A GEOPHYSICAL REPORT

ON

INDUCED POLARIZATION SURVEYING

Armstrong Property
Armstrong Area, N.W. Ontario
50° 19'N, 89° 10'W
N.T.S. 52I/6

Claims surveyed: 124694 & 96

Survey Dates: April 1st – 7th, 2002

For

Operator: VALERIE GOLD RESOURCES LTD.
Vancouver, British Columbia

Owner: Peter McWilliams, Ray Koivisto, Ken Kukkee, Ron Tweedie
Thunder Bay, Ontario

By

PETER E. WALCOTT & ASSOCIATES LIMITED
Vancouver, British Columbia
AUGUST 2002
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Peter E. Walcott & Associates Limited

*Armstrong Property – Valerie Gold Resources Ltd*
*A Geophysical Report*
INTRODUCTION.

Between April 1st and 7th, 2002, Peter E. Walcott & Associates Limited undertook limited induced polarization surveying over part of the Armstrong property, located some 15 kilometres west northwest of the settlement of Armstrong, Ontario, for Valeric Gold Resources Ltd. of Vancouver, British Columbia.

The survey was an add-on to a three line survey carried out by Geoserve Canada Inc. of Timmins, Ontario in January 2002, which was curtailed due to the inability to inject current into the frozen ground.

Two traverses of some 1500 metres in length were carried out on the previously established Line 5000N, and the newly cut Line 4875N, established by the I.P. crew, with the bearing of the lines at N 67° E.

Measurements – first to sixth separation – of apparent chargeability – the I.P. response parameter – and resistivity were made along the aforementioned lines using the pole-dipole technique with a 50 metre dipole.

The data are presented in contour form on individual pseudo sections bound in this report.

The progress of the survey was severely hampered by the frozen ground conditions and the overlying snow cover – in cases taking over an hour to attain injection of the required minimum of 200 milliamps into the ground.
PROPERTY, LOCATION & ACCESS.

The property, called the Armstrong property, is located in the Thunder Bay Mining Division of Ontario and consists of the following claims:

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<td>1221397</td>
<td>15</td>
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</tr>
</tbody>
</table>

The claims are jointly owned by Messrs: Peter McWilliams, Ray Koivisto, Ken Kukkee & Ron Tweedie of Thunder Bay, Ontario.

The claims are situated at the south end of Caribou Lake, some 15 kilometres west northwest of the settlement of Armstrong, Ontario.

Access was obtained from Armstrong by means of a ploughed logging road that parallels the north side of the C.N. railway tracks to the south of the property, and by a three kilometre snowmobile ride – Figure 1 – along an existing logging trail to the work site. This trail had to be walked and packed by snow shoeing before the light skidoo and sled could be used to haul the I.P. equipment in and out.

Daily access necessitated the use of three 4x4 trucks, three skidoos and three sleds, as the crew and equipment were housed entirely in Armstrong.
PROPERTY, LOCATION & ACCESS.

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Access was obtained from Armstrong by means of a ploughed logging road that parallels the north side of the C.N. railway tracks to the south of the property, and by a three kilometre snowmobile ride – Figure 1 – along an existing logging trail to the work site. This trail had to be walked and packed by snow shoeing before the light skidoo and sled could be used to haul the I.P. equipment in and out.

Daily access necessitated the use of three 4 x 4 trucks, three skidoos and three sleds, as the crew and equipment were housed nightly in Armstrong.
GEOLOGY.

Basically the property is underlain by foliated Archean tonalite through granodiorite rocks, intruded in places by Nippissing diabase. The Black Sturgeon fault, which with related rift-graben structures coincide and were the likely conduits for the large mafic to ultramafic intrusions to the south, which demonstrate PGE element associations – the basis for the Noril’sk model –, is projected to run through the claim block.

For further information the reader is referred to reports held by Valerie Gold Resources Ltd.
PREVIOUS WORK.

The writer is unfamiliar with previous work in the property area except for some lake bottom, soil and rock chip sampling, and the previously mentioned I.P. survey by Geoserve. For further reference the reader is referred to the aforementioned reports of the previous section.
The purpose of the survey was to ascertain the response, if any, of the PGE mineralization noted in outcrop at the base of the steep cliff on the eastern edge of the narrow linear north northwest trending lake on the western extremities of the original grid, and to use this response to map out areas of mineralization.
SURVEY SPECIFICATIONS.

The induced polarization (I.P.) survey was conducted using a pulse type system, the principal components of which are manufactured by Iris Instruments of Orleans, France.

The system consists basically of three units, a receiver (Iris), transmitter and a motor generator (Iris). The transmitter, which provides a maximum of 4.0 kw d.c. to the ground, obtains its power from a 4 kw 400 c.p.s. three phase alternator driven by a gasoline engine. The cycling rate of the transmitter is 2 seconds “current-on” and 2 seconds “current-off” with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes C\textsubscript{i} and C\textsubscript{j}, the primary voltages (V) appearing between any two potential electrodes, P\textsubscript{i} through P\textsubscript{7}, during the “current-on” part of the cycle, and the apparent chargeability, (M\textsubscript{a}) presented as a direct readout in millivolts per volt using a 200 millisecond delay and a 1000 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor – the sample window is actually the total of ten individual windows of 100 millisecond widths.

