This report concerns two VLF-EM surveys carried out in November 1989 by Gary Dunn. One survey covers parts of claims L1046165,1046166, 1012961 and 1012962 and includes some overlap of a previous survey (December 1988). The other survey covers much of claim L1047203. Cut grids were established for the surveys.

The relevant technical and logistical data is tabulated below:

Operator: Gary C Dunn
Box 995 La Ronge Sask. SOJ ILO
Instrument: Geonics EM-16
Sensitivity: In-phase $\pm 150 \%$
Quadrature $\pm 40 \%$
Resolution: $\pm 1 \%$
Transmitter Station: NAA Cutler Maine; 24.0 khz
Kilometers Surveyed: L $1046165=2.45 \mathrm{~km}(1.53 \mathrm{mi})$
$1046166=2.48 \mathrm{~km}(1.55 \mathrm{mi})$
$1012961=0.90 \mathrm{~km}(0.56 \mathrm{mi})$
$1012962=0.75 \mathrm{~km}(0.47 \mathrm{mi})$
$1047203=2.43 \mathrm{~km}(1.52 \mathrm{mi})$

Total $9.01 \mathrm{~km}(5.63 \mathrm{mi})$
Line Spacing: 50 m
Reading Interval: 20m
Survey Dates: October 31 to November 5, 1989

All survey lines are oriented north-south, and all readings were taken facing north.



A series of weak east-west striking conductors has been outlined by the survey, confirming other data collected from an earlier survey. The conductor responses are consistent with structurally-induced phenomena such as shearing. It is known from previous work that north-northwest striking shears are also present, however under the grid orientation chosen for this survey, these did not show up geophysically.

The larger survey, on L1012961,1012962,1046165 and 1046166 had it's southern limit at an outcropping hill of Nipissing Diabase, which is not considered a prospective host rock for gold mineralization.

The smaller survey, on L1047203, shows a couple of very tenuous east-west responses, probably shears. The known occurence, the No. 1 Post Zone, has a northwest-trending shear direction, and it is possible that the predominant shear sense in this area is northwesterly, in which case this grid orienation was not optimum.

## PROPERTY LOCATION AND ACCESS

The 5 claims are located within Bryce Township, south $1 / 2$ Lot 9 concession 11, and can be reached by driving from New Liskeard, Ontario towards Elk Lake, on highway 65. At Osseo, a grid road is taken north and then west to its end in a field, approximately four miles. From the northwest end of this field, an old logging road trail runs to Pike Lake. The claims straddle this trail as well as a newer logging road which passes through the claim group and can be driven by $4 \times 4$.

These 5 claims are part of a 14 claim group presently held by Rod Spooner of La Ronge Saskatchewan.

REVIEW

The property is underlain by distal felsic volcanics, conglomerates, and Nipissing Diabase. Minor feldspar porphyry has been noted on the property also. Three previously unreported trenches were discovered, which expose shearing and related quartz veins. Two pits are about two meters apart and are about 1.5 meters deep. The third pit is off-strike, about 50 meters south of the northern two pits, and exposes a vein/shear abutting a feldspar porphyry dike.

During April 25 to 30, 1989, the author and several assistants including G. Dunn carried out overburden stripping and sampling in the area of these old pits which have been named the "GD Zone". The occurrences are in sheared tuffs, the shear sense being either east-west or northwest. The shears are present in a series of parallel trends which are clearly detected in VLF-EM surveys done over the vicinity. $0.05 \mathrm{oz} / \mathrm{Ton}$ Au was detected in grab samples.

Further to the south on claim 1012972 a series of old unreported trenches occur along a northwesterly trending structure. Very little work has been done to date in this area, however grab samples from the pyritic quartz stockwork assay to $0.229 \mathrm{oz} / \mathrm{Ton}$ Au with a 4 foot channel sample returning 0.1 oz/Ton Au.

