XSTRATA CANADA CORPORATION

2012 GEOPHYSICAL, GEOCHEMICAL, DRILLING AND PROSPECTING REPORT ON THE BIG KIDD PROPERTY

NICOLA MINING DIVISION,

Merritt, British Columbia

NTS: 092H15E

BCGS: 092H097/092H098

Latitude 49°57' N, Longitude 120° 37' W

Event Numbers: 5437108 and 5452213

May 2013

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XSTRATA CANADA CORPORATION

Tenures: 399035, 509561, 509569, 509579

SUMMARY

The Big Kidd property consists of four contiguous claims in southern British Columbia, covering an area of 4055.77 hectares. The property lies approximately 20 kilometers southeast of the town of Merritt, BC, and is easily accessible by Highway 97C and a network of existing resource roads in excellent condition.

Xstrata Copper Canada carried out exploration work on the property under an option agreement with Jiulian Resources Incorporated. Exploration by Xstrata on the Big Kidd property is part of a program targeting prospective Cu-Au porphyry mineralization in the Quesnel Terrane of British Columbia. Xstrata incurred a total of $860,885.50 in expenditures related to the assessment work conducted on the Big Kidd project in 2012. These expenditures have been submitted in two separate work filings, with $195,666.55 filed for 2012 induced polarization assessment work (Event ID 5437108), and $665,218.95 filed for the remainder of 2012 assessment work (Event ID 5452213).

This report outlines the exploration program undertaken by Xstrata in 2012. Exploration activities in 2012 consisted of 56.8 kilometers of Induced Polarization geophysical ground surveying, a small geochemical rock sampling program consisting of 96 grab samples, prospecting, and a diamond drilling program. A total of six holes were drilled, with a total meterage of 1808.7 meters.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Appendix A – Induced Polarization Report by Walcott Geophysics

Appendix B – Drilling Cross-Sections - BK-12-01, -02, -02A, -03, -04, and -05

Appendix C – Drilling Assays - Certificates of Analysis (ACT Labs)

Appendix D – Drill Logs - BK-12-01, -02, -02A, -03, -04, and -05

Appendix E – Rock Geochemistry Assays & Rock Sample Descriptions

Certificates of Analysis (ACT Labs)

Big Kidd Breccia: Rock Sample Description Table

Prospecting South of Breccia: Rock Sample Description Table

Rock Sampling Au and Cu Assay Maps

Appendix F – Statement of Expenditures – Tabulated Statement of Expenditures

1.0 INTRODUCTION

The Big Kidd property comprises four claims totaling 4055.77 hectares in southern British Columbia. Xstrata Copper Canada carried out exploration work on the property under an option agreement with Jiulian Resources Incorporated. Xstrata's exploration on the Big Kidd property targeted prospective Cu-Au porphyry mineralization in the Quesnel Terrane of British Columbia.

This report outlines the exploration program undertaken by Xstrata in 2012. Exploration activities consisted of 56.8 kilometers of Induced Polarization geophysical ground surveying, a small geochemical rock sampling program consisting of 96 grab samples, prospecting, and a diamond drilling program. A total of six holes were drilled, with a total meterage of 1808.7 meters.

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2.0 EXPLORATION AGREEMENT TERMS AND CURRENT STATUS

Xstrata Copper Canada, a division of Xstrata Canada Corporation, currently has an option agreement with Jiulian Resources Inc. to conduct exploration activities on the Big Kidd property. Jiulian Resources is the owner of the property, and transfer to Xstrata of 51% of the recorded interest occurred in late 2012, with Jiulian retaining 49% recorded interest. This transfer was completed to facilitate the filing of assessment work. Xstrata is the current operator of the property.

Table 1 - Current Property Ownership Status

Company	Current Interest
Jiulian Resources Inc.	100%
Xstrata Canada Corporation	0%

All claims are in good standing, with an expiry date of December 10, 2023.

3.0 EXPENDITURES

Xstrata incurred a total of $860,885.50 in expenditures related to the assessment work conducted on the Big Kidd project in 2012. These expenditures have been submitted in two separate work filings, with $195,666.55 filed for 2012 induced polarization assessment work, and $665,218.95 filed for the remainder of 2012 assessment work which includes drilling, geochemical, prospecting and geophysical costs.

A formal statement of expenditures is provided in Appendix F.

4.0 FIRST NATIONS ENGAGEMENT

Xstrata Copper Canada recognizes the value of local community participation associated with the planning and implementation of their operations, as defined in the Xstrata Sustainable Community Policy. As such, Xstrata adopts a policy of proactive engagement with all identified First Nations, land users, and other stakeholders, with overlapping interest within the boundaries of the Project's exploration activities. Xstrata contracted Catana Consulting Ltd. to help facilitate dialogue and early engagement activities with the identified First Nations and stakeholders associated to its Projects.

Xstrata utilized the Province of British Columbia's *Consultative Area Database (CAD)* to determine that 14 First Nations have overlapping traditional territory within the Project boundaries. Xstrata verified the correct First Nations with the Ministry of Energy, Mines and Natural Resources (MEMNG). The First Nations include:

1. Ashcroft First Nation
2. Boston Bar First Nation
3. Coldwater Indian Band
4. Cook's Ferry Indian Band
5. Lower Nicola Indian Band
6. Lower Similkameen Indian Band
7. Lytton First Nation
8. Nooaitch Indian Band
9. Oregon Jack Creek Band
10. Penticton Indian Band
11. Siska Indian Band
12. Spuzzum First Nation
13. Upper Nicola Band
14. Upper Similkameen Indian Band

The identified bands are associated with three Tribal Councils/Associations and one cultural management service:

1. Nlaka'pamux Nation Tribal Council
2. Okanagan Nation Alliance
3. Nicola Tribal Association
4. Esh-kn-am Cultural Resources Management Services

Xstrata understands and respects the Crown's consultation obligations and the *Duty to Consult.* While no procedural aspects of consultation have been delegated to Xstrata, engagement efforts have been initiated to build strong relationships that grow in strength and certainty as the Project advances.

Xstrata initiated a series of engagement efforts to establish contact with interested First Nations and stakeholders to:

- Introduce and differentiate Xstrata's commitment to sustainable exploration;
- Assess each Bands level of interest in the Project;
- Identify areas of concern or interest with respect to exploration activities;
- Establish a co-developed engagement plan that accommodates the interest of the Bands.

4.1 2012 SUMMARY OF ENGAGEMENT

Table 3 below summarizes the main engagement efforts undertaken in 2012 in relation to the Big Kidd property.

Table 2 - 2012 Summary of First Nations Engagement

Communication	Letters of Introduction (LOI)	Xstrata distributed a LOI to each identified First Nation on January 6, 2012. The letter introduced the company, the Project intentions, overview of the NOW and request to meet. Follow up phone calls and emails were made to determine the interest of each Band.
	On-going Dialogue	Xstrata has maintained on-going dialogue to respond to questions and issues associated to the exploration activities.
Meetings	Upper Nicola Indian Band (UNIB), UNIB Band Office	Introductory meeting. May 22, 2012.
	Lower Similkameen Indian Band (USIB), UNIB Band office	Introductory meeting. May 22, 2012.
Site Tours	UNIB (8 Band members)	All Bands were invited to participate in an annual site tour. Several bands gave their regrets but expressed interest in future site tours.

Environment	Upper Nicola Indian Band requested a preferred Archaeologist to be hired.	Preferred Archaeologist Dan Weinberger, Terra Archaeology, was hired to conduct a Preliminary Field Reconnaissance (PFR) and an Archaeology Overview Assessment (AOA). Four First Nation employees will be hired to assist in fieldwork.Each Band was invited to have one paid representative participate in the AOA.
Employment	Xstrata committed to advertising all employment opportunities with the Bands.	Xstrata advertised four positions throughout 2012. Three First Nations were hired and successfully completed their employment contract.
Business/Services	First Nations have requested to utilize Band businesses and services where available.	Xstrata invited the Esh-kn-am to participate in the AOA. Xstrata will also use Esh-kn-am's cultural services for archaeological training in 2013.
Community Investment	Xstrata is supportive of community development and is willing to provide investment in the community where appropriate. Requests for funding must be written and are considered on a case-by-case basis.	Xstrata received no funding requests from the Bands in 2012. Some community investment has occurred in 2013.
Agreements	Memorandum of Understanding (MOU).	Xstrata agreed to enter into agreements with any Band requesting one. Only UNIB requested to enter into an agreement in 2012. Xstrata committed capacity funding for negotiations with UNIB. Discussions are underway.

Community Meetings	UNIB Annual General Meeting.	Xstrata representatives participated in the UNIB AGM on November 7, 2012. Xstrata had a booth with posters and information about the Project. Xstrata committed to hold community meetings to listen to concerns and seek input on mitigating environmental impacts.

Xstrata records all engagement activities and tracks and responds to all issues and commitments made to communities.

4.2 2013 SUMMARY OF ENGAGEMENT AND FUTURE ENGAGEMENT PLAN

Xstrata held introductory meetings with the following Bands and Services in 2013:

- Coldwater Indian Band
- Esh-kn-am Cultural Services
- Cooks Ferry Indian Band
- Penticton Indian Band

Xstrata will continue to proceed with proactive engagement with the identified First Nations and stakeholders as required. The following is a sample engagement plan that was co-developed with the Bands.

Table 3 - Sample First Nations Engagement Plan

	Task	Detail	Dates	Notes
1.	**Chief and Council Meetings**	Pre-Season	TBD	Band office
		Post-Season	TBD	Band office
2.	**Correspondence**	Mid-season reports Information sharing	On going	As required

3.	**Site Tour**	Tour #1 – Chief & Council, Elders	July-September 2013	
		Tour #2 (Optional)	July-September 2013	TBD if necessary
4.	**Mining 101 Workshop**	Community or Chief and Council	As requested	Xstrata sponsored workshop. Mining 101 explains basics of exploration.
5.	**Employment and Training**	Advertise employment opportunities	On going	
		Business Contracts	On going	
6.	**Agreements**	Memorandum of Understanding	As requested	Xstrata will be engaging in MOU discussions with 4 Bands in 2013.

5.0 PROPERTY DESCRIPTION AND LOCATION

The Big Kidd property is located in southern British Columbia, approximately 20 kilometers southeast of the town of Merritt. It is located in the Nicola Mining Division, on NTS map sheet 092H15E, and BCGS map sheets 092H097/092H098. The Big Kidd property is centered on latitude 49^{0}57' north, and longitude 120^{0}37' west. The Big Kidd property is comprised of four claims totaling 4055.77 hectares.

A regional property location map and property tenure map are provided below in Figure 1 and Figure 2. Table 5 below lists the mineral tenures that comprise the Big Kidd property.

Table 4 - Big Kidd Property Tenure Listing

BIG KIDD PROPERTY							
Tenure Number	Claim Name	Tenure Type	Tenure Sub Type	Map Number	Issue Date	Good to Date	Area (Ha)
399035	Big Kidd 2	Mineral	Claim	092H15E	13-Dec-02	10-Dec-19	500.00
509561	-	Mineral	Claim	092H15E	23-Mar-05	10-Dec-17	1122.31
509569	-	Mineral	Claim	092H15E	23-Mar-05	10-Dec-19	1434.81
509579	-	Mineral	Claim	092H15E	23-Mar-05	10-Dec-17	998.65
Total Area							4055.77

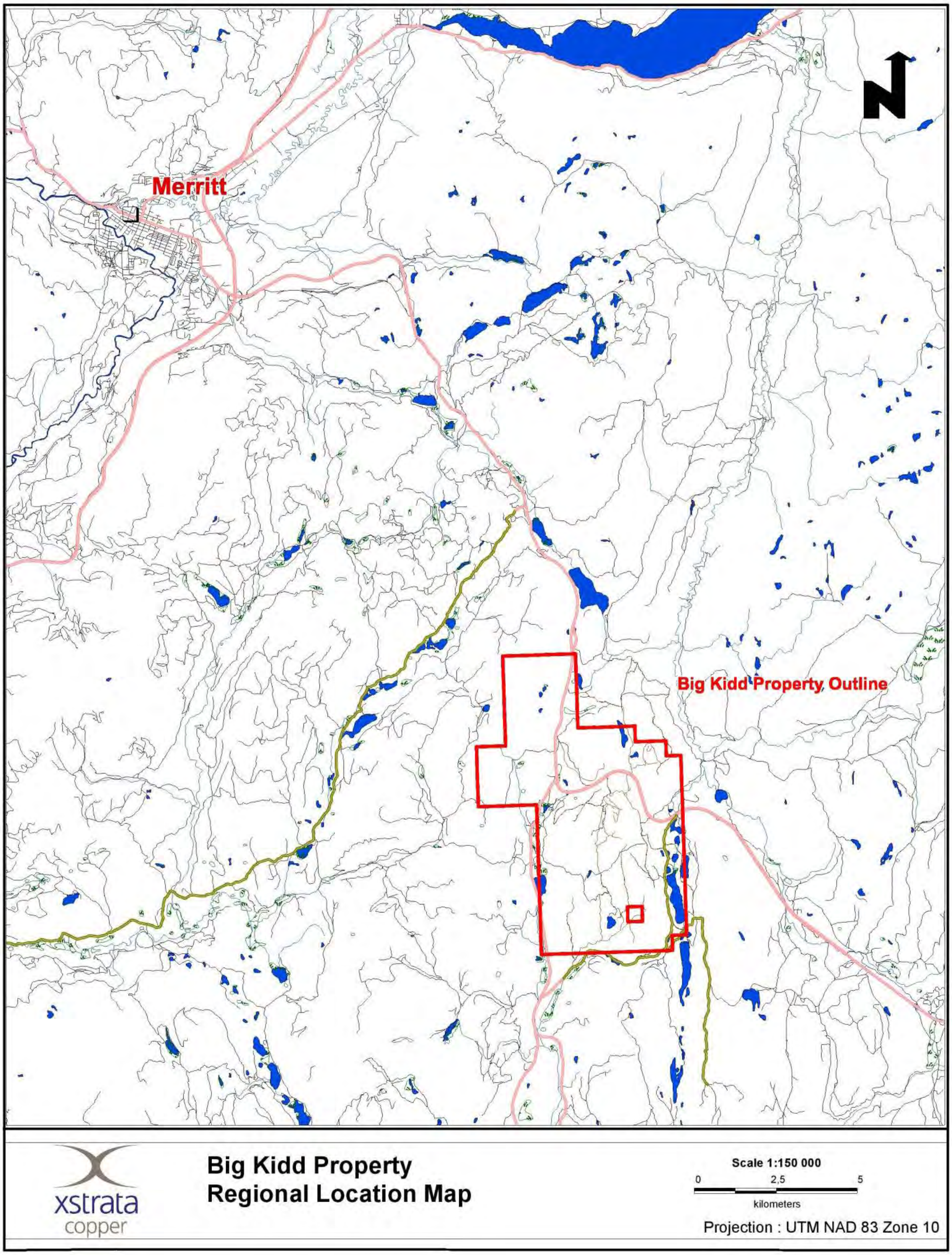

Figure 1 - Big Kidd Property: Regional Location Map

6.0 ACCESS, CLIMATE, INFRASTRUCTURE AND PHYSIOGRAPHY

The Big Kidd property is located approximately 20 kilometers southeast of Merritt, BC. Food, lodging, fuel, and a good range of equipment and supplies can be obtained in Merritt. The Big Kidd property is accessed from Merritt by Highway 97C. Following Highway 97C east-southeast out of Merritt for approximately 20 kilometers provides access to the property boundary. The property straddles Highway 97C and can be accessed through a number of gate-protected entrances. These gates are managed by the Douglas Lake Cattle Company and Willow Lake Ranch, who utilize the land occupied by the Big Kidd property north and south of Highway 97C. Permission must be obtained by these companies to utilize the gates, and caution must be taken not to disturb livestock. Access to the property from Princeton is obtained by following Highway 5A north to the junction of Hwy 5A/Hwy 97C, approximately 55 kilometers north of Princeton. The Big Kidd property is crisscrossed by existing 4x4 roads that are in good condition and provide excellent access within the property. These are a collection of old and current mining, ranching and logging roads. A power transmission corridor also runs N-S across the property and provides good access.

The Big Kidd property lies in a generally arid climate within the Thompson Plateau of interior British Columbia. The two biogeoclimatic zones represented on the Big Kidd property are the lower elevation Ponderosa Pine-Bunchgrass zone, and the higher elevation Interior Douglas Fir zone. Small seasonal swamps and sloughs form in poorly drained areas, with several small lakes such as Tule Lake and Kidd Lake remaining year-round. Mean annual precipitation in the area is approximately 40-60 centimeters with 0.5-2 meters of snow (Durfeld, 2003). Rolling hills dominate the property, with the forested Big Kidd hill representing the highest elevation on the property, at 1300 meters. In the valley bottoms elevation drops down to 1000 meters. The Alleyne fault valley flanks the property to the east, with the Kidd valley to the west. The area lies between the Quilchena Creek drainage and Otter Creek drainage (Wells, 1999).

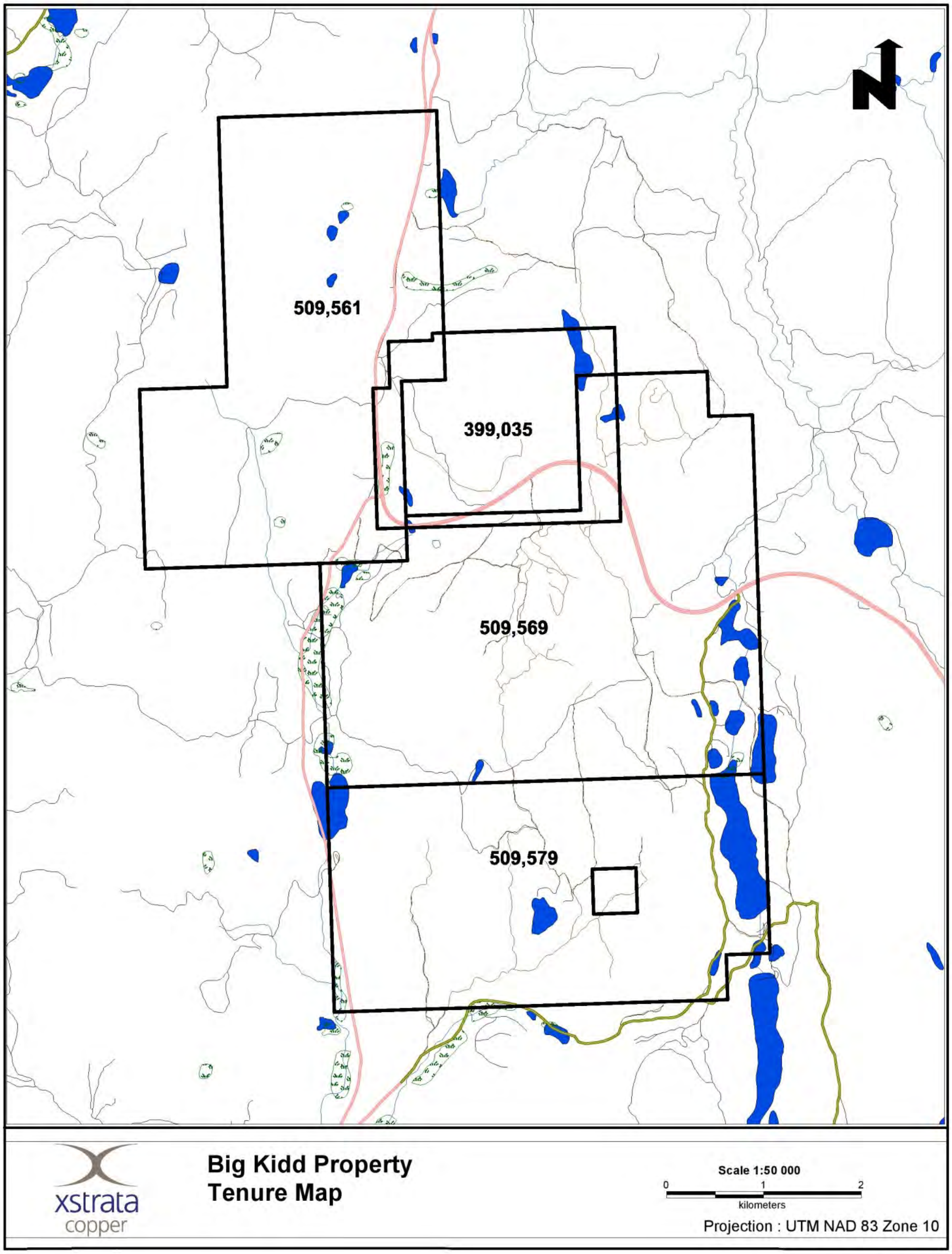

Figure 2 - Big Kidd Property Tenure Map

7.0 HISTORY

Exploration and mining in the Aspen Grove area is extensive and dates back to the early 1900's. Named the 'Aspen Grove Copper Camp', the area contains showings such as the Golden Sovereign, Copper Belle and Blue Bird. Some of the earliest recorded activity occurred in 1916 with 10 tons of ore with 1,000 pounds contained copper extracted from the Golden Sovereign. The Big Sioux was also mined in 1918, with 44 tons of 12% copper, 68 g/t Ag, and 0.57 g/t Au shipped (Durfeld, 2003). Early exploration work during this time focused on the numerous individual showings in the area. Many of the open adits and pits that are visible throughout the Big Kidd property date back to this period.

In the mid 1950's Noranda conducted property scale exploration, followed by Amax in the early 1970's. Geochemical sampling, geophysics, and geological work were carried out over this period and sought to evaluate a larger area. Between the period of 1974 to 1979 a number of junior companies explored the area, and carried out trenching and drilling in 1980-1982.

As the Coquihalla Connector (Highway 97C) was constructed in 1989 a number of rock cuts were exposed, which renewed interest in the area. Sampling by Ab Ablett on a rock cut exposed south of the Big Sioux revealed copper mineralization and multi-gram gold values (Durfeld, 2003). Ablett thereafter staked the Shear claims (covering part of the current property boundary). The extent of the current property was first held by Northair Mines between 1991 and 1995 as part of an option agreement. Extensive exploration was carried out by Placer Dome Inc. during this period, including geological work, geochemical rock and soil sampling, geophysics (magnetic and induced polarization), trenching and diamond drilling. Drilling by Placer Dome revealed an alkali porphyry system, with significant intercepts in the Big Sioux and Big Kidd areas (DDH92-01: 71 meters of 0.2% Cu, and 0.75 g/t Au in the northern part of the Big Kidd breccia pipe).

Christopher James Gold Corp., optioned the property in 1996 and focused primarily on the gold potential of the property. A geological, geophysical, geochemical program and diamond drilling program explored the Big Kidd breccias and proximal areas. An Induced Polarization survey (13.75km), ground magnetic survey (16km) and soil geochemical sampling were carried out. A 1997 drilling program of 2,073 meters included intersections as follows (composites from Folk, 2011):

- DDH97-05: 0.12% Cu, 0.79g/t Au over 116 meters
- DDH97-06: 0.29% Cu, 0.21 g/t Au over 30.46 meters
- DDH97-07: 0.33% Cu, 0.32 g/t Au over 23.84 meters

Subsequent programs by Christopher James Gold Corp. drilled a total of 3 holes in/along the Big Kidd Breccia in 1999, and nine holes in 2003. A total of 1,080 meters were drilled in 1999, and a total of 1,897.7 meters were drilled in the 2003 program. The 1999 and 2003 drilling include the following intersections (composites from Folk, 2011):

- DDH99-02: 0.18% Cu, 0.42 g/t Au over 127.33 meters

- DDH03-07: 0.15% Cu, 0.33 g/t Au over 58 meters

Exploration during this time focused on the Big Kidd Breccia, as the area of strongest mineralization and noted mineralization was interpreted to be open to depth on all sections (Durfeld, 2003). For a detailed summary of 1999 and 2003 drilling refer to Durfeld's 2003 report on the Big Kidd Project. Christopher James Gold Corp. also commissioned an 1113.5 km airborne magnetic and gamma ray spectrometric survey in 2008.

In 2011 Gunpoint Exploration, as owner of the Big Kidd property, entered into an agreement with Jiulian Resources Inc., whereby Jiulian acquired 100% interest in the property. In late 2011 Jiulian Resources entered into an option agreement with Xstrata Copper Canada, whereby Xstrata is the operator of the property. Xstrata carried out soil geochemical sampling in late 2011, and ran an exploration program in 2012 which is covered in this annual report.

For a summary of exploration activities please refer to Table 6 below (largely reliant on Folk, 2011). A good review of historical exploration can also be found in Folk's 2011 technical report.

Table 5 - Big Kidd Historical Work Summary

Owner/Operator	Year	Type of Work	Work Details
-	1899 - 1916	Mining	Big Sioux staked, with 46m adit, 10m shaft, pits and trenches dug. 10 tons of ore shipped from the Golden Sovereign (1,000 lbs Cu).
-	1918	Mining	44 tons shipped from the Big Sioux (12% Cu, 0.57 g/t Au, 68 g/t Ag).
Noranda	1950's to 1960's	Geology, geochemistry, geophysics, trenching, drilling	Total of 1,193m of diamond drilling on Big Sioux and Big Kidd targets (0.2-0.48% Cu).
Norranco Mining	1965	Line cutting, geophysical surveys	Magnetometer and IP surveys.
Payco Mining	1966	Drilling	Total of 317m of drilling in 6 holes.
Frontier Exploration	1969	Drilling	One hole in Big Kidd Breccia target.
Kennco	1971	Drilling	Dote Claims option, percussion drilling.
Amax	1970-1981	Geology, geochemistry, geophysics, drilling	Magnetometer surveys, soil geochemical sampling, geological mapping. Total of 1,952m of percussion drillng (23 holes total. Cu range 0.16-0.26%).
David Minerals	1972 - 1982	Trenching, drilling	Small trenching and drilling programs in 1980 and 1982.
Junior Companies	1974-1976		Small exploration programs.
Ab Ablett	1989	Geochemistry	Geochemical sampling of road cuts.
Northair Mines Ltd./ Placer Dome Inc.	1991 - 1995	Geology, geochemistry, geophysics, trenching, diamond drilling	Soil and rock geochemical sampling, magnetics and induced polarization surveys, trenching and limited diamond drilling. Total of 1,020m of diamond drilling (6 holes).
Christopher James Gold Corp./Gunpoint Exploration Inc./Ab Ablett	1996 - 2011	Geology, diamond drilling, geophysics, trenching	Drilling programs in 1997 (2,073m), 1999 (1,080m) and 2003 (1,897.7m).Trenching, airborne magnetic/radiometric survey and outcrop mapping.
Jiulian Resources/Xstrata Copper	2011-present	Geochemistry, geophysics, geology, and drilling	Soil and rock geochemical sampling, induced polarization ground survey and 1808 meters of diamond drilling.

8.0 GEOLOGY

8.1 REGIONAL GEOLOGY

The Big Kidd property lies within the Intermontane Belt, in the southern portion of the Quesnellia terrane of British Columbia. Quesnellia in this area is dominantly characterized by the Nicola Belt of Upper Triassic volcanic, sedimentary and intrusive rocks, which represent the oldest rocks in the area. This island arc assemblage trends north-south and extends from the international border to north of Kamloops, extending up to 30km in width. The Nicola Belt consists of Upper Triassic volcanic, sedimentary and intrusive rocks, and has been extensively described by Preto, as part of a Ministry of Energy, Mines and Petroleum Resources bulletin (Preto, 1979). Preto subdivided the Nicola Group into three assemblages: the Central Belt, the Eastern Belt, and the Western Belt assemblages.

The Central Belt is typified by volcanics and intrusives of alkaline and calc-alkaline affinity, with lesser sedimentary rocks. The Eastern Belt is separated from the Central Belt by the Summers Creek-Alleyne faults, and consists mainly of volcanic sandstone/siltstone, lahars, tuffs and conglomerates. The Western Belt is dominated by volcanic flows of calc-alkaline composition, which are overlain by pyroclastics, sedimentary rocks and limestone. The Allison fault separates this belt from the Central Assemblage in the Aspen Grove area.

The Nicola Group volcanics are intruded primarily by diorites, monzonites and granodiorites of Upper Triassic to Upper Cretaceous age, forming numerous stocks, dykes, sills, plutons and batholiths. The largest intrusions are the Pennask Batholith, Allison Lake Pluton, and Summers Creek stocks, which range from lower Jurassic to Cretaceous age (Kerr, 2008). The alkalic Iron Mask Batholith and Copper Mountain intrusions also belong to this group and host significant Cu-Au porphyry deposits.

8.2 PROPERTY GEOLOGY

The Big Kidd property lies within the central belt of the Nicola Group. The Upper Triassic intrusions of the Big Kidd complex are consanguineous with property volcanics, having intruded their own volcanic pile. The alkaline complex features intrusives of monzonite, monzodiorite, diorite, and syenomonzonite composition, hosted within intermediate-mafic volcanic flows, tuffs and volcaniclastics. Intrusions trend southeast, with the elliptical Big Kidd breccia body exposed over a roughly 300 x 600 meter area (Wells, 1999). The breccia pipe is believed to represent a sub-vertical volcanic neck dominated by fragments of Nicola Group volcanics and microdiorite to microsyenodiorite, and monzonite to syenomonzonite intrusives (Wells, 1999 and Folk, 2011).

The property straddles a triple fault junction of the Kentucky-Alleyne, Allison and Quilchena faults. West to southwest trending faults have been interpreted to lie between the Big Kidd and Big Sioux targets and represent areas of increased alteration and fluid flow (Folk, 2011).

8.3 MINERALIZATION

Mineralization on the Big Kidd property includes pyrite, magnetite, chalcopyrite, bornite and gold, in order of abundance (Durfeld, 2003). The most significant mineralization found on the property has been within the Big Kidd Breccia, which features strong pyrite-chalcopyrite mineralization. Mineralization within the breccia occurs both in matrix and clasts, with a pyrite rim increasing to the outer margins of the breccia (Durfeld, 2003). Mineralization elsewhere on the property is hosted dominantly by Nicola volcanics, is often structurally controlled and features pyrite, chalcocite, bornite, chalcopyrite, malachite, azurite, digenite and native copper (Dawson, 2004). There are 28 minfile occurrences currently listed for the Big Kidd property, the majority of which are Cu +/- Ag-Au showings listed as porphyry, hydrothermal or volcanic redbed Cu occurrences.

9.0 2012 EXPLORATION PROGRAM

The 2012 field season ran from February until December, with crews working out of Merritt, British Columbia. Drill core was logged and sampled in Merritt, transported to Kamloops for analysis at ACT Labs, and subsequently transported to a core storage yard at 2785 Pooley Avenue in Merritt. During the 2012 exploration season, the following exploration efforts were completed on the Big Kidd property:

- Six NQ size, skid-assisted, diamond drill holes for a total of 1808.7 meters were drilled on the property;
- A ground induced polarization survey was completed over the property for a total of 56.8 line kilometers of coverage;
- Geochemical rock sampling was completed over the Big Kidd breccias, for a total of 96 samples; and
- Geological prospecting was conducted over select areas of the property.

9.1 DIAMOND DRILLING

In November 2012, six NQ-size diamond drill holes were completed on the Big Kidd property for a total of 1808.7 meters. All holes were completed by Black Hawk Drilling of Smithers, BC[1]. Drillholes targeted copper and gold mineralization in the area surrounding the Big Kidd breccia, and the Big Sioux area north of Highway 97C.

Ground conditions were poor on some of the drillholes, due to broken ground and clay rich fault zones, with particularly low recovery north of the highway on BK-12-04. However ground conditions permitted drilling with NQ size, without having to upgrade to HQ as expected.

Drillhole collar locations are presented below in Figure 3, and tabulated in Table 7 below.

[1] Black Hawk Drilling, Box 2828, Smithers BC V0J 2N0. Tel: 250.877.7729. www.blackhawkdrilling.ca

Table 6 - 2012 Big Kidd Diamond Drillholes

DDH	Easting (m)	Northing (m)	Azimuth	Dip	Depth (m)	Start Date	End Date
BK-12-01	671812	5535371	90	-50	400.3	7-Nov-12	12-Nov-12
BK-12-02	672958	5534887	257	-50	99.1	13-Nov-12	14-Nov-12
BK-12-02A	672958	5534887	295	-50	381.0	14-Nov-12	17-Nov-12
BK-12-03	672738	5534558	75	-47	340.3	18-Nov-12	20-Nov-12
BK-12-04	671677	5536278	100	-50	201.0	23-Nov-12	25-Nov-12
BK-12-05	672385	5536603	240	-50	387.0	25-Nov-12	28-Nov-12
				Total:	**1808.7**	meters	

* All collar coordinates are given in UTM, NAD 83, Zone 10.

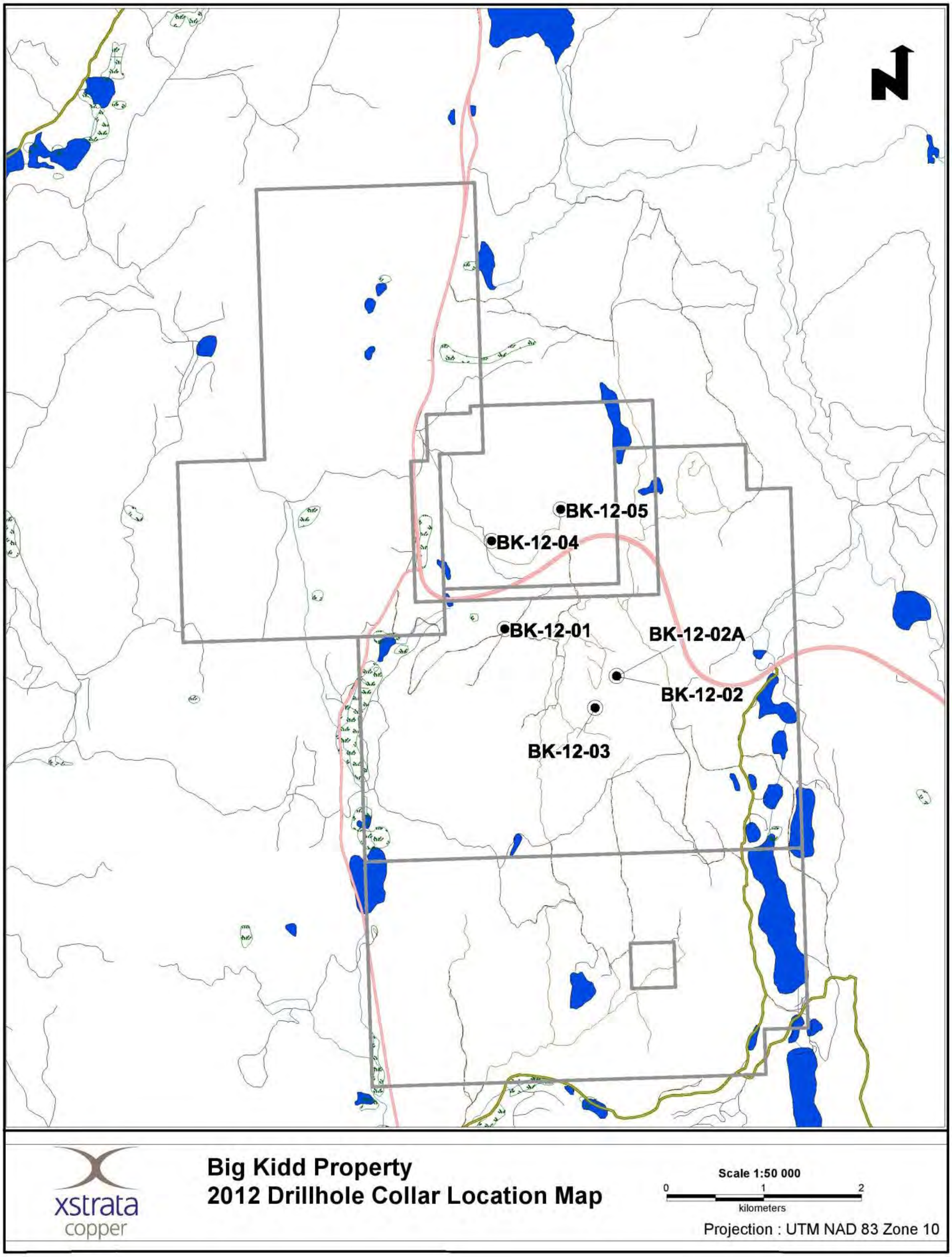

Figure 3 - Big Kidd 2012 Drillhole Collar Locations

9.1.1 RESULTS

Results from 2012 drilling showed a lack of significant copper mineralization over long intercepts. Mineralization was inconsistent and sporadic, and largely restricted to small intervals of 1.5 meters (sample lengths). A summary of drillhole targeting rationale and results is tabulated below in Table 8.

Drillhole BK-12-01, collared west of the Big Kidd breccias, represents the best Cu and Au mineralization (see intersections below). Mineralization was intersected in propylitic and potassic altered basalt. Drillhole BK-12-02A intersected a breccia which appears analogous to the Big Kidd breccias, however the intersection assayed poorly, at 0.05% Cu, and 0.025ppm Au over the 25.5m interval. BK-12-05 contains an intersection of 0.22% Cu over 21 meters, however the bornite and chalcopyrite mineralization is limited to a highly altered shear/fault zone.

The most notable long intercepts from 2012 drilling are as follows:

BK-12-01: 39m of 0.14% Cu, from 157.5-196.5m within propylitic altered basalt

BK-12-01: 24m of 0.14% Cu, from 268.5-292.5m, within potassic altered basalt

BK-12-05: 21m of 0.22% Cu, and 0.41g/t Au from 174-195m, within a clay-quartz-hematite altered fault shear zone featuring bornite and chalcopyrite;

including 15m of 0.25% Cu, and 0.58g/t Au from 175.5-190.5m

Highest grade intercepts from 2012 drilling:

BK-12-02A: 0.16% Cu over 1.5m

BK-12-03: 0.32g/t Au, and 0.17% Cu over 1.5m

BK-12-04: 0.54g/t Au, and 0.016% Cu over 1.5m

BK-12-04: 0.21% Cu over 1.5m

Table 7 - 2012 Summary of Drillhole Targeting and Results

Drillhole	Target	Result
BK-12-01	Covered IP anomaly (chargeability high), drilling into magnetic high, on geologic trend of favorable mineralized intrusions, previous drilling infers breccia mineralization may be open to west of previous drilling.	Intersection of 39m of 0.14% Cu from 157.5-196.5m within propylitic altered basalt, and 24m of 0.14% Cu from 268.5-292.5m, within potassic altered basalt. Breccia not intersected.
BK-12-02/2A	High intensity covered IP anomaly (chargeability high of +45mV/V), magnetic anomaly, Cu + Au soil geochemical anomaly, magnetic anomaly (high), favorable geological and structural trend.	BK-12-02 was ended at 99.1m and was not submitted for assay due to lack of mineralization. BK-12-02A failed to intersect significant mineralization with the best intersection represented by 25.5m of 0.05% Cu and 0.025ppm Au within a breccia.
BK-12-03	Covered IP target (chargeability high of >25mV/V), magnetic high, within Cu+Au soil geochemical anomaly, previous drilling infers breccia zone open to south of previous drilling, favorable geological and structural trend.	Disappointing results with no significant copper grades over greater than 1.5m. One higher grade sample ran 0.32 g/t Au and 0.17% Cu.
BK-12-04	Buried IP feature (chargeability high 20+mV/V), magnetic anomaly (high), Cu/Au soil geochemical anomaly, on trend with favorable lithology and structures (favorable structural environment), W-NW trending potassic dykes associated with Cu-Au mineralization.	No significant mineralization over greater than 1.5m. The hightest grades intersected over 1.5 were: 0.54 g/t Au (0.016% Cu), and 0.21% Cu (within volcanics and monzodiorite).
BK-12-05	Buried IP feature (chargeability >=20mV/V), magnetic anomaly (high), area of mineralized potassic dykes, encouraging historical drill results.	One 21m wide interval from 174-195m intersected 0.22% Cu and 0.41g/t Au; and contains a higher grade 15m interval of 0.25% Cu, and 0.58g/t Au (175.5-190.5m) within a fault/shear zone. No significant mineralization intersected over greater than 1.5m in remainder of hole.

9.1.2 GEOLOGY, ALTERATION AND MINERALIZATION

In drillhole BK-12-01 overlying maroon and dark green Nicola central Group augite-phyric basalts extend to 296.95m, and are cut by a fine-grained diorite dyke from 218-224.85m. A 15.7m bleached, clay-altered fault zone cuts the basalt at 65m depth. Fine-grained mafic crystal tuff, lapilli to block tuffs, and amygaloidal basalts extend to depth, and are intruded by two equigranular to feldspar porphyritic monzodiorite to monzonite dykes. Alteration is predominantly propylitic with strong chlorite-epidote-calcite replacement and veining. Minor potassic alteration is visible from around 296m to depth, overprinting earlier propylitic alteration, and in turn overprinted by late propylitic alteration. Pyrite is finely disseminated, lining fractures and veins, and ranges trace to 0.5% throughout the hole. Very fine pyrite is also found in black sulfide veinlets, which occur to 3%

locally in volcanics. Chalcopyrite is visible from trace to 0.5% locally, occurring as veins and disseminations, and are associated with areas of potassic veining. Minor pyrrhotite and chalcocite occur locally.

BK-12-02 tested a strong IP anomaly that overlies a magnetic high. The hole was collared southwest of the BK breccia, over 400m from the nearest drillhole, testing a southwest extension of the breccia. The hole was drilled to a depth of 99.1m, at which point it was realized that the azimuth was incorrect, and the hole needed to be re-aligned. BK-12-02 collared in a medium-grained monzodiorite to diorite, which truncates at Nicola Group volcanics at 7.2m. Augite-phyric basalt and intermediate-mafic lapilli tuffs extend to depth, and are cut by a number of diorite to monzodiorite dykes, and a carbonate-chlorite-clay-hematite cemented cataclasite from 45.5-48m. The hole ended in a major fault zone featuring monzonite fragments. Alteration is predominantly propylitic over weak potassic, with intense clay-chlorite-carbonate alteration locally (mainly in fault zones). Pyrite is disseminated, in veins, and lining fractures, and averages 0.5%. The hole was not sent in for assay due to a lack of any visible copper bearing minerals.

BK-12-02A tested a strong IP anomaly that overlies a magnetic high. The hole was collared southwest of the BK breccia, over 400m from the nearest drillhole, testing southwest extension of the breccia. The hole was drilled to a depth of 381m, at an azimuth of 295^0, dipping -50^0. BK-12-02A collared in a microdiorite unit that becomes increasingly altered and brecciated/faulted down to 167.85m. The BK breccia was drilled below the microdiorite, and extends to 193.5m. The heterolithic, clast-supported breccia features fragments of Nicola volcanics, diorite and monzonite, with a matrix that resembles an intensely chloritized microdiorite. Hornfelsed Nicola volcanics drilled below the breccia are underlain by microdiorite to depth. This unit is interrupted by several fault zones and a syenomonzonite dyke at 321.9-323.25m. Alteration is dominantly propylitic with minor potassic alteration locally and strong clay alteration surrounding fault zones. Extensive fluid flow throughout the breccia consists of epidote, chlorite, carbonate, orthoclase, albite +/- magnetite. Pyrite ranges 0.5-1% overall, up to 6% locally. Trace chalcocite and chalcopyrite are visible locally, with 0.5% chalcopyrite visible throughout the breccia intercept, visible in both clasts and matrix.

BK-12-03 was drilled to 340.3m, dipping -47^0 towards a 75^0 azimuth. The hole targeted an IP anomaly, a soil geochemical anomaly, and possible southward extension of the BK breccia. The hole collared in a medium-grained diorite, which extends to 29.7m. Diorite is underlain by a heterolithic, matrix-supported, Nicola Group volcanic breccia, which is cut by a feldspar porphyritic monzonite intrusive at 81.3m. Volcanic breccias and coarse lapilli tuffs extend from 146.7m to depth, and are intruded by a series of late monzonite to syenomonzonite dykes from 316.3m to 340.3m. Several major fault zones cut Nicola volcanics throughout the hole. Syenite to monzonite dykes are later events, and exhibit a much lower degree of alteration than the Nicola volcanics and coeval diorite intrusions. Alteration is largely propylitic with minor structurally controlled potassic alteration. Saussuritization and lesser sericitization of plagioclase is localized. Pyrite occurs throughout most of the units at an average of 0.5%, occurring mainly as veins and fracture coatings. Chalcopyrite occurs in trace amounts locally but appears to be largely limited to two fault zones at 184 and 244 meter depths. However, black sulphide veinlets are more widespread, and appear to be correlated with structurally controlled potassic fluids.

BK-12-04 targeted a shallow IP anomaly, a soil geochemical anomaly, and an area of favorable structure, within a possible dilational zone allowing increased fluid permeability (intersection of W-NW trending fracture zones and major N-NE structures). Drilling encountered extremely fractured rock with extensive faulting throughout the entire depth of the hole. BK-12-04 was drilled to 201m at an azimuth of 100^0, dipping -50^0. Intermediate to mafic Nicola Group tuffs and lapilli tuffs were drilled to 113.5m, where a fault separates these volcanics from the underlying bleached diorite. Intrusive rocks of diorite to monzonite composition extend to 195.2m, with augite-phyric basalt to 201m. Alteration here is markedly different from that seen south of the highway at holes BK-12-01 to BK-12-03. Strong sodic to calc-sodic alteration (actinolite and albite) and clay-sericite-hematite alteration extend down to 195.2m, with flooding of host rocks resulting in a bleached appearance. Saussuritization and sericitization of plagioclase is widespread. Basalt intersected at the end of the hole features propylitic alteration. BK-12-04 collared in malachite and chalcopyrite mineralization (trace to 0.5%), and features trace chalcopyrite locally down to 50m. Pyrite is disseminated consistently in both the volcanic and diorite units with no visible chalcopyrite past 50m (minor black sulphide veining exists locally).

BK-12-05 targeted a widespread and strong IP anomaly, and was drilled towards a magnetic high. The hole was drilled to 387m, at an azimuth of 240^0, dipping -50^0. BK-12-05 collared in a Nicola Group Central Belt assemblage. Maroon heterolithic lapilli tuffs extend to depth and are intercalated with mafic flow units. Volcanics are cut by numerous fault/shear zones and intrusive rocks of diorite to monzonite composition below 113m. Propylitic alteration extends throughout, with intensity increasing downhole. Hornfelsed volcanics feature strong magnetite-albite-chlorite-epidote alteration (MACE). Clay alteration is strong in fault zones, which are associated with copper mineralization, and feature up to 15cm of clay gouge. Pyrite is disseminated throughout most units, averaging 0.5%, with additional fine-grained pyrite contained in black sulphide veins. Chalcopyrite occurs as a trace locally, with the only significant copper mineralization occurring in fault zones (up to 1% Cpy visible from 105-114m, and from 185-194m), and in a 10m zone at 316.65m within a clay flooded interval. The latter fault zone, from 172-194m contains significant bornite from 174-188m. Bornite occurs as veins with Hem-Qtz-Clay-Carbonate-Chlorite+/-Albite-Chalcopyrite.

9.1.3 PROCEDURES

Drill core was transported from the property into Merritt by pickup truck, where it was logged. Core was then transported to Princeton, BC to be cut at a rented facility with a VANCON core saw, with half of the split core returned to the core storage yard in Merritt and the other half submitted for sampling. Split core was transported by pickup truck from Princeton to Kamloops for sampling at the ACT Labs facility. Sample security was maintained at all times from time of sampling to delivery at ACT Labs. Near surface intersections in core that did not feature visible mineralization were not split. This only applies to non-mineralized core from the top of the holes, as intervals of non-split core further downhole could potentially have resulted in errors during splitting and bagging of split core. Pulps and rejects are currently being stored at the ACT Labs facility in Kamlops. Assay results and lab certificates are includes in Appendix C.

Samples were hand-delivered to the Kamloops ACT Labs facility[2] for preparation (code RX1: crush (<7kg) up to 90% passing 2mm, split (250g) and pulverize (mild steel) to 95% passing 105μ) and assay. Analytical procedures used were gold fire assay (code 1A2: AA, 30g sample weight, metric range 5-3,000ppb), and ICP/OES trace element geochemistry (code 1F2: ICP 4-acid digestion). ICP trace element geochemistry utilized a “near total” digestion employing HF, $HCLO_4$, HNO_3, and HCl to achieve maximum sample solution without fusing. Phases that may not have been totally digested by this method include barite, zircon, monazite, sphene, gahnite, chromite, magnetite, cassiterite, ilmenite and rutile. This is not expected to be an issue. Samples with values greater than upper detection limit were specified to be re-run.

The internal Xstrata Copper QA/QC program was followed in addition to ACT Labs internal QA/QC procedures. Blanks and standards used were in-house reference materials, inserted at a rate of 2 blanks and 1 standard (Bell mine material: low grade, medium grade, and high grade, see Table 9 below) per batch of 40 samples. Blank material was from a barren norite obtained by Xstrata from Sudbury. Reference material was obtained by Xstrata from 1989-1990 Bell Mines rejects. This blank and standard material has been verified by Xstrata with +/- 2 standard deviations. The QA/QC program has been reviewed and accepted to be satisfactory by Robert Banville Ing., senior contract geologist for Xstrata Copper.

Table 8 - In-house Reference Material Table

		BELL-LG			BELL-MG			BELL-HG		
Au	(ppb)	63.9	±	6.4	175	±	14	385	±	23.6
Ag*	(ppm)	0.54	±	0.12	0.96	±	0.1	1.43	±	0.1
Cu	(ppm)	2090.6	±	74.4	4260.4	±	215.8	8115.6	±	276.8
Mo	(ppm)	51.6	±	3.8	79.5	±	4.8	94.7	±	8.0

* While these standards are “certified” for Cu, Au and Mo, the source material contained low Ag content, below detection limit in most cases, these standards are only “indicated” for Ag.

9.2 GROUND GEOPHYSICS: INDUCED POLARIZATION SURVEY

Between February 1, 2012 and March 14, 2012 a ground induced polarization survey was conducted on the Big Kidd property. The survey was conducted by Peter E. Walcott & Associates Limited, based in Coquitlam, BC[3]. A total of approximately 56.8 line kilometers were traversed across the following tenures: 399035, 509561, 509569, and 509579. A total of 21 lines were

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[2] Actlabs Kamloops, 9989 Dallas Drive, Kamloops, British Columbia V2C 6T4. Tel+1.250.573.4484. www.actlabs.com

[3] Peter E. Walcott & Associates, Ltd. 111-17 Fawcett Road, Coquitlam, BC V3K 6V2. Tel.604.553.3390. Fax.604.553.3362. www.geofisica.com.

surveyed with the objective of delineating areas of potential mineralization to depth for future exploration and drill targeting. The program was designed to test areas of historic exploration featuring copper-gold mineralization and areas of potential mineralization related to magnetic features on the property; in particular a large north-northwest trending magnetic feature.

9.2.1 INDUCED POLARIZATION METHODS

Lines were flagged partially by Xstrata personnel, and Walcott personnel. The surveying was conducted over nineteen east-west “compass and chain” lines, and two north-south “compass and chain” lines. Chargeability and resistivity measurements of first to sixth separation were made utilizing a pole-dipole technique of 100 meter dipole spacing.

The IP survey was carried out utilizing a pulse type system manufactured by Walcer Geophysics of Eniskillen, Ontario and Instrumentation GDD of St. Foy, Quebec. The system consisted of a receiver manufactured by Instrumentation GDD, a transmitter from Walcer, and a motor generator also from Walcer. Transmitter cycling rate is 2 seconds, current-on/current-off, with pulses reversing in polarity. Data recording was completed with the receiver in millivolts per volt, with a 200 millisecond delay, and a 1,000 millisecond sample window. An ADC Summit Brunton altimeter was used for elevation measurements. Coordinates were obtained using a WAAS equipped Garmin C60 handheld GPS. Data processing utilized the Geotomo RES2DINV Algorithm for inversion. For further information on survey and analytical equipment, refer to survey specifications, as outlined in the IP Report in Appendix A of this report.

9.2.2 INDUCED POLARIZATION RESULTS

The following discussion of results was directly obtained from the induced polarization survey report by Walcott & Associates. The complete induced polarization survey report is located in Appendix A. Full survey results are contained in this report, including pseudosections, inversions, a line location map, and accompanying data.

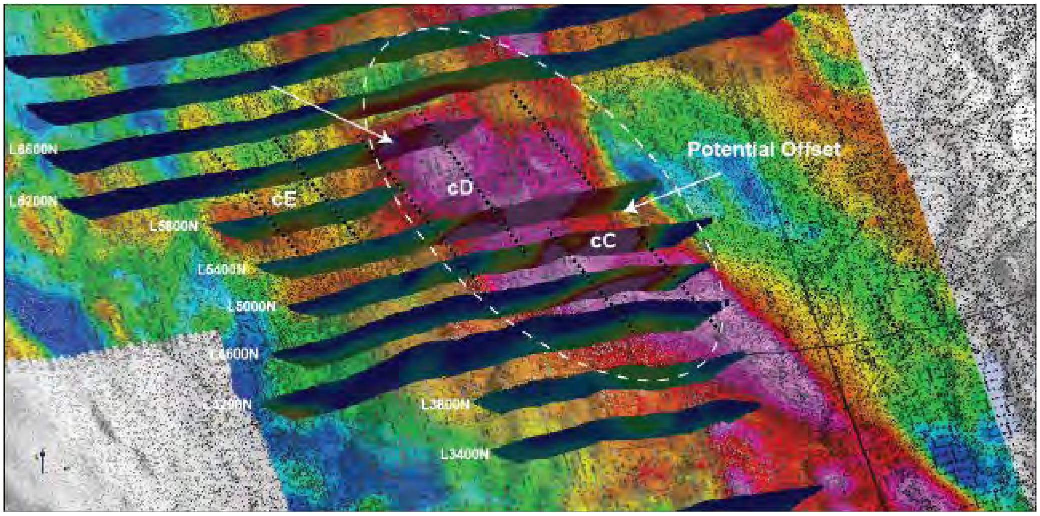

Figure 4 - Central Area Modelled Chargeability *(from Induced Polarization Survey Report for Xstrata by Walcott & Associates, Appendix A)*

In the southwest portion of the survey area a chargeable trend (cA – refer to Figure 4 above) can be observed on the western ends of survey lines 1000N through 2200N. The anomaly appears to be associated with the western flank of weak north northwesterly magnetic trend as illustrated below.

Line 1800N appears shows the highest intensity anomaly between 70600E and 71400E, within a slight embayment of low magnetic intensity. This anomaly is bisected by a northeasterly trending structure, which offsets the magnetic unit.

A second weaker chargeability (cB) can also be seen on lines 1000E and 1400E. This anomaly appears to be associated with a moderate magnetic feature. The increase in depth on line 1400E is potentially due to edge effects.

Within the central zone, a broad chargeability zone is readily apparent within the core of dominant north northwesterly magnetic trend. The broad chargeability is likely a composite of two chargeability anomalies, cC and cD. Anomaly cC is associated with the core of the magnetic high, within a moderate to high resistive zone. The anomaly appears to be offset between lines 5000N and 5400N. The majority of the historic drilling was conducted within this anomaly returning varying amounts of copper mineralization. Three drill holes sections 5000N, 5400N and 6200N are presented within the Appendix illustrating modeled chargeability with historic drill hole intercepts.

A second anomaly (cD) appears to flank the western component of the magnetic highs, and is associated with a resistivity low. Lines 5800N and 6200N did not cover the target area, due to the highway 5A and the winter conditions. Additional work utilizing 3D arrays would be recommended within this area.

A large historic copper soil geochemistry anomaly can be seen associated with both anomalies cC and cD. Immediately to the west and paralleling the dominant magnetic trend, a weak chargeability anomaly (cE) is seen on the western ends of lines 5400N to 6200N. This moderate intensity chargeability zone appears to be at depth, and is associated with a moderate magnetic high and a low resistivity feature. Flanking the western edge of this chargeability feature is a weak historic copper geochemistry anomaly.

In the northern part of the survey grid, three short lines where conducted on the eastern side of highway 5A. A weak narrower chargeability feature (cF) can be seen on the northern two lines, 9000N and 9400N, within a low resistivity zone. This anomaly flanks the western edge of a weak magnetic trend as illustrated below.

A brief description of the individual lines can be found in the full induced polarization survey report, in Appendix A.

9.3 GEOCHEMICAL ROCK SAMPLING

Over the course of the 2012 exploration program, a total of 96 grab samples were collected on the Big Kidd property, and submitted for assay. A number of other samples were taken, however these were not submitted for assay and will be discussed in the prospecting section below. Samples were taken over the area of the Big Kidd breccia (see Figure 5 below for location map).

Gold assays returned a mean value of 9.89 ppb Au, with a standard deviation of 20.84 ppb. Copper assays returned a mean value of 531.69 ppm, with a standard deviation of 1,477.32 ppm. Both copper and gold assays produced similar patterns, with significant mineralization clustered around the topographic peak of the Big Kidd Breccia. Sampling at this point is too limited to determine a gold or copper mineralization vector outwards from the center of the breccia. Distribution maps of gold and copper values can be found below in Figure 6 and Figure 7. Partial assay results, including copper, gold, and silver are tabulated below in Table 10. Full assay results and certificates can be found in Appendix E.

Samples were hand delivered to the ACT Labs facility in Kamloops, BC[4]. A number of analytical packages were requested: fire assay AA (30g), fire assay gravimetric (50g), aqua regia ICP, total digestion (4-acid) ICP, and whole rock fusion XRF analysis on selected samples.

[4] Actlabs Kamloops, 9989 Dallas Drive, Kamloops, British Columbia V2C 6T4. Tel+1.250.573.4484. www.actlabs.com

Table 9 - Big Kidd 2012 Rock Sampling: Select Assay Results (all coordinates in UTM NAD83 Z10)

Sample ID	Easting (m)	Northing (m)	Au (ppb)	Cu (ppm)	Ag (ppm)
724-1	672605	5535220	< 5	314	0.4
724-2	672666	5535102	< 5	57	0.5
724-3	673491	5534271	< 5	30	0.4
724-4	673331	5534454	< 5	8	< 0.3
724-5	673074	5534709	< 5	23	0.5
724-6	673038	5534709	< 5	12	0.4
724-7	672689	5535149	9	129	0.5
724-8	672631	5535210	< 5	137	0.5
724-9	672631	5535210	< 5	157	0.6
725-1	672551	5535102	< 5	454	0.8
725-2	672572	5535018	< 5	209	0.7
725-3	672640	5534884	15	1520	0.9
725-4	672680	5534851	< 5	105	0.5
725-6	672915	5534605	< 5	10	0.5
725-7	672969	5534521	< 5	229	1.5
725-8	672995	5534444	< 5	58	0.6
725-9	673063	5534384	< 5	177	0.8
725-10	673157	5534081	< 5	125	0.3
725-11	673160	5533976	< 5	346	0.9
725-12	672679	5533818	7	85	0.3
725-13	672756	5533821	< 5	389	0.8
725-14	672681	5533872	< 5	13	0.4
725-15	672657	5533962	< 5	81	0.4
725-16	672631	5534171	< 5	136	0.4
725-17	672544	5534681	< 5	5	< 0.3
725-18	672537	5534774	< 5	110	0.5
725-19	672510	5534879	30	1440	0.7
725-20	672481	5534003	132	2940	4.5
725-21	672507	5535149	9	176	0.7
725-22	672522	5535242	11	459	0.7
726-1	672386	5535167	8	1030	1.3
726-2	672342	5535048	18	1050	1.4
726-3	672256	5535000	< 5	114	0.5
726-4	672243	5534935	12	276	0.6
726-5	672191	5534895	6	81	0.4
726-6	672157	5534839	76	1560	0.7
726-7	672126	5534703	< 5	4	0.4
726-8	672108	5534691	< 5	45	0.5
726-9	672127	5534642	< 5	6	< 0.3
726-10	672132	5534552	< 5	32	< 0.3

Sample ID	Easting (m)	Northing (m)	Au (ppb)	Cu (ppm)	Ag (ppm)
726-11	672023	5534524	< 5	10	0.5
726-12	671802	5534223	< 5	12	0.5
726-13	671855	5534179	< 5	1120	2.5
726-14	671869	5534176	< 5	4930	5.9
726-15	672060	5534132	< 5	44	< 0.3
726-16	672272	5534200	< 5	67	0.5
726-17	672420	5534448	< 5	32	< 0.3
726-18	672579	5534660	< 5	49	< 0.3
726-19	672562	5534692	< 5	149	0.5
726-20	672514	5534769	< 5	78	0.4
726-21	672499	5534819	5	44	0.4
726-22	672515	5534949	26	1660	2.2
726-23	672555	5535015	8	365	0.7
726-24	672555	5535086	< 5	192	0.5
726-25	672601	5535126	20	2960	2.5
726-26	672717	5535146	29	599	0.9
825-1	672558	5535332	< 5	14	0.5
825-2	672442	5535324	67	684	1.4
825-3	672378	5535254	15	1170	0.9
825-4	672309	5535220	8	222	0.5
825-5	672161	5535105	11	496	0.5
825-6	671995	5535059	20	861	0.8
825-7	671948	5535066	< 5	224	0.4
825-8	671889	5534962	< 5	135	< 0.3
825-9	671756	5534924	< 5	58	0.3
825-10	671647	5534905	< 5	86	0.5
825-11	671551	5534758	< 5	20	< 0.3
825-12	671392	5534753	< 5	321	1
825-13	671344	5534727	< 5	91	0.4
826-1	672430	5535301	67	1030	0.6
826-2	672372	5535268	21	804	0.6
826-3	672272	5535282	6	79	0.6
826-4	672135	5535264	12	241	0.4
826-5	671977	5535267	< 5	58	0.4
826-6A	671855	5535229	7	>10000	41.7
826-6B	671855	5535229	< 5	>10000	52.2
826-7	671795	5535217	< 5	15	0.5
826-8	671554	5535207	< 5	49	0.4
826-9	671421	5535256	< 5	8	< 0.3
827-1	672357	5535388	21	552	0.5

Sample ID	Easting (m)	Northing (m)	Au (ppb)	Cu (ppm)	Ag (ppm)
827-2	672183	5535378	11	184	0.6
827-3	672159	5535397	28	610	0.7
827-4	672263	5535398	< 5	31	< 0.3
827-5	672418	5535317	115	1100	0.7
828-1	680001	5502398	6	130	0.4
828-2	679505	5502402	< 5	45	0.5
829-1	672874	5535409	< 5	27	0.4
829-2	673003	5535418	< 5	88	0.5
829-3	673225	5535529	< 5	65	< 0.3
829-4	673335	5535668	< 5	42	0.6
829-5	673497	5535473	< 5	76	0.4
829-6	673525	5535353	< 5	43	1.2
829-7	673522	5535243	< 5	46	< 0.3
829-8	672999	5535269	< 5	28	< 0.3
829-9	672663	5535268	65	715	0.5
906-1	671291	5537467	< 5	32	0.5

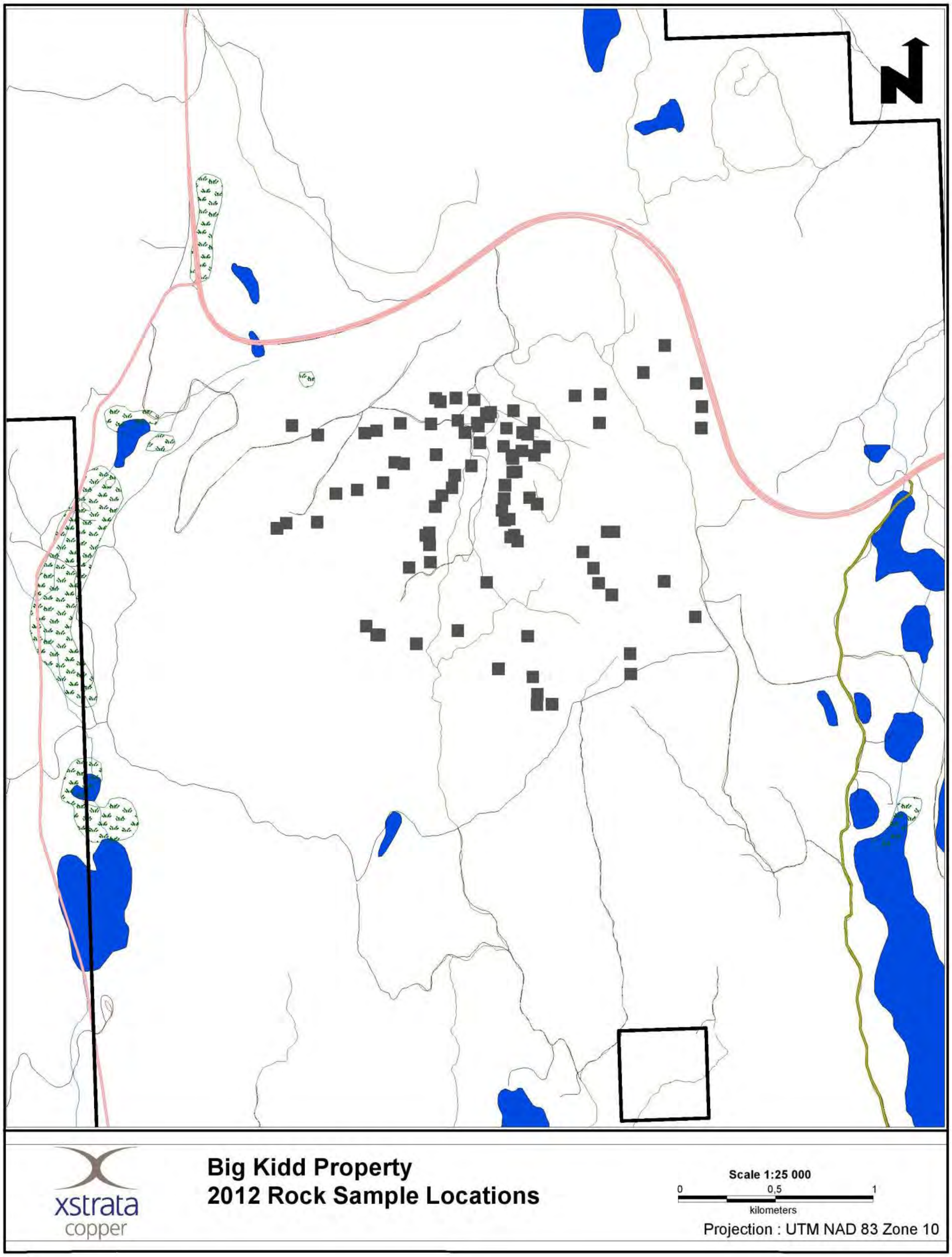

Figure 5 - Big Kidd Property: 2012 Rock Sample Locations

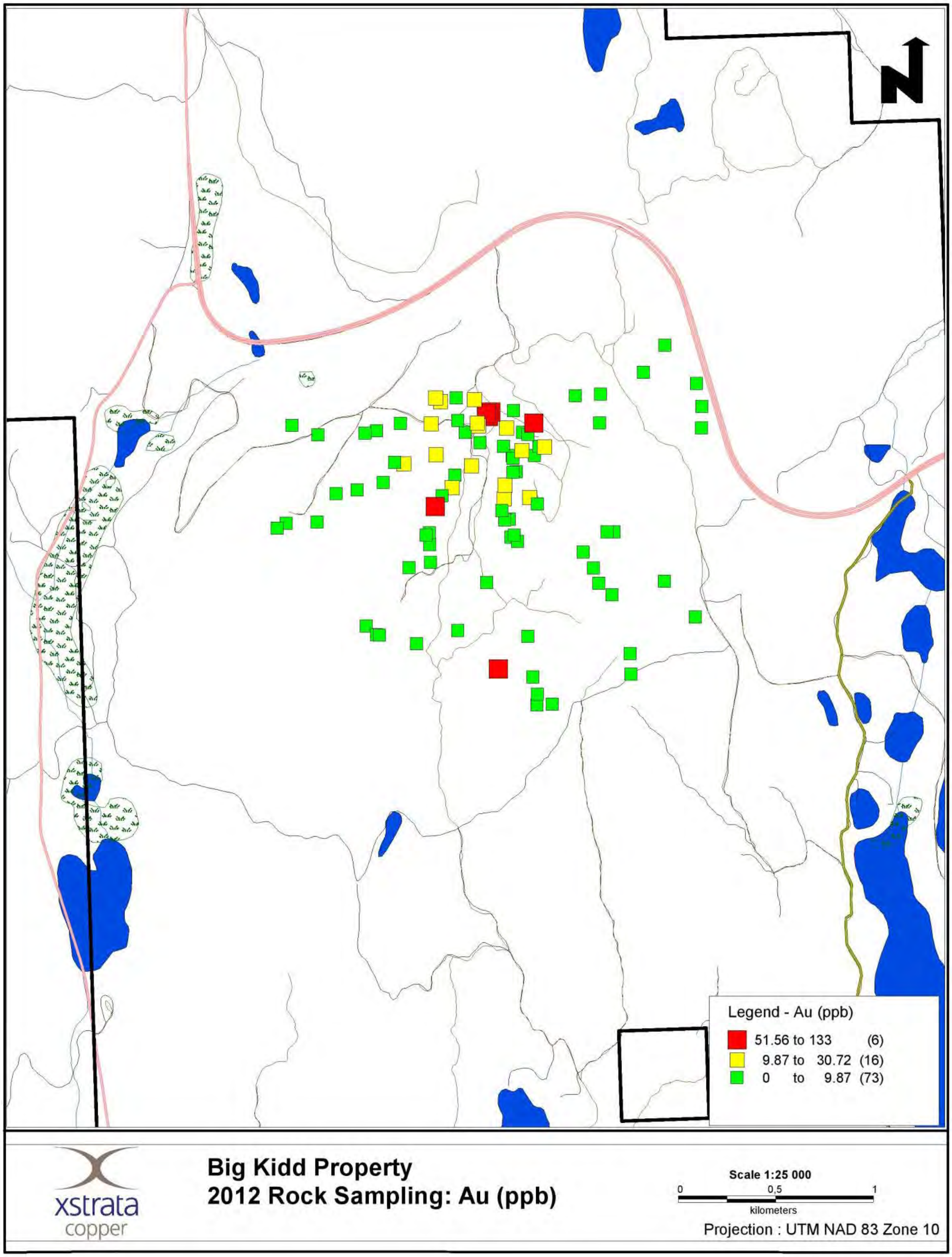

Figure 6 - Big Kidd 2012 Rock Samples: Au (ppb)

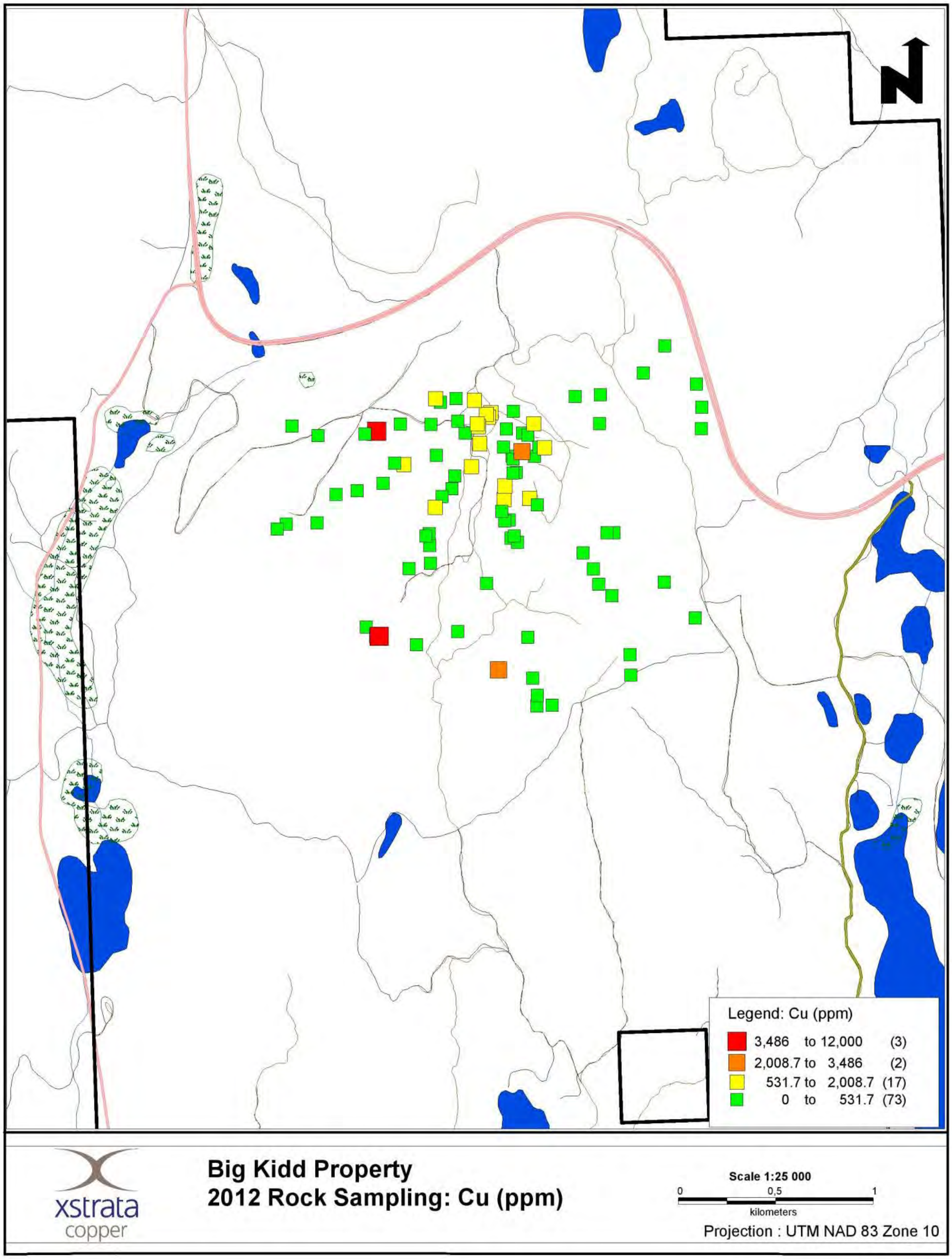

Figure 7 - Big Kidd 2012 Rock Samples: Cu (ppm)

9.4 PROSPECTING

Prospecting in 2012 was limited, and was largely focused on the Big Kidd Breccia, with some additional prospecting on the rolling hills south of the breccia (see Figure 8 below). Rock sampling around the Big Kidd Breccia, as outlined above, sought to delineate alteration vectors to aid in the identification of a large-scale porphyry system on the property. A total of 91 samples of those collected across the Big Kidd Breccia were described in terms of lithology, alteration minerals, alteration assemblage, alteration intensity (ranked from 1-4), mineralization, magnetism etc. Nearly all rock samples featured epidote+chlorite+/-carbonate alteration minerals, indicative of propylitic alteration. Minor suspected calc-sodic alteration identified in a few samples is represented as a bleached cream-green albite-actinolite+/-chlorite-carbonate assemblage. Potassic alteration was represented only as weak alteration in two samples. Mineralization in samples includes pyrite, chalcopyrite, bornite and malachite. No alteration vector was identified, and further work is required to complete outcrop sampling in the area and produce an alteration map. Alteration intensity of samples is represented below in Figure 9.

Prospecting in the area south of the Big Kidd Breccia revealed extensive volcanic cover with weak alteration. Central Group Nicola Volcanics are represented as maroon amygdaloidal basalts-trachybasalts, with lesser mafic crystal and lithic tuffs. Volcanics are relatively fresh, with roughly 30% of samples displaying no alteration. Altered volcanics feature weak epidote +/- chlorite – calcite, often as amygdule infillings and fracture fillings. Trace chalcopyrite and pyrite were identified in one sample, with possible trace bornite in another sample. Overall the area features little overburden cover, and relatively unaltered mafic volcanics. Therefore this area does not represent an attractive target for future ground exploration.

Full rock sample descriptions are tabulated in Appendix E.

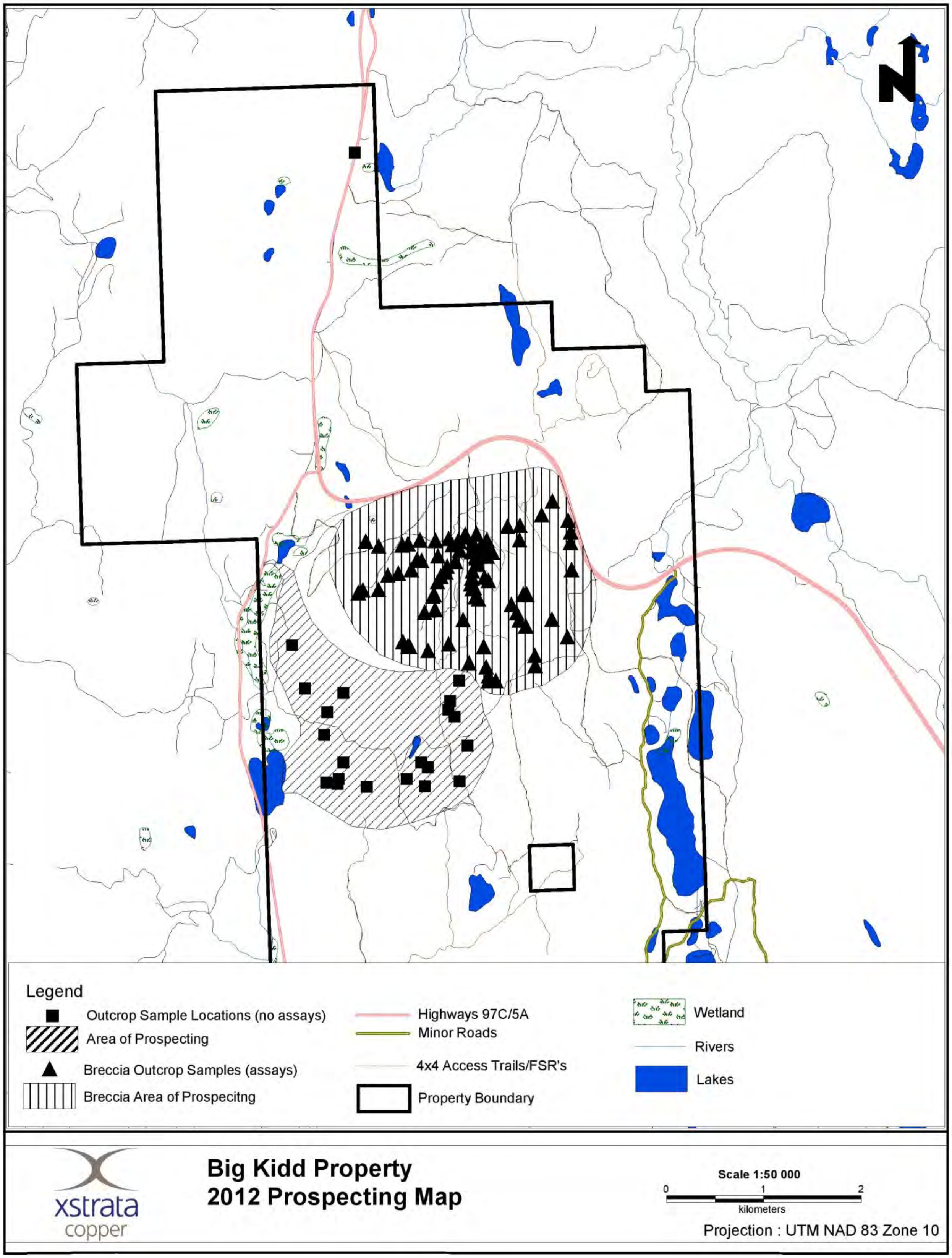

Figure 8 - Big Kidd 2012 Prospecting Map

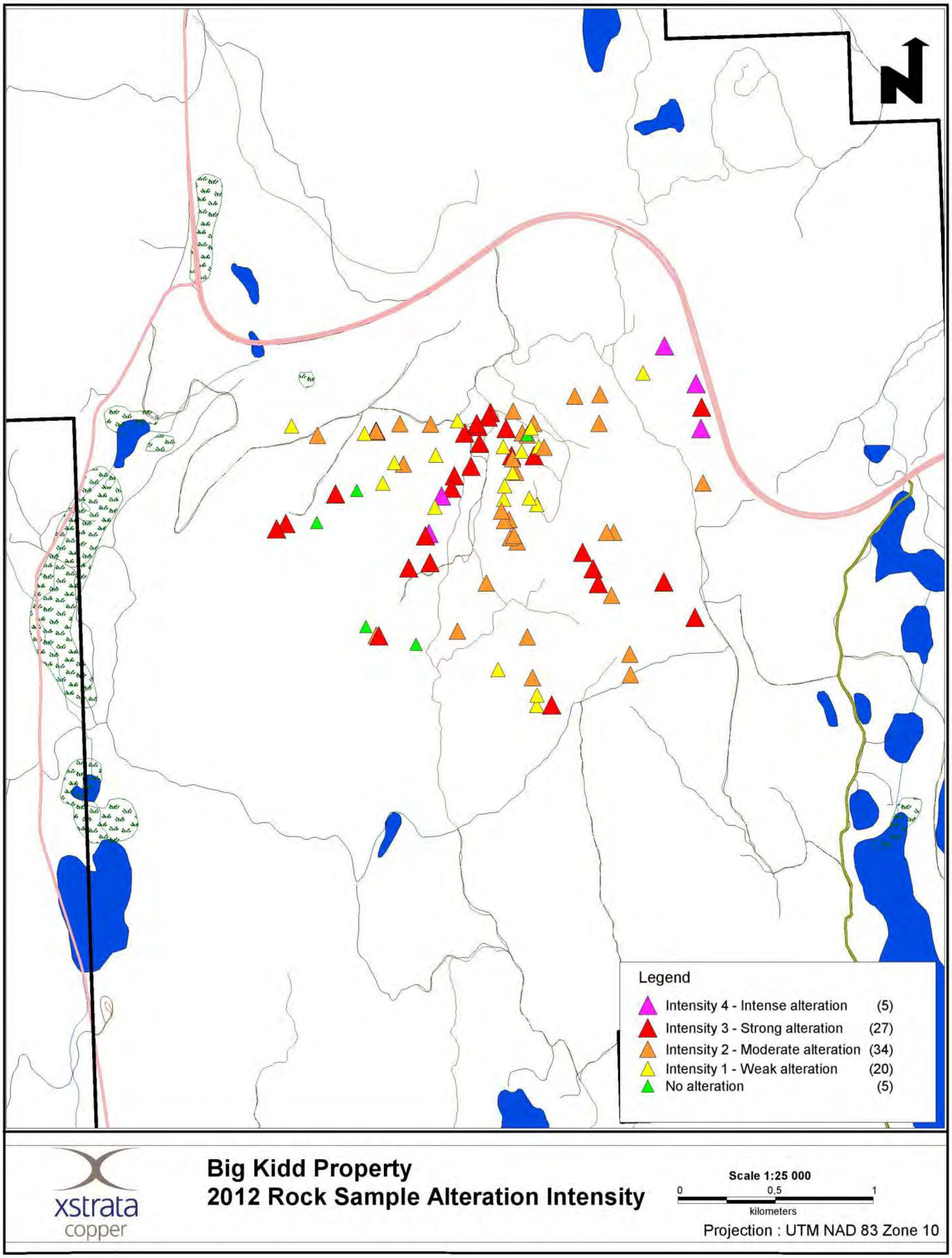

Figure 9 - Big Kidd Property: Alteration Intensity in Rock Samples

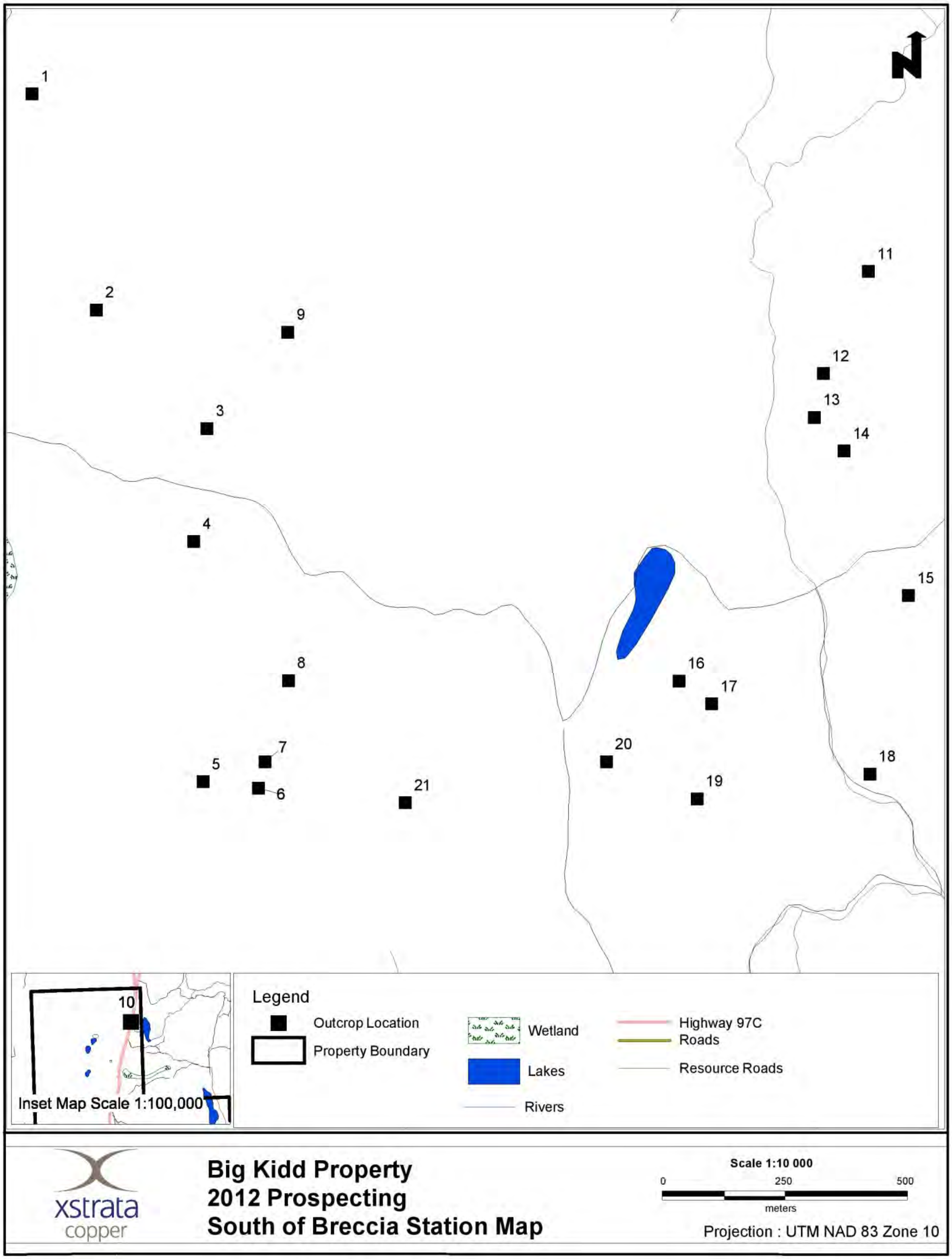

Figure 10 - Area South of Breccia Prospecting Map

10.0 RESULTS AND INTERPRETATION

Drilling in 2012 targeted chargeability highs, soil geochemical anomalies and magnetic anomalies; utilizing exploration vectors determined by previous drilling. Results from 2012 drilling were disappointing, with a lack of significant copper mineralization over long intercepts. Mineralization was inconsistent and sporadic, and largely restricted to small intervals of 1.5 meters (sample lengths). The most notable copper and gold mineralization was drilled in BK-12-01 west of the Big Kidd Breccia, with the best intersections represented by 39 meters of 0.14% Cu and 24 meters of 0.14% Cu.

Induced Polarization surveying carried out on a property wide scale identified a large chargeability anomaly over the Big Kidd Breccia, overlying the north-northwest trending magnetic high that bisects the central area of the property. The majority of the historic and recent drilling was conducted within this anomaly returning varying amounts of copper mineralization. Chargeability nomalies appear to be largely correlated with high pyrite and/or clay content.

A strong chargeability anomaly in the southwest region of the survey area (Line 1800N) represents an area of interest for future exploration efforts, and is located south of historical exploration efforts in what has been termed the “Dago” claims.

Sampling carried out over the extent of the Big Kidd Breccia sought to delineate an alteration or mineralization vector to aid in the identification of a large-scale porphyry system on the property. However, sampling at this point is too limited to determine a gold or copper mineralization vector outwards from the center of the breccia.

Prospecting in the area south of the Big Kidd Breccia revealed extensive volcanic cover with weak alteration. Overall the area features little overburden cover, and relatively unaltered mafic volcanics. Therefore this area does not represent an attractive target for future ground exploration.

11.0 RECOMMENDATIONS AND FUTURE WORK PROGRAM

The region south of the ‘Dago’ area represents an attractive target for future exploration efforts, featuring coincident strong chargeability and soil geochemical anomalies. The geology and mineralization style are poorly understood in this area, and future exploration efforts should focus on the structural aspects of the region.

Follow-up drilling is not immediately recommended in the Big Kidd Breccia or Big Sioux area targeted in last year’s program. No alteration vector was identified in the area of the Big Kidd Breccia, and further work is required to complete outcrop sampling in the area and produce an alteration map. This work should be extended to the Big Sioux area to determine if the potential for a large-scale porphyry system exists in the central area of the property.

12.0 REFERENCES

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Durfeld, R.M. (2003): Exploration (Drilling and Trenching) Report on the Big Kidd Gold-Copper Project for Christopher James Gold Corp., Nicola Mining Division, December, 2003.

Folk, P.G. (2011): Technical Report on the Big Kidd Property for Jiulian Resources Inc. (43-101), Aspen Grove Copper Camp, May, 2011.

Kerr, J.R. (2008): Summary Report on the Axe Project for Weststar Resources Ltd., National Instrument 43-101 (Technical Report).

Preto, V.A. (1979): Geology of the Nicola Group between Merritt and Princeton, Bulletin 69, Province of British Columiba, Ministry of Energy, Mines and Petroleum Resources.

Shives, R. and May, B. (2009): Report on an Airborne Geophysical Survey of the Big Kidd Property, Aspen Grove, BC, Nicola Mining Division, August, 2009.

Wells, R.C. (1999): Assessment Report on Phase 1 and 2 Diamond Drilling, North Breccia Zone on the Big Kidd Property, Nicola Mining Division, December, 1999.

13.0 STATEMENT OF QUALIFICATIONS

Statement of Qualifications

I, Gordon Maxwell, of the town of Timmins, Ontario do certify,

1. I am a geologist residing at 118 Beregon Court, Timmins, Ontario
2. I graduated from the University of Manitoba in 1982 with BSc Hon. Geology
3. I am a professional geologist, registered (0263) in good standing with the Association of Professional Geoscientists of Ontario (APGO)
4. I have been practicing my profession since 1982 and I currently hold the position of Exploration Manager with Xstrata Canada Corporation.

Dated at Timmins, ON
March 19, 2013

PROFESSIONAL GEOSCIENTIST
GORDON J. MAXWELL
PRACTISING MEMBER
0263
ONTARIO

Gordon Maxwell
Exploration Manager
Xstrata Canada Corporation

Appendix A

Induced Polarization Survey Report by Walcott & Associates

AN ASSESSMENT REPORT

ON

INDUCED POLARIZATION SURVEYING

BIG KIDD
Aspen Grove Area, British Columbia
NICOLA M.D.
49°55'N, 120°36'W
NTS 92 H/15

Claims Surveyed: **399035,509561,509569,509579**

Survey Dates: **Feb 1st – March 14th , 2012**

FOR

XSTRATA COPPER CANADA DIVISION
Timmins, Ontario

BY

PETER E. WALCOTT & ASSOCIATES LIMITED
Coquitlam, British Columbia

APRIL 2013

APPENDIX A
OF MAIN ASSESSMENT REPORT BY XSTRATA

XSTRATA COPPER CANADA
INDUCED POLARIZATION SURVEY
CLAIM AND LINE LOCATION MAP
BIG KIDD PROJECT, MARCH 2012
0 125 250 500 750 1,000
Meters
670000
672000
674000
5540000
5538000
5536000
5534000
5532000
92H/15
Coquihalla Highway 97C
Merritt-Princeton Highway No 5A
509561
399035
509569
509579
L9400 N
L9000 N
L8600 N
L7400 N
L7000 N
L6600 N
L6200 N
L5800 N
L5400 N
L5000 N
L4600 N
L4200 N
L3800 N
L3400 N
L2600 N
L2200 N
L1800 N
L1400 N
L1000 N
TINMILSH LAKE
BLUE JAY
TAB
SNOWFLAKE 10
SNOWFLAKE 7
SNOWFLAKE 2
JUNE
GOLDEN SOVEREIGN (L.1528)
TULE LAKE
BIG SIOUX
BORNITE
ASPEN GROVE GATE
DOTE 4
DOTE 1
BIG KIDD
DOTE 9
BIG KID (L.1405)
DOTE 15
COPPER BELL
COPPER STANDARD (L.1403)
GOLDEN GATE (L.1332)
DAGO
GEORGIA (L.1101)
NICOLA (L.1407)
PAYCINCI
LITTLE LOTTIE (L.1190)
BLAK
AL 2

XSTRATA COPPER CANADA
INDUCED POLARIZATION SURVEY
HISTORIC AIRBORNE MANGETIC SURVEY
WITH IP LINE LOCATION
BIG KIDD PROJECT, MARCH 2012
0 125 250 500 750 1,000
Meters
670000
672000
674000
BLUE JAY
SNOWFLAKE 10
JUNE
TAB
SNOWFLAKE 7
TULE LAKE
BIG SIOUX
BORNITE
ASPEN GROVE/AGATE
BIG KIDD
BLUE BIRD
COPPER BELL
COPPER STANDARD
L9400 N
L9000 N
L8600 N
L7400 N
L7000 N
L6600 N
L6200 N
L5800 N
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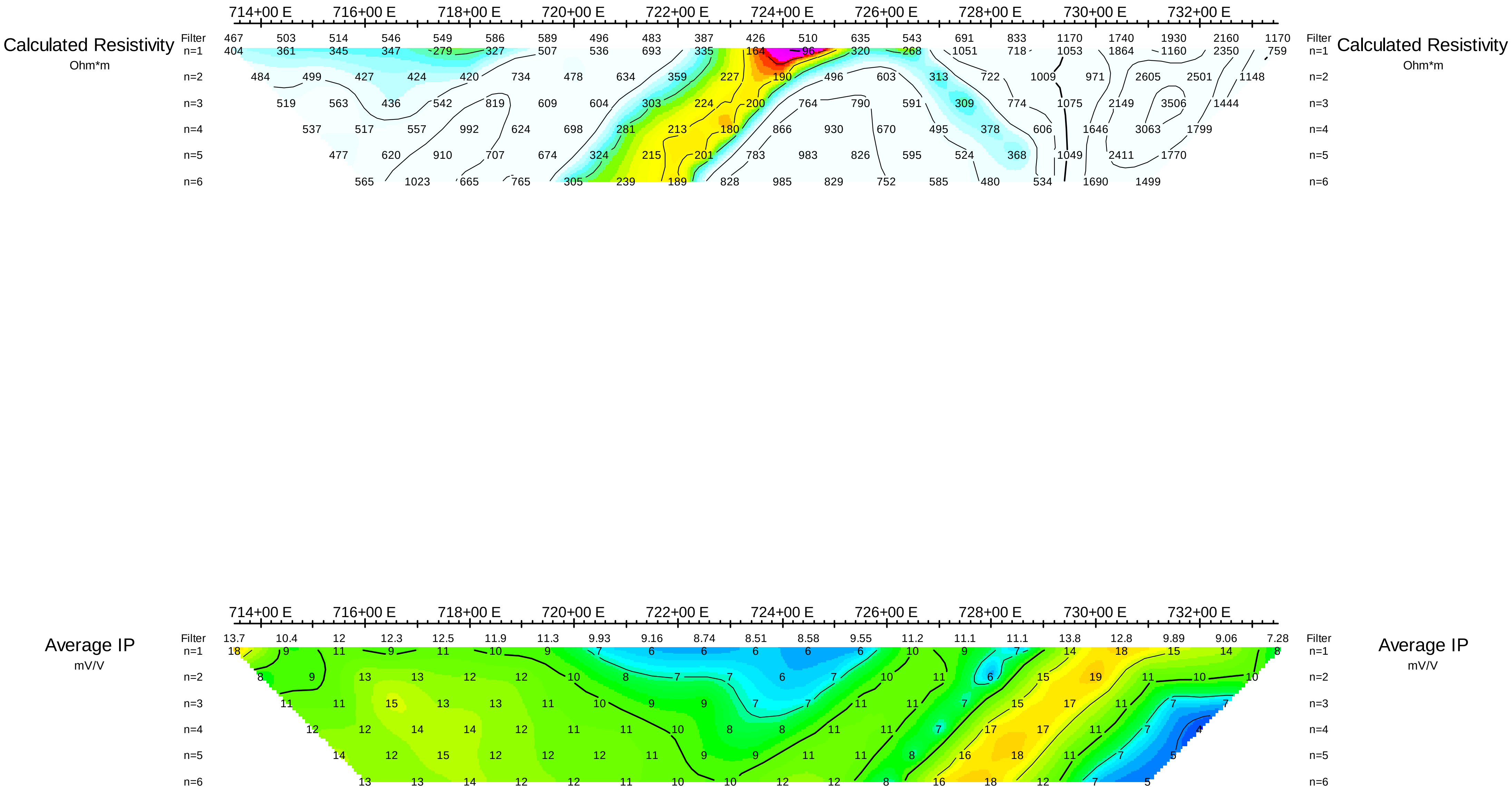
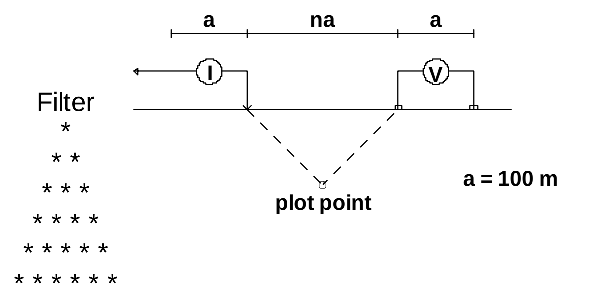
L1000 N



10+00 N

Pole-Dipole Array



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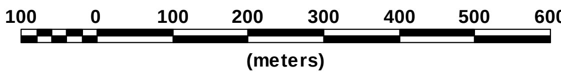
Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



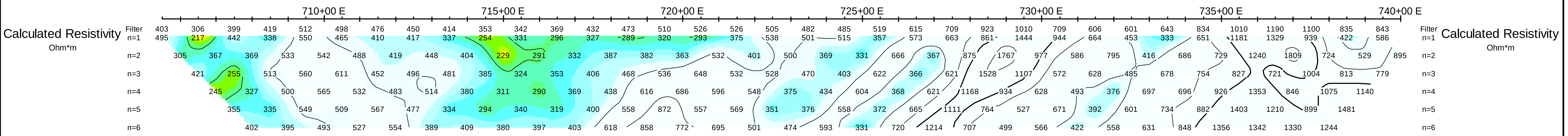
XSTRATA

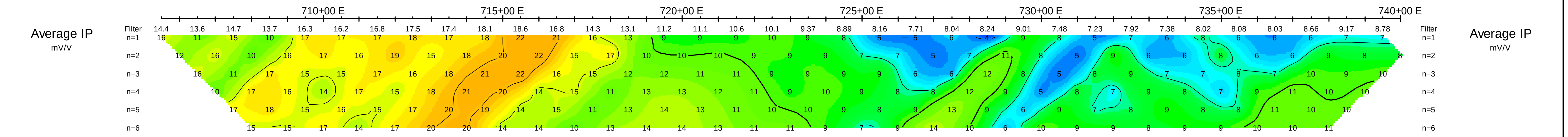
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

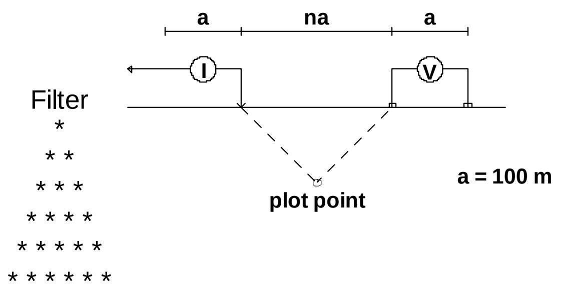
PETER E. WALCOTT & ASSOCIATES LIMITED

14+00 N





Pole-Dipole Array



Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

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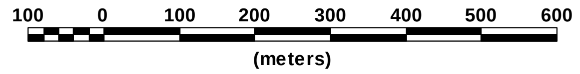

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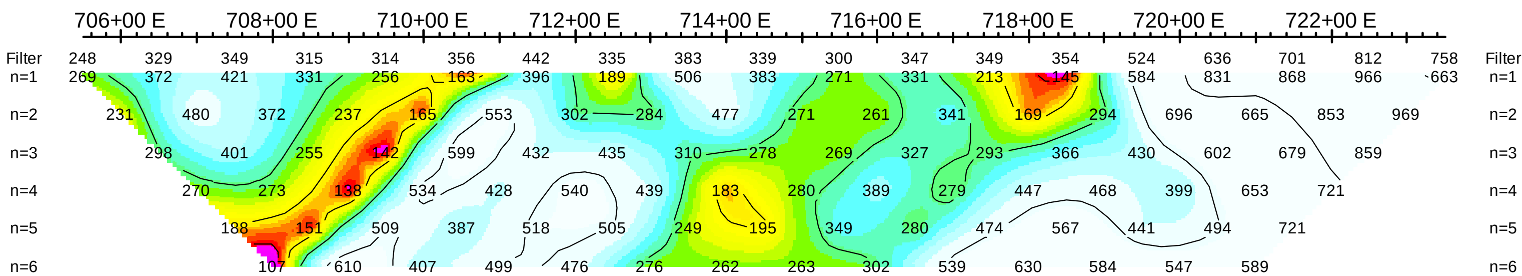
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

PETER E. WALCOTT & ASSOCIATES LIMITED

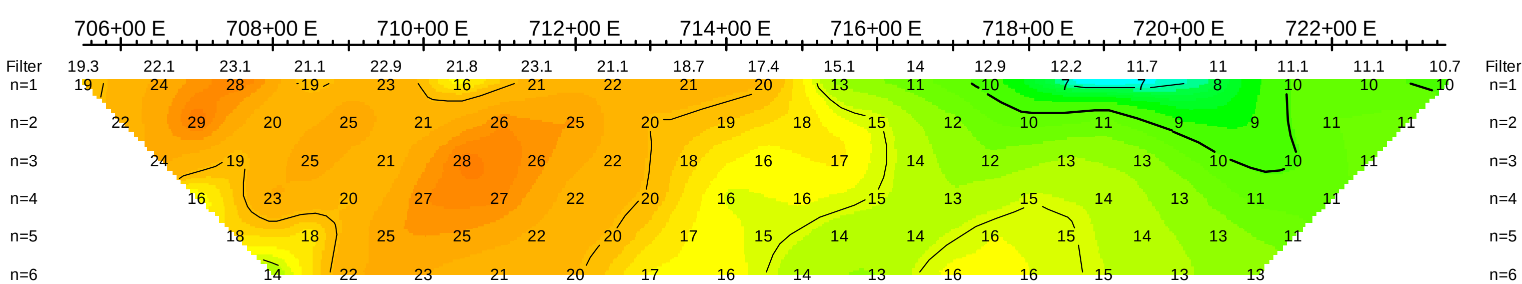
18+00 N

Calculated Resistivity
Ohm*m



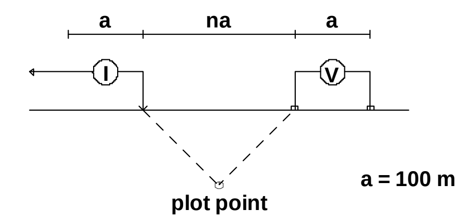
Calculated Resistivity
Ohm*m

Average IP
mV/V



Average IP
mV/V

Pole-Dipole Array



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Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

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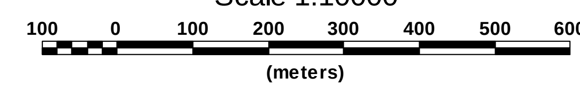

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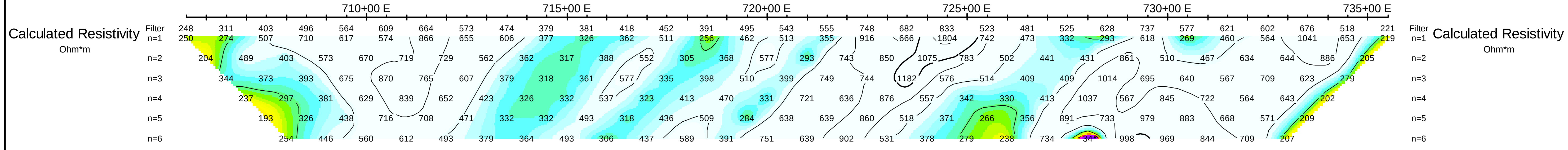
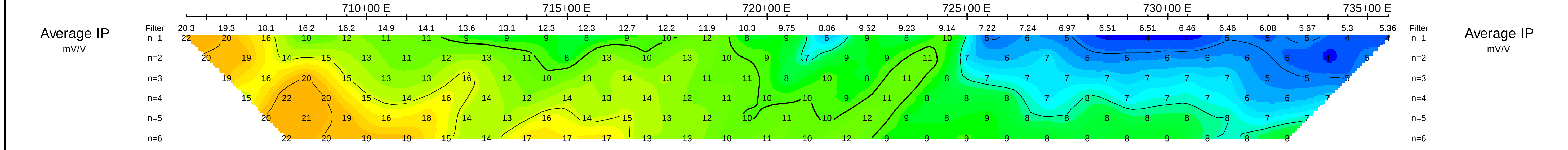
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

PETER E. WALCOTT & ASSOCIATES LIMITED

22+00 N





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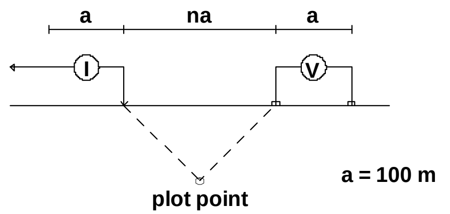

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Operators: J.C., B.J.

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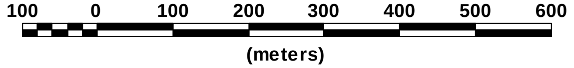

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INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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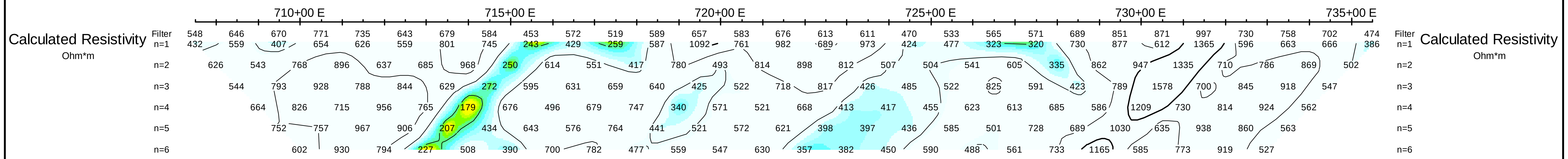

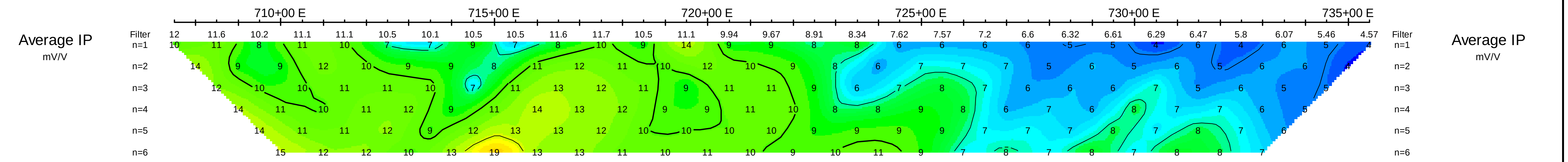

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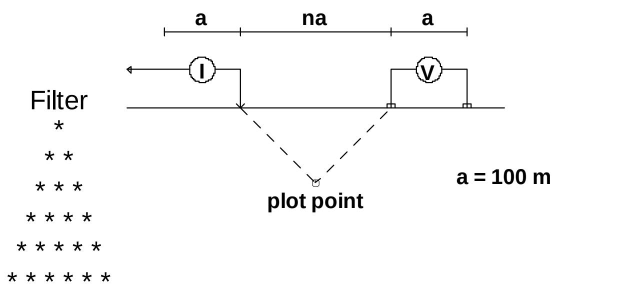

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Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

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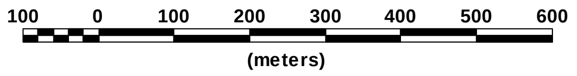

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BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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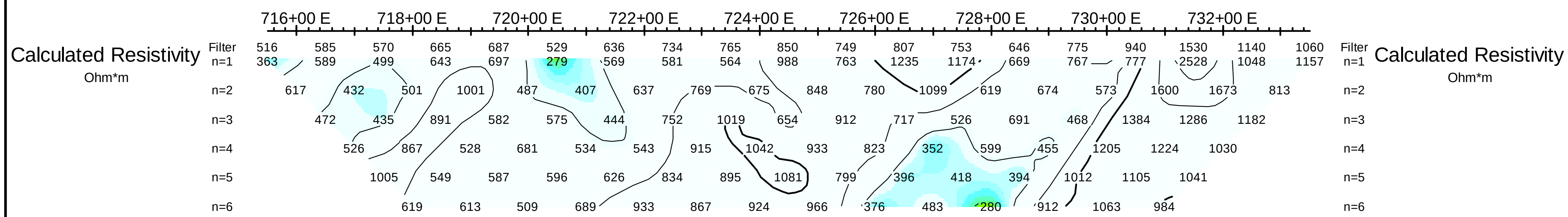

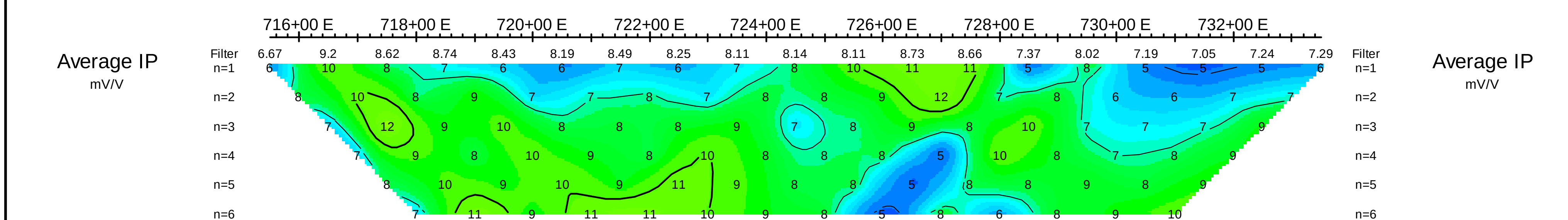

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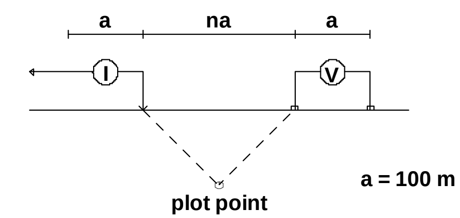

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Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

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100 0 100 200 300 400 500 600
(meters)

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BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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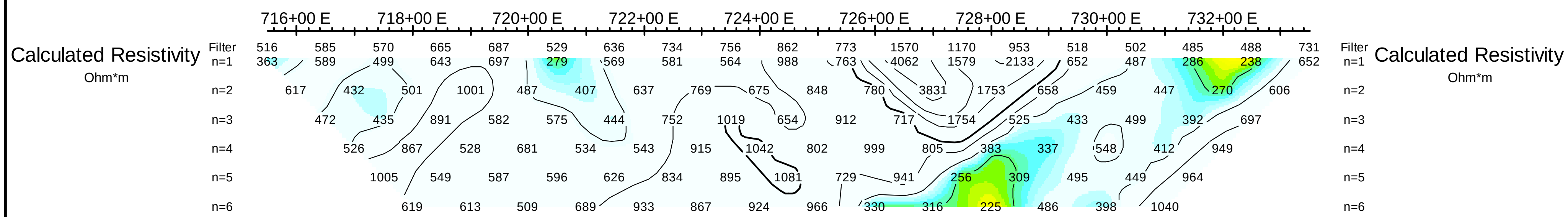
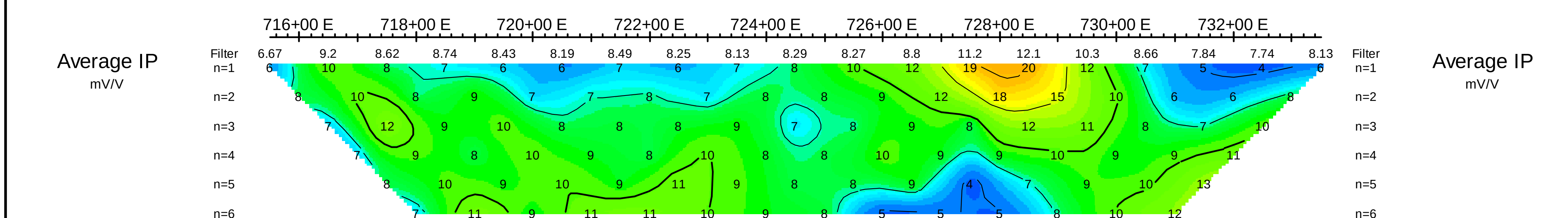
38+00 N





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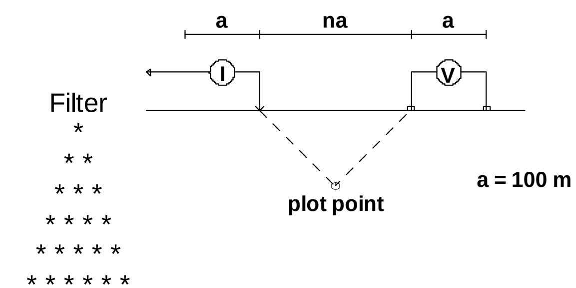

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Operators: J.C., B.J.

