

AFC # 63.3138



52N04SW0004 63.3138 BALMER TWP

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63.3138

COCHENOUR WILLANS GOLD MINES LIMITED

REPORT ON EXPLORATION ACTIVITIES

September to December, 1973

CONSOLIDATED MARCUS GOLD MINES LIMITED

CLAIM GROUP: DOME - BALMER TOWNSHIPS

RED LAKE MINING DIVISION

PATRICIA PORTION

EXPLORATION ASSISTANCE AGREEMENT R.L. 28

by

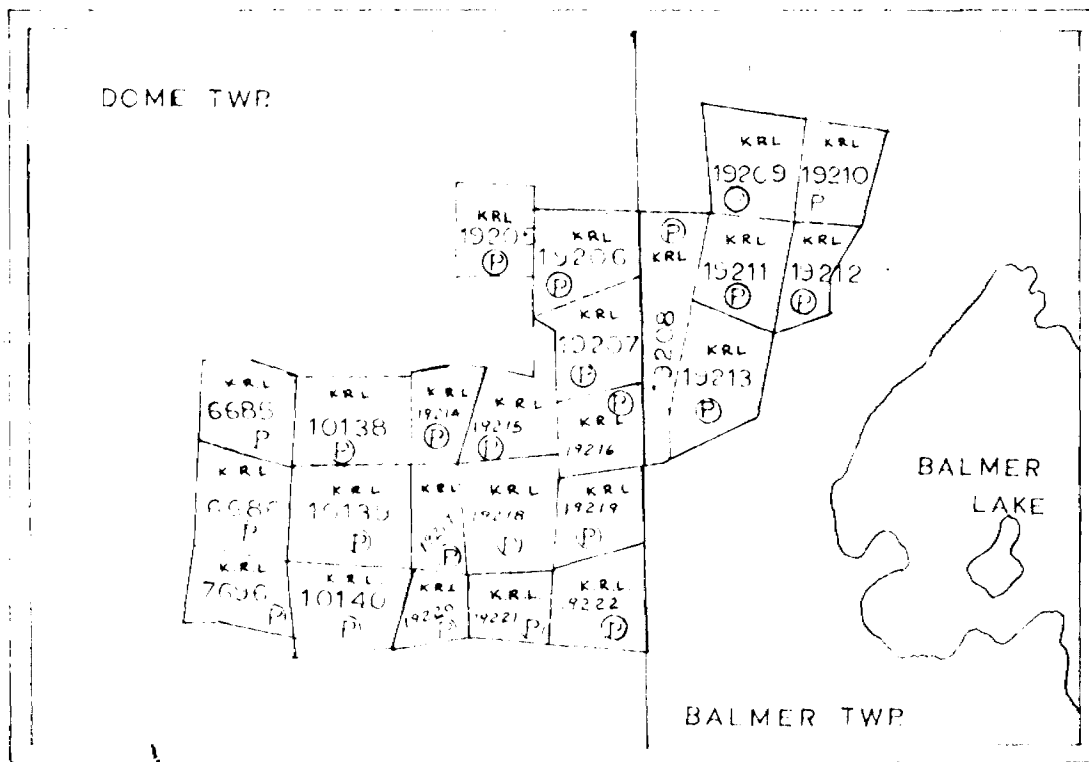
L. C. CHASTKO

for

CONSOLIDATED MARCUS GOLD MINES LIMITED

L. C. Chastko  
Chief Geologist

Cochenour, Ontario  
December 1973



CLAIM LOCATION SKETCH

DOMI TOWNSHIP AREA

AND

BALMER LAKE TOWNSHIP AREA

RED LAKE MINING DIVISION

O.D.M. MAPS

M-2156 DOME TWP.

M-2137 BALMER TWP.

SCALE 1 INCH = 26.40

INTRODUCTION

An Airborne Input Electro Magnetic survey conducted over the claim group area indicated the presence of anomalous electro-magnetic conductivity.

A reference grid was established covering the anomalous area. A ground H.L.E.M. survey and a magnetometric survey were conducted on the grid area to locate and evaluate the Airborne Input E.M. responses.

Three ground H.L.E.M. conductors along two separate zones.

Both zones were tested by diamond drilling.

No mineralization of immediate economic importance or significance was intersected.

This report was compiled to summarize exploration activities conducted on the Marcus Property during 1973 which qualifies for a reimbursement of one-third of direct costs incurred in exploration as provided for under the Ministry of Natural Resources Exploration Assistance Program - Agreement R.L.28.

