

GM 42318

JOURNAL DE SONDAGES AU DIAMANT, PROPRIETE NORITA

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Énergie et Ressources
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Québec 

GM 42318

JOURNAL DE SONDAGES AU DIAMANT

Explorations Noranda Limitée
noranda Metagami, Québec

LATITUDE : 12+83S
 LONGITUDE : 45+00E
 ÉLEVATION : Surface
 DIRECTION : 020°
 PENDAGE AU COLLET : -60°

TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE

PROFONDEUR DU TROU : 186'

FEUILLE No. 1 DE 1

PROPRIETE : Norita
 CLAIM No. : 112416-4
 TROU No. : NOR-84-2
 CAROTTE No. : B.Q.
 DÉBUT LE : 7 août 1984
 FIN LE : 8 août 1984

PROFONDEUR DE A	DESCRIPTION MEGASCOPIQUE	ÉCHANT.	DE	A	ANALYSES GEOCHIMIQUES														
0	90'	Tubages (retirés).																	
90'	186'	Voir NOR-84-2A pour la description des lithologies.																	
		Trou abandonné à cause de bris majeur (tiges bloquées dans le trou- "caving").																	

ENTREPRENEUR: Forages Dominik DÉCRIT PAR: Pierre Bernard

JOURNAL DE SONDAGES AU DIAMANT

Explorations Noranda Limitée
noranda Matagami, Québec

LATITUDE : 12+83 S
 LONGITUDE : L44+99 E
 ÉLÉVATION : Surface
 DIRECTION : 020°
 PENDAGE AU COLLET : -60°

TESTS ACIDE	TESTS TROPARI	PENDAGE	DIRECTION CORRIGÉE
200'		59.0°	
400'		56.0°	
600'		56.0°	
800'		53.0°	
1000'		49.5°	
	1130'	45.0°	19°
1200'		44.0°	
1400'		41.0°	
1600'		37.5°	
1800'		34.5°	
2000'	1810	34.0°	40°
PROFONDEUR DU TROU :		29.0°	
		32.0°	
	2060'		
			2416'

FEUILLE No. 1 DE 64

PROPRIÉTÉ : NORITA

CLAIM No. : _____

TROU No. : NOR-84-2A

CAROTTE No. : _____

DÉBUT LE : 8 août 1984

FIN LE : 28 août 1984

PROFONDEUR DE A	DESCRIPTION MEGASCOPIQUE	2200' 2416'	ÉCHANTIL 25.0	DE 25°	A	ANALYSES GEOCHIMIQUES							
0	94.0	Tubage											
94.0	99.5	Gabbro											
		Fine to medium grained, grey green to blue green in color. White to greenish feldspar phenocrysts to plu 1 cm. aligned in schistosity.											
		Resembles porphyritic andesite. Composition variable to † 50% feldspar phenocrysts. Minor Py.											
99.5	103.5	Fine grained, possibly fragmental, banding weakly developed, blue green in color. Tuffaceous, some of frags to 5 mm. are siliceous.											

ENTREPRENEUR : Forage Dominik

DÉCRIT PAR : Ken Adams

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PAGE: 2

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Banding (?) 55° C/A. May be felsic highly chloritized. Disseminated pyrite to stringer of pyrite/carbonate at 102.4'											
		(75° C/A). Lower contact sheared, visible pyrite. † 45° C/A.											
103.5	132.7	Gabbro											
		Highly variable composition. Feldspar rock sections and mafic sections, not strongly banded, some suggestion of compositional banding. Minor pyrite. Disseminated magnetite, section very magnetic possibly up to 10% magnetite. Feldspars in green aphanitic matrix. Section chloritized minor carbonate veining.											
		Porphyritic sections alternate with finely crystalline mafic sections, no visible contacts - gradational change.											
		121.9 shear zone carbonate veins 35° C/A.											
		122.7'-123.1' : section epidotized, apple green, silicified.											
		Both phases highly magnetic. † 50% feldspars † 35% mafic aphanitic matrix † 10% magnetite † 5% quartz.											
132.7	141.5	Gabbro (?)											
		Sheared contact 20-25° C/A. Quartz-carbonate and carbonate veins. Section no longer as magnetic, weakly to moderately											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		magnetic. Blue green in color, massive to visible feldspar phenocrysts. 136.3-136.7 † 30% pyrite, feldspars stained to rusty pink.											
141.5	167.0	Gabbro											
		Section contains feldspar phenocrysts on clots in aphanitic bleu-grey matrix. Visible pyrite. Feldspars to 2 cm. long. Rusty to black patches appear to be hornblende and/or biotite (reddish brown or black mica). % of mafic rich clots variable											
		25-30%. Feldspar phenocrysts † 25-30% mafic phenocrysts											
		40-50% aphanitic matrix.											
		149.5'-150.1' : fragment of rhyolite. Grey green in color, aphanitic with clots of chloritic material.											
		162.0' : section sheared, alignment of feldspar phenocrysts, quartz veins. Development of talc on shear.											
		163.2' : rhyolite fragment (?) lower contact 164' sheared, quartz carbonate veining.											
		165.4'-165.9' : rhyolite fragment (?) not very hard - felsic.											
		166.0'-167.0' : shear zone : breccia frags, large reddish brown											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		crystals (?) do not appear to be micas (?) Fairly hard, graphitic streak. Section silicified. Green fibrous crystals radial pattern. Tremolite (?) chlorite. Brown mineral sphalerite (?) minor "honey" colored.											
167.0	191.8	Gabbro Section blue grey in color, felsic feldspar clots chloritized. Brown mafic minerals appear to be visible. Green felsic frags to \pm 70% \pm 30% mafic matrix. ? highly actived tuff. Away from fault feldspars more noticeable, phenocrysts to 5mm. Comp. variable. Mafics appear to be micaceous (171 \pm 60-70% feldspars \pm 30% aphanitic green, mafic matrix). Sections with fewer feldspar phenocrysts fine grained to aphanitic blue green in color alignment of mafics in shear planes. Brown clots of biotite and hornblende. Overall feldspars \pm 50%, \pm 30% visible biotite 20% aphanitic matrix. Pyrite throughout section. Felsic clots or fragments in a matrix of biotite 189.6' to end of section. 191.3-191.8' : compositional banding parallel to shear talc chlorite.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
191.8	196.8	Felsic to rhyolitic dyke											
		Massive, grey green aphanitic hard, felsic composition, weakly											
		conchoidal fracture. May be tuffaceous. Lower contact sheared											
		some alteration of felsic material finely crystalline near con-											
		tact. Highly sheared fragment 194.6-195.2'. Wall rock frag.											
		felsic phenocrysts mafics chloritized.											
		Gabbro											
196.8	206.1	Blue grey in color, aphanitic matrix with 10-40% feldspar											
		phenocrysts. Highly sheared and chloritized. Some "fragment											
		like" mafic clots. Disseminated pyrite to 5%. None porphyritic											
		sections resemble int. tuffs.											
		Gabbro											
206.1	215.1	Blue grey in color aphanitic matrix † 50% feldspar phenocrysts.											
		Aphanitic matrix.											
215.1	216.6	Rhyolitic felsic dyke											
		Aphanitic green-grey in color, very hard siliceous. Finely											
		crystalline chill margins. Finely crystalline with silica											
		matrix.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
216.6	246.0	Gabbro											
		Blue-green in color, porphyritic to large clots of feldspar											
		in aphanitic matrix.											
		217.5' : large quartz-feldspar vein no sharp contacts.											
		Variations in phenocryst sizes and % of feldspars overall comp.											
		‡ 50% feldspar ‡ 50% aphanitic green mafic matrix. Felsic sec-											
		tion 226-229 lighter in color chloritized. Quartz-carbonate in											
		breccia at 228.2-228.3'. Section darker from 229'. Mafic matrix											
		aphanitic, visible biotite crystals. Some sections felsic clots											
		appear to be fragmental. Highly altered chloritized. Some of											
		larger "felsic frags." may be inclusions or have been silici-											
		fied.											
246.0	261.0	Gabbro											
		No marked contact. Section appears to be made up of porphyritic											
		feldspar rich fragments in a green-blue aphanitic matrix. Some											
		of the fragments appear to be amygdaloidal. May be volcanic											
		fragments incorporated in a gabbroic intrusion. Disseminated											
		pyrite. Section chloritized. Sharp contact 261'.											

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PAGE: 7

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
261.0	296.4	Gabbro											
		Section greyer in color. Felsic to rhyolitic fragments altered											
		to grey green and green tinted white patches, in a dark green											
		to black aphanitic matrix. Matrix variable, resembles porphy-											
		ritic gabbro noted above or glomoporphyritic andesites. Com-											
		position of fragments variable. Highly felsic moderately sili-											
		ceous, grey green aphanitic. Angular to sub-rounded fragments											
		or stretched amygdules visible within larger fragments. The											
		more porphyritic felsic sections with visible phenocrysts may											
		be intrusive (291-293.3) felsic tuff frags. in porphyritic											
		gabbro.											
296.4	312.1	Gabbro											
		Resembles porphyritic sections higher in hole. Blue-green											
		feldspar phenocrysts 40-70% variable with black aphanitic											
		matrix. Some leucoxene alteration of feldspars. Section chlo-											
		ritized. Minor amounts of felsic fragments become more abundant											
		towards lower contact.											
312.1	331.7	Felsic/Rhyolitic Tuff											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Volcanic fragments more abundant than matrix. Grey to grey green in color. Vesicular, cavity fillings felsic - weakly carbonaceous (not siliceous). Section grey moderately hard to very hard. Aphanitic felsic matrix. Top of section fragmental, pieces of gas bubble filled volcanic rock. Chloritized. Distinct fragments visible 320-321. Sheared 45°C/A. Possible flow contact 15°C/A (318.7). Aletred fragmental felsic volcanic.											
331.7	362.1	Felsic Lapilli Tuff											
		Fragmental (?) frags. to 3-4 cm. Aligned in shear or bedding. Pale green felsic tuff fragments and porphyritic fragments, in dark green aphanitic matrix. (Resembles felsic lapilli tuff units). Chloritized. Elongate 35°C/A. Talc developed. Minor massive section may be small flows or felsic tuffs. Highly sheared (?) chloritized. Appear to be highly sheared felsic tuffs interbedded with lapilli tuffs. Massive sections with larger frags. may be sheared tuffs, section with smaller fragments in mafic matrix. Lapilli tuffs. Banding variable to 30°C/A.											
362.1	384.6	Int. to Felsic Tuff											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Section grey green to grey in color. Lapilli fragments have disappeared. Top 2-3 feet weakly laminated stretched gas bubbles, amygdules. Very fine tuff fragments or feldspar crystals visible, section feldspar rich. Chloritized. Matrix aphanitic to very fine grained ? mafic to intermediate tuff : % visible "feldspar". Difficult to determine \pm 40% int. to felsic tuff.											
		Ghost-like white clots visible 1-2 mm. Sheared at 371' - 60°C/A quartz carbonate veins. Gash veins sub parallel C/A. White clots are carbonaceous - altered feldspars. Sheared 15°C/A.											
		From 376' large fragments appear in core. Felsic to rhyolitic tuff in mafic matrix. Overall comp. may be mafic to intermediate. Chloritized.											
384.6	407.2	Int. felsic Lapilli Tuff											
		Section blue-green in color, visible felsic clots or fragments blue-green to yellow in color, some altered to rusty pink. Lapilli up to $\frac{1}{2}$ 1 cm. long. Matrix blue-green, contains feldspars - visible leucoxene alt. Fragments stretched in shear.											
		Individual lapilli difficult to make out below 390'. Laminated with a few lapilli fragments visible. Composition may have been											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		int. to mafic % of feldspar though suggest int. to felsic											
		% felsic lapilli increases from 399' to 403'.											
407.2	415.5	Felsic Tuff											
		Section massive to fragmental grey green in color. Fragments											
		angular to sub rounded "Pumice-like" in appearance - numerous											
		vesicles moderate to fairly hard. Fragments chloritized, matrix											
		around fragments aphanitic pale green. May represent brecciated											
		flow top. Section highly carbonatized vesicle fillings not si-											
		liceous may be carbonate. Some sections silicified (?).											
415.5	440.0	Int. to Felsic Tuff											
		Matrix mafic in composition, % visible feldspar fragments makes											
		section overall felsic to int. in composition. Angular to sub											
		rounded lapilli 1 cm. up to 3 cm., elongate in shear planes.											
		Interbedded with thin aphanitic grey green tuffaceous bands											
		(322.4'-322.9'). Section chloritized, leucoxene alt. of felds-											
		pars in matrix sheared 40°C/A. Feldspars carbonatized. % frags.											
		variable from $\frac{1}{2}$ 40% up to 80%. Felsic frags. no longer visible											
		440' sheared contact 75°C/A quartz carb. veins.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
440.0		Intermediate Tuff											
		Section massive, aphanitic to finely crystalline, visible dark mafic fragments. Parts of unit epidotized and silicified, carb. bonatized. Chloritized green aphanitic matrix ? Intermediate to mafic tuff % visible feldspar variable to 40-50%. Minor lapilli tuff sections 451.2-452 and 455.6 quartz carb. stringers in chloritized shears. 35°C/A.											
469.5		Interbedded Int. Tuff and Felsic Lapilli Tuff											
		% of lapilli tuffs high enough to be important portion of section. Contacts not sharp, % of felsic lapilli more noticeable in some areas. Matrix grey green chloritized mafic - % feldspar overall may be low enough to place section in int. to mafic range. Some felsic clots appear to be vesicle in fillings.											
469.5	518.3	Tuffaceous Andesite with Felsic Lapilli Tuff Bands											
		Section massive to visible lapilli tuff fragments. Apple green alteration, minor epidotization silicification. Large quartz carb. vein											
		478-478.5' breccia fragments. Massive sections aphanitic green											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		% feldspars appears to be low. May be chloritized int. to mafic											
		tuffs with felsic lapilli tuff horizons. Visibly amygdaloidal											
		sections - chloritic in fillings to cavities. Feldspar content											
		+ - 40% ? andesitic flows. Mafic fragments visible, possible											
		punice fragment at 417.2. Locally blue green lapilli frags.											
		more noticeable. Epidotization variable from short sections to											
		individual fragments. Section silicified from 505.8-506.7'.											
		Some sections more mafic than others, chloritized.											
518.3	524.6	Lapilli Tuff - Int. Felsic											
		% of lapilli present throughout section. Dark blue-green in											
		color with pale green to green clots of feldspar. Some frags.											
		look like amygdules. Shearing has stretched some frags. weakly											
		developed compositional banding. Matrix aphanitic dark green											
		chloritized, visible crystals feldspar - Int. composition											
		disseminated pyrite.											
524.6	543.5	Mafic Int. Tuff											
		Massive to weakly laminated, minor sections with feldspar la-											
		pilli fragments. Green to blue green. Matrix aphanitic chloritized,											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		weakly carbonatized leucoxene alteration of feldspars - 10-15% visible. Sheared 45° C/A. Talc carbonate shear zone 537-537.7.											
		"Soapy" minor brecciation.											
543.5	553.0	Lapilli Tuff											
		% visible fragments increased to + 30%. Vary from distinct clots of feldspar to weakly banded zones feldspar rich bands vs chloritic bands. Aphanitic dark green chloritic matrix. Green color to section suggests int. to mafic volcanics.											
553.0	580.8	Int. to Felsic Tuff											
		Massive to weakly laminated sections with minor lapilli. Grey green to green in color. Structures reminiscent of amygdules visible fragments felsic set in green chloritic matrix. Green aphanitic matrix. Minor zones epidotized.											
580.8	593.3	Int. to Mafic Tuff											
		Section blue-green in color. Massive to weakly banded minor lapilli visible. Ghost like clots of pale green finely crystalline material in aphanitic green chloritic matrix. May have been											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		lapilli, highly altered. Minor epidotization. Ghosts appear to											
		be finely crystalline pale-blue-green feldspars (?)											
593.3	606.9	Felsic Lapilli Tuff/Felsic Tuff											
		Visible lapilli and clots of feldspar section has mottled											
		appearance. Aphanitic dark chloritized blue-green matrix.											
		Felsic lapilli contain minor "quartz-eyes". $\frac{1}{2}$ visible feldspar											
		high chloritized; carbonatized. Alternate with finer grained											
		tuffaceous sections. Matrix green chloritic aphanitic visible											
		altered feldspars make up $\frac{1}{2}$ 40%. Overall comp. intermediate to											
		felsic. Minor apple green epidotization overall composition											
		becomes more felsic towards bottom of hole. Visible contact											
		606.9'.											
606.9	632.6	Felsic Tuff											
		Mottled green and blue-green sections alternate with massive											
		grey sections. Clots of pale green to white appear to be frag-											
		ments of felsic tuff. Section looks fragmental but may also											
		represent partially altered tuffs. Matrix green aphanitic chlo-											
		ritized. Not hard. Some epidotization minor - individual feldspar											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		clots altered. Shear zone 626'.											
632.6	651.0	Felsic Intermediate Tuff											
		Massive grey green - aphanitic (very few fragments - epidotized/ chloritized) - finely crystalline moderately hard - non con- choidal fracture. Altered feldspars (?) [†] 50% in green matrix finely crystalline. May be flow or tuff. Mottled grey and green with some pink sections. Weakly conchoidal fracture.											
651.0	667.8	Lapilli Tuff											
		Grey to green in color, clots and fragments of felsic comp. caught up in dark blue to green aphanitic matrix. Section la- minated or highly sheared. Highly altered mottled appearance may be due to partial alteration of felsic tuffs. Disseminated pyrite 662.4-662.5'. Section visibly sheared, intently sheared, chloritized brecciated, talc carbonate developed 665-667' 55°C/A.											
667.8	669.6	667-669.6' - felsic dyke or slice of felsic tuff caught up in shear zone. Felsic to rhyolitic tuff "quartz eyes" some											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		sections spherulitic. Pieces of tuff caught up in "dyke".											
		Dyke sheared and brecciated.											
669.6	702.0	Mafic Intermediate Tuff											
		Blue-green, laminated to highly sheared. Dark green chloritic											
		bands alternate with pale green felsic bands. Very soft.	Sample	for whole rock									
		670.3'-670.4' : quartz carbonate pyrite stringers, felsic	16801	680'									
		dyke 45° C/A.											
		677.8' : pyrite along laminations											
		Around 680' section progressively greyer in color. Disseminated											
		pyrite, minor concentrations along banding or laminations.											
		Matrix aphanitic, green chloritic to black & felsic crystals											
		difficult to determine. & quartz-eyes (?) minor. Chloritized											
		felsic to int. tuff visible feldspar crystals. Quartz-carbonate											
		pyrite 698.5'-698.7'.											
702.0	726.1	Felsic to Int. Tuff											
		Section becomes massive laminations weakly developed. Grey											
		green to grey in color no marked contacts. Aphanitic chloriti-											
		zed matrix visible feldspar crystals due to alt. (can those be											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		chloritized amph/mafic crystals). Chloritized tuff or finely crystalline flow. Not very hard. Overall grey color - felsic to mt. rather than mafic.											
		724.6-724.8' : quartz veins in shear 35°C/A. Chloritized											
		725.5' : quartz veins 30°C/A.											
726.1	739.6	Int. Volcanic											
		Similar to above marker contact. 30°C/A. Grey in color non laminated, massive. Strongly magnetic unit 730.5-736.5'.											
		Large vuggy quartz vein 738.7-739.1. Grey metallic crystals with red streak. Hematized on contact with chloritized shear zone. Rock massive grey, aphanitic to finely crystalline.											
		Section moderate to weakly chloritized. Leucoxene alteration of feldspars. 35-40% (int. to mafic ? too much feldspar).											
739.6	740.6	Felsic Tuff											
		Laminated, grey green in color felsic upper and lower contacts altered. Lower contact marked by quartz shear plane filling.											
740.6	746.4	Int. to Mafic Tuff											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Massive non-laminated dark grey to green. Chloritized, minor fragments to 5 mm. are chloritic in color. Weakly laminated mafic to intermediate tuff.											
746.4	753.1	Felsic Tuff Laminated section felsic bands alt. with chloritic bands. Chloritized mt. to felsic tuff.											
753.1	761.7	Int. Felsic Tuff Similar to above - marked contact. Interlayered felsic to rhyolitic tuffs and intermediate tuffs. Grey aphanitic & feldspar very high. Visible quartz eyes. Cut by mafic dyke; contact between two appears to be intrusive.											
761.7	785.1	Int. to Felsic Tuffs Section massive blue-black in color. Aphanitic to finely crystalline. No visible laminations, disseminated pyrite noted. Minor quartz carb. veins. Fine crystals feldspar noted. Fresh surface, aphanitic dark green to black, chloritized. Fine grained dyke or andesite (?) tuffaceous. Weakly laminated 779.2'.	16802	780									

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
785.1	800.0	Int. Tuff/Mafic											
		Section massive to weakly laminated. Blue green in color, possibly amygdaloidal near top of section. Some banding green chloritic zones alternating with lighter felsic bands. Aphanitic chloritized. Minor quartz carb. veinlets, gash veins. Disseminated pyrite noticeable from 796'. Section highly magnetic 793-796.											
800.0	818.0	Int. Tuff, Mafic Lapilli											
		Section massive to weakly laminated. Blue-green in color. * visible feldspars higher. Chloritized. Chloritic green fragments (?) in felsic matrix visible from 809.8'. Disseminated pyrite. Section sheared, chloritic bands and feldspar rich zones (amygdules ?).											
818.0	831.3	Intermediate Tuff											
		Massive to weakly laminated. Blue-green in color not visibly fragmental. * visible feldspars higher, visible leucoxene alteration. Aphanitic dark green chloritized. May be intermediate tuff. Sheared.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
831.3	874.0	Felsic Intermediate Tuff											
		Massive, laminations minor, blue-green in color, more massive	Sample										
		than unit above. Highly sheared (?) chloritized. Grey-green in	16803	850									
		color. Aphanitic greyer may be less intensery chloritized.											
		Visible feldspars (?) disseminated pyrite. Overall feldspar											
		content higher. minor quartz-eyes <1%. † 85% finely crystalli-											
		ne feldspars with chloritic matrix. Minor quartz carb. veining.											
874.0	881.1	Felsic Int. Tuff											
		Similar to above, visibly laminated. Grey-green in color apha-											
		nitic. Sheared 876'-876.6'. Quartz carb. veins pyrite 5-10%											
		'876.2-876.6'											
		880.7-880.9' pyrite 20-25%. Sheared at 881.1'.											
881.1	901.5	Int. Felsic Tuff											
		Massive to weakly laminated. Similar to unit above. Greyer in											
		color, % visible finely crystalline feldspar higher. Broken											
		surface grey-green to dark green aphanitic, sheared - slicken-											
		sides. Chloritized.											
		889.3-889.6' : pale green felsic tuff (?) quartz eyes visible											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		minor pyrite. Appears to be volcanic rather than intrusive.											
		5-10% feldspar phenocrysts or amygdule fillings from 890'.											
		Pyrite in micro shears and along banding. Lower part of unit											
		highly felsic mafics confined to thin stringers. May belong											
		in a separate unit. 896-899 matrix grey not as highly chlori-											
		tized.											
901.5	912.4	Int. to Mafic Tuff											
		Massive to weakly laminated blue-green in color. Section felsic											
		but has been chloritized. Several amygdaloidal zones, stret-											
		ched in shear. Unit may contain tuffaceous and flow units.											
		Chloritized. May be andesitic (flows). Section similar to											
		description of units at top of NOR-84-1.											
912.4	937.3	Mafic to Int. Volc.											
		Section highly sheared. Numerous quartz vines breccia frag-											
		ments to 914.6'. Chloritized. 40° C/A. Laminated. Massive											
		section from 914.6'-918' weakly laminated. Feldspar clots look											
		like stretched amygdules. From 918' banded (?) chloritic	Sample										
		streaks and quartz-carb. veinlets in shear. Dark green	16804	920									

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		chloritic color. 55° C/A. Talc carb. developed on chloritic shears. Quartz filled amygdules. Section may be andesitic flow.											
937.3	950.0	Andesitic Flow											
		Section massive to weakly banded. Abundant amygdules, amygdaloidal sections alternate with massive sections. Quartz fillings, some sulphides carbonate in amygdules. Stretched in shear planes. Section chloritized. Minor pyrite stringers - quartz carb. veins gash fillings. From 950 massive minor amygdules.											
950.0	974.9	Andesitic Tuffs/Flows											
		Massive to minor chloritic bands. Green in color, aphanitic. Amygdules visible but not numerous. Stretched in shear (961-962'± 10%) few quartz carb. stringers in shear. Shear intense											
		968.9-969.1' Chlorite talc developed.											
974.9	995.4	Mafic Int. Volc.											
		Weakly banded, visibly sheared. Chloritic green bands, some quartz carb. stringers in shear 55° C/A. Quartz - feld. amygduloid fillings stretched in shear planes. 978'-978.7' shear zone											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		talc carbonate "soapy" chloritic 45° C/A. Section very soft.											
		Green aphanitic. Tiny feldspar crystals in green aphanitic matrix † 50% feldspars. Int. volc. Andesite Flow.											
995.4	1021.8	Andesitic Flow											
		Massive to sheared and weakly banded. Pale green to green	Sample	for whole rock									
		to green chloritic bands. Quartz-feld. amygdule fillings noted	16805	1010									
		throughout section, which varies from massive to visibly sheared. Stretched in shear planes. Matrix grey green aphanitic chloritized. Ground mass pale green feldspars chloritic matrix											
		1015-1015.7' : quartz clots stringers with pyrite. Section from											
		1015 sheared with numerous quartz stringers in shear. Spilitized adjacent to veining. Possible chalcopryrite pyrite in milky											
		quartz veins 1016.9'.											
		1017.8-1018.1' : shear zone with quartz veins 45° C/A.											
		Amygdules - quartz clots stringers in shear 1019-1021.8'.											
1021.8	1048.9	Basalt Andesitic Mafic											
		Massive to weakly sheared, minor amygdules. Aphanitic dark											
		green chloritized. Mafic.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		1022.1-1022.4' : felsic dyke or flow (?) Grey green aphanitic											
		with .5mm long mafic clots. Possible chill margins, weakly											
		layered - finely crystalline margins coarser centre. Contains											
		finely disseminated pyrite in stringers parallel to contacts.											
		Lower contact marked by quartz vein.											
		1023.9' : few amygdules.											
		Section highly chloritized. % visible feldspars difficult to											
		determine.											
		1028' : quartz veins in shear 45° C/A.											
		1036.8-1037.3' : felsic dyke similar to one noted near top											
		of unit. 1039.5-1039.8 - Splittized (?) or small felsic flow.											
		1044.7-1046.0' : milky quartz veins with breccia frags.											
1048.9	1063.4	Int. Mafic Tuff/Basalt											
		Massive to weakly laminated dark green in color. Chloritized.											
		Bands of chloritic material alt. with felsic bands in some											
		horizons.											
		1055.1-1055.3' : Milky quartz veins carry minor sulphides.											
		1055.4-1055.6' : quartz carb. replacement in shear zone.											
		1056.4-1056.6' : quartz carb. veins sulphide stringers 55° C/A											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Minor zone of epidotization spilitization parallel to shear.											
		Amygdules present throughout section. Sulphide stringers and sulphides associated with quartz carb. veins noted from 1060.8-											
		1063.4'. Sulphide clots in fractured quartz vein. 1062.7-1062.8											
		Less than 5% overall.											
1063.4	1077.1	Int. Mafic Volc.											
		Possible contact similar to above, massive to weakly laminated,											
		numerous amygdules, stretched in shear. Green in color chlori-											
		tized. Disseminated pyrite noted throughout section 55° C/A.											
1077.1	1091.2	Int. Mafic											
		Section massive to weakly laminated greyer in color. Locally											
		Amygdaloidal.											
		1079.4-1080.0' : quartz veins in shear, section spilitized											
		silicified. Shears chloritized.											
		1083.4' : pyrite associated with quartz vein.											
		Several highly sheared zones.											
1091.2	1110.0	Int. Tuff											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Massive to weakly laminated greyer in color (?) Aphanitic grey											
		green. Chloritized & finely crystalline feldspars higher may											
		be more andesitic than basaltic. † 65%-70% small feld. crystals											
		in whiter bands between chloritic bands. Sheared or laminated											
		from 1096'. 55° C/A. Shears chloritized. Carbonate veins per-											
		pendicular to shear, offset.											
		1107.5-1108.0' : small quartz-feldspar-dyke-white.											
		1108.0-1108.2' : quartz vein parallel to dyke. 40° C/A chlori-											
		tized shear zone.											
1110.0	1112.4	Felsic Int. Tuff											
		Pale grey green in color, laminated. Contact 50° C/A. Fairly											
		hard. Aphanitic pale yellow to green. Weakly conchoidal frac-											
		ture. Feldspars with chloritized matrix. Possible quartz eyes											
		minor.											
1112.4	1142.4	Mafic Tuffs/Flows											
		Dark green in color banded, chloritic and quartz. Similar to											
		mafic tuffs in NOR-84-2A. Quartz veins have been folded (1118.5')											
		fold axis in plane of shear. 1118.7' Amygdules. Section may	16806	1120									

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		contain mafic flows also. Sheared 50° C/A. Section chloritized.											
		1122.8' : laminations folded.											
		1123.0' : quartz carb. vein in shear.											
		1124.3-1125.3' : highly sheared, chloritized, brecciated with quartz carb. veins parallel to shearing. 35-40° C/A.											
		1126.6' : quartz carb. vein cuts veins which parallel shear 65° C/A.											
		Approx. 1128' quartz carb. veins contain sulphides. Section highly sheared (1128-1135) chlorite-talc on slickensides.											
		Sheared to soapy paste 1134.5-1135'.											
		1139.3-1139.4' : quartz carb. vein with pyrite, pyrrhotite.											
		1139.8' : thin quartz carb. vein sulphides.											
		1141.2' : quartz vein in shear.											
1142.4	1151.5	Felsic Tuff											
		Massive to weakly laminated, grey to grey green in color. Visible feldspars throughout. Quartz eyes present. Section hard but fracture non-conchoidal. 80-85% feldspar, 5-10% quartz, 5% chloritic matrix. Appears to contain vesicular sections.											
		Contact at or near 1151.5'.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1151.5	1164.0	Int. Felsic Tuff/Int. Flow											
		Section similar to above greener in color. Visible amygdules stretched in shear. % feldspars lower \pm 50% with \pm 50% aphanitic pale chloritic green matrix. 1162.7-1162.8' quartz carb. in shear with sulphides.											
1164.0	1169.2	Fragmental Tuff											
		Tuff fragments to 2 inches long all sizes from 2-3 mm. up to 2 inches. Elongate in shear. Top of zone disseminated pyrite. Fragments angular to sub angular. Matrix chloritized visible pyrite. Fragments felsic to mt in comp. tuffaceous (?) possibly rhyolitic (?) large grey frag with quartz eyes conchoidal fracture. Fragments visible to 1169.2'.											
1169.2	1206.0	Felsic Tuffs											
		Massive to weakly laminated. Top of section green in color grades onto grey zone. Similar to felsic tuff unit 1142.4-1151.5'. May go from a flow into a tuff. Amygdules noted 1179.5											
		Tuffs may take over. Section appears to be made up of fragments up to 3 inches long. Felsic comp. frags. in chloritic matrix.	16807	1190									

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		From 1174.8' section massive - composition similar to fragments											
		Several zones laminated weakly. Fragmental 1178.8-1179.2.											
		1183'-1185'.											
		Matrix aphanitic grey, visible feldspars and quartz eyes	Sample										
		feldspar with minor chloritic matrix.											
		Section massive from 1191 alternating green chloritic bands											
		and grey felsic bands.											
		1193.7-1195.7' : milky quartz veins with breccia fragments.											
		Visible feldspars coarser crystalline from 1195.7'. Comp. varies											
		from 60-85% feldspar, 5-10% quartz, 25-30% mafic matrix. Grey											
		to green finely crystalline.											
		Sheared sub parallel to C/A. Weak alignment of mafic material											
		in shearing - chloritic stringers 55° C/A.											
1206.0	1248.0	Felsic Lapilli Tuff/Felsic Tuffs											
		Mottled appearance to core from 1206'. Pale blue-green clots	Sample										
		in grey green felsic matrix. Clots aphanitic very hard - almost	16808	1240									
		rhyolitic in appearance resemble lapilli tuffs, highly sheared.											
		Paler clots felsic to rhyolitic with quartz eyes. Not hard											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		enough for rhyolite/non conchoidal fracture - weakly conchoidal. Color variations due to degree of chloritic alt. Massive sections grey in color finely crystalline, weakly laminated (1241 - Grey green - aphanitic matrix, quartz eyes, weakly conchoidal fracture 75-80% fairly crystalline feldspar † 5% quartz eyes, 15-20% aphanitic green matrix). Disseminated pyrite.											
1248.0	1304.0	(? Mafic Int) Int. Tuff											
		Gradual color, textural changes 1251.5 quartz veins.											
		1251.8-1252.2' : quartz carb. vein injected into shear zone, breccia; minor sulphides. In turn sheared and later injected by milky quartz carb. vein. Quartz filled amygdules noted.											
		Section greener in color, medium to fine grained & visible feldspars down. Weakly laminated. Felsic clots absent. Minor quartz eyes. Color variation may be due to chloritization.											
		Grey green aphanitic disseminated pyrite <1% quartz eyes.											
		Darker green sections shear faces chloritized. Hematized.											
		1277.7-1278.0' : Shear zone quartz-carb. 45°C/A chloritized epidotized. Some sections dark enough to be in-mafic & feldspars											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		variable.											
		1260.0-1297.0' : Shears hematized section magnetic.											
		1302.4-1204.0' : section highly sheared, breccia fragments caught up in lower portion. Larger inclusion or associated shears and quartz-carb. veins.											
		(1299 description : † 20-25% very finely crystalline feldspars † 25-30% mafic minerals † 45% green aphanitic matrix) green aphanitic chloritized visible pyrite in shear (50° C/A).											
1304.0	1328.0	Felsic-Rhyolitic Tuff											
		Grey in color massive, aphanitic moderate to hard, visible quartz eyes weakly conchoidal fracture. Contact at 1306' unit continues, finely laminated original banding may be sup parallel to schistosity banding 50° C/A, schistosity 45° C/A. Quartz filled gas bubbles. 10-15% quartz eyes, amygdules. Fine aphanitic green matrix to 60-85% fine crystalline feldspars † 15%.	Sample										
		Not hard enough to be rhyolite. Some sections appears to be spherulitic quartz nuclei with alt. veins, still not hard enough, fairly hard. Variations in color due to degree of chloritization. Finely laminated near base of unit. 50° C/A.	for whole rock geochemistry	16809	1320								

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DE	A	DESCRIPTION	ECHAN.	DE	A								
1328.0	1357.5	Int. Felsic Tuffs											
		Sheared contact. Grey-green in color finely laminated alternating bands felsic white, chloritic green 1-2 mm. Stringers of pyrite noted in laminations. Aphanitic chloritic green. On core surface minor visible feldspars.											
		1339.5-1340.0' : Shear zone with talc chlorite, quartz veining.											
		1340.3-1340.5' : Quartz veins in shear around fragments. Milky quartz veins.											
		1340.9-1341.1' : Quartz veins in shears											
		Section greener in color around quartz veins due to alteration.											
		Blue-grey bands alternate with green bands. % visible feldspars											
		† 50%. Very finely crystalline. Section chloritized originally felsic to intermediate tuffs.											
		1346.6-1347.7' : Quartz carb. stringers contorted, with disseminated to 20% pyrite. May be local slump or minor folding in plane of shear. Laminations appear to be primary bedding.											
		Highly chloritized, breaks along shear planes.											
1357.5	1359.5	Felsic Tuff/Dyke											
		Grey in color visible quartz eyes. Massive to weakly laminated.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Moderate to weakly chloritized chloritic rims arounds quartz eyes. May be a small dyke contacts weakly altered, parallel schistosity.											
1359.5	1369.0	Int. - Felsic Tuffs											
		Similar to unit above dyke (?). Pale green to bleu grey bands visible feldspars throughout section. Disseminated pyrite to visible bands 1361.8-1362. Quartz veins minor alt. of wall rock visible pyrite. Highly sheared chloritized. % feldspars variable to 35-40%.											
		1368.0-1369.0' : Amygdaloidal.											
1369.0	1383.8	Gabbro (?)											
		Distinct unit leucoxene alteration visible throughout section. Medium to coarse grained. Pale green phenocrysts may be altered amphiboles. Section † 50% visible feldspars † 50% aphanitic mafics. Quartz eyes visible. Spilitized adjacent to quartz veins											
		(1369.6, 1371.1-1371.9 - section brecciated, quartz veins											
		1373.5 - small shear 1376.4-1377.1 spilitized. 1380.7 shear											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		with quartz vein. 1383.4-1383.5 splitized with quartz vein).											
		Lower portion of section finer grained resembles tuffs -											
		leucoxene alt. persists.											
1383.8	1385.8	Int. to Felsic Tuff											
		Massive to weakly laminated blue grey to grey in color. Mode-											
		rate to very hard. Aphanitic, chloritized. % visible feldspars											
		high. Very finely crystalline.											
1385.8	1388.0	Rhyolitic Tuff											
		Bending well developed. Section grey to olive green in color,											
		very hard. % feldspars high, vitreous appearance, visible											
		quartz eyes. Lower portion flow banded.											
1388.0	1407.9	<u>Felsic</u> to Rhyolitic Tuff											
		Grey green - consists of fragments of several lithologies and											
		locally may be small flow banded units. Some sections folded,											
		may be due to slump and compaction of tuffaceous sediments.											
		Highly sheared, but individual bands show primary laminations.											
		Locally blue green in color may be chloritized.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		From 1403' section massive non laminated - laminated. chlori-	sample for whole rock										
		tized grey aphanitic. - visible feldspars minor quartz eyes.	16810	1400									
		1405.0-1405.3' : silicified - quartz veins.											
		1406.0-1407.9' : silicified pale green to white band, frags											
		tuff caught up.											
1407.9	1428.3	Int. to <u>Felsic Tuff</u>											
		Blue green to green in color. Pale green bands alternate irre-											
		gularly with blue green bands. Massive to well laminated.											
		Chloritized. Feldspar content variable. Cut by quartz veins											
		parallel to schistosity.											
		1413.5-1413.6' : milky quartz vein 25° C/A then along 50° C/A.											
		1416.0-1416.6' : milky quartz vein in shear 1416.6-1416.9											
		veins cut across schistosity. % feld high. Visible quartz											
		eyes. Greyer sections higher feldspar content. Quartz eyes											
		blue tint.											
1428.3	1457.9	Spherulitic Rhyolite/Felsic Tuff											
		Pale blue clots visible throughout section. Many have quartz											
		eyes nucleii. Moderate to very hard. Variable from massive to											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		locally laminated. Section blue-green to grey.											
		1445.7-1446.7' : small flow laminated lower (?) contact amygdaloidal - stretched, flattened.											
		Blue-green clots to 1 mm. 80-85% quartz eyes \pm 1 mm. 5-10% aphanitic matrix 5-10% (1450')											
		1439.2-1439.3' : sheared, quartz veins, frags. chloritized.											
		1454.7-1455.0' : section altered adjacent to quartz veins.											
		Pale green in color. Quartz eyes visible. Boundaries are very sharp, rounded shape ? may be amygdules. Grades into massive to weakly laminated lithology. White felsic patches dominant with thinner chloritic bands. Sheared near lower contact disseminated pyrite.											
1457.9	1497.4	Mafic - Int. - Mafic Flow											
		Massive to weakly laminated green in color. Visible feldspar content high, minor amygdules. Not very hard. Aphanitic, green in color, highly sheared, chloritized. % aphanitic matrix variable.	16811	1480									
		1470.8-1471.2' : sheared, quartz carb. veins, andesite 45° C/A											
		Talc-chlorite on shears. Presence of amygdules suggests mafic											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		flows or tuffs (?)											
		1476.8-1481.0' : numerous "gash" veins 75° C/A. Cut by second											
		set gash veins 35° C/A.											
		Shear planes folded - crenulations on shear surfaces. Gash											
		veins carbonate.											
		Lower portion of section higher sheared 1488.6-1497.4.											
		Quartz in shear, fragments chloritized, talc chlorite.											
		Rubby sections of core. Shears 35° C/A - 30° C/A.											
1497.5	1519.5	Mafic Tuff - Int. Tuff.											
		Section green in color, highly chloritized. Rubby 1500-1503'											
		Talc-chlorite.											
		1503.0' : massive, laminated, very fine laminations. Aphanitic											
		green, visible feldspars and quartz eyes - minor. Disseminated											
		pyrite. 1510.3-1510.5 quartz vein wall rock altered to blue											
		green. 1510.9 bands of pyrite stringers. Sheared 15° C/A											
		flexures in shear (1513-1514).											
		1514.4-1515.0' : several milky quartz veins, section weakly(?)											
		altered 1515.6 Shear 25° C/A Laminations 55° C/A.											
		1518.7-1519.5' : amygdaloidal section top of flow or tuff,											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		gaseous horizon. Sulphide laminations near contact.											
1519.5	1520.4	Felsic Tuff											
		Grey-grey green in color visibly laminated felsic bands with thin mafic horizons.											
		1520.0-1520.4' : highly sheared, quartz veins and section made up entirely of chloritic flakes.											
1520.4	1532.0	Mafic - Int. Tuffs											
		Massive to very weakly laminated. Grey to grey green in color. Visible feldspars visible in aphanitic mafic matrix. Chlorite on shears. Visible pyrite/pyrrhotite in laminations and associated with carbonate veins in shears. 1531.1 Carbonate and pyrite. Contact with next unit marked by amygdules.											
1532.0	1538.9	Mafic Volcanics (?)											
		Grey green in color. Massive. Aphanitic with very fine leucoxene patches. Section mottled, grey patches may be amygdules.											
		Aphanitic grey green may be felsic or chloritized mafic minerals. Gradually becomes more coarsely crystalline, no marked											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		contact but around 1538.9 gabbro present.											
		1535.6-1538.9' : may be a chill margin or altered mafic tuff.											
1538.9	1649.4	Gabbro											
		Medium to coarse grained grey-green in color spottle appearance due to green chloritic patches visible on core surface.											
		Feldspar phenocrysts fractured, chloritized. Mafics dominate composition may be ultra mafic phase. Hornblendes visible - chloritized. Minor shearing 50° C/A rosy quartz, ankerite.											
		Epidotized adjacent to shearing. Alternation of feldspar phenocrysts noticeable near shears. Feldspar and mafic phenocrysts in finely crystalline matrix of feldspar and mafic crystals.											
		Feldspars chloritized mafics - retrograde metamorphism to biotite (?)											
		1582.9' : sheared 45° C/A Local alt. of feldspars.											
		Carb. quartz veining. 1587.8' sheared 65° C/A.											
		Felsic clots to 3 cm. Disseminated pyrite. Variations throughout hole. Feldspar clots phenocrysts visible and darker mafic clots to 2 mm. noted. Medium to finely crystalline amphibole cleavages visible in coarser sections. (1612' gabbro description :											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		‡ 50% white to tinted green feldspars 1-2 mm., amphibole crystals to 2 mm. mafics ‡ 50% crystal cleavages visible, disseminated pyrite. Section chloritized)											
		Leucoxene alteration visible adjacent to quartz-carb. veins											
		1623.6' : 60° C/A quartz carb. vein (carbonate) leucoxene alteration 1628.4' - Shear zone 50° C/A.											
		1643.3-1643.6' : stringers chloritic material and carbonate quartz.											
		1643.6-1644.0' : chloritized gabbro fragment.											
		1644.0-1644.4' : milky quartz vein with chloritic stringers.											
		1644.4-1644.9' : stringers chlorite, gabbro fragments quartz carbonate. Leucoxene alteration mafic clots visible to 1649.4'.											
1649.4	1655.4	Mafic Volcanic (?)											
		Medium to finely crystalline. Grey-green in color, minor leucoxene alt., mafic clots to 1 mm. no larger visible. Aphanitic chloritized - altered mafic volcanics or transition from gabbroic sill to mafic volcanic.											
1655.4	1668.6	Basalt chloritized											

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DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
		Green in color aphanitic matrix with amygdules. Massive to locally brecciated sections breccia fragments in carbonate matrix with disseminated to cubic clots of pyrite and magnetite. Sections similar to pillow rims very small scale - globules of lava (?) chloritic green interiors dark blue-black rims with carbonate pyrite magnetite between rims, in contacts. Fragmental (?) contacts rounded.	Sample	for whole rock								
1668.6	1676.0	1670.6-1670.7' : visible pyrite to 15% reddish tint to matrix - magnetite. Most of shear zones or pyritic fragmental units are highly magnetic ? represent iron formation.	16813	1668	1670	.002	1	1075	124			
		1671.3-1671.4' : magnetic, visible pyrite lenses bands.										
		1672.1-1672.3' : pyrite magnetite carbonate.										
		1672.4-1673.1' : pyrite magnetite to ± 50% - 75% chloritic basalt fragments carbonate matrix iron formation (?)	sample	for sulphides								
			16814	1672	1673	.003	1	670	159			
			16815	1683.7	1684.7	.003	1	2440	166			

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		1673.1-1676.0' : amygdaloidal basalt pyrite, magnetite carbonate corss cutting vein at 1674.6. Weakly laminated shear or band at 1674.8-1674.9'.											
1676.0	1684.3	Basalt (?) Section grey-green in color more coarsely crystalline. Visible feldspars to 1 mm. in green chloritic matrix. May be altered basalt. Massive, non laminated no visible amygdules. Pyrite magnetite quartz bands veins 1683.7-1684.4'. Section from 1684.1-1684.3' may be iron formation between two flows.											
1684.3	1697.1	Mafic Tuffs (?) Massive to weakly laminated greener in color. Aphanitic to finely crystalline, chloritized altered basalt - mafic tuff. Pyrite pyrrhotite in shears and stringers minor magnetite. Sulphides associated with fracture fillings. 1694.7-1694.9' ± 50% pyrite in shear. 45° C/A. Section sheared near contact; chloritic with pyrite.											
1697.1	1699.0	Rhyolite											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
		Section fragmental, fragments outlined by sulphides, very hard										
		siliceous. Breaks with conchoidal fracture, visible quartz	Sulphides									
		eyes. Massive to laminated from 1698.3'. Sheared with sulphides	16816	1697	1701	.003	1	4205	88			
		in shears. Several pyrite magnetite zones. 1698.4-1699.										
		From 1699' section massive to visibly laminated 65° C/A.										
1699.0	1701.7	Rhyolite (?)										
		Section massive to weakly laminted. Chloritized, locally sili-	16817	1700								
		cified (?)										
		1700.6-1700.9' : pyrite magnetite. Gradational contact to tuffs										
		below (?) Pyrite in shear or fracture // C/A.										
1701.7	1711.4	Mafic Tuffs										
		Laminated, fragmental to massive near stratigraphic top of	16818	1702	1704	.004	1	700	218			
		unit. Felsic bands alternate with chloritic aphanitic bands.										
		Chloritic mafic to intermediate tuff. 1701.7-1702.3 Pyritic										
		bands, weakly magnetic. Amygdules could be highly sheared										
		basalts or mafic tuffs laminated appearance suggests tuffs.	16819	1706								
		Section breaks along chloritized shear faces. SO//S, 70° C/A.										
		1707.8-1708.0' : altered mineralized contact between two										
			sample									
			for sulphides									

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
		tuffs (?) Pyritic clots in shear 25-30% pyrite. Strat. top	16820	1707.5	1708.5	.002	1	363	233			
		massive amygdaloidal still sheared tuffaceous.										
1711.4	1717.4	Mafic Tuffs/Pyrite										
		Grey - dark green chloritic - similar to above numerous pyrite										
		stringers in shear, pyrite visible in amygdules and vesicles.	Sample	forsulphides								
		1711.4-1713.3' : pyrite $\frac{1}{2}$ 25% of section.	16821	1711	1713.2	.004	4	3070	254			
		1713.3-1717.4' : massive grey green tuffaceous chloritized.										
1717.4	1721.7	Mafic Volc.										
		Massive to visibly laminated. Massive sections grey-green										
		felsic clots may be amygdules. Finely crystalline feldspars										
		in aphanitic mafic matrix.										
1721.7	1727.1	Felsic/Int. Tuff										
		Grey in color, weakly to well laminated. Greyer felsic bands										
		alternate with aphanitic chloritic bands. Quartz eyes section										
		chloritized sericitized weakly. Visibly laminated from 1725'.										
		1727.1' highly sheared.										

