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1999 ASSESSMENT REPORT ON THE PROSPECTOR MOUNTAIN PROPERTY

NTS 115 I/05

Latitude 62°27'
Longitude 137°53'

Whitehorse Mining District

QUARTZ CLAIMS

Hayes	1-112	(YB66122-YB66233)
Hayes	113-130	(YB97178-YB97195)
Hayes	131-172	(YB97090-YB97131)
Hayes	173-180	(YB97196-YB97203)
Hayes	181-226	(YB97132-YB97177)
Hayes	227-239	(YB97204-YB97216)
Hayes	240-272	(YC08343-YC08375)

For: **TROYMIN RESOURCES Ltd.**
206, 622 - 5th Avenue SW
Calgary, Alberta
T2K 0M8

By: Scott Casselman, B.Sc., P.Geo.
Casselman Geological Services
P. O. Box 802
Watson Lake, Yukon Territory
Y0A 1C0

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ $2,600.00.

M. Burke

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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INTRODUCTION

The 1999 exploration program on the Prospector Mountain Property involved performing an IP Inversion Study, 336 m of diamond drilling in two holes and follow-up mapping and rock sampling in the Lightning Grid area.

The IP Inversion study was performed on data from a pole-dipole survey conducted in 1998 on the Lightning Grid. This data was re-interpreted by Amerok Geosciences Ltd. of Whitehorse, YT, using the DCIP2D computer software developed at the University of British Columbia.

The drill holes targeted IP Chargeability anomalies with coincident, anomalous soil geochemistry, ground and airborne magnetic and radiometric anomalies in the Lightning Grid area.

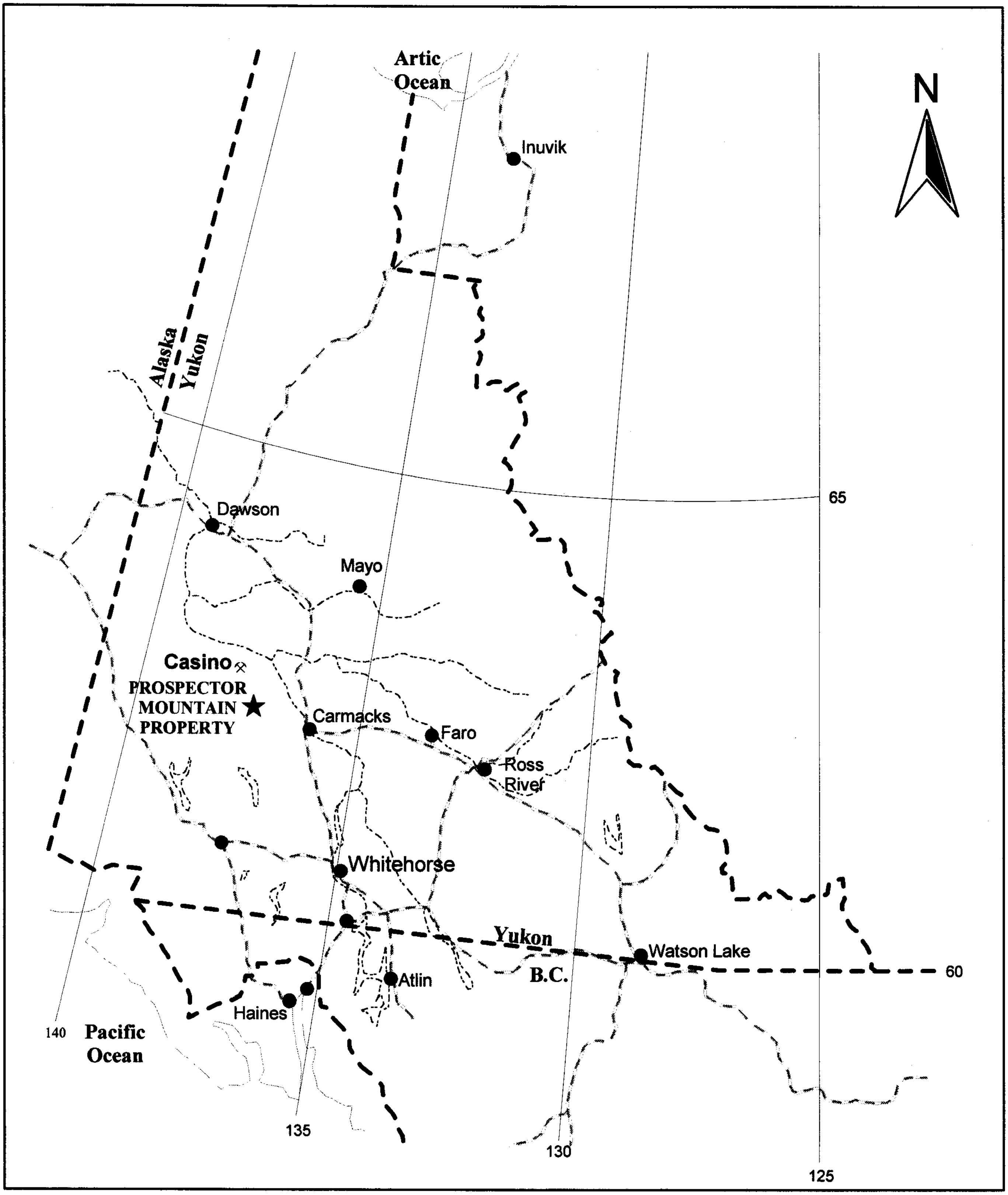
Caron Diamond Drilling of Whitehorse was contracted to conduct the drilling. The drill was mobilized to the property on July 4. The drill crew and two geologists were mobilized to the property on July 7. The drill, crew and all supplies were de-mobilized on July 20. Reclamation of the camp, two drill sites, three pump stations and all access trails was completed upon demobilization.

LOCATION AND ACCESS

The Prospector Mountain Property is located in the Dawson Range Mountains of west-central Yukon Territory, 88 km west-northwest of Carmacks (Figure 1). The property is situated in the northwest corner of NTS map 115 I/05 with geographic coordinates of the center of the property being approximately 62° 27' north latitude and 137° 53' west longitude.

A network of gravel roads and trails provide access to the property via the Freegold Road which runs west of Carmacks to within 30 km of the property. From there an old "cat" trail known as the Lilypad road continues to property. In 1997, the Lilypad road was partially repaired but heavy rains prevented completion. The trail is suitable for All Terrain Vehicle (ATV) and “cat” travel, but requires further upgrading for 4x4 vehicle use.

The drill equipment was trucked to a staging area at the start of the Lilypad Road and skidded by bulldozer from there. Remaining drill crew, geologists and personal gear were mobilized by helicopter from Carmacks and from the staging area. Helicopter support was provided by Trans North Helicopters from their base in Carmacks.



PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
G. CASSELMAN

1:6,000,000

100 0 100 200 Kilometers

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PROSPECTOR MOUNTAIN PROPERTY
Whitehorse Mining District, Yukon Territory

PROPERTY LOCATION MAP

NTS: 115 I/5

CASSELMAN GEOLOGICAL SERVICES

February, 1999 | **Figure 1**

PHYSIOGRAPHY AND CLIMATE

The property covers Prospector Mountain to the east, the headwaters of Hayes Creek in the center and Center Mountain to the west. Elevations on the property range from 1128 m (3700 ft) to 1965 m (6450 ft). Most of the property is above treeline and covered by alpine vegetation. Lower slopes are covered by dwarf willow, alder and spruce trees. Upper north and east facing slopes are generally underlain by permafrost, elsewhere, slopes are drier.

The area escaped continental glaciation, but has undergone some alpine glaciation. Because of the lack of glaciation and the effects of permafrost, there is relatively little outcrop. Most outcrop is confined to ridge tops and occasional creek exposures. Mountain tops and slopes are generally covered by felsenmeer and talus.

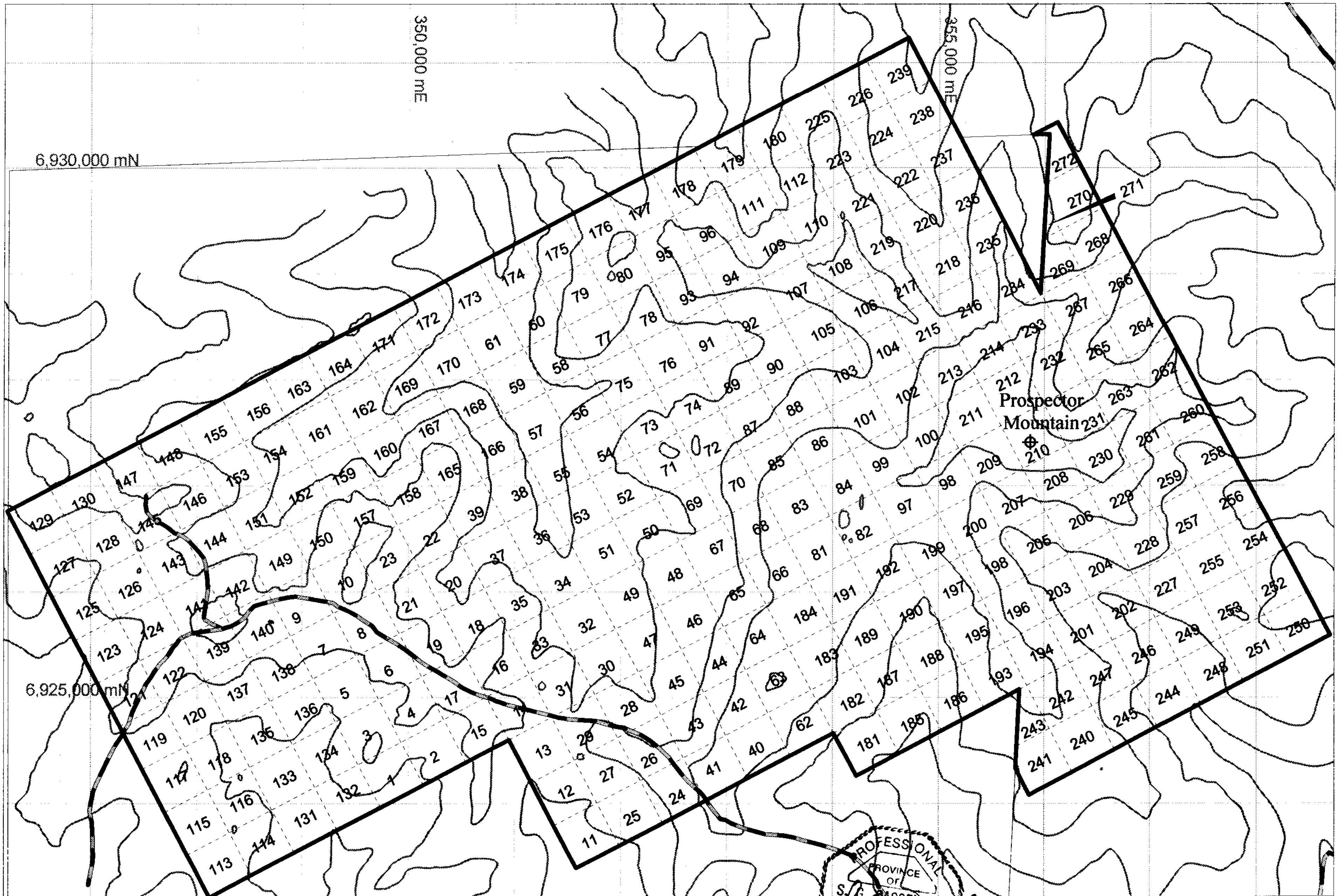
The climate in the area is typified by moderate to low precipitation (30 cm annually), dry summers and cold winters. The ridge tops are generally quite windy.

PROPERTY STATUS

The Prospector Mountain Property consists of the Hayes 1 to Hayes 272 contiguous, un-surveyed, two post quartz claims (Figure 2), staked in accordance with the Yukon Quartz Mining Act. The claims are in the Whitehorse Mining District and are on Quartz and Placer claim map NTS 115 I/05. The claims cover an area of approximately 5685 hectares. Claim data is as follows:

Claim Name	**Grant Nos.**	**Expiry Date ***
Hayes 1-112	(YB66122-YB66233)	January 8, 2004
Hayes 113-130	(YB97178-YB97195)	
Hayes 131-172	(YB97090-YB97131)	
Hayes 173-180	(YB97196-YB97203)	
Hayes 181-226	(YB97132-YB97177)	
Hayes 227-239	(YB97204-YB97216)	
Hayes 240-272	(YC08343-YC08375)	

* Expiry dates are based on the 1999 work being accepted for assessment credits.



N

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1 0 1 Kilometers

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PROSPECTOR MOUNTAIN PROPERTY
Whitehorse Mining District, Yukon Territory

CLAIM MAP
NTS: 115 I/5

September, 1999

Figure 2

GEOLOGY

Regional Geology

The Prospector Mountain property is in the Dawson Range subdivision of the Yukon Plateau. The oldest rocks in the area are metamorphosed Proterozoic to Paleozoic (?) sedimentary and igneous rocks of the Yukon Metamorphic Complex (Figure 3). They are divided into two distinctive units: The lower Metasedimentary Unit, comprised of quartzite, schist, meta-greywacke, argillite, slate, conglomerate, re-crystallized limestone and meta-volcanic rocks; and the upper Quartz-Feldspathic Gneiss/Schist Unit, comprised of schistose volcanic rocks and gneissic plutonic rocks (Payne, et. al., 1987).

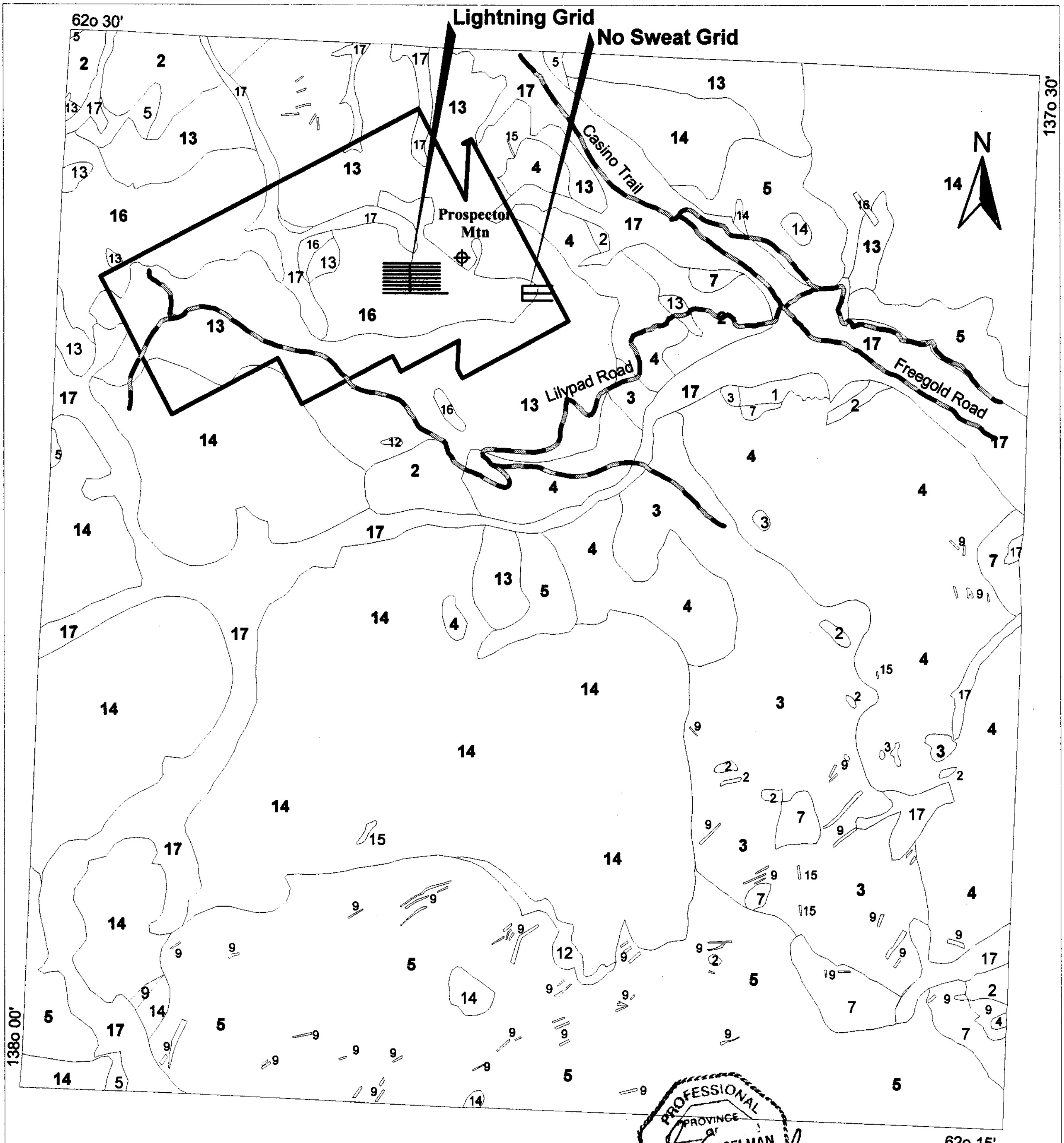
The Yukon Metamorphic Complex has been intruded by batholiths and plutons of three Mesozoic suites. The older two, which show penetrative metamorphic textures, are the Triassic (?) Klotassin Suite (hornblende-biotite granodiorite to diorite) and the Jurassic (?) Big Creek Suite (hornblende monzonite to quartz-bearing monzonite). The third is the un-metamorphosed, Early Cretaceous, Dawson Range Suite (hornblende-biotite-quartz diorite to quartz monzonite). Slightly younger igneous units consist of felsic to intermediate volcanic and subvolcanic rocks of the Mount Nansen Suite. Early Tertiary igneous rocks include extrusive andesite, basalt, and minor rhyodacite of the Carmacks Suite, and the slightly younger monzonite to quartz monzonite of the Prospector Mountain Suite.

The dominant structure in the area is the northwest-trending Big Creek Fault, east of the property. Numerous north to northeast-trending minor structures may be splays off the Big Creek Fault.

The area has numerous porphyry-style mineral deposits associated with Cretaceous porphyritic stocks, the most significant of which is the Casino Porphyry copper-gold-molybdenum deposit. Published reserves at Casino are 445 M tonnes grading 0.27 g/t Au, 0.23% Cu, and 0.024% Mo.

Property Geology

The property is underlain by volcanic rocks of the Late Cretaceous to Early Tertiary Carmacks Suite (Figure 4). These have been divide into three sections, two of which are exposed on the property. The Lower Volcanic Section (Unit 13) is comprised of andesite flows, tuff, breccias, minor shale and basalt and is dominant in the northeast, south and west. The Upper Volcanic Section (Unit 14) is comprised of andesite and basalt flows and is exposed in the southwestern corner of the property. The Basal Volcanic Section of the Carmacks Suite consists of rhyodacite tuff, but it has not been observed on the property.



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1:150,000
1 2 3 4 5 Kilometers

LEGEND

QUATERNARY

17	Alluvium

LATE CRETACEOUS TO EARLY TERTIARY

16	Prospector Mtn Suite - Qtz-monzonite
	Carmacks Suite
15	Late Dykes - andesite
14	Upper Volcanics - andesite/basalt
13	Lower Volcanics - andesite
12	Basal Volcanics - rhyodacite tuff

EARLY CRETACEOUS

	Mount Nansen Suite
9	Late Dykes - latite
7	Volcanic Rocks - andesite
	Dawson Range Suite
5	Qtz-diorite

JURASSIC (?) - Big Creek Suite

4	Hb-monzonite

TRIASSIC (?) - Klotassin Suite

3	granodiorite to diorite

PROTEROZOIC - PALEOZOIC

	Yukon Metamorphic Complex
2	Qtz-feldspathic gneiss/schist
1	Metasedimentary Unit

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PROSPECTOR MOUNTAIN PROPERTY
Whitehorse Mining District, Yukon Territory

REGIONAL GEOLOGY MAP

NTS: 115 I/5

CASSELMAN GEOLOGICAL SERVICES

February, 1999

Figure 3

The volcanic rocks are intruded by the Prospector Mountain Suite (Unit 16) which occurs as an irregular east-west band through the center of the property. These rocks are monzonitic to quartz monzonitic with variable amounts of biotite and hornblende. They vary from equigranular to porphyritic with potassium feldspar phenocrysts up to 2 cm long. Distinct phases were observed but not mapped in detail. Numerous, late stage, quartz-bearing porphyritic monzonite dykes of the Prospector Mountain Suite (Unit 16c) were observed intruding the monzonite on the ridge west of the Prospector Mountain peak. These dykes were up to 20 meters wide and appeared to exploit north-trending, steeply dipping, structures.

