



42A11SW2002 2.18064 MURPHY

**Project 546
MONETA PORCUPINE OPTION
Assessment Report on
1996 GEOLOGICAL SURVEY
Porcupine Mining Division
Timmins, Ontario**

N.T.S. 42A/6 & 42A/11

2.18064

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WORK DONE FOR:

**Placer Dome Canada
Suite 600 - 1055 Dunsmuir Street
Vancouver, British Columbia V7X 1L3**

JANUARY 1997

KATHY FARRELL

SUMMARY

The Moneta Porcupine Option property lies six kilometers north of Timmins, Ontario and is accessed by Highway 655 and adjoining bush roads. The property consists of 78 claims optioned to Placer Dome Canada Limited by Moneta Porcupine Mines Inc..

Between May 21 and June 13, 1996, 36.137km of grid lines were surveyed, with the objective of locating any new showings and checking the accuracy of the grid.

The property hosts the potential for the extension of the Hollinger - McIntyre gold system to the north east; the western extension of the Bell Creek - Hoyle Pond 1060 Zone and the western extension of the Pipestone fault system.

The area mapped is underlain by the upper part of the komatiitic sequence and most of the magnesian tholeiitic rocks of the Tisdale Group and the lower formation (mainly turbidites) of the Porcupine Group. The area traversed lies on the north limb of the isoclinal North Tisdale Anticline.

There is less than 1% outcrop on this property with only four located during the survey. The four outcrops were composed of pillowed magnesium tholeiite with less than 1% quartz veining. The units dip in a southerly direction and top to the north.

The map of the area includes vegetation changes and cultural features encountered including; sand pits, ponds, power lines, skidder roads and claim posts.

Due to the lack of outcrop and thick overburden on the property, areas of interest detected by geophysics would be best tested by diamond drilling. The cultural features mapped will prove useful when interpreting the geophysics and choosing diamond drill targets. With this in mind no further geological surveying is recommended unless diamond drilling is proposed in a specific area.

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TABLE OF CONTENTS

SUMMARY..... i

1.0 INTRODUCTION..... 1

2.0 RECOMMEDATION 1

3.0 PROPERTY..... 1

3.1 LOCATION, ACCESS AND TOPOGRAPHY..... 1

3.2 MINERAL CLAIMS 4

3.3 PREVIOUS WORK..... 4

3.3.1 North Tisdale Claim Group..... 4

3.3.2 Porcupine Claim Group..... 9

3.3.3 South Murphy Claim Group 9

3.4 PREVIOUS WORK COMPLETED BY PLACER DOME CANADA..... 10

4.0 ECOMONIC ASSESSMENT 10

5.0 REGIONAL GEOLOGY 11

6.0 PROPERTY GEOLOGY..... 13

6.1 CURRENT WORK..... 13

6.2 LITHOLOGIC UNITS 13

6.2.1 Magnesium Basalt - Unit 2A3..... 15

6.3 PERSONNEL..... 16

7.0 CONCLUSIONS 16

8.0 ACKNOWLWDGEMENTS..... 16

9.0 REFERENCES..... 17

2.18064

LIST OF APPENDICES

- A Certificate of Qualificationsback of report**

LIST OF TABLES

- 1 Unpatented Mineral Claims..... 5**
2 Patented Mineral Claims (mining rights)..... 6
3 Patented Mineral Claims (mining and surface rights)..... 6
4 Unpatented Claim List with Expiry Dates 8
5 Kilometers Traversed per Claim..... 14

LIST OF MAPS

- 1 Moneta Property Ontario Location..... 2**
2 Regional Property Location 3
3 Moneta Option Claim Map..... 7
4 Schematic Regional Geology Map 12
5 Property Geology Map..... back pocket

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1.0 INTRODUCTION

Between May 21 and June 13, 1996, the author and Michael DeLuca surveyed 36.137km of grid lines on the Moneta Porcupine Option. After considering previous exploration results and the geophysics performed that winter, diamond drill targets were chosen within the northern section of the North Tisdale block. The traverses were concentrated in this area and along the surveyed control lines throughout the grid. The smaller Porcupine Prime land block to the southeast was not traversed.

The property of 78 mining claims was optioned from Moneta Porcupine Mines Inc. on September 25, 1995 and is located 6 km north of Timmins on Highway 655.

2.0 RECOMMENDATION

The property hosts the potential for the extension of the Hollinger - McIntyre gold system to the northeast, the western extension of the Bell Creek - Hoyle Pond 1060 Zone and the western extension of the Pipestone fault system. This geological survey concentrated in the area where the western extension of the Bell Creek - Hoyle Pond trend was thought to be located.

Due to the lack of outcrop and thick overburden, any areas of interest detected by geophysics would be best tested by diamond drilling. The cultural features mapped will prove useful when interpreting the geophysics and choosing drill targets. With this in mind no further walking of grid lines is recommended unless diamond drilling is proposed in a specific area.

