

Ministry of Energy, Mines & Petroleum Resources  
Mining & Minerals Division  
BC Geological Survey

Assessment Report  
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geophysical

TOTAL COST: 18,700.00

AUTHOR(S): Walcott, A. SIGNATURE(S): digital

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): December 1st - 4th YEAR OF WORK: 2018

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5725172

PROPERTY NAME: Adam West

CLAIM NAME(S) (on which the work was done): 1049417,1057922,1057924

COMMODITIES SOUGHT: Copper, Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092L165, 092L222

MINING DIVISION: Nanaimo NTS/BCGS: 92L/08

LATITUDE: 50 ° 16 ' 50 " LONGITUDE: 126 ° 03 ' 17 " (at centre of work)

OWNER(S):  
1) Richard Billingsley 2) \_\_\_\_\_

MAILING ADDRESS:  
11114 147A ST  
SURREY, B.C., V3R 3W2

OPERATOR(S) [who paid for the work]:  
1) As Above 2) \_\_\_\_\_

MAILING ADDRESS:  
\_\_\_\_\_  
\_\_\_\_\_

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):  
Intrusive, Sedimentary, Karmutsen, Quatsino, Copper, Gold, replacement, skarn

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: \_\_\_\_\_

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	_____	_____	_____
Photo interpretation	_____	_____	_____
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	_____	_____	_____
Electromagnetic	_____	_____	_____
Induced Polarization	3.5 km _____	_____	\$18,700.00
Radiometric	_____	_____	_____
Seismic	_____	_____	_____
Other	_____	_____	_____
Airborne		_____	_____
GEOCHEMICAL (number of samples analysed for...)			
Soil	_____	_____	_____
Silt	_____	_____	_____
Rock	_____	_____	_____
Other	_____	_____	_____
DRILLING (total metres; number of holes, size)			
Core	_____	_____	_____
Non-core	_____	_____	_____
RELATED TECHNICAL			
Sampling/assaying	_____	_____	_____
Petrographic	_____	_____	_____
Mineralographic	_____	_____	_____
Metallurgic	_____	_____	_____
PROSPECTING (scale, area)		_____	_____
PREPARATORY / PHYSICAL			
Line/grid (kilometres)	_____	_____	_____
Topographic/Photogrammetric (scale, area)	_____	_____	_____
Legal surveys (scale, area)	_____	_____	_____
Road, local access (kilometres)/trail	_____	_____	_____
Trench (metres)	_____	_____	_____
Underground dev. (metres)	_____	_____	_____
Other	_____	_____	_____
		TOTAL COST:	\$18,700.00

**EVENT # 5725172**

**AN ASSESSMENT REPORT**

**ON**

**INDUCED POLARIZATION SURVEYING**

**ADAM WEST PROPERTY  
SAYWARD AREA, BRITISH COLUMBIA**

**NANAIMO M.D.  
50° 16' 50" N, 126° 03' 17" W  
NTS 092L/08**

**Claims:**

**1049417,1057922,1057924**

**Work Dates:**

**DECEMBER 1<sup>st</sup>-4<sup>th</sup>, 2018**

**For**

**RICHARD BILLINGSLEY.  
SURREY, BRITISH COLUMBIA**

**By**

**ALEXANDER WALCOTT, B.Sc**

**PETER E. WALCOTT & ASSOCIATES LIMITED  
Coquitlam, British Columbia**

**MARCH 2019**

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### APPENDIX I

Personnel Employed on Project  
 Cost of Survey  
 Claims List

### ACCOMPANYING MAPS

Claim and Line Location Map	Scale 1:20,000
Pseudo-Sections Line 1000E	Scale 1: 5,000
2D Inverted Sections Line 1000E	Scale 1: 5,000

## **INTRODUCTION.**

Between December 1<sup>st</sup> and 4<sup>th</sup>, 2018 Peter E. Walcott & Associates Limited undertook induced polarization surveying over parts of the Adam West property for Richard Billingsley.