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

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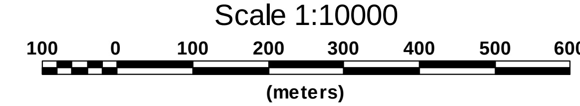

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BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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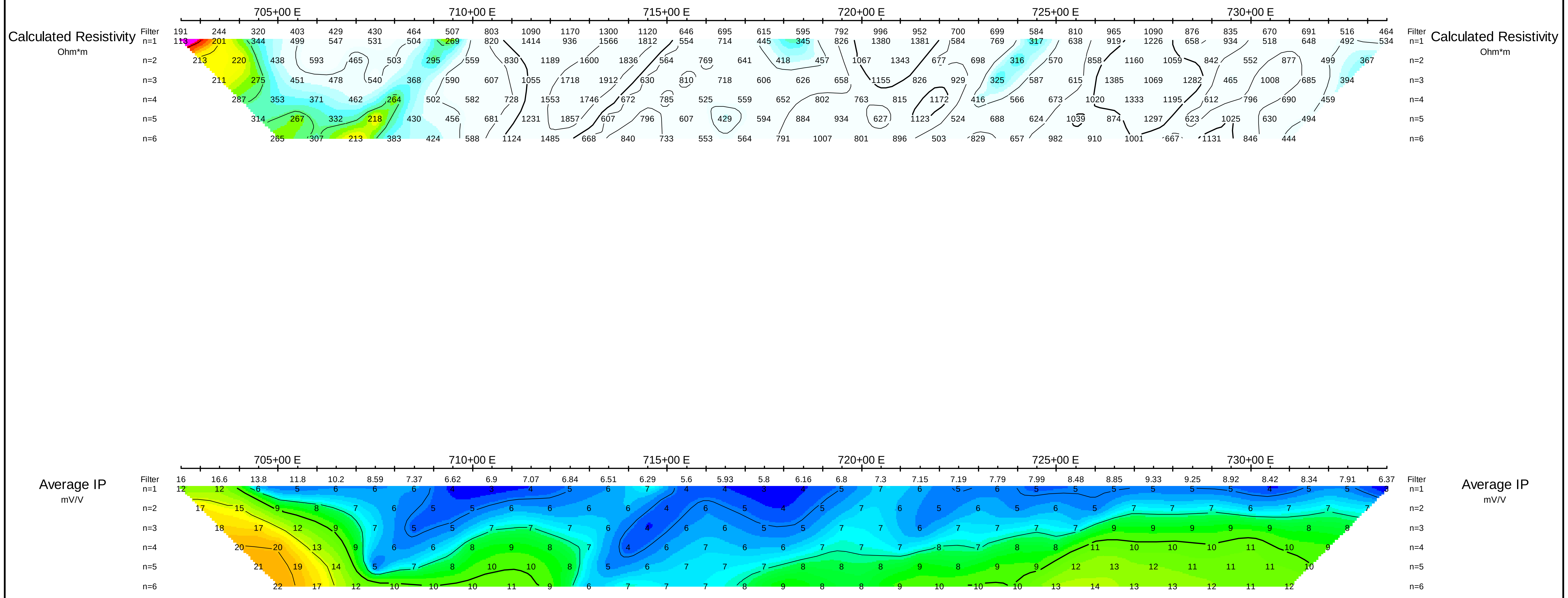
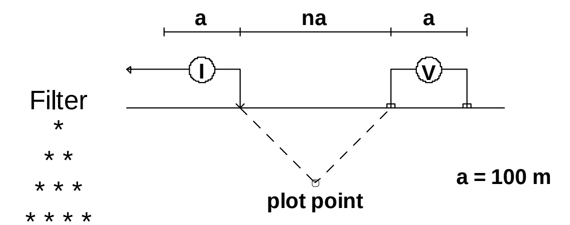
42+00 N



Pole-Dipole Array

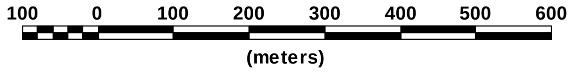


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



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INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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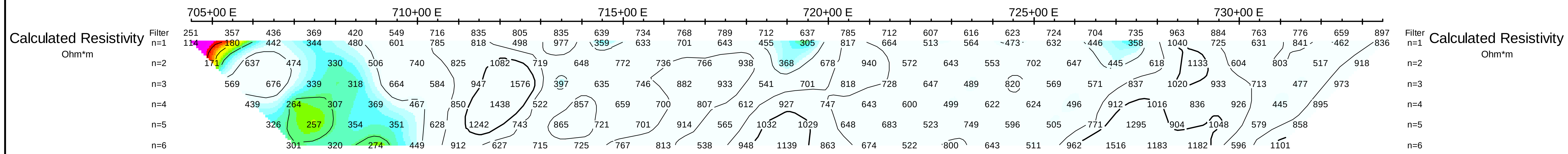
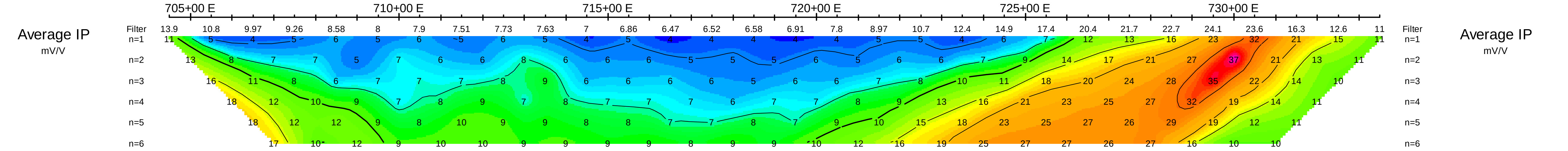
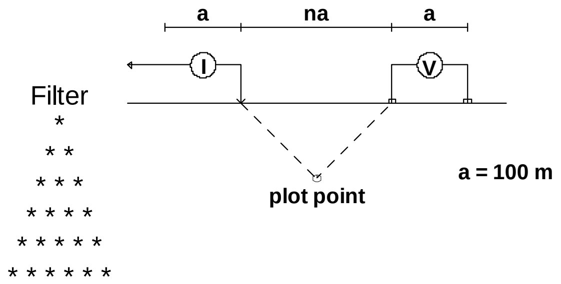
46+00 N





Pole-Dipole Array

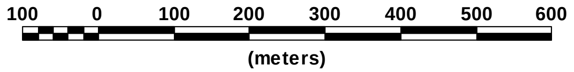


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000

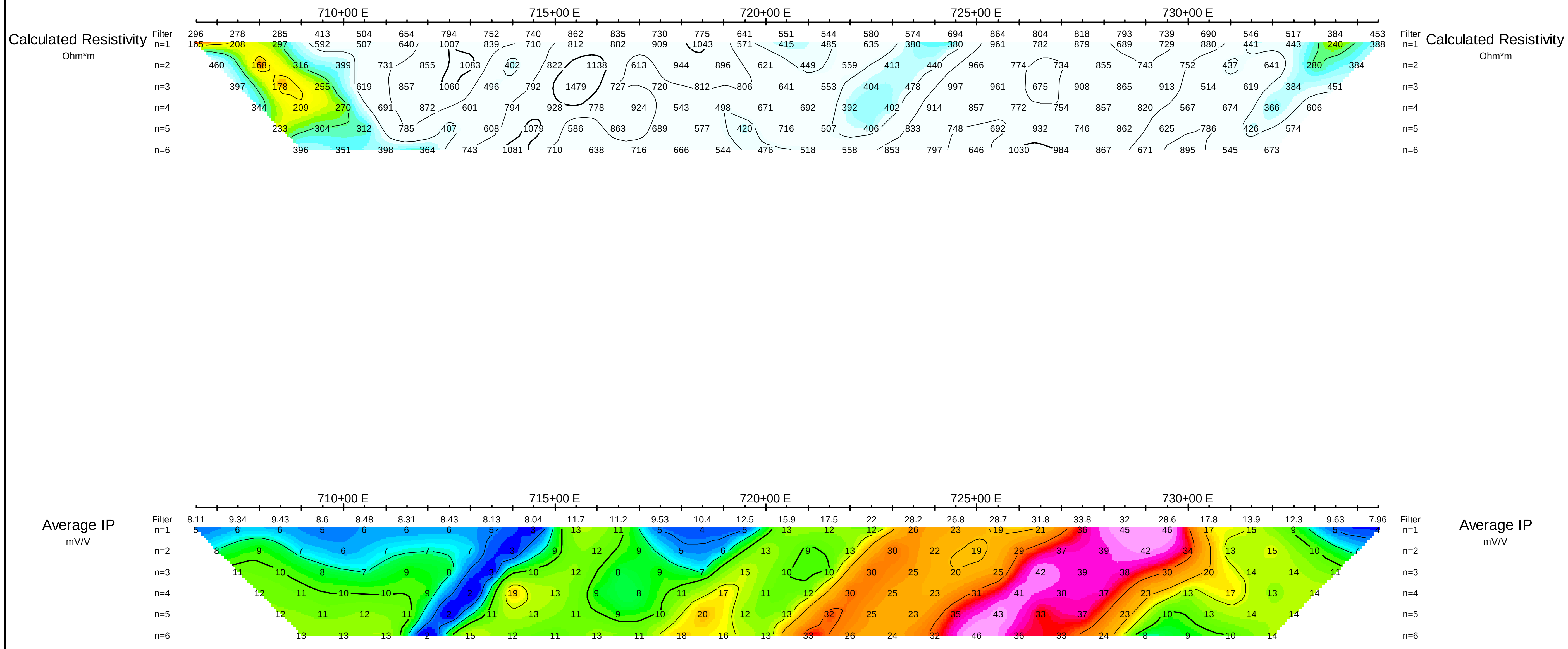


XSTRATA

INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

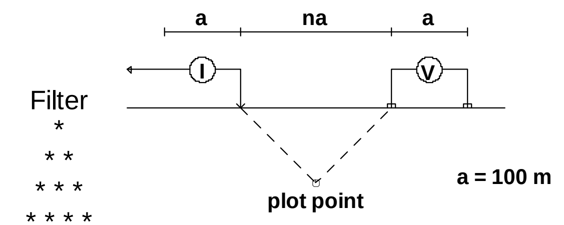
Date: WINTER 2012

PETER E. WALCOTT & ASSOCIATES LIMITED



50+00 N

Pole-Dipole Array

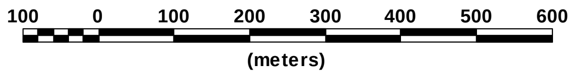


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



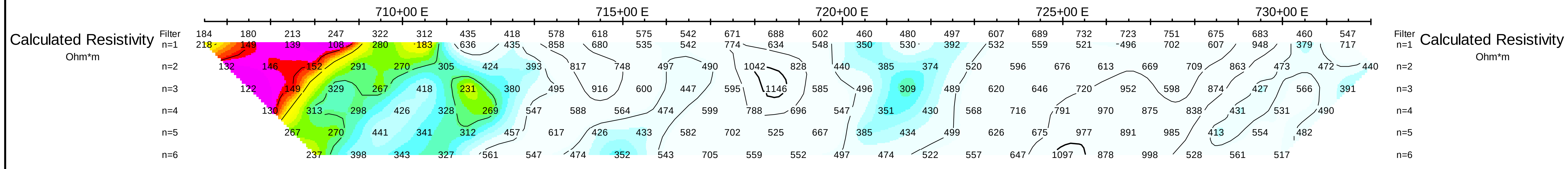
XSTRATA

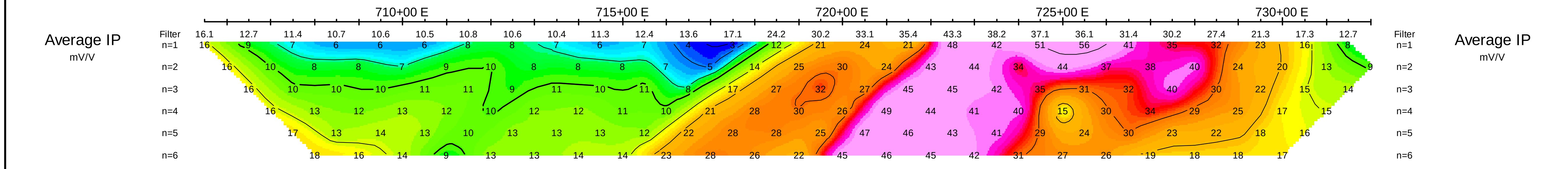
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

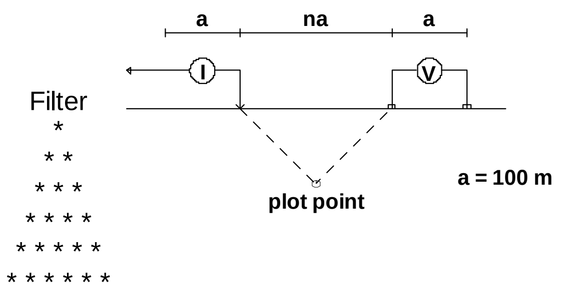
PETER E. WALCOTT & ASSOCIATES LIMITED

54+00 N





Pole-Dipole Array

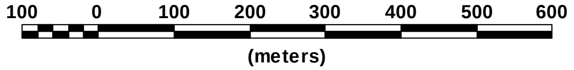


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



XSTRATA

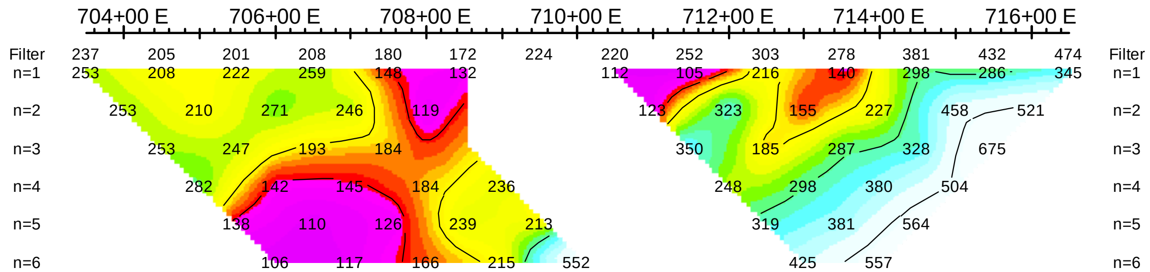
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

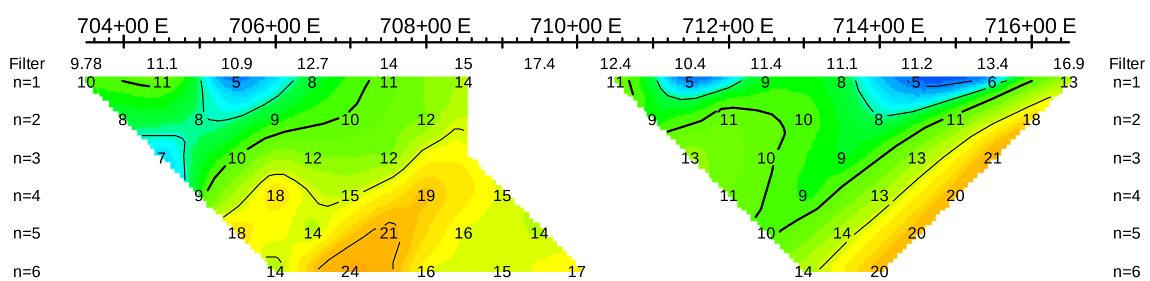
PETER E. WALCOTT & ASSOCIATES LIMITED

58+01 N

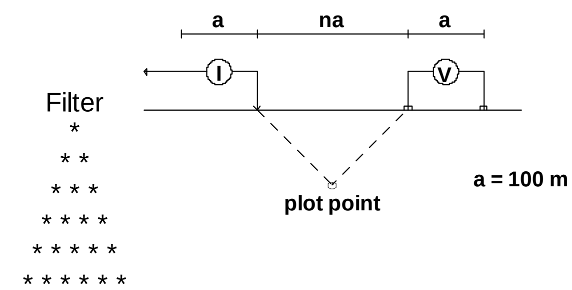
Calculated Resistivity
Ohm*m



Average IP
mV/V



Pole-Dipole Array

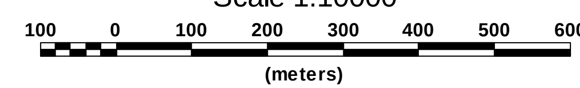


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

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

Scale 1:10000



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INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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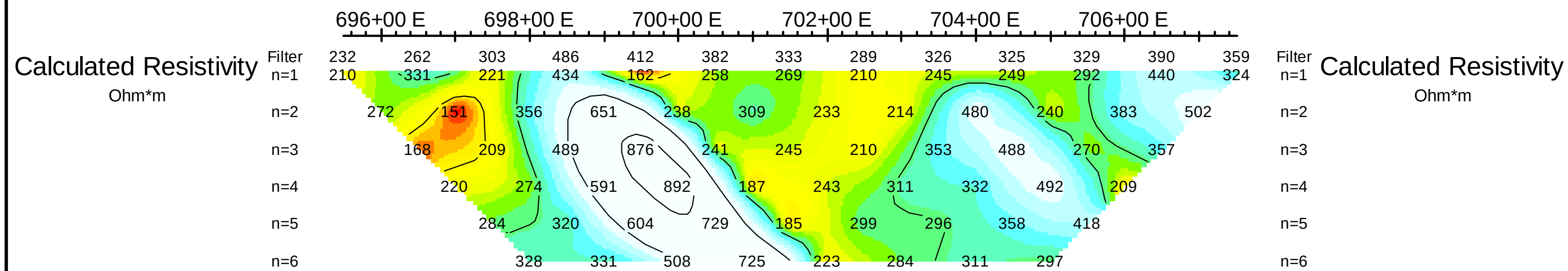
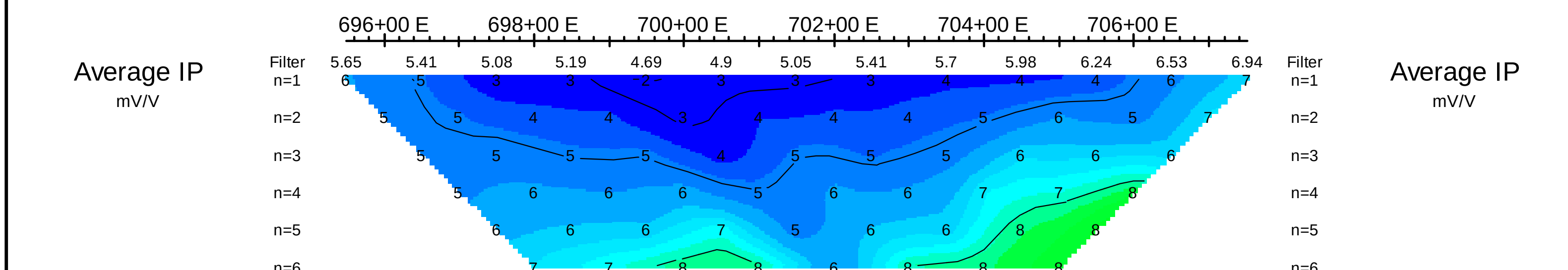
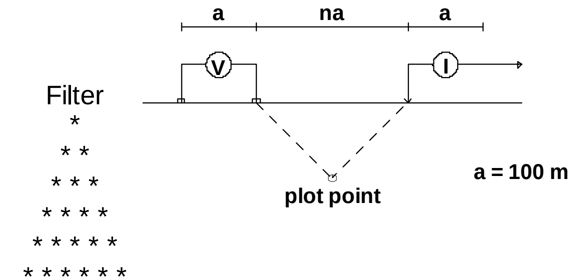




62+00 N

Dipole-Pole Array



Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

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

Scale 1:10000

100 0 100 200 300 400 500 600
(meters)

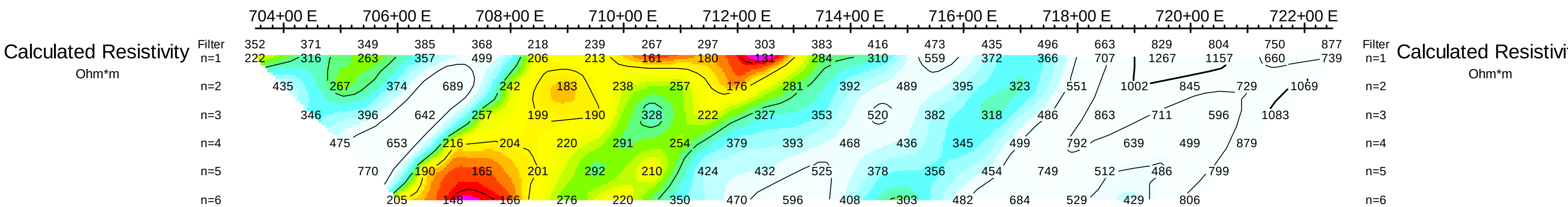
XSTRATA

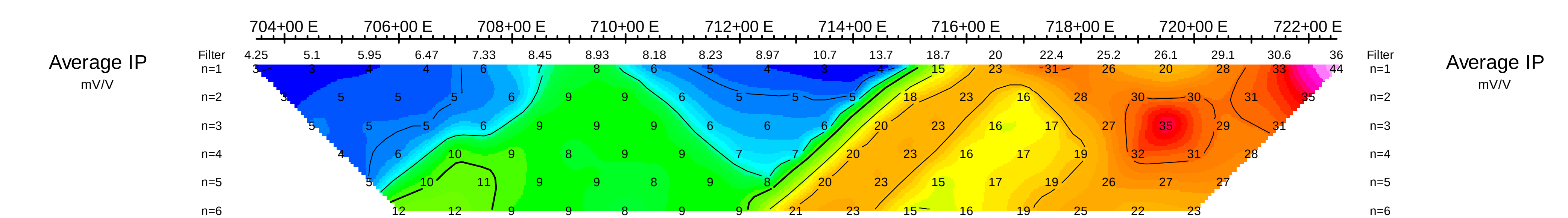
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

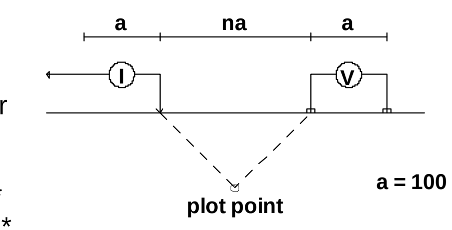
PETER E. WALCOTT & ASSOCIATES LIMITED

62+01 N





Pole-Dipole Array



Filter
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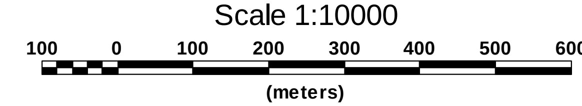
Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

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

Scale 1:10000



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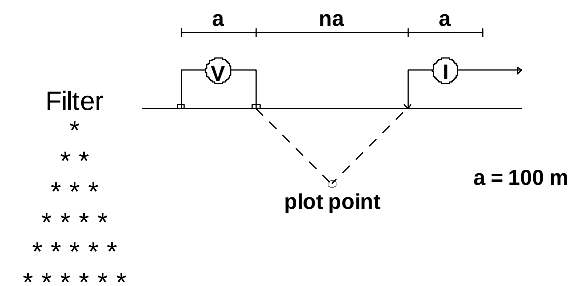
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

PETER E. WALCOTT & ASSOCIATES LIMITED

66+00 N

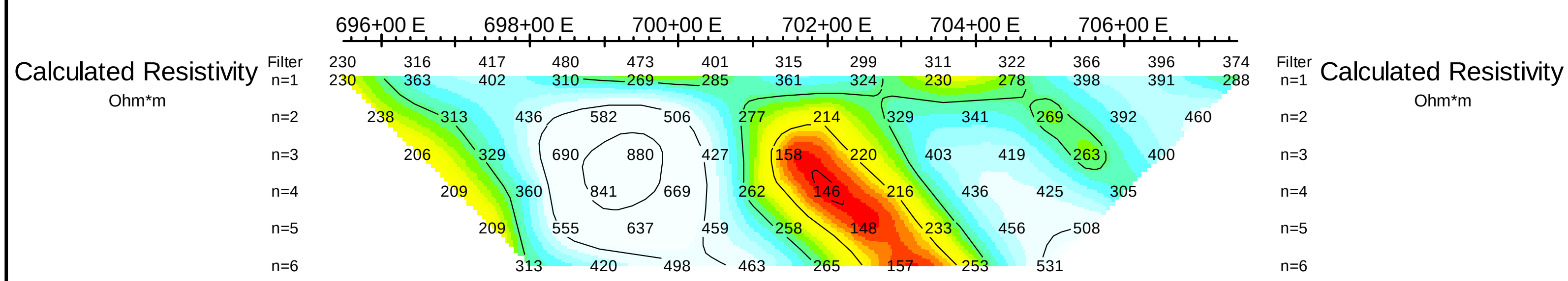
Dipole-Pole Array

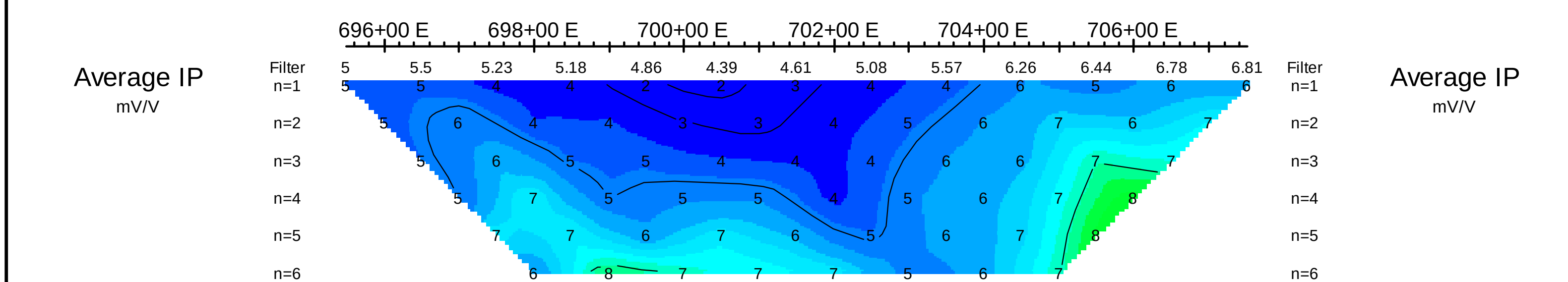


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

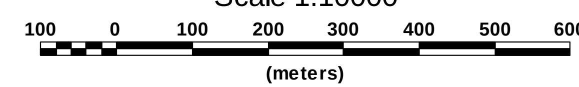
Frequency: 0.125 Hz.
Operators: J.C., B.J.

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





Scale 1:10000



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INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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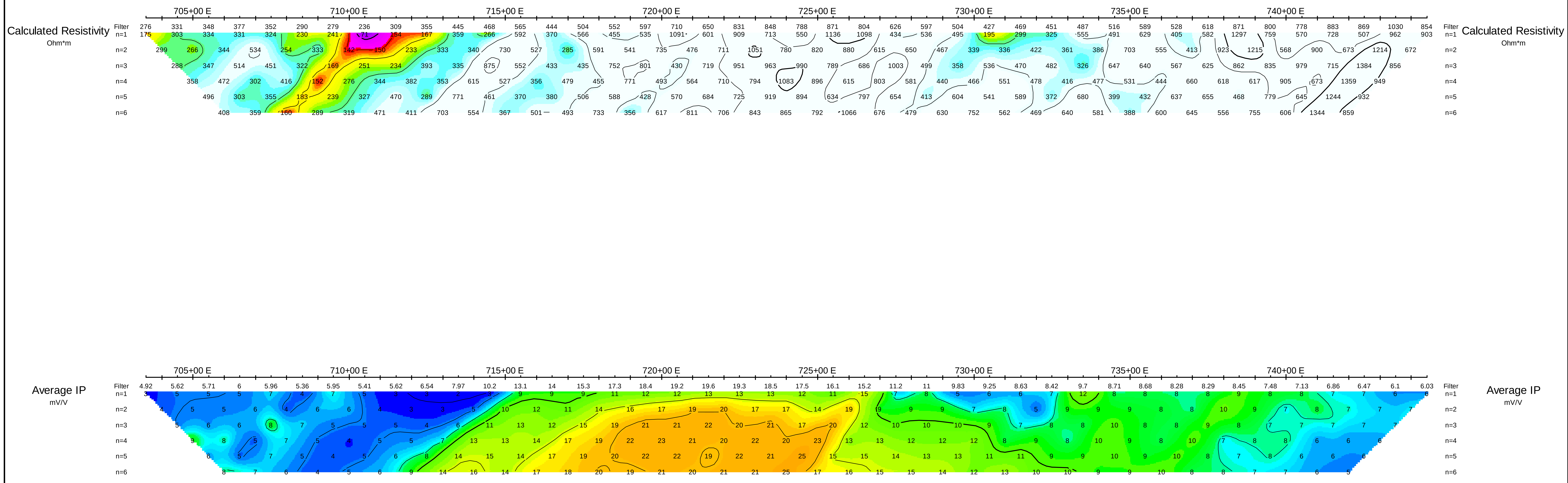
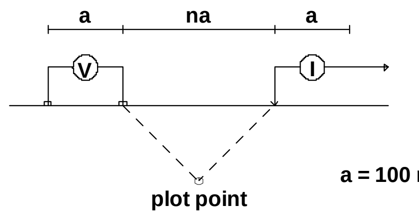


66+01 N

Dipole-Pole Array



Filter
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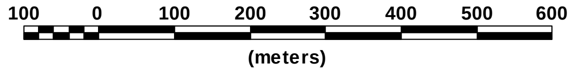
Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



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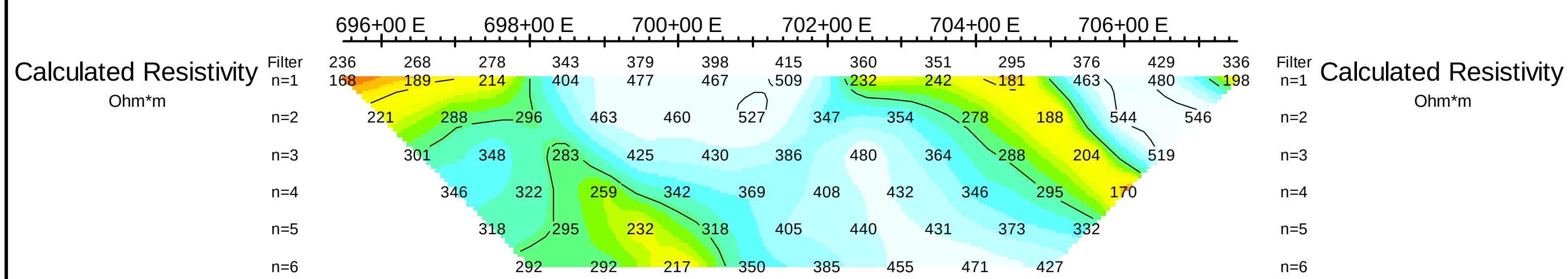
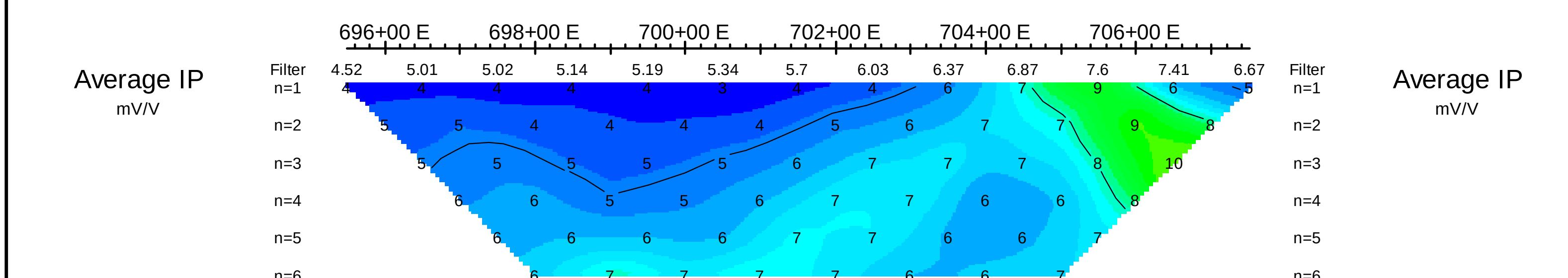
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

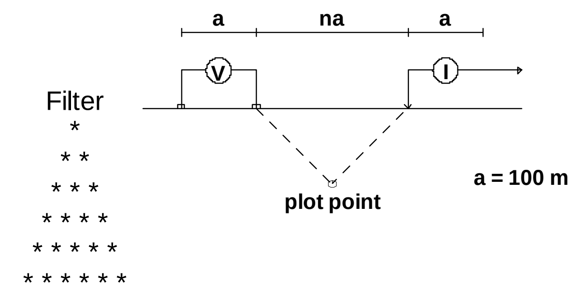
PETER E. WALCOTT & ASSOCIATES LIMITED





70+00 N

Dipole-Pole Array

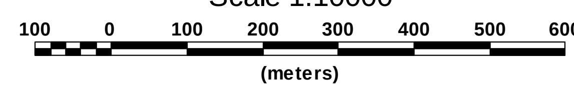


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

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

Scale 1:10000



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BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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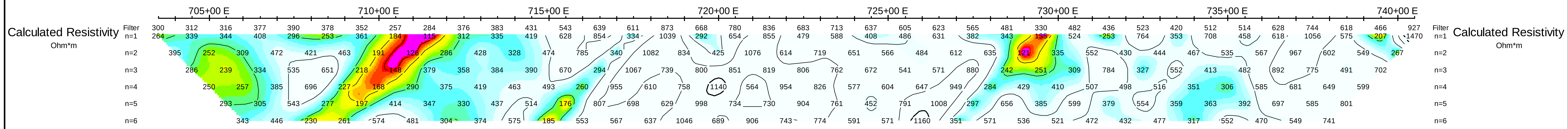
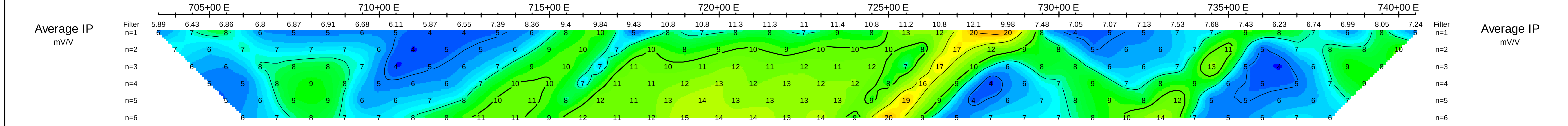
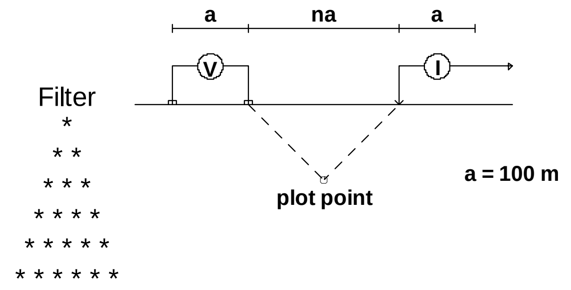
70+01 N





Dipole-Pole Array

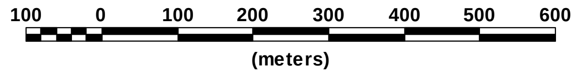


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



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Date: WINTER 2012

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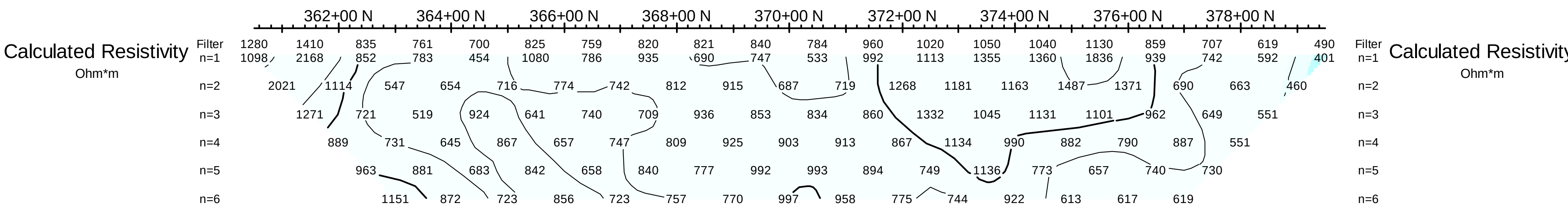
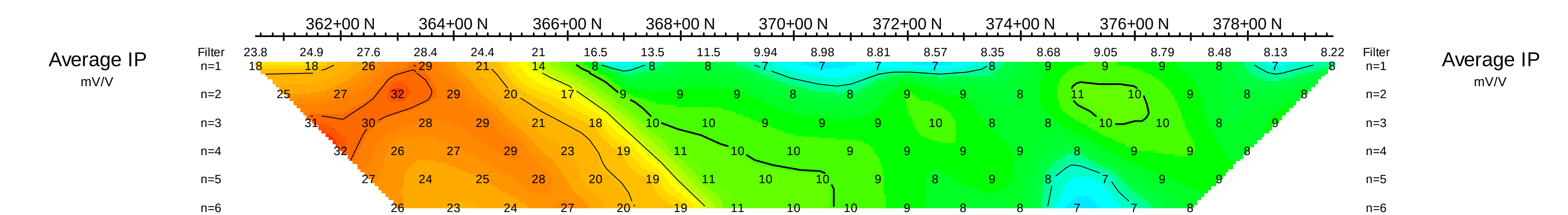
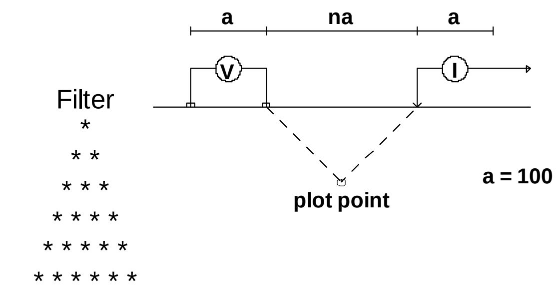
720+00 E





Dipole-Pole Array

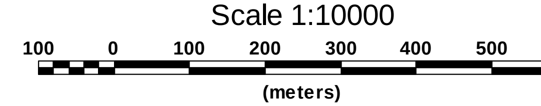


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



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MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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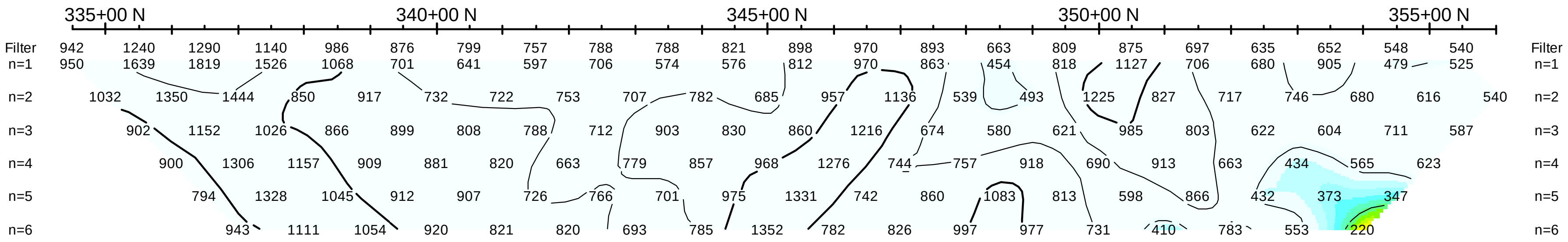
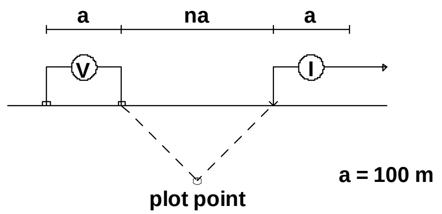
725+00 E

Calculated Resistivity
Ohm*m



Calculated Resistivity
Ohm*m

Dipole-Pole Array



Filter
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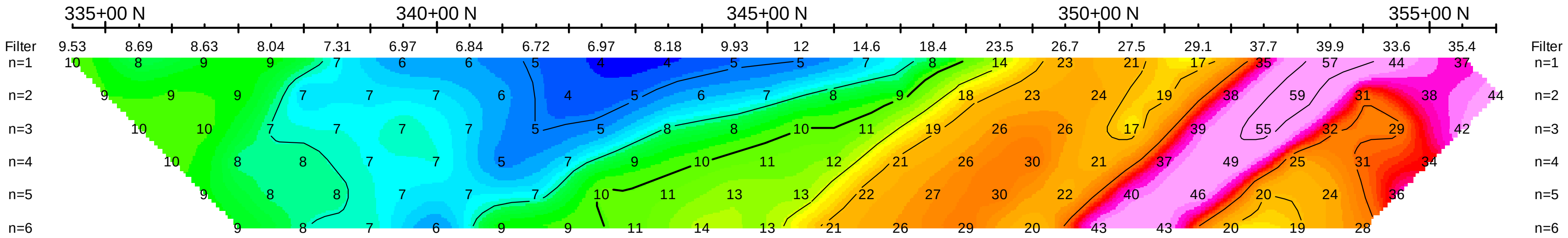
Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

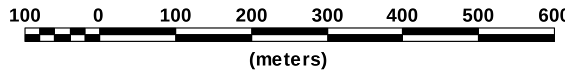
Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Average IP
mV/V



Average IP
mV/V

Scale 1:10000



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INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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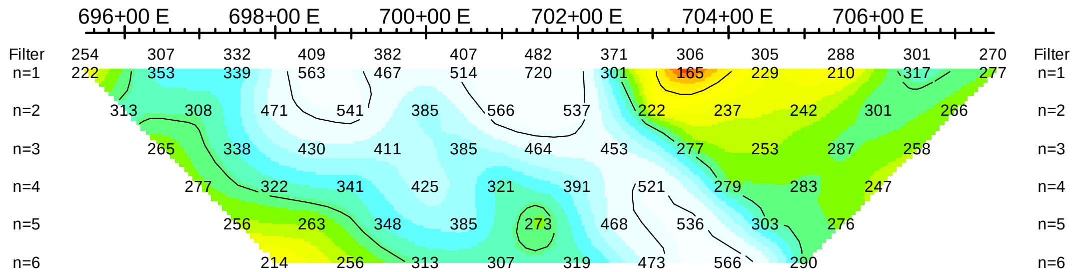
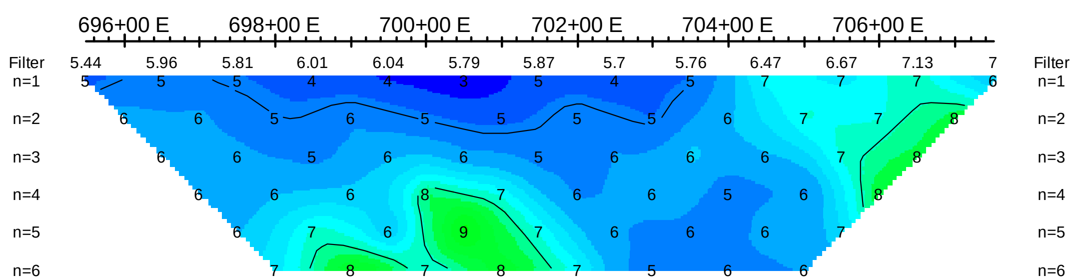
Calculated Resistivity
Ohm*m



Calculated Resistivity
Ohm*m

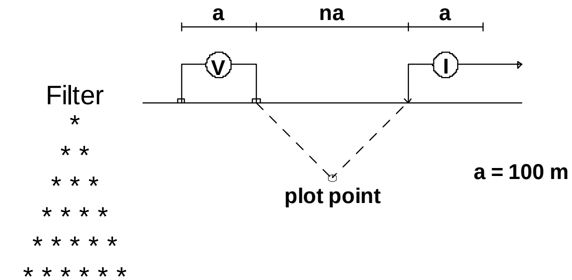
Average IP
mV/V



Average IP
mV/V

74+00 N

Dipole-Pole Array

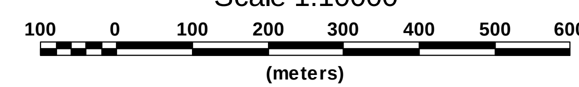


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

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

Scale 1:10000



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INDUCED POLARIZATION SURVEY
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MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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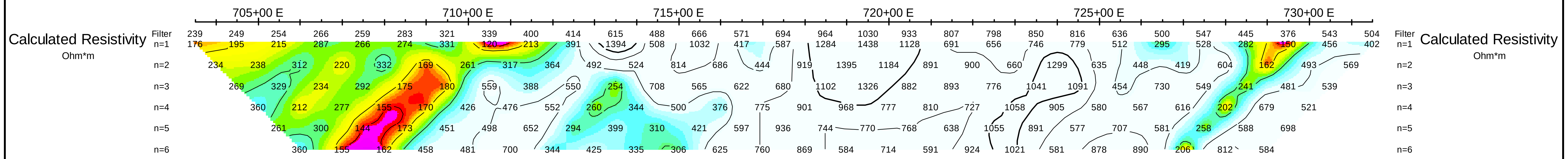
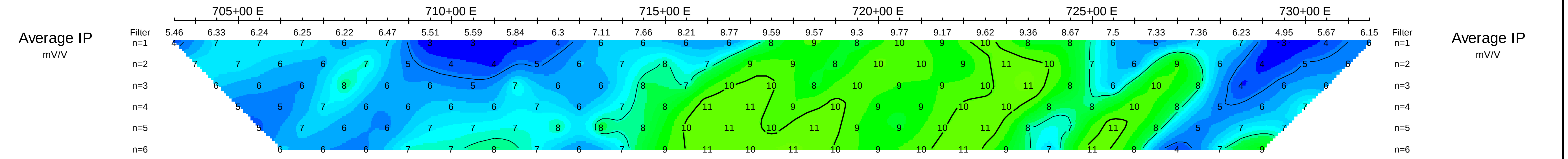
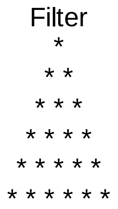
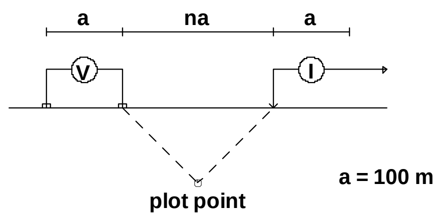
74+01 N





Dipole-Pole Array



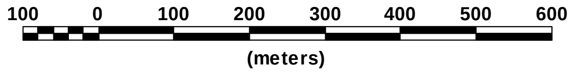


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

Logarithmic Contours: 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000



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BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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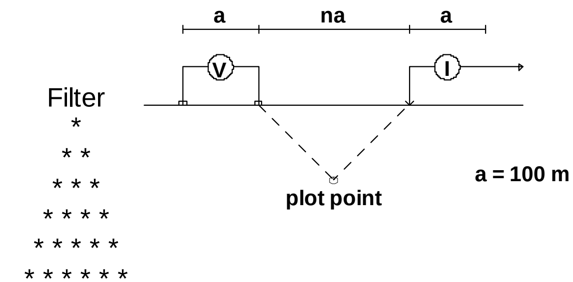
86+00 N

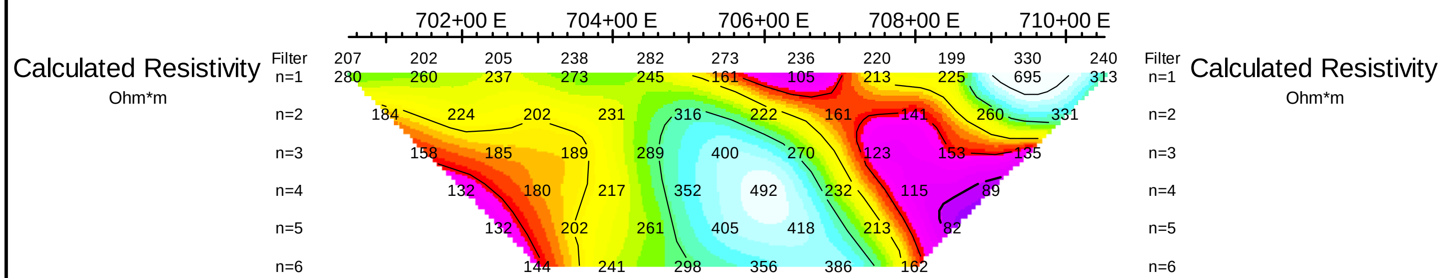
Dipole-Pole Array

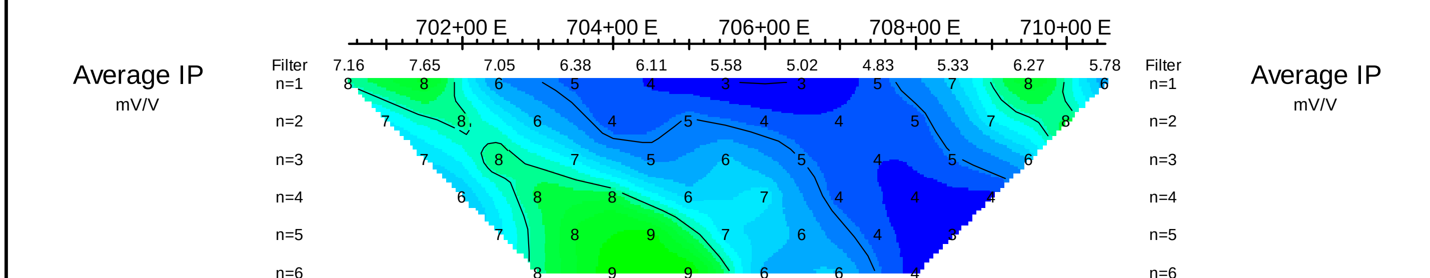


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

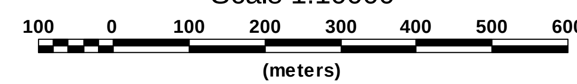
Frequency: 0.125 Hz.
Operators: J.C., B.J.

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





Scale 1:10000



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INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

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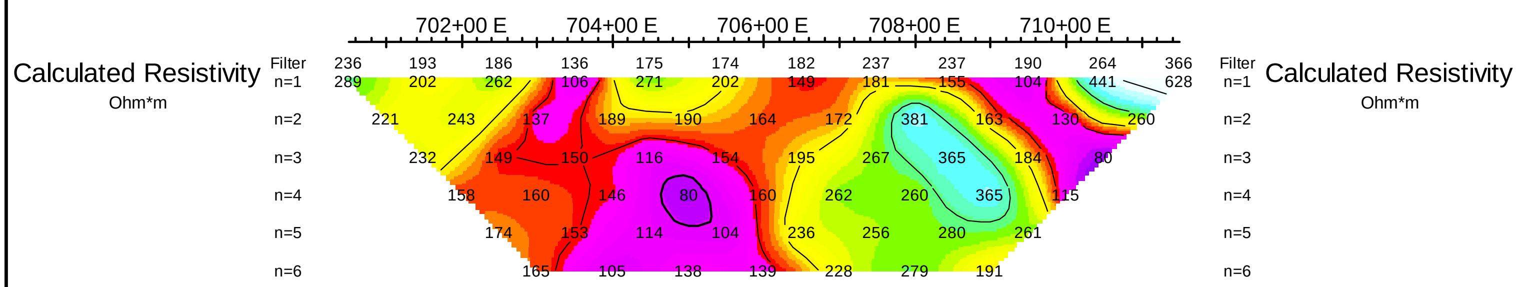
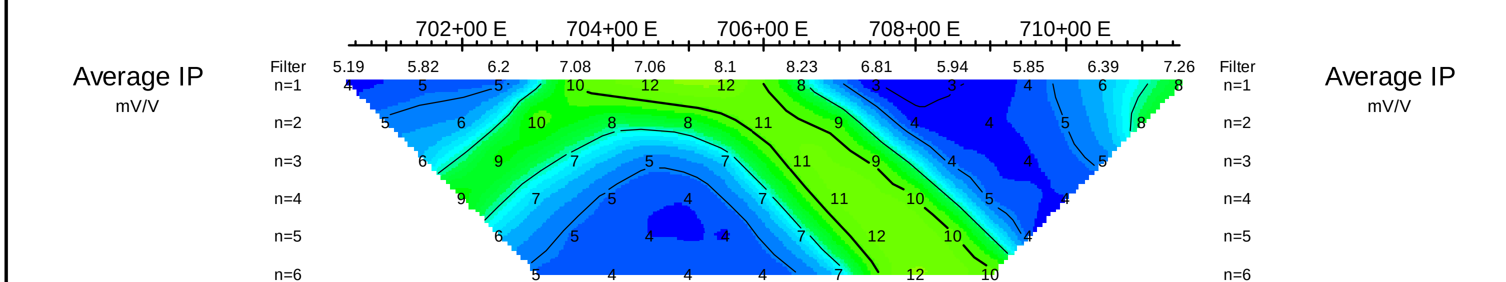
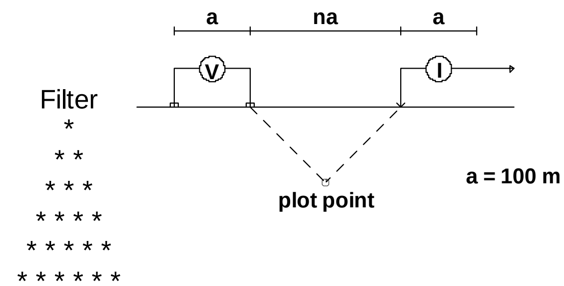
90+00 N





Dipole-Pole Array

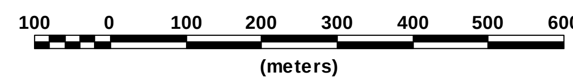


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

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

Scale 1:10000



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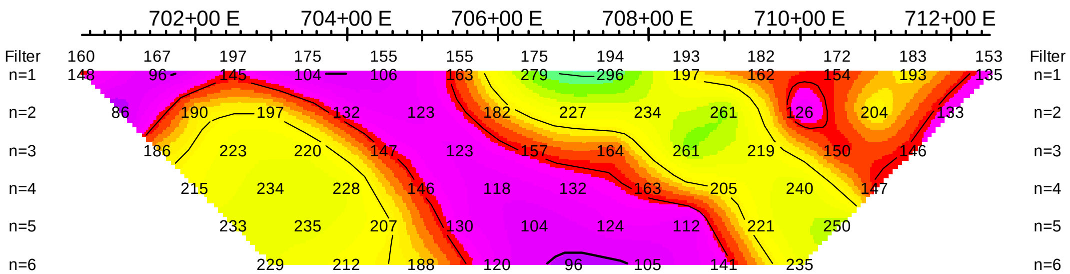
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

PETER E. WALCOTT & ASSOCIATES LIMITED

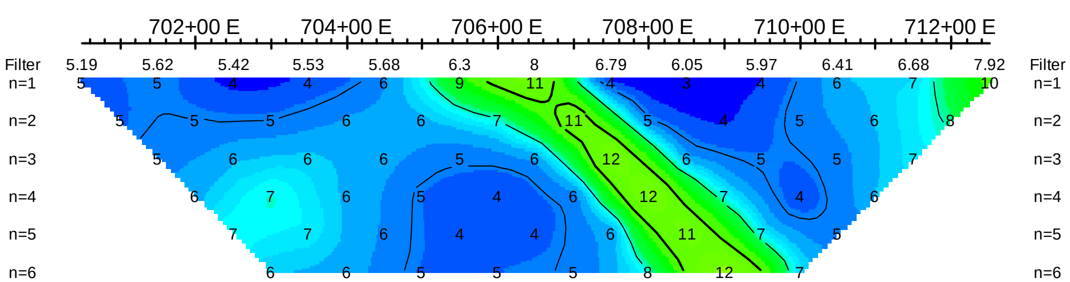
94+00 N

Calculated Resistivity
Ohm*m



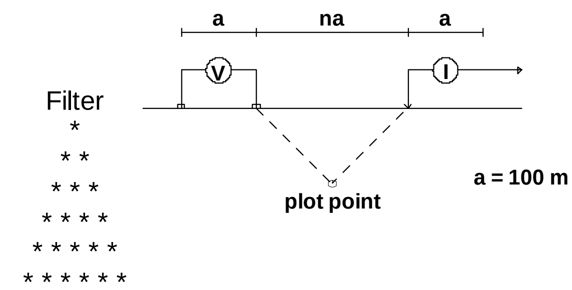
Calculated Resistivity
Ohm*m

Average IP
mV/V



Average IP
mV/V

Dipole-Pole Array

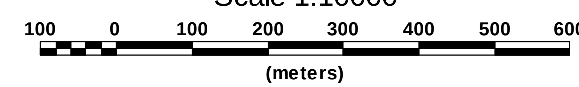


Instruments: Walcer 9.0kw Tx, 2 X GDD GRX8 Rx

Frequency: 0.125 Hz.
Operators: J.C., B.J.

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

Scale 1:10000

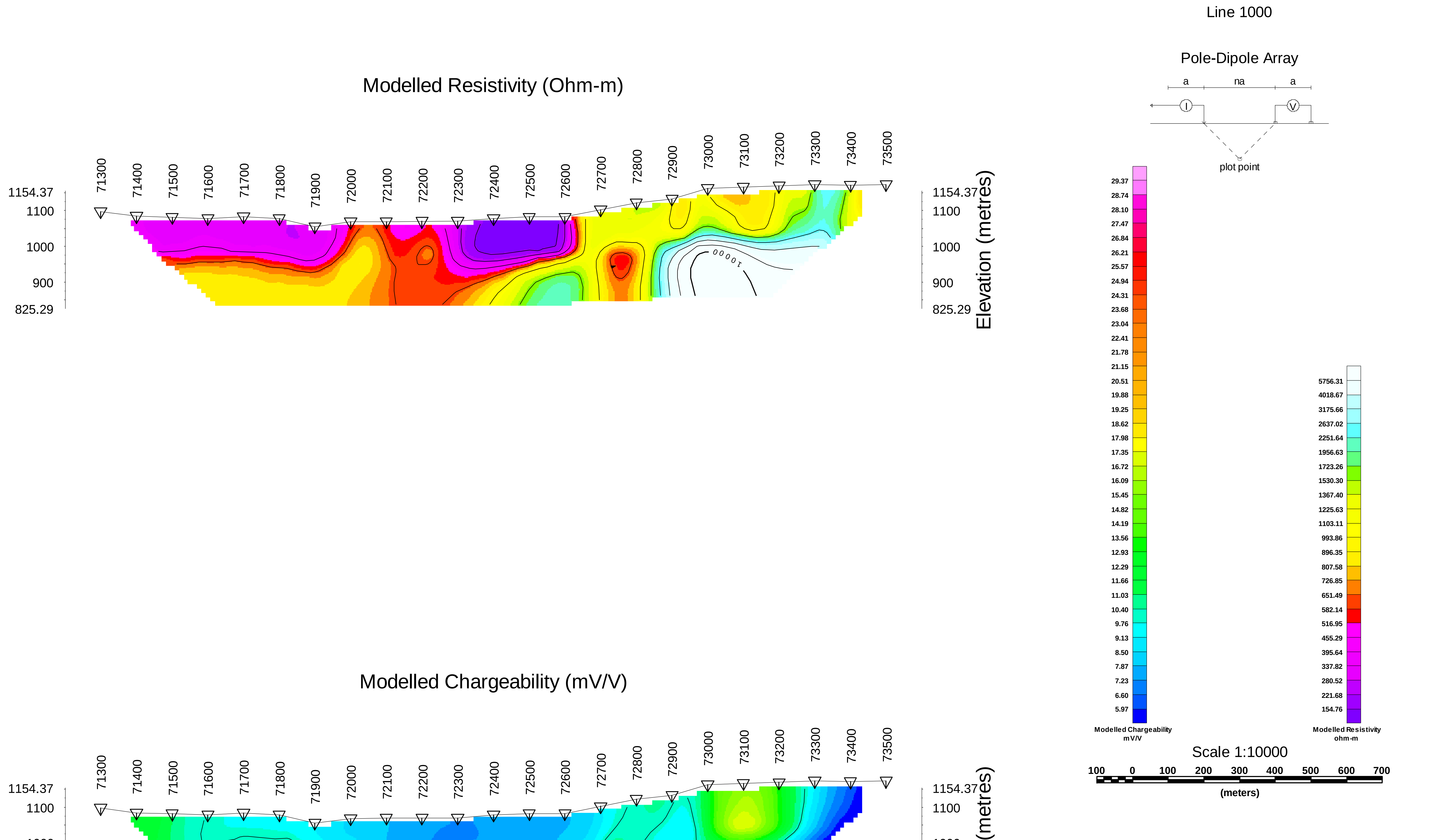


XSTRATA

INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
MERRITT, BRITISH COLUMBIA

Date: WINTER 2012

PETER E. WALCOTT & ASSOCIATES LIMITED

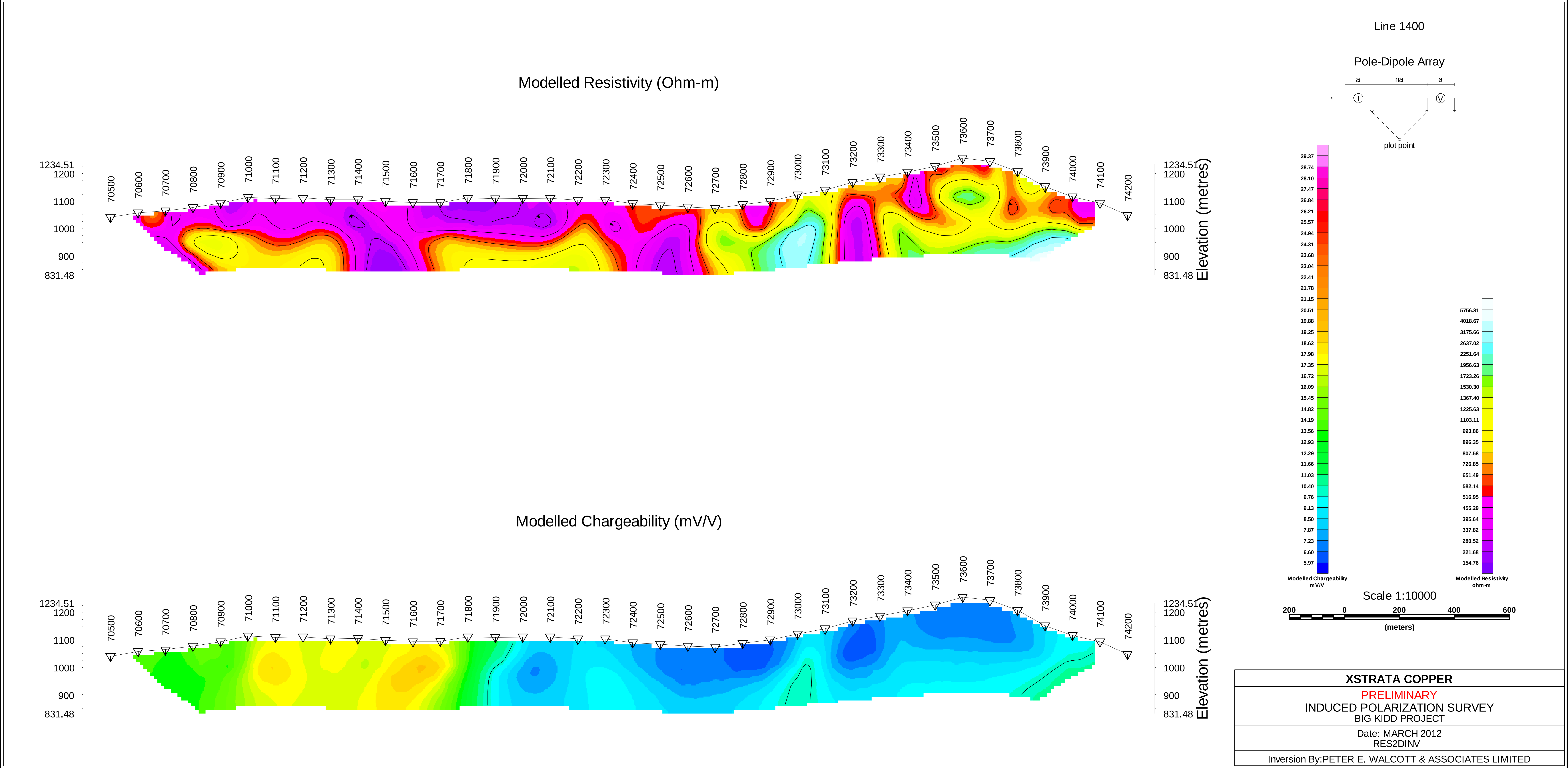


XSTRATA COPPER

INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

Date: MARCH 2012
RES2DINV

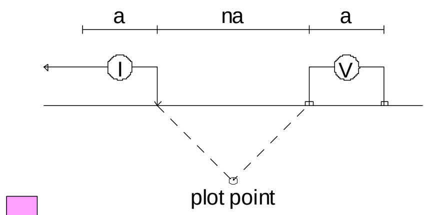
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED



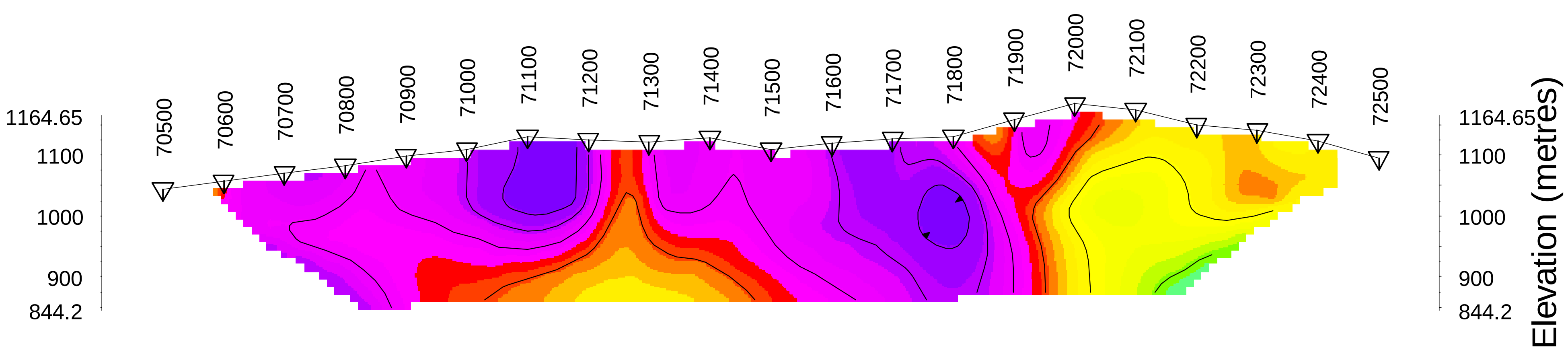
Line 1400
Pole-Dipole Array
a
na
a
I
V
plot point
Modelled Resistivity (Ohm-m)
Modelled Chargeability (mV/V)
70500
70600
70700
70800
70900
71000
71100
71200
71300
71400
71500
71600
71700
71800
71900
72000
72100
72200
72300
72400
72500
72600
72700
72800
72900
73000
73100
73200
73300
73400
73500
73600
73700
73800
73900
74000
74100
74200
1234.51
1200
1100
1000
900
831.48
Elevation (metres)
29.37
28.74
28.10
27.47
26.84
26.21
25.57
24.94
24.31
23.68
23.04
22.41
21.78
21.15
20.51
19.88
19.25
18.62
17.98
17.35
16.72
16.09
15.45
14.82
14.19
13.56
12.93
12.29
11.66
11.03
10.40
9.76
9.13
8.50
7.87
7.23
6.60
5.97
Modelled Chargeability
mV/V
5756.31
4018.67
3175.66
2637.02
2251.64
1956.63
1723.26
1530.30
1367.40
1225.63
1103.11
993.86
896.35
807.58
726.85
651.49
582.14
516.95
455.29
395.64
337.82
280.52
221.68
154.76
Modelled Resistivity
ohm-m
Scale 1:10000
200
0
200
400
600
(meters)
XSTRATA COPPER
PRELIMINARY
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
Date: MARCH 2012
RES2DINV
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

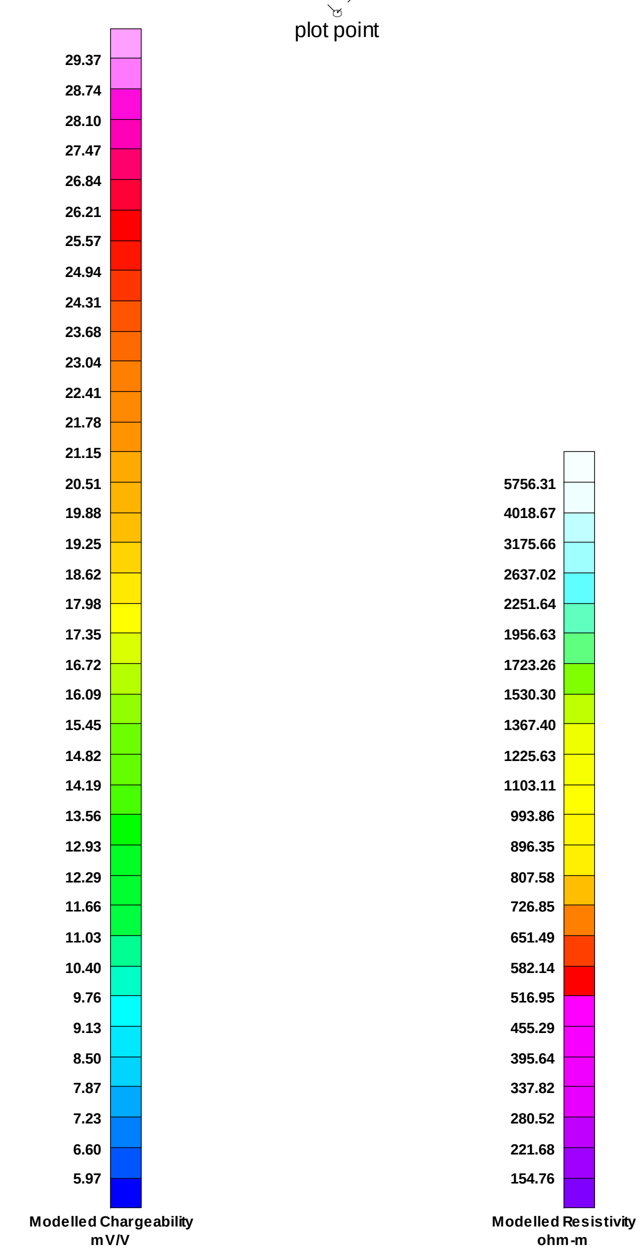
Line 1800

Pole-Dipole Array

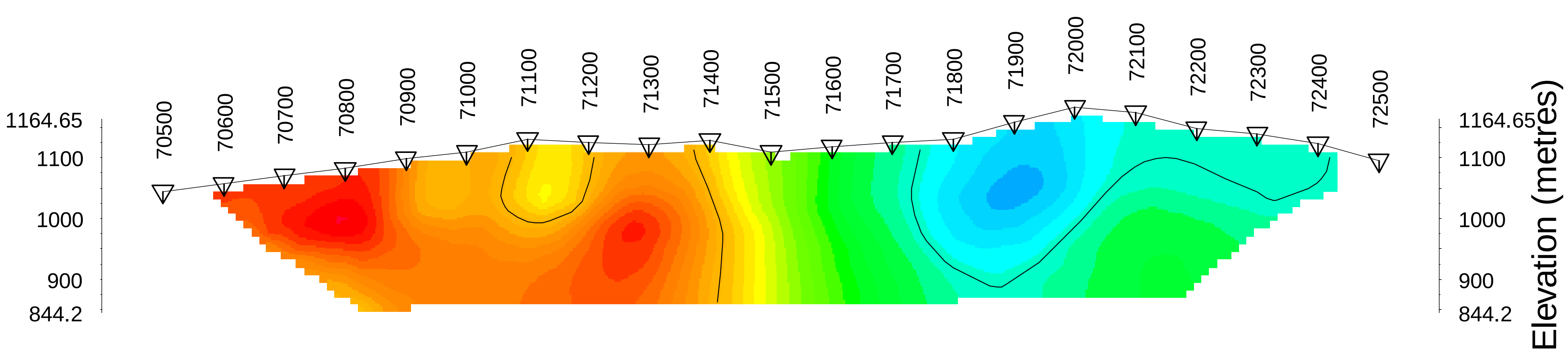


Modelled Resistivity (Ohm-m)

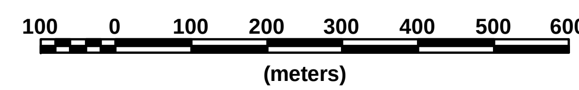




Modelled Chargeability (mV/V)



Scale 1:10000

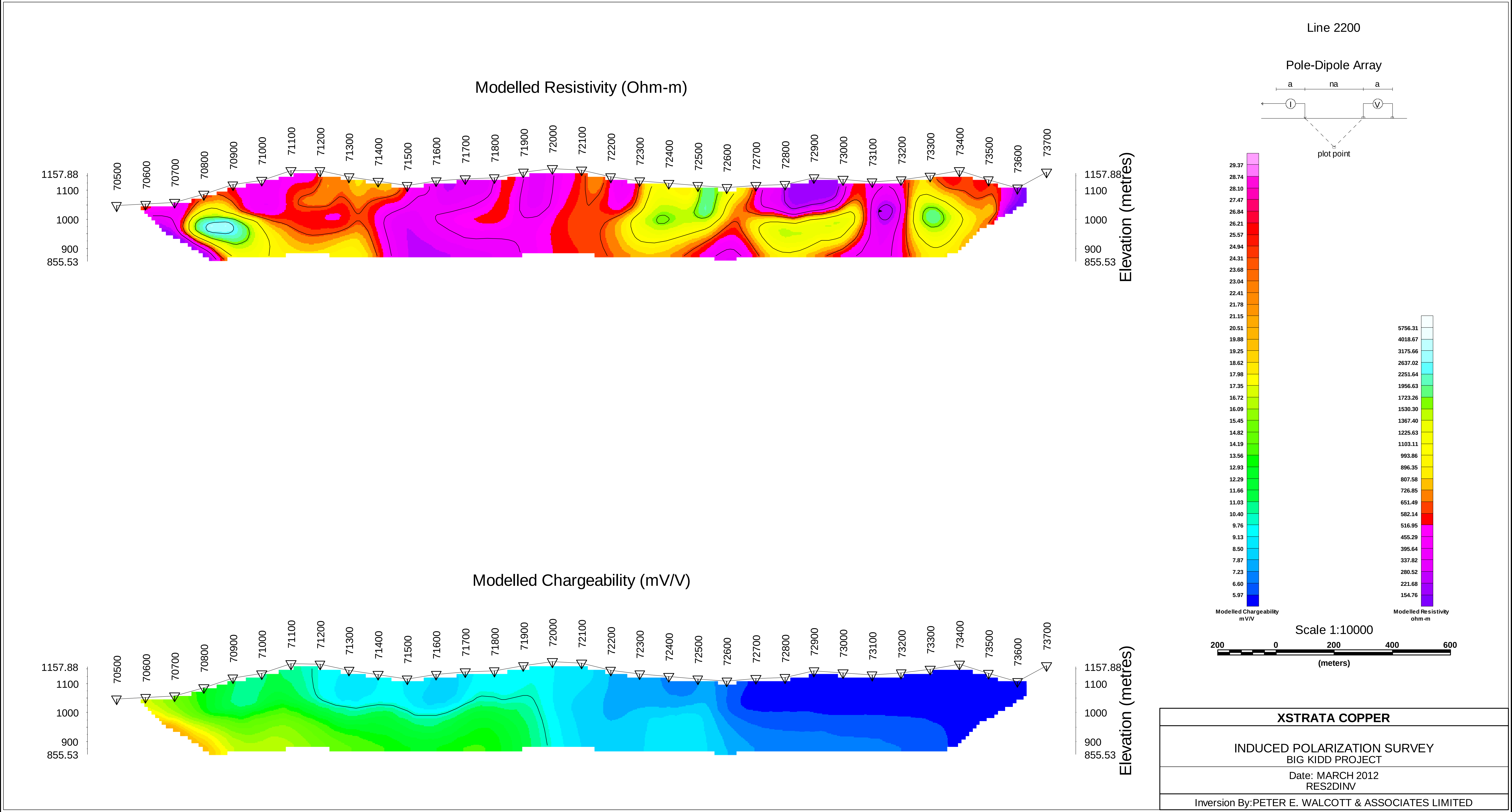


XSTRATA COPPER

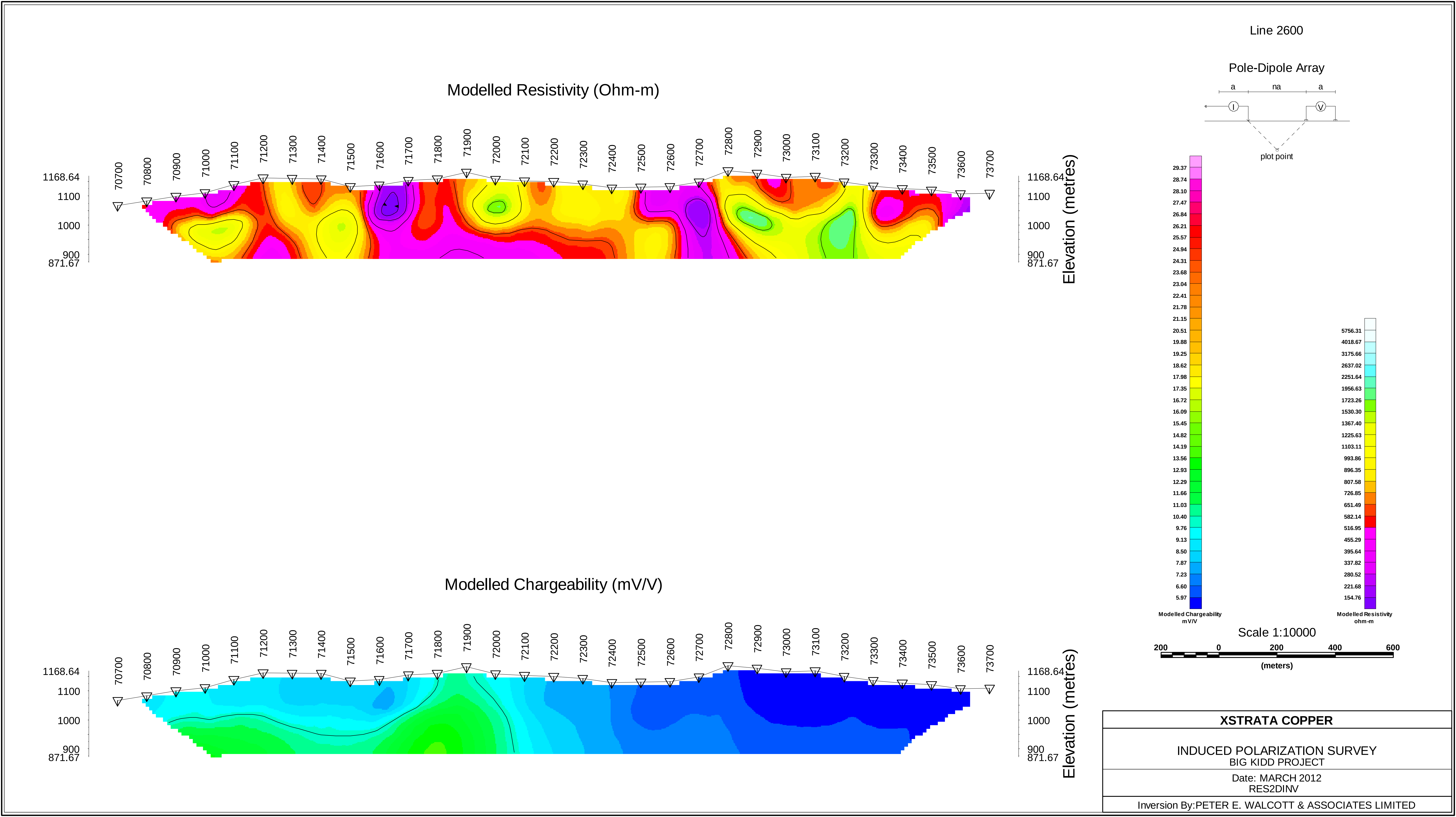
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

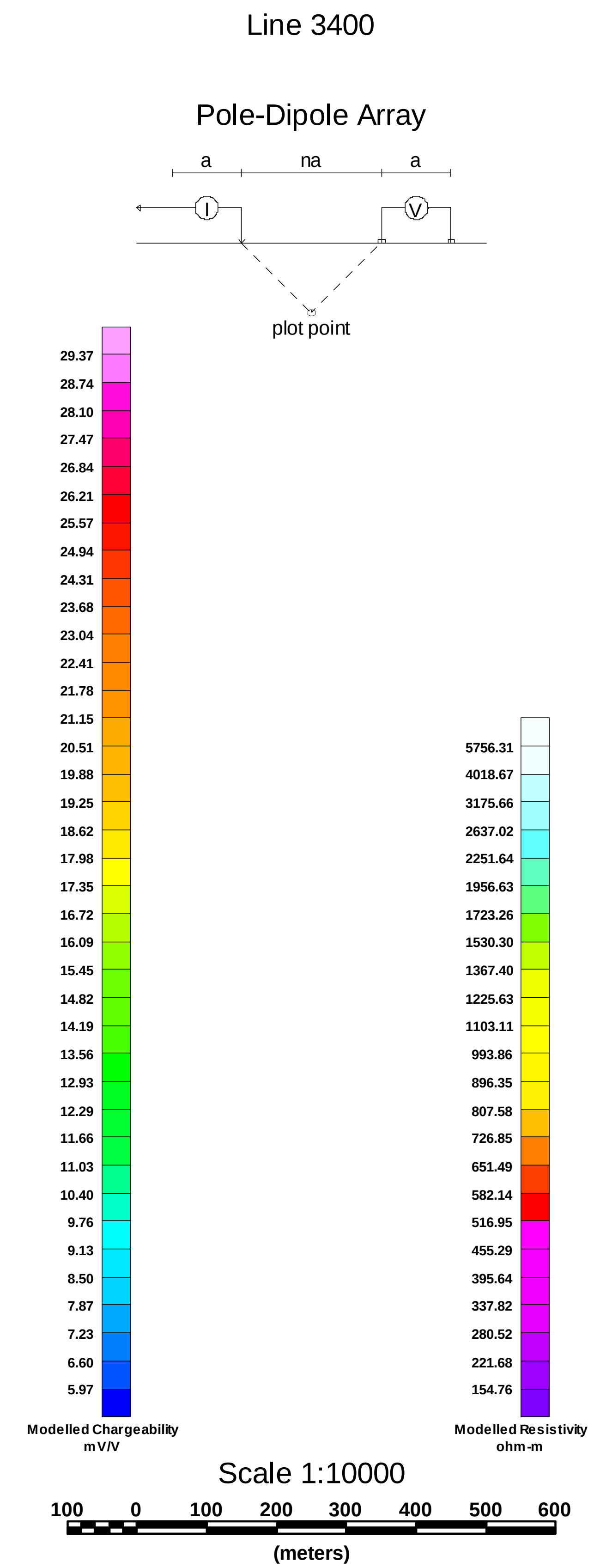
Date: MARCH 2012
RES2DINV

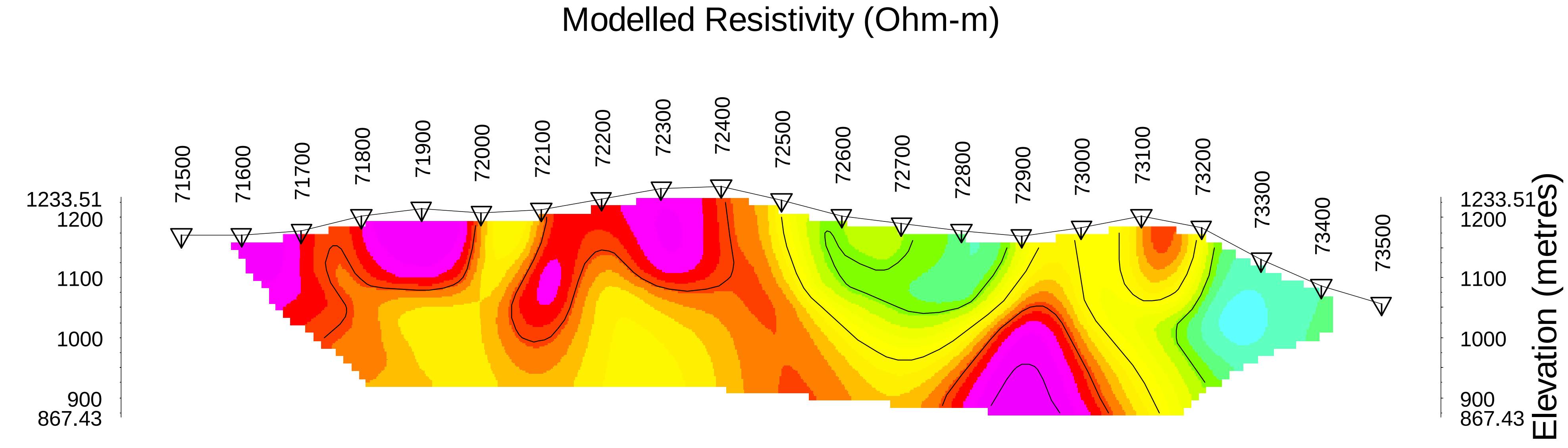
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

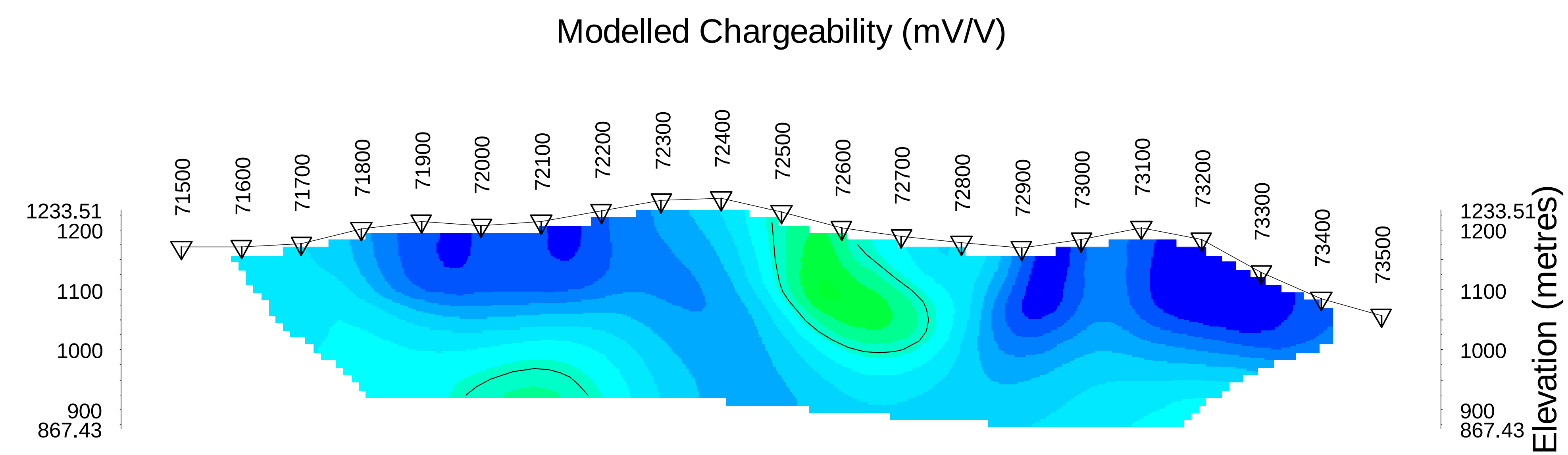


Line 2200
Pole-Dipole Array
a
na
a
I
V
plot point
Modelled Resistivity (Ohm-m)
70500 70600 70700 70800 70900 71000 71100 71200 71300 71400 71500 71600 71700 71800 71900 72000 72100 72200 72300 72400 72500 72600 72700 72800 72900 73000 73100 73200 73300 73400 73500 73600 73700
1157.88
1100
1000
900
855.53
Elevation (metres)
Modelled Chargeability (mV/V)
70500 70600 70700 70800 70900 71000 71100 71200 71300 71400 71500 71600 71700 71800 71900 72000 72100 72200 72300 72400 72500 72600 72700 72800 72900 73000 73100 73200 73300 73400 73500 73600 73700
1157.88
1100
1000
900
855.53
Elevation (metres)
29.37 28.74 28.10 27.47 26.84 26.21 25.57 24.94 24.31 23.68 23.04 22.41 21.78 21.15 20.51 19.88 19.25 18.62 17.98 17.35 16.72 16.09 15.45 14.82 14.19 13.56 12.93 12.29 11.66 11.03 10.40 9.76 9.13 8.50 7.87 7.23 6.60 5.97
Modelled Chargeability
mV/V
5756.31 4018.67 3175.66 2637.02 2251.64 1956.63 1723.26 1530.30 1367.40 1225.63 1103.11 993.86 896.35 807.58 726.85 651.49 582.14 516.95 455.29 395.64 337.82 280.52 221.68 154.76
Modelled Resistivity
ohm-m
Scale 1:10000
200 0 200 400 600
(meters)
XSTRATA COPPER
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
Date: MARCH 2012
RES2DINV
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED


Line 2600
Pole-Dipole Array
a
na
a
I
V
plot point
Modelled Resistivity (Ohm-m)
70700
70800
70900
71000
71100
71200
71300
71400
71500
71600
71700
71800
71900
72000
72100
72200
72300
72400
72500
72600
72700
72800
72900
73000
73100
73200
73300
73400
73500
73600
73700
1168.64
1100
1000
900
871.67
Elevation (metres)
Modelled Chargeability (mV/V)
29.37
28.74
28.10
27.47
26.84
26.21
25.57
24.94
24.31
23.68
23.04
22.41
21.78
21.15
20.51
19.88
19.25
18.62
17.98
17.35
16.72
16.09
15.45
14.82
14.19
13.56
12.93
12.29
11.66
11.03
10.40
9.76
9.13
8.50
7.87
7.23
6.60
5.97
Modelled Chargeability
mV/V
5756.31
4018.67
3175.66
2637.02
2251.64
1956.63
1723.26
1530.30
1367.40
1225.63
1103.11
993.86
896.35
807.58
726.85
651.49
582.14
516.95
455.29
395.64
337.82
280.52
221.68
154.76
Modelled Resistivity
ohm-m
Scale 1:10000
200
0
200
400
600
(meters)
XSTRATA COPPER
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
Date: MARCH 2012
RES2DINV
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED





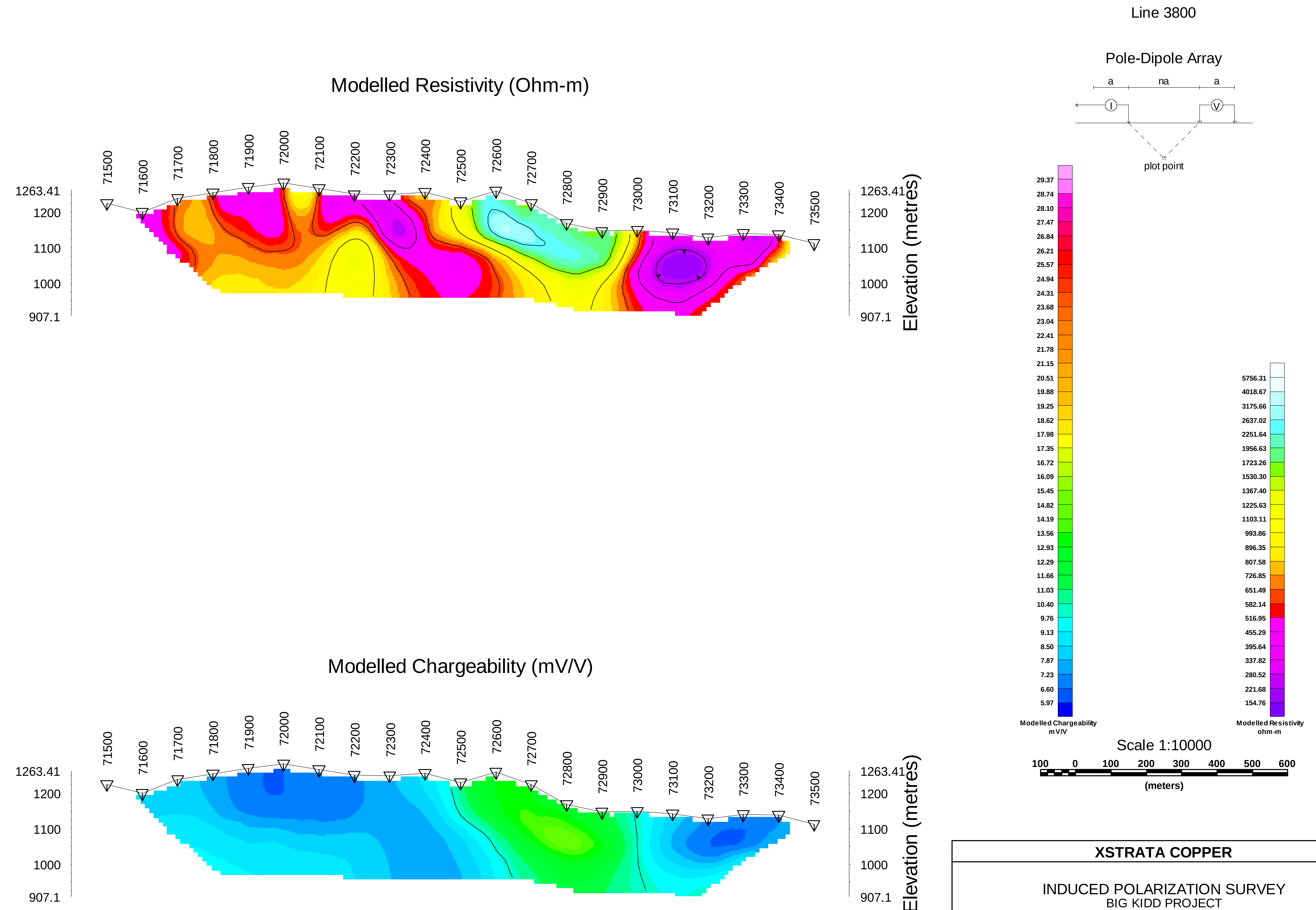


XSTRATA COPPER

INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

Date: MARCH 2012
RES2DINV

Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED



XSTRATA COPPER

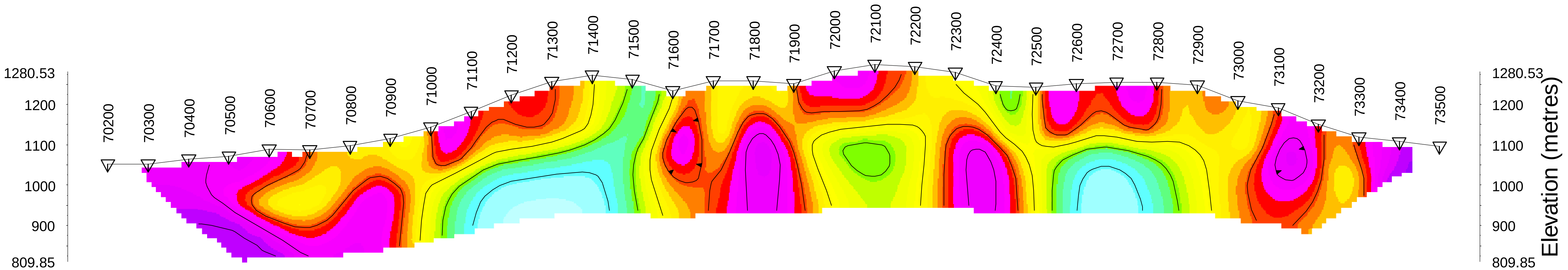
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

Date: MARCH 2012
RES2DINV

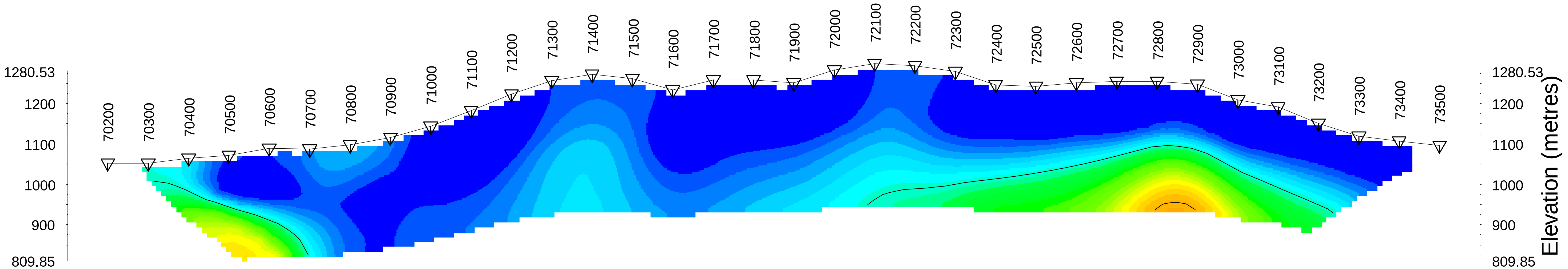
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

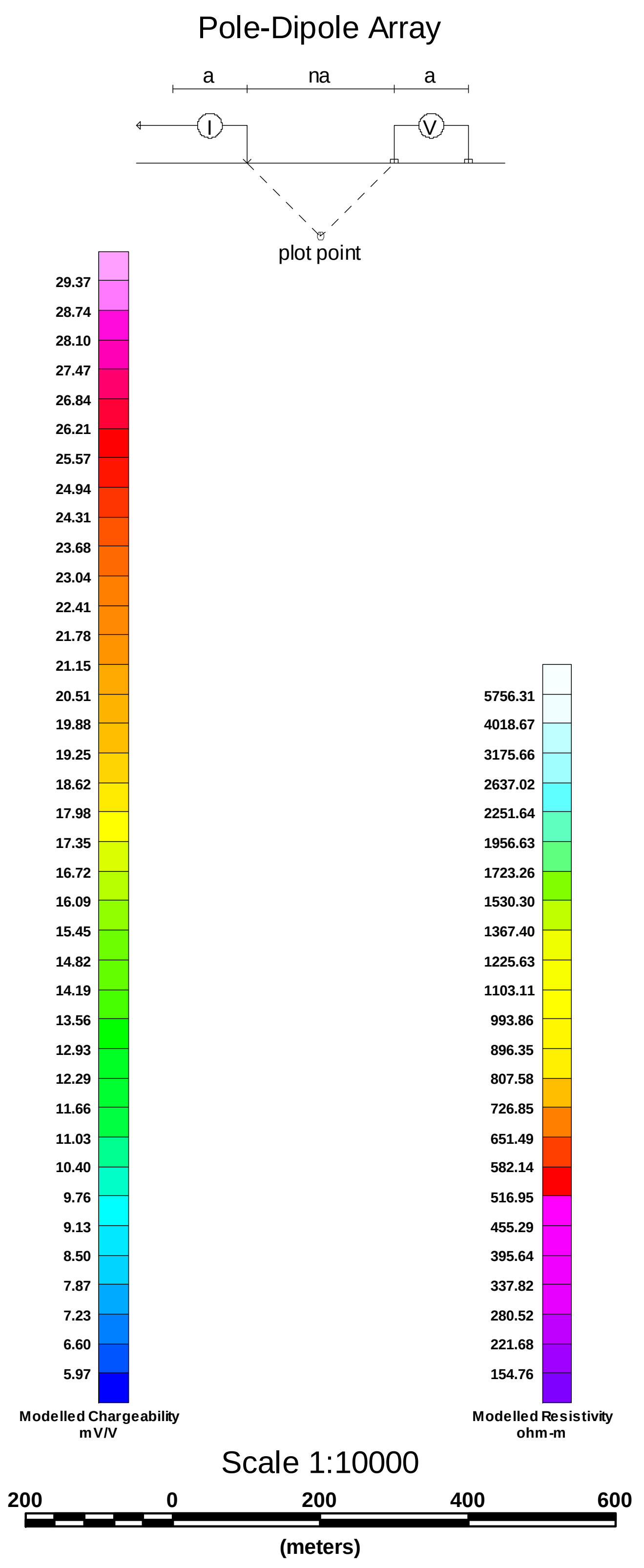
Line 4200

Modelled Resistivity (Ohm-m)



Modelled Chargeability (mV/V)



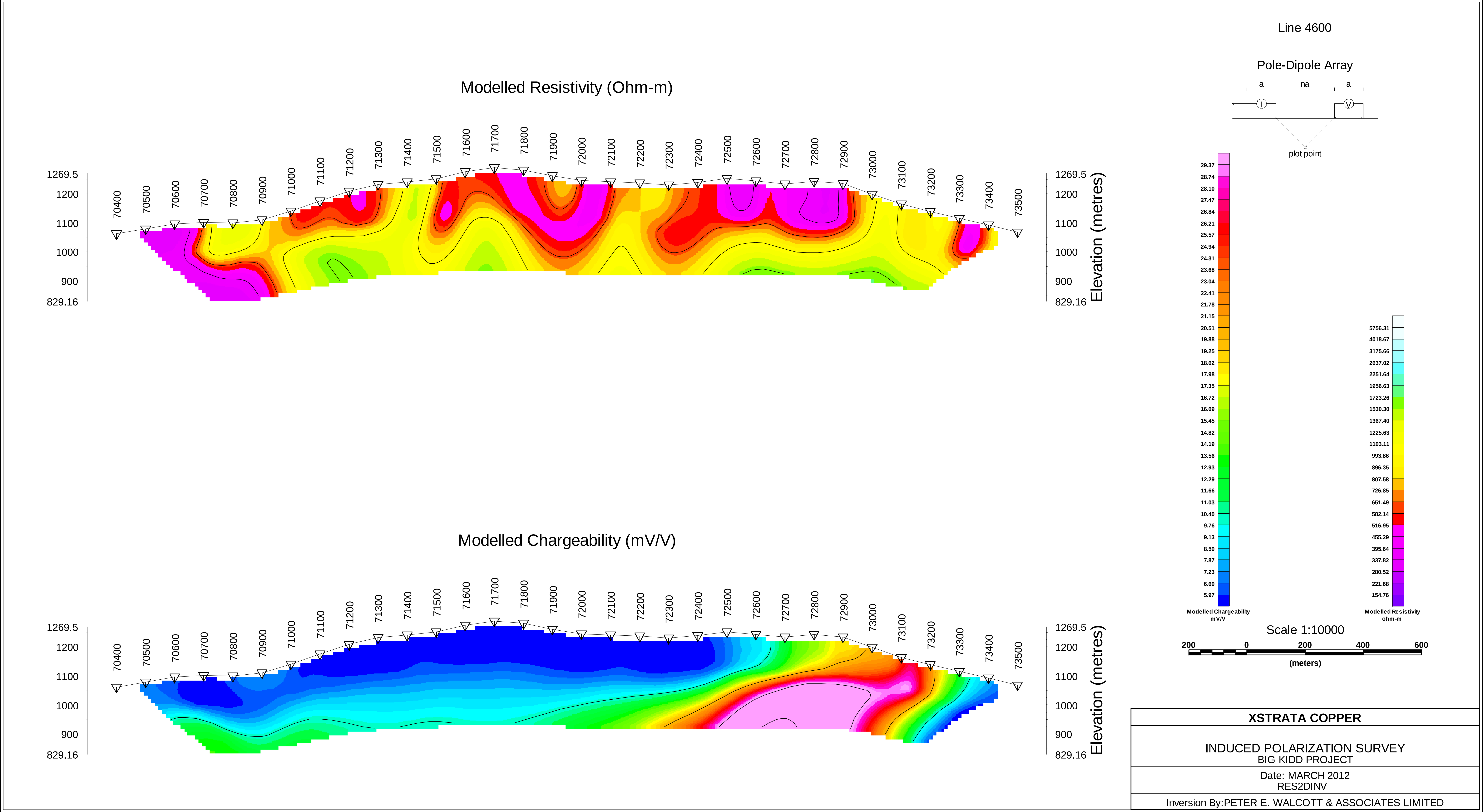


XSTRATA COPPER

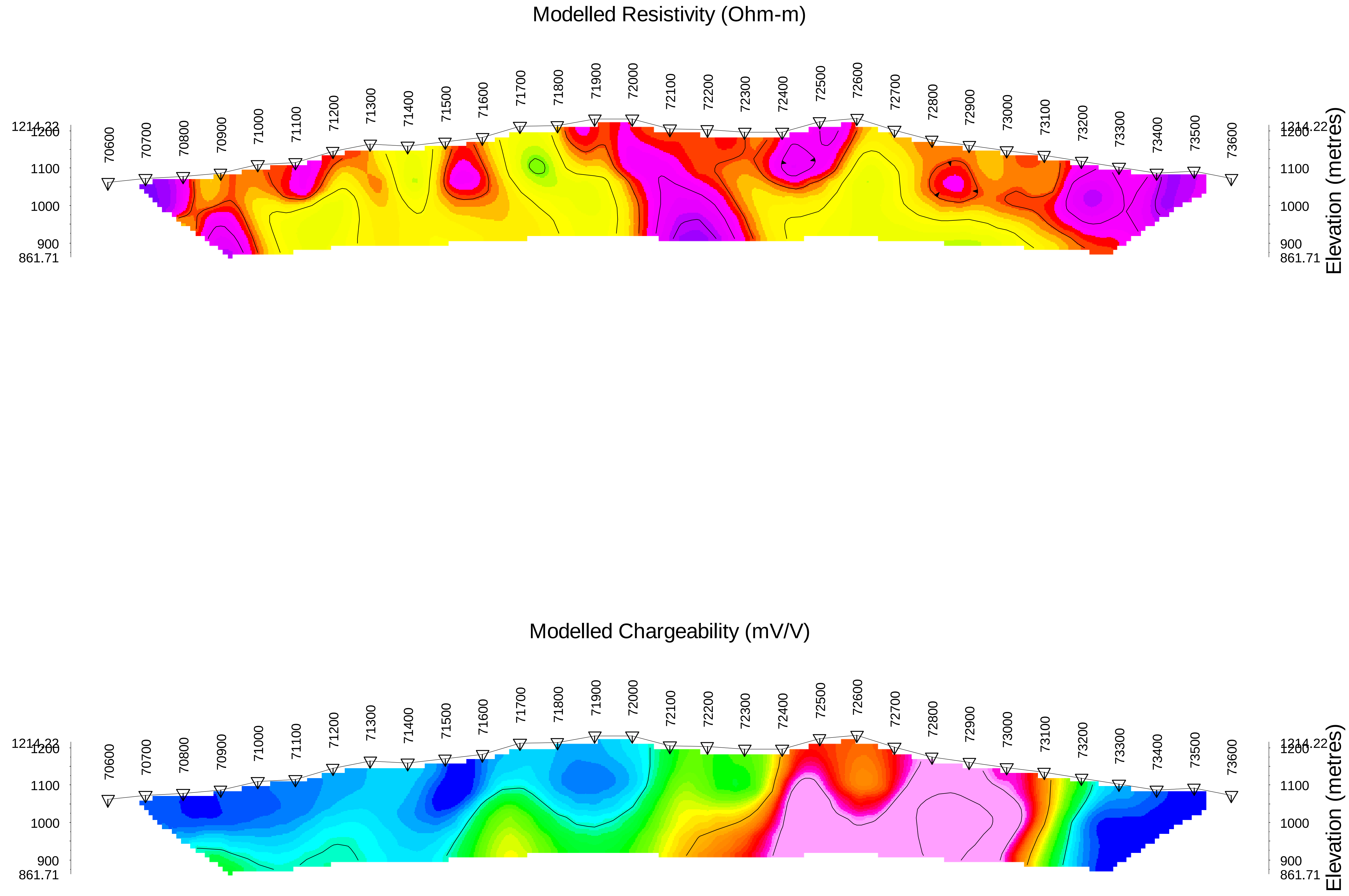
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

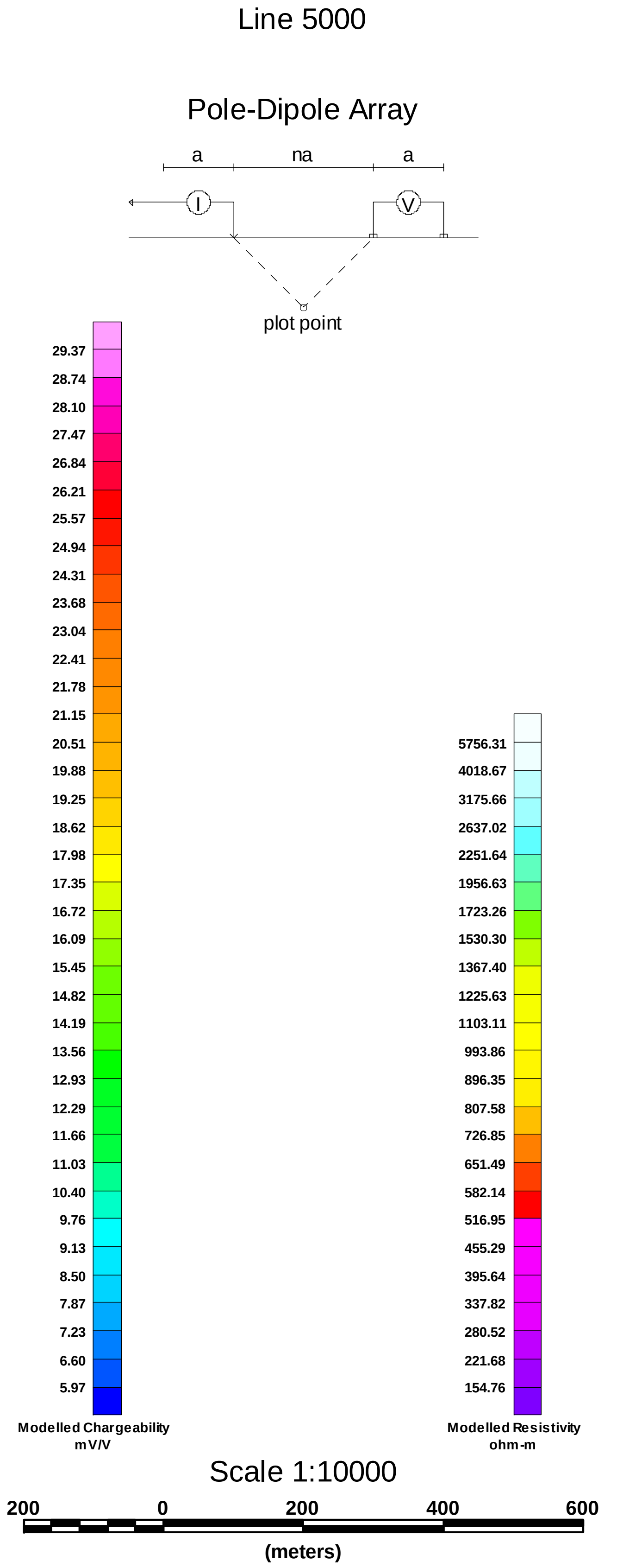
Date: MARCH 2012
RES2DINV

Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED



Line 4600
Pole-Dipole Array
a na a
plot point
Modelled Resistivity (Ohm-m)
Modelled Chargeability (mV/V)
70400 70500 70600 70700 70800 70900 71000 71100 71200 71300 71400 71500 71600 71700 71800 71900 72000 72100 72200 72300 72400 72500 72600 72700 72800 72900 73000 73100 73200 73300 73400 73500
1269.5 1200 1100 1000 900 829.16
Elevation (metres)
29.37 28.74 28.10 27.47 26.84 26.21 25.57 24.94 24.31 23.68 23.04 22.41 21.78 21.15 20.51 19.88 19.25 18.62 17.98 17.35 16.72 16.09 15.45 14.82 14.19 13.56 12.93 12.29 11.66 11.03 10.40 9.76 9.13 8.50 7.87 7.23 6.60 5.97
Modelled Chargeability mV/V
5756.31 4018.67 3175.66 2637.02 2251.64 1956.63 1723.26 1530.30 1367.40 1225.63 1103.11 993.86 896.35 807.58 726.85 651.49 582.14 516.95 455.29 395.64 337.82 280.52 221.68 154.76
Modelled Resistivity ohm-m
Scale 1:10000
200 0 200 400 600
(meters)
XSTRATA COPPER
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
Date: MARCH 2012
RES2DINV
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED



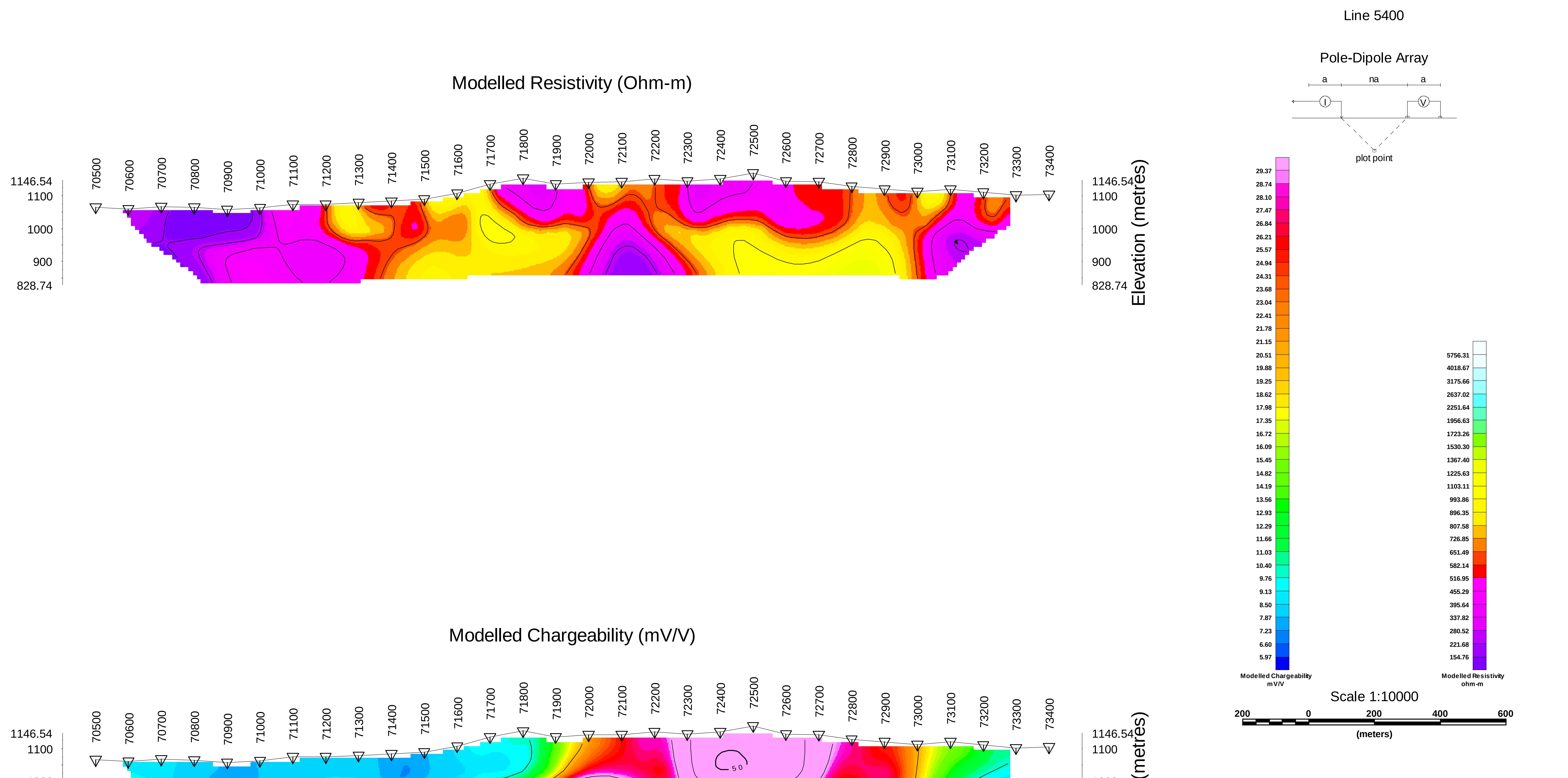


XSTRATA COPPER

INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

Date: MARCH 2012
RES2DINV

Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED



XSTRATA COPPER

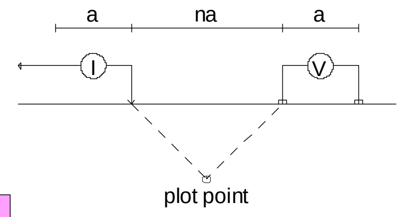
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

Date: MARCH 2012
RES2DINV

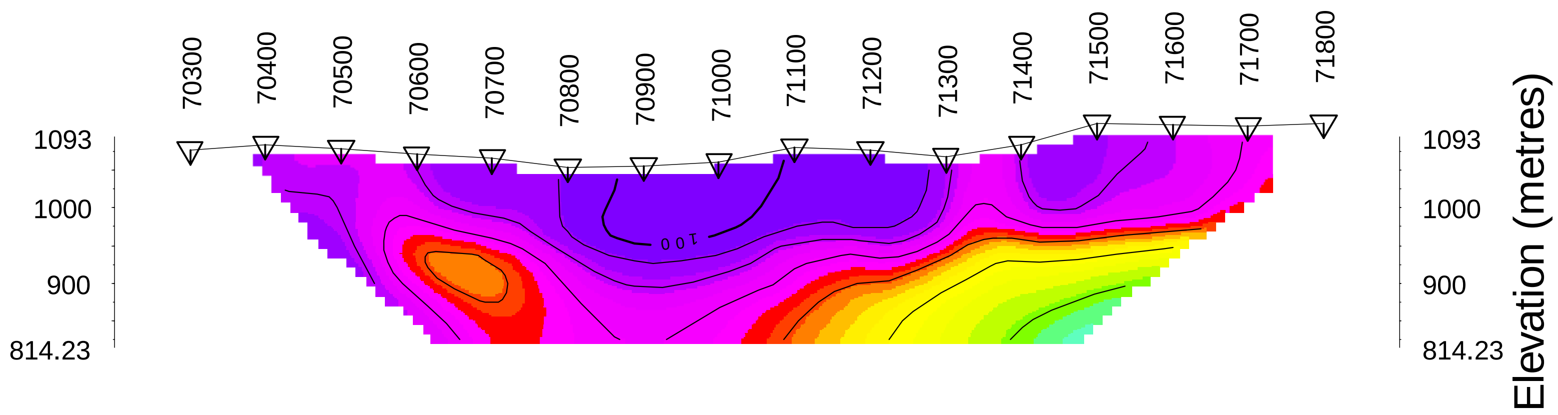
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

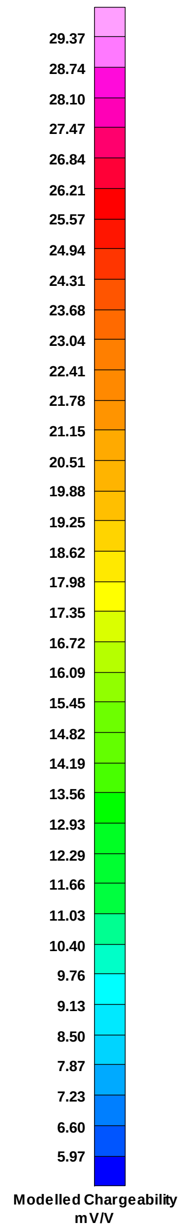
Line 5800

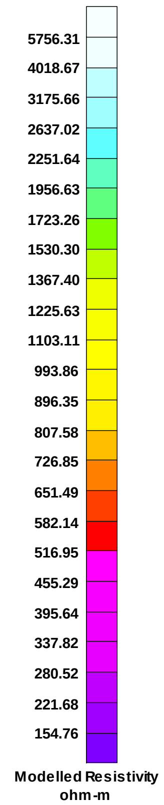
Pole-Dipole Array



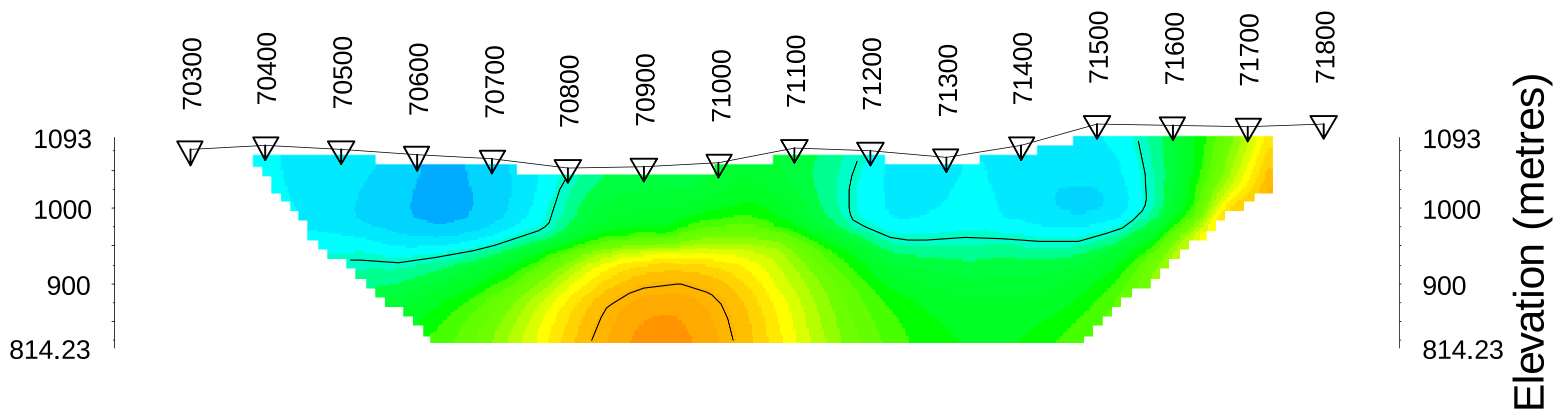
Modelled Resistivity (Ohm-m)



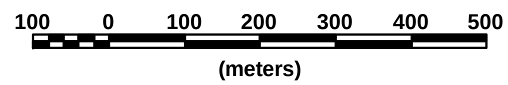




Modelled Chargeability (mV/V)



Scale 1:10000



XSTRATA COPPER

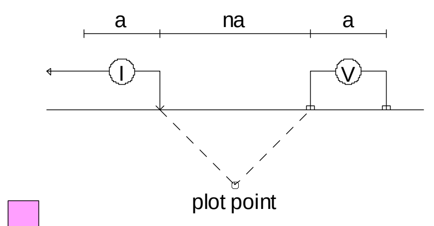
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

Date: MARCH 2012
RES2DINV

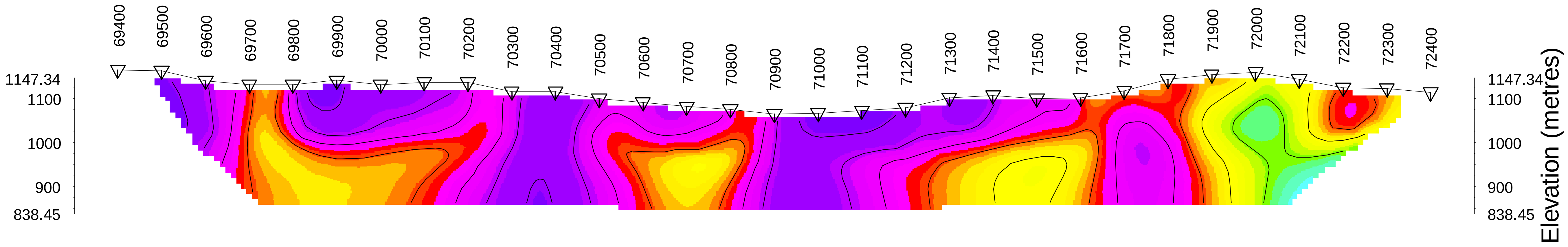
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

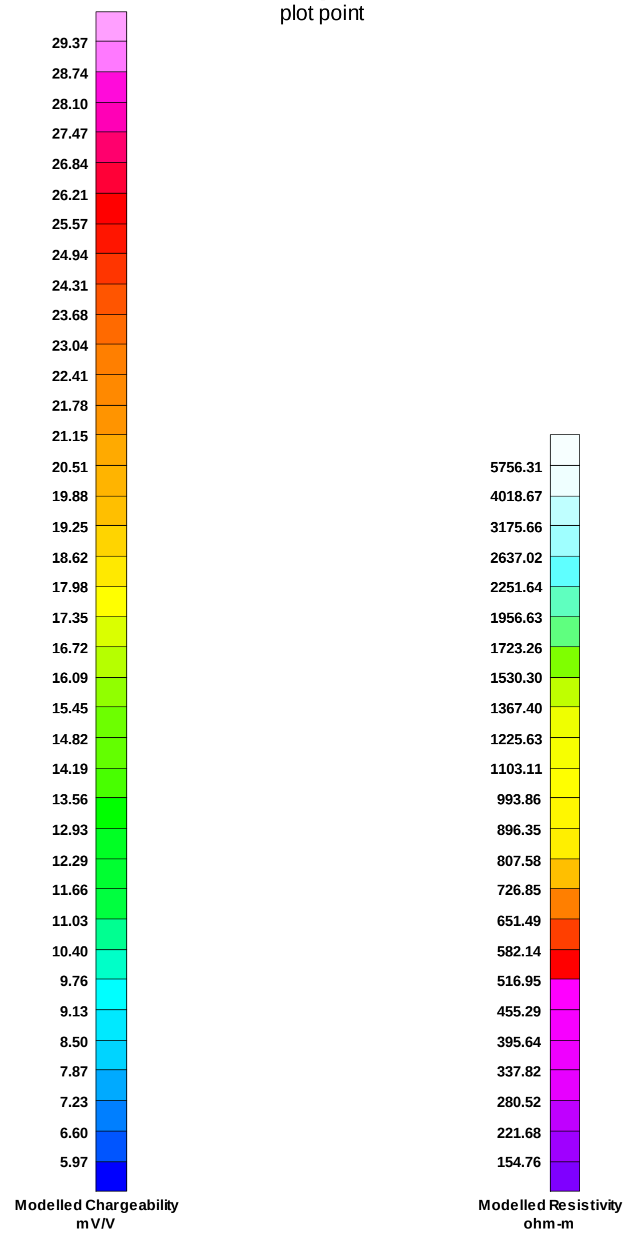
Line 6200

Pole-Dipole Array

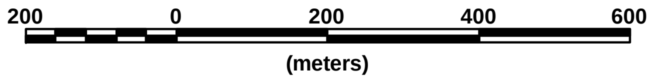


Modelled Resistivity (Ohm-m)

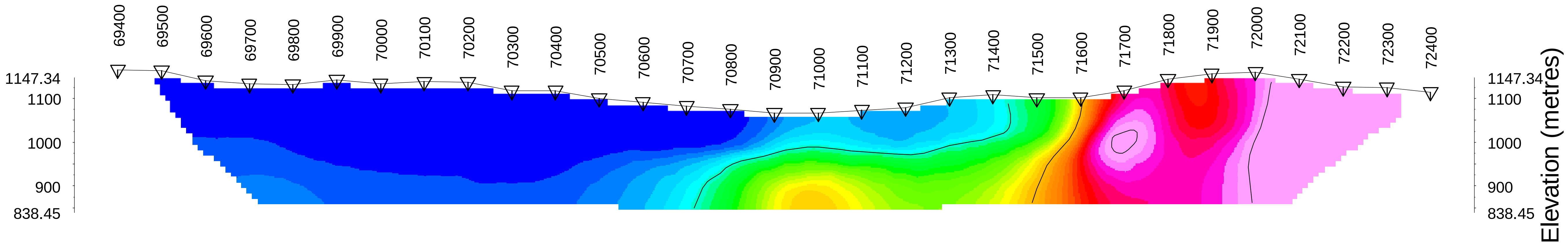




Scale 1:10000



Modelled Chargeability (mV/V)



XSTRATA COPPER

INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

Date: MARCH 2012
RES2DINV

Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

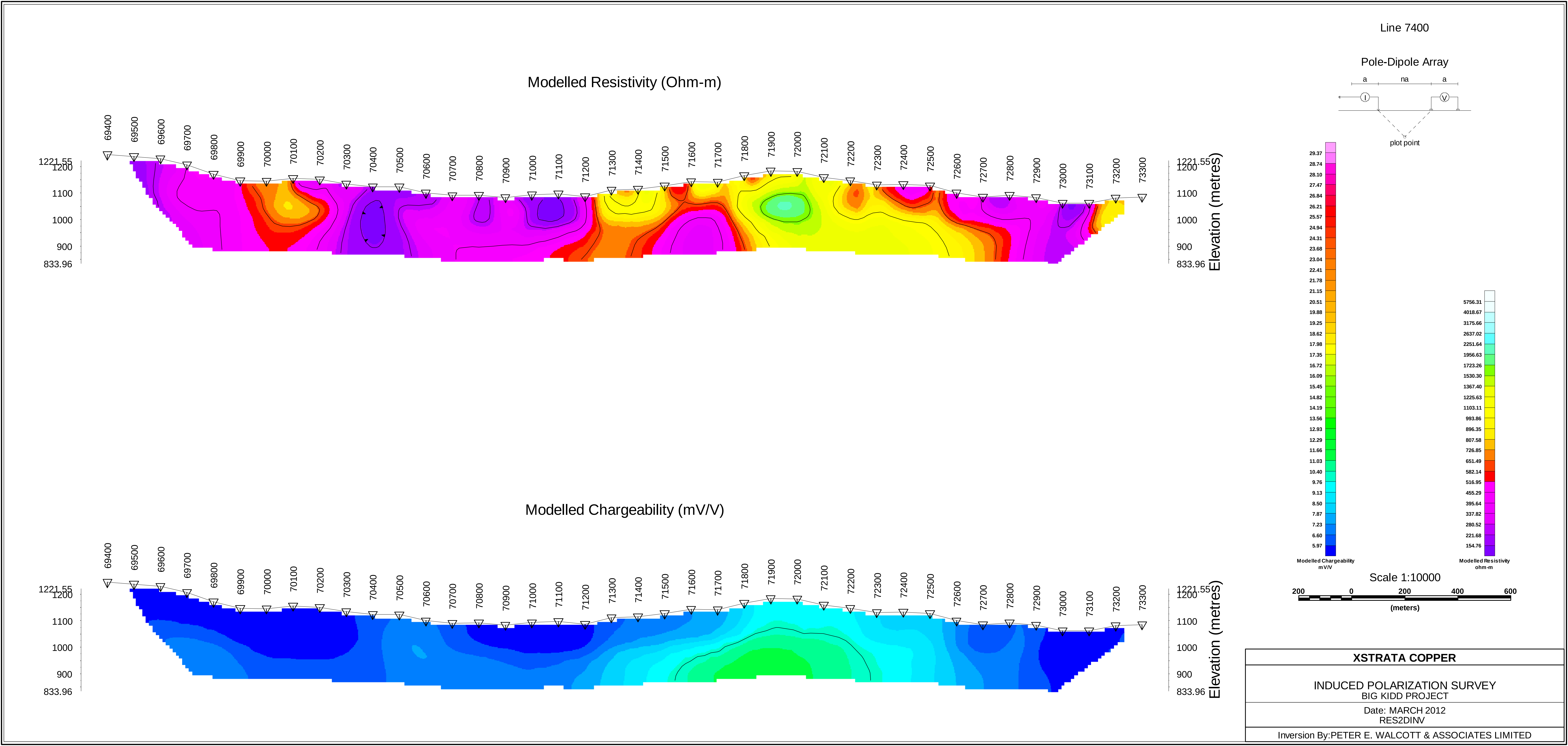
XSTRATA COPPER

INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

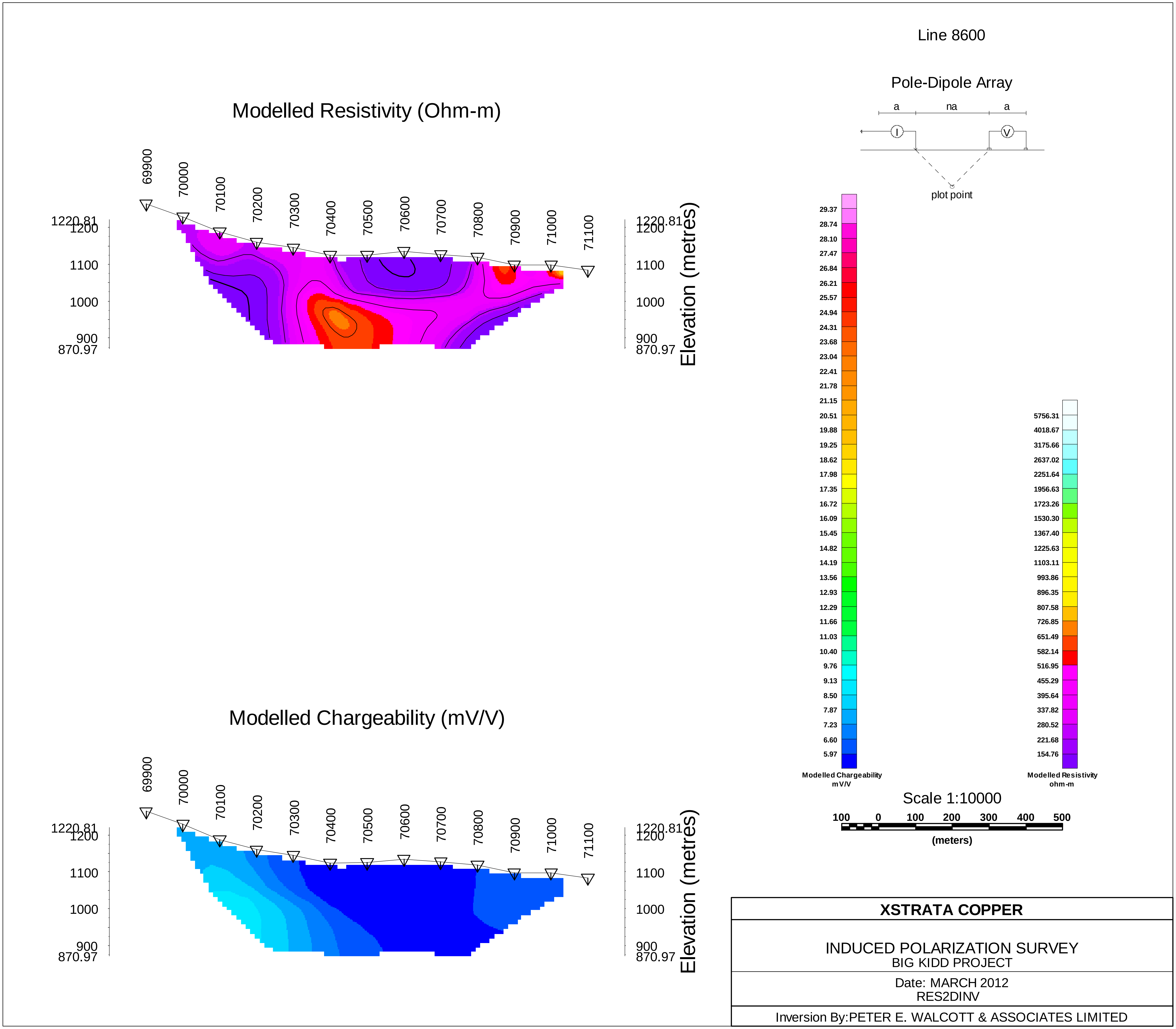
Date: MARCH 2012
RES2DINV

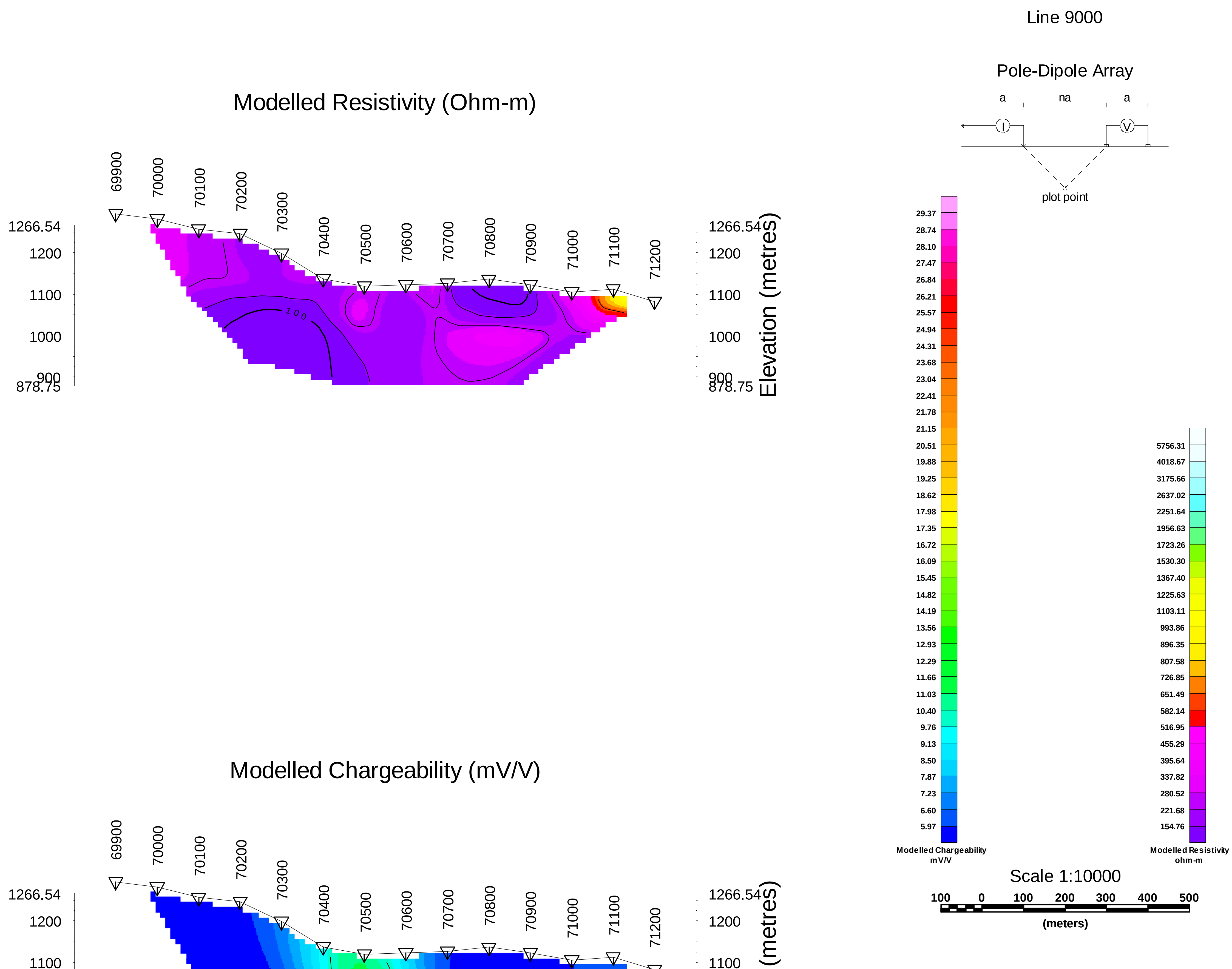
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

Line 7000
Pole-Dipole Array
a
na
a
plot point
Modelled Resistivity (Ohm-m)
Modelled Chargeability (mV/V)
69400 69500 69600 69700 69800 69900 70000 70100 70200 70300 70400 70500 70600 70700 70800 70900 71000 71100 71200 71300 71400 71500 71600 71700 71800 71900 72000 72100 72200 72300 72400 72500 72600 72700 72800 72900 73000 73100 73200 73300 73400 73500 73600 73700 73800 73900 74000 74100 74200
1184.05
1100
1000
900
835.36
Elevation (metres)
29.37 28.74 28.10 27.47 26.84 26.21 25.57 24.94 24.31 23.68 23.04 22.41 21.78 21.15 20.51 19.88 19.25 18.62 17.98 17.35 16.72 16.09 15.45 14.82 14.19 13.56 12.93 12.29 11.66 11.03 10.40 9.76 9.13 8.50 7.87 7.23 6.60 5.97
Modelled Chargeability mV/V
5756.31 4018.67 3175.66 2637.02 2251.64 1956.63 1723.26 1530.30 1367.40 1225.63 1103.11 993.86 896.35 807.58 726.85 651.49 582.14 516.95 455.29 395.64 337.82 280.52 221.68 154.76
Modelled Resistivity ohm-m
Scale 1:10000
200 0 200 400 600
(meters)
XSTRATA COPPER
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
Date: MARCH 2012
RES2DINV
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED



Line 7400
Pole-Dipole Array
a
na
a
I
V
plot point
Modelled Resistivity (Ohm-m)
Modelled Chargeability (mV/V)
69400 69500 69600 69700 69800 69900 70000 70100 70200 70300 70400 70500 70600 70700 70800 70900 71000 71100 71200 71300 71400 71500 71600 71700 71800 71900 72000 72100 72200 72300 72400 72500 72600 72700 72800 72900 73000 73100 73200 73300
1221.55
1200
1100
1000
900
833.96
Elevation (metres)
29.37 28.74 28.10 27.47 26.84 26.21 25.57 24.94 24.31 23.68 23.04 22.41 21.78 21.15 20.51 19.88 19.25 18.62 17.98 17.35 16.72 16.09 15.45 14.82 14.19 13.56 12.93 12.29 11.66 11.03 10.40 9.76 9.13 8.50 7.87 7.23 6.60 5.97
Modelled Chargeability
mV/V
5756.31 4018.67 3175.66 2637.02 2251.64 1956.63 1723.26 1530.30 1367.40 1225.63 1103.11 993.86 896.35 807.58 726.85 651.49 582.14 516.95 455.29 395.64 337.82 280.52 221.68 154.76
Modelled Resistivity
ohm-m
Scale 1:10000
200 0 200 400 600
(meters)
XSTRATA COPPER
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
Date: MARCH 2012
RES2DINV
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED


Line 8600
Pole-Dipole Array
a
na
a
I
V
plot point
Modelled Resistivity (Ohm-m)
69900
70000
70100
70200
70300
70400
70500
70600
70700
70800
70900
71000
71100
1220.81
1200
1100
1000
900
870.97
Elevation (metres)
Modelled Chargeability (mV/V)
29.37
28.74
28.10
27.47
26.84
26.21
25.57
24.94
24.31
23.68
23.04
22.41
21.78
21.15
20.51
19.88
19.25
18.62
17.98
17.35
16.72
16.09
15.45
14.82
14.19
13.56
12.93
12.29
11.66
11.03
10.40
9.76
9.13
8.50
7.87
7.23
6.60
5.97
Modelled Chargeability
mV/V
5756.31
4018.67
3175.66
2637.02
2251.64
1956.63
1723.26
1530.30
1367.40
1225.63
1103.11
993.86
896.35
807.58
726.85
651.49
582.14
516.95
455.29
395.64
337.82
280.52
221.68
154.76
Modelled Resistivity
ohm-m
Scale 1:10000
100
0
100
200
300
400
500
(meters)
XSTRATA COPPER
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT
Date: MARCH 2012
RES2DINV
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED



XSTRATA COPPER

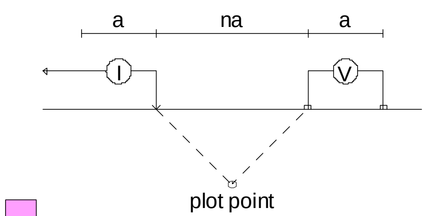
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

Date: MARCH 2012
RES2DINV

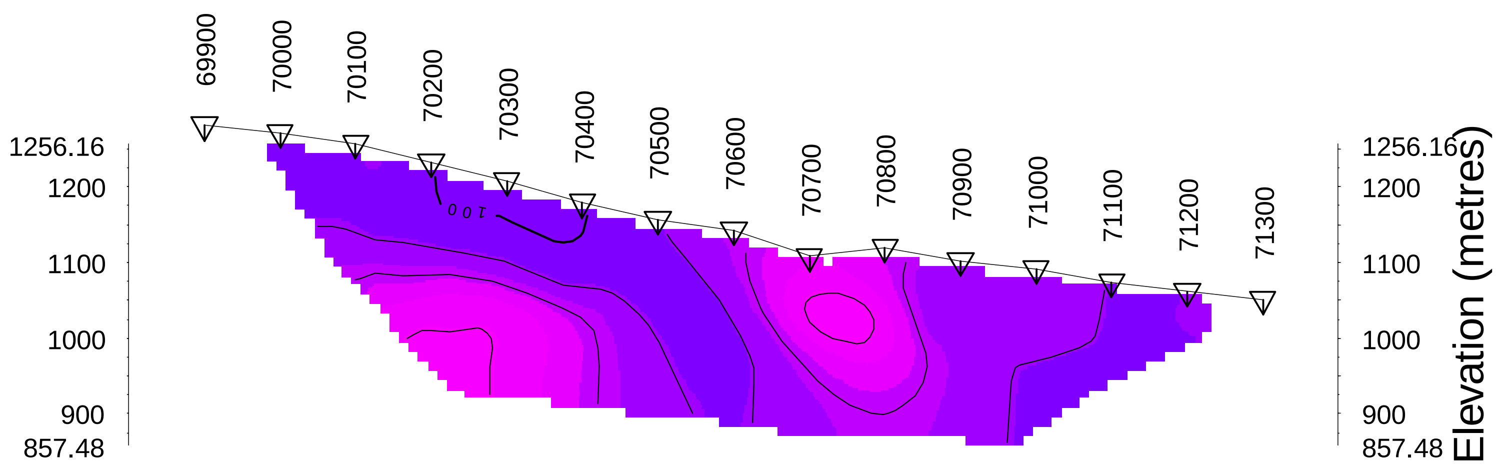
Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED

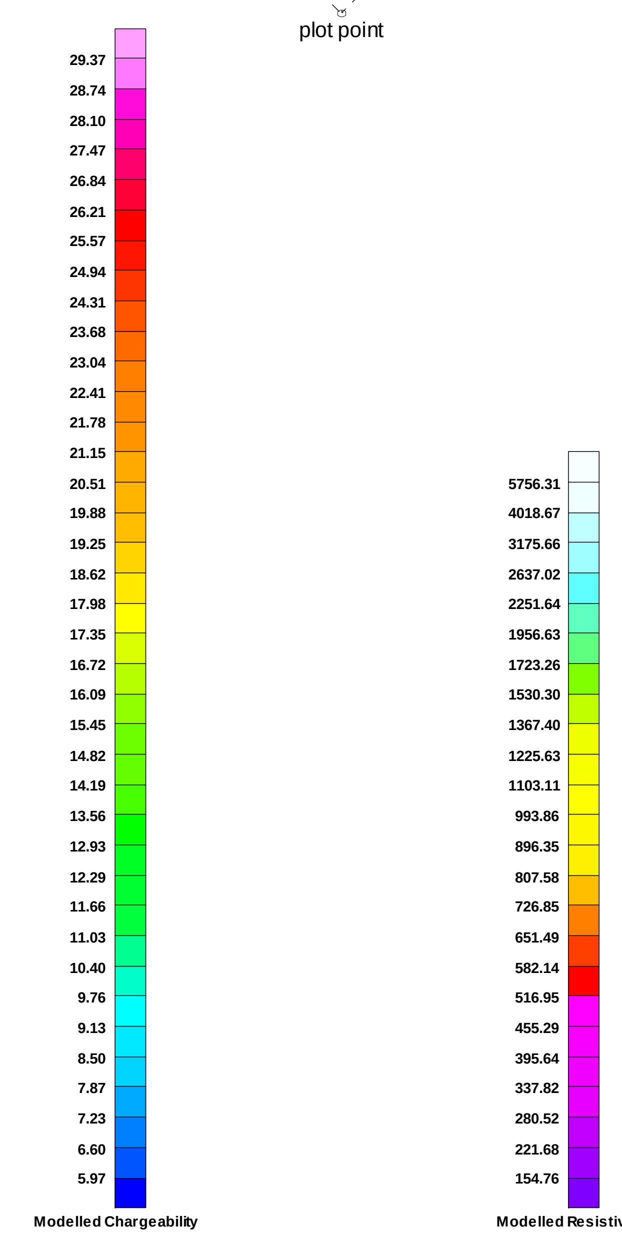
Line 9400

Pole-Dipole Array

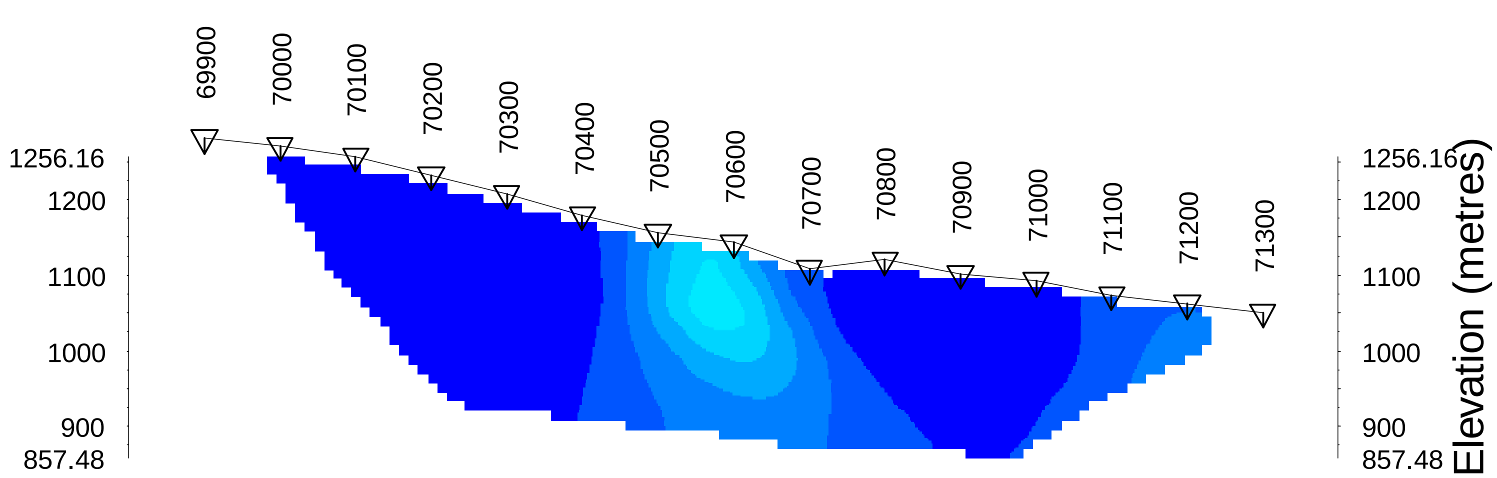


Modelled Resistivity (Ohm-m)





Modelled Chargeability (mV/V)



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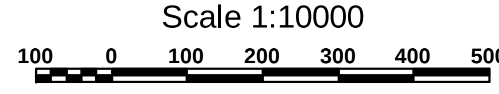

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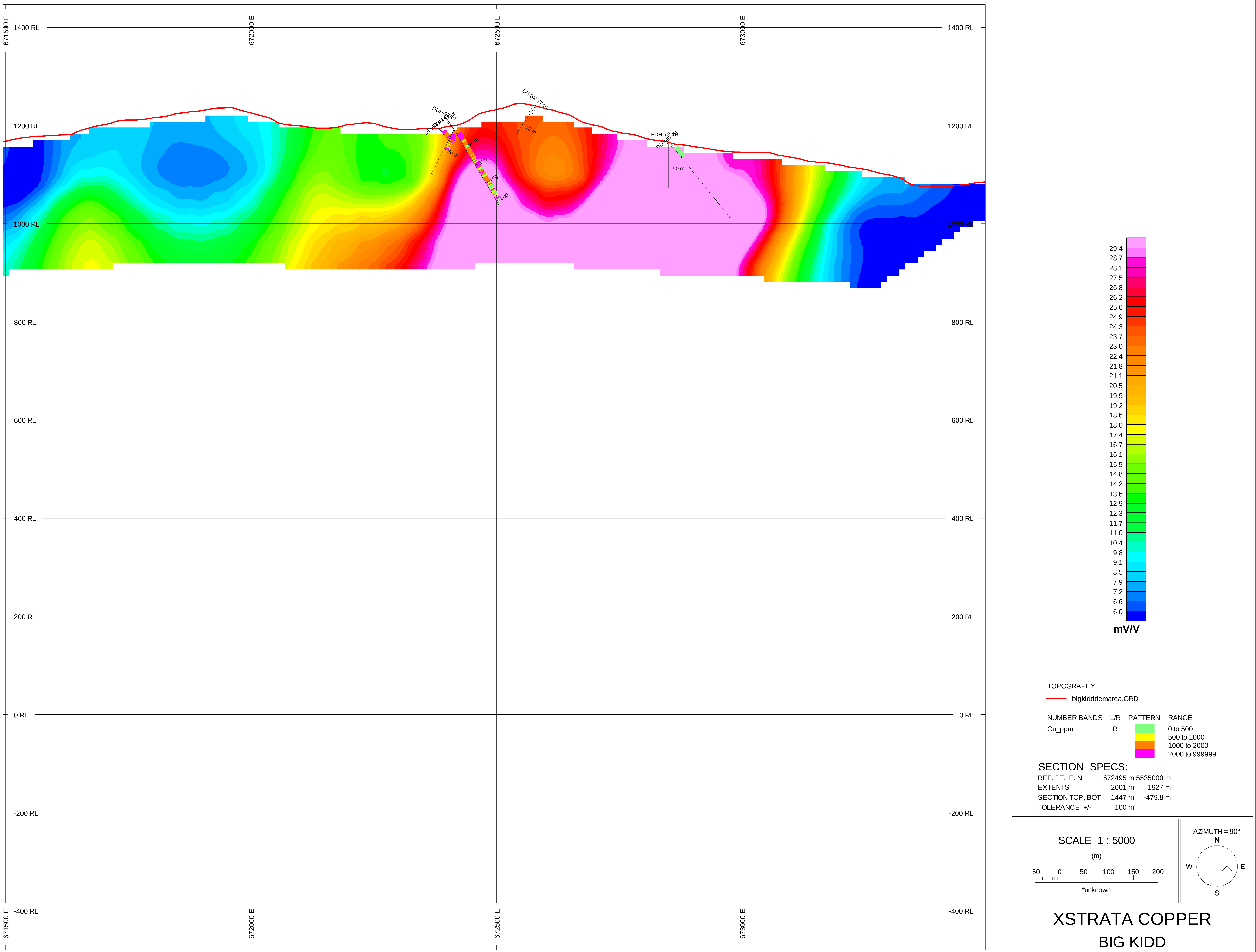
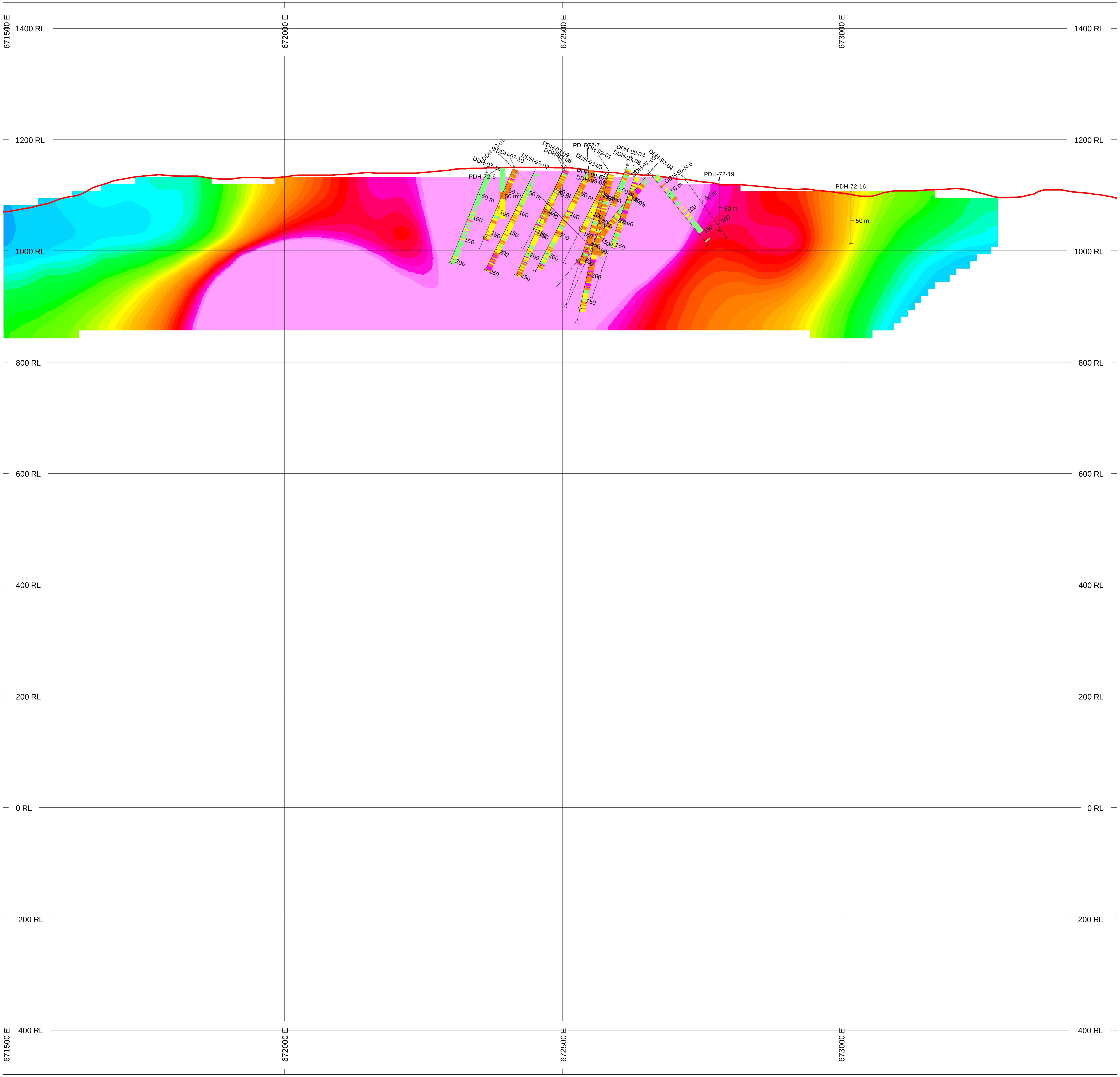
INDUCED POLARIZATION SURVEY
BIG KIDD PROJECT

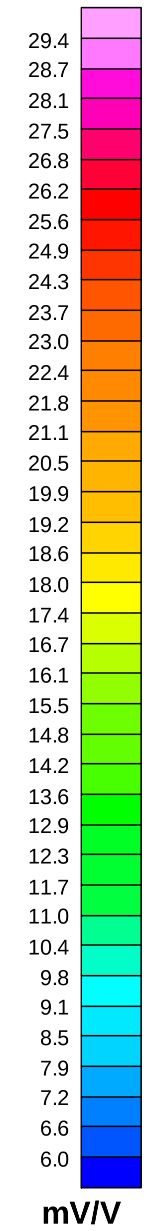
Date: MARCH 2012
RES2DINV

Inversion By:PETER E. WALCOTT & ASSOCIATES LIMITED



XSTRATA COPPER
BIG KIDD
5535000N SECTION





TOPOGRAPHY

bigkidddemarea.GRD

NUMBER BANDS	L/R	PATTERN	RANGE
Cu_ppm	R		0 to 500
			500 to 1000
			1000 to 2000
			2000 to 999999

SECTION SPECS:

REF. PT. E, N	672495 m	5535400 m
EXTENTS	2001 m	1927 m
SECTION TOP, BOT	1447 m	-479.8 m
TOLERANCE +/-	100 m	

SCALE 1 : 5000

(m)

-50 0 50 100 150 200

*unknown

AZIMUTH = 90°

N

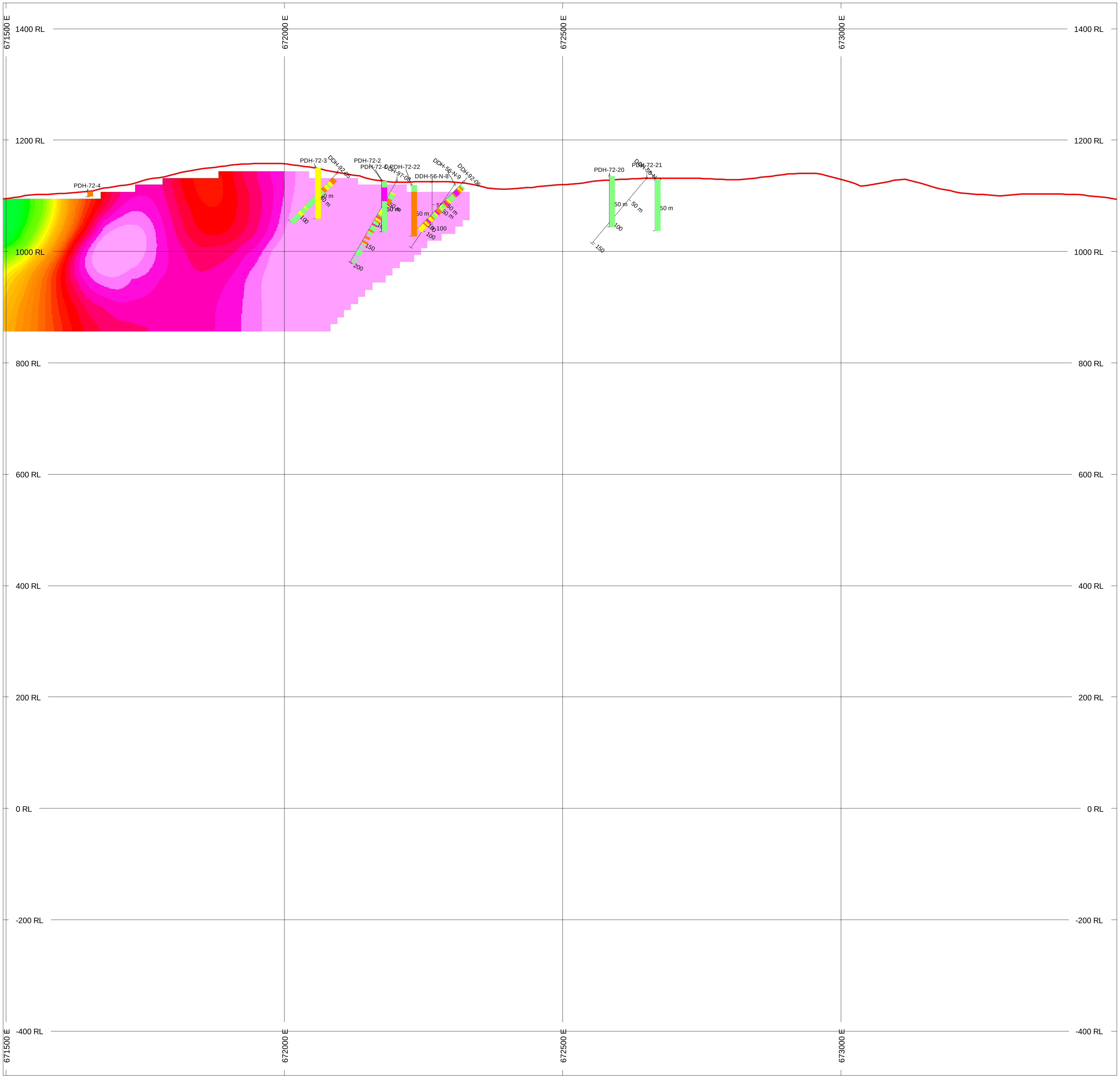
W E

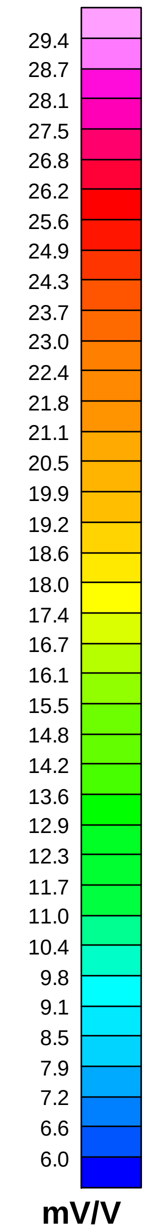
S

XSTRATA COPPER

BIG KIDD

5535400N SECTION





TOPOGRAPHY

bigkidddemarea.GRD

NUMBER BANDS	L/R	PATTERN	RANGE
Cu_ppm	R		0 to 500
			500 to 1000
			1000 to 2000
			2000 to 999999

SECTION SPECS:

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EXTENTS	2001 m	1927 m
SECTION TOP, BOT	1447 m	-479.8 m
TOLERANCE +/-	100 m	

SCALE 1 : 5000

(m)

-50 0 50 100 150 200

*unknown

AZIMUTH = 90°

N W E S

XSTRATA COPPER

BIG KIDD

5536200N SECTION

TABLE OF CONTENTS

INTRODUCTION.

Between February 1st and March 14th, 2012, Peter E. Walcott & Associates Limited undertook 56.8 kilometres of induced polarization (I.P.) traversing over parts of the Big Kidd property, located in the Aspen Grove area of British Columbia, for Xstrata Copper Canada.

The surveying was carried out over nineteen east-west and two north-south "compass and chain" lines, established by personnel from or contracted by Xstrata.

Measurements – first to sixth separation- of apparent chargeability – the I.P. response parameter – and resistivity were made on the line using the pole-dipole technique with a 100 metre dipole spacing.

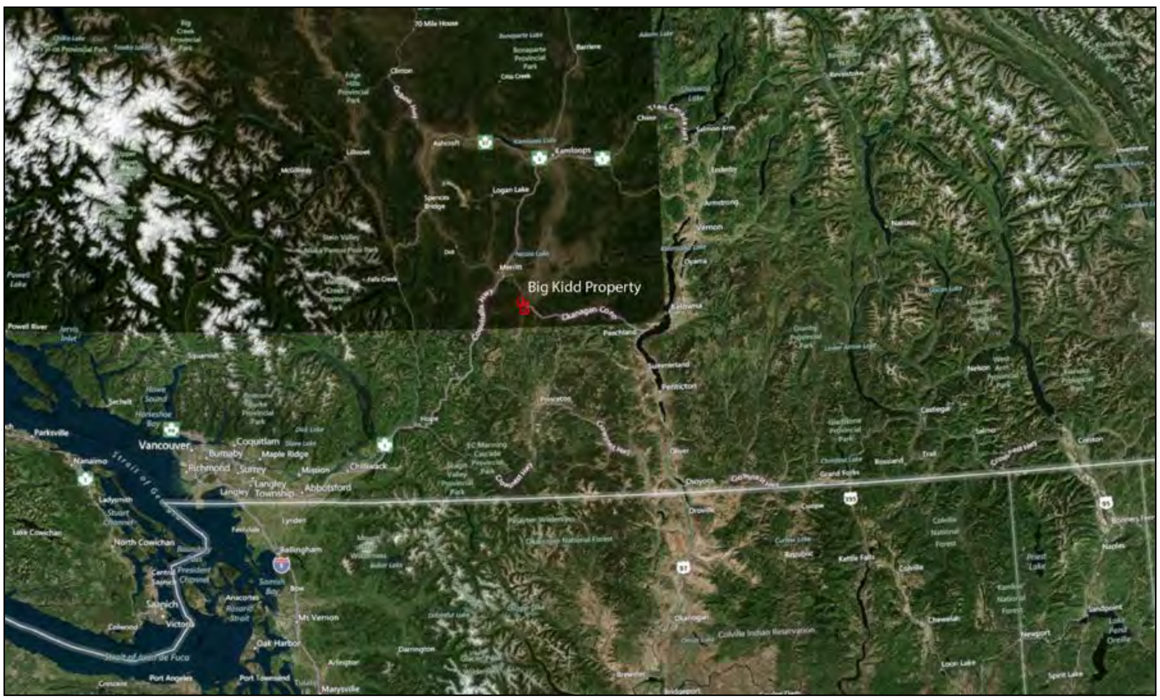
In addition the elevation and horizontal locations of the line stations were measured using a Brunton altimeter and a WAAS equipped Garmin GPS unit.

The I.P. data is presented as individual pseudo-sections at a scale of 1:10,000.

PROPERTY LOCATION AND ACCESS

The Big Kidd property is located some 20 kilometres south east of the community of Merritt, British Columbia.

Access to the property is gained via Highway 5A from Merritt, British Columbia where the crew was housed for the duration of the survey.

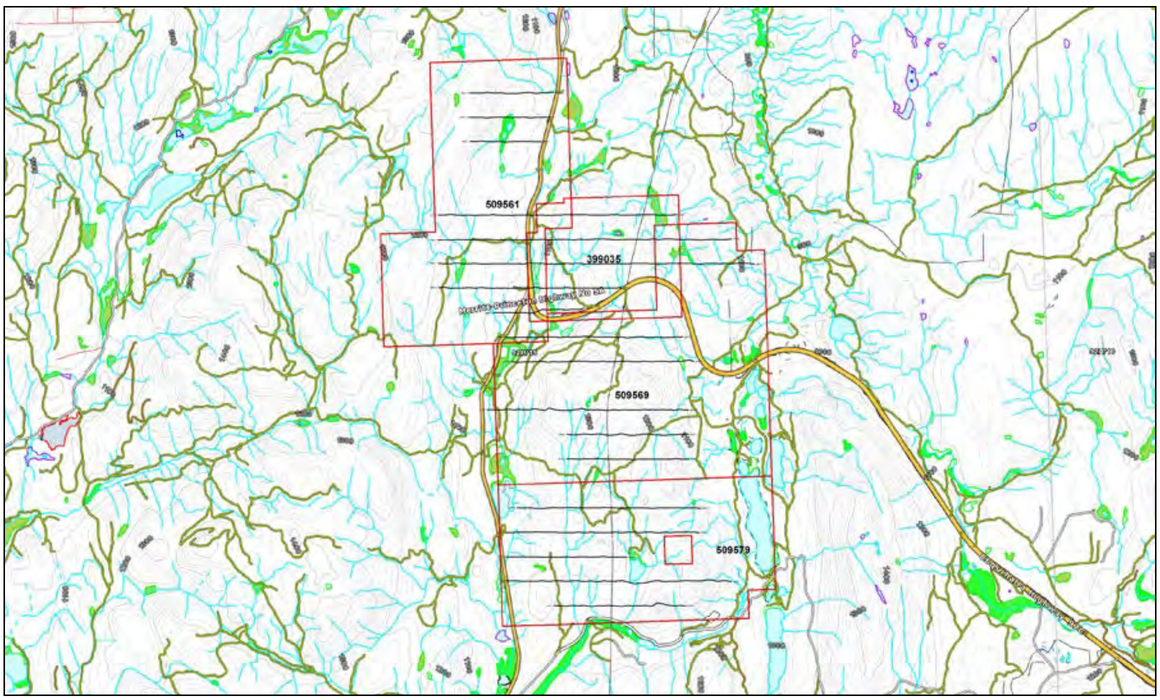


Property Location Map

PROPERTY LOCATION AND ACCESS con't

Claim Location Map

PROPERTY LOCATION AND ACCESS con't



Claim and Line Location Map

PREVIOUS WORK

Mineral exploration in the Aspen Grove area has been active since the early 1900's. This resulted in a number of minfile occurrences occur throughout the Big Kidd property, with the most notable being the Big Sioux and Big Kidd.

Focused exploration around the Big Sioux and Big Kidd occurrences began in the mid 1950's with Noranda drilling a number drill holes within the Big Sioux and Big Kidd prospects.

In 1972 Amax Explorations conducted additional percussion drilling to test the extents of mineralization within the Big Sioux and Big Kidd areas.

In 1977 five drill holes were complete by David Minerals, three on the Big Kidd, one on the Big Sioux, and one on the Copper Bell. Trenching was also conducted.

In 1989, during the construction of the Okanagan connector, a rock cut on the south side of the Big Sioux exposed intrusive contact related copper mineralization with local multi-gram gold values (Shives 2009, Aris #31004). This was subsequently staked and optioned to Northair Mines.

During the option period in 1992 Placer Dome undertook a geological, geophysical, trenching and diamond drill program, which identified an alkalic copper porphyry system. However subsequent follow up was limited.

Christopher James Gold Corp, followed up on Placer's discovery in 1997, continuing with geological and geophysical programs. This was followed by a number of drilling campaigns until 2003. Results of the respective programs yielded a number broad mineralized intercepts.

In 2008, Christopher James Gold Corp. conducted a detailed airborne magnetic and radiometric survey over the Big Kidd project.

In 2011, Julian Resources Inc. acquired the Big Kidd property from Gunpoint Explorations Ltd. (formerly Christopher James Gold Corp.) and optioned the property to Xstrata Copper Canada, who then subsequently conducted induced polarization surveying.

PREVIOUS WORK CONT'd.

For further information the reader is referred to the B.C. Ministry of Energy, Mines and Petroleum Reserves ARIS archive, and to reports written and/or held by Xstrata.

PURPOSE.

The purpose of the survey was to search for additional sulphide mineralization along the flanks of a north-south trending magnetic trend - alkalic porphyry copper-gold mineralization is known to occur in the margins of magnetic highs in association with iron-oxides enriched intrusions- where historic work and drilling identified copper-gold mineralization associated with an alkali porphyry system

SURVEY SPECIFICATIONS.

The Induced Polarization Survey.

The induced polarization (I.P.) survey was conducted using a pulse type system, the principal components of which were manufactured by Walcer Geophysics of Einskillen, Ontario, and Instrumentation GDD of St. Foy, Quebec.

The system consists basically of three units, a receiver (GDD), transmitter (Walcer) and a motor generator (Walcer). The transmitter, which provides a maximum of 9 kw d.c. to the ground, obtains its power from a 15 kw 400 c.p.s. three phase alternator driven by a Honda 24 h.p. gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes C_1 and C_2, the primary voltages (V) appearing between any two sequential potential electrodes, P_1 through P_{n+1}, during the "current-on" part of the cycle, and the apparent chargeability, (M_a) presented as a direct readout in millivolts per volt using a 200 millisecond delay and a 1000 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor – the sample window is actually the total of twenty individual windows of 50 millisecond widths.

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

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode, C_1, and the potential electrodes, P_1 through P_{n+1}, are moved in unison along the survey lines at a spacing of "a" (the dipole) apart, while the second current electrode, C_2, is kept constant at "infinity". The distance, "na" between C_1 and the nearest potential electrode generally controls the depth to be explored by the particular separation, "n", traverse.

SURVEY SPECIFICATIONS cont'd.

On this survey 100 m dipoles were employed and first to six separation readings were obtained. In all some 56.8 kilometres of I.P. traversing were completed on twenty one lines.

Vertical control.

The elevations of the stations were recorded using an ADC Summit altimeter manufactured by Brunton of Wyoming, USA. This instrument measures elevations using barometric pressures to an accuracy of plus or minus 3 metres. Corrections for errors due to variations in atmospheric pressure were made by comparison to readings obtained on a similar instrument, held stationary at one location – the base -, at 10 minute intervals.

Horizontal control.

The horizontal position of the stations were recorded using an WAAS equipped Garmin C60 handheld GPS receiver.

Data Presentation.

The I.P. data are presented as an individual pseudo-section plot of apparent chargeability and resistivity at a scale of 1:10,000. Plots of the 21 point moving filter – illustrated on the pseudo section – for the above are also displayed in the top window to better show the location of the anomalous zones.

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

SURVEY SPECIFICATIONS cont'd.

format for presentation at the same scale of 1:5,000 on the topographic profile. A slight discrepancy can be observed between the measured and modeled plots as the former are processed in Geosoft which assumes horizontal distances for the station separation. These sections however are no presented within this report.

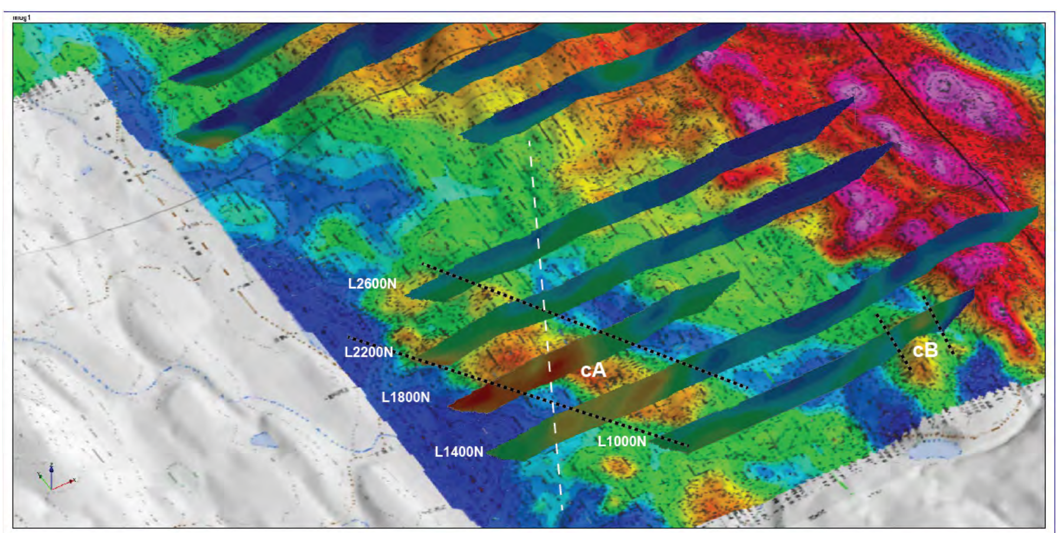
DISCUSSION OF RESULTS.

The winter 2012 induced polarization program was designed to test areas where historic exploration identified significant copper-gold mineralization, situated at the northern end of a north-northwest trending magnetic feature. In addition to targeting the western flank of the aforementioned magnetic feature, a number of weaker magnetic features in the western portion of the property were also investigated for potential IP response.

During the course of the survey some 19 east west lines and two north south lines were traversed. In areas proximal to Highway 5A, the lines were split resulting in two lines run with the currents in opposite directions i.e. PL-DP, DP-PL.

A number of anomalous features can be observed throughout the survey area, as described below.

In the southwest portion of the survey area a chargeable trend (cA) can be observed on the western ends of survey lines 1000N through 2200N. The anomaly appears to be associated with the western flank of weak north northwesterly magnetic trend as illustrated below. Line 1800N appears shows the highest intensity anomaly between 70600E and 71400E, within a slight embayment of low magnetic intensity. This anomaly is bisected by a northeasterly trending structure, which offsets the magnetic unit.



South Area – Modelled Chargeability

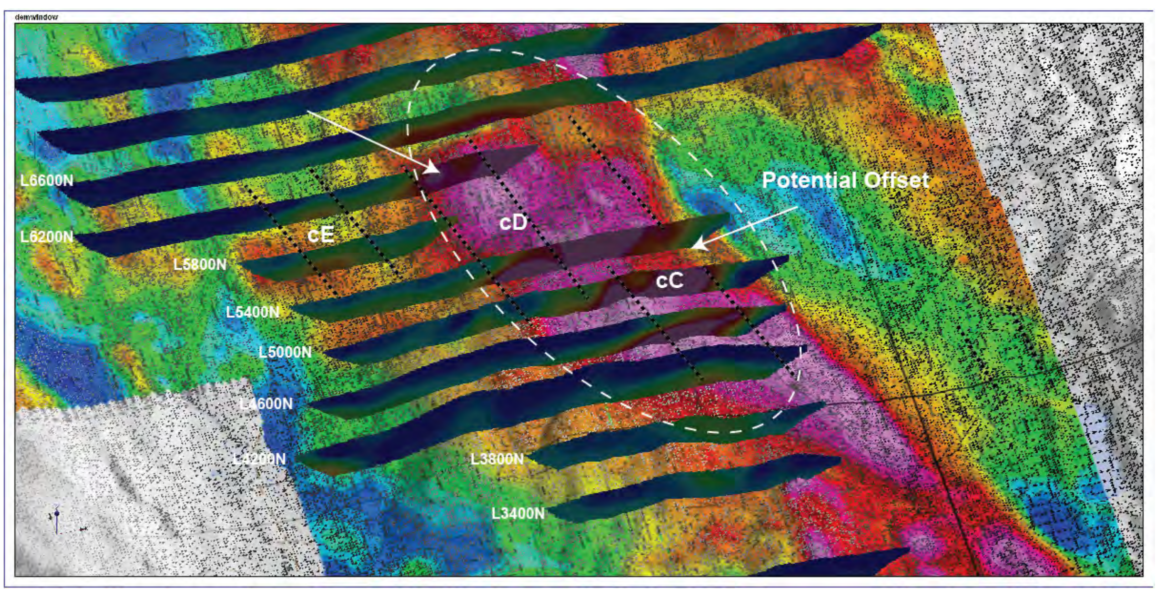
DISCUSSION OF RESULTS cont'd.

A second weaker chargeability (cB) can aslo be seen on lines 1000E and 1400E. This anomaly appears to be associated with a moderate magnetic feature. The increase in depth on line 1400E is potentially due to edge effects.

Within the central zone, a broad chargeability zone is readily apparent within the core of dominant north northwesterly magnetic trend. The broad chargeability is likely a composite of two chargeability anomalies, cC and cD.

Anomaly cC is associated with the core of the magnetic high, within a moderate to high resistive zone. The anomaly appears to be offset between lines 5000N and 5400N. The majority of the historic drilling was conducted within this anomaly returning varying amounts of copper mineralization.

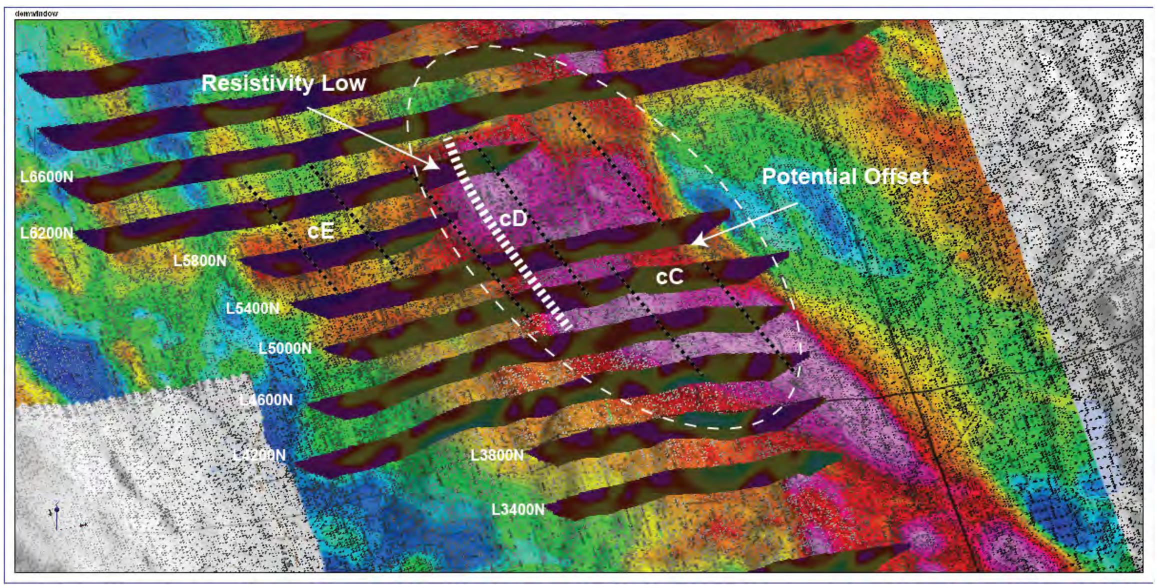
Three drill holes sections 5000N, 5400N and 6200N are presented within the Appendix illustrating modeled chargeability with historic drill hole intercepts.



Central Area – Modelled Chargeability

DISCUSSION OF RESULTS cont'd.

A second anomaly (cD) appears to flank the western component of the magnetic highs, and is associated with a resistivity low. Lines 5800N and 6200N did not cover the target area, due to the highway 5A and the winter conditions. Additional work utilizing 3D arrays would be recommended within this area.

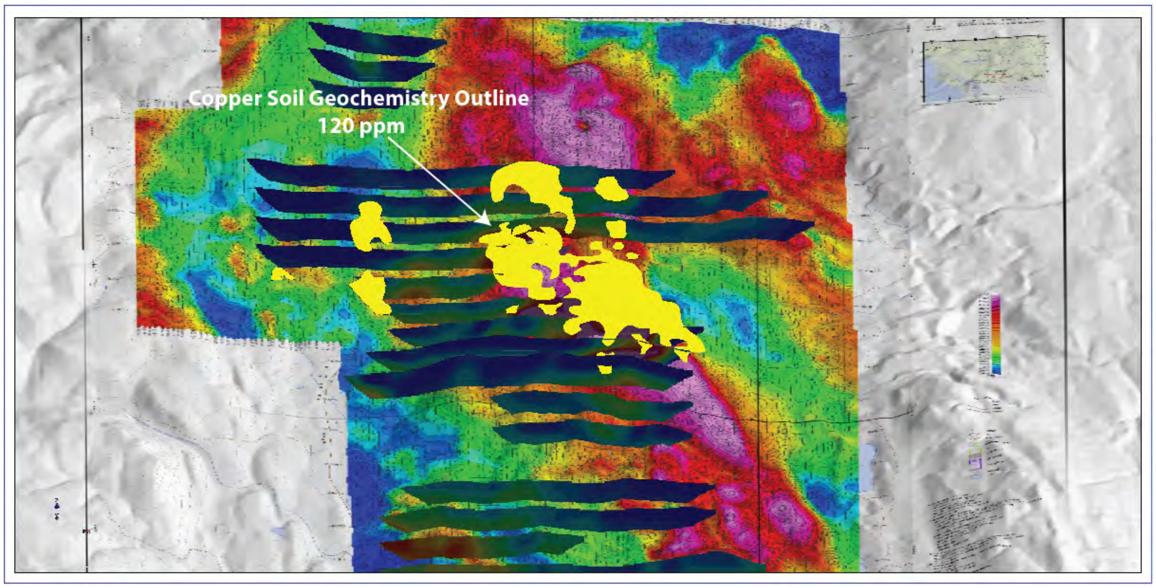


Central Area – Modelled Resistivity

A large historic copper soil geochemistry anomaly can be seen associated with both anomalies cC and cD.

Immediately to the west and paralleling the dominant magnetic trend, a weak chargeability anomaly (cE) is seen on the western ends of lines 5400N to 6200N. This moderate intensity chargeability zone appears to be at depth, and is associated with a moderate magnetic high and a low resistivity feature. Flanking the western edge of this chargeability feature is a weak historic copper geochemistry anomaly..

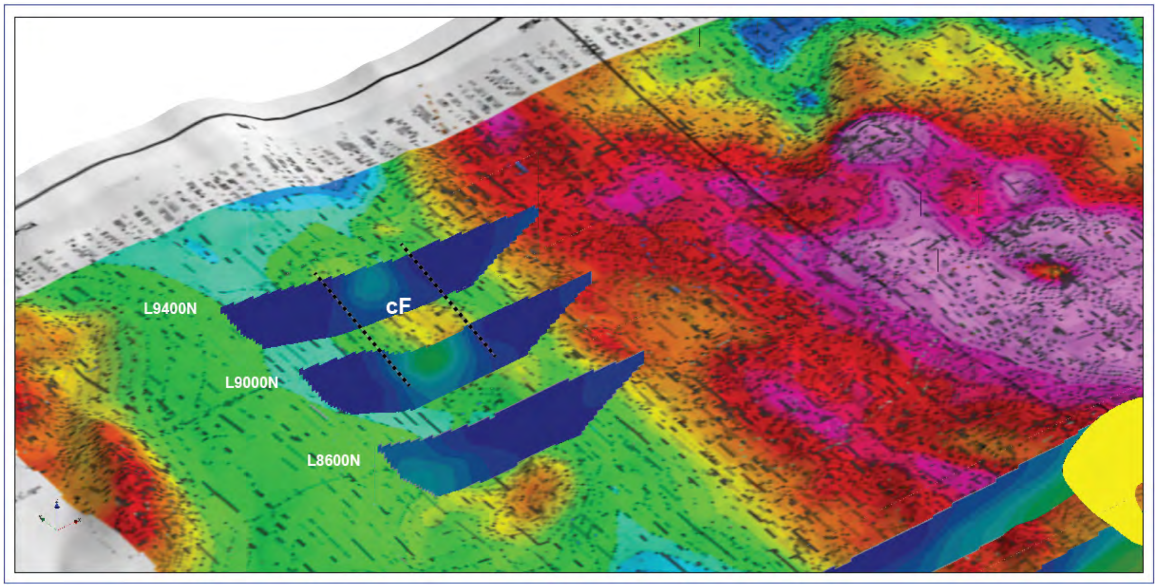
DISCUSSION OF RESULTS cont'd.



Historic Copper Soil Geochemistry Anomaly
120 ppm Contour

In the northern part of the survey grid, three short lines where conducted on the eastern side of highway 5A. A weak narrower chargeability feature (cF) can be seen on the northern two lines, 9000N and 9400N, within a low resistivity zone. This anomaly flanks the western edge of a weak magnetic trend as illustrated below.

DISCUSSION OF RESULTS cont'd.



A brief description of the individual lines will follow.

Line 1000N - a moderate intensity chargeability feature can be noted circa 740+00E, on the western flank of a higher resistivity feature.

Line 1400N - in the western portion of the line, a zone of elevated chargeability can be observed. Between 709+00E and 714+00E, the feature is somewhat disperse, associated with a moderate resistivity feature. Immediately to the east of the aforementioned features, a more homogenous chargeability anomaly of moderate intensity with reduced resistivity is noted between 714+00E and 717+00E.

Line 1800N - a broad zone of moderate to high chargeability between 706+00E and 715+00E is seen associated with a moderate intensity resistivity core flanked by zones of reduced resistivity.

Line 2200N – a moderate intensity chargeability anomaly is seen on the western end of the traverse between 706+00E and 710+00E. It is on the western flank of a zone of elevated resistivity, with its core associated with a resistivity low.

DISCUSSION OF RESULTS cont'd.

Line 2600N, 3400N - No discernible features of interest are observed.

Line 3800N - A small shallow chargeability anomaly circa 728+00E is associated with a high resistivity feature.

Line 4200N - A moderate chargeability feature can be observed on the western portion of the survey traverse similar to that seen on Line 2200N. The feature is situated on the western flank of a moderate resistivity feature. A weak broad chargeability feature at depth can also be observed between 724+00E and 728+00E. This is potentially associated with an edge effect.

Line 4600N - On the western most extent of the traverse a small chargeability response can be noted, associated with a low to moderate resistivity. On the eastern portion of the traverse, a broader moderate to high chargeability response, centered at 72850E and associated with dominant magnetic feature, can be observed.

Line 5000N - A number of chargeability features are discernible throughout this survey traverse. A moderate intensity deeper chargeability anomaly can been seen circa 720+00E. This feature is proximal to the western edge of the large magnetic feature. A broader chargeability zone between 723+00E and 730+00E encapsulating multiple anomalies can also be observed. The western portion of the anomaly between 723+00E and 726+00E is of moderated intensity associated with a magnetic high. Immediately to the east between 726+00E and 731+00E a high chargeability response can be observed. This feature is situated within an embayment of lower magnetic intensity and given the proximity to know mineralization is of significant interest.

Line 5400N – Similar to the Line 5000N a broad chargeability anomaly can be seen between 719+00E and 730+00E. Moderate to high values can been observed on both the western and eastern sides of the highly chargeable core. Historic drilling within this area yielded a number of broad mineralized intercepts.

DISCUSSION OF RESULTS cont'd.

Line 5800N – The position of this survey traverse was proximal to a large turn in highway 5A thus provided challenges. The western portion of the survey traverse shows a weak chargeability feature at depth circa 709+00E. On the eastern end of the line, an elevated response can be seen on the last dipole. Sadly this line failed to bisect the area of interest, thus providing little insight.

Line 6200N and 6201N – 6200N is the western dipole-pole data collected on the western side of the highway. No features of interest can be observed. Line 6201N is the eastern portion of the survey line. A broad anomaly starting at 71500E and remaining open off the eastern end of the survey line can be observed. This anomaly is proximal to the Big Sioux showing where historic drilling intercepted copper and gold mineralization.

Line 6600N and 6601N – Similarly to line 6200N, line 6600N shows no features of interest. Line 6601 shows a broad of moderate intensity chargeability anomaly between 719+00E and 726+00E. The chargeability is weaker than previous lines, and likely suggesting the northern terminus of the mineralized zone.

Line 7000N and 7001N – Line 7000N shows no features of interest. Line 7001N shows a weak chargeability response likely associated with a lithological unit centered at 720+00E associated with moderate intensity resistivity. A number of narrow chargeability features can be observed at 728+00E and 735+00E respectively, however likely of little interest.

Line 7400N and 7401N – Line 7400N shows no feature of interest. Line 7401N shows a weak feature circa 720+00E as described on the previous line.

Line 8600N – Situated in the northwestern corner of the property, this line exhibits no significant features of interest.

Line 9000N - A weak pant-leg chargeability feature can be seen circa 705+00E. The feature is associated with a resistivity contact.

Line 9400N - Similar to 9000N a narrow chargeability feature can observed on a resistivity contact.

DISCUSSION OF RESULTS cont'd.

Line 720+00E – A broad moderate to high chargeability anomaly can be observed on the southern portion of the traverse, between 365+00N and the southern end of the survey line.

Line 725+00E – This line bisects the core of the Big Kidd zone. A broad moderate to high chargeability anomaly commencing at 345+00N and remaining open to the north can be observed.

SUMMARY, CONCLUSIONS & RECOMMENDATIONS.

Between February 1st and March 14^{th}, 2012, Peter E. Walcott & Associates Limited conducted induced polarization surveying on the Big Kidd property, located in the Aspen Grove area of British Columbia, and held by Xstrata Copper Canada under option.

Some 56.8 kilometres of induced polarization traverses were completed on nineteen east-west and two north-south orientated lines using a 100 metre a-spacing. The survey lines were established to test a large north-northwest trending magnetic feature previously defined by airborne magnetic, along with attempt to expand areas of known mineralization

The survey identified a broad chargeability zone some 2.5 by 0.9 kilometres in dimensions proximal to the Big Kidd and Big Sioux zones where historic drilling identified significant mineralized intercepts. In addition to the main zone, a weaker feature in the southern portion of the property on line 1400N, 1800N, and 2200N should be followed up as may be of interest.

Additional surveying during the summer months should also be undertaken over the core of the main zone, employing 3D IP techniques to allow for surveying in areas proximal to the highway where conventional arrays are problematic due to the geometry of the array. This would likely prove useful, and aid in the targeting of future drill holes.

Additional review of the 2008 airborne magnetic dataset, along with detailed elevations models, should be undertaken if not already completed, as a number of structural features are readily discernible and may prove useful in understanding the controls on mineralization.

After a detailed compilation all available data, consideration should be given to extending lines to suitably cover the eastern edge of the magnetic trend.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED

Alexander Walcott
Geophysicist
Vancouver, B.C., April 2013

Peter E. Walcott, P.Eng.
Geophysicist

APPENDIX I

COST OF SURVEY.

Peter E. Walcott & Associates Limited undertook the survey programme on a daily basis originally providing a geophysicist, operator, 4 man IP crew, I.P. equipment, GPS unit, altimeters with 4x4 trucks at a daily rate of $3,700.00.

Mobilization costs of $5200.00 were incurred while two snowmobiles where provided at $200 per day when used for a total of $5400.00

Accommodation and fuel costs were $23,948.10, while reporting costs of $3,000.00 were incurred so that the total cost of services provided was $169,998.16.

PERSONNEL EMPLOYED ON SURVEY.

Name	Occupation	Address	Dates
Peter E. Walcott	Geophysicist	111-17 Fawcett Rd. Coquitlam, B.C. V3K 6V2	04-Apr-13
Alexander Walcott	"	"	March 18 & 19th, 2013 April 4, 2013
J. Cornock	"	"	Feb 1st- March 1st, 2013 March 7-14th, 2013
P. Young	"	"	March 2nd - 14th, 2013
B. Jones	Geophysical Operator	"	Feb 1st-March 2nd, 2013
T. Kocan	"	"	March 2nd - March 8th, 2013
A. Shore	Geophysical Assistant	"	Feb 1st-March 2nd, 2013
R. Gairdner	"	"	"
T. Anderson	"	"	"
T. Scott	"	"	March 2nd, 2013- March 14th, 2013
R. Ewen	Geophysical Operator	"	"
S. Offhaus	Geophysical Assitant	"	"
M. Schroeder	"	"	"
S. Leir	"	"	"

CERTIFICATION.

I, Peter E. Walcott, of 605 Rutland Court, Coquitlam, British Columbia, hereby certify that:

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

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

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

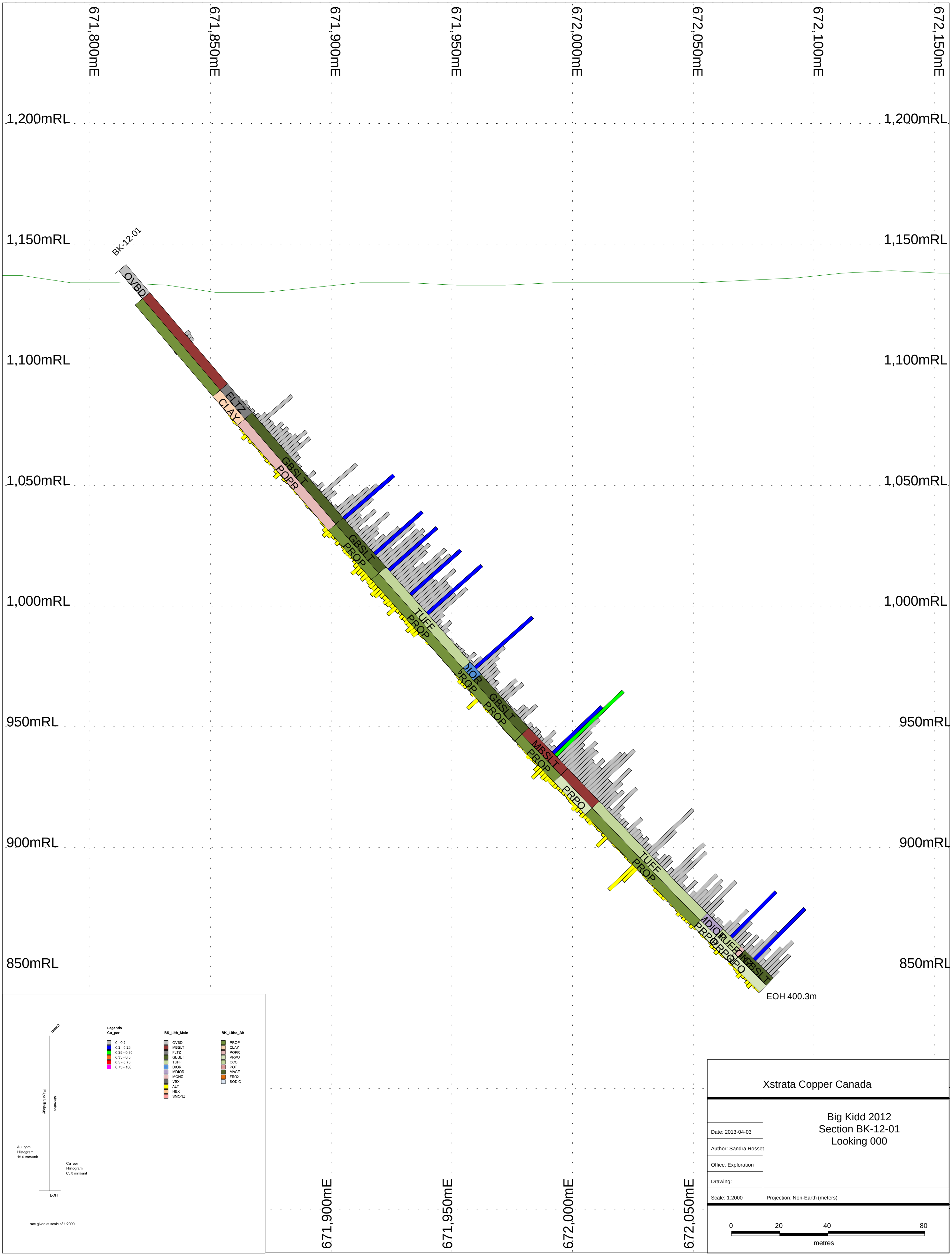
4. I hold no interest, direct or indirect, in Xstrata Copper Canada, nor do I expect to receive any.

Peter E.Walcott, P.Eng.

Vancouver, B.C.
April 2013

Appendix B

Diamond Drilling Cross-Sections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BK-12-01
OVBD
FLTZ
CLAY
GBSLT
POPR
PROP
TUFF
DIOR
MBSLT
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Cu_per
Histogram
65.0 mm/unit
EOH
mm given at scale of 1:2000
Legends
Cu_per
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0.2 - 0.25
0.25 - 0.35
0.35 - 0.5
0.5 - 0.75
0.75 - 100
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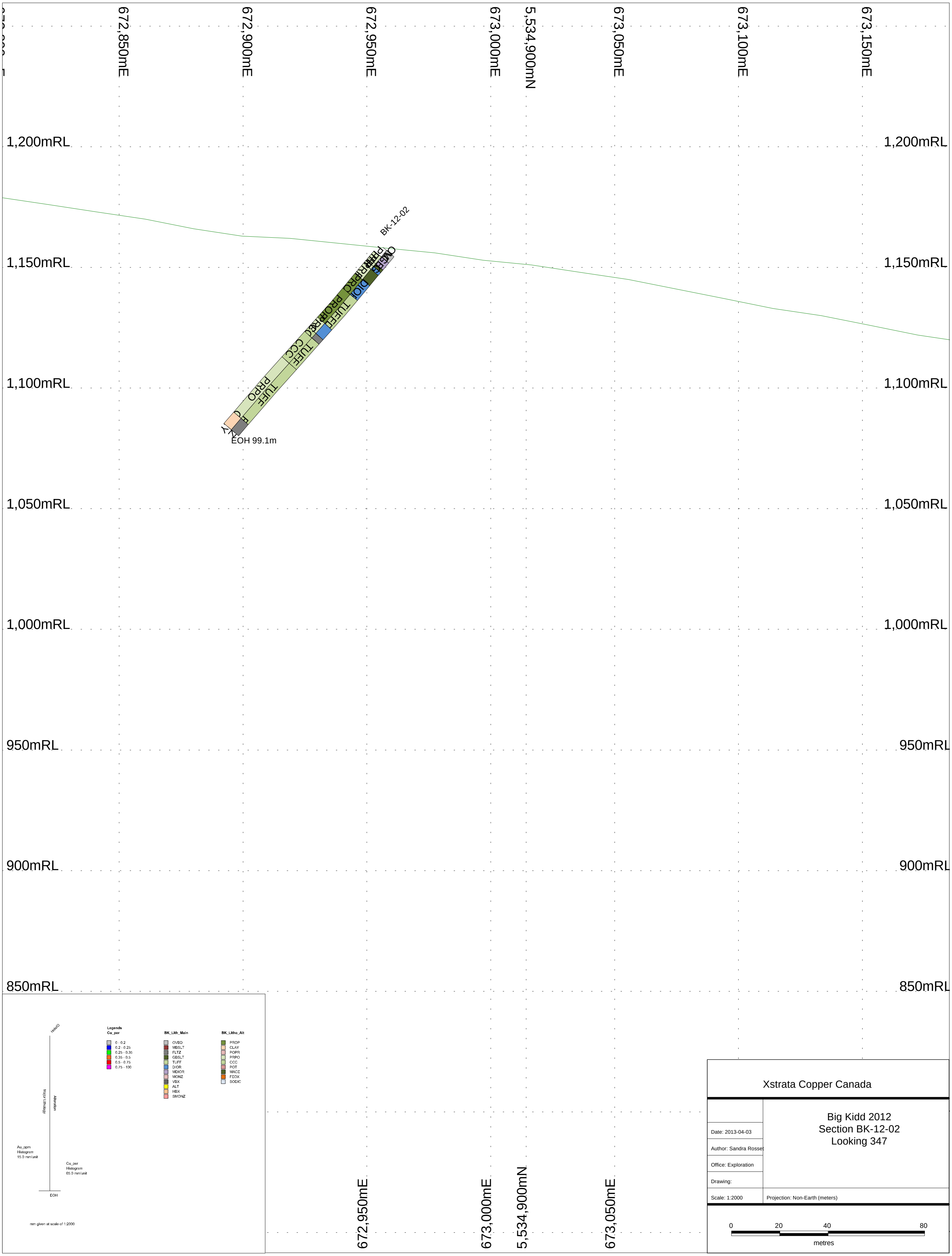
OVBD
MBSLT
FLTZ
GBSLT
TUFF
DIOR
MDIOR
MONZ
VBX
ALT
HBX
SMONZ
BK_Litho_Alt
PROP
CLAY
POPR
PRPO
CCC
POT
MACE
FEOX
SODIC
Xstrata Copper Canada
Big Kidd 2012
Section BK-12-01
Looking 000
Date: 2013-04-03
Author: Sandra Rosset
Office: Exploration
Drawing:
Scale: 1:2000
Projection: Non-Earth (meters)
0
20
40
80
metres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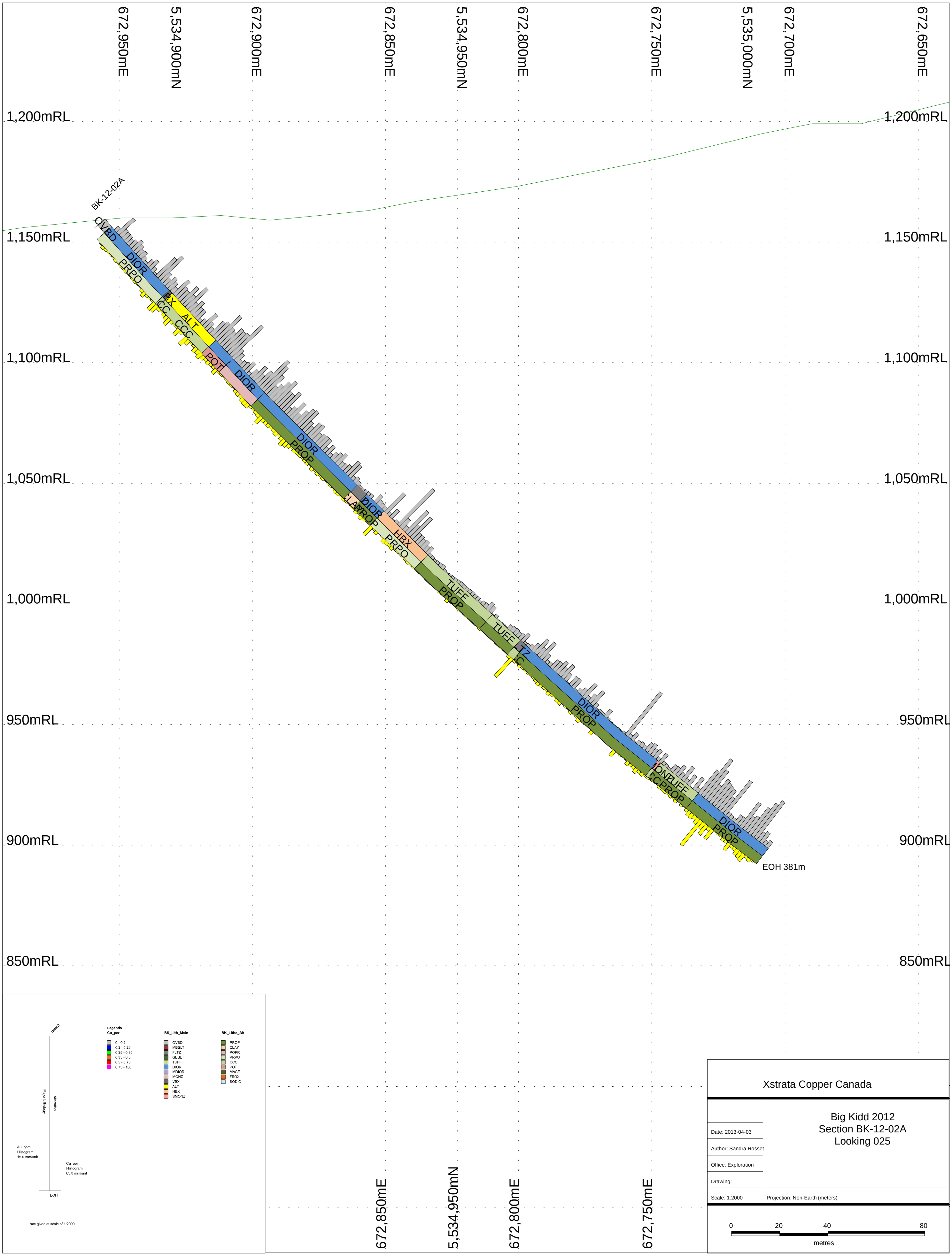
672,950mE
673,000mE
5,534,900mN
673,050mE
673,100mE
673,150mE
1,200mRL
1,150mRL
1,100mRL
1,050mRL
1,000mRL
950mRL
900mRL
850mRL
BK-12-02
TUFF
PRPO
CCC
DIOR
EOH 99.1m
HoleID
Major Lithology
Alteration
Au_ppm
Histogram
15.0 mm/unit
Cu_per
Histogram
65.0 mm/unit
EOH
mm given at scale of 1:2000
Legends
Cu_per
0 - 0.2
0.2 - 0.25
0.25 - 0.35
0.35 - 0.5
0.5 - 0.75
0.75 - 100
BK_Lith_Main
OVBD
MBSLT
FLTZ
GBSLT
TUFF
DIOR
MDIOR
MONZ
VBX
ALT
HBX
SMONZ
BK_Litho_Alt
PROP
CLAY
POPR
PRPO
CCC
POT
MACE
FEOX
SODIC
Xstrata Copper Canada
Big Kidd 2012
Section BK-12-02
Looking 347
Date: 2013-04-03
Author: Sandra Rosset
Office: Exploration
Drawing:
Scale: 1:2000
Projection: Non-Earth (meters)
0
20
40
80
metres



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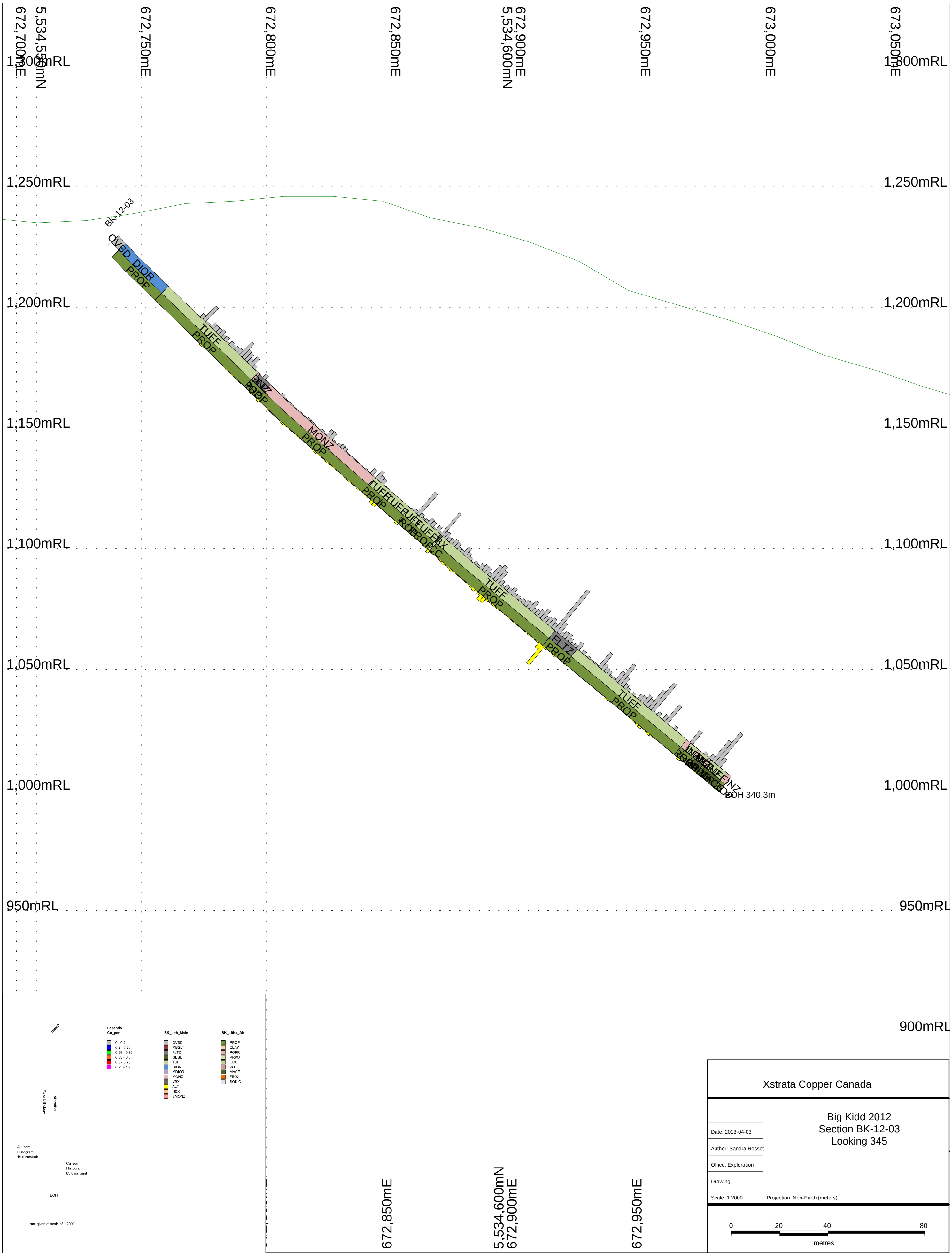
5,534,900mN
672,900mE
672,850mE
5,534,950mN
672,800mE
672,750mE
5,535,000mN
672,700mE
672,650mE
1,200mRL
1,150mRL
1,100mRL
1,050mRL
1,000mRL
950mRL
900mRL
850mRL
BK-12-02A
OVBD
DIOR
PRPO
BX
CC
ALT
CCC
POT
DIOR
DIOR
PROP
DIOR
LAY
PROP
HBX
PRPO
TUFF
PROP
TUFF
TZ
C
DIOR
PROP
TUFF
PROP
DIOR
PROP
EOH 381m
HoleID
Major Lithology
Alteration
Au_ppm
Histogram
15.0 mm/unit
Cu_per
Histogram
65.0 mm/unit
EOH
mm given at scale of 1:2000
Legends
Cu_per
0 - 0.2
0.2 - 0.25
0.25 - 0.35
0.35 - 0.5
0.5 - 0.75
0.75 - 100
BK_Lith_Main
OVBD
MBSLT
FLTZ
GBSLT
TUFF
DIOR
MDIOR
MONZ
VBX
ALT
HBX
SMONZ
BK_Litho_Alt
PROP
CLAY
POPR
PRPO
CCC
POT
MACE
FEOX
SODIC
Xstrata Copper Canada
Big Kidd 2012
Section BK-12-02A
Looking 025
Date: 2013-04-03
Author: Sandra Rosset
Office: Exploration
Drawing:
Scale: 1:2000
Projection: Non-Earth (meters)
0
20
40
80
metres



Xstrata Copper Canada

Big Kidd 2012
Section BK-12-03
Looking 345

Date: 2013-04-03

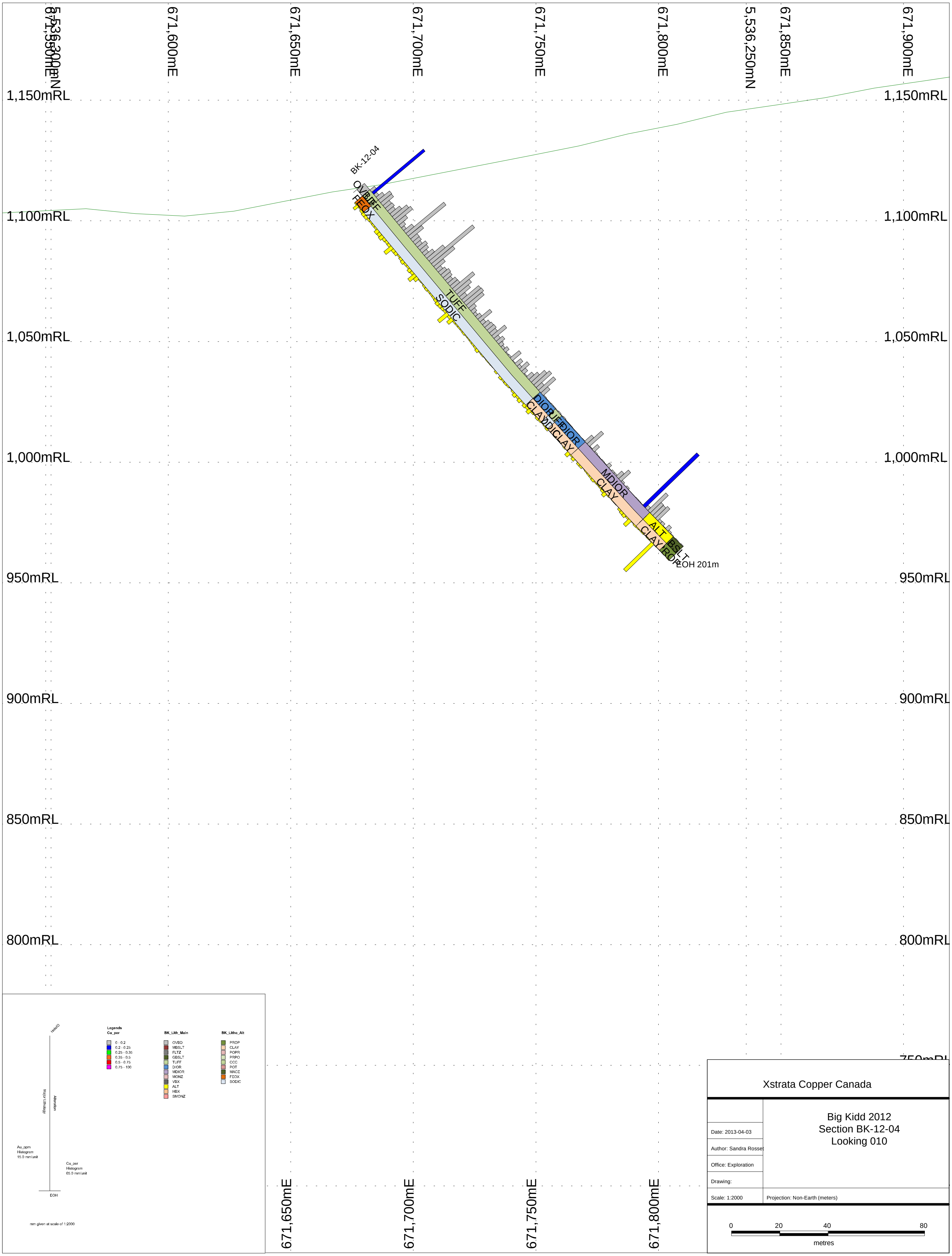
Author: Sandra Rosset

Office: Exploration

Drawing:

Scale: 1:2000

Projection: Non-Earth (meters)



671,600mE
671,650mE
671,700mE
671,750mE
671,800mE
5,536,250mN
671,850mE
671,900mE
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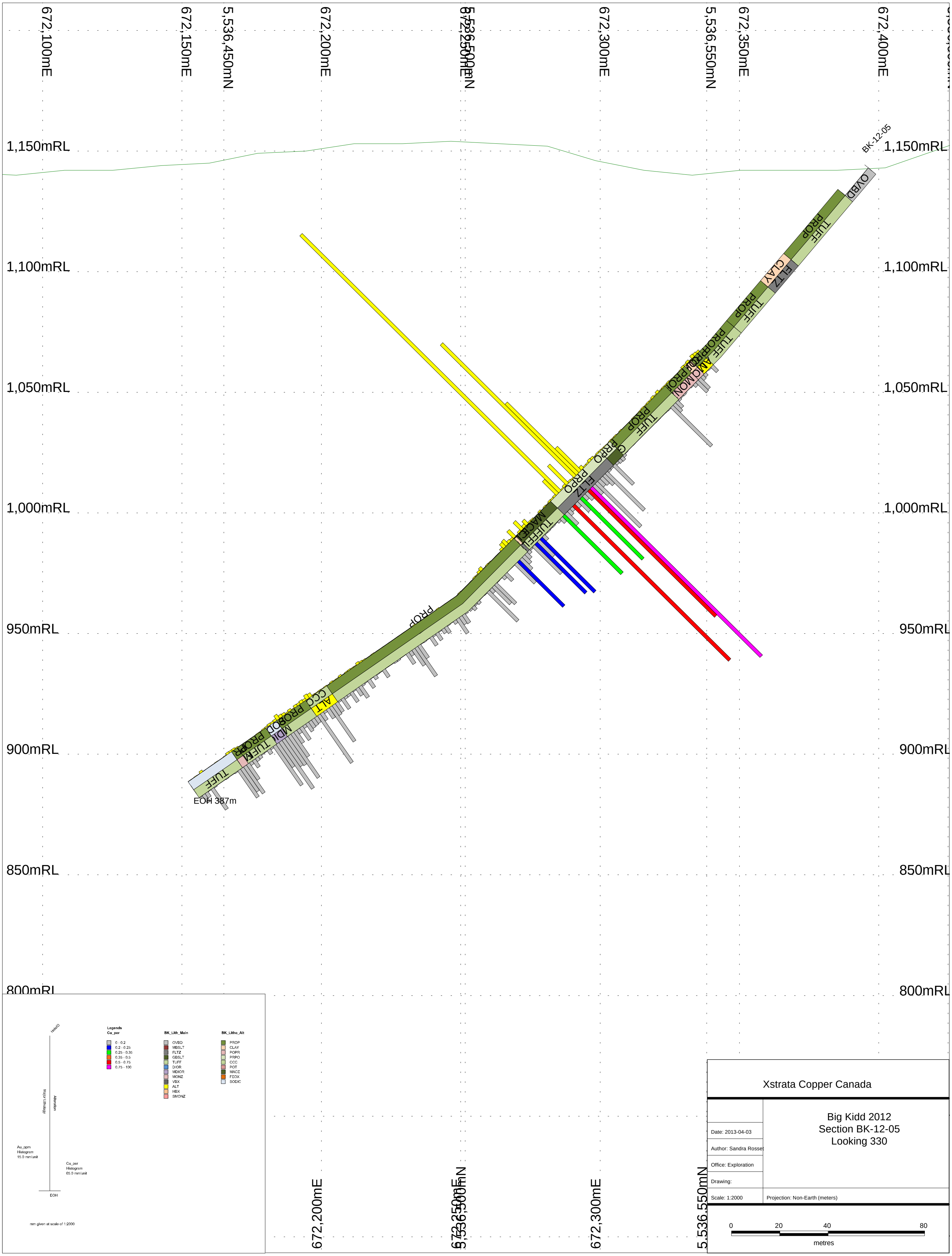
1,100mRL
1,050mRL
1,000mRL
950mRL
900mRL
850mRL
800mRL
BK-12-04
TUFF
SODIC
DIOR
MDIOR
CLAY
ALT
FEOX
EOH 201m
Legends
Cu_per
BK_Lith_Main
BK_Litho_Alt
Xstrata Copper Canada
Big Kidd 2012
Section BK-12-04
Looking 010
Date: 2013-04-03
Author: Sandra Rosset
Office: Exploration
Drawing:
Scale: 1:2000
Projection: Non-Earth (meters)
0
20
40
80
metres



672,100mE
672,150mE
5,536,450mN
672,200mE
672,250mE
5,536,500mN
672,300mE
5,536,550mN
672,350mE
672,400mE
1,150mRL
1,100mRL
1,050mRL
1,000mRL
950mRL
900mRL
850mRL
800mRL
BK-12-05
OVBD
PROP
TUFF
CLAY
FLTZ
ALT
CCC
MDI
EOH 387m
Legends
Cu_per
0 - 0.2
0.2 - 0.25
0.25 - 0.35
0.35 - 0.5
0.5 - 0.75
0.75 - 100
BK_Lith_Main
OVBD
MBSLT
FLTZ
GBSLT
TUFF
DIOR
MDIOR
MONZ
VBX
ALT
HBX
SMONZ
BK_Litho_Alt
PROP
CLAY
POPR
PRPO
CCC
POT
MACE
FEOX
SODIC
HoleID
Major Lithology
Alteration
Au_ppm
Histogram
15.0 mm/unit
Cu_per
Histogram
65.0 mm/unit
EOH
mm given at scale of 1:2000
Xstrata Copper Canada
Big Kidd 2012
Section BK-12-05
Looking 330
Date: 2013-04-03
Author: Sandra Rosset
Office: Exploration
Drawing:
Scale: 1:2000
Projection: Non-Earth (meters)
0
20
40
80
metres

Appendix C

Drilling Assays

Date Submitted:	16-Nov-12
Invoice No.:	A12-12847
Invoice Date:	23-Nov-12
Your Reference:	Big Kidd (671)

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

3 Core samples were submitted for analysis.

The following analytical packages were requested:

Code 1A2-50-Kamloops Au - Fire Assay AA (QOP AA-Au)
Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-12847**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited
LAB 266
LAB 266
Accrédité CCN

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1435451	17	< 0.3	7.31	22	93	< 1	< 2	8.28	< 0.3	27	15	134	5.54	19	< 1	1.57	3.09	16	1350	< 1	2.62	18	0.159	< 3
W1435452	91	< 0.3	8.05	9	307	< 1	2	4.27	0.5	28	13	895	6.69	19	< 1	2.06	2.85	16	429	3	3.13	17	0.167	< 3
W1435453	100	0.4	8.20	13	289	< 1	< 2	2.98	0.4	35	13	1730	5.94	20	< 1	2.48	2.89	20	505	4	3.08	21	0.190	< 3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1435451	< 5	1.99	31	549	4	0.53	< 5	< 10	320	< 5	17	47	18
W1435452	< 5	1.39	24	403	9	0.56	< 5	< 10	281	< 5	22	21	49
W1435453	< 5	1.38	25	393	15	0.58	< 5	< 10	283	< 5	17	34	53

