BC Geological Survey
Assessment Report
34302

Aztec File #1305-DCS3-HB

# GEOLOGICAL MAPPING / PROSPECTING REPORT

# DCS3-HOOK BAY CU PROPERTY

# NANAIMO MINING DIVISION, BC

## NTS 092F/2W
## LATITUDE 49˚04'58"N / LONGITUDE 124˚53'16"W


Prepared by:

Del W. Ferguson, P.Geo.

**Aztec Geoscience Inc.**
Comox, B.C. V9M 3R5
Tel: 250-339-4457
E-mail: del.aztec@shaw.ca


August 2013

# Executive Summary

This is a geological mapping and prospecting report on the 2013 activities carried out on Mineral Claim DCS3 approximately 20km southwest of Port Alberni, BC, on May 25, 2013. The objective of 2013 exploration works on the DCS3 claim was to identify and document potential westward extension of copper mineralization found along new road heading HB1000 to enhance the economic resource potential of the Hook Bay Cu Property (ARIS Report #33232).

Prospecting and geological mapping done on the property in 2013 indicates that the DCS3 claim is underlain solely by Mid to Upper Triassic (230 to 210 mya) Vancouver Group Karmutsen Formation amygdaloidal basaltic volcanics.

Results from the rock grab sample of quartz-epidote hosted disseminated pyrite mineralization (#1615110) showed Cu values of 65.2ppm. Results from the heavy mineral stream sediment sample (#1615111) showed Cu values of 124ppm. These values are not sufficient on their own merit to promote additional exploration on the DCS3 claim until new roads have been constructed.

# Table of Contents



## Maps



## Appendices

# 1.0 Introduction

## 1.1 Terms of Reference / Objectives

This is a geological mapping and prospecting report on the 2013 activities carried out on Mineral Claim DCS3 approximately 20km southwest of Port Alberni, BC, on May 25, 2013. The objective was to identify and document potential westward extension of copper mineralization found along new road heading HB1000 to enhance the economic resource potential of the Hook Bay property.

## 1.2 Location, Access and Facilities

The DCS3 mineral claim is located over the south-facing aspect of a ridge top separating the Nahmint Valley (south) and Cook Creek Valley (north), on the west side of Alberni Inlet, approximately 20km southwest of Port Alberni, BC. (Latitude 49º04'58˝N, Longitude 124º53'16˝W). This area is in the southwestern region of Vancouver Island, in the southwest corner of British Columbia, Canada. The claim is accessed off Canal Main along the west side of Alberni Inlet and Hook Bay 1000 forestry road branching westward off the mainline.

Port Alberni has a good infrastructure of housing, industrial and servicing facilities required by a mining operation.

## 1.3 Legal Property Description & Ownership

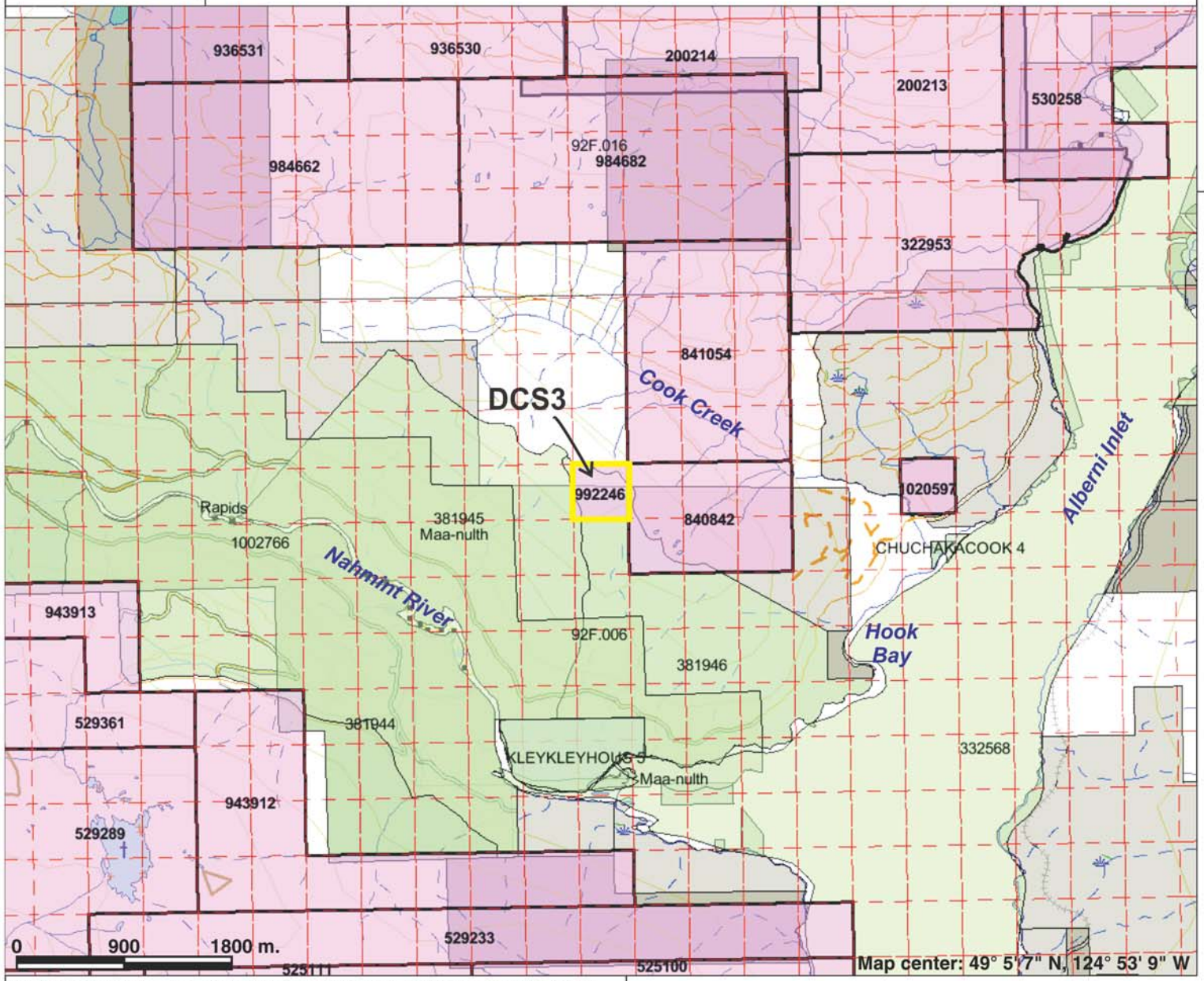
The surface rights are on crown lands and existing roads are maintained by local forestry tenure holders. New roads are currently proposed through the claim area. This Mineral Tenure 992246 (Table 1) held by Delbert Ferguson, covers an area 21.16 ha (52.3 acres) on the ridge top.