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DE	A	DESCRIPTION	ECHAN.	DE	A								
1727.1	1739.0	(Mafic Volc./Felsic Dykes)											
		Grey green to black in color, chloritic highly sheared, may											
		have been amygdaloidal/vesicular basalt flows. Appears to be											
		intruded by a series of thin felsic dykes. These are medium											
		grained to porphyritic and make up 25-50% of section. Chlori-											
		tized, sheared pyrite in shears. Lower foot looks like porphy-											
		ritic gabbro.											
1739.0	1756.7	Basalt	Sample	for whole rock									
		Section green to black in color, sheared with visible amygdules.	16822	1740									
		Some suggestion of laminations. Highly chloritized breaks											
		along schistosity. Disseminated pyrite. Possibly finely lami-											
		nated from 1744'. Disseminated pyrite more abundant aligned											
		in banding still highly chloritized. Sheared mafic tuffs or											
		basalt.											
1756.7	1763.7	Mixed Mafic to Felsic Tuffs											
		Matrix similar to unit above, mafic. Elongate to rounded felsic											
		clots appear to be fragments in green chloritic matrix. Mafic											
		to int. tuff with felsic lapilli, Pyrite to 20%, White clots											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
		very hard may be rhyolitic tuff frags. Visible to 1761.7'	Sample									
		Mafic tuffs take over to 1763.7'.	16823	1758	1762	.003	2	406	2570			
1763.7	1765.0	Felsic/Int. Tuff Frags.										
		Grey in color massive, possibly fragmental. Section very hard										
		finely crystalline feldspar in green chloritic matrix & feld.										
		60-70% (?) Silicified or highly siliceous. Felsic bands alt.										
		with mafic bands. In the mafic bands quartz filled vesicles										
		are noted. Possibly int. tuff with felsic fragments chloriti-										
		zed.										
1765.0	1776.0	Gabbro to basalt										
		Massive aphanitic to finely crystalline leucoxene alt. Becomes										
		more coarsely crystalline towards 1776'. Gradational contact (?)										
1776.0	1829.9	Gabbro										
		Similar to gabbro above volcanics (1538.9-1649.4). Grey green										
		to blue green medium to finely crystalline mafic clots visible										
		throughout section - giving it a spotted appearance.										
		1790.4-1796.0' : cut by a number of veinlets 30-35°C/A'										

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Quartz carbonate. These cut chlorite vein (30° C/A). Section											
		grey to green chloritized zones mafic clots stand out. Epido-											
		tized silicified near larger veins. Local development of por-											
		pyritic felsic phases. Shear zones chloritized, development											
		of finely crystalline texture. May be inclusion of mafic											
		volcanics.											
		Overall medium to finely crystalline mafic phenocrysts in fine-											
		ly crystalline to aphanitic felsic matrix. Amphibole cleavages											
		noted in coarser sections. Finer sheared section near contact.											
1829.9	1831.1	Gabbro											
		Finely crystalline. Zone grey to green in color. Finely											
		crystalline, aphanitic, chloritic sheared.											
1831.1	1848.4		Sample	for whole rock									
		Grey - very hard, massive, aphanitic to finely crystalline	16824	1840									
		feldspars minor chloritic matrix intermediate to felsic tuffs.											
		Non-conchoidal fracture. Section carbonatized. Similar to											
		highly altered basalts (spilitized ?) no visible amygdules.											
		No visible quartz eyes.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1848.4	1972.1	Basalt/Mafic Tuff											
		Section blue green in color laminated to sheared 60° C/A.											
		Chloritic green streaks, white feldspars to .5 mm. in shears.											
		Dominantly green aphanitic chloritized matrix with variable											
		amounts feldspars and quartz eyes (?) Carbonatized. Breaks											
		along chloritized shear. Basalt or mafic tuff. More felsic											
		section may be intermediate tuffs. Minor massive sections											
		still highly sheared; chloritized, pyritic.											
		1869.6' : sheared zone chloritic with pyrite, carbonate.											
		1869.8' : sheared, chloritic with pyrite cubes.											
1872.1	1887.7	Basalt/Mafic Tuffs											
		Contact visible, section becomes very magnetic. Dark green to											
		blue in color. Clots of pyrite in green chloritic section											
		weakly laminated near top of unit.											
		1872.9-1873.4' : section very magnetic, laminated, with pyrite											
		magnetite in carbonaceous bands, very hard siliceous ? iron											
		formation - cherty seds. Laminations not well developed. Pyrite											
		amygdule (?) fillings.											
		1874.1' : thin band magnetite, pyrite, pyrrhotite.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
		May be secondary cut were axis 80-90°.										
		1874.2-1875.3' : numerous stringers magnetic material pyrite, pyrrhotite chales (?) Carbonate stringers.										
		1875.3' : green chloritic section sheared, laminated 65° C/A.	Sample									
		Visibly amygdaloidal from 1876.3'. Pyrite fills amygdules and is visible in matrix. 20-25% sulphides magentic pyrite, pyrrho-	16825	1872.5	1873.5	.004	4	4025	456			
		tite. Pyritic clots to larger than 1 cm. Magnetic bands with carbonate. Section weakly laminated mafic tuffs to basalt.	16826	1876	1877.5	.002	3	3585	1395			
		May be highly sheared amygdaloidal basalt with pyritic rims pillow margins.	16827	1879	1885.5	.002	5	11100	1975			
								1.1% Cu				
1887.7	1901.4	Basalt - Mafic Tuffs										
		Dark green to black in color. Massive, chloritized feldspars, to .5 mm, in dark aphanitic matrix. Moderately soft chloritic flow top or frag. tuff at "top" of unit.	Sample									
			16828	1900								
1901.4	1904.6	Int. to Mafic Tuffs										
		Moderate to finely hard transitional to felsic tuffs near 1904.6'. Color and hardness change may be due to degree of alteration.										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1904.6	1916.0	Felsic - Rhyolitic Tuff											
		Light grey green to grey. Very hard quartz - clear crystals											
		in green network. Quartz eyes. Disseminated pyrite. Weakly											
		conchoidal fracture clear crystals in aphanitic felsic matrix.											
		1909.3' : sheared, chloritized. 20° C/A.											
		Chloritic needles visible.											
1916.0	1929.6	Spherulitic Rhyolite											
		Dark blue to grey. Very hard. Massive with visible white feld.											
		crystals in aphanitic matrix. Spherulitic (?) translucent											
		blue grey clots in chloritic matrix. Quartz eyes. Transition											
		to pale greenish brown unit at 1929.6' suggests color diffe-											
		rence may be due to degree of alteration.											
1929.6	1939.0	Rhyolite/Tuff (?)											
		Pale brownish green to buff (?). Extremely hard. Feldspar											
		or quartz crystals to 1 mm. with fine network of chlorite											
		between crystals. Conchoidal fracture. Weakly chloritized.											
		Quartz eyes. Finely crystalline quartz, feldspar in felsic											
		matrix (?) Sheared, cut by quartz veins. 1937-1937.1 45° C/A.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		May be fragmental. 1939.1-1939.3' Quartz carb. vein minor											
		nakenite (?) 35° C/A. Chloritized shear.											
1939.0	1959.5	Felsic/Rhyolitic Tuff											
		Section darker in color to bleu-grey. Massive, white felsic	Sample	for whole rock									
		crystals to spherulites in dark aphanitic matrix. Finely crys-	16829	1950									
		talline feldspars with quartz eyes. May be finely crystalline											
		quartz matrix fairly hard, chloritized. Weakly conchoidal frac-											
		ture. Cut by felsic dyke - tension fracture filling 1941.2-											
		1941.4											
		Section weakly to strongly magnetic. Section becomes visibly											
		spherulitic around 1959.5'.											
1959.5	1988.0	Spherulitic Felsic Tuff Rhyolite											
		Section grey green in color blue felsic (?) clots or spheruli-											
		tes caught up in chloritic matrix section very magnetic clots											
		to 80%. Very hard conchoidal fracture not well developed. Va-											
		riations as thin section, contacts gradational, zones sheared											
		chloritized.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
1988.0	2006.4	Int. to Mafic Tuffs	Sample									
		Green to blue green in color. Massive with amygdules in aphanitic matrix, softer chloritized. Shear planes green to black chloritic. Disseminated sulphides. Possible lapilli near 1996.6-1996.8'. Laminated 75° C/A. Quartz eyes in chloritic matrix.	16830	1990								
2006.4	2017.4	Sulphides/Iron Formation										
		Section laminated, highly magnetic stringers and bands of pyrite, pyrrhotite visible laminations 70° C/A. Massive semi	Sample									
* N.B. Accor-		ding to footage	16839	2006	2008	.001	4	2635	9900			
tags there is		(Core heavier). Cut by or interlayered with quartz carbonate	16840	2008	2010	.001	13	5095	2980			
4-4½ feet of		stringers cherty iron formation. Conchoidal fracture. Pyrite	16841	2010	2012	----	18	7140	3055			
section missing.		bands interlayered with grey magnetic siliceous band. "Iron	16842	2012	2014	----	8	5930	7415			
Tag may be in		Formation" interlayered with chloritic tuffs and felsic lapilli -	16843	2014	2016	.001	8	5278	1558			
wrong spot.		fragmental tuffs cut by green tinted milky quartz veins.	16844	2016	2018	.002	3	410	555			
		Sulphides also include minor amounts of sphalerite. Finely laminated felsic and mafic tuffs. Degree of magnetism varies mafic tuffs weakly, siliceous iron formation strongly magnetic.										
		70° C/A minor kinking. Graphitic (?) Sulphides continue to										

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		within 1 foot of contact.											
		* See detailed description at the end of log 2006.0-2017.0'.											
2017.4	2047.0	Rhyolitic to felsic tuffs											
		Section grey green, massive. Vescicular to visible amygdules	sample										
		or gas tubes. At 2025.5' Section altered to pale green to	16834	2021									
		brown. Completely alters appearance of section but appears to											
		be part of same lithology. Section very hard. Finely crystal-											
		line feldspars/quartz with quartz eyes/vesicles. Paler rocks	Sample										
		appear to be chloritized version of grey sections (?) Vesci-	16835	2041									
		cular rhyolitic to felsic tuffs. Vescicular zones may mark tops											
		of individual flows or ash falls.											
		2035.6-2035.8' : Zone of quartz filled gas bubble (vesicles)											
		or spherulitic phylolite. Minor banding may be wedded tuffs											
		(2036.6-2036.8, 2037.3-2037.5) finely laminated. Felsic to											
		rhyolitic tuffs ; visible quartz eyes but lack conchoidal											
		fracture.											
		Quartz veining associated with pale yellow green section											
		spilitized (?). Fragmental, quartz eyes, in felsic (?) chlori-											
		tized matrix.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
2047.0	2069.0	Felsic Tuffs (?)											
		Section massive to weakly laminated grey green in color locally altered to yellowish green. Disseminated pyrite. Minor zones with grey felsic fragments. Several sections brecciated with quartz matrix may be pyroclastic (2058.5-2063.0' - felsic frags. in green chloritic matrix). Flow top at 2064' vesicular with fragmental unit strat. above. Mafic fragments in felsic rhyolitic matrix.											
		2065.0-2066.5' : finely laminated grey, visible quartz eyes in felsic/quartz matrix - aphanitic finely crystalline wedded tuff.											
2069.0	2088.2	Felsic Rhyolitic Tuffs	Sample										
		From 2069' finely laminated to massive zones alternate with massive zones with vesicles. Section grey to grey green. Hard to very hard. Carbonate quartz filled vesicles numerous quartz eyes. Aphanitic grey matrix. Vesicles frags. aligned in laminations. Some sections may be rhyolitic flows.	16836	2074									
2088.2	2089.5	Lapilli Tuff											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Distinct contact, vesicular section near contact, laminated with lapilli fragments.											
2089.5	2103.1	Felsic Rhyolitic Tuffs											
		Massive to laminated, grey in color. Some aphanitic (?) horizons.											
		2094.2' : finely laminated cherty horizons.											
		2096.3' : laminated, black chloritic to black silicious bands.											
		Quartz modules bands. Black bands highly folded on small scale quartz brecciated. Quartz stringers form boudinage along mini fold planes. (2097.9-2098.2') Pyrite, pyrrhotite in quartz breccia zones strongly magnetic carbonate matrix.											
		2100.1' : fine cherty bands 65 ^o C/A.											
		2101.4' : cherty bands with silicious modules.											
		2101.6-2103.1' : very finely laminated tuffs not very hard, chloritic .											
2103.1	2121.2	Felsic Tuffs	16837	2105									
		Visible clots of feldspar, quartz eyes vesicles. Aphanitic matrix to finely crystalline feldspars. Vesicles carbonate											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		in fillings. Finely crystalline near flow "top". Finely crystalline feldspars with quartz eyes.											
2121.2	2130.6	Cherty Tuffs/Marine Seds											
		Section laminated with massive aphanitic bands. More finely crystalline to aphanitic then tuffs above. Grey in color. Fairly soft black bands may be chloritic phyllites. Grey bands felsic tuffs. Finely laminated, alternating 1-2 mm. bands black-grey-grey to white, possible cherty horizons. Pyrite in laminations. Quartz veining boudinage, gash vein in fillings. Period of quiescence. Laminations 60° C/A. Section carbonaceous.											
2130.6	2140.4	Mafic Int. Tuffs (?)											
		Grey green in color, carbonaceous to felsic clots in grey green aphanitic matrix. Sedimentary section 2140.2-2140.4 chloritic soft finely laminated. Section strongly magnetic.											
2140.4	2154.4	Felsic Lapilli Tuff											
		Section grey-green white clots from 1-2 mm. up to 5 mm. stretched in schistosity in aphanitic, chloritic matrix. Section											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		moderate to fairly hard. Félsic lapilli tuff or altered spherulitic rhyolite. Clots not hard enough to be siliceous.											
2154.4	2156.2	Int./Mafic Tuff Grey green chloritic. Finely laminated to massive.											
2156.2	2216.2	Rhyolite (Rhyolitic Tuff) Section becomes greyer in color as % of visible grey quartz clots increases. May be two lithologies present or section becomes more coarsely crystalline. Weakly conchoidal fracture visible quartz eyes cut by quartz carb. veins sub parallel to C/A. Massive non-laminated. Locally fragments visible quartz eyes stand out in grey green vitreous translucent matrix - finely crystalline. Section very hard. Minor alteration to yellowish green. Chloritic quartz carb. shears. Section from 2211' altered to yellowish green cut by milky quartz veins with chloritic crystals in veins. No visible contacts but lithology changes to spherulitic rhyolite (? alteration enhances outline of spherules) 2213.0-2214.0' : back into quartz eye rhyolite.	16838	2162									

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Gradational contact to int. to mafic tuffs near 2216.2'.											
2216.2	2416.0	Mafic Volc. & <u>Gabbro</u>											
		Section green-grey in color finely laminated to massive, chloritic. Sheared chloritized version of unit above or int. to mafic tuffs. 60° C/A. Alt. felsic and chloritic bands. Section very carbonaceous effervescent (vs non magnetic of rhyolite)											
		From 2217.8' massive chloritic. Finely crystalline feldspars in chloritic matrix. Carbonaceous. Chloritized mafic int. tuffs (?). Massive section strongly magnetic. Becomes more coarsely crystalline from 2219 by 2221 finely crystalline possible gabbroic 2224 medium to finely crystalline amphiboles visible. 2241 spotted appearance similar to gabbros higher in hole. Syn. volcanic ? or large flow.											
		Varies fine to medium crystalline. Leucoxene alteration visible. Section carbonaceous.											
		2247.8'-2248.2' : resembles mafic tuffs - feldspars stretched in shear may be sheared gabbro with development of schistosity, carbonate stringers in shear 55° C/A.											
		2248.5-2249.0' : breccia zone, quartz carbonate chloritized ±90° C/A.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: NORITA

TROU No: NOR-84-2A

PAGE: 59

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Disseminated pyrite and py along shears.											
		2256.0-2257.8' : mafic tuffs finely laminated quartz veins and carbonate. Quartz boudins in shear. 70° C/A. Contacts with massive units ? parallel to shear laminations 2269-2276. Grey green in color finer grained, still made up of crystalline mafic minerals & feldspars difficult to determine ? Gabbro or basalt no amygdules etc. Section with mafic crystals to 2 mm. feldspar ghosts to 2-3 mm.											
		Cloritized epidotized near veins fractures.											
		Sheared (?) at 2312.1'-2112.2'.											
		Epidotized sections yellowish green feldspars stand out porphyritic section 2318.2-2319.8'.											
		Section finely crystalline to aphanitic 2342-2356'.											
		Sheared section 2340.2-2341'. Frags. chloritized aphanitic resemble basalts sheared 60° C/A.											
		2360.4' : carbonate quartz vein in shear 30° C/A.											
		2360.9-2361.8' : quartz carb. in shear several stages vein sheared 25° C/A. to sub parallel.											
		Some sections textural variations stubby feldspar crystals - short lathin to 1 mm. (2362-2369').											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: NORITA

TROU No: NOR-84-2A

PAGE: 60

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Diabasic texture 2376 - feld needles in aphanitic mafic matrix.											
		2379.0-2379.9' : felsic dyke.											
		2380.6-2381.2' : felsic dyke.											
		Section finely crystalline to aphanitic.											
		2396.5-2397.3' : quartz carbonate vein 45° C/A.											
		Section grey green aphanitic to finely crystalline. Magnetic											
		feldspar clots phenocrysts to 2 mm. epidotized may be porphyri-											
		tic gabbro near end of section.											
		2409.4-2410.1' : quartz carb. veins laminated, chloritic. Bottom											
		of hole finely crystalline feldspars in aphanitic to crystal-											
		line mafic matrix. Highly magnetic.											
2416.0		END OF HOLE.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: NORITA

DETAILED DESCRIPTION OF THE MINERALIZED SECTION.

TROU No: NOR-84-2A

PAGE: 61

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
2006.0	2006.19	Green chloritized tuff dark magnetic band 2006.14-2006.15											
2006.19	2006.2	Magnetite											
2006.2	2006.35	Green chloritized tuff											
2006.35	2006.54	Sulphides & magnetite. Magnetite variable from 50-80% inter-layered with tuff bands. Pyrite secondary or re-mobilized vein cuts across banding 2006.41'.											
2006.54	2006.84	Magnetite ⁺ 80% minor tuff bands.											
2006.84	2007.0	Felsic tuff fragmental magnetite in matrix.											
2007.0	2007.02	Magnetite ⁺ 90%.											
2007.02	2007.12	Dark chloritic finely laminated tuff.											
2007.12	2007.75	Interlayered tuff and magnetite. Magnetite to 75% of section.											
2007.75	2007.85	Chloritized quartz vein/carbonate.											
2007.85	2007.92	Interlayered tuff and magnetite.											
2007.92	2007.94	Carbonate quartz vein.											
2007.94	2008.40	Magnetite matrix around felsic fragments or amygdules.											
2008.40	2008.44	Chloritic tuff.											
2008.44	2008.77	Magnetite and mafic tuffs: ⁺ 75% magnetite ⁺ 5% pyrite ⁺ 5% felsic clots, amygdules (?) 15% tuff.											
2008.77	2009.0	Magnetite and mafic tuffs cut by carbonate quartz stringers.											
2009.0	2011.0	Magnetite, pyrite, tuff. Interlayered magnetite and tuff bands											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: NORITA

TROU No: NOR-84-2A

PAGE: 62

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Magnetite dominates section 50-60%. Cut by numerous carbonate veins parallel to banding pyrite † 5%.											
2011.0	2011.56	Pyrite, magnetite tuff: Noticeable increase in % pyrite. † 50% pyrite. Section noticeably less magnetic. Tuffs interlayered with pyrite.											
2011.56	2011.82	Tuffs pyrite : Section noticeably less magnetic: Pyrite bands stringers to 5-10%. Green-black tuffs dominate.											
2011.82	2012.32	Tuffs pyrite, carbonate veining. Section hard siliceous appears to be laminated green chloritic. Pyrite 5-10%. Rusty brown to light orange opaque mineral may be sphalerite 5-10% felsic lapilli in chloritic matrix.											
2012.32	2012.67	Tuffs pyrite, sphalerite : similar to above 10-15% pyrite 5% sphalerite (?) Carbonaceous. Cut by quartz vein or cherty horizon 2012.55-2012.67'.											
2012.67	2013.3	Tuffs, pyrite, interlayered mafic (?) tuffs, cherty (?) horizons and pyrite bands. Pyrite also disseminated throughout. White bands effervesce but are very hard. Chloritic milky quartz vein 2013.17-2013.30'.											
2013.3	2013.4	Pyrite, tuff : massive pyrite, cubes clots to 80%.											
2013.4	2014.16	Pyrite; tuff, quartz veins (?) Pyrite bands parallel tuff bands.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: NORITA

TROU No: NOR-84-2A

PAGE: 63

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Section cut by quartz veins. Pyrite visible along veins and											
		cross cutting veins. Carbonate veinlets cut across quartz veins											
		and pyrite. Tuffs finely laminated. Pyrite to 25%.											
2014.16	2014.67	Tuffs: finely laminated, black chloritic tuffs. Less than 5%											
		pyrite stringers and bands. Small gabbroic (?) dyklet at											
		2014.5-2014.53'.											
2014.67	2015.0	Magnetite tuffs : section becomes strongly magnetic at 2014.67											
		finely laminated chloritic - black tuffs interbedded with grey											
		magnetite bands. Massive magnetite (?) to ⁺ 80% of section.											
		Carbonate filled clots/amygdules from 2015.4' to end of section											
		still magnetic. Dominantly grey to black, brown tint may be due											
		to sphalerite or pyrrhotite.											
2015.0	2015.52	Tuffs, pyrite: section visibly laminated dark green chloritic											
		bands, alternating with grey siliceous horizons - may be cherty											
		bands, some boudinage - quartz "augens" (?) May be felsic											
		lapilli to 3 cm. long. Pyrite 5-15% minor to bands parallel to											
		tuff horizons.											
2015.52	2015.7	Tuffs, pyrite: finely laminated green chloritic tuffs interlaye-											
		red with pyritic bands. Disseminated pyrite 10-15% pyrite.											
2015.7	2015.78	Tuffs: grey siliceous with chloritic fragments (?) < 5% pyrite.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: NORITA

TROU No: NOR-84-2A

PAGE: 64

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
2015.78	2017.0	Tuffs, pyrite : dark green to black finely laminated chloritic											
		tuffs, possibly fragmental 1-2 mm. interlayered by pyritic											
		bands, may also be some replacement. 15-20% pyrite. Felsic											
		"boudins" may be remnants of layers or fragments.											
2017.0		Tuffs : interlayered green chloritic bands and lighter felsic											
		horizons minor pyrite.											
		Summary : 2006-2011' Magnetite, chloritic tuffs, minor pyrite.											
		up to 80% of section magnetite.											
		2011-2014.67' Finely laminated tuffs with 10-15%											
		pyrite, sections to 25% ? sphalerite.											
		2014.67-2015' Magnetite \pm 80% of section.											
		2016-2017' Finely laminated tuffs pyrite 5-10% up to											
		20% locally.											

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA
SONDAGE: NOR-84-2A

DATE: August 11/84
OPERATEUR: K. Adams

0		100	0.0	20	0.0	30	0.0	40	0.0	50	0.0	1.2
5		5	12.0	5	0.0	5	0.0	5	0.0	5	0.0	0.0
10		10	13.0	10	0.1	10	0.0	10	0.0	10	0.0	0.1
15		15	14.0	15	0.0	15	0.0	15	0.0	15	0.0	1.2
20		20	17.0	20	0.0	20	0.0	20	0.0	20	0.0	0.0
25		25	9.2	25	0.0	25	0.0	25	0.1	25	0.0	0.0
30		30	14.0	30	0.0	30	0.0	30	1.0	30	0.0	0.0
35		35	0.1	35	0.0	35	0.0	35	0.0	35	0.0	0.0
40		40	0.0	40	0.0	40	0.0	40	0.1	40	0.0	0.0
45		45	0.0	45	0.0	45	0.0	45	0.1	45	0.7	0.0
50	OVER BURDEN	50	0.0	50	0.0	50	0.0	50	2.6	50	0.1	0.0
55	OVER BURDEN	55	0.0	55	0.0	55	0.0	55	1.7	55	1.9	0.0
60		60	0.0	60	0.0	60	0.0	60	0.0	60	3.1	0.0
65		65	0.0	65	0.0	65	0.0	65	0.0	65	0.0	0.0
70		70	0.0	70	0.0	70	0.0	70	6.2	70	0.0	0.0
75		75	0.1	75	1.0	75	0.0	75	4.4	75	0.0	0.0
80		80	0.0	80	0.0	80	0.1	80	0.3	80	0.0	0.0
85		85	0.0	85	0.0	85	0.2	85	0.1	85	0.0	0.0
90		90	0.0	90	0.0	90	0.0	90	0.0	90	0.1	0.0
95	0.0	95	0.1	95	0.0	95	0.0	95	1.0	95	0.1	0.0

AOÛT
13

AOÛT
28

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:
SONDAGE:

NORITA
NOR-84-2A

DATE:
OPERATEUR:

August
K. Adams

60	0	3.2	70	0.1	80	0.0	90	0	0.0	100	0	0.0	1100	0.0	
5	0.1	0	0.0	5	0.0	5	0.0	5	0.0	5	0.1	5	0.0	5	0.0
10	0.1	10	0.1	10	0.1	10	0.1	10	0.1	10	0.1	10	0.0	10	0.0
15	0.0	15	0.0	15	0.0	15	0.0	15	0.0	15	0.0	15	0.1	15	0.1
20	0.0	20	0.0	20	0.0	20	0.0	20	0.0	20	0.0	20	0.1	20	0.1
25	0.0	25	0.0	25	0.0	25	0.0	25	0.0	25	0.1	25	0.1	25	0.1
30	0.0	30	0.0	30	0.0	30	0.0	30	0.0	30	0.0	30	0.1	30	0.1
35	0.3	35	6.3	35	0.0	35	0.0	35	0.0	35	0.0	35	0.0	35	0.0
40	0.1	40	0.1	40	0.0	40	0.0	40	0.0	40	0.1	40	0.0	40	0.0
45	0.1	45	0.1	45	0.0	45	0.0	45	0.0	45	0.0	45	0.0	45	0.0
50	4.0	50	0.1	50	0.0	50	0.0	50	0.0	50	0.0	50	0.0	50	0.0
55	0.0	55	0.1	55	0.1	55	0.1	55	0.1	55	0.0	55	0.0	55	0.0
60	0.0	60	0.0	60	0.1	60	0.1	60	0.0	60	2.3	60	0.0	60	0.0
65	0.0	65	0.1	65	0.1	65	0.1	65	0.0	65	0.1	65	0.1	65	0.1
70	0.0	70	0.0	70	0.0	70	0.0	70	0.0	70	0.1	70	0.0	70	0.0
75	0.0	75	0.0	75	0.1	75	0.1	75	0.1	75	0.0	75	0.0	75	0.0
80	0.0	80	0.0	80	0.1	80	0.1	80	0.0	80	0.1	80	0.0	80	0.0
85	0.0	85	0.0	85	0.0	85	0.0	85	0.0	85	0.0	85	0.0	85	0.0
90	0.1	90	0.1	90	0.1	90	0.1	90	0.0	90	0.0	90	0.1	90	0.1
95	0.2	95	4.4	95	0.1	95	0.1	95	0.0	95	0.0	95	0.0	95	0.0

13 août

14 août

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA

DATE: August 14/84

SONDAGE: NOR-84-2A

OPERATEUR: K. Adams

120 ⁰	0.0	130 ⁰	0.0	140 ⁰	0.1	150 ⁰	1.	160 ⁰	0.0	170 ⁰	4.7
5	0.0	5	0.0	5	0.0	5	1.4	5	0.0	5	0.0
10	0.0	10	0.0	10	0.0	10	4.5	10	0.1	10	0.0
15	0.0	15	0.0	15	0.0	15	0.0	15	0.1	15	0.1
20	0.0	20	0.0	20	0.0	20	0.0	20	0.1	20	0.1
25	0.0	25	0.0	25	0.0	25	0.0	25	0.0	25	0.0
30	0.0	30	0.0	30	0.1	30	0.0	30	0.1	30	0.1
35	0.0	35	0.1	35	0.0	35	0.0	35	0.1	35	0.1
40	0.0	40	0.0	40	0.0	40	0.0	40	0.0	40	0.0
45	0.1	45	0.0	45	0.0	45	0.0	45	0.0	45	0.0
50	0.1	50	0.0	50	0.0	50	0.1	50	0.0	50	0.0
55	0.0	55	0.0	55	0.0	55	0.0	55	0.0	55	3.4
60	1.4	60	0.0	60	0.0	60	0.0	60	0.1	60	0.1
65	2.8	65	0.0	65	0.0	65	0.0	65	0.1	65	0.1
70	4.4	70	0.0	70	0.0	70	0.0	70	7.7	70	0.0
75	4.0	75	0.0	75	0.8	75	0.0	75	1.9	75	0.0
80	2.8	80	0.0	80	1.0	80	0.0	80	0.0	80	0.1
85	4.9	85	0.0	85	3.5	85	0.0	85	0.0	85	0.0
90	5.3	90	0.0	90	0.0	90	0.0	90	0.0	90	0.0
95	0.8	95	0.0	95	2.3	95	0.0	95	0.0	95	0.1

16 août

22 août

15 août

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA
SONDAGE: NOR-84-2A

DATE: August 22/84
OPERATEUR: K. Adams

180 ⁰ 0.1	190 ⁰ 0.0	200 ⁰ 0.0	210 ⁰ 0.0	220 ⁰ 0.1	230 ⁰ 0.1
5 0.0	5 0.0	5 0.6	5 0.1	5 0.0	5 0.0
10 0.1	10 0.0	10 69.0	10 0.1	10 0.0	10 0.0
15 0.1	15 0.0	15 31.0	15 0.0	15 0.0	15 2.5
20 0.1	20 1.7	20 0.1	20 0.0	20 1.0	20 0.0
25 0.1	25 1.4	25 0.0	25 0.0	25 4.8	25 1.5
30 0.0	30 0.0	30 0.0	30 0.0	30 2.0	30 4.1
35 0.1	35 0.0	35 0.0	35 4.0	35 1.2	35 2.3
40 0.0	40 0.0	40 0.0	40 0.0	40 0.7	40 0.0
45 0.0	45 1.2	45 0.1	45 0.0	45 0.1	45 0.1
50 0.0	50 1.3	50 0.0	50 0.1	50 0.3	50 0.0
55 0.0	55 1.0	55 0.0	55 0.4	55 0.2	55 2.3
60 0.0	60 2.4	60 0.0	60 0.1	60 0.4	60 0.1
65 0.1	65 2.0	65 0.0	65 0.0	65 0.3	65 0.0
70 0.1	70 4.1	70 0.0	70 0.0	70 1.1	70 2.9
75 4.9	75 3.5	75 0.0	75 0.0	75 0.6	75 0.2
80 5.1	80 0.6	80 0.0	80 0.0	80 0.0	80 0.0
85 5.1	85 0.1	85 0.0	85 0.0	85 0.0	85 0.0
90 0.0	90 0.1	90 0.0	90 0.0	90 0.0	90 3.7
95 0.0	95 0.1	95 0.0	95 0.0	95 0.0	95 2.7
		2097 4.6			

24 août

26 août

28 août

25 août

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA

DATE: August 28/84

SONDAGE: NOR-84-2A

OPERATEUR: K. Adams

2400	1.4	0	0	0	0	0
5	8.0	5	5	5	5	5
10	9.0	10	10	10	10	10
15	7.3	15	15	15	15	15
20		20	20	20	20	20
25		25	25	25	25	25
30		30	30	30	30	30
35		35	35	35	35	35
40		40	40	40	40	40
45		45	45	45	45	45
50		50	50	50	50	50
55		55	55	55	55	55
60		60	60	60	60	60
65		65	65	65	65	65
70		70	70	70	70	70
75		75	75	75	75	75
80		80	80	80	80	80
85		85	85	85	85	85
90		90	90	90	90	90
95		95	95	95	95	95

DATE SEPT 14/84

SAMPLE	AU OZ/T	AG PPM	CU PPM	ZN PPM	MN PPM	NI PPM	PB PPM	FE %	CaO %	MgO %	Na ₂ O %	K ₂ O %
16813-A	.002	1	1075	124								
14	.003	1	670	159								
15	.003	1	2440	166								
16	.003	1	4205	88								
18	.004	1	700	218								
20	.002	1	363	233								
21	.004	4	3070	254								
23	.003	2	406	2570								
25	.004	4	4025	456								
26	.002	3	3585	1395								
27	.002	5	11100	1975								

[Handwritten signature]

MINES NORANDA LIMITEE
DIVISION MATAGAMI

GEOCHEMICAL TRACE ELEMENT
INVESTIGATION

Date: 5/10/84 NOBEX 36-196-037 (--- nil)

HANTILLON	Au oz/T	Ag ppm	Cu ppm	Zn ppm	Mn ppm	Ni ppm	Pb ppm	Fe %	CaO %	MgO %	Na ₂ O %	K ₂ O %
16839A	.001	4	2635	9900								
40	.001	13	5095	2980								
41	—	18	7140	3055								
42	—	8	5730	7415								
43	.001	8	5278	1558								
44	.002	3	410	555								

[Handwritten signature]

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755

TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: NORANDA EXPLORATION COMPANY LIMITED
ATTN: M. PICHE
P.O. BOX 1270
MATAGAMI, QUEBEC
JOY 2A0

CUSTOMER NO. 421

DATE SUBMITTED
24-SEP-84

REPORT 22680

REF. FILE 18255-05

24 ROCKS PROJ. NOR-84-2A

WERE ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
WRMAJ %	WR	0.010
WRMIN PPM	WR	10.000

DATE 15-OCT-84

X-RAY ASSAY LABORATORIES LIMITED

CERTIFIED BY 

X	X	RRRRR	A	LL
XX	XX	RR RR	AAA	LL
XX	XX	RR RR	AA AA	LL
XXX		RR RR	AA AA	LL
XXX		RRRRR	AAAAAAA	LL
XX	XX	RR RR	AA AA	LL
XX	XX	RR RR	AA AA	LLLLLLL
X	X	RR R	AA AA	LLLLLLL

XRF - WHOLE ROCK ANALYSIS

NORANDA EXPLORATION COMPANY LIMITED
 Attn: M. PICHE
 P. O. BOX 1270
 MATAGAMI, QUEBEC
 JOY 2A0

CUSTOMER No. 421

DATE SUBMITTED
 24-SEP-84

REPORT 22680

REF. FILE 18255

DATE REPORTED 15-OCT-84

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

SAMPLE	SI02	AL203	CAO	MGO	NA2O	K2O	FE2O3	MNO	TI02	P2O5	CR2O3	LOI	SUM
16801	52.4	12.8	0.24	14.4	<0.01	0.01	11.2	0.05	0.82	0.08	0.01	6.93	98.9
16802	50.4	12.0	7.10	5.86	1.22	0.63	12.5	0.15	1.15	0.13	<0.01	9.00	100.2
16803	60.0	12.0	0.30	9.50	<0.01	0.24	11.2	0.07	1.03	0.15	<0.01	5.23	99.8
16804	47.0	13.4	3.28	10.4	0.59	0.27	13.6	0.33	0.87	0.12	<0.01	9.77	99.7
16805	53.8	13.1	0.26	8.00	<0.01	0.10	17.1	0.18	0.89	0.11	<0.01	5.54	99.1
16806	47.7	13.3	2.11	8.94	0.05	0.13	17.8	0.30	0.90	0.15	<0.01	8.00	99.4
16807	65.1	10.5	0.44	4.06	<0.01	0.78	12.8	0.28	1.02	0.24	<0.01	4.00	99.3
16808	70.6	11.1	0.26	3.84	0.01	1.67	7.87	0.10	0.64	0.12	<0.01	3.39	99.7
16809	68.4	11.5	0.27	5.18	<0.01	1.65	7.41	0.12	0.83	0.17	<0.01	3.70	99.3
16810	47.0	13.0	0.38	11.9	0.17	0.55	14.5	0.14	0.88	0.13	<0.01	11.6	100.3
16811	47.5	13.3	5.32	5.59	2.54	0.22	14.3	0.21	1.95	0.18	<0.01	7.54	98.7
16812	55.5	9.51	0.32	11.8	<0.01	0.03	15.0	0.12	0.65	0.08	<0.01	5.77	98.8
16817	84.7	3.56	0.12	2.41	<0.01	<0.01	6.59	0.10	0.12	0.03	0.02	1.85	99.5
16819	81.6	4.44	0.09	3.36	<0.01	<0.01	7.21	0.12	0.16	0.02	0.01	2.23	99.3
16822	53.2	10.3	0.30	11.2	<0.01	<0.01	17.2	0.19	0.61	0.10	<0.01	5.85	99.0
16824	55.4	14.2	5.62	5.96	3.59	0.67	6.87	0.10	0.70	0.12	0.04	7.00	100.3
16828	51.6	11.9	0.76	9.11	<0.01	0.01	17.7	0.16	2.29	0.39	<0.01	5.93	99.9
16829	68.8	10.9	1.58	1.93	3.63	1.02	7.88	0.12	0.54	0.09	0.01	3.62	100.2
16830	56.4	10.3	0.91	7.34	0.06	0.05	17.7	0.43	0.55	0.07	<0.01	5.85	99.7
16834	69.0	11.7	2.43	2.01	3.94	1.40	4.43	0.11	0.65	0.12	0.01	4.23	100.1
16835	72.4	11.1	1.25	0.92	4.20	1.55	3.81	0.05	0.37	0.06	0.02	3.47	99.3
16836	65.7	11.4	3.09	2.70	3.34	1.09	6.25	0.13	0.88	0.10	<0.01	5.08	99.8
16837	47.1	13.9	9.72	4.16	4.34	0.06	8.67	0.21	0.92	0.19	0.02	10.0	99.3
16838	72.1	11.4	1.07	1.06	4.42	0.88	5.13	0.07	0.29	0.03	0.01	2.31	98.9

SAMPLE	RB	SR	Y	ZR	NB
16801	10	<10	20	30	20
16802	10	60	40	110	20
16803	20	<10	50	240	30
16804	10	30	10	60	30
16805	<10	<10	10	60	20
16806	10	10	20	50	10
16807	20	<10	110	340	30
16808	30	<10	140	450	30
16809	60	<10	120	410	40
16810	20	10	40	60	<10
16811	10	70	30	150	40
16812	10	<10	20	170	30
16817	<10	<10	30	90	20
16819	20	<10	20	110	20
16822	<10	<10	20	150	30
16824	20	130	<10	80	20
16828	<10	<10	70	250	20
16829	40	80	130	580	50
16830	30	10	90	490	20
16834	30	70	90	310	30
16835	40	40	80	380	50
16836	30	60	60	240	20
16837	<10	130	20	90	30
16838	10	40	230	690	60

JOURNAL DE SONDAGE AU DIAMANT

A. Bonenfant

DÉCRIT PAR N. Rioux
 DIMENSION BQ
 SECTION 35+00 E
 NIVEAU Surface
 No DU TROU Nor 84-3

PROFONDEUR	BENDAGE	COURSE
COLLET	75 ⁰	190 ⁰

TERRAIN Propriété Norita (Explorations Noranda) CLAIM 23691-4
 LATITUDE 61 043,0 COMMENCÉ Sept. 1984
 DÉPART 60 670,6 FINI 25 septembre 1984
 ÉLEVATION 9 860,1 LONGUEUR TOTALE 2086'

Longueur	DESCRIPTION	MINÉRALISATION	Échantillon	De	A	Longueur	Zinc %	Cuivre %	Or Oz	Argent Oz
0'	Mort-Terrain									
31'	Basalte									
	Gris-vert moyen, dureté moyenne, coussiné, non magnétique, la matrice des coussins est bréchique (fragments de l'ordre du mm jusqu'à 3-4 cm), cette matrice est carbonatée contrairement au coussin, 1-2% Py. en taches principalement interstitielle des fragments, la Py. à l'intérieur des coussins est surtout associée à de petites fractures; amygdulaire (1/2 cm).					64'				Echantillon témoin (bordure de coussin)
	37'-39' Dyke felsique, finement sphérulitique, contacts très irréguliers, blanc-beige.									
	76,5'-77' et 80,5' - 81,5' Matrices des coussins composées de qtz-calcite-chlorite-épidote, non minéralisées.									

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN _____

 TROU No. Nor-84-3 FEUILLE No. 9

LONGUEUR	DESCRIPTION	MINERALISATION	ECHANT.	DE	A	LONGUEUR	ZINC %	CUIVRE %	OR OZ.	ARGENT OZ.		
1195-1197,5'	Passage sans porphyres.											
1203-1204	Idem											
1207,5'-1208	Idem											
1210-1215	Sans ou peu (2-3%) de porphyres.											
1222-1227	Idem											
1231-1239	Plus petits porphyres (1-2 mm) en grande quantité.				1233	Echantillon						
1239-1250	Pas de porphyres.											
1251-1255	Zone de faille.											
1253	Boue de faille											
1259,5-1267	Peu ou pas de porphyres.											
1267-1271	Petits porphyres (1 à 2 mm).				1269	Echantillon						
1271-1290	10% porphyres 2 à 5 mm		4640		1275	Lithogéochimie						
1290-1327	Par intermittence avec porphyres comme précédemment ou sans porphyres.											
1327	Roche fracturée, fragments anguleux pouvant atteindre 2 po et plus, fragments de chert, 1% py.				1327	Echantillon						
					1330	"						
			4641		1331	Lithogéochimie						
1343 - 1370	Brèche, dû à une fracture (?) avec				1346	"						

DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

NORITA

DATE:

SONDAGE:

NOR 84-3

OPERATEUR:

MD

0	0.0	10 0	0.4	20 0	0.1	30 0	0.4	40 0		50 0	
5	/	5	0.2	5	0.2	5	0.5	5		5	
10	/	10	0.3	10	1.3	10	1.2	10		10	
15	/	15	0.6	15	0.3	15	0.2	15		15	
20	/	20	0.2	20	0.8	20	2.0	20		20	
25	/	25	0.1	25	0.2	25	1.5	25		25	
30	0.0	30	0.1	30	0.0	30	3.0	30		30	
35	0.0	35	0.1	35	0.0	35	2.5	35		35	
40	0.0	40	0.1	40	0.0	40	1.7	40		40	
45	1.2	45	0.0	45	0.0	45	0.1	45		45	
50	0.1	50	0.0	50	0.2	50	1.9	50		50	
55	0.0	55	0.0	55	0.1	55	1.4	55		55	
60	0.0	60	0.0	60	0.0	60	0.0	60		60	
65	0.1	65	0.0	65	0.1	65	0.1	65		65	
70	0.0	70	0.0	70	0.1	70	0.1	70		70	
75	0.0	75	0.0	75	0.2	75	0.0	75		75	
80	0.1	80	0.2	80	3.4	80	0.1	80		80	
85	0.1	85	0.1	85	0.8	85		85		85	
90	0.2	90	0.1	90	0.3	90		90		90	
95	0.0	95	0.2	95	1.5	95		95		95	

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC
SUSCEPTIBILITE MAGNETIQUE

Propriété: NORITA Date: _____
Sondage: NOR 84-3 Opérateur: M.D
385 - 895

0	
5	
10	
15	
20	
25	
30	
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
385	0,1
90	0,0
95	0,1

400	0,5
5	0,2
10	0,6
15	5,1
20	2,7
25	2,8
30	0,1
35	2,6
40	1,9
45	1,6
50	2,3
55	0,9
60	0,6
65	1,4
70	0,2
75	0,8
80	1,2
85	0,2
90	0,7
95	1,2

500	2,1
5	1,8
10	0,1
15	0,0
20	0,0
25	0,1
30	0,0
35	0,0
40	0,1
45	0,1
50	2,3
55	0,5
60	1,4
65	1,0
70	1,6
75	1,4
80	1,1
85	0,4
90	0,6
95	1,3

600	2,1
5	1,1
10	1,6
15	0,1
20	0,4
25	0,1
30	0,2
35	0,6
40	1,1
45	0,2
50	0,0
55	0,2
60	0,2
65	0,1
70	0,9
75	0,6
80	0,2
85	0,6
90	0,0
95	0,1

700	1,7
5	0,4
10	1,1
15	0,4
20	1,8
25	1,1
30	0,6
35	0,9
40	0,9
45	0,1
50	1,7
55	0,8
60	4,3
65	2,9
70	1,6
75	1,9
80	1,6
85	1,2
90	0,1
95	0,1

800	0,6
5	6,7
10	0,6
15	0,0
20	0,7
25	0,2
30	0,5
35	0,4
40	0,2
45	0,8
50	0,2
55	0,1
60	0,2
65	0,3
70	0,4
75	0,6
80	0,0
85	0,1
90	0,0
95	0,0

N.B. : K reel = K apparent pour les lectures < 20 x 10⁻³ cgs

EXPLORATIONS NORANDA LIMITEE
 MATAGAMI, QUEBEC
SUSCEPTIBILITE MAGNETIQUE

Propriété: NORITA Date: _____
 Sondage: NOR 84-3 Opérateur: M.D
 900-1495

900	0.0
5	0.0
10	0.0
15	0.0
20	0.1
25	0.1
30	0.0
35	0.2
40	0.4
45	0.8
50	0.3
55	0.1
60	0.1
65	0.3
70	2.1
75	1.1
80	0.1
85	0.4
90	0.1
95	0.2

1000	0.2
5	0.7
10	0.2
15	0.2
20	0.1
25	0.0
30	0.1
35	0.0
40	0.3
45	0.0
50	0.0
55	0.3
60	0.2
65	0.3
70	1.6
75	0.3
80	0.0
85	0.2
90	0.3
95	0.2

1000	0.0
5	0.0
10	0.0
15	0.1
20	0.0
25	0.0
30	0.0
35	0.0
40	0.1
45	0.0
50	0.0
55	0.1
60	0.0
65	0.1
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.1

1200	0.0
5	0.0
10	0.1
15	0.1
20	0.1
25	0.1
30	0.1
35	0.0
40	0.1
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.1
85	0.0
90	0.1
95	0.0

1300	0.0
5	0.0
10	0.0
15	0.1
20	0.0
25	0.1
30	0.0
35	0.0
40	0.1
45	0.0
50	0.0
55	0.1
60	0.0
65	0.1
70	0.0
75	0.0
80	0.1
85	0.1
90	0.0
95	0.1

1400	0.0
5	0.1
10	0.0
15	0.0
20	0.0
25	0.0
30	0.1
35	0.0
40	0.2
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.1
95	0.1

N.B. : K reel = K apparent pour les lectures < 20 x 10⁻³ cgs

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC
SUSCEPTIBILITE MAGNETIQUE

Propriété: NORITA Date: _____

Sondage: NOR - 84 - 3 Opérateur: M.D
1500 - 2085

1500	0.1	1600	0.0	1700	1.6	1800	13.0	1900	3.3	2000	4.2
5	0.1	5	0.0	5	1.5	5	10.0	5	2.9	5	6.4
10	0.1	10	0.0	10	0.1	10	6.4	10	3.4	10	5.6
15	0.1	15	0.1	15	0.1	15	11.0	15	5.6	15	4.9
20	0.0	20	0.1	20	0.1	20	3.9	20	7.0	20	9.2
25	0.0	25	0.1	25	0.2	25	10.0	25	3.6	25	5.4
30	0.0	30	0.1	30	0.1	30	6.5	30	5.8	30	5.7
35	0.0	35	0.1	35	0.0	35	7.8	35	2.6	35	9.9
40	0.0	40	0.0	40	0.0	40	0.4	40	0.5	40	5.5
45	0.0	45	3.6	45	0.0	45	5.9	45	0.0	45	1.9
50	0.1	50	2.7	50	0.1	50	8.0	50	2.2	50	3.0
55	0.0	55	2.4	55	2.1	55	1.0	55	0.8	55	0.6
60	0.1	60	1.5	60	9.1	60	9.0	60	4.2	60	6.0
65	0.1	65	0.8	65	9.1	65	1.0	65	5.6	65	9.4
70	3.5	70	0.1	70	0.7	70	4.2	70	5.5	70	1.6
75	0.0	75	0.0	75	6.1	75	4.2	75	6.8	75	2.3
80	0.1	80	0.0	80	9.6	80	3.7	80	3.7	80	3.1
85	0.0	85	0.0	85	13.0	85	4.0	85	2.5	85	3.6
90	0.0	90	1.0	90	0.1	90	4.5	90	3.6	90	
95	0.0	95	0.0	95	13.0	95	1.6	95	4.5	95	

