

- 100m grid line separation
- Regional HLEM
- AEM: 12 ch ; cond. 12 siemens ; 707 ppm

FALCONBRIDGE LIMITED

Exploration Division Timmins ONTARIO

MANN BELT PROJECT

ROTATED DRILL SECTION 300 E

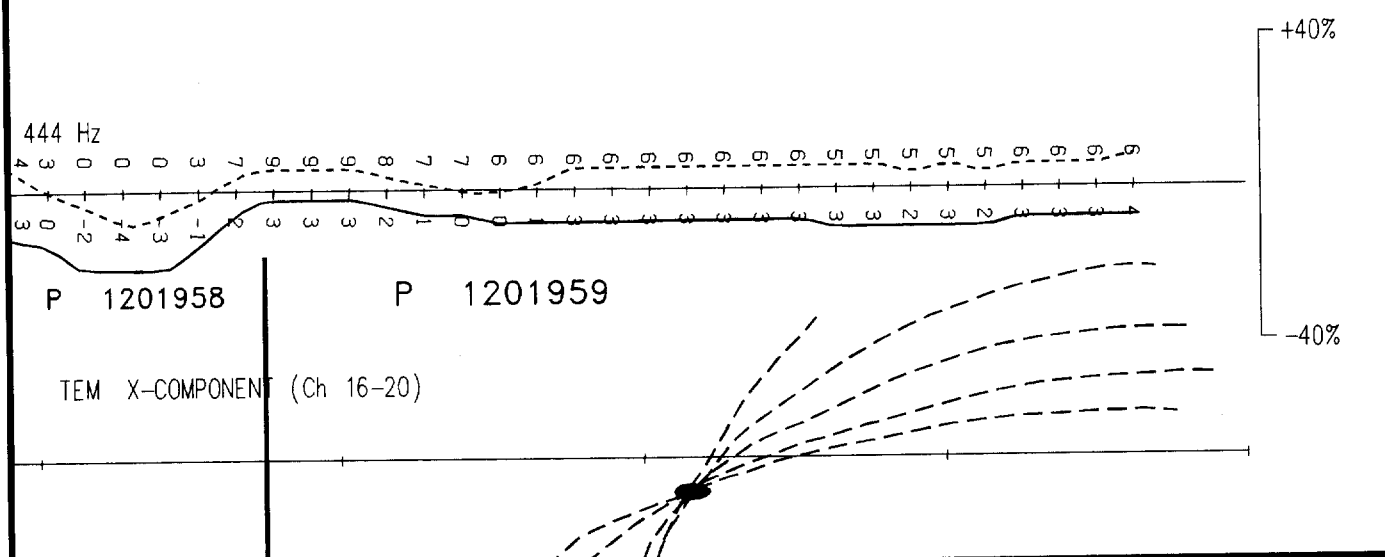
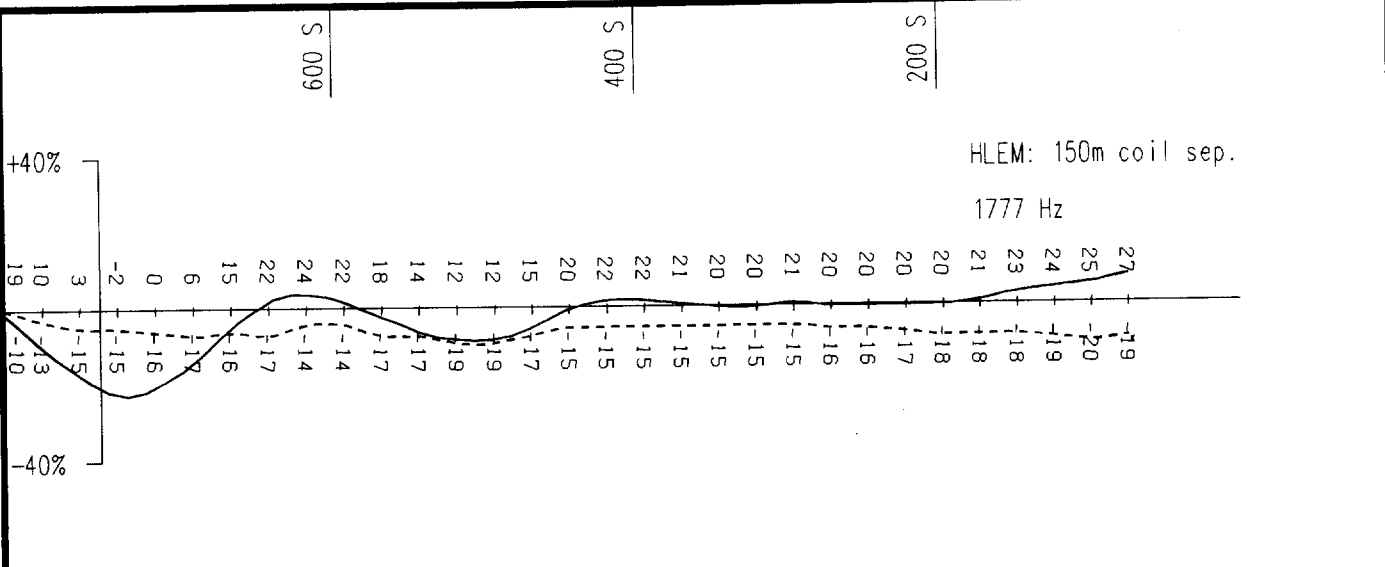
DDH AUR11-02

GRID AUR95-02

Az 155° AURORA Twp.

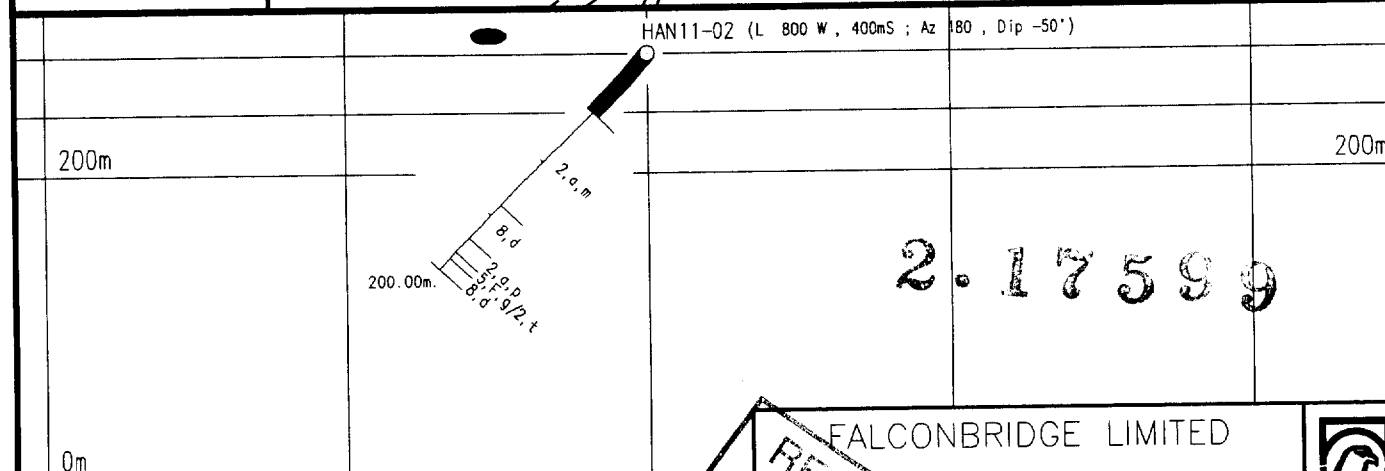
TRACED: PRODES	DATE: 03/01/97	NTS: 42-A/15	PROJECT: 8269
DRAWN: d e l	DATE: 03/01/97	MAP No:	FILE: 8269 CH
SUPERVISED: C Petch	DATE: 18/12/96	SCALE 1:5 000 (metres)	
REVISED:	DATE:	0 40 80 120 160	

RECEIVED
MANN BELT PROJECT
MINING LANDS BRANCH



P 1201958 P 1201959

TEM X-COMPONENT (Ch 16-20)



LEGEND

10	DIABASE	4	FELSIC VOLCANIC ROCKS
9	FELSIC INTRUSIVE ROCKS	3	INTERMEDIATE VOLCANIC ROCKS
8	INTERMEDIATE INTRUSIVE ROCKS	2	MAFIC VOLCANIC ROCKS
7	MAFIC INTRUSIVE ROCKS	1	ULTRAMAFIC VOLCANIC ROCKS
6	ULTRAMAFIC INTRUSIVE ROCKS		
5	SEDIMENTARY ROCKS		

- 100m grid line separation
- line TFM
- Short Strike Length HLEM. Flat TEM (Ch 20)
- AEM: 11-12 ch ; cond. 9 siemens ; ch 5 1000 ppm

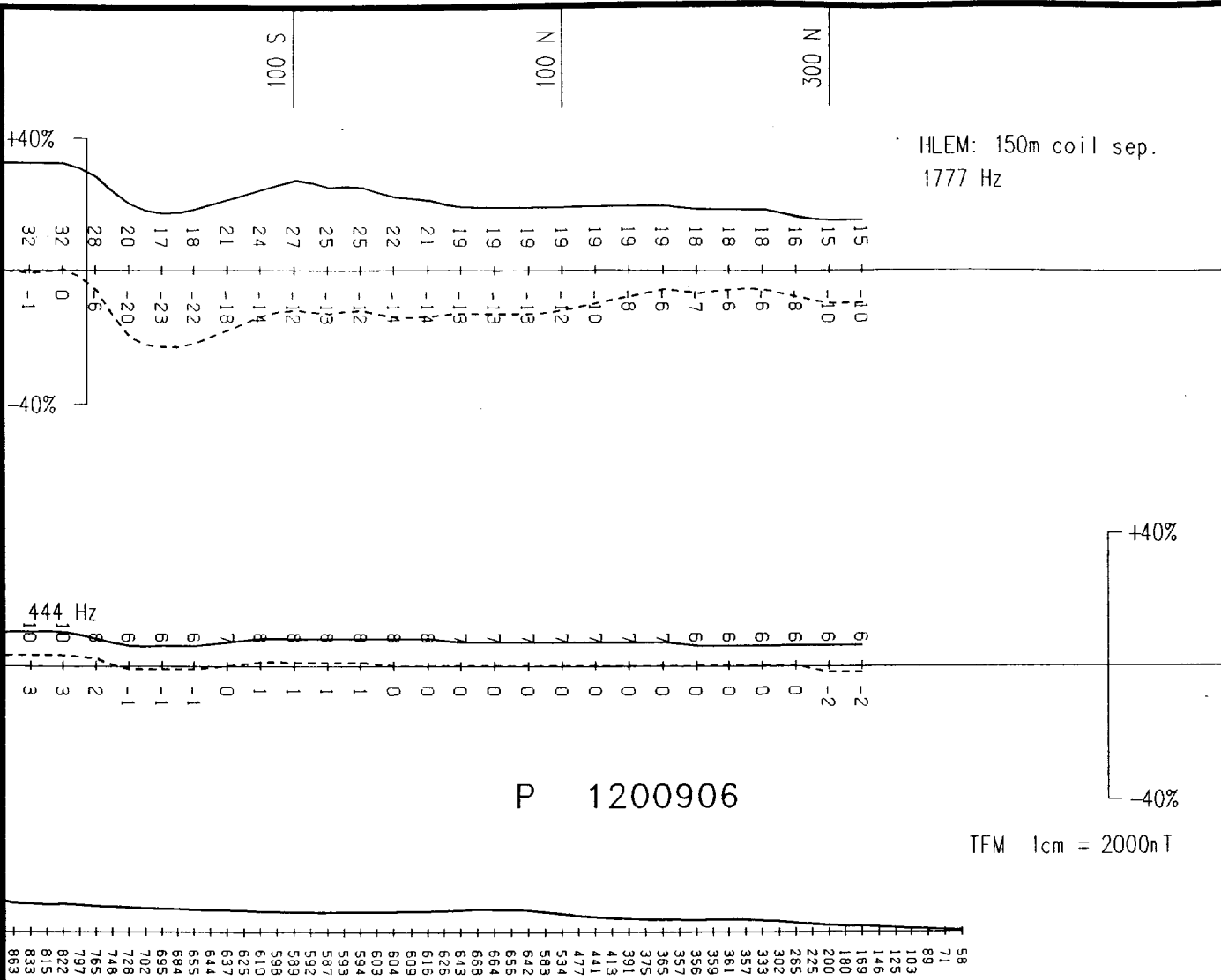
FALCONBRIDGE LIMITED
Exploration Division Timmins ONTARIO

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AUG 1 9 1997
MINING LANDS BRANCH

MANN BELT PROJECT
DIAMOND DRILL SECTION 800 W
DDH HAN11-02
GRID HAN96-03

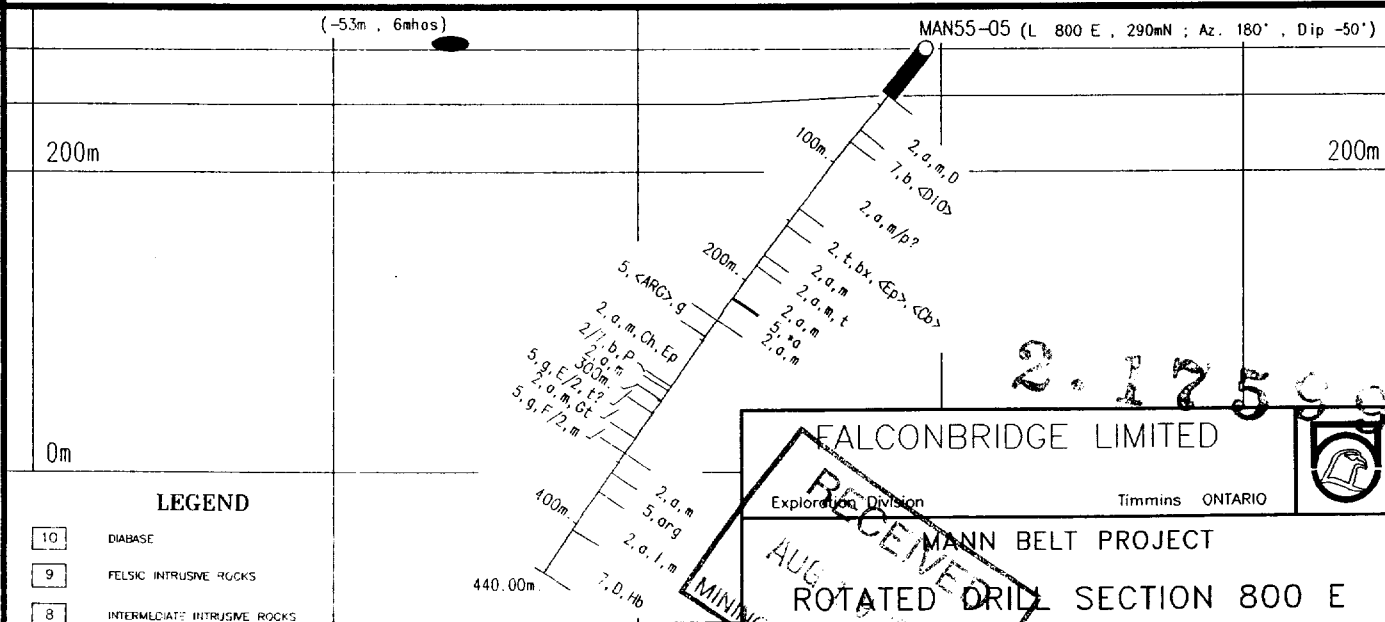
Az 180' HANNA Twp.

TRACED: PRODES	DATE: 03/01/97	NTS: 42-A/14 & 15	PROJECT: 8269
DRAWN: d d l	DATE: 03/01/97	MAP No:	FILE: 8269 CJ
SUPERVISED: C Patch	DATE: 18/12/96	SCALE 1:5 000 (metres)	
REVISED:	DATE:	0 40 80 120 160	



P 1200906

TFM 1cm = 2000nT



2-17500

FALCONBRIDGE LIMITED
Exploration Division Timmins ONTARIO

MAN BELT PROJECT
ROTATED DRILL SECTION 800 E
DDH MAN55-05
GRID MAN96-12
200' MANN Twp.