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		32.3	2.34	380	713	1	1200	1.00	3.4	8	13	1180	21.5	7	4	0.04	0.23	8	1020	15	0.05	44	0.059	686
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.2	6.36	86	352	2	7	1.15	< 0.3	16	61	6450	2.67	17	< 1	2.69	1.82	11	170	313	0.53	48	0.131	47
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	8.09	< 3	630	3	< 2	1.15	< 0.3	20	47	29	3.99	24	< 1	2.01	1.05	33	968	< 1	1.51	36	0.054	18
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		0.6	13.9	271	> 1000	1	< 2	0.24	0.3	15	49	62	4.53	34	< 1	1.72	0.69	36	1200	4	0.11	26	0.036	73
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		3.1	4.83	28	765	3	< 2	0.53	5.1	12	89	301	2.67	16		2.10	0.47	28	5110	12	1.16	46	0.063	819
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70	79.7	331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					99					55	128	93						4				258		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SE58 Meas	604																							
SE58 Cert	607.00																							
W1435451 Orig	17																							
W1435451 Dup	16																							
W1435452 Orig	92																							
W1435452 Dup	90																							
W1435453 Orig	105	0.3	8.07	10	293	< 1	< 2	2.96	0.3	35	15	1710	5.92	20	< 1	2.71	2.84	20	497	4	3.05	21	0.189	< 3
W1435453 Dup	95	0.4	8.32	15	286	< 1	< 2	2.99	0.4	35	11	1760	5.96	19	< 1	2.25	2.93	20	513	4	3.10	21	0.191	< 3
Method Blank	< 5																							
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	< 1	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	17	0.26	< 4	290	13		< 5	40	92	156	31	788	22
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	< 5	1.76	8	219	13		< 5	< 10	91	39	15	83	40
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.06	16	175		0.26	< 5	< 10	62	< 5	34	102	40
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	29	45	2		< 5	< 10	191	< 5	14	128	87
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	9		8	136	7	0.41	< 5	< 10	69	21	28	893	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		31	130					144		17	58	29
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SE58 Meas													
SE58 Cert													
W1435451 Orig													
W1435451 Dup													
W1435452 Orig													
W1435452 Dup													
W1435453 Orig	< 5	1.38	24	393	14	0.58	< 5	< 10	286	< 5	17	34	51
W1435453 Dup	7	1.39	26	392	17	0.58	< 5	< 10	280	< 5	18	35	54
Method Blank													
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													

Quality Analysis ... **Actlabs** *Innovative Technologies*

Date Submitted:	21-Nov-12
Invoice No.:	A12-13095
Invoice Date:	05-Dec-12
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

234 Core samples and 6 Pulp samples were submitted for analysis.

The following analytical packages were requested:
Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-13095**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited LAB 266
LAB 266 Accrédité CCN

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434001	5	0.8	8.57	18	311	< 1	2	6.75	< 0.3	30	88	154	6.54	19	1	0.82	3.63	25	2810	< 1	2.07	48	0.186	18
W1434002	5	< 0.3	15.8	< 3	347	< 1	< 2	5.40	< 0.3	47	178	354	5.05	27	< 1	0.98	3.25	8	930	< 1	1.43	307	0.041	12
W1434003	< 5	0.3	9.63	15	> 1000	< 1	< 2	6.59	< 0.3	31	73	113	6.71	20	2	1.42	3.67	24	2580	< 1	1.85	45	0.183	20
W1434004	9	< 0.3	11.9	10	> 1000	< 1	3	6.23	< 0.3	29	71	104	6.60	22	< 1	2.16	3.54	20	2250	< 1	1.36	41	0.193	12
W1434005	< 5	< 0.3	12.9	18	> 1000	< 1	3	5.71	< 0.3	22	72	18	6.72	23	2	2.85	3.44	23	3170	< 1	1.00	41	0.200	9
W1434006	< 5	< 0.3	12.1	11	> 1000	< 1	< 2	5.90	< 0.3	24	69	31	6.94	24	1	2.83	3.47	20	3240	< 1	0.82	39	0.195	3
W1434007	11	0.5	8.91	12	376	< 1	< 2	5.83	0.4	36	68	107	6.77	22	2	3.14	2.89	2	2680	< 1	0.41	36	0.197	18
W1434008	12	< 0.3	8.27	17	551	< 1	< 2	5.70	0.3	34	94	60	6.46	20	< 1	2.51	3.23	9	2500	< 1	0.70	37	0.167	18
W1434009	25	< 0.3	9.39	32	742	< 1	< 2	6.01	0.7	30	60	39	6.21	19	2	3.03	2.94	11	2250	1	0.69	29	0.136	25
W1434010	14	< 0.3	10.9	34	588	< 1	< 2	6.13	0.4	36	48	95	6.50	22	< 1	2.98	2.98	12	2220	< 1	0.82	29	0.184	15
W1434011	5	< 0.3	12.9	37	> 1000	< 1	< 2	5.60	< 0.3	22	57	36	6.51	22	3	2.89	3.63	19	2120	< 1	1.31	33	0.196	< 3
W1434012	21	< 0.3	8.14	22	724	< 1	3	4.87	< 0.3	34	57	130	7.07	20	1	2.49	3.10	17	2120	< 1	1.28	33	0.178	< 3
W1434013	21	0.4	8.38	31	465	< 1	< 2	5.86	1.1	28	60	311	6.56	21	< 1	2.60	2.75	5	1940	< 1	0.75	30	0.168	13
W1434014	77	2.9	9.78	121	> 1000	< 1	< 2	6.26	2.3	38	54	1300	7.05	21	2	2.33	2.94	11	2160	8	1.13	32	0.183	90
W1434015	22	0.4	11.1	11	> 1000	< 1	< 2	5.68	< 0.3	30	57	271	6.56	21	1	2.23	3.24	18	1760	< 1	1.22	33	0.201	< 3
W1434016	40	0.4	9.89	17	> 1000	1	< 2	5.63	0.3	46	56	298	7.41	21	2	2.09	3.00	17	1580	5	1.16	34	0.195	5
W1434017	18	< 0.3	13.0	25	799	< 1	2	6.71	< 0.3	26	71	274	6.26	21	< 1	1.78	2.74	13	1540	1	1.43	32	0.215	3
W1434018	17	< 0.3	9.29	14	> 1000	< 1	< 2	5.71	< 0.3	35	70	515	6.28	21	< 1	2.06	2.85	11	1440	6	1.33	32	0.179	< 3
W1434019	14	< 0.3	9.23	9	> 1000	< 1	< 2	3.35	0.3	14	40	378	4.91	19	< 1	2.39	2.61	12	1110	2	1.83	17	0.152	< 3
W1434020	20	0.5	18.1	7	> 1000	< 1	< 2	3.38	< 0.3	12	9	538	4.57	20	1	3.24	1.67	10	1100	2	2.24	3	0.158	< 3
W1434021	28	0.5	15.1	7	893	< 1	< 2	3.35	< 0.3	24	6	452	4.45	22	2	2.95	1.42	9	1040	2	2.09	3	0.147	< 3
W1434022	22	0.5	17.9	10	> 1000	< 1	< 2	3.68	< 0.3	14	5	485	4.61	22	2	3.03	1.61	10	1140	2	2.19	3	0.167	< 3
W1434023	36	0.7	13.8	7	> 1000	< 1	< 2	3.50	< 0.3	24	27	597	5.54	22	< 1	2.58	2.02	12	1280	7	2.07	12	0.156	< 3
W1434024	68	< 0.3	7.59	3	153	2	< 2	0.86	< 0.3	9	47	1870	3.56	24	1	2.61	0.57	9	259	47	1.28	25	0.035	8
W1434025	28	0.6	9.44	7	752	< 1	3	5.30	< 0.3	26	51	904	7.19	23	2	1.36	2.83	16	1720	2	1.66	30	0.177	< 3
W1434026	12	< 0.3	10.6	6	611	< 1	2	4.82	< 0.3	17	50	494	6.67	23	< 1	1.36	3.26	17	1800	< 1	1.86	33	0.189	< 3
W1434027	14	0.7	9.71	10	593	< 1	< 2	4.81	< 0.3	14	59	856	6.11	21	< 1	1.39	3.12	17	1930	< 1	1.60	29	0.180	< 3
W1434028	41	0.3	7.40	5	105	< 1	< 2	5.02	< 0.3	53	174	254	7.22	22	< 1	1.89	2.66	17	1760	< 1	1.45	52	0.162	3
W1434029	< 5	< 0.3	10.8	< 3	272	< 1	< 2	5.16	< 0.3	23	239	65	3.33	23	< 1	0.55	2.84	8	652	< 1	1.33	60	0.032	5
W1434030	90	0.8	14.0	11	987	< 1	< 2	5.61	< 0.3	72	49	223	7.80	23	< 1	1.67	2.76	17	1540	1	1.63	34	0.168	3
W1434031	5	< 0.3	12.6	15	536	< 1	< 2	5.31	< 0.3	16	49	42	6.17	20	1	1.28	2.58	15	1570	< 1	1.89	27	0.193	< 3
W1434032	30	0.3	11.5	< 3	> 1000	< 1	< 2	4.39	< 0.3	36	58	69	6.65	20	2	1.92	2.84	17	1480	< 1	1.41	32	0.161	< 3
W1434033	16	< 0.3	10.4	9	> 1000	< 1	< 2	4.49	< 0.3	21	49	9	6.36	22	< 1	1.80	3.15	15	1710	< 1	1.59	29	0.178	< 3
W1434034	6	< 0.3	8.48	9	> 1000	< 1	< 2	4.92	< 0.3	15	48	5	6.29	19	2	1.92	3.02	14	1820	< 1	1.37	29	0.163	4
W1434035	9	0.3	10.4	14	> 1000	< 1	< 2	5.04	< 0.3	20	52	32	6.20	19	4	2.06	3.00	16	1720	< 1	1.27	28	0.176	< 3
W1434036	10	< 0.3	8.35	33	> 1000	< 1	4	4.60	3.3	18	57	281	6.04	21	1	2.30	2.91	17	1660	6	1.21	29	0.166	41
W1434037	18	< 0.3	7.97	12	> 1000	< 1	< 2	4.39	< 0.3	18	62	10	5.76	18	2	2.76	2.85	15	1690	< 1	1.07	28	0.155	< 3
W1434038	< 5	< 0.3	9.76	8	> 1000	< 1	< 2	5.47	< 0.3	25	66	37	6.12	20	1	1.56	3.51	14	1690	< 1	1.09	26	0.152	< 3
W1434039	7	< 0.3	9.25	17	972	< 1	< 2	5.47	< 0.3	47	70	56	7.31	23	2	3.99	3.41	20	2030	< 1	1.38	34	0.174	< 3
W1434040	5	< 0.3	9.27	8	> 1000	< 1	< 2	4.77	< 0.3	25	63	232	6.96	21	< 1	4.46	3.53	19	1930	< 1	1.36	33	0.183	< 3
W1434041	12	< 0.3	12.5	13	> 1000	< 1	2	7.05	< 0.3	26	61	35	7.18	23	1	2.73	3.28	17	1900	< 1	1.38	31	0.181	< 3
W1434042	21	1.5	13.6	14	912	< 1	< 2	5.39	0.4	56	51	1440	7.41	25	< 1	1.89	3.62	19	1750	< 1	2.02	30	0.208	< 3
W1434043	8	0.6	13.7	17	> 1000	< 1	< 2	5.87	< 0.3	27	56	306	7.16	23	< 1	2.29	3.62	18	1770	< 1	1.77	33	0.208	< 3
W1434044	< 5	< 0.3	15.6	< 3	305	< 1	< 2	6.15	< 0.3	31	167	84	4.29	24	< 1	0.73	3.27	10	813	< 1	1.53	85	0.043	< 3
W1434045	8	0.5	11.0	11	> 1000	< 1	6	5.61	< 0.3	26	75	358	7.12	22	1	2.45	3.44	18	1720	< 1	1.55	31	0.193	< 3
W1434046	< 5	< 0.3	9.48	10	> 1000	< 1	2	6.23	< 0.3	19	69	52	6.89	24	3	2.60	3.21	15	1460	< 1	1.30	32	0.169	4
W1434047	< 5	< 0.3	10.6	15	> 1000	< 1	4	5.90	< 0.3	18	78	13	7.11	21	2	2.68	3.83	15	1390	< 1	1.22	30	0.186	4
W1434048	8	0.3	9.83	18	> 1000	< 1	< 2	5.79	< 0.3	27	62	102	7.22	22	1	3.84	3.55	17	1790	< 1	1.30	35	0.193	< 3
W1434049	20	0.4	13.0	14	> 1000	< 1	< 2	6.13	< 0.3	31	68	709	7.14	24	< 1	3.78	3.70	18	1730	2	1.51	41	0.206	< 3
W1434050	17	0.9	16.3	15	> 1000	1	< 2	3.43	< 0.3	13	26	1220	4.51	22	1	2.95	1.69	10	938	2	2.80	9	0.169	< 3
W1434051	62	1.6	13.9	8	585	< 1	< 2	3.44	0.5	13	8	1510	4.10	28	< 1	2.62	1.34	10	866	< 1	3.00	4	0.150	< 3
W1434052	108	1.1	8.63	5	385	< 1	< 2	5.63	< 0.3	18	27	2110	4.42	21	< 1	2.04	1.73	16	928	21	1.97	18	0.119	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434053	64	< 0.3	9.82	8	550	< 1	2	3.01	< 0.3	8	6	1120	2.81	22	< 1	2.79	0.85	7	290	31	2.44	3	0.089	3
W1434054	33	< 0.3	9.87	< 3	798	< 1	2	5.42	< 0.3	23	37	497	5.77	20	< 1	2.23	2.58	20	599	17	1.75	31	0.152	< 3
W1434055	23	< 0.3	11.0	< 3	> 1000	< 1	< 2	4.85	< 0.3	24	45	426	6.20	22	2	2.56	3.24	22	666	1	1.73	35	0.178	< 3
W1434056	52	< 0.3	12.4	11	> 1000	< 1	< 2	4.37	0.3	25	53	926	5.99	21	2	2.41	4.10	18	632	5	1.89	32	0.185	< 3
W1434057	13	< 0.3	9.26	7	> 1000	< 1	< 2	4.85	< 0.3	25	40	154	6.14	23	1	2.79	3.13	16	817	< 1	1.95	37	0.177	< 3
W1434058	20	0.3	14.7	< 3	> 1000	< 1	3	5.14	< 0.3	25	42	423	6.39	23	< 1	3.23	3.33	17	812	5	2.00	35	0.194	< 3
W1434059	40	0.4	14.5	5	> 1000	< 1	< 2	4.34	< 0.3	26	49	1200	6.53	24	2	2.41	3.20	17	739	28	2.01	33	0.195	< 3
W1434060	35	0.4	14.3	5	> 1000	< 1	< 2	4.92	1.1	26	40	639	6.38	25	1	2.09	3.32	22	737	3	1.91	35	0.191	< 3
W1434061	31	< 0.3	14.2	5	950	< 1	2	6.11	< 0.3	22	39	538	5.73	22	2	2.08	2.89	20	699	6	1.73	32	0.186	< 3
W1434062	17	< 0.3	12.6	< 3	757	< 1	< 2	5.40	< 0.3	22	38	314	6.13	23	1	2.40	2.77	19	637	4	1.54	34	0.192	< 3
W1434063	35	< 0.3	10.2	39	596	< 1	< 2	6.02	< 0.3	23	38	626	5.95	23	3	2.08	2.80	20	730	9	1.52	35	0.174	< 3
W1434064	66	< 0.3	10.5	6	637	< 1	< 2	4.94	< 0.3	23	24	1140	4.51	23	1	2.76	2.01	15	542	2	1.72	17	0.140	< 3
W1434065	150	0.4	9.50	< 3	> 1000	< 1	< 2	3.37	< 0.3	17	4	2020	3.63	22	< 1	2.05	1.42	9	379	9	2.63	4	0.138	< 3
W1434066	98	1.6	14.8	6	> 1000	< 1	< 2	3.82	27.3	19	18	1590	4.06	24	< 1	2.90	1.69	10	438	21	2.77	3	0.157	11
W1434067	151	1.1	8.40	< 3	426	4	< 2	1.81	11.0	12	74	4320	4.66	30	1	2.70	1.01	11	286	82	0.99	32	0.062	13
W1434068	80	< 0.3	15.8	17	> 1000	< 1	< 2	4.40	< 0.3	17	22	515	4.50	23	< 1	2.32	1.68	7	493	5	2.74	7	0.160	< 3
W1434069	110	< 0.3	13.4	< 3	792	< 1	< 2	3.16	< 0.3	21	18	1550	7.85	25	2	1.98	2.39	12	531	5	2.36	15	0.183	< 3
W1434070	< 5	0.3	10.8	< 3	488	< 1	< 2	4.13	< 0.3	22	93	33	3.39	22	< 1	1.29	2.69	9	499	< 1	2.06	36	0.027	5
W1434071	65	< 0.3	10.6	14	513	< 1	< 2	2.88	< 0.3	24	12	1680	8.68	27	< 1	1.15	2.67	16	458	4	2.64	18	0.177	< 3
W1434072	77	< 0.3	11.1	3	306	< 1	< 2	3.29	< 0.3	25	12	1560	9.05	26	2	0.99	2.77	17	412	7	2.75	16	0.182	< 3
W1434073	92	< 0.3	10.4	14	423	< 1	< 2	3.27	< 0.3	27	15	2040	8.66	26	1	1.43	2.73	18	325	17	2.51	17	0.190	< 3
W1434074	84	< 0.3	9.74	< 3	390	< 1	< 2	3.42	< 0.3	25	11	1330	8.82	25	2	1.48	2.66	18	344	4	2.42	16	0.178	< 3
W1434075	147	< 0.3	9.89	17	368	< 1	< 2	3.62	< 0.3	25	16	1510	8.24	25	2	1.84	2.83	18	355	17	2.29	17	0.190	< 3
W1434076	125	< 0.3	11.6	14	381	< 1	< 2	3.49	< 0.3	28	13	1290	8.15	26	2	1.61	2.78	20	345	20	2.43	17	0.194	< 3
W1434077	69	0.3	13.3	9	358	< 1	2	3.69	0.3	30	16	661	8.66	26	2	1.65	2.77	19	326	6	2.48	18	0.216	< 3
W1434078	56	< 0.3	13.5	7	389	< 1	< 2	4.15	< 0.3	29	13	975	9.05	27	1	1.61	2.77	17	379	19	2.39	16	0.215	< 3
W1434079	92	< 0.3	10.3	7	484	< 1	< 2	3.52	< 0.3	34	30	1790	9.19	26	2	1.88	2.72	18	383	18	2.25	37	0.171	< 3
W1434080	81	< 0.3	10.2	4	346	< 1	< 2	3.62	0.4	29	12	1490	9.35	26	2	1.46	2.58	17	400	25	2.37	17	0.169	4
W1434081	59	< 0.3	9.94	7	388	< 1	< 2	3.64	< 0.3	40	12	1780	9.31	25	2	1.69	2.52	17	372	13	2.29	18	0.172	< 3
W1434082	< 5	0.3	10.6	13	475	< 1	< 2	3.77	< 0.3	23	81	36	3.17	22	6	1.24	2.47	9	474	< 1	1.97	38	0.034	9
W1434083	153	< 0.3	9.50	13	333	< 1	< 2	2.98	< 0.3	34	14	2130	8.96	26	2	1.93	2.49	17	353	28	2.09	16	0.173	< 3
W1434084	44	< 0.3	10.6	9	326	< 1	< 2	2.62	< 0.3	36	11	875	9.35	24	2	2.10	2.67	18	351	58	2.20	17	0.187	< 3
W1434085	33	< 0.3	10.9	6	385	< 1	< 2	2.98	< 0.3	36	12	916	9.44	24	< 1	2.86	2.65	19	410	28	2.25	17	0.188	< 3
W1434086	61	< 0.3	10.4	8	503	< 1	< 2	3.78	< 0.3	46	29	1580	8.94	25	< 1	2.35	2.71	18	513	8	2.17	17	0.192	< 3
W1434087	44	0.4	10.5	6	494	< 1	< 2	3.26	0.6	45	11	1140	9.42	26	2	2.41	2.83	20	536	11	2.15	18	0.194	< 3
W1434088	57	< 0.3	10.5	10	568	< 1	< 2	3.20	< 0.3	40	15	1130	8.95	25	< 1	2.60	2.80	20	483	4	2.19	17	0.188	< 3
W1434089	54	0.5	14.1	5	519	< 1	< 2	4.89	< 0.3	38	23	1140	8.78	25	2	2.29	2.70	19	540	21	2.09	17	0.221	< 3
W1434090	113	< 0.3	10.7	9	356	< 1	< 2	4.09	< 0.3	47	19	2310	8.28	25	< 1	1.69	2.62	19	521	3	2.36	79	0.182	< 3
W1434091	85	< 0.3	10.1	9	417	< 1	< 2	3.50	< 0.3	32	9	1070	8.63	25	1	2.16	2.48	19	493	19	2.12	16	0.170	< 3
W1434092	91	< 0.3	9.22	11	378	< 1	< 2	4.03	< 0.3	39	12	1470	7.69	23	2	2.10	2.20	17	472	12	2.10	18	0.154	< 3
W1434093	18	< 0.3	10.5	10	563	< 1	< 2	3.04	0.4	33	11	374	7.97	24	2	2.24	3.09	23	585	13	2.14	21	0.186	< 3
W1434094	14	< 0.3	9.90	10	519	< 1	3	4.48	< 0.3	38	41	182	7.76	24	< 1	2.34	3.67	22	799	< 1	2.10	28	0.183	< 3
W1434095	< 5	< 0.3	13.1	< 3	507	< 1	2	5.34	< 0.3	33	61	96	7.77	24	1	2.26	3.54	21	785	< 1	2.17	33	0.220	< 3
W1434096	21	< 0.3	9.92	10	504	< 1	3	6.27	< 0.3	30	53	383	6.58	21	3	1.56	3.32	23	857	6	2.19	35	0.207	< 3
W1434097	5	< 0.3	9.79	10	497	< 1	2	6.70	< 0.3	28	55	175	6.92	23	2	1.57	3.42	20	905	1	1.93	33	0.201	< 3
W1434098	< 5	< 0.3	13.5	4	834	< 1	4	7.36	< 0.3	26	55	8	6.96	22	2	2.43	3.43	17	864	< 1	1.77	34	0.203	< 3
W1434099	< 5	< 0.3	12.2	11	> 1000	< 1	< 2	6.34	< 0.3	26	54	8	7.01	24	< 1	2.21	3.56	15	861	< 1	1.69	35	0.207	< 3
W1434100	< 5	< 0.3	14.4	15	619	1	< 2	9.24	< 0.3	23	54	43	6.59	26	< 1	1.16	2.75	7	830	2	1.43	31	0.216	< 3
W1434101	< 5	< 0.3	9.78	7	790	< 1	< 2	6.23	< 0.3	30	84	24	7.08	24	1	1.36	3.66	22	912	< 1	2.14	42	0.212	< 3
W1434102	< 5	< 0.3	9.48	4	849	< 1	< 2	5.94	< 0.3	27	113	64	6.46	22	2	1.34	3.42	21	865	< 1	1.80	40	0.189	< 3
W1434103	7	< 0.3	9.99	8	741	< 1	< 2	6.43	< 0.3	30	75	82	7.43	23	< 1	1.40	3.82	24	945	2	2.12	45	0.203	< 3
W1434104	< 5	< 0.3	9.68	8	> 1000	< 1	< 2	6.64	< 0.3	30	73	111	7.00	23	3	1.50	3.60	18	935	< 1	1.83	44	0.198	4

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434105	152	0.9	8.56	< 3	394	4	3	1.87	< 0.3	12	76	4560	4.77	34	< 1	2.78	1.01	12	292	78	1.01	32	0.063	10
W1434106	< 5	< 0.3	12.8	17	> 1000	< 1	2	7.27	< 0.3	26	64	66	6.92	21	1	1.36	3.43	16	951	1	1.91	39	0.199	< 3
W1434107	< 5	0.6	10.4	< 3	471	< 1	< 2	3.93	< 0.3	18	81	34	3.09	26	< 1	1.27	2.54	8	469	< 1	1.86	26	0.033	4
W1434108	< 5	< 0.3	10.4	16	> 1000	< 1	< 2	6.65	< 0.3	29	64	100	6.68	22	< 1	1.75	3.63	18	1010	< 1	1.72	42	0.197	< 3
W1434109	6	< 0.3	10.7	12	935	< 1	2	5.97	< 0.3	31	73	305	6.56	25	1	1.38	3.59	22	956	3	1.97	39	0.200	< 3
W1434110	10	< 0.3	11.9	8	> 1000	< 1	< 2	4.90	< 0.3	23	36	63	5.46	21	< 1	1.72	2.83	22	730	1	2.41	21	0.168	< 3
W1434111	14	< 0.3	10.6	14	> 1000	< 1	< 2	4.72	< 0.3	24	38	375	6.47	23	< 1	1.84	2.60	17	740	28	2.37	16	0.164	< 3
W1434112	49	0.6	11.3	5	515	< 1	< 2	5.30	< 0.3	43	114	2430	7.31	23	1	0.98	4.03	18	985	27	2.15	34	0.222	< 3
W1434113	35	0.4	14.1	17	> 1000	< 1	3	4.47	< 0.3	22	65	1120	5.43	21	< 1	2.24	2.35	13	643	13	2.72	25	0.188	< 3
W1434114	33	0.6	14.4	10	893	< 1	< 2	5.55	< 0.3	20	89	780	5.52	23	< 1	1.92	2.38	13	722	8	2.31	25	0.166	< 3
W1434115	12	< 0.3	5.79	5	424	< 1	< 2	9.23	< 0.3	42	309	565	8.03	18	< 1	0.82	6.66	27	1430	2	0.79	86	0.127	< 3
W1434116	8	< 0.3	11.2	8	441	< 1	< 2	5.07	< 0.3	38	59	519	6.89	22	< 1	0.86	3.65	22	938	4	2.35	36	0.206	< 3
W1434117	28	< 0.3	7.60	5	309	1	< 2	7.04	0.4	35	200	505	7.65	21	2	0.78	5.21	25	1280	< 1	1.54	66	0.157	< 3
W1434118	8	< 0.3	7.06	25	318	< 1	< 2	8.02	< 0.3	35	237	209	7.57	22	5	0.71	5.37	24	1220	< 1	1.33	73	0.137	< 3
W1434119	185	0.5	9.66	9	278	< 1	5	5.32	< 0.3	37	63	254	6.78	23	< 1	0.73	3.24	17	914	1	2.25	34	0.181	< 3
W1434120	5	< 0.3	9.66	9	455	< 1	< 2	4.26	< 0.3	25	73	70	6.97	23	1	0.98	3.50	18	935	2	2.31	34	0.198	< 3
W1434121	< 5	0.5	10.3	5	578	< 1	< 2	3.86	0.3	19	94	36	3.02	25	< 1	1.53	2.45	7	442	< 1	1.72	28	0.038	5
W1434122	< 5	< 0.3	12.5	6	355	< 1	3	4.99	< 0.3	23	45	63	6.14	22	< 1	0.97	3.07	15	850	< 1	2.67	27	0.190	< 3
W1434123	15	< 0.3	9.57	12	> 1000	< 1	< 2	4.96	< 0.3	23	51	726	6.15	22	1	2.57	2.90	12	811	< 1	2.10	29	0.182	< 3
W1434124	23	< 0.3	9.97	18	> 1000	< 1	< 2	6.25	< 0.3	29	62	529	6.81	23	< 1	1.48	3.65	14	1070	< 1	1.94	36	0.200	< 3
W1434125	11	< 0.3	10.5	21	> 1000	< 1	< 2	5.60	< 0.3	27	66	793	6.60	24	1	1.68	3.50	16	1020	3	2.01	34	0.198	< 3
W1434126	< 5	< 0.3	9.57	22	> 1000	1	< 2	7.05	< 0.3	29	55	58	6.57	22	< 1	1.27	3.53	9	1040	< 1	1.64	35	0.198	< 3
W1434127	< 5	< 0.3	9.58	16	> 1000	< 1	< 2	6.53	< 0.3	30	53	41	6.56	20	< 1	2.11	3.41	16	1010	< 1	1.71	35	0.190	< 3
W1434128	< 5	< 0.3	10.0	19	> 1000	< 1	4	6.02	0.4	30	61	43	6.97	22	< 1	1.84	3.54	18	1060	< 1	1.91	37	0.199	< 3
W1434129	< 5	< 0.3	8.96	16	891	< 1	< 2	7.73	< 0.3	28	64	83	6.14	21	< 1	1.00	3.01	7	961	< 1	1.81	33	0.181	< 3
W1434130	< 5	< 0.3	10.8	26	815	< 1	< 2	6.88	< 0.3	29	90	376	6.46	20	2	1.32	3.61	11	950	< 1	1.78	34	0.218	5
W1434131	6	< 0.3	12.8	20	765	1	< 2	7.20	< 0.3	29	58	398	6.49	25	2	1.98	3.11	12	1030	< 1	1.79	35	0.208	9
W1434132	7	< 0.3	9.14	20	> 1000	1	< 2	7.36	< 0.3	29	61	666	6.48	23	< 1	3.12	3.07	12	1040	1	1.67	31	0.190	< 3
W1434133	< 5	< 0.3	9.38	21	989	< 1	< 2	6.76	< 0.3	29	62	30	6.94	22	1	3.39	3.47	14	1110	< 1	1.77	37	0.197	4
W1434134	< 5	< 0.3	9.40	15	> 1000	1	< 2	7.40	< 0.3	27	57	13	6.40	21	< 1	2.75	3.35	12	1100	< 1	1.76	32	0.176	< 3
W1434135	7	< 0.3	9.89	6	> 1000	< 1	< 2	5.85	< 0.3	33	59	163	7.26	24	2	1.98	3.88	17	1130	2	1.85	32	0.178	< 3
W1434136	< 5	< 0.3	10.5	4	> 1000	< 1	3	6.00	< 0.3	28	52	110	7.81	23	< 1	2.31	3.56	17	1090	< 1	1.74	34	0.192	< 3
W1434137	13	< 0.3	9.80	7	> 1000	< 1	< 2	5.32	< 0.3	30	60	176	7.72	23	1	2.29	3.31	18	1010	< 1	2.00	49	0.187	< 3
W1434138	9	< 0.3	9.59	11	> 1000	< 1	< 2	5.31	< 0.3	30	61	188	7.16	22	< 1	2.84	3.50	17	1130	3	1.71	37	0.185	< 3
W1434139	10	< 0.3	9.59	9	> 1000	< 1	< 2	4.80	< 0.3	28	84	116	7.16	22	2	2.29	3.46	19	1060	5	1.89	37	0.173	< 3
W1434140	16	< 0.3	12.9	9	> 1000	< 1	4	4.11	< 0.3	27	79	107	6.85	22	< 1	2.35	4.32	19	932	1	2.07	31	0.188	< 3
W1434141	46	< 0.3	9.64	14	> 1000	< 1	< 2	4.31	< 0.3	31	62	523	7.76	24	1	2.41	3.57	21	999	3	2.18	34	0.202	< 3
W1434142	25	< 0.3	9.80	3	831	< 1	< 2	5.63	< 0.3	27	65	274	7.58	24	1	2.17	3.30	21	935	3	2.14	34	0.191	< 3
W1434143	20	< 0.3	9.66	16	975	< 1	< 2	5.55	< 0.3	26	62	104	6.98	23	1	2.57	3.26	22	880	13	2.44	33	0.182	< 3
W1434144	157	0.6	9.18	15	439	5	< 2	1.89	< 0.3	12	64	4570	4.81	36	4	2.86	1.04	12	298	80	1.43	33	0.064	14
W1434145	< 5	< 0.3	10.5	5	336	1	< 2	2.69	< 0.3	16	99	12	2.96	20	< 1	1.04	2.51	14	404	< 1	2.57	35	0.038	4
W1434146	16	< 0.3	8.29	14	241	< 1	< 2	7.66	< 0.3	23	54	202	6.44	22	< 1	1.95	2.59	20	897	4	2.30	31	0.158	< 3
W1434147	87	0.7	8.56	4	592	< 1	< 2	5.51	2.2	17	26	2140	3.89	20	< 1	3.14	1.52	15	563	81	1.90	20	0.134	3
W1434148	179	0.4	9.80	17	729	< 1	< 2	3.22	0.7	14	6	2970	4.27	26	6	2.96	1.63	14	464	126	2.57	9	0.131	6
W1434149	78	0.3	9.06	16	101	< 1	< 2	4.74	< 0.3	25	47	1800	5.89	24	1	1.43	2.35	16	727	21	2.83	36	0.176	9
W1434150	97	< 0.3	11.4	5	> 1000	< 1	< 2	5.14	< 0.3	23	83	1350	5.41	20	< 1	2.88	3.26	15	679	18	1.98	30	0.184	< 3
W1434151	84	0.6	11.1	17	> 1000	< 1	< 2	5.48	< 0.3	27	72	914	6.99	22	1	2.06	3.14	16	781	3	2.11	32	0.199	4
W1434152	57	< 0.3	15.8	12	> 1000	< 1	< 2	5.24	< 0.3	25	66	778	6.67	22	< 1	2.25	3.47	13	781	3	2.20	31	0.206	< 3
W1434153	56	0.3	14.8	9	> 1000	< 1	< 2	4.56	< 0.3	24	60	1240	6.49	22	2	2.59	3.51	15	718	28	2.10	35	0.214	6
W1434154	60	< 0.3	12.3	12	> 1000	< 1	< 2	4.03	< 0.3	28	72	1030	6.90	23	2	2.14	3.56	15	608	11	2.27	42	0.211	< 3
W1434155	40	0.3	9.13	14	337	< 1	< 2	4.28	< 0.3	27	66	1060	7.01	22	2	2.52	3.29	15	637	2	2.10	43	0.183	5
W1434156	37	< 0.3	9.88	13	> 1000	< 1	< 2	4.46	< 0.3	28	63	772	6.38	24	1	2.49	3.46	15	707	4	2.10	45	0.207	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434157	33	< 0.3	9.55	11	628	< 1	< 2	4.04	< 0.3	26	62	719	6.35	21	1	2.88	3.50	16	679	3	2.06	43	0.179	< 3
W1434158	25	< 0.3	8.73	17	194	< 1	< 2	4.72	< 0.3	29	80	1030	6.29	21	< 1	2.50	3.30	15	674	16	1.95	41	0.185	< 3
W1434159	32	< 0.3	9.35	10	399	< 1	< 2	4.75	< 0.3	30	77	784	6.27	22	3	2.16	3.51	17	737	10	2.25	45	0.198	< 3
W1434160	41	< 0.3	10.5	13	815	< 1	4	4.19	< 0.3	29	95	1560	5.86	21	< 1	1.66	3.98	16	634	18	2.07	41	0.209	< 3
W1434161	< 5	< 0.3	10.8	6	506	1	< 2	4.61	< 0.3	18	72	45	3.00	26	< 1	1.23	2.53	12	448	< 1	2.32	35	0.048	4
W1434162	43	< 0.3	9.79	9	915	< 1	< 2	4.46	< 0.3	36	63	1670	5.06	21	< 1	3.90	3.90	18	662	35	2.25	45	0.210	< 3
W1434163	85	< 0.3	9.76	11	395	< 1	< 2	4.47	< 0.3	32	77	1930	6.63	24	< 1	1.59	3.80	18	695	12	2.66	43	0.197	< 3
W1434164	63	< 0.3	11.9	3	558	< 1	< 2	4.71	< 0.3	35	66	697	7.39	23	2	2.66	3.47	18	734	< 1	2.22	44	0.205	< 3
W1434165	35	< 0.3	14.8	19	589	< 1	3	5.74	< 0.3	26	63	701	7.07	23	< 1	2.28	3.53	19	701	< 1	2.14	45	0.233	< 3
W1434166	69	< 0.3	14.4	12	343	< 1	< 2	6.02	< 0.3	27	62	1430	6.47	21	2	1.96	3.64	16	613	14	2.25	40	0.231	< 3
W1434167	49	0.5	10.4	33	312	< 1	3	5.12	< 0.3	33	79	942	6.92	23	5	1.70	3.80	17	571	6	2.28	45	0.281	< 3
W1434168	50	0.4	9.94	10	366	< 1	< 2	4.46	< 0.3	34	177	595	6.48	23	1	1.90	4.22	19	739	< 1	2.26	102	0.245	< 3
W1434169	56	< 0.3	8.63	10	323	< 1	< 2	5.73	0.4	33	388	775	6.44	21	1	1.42	4.86	18	875	1	1.93	163	0.185	< 3
W1434170	26	< 0.3	11.2	8	416	< 1	< 2	5.51	< 0.3	33	435	107	6.41	19	1	2.26	5.15	20	931	< 1	1.63	161	0.242	< 3
W1434171	21	< 0.3	9.00	14	469	< 1	< 2	6.17	< 0.3	33	270	1140	7.04	21	2	2.14	5.00	20	1020	15	1.83	171	0.203	< 3
W1434172	28	< 0.3	8.97	14	442	1	< 2	5.48	< 0.3	34	299	459	7.12	21	1	1.67	5.03	19	998	1	1.97	172	0.206	< 3
W1434173	16	< 0.3	9.25	15	465	< 1	< 2	5.43	0.4	35	307	196	7.07	22	1	1.82	5.16	22	1010	< 1	1.99	175	0.214	< 3
W1434174	35	< 0.3	9.12	13	392	< 1	< 2	4.92	< 0.3	38	239	125	7.51	22	2	1.79	5.04	20	987	7	2.06	175	0.212	< 3
W1434175	182	< 0.3	8.49	5	360	< 1	< 2	5.90	< 0.3	37	233	199	7.33	21	2	1.43	4.83	19	950	2	2.03	163	0.188	< 3
W1434176	11	< 0.3	9.04	9	558	< 1	< 2	5.54	< 0.3	36	261	195	6.37	21	2	1.99	5.10	19	1010	2	1.91	168	0.199	< 3
W1434177	9	< 0.3	8.82	12	544	< 1	< 2	5.57	< 0.3	35	266	65	6.93	21	< 1	1.88	4.94	18	1010	4	1.80	168	0.198	< 3
W1434178	18	< 0.3	9.18	6	370	1	< 2	5.73	< 0.3	36	316	593	6.36	19	< 1	1.25	4.89	18	1050	4	2.16	180	0.171	< 3
W1434179	12	0.4	9.18	4	442	1	< 2	5.74	0.6	35	415	277	6.10	21	< 1	1.47	5.01	20	1070	13	1.94	181	0.185	< 3
W1434180	14	< 0.3	9.43	3	392	< 1	< 2	5.27	< 0.3	40	391	311	5.50	18	2	1.31	5.16	21	1100	4	1.57	168	0.194	< 3
W1434181	10	< 0.3	9.20	7	546	< 1	< 2	5.89	< 0.3	44	255	260	6.79	22	2	1.31	6.05	25	1250	2	1.59	189	0.205	9
W1434182	9	< 0.3	9.40	4	644	1	< 2	5.39	< 0.3	46	268	206	6.89	22	< 1	1.86	6.15	27	1270	4	1.51	190	0.210	3
W1434183	19	< 0.3	9.08	7	806	< 1	< 2	5.92	1.3	42	259	322	7.18	22	3	1.24	5.56	22	1340	7	1.72	192	0.202	5
W1434184	331	1.4	7.71	< 3	276	2	< 2	1.53	0.4	14	67	8430	6.34	26	2	2.37	1.30	11	354	98	1.05	48	0.056	8
W1434185	14	< 0.3	8.99	5	540	1	< 2	6.02	0.4	44	345	200	6.71	22	< 1	1.36	5.45	22	1370	3	1.56	200	0.196	4
W1434186	< 5	< 0.3	10.2	< 3	469	1	< 2	3.05	< 0.3	21	134	12	3.40	25	< 1	1.21	2.86	17	451	< 1	1.98	41	0.053	< 3
W1434187	18	< 0.3	8.25	4	595	< 1	< 2	6.54	0.9	42	416	228	6.13	19	1	1.21	4.95	20	1290	2	1.64	187	0.192	< 3
W1434188	479	0.8	6.83	15	341	< 1	< 2	5.70	1.0	44	395	1980	6.92	20	1	1.59	4.08	16	1020	2	1.71	179	0.186	8
W1434189	254	< 0.3	8.86	10	246	< 1	< 2	5.33	< 0.3	41	238	1110	7.66	20	2	1.82	5.06	18	1120	8	1.73	183	0.204	< 3
W1434190	6	< 0.3	9.30	7	661	1	< 2	5.98	< 0.3	38	289	200	7.23	23	< 1	1.50	5.58	23	1130	2	1.71	189	0.208	< 3
W1434191	5	< 0.3	9.00	12	307	< 1	< 2	6.19	< 0.3	41	247	96	7.30	22	< 1	0.94	5.83	22	1030	1	1.63	182	0.200	< 3
W1434192	13	< 0.3	9.03	< 3	470	1	< 2	6.63	< 0.3	42	246	350	6.82	21	< 1	1.22	5.68	24	1110	3	1.60	195	0.195	< 3
W1434193	14	< 0.3	8.80	6	414	< 1	< 2	6.44	< 0.3	40	230	426	6.94	21	1	1.24	5.74	27	935	11	1.58	176	0.188	< 3
W1434194	14	< 0.3	8.59	5	259	< 1	< 2	6.50	< 0.3	33	196	377	6.47	20	2	0.88	5.21	24	983	46	1.87	166	0.175	< 3
W1434195	11	< 0.3	9.05	7	404	< 1	< 2	7.24	< 0.3	29	165	11	6.37	22	1	0.91	4.49	20	1000	< 1	1.91	133	0.178	< 3
W1434196	17	< 0.3	8.66	4	348	< 1	< 2	5.66	< 0.3	38	415	214	6.42	21	2	1.02	5.73	28	929	3	1.75	188	0.179	< 3
W1434197	46	< 0.3	8.05	7	813	< 1	< 2	5.81	< 0.3	24	62	1490	5.49	20	2	1.14	2.86	12	594	20	2.23	72	0.201	< 3
W1434198	40	< 0.3	9.05	9	780	< 1	< 2	5.36	< 0.3	21	67	820	6.84	21	2	1.11	2.88	11	559	2	2.27	27	0.163	< 3
W1434199	41	< 0.3	10.6	7	696	< 1	< 2	4.75	< 0.3	27	35	1340	6.30	24	< 1	1.68	3.18	16	605	19	2.30	36	0.201	< 3
W1434200	39	0.3	15.6	8	> 1000	< 1	< 2	5.71	< 0.3	26	34	391	6.86	22	< 1	2.20	3.21	15	659	8	2.00	32	0.201	< 3
W1434201	13	< 0.3	10.1	5	> 1000	< 1	3	5.71	< 0.3	25	40	124	6.50	24	1	2.97	2.93	15	753	72	1.43	28	0.184	< 3
W1434202	< 5	0.4	11.3	6	348	1	< 2	3.06	< 0.3	15	85	6	2.87	24	< 1	1.15	2.61	12	411	< 1	2.39	40	0.039	4
W1434203	< 5	< 0.3	9.70	7	> 1000	1	2	6.34	< 0.3	21	29	107	6.37	23	2	2.55	2.82	13	711	12	1.53	27	0.176	< 3
W1434204	16	0.4	12.6	7	> 1000	< 1	< 2	6.04	< 0.3	25	31	484	6.59	26	1	2.31	3.05	14	704	15	1.65	30	0.191	< 3
W1434205	< 5	< 0.3	10.9	< 3	> 1000	< 1	< 2	5.50	< 0.3	24	35	18	6.59	24	2	2.60	3.03	15	785	< 1	1.63	30	0.186	< 3
W1434206	15	< 0.3	8.82	6	> 1000	< 1	< 2	5.34	< 0.3	24	41	219	6.10	24	1	2.14	2.72	13	720	4	1.60	28	0.176	< 3
W1434207	49	0.5	8.78	7	> 1000	< 1	< 2	4.87	< 0.3	32	37	1080	6.43	22	1	2.11	2.68	12	630	2	1.58	27	0.172	< 3
W1434208	22	< 0.3	16.6	4	827	< 1	2	4.98	< 0.3	33	42	529	7.33	21	2	2.27	3.04	21	579	8	2.28	31	0.209	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434209	39	0.5	12.3	9	651	< 1	< 2	4.04	< 0.3	30	47	1090	7.86	25	2	1.88	3.11	18	579	< 1	2.41	32	0.192	< 3
W1434210	31	< 0.3	11.1	7	983	< 1	< 2	4.48	< 0.3	27	40	923	8.09	24	< 1	2.25	2.93	17	620	1	1.98	28	0.192	< 3
W1434211	15	< 0.3	10.1	5	> 1000	< 1	< 2	4.46	< 0.3	28	38	329	7.29	24	< 1	3.19	2.88	15	698	5	1.41	28	0.189	< 3
W1434212	43	< 0.3	11.4	11	724	< 1	< 2	4.17	< 0.3	25	34	1360	7.62	24	1	2.37	2.80	13	584	12	2.14	29	0.195	< 3
W1434213	19	0.6	10.8	6	> 1000	< 1	< 2	3.71	< 0.3	17	17	643	5.14	24	< 1	2.57	1.75	11	500	14	2.77	13	0.151	< 3
W1434214	< 5	1.0	10.8	< 3	938	< 1	< 2	4.54	< 0.3	12	5	128	4.67	23	< 1	1.88	1.37	8	572	1	2.89	2	0.138	< 3
W1434215	9	< 0.3	13.3	9	977	< 1	< 2	4.21	0.7	14	10	76	4.65	24	1	1.98	1.41	9	535	< 1	2.85	4	0.145	< 3
W1434216	22	< 0.3	8.51	4	810	< 1	< 2	4.05	< 0.3	12	6	164	3.83	20	< 1	1.90	1.15	8	495	2	2.99	3	0.131	< 3
W1434217	11	0.4	19.2	13	704	< 1	< 2	5.00	< 0.3	12	6	148	3.93	23	< 1	3.70	1.43	10	512	37	3.34	4	0.164	< 3
W1434218	5	< 0.3	17.1	3	872	< 1	< 2	4.62	< 0.3	11	6	58	4.55	25	< 1	2.65	1.44	10	553	2	3.16	3	0.172	< 3
W1434219	16	0.4	12.5	9	782	< 1	3	4.43	< 0.3	23	43	348	5.63	23	< 1	2.06	2.66	16	608	2	2.63	23	0.160	< 3
W1434220	41	< 0.3	9.29	< 3	446	< 1	< 2	4.57	< 0.3	29	51	959	7.69	24	2	1.99	2.77	18	566	3	2.38	29	0.142	< 3
W1434221	28	< 0.3	9.80	7	390	< 1	< 2	4.19	< 0.3	31	41	469	7.89	23	1	1.36	3.02	18	621	23	2.59	27	0.147	< 3
W1434222	60	< 0.3	8.91	8	205	< 1	< 2	5.27	< 0.3	35	36	2020	7.37	22	< 1	0.98	2.81	22	595	27	2.45	29	0.147	< 3
W1434223	23	< 0.3	11.6	5	862	< 1	< 2	5.36	1.4	25	36	778	7.07	23	< 1	2.30	2.65	20	581	14	2.00	26	0.169	< 3
W1434224	161	0.8	8.69	< 3	433	4	7	1.71	< 0.3	11	63	4260	4.46	29	1	2.06	0.97	11	271	76	1.32	29	0.059	7
W1434225	23	< 0.3	9.16	9	897	< 1	< 2	5.68	< 0.3	20	35	439	5.85	21	< 1	2.70	2.62	19	615	11	1.47	24	0.153	< 3
W1434226	< 5	0.6	10.9	< 3	343	1	< 2	3.96	< 0.3	14	61	6	2.63	25	< 1	1.16	2.46	9	415	< 1	2.86	36	0.035	3
W1434227	10	< 0.3	12.8	3	> 1000	< 1	< 2	5.97	0.5	22	29	515	6.36	23	1	2.22	2.97	15	729	11	2.15	32	0.183	< 3
W1434228	< 5	< 0.3	12.4	< 3	> 1000	< 1	< 2	4.55	< 0.3	15	19	82	4.69	23	1	2.43	1.90	8	730	< 1	3.06	11	0.150	< 3
W1434229	26	< 0.3	11.8	10	> 1000	< 1	< 2	4.21	< 0.3	24	16	615	5.43	25	2	1.95	1.86	9	650	2	3.24	9	0.150	< 3
W1434230	15	< 0.3	12.9	4	744	< 1	< 2	5.10	< 0.3	23	21	284	7.57	26	1	1.23	2.75	15	569	2	2.75	14	0.174	< 3
W1434231	30	< 0.3	10.1	7	> 1000	< 1	3	4.78	< 0.3	26	33	633	7.44	24	2	2.27	2.96	14	627	< 1	2.21	26	0.155	< 3
W1434232	39	0.3	9.69	5	422	< 1	< 2	4.96	< 0.3	31	38	1140	6.60	24	< 1	2.07	3.28	17	670	13	2.29	31	0.156	< 3
W1434233	77	0.4	9.25	11	517	< 1	< 2	4.68	< 0.3	28	51	2290	6.95	22	1	1.92	2.96	15	629	36	2.31	34	0.154	< 3
W1434234	34	< 0.3	9.10	8	924	< 1	< 2	4.69	< 0.3	24	53	592	6.93	22	2	2.51	2.99	14	619	3	1.86	33	0.166	< 3
W1434235	22	< 0.3	9.81	7	> 1000	< 1	2	4.65	< 0.3	24	51	230	6.43	23	1	2.07	3.11	14	599	3	1.62	32	0.182	< 3
W1434236	57	< 0.3	8.94	< 3	712	< 1	< 2	5.12	< 0.3	26	50	875	6.79	23	1	2.40	3.05	16	575	3	2.10	32	0.157	< 3
W1434237	76	0.4	9.03	5	223	< 1	< 2	4.68	< 0.3	23	52	1260	7.22	26	< 1	2.28	2.90	20	516	< 1	2.21	33	0.170	< 3
W1434238	20	< 0.3	8.84	< 3	490	< 1	< 2	5.02	< 0.3	27	48	557	7.47	24	1	1.64	2.98	23	533	< 1	2.19	35	0.157	< 3
W1434239	19	< 0.3	9.16	< 3	809	< 1	< 2	5.69	< 0.3	30	48	896	7.24	25	2	2.03	2.76	22	606	8	1.89	35	0.148	< 3
W1435454	14	< 0.3	8.92	< 3	757	< 1	< 2	6.20	< 0.3	18	46	285	4.92	23	< 1	3.45	1.73	15	589	26	0.51	26	0.150	< 3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434001	< 5	0.06	35	432	20	0.46	< 5	< 10	242	< 5	14	366	40
W1434002	< 5	0.58	19	444	8	0.25	< 5	< 10	83	< 5	12	88	73
W1434003	< 5	0.05	40	474	15	0.48	< 5	< 10	238	6	15	355	52
W1434004	< 5	0.06	49	389	15	0.52	< 5	< 10	305	< 5	17	242	66
W1434005	< 5	0.06	47	500	10	0.55	< 5	< 10	306	< 5	19	229	92
W1434006	5	0.11	45	465	12	0.51	< 5	< 10	310	< 5	18	210	93
W1434007	24	1.04	27	138	9	0.44	< 5	< 10	273	< 5	12	180	36
W1434008	22	0.63	28	152	12	0.42	< 5	< 10	243	< 5	12	238	39
W1434009	9	1.24	22	188	9	0.40	< 5	< 10	212	< 5	9	155	30
W1434010	23	1.17	36	229	4	0.53	< 5	< 10	286	< 5	17	115	65
W1434011	< 5	0.36	50	424	15	0.54	< 5	< 10	303	< 5	20	69	81
W1434012	< 5	3.06	27	287	14	0.46	< 5	< 10	255	< 5	13	75	39
W1434013	183	1.87	29	157	19	0.42	< 5	< 10	231	< 5	13	131	50
W1434014	1680	1.91	31	370	< 2	0.46	< 5	< 10	261	9	15	247	70
W1434015	7	0.72	37	445	26	0.49	< 5	< 10	244	< 5	16	70	72
W1434016	< 5	2.11	31	448	12	0.45	< 5	< 10	243	< 5	15	68	68
W1434017	21	0.59	42	473	< 2	0.52	< 5	< 10	240	< 5	17	52	110
W1434018	< 5	0.47	29	433	< 2	0.43	< 5	< 10	236	< 5	14	50	61
W1434019	< 5	0.11	15	347	11	0.39	< 5	< 10	187	< 5	11	55	54
W1434020	< 5	0.22	20	500	17	0.47	< 5	< 10	166	< 5	37	58	102
W1434021	< 5	0.73	15	493	11	0.44	< 5	< 10	168	< 5	29	48	94
W1434022	< 5	0.35	18	583	17	0.47	< 5	< 10	169	< 5	34	55	109
W1434023	< 5	0.93	26	347	6	0.44	< 5	< 10	175	< 5	24	70	93
W1434024	< 5	1.44	6	91	12	0.24	< 5	< 10	37	6	12	42	20
W1434025	< 5	1.21	34	321	< 2	0.49	< 5	< 10	296	< 5	15	77	56
W1434026	< 5	0.29	41	366	14	0.51	< 5	< 10	332	< 5	17	72	69
W1434027	< 5	0.21	34	356	< 2	0.47	< 5	< 10	277	< 5	15	81	54
W1434028	< 5	2.10	25	233	5	0.41	< 5	< 10	211	< 5	12	86	34
W1434029	< 5	0.14	10	397	< 2	0.20	< 5	10	72	< 5	7	42	55
W1434030	< 5	3.03	52	218	5	0.47	< 5	< 10	229	< 5	19	78	71
W1434031	< 5	0.23	48	293	7	0.49	< 5	< 10	290	< 5	17	56	70
W1434032	< 5	1.88	42	266	12	0.45	< 5	< 10	213	< 5	16	64	72
W1434033	< 5	0.22	37	395	< 2	0.50	< 5	< 10	299	< 5	15	56	52
W1434034	< 5	0.04	29	460	10	0.40	< 5	< 10	272	< 5	13	58	36
W1434035	< 5	0.15	39	404	7	0.47	< 5	< 10	272	7	15	59	78
W1434036	< 5	0.10	29	326	16	0.42	< 5	< 10	206	18	13	957	43
W1434037	< 5	0.04	28	393	12	0.42	< 5	< 10	245	< 5	12	53	41
W1434038	< 5	0.25	33	468	17	0.42	< 5	< 10	253	< 5	12	51	33
W1434039	< 5	0.46	33	430	13	0.50	< 5	< 10	307	< 5	15	71	48
W1434040	< 5	0.09	32	426	16	0.51	< 5	< 10	309	< 5	15	69	46
W1434041	< 5	0.19	45	556	< 2	0.51	< 5	< 10	321	< 5	17	59	70
W1434042	< 5	0.52	52	525	11	0.61	< 5	< 10	294	< 5	22	68	109
W1434043	< 5	0.22	53	511	21	0.56	< 5	< 10	317	< 5	20	62	84
W1434044	< 5	0.20	19	476	2	0.27	< 5	< 10	92	< 5	12	53	72
W1434045	< 5	0.34	40	500	20	0.51	< 5	< 10	291	< 5	17	60	62
W1434046	6	0.08	31	532	14	0.46	< 5	< 10	324	< 5	14	53	39
W1434047	< 5	0.06	32	494	< 2	0.49	< 5	< 10	326	< 5	13	48	40
W1434048	< 5	0.22	35	547	13	0.54	< 5	< 10	311	< 5	16	63	51
W1434049	< 5	0.46	50	486	13	0.53	< 5	< 10	296	< 5	19	66	75
W1434050	< 5	0.75	21	362	19	0.46	< 5	< 10	169	< 5	30	49	113
W1434051	< 5	1.03	13	280	12	0.41	< 5	< 10	139	< 5	29	44	113
W1434052	< 5	1.16	13	198	15	0.35	< 5	< 10	162	< 5	14	37	49

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434053	< 5	1.05	6	197	20	0.32	< 5	< 10	107	< 5	15	20	62
W1434054	< 5	0.29	24	244	7	0.47	< 5	< 10	267	< 5	16	28	49
W1434055	< 5	0.29	31	324	14	0.49	< 5	< 10	277	< 5	17	30	40
W1434056	< 5	0.65	37	336	6	0.54	< 5	< 10	265	< 5	17	27	49
W1434057	< 5	0.30	24	408	4	0.52	< 5	< 10	287	< 5	16	30	47
W1434058	< 5	0.48	45	412	15	0.59	< 5	< 10	293	< 5	22	33	76
W1434059	< 5	0.65	43	414	3	0.57	< 5	< 10	284	< 5	21	32	64
W1434060	< 5	0.55	42	369	14	0.59	< 5	< 10	288	< 5	20	32	91
W1434061	< 5	0.62	41	284	8	0.56	< 5	< 10	268	< 5	19	30	96
W1434062	< 5	0.36	36	254	17	0.60	< 5	< 10	306	< 5	19	32	77
W1434063	< 5	0.54	27	253	5	0.53	< 5	< 10	280	< 5	17	875	58
W1434064	< 5	0.43	18	169	17	0.44	< 5	< 10	234	< 5	19	30	63
W1434065	< 5	0.68	10	240	14	0.43	< 5	< 10	183	< 5	16	27	61
W1434066	< 5	0.88	15	288	15	0.49	< 5	< 10	189	< 5	28	5060	90
W1434067	< 5	1.22	10	255	15	0.34	< 5	< 10	88	< 5	14	2110	40
W1434068	< 5	0.49	17	498	< 2	0.49	< 5	< 10	193	< 5	31	27	89
W1434069	< 5	0.78	29	530	12	0.56	< 5	< 10	274	< 5	24	28	60
W1434070	< 5	0.09	10	459	9	0.28	< 5	< 10	70	< 5	11	37	107
W1434071	< 5	1.02	26	459	10	0.55	< 5	< 10	289	< 5	19	27	44
W1434072	< 5	1.09	30	461	14	0.53	< 5	< 10	277	< 5	20	26	48
W1434073	< 5	1.22	26	295	10	0.67	< 5	< 10	326	< 5	18	24	66
W1434074	< 5	1.12	24	282	8	0.56	< 5	< 10	303	< 5	16	24	44
W1434075	< 5	1.18	30	353	< 2	0.59	< 5	< 10	299	< 5	15	24	46
W1434076	< 5	1.16	31	329	8	0.61	< 5	< 10	317	< 5	19	23	59
W1434077	< 5	1.27	36	372	10	0.68	< 5	< 10	308	< 5	22	21	75
W1434078	< 5	1.08	37	423	19	0.72	< 5	< 10	292	< 5	24	21	85
W1434079	< 5	0.68	26	384	13	0.48	< 5	< 10	253	< 5	17	24	42
W1434080	< 5	0.68	26	485	6	0.55	< 5	< 10	272	< 5	19	22	46
W1434081	< 5	0.91	24	440	6	0.49	< 5	< 10	269	< 5	17	22	42
W1434082	< 5	0.10	9	442	4	0.24	< 5	< 10	60	< 5	10	41	104
W1434083	< 5	0.90	24	409	19	0.55	< 5	< 10	271	< 5	17	25	52
W1434084	< 5	0.60	30	270	7	0.61	< 5	< 10	263	< 5	17	22	54
W1434085	< 5	0.38	28	387	4	0.62	< 5	< 10	284	< 5	23	25	61
W1434086	< 5	0.65	27	484	< 2	0.61	< 5	< 10	293	< 5	19	31	51
W1434087	< 5	0.66	27	436	6	0.61	< 5	< 10	321	< 5	19	38	49
W1434088	< 5	0.64	28	354	11	0.60	< 5	< 10	304	< 5	19	30	47
W1434089	< 5	0.89	38	432	9	0.70	< 5	< 10	315	< 5	24	31	94
W1434090	< 5	1.08	28	487	8	0.56	< 5	< 10	271	< 5	19	35	52
W1434091	< 5	0.60	25	471	9	0.45	< 5	< 10	230	< 5	17	32	39
W1434092	< 5	0.60	22	505	11	0.51	< 5	< 10	291	< 5	16	29	46
W1434093	6	0.44	33	486	7	0.63	< 5	< 10	282	< 5	14	37	52
W1434094	< 5	0.38	34	553	9	0.62	< 5	< 10	341	< 5	18	47	50
W1434095	< 5	0.43	41	454	9	0.58	< 5	< 10	306	< 5	19	40	69
W1434096	< 5	0.28	32	545	6	0.52	< 5	< 10	304	< 5	16	38	50
W1434097	< 5	0.18	33	594	13	0.52	< 5	< 10	325	< 5	16	35	50
W1434098	< 5	0.13	47	734	24	0.54	< 5	< 10	323	< 5	18	32	66
W1434099	< 5	0.14	44	626	8	0.56	< 5	< 10	324	< 5	18	31	75
W1434100	< 5	0.19	47	1470	17	0.53	< 5	< 10	366	< 5	19	25	71
W1434101	< 5	0.19	32	607	19	0.52	< 5	< 10	317	< 5	17	39	44
W1434102	< 5	0.23	30	553	13	0.51	< 5	< 10	306	< 5	12	34	41
W1434103	< 5	0.20	35	622	16	0.54	< 5	< 10	324	< 5	15	34	46
W1434104	< 5	0.15	32	570	10	0.52	< 5	< 10	316	< 5	15	32	48

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434105	< 5	1.16	10	263	11	0.35	< 5	< 10	91	< 5	14	53	47
W1434106	< 5	0.19	46	643	12	0.52	< 5	< 10	299	< 5	18	30	68
W1434107	< 5	0.06	9	428	15	0.25	< 5	< 10	64	< 5	10	38	106
W1434108	< 5	0.13	36	583	17	0.50	< 5	< 10	298	< 5	15	38	43
W1434109	< 5	0.31	40	570	11	0.53	< 5	< 10	301	< 5	16	36	65
W1434110	< 5	0.23	33	594	12	0.49	< 5	< 10	242	< 5	22	36	52
W1434111	< 5	0.28	26	557	< 2	0.44	< 5	< 10	252	< 5	19	41	45
W1434112	< 5	0.81	40	599	16	0.59	< 5	< 10	284	< 5	15	46	47
W1434113	< 5	0.93	34	452	6	0.54	< 5	< 10	210	< 5	27	33	89
W1434114	< 5	0.63	34	966	15	0.49	< 5	< 10	207	< 5	24	33	102
W1434115	< 5	0.19	49	301	21	0.33	< 5	< 10	231	< 5	8	52	21
W1434116	< 5	0.23	42	461	17	0.52	< 5	< 10	288	< 5	16	43	49
W1434117	< 5	0.39	39	318	21	0.40	< 5	< 10	250	< 5	11	52	33
W1434118	< 5	0.31	42	278	< 2	0.36	< 5	< 10	231	< 5	9	47	29
W1434119	6	0.47	32	694	< 2	0.47	< 5	< 10	277	< 5	13	39	51
W1434120	< 5	0.19	33	466	16	0.50	< 5	< 10	294	< 5	17	42	50
W1434121	< 5	0.06	8	448	8	0.25	< 5	< 10	62	< 5	10	35	102
W1434122	< 5	0.38	41	391	15	0.52	< 5	< 10	265	< 5	19	37	60
W1434123	< 5	0.38	30	509	15	0.50	< 5	< 10	275	< 5	16	34	52
W1434124	< 5	0.38	34	711	7	0.51	< 5	< 10	311	< 5	15	39	51
W1434125	< 5	0.47	37	633	14	0.51	< 5	< 10	296	< 5	16	39	59
W1434126	< 5	0.17	34	701	17	0.51	< 5	< 10	288	< 5	15	39	47
W1434127	< 5	0.16	32	648	10	0.48	< 5	< 10	280	< 5	14	41	44
W1434128	< 5	0.21	34	627	12	0.50	< 5	< 10	299	< 5	15	44	46
W1434129	< 5	0.27	31	730	6	0.46	< 5	< 10	272	< 5	13	35	42
W1434130	< 5	0.49	38	618	12	0.57	< 5	< 10	279	< 5	14	40	39
W1434131	6	0.48	47	586	< 2	0.53	< 5	< 10	310	< 5	17	42	68
W1434132	< 5	0.27	31	653	12	0.50	< 5	< 10	298	< 5	15	41	49
W1434133	< 5	0.56	34	461	12	0.54	< 5	< 10	292	< 5	14	51	54
W1434134	< 5	0.22	33	821	6	0.52	< 5	< 10	272	< 5	15	45	51
W1434135	< 5	0.24	35	730	4	0.53	< 5	< 10	295	< 5	14	53	54
W1434136	< 5	0.20	40	622	8	0.52	< 5	< 10	280	< 5	16	48	68
W1434137	< 5	0.36	35	442	15	0.47	< 5	< 10	253	< 5	16	48	39
W1434138	< 5	0.26	35	476	12	0.49	< 5	< 10	245	< 5	14	49	51
W1434139	< 5	0.32	34	365	4	0.46	< 5	< 10	255	< 5	15	49	48
W1434140	< 5	0.17	44	218	10	0.50	< 5	< 10	280	< 5	15	43	44
W1434141	< 5	0.40	34	194	15	0.52	< 5	< 10	289	< 5	15	47	47
W1434142	< 5	0.34	34	291	17	0.50	< 5	< 10	284	< 5	15	50	45
W1434143	< 5	0.19	33	200	18	0.49	< 5	< 10	254	< 5	15	42	44
W1434144	< 5	1.18	10	267	7	0.36	< 5	< 10	93	7	14	55	27
W1434145	< 5	0.04	10	251	< 2	0.30	< 5	< 10	74	< 5	10	38	97
W1434146	< 5	1.16	25	184	4	0.41	< 5	< 10	269	< 5	12	36	33
W1434147	< 5	0.84	13	154	14	0.42	< 5	10	183	< 5	16	26	59
W1434148	6	0.91	11	184	10	0.52	< 5	< 10	204	< 5	18	29	74
W1434149	< 5	2.70	22	233	8	0.47	< 5	< 10	193	< 5	16	35	54
W1434150	< 5	0.97	48	313	12	0.44	< 5	< 10	238	< 5	16	27	55
W1434151	< 5	1.40	36	500	12	0.47	< 5	< 10	259	< 5	15	32	73
W1434152	< 5	1.04	60	562	11	0.58	5	< 10	274	< 5	23	45	77
W1434153	< 5	0.82	52	454	< 2	0.50	< 5	< 10	272	< 5	18	47	72
W1434154	< 5	1.07	41	428	17	0.50	< 5	< 10	286	< 5	16	30	64
W1434155	< 5	1.01	27	416	< 2	0.43	< 5	< 10	299	< 5	13	32	54
W1434156	< 5	0.52	29	465	3	0.44	< 5	< 10	308	< 5	15	31	52

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434157	< 5	0.71	28	379	9	0.42	< 5	< 10	326	< 5	15	34	48
W1434158	< 5	1.38	25	440	17	0.45	< 5	< 10	311	< 5	15	33	47
W1434159	< 5	1.06	27	393	17	0.47	< 5	< 10	297	< 5	16	36	51
W1434160	< 5	1.13	29	337	12	0.51	< 5	< 10	249	< 5	14	34	56
W1434161	< 5	0.08	10	379	< 2	0.28	< 5	< 10	73	< 5	11	37	106
W1434162	< 5	0.37	29	304	8	0.49	< 5	< 10	248	< 5	16	29	55
W1434163	< 5	1.32	30	324	9	0.49	< 5	< 10	282	< 5	16	36	51
W1434164	< 5	1.25	38	329	13	0.50	< 5	< 10	299	< 5	16	41	53
W1434165	< 5	1.31	50	567	8	0.54	< 5	< 10	333	< 5	21	34	68
W1434166	< 5	1.55	51	540	9	0.59	< 5	< 10	278	< 5	23	29	76
W1434167	< 5	1.15	30	489	18	0.52	< 5	< 10	258	< 5	13	32	65
W1434168	< 5	0.57	27	405	10	0.43	< 5	< 10	259	< 5	16	40	49
W1434169	< 5	0.82	26	479	10	0.39	< 5	< 10	259	< 5	13	39	43
W1434170	< 5	0.33	32	399	16	0.58	< 5	< 10	276	< 5	15	39	55
W1434171	< 5	0.58	28	399	14	0.47	< 5	< 10	290	< 5	16	42	42
W1434172	< 5	0.78	29	358	< 2	0.47	< 5	< 10	283	< 5	15	44	42
W1434173	< 5	0.69	29	364	10	0.48	< 5	< 10	306	< 5	14	40	45
W1434174	< 5	1.45	29	283	15	0.48	< 5	< 10	309	< 5	14	49	47
W1434175	< 5	1.48	27	299	9	0.45	< 5	< 10	288	< 5	14	46	48
W1434176	< 5	0.21	28	419	9	0.47	< 5	< 10	311	< 5	15	40	48
W1434177	< 5	0.24	28	516	5	0.46	< 5	< 10	314	< 5	14	41	47
W1434178	< 5	0.30	28	452	5	0.42	< 5	< 10	264	< 5	16	43	43
W1434179	< 5	0.25	28	422	< 2	0.47	< 5	< 10	267	< 5	16	43	51
W1434180	< 5	0.19	20	360	15	0.47	< 5	< 10	227	< 5	13	39	46
W1434181	< 5	0.22	31	513	< 2	0.48	< 5	< 10	263	< 5	15	50	47
W1434182	< 5	0.29	32	326	12	0.50	< 5	< 10	270	< 5	15	50	51
W1434183	< 5	0.36	32	474	14	0.47	< 5	< 10	246	< 5	16	56	49
W1434184	< 5	1.66	10	293	8	0.29	< 5	< 10	93	< 5	9	55	10
W1434185	< 5	0.25	31	434	19	0.46	< 5	< 10	211	< 5	15	48	46
W1434186	< 5	0.04	11	235	2	0.35	< 5	< 10	80	< 5	11	42	100
W1434187	< 5	0.36	28	321	7	0.43	< 5	< 10	222	< 5	13	43	42
W1434188	< 5	3.34	24	208	21	0.40	< 5	< 10	200	< 5	11	52	38
W1434189	< 5	2.57	31	237	11	0.47	< 5	< 10	256	< 5	14	56	48
W1434190	< 5	0.24	31	354	16	0.49	< 5	< 10	260	< 5	15	53	50
W1434191	< 5	0.15	31	421	12	0.48	< 5	< 10	289	< 5	15	46	48
W1434192	< 5	0.18	30	362	7	0.47	< 5	< 10	265	< 5	15	47	48
W1434193	< 5	0.20	29	349	13	0.45	< 5	< 10	257	< 5	12	43	45
W1434194	< 5	0.37	29	329	12	0.44	< 5	< 10	257	< 5	14	41	43
W1434195	< 5	0.26	31	459	13	0.48	< 5	< 10	293	< 5	16	36	44
W1434196	< 5	0.20	29	324	21	0.44	< 5	< 10	243	< 5	12	39	50
W1434197	< 5	0.54	21	525	12	0.50	< 5	< 10	290	< 5	18	29	46
W1434198	< 5	0.99	28	414	19	0.54	< 5	< 10	282	< 5	19	26	45
W1434199	< 5	0.78	29	478	5	0.58	< 5	< 10	327	< 5	18	30	63
W1434200	< 5	0.48	49	505	14	0.63	< 5	< 10	307	< 5	24	28	88
W1434201	< 5	0.21	27	601	10	0.55	< 5	< 10	325	< 5	16	31	54
W1434202	< 5	0.03	9	332	6	0.22	< 5	< 10	61	< 5	11	32	97
W1434203	< 5	0.29	25	583	5	0.53	< 5	< 10	311	< 5	17	29	38
W1434204	< 5	0.35	38	508	3	0.58	< 5	< 10	332	< 5	20	27	80
W1434205	< 5	0.24	30	543	8	0.56	< 5	< 10	334	< 5	17	31	58
W1434206	< 5	0.32	23	455	< 2	0.52	< 5	< 10	323	< 5	14	27	48
W1434207	5	0.74	22	505	13	0.52	< 5	< 10	313	< 5	13	25	47
W1434208	< 5	0.83	42	404	18	0.57	< 5	< 10	297	< 5	20	29	81

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434209	< 5	0.98	35	415	38	0.60	< 5	< 10	328	< 5	19	34	75
W1434210	< 5	0.70	31	435	13	0.57	< 5	< 10	303	< 5	18	33	63
W1434211	< 5	0.33	26	489	22	0.57	< 5	< 10	333	< 5	16	34	51
W1434212	< 5	1.06	30	443	24	0.58	< 5	< 10	339	< 5	19	31	66
W1434213	< 5	0.48	14	306	7	0.47	< 5	< 10	195	< 5	19	26	75
W1434214	< 5	0.12	10	341	9	0.45	< 5	< 10	192	< 5	20	24	70
W1434215	< 5	0.10	13	341	14	0.48	< 5	< 10	191	< 5	30	24	82
W1434216	< 5	0.16	7	284	12	0.43	< 5	< 10	191	< 5	15	23	52
W1434217	< 5	0.45	21	263	19	0.51	< 5	< 10	183	< 5	36	23	128
W1434218	< 5	0.25	18	300	17	0.53	< 5	< 10	196	< 5	35	24	126
W1434219	< 5	0.41	31	378	11	0.55	< 5	< 10	269	< 5	21	31	85
W1434220	< 5	0.94	26	375	7	0.49	< 5	< 10	307	< 5	16	29	47
W1434221	5	0.31	30	406	11	0.47	< 5	< 10	257	< 5	25	29	41
W1434222	< 5	1.03	26	263	14	0.50	< 5	< 10	275	< 5	13	28	42
W1434223	< 5	0.45	34	345	15	0.54	< 5	< 10	319	< 5	18	29	57
W1434224	< 5	1.10	9	243	8	0.34	< 5	< 10	85	< 5	12	52	18
W1434225	< 5	0.33	25	288	16	0.50	< 5	< 10	297	< 5	12	26	34
W1434226	< 5	0.03	9	348	11	0.26	< 5	< 10	66	< 5	11	27	93
W1434227	< 5	0.41	38	611	16	0.58	< 5	< 10	323	< 5	21	30	79
W1434228	< 5	0.48	23	419	12	0.49	< 5	< 10	226	< 5	25	36	89
W1434229	< 5	0.66	23	408	8	0.54	< 5	< 10	229	< 5	25	35	81
W1434230	< 5	0.55	40	379	21	0.70	< 5	< 10	310	< 5	24	28	78
W1434231	< 5	0.56	27	477	12	0.55	< 5	< 10	315	< 5	16	32	59
W1434232	< 5	0.94	26	405	13	0.52	< 5	< 10	317	< 5	18	36	50
W1434233	< 5	0.85	23	478	7	0.50	< 5	< 10	311	< 5	16	32	46
W1434234	< 5	0.71	24	427	14	0.52	< 5	< 10	321	< 5	15	30	44
W1434235	< 5	0.66	25	455	18	0.55	< 5	< 10	312	< 5	13	29	44
W1434236	< 5	0.75	22	406	6	0.46	< 5	< 10	321	< 5	17	31	43
W1434237	< 5	1.13	24	314	3	0.51	< 5	< 10	333	< 5	17	28	49
W1434238	< 5	0.71	23	253	12	0.48	< 5	< 10	302	< 5	14	29	46
W1434239	< 5	0.49	25	237	4	0.46	< 5	< 10	300	< 5	14	29	44
W1435454	< 5	0.36	24	129	< 2	0.49	< 5	< 10	274	< 5	12	23	51

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		32.5	2.63	428	652	< 1	1390	0.90	3.2	5	10	1120	24.0	27	7	0.04	0.20	8	894	14	0.41	42	0.057	759
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas		33.5	3.17	441	668	1	1410	0.93	3.7	5	11	1150	24.7	27	13	0.04	0.21	8	926	14	0.03	43	0.059	776
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
DH-1a Meas																								
DH-1a Cert																								
GXR-4 Meas		3.5	8.08	100	869	2	5	1.06	< 0.3	15	55	6510	3.09	21	< 1	2.80	1.69	10	153	314	0.73	38	0.133	61
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas		3.2	8.20	96	150	2	10	1.05	0.4	14	43	6610	3.09	22	< 1	2.96	1.67	10	152	312	0.36	45	0.134	46
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	9.67	7	630	3	< 2	1.07	< 0.3	20	59	28	4.76	31	< 1	2.43	0.99	34	924	2	1.46	36	0.060	18
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
SDC-1 Meas		< 0.3	10.5	16	657	4	< 2	1.14	< 0.3	19	51	29	4.98	30	2	2.50	1.02	34	968	2	1.10	36	0.062	20
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		< 0.3	16.5	296	> 1000	< 1	< 2	0.21	< 0.3	14	82	62	5.26	41	< 1	1.63	0.62	35	1090	3	0.44	24	0.035	87
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas		0.3	17.8	271	> 1000	1	< 2	0.22	0.5	14	60	64	5.48	41	2	1.87	0.63	36	1100	< 1	0.08	25	0.036	92
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		3.8	7.36	35	764	3	< 2	0.65	5.2	12		306	3.26	21		2.18	0.47	28	5090	10	1.21	48	0.068	966
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
SAR-M (U.S.G.S.) Meas		4.4	7.51	32	780	3	< 2	0.66	5.2	11		311	3.27	24		2.54	0.48	29	4930	9	0.82	43	0.067	971
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					97					55	163	93						4				250		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
DNC-1a Meas					99					55	138	100						4				254		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SF57 Meas	822																							
SF57 Cert	848.000																							
SF57 Meas	802																							
SF57 Cert	848.000																							
SF57 Meas	835																							
SF57 Cert	848.000																							
SF57 Meas	828																							
SF57 Cert	848.000																							
SBC-1 Meas				12	884	4	< 2		0.5	23	98	31		35				161		1		81		29
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
SBC-1 Meas				37	798	4	< 2		0.9	25	103	33		38				160		2		88		36
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
W1434013 Orig		0.5	8.55	27	451	< 1	< 2	5.93	1.6	28	70	323	6.70	22	< 1	2.65	2.78	5	1980	< 1	0.76	30	0.171	12
W1434013 Dup		0.4	8.21	35	480	< 1	< 2	5.79	0.7	27	50	298	6.43	20	2	2.56	2.72	5	1910	< 1	0.74	30	0.165	13
W1434015 Orig	20																							
W1434015 Dup	24																							
W1434027 Orig		0.8	10.6	8	598	< 1	< 2	4.86	< 0.3	14	58	859	6.17	21	1	1.42	3.17	17	1920	< 1	1.60	30	0.188	< 3
W1434027 Dup		0.6	8.82	12	589	< 1	< 2	4.77	< 0.3	14	60	854	6.05	21	< 1	1.37	3.06	16	1930	< 1	1.59	28	0.171	< 3
W1434030 Orig	93																							
W1434030 Dup	86																							
W1434045 Orig	8																							
W1434045 Dup	7																							
W1434050 Orig	17	0.9	16.3	15	> 1000	1	< 2	3.43	< 0.3	13	26	1220	4.51	22	1	2.95	1.69	10	938	2	2.80	9	0.169	< 3
W1434050 Split	15	0.8	15.8	8	> 1000	1	< 2	3.45	< 0.3	14	37	1160	4.52	22	< 1	3.05	1.64	10	931	2	2.98	8	0.174	< 3
W1434060 Orig	35	0.4	14.3	5	> 1000	< 1	< 2	4.92	1.1	26	40	639	6.38	25	1	2.09	3.32	22	737	3	1.91	35	0.191	< 3
W1434060 Split	41	0.4	14.2	12	> 1000	< 1	< 2	5.04	< 0.3	27	46	659	6.48	24	2	2.16	3.38	23	756	3	1.92	35	0.192	< 3
W1434060 Orig	36																							
W1434060 Dup	33																							
W1434063 Orig		< 0.3	10.1	9	576	< 1	< 2	5.85	< 0.3	22	36	387	5.73	21	2	2.03	2.70	19	707	5	1.48	32	0.164	< 3
W1434063 Dup		0.5	10.3	68	617	< 1	14	6.19	6.3	24	40	865	6.17	24	4	2.14	2.89	20	754	12	1.56	37	0.184	125
W1434088 Orig		< 0.3	10.3	12	562	< 1	< 2	3.17	< 0.3	40	11	1110	8.87	24	< 1	2.64	2.78	19	477	4	2.18	17	0.187	< 3

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434088 Dup		< 0.3	10.6	8	574	< 1	< 2	3.23	0.4	40	18	1150	9.03	27	< 1	2.56	2.81	20	489	4	2.20	17	0.188	< 3
W1434090 Orig	113	< 0.3	10.7	9	356	< 1	< 2	4.09	< 0.3	47	19	2310	8.28	25	< 1	1.69	2.62	19	521	3	2.36	79	0.182	< 3
W1434090 Split	103	0.3	9.92	11	341	< 1	< 2	3.93	< 0.3	44	8	1840	7.78	24	3	1.63	2.49	18	489	2	2.18	18	0.164	< 3
W1434090 Orig	117																							
W1434090 Dup	108																							
W1434100 Orig	< 5	< 0.3	14.4	15	619	1	< 2	9.24	< 0.3	23	54	43	6.59	26	< 1	1.16	2.75	7	830	2	1.43	31	0.216	< 3
W1434100 Split	< 5	< 0.3	13.9	17	604	1	< 2	8.98	< 0.3	24	58	44	6.53	27	< 1	1.15	2.68	7	826	2	1.43	31	0.216	< 3
W1434120 Orig	5	< 0.3	9.66	9	455	< 1	< 2	4.26	< 0.3	25	73	70	6.97	23	1	0.98	3.50	18	935	2	2.31	34	0.198	< 3
W1434120 Split	< 5	< 0.3	11.5	11	436	< 1	< 2	4.18	< 0.3	24	85	65	6.91	21	< 1	1.00	4.14	18	882	< 1	2.31	33	0.205	< 3
W1434120 Orig	5																							
W1434124 Orig		< 0.3	9.96	19	> 1000	< 1	< 2	5.77	< 0.3	30	64	834	6.79	24	< 1	1.37	3.62	16	1050	3	2.05	38	0.202	< 3
W1434124 Dup		< 0.3	9.98	17	> 1000	< 1	< 2	6.73	< 0.3	29	60	224	6.83	22	2	1.59	3.68	11	1090	< 1	1.84	34	0.197	< 3
W1434135 Orig	6																							
W1434135 Dup	8																							
W1434138 Orig		< 0.3	9.62	12	> 1000	< 1	3	5.31	< 0.3	30	56	189	7.15	21	< 1	3.08	3.51	17	1120	3	1.69	37	0.185	< 3
W1434138 Dup		< 0.3	9.57	9	> 1000	< 1	< 2	5.31	< 0.3	29	65	186	7.17	22	1	2.60	3.49	17	1130	3	1.72	37	0.185	< 3
W1434150 Orig	97	< 0.3	11.4	5	> 1000	< 1	< 2	5.14	< 0.3	23	83	1350	5.41	20	< 1	2.88	3.26	15	679	18	1.98	30	0.184	< 3
W1434150 Split	113	< 0.3	10.1	11	> 1000	< 1	< 2	5.23	< 0.3	23	94	1410	5.69	22	< 1	2.82	3.13	15	704	18	1.99	33	0.205	< 3
W1434150 Orig	98																							
W1434150 Dup	96																							
W1434165 Orig	31																							
W1434165 Dup	39																							
W1434168 Orig		0.4	9.91	6	367	< 1	< 2	4.48	< 0.3	35	175	608	6.53	23	1	1.90	4.23	19	749	< 1	2.27	101	0.253	< 3
W1434168 Dup		0.4	9.97	15	365	< 1	< 2	4.44	< 0.3	34	179	583	6.43	23	1	1.90	4.22	19	730	< 1	2.25	103	0.237	< 3
W1434180 Orig	14	< 0.3	9.43	3	392	< 1	< 2	5.27	< 0.3	40	391	311	5.50	18	2	1.31	5.16	21	1100	4	1.57	168	0.194	< 3
W1434180 Split	13	< 0.3	8.99	10	458	1	< 2	6.28	0.4	44	314	348	6.56	22	< 1	1.34	5.98	24	1230	4	1.64	188	0.198	< 3
W1434180 Orig	15																							
W1434180 Dup	13																							
W1434192 Orig		< 0.3	9.13	11	475	1	< 2	6.68	< 0.3	42	250	353	6.90	22	< 1	1.24	5.74	24	1110	3	1.63	197	0.197	< 3
W1434192 Dup		< 0.3	8.93	< 3	465	1	< 2	6.57	0.5	41	243	347	6.74	20	2	1.21	5.61	24	1110	2	1.58	194	0.192	< 3
W1434195 Orig	12																							
W1434195 Dup	10																							
W1434200 Orig	39	0.3	15.6	8	> 1000	< 1	< 2	5.71	< 0.3	26	34	391	6.86	22	< 1	2.20	3.21	15	659	8	2.00	32	0.201	< 3
W1434200 Split	29	< 0.3	16.3	6	> 1000	< 1	< 2	5.68	< 0.3	26	32	385	6.78	24	1	2.21	3.24	15	661	8	2.03	32	0.200	< 3
W1434205 Orig		0.4	10.9	9	> 1000	< 1	2	5.64	< 0.3	25	29	17	6.76	25	1	2.81	3.08	16	799	< 1	1.67	30	0.188	< 3
W1434205 Dup		< 0.3	10.9	< 3	> 1000	< 1	< 2	5.36	< 0.3	24	40	20	6.42	23	2	2.40	2.98	15	771	< 1	1.59	29	0.184	< 3
W1434210 Orig	31	< 0.3	11.1	7	983	< 1	< 2	4.48	< 0.3	27	40	923	8.09	24	< 1	2.25	2.93	17	620	1	1.98	28	0.192	< 3
W1434210 Split	32	0.6	10.5	23	996	< 1	< 2	4.48	0.5	29	39	944	8.11	25	3	2.25	2.91	17	626	2	2.02	33	0.192	< 3
W1434210 Orig	34																							
W1434210 Dup	28																							
W1434225 Orig	25																							
W1434225 Dup	22																							
W1434229 Orig		< 0.3	11.9	9	973	< 1	< 2	4.23	0.3	25	17	621	5.45	25	2	1.96	1.88	9	653	1	3.27	10	0.151	< 3
W1434229 Dup		< 0.3	11.7	10	> 1000	< 1	< 2	4.19	< 0.3	22	15	610	5.41	24	1	1.93	1.85	9	648	2	3.21	8	0.149	< 3
W1434239 Orig	19	< 0.3	9.16	< 3	809	< 1	< 2	5.69	< 0.3	30	48	896	7.24	25	2	2.03	2.76	22	606	8	1.89	35	0.148	< 3
W1434239 Split	17	< 0.3	8.78	3	785	< 1	< 2	5.64	< 0.3	28	50	886	7.15	25	< 1	2.12	2.68	21	601	8	1.85	34	0.148	< 3
W1435454 Orig	9																							
W1435454 Dup	18																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank		< 0.3	0.06	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		2	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	< 1	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	0.04	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	2	2	0.02	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	0.06	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	2	2	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	0.40	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	2	2	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	< 1	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	1	< 1	< 0.01	1	< 1	< 0.01	< 0.01	< 1	< 1	< 1	0.40	< 1	< 0.001	< 3
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	17	0.25	< 4	276	14		< 5	20	85	154	26	752	20
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-1 Meas	17	0.26	< 4	285	41		< 5	20	86	164	27	778	21
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
DH-1a Meas								2580					
DH-1a Cert								2629					
GXR-4 Meas	< 5	1.75	8	219	< 2		< 5	< 10	87	41	13	73	46
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
GXR-4 Meas	< 5	1.73	8	217	6		< 5	< 10	88	40	13	72	35
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.07	17	179		0.57	< 5	< 10	91	< 5	31	102	43
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
SDC-1 Meas	10	0.08	18	186		0.43	< 5	< 10	77	6	33	106	39
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	28	42	9		< 5	< 10	166	< 5	12	125	83
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
GXR-6 Meas	< 5	0.02	30	46	19		< 5	< 10	132	< 5	13	130	66
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	< 5		9	147	6	0.40	< 5	< 10	67	23	35	949	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
SAR-M (U.S.G.S.) Meas	< 5		9	157	5	0.36	< 5	< 10	62	19	34	937	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		31	131					143		15	59	29
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
DNC-1a Meas	< 5		31	132					145		15	59	29
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SF57 Meas													
SF57 Cert													
SF57 Meas													
SF57 Cert													
SF57 Meas													
SF57 Cert													
SF57 Meas													
SF57 Cert													
SBC-1 Meas	< 5		39	227			< 5	< 10	203	< 5	52	181	120
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
SBC-1 Meas	< 5		23	184			< 5	< 10	224	< 5	33	196	104
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434013 Orig	173	1.90	29	159	27	0.43	< 5	< 10	236	< 5	13	133	51
W1434013 Dup	194	1.83	29	156	12	0.40	< 5	< 10	227	< 5	13	129	50
W1434015 Orig													
W1434015 Dup													
W1434027 Orig	< 5	0.23	38	361	4	0.50	< 5	< 10	280	< 5	16	80	66
W1434027 Dup	< 5	0.20	30	352	< 2	0.44	< 5	< 10	274	< 5	14	83	43
W1434030 Orig													
W1434030 Dup													
W1434045 Orig													
W1434045 Dup													
W1434050 Orig	< 5	0.75	21	362	19	0.46	< 5	< 10	169	< 5	30	49	113
W1434050 Split	< 5	0.81	20	360	< 2	0.45	< 5	< 10	169	< 5	30	48	109
W1434060 Orig	< 5	0.55	42	369	14	0.59	< 5	< 10	288	< 5	20	32	91
W1434060 Split	< 5	0.55	41	363	24	0.59	< 5	< 10	290	< 5	20	36	91
W1434060 Orig													
W1434060 Dup													
W1434063 Orig	< 5	0.45	27	245	4	0.50	< 5	< 10	270	< 5	16	32	56
W1434063 Dup	8	0.62	28	260	7	0.57	< 5	< 10	291	< 5	19	1720	60
W1434088 Orig	< 5	0.64	27	350	17	0.59	< 5	< 10	297	< 5	19	30	48

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434088 Dup	< 5	0.65	29	358	5	0.60	< 5	< 10	311	< 5	19	31	47
W1434090 Orig	< 5	1.08	28	487	8	0.56	< 5	< 10	271	< 5	19	35	52
W1434090 Split	< 5	0.94	24	476	4	0.46	< 5	< 10	228	< 5	18	31	41
W1434090 Orig													
W1434090 Dup													
W1434100 Orig	< 5	0.19	47	1470	17	0.53	< 5	< 10	366	< 5	19	25	71
W1434100 Split	< 5	0.18	45	1480	15	0.55	< 5	< 10	378	< 5	18	26	83
W1434120 Orig	< 5	0.19	33	466	16	0.50	< 5	< 10	294	< 5	17	42	50
W1434120 Split	< 5	0.21	45	433	10	0.50	< 5	< 10	279	< 5	17	39	47
W1434120 Orig													
W1434124 Orig	< 5	0.48	34	648	8	0.52	< 5	< 10	305	< 5	16	42	51
W1434124 Dup	< 5	0.28	34	774	6	0.51	< 5	10	318	< 5	15	36	51
W1434135 Orig													
W1434135 Dup													
W1434138 Orig	< 5	0.26	35	474	14	0.49	< 5	< 10	242	< 5	14	49	48
W1434138 Dup	< 5	0.26	35	478	10	0.50	< 5	< 10	249	< 5	14	49	53
W1434150 Orig	< 5	0.97	48	313	12	0.44	< 5	< 10	238	< 5	16	27	55
W1434150 Split	< 5	0.98	33	309	7	0.48	< 5	< 10	241	< 5	13	27	58
W1434150 Orig													
W1434150 Dup													
W1434165 Orig													
W1434165 Dup													
W1434168 Orig	< 5	0.59	27	403	18	0.45	< 5	< 10	262	< 5	16	40	50
W1434168 Dup	< 5	0.55	27	406	3	0.42	< 5	< 10	256	< 5	16	40	48
W1434180 Orig	< 5	0.19	20	360	15	0.47	< 5	< 10	227	< 5	13	39	46
W1434180 Split	< 5	0.20	31	424	7	0.48	< 5	< 10	258	< 5	15	49	48
W1434180 Orig													
W1434180 Dup													
W1434192 Orig	< 5	0.18	30	364	8	0.47	< 5	< 10	264	< 5	16	48	48
W1434192 Dup	< 5	0.17	30	360	7	0.47	< 5	< 10	265	< 5	15	46	47
W1434195 Orig													
W1434195 Dup													
W1434200 Orig	< 5	0.48	49	505	14	0.63	< 5	< 10	307	< 5	24	28	88
W1434200 Split	5	0.49	50	505	< 2	0.62	< 5	< 10	302	< 5	24	27	82
W1434205 Orig	< 5	0.24	30	551	3	0.57	< 5	< 10	340	< 5	17	31	59
W1434205 Dup	8	0.24	30	534	13	0.55	< 5	< 10	328	< 5	17	30	57
W1434210 Orig	< 5	0.70	31	435	13	0.57	< 5	< 10	303	< 5	18	33	63
W1434210 Split	< 5	0.69	28	431	12	0.56	< 5	< 10	303	< 5	18	34	62
W1434210 Orig													
W1434210 Dup													
W1434225 Orig													
W1434225 Dup													
W1434229 Orig	< 5	0.67	23	408	5	0.54	< 5	< 10	228	< 5	26	35	85
W1434229 Dup	< 5	0.65	23	409	12	0.54	< 5	< 10	230	< 5	25	35	78
W1434239 Orig	< 5	0.49	25	237	4	0.46	< 5	< 10	300	< 5	14	29	44
W1434239 Split	< 5	0.49	23	237	7	0.46	< 5	< 10	298	< 5	13	29	40
W1435454 Orig													
W1435454 Dup													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank	< 5	< 0.01	< 4	2	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	3	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													

Quality Analysis ... *Innovative Technologies*

Date Submitted:	26-Nov-12
Invoice No.:	A12-13274
Invoice Date:	13-Dec-12
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

72 Core samples and 2 Pulp samples were submitted for analysis.

The following analytical packages were requested: Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-13274**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited
LAB 266
LAB 266
Accrédité CCN

ACTIVATION LABORATORIES LTD.

1336 Sandhill Drive, Ancaster, Ontario Canada L9G 4V5 TELEPHONE +1.905.648.9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434240	12	< 0.3	9.90	< 3	756	< 1	< 2	5.88	< 0.3	24	30	168	6.52	24	< 1	1.61	2.38	20	1380	2	2.61	18	0.106	< 3
W1434241	< 5	< 0.3	9.91	5	483	1	< 2	1.69	< 0.3	28	101	147	4.06	27	< 1	1.49	3.36	18	487	< 1	2.27	67	0.048	3
W1434242	39	0.4	9.80	7	906	< 1	< 2	5.60	< 0.3	33	16	699	6.80	24	< 1	1.67	2.78	23	1290	< 1	2.35	16	0.079	< 3
W1434243	24	0.3	9.07	11	46	< 1	< 2	5.09	< 0.3	32	13	293	8.31	23	< 1	1.62	2.40	22	1100	2	2.64	15	0.129	8
W1434244	16	0.3	9.22	33	76	< 1	< 2	6.35	< 0.3	27	13	282	6.13	23	< 1	1.81	2.22	20	1140	1	2.47	12	0.126	< 3
W1434245	15	< 0.3	9.74	5	107	< 1	< 2	6.14	< 0.3	27	18	275	6.09	23	< 1	1.66	2.35	18	1170	1	2.41	13	0.116	< 3
W1434246	13	< 0.3	9.34	12	71	< 1	< 2	6.58	< 0.3	33	17	216	6.63	23	< 1	1.70	2.39	19	1390	< 1	2.13	16	0.127	< 3
W1434247	22	< 0.3	8.49	24	87	< 1	< 2	9.53	< 0.3	28	17	284	7.10	23	< 1	1.74	1.91	15	1710	< 1	1.80	15	0.157	3
W1434248	11	0.3	8.21	26	79	< 1	< 2	6.32	< 0.3	38	20	415	7.10	23	< 1	1.69	1.76	15	1430	< 1	2.21	17	0.161	< 3
W1434249	15	< 0.3	9.26	20	64	< 1	< 2	6.52	< 0.3	31	18	344	6.76	23	< 1	1.62	2.41	19	1260	< 1	2.46	15	0.154	< 3
W1434250	16	< 0.3	8.74	21	69	< 1	< 2	7.37	< 0.3	29	16	258	6.29	22	< 1	1.81	2.16	17	1370	< 1	1.77	15	0.145	< 3
W1434251	21	< 0.3	8.64	51	111	< 1	< 2	8.18	1.3	29	16	276	6.10	22	4	1.90	1.83	10	1330	< 1	1.02	15	0.133	< 3
W1434252	11	< 0.3	8.49	28	121	< 1	< 2	8.71	< 0.3	20	15	162	5.93	22	< 1	1.80	1.58	12	1090	1	0.90	16	0.118	< 3
W1434253	10	< 0.3	9.29	22	150	< 1	< 2	7.13	< 0.3	16	12	88	5.22	24	< 1	1.86	1.62	22	1160	< 1	1.67	8	0.129	< 3
W1434254	20	< 0.3	8.92	9	205	< 1	< 2	6.94	0.5	29	14	263	6.41	23	< 1	1.56	2.40	31	1170	< 1	2.37	15	0.110	< 3
W1434255	23	< 0.3	8.53	5	121	< 1	< 2	6.84	< 0.3	35	16	371	6.40	22	< 1	1.60	2.40	28	1210	< 1	2.06	16	0.115	< 3
W1434256	10	< 0.3	9.53	8	425	< 1	< 2	5.32	< 0.3	27	17	180	6.75	24	< 1	1.60	2.60	22	1330	< 1	2.82	15	0.087	< 3
W1434257	6	< 0.3	9.76	8	> 1000	< 1	< 2	4.42	< 0.3	26	20	66	7.52	24	< 1	1.76	2.91	24	1280	< 1	2.83	16	0.178	< 3
W1434258	34	0.3	8.61	12	405	< 1	< 2	6.40	< 0.3	31	15	837	6.50	22	< 1	1.62	2.41	23	1250	< 1	2.29	14	0.167	< 3
W1434259	73	0.4	9.36	< 3	910	< 1	3	6.99	< 0.3	31	15	1030	6.82	23	< 1	1.92	2.54	27	1250	< 1	2.10	15	0.121	< 3
W1434260	34	< 0.3	9.72	10	> 1000	< 1	< 2	5.49	< 0.3	29	16	402	7.11	25	< 1	2.33	2.63	21	1210	< 1	2.63	17	0.155	< 3
W1434261	16	< 0.3	9.36	5	> 1000	< 1	< 2	5.72	< 0.3	29	15	272	6.99	24	< 1	1.80	2.77	21	1240	< 1	2.67	20	0.131	5
W1434262	21	0.4	9.02	9	771	< 1	< 2	5.90	< 0.3	30	15	415	6.65	23	< 1	1.50	2.67	19	1200	< 1	2.50	15	0.110	< 3
W1434263	129	0.6	7.47	10	362	< 1	< 2	9.10	1.4	26	18	349	5.58	21	< 1	1.85	2.11	16	1250	< 1	0.96	15	0.085	12
W1434264	109	< 0.3	6.53	10	569	< 1	< 2	8.97	2.4	22	20	224	5.27	18	< 1	1.80	2.02	11	1270	< 1	0.56	14	0.103	13
W1434265	67	0.4	9.55	8	102	2	< 2	0.99	< 0.3	9	33	2100	3.93	25	< 1	2.22	0.63	10	271	50	1.90	26	0.037	10
W1434266	41	< 0.3	8.79	7	155	< 1	< 2	6.02	< 0.3	28	16	652	6.26	22	< 1	1.55	2.52	20	1140	< 1	2.77	15	0.108	< 3
W1434267	19	< 0.3	9.04	10	767	< 1	< 2	5.77	< 0.3	31	16	467	6.75	23	< 1	1.63	2.75	22	1170	< 1	2.44	16	0.164	< 3
W1434268	44	0.3	8.59	15	380	< 1	< 2	6.75	< 0.3	27	16	422	6.31	22	< 1	1.79	2.57	26	1190	< 1	1.63	13	0.160	4
W1434269	< 5	< 0.3	11.2	< 3	378	1	< 2	5.19	< 0.3	30	123	31	4.80	26	< 1	1.16	3.14	10	798	1	2.05	30	0.045	4
W1434270	62	0.4	8.83	14	189	< 1	< 2	6.69	< 0.3	29	15	723	6.47	22	< 1	2.01	2.18	17	1110	1	0.60	16	0.142	< 3
W1434271	108	0.6	8.14	7	196	< 1	< 2	6.25	1.9	26	19	470	5.74	21	< 1	2.10	2.14	6	1180	1	0.17	13	0.098	5
W1434272	32	1.2	9.09	9	202	< 1	< 2	6.32	1.1	29	18	917	6.11	22	2	2.06	1.96	10	1120	< 1	0.57	13	0.090	5
W1434273	17	0.6	8.79	10	287	< 1	< 2	6.81	0.7	21	14	365	6.39	22	< 1	1.89	2.17	13	1470	3	1.61	11	0.116	9
W1434274	19	0.7	9.77	6	322	< 1	< 2	4.33	1.1	17	7	536	4.32	19	< 1	1.82	1.17	5	1250	6	2.34	2	0.144	6
W1434275	104	0.8	8.43	15	307	< 1	< 2	5.25	2.5	23	16	386	4.30	22	< 1	4.66	1.26	7	1360	7	0.28	4	0.141	9
W1434276	34	0.5	9.60	11	330	< 1	< 2	5.55	1.1	16	17	389	5.06	26	< 1	4.80	1.20	7	1410	6	1.12	3	0.161	7
W1434277	6	< 0.3	8.27	< 3	525	< 1	< 2	5.66	0.8	16	4	127	4.39	21	< 1	3.13	1.14	10	1380	2	2.54	4	0.138	5
W1434278	140	0.3	9.27	10	236	< 1	< 2	4.28	1.1	12	11	200	3.85	23	< 1	4.18	1.03	8	948	5	0.59	3	0.155	14
W1434279	78	0.6	8.99	14	256	< 1	< 2	4.91	0.4	21	20	570	5.13	22	< 1	3.28	1.72	17	1160	3	2.30	7	0.144	4
W1434280	25	0.3	9.63	16	468	< 1	< 2	4.51	0.4	15	7	301	4.27	20	< 1	3.52	1.42	14	894	3	2.83	5	0.135	4
W1434281	< 5	0.4	10.9	4	392	< 1	< 2	5.43	< 0.3	31	128	28	4.71	25	< 1	1.34	3.06	10	808	< 1	2.18	31	0.041	6
W1434282	30	0.3	9.07	15	342	< 1	< 2	4.19	< 0.3	16	8	203	4.35	23	< 1	3.64	1.47	15	912	1	2.76	4	0.140	3
W1434283	77	0.7	5.53	13	740	< 1	< 2	4.07	< 0.3	16	9	597	4.26	24	< 1	2.01	1.43	18	866	2	2.77	6	0.140	< 3
W1434284	65	0.4	9.54	27	118	< 1	< 2	4.92	< 0.3	27	28	673	5.90	23	< 1	3.82	2.32	22	988	< 1	2.89	18	0.193	14
W1434285	94	0.7	9.67	18	87	< 1	< 2	5.23	0.4	24	21	1100	5.16	23	< 1	3.68	1.96	21	826	< 1	3.14	12	0.184	< 3
W1434286	66	0.4	9.93	24	80	< 1	< 2	5.12	< 0.3	18	14	677	5.24	22	< 1	2.49	1.68	15	929	1	3.84	8	0.170	< 3
W1434287	41	0.5	10.00	21	87	< 1	< 2	4.64	< 0.3	19	16	616	5.23	22	< 1	3.26	1.64	16	897	1	3.42	11	0.194	< 3
W1434288	53	0.5	10.5	17	157	1	< 2	5.88	2.5	20	26	855	4.97	22	< 1	3.60	1.81	20	840	1	2.66	22	0.222	< 3
W1434289	33	0.3	10.7	22	420	1	< 2	5.30	0.6	22	39	836	4.72	21	< 1	3.46	1.94	21	865	1	2.88	20	0.217	12
W1434290	36	0.3	9.82	23	213	1	< 2	4.61	< 0.3	19	29	885	4.62	20	< 1	3.73	1.96	19	801	< 1	3.08	17	0.219	< 3
W1434291	85	0.6	8.65	24	170	< 1	< 2	7.09	< 0.3	20	32	1380	4.47	20	< 1	3.48	1.77	20	1050	1	2.88	17	0.202	3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434292	25	< 0.3	6.98	20	133	< 1	< 2	8.83	< 0.3	34	486	428	5.54	16	< 1	2.19	4.31	23	1570	1	1.64	87	0.149	5
W1434293	20	0.3	9.57	16	780	< 1	< 2	7.38	< 0.3	32	183	336	5.81	20	< 1	2.16	3.79	26	1300	< 1	1.87	36	0.144	3
W1434294	10	0.4	9.80	19	197	< 1	< 2	6.41	< 0.3	34	17	151	7.51	24	< 1	2.19	3.12	29	1400	< 1	2.77	17	0.182	< 3
W1434295	13	0.3	8.76	25	48	< 1	< 2	6.23	0.5	35	23	233	7.42	24	< 1	2.58	2.36	23	1190	1	2.79	20	0.198	< 3
W1434296	23	0.4	9.58	23	52	< 1	< 2	5.62	< 0.3	21	17	275	6.56	23	< 1	3.44	1.85	18	1120	3	2.93	10	0.172	4
W1434297	24	0.4	10.3	24	76	< 1	< 2	5.02	< 0.3	23	18	405	6.06	23	< 1	3.61	2.05	19	1050	5	2.67	14	0.192	< 3
W1434298	13	0.3	9.17	20	42	< 1	< 2	6.10	< 0.3	32	12	101	7.47	24	< 1	1.92	2.98	21	1140	1	2.66	17	0.174	< 3
W1434299	39	0.5	9.56	20	38	< 1	< 2	5.03	< 0.3	34	14	323	6.97	22	< 1	4.70	1.82	17	901	4	2.29	10	0.175	< 3
W1434300	45	0.5	9.06	29	54	< 1	< 2	5.48	< 0.3	34	16	588	6.76	23	< 1	3.14	1.99	15	961	5	2.84	15	0.181	4
W1434301	31	< 0.3	9.57	28	122	< 1	< 2	4.74	< 0.3	31	18	380	7.28	23	< 1	2.56	3.36	21	1250	< 1	2.52	17	0.174	< 3
W1434302	65	0.4	8.83	16	449	< 1	< 2	4.69	< 0.3	25	18	621	6.19	23	< 1	3.09	2.71	14	1130	1	2.73	14	0.156	< 3
W1434303	69	0.6	5.79	5	372	2	< 2	0.55	< 0.3	11	51	2350	3.65	25	< 1	2.09	0.65	11	286	52	2.07	28	0.038	14
W1434304	69	0.7	11.0	12	848	< 1	4	4.04	< 0.3	25	11	1240	6.78	26	< 1	2.91	2.46	13	1190	2	4.03	11	0.163	< 3
W1434305	66	0.7	9.73	14	444	< 1	< 2	4.94	0.3	23	12	1070	6.15	23	< 1	2.78	2.24	12	1150	3	3.34	9	0.154	< 3
W1434306	30	0.6	10.3	23	464	< 1	< 2	4.16	< 0.3	25	15	785	6.50	25	< 1	2.74	2.38	17	1100	1	3.13	12	0.157	< 3
W1434307	< 5	< 0.3	10.7	5	443	1	< 2	3.91	< 0.3	22	124	13	3.74	23	< 1	1.31	2.82	13	609	< 1	2.77	35	0.039	4
W1434308	21	0.7	9.33	18	195	< 1	< 2	4.64	< 0.3	26	13	416	4.63	23	< 1	3.20	1.58	10	943	3	3.27	6	0.142	< 3
W1434309	33	0.8	9.01	19	51	< 1	< 2	4.22	< 0.3	24	9	561	5.46	24	< 1	4.23	1.46	10	677	6	2.73	6	0.148	3
W1434310	47	0.9	9.47	23	79	< 1	< 2	4.68	0.7	21	8	785	5.39	23	< 1	3.39	1.81	10	950	9	3.15	7	0.157	3
W1434311	116	0.8	9.96	18	345	< 1	< 2	4.58	< 0.3	23	13	943	5.45	22	< 1	2.91	1.91	14	761	2	3.01	8	0.161	< 3
W1434312	48	0.5	9.23	20	298	< 1	< 2	4.16	< 0.3	23	12	623	5.10	23	< 1	3.05	1.94	15	697	4	2.99	8	0.160	< 3
W1434313	41	0.4	9.03	16	340	< 1	< 2	4.80	< 0.3	20	11	607	4.85	22	< 1	2.95	1.92	12	781	5	3.13	8	0.150	< 3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434240	< 5	0.36	25	600	8	0.39	8	< 10	237	< 5	16	61	12
W1434241	< 5	0.07	12	173	14	0.28	< 5	< 10	79	< 5	9	53	8
W1434242	< 5	0.38	32	524	< 2	0.36	< 5	< 10	303	< 5	15	64	10
W1434243	< 5	3.63	26	346	9	0.44	7	< 10	272	< 5	14	53	12
W1434244	< 5	1.92	24	374	14	0.42	< 5	< 10	259	< 5	15	55	10
W1434245	< 5	1.35	26	482	< 2	0.40	< 5	< 10	273	< 5	16	68	9
W1434246	< 5	2.35	29	457	11	0.42	< 5	< 10	297	< 5	14	65	11
W1434247	< 5	2.36	28	530	16	0.50	< 5	< 10	307	9	14	72	12
W1434248	< 5	3.65	27	388	3	0.53	< 5	< 10	314	< 5	13	58	13
W1434249	< 5	2.91	30	397	9	0.48	< 5	< 10	297	< 5	14	63	9
W1434250	< 5	2.26	29	262	3	0.46	5	< 10	283	< 5	13	66	10
W1434251	< 5	2.75	28	158	11	0.44	6	< 10	271	5	11	66	9
W1434252	< 5	2.58	29	146	8	0.40	< 5	< 10	268	< 5	12	51	8
W1434253	< 5	1.71	20	204	< 2	0.41	< 5	< 10	226	9	14	53	14
W1434254	< 5	1.27	31	177	6	0.38	< 5	< 10	288	< 5	13	56	8
W1434255	< 5	1.20	29	230	3	0.37	< 5	< 10	275	< 5	13	56	10
W1434256	< 5	0.57	31	347	< 2	0.32	< 5	< 10	303	< 5	15	68	10
W1434257	< 5	0.26	32	447	3	0.47	6	< 10	321	< 5	15	72	9
W1434258	< 5	0.96	28	387	5	0.48	< 5	< 10	273	< 5	15	56	13
W1434259	< 5	0.34	32	329	3	0.41	< 5	< 10	306	< 5	15	63	10
W1434260	< 5	0.26	32	468	3	0.31	< 5	< 10	301	< 5	15	61	< 5
W1434261	< 5	0.30	32	462	4	0.42	12	< 10	294	< 5	15	59	7
W1434262	< 5	0.36	31	377	7	0.37	< 5	< 10	276	< 5	14	54	8
W1434263	< 5	0.61	26	192	12	0.32	8	< 10	258	5	13	56	7
W1434264	< 5	0.53	23	188	2	0.34	< 5	< 10	223	6	12	70	6
W1434265	< 5	1.57	7	101	5	0.27	< 5	< 10	41	< 5	17	45	22
W1434266	< 5	0.81	31	297	4	0.35	8	< 10	259	< 5	14	58	7
W1434267	< 5	0.36	30	424	12	0.46	6	< 10	297	< 5	14	61	7
W1434268	< 5	0.52	30	239	16	0.47	7	< 10	293	< 5	13	51	10
W1434269	< 5	0.09	15	406	5	0.26	< 5	< 10	92	< 5	11	59	77
W1434270	< 5	0.46	30	130	4	0.46	7	< 10	283	< 5	12	52	10
W1434271	< 5	0.47	27	119	< 2	0.37	< 5	< 10	252	6	12	65	9
W1434272	< 5	0.64	30	167	8	0.38	< 5	< 10	296	10	11	70	10
W1434273	< 5	0.55	24	223	9	0.39	< 5	< 10	245	< 5	13	73	13
W1434274	< 5	0.10	10	253	3	0.37	< 5	< 10	136	< 5	16	63	5
W1434275	< 5	0.69	8	147	11	0.38	< 5	< 10	149	16	12	81	20
W1434276	< 5	0.19	9	204	12	0.39	< 5	< 10	153	< 5	14	72	22
W1434277	< 5	0.07	8	315	5	0.28	< 5	< 10	120	< 5	14	67	20
W1434278	< 5	0.68	9	120	6	0.40	< 5	< 10	164	14	12	77	24
W1434279	< 5	1.12	17	351	4	0.42	< 5	< 10	193	< 5	15	69	16
W1434280	< 5	0.81	13	347	9	0.39	12	< 10	152	< 5	16	49	20
W1434281	< 5	0.09	14	418	5	0.26	< 5	< 10	97	< 5	10	57	75
W1434282	< 5	1.01	12	330	8	0.39	< 5	< 10	150	< 5	14	51	18
W1434283	< 5	0.71	7	237	16	0.39	< 5	< 10	161	< 5	10	59	18
W1434284	< 5	1.79	19	489	10	0.45	< 5	< 10	238	< 5	13	61	13
W1434285	< 5	2.04	19	453	10	0.45	9	< 10	223	< 5	13	58	12
W1434286	< 5	2.25	15	405	11	0.46	< 5	< 10	176	< 5	16	57	14
W1434287	< 5	1.96	16	430	9	0.45	< 5	< 10	204	< 5	14	57	19
W1434288	5	1.47	15	572	11	0.35	< 5	< 10	191	< 5	10	49	27
W1434289	< 5	0.75	14	645	< 2	0.33	7	< 10	187	< 5	9	52	30
W1434290	< 5	1.20	12	484	14	0.34	< 5	< 10	199	< 5	8	53	30
W1434291	< 5	1.54	11	433	6	0.30	7	< 10	175	< 5	8	46	27

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434292	< 5	1.50	36	284	3	0.24	< 5	< 10	176	< 5	8	63	19
W1434293	< 5	1.47	41	317	7	0.41	< 5	< 10	234	< 5	12	50	31
W1434294	< 5	1.29	30	418	14	0.57	< 5	< 10	326	< 5	14	52	29
W1434295	< 5	3.30	24	346	11	0.50	< 5	< 10	265	< 5	13	51	33
W1434296	< 5	3.83	17	357	10	0.45	< 5	< 10	200	< 5	14	47	36
W1434297	< 5	2.60	20	444	15	0.46	< 5	< 10	233	< 5	13	45	39
W1434298	< 5	3.17	30	424	4	0.54	6	< 10	309	< 5	13	52	35
W1434299	< 5	5.00	25	292	13	0.52	< 5	< 10	230	< 5	14	43	27
W1434300	< 5	3.76	25	358	13	0.53	6	< 10	271	< 5	13	39	22
W1434301	< 5	1.27	32	417	9	0.54	< 5	< 10	319	< 5	15	54	27
W1434302	< 5	0.77	24	428	4	0.49	< 5	< 10	267	< 5	14	47	29
W1434303	< 5	1.68	4	79	11	0.29	< 5	< 10	46	< 5	8	46	29
W1434304	< 5	0.48	24	488	14	0.50	< 5	< 10	270	< 5	17	52	32
W1434305	< 5	0.62	23	453	11	0.47	< 5	< 10	244	< 5	17	47	29
W1434306	< 5	0.60	23	554	15	0.47	7	< 10	250	< 5	17	53	34
W1434307	< 5	0.05	12	337	5	0.25	6	< 10	77	< 5	10	46	85
W1434308	< 5	1.26	12	505	7	0.45	< 5	< 10	203	< 5	15	45	45
W1434309	< 5	4.18	13	307	7	0.41	< 5	< 10	202	< 5	14	36	44
W1434310	< 5	2.38	18	408	6	0.44	< 5	< 10	225	< 5	15	43	32
W1434311	< 5	0.83	20	460	13	0.43	< 5	< 10	224	< 5	17	49	35
W1434312	< 5	0.99	18	463	< 2	0.44	< 5	< 10	226	< 5	15	48	36
W1434313	< 5	0.88	18	482	< 2	0.42	< 5	< 10	224	< 5	15	45	34

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		30.1	2.67	438	673	1	1320	0.87	2.3	3	11	1110	22.5	17	1	0.04	0.19	8	896	15	0.06	39	0.059	711
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.4	4.47	100	573	2	11	0.87	< 0.3	15	62	5980	2.68	21	< 1	3.59	1.30	10	152	307	0.52	40	0.122	43
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	9.20	< 3	626	3	< 2	1.03	< 0.3	19	53	30	4.66	28	< 1	3.22	1.01	33	911	< 1	1.53	35	0.058	21
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		0.8	18.9	336	> 1000	1	< 2	0.20	< 0.3	13	71	66	5.68	38	< 1	2.18	0.72	35	1110	2	0.11	25	0.043	89
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		3.9	6.82	40	709	3	< 2	0.62	4.9	12		322	3.19	22		3.37	0.48	29	5050	12	1.17	46	0.066	985
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					91					53	237	95						5				237		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SF57 Meas	823																							
SF57 Cert	848.000																							
SF57 Meas	853																							
SF57 Cert	848.000																							
SBC-1 Meas				31	664	3	< 2		0.3	22	97	30		34				150		2		84		28
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
W1434252 Orig		< 0.3	8.54	21	122	< 1	< 2	8.70	< 0.3	20	16	163	5.95	22	< 1	1.82	1.59	13	1090	1	0.90	16	0.117	< 3
W1434252 Dup		< 0.3	8.45	36	121	< 1	< 2	8.72	< 0.3	20	15	161	5.91	21	1	1.77	1.57	12	1080	1	0.89	15	0.118	6
W1434254 Orig	18																							
W1434254 Dup	21																							
W1434266 Orig		0.3	8.71	4	152	< 1	< 2	5.97	< 0.3	28	15	649	6.24	22	< 1	1.54	2.51	20	1140	< 1	2.75	15	0.083	< 3
W1434266 Dup		< 0.3	8.86	9	158	< 1	< 2	6.06	< 0.3	28	17	655	6.28	22	< 1	1.57	2.53	20	1150	< 1	2.79	16	0.133	4
W1434269 Orig	< 5	< 0.3	11.2	< 3	378	1	< 2	5.19	< 0.3	30	123	31	4.80	26	< 1	1.16	3.14	10	798	1	2.05	30	0.045	4
W1434269 Split	< 5	0.5	11.3	6	397	< 1	< 2	5.38	< 0.3	33	151	39	5.05	28	< 1	1.24	3.27	11	852	1	2.22	34	0.045	5
W1434284 Orig	65																							
W1434284 Dup	65																							
W1434287 Orig		0.5	9.86	24	86	< 1	< 2	4.64	< 0.3	19	16	605	5.21	22	< 1	3.27	1.63	16	898	1	3.46	10	0.191	< 3
W1434287 Dup		0.4	10.1	18	89	< 1	< 2	4.65	< 0.3	18	16	627	5.26	22	< 1	3.25	1.65	16	896	1	3.39	11	0.198	< 3
W1434289 Orig	33	0.3	10.7	22	420	1	< 2	5.30	0.6	22	39	836	4.72	21	< 1	3.46	1.94	21	865	1	2.88	20	0.217	12
W1434289 Split	38	0.3	9.24	15	376	1	< 2	5.27	0.5	18	38	808	4.74	22	< 1	3.36	1.89	21	871	1	2.91	16	0.197	4
W1434299 Orig	39	0.5	9.56	20	38	< 1	< 2	5.03	< 0.3	34	14	323	6.97	22	< 1	4.70	1.82	17	901	4	2.29	10	0.175	< 3
W1434299 Split	40	0.4	8.67	13	44	< 1	< 2	4.93	< 0.3	35	40	315	6.76	21	< 1	3.83	1.76	17	882	4	2.24	11	0.165	4
W1434301 Orig		< 0.3	9.50	29	124	< 1	< 2	4.70	< 0.3	31	18	375	7.19	23	< 1	2.54	3.31	21	1250	< 1	2.50	18	0.173	< 3
W1434301 Dup		< 0.3	9.64	28	120	< 1	< 2	4.78	< 0.3	32	19	386	7.36	23	< 1	2.59	3.40	21	1250	< 1	2.54	17	0.175	< 3
W1434313 Orig	41	0.4	9.03	16	340	< 1	< 2	4.80	< 0.3	20	11	607	4.85	22	< 1	2.95	1.92	12	781	5	3.13	8	0.150	< 3
W1434313 Split	47	0.5	8.90	15	990	< 1	< 2	4.73	< 0.3	20	11	625	4.87	22	< 1	3.09	1.93	12	802	4	3.26	8	0.161	< 3
Method Blank		< 0.3	0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	2	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	2	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	0.20	< 3	< 7	< 1	< 2	0.02	< 0.3	< 1		3	0.03	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	55	0.24	< 4	281	20		< 5	30	84	171	27	753	23
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	< 5	1.64	5	177	< 2		< 5	< 10	83	37	6	69	40
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.07	16	167		0.37	< 5	< 10	72	< 5	29	101	41
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	28	45	2		< 5	< 10	180	< 5	12	124	79
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	< 5		9	143	6	0.40	< 5	< 10	68	14	33	906	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		32	123					132		12	56	25
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SF57 Meas													
SF57 Cert													
SF57 Meas													
SF57 Cert													
SBC-1 Meas	< 5		19	169			< 5	< 10	212	< 5	22	176	86
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434252 Orig	< 5	2.59	29	146	12	0.40	< 5	< 10	270	< 5	13	51	8
W1434252 Dup	< 5	2.58	29	146	4	0.40	< 5	< 10	266	< 5	12	51	8
W1434254 Orig													
W1434254 Dup													
W1434266 Orig	< 5	0.80	30	294	4	0.30	7	< 10	258	< 5	14	58	6
W1434266 Dup	< 5	0.82	31	300	4	0.39	8	< 10	260	< 5	14	59	8
W1434269 Orig	< 5	0.09	15	406	5	0.26	< 5	< 10	92	< 5	11	59	77
W1434269 Split	< 5	0.10	15	416	11	0.28	< 5	< 10	101	< 5	11	61	77
W1434284 Orig													
W1434284 Dup													
W1434287 Orig	< 5	1.93	16	430	12	0.44	< 5	< 10	201	< 5	14	57	19
W1434287 Dup	< 5	1.98	16	431	5	0.45	8	< 10	206	< 5	14	57	19
W1434289 Orig	< 5	0.75	14	645	< 2	0.33	7	< 10	187	< 5	9	52	30
W1434289 Split	< 5	0.71	11	643	4	0.31	< 5	< 10	187	< 5	8	52	30
W1434299 Orig	< 5	5.00	25	292	13	0.52	< 5	< 10	230	< 5	14	43	27
W1434299 Split	< 5	4.88	24	281	2	0.49	< 5	< 10	226	< 5	14	42	27
W1434301 Orig	< 5	1.26	32	414	8	0.55	< 5	< 10	324	< 5	15	53	28
W1434301 Dup	< 5	1.28	32	419	11	0.54	< 5	< 10	313	< 5	15	55	26
W1434313 Orig	< 5	0.88	18	482	< 2	0.42	< 5	< 10	224	< 5	15	45	34
W1434313 Split	< 5	0.95	19	489	7	0.46	< 5	< 10	233	< 5	14	46	36
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	5	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	2	< 5
Method Blank													
Method Blank													

Quality Analysis ... **Actlabs** *Innovative Technologies*

Date Submitted:	05-Dec-12
Invoice No.:	A12-13668
Invoice Date:	19-Dec-12
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

160 Core samples and 4 Pulp samples were submitted for analysis.

The following analytical packages were requested:
Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-13668**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

SCC Accredited LAB 266
LAB 266 Accrédité CCN

ACTIVATION LABORATORIES LTD.