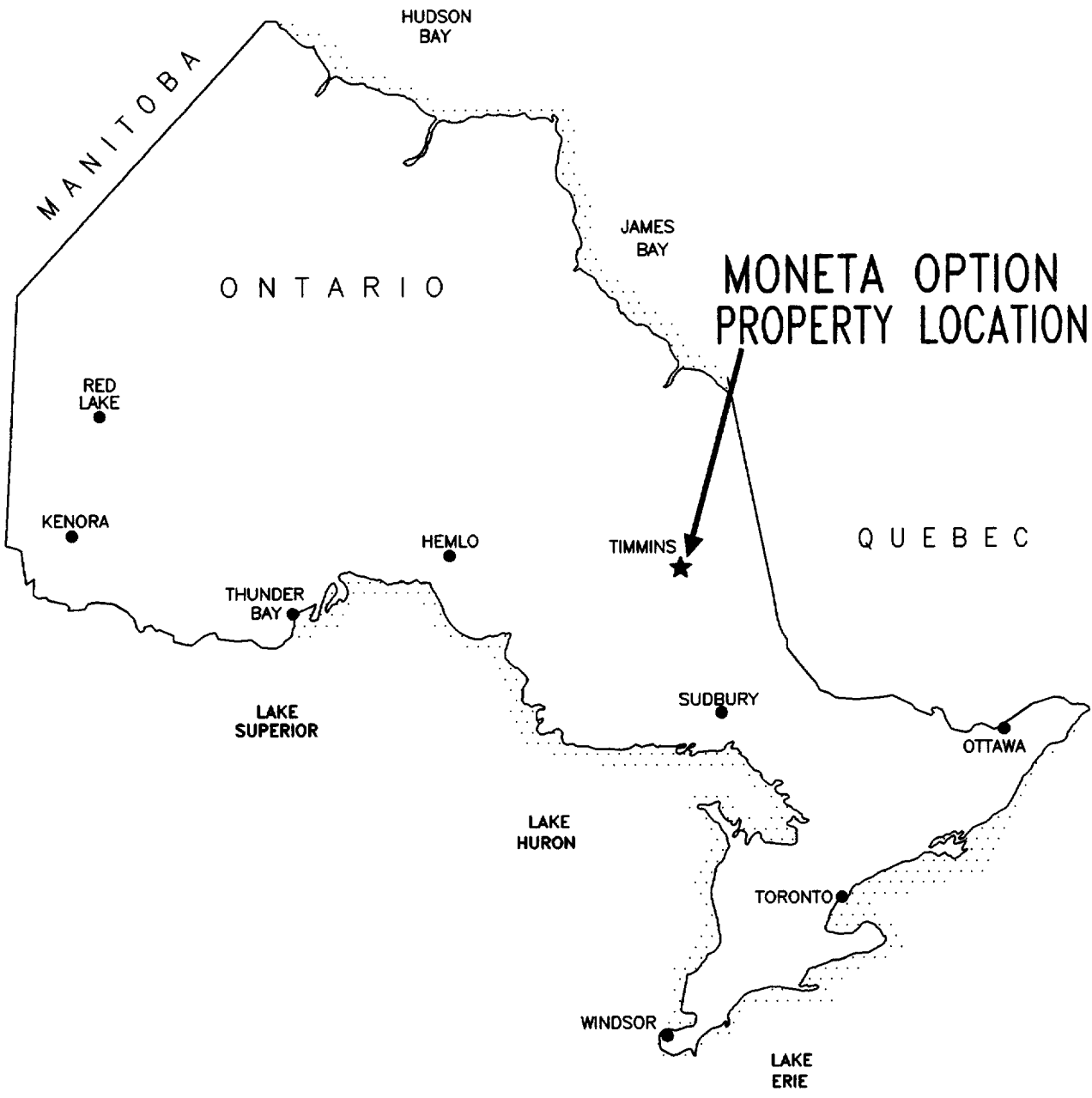
3.0 PROPERTY


3.1 LOCATION, ACCESS AND TOPOGRAPHY

The property is located 6 km north of the City of Timmins, Ontario (Map 1) on Highway 655. Highway 655 cuts through the western portion of the property going northeast/southwest (Map 2). There are many gravel pits in the area and bush roads making summer and winter access (via snow machine) easy. The smaller claim block or Porcupine Prime block is more easily accessed in the winter due to swampy ground.

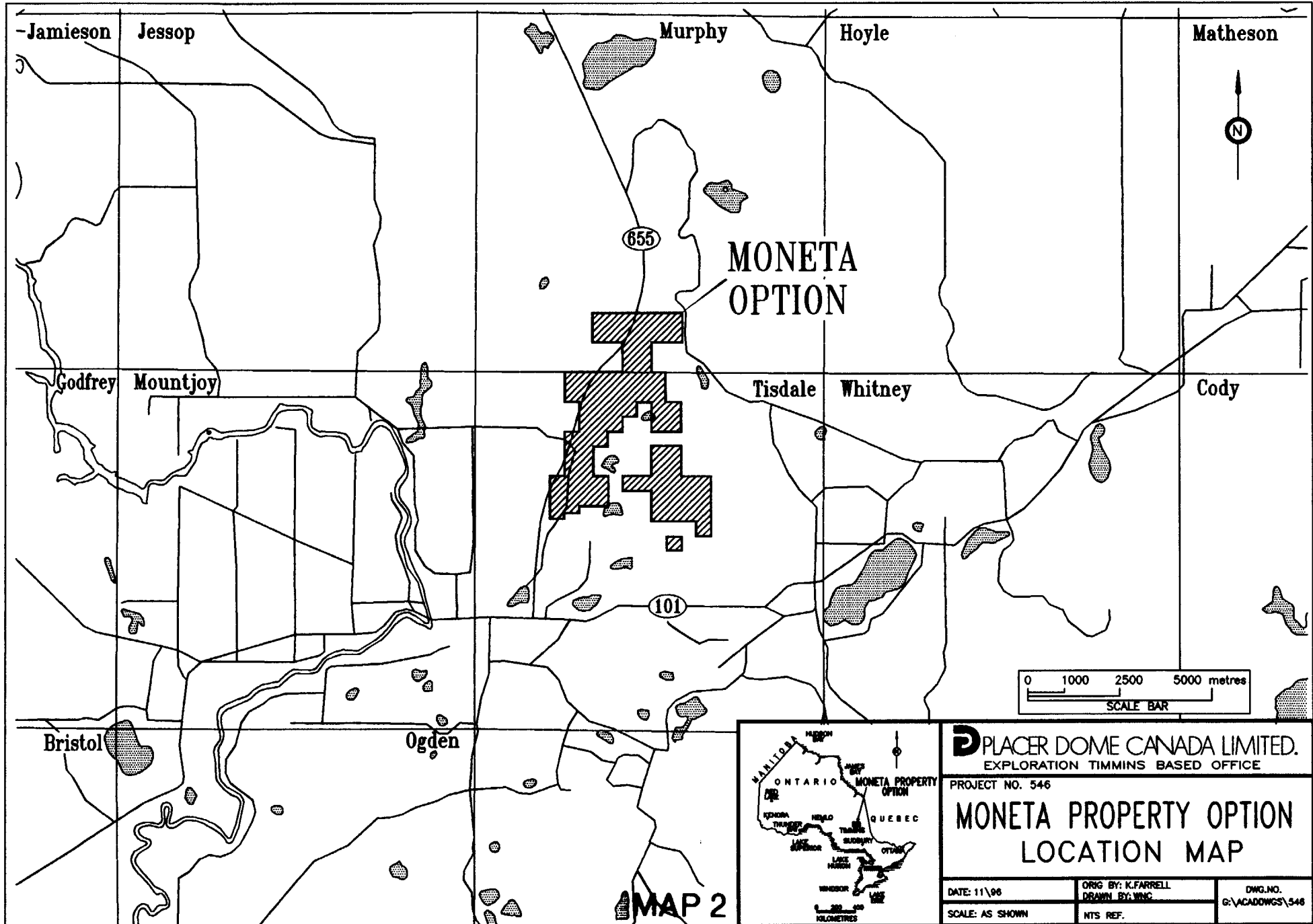
The claim blocks fall within the jurisdiction of the Porcupine Mining Division, of the Ontario Ministry of Northern Development and Mines.

The property lies mainly in northern Tisdale Township where there is less than 1% outcrop. The area is host to many sand and gravel pits which are exploiting an esker trending northeast (Ferguson, 1968). Overburden ranges from 5 to over 50 metres at the sand and gravel ridge.



 PLACER DOME CANADA LIMITED		
PROJECT NO. 546		
MONETA PROPERTY ONTARIO LOCATION MAP		
DATE: 11\96	ORG BY: K.FARRELL DRAWN BY: WNG	DWG. NO. G:\ACADDWGS\546
SCALE: 1:140,000	NTS REF.	

MAP 1



MAP 2

PLACER DOME CANADA LIMITED.
EXPLORATION TIMMINS BASED OFFICE

PROJECT NO. 546
MONETA PROPERTY OPTION
LOCATION MAP

DATE: 11\96	ORIG BY: K.FARRELL	DWG.NO.
SCALE: AS SHOWN	DRAWN BY: WNC	G:\ACAD\DWGS\546
	NTS REF.	

3.2 MINERAL CLAIMS

The Moneta Porcupine Option consists of 48 unpatented mining claims (Table 1); 24 patented mining claims, mining rights only (Table 2); and 6 patented mining claims, mining rights and full or partial surface rights (Table 3). The dates of expiration for the unpatented claims are listed in Table 4. The claims are located in Tisdale and Murphy Townships, north of Timmins, Map 3. They form two separate claim blocks the larger termed the Murphy/Tisdale block and the smaller termed Porcupine Prime block. Placer Dome Canada Limited optioned the property from Moneta Porcupine Mines Inc. on September 25, 1995 whereby Placer Dome Canada Limited may earn a sixty percent interest by spending \$9,000,000 by September 30, 2000.

3.3 PREVIOUS WORK

The property optioned from Moneta Porcupine Mines Inc. is part of a larger group of properties called the Burrows Benedict Properties. Previous to 1987 the main work done on the land were geophysical surveys and drilling of airborne anomalies.

