

ADAIR TOWNSHIP
DISTRICT OF COCHRANE, ONTARIO

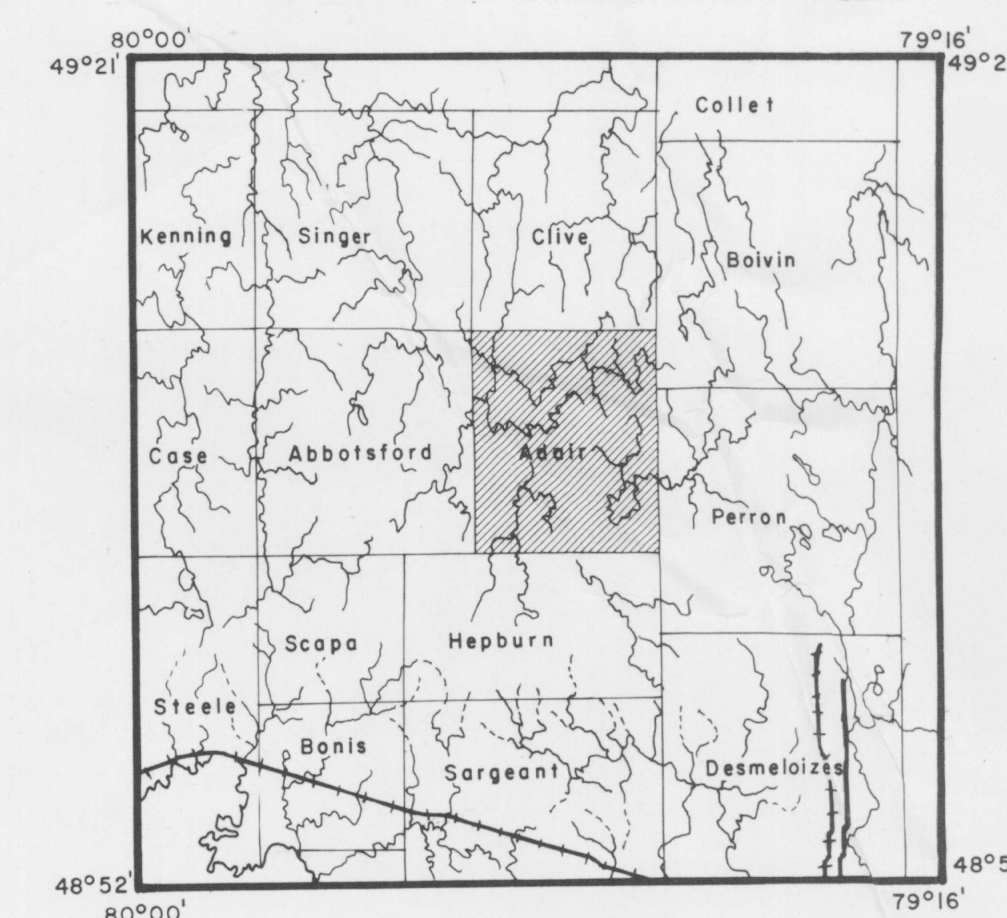


TABLE OF LITHOLOGICAL UNITS
KIRKLAND LAKE DATA SERIES

CENOZOIC	
PLEISTOCENE AND RECENT	
18a	OLIGOCENE DEPOSITS
18b	Open and semi-open bays
18c	COCKLELAND DEPOSITS
18d	Clay fill
18e BARLOW QUARRY DEPOSITS	
18e1	Varved sediments
18e2	Sand and gravel deposits
18e3 GLACIO-FLUVIAL DEPOSITS	
18e3a	Essex conglomerate outwash
18e3b	sand and gravel deposits
18e4 GRAVEL DEPOSITS	
18e4a	Sandy grey boulder fill, with minor
18e4b	consolidated stratified drifts on
18e4c	bedrock
UNCONFORMITY	
17	17 Kimberlite
INTRUSIVE CONTACT	
PALEOZOIC	
LOWER AND MIDDLE SILURIAN	
16a	Clinton (Fibrous) Formation: limestone,
16b	shale, sandstone
16b1	Wab Formation: limestone, shale
MIDDLE AND UPPER ONTARIOAN	
15a	Upper Onondaga Formation: shale
15b	Lower Onondaga Formation: limestone
15c	Sticks Formation: limestone, shale
15d	Onondaga Formation: sandstone
UNCONFORMITY	
PRECAMBRIAN	
LATE PRECAMBRIAN (PROTEROZOIC)	
MAFIC INTRUSIVE ROCKS ¹	
14	14 Diabase dikes
INTRUSIVE CONTACT	
MIDDLE PRECAMBRIAN (PROTEROZOIC)	
MAFIC INTRUSIVE ROCKS ²	
13	13 Syenite, nepheline syenite, lamprophyre
INTRUSIVE CONTACT	
MAFIC INTRUSIVE ROCKS ³	
12	12 Diabase, trappanite rock, and granophyre
12a	sheets and dikes
INTRUSIVE CONTACT	
CORALY GROUP	
11	11 Corral Formation: quartzite, arkose
10	10 Onondaga Formation
9	9 Upper Onondaga: argillite, siltstone,
8	greywacke, arkose
7	7 Lower Onondaga: conglomerate, greywacke,
6	quartzite, arkose, argillite
UNCONFORMITY	
EARLY PRECAMBRIAN (ARCHEAN)	
MAFIC INTRUSIVE ROCKS ⁴	
5	5 Diabase dikes
INTRUSIVE CONTACT	
ALKALIC INTRUSIVE ROCKS ⁵	
4	4 Syenite, monzonite, lamprophyre ⁶
INTRUSIVE CONTACT	
ALKALIC METAVOLCANICS ⁷	
3	3 Trachyte, basaltic trachyte; flows, tuff,
2	and tephra
METASEDIMENTS	
1	1 Conglomerate, gneiss, siltstone, slate,
1a	argillite, iron formation ⁸
1b	2 gneiss, siltstone, slate, iron formation ⁹
FELSIC INTRUSIVE ROCKS ¹⁰	
10	10 Quartz porphyry, quartz-feldspar porphyry,
9	granite porphyry, granite, felsite
8	8 Trondhjemite, granodiorite, quartz monzonite,
7	quartz diorite and gabbro
6	6 Trondhjemite, granodiorite, quartz monzonite,
5	quartz diorite, gabbro, peridotite, gabbro,
4	complex batholiths
INTRUSIVE CONTACT	
FELSIC METAVOLCANICS AND VOLCANICS	
3	3 Undifferentiated rhyolite
