

DIAMOND DRILL

010

TOWNSHIP: Ogden

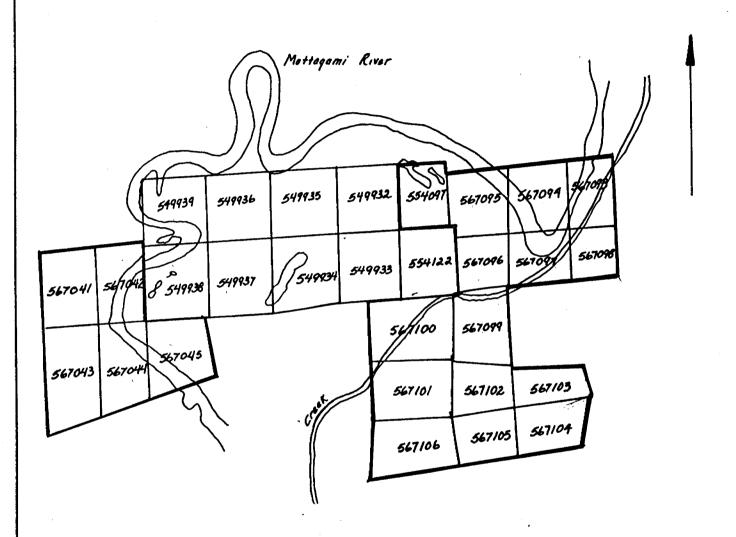
REPORT No.: 19

WORK PERFORMED BY: Amax Minerals Exploration

CLAIM No.	HOLE No.	FOOTAGE	DATE	NOTE
P 549933	1043-01-1	123.1 m	Oct/80	(1)
P 554076	1043-03-1	150.0 m	Nov/80	(2)
P 549498	1043-03-1	165.0 m	Oct/80	(3)

Notes: (1) #32-81 (2) #33-81 (3) #34-81

OGDEN TWP. 32-8



Area over which Diamond Drill Hole credit is applied

CLAIN SKETCH

1043-01, Ogden-1

Scale: 1:30,000

g. More l'herson

AMAX MINERALS EXPLORATION

(A Division of Amax of Canada Limited)

DIAMOND DRILL RECORD

Hole No. 1043-01-1

-50° N

Depth Rdg. 123.10m -58½

Dip: Collar .

Etch Test

Property 10 Township 00 Location A al Logged By 0 Core Location	043-01-1 043-01; (gden t intersed nd L-0 . MacPhers	Dip Dip Dip Dip To test ground geo-physical conductor. Son S Dip Dip Dip Dip Dip To test ground geo-physical conductor. Son S Dip	Dip: Colling Etch Test
	age metres	DESCRIPTION	
From	То		
0	57.0	OYERBURDEN	!
57.0	58.30	INTERMEDIATE TUFF	
58.30	68.20	RHYODACITE	
68.20	68.60	UNDIFFERENTIATED SEDIMENT	
68.60	69.60	GRAPHITIC BEDS	-
69.60	71.25	ULTRAMAFIC FLOW	
71.25	74.85	INTERBEDDED GRAPHITE AND ARGILLITE	
74.85	81.95	INTERBEDDED ARGILLITE AND MUDSTONE	
81.95	86.90	INTERBEDDED GRAPHITE AND ARGILLITE	
86.90	95.80	INTERBEDDED TUFF, MUDSTONE AND ARGILLITE	
95.80	100.20	TUFF WITH INTERBEDDED SEDIMENTS	
100.20	104.80	INTERMEDIATE TUFF	
104.80	116.20	INTERBEDDED TUFF, ARGILLITE, MUDSTONF	
-116.20	123.10	MUDSTONE	
	123.10	FND OF HOLE	

	Location Sketch	North
True -50	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
		Claim No. 549933
		Scale: 1:30,000

g. Mach hara

Foot	agemetres	DESCRIPTION
From	То	
0	57.0	OVERBURDEN
_57.0	58.30	INTERMEDIATE TUFF
	30.30	ATT CIVIE VALUE 1911
		Felsic fragments, angular to sub-angular. Average size is 3-5mm
		It is massive and the texture faintly resembles that of an
		intrusive. Pyrite is present in amounts <<1%. Rock shows no
		carbonate veining or pervasive alteration.
		Carbonate venting of pervasive afternation.
	-	F7 F0 to F7 FF a Nameu quanta voinlet
		57.50 to 57.55 : Narrow quartz veinlet.
58.30	68.20	RHYODACITE
		Di li itia flor. Deak in fine engined and cilicous although
		Rhyodacitic flow. Rock is fine-grained and siliceous, although
		the amount of silica may vary over the 10 metre length. Rock
		shows some sign of flow banding. In spots the rhyodacite is
		broken up into breccia by intruding quartz veinlets, most notably
		at 66.0 to 66.7 and 63.40 to 63.70. There may be minor carbonate
		associated with those veinlets. Mineralization in the rhyodacite
		consists of disseminated to subhedral pyrite in amounts up to 5%
		with minor pyrrhotite and possibly chalcopyrite. Flow banding
		is at 64° to core axis at 66.45m.
68.20	68.60	UNDIFFERENTIATED SEDIMENT
00.20_	00.00	ONDITIENTIALED SEDINERY
		Unidentified sediment, intruded by quartz vein. Small amounts
	 -	of the sediment are present in the quartz vein, and this is all
		highly altered. Sediment was once graphitic, as there is graphite.
		in with the quartz. This also may have been a chert/graphite
	<u> </u>	horizon. Pyrite is present as cubes and blebs or also as
		disseminations throughout the rock in amounts up to 10%.
		aisseminations throughout the rock in amounts up to 10%.
68.60	69.60	GRAPHITIC BEDS
		o it is a second to complete and the second to c
		Graphite bed with pyrite. Breakdown of rock is 90% graphite, 10%
		pyrite. Rock is up to 90% conductive over a 15cm length. Pyrite is
		present as well-formed cubes as well as blebs.
		Bedding at 68.70m, is 33° to core axis.
	 	Foliation at 68.75m, is 140 to core axis.

