GEOLOGICAL REPORT
on
THE STEPHEN LAKE GROUP
CAMERON LAKE PROJECT
AREA OF DOGPAW LAKE
KENORA MINING DIVISION
ONTARIO

by: Michael E. Chute

for: Gold Fields Canadian Mining, Ltd.
Suite 909
123 Front Street West
Toronto, Ontario
M5J 2M2

October 1983

THE STEPHEN LAKE GROUP

Location

The claim group is located at Stephen Lake in the District of Kenora, 44 miles southeast of the Town of Kenora. The property is centered at Latitude 49 degrees 18' north, Longitude 93 degrees 40' west.

Access

The property is accessible by float equiped aircraft from Kenora or Nestor Falls. The property is accessible by canoe from the Whitefish Bay Indian Reservation via Dogpaw and Flint Lake with portages of approximately 700 feet.

Claims

The claim group consists of 48 contiuguous claims, wholly owned by Gold Fields Canadian Mining Limited. The claim group includes those claims numbered as follows:

646749 to 646754 inclusive
645758 to 645760 inclusive
675744 to 675774 inclusive
675808 to 675815 inclusive

Topography and Vegetation

Topography and vegetation of the claim group is controlled by the distribution of the bedrock lithologies and structures. The maximum range of elevations on the property is approximately 225 feet. The northern part of the claim group is characterized by east trending outcrop ridges of moderately to well exposed, strongly foliated, mafic and felsic metavolcanic rocks and a mafic to ultramafic sill complex. Areas underlain by unsheared felsic metavolcanic rocks form a prominent bald outcrop ridge along the north shore of Stephen Lake. The northern third of this part of the claim group is underlain by the Pipestone-Cameron Fault and is covered by swamp. The western portion of the claim group, between Little Stephen Lake and Stephen Lake, is underlain mainly by a northeast trending massive bald outcrop of felsic metavolcanic rocks. The southeast part of the group is characterized by a west trending major ridge underlain by a moderately exposed mafic to ultramafic sill complex.

The property is covered by boreal mixed coniferous and deciduous forest. Bald outcrop areas tend to host jackpine. Low poorly drained areas are covered by cedar, alder and/or willow swamps.

Previous Work and Work Performed

Previous geological work on the property area is summarized by Davies and Morin (1976)*. Previous exploration work by Noranda Mines was confined to the east central edge of the property where minor copper mineralization was located (Cates occurrence). Gold Fields has filed, for assessment credits, airborne magnetics and electromagnetics, and ground magnetics on the property.

During this investigation geological mapping was done on cut and chained lines at 400 foot line spacings.

Regional Geology

The claim group is underlain mainly by Archean greenschist facies volcanic and intrusive rocks of the Lake of the Woods-Wabigoon greenstone belt of the Superior Province. The northern portion of the group straddles the Pipestone-Cameron Fault.

Property Geology

Bedrock underlying the claim group is divided into nine lithologic units and is summarized in Table 1.

On the north side of Stephen Lake adjacent to the Pipestone-Cameron Fault, mafic, intermediate and felsic metavolcanic rocks display an intense foliation which strikes easterly. On the north shore of Stephen Lake less deformed felsic tuffs and lapilli tuffs display well developed bedding which strikes easterly and dips near vertically. Between Little Stephen Lake and Stephen Lake the felsic metavolcanic rocks strike north northeasterly. On the south shore of Stephen Lake felsic metavolcanic rocks strike easterly. Limited facing direction data suggests that the felsic metavolcanic sequence north of Stephen Lake faces south whereas felsic metavolcanic rocks on islands adjacent to the south shore of Stephen Lake face northwest.

Lithologic Units

1. Mafic Metavolcanic Rocks

Outcrop areas of mafic metavolcanic massive and pillowed flows and tuffs occur at the northern border of the claim group on both sides of the Pipestone-Cameron Fault. Mafic metavolcanic rocks are generally dark green on the fresh surface and weather to a medium green. Both massive and pillowed flows are aphyric and locally medium grained to porphyritic in the massive flows. Mafic tuffs are generally fine grained, chloritic and weather dark green.

* Davies, J.C. and Morin, J.A.
1976: Geology of the Cedartree Lake Area, District of Kenora; Ontario Division of Mines, Geological Report 134, 57p. Accompanied by Map 2319, scale 1:31680.