Two linear structural trends predominate; 000° to 005° and 020° to 045°. They are easily mapped as through-going linear depressions on ridge crests. In the volcanic rocks, especially in the western portion of the property, these structures are often exploited by quartz-tourmaline veins. In the intrusive rocks the structures are occasionally exploited by dykes, as described above. A large north-trending structure is evident along the Hayes Creek valley, off-setting the Prospector Mountain Intrusive through this area.

Mineralization on the property has been observed in two forms: precious metals veins and disseminated "porphyry-style" pyrite with variable copper-molybdenum-gold content. The vein mineralization occurs in both the volcanic and intrusive rocks, but tends to be more widespread and have a greater gold content in the volcanics. The veins are generally less than a meter wide with the occasional vein set to 10 m wide. They contain quartz-tourmaline and variable amounts of galena, sphalerite, chalcopyrite, gold and silver. Archer, Cathro and Associates (1981) Limited conducted extensive surveys of the veins from 1980 to 1984, including diamond drilling to test the down-dip continuity. Their observations were that the veins are associated with quartz-feldspar porphyry dykes and that sulphide mineralization and precious metal values occur very sporadically.

"Porphyry-style" alteration and mineralization was observed in the Prospector Mountain Monzonite at the Lightning Grid (Figures 4 and 5). The mineralization consists of two large areas of sub-cropping, disseminated pyrite mineralization; one on the northern edge of the grid, the other covering much of the southern portion. Much of this area is characterized by coincident copper and molybdenum in soil anomalies. Minor chalcopyrite and molybdenite was observed with the pyrite.

The alteration consists of weak pervasive epidote/clay/sericite alteration of feldspars, variable potassic alteration and weak chlorite alteration of mafic minerals. As well, there is abundant tourmaline spots and veinlets and, in the northern part of the grid, there are two large silica-clay-tourmaline-pyrite breccia zones. Narrow zones (to 10 cm wide) of sheeted quartz-magnetite veins in the intrusive were observed on surface and in drill core. A surface sample of the sheeted magnetite veins from the 1998 program returned 764 ppb gold and 769 ppm copper.

1999 EXPLORATION PROGRAM

The 1999 exploration program focused on following-up geophysical, soil and rock geochemical anomalies in the Lightning Grid area. The 1998 IP Geophysical survey identified a zone of chargeability trending north-south through the grid and a highly conductive end-of-line anomaly at the east end of line 102+00 N. An IP Inversion study was performed on lines 102+00 N, 104+00 N, 106+00 N and 108+00 N to determine the orientation and depth to the conductive bodies, and to aid in selecting drill targets. The IP Inversion study was conducted by Amerok Geosciences Ltd. of Whitehorse, YT Their report is included in Appendix I.

A Longyear 38 diamond drill was used to drill 336 metres in two holes. The holes tested coincident IP, soil, magnetic and radiometric anomalies on the Lightning Grid. The drill was mobilized by Cat D-6 bulldozer. During mobilization the D-6 encounter mechanical difficulties and was replaced by a Cat D-7 bulldozer.

A total of 42 core samples were collected and sent to Acme labs in Vancouver for gold analysis by MIBK extraction - graphite furnace atomic absorption and for 34 element analysis by "Ultratrace ICP". Eight of the drill core samples were also analyzed by whole rock methods. Representative samples of the core were collected systematically at 10 meter intervals for future petrographic work. These samples are stored at Casselman Geological Services in Watson Lake, YT.

Mapping and rock sampling in the Lightning Grid area was directed at following-up anomalous gold values from rock samples collected in 1998. Seven rock samples were collected sent for gold and 34 element ICP analysis.

RESULTS

IP Inversion Study

The DCIP2D computer software package developed at the University of British Columbia is an inversion algorithm which combines IP data with topographical information to model IP response. The principles of IP Inversion are described in the Amerok report. Inversions were performed on line 102+00 N, 104+00 N, 106+00 N and 108+00 N.

The model for Line 102+00 N shows a Log Resistivity that is fairly flat while the Chargeability has a series of small spot highs west of the baseline. The chargeability high observed at the far eastern end of the line in Pseudo Section is not evident in the inversion model due to the incorporation of "non-data" beyond the end of the line. Thus, the inversion program must have a buffer zone of data around a point in order to compute a representative value. This does not negate the chargeability observed in Pseudo Section and must be taken into consideration when interpreting the end of a line in the model.

The inversion model for line 104+00 N shows a shallow zone of weak to moderate chargeability high and resisitivity low approximately 400 m wide and to a depth of 100 to 150 m. This zone appears to be dipping to the east. The model for line 106+00 N indicates a shallow chargeability high to 100 m depth which appears to be offset to the east relative to a shallow resistivity low.

The best chargeability from an inversion model occurs on line 108+00 N. Here a circular chargeability high is approximately 320 m wide and extends from 50 to 270 m depth. The chargeability is slightly offset 200 m west of a similar-sized resistivity low. This "bulls eye" chargeability represents the most promising target from the inversion study.

Diamond Drilling

Drill hole PM99-1 tested the end-of-line chargeability anomaly identified from the IP Pseudo Section on line 102+00 N. The hole was collared at 117+60 E, with an azimuth of 90°, a dip of -70° and a final depth of 204.83 m. The Inversion Modeling did not define a chargeability anomaly in this area because of the end-of-line problem discussed above. This anomaly is coincident with a strong Cu-Mo soil anomaly and a large, circular airborne magnetic-low / radiometric-high lying to the east. The estimated depth to the target was 150 m.

The hole was collared in equigranular, weakly altered monzonite with rare, very fine-grained traces of pyrite. The top 133 m of the hole is fairly consistent, containing the occasional limonite-stained clay-rich fault zone up to 1 m wide and occasional tourmaline-pyrite vein up to 0.3 m wide. From 133 to 169 m the monzonite is variably intruded by porphyritic monzonite and intermediate dykes up to 7 m wide. The dykes and host monzonite through this interval are also relatively unaltered and contain very little sulphides. At 168.8 m a large section of the porphyritic dyke was encountered. This dyke is similar in color, grain-size and alteration to the porphyritic monzonite encountered above, but has a noticeable increase in disseminated pyrite content to 1% and concentrations of pyrite to 3% near tourmaline-quartz veins. The veins occurred about 1 per 10 m and are up to 1 cm wide. The increase in pyrite content in the dyke is believe to be the cause of the IP chargeability on this line. A total of 22 core samples were collected from this hole, none of which returned anomalous base or precious metals values.

Drill hole PM99-2 was collared on line 108+00 N at 111+90 E with an azimuth of 270°, a dip of -55° and a final depth 131.06 m. The hole targeted the main N-S trending chargeability anomaly which the IP Inversion showed to be a large circular anomaly at a depth of 50 m. This anomaly is coincident with a Cu-Mo soil anomaly, ground magnetic and radiometric anomalies and is in the area where sheeted magnetite veining with anomalous gold values was identified in float.

The hole encountered mixed monzonite and porphyritic monzonite from top to bottom. From the top of the hole to 114 m sulphide content was generally less than 1%. From 114 m to the bottom of the hole there is a noticeable increase in sulphide (pyrite) content to 1% or more. This increased in pyrite content corresponds with the IP Inversion chargeability anomaly. A narrow zone (5 cm true width) of sheeted magnetite veining was intersected at 121.8 m but failed to return any significantly anomalous values. Of the twenty core samples taken from this hole only one, PM99C-032, returned anomalous values. This sample is a 1.5 m sample from 70.0 m of an orangey-grey pyritic fault gouge and returned 0.58% Pb, 0.81% Zn and 8.1 g/t Ag.

Mapping and Rock Sampling

The mapping and sampling program focused on three areas: east of drill hole PM99-1, the hole PM99-2 area, and the south-central part of the Lightning Grid.

The area east of hole PM99-1 was examined to determine the cause of the coincident Cu-Mo soil anomaly, the airborne magnetic low / radiometric high and the end-of-line IP Chargeability high. The area is marked by minor disseminated pyrite in potassium feldspar porphyritic monzonite dyke intruding quartz monzonite. The dyke and host intrusive are relatively unaltered and are rarely cut by quartz tourmaline veinlets. The disseminated sulphide mineralization is believed to be the source of the Cu-Mo soil anomaly. Surface rock sampling, however, did not return significantly anomalous values.

The area around drill hole PM99-2 was examined to follow-up gold-bearing sheeted magnetite veining discovered there in 1998. A small amount of magnetite was observed in float on surface and in hole PM99-2. The surface samples and drill intersection failed to return any significant anomalous values.

The southern part of the Lightning Grid was examined to follow-up high grade gold-bearing arsenopyrite-quartz veins found there in 1998. Two days of prospecting in the area identified a number of quartz veins in the area, none of which contained arsenopyrite and no anomalous gold values were returned from samples collected.

RECLAMATION

Upon completion of the drill program the camp area, drill sites, pump sites and access trails were reclaimed in accordance with the Yukon Mining Land Use Regulations. The reclamation consisted of:

1) Removal of all equipment
2) Removing all structures and building supplies from the camp, drill and pump sites
3) Cleaning all garbage from sites and trails
4) Re-contouring sites to natural slopes
5) Scarring compacted areas
6) Stacking the core in neat cubes at each of the drill sites
7) Flattening brush cleared from the camp area
8) Insuring an overall tidiness to the area

Mining Land Use Inspections were performed while the drilling program was underway (July 14, 1999) and following demobilization (August 8, 1999). The conclusion of the final inspection was that all sites were in acceptable condition and decommissioning was recommended.

CONCLUSIONS AND RECOMMENDATIONS

The IP Inversion Study on data collected in a 1998 IP survey confirmed the north-south trending chargeability anomaly through the center of the Lightning Grid and identified a "bulls-eye" anomaly on line 108+00 N. The study, however, failed to model the end-of-line anomaly on line 102+00 N due to limitations of the program when modeling at the end of a line.

The drill program tested the "bulls-eye" Chargeability and the end-of-line anomaly in the Lightning Grid area. Both drill holes intersected disseminated pyrite mineralization at the target depth which is believed to be the cause of the chargeability anomalies. However, no significant base or precious metals values were returned from drill core samples. It is possible that the holes intersected the outer pyrite shell of a porphyry system only, and that deeper drill testing may encounter better base metals values. A petrographic and fluid inclusion examination of drill core focusing on changing alteration and fluid chemistry with depth is recommended to determine if the base metals-rich core of a porphyry system could be expected at depth or laterally.

Prospecting and sampling to follow-up anomalous gold mineralization in the Lightning Grid area failed to encounter any significant mineralization. Recommendations to locate and determine the extend of precious metals bearing veins in the area are to perform a soil sampling program, analyzing for gold and 32 element ICP. While the area has previously been soil sampled, only copper, molybdenum and zinc were analyzed. The re-sampling program should look at path finder elements such as arsenic, as well as gold, to identify and delineate the precious metals-bearing veins.

Respectfully submitted,

S.G. Casselman, B.Sc., P.Geo.

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STATEMENT OF QUALIFICATIONS

I, Scott Casselman, residing at 105 Spruce Way, P.O. Box 802, Watson Lake, Yukon Territory, Y0A 1C0, certify that:

1) I graduated from Carleton University, Ottawa, Ontario, with a Bachelor of Science Degree in Geology in 1985.

2) I am a private geological consultant and have practised the profession of geology since graduation from university.

3) I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, Registration No. 20032.

4) I am the author of this report based on work conducted on the Prospector Mountain Property between July 7 and July 20, 1999 and on referenced reports.

5) I have no direct or indirect interests in the Prospector Mountain Property or the securities of Troymin Resources Ltd.

6) I consent to the use of this report by Troymin Resources Ltd. provided that no portion is used out of context in such a manner as to convey a meaning differing materially from that set out in the whole.

Dated this 18th day of October, 1999, at Watson Lake, Yukon Territory.

PROFESSIONAL
PROVINCE OF
S. G. CASSELMAN
BRITISH COLUMBIA
GEOSCIENTIST

Scott G. Casselman, BSc., P.Geo.

STATEMENT OF EXPENDITURES

Personnel -	Scott Casselman, Project Geologist - 20 days	6,955
	James Gebert, Geologist - 20 days	6,825
Analytical - 42 core, 7 rock samples		1,569
Helicopter Charter - 12.5 hours		11,116
Diamond Drilling and drill supplies		72,910
Expediting		940
Equipment Rental		152
Equipment Purchase		431
Fuel - propane, gas		53
Room and Board in Whitehorse and Carmacks		419
Groceries		3,452
Travel within Yukon		223
Airfares (outside of Yukon Territory)		452
Shipping		40
Communications		647
IP Inversion Study		1,070
Geophysical Interpretation (Ground and Airborne Mag, Radiometrics and IP)		2,372
Report Writing and Reproduction		5,000
Land Use Permit		100
Claim Renewal Fees		2,715
	TOTAL	**$ 117,441**

Appendix I

Inversion of Induced Polarization Data
from the Prospector Mountain Property,
Carmacks Area, YT.

By M.A. Power

TROYMIN RESOURCES LTD.

INVERSION OF INDUCED POLARIZATION DATA FROM THE PROSPECTOR MOUNTAIN PROPERTY, CARMACKS AREA, YT.

M.A. Power M.Sc. P.Geoph.

Location: 62° 27' N 137° 48' W
NTS: 115 I / 5
Mining District: Whitehorse, YT
Date: 31 May 99

SUMMARY

This report describes the inversion of induced polarization (IP) and resistivity data collected at the Prospector Mountain Property, Whitehorse Mining District, YT. The data was inverted using the DCIP2D inversion package developed at the University of British Columbia. Inputs consisted of field IP and resistivity data and topography interpolated from topographic maps.

Lines 10200N, 10400N, 10600N and 10800N were inverted. The resistivity fit was in general good and the IP fit good to poor. The inversion generated some artifacts discussed in the text.

TABLE OF CONTENTS

1.0 INTRODUCTION

This report describes the inversion of induced polarization (IP) and resistivity data from the Prospector Mounaint Property, Whitehorse Mining District, Yukon Territory. The surveys were conducted to locate copper-gold-molybdenum mineralization associated with a porphyry system.

2.0 DATA

The data set consisted of IP and resistivity survey results described in Power 1998. Inputs to the program consisted of normalized voltages (V/I), chargeabilities and errors in chargeability together with station topography. The latter was derived from topographic maps showing the grid relative to significant terrain features.

3.0 INVERSION

The data was interpreted using the DCIP2D package developed by the University of British Columbia Geophysical Inversion Facility. The inversion algorithm is described in detail by Oldenburg and Li (1994). A brief description of key features of the algorithm follows.

Siegel (1959) described the IP effect in macroscopic terms. If a time domain signal is put into the ground, as soon as the current is turned on, the voltage immediately rises to a level (ϕ_σ) and thereafter continues to rise to a higher level (ϕ_η). At current shutoff, the voltage immediately falls to a level (ϕ_s) and then slowly decays to zero along a curve similar to that between ϕ_σ and ϕ_η . Apparent chargeability is defined as the "extra" voltage observed:

$$\eta_a = \frac{\phi_\eta - \phi_\sigma}{\phi_\eta} = \frac{\phi_s}{\phi_\eta}$$

The observed DC potentials ϕ_σ are defined by the vector form of Ohms Law:

$$\nabla \cdot (\sigma \nabla \phi_s) = -I\delta(r - r_s)$$

where **r-r_s** is the vector to the measurement point, I is the current and σ is the conductivity structure of the earth - the unknown quantity in the geophysical problem. The chargeability can be modeled by replacing the conductivity by an equivalent apparent conductivity controlled by the chargeability:

$$\sigma_\eta = \sigma(1-\eta)$$

Modeling the IP effect then involves running two conductivity models - one with σ and one with σ_η.

The unknown quantity is the distribution of conductivities in the earth. The software models the earth conductivity structure as a series of rectangular cells of varying size and aspect ratio. The grid is finest (most detailed) near the measurement points and much coarser at locations beside or at depth beneath the measurement points. The latter points are necessary to avoid having edge effects appear in the model. The size and dimensions of the models in no way compensates for the basic limitations on depth penetration and resolution inherent in the IP/resistivity survey. Thus the effective depth of penetration (0.5 to 1.0 times the maximum dipole separation) is the limit to which the models should be relied upon to accurately reflect true earth conductivities and chargeabilities.

The program calculates the potential across the finite element network using a starting model. Appropriate boundary conditions are applied when calculating the potentials across the network. These include the condition that all current flow is normal to the cell boundaries and voltages are continuous across the boundaries. The sensitivity of the model to changing the parameters in any cell is calculated as is the misfit between the model results and the actual observed potentials / chargeabilities. The model is then adjusted using the calculated sensitivities of the response to changes in the individual cells.

There is no unique solution or model which fits any set of IP/resistivity data. A best-fit model is one which minimizes error and invokes the minimum required degree of complexity to fit the data. For a set of **N** measurements, the global error can be expressed as:

$$\Psi_d = \sum_{i=1}^{N}\left(W_i\left(r_i - r_i^{obs}\right)\right)^2$$

where W_i is the weighting factor for the i^{th} measurement (r^{obs}) and r_i is the model response for this measurement. The weighting factor is usually in the order of the inverse of the expected error so that a measurement with high error has a low weighting and vice versa. In a system with no noise and perfectly determined errors, the global error would be **N** because the weighting would compensate for large spreads between model and observed results at points with large errors. The program minimizes Ψ_d by repeatedly adjusting the conductivities to improve the fit. A threshold Ψ_d based on the number of measurements and a factor described below is set and the program will terminate once the global error is below the threshold.

The program determines a background model based on average apparent conductivities with a complexity determined by the station spacing, the elevation differences and number of separations read. The actual readings do have significant noise and the complexity of the background conductivity response may be such that it is impossible to reduce Ψ_d to N. Instead, Ψ_d will be scaled proportionately by a "chi-factor" ranging up from 1.0. Setting a large chi-factor directs the program to use very simple models which tend to smooth out the conductivities and fails to accurately model the fine details in resistivity or chargeability known to exist in the ground. Setting a chi-factor which is too low may prevent convergence to an acceptable solution. In this study, default (floating) chi-factors were used in the inversion and the program derived a model of average complexity suitable to the amount of data available.

Models were run with topography extracted from NTS maps and extended off either end of the survey lines to permit accurate modeling of potentials at the ends of the lines. The observed standard deviation in the chargeability measurements was taken as the error in chargeability; default errors were used in the apparent resistivity calculations in the absence of any measured error in primary voltages. DC resistivity inversions were run first and the IP inversions were made using the DC resistivity mesh as an input.

4.0 RESULTS

The inversion creates a grid mesh extending a great distance beyond the section covered by the grid lines. This is necessary to isolate boundary effects from actual resistivity features. Any features generated at depths or distances beyond the effective depth of penetration of the array - approximately 150 to 200 m - are spurious. In addition, features at depth may be merged in the modeling process to produce crescent-shaped features ("smiles"). These features, while indicating the presence of anomalous material at depth, do not accurately define the shape of these features. It is more probable that the anomalous material extends to greater depth than being cut off as shown. Finally, it should be noted that very high or very low resistivity values generally are found in models where the program cannot obtain a good fit to the resistivity data. In an attempt to accommodate several high readings near several low readings, the software generates a few blocks with very high or very low resistivity, often at depth. Little confidence can be put in these values as they primarily indicate problems with fitting a model to the data. A pattern of such values may be significant however even if the value itself is suspect by virtue of it being too high or too low.