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DESCRIPTION, LOCATION & ACCESS TO PROPERTY

The Marcus Claim Group consists of twenty-four (24) patented mining claims all located in the East-Central and West-Central portions of Dome and Balmer Townships respectively. The claim numbers are:

K.R.L. 6685	19205	19211	19217
6686	19206	19212	19218
7696	19207	19213	19219
10138	19208	19214	19220
10139	19209	19215	19221
10140	19210	19216	19222

Access to the claim group from Red Lake is via Highway 125 and the recently constructed road to resources leading north from Highway 125. The claim block southern boundary is approximately one-half mile north of the road to resources and Highway 125 junction.

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PROPERTY OWNERSHIP

The twenty-four (24) claims listed are all recorded in the name of Consolidated Marcus Gold Mines Limited.

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GENERAL GEDLOGY

The general geology has been covered in several Ontario Department of Mines Reports and Maps and several unpublished Company reports. The Ontario Department of Mines publications being:

Ontario Department of Mines Geological Report 45, Geology of Dome Township by S. A. Ferguson, 1966, and accompanying map No. 2074, Dome Township, on a scale of one inch to 1000 feet.

Ontario Department of Mines Sixtieth Annual Report, Vol. LX, Part X; Geology of Balmer Township by E. O. Chisholm, 1951, and accompanying map No. 1951-3, Township of Balmer, at a scale of one inch to 1000 feet.

Ontario Department of Mines Forty-ninth Annual Report, Vol. XLIX, Part II; Geology and Mineral Deposits of the Red Lake Area by H. C. Harwood, 1944, and accompanying map No. 496, Geology of the Red Lake Area (east half) at a scale of one inch to one-half mile.

The general geology of the claim group area has been discussed in some length in the Ontario Department of Mines Report 45, Geology of Dome Township by S. A. Ferguson; therefore will not be discussed at length in this report.

The property is essentially underlain by W.N.W. trending steeply dipping "Keewatin" type lavas interbedded with thin bands of sediments.

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PREVIOUS WORK

At least three stages of mineral exploration primarily for gold were conducted on the property since the mid-forties. One of these involved surface diamond drilling and two involved surface diamond drilling and underground exploration.

A resume of previous work is provided in the Ontario Department of Mines Report 45, Geology of Dome Township by S. A. Ferguson; therefore further discussion on this topic will be dispensed with.

GEOPHYSICAL SURVEY DETAILS

A reference grid totalling 8.2 line miles was established covering two separate Airborne Input E.M. trends.

A Geonics E.M. 17 Horizontal Loop Unit, operating at a frequency of 1600 Hz, and a current output of 25 at-m<sup>2</sup> was used to conduct the ground survey. A soil separation of 300 feet was used. In phase and quadrature readings were recorded at 100 foot intervals except in suspected anomolous areas where readings were recorded at 50 foot intervals.

A Jalander Flexgate Magnetometer, Model #5785, was employed in conducting the magnetometer survey. Readings were recorded at 50 foot intervals. As the grid was relatively small and the magnetometer survey was completed in less than one day, no diurnal variation corrections were made.

For more specific instrument details refer to manufacturer's brochure attached, following this report.

PRESENTATION OF RESULTS

The ground H.L.E.M. and Magnetometer survey results are presented on enclosed plans at a scale of one inch to 300 feet.

DISCUSSION OF RESULTS

The two indicated Airborne Input E.M. trends were located and verified on the ground by the H.L.E.M. survey. The magnetometer survey provided additional data for evaluating the ground responses. The three ground E.M. responses have been labelled A1, A2 and B to facilitate discussions.

ZONE A1:

Zone A1 is located on line 1+00 W and 3+00 W approximately 500 feet north of the base line. Strike length of this conductive trend is 200 feet plus and is open to the west. The dip of the conductor is considered to be near vertical. The H.L.E.M. response (in phase-quadrature -35 -13) indicated the presence of a strong electro-magnetic conductor. The magnetometer survey indicated a relatively high flanking magnetic response of up to 1800 gammas located directly to the south of the H.L.E.M. response. The magnetic response on line 3+00 W, at the point of drilling, was approximately 900 gammas.

Both the H.L.E.M. and the Magnetic, trends terminate abruptly between line 1+00 E and 1+00 W.

Diamond drill hole M-73-1 tested this conductive trend on line 3+00 W. The cause of the anomalous conductivity was found to be due to relatively narrow iron formation bands containing minor bands of magnetite and pyrite but in sufficient quantities to be conductive and produce a magnetic response.

