94 D / 10E & 15E.

INDUCED POLARIZATION SURVEY
for
NEW WELLINGTON MINES LTD.
MENARD CREEK PROJECT

Induced Polarization Survey
MARMOT GROUP
56° 30-50"Nth:126° 20-45"West
G.A. Mouritsen. esq.

(Geofax Surveys Ltd).

NEW WELLINGTON MINES LTD.
21 Sept - 6 Oct. 1966.

991

INDUCED POLARIZATION SURVEY
for
NEW WELLINGTON MINES LTD.
MENARD CREEK PROJECT

GEOFAX SURVEYS LTD.

G. A. Mouritsen,
Senior Geophysicist

October, 1966.

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INTRODUCTION

During the dates of September 21st and October 6th, 1966, an induced polarization survey was carried out for New Wellington Mines Ltd. on their Menard Creek, B.C. property. The survey was contracted by Geofax Surveys Ltd. of Calgary, Alberta. In addition to the dates above, 8 days crew mobilization were required to get the crew to the property from Calgary, and from the property to Ft. St. James, B.C. (see Property Location & Access). The survey crew quartered in a camp supplied by New Wellington Mines Ltd. During the dates of actual survey operations given above, 4 operating days were lost due to camp move and 1 day was lost due to atmospherics. During the survey, 258 readings were attempted, of which 142 were reliable; the remainder were rendered unreliable by telluric currents, atmospherics and experimentation for proper electrode spacing.

CONCLUSIONS & RECOMMENDATIONS

Please see the plots of the Chargeability and Resistivity Profiles.

The induced polarization survey reveailed 4 Primary Zones and 3 Secondary Zones described as follows (see Legend accompanying Profiles).

1. A Primary Zone on Line 1 lying near the 3200 W station and probably extending westward beyond control.

2. A Primary Zone on Line 1 lying near or between the 2900 W and the 3100W stations. This may be the east dipping counterpart of the Primary Zone described in (1) above.

3. A Primary Zone on Line 1 lying near or between the 150 E station and the 50W station. This anomaly is sparsely controlled, but appears to be dipping west.

4. A Primary Zone on Line 2 lying near or at the 3000 W station. This anomaly may be common to the Primary Zones lying at the west end of Line 1 as described above in (1) and (2).

5. A Secondary Zone (see Legend) extending from the 2250 W to the 2500 W station on Line 1. This zone is deeply buried (at least 600 feet) and may prove out as a target for the future.

6. A narrow Secondary Zone at or near the 1100W station on Line 1. This minor anomaly requires further I. P. detail.

7. A secondary Zone extending west from the Primary Zone at the 3000 W station on Line 2. The mineralization here is also buried at least 600 feet deep and may not be economical as a prime target. More extensive I. P. control here may prove this theory wrong.

8. Minor mineralization on surface appears to be present along nearly the full extent of Line 2 except from the 1300 W to the 1700 W stations. This minor mineralization may be due to float or talus containing scattered minerals.

RECOMMENDATIONS

In the above conclusions, the zones of interest were described as lying near a certain distance. Where an anomalous condition is indicated on one line control only, the anomaly may lie to either side of the station or below it. Such anomalies require detail lines on either side to give lateral extent and a more fixed position. Integration of the surface geology with the I. P. survey results leaves the conclusions subject to change.

If further I. P. surveys are anticipated in the future, it is respectfully recommended that a line be placed between Line 1 and Line 2 from the 2200 W distance to at least the 3600 W distance. Electrode spacing of 400 and 600 feet should be used.

The anomaly at the 00 to 100 E station on Line 1 should be detailed with a line parallel to and north of Line 1 from the 500 W to the 400 E stations. Electrode spacings of 200 and 400 or possibly 600 should be used to determine dip. If the detail lines fail to pick up the anomalies, new lines should be placed closer to the existing lines.

PROPERTY LOCATION AND ACCESS

The property is located approximately 220 miles NNW of Fort St James in the Omineca Mining Division of B C. The survey crew travelled from Calgary to Fort St. James via Wagoneer Jeep Wagon, from Fort St. James to McConnell Lake by plane on the third day, from McConnell Lake to McConnell Creek by bulldozer on the fourth day, from McConnell Creek to Grant's field by bulldozer on the fifth day and from Grant's field to Menard Creek camp by bulldozer on the sixth day.