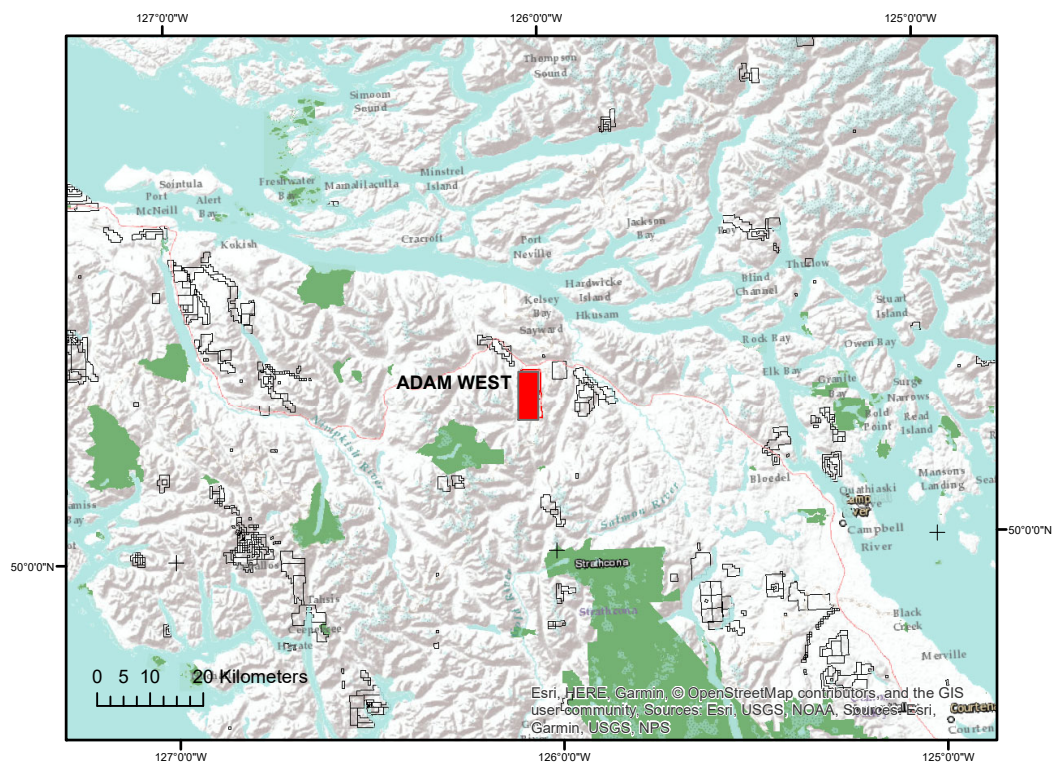
The survey consisted of single 3.5 line kilometer line of induced polarization utilizing a 50 meter a-spacing measuring the 1<sup>st</sup> to 6<sup>th</sup> separations.

The survey met with several challenges which hampered production thick bush, and access.

## PROPERTY LOCATION AND ACCESS

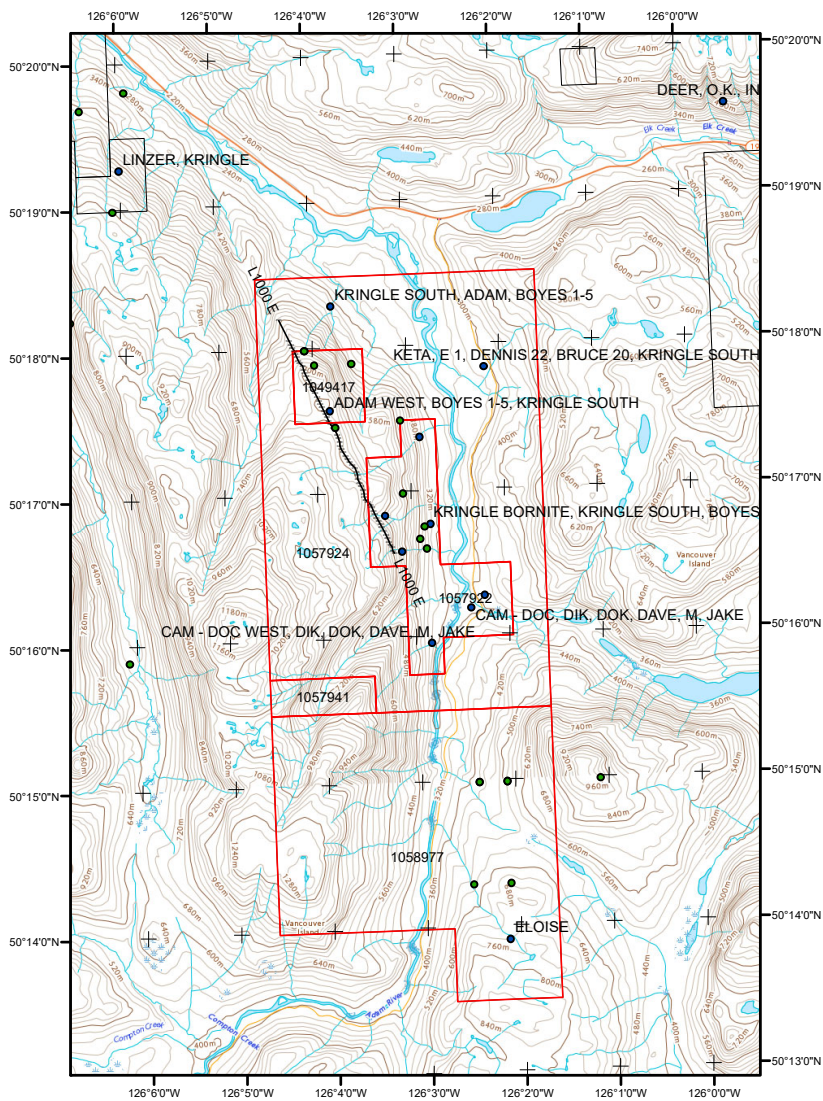
The Adam West project is in the northern portion of Vancouver Island, some 66 kilometres northwest of the Campbell River, British Columbia.