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Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434314	44	0.6	6.72	12	133	< 1	< 2	5.04	< 0.3	37	15	788	5.03	26	< 1	2.27	2.14	15	856	5	2.97	11	0.174	< 3
W1434315	29	0.4	7.38	16	148	< 1	< 2	6.07	< 0.3	36	28	248	7.91	26	3	2.56	2.95	19	1330	6	1.94	21	0.173	< 3
W1434316	33	0.3	7.44	16	772	< 1	< 2	5.93	< 0.3	30	22	375	7.71	25	2	2.05	2.77	18	1370	1	2.29	21	0.169	< 3
W1434317	58	0.4	7.47	15	> 1000	< 1	< 2	5.81	< 0.3	33	26	665	7.83	26	1	2.15	2.69	18	1330	2	2.27	20	0.178	< 3
W1434318	22	< 0.3	7.75	12	> 1000	< 1	< 2	6.48	< 0.3	31	19	309	8.03	26	3	2.02	3.02	21	1360	< 1	2.18	20	0.175	< 3
W1434319	49	0.4	7.36	20	728	< 1	< 2	5.68	< 0.3	29	16	533	7.23	27	< 1	2.70	2.47	17	1310	< 1	2.30	16	0.162	< 3
W1434320	102	0.4	8.16	19	843	< 1	< 2	4.65	< 0.3	22	8	722	5.74	26	< 1	3.24	2.01	11	1180	< 1	2.51	9	0.154	< 3
W1434321	< 5	0.4	8.15	5	570	1	< 2	4.43	< 0.3	25	151	81	3.67	28	< 1	1.60	2.74	9	541	1	2.17	47	0.037	9
W1434322	73	0.4	7.75	20	938	< 1	< 2	5.47	< 0.3	28	15	758	6.86	26	< 1	2.54	2.61	16	1220	< 1	2.45	14	0.168	< 3
W1434323	50	0.6	5.80	18	57	< 1	< 2	5.95	< 0.3	39	17	410	7.76	26	< 1	2.17	2.82	22	1160	2	1.92	21	0.164	< 3
W1434324	21	0.3	7.29	19	744	< 1	< 2	6.03	< 0.3	33	21	309	7.63	27	< 1	1.89	3.02	21	1220	< 1	2.10	20	0.169	< 3
W1434325	41	0.5	6.93	19	379	< 1	< 2	6.39	< 0.3	35	20	550	7.93	27	< 1	1.81	2.90	21	1270	1	2.07	20	0.169	< 3
W1434326	29	< 0.3	7.21	28	786	< 1	< 2	6.79	< 0.3	36	18	576	7.50	27	< 1	1.60	2.97	21	1280	< 1	1.72	20	0.169	3
W1434327	26	< 0.3	7.55	18	750	< 1	< 2	5.61	< 0.3	36	21	333	7.72	26	< 1	2.29	2.99	23	1230	< 1	2.12	21	0.166	< 3
W1434328	17	< 0.3	6.80	24	748	< 1	< 2	7.03	< 0.3	31	23	396	6.68	24	< 1	1.42	2.96	19	1200	1	1.84	20	0.169	< 3
W1434329	30	< 0.3	7.58	12	> 1000	< 1	< 2	5.69	< 0.3	33	55	430	6.78	28	5	2.31	3.09	17	1240	< 1	2.13	42	0.166	< 3
W1434330	32	< 0.3	7.58	21	897	< 1	< 2	5.67	< 0.3	32	67	429	6.59	23	< 1	1.99	3.24	16	1200	2	2.18	46	0.158	< 3
W1434331	10	< 0.3	7.68	21	979	< 1	< 2	5.40	< 0.3	30	68	180	6.63	26	< 1	1.80	3.18	17	1160	< 1	2.26	44	0.161	< 3
W1434332	45	< 0.3	7.03	28	449	< 1	< 2	5.90	< 0.3	35	48	350	6.82	25	< 1	2.04	2.99	16	1120	< 1	2.16	38	0.174	< 3
W1434333	19	0.4	8.94	40	> 1000	< 1	12	6.78	< 0.3	29	22	133	7.08	25	< 1	1.79	2.70	18	1140	2	2.27	26	0.187	6
W1434334	37	< 0.3	8.24	24	> 1000	< 1	4	5.93	< 0.3	31	18	274	6.66	26	< 1	2.42	2.57	18	1070	< 1	2.20	20	0.172	< 3
W1434335	21	< 0.3	7.97	27	> 1000	< 1	5	6.29	< 0.3	31	19	353	6.78	20	< 1	2.15	2.51	17	1140	< 1	2.13	20	0.174	< 3
W1434336	31	< 0.3	8.38	33	> 1000	< 1	6	6.34	< 0.3	38	20	439	6.66	23	< 1	2.05	2.52	17	1100	< 1	2.14	20	0.185	< 3
W1434337	9	< 0.3	7.82	26	> 1000	< 1	5	6.42	< 0.3	33	24	203	7.13	22	< 1	2.19	2.63	19	1300	< 1	1.93	20	0.170	< 3
W1434338	15	< 0.3	7.65	17	> 1000	< 1	6	6.29	< 0.3	33	20	229	6.86	21	< 1	2.10	2.49	19	1220	< 1	2.17	21	0.159	< 3
W1434339	23	< 0.3	7.12	17	> 1000	< 1	6	6.51	< 0.3	31	21	286	6.37	22	< 1	2.40	2.36	15	1220	< 1	1.65	18	0.150	< 3
W1434340	15	1.5	6.90	12	289	< 1	5	6.91	3.5	33	23	551	6.67	17	< 1	2.73	2.41	13	1130	< 1	0.07	20	0.141	8
W1434341	35	1.0	7.40	13	404	< 1	4	6.19	2.0	30	24	507	6.58	21	< 1	3.15	2.60	16	1140	< 1	0.70	20	0.152	6
W1434342	34	0.5	6.15	9	577	< 1	5	5.98	< 0.3	34	20	126	6.53	21	< 1	2.92	2.29	15	1090	1	1.21	18	0.142	< 3
W1434343	16	< 0.3	7.64	17	904	< 1	6	6.69	< 0.3	28	20	192	6.35	19	< 1	2.58	2.32	15	1180	1	2.09	18	0.164	< 3
W1434344	33	< 0.3	7.07	10	807	< 1	5	5.93	< 0.3	30	15	124	6.27	29	< 1	2.74	2.31	16	1140	< 1	1.98	16	0.147	5
W1434345	21	< 0.3	6.11	15	238	< 1	6	6.48	1.2	32	22	63	6.24	26	< 1	3.18	2.12	12	1180	< 1	0.45	19	0.136	3
W1434346	9	< 0.3	6.56	8	253	< 1	6	7.69	4.0	25	23	49	5.64	18	< 1	3.13	1.89	4	1200	< 1	0.04	15	0.132	4
W1434347	69	1.4	7.05	< 3	227	2	2	0.92	< 0.3	10	46	2250	4.09	25	< 1	3.25	0.64	16	275	49	1.99	41	0.035	8
W1434348	14	< 0.3	5.70	12	165	< 1	2	7.51	3.0	25	22	88	5.45	23	< 1	2.48	1.34	9	1060	< 1	0.07	17	0.110	6
W1434349	15	< 0.3	6.30	14	585	< 1	5	7.27	< 0.3	33	21	110	6.54	20	< 1	2.10	2.47	16	1300	3	1.89	19	0.150	< 3
W1434350	36	< 0.3	6.95	15	660	< 1	7	5.73	< 0.3	33	25	116	7.12	28	< 1	2.00	2.56	20	1230	< 1	2.42	21	0.162	< 3
W1434351	25	0.5	8.15	6	295	1	5	3.69	0.5	24	120	96	3.40	22	< 1	1.40	2.65	10	493	< 1	2.91	64	0.046	3
W1434352	10	< 0.3	7.04	15	773	< 1	7	6.41	< 0.3	33	23	17	6.71	22	< 1	1.90	2.34	19	1170	< 1	2.33	18	0.158	< 3
W1434353	49	< 0.3	7.08	24	687	< 1	6	6.21	< 0.3	34	19	312	6.50	21	< 1	2.13	2.34	19	1150	1	2.05	18	0.151	< 3
W1434354	28	< 0.3	7.36	15	997	< 1	7	5.39	< 0.3	36	19	194	7.06	23	< 1	2.40	2.62	21	1130	1	2.08	19	0.139	< 3
W1434355	14	< 0.3	7.62	20	> 1000	< 1	7	6.11	0.5	37	21	171	7.03	23	< 1	2.21	2.70	19	1310	< 1	1.81	20	0.159	3
W1434356	11	< 0.3	7.53	15	> 1000	< 1	8	6.21	0.3	32	115	140	6.61	21	< 1	2.05	2.88	17	1310	1	1.71	30	0.149	< 3
W1434357	155	0.4	6.49	18	112	< 1	6	4.98	< 0.3	77	32	856	6.56	25	< 1	2.71	1.82	13	924	3	2.35	16	0.155	< 3
W1434358	23	0.5	12.9	27	921	< 1	12	5.19	0.6	18	5	115	6.78	27	3	2.98	1.93	13	871	2	3.09	10	0.229	11
W1434359	45	1.0	12.2	13	> 1000	< 1	11	4.75	< 0.3	23	22	345	7.10	25	< 1	3.12	2.28	17	919	5	2.73	14	0.236	< 3
W1434360	< 5	0.5	8.19	< 3	535	1	< 2	4.55	< 0.3	25	127	27	3.47	22	< 1	1.61	2.44	7	465	< 1	2.35	29	0.041	5
W1434361	19	< 0.3	7.77	16	> 1000	< 1	5	5.44	< 0.3	34	91	124	6.93	22	< 1	2.62	2.40	18	929	2	2.22	17	0.158	< 3
W1434362	10	0.9	9.51	20	> 1000	< 1	6	4.80	< 0.3	19	26	106	7.16	28	< 1	2.70	1.92	18	813	< 1	2.66	12	0.202	< 3
W1434363	58	1.1	7.20	30	117	< 1	3	4.79	1.4	34	36	1610	7.24	26	< 1	2.77	1.93	15	782	11	2.07	13	0.163	< 3
W1434364	45	0.6	7.91	13	835	< 1	6	4.26	< 0.3	22	36	390	6.62	26	< 1	2.40	2.13	16	860	5	2.71	14	0.165	< 3
W1434365	35	0.5	6.68	32	326	< 1	6	5.22	< 0.3	43	27	186	6.96	30	2	2.37	1.81	12	902	9	2.64	11	0.151	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434366	46	0.4	7.38	19	579	< 1	6	5.37	< 0.3	46	24	974	6.18	17	< 1	2.00	2.06	15	960	8	2.63	13	0.157	< 3
W1434367	14	0.5	9.43	8	971	< 1	5	5.25	2.4	31	38	466	7.02	15	1	2.97	2.35	18	997	7	2.29	17	0.177	5
W1434368	13	0.7	11.2	27	> 1000	< 1	5	5.71	0.3	25	14	906	6.46	26	2	3.20	1.80	15	819	5	2.73	16	0.194	7
W1434369	10	< 0.3	7.33	17	507	< 1	5	6.46	< 0.3	28	123	323	6.28	21	< 1	2.15	2.59	16	945	1	2.31	28	0.141	< 3
W1434370	10	< 0.3	8.58	9	867	< 1	6	5.37	< 0.3	22	36	327	6.20	25	< 1	2.84	2.27	18	1000	< 1	2.60	16	0.170	< 3
W1434371	15	0.4	10.0	28	903	< 1	8	6.69	< 0.3	24	26	281	7.00	26	< 1	3.45	2.47	19	1270	2	1.73	17	0.151	< 3
W1434372	23	0.5	8.49	17	910	< 1	5	5.89	< 0.3	21	20	312	6.69	23	< 1	2.40	1.96	17	1070	3	2.35	15	0.158	< 3
W1434373	11	< 0.3	7.01	11	578	< 1	< 2	6.06	< 0.3	34	38	218	7.30	21	< 1	2.19	2.96	17	1370	< 1	1.71	22	0.110	6
W1434374	12	< 0.3	7.80	7	601	< 1	6	5.10	< 0.3	32	44	269	7.23	23	< 1	2.11	2.51	21	1210	1	2.49	19	0.139	< 3
W1434375	6	< 0.3	6.44	8	496	< 1	5	7.16	< 0.3	30	34	102	6.66	22	< 1	1.84	2.48	17	1440	< 1	2.08	17	0.101	< 3
W1434376	7	< 0.3	7.01	6	624	< 1	8	5.56	< 0.3	33	50	97	7.38	21	< 1	1.90	2.85	16	1420	< 1	2.25	20	0.113	< 3
W1434377	< 5	0.3	7.16	8	633	< 1	12	5.32	0.8	35	39	72	7.86	22	< 1	2.26	2.86	17	1510	< 1	2.42	21	0.116	< 3
W1434378	< 5	< 0.3	7.17	9	652	< 1	2	5.55	< 0.3	35	31	95	7.39	25	< 1	2.22	2.78	14	1400	< 1	2.20	19	0.109	< 3
W1434379	6	< 0.3	7.00	10	668	< 1	4	5.58	< 0.3	34	29	108	7.62	19	< 1	2.12	2.74	16	1440	< 1	2.21	20	0.111	< 3
W1434380	6	< 0.3	7.30	20	691	< 1	< 2	5.59	1.3	33	24	128	7.28	23	3	2.44	2.69	14	1400	< 1	2.42	14	0.117	5
W1434381	< 5	< 0.3	7.60	7	657	< 1	3	5.67	< 0.3	31	16	63	7.01	23	< 1	2.16	2.57	16	1300	< 1	2.47	14	0.124	< 3
W1434382	< 5	< 0.3	7.43	8	706	< 1	3	5.67	< 0.3	27	15	27	6.81	15	< 1	2.26	2.52	16	1180	< 1	2.36	12	0.130	< 3
W1434383	< 5	< 0.3	6.80	17	557	< 1	8	6.21	0.5	27	18	61	6.27	19	< 1	1.78	2.37	13	1260	< 1	2.24	12	0.134	< 3
W1434384	80	0.4	8.06	12	385	3	< 2	1.10	< 0.3	11	47	2430	4.52	26	< 1	3.19	0.74	11	312	55	2.16	34	0.042	7
W1434385	13	< 0.3	7.03	14	681	< 1	< 2	6.11	< 0.3	27	20	68	6.43	20	< 1	2.27	2.46	17	1220	< 1	2.21	11	0.116	< 3
W1434386	7	< 0.3	7.31	7	698	< 1	3	6.02	< 0.3	30	16	79	7.30	16	2	2.27	2.57	18	1250	< 1	2.22	14	0.125	< 3
W1434387	< 5	0.5	9.08	< 3	380	1	< 2	4.59	1.6	17	95	9	2.99	27	< 1	1.36	2.43	5	430	< 1	2.95	31	0.052	11
W1434388	6	< 0.3	7.27	18	640	< 1	5	5.45	< 0.3	42	21	97	7.14	20	< 1	2.18	2.64	14	1290	< 1	2.44	15	0.126	6
W1434389	36	< 0.3	7.16	17	601	< 1	< 2	5.63	< 0.3	31	24	117	6.78	19	< 1	2.05	2.57	12	1310	< 1	2.31	15	0.119	< 3
W1434390	8	< 0.3	7.14	15	589	< 1	6	6.61	< 0.3	29	44	110	6.83	21	< 1	1.98	2.39	15	1310	< 1	2.11	14	0.118	4
W1434391	< 5	< 0.3	7.26	11	674	< 1	5	5.38	0.9	34	27	103	7.04	21	< 1	2.23	2.67	15	1310	< 1	2.38	16	0.122	3
W1434392	6	< 0.3	6.91	17	593	< 1	5	6.11	0.7	34	39	123	7.59	23	< 1	1.99	2.82	16	1380	< 1	2.33	22	0.118	< 3
W1434393	10	< 0.3	6.53	26	441	1	4	8.56	0.4	27	45	129	6.67	24	< 1	1.63	2.32	13	1190	< 1	1.63	20	0.105	6
W1434394	5	< 0.3	7.12	5	712	< 1	6	6.04	< 0.3	33	36	121	7.36	20	< 1	2.42	2.87	18	1320	< 1	2.03	21	0.112	< 3
W1434395	7	< 0.3	7.10	8	634	< 1	12	6.23	< 0.3	32	36	137	7.28	23	< 1	2.26	2.84	18	1280	< 1	2.08	21	0.112	< 3
W1434396	9	< 0.3	7.01	6	641	< 1	< 2	6.21	< 0.3	31	33	68	7.17	21	< 1	2.13	2.78	18	1250	< 1	2.06	19	0.101	< 3
W1434397	6	< 0.3	7.15	4	611	< 1	< 2	6.30	< 0.3	34	44	134	7.87	27	< 1	2.15	3.09	22	1310	< 1	2.03	22	0.099	< 3
W1434398	7	< 0.3	6.90	8	573	< 1	11	6.44	< 0.3	37	93	154	7.29	16	< 1	1.91	3.12	24	1290	< 1	1.99	29	0.108	< 3
W1434399	10	0.4	7.36	8	676	< 1	3	5.96	< 0.3	39	38	293	6.88	22	< 1	2.22	2.60	21	1180	< 1	2.09	20	0.109	< 3
W1434400	6	< 0.3	7.61	11	709	< 1	5	5.99	< 0.3	35	88	244	7.06	23	< 1	2.23	2.77	20	1190	< 1	2.29	25	0.136	< 3
W1434401	< 5	0.4	9.09	< 3	538	1	2	4.50	1.9	23	152	66	3.03	21	< 1	1.36	2.38	8	425	< 1	2.70	29	0.031	4
W1434402	16	< 0.3	7.88	20	763	1	6	6.85	< 0.3	29	113	23	5.89	26	< 1	2.28	2.58	17	1110	< 1	2.62	36	0.153	< 3
W1434403	< 5	< 0.3	8.02	16	574	< 1	4	5.89	< 0.3	31	115	100	5.88	26	< 1	1.90	2.82	19	1120	< 1	2.77	31	0.156	< 3
W1434404	< 5	< 0.3	7.18	14	661	< 1	4	6.79	< 0.3	23	132	24	5.64	25	< 1	2.03	2.95	19	1170	< 1	2.25	31	0.140	< 3
W1434405	< 5	< 0.3	9.22	30	624	< 1	6	6.16	< 0.3	20	81	21	5.63	28	3	2.18	2.51	16	1120	< 1	2.66	27	0.161	< 3
W1434406	5	0.5	9.26	16	765	< 1	5	6.30	< 0.3	21	69	32	5.09	27	< 1	2.56	2.20	20	1290	< 1	2.48	21	0.163	5
W1434407	< 5	< 0.3	8.49	12	771	< 1	5	6.38	< 0.3	17	13	14	4.30	31	< 1	2.13	1.76	15	1090	< 1	2.97	14	0.155	< 3
W1434408	8	< 0.3	7.86	11	883	< 1	5	6.38	< 0.3	23	27	152	7.49	22	< 1	2.37	2.46	21	1280	< 1	2.02	19	0.151	3
W1434409	9	< 0.3	7.69	14	609	< 1	8	5.72	< 0.3	25	25	186	7.11	24	< 1	2.00	2.48	19	1320	< 1	2.30	19	0.150	< 3
W1434410	11	< 0.3	7.72	13	592	< 1	5	6.32	< 0.3	29	23	208	7.34	23	< 1	1.85	2.48	22	1200	< 1	2.21	19	0.151	< 3
W1434411	7	< 0.3	7.64	18	857	< 1	4	6.08	0.4	32	26	176	7.38	27	< 1	2.07	2.43	21	1330	< 1	2.08	20	0.157	4
W1434412	7	< 0.3	8.90	13	917	< 1	7	6.11	0.8	28	24	210	7.61	30	< 1	2.54	2.44	22	1400	2	1.97	20	0.164	< 3
W1434413	34	0.8	8.08	25	582	< 1	10	6.61	< 0.3	44	21	317	7.47	23	< 1	1.86	2.47	18	1510	5	2.45	19	0.160	< 3
W1434414	340	0.6	5.41	187	161	< 1	3	10.6	< 0.3	30	27	67	6.05	12	< 1	1.10	1.82	21	1790	7	1.65	14	0.110	9
W1434415	27	0.6	6.74	19	333	< 1	6	6.16	< 0.3	41	22	91	7.73	26	< 1	1.46	2.28	20	1300	1	2.53	18	0.140	< 3
W1434416	14	0.4	7.35	14	151	< 1	5	5.22	< 0.3	166	27	158	8.06	23	< 1	2.35	2.48	16	1280	< 1	2.29	20	0.145	< 3
W1434417	28	0.5	7.58	14	237	< 1	8	5.82	0.5	90	30	309	8.18	31	< 1	2.25	2.58	16	1110	< 1	2.00	20	0.156	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434418	17	0.3	7.02	15	483	< 1	6	5.85	< 0.3	30	29	585	7.61	22	< 1	1.54	2.50	17	1170	< 1	2.36	19	0.149	< 3
W1434419	15	< 0.3	6.65	9	752	< 1	< 2	6.64	< 0.3	32	23	342	6.91	27	< 1	2.45	2.55	25	1250	< 1	1.54	17	0.134	< 3
W1434420	20	0.5	7.81	8	814	< 1	4	5.98	< 0.3	42	26	672	6.99	21	< 1	2.55	2.63	18	1030	< 1	2.07	19	0.150	< 3
W1434421	12	0.3	7.82	13	715	< 1	7	5.84	0.9	31	22	277	7.38	24	< 1	2.18	2.57	18	1140	< 1	2.34	19	0.156	4
W1434422	14	< 0.3	7.35	15	361	< 1	7	5.38	< 0.3	31	26	113	7.93	24	< 1	1.34	2.48	15	1110	1	2.76	19	0.145	< 3
W1434423	26	0.5	7.37	12	336	< 1	8	4.96	< 0.3	47	26	125	7.76	23	< 1	1.43	2.52	15	1230	1	2.85	18	0.147	< 3
W1434424	44	0.5	7.04	17	107	< 1	7	4.93	< 0.3	156	43	327	7.81	23	< 1	1.59	2.28	15	1220	< 1	2.60	18	0.145	< 3
W1434425	76	0.5	7.89	6	167	3	< 2	1.20	< 0.3	11	47	2630	4.71	25	< 1	2.20	0.79	12	326	54	2.21	35	0.042	10
W1434426	28	< 0.3	7.63	14	595	< 1	7	5.13	< 0.3	55	27	347	7.25	22	< 1	1.93	2.54	15	1200	2	2.11	19	0.151	< 3
W1434427	27	0.5	7.23	27	300	< 1	5	5.61	< 0.3	62	25	483	6.86	22	< 1	2.64	2.38	18	1080	< 1	2.05	19	0.155	< 3
W1434428	< 5	< 0.3	8.81	8	398	1	< 2	5.02	< 0.3	17	92	31	3.03	21	< 1	1.43	2.85	6	428	< 1	3.14	30	0.051	6
W1434429	22	< 0.3	7.65	18	950	< 1	3	6.51	< 0.3	31	20	346	7.09	23	< 1	2.16	2.45	20	1060	< 1	1.89	18	0.148	< 3
W1434430	46	0.3	7.91	12	> 1000	< 1	3	5.83	< 0.3	33	20	534	7.35	15	< 1	2.52	2.49	22	1050	< 1	1.95	20	0.147	< 3
W1434431	26	0.4	6.81	18	631	< 1	5	6.40	< 0.3	22	23	285	6.72	23	< 1	1.94	2.39	21	1180	< 1	2.17	16	0.131	< 3
W1434432	9	< 0.3	7.12	14	619	< 1	3	5.84	< 0.3	22	21	18	6.78	26	1	1.82	2.46	21	1290	< 1	2.40	19	0.137	< 3
W1434433	35	0.5	7.90	15	850	< 1	8	5.74	< 0.3	22	24	343	7.85	24	< 1	2.24	2.51	19	1330	< 1	2.25	21	0.154	< 3
W1434434	43	0.4	7.07	15	657	< 1	5	5.52	< 0.3	40	26	359	7.47	22	< 1	2.60	2.43	18	1440	< 1	1.95	21	0.136	< 3
W1434435	< 5	< 0.3	7.78	11	743	< 1	< 2	5.78	< 0.3	27	20	24	6.96	20	< 1	2.00	2.55	21	1610	< 1	2.19	18	0.143	4
W1434436	13	0.4	7.72	12	810	< 1	6	5.16	< 0.3	27	28	149	7.50	20	< 1	1.95	2.69	24	1690	< 1	2.24	17	0.153	3
W1434437	10	< 0.3	7.39	17	900	< 1	5	5.11	< 0.3	52	26	258	7.42	21	< 1	2.19	2.95	23	1730	< 1	2.23	21	0.160	< 3
W1434438	33	< 0.3	7.46	12	844	< 1	6	5.31	< 0.3	34	43	571	7.43	21	< 1	2.02	2.52	21	1540	< 1	2.40	17	0.141	< 3
W1434439	10	< 0.3	7.97	22	> 1000	< 1	13	6.48	< 0.3	25	28	144	7.53	21	< 1	2.33	1.95	20	1330	2	1.97	18	0.151	< 3
W1434440	15	< 0.3	7.06	16	947	< 1	5	6.61	< 0.3	33	23	311	7.59	22	< 1	2.42	1.95	19	1320	2	1.92	16	0.146	< 3
W1434441	< 5	< 0.3	8.82	< 3	389	1	< 2	4.36	< 0.3	29	131	19	3.12	26	< 1	1.08	2.37	6	414	2	2.43	36	0.033	6
W1434442	47	0.7	7.70	12	> 1000	< 1	4	5.18	0.5	43	26	555	7.96	23	< 1	2.62	2.52	20	1550	1	2.00	19	0.154	< 3
W1434443	11	< 0.3	7.72	16	803	< 1	4	5.49	< 0.3	38	26	143	7.83	26	< 1	1.97	2.81	23	1760	< 1	2.22	22	0.145	< 3
W1434444	< 5	< 0.3	7.83	16	628	< 1	< 2	5.53	1.2	41	26	24	8.02	21	< 1	2.13	3.16	25	1790	< 1	2.41	21	0.151	< 3
W1434445	< 5	< 0.3	7.61	23	456	< 1	7	5.44	< 0.3	33	24	73	6.76	22	< 1	1.93	2.76	21	1470	< 1	2.09	20	0.145	< 3
W1434446	< 5	< 0.3	7.75	21	373	< 1	6	5.79	< 0.3	33	22	61	7.00	24	< 1	1.76	2.69	19	1500	< 1	2.15	20	0.141	< 3
W1434447	54	< 0.3	7.63	21	396	< 1	< 2	5.73	< 0.3	36	23	277	6.79	25	< 1	1.87	2.79	21	1470	< 1	2.15	19	0.138	< 3
W1434448	< 5	< 0.3	7.64	16	455	< 1	5	5.51	< 0.3	35	22	63	6.68	22	< 1	1.72	2.72	25	1390	< 1	2.22	19	0.138	< 3
W1434449	< 5	< 0.3	7.56	19	437	< 1	4	5.67	< 0.3	35	18	17	6.68	22	< 1	1.72	2.86	23	1380	< 1	2.27	18	0.138	3
W1434450	< 5	< 0.3	7.64	18	521	< 1	4	5.47	< 0.3	35	23	15	6.83	22	< 1	1.86	3.11	24	1430	< 1	2.19	20	0.140	< 3
W1434451	< 5	< 0.3	7.88	27	681	< 1	9	5.86	0.3	31	22	16	7.06	25	< 1	2.31	2.82	22	1510	< 1	1.86	20	0.151	< 3
W1434452	< 5	< 0.3	7.75	18	678	< 1	8	5.60	< 0.3	29	23	27	6.91	23	< 1	2.18	2.83	22	1510	< 1	2.04	18	0.142	< 3
W1434453	< 5	< 0.3	7.59	23	853	< 1	6	5.55	0.4	29	22	27	7.03	23	1	2.36	2.88	21	1550	< 1	2.02	19	0.154	< 3
W1434454	< 5	< 0.3	7.85	20	993	< 1	5	5.85	< 0.3	29	20	51	7.21	22	< 1	2.47	2.67	20	1550	< 1	1.84	17	0.148	< 3
W1434455	94	0.9	8.30	20	710	< 1	5	6.37	1.5	35	24	1750	7.56	22	< 1	1.86	2.12	18	1410	< 1	2.37	23	0.168	5
W1434456	9	< 0.3	7.96	20	373	< 1	6	5.74	< 0.3	28	25	122	6.87	24	< 1	1.46	2.27	18	1430	< 1	2.66	17	0.155	< 3
W1434457	14	0.3	9.24	26	170	< 1	8	6.79	< 0.3	27	21	275	7.46	21	< 1	0.78	1.81	12	1390	1	2.64	18	0.176	4
W1434458	5	0.6	9.59	24	76	< 1	11	6.63	< 0.3	18	19	42	8.02	23	< 1	0.62	1.72	15	1110	< 1	2.85	17	0.187	< 3
W1434459	10	< 0.3	7.97	10	258	< 1	4	6.29	< 0.3	25	18	126	7.04	26	< 1	1.24	2.27	19	1300	< 1	2.46	20	0.153	< 3
W1434460	55	< 0.3	7.66	21	332	< 1	3	5.98	0.5	30	21	166	6.80	23	< 1	1.52	2.51	20	1430	< 1	2.12	22	0.153	< 3
W1434461	36	< 0.3	6.48	17	336	< 1	< 2	7.09	< 0.3	32	371	137	6.38	19	< 1	1.17	4.05	21	1580	< 1	1.78	68	0.129	< 3
W1434462	41	< 0.3	5.39	12	481	< 1	3	6.58	< 0.3	36	532	320	5.92	17	< 1	1.42	4.47	18	1250	1	1.55	75	0.109	< 3
W1434463	72	< 0.3	5.09	16	525	< 1	< 2	7.27	< 0.3	33	322	370	5.60	16	< 1	1.68	4.64	17	1230	7	1.34	78	0.099	< 3
W1434464	37	< 0.3	3.25	9	263	< 1	2	8.43	< 0.3	36	401	268	5.21	18	< 1	0.81	5.61	22	1340	< 1	0.66	95	0.072	< 3
W1434465	42	< 0.3	3.00	7	442	< 1	4	8.29	< 0.3	39	461	333	6.81	20	< 1	1.27	5.51	19	1680	< 1	0.64	91	0.061	< 3
W1434466	171	1.1	7.61	< 3	520	4	< 2	2.18	0.9	18	74	5170	5.42	27	< 1	3.46	1.20	13	320	89	1.50	41	0.067	12
W1434467	20	0.3	5.11	12	694	< 1	16	6.76	0.3	28	339	123	5.72	18	< 1	1.81	4.04	18	1490	1	1.98	67	0.082	< 3
W1434468	22	< 0.3	5.88	13	793	< 1	< 2	5.91	< 0.3	28	276	344	4.03	16	4	1.91	3.75	16	986	< 1	2.16	62	0.081	< 3
W1434469	11	< 0.3	3.14	12	407	< 1	6	8.98	1.1	32	635	108	4.51	15	4	0.88	5.82	22	1340	< 1	0.57	99	0.068	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434470	< 5	0.5	8.69	< 3	459	1	< 2	4.37	1.1	24	163	14	3.09	31	< 1	1.18	2.26	6	408	< 1	2.16	34	0.038	8
W1434471	6	< 0.3	3.17	5	397	< 1	4	8.80	0.3	36	680	96	4.58	11	< 1	0.99	5.86	21	1240	< 1	0.54	103	0.067	< 3
W1434472	< 5	< 0.3	3.22	5	434	< 1	5	8.97	< 0.3	39	750	68	4.63	12	< 1	0.95	6.09	24	1160	< 1	0.50	108	0.067	< 3
W1434473	25	< 0.3	3.29	5	246	< 1	4	9.24	1.0	36	551	252	5.62	15	< 1	0.86	5.23	23	1400	< 1	0.72	82	0.070	< 3
W1434474	21	< 0.3	6.20	8	810	< 1	2	6.62	< 0.3	29	205	268	5.73	24	< 1	2.11	3.41	19	1200	< 1	1.84	49	0.115	< 3
W1434475	27	0.6	7.79	15	> 1000	< 1	5	4.92	< 0.3	31	124	407	6.23	25	< 1	3.32	2.23	11	1190	2	2.30	34	0.140	< 3
W1434476	18	< 0.3	5.03	6	820	< 1	< 2	8.36	0.6	30	475	220	5.71	15	< 1	1.84	4.14	20	1570	< 1	1.22	78	0.102	3
W1434477	29	< 0.3	3.48	6	234	< 1	3	8.92	< 0.3	40	703	549	4.84	13	< 1	0.71	5.54	26	1440	2	0.73	93	0.075	< 3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434314	< 5	1.59	19	452	6	0.46	< 5	< 10	242	< 5	15	55	39
W1434315	< 5	1.31	35	506	12	0.49	6	< 10	319	< 5	16	55	34
W1434316	< 5	0.53	36	508	17	0.45	< 5	< 10	328	< 5	15	56	26
W1434317	< 5	0.51	37	517	13	0.45	9	< 10	303	< 5	15	57	26
W1434318	< 5	0.33	37	556	7	0.36	8	< 10	273	< 5	16	58	22
W1434319	< 5	0.59	27	534	18	0.44	6	< 10	278	< 5	17	55	30
W1434320	< 5	0.46	22	457	11	0.37	< 5	< 10	193	< 5	19	50	35
W1434321	< 5	0.08	10	418	12	0.21	< 5	< 10	63	< 5	11	57	143
W1434322	< 5	0.37	28	574	11	0.41	< 5	< 10	260	< 5	17	51	33
W1434323	< 5	3.01	25	490	13	0.53	8	< 10	346	< 5	15	44	32
W1434324	< 5	0.73	35	548	19	0.47	6	< 10	299	< 5	16	46	30
W1434325	< 5	1.03	33	540	8	0.53	5	< 10	346	< 5	16	48	34
W1434326	< 5	0.35	35	666	5	0.47	< 5	< 10	321	< 5	15	56	30
W1434327	< 5	0.49	36	459	10	0.36	< 5	< 10	204	< 5	16	56	20
W1434328	< 5	0.48	35	565	14	0.50	< 5	< 10	302	< 5	13	49	30
W1434329	< 5	0.36	30	453	9	0.34	< 5	< 10	186	< 5	15	57	18
W1434330	< 5	0.30	28	469	3	0.24	< 5	< 10	139	< 5	16	51	20
W1434331	< 5	0.29	28	469	8	0.35	< 5	< 10	205	< 5	15	49	29
W1434332	< 5	0.86	27	436	9	0.48	< 5	< 10	287	< 5	15	46	28
W1434333	< 5	0.51	44	591	25	0.73	< 5	< 10	460	< 5	16	50	70
W1434334	< 5	0.30	36	457	25	0.44	< 5	< 10	323	< 5	16	50	25
W1434335	< 5	0.48	36	486	33	0.55	< 5	< 10	357	< 5	15	50	42
W1434336	< 5	0.53	38	629	32	0.61	6	< 10	385	< 5	15	48	56
W1434337	< 5	0.25	36	554	14	0.55	< 5	< 10	351	< 5	15	68	34
W1434338	< 5	0.30	36	456	28	0.50	9	< 10	332	< 5	15	74	30
W1434339	8	0.24	32	363	29	0.49	< 5	< 10	332	< 5	14	70	22
W1434340	< 5	0.23	36	147	16	0.45	< 5	< 10	299	10	14	92	22
W1434341	< 5	0.33	34	222	26	0.40	< 5	< 10	282	7	14	68	26
W1434342	< 5	0.62	27	261	26	0.47	< 5	< 10	315	< 5	12	51	30
W1434343	< 5	0.62	35	317	18	0.56	< 5	< 10	362	< 5	14	47	45
W1434344	< 5	0.69	28	330	16	0.41	10	< 10	293	< 5	14	44	23
W1434345	5	0.79	26	162	32	0.46	< 5	< 10	301	9	12	62	14
W1434346	< 5	0.43	29	196	33	0.45	< 5	< 10	287	23	12	75	19
W1434347	6	1.36	7	98	9	0.27	< 5	< 10	44	< 5	13	45	28
W1434348	< 5	0.65	23	153	12	0.35	8	< 10	320	21	10	71	14
W1434349	< 5	0.81	29	326	16	0.43	5	< 10	292	< 5	13	49	26
W1434350	< 5	0.76	31	420	37	0.43	< 5	< 10	273	< 5	14	50	26
W1434351	< 5	0.08	10	359	11	0.24	< 5	< 10	72	< 5	10	40	99
W1434352	< 5	0.56	30	548	15	0.50	< 5	< 10	320	< 5	14	48	47
W1434353	8	0.75	30	497	29	0.50	12	< 10	333	< 5	14	49	41
W1434354	< 5	0.52	31	563	10	0.45	< 5	< 10	341	< 5	15	55	33
W1434355	< 5	0.51	31	540	22	0.51	< 5	< 10	369	< 5	15	56	46
W1434356	< 5	0.40	34	469	22	0.47	< 5	< 10	299	< 5	14	59	46
W1434357	7	2.57	17	494	31	0.48	7	< 10	227	< 5	14	52	48
W1434358	< 5	0.89	34	738	22	0.62	< 5	< 10	271	< 5	30	49	125
W1434359	< 5	1.03	37	523	52	0.88	< 5	< 10	406	6	24	61	161
W1434360	< 5	0.08	11	463	8	0.18	< 5	< 10	54	< 5	13	39	101
W1434361	< 5	1.04	23	548	24	0.47	< 5	< 10	241	< 5	17	53	60
W1434362	< 5	1.01	25	517	40	0.61	< 5	< 10	255	8	23	51	135
W1434363	< 5	2.68	18	531	21	0.50	8	< 10	242	< 5	17	50	52
W1434364	< 5	1.08	18	522	38	0.50	< 5	< 10	240	< 5	17	65	73
W1434365	< 5	1.37	16	519	34	0.46	< 5	< 10	227	< 5	17	58	56

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434366	7	0.91	18	692	20	0.50	6	< 10	225	< 5	15	59	55
W1434367	< 5	0.70	30	540	23	0.55	< 5	< 10	258	< 5	19	54	83
W1434368	< 5	0.64	27	637	26	0.51	< 5	< 10	228	< 5	25	48	96
W1434369	< 5	0.62	26	481	28	0.40	< 5	< 10	206	< 5	16	64	37
W1434370	< 5	0.17	24	528	38	0.44	< 5	< 10	222	< 5	18	75	52
W1434371	7	0.12	45	822	31	0.80	< 5	< 10	436	< 5	19	68	71
W1434372	7	0.13	21	669	31	0.48	< 5	< 10	246	5	19	68	63
W1434373	< 5	0.08	46	566	19	0.19	10	< 10	191	< 5	16	71	19
W1434374	< 5	0.07	37	453	32	0.54	< 5	< 10	323	< 5	16	67	48
W1434375	< 5	0.09	42	313	19	0.42	< 5	< 10	291	< 5	16	61	27
W1434376	6	0.07	48	361	29	0.56	6	< 10	355	< 5	16	56	35
W1434377	6	0.05	49	290	26	0.56	< 5	< 10	357	< 5	17	70	37
W1434378	< 5	0.06	48	400	9	0.27	< 5	< 10	204	< 5	17	55	22
W1434379	< 5	0.06	49	429	24	0.25	5	< 10	212	< 5	17	56	23
W1434380	< 5	0.06	44	472	25	0.26	11	< 10	203	7	17	57	24
W1434381	< 5	0.06	45	495	18	0.23	< 5	< 10	193	< 5	17	52	20
W1434382	< 5	0.07	43	584	15	0.25	< 5	< 10	221	< 5	17	47	23
W1434383	< 5	0.11	37	757	18	0.53	< 5	< 10	322	< 5	16	45	27
W1434384	5	1.69	8	114	8	0.28	< 5	< 10	48	< 5	16	51	26
W1434385	< 5	0.07	41	616	24	0.20	< 5	< 10	182	< 5	16	46	19
W1434386	< 5	0.11	45	537	9	0.24	< 5	< 10	210	< 5	16	49	20
W1434387	< 5	0.05	12	438	8	0.28	< 5	< 10	86	8	14	32	121
W1434388	< 5	0.09	45	413	14	0.47	< 5	< 10	321	< 5	16	54	29
W1434389	< 5	0.18	45	439	8	0.32	< 5	< 10	265	< 5	16	53	17
W1434390	< 5	0.18	43	577	25	0.45	7	< 10	323	< 5	16	53	22
W1434391	< 5	0.15	45	370	25	0.50	< 5	< 10	325	< 5	17	53	25
W1434392	< 5	0.08	47	552	25	0.53	< 5	< 10	348	< 5	16	54	23
W1434393	< 5	0.11	41	624	34	0.49	< 5	< 10	335	< 5	15	46	19
W1434394	< 5	0.07	50	395	40	0.52	< 5	< 10	349	< 5	17	49	22
W1434395	< 5	0.07	49	435	26	0.55	11	< 10	360	< 5	16	49	23
W1434396	< 5	0.06	48	465	11	0.22	< 5	< 10	197	< 5	16	48	15
W1434397	< 5	0.06	53	434	9	0.19	< 5	< 10	204	< 5	18	53	15
W1434398	< 5	0.08	46	413	16	0.19	6	< 10	186	< 5	14	48	11
W1434399	< 5	0.30	39	465	24	0.28	< 5	< 10	231	< 5	15	48	12
W1434400	< 5	0.18	36	491	24	0.41	< 5	< 10	275	< 5	16	54	25
W1434401	< 5	0.07	10	389	9	0.29	< 5	< 10	83	< 5	12	37	122
W1434402	6	0.24	26	611	16	0.47	10	< 10	260	< 5	17	50	49
W1434403	< 5	0.24	27	569	39	0.47	< 5	< 10	238	< 5	16	56	53
W1434404	7	0.16	28	523	29	0.41	< 5	< 10	228	< 5	14	52	49
W1434405	< 5	0.22	30	513	35	0.53	< 5	< 10	254	< 5	18	47	95
W1434406	9	0.41	26	475	20	0.49	< 5	< 10	230	< 5	18	52	97
W1434407	< 5	0.41	20	570	24	0.44	< 5	< 10	220	< 5	20	46	63
W1434408	< 5	0.11	36	545	29	0.40	< 5	< 10	286	< 5	16	53	35
W1434409	< 5	0.08	34	522	30	0.48	< 5	< 10	308	< 5	14	55	37
W1434410	< 5	0.08	34	485	19	0.45	< 5	< 10	316	< 5	15	49	37
W1434411	< 5	0.11	34	572	29	0.53	< 5	< 10	335	< 5	16	52	50
W1434412	< 5	0.14	43	572	16	0.58	< 5	< 10	337	6	15	58	70
W1434413	< 5	0.54	36	561	43	0.60	< 5	< 10	350	6	16	60	67
W1434414	< 5	1.29	23	258	21	0.34	6	< 10	226	< 5	12	44	25
W1434415	< 5	0.83	30	353	22	0.43	6	< 10	292	< 5	17	52	34
W1434416	< 5	1.46	33	411	26	0.44	< 5	< 10	291	< 5	15	51	34
W1434417	5	1.31	34	507	24	0.55	< 5	< 10	343	< 5	15	47	43

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434418	< 5	0.20	32	515	31	0.53	< 5	< 10	344	< 5	14	57	38
W1434419	< 5	0.15	32	378	24	0.32	6	< 10	225	< 5	13	55	26
W1434420	6	0.38	35	461	19	0.44	7	< 10	313	< 5	15	39	35
W1434421	< 5	0.18	36	501	14	0.52	< 5	< 10	360	< 5	15	60	42
W1434422	< 5	0.50	32	496	21	0.48	< 5	< 10	330	< 5	14	55	36
W1434423	< 5	0.87	32	447	44	0.55	< 5	< 10	342	< 5	15	59	47
W1434424	< 5	2.41	31	406	28	0.52	< 5	< 10	325	< 5	15	61	39
W1434425	< 5	1.57	8	117	12	0.29	< 5	< 10	50	< 5	14	52	31
W1434426	< 5	0.73	34	486	36	0.52	< 5	< 10	343	< 5	15	50	48
W1434427	< 5	0.92	32	550	31	0.53	< 5	< 10	334	< 5	14	50	44
W1434428	< 5	0.07	13	461	12	0.23	< 5	< 10	70	< 5	15	32	110
W1434429	< 5	0.11	35	667	26	0.43	< 5	< 10	294	< 5	16	40	40
W1434430	< 5	0.16	34	560	22	0.32	< 5	< 10	254	< 5	15	45	31
W1434431	< 5	0.49	30	431	20	0.42	< 5	< 10	295	< 5	13	47	31
W1434432	< 5	0.49	32	546	35	0.37	< 5	< 10	257	< 5	13	58	27
W1434433	< 5	0.24	36	620	31	0.49	< 5	< 10	329	< 5	15	57	37
W1434434	< 5	0.59	31	500	23	0.39	< 5	< 10	243	< 5	12	60	28
W1434435	< 5	0.10	34	460	15	0.29	< 5	< 10	242	< 5	14	68	24
W1434436	< 5	0.11	36	519	32	0.54	< 5	< 10	348	< 5	14	72	51
W1434437	< 5	0.45	34	508	18	0.54	< 5	< 10	330	< 5	14	84	45
W1434438	< 5	0.40	34	478	31	0.44	< 5	< 10	298	< 5	13	75	33
W1434439	< 5	0.60	38	723	30	0.62	< 5	< 10	365	6	16	50	51
W1434440	8	0.61	33	715	12	0.49	< 5	< 10	303	< 5	18	53	33
W1434441	12	0.11	11	437	9	0.26	< 5	< 10	79	< 5	13	37	120
W1434442	< 5	0.36	36	453	31	0.52	< 5	< 10	341	< 5	13	77	42
W1434443	< 5	0.20	36	530	15	0.29	< 5	< 10	256	< 5	13	88	25
W1434444	< 5	0.09	37	504	36	0.29	< 5	< 10	231	< 5	15	101	29
W1434445	< 5	0.32	34	494	32	0.50	6	< 10	332	< 5	14	84	40
W1434446	< 5	0.17	35	550	27	0.35	< 5	< 10	265	< 5	15	79	27
W1434447	< 5	0.28	35	526	20	0.31	< 5	< 10	240	< 5	15	75	26
W1434448	< 5	0.33	34	526	27	0.46	< 5	< 10	318	< 5	15	73	40
W1434449	10	0.34	34	476	29	0.43	< 5	< 10	279	< 5	15	75	34
W1434450	< 5	0.20	35	549	16	0.31	< 5	< 10	272	< 5	13	81	28
W1434451	< 5	0.21	35	655	19	0.52	< 5	< 10	327	< 5	13	80	48
W1434452	< 5	0.26	34	559	18	0.51	< 5	< 10	333	< 5	15	84	42
W1434453	< 5	0.17	34	597	24	0.53	< 5	< 10	367	< 5	13	84	34
W1434454	< 5	0.19	35	541	23	0.50	< 5	< 10	337	< 5	14	81	33
W1434455	< 5	0.68	38	714	22	0.62	< 5	< 10	378	< 5	16	61	58
W1434456	< 5	0.24	36	552	20	0.51	< 5	< 10	311	< 5	14	70	45
W1434457	6	0.52	43	634	24	0.72	< 5	< 10	412	< 5	17	49	98
W1434458	< 5	0.24	42	757	25	0.83	< 5	< 10	445	< 5	21	42	90
W1434459	< 5	0.22	36	608	18	0.35	6	< 10	269	< 5	13	59	27
W1434460	< 5	0.18	33	545	30	0.41	< 5	< 10	302	< 5	14	72	27
W1434461	< 5	0.29	41	388	20	0.36	< 5	< 10	249	< 5	11	59	27
W1434462	< 5	1.11	39	263	27	0.30	< 5	< 10	209	< 5	9	46	26
W1434463	< 5	1.03	39	232	23	0.28	< 5	< 10	189	< 5	9	49	25
W1434464	< 5	0.40	46	116	16	0.17	< 5	< 10	146	< 5	6	53	12
W1434465	< 5	0.30	42	112	18	0.16	< 5	< 10	152	< 5	6	51	11
W1434466	< 5	1.14	12	292	19	0.37	< 5	< 10	106	15	15	65	26
W1434467	7	0.08	34	221	14	0.20	< 5	< 10	146	< 5	9	54	30
W1434468	< 5	0.09	31	178	13	0.22	< 5	< 10	132	< 5	10	43	34
W1434469	14	0.10	48	161	21	0.16	< 5	< 10	132	< 5	6	48	12

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434470	< 5	0.08	11	432	11	0.30	< 5	< 10	85	< 5	13	37	120
W1434471	< 5	0.10	48	127	13	0.16	< 5	< 10	134	< 5	5	48	12
W1434472	< 5	0.11	50	146	21	0.16	6	< 10	137	< 5	5	46	12
W1434473	< 5	0.44	51	157	29	0.17	< 5	< 10	159	< 5	6	41	10
W1434474	< 5	0.34	37	313	28	0.37	< 5	< 10	210	< 5	13	47	42
W1434475	< 5	0.49	33	484	26	0.51	< 5	< 10	265	< 5	19	63	51
W1434476	< 5	0.27	40	304	15	0.26	< 5	< 10	197	< 5	9	53	21
W1434477	< 5	0.39	47	142	15	0.18	< 5	< 10	142	< 5	6	47	13

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		31.9	2.01	448	665	1	1380	0.89	2.7	5		1110	23.5	15	5	0.04	0.19	8	932	14	0.04	42	0.058	730
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20		1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas		31.2	2.51	425	634	< 1	1380	0.88	2.7	5		1060	23.6	15	5	0.03	0.19	7	836	13	0.03	43	0.055	690
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20		1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas		32.5	2.47	433	660	< 1	1420	0.90	2.6	6		1090	24.1	15	8	0.05	0.18	7	854	13	0.04	42	0.056	714
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20		1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.7	6.14	121	94	2	17	1.10	0.3	17	34	6510	3.17	26	2	3.16	1.67	10	153	310	0.46	44	0.132	47
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas		3.9	7.08	116	272	2	23	1.14	0.3	18	40	6930	3.37	21	< 1	3.80	1.72	10	163	315	0.50	49	0.136	44
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas		4.0	7.06	113	995	2	6	1.14	< 0.3	18	58	7130	3.36	23	< 1	3.13	1.72	10	156	313	0.50	48	0.139	49
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	7.63	3	654	3	< 2	1.16	< 0.3	20	51	24	5.08	33	< 1	2.89	1.02	34	962	< 1	1.34	38	0.057	24
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
SDC-1 Meas		< 0.3	8.52	< 3	630	3	2	1.14	< 0.3	21	49	31	4.95	30	< 1	2.15	0.96	32	924	< 1	1.48	39	0.057	18
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
SDC-1 Meas		< 0.3	9.02	39	686	3	26	1.20	< 0.3	24	52	31	5.23	36	5	3.12	1.05	35	959	< 1	1.57	41	0.060	22
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		0.6	13.0	273	> 1000	1	< 2	0.22	< 0.3	14	64	61	5.65	43	< 1	1.89	0.60	34	1130	< 1	0.09	27	0.036	95
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas		0.8	15.8	314	> 1000	1	6	0.24	0.4	16	63	68	5.77	45	< 1	2.23	0.67	38	1100	< 1	0.10	29	0.037	94
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas		0.6	17.0	359	> 1000	1	7	0.25	< 0.3	17	77	73	6.12	60	1	2.42	0.69	40	1180	1	0.11	30	0.041	99
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		3.9	5.71	34	800	3	< 2	0.67	5.3	13		302	3.36	25		3.09	0.48	28	5090	6	1.01	47	0.065	1010
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
SAR-M (U.S.G.S.) Meas		4.0	6.81	44	843	3	8	0.70	6.4	14		331	3.65	23		3.03	0.50	30	5340	10	1.22	56	0.065	1030
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
SAR-M (U.S.G.S.) Meas		4.4	7.01	45	864	3	7	0.74	7.0	15		360	3.83	22		2.38	0.53	32	5700	13	1.27	54	0.076	1070
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					94					58	159	95						4				252		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
DNC-1a Meas					88					54	214	84						3				238		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
DNC-1a Meas					91					55	217	82						3				234		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SE58 Meas	621																							
SE58 Cert	607.00																							
SE58 Meas	546																							
SE58 Cert	607.00																							
SE58 Meas	586																							
SE58 Cert	607.00																							
SE58 Meas	586																							
SE58 Cert	607.00																							
SE58 Meas	554																							
SE58 Cert	607.00																							
SE58 Meas	569																							
SE58 Cert	607.00																							
SE58 Meas	606																							
SE58 Cert	607.00																							
SBC-1 Meas				28	762	3	< 2		0.7	26	101	32		37				153		1		89		28
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
SBC-1 Meas				24	744	3	7		0.5	25	84	29		31				134		1		93		28
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
SBC-1 Meas				29	668	3	9		< 0.3	27		31		37				138		1		97		26
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7		31.0		27.0				163.0		2.40		82.8		35.0
W1434328 Orig	17																							

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434328 Dup	17																							
W1434340 Orig		1.5	6.95	11	286	< 1	4	6.86	3.6	33	23	544	6.63	16	< 1	2.66	2.42	13	1120	2	0.07	21	0.132	6
W1434340 Dup		1.5	6.84	13	292	< 1	7	6.95	3.4	33	23	557	6.71	18	1	2.80	2.40	13	1130	< 1	0.06	20	0.150	9
W1434343 Orig	16	< 0.3	7.64	17	904	< 1	6	6.69	< 0.3	28	20	192	6.35	19	< 1	2.58	2.32	15	1180	1	2.09	18	0.164	< 3
W1434343 Split	16	< 0.3	6.94	12	781	< 1	6	6.47	< 0.3	26	22	181	6.04	22	< 1	1.73	2.20	15	1140	< 1	1.99	19	0.146	< 3
W1434343 Orig	17																							
W1434343 Dup	15																							
W1434358 Orig	24																							
W1434358 Dup	21																							
W1434361 Orig		0.4	8.44	20	> 1000	< 1	7	5.46	< 0.3	35	90	123	6.94	23	< 1	2.94	2.41	18	937	2	2.22	17	0.165	< 3
W1434361 Dup		< 0.3	7.09	13	531	< 1	3	5.42	< 0.3	34	92	125	6.91	21	< 1	2.31	2.39	18	921	2	2.21	17	0.151	< 3
W1434363 Orig	58	1.1	7.20	30	117	< 1	3	4.79	1.4	34	36	1610	7.24	26	< 1	2.77	1.93	15	782	11	2.07	13	0.163	< 3
W1434363 Split	50	0.8	7.43	21	160	< 1	4	4.56	1.6	37	18	1530	6.98	28	2	3.06	1.82	14	758	8	1.99	13	0.146	6
W1434373 Orig	11	< 0.3	7.01	11	578	< 1	< 2	6.06	< 0.3	34	38	218	7.30	21	< 1	2.19	2.96	17	1370	< 1	1.71	22	0.110	6
W1434373 Split	9	< 0.3	6.80	8	570	< 1	13	6.16	< 0.3	35	44	217	7.35	23	< 1	2.19	3.04	17	1400	< 1	1.69	23	0.105	< 3
W1434373 Orig	10																							
W1434373 Dup	12																							
W1434375 Orig		< 0.3	6.42	8	493	< 1	5	7.14	0.4	29	36	103	6.65	20	< 1	1.83	2.50	17	1440	< 1	2.07	18	0.102	< 3
W1434375 Dup		< 0.3	6.45	8	499	< 1	5	7.17	< 0.3	31	32	102	6.67	24	< 1	1.84	2.47	17	1440	< 1	2.09	17	0.099	< 3
W1434388 Orig	6																							
W1434388 Dup	6																							
W1434396 Orig		< 0.3	6.89	3	642	< 1	4	6.22	< 0.3	32	34	68	7.17	22	< 1	2.11	2.79	19	1270	< 1	2.07	19	0.101	< 3
W1434396 Dup		< 0.3	7.12	8	640	< 1	< 2	6.20	0.4	31	32	67	7.18	20	< 1	2.14	2.76	18	1230	< 1	2.06	19	0.100	< 3
W1434403 Orig	< 5	< 0.3	8.02	16	574	< 1	4	5.89	< 0.3	31	115	100	5.88	26	< 1	1.90	2.82	19	1120	< 1	2.77	31	0.156	< 3
W1434403 Split	< 5	< 0.3	7.58	13	529	< 1	4	5.45	< 0.3	26	122	92	5.36	28	< 1	1.44	2.60	18	1020	< 1	2.56	28	0.135	< 3
W1434403 Orig	< 5																							
W1434403 Dup	< 5																							
W1434410 Orig		< 0.3	7.76	15	590	< 1	4	6.27	< 0.3	30	22	206	7.32	21	< 1	1.84	2.48	22	1200	1	2.19	19	0.153	< 3
W1434410 Dup		< 0.3	7.67	11	594	< 1	5	6.38	< 0.3	28	23	210	7.36	24	< 1	1.87	2.48	22	1200	< 1	2.23	19	0.149	< 3
W1434413 Orig	34	0.8	8.08	25	582	< 1	10	6.61	< 0.3	44	21	317	7.47	23	< 1	1.86	2.47	18	1510	5	2.45	19	0.160	< 3
W1434413 Split	33	0.6	6.94	11	547	< 1	3	6.30	0.3	46	22	302	7.05	24	< 1	1.70	2.19	17	1420	4	2.33	17	0.131	3
W1434418 Orig	17																							
W1434418 Dup	18																							
W1434431 Orig		0.6	6.83	22	633	< 1	6	6.37	< 0.3	21	23	286	6.70	22	4	1.94	2.38	21	1160	< 1	2.15	16	0.130	< 3
W1434431 Dup		0.3	6.78	14	629	< 1	5	6.42	< 0.3	23	23	284	6.75	24	< 1	1.95	2.40	21	1190	< 1	2.19	16	0.133	< 3
W1434433 Orig	35	0.5	7.90	15	850	< 1	8	5.74	< 0.3	22	24	343	7.85	24	< 1	2.24	2.51	19	1330	< 1	2.25	21	0.154	< 3
W1434433 Split	30	0.4	7.94	18	849	< 1	5	5.67	0.4	22	26	344	7.78	22	< 1	2.11	2.46	19	1320	< 1	2.25	20	0.153	< 3
W1434433 Orig	32																							
W1434433 Dup	37																							
W1434448 Orig	< 5																							
W1434448 Dup	< 5																							
W1434456 Orig		< 0.3	7.93	20	371	< 1	7	5.70	1.0	29	23	123	6.82	26	< 1	1.44	2.26	18	1420	< 1	2.63	15	0.153	5
W1434456 Dup		< 0.3	7.99	20	374	< 1	5	5.78	< 0.3	27	27	120	6.91	23	< 1	1.48	2.28	18	1430	< 1	2.70	19	0.156	< 3
W1434463 Orig	72	< 0.3	5.09	16	525	< 1	< 2	7.27	< 0.3	33	322	370	5.60	16	< 1	1.68	4.64	17	1230	7	1.34	78	0.099	< 3
W1434463 Split	52	< 0.3	4.77	15	180	< 1	< 2	7.03	< 0.3	32	434	344	5.28	15	< 1	1.59	4.38	17	1170	7	1.26	77	0.095	< 3
W1434470 Orig		0.5	8.52	< 3	453	1	2	4.31	1.6	24	172	14	3.04	33	< 1	1.16	2.24	6	405	< 1	2.13	34	0.038	7
W1434470 Dup		0.5	8.85	5	466	1	< 2	4.43	0.7	24	154	15	3.14	30	< 1	1.20	2.28	6	410	< 1	2.20	33	0.039	8
W1434477 Orig	29	< 0.3	3.48	6	234	< 1	3	8.92	< 0.3	40	703	549	4.84	13	< 1	0.71	5.54	26	1440	2	0.73	93	0.075	< 3
W1434477 Split	30	0.3	3.42	5	236	< 1	< 2	8.94	< 0.3	40	682	553	4.82	20	< 1	0.70	5.47	27	1440	< 1	0.73	95	0.075	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		2	< 0.01	3	< 1	0.04	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3		< 3	< 7	< 1	6	0.01	< 0.3	< 1		1	0.01	< 1	< 1	0.03	< 0.01	< 1		< 1	< 0.01	2	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	0.04	< 0.01	< 1		< 1	< 0.01	1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	1		1	< 0.01	5	< 1	0.04	< 0.01	< 1		< 1	< 0.01	2	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank		< 0.3		< 3	< 7	< 1	< 2	0.01	< 0.3	< 1		1	0.02	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	28	0.24	< 4	284	32		< 5	40	88	158	26	767	28
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-1 Meas	37	0.23	< 4	266	33		< 5	30	82	155	25	705	26
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-1 Meas	35	0.24	< 4	271	30		< 5	30	84	158	26	736	27
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	< 5	1.74	9	209	11		7	< 10	92	43	13	74	46
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
GXR-4 Meas	< 5	1.75	9	218	13		< 5	< 10	99	40	14	79	44
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
GXR-4 Meas	7	1.77	9	225	18		< 5	< 10	97	41	14	78	62
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.06	17	174		0.12	< 5	< 10	37	< 5	31	105	37
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
SDC-1 Meas	< 5	0.08	18	173		0.30	5	< 10	74	< 5	32	106	51
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
SDC-1 Meas	8	0.07	19	184		0.13	< 5	< 10	43	< 5	33	115	35
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	28	45	< 2		7	< 10	124	< 5	10	129	75
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
GXR-6 Meas	< 5	0.02	32	47	39		< 5	< 10	171	< 5	13	133	95
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
GXR-6 Meas	< 5	0.02	35	49	24		6	< 10	197	6	14	143	111
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	< 5		10	150	9	0.29	< 5	< 10	60	11	33	964	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
SAR-M (U.S.G.S.) Meas	11		11	161	22	0.40	5	< 10	78	17	35	967	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
SAR-M (U.S.G.S.) Meas	8		11	170	7	0.45	< 5	< 10	84	19	38	1020	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		30	127					145		13	58	37
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
DNC-1a Meas	< 5		29	119					134		13	51	28
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
DNC-1a Meas	< 5		30	118					138		13	53	29
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
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SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SBC-1 Meas	< 5		22	176			5	< 10	222	< 5	28	197	124
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
SBC-1 Meas	< 5		23	168			7	< 10	227	< 5	30	185	107
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
SBC-1 Meas	< 5		22	171			7	< 10	231	7	29	198	105
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434328 Orig													

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434328 Dup													
W1434340 Orig	< 5	0.22	36	146	7	0.43	< 5	< 10	299	9	14	91	21
W1434340 Dup	< 5	0.25	37	148	24	0.47	< 5	< 10	300	10	14	93	23
W1434343 Orig	< 5	0.62	35	317	18	0.56	< 5	< 10	362	< 5	14	47	45
W1434343 Split	< 5	0.57	32	305	30	0.47	< 5	< 10	317	< 5	14	43	32
W1434343 Orig													
W1434343 Dup													
W1434358 Orig													
W1434358 Dup													
W1434361 Orig	13	1.07	25	546	32	0.52	< 5	< 10	250	< 5	17	53	75
W1434361 Dup	< 5	1.01	20	549	17	0.43	< 5	< 10	231	6	16	54	45
W1434363 Orig	< 5	2.68	18	531	21	0.50	8	< 10	242	< 5	17	50	52
W1434363 Split	< 5	2.57	17	515	23	0.45	< 5	< 10	226	< 5	16	47	48
W1434373 Orig	< 5	0.08	46	566	19	0.19	10	< 10	191	< 5	16	71	19
W1434373 Split	< 5	0.08	45	560	26	0.24	< 5	< 10	219	< 5	16	68	20
W1434373 Orig													
W1434373 Dup													
W1434375 Orig	< 5	0.09	42	313	15	0.45	< 5	< 10	307	< 5	16	61	28
W1434375 Dup	< 5	0.09	42	312	23	0.39	< 5	20	275	< 5	16	60	25
W1434388 Orig													
W1434388 Dup													
W1434396 Orig	< 5	0.07	50	460	5	0.23	< 5	< 10	193	< 5	16	48	16
W1434396 Dup	< 5	0.06	47	471	16	0.21	< 5	< 10	201	< 5	16	48	15
W1434403 Orig	< 5	0.24	27	569	39	0.47	< 5	< 10	238	< 5	16	56	53
W1434403 Split	< 5	0.21	25	516	38	0.40	7	< 10	214	< 5	15	52	42
W1434403 Orig													
W1434403 Dup													
W1434410 Orig	< 5	0.08	33	485	25	0.53	< 5	< 10	342	< 5	15	49	42
W1434410 Dup	< 5	0.08	35	485	12	0.36	< 5	< 10	290	< 5	15	49	33
W1434413 Orig	< 5	0.54	36	561	43	0.60	< 5	< 10	350	6	16	60	67
W1434413 Split	< 5	0.48	30	534	10	0.42	< 5	< 10	276	< 5	14	57	30
W1434418 Orig													
W1434418 Dup													
W1434431 Orig	< 5	0.48	30	431	23	0.44	< 5	< 10	307	< 5	13	46	33
W1434431 Dup	< 5	0.50	30	431	17	0.39	< 5	< 10	282	< 5	13	48	30
W1434433 Orig	< 5	0.24	36	620	31	0.49	< 5	< 10	329	< 5	15	57	37
W1434433 Split	< 5	0.24	36	607	24	0.54	< 5	< 10	340	< 5	15	57	48
W1434433 Orig													
W1434433 Dup													
W1434448 Orig													
W1434448 Dup													
W1434456 Orig	< 5	0.24	36	551	24	0.50	< 5	< 10	309	< 5	14	70	44
W1434456 Dup	< 5	0.24	36	552	16	0.52	< 5	< 10	312	< 5	14	70	46
W1434463 Orig	< 5	1.03	39	232	23	0.28	< 5	< 10	189	< 5	9	49	25
W1434463 Split	7	0.92	37	220	28	0.27	< 5	< 10	180	< 5	8	47	20
W1434470 Orig	10	0.08	11	426	12	0.29	< 5	< 10	85	< 5	13	35	117
W1434470 Dup	< 5	0.09	11	438	11	0.30	< 5	< 10	86	< 5	13	38	123
W1434477 Orig	< 5	0.39	47	142	15	0.18	< 5	< 10	142	< 5	6	47	13
W1434477 Split	< 5	0.38	47	142	19	0.18	8	< 10	144	< 5	6	48	14
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	5	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													
Method Blank													
Method Blank													

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank	< 5	< 0.01	< 4	3	3	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5

Quality Analysis ... *Innovative Technologies*

Date Submitted:	07-Dec-12
Invoice No.:	A12-13772
Invoice Date:	18-Dec-12
Your Reference:	BIG KIDD PROJECT

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Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

47 Core samples and 1 Pulp sample were submitted for analysis.

The following analytical packages were requested: Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-13772**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited
LAB 266
LAB 266
Accrédité CCN

ACTIVATION LABORATORIES LTD.

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Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434478	17	< 0.3	4.07	9	251	< 1	4	8.50	0.4	33	648	144	4.32	14	< 1	1.10	5.25	25	1350	< 1	0.70	86	0.058	< 3
W1434479	35	< 0.3	3.84	11	118	< 1	< 2	10.7	0.8	35	703	385	4.11	10	< 1	0.58	5.57	26	1500	< 1	0.47	95	0.056	< 3
W1434480	< 5	< 0.3	14.2	< 3	34	1	< 2	0.47	< 0.3	< 1	10	9	0.50	45	< 1	6.08	0.09	31	121	< 1	7.49	2	0.001	4
W1434481	< 5	0.4	11.8	< 3	567	1	< 2	4.06	1.0	24	154	29	3.14	34	< 1	2.11	2.51	8	454	2	2.48	26	0.039	4
W1434482	26	< 0.3	7.28	8	275	< 1	< 2	6.83	< 0.3	40	377	477	5.74	24	< 1	1.05	4.91	33	1450	< 1	1.41	74	0.108	< 3
W1434483	6	< 0.3	6.51	8	186	< 1	< 2	8.41	1.2	29	346	147	5.02	25	< 1	0.95	4.12	31	1380	< 1	0.98	53	0.087	3
W1434484	39	0.5	9.18	14	622	< 1	2	5.05	0.6	46	36	951	6.28	23	< 1	2.50	2.46	22	1000	< 1	2.54	22	0.131	< 3
W1434485	72	0.5	9.18	8	879	< 1	6	5.37	1.0	40	24	1500	6.29	22	< 1	2.70	2.51	23	1180	< 1	2.32	18	0.135	< 3
W1434486	77	0.5	9.88	15	659	< 1	< 2	5.34	< 0.3	33	28	1140	6.93	24	< 1	2.37	2.58	22	1190	< 1	2.50	18	0.141	3
W1434487	52	0.4	10.2	13	667	< 1	< 2	5.37	< 0.3	29	19	637	6.69	25	< 1	2.56	2.62	23	1130	< 1	2.48	19	0.142	< 3
W1434488	95	1.0	12.6	14	659	< 1	< 2	5.32	< 0.3	35	20	942	7.58	24	< 1	2.61	2.69	26	1060	< 1	2.30	20	0.172	< 3
W1434489	438	0.4	8.80	17	152	< 1	< 2	5.13	1.7	47	17	892	8.42	27	< 1	3.86	2.40	24	1070	1	1.81	17	0.132	< 3
W1434490	105	0.5	10.5	15	854	< 1	< 2	4.78	< 0.3	35	21	856	6.80	25	< 1	3.44	2.49	22	1110	< 1	2.23	19	0.148	< 3
W1434491	169	0.6	11.6	16	864	< 1	< 2	5.67	< 0.3	33	19	816	6.66	25	< 1	3.04	2.65	25	1160	2	2.05	22	0.170	< 3
W1434492	53	< 0.3	9.93	7	699	< 1	< 2	5.40	< 0.3	33	18	592	6.68	24	< 1	2.59	2.67	23	1180	< 1	2.23	17	0.139	< 3
W1434493	163	0.8	10.9	17	838	< 1	4	5.21	0.6	33	25	1350	6.72	20	1	2.84	2.56	23	1130	1	2.20	19	0.158	< 3
W1434494	10	< 0.3	9.13	25	494	< 1	3	5.97	0.8	29	20	155	7.98	23	< 1	1.85	2.33	23	1230	< 1	2.04	15	0.123	< 3
W1434495	16	< 0.3	10.3	20	764	< 1	5	5.83	0.5	32	20	125	6.49	20	< 1	2.61	2.69	27	1280	1	2.22	18	0.148	< 3
W1434496	12	< 0.3	9.16	11	673	< 1	< 2	5.79	0.6	32	20	113	7.18	26	2	2.43	2.55	27	1300	< 1	2.19	19	0.144	< 3
W1434497	38	< 0.3	9.79	19	799	< 1	2	5.83	< 0.3	35	19	308	6.78	23	< 1	2.51	2.63	25	1290	< 1	2.25	17	0.139	< 3
W1434498	33	< 0.3	10.0	5	641	< 1	9	6.07	< 0.3	30	20	322	6.93	23	< 1	2.29	2.69	25	1320	< 1	2.17	18	0.144	< 3
W1434499	120	< 0.3	10.3	15	758	< 1	< 2	5.89	0.4	34	19	981	6.92	30	< 1	2.79	2.54	24	1340	< 1	2.04	21	0.139	< 3
W1434500	39	0.4	9.81	23	828	< 1	5	5.57	0.5	34	22	513	6.70	25	< 1	2.90	2.56	23	1250	1	2.15	17	0.143	< 3
W1434501	49	< 0.3	10.3	12	558	< 1	< 2	5.42	0.6	38	18	609	6.50	23	< 1	2.97	2.44	24	1220	< 1	2.23	15	0.141	< 3
W1434502	89	0.3	10.4	11	685	< 1	< 2	5.68	< 0.3	30	13	1030	6.43	23	< 1	2.86	2.42	23	1120	< 1	2.22	14	0.142	< 3
W1434503	99	0.8	12.0	23	> 1000	< 1	< 2	4.92	0.9	50	19	1300	6.50	25	< 1	3.22	2.47	23	1130	5	2.14	19	0.164	< 3
W1434504	120	0.8	10.7	12	876	< 1	< 2	5.38	0.6	40	14	1480	6.28	24	< 1	2.96	2.45	23	1370	3	2.33	14	0.143	< 3
W1434505	33	< 0.3	9.81	11	507	< 1	< 2	5.27	< 0.3	29	21	323	7.23	24	2	1.97	2.54	26	1270	2	2.48	17	0.139	< 3
W1434506	453	1.5	8.88	4	461	2	< 2	1.51	< 0.3	15	75	8380	6.06	27	< 1	2.44	1.25	10	323	91	1.34	48	0.052	13
W1434507	49	< 0.3	9.50	21	583	< 1	< 2	5.45	0.4	32	17	413	7.47	26	3	1.89	2.44	28	1200	< 1	2.28	17	0.134	< 3
W1434508	18	< 0.3	10.3	7	789	< 1	6	5.50	< 0.3	26	20	166	6.66	25	< 1	3.06	2.66	26	1460	< 1	2.22	15	0.149	< 3
W1434509	25	0.4	11.2	6	567	1	< 2	3.95	< 0.3	24	109	46	2.87	25	< 1	1.82	2.38	8	412	2	2.29	35	0.031	< 3
W1434510	< 5	< 0.3	10.2	15	788	< 1	6	5.68	< 0.3	28	19	233	6.58	25	< 1	2.82	2.63	26	1460	< 1	2.15	17	0.145	< 3
W1434511	< 5	0.6	11.3	20	912	< 1	< 2	3.99	< 0.3	9	10	152	5.21	25	< 1	3.80	0.76	8	698	6	3.40	5	0.134	< 3
W1434512	< 5	0.5	12.1	18	> 1000	1	< 2	3.63	0.9	12	10	605	5.43	30	< 1	3.84	0.66	9	701	1	3.32	11	0.139	5
W1434513	< 5	< 0.3	11.7	20	> 1000	< 1	< 2	4.41	< 0.3	12	14	49	4.95	36	< 1	3.24	1.29	13	948	< 1	3.30	7	0.150	< 3
W1434514	< 5	< 0.3	10.3	20	679	< 1	< 2	4.05	1.0	22	47	59	5.18	27	< 1	2.30	1.98	27	957	2	3.30	8	0.156	< 3
W1434515	< 5	< 0.3	9.98	18	> 1000	< 1	4	4.05	0.4	29	18	201	5.83	27	< 1	1.93	1.98	24	986	< 1	2.67	8	0.157	< 3
W1434516	13	< 0.3	10.0	19	971	< 1	< 2	4.09	1.8	23	35	181	6.04	22	< 1	2.69	2.38	27	1080	< 1	2.67	14	0.158	4
W1434517	< 5	< 0.3	10.4	17	933	< 1	< 2	4.56	1.0	34	29	181	5.87	24	< 1	2.96	2.39	25	1090	< 1	2.69	14	0.154	7
W1434518	< 5	< 0.3	11.1	19	657	< 1	< 2	4.35	0.9	27	28	219	5.86	22	< 1	2.09	2.74	31	1150	< 1	3.06	20	0.145	5
W1434519	< 5	< 0.3	10.6	14	837	< 1	4	4.80	0.6	35	40	120	5.95	23	< 1	2.03	2.79	37	1230	< 1	2.49	32	0.121	6
W1434520	< 5	0.4	10.9	16	> 1000	< 1	3	3.66	0.5	33	35	157	6.35	27	< 1	2.78	3.17	48	1220	< 1	2.37	28	0.122	< 3
W1434521	< 5	< 0.3	2.96	< 3	288	1	< 2	4.46	< 0.3	15	96	2	2.89	19	< 1	1.30	2.56	10	451	< 1	3.27	40	0.047	3
W1434522	< 5	< 0.3	10.3	20	> 1000	< 1	< 2	4.22	< 0.3	30	37	49	6.62	25	< 1	2.95	2.52	38	1210	< 1	2.22	25	0.111	< 3
W1434523	< 5	< 0.3	10.8	46	555	< 1	< 2	5.56	< 0.3	28	44	145	6.93	31	< 1	2.57	2.18	25	1120	3	1.90	28	0.125	< 3
W1434524	< 5	< 0.3	11.0	27	398	< 1	< 2	5.70	0.4	27	37	116	6.49	34	< 1	2.67	2.27	27	1160	2	2.08	27	0.118	4
W1434525	< 5	< 0.3	9.44	31	601	< 1	2	4.99	0.5	29	45	155	6.41	29	2	2.08	2.29	27	1150	4	2.34	29	0.116	3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434478	< 5	0.08	40	200	9	0.16	< 5	< 10	136	< 5	6	37	13
W1434479	< 5	0.13	42	129	13	0.16	< 5	< 10	125	< 5	6	45	13
W1434480	< 5	< 0.01	< 4	36	< 2	< 0.01	< 5	< 10	4	< 5	3	18	26
W1434481	< 5	0.06	10	438	11	0.25	< 5	< 10	71	6	12	35	121
W1434482	< 5	0.13	38	237	22	0.38	< 5	< 10	244	< 5	11	66	33
W1434483	< 5	0.18	31	267	21	0.32	< 5	< 10	227	< 5	13	67	27
W1434484	< 5	0.79	29	323	34	0.50	< 5	< 10	301	< 5	14	58	37
W1434485	< 5	0.68	30	412	21	0.51	< 5	< 10	330	< 5	14	41	36
W1434486	< 5	0.38	31	452	29	0.52	< 5	< 10	343	7	15	45	40
W1434487	< 5	0.20	32	493	19	0.54	< 5	< 10	303	< 5	15	46	43
W1434488	< 5	0.67	45	456	35	0.70	< 5	< 10	383	< 5	16	36	111
W1434489	< 5	2.94	30	335	34	0.48	6	< 10	313	10	14	40	26
W1434490	< 5	1.09	34	461	31	0.59	< 5	< 10	342	< 5	14	43	55
W1434491	< 5	0.43	39	548	32	0.80	< 5	< 10	455	8	16	42	106
W1434492	< 5	0.28	31	484	25	0.51	< 5	< 10	335	< 5	15	46	44
W1434493	< 5	0.73	38	428	31	0.74	< 5	< 10	458	< 5	15	50	71
W1434494	< 5	0.16	30	596	23	0.49	< 5	< 10	366	< 5	15	55	39
W1434495	< 5	0.12	33	565	15	0.56	7	< 10	329	< 5	14	61	42
W1434496	< 5	0.23	29	488	30	0.53	6	< 10	338	< 5	14	62	35
W1434497	< 5	0.26	33	528	29	0.50	< 5	10	321	< 5	15	68	41
W1434498	< 5	0.08	34	547	23	0.54	< 5	< 10	352	< 5	15	67	46
W1434499	< 5	0.20	34	626	33	0.55	9	< 10	338	< 5	14	73	37
W1434500	< 5	0.44	32	492	24	0.53	< 5	< 10	312	< 5	15	70	40
W1434501	< 5	0.68	32	494	30	0.51	< 5	< 10	318	< 5	15	53	32
W1434502	< 5	0.44	31	510	24	0.49	< 5	< 10	299	< 5	15	43	30
W1434503	5	1.14	41	480	37	0.96	< 5	< 10	542	< 5	16	40	100
W1434504	< 5	0.38	31	506	24	0.59	< 5	< 10	337	< 5	17	53	52
W1434505	< 5	0.12	32	529	30	0.52	< 5	< 10	299	< 5	15	49	48
W1434506	< 5	1.54	11	275	21	0.28	19	< 10	92	< 5	9	52	39
W1434507	< 5	0.17	31	592	27	0.46	< 5	< 10	274	< 5	14	46	20
W1434508	< 5	0.09	33	517	29	0.55	< 5	< 10	304	< 5	15	60	35
W1434509	< 5	0.07	9	401	9	0.23	< 5	< 10	67	< 5	10	36	110
W1434510	< 5	0.16	32	563	33	0.54	< 5	< 10	322	< 5	16	65	34
W1434511	< 5	0.05	16	377	29	0.49	< 5	< 10	199	< 5	21	31	98
W1434512	< 5	0.16	16	373	24	0.41	< 5	< 10	221	< 5	21	36	80
W1434513	< 5	0.05	20	483	19	0.51	< 5	< 10	216	< 5	20	46	90
W1434514	< 5	0.04	26	309	23	0.46	< 5	< 10	252	< 5	17	66	60
W1434515	< 5	0.14	24	401	24	0.46	< 5	< 10	250	< 5	17	57	58
W1434516	< 5	0.06	27	381	19	0.47	8	< 10	259	< 5	17	61	57
W1434517	< 5	0.08	28	451	25	0.46	< 5	< 10	254	< 5	17	56	57
W1434518	< 5	0.07	26	502	24	0.48	< 5	< 10	256	< 5	16	62	59
W1434519	< 5	0.08	28	464	24	0.47	< 5	< 10	227	< 5	14	70	51
W1434520	< 5	0.04	27	421	13	0.48	< 5	< 10	221	< 5	14	91	50
W1434521	< 5	0.03	9	351	3	0.16	< 5	< 10	45	< 5	11	28	93
W1434522	< 5	0.04	25	468	23	0.30	< 5	< 10	175	< 5	13	74	36
W1434523	11	0.05	26	777	17	0.50	< 5	< 10	247	< 5	14	64	55
W1434524	< 5	0.05	27	650	12	0.27	< 5	< 10	168	< 5	14	64	34
W1434525	< 5	0.05	22	732	21	0.47	< 5	< 10	248	< 5	12	67	50

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		32.8	0.68	447	630	< 1	1380	0.85	2.3	6	11	1130	23.0	12	8	0.04	0.19	8	869	14	0.07	41	0.058	714
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas		33.4	0.74	461	644	1	1420	0.88	2.3	5	12	1150	23.5	12	5	0.05	0.19	8	921	15	0.08	42	0.061	729
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas		33.1	0.80	465	648	1	1470	0.89	2.4	5		1160	23.7	14	7	0.04	0.19	8	913	15	0.07	41	0.061	750
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20		1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas		30.9	3.52	529	629	1	1390	0.91	3.5	9		1060	23.9	21	3	0.04	0.21	8	895	14	0.04	50	0.054	670
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20		1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.4	2.18	112	97	2	21	1.07	0.4	15	43	6500	3.13	18	< 1	3.09	1.68	11	153	314	0.54	42	0.134	46
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas		3.6	2.22	106	97	2	13	1.10	< 0.3	16	39	6740	3.20	19	< 1	4.51	1.71	11	154	323	0.56	44	0.137	44
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas		3.4	2.18	106	93	2	14	1.09	0.3	16	45	6480	3.11	20	< 1	3.60	1.67	10	148	314	0.54	44	0.134	44
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas		3.2	9.56	146	667	2	10	1.11	< 0.3	15	61	6570	3.24	26	< 1	3.29	1.68	10	148	315	0.49	49	0.136	58
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	2.86	< 3	627	3	2	1.12	< 0.3	19	48	30	4.98	24	< 1	3.11	0.99	33	905	< 1	1.48	38	0.057	24
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
SDC-1 Meas		< 0.3	2.79	< 3	627	3	< 2	1.14	< 0.3	19	50	25	4.95	24	< 1	3.04	1.01	33	962	< 1	1.48	38	0.058	20
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
SDC-1 Meas		< 0.3	2.57	< 3	612	3	< 2	1.12	< 0.3	19	61	27	4.84	24	< 1	2.96	0.98	32	970	< 1	1.46	38	0.059	21
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
SDC-1 Meas		< 0.3	11.1	7	600	3	< 2	1.10	< 0.3	20		28	4.78	33	< 1	1.89	0.98	33	875	< 1	1.44	38	0.059	18
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0		30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		< 0.3	4.75	223	> 1000	1	2	0.20	0.5	14	42	69	5.65	32	2	2.00	0.60	34	1060	< 1	0.12	28	0.032	96
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas		< 0.3	5.30	335	> 1000	1	< 2	0.22	< 0.3	14	80	67	5.81	33	< 1	2.13	0.74	37	1140	2	0.13	27	0.043	93
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas		< 0.3	4.62	289	> 1000	1	< 2	0.21	< 0.3	13	75	62	5.47	34	4	1.94	0.60	34	1120	< 1	0.13	27	0.036	90
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas		0.8	21.5	471	> 1000	1	< 2	0.23	< 0.3	15	71	70	5.78	47	< 1	2.62	0.66	37	1090	1	0.11	30	0.040	93
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		2.4	2.10	35	769	3	< 2	0.65	5.2	12		324	3.38	18		2.78	0.47	28	5180	8	1.14	46	0.060	1000
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
SAR-M (U.S.G.S.) Meas		2.6	2.05	31	780	3	< 2	0.67	5.4	11		319	3.34	19		3.27	0.48	28	5230	5	1.14	48	0.067	1010
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
SAR-M (U.S.G.S.) Meas		2.9	2.08	32	780	3	< 2	0.67	5.4	12		326	3.42	18		3.14	0.46	29	5130	6	1.16	47	0.068	1030
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
SAR-M (U.S.G.S.) Meas		4.5	9.33	58	881	3	< 2	0.70	6.8	12		352	3.56	27		3.76	0.49	29	5280	11	1.19	58	0.075	1050
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					92					55	178	98						5				247		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
DNC-1a Meas					95					57	177	101						5				256		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
DNC-1a Meas					92					56	195	97						4				252		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
DNC-1a Meas					80					54	208	76						3				231		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SE58 Meas	596																							
SE58 Cert	607.00																							
SE58 Meas	618																							
SE58 Cert	607.00																							
SE58 Meas	635																							
SE58 Cert	607.00																							
SBC-1 Meas				17	761	3	< 2		0.3	23	77	32		28				158		2		87		31
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
SBC-1 Meas				27	667	3	< 2		0.4	24	92	31		29				148		2		91		32

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
SBC-1 Meas				28	713	3	< 2		0.5	23		32		27				149		2		88		30
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7		31.0		27.0				163.0		2.40		82.8		35.0
SBC-1 Meas				34	682	3	< 2		1.4	27		28		45				141		2		88		30
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7		31.0		27.0				163.0		2.40		82.8		35.0
W1434490 Orig		0.4	10.1	11	821	< 1	< 2	4.77	0.3	35	22	842	6.74	23	< 1	3.40	2.47	21	1090	< 1	2.22	18	0.145	< 3
W1434490 Dup		0.6	10.8	19	888	< 1	< 2	4.78	< 0.3	34	20	870	6.85	26	< 1	3.48	2.52	22	1120	< 1	2.24	19	0.151	< 3
W1434492 Orig	54																							
W1434492 Dup	53																							
W1434504 Orig		0.8	10.7	11	881	< 1	3	5.37	0.6	37	13	1490	6.30	21	< 1	2.96	2.43	24	1360	4	2.33	13	0.147	< 3
W1434504 Dup		0.7	10.7	14	871	< 1	< 2	5.39	0.6	43	14	1470	6.27	28	< 1	2.95	2.47	23	1370	3	2.32	15	0.139	< 3
W1434507 Orig	49	< 0.3	9.50	21	583	< 1	< 2	5.45	0.4	32	17	413	7.47	26	3	1.89	2.44	28	1200	< 1	2.28	17	0.134	< 3
W1434507 Split	40	< 0.3	9.90	19	605	< 1	4	5.49	< 0.3	34	19	443	7.68	22	< 1	2.00	2.50	27	1230	< 1	2.27	17	0.144	< 3
W1434507 Orig	49																							
W1434522 Orig	< 5																							
W1434522 Dup	< 5																							
W1434525 Orig	< 5	< 0.3	9.44	31	601	< 1	2	4.99	0.5	29	45	155	6.41	29	2	2.08	2.29	27	1150	4	2.34	29	0.116	3
W1434525 Split	< 5	< 0.3	10.9	22	603	< 1	4	4.99	0.5	29	34	154	6.39	32	< 1	2.33	2.24	27	1110	4	2.31	30	0.119	5
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	4
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	3	< 0.01	< 0.3	< 1		< 1	< 0.01	5	< 1	< 0.01	< 0.01	< 1	< 1	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		2.1	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	1	< 1	0.03	3	< 0.001	< 3
Method Blank		4.1	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	2	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	< 1	< 1	0.03	3	< 0.001	< 3
Method Blank		3.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	1	< 1	0.03	2	< 0.001	< 3
Method Blank		2.4	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	0.03	3	< 0.001	< 3
Method Blank		2.4	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	2	< 1	0.03	2	< 0.001	< 3
Method Blank		2.5	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	0.03	2	< 0.001	< 3
Method Blank		3.1	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	< 1	< 1	0.03	3	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	19	0.24	< 4	277	18		< 5	10	85	156	25	744	27
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-1 Meas	20	0.25	< 4	286	30		< 5	20	87	167	26	769	29
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-1 Meas	18	0.25	< 4	286	29		< 5	20	89	169	27	781	28
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-1 Meas	59	0.21	< 4	272	32		< 5	50	85	163	26	694	28
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	< 5	1.77	8	213	10		< 5	< 10	91	39	13	74	45
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
GXR-4 Meas	< 5	1.81	8	222	< 2		6	< 10	93	40	13	74	45
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
GXR-4 Meas	< 5	1.77	8	207	7		9	< 10	89	39	13	74	48
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
GXR-4 Meas	10	1.75	8	216	37		< 5	< 10	94	32	13	76	57
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.07	17	178		0.06	< 5	< 10	29	< 5	31	104	30
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
SDC-1 Meas	< 5	0.07	17	175		0.14	< 5	< 10	37	< 5	31	104	37
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
SDC-1 Meas	< 5	0.07	16	171		0.33	< 5	< 10	66	< 5	30	103	43
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
SDC-1 Meas	< 5	0.07	17	162		0.38	< 5	< 10	79	< 5	30	100	50
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	27	42	< 2		< 5	< 10	77	< 5	11	130	40
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
GXR-6 Meas	< 5	0.02	31	47	6		6	< 10	174	< 5	13	129	98
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
GXR-6 Meas	< 5	0.02	27	43	9		6	< 10	123	< 5	10	131	76
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
GXR-6 Meas	< 5	0.02	31	45	20		< 5	< 10	188	< 5	13	135	104
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	6		10	151	10	0.39	< 5	< 10	69	15	36	932	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
SAR-M (U.S.G.S.) Meas	< 5		10	152	3	0.24	< 5	< 10	49	11	33	952	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
SAR-M (U.S.G.S.) Meas	< 5		10	152	13	0.27	< 5	< 10	57	12	34	930	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
SAR-M (U.S.G.S.) Meas	14		11	158	19	0.41	< 5	< 10	76	14	35	976	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		31	129					139		14	61	36
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
DNC-1a Meas	< 5		31	132					147		14	59	37
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
DNC-1a Meas	< 5		29	129					145		14	60	37
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
DNC-1a Meas	< 5		30	116					136		13	50	29
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SBC-1 Meas	< 5		21	180			< 5	< 10	222	< 5	27	191	122
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
SBC-1 Meas	6		13	171			< 5	< 10	225	< 5	22	209	126

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
SBC-1 Meas	< 5		16	171			< 5	< 10	219	< 5	25	191	124
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
SBC-1 Meas	< 5		21	162			< 5	< 10	214	< 5	29	173	106
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434490 Orig	< 5	1.09	33	454	20	0.55	< 5	< 10	320	< 5	14	43	54
W1434490 Dup	< 5	1.09	35	469	42	0.63	< 5	< 10	364	< 5	14	43	57
W1434492 Orig													
W1434492 Dup													
W1434504 Orig	5	0.39	31	507	22	0.62	< 5	10	343	< 5	17	53	64
W1434504 Dup	< 5	0.37	31	505	25	0.56	< 5	< 10	330	< 5	17	53	39
W1434507 Orig	< 5	0.17	31	592	27	0.46	< 5	< 10	274	< 5	14	46	20
W1434507 Split	< 5	0.19	32	598	24	0.53	< 5	< 10	298	< 5	15	48	34
W1434507 Orig													
W1434522 Orig													
W1434522 Dup													
W1434525 Orig	< 5	0.05	22	732	21	0.47	< 5	< 10	248	< 5	12	67	50
W1434525 Split	< 5	0.06	26	743	32	0.48	< 5	< 10	244	< 5	14	67	55
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
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Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
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Quality Analysis ... **Actlabs** *Innovative Technologies*

Date Submitted:	10-Dec-12
Invoice No.:	A12-13841
Invoice Date:	07-Jan-13
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

126 Core samples and 3 Pulp samples were submitted for analysis.

The following analytical packages were requested: Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-13841**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited
LAB 266
LAB 266
Accrédité CCN

ACTIVATION LABORATORIES LTD.