TRACED: PRODES	DATE: 27/01/97	NTS: 42-A/14 & 15	PROJECT: 8269
DRAWN: d a l	DATE: 27/01/97	MAP No:	FILE: 8269 BU
SUPERVISED: C A Petch	DATE: 27/01/97	SCALE 1:5 000 (metres)	
REVISED:	DATE:	0 40 80 120 160	

2.17599

LEGEND

Geology

MAJOR ROCK DIVISIONS

- 15 TO BE ANNOUNCED
- 14 HURONIAN SUPERGROUP
- 13 METAMORPHIC (Unknown)
- 12 GNEISS
- 11 SCHIST
- 10 DIABASE
- 9 FELSIC INTRUSIVE ROCKS
- 8 INTERMEDIATE INTRUSIVE ROCKS
- 7 MAFIC INTRUSIVE ROCKS
- 6 ULTRAMAFIC INTRUSIVE ROCKS
- 5 SEDIMENTARY ROCKS
 - 5,s SULPHIDE (>40%)
- 4 FELSIC VOLCANIC ROCKS
- 3 INTERMEDIATE VOLCANIC ROCKS
 - 3,C HETEROLITHIC VOLCANIC ROCKS
- 2 MAFIC VOLCANIC ROCKS
- 1 ULTRAMAFIC VOLCANIC ROCKS

TEXTURAL/GEOCHEMICAL MODIFIERS

- | | | | |
|----|------------------------|---|-----------------------|
| a | Fine Grained | A | Primitive (Y<20) |
| b | Medium Grained | B | Evolved (Y>20<60) |
| bx | Breccia | C | Heterolithic |
| c | Coarse Grained | D | Feldspar Phyric |
| d | Quartz-Feldspar Phyric | E | Chert |
| e | Amygdaloidal/Vesicular | F | Wacke |
| f | Primary Fragmentals | G | Leucoxene Bearing |
| g | Graphitic/Argillaceous | H | Basaltic Komatiite |
| h | Tholeiitic | I | |
| i | Alkalic | J | Pyroxenite |
| j | Calc-Alkalic | K | Net Textured |
| k | Komatiitic | L | Peridotite |
| l | Flows | M | Dunite |
| m | Massive | N | Ophitic |
| n | Variolitic/Spherulitic | P | Porphyritic |
| p | Pillowed | Q | |
| q | Quartz Phyric | R | Polysutured |
| r | Oxide Iron Formation | S | Fractured |
| s | Sulphides, Exhalites | T | Gabbroic Textured |
| t | Pyroclastic | U | Pyroxene Spinifex |
| u | High Mg | V | Olivine Spinifex |
| v | High Fe | W | Skeletal/Crescumulate |
| w | High Al | X | Adcumulate |
| x | Andesite | Y | Mesocumulate |
| y | Icelandite | Z | Orthocumulate |
| z | Highly Evolved (Y>60) | | |

ALTERATION MODIFIERS

- <Ab> Albitization
- <Bl> Bleached
- <C>> Carbonaceous
- <Cb> Carbonatization
- <Ch> Chloritization
- <Ep> Epidotization
- <FCb> Iron Carbonatization
- <He> Hematization
- <K>> Potassic Alteration
- <Rs> Rust Stained
- <Se> Sericitization
- <Si> Silicification
- <Sr> Serpentinization
- <Tc> Talc-Carbonatized
- <Tk> Talc

TEXTURAL/STRUCTURAL MODIFIERS

- *a Tuff(67%<2mm)
- *b Lapilli(2-64mm)
- *c Lapillistone(76%<264mm)
- *d Block(>64mm)
- *e Autoclastic
- *f Thickly Laminated
- *g Thinly Laminated
- *h Clast Supported
- *i Matrix Supported
- *j Granule(grit 2-4mm)
- *k Pebble(4-64mm)
- *l Cobble(64-256mm)
- *m Boulder(>256mm)
- *n Graded Bedding
- *o Cross Bedding
- *p Fault Gouge
- *q Augen
- *r Porphyroblastic
- *s Hornfels
- *t foliated/sheared
- *u folded
- *v boudinage
- *w fragmental(felsic>mafic)
- *x fragmental(mafic>felsic)
- *y Crystal Tuff(>50% of frags)
- *z Lithic Tuff(>50% of frags)

ROCK TYPE

- <QFP> Quartzofeldspathic
- <QTZ> Quartzite
- <MAR> Marble
- <SKA> Skarn(Calc-Silicate)
- <PHY> Phyllite
- <TON> Tonalite
- <SYN> Syenite
- <GRA> Granite
- <MON> Monzonite
- <GRD> Granodiorite
- <APL> Aplite
- <FEL> Felsite
- <QDI> Quartz Diorite
- <GAB> Gabbro
- <NOR> Norite
- <ANT> Anorthosite
- <DIO> Diorite
- <PER> Peridotite
- <SER> Serpentinite
- <DUN> Dunite
- <PRX> Pyroxenite
- <LMP> Lamprophyre
- <SST> Sandstone
- <ARK> Arkosic sandstone
- <WCK> Graywacke
- <CGL> Conglomerate
- <STL> Siltstone
- <ARG> Mudstone-argillite
- <EXH> Chert/exhalite
- <QIF> Silicate IF

MINERALOGICAL NAMES

- | | | | | | |
|-----|-----------------|-----|-----------------|-------|---------------------|
| Ak | Actinolite | Gn | Galena | Po | Pyrrhotite |
| Alb | Albite | Gt | Garnet | Ot | Quartz |
| Al | Almandine | VG | Gold | Ro | Rhodochrosite |
| Am | Amphibolite | Gf | Graphite | Ru | Rutile |
| Ah | Anhydrite | GS | Gravel & Sand | Sur | Serpentine |
| Ad | Andalusite | Gyp | Gypsum | Sc | Sericite |
| Ay | Anthophyllite | Hem | Hematite | Sh | Scheelite |
| Ap | Apatite | Hb | Hornblende | Sid | Siderite |
| Ar | Argentite | Hy | Hypersthene | Sil | Silica |
| Asp | Arsenopyrite | Il | Ilmenite | Slm | Silliminite |
| Asb | Asbestos | I-F | Iron Formation | Sps | Spessartite |
| Aug | Augite | Jr | Jarosite | Sph | Sphalerite |
| Az | Azurite | Ky | Kyanite | Ti | Sphene (Titanite) |
| Ba | Barite | Ls | Limestone | Ag | Silver |
| Bi | Bismuthite | Lrn | Limonite | Sp | Spinel |
| Bi | Biotite | Mag | Magnetite | Spd | Spodumene |
| Bo | Bornite | Mc | Malachite | St | Staurolite |
| Ca | Calcite | Ma | Marcasite | Sb | Stibnite |
| Cn | Chalcedony | Mi | Mica | Sul | Sulphides |
| Cc | Chalcocite | Mk | Microcline | S-M | Mass. Sulphides |
| Cp | Chalcopyrite | Mi | Millerite | S-D | Diss. Sulphides |
| Chl | Chlorite | Mo | Molybdenite | Tk | Talc |
| Ch> | Chloritoid | Mu | Muscovite | Te | Telluride |
| Cr | Chromite | Ne | Nepheline | Tt | Tetrahedrite |
| Cpx | Clinopyroxene | Nc | Niccolite | Ta-CI | Tantalite-Columbite |
| Co | Cobalt Minerals | Ni | Nickel Minerals | Tl | Tourmaline |
| Cv | Covellite | Ov | Olivine | Tr | Tremolite |
| Ct | Cordierite | Or | Orthoclase | Wo | Wollastonite |
| Dp | Diopside | Opx | Orthopyroxene | Zr | Zircon |
| Dol | Dolomite | Pl | Phlogopite | | |
| Epi | Epidote | Pg | Plagioclase | | |
| Fel | Feldspar | Pn | Pentlandite | | |
| Fl | Fluorite | Py | Pyrite | | |
| Fc | Fuchsite | Px | Pyroxene | | |

- <QIF> Oxide IF
- <SIF> Sulphide IF
- <CIF> Carbonate IF
- <SHA> Shale
- <LST> Limestone
- <CHM> Chem. Precip.
- <SLA> Slate
- <KIM> Kimberlite
- <CAR> Carbonate
- <AMP> Amphibolite
- <MIG> Migmatite
- <PEG> Pegmatite
- <LEU> Leucocratic
- <MEL> Melanocratic
- <UNK> Unknown Protolith
- <UMF> Ultramafic
- <MAF> Mafic
- <AND> Andesite
- <DAC> Dacite
- <RYD> Rhyodacite
- <RHY> Rhyolite
- <SCL> Sulphide Clasts
- <RWV> Reworked Volcanic Debris

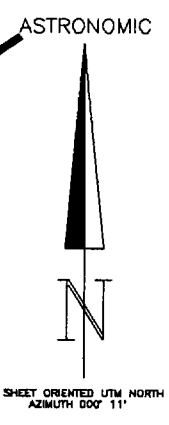
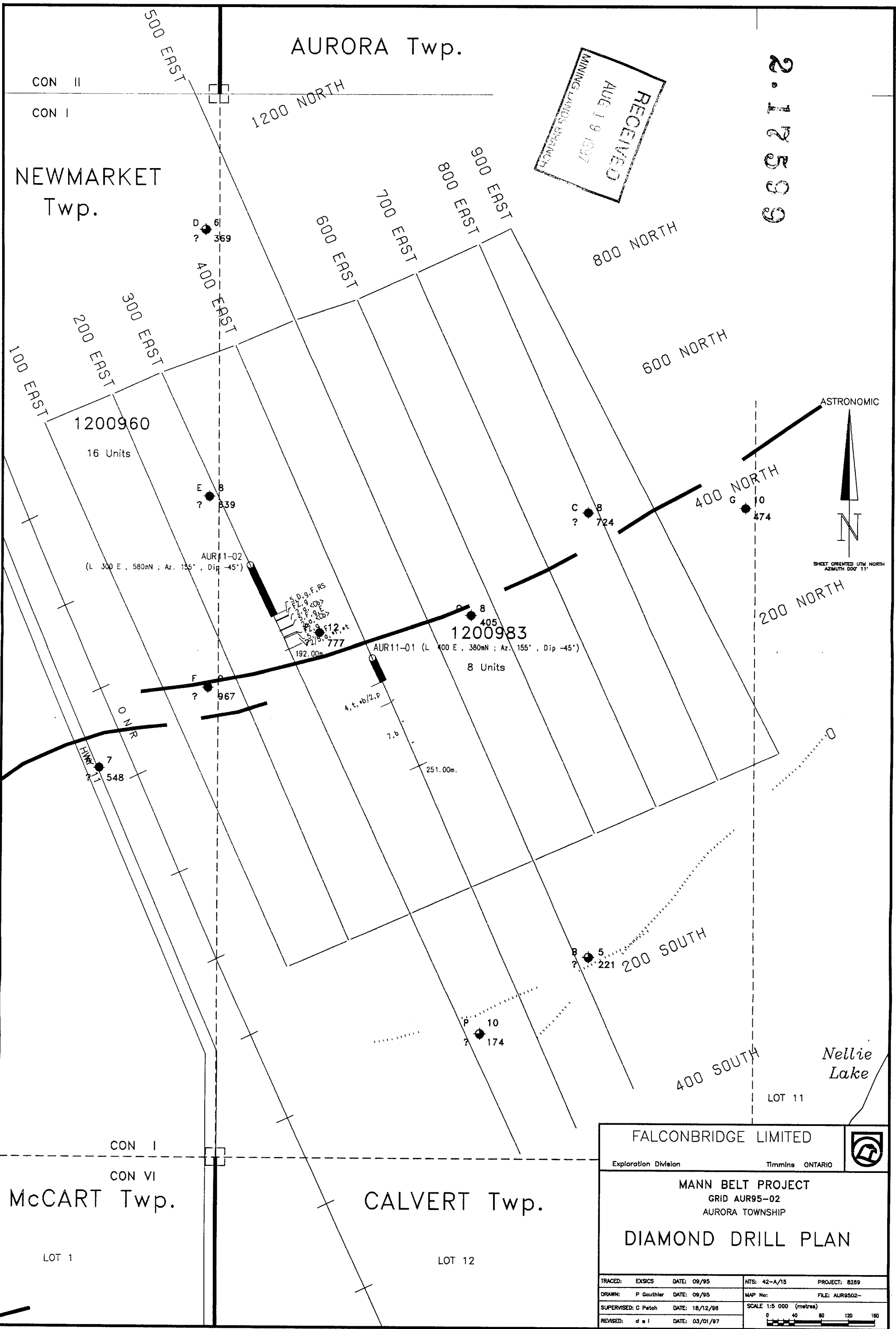


2.12599

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AUG 19 1997
MINING LIAISON BRANCH

AURORA Twp.

NEWMARKET Twp.



Nellie Lake

LOT 11

McCART Twp.

CALVERT Twp.

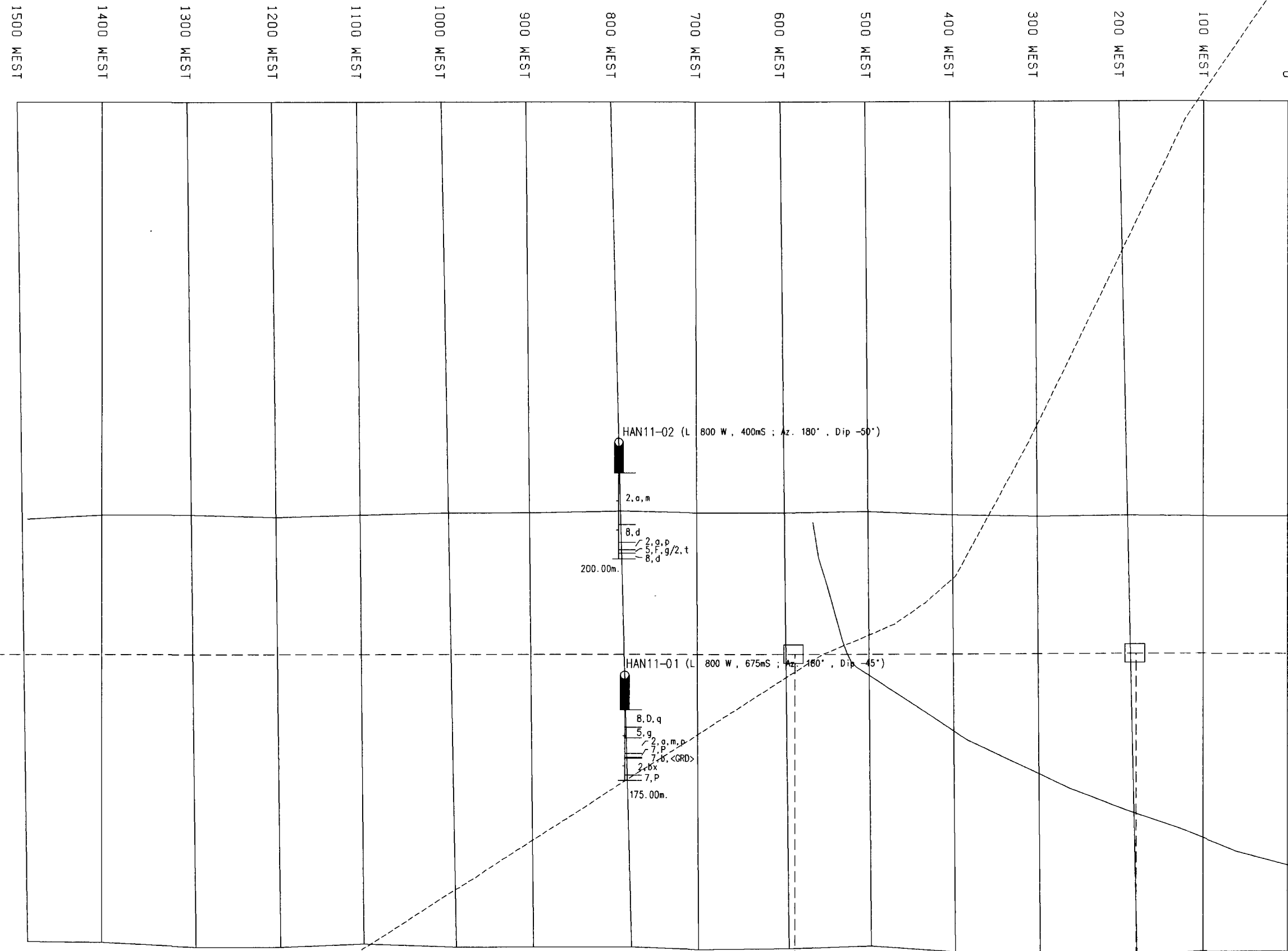
FALCONBRIDGE LIMITED		
Exploration Division	Timmins ONTARIO	
MANN BELT PROJECT GRID AUR95-02 AURORA TOWNSHIP		
DIAMOND DRILL PLAN		
TRACED: EXSICS	DATE: 09/95	NTS: 42-A/15
PROJECT: 8289		
DRAWN: P Gauthier	DATE: 09/95	MAP No:
FILE: AUR9502-		
SUPERVISED: C Patch	DATE: 18/12/98	SCALE 1:5 000 (metres)
REVISED: d e l	DATE: 03/01/97	0 40 80 120 160

LOT 1

LOT 12

1201960 (16 UNITS)

1201959 (10 Units)



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AUG 19 1997
MINING LANDS BRANCH

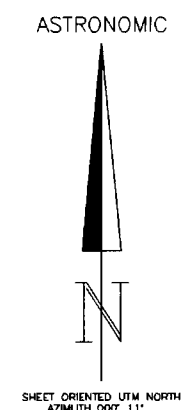
2.17599

1200942 (15 Units)

1201958 (9 Units)

1200958 (3 Units)

REAUME Twp.
HANNA Twp.