N.B. : K reel = K apparent pour les lectures < 20 x 10⁻³ cgs

ANALYSES GEOCHIMIQUES TROU NOR-84-3

ECH	PROF.	DESCRIPTION	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MNO	TiO2	P2O5	Cr2O3	Rb	Sr	Y	Zr	Nb
4631	185	BAS	46.1	12.5	10.1	4.46	1.35	0.50	15.6	0.25	2.02	0.22	<.01	10	90	20	90	30
4632	463	BAS	46.2	11.8	9.24	4.81	1.37	0.26	17.3	0.26	1.95	0.23	<.01	30	70	40	110	<10
4633	654	GB	48.3	12.2	8.66	4.95	2.72	0.07	15.9	0.26	1.93	0.20	0.01	20	170	20	80	20
4635	771	BAS	46.0	12.6	6.88	5.45	2.08	0.04	16.9	0.23	2.04	0.23	<.01	10	30	30	110	20
4636	854	BAS	56.3	17.1	7.19	1.04	0.36	4.30	5.27	0.11	0.55	0.08	<.01	80	30	20	60	10
4637	998	BAS	56.5	12.3	4.21	3.14	3.13	0.12	13.6	0.29	1.59	0.42	<.01	10	70	50	240	30
4638	1102	TUF	44.9	12.5	6.47	6.95	1.19	0.15	16.6	0.26	2.03	0.23	0.01	10	40	20	100	30
4639	1156	AND	56.3	15.9	4.15	6.56	4.42	0.11	7.58	0.14	0.66	0.13	0.02	10	90	30	90	20
4640	1275	AND	56.9	15.2	6.47	5.46	3.70	0.31	7.02	0.12	0.65	0.14	0.02	20	100	10	80	20
4641	1331	AND	49.0	18.0	3.06	8.01	3.54	0.85	11.4	0.23	0.81	0.16	0.02	<10	170	20	140	20
4642	1391	AND	56.4	15.5	7.44	6.08	3.26	0.11	7.04	0.13	0.66	0.14	0.02	20	100	<10	90	20
4643	1438	AND	57.1	15.6	3.58	6.80	4.34	0.15	7.76	0.11	0.64	0.13	0.02	10	90	10	90	20
4644	1530	AND	51.5	16.5	4.85	5.15	4.36	0.06	10.3	0.18	1.02	0.21	0.03	<10	100	20	70	20
4645	1737	RHY	70.3	10.6	6.17	1.62	1.12	1.74	2.06	0.05	0.56	0.10	0.01	40	50	100	390	30
4646	1762	RHY	71.0	9.8	3.82	1.54	0.73	1.97	5.37	0.04	0.56	0.15	0.01	60	30	80	360	30
4648	1591	AND	45.6	17.0	4.78	8.28	0.57	2.26	11.4	0.21	1.03	0.21	0.03	60	10	<10	80	30

JOURNAL DE SONDAGE AU DIAMANT

PROFONDEUR	BENDAGE	COURSE
COLLET	-75°	1900

TERRAIN Norita (Explorations Noranda)

CLAIM 128691-4

LATITUDE 61.043,0

COMMENCE 25 septembre 1984

DÉPART 60 070,6

FINI 19 novembre 1984

ÉLEVATION 9 860,1

LONGUEUR TOTALE 5,286'

DÉCRIT PAR Nicole Rioux

DIMENSION BQ

SECTION 35

NIVEAU Surface

No DU TROU NOR-84-3 A

Longueur	DESCRIPTION	MINÉRALISATION	Échantillon	De	A	Longueur	Zinc %	Cuivre %	Or Oz	Argent Oz
1150'	Trou pointé									
	Andésite silicifiée									
	Porphyres (ou gloméroporphyres) blancs, de plagioclase et quartz de l'ordre du mm., répartis irrégulièrement dans cet unité. Peut atteindre jusqu'à 15% de la composition modale. Occasionnellement, les porphyres sont carbonatés, matrice gris clair, à grains fins, localement carbonatée.		4649		1187'	Echantillon				
	1209-1217 Long passage sans porphyres.				1213	Echantillon				
	1231, Veine de calcite de 1 po, 35° AC, la roche est fracturée.									
	1239-1241,5 Roche fracturée, veine de calcite à 30° AC.				1260	"				
	1268 Veine de qtz, calcite entremêlée avec py, angle variable ± 15° AC.		4650		1276	Lithogéochimie				

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN _____

 TROU No. NOR-84-3 A FEUILLE No. 9

LONGUEUR	DESCRIPTION	MINERALISATION	ECHANT.	DE	A	LONGUEUR	ZINC %	CUIVRE %	OR OZ.	ARGENT OZ.		
	Coussins dont le centre est plein de plagio, de l'ordre du décimètre, matrice carbonatée, grisâtre, à l'occasion veinules irrégulières de calcite.				2647	Echantillon						
	2706 Commence à avoir des taches de py-po de 2-3 cm. Interstitiel aux coussins. Donne l'aspect de quelques fragments anguleux au travers des coussins.		4656		2654	"						
	Portions blanches des coussins deviennent de plus en plus grandes (environ 35%). La couleur est d'un gris vert plus clair qu'au début de l'unité.		4655		2656	Lithogéochimie						
	2750 Brèche de coulée, fragments anguleux de 5 à 10 cm.				2666	Echantillon						
	2754-2756 Porphyres de qz-plagio, légèrement carbonatée, 10% du contenu de la roche.				2680	"						
	2757-2759 Cisailée suivant 35° AC, remplie de qz et Py.				2695	"						
2760	Rhyolite Aspect bleuté, avec fragments de 3-4 po de l'unité précédente, py éparse.				2702	Lithogéochimie						
	2764 Sphérolitique, très peu chloritisée.				2711	Echantillon						
					2716	"						
					2733	"						
					2742	"						
					2752	"						
					2759	"						
					2761	"						
					2764	"						

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN _____

 TROU No. NOR-84-3 A FEUILLE No. 10

LONGUEUR	DESCRIPTION	MINERALISATION	ECHANT.	DE	A	LONGUEUR	ZINC %	CUIVRE %	OR OZ.	ARGENT OZ.		
	contact ⁺ net à 35° AC, matrice gris-moyen,				2765	Echantillon						
	carbonatée avec sphérules de qz, occasionnellement				2774	"						
	carbonatées. Concentration des sphérules variables.		4657		2775	Lithogéochimie						
	Au début 1%, sphérules variant de 1 à 2 mm.											
	2788,5-2790 Sphérules, 20% de la roche, ensuite											
	5-10%. Présence de séricite vers la fin de l'unité				2794	Echantillon						
	à sphérules.		4658		2795	Lithogéochimie						
	2835,5 Disparition des sphérules, grains de quartz				2829	Echantillon						
	bleuté, 1-2 mm chlorite entoure le quartz.				2846	"						
2860	Gabbro		4659		2846	Lithogéochimie						
	Début à grains fins avec schistosité marquée suivant				2862	Echantillon						
	40° Ac, vert chloritisé.											
	2864 Perd la schistosité, commence à y avoir des											
	agglomérations de cristaux clairs, mais contours											
	pas bien définis.											
	2866,5 Grains fins à moyens, variation de granu-											
	lométrie sur de courtes distances, conserve une											
	couleur foncée, peu de minéraux leucocrates en				2875	"						
	contraste (5-10%).											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN _____

TROU No. NOR-84-3 A FEUILLE No. 17

LONGUEUR	DESCRIPTION	MINERALISATION	ECHANT.	DE	A	LONGUEUR	ZINC %	CUIVRE %	OR OZ.	ARGENT OZ.		
	Litage à 50° AC, degré de chloritisation variable au cours de l'unité. Les cinq premiers pi. sont peu chloritisés.											
	3986-3987,6 Passage à grains très fins, fortement chloritisé, avec un peu de pyrite sédimentaire.					3986,5	Echantillon					
	3987,6 Revient à grains fins comme au début, avec un fragment allongé de chert de 1 po.					3988	"					
	3988,3 Grains un peu plus fins, un peu plus chloritisés et apparition de magnétite,		4677			3988	Lithogéochimie					
	3991, veine de qz avec chlorite en bordure. Par la suite ressemble plus à un tuf à cristaux avec grains arrondis de qz < 1 mm.					3991	Echantillon					
	Bande de chl. de 1-2 mm, localisée 60° AC.					3992	"					
	3992,8 Veine de qz 0,2 pi, ± 75° AC.											
	3993,2 Petite faille, roche broyée. Les sphérules grossissent jusqu'à 2 mm, 1-2% du contenu de la roche.											
	3994,5 Plus de sphérules de qz avec quelques amygdules de calcite (~1 cm).					3995,5	"					
	3995 Veinule de ct, 45° AC, ~1 cm.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN _____

 TROU No. NOR-84-3 A FEUILLE No. 19

LONGUEUR	DESCRIPTION	MINERALISATION	ECHANT.	DE	A	LONGUEUR	ZINC ppm	CUIVRE ppm	OR oz.	ARGENT ppm		
4004,0	Lits ou fragments de chert au travers de lits très fins, fortement chloritisé, avec lits de py-po et lits de magnétite de la même épaisseur.											
					4004,5	Echantillon						
			4676	4004	4005,1	1,1	269	2820	0,002	6		
4005,1	Retour à une unité comme précédent avec occasionnellement de petits lits de py-po (ordre du mm).											
4006,0-4006,4	Zone fracturée, infiltrée de qz-calcite bleuté et de py-po.											
					4007	Echantillon						
4008,5-4008,7	Veine de qz-ct.											
4009,7	Zone de remaniement avec qz-ct, py irrégulière.											
4010,3	Lit de magnétite irrégulier atteignant 2 po à son maximum.											
4011	Fragments de chert plus fréquents.				4012	"						
4013,2-4013,6	Lits de chert, - calcite de plus de 1 cm.											
4016,6-4016,7	Quartz-calcite avec py-po cp en taches de 1 mm dans la py-po.											
	Par la suite, les fragments sont moins réguliers et plus épars, py 2-3% du contenu de la roche, irréguliers.				4018	"						
4020	Trois lits de 0,5 cm, py-po, (peut y avoir un peu de cp), associé avec du chert.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN _____

TROU No. NOR-84-3 A FEUILLE No. 33

LONGUEUR	DESCRIPTION	MINERALISATION	ECHANT.	DE	A	LONGUEUR	ZINC %	CUIVRE %	OR OZ.	ARGENT OZ.		
	Jusqu'à 4620,5 Très peu de sulfures, quelques minces veinules éparses.											
	4620,2 Amas irrégulier de 2 po. à 80% S, surtout py.											
	4620,5 Talc en veinules irrégulières de 2-3 cm, de sens opposé au courant général des sulfures soit à 45° AC.											
	Par la suite, la roche reste toujours fortement chloritisée.											
	4624,5-4626,6 Un peu de talc au travers de la roche, 20-40%, brunâtre sans contact net.											
4626,6	Intrusif (début incertain)											
	Bordure à grains fins, gris verdâtre, avec fragments de la roche encaissante. Change de couleur sur quelques pi., pour devenir noir bleuâtre. Commence à distinguer la granulométrie vers 4632,5, commence à être carbonatée à cet endroit, donne l'impression d'une d'une rhyolite, ce serait alors une zone de transition. Autre contact possible à 4648, où il y a cisaillement à 45° AC.											
					4649	Echantillon						
					4660	"						

JOURNAL DE SONDAGES AU DIAMANT

Test d'acide et coins

TERRAIN _____ TROU No. NOR-84-3 A FEUILLE No. 41

LONGUEUR	DESCRIPTION	MINERALISATION	Prof.	coin	angle	Prof.	coin	angle			
	Coins: 1150'		1150	coin	74	2200		62,0			
	1171'		1171	coin	74	2300		61,25			
	1190'		1190	coin	74,5	2400		60,25			
	1213'		1213	coin	75	2500		59,25			
	1236'		1236	coin	75	2600		58,5			
	1256'		1256	coin	75,25	2700		57,75			
	1276'		1276	coin	74,25	2800		57,0			
	1296'		1296	coin	73	2900		56,25			
	1706'		1303		72	3000		55,25			
	1776'		1400		71,75	3200		49,0			
	1786'		1500		73,5	3400		46,5			
			1600		71,75	3600		42,5			
	Tropari:		1706	coin	70	3800		40,0			
	5200: Az: $202,5^{\circ} - 14,5^{\circ} = 188^{\circ}$		1776		69,75	4000		35,5			
	Pendage: -19°		1776	coin	68,5	4200		31,75			
			1796		67,5	4400		28,0			
			1900		64,5	4600		24,5			
			2000		63,5	4800		24,0			
			2100		63,0	5000		21,0			
E-701						5200		18,0			

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DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA

DATE: 9-10-84

SONDAGE: NOR 84-3A

OPERATEUR: J.B D.N

0		1200	0.1	1300	0.2	1400	0.0	1500	0.2	1600	0.0
5		5	0.0	5	0.3	5	0.0	5	0.2	5	0.0
10		10	0.0	10	0.3	10	0.0	10	0.3	10	0.0
15		15	0.0	15	0.2	15	0.0	15	0.2	15	0.0
20		20	0.0	20	0.3	20	0.0	20	0.0	20	0.1
25		25	0.1	25	0.3	25	0.0	25	0.0	25	0.1
30		30	0.0	30	0.2	30	0.0	30	0.0	30	0.1
35		35	0.1	35	0.3	35	0.0	35	0.0	35	0.0
40		40	0.0	40	0.3	40	0.0	40	0.1	40	0.1
45		45	0.0	45	0.2	45	0.1	45	0.0	45	0.2
1150	0.0	50	0.0	50	0.3	50	0.0	50	0.2	50	0.1
55	0.0	55	0.1	55	0.0	55	0.0	55	0.0	55	1.7
60	0.0	60	0.0	60	0.0	60	0.0	60	4.3	60	3.0
65	0.0	65	0.1	65	0.0	65	0.1	65	2.8	65	1.5
70	0.0	70	0.1	70	0.1	70	0.1	70	0.1	70	0.8
75	0.1	75	0.1	75	0.1	75	0.1	75	0.1	75	1.2
80	0.0	80	0.1	80	0.1	80	0.1	80	0.1	80	0.2
85	0.0	85	0.2	85	0.1	85	0.1	85	0.1	85	4.3
90	0.0	90	0.2	90	0.1	90	0.2	90	0.0	90	3.8
95	0.0	95	0.1	95	0.2	95	0.2	95	0.0	95	3.5

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2

DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Noranda
SONDAGE: MOR 84-3A

DATE: 9-10-84
OPERATEUR: J.B D.N

1700	0.1
5	4.9
10	4.9
15	11.0
20	8.4
25	4.2
30	4.0
35	4.0
40	8.2
45	13.0
50	3.6
55	5.7
60	1.6
65	2.0
70	4.7
75	7.5
80	8.2
85	6.1
90	6.2
95	7.8

1800	8.1
5	8.4
10	8.2
15	2.2
20	3.4
25	7.1
30	8.2
35	8.5
40	2.4
45	3.5
50	5.2
55	4.7
60	6.3
65	2.3
70	3.8
75	2.9
80	5.0
85	4.6
90	3.9
95	7.4

1900	4.1
5	6.0
10	7.4
15	3.4
20	5.4
25	4.7
30	5.6
35	3.4
40	1.3
45	1.7
50	1.3
55	2.5
60	3.9
65	0.1
70	0.8
75	2.3
80	4.2
85	1.2
90	0.8
95	2.0

2000	3.5
5	6.1
10	5.1
15	5.3
20	5.1
25	5.0
30	3.9
35	5.6
40	5.3
45	5.3
50	2.5
55	1.8
60	0.8
65	1.6
70	0.8
75	1.2
80	1.2
85	0.0
90	0.0
95	0.0

2100	0.0
5	0.0
10	0.0
15	0.1
20	0.0
25	0.3
30	1.4
35	2.1
40	0.5
45	1.3
50	0.7
55	1.6
60	0.9
65	0.4
70	0.7
75	1.8
80	0.2
85	0.2
90	0.2
95	1.0

2200	0.3
5	0.2
10	0.1
15	0.2
20	0.1
25	0.1
30	0.1
35	0.1
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.6
95	0.5

3

DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Noranda

DATE: 16-10-84

SONDAGE: NOR 84-3A

OPERATEUR: J.B P.N

2300	0.6
5	0.8
10	0.8
15	0.8
20	0.8
25	0.8
30	0.2
35	0.3
40	0.3
45	0.3
50	0.4
55	0.3
60	0.3
65	0.3
70	0.4
75	0.4
80	0.8
85	0.2
90	0.2
95	0.2

2400	0.0
5	0.1
10	0.4
15	0.1
20	0.1
25	0.1
30	0.2
35	0.8
40	0.2
45	0.4
50	1.8
55	6.4
60	1.5
65	2.7
70	5.0
75	4.9
80	2.8
85	0.1
90	0.3
95	0.2

2500	0.2
5	1.3
10	0.3
15	0.5
20	1.2
25	0.3
30	0.4
35	0.9
40	0.3
45	0.6
50	0.4
55	0.3
60	0.4
65	0.3
70	0.3
75	0.3
80	0.4
85	0.0
90	0.1
95	0.0

2600	0.1
5	0.2
10	0.2
15	0.2
20	0.2
25	0.1
30	0.0
35	0.1
40	0.1
45	0.1
50	0.1
55	0.0
60	0.0
65	0.0
70	0.0
75	0.1
80	0.0
85	0.2
90	0.1
95	0.0

2700	0.8
5	0.1
10	0.1
15	0.1
20	0.1
25	0.1
30	0.1
35	0.0
40	0.0
45	0.1
50	0.1
55	0.0
60	0.1
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

2800	0.0
5	0.1
10	0.0
15	0.1
20	0.1
25	0.0
30	0.1
35	0.4
40	0.4
45	0.3
50	0.4
55	0.2
60	0.3
65	0.3
70	0.3
75	0.2
80	0.3
85	0.1
90	0.1
95	0.0

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DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Noranda
SONDAGE: NOR 84-3A

DATE: 22-10-84
OPERATEUR: J. B. D. N.

2900	0.1
5	0.1
10	0.0
15	0.1
20	0.1
25	0.3
30	0.1
35	0.2
40	0.0
45	0.0
50	4.3
55	4.6
60	4.2
65	1.8
70	3.1
75	3.4
80	3.7
85	0.6
90	2.2
95	2.7

3000	3.9
5	4.5
10	2.4
15	3.2
20	0.9
25	0.5
30	0.3
35	0.2
40	2.6
45	2.6
50	0.2
55	0.2
60	3.9
65	3.4
70	1.5
75	5.1
80	0.4
85	0.3
90	0.2
95	0.2

3100	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.1
30	0.0
35	0.1
40	0.0
45	0.1
50	0.1
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.1
85	0.1
90	0.0
95	0.2

3200	0.2
5	0.2
10	0.1
15	0.2
20	0.1
25	0.0
30	0.0
35	0.0
40	0.0
45	0.1
50	0.1
55	0.1
60	0.2
65	0.1
70	0.2
75	0.2
80	0.1
85	0.2
90	0.0
95	0.1

3300	0.0
5	0.9
10	0.5
15	0.6
20	7.1
25	2.5
30	0.6
35	7.2
40	9.1
45	0.9
50	0.9
55	3.4
60	3.2
65	2.4
70	2.2
75	2.8
80	1.8
85	2.0
90	2.0
95	3.6

3400	0.4
5	4.2
10	4.9
15	6.0
20	5.9
25	5.5
30	7.8
35	6.2
40	7.9
45	7.0
50	0.6
55	0.4
60	0.4
65	0.5
70	1.5
75	2.9
80	2.4
85	2.1
90	1.8
95	2.8

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DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Dominik

DATE:

29-10-84

SONDAGE:

NOR 84-3A

OPERATEUR:

J.B D.N

3500	2.0
5	6.5
10	3.5
15	3.1
20	5.1
25	2.8
30	1.2
35	3.8
40	3.9
45	2.2
50	0.8
55	0.8
60	0.6
65	1.2
70	0.5
75	0.4
80	0.7
85	1.3
90	2.3
95	0.4

3600	0.4
5	0.3
10	0.4
15	0.0
20	0.0
25	0.0
30	0.0
35	0.1
40	0.1
45	0.0
50	0.1
55	0.2
60	0.2
65	0.0
70	0.0
75	0.0
80	0.0
85	0.1
90	0.3
95	0.2

3700	0.2
5	0.5
10	1.1
15	0.2
20	0.2
25	0.0
30	0.0
35	0.0
40	0.1
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.1
80	0.2
85	0.0
90	0.1
95	0.1

3800	0.8
5	0.4
10	0.1
15	0.1
20	0.1
25	0.0
30	0.2
35	0.1
40	0.2
45	0.5
50	0.6
55	0.6
60	0.5
65	0.6
70	0.7
75	0.4
80	1.3
85	0.0
90	0.0
95	0.0

3900	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	3.7
35	3.4
40	0.1
45	0.0
50	0.0
55	0.1
60	0.0
65	0.0
70	0.1
75	0.2
80	0.0
85	0.0
90	2.6
95	0.1

4000	0.0
5	14.0
10	3.2
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	1.3
50	3.7
55	1.9
60	2.4
65	0.1
70	1.1
75	1.1
80	0.9
85	0.3
90	0.0
95	0.0

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DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Noranda

DATE: 5-11-84

SONDAGE: NOR 84-3A

OPERATEUR: J.B. D.N.

4100	6.0
5	0.0
10	0.1
15	0.0
20	2.2
25	3.0
30	0.2
35	0.1
40	0.2
45	0.2
50	0.0
55	4.9
60	0.7
65	0.0
70	0.0
75	0.0
80	0.0
85	0.1
90	0.1
95	0.3

4200	0.1
5	0.1
10	0.2
15	0.3
20	0.4
25	0.2
30	0.2
35	0.6
40	1.1
45	1.3
50	1.4
55	0.8
60	0.6
65	0.8
70	1.2
75	1.0
80	0.0
85	1.0
90	1.4
95	2.4

4300	1.8
5	1.8
10	0.5
15	2.2
20	1.4
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.1
65	0.0
70	0.1
75	0.1
80	0.0
85	0.0
90	0.0
95	0.0

4400	0.5
5	0.1
10	0.1
15	0.2
20	0.1
25	0.0
30	0.1
35	0.1
40	0.1
45	0.0
50	0.1
55	0.1
60	0.9
65	7.5
70	0.1
75	0.1
80	0.0
85	0.1
90	0.1
95	0.0

4500	0.1
5	0.1
10	0.0
15	0.1
20	0.1
25	0.1
30	0.1
35	0.0
40	0.0
45	0.1
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.1
80	0.0
85	0.0
90	0.1
95	0.0

4600	4.0
5	20.0
10	41.0
15	0.4
20	0.0
25	0.1
30	0.0
35	0.0
40	0.2
45	2.8
50	5.2
55	5.7
60	26.0
65	0.2
70	3.7
75	0.1
80	3.5
85	0.0
90	0.0
95	0.0

DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

7

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Noranda

DATE:

12-11-84

SONDAGE:

NOR 84-3A

OPERATEUR:

JB P.N

4700	0.3
5	1.5
10	2.5
15	0.3
20	0.9
25	2.4
30	2.7
35	3.9
40	5.6
45	6.3
50	0.4
55	0.6
60	0.4
65	0.3
70	0.0
75	0.0
80	0.1
85	0.5
90	0.1
95	0.0

4800	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.1
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.1
80	0.0
85	0.0
90	0.0
95	0.0

4900	0.0
5	0.1
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.1
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.1
95	0.0

5000	0.0
5	0.0
10	0.0
15	0.0
20	0.1
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.1
70	0.0
75	0.0
80	0.0
85	0.0
90	0.1
95	0.0

5100 5100	0.0
5	0.1
10	0.0
15	0.0
20	0.0
25	0.1
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.1
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

5200 5200	0.0
5	0.0
10	0.0
15	0.1
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	FIN
95	

ANALYSES GEOCHIMIQUES TROU NOR-84-3A

ECH	PROF.	DESCRIPTION	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	MNO	TiO2	P2O5	Cr2O3	Rb	Sr	Y	Zr	Nb
4649	1188	AND SIL	57.4	15.5	5.86	5.89	3.89	0.15	6.42	0.13	0.61	0.13	0.02	10	110	10	90	20
4650	1276	AND SIL	60.1	14.2	7.30	4.85	2.98	0.14	6.67	0.13	0.56	0.12	0.02	<10	80	10	80	10
4651	1364	AND SIL.LES	56.5	16.1	4.41	6.93	3.85	0.28	7.19	0.12	0.65	0.14	0.02	30	130	30	100	10
4652	1561	TUF MAF.	45.7	11.4	8.30	4.33	1.88	0.04	17.5	0.27	2.00	0.21	<.01	<10	70	50	100	20
4653	2233	RHY	56.9	11.8	6.51	2.79	2.40	0.39	14.2	0.21	1.53	0.23	<.01	10	110	50	230	30
4654	2320	RHY AMYG	48.8	11.8	8.96	4.38	1.99	0.16	18.3	0.25	2.10	0.25	<.01	10	120	40	130	40
4656	2656	AND COUS.SIL	53.3	18.6	6.53	4.04	4.48	0.45	8.59	0.14	1.17	0.22	0.03	40	130	10	80	20
4655	2702	AND COUS.SIL	48.5	19.9	7.03	4.83	3.70	0.68	9.25	0.20	1.26	0.25	0.04	20	80	20	90	20
4657	2775	RHY	53.7	13.9	7.75	6.34	4.17	2.49	5.24	0.08	0.53	0.29	0.04	30	1150	10	140	20
4658	2795	RHY SPH.	68.0	12.5	3.77	1.13	2.68	0.39	8.61	0.14	0.69	0.13	0.01	10	90	130	490	40
4659	2846	RHY	67.1	11.5	1.44	2.04	4.23	0.64	9.03	0.17	0.66	0.12	0.01	20	20	130	450	40
4660	3161	RHY	71.6	10.2	1.44	1.80	3.21	0.59	7.52	0.14	0.53	0.10	0.01	20	90	90	380	30
4661	3342	TUF FRAG	60.0	11.8	2.85	3.31	3.40	0.53	13.6	0.13	1.30	0.26	<.01	10	90	80	430	50
4662	3743	RHY	71.5	11.5	2.81	1.16	4.95	0.67	4.57	0.08	0.36	0.05	0.01	30	40	190	620	70
4663	3865	RHY	73.1	11.1	1.14	1.00	4.52	1.28	5.70	0.08	0.34	0.05	<.01	20	110	170	610	50
4677	3988	TUF CHERT	71.3	11.0	2.27	2.29	0.08	2.82	5.89	0.14	0.41	0.06	<.01	50	<10	70	350	40
4664	4084	RHY	70.1	11.2	2.08	1.60	3.90	0.70	8.26	0.12	0.57	0.10	<.01	30	40	100	520	40
4678	4152	RHY	67.2	11.3	0.96	3.99	2.75	0.41	9.07	0.11	0.71	0.08	<.01	10	60	50	270	20
4679	4162	TUF RHY	72.8	11.2	0.57	2.57	1.20	2.03	6.79	0.11	0.41	0.06	<.01	40	20	60	350	20
4680	4219	RHY	69.6	11.1	1.52	2.14	4.02	0.32	8.19	0.11	0.73	0.16	<.01	10	80	120	440	30
4686	4228	RHY	69.7	10.9	1.42	2.06	3.88	0.62	7.99	0.10	0.65	0.14	<.01	20	60	130	430	40
4681	4338	TUF CX	64.5	12.4	2.46	3.47	4.58	0.15	7.17	0.29	0.45	0.06	<.01	20	70	140	420	30
4682	4391	LAVE MAS.AMYG	54.5	16.8	3.46	3.88	2.02	2.86	9.05	0.22	0.71	0.15	<.01	50	50	20	120	20
4683	4538	TUF	63.3	10.0	0.25	6.01	0.05	0.13	15.2	0.06	0.69	0.13	<.01	10	<10	30	170	30
4685	4598	F.CHL.	36.6	14.6	0.05	19.3	0.07	0.02	19.3	0.05	0.74	0.04	<.01	20	<10	30	180	50
4669	4790	F.CHL.	47.8	11.5	0.27	7.11	0.05	0.02	25.2	0.11	2.12	0.18	<.01	<10	<10	30	140	40
4672	4835	F.CHL.	72.9	8.82	0.01	6.28	0.05	0.19	8.19	0.01	0.27	0.04	<.01	20	<10	120	340	30
4673	4934	F.CHL.	42.8	15.5	0.36	16.0	0.03	<.01	15.5	0.04	1.79	0.22	0.02	<10	<10	50	120	40
4674	4959	F.CHL.	48.6	13.9	0.40	15.4	0.05	<.01	12.8	0.04	1.61	0.17	0.01	10	<10	30	130	10
4675	5046	GRAND.?	50.9	13.4	0.18	12.8	0.04	<.01	14.5	0.02	1.32	0.12	0.01	20	<10	30	80	10

ANALYSES LITHOGEOCHIMIQUES

DU TROU NOR-83-1

(Non soumises précédemment)

ANALYSES GEOCHIMIQUES

DATE 4 mai 1984

PROPRIETE Norita-Surface

TROU NOR-83-1

LABORATOIRE

ECHANT.	GEO N°	DISTANCE	DESCRIPTION	LABORATOIRE																
				SiO ₂ %	Al ₂ O ₃ %	K ₂ O %	Na ₂ O %	CaO %	MgO %	Fe* TOT %	MnO %	TiO ₂ %	P ₂ O ₅ %	Cr ₂ O ₃ %	Rb PPM	Sr PPM	Zr PPM	Cu PPM	Zn PPM	
6101		134.5'		52.3	12.3	0.21	3.42	6.47	4.81	14.7	0.22	2.02	0.21	<.01	30	90	100			
6102		240'		46.5	12.3	0.31	1.30	10.0	4.55	16.2	0.31	1.96	0.21	<.01	10	100	90			
6103		280'		47.8	11.8	0.27	1.67	8.22	4.33	15.4	0.23	1.93	0.23	<.01	20	100	130			
6104		310'		49.3	11.9	0.22	3.08	7.25	4.28	16.5	0.23	2.02	0.23	<.01	<10	80	120			
6105		385'		48.7	12.0	0.13	2.97	7.16	4.67	17.2	0.25	2.0	0.22	<.01	20	60	100			
6106		505'		55.7	11.6	0.18	2.07	4.48	4.41	14.4	0.17	1.46	0.19	<.01	<10	50	220			
6107		638'		47.4	11.5	0.14	1.77	9.09	4.58	16.1	0.23	1.91	0.21	<.01	20	150	110			
6108		675'		62.1	15.9	0.32	6.16	4.04	2.31	5.14	0.06	0.57	0.11	<.01	20	350	90			
6109		774'		43.9	11.2	0.20	0.69	10.8	3.96	16.3	0.30	1.80	0.20	<.01	20	20	90			
6110		885'		48.9	12.9	0.13	3.80	7.35	5.27	15.8	0.26	1.90	0.20	<.01	<10	40	100			
6111		951'		48.7	12.3	0.08	2.47	7.34	5.26	17.5	0.25	2.06	0.22	<.01	10	<10	110			
6112		991'		45.9	12.9	0.08	1.71	8.02	5.69	19.4	0.28	2.21	0.25	<.01	20	20	130			
6113		1098'		47.2	12.4	0.11	2.64	7.24	5.40	17.7	0.25	2.05	0.21	<.01	<10	30	100			
6114		1270'		46.3	19.1	2.40	2.06	7.12	6.37	7.33	0.20	0.57	0.10	<.01	40	60	100			
6116		1303'		52.8	12.2	0.14	3.18	7.53	3.11	11.8	0.27	1.49	0.41	<.01	<10	50	270			
6117		1317'		51.7	16.4	1.07	3.30	6.48	5.11	8.52	0.18	0.47	0.09	<.01	50	140	80			
6115		1387'		54.1	11.9	0.09	2.65	6.08	2.85	13.9	0.28	1.52	0.40	<.01	10	80	280			
6118		1679'		56.2	16.0	0.17	4.61	2.54	7.29	7.80	0.13	0.67	0.13	.01	<10	90	120			
6119		1738'		56.4	14.8	0.14	2.77	9.55	4.47	6.41	0.13	0.57	0.12	.01	<10	90	100			
		1788'																		

* Fe₂O₃ = TiO₂ + 1.5%

FeO = Fe TOT - Fe₂O₃ calculé

MD-07-82

ANALYSES GEOCHIMIQUES

DATE 4 mai 1984

PROPRIETE Norita-Surface

TROU Nor-83-1A

LABORATOIRE X-Ray

ECHANT.	GEO N°	DISTANCE	DESCRIPTION	SiO ₂ %	Al ₂ O ₃ %	K ₂ O %	Na ₂ O %	CaO %	MgO %	Fe* TOT%	MnO %	TiO ₂ %	P ₂ O ₅ %	Cr ₂ O ₃ %	Rb PPM	Sr PPM	Zr PPM	Cu PPM	Zn PPM
6120		1733'		57.3	16.1	0.49	4.21	4.35	6.50	7.01	0.14	0.63	0.13	0.01	10	90	100		
6121		1836'		57.3	14.8	0.43	4.16	5.21	5.52	6.61	0.11	0.62	0.12	0.01	<10	160	100		
6122		1947'		57.3	15.5	0.24	4.74	6.38	5.56	6.54	0.13	0.58	0.12	0.01	<10	120	100		
6123		2073'		66.7	11.9	1.31	2.29	1.99	1.95	10.1	0.19	0.84	0.18	<0.01	40	50	470		
6124		2125'		45.7	12.0	0.13	1.59	5.49	5.78	19.0	0.23	2.18	0.22	<0.01	<10	50	110		
6125		2183'		65.4	10.1	1.60	1.36	8.67	0.76	5.83	0.10	0.53	0.10	<0.01	40	30	510		
6126		2310'		73.4	10.3	2.30	0.37	4.36	0.93	4.87	0.04	0.52	0.08	<0.01	50	<10	430		
6127		2515'		54.8	12.7	0.29	4.07	5.83	2.96	15.0	0.20	1.61	0.27	<0.01	10	60	220		
6128		2736'		59.1	11.8	0.16	2.19	6.63	2.03	14.4	0.19	1.38	0.47	<0.01	10	80	330		
6129		2944'		48.6	11.9	0.23	2.06	8.50	4.73	18.9	0.25	2.09	0.23	<0.01	<10	90	110	110	57
6130		3385'		53.1	16.3	1.42	3.70	3.42	7.01	9.24	0.27	1.05	0.21	0.02	20	40	90		
6131		3420'		74.4	9.38	0.60	3.55	2.78	0.84	4.99	0.11	0.49	0.09	0.02	10	50	450		
6132		3482'		39.9	18.0	2.24	1.92	2.15	5.51	19.7	0.36	0.51	0.05	<0.01	50	40	90		
6133		3494'		35.5	13.9	3.92	0.69	5.73	5.29	15.4	0.28	1.89	0.22	<0.01	90	60	110		
6134		3499'		44.1	13.3	0.45	1.76	6.21	5.41	16.7	0.28	1.91	0.23	<0.01	<10	70	130		
6135		3539'		71.8	11.3	0.13	4.60	1.43	1.21	6.73	0.08	0.58	0.10	0.02	20	10	530		
6136		3832.5'		71.2	11.1	0.63	4.47	2.15	1.22	6.80	0.10	0.61	0.11	0.02	10	50	490		
6137		4005'		68.1	10.7	0.84	2.84	3.41	1.46	8.81	0.18	0.62	0.12	0.01	40	30	480		
6138		4096'		55.5	14.2	0.59	3.42	5.84	4.76	9.35	0.15	0.84	0.17	0.02	10	80	90		
6139		4272'		72.0	10.8	2.35	3.24	1.05	1.41	6.93	0.11	0.34	0.05	0.01	60	50	640		
6140		4330'		48.8	12.4	1.53	1.39	6.45	6.43	17.3	0.23	1.96	0.24	<0.01	30	40	110		
6141		4347'		58.5	15.9	0.54	5.28	5.71	4.65	5.83	0.08	0.52	0.11	0.02	20	380	90		

* Fe₂O₃ = TiO₂ + 1.5%FeO = Fe TOT - Fe₂O₃ calculé

MD-07-82

ANALYSES GEOCHIMIQUES

DATE 4 mai 1984

PROPRIETE Norita-Surface

TROU Nor-83-1A (suite)

LABORATOIRE X-Ray

ECHANT.	GEO N°	DISTANCE	DESCRIPTION	SiO ₂ %	Al ₂ O ₃ %	K ₂ O %	Na ₂ O %	CaO %	MgO %	Fe* TOT%	MnO %	TiO ₂ %	P ₂ O ₅ %	Cr ₂ O ₃ %	Rb PPM	Sr PPM	Zr PPM	Cu PPM	Zn PPM
6142		4472'		72.5	11.2	1.65	4.04	1.38	1.35	6.16	0.10	0.35	0.05	0.02	20	110	680		
6143		4547'		72.5	11.2	1.57	3.99	1.45	1.28	5.98	0.09	0.36	0.05	0.02	40	60	660		
6144		4790'		49.5	14.4	0.15	2.39	8.13	5.45	14.8	0.22	1.49	0.17	0.02	<10	120	110		
6145		5128'		51.2	14.2	0.44	4.73	4.51	5.36	9.55	0.12	0.96	0.19	0.01	20	40	80		
6146		5183'		50.5	12.5	1.24	1.61	4.62	6.06	15.2	0.25	2.00	0.24	<0.01	30	20	150		
6147		5227'		48.6	11.8	1.04	1.00	4.74	5.61	17.2	0.19	2.00	0.31	<0.01	40	10	210		
6148		5282'		67.4	11.2	1.24	2.85	2.95	1.77	9.65	0.13	0.64	0.11	0.01	30	80	570		
6149		5353'		66.6	11.1	0.79	2.94	2.30	1.95	11.1	0.17	0.84	0.15	0.01	10	70	540		
6150		5535'		48.9	12.7	0.27	1.66	6.48	5.45	18.1	0.26	2.10	0.23	<0.01	<10	130	140		
6151		5623'		47.7	12.3	1.53	1.24	5.32	6.37	17.0	0.26	1.98	0.22	<0.01	20	30	130		
6152		5653'		61.2	12.4	0.48	1.26	0.89	5.74	12.8	0.16	0.71	0.14	<0.01	<10	40	220		
6153		5674'		80.3	6.92	1.08	0.69	0.68	2.00	5.32	0.06	0.35	0.08	0.02	20	20	100		
6154		5810'		67.2	11.3	0.70	4.38	1.98	2.17	9.04	0.11	0.82	0.20	0.01	20	70	410	13	74
6155		5930'		48.9	12.0	0.32	2.48	6.81	4.45	17.3	0.26	2.02	0.24	<0.01	20	100	150	110	110
6156		5970'		53.0	11.5	0.02	0.57	0.39	6.32	21.8	0.23	0.66	0.15	<0.01	20	<10	190	11	120
6157		6020'		67.8	10.3	0.91	0.48	0.52	5.68	8.74	0.06	0.64	0.08	0.01	20	<10	260	17	82
6158		6045'		63.3	10.4	0.10	1.34	0.80	6.21	11.7	0.09	0.76	0.09	0.01	30	20	220	6.5	110
6159		6095'		68.9	9.45	0.71	0.44	0.20	4.08	11.4	0.04	0.38	0.06	0.01	30	<10	340	29	420
6160		6135'		48.4	12.0	0.11	1.02	1.42	9.00	16.6	0.10	1.92	0.20	<0.01	<10	60	110	72	220
6161		6198'		58.3	11.4	0.06	0.50	0.25	6.31	16.8	0.03	0.79	0.12	0.01	20	<10	180	66	190
6162		6411'		60.0	11.1	0.09	0.45	0.22	6.55	15.4	0.02	0.72	0.13	0.01	10	<10	220	71	85
		6415'																	

* Fe₂O₃ = TiO₂ + 1.5%

FeO = Fe TOT - Fe₂O₃ calculé

MD-07-82

ANALYSES GEOCHIMIQUES

DATE 4 mai 1984

PROPRIETE Norita-Surface

TROU Nor-83-10

LABORATOIRE X-Ray

ECHANT.	GEO N°	DISTANCE	DESCRIPTION	SiO ₂ %	Al ₂ O ₃ %	K ₂ O %	Na ₂ O %	CaO %	MgO %	Fe* TOT %	MnO %	TiO ₂ %	P ₂ O ₅ %	Cr ₂ O ₃ %	Rb PPM	Sr PPM	Zr PPM	Y PPM	Nb PPM
6170		3307'		69.9	10.8	0.48	3.89	3.77	0.99	5.36	0.14	0.96	0.22	0.01	20	140	230		
6171		3340'		49.5	14.1	0.95	2.26	7.65	5.03	4.9	0.22	1.59	0.20	<0.01	20	130	90		
6172		3357'		69.3	10.6	0.20	1.02	8.49	1.14	5.75	0.07	0.49	0.10	0.02	10	180	380		
6175		3535'		71.8	11.5	0.76	5.02	2.08	0.59	4.76	0.08	0.56	0.10	0.02	10	50	480		
6176		3653'		61.2	10.7	0.67	3.45	7.26	1.09	7.70	0.21	0.54	0.11	<0.01	20	60	430		
6177		3732'		67.2	10.5	1.15	2.29	4.20	1.24	8.09	0.16	0.56	0.11	0.01	40	30	450		
6178		3872'		63.6	11.1	0.35	3.03	3.69	2.59	1.0	0.19	0.84	0.19	0.01	30	70	320		
6179		4094'		71.9	11.4	2.22	3.72	1.32	0.89	5.31	0.08	0.39	0.07	0.01	50	50	630		
6180		4212'		71.6	11.3	1.67	4.25	1.68	0.91	5.66	0.09	0.32	0.05	0.02	40	100	640		
6193		4947'		66.5	10.6	0.44	3.42	1.97	2.19	0.3	0.13	0.66	0.13	0.01	<10	60	550		
6194		4994'		69.9	11.0	6.18	0.22	2.57	1.39	4.23	0.11	0.29	0.04	0.01	100	30	500		
6195		5031'		48.5	11.9	0.71	2.62	6.50	4.15	5.8	0.30	1.88	0.22	<0.01	30	120	130		
6196		5118'		49.7	12.3	0.19	1.78	7.48	5.50	6.3	0.29	1.97	0.21	<0.01	<10	190	100		
6197		5256'		63.2	12.5	0.97	1.91	1.10	4.57	0.9	0.20	0.67	0.14	<0.01	10	30	160		
6198		5344'		68.8	11.0	0.75	3.20	1.18	2.99	8.79	0.12	0.59	0.13	0.01	10	50	500		
6199		5444'		58.2	11.3	0.29	3.59	7.43	2.05	2.3	0.17	1.36	0.38	<0.01	10	100	300		
6200		5521'		66.3	11.6	1.94	0.56	0.50	4.98	9.70	0.17	0.67	0.09	<0.01	40	10	300		
17200		5579'		55.6	14.0	0.05	3.16	0.76	7.62	1.3	0.26	0.71	0.16	<0.01	30	50	140		
17191		5743'		49.7	12.6	0.02	0.04	0.29	8.71	20.6	0.18	1.15	0.11	0.02	20	<10	60		
17190		5940'		53.6	11.9	0.03	0.05	0.27	9.52	6.8	0.06	1.35	0.14	0.01	<10	<10	90		
17149		6056'		59.5	11.5	0.09	0.15	0.30	7.74	4.3	0.06	1.32	0.18	<0.01	10	<10	170	50	10
17150		6097'		58.7	11.1	0.15	0.17	0.22	5.37	18.2	0.10	1.11	0.11	<0.01	40	<10	200	40	40

* Fe₂O₃ = TiO₂ + 1.5%

FeO = Fe⁺ TOT - Fe₂O₃ calculé

MD-07-82

ANALYSES GEOCHIMIQUES

DATE 16 mai 1984

PROPRIETE Norita-Surface

TROU Nor-83-1C

LABORATOIRE

ECHANT.	GEO N°	DISTANCE	DESCRIPTION	SiO ₂ %	Al ₂ O ₃ %	K ₂ O %	Na ₂ O %	CaO %	MgO %	Fe* TOT%	MnO %	TiO ₂ %	P ₂ O ₅ %	Cr ₂ O ₃ %	Rb PPM	Sr PPM	Zr PPM	Y PPM	Nb PPM
17151		6240'		71.3	9.51	0.51	0.12	0.09	4.25	10.6	0.06	0.26	0.04	<0.01	10	<10	430	130	30
17152		6333'		62.1	11.8	0.23	0.12	0.10	6.92	12.9	0.04	0.87	0.05	<0.01	20	<10	320	60	50
17153		6390'		72.1	8.32	0.14	0.10	0.07	5.80	9.45	0.03	0.23	0.04	<0.01	10	<10	360	130	40
17154		6430'		69.4	9.62	1.32	0.15	1.51	6.29	6.52	0.03	0.28	0.99	<0.01	30	<10	350	260	20
17155		6511'		46.0	12.4	0.41	0.14	1.07	17.4	13.0	0.04	0.90	0.63	<0.01	<10	<10	70	170	40

* Fe₂O₃ = TiO₂ + 1.5%

FeO = Fe TOT - Fe₂O₃ calculé

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Explorations Noranda Limitée
noranda Matagami, Québec

LATITUDE : 12+00 S
 LONGITUDE : 54+00 E
 ÉLÉVATION : Surface
 DIRECTION : 020° (018° vérifié)
 PENDAGE AU COLLET : -60°

TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE
100'		-63.0°		800'		-50.0°		1200'		-36.5°	
200'		-61.0°		900'		-43.5°		1300'		-38.5°	
400'		-60.0°		1000'		-45° (-46°)		1400'		-37.0°	
600'		-53.0°			1003'	-45.0°	010°		1452'	-34.0°	010°
	682'	-53.0°	009°	1100'		-39.5°		1500'		-32.0°	

PROFONDEUR DU TROU : 2153'

1600' -31.0°
 1800' -32.0°
 2000' -29.0°
 2035' -27.0° 010.5°

FEUILLE No. 1 DE 29

PROPRIÉTÉ : Norita Collet au sud
 CLAIM No. : de la propriété
 TROU No. : NOR-84-4
 CAROTTE No. : B.Q.
 DÉBUT LE : 3 octobre 84
 FIN LE : 9 novembre 84

PROFONDEUR DE	A	DESCRIPTION MEGASCOPIQUE	ÉCHANT.	DE	A	ANALYSES GEOCHIMIQUES							
		1er essai (NOR-84-4A).											
0	122.0	Tubages (retirés).											
122.0	138.0	Micro-gabbro, vert foncé, à grains fins, massif, fortement magnétique (> 5% mt noire), non carbonaté, avec quelques sections faiblement épidotisées. Contient 1% fine Py disséminée. Petits cristaux de leucocène localement. Faible schistosité à 45-60° p/r A.C.											
		Trou abandonné à 138' (problèmes techniques).											
		2ième essai (NOR-84-4B)											
0	122.0	Tubages (retirés)											

ENTREPRENEUR : Forages Moderne

DÉCRIT PAR : Pierre Bernard

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-4

PAGE: 2

DE	A	DESCRIPTION	ECHAN.	DE	A								
122.0	137.0	Idem à NOR-84-4A.											
		Trou abandonné à 137' (problèmes techniques).											
		3ième essai (NOR-84-4)											
0	116.0	Tubages BW laissés en place (NW ?)											
116.0	280.0	Micro-gabbro vert foncé, à grains fins-très fins, assez massif											
		(très faiblement schisteux-folié). Très magnétique (> 5% cris-											
		taux de mt noire 1 mm.). Non carbonaté. 1% fine Py disséminée.											
		Cristaux squelettiques de leucoxène beiges (<1 mm.) localement.											
		Rares veinules de quartz-calcite. Faible épidotisation locale.											
		Quelques petites sections (quelques cm) plus "dioritiques",											
		gloméroporphyriques (plg). Traces de Cp disséminée. Granulomé-											
		trie toujours < 1 mm. Roche faiblement chloritisée. Schistosité											
		très très hétérogène (jusqu'à 25° p/r A.C.).											
		Vers 170'-175', cesse d'être fortement mag.; (devient irrégu-											
		lièrement faiblement à moy. mag.). Roche devient plus aphanit-											
		ique, plus chloriteuse (schistosité à 35-45° p/r A.C.). Cp											
		surtout associée à la calcite (épigénétique).											