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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434526	6	< 0.3	7.71	20	> 1000	< 1	< 2	3.48	< 0.3	28	45	184	6.53	25	1	2.14	3.02	30	933	1	2.42	28	0.162	6
W1434527	9	< 0.3	8.09	14	715	< 1	< 2	4.51	< 0.3	33	47	568	6.71	27	2	1.63	3.07	40	921	1	2.55	30	0.163	16
W1434528	6	< 0.3	7.95	12	641	< 1	< 2	3.66	< 0.3	45	48	346	6.98	26	2	2.44	2.50	35	821	2	2.55	32	0.171	6
W1434529	9	< 0.3	7.60	12	258	< 1	< 2	3.31	0.4	42	45	310	7.30	26	< 1	2.53	2.33	22	808	5	2.75	31	0.162	8
W1434530	7	< 0.3	7.37	9	764	< 1	< 2	3.89	0.7	30	40	194	6.43	24	2	1.91	2.68	32	945	4	2.48	30	0.145	14
W1434531	6	< 0.3	7.97	37	796	< 1	< 2	4.60	< 0.3	30	42	347	6.00	24	4	2.04	2.67	37	1010	< 1	2.49	35	0.153	21
W1434532	7	0.4	8.18	12	486	< 1	< 2	5.79	0.3	29	37	119	5.98	26	1	1.07	2.72	36	1050	< 1	2.58	30	0.153	13
W1434533	< 5	< 0.3	7.97	38	380	< 1	< 2	6.89	4.4	26	36	26	6.37	26	3	1.09	2.94	35	1200	< 1	2.20	27	0.138	12
W1434534	< 5	< 0.3	7.55	17	864	< 1	< 2	4.49	4.9	18	14	17	5.48	25	< 1	2.68	1.93	21	965	< 1	2.61	9	0.156	18
W1434535	< 5	< 0.3	8.35	25	705	< 1	< 2	5.00	2.7	16	7	5	5.39	24	< 1	2.73	1.70	14	966	< 1	2.83	7	0.158	13
W1434536	13	< 0.3	7.92	9	560	< 1	< 2	4.88	13.9	17	6	154	5.07	24	2	2.31	1.64	13	988	< 1	2.82	6	0.144	34
W1434537	< 5	< 0.3	7.33	6	> 1000	< 1	< 2	7.49	0.5	13	7	8	4.55	23	3	2.30	1.54	14	1130	< 1	2.64	5	0.144	6
W1434538	< 5	< 0.3	7.82	8	746	< 1	< 2	5.38	< 0.3	16	8	5	4.84	24	< 1	2.29	1.55	13	966	< 1	2.80	6	0.154	6
W1434539	24	< 0.3	8.38	10	699	< 1	< 2	4.83	< 0.3	15	7	5	5.26	29	9	2.70	1.69	14	980	< 1	2.79	6	0.157	8
W1434540	< 5	< 0.3	8.29	28	811	< 1	2	5.18	0.6	14	6	4	5.12	27	3	2.99	1.60	14	985	< 1	2.69	6	0.153	9
W1434541	< 5	< 0.3	7.99	39	789	< 1	< 2	4.59	< 0.3	15	7	8	5.09	29	6	2.63	1.67	14	904	< 1	2.67	4	0.141	9
W1434542	< 5	< 0.3	8.12	23	770	< 1	8	4.70	< 0.3	14	6	9	5.03	25	2	2.56	1.65	15	910	< 1	2.72	7	0.144	5
W1434543	7	< 0.3	7.77	8	503	< 1	< 2	4.85	< 0.3	14	8	78	4.92	27	2	2.19	1.61	13	949	< 1	2.63	6	0.140	8
W1434544	71	< 0.3	6.31	3	236	2	< 2	0.95	0.4	8	40	2010	3.73	27	< 1	3.05	0.62	9	284	50	1.73	26	0.042	13
W1434545	7	< 0.3	8.22	39	576	< 1	< 2	4.72	< 0.3	15	7	36	5.10	26	4	2.32	1.68	14	928	< 1	2.84	5	0.146	9
W1434546	7	< 0.3	8.32	23	728	< 1	< 2	5.12	< 0.3	15	8	20	5.31	25	< 1	2.64	1.74	14	987	< 1	2.88	6	0.156	8
W1434547	< 5	< 0.3	8.18	13	944	< 1	< 2	4.81	< 0.3	15	7	36	5.40	29	1	2.92	1.78	16	1000	< 1	2.83	7	0.160	7
W1434548	< 5	< 0.3	8.13	26	604	< 1	2	4.57	< 0.3	15	12	26	5.28	29	2	2.37	1.77	15	987	< 1	2.92	7	0.159	11
W1434549	17	< 0.3	8.29	25	542	< 1	< 2	4.94	< 0.3	15	7	16	5.11	27	1	2.31	1.70	12	1010	< 1	2.91	5	0.154	7
W1434550	16	< 0.3	7.99	< 3	318	1	< 2	4.36	0.4	23	125	9	3.14	27	< 1	1.07	2.62	8	452	< 1	2.29	26	0.043	12
W1434551	15	< 0.3	8.35	17	539	< 1	< 2	4.81	0.3	15	6	11	5.27	26	3	2.27	1.79	12	994	< 1	2.83	7	0.148	8
W1434552	< 5	< 0.3	8.22	21	635	< 1	< 2	4.51	< 0.3	16	10	26	5.17	27	< 1	2.48	1.77	15	979	< 1	2.75	10	0.143	9
W1434553	6	< 0.3	8.28	9	798	< 1	< 2	4.39	< 0.3	15	6	12	5.24	25	2	2.67	1.76	16	925	< 1	2.77	11	0.145	11
W1434554	< 5	< 0.3	7.43	16	744	< 1	< 2	4.64	< 0.3	18	37	14	5.78	26	2	2.27	2.15	17	1110	< 1	2.67	11	0.154	9
W1434555	10	< 0.3	7.97	22	645	< 1	< 2	4.80	< 0.3	18	7	55	5.41	28	< 1	2.43	1.84	16	1110	< 1	2.98	6	0.163	6
W1434556	12	2.2	8.40	16	756	< 1	< 2	4.50	0.5	17	7	43	5.36	27	< 1	2.53	1.78	17	1000	< 1	3.08	6	0.154	8
W1434557	< 5	< 0.3	8.27	19	554	< 1	< 2	4.48	< 0.3	17	10	44	5.47	27	1	2.21	1.75	15	1010	< 1	3.08	6	0.159	7
W1434558	6	< 0.3	7.95	14	453	< 1	< 2	4.70	0.6	17	10	11	5.36	27	< 1	1.98	1.74	14	1060	< 1	3.15	5	0.159	8
W1434559	< 5	< 0.3	8.22	8	395	< 1	< 2	4.64	< 0.3	16	6	10	5.33	24	< 1	1.76	1.70	15	997	< 1	3.07	4	0.151	6
W1434560	< 5	< 0.3	8.03	13	495	< 1	3	4.64	< 0.3	16	8	62	5.10	28	2	1.99	1.69	15	960	< 1	2.97	9	0.146	8
W1434561	< 5	< 0.3	7.84	< 3	341	1	< 2	4.04	< 0.3	17	137	3	2.86	26	< 1	1.20	2.69	7	423	< 1	2.45	26	0.036	9
W1434562	10	< 0.3	7.77	9	540	< 1	3	5.20	0.8	21	20	13	5.56	23	2	1.60	2.12	24	1220	< 1	2.70	14	0.137	8
W1434563	20	< 0.3	7.88	25	694	< 1	< 2	5.11	0.7	26	35	247	6.18	26	< 1	1.39	2.67	33	1250	< 1	2.62	24	0.141	10
W1434564	8	< 0.3	9.13	15	439	< 1	< 2	5.02	0.3	27	54	263	6.43	24	4	0.90	3.14	41	1400	1	2.74	21	0.172	9
W1434565	7	< 0.3	8.18	22	> 1000	< 1	< 2	5.01	< 0.3	25	27	37	6.55	25	< 1	1.73	2.71	36	1440	< 1	2.60	20	0.149	9
W1434566	8	< 0.3	8.24	15	581	< 1	< 2	4.94	1.0	17	6	20	5.22	25	< 1	2.26	1.69	15	1070	< 1	3.01	5	0.161	11
W1434567	14	< 0.3	8.49	18	466	< 1	< 2	4.47	0.5	17	8	86	5.40	25	2	1.94	1.72	15	1050	< 1	3.18	6	0.154	16
W1434568	14	< 0.3	8.47	19	324	< 1	< 2	5.20	0.7	15	12	132	5.15	27	1	1.44	1.60	10	1110	< 1	3.13	4	0.145	9
W1434569	15	< 0.3	8.62	13	398	1	< 2	6.07	< 0.3	15	5	114	4.75	32	< 1	1.77	1.49	10	1070	< 1	2.92	6	0.144	10
W1434570	8	< 0.3	8.36	12	489	< 1	< 2	4.92	< 0.3	16	7	32	5.18	26	2	2.15	1.63	14	1020	< 1	3.03	5	0.148	7
W1434571	8	< 0.3	8.29	11	558	< 1	< 2	4.77	< 0.3	16	6	26	5.08	26	1	2.33	1.65	13	1030	< 1	2.94	6	0.149	9
W1434572	7	< 0.3	8.02	11	550	< 1	< 2	4.93	< 0.3	18	6	40	4.91	24	< 1	2.41	1.60	13	1050	< 1	2.74	7	0.141	12
W1434573	< 5	< 0.3	7.96	18	628	< 1	< 2	4.76	< 0.3	16	7	25	5.17	28	1	2.62	1.65	14	1070	< 1	2.77	5	0.143	8
W1434574	6	< 0.3	8.19	12	650	< 1	< 2	5.44	< 0.3	16	9	19	5.14	25	< 1	2.78	1.61	13	1100	< 1	2.74	6	0.150	10
W1434575	13	< 0.3	8.36	17	729	< 1	< 2	5.15	< 0.3	17	8	20	5.49	29	< 1	2.84	1.71	15	1100	< 1	2.91	7	0.164	7
W1434576	11	< 0.3	8.02	27	718	< 1	< 2	5.09	< 0.3	16	7	9	5.12	27	< 1	2.58	1.66	14	1100	< 1	2.60	7	0.148	6
W1434577	8	< 0.3	7.85	9	743	< 1	< 2	4.83	< 0.3	17	9	35	5.19	24	< 1	2.80	1.79	16	1220	< 1	2.66	7	0.149	10

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434578	< 5	< 0.3	8.26	25	754	< 1	< 2	4.83	< 0.3	16	8	8	5.62	27	< 1	2.83	1.83	18	1310	< 1	2.79	6	0.154	12
W1434579	14	< 0.3	8.23	9	744	< 1	< 2	4.40	< 0.3	15	8	215	5.05	25	< 1	2.57	1.70	13	1150	< 1	2.89	6	0.140	6
W1434580	< 5	< 0.3	8.08	35	818	< 1	< 2	5.55	0.8	21	17	26	5.94	28	5	2.27	2.20	23	1370	< 1	2.49	14	0.138	8
W1434581	7	< 0.3	8.18	21	> 1000	< 1	< 2	3.83	< 0.3	29	34	315	6.74	25	< 1	1.55	2.93	40	1300	< 1	2.61	26	0.151	8
W1434582	13	< 0.3	7.67	15	950	< 1	< 2	4.58	0.5	27	40	213	6.00	24	3	1.49	3.35	35	1380	< 1	2.45	29	0.143	9
W1434583	< 5	< 0.3	8.74	11	720	< 1	< 2	2.28	< 0.3	33	51	175	6.91	27	< 1	1.35	3.60	48	1220	< 1	3.21	35	0.185	4
W1434584	41	< 0.3	7.86	9	811	< 1	< 2	3.64	< 0.3	32	41	20	6.44	25	< 1	1.16	3.51	51	1450	< 1	2.77	30	0.147	8
W1434585	69	< 0.3	5.53	< 3	159	2	< 2	0.95	< 0.3	9	51	2190	3.89	27	< 1	3.59	0.60	10	291	50	1.76	29	0.037	8
W1434586	45	< 0.3	7.98	14	> 1000	< 1	< 2	4.03	< 0.3	31	50	13	6.69	25	< 1	1.81	2.96	43	1280	< 1	2.78	32	0.153	5
W1434587	< 5	< 0.3	8.18	14	> 1000	< 1	< 2	4.08	< 0.3	23	23	4	6.60	24	2	2.45	2.47	36	1240	< 1	2.70	16	0.169	9
W1434588	< 5	< 0.3	7.79	< 3	576	< 1	< 2	4.15	< 0.3	23	148	29	3.11	29	< 1	1.49	2.64	9	472	< 1	2.07	34	0.043	9
W1434589	5	< 0.3	7.99	10	921	< 1	< 2	6.25	< 0.3	15	8	4	5.60	26	3	2.41	1.78	24	1000	< 1	2.25	4	0.172	8
W1434590	< 5	< 0.3	7.81	15	790	< 1	< 2	6.85	< 0.3	17	5	5	5.93	22	2	2.43	1.66	22	1030	< 1	2.15	6	0.167	7
W1434591	< 5	< 0.3	8.41	17	739	< 1	< 2	6.00	< 0.3	17	6	< 1	6.32	25	2	2.31	1.81	27	1120	< 1	2.54	5	0.173	8
W1434592	8	< 0.3	7.96	33	619	< 1	< 2	5.73	< 0.3	15	5	1	6.04	23	3	2.43	1.78	24	1090	< 1	2.33	6	0.162	8
W1434593	6	< 0.3	8.02	20	904	< 1	< 2	5.48	< 0.3	15	7	1	5.89	22	< 1	2.89	1.71	23	1110	< 1	2.41	6	0.177	6
W1434594	6	< 0.3	7.89	44	> 1000	< 1	< 2	5.03	< 0.3	19	11	1	6.27	24	7	2.65	2.09	27	1150	1	2.45	9	0.176	12
W1434595	23	< 0.3	8.01	19	> 1000	< 1	< 2	6.18	0.4	13	6	2	5.16	26	2	3.10	1.71	18	1190	< 1	2.20	6	0.165	8
W1434596	5	< 0.3	7.92	20	> 1000	< 1	< 2	4.70	< 0.3	15	9	47	5.46	25	1	3.20	1.80	19	1240	< 1	2.67	5	0.156	6
W1434597	6	< 0.3	7.75	12	950	< 1	< 2	4.43	0.5	16	9	96	5.14	25	2	3.06	1.69	15	1280	< 1	2.56	6	0.135	9
W1434598	6	< 0.3	8.03	15	955	< 1	2	4.20	0.4	23	22	914	4.99	24	2	2.37	2.28	24	1260	2	2.53	15	0.142	6
W1434599	< 5	< 0.3	7.02	5	739	< 1	< 2	4.39	< 0.3	39	36	133	5.46	25	< 1	0.67	3.33	37	1450	< 1	2.65	30	0.139	14
W1434600	6	< 0.3	7.34	24	> 1000	< 1	< 2	5.59	< 0.3	25	39	52	6.72	26	6	1.82	3.04	28	1340	< 1	2.14	24	0.137	9
W1434601	< 5	< 0.3	8.23	< 3	362	1	< 2	4.19	< 0.3	17	130	3	2.92	26	< 1	1.24	2.74	8	429	< 1	2.62	25	0.043	5
W1434602	5	< 0.3	7.92	11	795	< 1	< 2	5.15	0.3	30	41	84	6.45	24	2	2.14	3.12	29	1220	< 1	2.01	28	0.139	4
W1434603	6	< 0.3	6.91	29	380	< 1	< 2	5.44	0.8	37	148	209	7.35	23	< 1	1.09	4.04	33	1540	2	2.14	85	0.165	11
W1434604	< 5	< 0.3	6.88	24	750	< 1	< 2	4.60	0.3	43	133	186	7.39	24	< 1	1.10	4.82	33	1880	2	2.33	102	0.189	12
W1434605	5	< 0.3	6.89	22	865	< 1	3	4.85	< 0.3	23	132	45	7.58	25	< 1	1.42	4.61	31	1800	7	2.04	93	0.185	6
W1434606	9	< 0.3	6.87	31	532	< 1	< 2	5.24	< 0.3	44	148	202	7.43	24	1	2.11	4.64	31	1760	< 1	1.93	109	0.177	5
W1434607	10	< 0.3	6.07	33	790	< 1	< 2	5.96	1.1	25	94	80	6.96	26	< 1	2.51	3.76	26	1530	2	1.65	61	0.149	10
W1434608	46	< 0.3	4.24	13	116	< 1	< 2	6.03	2.0	21	47	914	3.67	14	2	2.17	1.31	9	886	3	0.53	18	0.070	8
W1434609	12	< 0.3	7.10	17	294	< 1	< 2	5.07	0.6	30	31	219	5.65	24	1	2.03	3.21	24	1070	< 1	1.94	27	0.129	9
W1434610	11	< 0.3	7.97	8	632	< 1	< 2	4.41	< 0.3	35	43	231	6.52	25	< 1	0.79	3.37	35	1050	< 1	3.25	32	0.157	14
W1434611	5	< 0.3	7.70	13	> 1000	< 1	< 2	6.74	< 0.3	31	40	130	6.35	24	3	1.50	2.32	25	1350	1	2.75	37	0.158	7
W1434612	8	< 0.3	6.50	15	460	< 1	2	4.99	< 0.3	26	34	165	6.27	24	3	1.39	2.54	29	1280	< 1	2.66	28	0.149	6
W1434613	12	< 0.3	7.11	26	259	< 1	< 2	6.54	< 0.3	28	20	222	5.38	25	1	1.68	2.14	19	1190	< 1	2.50	16	0.162	10
W1434614	26	< 0.3	6.29	23	516	< 1	< 2	7.63	0.6	26	27	206	5.60	24	8	0.92	2.51	25	1180	< 1	2.45	23	0.138	7
W1434615	10	< 0.3	7.91	24	619	< 1	< 2	6.50	0.8	24	33	105	6.42	26	3	0.96	3.06	31	1170	< 1	2.70	28	0.154	6
W1434616	12	< 0.3	7.71	20	726	< 1	< 2	5.40	0.5	27	30	98	6.57	26	2	1.44	3.01	29	1200	< 1	2.44	26	0.148	4
W1434617	27	< 0.3	7.85	15	693	< 1	< 2	4.27	< 0.3	25	31	308	6.21	25	2	1.36	3.15	31	1010	< 1	2.80	27	0.171	6
W1434618	8	< 0.3	7.65	9	358	< 1	< 2	4.32	0.5	32	33	181	5.89	24	2	1.59	2.99	29	1040	< 1	2.55	28	0.166	7
W1434619	6	< 0.3	7.64	13	> 1000	< 1	< 2	5.01	2.2	25	31	100	6.04	24	1	1.73	2.94	25	1240	< 1	2.29	29	0.144	9
W1434620	6	< 0.3	8.18	19	927	< 1	< 2	4.74	1.0	24	42	32	6.75	26	1	2.03	3.27	31	1260	< 1	2.44	30	0.166	13
W1434621	5	< 0.3	7.83	7	767	< 1	< 2	5.07	1.3	29	40	112	6.43	26	3	1.62	3.32	34	1230	< 1	2.45	29	0.155	13
W1434622	9	< 0.3	6.35	17	990	< 1	< 2	5.32	0.4	24	40	68	6.72	24	1	1.90	2.96	29	1230	< 1	2.05	28	0.140	< 3
W1434623	8	< 0.3	7.64	< 3	973	< 1	< 2	5.30	< 0.3	29	37	175	6.45	26	7	1.78	3.02	28	1220	< 1	2.15	28	0.132	9
W1434624	18	< 0.3	7.88	14	936	< 1	< 2	5.45	< 0.3	24	31	233	6.46	28	1	2.08	2.90	30	991	< 1	2.36	23	0.161	9
W1434625	318	< 0.3	5.82	4	227	1	< 2	1.49	< 0.3	14	74	8500	6.24	27	< 1	2.80	1.26	10	354	98	1.46	48	0.057	12
W1434626	30	< 0.3	7.96	13	411	< 1	< 2	4.08	0.4	29	32	229	6.49	26	1	1.68	3.06	33	802	< 1	2.83	27	0.184	3
W1434627	11	< 0.3	7.11	12	498	< 1	< 2	4.07	0.7	24	34	112	6.77	25	2	1.56	3.26	32	915	< 1	2.91	29	0.160	9
W1434628	24	< 0.3	7.99	27	167	< 1	< 2	4.97	< 0.3	55	32	495	6.61	25	< 1	1.81	2.99	30	1040	< 1	2.59	31	0.175	10
W1434629	86	< 0.3	8.01	11	499	< 1	< 2	3.80	< 0.3	21	21	589	6.29	26	< 1	2.37	2.40	19	969	< 1	2.77	17	0.157	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434630	80	< 0.3	7.82	8	767	< 1	< 2	4.13	< 0.3	17	23	467	6.04	25	2	2.73	2.37	15	1120	< 1	2.61	16	0.156	8
W1434631	< 5	< 0.3	8.25	13	538	< 1	4	4.73	0.4	28	124	30	4.34	27	1	1.09	2.91	9	730	< 1	2.04	30	0.042	10
W1434632	20	< 0.3	6.65	12	83	< 1	< 2	4.45	11.7	43	40	178	6.04	24	< 1	1.62	2.74	33	924	1	2.77	26	0.162	22
W1434633	12	< 0.3	7.12	11	63	< 1	< 2	4.69	< 0.3	37	37	66	5.76	21	2	1.73	2.60	33	918	1	2.98	25	0.156	< 3
W1434634	14	< 0.3	6.43	19	109	< 1	< 2	4.44	< 0.3	29	32	166	6.33	26	< 1	1.83	2.86	31	1470	2	2.69	26	0.159	9
W1434635	12	< 0.3	6.13	20	90	< 1	3	3.98	< 0.3	36	33	140	6.26	25	1	1.29	2.15	27	1150	3	3.26	28	0.143	5
W1434636	11	< 0.3	7.74	8	535	< 1	< 2	5.94	< 0.3	31	37	246	6.86	26	1	1.91	3.19	34	1750	< 1	2.20	29	0.153	6
W1434637	6	< 0.3	7.33	17	> 1000	< 1	< 2	5.61	< 0.3	28	33	119	6.40	26	1	2.30	2.91	33	1680	< 1	2.30	28	0.142	10
W1434638	6	< 0.3	7.59	7	247	< 1	< 2	4.21	< 0.3	17	36	129	6.40	24	2	1.31	2.91	40	1400	< 1	2.70	28	0.149	5
W1434639	< 5	< 0.3	7.85	< 3	131	< 1	2	4.72	< 0.3	33	36	90	6.97	26	1	1.89	3.04	44	1530	< 1	2.52	28	0.144	10
W1434640	7	< 0.3	7.93	19	715	< 1	< 2	6.79	< 0.3	26	42	149	6.42	26	2	1.67	2.86	38	1770	< 1	2.04	29	0.145	10
W1434641	< 5	< 0.3	8.85	< 3	436	1	6	5.18	< 0.3	30	112	30	4.53	30	1	1.04	2.64	9	733	< 1	2.14	26	0.046	7
W1434642	10	< 0.3	6.22	25	> 1000	< 1	2	6.50	< 0.3	26	46	196	7.14	27	5	2.10	2.99	36	2010	< 1	1.81	29	0.133	8
W1434643	8	< 0.3	8.35	42	214	< 1	< 2	5.70	0.5	36	37	225	7.10	26	5	2.63	3.21	37	1930	2	2.18	30	0.150	7
W1434644	9	< 0.3	7.17	16	95	< 1	< 2	5.66	< 0.3	41	28	351	6.68	26	2	1.29	2.88	45	1520	3	2.82	27	0.148	7
W1434645	7	< 0.3	7.95	19	282	< 1	< 2	5.19	< 0.3	33	31	147	6.74	24	< 1	1.54	3.02	45	1730	1	2.54	28	0.162	12
W1434646	7	< 0.3	7.56	16	171	< 1	< 2	5.08	0.4	38	30	183	6.48	25	< 1	1.22	2.88	38	1730	< 1	2.64	27	0.147	11
W1434647	10	< 0.3	7.52	16	128	< 1	< 2	5.25	< 0.3	32	31	264	6.31	24	1	0.97	2.63	37	1600	1	2.54	26	0.144	11
W1434648	16	< 0.3	7.12	18	60	< 1	< 2	4.80	< 0.3	39	36	394	6.28	24	< 1	1.19	2.84	40	1580	2	2.61	28	0.136	10
W1434649	8	< 0.3	7.88	16	86	< 1	< 2	5.03	< 0.3	30	42	199	6.90	25	3	1.55	3.07	41	1720	2	2.67	26	0.156	8
W1434650	10	< 0.3	7.66	15	63	< 1	< 2	4.70	< 0.3	57	34	251	6.50	24	2	1.67	2.73	41	1440	3	2.71	30	0.144	15
W1434651	13	< 0.3	5.90	19	98	< 1	< 2	4.79	1.2	37	41	307	6.26	24	< 1	0.81	2.63	35	1800	< 1	2.70	30	0.140	11
W1434652	84	< 0.3	7.13	23	182	< 1	< 2	5.72	1.1	18	55	209	6.10	25	1	2.72	2.53	28	1820	1	1.65	27	0.144	9
W1434653	324	15.6	6.68	10	152	< 1	< 2	4.96	13.5	21	46	1660	4.78	23	2	3.66	1.62	12	1110	1	0.49	22	0.104	13
W1434654	20	< 0.3	7.63	14	262	< 1	< 2	5.22	1.2	33	39	408	6.29	24	1	1.86	3.00	34	1520	< 1	2.01	30	0.140	7

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434526	< 5	0.28	27	312	9	0.44	< 5	< 10	237	< 5	15	66	33
W1434527	< 5	0.29	27	483	5	0.28	< 5	< 10	166	9	15	67	32
W1434528	< 5	0.69	25	538	8	0.47	< 5	< 10	252	< 5	13	68	36
W1434529	< 5	1.17	23	384	15	0.48	6	< 10	247	< 5	12	70	42
W1434530	< 5	0.58	24	603	< 2	0.42	< 5	< 10	190	< 5	13	88	40
W1434531	< 5	0.19	27	571	5	0.26	< 5	< 10	181	< 5	14	85	35
W1434532	< 5	0.05	27	638	12	0.29	< 5	< 10	169	< 5	14	80	40
W1434533	< 5	0.04	27	514	9	0.21	< 5	< 10	140	< 5	15	76	31
W1434534	< 5	0.02	16	380	6	0.48	< 5	< 10	186	< 5	18	60	90
W1434535	< 5	0.02	15	526	4	0.23	< 5	< 10	118	< 5	21	53	44
W1434536	7	0.04	14	514	8	0.15	< 5	< 10	89	< 5	20	50	48
W1434537	< 5	0.03	14	770	6	0.21	< 5	< 10	90	< 5	19	45	63
W1434538	< 5	0.03	14	617	< 2	0.33	< 5	< 10	131	< 5	19	45	84
W1434539	< 5	0.02	14	433	2	0.17	< 5	< 10	85	< 5	21	49	68
W1434540	< 5	0.02	13	488	< 2	0.14	< 5	< 10	80	< 5	20	47	55
W1434541	< 5	0.02	14	349	7	0.14	< 5	< 10	91	< 5	20	48	40
W1434542	< 5	0.02	14	389	7	0.17	< 5	< 10	97	< 5	20	48	47
W1434543	< 5	0.03	14	432	11	0.20	< 5	< 10	118	< 5	20	46	12
W1434544	< 5	1.55	6	93	< 2	0.28	< 5	< 10	43	< 5	13	43	39
W1434545	< 5	0.03	14	486	3	0.14	< 5	< 10	82	< 5	20	49	58
W1434546	< 5	0.03	14	505	13	0.29	< 5	< 10	119	< 5	20	47	82
W1434547	< 5	0.02	14	384	< 2	0.35	< 5	< 10	139	< 5	21	48	91
W1434548	< 5	0.03	14	430	14	0.38	< 5	< 10	146	< 5	20	48	89
W1434549	< 5	0.02	13	528	< 2	0.32	< 5	< 10	133	< 5	20	46	80
W1434550	< 5	0.04	10	422	< 2	0.17	< 5	< 10	49	< 5	13	37	116
W1434551	< 5	0.02	14	524	< 2	0.14	< 5	< 10	83	< 5	20	49	51
W1434552	< 5	0.02	14	458	< 2	0.16	< 5	< 10	99	< 5	20	64	35
W1434553	< 5	0.02	14	355	< 2	0.17	< 5	< 10	101	< 5	20	51	21
W1434554	< 5	0.02	18	378	6	0.51	< 5	< 10	200	< 5	19	65	92
W1434555	< 5	0.03	14	494	< 2	0.46	< 5	< 10	176	< 5	20	54	91
W1434556	< 5	0.02	14	403	11	0.28	< 5	< 10	118	< 5	20	51	77
W1434557	< 5	0.03	14	481	6	0.41	< 5	< 10	153	< 5	20	50	91
W1434558	< 5	0.02	13	533	7	0.40	< 5	< 10	152	< 5	20	50	88
W1434559	< 5	0.02	14	464	13	0.24	< 5	< 10	99	< 5	20	50	73
W1434560	5	0.03	14	412	7	0.15	< 5	< 10	80	7	20	52	59
W1434561	< 5	0.03	10	402	11	0.26	< 5	< 10	75	< 5	13	33	141
W1434562	< 5	0.03	17	503	8	0.13	< 5	< 10	97	< 5	17	70	29
W1434563	< 5	0.05	23	558	6	0.38	< 5	< 10	176	< 5	16	78	51
W1434564	< 5	0.06	36	366	9	0.53	< 5	< 10	249	< 5	18	123	69
W1434565	< 5	0.03	23	487	13	0.51	< 5	< 10	230	< 5	17	90	59
W1434566	< 5	0.03	14	522	7	0.45	< 5	< 10	163	< 5	20	51	91
W1434567	< 5	0.03	14	523	12	0.39	< 5	< 10	147	< 5	20	49	85
W1434568	< 5	0.03	14	603	20	0.29	< 5	< 10	123	< 5	20	44	69
W1434569	< 5	0.03	13	663	< 2	0.24	9	< 10	119	< 5	19	42	60
W1434570	< 5	0.02	14	530	< 2	0.20	< 5	< 10	100	< 5	20	45	57
W1434571	< 5	0.03	14	520	< 2	0.26	< 5	< 10	117	< 5	20	45	67
W1434572	< 5	0.03	14	648	9	0.13	< 5	< 10	80	< 5	20	45	48
W1434573	< 5	0.02	14	545	6	0.28	< 5	< 10	116	< 5	20	45	81
W1434574	< 5	0.03	14	623	17	0.37	< 5	< 10	144	< 5	20	45	79
W1434575	< 5	0.03	15	631	7	0.48	< 5	< 10	178	< 5	21	46	94
W1434576	< 5	0.03	14	602	11	0.45	< 5	< 10	165	< 5	20	46	88
W1434577	< 5	0.03	14	476	12	0.36	< 5	< 10	139	< 5	20	52	84

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434578	< 5	0.03	15	464	6	0.40	< 5	< 10	153	6	20	52	88
W1434579	< 5	0.04	14	478	10	0.17	7	< 10	98	< 5	20	47	52
W1434580	< 5	0.03	19	478	8	0.17	< 5	< 10	107	< 5	18	64	40
W1434581	< 5	0.06	25	780	17	0.20	< 5	< 10	149	< 5	15	99	28
W1434582	< 5	0.07	26	569	11	0.22	< 5	< 10	162	< 5	14	86	21
W1434583	< 5	0.04	28	620	< 2	0.56	< 5	< 10	261	5	13	95	62
W1434584	< 5	0.03	25	630	8	0.48	< 5	< 10	221	< 5	13	101	40
W1434585	< 5	1.55	6	100	3	0.27	< 5	< 10	45	< 5	12	45	31
W1434586	< 5	0.04	24	690	17	0.49	< 5	< 10	225	< 5	14	91	46
W1434587	< 5	0.02	22	565	7	0.47	< 5	< 10	207	< 5	18	77	57
W1434588	< 5	0.06	9	429	8	0.27	< 5	< 10	72	< 5	10	39	127
W1434589	6	0.03	17	611	12	0.34	< 5	< 10	160	< 5	18	51	52
W1434590	< 5	0.03	18	654	3	0.19	< 5	< 10	109	< 5	18	46	40
W1434591	< 5	0.03	19	536	10	0.17	< 5	< 10	113	< 5	19	53	32
W1434592	< 5	0.03	18	452	6	0.19	< 5	< 10	117	< 5	18	51	36
W1434593	< 5	0.03	18	466	5	0.24	< 5	< 10	123	< 5	19	50	54
W1434594	< 5	0.02	18	447	8	0.47	< 5	< 10	195	< 5	18	60	65
W1434595	< 5	0.03	16	536	16	0.43	< 5	< 10	191	< 5	18	44	68
W1434596	< 5	0.03	14	400	8	0.45	< 5	< 10	174	< 5	20	53	87
W1434597	< 5	0.03	13	433	5	0.28	< 5	< 10	118	< 5	19	53	79
W1434598	< 5	0.22	18	495	< 2	0.41	< 5	< 10	185	< 5	16	65	69
W1434599	< 5	0.51	22	543	< 2	0.39	< 5	< 10	192	< 5	13	87	41
W1434600	< 5	0.28	23	514	16	0.38	< 5	< 10	225	6	13	64	44
W1434601	< 5	0.03	10	404	7	0.15	< 5	< 10	41	< 5	13	32	108
W1434602	< 5	0.48	26	565	12	0.42	< 5	< 10	216	< 5	13	59	47
W1434603	< 5	1.03	31	544	4	0.50	< 5	< 10	295	< 5	14	77	57
W1434604	< 5	0.75	35	485	31	0.53	< 5	< 10	324	< 5	15	90	58
W1434605	< 5	0.15	34	553	22	0.54	< 5	< 10	316	< 5	15	83	60
W1434606	< 5	1.02	36	520	14	0.51	< 5	< 10	301	< 5	15	79	55
W1434607	< 5	0.90	21	405	12	0.48	< 5	< 10	277	< 5	13	74	51
W1434608	< 5	1.41	15	138	10	0.26	< 5	< 10	148	14	10	48	34
W1434609	< 5	1.07	23	292	11	0.42	< 5	< 10	229	< 5	12	81	30
W1434610	< 5	0.76	25	420	6	0.45	< 5	< 10	219	< 5	13	88	30
W1434611	< 5	0.32	24	591	5	0.49	< 5	< 10	246	< 5	13	61	53
W1434612	< 5	0.84	19	516	12	0.48	< 5	< 10	238	< 5	12	69	38
W1434613	< 5	0.74	24	413	8	0.44	< 5	< 10	235	< 5	15	59	40
W1434614	< 5	0.73	18	477	21	0.46	< 5	< 10	248	7	12	63	37
W1434615	< 5	0.63	26	465	6	0.50	< 5	< 10	259	< 5	14	60	41
W1434616	< 5	0.44	24	424	7	0.51	< 5	< 10	266	< 5	14	53	47
W1434617	< 5	0.60	26	523	7	0.35	< 5	< 10	195	< 5	15	50	29
W1434618	< 5	0.89	26	489	5	0.34	< 5	< 10	144	< 5	14	49	23
W1434619	< 5	0.45	25	419	< 2	0.37	< 5	< 10	189	< 5	14	57	26
W1434620	< 5	0.66	27	451	< 2	0.49	< 5	< 10	230	< 5	15	51	44
W1434621	< 5	0.72	25	332	21	0.50	< 5	< 10	260	< 5	14	54	55
W1434622	< 5	0.44	21	433	6	0.48	< 5	< 10	249	< 5	13	51	38
W1434623	< 5	0.26	25	493	< 2	0.19	5	< 10	144	< 5	14	52	21
W1434624	< 5	0.55	25	437	< 2	0.50	< 5	< 10	247	< 5	15	45	44
W1434625	< 5	1.62	11	290	3	0.28	6	< 10	98	< 5	9	55	20
W1434626	< 5	1.15	26	483	4	0.51	< 5	< 10	275	< 5	14	48	44
W1434627	< 5	1.08	21	465	14	0.40	< 5	< 10	195	< 5	15	56	33
W1434628	< 5	1.31	25	491	8	0.41	< 5	< 10	199	< 5	14	49	37
W1434629	< 5	0.72	22	510	16	0.36	< 5	< 10	152	< 5	17	47	43

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434630	< 5	0.67	23	508	< 2	0.44	< 5	< 10	183	< 5	17	49	49
W1434631	< 5	0.08	14	416	9	0.13	< 5	< 10	65	< 5	11	50	70
W1434632	< 5	2.41	21	428	12	0.49	< 5	< 10	239	< 5	12	67	45
W1434633	< 5	2.86	23	436	15	0.49	< 5	< 10	239	< 5	13	76	49
W1434634	< 5	2.00	18	554	< 2	0.50	< 5	< 10	292	< 5	13	86	50
W1434635	< 5	3.14	18	468	8	0.51	< 5	< 10	289	< 5	12	64	50
W1434636	< 5	1.01	24	566	8	0.50	< 5	< 10	256	< 5	14	77	50
W1434637	< 5	0.58	21	470	15	0.46	< 5	< 10	254	< 5	13	76	48
W1434638	< 5	0.88	25	509	14	0.46	< 5	< 10	279	< 5	14	98	42
W1434639	< 5	1.25	25	405	11	0.44	< 5	< 10	238	10	14	105	39
W1434640	< 5	0.73	25	642	16	0.44	6	< 10	220	< 5	14	91	38
W1434641	< 5	0.12	15	458	5	0.14	< 5	< 10	73	< 5	12	49	73
W1434642	< 5	0.29	19	590	< 2	0.50	< 5	< 10	271	< 5	12	85	48
W1434643	< 5	1.47	27	514	15	0.54	9	< 10	274	< 5	14	107	56
W1434644	< 5	3.03	22	439	12	0.51	< 5	< 10	327	< 5	14	134	56
W1434645	< 5	2.53	25	539	13	0.51	< 5	< 10	245	< 5	13	133	64
W1434646	< 5	2.07	24	557	17	0.50	< 5	< 10	247	< 5	13	119	58
W1434647	< 5	2.22	24	438	< 2	0.49	< 5	< 10	311	< 5	13	111	62
W1434648	< 5	2.51	24	402	3	0.48	< 5	< 10	271	< 5	14	125	53
W1434649	< 5	2.40	26	456	16	0.53	< 5	< 10	277	< 5	14	137	58
W1434650	< 5	3.46	24	516	10	0.49	< 5	< 10	246	< 5	13	141	52
W1434651	< 5	2.28	21	396	6	0.49	< 5	< 10	237	6	13	208	54
W1434652	< 5	1.22	23	424	19	0.46	< 5	< 10	230	6	13	133	49
W1434653	< 5	1.13	22	101	11	0.45	< 5	< 10	246	13	10	100	44
W1434654	< 5	0.90	25	253	3	0.47	< 5	< 10	221	< 5	12	181	33

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		29.3	2.22	452	666	1	1380	0.87	2.5	6		1170	23.4	12	8	0.06	0.19	8	919	14	0.50	39	0.058	724
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20		1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		1.8	6.10	116	934	2	18	1.10	0.5	16		6460	3.28	24	< 1	4.42	1.72	11	164	314	0.91	44	0.136	50
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6		6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	7.45	< 3	630	3	5	1.09	< 0.3	19	54	29	4.72	30	< 1	2.85	0.96	32	821	< 1	1.49	35	0.055	25
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		< 0.3	13.3	219	> 1000	1	3	0.20	< 0.3	14	51	73	5.51	41	1	1.92	0.61	35	1060	< 1	0.57	26	0.032	92
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		2.3	5.86	33	828	3	< 2	0.67	5.4	12		333	3.39	24		3.24	0.48	30	5230	4	1.38	47	0.066	997
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					95					56	194	99						4				248		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SE58 Meas	548																							
SE58 Cert	607.00																							
SE58 Meas	567																							
SE58 Cert	607.00																							
SE58 Meas	542																							
SE58 Cert	607.00																							
SE58 Meas	545																							
SE58 Cert	607.00																							
SF57 Meas	811																							
SF57 Cert	848.000																							
SBC-1 Meas				38	600	3	< 2		0.9	23	79	31		36				153		1		82		31
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
W1434533 Orig	6																							
W1434533 Dup	< 5																							
W1434538 Orig		< 0.3	7.90	11	752	< 1	< 2	5.42	< 0.3	16	8	5	4.90	22	< 1	2.31	1.55	14	971	< 1	2.84	7	0.159	5
W1434538 Dup		< 0.3	7.75	6	740	< 1	< 2	5.35	< 0.3	16	8	5	4.77	25	4	2.28	1.54	13	961	1	2.75	5	0.149	6
W1434548 Orig	< 5																							
W1434548 Dup	5																							
W1434552 Orig		< 0.3	8.33	21	644	< 1	4	4.57	< 0.3	15	10	37	5.27	25	< 1	2.50	1.80	15	999	< 1	2.81	13	0.148	11
W1434552 Dup		< 0.3	8.12	20	625	< 1	< 2	4.46	< 0.3	16	9	15	5.08	28	2	2.45	1.74	14	959	< 1	2.69	6	0.139	6
W1434555 Orig	10	< 0.3	7.97	22	645	< 1	< 2	4.80	< 0.3	18	7	55	5.41	28	< 1	2.43	1.84	16	1110	< 1	2.98	6	0.163	6
W1434555 Split	15	< 0.3	8.48	14	635	< 1	< 2	4.70	< 0.3	18	6	62	5.38	27	2	2.44	1.83	16	1080	< 1	2.91	7	0.135	7
W1434569 Orig	13																							
W1434569 Dup	17																							
W1434575 Orig	13	< 0.3	8.36	17	729	< 1	< 2	5.15	< 0.3	17	8	20	5.49	29	< 1	2.84	1.71	15	1100	< 1	2.91	7	0.164	7
W1434575 Split	8	< 0.3	7.94	13	675	< 1	< 2	4.91	< 0.3	17	7	17	5.07	25	1	2.68	1.66	14	1040	< 1	2.60	7	0.135	5
W1434577 Orig		< 0.3	7.97	11	751	< 1	< 2	4.88	< 0.3	16	9	49	5.28	25	< 1	2.85	1.80	16	1240	< 1	2.69	6	0.152	8
W1434577 Dup		< 0.3	7.73	8	734	< 1	< 2	4.78	1.3	17	9	21	5.10	24	1	2.74	1.77	15	1200	< 1	2.63	8	0.145	11
W1434584 Orig	40																							
W1434584 Dup	43																							
W1434586 Orig	45	< 0.3	7.98	14	> 1000	< 1	< 2	4.03	< 0.3	31	50	13	6.69	25	< 1	1.81	2.96	43	1280	< 1	2.78	32	0.153	5
W1434586 Split	45	< 0.3	7.87	10	> 1000	< 1	< 2	3.98	< 0.3	32	43	7	6.63	24	2	1.74	2.88	43	1270	< 1	2.83	29	0.149	4
W1434591 Orig		< 0.3	8.61	17	760	< 1	< 2	6.12	< 0.3	17	5	< 1	6.48	26	2	2.35	1.84	27	1150	< 1	2.67	6	0.181	7
W1434591 Dup		< 0.3	8.22	16	717	< 1	3	5.87	< 0.3	16	6	1	6.15	25	3	2.27	1.79	26	1100	< 1	2.42	4	0.164	9
W1434605 Orig	5																							
W1434605 Dup	5																							
W1434615 Orig	10	< 0.3	7.91	24	619	< 1	< 2	6.50	0.8	24	33	105	6.42	26	3	0.96	3.06	31	1170	< 1	2.70	28	0.154	6
W1434615 Split	14	< 0.3	6.52	17	517	< 1	< 2	6.79	< 0.3	25	31	113	5.80	24	8	0.77	2.88	29	1100	< 1	2.59	32	0.134	9
W1434616 Orig		< 0.3	8.21	21	746	< 1	3	5.50	0.4	27	30	97	6.81	26	2	1.49	3.08	30	1240	< 1	2.53	27	0.157	5
W1434616 Dup		< 0.3	7.20	19	706	< 1	< 2	5.29	0.5	28	30	99	6.34	26	2	1.39	2.93	28	1160	< 1	2.35	26	0.140	4
W1434620 Orig	6																							
W1434620 Dup	5																							
W1434626 Orig	30	< 0.3	7.96	13	411	< 1	< 2	4.08	0.4	29	32	229	6.49	26	1	1.68	3.06	33	802	< 1	2.83	27	0.184	3
W1434626 Split	22	< 0.3	7.76	15	227	< 1	< 2	3.93	< 0.3	28	40	213	6.38	26	2	1.71	3.05	33	759	< 1	2.71	26	0.163	5
W1434630 Orig		< 0.3	8.06	5	756	< 1	< 2	4.13	0.4	17	21	470	6.08	26	2	2.74	2.36	15	1130	< 1	2.66	16	0.154	9

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434630 Dup		< 0.3	7.57	10	778	< 1	< 2	4.12	< 0.3	16	25	465	6.00	24	3	2.72	2.39	15	1120	< 1	2.56	16	0.159	8
W1434641 Orig	< 5																							
W1434641 Dup	< 5																							
W1434645 Orig	7	< 0.3	7.95	19	282	< 1	< 2	5.19	< 0.3	33	31	147	6.74	24	< 1	1.54	3.02	45	1730	1	2.54	28	0.162	12
W1434645 Split	7	< 0.3	7.82	29	127	< 1	< 2	5.16	< 0.3	38	42	146	6.61	24	9	1.54	3.04	43	1650	1	2.44	30	0.152	9
W1434654 Orig	20	< 0.3	7.63	14	262	< 1	< 2	5.22	1.2	33	39	408	6.29	24	1	1.86	3.00	34	1520	< 1	2.01	30	0.140	7
W1434654 Split	17	< 0.3	7.90	9	267	< 1	< 2	5.42	1.0	32	35	405	6.50	28	< 1	1.87	3.05	35	1580	< 1	2.12	30	0.150	10
Method Blank		0.4	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		0.9	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	0.47	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	33	0.24	< 4	284	25		< 5	40	90	155	27	757	29
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	6	1.77	8	218	10		< 5	< 10	95	40	13	74	53
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.07	16	167		0.07	< 5	< 10	37	< 5	31	100	23
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	26	42	< 2		< 5	< 10	96	< 5	11	127	48
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	< 5		10	154	14	0.22	< 5	< 10	47	11	34	928	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		31	125					130		14	57	34
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SF57 Meas													
SF57 Cert													
SBC-1 Meas	< 5		21	166			< 5	< 10	212	6	28	182	86
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434533 Orig													
W1434533 Dup													
W1434538 Orig	< 5	0.03	14	619	12	0.39	< 5	< 10	149	< 5	19	45	90
W1434538 Dup	< 5	0.03	14	615	< 2	0.28	< 5	< 10	113	< 5	19	46	77
W1434548 Orig													
W1434548 Dup													
W1434552 Orig	< 5	0.03	14	462	< 2	0.15	< 5	< 10	93	< 5	20	77	42
W1434552 Dup	< 5	0.02	14	453	< 2	0.18	< 5	< 10	105	< 5	20	50	28
W1434555 Orig	< 5	0.03	14	494	< 2	0.46	< 5	< 10	176	< 5	20	54	91
W1434555 Split	< 5	0.03	15	503	14	0.23	< 5	< 10	109	< 5	20	54	63
W1434569 Orig													
W1434569 Dup													
W1434575 Orig	< 5	0.03	15	631	7	0.48	< 5	< 10	178	< 5	21	46	94
W1434575 Split	< 5	0.03	14	591	6	0.39	< 5	< 10	151	< 5	20	45	81
W1434577 Orig	< 5	0.03	14	481	21	0.44	< 5	< 10	162	< 5	20	52	89
W1434577 Dup	< 5	0.02	14	470	3	0.29	< 5	< 10	117	6	20	52	78
W1434584 Orig													
W1434584 Dup													
W1434586 Orig	< 5	0.04	24	690	17	0.49	< 5	< 10	225	< 5	14	91	46
W1434586 Split	< 5	0.03	24	694	10	0.47	< 5	< 10	220	< 5	14	91	44
W1434591 Orig	< 5	0.03	19	543	15	0.18	< 5	< 10	117	< 5	19	54	38
W1434591 Dup	< 5	0.03	18	528	4	0.16	< 5	< 10	110	< 5	18	52	27
W1434605 Orig													
W1434605 Dup													
W1434615 Orig	< 5	0.63	26	465	6	0.50	< 5	< 10	259	< 5	14	60	41
W1434615 Split	< 5	0.59	19	444	15	0.45	< 5	< 10	238	< 5	13	57	35
W1434616 Orig	< 5	0.46	26	441	9	0.53	< 5	< 10	277	< 5	15	54	49
W1434616 Dup	< 5	0.41	22	407	5	0.48	< 5	< 10	255	< 5	14	52	44
W1434620 Orig													
W1434620 Dup													
W1434626 Orig	< 5	1.15	26	483	4	0.51	< 5	< 10	275	< 5	14	48	44
W1434626 Split	< 5	1.09	24	464	11	0.49	< 5	< 10	263	< 5	14	47	45
W1434630 Orig	< 5	0.67	23	507	< 2	0.43	< 5	< 10	191	< 5	17	50	48

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434630 Dup	< 5	0.68	23	510	15	0.46	5	< 10	175	< 5	17	48	50
W1434641 Orig													
W1434641 Dup													
W1434645 Orig	< 5	2.53	25	539	13	0.51	< 5	< 10	245	< 5	13	133	64
W1434645 Split	< 5	2.42	25	525	8	0.51	< 5	< 10	245	< 5	13	132	55
W1434654 Orig	< 5	0.90	25	253	3	0.47	< 5	< 10	221	< 5	12	181	33
W1434654 Split	< 5	0.93	25	267	9	0.46	< 5	< 10	224	< 5	13	181	38
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													

Quality Analysis ... **Actlabs** *Innovative Technologies*

Date Submitted:	12-Dec-12
Invoice No.:	A12-13974
Invoice Date:	03-Jan-13
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

113 Core samples and 3 Pulp samples were submitted for analysis.

The following analytical packages were requested: Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-13974**

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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
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LAB 266
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Accrédité CCN

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Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434655	5	< 0.3	6.84	27	631	< 1	< 2	5.45	0.3	31	35	120	6.09	21	6	0.82	2.82	37	1560	< 1	3.71	28	0.161	< 3
W1434656	9	0.5	7.20	8	682	< 1	< 2	5.66	5.3	31	50	224	7.12	22	1	0.93	3.38	43	2090	< 1	2.95	35	0.167	17
W1434657	19	0.5	7.57	19	412	< 1	< 2	4.57	6.3	31	60	233	5.87	23	< 1	1.47	2.76	42	1800	1	3.49	37	0.168	45
W1434658	< 5	0.4	7.28	21	869	< 1	2	5.39	2.2	31	48	153	6.38	23	2	2.34	2.79	36	1570	< 1	2.60	32	0.179	12
W1434659	< 5	0.3	7.54	23	962	< 1	2	5.38	0.5	27	37	71	6.68	25	1	2.13	3.12	35	1550	< 1	2.40	31	0.177	4
W1434660	5	< 0.3	6.87	35	806	< 1	< 2	6.35	1.4	27	67	105	6.31	23	1	2.11	3.25	36	1530	< 1	1.88	33	0.188	6
W1434661	7	< 0.3	7.44	16	545	< 1	< 2	6.20	1.2	28	26	256	7.37	27	< 1	2.22	2.61	31	1380	< 1	2.34	20	0.203	7
W1434662	< 5	< 0.3	7.66	23	> 1000	< 1	< 2	5.20	0.5	24	9	11	6.49	25	4	1.54	2.60	41	1190	< 1	3.18	12	0.200	8
W1434663	< 5	0.7	7.34	20	965	< 1	< 2	5.48	0.4	23	9	107	6.28	24	1	1.52	2.31	39	1140	< 1	3.09	10	0.194	< 3
W1434664	< 5	< 0.3	7.97	9	> 1000	< 1	< 2	5.34	0.4	18	5	9	5.87	25	1	2.73	1.99	40	975	< 1	2.80	6	0.192	4
W1434665	< 5	< 0.3	8.52	21	752	< 1	< 2	6.08	0.4	24	4	60	5.80	27	2	2.11	1.99	42	1020	< 1	2.94	7	0.182	< 3
W1434666	67	0.6	6.83	5	430	2	< 2	1.00	0.4	9	43	2150	4.04	27	< 1	3.55	0.64	10	282	49	1.93	31	0.044	8
W1434667	< 5	< 0.3	8.51	11	546	< 1	< 2	5.60	0.9	19	6	38	6.39	26	2	1.81	2.01	47	1070	< 1	3.22	8	0.174	< 3
W1434668	< 5	< 0.3	8.57	21	729	< 1	< 2	5.63	0.6	22	5	34	6.44	25	2	1.92	2.13	50	1080	< 1	3.24	7	0.192	< 3
W1434669	< 5	< 0.3	7.82	6	477	1	< 2	4.81	0.7	27	94	23	4.68	24	1	1.28	2.71	9	740	< 1	2.22	26	0.057	< 3
W1434670	< 5	< 0.3	8.64	11	660	< 1	< 2	5.78	0.4	16	5	31	6.22	27	2	1.77	1.84	44	961	< 1	3.10	7	0.183	< 3
W1434671	< 5	0.4	7.64	18	489	< 1	< 2	4.86	1.3	53	4	593	5.37	24	3	0.84	2.09	47	828	< 1	3.82	6	0.171	44
W1434672	< 5	0.4	8.29	10	895	< 1	< 2	4.53	0.4	24	5	224	5.18	27	3	1.62	2.10	43	839	< 1	3.65	6	0.178	13
W1434673	< 5	0.4	9.41	27	640	< 1	< 2	4.93	0.3	30	4	156	5.72	27	1	1.14	2.06	46	812	< 1	3.73	7	0.196	< 3
W1434674	< 5	< 0.3	7.94	15	169	< 1	< 2	4.51	4.2	53	4	140	5.85	25	< 1	0.35	2.39	47	865	1	4.39	6	0.171	10
W1434675	< 5	< 0.3	8.15	15	> 1000	< 1	2	5.63	2.5	25	5	52	5.84	26	1	2.95	1.86	22	1100	7	2.84	5	0.177	17
W1434676	< 5	< 0.3	8.06	19	> 1000	< 1	< 2	5.37	0.4	18	5	57	5.88	25	9	2.49	2.03	36	1250	< 1	3.02	7	0.163	6
W1434677	< 5	0.4	8.58	27	320	< 1	< 2	5.31	< 0.3	34	3	391	5.69	27	1	1.08	2.03	40	1150	2	3.82	7	0.182	13
W1434678	15	0.4	8.45	25	392	< 1	< 2	6.89	0.5	25	4	778	5.98	27	2	1.48	1.51	29	1150	2	3.22	6	0.201	39
W1434679	6	< 0.3	8.65	24	334	< 1	< 2	5.97	< 0.3	22	5	341	6.59	27	< 1	1.15	1.88	41	1180	< 1	3.59	7	0.213	8
W1434680	< 5	< 0.3	8.55	15	421	< 1	< 2	4.82	0.4	22	6	155	6.72	26	6	1.10	2.15	49	1200	< 1	3.89	5	0.209	8
W1434681	< 5	< 0.3	8.26	5	435	1	3	4.83	< 0.3	31	86	30	5.02	26	< 1	1.44	2.82	12	778	< 1	2.24	26	0.058	< 3
W1434682	< 5	< 0.3	8.61	32	467	< 1	< 2	6.11	< 0.3	17	5	91	6.33	26	< 1	1.59	1.69	42	1080	< 1	3.52	6	0.221	7
W1434683	< 5	< 0.3	7.59	23	397	< 1	< 2	5.55	< 0.3	20	7	2	5.86	25	< 1	0.68	1.98	43	1040	< 1	3.76	7	0.207	6
W1434684	< 5	< 0.3	8.06	22	321	< 1	< 2	4.62	0.6	25	5	80	6.44	26	< 1	0.53	2.63	48	1180	2	4.00	6	0.212	15
W1434685	< 5	< 0.3	8.39	17	758	< 1	< 2	4.64	0.6	31	5	22	6.26	24	2	1.12	2.84	53	1220	< 1	3.59	6	0.214	10
W1434686	< 5	0.4	8.73	40	658	< 1	< 2	6.41	< 0.3	47	7	197	6.58	27	3	2.32	1.57	32	1070	2	2.83	13	0.228	9
W1434687	< 5	< 0.3	8.33	28	736	< 1	< 2	7.07	0.8	34	6	231	5.60	25	1	2.01	1.11	21	876	2	3.13	7	0.193	11
W1434688	9	0.6	8.15	23	> 1000	< 1	< 2	3.13	< 0.3	15	8	353	3.82	21	2	3.11	0.81	23	584	22	3.84	4	0.264	4
W1434689	10	0.6	8.92	26	> 1000	< 1	< 2	4.21	3.3	24	4	297	3.93	21	2	4.67	0.91	24	691	2	3.29	8	0.288	6
W1434690	21	0.6	7.74	26	> 1000	1	3	5.64	60.9	24	80	752	5.74	22	< 1	3.60	1.69	26	1040	3	2.71	21	0.244	38
W1434691	30	0.4	6.64	34	> 1000	1	< 2	5.66	8.0	30	85	1140	6.11	22	2	3.27	2.47	34	1410	3	2.52	28	0.230	27
W1434692	< 5	0.4	9.03	11	> 1000	1	< 2	3.71	< 0.3	9	36	28	3.95	21	< 1	4.58	1.15	29	703	< 1	3.18	6	0.210	< 3
W1434693	11	< 0.3	8.28	25	> 1000	1	< 2	4.12	1.2	17	6	130	3.90	22	< 1	4.10	1.05	27	763	1	2.81	7	0.263	21
W1434694	25	< 0.3	8.64	34	> 1000	1	< 2	4.03	< 0.3	10	7	9	4.17	21	2	4.56	1.13	29	759	2	3.08	9	0.260	4
W1434695	13	< 0.3	8.69	33	> 1000	1	< 2	4.23	1.2	13	5	213	4.05	22	1	4.36	1.27	32	854	1	2.98	5	0.311	15
W1434696	9	< 0.3	8.26	24	> 1000	1	< 2	4.15	0.3	21	23	708	6.47	24	2	3.40	1.89	34	1030	3	2.86	6	0.251	< 3
W1434697	< 5	< 0.3	8.05	30	579	< 1	< 2	5.53	0.4	26	4	6	6.20	27	< 1	1.06	2.44	42	1290	< 1	3.49	9	0.196	12
W1434698	< 5	< 0.3	8.30	17	> 1000	< 1	< 2	5.48	0.3	28	7	9	6.83	25	1	2.73	2.92	54	1660	< 1	2.64	10	0.193	< 3
W1434699	< 5	< 0.3	7.84	19	> 1000	< 1	< 2	5.81	0.5	19	6	116	7.10	25	2	2.55	1.88	31	1360	< 1	2.98	10	0.181	5
W1434700	< 5	< 0.3	7.51	9	> 1000	< 1	< 2	5.40	0.4	27	7	6	6.47	25	3	2.75	2.58	47	1610	< 1	2.66	10	0.176	4
W1434701	< 5	< 0.3	7.73	9	325	< 1	< 2	6.13	0.4	24	8	15	6.30	25	1	1.09	2.11	41	1590	< 1	3.02	11	0.166	< 3
W1434702	< 5	< 0.3	7.43	24	688	1	< 2	7.02	0.3	25	6	2	6.06	25	< 1	1.24	2.19	40	1810	< 1	2.95	11	0.183	< 3
W1434703	< 5	< 0.3	7.66	27	480	< 1	< 2	6.50	< 0.3	25	6	2	6.79	26	2	1.01	2.33	46	1800	< 1	3.10	11	0.169	< 3
W1434704	< 5	< 0.3	7.86	30	> 1000	< 1	< 2	5.98	< 0.3	19	8	1	6.85	27	2	3.16	2.35	33	1330	< 1	2.27	10	0.187	< 3
W1434705	21	0.7	8.12	32	866	< 1	< 2	7.91	0.5	18	6	491	6.62	30	< 1	1.81	1.83	30	1500	2	2.45	8	0.180	11
W1434706	6	< 0.3	8.05	22	215	< 1	< 2	6.93	0.8	25	6	4	6.25	28	2	0.83	2.30	48	1760	< 1	3.18	10	0.198	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434707	175	0.8	6.68	< 3	563	4	< 2	1.82	< 0.3	14	58	4430	4.76	34	1	3.34	1.05	12	289	73	1.44	33	0.072	10
W1434708	< 5	< 0.3	8.09	19	139	< 1	< 2	5.91	< 0.3	25	3	3	5.96	26	2	0.69	2.18	46	1460	< 1	3.32	10	0.160	7
W1434709	6	< 0.3	8.45	27	> 1000	< 1	< 2	5.59	0.4	19	4	2	5.98	24	1	3.05	2.13	41	1380	< 1	2.47	7	0.182	< 3
W1434710	< 5	< 0.3	7.17	14	944	2	< 2	6.82	< 0.3	28	5	2	5.81	28	2	1.85	2.58	52	1580	< 1	2.53	8	0.169	< 3
W1434711	< 5	< 0.3	7.60	5	> 1000	< 1	< 2	5.28	0.5	32	7	98	7.24	24	2	1.74	2.91	59	1940	< 1	2.80	10	0.150	4
W1434712	< 5	< 0.3	8.21	< 3	399	< 1	< 2	4.89	< 0.3	32	193	43	4.68	26	1	0.94	2.96	10	772	< 1	2.16	47	0.054	< 3
W1434713	8	0.3	8.40	33	323	< 1	< 2	9.60	< 0.3	14	8	43	7.45	31	< 1	0.98	1.30	21	1590	1	2.54	9	0.165	5
W1434714	6	< 0.3	8.16	37	995	1	< 2	7.92	1.0	26	5	181	7.45	28	< 1	2.07	2.05	36	1690	< 1	2.25	10	0.169	4
W1434715	< 5	< 0.3	7.32	38	140	< 1	< 2	9.07	1.0	13	13	844	8.22	29	4	0.67	0.82	15	1370	< 1	2.95	12	0.166	8
W1434716	< 5	0.3	7.25	47	123	< 1	< 2	8.31	0.3	16	10	1270	7.71	28	3	0.78	0.83	13	1260	2	3.33	15	0.177	< 3
W1434717	< 5	< 0.3	7.83	25	869	< 1	< 2	6.28	< 0.3	33	9	324	6.43	25	< 1	1.32	2.49	44	1580	2	3.02	11	0.164	< 3
W1434718	< 5	< 0.3	7.75	29	701	< 1	3	4.99	0.5	40	12	2	6.80	24	2	1.15	3.05	56	1420	< 1	3.16	17	0.150	< 3
W1434719	< 5	< 0.3	8.08	34	> 1000	< 1	< 2	5.18	< 0.3	33	19	2	7.32	25	< 1	2.99	3.05	56	1440	< 1	2.42	19	0.155	< 3
W1434720	8	< 0.3	7.93	35	> 1000	< 1	< 2	6.51	0.4	24	19	2	6.58	25	< 1	2.89	2.66	42	1280	< 1	1.95	18	0.151	< 3
W1434721	< 5	< 0.3	7.77	< 3	361	< 1	< 2	4.88	< 0.3	30	176	30	4.47	25	2	1.10	2.90	10	764	< 1	2.03	35	0.043	< 3
W1434722	< 5	< 0.3	7.31	22	> 1000	< 1	< 2	5.88	< 0.3	27	25	3	6.38	24	< 1	2.69	2.65	36	1210	< 1	2.10	18	0.159	< 3
W1434723	15	< 0.3	8.07	< 3	> 1000	< 1	< 2	3.80	< 0.3	17	15	187	5.64	23	< 1	4.17	1.48	13	793	< 1	3.23	9	0.164	4
W1434724	73	0.8	8.45	< 3	> 1000	1	< 2	4.24	0.6	36	9	2140	4.71	26	< 1	3.78	1.52	15	888	2	2.88	8	0.185	< 3
W1434725	13	< 0.3	7.37	3	> 1000	< 1	< 2	3.98	0.4	17	6	115	5.35	26	2	2.98	1.47	12	896	< 1	3.54	7	0.161	< 3
W1434726	29	0.3	8.48	< 3	> 1000	1	< 2	4.25	0.3	24	8	251	4.60	27	< 1	4.22	1.35	11	752	2	2.18	7	0.197	< 3
W1434727	41	0.3	7.80	< 3	662	< 1	2	3.23	< 0.3	38	52	459	5.40	25	2	1.37	2.76	15	648	2	3.83	24	0.155	< 3
W1434728	39	< 0.3	7.99	4	454	< 1	3	3.09	< 0.3	48	12	442	5.07	24	< 1	1.10	2.37	15	515	14	4.28	16	0.188	< 3
W1434729	24	< 0.3	7.74	30	582	< 1	2	4.04	< 0.3	33	10	260	4.42	26	3	1.31	2.21	15	649	6	4.01	9	0.162	< 3
W1434730	19	< 0.3	7.98	7	753	< 1	< 2	2.43	0.4	23	30	283	5.99	25	1	1.24	2.36	17	537	4	3.96	14	0.192	< 3
W1434731	22	< 0.3	8.04	5	484	1	3	2.21	1.3	26	10	234	5.77	26	< 1	1.24	2.30	17	595	1	3.89	9	0.218	< 3
W1434732	22	< 0.3	7.11	27	379	< 1	3	2.83	< 0.3	31	8	397	5.62	26	3	1.20	2.04	16	643	1	3.74	9	0.214	< 3
W1434733	57	< 0.3	7.45	123	340	< 1	< 2	5.65	0.4	28	10	595	5.59	25	7	1.85	1.95	15	769	3	3.22	9	0.188	< 3
W1434734	52	< 0.3	7.45	50	364	< 1	< 2	6.42	< 0.3	25	10	661	5.64	24	1	2.00	1.76	14	832	5	3.10	8	0.191	< 3
W1434735	64	< 0.3	7.08	14	436	< 1	< 2	5.97	< 0.3	23	35	358	4.87	25	1	2.00	2.06	16	903	< 1	2.52	18	0.140	4
W1434736	39	< 0.3	7.28	12	517	< 1	3	5.25	0.7	21	17	182	6.12	25	1	2.00	2.01	16	735	1	2.73	6	0.177	< 3
W1434737	33	< 0.3	7.76	15	648	< 1	< 2	4.63	0.4	15	12	108	5.19	26	2	3.77	1.59	14	597	< 1	1.06	5	0.169	< 3
W1434738	36	< 0.3	7.48	4	717	< 1	< 2	5.69	0.8	20	14	334	4.34	24	1	4.40	1.28	13	851	< 1	0.33	4	0.188	3
W1434739	129	1.3	7.48	3	729	< 1	< 2	6.43	0.7	20	9	1560	4.25	23	2	3.49	1.60	14	1110	56	1.21	13	0.166	16
W1434740	42	0.4	7.19	18	394	< 1	< 2	4.12	0.7	20	64	541	5.46	23	< 1	2.13	2.18	18	950	2	2.29	18	0.173	< 3
W1434741	40	< 0.3	10.2	20	464	< 1	3	3.66	0.3	21	10	268	3.94	21	2	2.05	1.90	15	653	4	3.10	8	0.178	< 3
W1434742	19	< 0.3	7.87	< 3	712	< 1	< 2	2.90	0.5	20	10	259	5.06	26	< 1	1.64	2.18	17	786	< 1	3.61	12	0.150	< 3
W1434743	31	2.2	8.34	38	> 1000	< 1	< 2	3.47	< 0.3	15	8	203	4.49	27	4	2.68	1.96	12	909	6	3.56	13	0.156	7
W1434744	44	0.4	8.16	13	560	< 1	< 2	3.20	0.5	21	10	325	4.57	25	< 1	2.50	1.86	14	865	3	3.54	8	0.167	< 3
W1434745	26	< 0.3	9.53	57	703	< 1	< 2	2.33	0.9	21	10	273	4.95	26	3	2.31	2.06	15	766	3	3.63	7	0.195	10
W1434746	23	< 0.3	8.17	17	729	< 1	< 2	2.38	0.5	18	9	175	5.96	27	1	1.98	2.19	17	777	< 1	3.89	10	0.166	< 3
W1434747	49	< 0.3	7.98	35	564	< 1	< 2	2.46	0.8	22	8	329	4.62	24	1	1.92	1.89	15	730	2	3.62	9	0.152	< 3
W1434748	347	1.4	5.32	< 3	281	2	< 2	1.39	0.4	14	61	7580	5.89	25	2	2.17	1.20	10	316	88	1.37	46	0.057	6
W1434749	38	0.5	8.26	31	685	< 1	< 2	2.41	0.6	18	27	667	4.13	26	< 1	1.82	2.14	17	680	8	3.62	13	0.158	< 3
W1434750	116	0.8	7.96	16	268	< 1	< 2	2.51	1.6	31	14	1800	4.02	25	< 1	2.06	1.65	14	564	17	3.88	11	0.148	14
W1434751	< 5	< 0.3	6.44	< 3	297	< 1	< 2	4.84	0.4	29	209	44	4.59	22	2	0.83	2.93	10	826	< 1	2.05	41	0.040	5
W1434752	60	0.5	10.8	30	609	< 1	4	3.68	0.9	16	16	885	5.83	26	< 1	2.33	2.25	21	732	7	3.46	11	0.235	< 3
W1434753	13	< 0.3	7.93	7	819	< 1	< 2	2.48	< 0.3	47	10	391	4.67	25	2	2.21	1.79	10	550	15	3.99	8	0.133	< 3
W1434754	9	< 0.3	7.93	6	725	1	< 2	2.26	0.5	40	12	190	6.42	26	< 1	2.39	2.11	15	614	4	3.19	11	0.160	3
W1434755	22	0.4	8.18	4	526	< 1	< 2	2.23	0.6	34	16	260	5.77	27	1	2.59	2.13	15	687	3	3.41	13	0.165	3
W1434756	27	0.4	9.15	3	> 1000	< 1	5	2.14	0.5	36	14	322	6.24	25	1	2.64	1.95	16	496	8	3.52	10	0.184	< 3
W1434757	18	< 0.3	8.03	34	402	< 1	2	2.84	0.4	29	13	286	5.07	26	3	2.37	1.87	15	514	6	3.76	11	0.153	< 3
W1434758	19	< 0.3	7.58	6	486	< 1	< 2	2.55	0.4	26	15	215	5.03	27	2	2.13	1.88	14	464	5	3.52	10	0.142	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434759	23	< 0.3	7.54	17	155	< 1	< 2	3.14	< 0.3	33	10	311	6.07	26	5	2.29	2.04	16	597	6	3.27	10	0.180	< 3
W1434760	32	< 0.3	7.37	4	162	< 1	5	3.70	0.9	30	19	320	4.65	22	1	2.34	1.83	15	628	4	3.26	13	0.163	11
W1434761	< 5	< 0.3	6.34	< 3	324	< 1	< 2	4.88	< 0.3	29	188	35	4.40	23	< 1	0.80	2.78	9	765	< 1	2.07	37	0.032	< 3
W1434762	47	< 0.3	7.91	17	434	< 1	< 2	3.33	0.9	24	45	847	5.18	25	< 1	2.29	2.05	16	594	6	3.49	11	0.169	< 3
W1434763	39	< 0.3	7.73	15	264	< 1	< 2	3.48	0.5	51	11	610	6.07	25	1	2.10	2.09	15	645	11	3.43	11	0.164	< 3
W1434764	33	0.3	9.99	26	227	< 1	4	3.69	0.8	37	27	477	6.61	23	6	2.59	2.27	18	711	7	3.05	13	0.196	4
W1434765	26	< 0.3	8.28	17	204	< 1	3	3.78	0.6	29	19	234	6.85	23	1	2.45	2.32	17	879	8	2.95	15	0.185	4
W1434766	166	0.7	7.72	22	95	< 1	6	2.44	0.5	44	8	712	6.44	25	< 1	2.53	2.01	15	611	11	3.12	13	0.178	< 3
W1434767	34	0.3	7.99	6	216	< 1	< 2	2.73	0.6	44	8	732	5.40	25	< 1	2.39	2.00	16	612	10	3.58	10	0.155	< 3
W1434768	84	0.6	7.45	14	133	< 1	< 2	4.07	0.7	43	15	660	6.11	26	3	2.57	2.12	17	735	5	3.02	14	0.164	< 3
W1434769	20	< 0.3	8.01	4	484	< 1	< 2	3.38	0.4	21	48	236	6.07	27	< 1	2.13	2.36	19	700	< 1	3.19	15	0.175	< 3
W1434770	16	< 0.3	7.90	10	339	< 1	< 2	2.93	< 0.3	19	10	162	5.46	25	2	2.14	2.26	18	590	1	2.92	9	0.164	< 3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434655	< 5	0.97	26	431	15	0.46	< 5	< 10	236	< 5	14	82	39
W1434656	< 5	1.12	29	548	16	0.45	< 5	< 10	242	10	14	732	46
W1434657	< 5	1.23	22	454	8	0.45	< 5	< 10	263	11	12	732	40
W1434658	< 5	0.86	26	474	< 2	0.48	< 5	< 10	234	6	14	229	42
W1434659	< 5	1.21	27	558	12	0.49	< 5	< 10	288	< 5	14	78	50
W1434660	< 5	0.80	29	272	8	0.45	< 5	< 10	262	< 5	13	101	54
W1434661	< 5	0.76	35	351	15	0.43	< 5	< 10	186	< 5	17	75	45
W1434662	< 5	0.57	27	535	12	0.39	< 5	< 10	146	< 5	19	73	54
W1434663	< 5	0.67	25	513	12	0.40	< 5	< 10	167	< 5	18	66	58
W1434664	5	0.51	20	489	4	0.36	< 5	< 10	171	< 5	18	63	48
W1434665	< 5	0.44	21	491	< 2	0.39	< 5	< 10	189	< 5	18	62	56
W1434666	< 5	1.64	7	105	13	0.26	< 5	< 10	44	< 5	14	45	34
W1434667	< 5	0.23	20	518	< 2	0.38	< 5	< 10	252	< 5	19	66	57
W1434668	< 5	0.28	20	566	6	0.27	< 5	< 10	147	< 5	18	70	51
W1434669	< 5	0.09	15	416	4	0.18	< 5	< 10	70	< 5	12	51	81
W1434670	< 5	0.29	19	594	< 2	0.21	< 5	< 10	142	< 5	18	62	45
W1434671	< 5	0.87	18	434	17	0.42	< 5	< 10	196	< 5	17	67	51
W1434672	< 5	0.74	19	578	6	0.48	< 5	< 10	225	< 5	18	64	82
W1434673	< 5	0.96	24	392	17	0.51	< 5	< 10	214	< 5	22	69	122
W1434674	< 5	1.08	18	359	5	0.47	< 5	< 10	188	< 5	17	81	61
W1434675	< 5	0.40	19	466	5	0.46	< 5	< 10	211	< 5	19	54	79
W1434676	< 5	0.28	19	594	14	0.36	< 5	< 10	185	5	18	66	58
W1434677	< 5	0.67	19	770	6	0.45	< 5	< 10	224	< 5	19	71	62
W1434678	5	0.59	19	1000	8	0.44	< 5	< 10	224	< 5	17	55	60
W1434679	< 5	0.29	21	751	12	0.37	< 5	< 10	216	< 5	17	90	58
W1434680	< 5	0.24	21	697	7	0.27	< 5	< 10	204	< 5	17	72	50
W1434681	< 5	0.09	16	407	7	0.36	< 5	< 10	127	< 5	13	59	140
W1434682	< 5	0.39	19	906	9	0.37	< 5	< 10	213	< 5	16	59	54
W1434683	< 5	0.39	20	627	< 2	0.44	< 5	< 10	271	< 5	16	59	68
W1434684	< 5	0.28	22	544	13	0.46	< 5	< 10	262	< 5	16	77	64
W1434685	< 5	0.41	23	620	< 2	0.44	< 5	< 10	279	6	18	86	63
W1434686	6	1.18	25	1140	9	0.47	< 5	< 10	307	6	18	49	61
W1434687	< 5	1.15	23	987	4	0.44	< 5	< 10	269	< 5	17	38	65
W1434688	< 5	0.45	9	375	< 2	0.29	< 5	< 10	132	< 5	13	39	92
W1434689	6	0.55	9	625	13	0.30	< 5	< 10	140	< 5	13	47	96
W1434690	< 5	0.77	21	479	7	0.35	< 5	< 10	190	< 5	13	68	79
W1434691	< 5	0.51	26	433	5	0.39	< 5	< 10	219	< 5	14	92	67
W1434692	< 5	0.07	10	368	4	0.17	< 5	< 10	123	< 5	14	64	29
W1434693	< 5	0.28	9	411	13	0.29	< 5	< 10	128	< 5	14	65	87
W1434694	6	0.16	10	542	3	0.34	< 5	< 10	171	< 5	13	61	100
W1434695	< 5	0.12	9	590	16	0.35	< 5	< 10	143	< 5	13	63	104
W1434696	< 5	0.32	16	744	22	0.33	< 5	< 10	190	< 5	16	77	73
W1434697	< 5	0.35	21	753	8	0.32	< 5	< 10	199	< 5	17	74	44
W1434698	< 5	0.09	21	700	< 2	0.20	< 5	< 10	137	< 5	20	89	38
W1434699	< 5	0.10	20	754	6	0.16	< 5	< 10	130	5	20	59	40
W1434700	6	0.06	20	655	16	0.12	< 5	< 10	107	< 5	20	80	26
W1434701	< 5	0.06	19	612	5	0.13	< 5	< 10	112	< 5	19	70	29
W1434702	< 5	0.13	19	638	11	0.53	< 5	< 10	234	< 5	19	69	92
W1434703	< 5	0.04	20	747	22	0.24	< 5	< 10	160	< 5	20	73	40
W1434704	6	0.07	19	556	4	0.46	< 5	< 10	217	6	19	65	73
W1434705	< 5	0.29	19	1060	9	0.48	< 5	< 10	229	< 5	20	49	70
W1434706	< 5	0.11	20	940	< 2	0.41	< 5	< 10	171	< 5	20	64	64

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434707	< 5	1.16	11	264	2	0.32	< 5	< 10	94	< 5	14	60	19
W1434708	< 5	0.12	16	871	12	0.20	< 5	< 10	124	< 5	20	67	40
W1434709	< 5	0.10	16	684	6	0.16	< 5	< 10	131	< 5	20	72	38
W1434710	< 5	0.06	17	896	< 2	0.18	< 5	< 10	134	< 5	20	76	28
W1434711	< 5	0.06	19	515	11	0.15	< 5	< 10	131	< 5	20	93	30
W1434712	< 5	0.09	15	496	6	0.25	< 5	< 10	97	< 5	11	55	98
W1434713	7	0.35	19	1560	9	0.23	< 5	< 10	174	< 5	19	35	38
W1434714	7	0.19	19	1190	12	0.44	< 5	< 10	222	< 5	19	64	62
W1434715	< 5	0.46	17	1460	6	0.53	< 5	< 10	260	< 5	18	30	78
W1434716	5	0.51	17	1450	13	0.57	< 5	< 10	278	< 5	18	24	73
W1434717	6	0.42	21	861	9	0.45	< 5	< 10	228	< 5	18	66	54
W1434718	< 5	0.31	25	673	8	0.40	< 5	< 10	218	< 5	16	72	47
W1434719	7	0.12	27	780	< 2	0.30	< 5	< 10	166	< 5	16	67	45
W1434720	< 5	0.09	25	538	8	0.51	< 5	< 10	252	< 5	15	56	69
W1434721	< 5	0.09	14	424	19	0.13	< 5	< 10	63	< 5	11	53	81
W1434722	< 5	0.07	24	516	9	0.49	< 5	< 10	278	< 5	15	51	65
W1434723	< 5	0.05	15	395	20	0.15	< 5	< 10	115	< 5	17	49	24
W1434724	< 5	0.21	16	327	7	0.41	< 5	< 10	182	< 5	18	57	69
W1434725	< 5	0.03	14	410	11	0.43	< 5	< 10	188	< 5	17	47	74
W1434726	< 5	0.56	14	261	5	0.46	< 5	< 10	178	< 5	18	45	94
W1434727	< 5	1.27	25	317	9	0.48	< 5	< 10	247	< 5	20	43	51
W1434728	< 5	2.31	24	339	5	0.55	< 5	< 10	242	< 5	18	36	50
W1434729	< 5	1.66	23	305	11	0.51	< 5	< 10	242	< 5	17	39	58
W1434730	6	1.15	25	350	16	0.55	< 5	< 10	223	< 5	17	39	41
W1434731	< 5	1.41	25	313	19	0.62	< 5	< 10	248	7	19	44	63
W1434732	6	1.44	22	305	< 2	0.61	< 5	< 10	253	< 5	18	41	70
W1434733	< 5	2.34	24	192	< 2	0.56	< 5	< 10	255	< 5	19	42	69
W1434734	6	2.59	22	190	7	0.54	< 5	< 10	229	< 5	19	41	70
W1434735	< 5	1.64	21	214	13	0.47	< 5	< 10	219	< 5	18	39	49
W1434736	< 5	2.23	21	194	10	0.52	< 5	< 10	240	< 5	17	42	58
W1434737	7	1.14	15	166	4	0.44	< 5	< 10	224	< 5	14	42	62
W1434738	< 5	1.19	13	121	6	0.42	< 5	< 10	203	7	15	44	63
W1434739	11	1.13	19	183	10	0.49	< 5	< 10	208	5	16	69	77
W1434740	< 5	1.68	25	203	6	0.53	< 5	< 10	236	< 5	18	84	85
W1434741	7	1.14	30	256	< 2	0.52	< 5	< 10	221	< 5	27	52	124
W1434742	< 5	0.30	23	353	7	0.37	< 5	< 10	190	< 5	18	65	56
W1434743	< 5	0.81	21	380	6	0.46	< 5	< 10	242	< 5	20	65	78
W1434744	< 5	1.54	19	414	11	0.45	< 5	< 10	246	< 5	21	75	94
W1434745	6	1.41	28	409	5	0.56	< 5	< 10	283	7	23	71	114
W1434746	< 5	0.79	25	412	3	0.45	< 5	< 10	194	< 5	20	71	56
W1434747	< 5	1.31	20	441	2	0.47	7	< 10	229	< 5	20	75	79
W1434748	< 5	1.54	10	275	6	0.26	< 5	< 10	91	< 5	9	52	19
W1434749	< 5	0.81	23	410	6	0.53	< 5	< 10	252	< 5	21	103	68
W1434750	8	1.63	17	326	3	0.47	< 5	< 10	211	6	19	99	93
W1434751	< 5	0.08	12	452	13	0.23	< 5	< 10	95	< 5	9	52	84
W1434752	5	1.54	39	235	5	0.66	< 5	< 10	267	6	21	73	143
W1434753	7	0.81	19	233	6	0.43	< 5	< 10	209	< 5	20	62	81
W1434754	< 5	0.82	23	265	10	0.50	< 5	< 10	259	< 5	21	55	71
W1434755	5	1.53	22	341	13	0.52	< 5	< 10	251	< 5	21	70	79
W1434756	< 5	2.63	24	322	9	0.56	< 5	< 10	229	< 5	21	65	119
W1434757	5	1.63	18	266	11	0.46	< 5	< 10	217	7	19	48	80
W1434758	< 5	1.47	19	283	< 2	0.44	< 5	< 10	214	7	19	41	77

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434759	< 5	2.65	21	254	6	0.53	< 5	< 10	241	< 5	19	45	76
W1434760	6	2.11	21	227	3	0.50	< 5	< 10	236	< 5	19	40	79
W1434761	< 5	0.08	11	439	12	0.23	< 5	< 10	95	< 5	9	51	89
W1434762	< 5	1.88	23	236	10	0.56	< 5	< 10	275	< 5	16	51	58
W1434763	7	2.84	23	263	16	0.54	< 5	< 10	241	< 5	18	46	64
W1434764	< 5	2.95	35	261	< 2	0.60	< 5	< 10	246	< 5	22	48	124
W1434765	9	2.76	28	323	8	0.55	< 5	< 10	261	< 5	19	47	96
W1434766	< 5	3.10	20	341	13	0.49	< 5	< 10	224	< 5	18	47	80
W1434767	< 5	2.17	21	375	6	0.54	< 5	< 10	230	< 5	20	53	73
W1434768	< 5	2.71	21	369	5	0.48	5	< 10	227	< 5	20	47	50
W1434769	6	1.72	24	474	11	0.53	< 5	< 10	245	< 5	20	42	52
W1434770	< 5	1.33	25	396	11	0.57	< 5	< 10	253	< 5	20	47	62

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		31.5	1.98	433	685	1	1390	0.87	3.9	6		1130	23.7	15	3	0.05	0.19	8	914	14	0.04	42	0.055	743
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20		1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.7	5.83	107	146	2	11	1.12	0.4	15	42	6500	3.28	24	1	4.53	1.74	11	162	314	0.55	43	0.138	48
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	7.04	7	630	3	2	1.07	< 0.3	18	50	32	4.62	27	1	2.76	0.94	32	859	1	1.48	34	0.054	19
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		< 0.3	12.0	248	> 1000	1	< 2	0.20	0.3	13	67	59	5.44	40	1	1.86	0.60	35	1090	< 1	0.10	26	0.035	88
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		3.5	5.58	31	835	3	< 2	0.66	5.4	12		306	3.35	24		3.19	0.48	29	5190	9	1.21	44	0.065	982
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					98					56	202	92						4				245		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SE58 Meas	549																							
SE58 Cert	607.00																							
SE58 Meas	535																							
SE58 Cert	607.00																							
SE58 Meas	629																							
SE58 Cert	607.00																							
SE58 Meas	547																							
SE58 Cert	607.00																							
SE58 Meas	559																							
SE58 Cert	607.00																							
SE58 Meas	513																							
SE58 Cert	607.00																							
SE58 Meas	609																							
SE58 Cert	607.00																							
SBC-1 Meas				20	797	3	< 2		0.6	24	96	30		34				160		2		86		20
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
W1434662 Orig	< 5																							
W1434662 Dup	< 5																							
W1434667 Orig		< 0.3	8.37	13	535	< 1	< 2	5.45	1.5	20	5	39	6.27	26	2	1.77	1.99	47	1050	< 1	3.14	11	0.153	6
W1434667 Dup		< 0.3	8.65	9	558	< 1	< 2	5.75	0.4	18	7	38	6.52	27	3	1.84	2.03	48	1090	< 1	3.30	6	0.195	< 3
W1434677 Orig	< 5																							
W1434677 Dup	< 5																							
W1434681 Orig		0.6	9.64	3	434	1	3	4.82	< 0.3	30	83	30	5.11	29	< 1	1.44	2.80	12	786	2	2.27	26	0.069	< 3
W1434681 Dup		< 0.3	6.88	7	435	1	2	4.84	< 0.3	32	89	30	4.93	23	3	1.43	2.83	12	769	< 1	2.22	26	0.046	< 3
W1434684 Orig	< 5	< 0.3	8.06	22	321	< 1	< 2	4.62	0.6	25	5	80	6.44	26	< 1	0.53	2.63	48	1180	2	4.00	6	0.212	15
W1434684 Split	< 5	< 0.3	6.16	19	291	< 1	2	4.24	0.4	22	5	110	6.07	25	1	0.46	2.38	45	1140	2	3.75	7	0.162	14
W1434698 Orig	< 5																							
W1434698 Dup	< 5																							
W1434704 Orig	< 5	< 0.3	7.86	30	> 1000	< 1	< 2	5.98	< 0.3	19	8	1	6.85	27	2	3.16	2.35	33	1330	< 1	2.27	10	0.187	< 3
W1434704 Split	< 5	< 0.3	7.40	34	> 1000	< 1	< 2	5.88	< 0.3	19	9	2	6.84	27	< 1	3.12	2.33	33	1340	< 1	2.36	10	0.163	4
W1434706 Orig		< 0.3	7.93	25	216	< 1	< 2	6.95	1.2	25	6	5	6.28	27	1	0.83	2.28	48	1760	< 1	3.17	9	0.199	4
W1434706 Dup		0.3	8.16	19	215	< 1	< 2	6.90	0.5	24	7	4	6.22	28	2	0.83	2.31	48	1760	< 1	3.18	10	0.197	< 3
W1434713 Orig	8																							
W1434713 Dup	7																							
W1434714 Orig	6	< 0.3	8.16	37	995	1	< 2	7.92	1.0	26	5	181	7.45	28	< 1	2.07	2.05	36	1690	< 1	2.25	10	0.169	4
W1434714 Split	7	< 0.3	6.52	33	943	< 1	< 2	7.49	< 0.3	23	8	171	6.97	28	2	1.92	1.92	33	1630	< 1	2.12	9	0.141	4
W1434720 Orig		0.6	7.79	28	> 1000	< 1	< 2	6.52	0.4	24	17	2	6.55	25	< 1	2.88	2.66	42	1290	< 1	1.92	19	0.138	< 3
W1434720 Dup		< 0.3	8.08	41	> 1000	< 1	< 2	6.50	0.4	24	21	3	6.60	25	2	2.89	2.67	42	1270	< 1	1.98	17	0.163	< 3
W1434734 Orig	46																							
W1434734 Dup	59																							
W1434744 Orig	44	0.4	8.16	13	560	< 1	< 2	3.20	0.5	21	10	325	4.57	25	< 1	2.50	1.86	14	865	3	3.54	8	0.167	< 3
W1434744 Split	44	0.4	7.92	13	416	< 1	< 2	3.12	0.5	21	12	309	4.48	26	< 1	2.38	1.78	14	829	3	3.43	7	0.162	6
W1434745 Orig		0.3	11.0	60	634	1	3	2.33	0.7	20	10	272	5.28	26	4	2.37	2.11	17	760	4	3.64	8	0.226	10
W1434745 Dup		< 0.3	8.05	54	772	< 1	< 2	2.32	1.0	22	10	273	4.62	26	1	2.25	2.00	13	773	3	3.61	7	0.164	11
W1434749 Orig	40																							

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434749 Dup	37																							
W1434754 Orig	9	< 0.3	7.93	6	725	1	< 2	2.26	0.5	40	12	190	6.42	26	< 1	2.39	2.11	15	614	4	3.19	11	0.160	3
W1434754 Split	15	< 0.3	7.94	17	737	1	< 2	2.31	0.4	40	12	196	6.64	26	2	2.39	2.13	15	638	5	3.32	10	0.179	< 3
W1434759 Orig		< 0.3	7.48	4	180	< 1	4	3.14	0.3	33	9	308	6.03	25	2	2.29	2.05	16	592	6	3.25	10	0.178	< 3
W1434759 Dup		0.4	7.59	31	129	< 1	< 2	3.14	< 0.3	32	11	314	6.12	27	8	2.29	2.04	16	601	6	3.29	10	0.181	< 3
W1434770 Orig	16	< 0.3	7.90	10	339	< 1	< 2	2.93	< 0.3	19	10	162	5.46	25	2	2.14	2.26	18	590	1	2.92	9	0.164	< 3
W1434770 Split	20	< 0.3	8.04	4	738	< 1	< 2	3.06	0.4	21	9	165	5.39	26	< 1	2.19	2.32	15	622	1	3.11	9	0.165	< 3
W1434770 Orig	16																							
W1434770 Dup	17																							
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	2	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		2	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	< 1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	< 1	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	2	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	33	0.24	< 4	282	26		< 5	50	90	155	27	775	27
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	6	1.78	9	224	< 2		< 5	< 10	96	39	13	79	44
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.06	16	166		0.08	< 5	< 10	33	< 5	30	101	23
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	26	42	2		< 5	< 10	113	< 5	10	126	65
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	6		10	150	10	0.33	< 5	< 10	65	16	34	910	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	5		31	125					129		13	61	34
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SBC-1 Meas	< 5		21	172			< 5	< 10	219	6	27	184	119
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434662 Orig													
W1434662 Dup													
W1434667 Orig	< 5	0.22	20	505	< 2	0.40	< 5	< 10	262	< 5	18	66	59
W1434667 Dup	< 5	0.24	21	530	< 2	0.36	< 5	< 10	243	< 5	19	67	56
W1434677 Orig													
W1434677 Dup													
W1434681 Orig	< 5	0.10	16	407	10	0.58	< 5	< 10	186	< 5	13	58	207
W1434681 Dup	< 5	0.08	16	407	5	0.13	7	< 10	68	5	13	60	73
W1434684 Orig	< 5	0.28	22	544	13	0.46	< 5	< 10	262	< 5	16	77	64
W1434684 Split	5	0.27	14	504	12	0.46	< 5	< 10	254	< 5	13	85	63
W1434698 Orig													
W1434698 Dup													
W1434704 Orig	6	0.07	19	556	4	0.46	< 5	< 10	217	6	19	65	73
W1434704 Split	6	0.07	18	560	16	0.56	< 5	< 10	253	< 5	19	64	94
W1434706 Orig	6	0.11	20	945	20	0.44	< 5	< 10	179	< 5	20	64	68
W1434706 Dup	< 5	0.11	20	936	< 2	0.37	< 5	< 10	164	< 5	20	64	61
W1434713 Orig													
W1434713 Dup													
W1434714 Orig	7	0.19	19	1190	12	0.44	< 5	< 10	222	< 5	19	64	62
W1434714 Split	< 5	0.16	16	1100	< 2	0.52	< 5	< 10	249	< 5	17	65	79
W1434720 Orig	< 5	0.09	25	542	6	0.29	< 5	< 10	173	< 5	15	56	44
W1434720 Dup	< 5	0.09	26	534	9	0.73	< 5	< 10	330	< 5	15	56	93
W1434734 Orig													
W1434734 Dup													
W1434744 Orig	< 5	1.54	19	414	11	0.45	< 5	< 10	246	< 5	21	75	94
W1434744 Split	< 5	1.53	19	396	14	0.45	< 5	< 10	242	< 5	21	75	91
W1434745 Orig	6	1.62	33	425	5	0.62	< 5	< 10	289	8	25	70	140
W1434745 Dup	6	1.20	22	392	6	0.50	< 5	< 10	278	7	20	71	88
W1434749 Orig													

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434749 Dup													
W1434754 Orig	< 5	0.82	23	265	10	0.50	< 5	< 10	259	< 5	21	55	71
W1434754 Split	6	0.87	23	270	6	0.52	< 5	< 10	265	7	22	56	76
W1434759 Orig	8	2.62	21	255	2	0.52	< 5	< 10	238	5	19	44	74
W1434759 Dup	< 5	2.67	21	253	11	0.54	< 5	< 10	243	< 5	19	45	78
W1434770 Orig	< 5	1.33	25	396	11	0.57	< 5	< 10	253	< 5	20	47	62
W1434770 Split	< 5	1.20	26	416	4	0.51	< 5	< 10	241	< 5	20	48	56
W1434770 Orig													
W1434770 Dup													
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													
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Method Blank													
Method Blank													

Quality Analysis ... **Actlabs** *Innovative Technologies*

Date Submitted:	13-Dec-12
Invoice No.:	A12-14046
Invoice Date:	08-Jan-13
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

56 Core samples and 2 Pulp samples were submitted for analysis.

The following analytical packages were requested:
Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-14046**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited LAB 266
LAB 266 Accrédité CCN

ACTIVATION LABORATORIES LTD.

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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434771	16	0.3	10.7	11	671	< 1	< 2	3.06	< 0.3	19	11	99	6.59	26	< 1	2.30	2.19	18	605	2	6.43	12	0.240	< 3
W1434772	15	< 0.3	7.89	23	211	< 1	< 2	3.50	< 0.3	27	28	171	6.56	26	1	2.69	2.33	17	659	1	5.31	13	0.174	5
W1434773	22	< 0.3	8.03	7	209	< 1	< 2	3.12	< 0.3	38	17	499	6.88	25	< 1	2.48	2.24	18	593	3	5.53	10	0.180	< 3
W1434774	11	< 0.3	8.05	< 3	958	< 1	< 2	3.13	< 0.3	20	10	149	7.38	26	< 1	2.45	2.39	18	736	< 1	5.85	8	0.170	< 3
W1434775	13	< 0.3	8.11	14	564	< 1	< 2	2.61	< 0.3	24	20	239	6.76	27	4	2.74	2.38	17	637	< 1	6.15	6	0.171	< 3
W1434776	16	< 0.3	8.32	14	662	< 1	< 2	2.98	1.0	23	11	275	6.51	27	< 1	2.31	2.43	19	587	1	6.63	12	0.179	5
W1434777	20	< 0.3	7.86	< 3	132	< 1	< 2	3.28	< 0.3	27	11	289	5.89	24	< 1	2.47	2.06	17	530	< 1	6.17	10	0.167	< 3
W1434778	22	< 0.3	7.83	< 3	211	< 1	< 2	3.08	< 0.3	25	9	244	5.62	24	< 1	2.39	2.17	18	627	2	6.36	7	0.174	< 3
W1434779	38	0.3	6.97	10	121	< 1	< 2	2.85	< 0.3	47	9	535	6.25	24	< 1	2.04	2.14	19	745	2	6.78	9	0.167	4
W1434780	12	< 0.3	7.91	10	256	< 1	< 2	3.13	< 0.3	20	9	174	5.37	24	< 1	2.01	2.13	19	634	1	6.92	8	0.176	< 3
W1434781	15	< 0.3	7.92	9	478	< 1	< 2	3.83	< 0.3	26	8	263	6.18	25	< 1	2.57	2.16	20	714	1	5.62	10	0.176	< 3
W1434782	7	< 0.3	8.27	6	819	< 1	< 2	3.08	< 0.3	22	16	136	4.85	25	< 1	3.02	1.90	15	736	< 1	6.19	10	0.167	< 3
W1434783	68	0.5	6.52	3	383	2	< 2	1.02	< 0.3	9	43	2210	4.05	25	< 1	3.53	0.61	10	294	54	3.17	27	0.038	8
W1434784	10	< 0.3	7.88	29	561	< 1	< 2	3.86	< 0.3	20	14	83	4.51	24	< 1	1.94	2.28	17	1020	1	6.79	10	0.146	< 3
W1434785	9	< 0.3	7.60	< 3	565	< 1	< 2	2.76	1.1	32	11	155	6.19	25	5	2.36	2.33	22	1110	< 1	6.19	15	0.164	6
W1434786	5	< 0.3	8.23	28	922	< 1	< 2	2.77	0.3	21	18	35	6.13	25	4	2.27	2.47	23	1190	< 1	6.19	14	0.170	< 3
W1434787	< 5	< 0.3	8.13	5	672	< 1	< 2	2.84	< 0.3	19	36	52	5.60	24	< 1	2.07	2.36	21	1050	< 1	6.44	13	0.175	5
W1434788	22	< 0.3	7.83	< 3	675	< 1	< 2	3.56	< 0.3	39	18	370	4.98	24	< 1	1.97	2.19	19	1040	8	6.91	12	0.151	< 3
W1434789	22	< 0.3	7.67	3	663	< 1	< 2	2.77	< 0.3	22	32	107	6.04	25	< 1	2.17	2.31	22	1170	< 1	6.26	12	0.179	< 3
W1434790	< 5	< 0.3	7.74	< 3	396	1	< 2	4.87	< 0.3	31	76	23	4.70	25	< 1	1.33	2.82	11	702	< 1	3.82	28	0.045	< 3
W1434791	31	< 0.3	8.23	5	585	< 1	< 2	2.65	< 0.3	18	17	246	6.06	26	< 1	1.95	2.24	20	1150	< 1	7.56	12	0.191	< 3
W1434792	20	< 0.3	8.44	7	705	< 1	< 2	2.66	< 0.3	16	17	107	5.97	26	< 1	2.05	2.23	21	957	< 1	7.32	10	0.188	< 3
W1434793	25	< 0.3	8.28	< 3	617	< 1	< 2	2.62	< 0.3	37	16	336	6.28	26	< 1	1.85	2.25	19	905	< 1	7.25	11	0.179	< 3
W1434794	19	< 0.3	7.73	< 3	579	< 1	< 2	2.64	0.3	21	13	165	6.10	25	< 1	1.39	2.31	22	863	< 1	7.32	13	0.173	5
W1434795	7	< 0.3	8.25	6	552	< 1	< 2	2.52	< 0.3	21	15	32	6.42	25	< 1	1.29	2.34	22	929	< 1	7.73	11	0.184	3
W1434796	22	< 0.3	7.39	10	411	< 1	< 2	3.91	< 0.3	27	16	228	6.11	23	1	1.53	2.36	25	1070	< 1	6.14	13	0.152	< 3
W1434797	49	< 0.3	7.58	5	513	< 1	< 2	4.27	< 0.3	25	13	357	5.59	24	< 1	2.14	2.24	26	1010	< 1	5.19	13	0.176	< 3
W1434798	29	< 0.3	8.06	31	594	1	< 2	2.60	< 0.3	30	31	565	6.22	27	5	2.30	2.20	23	677	< 1	5.65	14	0.185	< 3
W1434799	50	< 0.3	7.77	5	606	< 1	< 2	2.83	< 0.3	28	30	669	5.94	25	< 1	2.18	2.29	21	816	< 1	5.68	11	0.189	< 3
W1434800	17	< 0.3	7.14	30	659	< 1	< 2	2.93	0.6	23	20	241	6.02	25	1	2.29	2.12	18	819	< 1	5.53	11	0.182	< 3
W1434801	< 5	< 0.3	7.92	< 3	416	< 1	< 2	4.91	< 0.3	29	98	32	4.93	27	< 1	1.45	2.85	12	748	< 1	3.83	25	0.051	< 3
W1434802	44	0.4	7.33	149	230	< 1	< 2	4.12	< 0.3	21	17	638	5.61	24	< 1	2.69	1.67	11	997	8	5.30	10	0.220	9
W1434803	32	< 0.3	6.56	210	292	< 1	< 2	5.90	< 0.3	16	19	291	5.52	21	< 1	3.28	1.77	6	1320	44	2.87	8	0.176	4
W1434804	60	< 0.3	6.36	27	908	< 1	< 2	4.62	0.3	11	17	29	5.20	23	< 1	2.22	1.64	5	1230	< 1	6.64	8	0.141	< 3
W1434805	19	< 0.3	6.54	202	491	< 1	< 2	5.51	< 0.3	11	15	14	5.13	22	1	2.09	1.67	6	1210	5	6.24	7	0.141	4
W1434806	8	< 0.3	6.87	244	403	< 1	< 2	5.28	< 0.3	13	24	15	5.13	22	2	2.89	1.73	6	1060	1	3.84	11	0.143	5
W1434807	24	< 0.3	6.86	254	574	< 1	< 2	5.15	< 0.3	11	16	25	5.16	21	< 1	2.71	1.77	5	1120	5	4.40	7	0.147	< 3
W1434808	16	< 0.3	6.36	222	376	< 1	< 2	4.85	0.3	15	8	22	7.46	23	2	2.13	2.00	15	1050	3	4.65	10	0.147	5
W1434809	6	< 0.3	6.29	61	294	< 1	< 2	3.80	< 0.3	17	6	16	6.78	24	2	0.92	2.15	28	1010	3	7.45	16	0.151	13
W1434810	13	< 0.3	7.11	11	300	< 1	< 2	4.33	< 0.3	16	6	33	6.77	24	< 1	1.00	2.19	29	1070	2	6.96	11	0.161	5
W1434811	22	< 0.3	7.59	6	499	< 1	< 2	4.31	0.3	13	10	13	7.00	24	2	2.26	1.80	19	1010	< 1	5.50	8	0.160	< 3
W1434812	< 5	< 0.3	6.95	46	701	< 1	< 2	6.03	0.3	13	64	34	5.52	22	< 1	3.75	1.71	11	1150	4	1.53	10	0.160	< 3
W1434813	< 5	< 0.3	7.12	84	621	< 1	< 2	5.51	< 0.3	14	13	14	4.85	21	5	2.01	1.65	19	1170	1	5.53	9	0.167	< 3
W1434814	7	< 0.3	7.13	5	533	< 1	< 2	5.37	< 0.3	10	15	15	4.58	21	< 1	1.54	1.70	17	1250	3	6.63	8	0.167	< 3
W1434815	< 5	< 0.3	6.50	10	701	< 1	< 2	6.18	< 0.3	14	13	15	5.08	21	< 1	2.59	2.05	10	1440	14	3.51	9	0.134	< 3
W1434816	< 5	< 0.3	7.89	9	412	< 1	< 2	4.17	< 0.3	11	13	7	5.09	24	< 1	0.98	1.85	22	1080	< 1	8.70	8	0.155	5
W1434817	< 5	< 0.3	7.84	26	740	< 1	< 2	4.26	< 0.3	11	11	6	5.14	25	< 1	1.47	1.91	22	1150	< 1	7.23	7	0.147	< 3
W1434818	10	< 0.3	7.53	18	429	< 1	< 2	4.52	< 0.3	13	17	5	5.28	21	< 1	1.06	2.15	28	1240	< 1	7.53	10	0.147	< 3
W1434819	< 5	< 0.3	7.55	9	517	< 1	< 2	4.78	< 0.3	11	12	4	5.04	23	1	1.38	1.76	20	910	< 1	7.31	7	0.152	< 3
W1434820	61	< 0.3	7.71	12	427	< 1	< 2	4.63	< 0.3	13	17	7	4.99	23	< 1	0.99	1.99	24	1100	< 1	8.39	9	0.146	< 3
W1434821	14	< 0.3	7.60	5	582	< 1	< 2	4.87	< 0.3	31	23	296	5.21	23	< 1	2.45	1.69	11	959	24	5.67	10	0.161	< 3
W1434822	38	0.6	7.33	< 3	490	< 1	< 2	4.99	< 0.3	37	10	608	4.73	23	< 1	3.68	1.86	4	1010	59	3.19	10	0.161	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434823	< 5	< 0.3	6.93	< 3	888	< 1	< 2	6.26	0.3	15	16	24	4.77	22	< 1	4.15	2.24	5	1300	2	0.71	9	0.152	< 3
W1434824	73	0.4	7.06	< 3	301	2	< 2	1.02	< 0.3	8	38	2150	3.98	25	< 1	3.42	0.63	10	281	50	3.29	26	0.039	6
W1434825	26	< 0.3	6.71	5	747	< 1	< 2	5.13	0.4	34	40	229	5.39	22	< 1	3.50	1.83	4	1160	7	2.23	22	0.147	< 3
W1434826	25	< 0.3	7.22	< 3	851	< 1	< 2	4.67	< 0.3	11	16	33	4.84	22	< 1	3.26	1.74	4	1060	7	3.77	9	0.148	< 3
W1434827	< 5	< 0.3	7.05	8	667	< 1	< 2	4.78	< 0.3	10	39	14	4.70	22	< 1	2.74	1.68	2	1040	< 1	4.71	8	0.150	4
W1434828	10	< 0.3	7.18	< 3	665	< 1	< 2	5.24	0.3	13	15	12	4.95	24	< 1	3.25	1.74	3	1160	< 1	3.94	6	0.149	< 3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434771	< 5	1.37	36	426	13	0.84	< 5	< 10	292	5	25	47	183
W1434772	< 5	2.35	25	393	14	0.61	< 5	< 10	246	< 5	20	53	65
W1434773	< 5	2.38	23	397	9	0.62	< 5	< 10	245	< 5	20	40	74
W1434774	< 5	0.44	25	482	8	0.44	< 5	< 10	206	< 5	20	43	33
W1434775	< 5	1.23	25	391	22	0.59	< 5	< 10	260	< 5	20	44	53
W1434776	< 5	1.49	26	394	15	0.62	< 5	< 10	267	< 5	20	50	55
W1434777	< 5	2.69	22	362	19	0.60	< 5	< 10	238	< 5	19	47	57
W1434778	< 5	2.16	24	351	19	0.64	< 5	< 10	242	< 5	20	54	72
W1434779	< 5	2.71	21	329	11	0.62	< 5	< 10	229	< 5	19	65	66
W1434780	< 5	1.88	23	350	17	0.61	6	< 10	223	< 5	19	44	85
W1434781	< 5	1.45	25	300	12	0.61	< 5	< 10	246	< 5	20	46	62
W1434782	< 5	1.14	19	393	6	0.50	< 5	< 10	205	< 5	19	50	55
W1434783	< 5	1.61	7	104	7	0.26	< 5	< 10	42	< 5	15	45	91
W1434784	5	0.87	24	384	4	0.52	< 5	< 10	216	< 5	21	60	53
W1434785	< 5	1.38	22	417	4	0.56	< 5	< 10	241	< 5	20	99	49
W1434786	< 5	0.24	25	444	17	0.44	< 5	< 10	220	< 5	21	107	53
W1434787	< 5	0.06	24	424	12	0.21	< 5	< 10	129	< 5	21	96	45
W1434788	< 5	0.57	22	394	12	0.41	< 5	< 10	143	< 5	19	68	60
W1434789	< 5	0.08	24	425	9	0.30	< 5	< 10	176	< 5	18	75	63
W1434790	< 5	0.09	15	403	3	0.13	< 5	< 10	62	< 5	12	54	92
W1434791	< 5	0.13	23	443	7	0.44	< 5	< 10	195	< 5	20	63	57
W1434792	< 5	0.23	23	464	16	0.53	< 5	< 10	230	< 5	22	59	62
W1434793	< 5	0.41	24	469	11	0.61	< 5	< 10	259	< 5	22	63	83
W1434794	< 5	0.05	23	479	7	0.30	< 5	< 10	148	< 5	22	55	41
W1434795	< 5	0.08	24	471	< 2	0.30	< 5	< 10	156	< 5	20	51	35
W1434796	< 5	0.49	23	248	14	0.41	< 5	< 10	184	< 5	17	57	40
W1434797	< 5	0.50	22	186	5	0.45	< 5	< 10	233	< 5	13	72	38
W1434798	< 5	1.07	25	212	21	0.59	< 5	< 10	256	< 5	12	67	46
W1434799	< 5	0.89	24	204	8	0.60	< 5	< 10	229	< 5	17	68	98
W1434800	< 5	0.94	21	195	3	0.53	< 5	< 10	223	< 5	12	81	56
W1434801	< 5	0.09	15	400	< 2	0.30	< 5	< 10	105	< 5	12	54	118
W1434802	< 5	2.51	18	225	7	0.49	< 5	< 10	206	< 5	20	70	69
W1434803	< 5	2.08	15	224	6	0.42	< 5	< 10	199	< 5	17	61	70
W1434804	< 5	0.60	12	391	5	0.45	< 5	< 10	196	< 5	11	57	64
W1434805	< 5	1.60	14	360	8	0.43	< 5	< 10	186	< 5	13	54	65
W1434806	< 5	1.22	16	300	5	0.45	< 5	< 10	184	< 5	12	51	68
W1434807	< 5	1.16	15	288	16	0.44	< 5	< 10	181	< 5	12	41	74
W1434808	< 5	1.55	20	245	25	0.50	< 5	< 10	206	< 5	11	62	61
W1434809	< 5	0.89	20	293	5	0.54	< 5	< 10	221	< 5	10	54	68
W1434810	< 5	0.11	22	308	11	0.47	< 5	< 10	207	< 5	11	54	63
W1434811	< 5	0.06	21	261	8	0.43	< 5	< 10	176	< 5	11	57	67
W1434812	< 5	0.87	20	194	12	0.48	< 5	< 10	211	< 5	11	53	67
W1434813	< 5	1.42	16	343	14	0.47	< 5	< 10	192	< 5	15	41	77
W1434814	< 5	0.06	16	383	9	0.42	< 5	< 10	169	< 5	13	46	71
W1434815	< 5	0.11	14	253	< 2	0.32	< 5	< 10	153	< 5	12	47	58
W1434816	< 5	0.04	16	407	10	0.30	< 5	< 10	151	< 5	14	35	60
W1434817	< 5	0.03	16	501	< 2	0.17	< 5	< 10	120	< 5	18	43	31
W1434818	< 5	0.04	19	380	12	0.17	< 5	< 10	123	< 5	18	45	45
W1434819	< 5	0.04	16	356	< 2	0.40	< 5	< 10	175	< 5	17	32	65
W1434820	< 5	0.04	17	356	< 2	0.21	< 5	< 10	128	< 5	18	43	24
W1434821	< 5	0.87	18	294	12	0.50	< 5	< 10	218	< 5	13	38	83
W1434822	< 5	1.52	22	200	< 2	0.58	< 5	< 10	239	< 5	10	49	72

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434823	< 5	0.12	15	149	9	0.44	< 5	< 10	178	< 5	12	54	75
W1434824	< 5	1.60	7	103	8	0.27	< 5	< 10	41	< 5	14	44	49
W1434825	< 5	0.43	19	192	9	0.46	< 5	< 10	201	< 5	11	48	72
W1434826	< 5	0.07	16	295	7	0.30	< 5	< 10	147	< 5	11	46	58
W1434827	< 5	0.05	17	265	18	0.43	< 5	< 10	179	< 5	12	45	70
W1434828	< 5	0.06	16	293	4	0.18	< 5	< 10	122	< 5	10	50	51

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		31.3	1.91	429	639	1	1380	0.88	1.9	6	12	1130	23.2	20	3	0.05	0.19	8	895	14	< 0.01	38	0.058	736
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.2	5.95	101	417	2	16	1.06	1.2	15	51	6500	3.06	23	< 1	3.02	1.69	11	154	314	0.24	42	0.133	48
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	7.37	5	630	3	< 2	1.09	< 0.3	19	46	32	4.88	29	< 1	2.98	0.99	33	894	1	2.46	37	0.056	19
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		< 0.3	12.5	227	> 1000	1	< 2	0.20	< 0.3	14	54	61	5.56	40	2	1.93	0.61	34	1110	< 1	< 0.01	26	0.034	90
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		4.1	5.49	28	786	3	< 2	0.67	4.9	12	78	325	3.33	21		3.23	0.47	29	5090	6	1.70	47	0.063	987
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70	79.7	331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					96					56	163	100						5				250		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SE58 Meas	605																							
SE58 Cert	607.00																							
SBC-1 Meas				27	764	3	< 2		< 0.3	24	91	32		34				159		2		87		25
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
W1434778 Orig	22																							
W1434778 Dup	23																							
W1434783 Orig		0.6	6.12	3	387	2	< 2	1.00	< 0.3	10	48	2170	4.00	25	< 1	3.49	0.59	10	294	54	3.15	26	0.038	9
W1434783 Dup		0.3	6.92	3	378	2	< 2	1.04	< 0.3	9	39	2250	4.09	26	< 1	3.56	0.63	10	295	54	3.18	27	0.038	7
W1434793 Orig	26																							
W1434793 Dup	23																							
W1434797 Orig		< 0.3	7.49	4	507	< 1	< 2	4.24	< 0.3	25	13	352	5.56	24	< 1	2.12	2.24	26	1020	< 1	5.12	13	0.179	< 3
W1434797 Dup		< 0.3	7.68	7	518	< 1	< 2	4.29	< 0.3	25	13	362	5.63	24	1	2.16	2.25	27	1000	< 1	5.25	13	0.173	5
W1434800 Orig	17	< 0.3	7.14	30	659	< 1	< 2	2.93	0.6	23	20	241	6.02	25	1	2.29	2.12	18	819	< 1	5.53	11	0.182	< 3
W1434800 Split	19	< 0.3	7.47	28	587	< 1	< 2	2.82	0.7	21	16	242	5.86	24	3	2.30	2.06	17	813	< 1	5.26	10	0.171	< 3
W1434814 Orig	8																							
W1434814 Dup	6																							
W1434820 Orig	61	< 0.3	7.71	12	427	< 1	< 2	4.63	< 0.3	13	17	7	4.99	23	< 1	0.99	1.99	24	1100	< 1	8.39	9	0.146	< 3
W1434820 Split	60	< 0.3	7.82	5	437	< 1	< 2	4.47	< 0.3	13	12	6	5.10	24	< 1	1.00	2.00	24	1070	< 1	8.23	10	0.146	4
W1434822 Orig		0.5	7.41	6	474	< 1	< 2	5.00	< 0.3	37	11	610	4.74	23	< 1	3.70	1.87	4	1000	59	3.10	10	0.160	< 3
W1434822 Dup		0.6	7.25	< 3	507	< 1	< 2	4.99	0.4	37	9	606	4.73	22	< 1	3.66	1.84	4	1030	59	3.27	9	0.162	5
W1434828 Orig	10	< 0.3	7.18	< 3	665	< 1	< 2	5.24	0.3	13	15	12	4.95	24	< 1	3.25	1.74	3	1160	< 1	3.94	6	0.149	< 3
W1434828 Split	8	< 0.3	7.22	< 3	653	< 1	< 2	5.13	< 0.3	12	12	12	4.83	22	< 1	3.23	1.73	3	1110	< 1	3.79	7	0.145	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		4	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	37	0.25	< 4	283	38		< 5	40	85	157	26	752	28
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	6	1.75	8	214	4		< 5	< 10	89	38	13	75	54
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.07	17	176		0.11	< 5	< 10	35	< 5	31	103	31
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	25	41	3		< 5	< 10	101	< 5	10	127	57
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	5		10	151	8	0.27	< 5	< 10	45	12	35	928	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		31	130					141		13	59	36
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SE58 Meas													
SE58 Cert													
SBC-1 Meas	< 5		21	181			< 5	< 10	220	< 5	28	190	121
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434778 Orig													
W1434778 Dup													
W1434783 Orig	< 5	1.59	7	103	12	0.26	< 5	< 10	42	< 5	15	46	129
W1434783 Dup	< 5	1.63	7	106	3	0.27	< 5	< 10	42	< 5	14	45	52
W1434793 Orig													
W1434793 Dup													
W1434797 Orig	< 5	0.51	22	184	6	0.45	< 5	< 10	233	< 5	13	72	42
W1434797 Dup	< 5	0.49	23	189	4	0.44	< 5	< 10	233	< 5	13	72	34
W1434800 Orig	< 5	0.94	21	195	3	0.53	< 5	< 10	223	< 5	12	81	56
W1434800 Split	< 5	0.93	22	189	3	0.52	< 5	< 10	229	< 5	14	76	71
W1434814 Orig													
W1434814 Dup													
W1434820 Orig	< 5	0.04	17	356	< 2	0.21	< 5	< 10	128	< 5	18	43	24
W1434820 Split	< 5	0.03	17	366	6	0.24	< 5	< 10	135	< 5	18	41	25
W1434822 Orig	< 5	1.52	22	201	7	0.58	< 5	< 10	238	< 5	10	49	71
W1434822 Dup	< 5	1.53	22	199	< 2	0.58	< 5	< 10	241	6	10	49	73
W1434828 Orig	< 5	0.06	16	293	4	0.18	< 5	< 10	122	< 5	10	50	51
W1434828 Split	< 5	0.06	16	290	7	0.23	< 5	< 10	139	< 5	10	48	32
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													
Method Blank													
Method Blank													
Method Blank													

Quality Analysis ... *Innovative Technologies*

Date Submitted:	14-Dec-12
Invoice No.:	A12-14092
Invoice Date:	08-Jan-13
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

59 Core samples and 1 Pulp sample were submitted for analysis.

The following analytical packages were requested:
Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-14092**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

SCC Accredited LAB 266
LAB 266 Accrédité CCN

ACTIVATION LABORATORIES LTD.