Hole No.104	13-01-1
Sheet No	

Footage metres		DESCRIPTION	
From	То	DESCRIFICA	
69.60	71.25	ULTRAMAFIC FLOW	
09.00	71.25	OLITORNI IO I CON	
		Highly altered ultramafic flow. Talc-sericite alteration is	
		abundant. Very minor carbonatization restricted to narrow veinlets	
		is also present. Pyrite is present in the rock in amounts up to .	
		10%. No other mineralization present.	
		10%. No other mineralization present.	
		Foliation at 70.50 m is 13 ⁰ to core axis.	
		FOITALION AL 70.50 III 15 15 LO COTE AXIS.	
		THE PROPERTY AND ADAIL TE	
71.25	74.85	INTERBEDDED GRAPHITE AND ARGILLITE	
		Thouse do both good	
		Interbedded argillite and graphite beds. There is both good	
		bedding and foliation present. Beds are narrow and quite	
		convoluted in some areas. This could be due to slumping of the	
		beds but is most likely due to drag folding on the limbs of a	
		larger anticlinal structure the hole has been drilled through.	
		The graphitic beds vary from 20% to 90% conductive. Pyrite is	
		present, usually associated with the graphite. It is also found	
		as blebs up to 1cm in size which are contained in narrow convoluted	
		felsic "beds" (mainly siliceous, little or no carbonate).	
		Structure is quite complex and includes the drag folds mentioned	
		above. These folds are usually represented by the felsic beds.	
		Bedding at 76.95 metres is 66° to core axis.	
		Bedding at 78.45 metres is 60° to core axis.	
		Dead my de 701 10 meet es 10 00 001 0 meet	
		Foliation at 72.55 metres is 90° to core axis.	
		TOTACTOR AC 72.33 Metres 13 30 to core axis	
74.85	81.95	INTERBEDDED ARGILLITE AND MUDSTONE	
74.03	01.33	INTERDEDUED ARGILLITE AND MODSTONE	
		Interbedded argillite and fine-grained mudstone. Pyrite occurs	
		as finely disseminated grains in beds up to 1cm thick. Minor	
		graphite may also be present. Beds are evenly layered but there	
		may be the occasional drag fold or pinching out of a bed due to	
		may be the occasional drag fold or principly out of a bed due to	
		remobilization.	
		Bedding at 78.85 metres, is 750 to core axis.	
		Bedding at 80.40 metres, is 90° to core axis.	

Hole No.1043-01-1	
Sheet No3	

Foo	tagemetres	
From To		DESCRIPTION
74.85	81.95	(Cont.) Foliation at 78.95 metres is 0° to core axis.
71.00	01.30	Foliation at 80.55 metres is 35° to core axis.
		From 80.85 to 81.75: Core contains nose of a fold, fairly tight,
		nearly isoclinal. Axis of fold appears to be
		at about 20° to core axis. Axial plane
		cleavage is present, as well as numerous
		small drag folds. The mudstone and argillite
		beds are highly convoluted but the nose of
		the fold is clearly visible in the core.
		Foliation dips much more steeply than the
		bedding.
	06.00	THEODER COADULTS AND ADDITIONS
81.95	86.90	INTERBEDDED GRAPHITE AND ARGILLITE
		The hold described and small the market making on 75% of the
	ļ	Interbedded graphite and argillite, graphite making up 75% of the
		rock. Beds are narrow and graphite is 20-90% conductive. From
		85.85 to 86.80, pyrite is present in amounts up to 70%. It is
		contained in felsic material (siliceous, no carbonate) and in
		some spots the pyrite is brecciated by this felsic material. Pyrite is conductive up to 80%. Bedding of argillite and graphite
		is quite uniform and beds are generally no more than 1cm thick.
		At 86.50 the pyrite is present as narrow beds with the siliceous
		material and graphite. Beds here are quite thin. <<2mm.
		material and graphite. Deds here are date chim
		Bedding at 83.45 is 50° to core axis.
	l .	Bedding at 86.50 is 85° to core axis.
		VANATUS NO VVANA IN VV NO IN VV
		NOTE: Although beds are generally uniform, there are parts of
		core which contain convoluted beds.
86.90	95.80	INTERBEDDED TUFF, MUDSTONE AND ARGILLITE
		86.90 - 88.10: Interbedded argillite and mudstone. Mudstone is
		the most dominant and the beds are 1cm to 7cm
		thick. The rock is grey and very fine-grained and
		contains very little carbonate. It may contain
		pyrite in small amounts (<<1%). The argillite is
		black and is slightly more coarse-grained than the
		mudstone.

Hole 1	No.1043-01-1
Sheet	No. 4

Foot	agemetres	DESCRIPTION
From	То	DESCRIPTION
86.90	95.80	(Cont.) The beds are much thinner, usually less than 1cm thick.
	33.00	Control The Dead are mader entitled a death of 1000 enter 2011 enterent
		Bedding, at 87.50 metres is 80° to the core axis.
		bearing, at 07:30 metres 13 00 to the core axis.
l ———		88.10 - 88.40: Intermediate tuff. Matrix is fine-grained and
		qreyish-black. Fragments are quite small and are
		often replaced by silica and lesser amounts of
		carbonate. Pyrite is present as small blebs or
		narrow beds and makes up about 3% of the rock.
		marrow beas and makes up about 3% of the rock.
		88.40 - 90.95: Interbedded argillite and mudstone, same as from
l		
		86.90 - 88.10. More pyrite present here, both
		in disseminated form in beds and also as blebs.
ļ		Also present are small drag folds (most notably
		in the argillite), and what appears to be axial
		plane cleavage due to the fold mapped further up
		the hole.
		Bedding at 89.30 metres is 48° to core axis.
		Axjal plane cleavage at 45° to core axis, but at
		90° to bedding.
		90.95: Interbedded tuff, argillite and mudstone as per above
		descriptions of the individual units above. Pyrite pres
		as well-formed cubes <5mm in size, or as fine dissemina-
		tions in beds. or as massive blebs. Note that where axi
-	·	plane cleavage is visible, the small fractures are ofter
		filled with a material consisting of ~ 95% silica and 5%
		carbonate.
1		
		91.10: a quartz carbonate vein, about 7cm wide. No visible
		mineralization associated with it.
 		