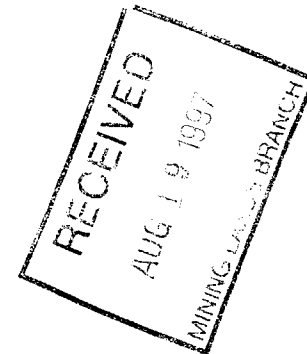


FALCONBRIDGE LIMITED			
Exploration Division		Timmins ONTARIO	
MANN BELT PROJECT GRID HAN96-03 HANNA TOWNSHIP DIAMOND DRILL PLAN			
TRACED: EXSIS	DATE: 03/96	NTS: 42-A/15	PROJECT: 8269
DRAWN: P. Gauthier	DATE: 03/96	MAP No:	FILE: HAN9603-
SUPERVISED: P. J. Nagel	DATE: 20/03/96	SCALE 1:5 000 (metres)	
REVISED: d e l	DATE: 17/04/96		

MANN BLT PROJECTS FALL 1996 SWASTIKA LAB INVOICES

Hole#	Invoice#	ASSAY SAMPLES						GEOCHEMICAL SAMPLES						Subtotal (no GST)	GST	SubTotal
		File#	From	To	No.	Total (\$)	GST (\$)	File#	From	To	No.	Total (\$)	GST (\$)			
AUR11-02	39085	5351	AT04638	AT04646	9	121.50	8.51							121.50	8.51	130.01
	39085	5320	AT04634	AT04637	4	54.00	3.78							54.00	3.78	57.78
	39200							5352	AT04693	AT04698	6	108.00	7.56	108.00	7.56	115.56
	subtotal				13	175.50	12.29				6	108.00	7.56	283.50	19.85	303.35
HAN11-02	39085	5351	AT04647	AT044650	4	50.50	3.78							50.50	3.78	54.28
			AT06601	AT06604	4	54.00	3.54							54.00	3.54	57.54
	39200							5352	AT04699	AT04700	2	36.00	2.52	36.00	2.52	38.52
	39200							5352	AN00514	AN00518	5	90.00	6.30	90.00	6.30	96.30
	subtotal				8	104.50	7.32				7	126.00	8.82	230.50	16.14	246.64
MAN55-05	39085	5351	AT06616	AT06648	33	442.00	30.94							442.00	30.94	472.94
	39114	5375	AT06605	AT06615	11	148.50	10.40							148.50	10.40	158.90
	39200							5352	AN00519	AN00531	13	230.50	16.14	230.50	16.14	246.64
	subtotal				44	590.50	41.34				13	230.50	16.14	821.00	57.48	878.48
TOTAL														93.47	1428.47	

2.12599



AUR11-02 13 samples
 HAN11-02 8 "
 MAN55-05 33 "
 54

CanRock Laboratories
 100-100-10
 100-100-10 Ontario
 100-100

INVOICE

NO: 00000000

DATE: 12/21/96

PAGE: 1

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SHIP TO:

MINERAL EXPLORATION LTD
 100-100

MINERAL EXPLORATION LTD

100-100-10 6032262610

PROJ #/P.O. # 8269

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	G	P	UNIT PRICE	AMOUNT
	4		Geochem Package #1			10.00	40.00
	4		Sample Prep			3.50	14.00
			Cert #6W-5320-RG1				
	50		Geochem Package #1			10.00	500.00
	48		Sample Prep			3.50	168.00
			Cert #6W-5351-RG1				
			GST @ 7%				50.54
<p>C. Patel 605-608-008269 Jan 14/97</p>							
<p>COMMENTS: Net 30 Days ATO4634-4650 ATO6601-6648</p>						TOTAL	772.54

Environmental Laboratories
Box 100
5500 Hwy 100
P.O. Box 100

MANSS-05

INVOICE

NO: 605-608-008269

DATE: 01/14/97

PAGE: 1

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ENVIRONMENTAL RESEARCH LTD
Box 100

5500 Hwy 100 P.O. Box 100

Customer # 3363640

Proj #/P.O. # 8269

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	G	P	UNIT PRICE	AMOUNT
	11		Geochem Package #1			10.00	110.00
	11		Sample Prep			3.50	38.50
			Cert #6W-5375-RG1				
			GST @ 7%				10.40
<p><i>C. Petel</i> 605-608-008269 Jan 14/97</p>							
COMMENTS: Net 30 Days						TOTAL ▸	158.90

ATdep05-06615

Swastika Laboratories
 P.O. Box 10
 Swastika, Ontario
 POK 1T0

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NO: 00000000

DATE: 04/11/97

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FALCONBRIDGE EXPLORATION LTD
 BOX 1140

Same

TIMMINS, ON P4N 7H9

GST Number: R132862640

Proj #/P.O. # 8289

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	GST/PST	UNIT PRICE	AMOUNT
	26		WRA Package #1		14.50	377.00
	25		Sample Prep		3.50	87.50
			Cert #6W-5352-RG1			
			GST @ 7%			32.52
<p><i>C. Patel</i> <i>605-608-008269</i> <i>Jan 31/97</i></p>						
COMMENTS			AT04693-4700	AUR11-02 - 6 samples		
Net 30 Days			AN00514-531	HAN11-02 - 7 "		
				MAN055-05-13 "		
					TOTAL	497.02

10101

26

2.17509

09/05/97 13:37

705 264 6080

FALCONBRIDGE EXP

002/017

HOLE NUMBER: MAM55-05

FALCONBRIDGE LIMITED
DRILL HOLE RECORD

DATE: 02/10/1997

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: 8269
PROJECT NUMBER: 8269
CLAIM NUMBER: F1200906
LOCATION: Macra Township

PLOTTING COORDS GRID: UTM
NORTH: 5412312.92W
EAST: 501543.38E
ELEV: 282.00

ALTERNATE COORDS GRID: MAM06-12
NORTH: 2+90N
EAST: 8+ 0E
ELEV: 282.08

COLLAR DIP: -51° 0' 0"
LENGTH OF THE HOLE: 440.00M
START DEPTH: 0.00M
FINAL DEPTH: 440.00M

COLLAR ASTRONOMIC AZIMUTH: 200° 0' 0"

GRID ASTRONOMIC AZIMUTH: 200° 0' 0"

DATE STARTED: 12/06/1996
DATE COMPLETED: 12/10/1996
DATE LOGGED: 12/17/1996

COLLAR SURVEY: NO
RQD LOG: NO
HOLE MAKES WATER: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: 90

CONTRACTOR: Moxey Drilling Ltd.
CASING: 4 1/2" EM and RW
CORE STORAGE: MineSite
UTM COORDS:

COMMENTS: Target: step back on MAM55-04 (20 ch borehole EM). Source: numerous 1-2m wide stringer po and/or Sg.
WEDGES AT:

DIRECTIONAL DATA:

Depth (M)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (M)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
80.00	51° 0' 0"	-51° 0' 0"	A	OK							
120.00	51° 0' 0"	-51° 0' 0"	A	OK							
180.00	52° 0' 0"	-52° 0' 0"	A	OK							
240.00	54° 0' 0"	-54° 0' 0"	A	OK							
300.00	54° 0' 0"	-54° 0' 0"	A	OK							
360.00	54° 0' 0"	-54° 0' 0"	A	OK							
420.00	56° 0' 0"	-56° 0' 0"	A	OK							

HOLE NUMBER: MAM55-05

DRILL HOLE RECORD

LOGGED BY: C.A. Pecch

PAGE: 1

Christina Pech

HOLE NUMBER: MAM55-05

DRILL HOLE RECORD

DATE: 02/19/1997

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 41.80	CASING + cb +					- casing left in hole both SW and NW. (locked together).
41.80 TO 71.24	Massive Mafic Volcanic +2.a,m,D+	<ul style="list-style-type: none"> - dark grey to dark green-grey. - fine grained to finely feldspar porphyritic. - not magnetic. - up to 20% sub-millimetre, light grey, anhedral to lath-like subhedral, randomly oriented feldspars. - homogeneous in texture except for variability in percentage of feldspars and cross-cutting alteration. - 69.5m - stringer chlorite +/- epidote? alteration along thin fracture that opens into 3 cm wide swath with identifiable fragments of wall rock that are 'matrix' supported and well rounded. - downhole contact is sharp and irregular at 60°/ca. 		<ul style="list-style-type: none"> - cut by irregular veins of chlorite +/- epidote +/- carbonate +/- pyrrhotite and chalcocopyrite. Veins are typically 1-3 cm wide, randomly oriented and have irregular edges. - locally veins contain rounded, 2-5mm, pale yellow clots of fine grained quartz + epidote. - veining occurs at approx. metre spaced intervals. - alteration is feldspar destructive. 	<ul style="list-style-type: none"> - 2% pyrrhotite and lesser chalcocopyrite associated with veining. 	
71.24 TO 81.80	Diorite +7,b,<DFO>	<ul style="list-style-type: none"> - dark grey with white. - weakly magnetic. - fine grained chilled margins grading into medium grained core. - typically igneous textured rock with rare, 1-2cm, subhedral phenocrysts of biotite/hornblende and feldspar. - cm-wide zones where rock grades from fine grained to medium grained and back. - cross-cuts all alteration and veining (including thin carbonate veinlets) in flanking mafic volcanic rock. - downhole contact very sharp as defined by thin, irregular rim of very fine grained feldspar(?) at 40°/ca. 		<ul style="list-style-type: none"> - rare, hairline, dark green to black chlorite-filled fractures. 	<ul style="list-style-type: none"> - trace disseminated pyrite locally associated with chlorite-filled fractures. 	
81.80 TO 139.88	Mafic Volcanic +2.a,m/p?	<ul style="list-style-type: none"> - dark grey locally dark green. - fine grained, hard. - faintly feldspar porphyritic with up to 15% <1 mm, pale grey ghost-like subhedral to lath-like subhedral feldspars. - not magnetic. - similar to 40.8-71.25m except for slight increase in the amount of alteration (up to 10-20%). - 88.17-89.1m - weakly banded, moderately 		<ul style="list-style-type: none"> - 1-3 cm, dark olive-green bands of chlorite/amphibole alteration +/- epidote carbonate and sulphides. - bands are irregular and have very subtle margins, weakly gradational. - locally may be altering interflow or interpillow sediments (as at 101.4m). - wispy white to pale green, vein-like alteration of rock produces chaotic 	<ul style="list-style-type: none"> - trace to 2% pyrrhotite and chalcocopyrite in chlorite/hornblende - carbonate + epidote + quartz fracture-controlled alteration. 	<ul style="list-style-type: none"> - it is known from thin section work on 80m MAM55-04 that hornblende is a fine grained constituent of the fracture-controlled veining, typically retrograded to chlorite. - difficult to establish exact contact between what is sediment or fragmental and what is massive flow due to gradational contacts and alteration.

HOLE NUMBER: MAM55-05

DRILL HOLE RECORD

LOGGED BY: C.A. Patch

PAGE: 2

HOLE NUMBER: MAN55-05

DRILL HOLE RECORD

DATE: 02/10/1997

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>foliated interval of chloritic sediment? very fine grained with 10%, 3-5mm dark red, subhedral garnets (WR AM0522).</p> <p>- 101.07-101.42m - fine grained hbd/chl altered interval contains 20% patchy carbonate with 3% cpy + po. Up-hole contact is weakly brecciated and downhole is sharp suggesting that this may be altered interflow material (downhole tops as downhole side truncated?).</p> <p>{124.4-114.95} <FZ> Fault zone with central 1 cm wide dark grey, clay fault gouge at 50°/ca. Gouge is flanked by fault breccia containing poorly sorted, 1mm-2cm, well rounded, dark grey and dark green-grey mafic volcanic fragments in a matrix of filled fragments with 20% carbonate and trace pyrite. Edge of zone bounded by quartz and carbonate veining which in turn is flanked by 15-20 cm wide, medium brown pervasive carbonate altered mafic volcanic.</p> <p>- 122.3-122.6m - 0.5-2cm quartz-epidote-calcite clots are subrounded, irregular and contain dark grey cores (carbonate). Variolites??</p> <p>- 131.34-131.54 - quartz + beige, subhedral, bladed mineral (axinite?) +/- trace carbonate vein with sharp contacts. Also at 133.56-134.04m.</p> <p>- downhole contact sharp and irregular.</p>		<p>Textures (15%) and is most likely a fine grained mixture of quartz + epidote +/- carbonate. Trace sulphides associated with veining.</p> <p>- 93.5-94.23m - pervasive brown carbonate alteration of rock (strongly reactant to 3% HCl) with dark grey calcite completely wipes out any textures in the rock. Contacts are sharp and occasionally wispy. This style of alteration accounts for 3% of all alteration. Similar alteration was commonly seen in ddhs MAN5-01 and MAN5-02 as an alteration in the sediments.</p> <p>- 122.25-124.41m - homogeneous brown, strong pervasive carbonate alteration (moderately resistant with 3% HCl).</p>		
139.08 TO 153.40	Mafic Fragmental <L, C, BK, <Ep >, <Cb>	<p>- pale grey, pale green and dark green.</p> <p>- tight to loosely packed fragmental and/or breccia.</p> <p>- locally flattened at 50-70°/ca.</p> <p>- fragments are 90%, dark green, 0.2-3 cm, angular to sub-angular and moderately to tightly packed.</p> <p>- matrix is predominantly calcite and/or carbonate with minor chlorite and quartz + epidote.</p> <p>{135.95} <FZ> - Fault gouge over 5 mm at 46°/ca.</p> <p>{137.5} <FZ> - 3mm wide fault gouge at 25°/ca.</p> <p>{140.35-142.26} <FZ, D> - dark brown-grey, feldspar-phyric dyke with sharp irregular contacts at high angles to core axis. Up to 20%, 0.5-3mm, white, subhedral feldspars. Also at 134.9-134.38m and 136.36-136.75m.</p> <p>- downhole contact is approximate at</p>	60	<p>- 25%, 2-10 cm wide, pale green, quartz-epidote alteration. Is fabric destructive. Locally contains minor garnet and pyrite.</p> <p>- 10% carbonate and quartz + carbonate veining.</p> <p>{142.9-143.71} <Ep, Cb, Qt, P, S> Intense carbonate + epidote + garnet alteration.</p>		trace chalcopyrite, pyrrhotite and pyrite typically associated with fracture-controlled carbonate veining.

HOLE NUMBER: MAN55-05

DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
153.40 TO 178.50	Massive Mafic Volcanic «2,a,m»	<ul style="list-style-type: none"> - disappearance of well defined fragments. - dark grey. - fine grained, weakly porphyritic. - not magnetic. - up to 34, clms, pale grey, lath-like feldspars and rare, 2-5cm, white feldspars. - massive, hard. - 144.65-145.35m - Feldspars - hornblende porphyritic dyke. Up to 155, 2cm, sub-to centimetre scale with up to 50, 1-2cm, dark green, subhedral hornblende in a very fine grained dark grey matrix. - downhole contact at chlorite-hornblende vein and by colour change of rock from dark grey to dark grey-green. 		<ul style="list-style-type: none"> - cut by 1-5cm, white carbonate veins often having 1-2 cm, dark brown carbonate alteration halos. - local clots of carbonate with fine grained quartz-feldspar mixture, locally vein-like. 	<ul style="list-style-type: none"> - trace chalcocopyrite + pyrrhotite + pyrite with carbonate veining. 	
178.50 TO 187.50	Massive Mafic Volcanic and Sediments «2,a,m,c»	<ul style="list-style-type: none"> - dark grey-green and dark green. - fine grained, not magnetic, hard. - patchy texture with zones of homogeneous, pale grey, speckled massive rock and dark green chlorite/hornblende altered tuff and lapilli tuff. - locally, fragments with dark green altered rims up to 3 cm in thickness. - rare, pale grey speckles (fsp?) are weakly aligned at 60°/ca. - downhole contact approximate at end of predominantly dark green tuffs. 		<ul style="list-style-type: none"> - cross-cut by pale grey, 1-5cm wide carbonate-quartz/-epidote veinlets (3?). 	<ul style="list-style-type: none"> - trace chalcocopyrite + pyrrhotite + pyrite with carbonate veining. 	
187.50 TO 214.39	Massive Mafic Volcanic «2,a,m»	<ul style="list-style-type: none"> - dark grey-green with faint medium grey speckled texture. - fine grained, hard, not magnetic. - faint speckles may be sub-millimetre feldspars (look like light dusting of snow). - last few metres - decrease in feldspars and more chaotic textured. - may be one flow with internal variations or separate flows. - downhole contact sharp at 65°/ca. 		<ul style="list-style-type: none"> - cut by 10%, 1-2cm wide carbonate veinlets with faint thin alteration halos and locally up to 1 cm wide brown carbonate alteration halos. - cut by 15%, hairline chlorite? veinlets with 2-5cm wide, medium green alteration halos. Veinlets are randomly oriented and appear to always be cross-cut by carbonate veinlets. - 208.96-210.14m - medium brown, pervasively carbonate altered interval with a 2 cm wide quartz + calcite + chalcocopyrite vein at 60°/ca in the center. Alteration is symmetric about vein. 	<ul style="list-style-type: none"> - trace fracture-controlled chalcocopyrite and pyrrhotite + pyrite. - up to 5% sulphides in finer grained 10 cm intervals with wispy (fracture-controlled) pyrrhotite and chalcocopyrite. - 211.0m - 2% pyrrhotite + chalcocopyrite - 212.27-213.37m - 3% dusty pyrrhotite + trace chalcocopyrite. - 213.06-213.11m - 5% wispy chalcocopyrite + 1% disseminated pyrrhotite. 	<ul style="list-style-type: none"> - changes in alteration downhole may be a result of primary porosity (i.e. alteration of a flow top).

