S: 92 I/14W

92 P/3W

49°59'N 121°24'W

DATE OF WORK : November 23 to December 21, 1981

DATE OF REPORT: February 6, 1982

AUTHOR : George W. Zbitnoff, P. Eng.

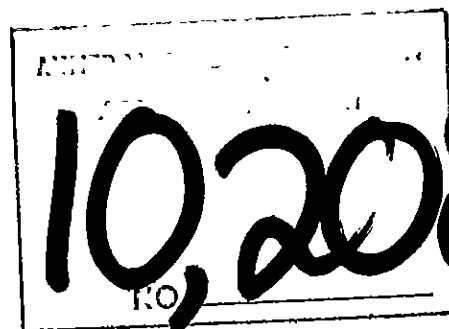


TABLE OF CONTENTS

Introduction	1
Property	1
Location and Access	1
General Geology	1
Previous Work	2
Diamond Drilling	2
Summary of Results	3
Conclusion and Recommendations	4
Expenditures	5
Author's Qualification.....	6

ILLUSTRATIONS

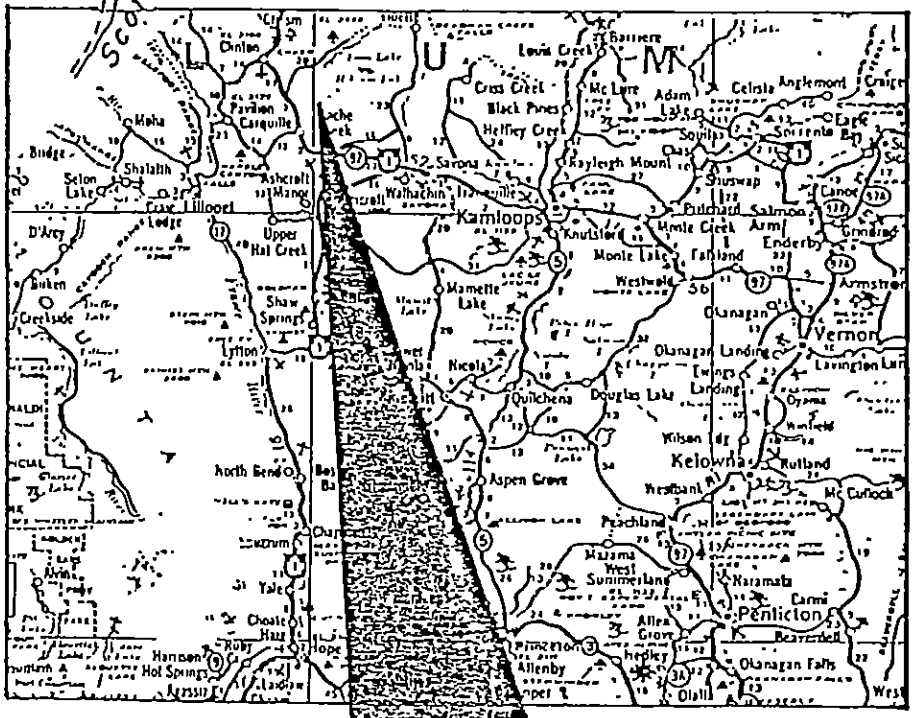
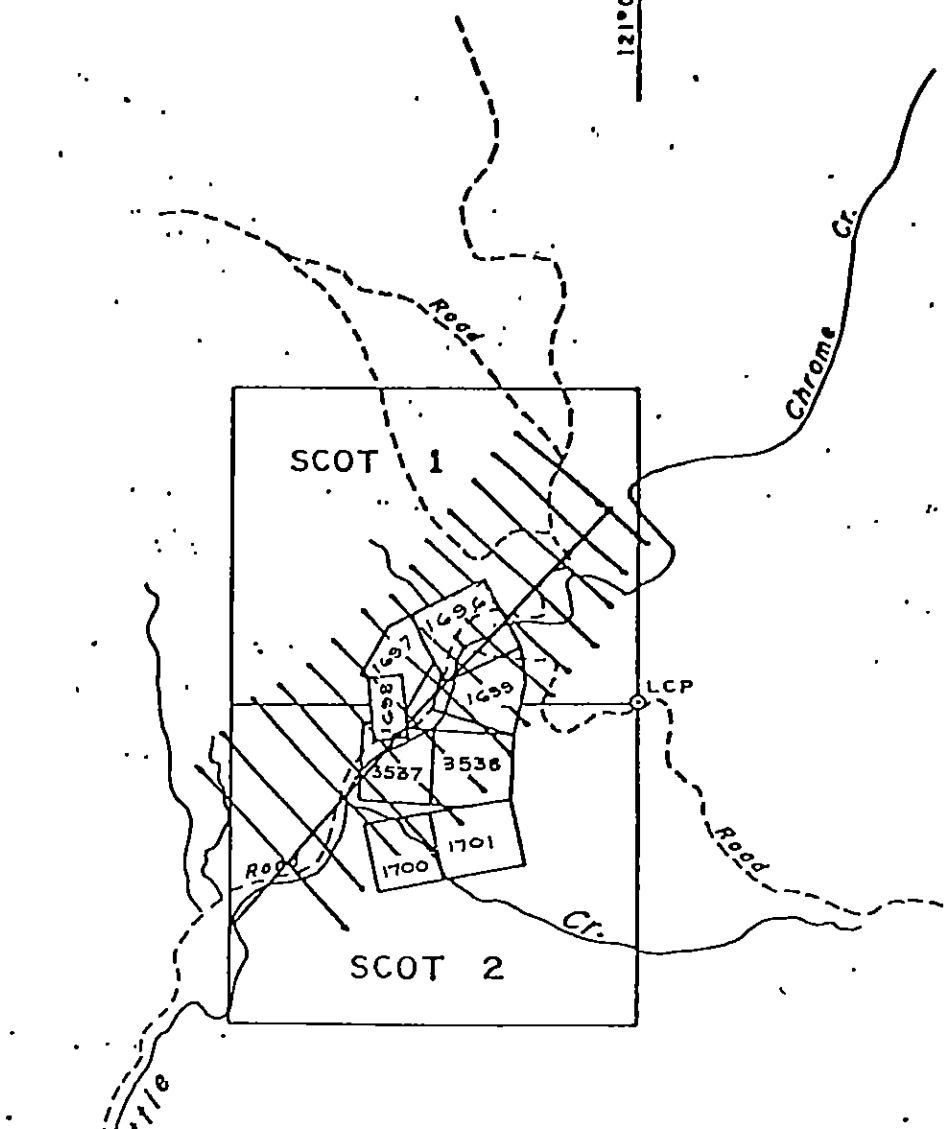
- Fig. 1 Location and Claim Map.
Fig. 2 Location of Drill Holes.