 		Bedding at 91.40 metres, is 71° to core axis.
 		Bedding at 92.50 metres, is 60° to core axis.
 		DEMAINS AN DESCRIPTION OF THE MAIS.
		NOTE: Local slumping occurs in the argillite beds.
		noit. Local Stumping occurs in one digitite beds.

Hole No. 1043-01-1
Sheet No5

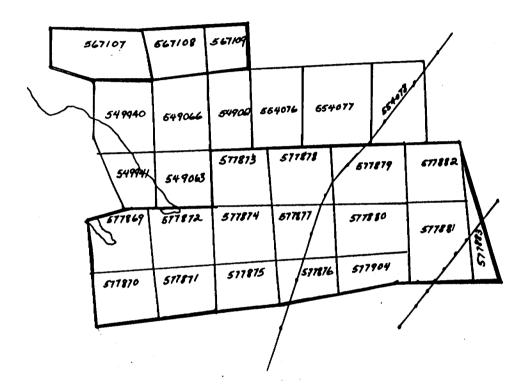
Foot	agemetres	DESCRIPTION
From	To	DESCRIFIION
95.80	100.20	TUFF WITH INTERBEDDED SEDIMENTS
23.60	100.20	TOFF WITH INTERDEDUCE SECTIONS
		Tuff with interbeds of argillite. Argillite beds are thin and
		rock is black and fine-grained. Pyrite may be present in amounts
		up to 5%. The beds show some sign of local slumping. The tuff .
		is intermediate and contains felsic fragments which are stretched
		15 Intermediate and contains leiste tragments which are streetied
		parallel to the bedding. The fragments are usually less than 1/2cm
		long. They are felsic (mainly quartz, minor carbonate). The tuff
		matrix is very well-banded and contacts with the argillite beds
		above and below are sharp. Pyrite is present in amounts up to
		10% locally. The rock is cut by quartz-carbonate veinlets, the
		most notable of which are at 99.0 (about 4cm wide) and at 99.8m
		(about 10cm wide). Neither contain visible mineralization and
		carbonate makes up about 40% of the vein in each case.
		Α
		Bedding: at 98.60 metres, is 72° to core axis.
100.20	104.80	INTERMEDIATE TUFF
		Intermediate tuff. Matrix is fine-grained, greyish in colour and
		moderately to well-banded. The fragments are felsic and quite
		small (<\com long) and are often stretched parallel to the bedding.
		Pyrite is present as fine disseminations or also as subhedral
		crystals. Amount is ~ 3%.
		99.25 - 99.40: Pyrite-rich section. Pyrite makes up to 60% of
	·	the rock. It occurs as massive blebs.
		99.80 - 99.00: Quartz-carbonate vein. No visible mineralization.
		Carbonate makes up about 30% of vein.
	-	102.0 - 102.45: Quartz carbonate veinlet, same description as
		above. Here the country rock is present as
	<u> </u>	inclusions in part of the vein.
		moradiono in para di dicina
		Bedding: at 102.60m is 70° to core axis.
		Bedding: at 104.50m is 72° to core axis.
		Bedding: at 104.300 15 /2" to core axis.

Hole :	No.104	13-01-1	L	
Sheet	No	6	······································	

From To		DESCRIPTION
		DESCRIFITOR
104.80	116.20	INTERBEDDED TUFF, ARGILLITE, MUDSTONE
		Interbedded tuff, argillite and mudstone, as per earlier descript-
		ions. Further down hole mudstone becomes predominant. Rock is
		pervasively carbonatized, most strongly so in the mudstone. Axial.
		plane cleavage, drag folding are visible in the mudstone. Axial plane cleavage is at approximately right angles to the bedding.
		prane creavage is at approximatery right angres to the bedaring.
		Carbonatization is most common between 104.80 and 107.85. In this
		area the rock (mainly mudstone and argillite) is brecciated and
		highly fractured. Pyrite is present throughout most of the rock
		in varying amounts, with the average being about 2%.
		Axial Plane Cleavage: at 111.90m is 36 ⁰ to core axis.
		Bedding: at 111.90m is 53° to core axis.
		Bedding: at 115.50m is 52° to core axis.
116.20	123.10	MUDSTONE
		Mudstone, greyish in colour, very fine-grained. Rock is well-
		bedded. There is minor pyrite layered with the bedding, in
		amounts up to 5% locally. Pervasive carbonatization is common,
		in amounts up to 20%. Contact between the mudstone and the interlayered tuff-argillite-mudstone is marked by sediment breccia
		about 10cm thick. Carbonatization is more common here.
		about total tiller. Carbonatization is more common here.
	123.10	END OF HOLE
	123.10	LITO VI TIVEL
		
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Hole :	No 1043-01-1
Sheet	No7

#33-81 OGDEN TWP.



Area over which Diamond Drill Hole credit is applied

CLAIM SKETCH

1043-02, Ogden-2

Scale: 1:30,000

g A. More Pherson

AMAX MINERALS EXPLORATION

(A Division of Amax of Canada Limited)

DIAMOND DRILL RECORD

Hole No. 1043-02-1

-50⁰N

Depth

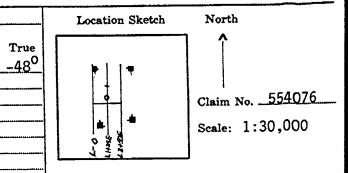
150m

Rdg.