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PAGE: 3

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Vers 215', il y a chloritisation plus intense; roche bien schis-											
		teuse, aphanitique, vert moyen. Bordure de refroidissement ?											
		Roche demeure très régulière et homogène. Non carb., irr. mag..											
		Schistosité à 40° p/r A.C. Concentrations irr. de mt. Basalte ??											
		Tuf basaltique ??											
		Rares veines de quartz blanc-calcite-chlorite.											
		Vers 275'-280', passage graduel (obscur et très incertain) vers											
		l'unité qui suit :											
280.0	545.0	Tuf-(lave ?) mafique. Roche vert moyen/foncé, très chloritisée,											
		irr. faiblement mag., non carbonatée, très schisteuse (généra-											
		lement vers 45-50° p/r A.C.). Très vagues structures "fragmen-											
		taires" - "tuffacées" (??) i.e. présence de lapillis très flous											
		vert plus clair, allongés selon la schistosité. Faible silici-											
		fication ?. Faible épidotisation. Microveinules de calcite.											
		299.5'-301.0' : dyke de composition "intermédiaire", gris											
		vert clair, aphanitique, faiblement carbonaté, avec 5-10%											
		petites taches vertes de chlorite. Très typique à Norita.											

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PAGE: 4

DE	A	DESCRIPTION	ÉCHAN.	DE	A							
		Contacts très nets.										
		La roche tuffacée (?) demeure très régulière par la suite, gén. non mag., avec litage (?)/schistosité à 40-55° p/r A.C.										
		Texture-structure "fragmentaire" très évidente (est-ce vraiment des fragments ??). Présence de microscopiques cristaux de leucoxène (gén. caractéristiques des unités gabbroïques). Veines-veinules de quartz-calcite-chlorite-tr Cp plus fréquentes.										
		Fragments plus felsiques-microgrenus dans une matrice chloriteuse. S'agit-il plutôt d'un rubanement ? La roche est néanmoins très mafique-chloritisée (quelques sections très chloritisées). Non carbonatée, non mag.										
		390.0'-396.0' : dyke de composition intermédiaire, gris vert clair, à grains fins, non carbonaté, avec petites taches de chlorite. Massif. Contacts très nets avec la roche encaissante.										
		L'unité demeure très régulière par la suite (peu de variations).										

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Litage (rubannement ?) - schistosité à 45° p/r A.C. à 429'.											
		à 45° p/r A.C. à 449'.											
		Rares veines de quartz-albite-chlorite.											
		Très mafique. Fort probablement un tuf. Sections de carottes											
		très brisées - chloritisation intense. Roche molle, bien rayable.											
		Petits cristaux de leucoxène (<5%) toujours présents.											
		456'-462' : section de carottes toute égrainnées-brisées. Zone											
		de faille ? chloritisation intense. Microveinules de quartz-											
		hématite-pyrite.											
		Litage-schistosité à 47° p/r A.C. à 469'. Microveinules de											
		quartz-hématite rouge-pyrite à proximité de la zone de faille											
		et concentration de mt très locale. La roche ne présente pas											
		ici les vagues "lapillis".											
		Retour vers 475' à la roche mafique, litée-rubannée, avec											
		"lapillis". Abondance de leucoxène ? (petits cristaux euhédraux											
		beiges, >5%). Quelques lapillis grisâtres "cherteux" présents											
		vers 480'-490'. Ce sont vraiment des vrais fragments ici.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Allongés, jusqu'à 2 cm. Traces de pyrite.											
		Schistosité-litage à 47° p/r A.C. à 489'.											
		495.5'-500.5' : section de tuf felsique, gris foncé, bien litée,											
		fortement chloritisée. Contient beaucoup encore de petits cris-											
		taux de leucoxène (?). Litage-schistosité à 45° p/r A.C.											
		Contacts très graduels avec les tufs mafiques, qui sont vert											
		foncé.											
		500.5' + → Suite de l'unité mafique (tuf ?), très régulière,											
		monotone. Très peu de veines, veinules. Vert foncé, rubannement											
		local vert moyen, vagues "lapillis" (?). Roche aphanitique,											
		très chloritisée, schisteuse, non mag., non carbonatée.											
		Schistosité-rubannement à 44° p/r A.C. à 517'.											
		Depuis 505', il n'y a presque plus de petits cristaux de leu-											
		coxène.											
		Sections massives locales. Rhyolite très altérée ??? Quelques											
		sections ressemblent au tuf felsique (grisâtres, aspect vitreux).											
		Schistosité à 47° p/r A.C. à 543'.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Progressivement vers 545' (contact très arbitraire).											
545.0	723.0	Unité mafique (lave). Roche vert foncé, aphanitique (ou à grains très fins) peu rubannée, schisteuse, moy. à fortement chloritisée, non carb., non mag. Schistosité à 47° p/r A.C. à 557.0'.											
		Rubannement vert foncé, vert moyen. Rares veines-veinules de quartz chlorite. Rares cristaux de leucoxène.											
		Schistosité à 48° p/r A.C. à 583'.											
		Traces de pyrite disséminée. Carottes très fracturées.											
		598'-614' : carottes très fracturées, chloritisées, poreuses, schisteuses. Schistosité à 53° p/r A.C. à 609.0'.											
		Roche avec plus de veinules de quartz-albite (?).											
		Depuis 600.0', la roche est devenue à grains fins (quasi microgabbro schisteux, poreux).											
		Schistosité à 44-48° p/r A.C. vers 630'.											
		Veines de quartz chlorite. Roche nettement mafique. Rares amygdules ovales (1/2 cm) de quartz-chlorite.											
		Dyke de gabbro de 605'-610' à 630.5' (???) contacts très obscurs.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Par la suite, le basalte vert foncé, chloritisé, rubané se poursuit (aphanitique-grains très fins). Bien schisteux, non carbonaté, non magnétique. Quelques sections bien amygdulaires:											
		amygdules ovales de quartz (1/2 cm). Sections vert foncé plus chloritisées, plus schisteuses (carottes brisées). Vagues "structures" fragmentaires telles que décrites précédemment dans le tuf (??).											
		Schistosité à 51° p/r A.C. à 643.0'.											
		à 45° p/r A.C. à 669.0'.											
		Microveinules de quartz.											
		Schistosité à 49° p/r A.C. à 685.0'.											
		à 40° p/r A.C. à 700.0'.											
		Pas de cristaux de leucoxène ici.											
		Veinules-veines de quartz-albite plus nombreuses.											
		Schistosité de plus en plus irrégulière.											
		Carottes très fracturées.											
		673.0'-675.0' : dyke vert clair, aphanitique, de composition intermédiaire, non carbonaté, avec taches vert foncé chloriteuses. Roche dure. Traces -1% pyrite. Veines de quartz-albite-chlorite. Contacts très nets avec le basalte.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A						
		712.0'-722.0' : carottes très égrainées, fracturées.									
		Schistosité à 44° p/r A.C. à 719.0'.									
		Vers 723' (pas de contact, très graduel).									
723.0	760.5	Tuf basaltique. Roche idem à la section précédente mais avec aspect "lité", schisteux.									
		Schistosité-litage à 48° p/r A.C. à 724.0'.									
		à 54° p/r A.C. à 740.0'.									
		Rubannement formé par l'alternance de bandes vert foncé plus chloriteuses et bandes vert plus clair. Laminations et disséminations de pyrite très locales. La matrice de la roche (composition) est essentiellement similaire à l'unité précédente (donc bien mafique). A grains fins, non carbonaté, non magnétique. Veines et veinules de quartz-albite-chlorite abondantes.									
		Localement, il semble y avoir de très minces lits cherteux avec pyrite disséminée (ou injections épigénétiques ?).									
		734.5'-736.0' : 5% pyrite en laminations et disséminations.									
		Unité très régulière. Chloritisation moyenne à forte.									
		Schistosité à 52° p/r A.C. à 758.0'.									

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Contact très net à 760.5' avec une roche très différente.											
760.5	887.5	Intrusif dioritique, vert clair-moyen, à grains fins, aphyrique, assez massif, très régulier, homogène et monotone. Rares veinules de quartz. Belles carottes très peu fracturées. Composition qui ressemble à beaucoup de dykes "andésitiques" (intermédiaires). Equigranulaire : texture quasi "sphérulitique". Bordures de refroidissement minces, aphanitiques bien développées. Non carbonaté et non magnétique. Peu chloritisé. Traces de pyrite disséminée.											
		Faible schistosité très régulière vers 55° p/r A.C. vers 780-800'. vers 58° p/r A.C. vers 815'.											
		Rares (phéno)cristaux de quartz (1 mm.) (jusqu'à 5% localement).											
		Vers 825'-830', devient vert plus foncé (vert moyen), plus rubané, à grains fins-moyens (max. 1 mm.). Roche faiblement à moy. chloritisée. Equigranulaire. Régulier-homogène.											
		Rubannement-schistosité à 58° p/r A.C. à 833.0'. à 55° p/r A.C. à 851.0'.											
		A 850', veine de quartz-albite-chlorite-avec Py et Cp.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Redevient graduellement micro-grenu (demeure rubanné).											
		Schistosité rubannement à 59° p/r A.C. à 868'.											
		à 59° p/r A.C. à 885'.											
		A 871.5', veine de 4" de quartz-albite-chlorite-py-cpy(beaucoup)-											
		mo ? (molybdénite ??) (sp ?).											
		Demeure micro-grenu, rubanné, schisteux, vert foncé, jusqu'à											
		la fin. Non mag. Très faible épidotisation.											
		Injection de quartz-albite-chlorite au contact.											
		Contact net à 887.5'.											
887.5	909.0	Intrusif micro-gabbroïque folié, schisteux, chloriteux, vert											
		moyen. Non mag., non carbonaté. Contient 10% de petits cris-											
		taux beiges de leucoxène. Veinules de quartz-chlorite-tr cpy.											
		Schistosité à 55° p/r A.C. à 893.0'.											
		Contact net à 909.0'.											
909.0	932.0	Lave basaltique vert foncé, très schisteuse, chloriteuse											

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PAGE: 12

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		(carottes égrainées) avec nombreuses sections très amygdulaires											
		(jusqu'à 30% vol.). Amygdules de quartz ovales de qq mm. (max.											
		5 mm.). Roche non mag., non carbonatée.											
		Schistosité à 53° p/r A.C. à 912.0'.											
		à 46° p/r A.C. à 928.0'.											
		Tr de pyrite disséminée.											
		Minces sections très chloriteuses avec laminations (injections?)											
		de chert (?) avec py-cpy.											
		918.0'-920.0' : dyke vert moyen, aphanitique, massif,											
		non mag., non carb.. Composition intermédiaire à mafique.											
		Faible chloritisation. Veine de 1" de quartz blanc-cpy-											
		py à 919.5'.											
		Contact probable à 932.0'.											
932.0	1010.0	Lave basaltique, vert moyen, aphanitique ou à grains très fins,											
		non magnétique, non carbonatée, schisteuse, faiblement à moy.											
		chloritisée. Nombreuses veinules et veines de quartz-albite-											
		chlorite-calcite-tr cpy.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Schistosité à 45° p/r A.C. à 941.0'.											
		à 48-42° p/r A.C. à 955.0'.											
		à 43° p/r A.C. à 996.0'.											
		Unité très régulière et homogène. Aphyrique. Non amygdulaire.											
		Deviens graduellement vert plus foncé											
		Contact graduel vers :											
1010.0	1039.5	Unité basaltique (?) très chloriteuse, vert foncé, très schis- teuse. Veines/veinules de quartz-chlorite.											
		Schistosité intense à 50° p/r A.C. à 1015.0'.											
		à 50° p/r A.C. à 1039.0'.											
		Section à 80%-100% chlorite.											
		Sommet tuffacé - chloritisé (?) ou rubanné.											
		Contact à 1039.5' obscur (1035.0'?).											
1039.5	1055.5	Rhyolite chloritisée, vert moyen, aphanitique, présentant 5-10% "yeux" de quartz gris de 1/2-1 mm. N'a pas l'aspect d'une rhyolite à première vue. Veines/veinules de quartz-albite- chlorite. Roche non carb. et non magnétique.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		1044.0'-1045.0' : dyke vert très clair, intermédiaire, avec 10% petites taches vert foncé (chlorite). Non carbonaté. Difficilement rayable. Contacts très nets avec la rhyolite.											
		Schistosité à 49° p/r A.C. à 1046.0'. Contact net à 1055.5'.											
1055.5	1067.5	Dyke de micro-gabbro, vert foncé, folié, schisteux, très fortement magnétique, très carbonaté. Contient petits cristaux de leucoxènes beiges (1 mm.). Veines de quartz-albite-calcite-chlorite.											
		1060.0'-1060.5' : petit dyke felsique-intermédiaire, gris moyen-vert, aphanitique, très dur. Très carb. et très mag. Contacts très nets avec bordures de refroidissement. Traces de pyrite. Contact net à 1067.5'.											
1067.5	1122.5	Rhyolite. Roche gris-vert moyen, assez massive, peu rubannée-schisteuse, à grains fins. Mésostase siliceuse. Roche moyennement chloritisée. Yeux de quartz gris (1/2-1 mm.) occasionnels											

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PAGE: 15

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		seulement. Peu de veînules de quartz-chlorite. Roche non car-											
		bonatée et non magnétique.											
		1067.5'-1068.5' et											
		1072.5'-1073.0' : dykes vert moyen, aphanitiques, très											
		chloriteux, schisteux, avec veines de quartz-chlorite.											
		Schistosité à 50° p/r A.C. Roche très molle. Composition											
		mafique (?).											
		Faible schistosité à 57° p/r A.C. à 1080.0'.											
		à 57° p/r A.C. à 1115.0'.											
		Sections rubannées locales (rubannement parallèle à la schis-											
		tosité). Vague aspect sphérulitique local. Filonnets de séri-											
		cite (rares). Roche homogène et régulière, massive (sauf sec-											
		tions rubannées).											
		Contact très net à 1122.5' (48° p/r A.C.).											
1122.5	1234.5	Gabbro. Massif, moyennement grenu (1-3 mm.) moyennement épido-											
		tisé, moyennement à fortement magnétique (cristaux de mt 1 mm.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		jusqu'à 10%). Non carbonaté. Rares veinules de quartz-calcite.											
		Equigrulaire. Bordures à grains fins. Patches d'intense épi-											
		dotisation-silicification de qq cm. Placage d'hématite dans											
		certaines fractures. Traces -1% pyrite.											
		Graduellement vers 1160'-1170', devient vert plus clair, moins											
		magnétique, avec apparition de 5-10% petits cristaux beiges de											
		leucoxène.											
		Vers 1190',											
		retour au gabbro vert foncé avec beaucoup de cristaux de mt,											
		bien grenu. Epidotisation faible. Très massif. Equigrulaire.											
		On voit bien les cristaux blancs d'ilménite-leucoxène squelet-											
		tiques. Traces de pyrite.											
		Bordure de refroidissement vert clair, chloriteuse, schisteu-											
		se (45° p/r A.C.) toujours très fortement carbonatée. Contact											
		très net à 1234.5' (45° p/r A.C.).											
1234.5	1236.0	Rhyolite chloritisée, vert moyen, aphanitique avec "yeux" de											
		quartz gris de 1 mm. (5%). Non carb. Non mag.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A							
1236.0	1245.5	Dyke mafique, vert moyen-foncé, micro-gabbroïque, vert foncé, folié, schisteux (42° p/r A.C.). Non mag., non carb. Contacts très nets avec la rhyolite. Présence de qq petits cristaux de leucoxène.										
1245.5	1290.0	Rhyolite faiblement chloritisée, gris-vert moyen, bien schisteuse, aphanitique ou à grains fins, avec présence de phénocristaux de quartz gris vitreux (1 mm.) (<5%). Roche non carbonatée et non magnétique. Schistosité à 46° p/r A.C. à 1246.0'. à 60° p/r A.C. à 1270.0'. Mésostase siliceuse. Vague texture sphérolitique locale. Bandes vert plus foncé (plus chloriteuses) où les "yeux" de quartz sont plus évidents. Semble contenir les mêmes petits cristaux de leucoxène que dans le gabbro (1236.0'-1245.5'). Très rares veïnules de quartz. Traces de pyrite disséminée. Plaque de cpy à 1272.5'. Occasionnels filonnets de pyrite. Faible rubannement local dans la rhyolite. 1274.0'-1274.5' : petit dyke intermédiaire, gris-vert moy., à grains fins, schisteux, avec 5% fine pyrite disséminée.										

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		Contacts nets à 47° p/r A.C. Non carbonaté.											
		Plaque de cpy à 1275.0'.											
		Schistosité à 67° p/r A.C. à 1284.0'.											
		Graduellement vers 1290.0', devient moyennement chloritisée											
		(c'est la même roche qui se poursuit). "Yeux" de quartz qui											
		persistent.											
1290.0	1364.0	Rhyolite moyennement chloriteuse, bien schisteuse, vert moyen.											
		Yeux de quartz gris vitreux bien évidents (5-10%). Mésostase											
		aphanitique chloriteuse. Traces -1% pyrite.											
		Schistosité à 59° p/r A.C. à 1295.0'.											
		à 59° p/r A.C. à 1310.0'.											
		Veines de quartz-chlorite-pyrite plus fréquentes ici (calcite											
		locale). Roche bien homogène et régulière.											
		Schistosité à 48° p/r A.C. à 1324.0'.											
		1332.0'-1349.0' : section de carottes très fracturées, chlori-											
		tisées avec multiples injections de quartz-chlorite-calcite.											
		Sections blanchies-épidotisées. Schistosité très hétérogène.											
		Schistosité à 51° p/r A.C. à 1345.0'.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Schistosité à 52° p/r A.C. à 1357.0'.											
		1349.0' : suite de la rhyolite moy. chloritisée. Idem. "Yeux"											
		de quartz encore bien évidents dans la mésostase chloritisée.											
		Contient 1-2% petits cristaux microscopiques de leucoxène (?).											
		Contact net à 1364.0' avec le gabbro. Beaucoup de veines de quartz-chlorite.											
1364.0	1673.0	Gabbro très typique.											
		1364.0'-1375.0' : bordure de refroidissement aphanitique - grains fins, chloriteuse, vert moyen, non magnétique, bien carbonatée.											
		Graduellement vers :											
		1375.0' : gabbro vert foncé, à grains fins-moyens, bien massif, faiblement épidotisé. Non magnétique. Bien carbonaté jusqu'à											
		1396.0'. Veinules de quartz-calcite. Petits cristaux d'ilménite-leucoxène. Veinules d'épidote. Traces de pyrite. Equigrulaire.											
		Vers 1400', devient graduellement porphyrique. Gros phénocristaux											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		blanc-jaunâtre de plagioclases (1/2-1 cm.). Plg saussuritisés											
		(10%). Cristaux de pyroxènes de 1-3 mm. Veines-veinules de											
		quartz-calcite-chlorite. Cesse de contenir des phénocristaux											
		vers 1425'. Cristaux vert foncé de pyroxènes plus abondants											
		(cumulats ??). 40% volume. Roche demeure très massive, non											
		magnétique, non carbonatée. Faible épidotisation régulière.											
		Vers 1454.0', redevient bien porphyrique. Idem à 1400'-1425'.											
		10% phénocristaux plg saussuritisés. Patches de forte épidoti-											
		sation-silicification occasionnelles. Très régulier et homogè-											
		ne. Gabbro graduellement plus clair.											
		Vers 1510', devient graduellement moins porphyrique (2-5% phé-											
		nocristaux). Demeure très massif (granulométrie 1-2 mm.). Ca-											
		rottes très peu fracturées.											
		Vers 1578', devient à grains fins, vert foncé, avec nombreuses											
		veines de quartz-calcite-chlorite-épidote. Roche devient fai-											
		blement à moyennement carbonatée. Ne contient que de vagues											
		vestiges de phénocristaux de plg.											
		Retour vers 1605.0' à une section vert foncé, grenue (grains											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		fins à moyens), faiblement épidotisée. Non porphyrique. Cris-											
		taux de leucoxène blancs. Veinules de quartz-calcite. Cristaux											
		de px vert foncé (jusqu'à 40% volume) (jusqu'à 3 mm.). Placage											
		d'hématite dans certaines fractures et veinules. Traces de cpy											
		locales. Très homogène et régulier. Zone de cumulats de px.											
		Bordure de refroidissement bien développée très carbonatée											
		(beaucoup de veinules quartz-calcite).											
		Zone de contact nette à 1673.0' (39° p/r A.C.).											
1673.0	1707.0	Basalte vert très foncé, chloritisé, très schisteux, faiblement											
		minéralisé, très magnétique (beaucoup de mt). Roche non carbo-											
		natée, aphanitique.											
		Schistosité à 45° p/r A.C. à 1675.0'.											
		à 67° p/r A.C. à 1695.0'.											
		Possiblement un tuf ? Quelques sections bien amygdulaires											
		(petites amygdules de quartz-calcite). Quelques sections sem-											
		blent litées. Contient jusqu'à 1% fines veinules et dissémina-											
		tions de sphalérite brun-rougeâtre clair. Traces à 1% de fine											
		py-po-tr cp. Contient jusqu'à 10% mt. Composition nettement											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A							
		très mafique.										
		Schistosité à 76° p/r A.C. à 1699.0'.										
		à 80° p/r A.C. à 1704.0'.										
		1696.0'-1697.0' : dyke felsique-intermédiaire, gris clair,										
		aphanitique, très dur, fortement carbonaté. Petites pla-										
		ques de chlorite. Contacts très nets. Microveinules de										
		chlorite.										
		Section de 1697.0' à 1704.0' contenant de belles veinules de										
		sphalérite-pyrite-calcite le long de la schistosité. Total										
		~2% sp-py.										
		Contact net avec l'intrusif (partiellement oblitéré par une										
		veine de quartz-calcite).										
1707.0	1784.0	Intrusif felsique-intermédiaire, vert moyen-foncé, à grains										
		fins, massif, peu/non magnétique, peu à moyennement carbonaté.										
		Veines de quartz-calcite-chlorite. Mésostase semble rhyolitique										
		(moyennement chloritisée). Très homogène et régulier. Veinules										
		de quartz-calcite.										
		1721.0'-1728.0' : dyke vert clair-jaunâtre, de composition										
		intermédiaire, aphanitique avec 10% petites taches de										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		chlorite, non carbonaté, et non magnétique. Contient des sections avec minéral rouge-hématite. Veinules de calcite.											
		Contacts très nets avec l'intrusif-hôte. Traces à 1% de fine pyrite euhédrale.											
		Vers 1740' :											
		Vague aspect sphérolitique dans l'intrusif, surtout lorsque bien grisâtre (ressemble à une rhyolite sphérolitique). Roche peu carbonatée. Très dure. Sections blanchies-peu épidotisées.											
		Contact assez obscur avec le basalte vers 1784.0'.											
1784.0	1791.5	Suite du basalte (tuf ?) faiblement minéralisé. Vert foncé, très schisteux, très chloriteux, avec fines disséminations et microveinules de py-po-sp-tr cpy (total < 1%). Aphanitique.											
		très mafique.											
		Schistosité à 80-85° p/r A.C. vers 1790.0'.											
		Sections locales avec 5-10% mt. Quelques amygdules de quartz-calcite (2-3 mm.). Veinules de quartz-calcite-chlorite-pyrite.											
		Grosse veinule (3/4 po.) de po-tr cp-qtz à 1790.0'.											
		Pas de contact avec : (même unité ?)											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1791.5	1793.0	Tuf-exhalite chertoux (peu évident). Très chloritisé avec laminations/rubannement de chert gris. Litage-schistosité à ~75° p/r A.C. Pas de minéralisation sulfurée. Passage graduel vers											
1793.0	1830.0	Basalte amygdulaire, vert moyen, schisteux, chloriteux. Crains fins. Non magnétique. Faiblement à fortement carbonaté. Contient 2-5% petites amygdules (2-5 mm.) de quartz-calcite. Schistosité à 75-80° p/r A.C. vers 1800.0'. à 65-80° p/r A.C. vers 1825.0'. Très régulier et homogène. Non lité. Quelques sections très schisteuses avec injections de veinules de pyrite-calcite-chlorite. Composition très "basaltique". 1817.5'-1819.0' : dyke felsique, gris moyen, aphanitique, très dur, massif. Contacts nets avec le basalte. Micro"laminations" de py-po locales. Contact très marqué à 1830.0' (contenu en mt et couleur).											
1830.0	1838.5	Tuf-exhalite (?) - vert très foncé à noirâtre, très magnétique. Composition de chlorite-mt. Roche aphanitique, non carbonatée.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Pas de litage. Schistosité bien développée à 75-80° p/r A.C.											
		Fait partie du gabbro qui suit ? Bordure de refroidissement ?											
		Contact net à 1838.5'.											
1838.5	1961.0	Gabbro à grains moyens, à cumulats de pyroxènes (40% vol.).											
		Cristaux de px vert foncé (2-3 mm.) dans une mésostase vert plus clair. Roche non magnétique, non carbonatée. Quelques											
		veines de quartz-chlorite-calcite-épidote. Bordure de refroidissement (1838.5'-1843.0') bien développée. Très régulier et											
		homogène. Bien massif. Vers 1870'-1875', devient à grains plus fins (1-2 mm.). Petites plaques de forte épidotisation-silicification (vestiges de rares phénocristaux de plg ?).											
		Vers 1900', redevient à grains moyens (1-3 mm.) (30-40% beaux cumulats de px). Très peu de veinules de quartz-calcite-chlorite-épidote. Très faible épidotisation.											
		Bordure de refroidissement bien développée (1959.0'-1961.0').											
		Non carbonatée. Contact obscur vers 1961.0'.											
1961.0	1966.5	Basalte (?) bien magnétique (mt), vert foncé, aphanitique,											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		(fait partie du gabbro ??). Ressemble beaucoup à la bordure de refroidissement du gabbro. Bien carbonaté ici. Traces -1% pyrite.											
		Contact obscur vers 1966.5'.											
1966.5	1988.5	Séquence de tuf chloriteux mafique contenant quelques sections d'exhalite cherteux-faiblement minéralisé. Litage/schistosité à 80° p/r A.C. vers 1970.0'. à 65-70° p/r A.C. vers 1985.0'. Contient 2-5% fine py-po disséminées et en micro-laminations. Traces de sp. Unité généralement moy. carbonatée, magnétique lorsqu'il y a présence de po. Très finement lité. Veines de quartz-calcite. Quelques sections ressemblent beaucoup au basalte qui suit. Equivalent zone "A" →, 1985.0'-1988.5'(?) Contact imprécis vers 1988.5'.											
1988.5	2018.0	Basalte. Vert moyen-foncé, à grains fins, aphyrique, peu lité. Moyennement à faiblement carbonaté. Veinules-veines de quartz-calcite-chlorite. Traces -1% pyrite. Très uniforme. Régulier. Bien mafique. Roche non magnétique.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Schistosité à 75-80° p/r A.C.											
		Contact net à 2018.0'.											
2018.0	2099.5	Rhyolite grise, aphanitique, très dure, très siliceuse. (Rh. Bell Channel ?). Non magnétique, non carbonatée. Massive, peu schisteuse. Veines-veinules de quartz-calcite-chlorite. Faiblement chloritisée (5-10% chlorite).											
		2018.0'-2026.0' : section amygdulaire. Amygdules de quartz-calcite de 1-3 mm. (jusqu'à 10%). Traces -1% pyrite.											
		Graduel vers :											
		2026.0'-2043.0' : section bréchiforme - amygdulaire avec nombreuses sections blanchies. Amygdules de quartz-calcite jusqu'à 1 cm. Veinules de calcite. Microveinules de silice. Veinules de pyrite. Roche très dure, très siliceuse. Vagues fragments. Rubannement à 75°-80° p/r A.C. Présence de "yeux" de quartz gris vitreux (1 mm.).											
		Graduel vers :											
		2043.0' → rhyolite gris foncé-vert foncé, aphanitique (très finement sphérulitique), très dure, faiblement magnétique,											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		faiblement carbonatée. Très massive. Veinules de quartz-											
		calcite-chlorite. Présence de "yeux" de quartz gris vitreux											
		(1 mm.). Occasionnelles amygdules de quartz-calcite. Traces											
		-1% fine pyrite disséminée.											
		~ 2057.0'-2062.0' : section chloritisée, vert foncé. Même											
		texture.											
		Unité très régulière et homogène. Non rayable.											
		2064.0'-2068.0' : section "blanchie"-silicifiée (?) (vert											
		clair-jaunâtre). Veine de quartz.											
		Vers 2080.0', semble devenir progressivement mieux sphérolitique.											
		2092.5'-2096.0' : section "blanchie"-silicifiée (?) (vert-											
		clair jaunâtre) associée à des veines de quartz.											
		Contact très net à 2099.5'.											
2099.5	2117.5	Intrusif micro-gabbroïque vert moyen-foncé, très régulier-											
		homogène. Aphyrique, à grains très fins-fins, moyennement à											
		fortement carbonaté, bien magnétique (mt). Veinules de calcite.											
		Bordures de refroidissement aphanitiques. Contact très net à											
		2117.5' avec la suite de la rhyolite.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
2117.5	2153.0	Suite de la rhyolite sphérulitique, gris-vert moyen, faiblement chloritisée. Non magnétique. Faiblement-moy. carbonatée.											
		Sphérules de ~1 mm. de diamètre, de couleur grises (jusqu'à 95% volume) dans une mésostase vert clair (chloritisée). Très homogène, uniforme. "Yeux" de quartz gris vitreux (1 mm.) occasionnels. Veinules de calcite.											
2153.0		FIN DU TROU.											

MODERNE

1

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA

DATE: 12/10/54

SONDAGE: 84-4

OPERATEUR: D.N.

84-4A
120 = 11.
125 = 6.9
130 = 4.9
135 = 2.7
84-4B
125 = 4.4
130 = 1.8
135 = 10.0

100	200	300	400	500	600
	0.0	0.5	0.0	0.0	0.0
5	0.0	1.7	0.0	0.0	0.0
10	1.8	0.3	0.0	0.0	0.0
15	0.2	0.0	0.0	0.0	0.0
20	0.2	0.0	0.0	0.0	0.0
25	0.1	0.0	0.1	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0
35	0.0	0.0	0.2	0.0	0.0
40	0.1	0.0	0.9	0.0	0.0
45	0.0	0.0	0.0	0.0	0.0
50	0.1	0.0	0.0	0.0	0.0
55	1.1	0.0	0.0	0.0	0.0
60	0.5	0.0	0.0	0.0	0.0
65	0.1	0.0	0.0	0.0	0.1
70	0.0	0.0	0.0	0.0	0.0
75	0.0	0.0	0.1	0.0	0.0
80	0.0	0.0	0.0	0.1	0.0
85	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0
95	0.1	0.0	0.0	0.1	0.0

2

MODERNE

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Noranda

DATE:

15-10-84

SONDAGE:

NOR-84-7

OPERATEUR:

J.B

700	0.0
5	0.0
10	0.6
15	0.6
20	0.6
25	0.4
30	0.4
35	0.5
40	0.3
45	0.8
50	0.1
55	0.1
60	0.1
65	0.1
70	0.1
75	0.1
80	0.0
85	0.0
90	0.0
95	0.0

} 0.0

800	0.1
5	0.1
10	0.0
15	0.1
20	0.1
25	0.1
30	0.0
35	0.1
40	0.8
45	0.1
50	0.0
55	0.0
60	0.1
65	0.0
70	0.1
75	0.1
80	0.1
85	0.1
90	0.1
95	0.1

900	0.1
5	0.2
10	0.2
15	0.1
20	0.2
25	0.1
30	0.2
35	0.1
40	0.1
45	0.1
50	0.1
55	0.1
60	0.2
65	0.2
70	0.1
75	0.0
80	0.1
85	0.0
90	0.1
95	0.0

1000	0.1
5	0.1
10	0.1
15	0.0
20	0.0
25	0.0
30	0.1
35	0.1
40	0.0
45	0.1
50	0.1
55	0.0
60	7.6
65	3.7
70	0.1
75	0.1
80	0.1
85	0.1
90	0.0
95	0.0

THE P.M.I. 1003

1100	0.1
5	0.1
10	0.0
15	0.2
20	0.1
25	0.1
30	4.7
35	2.7
40	0.2
45	0.3
50	1.9
55	1.5
60	0.9
65	0.5
70	0.3
75	0.2
80	0.2
85	0.2
90	0.1
95	0.9

1200	6.1
5	5.9
10	2.5
15	4.2
20	2.8
25	0.9
30	0.0
35	0.1
40	1.1
45	0.0
50	0.1
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

MODERNE

3

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA

DATE: 25-10-84

SONDAGE: NOR-84-4

OPERATEUR: J B DN

130°	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.1
75	0.1
80	0.1
85	0.0
90	0.2
95	0.2

140°	0.2
5	0.2
10	0.1
15	0.1
20	0.0
25	0.2
30	0.2
35	0.1
40	0.0
45	0.2
50	0.2
55	0.1
60	0.2
65	0.0
70	0.0
75	0.0
80	0.0
85	0.1
90	0.1
95	0.1

150°	0.2
5	0.2
10	0.1
15	0.0
20	0.2
25	0.2
30	0.3
35	0.2
40	0.3
45	0.3
50	0.1
55	0.1
60	0.0
65	0.0
70	0.0
75	0.1
80	0.0
85	0.1
90	0.0
95	0.0

160°	0.1
5	0.1
10	0.0
15	0.0
20	0.1
25	0.0
30	0.0
35	0.0
40	0.1
45	0.1
50	0.0
55	0.1
60	0.1
65	0.1
70	0.0
75	9.9
80	10.0
85	9.3
90	0.1
95	0.0

170°	10.0
5	11.0
10	0.1
15	0.0
20	0.0
25	0.2
30	0.0
35	0.0
40	1.0
45	0.1
50	0.1
55	0.0
60	0.7
65	0.9
70	0.0
75	0.1
80	0.0
85	0.0
90	3.6
95	0.1

180°	0.0
5	0.0
10	0.1
15	0.1
20	0.0
25	0.0
30	7.8
35	28.0
40	0.2
45	0.0
50	0.0
55	0.1
60	0.0
65	0.0
70	0.0
75	0.1
80	0.1
85	0.0
90	0.1
95	0.1

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

(4)

MODERNE

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA

DATE: 7-11-84

SONDAGE: NOR 84-4

OPERATEUR: J.B

1900	0.3
5	0.2
10	0.3
15	0.0
20	0.1
25	0.1
30	0.1
35	0.2
40	0.3
45	0.4
50	0.4
55	0.0
60	0.0
65	4.0
70	0.0
75	0.1
80	2.1
85	0.0
90	0.1
95	0.2

2000	0.1
5	0.1
10	0.0
15	0.1
20	0.1
25	0.1
30	0.0
35	0.1
40	0.0
45	0.0
50	0.0
55	0.0
60	0.2
65	0.0
70	0.5
75	0.7
80	0.4
85	0.3
90	0.3
95	0.4

2100	1.0
5	2.2
10	2.5
15	1.0
20	0.4
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	FIN
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x-122

JOURNAL DE SONDAGES AU DIAMANT

Explorations Noranda Limitée
noranda Matagami, Québec

LATITUDE : 10+00 S
 LONGITUDE : 64+00 E
 ÉLÉVATION : Surface
 DIRECTION : 020°
 PENDAGE AU COLLET : -64°

TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE
200'	_____	-57°	_____	1200'	_____	-37°	_____
400'	_____	-52°	_____	1400'	_____	-34°	_____
600'	_____	-47.5°	_____	1600'	_____	-31°	_____
800'	_____	-46°	_____	1800'	_____	-30°	_____
1000'	_____	-44.5°	_____	2000'	_____	-22°	_____
	1102'	-41°	33°-14° = 19°	2200'	_____	-19°	_____

PROFONDEUR DU TROU : 2261'

FEUILLE NO. 1 DE 26

PROPRIÉTÉ : Norita

CLAIM No. : 112469-3

TROU No. : NOR-84-5

CAROTTE No. : B.Q.

DÉBUT LE : 06 novembre 84

FIN LE : 20 novembre 84

PROFONDEUR DE A	DESCRIPTION MEGASCOPIQUE	ÉCHANT.	DE	A	ANALYSES GEOCHIMIQUES									
0	126.0	Tubages laissés en place.												
		"Dummy bloqué dans le trou vers 32 m"												
		Pas de Borehole P.E.M. possible.												
126'	146.0	Tuf felsique chloritisé												
		- Couleur gris verdâtre												
		- Dureté faible												
		- Chloritisation élevée												
		- Quelques passages chertoux												
		- Localement le tuf est fragmentaire. Les fragments sont chloritisés.												

ENTREPRENEUR : Forages Groleau DÉCRIT PAR : Jean des Rivières

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-5

PAGE: 2

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		- La schistosité est de plus en plus développée vers le contact.											
		S ₁ à 40°/A.C.											
		- Contact, la "highly broken core" sur 1', il y a développement											
		d'une roche très chloriteuse et schisteuse. Quelques morceaux											
		de veine de quartz.											
146.0	280.4	Gabbro											
		- Couleur verte											
		- Granulométrie fine											
		- Composé de batonnets de feldspaths et une matrice chloriteuse											
		- Très homogène, massif.											
		- Localement légèrement altéré, on voit des sphères remplacés											
		par du leucoxène.											
		197-200 highly broken core. Très schisteux. Il y a une veine											
		de quartz-ankérite.											
		- Le gabbro est recoupé par quelques veinules de quartz plis-											
		sées ou non.											
		- Contact franc à 50°/A.C.											
280.4	327.0	Tuf mafique ? (Gabbro ?)											

JOURNAL DE SONDAGES AU DIAMANT

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PAGE: 3

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		- Couleur vert foncé.											
		- Très tendre.											
		- Très chloritisé.											
		- Localement bréchique et/ou à cristaux.											
		- Quelques secteurs amygdulaires, étirés et au contour diffus.											
		Couleur grise.											
		284.8-288.1' : Le tuf est silicifié, il prend une teinte cha-											
		mois crème. Contact net à 35°/A.C.											
		288.1-293.2' : Le tuf est silicifié et hématisé. Il est rose.											
		Contact sup. : 55°/A.C.											
		inf. : 45°/A.C.											
		295.8-298.4' : Dyke andésitique											
		Couleur vert pomme, aphanitique, quelques plus											
		gros cristaux < 1 mm. Contact sup. : 90°/A.C.											
		inf. : 35°/A.C.											
		Contact à : highly broken core sur 6".											
327.0	466.7	Gabbro à grains fins											
		- Idem à 146-280.4'											
		351.8-355.4' : Dyke andésitique idem à 295.8-298.4'.											

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PAGE: 4

DE	A	DESCRIPTION	ECHAN.	DE	A								
		Contact sup. : 55°/A.C.											
		inf. : 65°/A.C.											
		410-423' : légèrement folié.											
		Contact plus ou moins graduel difficile à cerner.											
466.7	506.8	Tuf mafique et chloriteux											
		- Il y a alternance de lits mafiques chloritisés et de lits chloriteux-talceux (primaire ?).											
		- Les lits mafiques sont relativement constants en épaisseur 1" à 3". Ils sont vert plus clair, chloritisés moyennement et ils contiennent quelques amygdules étirés et des fragments chloritisés.											
		- Les chloriteux-talceux varient en épaisseur 1" à 1'. Ils sont vert foncé à bleuté. Ils sont très schisteux. S ₁ à 40°/A.C. est parallèle à S ₀ .											
		471.2-477.1' : Dyke de gabbro à grains fins similaire à ceux que nous avons décrits précédemment. Contact concordant à S ₁ .											
		Contact à 45°/A.C.											

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PAGE: 5

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
506.8	517.1	Tuf mafique à lapillis											
		- Couleur vert clair.											
		- Dureté peu élevée.											
		- Matrice à granulométrie fine.											
		- Les lapillis sont très étirés. Tailles de quelques mm X < 1mm.											
		Ils sont vert foncé chloriteux. Certains sont vert plus clair											
		et ils ont une taille de 1 cm. X 1-2 mm.											
		Contact plus ou moins graduel.											
517.1	600.6	Tuf mafique (3G à grains fins ?)											
		- Couleur vert foncé.											
		- Granulométrie fine à très fine, très homogène,											
		- Contient ≈ 5% de petits minéraux pâles ressemblant à des leu-											
		coxènes.	2027	561.0	Roche entière								
		- 523.-537' : il est amygdalaire. Elles sont remplies de quartz,											
		Taille 3 mm. à 1 cm.											
		- Devient par la suite très homogène. Contient quelques grains											
		de pyrite.											
		Contact net à 50°/A.C.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
600.6	610.7	Tuf mafique à lapillis											
		- Similaire à 506.8-517.1', mais on observe un litage compositionnel défini par des lits à grains dépourvus de lapillis.											
		Il y a un passage séricitisé de 610-610.7', celui-ci représente un sommet.											
		Contact à : 40°/A.C.											
610.7	629.4	Tuf mafique et chloriteux											
		- Couleur vert moyen à foncé.											
		- Il y a alternance de lit mafique chloritisé (tendre) et de lits chloriteux (primaire).											
		- Les lits mafiques sont plus épais et plus nombreux.											
		- Il y a quelques passages chertoux plus particulièrement au contact avec l'unité sous-jacente.											
		- Dans la région du contact, il y a de nombreuses veines de quartz.											
		- Localement dans le tuf mafique il y a des cristaux.											
		- Contact dans une zone de "highly broken core" avec des veines.											
629.4	666.0	Tuf mafique à lapillis											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		- Couleur vert grisâtre.											
		- Dureté faible à moyenne.											
		- Granulométrie fine.											
		- Lapillis de très petites tailles < 1 mm. Peut être seulement un phénomène d'altération.											
		- Veine de quartz et Ct de 664-666' contact irrégulier.											
666.0	676.2	Tuf intermédiaire											
		- Couleur grise.											
		- Dureté faible.											
		- Granulométrie fine.											
		- Litage frustré.											
		- Contient des amygdules étirées remplies par de la chlorite et des carbonates. Taille de 3-4 mm.											
		- 674-676.2' : passage séricitisé.											
		Contact à 40°/A.C.											
676.2	690.3	Tuf mafique											
		- Similaire à 280.4-327'.											
		- Peut être un dyke de gabbro à grains fins.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Contact de veinule à 35°/A.C.											
690.3	711.4	Tuf chloriteux											
		- Couleur vert foncé.											
		- Dureté faible.											
		- Granulométrie très fine.											
		- Litage bien développé.											
		- Très schisteux (50°/A.C.).											
		- Quelques secteurs fragmentaires de 3-4 mm. définissent le litage.											
		Contact à 40°/A.C.											
711.4	738.6	Tuf mafique											
		- Couleur vert foncé.											
		- Dureté moyenne.											
		- Granulométrie fine.											
		- Contient localement de petits cristaux.											
		729.1-738.6' : il est plus pâle. Silicification progressive.											
		Près du contact, il y a présence de leucoxène. Il y a quelques veinules. Contact net à 30°/A.C.											

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DE	A	DESCRIPTION	ECHAN.	DE	A							
738.6	804.7	Gabbro										
		- Couleur vert foncé.										
		- Massif.										
		- A grains fins sur les 5 premiers peids.										
		- Par la suite la taille des cristaux peut atteindre 2-3 mm.										
		- Les feldspaths sont en batonnets.										
		- Quelques veinules de carbonates.										
		- De façon progressive à partir de 787' on note la présence de porphyres chloriteux xénomorphes de 2 à 3 mm, dans une matrice à grains fins.										
		- 803.5-804.7' : shear zone contenant du matériel bréchique irrégulier dans une matrice carbonatée (veine).										
		Schistosité absente.										
		Contact irrégulier.										
804.7	811.8	Tuf intermédiaire variolitique										
		- Couleur vert moyen.										
		- Dureté moyenne.										
		- Granulométrie fine.										
		- Contient 1 à 3% de varioles remplies par de la silice. Elles										

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PAGE: 10

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		sont très étirées.											
		- Passage progressif.											
811.8	819.7	Tuf mafique											
		- Similaire à ceux déjà décrits.											
		- A partir de 813.5', il est altéré, présence de leucoxène.											
		- Contact avec une veine à 15°/A.C.											
819.7	1034.2	Gabbro											
		- 819.7-824.3' : il est vert clair à grains très fins et il											
		contient localement des porphyres chloriteux.											
		- Par la suite il est vert foncé, homogène, granulométrie fine											
		à moyenne.											
		- Feldspaths en batonnets de 1 mm. Ils occupent ≈35% du volume.											
		- A partir de 864.2' il devient porphyritique (contact très											
		franc à 20°/A.C. peut être une "second sill" mise en place											
		dans l'autre ou vice et versa).											
		- Il a la texture polka-dot. Porphyres et agrégats feldspathi-											
		ques de 5 mm.											
		- Il contient des fractures hématisées.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		- 982-998' : il perd sa texture porphyritique, sa granulométrie est plus fine.											
		- 1018-1025.1' : il est à grains très fins.											
		- 1025.1-1027.7' : zone de cisaillement											
		- bréchique.											
		- boue de faille.											
		- quelques morceaux massifs non schisteux.											
		Contact sup. : irrégulier											
		inf. : 65°/A.C.											
		Passage progressif.											
1034.2	1091.9	Tuf mafique et chloriteux											
		- Couleur vert à vert foncé.											
		- Dureté faible.											
		- Granulométrie fine.											
		- La carotte présente un aspect homogène.											
		- Il y a quelques lits de faible épaisseur (1 à 10 cm.) de matériel chloriteux.											
		1088.6-1089.9' : dyke andésitique à grains fins.											
		1090.2-1091.0' : dyke andésitique.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Contact inférieur à 55°/A.C.											
1091.9	1119.3	Tuf intermédiaire à lapillis											
		- Roche de couleur verte.	2044	1099.0	Roche entière								
		- Dureté moyenne à élevée.											
		- Matrice est chloritisée.											
		- Les lapillis sont de tailles diverses mais ils n'excèdent pas 3 mm. Ils sont siliceux.											
		- Litage frustré.											
		- Granulométrie fine.											
		- Contact progressif.											
1119.3	1127.9	Rhyolite sphérolitique											
		- Couleur vert moyen.											
		- Dureté moyenne à faible (chloritisée).											
		- Contient jusqu'à 80% de sphérules inférieures à 1 mm.	2045	1121.0	Roche entière								
		- Passage graduel.											
1127.9	1187.0	Rhyolite variolitique et sphérolitique											
		- Couleur vert moyen.											

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PAGE: 13

DE	A	DESCRIPTION	ECHAN.	DE	A								
		- Dureté faible à moyenne.											
		- La matrice est chloritisée.											
		- Elle contient des varioles siliceuses de tailles diverses (1 mm. à 1 cm.) étirées et d'abondance variable (5 à 20%).											
		- Il y a également des secteurs à sphérules, similaire à celle de l'unité précédente.											
		- Contact limité par une veine irrégulière.											
1187.0	1243.7	Tuf intermédiaire											
		- Couleur vert pâle à foncé.											
		- Dureté moyenne.											
		- Contient localement des fragments chloriteux qui semblent être des amygdules.											
		- Granulométrie fine à très fine.											
		- Contient également des amygdules (local) remplies de quartz- Ct.											
		- Localement il y a des fantômes de cristaux qui sont épidoti- sés.											
		- Il est également très massif, localement ne présentant aucu- nes structure ou texture.											