Transportation from camp to the survey site was by bulldozer daily, requiring two hours up to the site and 1-3/4 hours return in the evening. To alleviate this extensive travel time, the camp was moved to a new location during operations. This move required 4 days.

Demobilization from the property required two days, the first spent moving from Menard Creek to Moose Valley by bulldozer. The second day the crew was taken from Moose Valley by helicopter to Thorn Lake to Takla Landing, and thence by plane to Fort St. James, B.C.

METHOD OF SURVEY and INSTRUMENT DATA

I. P. Instrument

The instrument used was a new Huntec pulse-type system capable of delivering 2500 watts to the ground. The system is composed of 3 sub-systems: a generator, a transmitter and a receiver. The generator provides the source of prime power for the transmitter which produces a rectangular current pulse to the ground. The cycling rate is 1.5 seconds "current on" and 0.5 seconds "current off"; succeeding pulses are of opposite polarity. The receiver operates remotely and is triggered by the decay of the transmitter current. The readings for the primary potential Vp and secondary potential Vs are taken by the null balance method with the input signal balanced over a period of time to reduce noise effects. The main advantages of the pulse type system over the variable frequency type system are, 1. Any electrode spacing may be used, whereas the spacings used on variable frequency systems are restricted, due to inductive coupling between transmitter and receiver circuits. 2. Less time is required to take each reading as no average is required.

I.P. Electrode Array

Please see the Legend accompanying the Chargeability and Resistivity Profiles.

The lines were surveyed using a normal and a special 3-array electrode spacing. The arrays consist of one current electrode (C_1) and two potential electrodes (P_1 & P_2) which are moved together down the line. The fourth electrode (C_2) is placed at an "infinite" distance from the other three electrodes (where infinity = 7 to 10a). The electrode distance C_1 to P1 (a) is determined by the depth to which penetration is required. For example, if the mineralized zone was believed to lie at a depth of 175 to 200 feet below surface with normal ground moisture, a normal 200 foot electrode spacing would be used. If the anticipated depth of burial was 500 to 600 feet and only reconnaissance was required, or the dip of a known anomaly was to be checked, a normal 600 foot electrode spacing would be used. The special 3-array is used when ground conditions are too wet due to rain or snow cover, or the ground is extremely dry so that voltages cannot be compensated or the automatic tripping signal is too weak.

On this project, electrode spacings of 200, 300, 400 and 600 feet normal and special 3-array were used to compensate for changing surface conditions due to float or talus or wet conditions. The varied spacings are differentiated by width of line on the plotted profiles.

I. P. Data

All I.P. data has been plotted planimetrically on a scale of 1 inch equals 100 feet. The scales for Chargeability (Ma) and Resistivity (Ra) are located at each end of the lines. In the Legend accompanying the profiles, "Background" refers to the lowest average chargeabilities and represents rock which is barren of any disseminated sulphide mineralization. A "Primary Zone" is an anomaly which displays chargeabilities equal to or greater than three times the chargeabilities of the barren rock. A "Secondary Zone" is an anomaly which displays chargeabilities equal to or greater than two times the background. On the two lines surveyed at Menard Creek, the background chargeabilities average 1 ± .4 milliseconds. A Primary Zone, then is represented by chargeabilities of 4 milliseconds or greater and a secondary zone by 2 milliseconds or greater. When designating either type of zone, the increase in chargeability should be corroborated by a rapid decrease in the resistivity. Extreme changes in topography have no bearing whatsoever on the chargeabilities and only a minor relative effect on the resistivities. Topography only affects the chained distances. This could be compensated for by broken chaining or step-chaining.

DISCUSSION OF RESULTS

Please see again the plots of the Chargeability and Resistivity Profiles.

The positions of the Primary and Secondary zones were described under "Conclusions" and need not be reiterated here. The anomalies are fairly well defined and stand out quite clearly above the background. The highest chargeability of 6.9 milliseconds occurred at station 3000 W Line 2 on the 400 foot spacing. A chargeability of 6.3 milliseconds is noted at the 3250W station on Line 1 on the 300 foot spacing and 6.0 milliseconds at the 100 E station on Line 1. The high readings of 6.9 and 6.3 milliseconds, although on different lines, may represent a common vein or narrow zone of disseminated sulphides. The anomaly on the west end of Line 1 appears to be dipping eastward, as indicated by a relatively fast drop off of readings on the 300 foot spacing but a continuation of relatively high readings on the 600 foot spacing, extending east to the 2700W station. This would indicate the mineralization to be at a depth of approximately 300 feet at the 3250 W station and broadening but dipping to the 600 foot depth at the 2700 station. A rapid decrease in resistivity over the anomaly with a good increase beyond the edge to the east, corroborates the rise in chargeabilities. No increase in resistivity is noted at the extreme west end of the line, suggesting that the I.P. control was not extended far enough west to fully delineate the west edge of the anomaly, where the chargeabilities remain relatively high.