TABLE 1 *

PHANEROZOIC
CENOZOIC
QUARTERNARY
RECENT - Swamp deposits
PLEISTOCENE - sand, gravel, boulders, clay

- UNCONFORMITY -

PRECAMBRIAN
MIDDLE TO LATE PRECAMBRIAN (PROTEROZOIC)
LATE MAFIC TO INTERMEDIATE INTRUSIVE ROCKS
diabase dykes

- INTRUSIVE CONTACT -

EARLY PRECAMBRIAN (ARCHEAN)
FELSIC INTRUSIVE ROCKS
LATE FELSIC TO INTERMEDIATE INTRUSIVE ROCKS
hybrid border zone, granodiorite

- INTRUSIVE CONTACT -

EARLY FELSIC TO INTERMEDIATE INTRUSIVE ROCKS
quartz-feldspar porphyry, feldspar porphyry

- INTRUSIVE CONTACT-

MAFIC TO ULTRAMAFIC INTRUSIVE ROCKS
gabbro, leucogabbro, pyroxenite, peridotite, talc carbonate

- INTRUSIVE CONTACT -

METAVOLCANIC AND METASEDIMENTARY ROCKS
CHEMICAL METASEDIMENTARY ROCKS -
chert
CLASTIC METASEDIMENTARY ROCKS
argillite,siltstone, siliceous siltstone,
volcanic sandstone
FELSIC METAVOLCANIC ROCKS -
massive flows, tuff, lapilli tuff, lapillistone,
tuff breccia
INTERMEDIATE METAVOLCANIC ROCKS -
massive flows, tuff, lapilli tuff, lapillistone
MAFIC METAVOLCANIC ROCKS
massive flow, pillowed flow, tuff

* MODIFIED AFTER DAVIES & MORIN

2. Intermediate Metavolcanic Rocks

Small outcrops of intermediate massive flows, tuff and lapilli tuff occur south of the Pipestone-Cameron Fault. Intermediate metavolcanic rocks are identified by the lower color index (15 to 35) and weather light to medium grey and locally medium green on fresh surfaces they generally appear medium green.

3. Felsic Metavolcanic Rocks

The largest portion of the extrusive metavolcanic rocks occurs as felsic tuffs and lapilli tuffs with minor lapillistone and rare massive flows. Outcrops of tuff breccia occur on the southeast border of the claim group.

The felsic tuffs and lapilli tuff which occur south of the Pipestone-Cameron Fault and north of the prominent outcrop ridge on the north shore of Stephen Lake are highly sheared and rarely display recognizable or good bedding. The tuffs and lapilli tuffs weather white to tan and are variably colored from dark grey to white on fresh surfaces. Composition of the tuffs and lapilli tuffs tends to be fine ash and/or mixed crystal lithic tuffaceous material.

Large outcrops of felsic tuffs and lapilli tuff occur along the well exposed ridge on the north shore of Stephen Lake, along the prominent ridge between Little Stephen Lake and Stephen Lake and along the south shore of Stephen Lake and its adjacent islands. In these areas the tuffs and lapilli tuffs are very well bedded and locally well foliated. The tuffs are generally white to tan and locally black on the weathered surface and are white, tan, grey and black on fresh surfaces. Many of the tuffaceous beds are spherulitic; rare vesicular tuff and lapilli tuff with vesicular fragments were noted. The tuffaceous units are characterized by a diversity of tuffs ranging from very fine grained, well bedded siliceous tuffs to coarser, more massive crystal lithic tuffs.

4. Clastic Metasedimentary Rocks

Minor clastic metasedimentary rocks occur interbedded with well bedded sequences of felsic tuff and lapilli tuff and do not constitute mapable units. These bedded sequences of argillite, silitstone, siliceous siltstone and volcanic sandstone may alternatively be mapped as siliceous tuffs and tuff.

5. Chemical Metasedimentary Rocks

Interbedded within the well bedded fine grained tuffs and silceous tuffs are minor cherts. These units rarely exceed a foot in thickness. On the weathered surface the cherts range in color from white to black; on fresh surfaces the cherts are generally black.