3.3.1 North Tisdale Claim Group

Keevil Exploration performed ground magnetic and electromagnetic surveys on claim 594788 in 1964 - 1965. As well during that time period Inco drill tested one electromagnetic anomaly intersecting mafic volcanics with interflow graphitic horizons.

In 1982, Esso Minerals Canada conducted a VLF-EM survey on claims P529973 and P529974 (Wilson, 1982). The survey found weak conductors thought to be conductive overburden and/or geological noise. The author recommended further ground magnetometer surveys. The same survey was carried out on claims P594781 - 93 inclusive, P595767 - 70 inclusive and P595967 - 69 inclusive (Tisdale #1). Five to six conductors were outlined with this survey. HLEM and magnetometer surveys were recommended.

In 1983, Esso Minerals Canada conducted a VLF-EM and ground magnetometer survey on claims 594787 and 594788 in Tisdale Township (Wilson, 1983). The surveys did not define any probable gold-bearing targets on the claims, no further geophysics was recommended.

Hollinger Argus Limited filed a geological survey in 1984 on work performed in 1981 and 1982 on ten claims in lots 6, 7 and 8, Concession VI (Tisdale #1 Group).

Table 1: Unpatented Mineral Claims

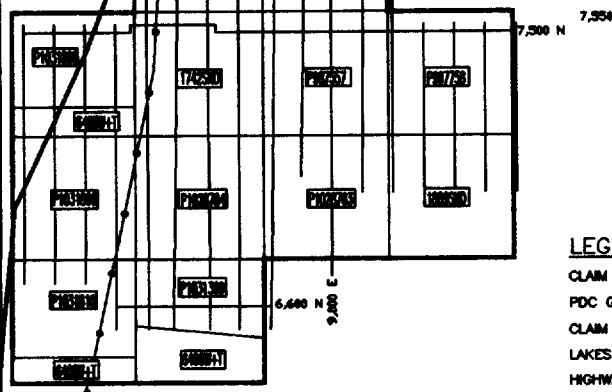
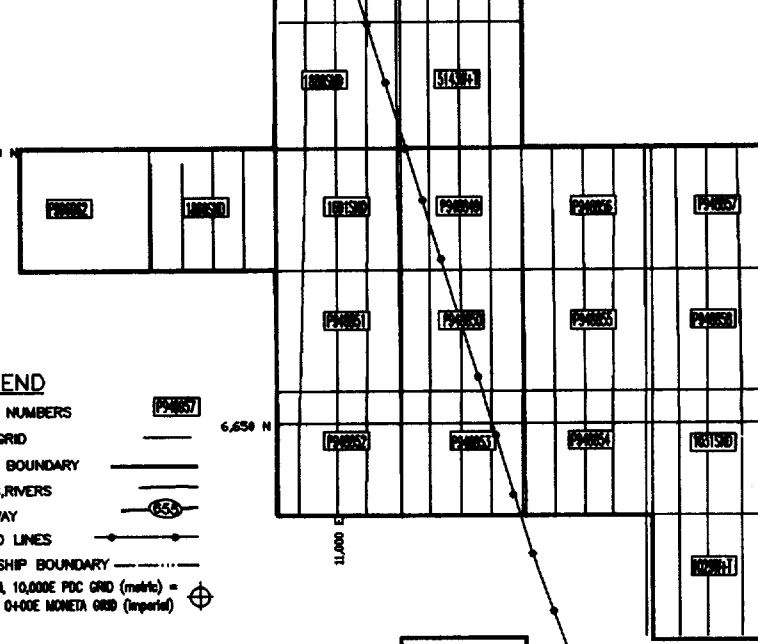
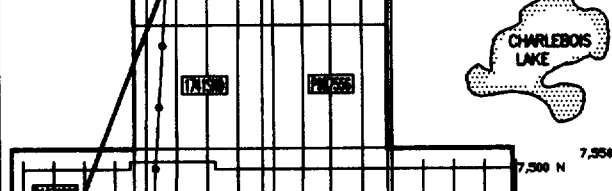
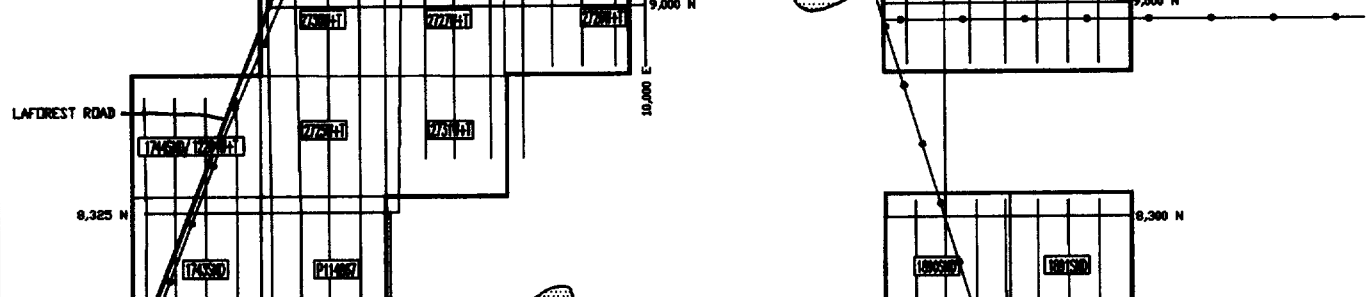
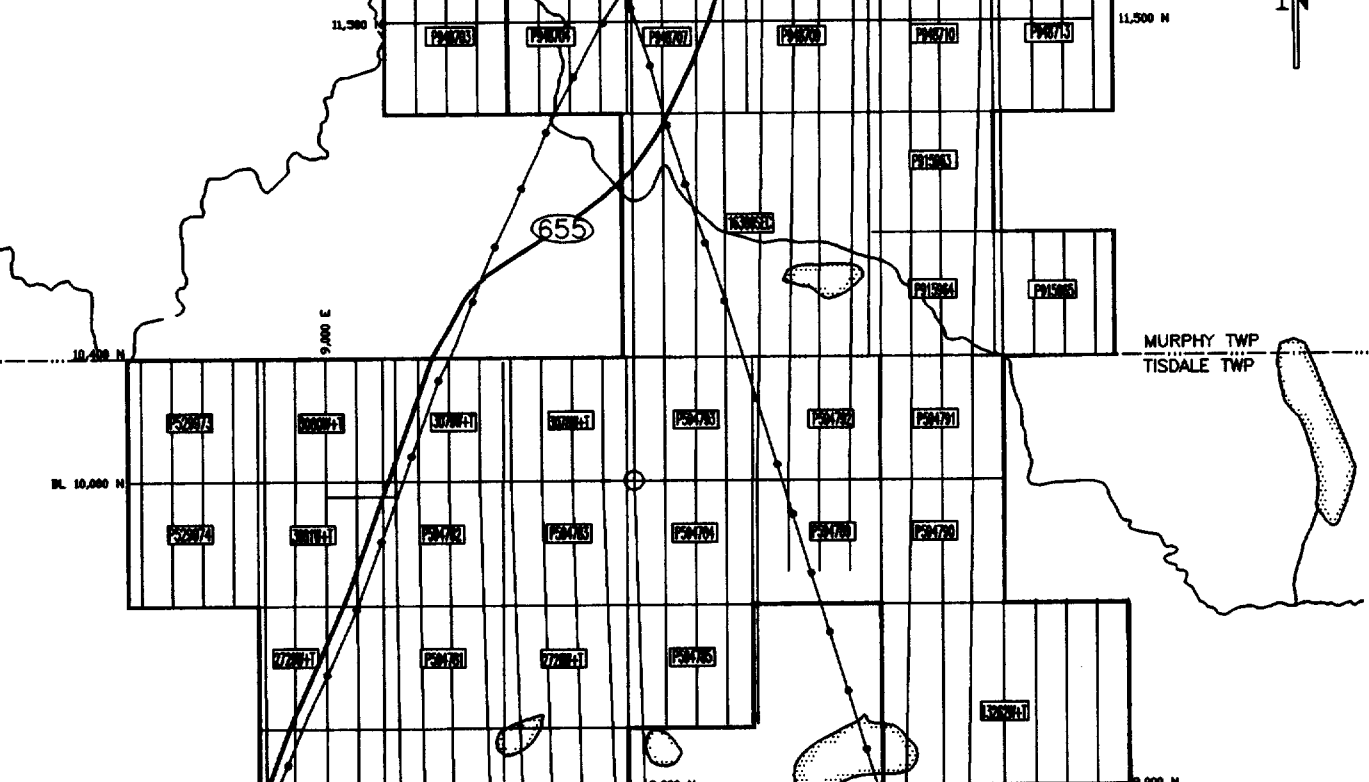
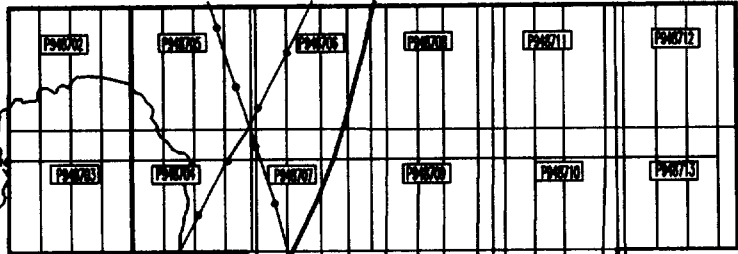
CLAIM NUMBER	LOCATION	TOWNSHIP
P948710	SW ¼ N ½ Lot 6 Con 1	Murphy
P948711	NW ¼ N ½ Lot 6 Con 1	Murphy
P948712	NE ¼ N ½ Lot 6 Con 1	Murphy
P948713	SE ¼ N ½ Lot 6 Con 1	Murphy
P915963	NW ¼ S ½ Lot 6 Con 1	Murphy
P915964	SW ¼ S ½ Lot 6 Con 1	Murphy
P915965	SE ¼ S ½ Lot 6 Con 1	Murphy
P948706	NW ¼ N ½ Lot 7 Con 1	Murphy
P948707	SW ¼ N ½ Lot 7 Con 1	Murphy
P948708	NE ¼ N ½ Lot 7 Con 1	Murphy
P948709	SE ¼ N ½ Lot 7 Con 1	Murphy
P948702	NW ¼ N ½ Lot 8 Con 1	Murphy
P948703	SW ¼ N ½ Lot 8 Con 1	Murphy
P948704	SE ¼ N ½ Lot 8 Con 1	Murphy
P948705	NE ¼ N ½ Lot 8 Con 1	Murphy
P594790	SW ¼ N ½ Lot 6 Con 6	Tisdale
P594791	NW ¼ N ½ Lot 6 Con 6	Tisdale
P594789	SEpt Npt Lot 7 Con 6	Tisdale
P594784	SWpt Npt Lot 7 Con 6	Tisdale
P594792	NEpt Npt Lot 7 Con 6	Tisdale
P594793	NWpt Npt Lot 7 Con 6	Tisdale
P594785	NW ¼ S ½ Lot 7 Con 6	Tisdale
P594781	NW ¼ S ½ Lot 8 Con 6	Tisdale
P594783	SE ¼ N ½ Lot 8 Con 6	Tisdale
P594782	SW ¼ N ½ Lot 8 Con 6	Tisdale
P529974	SW ¼ N ½ Lot 9 Con 6	Tisdale
P529973	NW ¼ N ½ Lot 9 Con 6	Tisdale
P948857	SE ¼ S ½ Lot 5 Con 5	Tisdale
P948856	SW ¼ S ½ Lot 5 Con 5	Tisdale
P948849	SE ¼ S ½ Lot 6 Con 5	Tisdale
P996962	SW ¼ S ½ Lot 7 Con 5	Tisdale
P997758	SW ¼ S ½ Lot 8 Con 5	Tisdale
P987556	NE ¼ S ½ Lot 9 Con 5	Tisdale
P987557	SE ¼ S ½ Lot 9 Con 5	Tisdale
P1114867	SE ¼ N ½ Lot 9 Con 5	Tisdale
P1031808	SE ¼ S ½ Lot 10 Con 5	Tisdale
P948854	SW ¼ N ½ Lot 5 Con 4	Tisdale
P948858	NE ¼ N ½ Lot 5 Con 4	Tisdale
P948855	NW ¼ N ½ Lot 5 Con 4	Tisdale
P948850	NE ¼ N ½ Lot 6 Con 4	Tisdale
P948851	NW ¼ N ½ Lot 6 Con 4	Tisdale
P948852	SW ¼ N ½ Lot 6 Con 4	Tisdale
P948853	SE ¼ N ½ Lot 6 Con 4	Tisdale
P1028784	NW ¼ N ½ Lot 9 Con 4	Tisdale
P1028783	NE ¼ N ½ Lot 9 Con 4	Tisdale
P1031369	Npt SW ¼ N ½ Lot 9 Con 4	Tisdale
P1031810	Npt SE ¼ N ½ Lot 10 Con 4	Tisdale
P1031809	NE ¼ N ½ Lot 10 Con 4	Tisdale