ZONE A2:

Zone A2 is on strike of Zone A1 and is located on lines 11+00 E, 13+00 E, and 15+00 E, approximately 600 feet north of the base line. Strike length is 400 feet plus and is open to the east. The dip of the conductor is considered to be nearly vertical. Virtually no magnetic response was obtained associated with this conductor. This conductor is considerably weaker than A1. An approximate 1000 foot conductivity break exists between A1 and A2. Cause is believed to be a similar thin band of sediments as A1 only lacking magnetite. This conductor was not tested and is considered a low priority target.

continued . . . .

Discussion of Results: (continued)

ZONE B:

Zone B is located along the southern-most portion of the grid. Complete crossovers were not made by the survey but enough coverage was obtained to drill. Strike length is 2000 feet plus and is open to the east and west. Although information is sketchy there appears considerable change in conductivity along strike. Indicated conductivity widths are up to at least 100 feet wide in places. There is no obvious magnetic correlation with the E.M. conductor. This Zone was tested at one of its strongest points where the in phase and out of phase responses are in the order of -3 -8.

The cause of the electro-magnetic response was found to be due to an argillaceous unit which contained massive sections of pyrite.

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CONCLUSIONS

Both Airborne Input E.M. trends were located on the ground by a H.L.E.M. survey. Both trends were verified and tested by diamond drilling.

No mineralization of economic significance or importance was encountered.

Respectfully submitted

L.C.Chastko,  
Chief Geologist,  
Cochenour, Ontario,  
December, 1973.



COCHENOUR WILLANS GOLD MINES LIMITED

LATITUDE 13+00 East      STARTED      BEARING Grid N 30° E      D.D.HOLE NO. M - 73 - 2  
 DEPARTURE 0+50 South      COMPLETED      DIP -65°      LOCATION Marcus Property K.R.L. 19213  
 ELEVATION      H.D.      V.D.      DEPTH 501.0 feet      FILE

GENERAL GEOLOGY	OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY
0.0 - 23.0 Casing				ACID TESTS: 150' 58°
23.0 - 34.5 Mafic Meta Volcanics, andesite dark green, fine grained, massive except for 2-3% quartz filled fractures				300' 55° 450' 53°
34.5 - 36.0 Iron Formation, interbanded 30% siltstone, 20% chert, 30% greywacke, 15% Po, 1-3% magnetite finely well banded at 60-70° to core axis	Tr	M-55	34.5 - 35.0	Iron formation
36.0 - 76.0 Mafic Meta Volcanics as described 23.0-34.5				
37.0-40.0 moderate brecciation 15-20% carbonate quartz veining	Tr	M-56	37.0 - 40.0	15-20% carbonate & quartz veining
54.8 - 55.0 quartz carb vein, traces Py-Po & Cpy	Tr	M-57	54.8 - 55.1	quartz-carb, traces Py-Po, Cpy
66.0 - 68.0 Moderately brecciated, Andesite, 15% carbonate veining	Tr	M-58	65.7 - 68.0	15% carbonate
68.0 - 71.3 Highly brecciated Andesite medium grey, leached, 40% carbonate 10% quartz, 5% Po, traces Py	Tr	M-59	68.0 - 71.3	40% carbonate, 5% Po-Py
71.3 - 71.8 quartz-carb vein, 60% Quartz carb, 30% volcanics, 10% Py-Po traces Cpy	Tr	M-60	71.3 - 71.8	Quartz Carb Vein, 10% Po-Py, tr Cpy

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## COCHENOUR WILLANS GOLD MINES LIMITED

LATITUDE		STARTED		BEARING		D.D.HOLE NO. M - 73 - 2	
DEPARTURE		COMPLETED		DIP		LOCATION Marcus Property K.R.L. 19213	
ELEVATION		H.D.		V.D.		DEPTH	
GENERAL GEOLOGY		OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY		
71.8 - 77.6	Iron Formation	Tr	M-61	71.8 - 75.0	Iron Formation		
	Interbanded, 35% siltstone,	Tr	M-62	75.0 - 77.6	Iron Formation		
	35% argillite, 20% chert, minor quartz						
	10% Po, minor Py						
77.6 - 93.0	Mafic Meta Volcanics, dark	Tr	M-63	89.7 - 90.0	quartz fractures		
	green, fine grained, massive except						
	for minor quartz filled fractures						
93.0 - 94.0	Highly leached andesite,	Tr	M-64	93.0 - 95.8	Argillite, 30% Pyrite		
	light green, massive, highly leached						
94.0 - 107.7	Meta Argillite, black, fine	Tr	M-65	95.8 - 98.2	Argillite, 30% Pyrite		
	grained, finely banded, 20% siltstone,	Tr	M-66	98.2 - 101.0	Argillite, 30% Pyrite		
	30-35% interbanded Py in bands varying	Tr	M-67	101.0 - 104.0	Argillite, 30% Pyrite		
	from hairline to several cm thickness	Tr	M-68	104.0 - 107.7	Argillite, 30% Pyrite		
107.7 - 113.4	Iron Formation, 40% chert,	Tr	M-69	107.7 - 111.0	Iron Formation		
	40% siltstone, 15% bands Py, minor Po,	Tr	M-70	111.0 - 113.0	Iron Formation		
	interbanded, leached						
113.4 - 118.3	Meta Sediments ? Arkose, light	Tr	M-71	113.0 - 118.3	Arkose		
	brownish, fine-medium grained, leached,						
	5% quartz fractures						
118.3 - 123.6	Iron formation as 107.7-113.4	Tr	M-72	118.3 - 121.0	Iron Formation		
	20% silicified section, marip	Tr	M-73	121.0 - 123.6	Iron Formation		
	alteration in section						

