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FALCONBRIDGE LIMITED
THIRD QUARTER PROGRESS REPORT
JULY - SEPTEMBER, 1988
UMEX/KIDD MATHESON TOWNSHIP AGREEMENT
TIMMINS, ONTARIO

N.T.S.: 42A/11

OM 88-5-C-208.

OCTOBER 25, 1988

J.M. DER WEDUWEN



42A11SE0042 63.5489 MATHESON

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SUMMARY AND CONCLUSIONS

Four diamond drill holes, M13-13 to M13-16 inclusive totalling 1136.0 metres were completed between August 5 and August 25, 1988.

Several anomalous, but not significant gold values were returned from this diamond drilling, the best being 2.33 grams/tonne over 0.7 metres from 199.0 to 199.7 metres in drill hole M13-15. Most of the anomalous gold values are associated with thin, arsenopyrite-bearing quartz veins or arsenopyrite filled fracture systems. Pyrite and pyrrhotite are common accessory sulphides and locally make up 5-10% of the unit. Gold values do not appear to be associated with the pyrite and pyrrhotite. The sulphide mineralization occurs within strongly carbonatized, sericitized and locally silicified mafic volcanics. These zones of strong alteration occur adjacent to and within a distinct, pillowed variolitic mafic volcanic horizon.

Volcanic units strike east-west and dip at 35-40° to the north. Tops determined primarily from graded bedding in sediments face south.

Local shearing is present along flow contacts and within the graphitic argillite at the mafic volcanic-sediment contact zone. However, a major shear zone that could host a vein system has not been intersected.

RECOMMENDATIONS

No further diamond drilling is recommended for the property at this time.

Property negotiations have been initiated on the half lot immediately to the east of the four unpatented claims. These negotiations should continue and future work is strongly recommended for this half lot, if these negotiations are successful.

Failing to acquire the half lot to the east, there remains the possibility of drilling a deep, vertical drill hole near the northern boundary of the property. This drill hole would test the entire mafic sequence because of the local flat dip and would be approximately 700 metres in length.

INTRODUCTION

During the third quarter of 1988, four diamond drill holes were completed which tested a sequence of altered mafic volcanics. The 1988 diamond drilling was conducted west and east of previously drilled holes which have returned significant but erratic gold values.

Diamond drilling in 1988 was done with the Umex/Kidd Matheson Joint Venture in effect as Umex had earned a 49% interest in the property earlier in the year.

LOCATION AND ACCESS

The Umex/Kidd Matheson J.V. property is located 24 kilometres east-northeast of Timmins, Ontario in south central Matheson Township. The property consists of a patented half lot in the south half of Lot 8, Concession I and four unpatented mining claims, P585548 to P585551 inclusive, in the north half of Lot 8, Concession I.

Highway 101 East forms the property's northern boundary and an all weather gravel road runs along the Lot 8/9 boundary line forming the property's western boundary. Direct access to the property is via a series muskeg trails, a few of which are passable by pick-up truck during the summer months.

1988 THIRD QUARTER EXPLORATION

Four diamond drill holes, M13-13 to M13-16 inclusive totalling 1136.0 metres were completed between August 5 and August 25, 1988 (Table 1). These drill holes were put down at the western and eastern ends of the property testing gaps in the volcanic stratigraphy.

All diamond drilling was done by Bradley Brothers Ltd. of Timmins Ontario. Core size in all drill holes was BQ. Averaged drill invoiced cost per metre was \$56.29/m.

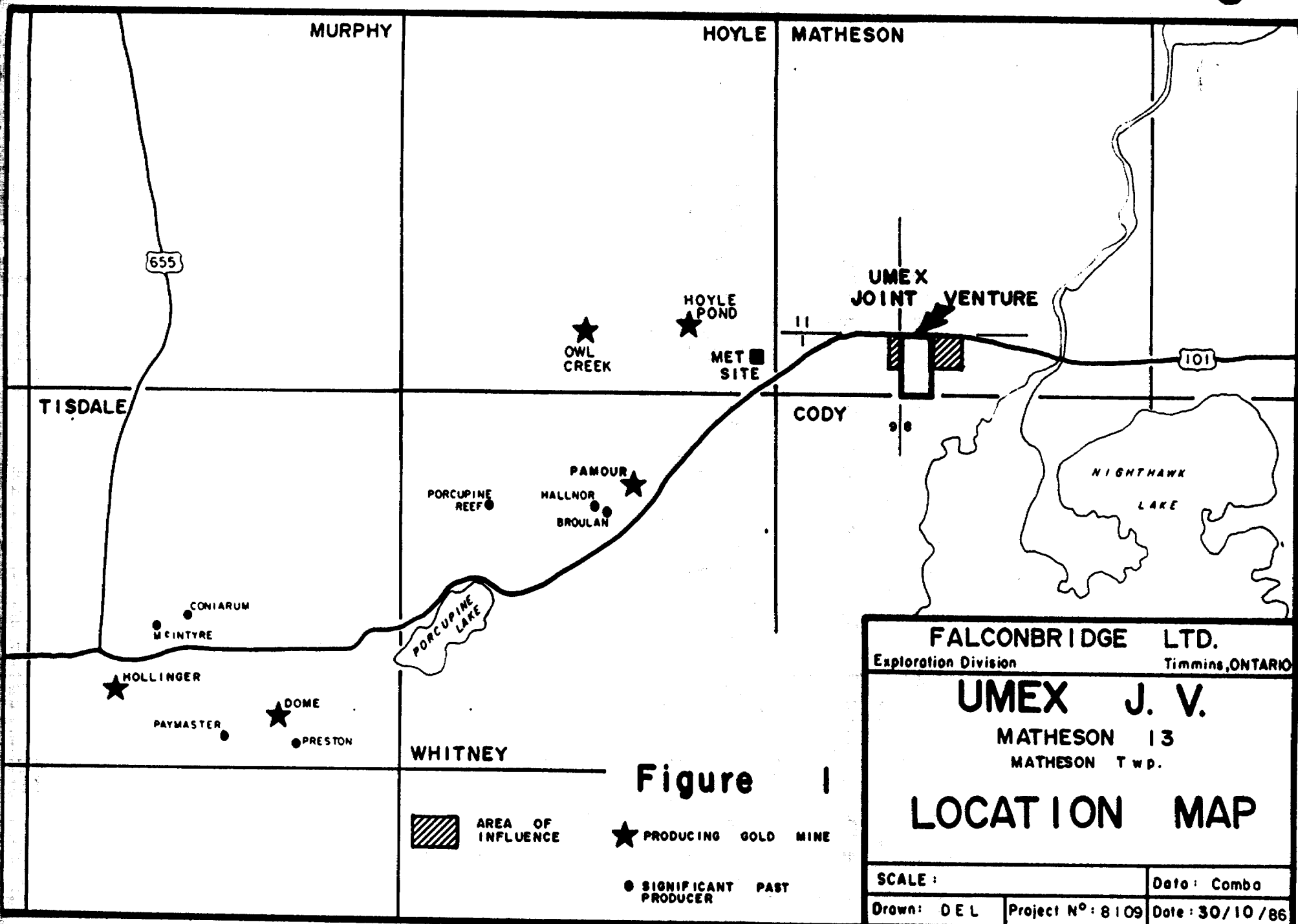


Figure 1

TABLE 1

1988 DIAMOND DRILLING STATISTIC DATA
UMEX/KIDD J.V. - MATHESON TOWNSHIP

Hole No.	Location	Azimuth	Dip	Depth	Start	Finish	Cost
M13-13	L1E,620N	180°	- 60°	374.0m	05/08/88	11/08/88	\$21,501.58
M13-14	L2E,500N	180°	-50°	281.0m	12/08/88	16/08/88	\$14,743.80
M13-14	L7E,450N	180°	-50°	236.0m	19/08/88	22/08/88	\$12,861.80
M13-16	L8E,460N	180°	-50°	<u>245.0m</u> 1136.0m	24/08/88	25/08/88	<u>\$16,840.11</u> \$63,947.29

RESULTS 1988 THIRD QUARTER EXPLORATION

The initial two drill holes, M13-13 and M13-14, were put down in the western portion of the property testing for the western extension of gold mineralization encountered in previous diamond drilling. Drill hole M13-13 intersected a series of pillowed mafic volcanics, massive leucoxene-bearing mafics, a thin basaltic komatiite in the upper portion of the drill hole, graphitic argillite and turbidite type sediments. A thin, grey quartz-feldspar porphyry sill intrudes the graphitic argillite unit. One highly anomalous gold value of 1.96 grams per tonne over 1.1 metres was returned from a distinct, pillowed variolitic mafic volcanic. No zones of arsenopyrite-bearing fractures or arsenopyrite bearing quartz veins were noted in this drill hole.

Drill hole M13-14 intersected a similar mafic volcanic sequence as that in drill hole M13-13. An altered massive mafic horizon was intersected from 162.0 to 165.1 metres. This unit is strongly carbonatized and sericitized and weakly chloritic. The unit carries from 2 to 8% fine pyrite, minor pyrrhotite and 3-5% irregular quartz stringers. One anomalous gold value of 500 ppb was returned from this unit. This altered unit occurs immediately to the south of the distinct pillowed variolitic mafic volcanic.

Drill holes M13-15 and M13-16 were put down in the eastern portion of the property (Figure 2). The stratigraphic sequence consists of pillowed mafic volcanics, massive leucoxene-bearing mafic volcanics, graphitic argillite and sediments. The graphitic argillite horizon is strongly sheared and is intruded by several, thin grey quartz-feldspar porphyry sills. A sheared flow contact occurs between massive and pillowed mafic volcanic units at 120.5 metres. This shear zone is surrounded by strongly carbonatized and sericitized mafics extending from 113.0 to 134.6 metres. This altered zone carries 5-15% fine pyrite which locally may reach 25-30%, locally 2-3% pyrrhotite and 1-5% fine arsenopyrite. Both the pyrrhotite and arsenopyrite are concentrated in the massive mafic volcanic north of the sheared flow contact. Only two gold values exceeding 500 ppb were returned from this altered zone, the best being 870 ppb over 1.0 metre from 117.0 to 118.0 metres. A second strongly carbonatized horizon was intersected from 172.7 to 199.7 metres that carries 5-10% fine pyrite, 1-2% fine pyrrhotite and 4.5% thin quartz stringers. Three highly anomalous gold values greater than 500

ppb were returned from this altered horizon with the best being 2.33 grams per tonne over 0.7 metres from 199.0 to 199.7 metres.

Drill hole M13-16 intersected stratigraphy almost identical to that noted in drill hole M13-15. Two altered horizons were intersected, the first from 108.6 to 114.4 metres and the second from 194.7 to 217.8 metres. The first altered horizon carried 10-12% fine pyrite and up to 15% quartz veining; the second altered zone carried 3-5% pyrite, 1-3% pyrrhotite, locally up to 2% arsenopyrite and 3-4% quartz veining. Three gold values exceeding 500 ppb were returned from the second altered horizon with the best value being 730 ppb over 0.75 metres from 211.75 to 212.5 metres.

Anomalous gold values are associated with fine arsenopyrite and arsenopyrite-bearing quartz veins within carbonatized and sericitized mafic volcanics. Pyrite and pyrrhotite are common accessory minerals in the altered zones but do not appear to be directly related to higher gold values. Most of the altered zones occur adjacent to and occasionally within a distinct pillowed variolitic mafic volcanic unit.

Local shearing has been noted along flow contacts and within the graphitic argillite unit. However, a major shear zone that could concentrate mineralizing fluids has not been noted.

A north-south fault has been interpreted to strike across the property just west of drill hole M13-15, based on apparent offsets of the volcanic stratigraphic (Figure 2).