**Table 1 – DCS3 Claim Tenure as of June 1, 2013**

| Tenure # | Ownership | Hectares | Expiry Date |
|---|---|---|---|
| 992246 | Delbert Ferguson | 21.16 | June 1, 2019 |

Delbert Ferguson has a 50/50 involvement in these claims with David Preedy, prospector of Port Alberni, BC.

# Figure 1: DCS3 Location Map





## Legend

- Indian Reserves
- National Parks
- Conservancy Areas
- Parks
- Federal Transfer Lands
- MTO Grid (MTO)
- Mineral Tenure (current)
- Mineral Claim
- Mineral Lease
- Mineral Reserves (current)
- Placer Claim Designation
- Placer Lease Designation
- No Staking Reserve
- Conditional Reserve
- Release Required Reserve
- Surface Restriction
- Recreation Area
- Others
- First Nations Treaty Related Lands
- First Nations Treaty Lands
- Survey Parcels
- BCGS Grid
- Contours (1:250K)
- Contour - Index
- Contour - Intermediate
- Areaof Exclusion
- Areaof Indefinite Contours
- Transportation - Points (TRIM)
- Helipad
- Transportation - Lines (TRIM)

N

Scale: 1:50,000

## 1.4 Physiography

The study area is in the Vancouver Island Range Mountains, rising steeply off the Alberni Inlet. The claim rests on a hummocky bedrock-controlled ridge top which descends steeply southward into the Nahmint Valley. Elevations within the claim range from 800m in the south to 960m on the ridge top in the northwest corner.

New road construction and logging is to take place in the area over the next few years. Bedrock outcrops are abundant and the surficial mantle of colluvial origin is commonly thin occurring as pockets between bedrock hummocks.

## 1.5 Climate and Vegetation

The area is covered dominantly by old growth stands of Douglas Fir and Western Hemlock, Mountain Hemlock and Western Red Cedar of the Coastal Western Hemlock Biogeoclimatic Zone. The climate is maritime, with an annual precipitation of 2023mm rainfall, 1112cm snowfall (Environment Canada Climate Normals, 1971-2000 – Port Alberni-Robertson Creek weather station ~19km NE). Seasonal precipitation patterns are typical of coastal British Columbia. Precipitation occurs mainly as rain, but transient snow accumulations may also occur down to sea-level, mainly between November and March.

## 1.6 Acknowledgements

The author would like to acknowledge the work of David Preedy, Tim Wickman and Parker Schachtel in conducting effective geological mapping and prospecting over this area on May 25, 2013.

## 1.6 Property History

There is no former history on this claim. It lies immediately west of the Hook Bay Cu Property (ARIS Report #33232). In 2010, new forestry roads leading up the steep ridge side west of Hook Bay reached the vicinity of the south end of the Hook Bay Cu Property. In the fall of 2010, Dave Preedy made a discovery along roadside outcrops along the newly constructed HB1000 in the south end of the claims. Quartz veinlets and associated quartz-carbonate “blow-outs” of chalcopyrite, pyrite and bornite were exposed in veinlets through altered basalt pyroclastics (photos 1, 2). These were very narrow to hairline and pinching and swelling into pods. The initial claim (Hookie) was staked on December 14, 2010, and the northern extension (Cookie) was added shortly thereafter on December 17, 2010. With active road construction in the area throughout much of 2011, little exploration work was completed until year end. The DCS3 claim was added to the southwestern edge of the Hook Bay Cu Property on June 1, 2012 to cover an area where new roads are proposed to be excavated.

# 2.0 Regional Geology & Mineralization

The regional 2005 BCGS mapping of this area (Figure 3) indicates that the DCS3 Property lies within Mid to Upper Triassic (230 to 210 mya) Vancouver Group Karmutsen Formation (uTrVK) basaltic volcanics.

Regional Geochemical Sampling (RGS) shows the region to be highly anomalous in Copper.

A Minfile search reveals that there are several other Cu-rich mineral prospects in the area, the closest and most notable being:

The **Macktush Property** (Minfile 092F 012) lies several km north of the Hook Bay Property ~2km west of Alberni Inlet. Similarly this developed prospect is underlain by Karmutsen Formation volcanics, intruded by granodioritic rocks of the Island Plutonic Suite. The volcanic rocks consist of dark green massive basalt and andesite interbedded with or intruded by porphyritic felsic flows or dykes striking 030. The mafic volcanics contain disseminated pyrite and epidote veinlets with local disseminated chalcopyrite. Sulphide lenses are <0.6m wide and of limited lateral extent. At least 4 quartz veins up to 0.8m wide striking 030º to 080º occur over an area of ~150 to 200m. The Macktush vein sampled is hosted strongly silicified diorite has measured reserves of 137,891 tonnes grading 18.52 gm/t Au, 78.52 gm/t Ag and 0.75% Cu. The Fred vein has inferred reserves of 166,000 tonnes grading 12.38 gm/t Au, 48.8 gm/t Ag and 0.695% Cu. The David vein has inferred reserves of 54,000 tonnes grading 16.24 gm/t Au, 61.24 gm/t Ag and 1.02% Cu.