The following full lines were inverted: Lines 10200N, 10400N, 10600N and 10800N. For each line, the inversion results showing the actual data and the results predicted by the IP and resistivity models are shown for comparison. Finally, the models themselves

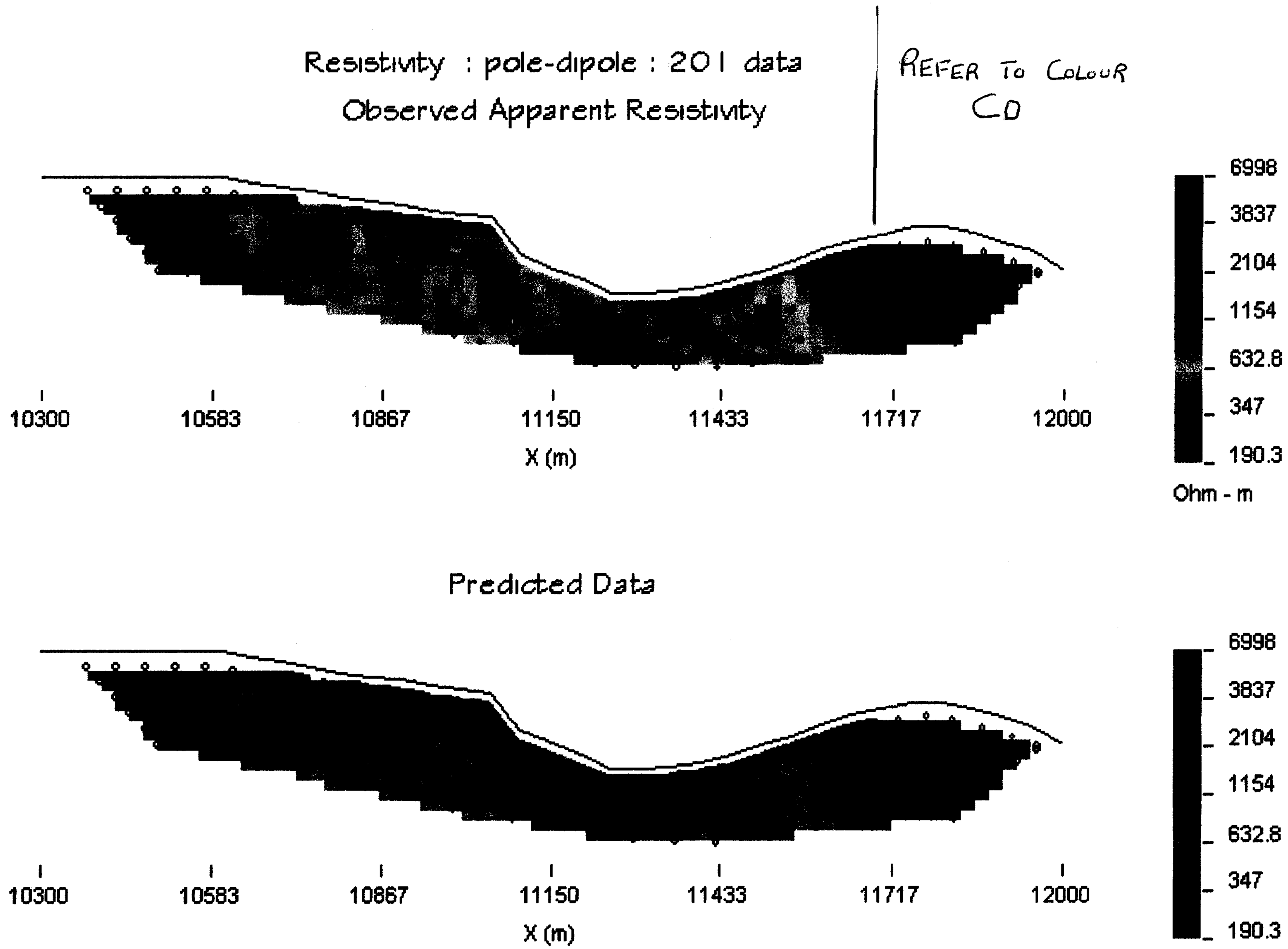


Figure 1. Resistivity inversion results - L10200N. Chi-factor - undef.

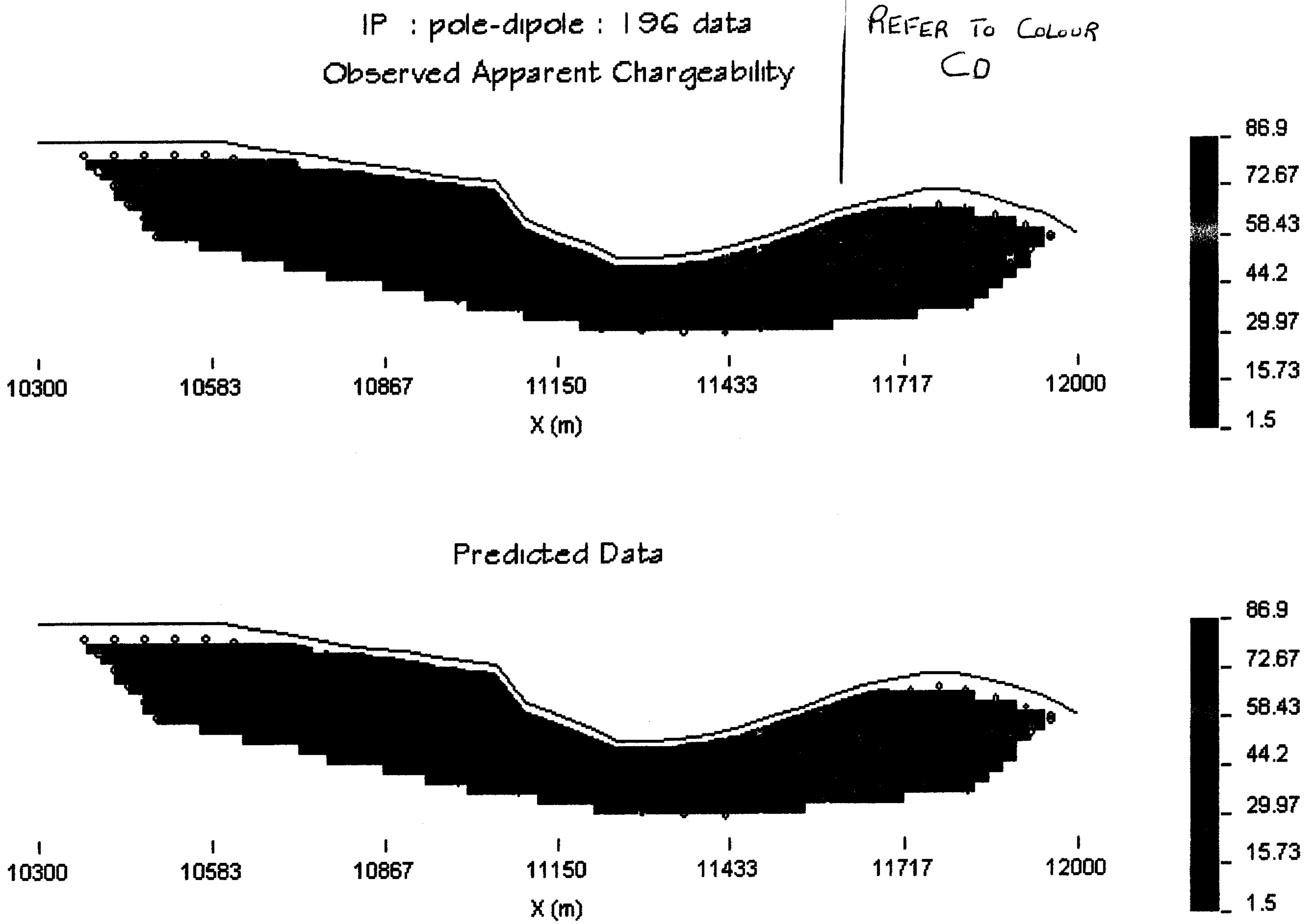


Figure 2. IP inversion results - L10200N. Chi-factor - 1.0

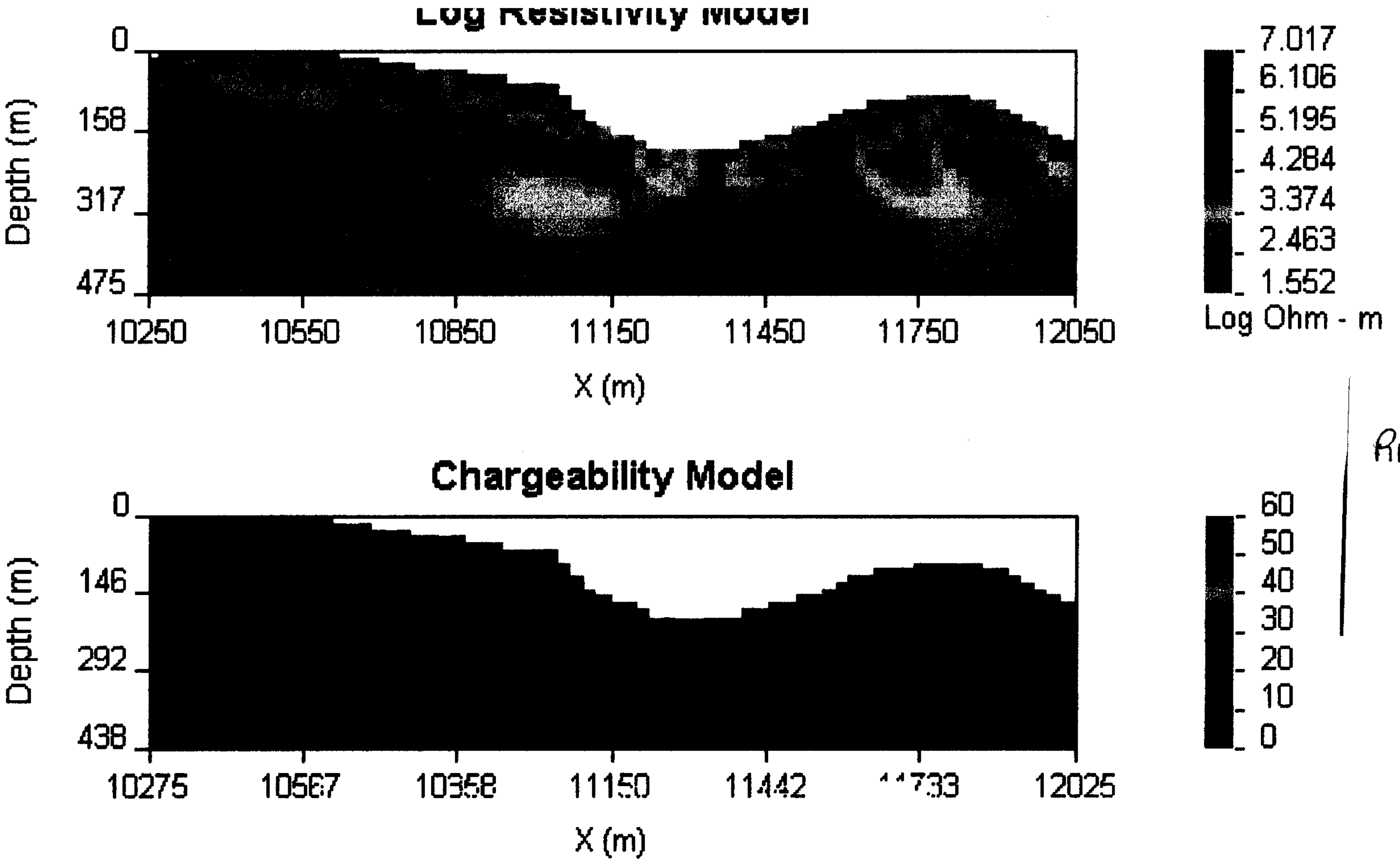


Figure3. Resistivity and IP models - L10200N.

REFER TO COLOUR CD

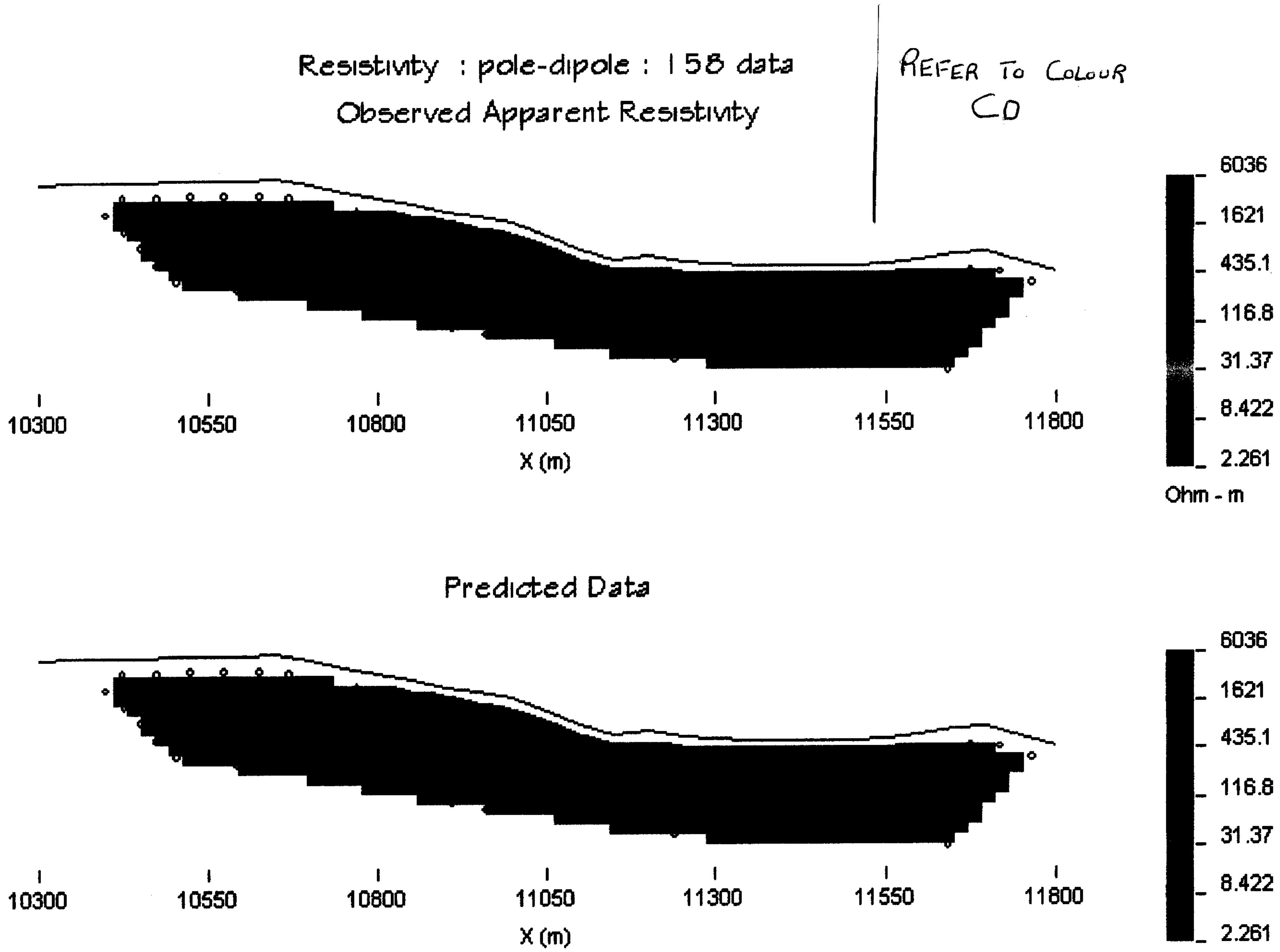


Figure 4. Resistivity inversion results - L10400N. Chi-factor - 8,72

REFER TO COLOUR CD

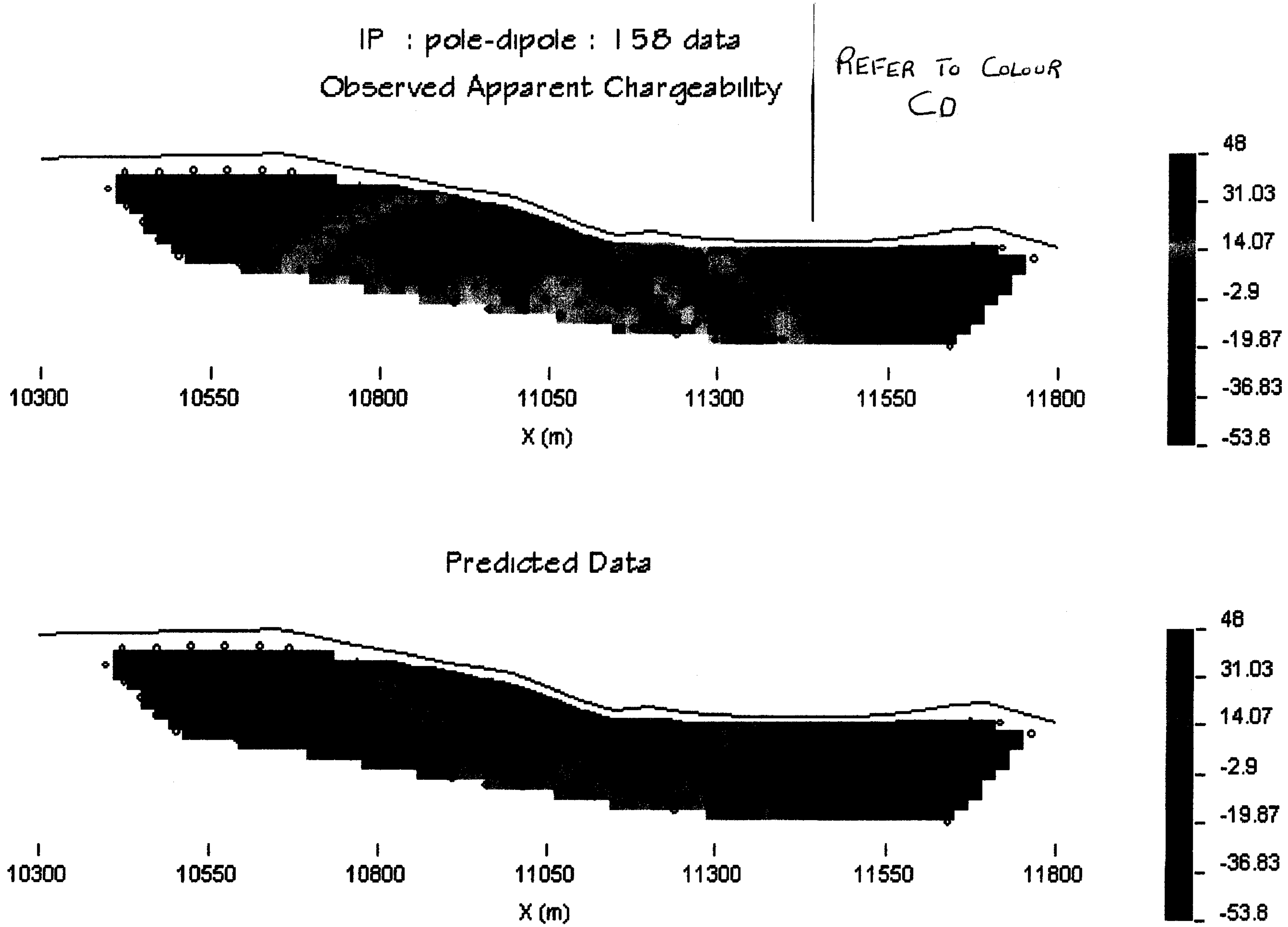
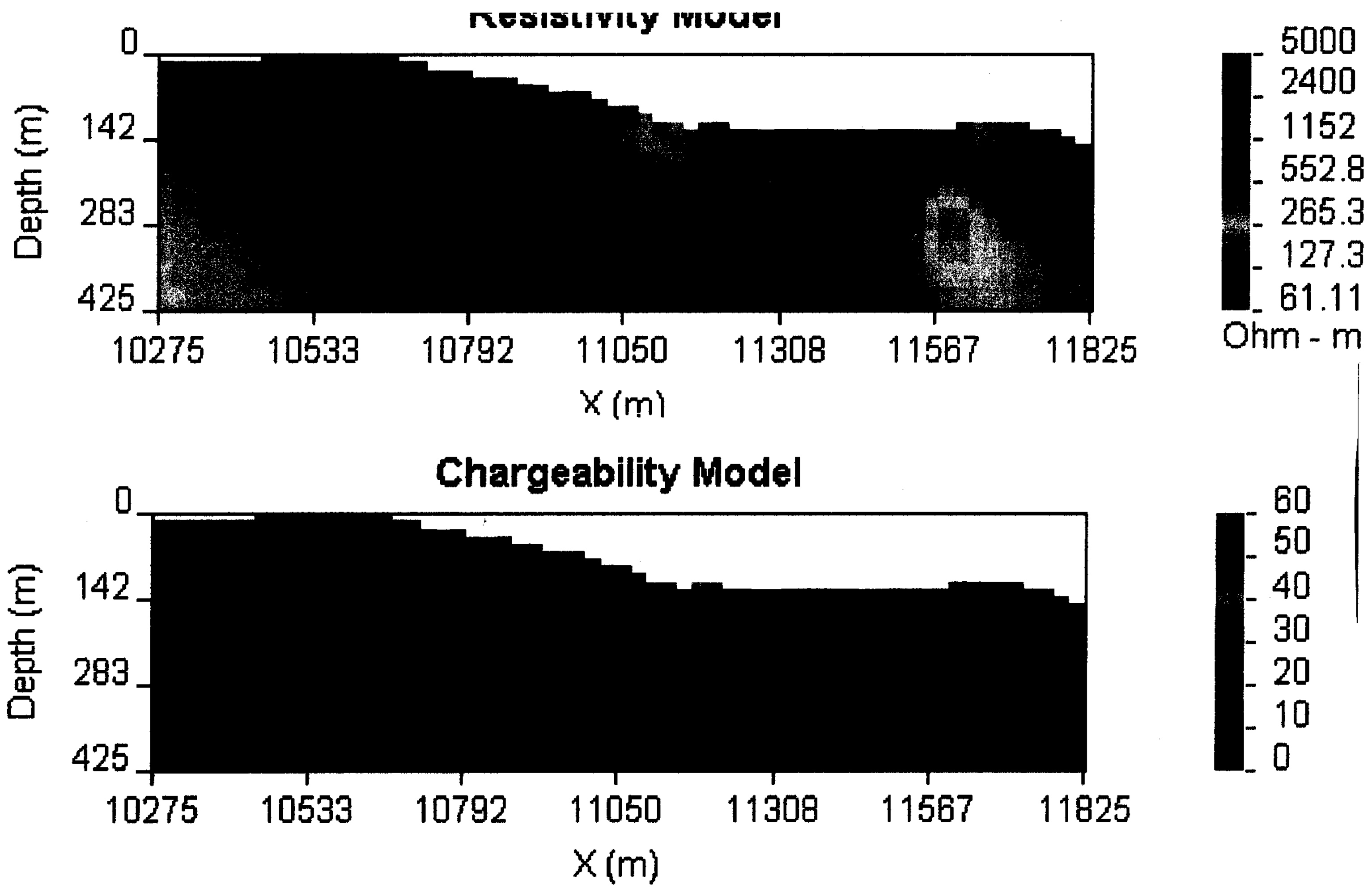