Table 2: Patented Mineral Claims (mining rights only)

PARCEL NUMBER	LOCATION	TOWNSHIP
16380SEC	S ½ Lot 7 Con 1	Murphy
13262W+T	Spt Lot 6 Con 6	Tisdale
2728W+T	NE ¼ S ½ Lot 8 Con 6	Tisdale
2726W+T	SE ¼ S ½ Lot 8 Con 6	Tisdale
2727W+T	SW ¼ S ½ Lot 8 Con 6	Tisdale
3078W+T	NE ¼ N ½ Lot 8 Con 6	Tisdale
3079W+T	NW ¼ N ½ Lot 8 Con 6	Tisdale
3080W+T	NE ¼ N ½ Lot 9 Con 6	Tisdale
2729W+T	NE ¼ S ½ Lot 9 Con 6	Tisdale
2730W+T	SE ¼ N ½ Lot 9 Con 6	Tisdale
5143W+T	NE ¼ S ½ Lot 6 Con 5	Tisdale
1891SND	SE ¼ N ½ Lot 6 Con 5	Tisdale
2731W+T	NW ¼ N ½ Lot 8 Con 5	Tisdale
12204W+T	NW ¼ N ½ Lot 9 Con 5	Tisdale
1741SND	NW ¼ S ½ Lot 9 Con 5	Tisdale
12583W+T	SW ¼ S ½ Lot 9 Con 5	Tisdale
2725W+T	NE ¼ N ½ Lot 9 Con 5	Tisdale
1743SND	SW ¼ N ½ Lot 9 Con 5	Tisdale
6408W+T	pt SE ¼ S ½ Lot 10 Con 5	Tisdale
1029W+T	NE ¼ S ½ Lot 5 Con 4	Tisdale
1031SND	SE ¼ N ½ Lot 5 Con 4	Tisdale
1889SND	NW ¼ N ½ Lot 8 Con 4	Tisdale
10561W+T	Spt SW ¼ N ½ Lot 9 Con 4	Tisdale
10653W+T	Spt SE ¼ N ½ Lot 10 Con 4	Tisdale