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGL TO CA	ALTERATION	MINERALIZATION	REMARKS
214.39 TO 215.36	Sediments <5, *a>	<ul style="list-style-type: none"> - dark purple and medium green banded. - weakly magnetic (pyrrhotite). - bands are thinly laminated but irregular at 65°/ca. - appears to be recrystallised and chlorite and epidote altered. - weakly to moderately strained as shown by weakly boudined green layers. - last 20cm of interval is strongly contorted with up to 15% pyrrhotite along laminae. - downhole contact irregular as defined by fracture-controlled pyrrhotite with lesser carbonate, quartz and chalcocopyrite. 	65	<ul style="list-style-type: none"> - 212.7m - rare, 0.5-0.7cm, irregular, white flecks of carbonate + epidote cored by specks of pyrrhotite. - trace quartz + carbonate veining. 	<ul style="list-style-type: none"> - 2% pyrrhotite and trace chalcocopyrite are fracture-controlled subparallel to bedding and locally define the laminations. - 215.11-215.32m - up to 15% pyrrhotite + trace chalcocopyrite with 0.5 cm wide, fracture-controlled massive pyrrhotite at base of more siliceous interval. 	
215.36 TO 233.08	Massive Mafic Volcanic <2, s, *a>	<ul style="list-style-type: none"> - dark green. - fine grained, locally weakly granular textured (slightly medium grained). - massive. - 223.8-224.93m - fine grained interval of mafic rock with contacts at 50°/ca - interflow sed? - strong brecciation with quartz and calcite over 30cm near downhole contact. - downhole contact sharp at 55°/ca. 		<ul style="list-style-type: none"> - 2% calcite + (carbonate + epidote), 1-8mm veinlets, locally with up to 5mm wide alteration halos. - minor heavy chlorite-epidote alteration with trace sulphides. - weak pervasive, forest green coloured chlorite + epidote alteration. 	<ul style="list-style-type: none"> - finely disseminated 0.5% chalcocopyrite and pyrrhotite throughout interval. - trace hairline fracture-controlled pyrrhotite and chalcocopyrite. - trace pyrite on fracture surfaces. 	
233.00 TO 246.70	Sediments <5, <ANG>, g>	<ul style="list-style-type: none"> - medium grey to dark grey and brown-grey. - fine grained. - thinly to thickly laminated beds are 0.5m-10cm thick at 60-70°/ca. - strong foliation sub-parallel to bedding with rare strong mineral lineations in the plane of bedding. - local beds are weak to moderately graphitic. - weakly to strongly conductive over up to 30 cm intervals. - local mm-scale folding, typically isoclinal (syn-sedimentary?). - 247.2m - 10cm, rotated, fault bounded, gently folded section of bedding. - 233.3-233.7m - medium grey, siliceous (cherty) sediment with 2% fracture-controlled pyrrhotite and trace chalcocopyrite. - 234.1-234.6m - dark brown, feldspar porphyritic 	65	<ul style="list-style-type: none"> - cut by 2%, 1-5mm wide white carbonate veins with no alteration halos. - wider veins contain quartz and up to 10% pyrrhotite. 	<ul style="list-style-type: none"> - 1-5% pyrrhotite and lesser chalcocopyrite are fracture-controlled and locally disseminated in thin, irregular spots. - locally sulphides are renobilized in carbonate veins. - locally fine wisps of sulphide are sub-parallel to bedding. 	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<ul style="list-style-type: none"> Dyke cut by 80%, hairline chlorite veinlets with 2mm wide bleached margins. Contains 10%, 1-5mm, beige, locally saussuritized, subhedral feldspars. Contacts are highly irregular. 236.15-238.56m - forest-green, fine grained mafic flow(?) with diffuse, irregular contacts. 239.5-240.05m - forest-green mafic flow (?) as at 236.15-238.56m. downhole contact defined by a calcite + pyrite 		<ul style="list-style-type: none"> 236.15-238.56m - possibly strongly chlorite and epidote-altered rock. Contacts are extremely irregular. 	<ul style="list-style-type: none"> 236.15-238.56m - spotted with 3%, 1mm spots and 1-3mm wispy of pyrrhotite and chalcopyrite. 	
246.70 TO 287.97	Massive Mafic Volcanic *2, a, m, Ch, E B*	<ul style="list-style-type: none"> dark green. fine grained, massive. locally weakly foliated. randomly oriented, thin carbonate veinlets locally fringed by dark brown carbonate altered rock. 1%, 1-3mm rounded spots (amygdules?) are ankerite and sulphide filled. downhole contact sharp at 78°/ca. 		<ul style="list-style-type: none"> 1%, patchy dark brown carbonate (biotite?) alteration. cross-cut by up to 10%, 0.5-2 cm wide chlorite and epidote stringer alteration. Locally veinlets contain patchy sulphides with rare carbonate. Alteration may be of matrix between mafic fragments or entirely fracture controlled. 2% hairline carbonate veinlets. These are cut by wider veins of massive chlorite and carbonate that are up to 10 cm wide and have no alteration halos. 269.6m - low angle, 5mm wide, grey carbonate and bright green, massive epidote vein have irregular, brown pervasive carbonate alteration halo. chlorite on fracture surfaces. carbonate veinlets are a mixture of ankerite and calcite with ankerite veinlets locally cross-cutting calcite veinlets. ankerite is typically associated with sulphides. 	<ul style="list-style-type: none"> up to 1% pyrrhotite and chalcopyrite are wispy, fracture-controlled with chlorite + epidote stringer alteration. Locally, where finer grained may be associated with minor carbonate. 0.5% pyrrhotite + chalcopyrite with late carbonate + chlorite veins. 0.5% chalcopyrite +/- pyrrhotite + ankerite in amygdules? 	
287.97 TO 291.50	Mafic Volcanic *2/7, b, P*	<ul style="list-style-type: none"> fine grained to medium grained downhole. dark grey with green tinge. feathery textured (micas?), homogeneous. moderately hard. not magnetic, does not react to 3% HCl. may be altered buff or slightly more ultramafic composition (tremolite?). 		<ul style="list-style-type: none"> rare hairline carbonate veinlets (up to 5% near downhole contact). 	<ul style="list-style-type: none"> none observed. 	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CN	ALTERATION	MINERALIZATION	REMARKS
291.50 TO 299.10	Massive mafic Volcanic #2, a, na	<p>{289.53-290.0} #7, P# dark grey-brown feldspar and hornblende/chlorite porphyritic dyke with sharp contacts at 80°/ca.</p> <ul style="list-style-type: none"> - downhole contact is irregular, gradational and defined by strong carbonate +/- chlorite veining. - dark green. - fine grained, homogeneous. - not magnetic. - hard, moderately well folded. - similar to 299.7-297.96m. - first appearance of 1mm, sub- to euhedral, pale purple garnets, up to 10% in 1-5 cm wide irregular swaths. - downhole contact subtle but sharp at 70°/ca. 		<ul style="list-style-type: none"> - pale green irregular bands of epidote altered rock. - 2% hairline carbonate veinlets with 1 mm, pale green alteration halos - 'swath-like' alteration does not appear to be cross-cut by the veinlets. - core breaking along irregular fractures with chloritic slip surfaces and rare 2-3 mm pyrite euhedra. - patchy, dark brown biotite alteration more predominant near uphole contact (up to 10%). 	<ul style="list-style-type: none"> - up to 2 cm wide, massive pyrrhotite stringer with trace chalcocite (5%). - flattened pyrite cubes on fracture and foliation surfaces. 	
299.10 TO 309.70	Sediments and mafic Volcanic Rocks #5, g, B/2, C?	<ul style="list-style-type: none"> - dark and light grey and dark green. - hard. - weakly to strongly magnetic (pyrrhotite) - variably foliated and folded. - 299.1-201.33m - hornblende-phyric mafic dyke or tuff. Variably epidotized and mineralized. Locally textures resemble pyrrhotite replacing a hyaloclastite matrix. - 301.33-302.7m - dark grey, strongly lineated unit with 8%, 4mm, white, well rounded amygdules? (or garnets?) Locally appear to have radiating texture. - 302.7-309.7m - interbedded light to medium grey, fine grained, homogeneous, poorly bedded tuffs or greywackes and dark grey, very fine grained argillites and graphitic argillites. - contacts are sharp and typically tectonically folded. - locally at very low angles to core axis indicating the presence of larger scale folding. - local chaotic textures. - downhole contact sharp and irregular at 		<ul style="list-style-type: none"> - 299.1-301.33 - moderate epidote alteration over 80% of interval with ragged contacts with less altered rock. - 301.33-302.7m - rare, pale green bleached patches. - 302.7-309.7m - patchy pale to apple green epidote alteration of more mafic beds. - rare, 1mm wide cross-cutting carbonate veinlets. 	<ul style="list-style-type: none"> - 299.1-301.33 - up to 10% pyrrhotite in veins and fractures often with rounded 'balls' of dark grey quartz. Quartz veining is unusual. - 301.33-302.7m - 5%, finely disseminated pyrrhotite and lesser chalcocopyrite and pyrite. Locally up to 2mm wide, fracture-controlled pyrrhotite. - 302.7-309.7m - 2-3% fracture-controlled pyrrhotite and trace chalcocopyrite. - sulphides locally define bedding in the argillite. 	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
309.70 TO 330.25	Massive Mafic Volcanic *2, a, m, Gt*	<ul style="list-style-type: none"> - 60°/ca. - dark green with pale pink spots. - hard, not magnetic. - similar to previous mafic interval at 246.7-287.9m except for garnets. - 18-15%, pinpoint to 2mm, rounded to euhedral pale pink to orange-red garnets. Randomly scattered and do not seem to be related to grain size of rock and/or fracture-controlled darker green (alteration?) patches. - overall decrease in average size and abundance of garnets downhole. - downhole contact approximate at first appearance of chert beds intercalated with mafic material on cm-scale. 		<ul style="list-style-type: none"> - 2-4%, fracture-controlled carbonate and sulphides. - deep forest green colour of core suggests pervasive epidote alteration of rock. - 316m - 2cm wide, diffuse, pale brown + green carbonate + epidote halos around 1mm carbonate veinlets. - 326.6m - two, 1 cm sized patches of bright green epidote alteration. Locally along fractures (rare). 	<ul style="list-style-type: none"> - 1-3% fracture-controlled pyrrhotite with lesser chalcopyrite. Often occurs with carbonate. 	
338.25 TO 342.50	Sediments (+ mafic volcanic) *5, g, F/2, m*	<ul style="list-style-type: none"> - dark grey with pale grey, pale green and bronze. - variably magnetic (pyrrhotite). - finely banded, poorly bedded, strongly folded and contorted argillite and graphitic argillite (45%). - intercalated, 0.5-2 m wide, pale green, often strongly altered massive and brecciated mafic volcanic intervals (40%). - dark and medium grey, thinly laminated chert beds interbedded with argillite (5%). - well foliated at 25-60°/ca. - mafic intervals may represent thin flows (sharp contacts, homogeneous texture). - 332.55-332.7m brittle interval of argillite with pyrite and graphite may represent small fault zone. - 336-336.5m weakly mylonitic zone at 70°/ca. - downhole contact very irregular, with 'chertier' layer (hornfelsed) similar in composition to uphole contact. 	45	<ul style="list-style-type: none"> - 1%, white calcite veining. - locally, weak, pervasive epidote alteration in argillite or mafic beds. - 333-334m - mafic breccia interval contains 1-3 cm, subrounded, strongly epidote altered fragments with 1% orange garnets in a calcite-rich matrix. Also at 337.42-338.1m and 338.5- 338.85m. 	<ul style="list-style-type: none"> - 1-5% fracture-controlled pyrrhotite and pyrite with trace chalcopyrite. - pyrrhotite typically sub-parallel to bedding and folded with it. 	
342.50 TO 358.23	Massive Mafic Volcanic *2, a, m*	<ul style="list-style-type: none"> - dark grey-green with white. - moderately hard, not magnetic. - moderate foliation variably developed at random angles to core axis. - 18%, 1-10 cm intervals of fine grained 'interflow/pillow' material with pale green sub-rounded clots of quartz-epidote(?). 		<ul style="list-style-type: none"> - 2% hairline carbonate veinlets locally with 1-2mm, pale green alteration halos. - 1-5%, fracture-controlled, dark green, 0.5-3 cm wide, epidote +/- chlorite alteration. - near base of interval 1 cm wide 	<ul style="list-style-type: none"> - trace fracture-controlled pyrrhotite and chalcopyrite. 	

HOLE NUMBER: MMS5-05

DRILL HOLE RECORD

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HOLE NUMBER: NAX55-05

DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
358.23 TO 373.96	Interflow Sediments s.s., arg.	<ul style="list-style-type: none"> - greyer in colour than whole mafic rocks. - downhole contact is weakly crystallized and epidote altered at 70°/ca. - pale grey, dark brown-grey, and green. - variably magnetic (pyrrhotite). - conductivity mostly due to sulphides (ie. little to no graphite). - cut by 15 cm feldspar porphyritic, dark grey mafic dyke. - thin laminations at 70-80°/ca locally isoclinally folded on m- and ca-scales. - rare chert beds. - locally chaotic textured. - no grading observed. - 358.75-359.8m - interval of moderately epidote altered (with trace po+cp) mafic volcanic rock. - downhole contact weakly gradational (may be hornfelsed). 	70	<ul style="list-style-type: none"> - carbonate vein at low angle to core axis contains within it 1-3 cm patches massive, medium green, very soft chlorite. - strong epidote alteration of 10% of the beds in the argillite. - rare carbonate veinlets cross-cut bedding. 	<ul style="list-style-type: none"> - up to 5% fracture-controlled pyrrhotite and trace chalcopyrite sub-parallel to bedding planes and cross-cutting them. 	<ul style="list-style-type: none"> - contact relationships suggest tops downhole to the south.
373.96 TO 404.70	Mafic Volcanic s2, s1, s3	<ul style="list-style-type: none"> - dark grey-green. - fine grained, locally medium grained. - weakly magnetic (fine grained, disseminated pyrrhotite). - flows are 0.5-1.5 metres thick (average). - 2-28 cm flow breccias with 0.5-1cm, tightly packed, sub-angular fragments in a darker green, chlorite-rich matrix, locally in situ brecciated. - faint epidote chloritic fracture patterns near flow margins (incipient brecciation). - 371.95-374m - thicker flow - medium grained with gradational contacts and 10% \langleinn, dusty white, angular, irregular relict feldspars (or leucosomes?) - 397.9-398.7m \langles; B.g. 2, b\rangle Brecciated mafic volcanic rock interbedded with thinly laminated chert beds locally epidote altered. Beds are at 70°/ca and locally asymmetrically folded. - 401.0-401.15m \langlee? \rangle High strain zone with broken core over 5 cm. No gouge present. - 402.3-404.43m \langle? \rangle Feldspar and chlorite (prob. retrograded hornblende) phytic intermediate dyke. 25% 1-3mm, tabular, subhedral, white 		<ul style="list-style-type: none"> - weak pervasive epidote alteration. - chaotic carbonate + epidote + chlorite veining (up to 20% near downhole contact). - 1% late, angular fracture-controlled carbonate alteration. - rare, bleached patches that contain 5% white, \langleinn, angular feldspar and/or quartz + epidote fragments. - chloritic slips on fracture surfaces. 	<ul style="list-style-type: none"> - 1% finely disseminated pyrrhotite. - rare, fracture-controlled pyrrhotite with interflow sediments at 398.5m. - trace flattened pyrite cubes on fracture surfaces. 	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
404.78 TO 440.00	Hornblende Porphyritic Mafic Intrusive (or Flow) #7, D, Kb	<ul style="list-style-type: none"> feldspars and 18%, rounded clots of fine grained chlorite in a fine grained, medium green-grey, weakly pyritic (1%) matrix. Contacts are sharp at 60-65°/ca. downhole contact at first appearance of hornblende-pyritic flows. Contact is weakly strained at 55°/ca. medium grained, locally fine and coarse grained. moderately hard. not magnetic. massive to locally weakly foliated. 30%, 1-2mm, subhedral, dark green hornblendes typically chlorite retrograded. 20%, anhedral to locally subhedral, white feldspars. extremely variable texture from medium to fine grained on a 10 cm scale with abrupt contacts. intrusion appears to be cut by finer grained dykes of same. may be very thick flow (no good chill margin was observed at uphole contact). 		<ul style="list-style-type: none"> 1-2%, titanite-controlled carbonate veining. lt. white to pale green or pink veining of fine grained quartz - epidote and/or sericite. local hairline stringers of epidote or sericite alteration occurring in more foliated zones. 	<ul style="list-style-type: none"> rare pyrrhotite + chalcocopyrite in quartz vein (417.65m). trace disseminated pyrrhotite. 	