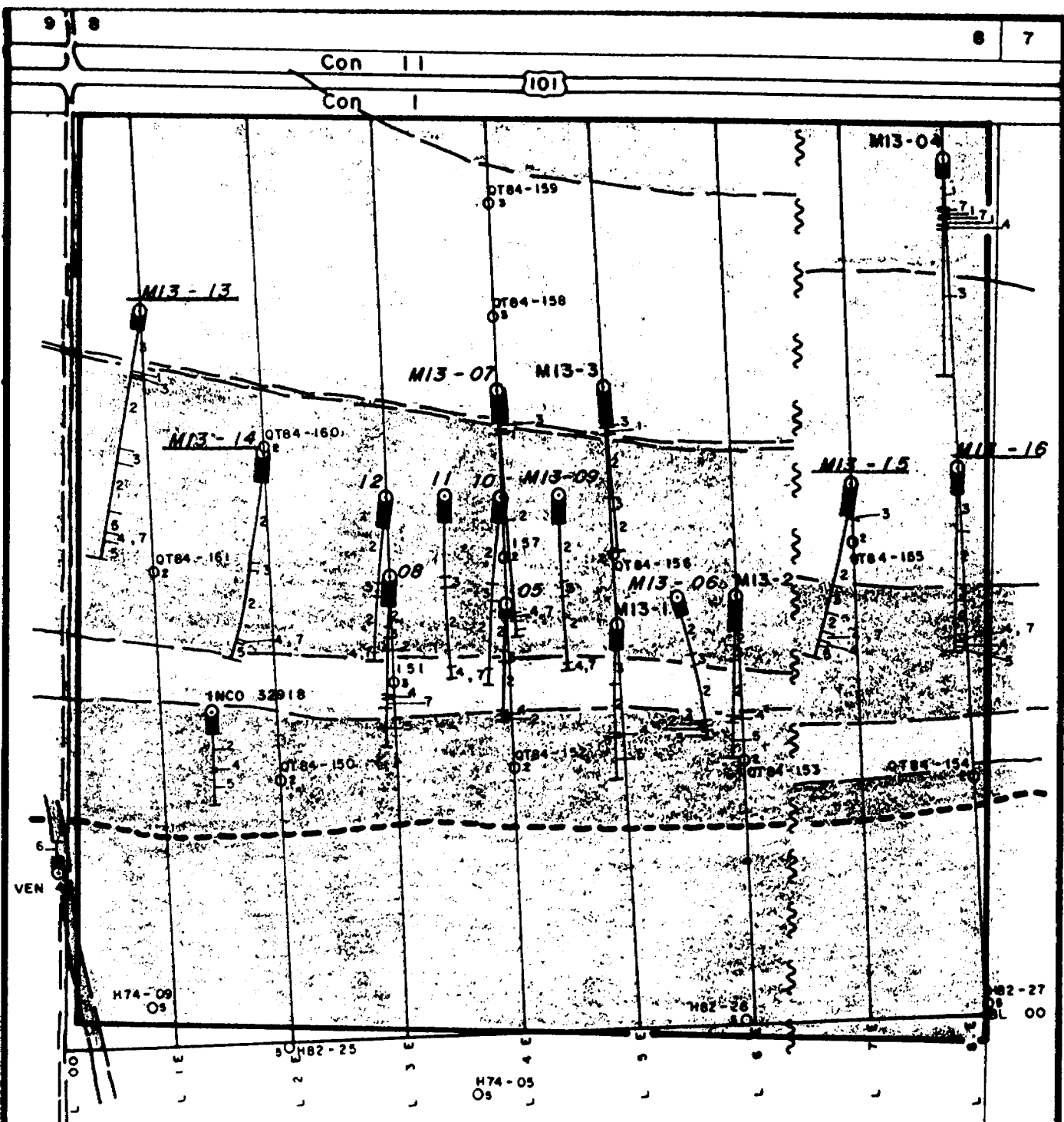
TABLE 2
GOLD ASSAY RESULTS GREATER THAN 500 ppb
FROM 1988 DIAMOND DRILLING

Drill Hole	Sample No.	From	To	Interval (m)	Au (ppm)
M13-13	AI03633	252.0	253.1	1.1	1.96
M13-14	AI03708	162.0	163.5	1.5	0.50
M13-15	AI03770	117.0	118.0	1.0	0.87
	AI03772	119.0	120.5	1.5	0.65
	AI04955	173.0	174.5	1.5	0.98
	AI04973	198.0	199.0	1.0	0.59
	AI04974	199.0	199.7	0.7	2.33
M13-16	AI05061	195.4	197.0	1.6	0.56
	AI05069	206.0	207.5	1.5	0.52
	AI05073	211.75	212.5	0.75	0.73

A total of 19 drill core samples were sent to X-Ray Assay Laboratories in Don Mills Ontario and were analyzed for both major and minor elements, including the rare earth elements. This data is included in Appendix B.

J. M. Der Weduwen

J.M. Der Weduwen

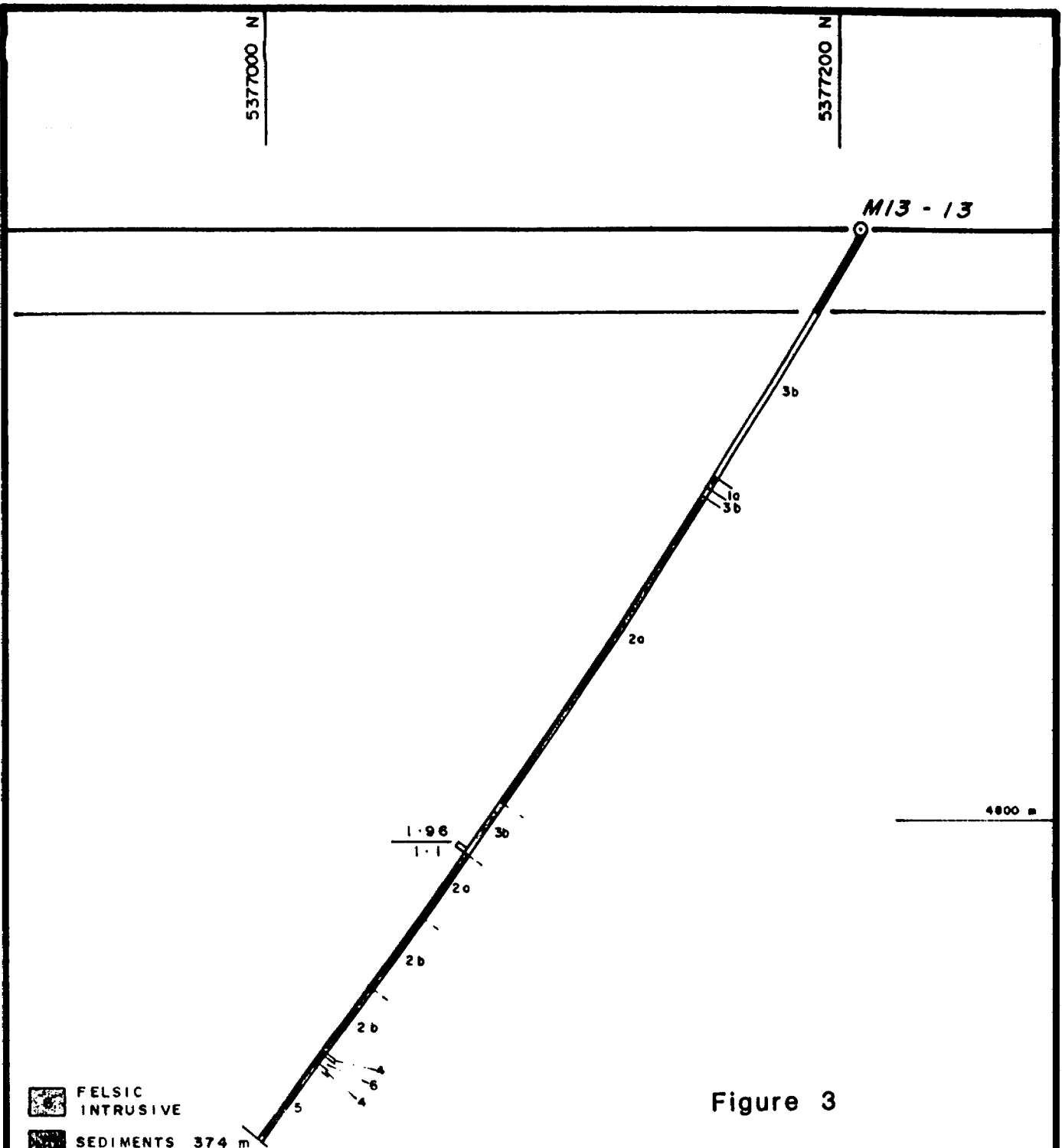


- QUARTZ FELDSPAR PORPHYRY
- DIABASE
- SEDIMENTS
- GRAPHITIC ARGILLITE
- HIGH Mg THOLEIITIC BASALTS
- THOLEIITIC BASALTS
- KOMATIITIC VOLCANICS
- DIAMOND DRILL HOLE
- POSSIBLE FAULT
- OVERBURDEN DRILL HOLE

Figure 2

INCO INTERNATIONAL NICKEL CO.
VEN VENTURES LTD.

FALCONBRIDGE LTD.	
Exploration Division	Timmins, ONTARIO
UMEX MATHESON J. V. MATHESON Twp.	
GEOLOGY and DIAMOND DRILLING	
SCALE: 1 : 5,000	Data: DerWeduwen
Drawn: DEL	Project N° 8109 Date: 01/09/88

















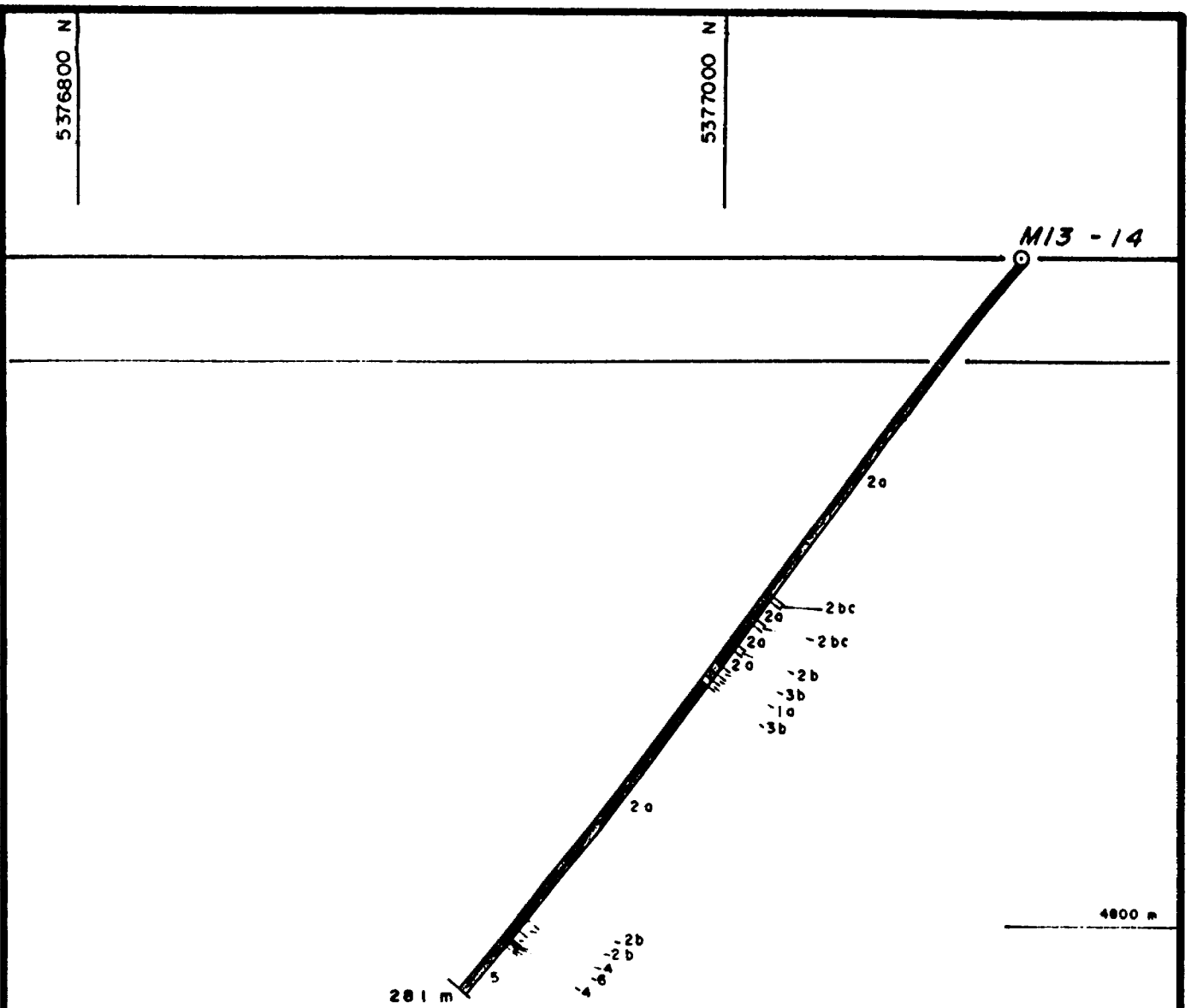
-  FELSIC INTRUSIVE
-  SEDIMENTS 374 m
-  GRAPHITIC ARGILLITE
-  HIGH Mg THOLEIITIC BASALTS
 -  massive
 -  pillowed
-  THOLEIITIC BASALTS
 -  massive
 -  pillowed
 -  flow breccia
-  KOMATIITIC VOLCANICS
 -  massive
 -  pillowed
-  GREY ZONE

Figure 3

GOLD ASSAYS gram per tonne over metres

FALCONBRIDGE LIMITED		
Exploration Division	Timmins, ONTARIO	
UMEX J V MATHESON 13 MATHESON Twp.		
SECTION FOR M13 - 13		
LOOKING WEST		
SCALE:	1 : 2,000	Date: SFP
Drawn: DEL	Project N°: 8109	Date: 21/09/88














