32D05NW0865 2.12590 HARKER

010

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MINING LANDS SECTION

SUMMARY REPORT

ON THE

GHOST RIVER PROPERTY

GARRISON AND HARKER TOWNSHIPS, ONTARIO.

FOR

CHESBAR RESOURCES INC.
GRANDAD RESOURCES INC.

NTS 32 D/5,12

Toronto, Ontario
June, 1989

K.S. Sutherland
H. Brodie-Brown

32D05NW0865 2.12590 HARKER

010C

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SUMMARY

The Ghost River property consists of 45 contiguous unpatented mining claims located in Garrison and Harker Townships, approximately 45 kilometres east of Matheson, Ontario. A limited prospecting and lithogeochemical sampling programme was carried out over localized areas of the property during the period June 5 to 10, 1989. The objective of the programme was to ground test induced polarization anomalies which had been delineated during an orientation survey carried out in October 1988. In addition, geochemical analysis of rock samples was completed to determine the presence of alteration halos which may indicate the presence of gold mineralization.

The results of the programme were disappointing. The highest gold value returned from the programme was 60 ppb gold from a massive mafic volcanic rock (Fe-tholeiite) located at 5+70E, 0+15S. Most of the rocks that were mapped and sampled were massive to pillowed mafic volcanic rock and minor flow top breccia and tuff. The pillows were relatively undeformed and although the rocks had undergone greenschist facies metamorphism there was no surface evidence of any hydrothermal alteration patterns indicative of gold mineralization. There was no surface expression of the IP anomalies and it may be warranted to drill test these areas. They appeared to all be associated with relative topographic lows which may be the reason for the anomaly or the recessive area may be due to alteration and as such is considered a good target. A compilation of all the data from work carried out on the property to date is recommended before a definitive recommendation for further work on the property can be made.

INTRODUCTION

The Ghost River property is located in Harker and Garrision Townships, 45 kilometres east of Matheson, Ontario. It is 10.5 kilometres west along the strike from American Barrick's Holt-McDermott mine, which has reserves of 2,067,000 tons grading 0.149 oz gold per ton (proven and probable). The property was staked in 1984 to cover the projected western extension of the gold-bearing Ghostmount zone. A programme of linecutting, geophysical surveying (magnetometer and VLF-EM), geological mapping and humus sampling was carried out over the property in 1984. Nine holes, totalling 5,113 ft were drilled to test geological and geophysical targets on the property from December 1986 to February 1987. The highest gold value intersected during the drill programme was 2 g/tonne over 0.31 m in hole 86-GR-3. No gold-bearing horizon was delineated. An orientation induced polarization (IP) survey was carried out over localized areas of the property during late 1988 to outline areas of disseminated sulphide mineralization associated with potential gold-bearing horizons. These areas were ground tested in June 1989, before a diamond drill programme was recommended.

The property is held 100% in the name of Grandad Resources Incorperated. Chesbar Resources Incorperated has the option to earn an interest in the property by contributing to exploration expenditures.

LOCATION AND ACCESS

The Ghost River property is located in east central Garrison and west central Harker Townships, approximately 45 kilometres east of the town of Matheson, Ontario (Figure 1). Access to the property is good via Highway 101, then south on the Harker-Holloway Mineral Access road for 3.7 kilometres and west on a logging road for 4 kilometres to the property boundary.

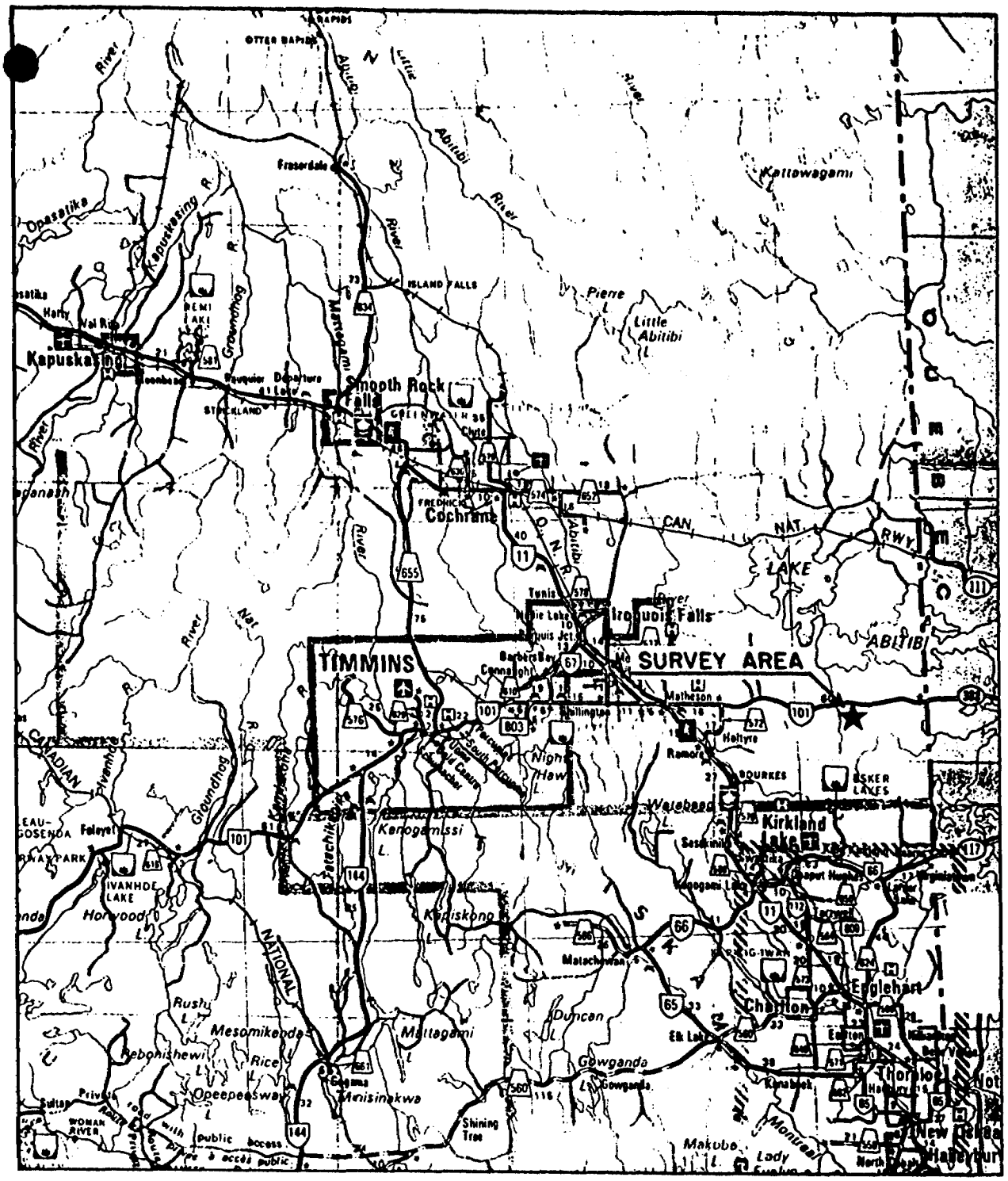
CLAIM STATUS

The Ghost River property consists of 45 contiguous unpatented mining claims located in Garrison and Harker Townships, Larder Lake Mining Division (Figure 2). The claims are registerd in the name of Grandad Resources Inc. (100% interest) with Chesbar Resources Inc. holding an option to earn an interest in the property by contributing to exploration expenditures.

A list of the claims is found in Appendix A.

REGIONAL GEOLOGY

The Ghost River property lies 5 kilometres south of the south branch of the Dester-Porcupine fault zone within the



LOCATION MAP

MUSCOCHO EXPLORATION LTD.