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COCHENOUR WILLANS GOLD MINES LIMITED

ELEVATION		STARTED		BEARING		D.D.HOLE NO.	
DEPARTURE		COMPLETED		DIP		LOCATION	
ELEVATION		H.D.	V.D.	DEPTH		FILE	
GENERAL GEOLOGY			OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY	
123.6 - 124.6	Highly leached Mafic Meta	Tr	M-74	123.6 - 124.6	Leached Volcanics		
	Volcanics, Andesite, light green, fine grained, highly leached, leaching decreases rapidly down hole						
124.6 - 166.5	Mafic Meta Volcanics, andesite, medium to dark green, fine grained, except for 3-5% quartz stringer. traces Py-Po; 126.0 has 5% scattered carbonate filled amygdols						
166.5 - 168.0	Mafic Dike - Diorite, medium green, medium grained, very massive, sharp distinct contacts						
168.0 - 171.0	Mafic Meta Volcanics as 124.6-166.5						
171.0 - 177.8	Intermediate Meta Volcanics, Dacite - Andesite ? med buffish green, fine grained, moderately sheared & foliated Distinctive upper contact. Possibly massive uniform Arkosic sediments ??						
177.8 - 179.0	Dike ?? medium buffish green, fine grained matrix similar to volcanics above. 10-15% scattered "pophro blasts", meta cryst or in						
clusion, generally elongate, no definite brystal structure, definitive shapp upper & lower contacts.							
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COCHENOUR WILLANS GOLD MINES LIMITED

LATITUDE		STARTED	BEARING		D.D.HOLE NO.
DEPARTURE		COMPLETED	DIP		LOCATION
ELEVATION	H.D.	V.D.	DEPTH		FILE
GENERAL GEOLOGY	OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY	
179.0 - 187.3 Intermediate Meta Volcanics or Sediments as described 171.0-177.8 last foot highly sheared & silicified					
187.3 - 189.4 Dike ?? as described 177.8-179.0 15% scattered "crysts" definite sharp contact, lower contact volcanic, somewhat brecciated for one cm.					
189.4 - 195.0 Intermediate Meta Volcanics as before. highly sheared, highly foliated, leached & silicified, possible Seds					
195.0 - 196.8 Highly silicified Sediments 70% silicified, dirty white, 30% highly sheared & foliated "seds" 5% scattered blebs Po.					
196.8 - 202.4 Meta Argillite, black slatey, fine grained, 20% siltstone, 5-10% Po-Py, all intercolated & finely interbanded	Tr	M-75	193.0 - 196.8		
201.2 - 201.3 sililar dike as 177.8-184.0	Tr	M-76	196.8 - 202.4		
202.4 - 205.3 Dike ? sililar to 177.8-179.0, sharp upper conxaluted upper contact, X-cuts bedding, lower contact indistinct and possibly assimilated wall rock					

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## COCHENOUR WILLANS GOLD MINES LIMITED