-  FELSIC INTRUSIVE
-  SEDIMENTS
-  GRAPHITIC ARGILLITE
-  HIGH Mg THOLEIITIC BASALTS
 -  a massive
 -  b pillowed
-  KOMATIITIC VOLCANICS
 -  a massive
 -  b pillowed
 -  c flow breccia
-  GREY ZONE

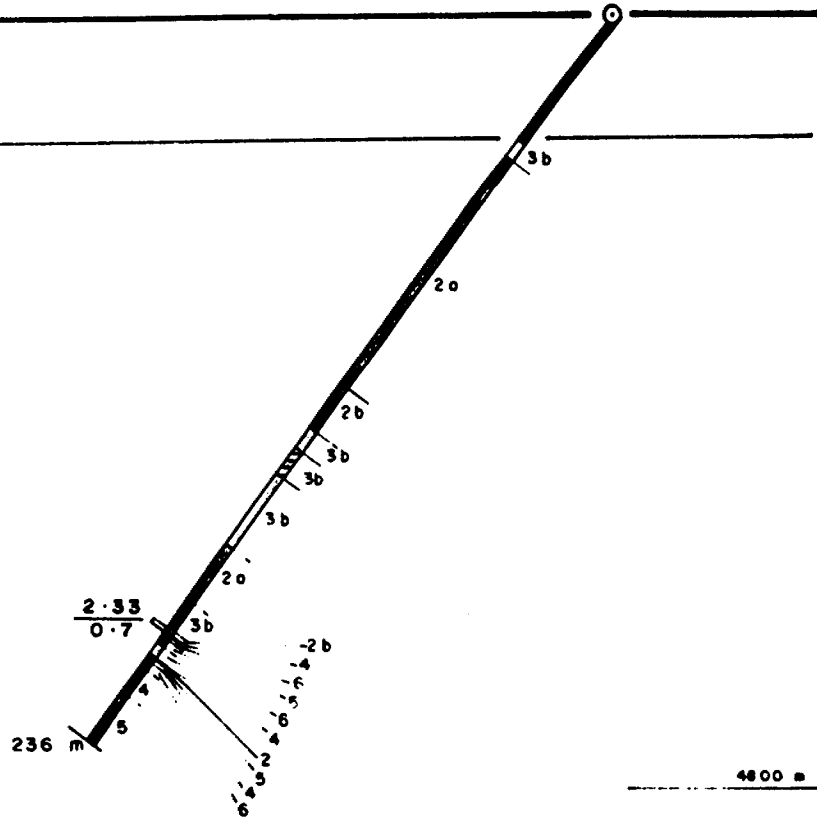
Figure 4

FALCONBRIDGE LIMITED		
Exploration Division	Timmins, ONTARIO	
UMEX J V MATHESON 13 MATHESON Twp.		
SECTION FOR M13 14		
LOOKING WEST		
SCALE:	1 : 2,000	Data: SFP
Drawn: DEL	Project N ^o : 8109	Date: 21/09/88

5376800 N

5377000 N

M13-15



- FELSIC INTRUSIVE
- SEDIMENTS
- GRAPHITIC ARGILLITE
- HIGH Mg THOLEIITIC BASALTS
 - a massive
 - b pillowed
- THOLEIITIC BASALTS
 - a massive
 - b pillowed
 - c flow breccia
- KOMATIITIC VOLCANICS
 - a massive
 - b pillowed
- GREY ZONE

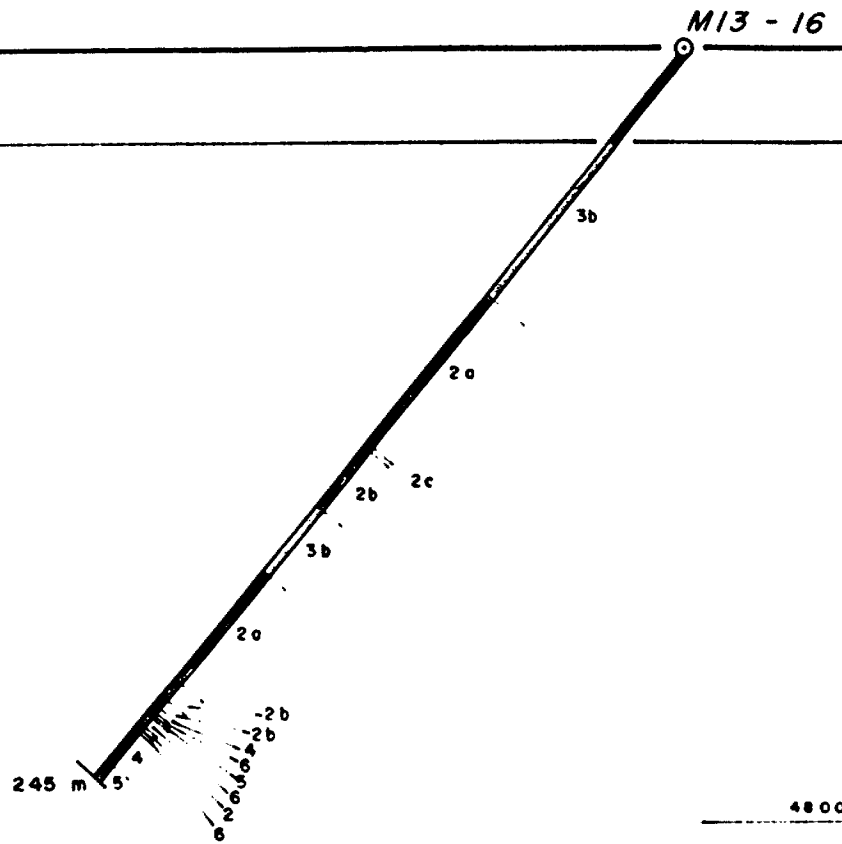
Figure 5

GOLD ASSAYS - gram per tonne over metres

FALCONBRIDGE LIMITED		
Exploration Division		Timmins, ONTARIO
UMEX J V MATHESON 13 MATHESON Twp.		
SECTION FOR M13-15		
LOOKING WEST		
SCALE:	1 : 2,000	Date: SFP
Drawn: DEL	Project N°: 8109	Date: 21/09/88

5376800 N

5377000 N

















-  FELSIC INTRUSIVE
-  SEDIMENTS
-  GRAPHITIC ARGILLITE
-  HIGH Mg THOLEIITIC BASALTS
 -  a massive
 -  b pillowed
-  THOLEIITIC BASALTS
 -  a massive
 -  b pillowed
 -  c flow breccia
-  KOMATIITIC VOLCANICS
 -  a massive
 -  b pillowed
-  GREY ZONE

Figure 6

FALCONBRIDGE LIMITED

Exploration Division

Timmins, ONTARIO

UMEX J V
MATHESON 13
MATHESON Twp.

**SECTION FOR
M13 - 16**

LOOKING WEST

SCALE:	1 : 2,000	Date: SFP
Drawn: DEL	Project N°: 8109	Date: 21/09/88

APPENDIX A

1988 DIAMOND DRILL LOGS
M13-13 to M13-16

FALCONBRIDGE LTD
DIAMOND DRILL LOG

Property : 8109

Hole # : M13-13 Zone # : 42A/11 Contractor : BRADLEY BROS. Date started : 8/ 5/1988
Township: MATHESON Concession: I Claim # : P585549 Date completed: 8/11/1988
Lot : 8 Section: 100E Location : UMEX-MATHESON J.V.
Level : Collar coordinate : Line : 1+00 E Latitude: 5377207.00 N Azimuth: 180° 0' 0"
Reference frame : UTM Station: 6+20 N Departure: 497790.00 E Dip : -60° 0' 0"
Elevation: 5000.00 Length : 374.00 M

Surveyed by: -

Deviation tests :

Depth	Dip	Azimuth
60.00 M	-57°30' 0"	191° 0' 0"
120.00 M	-56°30' 0"	191° 0' 0"
219.00 M	-54°30' 0"	189° 0' 0"
318.00 M	-52°30' 0"	189°30' 0"
372.00 M	-52°30' 0"	194° 0' 0"

Remarks : CASING: 28m of NW left in hole.
UTM COORDINATES: 5377207N, 497790E.

Water flow : -
Cemented : NO

Plugged: NO
Core size : BQ

Logged by : S.F. POVODEN

Date logged: 8/13/1988

Hole # : M13-13

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
97.85	102.45	BASALTIC KOMATIITE -light to medium blue-green, granular, soft, talcose to serpentinous unit locally shows mini spinifex texture. -weak foliation oriented 50-60°/CA. -moderately carbonatized (reactant/HCl) with 10-15% quartz-carbonate stringers. -moderately chloritic. 99.71- 99.74 -shear oriented 60°/CA with broken fragments in a clay-type matrix.	A103577	99.50	101.00	1.50	<0.02				
		100.60- 102.45 -zone contains 15-20% irregular quartz-carbonate veining and associated pyrite and pyrrhotite. -contact at 102.45m marked by irregular, 1cm wide, quartz-carbonate vein.	A103578	101.00	102.50	1.50	<0.02				
102.45	105.90	PILLOWED MG THOLEIITE -texturally similar to 32.00 - 97.85m but this zone contains about 20% quartz-carbonate stringers with associated pyrite and pyrrhotite (1-2%). -weak to moderate foliation is oriented 45-55°/CA. -sharp contact at 105.90m oriented 45-50°/CA.	A103579 A103580 A103581	102.50 104.00 105.50	104.00 105.50 107.00	1.50 1.50 1.50	0.02 0.09 <0.02				
105.90	231.85	MASSIVE MAFIC -medium to dark green, fine-grained, moderately hard mafic is weakly foliated at 50-55°/CA marked by the alignment of cream, elongate (up to 1mm) leucoxenes (1-2%). -clotty pyrite (1-2%) is present locally. -moderately carbonatized (reactant/HCl) with a network of fine carbonate veinlets and fracture-filling. -epidote fracture-filling is present locally. -moderately chloritic with local (up to 2%), black	A103582 A103583 A103584	107.00 111.50 113.00	108.50 113.00 114.50	1.50 1.50 1.50	<0.02 0.02 0.04				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		ferromagnesium minerals.									
		113.07- 113.20 -weakly sheared at 55°/CA with 3% associated clotty pyrite and 10% (quartz-) carbonate.									
		113.55- 113.70 -as above.									
		114.98- 115.07 -two carbonate (75%), quartz (12%), chlorite (10%) veins oriented 30° and 45°/CA with 3% associated subhedral and clotty pyrite and trace chalcopyrite; veins merge at 115.04m.	A103585	114.50	116.00	1.50	0.05				
		119.00- 144.00 -unit becomes dark green, progressively more granular and from medium- to coarse-grained.	A103586	120.50	122.00	1.50	0.02				
		122.00- 122.03 -2.5cm wide, carbonate vein oriented 35°/CA (parallel/foliation) contains 1% pyrite.	A103587	122.00	123.60	1.60	0.10				
		123.10- 123.60 -10-15% irregular carbonate stringers with 2% combined pyrite and pyrrhotite.									
		125.50- 125.57 -6cm wide, carbonate vein oriented 55°/CA (subparallel/foliation).	A103588	123.60	125.00	1.40	0.03				
		127.70- 128.00 -strong foliation is oriented 60°/CA.									
		130.98- 131.04 -carbonate (90%), quartz (10%) vein oriented 55°/CA (subparallel/foliation).	A103590	134.00	135.50	1.50	0.13				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		disseminated pyrite.									
	173.00- 174.10	-zone contains 15-20% tourmaline needles and patches.	A103605	184.50	186.00	1.50	<0.02				
	186.25- 187.40	-moderately bleached, silicified and carbonatized zone contains 10-15% finely disseminated pyrite and is flooded with 10-15% quartz-carbonate veining oriented 40-55°/CA (subparallel/foliation); mafic between veining is silicified.	A103606	186.00	187.50	1.50	0.02				
	186.51- 186.58	-quartz (40%), carbonate (55%) vein oriented 55°/CA (parallel/foliation) contains 5% fine and clotty pyrite.									
	187.31- 187.40	-7cm wide, quartz (40%), carbonate (55%) vein oriented 40°/CA (subparallel/foliation) contains 5% fine and clotty pyrite.	A103607	187.50	189.00	1.50	<0.02				
			A103608	189.00	190.50	1.50	<0.02				
			A103609	190.50	192.00	1.50	<0.02				
	195.43- 195.47	-3cm wide, barren, quartz (90%), carbonate (8%), tourmaline (2%) vein oriented 50°/CA.									
	197.66- 197.70	-badly broken fault zone.									
	198.00- 210.00	-unit is medium-grained and granular with local carbonate needles.	A103610	208.50	210.00	1.50	<0.02				
	210.00- 211.30	-gradational zone becomes progressively finer-grained.	A103611	210.00	211.50	1.50	<0.02				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		<ul style="list-style-type: none"> -moderately carbonatized (weakly reactant/HCl) with 5% carbonate veinlets and fracture-filling. -weakly to moderately chloritic. -moderately sericitic. -weakly to moderately fractured with localized fuchsite infilling. -pillow selvages are up to 5cm wide, hazy, strongly chloritic, typically moderately to strongly carbonatized, locally sheared, and may locally contain fine sulphides; rims are weakly to moderately bleached and contain local, elongate, often coalesced varioles (2-15mm in size). 									
		231.85- 232.15									
		<ul style="list-style-type: none"> -zone is moderately sheared at 75°/CA and contains 1% pinpoint dravite, 1% arsenopyrite pinpoints to needles (less than 1mm in size), less than 1% two-tone, clotty pyrite, and 5% quartz-carbonate patches and veinlets. 									
		232.15- 233.70	A103621	232.50	234.00	1.50	0.03				
		<ul style="list-style-type: none"> -about 5% dravite pinpoints to needles (less than 1mm in size) are present. 	A103622	234.00	235.50	1.50	0.04				
		234.27- 234.32									
		<ul style="list-style-type: none"> -4cm wide, carbonate (50%), quartz (38%), dravite (2%) vein oriented 55°/CA contains 10% fuchsitic inclusions and trace pyrite. 	A103623	235.50	237.00	1.50	0.06				
		236.35- 236.45									
		<ul style="list-style-type: none"> -irregular carbonate flooding with 15% host rock inclusions. 	A103624	237.00	238.50	1.50	0.10				
			A103625	238.50	240.00	1.50	0.12				
		239.30- 239.59									
		<ul style="list-style-type: none"> -quartz (40%), carbonate (60%) flooding comprises 30% of zone; less than 1% pyrite is present locally. 	A103626	240.00	241.60	1.60	0.23				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		240.70- 241.60 -quartz-carbonate flooding, veining and fracture-filling comprise 20-25% of zone; up to 2% pyrite is present locally. -fine dravite often rims the quartz-carbonate.									
		240.97- 241.00 -2.5cm wide, quartz (40%), carbonate (50%), dravite (2%) vein oriented 60-65°/CA contains 8% host rock inclusions and less than 1% fine pyrite.									
		241.15- 241.60 -zone is weakly to moderately sheared at 65-75°/CA and contains 35% quartz-carbonate. -from 241.24 - 241.38m zone contains 20-25% fuchsite host rock inclusions.									
			A103627	241.60	243.00	1.40	0.19				
			A103628	247.00	248.50	1.50	0.13				
			A103629	248.50	250.00	1.50	0.10				
		249.10- 250.00 -about 1% clotty pyrite becomes evident and increases to 2-3%.									
		250.00- 251.00 -two-tone clotty pyrite accounts for 3-4% of zone.									
			A103631	250.00	251.00	1.00	0.08				
		251.00- 253.10 -bright fuchsite green to buff-green, locally bleached, moderately sericitic, moderately silicified (with about 10-15% quartz flooding and patches), weakly sheared (at 70°/CA) throughout and locally moderately to strongly sheared zone contains 3-4% fine and clotty, two-tone pyrite, trace arsenopyrite (less than 1mm) and locally up to 5% fine dravite.									
			A103632	251.00	252.00	1.00	0.08				
			A103633	252.00	253.10	1.10	1.96	1.96	1.96		