Near the No. 1 Post of claim 1047203, old trenches have been found. Assays of 0.05 oz /Ton Au in fuchsite-bearing, sheared pyroclastics are present.
$\qquad$

## RESULTS

A series of parallel to subparallel conductive trends have been located and labelled on the accompanying mapsiAnomalies $A, B, C, D$ and $E$ occur on EM Map 1 , while anomalies $F, G$, and $H$ are showing on EM Map 2. As shown on the Compilation Map, the series of shears delineated by the surveys has significant strike length and may underlie the entire 5 claim width of the Bryce property. Anomaly A: Location $3+20 S$ from line $2+00 E$ to $5+00 E$. This is a weak conductor traced for 300 meters.Parts of the trend were exposed in April 1989's overburden stripping program at the "GD"zone. The shear varies up to a few meters wide with only minor quartz veining exposed. Chalcopyrite and pyrite is sparsely present, and best assays yield 0.05 oz/ton Au.A curve at it's east end may be caused by northwest-trending cross-faulting.
Anomaly B: Location $3+90 \mathrm{~S}$ from line $5+50 \mathrm{E}$ to $7+00 \mathrm{E}$. Again a weak conductor with positive quadrature, probably representing shearing, is traceable for 200 meters or so.The earlier survey suggested that $B$ may be the offset continuation of $A$, however this apparent break seems to show up along strike to the southwest, geophysically indicated for at least 120 meters in this direction and open to the northwest.

Anomaly C: Location $4+505$ line $4+00 \mathrm{E}$ to $6+50 \mathrm{E}$. This is a fainter,temuous zone whose response has been masked by a stronger conductar (D) about 80 to 100 meters to the south. Anomaly D.actually seems to be truncated at it's mid-point, on strike with the apparent break between $A$ and B.There is however no offset of $c$.

Anomaly D: Location between 6+40S and 5+40S from $1+00 E$ to $7+50 E$. This conductor exhibits the sharpest In-Fhase response of the survey, but the values still are negative. The weak positive quadrature suggests this anomaly,too, is derived from a shear zone. At the extreme eastern limit of the anomaly, In-Fhase becomes positive while quadrature drops to lower fositive values, possibly indicating a strengthening conductor or shallower overburden.

Anomaly E: Location $6+80 \mathrm{~s}$ from line $1+00 \mathrm{E}$ to $3+50 \mathrm{E}$. This is similar to the other anomalies in that it is fairly consistent, weak, with no actual cross-over, and positive quadrature. This anomaly is also probably shear-derived. It occurs Within 50 meters of the diabase dyke.
on EM-Map 2 three very faint but persistent responses tyeuding east to east-southeast have been discerned. No actual In-Phase cross-overs are present and out- of- Phase is fairly flat. All readings are of low magnitude. The interpretation here is rather tentative.previous geological investigation indicates that the only known showing near here is the Number 1 Fost zone which is related to northwest striking shearing.

Anomaly F: Location $1+10 \mathrm{~N}$ from line $2+50 \mathrm{~W}$ to $0+50 \mathrm{~W}$. This anomaly possibly is related to shearing. It is a very feekle trend that seems to persist for some distance. Anomaly G: Location between $1+20 \mathrm{~N}$ and $0+20 \mathrm{~N}$ from line $1+50 \mathrm{~W}$ to $3+50 \mathrm{~W}$. This is an eastsoutheast striking anomaly exhibiting low conductance.It has in it's central portion a negative quadrature indicating a

3trengthening of conductivity around line $2+50 \mathrm{~W}$.
Anomaly $H$ : Location
$0+40 \mathrm{~S}$ from line $1+50 \mathrm{~W}$ to $3+00 \mathrm{~W}$. This is the least obvious of any of the anomalies. There is a very small positive In-Phase with a correspondingly weak out-of-Phase negative on lines $1+50 \mathrm{~W}$ and 2+00W. This conductor may be associated with a zone of shearing.
1 The EM-16 survey indicates that a series of weakly conductive, roughly east-trending, sub-parallel shear zones underlies the survey area and probably extends both to the east and west of the survey's boundaries.
2 The shears appear to be roughly aligned with the contact of the diabase lyke intrusive complex. Those conductors closer to the dyke seem to be better developed than those further away.
3 Conductors in the northern claim, L-1047203 are very telluous. This could be due to several factors, one of which is a change in predominant shear orientation to northwesteriy. In this event, the survey is oriented incorrectiy.