Access to the property can be gained via the Island Highway, then a network of resource roads which run through the property.



*Property Location Map*

## PROPERTY LOCATION AND ACCESS con't



CLAIM AND LINE LOCATION MAP

## **PREVIOUS WORK**

Exploration in areas proximal to the Adam West property date back to the early 1900's. Since then numerous exploration campaigns have been carried out throughout the property, consisting of geological mapping and sampling, geophysics, trenching and diamond drilling.

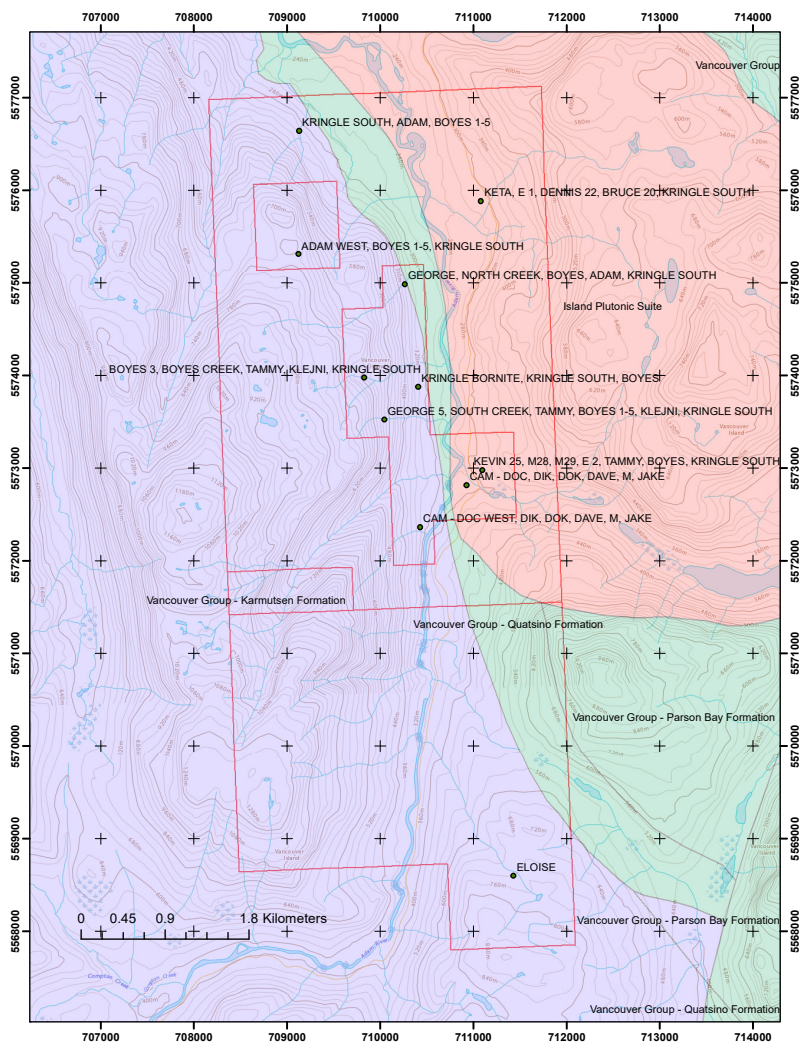
The authors would refer the reader to the BC Ministry of Energy and Mines – Assessment Report Indexing System (ARIS) <http://www.empr.gov.bc.ca/mining/geoscience/aris> for the historic public reports.



## REGIONAL AND PROPERTY GEOLOGY.

The Adam West property is underlain by the Upper Triassic Karmutsen (volcanic) and Quatsino Formation (sedimentary), in the west and Early to Middle Jurassic Island Plutonic Suite in the east along with intruding into the Karmutsen and Quatsino formations.