The **Three Jays Property** (Minfile 092F 140) is a past producer (1898 to 1902), several kilometres south of Hook Bay on the west side of Alberni Inlet ~2.5km south of Nahmint Bay. In this area, Vancouver Group Quatsino limestones are underlain by Karmutsen basalts and interbedded tuffs. Lower Jurassic Bonanza Group andesite tuffs, agglomerates and flows are also present. These rocks are folded, faulted and intruded by a 60m wide granodiorite dyke and by several diorite and quartz-feldspar porphyry bodies (Island Plutonic Suite). Skarn mineralization is hosted in limestone and overlying Bonanza volcanics and in Karmutsen tuff horizons. Mineralization is high grade chalcopyrite, magnetite, pyrite, bornite, epidote, garnet and actinolite. Seven major ore shoots in 3 parallel zones are separated by ~30m and ore deposits are 1500m in length. The easterly trend of the ore has steep dips (80ºS) and plunges to the west. Production was reported as 328,244lbs Copper, 1,929gms Au (62 oz.) and 75,207gms Ag (2,418 oz.).

# 3.0 Property Geology & Mineralization

Prospecting and geological mapping done on the property in 2013 indicates that the DCS3 claim is underlain solely by Mid to Upper Triassic (230 to 210 mya) Vancouver Group Karmutsen Formation amygdaloidal basaltic volcanics (see Prospecting/Mapping Survey Map).

# 4.0 2013 Prospecting Survey

On May 25, 2013 Dave Preedy, Del Ferguson, Tim Wickman and Parker Schachtel engaged in an initial prospecting survey along a flagged proposed road heading (HB1000) through the south and central portions of claim DCS3. Mapping and prospecting determined that the area is underlain by dark grey-green and maroon amygdaloidal basalts.
One occurrence along the road (49°05.027'N/124°53.043'W) showed random vuggy quartz-epidote veining with minor disseminated pyrite and limonite staining (photo 1). This was sampled #1615110 and sent to ACME Labs for analysis by Aqua Regia digestion – ICP/MS. No other area of potential mineralization was found on this survey.

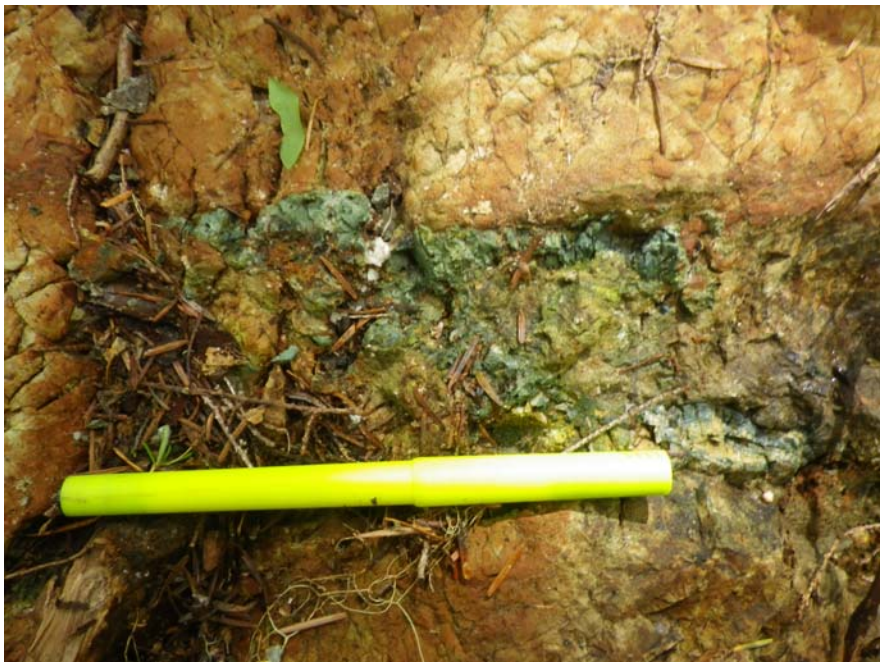


Photo 1: Quartz-epidote veins through amygdaloidal basalts.

On the way back down to the existing HB1000 road from the claims, the prospectors took the opportunity to obtain a panned, heavy stream sediment sample from the main stream flowing south off the claim (approximate location = 49°04.9'N/124°53.03'W. This stream sediment sample #1615111 was sent to ACME Labs for analysis by Aqua Regia digestion – ICP/ES.

# 5.0 Results & Recommendations

The DCS3 claim borders the southwest edge of the Hook Bay Property, which is in a regionally significant area of high copper values (>95 percentile RGS) extending along the western side of Alberni Inlet. Although no work on the Hook Bay Cu Property claims was known prior to the 2011 discovery (5.995% Cu grab sample), recent research revealed that there was previous interest on these claims by Noranda/Mattagami in the mid 1980s. At this time further mapping work was recommended.

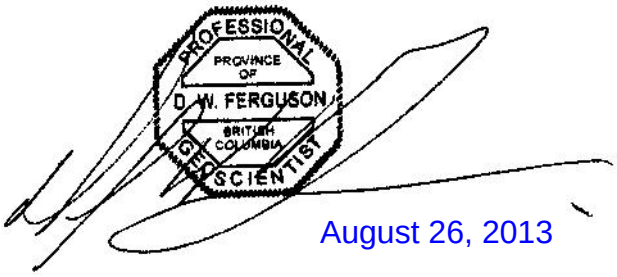
Mattagami's Zone 2 had several soil geochemical anomalies along the south side of Cook Creek in the vicinity of a 10cm po-py-cpy vein (lense) with assay values of 0.54 oz/ton Ag and 8.1% Cu. This potential sulphide target occurred on the contact between lapilli tuff and basalt. Follow-up work included detailed mapping, geochemical sampling and IP surveys if feasible.