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PAGE: 14

DE	A	DESCRIPTION	ECHAN.	DE	A								
		- Contact à 40°/A.C.											
1243.7	1337.7	Tuf rhyolitique (peut être intermédiaire)											
		- Couleur vert grisâtre à vert moyen.											
		- Dureté moyenne à élevée.	2046	1252.0	Roche entière								
		- Chloritisé.											
		- Contient des cristaux sub-idiomorphes de feldspaths répartis de façon aléatoire.											
		- Il y a également des sphérules, plus ou moins nombreuses.											
		- Elle contient environ 1% ou moins de leucoxène.											
		- A 1279' zone de 3+ à hyaloclastites ?											
		- Localement elle présente des aspects de litages. Les lits sont minces.											
		- Elle contient des passages massifs plus grisâtre contenant des blebs de chlorite et de petits yeux de quartz.											
		Contact infé à 60°/A.C.											
1337.7	1363.0	Tuf mafique											
		- Couleur vert moyen.											
		- Dureté moyenne.											

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PAGE: 15

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
		- Granulométrie fine à très fine.										
		- Assez homogène, alternance irrégulière de lits épais (ordre du pied) à grains fins avec quelques cristaux feldspathiques sub-idiomorphes et des lits à grains très fins contenant des amygdules < 1 mm.										
		- Contact à 65°/A.C.										
1363.0	1365.0	Exhalite										
		- Formé d'alternance de lits grisâtre (chert) et de lits vert (chlorite). Epaisseur des lits de 1 mm. à 1 cm. Elle contient un peu de pyrite < 1% associé aux horizons cherteux.	2047	1363.0	1365.0	.002	2	67	1138			
		- Contact à 60°/A.C.										
1365.0	1374.9	Tuf felsique										
		- Couleur verte.										
		- Dureté moyenne à faible.										
		- Granulométrie fine à très fine.										
		- Il est chloritisé.										
		- Il contient des yeux de quartz < 1 mm. et quelques amygdules.										
		- Il est lité.										

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PAGE: 16

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		- Contact inf. à 45°/A.C.											
1374.9	1376.5	Zone bréchique											
		- Injection de veinules irrégulières de quartz carbonates. Les fragments de 1' sont de composition gabbroïque.											
		- Contact à 65°/A.C.											
1376.5	1390.8	Tuf chloriteux											
		- Couleur vert foncé.											
		- Dureté faible.											
		- Granulométrie fine.											
		- Contient quelques amygdules et des cristaux sub-idiomorphes.											
		- Contact à 45°/A.C.											
1390.8	1543.0	Gabbro											
		- Couleur vert moyen.											
		- Dureté élevée.											
		-1390.8-1398.0' : granulométrie fine. Par la suite elle devient moyenne.											
		- Contient des amas irréguliers de chlorite de 1 à 2 mm. (≈35%											

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PAGE: 17

DE	A	DESCRIPTION	ECHAN.	DE	A								
		du volume).											
		- Localement il contient des cristaux idiomorphes de feldspaths											
		< 1 mm.											
		- Il redevient à grains fins à partir de 1537'.											
		- Contact progressif.											
1543.0	1546.9	Tuf felsique											
		- Couleur vert à vert délavé.											
		- Dureté moyenne.											
		- Légèrement chloritisé.											
		- Contient quelques amygdules.											
		- Contact à 60°/A.C.											
1546.9	1547.4	Tuf chloriteux à cristaux											
		- Couleur vert foncé.											
		- Quelques passages très fins siliceux.											
		- Dureté faible à moyenne.											
		- Granulométrie très fine.											
		- Contient 30 à 40% de cristaux < 1 mm.											
		- Contact à 65°/A.C.											

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PAGE: 18

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1547.4	1552.9	Dyke felsique (Tuf ?)											
		- Couleur grise légèrement verdâtre.											
		- Granulométrie très fine.											
		- Contient des secteurs à fragments ovoïdes de 1 à 3 mm.											
		- Les contacts inférieur et supérieur sont bréchiques et ils											
		contiennent des fragments anguleux. La matrice (80% du volume)											
		est constituée de calcite-quartz.											
		- Contact inf. à 55°/A.C.											
1552.9	1558.7	Tuf bréchique											
		- Couleur vert foncé.											
		- Grains fins, homogène.											
		- Dureté moyenne.											
		- L'aspect bréchique est causé par la présence de veinules et											
		veines irrégulières de quartz. Aucune minéralisation y est											
		associée.											
		- Contact inf. à 25°/A.C.											
1558.7	1644.9	Gabbro											
		- Identique à 1390.8-1543'. Passage progressif.											

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PAGE: 19

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1644.9	1671.3	Tuf mafique											
		- Couleur vert foncé.											
		- Dureté faible à moyenne.											
		- Chloriteux, granulométrie fine à très fine.											
		- Il contient quelques amygdules et des zones à cristaux.											
		- Un litage est observé.											
		- Contact à 70°/A.C.											
1671.3	1687.7	Tuf felsique à cristaux de quartz											
		- Couleur gris verdâtre.											
		- Dureté élevée.											
		- Matrice fine à très fine.											
		- Très bien lité. Lits de 3 à 4' d'épaisseur. Entre les gros lits, il y a de minces horizons chloriteux.											
		- Il contient jusqu'à 80% de yeux de quartz arrondis < 1 mm. qui ressemblent localement à des sphérules.											
		- A partir de 1683' il y a de petites zones irrégulières complètement transformées en quartz. Par contre, les yeux sont encore visibles.											
		- Contact à 60°/A.C.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-5

PAGE: 20

DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
1687.7	1691.9	Tuf felsique grossier										
		- Couleur vert clair.	2048	1687.7	1691.9	.002	2	42	775			
		- Dureté moyenne à élevée.										
		- Contient de minces lits chertoux et pyritiques.										
		- Les autres lits présentent une granulométrie grossière >1 mm.										
		avec des cristaux feldspathiques et quelques rares cristaux										
		de quartz.										
		- Contact à 65°/A.C.										
1691.9	1723.0	Tuf chloriteux amygdulaire										
		- Couleur vert foncé.										
		- Dureté faible à moyenne.										
		- Granulométrie fine.										
		- Contient jusqu'à 20% d'amygdules de calcite. Elles sont éti-										
		rées et elles peuvent atteindre 1 cm.										
		- Contient localement des traces de pyrite.										
		- Contact à 60°/A.C.										
1723.0*	1752.0	Gabbro										
		- Couleur vert moyen.										

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-5

PAGE: 21

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		- Dureté élevée.											
		- Granulométrie fine vers 1730' il devient porphyritique. Il s'agit de glomérophyres de feldspaths épidotisés de 1 cm. et moins. Cela jusqu'à 1747'. Il devient à grains fins et le contact avec l'unité sous-jacente est graduel.											
1752.0	1830.1	Rhyolite sphérulitique											
		- Couleur grise jusqu'à 1775' par la suite elle est k�ratophit�s�e (comme chamois verd�tre).											
		- Lorsqu'elle est grise, la matrice est chloriteuse et elle occupe 20% du volume.											
		- Les sph�rules occupent pr�s de 80% du volume. Elles sont de petites tailles <1 mm. de forme arrondie. Il y en a certaines qui sont possiblement des yeux de quartz.											
		1768.9-1773.1' : dyke � porphyres feldspathiques et de chlorite.											
		Dureté �lev�e. Couleur grise. Granulom�trie des porphyres < 2 mm.											
		- A partir de 1791-1794.4' la k�ratophitisation est plus intense et les sph�rules et yeux de quartz sont d�truits.											
		- Dans les zones tr�s alt�r�es il y a de nombreuses veinules											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-5

PAGE: 22

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		de quartz-Ct.											
		1794.4-1799.1' : dyke acide porphyritique.											
		1799.1-1801.2' : tuf mafique											
		Contact rhyolite à 65°/A.C.											
1830.1	1905.0	Gabbro											
		- Couleur vert à vert foncé.											
		- Dureté élevée à moyenne.											
		- Granulométrie fine à grossière.											
		1837.5-1842.0' : il est chloriteux à grains fins quelques cris-											
		taux arrondis suggèrent une péridotite.											
		- A partir de 1877' il devient à grains plus grossiers.											
		- Il y a des gloméroporphyres similaires à ceux décrits de 1740-											
		1747'.											
		- Le gabbro est épidotisé.											
		- A partir de 1897' il redevient à grains fins.											
		- Contact à 60°/A.C.											
1905.0	1923.4	Rhyolite porphyritique (Dyke ?)											
		- Couleur grise.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-5

PAGE: 23

DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
		- Dureté élevée.										
		- Granulométrie de la matrice grossière à fine.										
		- Composé de porphyres sub-idiomorphes à xénomorphes de felds-										
		paths. A un certain point les porphyres se confondent avec										
		la matrice.										
		Contact inf. à 70°/A.C.										
1923.4	1940.0	Exhalite cherteuse										
		1923.4-1926.0' : elle est fragmentaire conglomératique. Les										
		fragments sont siliceux sub-arrondis.										
		1926.0-1926.4' : très bien lité (beau chert).	2049	1923.4	1928.4	.006	1	44	620			
		1926.4-1928.1' : composé de matériel siliceux d'aspect sphéro-	2050	1928.4	1933.4	.005	2	85	700			
		litique.	2051	1933.4	1936.4	.005	3	142	1015			
		1928.1-1929.0' : chert très bien lité.	2052	1936.4	1940.0	.005	3	51	2090			
		1929.0-1940.0' : composé d'une alternance irrégulière de lits										
		cherteux et de lits à caractère tufacé (pyro-										
		clastique). Certains secteurs sont plissés.										
		Deviens plus chloriteux à partir de 1937'.										
		Contient très peu de py-po d'aspect syngénétique.										
		Contact à 85°/A.C.										

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-5

PAGE: 24

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag ppm	Cu ppm	Zn ppm			
1940.0	1947.0	Tuf magnétique à cristaux										
		- Couleur vert foncé à noir.										
		- Matrice formée de magnétite et un peu de chlorite.										
		- Cristaux xénomorphes ($\approx 40\%$) ≤ 1 mm. de feldspaths.										
		- Contact à 75° /A.C.										
1947.0	1957.6	Rhyolite										
		- Similaire à celle décrite de 1905-1923' mais elle est à grains										
		plus fins et contient des leucoxènes.										
		Contact à 70° /A.C.										
1957.6	1958.3	Exhalite cherteuse										
		- Contient 1 à 2% sphalérite en veinules	2053	1957.0	1959.0	.005	2	151	6973			
		Contact inférieur irrégulier.										
1958.3	1961.5	Tuf mafique										
		- Vert foncé, grains très fins, chloriteux, similaire à ceux										
		déjà décrits.										
		Contact net à 90° /A.C.										

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TERRAIN: Norita

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PAGE: 25

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1961.5	2034.4	Gabbro											
		- Couleur vert foncé à <u>moyen</u> .											
		- Matrice à grains fins formée de feldspaths épidotisés et de chlorite.											
		- Il y a 30% de porphyres idiomorphes chloriteux (pseudomorphe d'ancien pyroxène). Taille 1 mm. à 3 mm. A partir de 2027'											
		ce type de porphyre disparaît.											
		Passage graduel.											
2034.4	2043.0	Tuf mafique											
		- Similaire aux précédents.											
		2037.2-2037.4' : contient 20% de Po-Py syngénétique.											
		Contact graduel.											
2043.0	2059.1	Andésite											
		- Couleur vert grisâtre.											
		- Dureté élevée.											
		- Granulométrie fine à aphanitique.											
		- Il y a quelques passages d'aspect bréchique et à hyaloclasti-											
		te (?) qui ont subis une spilitisation.											

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TERRAIN: Norita

TROU No: NOR-84-5

PAGE: 26

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		- Contact net à 55°/A.C.											
2059.1	2261.0	Gabbro											
		- Couleur vert foncé à gris verdâtre.											
		- Dureté élevée.											
		- Granulométrie fine jusqu'à 2077' par la suite il devient plus grossier.											
		-2062.7-2063.9' : dyke acide à porphyres feldspathiques.											
		-2077.5-2080.5' : la matrice est très fine et il y a des porphyres feldspathiques.											
		- Par la suite la matrice (minéraux mafiques) devient grossière.											
		-2093.4-2098.3' : dyke mafique vert clair. Il s'agit possiblement d'un gabbro altéré ? Il est recoupé par quelques veinules de quartz-Fd-Ct-hématite et localement chlorite.											
2261.0		FIN DU TROU.											

Grolex

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

1

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA

DATE: 8-11-84

SONDAGE: NOR-84-5

OPERATEUR: DN-JB

10	0
5	
10	
15	
20	
25	
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.1
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

20	0.1
5	0.0
10	0.0
15	0.0
20	0.1
25	0.1
30	0.0
35	0.0
40	0.0
45	0.1
50	0.1
55	0.1
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

300	0.0
5	0.0
10	0.0
15	0.0
20	0.1
25	0.0
30	0.1
35	0.0
40	0.1
45	0.1
50	0.1
55	0.1
60	0.2
65	0.1
70	0.0
75	0.0
80	0.1
85	0.1
90	0.0
95	0.0

400	0.1
5	0.1
10	0.2
15	0.1
20	0.1
25	0.0
30	0.0
35	0.1
40	0.0
45	0.0
50	0.0
55	0.1
60	0.0
65	0.1
70	0.1
75	0.2
80	0.0
85	0.0
90	0.1
95	0.1

500	0.1
5	0.1
10	0.1
15	0.1
20	0.0
25	0.0
30	0.1
35	0.2
40	0.0
45	0.0
50	0.0
55	0.1
60	0.4
65	0.1
70	0.1
75	0.0
80	0.0
85	0.1
90	0.1
95	0.0

600	0.0
5	0.1
10	0.0
15	0.1
20	0.1
25	0.0
30	0.0
35	0.0
40	0.1
45	0.1
50	0.0
55	0.0
60	0.0
65	0.0
70	0.1
75	0.0
80	0.1
85	0.1
90	0.0
95	0.0

X-122

GROLEAO

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

(2)

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

MORITA

DATE:

9-11-84

SONDAGE:

NOR 84-5

OPERATEUR:

J.B

700	0.0
5	0.0
10	0.1
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	8.8
50	0.0
55	0.8
60	0.4
65	0.6
70	0.8
75	0.2
80	0.4
85	0.5
90	0.8
95	0.7

800	0.2
5	0.2
10	0.1
15	0.2
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.1
80	0.0
85	0.0
90	0.0
95	0.0

900	0.1
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.1
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.4
75	0.8
80	0.2
85	1.9
90	2.8
95	2.3

1000	3.3
5	2.9
10	1.1
15	3.6
20	2.1
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	3.9
55	3.4
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

1100	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	0.1
50	0.0
55	0.0
60	0.0
65	0.1
70	0.0
75	0.1
80	0.0
85	0.0
90	2.4
95	1.5

1200	3.6
5	6.4
10	5.0
15	0.0
20	0.0
25	0.1
30	0.0
35	2.1
40	0.0
45	0.1
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.1
85	0.0
90	0.0
95	0.0

X-122

3

GROLEAU

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

NORITA

DATE:

12-11-84

SONDAGE:

N.O.R. 84-5

OPERATEUR:

J.B D.N

1300	0.0
5	0.0
10	0.0
15	0.0
20	0.1
25	0.0
30	0.1
35	0.0
40	0.0
45	0.0
50	0.1
55	0.0
60	0.0
65	0.0
70	0.1
75	0.0
80	3.5
85	0.3
90	3.0
95	2.9

1400	2.4
5	1.9
10	1.2
15	0.7
20	0.9
25	0.5
30	0.5
35	0.3
40	0.4
45	0.4
50	0.5
55	0.7
60	0.5
65	0.4
70	0.5
75	0.7
80	0.6
85	0.5
90	0.6
95	0.4

1500	0.4
5	0.8
10	1.5
15	1.5
20	1.0
25	2.9
30	3.1
35	4.4
40	5.3
45	0.2
50	0.3
55	0.0
60	0.0
65	0.0
70	0.5
75	0.0
80	0.7
85	0.1
90	1.5
95	0.3

1600	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.1
40	0.0
45	0.0
50	2.2
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.1
90	0.1
95	0.0

1700	0.1
5	0.1
10	0.5
15	0.0
20	0.2
25	0.1
30	2.5
35	2.9
40	3.1
45	1.9
50	1.7
55	0.2
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

1800	0.2
5	0.0
10	0.0
15	0.0
20	0.1
25	0.0
30	2.0
35	1.2
40	0.0
45	0.0
50	1.8
55	3.8
60	2.5
65	0.3
70	5.3
75	1.8
80	0.4
85	0.1
90	1.1
95	3.1

X-122

BOLEAU

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

(4)

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Noranda

DATE:

15-11-84

SONDAGE:

NOR 84.5

OPERATEUR:

J.B D.M

1900	0.1
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.4
45	30.0
50	0.1
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.1
90	0.0
95	0.0

2000	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.1
40	11.0
45	0.1
50	0.0
55	0.0
60	0.0
65	0.0
70	20.0
75	19.0
80	0.4
85	1.7
90	0.0
95	0.0

2100	0.4
5	1.6
10	0.5
15	1.7
20	0.1
25	0.4
30	1.0
35	0.1
40	1.2
45	1.9
50	0.3
55	2.1
60	1.3
65	1.7
70	2.2
75	2.3
80	1.7
85	1.8
90	1.5
95	2.0

2200	1.9
5	2.5
10	1.2
15	0.3
20	0.4
25	0.5
30	0.2
35	1.3
40	2.6
45	0.4
50	1.6
55	4.1
60	1.4
65	FIN
70	
75	
80	
85	
90	
95	

2300	
5	
10	
15	
20	
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35	
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65	
70	
75	
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90	
95	

2400	
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85	
90	
95	

X-122

JOURNAL DE SONDAGES AU DIAMANT

Explorations Noranda Limitée
noranda Matagami, Québec

LATITUDE : 13+50S
 LONGITUDE : 49+50E
 ÉLÉVATION : Surface
 DIRECTION : 020°
 PENDAGE AU COLLET : -68°

TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE
115'		-66°		856'		-59°			1393'	-53°	25°
315'		-63°		955'		-58.5°		1355'		-52°	
512'		-63°		1099'		-56°			1499'	-50°	23°
620'		-62°			1235'	-55°	39°(?)	1444'		-51°	
758'		-60°		1207'		-55°		1509'		-50°	

FEUILLE NO. 1 DE 24

PROPRIÉTÉ : Norita
 CLAIM No. : Collet au sud de la propriété
 TROU No. : NOR-84-6
 CAROTTE No. : NQ-BQ
 DÉBUT LE : 06 novembre 84
 FIN LE : 28 novembre 84

PROFONDEUR DU TROU : 3091' (942 m)

PROFONDEUR DE A	DESCRIPTION MEGASCOPIQUE	ÉCHANT.	DE	A	ANALYSES GEOCHIMIQUES			
					Acide	Tropari	Pendage	Direction
0	109.9 Casing.				1847'		-47°	
						1982'	-45°	22°
109.9	161.0 Fine grained gabbro, dark green in color, mottled with buff colored				2113'		-42°	
	leucoxene alteration (1-2 mm). Strongly magnetic with 6-7% magnetite.				2359'		-39°	
					2625'	2792'	-38°	23°
	Quartz-calcite veining common at < 20° to C.A.				2900'		-37°	
	Gabbro has been chloritized.				3068'		-35°	
	122.0'-123.0' : breccia, cemented with white quartz + minor calcite.						-35°	
	Fragments aligned at 30° to C.A.							
	150.5'-152.5' : breccia zone, cemented with quartz + carbonate							
	strongly chloritized.							

ENTREPRENEUR : Forages St-Lambert DÉCRIT PAR : Claude Durocher

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-6

PAGE: 2

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
161.0	341.0	Medium grained gabbro, dark green grey mottled pale and dark green in color, unit is locally sub-porphyrific with 5% 4-5 mm "pyroxene" and glomeroporphyritic plagioclase leucoxene alteration noted throughout. (6-7% magnetite) fracturing and quartz/calcite veining at 5-10° to C.A. from 184.0' to 200.0'. Minor zones (to 6 cm) of quartz carbonate veining at 209.0' and 217.0' and 260.0' (20° to C.A.).											
341.0	462.5	Foliated gabbro - medium grained, foliated at 40-45° to C.A., chloritized, dark green in color non-magnetic, leucoxene alteration at various intervals (near quartz-carbonate veins, etc.). Minor pyrite associated (in part) with foliation. Minor quartz-calcite veinlets.											
399.5	414.0	Sheared and weakly brecciated zone. Minor fault gouge developed at 408.5'. Some quartz and quartz-carbonate veining generally at 30° to C.A.											
440.0	457.0	Brecciated zone - very well cemented - by a gabbroic-anorthositic matrix. Probably a contact/intrusive breccia.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-6

PAGE: 3

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
462.5	519.5	Fine-medium grained gabbro, dark green in color, foliated at 40-45° to C.A., strongly magnetic. Leucoxene alteration common, few quartz-carbonate stringers, very few fractures, minor (1%) disseminated pyrite throughout.											
		478.0'-480.0' : quartz + carbonate vein - highly crenulated & sub-parallel to C.A.											
519.5	595.5	Brecciated zone - very similar to 440'-457.0' intersection. Leucoxene alteration and chloritization throughout - probably contact intrusive breccia or semi liquid phase injected into fracture zones. 5% quartz + carbonate veining (late stage). Unit weakly or non-magnetic from 519.5' to 563.0'. Rock fragments aligned at 40-45° to C.A. giving rock a foliated appearance.											
		From 563.0' to 595.5' rock becomes magnetic (irregular) and hosts some local patches of flesh colored Kspar.											
		591.0'-593.5' : core highly broken.											
		592.0'-593.0' : felsic dike.											
595.5	671.0	Highly sheared and altered gabbro ? - unit is dark green in											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		color, foliated at 35° to C.A. - weakly to non-magnetic.											
		Strongly chloritized - with minor quartz + carbonate veining.											
671.0	693.0	Feldspar porphyry dike - phenocrysts/matrix ratio = 40:60											
		Leucoxene alteration noted near contacts with felsic sikes											
		which occur : from 678.0' to 679.1'											
		683.0' to 684.5'											
		and 686.6' to 687.1'											
693.0	779.5	Altered, foliated gabbro similar to 595.5'-671.0' intersection											
		foliation at 40 to 45° to C.A. (variable to 30°). Unit becomes											
		less sheared and resembles brecciated unit with increasing											
		depth. Minor felsic dikes at 749.0' and 754.0 feet. Unit weakly											
		or non-magnetic.											
779.5	786.2	Zone of highly broken core & fault gouge.											
786.2	998.0	Brecciated ? gabbro "porphyry" foliated at 40-45° to C.A. Rock											
		unit probably represents semi-crystallized injection of mate-											
		rial into fault structures. Minor quartz-carbonate veining.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Unit occupies upper portion of Bell River Igneous Complex and hosts several finer grained zones. Unit is chloritized and non magnetic.											
790.5	792.5	Felsic dike - pale yellow green mottled dark green in color.											
998.0	1033.2	Fine to medium grained gabbro, chloritized, medium green in color, massive, relatively homogeneous (some slightly coarser grained phases occurring locally). Quartz + carbonate veining (30° to C.A.) at irregular intervals.											
1033.2	1087.0	Fine to medium grained gabbro ? - foliated at 40-45° to C.A. Medium green in color, similar to 786.2' to 998.0' intersection although unit is finer grained and appears to be more strongly chloritized, unit is non magnetic, shows very few fractures and only minor quartz + carbonate veining.											
		Minor fault gouge at 1077.0'	17441	1074.0	1079.0	Au ppm	Ag ppm						
		Unit increasingly foliated towards 1087.0'.				N11	2						

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DE	A	DESCRIPTION	ECHAN.	DE	A								
1087.0	1088.0	Contact ? zone with 25% quartz veining + 5% Py.											
1088.0	1241.0	Very highly altered gabbro ? - rock is now a <u>chlorite schist</u> with some patches of relict ? textures (ophitic). Schistosity very well developed at 40° to C.A.	17440A	1116.6	1117.0	Whole rock							
		1137.0'-1138.5' : intermediate to felsic dike - pale green in color, contacts at 20 and 30° to C.A.											
		1176.0'-1182.0' : shear zone with quartz veining. Core highly broken from 1179.0' to 1182.0'.											
		1198.0'-1198.3' : quartz + carbonate veining with 3% chalco- pyrite and minor pyrite.											
		1220.0' : foliation varies from 30° to 40° to C.A.					Au ppm	Ag ppm					
			17442	1214.0	1219.0	N11	2						
1241.0	1286.0	Unit similar to preceeding section however, there are several sections of weakly foliated gabbro ie. 1241.0' to 1251.0' and 1261.0' to 1267.0' and 1282.5' to 1284.5' Several zones consisting of dark green/black chlorite. These zones may represent areas of intense movement and alteration which possibly occur between "blocks" where differential movement											

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DE	A	DESCRIPTION	ECHAN.	DE	A	Au ppm	Ag ppm						
		has occurred.	17443A	1266.0	1271.0	Nil	2						
1286.0		Arbitrary contact.											
1286.0	1343.0	Chlorite schist - foliated at 42° to C.A. Locally crenulated and faulted - probably mafic tuff.											
		1299.0'-1313.0' : zone of intense chloritization, microfaulting and minor folding associated with white quartz veining (10%) and some quartz-carbonate veining.											
1322.5	1326.5	Intermediate to felsic dike - fine grained, pale yellow green in color, foliated at 40-45° to C.A.											
1331.0	1333.0	As above.											
1343.0	1353.0	Mafic volcanics - medium green in color - foliated at 45 to 50° to C.A. chloritized with widely spaced quartz/carbonate veins.											
1353.0	1359.0	Chlorite schist - highly broken core with fault gouge.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
1359.0	1361.0	Mafic volcanics similar to 1343'-1353' intersection, chloritized and foliated at 45° to C.A.											
1361.0	1364.0	Highly sheared with mafic volcanics or mafic tuffs, quartz carbonate veining 10-15% at 15 to 20° to C.A. - foliated at 10° to C.A.											
1364.0	1377.5	Mafic volcanics, amygdaloidal, weakly foliated from 1364.0' to 1370.0'. Amygdules (quartz + carb) relatively undeformed; strongly sheared from 1370.0' to 1377.0'. Amygdules are more abundant and stretched in this section. 5 cm. fault gouge at 1372.0'.											
1377.5	1392.0	Mafic - chloritic tuffs with minor talc. Unit is amygdaloidal (quartz + carb), and amygdules show little or no stretching despite the very well developed foliation at 50° to the C.A.											
		1384.0'-1385.0' : 5-6% Py in chlorite tuff hosting chert fragments.	17444A	1384.0	1385.0			Au ppm	Ag ppm				
		1385.0'-1386.5' : highly broken core with some fault gouge.											
1392.0	1392.5	Chert + tuff + minor Py.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1392.5	1441.4	Mafic volcanics weakly foliated at 50° to C.A., pale green in color, chloritized, fine grained. Homogeneous unit - non magnetic. Very similar to previous sections of mafic volcanics.											
		Minor quartz carbonate veining.	17445A	1395.6	1396.0	Whole rock							
1441.4	1461.5	Lapilli tuff, mafic composition. Foliated at 47° to C.A. Strongly chloritized, minor Py along certain foliated planes. Minor quartz carbonate veining parallel to foliation.											
			17446A	1449.0	1449.5	Whole rock							
1461.5	1468.5	Mafic volcanic - amygdaloidal, dark-medium green in color, unit is chloritized and foliated at 56° to C.A. Amygdules consist of quartz + minor carbonate, and are slightly stretched parallel to the foliation. Unit hosts minor quartz carbonate veins at various angles to the C.A.											
1468.5	1514.0	Mafic volcanic - highly amygdaloidal. Locally agglomeratic - strongly chloritized, strongly foliated at 43° to C.A. Amygdules stretched parallel to foliation. Minor pyrite associated with quartz carbonate veining.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Highly fractured core from 1504.0' to 1510.0'.											
1514.0	1561.5	Mafic volcanics - foliated at 54° to C.A. Massive unit - no amygdules - chloritized, fine grained, medium green in color. Several quartz + carbonate veins at varying angles to C.A.											
		Highly broken core from 1514.0' to 1514.5' and 1518.5' to 1519.5'.											
		15% quartz + carbonate veining from 1548.0' + 1556.0'. Unit is non magnetic.											
1561.5	1573.5	Very fine grained mafic tuffs - very strongly chloritized thinly bedded at 56° to C.A. 5% quartz + carbonate veining throughout.											
1573.5	1606.2	Mafic volcanics - Basalt - fine grained amygdaloidal (5-6%) hypidiomorphic - moderately chloritized - magnetic. Amygdules are stretched at 50° to C'A' and consist of quartz-carbonate and occasionally pyrite. Minor quartz carbonate veining with some open cavity fillings Qtz + Py + carbonate locally.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Minor zone of epidotization at 1589.0'	17447A	1596.4	1597.0	Whole rock							
		Flow contact zone from 1603.8' to 1604.0'.											
1606.2	1649.0	Mafic tuffs - strongly chloritized, non-magnetic, well developed foliation at 50° to C.A. Unit is fine grained, dark green in color and hosts minor talc and quartz carbonate veins. The quartz carbonate veins occur both parallel to and at angles to the foliation. Minor pyrite occurs as streaks parallel to foliation and may represent primary syngenetic sulfides (?) stretched parallel to foliation. Some Py also occurs in association with quartz carbonate veining.											
1649.0	1650.5	Intermediate dike - medium to pale green buff in color, mottled dark grey green (chlorite) - fine grained - both contacts at 50° to C.A. (parallel to foliation).											
1650.5	1690.0	Chlorite-talc tuffs/mafic tuffs - foliated at 47° to C.A. - dark green in color, very fine grained, core separates easily along foliation - local zones of fault gouge developed. Minor											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		(5%) quartz carbonate veining, minor pyrite - slickensides noted in foliation planes.											
		NOTE : Unit probably represents part of "Nottaway Horizon".											
		Fault gouge developed from 1660.5' to 1662.0'.											
		Highly broken core from 1664.0' to 1668.0'.											
1690.0	1696.0	Foliated Gabbro - Quartz eyes set in highly altered matrix (chlorite + Carb) well layered - more siliceous than preceding unit. May be silicified chill margin of gabbro.											
1696.0	1737.6	Quartz eyes gabbro - medium green in color, medium grained, hypidiomorphic - quartz eyes reach 2 mm. in size, diabasic texture well preserved locally, unit is strongly magnetic, massive. Minor local quartz carbonate veining and chloritization.											
		1696.0' : contact zone shows a 1 foot chilled zone which has been strongly chloritized. Contact at 45° to the C.A.											
		1712.2'-1714.2' : 10% quartz + carbonate veining with patches of chlorite - irregular veins at varying angles to C.A.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		1727.0' - as above.											
		1731.0' - as above.											
		1735.6'-1737.6' : silicified chilled margin of gabbro.											
1737.6	1763.0	Mafic <u>tuffs</u> and/or volcanics, strongly chloritized, fine grained, dark green to green black in color. Unit shows well developed foliation at 56° to C.A. Minor quartz carbonate veining throughout.											
1763.0	1844.0	Mafic volcanics - amygdaloidal (<5%) - fine grained, medium green in color, foliated at 56° to C.A. Amygdules consist of quartz + carbonate, unit is magnetic. Unit extensively carbonated, and the foliation becomes very well developed. Local leucoxene alteration noted.	17448A	1800.2	1800.7	Whole rock							
1844.0	1876.0	Quartz-feldspar porphyry, medium green in color, phenocrysts to 2-3 mm. set in finer grained matrix, several phases of injection some of which show equigranular textures. Section from 1850.0' to 1864.0' is highly fractured (broken core) - Rock is highly chloritized (pale green) and hosts											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		several quartz + minor (Fe) carbonate veins. Entire unit is foliated at 52° to C.A.											
1876.0	1907.8	Rhyolite tuff - quartz crystal tuff - quartz eyes to 2 mm. in size, the foliation is very well developed. The feldspars are altered to a buff brown/yellow mineral assemblage.											
		1887.0'-1888.0' : felsic dike - pale yellow green mottled dark green (chlorite) - fine grained matrix with 2-3 mm. chloritized patches.											
		1889.5'-1891.5' : shear zone with quartz, minor Fe carbonate and strongly chloritized fragments within the shear.											
		1901.0'-1902.5' : as above.											
1907.8	1910.8	White quartz vein with minor Fe carbonate and several large fragments of highly chloritized tuffs. Angles to C.A. are irregular.											
1910.8	1948.6	Intermediate (?) Tuff - medium grained coarsely bedded at 58° to C.A. - highly chloritized - medium green in color with suggestion of talc. Fine pyrite occurs throughout along foliation											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A							
		planes (50° to C.A.). 3% quartz carbonate veining parallel to bedding foliation.										
		NOTE : unit may be altered rhyolite tuff.										
1948.6	1961.0	Rhyolitic tuff - grey/green in color with sections hosting bluish quartz crystal aggregates. Unit is chloritized and foliated at 57° to C.A. Minor < 1/2% cpy in stringers (associated with quartz/carbonate veins).										
1961.0	1969.2	Very thinly bedded acidic tuffs, chloritic with local cherty sections. Pyrrhotite occurs as streaks along bedding planes (65° to C.A.) and minor Cpy + 2-3% pyrite occurs in association with quartz + minor carbonate veins. Majority of Py + Cpy mineralization occurs in the 1968.0' to 1969.2' interval.										
						Au ppm	Ag ppm	Cu ppm	Zn ppm			
			17450A	1961.0	1966.0	-	3	880	1205			
			17451A	1966.0	1969.2	-	4	1180	1595			
1969.2	1982.2	Spherulitic and amygdaloidal rhyolite strongly chloritized. Foliated at 65° to C.A. Minor sulfides (Py) occur in matrix throughout, and also in association with quartz + minor carbonate veining.										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Ag ppm	Au ppm	Cu ppm	Zn ppm			
1982.2	1986.7	Cherty tuffs, felsic composition - some sections very well bedded at 60° to C.A., streaks of Py throughout.	17452A	1982.2	1986.7	1.5	-	417	186			
		Chalcopyrite and pyrrhotite occur in stringers.										
1986.7	1993.7	Coarsely amygdaloidal rhyolitic tuff - strongly chloritized.	17453A	1986.7	1989.3	2.5	-	90	875			
		Amygdules consist primarily of quartz with some carbonate and pyrite. Unit foliated at 65° to C.A. Pyrite + pyrrhotite to 5% locally as primary (?) beds to 1 cm. in thickness. Po + Cpy also occur as stringers (1986.8').	17454A	1989.3	1993.7	1.5	-	86	227			
1993.7	1997.5	Very well bedded rhyolitic tuffs, with very thin chloritic beds + pyrrhotite at 45° to C.A. 3% pyrite present in association with quartz + Fe carbonate veins. Thin bands of sphalerite and pyrite at 1296.5'. Unit strongly chloritized.	17455A	1993.7	1997.5	2.0	-	274	2190			
1997.5	2097.0	Thick section of rhyolitic tuffs, chloritic tuffs, minor chert bands and primary (?) bands of pyrite. Pyrite, sphalerite, also occur in association with quartz + carbonate veins bedding is at 60° to C.A. and regular. Sphalerite content is minor and the thin veinlets widely separated. Unit strongly chloritized.										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Ag ppm	Au ppm	Cu ppm	Zn ppm			
2097.0	2111.0	"A" Horizon - cherty acid tuffs well bedded at 65° to C.A.										
		5% pyrite + minor sphalerite and chalcopyrite throughout as										
		beds and also as streaks and veinlets.										
		The tuffs in this section appear to be slightly less chlori-	17456A	2097.0	2100.0	2.0	-	165	995			
		tized than those of the preceeding unit.	17457A	2100.0	2103.0	2.0	-	337	467			
			17458A	2103.0	2106.0	1.5	0.034	89	690			
			17459A	2106.0	2111.0	3.0	-	890	407			
2111.0	2134.5	Rhyolitic tuffs, chloritized - pale grey green in color, very										
		well and thinly bedded at 60° to C.A. - foliation developed at										
		67° to C.A. Minor sulfides (<4%) (predominantly pyrite)										
		throughout.										
2134.5	2150.8	"A" Horizon - cherty tuffs, acid tuffs, lapilli tuffs, breccia-										
		ted acid/cherty tuffs with local sulfide concentration (mostly										
		pyrite) to 15-20%. Minor soft sediment deformation. Chalcopyrite										
		occurs as veinlets (ie. at 2135.5').										
		7-8% Py as primary sulfide in chert bands and tuffs - 2% Cpy	17460A	2129.5	2132.5	1.5	0.034	2640	114			
		in veinlet.										
		10-15% Py in brecciated chert tuff bands.	17461A	2132.5	2135.5	2.0	0.034	780	142			

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DE	A	DESCRIPTION	ECHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
		Sulfides occur as both primary and secondary pyrite.										
		5% Py in cherty tuffs and exhalite. Pyrite contorted around several fragments (?) suggesting some soft sediment deformation.	17462A	2135.5	2138.5	-	2.5	122	114			
		20-30% pyrite as detrital (?) fragments within a rhyolitic tuff-	17463A	2138.5	2141.5	-	3.25	963	126			
		distribution of pyrite is uniform throughout this unit.										
		As above except that pyrite content in the 25-35% range and upper section is bleached to a white grey color.	17464A	2141.5	2146.0	-	3.0	640	605			
		Brecciated tuff - chert exhalite with 15-20% pyrite in fractures (may be primary deposit after brecciation).	17465A	2146.0	2147.8	0.034	3.0	163	5945			
		Rhyolite tuff with 20-30% pyrite evenly distributed throughout.	17466A	2147.8	2150.8	-	3.0	198	825			
		Some dark chloritic lapilli (?) to 3 mm. in size occur throughout the section.										
2150.8	2327.5	Gabbro "moustache" - rock is medium green mottled dark green, porphyritic, pseudomorphs of pyroxene are chloritized and give mottled appearance. Unit is massive with a suggestion of some "cataclastic" deformation (probably in semi liquid crystall										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
		mush state). Minor quartz carbonate veining and minor drusy Py along fractures. Unit is non-magnetic.										
		½ cm. vein of quartz-carbonate + Cpy + Py at 2194.8'.										
		From 2234.0' onwards, there are rounded pods of slightly more felsic material (to 1.5 cm) that appears to have crystallized prior to matrix and shows slight alteration borders. May be partially resorbed fragments of earlier phase of crystalliza- tion.										
		2309.0'-2312.0' : several 3-4 cm. quartz veins at 30° to C.A. Strongly chloritized fragments enclosed.										
2327.5	2344.0	Lapilli tuffs with cherty sections both syngenetic (nodular) and epigenetic (remobilized) pyrite observed in this section - local concentrations to 30%. Minor sphalerite along bedding planes and also along fractures.										
		2327.5'-2329.5' : 30% Py in brecciated chert zone.	17467A	2327.5	2329.5	-	4.11	1335	307			

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
		2333.2'-2335.2' : brecciated lapilli tuff and chert layers with										
		nodular pyrite and 2-3% sphalerite in fractures and along bedding planes (67° to C.A.).	17468A	2333.2	2335.2	0.034	4.46	76	9650			
2344.0	2432.3	Rhyolite with 2 mm. black quartz eyes - medium green in color - weakly chloritized. Base of flow hosts 7% amygdules of quartz + carbonate as well as some chert fragments. Amygdules stretched at 62° to C.A. Unit hosts minor quartz + carbonate veining and is massive with few fractures.										
		2392.0': flow contact.										
		2392.0'-2407.5' : base of flow hosts several dark green chloritic fragments (10%) the number of which decreases towards the top of the flow.										
2432.3	2440.6	Felsic dike rock with fragments of rhyolite (to 1 cm.). Unit is pale yellow/green in color and mottled dark green/black. Contacts at 35° to C.A.										
2440.6	2555.0	Very fine grained sub-porphyrific rhyolite - medium grey green										

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		in color, locally amygdaloidal. Unit hosts 1 mm. quartz eyes											
		set in slightly finer grained matrix, several sections of this											
		unit have been altered (sericitized?) to a pale yellow buff											
		color. The buff alteration is clearly associated with fine											
		fractures and decreases in intensity away from these. Quartz-											
		carbonate veining to 3-5% occurs throughout although the veins											
		do not appear intrinsic to the alteration.											
		Alteration extends to footage 2511.0'.											
		Several 3-5 cm. thick veins of white bull quartz + carbonate											
		at 2519'-2524', 2527.0' to 2529.0' and 2543.0'.											
		Unit becomes progressively darker and more chloritized with											
		increasing depth.											
2555.0	2559.0	Contact zone - gabbro - rhyolite - quartz carbonate veining											
		(brecciated) with strongly chloritized fine grained gabbro.											
2559.0	2716.1	Mottled gabbro - similar to 2150' to 2327.5' intersection. Unit											
		foliated at 58° to C.A. Very few fractures or quartz carbonate											
		veins in this unit.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		2627.4'-2629.4' : zone of shearing and quartz carbonate veining at 70-90° to C.A.											
		2666.0'-2697.0' : gabbro becomes fine grained equigranular - may be chilled phase of porphyritic unit.											
		From 2706.0' to 2716.0' the unit becomes strongly foliated at 70° to C.A.; plagioclase phenocrysts are stretched and the unit appears to be layered. This zone probably representd the sheared contact (intrusive) zone.											
2716.0	2792.0	Rhyolite - dark grey green with 1 mm. black quartz eyes. Unit hosts 5-10% chloritic fragments that appears to have been stretched at 70-75° to C.A. Minor veinlets of quartz-carbonate. The number and size of fragments decrease towards 2745.0' at which point there are only a few sections hosting fragments. Last five (5) feet of this unit altered to medium green color. Pyrite in quartz + minor carbonate veins at 2782.0' to 2784.0'.											
2792.0	2957.0	Gabbro - medium grained near equigranular, some sections are sub-porphyritic and resemble the mottled gabbro encountered from 2559.0' to 2716.1'. Locally glomeroporphyritic (plagioclase).											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Unit is dark green and chloritized.											
		2813.0'-2815.0' : local shearing at 70° to C.A.											
		10% quartz + carbonate veining + local epidotization - gabbro											
		becomes foliated near the shear.											
		2852.0'-2855.0' : sheared zone (60-70° to C.A.) with 10% quartz											
		carbonate veining.											
2857.5	2873.2	Intermediate dike - sub-porphyrific - fine grained - pale green											
		mottled dark green in color, several quartz-carbonate-epidote											
		veins at various angles to C.A.											
2879.0	2916.0	As above - unit may represent sheared and bleached phase of											
		enclosing gabbro. Upper contact is gradual and alteration											
		effect decreases away from fractures and veins.											
2957.0	3079.0	Gabbro - medium to coarse grained - dark green in color with											
		patches of glomeroporphyritic plagioclase. Several sections											
		bleached to a pale yellow green (epidotized) color near veins											
		and fractures. Unit is massive with few fractures and only											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-6

PAGE: 24

DE	A	DESCRIPTION	ÉCHAN.	DE	A						
		minor sheared sections.									
		From 3008.7' to 3060.5' the gabbro resembles the mottled gabbro encountered in previous sections. Contacts are sharp and irregular.									
3091.0		END OF HOLE.									

ST-LAMBERT

SUSCEPTIBILITE MAGNETIQUE

①

PROPRIETE: Noranda
SONDAGE: NOR 84-6

DATE: 9-11-84
OPERATEUR: J.B D.N

METRES

01		26		51	0.1	76	4.5	101	2.9	126	0.1	151	4.0	176	0.3
02		27		52	0.0	77	6.7	102	3.4	127	0.0	152	2.0	177	1.0
03		28		53	0.0	78	2.7	103	1.8	128	0.1	153	8.2	178	1.0
04		29		54	0.1	79	6.2	104	0.7	129	0.1	154	3.1	179	1.4
05		30		55	0.0	80	0.8	105	1.9	130	0.0	155	4.0	180	0.1
06		31		56	0.1	81	6.6	106	1.0	131	0.0	156	0.2	181	0.2
07		32		57	0.1	82	4.9	107	0.6	132	0.2	157	0.5	182	2.0
08		33		58	0.1	83	0.1	108	0.7	133	0.0	158	0.0	183	1.3
09		34	0.1	59	0.1	84	1.9	109	0.0	134	0.0	159	0.2	184	1.9
10		35	0.1	60	0.0	85	9.9	110	0.0	135	0.0	160	0.0	185	0.2
11		36	0.0	61	0.1	86	1.0	111	0.0	136	0.1	161	0.0	186	0.6
12		37	0.0	62	0.2	87	3.1	112	0.1	137	0.0	162	0.0	187	1.4
13		38	0.0	63	0.0	88	0.4	113	0.2	138	0.0	163	0.0	188	0.8
14		39	0.1	64	0.1	89	0.7	114	0.0	139	0.0	164	0.0	189	0.6
15		40	0.1	65	0.3	90	0.3	115	0.0	140	0.0	165	0.0	190	0.9
16		41	0.7	66	0.2	91	1.0	116	0.1	141	0.4	166	0.0	191	1.1
17		42	0.3	67	0.1	92	0.5	117	0.0	142	5.1	167	0.0	192	0.0
18		43	5.4	68	14.0	93	7.6	118	0.0	143	7.3	168	0.0	193	1.0
19		44	0.2	69	13.0	94	18.0	119	0.1	144	14.0	169	0.0	194	0.0
20		45	0.2	70	9.4	95	0.9	120	0.0	145	4.5	170	0.0	195	0.0
21		46	0.1	71	10.0	96	6.0	121	0.1	146	4.3	171	0.0	196	0.0
22		47	0.1	72	1.5	97	1.1	122	0.0	147	3.7	172	0.0	197	0.0
23		48	0.0	73	4.6	98	2.4	123	0.0	148	6.4	173	0.4	198	0.0
24		49	0.0	74	3.7	99	9.9	124	0.1	149	5.1	174	0.0	199	0.0
25		50	0.0	75	8.0	100	4.8	125	0.3	150	3.1	175	0.0	200	0.0

X-122

ST-LAMBERT

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

2

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Norita
SONDAGE: NOR-84.6

DATE: 12-11-84
OPERATEUR: J.B. D.N.

METRES

201	0.1	226	0.0	251	0.0	276	0.0	301	0.1	326	0.0	351	0.0	376	0.0
202	0.0	227	0.1	252	0.0	277	0.0	302	0.0	327	0.0	352	0.0	377	0.1
203	0.2	228	0.1	253	0.0	278	0.0	303	0.0	328	0.0	353	0.0	378	0.0
204	0.1	229	0.0	254	0.0	279	0.0	304	0.0	329	0.0	354	0.1	379	0.0
205	0.6	230	0.1	255	0.0	280	0.0	305	0.0	330	0.0	355	0.0	380	0.0
206	0.0	231	0.0	256	0.0	281	0.0	306	0.0	331	0.0	356	0.0	381	0.0
207	0.1	232	0.0	257	0.0	282	0.0	307	0.0	332	0.0	357	0.0	382	0.0
208	0.0	233	0.0	258	0.0	283	0.1	308	0.0	333	0.0	358	0.0	383	0.0
209	0.1	234	0.0	259	0.0	284	0.0	309	0.1	334	0.0	359	0.0	384	0.0
210	0.0	235	0.0	260	0.0	285	0.0	310	0.0	335	0.0	360	0.0	385	0.0
211	0.6	236	0.1	261	0.1	286	0.0	311	0.0	336	0.0	361	0.0	386	0.0
212	0.0	237	0.0	262	0.0	287	0.0	312	0.0	337	0.0	362	0.0	387	0.0
213	0.0	238	0.0	263	0.0	288	0.0	313	0.0	338	0.0	363	0.0	388	0.0
214	0.0	239	0.0	264	0.0	289	0.0	314	0.0	339	0.0	364	0.0	389	0.0
215	0.0	240	0.0	265	0.0	290	0.0	315	0.0	340	0.0	365	0.0	390	0.0
216	0.0	241	0.0	266	0.0	291	0.0	316	0.0	341	0.0	366	0.0	391	0.0
217	0.0	242	0.0	267	0.0	292	0.0	317	0.0	342	0.0	367	0.0	392	0.0
218	0.1	243	0.0	268	0.1	293	0.3	318	0.0	343	0.0	368	0.0	393	0.0
219	0.0	244	0.1	269	0.0	294	0.0	319	0.0	344	0.0	369	0.0	394	0.0
220	0.0	245	0.0	270	0.0	295	0.1	320	0.0	345	0.0	370	0.0	395	0.0
221	0.0	246	0.0	271	0.0	296	0.0	321	0.0	346	0.0	371	0.0	396	0.0
222	0.1	247	0.0	272	0.0	297	0.0	322	0.1	347	0.0	372	0.0	397	0.0
223	0.0	248	0.0	273	0.1	298	0.0	323	0.0	348	0.0	373	0.0	398	0.0
224	0.0	249	0.0	274	0.0	299	0.0	324	0.0	349	0.0	374	0.0	399	0.0
225	0.0	250	0.0	275	0.0	300	0.0	325	0.0	350	0.0	375	0.0	400	0.1

X-122

ST-LAMBERT

SUSCEPTIBILITE MAGNETIQUE

(3)

PROPRIETE: Norita
SONDAGE: NOR 84-6

DATE: 15-11-84
OPERATEUR: J.B. - D.N.