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		-fracture-filling fuchsite is common.									
		252.40- 252.52 -quartz (60%), carbonate (15%) flooding contains 10% dravite, 5% clotty and euhedral pyrite, 1% pyrrhotite and 9% host rock inclusions.									
		252.52- 253.04 -buff-green, moderately to strongly sheared (at 70°/CA) zone contains 3% fine dravite needles, 2-3% fine pyrite, 1% pyrrhotite and 10% quartz- carbonate patches.									
		253.04- 253.10 -5.5cm wide, quartz (30%), carbonate (60%) vein oriented 70-80°/CA (subparallel/shearing) contains 2% pyrrhotite, 1% pyrite and 7% host rock inclusions. -aforementioned vein marks contact with succeeding unit.									
253.10	279.55	MASSIVE MAFIC -medium green, fine-grained, moderately hard, locally bleached mafic contains buff, pinpoint to elongate (up to 1mm) leucoxenes which define a weak to moderate foliation oriented 70°/CA. -weakly to moderately carbonatized (reactant/HCl) with 3-4% quartz-carbonate veining (locally Z-shaped) and fracture-filling. -locally moderately sericitic with associated pyrite and pyrrhotite.									
		253.10- 254.00 -weakly sheared zone oriented 65-70°/CA contains 25% quartz-carbonate veinlets (parallel/shearing) and patches with 1-2% associated clotty pyrrhotite.	A103634	253.10	254.50	1.40	0.10				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		-veinlets are locally boudinaged.									
		253.92- 253.99 -quartz (25%), carbonate (60%) vein oriented parallel to shearing contains 2% fine pyrite and 13% angular mafic inclusions.									
		254.84- 255.20 -light green, bleached, sericitic zone contains 4-5% finely disseminated to clotty pyrrhotite and 1-2% clotty pyrite.	A103635	254.50	256.00	1.50	0.02				
		256.07- 256.14 -7cm wide, quartz (24%), carbonate (75%) vein oriented 60°/CA (subparallel/ foliation) contains 1% combined pyrite and pyrrhotite.	A103636	256.00	257.50	1.50	0.04				
		257.40- 259.10 -light buff-green, bleached, moderately sericitic zone contains 8% quartz-carbonate flooding/veining and 5% fine, clotty, two-tone pyrite.	A103637	257.50	259.10	1.60	0.03				
		258.08- 258.34 -quartz (30%), carbonate (7%) flooding contains 8% finely disseminated and clotty pyrite and 55% bleached, silicified, host mafic inclusions.									
		258.50- 259.10 -fractured, granular and weakly sheared (at 65-70°/CA) zone contains 6-8% fine and clotty pyrite.									
		259.36- 259.45 -carbonate (90%), quartz (10%) vein oriented 80°/CA contains trace pyrite.	A103638	259.10	260.50	1.40	0.09				
		261.04- 261.12 -quartz (28%), carbonate (50%) vein oriented 65°/CA contains 20% mafic inclusions and 2% pyrite.	A103639	260.50	262.00	1.50	0.04				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
309.50	336.40	<p>WEAK GREY PILLOWED MAFIC</p> <p>-medium grey locally with buff tint, fine-grained, moderately hard, weakly carbonaceous mafic contains 2-4% fine, clotty pyrite and 10-15% quartz veining (predominantly as one broad vein).</p> <p>-strongly carbonatized (weakly to non-reactant/HCl) with local (2-3%), carbonate veinlets and fracture-filling.</p> <p>-weak to moderate fracturing is often carbonaceous-filled ± local pyrite.</p> <p>-pillow selvages are typically narrow (up to 5mm wide) but locally can reach 7cm wide, chloritic, carbonaceous, carbonatized, often hyaloclastic and may contain up to 5% fine, clotty sulphides; rims are bleached with up to 5mm carbonate-filled amygdules (2-3%) present.</p>	A103660	309.50	311.00	1.50	0.10				
			A103661	311.00	312.50	1.50	0.04				
			A103662	312.50	314.00	1.50	0.04				
			A103663	314.00	315.50	1.50	0.06				
			A103664	315.50	317.00	1.50	0.09				
			A103665	317.00	318.50	1.50	0.03				
			A103666	318.50	320.00	1.50	0.03				
			A103667	320.00	321.50	1.50	0.10				
			A103668	321.50	323.00	1.50	0.12				
			A103669	323.00	324.00	1.00	0.13				
			A103670	324.00	325.00	1.00	0.12				
			A103671	325.00	326.00	1.00	0.08				
			A103672	326.00	327.50	1.50	0.10				
			A103673	327.50	329.00	1.50	0.11				
			A103674	329.00	330.50	1.50	0.08				
A103675	330.50	332.00	1.50	0.07							

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		333.50- 335.20 -carbonaceous fracture-filling becomes moderate and clotty pyrite content reaches 5-7%.	A103676 A103678 A103679	332.00 333.50 335.00	333.50 335.00 336.50	1.50 1.50 1.50	0.04 0.08 0.22				
		335.20- 336.40 -mafic shows moderate to strong, pervasive, carbonaceous alteration with pyrite content at 10%. -contact is obscure due to str carbonaceous alteration.									
336.40	337.60	GRAPHITIC ARGILLITE -black, fine-grained, soft to moderately hard (depending upon alteration), well-bedded (at 70-75°/CA) graphitic argillite contains about 15% clotty, fractured-controlled and bedded pyrite and local (1-2%), light brown sphalerite. -5% carbonate stringers are typically oriented parallel to bedding; quartz-carbonate strain shadows are present locally.	A103680	336.50	338.00	1.50	0.20				
		337.56- 337.60 -sheared contact marked by muddy gouge.									
337.60	340.95	FELDSPAR PORPHYRY -dark grey, fine-grained, hard, moderately carbonaceous groundmass contains 30-35% subhedral to euhedral, locally zoned, feldspar and local anhedral quartz phenocrysts (1-5mm in size). -unit contains 5-7% clotty, euhedral and finely disseminated pyrite. -carbonate fracture-filling and veining (weakly to non-reactant/HCl) comprises 3-4% of unit.									
		337.60- 337.82 -pinkish quartz-carbonate flooded zone with 40% host rock inclusions.	A103681 A103682	338.00 339.50	339.50 341.00	1.50 1.50	0.07 0.11				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		340.40- 340.90 -weak to moderate foliation is oriented 60-70°/CA.									
		340.90- 340.95 -sheared contact marked by zone of muddy, graphitic gouge.									
340.95	342.55	GRAPHITIC ARGILLITE -texturally similar to 336.40 - 337.60m but locally bedly broken.									
		340.95- 341.00 -barren, quartz-carbonate vein with ground contacts. -contact at 342.55m is bedly broken.									
342.55	374.00	SEDIMENTS -medium to dark grey to locally black, fine- grained, argillaceous beds (up to 1.9m) comprise 55-60% of a fining to the south (down the hole) sequence interbedded with light grey, fine- to medium-grained, greywacke horizons comprising 40-45% of the sequence. -bedding is oriented 70-75°/CA; graded bedding and load structures indicate fining down the hole but sediments are locally disturbed with intermixed argillite and greywacke phases. -unit contains about 5% clotty and fracture- controlled pyrite. -1-2% quartz-carbonate stringers show variable orientations.	A103683 A103684 A103685 A103686 A103687 A103688	341.00 342.50 344.00 345.50 347.00 348.50	342.50 344.00 345.50 347.00 348.50 350.00	1.50 1.50 1.50 1.50 1.50 1.50	0.08 0.13 0.17 0.06 0.08 0.02				
		349.55- 351.45 -carbonaceous argillite bed with about 8% fine and clotty pyrite. -bedding is oriented 75°/CA.	A103689	350.00	351.50	1.50	0.03				
			A103690 A103691 A103692 A103693 A103694	351.50 353.00 354.50 356.00 357.50	353.00 354.50 356.00 357.50 359.00	1.50 1.50 1.50 1.50 1.50	0.02 0.03 0.02 0.02 0.03				

FALCONBRIDGE LTD
DIAMOND DRILL LOG

Property : 8109

Hole # : M13-14 Zone # : 42A/11 Contractor : BRADLEY BROS. Date started : 8/12/1988
Township: MATHESON Concession: 1 Claim # : P585549 Date completed: 8/16/1988
Lot : 8 Section: 200E Location : UMEX-MATHESON J.V.
Level :

Collar coordinate : Line : 2+00 E Latitude: 5377092.00 N Azimuth: 180° 0' 0"
Reference frame : UTM Station: 5+00 M Departure: 497903.00 E Dip : -50° 0' 0"
Elevation: 5000.00 Length : 281.00 M

Surveyed by: -

Deviation tests :

Depth	Dip	Azimuth
48.00 M	-52° 0' 0"	189° 0' 0"
90.00 M	-52° 0' 0"	191° 0' 0"
150.00 M	-52° 0' 0"	187° 0' 0"
252.00 M	-49°30' 0"	193° 0' 0"

Remarks : CASING: 40m BW casing left in hole.
UTM COORDINATES: 5377092N, 497903E.