Mattagami's Zone 1 had hand specimens of up to 1.3 oz/ton Ag and 5.8% Cu in sulphide pods. Potential of the zone is thought to lie at depth with the potential union of individual mineral-rich shears. An IP survey would be required to confirm such a theory.

Results from the rock grab sample of quartz-epidote hosted disseminated pyrite mineralization (#1615110) showed Cu values of 65.2ppm. Results from the heavy mineral stream sediment sample (#1615111) showed Cu values of 124ppm. These values are not sufficient on their own merit to promote additional exploration on the DCS3 claim until new roads have been constructed.

Respectfully submitted,

**AZTEC GEOSCIENCE INC.**



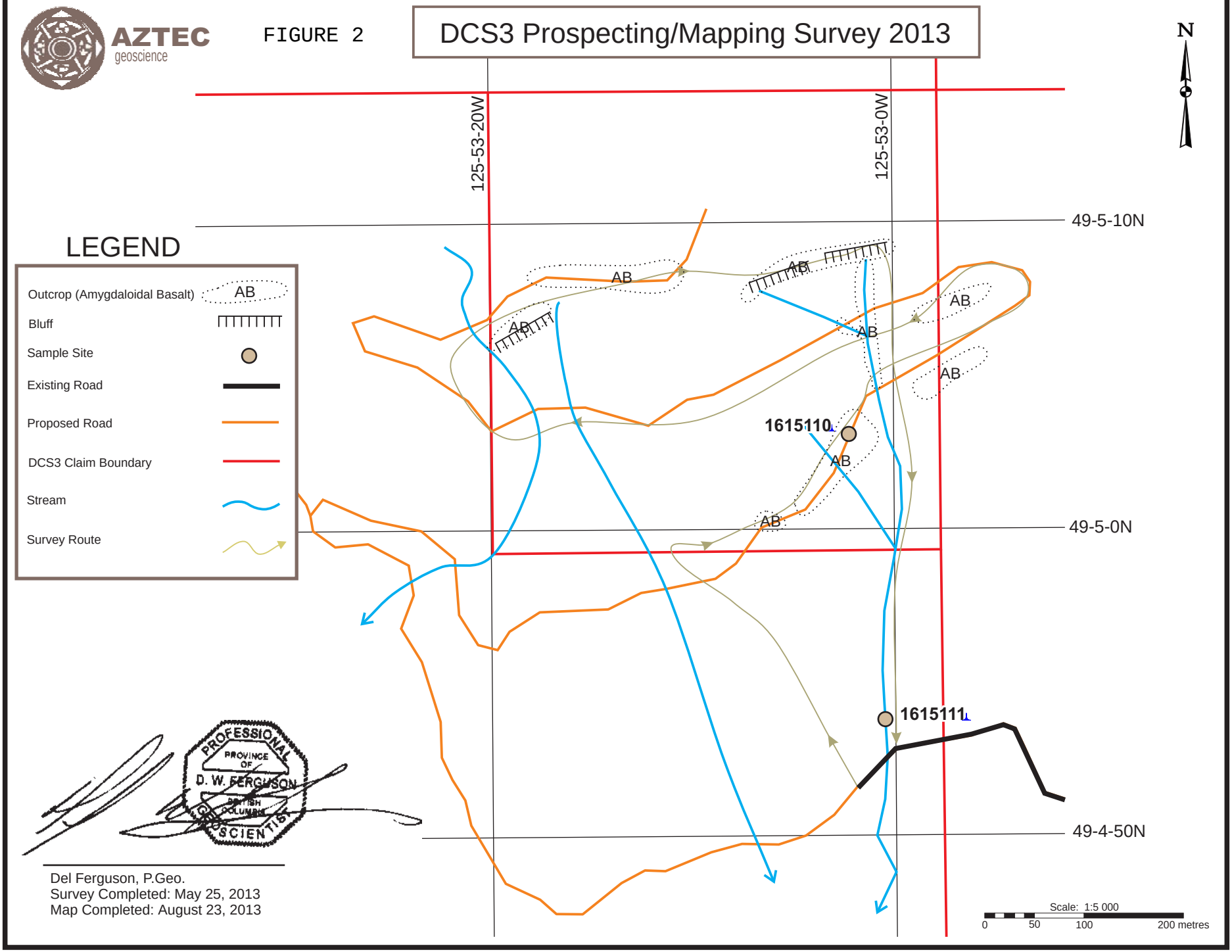

August 26, 2013

Del W. Ferguson, P.Geo.

AZTEC geoscience

FIGURE 2

# DCS3 Prospecting/Mapping Survey 2013




PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
D. W. FERGUSON

Del Ferguson, P.Geo.
Survey Completed: May 25, 2013
Map Completed: August 23, 2013

# APPENDIX I
# STATEMENT OF QUALIFICATIONS

I, Delbert Wells Ferguson, of Comox, Province of British Columbia, do hereby state that:

I am a practicing Geoscientist.

I have practiced my profession for over 34years throughout Canada and mostly in British Columbia.

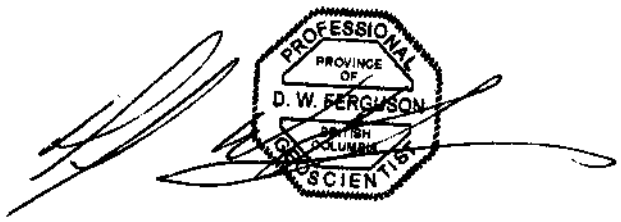
I am a Fellow Member of the Geological Association of Canada (GAC).

I am a Professional Geoscientist, registered with the Association of Engineers and Geoscientists of British Columbia.

I received an Honours B.Sc. Degree in Geology from the University of Western Ontario, London, Ontario, Canada in 1979.

This report was prepared by me, based on researched historical data and prospecting visitations to the DCS3 claim.

I am currently the Mineral Title holder of the DCS3 claim and share a 50% interest in the property.