## COIICLUSIONS

1 The EH-16 survey indicates that a series of weakiy conductive, roughiy east-trending, sub-paraliel shear zones underlies the survey area and probably extends both to the east and west of the survey's boundaries.
2 The shears appear to be roughly aligned with the contact of the diabase lyke intrusive complex. Those conductors closer to the dyke seem to be better developed than those further away.

3 Conductors in the northern claim, L-1047203 are very tenuous. This could be due to several factors, one of which is a change in predominant shear orientation to northwesterly. In this event, the survey is oriented incorrectiy.

## RECONMELHOATIONS

1 Giound checking of the conductors is warranted. This may include prospecting, geochemical sampling, overburden stripping, ant yeological mapping.

2 If budgeting considerations allow, a grid oriented such that baselifes run northwest, should be estabilshei and surveyod by EM-16. The existing grid depicted on 8 m map 1 should be extended to cover the possible eastward and westward


3 A irid should be establlshed over the ou zone, Eovering claims $1012972,1012973,1013275$ and 1013276 . Prior to constiucting the arit, a certain amount of geological mapping should be done to determine grid orlentation. A VLF-EM survey is econmended.

4 Again, aiven budget allocations, consideration should given to cariy out a detailed magnetic survey on all grid areas.


P/Eng

MEIC


9月的


Box 450<br>La Ronge Sask.<br>January 19,1990

W.R.Cowan

Assessment Branch
Ministry of Northern Development and Mines

Dear Sir
Enclosed are assay receipts and a location map. Results were forwarded to Mineral Development Section earlier, copies also enclosed.

Also enclosed are the Geophysical Report and grid map covering assessment credits recently claimed.



SWASTIKA I ABORATOMIFS IIMITFI
Frn moxan
以リ:




transmoazeun

Pnx 995
$1.5 \%$ L.ATE CHARGE OVER 30
LaRonge, Saskatchewan
DAYS (ANNUAL RATE $18 \%$ )
50 J 1 LO



Estabilshed 1920

# Swastika Laboratories <br> A Division of Assayers Corporation Ltd. 

Assaying - Consulting - Representation

## Urrtifitate uf Analygin

CertIficate No. $\qquad$
77049 - A

Recelved_Dec. 4, 1989


Submilted by Mr. Gr - Dunn, La Ronge, Saskatchawan.
"GEO-SCAN"


## Swastika Laboratories <br> A Division ol Assayers Corporation Lid.

Assaying - Consulting - Representation

## Urrtifuate at Aualyuin


Receive $\qquad$ 7

Submitted by_Mr. Gary Dunn, La Ronge, Saskatchewan, Alberta.

SAMPLE NO. GOLD
0z/ton
7001
7002
7003
Nil
0.002


7004
7005
7006
7007
0.042
$0.124 / 0.112$
Du zo
0.002

6D
Nil
Du 's'
0.006

60

NOTE: Geo Scan results to follow

P.O. Box 10, Swastika, Ontarlo P0K 1T0


Estabilshed 1928

## Swastika Laboratories

A Division of Assayers Corporation Ltd.
Assaylng - Consulting - Representation

## Uritifitate af Amalybia

Date Dec. 12, 1989
Rock Samples

Submilted by_Mr. Gr. Dunn, La Ronge, Saskatchewan.