2	2 Iron formation and ferruginous chert
1	1 Flow
0	0 Pyroclastic rock
INTRUSIVE CONTACT	
METAMORPHIC MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS ¹¹	
2	2 Undifferentiated
1	1 Gabbro, diorite
0	0 Peridotite, dunite, pyroxenite, serpentinite
INTRUSIVE CONTACT	
INTERMEDIATE AND MAFIC METAVOLCANICS ¹²	
1	1 Undifferentiated andesite, andesite, and basalt
0	0 Intermediate flows
0	0 Intermediate pyroclastic rocks
0	0 Mafic flows
0	0 Mafic pyroclastic rocks

GEOLOGICAL AND MINING SYMBOLS FOR KIRKLAND LAKE DATA SERIES

□	Clacial striae	○	Drill hole; projected vertically; overburden shown
▬	Esker, medial ridge	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
■	Small bedrock outcrop	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Bedding, top unknown, (inclined, vertical)	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Bedding, top (arrow) from green gradient; (inclined, vertical, overturned)	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Bedding, top (arrow) from cross heading; (inclined, vertical, overturned)	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Low flow; top (arrow) from plume shape and packing; (inclined, vertical)	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Schistosity; (horizontal, inclined, vertical)	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Gneissosity; (horizontal, inclined, vertical)	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Layering; (horizontal, inclined, vertical)	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Lineation with plunge	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Geological boundary, position interpreted	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Geological boundary, deduced from geophysics	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Fault; (observed, assumed), spot indicates down throw side, arrow indicates horizontal movement	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Lineament	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Jointing; (horizontal, inclined, vertical)	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Weg folds with plunge	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown
▬	Anticline, syncline, with plunge	○	Drill hole in overburden only; vertical or collar, indicated; overburden shown