Table 3: Patented Mineral Claims (mining and surface rights)

PARCEL NUMBER	LOCATION	TOWNSHIP
3081W+T	SE ¼ N ½ Lot 9 Con 6	Tisdale
1691SND	SW ¼ S ½ Lot 6 Con 5 SR west Hwy 655 = MPMI SR east Hwy = R. Rochon	Tisdale
1888SND	NW ¼ S ½ Lot 6 Con 5	Tisdale
1890SND	SW ¼ N ½ Lot 6 Con 5	Tisdale
1866SND	SE ¼ S ½ Lot 7 Con 5	Tisdale
1589SND	SEpt Spt Lot 6 Con 4	Tisdale



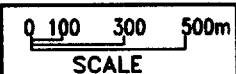
LEGEND

- CLAIM NUMBERS
- PDC GRID
- CLAIM BOUNDARY
- LAKES, RIVERS
- HIGHWAY
- HYDRO LINES
- TOWNSHIP BOUNDARY
- 10,000N, 10,000E PDC GRID (metric) =
- 04+00N, 04+00E MONETA GRID (Imperial)

PLACER DOME CANADA LIMITED
 PROJECT NO. 546
MONETA OPTION
CLAIM MAP

DATE: 12/96
 DRAWN BY: J.F. BELL
 CHECKED BY: J.C.
 SCALE: AS SHOWN
 NTD REF: 42-A-2

DWG. NO.:
 PLACER-DOME-546



MAP 3

CDN 1
 CDN 6

 CDN 6
 CDN 5

 CDN 5
 CDN 4

Table 4: Unpatented Claim List with Expiry Dates

CLAIM NUMBER	EXPIRY DATE
P948710 - P948713	October 17, 1998
P915963 - P915965	April 21, 1998
P948702 - P948709	October 17, 1998
P594781 - P594785	December 30, 1998
P594789 - P594793	December 30, 1998
P529973 - P529974	December 29, 1998
P948849 - P948858	September 23, 1998
P996962	August 7, 1997
P997758	September 23, 1998
P987556 - P987557	February 11, 1997
P1114867	May 23, 1998
P1031808	February 12, 1997
P1028783 - P1028784	February 11, 1997
P1031369	February 11, 1997
P1031809 - P1031810	February 12, 1997

Robert S. Middleton Exploration Services Inc. conducted an IP - resistivity survey in August 1984 over claims P594781 - 85 inclusive and P594788 - 93 inclusive in Tisdale Township. The survey confirmed the horizontal loop EM anomalies previously found but did not detect the VLF-EM anomalies.

Moneta Porcupine Mines performed ground geophysics (magnetometer and VLF-EM) over the Murphy-Tisdale block, reverse circulation overburden holes and diamond drilling in 1987. There were 28 more RCD holes performed in 1988. Basal till anomalies were identified but not all were tested since the RCD and drilling were concurrent programs.

Moneta Porcupine Mines Inc. drilled one hole on claim P987557 in 1989 defining a shear zone between a basalt and an ultramafic unit.

Exsics Exploration Ltd. performed a total field magnetic survey on 10 claims in concessions 4 and 5 and lots 8, 9 and 10 in Tisdale Township. The results show a significant northeast-southwest structure running through the property. It has been defined as an ultramafic 'zone' (Anderson, 1990). The author recommended IP, soil sampling and more RCD holes.

The above work was part of the work package performed by Independence Mining Company Inc. which also included linecutting, MaxMin EM and IP

surveys and preliminary diamond drilling. This work occurred from late 1989 to early 1990. The IP surveys were carried out on the western part of the north part of lot 9 finding a zone of moderate chargeability and on the south half of lot 6 identifying a graphitic conductor. Three drill holes were carried out, one in 1989 and two in 1990; there were no significant results (Beavon, 1990).

3.3.2 Porcupine Prime Claim Group

Pincortez Mines Ltd. drilled 25 holes on the claim group in 1949. Ignex Holding and Development Ltd. performed VLF EM and magnetic surveys on the Porcupine Prime claim block in mid 1981 (Hughes, 1981). The 1981 EM survey discovered 4 anomalies concordant with the strike of the area (lithological boundaries) while the magnetic survey defined two major structures.

In 1983, Newmont Exploration of Canada Ltd. conducted linecutting, surface mapping, magnetometer and IP - resistivity surveys on claims P530746 - 55 inclusive. Newmont also filed 3 drill holes in 1984. The first hole drilled a diorite dyke while holes 2 and 3 intersected interflow graphitic argillite within the basalts.

There were six trenches mapped by Moneta Porcupine Mines Inc. in 1987

In 1987, Moneta Porcupine Mines Inc. conducted a reverse circulation drilling program on claim P996962, consisting of 5 holes (Richard, 1988). No significant mineralization was detected. The same year the company drilled five diamond drill holes. One hole on each of the following claims: P948854, P948849, P13805, P948856 and P15562.

In 1991, a VLF EM and magnetic survey was conducted over claim P996962 (Juby, 1991). The VLF EM response was weak and the stronger magnetics were caused by ultramafics

3.3.3 South Murphy Claim Group

Renzy Mines conducted an IP survey on Lot 6 Con I in 1966. The survey identified a 60m to 100m wide anomaly. They followed up with a drill hole in 1968 to test the anomaly. The hole intersected greywacke with minor graphite beds. No assays were filed.

In 1981, Comstate Resources Limited and D.R. Pyke performed airborne magnetic and EM surveys over the South Murphy property as well as a small overburden sampling program.

In 1982, Amax Minerals Exploration did geological mapping on their claim group although no outcrops were found.

Linecutting, total field magnetics and a VLF-EM survey were conducted on the South Murphy package from January to April 1987 (Jensen, 1987). The underlying rocks are interpreted to be greywackes and argillites with the more conductive area composed of graphite and sulphide beds.

Moneta Porcupine Mines Incorporated drilled 15 RCD holes on the South Murphy land package in December 1988. The bedrock chip samples indicate the area is underlain by argillite and argillaceous greywacke. No significant mineralization was found (Yungwirth, 1992).

Broulan Reef Mines drilled 2 holes on their property in South Murphy where one hole contained quartz carbonate stringers in an argillite to graphitic argillite (Yungwirth, 1992).

3.4 PREVIOUS WORK COMPLETED BY PLACER DOME CANADA

From mid March to the beginning of April, 1996, line-cutting as well as 144.7 line-km of magnetic and 131.0 line-km of electromagnetic (HLEM) were carried out by Val d'Or Geophysics on the property optioned from Moneta Porcupine Mines Inc.. The surveys detected, inside an area of weak to moderate magnetic relief, eleven conductors of which six are likely to be bedrock sourced and could be explained by semi-massive and massive mineralizations (Boileau et al, 1996). Recommendations include drilling the six best conductors on their best electromagnetic (HLEM) responses and IP profiles to study the nature of the five weaker conductors.

4.0 ECONOMIC ASSESSMENT

The property is located within the Timmins Gold Camp, one of the major gold producers in Canada. Gold is hosted mainly within quartz-sulphide-carbonate stockwork zones occupying porphyry/mafic/ultramafic contacts and/or structural zones. The property hosts the potential for the extension of the Hollinger - McIntyre gold system to the northeast; the western extension of the Bell Creek - Hoyle Pond 1060 Zone and the western extension of the Pipestone fault system.