ATTITUDE	STARTED	BEARING	D.D.HOLE NO.
DEPARTURE	COMPLETED	DIP	LOCATION
ELEVATION	H.D.	V.D.	DEPTH
			FILE

M - 73 - 2

Marcus Property K.R.L. 19213

GENERAL GEOLOGY	OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY
205.3 - 276.8 Intermediate Meta Volcanics				
buffish green to med green, fine	Tr	M-77	233.8 - 234.3	Carb stringers
grained massive except for minor	Tr	M-78	235.1 - 235.8	Carb stringers
brecciated, overall 5% sil'd carb &	Tr	M-79	275.2 - 276.8	35-40% carbonate
carb stringers, occasional wider				
sil'd & carb'd section with minor Po	Tr	M-80	333.0 - 333.6	80% carbonate
and Py.	Tr	M-81	338.0 - 342.5	15% carbonate veining
275.2-276.8 35-40% carbonate section	Tr	M-82	342.5 - 344.7	10% carbonate veining
and veining	Tr	M-83	356.5 - 356.8	5 cm carbonate vein
276.8 - 280.0 Mafic Dike - Diorite, med grey,	Tr	M-84	357.8 - 358.5	20% quartz, 10% carb, trace Po-Py
fine-med grained, massive except for	Tr	M-85	359.2 - 360.5	10% carbonate trace Po-Py
minor quartz-carb filled fractures	Tr	M-86	389.7 - 393.3	10-15% carbonate veining
280.0 - 296.9 Intermediate Meta Volcanics				
as above	Tr	M-87	441.6-441.9	silicified stringer
296.9 - 444.4 Intermediate Meta Volcanics,	Tr	M-88	441.9-444.4	sheared volcanics
med to dark green, fine grained,	Tr	M-89	444.4-445.6	brecciated leached lava, 5% Po-Py
massive to foliated in sections, highly	Tr	M-90	445.6-447.4	80% carbonate
chloritic, 5-8% carbonate veins.	Tr	M-91	447.4-449.3	30% carbonate
Sharp distinct upper contact	Tr	M-92	449.3-451.3	10% carbonate
last three feet highly sheared.	Tr	M-93	451.3-453.4	20% carbonate
444.4 - 453.4 Breccia Zone, 50% brecciated				
volcanics, 40% carbonate, 10% quartz,				
traces Po Py				

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COCHENOUR WILLANS GOLD MINES LIMITED

M- 73 - 2

ELEVATION		STARTED		BEARING		D.D.HOLE NO.	
DEPARTURE		COMPLETED		DIP		LOCATION	
ELEVATION		H.D.	V.D.	DEPTH		FILE	
GENERAL	GEOLOGY	OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY		
453.4 - 474.0	Intermediate Meta Volcanics, Dacite - Andesite, bluish green, fine grained, leached, moderately foliated, 5-10% carbonate						
474.0 - 479.1	Shear Zone, 30% carbonate, 30% highly leached lava, 40% felsic dike intrusion, light buffish, highly sheared, well foliated 60-65° to core axis	Tr	M-94	474.0-475.2	60% carbonate, 5% Py-Po, tr Cpy		
		Tr	M-95	475.2-476.7	30% carbonate		
		Tr	M-96	476.7-479.1	20% carbonate		
		Tr	M-97	479.1-482.4	15% carbonate veining		
	474.0-475.2 60% carbonate, 5% Py, minor Po, trace Cpy						
479.1 - 501.0	Intermediate Meta Volcanics, andesite, medium green, fine grained massive except for minor fracture 5-8% carbonate & quartz.						
501.0'	Foot of Hole						

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COCHENOUR WILLANS GOLD MINES LIMITED

BATITUDE	3 + 00 West	STARTED	BEARING	Grid South	D.D.HOLE NO.	M - 73 - 1
DEPARTURE	6 + 50 North	COMPLETED	DIP	60°	LOCATION	Marcus Property K.R.L. 8473
ELEVATION		H.D.	V.D.	DEPTH	503.0 feet	FILE

GENERAL GEOLOGY	OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY
0.0 - 22.0 Casing				
22.0 - 23.4 Highly silicified Mafic Volcanics, 60% sil'd, 30% hghly leached fragments, 3-4% Po-Py, trace Chalcopyrite	Tr	M-1	22.0 - 23.4	hly sil'd volcanic Po-Py, Acid tests: 150' -68° 300' -65° 500' -66°
23.4 - 24.4 Mafic Meta Volcanics Ambite, dark green, fine grained mod foliated chloritic				
24.4 - 24.7 Chert, banded grey, fine grained, 90% silica very well banded at 40° to core axis traces py-po				
24.7 - 26.0 Mafic Meta Volcanics, dark grey, fine grained, moderately foliated to massive				
26.0 - 28.0 Chert & Mafic Volcanics Cherty band running parallel to core axis, half chert, half volcanics, moderately fractured traces po, py, Cpy.	Tr	M-2	26.0 - 28.0	Cherty bands