METAL AND MINERAL REFERENCE
For Kirkland Lake Data Series

Ag	..... Silver	no	..... Nepheline
asb	..... Asbestos	nl	..... Nickel
au	..... Gold	pb	..... Lead
ca	..... Calcium	ps	..... Pyrite
co	..... Cobalt	pr	..... Pyroclastic
cp	..... Chalcopyrite	pt	..... Platiniferous
cr	..... Chromium	py	..... Pyrite
cu	..... Copper	qv	..... Quartz vein
ep	..... Epidote	sc	..... Sulfide
fe	..... Iron	sp	..... Spinel
fl	..... Fluorite	st	..... Sulfate
gf	..... Graphite	spc	..... Spinel
gn	..... Garnet	stc	..... Sulfide
mag	..... Magnetite	stn	..... Sulfide
mar	..... Marcasite	stn	..... Sulfide
ml	..... Millerite	stn	..... Sulfide

Sources of Information
Compiled by the Geological Survey of Canada in co-operation with the Ontario Department of Mines and Northern Affairs from data supplied by the Bureau of Geology, Ontario Department of Mines and Northern Affairs, Kirkland Lake.

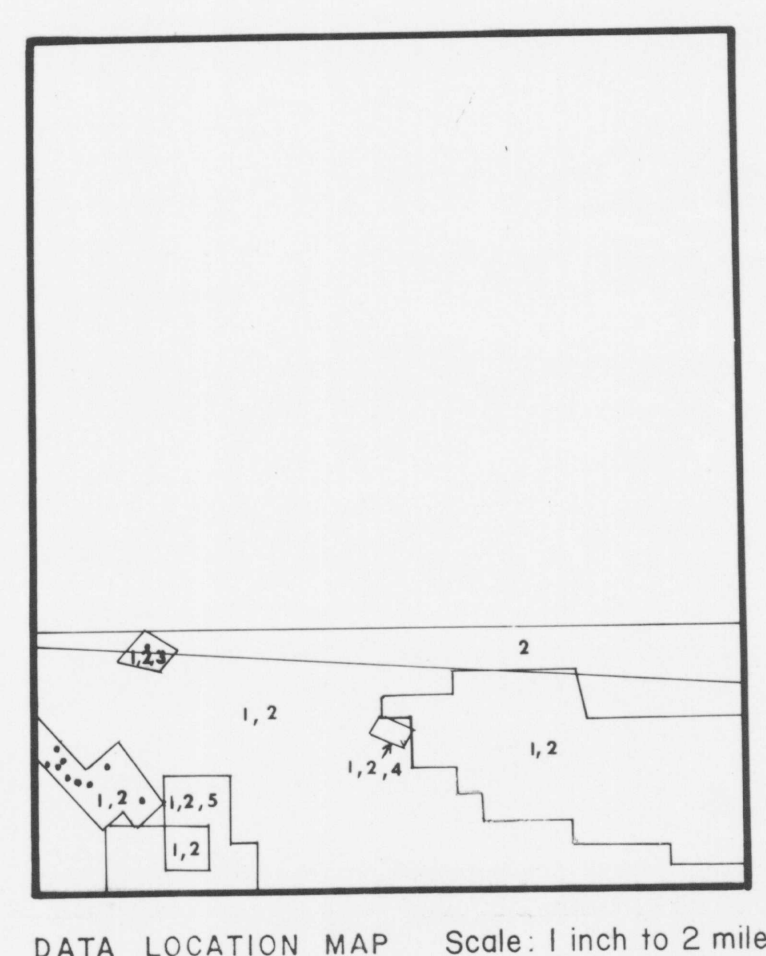


Scale: 1 inch to 1/4 mile

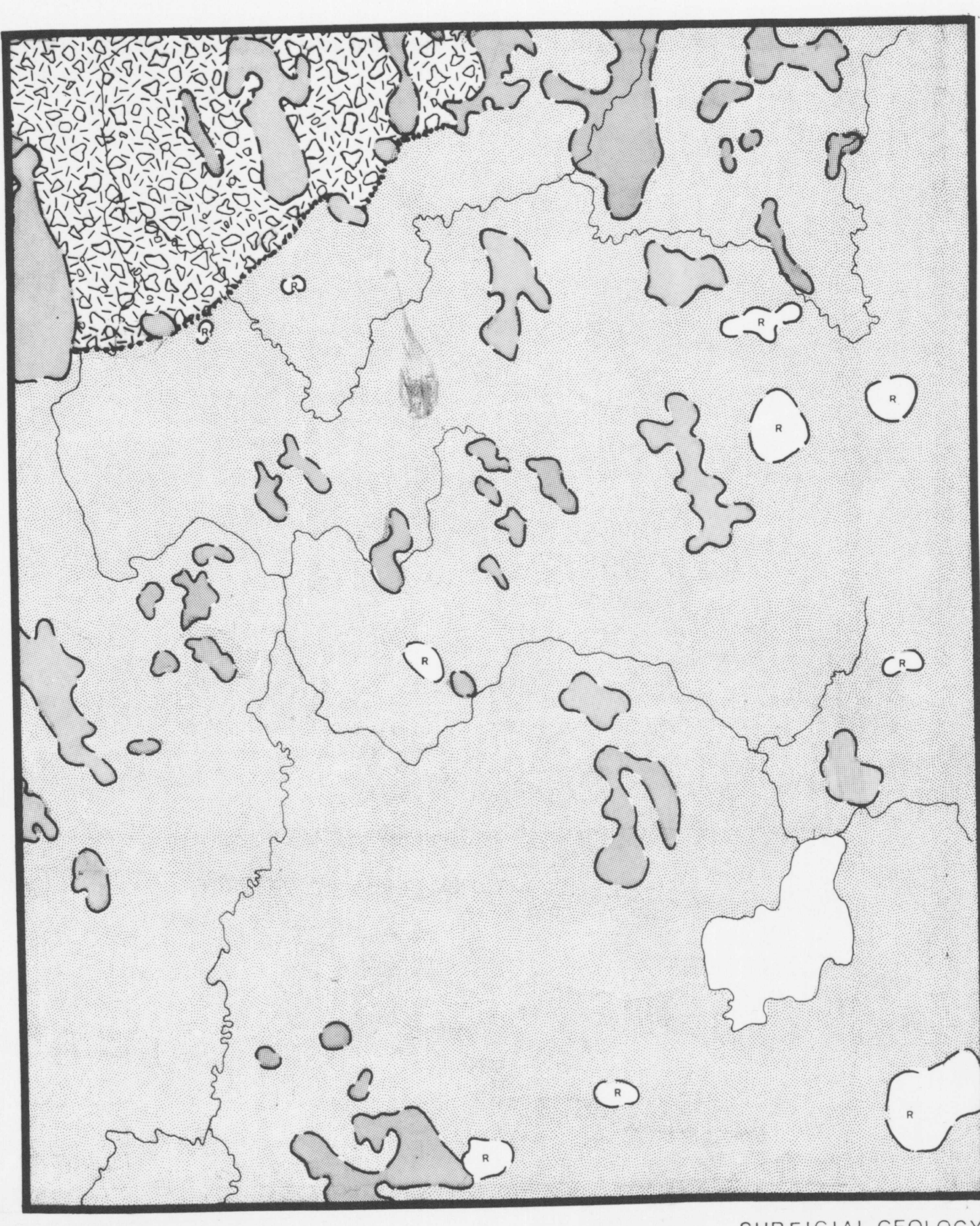
DATA FILED WITH THE ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS
RESIDENT GEOLOGIST
AT KIRKLAND LAKE
Through February 1972

	GEOLOGICAL	DIAMOND DRILLING	ANEMONE MAGNETOMETER	ANEMONE ELECTROMAGNETOMETER	GROUND MAGNETOMETER	VERTICAL LOOP ELECTROMAGNETOMETER	HORIZONTAL LOOP ELECTROMAGNETOMETER	TETRAHEDRAL ELECTROMAGNETOMETER	RESISTIVITY	INDUCED POLARIZATION	VLF	SEISSMITY	GRAVITY	GEOMECHANICAL	OTHERS
1. Canadian Javelin Ltd. "82"			65	65											
2. Canadian Javelin Ltd. "83"			65												
3. Canadian Superior Exploration Ltd. "Stigma Group 1"	65														65
4. Canadian Superior Exploration Ltd. "Stigma Group 2"															65
5. Silverplace Mines Ltd.					66	66									