Only one spacing control exists over the Primary Zone at the 100 E to 50 W stations on Line 1. Further detailing with parallel lines are recommended here to further outline this interesting feature.

The Secondary Zones indicated along the lines may prove to be of a lower grade mineralization but may also become Prime Zones after detailing. For the present they should be treated as future or secondary targets to be explored after the Prime Zones. It is noted that the chargeabilities from approximately station 1700 W to 2600 W show a relatively high smooth chargeability plot. This could occur if the line crossed talus or float containing scattered disseminated minerals. True background chargeabilities can be seen at stations 1300 W & 1400 W, Line 2, between stations 500 W & 1000 W and 1200 W and 1700 W on Line 1. The high background resistivities existing generally over the central portion of both lines could be the results of talus and float allowing poor electrode to ground contact.

Due to the fine cooperation of the personnel from New Wellington Mines Ltd., reliable results were obtained from a rather difficult survey.

Respectfully submitted,
GEOFAX SURVEYS LTD.

G. A. Mouritsen,
Senior Geophysicist.

GAM/gs.

APPENDIX

The following personnel were employed on the survey at Menard Creek:

G. A. Mouritsen	Senior Geophysicist
P.L. Brooks	Party Chief and Chief Operator
T. Lefebure	Operator

and two helpers supplied by New Wellington Mines Ltd.

Client Representative on the property was Mr. W. D. Savage.

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CALGARY, ALBERTA

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Line 1 200' abnormal 3-array

K=1130

STN.	C_1	P_1	P_2	C_2	L.R.	TAP. V.	I_G	V_P	S	V_S	S	M_A	R_A
0+00	← 225° Mag												
1+00W	0+00	2+00W	3+00	3000' E	20k	500	.02	33.5	-3	19.0	-5	22.2 ✓	1920 ✓
2+00W					10k	300	.02	51.0	-3	25.5	-5	20.0 ✓	2930 ~~2850~~
3+00W					6k	300	.05	57.0	-3	22.0	-5	15.4	1310 ✓
0+00	→ 020° Mag												
1+00E	0+00	2+00E	3+00E		15k	500	.04	127.5	-4	19.0	-5	59.6 ~~6.0~~	366 ~~3650~~
2+00E					20k	300	.01	20.0	-3	11.0	-5	22.0 ~~21.0~~	230 ~~2300~~
3+00E					20k	300	.01	16.5	-3	8.0	-5	19.4 ✓	190 ~~1900~~

LEFT CAMP:

ARR. FIELD:

651

LEFT FIELD:

ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: Sept 21/66

OPERATOR: [illegible]

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CALGARY, ALBERTA

LINE 1 200' at 3-V

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	s	Vs	s	MA	RA
3+00E	→				10K	500	.07	97	-3	—			
						300	.04	40	-3	—			
						300	.02	234	-4	—			
↔	chg to 400' at.												
3+00E	→				20K	300	.02						
						500	.04						
						875	.06						
						1250	~~.10~~ .11	69.5	-3	48	-5	27.6	1455 ~~1350~~
2+00E					15K	875	.06	45	-3				
						875	.08	48.5	-3	37	-5	30.4	1295V
1+00E					10K	875	~~.11~~ .12						
						1250	.2						
					7K	1750	.34						
					10K	1250	.13						
						1750	.2	168	-3				
0+00					6K	875	~~.16~~ .18	59	-3	39	-5	26.4	755V
1+00W					7.5K	875	.13						
						1250	~~.22~~ .24	71	-3	38	-5	21.4	680V

LEFT CAMP: 09:00

ARR. FIELD: 10½

LEFT FIELD:

ARR. CAMP: 19:30

PROJECT: New Wellington Mines

REMARKS:

DATE: 22 Sept 66

OPERATOR: [illegible]

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CALGARY, ALBERTA

Line 1 200' at.