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LATITUDE		STARTED		BEARING		D.D.HOLE NO. M - 73 - 1	
DEPARTURE		COMPLETED		DIP		LOCATION Marcus Property K.R.L. 8473	
ELEVATION		H.D.	V.D.	DEPTH		FILE	
GENERAL	GEOLOGY	OUNCES	NO.	FOOTAGE		ECONOMIC	GEOLOGY
28.0 - 50.0	Mafic Meta Volcanics, medium green, fine grained, chloritic, moderately foliated, overall 5-20% sil'd carb and andesitic sections ranging from massive stringers to irregular stringers to blebs, carbonate generally has cross fracture and veinlets of quartz	Tr	M-3	30.9 - 32.3		70% S - C	
		Tr	M-4	32.3 - 38.0		15% S - C	
		Tr	M-5	38.0 - 43.0		15% S - C	
		Tr	M - 6	43.0 - 50.0		5% S - C	
28.0 - 50.0	scattered quartz eyes generally 5 inches diameter						
50.0 - 51.3	Sil'd carb zone possibly fault, hly leach volcanics, mod marip. trace Po-Py	Tr	M-7	50.0 - 51.3		90% S-C marip'd, tr Po-Py	
51.3 - 54.0	Mafic Meta Volcanics as above	Tr	M-8	51.3 - 54.0		5% S-C	
54.0 - 57.3	Sil'd carb zone, 80% S-C, 20% altered volcanics	Tr	M-9	54.0 - 57.3		80% S-C	
		Tr	M-10	57.3 - 59.0		25% S-C, stringers	
57.3 - 117.0	Mafic Meta Volcanics, Andesite, medium dark green, fine grained, massive except for irregular fracturing & carbonate & sil'd carb stringers	Tr	M-11	59.0 - 64.0		10% S-C stringers	
		Tr	M-12	64.0 - 69.0		10% S-C stringers	
		Tr	M-13	76.5 - 80.0		60% S-C	
		Tr	M-14	80.0 - 83.0		15% S-C	
		Tr	M-15	83.0 - 86.0		40% S-C, stringers, carb vein	
		Tr	M-16	86.0 - 89.4		25% S-C	

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## COCHENOUR WILLANS GOLD MINES LIMITED