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Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434829	17	< 0.3	7.23	< 3	663	< 1	< 2	4.35	< 0.3	14	15	23	4.71	23	1	1.74	1.86	9	1140	1	7.36	9	0.143	5
W1434830	< 5	< 0.3	7.73	30	424	1	< 2	4.88	< 0.3	30	108	28	4.78	24	5	1.43	2.79	11	706	2	3.65	24	0.046	10
W1434831	20	< 0.3	7.36	9	646	< 1	< 2	5.03	< 0.3	12	13	9	5.19	23	< 1	2.75	1.82	3	1210	< 1	5.21	9	0.149	< 3
W1434832	28	< 0.3	7.42	< 3	783	< 1	< 2	5.06	< 0.3	12	14	121	5.08	23	< 1	3.78	1.80	3	1100	< 1	2.77	9	0.149	< 3
W1434833	15	< 0.3	7.13	16	696	< 1	< 2	5.24	< 0.3	13	16	7	4.99	23	< 1	3.63	1.88	3	1090	< 1	2.29	9	0.156	3
W1434834	13	< 0.3	7.23	31	750	< 1	< 2	5.38	< 0.3	13	17	45	5.53	23	< 1	3.33	1.94	3	1250	< 1	3.19	8	0.143	< 3
W1434835	15	< 0.3	6.93	41	640	< 1	< 2	5.24	< 0.3	12	15	43	4.77	22	< 1	2.54	1.78	2	1150	1	4.87	8	0.150	< 3
W1434836	30	< 0.3	7.24	10	586	< 1	< 2	5.06	0.6	14	15	239	4.72	22	1	2.36	1.71	3	1030	10	5.74	8	0.153	< 3
W1434837	57	0.4	6.54	23	570	< 1	< 2	5.75	< 0.3	13	16	418	5.20	22	< 1	2.78	1.89	2	1190	< 1	3.54	10	0.135	< 3
W1434838	11	< 0.3	7.06	84	568	< 1	< 2	5.92	< 0.3	15	22	55	4.68	23	< 1	3.20	1.90	3	1160	< 1	3.30	10	0.147	< 3
W1434839	< 5	< 0.3	7.07	24	522	< 1	< 2	5.96	< 0.3	12	16	4	5.14	22	< 1	3.33	2.04	2	1330	< 1	3.23	9	0.153	3
W1434840	6	< 0.3	5.58	14	432	< 1	< 2	6.90	< 0.3	27	243	47	6.06	20	< 1	3.23	3.19	11	1390	< 1	< 0.01	113	0.171	4
W1434841	< 5	< 0.3	7.96	< 3	402	< 1	< 2	4.61	< 0.3	28	99	16	4.91	25	< 1	1.22	2.89	10	840	< 1	4.65	25	0.051	< 3
W1434842	5	< 0.3	5.09	51	390	< 1	< 2	7.67	0.4	32	209	6	6.44	21	< 1	2.17	4.29	18	1700	1	1.57	154	0.137	6
W1434843	< 5	< 0.3	5.36	13	335	< 1	< 2	7.09	< 0.3	32	202	7	6.09	21	< 1	2.22	4.18	18	1740	< 1	1.78	134	0.146	4
W1434844	27	< 0.3	7.03	12	866	< 1	< 2	5.34	< 0.3	12	16	4	5.05	23	< 1	4.01	1.94	2	1060	< 1	1.56	11	0.148	< 3
W1434845	37	< 0.3	6.48	10	728	< 1	< 2	6.28	0.6	19	83	14	4.91	21	< 1	4.01	2.42	3	1180	< 1	< 0.01	41	0.140	< 3
W1434846	43	< 0.3	7.04	10	724	< 1	< 2	5.43	< 0.3	13	14	19	5.14	22	< 1	2.71	2.02	2	1080	< 1	1.56	18	0.144	< 3
W1434847	19	< 0.3	5.04	4	554	< 1	< 2	7.27	< 0.3	33	261	13	6.00	21	< 1	3.31	3.24	7	1510	< 1	0.05	103	0.145	4
W1434848	107	1.8	6.34	3	468	< 1	< 2	5.54	< 0.3	31	66	2400	6.76	21	2	2.70	2.86	13	1260	79	2.86	40	0.145	5
W1434849	7	< 0.3	4.96	19	632	< 1	< 2	8.23	< 0.3	25	68	125	5.65	18	6	2.84	3.51	6	1760	< 1	0.11	38	0.127	6
W1434850	18	0.8	6.30	13	763	< 1	< 2	6.41	< 0.3	29	69	800	6.43	21	< 1	3.46	2.94	10	1700	1	0.64	39	0.157	4
W1434851	14	0.3	6.09	< 3	911	< 1	< 2	6.68	0.4	27	65	483	5.77	21	< 1	3.18	3.11	10	1680	13	1.10	36	0.156	7
W1434852	9	0.4	5.97	9	684	< 1	< 2	6.22	0.3	27	72	469	6.08	20	< 1	2.70	3.19	15	1830	7	1.82	35	0.147	6
W1434853	12	0.5	5.77	4	432	< 1	< 2	6.71	1.4	51	67	539	6.21	21	< 1	2.12	3.36	14	1810	5	3.13	45	0.151	9
W1434854	< 5	< 0.3	5.87	< 3	787	< 1	< 2	6.10	0.5	26	76	84	6.28	19	< 1	2.73	3.20	13	1720	< 1	1.41	41	0.150	5
W1434855	8	< 0.3	6.09	< 3	795	< 1	< 2	6.98	< 0.3	30	84	93	6.10	22	< 1	3.54	2.98	5	1700	2	1.00	33	0.153	7
W1434856	7	< 0.3	6.14	12	773	< 1	< 2	6.21	< 0.3	25	60	11	5.74	21	< 1	3.16	2.82	6	1550	< 1	1.75	28	0.141	7
W1434857	538	0.7	6.36	3	921	< 1	< 2	5.84	0.5	26	98	162	5.90	22	< 1	3.41	2.56	8	1820	< 1	1.63	35	0.154	6
W1434858	6	< 0.3	6.20	9	> 1000	< 1	< 2	6.66	< 0.3	28	106	52	6.60	21	2	3.52	3.17	10	2020	1	1.04	45	0.171	5
W1434859	< 5	< 0.3	5.68	10	952	< 1	< 2	6.31	< 0.3	29	94	17	6.22	19	< 1	2.55	3.47	16	2060	2	2.44	43	0.156	4
W1434860	< 5	< 0.3	5.87	15	886	< 1	< 2	6.87	< 0.3	29	82	5	6.56	20	< 1	1.82	3.69	35	1960	< 1	3.28	43	0.158	< 3
W1434861	6	< 0.3	6.91	41	> 1000	< 1	< 2	6.51	< 0.3	31	75	18	7.52	25	2	2.10	3.50	31	2070	< 1	3.77	43	0.179	7
W1434862	< 5	< 0.3	7.15	19	> 1000	< 1	< 2	5.76	< 0.3	33	66	5	7.55	23	< 1	2.67	3.61	37	2080	< 1	4.34	39	0.191	< 3
W1434863	7	< 0.3	6.82	22	> 1000	< 1	< 2	7.08	< 0.3	31	73	23	7.05	25	< 1	2.30	3.19	30	1890	1	3.17	38	0.183	< 3
W1434864	26	< 0.3	6.48	< 3	329	< 1	< 2	6.00	0.5	29	34	244	6.01	25	< 1	3.64	2.37	9	1670	< 1	1.07	19	0.127	4
W1434865	167	0.9	6.90	< 3	511	4	< 2	1.86	< 0.3	12	64	4690	4.77	32	< 1	3.37	1.04	12	286	79	2.17	36	0.063	9
W1434866	37	< 0.3	6.33	< 3	212	< 1	< 2	6.07	< 0.3	39	23	30	8.22	23	< 1	1.44	2.76	19	1660	< 1	4.51	16	0.136	< 3
W1434867	46	< 0.3	6.60	10	675	< 1	< 2	5.54	< 0.3	34	15	7	7.48	23	< 1	1.91	2.42	18	1730	< 1	4.90	13	0.150	< 3
W1434868	< 5	< 0.3	7.98	< 3	392	1	< 2	5.10	< 0.3	30	96	26	4.88	28	1	1.01	2.99	10	859	1	4.33	27	0.051	5
W1434869	9	< 0.3	7.13	9	> 1000	< 1	< 2	6.53	< 0.3	27	8	112	5.92	22	< 1	3.65	2.10	11	1630	< 1	3.10	6	0.173	< 3
W1434870	31	< 0.3	7.38	9	> 1000	< 1	< 2	5.27	0.3	18	8	142	4.31	22	< 1	4.17	1.53	8	1210	< 1	3.35	3	0.155	12
W1434871	20	< 0.3	8.13	5	> 1000	< 1	< 2	4.50	< 0.3	26	6	441	6.21	24	< 1	4.32	1.76	13	1220	1	4.22	5	0.184	< 3
W1434872	25	< 0.3	7.77	6	> 1000	< 1	< 2	3.75	< 0.3	18	4	469	4.50	23	7	4.14	1.36	11	1160	3	4.98	2	0.140	< 3
W1434873	10	< 0.3	8.19	4	> 1000	< 1	< 2	4.25	< 0.3	17	4	115	4.60	24	1	4.62	1.42	12	1110	< 1	5.36	1	0.153	< 3
W1434874	6	< 0.3	7.93	< 3	> 1000	< 1	< 2	4.48	< 0.3	15	6	22	4.27	23	< 1	4.31	1.32	9	1060	< 1	5.31	2	0.159	< 3
W1434875	6	< 0.3	7.79	< 3	> 1000	< 1	< 2	4.42	< 0.3	13	4	2	4.22	23	< 1	3.50	1.35	9	1030	< 1	6.58	3	0.159	< 3
W1434876	5	< 0.3	7.72	6	987	< 1	< 2	4.78	< 0.3	13	5	2	4.36	23	< 1	3.00	1.34	10	1080	< 1	6.81	3	0.168	7
W1434877	9	< 0.3	8.16	15	> 1000	< 1	< 2	4.76	< 0.3	14	7	42	4.63	23	2	3.17	1.41	11	1110	< 1	6.68	2	0.176	< 3
W1434878	16	< 0.3	8.05	9	> 1000	< 1	< 2	4.39	< 0.3	18	6	24	4.22	23	< 1	3.80	1.36	9	976	2	5.83	2	0.171	< 3
W1434879	11	< 0.3	7.78	15	> 1000	< 1	< 2	4.55	< 0.3	26	7	59	5.12	24	< 1	4.11	1.74	7	1180	2	4.85	6	0.163	< 3
W1434880	14	< 0.3	6.50	11	210	< 1	< 2	5.10	< 0.3	68	16	258	7.71	24	< 1	2.77	2.51	13	1670	2	4.62	14	0.168	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434881	< 5	< 0.3	7.81	< 3	390	1	< 2	4.80	< 0.3	30	76	25	4.74	25	< 1	1.08	2.89	10	764	< 1	4.06	26	0.049	4
W1434882	11	< 0.3	7.12	9	910	< 1	< 2	5.16	< 0.3	47	11	328	6.00	23	< 1	2.58	2.38	13	1630	1	5.19	9	0.148	< 3
W1434883	34	0.6	7.12	12	573	< 1	< 2	6.61	< 0.3	25	11	1780	5.49	24	< 1	2.20	2.13	17	1520	< 1	5.10	7	0.152	< 3
W1434884	12	< 0.3	6.90	19	538	< 1	< 2	6.37	< 0.3	32	18	23	6.95	27	4	1.96	2.50	19	1600	< 1	4.51	13	0.151	7
W1434885	26	< 0.3	6.69	10	989	< 1	< 2	5.56	< 0.3	35	17	12	7.98	24	< 1	2.96	2.57	18	1610	< 1	3.73	14	0.149	< 3
W1434886	13	< 0.3	6.59	18	977	< 1	< 2	6.13	< 0.3	36	14	6	7.88	25	< 1	2.86	2.61	18	1710	< 1	3.49	12	0.161	< 3
W1434887	14	< 0.3	6.76	8	646	< 1	< 2	6.20	< 0.3	35	17	6	7.93	24	< 1	2.36	2.58	17	1650	< 1	3.98	13	0.153	< 3
W1434888	10	< 0.3	6.54	10	681	< 1	< 2	5.84	< 0.3	34	17	10	7.81	23	< 1	2.58	2.51	17	1550	< 1	3.90	13	0.156	< 3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434829	< 5	0.04	16	359	8	0.30	< 5	< 10	147	< 5	14	57	46
W1434830	< 5	0.08	15	406	15	0.27	< 5	< 10	96	7	12	54	108
W1434831	< 5	0.11	16	340	5	0.33	< 5	< 10	165	< 5	12	57	53
W1434832	< 5	0.09	16	233	6	0.32	< 5	< 10	160	< 5	11	63	57
W1434833	< 5	0.12	15	215	< 2	0.43	< 5	< 10	188	< 5	11	57	70
W1434834	< 5	0.16	16	258	5	0.46	< 5	< 10	210	< 5	11	55	63
W1434835	< 5	0.21	15	280	4	0.44	< 5	< 10	179	< 5	13	46	71
W1434836	< 5	0.25	15	321	9	0.38	< 5	< 10	166	< 5	13	54	65
W1434837	< 5	0.22	20	252	4	0.33	< 5	< 10	171	< 5	11	55	58
W1434838	< 5	0.37	16	256	8	0.39	< 5	< 10	168	< 5	12	61	64
W1434839	< 5	0.20	16	246	9	0.46	< 5	< 10	191	< 5	13	61	72
W1434840	< 5	0.17	26	205	13	0.43	< 5	< 10	227	< 5	12	102	60
W1434841	< 5	0.06	15	415	< 2	0.30	< 5	< 10	103	< 5	12	51	113
W1434842	< 5	0.20	28	215	12	0.39	< 5	< 10	231	< 5	11	109	52
W1434843	< 5	0.12	27	213	15	0.42	< 5	< 10	244	< 5	11	104	57
W1434844	< 5	0.33	15	214	3	0.44	< 5	< 10	187	< 5	10	62	71
W1434845	< 5	0.29	17	182	< 2	0.39	< 5	< 10	178	< 5	10	72	64
W1434846	< 5	0.23	16	211	12	0.41	< 5	< 10	174	< 5	11	63	63
W1434847	< 5	0.09	26	197	6	0.46	< 5	< 10	226	< 5	10	97	58
W1434848	< 5	0.32	31	244	9	0.52	< 5	< 10	220	< 5	11	87	60
W1434849	< 5	0.13	25	254	2	0.38	< 5	< 10	241	7	10	91	47
W1434850	< 5	0.15	29	242	7	0.43	< 5	< 10	307	< 5	10	117	53
W1434851	< 5	0.15	27	259	5	0.42	< 5	< 10	271	< 5	10	120	51
W1434852	< 5	0.14	30	343	3	0.42	< 5	< 10	296	< 5	11	136	52
W1434853	< 5	0.41	29	278	< 2	0.40	< 5	< 10	270	< 5	11	141	49
W1434854	< 5	0.09	31	319	15	0.42	< 5	< 10	330	< 5	11	128	49
W1434855	< 5	0.13	26	232	< 2	0.37	< 5	< 10	238	< 5	9	97	43
W1434856	< 5	0.19	23	250	14	0.38	< 5	< 10	231	< 5	12	96	59
W1434857	< 5	0.40	28	221	16	0.42	< 5	< 10	218	< 5	12	117	66
W1434858	< 5	0.18	35	253	14	0.46	< 5	< 10	290	< 5	12	132	57
W1434859	< 5	0.16	32	310	17	0.41	< 5	< 10	273	< 5	10	126	52
W1434860	< 5	0.17	32	374	7	0.42	< 5	< 10	312	< 5	11	122	52
W1434861	< 5	0.41	31	814	7	0.47	< 5	< 10	299	< 5	13	126	58
W1434862	< 5	0.29	31	583	4	0.48	< 5	< 10	331	< 5	13	127	59
W1434863	< 5	0.21	29	618	8	0.45	< 5	< 10	356	5	13	118	55
W1434864	6	0.16	24	187	6	0.31	< 5	< 10	241	5	12	73	37
W1434865	< 5	1.15	11	262	< 2	0.35	< 5	< 10	91	< 5	15	53	93
W1434866	< 5	0.08	28	292	13	0.25	< 5	< 10	203	< 5	14	66	34
W1434867	< 5	0.13	23	351	16	0.53	< 5	< 10	329	< 5	15	76	75
W1434868	< 5	0.09	16	442	5	0.31	< 5	< 10	107	< 5	12	55	115
W1434869	6	0.24	16	272	9	0.47	< 5	< 10	210	< 5	15	76	82
W1434870	< 5	0.36	13	319	12	0.41	< 5	< 10	211	8	17	93	83
W1434871	< 5	0.19	16	364	< 2	0.39	< 5	< 10	193	< 5	17	85	71
W1434872	< 5	0.28	13	449	16	0.38	< 5	< 10	209	< 5	18	120	73
W1434873	< 5	0.27	14	460	5	0.40	< 5	< 10	215	< 5	19	116	76
W1434874	< 5	0.15	13	528	6	0.36	7	< 10	196	< 5	18	103	72
W1434875	< 5	0.12	13	493	5	0.23	< 5	< 10	157	< 5	18	98	63
W1434876	< 5	0.13	13	532	21	0.43	< 5	< 10	224	6	18	95	85
W1434877	< 5	0.17	14	495	13	0.46	< 5	< 10	223	< 5	19	102	87
W1434878	< 5	0.53	13	507	8	0.43	< 5	< 10	219	< 5	18	75	85
W1434879	< 5	0.67	18	534	6	0.43	< 5	< 10	245	< 5	18	72	82
W1434880	< 5	2.52	25	572	12	0.50	< 5	< 10	280	< 5	16	55	57

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434881	< 5	0.09	15	423	6	0.26	< 5	< 10	93	< 5	12	54	107
W1434882	< 5	0.75	28	547	15	0.46	< 5	< 10	232	< 5	16	87	53
W1434883	< 5	0.64	25	351	7	0.49	< 5	< 10	259	8	17	109	59
W1434884	< 5	0.44	30	326	8	0.41	< 5	< 10	225	7	15	60	44
W1434885	< 5	0.08	30	349	6	0.25	< 5	< 10	190	< 5	15	57	38
W1434886	< 5	0.46	29	359	6	0.54	< 5	< 10	300	< 5	15	57	65
W1434887	< 5	0.17	31	302	8	0.43	< 5	< 10	261	< 5	15	52	48
W1434888	< 5	0.22	30	278	18	0.55	< 5	< 10	297	< 5	16	60	66

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		31.4	2.00	435	650	1	1360	0.88	1.5	6	14	1140	23.5	20	< 1	0.05	0.19	8	914	15	< 0.01	39	0.060	727
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.5	5.49	106	911	2	8	1.07	0.4	16	59	6500	3.07	24	< 1	4.11	1.69	11	150	318	0.24	42	0.132	50
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	7.32	4	634	3	< 2	1.09	0.5	21	56	31	4.89	31	< 1	3.02	1.00	33	874	< 1	2.50	36	0.056	19
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		0.6	12.9	299	> 1000	1	< 2	0.21	< 0.3	15	79	71	5.90	42	2	2.04	0.63	35	1180	1	< 0.01	26	0.038	92
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		3.6	5.48	39	806	3	< 2	0.68	5.1	12		323	3.37	20		3.26	0.48	29	5200	12	1.73	44	0.071	1010
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					96					59	194	97						5				248		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SE58 Meas	567																							
SE58 Cert	607.00																							
SE58 Meas	582																							
SE58 Cert	607.00																							
SBC-1 Meas				19	772	3	< 2		0.3	25		40		35				156		2		86		29
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7		31.0		27.0				163.0		2.40		82.8		35.0
W1434836 Orig	31																							
W1434836 Dup	29																							
W1434841 Orig		< 0.3	7.97	< 3	402	< 1	< 2	4.61	< 0.3	27	100	17	4.91	26	< 1	1.22	2.90	10	838	< 1	4.61	26	0.050	12
W1434841 Dup		< 0.3	7.95	3	403	< 1	< 2	4.61	0.5	29	98	15	4.90	25	< 1	1.21	2.88	10	842	< 1	4.69	24	0.051	< 3
W1434851 Orig	14																							
W1434851 Dup	13																							
W1434855 Orig		< 0.3	6.08	4	797	< 1	< 2	6.96	0.3	30	84	93	6.10	21	< 1	3.54	2.97	5	1720	1	1.01	33	0.150	6
W1434855 Dup		< 0.3	6.09	< 3	793	< 1	< 2	7.00	< 0.3	30	85	92	6.09	22	1	3.53	2.99	5	1690	2	1.00	33	0.155	8
W1434858 Orig	6	< 0.3	6.20	9	> 1000	< 1	< 2	6.66	< 0.3	28	106	52	6.60	21	2	3.52	3.17	10	2020	1	1.04	45	0.171	5
W1434858 Split	5	< 0.3	6.12	9	> 1000	< 1	< 2	6.80	< 0.3	28	106	54	6.63	21	< 1	3.45	3.18	10	2050	2	1.04	44	0.172	7
W1434872 Orig	24																							
W1434872 Dup	26																							
W1434878 Orig	16	< 0.3	8.05	9	> 1000	< 1	< 2	4.39	< 0.3	18	6	24	4.22	23	< 1	3.80	1.36	9	976	2	5.83	2	0.171	< 3
W1434878 Split	17	< 0.3	7.87	6	> 1000	< 1	< 2	4.36	< 0.3	16	6	22	4.15	23	< 1	3.75	1.36	9	948	2	5.79	2	0.166	< 3
W1434880 Orig		< 0.3	6.89	14	292	< 1	< 2	5.05	< 0.3	67	15	254	7.60	24	< 1	2.71	2.50	13	1670	2	4.49	13	0.174	< 3
W1434880 Dup		< 0.3	6.12	7	128	< 1	< 2	5.15	< 0.3	69	16	263	7.83	24	< 1	2.82	2.51	13	1670	1	4.75	15	0.162	5
W1434887 Orig	9																							
W1434887 Dup	19																							
W1434888 Orig	10	< 0.3	6.54	10	681	< 1	< 2	5.84	< 0.3	34	17	10	7.81	23	< 1	2.58	2.51	17	1550	< 1	3.90	13	0.156	< 3
W1434888 Split	10	< 0.3	6.92	7	700	< 1	< 2	5.90	< 0.3	34	15	9	7.99	24	< 1	2.69	2.56	18	1550	< 1	3.97	15	0.150	5
Method Blank			< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		3	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	2	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	0.02	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		3	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	2	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	29	0.28	< 4	279	42		< 5	40	87	156	26	755	29
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	< 5	1.76	8	220	4		< 5	< 10	89	39	12	74	57
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.07	16	174		0.24	< 5	< 10	46	< 5	30	104	34
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.02	28	45	4		< 5	< 10	155	< 5	11	133	90
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	9		10	155	20	0.42	< 5	< 10	71	23	35	956	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		30	129					140		13	59	35
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SBC-1 Meas	< 5		25	178			< 5	< 10	220	< 5	31	197	128
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434836 Orig													
W1434836 Dup													
W1434841 Orig	< 5	0.06	15	416	< 2	0.30	< 5	< 10	103	< 5	12	51	111
W1434841 Dup	< 5	0.06	15	415	10	0.30	< 5	< 10	104	< 5	12	51	114
W1434851 Orig													
W1434851 Dup													
W1434855 Orig	< 5	0.13	27	233	4	0.33	< 5	< 10	228	< 5	9	97	36
W1434855 Dup	< 5	0.13	26	230	< 2	0.40	< 5	< 10	247	< 5	10	97	51
W1434858 Orig	< 5	0.18	35	253	14	0.46	< 5	< 10	290	< 5	12	132	57
W1434858 Split	< 5	0.19	35	257	22	0.46	< 5	< 10	295	< 5	11	134	57
W1434872 Orig													
W1434872 Dup													
W1434878 Orig	< 5	0.53	13	507	8	0.43	< 5	< 10	219	< 5	18	75	85
W1434878 Split	< 5	0.53	13	500	7	0.43	< 5	< 10	215	< 5	18	75	85
W1434880 Orig	< 5	2.51	30	571	10	0.55	< 5	< 10	314	< 5	16	54	64
W1434880 Dup	< 5	2.54	21	573	14	0.45	< 5	< 10	246	< 5	16	56	50
W1434887 Orig													
W1434887 Dup													
W1434888 Orig	< 5	0.22	30	278	18	0.55	< 5	< 10	297	< 5	16	60	66
W1434888 Split	< 5	0.23	31	289	7	0.26	< 5	< 10	205	< 5	16	62	34
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													
Method Blank													
Method Blank													
Method Blank													

Quality Analysis ... *Innovative Technologies*

Date Submitted:	17-Dec-12
Invoice No.:	A12-14120
Invoice Date:	10-Jan-13
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

40 Core samples and 1 Pulp sample were submitted for analysis.

The following analytical packages were requested:
Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-14120**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited LAB 266
LAB 266 Accrédité CCN

ACTIVATION LABORATORIES LTD.

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Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434889	14	< 0.3	6.52	< 3	703	< 1	< 2	6.28	< 0.3	30	14	11	7.11	24	< 1	2.96	2.38	16	1450	< 1	3.09	12	0.143	< 3
W1434890	10	< 0.3	6.93	4	551	< 1	< 2	5.63	< 0.3	38	17	2	7.94	24	< 1	2.26	2.86	19	1520	< 1	4.10	15	0.149	12
W1434891	7	< 0.3	6.95	4	595	< 1	< 2	5.40	< 0.3	35	17	5	7.52	25	< 1	2.48	2.89	19	1430	< 1	3.63	14	0.147	< 3
W1434892	6	< 0.3	6.83	6	982	< 1	< 2	6.00	< 0.3	32	18	4	7.60	24	4	3.05	2.67	17	1530	< 1	3.29	12	0.155	< 3
W1434893	8	< 0.3	7.00	< 3	712	< 1	< 2	5.54	< 0.3	37	18	4	8.01	24	< 1	2.01	2.84	19	1450	< 1	4.45	15	0.155	< 3
W1434894	< 5	< 0.3	6.82	19	774	< 1	< 2	5.96	< 0.3	32	14	2	7.55	24	< 1	2.29	2.63	18	1420	< 1	3.86	14	0.150	< 3
W1434895	< 5	< 0.3	7.36	13	854	< 1	< 2	6.16	< 0.3	33	14	2	7.91	25	6	2.43	2.73	19	1540	< 1	4.22	15	0.160	< 3
W1434896	< 5	< 0.3	7.03	4	847	< 1	< 2	6.24	< 0.3	31	16	2	7.65	26	3	2.53	2.65	17	1550	1	4.08	11	0.157	< 3
W1434897	< 5	< 0.3	6.81	42	868	< 1	< 2	5.88	< 0.3	30	16	2	7.49	26	3	2.76	2.66	13	1510	< 1	4.07	11	0.150	8
W1434898	10	< 0.3	7.20	< 3	865	< 1	< 2	6.35	< 0.3	32	15	3	7.76	24	< 1	2.63	2.64	13	1580	< 1	4.41	14	0.158	4
W1434899	< 5	< 0.3	6.80	20	805	< 1	< 2	6.13	< 0.3	32	16	2	7.17	24	1	2.41	2.55	13	1510	< 1	4.17	12	0.159	< 3
W1434900	11	< 0.3	7.13	4	950	< 1	< 2	6.10	< 0.3	33	14	4	7.76	26	< 1	2.44	2.72	16	1490	< 1	4.49	12	0.155	6
W1434901	9	< 0.3	6.88	8	690	< 1	< 2	6.22	< 0.3	32	16	11	7.56	24	4	1.97	2.56	18	1290	< 1	4.12	15	0.147	< 3
W1434902	12	< 0.3	7.26	21	> 1000	< 1	< 2	7.25	< 0.3	32	43	74	7.12	24	< 1	3.97	2.85	17	1520	< 1	3.08	21	0.175	< 3
W1434903	6	< 0.3	7.05	23	> 1000	< 1	< 2	6.28	< 0.3	30	81	137	6.55	24	< 1	3.30	3.12	17	1420	< 1	3.19	32	0.194	< 3
W1434904	9	< 0.3	7.21	13	> 1000	< 1	< 2	6.17	< 0.3	29	72	117	6.68	23	< 1	3.49	3.27	19	1480	1	3.08	32	0.202	< 3
W1434905	348	1.3	5.39	< 3	411	2	< 2	1.45	< 0.3	14	68	8170	6.14	24	< 1	2.81	1.25	11	356	98	2.20	47	0.054	11
W1434906	10	< 0.3	7.34	10	> 1000	< 1	3	5.79	< 0.3	33	63	78	7.37	24	< 1	3.54	3.45	20	1410	< 1	3.35	34	0.213	< 3
W1434907	17	0.7	6.56	15	> 1000	< 1	< 2	8.05	< 0.3	29	64	873	7.07	22	< 1	3.47	2.55	17	1690	1	3.13	30	0.182	< 3
W1434908	18	< 0.3	6.51	39	> 1000	< 1	< 2	10.3	< 0.3	30	67	48	6.40	21	< 1	2.29	2.41	17	2460	< 1	3.24	30	0.185	< 3
W1434909	9	< 0.3	7.20	25	> 1000	1	< 2	5.72	< 0.3	30	62	61	7.00	22	8	3.24	2.84	19	1390	< 1	3.71	32	0.204	5
W1434910	30	1.1	5.95	111	> 1000	< 1	< 2	9.58	< 0.3	31	63	1700	6.08	20	< 1	3.04	2.33	14	1710	< 1	3.12	28	0.172	7
W1434911	< 5	< 0.3	7.82	< 3	360	< 1	< 2	5.41	< 0.3	24	111	60	4.00	24	< 1	0.94	2.70	9	708	< 1	4.14	27	0.049	3
W1434912	35	< 0.3	6.48	15	> 1000	< 1	< 2	5.89	< 0.3	26	75	434	6.32	21	< 1	2.78	2.40	13	1260	< 1	3.42	27	0.185	4
W1434913	18	< 0.3	6.74	26	> 1000	< 1	< 2	6.02	< 0.3	33	64	312	6.21	22	6	3.15	2.75	17	1390	< 1	3.96	31	0.197	3
W1434914	16	< 0.3	6.83	9	> 1000	< 1	< 2	5.85	0.4	26	67	266	6.57	22	< 1	3.73	3.01	12	1330	< 1	2.22	30	0.193	10
W1434915	52	5.5	5.44	301	725	< 1	< 2	9.04	1.6	44	94	1990	5.97	17	< 1	2.45	3.72	19	1680	56	1.23	37	0.150	121
W1434916	467	0.4	3.78	13	426	< 1	< 2	8.12	< 0.3	50	358	389	9.28	19	< 1	0.86	6.11	42	1870	2	< 0.01	78	0.108	10
W1434917	1390	11.9	3.54	13	752	< 1	< 2	8.47	1.2	45	385	7630	7.37	17	< 1	0.71	5.77	36	1800	< 1	< 0.01	78	0.103	12
W1434918	2600	9.8	5.53	22	351	< 1	< 2	9.97	1.3	31	117	5700	6.07	18	< 1	2.04	3.03	26	1720	7	1.60	38	0.156	16
W1434919	13	< 0.3	4.85	13	351	< 1	< 2	10.4	0.4	27	164	304	5.85	18	< 1	1.71	3.64	23	1770	2	0.91	42	0.132	12
W1434920	22	< 0.3	3.61	8	217	< 1	< 2	9.99	< 0.3	32	407	191	5.66	18	< 1	1.37	4.59	20	1610	< 1	0.09	62	0.088	5
W1434921	5	< 0.3	8.37	< 3	361	< 1	< 2	5.56	< 0.3	28	118	29	4.33	26	< 1	1.02	2.78	10	723	1	4.06	27	0.051	4
W1434922	368	1.6	4.77	26	752	< 1	< 2	9.72	0.5	30	186	2770	6.27	18	2	2.24	3.00	12	1700	1	1.89	40	0.139	8
W1434923	32	< 0.3	6.93	9	> 1000	< 1	< 2	4.17	< 0.3	43	71	488	7.51	22	< 1	2.73	3.36	26	1230	1	3.78	29	0.195	< 3
W1434924	14	< 0.3	7.07	26	> 1000	< 1	< 2	5.05	< 0.3	24	65	189	6.80	21	< 1	2.93	3.36	20	1410	< 1	3.98	33	0.198	4
W1434925	> 3000	8.8	5.35	111	868	< 1	< 2	8.07	1.1	30	175	7000	6.86	19	< 1	1.85	3.98	28	1730	8	2.18	53	0.151	12
W1434926	272	< 0.3	6.72	17	932	< 1	< 2	6.42	< 0.3	32	58	129	6.29	21	< 1	2.75	3.09	22	1490	< 1	3.55	29	0.190	7
W1434927	24	< 0.3	5.68	17	487	< 1	< 2	7.03	< 0.3	30	177	186	6.19	17	< 1	2.25	3.09	25	1330	< 1	1.69	45	0.158	5
W1434928	17	0.4	4.94	19	766	< 1	< 2	7.29	0.5	41	356	514	7.14	18	< 1	1.58	5.12	34	1640	< 1	1.86	69	0.138	16
W1434929	21	2.6	6.80	15	935	< 1	< 2	5.76	0.6	34	65	2620	7.42	20	< 1	2.84	2.75	20	1300	< 1	4.43	24	0.166	29

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Au
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.03
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FA-GRA
W1434889	< 5	0.17	29	255	13	0.24	< 5	< 10	196	< 5	15	59	32	
W1434890	< 5	0.16	30	292	14	0.25	< 5	< 10	195	< 5	15	63	33	
W1434891	< 5	0.17	29	274	< 2	0.26	< 5	< 10	203	< 5	15	57	34	
W1434892	< 5	0.10	32	324	9	0.23	< 5	< 10	180	< 5	16	54	40	
W1434893	< 5	0.07	32	360	< 2	0.25	< 5	< 10	231	< 5	16	49	40	
W1434894	< 5	0.06	30	353	9	0.33	< 5	< 10	191	5	15	40	37	
W1434895	< 5	0.06	31	438	23	0.51	< 5	< 10	310	< 5	16	43	55	
W1434896	< 5	0.07	31	489	10	0.44	< 5	< 10	264	6	16	44	48	
W1434897	< 5	0.05	30	549	12	0.29	< 5	< 10	228	< 5	15	47	37	
W1434898	< 5	0.13	32	552	19	0.25	< 5	< 10	215	< 5	16	51	32	
W1434899	< 5	0.10	29	541	13	0.52	< 5	< 10	342	< 5	16	47	59	
W1434900	< 5	0.05	32	531	12	0.27	< 5	< 10	184	< 5	16	46	38	
W1434901	< 5	0.09	31	511	6	0.24	< 5	< 10	178	< 5	16	39	32	
W1434902	< 5	0.24	31	609	9	0.30	< 5	< 10	207	< 5	16	80	50	
W1434903	< 5	0.05	27	481	15	0.43	< 5	< 10	240	< 5	13	133	78	
W1434904	< 5	0.06	28	508	10	0.44	< 5	< 10	247	< 5	14	124	81	
W1434905	< 5	1.61	10	285	17	0.28	< 5	< 10	91	< 5	9	54	29	
W1434906	< 5	0.05	32	471	8	0.46	< 5	< 10	265	< 5	14	100	86	
W1434907	< 5	0.11	26	434	8	0.40	< 5	< 10	234	< 5	14	73	74	
W1434908	< 5	0.19	26	610	4	0.40	< 5	< 10	224	< 5	14	65	72	
W1434909	< 5	0.10	28	552	4	0.44	< 5	< 10	244	< 5	13	61	81	
W1434910	< 5	0.58	23	357	6	0.36	< 5	< 10	180	< 5	12	74	64	
W1434911	< 5	0.06	14	451	4	0.23	< 5	< 10	84	< 5	11	58	100	
W1434912	< 5	0.16	25	429	9	0.40	< 5	< 10	214	< 5	13	55	73	
W1434913	< 5	0.11	26	437	5	0.41	< 5	< 10	212	< 5	13	68	74	
W1434914	< 5	0.10	28	338	9	0.44	< 5	< 10	244	< 5	13	67	78	
W1434915	202	0.26	26	321	9	0.33	< 5	< 10	259	< 5	10	236	56	
W1434916	< 5	0.09	41	206	12	0.25	< 5	< 10	214	< 5	7	113	24	
W1434917	< 5	0.36	39	211	13	0.24	< 5	< 10	199	< 5	7	265	21	
W1434918	< 5	0.38	27	253	6	0.34	< 5	< 10	205	5	12	157	60	
W1434919	< 5	0.22	30	304	8	0.29	< 5	< 10	205	< 5	10	118	46	
W1434920	< 5	0.46	33	192	12	0.20	< 5	< 10	172	< 5	6	152	19	
W1434921	< 5	0.08	15	459	6	0.24	< 5	< 10	89	< 5	12	54	99	
W1434922	< 5	0.64	26	278	8	0.30	< 5	< 10	204	< 5	10	104	50	
W1434923	< 5	0.54	28	396	11	0.42	< 5	< 10	233	< 5	12	64	78	
W1434924	< 5	0.19	28	477	10	0.44	< 5	< 10	244	< 5	13	70	81	
W1434925	< 5	0.62	32	282	8	0.34	< 5	< 10	215	< 5	10	146	50	5.04
W1434926	< 5	0.13	25	294	13	0.41	< 5	< 10	229	< 5	12	63	72	
W1434927	< 5	0.15	29	240	6	0.36	< 5	< 10	214	< 5	11	105	59	
W1434928	< 5	0.09	38	271	11	0.32	< 5	< 10	226	< 5	10	229	45	
W1434929	< 5	0.78	33	420	14	0.52	7	< 10	305	< 5	15	106	66	

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		31.4	2.00	435	650	1	1360	0.88	1.5	6	14	1140	23.5	20	< 1	0.05	0.19	8	914	15	< 0.01	39	0.060	727
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.5	5.49	106	911	2	8	1.07	0.4	16	59	6500	3.07	24	< 1	4.11	1.69	11	150	318	0.24	42	0.132	50
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	7.32	4	634	3	< 2	1.09	0.5	21	56	31	4.89	31	< 1	3.02	1.00	33	874	< 1	2.50	36	0.056	19
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		0.6	12.9	299	> 1000	1	< 2	0.21	< 0.3	15	79	71	5.90	42	2	2.04	0.63	35	1180	1	< 0.01	26	0.038	92
GXR-6 Cert		1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		3.6	5.48	39	806	3	< 2	0.68	5.1	12		323	3.37	20		3.26	0.48	29	5200	12	1.73	44	0.071	1010
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70		331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					96					59	194	97						5				248		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
OXL93 Meas																								
OXL93 Cert																								
OXL93 Meas																								
OXL93 Cert																								
SE58 Meas	637																							
SE58 Cert	607.00																							
SE58 Meas	643																							
SE58 Cert	607.00																							
SE58 Meas	516																							
SE58 Cert	607.00																							
SE58 Meas	505																							
SE58 Cert	607.00																							
SE58 Meas	506																							
SE58 Cert	607.00																							
SE58 Meas	511																							
SE58 Cert	607.00																							
SBC-1 Meas				19	772	3	< 2		0.3	25		40		35				156		2		86		29
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7		31.0		27.0				163.0		2.40		82.8		35.0
W1434891 Orig		< 0.3	7.04	5	602	< 1	< 2	5.49	< 0.3	35	17	5	7.66	25	< 1	2.54	2.93	19	1500	< 1	3.67	13	0.148	< 3
W1434891 Dup		< 0.3	6.85	3	587	< 1	< 2	5.32	< 0.3	35	18	6	7.37	25	< 1	2.43	2.85	18	1360	< 1	3.60	14	0.145	< 3
W1434896 Orig	< 5																							
W1434896 Dup	< 5																							
W1434911 Orig	< 5																							
W1434911 Dup	< 5																							
W1434916 Orig		0.4	3.78	10	423	< 1	< 2	8.08	< 0.3	49	338	382	9.26	19	< 1	0.85	6.08	42	1880	2	< 0.01	76	0.108	14
W1434916 Dup		0.5	3.79	16	430	< 1	< 2	8.15	0.4	51	378	397	9.29	19	2	0.86	6.15	42	1870	2	< 0.01	81	0.109	7
W1434918 Orig	2600	9.8	5.53	22	351	< 1	< 2	9.97	1.3	31	117	5700	6.07	18	< 1	2.04	3.03	26	1720	7	1.60	38	0.156	16
W1434918 Split	2540	10.2	5.45	22	357	< 1	< 2	9.94	1.0	32	156	5730	6.13	19	< 1	2.07	3.03	27	1720	7	1.64	35	0.156	13
W1434929 Orig	21	2.6	6.80	15	935	< 1	< 2	5.76	0.6	34	65	2620	7.42	20	< 1	2.84	2.75	20	1300	< 1	4.43	24	0.166	29
W1434929 Split	25	2.6	6.71	12	968	< 1	< 2	5.56	0.5	33	63	2620	7.29	22	2	2.84	2.68	20	1320	< 1	4.34	25	0.162	24
Method Blank			< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		3	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	2	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	0.02	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		3	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	2	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 5																							
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Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Au
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.03
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FA-GRA
GXR-1 Meas	29	0.28	< 4	279	42		< 5	40	87	156	26	755	29	
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0	
GXR-4 Meas	< 5	1.76	8	220	4		< 5	< 10	89	39	12	74	57	
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186	
SDC-1 Meas	< 5	0.07	16	174		0.24	< 5	< 10	46	< 5	30	104	34	
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00	
GXR-6 Meas	< 5	0.02	28	45	4		< 5	< 10	155	< 5	11	133	90	
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110	
SAR-M (U.S.G.S.) Meas	9		10	155	20	0.42	< 5	< 10	71	23	35	956		
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0		
DNC-1a Meas	< 5		30	129					140		13	59	35	
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38	
OXL93 Meas														5.84
OXL93 Cert														5.84
OXL93 Meas														5.82
OXL93 Cert														5.84
SE58 Meas														
SE58 Cert														
SE58 Meas														
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SE58 Cert														
SE58 Meas														
SE58 Cert														
SE58 Meas														
SE58 Cert														
SE58 Meas														
SE58 Cert														
SBC-1 Meas	< 5		25	178			< 5	< 10	220	< 5	31	197	128	
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0	
W1434891 Orig	< 5	0.17	30	280	14	0.23	< 5	< 10	199	< 5	15	58	32	
W1434891 Dup	< 5	0.17	29	268	< 2	0.29	< 5	< 10	206	< 5	15	56	37	
W1434896 Orig														
W1434896 Dup														
W1434911 Orig														
W1434911 Dup														
W1434916 Orig	< 5	0.09	41	206	20	0.25	< 5	< 10	213	< 5	7	114	24	
W1434916 Dup	< 5	0.09	41	206	5	0.25	< 5	< 10	215	< 5	7	112	24	
W1434918 Orig	< 5	0.38	27	253	6	0.34	< 5	< 10	205	5	12	157	60	
W1434918 Split	< 5	0.38	27	251	9	0.33	< 5	< 10	203	< 5	12	153	59	
W1434929 Orig	< 5	0.78	33	420	14	0.52	7	< 10	305	< 5	15	106	66	
W1434929 Split	< 5	0.77	32	416	11	0.51	< 5	< 10	297	< 5	14	104	64	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank														
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Method Blank														
Method Blank														

Quality Analysis ... *Innovative Technologies*

Date Submitted:	17-Dec-12
Invoice No.:	A12-14128
Invoice Date:	08-Jan-13
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

37 Core samples and 1 Pulp sample were submitted for analysis.

The following analytical packages were requested: Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-14128**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited LAB 266
LAB 266 Accrédité CCN

ACTIVATION LABORATORIES LTD.

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Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434930	7	< 0.3	6.98	31	902	< 1	< 2	7.57	< 0.3	27	27	195	7.64	23	< 1	3.30	1.86	13	1300	1	3.19	19	0.157	< 3
W1434931	14	< 0.3	6.92	25	362	< 1	< 2	5.97	< 0.3	25	28	71	9.36	22	1	3.12	1.93	14	1250	2	3.33	17	0.152	4
W1434932	< 5	< 0.3	6.60	< 3	495	< 1	< 2	4.80	< 0.3	26	25	15	10.2	22	< 1	1.93	2.13	15	1330	< 1	3.99	17	0.148	< 3
W1434933	19	< 0.3	7.55	32	> 1000	< 1	< 2	5.33	< 0.3	27	17	26	7.25	24	< 1	4.75	2.13	18	1250	< 1	2.42	16	0.182	< 3
W1434934	< 5	< 0.3	6.70	15	> 1000	< 1	< 2	8.20	< 0.3	20	13	20	5.82	22	3	3.90	1.83	13	1450	< 1	1.01	11	0.188	< 3
W1434935	< 5	< 0.3	7.29	8	> 1000	1	< 2	5.28	< 0.3	23	13	29	6.91	23	< 1	3.78	2.08	19	1200	< 1	2.05	12	0.200	< 3
W1434936	13	< 0.3	8.15	10	734	1	< 2	5.01	< 0.3	22	12	22	6.77	24	< 1	3.91	2.32	24	1110	< 1	2.24	14	0.213	4
W1434937	17	0.6	7.63	< 3	980	< 1	< 2	4.82	< 0.3	24	12	181	6.52	23	3	3.88	2.42	22	1210	< 1	2.40	19	0.199	8
W1434938	83	0.5	7.76	43	> 1000	< 1	< 2	5.91	0.4	25	13	2420	6.42	20	1	3.22	2.09	16	1180	2	2.46	11	0.198	< 3
W1434939	41	0.5	6.21	35	> 1000	< 1	< 2	8.92	0.4	28	66	688	7.97	21	< 1	3.60	2.26	17	1590	4	1.92	14	0.172	< 3
W1434940	154	1.5	8.47	128	> 1000	< 1	< 2	5.44	< 0.3	70	20	2240	6.67	23	< 1	4.02	1.73	15	950	5	2.78	15	0.201	6
W1434941	24	0.6	6.71	12	386	< 1	< 2	4.00	3.1	135	32	1250	10.4	24	< 1	3.91	2.07	17	958	< 1	2.67	18	0.166	20
W1434942	< 5	< 0.3	6.68	7	506	< 1	< 2	4.28	0.4	30	24	44	9.90	23	< 1	1.53	2.90	20	1250	< 1	3.40	18	0.160	5
W1434943	129	0.6	6.28	8	906	< 1	< 2	5.97	2.4	24	24	105	6.08	21	< 1	3.80	2.20	11	1210	1	0.45	15	0.161	12
W1434944	153	0.8	6.93	< 3	551	4	2	1.80	< 0.3	13	56	4520	4.66	30	< 1	3.45	1.03	12	291	79	1.58	35	0.061	7
W1434945	27	0.4	7.16	7	> 1000	< 1	< 2	4.24	0.6	26	12	217	6.91	22	< 1	3.75	2.20	18	1130	< 1	2.65	15	0.191	8
W1434946	37	< 0.3	7.49	6	> 1000	1	< 2	3.73	< 0.3	24	11	321	7.15	23	< 1	4.27	2.20	17	1130	< 1	2.69	11	0.199	6
W1434947	88	0.6	7.98	5	> 1000	1	< 2	3.57	1.1	50	12	487	7.21	23	< 1	5.20	2.28	16	1190	1	2.42	14	0.202	90
W1434948	77	0.7	7.53	19	> 1000	< 1	< 2	3.80	< 0.3	31	13	2040	6.42	25	< 1	3.62	2.00	15	1010	24	2.27	12	0.219	17
W1434949	29	0.5	7.11	11	> 1000	< 1	< 2	2.89	0.8	78	19	867	12.1	25	4	4.28	2.63	21	1120	< 1	2.39	17	0.184	< 3
W1434950	< 5	< 0.3	8.01	< 3	440	1	< 2	4.94	< 0.3	28	80	33	4.71	25	1	1.41	2.74	11	796	< 1	2.65	25	0.050	< 3
W1434951	< 5	< 0.3	6.86	< 3	816	< 1	< 2	6.08	< 0.3	25	17	9	8.89	24	< 1	1.65	2.55	19	1260	< 1	3.25	17	0.173	5
W1434952	< 5	< 0.3	6.82	4	363	< 1	< 2	5.83	0.5	26	12	4	8.99	26	2	2.37	2.74	20	1210	< 1	2.19	16	0.148	4
W1434953	< 5	< 0.3	7.24	4	501	< 1	< 2	5.53	< 0.3	26	12	3	8.81	24	< 1	1.59	2.97	22	1020	< 1	3.36	15	0.152	< 3
W1434954	< 5	< 0.3	8.44	< 3	356	< 1	< 2	3.67	< 0.3	42	9	304	7.31	24	< 1	2.28	2.48	24	817	1	4.32	13	0.143	7
W1434955	9	< 0.3	8.52	4	789	< 1	< 2	5.43	< 0.3	24	9	113	6.27	25	2	2.42	2.40	21	895	2	3.38	15	0.147	< 3
W1434956	12	< 0.3	8.60	8	865	< 1	< 2	6.09	0.5	21	9	6	5.67	25	< 1	2.37	2.34	21	902	< 1	3.25	15	0.144	6
W1434957	< 5	< 0.3	8.55	< 3	388	< 1	< 2	5.32	0.9	26	11	15	6.76	25	< 1	1.18	2.30	23	944	< 1	4.41	13	0.142	< 3
W1434958	48	0.4	7.77	8	985	< 1	< 2	4.85	< 0.3	20	9	890	6.51	25	< 1	2.84	2.05	16	979	< 1	3.59	10	0.125	< 3
W1434959	30	< 0.3	8.22	< 3	> 1000	< 1	< 2	4.76	0.4	20	7	780	6.01	22	< 1	3.82	1.92	16	893	2	3.60	8	0.128	< 3
W1434960	9	< 0.3	8.20	8	708	< 1	< 2	4.56	0.3	20	12	160	6.25	24	< 1	2.59	2.14	23	820	< 1	4.13	10	0.128	< 3
W1434961	< 5	< 0.3	7.70	< 3	464	< 1	< 2	4.75	< 0.3	27	109	28	4.67	27	< 1	1.38	2.62	11	768	1	2.57	25	0.044	< 3
W1434962	14	< 0.3	8.59	9	423	< 1	< 2	4.55	0.5	28	21	1330	6.86	23	< 1	1.39	2.48	25	842	8	4.71	17	0.146	10
W1434963	< 5	< 0.3	7.70	14	> 1000	< 1	< 2	6.85	0.4	27	135	13	6.35	22	< 1	2.30	3.70	22	1030	< 1	2.88	54	0.152	17
W1434964	< 5	< 0.3	7.66	11	792	< 1	< 2	6.56	< 0.3	23	80	2	6.13	26	< 1	2.87	2.63	22	789	< 1	2.60	35	0.152	< 3
W1434965	< 5	< 0.3	8.14	6	808	< 1	< 2	5.69	< 0.3	19	34	3	5.90	24	2	3.11	2.43	19	772	< 1	2.61	19	0.144	< 3
W1434966	< 5	< 0.3	8.59	7	871	< 1	< 2	5.46	0.5	22	11	90	6.22	28	7	2.12	2.23	20	905	3	3.69	13	0.158	< 3
W1434967	< 5	< 0.3	8.81	20	802	< 1	< 2	4.83	< 0.3	24	10	43	6.70	26	< 1	1.98	2.33	23	960	1	4.32	14	0.163	< 3

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434930	< 5	0.94	33	514	14	0.57	< 5	< 10	374	< 5	14	39	57
W1434931	< 5	1.48	32	523	10	0.53	< 5	< 10	342	< 5	14	41	51
W1434932	< 5	0.13	31	350	4	0.42	8	< 10	273	< 5	13	44	42
W1434933	< 5	0.47	26	444	< 2	0.49	< 5	< 10	276	< 5	15	50	83
W1434934	9	0.30	21	341	< 2	0.45	< 5	< 10	224	< 5	14	47	79
W1434935	< 5	0.13	23	312	12	0.48	< 5	< 10	247	< 5	15	60	88
W1434936	< 5	0.07	25	241	8	0.46	< 5	< 10	249	< 5	15	71	79
W1434937	< 5	0.04	24	308	7	0.37	6	< 10	208	< 5	15	71	80
W1434938	< 5	0.48	26	320	3	0.50	< 5	< 10	241	< 5	17	55	91
W1434939	< 5	0.42	19	408	< 2	0.41	< 5	< 10	228	< 5	14	78	75
W1434940	19	2.34	31	392	< 2	0.52	< 5	< 10	293	< 5	15	47	80
W1434941	< 5	2.62	32	254	5	0.51	< 5	< 10	327	5	13	67	56
W1434942	< 5	0.17	32	361	< 2	0.55	< 5	< 10	342	< 5	14	75	58
W1434943	7	0.73	23	183	5	0.45	< 5	< 10	258	19	13	73	64
W1434944	< 5	1.13	10	260	< 2	0.35	< 5	< 10	94	< 5	14	52	75
W1434945	< 5	0.17	23	317	2	0.32	< 5	< 10	197	< 5	15	51	63
W1434946	< 5	0.18	24	341	8	0.26	< 5	< 10	183	< 5	16	49	58
W1434947	< 5	0.44	25	416	8	0.46	< 5	< 10	254	< 5	17	82	87
W1434948	< 5	0.47	23	379	< 2	0.53	< 5	< 10	265	6	16	47	100
W1434949	< 5	0.61	34	313	< 2	0.58	< 5	< 10	344	< 5	14	56	60
W1434950	< 5	0.09	15	421	9	0.27	< 5	< 10	99	< 5	12	55	97
W1434951	< 5	0.48	30	473	< 2	0.50	8	< 10	331	< 5	15	48	46
W1434952	< 5	0.39	32	283	5	0.43	< 5	< 10	291	5	13	70	37
W1434953	< 5	0.10	34	412	4	0.38	< 5	< 10	267	< 5	14	48	37
W1434954	< 5	0.32	19	477	9	0.32	< 5	< 10	203	< 5	12	47	44
W1434955	< 5	0.14	19	588	14	0.26	< 5	< 10	170	< 5	12	46	39
W1434956	< 5	0.20	19	665	5	0.36	< 5	< 10	214	< 5	11	61	41
W1434957	< 5	0.26	19	595	16	0.36	6	< 10	210	< 5	12	45	46
W1434958	< 5	0.28	23	432	14	0.31	< 5	< 10	215	< 5	18	39	50
W1434959	< 5	0.32	23	404	10	0.27	< 5	< 10	205	< 5	19	38	43
W1434960	< 5	0.31	22	396	7	0.29	< 5	< 10	193	< 5	17	47	41
W1434961	< 5	0.07	14	401	6	0.30	< 5	< 10	107	< 5	11	53	109
W1434962	< 5	0.44	19	563	7	0.40	< 5	< 10	224	< 5	11	46	54
W1434963	< 5	0.23	28	578	< 2	0.41	< 5	< 10	242	< 5	12	48	49
W1434964	< 5	0.12	22	475	< 2	0.42	< 5	< 10	233	7	12	39	54
W1434965	< 5	0.07	20	416	< 2	0.26	< 5	< 10	181	< 5	12	42	36
W1434966	< 5	0.19	18	588	4	0.42	< 5	< 10	230	< 5	12	38	54
W1434967	< 5	0.32	18	639	12	0.42	< 5	< 10	238	< 5	12	47	55

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas		31.4	1.88	400	705	1	1390	0.87	2.6	5	12	1130	23.6	12	7	0.05	0.19	8	929	16	< 0.01	39	0.061	766
GXR-1 Cert		31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas		3.6	5.95	91	362	2	10	1.08	< 0.3	15	59	6500	3.11	25	< 1	2.63	1.70	11	156	312	0.48	39	0.136	53
GXR-4 Cert		4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
SDC-1 Meas		< 0.3	7.19	< 3	630	3	4	1.08	< 0.3	19	47	29	4.77	28	< 1	2.05	0.98	33	883	< 1	1.73	36	0.056	20
SDC-1 Cert		0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00
GXR-6 Meas		< 0.3	12.0		> 1000	1	2	0.19	< 0.3	13	29	65	5.31	39	< 1	1.83	0.57	33	1070	< 1	< 0.01	24	0.030	84
GXR-6 Cert		1.30	17.7		1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
SAR-M (U.S.G.S.) Meas		3.7	5.27	25	793	3	< 2	0.64	4.6	12	68	305	3.20	23		2.58	0.46	29	5100	8	1.29	45	0.064	963
SAR-M (U.S.G.S.) Cert		3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70	79.7	331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982
DNC-1a Meas					99					56	142	99						5				251		
DNC-1a Cert					118					57.0	270	100.0						5.20				247		
SE58 Meas	641																							
SE58 Cert	607.00																							
SE58 Meas	618																							
SE58 Cert	607.00																							
SBC-1 Meas				12	777	3	< 2		0.4	23	57	31		34				156		2		84		28
SBC-1 Cert				25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163.0		2.40		82.8		35.0
W1434937 Orig	18																							
W1434937 Dup	15																							
W1434942 Orig		< 0.3	6.47	8	494	< 1	< 2	4.13	0.4	29	23	43	9.62	22	< 1	1.47	2.80	19	1210	< 1	3.29	18	0.156	4
W1434942 Dup		< 0.3	6.88	6	518	< 1	< 2	4.43	0.4	31	25	45	10.2	23	< 1	1.58	3.00	20	1300	< 1	3.51	19	0.164	6
W1434952 Orig	< 5																							
W1434952 Dup	< 5																							
W1434956 Orig		< 0.3	8.39	6	844	< 1	< 2	6.00	0.8	23	7	8	5.45	25	< 1	2.29	2.29	20	896	< 1	3.13	15	0.139	6
W1434956 Dup		< 0.3	8.81	9	886	< 1	< 2	6.19	0.3	20	10	5	5.88	25	< 1	2.45	2.39	22	908	< 1	3.37	16	0.149	5
W1434959 Orig	30	< 0.3	8.22	< 3	> 1000	< 1	< 2	4.76	0.4	20	7	780	6.01	22	< 1	3.82	1.92	16	893	2	3.60	8	0.128	< 3
W1434959 Split	25	< 0.3	7.93	11	> 1000	< 1	< 2	4.68	1.1	17	7	753	5.86	22	2	3.81	1.86	15	853	2	3.50	8	0.128	6
W1434967 Orig	< 5	< 0.3	8.81	20	802	< 1	< 2	4.83	< 0.3	24	10	43	6.70	26	< 1	1.98	2.33	23	960	1	4.32	14	0.163	< 3
W1434967 Split	< 5	< 0.3	8.59	9	774	< 1	< 2	4.60	< 0.3	22	10	42	6.35	24	1	1.88	2.21	22	883	1	4.18	13	0.159	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		3	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	28	0.25	< 4	290	10		< 5	40	92	153	28	776	29
GXR-1 Cert	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0	760	38.0
GXR-4 Meas	< 5	1.76	8	216	4		6	< 10	92	42	12	74	50
GXR-4 Cert	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0	73.0	186
SDC-1 Meas	< 5	0.06	16	172		0.18	< 5	< 10	53	< 5	30	103	23
SDC-1 Cert	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0	103.00	290.00
GXR-6 Meas	< 5	0.01	25	39	< 2		< 5	< 10	85	< 5	10	124	35
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110
SAR-M (U.S.G.S.) Meas	< 5		10	148	3	0.35	< 5	< 10	63	20	34	908	
SAR-M (U.S.G.S.) Cert	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00	930.0	
DNC-1a Meas	< 5		31	128					130		13	60	31
DNC-1a Cert	0.96		31	144.0					148.0		18.0	70.0	38
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SBC-1 Meas	< 5		20	172			< 5	< 10	223	8	27	181	98
SBC-1 Cert	1.01		20.0	178.0			0.89	5.76	220.0	1.60	36.5	186.0	134.0
W1434937 Orig													
W1434937 Dup													
W1434942 Orig	< 5	0.16	31	351	< 2	0.54	< 5	< 10	335	< 5	13	73	56
W1434942 Dup	< 5	0.18	33	371	9	0.57	< 5	< 10	349	11	14	78	60
W1434952 Orig													
W1434952 Dup													
W1434956 Orig	< 5	0.20	18	654	3	0.35	< 5	< 10	209	< 5	11	80	39
W1434956 Dup	< 5	0.20	19	677	7	0.37	< 5	< 10	219	< 5	11	42	42
W1434959 Orig	< 5	0.32	23	404	10	0.27	< 5	< 10	205	< 5	19	38	43
W1434959 Split	5	0.31	22	394	3	0.28	< 5	< 10	194	< 5	19	39	50
W1434967 Orig	< 5	0.32	18	639	12	0.42	< 5	< 10	238	< 5	12	47	55
W1434967 Split	< 5	0.32	18	620	< 2	0.35	< 5	< 10	196	< 5	13	46	50
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													
Method Blank													

Quality Analysis ... Innovative Technologies

Date Submitted:	18-Dec-12
Invoice No.:	A12-14187
Invoice Date:	10-Jan-13
Your Reference:	BIG KIDD PROJECT

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

97 Core samples and 2 Pulp samples were submitted for analysis.

The following analytical packages were requested: Code 1A2-Kamloops Au - Fire Assay AA
Code 1F2 Kamloops Total Digestion ICP(TOTAL)

REPORT **A12-14187**

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited
LAB 266
LAB 266
Accrédité CCN

ACTIVATION LABORATORIES LTD.

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Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434968	8	< 0.3	8.58	24	485	< 1	< 2	4.35	< 0.3	23	13	135	7.11	27	< 1	2.38	2.38	23	792	< 1	3.59	19	0.151	< 3
W1434969	< 5	< 0.3	8.68	19	651	< 1	< 2	4.42	< 0.3	23	10	50	7.42	27	4	2.42	2.33	24	764	< 1	3.54	14	0.151	< 3
W1434970	< 5	< 0.3	8.80	5	720	< 1	< 2	4.27	< 0.3	25	11	33	7.75	28	< 1	2.58	2.43	25	761	2	3.46	13	0.152	< 3
W1434971	< 5	0.5	8.92	36	587	< 1	< 2	4.60	< 0.3	28	10	318	7.52	31	9	3.08	2.43	21	795	< 1	2.94	13	0.152	< 3
W1434972	< 5	< 0.3	8.78	14	352	< 1	< 2	4.17	< 0.3	48	11	280	7.78	29	< 1	2.17	2.49	25	854	2	3.59	15	0.153	< 3
W1434973	< 5	< 0.3	8.36	33	358	< 1	< 2	4.01	0.5	59	12	556	7.42	24	4	2.04	2.54	23	831	8	3.43	14	0.140	< 3
W1434974	< 5	< 0.3	8.28	29	532	< 1	< 2	4.48	0.6	28	13	106	6.87	24	< 1	2.21	2.51	20	827	1	3.36	15	0.131	< 3
W1434975	< 5	< 0.3	8.05	8	962	< 1	< 2	4.83	0.6	22	13	5	6.53	24	< 1	3.31	2.38	17	711	< 1	2.13	15	0.126	< 3
W1434976	10	< 0.3	10.1	291	141	< 1	3	4.96	0.5	28	13	19	5.93	23	< 1	1.91	2.33	16	577	2	2.45	13	0.125	< 3
W1434977	< 5	< 0.3	7.53	71	147	< 1	< 2	6.22	< 0.3	32	14	228	6.86	24	< 1	3.79	2.20	11	680	< 1	1.40	15	0.122	7
W1434978	< 5	< 0.3	7.86	23	574	< 1	< 2	6.60	1.7	34	9	157	7.21	27	2	2.11	2.54	18	957	< 1	2.99	11	0.142	< 3
W1434979	< 5	< 0.3	7.76	5	> 1000	< 1	< 2	5.27	< 0.3	21	6	24	5.69	25	< 1	3.92	1.84	13	797	< 1	2.51	5	0.170	< 3
W1434980	< 5	< 0.3	7.86	11	> 1000	< 1	< 2	5.68	< 0.3	20	6	264	5.78	27	< 1	3.88	1.94	14	938	5	2.55	6	0.183	< 3
W1434981	< 5	< 0.3	8.16	38	791	< 1	4	5.70	1.2	22	10	41	6.28	27	5	2.68	2.34	23	854	< 1	2.80	10	0.152	4
W1434982	< 5	< 0.3	7.56	< 3	540	< 1	< 2	5.96	0.5	25	11	314	5.66	22	< 1	3.13	2.30	19	669	< 1	2.23	13	0.118	< 3
W1434983	< 5	< 0.3	8.13	16	498	< 1	< 2	5.44	< 0.3	26	12	8	6.35	24	< 1	1.61	2.38	21	843	< 1	3.14	15	0.134	< 3
W1434984	8	< 0.3	7.31	11	232	< 1	< 2	5.65	0.6	25	19	21	5.67	24	< 1	2.66	2.28	19	816	< 1	2.16	14	0.117	< 3
W1434985	< 5	< 0.3	8.40	23	350	< 1	< 2	5.18	< 0.3	24	13	11	7.23	27	< 1	2.81	2.56	24	878	< 1	3.21	15	0.138	< 3
W1434986	< 5	< 0.3	6.30	15	320	< 1	< 2	5.34	0.8	25	16	486	6.66	27	1	1.78	2.40	20	874	5	3.23	15	0.141	5
W1434987	67	0.4	7.40	3	85	2	3	1.01	< 0.3	9	35	2240	4.15	27	< 1	3.92	0.68	10	282	56	1.97	27	0.040	9
W1434988	< 5	< 0.3	8.90	< 3	252	< 1	< 2	4.99	0.6	92	13	1110	6.87	29	4	1.45	2.76	22	786	6	3.92	19	0.153	< 3
W1434989	< 5	0.4	8.21	5	251	< 1	< 2	4.60	0.3	79	13	615	6.31	25	< 1	1.39	2.48	20	611	6	3.61	16	0.139	< 3
W1434990	< 5	< 0.3	8.20	< 3	352	< 1	< 2	5.15	< 0.3	29	80	30	4.21	26	< 1	1.00	2.69	9	691	1	2.33	26	0.050	3
W1434991	< 5	< 0.3	10.6	12	311	< 1	2	4.50	0.4	61	9	152	6.79	26	< 1	1.56	2.36	20	525	7	3.66	12	0.203	< 3
W1434992	< 5	< 0.3	7.83	5	282	< 1	< 2	4.36	0.5	47	5	390	7.16	28	< 1	1.33	2.22	18	462	4	3.72	10	0.165	< 3
W1434993	< 5	< 0.3	7.44	4	420	< 1	3	4.02	0.5	21	5	3	7.27	25	< 1	1.52	2.11	19	482	< 1	3.66	8	0.156	< 3
W1434994	< 5	< 0.3	7.72	< 3	> 1000	< 1	< 2	4.26	< 0.3	15	9	4	5.00	25	< 1	3.76	1.74	7	688	< 1	2.81	7	0.160	< 3
W1434995	< 5	< 0.3	7.35	< 3	997	< 1	< 2	4.78	< 0.3	18	15	39	5.51	24	< 1	2.97	2.11	10	806	< 1	2.68	10	0.153	< 3
W1434996	< 5	< 0.3	7.10	12	> 1000	< 1	< 2	4.94	< 0.3	18	17	35	5.44	25	< 1	3.57	2.08	7	863	2	2.84	11	0.182	10
W1434997	< 5	< 0.3	8.35	9	796	< 1	< 2	5.23	< 0.3	16	6	7	5.95	29	< 1	2.65	2.06	11	831	< 1	3.57	6	0.179	< 3
W1434998	< 5	< 0.3	8.30	5	218	< 1	< 2	5.68	< 0.3	22	6	1	7.23	32	1	1.16	2.31	17	748	4	4.20	10	0.180	3
W1434999	< 5	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	< 1	< 1	< 0.01	< 1	< 1	0.02	< 0.01	< 1	< 1	< 1	< 0.01	< 1	< 0.001	< 3
W1435000	7	< 0.3	7.94	20	354	< 1	< 2	4.49	0.4	27	6	277	6.97	27	4	1.84	2.22	18	732	4	3.44	11	0.163	6
W1435001	< 5	< 0.3	7.93	< 3	463	< 1	< 2	4.58	< 0.3	27	82	24	4.70	26	< 1	1.44	2.70	11	739	2	2.32	23	0.048	< 3
W1435002	< 5	< 0.3	7.80	16	948	< 1	< 2	4.40	0.5	26	7	9	6.86	26	6	2.82	2.23	15	763	< 1	2.77	9	0.160	< 3
W1435003	< 5	< 0.3	7.86	< 3	561	< 1	< 2	4.02	0.5	28	5	16	6.92	26	< 1	2.05	2.16	19	726	2	3.46	9	0.159	< 3
W1435004	9	< 0.3	7.42	3	597	< 1	< 2	4.14	0.4	27	4	113	6.56	25	< 1	1.79	2.15	17	681	9	3.54	12	0.158	< 3
W1435005	15	< 0.3	7.33	10	540	< 1	< 2	4.01	< 0.3	25	5	3	6.49	24	< 1	2.14	2.00	17	620	1	3.24	9	0.150	< 3
W1435006	29	< 0.3	8.88	9	367	< 1	< 2	5.22	0.5	30	4	292	5.41	23	< 1	2.10	1.98	17	617	38	2.84	7	0.184	< 3
W1435007	6	< 0.3	8.50	23	989	< 1	2	5.85	0.4	21	4	18	6.37	30	< 1	3.09	1.95	9	959	2	2.49	3	0.185	< 3
W1435008	8	< 0.3	8.15	8	> 1000	< 1	2	4.90	< 0.3	21	4	50	6.08	27	< 1	2.92	1.97	13	793	< 1	2.94	6	0.187	< 3
W1435009	12	< 0.3	7.93	8	381	< 1	< 2	4.03	0.3	24	6	435	6.42	26	< 1	1.24	1.97	15	661	14	4.10	8	0.177	< 3
W1435010	10	< 0.3	8.22	23	811	< 1	< 2	5.02	0.8	22	6	272	6.37	29	2	2.47	2.00	14	828	5	2.87	7	0.179	9
W1435011	< 5	< 0.3	7.81	< 3	983	< 1	3	3.77	0.3	23	6	29	6.41	26	1	3.00	1.90	17	705	< 1	3.03	6	0.163	< 3
W1435012	20	< 0.3	7.82	4	720	< 1	< 2	4.23	< 0.3	23	4	364	6.29	25	< 1	2.24	1.90	18	763	22	3.34	6	0.157	< 3
W1435013	6	< 0.3	8.19	12	966	< 1	< 2	5.59	0.4	19	4	67	5.94	28	< 1	2.65	1.84	10	861	< 1	2.59	7	0.164	< 3
W1435014	7	< 0.3	7.44	< 3	715	< 1	2	4.91	0.3	22	5	73	5.44	26	< 1	2.12	1.81	15	704	2	3.53	7	0.169	< 3
W1435015	15	< 0.3	6.57	6	> 1000	< 1	< 2	5.22	0.4	18	5	394	5.52	26	< 1	2.11	1.71	10	828	< 1	2.30	6	0.160	< 3
W1435016	< 5	< 0.3	8.20	< 3	> 1000	< 1	< 2	5.12	< 0.3	22	4	46	5.99	27	< 1	2.07	1.91	9	997	< 1	3.00	7	0.170	< 3
W1435017	10	< 0.3	7.44	< 3	600	< 1	< 2	6.28	0.3	18	5	354	5.44	28	< 1	3.58	1.84	9	767	< 1	2.09	6	0.158	< 3
W1435018	6	< 0.3	7.60	4	693	< 1	< 2	5.04	< 0.3	19	4	393	5.24	23	< 1	2.13	1.65	12	740	< 1	2.98	5	0.162	< 3
W1435019	10	< 0.3	7.58	< 3	508	< 1	< 2	5.06	0.4	20	6	1340	4.68	24	< 1	2.64	1.67	13	819	< 1	2.56	5	0.163	< 3

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1435020	8	< 0.3	6.88	4	736	< 1	< 2	5.86	< 0.3	17	8	357	4.31	21	< 1	3.46	1.96	6	997	< 1	1.44	5	0.139	< 3
W1435021	10	< 0.3	6.68	13	297	< 1	3	6.56	0.5	18	9	78	5.21	23	< 1	3.44	1.71	10	908	< 1	1.12	7	0.151	< 3
W1435022	56	< 0.3	6.60	14	142	< 1	< 2	4.06	0.5	21	4	281	5.93	25	< 1	3.40	1.48	7	483	< 1	1.69	7	0.163	< 3
W1435023	68	1.2	7.03	7	645	< 1	< 2	4.76	0.6	21	5	1850	5.58	23	< 1	3.79	1.60	13	641	6	1.65	7	0.153	< 3
W1435024	31	0.3	7.26	< 3	632	< 1	< 2	4.32	0.6	20	7	223	5.68	26	< 1	2.52	1.95	20	712	1	2.19	7	0.159	< 3
W1435025	40	0.4	5.96	16	371	< 1	< 2	5.89	< 0.3	21	6	242	5.63	24	2	1.98	1.82	20	580	1	1.82	6	0.155	< 3
W1435026	31	< 0.3	7.67	8	314	< 1	< 2	5.35	< 0.3	19	4	258	4.73	22	< 1	3.13	1.84	19	591	4	2.87	7	0.168	< 3
W1435027	165	0.7	7.02	< 3	452	4	< 2	1.73	0.4	12	54	4470	4.58	33	< 1	3.54	1.03	12	279	76	1.36	30	0.060	< 3
W1435028	34	< 0.3	10.7	< 3	> 1000	< 1	< 2	5.20	0.6	19	4	317	5.85	25	< 1	3.31	1.83	18	711	2	2.75	6	0.211	< 3
W1435029	9	< 0.3	7.69	6	> 1000	< 1	< 2	5.33	< 0.3	17	9	97	5.68	26	< 1	2.84	1.73	17	929	< 1	2.70	6	0.168	< 3
W1435030	31	< 0.3	7.93	< 3	792	< 1	< 2	5.00	0.5	18	5	489	5.55	25	< 1	2.69	1.77	17	740	4	2.92	6	0.168	< 3
W1435031	< 5	< 0.3	8.08	< 3	391	< 1	< 2	4.88	< 0.3	28	66	25	4.24	25	< 1	1.23	2.71	9	684	1	2.24	25	0.047	4
W1435032	15	< 0.3	7.69	3	814	< 1	< 2	5.18	0.5	20	5	157	5.40	25	< 1	2.71	1.85	21	783	< 1	2.54	9	0.163	< 3
W1435033	35	< 0.3	7.96	4	822	< 1	< 2	4.49	< 0.3	19	3	445	5.95	27	< 1	2.50	1.90	23	695	< 1	3.07	9	0.153	< 3
W1435034	41	0.4	7.58	8	438	< 1	< 2	4.24	0.3	21	7	899	5.85	25	< 1	1.55	1.87	20	692	4	3.62	6	0.164	< 3
W1435035	73	0.4	9.69	< 3	414	< 1	< 2	4.61	< 0.3	22	5	1640	5.80	24	< 1	1.32	2.06	23	689	3	3.65	6	0.175	< 3
W1435036	29	0.4	7.63	9	> 1000	< 1	3	4.59	< 0.3	26	11	1070	5.37	24	< 1	3.68	1.78	15	787	3	2.60	8	0.157	< 3
W1435037	23	0.3	7.44	13	> 1000	< 1	< 2	5.36	0.4	20	10	1030	4.88	21	< 1	3.68	1.77	15	808	3	2.26	9	0.156	< 3
W1435038	26	0.6	7.51	8	> 1000	< 1	< 2	4.80	0.4	21	12	1820	4.96	24	< 1	3.86	1.85	9	819	4	2.54	8	0.171	< 3
W1435039	17	< 0.3	7.17	5	> 1000	< 1	< 2	5.43	0.5	14	11	909	4.99	23	8	3.83	1.80	12	972	3	2.03	9	0.158	< 3
W1435040	14	0.6	7.35	< 3	731	< 1	< 2	5.13	0.4	19	5	1530	5.04	23	< 1	3.19	1.62	14	678	2	1.95	7	0.142	< 3
W1435041	< 5	< 0.3	7.51	< 3	311	1	< 2	4.54	0.4	27	74	22	4.16	27	< 1	1.00	2.66	8	680	< 1	2.41	27	0.041	4
W1435042	5	< 0.3	7.52	< 3	902	< 1	< 2	3.96	0.6	16	5	55	5.84	26	< 1	2.26	1.88	19	619	8	3.31	6	0.146	< 3
W1435043	6	< 0.3	7.42	< 3	382	< 1	< 2	4.05	0.4	21	31	160	5.60	27	< 1	2.72	1.82	20	603	9	2.85	6	0.161	< 3
W1435044	< 5	< 0.3	7.79	7	> 1000	< 1	4	4.48	< 0.3	8	4	19	5.72	26	< 1	2.78	1.78	19	656	< 1	2.71	6	0.144	< 3
W1435045	< 5	< 0.3	7.66	9	926	< 1	< 2	4.82	< 0.3	12	4	29	5.87	24	< 1	2.15	1.85	18	708	6	2.85	5	0.151	< 3
W1435046	< 5	< 0.3	7.93	6	947	< 1	< 2	5.20	0.6	25	5	102	5.91	24	< 1	2.39	1.80	19	753	14	3.06	6	0.152	< 3
W1435047	< 5	< 0.3	7.95	7	636	< 1	< 2	5.34	0.6	16	5	117	6.09	25	< 1	1.49	1.83	18	751	6	3.02	6	0.149	< 3
W1435048	< 5	< 0.3	7.74	8	774	< 1	< 2	4.31	0.6	38	5	279	6.09	23	< 1	2.25	1.80	18	659	6	3.16	7	0.146	< 3
W1435049	< 5	< 0.3	7.96	8	> 1000	< 1	< 2	4.18	0.5	20	4	106	6.05	22	< 1	2.53	1.79	20	722	1	3.00	5	0.141	< 3
W1435050	14	0.4	7.67	6	942	< 1	< 2	4.47	0.3	23	9	599	5.59	24	< 1	3.81	1.72	21	801	3	1.94	8	0.139	6
W1435051	25	1.0	7.87	9	> 1000	< 1	< 2	4.38	2.0	22	17	1050	5.57	25	< 1	3.34	1.81	18	945	< 1	2.68	6	0.126	6
W1435052	23	1.0	7.89	9	940	< 1	< 2	4.28	1.2	29	9	897	5.68	25	< 1	2.35	1.70	23	861	4	3.35	6	0.141	7
W1435053	28	0.6	7.02	6	455	< 1	< 2	5.44	1.4	24	3	1050	5.68	24	< 1	1.69	2.04	28	1150	1	2.77	6	0.127	< 3
W1435054	7	< 0.3	7.46	10	> 1000	< 1	< 2	4.38	0.5	20	4	27	6.23	25	< 1	2.44	2.19	20	1210	< 1	2.57	6	0.145	7
W1435055	< 5	< 0.3	7.61	3	> 1000	< 1	3	5.12	0.9	24	6	8	6.74	26	< 1	2.05	2.17	26	1340	< 1	3.01	8	0.142	9
W1435056	< 5	< 0.3	7.49	< 3	601	< 1	< 2	5.63	0.5	22	6	6	6.48	26	< 1	3.19	1.66	27	1160	< 1	2.06	9	0.145	4
W1435057	6	< 0.3	7.61	6	676	< 1	5	4.68	0.5	25	7	18	6.90	25	< 1	2.11	2.20	36	1240	< 1	3.11	9	0.146	< 3
W1435058	< 5	< 0.3	7.43	6	> 1000	< 1	< 2	4.17	0.6	25	6	5	6.67	25	< 1	2.54	2.15	30	1370	< 1	3.06	10	0.149	< 3
W1435059	< 5	< 0.3	7.86	< 3	> 1000	< 1	5	5.19	0.4	24	10	1	6.51	24	< 1	1.84	2.14	28	1510	< 1	3.17	10	0.161	< 3
W1435060	< 5	< 0.3	7.09	4	> 1000	< 1	3	4.74	< 0.3	23	5	2	5.98	23	< 1	2.40	1.94	29	1350	< 1	2.69	9	0.152	< 3
W1435061	< 5	< 0.3	7.36	29	> 1000	< 1	< 2	4.49	< 0.3	25	5	26	6.05	28	< 1	2.67	1.92	28	1330	2	2.63	8	0.149	< 3
W1435062	27	0.4	7.56	< 3	> 1000	< 1	< 2	4.40	0.7	31	13	805	6.64	25	< 1	2.06	2.33	33	1580	2	3.13	11	0.153	< 3
W1435063	< 5	< 0.3	6.55	7	532	< 1	< 2	6.18	0.8	35	34	14	7.91	25	< 1	0.95	3.21	27	1950	< 1	2.44	18	0.135	< 3
W1435064	6	< 0.3	5.10	11	> 1000	< 1	2	5.47	< 0.3	32	78	177	7.03	24	< 1	1.84	2.69	28	1850	2	2.55	18	0.148	< 3
W1435065	< 5	0.3	7.21	5	> 1000	< 1	< 2	5.07	0.7	30	21	294	6.68	24	< 1	2.70	2.56	24	1860	< 1	2.38	16	0.153	< 3
W1435066	< 5	< 0.3	6.95	20	> 1000	< 1	4	4.98	0.4	30	25	24	6.60	23	< 1	2.25	2.61	24	1960	< 1	2.50	19	0.152	5

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1434968	7	0.32	19	450	8	0.42	5	< 10	223	< 5	12	46	53
W1434969	< 5	0.29	19	435	5	0.37	< 5	< 10	211	< 5	11	36	50
W1434970	< 5	0.36	19	364	< 2	0.33	< 5	< 10	187	< 5	12	32	48
W1434971	< 5	0.13	20	363	4	0.25	< 5	< 10	158	< 5	14	32	42
W1434972	< 5	0.33	20	350	< 2	0.35	< 5	< 10	195	< 5	11	33	49
W1434973	< 5	0.74	24	337	9	0.46	< 5	< 10	220	< 5	15	35	62
W1434974	< 5	0.25	24	419	5	0.36	< 5	< 10	221	< 5	13	32	50
W1434975	< 5	0.09	24	466	2	0.16	< 5	< 10	138	< 5	12	26	30
W1434976	< 5	0.64	32	266	< 2	0.46	< 5	< 10	215	< 5	17	24	67
W1434977	< 5	0.23	22	220	10	0.25	< 5	< 10	180	< 5	12	52	39
W1434978	< 5	0.22	21	403	6	0.45	< 5	< 10	225	6	12	42	51
W1434979	< 5	0.10	21	534	5	0.36	< 5	< 10	229	< 5	18	31	61
W1434980	< 5	0.35	21	627	7	0.43	< 5	< 10	257	< 5	19	34	61
W1434981	< 5	0.17	23	566	9	0.23	< 5	< 10	189	7	17	35	37
W1434982	< 5	0.19	23	300	< 2	0.18	< 5	< 10	159	< 5	12	30	28
W1434983	< 5	0.25	24	575	< 2	0.24	< 5	< 10	181	< 5	13	37	33
W1434984	< 5	0.27	21	280	< 2	0.24	< 5	< 10	139	< 5	12	38	36
W1434985	< 5	0.34	25	446	7	0.30	< 5	< 10	145	< 5	14	45	8
W1434986	< 5	0.46	18	569	17	0.47	9	< 10	258	< 5	11	39	50
W1434987	< 5	1.69	7	111	6	0.29	< 5	< 10	44	< 5	13	45	26
W1434988	< 5	1.45	23	510	13	0.51	< 5	< 10	346	< 5	12	39	50
W1434989	< 5	1.55	24	476	< 2	0.48	< 5	< 10	319	< 5	15	32	64
W1434990	< 5	0.09	14	439	5	0.29	< 5	< 10	99	< 5	12	46	111
W1434991	< 5	1.28	31	419	7	0.74	< 5	< 10	378	< 5	19	31	123
W1434992	< 5	0.58	19	373	13	0.43	< 5	< 10	224	< 5	18	26	65
W1434993	< 5	0.12	19	368	3	0.19	< 5	< 10	143	< 5	18	33	28
W1434994	< 5	0.06	20	477	< 2	0.18	< 5	< 10	144	< 5	17	33	48
W1434995	< 5	0.06	27	482	7	0.16	< 5	< 10	168	< 5	17	38	18
W1434996	< 5	0.13	22	596	5	0.50	< 5	< 10	272	< 5	14	36	69
W1434997	< 5	0.35	19	616	< 2	0.41	5	< 10	203	< 5	17	35	62
W1434998	< 5	0.32	18	511	11	0.47	< 5	< 10	207	< 5	18	39	57
W1434999	< 5	< 0.01	< 4	< 1	4	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
W1435000	< 5	0.19	19	513	< 2	0.33	< 5	< 10	162	< 5	19	43	59
W1435001	< 5	0.07	15	399	< 2	0.28	7	< 10	90	< 5	12	52	107
W1435002	< 5	0.11	19	526	8	0.25	< 5	< 10	126	< 5	19	32	51
W1435003	< 5	0.16	19	471	< 2	0.24	< 5	< 10	132	< 5	18	35	51
W1435004	< 5	0.39	19	468	12	0.41	< 5	< 10	156	< 5	17	34	64
W1435005	< 5	0.28	18	407	6	0.24	< 5	< 10	97	< 5	17	31	50
W1435006	< 5	0.86	19	338	5	0.54	< 5	< 10	183	< 5	20	37	99
W1435007	< 5	0.10	16	670	< 2	0.48	< 5	< 10	203	< 5	19	35	71
W1435008	< 5	0.23	16	509	15	0.53	< 5	< 10	218	< 5	19	34	94
W1435009	< 5	0.84	15	471	< 2	0.49	< 5	< 10	206	< 5	17	50	85
W1435010	11	0.28	16	610	4	0.29	< 5	< 10	146	< 5	18	44	57
W1435011	< 5	0.30	15	393	< 2	0.32	< 5	< 10	142	< 5	17	43	61
W1435012	< 5	0.50	15	503	4	0.42	< 5	< 10	172	< 5	17	48	68
W1435013	< 5	0.27	15	677	13	0.29	< 5	< 10	136	< 5	19	30	42
W1435014	< 5	0.77	14	420	11	0.49	< 5	< 10	177	< 5	17	35	89
W1435015	< 5	0.19	12	440	< 2	0.47	< 5	< 10	192	< 5	15	34	86
W1435016	< 5	0.10	16	575	< 2	0.15	< 5	< 10	123	< 5	19	32	28
W1435017	< 5	0.20	14	258	< 2	0.33	< 5	< 10	165	< 5	15	41	66
W1435018	< 5	0.18	17	400	11	0.39	< 5	< 10	193	< 5	15	32	68
W1435019	< 5	0.17	19	338	< 2	0.42	< 5	< 10	226	< 5	14	41	74

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
W1435020	< 5	0.31	17	259	< 2	0.34	< 5	< 10	183	< 5	13	68	64
W1435021	< 5	1.40	14	200	< 2	0.42	< 5	< 10	179	< 5	14	59	55
W1435022	< 5	1.86	12	169	12	0.45	< 5	< 10	229	< 5	11	45	46
W1435023	< 5	0.73	13	238	< 2	0.43	6	< 10	181	< 5	15	58	66
W1435024	< 5	0.20	14	356	< 2	0.46	< 5	< 10	188	< 5	17	54	71
W1435025	< 5	1.63	11	220	10	0.44	< 5	< 10	180	< 5	14	46	58
W1435026	< 5	1.15	14	539	< 2	0.47	< 5	< 10	190	< 5	19	33	61
W1435027	< 5	1.11	11	253	4	0.33	< 5	< 10	86	< 5	13	51	77
W1435028	< 5	0.81	21	641	< 2	0.54	< 5	< 10	184	< 5	24	34	114
W1435029	7	0.24	14	474	< 2	0.45	< 5	< 10	193	< 5	18	41	65
W1435030	< 5	0.36	14	414	15	0.44	< 5	< 10	167	< 5	18	37	68
W1435031	< 5	0.09	15	412	15	0.28	< 5	< 10	95	< 5	11	47	105
W1435032	< 5	0.32	14	458	3	0.33	< 5	< 10	122	< 5	18	40	56
W1435033	< 5	0.25	15	533	5	0.28	< 5	< 10	109	< 5	19	47	42
W1435034	< 5	0.42	15	491	8	0.46	< 5	< 10	197	< 5	17	48	82
W1435035	< 5	0.54	24	492	6	0.51	< 5	< 10	228	< 5	23	49	110
W1435036	< 5	0.42	23	568	5	0.43	< 5	< 10	270	< 5	18	42	66
W1435037	< 5	0.30	23	478	< 2	0.39	< 5	< 10	241	< 5	16	43	64
W1435038	< 5	0.25	25	511	7	0.42	< 5	< 10	249	< 5	17	35	64
W1435039	< 5	0.13	22	400	4	0.29	< 5	< 10	194	< 5	16	45	52
W1435040	< 5	0.38	17	325	6	0.40	< 5	< 10	184	< 5	14	40	58
W1435041	< 5	0.09	15	363	11	0.11	< 5	< 10	55	< 5	11	44	65
W1435042	< 5	0.34	19	500	7	0.38	< 5	< 10	184	< 5	16	40	44
W1435043	< 5	0.93	20	441	15	0.46	< 5	< 10	233	< 5	16	36	66
W1435044	< 5	0.16	19	525	12	0.18	< 5	< 10	136	< 5	17	35	43
W1435045	< 5	0.17	18	576	< 2	0.46	< 5	< 10	211	< 5	17	33	85
W1435046	< 5	0.46	18	606	< 2	0.46	< 5	< 10	199	< 5	17	36	75
W1435047	< 5	0.29	19	635	4	0.34	< 5	< 10	166	< 5	17	34	55
W1435048	< 5	0.66	18	610	9	0.41	< 5	< 10	172	< 5	17	34	59
W1435049	< 5	0.24	18	601	< 2	0.23	< 5	< 10	124	< 5	17	37	36
W1435050	< 5	0.41	19	257	2	0.38	< 5	< 10	167	< 5	16	44	51
W1435051	< 5	0.27	20	493	6	0.28	< 5	< 10	171	< 5	17	48	40
W1435052	< 5	0.47	19	441	4	0.42	< 5	< 10	184	< 5	16	51	56
W1435053	< 5	0.49	20	295	9	0.37	< 5	< 10	133	< 5	17	61	47
W1435054	< 5	0.06	21	694	2	0.35	< 5	< 10	168	< 5	18	54	70
W1435055	< 5	0.13	23	632	< 2	0.14	< 5	< 10	161	< 5	20	65	21
W1435056	< 5	0.10	25	191	< 2	0.17	< 5	< 10	126	< 5	18	67	39
W1435057	< 5	0.11	26	313	3	0.16	< 5	< 10	138	< 5	17	59	34
W1435058	< 5	0.08	25	461	< 2	0.14	< 5	< 10	125	< 5	18	64	23
W1435059	< 5	0.17	24	617	< 2	0.16	< 5	< 10	138	< 5	19	69	36
W1435060	< 5	0.11	21	348	< 2	0.19	< 5	< 10	141	< 5	18	69	27
W1435061	< 5	0.38	21	419	3	0.35	< 5	< 10	148	< 5	17	86	54
W1435062	< 5	0.17	27	475	< 2	0.23	< 5	< 10	174	< 5	18	119	35
W1435063	< 5	0.11	41	484	3	0.29	< 5	< 10	215	< 5	17	94	33
W1435064	< 5	0.11	21	507	< 2	0.50	< 5	< 10	279	< 5	12	94	56
W1435065	< 5	0.13	27	720	4	0.16	< 5	< 10	160	< 5	15	109	23
W1435066	< 5	0.09	27	910	2	0.15	< 5	< 10	158	< 5	14	108	15

Quality Control

Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Detection Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Analysis Method	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
SE58 Meas	637																							
SE58 Cert	607.00																							
SE58 Meas	643																							
SE58 Cert	607.00																							
SE58 Meas	622																							
SE58 Cert	607.00																							
SE58 Meas	644																							
SE58 Cert	607.00																							
W1434975 Orig	< 5																							
W1434975 Dup	< 5																							
W1434980 Orig		< 0.3	8.03	9	> 1000	< 1	< 2	5.49	< 0.3	18	5	258	5.61	25	< 1	4.05	1.87	13	902	8	2.52	6	0.183	< 3
W1434980 Dup		< 0.3	7.69	12	> 1000	< 1	< 2	5.86	< 0.3	21	7	271	5.95	29	< 1	3.72	2.00	14	973	3	2.57	6	0.184	< 3
W1434990 Orig	< 5																							
W1434990 Dup	< 5																							
W1434994 Orig		< 0.3	7.71	4	> 1000	< 1	< 2	4.25	0.4	15	9	5	5.01	24	< 1	3.74	1.73	7	689	< 1	2.82	7	0.161	4
W1434994 Dup		< 0.3	7.73	< 3	> 1000	< 1	3	4.26	< 0.3	15	10	4	5.00	25	< 1	3.78	1.75	7	688	< 1	2.80	6	0.158	< 3
W1434997 Orig	< 5	< 0.3	8.35	9	796	< 1	< 2	5.23	< 0.3	16	6	7	5.95	29	< 1	2.65	2.06	11	831	< 1	3.57	6	0.179	< 3
W1434997 Split	< 5	< 0.3	7.31	6	692	< 1	< 2	4.55	0.5	15	6	5	4.95	26	< 1	2.34	1.80	10	724	< 1	3.04	7	0.137	< 3
W1435011 Orig	< 5																							
W1435011 Dup	< 5																							
W1435017 Orig	10	< 0.3	7.44	< 3	600	< 1	< 2	6.28	0.3	18	5	354	5.44	28	< 1	3.58	1.84	9	767	< 1	2.09	6	0.158	< 3
W1435017 Split	12	< 0.3	6.85	< 3	553	< 1	< 2	5.87	0.3	17	4	324	4.93	26	2	2.98	1.71	8	700	< 1	1.88	4	0.143	< 3
W1435019 Orig		< 0.3	7.54	4	510	< 1	< 2	5.07	0.3	19	6	1320	4.70	24	< 1	2.63	1.68	13	823	< 1	2.57	4	0.164	< 3
W1435019 Dup		< 0.3	7.62	< 3	507	< 1	< 2	5.05	0.5	20	6	1360	4.66	24	< 1	2.65	1.67	13	816	< 1	2.56	6	0.162	< 3
W1435026 Orig	30																							
W1435026 Dup	32																							
W1435028 Orig	34	< 0.3	10.7	< 3	> 1000	< 1	< 2	5.20	0.6	19	4	317	5.85	25	< 1	3.31	1.83	18	711	2	2.75	6	0.211	< 3
W1435028 Split	34	< 0.3	7.51	6	752	< 1	< 2	4.95	0.4	19	4	305	5.41	24	< 1	3.06	1.66	17	678	1	2.70	6	0.163	< 3
W1435033 Orig		0.3	7.83	4	817	< 1	< 2	4.47	0.4	19	3	439	5.90	27	< 1	2.49	1.88	22	698	< 1	3.07	5	0.150	< 3
W1435033 Dup		< 0.3	8.08	5	826	< 1	< 2	4.51	< 0.3	19	3	451	6.00	26	< 1	2.51	1.91	23	693	< 1	3.07	12	0.156	14
W1435047 Orig	< 5																							
W1435047 Dup	< 5																							
W1435057 Orig	6	< 0.3	7.61	6	676	< 1	5	4.68	0.5	25	7	18	6.90	25	< 1	2.11	2.20	36	1240	< 1	3.11	9	0.146	< 3
W1435057 Split	< 5	< 0.3	7.15	< 3	640	< 1	< 2	4.40	< 0.3	23	7	17	6.40	26	< 1	1.94	2.08	34	1160	< 1	2.94	8	0.136	< 3
W1435058 Orig		< 0.3	7.77	8	> 1000	< 1	4	4.22	0.7	24	6	5	6.76	27	< 1	2.58	2.16	30	1380	< 1	3.09	10	0.150	< 3
W1435058 Dup		< 0.3	7.09	3	> 1000	< 1	< 2	4.11	0.4	25	6	5	6.59	23	< 1	2.51	2.14	29	1360	< 1	3.03	10	0.148	< 3
W1435062 Orig	27																							
W1435062 Dup	27																							
W1435066 Orig	< 5	< 0.3	6.95	20	> 1000	< 1	4	4.98	0.4	30	25	24	6.60	23	< 1	2.25	2.61	24	1960	< 1	2.50	19	0.152	5
W1435066 Split	< 5	< 0.3	6.97	12	> 1000	< 1	3	4.97	0.4	30	18	22	6.63	24	< 1	2.23	2.65	24	1930	< 1	2.53	18	0.151	< 3
Method Blank		< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							

Quality Control

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
SE58 Meas													
SE58 Cert													
W1434975 Orig													
W1434975 Dup													
W1434980 Orig	< 5	0.35	23	608	11	0.47	< 5	< 10	277	< 5	19	33	68
W1434980 Dup	< 5	0.35	20	647	3	0.38	< 5	< 10	238	< 5	18	36	54
W1434990 Orig													
W1434990 Dup													
W1434994 Orig	< 5	0.06	20	479	< 2	0.19	< 5	< 10	151	< 5	17	33	51
W1434994 Dup	< 5	0.06	21	475	3	0.16	< 5	< 10	136	< 5	17	32	46
W1434997 Orig	< 5	0.35	19	616	< 2	0.41	5	< 10	203	< 5	17	35	62
W1434997 Split	< 5	0.27	18	536	4	0.29	< 5	< 10	155	< 5	17	30	43
W1435011 Orig													
W1435011 Dup													
W1435017 Orig	< 5	0.20	14	258	< 2	0.33	< 5	< 10	165	< 5	15	41	66
W1435017 Split	< 5	0.18	14	234	< 2	0.20	< 5	< 10	125	< 5	14	38	45
W1435019 Orig	< 5	0.16	19	340	< 2	0.45	< 5	< 10	232	< 5	14	41	79
W1435019 Dup	< 5	0.17	19	337	< 2	0.38	< 5	< 10	219	< 5	14	41	68
W1435026 Orig													
W1435026 Dup													
W1435028 Orig	< 5	0.81	21	641	< 2	0.54	< 5	< 10	184	< 5	24	34	114
W1435028 Split	< 5	0.66	15	616	4	0.45	< 5	< 10	170	< 5	20	32	64
W1435033 Orig	< 5	0.24	15	531	4	0.29	< 5	< 10	112	< 5	19	46	41
W1435033 Dup	< 5	0.25	15	534	7	0.28	< 5	< 10	106	6	19	47	43
W1435047 Orig													
W1435047 Dup													
W1435057 Orig	< 5	0.11	26	313	3	0.16	< 5	< 10	138	< 5	17	59	34
W1435057 Split	< 5	0.10	25	297	9	0.13	< 5	< 10	133	< 5	17	55	16
W1435058 Orig	< 5	0.08	25	469	< 2	0.14	< 5	< 10	123	< 5	18	65	21
W1435058 Dup	< 5	0.08	25	452	4	0.14	< 5	< 10	126	< 5	18	63	24
W1435062 Orig													
W1435062 Dup													
W1435066 Orig	< 5	0.09	27	910	2	0.15	< 5	< 10	158	< 5	14	108	15
W1435066 Split	< 5	0.09	28	902	< 2	0.16	< 5	< 10	155	< 5	14	108	22
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													

Appendix D

Drill Logs

Xstrata Copper Exploration

DDH: BK-12-01

Claims title: 509569

Section:

Drilled by: Blackhawk Diamond Drilling

Described by: Sandra Rosset

From: 2012-11-07

To: 2012-11-12

Description date:

Collar

Azimuth: 90.00°

Dip: -50.00°

Length: 400.30 m

UTM NAD83 Z10

East	671,812
North	5,535,371
Elevation	1,139

Down hole survey

Type	Depth	Azimuth	Dip	Invalid
	21.00	85.00°	-49.40°	No
	21.00	85.00°	-49.40°	No
	21.00	85.00°	-49.40°	No
	50.00	85.10°	-49.50°	No
	50.00	85.10°	-49.50°	No
	50.00	85.10°	-49.50°	No
	102.00	89.20°	-49.20°	No
	102.00	89.20°	-49.20°	No
	102.00	89.20°	-49.20°	No
	201.00	89.30°	-48.50°	No
	201.00	89.30°	-48.50°	No
	201.00	89.30°	-48.50°	No

Type	Depth	Azimuth	Dip	Invalid
	300.00	93.00°	-46.30°	No
	300.00	93.00°	-46.30°	No
	300.00	93.00°	-46.30°	No
	399.00	99.70°	-44.20°	No
	399.00	99.70°	-44.20°	No
	399.00	99.70°	-44.20°	No

Description

Core size: NQ

Cemented: No

Stored: No

Xstrata Copper Exploration

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
0.00	15.20		OVBD **Casing/Overburden** Casing/Overburden								
	0.00	15.20									
	0.00	15.20									
15.20	65.00		MBSLT **Maroon Basalt** Augite-phyric, amygdaloidal maroon basalt with local flow textures. Augites: sub-euhedral, up to 7mm, 10-25% irregular amygdules, locally to 10%; infilled with sanidine? (H~6, clear to gray, transparent) and calcite. Gm is finegrained, maroon, hard and hematite rich. Core is very highly fractured with minor faults throughout (poor recovery), increasingly fractured down-hole. Non to very weakly magnetic. Trace silver metallic mineral (non-magnetic). Trace Cp @ 39.2m on fracture surface (disseminated blebs).								
	15.20	65.00									
	15.20	65.00	PROP **Propylitic** Moderate (increasing downsection) propylitic alteration. Mottled in patches, but mainly as replacement of augites and amygdules by chlorite-calcite-epidote +/- albite and as calcite-epidote veinlets. Moderate FeOx's (Jarosite>Limonite) on fractures to ~22m. Increasing hematite, epidote, and mottled opaque white alteration (albite?) to lower contact. Honfelsed, very hard. Weak, patchy potassic alteration.	37.50 39.00 40.50	39.00 40.50 42.00	W1434001 W1434003 W1434004	1.50 1.50 1.50	5 3 9	154 113 104	0.8 0.3 0.2	1 1 1
65.00	80.70		FLTZ **Fault Zone** Bleached fault zone. Fault breccia with sections of up to 5cm of gravelly clay gouge. Bleached, pale grey rocks, very soft. Wavy, sharp boundary of pale green-pinkish rocks into chloritic, augite phyric basalt below @80.7m. Finegrained groundmass on either side of contact with no visible chilled margin/baked contact. Tr-0.5% Py in small intervals (<30cm) past 72m locally. Associated with more potassic sections.								
	65.00	80.70									

Xstrata Copper Exploration

Description				Assay							
				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
65.00	80.70		CLAY **Clay** Potassic fluids coming in along fault. Strong clay alteration.	72.00	73.50	W1434005	1.50	3	18	0.2	1
				73.50	75.00	W1434006	1.50	3	31	0.2	1
				75.00	76.50	W1434007	1.50	11	107	0.5	1
				76.50	78.00	W1434008	1.50	12	60	0.2	1
				78.00	79.50	W1434009	1.50	25	39	0.2	1
				79.50	81.00	W1434010	1.50	14	95	0.2	1
80.70	138.36	GBSLT **Green Basalt** Augite phyric basalt again, however with dark green groundmass here; no maroon matrix. Subaqueous, reduced? Purple tinge to finegrained groundmass (potassic). Different from unit above major fault zone.									
80.70	138.36										
80.70	138.36		POPR **Potassic over Propylitic** Purple tinge to finegrained groundmass (potassic alteration).	81.00	82.50	W1434011	1.50	5	36	0.2	1
				82.50	84.00	W1434012	1.50	21	130	0.2	1
				84.00	85.50	W1434013	1.50	21	311	0.4	1
				85.50	87.00	W1434014	1.50	77	1,300	2.9	8
				87.00	88.50	W1434015	1.50	22	271	0.4	1
				88.50	90.00	W1434016	1.50	40	298	0.4	5
				90.00	91.50	W1434017	1.50	18	274	0.2	1
				91.50	93.00	W1434018	1.50	17	515	0.2	6
				93.00	94.50	W1434019	1.50	14	378	0.2	2
				94.50	96.00	W1434020	1.50	20	538	0.5	2
				96.00	97.50	W1434021	1.50	28	452	0.5	2
				97.50	99.00	W1434022	1.50	22	485	0.5	2
				99.00	100.50	W1434023	1.50	36	597	0.7	7
				100.50	102.00	W1434025	1.50	28	904	0.6	2
				102.00	103.50	W1434026	1.50	12	494	0.2	1
				103.50	105.00	W1434027	1.50	14	856	0.7	1
				105.00	106.50	W1434028	1.50	41	254	0.3	1
				106.50	108.00	W1434030	1.50	90	223	0.8	1
				108.00	109.50	W1434031	1.50	5	42	0.2	1
				109.50	111.00	W1434032	1.50	30	69	0.3	1
				111.00	112.50	W1434033	1.50	16	9	0.2	1

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	112.50	114.00	W1434034	1.50	6	5	0.2	1
	114.00	115.50	W1434035	1.50	9	32	0.3	1
	115.50	117.00	W1434036	1.50	10	281	0.2	6
	117.00	118.50	W1434037	1.50	18	10	0.2	1
	118.50	120.00	W1434038	1.50	3	37	0.2	1
	120.00	121.50	W1434039	1.50	7	56	0.2	1
	121.50	123.00	W1434040	1.50	5	232	0.2	1
	123.00	124.50	W1434041	1.50	12	35	0.2	1
	124.50	126.00	W1434042	1.50	21	1,440	1.5	1
	126.00	127.50	W1434043	1.50	8	306	0.6	1
	127.50	129.00	W1434045	1.50	8	358	0.5	1
	129.00	130.50	W1434046	1.50	3	52	0.2	1
	130.50	132.00	W1434047	1.50	3	13	0.2	1
	132.00	133.50	W1434048	1.50	8	102	0.3	1
	133.50	135.00	W1434049	1.50	20	709	0.4	2
	135.00	136.50	W1434050	1.50	17	1,220	0.9	2
	136.50	138.00	W1434051	1.50	62	1,510	1.6	1
	138.00	139.50	W1434052	1.50	108	2,110	1.1	21
138.36 165.40 GBSLT **Green Basalt** Dark green augite-phyric basalt to andesitic basalt. Augite 1-2mm, @ 7-10%, where visible. Finegrained groundmass. Diffuse texture. Interval begins with minor fault zone that extends to 141m, and is different from above due to presence of finegrained, relatively soft (H<5.5) black veinlets that run ~3% overall. Finegrained black sulfide veinlets. - No other apparent reason for high IP here. Crisscrossing 1mm-5mm width (average 2-3mm). Core highly fractured with minor faults from ~150 to 165.4m. 158.5-159 is vuggy cataclasite. Unit is magnetic (variable) moderate overall. Cp tr locally. Py tr-0.5% throughout.								
138.36 165.40								
138.36 165.40 PROP **Propylitic** Diffuse texture. Strong propylitic alteration throughout; chlorite in matrix and replacing	139.50	141.00	W1434053	1.50	64	1,120	0.2	31
	141.00	142.50	W1434054	1.50	33	497	0.2	17
	142.50	144.00	W1434055	1.50	23	426	0.2	1

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
		mafics. Epidote as veins and carbonate as veinlets. Carbonate and chlorite rich.	144.00	145.50	W1434056	1.50	52	926	0.2	5
			145.50	147.00	W1434057	1.50	13	154	0.2	1
			147.00	148.50	W1434058	1.50	20	423	0.3	5
			148.50	150.00	W1434059	1.50	40	1,200	0.4	28
			150.00	151.50	W1434060	1.50	35	639	0.4	3
			151.50	153.00	W1434061	1.50	31	538	0.2	6
			153.00	154.50	W1434062	1.50	17	314	0.2	4
			154.50	156.00	W1434063	1.50	35	626	0.2	9
			156.00	157.50	W1434064	1.50	66	1,140	0.2	2
			157.50	159.00	W1434065	1.50	150	2,020	0.4	9
			159.00	160.50	W1434066	1.50	98	1,590	1.6	21
			160.50	162.00	W1434068	1.50	80	515	0.2	5
			162.00	163.50	W1434069	1.50	110	1,550	0.2	5
			163.50	165.00	W1434071	1.50	65	1,680	0.2	4
			165.00	166.50	W1434072	1.50	77	1,560	0.2	7
165.40	218.00	TUFF **Tuff** As above unit (138.36-165.4m) but clastic. Very altered (alteration as above) and diffuse texture but appears to be heterolithic with lapilli to 1.4cm, in fg gm, matrix supported. Lapilli are very altered, rounded, whitish-grey, possibly diorite (majority) with lesser dark green lapilli with fg gm (lithics <1cm). Increase in black fg sulfide veinlets. Moderately magnetic. Tr Py locally. Black sulfide veinlets either alone or with epidote and calcite. ~195m highly fractured and into patchy altered augite-phyric vesicular flow with calcite-quartz-chlorite amygdules. To end of interval. From 186-218: black fg veinlets to ~199m then decreased sharply to <1% (from previously ~2-7%). Picks up again in last meter of interval. Otherwise only trace to 0.5% disseminated and on fracture surfaces. 186-199: cp throughout tr to 0.5%. Py 0.5-2%. and trace Ch and minor Po(?). 199-218: Py 0.5-1.5%. Tr Cp. Veinlets up to 20% locally (~170m - black sulfide veinlets). Veinlets are hard (H>5), with minor visible pyrite. Black veinlets show some very fg pyrite, no other identifiable minerals. Appear to occur with epidote								

Description				Assay							
				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
		veining (no cross-cutting veins, follow epidote veins and as selvedges). If anything, epidote veins are later). May contain fg actinolite/chlorite(?).									
165.40	218.00										
165.40	218.00		PROP **Propylitic** Very altered (alteration as above) with resultant diffuse texture.Lapilli are very altered. Increase in black fg sulfide veinlets, occurring either alone or with epidote and calcite. ~195m highly fractured and into patchy altered augite-phyric vesicular flow with calcite-quartz-chlorite amygdules. To end of interval. Veinlets up to 20% locally (~170m - black sulfide veinlets). Veinlets are hard (H>5), with minor visible pyrite. Black veinlets show some very fg pyrite, no other identifiable minerals. Appear to occur with epidote veining (no cross-cutting veins, follow epidote veins and as selvedges). If anything, epidote veins are later). May contain fg actinolite(?).	166.50	168.00	W1434073	1.50	92	2,040	0.2	17
				168.00	169.50	W1434074	1.50	84	1,330	0.2	4
				169.50	171.00	W1434075	1.50	147	1,510	0.2	17
				171.00	172.50	W1434076	1.50	125	1,290	0.2	20
				172.50	174.00	W1434077	1.50	69	661	0.3	6
				174.00	175.50	W1434078	1.50	56	975	0.2	19
				175.50	177.00	W1434079	1.50	92	1,790	0.2	18
				177.00	178.50	W1434080	1.50	81	1,490	0.2	25
				178.50	180.00	W1434081	1.50	59	1,780	0.2	13
				180.00	181.50	W1434083	1.50	153	2,130	0.2	28
				181.50	183.00	W1434084	1.50	44	875	0.2	58
				183.00	184.50	W1434085	1.50	33	916	0.2	28
				184.50	186.00	W1434086	1.50	61	1,580	0.2	8
				186.00	187.50	W1434087	1.50	44	1,140	0.4	11
				187.50	189.00	W1434088	1.50	57	1,130	0.2	4
				189.00	190.50	W1434089	1.50	54	1,140	0.5	21
				190.50	192.00	W1434090	1.50	113	2,310	0.2	3
				192.00	193.50	W1434091	1.50	85	1,070	0.2	19
				193.50	195.00	W1434092	1.50	91	1,470	0.2	12
				195.00	196.50	W1434093	1.50	18	374	0.2	13
				196.50	198.00	W1434094	1.50	14	182	0.2	1
				198.00	199.50	W1434095	1.50	3	96	0.2	1
				199.50	201.00	W1434096	1.50	21	383	0.2	6
				201.00	202.50	W1434097	1.50	5	175	0.2	1
				202.50	204.00	W1434098	1.50	3	8	0.2	1
				204.00	205.50	W1434099	1.50	3	8	0.2	1
				205.50	207.00	W1434100	1.50	3	43	0.2	2
				207.00	208.50	W1434101	1.50	3	24	0.2	1
				208.50	210.00	W1434102	1.50	3	64	0.2	1
				210.00	211.50	W1434103	1.50	7	82	0.2	2

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	211.50	213.00	W1434104	1.50	3	111	0.2	1
	213.00	214.50	W1434106	1.50	3	66	0.2	1
	214.50	216.00	W1434108	1.50	3	100	0.2	1
	216.00	217.50	W1434109	1.50	6	305	0.2	3
	217.50	219.00	W1434110	1.50	10	63	0.2	1
218.00 224.85 DIOR **Diorite** Sharp, fluidal contact into fg diorite. No chilled margin/baked contact visible. Few small mafic xenoliths. Weakly magnetic. Interlayered (basalt-ands) within unit. Variable sulfide content. Tr-0.5% Cp. 0.5-1.5% Py, finely disseminated and on fracs (very little (0.5%) as black sulfide veinlets) in diorite (but more in interlayered basalt) - to 3%.								
218.00 224.85 GBSLT **Green Basalt**								
218.00 224.85 PROP **Propylitic** Same alteration as in volcanics.	219.00	220.50	W1434111	1.50	14	375	0.2	28
	220.50	222.00	W1434112	1.50	49	2,430	0.6	27
	222.00	223.50	W1434113	1.50	35	1,120	0.4	13
	223.50	225.00	W1434114	1.50	33	780	0.6	8
224.85 254.70 GBSLT **Green Basalt** Augite-phyric, amygdaloidal basalt to andesitic basalt. Coarse augites to ~8mm, ~10%. Amygdules quartz (or sanidine?) infilled. Hard. In sections occur to 15%. Propylitic alteration is strong but phenos/vesicles remain clearly visible. Moderately magnetic. Black sulfide veinlets throughout 0.5-2%. Pyrite ~0.5-1% throughout, finely disseminated. Cp, diss and on fractures/veins ~tr-0.5%. Po tr-0.5%.								
224.85 254.70								
224.85 254.70 PROP **Propylitic** Propylitic alteration is strong but phenos/vesicles remain clearly visible.	225.00	226.50	W1434115	1.50	12	565	0.2	2
	226.50	228.00	W1434116	1.50	8	519	0.2	4
	228.00	229.50	W1434117	1.50	28	505	0.2	1
	229.50	231.00	W1434118	1.50	8	209	0.2	1
	231.00	232.50	W1434119	1.50	185	254	0.5	1
	232.50	234.00	W1434120	1.50	5	70	0.2	2
	234.00	235.50	W1434122	1.50	3	63	0.2	1

Description			Assay							
			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
			235.50	237.00	W1434123	1.50	15	726	0.2	1
			237.00	238.50	W1434124	1.50	23	529	0.2	1
			238.50	240.00	W1434125	1.50	11	793	0.2	3
			240.00	241.50	W1434126	1.50	3	58	0.2	1
			241.50	243.00	W1434127	1.50	3	41	0.2	1
			243.00	244.50	W1434128	1.50	3	43	0.2	1
			244.50	246.00	W1434129	1.50	3	83	0.2	1
			246.00	247.50	W1434130	1.50	3	376	0.2	1
			247.50	249.00	W1434131	1.50	6	398	0.2	1
			249.00	250.50	W1434132	1.50	7	666	0.2	1
			250.50	252.00	W1434133	1.50	3	30	0.2	1
			252.00	253.50	W1434134	1.50	3	13	0.2	1
			253.50	255.00	W1434135	1.50	7	163	0.2	2
254.70	278.00	MBSLT **Maroon Basalt** Begins with augite-phyric maroon basalt, and by ~261m protolith becomes too altered to identify, but appears to be same unit. Weakly magnetic. Crackled, mottled, diffuse texture. Fault zone @267.2m (two ~10cm clay-gravel gouge zones) to ~269m. Moderately fractured with minor faults to 277m. Tr to 1% Py throughout (~0.5% avg). ~271-277 ~1% Cp with 0.5% Py. Minor Po locally. Trace Ch visble with Cp in vein. Black sulfide veinlets reappear after fault zone ~269m, ~1% increasing down interval. Cp occurs disseminated and on fractures, but in higher grade zone is in qtz-carb veins and in black fg sulfide veins.								
254.70	278.00	FLTZ **Fault Zone**								
254.70	278.00	PROP **Propylitic** Augite-phyric maroon basalt, becomes too altered to identify by ~261m, but appears to be same unit. Purplish tint. Crackled, truncated calcite veinlets, chlorite flooding and epidote veining at intensity 2-3 down to ~260m, after which its absent. Crackled, mottled diffuse texture.	255.00	256.50	W1434136	1.50	3	110	0.2	1
			256.50	258.00	W1434137	1.50	13	176	0.2	1
			258.00	259.50	W1434138	1.50	9	188	0.2	3
			259.50	261.00	W1434139	1.50	10	116	0.2	5
			261.00	262.50	W1434140	1.50	16	107	0.2	1
			262.50	264.00	W1434141	1.50	46	523	0.2	3
			264.00	265.50	W1434142	1.50	25	274	0.2	3

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	265.50	267.00	W1434143	1.50	20	104	0.2	13
	267.00	268.50	W1434146	1.50	16	202	0.2	4
	268.50	270.00	W1434147	1.50	87	2,140	0.7	81
	270.00	271.50	W1434148	1.50	179	2,970	0.4	126
	271.50	273.00	W1434149	1.50	78	1,800	0.3	21
	273.00	274.50	W1434150	1.50	97	1,350	0.2	18
	274.50	276.00	W1434151	1.50	84	914	0.6	3
	276.00	277.50	W1434152	1.50	57	778	0.2	3
	277.50	279.00	W1434153	1.50	56	1,240	0.3	28
278.00 296.95 MBSLT **Maroon Basalt** As above, but increase in potassic alteration. Still augite-phyric basalt to andesitic basalt. Augites ~7-10% to 4mm, sub to euhedral. Quartz infilled amygdules locally. Minor faulting ~278.5-285 and ~290-297. Weakly to moderately magnetic. Overall tr Cp, to 0.5% locally. Py ~0.5-1%. 287.9-288.65: Cp disseminated, to ~0.7%. Py 0.4% in veins. 278.00 296.95								
278.00 296.95 PRPO **Propylitic over Potassic** As above, but increase in potassic alteration. Quartz infilled amygdules locally. Propylitic over potassic alteration. Weakly silicified intervals. Potassic alteration comes in domains, flooding out from structures (Ksp+Bio).	279.00	280.50	W1434154	1.50	60	1,030	0.2	11
	280.50	282.00	W1434155	1.50	40	1,060	0.3	2
	282.00	283.50	W1434156	1.50	37	772	0.2	4
	283.50	285.00	W1434157	1.50	33	719	0.2	3
	285.00	286.50	W1434158	1.50	25	1,030	0.2	16
	286.50	288.00	W1434159	1.50	32	784	0.2	10
	288.00	289.50	W1434160	1.50	41	1,560	0.2	18
	289.50	291.00	W1434162	1.50	43	1,670	0.2	35
	291.00	292.50	W1434163	1.50	85	1,930	0.2	12
	292.50	294.00	W1434164	1.50	63	697	0.2	1
	294.00	295.50	W1434165	1.50	35	701	0.2	1
	295.50	297.00	W1434166	1.50	69	1,430	0.2	14
296.95 361.60 TUFF **Tuff** Very finegrained matrix, sparse augite phenos. Interbedded crystal tuff? Highly fractured from 308.6-310.23m. Rest is quite coherent. ~339								

Description				Assay							
				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
			becomes more augite-phyric, and much more highly altered. Py as veins and on fractures, overall ~0.2-1%. Cp tr locally, with higher intervals as follows: 303.15-303.8 Cp 0.5% in Chl-Carb-Py-Cp+/-Bio(?) veins. Py ~1%. 325.5-328.5m: Py~7%, veins with Carb-Chl. Black veinlets, tr-0.5% Cp locally. Non-magnetic. Black mineral (hard) in with Cp-Py-Carb veins, Actinolite?								
296.95	361.60	GBSLT **Green Basalt**									
296.95	361.60	PROP **Propylitic** Decrease of potassic alteration to 0-1 intensity (out of 4). Around ~339m becomes much more highly altered. Potassic alteration is visible here again as well, originating from structures with epidote/chlorite overprint. 340-361.6m: Increase in potassic fluids, black veinlets, tr-0.5% Cp locally. Non-magnetic. Black mineral (hard) in with Cp-Py-Carb veins, Actinolite?		297.00	298.50	W1434167	1.50	49	942	0.5	6
				298.50	300.00	W1434168	1.50	50	595	0.4	1
				300.00	301.50	W1434169	1.50	56	775	0.2	1
				301.50	303.00	W1434170	1.50	26	107	0.2	1
				303.00	304.50	W1434171	1.50	21	1,140	0.2	15
				304.50	306.00	W1434172	1.50	28	459	0.2	1
				306.00	307.50	W1434173	1.50	16	196	0.2	1
				307.50	309.00	W1434174	1.50	35	125	0.2	7
				309.00	310.50	W1434175	1.50	182	199	0.2	2
				310.50	312.00	W1434176	1.50	11	195	0.2	2
				312.00	313.50	W1434177	1.50	9	65	0.2	4
				313.50	315.00	W1434178	1.50	18	593	0.2	4
				315.00	316.50	W1434179	1.50	12	277	0.4	13
				316.50	318.00	W1434180	1.50	14	311	0.2	4
				318.00	319.50	W1434181	1.50	10	260	0.2	2
				319.50	321.00	W1434182	1.50	9	206	0.2	4
				321.00	322.50	W1434183	1.50	19	322	0.2	7
				322.50	324.00	W1434185	1.50	14	200	0.2	3
				324.00	325.50	W1434187	1.50	18	228	0.2	2
				325.50	327.00	W1434188	1.50	479	1,980	0.8	2
				327.00	328.50	W1434189	1.50	254	1,110	0.2	8
				328.50	330.00	W1434190	1.50	6	200	0.2	2
				330.00	331.50	W1434191	1.50	5	96	0.2	1
				331.50	333.00	W1434192	1.50	13	350	0.2	3
				333.00	334.50	W1434193	1.50	14	426	0.2	11
				334.50	336.00	W1434194	1.50	14	377	0.2	46

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	336.00	337.50	W1434195	1.50	11	11	0.2	1
	337.50	339.00	W1434196	1.50	17	214	0.2	3
	339.00	340.50	W1434197	1.50	46	1,490	0.2	20
	340.50	342.00	W1434198	1.50	40	820	0.2	2
	342.00	343.50	W1434199	1.50	41	1,340	0.2	19
	343.50	345.00	W1434200	1.50	39	391	0.3	8
	345.00	346.50	W1434201	1.50	13	124	0.2	72
	346.50	348.00	W1434203	1.50	3	107	0.2	12
	348.00	349.50	W1434204	1.50	16	484	0.4	15
	349.50	351.00	W1434205	1.50	3	18	0.2	1
	351.00	352.50	W1434206	1.50	15	219	0.2	4
	352.50	354.00	W1434207	1.50	49	1,080	0.5	2
	354.00	355.50	W1434208	1.50	22	529	0.2	8
	355.50	357.00	W1434209	1.50	39	1,090	0.5	1
	357.00	358.50	W1434210	1.50	31	923	0.2	1
	358.50	360.00	W1434211	1.50	15	329	0.2	5
	360.00	361.50	W1434212	1.50	43	1,360	0.2	12
	361.50	363.00	W1434213	1.50	19	643	0.6	14
361.60 370.85 MDIOR **Monzodiorite** Monzodiorite Dyke. Plag phyric with fg ksp and mafics. Magnetic (diss. Magnetite). Very hard. Contact obscured by alteration veining. Po on fracture coatings. Cp tr-0.5% locally. Py tr-0.5% locally. 371-376m: 5-10% black veinlets+potassic fluids. Cp>Py. Cp ~0.3-1%. 361.60 370.85								
361.60 370.85 PRPO **Propylitic over Potassic** Diffuse, glassy texture in places (weak silicification). Propylitic alteration over weak patchy potassic. 371-376m: 5-10% black veinlets and potassic fluids.	363.00	364.50	W1434214	1.50	3	128	1.0	1
	364.50	366.00	W1434215	1.50	9	76	0.2	1
	366.00	367.50	W1434216	1.50	22	164	0.2	2
	367.50	369.00	W1434217	1.50	11	148	0.4	37
	369.00	370.50	W1434218	1.50	5	58	0.2	2
	370.50	372.00	W1434219	1.50	16	348	0.4	2
370.85 381.36 TUFF **Tuff** Lapilli to Block Tuff. Diffuse texture (resorbed??),								

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
			difficult to see clasts. Lapilli 20-64mm. Blocks to >70cm. Heterolithic with clasts of plag phyric diorite to intermediate-mafic volcanics. Fg green gm. Strongly magnetic. Sparsely augite phyric, but generally aphyric. Carb-Hem-Chl+/- Rhodochrosite veins. Black veinlets look similar to thin potassic veinlets here (<0.5%). Cp>Py								
	370.85	381.36									
	370.85	381.36	PRPO **Propylitic over Potassic** Carb-Hem-Chl+/- Rhodochrosite veins. Propylitic pervasive while potassic is structurally controlled and limited. Black veinlets look similar to thin potassic veinlets here (<0.5%). Sericite alteration (replacement of plag etc).	372.00	373.50	W1434220	1.50	41	959	0.2	3
				373.50	375.00	W1434221	1.50	28	469	0.2	23
				375.00	376.50	W1434222	1.50	60	2,020	0.2	27
				376.50	378.00	W1434223	1.50	23	778	0.2	14
				378.00	379.50	W1434225	1.50	23	439	0.2	11
				379.50	381.00	W1434227	1.50	10	515	0.2	11
				381.00	382.50	W1434228	1.50	3	82	0.2	1
381.36	383.60		MONZ **Monzonite** Sharp, wavy contact with reaction rim (potassic fluids could be following contact also). Ksp (fg) rich monzonite dyke, mg, fine mafics @ 7%. Magnetic. Plag phyric. Tr-0.5% Py, mostly on fractures. Tr Cp disseminated.								
	381.36	383.60									
	381.36	383.60	PRPO **Propylitic over Potassic** Sharp, wavy contact with reaction rim (potassic fluids could be following contact also). Alteration of mafics to chlorite, and feldspars to sericite. Silicified.	382.50	384.00	W1434229	1.50	26	615	0.2	2
383.60	400.30		GBSLT **Green Basalt** Back into augite-phyric/amygdaloidal basalt. Moderately magnetic. Likely still a lapilli-tuff, too altered to see where boundary is. 399-EOH has irregular ksp replacement of phenos(?). Mottled + clay texture (Clay-Chl-Carb mainly). Also Cp in an ankerite(?) vein in areas of potassic fluids. Cp in Carb-Chl veins and disseminated, tr-0.5% with up to 1% in 388.7-390.3m and 395.5-395.7m. EOH.								