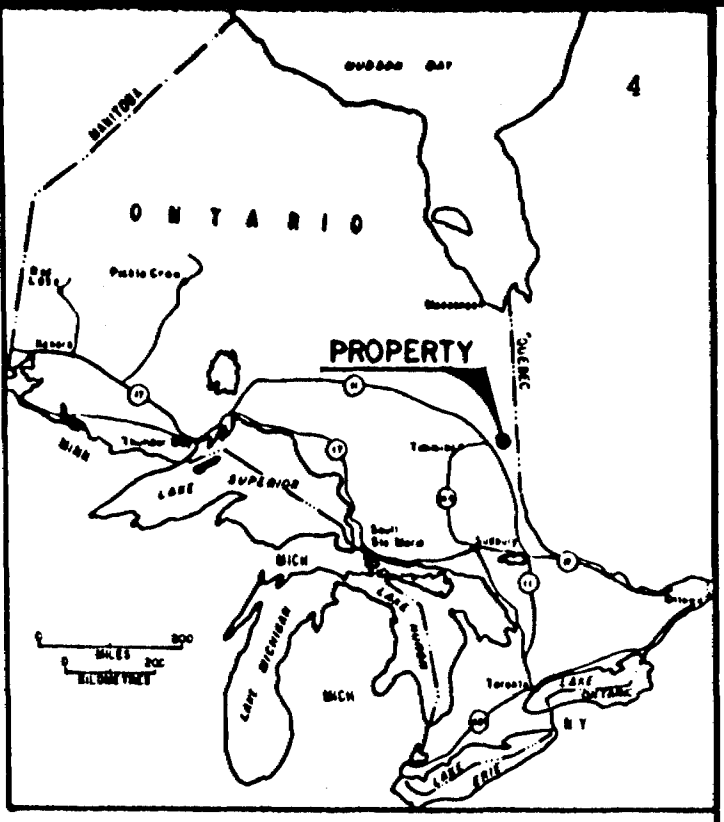
GHOST RIVER PROPERTY

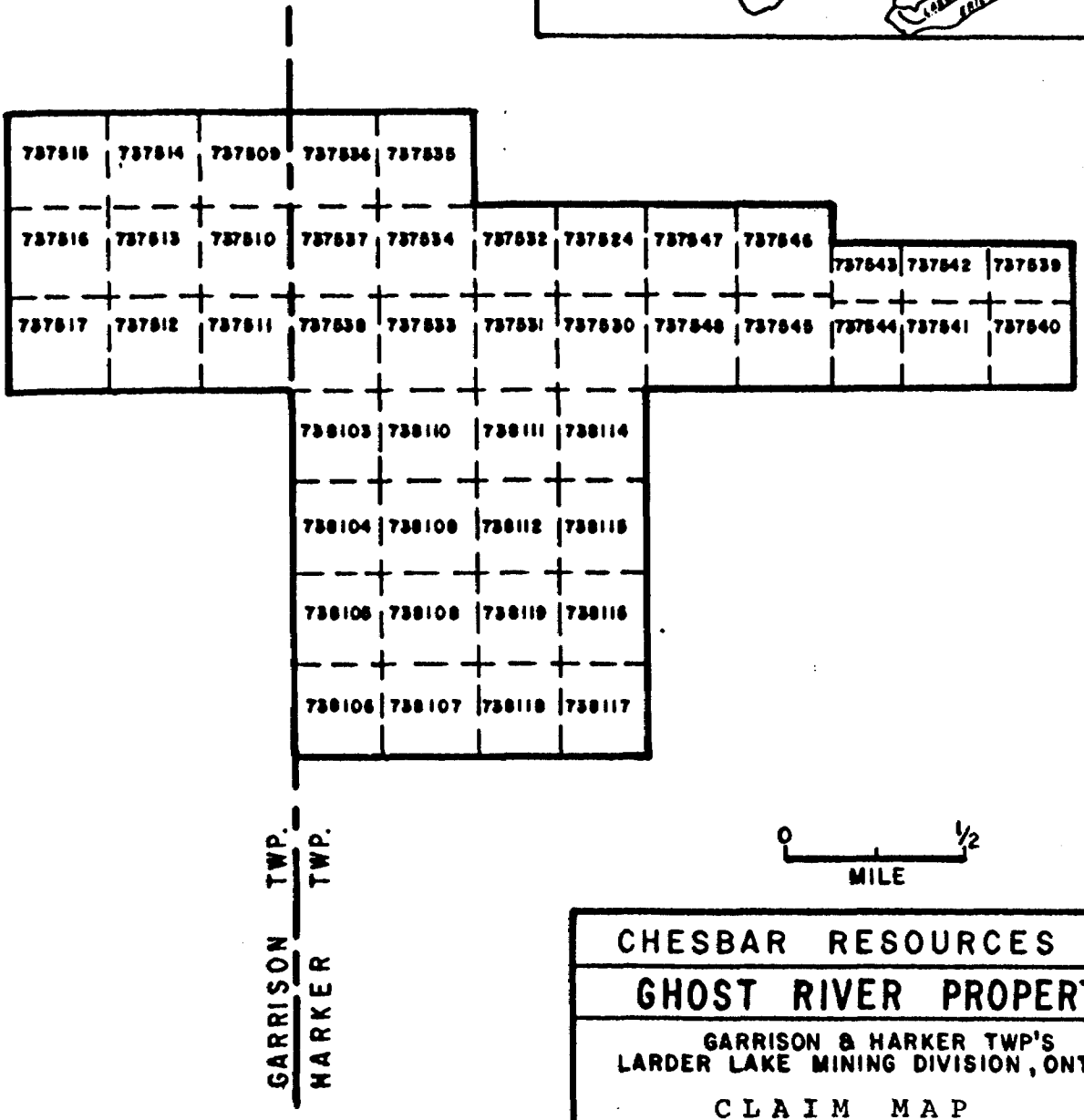
BARKER TOWNSHIP, ONTARIO

IP/RESISTIVITY SURVEY

Scale : 1 : 1,600,000

Figure 1





CHESBAR RESOURCES INC.

GHOST RIVER PROPERTY

GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO.

CLAIM MAP

DATE: JANUARY, 1987 | BY: F.J. SHARPLEY

tholeiitic iron and magnesium-rich basalt of the Kinojevis Group in the western part of the Abitibi Greenstone Belt (Figure 3). The volcanic rocks strike north-northeast and dip steeply to the south in the property area and are located on the north limb of a major east-trending, east-plunging synclinorium. Interflow sedimentary rocks occur within the volcanic sequence. Felsic intrusive rocks, north-trending Matachawan diabase dykes, minor Keweenawan diabase dykes and splay faults off the Dester-Porcupine fault crosscut the volcanic rocks. The rocks have undergone greenschist facies metamorphism.

The gold deposits in the Pipestone and Dester-Porcupine deformation zone areas have been divided into three structural domains (Wittaker, 1987). There are those related to A) the major east-striking zones, B) east-northeast striking splay faults, such as the Holt-McDermott deposit, and C) northwest to northeast striking faults. Government regional compilations indicate that the Ghost River property lies at the intersection of the Holt-McDermott fault and a northwest striking type C fault which enhances the economic potential of the property.

PROPERTY GEOLOGY

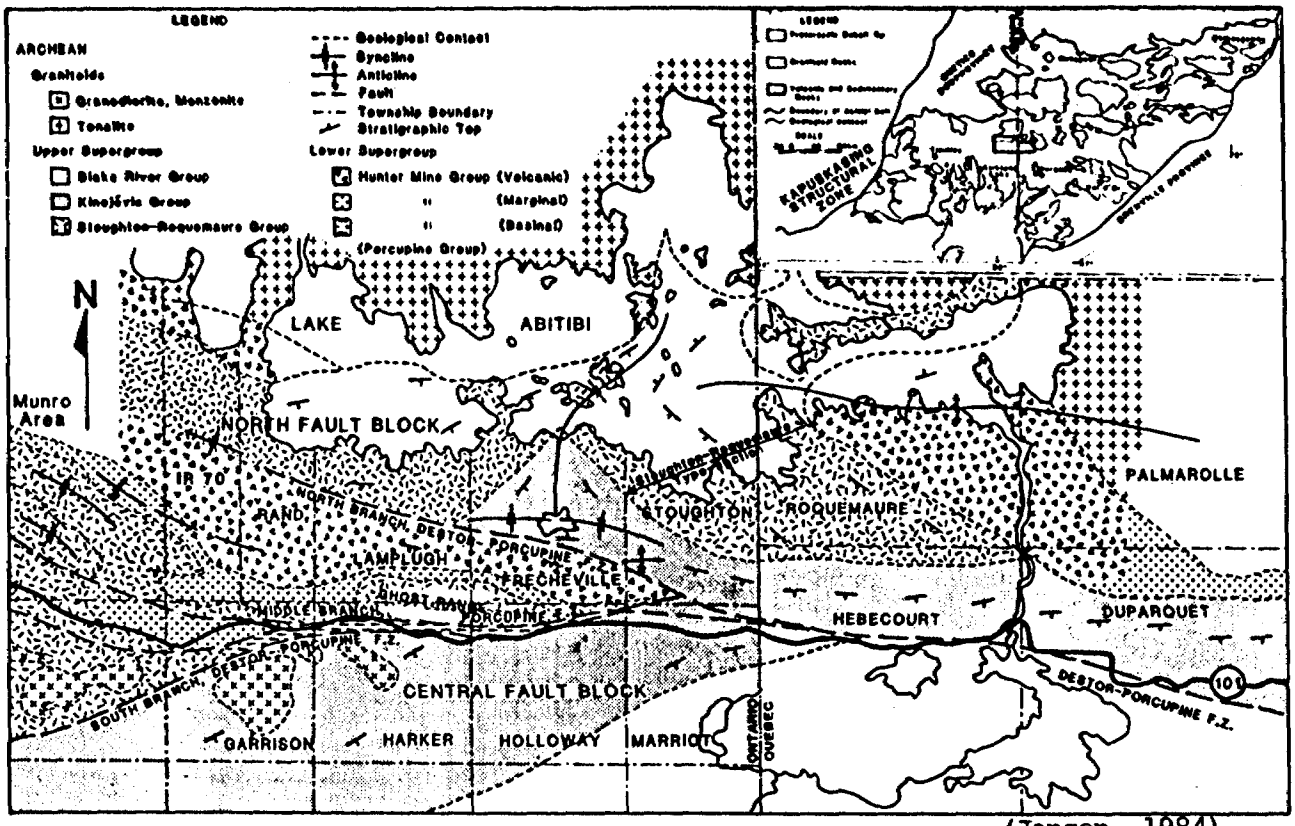
Property geology consists dominantly of magnesium rich and iron rich tholeiitic basalts which strike 070° and dip approximately 70° south. Minor tuffaceous rocks and interflow sedimentary rocks occur within the volcanic sequence. The volcano-sedimentary package is transected by a steeply south dipping fault striking subparallel to stratigraphy. A number of late diabase dykes also crosscut stratigraphy in a north-south direction.