Delbert Wells Ferguson, P.Geo., FGAC

Dated August 26, 2013

# APPENDIX 2 - STATEMENT OF COSTS

## DCS3 GEOLOGY- PROSPECTING SURVEY - 2013

| Mapping/Prospecting | Personnel | Rate | Man Days | Total |
|---|---|---|---|---|
| 1 Geologist | | 500 | 1 | 500.00 |
| 1 Prospector | | 400 | 1 | 400.00 |
| 2 field assistants | | 250 | 2 | 500.00 |
| Expenses | | | | |
| | Km | Rate | | |
| Travel | 302 | 0.5 | | 151.00 |
| Sample Shipment | | | | 5.04 |
| Analysis | | | | |
| Acme Labs | | | | |
| | Rock Sample | | | 23.38 |
| | Stream Sed Sample | | | 61.85 |
| Reporting, Research & Mapping | Geologist | Days | | |
| | 500 | 1 | | 500.00 |
| **Total** | | | | **2,141.27** |

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Submitted By: Del Ferguson
Receiving Lab: Canada-Vancouver
Received: July 09, 2013
Report Date: July 20, 2013
Page: 1 of 2

# CERTIFICATE OF ANALYSIS VAN13002497.1

## CLIENT JOB INFORMATION

Project: HOOK
Shipment ID:
P.O. Number
Number of Samples: 10

## SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

| Procedure Code | Number of Samples | Code Description | Test Wgt (g) | Report Status | Lab |
|---|---|---|---|---|---|
| R200-250 | 10 | Crush, split and pulverize 250 g rock to 200 mesh | | | VAN |
| 1DX1 | 10 | 1:1:1 Aqua Regia digestion ICP-MS analysis | 0.5 | Completed | VAN |

## SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

## ADDITIONAL COMMENTS

Invoice To: Aztec Geoscience Inc.
918 Highwood Drive
Comox BC V9M 3R5
CANADA

CC: Dave Preedy

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Project: HOOK
Report Date: July 20, 2013



# CERTIFICATE OF ANALYSIS VAN13002497.1

| | Method | WGHT | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analyte | Wgt | Mo | Cu | Pb | Zn | Ag | Ni | Co | Mn | Fe | As | Au | Th | Sr | Cd | Sb | Bi | V | Ca | P |
| | Unit | kg | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppb | ppm | ppm | ppm | ppm | ppm | ppm | % | % |
| | MDL | 0.01 | 0.1 | 0.1 | 0.1 | 1 | 0.1 | 0.1 | 0.1 | 1 | 0.01 | 0.5 | 0.5 | 0.1 | 1 | 0.1 | 0.1 | 0.1 | 2 | 0.01 | 0.001 |
| 1615101 | Rock | 0.82 | <0.1 | 44.9 | 0.5 | 12 | <0.1 | 13.1 | 10.2 | 636 | 2.96 | 0.8 | <0.5 | <0.1 | 2 | <0.1 | <0.1 | <0.1 | 84 | 0.08 | 0.027 |
| 1615102 | Rock | 1.42 | 1.0 | 8195 | 3.3 | 124 | 2.4 | 174.4 | 156.4 | 561 | 8.83 | 50.0 | 13.9 | 0.1 | 22 | 0.6 | 0.3 | 0.2 | 142 | 1.09 | 0.050 |
| 1615103 | Rock | 1.86 | 0.2 | 3950 | 2.4 | 85 | 1.4 | 82.0 | 39.8 | 558 | 4.55 | 9.1 | 3.6 | 0.1 | 27 | 0.4 | 0.1 | <0.1 | 128 | 2.47 | 0.056 |
| 1615104 | Rock | 1.63 | 0.2 | 6250 | 1.3 | 162 | 2.5 | 82.2 | 71.4 | 692 | 6.60 | 26.0 | 7.2 | 0.1 | 33 | 0.8 | 0.2 | 0.1 | 162 | 1.35 | 0.050 |
| 1615105 | Rock | 1.67 | 0.4 | 2572 | 0.3 | 125 | 0.9 | 105.6 | 103.8 | 1573 | 10.50 | 5.9 | 3.2 | 0.2 | 45 | 0.2 | <0.1 | <0.1 | 224 | 3.21 | 0.056 |
| 1615106 | Rock | 0.95 | 0.1 | 193.7 | 1.5 | 37 | 0.1 | 37.3 | 17.6 | 450 | 3.49 | 1.9 | 9.5 | 0.3 | 30 | 0.3 | <0.1 | <0.1 | 157 | 5.56 | 0.045 |
| 1615107 | Rock | 1.06 | 0.4 | 190.1 | 3.5 | 19 | 0.1 | 31.6 | 21.5 | 308 | 3.97 | 1.4 | 22.0 | 0.2 | 28 | 0.1 | 0.1 | <0.1 | 119 | 7.62 | 0.041 |
| 1615108 | Rock | 2.28 | 0.6 | 8852 | 1.0 | 43 | 0.8 | 122.6 | 103.9 | 469 | 16.38 | 10.3 | 39.1 | 0.2 | 39 | <0.1 | 0.1 | 0.3 | 212 | 1.44 | 0.063 |
| 1615109 | Rock | 1.58 | 0.4 | 1090 | 2.0 | 29 | 0.3 | 42.8 | 141.6 | 398 | 6.95 | 5.5 | 6.2 | <0.1 | 85 | <0.1 | 0.2 | 0.3 | 69 | 3.86 | 0.020 |
| 1615110 | Rock | 0.90 | 0.3 | 65.2 | 3.0 | 32 | <0.1 | 21.5 | 13.4 | 587 | 2.96 | 4.2 | 26.4 | 0.2 | 11 | <0.1 | 0.3 | <0.1 | 122 | 1.64 | 0.018 |

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Project: HOOK
Report Date: July 20, 2013