METRES

401	0.0	426	0.0	451	0.1	476	0.0	501	0.1	526	0.3	551	0.8	576	0.0
402	0.0	427	0.0	452	0.0	477	0.0	502	0.1	527	4.2	552	3.7	577	0.0
403	0.1	428	0.0	453	0.0	478	0.1	503	0.0	528	0.3	553	0.4	578	0.1
404	0.1	429	0.0	454	0.0	479	0.0	504	0.0	529	0.2	554	0.6	579	0.0
405	0.0	430	0.0	455	0.0	480	0.0	505	0.0	530	0.3	555	3.1	580	0.0
406	0.0	431	0.0	456	0.0	481	0.0	506	0.0	531	0.0	556	4.3	581	0.0
407	0.0	432	0.0	457	0.0	482	1.1	507	0.0	532	0.0	557	3.0	582	0.0
408	0.1	433	0.0	458	0.0	483	4.9	508	0.0	533	0.0	558	2.5	583	0.0
409	0.0	434	0.0	459	0.0	484	3.7	509	0.1	534	0.0	559	0.3	584	0.0
410	0.0	435	0.0	460	0.0	485	5.4	510	0.0	535	0.0	560	0.3	585	0.0
411	0.0	436	0.0	461	0.0	486	6.3	511	0.0	536	0.0	561	0.4	586	0.0
412	0.0	437	0.0	462	0.0	487	10.0	512	0.0	537	0.1	562	0.0	587	0.0
413	0.0	438	0.0	463	0.1	488	7.5	513	0.0	538	0.0	563	0.0	588	0.0
414	0.0	439	0.0	464	0.0	489	2.9	514	0.0	539	0.0	564	0.0	589	0.1
415	0.0	440	0.0	465	0.0	490	0.4	515	0.1	540	3.8	565	0.0	590	0.0
416	0.0	441	1.3	466	0.0	491	0.0	516	0.0	541	4.0	566	0.0	591	0.0
417	0.0	442	0.5	467	0.0	492	0.1	517	0.0	542	0.2	567	0.1	592	0.0
418	0.0	443	0.2	468	0.0	493	0.0	518	0.2	543	1.0	568	0.0	593	0.0
419	0.0	444	0.7	469	0.0	494	0.0	519	7.0	544	0.7	569	0.0	594	0.0
420	0.0	445	0.0	470	0.0	495	0.0	520	9.0	545	0.9	570	0.0	595	0.1
421	0.0	446	0.0	471	0.0	496	0.0	521	5.7	546	0.6	571	0.0	596	0.0
422	0.0	447	0.0	472	0.0	497	0.0	522	3.8	547	1.5	572	0.0	597	0.0
423	0.0	448	0.0	473	0.0	498	0.1	523	6.0	548	0.8	573	0.1	598	0.0
424	0.0	449	0.0	474	0.0	499	0.0	524	3.2	549	3.0	574	0.0	599	0.0
425	0.0	450	0.0	475	0.0	500	0.0	525	5.9	550	2.7	575	0.0	600	0.0

X-122

ST-LAMBERT

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA

DATE: 21-11-84

SONDAGE: NOR-84-6

OPERATEUR: J.B D.N

METRES

601	0.0	626	0.0	651	0.0	676	0.0	701	0.0	726	0.0	751	0.2	776	3.2
602	0.0	627	0.1	652	0.0	677	0.0	702	0.0	727	0.0	752	0.0	777	2.7
603	0.0	628	0.0	653	0.0	678	0.0	703	0.0	728	0.0	753	0.0	778	3.4
604	0.0	629	0.0	654	0.0	679	0.0	704	0.0	729	0.0	754	0.0	779	3.1
605	0.0	630	0.0	655	0.1	680	0.0	705	0.0	730	0.0	755	0.0	780	4.2
606	0.0	631	0.0	656	0.0	681	0.0	706	0.0	731	0.0	756	0.0	781	5.5
607	0.0	632	0.0	657	0.0	682	0.0	707	0.1	732	0.0	757	0.0	782	4.3
608	0.1	633	0.1	658	0.0	683	0.0	708	0.0	733	7.1	758	1.8	783	0.7
609	0.0	634	0.0	659	0.0	684	0.1	709	0.0	734	6.0	759	0.0	784	0.0
610	0.0	635	0.0	660	0.0	685	0.1	710	0.0	735	2.8	760	0.0	785	0.0
611	0.0	636	0.0	661	0.0	686	0.0	711	0.0	736	3.2	761	0.0	786	0.0
612	0.0	637	0.0	662	0.0	687	0.0	712	0.0	737	3.0	762	0.5	787	0.0
613	0.0	638	0.0	663	0.0	688	0.0	713	0.0	738	2.7	763	2.2	788	0.0
614	0.0	639	0.0	664	0.0	689	0.0	714	0.1	739	3.0	764	2.1	789	0.1
615	0.1	640	0.0	665	0.0	690	0.0	715	0.2	740	3.5	765	2.2	790	0.0
616	0.0	641	0.1	666	0.0	691	0.0	716	2.2	741	3.1	766	3.2	791	0.0
617	0.0	642	0.0	667	0.1	692	0.0	717	0.0	742	3.0	767	3.2	792	0.0
618	0.0	643	0.0	668	0.0	693	0.0	718	0.0	743	0.7	768	2.7	793	0.0
619	0.0	644	0.2	669	0.0	694	0.0	719	0.0	744	3.8	769	2.9	794	0.0
620	0.0	645	0.0	670	0.0	695	0.1	720	0.0	745	0.3	770	3.0	795	0.0
621	0.0	646	0.0	671	0.0	696	0.0	721	0.0	746	0.3	771	2.9	796	0.0
622	0.0	647	0.0	672	0.0	697	0.0	722	0.0	747	0.6	772	3.5	797	0.0
623	0.1	648	0.0	673	0.0	698	0.0	723	0.0	748	3.6	773	0.2	798	0.1
624	0.0	649	0.0	674	0.1	699	0.0	724	0.0	749	0.2	774	2.4	799	0.0
625	0.3	650	0.0	675	0.0	700	0.0	725	0.1	750	3.0	775	4.8	800	0.0

X-122

ST-LAMBERT

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

5

PROPRIETE: Noranda

DATE: 26-11-84

SONDAGE: NOR 84-6

OPERATEUR: J.B DN

METRES

801	0.0	826	0.1	851	1.1	876	0.0	901	0.0	926	0.1	51	76
802	0.0	827	0.0	852	0.1	877	0.0	902	0.2	927	1.4	52	77
803	0.0	828	0.1	853	0.0	878	0.1	903	0.0	928	1.6	53	78
804	0.0	829	0.0	854	0.2	879	0.0	904	0.0	929	5.1	54	79
805	0.0	830	0.0	855	0.0	880	2.2	905	0.0	930	2.4	55	80
806	0.0	831	0.0	856	0.1	881	0.0	906	3.3	931	1.6	56	81
807	0.0	832	0.1	857	0.1	882	0.0	907	6.2	932	0.2	57	82
808	0.1	833	0.0	858	0.2	883	0.0	908	8.6	933	0.1	58	83
809	0.1	834	0.0	859	0.0	884	0.0	909	6.0	934	0.2	59	84
810	0.0	835	0.0	860	0.0	885	0.0	910	2.6	935	0.9	60	85
811	0.0	836	0.0	861	0.1	886	0.0	911	0.2	936	0.4	61	86
812	0.0	837	0.0	862	0.0	887	0.1	912	3.6	937	5.4	62	87
813	0.0	838	0.0	863	0.8	888	0.0	913	1.1	938	0.2	63	88
814	0.0	839	0.1	864	0.5	889	0.0	914	1.4	939	0.1	64	89
815	0.1	840	0.0	865	0.9	890	0.0	915	1.3	940	0.0	65	90
816	0.0	841	0.0	866	0.0	891	0.0	916	1.9	41	FIN	66	91
817	0.0	842	0.0	867	0.2	892	0.2	917	2.1	42		67	92
818	0.0	843	0.0	868	0.0	893	0.0	918	0.8	43		68	93
819	0.0	844	0.0	869	0.0	894	1.1	919	0.2	44		69	94
820	0.0	845	0.0	870	0.2	895	0.5	920	1.0	45		70	95
821	0.1	846	0.0	871	0.1	896	1.6	921	0.2	46		71	96
822	0.0	847	0.1	872	0.1	897	0.1	922	0.2	47		72	97
823	0.1	848	0.0	873	0.0	898	0.9	923	0.0	48		73	98
824	0.1	849	0.0	874	0.0	899	0.0	924	0.0	49		74	99
825	0.0	850	0.9	875	0.0	900	0.1	925	0.1	50		75	00

X-122

D-122

DIVISION MATAGAJIL

GEOCHEMICAL TRACE ELE
INVESTIGATION.

DATE Jan 7/85

CHARITTON	AN OZ/T	AG PPM	CU PPM	ZN PPM	MN PPM	NI PPM	PB PPM	FE %	CaO %	MgO %	Na ₂ O %	K ₂ O %
17441-A	.002	2										
42	.002	2										
43	.002	2										
44	.001	2										

[Handwritten signature]

NOREY D-122

DATE FEB 18/85

DIAPHRAGM	AU OZ/T	AG GR/T	AG PPH	CU PPM	ZN PPM	NI PPM	Pb PPM	Fe %	CaO %	MgO %	Na ₂ O %	K ₂ O %
17450-A	---	---	3.0	980	1205							
51	---	---	4.0	1180	1595							
52	.001	.034	1.5	417	186							
53	---	---	2.5	90	875							
54	---	---	1.5	86	227							
55	---	---	2.0	274	2190							
56	---	---	2.0	165	995							
57	.001	.034	2.0	337	467							
58	---	---	1.5	89	690							
59	---	---	3.0	890	407							
60	.001	.034	1.5	2640	114							
61	.001	.034	2.0	780	142							
62	---	---	2.5	122	114							
63	---	---	3.25	963	126							
64	---	---	3.0	640	605							
65	.001	.034	3.0	163	5945							
66	---	---	3.0	198	825							

P. J. Jones

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755

TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: NORANDA EXPLORATION COMPANY LIMITED
ATTN: M. PICHE
P.O. BOX 1270
MATAGAMI, QUEBEC
JOY 2AC

CUSTOMER NO. 421

DATE SUBMITTED
11-MAR-85

REPORT 23933

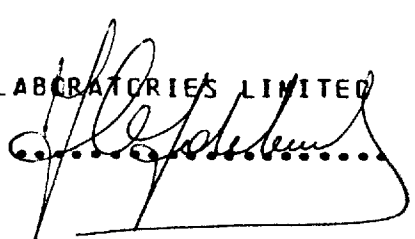
REF. FILE 19506-54

16 W.CORES PROJ. D122

WERE ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
WRMAJ %	WR	0.010
WRMIN PPM	WR	10.000

DATE 02-APR-85

X-RAY ASSAY LABORATORIES LIMITED
CERTIFIED BY 

X	X	RRRRR	A	LL
XX	XX	RR RR	AAA	LL
XX	XX	RR RR	AA AA	LL
XXX		RR RR	AA AA	LL
XXX		RRRRR	AAAAAAA	LL
XX	XX	RR RR	AA AA	LL
XX	XX	RR RR	AA AA	LLLLLLL
X	X	RR R	AA AA	LLLLLLL

XRF - WHOLE ROCK ANALYSIS

NORANDA EXPLORATION COMPANY LIMITED
 Attn: M. PICHE
 P. O. BOX 1270
 MATAGAMI, QUEBEC
 JOY 2A0

CUSTOMER No. 421

DATE SUBMITTED
 11-MAR-85

REPORT 23933

REF. FILE 19506

DATE REPORTED 02-APR-85

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

	SAMPLE	SI02	AL203	CAO	MGO	NA2O	K2O	FE2O3	MNO	TI02	P2O5	CR2O3	LOI	SUM
<i>NOR-84-9</i>	0304M	53.1	14.5	0.05	19.3	0.04	0.01	4.27	0.01	0.84	0.02	0.01	7.93	100.1
	0306M	56.9	11.7	0.24	11.1	0.06	0.02	12.3	0.03	1.11	0.15	<0.01	6.08	99.7
	0308M	51.4	11.6	0.73	8.15	<0.01	<0.01	20.0	0.06	2.24	0.47	<0.01	5.23	99.9
	0313M	68.1	10.5	0.16	6.36	0.04	0.93	9.51	0.10	0.56	0.10	<0.01	3.93	100.4
	0317M	74.8	7.45	0.02	3.07	0.02	0.25	10.9	0.03	0.23	0.04	<0.01	2.70	99.6
<i>NOR-84-8</i>	0365M	56.8	13.4	0.18	12.4	0.07	0.02	10.3	0.02	0.71	0.07	<0.01	6.31	100.3
	0374M	58.9	12.4	4.04	3.76	3.47	0.80	11.4	0.14	1.16	0.11	<0.01	3.93	100.2
	0375M	63.9	11.3	3.80	1.71	3.38	0.57	12.7	0.20	0.97	0.20	<0.01	1.23	100.0
	0389M	54.0	12.0	7.76	2.48	2.53	0.26	15.6	0.23	1.63	0.35	<0.01	3.23	100.1
	0390M	64.8	11.9	2.49	3.86	3.72	0.12	9.04	0.14	0.79	0.15	<0.01	3.00	100.1
<i>NOR-84-6</i>	17440	50.2	14.9	0.46	13.4	0.05	0.31	12.6	0.10	0.77	0.09	0.01	7.23	100.1
	17445	65.6	11.8	0.38	7.17	0.05	1.23	7.98	0.05	1.17	0.26	<0.01	4.16	99.9
	17446	47.4	11.4	4.38	7.17	0.59	0.53	16.4	0.22	2.17	0.21	<0.01	9.54	100.0
	17447	49.2	12.4	6.72	4.67	2.34	0.05	17.2	0.24	2.06	0.20	<0.01	4.54	99.7
	17448	45.8	12.4	7.76	4.83	2.49	0.12	15.9	0.22	1.79	0.17	<0.01	8.16	99.7
	17449	59.3	11.3	0.95	7.16	0.14	0.17	14.7	0.07	1.00	0.11	<0.01	5.08	100.0

SAMPLE	RB	SR	Y	ZR	NB	
NOR-84-9	0304M	10	<10	<10	50	20
	0306M	<10	<10	60	160	30
	0308M	10	<10	30	150	20
	0313M	10	<10	110	390	30
	0317M	10	<10	80	290	40
NOR-84-8	0365M	10	<10	20	30	40
	0374M	20	70	50	190	20
	0375M	10	40	100	390	40
	0389M	10	80	60	240	40
	0390M	<10	50	50	200	40
NOR-84-6	17440	<10	<10	30	50	10
	17445	40	<10	90	300	30
	17446	20	10	40	110	10
	17447	20	160	40	110	20
	17448	10	50	20	110	20
	17449	40	10	50	230	10

JOURNAL DE SONDAGES AU DIAMANT

Explorations Noranda Limitée
noranda Matagami, Québec

LATITUDE : 9+89 S
 LONGITUDE : L 37+00 E
 ÉLEVATION : Surface
 DIRECTION : 020°
 PENDAGE AU COLLET : -70°

TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE
200'		-70°			846'	-66°	14°	1800'		-54°(?)	
400'		-69°		1000'		-63.5°		2000'		-45°	
	573'	-69°	15°	1200'		-58.0°		2200'		-41°	
600'		-67°		1400'		-57.0°		2299'		-40°	
800'		-66°		1600'		-54.0°					

FEUILLE NO. 1 DE 11

PROPRIETE : Norita

CLAIM No. : 112416-3

TROU No. : NOR-84-7

CAROTTE No. : B.O.

DÉBUT LE : 10 novembre 84

FIN LE : 14 décembre 84

PROFONDEUR DU TROU : 2299'

Début du forage le 19 nov. 84

PROFONDEUR DE A	DESCRIPTION MEGASCOPIQUE	ÉCHANT.	DE	A	ANALYSES GEOCHIMIQUES				
					Au ppm	Ag ppm	Cu ppm	Zn ppm	
0	104.0 Tubage								
104.0	536.5 Roche intrusive, intermédiaire, foliée; gris verdâtre à grains gros-	2996M	150.0	Roche entière					
	siers à aspect légèrement chloritisé. La texture primaire de la roche	2997M	242.0	Roche entière					
	est remplacée par endroits par un assemblage à grains fins (1 mm) de	2998M	325.0	Roche entière					
	chlorite, trémolite-actinote, quartz et feldspaths, d'aspect massif.	2999M	340.0	Roche entière					
	La texture originale est constituée d'environ 60-80% de minéraux fel-	3000M	454.2	456.2	0.034	NA	313	NA	
	siques et de 20-40% de minéraux mafiques interstitiels à texture en								
	gouttelettes coalescentes, ces amas mafiques sont présentement chlori-	2801M	518.0	Roche entière					
	tisés.								

ENTREPRENEUR : Forages Moderne

DÉCRIT PAR : Mathieu Piché

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-7

PAGE: 2

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Angle des carottes : 30° à 187' : foliation.											
536.5	573.0	Zone cisailée ou tuf à lapillis ? gris verdâtre, composée de bandes massives à grains grossiers de roche d'aspect clastique de 1 à 2 m d'épais et de bandes à grains fins finement laminées avec portions plissées et d'aspect remaniées (intraclastiques?). L'intérieur de ces bandes contient des laminations plus grossières à cristaux ? de couleur blanche, zones de 1 à 10 mm. de diamètre.											
573.0	665.0	Intrusif felsique gris verdâtre folié, similaire à 104-536' avec zones d'aspect bréchique et/ou clastique, contact inférieur incertain sur 10'. 596' à 597.8' et 643' à 645' : dykes mafiques vert pomme, aphanitiques. Angle des carottes : 40° à 615' : foliation.											
665.0	708.0	Tuf felsique à lapillis vert grisâtre, massif, très schisteux, constitué de fragments aplatis de 1 à 5 cm. de diamètre, de lave felsique à intermédiaire vert grisâtre à grains fins de											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-7

PAGE: 3

DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	Ni ppm		
		dureté moyenne à forte, sphérolitique ? La roche contient environ 10% de veinules foliées d'albite-quartz de 0.5 cm. d'épais, disséminées, parallèles à la foliation.										
		La roche a un aspect moyennement chloritisé.										
708.0	864.0	Intrusif felsique à intermédiaire, gris verdâtre, à grains fins, à dureté moyenne, similaire à 104-536.5'.	2803M	764.6	765.0	.034	2.50	289	1395	36		
		828.5 à 831.2' : dyke felsique, vert pâle, à grains moyens, folié.										
		Angle des carottes : 45° à 820' : foliation.										
		857' à 862' : dyke felsique à grains fins, gris rosâtre, folié et cataclaté. La roche est moyennement dure.										
864.0	963.0	Schiste chloriteux, noir verdâtre, très mou, fissile, contenant environ 2% de veinules de quartz de 0.5 cm. d'épaisseur, foliées, disséminées à travers la roche. Contact supérieur incertain sur 10'. Nom tuf mafique à lapillis schisteux ?										
		Angle des carottes : 45° à 897' : foliation.										
		925' à 927' : brèche de faille.										
		927' à 932.5' : dyke felsique, gris, à grains fins, vaguement										

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-7

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DE	A	DESCRIPTION	ECHAN.	DE	A								
		folié, à dureté moyenne à forte.											
		927' à 943' : zone moyennement fracturée.											
963.0	975.0	Dyke de gabbro vert grisâtre, à grains fins, massif, légèrement folié, à dureté moyenne. Aspect moyennement chloritisé.											
975.0	987.0	Idem à 864'-963'.											
987.0	1021.0	Idem à 963'-975'.											
		1015' à 1017' : zone fracturée.											
		1048.5' à 1050' : dyke mafique, massif, aphanitique, vert pomme.											
		Angle des carottes : 55° à 1030' : foliation.											
1021.0	1064.0	Tuf mafique à lapillis, similaire à 864'-963'.											
		1054' à 1055' : zone de faille.											
1064.0	1157.0	Gabbro vert grisâtre, à grains fins, folié, similaire à 963'-975'.											
		1090' à 1157' : zone contenant environ une veine de quartz-											

JOURNAL DE SONDAGES AU DIAMANT

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	Ni ppm		
		Angle des carottes : 40° à 1420' : foliation.										
		1504' à 1532' : zone légèrement chloritisée, contenant environ										
		2 veines de quartz-carbonate par 3'.										
		1508' à 1620' : zone de diorite quartzifère similaire à ci-										
		haut, à grains fins, massive, sans leucoxènes disséminés.										
		1569.6' à 1573.8' : zone de veines de quartz-carbonate chlori-	2805M	1569.6	1573.8	0.034	2.06	41	123	40		
		te non foliées, contenant des traces de chalcopryrite.										
		Angle des carottes : 50° à 1585' : foliation.										
		La roche est légèrement foliée de 1576' à 1587'.										
		1620' à 1628' : zone de diorite quartzifère ? Moyennement										
		schisteuse, vert grisâtre, à dureté moyenne, contact supérieur										
		graduel sur 2', présence de veinules de calcite (4 veinules/										
		piéd).										
		1633' à 1636' : dyke felsique gris, à grains très fins, à										
		dureté forte.										
		1711' à 1715' : zone fracturée.										
		1715' à 1729' et 1752' à 1771' : zone de diorite quartzifère										
		gris verdâtre, à grains moyens, massive, légèrement foliée,										
		composée de 35% de quartz-feldspaths et de 65% de minéraux										
		mafiques, la roche est non magnétique.										

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TERRAIN: Norita

TROU No: NOR-84-7

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	Ni ppm		
		1771' à 1779' : zone de veines de quartz-chlorite-carbonate.										
1800.0	1936.0	Tuf à lapillis? noir à vert grisâtre foncé, très schisteux, à dureté faible, constitué de lapillis? de 0.5 à 3 cm. de diamètre très aplatis et à contours diffus. On observe environ 10% de lapillis rhyolitiques gris, sphérulitiques, non déformés, 80% de lapillis? chloriteux et talqueux noirs (lave mafique?) et 10% de nodules de pyrite de 1 à 10 mm. de diamètre avec traces de chalcopryrite. La roche est très magnétique.	2811M	1842.0	1845.5	---	1.37	1320	404	36		
			2806M	1845.5	1850.2	0.034	1.37	1005	800	46		
			2807M	1855.0	1860.0	---	1.37	2465	645	51		
		1829' à 1830' : brèche de faille.	2808M	1860.0	1865.0	---	1.37	1820	635	39		
		1835' à 1843' : dyke mafique gris verdâtre pâle, massif, aphanitique, contenant 1% de phénocristaux mafiques carrés, noirs, de 1 à 3 mm. de diamètre.	2809M	1865.0	1870.0	0.068	1.03	885	142	24		
			2810M	1870.0	1873.0	---	1.37	735	135	38		
			2812M	1895.0	1900.0	---	1.37	1630	241	48		
			2813M	1900.0	1904.0	0.034	1.03	1545	200	36		
		1884' à 1885.5' : dyke mafique gris verdâtre pâle, aphanitique.	2814M	1904.0	1909.0	0.068	1.37	468	5920	32		
			2815M	1909.0	1911.8	---	2.40	2608	5173	45		
			2816M	1911.8	1916.0	---	1.71	1375	1680	43		
		1921' à 1927.5' : présence de veinules d'albite-quartz très abondantes parallèles à la foliation.	2817M	1916.0	1921.0	0.034	1.71	491	1045	34		
			2818M	1921.0	1926.0	---	2.74	580	1015	31		
		Angle des carottes : 450 à 1900' : foliation.	2819M	1926.0	1930.4	---	2.06	1060	1645	30		

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TERRAIN: Norita

TROU No: NOR-84-7

PAGE: 8

DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	Ni ppm		
		On observe de 1909' à 1936' des fragments isolés de chert gris, laminés? de 1 cm. de diamètre, anguleux.	2820M	1930.4	1932.8	0.068	1.03	63	252	31		
1936.0	1952.5	Dyke de diorite quartzifère à grains fins, à dureté moyenne, gris verdâtre, légèrement foliée, similaire à 1398'-1800'.										
1952.5	1957.3	Dyke felsique, gris, à grains grossiers? très dur, contenant environ 50% de phénocristaux felsiques de 0.5 cm. de diamètre, à contours très diffus (altération?) et 50% de matrice à grains très fins.										
1957.3	1967.0	Idem à 1936'-1952.5'.										
1967.0	2012.0	Brèche sédimentaire grise, à grains grossiers (3-4 cm.) très dure, composée de 90% de fragments de chert grossièrement laminés, anguleux, de 0.1 à 10 cm. de diamètre avec en bordure de ceux-ci, une zone d'altération opaque. Les fragments de chert contiennent des veinules de pyrite et/ou de pyrrhotite.										
		10% de la roche est constituée de pyrrhotite-pyrite avec des traces de chalcopryrite, les sulfures forment la matrice entre	2821M	1967.0	1970.4	0.034	1.71	1895	1045	29		
			2822M	1970.4	1975.2	---	1.71	1585	1671	30		

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DE	A	DESCRIPTION	ECHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	Ni ppm		
		les fragments de chert.	2823M	1975.2	1980.3	0.034	1.37	945	1930	28		
			2824M	1980.3	1985.3	0.068	1.71	995	464	23		
		De 1922' à 1923' carotte entière préservée.	2825M	1985.3	1990.0	---	1.37	950	1248	26		
			2826M	1990.0	1995.0	---	1.71	1105	237	27		
		La roche possède un aspect massif et la foliation est très	2835M	1995.0	1999.0	---	1.37	900	338	27		
		faible.	2827M	1999.0	2004.5	0.068	2.06	975	750	42		
		Angle des carottes : 50° à 2005' : foliation.	2828M	2004.5	2009.5	---	1.71	685	449	26		
			2829M	2009.5	2012.0	---	2.40	975	1920	31		
2012.0	2050.5	Tuf à cendres, gris verdâtre, laminé centimétriquement. La										
		roche a une composition intermédiaire, à dureté moyenne. On										
		observe des zones de chert gris grossièrement laminées, par										
		endroits intraclastiques contenant jusqu'à 15% de nodules et										
		de matrice de remplissage primaire de pyrite-pyrrhotite,										
		de 2019' à 2022', 2038' à 2039', 2042.5' à 2044.5', 2048.5'										
		à 2049.5'										
		Le tuf à cendres est constitué de fragments de lave mafique										
		à intermédiaire, gris verdâtre de 0.1 à 3 mm, de très moyens										
		à très aplatis, formant des bandes d'épaisseur centimétrique										
		de tuf à grains très fins et de tuf plus grossiers. On observe										

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TERRAIN: Norita

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PAGE: 10

DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	Ni ppm		
		des structures d'érosion à la base des lits grossiers.										
		Angle des carottes : 55° à 2020' : litage.										
2050.5	2055.0	Brèche hyaloclastique grise à lapillis, à dureté moyenne à forte, consistée de fragments de 0.5 à 3 cm. de lave felsi-	2830M	2019.0	2022.0	0.068	0.69	92	376	21		
		que? à centres noirs, très mous, (chloritisés) et une bordure	2831M	2042.4	2043.2	0.034	1.03	344	271	41		
		grise très dure.	2832M	2056.0	2060.8	---	1.03	311	660	74		
			2833M	2061.4	2062.5	---	2.74	3070	2685	72		
2055.0	2062.0	Idem à 2012'-2050.5'.										
2062.0	2083.5	Tuf mafique à cendres, massif à très vaguement lité, vert grisâtre, à dureté moyenne, composé de 20% de fragments felsiques (cristaux de plagioclases?) et 80% de fragments mafiques de 2 à 5 mm. de diamètre, ceux-ci sont anguleux et le tri est bon. La roche est légèrement carbonatisée.										
2083.5	2155.8	Basalte ou andésite coussinée, vert grisâtre, aphanitique, très dure, (silicifiée?)	2834M	2141.0	Roche entière							
2155.8	2299.0	Gabbro vert grisâtre, à grains moyens, à dureté moyenne à										

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TERRAIN: Norita

TROU No: NOR-84-7

PAGE: 11

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		forte, massif, à texture porphyrique à pyroxène;											
		la roche est constituée de 60-70% de phénocristaux de pyroxènes carrés, de 2 à 5 mm. de diamètre et de 30-40% de matrice mafique à grains fins.											
		2178' à 2187' : zone de veines de quartz et de calcite avec épontes épidotisées, vert clair rosâtre, sur 3' de part et d'autre de celles-ci.											
		2216.5' à 2217.5' : dyke mafique vert grisâtre, aphanitique, variolaire.											
		De 2190' à 2229.4' : le gabbro contient jusqu'à 15% de phénocristaux de plagioclases de 0.5 à 1.5 cm. de diamètre, carrés, épidotisés, vert pomme.											
		2229.4' à 2299' : intrusif intermédiaire, gris verdâtre, à grains fins, massif, à dureté moyenne à forte, composé de 70% de minéraux felsiques gris et 30% de minéraux mafiques, traces d'inclusions mafiques anguleuses de 0.5 à 1 cm. disséminées. Cet intrusif recoupe le gabbro porphyrique à pyroxènes. (similaire au gabbro quartzifère décrit précédemment??)											
2299.0		FIN DU TROU											

1

MODERNE

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Forita
SONDAGE: NOR 84-7

DATE: 26-11-84
OPERATEUR: J.B

100	104'	200	0.1	300	0.1	400	0.5	500	0.0	600	0.0
5	0.0	5	0.0	5	0.0	5	0.0	5	0.0	5	0.0
10	0.0	10	0.0	10	0.0	10	0.0	10	0.0	10	0.0
15	0.0	15	0.0	15	0.0	15	0.9	15	0.0	15	0.0
20	0.0	20	0.0	20	0.0	20	0.0	20	0.0	20	0.0
25	0.0	25	0.0	25	0.0	25	0.0	25	0.0	25	0.0
30	0.1	30	0.0	30	0.0	30	0.0	30	0.0	30	0.0
35	0.0	35	0.0	35	0.0	35	0.0	35	0.0	35	0.0
40	0.0	40	0.0	40	0.0	40	0.0	40	0.0	40	0.0
45	0.0	45	0.0	45	0.0	45	0.0	45	0.0	45	0.0
50	0.0	50	0.0	50	0.0	50	0.0	50	0.0	50	0.0
55	0.0	55	0.0	55	0.0	55	0.0	55	0.1	55	0.1
60	0.1	60	0.0	60	0.0	60	0.0	60	0.0	60	0.0
65	0.0	65	0.1	65	0.0	65	0.0	65	0.0	65	0.0
70	0.0	70	0.0	70	0.1	70	0.0	70	0.0	70	0.0
75	0.0	75	1.2	75	0.0	75	0.0	75	0.0	75	0.0
80	0.0	80	3.0	80	0.0	80	0.0	80	0.0	80	0.0
85	0.0	85	0.0	85	0.0	85	0.0	85	0.0	85	0.0
90	0.0	90	0.0	90	0.4	90	0.0	90	0.0	90	0.0
95	0.0	95	0.0	95	0.0	95	0.0	95	0.0	95	0.0

X-122

TROPPIKI
70
1573'

NEPT

MODERNE

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

(2)

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Norita
SONDAGE: NOR 84-7

DATE: 29-11-84
OPERATEUR: J.B D.N

70	0	0.0
5		0.0
10		0.0
15		0.0
20		0.0
25		0.0
30		0.0
35		0.1
40		0.0
45		0.0
50		0.0
55		0.0
60		0.0
65		0.0
70		0.0
75		0.0
80		0.0
85		0.0
90		0.0
95		0.0

800		0.0
5		0.0
10		0.0
15		0.0
20		0.1
25		0.0
30		0.0
35		0.0
40		0.0
45	PROPAR 846'	0.0
50		0.0
55		0.0
60		0.0
65		0.0
70		0.0
75		0.0
80		0.0
85		0.1
90		0.0
95		0.0

900		0.0
5		0.0
10		0.0
15		0.0
20		0.0
25		0.0
30		0.0
35		0.0
40		0.1
45		0.0
50		0.0
55		0.0
60		0.0
65		0.0
70		0.0
75		0.0
80		0.0
85		0.0
90		0.0
95		0.0

1000		0.0
5		0.0
10		0.0
15		0.1
20		0.0
25		0.0
30		0.0
35		0.0
40		0.0
45		0.0
50		0.0
55		0.0
60		0.0
65		0.0
70		0.0
75		0.0
80		0.3
85		1.1
90		0.0
95		2.5

1100	1.0	
5		0.0
10		0.0
15		0.0
20		0.0
25		0.0
30		0.0
35		0.0
40		0.0
45		0.0
50		0.0
55		0.0
60		0.0
65		0.0
70		0.0
75		0.1
80		0.0
85		0.0
90		0.0
95		0.7

1200	L3	
5		0.0
10		0.0
15		0.0
20		0.1
25		2.2
30		0.1
35		1.2
40		2.7
45		1.4
50		2.0
55		0.1
60		1.8
65		0.5
70		1.2
75		1.9
80		1.3
85		0.5
90		0.0
95		0.2

X-122

3

MODERNE

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA
SONDAGE: No. 8-~~8~~ 84-7

DATE: 3-12-84
OPERATEUR: D.N. UB

130°	4.3
5	2.9
10	0.1
15	3.0
20	6.3
25	7.9
30	7.5
35	5.2
40	3.8
45	3.4
50	3.8
55	3.9
60	3.5
65	5.3
70	6.1
75	8.4
80	6.6
85	5.9
90	6.4
95	9.1

140°	2.5
5	2.6
10	1.3
15	0.7
20	0.4
25	0.2
30	0.2
35	0.0
40	0.0
45	0.1
50	0.0
55	0.2
60	0.0
65	0.1
70	0.2
75	0.0
80	0.0
85	0.1
90	0.0
95	0.0

150°	1.0
5	0.1
10	3.8
15	0.0
20	0.0
25	0.1
30	0.0
35	3.3
40	5.7
45	5.2
50	8.8
55	4.9
60	6.1
65	5.3
70	1.7
75	0.2
80	0.6
85	4.2
90	7.9
95	10.0

160°	7.3
5	6.4
10	7.3
15	8.7
20	6.0
25	2.6
30	0.4
35	0.4
40	3.9
45	1.3
50	3.1
55	5.0
60	6.0
65	5.2
70	4.0
75	3.8
80	4.9
85	2.9
90	3.9
95	2.5

170°	2.7
5	2.8
10	0.5
15	0.4
20	0.4
25	0.5
30	0.0
35	1.1
40	0.1
45	0.1
50	0.0
55	0.1
60	0.1
65	0.0
70	0.0
75	0.1
80	0.1
85	0.0
90	0.1
95	0.0

180°	0.0
5	0.0
10	0.1
15	0.0
20	0.0
25	8.6
30	0.2
35	0.0
40	0.0
45	0.1
50	0.0
55	0.0
60	0.2
65	0.2
70	0.0
75	0.1
80	0.0
85	0.0
90	0.0
95	0.0

X-122

(4)

MODEME

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Noranda

DATE:

7-12-84

SONDAGE:

NO R 84.7

OPERATEUR:

J.B

1900	0.1
5	0.0
10	0.0
15	0.1
20	0.0
25	0.2
30	1.4
35	4.4
40	0.1
45	0.2
50	0.0
55	0.0
60	0.0
65	0.1
70	14.0
75	10.0
80	3.1
85	18.0
90	5.6
95	6.1

2000	31.0
5	8.8
10	0.2
15	0.2
20	0.0
25	0.0
30	0.0
35	0.0
40	0.1
45	0.1
50	0.1
55	0.0
60	0.1
65	0.0
70	0.0
75	0.0
80	0
85	0
90	0
95	0.1

2100	0.1
5	0.1
10	0
15	0
20	0
25	0
30	0
35	0
40	0.1
45	0.1
50	0
55	0
60	0
65	0.1
70	0
75	0
80	0.1
85	0
90	0
95	0

2200	0.1
5	0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	1.3
40	0.1
45	0.0
50	0.0
55	0.0
60	0.1
65	0.0
70	0.0
75	0.3
80	0.5
85	0.8
90	1.8
95	2.7

2300	FIN
2399'	
5	
10	
15	
20	
25	
30	
35	
40	
45	
50	
55	
60	
65	
70	
75	
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85	
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2400	
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X-122

WOREY 20-122

DAVIDSON MARGARIT

GEOCHEMICAL TRACE ELEMENT INVESTIGATION (---)

Feb 18/85

DESCRIPTION	Au oz/T	Ag GR/Tn	Hg PPM	Co PPM	Zn PPM	Ni PPM	Pb PPM	Fe %	CaO %	MgO %	Na ₂ O %	K ₂ O %	Al ₂ O ₃ %
0343-M	.001	.034	2.5	79	346								
44	---	---	2.5	222	1210								
45	---	---	2.25	653	166								
46	.001	.034	2.5	145	560								
47	---	---	3.0	103	945								
48	---	---	2.5	39	214								
49	---	---	4.0	362	34400								
50	.001	.034	1.0	22	1735								
51	.001	.034	4.5	355	77250								
52	---	---	1.5	66	1690								
53	---	---	5.0	785	84500								
54	.001	.034	2.5	303	15450								
857-M	---	---	1.5	438	1140								
58	---	---	2.0	847	918								
3000-M	.001	.034		313									

← NOR-84-7

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DATE 85-02-22

LAMPILLON	Au OZ/T	Au G/TM	Ag OZ/T	Ag G/TM	Cu PPM	Zn PPM	Ni PPM	Fe %	CaO %	MgO %	Na ₂ O %	K ₂ O %	A %
2806M	.001	.03	.04	1.37	1005	800	46						
2807	—	—	.04	1.37	2465	645	51						
2808	—	—	.04	1.37	1820	635	39						
2809	.002	.07	.03	1.03	885	142	24						
2810	—	—	.04	1.37	735	135	38						
2811	—	—	.04	1.37	1320	404	36						
2812	—	—	.04	1.37	1630	241	48						
2813	.001	.03	.03	1.03	1545	200	36						
2814	.002	.07	.04	1.37	468	5920	32						
2815	—	—	.07	2.40	2608	5173	45						
2816	—	—	.05	1.71	1375	1680	43						
2817	.001	.03	.05	1.71	491	1045	34						
2818	—	—	.08	2.74	580	1015	31						
2819	+	—	.06	2.06	1060	1645	30						
2820	.002	.07	.03	1.03	63	252	31						
2821	.001	.03	.05	1.71	1895	1045	29						
2822	—	—	.05	1.71	1585	1671	30						
2823	.001	.03	.04	1.37	945	1930	28						
2824	.002	.07	.05	1.71	995	464	23						
2825	—	—	.04	1.37	950	1248	26						
2826	—	—	.05	1.71	1105	237	27						
2827	.002	.07	.06	2.06	975	750	42						

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JOURNAL DE SONDAGES AU DIAMANT

Explorations Noranda Limitée
noranda Matagami, Québec

LATITUDE : 10+80 S
 LONGITUDE : 71+25 E
 ÉLEVATION : Surface
 DIRECTION : 020°
 PENDAGE AU COLLET : -68°

TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGEE
200'		-63.0°		1000'		-49.5°		1800'		-32.0°	
400'		-61.0°		1200'		-43.0°		2000'		-28.0°	
600'		-57.5°		1400'		-41.0°		2200'		-24.5°	
	791'	-57.0°	15°	1600'		-36.0°		2400'		-21.0°	
800'		-54.5°			1625'	-36.0°	11.5°				

PROFONDEUR DU TROU : 2416'

FEUILLE No. 1 DE 26

PROPRIETE : Norita
 CLAIM No. : 112469-3
 TROU No. : NOR-84-8
 CAROTTE No. : B.O.
 DÉBUT LE : 19 novembre 84
 FIN LE : 13 décembre 84

PROFONDEUR DE A	DESCRIPTION MEGASCOPIQUE	ÉCHANT.	DE	A	ANALYSES GEOCHIMIQUES									
0	106.0	Overburden, casing. (left in place)												
106.0	192.0	Granophyre, light green, chloritized, siliceous rock, altering very siliceous qtz-feldspar zones containing blebs of Fe oxides (not magnetic), and darker, more chloritized zones which resemble in places lapilli tuff and variolitic flows but are cumulus textures in the granophyre. Very little iron stain, most FeO as crystal-faceted blebs in the quartz-rich phases.												
		164.5-165.5 - looks like a breccia or tuff agglomerate but still only a cumulus phase of the granophyre. Better developed from 160-162												

Planifié et supervisé par : Pierre Bernard

ENTREPRENEUR : Forages Dominik

DÉCRIT PAR : John Porritt

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 2

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		where pseudo-varioles 5-15 mm. in chloritized groundmass.											
		Pyrite blebs at 134, 2-4 mm. disseminated. 121.2-123.0 Chlori-											
		tized cores (pyroxenes?) approx. 5 mm, surrounded by a 1-2 mm.											
		"fringe" of radiating fsprs, within a slightly iron rich (pink/											
		purple) groundmass.											
		166.7-167.7 - chlorite/talc shearing.											
		182.5-184.5 - more talc alteration, pyrite in blebs & cubes - 1%.											
192.0	252.6	Granophyre, more uniform, less cumulus texture, more banded											
		texture of alternating siliceous and chloritic zones.											
252.6	322.3	Granophyre, more chloritic, homogeneous chlorite groundmass,											
		schistose, with qtz-feldspar "eyes" (very small) rolled in											
		chlorite, giving banded texture.											
		292-309 - lighter grey, more cumulate texture.											
		309-322.3 - strongly chloritized.											
322.3	465.0	Gabbro, uniform, coarse grained, magnetic, epidote alteration											
		"stars" 20-40%. Local disseminated pyrite.											
		329.0-330.0 - chlorite/talc shear zone.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 3

DE	A	DESCRIPTION	ÉCHAN.	DE	À								
		336.0-336.7 - banded, cumulate texture.											
		343.6 - quartz-carbonate vein 0.2 ft.											
		348.6-348.9 - chlorite/talc shear zone.											
		349.5-350.8 - strong talc-chlorite shear zone C.A. 30° (shear zone).											
		358.3-359.1 - strong epidote alteration, disseminated, magnetic.											
		361.2-361.6 - chlorite shear zone.											
		369.2-369.4 - cumulate texture.											
		371.0 - qtz vein 0.3 ft.											
		371.0-380.9 - trace dissem. py in cubes.											
		380.9-398.6 - more banded & cumulate texture.											
		395.3 - qtz cbte. vein 0.2 ft.											
		398.6-457.3 - return to more gabbroic texture, uniform, green, chloritized.											
	From ~400' on,	strong pervasive carbonatization.											
		404.6 - leucoxene alteration.											
		414.2-414.5 - mafic dyke + assoc. qtz-cbte. veining.											
		437.2-437.5 - " " " " " "											
		439.6-440.2 - " " " " " "											
		442.8-443.3 - " " " " " "											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 4

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		454.0-455.0 - pyrite dissem. in cubes and very fine disseminations. Some qtz-cbte. stringer association.											
		457.3-465.0 - very strong chloritization, banded, strong leucoxene alteration, no original texture remaining.											
		462.0-463.5 - quartz-carbonate veining.											
465.0	468.0	Shear zone, chloritic talc mud, C.A. (shearing) 20°											
		465.0-466.7 - fault breccia.											
		From 466 ft on, no more pervasive carbonate alteration.											
468.0	527.8	Granophyre, less chloritized,											
		492.0-498.3 - more uniform, light green, talc-chlorite alteration, trace pyrite in cubes & blebs near 498.3 contact. Off-setting fractures dominant at C.A. 20° and approx. 90° to schistosity.											
		498.3 - contact defined by qtz-cbte. stringer and a return to a greyer rock.											
		498.3-527.8 - milky grey, weak cumulus texture, defined by feldspars stretched into schistosity giving a slight variolitic texture. Chloritization weak to moderate, talc alteration dominant.											

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 6

DE	A	DESCRIPTION	ECHAN.	DE	A								
609.5	615.7	<u>Felsic dyke</u> , feldspar phenocrysts in basal zone, chlorite clots.											
615.7	619.7	* <u>Lapilli tuff</u> - strong talc/chlorite alteration - black.											
619.7	620.4	<u>Rhyolite flow</u> - amygdaloidal, as above.											
620.4	620.7	* <u>Lapilli tuff</u> , black chlorite/talc alt.											
620.7	623.0	<u>Rhyolite flow</u> .											
623.0	629.7	* <u>Lapilli tuff</u> , black chlorite/talc alteration.											
629.7	644.3	<u>Rhyolitic-dacitic-massive flow</u> , not so chloritized, become grey towards 644.	0361M	634.0	634.4	Thin section							
644.3	647.7	<u>Rhyolite flow</u> , talc alteration zones at both contacts, devitrification cracks.											
647.7	649.8	Mafic dyke and associated qtz veining.											
			* Called chlorite/talc rock in NOR-84-9A										

JOURNAL DE SONDAGES AU DIAMANT

TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 7

DE	A	DESCRIPTION	ECHAN.	DE	A								
649.8	668.3	*Lapilli tuff, strong chlorite/talc alteration. Strongly sheared in places.											
668.3	731.7	Mafic spherulitic flow uniform, moderate chloritization, very few qtz-carbonate stringers.	0362M	671.6	672.0	Thin section							
		711.7 - flow contact ? flow banding.											
		722.0 - " " } not as definite, possibly just increased											
		723.0 - " " } alteration related to fracturing.											
731.7	739.5	*Lapilli tuff - strong chlorite talc alteration.											
739.5	807.8	Spherulitic flow, of before, more felsic possibly intermediate comp.											
		740.7 - flow surface ?											
		742.6-743.2 - flow breccia.											
		744.2-745.0 - chlorite/talc zone.											
		745.3-746.8 - chlorite/talc zone.											
		In general a very uniform, grey, felsic unit, spherulitic, with very rare quartz stringers.											
		From 806.0-806.6 amygdaloidal.											

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 8

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		806.4 - qtz-cbte. stringer (2 mm) & pyrite.											
		807.4-807.8 - lighter, devitrification cracks.											
807.8	827.6	Lapilli ? tuff, intermediate ? strongly chloritized - black, green-black.											
827.6	828.4	Brown-grey chert unit ? 827.6 contact irregular suggestive of slumping, 828.4 contact smooth and regular. No internal sedimentary features.											
828.4	845.2	Tuffaceous unit, less chloritized, definite lapilli fragments (esp. at 845)											
		842.9-844.2 - brown, cherty-looking mud zone, not as homogeneous as at 827.6-828.4.											
845.2	862 ?	Rhyolite flow ? homogeneous, spherulitic											
		862.4 slump or flow feature. Becomes very amygdaloidal after 860.0363M	856.5	856.8		Thin section							
862 ?	866.3	Lapilli tuff, moderately chloritized, containing possible brown chert fragments becoming increasing by fragmental towards 866.3.											

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 9

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		Upper contact very sharp. C.A. (chert plane) $\cong 50^\circ$.											
866.3	872.8	Rhyolite flow, more homogeneous, green-brown, spherulitic, devitrification cracks near 872.8 contact. Quartz carbonate veining more frequent, one contains pyrite blebs.											
		872.8 - contact sharp.											
872.8	876.6	Lapilli unit, black, green-black, chloritic, upper contact sharp C.A. (contact) 50° .											
876.6	893.0	Rhyolitic-dacitic unit, green-brown, ash tuff ?, occasional qtz amygdules. Black chloritic spots give speckled appearance.											
893.0	897.1	Lapilli tuff, moderate chloritization, green-grey.											
897.1	909.9	Spherulitic ash tuff or flow. Uniform moderate chloritization.											
909.9	950.0	Alternating zones of lapilli tuff, chloritized & talc green-green/black, with ash tuff.											
		934.0-934.5 - broken core.											