The apparent resistivity (\(\rho_{a}\)) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using the “pole-dipole” method of surveying. In this method the current electrode, C\textsubscript{i}, and the potential electrodes, P\textsubscript{1} through P\textsubscript{7}, are moved in unison along the survey lines at a spacing of “a” (the dipole) apart, while the second current electrode, C\textsubscript{2}, is kept constant at “infinity”. The distance, “na” between C\textsubscript{i} and the nearest potential electrode generally controls the depth to be explored by the particular separation, “n”, traverse.

On this survey a 50 metre dipole was employed and first to sixth separation readings were obtained.
Considerable problems were encountered in trying to place the "infinity" - C₂ - to ensure the passage of sufficient current for reliable readings, and several locations had to be tried before a suitable one with an appropriate contact resistance was found. Subsequently, as mentioned previously, considerable time was spent in reducing the contact resistance of the six stainless steel stakes used for the current electrode C₁, particularly on the esker at the western extremity of the grid lines, where moving them six or more times with the application of some 5 gallons of salt water was not uncommon to ensure the injection of the minimum 200 milliamps - not to mention the fact that the stakes needed to be extracted with the use of vice-grips after each insertion.

In all some 2.7 kilometres of surveying were completed on two lines before a decision was made to delay further work until summer as it was not possible to scale the cliff at any other location - Figure 2.
DISCUSSION OF RESULTS

The writer will not dwell extensively on the results of the survey as Valerie Gold has decided to drop its option on the property.

The resistivity and chargeability results compare favourably with those obtained by Geoserve on the higher ground to the east above the cliff on Line 5000N where contacts were easier to obtain, but the chargeabilities differed somewhat west of 4300 E.

A broad zone of higher chargeability can be seen between 4175 and 4700E on the pseudo section with an increased near surface response between 4250 and 4600E.

A pant-leg shaped resistivity low can be observed around 4200E partially occasioned by the shear hosting the mineralization, but also due to the topography and the lake to the west.

A similar resistivity low can also be seen on Line 4875N – the only other place to run a traverse up the cliff. The shallow chargeability response is also discernible around 4400E, but the western edge of the broad zone shifts 50 metres westward.

The two zones of higher chargeability between 3800 and 4100E on Line 5000N appear compressed into one between 3800 and 3875E on Line 4875N associated with lower resistivities.

No distinctive signature was obtained over the showings but in the writer’s opinion a 25 metre dipole would have been better suited for this determination.
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

Between April 1st and 7th, 2002, Peter E. Walcott & Associates Limited undertook limited induced polarization surveying (I.P.) over part of a property located in northwestern Ontario, for Valerie Gold Resources Ltd.

The survey was carried out on two short traverses up a cliff where access was limited in an effort to determine the I.P. response over the PGE and associated sulphide mineralization observed in showings along the base of the same cliff.

No distinctive signature was noted over the area of interest with the large dipole used – 50 metre –, but the mineralization appeared to be part of a large moderate response.

A better defined chargeability high was noted further to the west on Line 4875N accompanied by a decrease in resistivity.

This feature and the mineralized horizon should be geologically ground truthed and sampled in the summer months before further commitment to additional I.P. surveying.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED

Peter E. Walcott, P.Eng.
Geophysicist

August 2002
APPENDIX
COST OF SURVEY.

Peter E. Walcott & Associates Limited undertook the survey on a daily basis. Mobilization from the Ontario border to Armstrong and return was extra, as was reporting so that the total cost of the survey was $17,949.44 plus GST.
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<th>Dates</th>
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<td>Peter E. Walcott &amp; Associates Limited</td>
<td>Apr. 1st - 7th</td>
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CERTIFICATION.

1. I am a graduate of the University of Toronto in 1962 with a B.A.Sc. in Engineering Physics, Geophysics Option.

2. I have been practicing my profession for the last forty years.

3. I am a member of the Association of Professional Engineers of Ontario.

Peter E. Walcott, P.Eng.

Vancouver, B.C.
August 2002
VALERIE GOLD RESOURCES LTD.
ARMSTRONG PROPERTY, NW ONTARIO
NTS 52I/6
VALERIE GOLD RESOURCES

CLAIM LOCATION MAP

ARMSTRONG PROPERTY, ARMSTRONG AREA
NORTHWESTERN ONTARIO

FIG. 1  AUGUST 2002
PETER E. WALCOTT & ASSOCIATES LTD.
LINE LOCATION MAP

SCALE 1:20,000

ARMSTRONG PROPERTY, ARMSTRONG AREA
NORTHWESTERN ONTARIO

FIG. 2 AUGUST 2002
PETER E. WALCOTT & ASSOCIATES LTD.
## Work Report Summary

**Transaction No:** W0240.01756  
**Status:** APPROVED

**Recording Date:** 2002-NOV-20  
**Work Done from:** 2001-DEC-15 to: 2002-MAR-31

**Approval Date:** 2003-APR-02  
**Client(s):** 222123 MCWILLIAMS, PETER KIMBER

**Survey Type(s):**

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**External Credits:** $0

**Reserve:**

- $16,668 Reserve of Work Report#: W0240.01756
- $16,668 Total Remaining

Status of claim is based on information currently on record.
Dear Sir or Madam

Submission Number: 2.24536
Transaction Number(s): W0240.01756

Subject: Approval of Assessment Work

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

The total value of work approved for this submission is $16,668.00.