# CERTIFICATE OF ANALYSIS VAN13002497.1

| | Method | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analyte | La | Cr | Mg | Ba | Ti | B | Al | Na | K | W | Hg | Sc | Tl | S | Ga | Se | Te |
| | Unit | ppm | ppm | % | ppm | % | ppm | % | % | % | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm |
| | MDL | 1 | 1 | 0.01 | 1 | 0.001 | 20 | 0.01 | 0.001 | 0.01 | 0.1 | 0.01 | 0.1 | 0.1 | 0.05 | 1 | 0.5 | 0.2 |
| 1615101 | Rock | 1 | 20 | 0.70 | 4 | 0.018 | <20 | 1.40 | 0.001 | 0.01 | <0.1 | <0.01 | 15.4 | <0.1 | <0.05 | 4 | <0.5 | <0.2 |
| 1615102 | Rock | <1 | 73 | 1.84 | 8 | 0.224 | <20 | 2.96 | 0.060 | 0.02 | <0.1 | 0.80 | 9.1 | <0.1 | 2.30 | 10 | 3.4 | <0.2 |
| 1615103 | Rock | <1 | 40 | 1.74 | 6 | 0.282 | <20 | 3.42 | 0.034 | 0.01 | <0.1 | 0.20 | 8.9 | <0.1 | 0.21 | 11 | 1.1 | <0.2 |
| 1615104 | Rock | 2 | 47 | 2.02 | 3 | 0.336 | <20 | 3.19 | 0.044 | <0.01 | <0.1 | 0.45 | 8.9 | <0.1 | 0.65 | 11 | 1.4 | <0.2 |
| 1615105 | Rock | 2 | 94 | 4.04 | 13 | 0.117 | <20 | 5.51 | 0.010 | 0.07 | <0.1 | 0.05 | 28.2 | <0.1 | 0.06 | 16 | <0.5 | <0.2 |
| 1615106 | Rock | 4 | 15 | 0.67 | 10 | 0.443 | <20 | 3.82 | 0.023 | <0.01 | <0.1 | 0.01 | 6.0 | <0.1 | <0.05 | 16 | <0.5 | <0.2 |
| 1615107 | Rock | 3 | 34 | 0.64 | 91 | 0.246 | <20 | 3.20 | 0.008 | <0.01 | <0.1 | 0.26 | 6.1 | <0.1 | 1.91 | 12 | <0.5 | <0.2 |
| 1615108 | Rock | 2 | 62 | 0.93 | 2 | 0.282 | <20 | 2.05 | 0.028 | <0.01 | <0.1 | 0.34 | 5.2 | <0.1 | 1.52 | 12 | 3.3 | <0.2 |
| 1615109 | Rock | <1 | 62 | 0.98 | 4 | 0.472 | <20 | 1.28 | 0.001 | <0.01 | <0.1 | 0.27 | 4.7 | <0.1 | 5.48 | 4 | 5.8 | <0.2 |
| 1615110 | Rock | <1 | 44 | 1.04 | 8 | 0.284 | <20 | 1.95 | 0.010 | <0.01 | 0.2 | <0.01 | 6.0 | <0.1 | <0.05 | 9 | <0.5 | <0.2 |

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Project: HOOK
Report Date: July 20, 2013



# QUALITY CONTROL REPORT VAN13002497.1

| | | Method | WGHT | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Analyte | Wgt | Mo | Cu | Pb | Zn | Ag | Ni | Co | Mn | Fe | As | Au | Th | Sr | Cd | Sb | Bi | V | Ca | P |
| | | Unit | kg | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppb | ppm | ppm | ppm | ppm | ppm | ppm | % | % |
| | | MDL | 0.01 | 0.1 | 0.1 | 0.1 | 1 | 0.1 | 0.1 | 0.1 | 1 | 0.01 | 0.5 | 0.5 | 0.1 | 1 | 0.1 | 0.1 | 0.1 | 2 | 0.01 | 0.001 |
| Pulp Duplicates | | | | | | | | | | | | | | | | | | | | | | |
| 1615110 | Rock | | 0.90 | 0.3 | 65.2 | 3.0 | 32 | <0.1 | 21.5 | 13.4 | 587 | 2.96 | 4.2 | 26.4 | 0.2 | 11 | <0.1 | 0.3 | <0.1 | 122 | 1.64 | 0.018 |
| REP 1615110 | QC | | | 0.2 | 69.0 | 3.0 | 32 | <0.1 | 23.8 | 13.6 | 601 | 3.03 | 4.5 | 25.1 | 0.2 | 11 | 0.2 | 0.3 | <0.1 | 126 | 1.68 | 0.018 |
| Reference Materials | | | | | | | | | | | | | | | | | | | | | | |
| STD DS9 | Standard | | | 12.8 | 104.9 | 124.8 | 303 | 1.5 | 38.8 | 7.5 | 578 | 2.36 | 24.7 | 186.7 | 5.9 | 72 | 2.4 | 4.3 | 5.6 | 40 | 0.72 | 0.078 |
| STD OREAS45EA | Standard | | | 1.6 | 714.7 | 14.6 | 31 | 0.3 | 393.5 | 54.5 | 428 | 23.48 | 9.2 | 60.6 | 11.0 | 4 | <0.1 | 0.2 | 0.4 | 307 | 0.03 | 0.029 |
| STD DS9 Expected | | | | 12.84 | 108 | 126 | 317 | 1.83 | 40.3 | 7.6 | 575 | 2.33 | 25.5 | 118 | 6.38 | 69.6 | 2.4 | 4.94 | 6.32 | 40 | 0.7201 | 0.0819 |
| STD OREAS45EA Expected | | | | 1.78 | 709 | 14.3 | 30.6 | 0.311 | 357 | 52 | 400 | 22.65 | 11.4 | 53 | 10.7 | 4.05 | 0.03 | 0.64 | 0.26 | 295 | 0.032 | 0.029 |
| BLK | Blank | | | <0.1 | 0.3 | <0.1 | <1 | <0.1 | <0.1 | <0.1 | <1 | <0.01 | <0.5 | <0.5 | <0.1 | <1 | <0.1 | <0.1 | <0.1 | <2 | <0.01 | <0.001 |
| Prep Wash | | | | | | | | | | | | | | | | | | | | | | |
| G1 | Prep Blank | | | 0.2 | 3.5 | 6.7 | 45 | <0.1 | 2.7 | 3.7 | 580 | 1.95 | <0.5 | 1.0 | 5.9 | 71 | <0.1 | <0.1 | <0.1 | 37 | 0.71 | 0.070 |
| G1 | Prep Blank | | | 0.1 | 4.6 | 13.9 | 42 | <0.1 | 2.9 | 3.8 | 565 | 1.97 | <0.5 | <0.5 | 5.9 | 69 | <0.1 | <0.1 | <0.1 | 37 | 0.60 | 0.068 |