6. Mafic to Ultramafic Intrusive Rocks

Two layered mafic to ultramafic sill complexes intrude the felsic metavolcanic assemblage. The sill complex on the north side of Stephen Lake is approximately 750 feet thick and ranges in composition from leucogabbro through gabbro to pyroxenite. A similar sill complex on the south side of Stephen Lake is approximately 800 feet thick and contains minor peridotite in addition to leucogabbro, gabbro and pyroxenite. A minor zone of magnetic talc carbonate alteration is associated with the northern sill complex. The disposition of the ultramafic layers within the sill complexes suggests that the northern metavolcanic assemblage faces south whereas the southern metavolcanic assemblage faces north.

Minor irregular bodies of gabbro intrude the felsic metavolcanic assemblage south of Stephen Lake.

7. Early Felsic to Intermediate Intrusive Rocks

Small intrusive bodies of quartz-feldspar porphyry and feldspar porphyry occur within the mafic and felsic metavolcanic sequence.

8. Late Felsic to Intermediate Intrusive Rocks

The Stephen Lake Pluton, an epizonal granodiorite stock intrudes the felsic metavolcanic assemblage at the southwest corner of the claim group. Adjacent to the margin of the pluton a fine to medium grained biotite granodiorite forms a hybrid border phase and contains abundant xenoliths and partially assimulated rafts of felsic metavolcanic rocks. The main phase of the pluton consists of a massive, medium grained, equigranular granodiorite.

9. Late Mafic to Intermediate Intrusive Rocks

A northwest trending diabasic dyke intrudes the felsic metavolcanic assemblage and mafic to ultramafic intrusive rocks. The dyke is generally rusty weathering, massive, medium to coarse grained with fine grained contacts. The dyke is magnetic and varies in width from 100 to 250 feet.

Alteration and Mineralization

1. Quartz and/or Quartz-Carbonate Veins (with or without pyrite)

Quartz and/or quartz-carbonate veins, generally less than 6 inches in width, occur in all major sheared and unsheared lithologic units. The quartz veins are generally weakly limonitic. Carbonate species may be either calcium or iron carbonate. Trace quantities of pyrite were noted in some veins. No host rock altertion and/or mineralization is associated with these veins. No significant gold assays were returned from these veins.

2. Disseminated Sulphides in Sheared Felsic Metavolcanic Rocks

Disseminated pyrite occurs in sheared felsic metavolcanic rocks in several areas of the claim group; gold assays associated with these zones are generally not geochemically anomalous. On the northwest side of the west grid significant gold assays were returned from friable, variably silicified and carbonated, limonitic felsic metavolcanic tuffs and very fine grained tuffs. These tuffs contain up to 2 percent very fine grained disseminated pyrite.

3. Disseminated Sulphides In Sheared Mafic Metavolcanic Rocks (Cates Occurrence)

Highly sheared, generally non carbonated mafic to intermediate fine grained to porphyritic metavolcanic rocks containing up to 5 percent disseminated pyrite and up to 4 percent chalcopyrite and traces of barite occur in trenches at line 15 East 9 South. No signficant gold assays were returned; however some samples were geochemically anomalous with respect to gold.

4. Quartz-Carbonate Alteration

On the north grid, a west northwest striking zone of rusty weathering massive carbonate with quartz veining occurs along a strike length of 3000 feet and varies in width from 200 to 400 feet. Rocks within the zone have the character of the adjacent country rock with the addition of massive zones of the alteration material between narrow septa of unaltered host rock. Locally the zone is highly sheared and takes on a brecciated appearance. Geochemically anomalous gold values are associated with the zone, although some assays failed to detect gold.

Recommendations

1. Detailed mapping and assay sampling between Little Stephen Lake and Stephen Lake to determine the significance of gold assays and determine the extent of the anomalous zone.

2. Geologic mapping at a detailed scale of a stratigraphic section across the volcanic assemblage with special emphasis on the facing directions to determine the structure of the section.

3. Detailed mapping and assay sampling of the quartz-carbonate alteration zone to determine its character and access its gold potential.

4. Systematic assay sampling of felsic tuffs and rusty zones associated with areas mapped as ash flows by Davies and Morin.

5. Additional assay sampling of rusty felsic volcanics south of the north grid baseline between Lines 32 and 48.

6. Evaluation of mull sampling data from the north grid with respect to the results from the mull sampling over the anomalous area from the west grid.