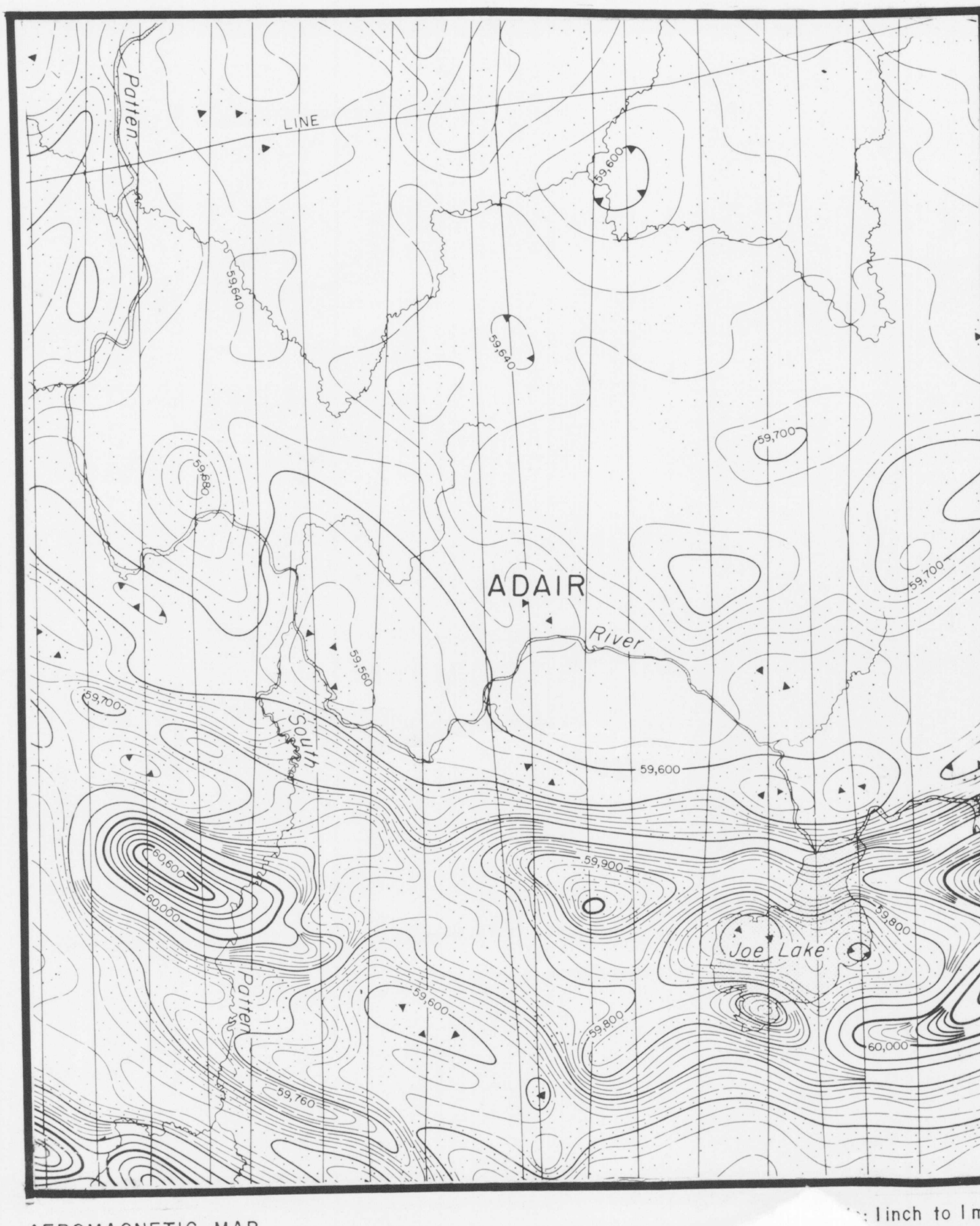
NOTE: Numbers on the above list stand for the year when the work was done, e.g., 66 for 1966. On the accompanying DATA LOCATION MAP only areas for which work was submitted to the Department are outlined and thus a company may hold more ground than indicated here. The numbers on the DATA LOCATION MAP and any circled numbers refer to the company list above.