The volcanic rocks are fine to locally medium grained, weather green-grey and are occur both in pillowed and massive form. They are locally weakly magnetic and contain trace to 2 % disseminated pyrite. Finely laminated mafic tuffs, agglomerates and flow top breccias are also present and contain minor pyrite. Minor cherty horizons occur within the volcanic rocks. The volcanic rocks observed in outcrop are relatively unaltered aside from greenshcist facies metamorphism and are relatively undeformed. Pillowed sequences indicate tops are to the south.

A large diabase dyke striking at 160° and dipping near vertical crosscuts the property in the vicinity of L 13 E.

1988 GEOPHYSICAL IP SURVEY

A induced polarization (IP) survey was carried out on parts of the Ghost River property between October 22 and 26, 1988 by JVX Limited to better define areas related to gold-bearing sulphide mineralization. Approximately 4.4 line kilometres of IP coverage were completed south of 3+00S along lines 2E, 4E and 9E and north of 1+25N along the north-south road between lines 1E and 2E.



(Jensen, 1984)

Figure 3 *Geological map of the Lake Abitibi area.*

The survey defined eight individual line anomalies and one anomalous zone (Appendix B). This zone, located near station 10+50S on lines 2E, 4E and 9E corresponds to a narrow VLF-EM anomaly south of and parallel to the main (drill tested) VLF conductor on the property. The five line anomalies on the lines 2E, 4E and 9E are poorly defined and may in part be due to topographic or overburden effects. Three line anomalies, the best being at 400S (survey, not grid co-ordinate) along the road to the north were better defined.

1989 PROGAMME

A localized programme of prospecting and lithogeochemical sampling was carried out on the Ghost River property between June 5 and 10, 1989 (see Appendix C for sample locations and descriptions). The objective of the programme was to ground test anomalies which were delineated during the orientation IP survey carried out in late October, 1988. As the geology map indicated outcrop in some of these areas ground testing was conducted to try and explain or further enhance the anomalies before recommending any drilling.

A total of 46 rock samples were collected for analysis. The samples were sent to Asseyer's (Ontario) Ltd. in Toronto and were analysed for 25 elements by ICP (induced coupled plasma spectrometry). Whole rock analysis was conducted on twenty-two of the samples to determine rock geochemistry and possible alteration patterns. The analytical results can be found in Appendix D. The sample locations and gold values were plotted on the geology map at a scale of 1:2,500 and can be found in Appendix E.

Outcrop exposure on the property is moderate to good with localized ridges exposing well defined volcanic assemblages.

The results of the survey were disappointing. The majority of rock outcrop and samples collected were pillowed to massive mafic volcanics. The rocks vary from fine to medium grained and are locally magnetic. Pillowed outcrops are relatively unaltered and undeformed and indicate tops are to the south, which agrees with the regional interpretation. The highest gold value obtained during the sampling programme was 60 ppb gold from a massive magnetic mafic volcanic rock (geochemistry indicates it is an iron-tholeiite) containing 1-2% disseminated pyrite. Although this is above the generally accepted background gold values in mafic volcanic rocks it is not considered worthy of significant follow-up and may be more indicative of the presence of gold mineralization on a more regional scale. Potential gold indicator elements, As, S, W, Sb, Cu, Zn and Mo, and K2O were also consistantly low.

Whole rock analysis indicates that all of the volcanic samples taken fall well within the iron tholeiite field on a Jensen Cation plot (Figure 4). A linear trend towards the magnesium tholeiite field is also observed.

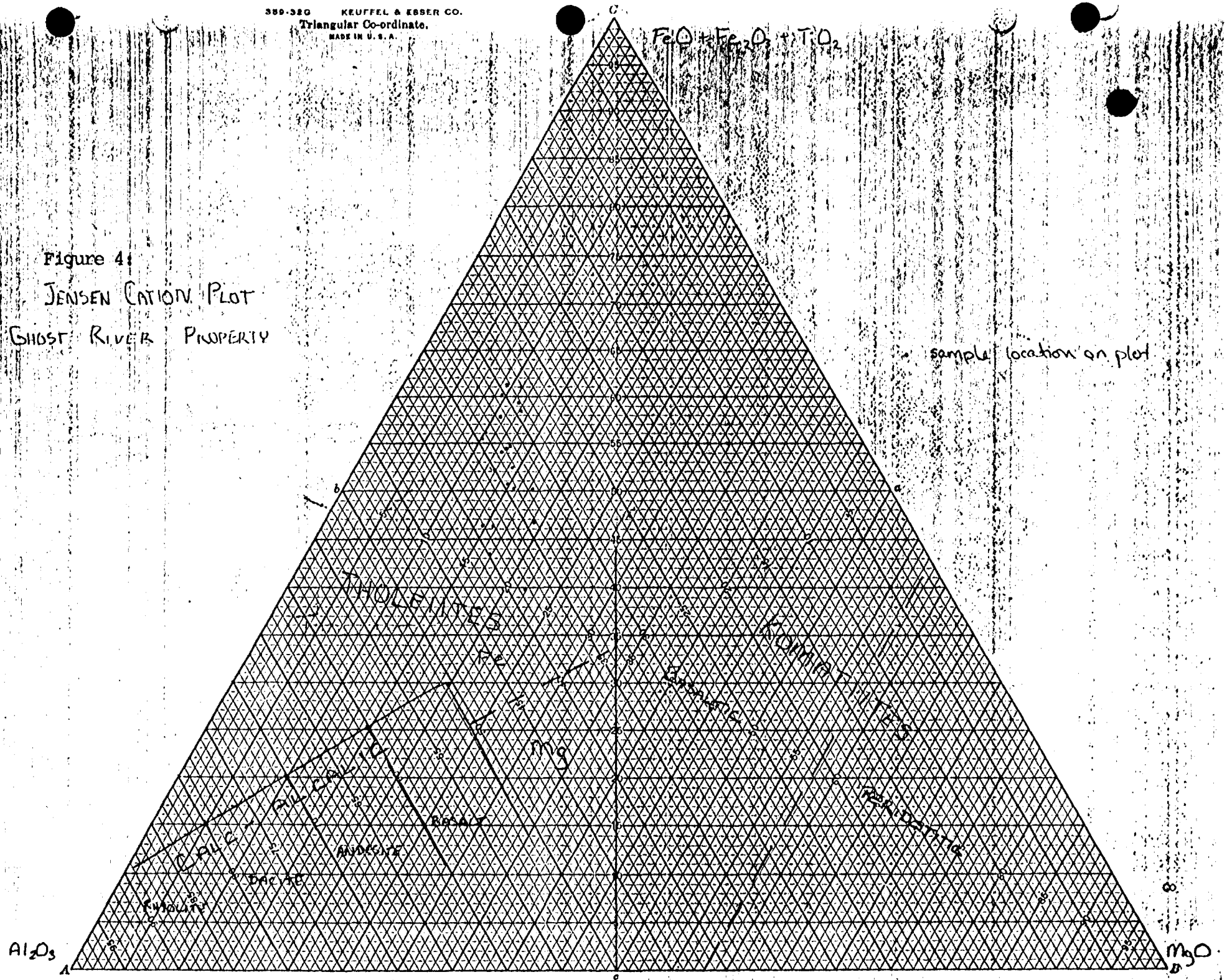
None of the targets from the IP survey were observed on surface. The area of the IP anomaly zone in the vicinity of

359-320 KEUFFEL & ESSER CO.
Triangular Co-ordinate.
MADE IN U. S. A.

Figure 4:

JENSEN CATION PLOT

GHOST RIVER PROPERTY



lines 2E to 9E, 10+50 S forms a slight topographic depression with no rock exposure. Rock outcrop on either side of the depression is massive and pillowed mafic volcanic rock which shows no evidence of structural deformation or hydrothermal alteration. The stronger anomaly on the road (north zone) corresponds with a creek and beaver pond, another topographic low and no rock exposure.

CONCLUSIONS AND RECOMMENDATIONS

The geochemical and whole rock results of the sampling programme undertaken on the Ghost River property in June, 1989 were discouraging. Values for gold and gold indicator elements were consistantly low and whole rock analysis showed very little evidence of hydrothermal alteration. IP anomalies, the targeted areas of the programme, were not explained by geology due to overburden coverage and correpsond to topographic depressions.

The rocks on the property are primarily massive and pillowed mafic volcanics with minor flow top breccias, mafic tuffs and agglomerates containing minor cherty horizons and north-south-trending diabase dykes. The volcanic rocks are oriented 070°/70° south. The rocks observed during the limited sampling programme were relatively undeformed and unaltered. All the volcanic rocks, when plotted on a Jensen Cation plot, lie within the iron-tholeiite field.

As the results of the current programme as well as previous geological mapping and drill programmes on the property have not been encouraging it would appear no further work is recommended for the property at this time. However, due to the proximity to a producing gold mine and the favourable land position based on the regional interpetation of stratigraphy the following suggestions are recommended:

A regional compilation of available recent government data (geophysical, assessment etc.) to determine if the potential for a favourable gold horizon is still present on the property.

If the results from the above are favourable, a detailed structural mapping and prospecting programme over the entire property to delineate potential zones of mineralization and areas to be drill tested.