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	s	Vs	s	MA	RA
0+00W	←				20K	875	.05	41	-3	36	-5	35.	940
1+00W					12K	500	.05						
						875	.1						
						300	.02						
						500	.07	95	-3	37	-5	15.6	1560
2+00W					5K	300	.08	115	-3	62	-5	21.6	1650
3+00W					4.5K	300	.09						
					3.9K	500	.15						
					4.5K	875	.25	130	-3	68	-5	20.9	598
4+00W					7K	1250	.20	149	-3	57	-5	15.3	855
5+00W					10K	1250	.14	132.5	-3	34	-5	10.3	1085
6+00W					7K	875	.11						
						1250	.16	165	-3	28	-5	6.8	1185
7+00W					7K	1250	.2	262	-3	63	-5	9.6	1505
8+00W					4.5K	1250	.3						
						875	.25						
						500	.17	218	-3	54	-5	9.9	1475
9+00W					15K	1750	.16						
						2500	~~.23~~ .26	~~214~~ 226	~~-3~~ -3	53	-5	9.4	~~1000~~ 960
10+00					13K	2500	~~.22~~ .26						

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: 22 Sept 66

OPERATOR: T.R.

Line 1 200' abnormal

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
10+00	West				4K	500	.15						
						875	.28	162	3	26	5	6.4	665V
11+20					6.5K	875	~~.18~~ .21	270	3	13	5	19.3	1480V
12+00					4K	875	.27						
					3K	500	.2						
						300	.12	251	3	43	5	6.7	2416V
13+00					20K	1750	.11	195	3	44	5	9.1	2040V
14+00					4.5K	500	.14	151	3	31	5	8.4	1240V
15+00					10K	875	~~.18~~ .13	174	3	57	5	13.1	1540V
16+00					15K	1250	.13	216	3	79	5	14.6	1925V
17+00					6K	875	~~.18~~ .20						
						500	.14						
						875	.22						
						300	.08	—		—		—	—
18+00					10K	875	.11						
		chg to 300' Normal											
17+50					6K	875	.2						
						500	.14	312	3	158	5	20.4	2560V
18+50					13K	875	.11	264	3	144	5	21.9	2760V
19+50					10K	875	.13	279	3	153	5	22.1	2470V

LEFT CAMP: 30

ARR. FIELD:

LEFT FIELD:

ARR. CAMP: 20:30

PROJECT: New Wellington Mines

REMARKS:

DATE: 23 Sept 66

OPERATOR: [illegible]

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CALGARY, ALBERTA

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Line 1 300' Normal

STN.	C_1	P_1	P_2	C_2	L.R.	TAP. V.	I_G	V_P	s	V_S	s	M_A	R_A
20+50	West				14K	1250	.11	180	3	87	5	19.3	1885 ✓
21+50					8K	875	.15						
						500	.11	205	3	103	5	20.2	2140 ✓
22+50					20K	1750	.11	216	3	106	5	19.6 ✓	2260 ✓
23+50					12K	1250	.12	188	3	90	5	19.2	1805 ✓
24+50					17K	1750	.13	172	3	69	5	16.1 ✓	1570 ✓
25+50					12K	1250	.12	159	3	74	5	18.6 ✓	1525 ✓
26+50					12K	1250	.13	136	3	63	5	18.5 ✓	1205 ✓

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: 23 Sept 66

OPERATOR: R.R.

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CALGARY, ALBERTA

PAGE [illegible]

Line 1 300' NORMAL

STN.	C_1	P_1	P_2	C_2	L.R.	TAP. V.	I_G	V_P	s	V_S	s	M_A	R_A
27+50	West				8K	875	.12						
						500	.08						
						250	.18						
						875	.14			Tellurics			
						500	.1						

LEFT CAMP:

ARR. FIELD:

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ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: 24 Sept 66

OPERATOR: [illegible]

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CALGARY, ALBERTA

Line 1 300' NORMAL

K=150

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	s	VS	s	MA	RA
27+50	West				11K	500	.04						
						875	.18	74	3	39	5	21.3	4720
28+50					4K	500	.16	70	3	24	5	13.7	5020
29+50					3K	300	.12	35	3	13	5	14.8	3550
30+50					8K	875	~~.13~~ .14						
						500	.09						
						875	.14	10	3	11	5	4.4	820
31+50					7K	875	.16	12	3	10	5	3.3	859
32+50					11K	875	.08						
						1250	.12	51	4	8	5	6.3	4890
33+50					15K	1250	.11						
						1750	.15						
						1250	.12						
						1750	.17	56	4	6	5	4.3	3780
34+50					4.5K	500	.14						
						875	.22	75	4	8	5	4.3	3920