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Project: HOOK
Report Date: July 20, 2013



# QUALITY CONTROL REPORT VAN13002497.1

| | | Method | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX | 1DX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Analyte | La | Cr | Mg | Ba | Ti | B | Al | Na | K | W | Hg | Sc | Tl | S | Ga | Se | Te |
| | | Unit | ppm | ppm | % | ppm | % | ppm | % | % | % | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm |
| | | MDL | 1 | 1 | 0.01 | 1 | 0.001 | 20 | 0.01 | 0.001 | 0.01 | 0.1 | 0.01 | 0.1 | 0.1 | 0.05 | 1 | 0.5 | 0.2 |
| Pulp Duplicates | | | | | | | | | | | | | | | | | | | |
| 1615110 | Rock | | <1 | 44 | 1.04 | 8 | 0.284 | <20 | 1.95 | 0.010 | <0.01 | 0.2 | <0.01 | 6.0 | <0.1 | <0.05 | 9 | <0.5 | <0.2 |
| REP 1615110 | QC | | <1 | 44 | 1.05 | 9 | 0.292 | <20 | 2.02 | 0.011 | <0.01 | 0.1 | <0.01 | 6.4 | <0.1 | <0.05 | 9 | <0.5 | <0.2 |
| Reference Materials | | | | | | | | | | | | | | | | | | | |
| STD DS9 | Standard | | 12 | 122 | 0.63 | 310 | 0.103 | <20 | 0.95 | 0.082 | 0.40 | 2.2 | 0.19 | 2.2 | 5.1 | 0.16 | 4 | 5.4 | 4.5 |
| STD OREAS45EA | Standard | | 7 | 891 | 0.11 | 141 | 0.090 | <20 | 3.17 | 0.019 | 0.05 | <0.1 | <0.01 | 85.9 | <0.1 | <0.05 | 12 | <0.5 | <0.2 |
| STD DS9 Expected | | | 13.3 | 121 | 0.6165 | 330 | 0.1108 | | 0.9577 | 0.0853 | 0.395 | 2.89 | 0.2 | 2.5 | 5.3 | 0.1615 | 4.59 | 5.2 | 5.02 |
| STD OREAS45EA Expected | | | 8.19 | 849 | 0.095 | 148 | 0.106 | | 3.32 | 0.027 | 0.053 | | 0.34 | 78 | 0.072 | 0.044 | 11.7 | 2.09 | 0.11 |
| BLK | Blank | | <1 | <1 | <0.01 | <1 | <0.001 | <20 | <0.01 | <0.001 | <0.01 | <0.1 | <0.01 | <0.1 | <0.1 | <0.05 | <1 | <0.5 | <0.2 |
| Prep Wash | | | | | | | | | | | | | | | | | | | |
| G1 | Prep Blank | | 14 | 5 | 0.62 | 161 | 0.125 | <20 | 1.04 | 0.120 | 0.52 | <0.1 | <0.01 | 2.5 | 0.3 | <0.05 | 5 | <0.5 | <0.2 |
| G1 | Prep Blank | | 13 | 5 | 0.56 | 161 | 0.122 | <20 | 0.99 | 0.108 | 0.49 | <0.1 | <0.01 | 2.5 | 0.3 | <0.05 | 4 | <0.5 | <0.2 |

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Submitted By: Del Ferguson
Receiving Lab: Canada-Vancouver
Received: July 09, 2013
Report Date: July 16, 2013
Page: 1 of 2

# CERTIFICATE OF ANALYSIS VAN13002498.1

## CLIENT JOB INFORMATION

Project: HOOK
Shipment ID:
P.O. Number
Number of Samples: 1

## SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days
DISP-RJT-SOIL Immediate Disposal of Soil Reject

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

## SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

| Procedure Code | Number of Samples | Code Description | Test Wgt (g) | Report Status | Lab |
|---|---|---|---|---|---|
| Dry at 60C | 1 | Dry at 60C | | | VAN |
| SS80 | 1 | Dry at 60C sieve 100g to -80 mesh | | | VAN |
| 1D01 | 1 | 1:1:1 Aqua Regia digestion ICP-ES analysis | 0.5 | Completed | VAN |

## ADDITIONAL COMMENTS

Invoice To: Aztec Geoscience Inc.
918 Highwood Drive
Comox BC V9M 3R5
CANADA

CC: Dave Preedy

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
Country Manager - Canada

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Project: HOOK
Report Date: July 16, 2013



# CERTIFICATE OF ANALYSIS VAN13002498.1

| | Method | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analyte | Mo | Cu | Pb | Zn | Ag | Ni | Co | Mn | Fe | As | Th | Sr | Cd | Sb | Bi | V | Ca | P | La | Cr |
| | Unit | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | % | ppm | ppm |
| | MDL | 1 | 1 | 3 | 1 | 0.3 | 1 | 1 | 2 | 0.01 | 2 | 2 | 1 | 0.5 | 3 | 3 | 1 | 0.01 | 0.001 | 1 | 1 |
| 1615111 | Stream | <1 | 124 | <3 | 177 | <0.3 | 75 | 35 | 1044 | 7.75 | 9 | <2 | 32 | 1.2 | <3 | 4 | 257 | 1.22 | 0.020 | 4 | 62 |