Should the results of the compilation and detailed mapping and prospecting indicate viable targets a small drill program to test these targets as well as the IP zones may be warranted.

Respectfully submitted,

"D. Sutherland"

"Brooke Brown"

REFERENCES

Jensen, L.S., 1986. Mineralization and Volcanic Stratigraphy in the Western Part of the Abitibi Subprovince in Volcanology and Mineral Deposits, OGS MP 129, pp.69-87.

Sharpley, F.J., 1984. Report on the Geology and Geochemistry of the Ghost River Property.

Sharpley, F.J., 1987. Report on Diamond Drilling, Ghost River Property.

Webster, B., 1988. Report on Ground Geophysical Surveys Conducted on the Ghost River Property, Harker Township, Ontario. JVX Limited.

Wittaker, P.J., 1986. Gold Metallogenesis Along th e Pipestone and Destor-Porcupne Deformation Zones and Associate Structures, OGS MP 134.

CERTIFICATE OF QUALIFICATIONS

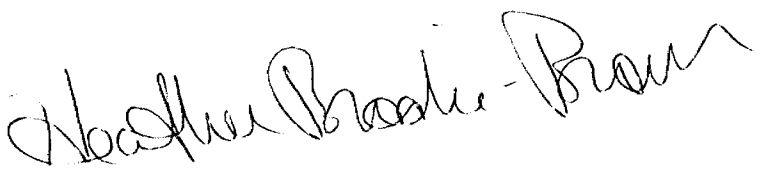
I, Heather Brodie-Brown of the city of Toronto, Province of Ontario, do hereby certify:

1) That I am a geologist and reside at 305 Inglewood Drive, Toronto, Ontario, M4T 1J4.

2) That I graduated from McGill University, Montreal, Quebec in 1987 with an honours degree of Bachelor of Science, Geology.

3) That I have been practising my profession for a period of two years.

4) That I was personally involved in the technical work and writing of this report.



APPENDIX A

APPENDIX A — ASSESSMENT SUMMARY [GHSTR GHOST RIVER

CLAIM #	X#	RECORD	EXPIRES	EXCED	APPROVED	HCR/UNITS	TAX
737509	1	83/12/29	89/06/29	0.00	190.00	16.00 $	0.00
737514	1	83/12/29	89/06/29	0.00	190.00	16.00 $	0.00
737515	1	83/12/29	89/06/29	0.00	190.00	16.00 $	0.00
737516	1	83/12/29	89/06/29	0.00	190.00	16.00 $	0.00
737529	1	83/12/29	89/06/29	0.00	190.00	16.00 $	0.00
737532	1	83/12/29	89/06/29	0.00	190.00	16.00 $	0.00
737547	1	83/12/29	89/06/29	0.00	193.00	16.00 $	0.00
738106	1	84/02/24	89/08/24	0.00	190.00	16.00 $	0.00
738107	1	84/02/24	89/08/24	0.00	190.00	16.00 $	0.00
737510	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737511	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737512	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737513	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737517	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737530	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737531	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737533	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737534	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737535	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737536	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737537	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737538	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737539	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737540	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737541	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737542	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737543	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737544	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737545	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737546	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
737548	0	83/12/29	89/12/29	0.00	200.00	16.00 $	0.00
738103	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738104	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738105	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738108	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738109	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738110	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738111	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738112	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738114	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738115	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738116	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738117	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738118	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00
738119	0	84/02/24	90/02/24	0.00	200.00	16.00 $	0.00

45 Claims reported on GHSTR [GHOST RIVER]

APPENDIX B

APPENDIX B

ASSAYERS ONTARIO LABORATORIES

A DIVISION OF ASSAYERS CORPORATION LTD.

33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2 • TELEPHONE (416) 239-3527
FAX (416) 239-4012

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JUN 16 1989

Certificate of Analysis

Certificate No. CH-01/01/8932 Date: June 13, 1989

Received 24 Samples of Rock

Submitted by Chesbar Resources Inc. Att'n: Ms K. Sutherland

WHOLE ROCK ANALYSIS

	68826	68828	68829	68830	68831	68832	68833	68834
%								
SiO_2	47.85	50.24	47.33	48.76	49.15	45.68	44.51	48.19
Al_2O_3	12.21	12.45	13.16	12.91	11.03	13.31	15.18	12.55
Fe_2O_3	19.65	18.38	17.44	19.03	19.47	17.60	14.95	17.74
CaO	7.38	8.12	8.39	7.92	5.92	11.37	11.94	8.08
MgO	4.11	3.65	5.69	4.74	4.36	5.94	8.59	5.37
Na_2O	4.28	2.93	2.77	2.52	2.52	1.93	1.61	4.10
K_2O	.24	.15	.36	.29	.11	.28	.37	.10
TiO_2	2.59	2.06	1.77	1.89	2.43	1.96	.86	2.07
MnO	.27	.22	.23	.25	.26	.33	.20	.23
P_2O_5	.47	.52	.67	.32	.49	.39	.01	.29
L.O.I.	.16	.39	2.19	.57	3.01	.89	1.88	1.17
ppm								
Ba	112	150	95	57	91	69	35	22
Cr	94	125	211	164	61	232	422	106
Nb	<10	<10	<10	<10	<10	<10	<10	<10
Sr	107	215	156	94	241	97	169	69
Y	51	58	30	33	54	18	15	37
Zr	155	177	107	154	166	68	48	116

ASSAYERS ONTARIO LABORATORIES

Per _____

J. van Engelen Mgr.

ASSAYERS ONTARIO LABORATORIES
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Certificate of Analysis

Certificate No. CH-01/02/8932 Date: June 13, 1989

Received 24 Samples of Rock

Submitted by Chesbar Resources Inc. Ms K. Sutherland

WHOLE ROCK ANALYSIS

	68837	68840	68846	68847	68848	68849	68855	68856
%								
SiO_2	55.84	48.44	50.58	44.31	44.38	42.84	48.28	46.55
Al_2O_3	10.34	11.39	10.53	13.46	11.99	12.72	12.57	14.34
Fe_2O_3	15.06	19.83	19.55	18.68	21.58	19.05	18.48	16.43
CaO	7.49	10.51	10.15	9.69	9.01	10.09	8.15	13.11
MgO	3.07	3.63	3.42	6.43	4.79	5.14	4.68	5.86
Na_2O	2.19	2.38	2.05	1.64	2.30	2.82	2.56	1.90
K_2O	.22	.36	.31	.21	.11	.09	.19	.08
TiO_2	1.95	2.66	2.42	2.55	2.68	2.59	1.86	.94
MnO	.23	.30	.30	.27	.31	.33	.28	.26
P_2O_5	.21	.31	.25	.36	.61	.53	.28	.40
L.O.I.	2.76	.26	.01	2.25	1.73	3.64	1.58	.10
ppm								
Ba	46	34	19	83	57	84	37	30
Cr	40	118	146	121	154	59	160	425
Nb	<10	<10	<10	<10	<10	<10	<10	<10
Sr	105	116	104	156	115	163	90	100
Y	25	24	22	25	26	38	34	<10
Zr	105	88	92	91	105	138	118	29

ASSAYERS ONTARIO LABORATORIES

Per _____

J. van Engelen Mgr.

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Certificate of Analysis

Certificate No. CH-01/03/8932 Date: June 13, 1989

Received 24 Samples of Rock

Submitted by Chesbar Resources Inc. Att'n: Ms. K. Sutherland

WHOLE ROCK ANALYSIS

	68858	68859	68860	68865	68866	68867	68870	68871
%								
SiO_2	46.46	48.16	48.37	47.60	48.23	48.75	47.61	47.80
Al_2O_3	13.07	12.48	12.10	13.14	14.36	13.20	14.56	15.23
Fe_2O_3	18.85	14.37	14.14	16.84	14.84	18.59	16.50	15.79
CaO	10.09	12.29	11.70	10.49	8.65	9.77	10.43	10.70
MgO	6.81	8.31	9.18	7.43	7.79	4.89	5.44	6.37
Na_2O	3.00	2.11	2.18	2.04	3.87	2.79	3.17	2.60
K_2O	.21	.09	.12	.10	.21	.18	.39	.01
TiO_2	1.10	.95	.88	1.12	1.01	1.05	.83	.82
MnO	.33	.23	.23	.24	.23	.34	.30	.32
P_2O_5	.01	.02	.03	.44	.01	.20	.36	.18
L.O.I.	.01	.89	.48	.51	1.73	.01	.40	.01
ppm								
Ba	41	72	94	29	2278	39	59	25
Cr	319	287	332	401	296	416	488	462
Nb	<10	<10	<10	<10	<10	<10	<10	<10
Sr	116	301	302	106	91	114	118	85
Y	14	<10	<10	19	17	12	19	17
Zr	40	56	47	63	48	36	55	53

ASSAYERS ONTARIO LABORATORIES

Per _____
J. van Engelen Mgr.