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

REMARKS:

DATE: 29 Sept 66

PROJECT: New Wellington Mines

OPERATOR: [signature]

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CALGARY, ALBERTA

Line 1 200' ABNORMAL

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
35+00	West				12K	875	.11						
						1250	.16						
						875	.12						
						1750	.24	66	4	6	5	3.64	5160
34+00					11K	1750	.20						
						2500	.33	65	4	9	5	5.52	2270
				200' Normal									
34+00					11K	1250	.19	60	4	5	5	3.33	[illegible]
33+00					11K	1250	.14	75	4	8	5	4.26	[illegible]
32+00					9K	875	.12	107	3	4	5	14.9	682
31+00					12K	1250	.15						
						1750	.20						
						875	.16	95	4	6.5	5	2.74	4550
30+00					6K	500	.11						
						300	.07	57	3	21	5	14.8	6220
29+00					4.5K	300	.10						
						500	.17	Tellurics					
				600' abnormal									
30+00					5K	875	.21	91	4	8.5	5	3.74	1490
31+00					6K	875	.20 ~~.18~~	Tellurics					

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ARR. CAMP:

REMARKS:

DATE: 29 Sept 66

PROJECT: New Wellington Mines

OPERATOR: [illegible]

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CALGARY, ALBERTA

Line 1 600' abnormal

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	s	Vs	s	MA	RA
31+00					7K	875	~~.16~~ .20	63	4	7	5	4.44	1085
29+00					10K	875	.1						
						500	.08						
						1750	.26						
						2500	~~.38~~ .42	76	4	8	5	4.21	645
28+00					9K	1250	.20	93	4	9	5	3.86	1640
27+00					15K	1750	.18	23	3	19	5	33.1	4910
26+00					15K	1750	.16						
						1250	.14	34	3	14	5	16.5	8370
25+00					16K	1250	.11						
						1750	.16	70	3	41	5	23.4	1505 ✓
24+00					15K	1250	.12	73	3	42	5	23.0	6890 ✓
23+00					8K	875	.14	68	3	56	5	32.9	1670 ✓
22+00					16K	1750	.14						
						1250	.11	Tellurics & Atmospherics					
									No Vp				

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: 30 Sept 66.

OPERATOR: [illegible]

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CALGARY, ALBERTA

Line #1 600' at.

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
22+50					20K	1750	~~.13~~ .14	66	3	18	5	✓ 10.9	1650 ~~4810~~
21+00					11K	1260	~~.15~~ .19						
					8.5K	875	.14	71	3	24	5	✓ 13.5	1150 ~~2160~~
20+00					8K	875	~~.14~~ .18	107	3	59	5	✓ 22.[illegible]	[illegible] ~~1675~~
19+00					12K	1250	.16	114	3	53	5	18.8	1459 ~~2290~~
18+00					15K	1750	.25	185	3	84	5	18.2	[illegible] ~~2420~~
17+00					22K	720	~~.14~~ .13	77	3	37	5	19.2	3041 ~~4640~~
				200' normal									
[illegible]					7K	875	.16						
						500	.11						
				200' abnormal									
17+00					6K	875	.17	244	3	61	5	15.6 ~~18.3~~	[illegible] 5930
18+00					5K	1250	.10						
						875	.08						
						250	.05						
					12K	500	.03	Tellurics					

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

PROJECT: New Willoughby Mine.

REMARKS:

DATE: 1 Oct.

OPERATOR: [illegible]

geofax surveys ltd.

CALGARY, ALBERTA

Line #1 200' Normal 3A

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
18+00					20K	1250	~~.08~~ .1	✓					
						875	.07	✓					
						1750	.14	✓					
						1250	.1	✓					
	Reversed Power Leads.					1250	.1	✓					
						1750	.14	✓					
			600' abnormal										
[illegible]					8K	875	~~.13~~ .14	✓					
						1250	.21	✓					
			200' abnormal										
19+00					9K	875	~~.14~~ .15						
						875	~~.15~~ .18	222	3	64	5	11.5	14.0 ✓
20+00					20K	1250	.1	✓					
						875	.08	✓					
		Line #2				200' abnormal			3A				
33+00					2K	500	.17	✓					.15
						500	.28	13 140	7 4	11	5	33.9 31.4	5590
						375	.64	26	3	12	5	18.5	47 4870

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

REMARKS:

DATE: Oct 66.