-57⁰

Dip: Collar

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Hole No. 10	043-02-1 Sheet 1		Length .	150 metres	Commenced	November 5, 1980	Dip: Colla
Property 10	1043-02; Ogden-2		Bearing .	-50°	Completed	November 11, 1980 St-Lambert	Etch Test
Township UC	den 125 E; O	-50N	Dip .	To test ground geo-	Cama Cina	B0	11
Location	123 Lg U		Objective .	physical conductor.	Casing Left/Lo	st in Hole 20 feet	
Logged By J.	MacPhers	son					
Core Location	Timn	nins				***************************************	
Remarks							
Foots	age metres			D E C C P I P	TION		t
From	To			DESCRIP	IION		
0	30.50	OVERBURDEN					
30.50	32.70	UNDIFFERENTIA	ATED SEDI	MENT			
32.70	33.20	CHERTY SEDIM	ENT				
33.20	40.90	INTERREDDED	SEDIMENT	BRECCIA AND MUDSTONE			
33.20	40.90	INTERDEDUCE	<u>JEDZIIEIII                               </u>				
40.90	57.15	SILICEOUS SE	DIMENT				
	70.70	ABOYLL TTE	····				
57.15	58.70	ARGILLITE					
58.70	68.00	CHERTY SEDIM	ENT				
- 30.70	00.00	United the second					· · · · · · · · · · · · · · · · · · ·
68.00	78.40	GRAPHITIC HO	RIZON				
70 40	79.30	SEDIMENT BRE	CCTA				
78.40	79.30	SEDIMENT DIC	CCIA				
79.30	80.30	INTERBEDDED	GREY AND	WHITE CHERT BEDS			
	00.05	DVDITE (OD ADU	TTE HODIZ	ON			7
80.30	82.05	PYRITE/GRAPH	TIE HOKIZ	UN			
82.05	82.70	INTERLAYERED	WHITE AN	D GREY CHERT			
82.70	123.10	SEDIMENT BRE	CCIA				
-122 - 4	125 20	MUDSTONE	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
123.10	125.20	HUDSTONE					
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J.A. Mas Belessar

Hole No 1043-02-1	
Sheet No. 2	-

	agemetres	DESCRIPTION
From	To	DESCRITTOR
125.20	126.70	GRAPHITE
126.70	127.40	UNDIFFERENTIATED SEDIMENT
107.40	100.00	ODADUTTE
_127.40	128.90	GRAPHITE
128.90	131.60	GREYWACKE
_120.30	131.00	GNETHHOLE
131.60	131.90	GRAPHITE
_131.90	134.00	SILICEOUS SEDIMENT
134.00	137.35	GREYWACKE
137.35	138.55	SEDIMENT BRECCIA
130 55	142.00	MUNCTONE
138.55	143.90	MUDSTONE
143.90	145.80	GRAPHITE
143.50	143.00	UNITIL
145.80	150.00	MUDSTONE
	150.00	END OF HOLE
	•	

#### DIAMOND DRILL RECORD

Footagemetres		
From To		DESCRIPTION
0	30.50	OVERBURDEN
	30.30	VILNDORDLI
30.50	32.70	UNDIFFERENTIATED SEDIMENT
		SIDITI ENLINTED SEDIMENT
		Very fine-grained undifferentiated sediment. Rock is greenish-grey
		and is siliceous (Si = 40%). Darker parallel bands (very narrow)
	,	may indicate some type of bedding.
		32.00: a 10cm wide band of breccia - the matrix appears to be the
		fine-grained sediment, and the fragments are slightly more siliceous
		Minor pyrite is present in the sediment in amounts <<1%. Down hole
		the rock gets less felsic and could be due to contamination. The
		dividing line between the mafic and more felsic rock appears to be
		the 10cm wide band of breccia mentioned above.
32.70	33.20	CUEDTY CEDIMENT
32.70	33.20	CHERTY SEDIMENT
		Vory cilicons work showing to the
		Very siliceous rock, showing banding. Rock is very hard yet brittle. Most likely an interflow cherty sediment had Pock is
		highly fractured and the fractures are filled with a light green
		mineral. The chert is tainted reddish in spots. Along certain fractures a yellow grainy mineral is present.
		Tractates a ferror grainy mineral is present.
33.20	40.90	INTERBEDDED SEDIMENT BRECCIA AND MUDSTONE
		THE THE PART OF TH
		Sediment breccia, interlayered and with mudstone.
		33.20-36.25: Sediment breccia. Fragments make up to 80% of the
		rock in places, although this is not consistent in the
		whole section. The fragments are slightly more
		mudstone - type. It is very fine-grained and is
		greenish-grey.
		The places where the fragments are few show good bedding - very fine
		laminations are the most common. The fragments are varied in size
		and some are stretched parallel to the fine laminations mentioned
		above.
	l l	

Hole No 1043-02-1 Sheet No...

I —	motrocl	
Footagemetres		DESCRIPTION
From	То	
33.20	40.90	(Cont.) 36.25 - 37.55: mudstone, finely laminated, with a few felsic fragments scattered throughout the rock. Rock is quite soft. Pyrite is present in only very small amounts (<<1%).
		37.55 - 38.85: sediment breccia. There are brecciated 'layers' possibly originally a slightly more incompetent bed within the mudstone that was brecciated under pres- sure. The mudstone did not fragment due to lower silica content and better competency. (The 'mudstone' may actually be a very fine-grained greywacke.)
		38.85 - 39.20: fine-grained greywacke, greyish-black, massive to slightly bedded. Pyrite present in amounts up to 5%. Very slight pervasive carbonatization present.
		39.20 - 40.90: fine-grained, finely laminated mudstone, greyish- green. It contains a few siliceous fragments.  Some of the beds show signs of slumping. Very little carbonate present.
		Bedding: at 39.65 metres, is 40° to core axis.  Bedding: at 40.50 metres, is 45° to core axis.
40.90	57.15	SILICEOUS SEDIMENT
		Very siliceous sediment, well bedded. Rock is extremely hard and brittle and is very fine-grained. Bedding is represented by layers of chert with layers of less siliceous material (looks like a mudstone, very highly silicified). Jasper beds are also present, but in less abundance than the chert or contaminated chert horizons.
		The bedding is quite uniform, with the average thickness of the bedden being about 2cm. In some spots the rock is fractured and these fractures are filled with silica. Pyrite is present in the siliceous rocks. It occurs either as finely disseminated grains or as well-formed cubes. Amount is 5%. Magnetite also present in very thin beds.