Figure 5. IP inversion results - L10400N. Chi-factor - 48.0



REFER TO COLOUR CD

Figure 6. Resistivity and IP models - L10400N.

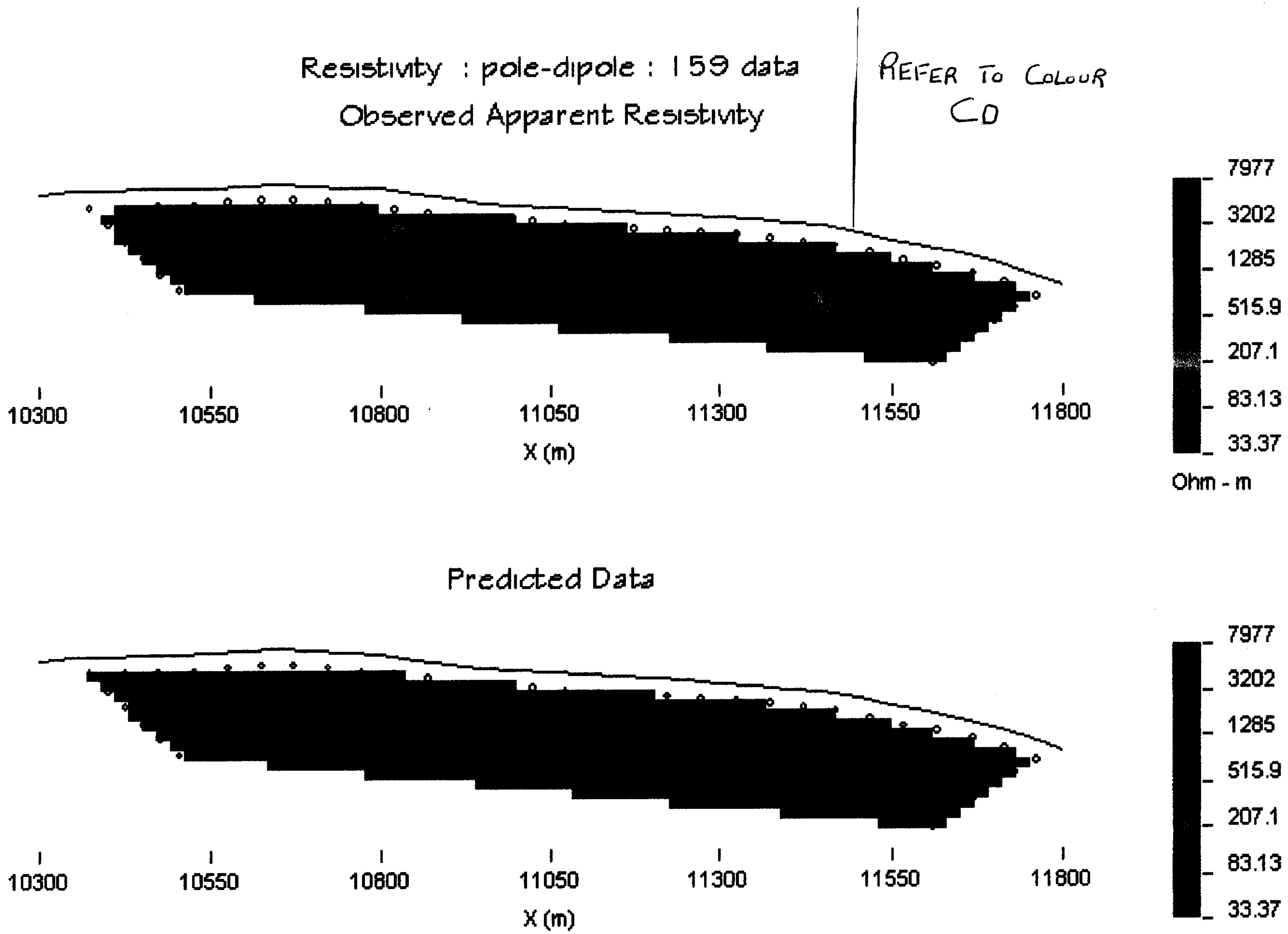


Figure 7. Resistivity model results - L10600N. Chi-factor -7.86

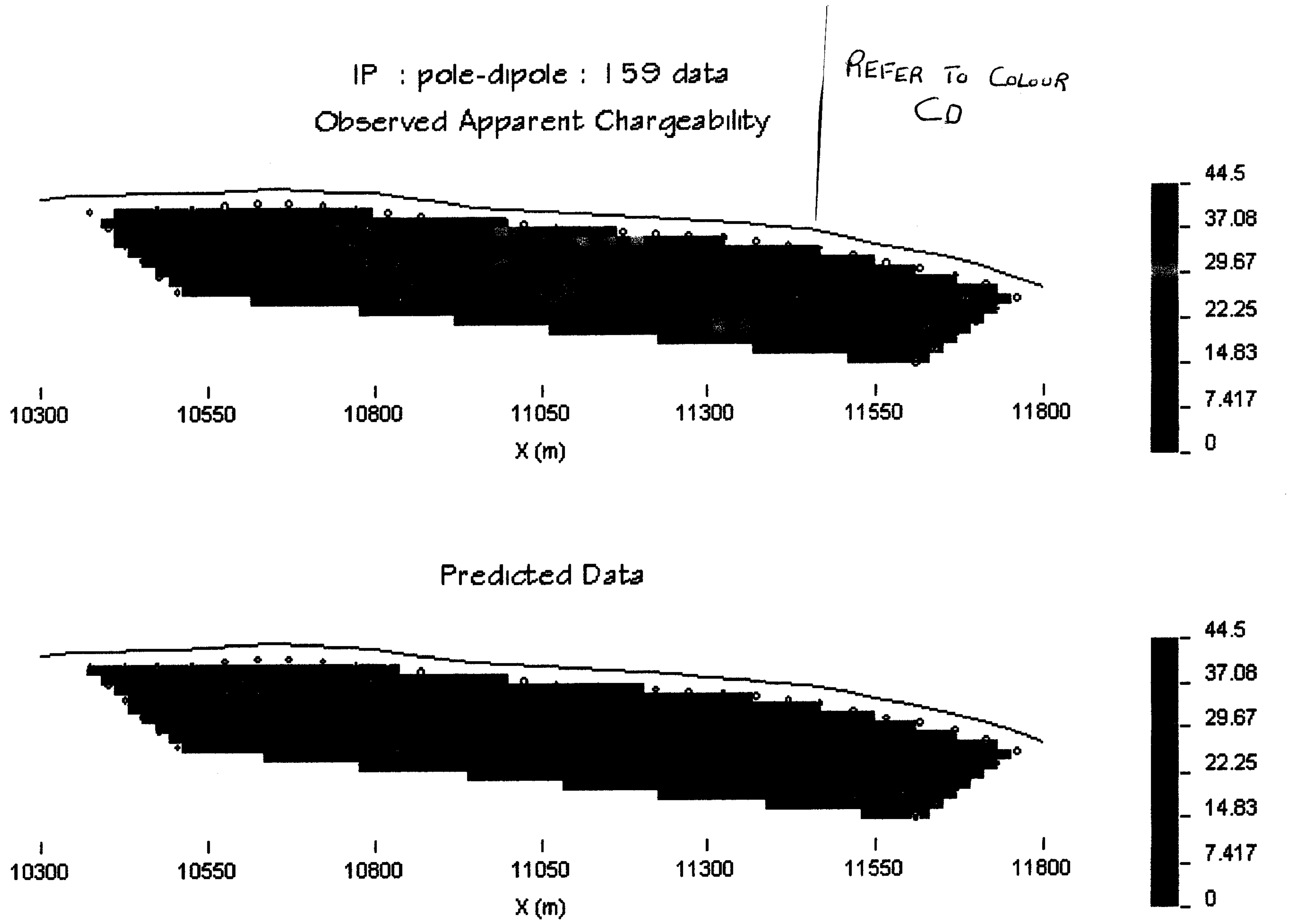


Figure 8. IP inversion results - L10600N. Chi-factor - 55.7

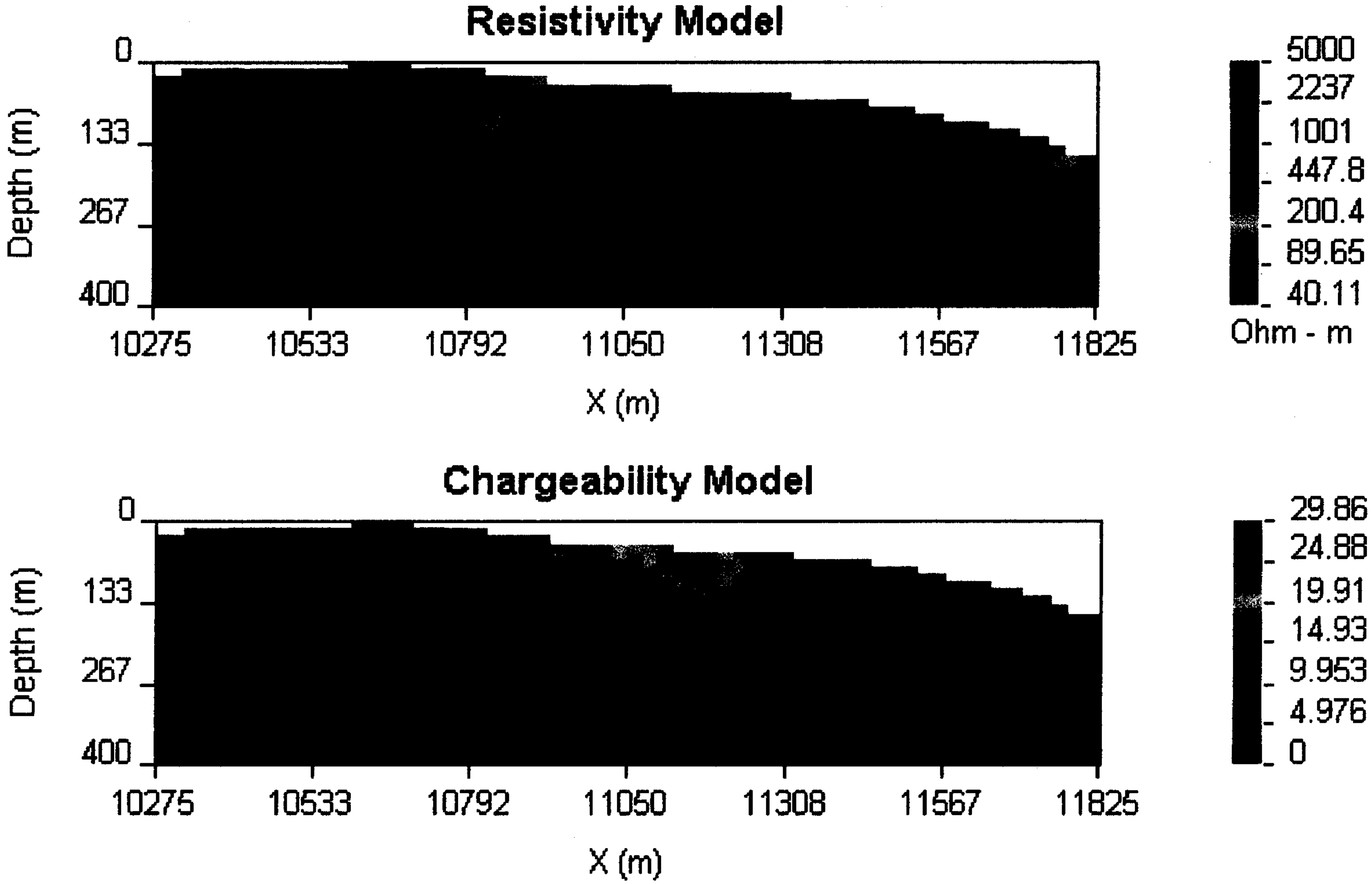


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Figure 9. Resistivity and IP models - L10600N.

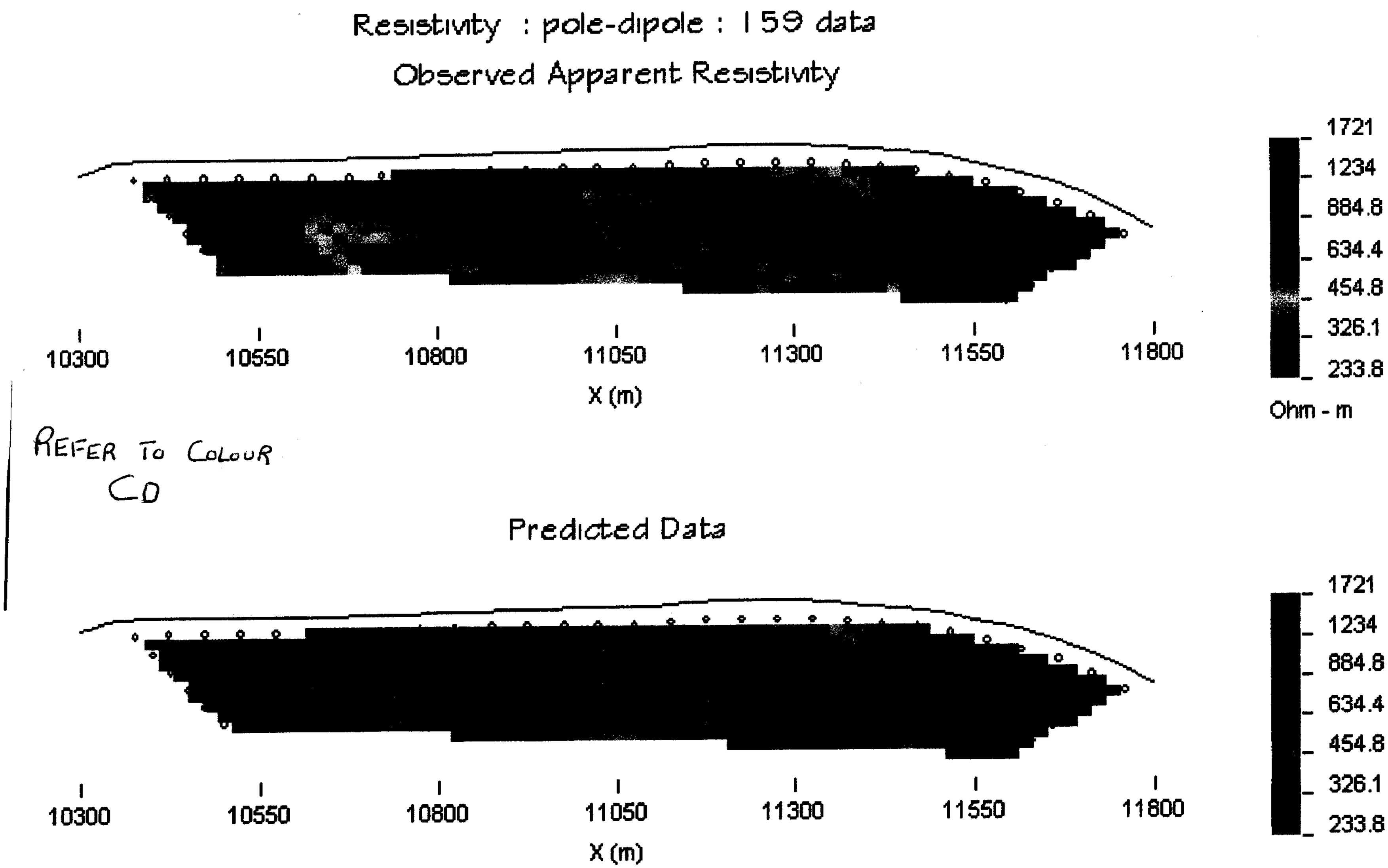

Figure 10. Resistivity inversion results - L10800N. Chi-factor - undefined.