ENCLOSURES

- Diamond Drill Log for Hole SCOT 1.
Diamond Drill Record for Hole SCOT 1.
Diamond Drill Log for Hole SCOT 2.
Diamond Drill Record for Hole SCOT 2.
ASSAY SHEETS FOR HOLE SCOT 1 & 2.

51°00'

121°07'



GRANGES EXPLORATION AB
 SCOT CLAIMS
 — LOCATION & CLAIM MAP —

1cm = 500 Meters

INTRODUCTION

The Scot 1 and 2 mineral claims were staked to cover old chromite showings in the Cache Creek Area. During the period November 23 - December , 1981, Phil Drilling of Lac La Hache, British Columbia, was contracted to drill two holes to determine the dip and strike extension of the Scottie Creek showings. The purpose of the holes was to investigate the possible extent and width of the chromite bearing serpentinites.

PROPERTY

The property consists of SCOT 1 and 2 mineral claims which includes claims 1696 through 1701 which were the original lots 3532 - 3535 inclusive, 3538, 3539, comprising some 45 contiguous units as illustrated on Figure 1.

LOCATION AND ACCESS

The mineral claims are located some 19 km northwest of Cache Creek on Scottie Creek. Latitude $50^{\circ} 59^{\circ} \text{N}$, Longitude 121°W , N.T.S. 92 I/14W and 92 P/3W, Kamloops Mining Division.

Claims are readily accessible by two-wheel drive vehicle up Scottie Creek from the Cache Creek to Clinton Highway.

GENERAL GEOLOGY

The mineral showing are described in G.S.C. Memoir 262, Ashcroft Map Area, by S. Duffell and K.C. McTaggart 1952. The showings are in a chromite bearing serpentinite which occurs within the Cache Creek sedimentary rocks. The chromite occurs as disseminated grains and pods of massive material.

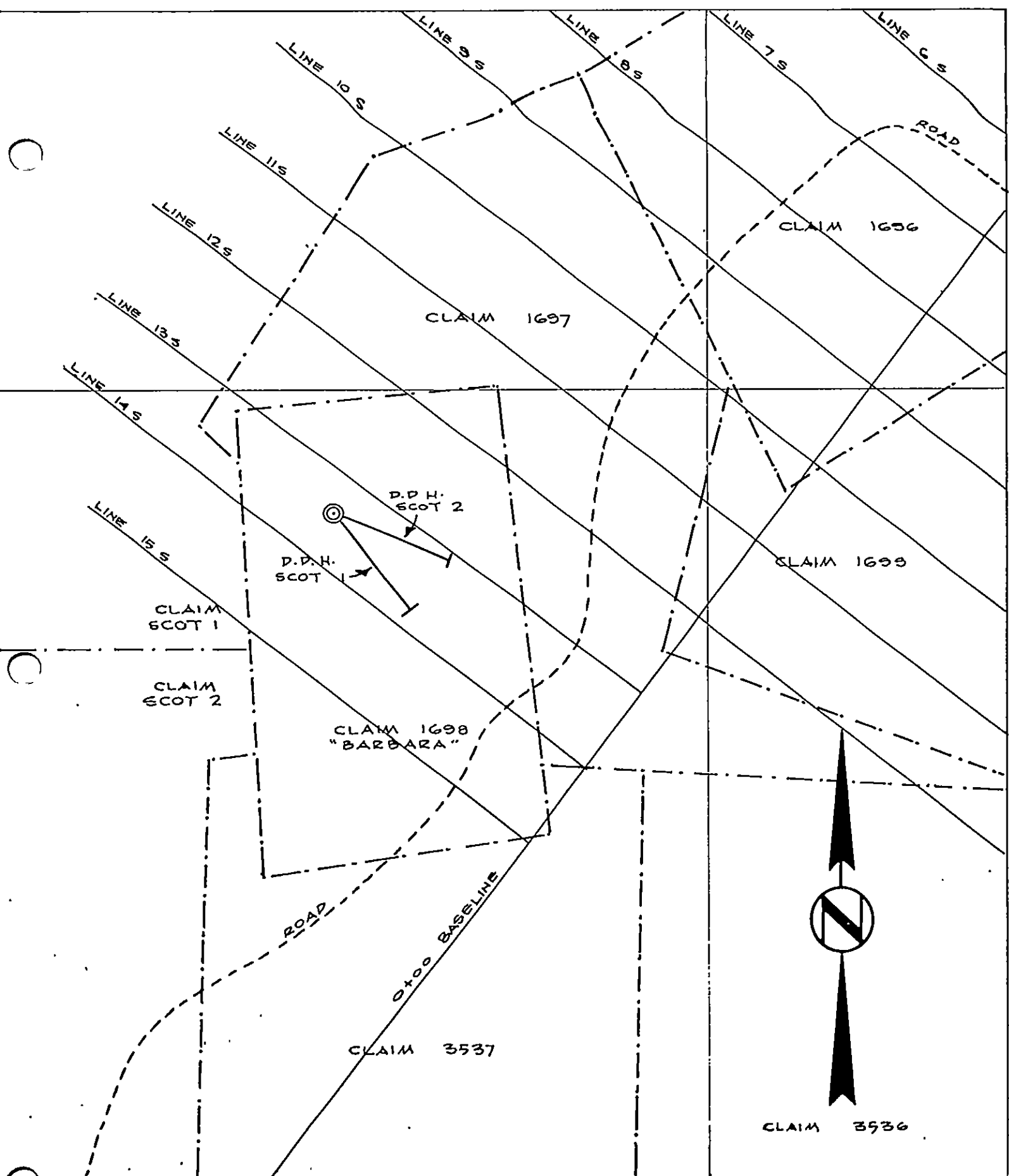
It is thought that the chromite crystallized during the cooling of the ultrabasic serpentinite.