Numerous gold and copper mineral occurrences are mapped through the property, associated with skarn like style replacement mineralization.



Property Geology with  
Mineral Occurrences after BCGS.

## **REGIONAL AND PROPERTY GEOLOGY cont'd.**

Geology of the property is well documented in numerous assessment reports and the authors would refer the reader to the BC Ministry of Energy, Mines and Petroleum Resources–Assessment Report Indexing System (ARIS)

<http://www.empr.gov.bc.ca/mining/geoscience/aris> for the historic public reports.

Minfile Num	Status	Commodity	Type	Name
092L 167	Showing	Copper	D03:Volcanic redbed Cu	GEORGE, NORTH CREEK, BOYES, ADAM, KRINGLE SOUTH
092L 224	Showing	Copper		ELOISE KETA, E 1, DENNIS 22, BRUCE 20, KRINGLE SOUTH
092L 169	Showing	Copper		Copper, Copper, KETA, E 1, DENNIS 22, BRUCE 20, KRINGLE SOUTH
092L 222	Prospect	Silver, Gold	D03:Volcanic redbed Cu	ADAM WEST, BOYES 1-5, KRINGLE SOUTH
092L 402	Showing	Gold, Silver, Copper		K:SKARN I:VEIN, BRECCIA AND CAM - DOC WEST, DIK, DOK, DAVE, M, JAKE
092L 404	Showing	Gold, Silver, Copper	I:VEIN, BRECCIA AND STOCKWORK	KRINGLE SOUTH, ADAM, BOYES 1-5
092L 180	Showing	Copper, Silver, Gold	K01:Cu skarn	CAM - DOC, DIK, DOK, DAVE, M, JAKE BOYES 3, BOYES CREEK, TAMMY, KLEJNI, KRINGLE SOUTH
092L 165	Prospect	Silver, Gold		KEVIN 25, M28, M29, E 2, TAMMY, BOYES, KRINGLE SOUTH
092L 168	Showing	Copper	K01:Cu skarn	KRINGLE SOUTH GEORGE 5, SOUTH CREEK, TAMMY, BOYES 1-5, KLEJNI, KRINGLE SOUTH
092L 166	Showing	Gold, Silver		GEORGE 5, SOUTH CREEK, TAMMY, BOYES 1-5, KLEJNI, KRINGLE SOUTH
092L 403	Showing	Copper, Silver, Gold	I:VEIN, BRECCIA AND STOCKWORK	KRINGLE BORNITE, KRINGLE SOUTH, BOYES

### Mineral Occurrences – Adam West Property

**PURPOSE**

The induced polarization survey carried out over parts of the Adam West Property, was designed as a recce survey to test areas proximal to the Adam West, and Boyes Creek Minfile occurrences prior to a larger scale grid-based survey.

## **SURVEY SPECIFICATIONS**

### *The Induced Polarization Survey.*

The induced polarization (IP) survey was conducted using a pulse type system, the principal components of which were manufactured by Instrumentation GDD of Quebec, Canada and Walcott Geophysics of Enniskillen, Ontario.

The system consists basically of three units, a receiver (GDD), transmitter (Walcer) and a motor generator (Walcer). The transmitter, which provides a maximum of 10.0 kw d.c. to the ground, obtains its power from a 20 kw 400 c.p.s. alternator driven by a Honda 24 h.p. 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<sub>1</sub> and C<sub>2</sub>, the primary voltages (V) appearing between any two potential electrodes, P<sub>1</sub> through P<sub>5</sub>, during the “current-on” part of the cycle, and the apparent chargeability, (M<sub>a</sub>) 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 twenty individual windows of 50 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 surveying was carried out using the “pole-dipole” method of survey utilizing a pre-laid receiver array remaining stationary, the current C<sub>1</sub> is moved along the survey lines at a spacing of “a” (the dipole) apart, while the second current electrode, C<sub>2</sub>, is kept constant at “infinity”.

## **SURVEY SPECIFICATIONS cont'd.**

The distance, “na” between C<sub>1</sub> 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 separation was utilized and the 1<sup>st</sup> to 6<sup>th</sup> separations.

On this survey a total of some 3.5 kilometres of survey traverses were completed.

### *Horizontal control.*

The horizontal positions of the stations were recorded using a Garmin GPSmap 64CSx.

### *Data Presentation.*

The data are presented as individual pseudo section plots of apparent resistivity and apparent chargeability at a scale of 1:5,000 generated using Geosoft Oasis Montaj. In addition, data was subjected to 2D inversion and presented as model sections at a scale of 1:5,000.