The main target of this program was to identify the extension of the Bell Creek - Hoyle Pond or North Mine Trend west of the Burrows Benedict fault.

5.0 REGIONAL GEOLOGY

The Porcupine Gold Camp is situated in the Abitibi Greenstone Belt in Northern Ontario. The geology of the area has been well documented in the OGS report by D.R. Pyke (1982). As well, Tisdale Township has been documented in the OGS report by S.A. Ferguson (1968). Map 4 is a schematic map of the geology of the Timmins area.

The majority of the rocktypes underlying the Timmins area are Archean in age. Metavolcanic rocks have been subdivided into two groups, the Deloro and Tisdale assemblages.

The Deloro Group is largely composed of Calc-alkaline metavolcanics, primarily andesitic and basaltic flows in the lower part, and dacitic flows and, dacitic/rhyolitic pyroclastics towards the top of the sequence. Iron formation is common at or near the top of the group. Most of the Deloro Group is confined to a large domal structure located in the southern part of the area.

A major change in volcanism marks the beginning of the younger Tisdale Group. The basal formations are largely made up of ultramafic to mafic komatiitic flows, which are overlain by a thick sequence of tholeiitic basalts. The top of the group is composed primarily of calc-alkaline, dacitic volcanoclastics.

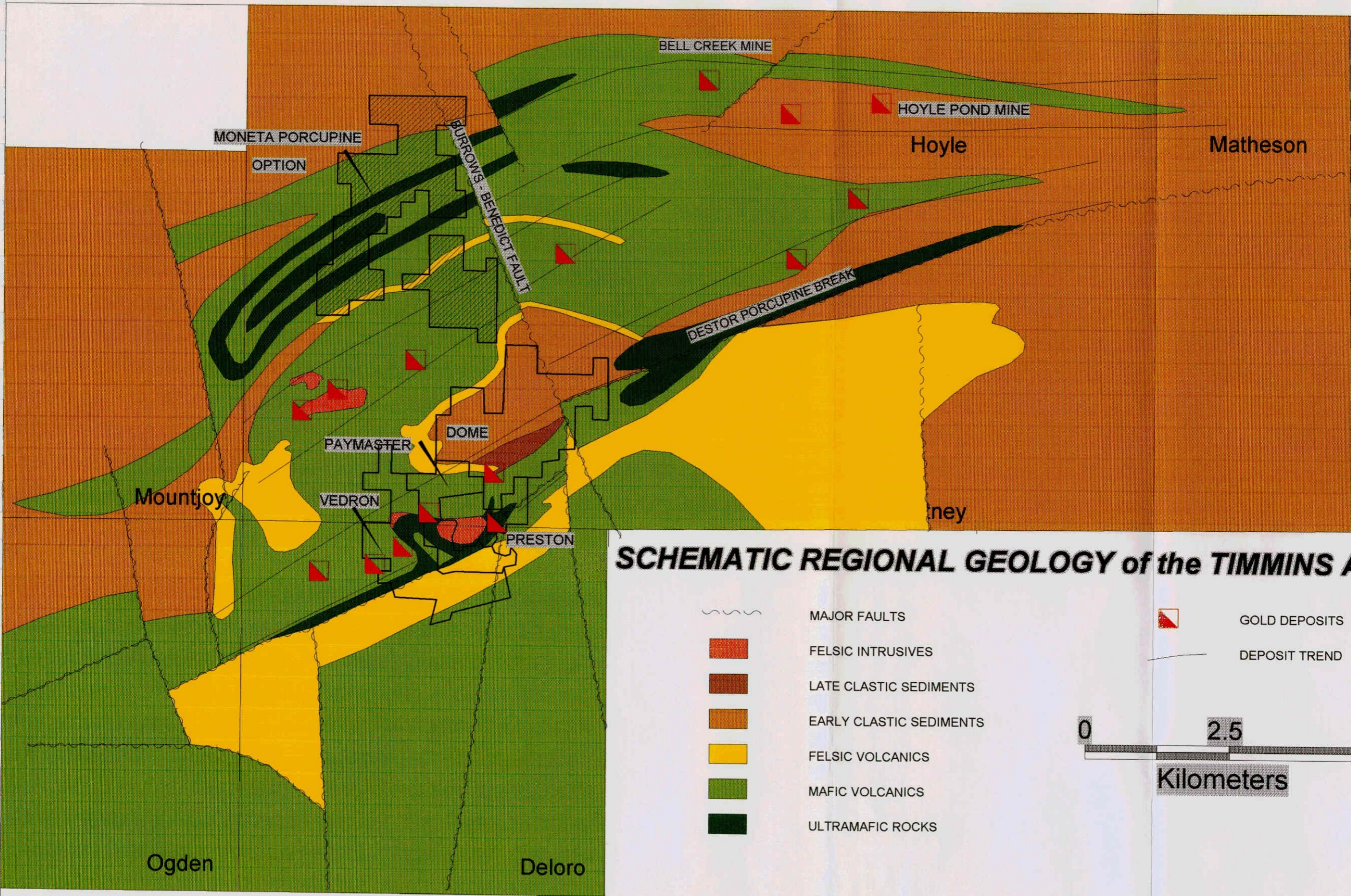
Metasedimentary rocks, including interlayered wacke, siltstone and conglomerate are interpreted to be coeval with the upper part of the Deloro Group and all of the Tisdale Group. This turbidite sequence, together with a thin sequence of overlying fluvial sediments, have been referred to as the Porcupine Group.

Small quartz-feldspar porphyry intrusions, possibly of subvolcanic origin, were intruded into a restrictive stratigraphic interval of the Tisdale mafic flows.










A major structural break, the Porcupine Destor Fault, trends northeast across the area. North of the fault, two periods of folding have been interpreted; an original north trending series of folds which have been refolded about an east-northeast axis. The main axis of the later folding is delineated by the Porcupine Syncline.

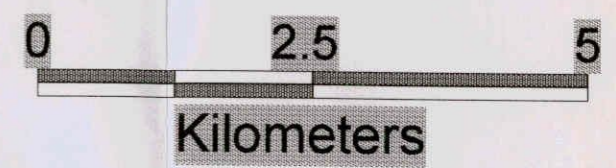
South of the Porcupine Destor, the Shaw Dome forms the main structural feature. This doming may be the result of the diapiric action of an underlying granitic body.

Virtually all of the production from the area has been from quartz carbonate veins in metavolcanic/metasedimentary rocks and quartz stringers in porphyries north of the fault in the Tisdale Group. Most of the auriferous veins tend to be controlled by anticlinal axes.



SCHEMATIC REGIONAL GEOLOGY of the TIMMINS AREA

-  MAJOR FAULTS
-  FELSIC INTRUSIVES
-  LATE CLASTIC SEDIMENTS
-  EARLY CLASTIC SEDIMENTS
-  FELSIC VOLCANICS
-  MAFIC VOLCANICS
-  ULTRAMAFIC ROCKS
-  GOLD DEPOSITS
-  DEPOSIT TREND



6.0 PROPERTY GEOLOGY

The property is underlain by the upper part of the komatiitic sequence and most of the magnesian tholeiitic rocks of the Tisdale Group and the lower formation (mainly turbidites) of the Porcupine Group. Intruding the above units are ultramafic bodies and northwest trending diabase dykes.

The North Tisdale Anticline crosses the property in a northeasterly direction. The area traversed lies on the north limb of the isoclinal anticline. Units on this part of the property dip in a southerly direction and top to the north.