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HOLE NUMBER: MAN55-05

ASSAYS SHEET

DATE: 10/02/1997

Sample	From (M)	To (M)	Lang. (M)	Cu ppm	Zn ppm	Pb ppm	Mn ppm	As ppb	Ag ppm	Cu/Zn	Co ppm	Pt ppb	Pd ppb	S ppm	Se ppm	As ppm	Hg ppb	Sb ppm	Est. Ni t	Est. Po t	Est. Py t	Est. Cp t	Est. Sp t	Est. Gh t	ROCK TYPE	Comments		
AT06605	141.50	142.26	0.76	27	38	2	20	<2	0.1																7D	cut off		
AT06606	142.26	143.06	0.74	102	23	1	20	24	0.1																	2, ep, ch	tr py	
AT06607	143.00	144.50	1.50	56	10	1	25	3	0.1																	2 fcaq	tr cp,po	
AT06608	144.50	146.00	1.50	121	74	1	46	3	0.1																	2, t	tr po, cp	
AT06609	146.00	147.50	1.50	486	38	1	46	34	0.1																	sa	sa	
AT06610	147.50	149.00	1.50	888	50	1	48	41	0.3																	sa	1/2 po, cp	
AT06611	149.00	150.50	1.50	1560	50	1	71	3	0.4																	2, t	1/2 po, cp	
AT06612	150.50	152.00	1.50	506	44	1	46	17	0.1																	sa	sa	
AT06613	152.00	153.50	1.50	1220	52	1	65	7	0.2																	2, t	tr cp, po	
AT06614	153.50	154.35	0.85	396	31	1	37	10	0.1																	sa	sa	
AT06615	154.35	155.70	1.35	149	29	1	62	3	0.1																	2t, 2m	cut off	
AT06616	209.00	210.50	1.50	471	94	1	106	14	0.2																	2, cb, qv	cp in qv	
AT06617	210.50	211.75	1.25	611	21	1	60	7	0.2																			cr cp
AT06618	211.75	212.50	1.05	346	27	1	73	<2	0.1																	2	1/2 po, cp	
AT06619	212.80	214.10	1.30	1110	47	1	68	<2	0.2																	2	1/2 po, cp	
AT06620	214.10	215.36	1.26	778	36	1	48	<2	0.1																	5	5/8 po, tr, cp	
AT06621	215.36	216.50	1.14	213	42	1	44	<2	0.1																	2	tr ax	
AT06622	221.00	222.50	1.50	890	24	1	35	21	0.1																	2	tr cp, po	
AT06623	222.50	224.00	1.50	533	21	1	36	19	0.1																	2	0.5/8 po, py	
AT06624	224.00	225.50	1.50	354	22	1	39	14	0.1																	2	sa	
AT06625	225.50	227.00	1.50	303	21	1	37	<2	0.1																	2	sa	
AT06626	227.00	228.50	1.50	507	21	1	31	<2	0.1																	2	sa	
AT06627	228.50	230.00	1.50	973	26	1	34	<2	0.1																	2	sa	
AT06628	230.00	231.50	1.50	934	19	1	25	<2	0.1																	2	sa	
AT06629	231.50	233.00	1.50	947	38	1	33	3	0.1																	2, a, m	tr ax	
AT06630	233.00	234.50	1.50	1630	24	1	54	24	0.2																	2/5, 7D	2/8 po, tr cp	
AT06631	234.50	236.00	1.50	2040	36	1	35	<2	0.2																	2 + 5	3/8 po	
AT06632	236.00	236.95	0.95	1510	41	1	48	113	0.3																	2	1/2 po, cp	
AT06633	236.95	237.50	0.55	1660	31	1	60	21	0.2																	5/27	2/8 po	
AT06635	237.50	238.56	1.06	233	33	1	45	10	0.1																	2	1/2 ax	
AT06636	238.56	239.50	0.94	738	22	1	67	7	0.2																	5	5/8 po, tr cp	
AT06637	239.50	240.05	0.55	353	34	1	29	3	0.1																	2	1/2 po, cp	
AT06638	240.05	241.20	1.15	1060	40	1	51	10	0.2																	5	4/8 po, tr cp	
AT06639	241.20	242.36	1.16	2080	62	1	59	<2	0.5																			
AT06640	242.36	242.75	0.39	1340	50	1	56	<2	0.2																		2/7	tr po
AT06641	242.75	243.75	1.00	987	31	1	67	<2	0.3																	5	2/8 po, tr cp	
AT06642	243.75	244.75	1.00	1600	43	1	53	08	0.7																			4/8 po, tr cp
AT06643	244.75	245.40	1.15	2130	56	1	48	65	0.6																			3/8 po+cp
AT06644	245.50	246.70	0.80	1420	49	2	40	93	0.3																	5	1/2 po+cp	
AT06645	246.70	247.30	0.60	855	40	1	44	82	0.2																		2+5 interflow	2/8 po+cp
AT06646	247.30	248.00	0.70	338	38	1	23	<2	0.1																	2	cut off	
AT06647	248.00	249.50	1.50	512	37	1	24	27	0.1																	2	cut off	
AT06648	249.50	251.00	1.50	754	38	1	23	69	0.2																	2	cut off	
AT06649	281.00	282.50	1.50	263	139	1	31	3	0.1																	2, a, m	1/2 po, cp	
AT06650	282.50	284.00	1.50	413	161	1	35	3	0.1																		sa (test)	
AT06651	284.00	285.50	1.50	271	222	3	35	<2	0.1																	2, a, m	tr po, cp	
AT06652	285.50	287.00	1.50	220	263	1	31	<2	0.1																		sa	

HOLE NUMBER: MAN55-05

ASSAYS SHEET

HOLE NUMBER : NANS5-05

ASSAYS SHEET

DATE: 10/02/1997

Sample	From (M)	To (M)	Leg. (M)	Cu ppm	Zn ppm	Pb ppm	Bi ppm	Au ppb	Ag ppm	Cu/Zn	Co ppm	Pt ppb	Ni ppb	S ppm	Se ppm	As ppm	Hg ppb	Sb ppm	Est. Ni t	Est. Po t	Est. Py t	Est. Cp t	Est. Sp t	Est. Gt t	ROCK TYPE	Comments		
AT06653	287.00	287.96	0.96	728	286	1	34	<2	0.2																sa			
AT06654	287.96	289.00	1.04	16	49	1	79	7	0.1																	7P, 2t	cut off	
AT06655	291.55	293.40	1.85	93	140	1	41	<2	0.1																	2, ep		
AT06656	293.00	294.50	1.50	184	96	1	33	<2	0.1																	2, ep		
AT06657	294.50	296.00	1.50	119	78	1	22	<2	0.1																	2, a, m + 7a		
AT06658	296.00	297.55	1.55	440	105	1	34	<2	0.2																	2, a, g, t	3t po	
AT06659	297.55	299.10	1.55	48	84	1	37	<2	0.1																	2, a, n	cr po	
AT06660	299.10	300.55	1.45	697	75	1	55	<2	0.3																	2/7 bhd	2t po	
AT06661	300.55	301.33	0.78	82	95	1	20	<2	0.1																	2 ep (sa)		
AT06662	301.33	302.70	1.37	105	687	1	38	<2	0.2																	2/7 bhd	1t po	
AT06664	302.70	303.43	0.73	154	559	1	29	3	0.2																	5, 7, 8	1t po	
AT06665	303.43	304.95	1.52	205	302	1	49	<2	0.2																		2, ep, a	
AT06666	304.95	306.45	1.50	428	2720	1	53	3	0.4																		5, arg, P	1t po
AT06667	306.45	307.43	0.98	308	666	1	36	7	0.3																		5, g, F, qv	1-2t po
AT06668	307.43	308.46	1.03	232	1250	5	47	<2	0.5																		5 arg, 2t7	1t py, po
AT06669	308.46	309.70	1.24	353	2419	5	76	<2	0.8																		5, g, 2t7	3t po, tr cp
AT06670	309.70	311.90	2.20	267	231	1	40	<2	0.2																		2, a, n, Gt	2t po
AT06671	311.90	312.50	0.60	74	65	1	28	<2	0.1																		2, Gt	cut off
AT06672	312.50	316.00	3.50	77	59	1	31	<2	0.1																		2, a, m, Gt	cut off
AT06673	316.00	327.50	11.50	165	70	1	36	<2	0.1																		2, a, n	3t po
AT06674	327.50	329.00	1.50	277	76	1	38	<2	0.2																		2, a, n	2t po
AT06675	329.00	330.25	1.25	213	93	1	33	<2	0.2																		2, a, n, Gt	tr po
AT06676	330.25	331.90	1.65	550	2540	19	100	<2	1.1																		5, arg, g	2t po, py
AT06677	331.90	333.20	1.30	102	163	1	51	<2	0.3																		2, m, bx	tr po, py
AT06678	333.20	334.11	0.91	209	128	2	58	<2	0.2																		2, ep, Gt, cb	tr po, cp, py
AT06679	334.11	335.05	0.94	569	5590	17	151	46	2.3																		5, arg, g	5t po, tr cp
AT06680	335.05	336.40	1.35	628	934	20	85	7	1.1																		2, a, n / 5g	tr po, cp
AT06681	336.40	337.90	1.50	1030	4070	31	104	41	1.6																		5, arg	4t po, tr cp
AT06682	337.90	338.80	0.90	141	341	2	51	<2	0.3																		2, alt, bx	2t po
AT06683	338.80	340.00	1.20	43	189	1	36	<2	0.2																		2, a, m	tr ax
AT06684	340.00	341.40	1.40	42	79	1	22	<2	0.1																		sa	
AT06685	341.40	342.55	1.15	710	2060	15	118	48	2.3																		5, arg, g	4t po
AT06686	342.55	344.00	1.45	121	95	1	27	3	0.3																		2, a, n	cut off
AT06687	346.75	348.23	1.48	125	71	1	44	<2	0.1																		2, a, n	cut off
AT06688	350.23	356.75	6.52	423	921	1	92	14	0.2																		5, g, t	
AT06689	358.75	359.80	1.05	100	256	1	38	<2	0.2																		2, a, m	1t po, cp
AT06690	359.80	361.30	1.50	13	112	15	8	<2	0.3																		5, arg	2t po
AT06691	361.30	362.80	1.50	494	1690	21	90	54	1.4																		sa	
AT06692	362.80	364.30	1.50	510	1640	4	76	24	0.4																		2, a, n	cut off

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GEOCHEMICAL ASSAY

DATE: 11/02/1997

Sample	From (M)	To (M)	Leg. (M)	SiO2	Al2O3	CaO	MgO	Na2O	K2O	Fe2O3	TiO2	P2O5	MnO	Cr2O3	LOI	SUM	Y	Zr	Ba	Cu	As	Ni	Co	FIELD NAME	CHEM ID	ALAM
				%	%	%	%	%	%	%	%	%	%	%	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM			
AM00519	53.00	56.00	3.00	68.45	14.62	12.38	6.64	2.11	0.50	11.22	0.76	0.08	0.29	0.09	0.98	98.34	16	45		50	138	145	2,a,D,m	2hu	99	
AM00520	74.00	77.00	3.00	68.85	12.93	10.67	9.92	1.56	1.00	10.37	0.53	0.08	0.17	0.09	2.64	98.71	14	45		55	48	215	7,Dio	7(h)u	98	
AM00521	86.00	88.00	2.00	45.92	15.10	12.42	5.76	1.99	0.42	13.78	0.61	0.10	0.48	0.09	1.10	97.97	16	41		<5	115	165	2,D,a,m	2hw	102	
AM00522	88.00	89.00	1.00	36.83	13.09	6.62	8.22	0.25	0.04	23.97	0.66	0.08	0.52	0.09	9.26	99.51	16	38		155	195	140	2,t gar-pp	2hw	147	
AM00523	104.00	107.00	3.00	46.64	14.62	13.04	6.18	1.78	0.22	13.23	0.79	0.08	0.38	0.08	0.45	97.85	16	42		15	115	135	2,a,n,D	2hw	97	
AM00524	119.00	122.00	3.00	48.58	15.06	13.73	6.15	1.88	0.32	12.21	0.79	0.10	0.36	0.10	1.19	100.47	18	43		<5	85	175	2,spotty	2hw	95	
AM00525	123.50	124.00	0.50	47.67	12.67	11.71	10.20	1.40	0.16	10.57	0.50	0.08	0.10	0.10	3.48	98.72	22	44		50	46	235	2,cb brown	JK	95	
AM00526	140.35	142.26	1.91	68.28	14.51	4.15	1.65	5.24	1.20	3.54	0.27	0.16	0.09	0.09	1.60	97.65	12	103		28	25	5	7,D		137	
AM00527	158.00	161.00	3.00	43.72	14.41	11.78	8.04	2.21	0.68	10.32	0.80	0.10	0.21	0.07	1.29	99.63	18	49		65	30	140	2,a,m d gy	2hu	98	
AM00528	178.50	181.40	2.90	68.58	14.23	12.11	8.41	2.09	0.04	10.49	0.82	0.08	0.18	0.06	1.36	99.60	18	43		90	60	145	2,green t7	2hu	94	
AM00529	189.50	192.50	3.00	48.30	11.37	11.39	8.09	2.03	0.82	13.26	0.81	0.08	0.21	0.06	1.30	100.83	16	45		100	40	160	2 speckled	2hu	101	
AM00530	216.50	219.50	3.00	49.40	12.35	7.66	6.04	2.65	1.32	17.95	1.45	0.12	0.16	0.03	0.97	100.21	30	108		230	15	85	2,a,n	2(h)u	104	
AM00531	251.00	254.00	3.00	46.59	12.11	7.41	4.09	3.09	0.98	22.65	1.62	0.16	0.18	0.02	0.91	98.83	36	102		520	25	55	2,a,n	2hw	105	
AM00532	278.00	281.00	3.00	48.59	13.32	6.01	3.96	2.17	1.92	19.69	1.62	0.16	0.34	0.03	0.59	98.30	44	65		300	20	45	2,a,n	2hw	122	
AM00533	287.96	289.00	2.04	53.73	13.54	7.30	10.69	3.24	1.68	7.53	0.42	0.20	0.18	0.11	2.12	100.74	8	41		15	25	250	2/7 67	4(j)A	111	
AM00534	317.00	328.00	3.00	49.84	15.29	8.72	3.93	2.37	0.58	16.98	1.64	0.16	0.09	0.09	0.34	100.76	44	63		30	55	55	2,a,n,Gc	2hw	131	
AM00535	350.00	353.00	3.00	51.29	16.41	9.93	5.99	3.10	0.38	10.87	0.96	0.08	0.29	0.06	1.15	100.51	18	32		25	<5	100	2,a,n	2hw	122	
AM00536	371.00	374.00	3.00	49.68	15.31	8.40	4.82	2.77	0.42	14.36	1.58	0.18	0.26	0.02	0.58	98.38	36	64		110	25	45	2,b,n	2hu	132	
AM00537	380.00	383.00	3.00	53.79	18.65	5.98	4.72	6.12	0.72	8.19	1.04	0.34	0.19	0.03	1.23	101.00	26	78		80	<5	75	2,a,l	2hw	145	
AM00538	402.30	404.41	2.11	53.96	19.57	3.79	3.64	7.74	2.28	4.36	0.44	0.32	0.08	0.03	3.11	99.26	18	103		45	<5	40	7,P	9i	143	
AM00539	419.00	421.00	2.00	47.92	18.70	6.76	10.35	3.67	0.98	8.47	0.57	0.10	0.13	0.04	2.53	108.23	28	30		65	<5	110	7,P	7hu	164	

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GEOCHEMICAL ASSAY

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DATE: 10/02/99

HOLE NUMBER: MAW55-05

GEOCHEMICAL ASSAYS

Sample	From (M)	To (M)	Log. Int.	RB PPM	SR PPM	CO2 %	AG PPM	AU PPM	CD PPM	FE PPM	S PPM	V PPM	AS PPM	SM PPM	CO PPM	SB PPM	BI PPM	SE PPM	KF PPM	TA PPM	Y PPM	MO PPM	TH PPM	U PPM	B PPM	CS PPM	LA PPM	CE PPM	MD PPM
AM0519	53.00	56.00	3.00						45		0.01	260																	
AM0520	74.00	77.00	3.00						47		0.00	190																	
AM0521	86.00	88.00	2.00						50		<0.01	260																	
AM0522	88.00	89.00	1.00						85		1.00	225																	
AM0523	104.00	107.00	3.00						51		0.01	260																	
AM0524	119.00	122.00	3.00						51		0.02	255																	
AM0525	123.50	124.00	0.50						49		0.32	190																	
AM0526	140.35	142.26	1.91						13		0.01	50																	
AM0527	158.00	161.00	3.00						43		0.06	260																	
AM0528	179.50	181.40	2.90						49		0.06	260																	
AM0529	189.50	192.50	3.00						52		0.04	165																	
AM0530	216.50	219.50	3.00						57		0.16	330																	
AM0531	251.00	254.00	3.00						62		0.23	380																	
AM0532	278.00	281.00	3.00						52		3.10	360																	
AM0533	287.56	290.00	2.04						36		0.01	125																	
AM0534	317.00	320.00	3.00						44		0.06	385																	
AM0535	350.00	353.00	3.00						47		<0.01	290																	
AM0536	372.00	374.00	3.00						50		0.19	410																	
AM0537	380.00	383.00	3.00						35		0.12	255																	
AM0538	402.30	404.43	2.13						18		0.95	75																	
AM0539	419.00	421.00	2.00						37		0.01	190																	