PREVIOUS WORK

A magnetometer survey was carried out by Glen E. White on Granges Exploration Aktiebolag's behalf in January 1980. This located some highly magnetic areas which were assumed to contain chromite rich serpentinites.

DIAMOND DRILLING

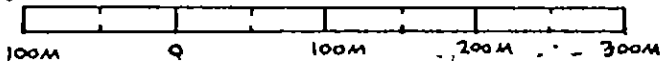
Tenders were submitted to several contractors in the area. Phil's Drilling of Lac La Hache was awarded the contract for the two holes. Both holes were drilled on Barbara Claim 1698 from the same site and were varied in their directions. The drilling was carried out during the period of November 29 to December 15, 1981 under the supervision of E. Fluskey and L. Solkoski; field geologists for Granges Exploration Aktiebolag. The overall program was overseen by Mr. G.W. Zbitnoff (P. Eng.) Assistant Manager for Granges Exploration Aktiebolag. The two holes (BQ insize) SCOT 1 and SCOT 2 were drilled for a total footage of 312.42 meters.



PLAN OF DIAMOND DRILLING
 ON CLAIM 1698
 SCOTTIE CREEK AREA
 KAMLOOPS M.D.
 N.T.S. NO 92-1-14W

FIG. 2
 MARCH, 1982

SCALE 1:5,000



SUMMARY OF RESULTS

D.D.H. SCOT 1 (13+43S, 3+65W GRID) -60° (142° Azimuth)

0	-	12.5 meters	Casing sand clay & boulders.
12.5	-	41.15 meters	Conglomerate.
41.15	-	77.72 meters	Serpentinite.
77.72	-	87.84 meters	Granite with volcanic units.
87.84	-	95.10 meters	Serpentinites.
95.1	-	96.32 meters	Fault zone.
96.32	-	97.23 meters	Pegmatite.
97.73	-	154.84 meters	Serpentinite.

End of Hole.

D.D.H. SCOT 2 (13+43S, 3+65W GRID) -60° (142° Azimuth)

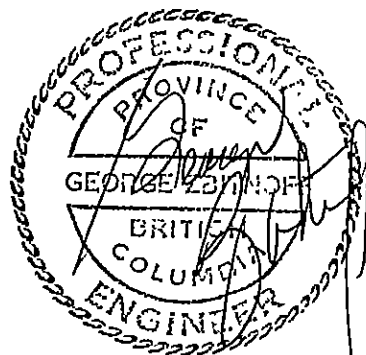
0	-	3.65 meters	Casing sand & gravel.
3.65	-	38.7 meters	Conglomerate.
38.7	-	51.21 meters	Serpentinite.
51.21	-	61.14 meters	Alteration zone.
61.14	-	107.59 meters	Serpentinite.
107.59	-	119.4 meters	Dunite.
119.4	-	157.58 meters	Serpentinite.

End of Hole.

For more comprehensive results see enclosed logs and record sheets. Core is stored at 852 East Hastings Street, Vancouver, B.C.

CONCLUSION AND RECOMMENDATIONS

Due to the poor results obtained in the drilling of holes SCOT 1 and 2, it is recommended that the claims be geologically mapped and short vertical holes be drilled to investigate the possibility of locating a chromite pod which would have large enough dimensions to be of economic importance.