The Burrows - Benedict Fault runs through the northeast corner of the grid in Murphy Township. The ground magnetics performed in 1996, outline two more faults roughly parallel to the Burrows - Benedict in the southwestern portion of the grid in Tisdale Township. No offsets from the Burrows - Benedict fault itself have been delimited.

6.1 CURRENT WORK

From May 21 to June 13, 1996 the author and Michael DeLuca surveyed 36.137km of grid lines (Table 5). The survey concentrated on the northern section of the North Tisdale block where proposed diamond drill holes were located and on the surveyed control lines. The area traversed is highlighted on the accompanying map with the rough limits being:

Northern Boundary:	northwest/southeast stream in southern Murphy Township
Southern Boundary:	9200N
Eastern Boundary:	9000E
Western Boundary:	11200E

The isolated highlighted lines are surveyed control lines which were used to verify the accuracy of the grid. Vegetation changes, rivers and streams, claim posts, sand pits and other cultural features were also noted, Map 1. There is less than 1% outcrops in the area with only four encountered during the survey.

6.2 LITHOLOGIC UNITS

The four outcrops located are magnesium basalt (Unit 2A3), the most prominent rock type in the area. The outcrops had been found before although there are two at the bottom of a sand pit which have been recently re-exposed.

The first outcrop location is 9700E and 10375N where there are two small outcrops located at the bottom of a sand pit. The rock type is pillowed magnesian

Table 5: Kilometers Traversed per Claim

CLAIM #	LINE KM'S
P529973	0.188
P529974	0.188
P594782	1.640
P594783	1.543
P594793	1.823
P594784	1.823
P594792	2.025
P594789	1.710
P594791	2.125
P594790	1.525
P915964	1.170
P915965	0.315
P594785	1.910
P594781	0.745
P114867	0.500
P997758	0.405
P987557	0.405
P103808	0.395
P915963	0.405
P948710	0.810
P948713	0.330
P948711	0.405
P948709	0.405
P948707	0.810
P948706	0.405
P948704	0.200
TOTAL	24.203

PARCEL #	LINE KM'S
3080W+T	0.518
3081W+T	0.703
3079W+T	1.795
3078W+T	1.823
2728W+T	1.095
2729W+T	0.537
2726W+T	0.840
2727W+T	0.585
2730W+T	0.695
2725W+T	0.405
1743SND	0.370
1742SND	0.430
16380SEC	2.140
TOTAL	11.935

TOTAL LINE KM'S
= 36.137

flow with 0.5cm to 1cm selvages. There is a shear at 236°, parallel to the strain in the pillows.

A pillowed magnesian flow was encountered at 9400E and 10300N as a cluster of outcrops around the edge of the trout pond close to the highway. There is less than 1% quartz carbonate veining over the outcrop with the average orientation of 225°. The pillows are strained at 240° with chloritic selvages. The strained pillows suggest tops is to the north.

The third outcrop was located close to the power line at 10700E and 9785N. The rock is lichen covered and appears to be a fine grained magnesian flow. A shear direction of 78° was evident.

The fourth outcrop was located along the baseline from 9150E to 9100E at 9950N. The outcrop is pillowed magnesian flow with minor quartz veining. OGS Map 2075 from Ferguson (1968), depicts this outcrop with a quartz diabase dyke intruded through the middle. Vegetation and fungi have over taken the surface of the outcrop making contacts nearly impossible to find.

Since the basis of the mapping was to find new showings, no time was spent stripping previously mapped outcrops. Below is a more in depth description of the magnesium basalt on the property.

6.2.1 Magnesium Basalt - Unit 2A3

Magnesium basalt occurs as massive and variolitic pillowed flows with intercalated flow breccia horizons. Pillows range in size from 10cm to 1.5m with varioles more densely packed near the selvages. The unit is light green in colour, moderately foliated, moderately hard to hard with variable grain size.

The unit contains up to 10-25% chlorite, 10-20% amphibole, 5-10% biotite, 10-20% plagioclase and 5-15% quartz. The micaceous minerals define the foliation. Alteration includes moderate pervasive carbonatization and 1-5% patchy silicification. Veining includes 1-10% quartz carbonate and 1-5% quartz veins. The veins are generally milky white, fractured with sharp contacts with the host rock. Mineralization includes trace to 1% disseminated and vein associated pyrrhotite, trace to 0.5% disseminated, vein associated and fracture filling pyrite and trace vein associated chalcopyrite.

6.3 PERSONNEL

The following people were involved in the 1996 mapping program on the Moneta Porcupine Option:

Wendy Compton	Computer Technician
Michael DeLuca	Geologist
Kathy Farrell	Geologist
(c/o Placer Dome Canada Limited, P.O. Box 960, Timmins, ON, P4N 7H1)	
Colin Green	Computer Technician
David S. Hunt	Project Geologist
(c/o Placer Dome Canada Limited, P.O. Box 960, Timmins, ON, P4N 7H1)	
Ed McKenzie	Field Assistant
Terry McNeil	Geotechnician
Ryan Purvis	Field Assistant

7.0 CONCLUSIONS

The Moneta Option property is underlain by the upper part of the komatiitic sequence and most of the magnesian tholeiitic rocks of the Tisdale Group and the lower formation of the Porcupine Group. The property lies on the north limb of the North Tisdale Anticline with units dipping south and topping to the north.

The geological survey consisted of traversing 36.137km of grid lines locating four pillowed magnesian basalt outcrops and cultural features. The lack of outcrop due to thick overburden makes geological interpretation difficult. The author does not recommend any further mapping of the property unless diamond drilling is proposed in a specific area.

8.0 ACKNOWLEDGEMENTS

The 1996 exploration program on the Moneta Porcupine Option in Timmins, Ontario was supervised by Dave Hunt. The field work was carried out by geologists: Kathy Farrell and Michael DeLuca, and field assistants: Ed McKenzie, Terry McNeil and Ryan Purvis. Office work was performed by Kathy Farrell, with support from Wendy Compton, Colin Green, Denise Ings and Robin Price.

9.0 REFERENCES

- Alexander, D.R. (1984), Geological Survey on the Tisdale #1 Group, Tisdale Township, Hollinger Argus Limited, Company Report
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- Pyke, D.R. (1982), Geology of the Timmins Area District of Cochrane, Ontario Geological Survey Report 219, 141p.
- Richard, J.A. (1988), Moneta Porcupine Mines Incorporated Report on Reverse Circulation Overburden Drilling MMT867 Project - Prime Access Claim, Tisdale Township, Ontario NTS 42A/11, Overburden Exploration Services Ltd., Company Report

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Wilson, L.M. (1982), Report on a VLF-EM Survey Tisdale No.2 Claim Group, Tisdale Twp., Porcupine Mining Division, Esso Minerals Canada, Company Report

Wilson, L.M. (1992), Report on a VLF-EM Survey Tisdale No. 4 Claim Group, Tisdale Twp., Porcupine Mining Division, Esso Minerals Canada, Company Report

Wilson, L.M. (1983), Report on a VLF-EM Survey and a Ground Magnetometer Survey Claims 594787, 594788, Tisdale Township, Porcupine Mining Division, Esso Minerals Canada, Company Report

Yungwirth, F.P. (1992), Report on Reverse Circulation Drilling MSM-87 Project - South Central Murphy Township, Murphy Township, Timmins, Ontario, Moneta Porcupine Mines Incorporated, Company Report

APPENDIX A
CERTIFICATE OF QUALIFICATIONS

CERTIFICATE OF QUALIFICATIONS

THIS IS TO CERTIFY THAT:

I have been a resident of 88A William Avenue, in South Porcupine, Ontario since November 1995.