ASSAYERS (ONTARIO) LIMITED
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Certificate of Analysis

Certificate No. CH-01/04/8932 Date: June 13, 1989

Received 46 Samples of Rock

Submitted by Chesbar Resources Inc. Ms. K. Sutherland

Sample No.	Au ppb	Sample No.	Au ppb	Sample No.	Au ppb
68826	60	68846	12	68866	16
68827	36	68847	21	68867	22
68828	59	68848	36	68868	26
68829	28	68849	17	68869	27
68830	37	68850	19	68870	40
68831	25	68851	25	68871	38
68832	34	68852	11		
68833	15	68853	23		
68834	39	68854	32		
68835	20	68855	28		
68836	16	68856	40		
68837	26	68857	34		
68838	37	68858	25		
68839	40	68859	15		
68840	28	68860	16		
68841	34	68861	18		
68842	35	68862	22		
68843	45	68863	17		
68844	44	68864	25		
68845	18	68865	23		

ASSAYERS (ONTARIO) LIMITED

Per _____

J. van Engelen Mgr.

ASSAYERS ONTARIO LABORATORIES
A DIVISION OF ASSAYERS CORPORATION LTD.
33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2 • TELEPHONE (416) 239-3527 FAX (416) 239-4012

Certificate of Analysis

Certificate No. CH-01/05/8932 Date: June 13, 1989

Samples Of: Rock

Submitted by: Chesbar Resources Inc. Att'n: Ms K. Sutherland

GEO-SCAN — RESULTS IN PPM

	68826	68827	68828	68829	68830	68831	68832	68833
Ag	.1	.2	.3	<.1	.1	<.1	<.1	<.1
Al %	.6	.4	.9	1.4	1.5	1.6	1.0	1.9
As	<10	<10	<10	<10	<10	<10	<10	<10
Bi	<10	<10	<10	<10	<10	<10	<10	<10
Ca %	.7	.4	.5	.7	.7	.9	.6	.7
Cd	10	<10	<10	<10	<10	<10	<10	<10
Co	28	13	17	24	22	26	17	20
Cr	62	81	71	76	74	35	62	141
Cu	151	143	87	83	81	111	107	122
Fe %	4.8	2.5	4.0	3.3	4.3	4.9	2.5	2.6
Mg %	.4	.4	.6	1.0	.9	1.3	.6	1.3
Mn	401	285	406	404	465	520	368	317
Mo	<10	<10	<10	<10	<10	<10	<10	<10
Ni	37	51	38	41	47	29	44	77
P %	.1	.04	.1	.06	.07	.09	.05	.02
Pb	33	26	31	37	39	45	28	38
S %	.6	.3	.1	.1	.09	.7	.05	.04
Sb	<10	<10	<10	<10	<10	<10	<10	<10
Sr	<10	10	15	18	<10	25	<10	23
Th	<10	<10	<10	<10	<10	<10	<10	<10
U	37	14	28	33	38	51	21	21
V	112	19	58	94	119	131	58	46
W	<10	<10	<10	<10	<10	<10	<10	<10
Zn	33	129	34	40	43	63	25	22

ASSAYERS ONTARIO LABORATORIES

Per _____
J. van Engelen Mgr.

ANALYTICAL CHEMISTS • ASSAYING • ICP MULTI-ELEMENT ANALYSIS • REPRESENTATION

ASSAYERS ONTARIO LABORATORIES
A DIVISION OF ASSAYERS CORPORATION LTD.
33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2 • TELEPHONE (416) 239-3527 FAX (416) 239-4012

Certificate of Analysis

Certificate No. CH-01/06/8932 Date: June 13, 1989

Samples Of: Rock

Submitted by: Chesbar Resources Inc. Att'n: Ms K. Sutherland

GEO-SCAN — RESULTS IN PPM

	68834	68835	68836	68837	68838	68839	68840	68841
Ag	.2	<.1	<.1	.1	<.1	<.1	<.1	<.1
Al %	1.1	1.8	.6	1.2	.1	1.4	.9	.7
As	<10	<10	<10	<10	<10	<10	<10	<10
Bi	<10	<10	<10	<10	<10	<10	<10	<10
Ca %	.6	.3	.5	1.0	.1	.9	.7	.5
Cd	<10	<10	<10	<10	<10	<10	<10	<10
Co	20	27	11	16	<10	23	22	15
Cr	51	78	41	36	67	67	66	77
Cu	49	95	47	52	70	92	90	91
Fe %	3.6	3.8	2.1	3.1	1.9	3.8	3.7	3.1
Mg %	.9	1.3	.3	.5	.05	.8	.5	.4
Mn	378	424	238	387	200	538	453	401
Mo	<10	<10	<10	<10	<10	<10	<10	<10
Ni	39	55	26	25	29	43	41	38
P %	.08	.07	.04	.08	.01	.07	.08	.04
Pb	34	43	24	32	13	37	31	25
S %	.03	.1	.05	.08	.04	.09	.1	.1
Sb	<10	<10	<10	<10	<10	<10	<10	<10
Sr	<10	<10	12	18	<10	10	10	10
Th	<10	<10	<10	<10	<10	<10	<10	<10
U	31	31	13	21	<10	33	25	<10
V	108	97	47	106	<10	104	80	44
W	<10	<10	<10	<10	<10	<10	<10	<10
Zn	29	61	20	35	35	52	37	27

ASSAYERS ONTARIO LABORATORIES

Per _____

J. van Engelen Mgr.

ASSAYERS ONTARIO LABORATORIES
A DIVISION OF ASSAYERS CORPORATION LTD.
33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2 • TELEPHONE (416) 239-3527 FAX (416) 239-4012

Certificate of Analysis

Certificate No. CH-01/07/8932 Date: June 13, 1989

Samples Of: Rock

Submitted by: Chesbar Resources Inc. Att'n: Ms K. Sutherland

GEO-SCAN — RESULTS IN PPM

	68842	68843	68844	68845	68846	68847	68848	68849
Ag	<.1	<.1	<.1	<.1	.3	<.1	<.1	<.1
Al %	1.5	1.1	1.5	2.3	1.1	2.1	1.4	1.4
As	<10	<10	<10	<10	<10	<10	<10	<10
Bi	<10	<10	<10	<10	<10	<10	<10	<10
Ca %	.9	.4	.9	.5	1.0	.5	.6	.8
Cd	<10	<10	<10	10	<10	<10	<10	<10
Co	16	12	14	31	22	28	24	28
Cr	41	51	24	66	90	52	83	36
Cu	60	57	28	115	116	86	121	83
Fe %	4.8	3.7	4.4	5.3	4.2	3.8	4.3	3.3
Mg %	.5	.4	.7	1.2	.5	1.4	.7	.7
Mn	733	598	776	695	564	530	497	436
Mo	<10	<10	<10	<10	<10	<10	<10	<10
Ni	24	25	18	56	46	45	51	30
P %	.1	.08	.1	.07	.06	.09	.07	.09
Pb	42	34	41	52	36	44	39	36
S %	.1	.05	.04	.4	.1	.1	.1	.3
Sb	<10	<10	<10	<10	<10	<10	<10	<10
Sr	23	11	11	<10	13	12	<10	14
Th	<10	<10	<10	<10	<10	<10	<10	<10
U	38	20	31	53	33	30	35	28
V	18	14	17	161	104	88	124	93
W	<10	<10	<10	<10	<10	<10	<10	<10
Zn	68	52	80	96	47	56	48	49

ASSAYERS ONTARIO LABORATORIES

Per _____

J. van Engelen Mgr.

ASSAYERS ONTARIO LABORATORIES

A DIVISION OF ASSAYERS CORPORATION LTD.

33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2 • TELEPHONE (416) 239-3527 FAX (416) 239-4012

Certificate of Analysis

Certificate No. CH-01/08/8932 Date: June 13, 1989

Samples Of: Rock

Submitted by: Chesbar Resources Inc. Att'n: Ms K. Sutherland

GEO-SCAN — RESULTS IN PPM

	68850	68851	68852	68853	68854	68855	68856	68857
Ag	<.1	.1	.1	.1	<.1	.1	<.1	<.1
Al %	1.6	1.4	1.3	1.2	1.7	1.7	1.0	.8
As	<10	<10	<10	<10	<10	<10	<10	<10
Bi	<10	<10	<10	<10	<10	<10	<10	<10
Ca %	.5	.4	.6	.9	.6	.9	.9	1.8
Cd	<10	<10	<10	<10	<10	<10	<10	<10
Co	22	20	22	30	25	23	12	27
Cr	45	55	55	143	74	78	84	94
Cu	64	92	90	210	93	101	84	226
Fe %	3.8	3.4	3.4	2.8	3.9	4.0	2.2	3.5
Mg %	.9	.9	.8	.7	1.2	1.0	.3	.5
Mn	467	401	409	435	512	602	296	506
Mo	<10	<10	<10	<10	<10	<10	<10	<10
Ni	33	34	38	87	47	46	44	41
P %	.07	.04	.07	.02	.07	.06	.02	.02
Pb	39	35	34	33	41	40	25	33
S %	.03	.1	.1	.1	.09	.06	.04	.4
Sb	<10	<10	<10	<10	<10	<10	<10	<10
Sr	<10	11	<10	16	<10	<10	14	11
Th	<10	<10	<10	<10	<10	<10	<10	<10
U	32	26	25	20	31	30	12	47
V	94	79	86	54	96	103	26	46
W	<10	<10	<10	<10	<10	<10	<10	<10
Zn	60	40	41	21	51	48	17	51

ASSAYERS ONTARIO LABORATORIES

Per _____

J. van Engelen Mgr.

ASSAYERS ONTARIO LABORATORIES

A DIVISION OF ASSAYERS CORPORATION LTD.