.... /5.

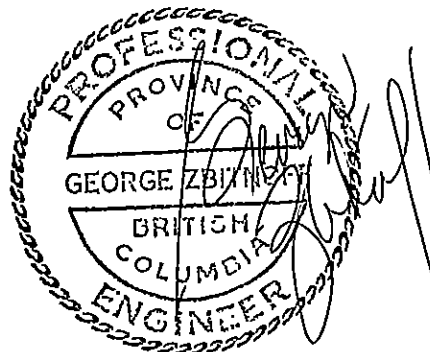
EXPENDITURES

D.D.H. SCOT 1

<u>PERSONNEL</u>	<u>DATE</u>	<u>WAGES</u>	<u>TOTAL</u>
E. Fluskey	Nov.23-Dec.6/81 Inclusive	\$82.50/day	\$ 1,155.00
K. Taylor	Nov.23-Nov.30/81 " "	\$60.00/day	480.00
Diamond Drilling Costs			12,154.00
Assays			874.00
Transportation and Communication (Includes drill mobilization)			1,066.06
Meals & Accommodation			751.78
Report & Preparation			100.00
		TOTAL	\$ 16,580.84

D.D.H. SCOT 2

<u>PERSONNEL</u>	<u>DATE</u>	<u>WAGES</u>	<u>TOTAL</u>
E. Fluskey	Dec.7-8, 1981	\$82.50/day	\$ 165.00
L. Solkoski	Dec.13-21, 1981	\$73.33/day	659.97
K. Taylor	Dec.1 - 3, 1981	\$60.00/day	180.00
Diamond Drilling Costs			12,471.00
Assays			420.00
Transportation and Communication (Includes drill demob.)			851.66
Meals & Accommodation			446.81
Report Preparation			100.00
		TOTAL	\$ 15,294.44



STATEMENT OF QUALIFICATIONS

Name: Zbitnoff, George Wm.

Profession: Geologist

Professional Associations: Member of the Association of Professional Engineers of the Province of Manitoba since 1969.

Member of the Association of Professional Engineers of the Province of British Columbia since 1973.

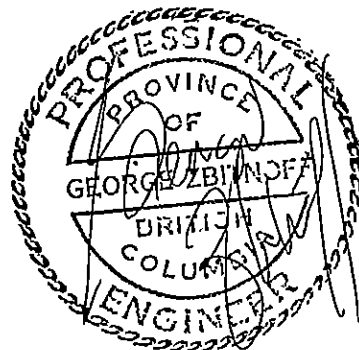
Experience: Pre graduation experience in geology with the Department of Mineral Resources of Saskatchewan.

Two and one half years, field geologist with Hudson Bay Exploration and Development, Central Canada.

Six years, field and resident geologist with Noranda Exploration Ltd., Central Canada.

Eleven years geologist and Assistant Manager with Granges Exploration Aktiebolag, Canadian Division.

Active experience in all geologic provinces of Canada and parts of the United States and Mexico.





To: Granges Exploration Aktiebolag,
 #1110 - 625 Howe St.,
 Vancouver, B.C. V6C 2T6

ACME ANALYTICAL LABORATORIES LTD.
 Assaying & Trace Analysis
 852 E. Hastings St., Vancouver, B. C. V6A 1R6
 Telephone: 253 - 3158

File No. 81-1910
 Type of Samples DD Core
 Disposition _____

ASSAY CERTIFICATE

Project : Cache Creek

No.	Sample	Au gm/tonne	Ag gm/tonne	Cu%	Zn%				No.
1	2301	.05	.5	.01	.01				1
2	2302	.05	.5	.01	.01				2
3									3
4									4
5									5
6									6
7									7
8									8
9									9
10									10
11									11
12									12
13									13
14									14
15									15
16									16
17									17
18									18
19									19
20									20

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DATE SAMPLES RECEIVED Dec. 8, 1981