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GEOCHEMICAL ASSAYS

SCALE NUMBER : MANS5-05

Sample	From (M)	To (M)	Leg. (M)	SM PPM	KO PPM	GD PPM	DT PPM	BA PPM	LU PPM	OS PPM	IR PPM	RU PPM	RM PPM	PT PPM	PD PPM	LI PPM	BE PPM	NR PPM	CA PPM	GE PPM	IX PPM	TL PPM	SC PPM	BR PPM	MGON	CA/AL	ML/WO	IS/IRIN	EN/Na2
AN00519	53.00	56.00	3.00														2						40	0.58	0.83	22	33	62	
AN00520	74.00	77.00	3.00														1						35	0.70	0.82	22	47	26	
AN00521	86.00	88.00	2.00														2						43	0.50	0.82	29	30	58	
AN00522	88.00	89.00	1.00														1						35	0.47	0.66	17	48	740	
AN00523	104.00	107.00	3.00														2						42	0.53	0.89	22	36	66	
AN00524	129.00	122.00	3.00														2						42	0.54	0.91	28	29	45	
AN00525	123.00	124.00	0.50														1						35	0.78	0.92	23	44	32	
AN00526	140.35	142.25	1.91														2						6	0.53	0.29	3	23	5	
AN00527	158.00	161.00	3.00														2						40	0.68	0.88	20	38	80	
AN00528	238.00	245.00	3.00														2						41	0.59	0.79	20	40	20	
AN00529	189.50	192.50	3.00														3						45	0.44	0.62	24	42	6	
AN00530	214.88	219.50	3.00														3						43	0.31	0.61	13	33	8	
AN00531	251.00	254.00	3.00														2						<1	0.32	0.45	11	42	9	
AN00532	278.00	281.00	3.00														<1						<1	0.78	0.54	23	54	8	
AN00533	287.95	290.00	2.04														2						<1	0.35	0.57	14	29	23	
AN00534	317.00	320.00	3.00														2						<1	0.57	0.61	17	33	2	
AN00535	350.00	353.00	3.00														1						<1	0.44	0.55	9	32	9	
AN00536	371.00	374.00	3.00														1						<1	0.58	0.32	16	31	1	
AN00537	380.00	383.00	3.00														1						<1	0.67	0.19	11	34	1	
AN00538	402.38	404.43	2.13														1						<1	0.75	0.36	11	52	1	
AN00539	419.00	421.00	2.00														<1												

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SCALE NUMBER : MANS5-05

HOLE NUMBER: HAN11-02

FALCONBRIDGE LIMITED
DRILL HOLE RECORD

DATE: 01/27/1997
IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: 8269
PROJECT NUMBER: 8269
CLAIM NUMBER: P1201959
LOCATION: Hanna Township

PLOTTING COORDS GRID: UTM
NORTH: 5415761.18N
EAST: 495556.34E
ELEV: 280.00

ALTERNATE COORDS GRID: HAN96-03
NORTH: 4+ 0S
EAST: 8+ 0W
ELEV: 280.00

COLLAR DIP: -50° 0' 0"
LENGTH OF THE HOLE: 200.00M
START DEPTH: 0.00M
FINAL DEPTH: 200.00M

COLLAR ASTRONOMIC AZIMUTH: 180° 0' 0"

GRID ASTRONOMIC AZIMUTH: 180° 0' 0"

DATE STARTED: 12/03/1996
DATE COMPLETED: 12/05/1996
DATE LOGGED: 12/05/1996

COLLAR SURVEY: NO
RQD LOG: NO
HOLE MAKES WATER: NO

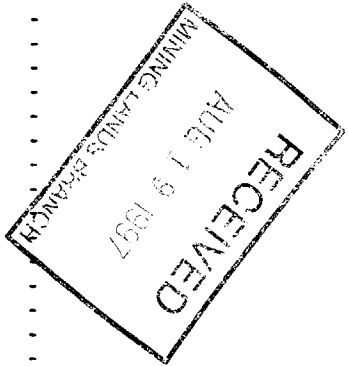
PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: BQ

CONTRACTOR: Norex Drilling Ltd.
CASING: Pulled
CORE STORAGE: Kidd Creek Minesite
UTM COORD.:

COMMENTS : Target: flat 20-ch TEM + enzyme leach. Source: thin 5g in 2am and 7D. Strat dips 45 deg to N.
WEDGES AT:

DIRECTIONAL DATA:

Depth (M)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (M)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
70.00	0' 1" -44° 0' 0"	-44° 0' 0"	A	OK		-	-	-	-	-	
130.00	0' 1" -46° 0' 0"	-46° 0' 0"	A	OK		-	-	-	-	-	
197.00	0' 1" -47° 0' 0"	-47° 0' 0"	A	OK		-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
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2.12599

C. Petch

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 53.40	CASING « ob »					- casing pulled, but some lost down the hole.
53.40 TO 140.25	PILLOWED MAFIC VOLCANIC «2,a,m»	<ul style="list-style-type: none"> - pale to medium green. - fine grained. - 10-100 cm wide pillows with 1 cm paler green rims that locally contain <1%, dark grey, pinhead amygdules. - pale to medium green, shard-like hyaloclastite up to 2 cm wide, commonly near downhole edge of pillow. - interpillow material is 15% hyaloclastite (epidote +/- chlorite), 10-20% mafic fragments and 65-75%, medium grey, fine grained calcite (reacts strongly with 3% HCl). - 70.2m - 5 cm wide interflow sediment containing 80%, 2-10mm, angular graphitic fragments in a fine grained dark grey matrix with 3% pyrite blebs. Contacts are sharp and very irregular. - 71.0m - 10 cm wide fault zone with calcite and 1 cm, angular, mafic fragments and minor graphite and pyrite. Broken core, pitted (groundwater altered). - 83-92m - massive interval. May be flow as characteristic curved margins and smaller pillows are not seen. The interval contains dark grey wacke?/interflow sediments? with 2-5 mm shards of calcite (react strongly with 3% HCl). - 134.34-138.22m - Sericite altered quartz-feldspar porphyritic intermediate intrusive. 5% anastomosing sericite +/- pyrite +/- chlorite alteration is feldspar destructive. Up to 30%, 2mm, quartz crystals near downhole contact. Contacts are sharp and intrusive. 138.47-138.6 «5,g,Py» Graphitic interflow sediment with 5% banded pyrite. Core is broken. Downhole contact at 80°/ca. - 138.6-140.25m - possible mafic tuff is grungy green, weakly granular textured, poorly banded at 75-90°/ca. Carbonate veining present. - downhole contact sharp at 70°/ca. 		<ul style="list-style-type: none"> - weak pervasive epidote alteration of pillows. - 10-15%, medium grey calcite filling angular gashes within the pillows. 	<ul style="list-style-type: none"> - 1-3% pyrite and pyrrhotite blebs in interpillow sediments and hyaloclastite. 	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
140.25 TO 171.13	QUARTZ FELDSPAR PORPHYRITIC INTER-MEDIATE INTRUSIVE *8,d*	<ul style="list-style-type: none"> - medium to dark green-grey. - quartz-feldspar porphyritic with 15%, 1-3mm, subrounded, medium grey quartz grains and 20%, 1-3mm, subangular, subhedral, white feldspars. - rare, 1mm, rounded, dark green chlorite (biotite?) phenocrysts. - matrix is medium green, fine grained and moderately siliceous. - 147-148.5m - low angle early? fault with moderately to tightly packed, 2-15mm, subrounded fragments of intermediate quartz-feldspar porphyry in a carbonate-rich matrix. Contact at 10-20°/ca and defined by a quartz-rich halo. - 168m - rare, 1-2 cm, angular mafic xenoliths. - downhole contact abrupt but hazy, irregular and may be weakly altered. No chill margin. 		<ul style="list-style-type: none"> - cut by up to 5%, randomly oriented carbonate +/- quartz +/- chlorite +/- pyrite veins. Veins are up to 2 cm wide and locally appear faulted. - 163.33-163.72m - weak pervasive sericite alteration (feldspars absent) and possible grain size reduction of quartz (crystals are 1-2mm and well rounded). Interval has gradational uphole contact and is marked by 3 cm quartz-carbonate veins at downhole contact with normal 8D. Also at 164.5-165.25m. 	<ul style="list-style-type: none"> - 1%, 1mm, disseminated and fracture-controlled pyrite euhedra. 	<ul style="list-style-type: none"> - contacts are not typical sharp and intrusive but hazy, possibly syn-volcanic (intruded into a still hot volcanic pile).
171.13 TO 184.15	PILLOWED MAFIC VOLCANIC *2,a,p*	<ul style="list-style-type: none"> - medium green. - fine grained. - as at 53.4-140.25m. - initial 3m is massive flow (or homogeneous tuff?). - 10-70 cm pillows with weakly mineralized, 1-3 cm wide, chloritic interpillow material. - hyaloclastite is more poorly developed than in uphole unit. - pillow rims are 1-10mm wide and a slightly darker green. - downhole contact sharp at 70°/ca. 		<ul style="list-style-type: none"> - weak pervasive epidote and carbonate alteration. - up to 5%, 1-20mm wide carbonate veins with trace epidote, chlorite and pyrite. 	<ul style="list-style-type: none"> - up to 10% pyrite and pyrrhotite in 1-3 cm wide interpillow sediments. 	
184.15 TO 189.84	SEDIMENTS *5,F,g/2,t*	<ul style="list-style-type: none"> - black, dark grey and dark green. - both thickly and thinly bedded alternating argillaceous, mafic tuffaceous and graphitic sediments. - 40%, 30-100 cm wide, medium green, granular textured but homogeneous mafic tuffs (altered flow?). - 40%, dark black, strongly foliated (at 70-80°/ca), thinly laminated graphitic beds. Locally, light grey, 1-5 mm, more siliceous beds within graphitic beds are folded or boudined. - 20%, medium to dark grey wacke beds are silty to sandy, poorly bedded and poorly sorted. - no grading observed. 		<ul style="list-style-type: none"> - <1%, hairline epidote +/- chlorite veinlets. - 5% thin, flattened carbonate veinlets in argillite beds and thicker, more irregular carbonate veinlets in the mafic tuffs. 	<ul style="list-style-type: none"> - up to 40%, 2 cm wide beds of banded disseminated pyrrhotite and pyrite. - 80% of mineralization occurs in the graphitic beds. - 187.65m - 5mm, rounded pyrite balls with carbonate in symmetric pressure shadows. 	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
189.84 TO 200.00	QUARTZ-FELDSPAR PORPHYRITIC INTER-MEDIATE INTRUSIVE «8,d»	<ul style="list-style-type: none"> - minor fault offset of beds on a mm-scale. - locally conductive and weakly magnetic. - downhole contact at the base of a mafic tuff is sharp, weakly undulose and at 80°/ca. - medium grey. - quartz-feldspar porphyritic. - feldspars are locally pale green and sausseritized. - as at 140.25-171.13m - crystal size of quartz and feldspars is variable near uphole contact but becomes increasingly more regular and coarser near base of hole. 		- cut by rare quartz + carbonate +/- epidote veinlets.	- 1%, 0.5-1mm, disseminated pyrite euhedra.	
200.00 TO 200.00	END-OF-HOLE «EOH»					

Sample	From (M)	To (M)	Leng. (M)	Cu ppm	Zn ppm	Pb ppm	Ni ppm	Au ppb	Ag ppm	Cu/Zn ppm	Co ppm	Pt ppb	Pd ppb	S ppm	Se ppm	As ppm	Hg ppb	Sb ppm	Est.Ni %	Est.Po %	Est.Py %	Est.Cp %	Est.Sp %	Est.Gn %	ROCK TYPE	Comments	
AT04647	183.00	184.15	1.15	93	178	1	79	3	0.1																		
AT04648	184.15	185.00	0.85	111	197	1	424	<2	0.1																2,p	cut off	
AT04649	185.00	186.12	1.12	72	65	1	536	<2	0.1																2,t + 5,g	1% po+py	
AT06601	186.12	187.41	1.29	239	1450	24	141	<2	0.3																2,t		
AT06602	187.41	188.64	1.23	205	925	16	212	<2	0.5																5,g,wke	3% po+py	
AT06603	188.64	189.84	1.20	102	457	17	311	17	0.3																5,g	2% py+po	
AT06604	189.84	191.00	1.16	26	65	9	24	24	0.1																5g, 3t	3% py+/-po	
																									8,d	cut off	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 117.00	CASING « ob »					- casing pulled. - overburden much deeper than expected as ddh AUR11-01 only intersected apx. 50 m of overburden.
117.00 TO 128.24	SEDIMENTS «5,D,g,F,RS»	<ul style="list-style-type: none"> - dark brown with 15% rusty oxide staining, locally dark grey. - fine grained, weakly to moderately feldspar porphyritic. - finely laminated (mm-scale) to thicker 0.5m-scale beds. - up to 3%, 0.5-1mm, pale grey to white, subrounded feldspar clasts/phenocrysts(?). - bedding at 60°/ca. Rare minor folds may be the result of soft sediment deformation. - graphitic beds at 117.43-117.53m, 118.05-118.23m and 128.1-128.24m. - variably conductive, not magnetic. - texture of sediments is weakly granular. - chloritic and may locally be biotitic. - irregular, late fractures have chloritic and/or chloritic gouge slip surfaces. 118.53-118.65 «FZ» 2-8mm, angular, dark grey fragments that are locally pyritic in a pale grey, fine grained felsic? matrix (no carbonate). Contacts at 60°/ca. - 128.1-128.24m - fine grained, brown-green, poorly sorted sediments contains 5%, 1mm, subhedral pyrite and 5%, 1-3mm, subhedral, sub-hexagonal graphite flakes. - downhole contact at high angles to core axis. 	60	<ul style="list-style-type: none"> - 3%, 1-3mm, rust-coloured veinlets oriented sub-parallel to bedding, locally at low angles to it. - locally pervasive, very fine oxidized pyrite. - weakly chloritic and biotitic. - <1%, thin, irregular carbonate veinlets. 	<ul style="list-style-type: none"> - up to 3%, finely disseminated pyrite predominantly occurring in mafic sediments. - 1% pyrite in carbonate veinlets (brittly deformed) throughout interval. 	
128.24 TO 130.00	FAULT ZONE «FZ,g»	<ul style="list-style-type: none"> - dark grey and white. - rare, 5 cm, graphitic argillite fragments are locally folded. - irregular boundins of white felsic? patches containing minor chlorite and graphite rimmed by 2-4 mm bands of massive bronze-grey graphite. - minor quartz-filled, sub-cm tension gashes. - conductive, not magnetic. - downhole contact defined by a more siliceous but fissile section of the fault zone - no angle angle. 		<ul style="list-style-type: none"> - rare oxidization of pyrite on fractures. 	<ul style="list-style-type: none"> - 1-2% pyrite in 2-5 mm patches fracture-controlled often with minor bright green chlorite. 	<ul style="list-style-type: none"> - 70 cm of core lost to grinding with interval comprsing 2 cm pieces of core that are predominantl semi-massive graphite.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
130.00 TO 149.60	CARBONATE ALTERED MAFIC VOLCANIC «2,a,<Cb>»	<ul style="list-style-type: none"> - pale gray and dark brownish-green. - granular textured mafic is brecciated in strongly carbonate-flooded zones. Fragments are dark green, 0.2-5 cm, and angular to subrounded - may contain 5-10 cm pillow remnants. - chlorite and smeared pyrite on fracture surfaces. - locally foliation of carbonate matrix and alignment of smaller mafic fragments at various angles to core axis. 140.0-140.18 «5,F,<ARG>» - dark grey, poorly bedded, fine grained interflow sediments containing bedding parallel, fracture-controlled, 1mm-wide pyrite seams. Uphole contact is irregular at high angle to ca with laminae appering to drape over uphole irrgeular mafic contact suggesting tops may be downhole. Downhole contact diffuse. 146.13-147.1 «7,a» - fine grained, olive green mafic dyke. Contacts are irregular and angular. - downhole contact in broken core. 		<ul style="list-style-type: none"> - strong, pervasive carbonate alteration/flooding, up to 70% over initial 9 metres. - weak, locally pale pink, potassic alteration or hematization. - minor epidote alteration in zones of intense carbonate alteration. 	<ul style="list-style-type: none"> - trace to 1% disseminated pyrite. - up to 3% disseminated pyrite over last metre of interval. 	
149.60 TO 150.90	SEDIMENTS «5,F,g,E»	<ul style="list-style-type: none"> - dark grey with pale grey, - very fine grained. - irregularly laminated at 70-80°/ca. - hard, siliceous wacke(?). - thin chlorite veinlet at high angle to ca is strongly folded (like stylonite) indicating flattening has occurred. - 150.45-150.55m - graphitic bed is soft, strongly foliated with chaotic folding. - 155.74-150.9m - well laminated, pale and dark grey chert beds are in situ brecciated by late brittle fracturing. - downhole contact irregular, fractured and quartz veined. 	80	<ul style="list-style-type: none"> - minor fractures contain chloritic gouge. - cut by 2% carbonate-filled fractures. 	<ul style="list-style-type: none"> - low angle, 1 cm wide quartz vein contains 1% honey-coloured sphalerite and trace galena. - trace pyrite in hairline fractures +/- chlorite. 	
150.90 TO 165.55	CARBONATE ALTERED MAFIC VOLCANIC «2,a,<Cb>»	<ul style="list-style-type: none"> - medium green with pale grey, locally dark green-grey. - fine grained, granular textured. - locally, granular texture appears to be weakly feldspar- and hornblende-phyric mafic rock. - uphole contact strongly fractured, chlorite +/- epidote and carbonate altered over initial 25 		<ul style="list-style-type: none"> - 10-80 cm intervals are carbonate +/- epidote flooded. - cut by 1-3%, 1-5mm wide, irregular, angular carbonate veins. 	<ul style="list-style-type: none"> - trace fracture-controlled pyrite. 	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<ul style="list-style-type: none"> centimetres. - similar to 138.0-149.6m. - 156.0-160.2m - dark grey, less altered (?) mafic (to intermediate?) volcanic rock. Carbonate alteration has decreased abruptly into darker grey areas but carb+/-epidote alteration present in 10-15 cm wide intervals. Also at 161.8-162.6m. - may contain interflow sediments. - 1-5cm wide, locally chloritic, gouge-filled fault zones near base of interval at 164.2m, 165.0m and 165.25m. Contacts occur at 45-70°/ca. - downhole contact at 45°/ca at start of major fault. 				
165.55 TO 165.93	FAULT ZONE «FZ,g»	<ul style="list-style-type: none"> - dark grey-green. - graphitic and chloritic fault gouge. - very crumbly. - contains rare, 0.5-1 cm fragments of carbonate veins. - sharp downhole contact at 80°/ca with unbroken rock. 			- none.	
165.93 TO 168.80	GREYWACKE «5,*f,F»	<ul style="list-style-type: none"> - dark grey to grey with white speckles. - mud to silt to locally sand beds. - beds are 1-20mm thick and at 65-70°/ca. - no grading observed. - not conductive, not magnetic. - overall proportion of laminations and finer grained beds to thicker beds increases downhole. - sandier beds appear to be composed of <1mm, rounded, biotite and feldspar clasts (porphyroclasts?). - downhole contact sharp at 65°/ca and appears to be conformable. 	70	- rare, 1mm wide carbonate veins.	- none observed.	<ul style="list-style-type: none"> - initial 1 metre may be mafic tuff or reworked volcanoclastic rock. - more active depositional environment near uphole contact, quieter one at downhole contact.
168.80 TO 192.00	MAFIC SEDIMENT «2/5,a,*f,*t»	<ul style="list-style-type: none"> - dark grey and pale green and pink. - fine grained, locally weakly felspar porphyritic. - strongly banded (mylonitic/strained bedding?, fragments?) at 60-70°/ca. - bands are multicoloured dark grey (more mafic), pale green and pinkish green (more felsic). Bands are weakly wavy (pinch and swell over 1-3 	65	<ul style="list-style-type: none"> - pale green bands are predominantly fine sericite (+epidote?) + quartz. - minor potassic and/or hematite alteration along more felsic bands. - cut by 2%, straight, sub-parallel carbonate-filled fractures at a high angle to banding. - rare, irregular carbonate veins are 	- trace disseminated pyrite commonly occurring near thin carbonate bands.	<ul style="list-style-type: none"> - difficult to confidently define protolith. Most likely sediment with a mafic to intermediate affinity that has been weakly to moderately silica and sericite altered and then strongly flattened. Protolith may range between wacke, mafic tuffs, and reworked volcanics.