Two dimensional smooth model inversion of the resistivity and chargeability was carried out using the Geotomo RES2DINV Algorithm, an algorithm developed by Loke et-al. This algorithm uses a 2-D finite element method and incorporates topography in modelling resistivity and I.P. data. Nearly uniform starting models are generated by running broad moving-average filters over the respective lines of data. Model resistivity and chargeability properties are then adjusted iteratively until the calculated data values match the observed as closely as possible, given constraints which keep the model section smooth. The smooth chargeability and resistivity models were then imported into Geosoft format for presentation at the same scale of 1:5,000 on the topographic profile.

## **DISCUSSION OF RESULTS.**

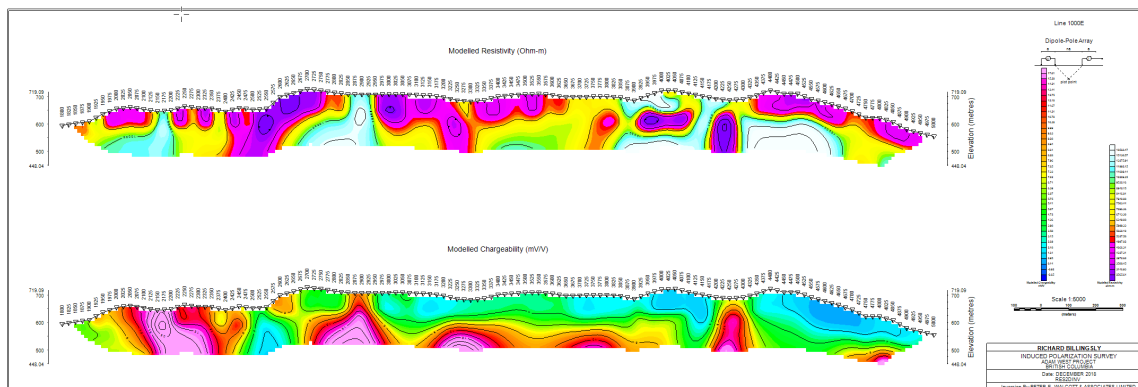
The results of the single line of induced polarization surveying yielded several discrete anomalies of potential interest.

Anomaly cHA is situated in the southern portion of the survey line centred at 2150N. This moderate to high intensity anomaly is associated with elevated resistivity. The core of the anomaly lies between the Boyes Creek and South Creek Showings.

Anomaly cMB is situated between 2600 and 3000. The broad anomaly observed within the inverted results is likely a composite anomaly from several weaker anomalies. Two distinct chargeability anomalies can be observed on the pseudo section. at 2700 and 2950 respectively.

Between 3200 and 4000 several weak deeper chargeability can be observed however these features cannot be reliably interpreted due to the limited information.

Anomaly cMC, is a moderate chargeability zone centered at 4250. Like Anomaly cMB the anomaly appears to be somewhat disjointed suggesting multiple features whereas the inverted response yields a single body associated with a confined zone of reduced resistivity.



2D Inversion – Line 1000E

**SUMMARY, CONCLUSION AND RECOMMENDATIONS.**

Between December 1<sup>st</sup> and 4<sup>th</sup>, 2018, Peter E. Walcott & Associates Limited undertook induced polarization surveying over parts of the Adam West property for Richard Billingsley.

The survey consisted of a single north-northwesterly orientated line some 3.5 kilometers in length.

The survey was designed to test for the presence of sulphide mineralization proximal to the Adam West, and Boyes Creek Showings.

The resulting data identified several features of potential interest proximal to known mineralization.

A detailed compilation of all historic data should be undertaken prior to any additional field work. Additional geophysics consisting of high-resolution airborne magnetics along additional induced polarization surveying proximal to the identified anomalies.

**Respectfully submitted,**

**PETER E. WALCOTT & ASSOCIATES LTD.**

**Alexander Walcott, B.Sc.  
Geophysicist**

**Peter E. Walcott, P.Eng.  
Geophysicist**

**Coquitlam, B.C.**

**March 2019**

**APPENDIX I**



**COST OF PROJECT.**

Peter E. Walcott & Associates Limited undertook the survey programme on a daily basis providing a 5-man IP crew with a 4x4 truck at a daily rate of \$3,980.00.