I have graduated with distinction from Laurentian University, Sudbury, Ontario with an Honours Bachelor of Science degree in Geology in 1995.

I have been practicing my profession as an exploration geologist since graduation.

Statements made within this report are based upon work performed on the property by Placer Dome Canada and the study of previous geological reports on the property.

I have disclosed all relevant material, descriptive and interpretive, which is, to the best of my knowledge, necessary to gain a complete understanding of the viability of the project and the recommendations.

I have participated and supervised a geological survey, consisting of 36.137 grid line kilometers, on the Moneta Porcupine Option from May 21 to June 13, 1996.

I have no interest, direct or indirect, in the property described, nor do I anticipate receiving any such interest.



**Kathy Farrell, Hons.B.Sc.
Geologist**

January 1997

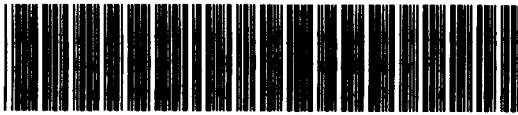


Declaration of Assessment Work Performed on Mining Land

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

Transaction Number (office use) W9860.00019 Assessment Files Research Imaging

Personal information Mining Act, the i Questions about 933 Ramsey Lal



42A11SW2002 2.18064 MURPHY

900

2) and 66(3) of the Mining Act. Under section 8 of the ment work and correspond with the mining land holder. ry of Northern Development and Mines, 6th Floor,

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240. - Please type or print in ink.

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

2.18064

Form for recorded holder(s) with fields for Name, Address, Client Number, Telephone Number, Fax Number. Includes handwritten entry for Moneta Porcupine Mines Inc.

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

- Geotechnical: prospecting, surveys, assays and work under section 18 (regs) [checked]
Physical: drilling, stripping, trenching and associated assays
Rehabilitation

Work Type: Geological Mapping. Office Use section with fields for Commodity, Total \$ Value of Work Claimed (\$24,516), NTS Reference, Mining Division (Timmins), Resident Geologist District (Timmins).

- 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)

Form for person or companies who prepared the technical report. Includes handwritten entry for K. Farrell, Placer Dome Canada Ltd. and two 'RECEIVED' stamps from the Geoscience Assessment Office and Porcupine Mining Division.

4. Certification by Recorded Holder or Agent

I, Raouf Scerets, 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: Raouf Scerets. Date: Jan 12, 98. Agent's Address: Co. Moneta Porcupine Mines Inc. Telephone Number: 705-264-2296. Fax Number: 705-267-7490.

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

Mining 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 948706	1	275 ✓		275	
2 948711	1	275 ✓		275	
3 948704	1	136 ✓		136	
4 948707	1	550 ✓		550	
5 948709	1	275 ✓		275	
6 948710	1	550 ✓		550	
7 948713	1	224 ✓		224	
36002805 16380 SEC	65.5 ha	1452 ✓		1452	
9 915963	1	275 ✓		275	
10 915964	1	794 ✓		794	
11 915965	1	214 ✓		214	
12 529973	1	128 ✓		128	
13 212 3080 WT	16.6 ha	351 ✓		351	
14 211 3079 WT	16.1 ha	1218 ✓		1218	
15 210 3078 WT	16.1 ha	1237 ✓		1237	
Column Totals		7954		7954	

6 numbers in red

36002805

continued.

I, Rainer Skeries, 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.

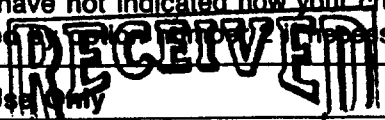
Signature of Recorded Holder or Agent Authorized in Writing [Signature] Date Jan 12, 98

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):
1026520, 1026519, 1026522, 1129822, 1198975

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



For Office Use Only Received Stamp JAN 18 1998 1:45 PM PORCUPINE MINING DIVISION	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved

2,180,04

Mining 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
<i>continued</i>	<i>subtotal</i>	7954	<i>subtotal</i>	7954	
16 594793	1	1237 ✓			
17 594792	1	1374 ✓		1374	
18 594791	1	1442 ✓		1442	
19 529974	1	128 ✓		128	
20 228 3081 WT	16.6	477 ✓		477	
21 594782	1	1113 ✓		1113	
22 594783	1	1047 ✓		1047	
23 594784	1	1237 ✓		1237	
24 594789	1	1160 ✓		1160	
25 594790	1	1035 ✓		1035	
26 213 2729 WT	16.6	364 ✓		364	
27 594781	1	505 ✓		505	
28 207 2728 WT	16.1	743 ✓		743	
29 594785	1	1296 ✓		1296	
30 214 2730 WT	16.6	470 ✓		470	
31 209 2727 WT	16.1	397 ✓		397	
32 208 2726 WT	16.1	570 ✓		570	
33 221 2725 WT	16.1	275 ✓		275	
34 222 1743 SMD	16.1	250 ✓		250	
35 1114867	1	339 ✓		339	
36 1031808	1	268 ✓		268	
37 110 12583 WT	16.1	290 ✓		290	
38 987557	1	275 ✓		275	
39 997758	1	270 ✓		270	
40 1026519	1		209 ✓		
41 1026520	1		98 ✓		
42 1026521	1				
43 1026522	1		209 ✓		
44 1129822	8		3200 ✓		
45 1198975	4		1600 ✓		
46 1203730	8		3200 ✓		
47 1203731	4		1600 ✓		
48 1203732	16		6400 ✓		
49 1203733	6		2400 ✓		
Column Totals		24516	18916	24516	

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 PORCUPINE MINING DIVISION

2.18064

Mining 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
continued		24516	18916	24516	
50 1203734	2		500 ✓		
51 1203735	3		1200 ✓		
52 1203736	1		400 ✓		
53 1205729	8		3200 ✓		
Column Totals		24516	24516	24516	

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 SA 8.15
 JAN 14 1998
 GEOSCIENCE ASSESSMENT
 OFFICE

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 JAN 18 1998
 J. Y. SA
 PORCUPINE MINING DIVISION

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

2.18064

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
Geological Mapping	line km : 36 km	681.00	24,516.00
Associated Costs (e.g. supplies, mobilization and demobilization).			
Transportation Costs			
Food and Lodging Costs			
Total Value of Assessment Work			24,516.00

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. 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:

I, Rainer Scerius (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 Worked Claims. I, [Signature] (recorded holder, agent, or state company position with signing authority) am authorized to make this certification.

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JAN 14 1998
GEOSCIENCE ASSESSMENT

RECEIVED
JAN 18 1998
1:45 PM
PORCUPINE MINING DIVISION

Signature: [Signature] Date: Jan 12 '98

March 25, 1998

R. Skeries
MONETA PORCUPINE MINES INC.
85 PINE ST. SOUTH
BOX 1756
TIMMINS, Ontario
P4N-7W9

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

Telephone: (888) 415-9846
Fax: (705) 670-5881

Dear Sir or Madam:

Submission Number: 2.18064

Status

Subject: Transaction Number(s): W9860.00019 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 benetest@epo.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,



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

Work Report Assessment Results

Submission Number: 2.18064

Date Correspondence Sent: March 25, 1998

Assessor: Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9860.00019	948706	TISDALE	Deemed Approval	March 24, 1998

Section:

12 Geological GEOL

Correspondence to:

Resident Geologist
South Porcupine, ON

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

R. Skeries
MONETA PORCUPINE MINES INC.
TIMMINS, Ontario

Assessment Files Library
Sudbury, ON