PROJECT: New Wellington Mines

OPERATOR: [illegible]

geofax surveys ltd.

CALGARY, ALBERTA

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Line # 1 200' Normal

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
33+00					1.4K	500	.45	27 263.5	3 4	17	5	25.2 25.8	947 4540
32+00					1.1K	500	.78 .82						
						300	.54 .57	198	4	14	5	28.2	266 2660
31+00					4K	500	.23	221	4	13	5	23.5	73 735
30+00					2.5K	500	.14 .13						
						875	.22 .25						
					3.2K	300	.10						
					8K	1250	.2						
					5K	875	.2						
						1750	.4						
					6K	875	.22 .27	138	3	79	5	22.8	39 3910
29+10					1.3K	300	.35 .36						
					7K	500	.12	Wet snow storm moved in					
					7.8K	300	.12	No compensation					

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

REMARKS:

DATE: Oct 66

PROJECT: New Wellington Mines

OPERATOR: RWB

geofax surveys ltd.
CALGARY, ALBERTA

Line #2 600' at IR

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	s	VS	s	MA	RA ($\times 10^{-2}$)
33+00					2.8K	200	.12	19	4	2	5	✓ 4.21	5450
						500	~~.25~~ .3	49	4	6	5	4.84	5650
32+00					1K	200	~~.45~~ .46	74.5	4	7.5	5	4.02	5590 5600
31+00					10K	1250	.16	Not stable					
					9K	1250	.17	32	4	2	5	2.5	6490
						1750	.27	45	4	6	5	3.33	5720
30+00					20K	1750	~ shorting connection on C stake						
						2500	.17						
						3500	.26	26	4	3	5	3.33	4720

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: 3 Oct 66

OPERATOR: CB

geofax surveys ltd.
CALGARY, ALBERTA

Line #2 600' of 31.

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
29+00					13K	300	~~.24~~ .26						
						500	.42						
						875	.74	142	4	10	5	2.82	6630 ~~3845~~
28+00					4.5K	1250	~~.38~~ .40	35	3	22	5	25.2	3000
27+00					3.8K	1250	~~.44~~ .58	61	3				302
						875	.43	50	3				
						500	.28	34	3				
						875	.44	52	3	33	5	25.4	4080 ~~1525~~
26+00					.8K	300	~~.34~~ .52	60	3				408
					1K	500	.67 .92	141	3	69	5	19.6	529
25+00					10K	1250	.18						
					11K	1750	.28						
						2500	~~.44~~ .47	71	3	42	5	23.7 ~~23.1~~	521
24+00					17K	2500	~~.28~~ .30	77	3	48	5	24.9 25.9	885
23+00					2.1K	500	.31						
					.5K	575	~~.55~~ .58	204	3	111	5	21.8	1215 2940
22+00					~~5.4~~ 4.8K	1250	~~.27~~ .3	122	3	74	5	24.2	1410
21+00					~~7.8K~~ 8.25K	1250	.2	105	3	58	5	22.1	1810 ~~1720~~
20+00					[illegible] 8.6K	2500	~~.26~~ ~~.32~~	165	3				
					~~[illegible]~~ 7.5K	2500	.34	180	3	102	5	22.6	1835

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

REMARKS:

DATE: 4 Oct 66

PROJECT: New Wellington Mines

OPERATOR: [illegible]

geofax surveys ltd.

CALGARY, ALBERTA

Line #2 600 ol 31

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
19+00					~~15K~~ ~~9.3K~~ 7.8K	2500	~~.27~~ .32	~~143.5~~ 167	~~3~~ 3	95	5	22.3 ✓	1850 1850
18+00					~~1.2K~~ ~~.44K~~ .825K	200	~~.58~~ .62	244.5	3	117	5	19.1 ✓	1380 ✓
17+00					~~3K~~ 2.8K	500	.25						
					2.14K	875	.41	105	3	38	5	14.6 ✓	8825
16+00					~~.44~~ ~~2.0K~~ 2.2	875	~~.39~~ ~~.36~~ .4	39	3	13	5	13.3 ✓	335
15+00					1.5 .75	300	.42						
					1.4K .73K	30	~~.44~~ .43						

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: 4 Oct 66

OPERATOR: [illegible]

geofax surveys ltd.