If you have any question regarding this correspondence, please contact LUCILLE JEROME by email at lucille.jerome@ndm.gov.on.ca or by phone at (705) 670-5858.

Yours Sincerely,

Ron Gashinski
Senior Manager, Mining Lands Section

Cc: Resident Geologist
Peter Kimber Mcwilliams
(Claim Holder)

Assessment File Library
Peter Kimber Mcwilliams
(Assessment Office)
Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional general information and limitations on the status of the lands shown herein. This map is not intended for navigational, survey, or land title determination purposes, as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines website.

The map is provided for informational purposes only and is not intended for navigational, survey, or land title determination purposes. The information shown is compiled from various sources and is not guaranteed to be complete or accurate. Additional information may be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

IMPORTANT NOTICES

LAND TENURE WITHDRAWALS

Areas Withdrawn from Staking:
- Surface Rights Only Withdrawal
- Mining Rights Only Withdrawal
- Freehold Patent Withdrawal

ORDER IN COUNCIL

- Order in Council (Not open for staking)
- Water Power Lease Agreement

LAND TENURE TITLES

- Freehold Patent
- Surface and Mining Rights
- Mining Rights Only
- Surface Rights Only

LAND TENURE TITLES AND DOMINION RIGHTS

- Licence or Occupation
- Lease
- Patent
- Rights of Way
- Easement
- Right of Entry

TOWNSHIP AND AREA PLAN

ARMSTRONG AREA

ADMINISTRATIVE DISTRICTS

- Mining Division
- Land Titles/Registry Division
- Ministry of Natural Resources District

Topographic Features:
- Contour
- Multi Features
- Basemap
- Railways
- Roads
- Trails
- Natural Features
- Utilities
- Water Bodies

Features:
- Land Tenure
- Freehold Patent
- Surface and Mining Rights
- Mining Rights Only
- Surface Rights Only
- License of Occupation
- Licence
- Water Power Lease Agreement
- Order in Council

Date of Issue: Thu Apr 03 09:00:09 EST 2003
**Interpretation**

**Well defined, strong increase in polarization with or without marked decrease in resistivity.**

**Fairly well defined moderate increase in polarization.**

**Fairly well defined weak increase in polarization.**

**Resistivity feature.**

---

**Instruments:** Iris 4.0 Kw Tx, Iris IP6 Rx.
**Frequency:** 0.125 Hz.
**Operators:** P.E.W., B.C.

**Average IP mV/V**

**ResCalc Ohm*m**

**Filter**

**Calculated Resistivity**

---

**Valerie Gold Resources Ltd.**

**Induced Polarization Survey**

**Caribou Lake Grid, Armstrong Property**

**Armstrong Area, Ontario**

**Date:** April 2002
**N.T.S.:** 52I/6

**Interpretation:** Peter E. Walcott

**Peter E. Walcott & Assoc. Ltd.**

---

**Scale 1:5000**

---

**48+75 N**

---

**Pole-Dipole Array**

---

**Plot Point**

---

**a = 50 m**

---

**Instruments:** Iris 4.0 Kw Tx, Iris IP6 Rx.
**Frequency:** 0.125 Hz.
**Operators:** P.E.W., B.C.

**Interpretation**

**Well defined, strong increase in polarization with or without marked decrease in resistivity.**

**Fairly well defined moderate increase in polarization.**

**Fairly well defined weak increase in polarization.**

**Resistivity feature.**

**Logarithmic Contours**

1, 1.5, 2, 3, 5, 7.5, 10, ...

**Scale 1:5000**

**Valerie Gold Resources Ltd.**

**Induced Polarization Survey**

**Caribou Lake Grid, Armstrong Property**

**Armstrong Area, Ontario**

**Date:** April 2002
**N.T.S.:** 52I/6

**Interpretation:** Peter E. Walcott

**Peter E. Walcott & Assoc. Ltd.**
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Fairly well defined weak increase in polarization.

Resistivity feature.

Logarithmic Contours

1, 1.5, 2, 3, 5, 7.5, 10, ...

Scale 1:5000

VALERIE GOLD RESOURCES LTD.
INDUCED POLARIZATION SURVEY
CARIBOU LAKE GRID, ARMSTRONG PROPERTY
ARMSTRONG AREA, ONTARIO

Date: APRIL 2002 N.T.S.: 52I/6
Interpretation: Peter E. Walcott

PETER E. WALCOTT & ASSOC. LTD.