33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2 • TELEPHONE (416) 239-3527 FAX (416) 239-4012

Certificate of Analysis

Certificate No. CH-01/09/8932 Date: June 13, 1989

Samples Of: Rock

Submitted by: Chesbar Resources Inc. Att'n: Ms K. Sutherland

GEO-SCAN — RESULTS IN PPM

	68858	68859	68860	68861	68862	68863	68864	68865
Ag	<.1	<1.	<1.	<1.	.5	.2	.1	.1
Al %	1.2	1.5	1.5	1.6	.7	1.8	1.3	1.7
As	<10	<10	<10	<10	<10	<10	<10	<10
Bi	<10	<10	<10	<10	<10	<10	<10	<10
Ca %	.9	.7	.7	.6	.3	1.1	.6	.9
Cd	<10	<10	<10	<10	<10	<10	<10	<10
Co	17	21	23	22	20	16	39	21
Cr	132	54	51	54	70	120	135	128
Cu	212	176	174	131	179	72	348	147
Fe %	3.8	2.6	2.9	3.6	3.7	3.0	4.8	3.3
Mg %	.5	.9	.9	.8	.5	.8	.6	1.1
Mn	534	250	288	393	412	517	697	449
Mo	<10	<10	<10	<10	<10	<10	<10	<10
Ni	50	69	87	37	42	64	94	58
P %	.02	.03	.03	.03	.03	.02	.02	.03
Pb	36	33	35	37	28	38	49	37
S %	.07	.06	.07	.1	.07	.03	.3	.06
Sb	<10	<10	<10	<10	<10	<10	<10	<10
Sr	17	56	55	21	<10	20	<10	16
Th	<10	<10	<10	<10	<10	<10	<10	<10
U	26	15	21	27	22	18	34	25
V	62	69	91	90	146	46	49	68
W	<10	<10	<10	<10	<10	<10	<10	<10
Zn	23	32	34	39	30	23	31	30

ASSAYERS ONTARIO LABORATORIES

Per _____

J. van Engelen Mgr.

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33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2 • TELEPHONE (416) 239-3527 FAX (416) 239-4012

Certificate of Analysis

Certificate No. CH-01/10/8932 Date: June 13, 1989

Samples Of: Rock

Submitted by: Chesbar Resources Inc. Att'n: Ms K. Sutherland

GEO-SCAN — RESULTS IN PPM

	68866	68867	68868	68869	68870	68871
Ag	.1	.1	.1	.2	.3	<.1
Al %	1.3	.6	.9	.5	.7	1.0
As	<10	<10	<10	<10	<10	<10
Bi	<10	<10	<10	<10	<10	<10
Ca %	.3	.5	.4	.2	.4	.6
Cd	<10	<10	<10	<10	<10	<10
Co	20	17	17	14	33	141
Cr	109	123	83	99	122	106
Cu	137	184	257	134	235	151
Fe %	2.7	3.3	3.0	2.6	3.5	2.5
Mg %	1.2	.4	.3	.3	.4	.2
Mn	396	466	385	315	428	351
Mo	<10	<10	<10	<10	<10	<10
Ni	49	52	42	50	101	61
P %	.02	.02	.01	.01	.02	.01
Pb	32	26	26	22	28	26
S %	.02	.08	.08	.1	.5	.09
Sb	<10	<10	<10	<10	<10	<10
Sr	<10	<10	<10	<10	<10	13
Th	<10	<10	<10	<10	<10	<10
U	19	20	16	14	19	13
V	52	41	30	26	29	24
W	<10	<10	<10	<10	<10	<10
Zn	36	18	16	12	16	11

ASSAYERS ONTARIO LABORATORIES

Per _____

J. van Engelen Mgr.

ANALYTICAL CHEMISTS • ASSAYING • ICP MULTI-ELEMENT ANALYSIS • REPRESENTATION

APPENDIX C

APPENDIX C

ROCK SAMPLE DESCRIPTIONS

SAMPLE	LOCATION	DESCRIPTION
68826	5+70E/0+15S	Fe-tholeiite, magnetic, massive, 1-2% fine grained pyrite.
68827	5+43E/0+12N	Cherty sediment/tuff, aphanitic, weakly laminated, concoidal fracture, 1-2% very fine grained pyrite.
68828	5+83E/0+22N	Fe-tholeiite, magnetic, massive, 1% fine grained, disseminated pyrite.
68829	8+15E/1+05S	Coarse mafic flow (diorite?), fine grained, non-magnetic, 1% py.
68830	8+80E/1+40S	Mafic volcanic, mainly massive with minor pillows, weakly magnetic, 1% fine grained disseminated pyrite.
68831	12+65E/0+25S	Mafic volcanic, fine grained, massive, weakly magnetic, 3-4% finely disseminated pyrite.
68832	2+00E/7+43S	Pillow basalt, non-magnetic, well defined margins, pillow size varies, trace pyrite.
68833	2+00E/8+35S	Pillow basalt, as 68832, rims not quite as well defined.
68834	2+00E/9+25S	Pillow basalt, pillows less obvious than above.
68835	1+90E/9+65S	Flow top breccia, fragmented pillows and cherty material, non-magnetic, trace to 1% pyrite.
68836	1+90E/9+66S	Cherty inclusion in flow top breccia, no visible sulphide.
68837	9+90E/10+75S	Mafic volcanic, massive, possibly weak pillow structure, 5% white porphyroblasts <2 mm, very weakly magnetic, trace pyrite.
68838	1+89E/11+25S	Cherty intersticial material, near flow top breccia, laminated, conchoidal fracture, no visible sulphide.

68839	1+89E/11+25S	Mafic volcanic, non-magnetic, locally to 15% chloritic amygdules <2 mm, 2% stretched subrounded quartz fragments <2 cm.
68840	1+91E/11+25S	Mafic volcanic, fine grained, magnetic, locally 2% pyrite.
68841	2+00E/11+25S	Cherty intertitial material, concoidal fracture, banded.
68842	2+00E/11+75S	Agglomerate, cm scale clasts, locally weakly magnetic, trace pyrite.
68843	2+00E/11+75S	Lapilli tuff, fine grained, mm to cm scale lamination of silicic to mafic bands, non-magnetic, no sulphides, minor agglomeritic bands.
68844	2+40E/11+75S	Agglomerate, fine grained, cm scale clasts (coarser than 68842), trace pyrite, non-magnetic.
68845	2+95E/11+25S	Selvage and intersticial material of pillow basalt, quartz rich, non-magnetic, 2-3% pyrite.
68846	2+95E/1+25S	Pillow basalt, very fine grained, trace pyrite.
68847	3+00E/11+30S	Gabbro or coarse grained basalt, massive, non-magnetic, fine to medium grained, equigranular, trace pyrite.
68848	5+00E/10+90S	Mafic volcanic, massive, non-magnetic, trace pyrite.
68849	4+25E/10+90S	Mafic volcanic, massive to weakly pillowed, non-magnetic, 1% py.
68850	4+25E/10+90S	Interflow material, 0.5m transition zone between gabbro and basalt, flow top?
68851	4+08E/9+85S	Interflow breccia, non-magnetic, no visible sulphides.
68852	4+00E/7+75S	Flow top breccia , 2-5 cm volcanic fragments, no visible sulphides.
68853	12+75E/1+50S	Pillow basalt, well defined margins, non-magnetic, trace pyrite.

68854	12+75E/1+50S	Interflow pillow material, coarse grained, no visible sulphide.
68855	12+50E/1+80S	Pillow basalt, vesicular, tops to south.
68856	12+80E/3+95S	Pillow basalt, non-magnetic, trace pyrite.
68857	13+25E/4+25S	Pillow rim and interstitial material, weakly magnetic, minor quartz, 1% disseminated pyrite.
68858	13+25E/4+25S	Pillow basalt, non-magnetic.
68859	13+23E/4+25S	Diabase dyke, 0.2m from contact with basalt, medium grained, equigranular, no visible sulphide.
68860	13+23E/4+25S	Diabase dyke, as 68859 but 1.5m from contact.
68861	12+80E/5+25S	Flow top breccia, variable fragment size, non magnetic, trace - 1% pyrite.
68862	12+95E/5+30S	Transition zone between breccia and diabase dyke, concoidal fracture, aphanitic, highly silicic, trace pyrite.
68863	9+90E/6+60S	Flow top breccia, 1mm-2cm angular fragments, chloritic.
68864	9+90E/6+60S	Flow top breccia, limonitic, 3% very fine grained pyrite.
68865	10+00E/6+40S	Mafic volcanic, massive (possibly weakly pillowed), non-magnetic, no visible sulphide.
68866	12+00E/4+35S	Mafic volcanic, medium grained, non-magnetic,massive, no visible sulphides.
68867	1+40E/8+90N	Pillowed mafic volcanic, fine grained, non-magnetic, trace pyrite in fractures.
68868	3+27E/8+79N	Pillow selvage, oxidized, fine grained, non-magnetic, 2% pyrite.
68869	3+30E/8+82N	Pillow selvage, non-magnetic 1-2% disseminated pyrite.

[redacted]970	3+30E/8+82N	Interpillow material, oxidized, 2-3% pyrite both disseminated and in veinlets.
68871	3+30E/8+82N	Pillow basalt, non-magnetic, trace disseminated pyrite.