Mobilization charges of \$4,000.00 were also incurred. Room and board and fuel were provided at cost, while reporting costs of \$500.00 were incurred so the total cost of services provided was \$18,700.00

**PERSONNEL EMPLOYED ON PROJECT.**

<b>Name</b>	<b>Occupation</b>	<b>Address</b>	<b>Dates Worked</b>
Peter E. Walcott	Geophysicist	17-111 Fawcett Road, Coquitlam, B.C.	
Alex Walcott	"		
M. Welz	"		Dec 1 <sup>st</sup> -4 <sup>th</sup> , 2018
P. Young	"		"
O. Kucera	Geophysical Operator		"
B. Lajeunese	"		"
B. Hall	"		"

**CLAIMS LIST**

<b>Tenure</b>	<b>Good To Data</b>	<b>Hectares</b>	<b>Owners Name</b>	<b>Percent Ownership</b>
1058977	2020/Sep/28	1115.6055	BILLINGSLEY, RICHARD JOHN	100
1049417	2020/Sep/28	82.563	BILLINGSLEY, RICHARD JOHN	100
1057941	2020/Sep/28	61.9645	BILLINGSLEY, RICHARD JOHN	100
1057922	2020/Sep/28	289.0872	BILLINGSLEY, RICHARD JOHN	100
1057924	2020/Sep/28	1548.4097	BILLINGSLEY, RICHARD JOHN	100

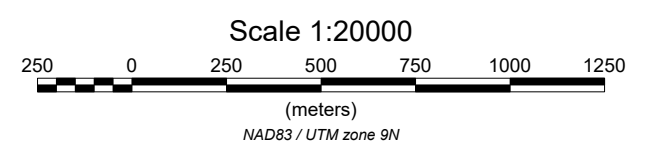
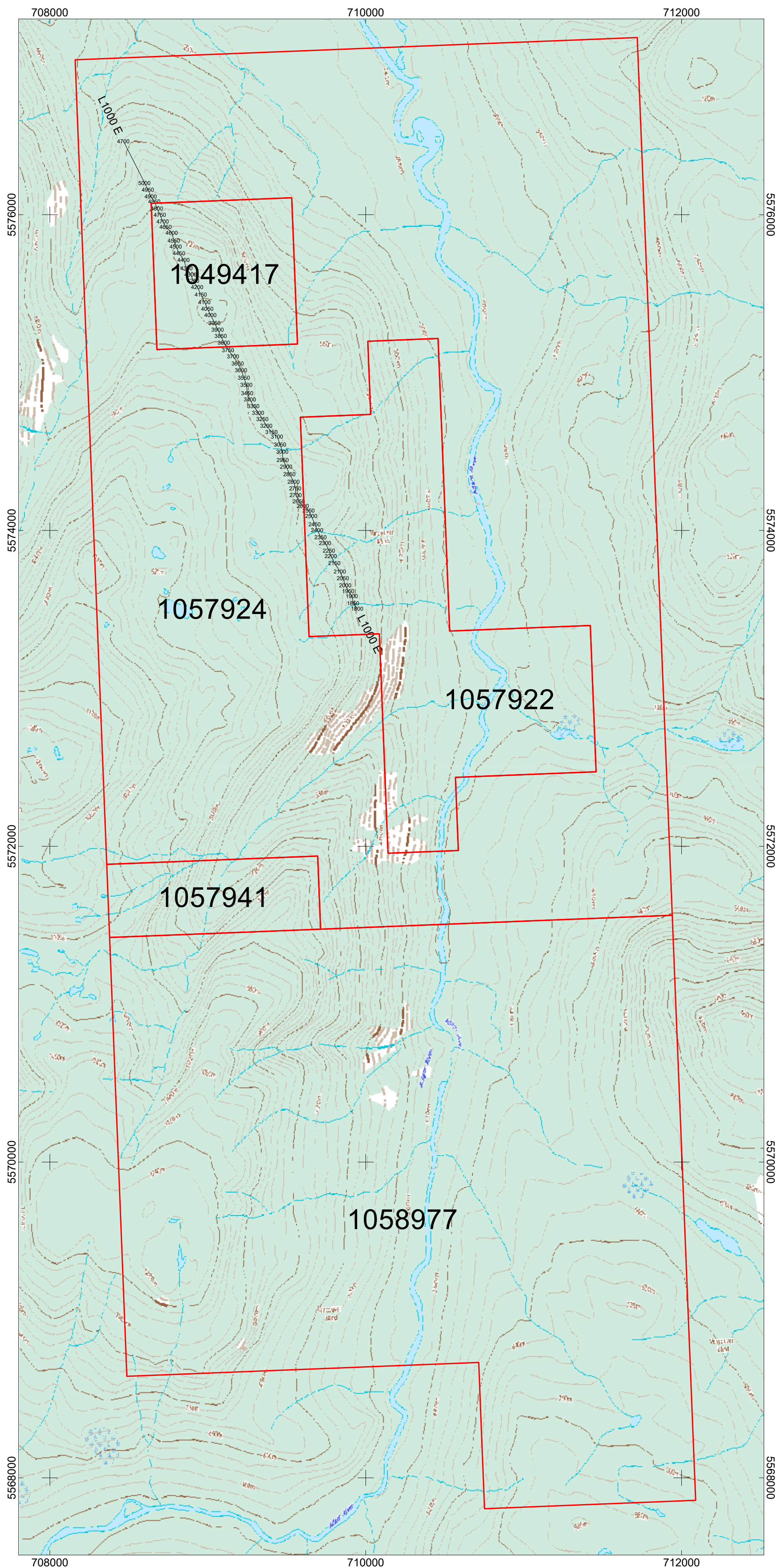
**CERTIFICATION.**