Hole No 1043-02-1	
Sheet No. 4	

Hole No 1043-02-1	_
Sheet No. 5	

Foot	agemetres	
From	То	DESCRIPTION
	10	
40.90	57.15	(Cont.) 42.55 - 43.35: intermediate tuff, well-layered, with siliceous
		fragments. Contacts with the chert are sharp down-
		hole and gradual uphole. Pyrite beds present in
		the tuff.
		Bedding: at 41.35m, is 36° to core axis.
		at 42.80m, is 60° to core axis.
		at $45.80$ m, is $45^{\circ}$ to core axis.
		at 48.80m, is 50° to core axis.
		at 40.0011, is 50 to core axis.
		at 51.85m, is 49° to core axis.
		at 54.90m, is 46° to core axis.
57.15	58.70	ARGILLITE
5/.15	30.70	MUNICITY
		Bed of argillite, black, fine-grained, cut by the occasional quartz
		veinlet. No carbonatization, very little pyrite in the rock.
F0 70	50 00	CHEDTY CEDIMENT
58.70	68.00	CHERTY SEDIMENT
		Same as from 40.90 to 57.15
		at 63.45: thin bed of pyrite in argillite, conductive up to 70%.
		Bed is about 2cm wide.
		bed is about zell wide.
		Bedding: at 61.00m, is 36° to core axis.
		at 64.5m, is 45° to core axis.
	•	
		Nature of rock has changed to alternating beds of white and grey
		nature of rock has changed to afternating beds of white and grey
		chert averaging about 1cm thick. Small fractures subsequently
		filled with silica cut this section.
		at 65.25: a 2cm wide band of pyrite, conductive up to 70%.
		do costos de tom mido pana os pristos, comadestro ap eo rom.
		Freshou days the hale the suggest layous almost all have suggest
		Further down the hole, the greyish layers almost all have pyrite
		interbeds or cubic pyrite associated with them.

h —		
Footage metres		DESCRIPTION
From	To	DESCRIPTION
60.00	78.40	GRAPHITIC HORIZON
68.00	78.40	GRAPHITIC HURIZUN
		Conductive zone.
		CONDUCTIVE ZONE.
		From 68.00 to 68.20, pyrite and graphite are present. Conductive
		up to 100%: Pyrite - 65% and Graphite - 35%.
		General: The rock consists of alternating beds of chert and
		pyritic beds. The pyrite is contained in the greyish
		chert beds and may make up to 80% of the bed. These beds
		are up to 90% conductive. The greyish beds with the
		pyrite are narrower than the white chert (about 3cm
		maximum). The rock is fractured and the fractures are
		filled with a greyish material. The rock is slightly
		carbonated (<3%).
		CAL DOLLAGE A TOWN
		Bedding: at 68.20 metres is 62° to core axis.
		Deddilly. We do to let es 13 de to soite anis.
78.40	79.30	SEDIMENT BRECCIA
70.40	79.30	SEDIFICIT DIRECTA
		Fragments consist of the yellowish-white chert and the matrix is
-		the grevish chert. Fragments are angular to sub-rounded and are
		of varying sizes. The remnants of the beds are convoluted and some
	<del></del>	slumping is evident. Pyrite is present as massive blebs or sub-
		hedral cubes in amounts of up to 5%.
		THE PROPERTY AND LEATTE AUGUST DEDC
79.30	80.30	INTERBEDDED GREY AND WHITE CHERT BEDS
		Interbedded grey and white chert beds. Minor pyrite is present.
		70 20 material APO 10 anno 21 APO 10 AP
		Bedding: at 79.30 metres is 45° to core axis.
80.30	82.05	PYRITE/GRAPHITE HORIZON
		Conductive zone.
		80.30 - 81.20: Massive pyrite, 100% conductive, with narrow vein-
		lets of siliceous material.
<del></del>		

Hole	Nd1043-02-1	
Shee	No6	_

Hole No.1043-02-1	
Sheet No7	-

Foot	tage metres	
From	To	DESCRIPTION
	00.05	(Court ) 01 20 02 05: Chambite and pyrite 100% conductive intenlayoned
80.30	82.05	(Cont.) 81.20 - 82.05: Graphite and pyrite, 100% conductive, interlayered
		with the grey chert. Local slumping of the beds
		is visible. Sediment breccia at 81.20 - 81.40.
82.05	82.70	INTERLAYERED WHITE AND GREY CHERT
02.05	02.70	THICKENIERED WITTE AND GREE CHERT
		Interlayered white and grey chert, with very minor pyrite. This
		grades into the sediment breccia.
		grades into the sequient preceia.
		Bedding: at 82.45 metres, is 45° to core axis.
		beauting. at 62.45 illetres, 15.45 to core axis.
82.70	123,10	SEDIMENT BRECCIA
02.70	123.10	SEVAPENT DISCOLA
		Both fragments and matrix are chert. The fragmented rock is
		generally the white chert and the matrix is the grey chert. In
		spots it appears that the grey chert has flowed into and around
		the white chert fragments. Pyrite is present both massive and as
		well-formed cubes in amounts up to 15%. Where the pyrite is massive.
	<u> </u>	it is conductive up to 80%.
		The fragments vary greatly in size and are angular to sub-rounded.
		The pyrite is rarely found in the fragments; it is most common in
		the greyish chert. There are still some signs of original bedding
	<del></del>	left.
		Bedding: at 86.40 metres, is 44° to core axis.
		Dedding, at 00,40 metres, 15 44 to thre axis.
		The pyrite is also found as well-formed cubes. These are present
		mainly in the sections which show the least signs of brecciation
		(ie. in the areas where good original hedding is still present).
		The the areas where good or ignat bedding is strit-presenty.
		Pyrite: about 20%.
		Graphite is also present in narrow beds up to 3cm wide. These show
		little or no sign of brecciation. The beds may contain anhedral
		to subhedral pyrite in amounts up to 5%, generally much less than
	<del> </del>	the pyrite percentage in the sediment breccia. Graphitic beds are
		70-100% conductive.
		70-100% Conductive.

Footage meters		DESCRIPTION
From	To	
82.70	123.10	(Cont.) At 101.0 metres, the pyritic and graphitic section of the breccia
	163.10	ends and from here the rock is barren or has less than 1% pyrite
		in it. The fragments are all of chert and are subrounded to round
<del></del>		The tradillents are all of their and are subjounded to found
		ed. They are contained in a greyish matrix (fine-grained) of
		mudstone. This is much softer than the fragments, as well as bei
		slightly darker in colour.
		Fragment size varies from <0.5 cm up to 4cm. The fragments are
		often longer in one dimension and they usually layer in this fash
		ion, more or less parallel to the bedding of the mudstone. This
		varies a lot and so an accurate reading of the angle of beds to
		the core axis is not possible.
		· · · · · · · · · · · · · · · · · · ·
		Near the bottom of the breccia section the fragments become much
		smaller and more numerous.
		Siliatter and more numerous.
		AUDOTANE
123.10	125.20	MUDSTONE
		the state of the s
		Mudstone, moderately bedded, greyish in colour, fine-grained. It
		contains a few stretched fragments aligned parallel to bedding.
		Bedding: at 124.3 metres, is 43° to core axis.
125.20	126.70	GRAPHITE
		Graphite beds with minor pyrite.
		Graphite: 95%
	·	Pyrite: 5%
		Beds are massive and 100% conductive. Contact with mudstone is
		sharp.
		Suary
	107.46	INDICEDENTIATED CEDIMENT
126.70	127.40	UNDIFFERENTIATED SEDIMENT
		the state of the s
		Undifferentiated sediment with pyrite. Rock is light grey and
		medium to fine-grained. Pyrite makes up 20% of the rock.
127.40	128.90	GRAPHITE
		Graphite beds, as per 125.20 to 126.70
	<del>                                     </del>	