DATE REPORTS MAILED Dec. 15, 1981

ASSAYER

OKS: -

DEAN TOYE, B.Sc.
 CHIEF CHEMIST
 CERTIFIED B.C. ASSAYER



To: Granges Exploration Aktiebolag,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

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Telephone: 253 - 3158

File No. 81-1910

Type of Samples DD Core

Disposition _____

ASSAY CERTIFICATE

No.	Sample	Ni%	Co%	Fe%	Cr%				No.
1	2303	.01	.01	4.40	.04				1
2	2304	.11	.01	4.05	.59				2
3	2305	.19	.01	5.80	.36				3
4	2306	.19	.01	5.35	.51				4
5	2307	.15	.01	4.25	.36				5
6	2308	.19	.01	4.40	.22				6
7	2309	.18	.01	4.80	.41				7
8	2310	.18	.01	5.15	.23				8
9	2311	.17	.01	5.55	.31				9
10	2312	.19	.01	5.10	.61				10
11	2313	.21	.01	4.85	.76				11
12	2314	.19	.01	5.60	.44				12
13	2315	.21	.01	5.50	.24				13
14	2316	.19	.01	5.25	.29				14
15	2317	.01	.01	2.60	.05				15
16	2318	.16	.01	4.30	.49				16
17	2319	.18	.01	5.05	.29				17
18	2320	.17	.01	5.10	.38				18
19	2321	.19	.01	4.45	.78				19
20									20

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81-1910

File No. _____

Type of Samples DD Core

Disposition _____

ASSAY CERTIFICATE

No.	Sample	Ni%	Co%	Fe%	Cr%				No.
1	2322	.09	.01	4.05	.25				1
2	2323	.19	.01	4.45	.42				2
3	2324	.20	.01	5.10	.24				3
4	2325	.21	.01	5.30	.51				4
5	2326	.19	.01	4.60	1.23				5
6	2327	.25	.01	5.45	.22				6
7	2328	.19	.01	5.20	.21				7
8	2329	.23	.01	5.40	.27				8
9	2330	.22	.01	5.70	.28				9
10	2331	.23	.01	5.75	.21				10
11	2332	.20	.01	5.70	.34				11
12	2333	.24	.01	5.85	.23				12
13	2334	.22	.01	5.50	.92				13
14	2335	.23	.01	5.55	.54				14
15	2336	.20	.01	6.10	.30				15
16	2337	.12	.01	5.20	.17				16
17	2338	.16	.01	5.10	.21				17
18	2339	.18	.01	6.20	.32				18
19	2340	.19	.01	5.10	.30				19
20									20

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81-1910

File No. _____

Type of Samples DD Core

Disposition _____

ASSAY CERTIFICATE

No.	Sample	Ni%	Co%	Fe%	Cr%				No.
1	2341	.21	.01	5.15	.38				1
2	2342	.18	.01	5.50	.25				2
3									3
4									4
5									5
6									6
7									7
8									8
9									9
10									10
11									11
12									12
13									13
14									14
15									15
16									16
17									17
18									18
19									19
20									20

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CHIEF CHEMIST
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To: Granges Exploration Aktiefbolag,
#1110 - 625 Howe St.,
Vancouver, B.C.
V6C 2T6

81-1943

File No. _____

Type of Samples Cores

Disposition _____

ASSAY CERTIFICATE

No.	Sample	Ni%	Co%	Fe%	Cr%				No.
1	2226 B	.18	.01	6.05	.41				1
2	2227	.21	.01	5.58	.42				2
3	2228	.20	.01	5.66	.61				3
4	2229	.20	.01	4.76	.27				4
5	2230	.21	.01	5.20	.34				5
6	2231	.19	.01	5.91	.32				6
7	2232	.18	.01	5.84	.36				7
8	2233	.19	.01	5.80	.33				8
9	2234 B	.18	.01	5.41	.26				9
10									10
11									11
12									12
13									13
14									14
15									15
16									16
17									17
18									18
19									19
20									20

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DATE SAMPLES RECEIVED Dec. 18, 1981