APPENDIX D

ANALYTICAL CHEMISTS – ASSAYERS – SPECTROSCOPISTS – REPRESENTATIVES

Ghost River

8932

ASSAYERS (ONTARIO) LIMITED

33 CHAUNCEY AVENUE, TORONTO, ONTARIO M8Z 2Z2 • TELEPHONE (416) 239-3527

DAY	DATE MONTH	YEAR	SHIPPED VIA
13	06	89	

SOLD TO

Chesbar Resources Inc.,
Attention: Ms K. Sutherland,
950 - 36 Toronto Street,
TORONTO, Ontario
M5C 2C5

1.5% LATE CHARGE OVER 30 DAYS (ANNUAL RATE 18%)

FED. LICENCE NO.	PROV. LICENCE NO.	YOUR ORDER NO.	OUR ORDER NO.	TERMS	SALES REP.
				NET 30 DAYS	

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
46	Geoscans + Au	$ 17.50	$ 805.00
24	Whole Rock Analysis	20.00	480.00
46	Sample Prep	3.00	138.00
	Cert. No. CH-01 June 13/89		
	TOTAL		$ 1423.00

134

Date Rec'd	June 14/89	
Entered		
Approved for payment	K Sutherland	
Distribution	Account	
	307004	1423.00

INVOICE

APPENDIX F

Ministry of Northern Development and Mines
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditure

32D05NW0865 2.12590 HARKER

900

M.L W8908-224

Type of Survey(s)
EXPENDITURE (Lithogeochemical)

Harker + Garrison

Claim Holder(s)
GREAT GRANDAD RESOURCES ~~INC~~ LIMITED
(~~Chesbar Resources Inc.~~)

Prospector's Licence No.
T-1685

Address
Suite 950, 36 TORONTO ST., TORONTO, ONTARIO. M5C 2C5

Survey Company
CHESBAR RESOURCES INC.

Date of Survey (from & to): 05 06 89 (Day Mo. Yr.) — 09 06 89 (Day Mo. Yr.)

Total Miles of line Cut

Name and Address of Author (of Geo-Technical report)
K. Sutherland, H. Brodie-Brown, Chesbar Resources Inc. 950-36 Toronto St. Toronto, Ont

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES
OFFICE
AUG 10 1989
RECEIVED

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	737509	10			
	737514	10			
	737515	10			
	737516	10			
	737529	10			
	737532	10			
	737547	7			
	738106	10			
	738107	10			
	738109	8			

RECEIVED
JUL 25 1989
MINING LANDS SECTION

RECEIVED
JUL 7 1989
8:50 am

Total number of mining claims covered by this report of work: 10

Expenditures (excludes power stripping)

Type of Work Performed
Lithogeochemical sampling + assaying (See 77(19))

Performed on Claim(s)
737509, 737529, 737530, 737531, 738112, 737532, 737534, 738109, 738110,

Calculation of Expenditure Days Credits

Total Expenditures			=	Total Days Credits
$ 1,423.00	÷	15	=	95

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
95	July 7/89	M. C. Wallace
	Date Approved as Recorded	Director
	Aug 9 1989	

Date: July 5/89
Recorded Holder or Agent (Signature): K. Sutherland

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
K. Sutherland c/o Chesbar Resources Inc.
950-36 TORONTO ST. TORONTO ONT. M5C2C5

Date Certified: July 5/89
Certified by (Signature): K. Sutherland

1362 (85/12)

LAMPLUGH TWP.

GARRISON TWP.

HOLLOWAY TWP.

ELLIOTT TWP.

THE TOWNSHIP
OF

HARKER

DISTRICT OF
COCHRANE

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH - 40 CHAINS

LEGEND

PATENTED LAND	● or (P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.
PATENTED S.R.O	

(Parcels have been withdrawn from disposition pending under Public Lands Act)

NOTES

400' Surface Rights reservation along the shores of all lakes and rivers.

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
(N)	NRW.5/85	MAR.5/85	M.R.O.	
(N)	O.2/89 JAN. 31/89	OPENS NRW 5/85 R-1		
(N)	NRW 15/85 Sec. 36/80	NOV.5/85	M.R. & S.R.	
(N)	O. 4/86	JAN.31/86	M.R. & S.R.	
(N)	W. 9/86	JAN.24/86	M.R. & S.R.	
(L)	LAND USE PERMIT NO. R7150 JUNE 1/87 TO MAY 31, 1988			
	O 26 88 NR	MARCH 8 88	OPENS (N)	

#2

PLAN NO. G-3643

DATE OF ISSUE
APR 10 1989
LARDER LAKE
MINING RECORDER'S OFFICE

Ontario Ministry of Natural Resources
Ministry of Northern Development and Mines

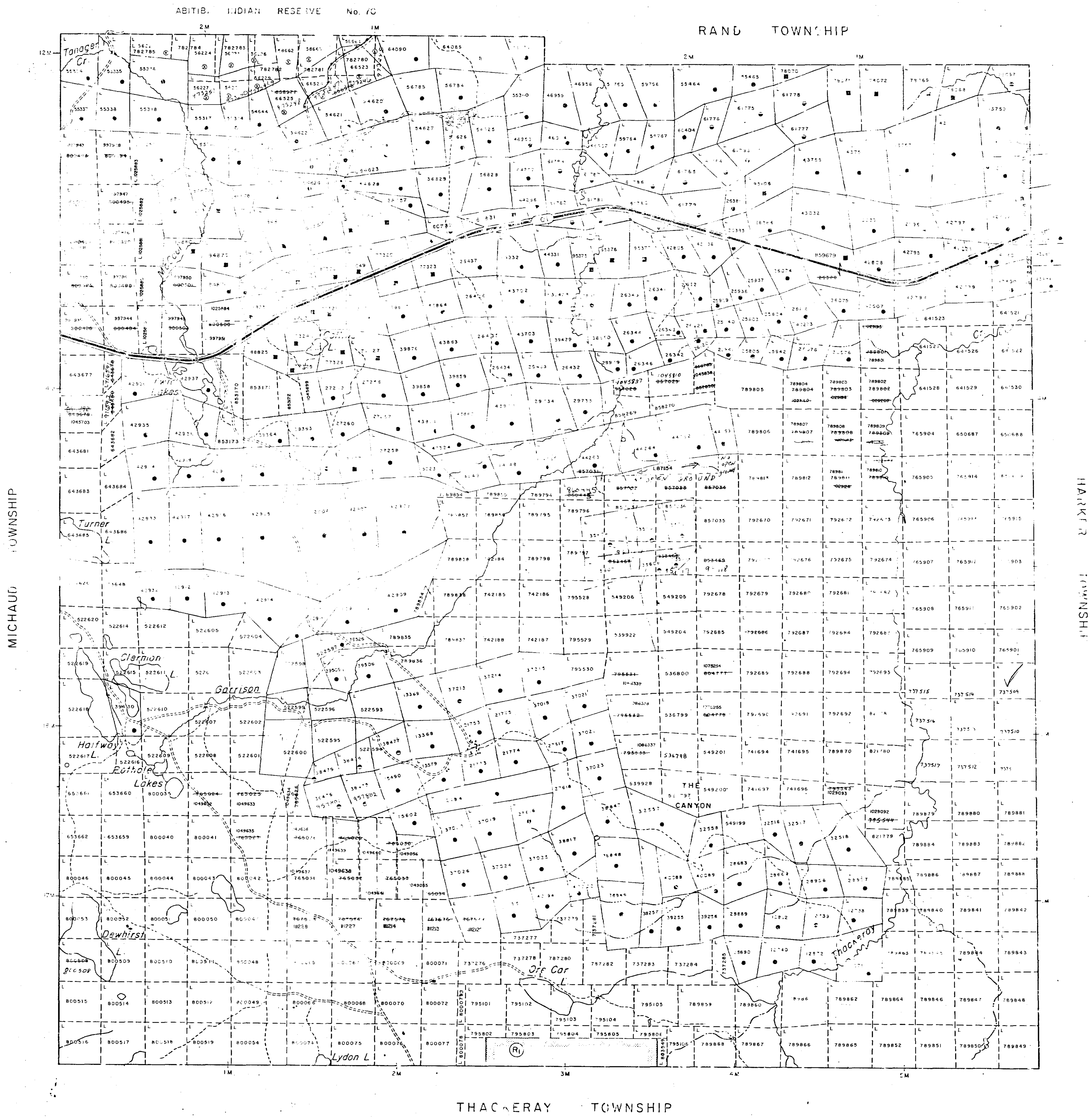
32D05NW0865 2.12590 HARKER

AREAS WITHDRAWN FROM ...

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
(R1) Sec. 35/P.S.O./90.	N.R.W. 63/83	2/12/83	S.R. & M.P.	