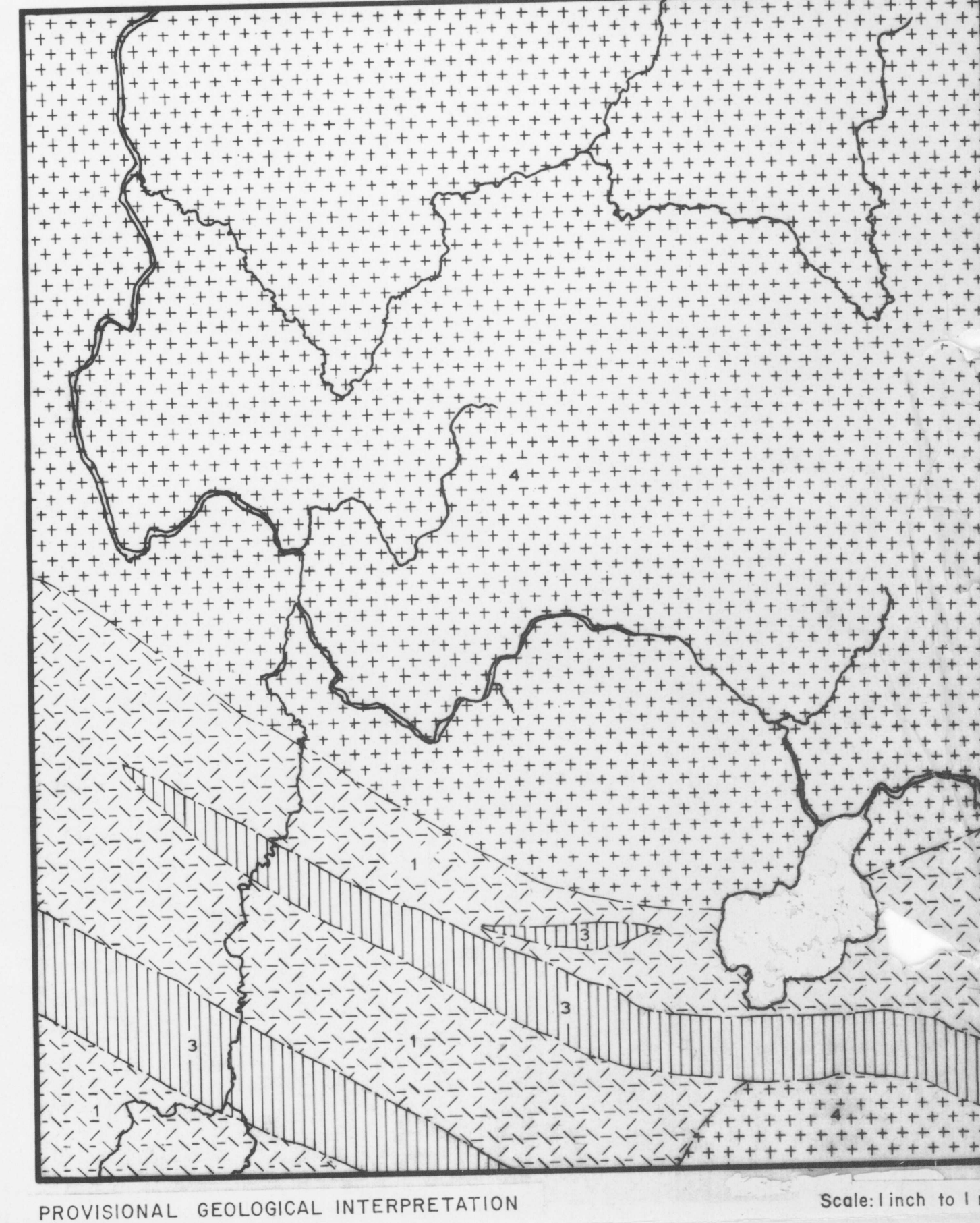
Scale: 1 inch to 2 miles
OPEN FILE 104
GEOLOGICAL SURVEY
OTTAWA



Scale: 1 inch to 1 mile



Scale: 1 inch to 1 mile



Scale: 1 inch to 1 mile