Hole No. 1043-02-1	
Sheet No8	

#### DIAMOND DRILL RECORD

Footage metres		DESCRIPTION
From	То	DESCRITTON
_128.90	131.60	GREYWACKE
		C
		Greywacke, fine-grained, moderately bedded. Carbonate present as small pods and also in narrow veinlets as well as pervasively
		throughout the section. Pyrite is present, disseminated throughout
		the rock (about 15%).
_131.60	131.90	GRAPHITE
		Graphitic bed, as per 125.20 to 126.70.
	134.00	SILICEOUS SEDIMENT
		Siliceous sediment (about 60% SiO ₃ ) with carbonate blebs and
		pyrite (about 5%). Rock is massive to weakly bedded. Quartz
		veinlet at 134.00 metres.
_134.00	137.35	GREYWACKE
		Greywacke, fine-grained, moderately bedded. Carbonatization is
		pervasive in rock (carbonate about 25%). Quartz carbonate veinlets
		also present. Pyrite is present in amounts up to 10%.
		Bedding: at 136.50 metres, is 44° to core axis.
137.35	138.55	SEDIMENT BRECCIA
		Clocks are of groundsky and matrix is chart with
	<u> </u>	Sediment breccia. Clasts are of greywacke and matrix is chert with minor graphite (conductive up to 50%). Clasts are quite large
		(up to 8cm) and are sub-rounded to angular.
		LUP IN DAILY MINE AND
138.55	143.90	MUDSTONE
100.00	10.00	•
		Well-bedded mudstone with alternating layers of green and white
		material. Pods of pyrite < 1cm wide are present as well as narrow
		sulphide veinlets (pyrite, < <pyrrhotite). carbonatization="" is<="" td=""></pyrrhotite).>
	-	pervasive throughout the rock.  Bedding: at 139.6 metres, is 40° to core axis.
	-	at 142.1 metres, is 440 to core axis.
	ļ	TO ATERA MODE COS TO THE OWNER OF THE OWNER OWNER OF THE OWNER

Hole No. 1043-02-1 Sheet No...

# AMAX MINERALS EXPLORATION (A Division of Amax of Canada Limited) DIAMOND DRILL RECORD

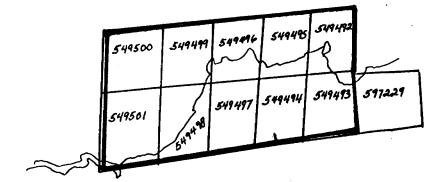
Hole No. 1043-02-1	_
Sheet No. 10	_

Footage metres			
From To		DESCRIPTION	
	10		
_143.90	145.80	GRAPHITE	·
	13000	MVIIII	
		Graphitic horizon, as per description of 12	5 20 to 126 70 motros
		Graphitic nortzon, as per description of iz	5.20 to 120.70 metres.
_145.80	150.00	MUDSTONE	
	-	Highly probabled mydetons/siltetons wit	h minon numito and
		Highly carbonatized mudstone/siltstone, wit	n minor pyrice and
		<< graphite. Rock is very soft, and carbon	ate content is quite
		high (about 50%). Rock has a chalky feel t	o it. and it is grevish.
		white It is poorly bedded and highly alt	ared In some snots
		willte. It is poorly bedded, and highly art	ered. III some spots
		white. It is poorly bedded, and highly alt the beds are highly convoluted, indications	of (most likely) local
		slumping.	
	150.00	END OF HOLE	
	150.00	END OF HOLE	· · · · · · · · · · · · · · · · · · ·
			,
	<u> </u>		
			:
	[		·
[			<u> </u>
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#34-81

DELORO TWP.

34



2M

Area over which diamond drill hole credit is applied

**CLAIM SKETCH** 

1043-03, Ogden-3

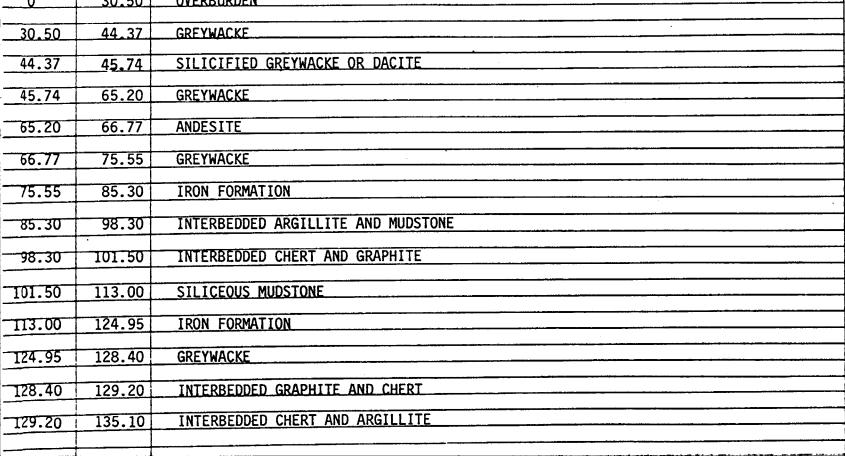
Scale: 1:30,000

J. A. More Pchine

#### AMAX MINERALS EXPLORATION

(A Division of Amax of Canada Limited)