LATITUDE		STARTED		BEARING		D.D.HOLE NO.	
DEPARTURE		COMPLETED		DIP		LOCATION	
ELEVATION		H.D.		V.D.		DEPTH	
GENERAL GEOLOGY		OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY		
		Tr	M-17	89.4 - 95.0	15% S-C		
		Tr	M-18	95.0 - 99.7	10% S-C		
117.0 - 139.4 Brecciated Volcanics & sil'd carb & Carb Zone.		Tr	M-19	117.0 - 118.5	Ex'd levels, 30% qtz & carb, 3% Po-Py, tr Aspy, Cpy		
50% hly altered banded, moderately bx'd volcanics, 30-40% carbonate & sil'd carb, 2-3% Po-Py, traces Cpy & arsenopyrite in fine crystals, several large irregular blebs, Po & Py		Tr	M-20	118.5 - 120.2	Mod Bx, carb'd, 20% qtz & carb		
			M-21	120.2 - 123.0	Relatively unaltered		
			M-22	123.0 - 125.0	Mod Bx, leached, 10% qtz & carb, Po-Py, Cpy		
			M-23	126.3 - 130.2	50% S-C, bx'd, 5% Po-Py bleb, tr Cpy		
			M-24	130.2 - 133.3	40% carb stringers, leached		
			M-25	133.3 - 136.3	40% carb stringers, leached		
139.4 - 202.1 Mafic Meta Volcanics, Andesite, greyish-green, fine grained massive to moderately brecciated in sections, occasional carbonate & sil'd carb stringers			M-26	136.3 - 139.4	40% carb stringers, leached		
			M-27	158.2 - 162.0	30-40% carb, 2% Py-Po		
			M-28	176.5 - 178.8	40% carbonate, 2% Po-Py		
			M-29	181.4 - 182.7	40% carbonate, tr Po-Py		
			M-30	182.7 - 186.6	10% carbonate & 5% quartz stringers		
			M-31	186.6 - 187.4	40% carb, 15% quartz, 3% Po-Py		
			M-32	187.4 - 189.6	5% quartz stringers		
			M-33	189.6 - 191.7	Bx'd leached 15% carb, 15% quartz, 2% Po-Py		
***			M-34	102.1 - 104.3	Iron fractures, Po-Py, Cpy, Aspy		
<del>202</del>							
202.1 - 204.3 Iron Formation, lean Cherty, silstone interbedded Chert, <del>silstone</del> greywacke & Po-Py, fractures, 15% quartz, 10-15% Po, minor Py, traces Cpy & Aspy, bedding 10° to core axis							
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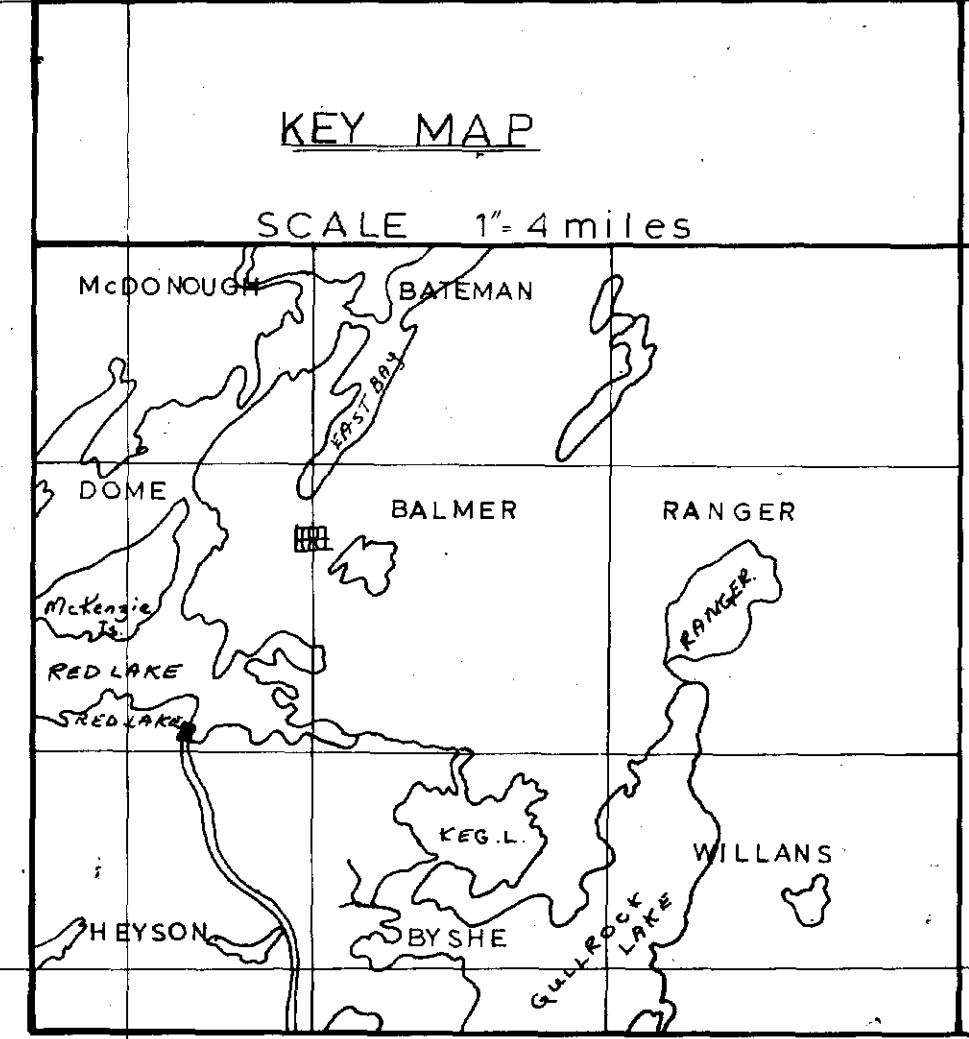
## COCHENOUR WILLANS GOLD MINES LIMITED