Water flow : -
Cemented : NO

Plugged: NO
Core size : 80

Logged by : S.F. POVODEN

Date logged: 8/18/1988

Hole # : M13-14

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
0.00	40.00	CASING									
40.00	127.80	<p>MASSIVE MAFIC</p> <ul style="list-style-type: none"> -medium to dark green, typically fine-grained (though locally medium- to coarser-grained), moderately soft to moderately hard, moderately chloritic mafic. -fine (up to 0.2cm), tourmaline needles comprise 1-2% of unit occurring as individual needles, patches and fracture-filling. -cream, pinpoint leucoxenes are present locally to 72.96m (less than 1%) and then comprise 1-2% of unit (pinpoint to elongate). -weakly carbonatized (strongly reactant/HCl) with 2-3% (quartz-) carbonate stringers and fracture-filling. <p>40.00- 47.50</p> <ul style="list-style-type: none"> -dark green, medium- to coarse-grained (granular) zone is moderately to strongly chloritic. <p>56.38- 56.40</p> <ul style="list-style-type: none"> -1.5cm wide, quartz (40%), carbonate (55%) vein oriented 35-40°/CA contains 1% tourmaline, 3% chlorite and 1% pyrite. <p>56.60- 56.65</p> <ul style="list-style-type: none"> -3cm wide, hazy, quartz (55%), carbonate (30%), chlorite (12%) vein oriented 30°/CA contains 2% fine tourmaline and 1% clotty pyrite. <p>69.99- 72.96</p> <ul style="list-style-type: none"> -amygdaloidal (3%), pillowed mafic horizon. -pillow selvages are up to 1.5cm wide, strongly chloritic, carbonatized, hyaloclastic and may contain 2-3% fine sulphides; rims are moderately to strongly bleached with carbonate-filled amygdules (up to 5mm) nearby. 									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
154.48	157.10	<p>fracture-filling. -weakly to moderately chloritic.</p> <p>154.46- 154.48 -contact marked by an irregular carbonate-quartz veinlet.</p> <p>PILLOWED MAFIC (MG THOLEIITE ?) -medium green to olive-green, fine-grained, moderately hard, locally bleached unit is moderately fractured.</p> <p>-weakly to moderately carbonatized (reactant to non-reactant/HCl) with 5% (quartz-) carbonate stringers and fracture-filling. -weakly to moderately chloritic. -pillow selvages are very hazy, up to 2cm wide, strongly chloritic, carbonatized and contain 5-7% tourmaline needles; rims are bleached with local, up to 3mm varioles (?).</p> <p>154.48- 155.00 -carbonate is reactant/HCl.</p> <p>155.00- 155.20 -zone contains 30% carbonate (reactant to non-reactant/HCl). -after this carbonate is all non-reactant/HCl, unit appears more granular, and selvages become even less discernible.</p> <p>-gradational contact at approximately 157.10m.</p>									
157.10	159.60	<p>BASALTIC KOMATIITE (?) -medium blue-green, fine-grained to granular, soft, moderately to strongly chloritic unit is weakly to moderately sheared at 65-70°/CA.</p> <p>-20-30% (quartz-) carbonate patches, stringers and fracture-filling locally contain chloritic inclusions.</p> <p>-contact is approximate at 159.60m (marked by gradational change in hardness).</p>	A103705	159.30	160.70	1.40	0.06				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
159.60	162.00	<p>PILLOWED MG THOLEIITE</p> <p>-light to medium green to light bright (fuchsite) green, fine-grained, moderately hard, typically sheared (at 55-60°/CA) unit contains 5% quartz-carbonate veining and locally up to 4% fine and clotty pyrite.</p> <p>-moderately to strongly carbonatized (non-reactant/HCl).</p> <p>-moderately to strongly sericitic.</p> <p>-weakly to moderately fuchsite.</p> <p>-pillow selvages (where visible) are hazy, up to 2cm wide, chloritic and carbonatized; rims contain small, bleached, locally coalesced varioles (up to 3mm).</p> <p>160.75- 162.00</p> <p>-typically strongly sheared with 10% quartz-carbonate veining and fracture-filling, 2-4% fine pyrite and 2-3% fine to massive dravite.</p> <p>161.15- 161.16</p> <p>-1.0 - 1.5cm wide, quartz (90%), carbonate (3%), dravite (5%) vein oriented 75°/CA (subparallel/shearing) contains 1% fine pyrite and 1% fuchsite along contacts.</p> <p>161.17- 161.28</p> <p>-quartz-carbonate flooding comprises 50-60% of zone with 3-4% associated fine and clotty pyrite.</p> <p>161.45- 161.55</p> <p>-carbonate-quartz veining/flooding comprises 40% of zone with associated 3-4% fine and clotty pyrite.</p>	A103707	160.70	162.00	1.30	0.14				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
162.00	165.10	161.55 -shearing becomes moderate to 162.00m.									
		161.70- 161.73 -hazy, weakly silicified, 1-2cm wide, carbonate vein oriented 45°/CA (crossing shearing). -sharp contact at 162.00m sheared at 60°/CA.									
		ALTERED MASSIVE MAFIC -light greyish green typically with weak yellow tint, fine-grained, moderately hard to hard, weakly silicified mafic contains up to 6-8% fine, clotty, two-tone pyrite and 3-5% irregular, light grey to white quartz stringers and fracture-filling. -weak foliation is oriented at about 60°/CA and marked by alignment of fine pyrite and pyrrhotite clots; feathery, mauve leucoxenes (up to 1.5mm) comprise about 1% of unit. -moderately to strongly carbonatized (non-reactant/HCl). -moderately to strongly sericitic. -local, weak fuchsite alteration. -moderately fractured.									
		162.00- 163.40 -strongest alteration with about 6-8% pyrite and 5% quartz.	A103708	162.00	163.50	1.50	0.50				
		163.03- 163.08 -4cm wide, quartz (80%), carbonate (5%), dravite (3%) vein oriented 55°/CA (subparallel/foliation) contains 4% mafic inclusions and 8% fine, two-tone and clotty pyrite.									
		163.40- 165.10 -alteration gradually reduces with local (10-15%) patches of medium greyish green, relatively unaltered, massive mafic with	A103709 A103710	163.50 165.00	165.00 166.50	1.50 1.50	0.15 0.04				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
165.10	251.58	1-2% fine, pyrite clots and 2% quartz-carbonate veinlets. -gradational alteration contact at approximately 165.10m.									
		MASSIVE MAFIC -medium green, fine-grained to locally granular, moderately hard to hard, locally bleached mafic contains 1-2%, buff to mauve, feathery leucoxenes (up to 2mm). -weakly carbonatized (weakly to non-reactant/HCl) with 1-2% quartz-carbonate stringers and fracture-filling. -weakly to locally moderately sericitic. -weakly chloritic.	A103711	166.50	168.00	1.50	<0.02				
		166.94- 167.08 -bleached, sericitic zone contains up to 1% pyrite.	A103712	168.00	169.50	1.50	<0.02				
		168.68- 168.74 -5cm wide, quartz (50%), carbonate (40%), chlorite (8%) vein oriented 50°/CA contains 2% typically euhedral pyrite.	A103713	169.50	171.00	1.50	<0.02				
		171.78- 171.95 -weakly bleached, moderately sericitic zone with 1% fine tourmaline.	A103714	171.00	172.00	1.00	<0.02				
		172.80- 172.95 -similar to above.	A103715	172.00	173.00	1.00	<0.02				
		175.25- 175.40 -moderately silicified with up to 1% pyrite.	A103716	173.00	174.50	1.50	0.03				
		177.95- 180.05 -variably bleached, sericitic zone with 1-2% pyrite and 2% fine tourmaline.	A103717	177.50	179.00	1.50	0.03				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
		178.60- 178.95 -moderately to strongly bleached, moderately silicified, sericitic zone contains 3% tourmaline, 2% pyrite and 6-8% irregular stringers.									
		179.36- 180.00 -as above but with 3-4% fine and clotty pyrite and 3% quartz-carbonate stringers.	A103718	179.00	180.40	1.40	0.10				
		180.41- 181.15 -as above.	A103719	180.40	182.00	1.60	0.04				
			A103720	182.00	183.50	1.50	0.07				
			A103721	183.50	185.00	1.50	0.05				
			A103722	185.00	186.50	1.50	<0.02				
			A103723	186.50	188.00	1.50	<0.02				
		185.65- 187.05 -bleached, sericitic, weakly silicified zone.									
		186.85- 186.91 -5cm wide, quartz (80%), carbonate (7%), sericite (10%) vein oriented 40°/CA contains 2% hydromuscovite, 1% fine, clotty pyrite.	A103724	190.50	192.00	1.50	<0.02				
		191.80- 198.35 -moderately sericitic, weakly bleached, patchy to pervasive alteration with 2-3% quartz-carbonate veining and 2% fine tourmaline.									
		192.00- 192.20 -weakly to moderately silicified zone.	A103725	192.00	193.50	1.50	<0.02				
		192.71- 192.75 -2-2.5cm wide, quartz (85%), carbonate (13%), tourmaline (1%) vein oriented 50°/CA contains 1% clotty pyrite.									
		192.84- 192.93 -patch of above.	A103726	193.50	195.00	1.50	0.02				
			A103727	195.00	196.50	1.50	0.04				
			A103728	196.50	198.00	1.50	0.02				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
		222.00- 224.00 -weakly bleached mafic.									
		226.60- 226.67 -patch of barren carbonate.	A103737 A103738	225.00 226.50	226.50 228.00	1.50 1.50	0.02 0.02				
		227.20- 227.25 -irregular, 3.5cm wide, quartz (20%), carbonate (75%) vein contains 3% pyrrhotite and 2% pyrite.									
		227.50- 228.15 -irregular (quartz-) carbonate patches and stringers comprise 30% of zone.	A103739	228.00	229.50	1.50	<0.02				
		233.60- 234.50 -carbonate-filled amygdules comprise 5% of zone and increase in size (from 1-4mm) down the hole.									
		234.50- 236.90 -narrow, pillowed horizon contains 6-8% quartz-carbonate patches, stringers and fracture-filling. -pillow selvages are narrow (up to 5mm), chloritic and typically carbonatized; rims are weakly bleached with 1-2% carbonate-filled amygdules present in adjacent mafic.									
		240.41- 240.48 -somewhat irregular, carbonate (80%), quartz (9%) vein oriented 50°/CA contains 10% chloritic mafic inclusions and 1% clotty pyrite.									
		248.55- 251.06 -unit becomes greenish buff due to moderate carbonatization and moderate sericitization. -clotty pyrite comprises less than 1% overall, though locally reaches 2-3% of zone.	A103745 A103741	248.00 249.50	249.50 251.00	1.50 1.50	0.05 0.03				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
259.40	259.93	<p>FELDSPAR PORPHYRY</p> <ul style="list-style-type: none"> -dark grey, fine-grained, hard, weakly carbonaceous groundmass contains 30-35% subhedral to euhedral, locally zoned, feldspar and very local, anhedral to euhedral quartz phenocrysts (1-10mm). -clotty pyrite accounts for about 3% of unit. -1-2% carbonate fracture-filling is present. -contact at 259.93m is oriented 75-80°/CA. 									
259.93	261.48	<p>GRAPHITIC ARGILLITE</p> <ul style="list-style-type: none"> -black, fine-grained, soft to moderately hard, (depending upon alteration), well-bedded (at 75-80°/CA), graphitic argillite contains about 5-8% clotty, fracture-controlled and bedded pyrite. -1-2% carbonate veinlets and fracture-filling are typically oriented parallel to bedding. -sharp contact at 261.48m is oriented 70°/CA. 	A103749	260.00	261.50	1.50	0.07				
261.48	281.00	<p>SEDIMENTS</p> <ul style="list-style-type: none"> -medium to dark grey to locally black, fine-grained, argillaceous beds (up to 20cm) comprise about 30% of a fining down the hole (to the south) sequence interbedded with light grey, fine- to medium-grained, greywacke horizons comprising about 70% of the sequence. -bedding is oriented 60-75°/CA. -graded bedding and load structures (i.e. flames) indicate a fining down the hole (to the south) sequence; locally greywackes and argillites show interfingering textures. -clotty and subhedral pyrite typically comprise 1-2% of unit although it locally reaches 5%. -carbonate fracture-filling and stringers comprise 1-2% of unit. <p>261.48- 263.00</p> <ul style="list-style-type: none"> -zone contains 5% subhedral to clotty pyrite. 	A103750	261.50	263.00	1.50	<0.02				

FALCONBRIDGE LTD
DIAMOND DRILL LOG

Property : 8109

Hole # : M13-15
Township: MATHESON
Lot : 8
Level : -

Zone # : 42A/11

Contractor : BRADLEY BROS.

Date started : 8/19/1988
Date completed: 8/22/1988

Concession: I

Claim # : P585548

Location : UNEX-MATHESON J.V.

Section: 700E

Collar coordinate :

Line : 7+00 E
Station: 4+50 N

Latitude: 5377065.00 N
Departure: 498412.00 E
Elevation: 5000.00

Azimuth: 180° 0' 0"
Dip : -50° 0' 0"
Length : 236.00 M

Reference frame : UTM

Surveyed by: -

Deviation tests :

Depth	Dip	Azimuth
45.00 M	-52° 0' 0"	193° 0' 0"
135.00 M	-52° 30' 0"	193° 0' 0"
228.00 M	-53° 0' 0"	194° 0' 0"

Remarks : CASING: 40m of NW casing left in hole.
UTM COORDINATES: 5377065N, 498412E.