DIAMOND DRILL RECORD							Hole Nol0	043-03-1				
Property 1 Township 0 Location L	043-03-1 043-03; Ogden 125W, 19 . MacPher n Timmin	Ogden-3 2N. son	Length Bearing Dip Objective	165 metres 1800 -500 To test ground geo- physical conductor.	Core Size	October 27, 1980 October 30, 1980 St-Lambert BQ ost in Hole None	Dip: Collar .  Etch Test	Depth	50 ⁰ N Rdg. 55 ⁰	True 46 ⁰	Location Sketch	North  Claim No. 549498  Scale: 1:30,000
Remarks										***************************************	NSSET 7	
From	tage metres To			DESCRIP	TION							
0	30.50	OVERBURDEN										
30.50	44.37	GREYWACKE									,	
44.37	45.74	SILICIFIED	GREYWACKE	OR DACITE								
45.74	65.20	GREYWACKE										
												•





Hole No.104	3-03-1
Chast Mo	2

From To		DESCRIPTION					
From	То	DESCRIPTION					
135.10	143.85	MUDSTONE					
_135.10	143.03	FIUDSTURE					
1/2 05	165 00	MIDSTONE					
143.85	165.00	MUDSTONE					
	165.00	END OF HOLE					
	•						
		=					
		·					

Hole No.1043-03-1	
Sheet No3	

Footagemetres		DESCRIPTION
From	То	DESCRIFIION
0	30.50	OVERBURDEN
	00.00	V L L L V L L L L L L L L L L L L L L L
_30.50	44.37	GREYWACKE
	, , ,	
		Rock is fine-grained, well-bedded and grey in colour. Beds are
		thin, generally less than 1cm wide and consist of alternating
	,	bands of black material (very narrow; less than 1mm) and more
		felsic (siliceous) material. Rock is cut by a number of cross-
		cutting quartz-carbonate veinlets, totalling about 2% of rock.
		Rock and veinlets are totally barren of any kind of mineralization
		Carbonate is present throughout the rock in amounts up to 5% -
		this is pervasive and does not include carbonate veinlets.
		_
		Bedding at 30.50 metres is 40° to core axis.
		Bedding at 33.40 metres is 38° to core axis.
		Bedding at 38.30 metres is 43° to core axis.
		\
		NOTE: quartz-carbonate veinlets are generally concordant with the
l <del>  </del>		bedding.
44.37	45.74	SILICIFIED GREYWACKE OR DACITE
		Silicified greywacke or possibly a dacite. Rock is well-banded
		and is cut by quartz-carbonate veinlets which are more or less
		parallel with the banding in the rock. Rock is carbonated through
		out (up to 5%) and contains about 1% pyrite.
		Banding is at 45° to the core axis at 44.50 metres.
45.74	65.20	GREYWACKE
		Fine-grained, massive to slightly bedded, greywacke. Carbonate in
		rock (besides quartz-carbonate veinlets) up to 5%.
		At 47 metres: narrow quartz-carbonate veinlet with iron staining
		(approximately 3cm wide).
		At 51.97 metres: quartz veinlet 2cm wide.
		Bedding is at 46° to core axis at 51.40 metres.

Foot	agemetres		DESCRIPTION
From	To		DESCRIPTION
45.74	65.20	(Cont.)	Between 52.40 and 53.50, the rock is cut by numerous quartz- carbonate veinlets in amounts up to 10%. In some spots the rock has been brecciated. No visible mineralization. Small blebs of
			carbonate are common from 61.0 to 64.60 metres. Carbonate content here is approximately 10%, but not as veinlets.
65.20	66.77	ANDESITE	
			Andesite, fine-grained, chloritized, with pervasive carbonatization up to about 10%. Rock is structureless. Chlorite makes up about 25% of rock. Contact with the sediments above and below it is fairly sharp.
66.77	75.55	GREYWACKE	
			Greywacke, moderately bedded and fine-grained. Quartz-carbonate veinlets make up about 2% of rock and carbonate is also present in amounts up to 5% of the rock. No visible mineralization.  At 69.55 metres: quartz-carbonate veinlet about 3cm wide and more or less parallel to bedding.
			At 73.20 metres: quartz-carbonate veinlet, 1cm wide, with reddish iron staining.
			Bedding at 68.40 metres, is 30° to core axis.  Bedding at 72.40 metres, is 35° to core axis.  Bedding at 70.30 metres, is 39° to core axis.
75.55	85.30	IRON FORMATION	
			Banded iron formation. Rock is very well-bedded and consists of alternating bands of magnetite, chert and jasper (the last in lesser amounts).  Magnetite beds may reach a maximum thickness of 2cm and are relatively uniform in width. The magnetite is sugary and very fine-grained.
]			

Hole No 104	3-03-1
Sheet No	4

#### DIAMOND DRILL RECORD

Footagemetres		DESCRIPTION
From	То	DESCRITTOR
75.55	85.30	(Cont.) Cherty beds vary in thickness from <1cm to 15 cm. It is grey to
73.33	03.30	white and shows very fine internal bedding, individual beds being
		<1mm thick. Note the greyish chert is the one that is generally
		associated with the magnetite.
		The jasper beds are found between 76.80 and 78.60 metres. These
		beds vary in width from 5cm up to 4cm. They also show fine
		internal laminations or bedding.
	ŀ	
		81.45 to 81.65: section of core which consists of alternating
		layers of green light grey and black beds.
		Possibly it may be a thin bed of mudstone or
		siltstone at 81.58. Black material is magnetite,
		grey material is chert, green material is
		chloritic beds. Chloritic beds contain perfect
		pyrite cubes up to \( \frac{1}{2} \text{cm in size.} \) Chloritic beds
		probably were once mudstone.
		Quartz-carbonate veining is rare, and when presen
		it is in the less siliceous part of the iron
		formation as fracture fillings.
		at 80.50: quartz-veinlet 4cm thick. No visible mineraliza-
		tion. It fills a fracture which cuts the beds
		of the iron formation at about 90°. Amount of
		carbonate in rock is less than 0.5%.
		Structure: the beds may show local signs of slumping but overall
		the bedding shows little sign of deformation.
		the bedating silons treete sign of detormations
		Small shears are cross-cutting some beds and displacement is
		usually <2cm.
		Mineralization: Magnetite is present in amounts between 30 and
		45%. Depending on the purity of the magnetite
		beds, conductivity varies from 10 to 100%.
		Pyrite is present as well-formed cubes in the
		mudstone and is also well-layered, with the
		magnetite in some spots. It also occurs as
		massive blebs. The layered pyrite is conductive
		up to 10%. Total amount of pyrite is ~10%.
		WE AA 20/44 1 A 401 A 10 A 10 A 10 A 10 A 10 A 10
	- 1	