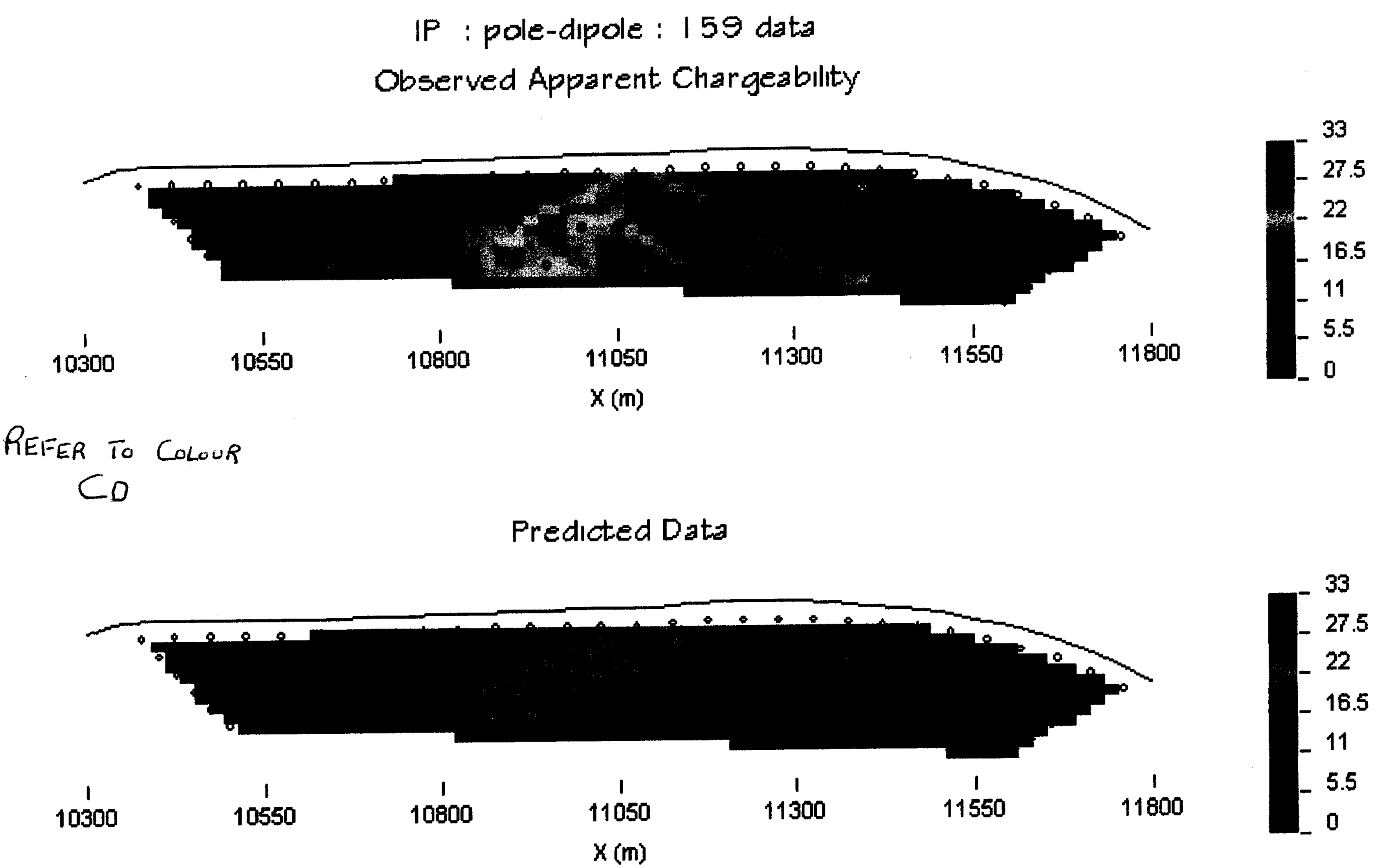

Figure 11. IP inversion results - L10800N. Chi-factor -3.2.

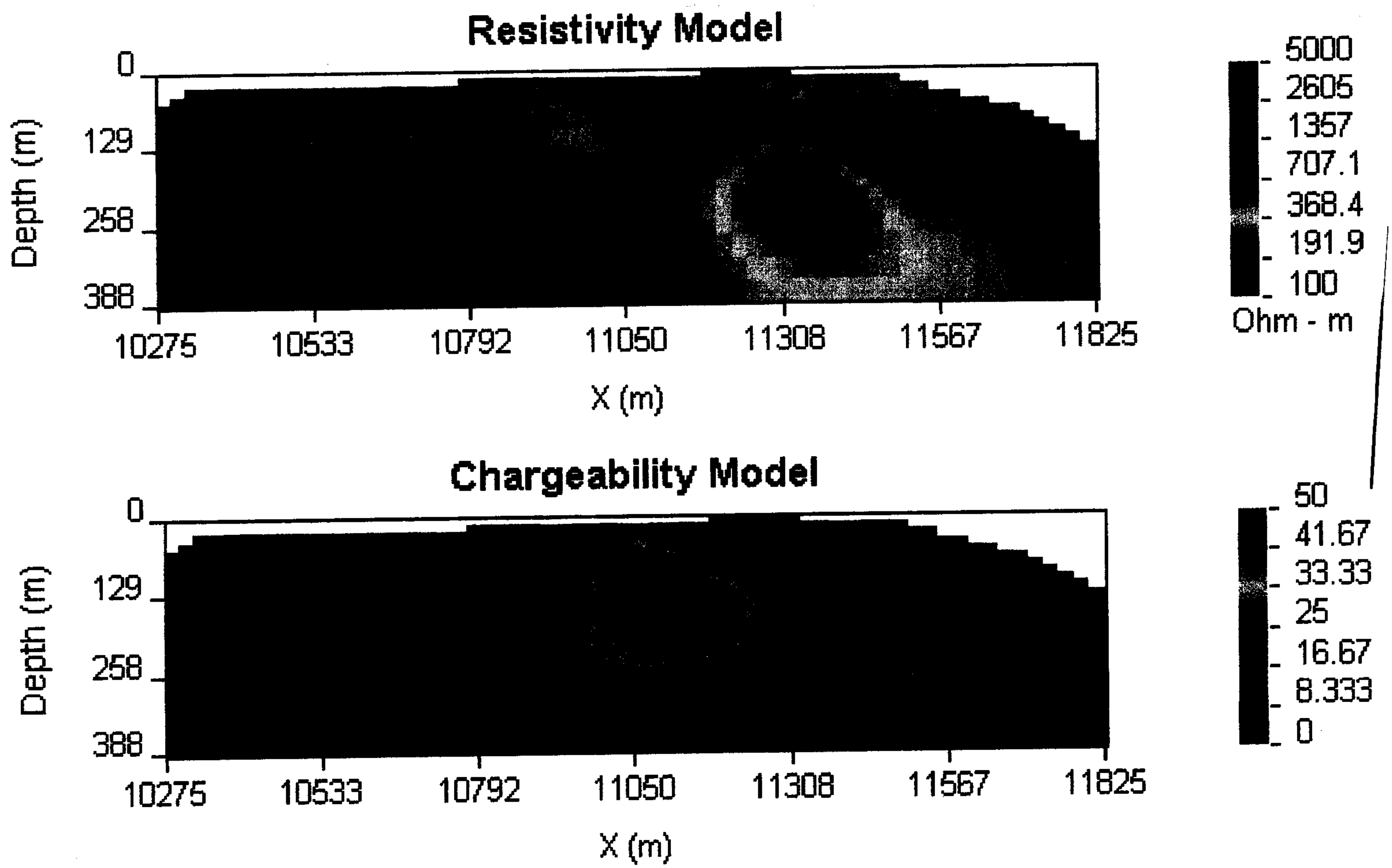

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Figure 12. Resistivity and IP models - L10800N.

are shown in a composite diagram. The results are shown sequentially with the resistivity and IP inversion results followed by the model results for each line in Figures 1 to 12.

Any chargeability or resistivity feature in the models should be checked by examining the pseudosections to ensure that the modeling accurately replicated the observed chargeabilities or resistivities. In some cases, the models do not replicate these quantities and the model results may be suspect in these areas. The chi-factor should also be used to assess the goodness-of-fit although some models have high (poor) chi-factors and, despite this produce excellent fits except for one or two points. Mismatch between model and field results is particularly common in areas of high gradient where the software has difficulty determining a realistic model which can replicate high chargeabilities or resistivities juxtaposed with much lower values. In this situation, the anomalies may be caused by bodies of limited strike-extent (ie. less than twice the array dimensions of 350 m) or by local electrode effects in the case of single anomalous measurements.

There are numerous chargeability and resistivity features in the models which should be examined together with the geology and geochemistry when planning drill holes. It should be borne in mind that models are merely automated interpretations and are thus subject to the usual uncertainties associated with geophysical interpretations.

Respectfully submitted,
AMEROK GEOSCIENCES LTD.

Mike Power M.Sc. P.Geoph.
Geophysicist

REGISTERED PROFESSIONAL GEOPHYSICIST
M.A.
LICENSEE
N.W.T.

GEOLOGISTS
OF THE
AMEROK
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APPENDIX A. CERTIFICATE

I, Michael Allan Power, M.Sc. P.Geo., P.Geoph., with business and residence addresses in Whitehorse, Yukon Territory do hereby certify that:

1. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (registration number 21131) and a professional geophysicist registered by the Northwest Territories Association of Professional Engineers, Geologists and Geophysicists (licensee L942).

2. I am a graduate of the University of Alberta with a B.Sc. (Honours) degree in Geology obtained in 1986 and a M.Sc. in Geophysics obtained in 1988.

3. I have been actively involved in mineral exploration the Northern Cordillera since 1988. I performed the inversions described in this report and supervised the formatting of the data

4. I have no interest, direct or indirect, nor do I hope to receive any interest, direct or indirect, in Troymin Resources Ltd. or any of its properties.

Dated this 30th day of May, 1999 in Whitehorse, Yukon.

Respectfully Submitted

REGISTERED PROFESSIONAL GEOPHYSICIST
M. A. POWER
LICENSEE
N.W.T.

Michael A. Power M.Sc. P. Geoph.
Geophysicist

Appendix II

Diamond Drill Hole Logs, Sections and Geochemistry

PROSPECTOR MOUNTAIN PROJECT — DDH: PM99-1

Collar Northing:	L 102+00 N	Azimuth:	090°
Collar Easting:	117+60 E	Dip:	-70°
Elevation:	1714 m	Depth:	204.83 m
Drilled By:	Caron Diamond Drilling	Logged By:	J. Gebert
Date Started:	July 10, 1999	Date Completed:	July 15, 1999
Core Size:	HQ to 74.37 m then NQ		
Objective:	To test coincident IP Chargeability anomaly, Airborne mag and radiometric anomaly		

Metres From	To	Description
0.0	**2.4**	**Overburden** Broken talus above granitoid rock.
2.4	**12.6**	**Monzonite** Euhedral feldspar (Plag?) laths ~ 7 mm, pinkish gray with 1 to 2 mm lighter pink rims. Max. size 1 to 1.5 cm. 20% matrix consists of 50% chloritized mafic minerals (amph?) and 50% biotite flakes (not chloritized). Biotite is 1 to 2 mm - much smaller than chloritized mafic minerals (possibly early amphibole?). Rare quartz (< 20%). Rare sulphide (py) and possibly magnetite in matrix. Two dominant fracture patterns evident: one parallel to core axis (CA), the other at 35 - 40°. Minor chlorite and Fe-oxide on fracture surfaces.
12.6	**13.0**	**Fault Zone** Limonitic fault zone at 20° to CA.
13.0	**40.8**	**Monzonite** Monzonite as from 2.4 to 12.6 m. At 30.2 m have 1 cm chlorite vein (+/- tour.?) with 1-2% py. At 31.0 m have 0.2 cm of sandy gouge with a bleached halo. At 32.05 have 0.5 cm jet black tour. vein with 0.5% py and trace of py in wallrock with light pink bleached envelope. At 35.0 m have 1 cm chl filled fracture parallel to CA.

Samples	**From**	**To**	
PM99C-001	24.0	25.0	
PM99C-002	30.0	31.5	minor tour. veins
PM99C-003	31.5	33.0	minor tour. veins

Metres From	To	Description
40.8	**41.7**	**Fault Gouge** Orange-brown-white gouge, banded.

Samples	**From**	**To**	
PM99C-004	40.5	42.0	fault zone with gouge

From	To	Description
41.7	43.15	**Monzonite** bleached monzonite between gouge zones. Alteration of feldspar to clay.

Samples	From	To	
PM99C-005	42.0	43.5	fault zone with gouge

43.15	45.1	**Fault Gouge** Clayey gouge and sand with bright green mica. Orange-brown-white banded gouge zone. Zone caused drilling problems, required numerous bags of drill mud to penetrate.

Samples	From	To	
PM99C-006	43.5	45.0	fault zone with gouge

45.1	81.45	**Monzonite** Monzonite as described above. 5 mm chl veins at 47.15, 47.3 and 47.5 m - at 40° to CA. From 45.1 to 50 m monzonite is pinkish-gray. From 50 to 60 m is grayish-pink and from 60 to 81.45 m is pinkish-gray color. Gradual color change. At 50 m is believed to be lower limit of surface oxidation. Rock becomes more competent. See slight decrease in grain size and amount of matrix. At 54.2 m 5 mm chl vein. Towards 60 m see gradual transition back to pinkish-gray color, slight increase in grain size and greater amount of mafic minerals (becoming more porphyritic). At 63.3 to 63.4 m Small clayey-limonitic fault zone at 35° to CA. Orange Fe weathering. From 63.4 becomes massive, relatively unfractured monzonite with very subtle, gradational changes in grain size, % matrix and color variation from pinkish-gray to grayish-pink. At 74.37 m (244 ft) reduce to NQ.

Samples	From	To	
PM99C-007	50.0	51.0	for whole rock analysis

81.45	82.05	**Fault Zone** Pink feldspars with white clay alteration. At 40° to CA.
82.05	112.7	**Monzonite** As above. Poorly jointed, massive, slightly porphyritic. Very slight trace of py from 91.0 m. At 100 m have calcite filled joint at 10° to CA. From 101.3 to 101.4 m have diffuse albite (?) flooding. At 11.05 to 111.3 m have crumbly fault at 20° to CA. with chl and limonite.

Samples	From	To	
PM99C-008	91.0	92.5	trace of py in matrix
PM99C-009	110.5	112.0	chloritic fault zone

From	To	Description
112.7	**113.0**	**Tourmaline-Pyrite Vein**

0.3 m tourmaline-pyrite-chlorite vein at 20° to CA.

Samples	From	To	
PM99C-010	112.0	113.5	tour-py-chl vein

113.0 133.0 Monzonite

Monzonite as in 82.05 to 112.7 m.

Narrow tourmaline veins at 114.4 to 114.42 m, 117.2 to 117.21 m, 128.0 to 128.05 m and 131.0 to 131.2 m. At 131 m have open-space filling with calcite x-tals to 1 cm.

At 119.5 to 120.0 m have calcite-filled fracture with pinkish staining and light green very soft talc-like mineral (paragonite?).

Samples	From	To	
PM99C-011	113.5	115.0	cm wide tour-py vein
PM99C-012	130.0	131.5	

133.0 140.0 Monzonite Dyke

Slightly finer-grained, less porphyritic monzonite with fairly sharp contacts.

Towards bottom of interval becomes even finer-grained.

140.0 154.85 Monzonite

Competent monzonite.

At 140.7 m have 1 cm epidote-tourmaline veinlet at 40° to CA.

Acid dip test at 146.90 m gives 71° .

At 152.8 to 153.0 m and 153.3 to 153.4 m have narrow faults at 30° to CA, with epidote, calcite and pink mineral (qtz?) and minor paragonite between faults.

At 154.5 have 1 cm tour-py vein.

154.85 155.2 Intermediate Dyke

First definite change in rock type.

Interlocking crystals, sub-ophitic texture. Narrow tour. veinlets and trace of vfg py in dyke.

155.2 157.55 Monzonite

Monzonite as described above.

157.55 158.3 Fault Zone

Crumbly, clay-rich fault zone. Plag. minerals altered to paragonite-like mineral.

Samples	From	To	
PM99C-013	157.5	159.0	fault zone - no sulphides

From	To	Description
158.3	168.8	**Monzonite**

Monzonite as above.
From 161.10 to 163.5 and 165.1 to 168.8 m is slightly orange colored with feldspars altered to clay and veined with narrow (< 1 cm) white-pink qtz-calcite veinlets subparallel to CA. Relic igneous texture evident.
Alteration believed to be caused by dyke at 168.8 m.
At 164.5 m have pink-white 1-2 cm vein at 15 to 20° to CA.

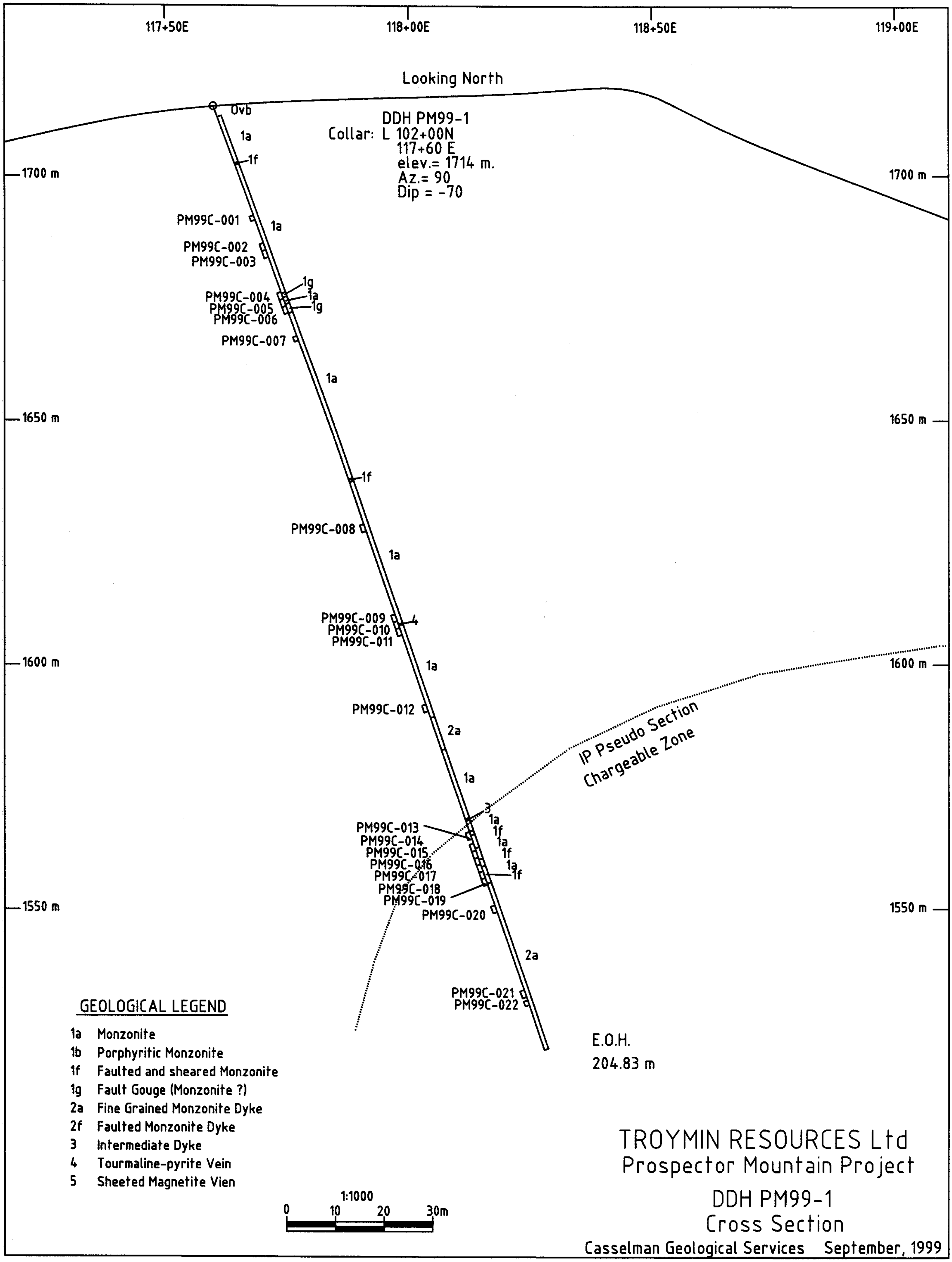
Samples	From	To	
PM99C-014	160.0	161.5	orange alt monz, no sulphides
PM99C-015	161.5	163.0	orange flt zone
PM99C-016	163.0	164.5	
PM99C-017	164.5	166.0	
PM99C-018	166.0	167.5	altered monzonite
PM99C-019	167.5	169.0	altered monzonite

168.8 204.83 Monzonite Dyke

Compositionally similar to monzonite above - 10-15% plag. phenos. to 0.5 cm, some with rims, 1-2 mm chlorite spots, 1-2 mm biotite flakes. Approximately 80% vfg matrix of qtz and plag.
Local traces of py (~1%) with up to 3% py near tour veins.
Pyrite and tour. replacement of chl near veins.
Weak alteration (bleaching) along hairline fractures at 170 to 171 m.
Plag crystals show Albite (?) alteration rims.
At 174.1 m have 1 cm tour.-chl-py vein with 20 cm halo of tour-py spots.
At 175.4 m have 2 mm tour stringer at 20° to CA with 2 cm py halo - ~2% over 4 cm.
At 179.8 m - 1 cm tour vein with 5% py, calcite and qtz. With 1 cm bleached halo and possible sericite along vein margin (mm thick).
At 192.6 m - 1 cm tour-py vein with 5% py and trace of py in wallrock over 5 cm each side.
From 194.0 m phenocrysts become slightly more coarse-grained to 7-10 mm. Very gradual increase.