LATITUDE		STARTED		BEARING		D.D.HOLE NO.	
DEPARTURE		COMPLETED		DIP		LOCATION	
ELEVATION		H.D.		V.D.		DEPTH	
GENERAL GEOLOGY		OUNCES	NO.	FOOTAGE	ECONOMIC GEOLOGY		
204.3 - 216.6 Mafic Meta Volcanics, Andesite,							
medium dark greyish green, fine grained, generally massive with occasional slight to moderate brecciated, leachers & carb'n			M-35	213.6 - 216.6	Mod Bx'd, leached, 15% carb		
216.6 - 218.6 Iron formation, similar to above, brecciated, 40% Andesite volcanic, 10-15% bands Po, minor Py, Cpy.			M-36	216.6 - 218.6	Iron formation, Po-Py, sil'd		
			M-37	217.6 - 219.0	80% carbonate stringers		
			M-38	251.0 - 256.0	Mod bx'd, 15% sil'd, 10% carb		
			M-39	256.0 - 260.0	Mod bx'd, 15% sil'd, 20% carb		
218.6 - 378.1 Mafic Meta Volcanics as 214.3 - 216.6, occasional carbonate stringer			M-40	263.0 - 264.2	20% carbonate stringers		
			M-41	265.8 - 268.5	Mod Bx, 30% carbonate		
			M-42	270.8 - 272.3	30% carbonate		
378.1 - 379.2 Silicified Zone, 80% Chert quartz, 20% volcanics			M-43	287.4 - 288.2	15% carbonate, tr Po		
			M-44	309.0 - 314.0	Mod Bx, 20% sil'd, 15% carb		
379.2 - 401.0 Mafic Meta Volcanics, med to dark brown, hgly biotitic, fine grained massive to fractures & brecciated with occasional sil'd & carb'd sections, distinct from previous volcanics			M-45	314.0 - 315.3	5-8% carb in fractures		
			M-46	315.3 - 317.2	Mod Bx, 20% sil'd, 20% carb		
			M-47	317.2 - 319.0	10% Carb fractures		
			M-48	319.0 - 320.0	60% carbonate		
			M-49	320.0 - 321.0	5-10% carb in fractures		
			M-50	339.8 - 344.8	Mod fractures, 15% sil'd, 15% carb'd		
401.0 - 407.7 Iron Formation, Amphibole, siltstone, chert, Iron formation, 10% Po bands at 10-15° to core axis			M-51	378.1 - 379.2	Silicified Zone		
			M-52	401.0 - 407.7	Iron Formation, 10% Po		
			M-53	410.3 - 415.3	Mod Bx'd, 15% sil'd, 15% carb'd		
407.7 - 503.0 Mafic Meta Volcanics as 379.2 - 401.0			M-54	425.5 - 426.8	20% carb, 10% sil'd		
503.0 - FOOT OF HOLE							

PLOTTED

LOGGED

LAYED OUT

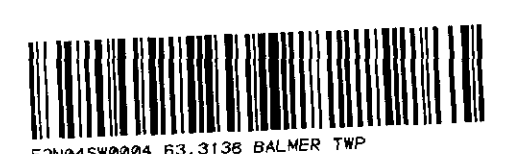


COCHENOUR WILLANS GOLD MINES LTD. MARCUS PROPERTY HORIZONTAL LOOP E.M. SURVEY SCALE 1 inch = 300 FEET	
INSTRUMENT	GEONICS EM 17
FREQUENCY	1600 Hz
CURRENT	25 WATT 24 at-m <sup>2</sup>
COL SEPERATION	300 FEET
STATIONS	50 & 100 FEET
OUT OF PHASE PLOTTED	RIGHT OF LINE
IN PHASE PLOTTED	LEFT OF LINE
CONDUCTORS	
DIAMOND DRILL HOLE	
DATE OF SURVEY	MAY 23 & 24, 1973.
SURVEYED BY	D. COGHILL & J. HOWARD
DRAWN BY	R. BOUCHARD
CONSULTANT GEOLOGIST	L.C. CHASTKO



CRAIGIE FLETCHER GOLD MINES LTD.

DOME TOWNSHIP  
BALMER TOWNSHIP





ARINO GOLD MINES LTD.

KAYMAC GOLD MINES LTD.

KRL 7021  
KRL 7028  
COCHENOUR WILLANS G. LTD.

KAYMAC GOLD MINES LTD.

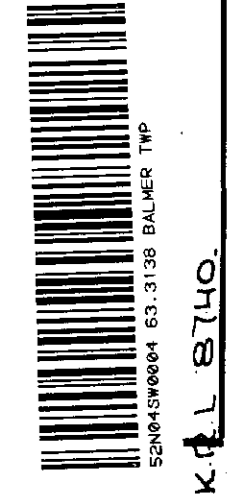
KRL 615  
C.M.G. M. LTD.

CONSOLIDATED MARCUS GOLD MINES LTD.

CAMPBELL RED LAKE MINES LTD.

CRAIGIE FLETCHER GOLD MINES LTD.

<p>KEY MAP SCALE 1:4 MILES</p>	<p>COCHENOUR WILLANS GOLD MINES LTD. MARCUS PROPERTY MAGNETOMETER SURVEY SCALE 1 inch = 300 FEET</p>
	<p>INSTRUMENT JALANDER MODEL # 5785 SCALE CONSTANT 1:11 2:33 3:107 4:330 STATIONS 100 FEET INTERVALS CONTOUR INTERVALS 500 GAMMAS CLAIM LINES CORNERS SURVEY LINES</p>
<p>DATE OF SURVEY APRIL 1973 SURVEYED BY A. DESMELLES DRAWN BY R. BOUGHARD CONSULTANT GEOLOGIST L.C. CHASTKO</p>	



210 KRL 9994  
KRL 9992