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Hole l	vo 1043-03-1	
Sheet	No6	
		_

From To		DESCRIPTION
		DESCRITTOR
75.55	85.30	(Cont.) Chalcopyrite is present in amounts <1% in most of the iron
		formation. It is usually found as tiny blebs in the magnetite
		beds.
		Bedding: at 75.80 metres is 50° to core axis.
		at 78.30 metres is 45° to core axis.
	ŕ	at 81.35 metres is 43° to core axis.
		at 84.40 metres is 45° to core axis.
85.30	98.30	INTERBEDDED ARGILLITE AND MUDSTONE
		Interbedded argillite and mudstone siltstone. Beds are generally
		very thin, <2cm. Some sections of the rock are silicified to a
		high degree.
		Occuber at 00 00 mature and 00 0 mature. Both continue are about
		Quartz at 89.00 metres and 89.9 metres. Both sections are about
		8cm wide. Quartz is sugary and there is no visible associated
		mineralization.
		Small blebs of carbonate are visible throughout a good part of the
		core. These are interpreted to be replacement features. In spots
		these blebs make up to 90% of the rock. Pyrite makes up to 2% of
		rock.
		rock.
		Bedding at 93.55 metres, is 45° to core axis.
		Bedding at 87.45 metres, is 38° to core axis.
	-	bedding at 07.43 metress is so to core axis.
98.30	101.50	INTERBEDDED CHERT AND GRAPHITE
70.30	101.50	ATTENDEDUCE OFFICE THE GIVETIALE
	<del></del>	Interbedded chert and graphite; graphite is greyish and 100% con-
	<del></del>	ductive. Beds are roughly uniform in thickness, with the chert
		beds being slightly wider. Pyrite is present in amounts up to
		10%
		Bedding at 98.40 metres, is 52° to core axis.
		Also minor magnetite is present in amounts up to 2%.
		Bedding at 99.65 metres, is 51 to core axis.

Footagemetres		
From	То	DESCRIPTION
From	10	
101.50	113.00	SILICEOUS MUDSTONE
	-	
		Siliceous mudstone or greywacke. Rock is too siliceous to be a
		true mudstone. It is fine-grained, and grey-green. Carbonate
		pods are stretched parallel to the bedding and make up to 5% of
		the rock. Rock is moderately to well-bedded. Carbonate pods are
		the rock. Rock is moderately to well-bedded. Carbonate pous are
	,	probably replacement features.
		Bedding: at 102.70 metres is 57° to core axis.  Bedding at 105.75 metres is 57° to core axis.
		Redding at 105.75 metres is 57° to core axis.
		Deduting at 100170 medico 10 07 00 0010 arrior
112 00	124 05	TRON FORMATION
113.00	124.95	IRON FORMATION
		Iron formation; chert and magnetite interbedded. Also minor
		jasper present. Magnetite beds vary in thickness, up to 2cm
		maximum Magnetite beds non-conductive Massive pyrite is preser
		in some sections of core, notably at 120.40m in amounts up to 60%.
	ļ <del>.</del>	It is 100% conductive. The magnetite beds are not conductive.
		It is 100% conductive. The magnetite beds are not conductive.
		Pyrite may also occur in cross-cutting veinlets, notably around
		122.80 metres. Pyrrhotite is also present in amounts up to 2%.
		121.60 to 122.90: section of iron formation; Highly silicified
		(and carbonatized up to 1%) and highly brec-
		ciated as well. It is in this area that the
		Clatter as well. It is in this area that the
		pyrite veinlets occur. The core here is
		generally silicified, and it is also cross-cut
	·	by narrow quartz-carbonate veinlets.
	<del> </del>	Other sections of this iron formation also have narrow cross-
	-	cutting quartz-carbonate veinlets.
		cutting qualitz-car bonate venificus.
		Bedding at 121.60 metres, is 60° to core axis.
		Bedding at 121.00 metres, 15 by to core axis.
		Bedding at 115.00 metres, is 62° to core axis.
<del>-124.95</del>	128.40	GREYWACKE
		Fine-grained greywacke, weakly bedded. Rock is nearly featureless
		but shows pervasive carbonatization in amounts up to 10%.
		DUL SHOWS HELAUSIAE CUI DOHUCIZACION IN UNIOUNES up to 10%.

	Hole No 1043-03-1
-	Sheet No7

#### DIAMOND DRILL RECORD

Footagemetres		
From	To	DESCRIPTION
128.40	129.20	INTERBEDDED GRAPHITE AND CHERT
		Interbedded massive graphite and chert. Pyrite is associated with
		the graphite and makes up to 40% of the rock. Pyrite is present
		as massive blebs and also as well-formed cubes. Graphite-pyrite
		beds are 100% conductive. Minor chalcopyrite also present.
120 20	125 10	INTERBEDDED CHERT AND ARGILLITE
129.20	135.10	INTERDEDUED CHERT AND ARGILLITE
		The quartz is sugary and pyrite is present in amounts up to 60%
		of the whole rock. It is present both as cubes and as massive
		blebs. There are also a few graphitic beds interlayered with the
		chert and argillite. These beds are 100% conductive.
		Bedding at 130.15 metres is 55° to core axis.
		Bedding at 133.20 metres is 58° to core axis.
135.10	143.85	MUDSTONE
133.10	143.65	MODSTONE
I		Fine-grained mudstone, moderately bedded, with minor pyrite (2%).
		Bedding at 139.30 metres is 72° to core axis.
143.85	165.00	MUDSTONE
		Mudstone - altered and brecciated, carbonatized. Pyrite stringers
<u> </u>		which disappear at 146 metres, make up 20% of rock. Moderately
	<u> </u>	bedded and fragmented in spots. Pyrite is present also as massive
I		blebs.
		Bedding at 164.90 metres is 55° to core axis.
	165.00	END OF HOLE
I.	1 1.	

Hole No.1043-03-1 Sheet No....