DATE REPORTS MAILED Dec. 30, 1981

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 # 1110 - 625 Howe St.,
 Vancouver, B.C.
 V6C 2T6

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

81-1945

File No. _____

Type of Samples Cores

Disposition File Sect #2

ASSAY CERTIFICATE

No.	Sample	Ni%	Co%	Fe%	Cr%			No.
1	2235 B	.21	.01	5.61	.28			1
2	2236	.24	.01	5.40	.40			2
3	2237	.09	.01	5.52	.17			3
4	2238	.21	.01	5.62	.29			4
5	2239	.22	.02	5.26	.31			5
6	2240	.22	.01	5.85	.25			6
7	2241	.22	.01	6.13	.54			7
8	2242	.21	.01	4.94	3.80	408' - 410'		8
9	2243	.26	.01	5.22	1.50	390.6' - 393'		9
10	2244	.22	.01	6.25	.30			10
11	2245 B	.19	.01	1.43	12.50	3" SAMPLE WHOLE CORE @ 412'		11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

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DATE SAMPLES RECEIVED Dec. 21, 1981

DATE REPORTS MAILED Dec. 30, 1981

ASSAYER

Dean Toy
 DEAN TOYE, B.Sc.
 CHIEF CHEMIST
 CERTIFIED B.C. ASSAYER



GRANGES EXPLORATION AB
CANADIAN DIVISION
DIAMOND DRILL LOG

Property SCOTTIE CREEK JV Project No. Depth 15484 M Date Began Nov. 29, 1981
 Hole No. SCOT # 1 Co ord. L 13 + 43S (M) Horizontal Length .78 .3M Date Completed Dec. 7, 1981
 Sheet No. 1 3 + 65W Direction 15° S. of Grid E. Drilled By. Phil's Drilling
 Claim No. BARBARA Elevation Angle (142° True) Logged By. Ed. Fluskey
60° E.

METERS	DESCRIPTION	ALTERATION								% REC'Y CALC'D.
		FROM	TO							
0-125	Casing: Sand, Clay & Boulders									
125-41.15	Conglomerate									
	- Matric Sandy clay with minor limonite									
	- Clasts semi rounded consisting of vesicular basalt otzite and granite									
	- Unit has the appearance of being young probably from the Cache Creek Sed. Formation									
	- Minor ground sections									
	- No visible mineralization except limonite infilling									
	36.0-37.49 limonitic 1.06m lost									
41.15-77.72	Serpentinite									
	- Generally dark green with light green Crosscutting serpentinite veinlets									
	- Unit slightly magnetic									
	- HW Contact Sharpe and broken over 0.15m									
	- No visible sulphides									
	- No substantial chromite mineralization									
	48.04-50.6: Ground & broken, fault zone .6m lost									
	50.6-51.21: Qtz rich veined section									
	51.21-57.0: Dk green, competent									
	- Minor speck of Cr. Diss.									
	57.0-58.36: Broken and sheared 0.15 lost									
	58.36-61.87: Dk green, slightly sheared									
	61.87-62.33: Qtz & serp. rich, hard and massive									
	62.33-65.37: Dk green, "spongy" texture									
	- Minor Diss. Cr.									
	65.37-66.0: Ground and broken									
	66.0-71.02: Dk green, slightly sheared									
	70.41-70.87 Diss.									
	71.02-72.54: Ground broken, Fault zone 6.5cm. lost									
	72.54-77.72: Dk green massive									
	Diss CR									
77.72-87.84	Granite with intermittent Volc units									

10,208



GRANGES EXPLORATION AB
CANADIAN DIVISION
DIAMOND DRILL RECORD

Property Project No. Depth 157.88 M Date Began
 Hole No. SCOT #1 Co ord. Horizontal Length Date Completed
 Sheet No. 2 Direction Drilled By.
 Claim No. Elevation Angle Logged By.