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
192.00 TO 192.00	END-OF-HOLE «EOH»	<p>mm) and locally discontinuous.</p> <ul style="list-style-type: none"> - locally weakly crenulated. - late brittle faulting offsets bands up to 1cm. - rare 2mm carbonate bands are boudined with minor rotation (defined by tails) on the boundins. - rare, <1mm feldapsr and locally biotite(?) porphyroclasts. - up to 5%, sub-mm, white to pale pink feldspars occur in all compositional bands. - downhole banding becomes somewhat more irregular and resembles fracture-controlled sericite + quartz altered wacke and/or mafic volcanic tuff. - 184.4m - low strain interval over 20 cm shows pale green alteration that is fracture-controlled and in situ brecciated feldsparphyric mafic sediment or wacke. thiis may be best example of protlith. <p>‡187.35-189.65‡ «7,P» - dark green, biotite-porphyrific mafic intrusive with chilled margins. Contacts at low angle to core axis. Contains up to 2%, 1mm, subhedral pyrite. Also at 189.85-190.65m.</p>		associated with patchy, light grey alteration halos that 'wash out' banding (fabric destructive).		

Sample	From (M)	To (M)	Leng. (M)	Cu ppm	Zn ppm	Pb ppm	Ni ppm	Au ppb	Ag ppm	Cu/Zn	Co ppm	Pt ppb	Pd ppb	S ppm	Se ppm	As ppm	Hg ppb	Sb ppm	Est.Ni %	Est.Po %	Est.Py %	Est.Cp %	Est.Sp %	Est.Gn %	ROCK TYPE	Comments	
AT04634	117.00	119.00	2.00	263	606	14	119	10	0.3																		
AT04635	119.00	120.50	1.50	153	860	7	160	<2	0.2																5, 5g	1-2%py,sph	
AT04636	120.50	122.00	1.50	135	546	4	160	10	0.2																5,wck	1% py	
AT04637	122.00	123.50	1.50	280	1080	6	232	27	0.3																5	aa	
AT04638	123.50	125.00	1.50	142	775	3	288	<2	0.3																5	aa	
AT04639	125.00	126.50	1.50	221	532	8	180	3	0.4																5	aa	
AT04640	130.00	131.00	1.00	96	178	1	1150	7	0.1																5	aa	
AT04641	131.00	132.50	1.50	70	27	1	1160	<2	0.1																2,cb	tr py	
AT04642	147.23	148.30	1.07	91	72	12	830	<2	0.1																2,cb	cut off	
AT04643	148.30	149.60	1.30	79	434	48	582	<2	0.2																7,a	cut off	
AT04644	149.60	150.90	1.30	71	802	411	105	<2	0.2																7,a	1% py	
AT04645	150.90	152.00	1.10	79	1590	866	647	<2	0.1																5,F,g	1% sph+gn	
AT04646	152.00	153.20	1.20	35	314	3	754	10	0.1																2,a,cb	cut off	
																										2,a,cb	cut off



Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) 09760,00283 Assessment Files Research Imaging

Personal information collected under the Access to Information Act, the information is for the use of the Ministry of Northern Development and Mines. Questions about this collection should be directed to the Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Ottawa, Ontario K1P 6L3.



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3) of the Mining Act. Under section 8 of the Mining Act, the assessment work performed and correspond with the mining land holder. The assessment work is performed by the Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Ottawa, Ontario K1P 6L3.

Instructions: - For a copy of the Mining Act, use form 0240. - Please type or print in ink.

2.17599

1. Recorded holder(s) (Attach a list if necessary)

Name: FALCONBRIDGE LTD. Client Number: 130679. Address: P.O. Box 1140, 571 Moneta Ave, Timmins, Ontario P4N 7H9. Telephone Number: (705) 267-1188. Fax Number: (705) 264-6080.

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: [] Physical: [✓] Rehabilitation: []

Work Type: DIAMOND DRILLING. Dates Work Performed: From 28 Nov 96 To 11 Dec 96. Township/Area: HANNA/AURORA/HANNA. Mining Division: HANNA. Resident Geologist District: G-3537/M-408/C-3507. Total \$ Value of Work Claimed: \$59,745. NTS Reference: []

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - provide proper notice to surface rights holders before starting work; - complete and attach a Statement of Costs, form 0212; - provide a map showing contiguous mining lands that are linked for assigning work; - include two copies of your technical report.

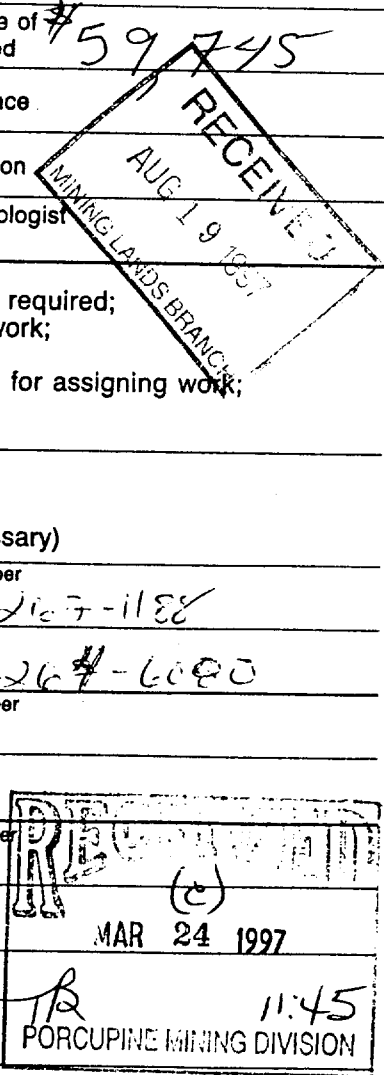
3. Person or companies who prepared the technical report (Attach a list if necessary)

Name: C. PETZ / FALCONBRIDGE LTD. Telephone Number: (705) 267-1188. Address: P.O. Box 1140, 571 Moneta Ave, Timmins, ON. Fax Number: (705) 264-6080.

4. Certification by Recorded Holder or Agent

CHRISTINE PETZ, do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: Christine Petz. Date: March 24, 1997. Telephone Number: (705) 267-1188. Fax Number: (705) 264-6080.



ing land where work was performed, at the time work was performed. A map showing the contiguous link accompany this form.

Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$8,892	\$4,000	0	\$4,892
1 P1200983	8	16,724	3,200 ✓	7,200	6,324
2 1201959	10	13,613	-	13,613	-- ✓
3 1200906	16	29,408	-	0	29,408 ✓
4					
5 1207560	16		6,400 ✓		
6 1200942	15		5,567 ✓		
7 1200958	3		1,646 ✓		
8 1200978	6		2,400 ✓		
9 1200969	12		4,800 ✓		
10					
11					
12					
13					
14					
15					
Column Totals		59,745	24,013	20,813	35,732

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I, CHRISTINE PETCH (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

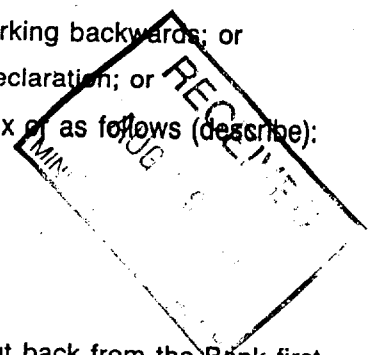
Signature of Recorded Holder or Agent Authorized in Writing: [Signature] Date: MARCH 24, 1997

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

P 1200958



Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

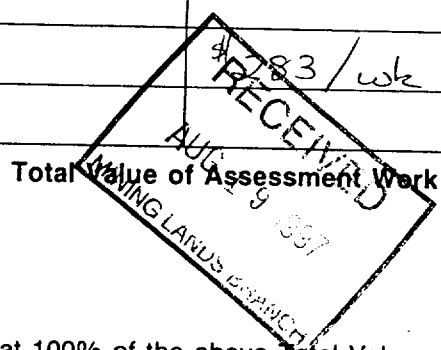
For Office Use Only

Received Stamp 	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

onal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under .tion 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with e mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and ines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

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Work Type	Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small>	Cost Per Unit of work	Total Cost
DIAMOND DRILLING APR11-02	193 m	74. ⁷⁸	14,432
HAN11-02	200 m	56. ⁰⁴	11,208
HAN55-02	440 m	59. ⁰⁹	25,999
SAMPLES	91	\$15. ⁷⁰ /sample	1,428
Associated Costs (e.g. supplies, mobilization and demobilization).			
TRUCK MOVES FOR DRILL (42 hrs)		\$80. ²⁵ /hr	3,370
CORE BOXES (108)		\$5. ³⁵ /box	577
SALARIES (14 days)		\$110. ⁰⁰ /day	1,540
Transportation Costs			
TRUCK RENTAL (1/2 month)		\$531. ²⁹ /mo	265
GAS			200
Food and Lodging Costs			
OASIS MOTEL 2 wks		\$283/wk	566
OASIS RESTAURANT			160
Total Value of Assessment Work			\$59,745



Calculations of Filing Discounts:

- Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
- If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

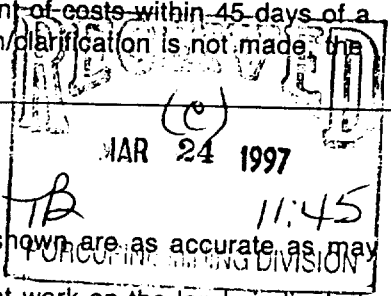
TOTAL VALUE OF ASSESSMENT WORK $\times 0.50 =$ Total \$ value of worked claimed.

Note:

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

Christine Petch (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as agent I am authorized to make this certification.



Signature: [Signature] Date: 1

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines



Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

September 5, 1997

Christine Petch
FALCONBRIDGE LIMITED
P.O. BOX 1140
571 MONETA AVE.
TIMMINS, ONTARIO
P4N-7H9

Telephone: (888) 415-9846
Fax: (705) 670-5863

Dear Sir or Madam:

Submission Number: 2.17599

Status

Subject: Transaction Number(s): W9760.00283 Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in **DUPLICATE** to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at beneteau_s@torv05.ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Blair Kite".

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.17599

Date Correspondence Sent: September 05, 1997

Assessor: Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9760.00283	1200983	MANN, AURORA, HANNA	Deemed Approval	June 22, 1997

Section:

16 Drilling PDRILL

Correspondence to:

Resident Geologist
South Porcupine, ON

Recorded Holder(s) and/or Agent(s):

Christine Petch
FALCONBRIDGE LIMITED
TIMMINS, ONTARIO

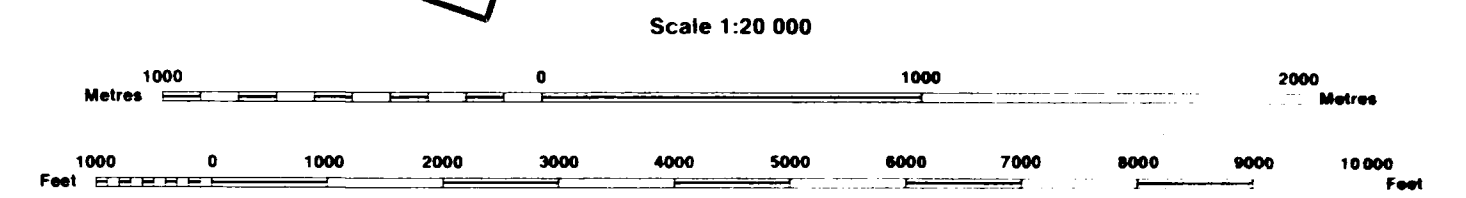
Assessment Files Library
Sudbury, ON

INDEX TO LAND DISPOSITION

PLAN
G-3507
TOWNSHIP

HANNA

M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
MINING DIVISION
PORCUPINE
LAND TITLES/REGISTRY DIVISION
COCHRANE



2.17599

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
SRO - Surface Rights Only
M - Surface and Mining Rights

Description	Order No.	Date	Disposer	File
TRANS CANADA PIPELINE RIGHT OF WAY AND BUFFER ZONE PARTICULARLY 60.25 METERS OR 32 FT ON EITHER SIDE OF CENTER LINE OF RIGHT OF WAY.				

SYMBOLS

Boundary	
Township Meridian Baseline	
Road allowance surveyed	
shoreline	
Lot/Concession surveyed	
unsurveyed	
Parcel surveyed	
unsurveyed	
Right-of-way road	
railway	
utility	
Reservation	
Cliff Pit Pile	
Contour	
Interpolated	
Approximate	
Depression	
Control point (horizontal)	
Flooded land	
Mine head frame	
Pipeline (above ground)	
Railway: single track	
double track	
abandoned	
Road: highway, county, township	
access	
trail, bush	
Shoreline (original)	
Transmission line	
Wooded area	

NOTES

THE SUBDIVISION OF THIS TOWNSHIP INTO LOTS AND CONCESSIONS PARTIALLY ANNULLED OCTOBER 30, 1964

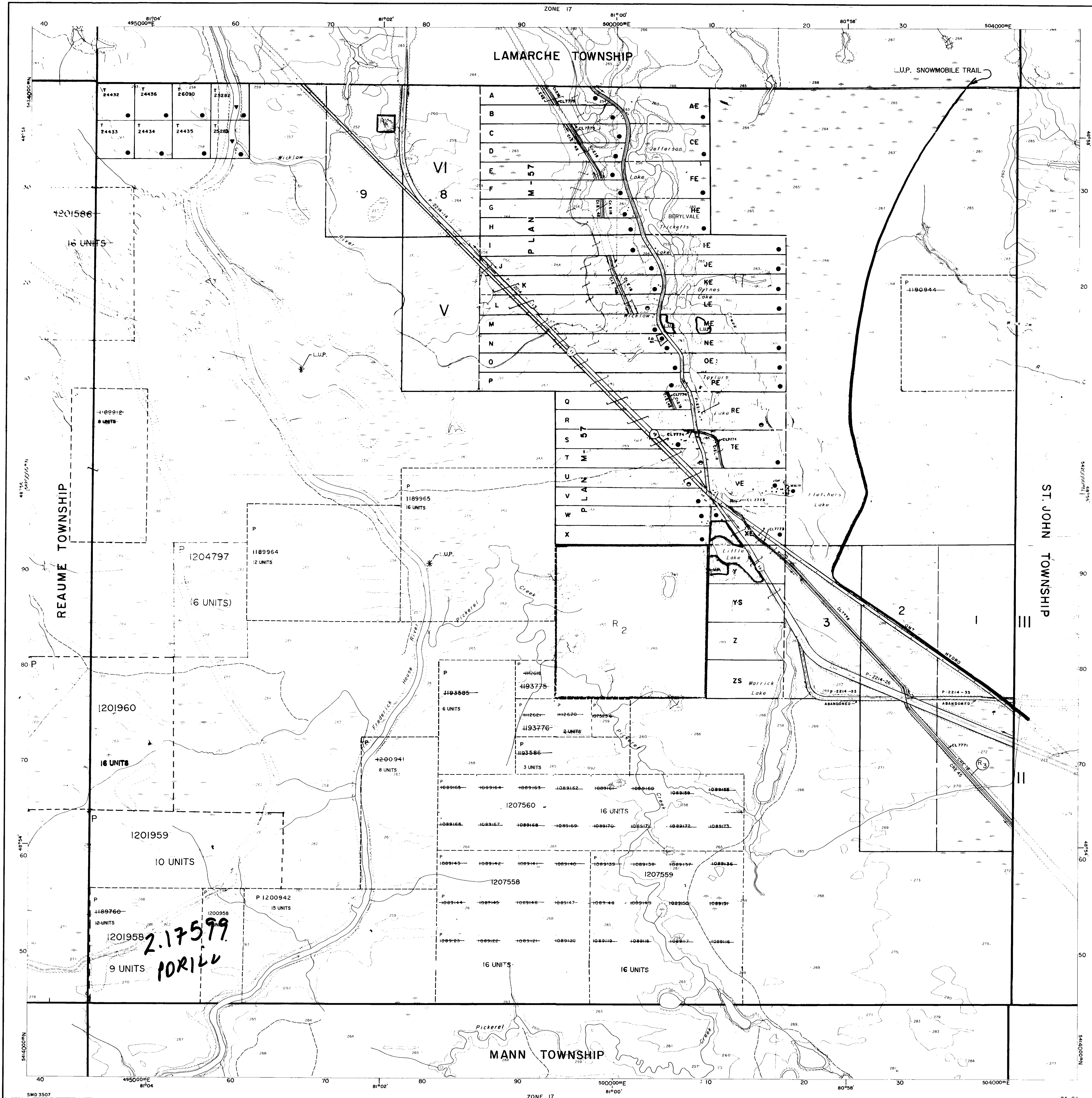
F₁ - SUBJECT TO FORESTRY ACTIVITY IN 1994/95