CALGARY, ALBERTA

Line #2 600' at 3Λ

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
15+00					.6K 1.6K	300	.52						
						500	.87	197	3	46	5	9.35 ✓	780 ✓
14+00					2K	500	.34						
						875	.68	150	3	48	5	12.8 ✓	761 ✓
					400'	at	3Λ						
13+00					7K	1250	~~.18~~ .26						
						1750	.28	125	3	20	5	6.4 ✓ ~~4.8~~	1030
14+00					7K	1750	.31	111	3	10	5	3.6 ✓	822 ✓
15+00					6K	1750	.49/.53 .49	189	3	58	5	12.3 ✓	886 ✓ ~~750~~
16+00					.7K	500	.78 .81	302	3	93	5	12.3 ✓	869
17+00					28K	875	.52 ~~.41~~	57	2	162	5	.175	1680
18+00					3K	875	~~.37~~ .45	41	2	180	5	.176	2090
19+00					1.2K	500	~~.52~~ .57	45	2	200	5	.17.8	1820 ✓
20+00					4K	875	.26	22	2	104	5	.18.9	1940 ✓
21+00					10K	1750	.22	173	3	93	5	21.5	1820 ✓
22+00					10K	1750	~~.25~~ .32	204	3	94	5	18.1	1470 ✓
23+00					8K	1250	.22	105	3	56	5	21.4	1100 ✓
24+00					20K	2500	~~.18~~ .20	72	3	27	5	15.0 ✓	850 ✓
25+00					15K	1750	~~.16~~ .19	49	3	26	5	21.2 ✓	590 ✓

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: Oct 66

OPERATOR: [illegible]

geofax surveys ltd.

CALGARY, ALBERTA

PAGE 28

Line #2 400' 31

STN.	C1	P1	P2	C2	L.R.	TAP. V.	IG	VP	S	VS	S	MA	RA
26+00					15K	1750	~~.26 .30~~ .33	95	3	37	5	15.6 ✓	662 ✓ ~~728~~
27+00					1.5K	500	.42	100	3	52	5	20.8	549
28+00					3K	875	~~.36~~ .42	87	3	50	5	33.0 23.0	476
29+00					2K	500	.32						
						875	.54	84	3	44	5	20.9	358
30+00					.9K	300							
						500	~~.62 .64~~ .68	110	4	19	5	69.1 6.8	3720 ~~3960~~
31+00					.5K	300	1.3						37
					1.7K	300							
					1.5K	500	.76						
						875	.9						
						500	~~.76~~ 1.08	169	4	7	5	~~4.06~~ ~~1.66~~ 16.5	36 3600
32+00					2.8K	875	~~.38 .48~~ .5	/					

LEFT CAMP:

ARR. FIELD:

LEFT FIELD:

ARR. CAMP:

PROJECT: New Wellington Mines

REMARKS:

DATE: 6 Oct 66

OPERATOR: [illegible]

TEXT

Following is a resume of the qualifications of the active partners of Geofax Surveys Ltd., and the personnel employed on the induced polarization survey on the Marmot Group of Mineral Claims:

S. A. Mouritsen-B.Sc., P. Eng. B. C. and Alberta, Geophysical and Geological Consultant for 20 years.

W. Clemis- B.Sc., P. Eng., Former Exploration Manager of Canadian Fina Oil , now Geological Consultant, 20 years experience.