Samples	From	To	
PM99C-020	173.5	175.0	
PM99C-021	192.0	193.5	thin tour-py vein
PM99C-022	194.2	195.2	whole rock of dyke

204.83 E.O.H.


117+50E
118+00E
118+50E
119+00E
Looking North
Ovb
DDH PM99-1
Collar: L 102+00N
117+60 E
elev.= 1714 m.
Az.= 90
Dip = -70
1700 m
1650 m
1600 m
1550 m
1a
1f
1g
2a
3
4
PM99C-001
PM99C-002
PM99C-003
PM99C-004
PM99C-005
PM99C-006
PM99C-007
PM99C-008
PM99C-009
PM99C-010
PM99C-011
PM99C-012
PM99C-013
PM99C-014
PM99C-015
PM99C-016
PM99C-017
PM99C-018
PM99C-019
PM99C-020
PM99C-021
PM99C-022
IP Pseudo Section
Chargeable Zone
E.O.H.
204.83 m
GEOLOGICAL LEGEND
1a Monzonite
1b Porphyritic Monzonite
1f Faulted and sheared Monzonite
1g Fault Gouge (Monzonite ?)
2a Fine Grained Monzonite Dyke
2f Faulted Monzonite Dyke
3 Intermediate Dyke
4 Tourmaline-pyrite Vein
5 Sheeted Magnetite Vien
1:1000
0 10 20 30m
TROYMIN RESOURCES Ltd
Prospector Mountain Project
DDH PM99-1
Cross Section
Casselman Geological Services September, 1999

PROSPECTOR MOUTAIN PROJECT
DDH PM99-1 SAMPLE GEOCHEMISTRY

From (m)	To (m)	Width (m)	Sample #	Mo(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	Ag(ppb)	Ni(ppm)	Co(ppm)	Mn(ppm)	Fe(%)	As(ppm)	Au(ppb)	Sr(ppm)	Cd(ppm)	Sb(ppm)	Bi(ppm)	Ca(%)	Cr(ppm)	Ba(ppm)	B(ppm)	Al(%)	Na(%)	K(%)	W(ppm)	Hg(ppb)	S(%)
0	24	24	NS																									
24	25	1	MH99C-001	11.6	59.26	57.3	160.6	257	5.3	6.8	313	2.53	6.5	17.4	24.3	0.9	0.83	0.17	0.43	32.5	90.8	5	0.72	0.153	0.48	10.5	< 5	0.04
25	30	5	NS																									
30	31.5	1.5	MH99C-002	9.07	36.08	40.53	92.3	169	6.7	6.5	288	2.43	7.2	8.1	53.3	0.51	1.28	0.41	0.43	31.3	74.2	3	0.7	0.096	0.45	8.7	< 5	0.22
31.5	33	1.5	MH99C-003	7.56	29.86	36.37	81.3	158	5.5	6.6	294	2.3	5.3	7.2	50.3	0.43	1.14	0.56	0.47	29.1	90	3	0.92	0.117	0.51	9.7	< 5	0.05
33	40.5	7.5	NS																									
40.5	42	1.5	MH99C-004	3.74	47	25.64	72.4	136	5.6	8.7	340	2.68	6.9	7.9	112.2	0.42	1.13	0.51	0.62	26.5	68.1	2	1.49	0.06	0.39	4	14	< .01
42	43.5	1.5	MH99C-005	1.84	34.52	25.75	70.2	91	8.2	6	301	2.54	3.3	5.3	142	0.27	0.84	0.14	0.59	26.4	88.7	1	1.44	0.089	0.43	5.8	10	< .01
43.5	45	1.5	MH99C-006	2.18	31.43	31.25	79.1	350	6.6	7.5	333	2.61	4.9	5.4	92.3	0.41	1.87	0.42	0.82	25.9	75.8	< 1	1.88	0.055	0.4	4.5	19	< .01
45	50	5	NS																									
50	51	1	MH99C-007	4.39	26.63	21.8	49.5	99	7.6	6.2	227	2.23	9.1	2.6	19.5	0.16	0.77	0.17	0.39	27.3	75.1	2	0.64	0.092	0.45	8.8	< 5	0.05
51	91	40	NS																									
91	92.5	1.5	MH99C-008	7.5	19.33	25.32	58	124	6.8	6.1	301	2.33	9.9	1.5	41.9	0.23	0.93	0.28	0.52	30.5	102.2	1	0.74	0.11	0.47	7.2	< 5	0.05
92.5	110.5	18	NS																									
110.5	112	1.5	MH99C-009	4.82	21.54	24.26	46	93	5.6	5	277	2.15	25	2.2	118.4	0.2	1.5	0.45	0.74	27.2	64.4	< 1	0.89	0.097	0.25	8.6	5	0.14
112	113.5	1.5	MH99C-010	5.31	58.56	20.94	36.8	159	8.3	11.6	208	2.04	12.6	6.3	997.4	0.14	0.76	0.92	1.09	30.2	153.7	5	1.69	0.14	0.34	8.1	6	1.05
113.5	115	1.5	MH99C-011	6.03	37.97	24.09	40.1	111	5.7	6.8	217	2.14	19.8	3.1	183	0.18	0.86	0.51	0.51	28.5	88.7	1	0.93	0.124	0.35	11.7	< 5	0.41
115	130	15	NS																									
130	131.5	1.5	MH99C-012	5.44	21.71	24.79	55.1	100	7.9	5.6	338	2.07	11.9	3.7	37.1	0.23	1.25	0.3	1.26	30.1	117.3	2	1.1	0.216	0.24	8.8	< 5	0.11
131.5	157.5	26	NS																									
157.5	159	1.5	MH99C-013	5.04	39.56	33.67	68.1	220	5.1	8.8	234	2.8	16	4.3	130.6	0.35	1.17	1.29	1.72	17.9	109.3	< 1	1.75	0.088	0.22	5.3	12	1.67
159	160	1	NS																									
160	161.5	1.5	MH99C-014	4.42	10.14	21.78	39.8	85	7.3	4.4	226	1.85	11.2	2.2	476.2	0.23	1.08	0.32	2.04	18.5	135.8	< 1	2.68	0.079	0.33	3	24	0.12
161.5	163	1.5	MH99C-015	4.48	18.4	17.7	36.8	77	4.4	5.6	220	1.96	12.1	4.4	77.8	0.17	1.02	0.34	1.95	15.3	56.2	2	2.65	0.077	0.29	2.5	21	0.19
163	164.5	1.5	MH99C-016	5.93	19.01	25.81	36.3	80	8.9	4	243	1.95	9.4	2.9	69.2	0.14	1.3	0.32	1.01	25.8	101.2	< 1	1.49	0.11	0.34	6.2	21	0.03
164.5	166	1.5	MH99C-017	1.24	15.72	27.88	39.7	62	4.8	4.6	352	1.85	6.6	1.6	193.5	0.21	0.91	0.32	2.41	17.8	110.5	< 1	2.62	0.085	0.26	2.9	44	0.02
166	167.5	1.5	MH99C-018	1.57	17.46	23.21	40.1	77	7.7	4.1	215	1.94	8	1.4	123.2	0.18	1.01	0.33	2.47	21.4	95.8	< 1	3.26	0.097	0.21	2.3	44	< .01
167.5	169	1.5	MH99C-019	0.83	20.67	29.1	43.7	71	4	4.8	300	1.78	6.9	1.3	180.6	0.18	0.91	0.44	2.1	14.8	104.8	< 1	2.8	0.068	0.16	1.3	43	0.02
169	173.5	4.5	NS																									
173.5	175	1.5	MH99C-020	8.87	138.89	48.07	65	264	7	12.7	281	1.29	22.3	17.6	89.4	0.41	1.5	0.84	0.91	21	118.1	4	1.14	0.193	0.17	7	7	0.36
175	192	17	NS																									
192	193.5	1.5	MH99C-021	8.82	135.18	42.41	57.3	319	4.3	16.8	225	2.03	33.5	4.9	30.8	0.28	3.69	0.54	0.27	20.3	88.4	3	0.51	0.123	0.2	9.1	< 5	0.83
193.5	194.2	0.7	NS																									
194.2	195.2	1	MH99C-022	9.09	32.93	27.35	44.6	125	6.5	3.3	240	1.59	16.7	4.2	26.5	0.2	1.52	0.16	0.3	23.6	98.2	1	0.46	0.098	0.24	9.9	< 5	0.05
195.2	204.8	9.63	NS																									
204.83			EOH																									

PROSPECTOR MOUNTAIN PROJECT **DDH: PM99-2**

Collar Northing:	L 108+00 N	Azimuth:	270°
Collar Easting:	111+90 E	Dip:	-55°
Elevation:	1825 m	Depth:	131.06 m
Drilled By:	Caron Diamond Drilling	Logged By:	J. Gebert
Date Started:	July 15, 1999	Date Completed:	July 19, 1999
Core Size:	HQ to 45.72 m then NQ		

Objective: To test coincident IP Chargeability anomaly, ground mag and radiometric anomaly.

Metres From	To	Description
0.0	**2.13**	**Overburden**

2.13 70.0 Monzonite

Pinkish-gray monzonite similar to that at top of DDH PM99-1, except not quite as porphyritic.
Feldspar phenos to 5 mm with 5-10% small biotite (2 mm) flakes and 5-10% green chloritized mafic minerals (amphibole?).
The intensity of chloritized mafics in this hole is slightly greater than PM99-1.
Matrix is composed of qtz and feldspar (as with PM99-1) and rare flecks of py.
Phenocrysts of plag have albite alteration rims
From top of hole get calcite filled joints at 20° to CA.
At 20.2 m, 40 cm tour-py vein at 20° to CA - with 3-5% py.
At 21.8 m, 20 cm tour-py vein at 20° to CA - with 5% py.
From 22.0 to 26.0 monzonite is faulted with gougey clay zones and calcite-paragonite veinlets to 1 mm subparallel to CA.
From 29.0 get gradual color change from pinkish-gray to pink and get calcite veins to 1 cm.
From 31.5 to 34 and 36.5 to 38.2 milled fault breccia and clayey gouge with sericite.
From 42.0 to 42.5 have chl-ca-ser-clay on fractures in fault.
At 45.72 m reduce to NQ from HQ.
At 49.4 m, 0.15 m tour-py vein at 20° to CA with tour spots in wallrock 20 cm on either side.
From 49.55 to 61.0 m have fault zone of broken core with occasional clayey zones and pinkish core - may be potassic alteration?
From 57.0 to 57.6 intensely gouged - orange clay.
Small fault with gouge at 65.0 to 65.53 m and 69.0 to 70.0 m.

Samples	From	To	
PM99C-023	18.0	19.0	whole rock analysis of unaltered monz
PM99C-024	20.0	21.5	tour-py vein with bleached margin
PM99C-025	21.5	23.0	tour-py vein and fault zone
PM99C-026	24.5	26.0	orange, clayey fault zone
PM99C-027	30.0	31.5	pink altered monzonite
PM99C-028	31.5	33.0	clay-rich fault zone
PM99C-029	36.0	37.5	clay-sericite fault zone
PM99C-030	48.5	49.0	tour-py vein and tour spotted wallrock
PM99C-031	69.0	70.0	sample of orange clay fault gouge

Metres		
From	**To**	**Description**
70.0	**90.3**	**Porphyritic Monzonite** Porphyritic monzonite with weak pink hue - potassic alteration? Fault zone from 75.5 to 77.9 m with green chloritic gouge and ~1% py between 1-2 cm milled fragments. Note: first fault to contain sulphides. On lower side of fault monzonite becomes slightly less porphyritic. At 80.0 m and 87.0 m ca veins parallel to CA. At 83.0 m bleached ca-chl vein. From 88.0 to 89.0 several faults and clay zones to 25 cm.

Samples	From	To	
PM99C-032	76.5	78.0	pyrite in fault gouge
PM99C-033	83.7	84.7	whole rock sample of porph monz

From	To	Description
90.3	**94.7**	**Monzonite Dyke** Pink-gray monzonite dyke. Quite fractured and faulted from 91.0 to 92.0, competent from 92.0 to 94.7 m. Veins of calcite and pink feldspar in broken, crumbly core pieces.
94.7	**97.0**	**Porphyritic Monzonite** As in 70.0 to 90.3 m. Phenocrysts to 1 cm.
97.0	**101.5**	**Monzonite Dyke** As in dyke from 90.3 to 94.7 m.

Samples	From	To	
PM99C-034	100.0	101.0	whole rock of monz dyke

From	To	Description
101.5	**102.6**	**Porphyritic Monzonite** Narrow interval as in Porph monz from 70.0 to 90.3 and 94.7 to 97.0 m. 0.2 cm ca vein at 10° to CA. Irregular contact at 40° to CA.
102.6	**114.1**	**Monzonite Dyke** Fine -grained monzonite dyke as from 90.3 to 94.7 and 97.0 to 101.5 m. 6 thin (mm) tour stringers over 10 cm at 108 m - ~25° to CA. Later py flooding to 20% of zone. Bleached wallrock halo to 10 cm, feldspars altered to paragonite adjacent to vein (~50 cm). Dyke is faulted from 112.5 to 114.1 m @ lower contact. Fault is white and orange clayey gouge.

Samples	From	To	
PM99C-035	107.0	108.5	tour-py vein in porph monz
PM99C-036	112.5	114.0	orange clay fault gouge, no sulphides

Metres From	To	Description
114.1	**130.2**	**Porphyritic Monzonite**

As above.
From 114.1 to 118 m is fractured and faulted.
From 118 to 130.35 is much more competent, fractures 1 per 2 m.
At 121.8 to 122.0 m have zone of hairline (<1 mm) sheeted magnetite stringers 4 to 5 mm apart - true width of zone ~5 cm.
At 125.5 m - 10 cm tour-py vein at 20° to CA - 5-7% py with tour-py spots in wallrock.
Note: first appearance of tour-py veins in competent rock - all others in upper part of hole have been in fault zones.
From 125.5 m see increase in stringer (mm scale) and disseminated py to 1% overall.
Increased py content matches expected zone of chargeability from IP Inversion.
Acid test at 128 m gives -58° hole angle.

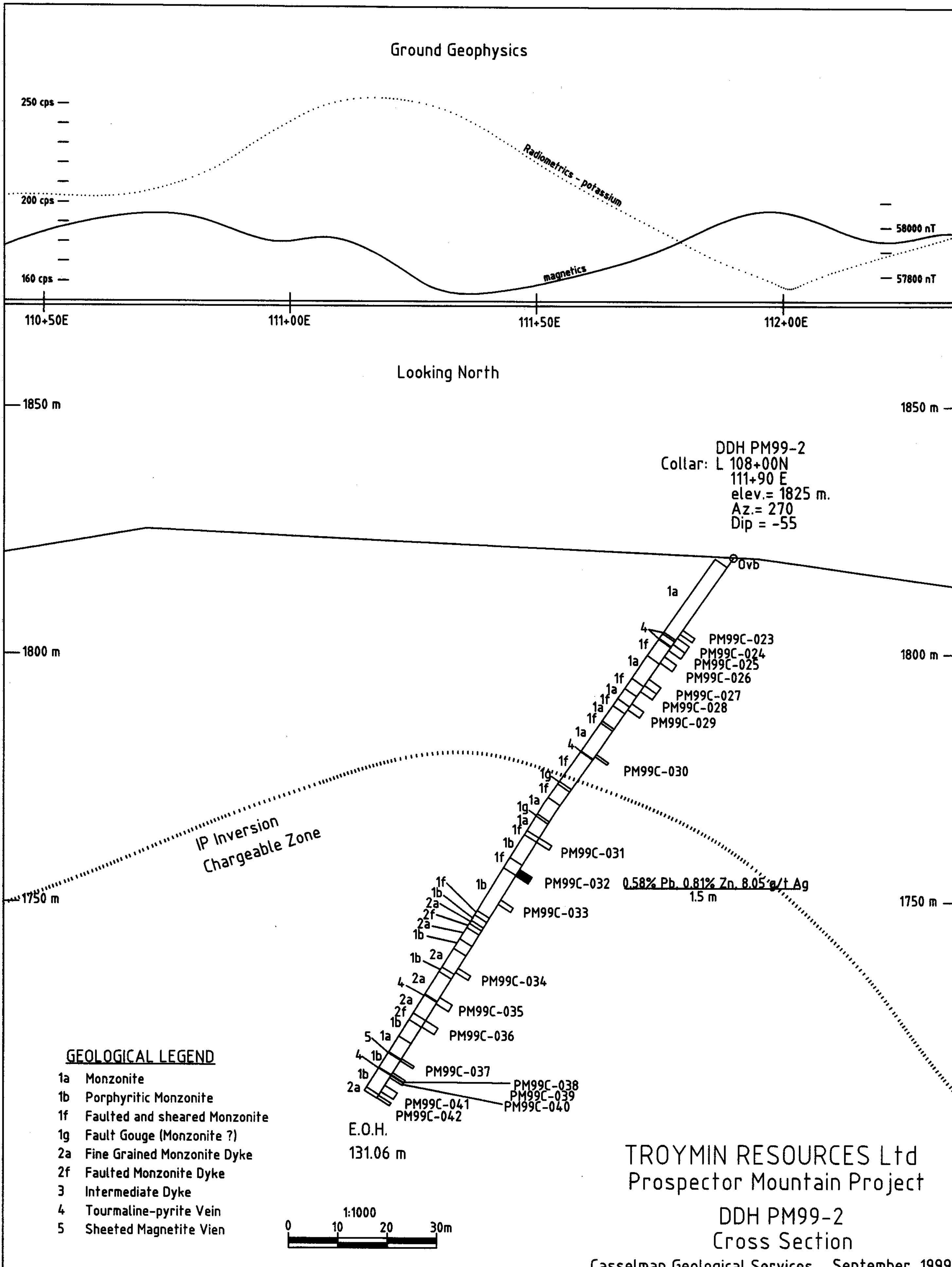
Samples	From	To	
PM99C-037	121.6	122.1	sheeted magnetite stringer zone
PM99C-038	125.0	125.5	wallrock to tour-py vein
PM99C-039	125.5	125.65	tour-py vein - very narrow sample
PM99C-040	125.65	126.15	wallrock to tour-py vein
PM99C-041	128.0	129.5	whole rock of disseminated py zone

130.2 131.06 Monzonite Dyke

Fine-grained, gray monzonite dyke.
Trace of disseminated pyrite. Competent dyke, no fractures no veins.