FOOTAGE METERS	NUMBER	WIDTH METERS	Ni%	Co%	Fe%	Cr%	WIDTH X ASSAY					AVERAGES					REMARKS	
							WIDTH	Au.	Ag.	Cu.	Zn.	WIDTH	Au.	Ag.	Cu.	Zn.		
131.37-134.42	23348	3.05	.22	.01	5.50	.92												
134.42-137.16	2335	2.74	.23	.01	5.55	.54												
137.16-139.07	2336	0.91	.20	.01	6.10	.30												
139.07-141.12	2337	3.05	.12	.01	5.20	.17												
141.12-143.26	2338	2.13	.16	.01	5.10	.21												
143.26-146.30	2339	3.05	.18	.01	6.20	.32												
146.30-149.35	2340	3.05	.19	.01	5.10	.30												
149.35-151.79	2341	2.44	.21	.01	5.15	.38												
151.79-154.88	2342	3.05	.18	.01	5.50	.25												
154.88	END OF HOLE																	



GRANGES EXPLORATION AB
CANADIAN DIVISION
DIAMOND DRILL RECORD

Property SCOTTIE CREEK S.V. Project No. Depth 157.58 M. Date Began DEC. 11. 1981
 Hole No. SCOTT #2 Co. ord. L13+43 S Horizontal Length 79 M. Date Completed DEC. 15. 1981
 Sheet No. 1 Direction N15° E Geo 112° True Drilled By WILSON DALLING
 Claim No. BARBARA Elevation Angle -60° Logged By L. X. S.

FOOTAGE METERS	NUMBER	WIDTH METERS	Ni %	Co %	Fe %	Cu %	AVERAGES					REMARKS	
							WIDTH	Au.	Ag.	Cu.	Zn.		
0-3.65	CASING	3.65	-	-	-	-							
3.65-39.01	WASTE	32.36	-	-	-	-							
39.01-40.54	2226B	1.53	.18	.01	6.05	.41							
40.54-43.59	2227	3.05	.21	.01	5.58	.42							
43.59-46.63	2228	3.04	.20	.01	5.66	.61							
46.63-49.68	2229	3.05	.20	.01	4.76	.27							
49.68-52.73	2230	3.05	.21	.01	5.20	.34							
52.73-55.77	2231	3.04	.19	.01	5.91	.32							
55.77-58.82	2232	3.05	.18	.01	5.84	.36							
58.82-61.87	2233	3.05	.19	.01	5.80	.33							
61.87-64.92	2234	3.05	.18	.01	5.41	.26							
64.92-66.14	2235	1.22	.21	.01	5.61	.28							
66.14-72.23	WASTE	6.09	-	-	-	-							
72.23-73.76	2236	1.53	.24	.01	5.40	.40							
73.76-106.68	WASTE	32.92	-	-	-	-							
106.68-107.59	2241	0.91	.22	.01	6.13	.54							
107.59-119.05	WASTE	11.46	-	-	-	-							
119.05-119.78	2243	0.73	.26	.01	5.22	1.50							
119.78-124.36	WASTE	4.58	-	-	-	-							
124.36-124.96	2242	0.60	.21	.01	4.94	3.80							
124.96-125.57	WASTE	0.61	-	-	-	-							
125.57-125.65	2245	0.08	.19	.01	1.43	12.50							
125.65-133.19	WASTE	7.54	-	-	-	-							
133.19-133.5	2244	0.31	.22	.01	6.25	.30							
133.5-137.65	WASTE	4.15	-	-	-	-							
137.65-139.6	2237	1.95	.09	.01	5.52	.17							
139.6-142.6	WASTE	3.00	-	-	-	-							
142.6-143.56	2238	0.96	.21	.01	5.62	.29							
143.56-146.3	WASTE	2.74	-	-	-	-							
146.3-148.4	2239	2.10	.22	.02	5.26	.31							
148.4-149.74	WASTE	0.34	-	-	-	-							
149.74-149.96	2240	1.22	.22	.01	5.85	.25							
149.96-157.58	WASTE	7.62	-	-	-	-							