R₁ - WASTE DISPOSAL SITE ATTENUATION ZONE - SITE CLOSED 1988 SEE SECTION 46 ENVIRONMENTAL PROTECTION ACT R.S.O. 1990

R₂ - PENDING APPLICATION UNDER THE PUBLIC LANDS ACT NOTICE RECEIVED 94-MAR-22

DISPOSITION OF CROWN LANDS

Patent	
Surface & Mining Rights	●
Surface Rights Only	○
Mining Rights Only	◐
Lease	
Surface & Mining Rights	■
Surface Rights Only	□
Mining Rights Only	◑
Licence of Occupation	▼
Order-in-Council	OC
Cancelled	⊙
Reservation	⊖
Sand & Gravel	⊕



C-3537

AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. MINING RIGHTS ONLY
- S.R.O. SURFACE RIGHTS ONLY
- M.S. MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
Water Power Reserve				

W.O. 87/87

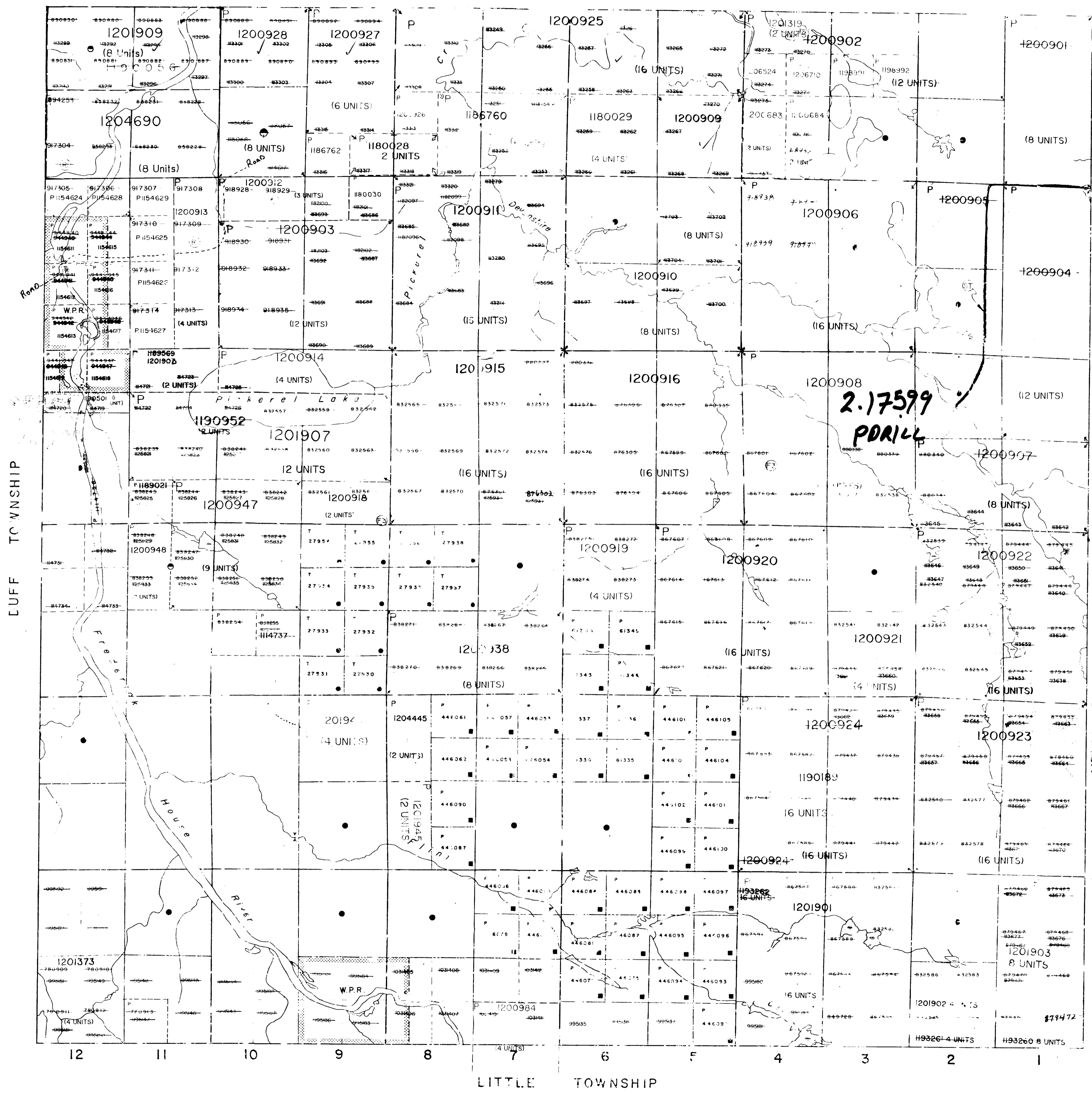
MINING AND SURFACE RIGHTS WITHDRAWN UNDER SECTION 36 OF THE MINING ACT (OCTOBER 15, 1987) SEE NO. 2194252.

SURFACE AND MINING RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 36 OF THE MINING ACT R.S.O. 1980 EFFECTIVE 90-SEP-05 AT 7AM E.S.T. ORDER NO. O-P 4/90 NR DATED 90-AUG-22.

NOTE: PII25837 PLOTTED IN ERROR. S/B PIII4737.

5 W. 11 N.M.

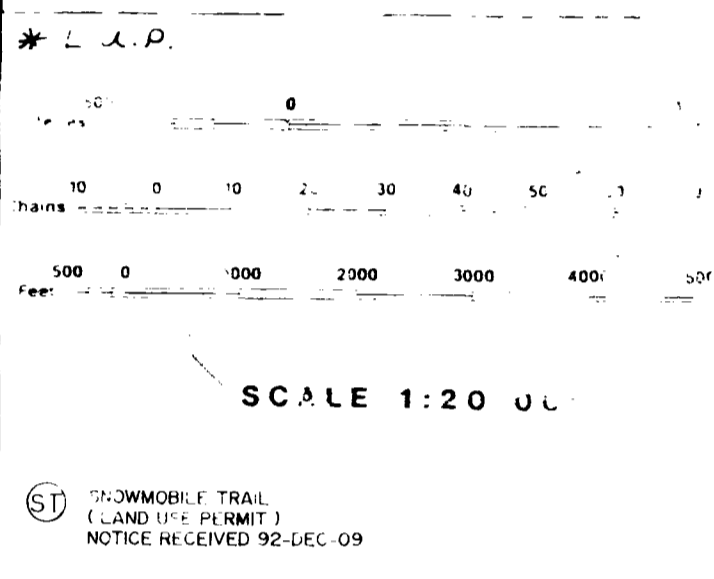
C-3537



RECEIVED
AUG 19 1997
MINING LANDS BRANCH

DISPOSITION OF CROWN LANDS

- TYPE OF DOCUMENT
- PATENT SURFACE & MINING RIGHTS
 - SURFACE RIGHTS ONLY
 - MINING RIGHTS ONLY
 - LEASE SURFACE & MINING RIGHTS
 - SURFACE RIGHTS ONLY
 - MINING RIGHTS ONLY
 - LICENCE OF OCCUPATION
 - ORDER IN COUNCIL
 - RESERVATION
 - CANCELLED
 - SANITARY GRAVEL
 - LAND USE PERMIT
- NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO 1913 VESTED IN ORIGINAL PATENTEE'S HEIR OR SUCCESSOR UNDER THE MINING ACT, R.S.O. 1970 CHAP. 180 SEC. 64.



Received Sept 24/86

TOWNSHIP
MANN
M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
MINING DIVISION
PORCUPINE
AND TITLES / REGISTRY DIVISION
COCHRANE

Ministry of Natural Resources
Ontario

Ministry of Northern Development and Mines

SEPTEMBER 1996

G-3537

Pyne Twp.

THE TOWNSHIP OF

AURORA

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE 1 INCH = 40 CHAINS

LEGEND

REGISTERED PLAN OF SUBDIVISION	
PATENTED LAND	
CROWN LAND SALE	CS
LEASES	
LOCATED AND LICENSE OF OCCUPATION	Loc L.O.
ROADS	
IMPROVED ROADS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
TRAIL	
WATER POWER LEASE	WPL

NOTES

- Flooding area shown thus: Flooding rights to Contour 790' and 780' reserved to H.E.R.C.
- WASTE DISPOSAL SITE LEACHATE ATTENUATION ZONE NOTICE RECEIVED APR. 6, 1990.
- THIS TWP SUBJECT TO FOREST ACTIVITY IN 1991/92. FURTHER INFORMATION AVAILABLE ON FILE.
- SNOWMOBILE TRAIL NOTICE RECEIVED 92-DEC-09
- THIS TWP IS SUBJECT TO FOREST ACTIVITY IN 1993/94. (CHEM. SPRAY JULY 22 1993)

Received Oct 15 79

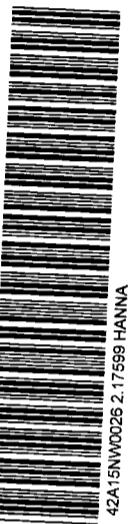
PLAN NO. — M. 408

MINISTRY OF NATURAL RESOURCES SURVEY AND MAPPING BRANCH

2.17599



220



4218190028 2.17599 HANNA

VI

V

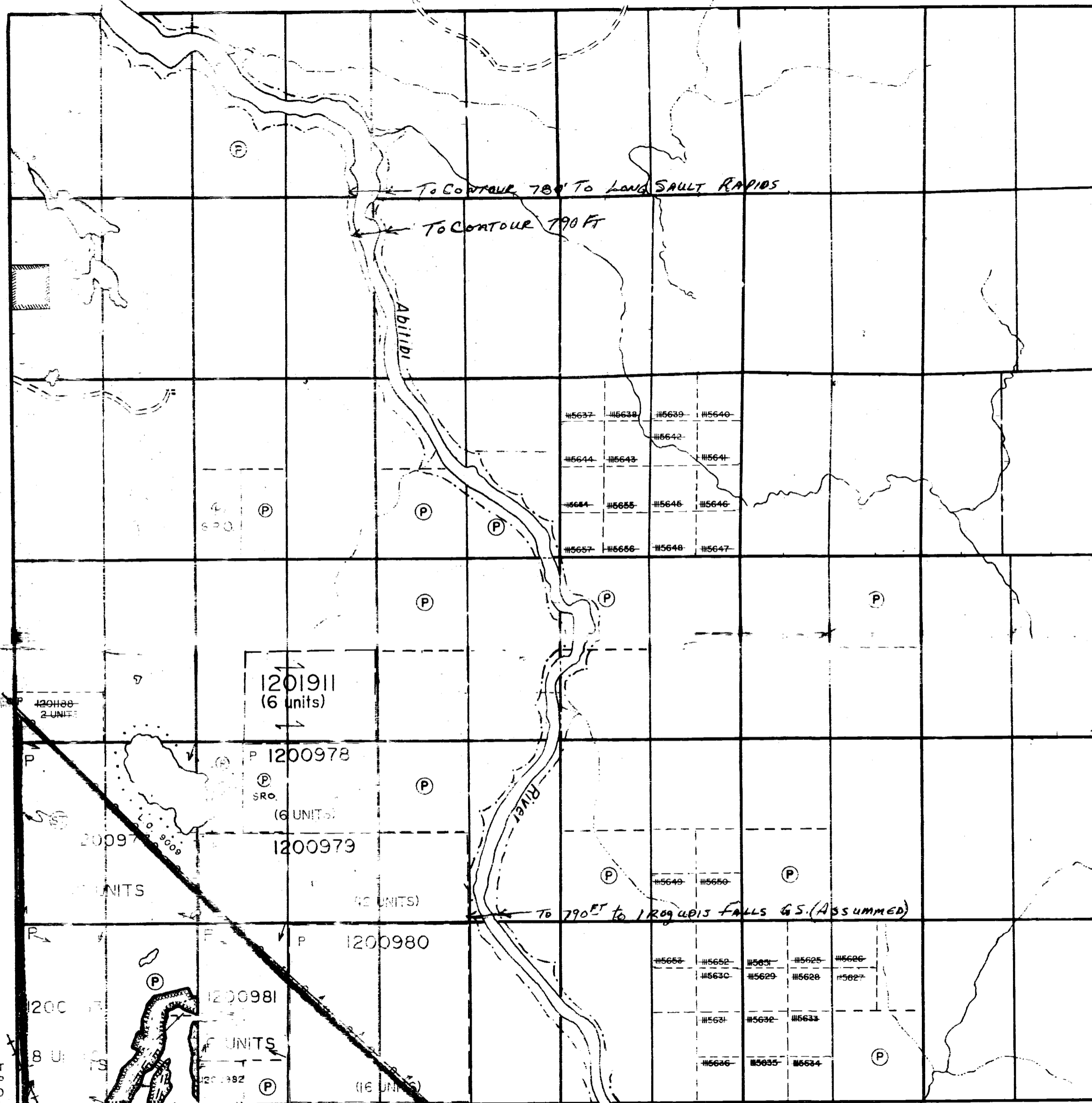
IV

III

II

I

Edwards Twp.



Calvert Twp.

Edwards Twp.

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

2.17599 PORILL

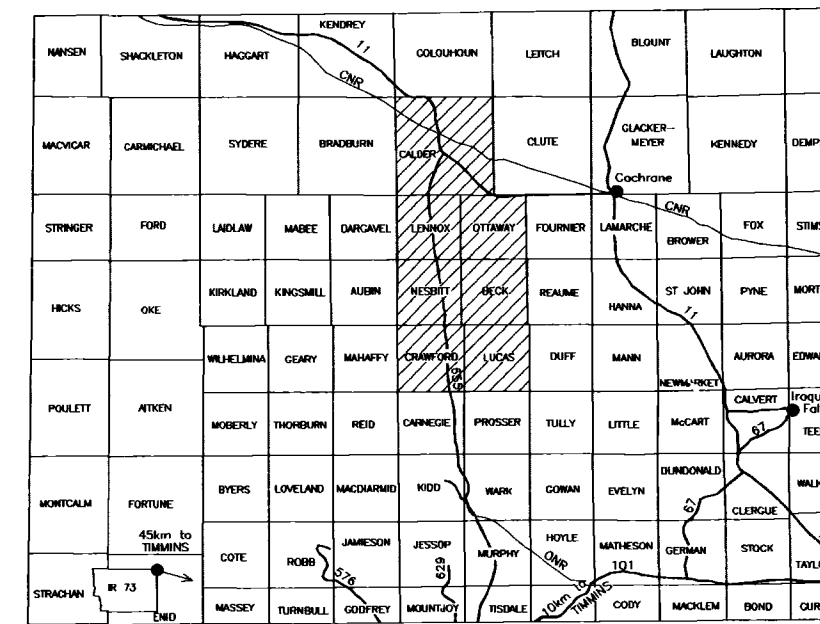
G.E.M.



MANN BELT PROPERTY

LOCATION MAP
FALCONBRIDGE CLAIMS (PN 8269)

TRACED: PRODES	DATE: 20/07/95	NTS: 42-A/14 & 11	PROJECT: 8199,246,269
DRAWN: d e l	DATE: 20/07/95	MAP No:	FILE: 8199 DX
SUPERVISED: P J Nagerl	DATE: 19/07/95	SCALE 1:75000 (metres)	
REVISED: ts , del	DATE: 17/08/95	0 600 1200 1800 2400	



INDEX MAP
0 10 20 30
KILOMETRES

2.13599

RECEIVED
AUG 19 1997
MINING CLAIMS SECTION

TOWNSHIP OF HANNA

TOWNSHIP OF NEWMARKET

TOWNSHIP OF AURORA

TOWNSHIP OF MANN

TOWNSHIP OF LITTLE

1201959

1201958

1200957

1200942

1207560

1200906

1200977

1200978

1200979

FL

120983

1200969