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 10

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag	Cu ppm	Zn			
		935.0-950.0 - more amygdules.										
		950.0 - contact not definite.										
950.0	975.1	Ash tuff or flow, moderate chloritization & slight talc alteration. C.A. (schistosity) $\cong 50^\circ$										
		971.1-971.3 - felsic dyke, chlorite clots similar to 609.5-615.7;										
		trace very finely disseminated pyrite.										
975.1	977.6	Felsic dyke as at 971.1-971.3.	0364M	975.1	077.6	.001		109				
977.6	1038.2	Alternating bands of lapilli and ash tuff. Mod-strong chloritization & talc alteration, black to black-green, some zones bleached.	0365M	995.5	995.9	Whole rock						
		Rare pyrite agglomerations throughout. C.A. (schistosity) 55° .										
1038.2	1060.6	Felsic-intermediate ash tuff, some quartz amygdules at 1040, very uniform, light green, mod chloritization.										
		1056.1-1056.8 - brown cherty-looking zone with quartz stringers.										
		Contacts very sharp and stratiform.	0366M	1058.7	1058.9	Thin section						

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 11

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1060.6	1106.4	More coarsely fragmental, lapilli tuff colour change to grey, talc-chlorite alteration.											
		Contains bands of more cherty material grey-brown, aphanitic, most notably at : 1077.2-1077.4, 1080.8-1081.0, 1092.9-1093.1, 1096.1.											
		These zones are stratiform, more homogeneous, aphanitic, than enclosing rock, very suggestive of a sedimentary environment.											
		At 1060.6 contact, trace pyrite in blebs, possibly sed. origin.											
1106.4	1128.9	Very uniform moderately chloritic ash tuff horizon C.A. (banding) 50°.											
1128.9	1132.5	Intermediate to felsic flow?, light green, weak-moderate chloritization. Hairline pyrite mineralization in schistosity. At 1132.2, py + cpy associated with qtz feldspar vein.											
1132.5	1170.2	Intermediate to felsic lapilli tuff. Moderate chloritization, green at base becoming greyer with a predominant ash component towards the top, and more siliceous. Spherulitic, rare pyrite horizons < 1 mm. in layering and occasionally in qtz-feldspar											

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 12

DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag	Cu ppm	Zn			
		stringers.										
1170.2	1194.0	Thick grey-green uniform intermediate to felsic ash tuff unit.										
		Contains occasional lapilli clasts.										
		1174.4-1174.6 - pale creamy tuff horizons, with very finely										
		dissem. pyrite to 1% in banding. C.A. (layering) 45°.										
		Upper contact not defined. Top 3 feet contain small feldspar										
		and quartz segregations which may be on effect of gabbro intrusion.										
1194.0	1228.2	Gabbro, ophitic texture, very coarse grained, suggestive of										
		fractionation from anorthosite. Cumulus texture. Trace disseminated										
		pyrite throughout and occasionally in small blebs. Towards										
		upper contact, up to 10% pyrite disseminated. Strongly epidotized	0367M	1226.0	1228.5	.001		109				
		in places, especially at 1203.										
1228.2	1231.2	Very hard siliceous grey-green fine grained unit. Fine needles										
		suggestive of tremolite. Also small carbonate clots and small										
		(2-3 mm) blebs of epidote alteration throughout. Unit contains										
		2 clasts of the underlying gabbro at 1228.6. This unit then	0368M	1230.8	1232.6	.003		109				

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 13

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag	Cu ppm	Zn				
		possibly a <u>fine grained calc-silicate fractionation of the</u>											
		<u>gabbro ?</u>											
1231.2	1232.3	<u>Gabbro, as at 1194.0-1228.2. 5-10% py dissem. 1231.9 - breccia</u>											
		<u>zone (0.1 ft).</u>											
1232.3	1235.4	<u>Fine grained equivalent as at 1228.2-1231.2, uniform, no py.</u>											
1235.4	1239.4	<u>Gabbro, strong epidote alteration, more pyrite and in cross</u>											
		<u>cutting stringers.</u>											
1239.4	1243.1	<u>Fine grained equivalent as at 1228.2-1231.2.</u>											
1243.1	1248.5	<u>Gabbro, strong epidote alt. Trace py + cpy, especially in</u>	0369M	1247.2	1248.8	.003		168					
		<u>sulphide-only stringers.</u>											
1248.5	1249.9	<u>Fine grained equivalent.</u>											
1249.9	1376.5	<u>Gabbro, as before, basal portion epidotized, then becoming more</u>	0370M	1249.5	1253.0	.003		49					
		<u>uniform. Calcite stringers 1"-2" pure, + trace cpy at 1264.9.</u>											

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 14

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag	Cu ppm	Zn			
		1266.7, 1268.5, 1268.9. Barren qtz-cbte. vein at 1284.2.	0371M	1266.3	1269.2	.007		89				
		1278.8-1279.4 - fine grained equivalent. Very wide chill margin (+ 5 feet) strong pervasive carbonatization. From 1375.2 on,										
		brown groundmass breccia zone ?? chloritic clots fringes by feldspars.										
		Unit not magnetic.										
1376.5	1423.2	Felsic-intermediate ash tuff, uniform, strong talc alteration, light grey-green.										
		1382.3-1391.9 - fault zone, strongly sheared, kink folding, especially at 1382.3-1384.0.										
		Rare pyrite mineralization in schistosity.										
		1391.0 - talc chlorite mud.										
		1396.5 - one bleb cpy noted below breccia zone.										
		After 1391.9 return to uniform ash tuff.										
		1401.0 - C.A. (schistosity) 40°.										
		1415.8-1423.2 - strong tacl alt., shearing, assoc. qtz-cbte veins + pervasive carbonatization.										
		1422.0-1423.2 - fault zone, strong alteration, talc-chlorite mud, and breccia zone.										

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 15

DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag oz/t	Cu ppm	Zn ppm			
1423.2	1425.2	Mafic flow? leucoxene alteration. Intrusion by narrow aphanitic mafic dyke and associated quartz-veining.										
1425.2	1442.2	Mafic tuff, moderate-strong chloritization, rare pyrite in schistosity. Carbonate "net" texture in quartz veining especially at 1427.4. At 1437.0 brecciated shear zone. 1437.0-1442.2 - strong chloritization, frequent chlorite/talc mud shears. C.A. (shearing) 70°.										
1442.2	1454.3	Less sheared zone, mafic flow, spherulitic, more tuffaceous towards top except top 0.4 foot has well developed varioles. Brown colour in lower part possibly due to Fe oxide stain or leucoxene alteration ? Hematite on fracture surfaces, often with traces py in blebs.										
1454.3	1479.1	Mafic tuff unit, mod chloritization, occasional <1" shear zone, talc chlorite mud filled. Occasional pyrite as stringer mineralization, but flattened into plane of schistosity. Irregular pervasive carbonatization not restricted to any one unit but	0372M	1455.6	1458.3	.002	0.04	124	152			

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 16

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag oz/t	Cu ppm	Zn ppm			
		also not continuous.										
1479.1	1486.1	Intermediate flow, becoming strongly spherulitic towards top, strong chloritization, black.										
1486.1	1645.3	Felsic to intermediate ash tuff. Moderate chloritization, mod talc alt. grey, uniform. Spherulitic & amygdaloidal towards 1493.8 where abrupt change occurs to ash tuff for 0.2 ft. (finer grained). C.A. (change) 70°. This unit a fairly monotonous series of spherulitic. Mineralization is disseminated within schistosity, however this is quite possibly a secondary location, as this unit, particularly the more banded rhyolitic portions, is host to the stringer mineralization in NOR-84-9. However no carbonate alteration found, and no quartz-carbonate stringers exist. Small feldspar phenocrysts show talc alteration locally in more massive (not banded) portions. Generally becoming more amygdaloidal and less spherulitic after 1570. 1631.3-1637.6 - pervasive moderate epidote alteration, with	0373M	1558.0	1560.4	.003	0.02	64	173			

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TROU No: NOR-84-8

PAGE: 17

DE	A	DESCRIPTION	ECHAN.	DE	A								
		associated carbonate alteration in this section only. Still no stringers.											
1645.3	1657.5	Strongly spherulitic unit <u>felsic flow</u> 1649.4-1651.9 - not spherulitic but banded felsic tuff.											
1657.5	1661.1	<u>Intermediate to mafic ash tuff</u> , mod. chloritization, uniform, some qtz-cbte stringers. 1665.7-1666.1 - <u>mafic dyke</u> & assoc. qtz veining, layered, + trace py + cpy in blebs.											
1661.1	1690.2	<u>Rhyolitic tuff</u> , grey-green, "wavy" schistose texture. Trace dissem. py throughout.											
1690.2	1731.9	<u>Intermediate tuff</u> , spherulitic, chloritized, magnetic. Very uniform unit. Upper contact gradational, lower contact sharp but no chill. No sulphides observed. 1724.0 - becomes more banded. As 1731.9 contact approached, unit becomes more chloritic.	0374M	1695.1	1695.5	Whole rock							

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
1731.9	1733.2	Mafic tuff, definite sedimentary breaks at 1731.9 and 1733.2 defined by abrupt changes in grain size, lack of spherules.											
1733.2	1887.4	Intermediate to felsic ash tuff unit with up to 10% chloritized lapilli. No sulphides, almost no stringer qtz-cbte, very little banding. Weak epidote alteration in places (especially 1794-1795). Generally green-grey.	0375M	1789.6	1790.0	Whole rock							
		1843.6-1844.3 - mafic dyke + associated qtz-cbte veining + pyrite blebs.											
		1846-1850 - green, weak talc epidote alteration + weak pervasive cbte alt.											
		1853.3-1854.0 - strong talc alteration.											
		1854.1 + 1855.1 - sedimentary breaks.											
		1855.1-1860.1 - green, mod chloritized ash tuff, carbonate stringers concordant.											
		1860.1-1861.4 - more uniform spherulitic occasional chlorite clots with feldspar fringe (5 mm. diameter).											
		After 1861.4 more intermediate composition.											

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 19

DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au oz/t	Ag oz/t	Cu ppm	Zn ppm			
1887.4	1891.5	Intermediate to mafic tuff, spherulitic, chloritic. Gradually becoming more fractured + epidote + carbonate alteration towards 1891.5. Upper contact defined by qtz-abte veining.										
1891.5	1907.5	Altered zone. Intermediate tuff, epidote + talc alteration in patches giving alternating dark green/yellow coloration. Pyrite disseminated up to 5% but restricted to altered patches. Towards 1907.5 becoming more felsic & chloritized.	0376M	1902.4	1906.2	-		42				
1907.5	1915.0	Intermediate to felsic tuff (ash) small (< 1 mm) quartz phenocrysts. Not so altered, fine disseminated pyrite to 1% in more felsic portions. Pervasive carbonatization.	0377M	1910.6	1915.0	.003		27				
1915.0	1950 +	Mafic - pillows, suggested by variolitic zones, epidotization strong in patches; disseminated pyrite throughout. 1931-1939.6 - becoming coarse grained, gabbroic texture. 1941.5 - sharp break, possibly small mafic dyke? but no upper contact found. Amygdaloidal from 1943 on, and increased content of lapilli fragments to gradational contact near 1950.										

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 20

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag oz/t	Cu ppm	Zn ppm			
1950 +	1966.1	Mafic tuff - ash/lapilli. Moderate to strong chloritization, banded. Strong pervasive carbonate alteration, pyrite finely disseminated in schistosity, locally to 5%. C.A. (banding) 75°-80°.										
		Becoming coarser grained, gabbroic texture towards top.										
1966.1	1982.6	Intermediate ash tuff, light chloritization barren; strong pervasive carbonatization.										
		1972.2 - cherty, grey-green for 0.2 feet.										
1982.6	1995.5	Mafic tuff, moderate chloritization locally amygdaloidal, pyrite rare, disseminated, strong pervasive carbonatization. Qtz- cbte stringers more common.										
1995.5	2001.9	More amygdaloidal, mafic tuff. No more carbonate alteration after 1995.5, even in breccia zone (except stringers).										
2001.9	2005.8	"Cooked zone" strongly altered, silicification obliterating original mafic character. Strong talc alteration of mafic tuff? giving a creamy-green colour. Increasing content of quartz	0378M	2001.9	2005.8	.002		21				

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TERRAIN: Norita

TROU No: NOR-84-8

PAGE: 21

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag oz/t	Cu ppm	Zn ppm			
		phenocrysts towards upper contact, as well as pyrite, very										
		finely disseminated gradually increasing in grain size.										
2005.8	2008.9	Breccia zone, vuggy, carbonate crystals coated with pyrite cu-	0379M	2005.8	2008.9	.005		36				
		bes. Mafic tuff fragments (not silicified) floating in grey,										
		non-carbonate, mud containing trace disseminated pyrite.										
2008.9	2018.4	Felsic intrusive, yellow-green, no-carbonate alteration; green	0380M	2008.9	2013.0	.001		49				
		chrome mica (fuchsite?) bearing, very finely disseminated py-	0381M	2013.0	2018.3	.002		64				
		rite throughout (trace amounts).										
2018.4	2021.6	Breccia zone, more silicified than (2005.8-2008.9) also con-	0382M	2018.3	2021.6	.001		40				
		tains breccia fragments of felsic dyke and silicified mafic										
		tuff /amygdaloidal. Contains no fragments of overlying rhyolite										
		flow.										
		2020.9-2021.6 - broken core.										
2021.6	2023.1	Basal brecciated zone of rhyolite flow. Contains no felsic										
		dyke fragments.										

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TERRAIN: Norita

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PAGE: 22

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag oz/t	Cu ppm	Zn ppm			
2023.1	2027.5	Rhyolite flow, massive, vesicular, discontinuous stringers of pyrite at base progressing to larger cross-cutting stringers further up. No carbonate alteration.	0383M	2021.6	2027.5	.003		79				
2027.5	2028.7	Quartz veining. in silicified tuff.										
2028.7	2039.2	Spherulitic? Silicified tuff. Pyrite to 10% disseminated in schistosity 2034.0-2037.9. Altered zone, silicification, quartz veining, pyrite in stringers.										
2039.2	2082.3	Rhyolite, black, hard, aphanitic. Pyrite in blebs in schistosity, trace. 2039.2-2040.4 - tuff, altered by mafic dyke and associated Qtz-cbte veining. Stringer pyrite. Main unit black to dark green, coarser grained, towards 2082.3. Narrow epidotized fracture surfaces. 2058.2-2059.4 - mafic dyke sub-parallel to core axis. Qtz-cbte veining + stringer pyrite.										
2082.3	2097.6	Mafic ash tuff, trace pyrite in schistosity, finely disseminated	0384M	2082.3	2089.0	.002	.03	158	422			

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PAGE: 23

DE	A	DESCRIPTION	ECHAN.	DE	A	Au oz/t	Ag oz/t	Cu ppm	Zn ppm			
		and in stringers, locally to 10%.	0385M	2089.0	2094.4	.001	.02	58	334			
		2089.3-2090.0 } mafic dyke zones + qtz-carbonate veining with	0386M	2094.4	2097.6	.002	.03	95	365			
		2091.9-2094.4 } stringer pyrite and rare cpy.										
2097.6	2105.4	Transition zone - mafic to intermediate ash tuff. No contacts found. Alteration spots epidotized 5-10 mm diameter. Pyrite very finely disseminated throughout.										
2105.4	2174.9	Rhyolite ? flow green at base becoming grey-black by 2109. Uniform variolitic unit, no banding. Few qtz-cbte stringers and these are very late-stage straight, hairline type. 2106-2129 - moderate pervasive carbonatization.										
		2117.9-2120 - interflow sedimentary zone? Black bands between flows and mixed into flows? Black bands partially stratiform, possibly black sulphidic? Definite sedimentary appearance. From 2120-2131 black fragments of similar texture as clasts in rhyolite.	0387M	2117.9	2120.0	.002	.02	9	206			
		2154.8-2155.9 - brown alteration zones. Top 2 feet becoming greener, with small (1 mm) feldspar phenocrysts. At contact 0.1 feet of amorphous chert? sediment-grey green. No sulphides.										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
2174.9	2178.1	Mafic to intermediate tuff. Moderate chloritization. Quartz-carbonate veining and Fe oxide at 2176.9 and well-formed 10 mm crystal of quartz + cbte in fractures.											
2178.1	2180.1	Zone of mixing of intermediate spherulitic tuff fragments in a groundmass of very fine grained mafic rock.											
2180.1	2182.6	Intermediate spherulitic ash tuff. Uniform, light green.											
2182.6	2225.0	Mafic unit - no upper contact found. Moderate chloritization, slight cumulus texture, and as grain size increases, looks more like a gabbro. Possibly a thick mafic flow with a coarser grained core (2191.0-2207.6)	0388M	2201.6	2202.0	Thin section							
		From 2207.6 on, unit is very hard, silicified, moderate pervasive carbonatization. (silicified andesite?)	0389M	2212.7	2213.1	Whole rock							
2225.2	2240.3	Intermediate tuff, grey, weakly spherulitic, poorly defined banding.											
2240.3	2247.2	Mafic tuff or flow, amygdaloidal, massive, moderate chloritization											

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PAGE: 25

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		disseminated pyrite on fracture surfaces. <u>Silicified - silici-</u>											
		<u>fied andesite ?</u>											
2247.2	2256.4	<u>Mafic tuff</u> , massive, chlorite clots - lapilli? pyrite very fi-											
		nely disseminated - trace. Becoming more siliceous towards											
		2256.0-2256.4 grey chert horizon.											
2256.4	2283.0	Return to more <u>intermediate or mafic amygdaloidal tuff or flow</u> ,											
		moderate chloritization. Rare lapilli appearing towards 2283.											
		Strong pervasive carbonatization.											
2283.0	2288.1	<u>Lapilli tuff</u> , - lapillis angular and lensoid, dark green.											
2288.1	2314.7	<u>Mafic - intermediate ash tuff</u> , locally spherulitic rare strin-	0390M	2312.5	2312.9	Whole rock							
		ger pyrite and very finely disseminated.											
2314.7	2416.0	<u>Gabbro - "spotted"</u> - chlorite clots, uniform, with chill margin											
		at 2314.7. No carbonate alteration.											
		2161.5-2362.3 - quartz carbonate veining and lighter alteration											
		zone .											

WHOLE ROCK ANALYSIS

VOIR AVEC NOR-84-6

DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

1

PROPRIETE: Noranda
SONDAGE: NOR 84-B

DATE: 26-11-84
OPERATEUR: JB

SUSCEPTIBILITE MAGNETIQUE

0	10 0	20 0	30 0	40 0	50 0
5	5 ^{CERSING} 106 0.0	5 0.0	5 0.0	5 0.2	5 0.0
10	10 0.0	10 0.0	10 0.0	10 3.0	10 0.0
15	15 0.0	15 0.0	15 0.0	15 4.3	15 0.0
20	20 0.1	20 0.0	20 0.2	20 2.5	20 0.0
25	25 0.0	25 0.0	25 3.2	25 4.2	25 0.0
30	30 0.0	30 0.0	30 3.0	30 4.6	30 0.0
35	35 0.0	35 0.0	35 5.8	35 2.9	35 0.0
40	40 0.0	40 0.0	40 1.4	40 2.6	40 0.1
45	45 0.0	45 0.1	45 6.9	45 0.3	45 0.0
50	50 0.0	50 0.0	50 0.1	50 7.0	50 0.0
55	55 0.1	55 0.0	55 0.0	55 4.9	55 0.0
60	60 0.0	60 0.0	60 0.6	60 0.3	60 0.0
65	65 0.0	65 0.0	65 9.7	65 0.2	65 0.0
70	70 0.0	70 0.1	70 0.2	70 0.2	70 0.0
75	75 0.0	75 0.1	75 0.1	75 0.0	75 0.0
80	80 0.0	80 0.0	80 5.2	80 0.1	80 0.1
85	85 0.0	85 0.0	85 0.2	85 0.0	85 0.0
90	90 0.0	90 0.0	90 3.6	90 0.0	90 0.0
95	95 0.0	95 0.0	95 0.1	95 0.0	95 0.1

X-122

DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

2

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Noranda
SONDAGE: NOR 84-8

DATE: 28-11-84
OPERATEUR: J.B D.M

600	700	800	900	1000	1100
0.1	0.0	0.0	0.0	0.0	0.0
5	5	5	5	5	5
0.0	0.0	0.0	0.0	0.1	0.0
10	10	10	10	10	10
0.0	0.0	0.0	0.0	0.0	0.0
15	15	15	15	15	15
0.0	0.0	0.0	0.0	0.0	0.0
20	20	20	20	20	20
0.0	0.0	0.0	0.0	0.0	0.0
25	25	25	25	25	25
0.1	0.0	0.0	0.0	0.0	0.0
30	30	30	30	30	30
0.0	0.0	0.0	0.0	0.0	0.0
35	35	35	35	35	35
0.0	0.0	0.0	0.0	0.0	0.0
40	40	40	40	40	40
0.0	0.0	0.0	0.0	0.0	0.0
45	45	45	45	45	45
0.0	0.0	0.0	0.0	0.0	0.0
50	50	50	50	50	50
0.0	0.0	0.0	0.0	0.0	0.0
55	55	55	55	55	55
0.0	0.0	0.0	0.0	0.1	0.0
60	60	60	60	60	60
0.0	0.0	0.0	0.0	0.0	0.0
65	65	65	65	65	65
0.0	0.0	0.0	0.0	0.0	0.0
70	70	70	70	70	70
0.0	0.0	0.0	0.0	0.0	0.0
75	75	75	75	75	75
0.0	0.0	0.0	0.0	0.0	0.0
80	80	80	80	80	80
0.0	0.0	0.0	0.0	0.0	0.0
85	85	85	85	85	85
0.0	0.0	0.0	0.1	0.0	0.0
90	90	90	90	90	90
0.0	0.0	0.0	0.0	0.0	0.0
95	95	95	95	95	95
0.0	0.0	0.0	0.0	0.0	0.0

TRC PND
0.0
791

X-122

3

~~Handwritten~~
DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORITA
SONDAGE: NOR-84-8

DATE: 3-17-84
OPERATEUR: J.B D.N

120	0.0
5	0.1
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.1
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.1
80	0.0
85	0.0
90	0.0
95	0.0

130	0.0
5	0.0
10	0.0
15	0.1
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.1
65	0.6
70	3.2
75	0.2
80	0.0
85	0.1
90	0.0
95	0.0

140	0.0
5	0.0
10	0.1
15	0.0
20	0.0
25	0.0
30	0.0
35	0.1
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.1
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

150	0.0
5	0.0
10	0.0
15	0.1
20	0.0
25	0.0
30	0.1
35	0.0
40	0.0
45	0.0
50	0.0
55	0.1
60	0.0
65	0.0
70	0.0
75	0.0
80	0.1
85	0.0
90	0.0
95	0.0

160	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.1
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.8

170	0.9
5	1.7
10	0.9
15	1.6
20	1.9
25	0.1
30	0.1
35	3.0
40	2.2
45	0.2
50	0.1
55	0.1
60	1.1
65	0.0
70	0.1
75	0.0
80	0.1
85	0.0
90	0.0
95	0.0

X-122

DOMINIK

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

(4)

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Noranda

DATE:

11-17-84

SONDAGE:

NOR 84. E

OPERATEUR:

J. B. R. A.

1800	0.0
5	0.0
10	0.0
15	0.0
20	0.2
25	1.7
30	1.1
35	2.3
40	0.7
45	0.3
50	1.0
55	0.2
60	1.1
65	1.4
70	2.6
75	1.5
80	1.1
85	0.1
90	0.0
95	0.0

1900	0.0
5	0.0
10	0.0
15	3.3
20	2.4
25	0.1
30	0.0
35	0.3
40	0.4
45	3.1
50	1.2
55	0.1
60	0.0
65	0.0
70	0.2
75	0.4
80	0.2
85	0.0
90	0.0
95	0.0

2000	0.0
5	0.0
10	0.1
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.0
45	1.6
50	1.6
55	1.6
60	2.7
65	2.2
70	0.3
75	1.5
80	0.9
85	0.0
90	0.0
95	0.0

2100	3.4
5	1.5
10	0.0
15	0.1
20	0.1
25	0.0
30	0.0
35	0.0
40	0.0
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.7
90	0.1
95	0.0

2200	0.0
5	0.1
10	0.2
15	0.2
20	0.1
25	0.0
30	0.0
35	0.0
40	0.2
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.1

2300	0.0
5	0.0
10	0.0
15	0.0
20	0.0
25	0.0
30	0.0
35	0.0
40	0.1
45	0.0
50	0.0
55	0.0
60	0.0
65	0.0
70	0.0
75	0.0
80	0.0
85	0.0
90	0.0
95	0.0

X-122

DOMINIK

5

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Bovita

DATE: 13-12-84

SONDAGE: NO R 84-8

OPERATEUR: J.B

2400	0.0	0	0	0	0	0
5	0.0	5	5	5	5	5
10	0.1	10	10	10	10	10
15	0.1	15	15	15	15	15
20	FIN 2416'	20	20	20	20	20
25		25	25	25	25	25
30		30	30	30	30	30
35		35	35	35	35	35
40		40	40	40	40	40
45		45	45	45	45	45
50		50	50	50	50	50
55		55	55	55	55	55
60		60	60	60	60	60
65		65	65	65	65	65
70		70	70	70	70	70
75		75	75	75	75	75
80		80	80	80	80	80
85		85	85	85	85	85
90		90	90	90	90	90
95		95	95	95	95	95

X-122

Explorations Noranda Limitée
noranda Matagami, Québec

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Profondeur planifiée : 3800-3900' / déclinaison mag utilisée : 14.5°W

LATITUDE : 21+00 S
 LONGITUDE : 37+00 E
 ÉLEVATION : Surface
 DIRECTION : 020°
 PENDAGE AU COLLET : -71°

TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE	TEST ACIDE	TEST TROPARI	PENDAGE	DIRECTION CORRIGÉE
					VOIR ANNEXE						

FEUILLE NO. 1 DE 31

PROPRIÉTÉ : Norita
 à 600' au sud
 CLAIM No. : de 112416-3
 TROU No. : NOR-84-9 /9A
 CAROTTE No. : B.Q.
 DÉBUT LE : 29 novembre 84

PROFONDEUR DU TROU : 3764' NOR-84-9 : 0 -2235'
 NOR-84-9A : 1945-3764' FIN LE : 01 février 85
 (arrêt du 17 déc. au 8 jan.)

PROFONDEUR DE	A	DESCRIPTION MEGASCOPIQUE	ÉCHANT.	DE	A	ANALYSES GEOCHIMIQUES												
0	54.1	Casing.																
0	49.2	No core.																
49.2	426.0	Gabbro. Locally anorthositic gabbro, pyroxenes uralized, trace py and rare cpy. Variable often strong Fe ₂ O ₃ staining and blebs.																
69.1	86.0	Lighter, altered zone, strong pervasive alteration, very little chlorite. Pink Fe oxides + leucoxenes.																

ENTREPRENEUR : Forages St-Lambert Planifié par : Pierre Bernard
 DÉCRIT PAR : John Porritt

ANNEXE TROU NOR-84-9/9A

<u>Test Acide</u>	<u>Test Tropari</u>	<u>Pendage</u>	<u>Direction Corrigée</u>	<u>Coins</u>
79'	.	-69°		No. 1 ← à 320' corriger vers l'ouest ou la gauche du trou
157'	113'	-70°	22.5°	No. 2 ↗ à 403' vers l'ouest ½ et vers en haut ½
289'	266'	-68°	26.5°	No. 3 ↗ à 630' " " " " " "
322'	360'	-69°	23.5°	No. 4 ↗ à 660' " " " " " "
354'		-68.5°		No. 5 ← à 964' vers l'ouest
403'		-68°		No. 6 ← à 1220' " "
423'		-66.5°		No. 7 ← à 1309' " "
492'	418'	-66.5°	20.5°	No. 8 ← à 1945' vers en bas
571'		-66°		"plug" à 1948'
630'	575'	-66.5°	24.5°	No. 9 ↓ à 1968' vers en bas
660'		-68°		No. 10 ↓ à 1988' " "
699'		-65°		No. 11 ↓ à 2007' " "
787'	703'	-63.5°	21.5°	
876'		-61.5°		
964'	893'	-62°		
1102'	1075'	-61°	Nul	
1220'		-60.5°		
1388'		-56.5°	28.5°	
1467'		-58°		
1535'	1519'	-56°	32.5°	
1640'		-55.5°		
1722'		-51°		
1791'		-50°		
1860'		-50°		
2047'	1950'	-49°	Nul	
2215'		-48.5°		
1949'		-46°		
1968'		-45°		
1968 (?)		-42°		
		-41°		
		-38°		
		-35°		
		-40°		
		-41.5°		
		-43.5°		

ANNEXE - suite

<u>Test</u> <u>Acide</u>	<u>Test</u> <u>Tropari</u>	<u>Pendage</u>	<u>Direction</u> <u>Corrigée</u>
1988'		-44.5°	
2037'		-46.0°	
2146'		-45.5°	
2263'		-45.0°	
	2280'	-46.0°	26.0°
2401'		-44.0°	
2490'		-43.0°	
2608'		-42.0°	
	2685'	-42.0°	31.5°
2825'		-39.0°	
3051'		-35.0°	
	3251'	-33.0°	25.0°
3243'		-32.0°	
3445'		-31.0°	
	3580'	-28.0°	25.25°
3642'		-27.0°	

* test au tropari donne toujours 1° de plus que le vrai pendage.

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TERRAIN: Norita

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PAGE: 2

DE	A	DESCRIPTION	ÉCHAN.	DE	A								
91.0	97.0	As above	C.A.	(schistosity)	≅	60°							
136.7	156.3	Mafic dyke, strong talc alteration at contacts and at 142.6'. Chlorite clots throughout ≅10%.	C.A.	≅	30°	(dyke)							
180.0	193.6	Altered zone as before, slight Fe oxide stain, trace V.F.D. pyrite.											
	205.8	Pyrite disseminated in blebs up to 1% locally.	C.A.	≅	45°	(schistosity)							
	212.9	Quartz-carbonate vein ~2" thick.											
226.8	234.1	Altered zone as before.											
293.1	300.0	Altered zone; more Fe oxide rich in upper portion and more yellow-talc alt- in lower portion.	C.A.	≅	35°	(schistosity)							
334.5	344.6	Mafic dyke, chloritic; 334.5-335.2 qtz-cbte vein at dyke contact.	C.A.	≅	50°	(dyke)							

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
355.0	377.2	Smaller diameter core - 355.0 wedge. Less Fe oxide stain after dyke.											
379.0	379.3	Quartz talc veining.											
382.3	390.0	Altered zone, no Fe oxide staining.											
393.6	402.1	Altered zone as above.											
402.1	426.0	Gabbro becoming more Fe oxide staining towards the lower gradational contact into an altered gabbro.											
426.0	504.8	Gabbro or quartz gabbro, in places very felsic but black. No Fe oxide staining, some of the finer grained zones demonstrate pervasive carbonatization and carbonate stringers.											
	403.4	Wedge, 1.6 ft. of black quartz-gabbro repeated.											
438.3*	480.5	Altered zone, green (chloritized) feldspars? with discrete quartz grains. No mafic minerals, no Fe oxide staining.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
441.3	442.2	Relict blocks of more mafic rock (gabbro) invaded by alteration.											
446.1	447.5												
480.5	504.8	More gabbroic, definite chlorite alteration, fine grained, mafics disseminated and not so "clotted" giving darker overall colour.											
504.8	593.1	Alteration bands (3-10 ft.) of: fine grained homogeneous dark green <u>gabbro</u> ; "clotted" epidote alteration in <u>gabbro</u> ; yellow alteration sericite, with quartz-eyes (534.3).											
540.2	540.6	Fe oxide zone.											
593.1	624.7	Fe oxide zone strong epidotization, otherwise same textures and composition to zone of altermity bands above. <u>Gabbro</u>											
	629.7	<u>Wedged</u> - backed off to 624.7.											
624.7	682.3	Alternating Fe oxide and chloritic zones in <u>gabbro</u> .											
682.3	767.0	Fe oxides now more agregated, as blebs of hematite instead of											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		pervasive stain darked rocks, more pyroxenes (uralized).											
728.6	794.3	FeO as stain.											
	772.6	Magnetite +spec.hematite + pyrite in quartz-carbonate veining.	C.A. $\cong 40^\circ$ (vein)										
745.3	767.4	Fine grained dark rock, almost entirely dark plagioclase and quartz, some chlorite.											
794.3	875.7	Alternating iron stained and chloritic bands 1-3 ft.											
	841.2	Disseminated py and spec. hematite to 20%.											
875.7	945.0	More chloritic, schistose; larger qutz-cbte stringers, fine grained texture. Cut by zones of mafic dykes/stringers with associated qtz-cbte veining. These zones most notable at :											
		880.1-884.3											
		897.5-898.3											
		935.1-935.7											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
941.9	943.0	Narrow (<1 mm) thick stringers of pyrite 1-2" long associated with disseminated py + hematite (<1%).											
945.0	1008.2	Coarser grained, <u>gabbroic</u> texture alternating dark green chloritic and Fe oxide stained. Frequent stringers <1 mm X 20-30mm of pyrite + specular hematite (slightly magnetic). Leucoxene blebs to 1 mm. in chloritic portions.											
1008.2	1031.9	Purple stain due to magnetite + specular hematite mix; also trace disseminated py + leucoxene blebs. Magnetic mineral mainly in fractures and shear zones.											
1031.9	1146.2	Very chloritic, leucoxene blebs, but chloritization decreasing; becoming finer grained gradually, towards lower contact. Quartz-carbonate veins at : 1052.2 - 1054.6 - 1064.0	C.A. \cong 45°										
1146.2	1226.8	Contact (flow or settling?) with coarser grained slightly more chloritic material below, gradually becoming darker.											
	1152.0	Becoming more FeO stained.											
	1149.9	Talc shear 2 mm. wide	C.A. 40° (shear)										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
	1175.9	Pervasive Co ₂ alteration.											
1199.1	1201.6	Chloritic zone, broken core, lots of blockages.											
	1220.1	<u>Wedge</u> - backed off 2.5 feet.											
1226.8	1240.3	Becoming more segregated, uralized pyroxenes more "agglomerated" looking.											
		1206.4 Quartz vein 2"											
		1216.6 Quartz vein 1".											
1240.3	1299.2	Becoming finer grained, more uniform, less Fe oxides.											
1299.2	1321.1	Increase in Fe both as O and S Fe oxides staining, + pyrite in fractures + with hematite.											
		Pyrite appears mainly as "boudinized" lenses in an older set of fractures now more or less healed whereas Fe oxides is fresher, sharper, fractures.											
1321.1	1322.5	Contact zone, finer grained, chill margin ?											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
	1321.1	Sharp break in granularity possible slippage.											
	1322.5	Contact with next unit sharp.											
	1308.7	<u>Wedge</u> - back off 2.5 feet.											
1322.5	1346.2	Ash tuff - mafic - but strong chloritization may be misleading. Base of unit defined by 0.4 ft. of quartz veining C.A. (contact) 60°.											
1322.9	1335.3	Uniform chloritized mafic? tuff & rare q.v., lapilli sized cherts of more strongly chloritized material.											
1335.3	1340.3	More coarsely fragmental unit, kink folding, boudinazed quartz veining. At 1335.3 contact boudinazed quartz veining and lapil- li sized breccia fragments (quartz-feldspar comp.). Also a 2 mm. thick grey-green chert/rhyolite horizon at top of sericite alteration zone. Rest of unit contains boudinazed quartz veining.											
1340.3	1346.2	Uniform chloritized mafic? tuff pronounced kink folding at											

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DE	A	DESCRIPTION	ECHAN.	DE	A	Au g/t	Ag	Cu ppm	Zn			
		1345.0; C.A. (schistosity) 65°-70°.										
1346.2	1459.7	Anorthosite, becoming more gabbroic after 1367.7.										
		1346.2-1353.5 - chill zone,										
		1367.7-1392.4 - leucoxene alteration										
		1392.4-1402.2 - Fe oxide stain, very little chloritic alteration or mafic minerals.										
		1392.4-1393.7 - pyrite in cubes disseminated to 1%.										
		1402.2 - more gabbroic in composition, chloritized.										
		1432.3-1433.1 - pyrite in cubes disseminated to 1%. Narrow										
		(1") mafic chloritized fine grained dykes at 1406.9 and 1438.2.										
		1426-1436 - pervasive carbonatization.										
1459.7	1462.2	Felsic dyke, very fine grained, pink (magnesium or iron alteration); green mica (fuchsite?) trace to 1%; pyrite trace, extremely finely disseminated. Pronounced chill margins.	9301M	1459.5	1462.3	0.068	NA	112	NA			
1462.2	1471.2	Gabbroic Anorthosite sill, chloritic; purple, no real chill margin at 1462.2 but trace disseminated pyrite in blebs near this contact.										

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DE	A	DESCRIPTION	ECHAN.	DE	A	Au glt	Ag	Cu ppm	Zn			
1471.2	1485.1	Mafic Intrusive, chloritized, at 1471.2 contact cooked by gabbroic anorthosite.										
		1471.2-1474.8 - feldspars amygdules trace to 2% - cpy at 1471.1, 1485.4, 1490.7.										
1485.1	1490.7	Gabbroic Anorthosite, trace pyrite very finely disseminated throughout, increasing to 1-2% at contact, + disseminated chalcopyrite to 0.5% at contacts.										
1490.7	1501.3	Mafic intrusive, fine grained, chloritic.										
1501.3	1502.4	Gabbroic Anorthosite.										
1502.4	1503.3	Felsic Dyke, similar to 1459.7-1462.2, lightly chloritized + green mineral (fuchsite)	0302M	1502.0	1503.7	---	NA	15	NA			
1503.3	1526.1	Gabbroic Anorthosite, with large feldspar agglomerations; leucoxene alteration.										
1526.1	1529.0	More gabbroic, no Fe oxide stain; chloritized.										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au g/t	Ag g/t	Cu ppm	Zn ppm			
1529.0	1540.6	<u>Gabbroic Anorthosite</u> , Fe oxide stain, 1540.6 chill margin.										
1540.6	1579.3	<u>Gabbro</u> , with Fe oxide stained anorthositic zones. Pyrite and magnetite in fractures and in quartz-carbonate stringers.										
1579.3	1603.3	<u>Layered Anorthositic Gabbro.</u>										
1603.3	1619.5	More felsic, but becoming more pyroxene/chlorite rich near 1619.5.										
1619.5	1655.7	<u>Very felsic intrusive</u> - granite monzonite? 1635.6-1649.4 - sericitic alteration. pyrite cubes very finely disseminated.										
1655.7	1657.0	<u>Intrusive zone</u> - 0.5 feet of light grey quartz and quartz-feldspar stringers followed by 0.4 feet of brecciated felsic intrusive similar to 1502.4-1503.3.	0303M	1655.8	1657.0	5.04	NA	38	NA			
						0.147 oz/t						
1657.0	1664.1	<u>Gabbro</u> , coarse grained, chloritized pyroxenes.										

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DE	A	DESCRIPTION	ECHAN.	DE	A								
1664.1	1715.9	Fe oxide stain, leucoxenes, more felsic.											
1715.9	1730.9	Anorthositic gabbro, some Fe oxide stain, pervasive carbonatization.											
1730.9	1736.8	Felsic dyke + qtz veining, slight chlorite alteration, schistose, green speckled C.A. (schistosity) 40°.											
1736.8	1808.0	Gabbro, variable to quartz-gabbro fine to medium grained.											
1808.0	1819.0	Coarse cumulus textured gabbro.											
1819.0	2167.5	Granophyre - granulometry obliterated by strong chloritization chlorite schist. C.A. (schistosity) 50°.											
1841.6	1849.2	Shear zone, highly altered, associated with coarser grained gabbro sill.											
1850.3	1852.4	Lapilli looking, but possibly just brecciation of granophyre. Leucoxenes.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
1894.2	1894.6	As above, very hard, leucoxenenes.											
1900.0	1929.5	Cumulus texture, chloritic.											
	1929.5	Return to granophyre, local agglomerations of feldspars, and blebs of pyrite and po to 1".											
2022.1	2023.4	Rhyolitic dyke, dark, chloritic, homogeneous, disseminated pyrite throughout.											
2042.4	2043.8	As above.											
2045.7	2086.1	As above but very thick unit - rhyolitic, very little pyrite.											
2086.1	2189.7	Gradational contact into more chloritized granophyre, cumulus textures at 1926.5 py + po in larger blebs.											
2164.8	2167.5	Lighter, talc alteration in patches.											
2189.7	2212.5	Highly sheared zone, especially at 2191.8-2192.4.											

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DE	A	DESCRIPTION	ECHAN.	DE	A								
2212.5	2235.6	<u>Lapilli tuff</u> or rhyolitic, moderate to strong chloritization.											
		C.A. (schistosity) 60°.											
	2235.6	END OF HOLE NOR-84-9.											
		HOLE NOR-84-9A											
1945.8	2055.5	<u>Granophyre</u> , weak chloritization											
		2025.4-2027.3 - dyke,											
		2042.0-2042.9 - dyke.											
2055.5	2202.0	<u>Granophyre</u> , mod-strong chloritization, increasing cumulus texture.											
2202.0	2227.7	<u>Lapilli tuff</u> , mafic frags predominant & felsic frags.											
2227.7	2235:7	Shear zone, strong chlorite/talc alteration, poor core recovery : 2228.7-2230.2) lost core											
		2232.4-2234.5)											

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TROU No: NOR-84-9A

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	WRA	TS	
2235.7	2355.7	Lapilli tuff, moderate to strong chloritization after 2284.3										
		becoming more talc rich & schistose C.A. (schistosity) 55-60°.										
		2288.0-2290.7 - gabbro dyke, coarse grained uniform.										
		2303.9-2305.4 - felsic dyke, chlorite 1 mm. clots, talc alteration.										
		2347.8-2355.7 - fewer clasts, more uniform, pyrite in blebs, locally to 1%.										
2355.7	2444.0	Lapilli tuff, variable chloritized.	0304M	2366.4	2366.9						X	
		2355.7-2374.2 - lighter grey, rhyolitic composition										
		2374.2-2398.0 - more chloritic										
		2398.0-2416.3 - lighter grey, as at 2355.7										
		2416.3-2444.0 - more chloritic, fewer lapilli	0305M	2421.5	2423.0	0.034	NA	768	59			
		2421.5-2423.0 - zone of quartz stringers 1-25 mm with massive py + trace 1% cpy.										
2444.0	2522.1	Ash tuff, very few lapilli, more chloritic alteration but smoother, harder.	0306M	2463.0	2463.7						X	
		2496.0-2499.3 - felsic dyke.	0307M	2496.0	2499.3	----	NA	35	NA			
		Increasing lapilli fraction to 2522.1										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
		Also 1 mm. bands of py in schistosity all through section.										
		Moderate to strong chloritization.										
		2644.8-2646.0 - Po: 5-10% as above, locally massive, Cpy :	0311M	2644.8	2646.0	---	4	590	1195			
		Tr - 1%.										
		2647.6-2648.4 - as above.	0312M	2647.6	2648.4	0.034	4	705	1083			
		2683.7-2685.0 - Po more "rolled-up" style and in stringers.										
2685.8	2713.6	Lapilli tuff, much less chloritized, more strongly banded;										
		no more sulphides, except rare pyrite cubes in zones <1 mm.										
		thick in schistosity. C.A. (schistosity) $\cong 50^\circ$.										
		2695.0-2698.5 - felsic dyke sericitized										
		2689.0-2692.0 - tension gashes (late) carbonatized; at 30° to										
		schistosity after 2704.0 becoming more chloritic.										
2713.6	2717.0	Gabbro dyke with associated barren q.v.										
2717.0	2800.6	Mafic ? ash tuff, few lapilli fragments, quartz stringers										
		boudinized in schistosity. Occasional 1 mm. zones of barren										
		sulphides; moderate to strong chloritization										
		2745.3-2782.9 - slightly less chloritization; uniform ash tuff										

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DE	A	DESCRIPTION	ECHAN.	DE	A	Au	Ag	Cu	Zn	WRA	TS	
		or flow, blue quartz amygdules rare throughout 2-5 mm. diameter. Very little quartz veining, rare sulphides usually in stringers. + < 1 mm. spherules throughout.										
		2782.9-2784.7 - barren quartz stringers.										
2800.6	2842.9	Banded tuff or flow, spherulitic. At 2824.1 quartz stringer zone 0.4 ft. with associated disseminated pyrite < 1%	0313M	2820.9	2821.4					X		
		2835.3-2835.6 - very fine grained slightly chloritic intrusive dyke, mafic										
		2839.0-2839.5 - dyke.										
2842.7	2843.5	Fault breccia zone and associated quartz veining, strongly chloritic.										
2843.5	2865.5	Tuff, strongly chloritized, spherulitic, towards 2865.5 leucoxene, less chloritized.										
		2853.6-2855.3 - broken core + quartz veining.										
2865.5	2882.2	Flow, more leucoxene stars, chloritic										
		2878.3-2882.2 - blue quartz eyes.										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	WRA	TS	
2882.2	2883.7	<u>Felsic dyke</u> , chloritization to grey-green.										
2883.7	2891.1	<u>Flow</u> , moderately chloritized, uniform, blue quartz eyes, leucoxenes.										
2891.1	2897.0	More <u>tuffaceous</u> -looking, moderate chloritization, spherulitic no leucoxenes or qtz eyes.										
2897.0	2970.0	<u>Rhyolite tuff</u> or banded flow very chloritic, siliceous bands 1 mm. alternating with 5 mm. silica bands.	0314M	2907.7	2909.7	0.068	3	3100	458			
		Sulphides beginning to appear more strongly as disseminations	0315M	2915.1	2918.8	0.034	2.5	3215	496			
		in schistosity, but more and more predominantly as small	0316M	2921.4	2923.3	---	1.5	2280	166			
		(1 mm) stringer associated with quartz. Mineralization as po	0317M	2933.9	2934.3					X		
		with trace cpy locally to 2%.	0318M	2935.0	2937.4	---	1.5	535	7550			
		Rhyolite tuff becoming more spherulitic towards 2954.3, then	0319M	2941.0	2942.8	---	1.5	565	9550			
		abruptly returning to uniform banded rhyolite as above.	0320M	2942.8	2945.7	0.034	1	137	3015			
		After 2954.3 becoming more vesicular rhyolite, possibly	0321M	2948.5	2951.8	---	4	2735	18600			
		flow.	0322M	2951.8	2954.3	0.034	1.5	1120	640			
		Mineralization po, py, sp, & cpy, in stringers and in	0323M	2954.3	2957.9	---	1	488	424			
		schistosity.	0324M	2957.9	2961.2	---	1	212	10800			

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm	WRA	TS
			0325M	2961.2	2965.0	0.068	1	200	5335		
2970.0	3004.5	Vesicular rhyolite flow contact not defined over 1 foot.	0326M	2977.5	2981.9	---	3.5	1560	1370		
		Amygdules common; continuation of similar stringer sulphide	0327M	2981.9	2985.4	---	1.5	480	1990		
		mineralization. Within unit, mineralization often in patches	0328M	2985.4	2986.9	---	2	232	2200		
		in strongly chloritic zones at possible flow interfaces.	0329M	2992.0	2993.9	0.514	14	13300	95500		
		Mineralization increases up to these interfaces then seems	0330M	2993.9	2998.7	---	2	464	9700		
		to drop off temporarily.	0331M	2998.7	3000.5	1.58	3	386	65550		
			0332M	3000.5	3004.5	---	6	224	4475		
3004.5	3066.5	Intermediate tuff or flow ? leucoxene alteration weak but	0333M	3020.2	3024.3	---	2	421	3778		
		pervasive. Sulphides throughout, disseminated and in thin	0334M	3026.7	3032.1	0.034	3.5	1540	6430		
		stringers. Strong chloritization.	0335M	3032.1	3037.1	---	1.5	320	325		
		3045.0-3047.3 - gabbro dyke, fine grained.	0336M	3037.1	3041.5	---	1.5	328	585		
		After 3060.2 becoming more chloritized + schistose + black +	0337M	3041.5	3045.0	0.034	2	1040	535		
		talc rich.	0338M	3047.3	3049.1	---	1.5	183	540		
		Rare disseminated and stringers cpy and py.									
3066.5	3174.0	Chlorite /talc rock : black, soapy, original texture almost									
		obliterated but when core cut, lapilli tuff or smooth surface.									
		Rare cpy + py mineralization in stringers parallel to schistosity.	0339M	3073.2	3075.0	---	NA	NA	NA		

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
		C.A. (schistosity) 70°.											
		3105.0 - 10 mm. band of pyrite shows curious sedimentary feature: Imbrication ??											
		3107.3-3109.4 - variolitic unit; very strongly chloritized (black) 5 mm. blebs.											
		3109.4-3118.0 - spherule rich bands in otherwise very chloritic rock.											
		3118.0-3118.9 - talc rich cherty ? zone, brown, + pyrite stringers in schistosity talc becoming predominant towards 3118.9.											
		3137.4-3146.3 - tuff, black, strongly chloritized, with lapilli-sized fragments of spherulitic texture fine + medium grained, which seem to have been reworked into the chloritic tuff as clasts.											
		3161.8-3165.0 - <u>gabbro dyke</u> or sill											
3174.0	3183.9	Ash tuff? moderately chloritic, not a sharp contact at 3174.0, some lapilli fragments.											
		From about 3178 rock becomes strongly and pervasively carbonatized.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
3183.9	3266.2	Lapilli tuff, rhyolitic-dacitic composition	0340M	3183.9	3189.3	---	2	540	1325			
		3183.9-3198.8 - variolitic flow ?? py + cpy + rare sp as thin	0341M	3189.3	3193.1	---	2	239	6480			
		stringers in schistosity but more predominantly as thicker	0342M	3193.1	3198.8	0.034	2.5	132	5725			
		beds with definite sedimentary features.										
		3232.8-3251.1 - quartz eyes? pyrite in schistosity to 1%.										
		3251.1-3253.7 - chert bands, 2" thick. Continued strong per-										
		vasive carbonatization.										
		3255.7-3266.2 - quartz eyes.										
3266.2	3328.7	This section is strongly mineralized and is a very complex										
		sequence of rhyolitic flows, welded ash flows, tuffs, and										
		chert breccia.										
3266.2	3267.3	Becoming abruptly more sulphide rich. Moderate chloritization	0343M	3266.2	3267.3	0.034	2.5	79	346			
		of lapilli tuff/agglomerate: chert, rhyolite flow fragments										
		>1". Py + po to 10%.										
3267.3	3268.8	Rhyolite welded ash flow, amygdaloidal + chert clasts, weakly										
		mineralized py + po <1%.										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
3268.8	3271.4	Back to lapilli tuff, uniform, po in stringers.										
3271.4	3273.9	Ash tuff + chert layers, brecciated. Mineralization stratiform po and rare cpy 15%. Some stringer sulphides associated with qtz-cbte veining also.	0344M	3271.4	3273.9	---	2.5	222	1210			
3273.9	3274.5	Brecciated chert, with po/py mud invading? brecciation, highly contacted, with later po + cpy stringers cutting both clasts and groundmass. The po/py mud seems to act as a matrix in this unit.	0345M	3273.9	3274.5	---	2.25	653	166			
3274.5	3276.6	Chloritic ash/lapilli tuff, some po/py mud, also po and py in qtz-cbte stringers.	0346M	3274.5	3276.6	0.034	2.5	145	560			
3276.6	3278.5	Welded tuff-ash flow-rhyolitic; 2 mm. blebs of pyrite throughout. Amygdaloidal.										
3278.5	3280.0	Return to strong chlorite/talc alteration of lapilli tuff, with po mud.	0347M	3278.5	3280.0	---	3	103	945			

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DE	A	DESCRIPTION	ECHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
3280.0	3281.2	Amygdaloidal rhyolite flow, uniform grey-green, no visible sulphides.										
3281.2	3281.6	Interflow seds ? sericite zone with chloritic lapilli? no sulphides. Sericitization becoming stronger at the expense of chloritization.										
3281.6	3287.3	Amygdaloidal rhyolite flow, quartz vescicles sulphides (py) in fractures near upper surface.										
3287.3	3287.8	Interflow seds - sericite, pyrite mud stratiform with tuff 5-10%.										
3287.8	3291.3	Rhyolite flow, more qtz-carbonate stringers than before, disseminated pyrite throughout.										
3291.3	3294.8	Lapilli tuff, moderate chloritization pyrite and sulphide: as blebs (lapilli shaped), reworked, or as brecciated stratiform horizons 2-3 mm thick (5-10% py).	0348M	3291.3	3294.8	---	2.5	39	214			

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
3294.8	3295.8	Welded ash flow, rhyolitic, white-grey, with vesicles. Flow banding in core of flow evident. Highly mineralized, py + sp in massive lumps 1-2" thick ancraging 20-30% of the unit. Also trace - 1% finelydisseminated pyrite.	0349M	3294.8	3295.8	---	4	362	34400			
3295.8	3296.6	Uniform grey quartz phenocryst rhyolite flow, + chlorite filled amygdules. One 3 mm. blebs of sphalerite observed.	0350M	3295.8	3297.1	0.034	1	22	1735			
3296.6	3297.1	Spherulitic zone - possibly flow top of previous unit. Trace - 1% py disseminated.										
3297.1	3297.6	Highly mineralized zone - chert mud. Mineralization as two types : 1) very definite pyrite mud, 2) a more net textured or filiform pyrite and sphalerite. 75% sulphides, of which 30% sp and 70% py.	0351M	3297.1	3297.6	0.034	4.5	355	77250			
3297.6	3298.7	Another ash flow/welded rhyolite tuff. Quartz vesicles. Some primary chert fragments contained in tuff. Mineralization mainly disseminated pyrite.	0352M	3297.6	3298.7	---	1.5	66	1690			

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au ppm	Ag ppm	Cu ppm	Zn ppm			
3298.7	3299.8	Sedimentary unit - <u>chert</u> , brecciated, cut by qtz-cbte veining.	0353M	3298.7	3299.8	---	5	785	84500			
		Pyrite mud stratiform and disseminated. Sphalerite as "net" texture as opposed to disseminated.										
3299.8	3299.9	Flow banded rhyolitic; ash ball, unmineralized, no chill margins.										
3299.9	3300.7	"High energy sedimentary zone": brecciated chert fragments, tuff agglomerats, and quartz stringers. Mineralization py+ sp 10%, locally massive, sp as "net texture" only, not in bedding, ie : cross cutting instead of stratiform. sp \geq 30% of sulphides.	0354M	3299.9	3300.7	0.034	2.5	303	15450			
3300.7	3301.1	Another flow-banded vesicular ash ball tuff (rhyolitic), unmineralized.										
3301.1	3302.1	Breccia zone, as at 3299.9, but no sphalerite seen, only pyrite ~3%. Most mineralization (stratabound) seen up to now is past chert formation and <u>pre</u> tuff exhalation (sphalerite).										