|  | 7001 | 7002 | 7003 | 7004 | 7005 | 7006 | 7007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| An PPM | <0.1 | <0.1 | 0.9 | <.1 | 3.4 | <0.1 | 1.5 |
| - A1 X | 2.0 | 2.0 | 0.3 | 2.8 | 0.7 | 0.05 | 0.4 |
| As PPM | <10 | <10 | 125, | <10 | 12 | <10 | 104 |
| Bi PPM | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 4 Ca | 1.1 | 1.1 | 0.4 | 0.9 | 12.6 | 0.3 | 2.5 |
| Cd PPM | 18 | 22 | 34 | 18 | <10 | <10 | 10 |
| CO PPM | 42 | 95 | 18 | 106 | 13 | <10 | 29 |
| * Cr PPM | 231 | 257 | 10 | 40 | 37 | 15 | 39 |
| CU PPM | 26 | 347 | 165 | 20 | 278 | 68 | 132. |
| Ip $X$ | 5.3 | 6.2 | 3.3 | 5.2 | 1.8 | 0.7 | 2.2 |
| - Ma \% | 2.3 | 2.4 | 0.1 | 2.0 | 3.8 | 0.09 | 0.3 |
| Mn PPM | 1573 | 1543 | 97 | 573 | 2265 | 1670 | 610 |
| Ho PFM | 12 | 14 | <10 | 16 | <10 | <10 | <10 |
| NI PPM | 118 | 144 | 22 | 87 | 44 | 18 | 46 |
| P \% | 0.03 | 0.03 | 0.01 | 0.03 | 0.01 | 0.01 | 0.01 |
| Pb PPM | 239 | 131 | 68 | 94 | 58 | 11 | 38 |
| $5 \%$ | 0.1 | 0.3 | 3.4 | 3.0 | 0.5 | 0.07 | 2.1 |
| Sb PPM | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Sr PFM | <10 | <10 | 16 | 13 | 25 | <10 | 17 |
| Ih PPr: | <10 | <10 | <10 | <10 | <10 | <10 | $<10$ |
| 11 \|rill | <10 | <10 | (10) | <10 | <10 | <10 | <10 |
| $\checkmark$ PPI | 107 | 118 | <10 | 68 | 21 | <10 | 11 |
| W FPM | < 10 | <10 | <10 | 10 | <10 | <10 | <10 |
| 7.n PPki | [7, | 287 | 2860 | 104 | 77 | 10 |  |

## Swastika Laboratories

A Division of Assayers Corporation Lid.
Assaying - Consulting - Representation

## Cretititate uf Aualyuia



| SAMPLE NO. | $\begin{aligned} & \text { GOLD } \\ & \text { 0z/ton } \end{aligned}$ |  |
| :---: | :---: | :---: |
| 7001 | Nil | dinase |
| 7002 | 0.002 | " |
| 7003 | 0.042 | *1 |
| 7004 | 0.124/0.112 | Du 20 |
| 7005 | 0.002 | 6D |
| 7006 | Nil | Du 's' |
| 7007 | 0.006 | 60 |

NOTE: Geo Scan results to follow

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244.

Ministry of
Northern Develoggen Northern Develogpent. (Geophysical, Geological.

Report of Work DOCUMENT N W9008.0c7


Credits Requested per Each Claim in Columns at right

| Special Provisions Geophysical |  | $\begin{array}{\|c\|} \hline \text { Days per } \\ \text { Claim } \\ \hline \end{array}$ |
| :---: | :---: | :---: |
| For first surver: . | Electromagnetic | $2$ |
| includes line cutting) | Magnetometer |  |
| For each additional survey: using the same grid: | - Radiometric |  |
|  | - Other |  |
| Enter 20 days (for each) | Geological |  |
|  | Geochemical |  |
| Man Days | Geophrsical | Days per Claim |
| Complete reverse side and enter totalis) here | Electromagnetic | 10 |
|  | Radiometric |  |
|  | Geological |  |
|  | Geochemical |  |
| Airborne Creaits |  | ( Daysper |
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic |  |
|  | Magnetometer |  |
|  | Radiometric |  |

Expenditures (excludes power stripping)
Type of Work Performed
Performed on Claim(s)

| Calculation of Expenditure Davs Credits |  |
| :---: | :---: |
| Total Expenditures |  |
| \$ $\div 15$ |  |
| instructions <br> Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credirs per ciaim selected in columns at right. |  |
|  |  |
|  | $7 / 1$ |
| $\left.{ }^{\text {Oate }} \text { Des } 21 / 8 n\right]^{\text {Racorgogifber Agene (signaturai }}$ |  |

Certification Vefifying Report $\alpha$ yrork

Mining Claims Traversed (List in numerical sequence)


1 hereby certify that I have a persठnal and intimate knowledge of the facts set forth in the Report of Work annexed hertio, theving performed the work or witnessed same during and/or after its completion and the annexed report is true.
Name and Postal Addross of Person Cerrifying

Assessment Work Breakdown







Ontario

Type of Survey (s)_ $V_{L I}=$ EM-16
Township or Area Bryce
Claim Holder (s) RodNEy SPoon
Survey Company (3.D)u, N
Author of Report RodNey Soever address of author Box 450 La Ponce SASK. SaTilo Covering Dates of Survey_ Oct $31 / 89 \quad D=C 21 / \mathrm{Kq}$
Total Miles of Line Cut $\qquad$

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes
line cutting) for first
survey.
ENTER 20 days for each additional survey using same grid.


AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys) Magnetometer $\qquad$ Electromagnetic $\qquad$ Radiometric $\qquad$
(enter days per claim)
DATE: Ta, cola SIGNATURE:

Auth or-Repert or Agent

MINING CLAIMS TRAVERSED List numerically

C 1012961
(prefix) (number)
. 1012.96
$4104(16)^{-}$
c 1046166
< 1047203

Res. Geol.
Qualifications $\qquad$


Claim Holder

TOTAL CLAIMS
$s$

## GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey
Number of Stations_ $45 \%$ Number of Readings 415

Station interval _20_1. Line spacing _ $\quad 10 \mathrm{M}$
Profile scale $\qquad$
Contour interval $\qquad$
y Instrument
Accuracy - Scale constant $\qquad$
© Diurnal correction method $\qquad$
Base Station check-in interval (hours)
Base Station location and value $\qquad$
$\qquad$
Instrument Geonics Em-16
Coil configuration $\qquad$
Coil separation $\qquad$
$\qquad$
Accuracy $\qquad$
Method: $\square$ Fixed transmitter $\square$ Shoot back $\square$ In line $\square$ Parallel line
Frequency Cuyles Ma.N= 24.0 $\mathrm{KH}_{\text {(specify ViLE. station) }}$
Parameters measured

Instrument $\qquad$
Scale constant $\qquad$
Corrections made $\qquad$
$\qquad$
Base station value and location $\qquad$

Elevation accuracy

Instrument
Method $\square$ Time Domain
$\square$ Frequency Domain
Parameters - On time Frequency $\qquad$

- Off time

Range

- Delay time $\qquad$
- Integration time $\qquad$
Power $\qquad$
Electrode array
Electrode spacing
Type of electrode
$\qquad$
$\qquad$


## SELF POTENTIAL



## RADIOMETRIC

Instrument $\qquad$
Values measured
Energy windows (levels) $\qquad$
Height of instrument $\qquad$ Background Count $\qquad$
Size of detector $\qquad$
Overburden $\qquad$ (type, depth - include outcrop map)

## OTHERS (SEISMIC, DRILL WELI. LOGGING ETC.)

Type of survey $\qquad$
Instrument $\qquad$
Accuracy
Parameters measured $\qquad$
$\qquad$
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

$\qquad$
$\qquad$

## Sensor altitude

$\qquad$
Navigation and flight path recovery method $\qquad$

Aircraft altitude Line Spacing
Miles flown over total area $\qquad$ Over claims only

Numbers of claims from which samples taken

Total Number of Samples ______________

Method of Collection_________

Horizon Development_________________
Sample Depth________________

Terrain______________

Drainage Development.
Estimated Range of Overburden Thickness
$\qquad$

SAMPLE PREPARATION
(Includes drying, screcning, crushing, adhing)
Mesh size of fraction used for analysis $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## ANALYTICAL METHODS

| Values expressed in: | per cent <br> p.p.m. <br> p.p.b. | $\square$ |
| :--- | :--- | :--- |
|  | $\square$ |  |
| $\mathrm{Cu}, \quad \mathrm{Pb}, \quad \mathrm{Zn}, \quad \mathrm{Ni}, \quad \mathrm{Co}$, | $\mathrm{Ag}, \quad \mathrm{Mo}$, | As,-(circle) |

Others
$\qquad$
Field Analysis (
Extraction Method $\qquad$
Analytical Method $\qquad$
Reagents Used
Field Laboratory Analysis
No. tests)
Extraction Method
Analytical Method
Reagents Used $\qquad$
Commercial Laboratory ( ..... tests)

Name of Laboratory $\qquad$
Extraction Method $\qquad$
Analytical Method $\qquad$
Reagents Used $\qquad$

General $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$



2.13038