I, Alexander Walcott, of 38-181 Ravine Dr., Port Moody, British Columbia, hereby certify that:

1. I am a graduate of the University of Alberta with a B.Sc. Earth Sciences Major, with a Physics Minor.
2. I have been active in mineral exploration for the past 20 years.
3. I hold no interest, direct or indirect, in the property, nor do I expect to receive any.

**Alexander Walcott**

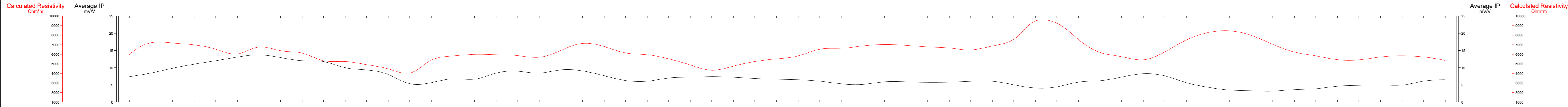
**Coquitlam, B.C.  
March 2019**



**RICHARD BILLINGSLEY**  
**INDUCED POLARIZATION SURVEY**  
**CLAIM AND LINE LOCATION MAP**

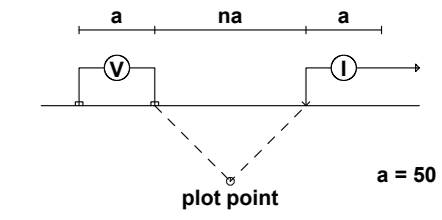
ADAM WEST PROPERTY  
SAYWARD AREA, BRITISH COLUMBIA  
DECEMBER 2018

**PETER E. WALCOTT & ASSOCIATES LIMITED**



10+00 E

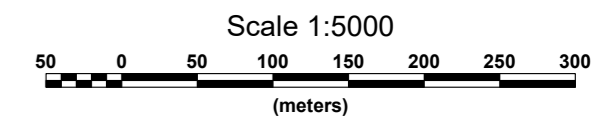
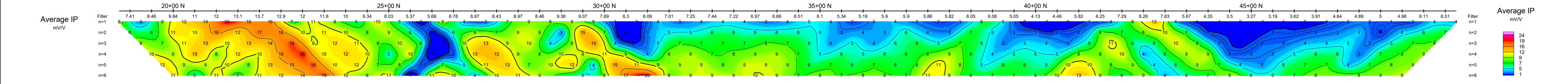
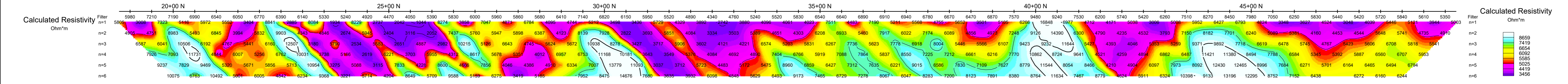
Dipole-Pole Array