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
3302.1	3303.1	Still brecciated, but higher percentage of chert fragments, pyrite only; in broken-up mud fragments and as disseminations.											
		15% py, mainly in 3-5 mm. blebs.											
3303.1	3306.4	Rhyolitic flow or tuff, weakly mineralized (pyrite only) in bands amygdules + small chert fragments.											
3306.4	3308.2	Much more flow-like, vesicular, basal 0.2 feet looks like a flow breccia with blebs of silica rimmed by pyrite approximately 1". Above, a vesicular flow, flow banding, contorted, with pyrite lenses and aggregates near top (from 3307.9-3308.2).											
3308.2	3309.9	Rhyolite tuff or flow, amygdules, chert fragments, trace disseminated pyrite.											
3309.9	3310.5	Rhyolite flow or ash flow, vesicles stretched by flowing, flow banding, barren.											
3310.5	3311.1	Rhyolite flow at basal contact brecciation, + pyrite blebs. A few clasts of (3309.9-3310.5) material.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
3311.1	3314.4	Moderate to strong chloritic rhyolite <u>lapilli tuff</u> . Very sedimentary looking pyrite disseminated in layering. Thicker pyrite bands brecciated by stretching pyrite 5-10%.											
3314.4	3315.4	Vesicular <u>rhyolite flow</u> , as before.											
3315.4	3328.7	<u>Lapilli tuff</u> , tuff agglomerate, mainly angular to rounded chert fragments. Pyrite as brecciated sedimentary lenses											
		3316.5-3316.8 - <u>vesicular rhyolite tuff flow</u> .											
		3318.2-3319.3 - <u>vesicular rhyolite ash flow</u> "dirtier" than above, brecciated chert clasts, flow banding.											
		3320.2-3321.1 - <u>vesicular rhyolite ash flow</u> .											
		3323.3-3324.8 - <u>vesicular rhyolite ash flow</u> rare bands of pyrite and some chert clasts.											
		- Strong pervasive carbonatization from here on -											
3328.7	3335.8	Sericitic intermediate ? <u>flow</u> .											
3335.8	3343.5	<u>Ash tuff</u> , very sedimentary looking, strongly chloritic locally; contains chert breccia fragments + pyrite band.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A								
3343.5	3351.6	Rhyolite flow? or very uniform ash tuff. Strongly chloritized, green, spherulitic, becoming grey-green + trace dissem. pyrite towards top.											
3351.6	3364.1	Darker green unit - tuff or flow ?											
3364.1	3364.9	Amygdaloidal flow.											
3364.9	3390.0	Rhyolite flow, spherulitic, with local amygdaloidal zones. Some fine disseminated pyrite near the top of unit in what were once cross-cutting stringers but have been repositioned into the plane of schistosity, giving an imbricate, or an echelon texture.											
3390.0	3406.8	Repeated flow sequence of similar green chloritized rhyolitic material.											
3409.4	3410.1	Grey-brown rhyolitic flow massive carbonatization pervasive as for enclosing units, amygdaloidal, trace very finely disseminated pyrite throughout.											

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au	Ag	Cu	Zn	WRA	TS	
3410.1	3416.7	Return to more chloritic - gabbroic <u>flow?</u> or <u>tuff?</u>										
3416.7	3436.9	<u>Gabbro</u> - uralization of pyroxenes not carbonatized.										
3436.9	3521.5	<u>Rhyolite</u> , uniform grey/Bell Channel Rhyolite. Strong pervasive carbonatization.										
3521.5	3527.8	<u>Gabbro</u> , pyroxenes chloritized cumulus texture - looks like a mugearite. Bottom contact not sharp, no chill border, top contact gradational with overlying rhyolite. Carbonate alteration pervasive.										
3527.8	3536.8	<u>Rhyolite</u> (Bell Channel), repeated flows, chloritized.										
3536.8	3687.6	Lighter, coarser grained <u>gabbro</u> , (mugearite?) trace disseminated pyrite, no carbonate alteration.	0355M	3601.4	3601.5						X	
3687.6	3691.0	<u>Gabbro</u> , contact (3691) well defined but no chill margin.	0356M	3690.0	3690.2						X	
3691.0	3714.0	<u>Rhyolite ash tuff</u> , uniform, becoming increasing spherulitic	0357M	3693.0	3697.5	-----	1.5	438	1140			

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DE	A	DESCRIPTION	ÉCHAN.	DE	A	Au	Ag	Cu	Zn	WRA	TS	
		towards (3714) contact										
		3694.2 - distinct bedding	0358M	3697.5	3702.0	----	2	347	918			
		3693.0-3702.0 - po lenses (1-2%) mainly as stringers at angle to bedding + rare cpy.										
3714.0	3764.0	Rhyolite tuff, black, very siliceous and fine grained, called intrusive by A. Bonenfant. Contains rare 1" clasts of more or less chloritic rock, lath shaped feldspar phenocrysts, variably spherulitic. Barren.	0359M	3743.1	3743.2						X	
		3745.0-3746.0 - barren qtz veining, whit some Fe oxide stain.										
	3764.0	END OF HOLE.										

ST-LAMBERT

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

1

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Noranda

DATE:

30-11-84

SONDAGE:

NOR 84.9

OPERATEUR:

J.B D.N

0		10.0	0.6	20.0	0.6	30.0	0.0	40.0	0.0	50.0	0.0
5		5	0.0	5	0.0	5	0.0	5	0.0	5	0.0
10		10	0.0	10	0.0	10	0.0	10	0.0	10	0.0
15		15	0.0	15	0.2	15	0.0	15	0.0	15	0.0
20		20	0.0	20	0.2	20	0.7	20	0.0	20	0.0
25		25	0.0	25	0.0	25	1.0	25	0.0	25	0.0
30		30	0.0	30	0.7	30	0.0	30	0.1	30	0.0
35		35	0.0	35	0.3	35	0.0	35	0.0	35	0.1
40		40	0.0	40	0.0	40	0.0	40	0.1	40	0.1
45		45	0.0	45	0.0	45	0.0	45	0.1	45	0.0
50		50	0.0	50	0.0	50	0.0	50	0.0	50	0.0
55		55	0.0	55	0.0	55	0.0	55	0.0	55	0.0
60		60	0.0	60	0.0	60	0.0	60	0.0	60	0.0
65		65	0.0	65	0.0	65	0.0	65	0.0	65	0.0
70		70	0.0	70	0.1	70	0.0	70	0.0	70	0.0
75		75	0.0	75	0.1	75	0.0	75	0.0	75	0.0
80		80	0.0	80	0.0	80	0.0	80	0.1	80	0.0
85		85	0.0	85	0.1	85	0.0	85	0.0	85	0.0
90		90	0.0	90	0.0	90	0.0	90	0.0	90	0.0
95		95	0.0	95	0.1	95	0.1	95	0.0	95	0.0

TROPHI 113'

WEDGE 321'

WEDGE 403'

TROPHI 15 413'

TROPHI 75 575.5'

CEASING 49.2

X-122

ST-LAMBERT

2

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: NORANDA
SONDAGE: NOR-84-9

DATE: 6-12-84
OPERATEUR: J.B. DN

-3-
WEDGE

-4-
WEDGE

-5-
WEDGE

60	0.0	70	0.5	80	0.0	90	0.0	100	0.0	110	0.0
5	0.0	5	0.1	5	0.3	5	0.0	5	0.0	5	0.0
10	0.5	10	0.9	10	0.16	10	0.0	10	2.1	10	0.0
15	0.0	15	0.0	15	0.2	15	0.0	15	0.5	15	0.0
20	0.0	20	0.0	20	0.3	20	0.0	20	0.4	20	1.1
25	0.0	25	0.2	25	0.4	25	0.0	25	0.9	25	3.2
30	0.0	30	0.3	30	0.0	30	0.0	30	0.5	30	0.1
35	0.0	35	0.5	35	0.0	35	0.0	35	0.0	35	0.1
40	0.0	40	0.4	40	0.0	40	0.7	40	0.0	40	0.2
45	0.3	45	0.1	45	0.1	45	0.0	45	0.0	45	0.0
50	0.0	50	1.1	50	0.0	50	0.0	50	0.0	50	0.1
55	0.0	55	1.1	55	1.1	55	0.0	55	0.0	55	0.0
60	0.0	60	0.1	60	0.0	60	0.0	60	0.0	60	0.5
65	0.3	65	0.7	65	0.0	65	1.5	65	0.0	65	0.1
70	0.0	70	0.3	70	0.0	70	0.0	70	0.0	70	0.0
75	0.0	75	0.1	75	0.3	75	0.0	75	0.0	75	0.0
80	0.0	80	0.8	80	0.2	80	0.0	80	0.0	80	1.6
85	0.0	85	0.0	85	0.2	85	0.0	85	0.0	85	1.2
90	0.0	90	0.0	90	0.3	90	0.8	90	0.0	90	1.0
95	1.1	95	0.4	95	0.0	95	1.1	95	0.0	95	0.0

X-122

ST-LAMBERT

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

3

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Norita
SONDAGE: NOR 84-9

DATE: 11-12-84
OPERATEUR: J.B

1200	0.0	1300	0.2	1400	0.0	1500	0.0	1600	0.1	1700	0.5
5	0.0	5	0.4	5	0.0	5	0.0	5	0.0	5	0.8
10	0.1	10	0.3	10	0.9	10	0.0	10	0.0	10	0.2
15	0.4	15	0.0	15	0.0	15	0.0	15	0.0	15	0.0
20	0.2	20	0.0	20	0.0	20	0.1	20	0.0	20	0.2
25	0.1	25	0.0	25	0.0	25	0.1	25	0.0	25	0.3
30	0.3	30	0.0	30	0.0	30	0.0	30	0.0	30	3.2
35	0.1	35	0.0	35	3.5	35	0.0	35	0.0	35	0.3
40	0.2	40	0.1	40	0.0	40	0.0	40	0.0	40	0.2
45	0.1	45	0.1	45	2.6	45	0.0	45	0.0	45	0.3
50	0.3	50	0.0	50	0.0	50	0.0	50	0.0	50	0.3
55	0.2	55	0.0	55	0.0	55	0.0	55	0.0	55	0.0
60	0.1	60	0.0	60	0.0	60	0.0	60	0.0	60	0.0
65	0.1	65	1.8	65	0.1	65	0.0	65	0.0	65	0.0
70	0.2	70	0.0	70	3.5	70	0.4	70	0.3	70	0.0
75	0.1	75	0.0	75	0.0	75	0.0	75	0.9	75	0.1
80	0.0	80	0.0	80	0.0	80	0.5	80	0.1	80	0.1
85	4.5	85	0.0	85	0.0	85	0.2	85	1.4	85	0.0
90	0.2	90	3.5	90	0.0	90	0.3	90	0.5	90	4.6
95	0.0	95	0.7	95	0.0	95	2.5	95	0.3	95	4.2

-7' WEDGE

-6' WEDGE

TRAPPIER

X-122

ST-LAMBERT

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

4

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Noranda

DATE:

10-1-85

SONDAGE:

NOR 84.9

OPERATEUR:

J.B

1500	3.3	1900	0	2000	0	0.1	2100	0	0.3	2200	0	0	2300	0
5	0.3	5	0.1	5	0	0	5	0	0.2	5	0	0	5	0
10	0.3	10	0	10	0.1	0	10	0	0	10	0	0	10	0
15	0.0	15	0	15	0	0	15	0	0	15	0	0	15	0.1
20	0.3	20	0	20	0	0	20	0.9	0	20	0	0.1	20	0
25	0.4	25	0	25	0	0	25	1.6	0.4	25	0	0	25	0
30	0.4	30	0	30	0	0	30	1.5	0.4	30	0	0	30	0
35	0.0	35	0	35	0.0	0	35	1.8	1.3	35	0.2	0	35	0
40	0	40	0	40	0	0	40	2.7	2.6	40	0	0	40	0
45	0	45	0.1	45	0	0	45	2.5	3.7	45	0	0	45	0
50	0	50	0.1	50	0.1	0.2	50	0	0.6	50	0	0	50	0
55	0	55	0	55	4.4	0	55	0	2.1	55	0	0	55	0
60	0	60	0	60	0.4	1.0	60	0	0	60	0.1	0	60	0.1
65	0	65	0	65	11.0	0.3	65	0	0	65	0	0	65	0
70	0	70	0	70	0.8	0.4	70	0	0.1	70	0	0	70	0
75	0	75	0.1	75	5.6	0.2	75	0	1.7	75	0	0	75	0.1
80	0	80	0	80	0.1	0.3	80	0	0	80	0	0	80	0
85	0	85	0	85	0.0	0.3	85	0	0.2	85	0	0	85	0
90	0	90	0	90	0.1	0.2	90	0	0	90	0	0	90	0
95	0	95	0	95	0	0.3	95	0	0	95	0	0	95	0.1

WEDGE
2,007

TROPIC
TEST

WEDGE
-8-

WEDGE

WEDGE
-4-
1968

WEDGE
-10-
1988

TROPIC
TEST

ST-LAMBERT

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

5

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Norita
SONDAGE: NOR 84,9A

DATE: 21-1-85
OPERATEUR: JB

2400	2500	2600	PROPRIETE TEST	2700	2800	2900
0	0.1	0		0.1	0	0
5	0	0.1		0	0.1	0.2
10	0.1	0		0	0	0
15	0	0		0	0	0
20	0	0		0	0	0
25	0	0.1		0	0.1	0
30	0.1	0		0.1	0.1	0
35	0	0.1		0.1	0	0
40	0.1	0		0	0	0
45	0.1	0		0	0	0
50	0	0.1		0.1	0	0
55	0	0.1		0	0	0
60	0	0		0	0	0
65	0	0		0.1	0	0
70	0	0.1		0	0	0
75	0	0		0	0	0
80	0.1	0		0	5.2	0
85	0	0		0	6.5	0
90	0	0		0	2.3	0
95	0	0		0	0.1	0

D-122

6

ST-LAMBERT

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE:

Noranda

DATE:

28-1-85

SONDAGE:

NOR 84.9A

OPERATEUR:

D.B

3000	0.1	3100	0	3200	0	3300	0	3400	0	3500	2.2
5	0	5	0	5	0	5	0.1	5	0	5	0.6
10	0	10	0.1	10	0.2	10	0.1	10	0	10	1.2
15	0.1	15	0	15	0.1	15	0	15	0.1	15	0.2
20	0	20	0.1	20	0	20	0	20	0	20	0.2
25	0	25	0.2	25	0.1	25	0	25	0	25	0
30	0.1	30	0	30	0	30	0.1	30	0	30	3.9
35	0	35	0	35	0	35	0	35	0	35	0
40	0	40	0	40	0	40	0	40	5.8	40	0
45	0	45	0	45	0	45	0	45	3.3	45	0
50	0	50	0	50	0	50	0	50	1.5	50	0
55	0	55	0	55	0	55	0	55	2.6	55	0
60	0	60	0	60	0	60	0	60	2.3	60	0
65	0	65	0.1	65	0	65	0.1	65	0	65	0
70	0	70	0	70	0.1	70	0	70	2.0	70	0
75	0	75	0	75	0	75	0	75	0	75	0
80	0	80	0	80	0	80	0	80	0	80	0
85	0.2	85	0	85	0	85	0	85	0	85	0
90	0	90	1.5	90	0	90	0	90	0.9	90	0
95	0	95	0	95	0	95	0	95	0.4	95	0

TYPING TEST →

TYPING TEST →

D-122

ST-LAMBERT

EXPLORATIONS NORANDA LIMITEE
MATAGAMI, QUEBEC

7

SUSCEPTIBILITE MAGNETIQUE

PROPRIETE: Novita
SONDAGE: NOR 84-9A

DATE: 1-02-85
OPERATEUR: J.B

3600	0	3700	0.2	3800		3900		4000		4100	
5	0	5	1.0	5		5		5		5	
10	0.1	10	1.0	10		10		10		10	
15	0.2	15	1.0	15		15		15		15	
20	0.1	20	2.3	20		20		20		20	
25	0.1	25	1.8	25		25		25		25	
30	1.0	30	0.1	30		30		30		30	
35	0.2	35	1.0	35		35		35		35	
40	0.2	40	0.6	40		40		40		40	
45	0.1	45	1.0	45		45		45		45	
50	0.1	50	0	50		50		50		50	
55	1.0	55	0.2	55		55		55		55	
60	1.0	60	0.6	60		60		60		60	
65	1.0	65	FIN	65		65		65		65	
70	1.0	70		70		70		70		70	
75	1.0	75		75		75		75		75	
80	1.0	80		80		80		80		80	
85	0.2	85		85		85		85		85	
90	0.2	90		90		90		90		90	
95	0.6	95		95		95		95		95	

METRE
1147.5

PIEDS
3763.8

D-122

NOREX D-122

DEPARTMENT OF MINES

GEOCHEMICAL TRACE ELEMENT INVESTIGATION

DATE Feb 15/85

DRIFT/LOCATION	AU OZ/T	AG G/TM	CU PPM	ZN PPM	AG PPM	NI PPM	PB PPM	FE %	CAO %	MGO %	NA ₂ O %	K ₂ O %
0315-17	.001	.034	3215	496	2.5							
16	---	---	2280	166	1.5							
18	---	---	535	7550	1.5							
19	---	---	565	9550	1.5							
20	.001	.034	137	3015	1.0							
21	---	---	2735	18600	4.0							
22	.001	.034	1120	640	1.5							
23	---	---	488	424	1.0							
24	---	---	212	10800	1.0							
25	.002	.068	200	5335	1.0							
26	---	---	1560	1370	3.5							
27	---	---	480	1990	1.5							
28	---	---	232	2200	2.0							
29	.015	.514	13300	95500	14.0							
30	---	---	464	9700	2.0							
31	.046	1.58	386	65550	3.0							
32	---	---	224	4475	6.0							
33	---	---	421	3774	2.0							
34	.001	.034	1540	6430	3.5							
35	---	---	320	325	1.5							
36	---	---	328	585	1.5							
37	.001	.034	1040	535	2.0							

[Handwritten signature]

NOREY O-122

DIVISION NATAGAMI

GEOCHEMICAL TRACE ELEMENT INVESTIGATION

DATE Feb 18/85

CHAMPION	AU OZ/T	AG GR/Tn	AG PPM	CO PPM	ZN PPM	NI PPM	Pb PPM	Fe %	CaO %	MgO %	Na ₂ O %	K ₂ O %
0343-M	.001	.034	2.5	79	346							
44	---	---	2.5	222	1210							
45	---	---	2.25	653	166							
46	.001	.034	2.5	145	560							
47	---	---	3.0	103	945							
48	---	---	2.5	39	214							
49	---	---	4.0	362	34400							
50	.001	.034	1.0	22	1735							
51	.001	.034	4.5	355	77250							
52	---	---	1.5	66	1690							
53	---	---	5.0	785	84500							
54	.001	.034	2.5	303	15450							
357-M	---	---	1.5	438	1140							
58	---	---	2.0	847	918							
3000-M	.001	.034		313								
						← NOR-84-7						

[Handwritten Signature]

WHOLE ROCK ANALYSIS

VOIR AVEC NOR-84-6

Explorations Noranda Limitée
(Libre de Responsabilité Personnelle)
C.P. 1270
Matagami, Québec J0Y 2A0

noranda

RAPPORT DE SONDAGES

TROUS NOR-84-2 A NOR-84-9

PROPRIETE NORITA, MATAGAMI, P.Q.

PARTIE 3 : PLANS ET SECTIONS

Ministère de l'Énergie et des Ressources
Service de la Géoinformation
Date 27 SEP. 1985
No. d'inv. 42318



Le 13 mai 1985
Matagami, Québec

P. Bernard
Géologue de Projet

LAC
MATAGAMI

RAPIDES
DE L'ANSE



RIVIÈRE

NORITA

B.M. 652

FORT
GEORGE

RUISSEAU

LALANNE

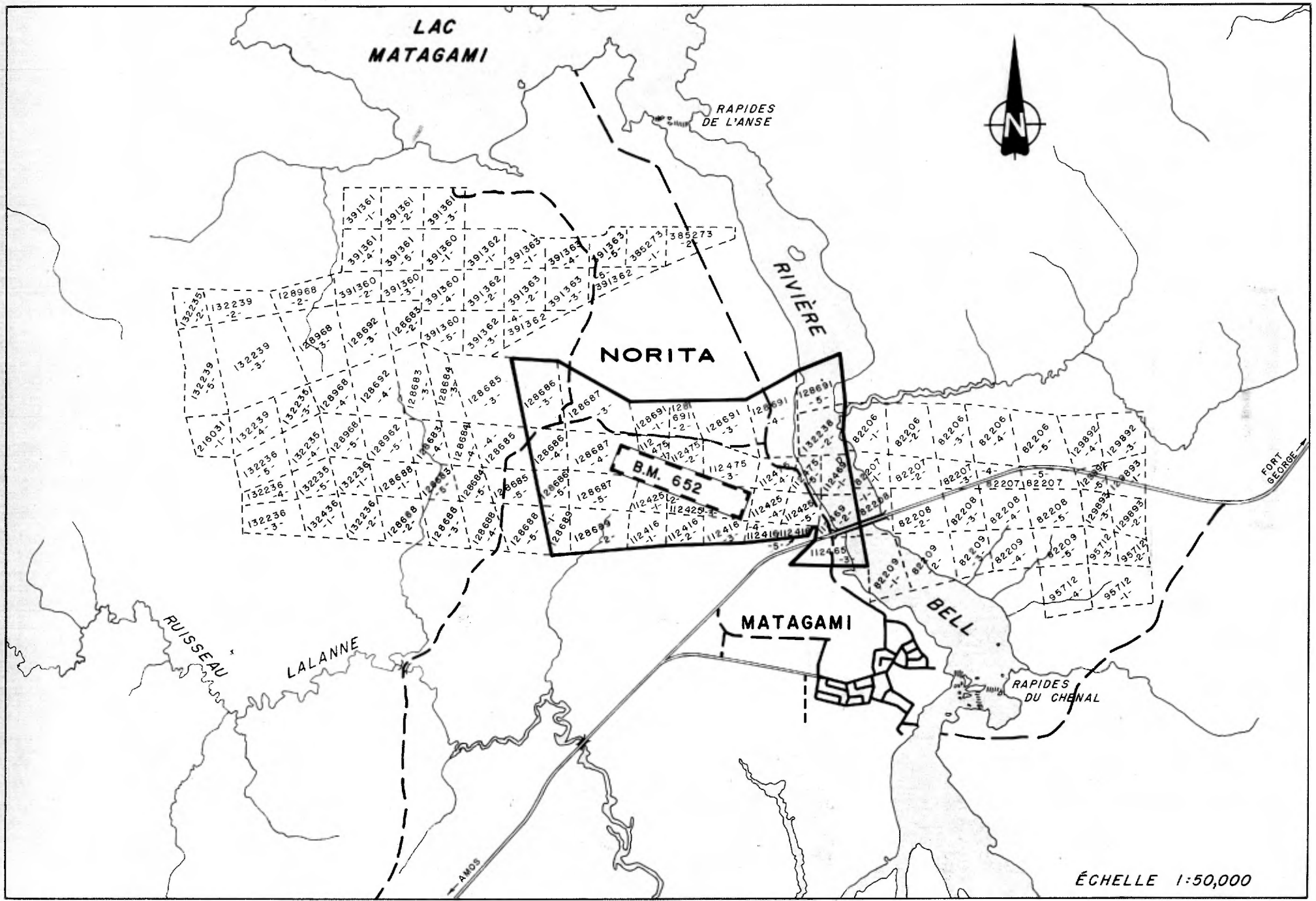
MATAGAMI

BELL

RAPIDES
DU CHENAL

AMOS

ÉCHELLE 1:50,000



EXPLORATIONS NORANDA LIMITEE

Le 23 avril 1984

A : C. Durocher, Matagami
c.c.: Denis Francoeur
DE : Gérard Lambert
SUJET: BOREHOLE P.E.M.

Voici un aperçu des résultats des travaux de borehole P.E.M. effectués à date sur les projets suivants du district de Matagami.

<u>Projet</u>	<u>Trou No.</u>	<u>Remarques</u>
Bell Channel	BC1-84-1	Anomalie 'in-hole' très typique à 282 metres. Corps très conducteur. Une reponse off-hole très forte et étroite est superposée, à la même profondeur.
New Hosco	PS152-3 PS152-4	Aucune Anomalie Aucune Anomalie
→ Norita	<u>NOR83-1C</u>	Réponse 'off-hole' très large et faible à 1585 m. Plus évidente sur le canal 3. Axe de courant situé à 400-500 pi. ou plus du trou. Etant donnée la profondeur (5200 pi.) il sera probablement très difficile de détailler cette anomalie.
	<u>NOR84-1</u>	Reponse off-hole forte au debut du trou probablement due à la zone d'altération. Anomalie 'off-hole' à 505 m. Cette anomalie est surtout évidente sur les canaux 1, 2, 3 et 4. Du détail est requis (1 loop au sud).

Projet
Phelps-Dodge

Trou No.
PD84-1

Remarques
Anomalie off-hole très typique à 460 m. La largeur et l'amplitude de l'anomalie suggèrent la présence d'un conducteur tabulaire de bonnes dimensions à une distance d'environ 100 à 150 pi. au dessus du trou (c'est le gisement, probablement).

PD84-2

Aucune Anomalie

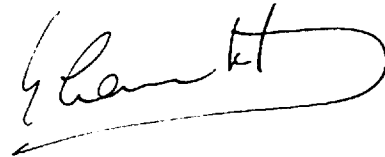
PD84-3

Aucune Anomalie

PD84-4

Anomalie 'off-hole' à 395 m. Encore ici, reponse très typique d'un axe de courant du bord inférieur d'un corps tabulaire faisant un angle de 30 à 50 degrés avec l'axe du trou et provenant du gisement lui-même.

GL/cd

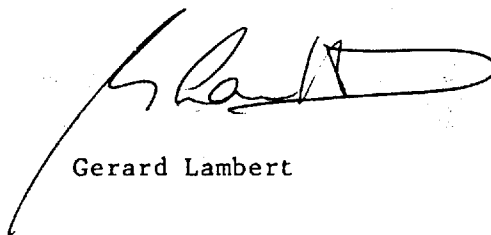
A handwritten signature in black ink, appearing to read 'Grant', with a large, sweeping underline that extends to the right and loops back under the signature.

INTER-OFFICE CORRESPONDENCE
NORANDA EXPLORATION CO. LTD.

To Claude Durocher Noranda, Qué.
From Gerard Lambert June 21, 1984
Subject NORITA NOR 84-1 BOREHOLE P.E.M. SURVEYS

Detail borehole P.E.M. surveys with a loop to the south has produced an in-hole/edge anomaly at 505 m where the first 6 channels produce a fairly sharp in-hole response and channels 7 and 8 have given an off-hole response. The primary pulse amplitude rises slightly at 495 m. The change in response from logging with a south loop reflects different coupling with the causative body but further surveying is going to be required with loops to the east and west in order to establish directional parameters to guide future follow-up drilling, if such action is warranted.

This work will be undertaken in the later part of July.


Gerard Lambert

GL/cd

c.c. Denis Francoeur

NORANDA EXPLORATION COMPANY LIMITED

INTER OFFICE CORRESPONDENCE

TO : CLAUDE DUROCHER cc:D. Francoeur DATE: NOVEMBER 27 1984

FROM: G. LAMBERT, NORANDA


SUBJECT: Borehole P.E.M. surveys, Norita hole NOR 84-2

This hole was surveyed using four loops: Loop 1 to the north energized preferentially the updip portion of a speculated conductive body intersected at 2,005 feet in the hole; loop 2 to the south aimed at activating the downdip portion of the same body. So did two laterally located loops #3 and 4, also aiming at activating along strike.

Using loop #1, the survey outlined the occurrence of an in-hole response at 612m. The anomaly is rather narrow and sharp for this type of response, at least compared to Wood's models. Using loops 2, 3 and 4 the in-hole anomaly is reversed because the conductor is activated from above thus causing a reversal in the flow of Eddy currents. With loop No. 2 the in-hole anomaly has a much smaller amplitude and this leads to infer that the bulk of the conductor would lie up-dip, where it is more strongly energized by loop #1.

The change in anomaly character from activating with loops 3 and 4 is not very noticeable. This further confirms that the target size is not very substantial.

Based on the results obtained, it is suggested that further encouragement from additional information (assays, alterations, etc.) will be required to continue exploration efforts on this target.



Gerard Lambert
Geophysicist, N.W.Q. Division

NORANDA EXPLORATION Limited.
BOREHOLE SURVEY

FOR

NORANDA EXPLORATIONS LTD.

Area: ----- MATAGAMI
Grid: ----- NORITA
Date: ----- SEPT 4 1984
Hole# ----- NOR 84-2 A
Tx Loops ----- #1 --> NWC @ 15N/38E
Gain: ----- 500
Ramp time ----- 1.5 msec
Time base ----- 10.8 msec

General remarks:

IN-HOLE ANOMALY AT 612 m. THIS IS AN 8-CHANNEL RESPONSE CAUSED BY A VERY GOOD CONDUCTOR. THE EARLY SAMPLES ARE WIDE AND BROAD, WHEREAS THE LATER TIME RESPONSES ARE QUITE NARROW AND SHARP (FOR IN-HOLE RESPONSES). THERE IS A SLIGHT ASYMETRY IN THE PROFILES, SUGGESTING THAT THE BULK OF THE CAUSATIVE BODY MAY LIE TOWARD THE UPDIP SIDE. FURTHER TESTING WITH ADDITIONNAL LOOPS IS REQUIRED.

NORANDA EXPLORATION CO. LTD.

NORTHWEST QUEBEC DIVISION

MATAGAMI DISTRICT

REPORT ON

BOREHOLE PULSE EM

SURVEYS

NORITA MINE AREA

NOR-84-4 à 7

Ministère de l'Énergie et des Ressources
Service de la Géoinformation

Date

27 SEP. 1985

No G.M.

42318

Noranda, Que.
21 March 1985

Gérard Lambert, Geophysicist
Northwest Quebec Division

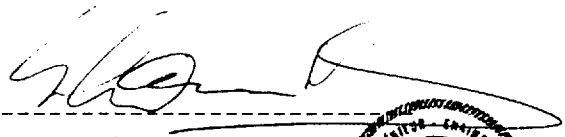
INTRODUCTION

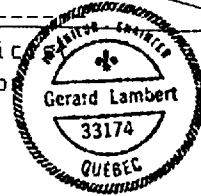
During February and March 1985, Borehole Pulse EM surveys were carried out in holes NDR 84-4, NDR 84-5, NDR 84-6 and NDR 84-7 on the Norita Mine Property in order to verify the occurrence of conductors in the immediate vicinity of the hole.

RESULTS

All four holes were found to be blocked within the first 30 to 40 metres. It is suspected that the casing has been displaced upward for some reason, thus allowing some cave to drop in the hole. Two dummy probes were lost while attempting to pass through the blocked part.

Unblocking these holes will be required if they are to be surveyed with the PEM system. A first attempt will be made using an X-ray drill. If this is not successful, then unblocking the holes with a standard drill rig will have to be considered.


Gerard Lambert, Geophysicist
Northwest Quebec Division



BOREHOLE P.E.M.

TROUS NOR-84-4, 5, 6 ET 7

Il nous a été impossible de descendre la sonde dans ces trous, malgré des essais de déblocage avec la foreuse X-Ray.

NORANDA EXPLORATIONS CO. LTD.

NORTHWEST QUEBEC DIVISION

MATAGAMI DISTRICT

Report on borehole FEM surveys, Norita Surface area.

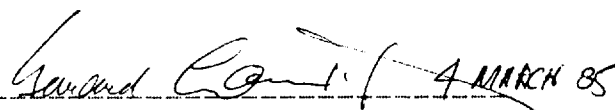
Geophysical investigations consisting namely in Borehole Pulse Electromagnetics were performed in February 1985 on the Norita property.

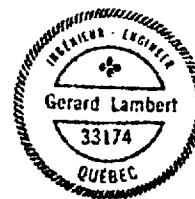
Hole NOR 84-3A was surveyed to a depth of 1355 metres using a 900 X 900 metres loop to the northeast.

The profiles show a high amount of noise, mostly due to the presence of several wedges in the hole. The only anomalous response occurs at the bottom of the hole, around 1343 metres, where an in-hole anomaly occurs. It unfortunately is only partly defined and it is not easily recognizable. Judging from the Primary Pulse profile, conductive material occurs very close to the hole. No quantitative information can be drawn from the data at this stage. No other anomalous phenomena are visible on the PEM profiles.

Hole NOR 84-B was surveyed to a depth of 423 metres, where it was found to be blocked and the survey could not proceed any further. A centered 300 X 300 metres Tx loop was used for this survey.

No recognizable anomalous responses are visible in the part that was surveyed. Further testing could be performed in the blocked part of the hole, if mineralization was encountered. This will involve unblocking the hole first.


Gérard Lambert, Geophysicist
N.W.Q. Division



Explorations Noranda Ltée — **BOREHOLE PEM.**

Propriété : NORITA

Area : MATAGAMI

Date : 20 - 02 / 85

D.D.H. no : NOR - 84 - 3A

Location : 19+50 N 35+00 E

TX Loop 1B : 900 x 900 m

Location : NWC 53+00 N 27+00 E Azim 110°

Gain : 1000

Ramp Time : 1.5 ms

Time Base : 10.8 ms

Attenuator :

Loop/Borehole Location (N,S,E,W,C,)? N

How Many Reading?

PROFONDEUR DU TROU 1611 m.
LE TROU ÉTAIT BLOQUÉ À 1355 m

900 MA

LOOP # 1B

FEV 85

A2M 110

128691
-5-

faire attention
il ya 2 tubages
au meme endroit
(avec bouchon?)
83.1 → -79°
84.3 → -75°

128691
-4-

lire celui-la

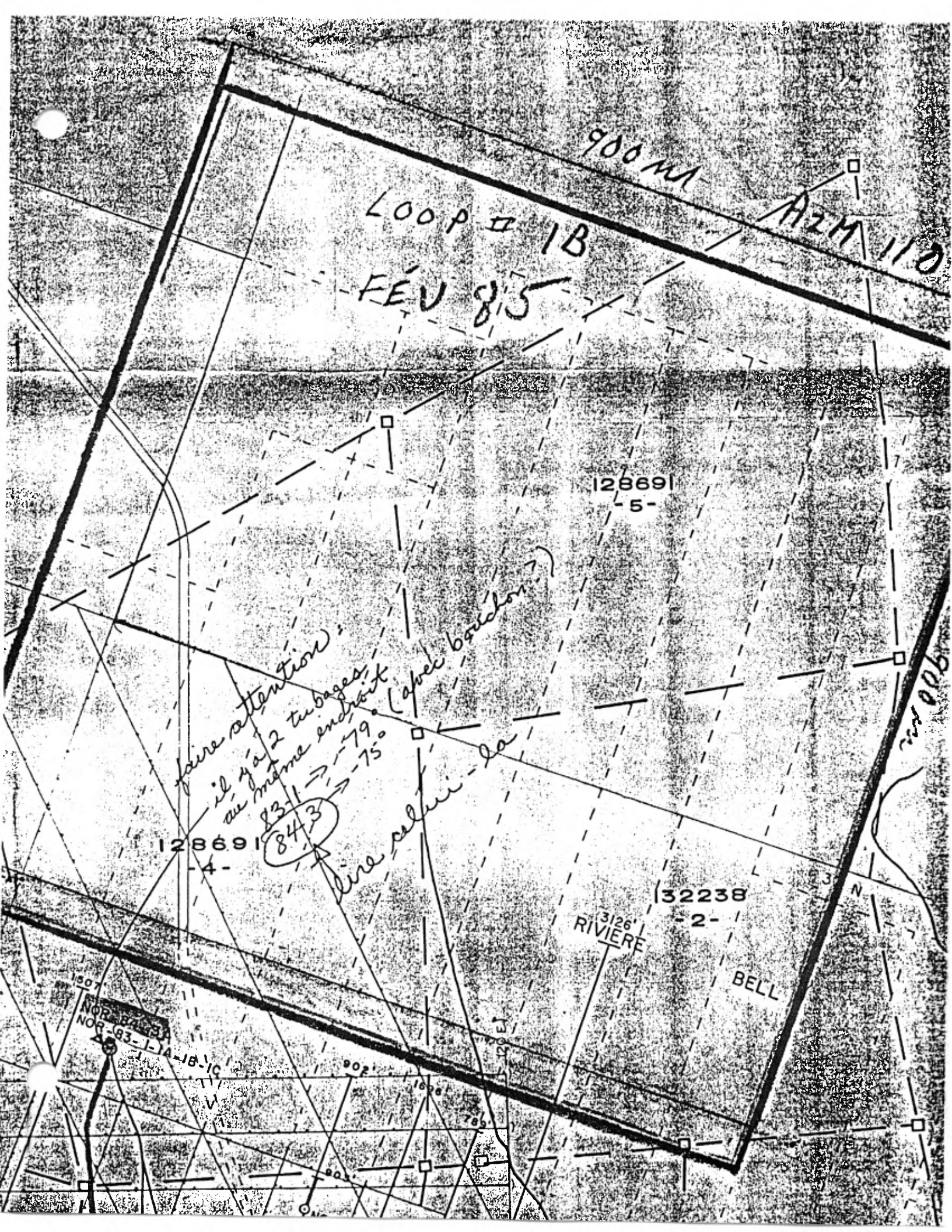
32238
-2-

3126'
RIVIERE

BELL

1507
NOR-84-3A
NOR-83-1A-1B-1C

902'
1898'



Explorations Noranda Ltée – **BOREHOLE PEM.**

Propriété : NORITA

Area : MATAGAMI

Date : 21 - 02 - 85

D.D.H. no : NOR-84-8

Location : 71+30E 10+80.5

TX Loop #1B : 300 x 300 m AZM 110°

Location : NWC 65+00E 9+00.5

Gain : 500

Ramp Time : 1.5 ms

Time Base : 10.9 ms

Attenuator : _____

Loop/Borehole Location (N,S,E,W,C,)? C

How Many Reading? _____

NOTE: TROU BLOQUER A 425m PROFONDEUR d'EAU 0.20.

112416
-5-

S-71-2

S-71-1

NOR-84-1

112465
-3-

LIGNE DE BASE N 70° W

84-6
5

NOR-84-4

22M 110°

VALE JAMES

NOR-84-5

300 M

57 E

66

1000 1B

NOR-84-87

60 E

72 E

300 M
rue Nettaway

600 m



NORANDA EXPLORATION CO. LTD.

NORTHWEST QUEBEC DIVISION

MATAGAMI DISTRICT

REPORT ON
BOREHOLE PULSE EM
SURVEYS

NORITA MINE AREA

NOR-84-9

Ministère de l'Énergie et des Ressources
Service de la Géoinformation

Date 27 SEP. 1985

No G.M. 42318

Noranda, Que.
5 February 1985

Gérard Lambert, Geophysicist
Northwest Quebec Division

INTRODUCTION

During January 1985, Borehole Pulse EM surveys were carried out in hole NOR84-9 on the Norita Mine Property in order to verify the occurrence of conductors in the immediate vicinity of the hole. The hole was surveyed to a depth of 1130 metres, using a 600m X 600m Tx loop. Readings were taken every 10 metres.

RESULTS

Anomalous deflections are evident in the profiles. What appears to be an off-hole response occurs at 940 metres down the hole. This anomaly is not well defined due to anomaly overlapping from nearby sources, but its off-hole character is probably real.

*Chlorite
horizon*

An in-hole anomaly exists at 980 metres, where positive deflections in the B channels as well as a noticeable drop in the Primary Pulse amplitude indicate the presence of conductive material immediately around the hole and surrounding it. This anomaly probably coincides with known or intersected mineralization.

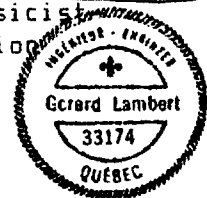
Another off-hole may exist at about 1025 metres down the hole, but its poor definition makes it difficult to assess. Additional detail work would be required in order to define this anomaly with better accuracy.

Several noise spikes are present in the log and are probably attributable to wedges. A high noise level in the first 200 metres of the hole is probably caused by cultural sources (60 cycle power).

Unless significant mineralization was encountered or very favourable geology has been intersected in this hole, no further testing can be recommended in this hole, based on the geophysical information available.

Gerard Lambert

Gerard Lambert, Geophysicist
Northwest Quebec Division



Explorations Noranda Ltée — **BOREHOLE PEM.**

Propriété : NORITA

Area : MATAGAMI

Date : 2 FEVRIER 1985

D.D.H. no : NOR-84-9

Location : 21+00 S 37+00 E

TX Loop 1B : 600 m x 600 m AZM 110°

Location : NWC 19+50 S 27+00 E

Gain : 700

Ramp Time : 1.0 ms

Time Base : 10.4 ms

Attenuator : ←

Loop/Borehole Location (N,S,E,W,C,)? C

How Many Reading? _____

NOR-80-1

S

LIGNE DE RATTACHEMENT

TERRAIN de GOLF

18 S L.R.

45 E

48 E

51 E

600 M

66-71°

NOR-24-9

3700 à 3800'

11 wedges

Loop # 1B

MINE NORITA

LIGNE CENTRALE DE CANTON

AMOS

600 M