— Applic. under Public Lands Act - Proposed hydro line



LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT
PATENT, SURFACE & MINING RIGHTS
SURFACE RIGHTS ONLY
MINING RIGHTS ONLY
LEASE, SURFACE & MINING RIGHTS
SURFACE RIGHTS ONLY
MINING RIGHTS ONLY
LICENCE OF OCCUPATION
ORDER IN COUNCIL
RESERVATION
CANCELLED
SAND & GRAVEL

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1

SCALE 1:20 000

Application for surface under Public Lands Act

DATE OF ISSUE
JUL 17 1989
LARDER LAKE
MINING RECORDER'S OFFICE

TOWNSHIP
GARRISON

M.N.R. ADMINISTRATIVE DISTRICT
KIRKLAND LAKE
MINING DIVISION
LARDER LAKE
LAND TITLES / REGISTRY DIVISION
COCHRANE

Ontario Ministry of Natural Resources
Ministry of Northern Development and Mines

Date: SEPTEMBER 1986
Number: G-3633

32D05NW8885 2.12590 HARKER

210

GEOLOGICAL LEGEND

7 DIABASE (Keweenawan)

6 DIABASE (Matachewan)

5 FELSIC INTRUSIVE ROCKS
- (a) Syenodiorite
- (b) Monzonite
- (c) Feldspar porphyry

4 METASEDIMENTS
- (a) Conglomerate
- (b) Wacke
- (c) Arkose
- (d) Argillite
- (e) Sandstone
- (f) Ironstone

3 FELSIC METAVOLCANICS
- (a) Spherulitic and granular tuff
- (b) Tuff-breccia
- (c) Cherty tuff
- (d) Dacite
- (e) Rhyolite

2 IRON-RICH MAFIC METAVOLCANICS
- black to dark green
- (a) Massive
- (b) Diabasic
- (c) Fragmental
- (d) Lapilli tuff, breccia
- (e) Pillow lava
- (f) Interflow sediments
- (g) Flow top breccia

1 MAGNESIUM-RICH METAVOLCANICS
- grey to green
- (a) Massive
- (b) Hyaloclastic
- (c) Variolitic
- (d) Amygdaloidal
- (e) Pillow lava
- (f) Interflow sediments
- (g) Flow top breccia

SYMBALS

	Rock outcrop
	Geological contact interpreted
	Fault contact interpreted
75	Shearing
80	Bedding
Au	Gold
py	Pyrite
mal	Malachite
q.bx	Quartz breccia
q	Quartz stockwork
mag	Magnetite
·001Au	Ounces gold per ton in grab sample
tr	Trace
nil	Nil
	Bush road
	Creek
	River

2.12590

GRANDAD RESOURCES LIMITED

GHOST RIVER PROPERTY

GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO

GEOLOGY

DATE: NOV., 1984

L-11E L-12E L-13E L-14E L-15E L-16E L-17E L-18E L-19E L-20E L-21E L-22E L-23E L-24E L-25E L-26E L-27E L-28E L-29E L-30E L-31E L-32E L-33E L-34E L-35E

B.L.-O Az. 070°

TO HWY. 101

RIVER

GHOST

T.L.-8 S

T.L.-16 S

737532 737529 737547 737546 737530 737548 737545 737544 737543 737542 737539 738114 738115 737541 737540

1/738114 2/738115 1/738115 2/738116

1/737548 2/737547 3/737546 4/737545

2/737548 3/737545

1/737545 2/737546 3/737543 4/737544

2/737545 3/737544

1/737539

1/737540 2/737539

2/737544 3/737541

2/737541 3/737540

2/737540

2.12590

0 100 200 300 M

1 : 2500

NOTE: For claim and location maps see map number 1.

KEY

1 2

GRANDAD RESOURCES LIMITED

GHOST RIVER PROPERTY

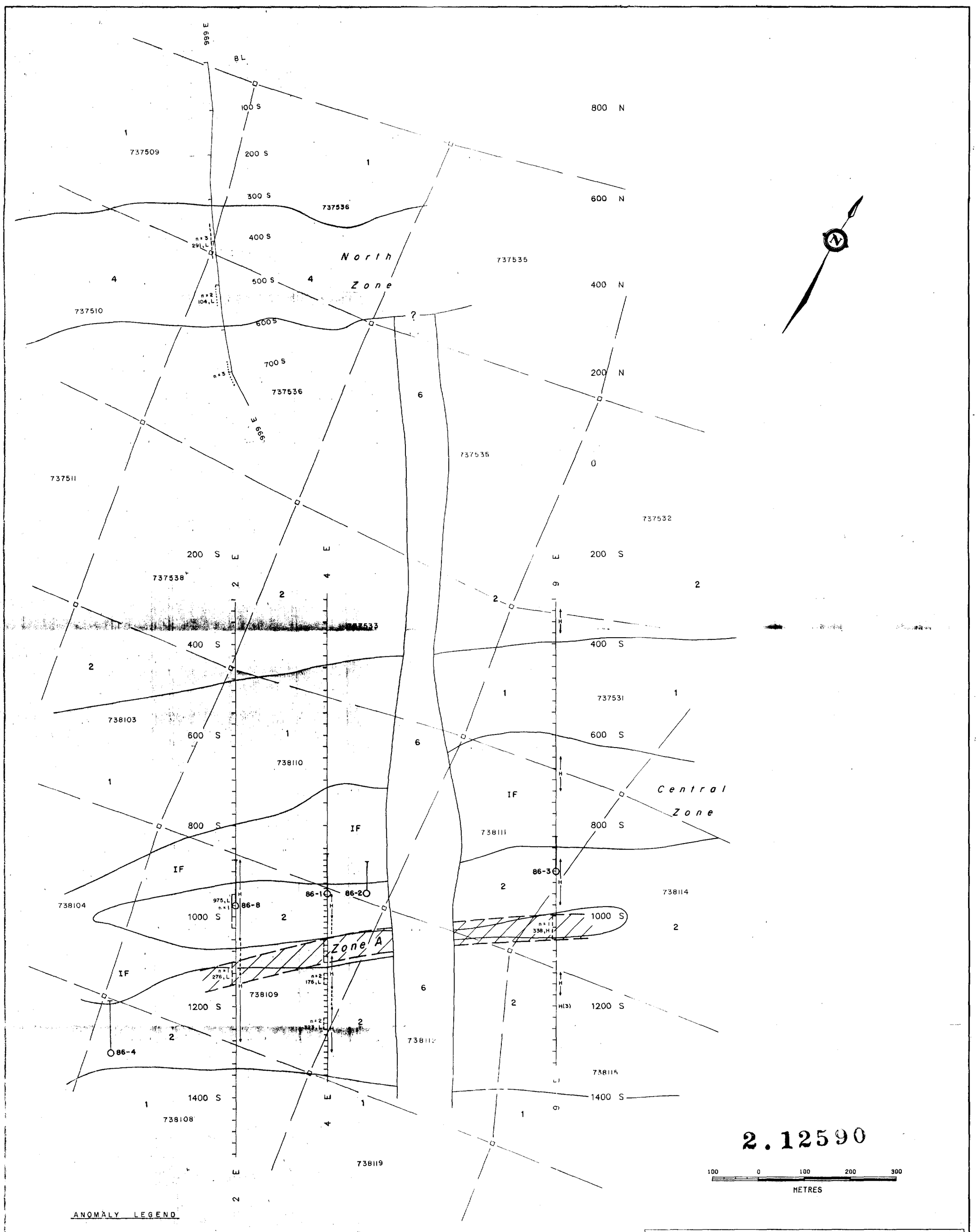
GARRISON & HARKER TWP'S
LARDER LAKE MINING DIVISION, ONTARIO

GEOLOGY

FOR LEGEND SEE SHEET Nº 1

DATE: NOV., 1984

230



2.12590

100 0 100 200 300
METRES

ANOMALY LEGEND

STRONG	H(3) - High resistivity, n=3
MEDIUM	M-IP (mV/V) → 276, L Time Constant (High, Medium or Low) →
WEAK	
VERY WEAK	Weak resistivity low
CHARGEABILITY ANOMALY	RESISTIVITY ANOMALY

- Chargeability zone
- Drill hole
- Geological contact

1 Andesite
2 Basalt
IF Interflow sediments
4 Metasediments
6 Diabase dyke

MUSCOCHO EXPLORATION LTD.

GHOST RIVER PROPERTY
BARKER TOWNSHIP, ONTARIO

COMPILATION PLAN MAP

SCINTREX IPR-11 RECEIVER
SCINTREX IPC-7 2.5KW TRANSMITTER

SCALE 1 : 5000

SURVEY BY JVX LTD. OCTOBER, 1988		**PLATE**

32D05NW0865 2.12590 HARKER


GARRISON TWP.
HARKER TWP.
TO HWY. 101
TL-6N
T.L. 8S
TL. 16S
B.L. 0+00 Az. 070°
Thackery Creek
L-12W
L-11W
L-10W
L-9W
L-8W
L-7W
L-6W
L-5W
L-4W
L-3W
L-2W
L-1W
L-0
L-1E
L-2E
L-3E
L-4E
L-5E
L-6E
737515
737514
737516
737513
737509
737536
737510
737517
737512
737511
737537
737538
737533
738103
738110
738104
738109
738105
738108
738119
738106
738107
738118
3/738106
2/738106
3/738107
LOCATION MAP
PROPERTY AREA
CLAIM MAP
GARRISON TWP.
HARKER TWP.
SCALE 1" = 1/2 MILE
GEOLOGICAL LEGEND
7 DIABASE (Keweenawan)
6 DIABASE (Matachewan)
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Fault contact interpreted
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mal Malachite
q.bx Quartz breccia
q Quartz stockwork
mag Magnetite
.001Au Ounces gold per ton in grab sample
tr Trace
nil Nil
Bush road
Creek
River
0 100 200 300 M
1:2500
KEY
1 2