7. Lithochemical evaluation of the anomalous area of gold values from the west grid to determine suitability for a larger scale lithochemical sampling program on the remainder of the felsic metavolcanics.

Michael E. Chute, B.Sc., M.Sc

STATEMENT OF QUALIFICATIONS

I, Michael E. Chute, hereby declare that I am a graduate of: the Nova Scotia Land Survey Institute, Certificate in Photogrammetry (1968); Acadia University, Bachelor of Science in Geology (1972); University of Manitoba, Master of Science in Geology (1977).
I have been a practising economic geologist involved with academic research or mineral exploration since 1972 and presently am a Ph.D. candidate in Geology at the University of Manitoba.

Michael E. Chute

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Mining Lands Section

File No 2.8911

Control Sheet

TYPE OF SURVEY

____ GEOPHYSICAL

__✓__ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

Dogpaw Lk

Signature of Assessor

July 24/86

Date

April 4, 1986

Your File: 249-85
Our File: 2.8911

Mining Recorder
Ministry of Northern Development and Mines
808 Robertson Street
Box 5080
Kenora, Ontario
P9N 3X9

Dear Sir:

RE: Notice of Intent dated March 7, 1986
Geological Survey on Mining Claims
K 645758, et al, in the Dogpaw Lake
Area

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

J.C. Smith, Supervisor
Mining Lands Section

Whitney Block, 6th Floor
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

DK/mc

cc: Gold Fields Canadian Mining Limited
Suite 909
123 Front Street West
Toronto, Ontario
M5J 2M2

M.E. Chute
54 Lakedale Place
Winnipeg, Manitoba
R3T 4L3

Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Resident Geologist
Kenora, Ontario

Encl.

Ministry of Northern Development and Mines
Ontario

Technical Assessment Work Credits

File 2.8911

Date March 7, 1986

Mining Recorder's Report of Work No. 249-85

Recorded Holder GOLD FIELDS CANADIAN MINING LIMITED

Township or Area DOGPAW LAKE AREA

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	K 645758 to 60 inclusive 646751 to 54 inclusive 675747 to 49 inclusive 675752 675756 to 58 inclusive 675763 to 66 inclusive 675768 to 74 inclusive 675808 to 15 inclusive
Electromagnetic ____ days	
Magnetometer ____ days	
Radiometric ____ days	
Induced polarization ____ days	
Other ____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 20 days	
Geochemical ____ days	
Man days [ ] Airborne [ ]	
Special provision [X] Ground [X]	
[ ] Credits have been reduced because of partial coverage of claims.	
[ ] Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

10 DAYS GEOLOGICAL

K 646749-50
675745
675750
675753
K 675755
675761
675767

5 DAYS GEOLOGICAL

K 675744
675746
675751
675754
675759-60
K 675762

No credits have been allowed for the following mining claims

[ ] not sufficiently covered by the survey

[ ] insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

Ontario

March 24/86

Ministry of
Northern Development
and Mines

March 7, 1986

Your File: 249-85
Our File: 2.8911

Mining Recorder
Ministry of Northern Development and Mines
808 Robertson Street
Box 5080
Kenora, Ontario
P9N 3X9

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at (416) 965-4888.

Yours sincerely,

J.C. Smith, Supervisor
Mining Lands Section

Whitney Block, 6th Floor
Queen's Park
Toronto, Ontario
M7A 1W3

DK/mc

Encl.

cc: Gold Fields Canadian Mining Limited
Suite 909
123 Front Street West
Toronto, Ontario
M5J 2M2

Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

M.E. Chute
54 Lakedale Place
Winnipeg, Manitoba
R3T 4L3

Ontario

Ministry of
Northern Development
and Mines

Notice of Intent
for Technical Reports

March 7, 1986

2.8911/249-85

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on the record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted directly to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

RP

2.5711

The Mining Act

#249-85

Feb-11

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.

Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Type of Survey(s): GEOLOGICAL

Township or Area: Dogpaw Lake. M-2585

Claim Holder(s): Gold Fields Canadian Mining Limited

Prospector's Licence No.: T-1195

Address: Ste. 909, 123 Front Street West, Toronto, Ontario M5J 2M2

Survey Company: Gold Fields Canadian Mining Limited

Date of Survey (from & to): Day 1 Mo. 6 Yr. 83 — Day 31 Mo. 10 Yr. 83

Total Miles of line Cut:

Name and Address of Author (of Geo Technical report): M. E. Chute, 54 Lakedale Place, Winnipeg, Manitoba, R3T 4L3

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

MINING LANDS SECTION
RECEIVED
DEC 23 1985
AM PM 7 8 9 10 11 12 1 2 3 4 5 6

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
K	645758	
	645759	
	645760	
	646749	
	646750	
	646751	
	646752	
	646753	
	646754	
	675744	
	675745	
	675746	
	675747	
	675748	
	675749	
	675750	
	675751	
	675752	
	675753	
	675754	
	675755	
	675756	
	675757	
	675758	
	646749	

Prefix	Mining Claim Number	Expend. Days Cr.
K	675759	
	675760	
	675761	
	675762	
	675763	
	675764	
	675765	
	675766	
	675767	
	675768	
	675769	
	675770	
	675771	
	675772	
	675773	
	675774	
	675808	
	675809	
	675810	
	675811	
	675812	
	675813	
	675814	
	675815	

Total number of mining claims covered by this report of work: 48

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
960	Dec 23/85	
	Date Approved as Recorded	Branch Director

Date: Dec. 18, 1985

Recorded Holder or Agent (Signature): D.M. Cameron

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Driffield M. Cameron, Ste. 909, 123 Front Street West, Toronto, Ontario M5J 2M2

Date Certified: Dec. 18, 1985

Certified by (Signature): Driffield M. Cameron

1362 (81/9)

February 11, 1986 Report of Work #249

Gold Fields Canadian Mining Limited
Suite 909
123 Front Street West
Toronto, Ontario
M5J 2M2

Attention: Driffield Cameron

Dear Mr. Cameron:

RE: Mining Claims K 645758, et al,
in the Area of Dogpaw Lake

I have not received the reports and maps (in duplicate) for the Geological Survey on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the Mining Recorder on December 23, 1985 the 60 day period allowed by Section 77 of the Mining Act for the submission of the technical reports and maps to this office will expire on February 21, 1986.

If the material is not submitted to this office by February 21, 1986 I will have no alternative but to instruct the Mining Recorder to delete the work credits from the claim record sheets.

For further information, please contact Mr. Arthur Barr at (416)965-4888.

Yours sincerely,

S.E. Yundt, Director
Land Management Branch

Mining Lands Section
Whitney Block, 6th Floor
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

AB/mc
cc: Mining Recorder
Kenora, Ontario

Encl.

M.E. Chute
54 Lakedale Place
Winnipeg, Manitoba
R3T 4L3

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOLOGICAL

~~Township~~ or Area Dogpaw Lake

Claim Holder(s) Gold Fields Canadian Mining Limited

Ste. 909, 123 Front St., W., Toronto, Ont M5J 2M2

Survey Company Gold Fields Canadian Mining

Author of Report Michael E. Chute

Address of Author 54 Lakedale Place, Winnipeg, Manitoba

Covering Dates of Survey June 1, 1983 - October 31, 1983
(linecutting to office)

Total Miles of Line Cut 47.08

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	-Electromagnetic	
	-Magnetometer	
	-Radiometric	
ENTER 20 days for each additional survey using same grid.	-Other	
	Geological	20
	Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: December 18, 1985 SIGNATURE: Dm Cameron
~~Author of Report or~~ Agent

Res. Geol. _____ Qualifications 28877

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(SEE ATTACHED LIST)
(prefix) (number)

If space insufficient, attach list

TOTAL CLAIMS 48

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters - On time _____ Frequency _____

- Off time _____ Range _____

- Delay time _____

- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth - include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

MINING CLAIMS TRAVERSED

STEPHEN LAKE GROUP

CAMERON LAKE PROJECT

ONTARIO

K	645758	K	675759
	645759		675760
	645760		675761
	646749		675762
	646750		675763
	646751		675764
	646752		675765
	646753		675766
	646754		675767
	675744		675768
	675745		675769
	675746		675770
	675747		675771
	675748		675772
	675749		675773
	675750		675774
	675751		675808
	675752		675809
	675753		675810
	675754		675811
	675755		675812
	675756		675813
	675757		675814
	675758		675815

GOLD FIELDS CANADIAN MINING, LTD.
A Consolidated Gold Fields Group Company

University Place
123 Front Street West, Suite 909
Toronto, Ontario M5J 2M2
(416) 865-0945