Water flow : -
Cemented : NO

Plugged: NO
Core size : BQ

Logged by : S.F. POVODEN

Date logged: 8/25/1988

Hole # : M13-15

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
0.00	40.00	CASING									
40.00	45.95	<p>PILLOWED MG THOLEIITE</p> <ul style="list-style-type: none"> -light green, fine-grained, moderately hard to hard, weakly bleached mafic is weakly fractured. -pillow selvages are up to 2.5cm wide, hazy, strongly chloritic, weakly carbonatized and contain about 5% dravite needles; rims are moderately to strongly bleached with local carbonate- and chlorite-filled amygdules and fine dravite needles. -concentric cooling fractures are present locally. 									
45.95	113.00	<p>45.74- 45.95</p> <ul style="list-style-type: none"> -weakly sheared (at 75°/CA), sericitic contact zone. <p>MASSIVE MAFIC</p> <ul style="list-style-type: none"> -medium to light green, fine-grained, moderately hard mafic contains 1-2% cream to buff, pinpoint to feathery (up to 2mm) leucoxenes. -typically weakly carbonatized (reactant/HCl). -weakly to moderately fractured with carbonate, epidote, and tourmaline infilling. -quartz-carbonate ± chlorite ± epidote ± tourmaline stringers comprise 2-4% of unit. <p>68.51- 68.53</p> <ul style="list-style-type: none"> -faulted, 1cm wide, quartz (80%), carbonate (10%) vein oriented 55-60°/CA (off-faulted at 25°/CA almost perpendicular to vein) contains 5% finely disseminated and clotty pyrite and 5% chalcopyrite. <p>80.20</p> <ul style="list-style-type: none"> -weak foliation oriented 65°/CA marked by alignment of feathery leucoxenes. <p>87.40- 93.50</p> <ul style="list-style-type: none"> -medium-grained, granular, weakly to moderately carbonatized zone with typically buff leucoxenes. 									

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
	93.38- 93.45	-4cm wide, quartz (27%), carbonate (45%) veining oriented 40°/CA (crossing foliation at a low angle) contains 20% mafic inclusions, 5% subhedral to euhedral pyrite and 3% tourmaline.	A103759	93.40	95.00	1.60	<0.02				
	95.60- 96.13	-series of carbonate veins comprising 20-25% of zone are at various orientations (45-75°/CA) with 1% associated euhedral pyrite in the mafics.	A103760	95.00	96.50	1.50	0.04				
	96.13- 97.00	-1-3% subhedral pyrite (up to 3mm) is present.	A103761	96.50	98.00	1.50	0.05				
	100.23- 100.30	-2cm wide, hazy, irregular, quartz (30%), carbonate (60%) vein oriented 20°/CA (crossing foliation) contains 5% chlorite and 5% finely disseminated pyrite.	A103762	100.00	101.00	1.00	0.05				
	103.30- 110.10	-medium-grained, granular, moderately carbonatized (reactant/HCl) zone with fine (less than 1mm) leucoxenes.	A103763	109.50	111.00	1.50	0.05				
	110.10- 113.00	-gradual increase in carbonatization (to a non-reactant/HCl phase) and sericitization accompanied by increasing fine, clotty to disseminated pyrite content up to 4%; 2-3% quartz-carbonate stringers are often associated with fine pyrite in the host mafic.									
	111.00- 111.15	-bleached, weakly to moderately silicified zone contains about 8% finely disseminated pyrite, 2% chalcopyrite and 20% quartz-carbonate stringers and fracture-filling.	A103764	111.00	112.50	1.50	0.13				
			A103765	112.50	113.75	1.25	0.11				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
113.00	120.50	<p>ALTERED MASSIVE MAFIC</p> <p>-light grey with weak buff to light green tint, moderately hard, fine-grained phase of aforementioned mafic contains about 5% quartz-carbonate veining/stringers, 6-8% (average, but locally up to 25-30%), fine, clotty, locally two-tone pyrite, up to 5% clotty pyrrhotite and locally up to 5% needle-like to clotty arsenopyrite.</p> <p>-foliation is typically moderate and oriented 55-60°/CA (marked by alignment of elongate pyrite and pyrrhotite clots).</p> <p>-strongly carbonatized (non-reactant/HCl).</p> <p>-strongly sericitic.</p> <p>-locally weakly to moderately fractured.</p> <p>113.89- 114.54</p> <p>-greyish, strongly silicified zone contains 10% whitish grey, quartz-carbonate stringers (some are oriented 60-65°/CA, parallel to foliation) and typically 10-15% (locally 25-30%), finely disseminated pyrite.</p> <p>114.33- 114.41</p> <p>-zone with 25-30% fine pyrite.</p> <p>117.29- 117.66</p> <p>-silicified zone contains 50% quartz veining and about 10% finely disseminated pyrite.</p> <p>117.30- 117.43</p> <p>-greyish white, quartz (90%), carbonate (5%) vein oriented 65°/CA contains 5% finely disseminated pyrite and trace hydromuscovite.</p>	A103766	113.75	114.75	1.00	0.16				
			A103768	114.75	116.00	1.25	0.18				
			A103769	116.00	117.00	1.00	0.13				
			A103770	117.00	118.00	1.00	0.87				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
120.50	134.58	<p>ALTERED PILLOWED MAFIC</p> <p>-buff to greyish buff, fine-grained, moderately hard to hard mafic contains up to 5% fine, two-tone, clotty pyrite and about 3% quartz-carbonate stringers.</p> <p>-strongly carbonatized (non-reactant/HCl) with carbonate fracture-filling.</p> <p>-weakly to moderately sericitic.</p> <p>-weakly fractured locally with quartz-filling.</p> <p>-pillow selvages are distinct to hazy, up to 2cm wide, strongly chloritic, typically carbonatized, often contain fine tourmaline needles and locally contain up to 7% pyrite ± pyrrhotite typically associated with quartz veining; rims are weakly to moderately bleached with about 2% carbonate-filled amygdules adjacent to rims.</p> <p>120.50- 125.00</p> <p>-buff to grey-buff, moderately sericitic zone contains 4-5% clotty, two-tone to locally subhedral pyrite and about 4% quartz-carbonate, typically selva-ge-controlled, veining and patches.</p> <p>120.50- 122.00</p> <p>-locally weakly silicified and weakly sheared (at 60°/CA) zone; amygdules are locally pyrite altered.</p> <p>-at 121.66 - 121.78m - 3cm wide, quartz (85%), carbonate (5%) vein oriented 20-30°/CA (crossing shearing) contains 10% finely disseminated to clotty pyrite.</p> <p>122.00- 122.13</p> <p>-1cm wide, ribbony, quartz-carbonate stringer contains 2% fine pyrite; stringer shows several Z shapes in its outline with the predominant vein orientation being 30-35°/CA.</p>									
			A103773	120.50	122.00	1.50	0.27				
			A103774	122.00	123.50	1.50	0.19				
			A103775	123.50	125.00	1.50	0.32				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm					
134.58	141.00	125.00- 127.50 -clotty two-tone pyrite content decreases to about 2%.	A103776	125.00	126.60	1.60	0.04					
		126.38- 126.59 -silicified zone with 40% quartz-carbonate veining (oriented 55°/CA) and fracture-filling, and 6-8% finely disseminated and clotty pyrite.	A103777	126.60	128.00	1.40	0.07					
			A103778	128.00	129.50	1.50	0.08					
			A103779	129.50	131.00	1.50	0.06					
			A103780	131.00	132.50	1.50	0.06					
			A103781	132.50	133.50	1.00	0.05					
			A103782	133.50	134.60	1.10	0.05					
		133.00- 134.58 -zone is light grey and moderately sericitic. -sharp contact at 134.58m oriented 75°/CA.										
		PILLOWED MG THOLEIITE -light green to light bright (fuchsitic) green, fine-grained, moderately soft to moderately hard, variolitic mafic is weakly to moderately sheared at 65-70°/CA. -weakly to locally moderately carbonatized (reactant to non-reactant/HCl) with 15-20% (quartz-) carbonate patches and stringers. -weakly sericitic. -weakly fuchsitic. -pillow selvages are hazy, typically 5-6cm wide, strongly chloritic, moderately carbonatized with local dravite ribbons; selvages are weakly to moderately bleached with up to 3mm, elongate, often coalesced varioles.										
		134.58- 134.80 -contact zone is sheared at 70°/CA and contains 15% quartz-carbonate veining (typically oriented parallel/shearing), 3-4% dravite ribbons and 4-5% clotty pyrite.	A103783	134.60	136.00	1.40	0.03					
	A103784	136.00	137.40	1.40	0.02							
	A103785	137.40	139.00	1.60	0.03							

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
		dravite needles.									
		-strongly carbonatized (weakly to non-reactant/HCl) with local (1-2%) fracture-filling carbonate. -moderately to strongly sericitic. -local, fracture-controlled fuchsite (less than 1%). -weak fracturing is typically filled with greyish quartz.									
		172.75- 173.54 -light greyish green, strongly sericitic zone with 2% fine pyrrhotite and 3% clotty pyrite.	A104955	173.00	174.50	1.50	0.98				
		173.54- 173.95 -weakly to moderately silicified zone contains 5-7% clotty pyrite and 30% quartz ± carbonate veining.									
		173.55- 173.56 -1cm wide, quartz (90%), carbonate (3%) vein oriented 60-65°/CA (parallel/foliation) contains 2% dravite (along contacts) and 5% fine, clotty pyrite.									
		173.66- 173.75 -7cm wide, barren, quartz (60%), carbonate (40%) vein oriented 65°/CA (parallel/foliation).									
		173.75- 173.90 -greyish silicification with 7-8% associated pyrite.									
		174.80- 175.20 -siliceous, fractured zone with less than 1% associated pyrite.	A104956	174.50	176.00	1.50	0.12				
			A104957	176.00	177.50	1.50	0.05				
			A104958	177.50	179.00	1.50	0.06				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
		178.83- 178.95 -3-4cm wide, greyish quartz (92%) vein oriented 47°/CA (subparallel/foliation) contains 5% carbonate and about 3% finely disseminated to clotty pyrite.	A104959	179.00	180.50	1.50	0.08				
			A104960	180.50	182.00	1.50	0.12				
			A104961	182.00	183.50	1.50	0.09				
		183.50- 188.50 -zone is typically moderately silicified with 5-7% clotty and finely disseminated pyrite; quartz-carbonate flooding/veining comprises 10% of zone and is typically accompanied by strong silicification and increased pyrite (locally reaching 50%).	A104962	183.50	185.00	1.50	0.16				
		183.80- 184.66 -strongly silicified zone appears insitu brecciated due to fracture-filling quartz ± carbonate and contains about 20% (183.80 - 184.39m) to 50% (184.39 - 184.66m) finely disseminated and fine, clotty pyrite.									
		185.00- 187.75 -quartz (40%), carbonate (60%) flooded zone accounts for 40% of this weakly silicified zone; clots of fine pyrite comprise 7-8% of zone.	A104963	185.00	186.50	1.50	0.05				
			A104964	186.50	188.00	1.50	0.09				
		187.20- 187.36 -finely disseminated to massive pyrite accounts for 50-55% of zone.									
		187.36- 187.74 -quartz-carbonate flooded zone (80-85%) is oriented about 40°/CA and contains 3-5% pyrite.									
		187.74- 187.85 -fine to massive pyrite accounts for 55-60% of zone.	A104965	188.00	189.50	1.50	0.06				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
		ground core.									
202.10	204.40	SEDIMENTS (?) -light to medium grey, medium-grained, greywacke horizon with 10-15% often angular, rip up clasts, 5-7% locally two-tone, clotty to euhedral pyrite and 4-5% irregular (up to 1cm) carbonate clots. -weakly sheared at 60-70°/CA.									
		203.18- 203.42 -weakly carbonaceous zone contains 10% carbonate patches and fracture-filling, 10% clotty to subhedral pyrite and 1% light brown sphalerite.									
		204.35- 204.40 -narrow graphitic argillite marks contact oriented 75°/CA.	A104978	203.50	205.00	1.50	<0.02				
204.40	208.01	FELDSPAR PORPHYRY -light grey, fine-grained, moderately hard, weakly carbonatized matrix contains 40-45%, typically carbonatized and sericitized feldspar phenocrysts (up to 6mm) and 3-4% clotty to euhedral pyrite. -weak to moderate foliation is oriented 70°/CA. -weakly fractured with 1-2% carbonate fracture-filling.									
		204.86- 204.89 -graphitic argillite.	A104979	205.00	206.50	1.50	0.02				
		206.73- 206.74 -as above.	A104980	206.50	208.00	1.50	<0.02				
		207.30- 208.01 -fracturing is carbonaceously infilled. -sharp contact at 208.01m oriented 70-75°/CA.	A104981	208.00	209.50	1.50	0.02				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm				
208.01	208.29	<p>GRAPHITIC ARGILLITE</p> <p>-black, fine-grained, moderately hard to hard (due to weak silicification), graphitic argillite contains 3% fine and clotty pyrite and about 3% carbonate veinlets and clots.</p> <p>-local greywacke clasts are rimmed with pyrite.</p> <p>-weakly bedded at 80°/CA.</p> <p>-sharp contact at 208.29m oriented 80°/CA.</p>									
208.29	208.58	<p>SERICITIC MAFIC (?)</p> <p>-light greyish green, fine-grained, moderately hard, strongly sericitic, moderately to strongly carbonatized (reactant/HCl) unit contains 5% clotty to subhedral, locally two-tone pyrite.</p> <p>-irregular greyish carbonate patches and stringers account for 10% of zone.</p> <p>-sharp contact at 208.58m is oriented 70-75°/CA.</p>									
208.58	209.62	<p>SEDIMENTS</p> <p>-texturally similar to 202.10 - 204.40m but carbonate clots are smaller (up to 3mm).</p> <p>-sharp contact at 209.62m oriented 80°/CA.</p>	A104982	209.50	211.00	1.50	0.15				
209.62	209.71	<p>GRAPHITIC ARGILLITE</p> <p>-texturally similar to 208.01 - 208.29m but with about 1% light brown sphalerite.</p> <p>-sharp contact at 209.71m oriented 80°/CA.</p>									
209.71	212.00	<p>FELDSPAR PORPHYRY</p> <p>-texturally similar to 204.40 - 208.01m.</p> <p>-contact at 212.00m is ground.</p>	A104983	211.00	212.50	1.50	0.09				
212.00	220.74	<p>GRAPHITIC ARGILLITE</p> <p>-black, fine-grained, moderately hard to moderately soft (depending upon alteration), graphitic argillite contains 5-7% fine to clotty, locally banded pyrite and local (less than 1%)</p>	A104984 A104985 A104986 A104987	212.50 214.00 215.50 217.00	214.00 215.50 217.00 218.50	1.50 1.50 1.50 1.50	0.37 0.21 0.16 0.18				