Instruments: Walcer 10.0 kW Tx  
GDD 8 Rx

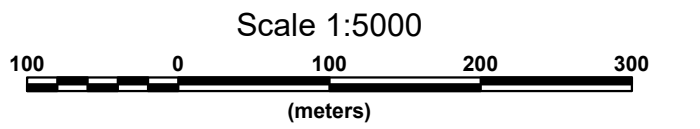
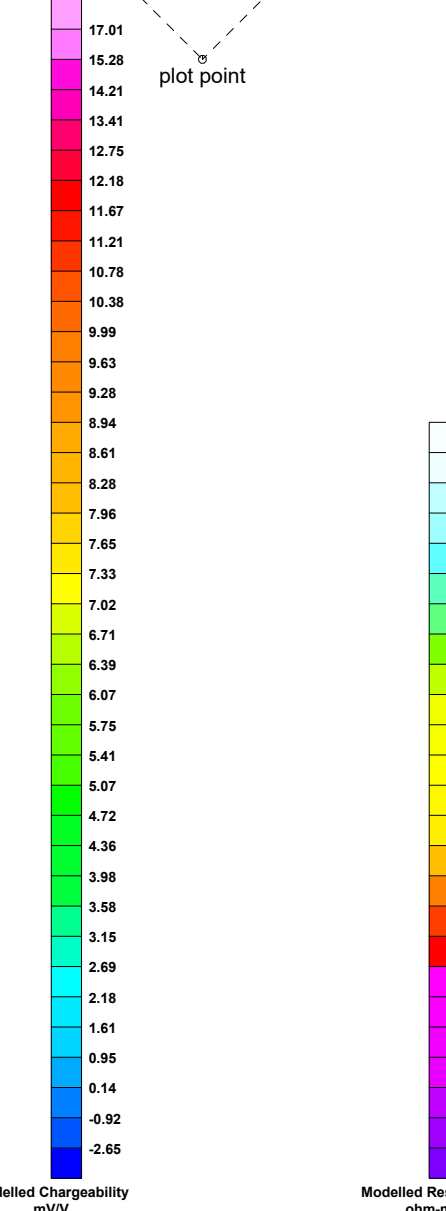
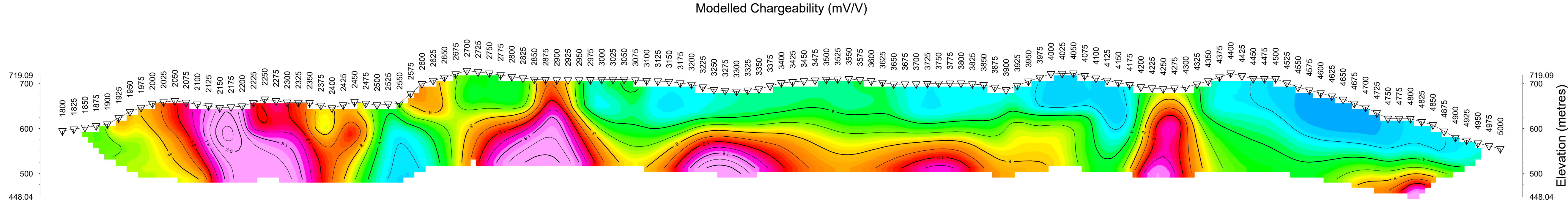
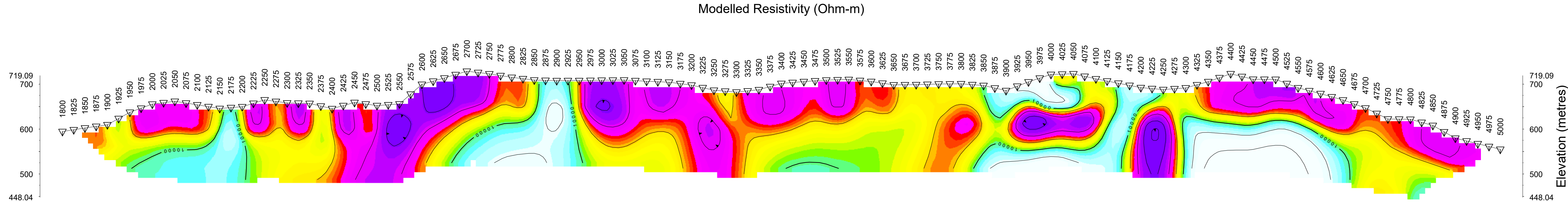
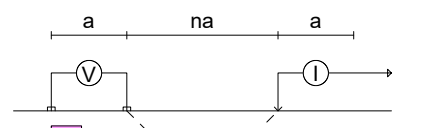
Frequency: 0.125 Hz.  
Operators: M.W., P.Y.

Logarithmic  
Contours: 1.5, 2, 3, 5, 7.5, 10, ...



RICHARD BILLINGSLEY  
INDUCED POLARIZATION SURVEY  
ADAM WEST PROJECT  
Date: DECEMBER 2018  
Interpretation:  
PETER E. WALCOTT & ASSOCIATES LIMITED

Dipole-Dipole Array



**RICHARD BILLINGSLEY**  
INDUCED POLARIZATION SURVEY  
ADAM WEST PROJECT  
BRITISH COLUMBIA  
Date: DECEMBER 2018  
RES2DINV  
Inversion By: PETER E. WALCOTT & ASSOCIATES LIMITED