HAND DELIVERED

February 20, 1986

Mr. S. E. Yundt, Director
Land Management Branch
Mining Lands Section
Ministry of Northern Development and Mines
Whitney Block
6th Floor
Queen's Park
Toronto, Ontario
M7A 1W3

Dear Mr. Yundt:

Re: Mining Claims K645758 et at,
in the Area of Rowan Lake

Enclosed are two (2) copies each of a geological report, the pertinent maps, and the completed "Technical Data Statement" on forty-eight (48) mining claims (K645758 et al) in the Dogpaw Lake area, Kenora Mining Division, Ontario

Yours truly,

GOLD FIELDS CANADIAN MINING, LTD.

Driffield M. Cameron

Driffield M. Cameron,
Senior Geologist

DMC/jmc

Encl: 2 reports

CC: D. Bartlett

# of Work
hysical, Geological,
hemical and Expenditures)

RP

2.8911

The Mining Act

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Township or Area: Dogpaw Lake. M-2585

anadian Mining Limited — Prospector's Licence No.: T-1195

23 Front Street West, Toronto, Ontario M5J 2M2

Is Canadian Mining Limited — Date of Survey (from & to): Day 1 Mo. 6 Yr. 83 / Day 31 Mo. 10 Yr. 83 — Total Miles of line Cut:

s of Author (of Geo-Technical report)
ite, 54 Lakedale Place, Winnipeg, Manitoba, R3T 4L3

sted per Each Claim in Columns at right

ions		Days per Claim
survey: er 40 days. (This udes line cutting)	Geophysical - Electromagnetic	
	- Magnetometer	
each additional survey: ng the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	20
	Geochemical	

Days		Days per Claim
omplete reverse side nd enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

rborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED
JAN 16 1986
MINING LANDS SECTION

DEC 23 1985
M.N.R. DIV.
SUDBURY

M 7 8 9 10 11 12 1 2 3 4 5 6

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
K	645758	
	645759	
	645760	
	646749 1/2	
	646750 1/2	
	646751	
	646752	
	646753 1/4	
	646754	
	675744 1/4	
	675745 1/2	
	675746 3/4	
	675747	
	675748	
	675749	
	675750 1/2	
	675751 3/4	
	675752 1/4	
	675753 1/2	
	675754 3/4	
	675755 1/2	
	675756	
	675757 1/4	
	675758	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
K	675759 1/4	
	675760 3/4	
	675761 1/2	
	675762 3/4	
	675763	
	675764	
	675765	
	675766 1/4	
	675767 1/2	
	675768	
	675769	
	675770	
	675771	
	675772	
	675773	
	675774	
	675808	
	675809	
	675810	
	675811	
	675812	
	675813	
	675814	
	675815	

646749

Total number of mining claims covered by this report of work: 48

penditures (excludes power stripping)

pe of Work Performed

rformed on Claim(s)

culation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

tructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
960	Dec 23/85	
	Date Approved as Recorded	Branch Director

te: ec. 18, 1985

Recorded Holder or Agent (Signature): D.M. Cameron

rtification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

me and Postal Address of Person Certifying
riffield M. Cameron, Ste. 909, 123 Front Street West, Toronto, Ontario M5J 2M

Date Certified: Dec. 18, 1985

Certified by (Signature): Driffield M. Cameron

LEGEND

SYMBOLS

Derry Lake

Stephen Lake

Little Stephen Lake

CROWN RESERVE "PICTOGRAPH POINT"

Note: SEE LEGEND on WEST SHEET

FEET

CLAIM INDEX plan no. M.2585

NORTH SHEET

WEST SHEET

EAST SHEET

Scale 1 inch = 2 miles

BASE LINE

Surveyors	GOLD FIELDS MINING CORP.
Magnetic/Grid/ Town / Title	GEOLOGY
	STEPHEN LAKE GROUP
	CAMERON LAKE PROJECT
	Kenora Mining Division, Ontario
Scale: 1" = 400'	Map No.
Date: Summer 1983	COMPILATION
Grouse by: M. Chute, M.Sc.	
Mapped by: M. CHUTE	N.T.S. 52 P/5

28911

Michael Chute

52P05SW0055 2.8911 DOGPAW LAKE

1200