FALCONBRIDGE LTD
DIAMOND DRILL LOG

Property : 8109

Hole # : M13-16
Township: MATHESON
Lot : 8
Level :

Zone # : 42A/11
Concession: 1
Section: 800E

Contractor : BRADLEY BROS.

Claim # : P585548

Date started : 8/24/1988
Date completed: 8/25/1988

Location : UNEX-MATHESON J.V.

Collar coordinate :
Reference frame : UTM

Line : 8+00 E
Station: 4+60 N

Latitude: 5377080.00 N
Departure: 498505.00 E
Elevation: 5000.00

Azimuth: 180° 0' 0"
Dip : -50° 0' 0"
Length : 245.00 M

Surveyed by: -

Deviation tests :

Depth	Dip	Azimuth
40.00 M	-50°30' 0"	180° 0' 0"
127.00 M	-50° 0' 0"	180° 0' 0"
225.00 M	-49°30' 0"	181° 0' 0"

Remarks : CASING: 31m of NW casing left in hole.

Water flow : -
Cemented : NO

Plugged: NO
Core size : BQ

Logged by : S.F. POVODEN

Date logged: 8/29/1988

Hole # : M13-16

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		105.77- 105.85 -weakly silicified, carbonatized (reactant/HCl) zone contains 10% quartz-carbonate veinlets (oriented 25°/CA), 15-20% fine to coarse, clotty pyrrhotite and 10% coarse, clotty pyrite. -sharp change in alteration at 108.58m.									
108.58	114.35	INTENSELY ALTERED MASSIVE MAFIC -light grey to bluish-grey, fine-grained, hard, strongly to typically intensely silicified mafic contains 10-12% finely disseminated pyrite and 15% quartz veining. -buff to typically mauve, feathery leucoxenes comprise 1-2% of unit. -locally weakly, typically fracture-controlled carbonatization (reactant/HCl). -moderately sericitic.	A105010 A105011 A105012	106.00 107.50 108.50	107.50 108.50 110.00	1.50 1.00 1.50	0.03 0.09 0.17				
		108.58- 109.10 -strongly to intensely altered zone with 2-3% carbonate fracture-filling.									
		108.80- 108.93 -5cm wide, quartz (50%), carbonate (35%) vein oriented 25-30°/CA contains 15% fine pyrite and trace pyrrhotite.									
		109.10- 111.03 -intensely silicified zone.									
		109.55- 109.57 -2-3cm wide, quartz (50%), carbonate (40%) vein oriented 45°/CA contains 5% pyrrhotite along contacts and 5% finely disseminated pyrite.	A105013	110.00	111.00	1.00	0.23				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm			
114.35	113.10	111.03- 111.93 -quartz (80%), carbonate (15%) vein oriented 45-50°/CA is weakly to moderately fractured with carbonate and fine pyrite (3%) infilling; finely disseminated pyrite comprises 2% of vein.	A105014	111.00	112.00	1.00	0.19					
		111.93- 112.36 -intensely silicified and moderately sericitic zone.	A105015	112.00	113.50	1.50	0.11					
		112.36- 114.35 -strongly silicified with local intensely altered patches.										
		113.40- 113.70 -intensely altered zone.	A105016	113.50	114.50	1.00	0.20					
		113.95- 114.35 -intensely altered zone. -sharp alteration contact at 114.35m.										
		WEAKLY ALTERED MASSIVE MAFIC -light greenish grey to locally buff, fine-grained, moderately hard to locally moderately soft, weakly fractured mafic contains local, buff to mauve, fine leucoxenes, locally up to 4% fine to clotty, locally fracture-filling pyrite, locally up to 1% clotty pyrrhotite and 3% quartz-carbonate stringers. -weak foliation is oriented 60°/CA.										
		-moderately to strongly carbonatized (weakly to non-reactant/HCl). -moderately sericitic.										
			A105017	114.50	116.00	1.50	0.08					
			A105018	116.00	117.50	1.50	0.13					
			A105019	117.50	118.50	1.00	0.14					
	A105020	118.50	119.50	1.00	0.33							

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		118.72- 119.45 -weakly to moderately silicified, moderately sheared (at 55-60°/CA) zone contains 3% dravite and 3% clotty pyrite (typically in bands).									
		119.45- 121.40 -moderately altered zone contains about 2% clotty to fracture-controlled pyrite, locally up to 2% fine, clotty pyrrhotite, and 2% quartz-carbonate veining and patches.	A105021 A105023	119.50 121.00	121.00 122.50	1.50 1.50	0.10 0.24				
		121.01- 121.08 -4cm wide, quartz (24%), carbonate (35%) vein with contacts oriented 50 and 25°/CA respectively; vein contains 1% pyrite and 40% mafic inclusions.									
			A105024 A105025 A105026	122.50 124.00 125.50	124.00 125.50 127.00	1.50 1.50 1.50	0.11 0.17 0.07				
		125.63- 125.71 -irregular, quartz (19%), carbonate (80%) patch with 1% fine pyrite.									
		126.00- 129.00 -zone is buff, locally bleached and locally contains 2% pyrite.	A105027	127.00	128.50	1.50	0.12				
		127.44- 127.50 -2cm wide, carbonate vein oriented 20°/CA contains 15% dravite; mafic adjacent to vein contains 2-3% fine pyrite.									
		129.00- 133.10 -unit becomes very fine-grained and contains 2% euhedral to clotty pyrite and 3-4% carbonate-filled amygdules increasing in quantity (1-4%) and size (1-4mm) towards 133.10m.	A105028 A105029 A105030 A105031	128.50 130.00 131.50 133.00	130.00 131.50 133.00 134.50	1.50 1.50 1.50 1.50	0.05 0.07 0.03 0.04				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm			
153.95	176.22	150.92- 150.96 -2.5cm wide, barren, quartz (95%), carbonate (5%) vein oriented 75°/CA.	A105043	151.00	152.50	1.50	0.08					
			A105044	152.50	154.00	1.50	0.06					
		153.00- 153.95 -buff-grey zone contains 4-5% clotty, locally two-tone pyrite, 2% clotty pyrrhotite and 3% dravite needles. -sharp contact at 153.95m is irregularly oriented.										
		PILLOWED MG THOLEIITE -light grey-green to bright (fuchsite) green, fine-grained, moderately soft to moderately hard (where bleached), weakly fractured, variolitic mafic. -weakly to moderately carbonatized (non-reactant/ HCl) with 15-20% (quartz-) carbonate patches, stringers and fracture-filling. -weakly sericitic. -locally weakly fuchsite. -pillow selvages are hazy to distinct, typically 5-6cm wide (but vary from 1 to 9cm wide), strongly chloritic, moderately carbonatized with local (less than 1%) dravite needles; rims are strongly bleached with up to 4mm long, elongate, often coalesced varioles.										
		153.95- 155.70 -zone contains 3-4% clotty, typically two- tone pyrite and blue-green chlorite or fuchsite fracture-filling.	A105045	154.00	155.00	1.00	0.12					
			A105046	155.00	156.50	1.50	0.10					
		155.46- 155.54 -4-5cm wide, barren, quartz (25%), grey carbonate (75%) vein oriented 25°/CA.	A105047	156.50	158.00	1.50	0.18					
			A105049	158.00	159.50	1.50	0.19					

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
		159.95- 160.04 -irregular, quartz-carbonate flooding associated with a broad selvage.									
		163.30- 163.44 -as above but also contains 1% clotty pyrite.									
		167.13- 167.40 -moderate foliation is oriented 65°/CA; zone contains 5% dravite ribbons/ fracture-filling oriented parallel to foliation.									
		170.56- 170.62 -barren, quartz-carbonate vein associated with a pillow selvage.									
		175.90- 176.22 -blue-green, strongly sericitic zone is weakly sheared at 70-75°/CA and contains 2% clotty, two-tone pyrite and 1-2% fine (less than 0.5mm), pinpoint dravite.	A105050 A105051	174.00 175.50	175.50 176.50	1.50 1.00	0.11 0.05				
		176.16- 176.20 -4cm wide, barren, quartz (80%), carbonate (10%), dravite (3%) vein oriented 65°/CA (subparallel/ shearing) contains 5% mafic inclusions and 2% sericite. -sharp contact at 176.22m is sheared at 65-70°/CA.									
176.22	194.66	MASSIVE MAFIC -light to locally medium grey-green, typically fine-grained to locally medium-grained or granular, locally bleached, locally silicified mafic contains 1-3%, fine, clotty, locally two-tone pyrite, 1-2% quartz-carbonate stringers and 1-2%, mauve to buff, feathery leucoxenes (up to 1.5mm long). -local weak foliation is oriented 65°/CA.	A105052	176.50	178.00	1.50	0.07				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
223.89	226.95	<p>QUARTZ FELDSPAR PORPHYRY</p> <p>-light to medium grey, fine-grained, moderately hard to hard matrix contains 40-45% phenocrysts of predominantly dark grey to cream, locally zoned, up to 7mm, euhedral to subhedral feldspar and lesser, clear to light grey, up to 3mm, fractured, anhedral to subhedral quartz; 2-3% typically subhedral to euhedral (up to 6mm) and 3% patchy and fracture-filling (quartz-) carbonate are also present.</p> <p>-porphyry is locally weakly to moderately sheared at 60-65°/CA.</p> <p>223.89- 225.30</p> <p>-zone contains predominantly quartz and lesser feldspar phenocrysts.</p> <p>225.30- 226.95</p> <p>-zone contains predominantly feldspar and minor quartz phenocrysts.</p> <p>-sharp but irregular contact at 226.95m.</p>									
			A105082	224.00	225.50	1.50	0.17				
			A105083	225.50	227.00	1.50	0.10				
226.95	227.87	<p>GREY MAFIC (?)</p> <p>-medium grey, fine-grained, moderately hard, locally sericitic, locally moderately fractured unit contains 3-4% coarse, clotty to subhedral to fracture-filling pyrite and 1-2% quartz-carbonate stringers and patches.</p> <p>-weakly to moderately sheared at 65-70°/CA.</p> <p>227.60- 227.87</p> <p>-moderately sheared to locally granulated, weakly to moderately sericitic zone.</p> <p>-contact at 227.87m is sheared at 65°/CA.</p>									
			A105084	227.00	228.50	1.50	0.10				
227.87	228.86	<p>(QUARTZ) FELDSPAR PORPHYRY</p> <p>-similar to 223.89 - 226.95m but moderate shearing at 65°/CA has extended feldspar phenocrysts parallel to shearing.</p> <p>-minor (less than 1%) sphalerite is present locally.</p> <p>-contact at 228.86m is ground.</p>									
			A105085	228.50	230.00	1.50	0.04				