J. V. Millar- M. Sc., P. Eng., B.C. and Alta., 15 years Mining Engineering Consultant.

G. A. Mouritsen- B.Sc., 18 years Geophysical experience.

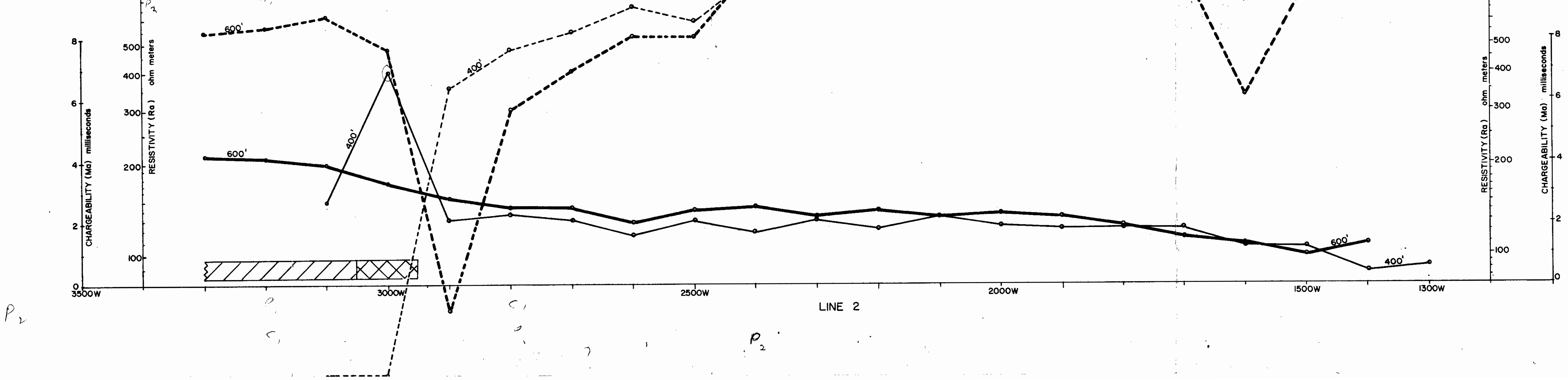
The following personnel carried out the survey in the field:

P. L. Brooks- B.Sc., 15 years Forestry in B.C., Alta. and Sask. 9 months I.P.experience. Party Chief and Chief Operator.

T. Lefebure- 14 years as Electronics Instructor(R.C.A.F), 2 years Mining Electronics Instructor. Assistant Operator.

In addition, two helpers were supplied by New Wellington Mines Ltd.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 991 MAP 1



LEGEND

ELECTRODE SPACING — 3-ARRAY

NORMAL

SPECIAL

Station Plotted

FREQUENCY USED = 1.5 CYCLES / SECOND ∞ = 7 to 10·a

PLOTTING SYMBOLS

CHARGEABILITY (Ma)		RESISTIVITY (Ra)
o——o	a = 200 FT.	o— — —o
o——o	a = 400 FT.	o— — —o
o——o (heavy)	a = 600 FT.	o— — —o (heavy)
o——o	a = 300 FT.	o- - - - -o

ANOMALOUS ZONES

PRIMARY ZONE (Chargeabilities ≧ 3×Background)

SECONDARY ZONE (Chargeabilities ≧ 2×Background)

To accompany a report by G.A. Mouritsen BSc., for New Wellington Mines Ltd., on the Marmot Group of Mineral Claims, 56°-30'-50"N, 126°-20'-45"W, dated Sept. 21 - Oct. 6, 1966.

G.A. Mouritsen P.Eng.

991

G.A. Mouritsen

INDUCED POLARIZATION SURVEY

CLIENT
NEW WELLINGTON MINES LTD.

PROJECT
MENARD CREEK

CHARGEABILITY (Ma) & RESISTIVITY (Ra) PROFILES

CONTOUR INTERVAL

SCALE
1 INCH = 100 FEET

DATES OF SURVEY
SEPT. 21 to OCT. 6, 1966

OMINECA M.D. BRITISH COLUMBIA

GEOFAX SURVEYS

TO ACCOMPANY I. P. SURVEY
BY J. S. MOURITSEN (GEOFAX
SURVEYS LTD) OF MARMOT GROUP
MENARD CREEK, OMINECA M.D.
DATED, OCTOBER, 1966.
To Thorn Lake
Air Strip
New Camp
Old Camp
LINE 1
LINE 2
Claim Post
Claim Post
11301
11302
11303
11304
11305
MENARD BASIN
25' 0.02 oz. Au.
0.60 oz. Ag.
0.65% Cu.
80°
4500
5000
5500
6000
LEGEND
DRAINAGE
GEOLOGICAL CONTACT
DOZER ROAD
ATTITUDE OF LAYERS
FAULT FISSURE
VOLCANIC
INTRUSIVE
I.P ANAMOLIES
SPECIMAN SAMPLE } COLLECTED BY SAVAGE
DIKE
1000 500 0 1000 2000 3000 Ft
SCALE: FEET
APPENDIX E
NEW WELLINGTON MINES LTD.
GEOLOGY
MENARD CREEK
OMINECA M.D.
BRITISH COLUMBIA
BASED ON GEOLOGY FROM G.S.C. MAP 962A
McCONNEL CREEK C.S. LORD 1949 WITH
MODIFICATION BY W.G. STEVENSON 1966.
ADDITIONAL DATA AS FURNISHED BY MR DOUG SAVAGE.
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