Samples	From	To	
PM99C-042	130.4	131.0	whole rock sample of dyke

131.06 E.O.H.



Ground Geophysics
250 cps
200 cps
160 cps
Radiometrics - potassium
magnetics
58000 nT
57800 nT
110+50E
111+00E
111+50E
112+00E
Looking North
1850 m
1800 m
1750 m
DDH PM99-2
Collar: L 108+00N
111+90 E
elev.= 1825 m.
Az.= 270
Dip = -55
Ovb
IP Inversion
Chargeable Zone
PM99C-023
PM99C-024
PM99C-025
PM99C-026
PM99C-027
PM99C-028
PM99C-029
PM99C-030
PM99C-031
PM99C-032
0.58% Pb, 0.81% Zn, 8.05 g/t Ag
1.5 m
PM99C-033
PM99C-034
PM99C-035
PM99C-036
PM99C-037
PM99C-038
PM99C-039
PM99C-040
PM99C-041
PM99C-042
E.O.H.
131.06 m
GEOLOGICAL LEGEND
1a Monzonite
1b Porphyritic Monzonite
1f Faulted and sheared Monzonite
1g Fault Gouge (Monzonite ?)
2a Fine Grained Monzonite Dyke
2f Faulted Monzonite Dyke
3 Intermediate Dyke
4 Tourmaline-pyrite Vein
5 Sheeted Magnetite Vien
1:1000
0 10 20 30m
TROYMIN RESOURCES Ltd
Prospector Mountain Project
DDH PM99-2
Cross Section
Casselman Geological Services September, 1999

PROSPECTOR MOUNTAIN PROJECT
DDH PM99-2-SAMPLE GEOCHEMISTRY

From (m)	To (m)	Width (m)	Sample #	Mo(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	Ag(ppb)	Ni(ppm)	Co(ppm)	Mn(ppm)	Fe(%)	As(ppm)	Au(ppb)	Sr(ppm)	Cd(ppm)	Sb(ppm)	Bi(ppm)	Ca(%)	Cr(ppm)	Ba(ppm)	B(ppm)	Al(%)	Na(%)	K(%)	W(ppm)	Hg(ppb)	S(%)
0	18	18	NS																									
18	19	1	PM99C-023	5.91	45.89	28.48	64	116	4.7	4.2	211	2.02	3.1	5.5	13.5	0.14	0.61	0.41	0.33	23.6	56.2	1	0.56	0.07	0.36	8	< 5	0.01
19	20	1	NS																									
20	21.5	1.5	PM99C-024	7.35	60	145.59	145.2	413	6.1	3.8	596	1.96	9.5	13.5	44.3	0.62	3.62	15.37	0.51	24.6	63.5	13	0.85	0.05	0.28	6.9	< 5	0.19
21.5	23	1.5	PM99C-025	30.11	157.63	57.51	78	367	5	5.3	308	1.8	21.3	16.4	23	0.34	2.62	25.12	0.74	23.9	53.2	6	0.87	0.1	0.24	9.8	< 5	0.6
23	24.5	1.5	NS																									
24.5	26	1.5	PM99C-026	6.43	97.33	51.69	61.5	234	7.7	3.1	272	1.75	8.5	17.6	21.8	0.33	2.71	4.18	0.64	22	37.2	2	1.01	0.08	0.2	6.3	< 5	0.09
26	30	4	NS																									
30	31.5	1.5	PM99C-027	3.24	36.39	60.52	46.4	897	4.2	4.2	382	2.08	4.6	4.1	23	0.14	1.73	4.56	0.37	22.2	67.1	2	0.95	0.08	0.26	9	< 5	0.01
31.5	33	1.5	PM99C-028	9.02	23.3	55.72	61.7	2249	5.5	5.7	591	2.34	35.1	5.2	17	0.63	5.83	10.9	0.27	17	48.5	4	0.62	0.01	0.2	7.3	< 5	0.01
33	36	3	NS																									
36	37.5	1.5	PM99C-029	1.71	30.89	81.95	251	234	3.7	3.4	710	1.67	4.5	2.5	87.5	2.68	0.82	1.1	0.75	15.9	51.4	1	1.5	0.05	0.16	3.8	< 5	< .01
37.5	48.5	11	NS																									
48.5	49	0.5	PM99C-030	9.06	51.45	99.3	196.3	501	9.6	4	952	1.76	9.8	2.9	26.9	1.2	1.18	5.83	1.06	23.6	33.3	4	0.85	0.05	0.23	7.3	< 5	0.39
49	69	20	NS																									
69	70	1	PM99C-031	2.72	29.58	55.59	82	186	6.1	3.8	705	1.92	7	2.1	39.9	2.58	1.32	1.08	0.62	17	67.4	1	1.35	0.04	0.16	3.7	6	< .01
70	76.5	6.5	NS																									
76.5	78	1.5	PM99C-032	9	180.43	5836.8	8082.1	8051	7.8	6.7	2071	3.41	131	41	132.5	55.23	9.09	6.37	0.58	28.6	159.5	2	1.37	0.03	0.28	5.3	46	1.15
78	83.7	5.7	NS																									
83.7	84.7	1	PM99C-033	9.53	50.91	61.15	109.4	155	4	3.8	262	1.74	3.8	12.3	28.8	0.9	1.2	0.15	0.4	22.5	37.5	1	0.54	0.1	0.17	10.3	< 5	< .01
84.7	100	15.3	NS																									
100	101	1	PM99C-034	7.62	42.73	64.11	104	255	5.6	3	249	1.47	2.7	8.8	23	0.65	2.05	0.66	0.33	23.6	32.5	1	0.59	0.07	0.22	9.5	5	0.06
101	107	6	NS																									
107	108.5	1.5	PM99C-035	8.07	16.77	33.56	52.1	134	5.7	4.5	229	2.65	10.1	3.8	17.2	0.23	1.28	0.9	0.55	21.6	43.9	2	0.82	0.11	0.24	10.8	< 5	1.7
108.5	112.5	4	NS																									
112.5	114	1.5	PM99C-036	5.14	36.74	388.22	544	1226	5.5	4.6	574	4.71	258.9	36	43.4	1.92	4.17	3.06	0.61	17.2	65.3	4	1.3	0.03	0.19	5.8	6	1.86
114	121.6	7.6	NS																									
121.6	122.1	0.5	PM99C-037	4.31	213.92	31.82	172.5	355	6.5	5.2	212	2.27	4.2	22.3	31.9	1	0.48	0.53	0.39	22.8	76.3	1	0.56	0.11	0.2	9.1	< 5	0.06
122.1	125	2.9	NS																									
125	125.5	0.5	PM99C-038	8.8	113.21	51.78	73.6	337	8.7	10.4	370	2.07	6.4	6.6	40.9	0.24	0.64	6.94	0.53	28.4	98.7	2	0.94	0.1	0.37	9.3	< 5	0.75
125.5	125.65	0.15	PM99C-039	6.51	45.56	45.33	34.7	192	5.6	10	239	2.04	4.3	47.8	66	0.16	1.05	3	1.82	20.3	58.3	14	0.69	0.06	0.13	12.3	< 5	1.55
125.65	126.15	0.5	PM99C-040	6.81	55.06	48.92	72.2	200	8.9	6.7	299	2.11	6.6	2.5	24.2	0.33	0.86	2.69	0.4	26.4	97.7	1	0.8	0.1	0.4	8.1	< 5	0.27
126.15	128	1.85	NS																									
128	129.5	1.5	PM99C-041	5.22	64.03	51.88	106.2	356	5.6	5.8	287	1.73	10	8.3	90.3	0.56	0.76	2.38	0.35	24	49.6	2	0.63	0.11	0.27	11	< 5	0.31
129.5	130.4	0.9	NS																									
130.4	131	0.6	PM99C-042	8.8	53.25	68.86	104.8	358	8.5	6.7	373	3.02	6	9	95.8	0.66	0.49	2.77	0.89	50.7	47.6	1	0.73	0.13	0.14	5.2	< 5	0.25
131	131.06		NS																									
131.06			EOH																									

Appendix III

Rock Sample Descriptions

Prospector Mountain Project - 1999 Rock Sample Descriptions

Sample #	Sample Type	Rock Type	UTM North	UTM East	Elev. (ft)	Area	Rock Description	Alteration	Sulphide Mineralization	Structure
PM99R-001	Float	Monzonite	6,926,620	355,653	5088	Lightning Grid	Angular boulder 20x30x50 cm, fine-grained, sugary monzonite, pink colour, < 5% mafic minerals		up to 3 - 5 % very fine grained disseminated pyrite	
PM99R-002	Float	Monzonite	6,926,473	354,850	5529	Lightning Grid	Rounded boulder 10x15x15 cm, red stained, biotite-rich monzonite to diorite, little to no quartz, weakly magnetic, no veining Fe-ox coating	Fe-ox staining	Up to 8% fine-grained py, maybe traces of cp	
PM99R-003	Float	Monzonite	6,926,470	354,643	5523	Lightning Grid	Small boulders of qtz-tour-py in monzonite, qtz-xtals with tourmaline vein to 1 cm wide, Fe-ox stained	Fe-ox staining	3-5% py - weathered out	
PM99R-004	Float	Qtz-Monzonite	6,926,523	354,620	5595	Lightning Grid	Angular boulder 30x25x15 cm, plag porphyritic-qtz-eye biotite monzonite. Up to 3-5% biotite to 1 mm. Plag has occassional altered rims (to clay). Aphanitic grey to slightly pink matrix, very siliceous	weak clay alteration of plag rims	2-4% fine-grained disseminated pyrite, trace of cp?	
PM99R-005	Float	Qtz-py-tour-clay	6,927,122	354,744	5910	Lightning Grid	Float boulder 10x10x5 cm in talus near top of ridge. Intensely Fe-ox stained to deep red. Most py weathered out.	Qtz-clay-tour alteration	py weathered out	
PM99R-006	Float	Monzonite	6,927,122	354,775	5900	Lightning Grid	Angular boulder 10x10x5 cm in talus. Tourmaline spotted qtz veined monzonite. Intensely Fe-ox stained		py weathered out	
PM99R-007	Float	Qtz-tour vein	6,927,180	354,755	5790	Lightning Grid	Talus boulder 10x7x3 cm. Intensely Fe-ox stained qtz-tour-py vein. Some py weathered out, approx 10-15% remaining.		Some py weathered out	

Appendix IV

Geochemical Analytical Certificates

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Troymin Resources PROJECT PROSPECTOR MTN. File # 9902554

200 - 622 - 5th Ave S.W., Calgary AB T2P 0M6 Submitted by: Scott Casselman

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm
PM99R-001	4.32	10.06	37.76	29.5	152	3.2	1.7	84	1.00	19.4	16.9	6.8	51.6	10.2	.10	1.22
PM99R-002	5.58	14.14	44.04	45.4	203	6.4	5.8	271	2.21	21.2	3.5	19.0	26.1	26.1	.11	1.95
PM99R-003	9.25	11.60	17.18	176.5	318	3.6	1.1	70	2.31	8.2	.8	4.8	4.4	8.3	.16	9.54
PM99R-004	12.14	9.33	23.49	30.8	109	6.9	3.3	95	1.24	2.7	5.5	.9	20.6	17.9	.02	.86
PM99R-005	6.18	17.89	169.27	82.1	1450	3.5	3.6	99	4.01	77.1	2.0	31.4	11.7	8.0	.27	1.04
PM99R-006	10.76	10.84	61.28	22.7	882	9.7	4.9	72	2.03	58.4	3.6	7.3	27.3	12.1	.07	.89
PM99R-007	24.18	12.29	83.61	23.0	1182	3.1	.8	76	2.70	60.2	1.7	21.3	4.1	8.4	.08	.55
RE PM99R-007	24.29	11.86	82.29	22.1	1187	3.1	.8	77	2.67	58.9	1.7	22.2	4.3	8.6	.07	.52
STANDARD DS2	14.27	127.67	30.15	154.8	234	33.6	12.5	795	3.25	58.2	18.9	194.4	3.5	30.1	11.04	9.58

SAMPLE#	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	S %
PM99R-001	.65	11	.10	.020	12.9	23.7	.06	34.4	.071	3	.28	.082	.15	14.5	.10	11	.3	.05	1.4	.14
PM99R-002	1.15	43	.35	.094	15.2	23.9	.51	147.0	.195	2	.76	.071	.42	7.3	.43	9	.3	.15	3.9	.93
PM99R-003	1.15	2	.06	.013	2.9	27.6	.03	175.5	.004	31	.13	.015	.12	15.5	.11	19	1.5	.04	.3	.74
PM99R-004	.83	25	.08	.042	19.9	28.6	.51	247.5	.107	2	.98	.138	.42	8.7	.33	7	1.1	<.02	3.4	.49
PM99R-005	5.17	5	.02	.035	10.9	18.4	.03	78.4	<.001	5	.39	.006	.32	11.2	.44	16	.5	.39	1.6	1.98
PM99R-006	5.35	<2	.14	.053	21.1	29.2	.01	51.4	.001	23	.21	.035	.16	11.7	.17	7	.9	.26	.5	1.31
PM99R-007	16.77	2	.02	.011	2.7	25.4	.01	73.1	.004	24	.21	.013	.20	29.8	.23	12	.4	.48	.5	1.47
RE PM99R-007	16.98	<2	.02	.010	2.7	24.7	.01	71.4	.003	23	.20	.014	.19	31.4	.23	13	.4	.50	.5	1.42
STANDARD DS2	10.62	75	.56	.087	13.4	162.7	.56	143.7	.114	1	1.80	.037	.16	7.2	2.08	240	2.4	1.85	5.7	.02

30 GRAM SAMPLE IS DIGESTED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 600 ML WITH WATER, ANALYSIS BY ICP/ES & MS.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL.
- SAMPLE TYPE: ROCK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 28 1999 **DATE REPORT MAILED:** Aug 10/99 **SIGNED BY** C. L. ....D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data L FA ____

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Troymin Resources PROJECT PROSPECTOR MTN. File # 9902553 Page 1

200 - 622 - 5th Ave S.W., Calgary AB T2P 0M6 Submitted by: Scott Casselman

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	S %
PM99C-001	11.60	59.26	57.30	160.6	257	5.3	6.8	313	2.53	6.5	15.9	17.4	35.8	24.3	.90	.83	.17	66	.43	.087	20.7	32.5	.47	90.8	.176	5	.72	.153	.48	10.4	.38	<5	<.1	<.02	3.9	.04
PM99C-002	9.07	36.08	40.53	92.3	169	6.7	6.5	288	2.43	7.2	16.0	8.1	38.5	53.3	.51	1.28	.41	60	.43	.084	21.5	31.3	.50	74.2	.162	3	.70	.096	.45	8.7	.34	<5	<.1	.04	3.9	.22
PM99C-003	7.56	29.86	36.37	81.3	158	5.5	6.6	294	2.30	5.3	16.6	7.2	38.5	50.3	.43	1.14	.56	62	.47	.085	21.8	29.1	.55	90.0	.167	3	.92	.117	.51	9.6	.37	<5	<.1	.12	4.3	.06
PM99C-004	3.74	47.00	25.64	72.4	136	5.6	8.7	340	2.68	6.9	14.5	7.9	36.9	112.2	.42	1.13	.51	62	.62	.086	21.1	26.5	.56	68.1	.084	2	1.49	.060	.39	4.0	.34	14	<.1	.04	5.4	<.01
PM99C-005	1.84	34.52	25.75	70.2	91	8.2	6.0	301	2.54	3.3	11.5	5.3	36.2	142.0	.27	.84	.14	67	.59	.085	19.4	26.4	.58	88.7	.130	1	1.44	.089	.43	5.8	.35	10	<.1	.03	5.0	<.01
PM99C-006	2.18	31.43	31.25	79.1	350	6.6	7.5	333	2.61	4.9	14.1	5.4	37.5	92.3	.41	1.87	.42	69	.82	.083	23.1	25.9	.61	75.8	.091	<1	1.88	.056	.40	4.5	.34	19	<.1	.04	6.5	<.01
PM99C-007	4.39	26.63	21.80	49.6	99	7.6	6.2	227	2.23	9.1	14.2	2.6	37.4	19.5	.16	.77	.17	60	.39	.081	18.6	27.3	.49	75.1	.145	2	.64	.092	.45	8.8	.41	<5	<.1	<.02	3.8	.06
PM99C-008	7.50	19.33	25.32	58.0	124	6.8	6.1	301	2.33	9.9	13.7	1.5	36.5	41.9	.23	.93	.28	63	.52	.084	17.2	30.5	.50	102.2	.161	1	.74	.110	.47	7.2	.39	<5	<.1	.02	3.9	.05
PM99C-009	4.82	21.54	24.26	46.0	93	5.6	5.0	277	2.15	25.0	17.2	2.2	43.8	118.4	.20	1.50	.45	51	.74	.074	17.6	27.2	.34	64.4	.093	<1	.09	.097	.26	8.6	.50	5	.1	.04	3.8	.14
PM99C-010	5.31	58.56	20.94	36.8	159	8.3	11.6	208	2.04	12.6	16.7	6.3	37.0	997.4	.14	.76	.92	32	1.09	.072	17.4	30.2	.47	153.7	.077	5	1.69	.140	.34	8.1	.36	6	.7	.34	3.7	1.05
RE PM99C-010	5.39	58.18	21.19	36.5	162	9.4	11.8	208	2.04	13.2	16.6	5.0	37.5	1020.8	.17	.80	.93	32	1.09	.072	18.0	30.1	.47	153.7	.080	6	1.68	.139	.38	8.2	.36	6	.8	.34	4.0	1.12
RRE PM99C-010	5.38	58.44	20.50	36.8	161	8.4	11.8	202	2.04	13.2	16.2	5.6	36.8	1034.6	.17	.77	.89	32	1.08	.072	17.4	30.4	.46	146.2	.073	6	1.61	.131	.36	8.2	.34	<5	.7	.35	3.8	1.06
PM99C-011	6.03	37.97	24.09	40.1	111	5.7	6.8	217	2.14	19.6	16.5	3.1	42.8	183.0	.18	.66	.51	50	.51	.077	18.0	26.6	.44	88.7	.144	1	.93	.124	.35	11.7	.32	<5	.4	.05	3.7	.41
PM99C-012	5.44	21.71	24.79	56.1	100	7.9	5.6	338	2.07	11.9	11.3	3.7	28.6	37.1	.23	1.25	.30	49	1.26	.078	14.9	30.1	.41	117.3	.130	2	1.10	.216	.24	8.8	.17	<5	.2	<.02	4.0	.11
PM99C-013	5.04	39.56	33.67	68.1	220	6.1	8.8	234	2.80	16.0	16.8	4.3	23.8	130.6	.35	1.17	1.29	34	1.72	.066	15.5	17.9	.43	109.3	.060	<1	1.75	.088	.22	5.3	.24	12	.7	.08	4.0	1.67
PM99C-014	4.42	10.14	21.78	39.8	85	7.3	4.4	226	1.85	11.2	12.9	2.2	32.6	476.2	.23	1.08	.32	42	2.04	.079	17.6	18.5	.39	136.8	.058	<1	2.68	.079	.33	3.0	.61	24	.2	.08	5.4	.12
PM99C-015	4.48	18.40	17.70	36.8	77	4.4	5.6	220	1.96	12.1	20.7	4.4	44.0	77.8	.17	1.02	.34	36	1.95	.081	22.9	15.3	.30	56.2	.028	2	2.66	.077	.29	2.5	.33	21	<.1	.03	5.3	.19
PM99C-016	6.93	19.01	25.81	36.3	80	8.9	4.0	243	1.95	9.4	8.1	2.9	33.1	69.2	.14	1.30	.32	49	1.01	.073	13.8	25.8	.42	101.2	.112	<1	1.49	.110	.34	6.2	.27	21	.2	<.02	4.8	.03
PM99C-017	1.24	15.72	27.88	39.7	62	4.8	4.6	352	1.85	6.6	4.6	1.6	28.4	193.5	.21	.91	.32	47	2.41	.069	13.6	17.8	.45	118.5	.049	<1	2.62	.085	.26	2.9	.19	44	.3	.04	5.6	.02
PM99C-018	1.57	17.46	23.21	40.1	77	7.7	4.1	215	1.94	8.0	4.9	1.4	29.6	123.2	.18	1.01	.33	51	2.47	.114	15.6	21.4	.40	95.8	.036	<1	3.26	.097	.21	2.3	.16	44	.2	.03	5.7	<.01
PM99C-019	.83	20.67	29.10	43.7	71	4.0	4.8	300	1.78	6.9	3.2	1.3	20.3	180.6	.18	.91	.44	42	2.10	.058	13.4	14.8	.41	104.8	.022	<1	2.80	.068	.16	1.3	.12	43	.2	.04	5.8	.02
PM99C-020	8.87	138.89	48.07	65.0	264	7.0	12.7	281	1.29	22.3	7.3	17.6	13.9	89.4	.41	1.50	.84	19	.91	.040	10.8	21.0	.23	118.1	.064	4	1.14	.193	.17	6.9	.17	7	.4	.04	2.7	.36
PM99C-021	8.82	136.18	42.41	67.3	319	4.3	16.8	225	2.03	33.5	5.0	4.9	16.5	30.8	.28	3.69	.54	22	.27	.039	12.6	20.3	.20	88.4	.086	3	.51	.123	.20	9.1	.31	<5	.7	.07	2.7	.83
PM99C-022	9.09	32.93	27.35	44.6	125	6.5	3.3	240	1.59	16.7	5.4	4.2	15.1	26.5	.20	1.52	.16	25	.30	.039	11.9	23.6	.23	98.2	.094	1	.46	.098	.24	9.9	.22	<5	.2	<.02	2.6	.05
PM99C-023	5.91	45.89	26.48	64.0	116	4.7	4.2	211	2.02	3.1	19.6	5.5	41.1	13.5	.14	.61	.41	51	.33	.071	23.2	23.6	.38	56.2	.114	1	.56	.072	.36	8.0	.32	<5	<.1	<.02	3.6	.01
RE PM99C-023	6.06	47.25	29.17	63.6	120	4.7	4.3	205	2.03	2.8	19.9	4.8	41.8	14.0	.15	.62	.43	52	.33	.070	23.7	23.8	.38	58.8	.116	1	.68	.081	.35	8.3	.33	<5	<.1	<.02	3.6	.02
RRE PM99C-023	6.11	48.60	29.58	62.5	121	6.2	4.3	204	2.02	2.9	20.1	5.4	43.2	13.9	.15	.62	.44	52	.33	.071	23.7	24.1	.38	58.1	.115	1	.57	.079	.34	8.3	.34	<5	<.1	<.02	3.6	.02
PM99C-024	7.35	60.09	145.59	145.2	413	6.1	3.8	596	1.96	9.5	14.7	13.5	35.6	44.3	.62	3.62	15.37	31	.61	.073	19.5	24.6	.34	63.5	.044	13	.85	.045	.28	6.9	.37	<5	.1	.17	3.3	.19
PM99C-025	30.11	157.63	57.51	78.0	367	5.0	5.3	308	1.80	21.3	20.5	16.4	38.4	23.0	.34	2.62	25.12	27	.74	.059	21.2	23.9	.35	53.2	.059	6	.87	.100	.24	9.8	.38	<5	.7	.19	3.1	.60
PM99C-026	6.43	97.33	51.69	61.5	234	7.7	3.1	272	1.75	6.5	19.6	17.6	46.0	21.8	.33	2.71	4.18	33	.64	.048	20.8	22.8	.28	37.2	.057	2	1.01	.077	.20	6.3	.25	<5	.6	.04	3.4	.09
PM99C-027	3.24	36.39	60.52	46.4	897	4.2	4.2	332	2.08	4.6	18.1	4.1	47.8	23.0	.14	1.73	4.56	39	.37	.054	20.2	22.2	.30	67.1	.062	2	.95	.079	.26	8.9	.32	<5	<.1	.06	3.9	.01
PM99C-028	9.02	23.30	55.72	61.7	2249	5.5	5.7	591	2.34	35.1	28.9	5.2	38.0	17.0	.63	5.83	10.90	15	.27	.049	30.6	17.0	.09	48.5	.002	4	.62	.009	.20	7.3	.33	<5	.4	.38	1.6	.01
PM99C-029	1.71	30.89	81.95	251.0	234	3.7	3.4	710	1.67	4.5	9.4	2.5	43.5	87.5	2.68	.82	1.10	28	.75	.050	22.8	15.9	.29	51.4	.008	1	1.50	.052	.16	3.8	.16	<5	.2	.03	3.5	<.01
PM99C-030	9.06	51.45	99.30	196.3	501	9.6	4.0	952	1.76	9.8	20.0	2.9	40.1	26.9	1.20	1.18	5.83	24	1.06	.050	21.3	23.6	.34	33.3	.021	4	.86	.049	.23	7.3	.31	<5	.1	.05	3.4	.39
STANDARD DS2	14.39	129.42	31.51	153.8	254	36.0	12.1	800	3.31	61.1	20.5	207.7	3.7	30.5	11.04	9.70	11.67	78	.57	.085	13.5	173.1	.60	150.7	.113	1	1.92	.039	.16	7.8	2.24	279	2.5	1.91	5.8	.03