FROM (M)	TO (M)	DESCRIPTION	Sampl.	FROM	TO	Leng. (M)	Au ppm	Au 1 ppm	Au 2 ppm		
228.86	239.58	<p>GRAPHITIC ARGILLITE</p> <p>-black, fine-grained, moderately soft to moderately hard (depending upon alteration), graphitic argillite contains about 10% locally pyrite altered, greywacke clasts and beds, 6-8% finely disseminated, clotty, bedded and local fracture-filling pyrite, 1-2% (quartz-) carbonate veining and typically fracture-filling.</p> <p>-weakly to moderately bedded at 65-80°/CA.</p> <p>228.95</p> <p>-bedding is oriented 65°/CA.</p> <p>229.24- 229.34</p> <p>-9cm wide, barren, quartz (50%), vuggy to needle carbonate (50%) vein has irregular contacts.</p> <p>230.35</p> <p>-bedding defined by pyrite and carbonate is oriented 70°/CA.</p> <p>230.65- 231.30</p> <p>-badly broken and ground core.</p> <p>235.50- 236.00</p> <p>-lost core.</p> <p>236.20</p> <p>-bedding is oriented 80°/CA.</p> <p>237.32- 237.35</p> <p>-fault gouge.</p> <p>238.10</p> <p>-well-bedded at 73°/CA.</p> <p>239.30- 239.58</p> <p>-gradational contact zone comprised of alternating graphitic argillite and medium grey argillite and greywacke horizons.</p>	A105086	230.00	231.50	1.50	0.15				

APPENDIX B

LITHOGEOCHEMICAL RESULTS FROM 1988 DIAMOND DRILL CORE



**CERTIFICATE OF ANALYSIS
REPORT 6472**

TO: FALCONBRIDGE LIMITED
ATTN: STELLA POVODEN
P.O. BOX 1140
571 MONETA AVENUE
TIMMINS, ONTARIO P4N 7H9

CUSTOMER No. 1256
DATE SUBMITTED
12-Sep-88

REF. FILE 2731-D5

Total Pages 6

19 WHOLE CORES Proj. 8109

	METHOD	DETECTION LIMIT		METHOD	DETECTION LIMIT
AU PPB	FADCP	1.	IN PPM	ICPMS	1.
LI PPM	AA	10.	SB PPM	FAA	0.2
BE PPM	DCP	5.	CS PPM	ICPMS	1.
B PPM	DCP	10.	LA PPM	ICPMS	2.
CO2 %	WET	0.01	CE PPM	ICPMS	1.
WRMAJ %	WR	0.01	ND PPM	ICPMS	0.5
V PPM	DCP	10.	SM PPM	ICPMS	0.5
CR PPM	DCP	2.	EU PPM	ICPMS	0.1
CO PPM	ICPMS	1.	GD PPM	ICPMS	0.5
NI PPM	DCP	1.	DY PPM	ICPMS	0.5
CU PPM	DCP	0.5	ER PPM	ICPMS	0.5
ZN PPM	DCP	0.5	LU PPM	ICPMS	0.1
GA PPM	ICPMS	1.	HF PPM	ICPMS	1.
GE PPM	DCP	10.	TA PPM	ICPMS	1.
AS PPM	FAA	1.	W PPM	ICPMS	3.
SE PPM	GFAA	3.	TL PPM	ICPMS	1.
WRMIN PPM	WR	10.	PB PPM	DCP	2.
MO PPM	ICPMS	2.	BI PPM	ICPMS	0.5
AG PPM	DCP	0.5	TH PPM	ICPMS	1.
CD PPM	DCP	1.	U PPM	ICPMS	0.5

X-RAY ASSAY LABORATORIES LIMITED

DATE 07-OCT-88

CERTIFIED BY *J. Eagles*



SAMPLE	AU PPB	LI PPM	BE PPM	B PPM	CO2 %	S PPM	V PPM	CR PPM	CO PPM	NI PPM
A102601	21	20	<5	40	4.37	100	280	260	40	110
A102602	28	50	<5	60	6.21	760	330	260	47	100
A102603	13	60	<5	130	8.37	180	150	--	42	250
A102604	14	90	<5	90	8.27	180	150	--	54	280
A102605	35	100	<5	30	2.47	80	170	--	49	270
A102606	32	130	<5	40	6.22	80	170	--	60	310
A102607	24	50	<5	770	13.7	1000	150	--	56	260
A102608	96	30	<5	90	12.8	800	330	150	28	120
A102609	3	100	<5	750	9.06	300	270	300	35	100
A102610	1	50	<5	90	15.8	900	270	78	30	56
A102611	5	20	<5	20	2.42	480	210	150	51	140
A102612	1	20	<5	230	2.44	260	200	170	37	130
A102613	3	40	<5	60	4.14	120	360	180	38	160
A102614	160	30	<5	190	13.4	4600	440	26	27	44
A102615	110	80	<5	<10	12.2	400	260	44	42	46
A102616	30	150	<5	10	7.99	160	150	--	58	290
A102617	35	<10	<5	530	14.5	3900	300	80	33	63
A102618	34	<10	5	80	27.7	900	170	52	29	42
A102619	6	20	<5	20	1.37	360	240	130	58	110



SAMPLE	CU PPM	ZN PPM	GA PPM	GE PPM	AS PPM	SE PPM	MO PPM	AG PPM	CD PPM	IN PPM
A102601	120.	98.0	12	<10	3	<3	<2	<0.5	<1	<1
A102602	110.	88.0	15	<10	90	<3	<2	<0.5	<1	<1
A102603	34.0	62.0	7	<10	90	3	<2	<0.5	<1	<1
A102604	59.0	69.0	9	10	180	<3	<2	<0.5	<1	<1
A102605	64.0	70.0	9	<10	68	<3	<2	<0.5	<1	<1
A102606	40.0	73.0	8	<10	100	<3	<2	<0.5	<1	<1
A102607	41.0	93.0	8	<10	250	<3	<2	<0.5	<1	<1
A102608	130.	78.0	14	20	290	<3	<2	<0.5	<1	<1
A102609	92.0	88.0	12	10	49	<3	<2	<0.5	<1	<1
A102610	57.0	77.0	12	<10	70	<3	<2	<0.5	<1	<1
A102611	59.0	80.0	11	10	29	<3	<2	<0.5	<1	<1
A102612	32.0	80.0	8	<10	7	<3	20	<0.5	<1	<1
A102613	34.0	85.0	16	<10	56	<3	<2	<0.5	<1	<1
A102614	81.0	68.0	17	<10	85	<3	<2	<0.5	<1	<1
A102615	100.	76.0	13	10	270	<3	<2	<0.5	<1	<1
A102616	48.0	57.0	9	10	100	<3	<2	<0.5	<1	<1
A102617	75.0	74.0	18	40	92	3	<2	<0.5	<1	<1
A102618	70.0	51.0	10	30	95	<3	3	<0.5	<1	<1
A102619	56.0	83.0	16	<10	11	<3	<2	<0.5	<1	<1



SAMPLE	SN PPM	SB PPM	CS PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	GD PPM	DY PPM
A102601	<10	3.2	<1	<2	5	4.2	1.1	0.4	1.4	2.1
A102602	<10	92.0	2	<2	4	3.2	0.9	0.3	1.1	1.3
A102603	<10	11.0	<1	<2	2	1.3	<0.5	<0.1	<0.5	0.6
A102604	<10	48.0	<1	<2	2	1.7	<0.5	<0.1	<0.5	0.6
A102605	<10	23.0	<1	<2	2	1.4	<0.5	<0.1	<0.5	<0.5
A102606	<10	32.0	<1	<2	1	0.6	<0.5	0.1	<0.5	0.5
A102607	<10	28.0	2	<2	2	1.5	<0.5	0.2	0.5	0.8
A102608	<10	140.	3	3	6	4.9	1.3	0.4	1.3	1.4
A102609	<10	3.2	4	<2	3	3.0	0.9	0.3	1.0	1.0
A102610	<10	25.0	3	<2	4	3.6	1.1	0.4	1.1	1.1
A102611	<10	2.4	<1	<2	4	3.2	0.9	0.3	1.2	2.3
A102612	<10	3.6	<1	2	5	4.0	1.1	0.3	1.6	2.6
A102613	<10	48.0	2	<2	6	4.7	1.6	0.6	2.3	3.7
A102614	<10	26.0	4	2	7	5.6	1.4	0.4	1.4	1.3
A102615	<10	76.0	<1	<2	4	3.8	1.1	0.3	0.9	0.8
A102616	<10	56.0	<1	<2	2	1.4	<0.5	<0.1	<0.5	<0.5
A102617	<10	23.0	7	3	8	6.4	1.7	0.5	1.4	1.2
A102618	<10	26.0	3	<2	4	3.7	1.0	0.5	1.2	1.2
A102619	<10	2.4	2	<2	5	3.6	0.9	0.2	1.2	2.1

SAMPLE	ER PPM	LU PPM	HF PPM	TA PPM	W PPM	TL PPM	PB PPM	BI PPM	TH PPM	U PPM
A102601	1.2	0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102602	0.7	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102603	<0.5	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102604	<0.5	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102605	<0.5	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102606	<0.5	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102607	<0.5	<0.1	<1	<1	3	<1	<2	<0.5	<1	<0.5
A102608	0.8	0.1	<1	<1	14	<1	<2	<0.5	<1	<0.5
A102609	<0.5	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102610	<0.5	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102611	1.7	0.3	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102612	2.1	0.3	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102613	2.3	0.3	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102614	0.8	0.1	2	<1	<3	<1	<2	<0.5	<1	<0.5
A102615	<0.5	<0.1	<1	<1	<3	<1	10	<0.5	<1	<0.5
A102616	<0.5	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102617	0.7	0.1	2	<1	8	<1	<2	<0.5	<1	<0.5
A102618	0.6	<0.1	<1	<1	<3	<1	<2	<0.5	<1	<0.5
A102619	1.6	0.3	<1	<1	<3	<1	<2	<0.5	<1	<0.5



SAMPLE \ %	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MnO	TiO2	P2O5	CR2O3	LOI	SUM
A102601	51.3	14.5	6.33	6.59	4.12	0.22	8.10	0.20	0.71	0.06	---	7.77	99.9
A102602	49.5	15.0	7.58	6.02	2.41	1.66	6.81	0.17	0.72	0.06	---	9.47	99.5
A102603	44.0	13.9	10.5	7.75	2.37	0.42	8.90	0.19	0.25	0.03	0.09	12.0	100.4
A102604	41.6	14.2	10.3	8.17	2.04	0.41	10.0	0.20	0.25	0.03	0.09	12.8	100.1
A102605	46.4	16.2	2.12	12.6	2.03	0.11	10.7	0.12	0.31	0.03	0.10	8.77	99.5
A102606	41.0	15.2	6.42	12.3	0.10	0.92	10.8	0.13	0.29	0.03	0.11	12.8	100.2
A102607	38.8	13.7	9.41	9.31	0.21	2.28	9.21	0.20	0.25	0.03	0.09	16.5	100.1
A102608	44.9	13.2	8.99	4.74	1.14	2.84	9.11	0.17	0.91	0.06	---	14.2	100.3
A102609	44.6	13.9	6.44	8.05	0.95	1.99	11.0	0.16	0.64	0.05	---	12.3	100.2
A102610	42.3	10.6	13.9	4.06	0.53	1.84	9.14	0.23	0.69	0.06	---	16.8	100.2
A102611	47.9	17.6	5.26	8.21	2.91	0.63	9.96	0.21	0.45	0.05	---	6.77	100.0
A102612	49.1	15.6	6.88	7.97	2.91	0.07	9.56	0.24	0.49	0.05	---	6.70	99.6
A102613	50.3	14.9	6.58	5.59	2.60	1.06	10.1	0.19	1.00	0.08	---	7.47	99.9
A102614	44.8	10.7	9.32	4.66	0.86	1.79	11.1	0.30	1.20	0.10	---	14.0	98.9
A102615	42.0	12.0	9.59	5.73	3.39	0.05	12.2	0.35	0.71	0.06	---	14.3	100.4
A102616	43.6	14.1	7.80	10.4	1.89	0.13	9.43	0.18	0.26	0.03	0.10	12.4	100.3
A102617	44.4	12.1	9.92	3.99	0.54	2.67	9.72	0.16	1.06	0.10	---	15.1	99.8
A102618	26.7	6.42	19.1	8.84	0.35	1.27	9.28	0.28	0.41	0.04	---	27.8	100.5
A102619	48.8	17.4	4.90	8.52	2.10	0.60	9.96	0.24	0.53	0.06	---	6.62	99.8

XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES



SAMPLE \ PPM	RB	SR	Y	ZR	NB	BA
A102601	11	86	19	<10	<10	112
A102602	42	25	13	15	15	698
A102603	<10	63	<10	<10	17	197
A102604	10	84	<10	<10	<10	222
A102605	<10	16	<10	<10	13	79
A102606	40	<10	<10	<10	13	600
A102607	59	27	14	<10	<10	506
A102608	92	82	<10	42	<10	461
A102609	61	53	<10	<10	15	565
A102610	55	76	17	11	12	263
A102611	25	45	<10	<10	<10	290
A102612	15	35	22	17	20	84
A102613	32	42	24	31	<10	507
A102614	53	93	16	49	20	217
A102615	12	52	12	19	15	38
A102616	30	66	14	<10	<10	59
A102617	77	107	16	47	<10	210
A102618	34	167	<10	<10	15	116
A102619	29	36	13	18	13	103