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Project: HOOK
Report Date: July 16, 2013



# CERTIFICATE OF ANALYSIS VAN13002498.1

| Method | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analyte | Mg | Ba | Ti | B | Al | Na | K | W | S | Hg | Tl | Ga | Sc |
| Unit | % | ppm | % | ppm | % | % | % | ppm | % | ppm | ppm | ppm | ppm |
| MDL | 0.01 | 1 | 0.001 | 20 | 0.01 | 0.01 | 0.01 | 2 | 0.05 | 1 | 5 | 5 | 5 |
| 1615111 Stream | 2.21 | 33 | 0.540 | 40 | 3.85 | 0.01 | 0.03 | <2 | <0.05 | 1 | <5 | 7 | 15 |

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Project: HOOK
Report Date: July 16, 2013



# QUALITY CONTROL REPORT VAN13002498.1

| | Method | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analyte | Mo | Cu | Pb | Zn | Ag | Ni | Co | Mn | Fe | As | Th | Sr | Cd | Sb | Bi | V | Ca | P | La | Cr |
| | Unit | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | % | % | ppm | ppm |
| | MDL | 1 | 1 | 3 | 1 | 0.3 | 1 | 1 | 2 | 0.01 | 2 | 2 | 1 | 0.5 | 3 | 3 | 1 | 0.01 | 0.001 | 1 | 1 |
| Pulp Duplicates | | | | | | | | | | | | | | | | | | | | | |
| 1615111 | Stream Sedim | <1 | 124 | <3 | 177 | <0.3 | 75 | 35 | 1044 | 7.75 | 9 | <2 | 32 | 1.2 | <3 | 4 | 257 | 1.22 | 0.020 | 4 | 62 |
| REP 1615111 | QC | <1 | 125 | <3 | 177 | <0.3 | 75 | 35 | 1058 | 7.83 | 5 | <2 | 31 | 1.0 | <3 | 6 | 257 | 1.23 | 0.019 | 4 | 63 |
| Reference Materials | | | | | | | | | | | | | | | | | | | | | |
| STD DS9 | Standard | 13 | 107 | 132 | 335 | 1.6 | 41 | 7 | 597 | 2.49 | 29 | 6 | 73 | 2.0 | 5 | 9 | 41 | 0.74 | 0.085 | 12 | 122 |
| STD OREAS45EA | Standard | <1 | 697 | 10 | 31 | <0.3 | 382 | 49 | 419 | 23.46 | 14 | 10 | 4 | <0.5 | <3 | 11 | 326 | 0.03 | 0.026 | 6 | 906 |
| STD DS9 Expected | | 12.84 | 108 | 126 | 317 | 1.83 | 40.3 | 7.6 | 575 | 2.33 | 25.5 | 6.38 | 69.6 | 2.4 | 4.94 | 6.32 | 40 | 0.7201 | 0.0819 | 13.3 | 121 |
| STD OREAS45EA Expected | | 1.78 | 709 | 14.3 | 30.6 | 0.311 | 357 | 52 | 400 | 22.65 | 11.4 | 10.7 | 4.05 | | | | 295 | 0.032 | 0.029 | 8.19 | 849 |
| BLK | Blank | <1 | <1 | <3 | <1 | <0.3 | <1 | <1 | <2 | <0.01 | <2 | <2 | <1 | <0.5 | <3 | <3 | <1 | <0.01 | <0.001 | <1 | <1 |

Acme Analytical Laboratories (Vancouver) Ltd.
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA
PHONE (604) 253-3158

www.acmelab.com

**Client:** **Aztec Geoscience Inc.**
918 Highwood Drive
Comox BC V9M 3R5 CANADA

Project: HOOK
Report Date: July 16, 2013



# QUALITY CONTROL REPORT VAN13002498.1

| | Method | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D | 1D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analyte | Mg | Ba | Ti | B | Al | Na | K | W | S | Hg | Tl | Ga | Sc |
| | Unit | % | ppm | % | ppm | % | % | % | ppm | % | ppm | ppm | ppm | ppm |
| | MDL | 0.01 | 1 | 0.001 | 20 | 0.01 | 0.01 | 0.01 | 2 | 0.05 | 1 | 5 | 5 | 5 |
| Pulp Duplicates | | | | | | | | | | | | | | |
| 1615111 | Stream Sedim | 2.21 | 33 | 0.540 | 40 | 3.85 | 0.01 | 0.03 | <2 | <0.05 | 1 | <5 | 7 | 15 |
| REP 1615111 | QC | 2.25 | 33 | 0.549 | 39 | 3.83 | 0.01 | 0.03 | <2 | <0.05 | <1 | <5 | <5 | 15 |
| Reference Materials | | | | | | | | | | | | | | |
| STD DS9 | Standard | 0.65 | 342 | 0.108 | <20 | 1.01 | 0.09 | 0.41 | 5 | 0.17 | <1 | 5 | 7 | <5 |
| STD OREAS45EA | Standard | 0.08 | 146 | 0.096 | <20 | 3.22 | 0.02 | 0.05 | <2 | <0.05 | 2 | <5 | 11 | 86 |
| STD DS9 Expected | | 0.6165 | 330 | 0.1108 | | 0.9577 | 0.0853 | 0.395 | 2.89 | 0.1615 | 0.2 | 5.3 | 4.59 | 2.5 |
| STD OREAS45EA Expected | | 0.095 | 148 | 0.106 | | 3.32 | 0.027 | 0.053 | | 0.044 | 0.34 | | 11.7 | 78 |
| BLK | Blank | <0.01 | <1 | <0.001 | <20 | <0.01 | <0.01 | <0.01 | <2 | <0.05 | <1 | <5 | <5 | <5 |