30 GRAM SAMPLE IS DIGESTED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 600 ML WITH WATER, ANALYSIS BY ICP/ES & MS.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL.
- SAMPLE TYPE: CORE Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 28 1999 DATE REPORT MAILED: Aug 10/99 SIGNED BY. . . . . .D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm
PM99C-031	2.72	29.58	55.59	82.0	186	6.1	3.6	705	1.92	7.0	12.9	2.1	40.7	39.9	2.58	1.32	1.08	31
PM99C-032	9.00	180.43	5836.79	8082.1	8051	7.8	6.7	2071	3.41	131.0	31.5	41.0	30.4	132.6	55.23	9.09	6.37	39
PM99C-033	9.53	50.91	61.15	109.4	155	4.0	3.8	262	1.74	3.8	22.3	12.3	40.5	28.8	.90	1.20	.15	43
PM99C-034	7.62	42.73	64.11	104.0	255	5.6	3.0	249	1.47	2.7	25.2	8.8	54.6	23.0	.66	2.05	.66	23
PM99C-035	8.07	16.77	33.56	52.1	134	5.7	4.5	229	2.65	10.1	25.3	3.8	48.6	17.2	.23	1.28	.90	21
PM99C-036	5.14	36.74	388.22	544.0	1226	5.5	4.6	574	4.71	258.9	15.6	36.0	28.5	43.4	1.92	4.17	3.06	21
PM99C-037	4.31	213.92	31.82	172.5	355	6.5	5.2	212	2.27	4.2	7.5	22.3	22.5	31.9	1.00	.48	.53	47
PM99C-038	8.80	113.21	51.78	73.6	337	8.7	10.4	370	2.07	6.4	8.5	6.6	22.1	40.9	.24	.64	6.94	39
RE PM99C-038	9.03	116.42	50.53	77.1	340	8.2	10.2	375	2.13	6.5	8.4	6.0	23.2	42.3	.25	.64	6.90	39
RRE PM99C-038	8.72	113.95	49.59	74.7	330	8.7	10.0	370	2.09	6.6	8.3	5.7	21.2	40.9	.24	.62	6.85	39
PM99C-039	6.51	45.56	46.33	34.7	192	6.6	10.0	239	2.04	4.3	9.0	47.8	18.8	66.0	.36	1.05	3.00	13
PM99C-040	6.81	55.06	48.92	72.2	200	8.9	6.7	299	2.11	6.6	8.2	2.5	23.8	24.2	.33	.86	2.69	45
PM99C-041	5.22	64.03	51.88	106.2	356	5.6	5.8	287	1.73	10.8	28.1	8.3	44.5	90.3	.56	.76	2.38	29
PM99C-042	8.80	53.25	68.86	104.8	358	8.5	6.7	373	3.02	6.0	2.9	9.0	9.1	95.8	.66	.49	2.77	80
STANDARD DS2	14.27	127.67	30.15	154.8	234	33.6	12.5	795	3.25	58.2	18.9	194.4	3.5	30.1	11.04	9.58	10.62	75

SAMPLE#	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	S %
PM99C-031	.62	.054	31.5	17.0	.27	67.4	.010	1	1.36	.041	.16	3.7	.18	6	<.1	.02	4.4	<.01
PM99C-032	.58	.080	16.8	28.6	.27	159.5	.033	2	1.37	.030	.28	5.3	.36	46	1.1	.05	4.3	1.15
PM99C-033	.40	.061	18.2	22.5	.22	37.5	.101	1	.54	.096	.17	10.3	.13	<5	<.1	<.02	3.0	<.01
PM99C-034	.33	.033	25.8	23.6	.25	32.5	.099	1	.59	.073	.22	9.5	.14	5	<.1	<.02	3.1	.06
PM99C-035	.55	.037	17.7	21.6	.25	43.9	.060	2	.82	.105	.24	10.8	.24	<5	.9	.16	2.8	1.70
PM99C-036	.61	.060	14.1	17.2	.23	65.3	.006	4	1.30	.030	.19	5.8	.24	6	2.0	.25	3.4	1.86
PM99C-037	.39	.073	15.5	22.8	.29	76.3	.119	1	.56	.111	.20	9.1	.25	<5	.2	<.02	3.6	.06
PM99C-038	.53	.068	20.0	28.4	.56	98.7	.162	2	.94	.096	.37	9.3	.73	<5	.7	.09	4.7	.75
RE PM99C-038	.54	.071	19.9	28.0	.57	98.3	.147	2	.94	.093	.36	9.2	.72	<5	.8	.10	4.6	.76
RRE PM99C-038	.53	.068	19.5	27.8	.57	101.6	.148	2	.96	.101	.35	9.0	.70	<5	.7	.10	4.5	.74
PM99C-039	1.82	.063	10.7	20.3	.19	58.3	.064	14	.69	.057	.13	12.3	.27	<5	.9	.11	1.9	1.55
PM99C-040	.40	.072	21.6	26.4	.50	97.7	.142	1	.80	.095	.40	8.1	.75	<5	.4	.03	4.4	.27
PM99C-041	.36	.042	17.1	24.0	.31	49.6	.103	2	.63	.113	.27	11.0	.49	<5	.4	.15	3.4	.31
PM99C-042	.89	.197	16.9	50.7	.43	47.6	.131	1	.73	.134	.14	5.2	.23	<5	.3	.07	4.3	.25
STANDARD DS2	.56	.087	13.4	162.7	.56	143.7	.114	1	1.80	.037	.16	7.2	2.08	240	2.4	1.85	5.7	.02

Sample type: CORE. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

WHOLE ROCK ICP ANALYSIS

Troymin Resources PROJECT PROSPECTOR MTN. File # 9902553 Page 1

200 - 622 - 5th Ave S.W., Calgary AB T2P 0M6 Submitted by: Scott Casselman

SAMPLE#	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	MgO %	CaO %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	Ba ppm	Ni ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	C/TOT %	S/TOT %	SUM %
PM99C-001	66.71	14.88	4.29	1.40	2.79	3.59	4.90	.52	.18	.10	.026	957	20	401	187	20	<10	4	.2	.02	.02	99.77
PM99C-007	67.74	14.78	3.73	1.34	2.61	3.21	5.03	.50	.18	.06	.026	938	<20	376	176	20	<10	3	.5	.02	.02	99.88
PM99C-022	70.28	14.90	2.43	.72	2.24	3.90	4.01	.28	.08	.04	.031	1579	<20	479	100	11	<10	2	.5	.03	.05	99.66
PM99C-023	68.73	14.30	3.47	1.17	2.33	3.26	4.91	.44	.15	.08	.027	794	<20	316	162	21	<10	3	.6	.04	<.01	99.62
RE PM99C-023	68.83	14.32	3.48	1.17	2.34	3.25	5.02	.45	.14	.08	.027	793	<20	317	151	21	<10	3	.6	.01	<.01	99.86
STANDARD SO-15/CSB	49.10	12.82	7.31	7.27	5.88	2.41	1.85	1.66	2.70	1.39	1.061	1968	73	396	713	24	<10	6	5.9	2.45	5.26	99.73

.200 GRAM SAMPLES ARE FUSED WITH 1.5 GRAM OF $LiBO_2$ AND ARE DISSOLVED IN 100 MLS 5% HNO_3. OTHER METALS ARE SUM AS OXIDES.
TOTAL C & S BY LECO (NOT INCLUDED IN THE SUM).
- SAMPLE TYPE: CORE Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 28 1999 **DATE REPORT MAILED:** Aug 10/99 **SIGNED BY**........D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

 Data___ FA ____

ACME ANALYTICAL

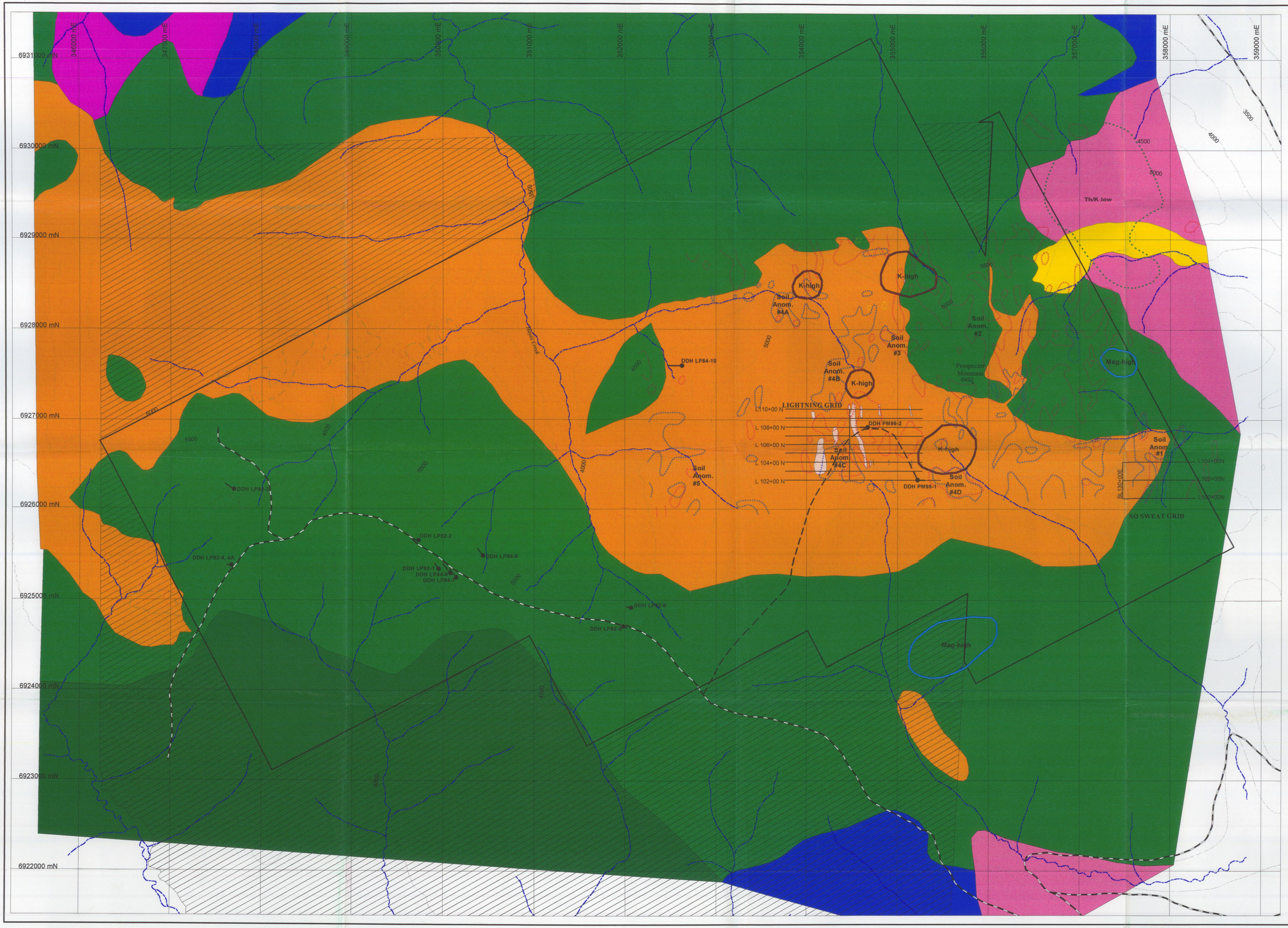
Troymin Resources PROJECT PROSPECTOR MTN. FILE # 9902553

ACME ANALYTICAL

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Ni ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	C/TOT %	S/TOT %	SUM %
PM99C-033	69.34	14.23	3.17	1.02	2.16	3.19	5.04	.37	.13	.09	.026	775	<20	320	140	18	<10	3	.9	.03	.02	99.81
PM99C-034	73.24	12.86	2.27	.60	1.11	3.05	4.80	.29	.06	.06	.027	429	<20	150	113	18	<10	1	1.1	.05	.07	99.55
PM99C-041	71.98	13.69	2.60	.66	1.74	3.18	4.53	.29	.09	.06	.027	761	<20	345	105	17	<10	2	.6	.04	.28	99.59
PM99C-042	59.21	16.55	5.99	2.53	4.82	4.83	3.14	.99	.43	.23	.027	1071	20	825	123	14	<10	4	1.2	.04	.21	100.19
STANDARD SO-15/CSB	49.10	12.82	7.31	7.27	5.88	2.41	1.85	1.66	2.70	1.39	1.061	1968	73	396	713	24	<10	6	5.9	2.45	5.26	99.73

Sample type: CORE.

Data___ FA ____



LEGEND

QUATERNARY
Alluvium

LATE CRETACEOUS TO EARLY TERTIARY PROSPECTOR MOUNTAIN SUITE
Monzonite to Quartz Monzonite
Porphyritic Monzonite Dykes

CARMACKS SUITE
Upper Volcanics - Basalt
Lower Volcanics - Andesite

EARLY CRETACEOUS - DAWSON RANGE SUITE
Quartz Diorite

JURASSIC (?) - BIG CREEK SUITE
Hornblende Monzonite

PROTEROZOIC - PALEOZOIC
Yukon Metamorphic Complex

Anomalous Soil Geochemistry

Archer, Cathro & Associates (1981)
As anomaly
Cu >100 ppm

Occidental Minerals Corp. (1971)
Cu >65 ppm
Mo >4 ppm

Airborne Geophysics
K-high
MAG-high
TH-K-low

DDH LP82-1
Diamond Drill Holes

Lilypad Road (Cat Road)

Cat Trail

Land Status
Native Land Claim

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
S. G. CASSELMAN

094037
DWG ②

1:20000
500 0 500 Meters

TROYMIN RESOURCES LTD.

PROSPECTOR MOUNTAIN PROPERTY
Whitehorse Mining District, Yukon Teritory

PROPERTY GEOLOGY and COMPILATION MAP
NTS: 115 I/5

CASSELMAN GEOLOGICAL SERVICES

October, 1999 — **Figure 4**

LEGEND

LATE CRETACEOUS to EARLY TERTIARY PROSPECTOR MOUNTAIN SUITE

- 16 — Monzonite to Quartz Monzonite
- 16c — Porphyritic Monzonite Dykes
- Pyritic Zones
- PM99-01 — Diamond Drill Holes
- IP Chargeability Anomalies
- Outcrop or Sub-crop
- Swamp or Grassland Boundary and Symbol
- Break-in-slope
- PM99R-001 (23, 45, 67, 10, 98, 87) ▲ 1999 Rock Sample No. (Au, Ag in ppb, Cu, Mo, Pb, Zn in ppm)
- × 1998 Rock Samples

1:2500

100 0 100 Meters

094037

DWG 1

TROYMIN RESOURCES LTD.

PROSPECTOR MOUNTAIN PROPERTY
Whitehorse Mining District, Yukon Teritory

LIGHTNING GRID
GEOLOGY and
ROCK SAMPLE LOCATIONS

NTS: 115 I/5

CASSELMAN GEOLOGICAL SERVICES

October, 1999 — **Figure 5**