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
383.60	400.30	TUFF **Tuff**								
383.60	400.30	PRPO **Propylitic over Potassic** Potassic fluids along veins, over propylitic, later overprinted by Epidote-Calcite-Hematite veining. 399-EOH has irregular ksp replacement of phenos(?). Mottled + clay texture (Clay-Chl-Carb mainly). Also Cp in an ankerite(?) vein in areas of potassic fluids.	384.00	385.50	W1434230	1.50	15	284	0.2	2
			385.50	387.00	W1434231	1.50	30	633	0.2	1
			387.00	388.50	W1434232	1.50	39	1,140	0.3	13
			388.50	390.00	W1434233	1.50	77	2,290	0.4	36
			390.00	391.50	W1434234	1.50	34	592	0.2	3
			391.50	393.00	W1434235	1.50	22	230	0.2	3
			393.00	394.50	W1434236	1.50	57	875	0.2	3
			394.50	396.00	W1434237	1.50	76	1,260	0.4	1
			396.00	397.50	W1434238	1.50	20	557	0.2	1
			397.50	399.00	W1434239	1.50	19	896	0.2	8
			399.00	400.30	W1435454	1.30	14	285	0.2	26

400.30 **End of DDH**

Number of samples: 222

Number of QAQC samples: 0

Total sampled length: 332.80

Xstrata Copper Exploration

DDH: BK-12-02A

Claims title: 509569

Section:

Drilled by: Blackhawk Diamond Drilling

Described by: Sandra Rosset

From: 2012-11-14

To: 2012-11-17

Description date:

Collar

Azimuth: 295.00°

Dip: -50.00°

Length: 381.00 m

UTM NAD83 Z10

East	672,958
North	5,534,887
Elevation	1,157

Down hole survey

Type	Depth	Azimuth	Dip	Invalid
	12.00	293.60°	-48.00°	No
	12.00	293.60°	-48.00°	No
	12.00	293.60°	-48.00°	No
	51.00	293.10°	-47.00°	No
	51.00	293.10°	-47.00°	No
	51.00	293.10°	-47.00°	No
	150.00	296.90°	-44.80°	No
	150.00	296.90°	-44.80°	No
	150.00	296.90°	-44.80°	No
	252.00	294.00°	-42.20°	No
	252.00	294.00°	-42.20°	No
	252.00	294.00°	-42.20°	No

Type	Depth	Azimuth	Dip	Invalid
	351.00	304.00°	-38.50°	No
	351.00	304.00°	-38.50°	No
	351.00	304.00°	-38.50°	No
	381.00	305.20°	-36.80°	No
	381.00	305.20°	-36.80°	No
	381.00	305.20°	-36.80°	No

Description

Core size: NQ

Cemented: No

Stored: No

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
0.00	4.30		OVBD **Casing/Overburden** Casing/Overburden								
	0.00	4.30									
	0.00	4.30									
4.30	39.96		DIOR **Diorite** Microdiorite. Diffuse texture. Strongly magnetic. In areas clearly intrusive texture intrusive (visible interlocking grains), but in more altered areas of diffuse texture, uncertain. Towards end of interval (~36m) may be getting into a crystal tuff (no visible contact), as a small diorite dykelet cuts the unit (<3cm) and there are a few sparse lithics. Down to ~11.6m salmon pink ksp aplite veins cut core. Moderate hardness. Py veining and black sulfide veinlets (with potassic fluids) to ~27m (strongest) with 2-6% Py. Rest of interval ~0.5-1% Py. Tr Cp. Py disseminated, as veins, and fracture filings (coatings). Weakly brecciated with heavy clay and hematite alteration from 21-23m, with fg sulfides (Py mainly).								
	4.30	39.96	TUFF **Tuff**								
	4.30	39.96	PRPO **Propylitic over Potassic** Down to ~11.6m salmon pink ksp aplite veins cut core. Saussuritization of plag and chloritization of mafics. Potassic alteration (Ksp+Bio) is patchy and structurally controlled, and cut by late epidote veining. Pervasive clay and chlorite alteration (weak propylitic) overprinted by strong patchy potassic alteration, which in turn is overprinted by late epidote-carbonate veining. Weakly brecciated with heavy clay and hematite alteration from 21-23m.	6.00	7.50	W1434240	1.50	12	168	0.2	2
				7.50	9.00	W1434242	1.50	39	699	0.4	1
				9.00	10.50	W1434243	1.50	24	293	0.3	2
				10.50	12.00	W1434244	1.50	16	282	0.3	1
				12.00	13.50	W1434245	1.50	15	275	0.2	1
				13.50	15.00	W1434246	1.50	13	216	0.2	1
				15.00	16.50	W1434247	1.50	22	284	0.2	1
				16.50	18.00	W1434248	1.50	11	415	0.3	1
				18.00	19.50	W1434249	1.50	15	344	0.2	1
				19.50	21.00	W1434250	1.50	16	258	0.2	1
				21.00	22.50	W1434251	1.50	21	276	0.2	1
				22.50	24.00	W1434252	1.50	11	162	0.2	1
				24.00	25.50	W1434253	1.50	10	88	0.2	1
				25.50	27.00	W1434254	1.50	20	263	0.2	1

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	27.00	28.50	W1434255	1.50	23	371	0.2	1
	28.50	30.00	W1434256	1.50	10	180	0.2	1
	30.00	31.50	W1434257	1.50	6	66	0.2	1
	31.50	33.00	W1434258	1.50	34	837	0.3	1
	33.00	34.50	W1434259	1.50	73	1,030	0.4	1
	34.50	36.00	W1434260	1.50	34	402	0.2	1
	36.00	37.50	W1434261	1.50	16	272	0.2	1
	37.50	39.00	W1434262	1.50	21	415	0.4	1
	39.00	40.50	W1434263	1.50	129	349	0.6	1
39.96 41.60 VBX **Vein Breccia** Mottled, brecciated low angle veining comprises 40-100% of core. Clay-(Ser)-Chlorite-Qtz-Rhodochrosite-Siderite.								
39.96 41.60								
39.96 41.60 CCC **Clay-Chlorite-Carbonate** Clay-(Sericite)-Chlorite-Qtz-Rhodochrosite-Siderite.	40.50	42.00	W1434264	1.50	109	224	0.2	1
41.60 68.25 ALT **Highly Altered Rocks** Highly fractured for 70% of interval with multiple faults. Protolith unrecognizable. Strong magnetism with disseminated magnetite visible at start of interval. Possibly still Diorite. Diffuse uniform grey interval becomes extremely bleached by ~47m. Remnant feldspars and fg ksp in sections and chlorite replacing mafics. Low angle Qtz-Carb-Chl-Clay veining as in interval above, + minor Hematite. Several cm's of clay gouge in fault zones. Brecciation around Chl-Carb veins. Py 1-4% throughout, disseminated. Most likely a diorite to monzonite intrusive.								
41.60 68.25 DIOR **Diorite**								
41.60 68.25 CCC **Clay-Chlorite-Carbonate** Intensely clay altered unit. Diffuse uniform grey interval becomes extremely bleached by ~47m. Remnant feldspars and fg ksp in sections and	42.00	43.50	W1434266	1.50	41	652	0.2	1
	43.50	45.00	W1434267	1.50	19	467	0.2	1
	45.00	46.50	W1434268	1.50	44	422	0.3	1
	46.50	48.00	W1434270	1.50	62	723	0.4	1

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
		chlorite replacing mafics. Low angle Qtz-Carb-Chl-Clay veining as in interval above, with minor Hematite. Chl-Carb veins. Albite with Hematite in veins also.	48.00	49.50	W1434271	1.50	108	470	0.6	1
			49.50	51.00	W1434272	1.50	32	917	1.2	1
			51.00	52.50	W1434273	1.50	17	365	0.6	3
			52.50	54.00	W1434274	1.50	19	536	0.7	6
			54.00	55.50	W1434275	1.50	104	386	0.8	7
			55.50	57.00	W1434276	1.50	34	389	0.5	6
			57.00	58.50	W1434277	1.50	6	127	0.2	2
			58.50	60.00	W1434278	1.50	140	200	0.3	5
			60.00	61.50	W1434279	1.50	78	570	0.6	3
			61.50	63.00	W1434280	1.50	25	301	0.3	3
			63.00	64.50	W1434282	1.50	30	203	0.3	1
			64.50	66.00	W1434283	1.50	77	597	0.7	2
			66.00	67.50	W1434284	1.50	65	673	0.4	1
			67.50	69.00	W1434285	1.50	94	1,100	0.7	1
68.25	78.70	DIOR **Diorite** Plag porphyritic diorite to monzodiorite (contacts obscured by alteration). Plag turquoise-green, saussuritized, to 4mm euhedral tabular crystals (20%) in a relatively finegrained purplish-gray groundmass. Very hard (weak silica overprint). Sparse augites (<5%). Multiple small faults from 76.17 to 78.7m. Py coats fractures, is in veins, and lesser disseminated (~5% overall). Mainly in black sulfide veins that follow structures and potassic alteration. Local flow alignment of phenos. Weak magnetism.								
68.25	78.70	MDIOR **Monzodiorite**								
68.25	78.70	POT **Potassic** Saussuritization of plag. Weak silica pervasive. Potassic alteration is moderate with heavy black sulfide veining and potassic alteration as flooding and later veining. Late epidote/carbonate overpint.	69.00	70.50	W1434286	1.50	66	677	0.4	1
			70.50	72.00	W1434287	1.50	41	616	0.5	1
			72.00	73.50	W1434288	1.50	53	855	0.5	1
			73.50	75.00	W1434289	1.50	33	836	0.3	1
			75.00	76.50	W1434290	1.50	36	885	0.3	1
			76.50	78.00	W1434291	1.50	85	1,380	0.6	1
			78.00	79.50	W1434292	1.50	25	428	0.2	1

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
78.70	98.00	DIOR **Diorite** Microdiorite. Plag and augite phyric in fg groundmass, with visible interlocking crystals. Interval is highly fractured thorughout with multiple fault zones. Finer grain size (by far) than previous unit, with phenos visible usually <1 to 1-2mm. Closely resembles coeval volcanics. Weakly magnetic. Bleaching (albite-carbonate) in fault zones with brecciation and annealed faults. Still features potassic alteration in structures, often with black sulfide veins (likely contain actinolite and Py). Py in veins and black sulfide veins and fractures (overall ~2-6%). Trace rhodochrosite and siderite in veins and fault zones.								
78.70	98.00	FLTZ **Fault Zone**								
78.70	98.00	POPR **Potassic over Propylitic** Saussuritization of plag and chloritization of mafics. Much less potassic alteration than in previous interval, more patchy and limited here. Increased propylitic alteration. Bleaching (albite-carbonate) in fault zones with brecciation and annealed faults. Still features potassic alteration in structures, often with black sulfide veins (likely contain actinolite and Py). Minor rhodochrosite and siderite in veins and fault zones.	79.50	81.00	W1434293	1.50	20	336	0.3	1
			81.00	82.50	W1434294	1.50	10	151	0.4	1
			82.50	84.00	W1434295	1.50	13	233	0.3	1
			84.00	85.50	W1434296	1.50	23	275	0.4	3
			85.50	87.00	W1434297	1.50	24	405	0.4	5
			87.00	88.50	W1434298	1.50	13	101	0.3	1
			88.50	90.00	W1434299	1.50	39	323	0.5	4
			90.00	91.50	W1434300	1.50	45	588	0.5	5
			91.50	93.00	W1434301	1.50	31	380	0.2	1
			93.00	94.50	W1434302	1.50	65	621	0.4	1
			94.50	96.00	W1434304	1.50	69	1,240	0.7	2
			96.00	97.50	W1434305	1.50	66	1,070	0.7	3
			97.50	99.00	W1434306	1.50	30	785	0.6	1
98.00	152.35	DIOR **Diorite** As above; more coherent. Becomes quite finegrained with augite porphyritic texture. Still looks intrusive like a microdiorite/gabbro but could potentially be a bleached/altered augite + (lesser) plag phyric crystal tuff. No visible contacts. 120.44-121m features a lens with blotchy alteration that could be a lapilli tuff lens or altered diorite (mg) block. Quite uniform thoughout. Weakly to moderately magnetic. Lesser black sulfide veining (2-5%). Pyrite 1-4%,								

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
disseminated and in black sulfide veinlets and fractures. Tr Cp locally.								
98.00 152.35 TUFF **Tuff**								
98.00 152.35 PROP **Propylitic** Almost no more potassic alteration. Increased alteration from 145-152.35: Chlorite flooding and brecciated carb-chl-clay veins. Still looks intrusive like a microdiorite/gabbro but could potentially be a bleached/altered crystal tuff.	99.00	100.50	W1434308	1.50	21	416	0.7	3
	100.50	102.00	W1434309	1.50	33	561	0.8	6
	102.00	103.50	W1434310	1.50	47	785	0.9	9
	103.50	105.00	W1434311	1.50	116	943	0.8	2
	105.00	106.50	W1434312	1.50	48	623	0.5	4
	106.50	108.00	W1434313	1.50	41	607	0.4	5
	108.00	109.50	W1434314	1.50	44	788	0.6	5
	109.50	111.00	W1434315	1.50	29	248	0.4	6
	111.00	112.50	W1434316	1.50	33	375	0.3	1
	112.50	114.00	W1434317	1.50	58	665	0.4	2
	114.00	115.50	W1434318	1.50	22	309	0.2	1
	115.50	117.00	W1434319	1.50	49	533	0.4	1
	117.00	118.50	W1434320	1.50	102	722	0.4	1
	118.50	120.00	W1434322	1.50	73	758	0.4	1
	120.00	121.50	W1434323	1.50	50	410	0.6	2
	121.50	123.00	W1434324	1.50	21	309	0.3	1
	123.00	124.50	W1434325	1.50	41	550	0.5	1
	124.50	126.00	W1434326	1.50	29	576	0.2	1
	126.00	127.50	W1434327	1.50	26	333	0.2	1
	127.50	129.00	W1434328	1.50	17	396	0.2	1
	129.00	130.50	W1434329	1.50	30	430	0.2	1
	130.50	132.00	W1434330	1.50	32	429	0.2	2
	132.00	133.50	W1434331	1.50	10	180	0.2	1
	133.50	135.00	W1434332	1.50	45	350	0.2	1
	135.00	136.50	W1434333	1.50	19	133	0.4	2
	136.50	138.00	W1434334	1.50	37	274	0.2	1
	138.00	139.50	W1434335	1.50	21	353	0.2	1
	139.50	141.00	W1434336	1.50	31	439	0.2	1
	141.00	142.50	W1434337	1.50	9	203	0.2	1
	142.50	144.00	W1434338	1.50	15	229	0.2	1

Xstrata Copper Exploration

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	144.00	145.50	W1434339	1.50	23	286	0.2	1
	145.50	147.00	W1434340	1.50	15	551	1.5	1
	147.00	148.50	W1434341	1.50	35	507	1.0	1
	148.50	150.00	W1434342	1.50	34	126	0.5	1
	150.00	151.50	W1434343	1.50	16	192	0.2	1
	151.50	153.00	W1434344	1.50	33	124	0.2	1
152.35 157.90 FLTZ **Fault Zone** Fault Zone. Strongly clay altered sections of cataclasite and fault breccia - > fault gouge. Several faults throughout and rubble zones. Brecciated carbonate-chlorite-hematite-albite veins. Py as veinlets and disseminated 0.5-1%. Tr chalcocite(?).								
152.35 157.90 VBX **Vein Breccia**								
152.35 157.90 CLAY **Clay** Strongly clay altered sections of cataclasite and fault breccia. Carbonate-Chlorite-hematite-albite+/- biotite as well. Brecciated carbonate-chlorite-hematite-albite veins.	153.00	154.50	W1434345	1.50	21	63	0.2	1
	154.50	156.00	W1434346	1.50	9	49	0.2	1
	156.00	157.50	W1434348	1.50	14	88	0.2	1
	157.50	159.00	W1434349	1.50	15	110	0.2	3
157.90 167.85 DIOR **Diorite** Strong propylitic alteration makes id difficult and couldn't get a good unweathered/unaltered fracture face. Appears to be same microdiorite unit as above. Moderately magnetic. Crisscrossed by black sulfide veinlets as selvages on carb-epi veins. Py in veinlets, overall 1-3%. Multiple faults/highly fractured from 161.5-165m.								
157.90 167.85 FLTZ **Fault Zone**								
157.90 167.85 PROP **Propylitic** Strong propylitic alteration. Crisscrossed by black sulfide veinlets as selvages on carb-epi veins.	159.00	160.50	W1434350	1.50	36	116	0.2	1
	160.50	162.00	W1434352	1.50	10	17	0.2	1
	162.00	163.50	W1434353	1.50	49	312	0.2	1
	163.50	165.00	W1434354	1.50	28	194	0.2	1
	165.00	166.50	W1434355	1.50	14	171	0.2	1
	166.50	168.00	W1434356	1.50	11	140	0.2	1

Description

167.85 193.50 HBX

Heterolithic Breccia

Big Kidd Breccia?! Gradational/obscured contact into the unit, from microdiorite/volcanics. Heterolithic, with fragments of intermediate-mafic Nicola group volcanics, diorite, monzonite, plag porphyritic microdiorite, syenite, mg diorite, and completely chloritized/epidote flooded clasts. Clast-supported to nearly matrix supported towards end of interval. Clasts are very poorly sorted, rounded to angular exceeding width of core, with clasts >23cm. Magnetism is variable. Matrix appears to be highly chloritized microdiorite. Clasts range from 3mm to >23cm, very poorly sorted. Reaction rim/cooled rind visible on one fg volcanic clasts within unit that looks like a small dyke. Dont really see any reaction rims anywhere else, although fluids are percolating along grain boundaries. Fg matrix, in areas, soft, chloritized. Py as disseminated, blebs, veins, nucleating within clasts and along boundaries ~2-15% (around 7% overall). Cp diss and in veins, within clasts, only ~0.5% overall. Lower contact in carb-chlorite vein?

167.85 193.50

167.85 193.50 PRPO

Propylitic over Potassic

Mottled patchy alteration is strong, completely replacing some clasts with epidote-chlorite-carbonate-fg salmon pink ksp-albite +/- magnetite. Magnetism is variable. Extremely chaotic alteration . Matrix appears to be highly chloritized microdiorite. Fg matrix, in areas, soft, chloritized.

Assay

From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
168.00	169.50	W1434357	1.50	155	856	0.4	3
169.50	171.00	W1434358	1.50	23	115	0.5	2
171.00	172.50	W1434359	1.50	45	345	1.0	5
172.50	174.00	W1434360	1.50	3	27	0.5	1
174.00	175.50	W1434362	1.50	10	106	0.9	1
175.50	177.00	W1434363	1.50	58	1,610	1.1	11
177.00	178.50	W1434364	1.50	45	390	0.6	5
178.50	180.00	W1434365	1.50	35	186	0.5	9
180.00	181.50	W1434366	1.50	46	974	0.4	8
181.50	183.00	W1434367	1.50	14	466	0.5	7
183.00	184.50	W1434368	1.50	13	906	0.7	5
184.50	186.00	W1434369	1.50	10	323	0.2	1
186.00	187.50	W1434370	1.50	10	327	0.2	1
187.50	189.00	W1434371	1.50	15	281	0.4	2

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
			189.00	190.50	W1434372	1.50	23	312	0.5	3
			190.50	192.00	W1434373	1.50	11	218	0.2	1
			192.00	193.50	W1434374	1.50	12	269	0.2	1
193.50	230.10	TUFF **Tuff** Plag and augite porphyritic crystal-lapilli tuff(or porphyritic microdiorite?) ie. hypabyssal. Chlorite replaced augites to 2mm, 2-3%. Plag to 1-2mm, ~1-2%. Fg medium green groundmass. Moderate-strong magnetism. Sparse lapilli of intermeidate - mafic volcanics, <5% overall. Subangular to rounded. Also diorite lapilli. Clasts range from 3mm to 5ccm, with one plag porphyritic highly altered clast >15cm. No reaction rims on clasts. Py on fracturs/veins ~0.5%. Cp tr disseminated.								
193.50	230.10	DIOR **Diorite**								
193.50	230.10	PROP **Propylitic** Chlorite replaced augites to 2mm, 2-3%, saussuritization of plag.	193.50	195.00	W1434375	1.50	6	102	0.2	1
			195.00	196.50	W1434376	1.50	7	97	0.2	1
			196.50	198.00	W1434377	1.50	3	72	0.3	1
			198.00	199.50	W1434378	1.50	3	95	0.2	1
			199.50	201.00	W1434379	1.50	6	108	0.2	1
			201.00	202.50	W1434380	1.50	6	128	0.2	1
			202.50	204.00	W1434381	1.50	3	63	0.2	1
			204.00	205.50	W1434382	1.50	3	27	0.2	1
			205.50	207.00	W1434383	1.50	3	61	0.2	1
			207.00	208.50	W1434385	1.50	13	68	0.2	1
			208.50	210.00	W1434386	1.50	7	79	0.2	1
			210.00	211.50	W1434388	1.50	6	97	0.2	1
			211.50	213.00	W1434389	1.50	36	117	0.2	1
			213.00	214.50	W1434390	1.50	8	110	0.2	1
			214.50	216.00	W1434391	1.50	3	103	0.2	1
			216.00	217.50	W1434392	1.50	6	123	0.2	1
			217.50	219.00	W1434393	1.50	10	129	0.2	1
			219.00	220.50	W1434394	1.50	5	121	0.2	1
			220.50	222.00	W1434395	1.50	7	137	0.2	1

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	222.00	223.50	W1434396	1.50	9	68	0.2	1
	223.50	225.00	W1434397	1.50	6	134	0.2	1
	225.00	226.50	W1434398	1.50	7	154	0.2	1
	226.50	228.00	W1434399	1.50	10	293	0.4	1
	228.00	229.50	W1434400	1.50	6	244	0.2	1
	229.50	231.00	W1434402	1.50	16	23	0.2	1
230.10 245.80 TUFF **Tuff** As above unit but with strong, increased mottled propylitic alteration, and appears much more clastic. Difficult to distinguish clast boundaries, and to distinguish from alteration. Apperas simliar to breccia in intervals, but limited to volcanics and diorite as in interval above, only chlorite-epidote-carb alteration and only rounded fragments, with definite matrix supported texture. Matrix is intensely chloritized with remnant feldspar and augite visible in areas. Looks like above interval. Moderate-strong magnetism. Py 0.5% on fracs. Po tr (?)								
230.10 245.80 HBX **Heterolithic Breccia**								
230.10 245.80 PROP **Propylitic** As above unit but with strong, increased mottled propylitic alteration. Apperas simliar to breccia in intervals, but limited to volcanics and diorite as in interval above, with only chlorite-epidote-carb alteration. Matrix is intensely chloritized with remnant feldspar and augite visible in areas. Mottled, intense carb-epi-chlorite-albite-actinolite alteration.	231.00	232.50	W1434403	1.50	3	100	0.2	1
	232.50	234.00	W1434404	1.50	3	24	0.2	1
	234.00	235.50	W1434405	1.50	3	21	0.2	1
	235.50	237.00	W1434406	1.50	5	32	0.5	1
	237.00	238.50	W1434407	1.50	3	14	0.2	1
	238.50	240.00	W1434408	1.50	8	152	0.2	1
	240.00	241.50	W1434409	1.50	9	186	0.2	1
	241.50	243.00	W1434410	1.50	11	208	0.2	1
	243.00	244.50	W1434411	1.50	7	176	0.2	1
	244.50	246.00	W1434412	1.50	7	210	0.2	2
245.80 249.00 FLTZ **Fault Zone** Fault Zone. Multiple faults with mm scale clay gouge, cataclasite inbetween. Py 0.5-1% along veins and fractures.								
245.80 249.00								

Description			Assay							
			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
245.80	249.00	CCC **Clay-Chlorite-Carbonate** Clay altered fault zone.	246.00	247.50	W1434413	1.50	34	317	0.8	5
			247.50	249.00	W1434414	1.50	340	67	0.6	7
249.00	321.90	DIOR **Diorite** Strongly magnetic. Augite-phyric (to 3mm, <7%) in fg gm with disseminated magnetite. Appears intrusive. Augite porphyritic micro gabbro-diorite(?). Or augite-phyric tuff(?). No visible contacts. Carbonate-Hematite-Rhodocrosite vein at ~256m (10cm). Plag visible in matrix, diffuse, locally only. More clasts (more clastic, almost brecciated, with patchy biotite and ksp) from 282-293m. Clastic sections look more like tuffs... Texture obscured by strong alteration. Certain intervals are clearly intrusive whereas other sections are very fg and more ambiguous, but there are no visible contacts spearating them. Sparse 2-200mm clats, subrounded with some featuring embayments. Clasts are of volcanics and lesser diorite. Some parts are obviously intrusive with equipgranular fg-near mg diorite, others either texture obscured by heavy alteratin or more tuffaceous texture. No contacts visible!! Tr-0.5% Cp disseminated, locally, down to 250m. Py in veins, fractures mainly, ~1% overall. In up to 5mm Py veins (Py up to 5% locally, over 1-3m range).								
249.00	321.90	TUFF **Tuff**								
249.00	321.90	PROP **Propylitic** Chlorite replacing augites. Plag saussuritized, sericitized locally. Heavy chlorite flooding. Carbonate-Hematite-Rhodocrosite vein at ~256m (10cm).	249.00	250.50	W1434415	1.50	27	91	0.6	1
			250.50	252.00	W1434416	1.50	14	158	0.4	1
			252.00	253.50	W1434417	1.50	28	309	0.5	1
			253.50	255.00	W1434418	1.50	17	585	0.3	1
			255.00	256.50	W1434419	1.50	15	342	0.2	1
			256.50	258.00	W1434420	1.50	20	672	0.5	1
			258.00	259.50	W1434421	1.50	12	277	0.3	1
			259.50	261.00	W1434422	1.50	14	113	0.2	1
			261.00	262.50	W1434423	1.50	26	125	0.5	1
			262.50	264.00	W1434424	1.50	44	327	0.5	1
			264.00	265.50	W1434426	1.50	28	347	0.2	2

Xstrata Copper Exploration

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	265.50	267.00	W1434427	1.50	27	483	0.5	1
	267.00	268.50	W1434429	1.50	22	346	0.2	1
	268.50	270.00	W1434430	1.50	46	534	0.3	1
	270.00	271.50	W1434431	1.50	26	285	0.4	1
	271.50	273.00	W1434432	1.50	9	18	0.2	1
	273.00	274.50	W1434433	1.50	35	343	0.5	1
	274.50	276.00	W1434434	1.50	43	359	0.4	1
	276.00	277.50	W1434435	1.50	3	24	0.2	1
	277.50	279.00	W1434436	1.50	13	149	0.4	1
	279.00	280.50	W1434437	1.50	10	258	0.2	1
	280.50	282.00	W1434438	1.50	33	571	0.2	1
	282.00	283.50	W1434439	1.50	10	144	0.2	2
	283.50	285.00	W1434440	1.50	15	311	0.2	2
	285.00	286.50	W1434442	1.50	47	555	0.7	1
	286.50	288.00	W1434443	1.50	11	143	0.2	1
	288.00	289.50	W1434444	1.50	3	24	0.2	1
	289.50	291.00	W1434445	1.50	3	73	0.2	1
	291.00	292.50	W1434446	1.50	3	61	0.2	1
	292.50	294.00	W1434447	1.50	54	277	0.2	1
	294.00	295.50	W1434448	1.50	3	63	0.2	1
	295.50	297.00	W1434449	1.50	3	17	0.2	1
	297.00	298.50	W1434450	1.50	3	15	0.2	1
	298.50	300.00	W1434451	1.50	3	16	0.2	1
	300.00	301.50	W1434452	1.50	3	27	0.2	1
	301.50	303.00	W1434453	1.50	3	27	0.2	1
	303.00	304.50	W1434454	1.50	3	51	0.2	1
	304.50	306.00	W1434455	1.50	94	1,750	0.9	1
	306.00	307.50	W1434456	1.50	9	122	0.2	1
	307.50	309.00	W1434457	1.50	14	275	0.3	1
	309.00	310.50	W1434458	1.50	5	42	0.6	1
	310.50	312.00	W1434459	1.50	10	126	0.2	1
	312.00	313.50	W1434460	1.50	55	166	0.2	1
	313.50	315.00	W1434461	1.50	36	137	0.2	1
	315.00	316.50	W1434462	1.50	41	320	0.2	1

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	316.50	318.00	W1434463	1.50	72	370	0.2	7
	318.00	319.50	W1434464	1.50	37	268	0.2	1
	319.50	321.00	W1434465	1.50	42	333	0.2	1
	321.00	322.50	W1434467	1.50	20	123	0.3	1
321.90 323.25 SMONZ **Syenomonzonite** Late Syenomonzonite dyke. Wavy, sharp contact with chilled margin/baked contact. ≤1mm plag phenos faintly visible. Groundmass of fg pink ksp. Faintly magnetic. Barren.								
321.90 323.25								
321.90 323.25 CCC **Clay-Chlorite-Carbonate** Chloritized mafics. Crackled carb veinlets and patchy chlorite alteration.	322.50	324.00	W1434468	1.50	22	344	0.2	1
323.50 343.70 TUFF **Tuff** Diffuse texture with ghosted phenocrysts (augites?), and completely chlorite and epidote replaced phenos (were possibly augite or analcite? By shape). ~20% of core in many areas. Semi-round, vuggy from chlorite. Tuffaceous texture, but hard to tell with alteration degree. Slightly magnetic, to non-magnetic. Trachybasalt? Phenos 1-3mm. Towards the end of the interval (~336 down) becomes so highly altered that textures are wiped out and core becomes crackled with carbonate veinlets. Several faults: ~338m, 339.8m, 342m and 343.5m. Py ~0.5% overall, mainly as veins and fracture coatings. Trace Cp.								
323.50 343.70 GBSLT **Green Basalt**								
323.50 343.70 PROP **Propylitic** Intensely chloritized unit. Completely chlorite and epidote replaced phenos. Towards the end of the interval (~336 down) becomes so highly altered that textures are wiped out and core also becomes crackled with carbonate veinlets.Very minor ksp along carbonate-chlorite-qtz veins/faults.	324.00	325.50	W1434469	1.50	11	108	0.2	1
	325.50	327.00	W1434471	1.50	6	96	0.2	1
	327.00	328.50	W1434472	1.50	3	68	0.2	1
	328.50	330.00	W1434473	1.50	25	252	0.2	1
	330.00	331.50	W1434474	1.50	21	268	0.2	1
	331.50	333.00	W1434475	1.50	27	407	0.6	2
	333.00	334.50	W1434476	1.50	18	220	0.2	1
	334.50	336.00	W1434477	1.50	29	549	0.2	2

Xstrata Copper Exploration

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	336.00	337.50	W1434478	1.50	17	144	0.2	1
	337.50	339.00	W1434479	1.50	35	385	0.2	1
	339.00	340.50	W1434480	1.50	3	9	0.2	1
	340.50	342.00	W1434482	1.50	26	477	0.2	1
	342.00	343.50	W1434483	1.50	6	147	0.2	1
	343.50	345.00	W1434484	1.50	39	951	0.5	1
343.70 381.00 DIOR **Diorite** Hornfelsed, finegrained unit. Strongly magnetic (disseminated magnetite). Microdiorite again, with the fg magnetite disseminated as seen previously. Contact could be obscured in the fault zone at the start of the interval. ≤1mm plag and pyroxenes. Py occurs as veins and fracture coatings ~2-7%, to 15% over a few 20cm intervals, in veins and disseminated. Cp, disseminated, in veins and on fractures, roughly 0.5% overall (decreasing towards end of interval). EOH.								
343.70 381.00								
343.70 381.00 PROP **Propylitic** Hornfelsed. Weak propylitic alteration. Ksp in one Py-Chl-carb vein and in a few epi-py-ksp veins.Saussuritization of plag. ~358m patchy ksp and biotite alteration comes in to EOH, flooding core in areas. Silicified over last ~5m or so.	345.00	346.50	W1434485	1.50	72	1,500	0.5	1
	346.50	348.00	W1434486	1.50	77	1,140	0.5	1
	348.00	349.50	W1434487	1.50	52	637	0.4	1
	349.50	351.00	W1434488	1.50	95	942	1.0	1
	351.00	352.50	W1434489	1.50	438	892	0.4	1
	352.50	354.00	W1434490	1.50	105	856	0.5	1
	354.00	355.50	W1434491	1.50	169	816	0.6	2
	355.50	357.00	W1434492	1.50	53	592	0.2	1
	357.00	358.50	W1434493	1.50	163	1,350	0.8	1
	358.50	360.00	W1434494	1.50	10	155	0.2	1
	360.00	361.50	W1434495	1.50	16	125	0.2	1
	361.50	363.00	W1434496	1.50	12	113	0.2	1
	363.00	364.50	W1434497	1.50	38	308	0.2	1
	364.50	366.00	W1434498	1.50	33	322	0.2	1
	366.00	367.50	W1434499	1.50	120	981	0.2	1
	367.50	369.00	W1434500	1.50	39	513	0.4	1
	369.00	370.50	W1434501	1.50	49	609	0.2	1

Xstrata Copper Exploration

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	370.50	372.00	W1434502	1.50	89	1,030	0.3	1
	372.00	373.50	W1434503	1.50	99	1,300	0.8	5
	373.50	375.00	W1434504	1.50	120	1,480	0.8	3
	375.00	376.50	W1434505	1.50	33	323	0.2	2
	376.50	378.00	W1434507	1.50	49	413	0.2	1
	378.00	379.50	W1434508	1.50	18	166	0.2	1
	379.50	381.00	W1434510	1.50	3	233	0.2	1

381.00 **End of DDH**

Number of samples: 250

Number of QAQC samples: 0

Total sampled length: 375.00

Xstrata Copper Exploration

DDH: BK-12-02

Claims title: 509569

Section:

Drilled by: Blackhawk Diamond Drilling

Described by: Sandra Rosset

From: 2012-11-13

To: 2012-11-14

Description date:

Collar

Azimuth: 257.00°

Dip: -50.00°

Length: 99.10 m

UTM NAD83 Z10

East	672,958
North	5,534,887
Elevation	1,157

Down hole survey

Type	Depth	Azimuth	Dip	Invalid
	12.00	271.20°	-49.20°	No
	12.00	271.20°	-49.20°	No
	12.00	271.20°	-49.20°	No
	51.00	257.70°	-48.20°	No
	51.00	257.70°	-48.20°	No
	51.00	257.70°	-48.20°	No
	99.00	274.30°	-48.00°	No
	99.00	274.30°	-48.00°	No
	99.00	274.30°	-48.00°	No

Type	Depth	Azimuth	Dip	Invalid

Description

Core size: NQ

Cemented: No

Stored: No

Xstrata Copper Exploration

Description					Assay							
					From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
0.00	3.50			OVBD **Casing/Overburden** Casing/Overburden								
		0.00	3.50									
		0.00	3.50									
3.50	7.20			MDIOR **Monzodiorite** Medium-grained monzodiorite to diorite. Fg plag with lesser ksp, with ~15% mafics. Magnetic (disseminated mag). Sharp contact into lower unit; no chilled margin/baked contact. No visible mineralization.								
		3.50	7.20	DIOR **Diorite**								
		3.50	7.20	PRPO **Propylitic over Potassic** Ksp along bands and patchy. Propylitic over localized ksp. Potassic. Weak saussuritization. Alteration weak overall. FeOx's on fracs (Limonite, Jarosite).								
7.20	8.65			GBSLT **Green Basalt** Augite phyric basalt (to andesitic-basalt). Subhedral augites to 3mm @ 10%. Magnetic. Trace Py.								
		7.20	8.65									
		7.20	8.65	PRPO **Propylitic over Potassic** Late propylitic alteration cuts/overprints earlier potassic (pervasive- moderate).								
8.65	10.20			DIOR **Diorite** Diorite as from 3.5-7.2m. With ~40cm of intercalated augite phyric basalt as from 7.2-8.65m.								
		8.65	10.20	GBSLT **Green Basalt**								
		8.65	10.20	PRPO **Propylitic over Potassic** Ksp along bands and patchy. Propylitic over localized ksp. Potassic. Weak saussuritization. Alteration weak overall.								

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
10.20	15.90	GBSLT **Green Basalt** Augite-phyric basalt (to andesitic-basalt). As from 7.2-8.65m. Possible lapilli tuff although more intesne alteration here makes indentification of protolith difficult. Magnetic. Possible fg Py/sulfides coming in along potassic alteration veins but seems minor. Tr-0.5% Py. Minor Po(?) on fractures.								
10.20	15.90	TUFF **Tuff**								
10.20	15.90	PRPO **Propylitic over Potassic** Patchy, strong potassic alteration with propylitic overprint.								
15.90	23.90	DIOR **Diorite** Diorite (mg) to monzodiorite as from 3.5-7.2. Strongly magnetic. Aplite stringers (minor). Fg pink ksp throughout. Tr-0.5% Py (veins/fracs).								
15.90	23.90	MDIOR **Monzodiorite**								
15.90	23.90	PROP **Propylitic** Aplite stringers (minor). Fg pink ksp throughout. Weak to moderate saussuritization. Chlorite replacement of mafics.								
23.90	40.00	TUFF **Tuff** Sparsely augite-phyric lapilli tuff (andesitic-basalt composition). Weak-moderately magnetic. Minor aplite veining. Augites chlorite replaced. Few (<15cm) sections of purple potassic altered rocks with plag (possible lapilli tuff?). Quite hard, +/- fg pyrite. Few small, purple, soft fg lithics <2cm, rounded. Fg pyrite disseminated and mostly in veins with (Chl-Carb) or potassic fluids. Py 0.5-1% overall, increasing ~35m to end of interval (to 2-4% Py). Siderite (or ankerite?) veining (minor). Brecciated epidote-ksp-chlorite-carb veins +/- Py.								
23.90	40.00									
23.90	40.00	PROP **Propylitic**								

Xstrata Copper Exploration

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
			Minor aplite veining. Augites chlorite replaced. Few (<15cm) sections of purple potassic altered rocks with plag (possible lapilli tuff?). Crackled fine veinlets of potassic alteration fluids (purple to black, biotite+ksp+/-actinolite).Fg pyrite disseminated and mostly in veins with (Chl-Carb) or potassic fluids. Siderite (or ankerite?) veining (minor). Brecciated epidote-ksp-chlorite-carb veins +/- Py.								
40.00	45.50		DIOR **Diorite** Weakly plag porphyritic med-coarse grained diorite. Plag to 4mm. Vuggy. Pyrite nucleating on mafics, and disseminated. Moderately magnetic. Clays on fractures and minor FeOx's. Py ~0.5% to 1% locally. Minor aplite veinlets.								
	40.00	45.50									
	40.00	45.50	PRPO **Propylitic over Potassic** Moderately altered with finegrained pink ksp (probably primary, but could be secondary). Potassic alteration is coming in along veins (structurally controlled) but flooding through as well in areas. Vuggy. Minor aplite veinlets. Saussuritization of plag.								
45.50	48.00		FLTZ **Fault Zone** Fault zone rich in clay+carbonate+chlorite. Vein brecciation at low angle to core in vuggy Carb-Chl-Clay-Hem+/- Siderite veins. Vuggy. Py 0.5% disseminated and in veins.								
	45.50	48.00									
	45.50	48.00	CCC **Clay-Chlorite-Carbonate** Fault zone rich in Clay-Chlorite-Carbonate. Vein brecciation at low angle to core in vuggy Carb-Chl-Clay-Hem+/- Siderite veins. Vuggy.								
48.00	62.10		TUFF **Tuff** From 48-~51.2m is augite-phyric volcanics, with propylitic over potassic over propylitic alteration, as								

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)

seen above. Below this becomes so altered as to lose recognition of protolith. Appears to still be the same unit, and believe this to be the andesitic-basalt, lapilli-tuff seen from 23.9-40, with clasts of intermediate-mafic volcanics and monzodiorite in a heterolithic lapilli tuff. Alteration appears to emanate from the fault zone at ~54 to 57.85m, which includes the annealed fault breccia (cataclasite). Weakly sheared, though not quite mylonite. 0.5-1% Pyrite overall with 60.7-62.1 = 15% Pyrite. Weakly magnetic in intervals.

48.00 62.10 GBSLT
Green Basalt

48.00 62.10 CCC
Clay-Chlorite-Carbonate
From 48-~51.2m is augite-phyric volcanics, with propylitic over potassic over propylitic alteration, as seen above.Below this becomes so altered as to lose recognition of protolith. Alteration is extreme and overprints original textures from ~51.5-61.8m completely. Alteration appears to emanate from the fault zone at ~54 to 57.85m, which includes the annealed fault breccia (cataclasite). Intense clay alteration with clay>carbonates>chlorite>Py>Hem.

62.10 92.80 TUFF
Tuff
Andesitic-basalt to basalt lapilli to block tuff. Heterolithic. Gm is medium-green, fg, aphyric or sparsely augite-phyric. Matrix supported. Sparse lapilli/blocks. Blocks up to 44cm as intersected in core. Clasts are mainly plag-phyric diorites to monzodiorites and intermediate-mafic volcanics. Subangular to subrounded. Minor black veinlets throughout (<5%), look similar to potassic veining in areas. Magnetic. 82-85.8m = 10-15% Py. Overall only tr Py, up to 2% locally.

62.10 92.80

62.10 92.80 PRPO
Propylitic over Potassic
Structurally controlled potassic fluids, almost to domainal alteration. Minor black veinlets

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
throughout (<5%), look similar to potassic veining in areas.								
92.80 99.10 FLTZ **Fault Zone** Major Fault Zone. Multiple (5+) zones of 1-8mm of clay gouge, fault breccia and highly fractured rocks in between. Ends in Fault zone. Can't discern protolith although coarse plag phyric diorite to monzonite is visible in one area towards the end of the hole, and fg ksp monzonite is also visible. Tr-0.2% Py. EOH.								
92.80 99.10								
92.80 99.10 CLAY **Clay** Clay altered fault zone.								

99.10 **End of DDH**
Number of samples: 0
Number of QAQC samples: 0
Total sampled length: 0.00

Xstrata Copper Exploration

DDH: BK-12-03

Claims title: 509569

Section:

Drilled by: Blackhawk Diamond Drilling

Described by: Sandra Rosset

From: 2012-11-18

To: 2012-11-20

Description date:

Collar

Azimuth: 75.00°

Dip: -47.00°

Length: 340.30 m

UTM NAD83 Z10

East	672,738
North	5,534,558
Elevation	1,227

Down hole survey

Type	Depth	Azimuth	Dip	Invalid
	24.00	76.90°	-44.10°	No
	24.00	76.90°	-44.10°	No
	24.00	76.90°	-44.10°	No
	51.00	72.90°	-44.00°	No
	51.00	72.90°	-44.00°	No
	51.00	72.90°	-44.00°	No
	150.00	79.70°	-40.90°	No
	150.00	79.70°	-40.90°	No
	150.00	79.70°	-40.90°	No
	252.00	82.60°	-39.40°	No
	252.00	82.60°	-39.40°	No
	252.00	82.60°	-39.40°	No

Type	Depth	Azimuth	Dip	Invalid

Description

Core size: NQ

Cemented: No

Stored: No

Xstrata Copper Exploration

Description				Assay							
				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
0.00	4.60		OVBD **Casing/Overburden** Casing/Overburden								
	0.00	4.60									
	0.00	4.60									
4.60	29.70		DIOR **Diorite** Medium-grained diorite. Intensely fractured/rubble to ~19m and 27-29.7m. Strongly magnetic. Several faults throughout. Weakly plag porphyritic in sections. Few angular volcanic xenoliths. Tr Po. Tr-0.5% Py locally. Vuggy. Few aplite veins.								
	4.60	29.70	FLTZ **Fault Zone**								
	4.60	29.70	PROP **Propylitic** Not very altered, relatively fresh with epidote and carbonate veining, minor chlorite. Saussuritization of plag. FeOx's (Jarosite>Limonite) to 6.5m. Few aplite veins.								
29.70	81.30		TUFF **Tuff** Still highly fractured to ~46m, and then moderately fractured with coherent core inbetween. Augite phyric in sections, with chloritized gm, chlorite replacing augites, and amygdules. Other intervals (lesser) are plag phyric with fg ksp. One section of ~4m of plag and hornblende porphyritic rocks in grey groundmas, with clast(?) of mg hornblende phyric diorite. Complete dog's breakfast. No clear contacts. Likely a lapilli-block intermediate-mafic tuff with clasts of Nicola volcanics and lesser diorite/monzonite. Matrix supported mostly. Heterolithic. Clasts range from 0.5 to >1m. Very poorly sorted. Grey plag porphyritic unit from 48.44 to roughly 51m could be a very altered dyke. Contains tr-0.5% Cp. Py overall ~0.5%, up to 3-5% locally. Possibly spherulities visible in one area Could be pyroclastic flow/lahar? /volcanic breccia? Tr Cp locally ~70m, with increased pyrite and increased ksp (within intrusive clast possibly).								

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	29.70	81.30	DIOR **Diorite**								
	29.70	81.30	PROP **Propylitic** Strong to very strong mottled/patchy propylitic alteration, with patchy epidote flooding, minor patchy pink ksp, and patchy actinolite and chlorite. Late carbonate veining. Other intervals (lesser) are plag phyric with fg ksp and saussuritization, and epidote replacement.Complete dog's breakfast. Also clay alteration locally. Chlorite in groundmass and replacing mafics.	48.00	49.50	W1434511	1.50	3	152	0.6	6
				49.50	51.00	W1434512	1.50	3	605	0.5	1
				51.00	52.50	W1434513	1.50	3	49	0.2	1
				52.50	54.00	W1434514	1.50	3	59	0.2	2
				54.00	55.50	W1434515	1.50	3	201	0.2	1
				55.50	57.00	W1434516	1.50	13	181	0.2	1
				57.00	58.50	W1434517	1.50	3	181	0.2	1
				58.50	60.00	W1434518	1.50	3	219	0.2	1
				60.00	61.50	W1434519	1.50	3	120	0.2	1
				61.50	63.00	W1434520	1.50	3	157	0.4	1
				63.00	64.50	W1434522	1.50	3	49	0.2	1
				64.50	66.00	W1434523	1.50	3	145	0.2	3
				66.00	67.50	W1434524	1.50	3	116	0.2	2
				67.50	69.00	W1434525	1.50	3	155	0.2	4
				69.00	70.50	W1434526	1.50	6	184	0.2	1
				70.50	72.00	W1434527	1.50	9	568	0.2	1
				72.00	73.50	W1434528	1.50	6	346	0.2	2
				73.50	75.00	W1434529	1.50	9	310	0.2	5
				75.00	76.50	W1434530	1.50	7	194	0.2	4
				76.50	78.00	W1434531	1.50	6	347	0.2	1
				78.00	79.50	W1434532	1.50	7	119	0.4	1
				79.50	81.00	W1434533	1.50	3	26	0.2	1
				81.00	82.50	W1434534	1.50	3	17	0.2	1
81.30	82.30		MONZ **Monzonite** Plag phyric unit, as described in detail in unit below fault zone (same unit as 88.5-146.65m)								
	81.30	82.30									
	81.30	82.30	PROP **Propylitic** Epidote replacement of plag and chlorite replacing mafics. Some saussuritization of plag. ~120-124 is a mottled, brecciated interval with high fluid flow (albite, chlorite, epidote,								

Description					From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
				quartz); could be different unit, however no visible contacts. Late epidote vening and plag replacement.								
82.30	88.50			FLTZ **Fault Zone** Fault zone. Protolith as in unit above and below fault zone. Highly fractured with carbonate and clay cemented cataclasite. Trace disseminated Cp.								
		82.30	88.50									
		82.30	88.50	PROP **Propylitic** Highly fractured with carbonate and clay cemented cataclasite.	82.50	84.00	W1434535	1.50	3	5	0.2	1
					84.00	85.50	W1434536	1.50	13	154	0.2	1
					85.50	87.00	W1434537	1.50	3	8	0.2	1
					87.00	88.50	W1434538	1.50	3	5	0.2	1
88.50	146.65			MONZ **Monzonite** Monzonite. Upper contact (at 81.3m) of this unit features a wide chilled margin and sharp contact indicative of an intrusion. Unit is relatively fresh with distinct, euhedral tabular plag phenos and more subhedral semi-rounded plag/albite?? Phenos are crowded, to 3mm, with mafics (pyroxenes <15%). Hematite and ksp rich fg groundmass, sparse ~5% hornblende in sections. Strongly magnetic (disseminated magnetite). Fg salmon pink ksp in gm. Fg, fledspar porphyritic monzonite. +Ortho phenos (subedral-anhedral, to 10% locally). Sparse fg, angular mafic xenoliths of surrounding volcanics, to subangular with embayments. Assuming ksp to be primary. ~120-124 is a mottled, brecciated interval with high fluid flow (albite, chlorite, epidote, quartz) could be different unit, however no visible contacts. Unmineralized. Quite homogeneous lithology overall. Trace py overall (up to 0.5%). Tr Cp locally.								
		88.50	146.65									
		88.50	146.65	PROP **Propylitic** Epidote replacement of plag and chlorite replacing mafics. Some saussuritization of plag. ~120-124 is a mottled, brecciated interval with high fluid flow (albite, chlorite, epidote, quartz); could be different unit, however no	88.50	90.00	W1434539	1.50	24	5	0.2	1
					90.00	91.50	W1434540	1.50	3	4	0.2	1
					91.50	93.00	W1434541	1.50	3	8	0.2	1
					93.00	94.50	W1434542	1.50	3	9	0.2	1
					94.50	96.00	W1434543	1.50	7	78	0.2	1

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
visible contacts. Late epidote vening and plag replacement. Minor aplite veining (ksp) and selvages on epidote veins.	96.00	97.50	W1434545	1.50	7	36	0.2	1
	97.50	99.00	W1434546	1.50	7	20	0.2	1
	99.00	100.50	W1434547	1.50	3	36	0.2	1
	100.50	102.00	W1434548	1.50	3	26	0.2	1
	102.00	103.50	W1434549	1.50	17	16	0.2	1
	103.50	105.00	W1434551	1.50	15	11	0.2	1
	105.00	106.50	W1434552	1.50	3	26	0.2	1
	106.50	108.00	W1434553	1.50	6	12	0.2	1
	108.00	109.50	W1434554	1.50	3	14	0.2	1
	109.50	111.00	W1434555	1.50	10	55	0.2	1
	111.00	112.50	W1434556	1.50	12	43	2.2	1
	112.50	114.00	W1434557	1.50	3	44	0.2	1
	114.00	115.50	W1434558	1.50	6	11	0.2	1
	115.50	117.00	W1434559	1.50	3	10	0.2	1
	117.00	118.50	W1434560	1.50	3	62	0.2	1
	118.50	120.00	W1434562	1.50	10	13	0.2	1
	120.00	121.50	W1434563	1.50	20	247	0.2	1
	121.50	123.00	W1434564	1.50	8	263	0.2	1
	123.00	124.50	W1434565	1.50	7	37	0.2	1
	124.50	126.00	W1434566	1.50	8	20	0.2	1
	126.00	127.50	W1434567	1.50	14	86	0.2	1
	127.50	129.00	W1434568	1.50	14	132	0.2	1
	129.00	130.50	W1434569	1.50	15	114	0.2	1
	130.50	132.00	W1434570	1.50	8	32	0.2	1
	132.00	133.50	W1434571	1.50	8	26	0.2	1
	133.50	135.00	W1434572	1.50	7	40	0.2	1
	135.00	136.50	W1434573	1.50	3	25	0.2	1
	136.50	138.00	W1434574	1.50	6	19	0.2	1
	138.00	139.50	W1434575	1.50	13	20	0.2	1
	139.50	141.00	W1434576	1.50	11	9	0.2	1
	141.00	142.50	W1434577	1.50	8	35	0.2	1
	142.50	144.00	W1434578	1.50	3	8	0.2	1
	144.00	145.50	W1434579	1.50	14	215	0.2	1
	145.50	147.00	W1434580	1.50	3	26	0.2	1

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
146.65	154.90	TUFF **Tuff** Shear Zone/volcanics? Mottled, highly altered rocks/brecciated zone with minor cataclasite and minor interval of highly fractured rocks. Mafic fg dyke cuts in at low angle over 30cm ~147.3m. Protolith appears to be intermediate-mafic volcanics. Lapilli tuff texture. Trace py.									
	146.65	154.90	FLTZ **Fault Zone**								
	146.65	154.90	PROP **Propylitic** Chlorite-carbonate-epidote alteration. Carbonate cement on breccias.	147.00	148.50	W1434581	1.50	7	315	0.2	1
				148.50	150.00	W1434582	1.50	13	213	0.2	1
				150.00	151.50	W1434583	1.50	3	175	0.2	1
				151.50	153.00	W1434584	1.50	41	20	0.2	1
				153.00	154.50	W1434586	1.50	45	13	0.2	1
				154.50	156.00	W1434587	1.50	3	4	0.2	1
154.90	165.80	TUFF **Tuff** Volc-Lapilli Tuff. Vesicular basalt lapilli tuff. Very strange interval. May be a lapilli tuff -> very fg grey homogeneous gm with sub-mm mafic phenos <3%. Completely epidote replaced blebs to 3mm that are irregular and could be vesicles. Ghosted near circular grey paler orbs that could be devitrification tetxtures. Almost perfectly circular epidote flooded clasts(?) 5-45mm with distinct ~5mm chilled margins or baked contact or reaction rims? Strange textures! (see photos) Upper and lower contacts both obscured by veins. Reaction rims more indicative of intrusive unit?? Very fg gm. Magnetic. Unmineralized.									
	154.90	165.80	GBSLT **Green Basalt**								
	154.90	165.80	PROP **Propylitic** Completely epidote replaced blebs to 3mm that are irregular and could be vesicles. Ghosted near circular grey paler orbs that could be devitrification tetxtures. Almost perfectly circular epidote flooded clasts(?) 5-45mm with distinct ~5mm chilled margins or baked contact or reaction rims? Strange textures! (see	156.00	157.50	W1434589	1.50	5	4	0.2	1
				157.50	159.00	W1434590	1.50	3	5	0.2	1
				159.00	160.50	W1434591	1.50	3	1	0.2	1
				160.50	162.00	W1434592	1.50	8	1	0.2	1
				162.00	163.50	W1434593	1.50	6	1	0.2	1
				163.50	165.00	W1434594	1.50	6	1	0.2	1
				165.00	166.50	W1434595	1.50	23	2	0.2	1

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
photos)								
165.80 170.35 TUFF **Tuff** Volc lapilli-tuff. From 166.6-166.9m, the same unit as from 154.9-165.8 @ roughly 60deg to core axis. Very sharp contact. The rest of the interval is identical to that from 88.5-146.65m. Feldspar porphyritic monzonite. Tr Py/Cp disseminated.								
165.80 170.35 MONZ **Monzonite**								
165.80 170.35 PROP **Propylitic**	166.50	168.00	W1434596	1.50	5	47	0.2	1
Epidote replacement of plag and chlorite replacing mafics. Some saussuritization of plag.	168.00	169.50	W1434597	1.50	6	96	0.2	1
	169.50	171.00	W1434598	1.50	6	914	0.2	2
170.35 182.70 TUFF **Tuff** Speckled/slightly mottled unit. Likely andesitic basalt crystal tuff unit but could also be microdiorite (hypabyssal). Predominantly augite phenos, subhedral to 1mm ~10-15%, with lesser subhedral plag. Heterogeneous. Sections of albite/epidote infilled amygdules and small lapilli (to 4mm). Py 0.5-2%, disseminated, minor Po. Moderate magnetism. Tr Cp and Ch(?).								
170.35 182.70 DIOR **Diorite**								
170.35 182.70 PROP **Propylitic**	171.00	172.50	W1434599	1.50	3	133	0.2	1
Strong propylitic alteration. Carbonate/epidote veining. Chlorite replacement of mafics.	172.50	174.00	W1434600	1.50	6	52	0.2	1
	174.00	175.50	W1434602	1.50	5	84	0.2	1
	175.50	177.00	W1434603	1.50	6	209	0.2	2
	177.00	178.50	W1434604	1.50	3	186	0.2	2
	178.50	180.00	W1434605	1.50	5	45	0.2	7
	180.00	181.50	W1434606	1.50	9	202	0.2	1
	181.50	182.70	W1434607	1.20	10	80	0.2	2
182.70 183.80 VBX **Vein Breccia** Massive quartz vein. Qtz>Carb>Chl massive vein, within fault zone (bounded by two small faults with minor gouge). Protolith as above. Py finely disseminated, ~5% overall. Cp blebs in Quartz vein								

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
			0.5% overall.								
182.70	183.80										
182.70	183.80		CCC **Clay-Chlorite-Carbonate** Massive quartz vein. Qtz>Carb>Chl massive vein, within fault zone. Clay alteration as well.	182.70	183.80	W1434608	1.10	46	914	0.2	3
183.80	245.10	TUFF **Tuff** Central Group Nicola volcanic pile; clastic, heterolithic. Coarse lapilli to block tuff of intermediate to mafic composition with clasts of Nicola intermeiate-mafic volcanics and clasts of diorite and microdiorite. Very heterogeneous, with interbedded layers of crystal tuff and possible microdiorite intervals (no visible clear contact - > could be microdiorite blocks). Hornfelsed. Variably magnetic. Diffuse texture of gm. Mostly fine augite phyric tuff, lesser plag. Locally amygdaloidal. Black veinlets +/- sulfides begin around ~194m (~2-10% to end of interval). 206.5m: 10cm plag porphyritic diorite dyke. Minor ankerite/siderite on fractures/veins and same dyke 212-213.9m (sharp contacts). Contemporaneous. Py very fg, disseminated 1-5% overall (probably much higher due to veins (black veinlets)) + Actinolite and possibly Ch in veinlets (hard, black, no visible minerals). Tested for Ch. locally and didn't find any. Py up to 15% locally. Cp tr locally. From 230m to end of interval low mineralization.										
183.80	245.10		DIOR **Diorite**								
183.80	245.10		PROP **Propylitic** Moderate-highly altered (patchy strong propylitic). Carbonate-chlorite-clay-brecciated veins locally (low angle to core axis); some with blue clay (zeolites? pyrophyllite?). Crackled carbonate and epidote veinlets. Weak saussuritization locally. Increased alteration past 230m with increased patchy albite and quartz and sulfides. Contact aureole? Hornfelsed. +/- Magnetite.	183.80	184.90	W1434609	1.10	12	219	0.2	1
				184.90	186.00	W1434610	1.10	11	231	0.2	1
				186.00	187.50	W1434611	1.50	5	130	0.2	1
				187.50	189.00	W1434612	1.50	8	165	0.2	1
				189.00	190.50	W1434613	1.50	12	222	0.2	1
				190.50	192.00	W1434614	1.50	26	206	0.2	1
				192.00	193.50	W1434615	1.50	10	105	0.2	1
				193.50	195.00	W1434616	1.50	12	98	0.2	1
				195.00	196.50	W1434617	1.50	27	308	0.2	1

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	196.50	198.00	W1434618	1.50	8	181	0.2	1
	198.00	199.50	W1434619	1.50	6	100	0.2	1
	199.50	201.00	W1434620	1.50	6	32	0.2	1
	201.00	202.50	W1434621	1.50	5	112	0.2	1
	202.50	204.00	W1434622	1.50	9	68	0.2	1
	204.00	205.50	W1434623	1.50	8	175	0.2	1
	205.50	207.00	W1434624	1.50	18	233	0.2	1
	207.00	208.50	W1434626	1.50	30	229	0.2	1
	208.50	210.00	W1434627	1.50	11	112	0.2	1
	210.00	211.50	W1434628	1.50	24	495	0.2	1
	211.50	213.00	W1434629	1.50	86	589	0.2	1
	213.00	214.50	W1434630	1.50	80	467	0.2	1
	214.50	216.00	W1434632	1.50	20	178	0.2	1
	216.00	217.50	W1434633	1.50	12	66	0.2	1
	217.50	219.00	W1434634	1.50	14	166	0.2	2
	219.00	220.50	W1434635	1.50	12	140	0.2	3
	220.50	222.00	W1434636	1.50	11	246	0.2	1
	222.00	223.50	W1434637	1.50	6	119	0.2	1
	223.50	225.00	W1434638	1.50	6	129	0.2	1
	225.00	226.50	W1434639	1.50	3	90	0.2	1
	226.50	228.00	W1434640	1.50	7	149	0.2	1
	228.00	229.50	W1434642	1.50	10	196	0.2	1
	229.50	231.00	W1434643	1.50	8	225	0.2	2
	231.00	232.50	W1434644	1.50	9	351	0.2	3
	232.50	234.00	W1434645	1.50	7	147	0.2	1
	234.00	235.50	W1434646	1.50	7	183	0.2	1
	235.50	237.00	W1434647	1.50	10	264	0.2	1
	237.00	238.50	W1434648	1.50	16	394	0.2	2
	238.50	240.00	W1434649	1.50	8	199	0.2	2
	240.00	241.50	W1434650	1.50	10	251	0.2	3
	241.50	243.00	W1434651	1.50	13	307	0.2	1
	243.00	244.50	W1434652	1.50	84	209	0.2	1
	244.50	246.00	W1434653	1.50	324	1,660	15.6	1

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
245.10	257.10	FLTZ **Fault Zone** 245.1-257.1m: Fault/shear zone. Multiple faults, with coherent sections and lesser highly fractured intervals. Protolith as above. Cp in Qtz/Clay section within quartz veins. Three 5-20cm Quartz veins with clay selvages contain 0.5-4% Cp. Py 0.5-2%. 255.8-end of interval is a section of multiple faults, gouge and clayey fault breccia. Rest of interval is more coherent (~253-255.8).								
245.10	257.10	TUFF **Tuff**								
245.10	257.10	PROP **Propylitic** Begins with clay alteration and quartz veining over first meter, then more into chlorite-carbonate-albite alteration.	246.00	247.50	W1434654	1.50	20	408	0.2	1
			247.50	249.00	W1434655	1.50	5	120	0.2	1
			249.00	250.50	W1434656	1.50	9	224	0.5	1
			250.50	252.00	W1434657	1.50	19	233	0.5	1
			252.00	253.50	W1434658	1.50	3	153	0.4	1
			253.50	255.00	W1434659	1.50	3	71	0.3	1
			255.00	256.50	W1434660	1.50	5	105	0.2	1
			256.50	258.00	W1434661	1.50	7	256	0.2	1
257.10	316.30	TUFF **Tuff** Similar as 183.8-245.1m. Central Nicola Volcanic Pile - Dog's breakfast. Variable from matrix (ash tuff) supported to nearly clast-supported in areas. Heterolithic with clasts of Nicola intermediate-mafic volcanics and also intrusive clasts of diorite. Clasts are rounded to subrounded and in the coarse lapilli size range, with sparse blocks. Unit is heterogeneous with considerable variability. Poorly sorted. Glassy, aphanitic gm intervals, with red-maroon tint (FeOx/Hem content). Diffuse textures. Py disseminated and on fracture linings ~0.5-2% overall (vfg). Clasts more highly altered than tuff matrix. Variably magnetic, weak overall. Minor black sulfide veining (<2%) dies out near start of interval. Past ~290m becomes more altered with fault/shear zone from 293-294m and aphanitic glassy maroon rocks intercalated ~298-302m. Cp 0.5% over 5cm interval within fault zone @293-294 within quartz vein. Small fault zone 299-300m with over								

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
		5cm gouge.								
257.10	316.30	MBSLT **Maroon Basalt**								
257.10	316.30	PROP **Propylitic** Unit is heterogeneous with considerable variability. Crackled epidote-chlorite veining. Unit is highly altered with epidote as veins, replacements (and strong patchy to flooded alteration of clasts). Chlorite and carbonate also as veins and patchy alteration. Diffuse textures. Patchy hematite. Clasts more highly altered than tuff matrix. Past ~290m becomes more altered with fault/shear zone from 293-294m and aphanitic glassy maroon rocks intercalated ~298-302m. Magnetite and epidote clots.	258.00	259.50	W1434662	1.50	3	11	0.2	1
			259.50	261.00	W1434663	1.50	3	107	0.7	1
			261.00	262.50	W1434664	1.50	3	9	0.2	1
			262.50	264.00	W1434665	1.50	3	60	0.2	1
			264.00	265.50	W1434667	1.50	3	38	0.2	1
			265.50	267.00	W1434668	1.50	3	34	0.2	1
			267.00	268.50	W1434670	1.50	3	31	0.2	1
			268.50	270.00	W1434671	1.50	3	593	0.4	1
			270.00	271.50	W1434672	1.50	3	224	0.4	1
			271.50	273.00	W1434673	1.50	3	156	0.4	1
			273.00	274.50	W1434674	1.50	3	140	0.2	1
			274.50	276.00	W1434675	1.50	3	52	0.2	7
			276.00	277.50	W1434676	1.50	3	57	0.2	1
			277.50	279.00	W1434677	1.50	3	391	0.4	2
			279.00	280.50	W1434678	1.50	15	778	0.4	2
			280.50	282.00	W1434679	1.50	6	341	0.2	1
			282.00	283.50	W1434680	1.50	3	155	0.2	1
			283.50	285.00	W1434682	1.50	3	91	0.2	1
			285.00	286.50	W1434683	1.50	3	2	0.2	1
			286.50	288.00	W1434684	1.50	3	80	0.2	2
			288.00	289.50	W1434685	1.50	3	22	0.2	1
			289.50	291.00	W1434686	1.50	3	197	0.4	2
			291.00	292.50	W1434687	1.50	3	231	0.2	2
			292.50	294.00	W1434688	1.50	9	353	0.6	22
			294.00	295.50	W1434689	1.50	10	297	0.6	2
			295.50	297.00	W1434690	1.50	21	752	0.6	3
			297.00	298.50	W1434691	1.50	30	1,140	0.4	3
			298.50	300.00	W1434692	1.50	3	28	0.4	1
			300.00	301.50	W1434693	1.50	11	130	0.2	1
			301.50	303.00	W1434694	1.50	25	9	0.2	2
			303.00	304.50	W1434695	1.50	13	213	0.2	1

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
					Assay			
	304.50	306.00	W1434696	1.50	9	708	0.2	3
	306.00	307.50	W1434697	1.50	3	6	0.2	1
	307.50	309.00	W1434698	1.50	3	9	0.2	1
	309.00	310.50	W1434699	1.50	3	116	0.2	1
	310.50	312.00	W1434700	1.50	3	6	0.2	1
	312.00	313.50	W1434701	1.50	3	15	0.2	1
	313.50	315.00	W1434702	1.50	3	2	0.2	1
	315.00	316.50	W1434703	1.50	3	2	0.2	1
316.30 318.45 MONZ **Monzonite** Late fg monzonite to syenomonzonite dyke. Unmineralized. Sodic plag? Fg Ksp (primary). Plag mostly ≤1mm.								
316.30 318.45 SMONZ **Syenomonzonite**								
316.30 318.45 PROP **Propylitic** Relatively fresh with only late carbonate and epidote veining.	316.50	318.00	W1434704	1.50	3	1	0.2	1
	318.00	319.50	W1434705	1.50	21	491	0.7	2
318.45 322.70 TUFF **Tuff** As from 257.1-316.3m. Vuggy. <1% black sulfide(?) veinlets. Tr fg disseminated Py.								
318.45 322.70 MBSLT **Maroon Basalt**								
318.45 322.70 PROP **Propylitic** Propylitic alteration with particularly strong epidote alteration.	319.50	321.00	W1434706	1.50	6	4	0.2	1
	321.00	322.50	W1434708	1.50	3	3	0.2	1
	322.50	324.00	W1434709	1.50	6	2	0.2	1
322.70 324.00 MONZ **Monzonite** Plag porphyritic fg monzonite-syenomonzonite dyke as from 316.3-318.45m.								
322.70 324.00 SMONZ **Syenomonzonite**								
322.70 324.00 PROP **Propylitic** Relatively fresh with only late carbonate and epidote veining.								
324.00 328.20 TUFF								

Xstrata Copper Exploration

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
			Tuff Volcanics as from 257.1-316.3 but extremely altered. Trace bornite and covellite. 0.5% Py. Cp and Chalcocite in a bleb along epidote vein. Min. in magnetite and epidote clots.								
	324.00	328.20	GBSLT **Green Basalt**								
	324.00	328.20	MACE **Magnetite-Albite-Chlorite-Epidote** Extremely altered (hornfelsed, mag+epi). Magnetite and epidote clots.	324.00	325.50	W1434710	1.50	3	2	0.2	1
				325.50	327.00	W1434711	1.50	3	98	0.2	1
				327.00	328.50	W1434713	1.50	8	43	0.3	1
328.20	329.40		MONZ **Monzonite** As from 316.3-318.45.								
	328.20	329.40	SMONZ **Syenomonzonite**								
	328.20	329.40	PROP **Propylitic** Relatively fresh with only late carbonate and epidote veining. Talc(?) in bx.	328.50	330.00	W1434714	1.50	6	181	0.2	1
329.40	337.90		TUFF **Tuff** Extremely altered lapilli tuff. As 324-328.2 + 1-2% black veining +/- sulfides +/- actinolite. Very hard. Hornfelsed.								
	329.40	337.90									
	329.40	337.90	MACE **Magnetite-Albite-Chlorite-Epidote** Extremely altered (hornfelsed, mag+epi). Magnetite and epidote clots.	330.00	331.50	W1434715	1.50	3	844	0.2	1
				331.50	333.00	W1434716	1.50	3	1,270	0.3	2
				333.00	334.50	W1434717	1.50	3	324	0.2	2
				334.50	336.00	W1434718	1.50	3	2	0.2	1
				336.00	337.50	W1434719	1.50	3	2	0.2	1
				337.50	339.00	W1434720	1.50	8	2	0.2	1
337.90	340.30		MONZ **Monzonite** Dyke as 316.3-318.45. Barren. Possible trace mineralization in magnetite clot but too fg to tell. EOH.								
	337.90	340.30	SMONZ **Syenomonzonite**								
	337.90	340.30	PROP **Propylitic**	339.00	340.30	W1434722	1.30	3	3	0.2	1

Xstrata Copper Exploration

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
Relatively fresh with only late carbonate and epidote veining. Bit of magnetite alteration also.								

340.30 **End of DDH**
Number of samples: 196
Number of QAQC samples: 0
Total sampled length: 292.30

Xstrata Copper Exploration

DDH: BK-12-04

Claims title: 399035

Section:

Drilled by: Blackhawk Diamond Drilling

Described by: Sandra Rosset

From: 2012-11-23

To: 2012-11-25

Description date:

Collar

Azimuth: 100.00°

Dip: -50.00°

Length: 201.00 m

UTM NAD83 Z10

East	671,677
North	5,536,278
Elevation	1,113

Down hole survey

Type	Depth	Azimuth	Dip	Invalid
	12.00	94.40°	-50.30°	No
	12.00	94.40°	-50.30°	No
	12.00	94.40°	-50.30°	No
	51.00	93.20°	-49.90°	No
	51.00	93.20°	-49.90°	No
	51.00	93.20°	-49.90°	No
	150.00	96.20°	-47.80°	No
	150.00	96.20°	-47.80°	No
	150.00	96.20°	-47.80°	No
	201.00	95.80°	-45.80°	No
	201.00	95.80°	-45.80°	No
	201.00	95.80°	-45.80°	No

Type	Depth	Azimuth	Dip	Invalid

Description

Core size: NQ

Cemented: No

Stored: No

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
0.00	3.50		OVBD **Casing/Overburden** Casing/Overburden								
	0.00	3.50									
	0.00	3.50									
3.50	9.00		TUFF **Tuff** Tuff. Weathered/rusty oxidation zone. ~7% FeOx's, fracture coating with MnOx's. Highly fractured/rubbly througout with 10-15cm coherent rocks inbetween. Malachite tr-0.5% locally, as fracture coatings. Trace Cp locally. Fg grey aphyric protolith. Intermediate-mafic tuff likely. Vuggy.								
	3.50	9.00	FLTZ **Fault Zone**								
	3.50	9.00	FEOX **Iron Oxide** ~7% FeOx's, fracture coating with MnOx's. Predominantly Jarosite with lesser Limonite and Goethite. Magnetite clots. Minor pervasive chlorite alteration. crackled carbonate veinlets. Vuggy.	3.60	4.80	W1434723	1.20	15	187	0.2	1
				4.80	6.00	W1434724	1.20	73	2,140	0.8	2
				6.00	7.50	W1434725	1.50	13	115	0.2	1
				7.50	9.00	W1434726	1.50	29	251	0.3	2
9.00	113.50		TUFF **Tuff** Entire interval is very highly fractured and rubbly, with numerous faults thoroughout and very poor recovery. Bleached, pale and diffuse texture, highly altered with weathering and high fluid flow. Lapilli tuff protolith with sparse blocks. Many brecciated intervals. Vuggy. Ash-matrix supported. Heterolithic. Clasts are predominantly of Nicola Volcanics, with lesser diorite. Subrounded to subangular clasts. Py predominantly in veins and matrix ~5-10% (substantial decrease past ~93m). Tr Cp locally down to 50m, closely intergrown with Py. Patchy magnetism but mostly non-magnetic. Past ~102m, extremely fractured.								
	9.00	113.50	FLTZ **Fault Zone**								
	9.00	113.50	SODIC **Sodic** (Sodic-Calcic) Pervasive to blotchy/patchy	9.00	10.50	W1434727	1.50	41	459	0.3	2
				10.50	12.00	W1434728	1.50	39	442	0.2	14

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
alteration. Chloritization of Nicola Volcanics, sericitization of diorite and plag phyric rocks. Increased chlorite past ~50m (accompanied by decrease in albite). Chlorite/carbonate alteration + albite + actinolite. Past ~102m, chlorite flooded, extremely fractured and clay altered.	12.00	13.50	W1434729	1.50	24	260	0.2	6
	13.50	15.00	W1434730	1.50	19	283	0.2	4
	15.00	16.50	W1434731	1.50	22	234	0.2	1
	16.50	18.00	W1434732	1.50	22	397	0.2	1
	18.00	19.50	W1434733	1.50	57	595	0.2	3
	19.50	21.00	W1434734	1.50	52	661	0.2	5
	21.00	22.50	W1434735	1.50	64	358	0.2	1
	22.50	24.00	W1434736	1.50	39	182	0.2	1
	24.00	25.50	W1434737	1.50	33	108	0.2	1
	25.50	27.00	W1434738	1.50	36	334	0.2	1
	27.00	28.50	W1434739	1.50	129	1,560	1.3	56
	28.50	30.00	W1434740	1.50	42	541	0.4	2
	30.00	31.50	W1434741	1.50	40	268	0.2	4
	31.50	33.00	W1434742	1.50	19	259	0.2	1
	33.00	34.50	W1434743	1.50	31	203	2.2	6
	34.50	36.00	W1434744	1.50	44	325	0.4	3
	36.00	37.50	W1434745	1.50	26	273	0.2	3
	37.50	39.00	W1434746	1.50	23	175	0.2	1
	39.00	40.50	W1434747	1.50	49	329	0.2	2
	40.50	42.00	W1434749	1.50	38	667	0.5	8
	42.00	43.50	W1434750	1.50	116	1,800	0.8	17
	43.50	45.00	W1434752	1.50	60	885	0.5	7
	45.00	46.50	W1434753	1.50	13	391	0.2	15
	46.50	48.00	W1434754	1.50	9	190	0.2	4
	48.00	49.50	W1434755	1.50	22	260	0.4	3
	49.50	51.00	W1434756	1.50	27	322	0.4	8
	51.00	52.50	W1434757	1.50	18	286	0.2	6
	52.50	54.00	W1434758	1.50	19	215	0.2	5
	54.00	55.50	W1434759	1.50	23	311	0.2	6
	55.50	57.00	W1434760	1.50	32	320	0.2	4
	57.00	58.50	W1434762	1.50	47	847	0.2	6
	58.50	60.00	W1434763	1.50	39	610	0.2	11
	60.00	61.50	W1434764	1.50	33	477	0.3	7
	61.50	63.00	W1434765	1.50	26	234	0.2	8

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	63.00	64.50	W1434766	1.50	166	712	0.7	11
	64.50	66.00	W1434767	1.50	34	732	0.3	10
	66.00	67.50	W1434768	1.50	84	660	0.6	5
	67.50	69.00	W1434769	1.50	20	236	0.2	1
	69.00	70.50	W1434770	1.50	16	162	0.2	1
	70.50	72.00	W1434771	1.50	16	99	0.3	2
	72.00	73.50	W1434772	1.50	15	171	0.2	1
	73.50	75.00	W1434773	1.50	22	499	0.2	3
	75.00	76.50	W1434774	1.50	11	149	0.2	1
	76.50	78.00	W1434775	1.50	13	239	0.2	1
	78.00	79.50	W1434776	1.50	16	275	0.2	1
	79.50	81.00	W1434777	1.50	20	289	0.2	1
	81.00	82.50	W1434778	1.50	22	244	0.2	2
	82.50	84.00	W1434779	1.50	38	535	0.3	2
	84.00	85.50	W1434780	1.50	12	174	0.2	1
	85.50	87.00	W1434781	1.50	15	263	0.2	1
	87.00	88.50	W1434782	1.50	7	136	0.2	1
	88.50	90.00	W1434784	1.50	10	83	0.2	1
	90.00	91.50	W1434785	1.50	9	155	0.2	1
	91.50	93.00	W1434786	1.50	5	35	0.2	1
	93.00	94.50	W1434787	1.50	3	52	0.2	1
	94.50	96.00	W1434788	1.50	22	370	0.2	8
	96.00	97.50	W1434790	1.50	3	23	0.2	1
	97.50	99.00	W1434791	1.50	31	246	0.2	1
	99.00	100.50	W1434792	1.50	20	107	0.2	1
	100.50	102.00	W1434793	1.50	25	336	0.2	1
	102.00	103.50	W1434794	1.50	19	165	0.2	1
	103.50	105.00	W1434795	1.50	7	32	0.2	1
	105.00	106.50	W1434796	1.50	22	228	0.2	1
	106.50	108.00	W1434797	1.50	49	357	0.2	1
	108.00	109.50	W1434798	1.50	29	565	0.2	1
	109.50	111.00	W1434799	1.50	50	669	0.2	1
	111.00	112.50	W1434800	1.50	17	241	0.2	1
	112.50	114.00	W1434802	1.50	44	638	0.4	8

Xstrata Copper Exploration

Description			Assay From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
113.50	122.90	DIOR **Diorite** Unit begins at fault zone. Original phenos clay altered, subhedral, tabular and anhedral phenos. Likely plagioclase (ie. a plag porphhyritic microdiorite) with 10-15% ≤ 1mm mafics (was mag, now Hem?). Whole rocks streaks red (high hematite content). Fg diss Py 1-2%. Minor fg ksp (primary). One angular xenolith with alteration rim.								
113.50	122.90	ALT **Highly Altered Rocks**								
113.50	122.90	CLAY **Clay** Bleached, highly altered unit. Clay-Sericite+Hematite. Alteration intense enough to give mottled, brecciated texture. Intense clay and hematite alteration, sericitization and saussuritization of feldspars. Magnetite alteration to hematite. Non-magnetic now. Highly sericitized. Patchy albite alteration as well.	114.00	115.50	W1434803	1.50	32	291	0.2	44
			115.50	117.00	W1434804	1.50	60	29	0.2	1
			117.00	118.50	W1434805	1.50	19	14	0.2	5
			118.50	120.00	W1434806	1.50	8	15	0.2	1
			120.00	121.50	W1434807	1.50	24	25	0.2	5
			121.50	123.00	W1434808	1.50	16	22	0.2	3
122.90	126.90	TUFF **Tuff** Sparse lapilli tuff, Intermediate-mafic matrix, ash-supported. As from 9-113.5m. Magnetic. Py disseminated and lining fractures, with minor veins (~1%).								
122.90	126.90									
122.90	126.90	SODIC **Sodic** Intense chlorite alteration (with actinolite?) flooded groundmass and chlorite replacement of mafics. Chloritization, sericitization +/- albite +/- actinolite +/- carbonates.	123.00	124.50	W1434809	1.50	6	16	0.2	3
			124.50	126.00	W1434810	1.50	13	33	0.2	2
			126.00	127.50	W1434811	1.50	22	13	0.2	1
126.90	141.40	DIOR **Diorite** Back into a very bleached diorite unit. As from 113.5-122.9m. Extremely altered, brecciated and faulted with unbleached zones inbetween. Fg ksp (primary). Clay cemented Breccias. Py disseminated ~1-2% overall. More fg ksp in matrix than in previous unit. Around 132.5m in fault zone, becomes darker, more greenish purple with increased chlorite and fg								

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
ksp and hematite in matrix. Still plag phyric unit though (also decreased pyrite from here down), to end of interval. Still very highly fractured. Probably more of a monzodiorite composition here. Very slightly magnetic locally. Hematite rich.								
126.90 141.40 ALT **Highly Altered Rocks**								
126.90 141.40 CLAY **Clay** Intense clay alteration and sericitization/saussuritization. Clay-Sericite+Hematite. Becomes clay replaced (entirely) in fault zones. Extensive hematite. Clay cemented breccias. Around 132.5m in fault zone, becomes darker, more greenish purple with increased chlorite and fg ksp and hematite in matrix.	127.50	129.00	W1434812	1.50	3	34	0.2	4
	129.00	130.50	W1434813	1.50	3	14	0.2	1
	130.50	132.00	W1434814	1.50	7	15	0.2	3
	132.00	133.50	W1434815	1.50	3	15	0.2	14
	133.50	135.00	W1434816	1.50	3	7	0.2	1
	135.00	136.50	W1434817	1.50	3	6	0.2	1
	136.50	138.00	W1434818	1.50	10	5	0.2	1
	138.00	139.50	W1434819	1.50	3	4	0.2	1
	139.50	141.00	W1434820	1.50	61	7	0.2	1
	141.00	142.50	W1434821	1.50	14	296	0.2	24
141.40 181.20 MDIOR **Monzodiorite** Extremely bleached, highly altered plag/ortho porphyritic monzodiorite to monzonite with multiple faults thoughout units. Entire interval is extremely highly fractured with gougy fault zones and rubble throughout. As seen higher in hole. Non-magnetic. Diffuse texture due to intense alteration ≤ 10% sub-mm mafics. Sections are fg-mg equigranular, but mostly is plag phyric to sodic plag porphyritic. Can't get fresh surface. Phenos to 2-3mm in porph. intervals. 175.6-176.5m is sheared, mylonite, clay and fine rock flour, ending in breccias (as 171.1-171.6). Trace disseminated Py. Very minor ankerite locally in fault zone.								
141.40 181.20 MONZ **Monzonite**								
141.40 181.20 CLAY **Clay** High fluid flow, intense clay alteration, sericitization and lesser saussuritization (as seen higher in the hole). Hematite alteration pervasive - disseminated from mag alteration	142.50	144.00	W1434822	1.50	38	608	0.6	59
	144.00	145.50	W1434823	1.50	3	24	0.2	2
	145.50	147.00	W1434825	1.50	26	229	0.2	7
	147.00	148.50	W1434826	1.50	25	33	0.2	7
	148.50	150.00	W1434827	1.50	3	14	0.2	1

Xstrata Copper Exploration

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
likely. Many intervals completely clay replaced/pervasive. Feldspar phenos clay replaced	150.00	151.50	W1434828	1.50	10	12	0.2	1
	151.50	153.00	W1434829	1.50	17	23	0.2	1
	153.00	154.50	W1434831	1.50	20	9	0.2	1
	154.50	156.00	W1434832	1.50	28	121	0.2	1
	156.00	157.50	W1434833	1.50	15	7	0.2	1
	157.50	159.00	W1434834	1.50	13	45	0.2	1
	159.00	160.50	W1434835	1.50	15	43	0.2	1
	160.50	162.00	W1434836	1.50	30	239	0.2	10
	162.00	163.50	W1434837	1.50	57	418	0.4	1
	163.50	165.00	W1434838	1.50	11	55	0.2	1
	165.00	166.50	W1434839	1.50	3	4	0.2	1
	166.50	168.00	W1434840	1.50	6	47	0.2	1
	168.00	169.50	W1434842	1.50	5	6	0.2	1
	169.50	171.00	W1434843	1.50	3	7	0.2	1
	171.00	172.50	W1434844	1.50	27	4	0.2	1
	172.50	174.00	W1434845	1.50	37	14	0.2	1
	174.00	175.50	W1434846	1.50	43	19	0.2	1
	175.50	177.00	W1434847	1.50	19	13	0.2	1
	177.00	178.50	W1434848	1.50	107	2,400	1.8	79
	178.50	180.00	W1434849	1.50	7	125	0.2	1
	180.00	181.50	W1434850	1.50	18	800	0.8	1
181.20 195.20 ALT **Highly Altered Rocks** Unit begins in fault zone. As above with intense clay alteration but phenos are now coarse (up to 7mm), euhedral to subhedral, ~15-20%, still clay replaced but shape is less tabular, more stubby with square to hexagonal cross sections…are opaque white. This unit runs into the next one where the augites look nearly identical in shape and size... pseudomorphs after augite? Or an orthoclase porphyritic monzonite intrusive?? May be a coarse augite phyric flow unit.. (?). That has been extremely bleached/altered. Still highly fractured with multiple faults and mylonite. Tr Py locally.								
181.20 195.20 GBSLT **Green Basalt**								

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
181.20 195.20 CLAY **Clay** Clay-Sodic: extremely bleached/altered unit. Increased albite alteration from previous unit. Increased chlorite from previous interval.	181.50	183.00	W1434851	1.50	14	483	0.3	13
	183.00	184.50	W1434852	1.50	9	469	0.4	7
	184.50	186.00	W1434853	1.50	12	539	0.5	5
	186.00	187.50	W1434854	1.50	3	84	0.2	1
	187.50	189.00	W1434855	1.50	8	93	0.2	2
	189.00	190.50	W1434856	1.50	7	11	0.2	1
	190.50	192.00	W1434857	1.50	538	162	0.7	1
	192.00	193.50	W1434858	1.50	6	52	0.2	1
	193.50	195.00	W1434859	1.50	3	17	0.2	2
	195.00	196.50	W1434860	1.50	3	5	0.2	1
195.20 201.00 GBSLT **Green Basalt** Coarse augite-phyric basalt. Augites to 7mm, euhedral to subhedral, with square and hexagonal cross-sections visible. Gradational contact from bleached clay/saussuritized phenos in past interval into the progressively darker, chlorite altered phenos in this unit. Phenos ~ 15%. Gm is fg dark green chlorite altered. Fg black sulfide veinlets ~2%. Quartz infilled amygdules locally. Py only visible in veinlets (very fg). Very hard, hornfelsed? Magnetic (weak-moderate). EOH.								
195.20 201.00								
195.20 201.00 PROP **Propylitic** Gm is fg dark green chlorite altered. Patchy epidote alteration.	196.50	198.00	W1434861	1.50	6	18	0.2	1
	198.00	199.50	W1434862	1.50	3	5	0.2	1
	199.50	201.00	W1434863	1.50	7	23	0.2	1

201.00 **End of DDH**
Number of samples: 132
Number of QAQC samples: 0
Total sampled length: 197.40

Xstrata Copper Exploration

DDH: BK-12-05

Claims title: 399035

Section:

Drilled by: Blackhawk Diamond Drilling

Described by: Sandra Rosset

From: 2012-11-25

To: 2012-11-28

Description date:

Collar

Azimuth: 240.00°

Dip: -50.00°

Length: 387.00 m

UTM NAD83 Z10

East	672,385
North	5,536,603
Elevation	1,143

Down hole survey

Type	Depth	Azimuth	Dip	Invalid
	21.00	226.10°	-49.10°	No
	21.00	226.10°	-49.10°	No
	21.00	226.10°	-49.10°	No
	51.00	223.80°	-48.50°	No
	51.00	223.80°	-48.50°	No
	51.00	223.80°	-48.50°	No
	150.00	226.40°	-44.40°	No
	150.00	226.40°	-44.40°	No
	150.00	226.40°	-44.40°	No
	351.00	231.40°	-34.40°	No
	351.00	231.40°	-34.40°	No
	351.00	231.40°	-34.40°	No

Type	Depth	Azimuth	Dip	Invalid

Description

Core size: NQ

Cemented: No

Stored: No

Xstrata Copper Exploration

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
0.00	15.00		OVBD **Casing/Overburden** Casing/Overburden								
	0.00	15.00									
	0.00	15.00									
15.00	50.30		TUFF **Tuff** Heterolithic, poorly sorted lapilli tuff. Nicola Central Group volcanics. Matrix-ash tuff supported. Minor blocks. 1-45mm lapilli of Nicola volcanics and sparse intrusive clasts. Subrounded to sub-angular. Alteration rims on a few clasts (later propylitic fluids). Some highly fractured rocks and 2 minor faults ~18m, then rocks become quite coherent. Clasts mostly of volcanic origin. Crudely size sorted, average ~5-10mm. Weakly magnetic. Hard. Trace fg disseminated Py in a few clasts.								
	15.00	50.30									
	15.00	50.30	PROP **Propylitic** Alteration rims on a few clasts (later propylitic fluids). Very weak alteration - propylitic, ie. minor carb, epi > chlorite. FeOx coatings on fractures down to ~21m (mainly Jarosite, lesser Limonite and Goethite).								
50.30	65.40		FLTZ **Fault Zone** Fault/Shear zone with coherent rocks inbetween as in above unit from 15-50.3m (ie. maroon intermediate-mafic lapilli tuff). Multiple low-angle faults throughout with brecciated intervals, mylonites, cataclasites and fault breccia. Foliation at 20-35degrees to core axis. Soft. Tr Py locally, disseminated, as fracture coatings, and veins.								
	50.30	65.40									
	50.30	65.40	CLAY **Clay** Hematite/Clay. Minor rhodochrosite in Qtz-Carb-Hem-Rhodochrosite veining.								
65.40	87.45		TUFF								

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
Tuff Dark red maroon to more grey lapilli tuff as seen above. Same stuff but with minor, ~1-2m intercalated, bedded ash tuff and crystal tuff interbeds. Bedding foliation at 40 degrees to core axis. Faulting and highly fractured from ~79.3-81.3m. Weakly magnetic. Hard, hornfelsed. As above. Clasts still predominantly volcanics, lesser diorite-monzonite. Tr Py disseminated. Well-sorted, graded bedding, coarse ash tuffs, fine lapilli tuffs to coarser lapilli tuffs.								
65.40 87.45								
65.40 87.45 PROP **Propylitic** Propylitic alteration.								
87.45 105.00 TUFF **Tuff** Mostly an alteration break. Unit is as 65.4-87.45m, just into green-gray lapilli and intercalated ash tuffs. Submarine? Just lacking the hematite, with instead stronger chlorite and epidote alteration. Hematite/specular hematite on fractures. Small fault at 95.9m. Fine lapilli tuff grades into ash tuff (coarse), and then into a coarser, more poorly sorted lapilli tuff. Weakly magnetic. Hard. Hornfelsed. Lapilli also more angular. Trace disseminated Pyrite.								
87.45 105.00								
87.45 105.00 PROP **Propylitic** As above unit, but without the hematite, with instead stronger chlorite and epidote alteration.								
105.00 110.40 ALT **Highly Altered Rocks** Highly altered volcanics. 105.3-106.3m is a quartz and clay massive vein and subsequent brecciation, with mottled, intense clay alteration thereafter. 106.3-110.4m is crystal tuff with patchy epidote and fg ksp alteration. Blebby Py in Qtz vein ~0.5-1%. Hornfelsed. Recrystallized?								
105.00 110.40								
105.00 110.40 PROP	105.00	106.50	W1434864	1.50	26	244	0.2	1

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
Propylitic Propylitic/Clay Alteration. Highly altered volcanics. 105.3-106.3m is a quartz and clay massive vein with mottled, intense clay alteration thereafter. 106.3-110.4m is crystal tuff with patchy epidote and fg ksp alteration.	106.50	108.00	W1434866	1.50	37	30	0.2	1
	108.00	109.50	W1434867	1.50	46	7	0.2	1
	109.50	111.00	W1434869	1.50	9	112	0.2	1
110.40 113.85 MONZ **Monzonite** Clay altered/bleached sections (completely clay altered with quartz-carbonate-chlorite veining) separated by a central zone of plagioclase porphyritic maroon rx. Strongly magnetic. Blebby Cp in Qtz-Chl-Carb veins within clay interval 110.4-111 @ 0.5-1%. Fg ksp in monzonite and hematite with disseminated Py ~0.5%. Py i Qtz vein also with trace arsenopyrite. Tr Cp locally. Interval ends in ~0.7m highly fractured rocks, then fault.								
110.40 113.85 ALT **Highly Altered Rocks**								
110.40 113.85 CLAY **Clay** Clay altered/bleached sections (completely clay altered with quartz-carbonate-chlorite veining). Sericitized. Blebby Cp in Qtz-Chl-Carb veins within clay interval 110.4-111 @ 0.5-1%. Saussuritization and sericitization of plag.	111.00	112.50	W1434870	1.50	31	142	0.2	1
	112.50	114.00	W1434871	1.50	20	441	0.2	1
113.85 125.60 MONZ **Monzonite** Crowded, plagioclase porphyritic monzonite. Sharp, distinct, wavy contact into subsequent unit. Plag crowded @ ~40%, to 4mm, euhedral. ~10% sub-mm mafics. Magnetic. Fg ksp in gm and hematite. Some flow alignement locally (trachytic texture). One large, embayed xenolith of fg intermediate volcanics (baked). Hard. Also hornblende visible locally (fine). Py tr-0.5% disseminated. Tr Cp at end of interval on contact.								
113.85 125.60								
113.85 125.60 PROP **Propylitic** Relatively unaltered, quite fresh. Chlorite replaced mafics. Minor epidote replacement of plag.	114.00	115.50	W1434872	1.50	25	469	0.2	3
	115.50	117.00	W1434873	1.50	10	115	0.2	1
	117.00	118.50	W1434874	1.50	6	22	0.2	1

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	118.50	120.00	W1434875	1.50	6	2	0.2	1
	120.00	121.50	W1434876	1.50	5	2	0.2	1
	121.50	123.00	W1434877	1.50	9	42	0.2	1
	123.00	124.50	W1434878	1.50	16	24	0.2	2
	124.50	126.00	W1434879	1.50	11	59	0.2	2
125.60 158.50 TUFF **Tuff** Nicola Central Group Volcanics (tuff/flow). Augite phyric crystal tuff, ~1m of amygdaloidal flow rocks, then into lapilli tuff thereafter. Augite phyric (sparsely). Py veining, up to 2% locally. Cp blebs to 2% over 10cm @130.1-130.2m, otherwise only trace locally. Up to 2% black sulfide/actinolite veining/potassic fluids (ksp+bio) to 130.5m. Hornfelsed volcanics (similar appearnce to microdiorite). Tr-0.5% Py disseminated locally (minor). Nonmagnetic - alteration to hematite. Heterolithic. Matrix supported. Lapilli generally, a few blocks. Sparse overall. Hornfelsing and patchy alteration make it hard to tell whether its patchy alteration on a microdiorite or a sparse lapilli tuff. Fg silver metallic mineral tr-0.5% disseminated (non-magnetic).								
125.60 158.50 GBSLT **Green Basalt**								
125.60 158.50 PROP **Propylitic** Moderate propylitic alteration with chlorite replacement and patchy epidote and minor carbonate veining. Fg gm is weathered with a sugary texture and strong epdote/chlorite alteration. Minor rhodochrosite veining. Minor patchy ksp (aplite - qtz). Fg ksp in matrix locally (clasts or microdiorite-monzonite). Up to 2% black sulfide/act veining/potassic fluids (ksp+bio) to 130.5m. Hematite alteration. Hornfelsing and patchy alteration make it hard to tell whether its patchy alteration on a microdiorite or a sparse lapilli tuff.	126.00	127.50	W1434880	1.50	14	258	0.2	2
	127.50	129.00	W1434882	1.50	11	328	0.2	1
	129.00	130.50	W1434883	1.50	34	1,780	0.6	1
	130.50	132.00	W1434884	1.50	12	23	0.2	1
	132.00	133.50	W1434885	1.50	26	12	0.2	1
	133.50	135.00	W1434886	1.50	13	6	0.2	1
	135.00	136.50	W1434887	1.50	14	6	0.2	1
	136.50	138.00	W1434888	1.50	10	10	0.2	1
	138.00	139.50	W1434889	1.50	14	11	0.2	1
	139.50	141.00	W1434890	1.50	10	2	0.2	1
	141.00	142.50	W1434891	1.50	7	5	0.2	1
	142.50	144.00	W1434892	1.50	6	4	0.2	1
	144.00	145.50	W1434893	1.50	8	4	0.2	1

Description			From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
			145.50	147.00	W1434894	1.50	3	2	0.2	1
			147.00	148.50	W1434895	1.50	3	2	0.2	1
			148.50	150.00	W1434896	1.50	3	2	0.2	1
			150.00	151.50	W1434897	1.50	3	2	0.2	1
			151.50	153.00	W1434898	1.50	10	3	0.2	1
			153.00	154.50	W1434899	1.50	3	2	0.2	1
			154.50	156.00	W1434900	1.50	11	4	0.2	1
			156.00	157.50	W1434901	1.50	9	11	0.2	1
			157.50	159.00	W1434902	1.50	12	74	0.2	1
158.50	164.50	GBSLT **Green Basalt** Augite and plagioclase phyric andesitic basalt flow. Coarse euhedral to subhedral augites to 7mm, stubby tabular crystals with square cross-sections (20-25%). Plagioclase, euhedral to subhedral, to 3mm, local trachytic texture, ~25%. Weakly magnetic. Could potentially be an intrusive unit; contacts obscured by veining. Trace Py locally, essentially unmineralized.								
158.50	164.50	MBSLT **Maroon Basalt**								
158.50	164.50	PRPO **Propylitic over Potassic** Weak saussuritization of plag. Chlorite replacement of augite.	159.00	160.50	W1434903	1.50	6	137	0.2	1
			160.50	162.00	W1434904	1.50	9	117	0.2	1
			162.00	163.50	W1434906	1.50	10	78	0.2	1
			163.50	165.00	W1434907	1.50	17	873	0.7	1
164.50	193.90	FLTZ **Fault Zone** Fault/Shear zone with multiple zones of faulting, brecciation, cataclasite and lesser rubble. These zones are separated by coherent volcanics as seen in the above unit. Highly altered but appear to be intermediate-mafic crystal tuffs, with a minor monzonite unit from ~190.5-191.6m. Extensive carbonate>chlorite vein brecciation at low angle to core axis from 164.5 to 171m. First appearance of Bornite @174.2m within a quartz-albite-clay-carb-chl breccia. From 174.2m down core is more competent, except for 180.8 to 184m, which is brecciated with clay-carb-quartz-alb-ksp-hem-chl alteration and features bornite and Cp. 188.1-189.5m is highly								

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
fractured with gougy fault zones. Two major faults at 191.75m, and 193.7m, each featuring 8-15cm of gouge! Bright purplish red hematite + ?? veining, saw submetallic red mineral in with the veins at one point (bornite?). Bornite intergrown with hematite in hem-car veins +/-Cp. 174-174.25: 1% Bor with Cp. 178.5-180m: 1-2% Bor with Cp. 187.8-188.15m: 2-4% Bor. Chalcopyrite 0.5-1% over ~1m, up to 3% over 0.5m intervals throughout. Py tr-0.5% locally.								
164.50 193.90 VBX **Vein Breccia**								
164.50 193.90 PRPO **Propylitic over Potassic** Propylitic over Potassic/Clay alteration. Alteration is mainly carb-chl-epidote +/- quartz-albite-ksp-ankerite-hematite +/- pyrophyllite(?). 172.5 to 174.5 is more clay/quartz/albite and hematite altered with ksp. From 174.2m down alteration is more chlorite dominated. 180.8 to 184m, is brecciated with clay-carb-quartz-alb-ksp-hem-chl alteration.	165.00	166.50	W1434908	1.50	18	48	0.2	1
	166.50	168.00	W1434909	1.50	9	61	0.2	1
	168.00	169.50	W1434910	1.50	30	1,700	1.1	1
	169.50	171.00	W1434912	1.50	35	434	0.2	1
	171.00	172.50	W1434913	1.50	18	312	0.2	1
	172.50	174.00	W1434914	1.50	16	266	0.2	1
	174.00	175.50	W1434915	1.50	52	1,990	5.5	56
	175.50	177.00	W1434916	1.50	467	389	0.4	2
	177.00	178.50	W1434917	1.50	1,390	7,630	11.9	1
	178.50	180.00	W1434918	1.50	2,600	5,700	9.8	7
	180.00	181.50	W1434919	1.50	13	304	0.2	2
	181.50	183.00	W1434920	1.50	22	191	0.2	1
	183.00	184.50	W1434922	1.50	368	2,770	1.6	1
	184.50	186.00	W1434923	1.50	32	488	0.2	1
	186.00	187.50	W1434924	1.50	14	189	0.2	1
	187.50	189.00	W1434925	1.50	5,040	7,000	8.8	8
	189.00	190.50	W1434926	1.50	272	129	0.2	1
	190.50	192.00	W1434927	1.50	24	186	0.2	1
	192.00	193.50	W1434928	1.50	17	514	0.4	1
	193.50	195.00	W1434929	1.50	21	2,620	2.6	1
193.90 214.60 TUFF **Tuff** Fine intermediate-mafic sparsely crystal lithic tuff with augite and plag phenos ≤ 1mm @ ~10% combined. Py disseminated and on fractures/veins 0.5-1% locally. Minor fg black veining (+/- sulfides)								

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
locally (to 2%). Local vein brecciation. From 200.5-201.5m is faulted/fractured with clay-hem-carb vein breccia. Very highly fractured from 207-213m. 204.28-204.56m and 207-207.27m are hem-carb-chl>qtz-clay-py vein breccias. 207.7-209m: cp disseminated and on fracs ~1-2% with a 2cm magnetite-carb-cp-epi-ksp vein @209m. +0.5% cp from diss/fracture/vein there to end of interval. Syenite dykelet @211.6m (~10cm width) with py and cp mineralization.								
193.90 214.60 VBX **Vein Breccia**								
193.90 214.60 MACE **Magnetite-Albite-Chlorite-Epidote** Augites (chlorite replaced) and plag (epi replaced) phenos. Minor rhodochrosite veining with epi-carb-ksp. Local vein brecciation and mottled intense epi-carb-ksp alteration + hematite. From 200.5-201.5m is faulted/fractured with clay-hem-carb vein breccia.	195.00	196.50	W1434930	1.50	7	195	0.2	1
	196.50	198.00	W1434931	1.50	14	71	0.2	2
	198.00	199.50	W1434932	1.50	3	15	0.2	1
	199.50	201.00	W1434933	1.50	19	26	0.2	1
	201.00	202.50	W1434934	1.50	3	20	0.2	1
	202.50	204.00	W1434935	1.50	3	29	0.2	1
	204.00	205.50	W1434936	1.50	13	22	0.2	1
	205.50	207.00	W1434937	1.50	17	181	0.6	1
	207.00	208.50	W1434938	1.50	83	2,420	0.5	2
	208.50	210.00	W1434939	1.50	41	688	0.5	4
	210.00	211.50	W1434940	1.50	154	2,240	1.5	5
	211.50	213.00	W1434941	1.50	24	1,250	0.6	1
	213.00	214.50	W1434942	1.50	3	44	0.2	1
	214.50	216.00	W1434943	1.50	129	105	0.6	1
214.60 215.80 FLTZ **Fault Zone** Bleached, intensely clay altered fault/shear zone with multiple faults (one with 11cm gravelly gouge), and extensive quartz-clay-carb-chl-py brecciation and veining. Py>Cp. Py mostly in veins ~1% overall. Lesser Cp, in quartz veins, tr-0.3% overall.								
214.60 215.80 VBX **Vein Breccia**								
214.60 215.80 CLAY **Clay** Clay-Quartz alteration. Bleached, intensely clay altered fault/shear zone with extensive								

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
quartz-clay-carb-chl-py brecciation and veining.								
215.80 316.65 TUFF **Tuff** Nicola Central Group Volcanics. Fg sparsely augite (<5%, ≤1mm) crystal tuffs, fg flow units and heterolithic lapilli tuffs. Magnetic locally. Predominantly lapilli tuffs. Several highly fractured intervals thoughout, but mostly rocks are quite coherent. Alteration obscures clasts, but appear to be all clasts of Nicola volcanics, with the exception of lesser monzonite dyke clasts. 234.35-237m, 264.1-267.52 and 283.9-289, 310.1 to 312.03m, are plagioclase porphyritic (to 2-3mm, @20%, subhedral) medium-grained, with hornblende phyric dykes (monzonite) to syenomonzonite with fg ksp in gm, with local flow alignment, and chloritized mafics (<7%). Sharp, wavy contacts. Locally black sulfide veinlets to 2-3% over several meters, throughout interval. Tr-0.5% disseminated py and veins (not including veins). Tr Cp locally. Cp clots in a mottled 10cm qtz-carb-chl altered patch @305.8m.								
215.80 316.65 GBSLT **Green Basalt**								
215.80 316.65 PROP **Propylitic** Weak to strong propylitic alteration, stronger in lapilli tuffs (very strong alteration). Mag-epi-carb-chl alteration. Epidote replacment of plag in monzonite dykes and lesser, weak saussuritization. Clay/carb/chl rhodochrosite 6cm vein @314m (barren).	216.00	217.50	W1434945	1.50	27	217	0.4	1
	217.50	219.00	W1434946	1.50	37	321	0.2	1
	219.00	220.50	W1434947	1.50	88	487	0.6	1
	220.50	222.00	W1434948	1.50	77	2,040	0.7	24
	222.00	223.50	W1434949	1.50	29	867	0.5	1
	223.50	225.00	W1434951	1.50	3	9	0.2	1
	225.00	226.50	W1434952	1.50	3	4	0.2	1
	226.50	228.00	W1434953	1.50	3	3	0.2	1
	228.00	229.50	W1434954	1.50	3	304	0.2	1
	229.50	231.00	W1434955	1.50	9	113	0.2	2
	231.00	232.50	W1434956	1.50	12	6	0.2	1
	232.50	234.00	W1434957	1.50	3	15	0.2	1
	234.00	235.50	W1434958	1.50	48	890	0.4	1
	235.50	237.00	W1434959	1.50	30	780	0.2	2
	237.00	238.50	W1434960	1.50	9	160	0.2	1

Xstrata Copper Exploration

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	238.50	240.00	W1434962	1.50	14	1,330	0.2	8
	240.00	241.50	W1434963	1.50	3	13	0.2	1
	241.50	243.00	W1434964	1.50	3	2	0.2	1
	243.00	244.50	W1434965	1.50	3	3	0.2	1
	244.50	246.00	W1434966	1.50	3	90	0.2	3
	246.00	247.50	W1434967	1.50	3	43	0.2	1
	247.50	249.00	W1434968	1.50	8	135	0.2	1
	249.00	250.50	W1434969	1.50	3	50	0.2	1
	250.50	252.00	W1434970	1.50	3	33	0.2	2
	252.00	253.50	W1434971	1.50	3	318	0.5	1
	253.50	255.00	W1434972	1.50	3	280	0.2	2
	255.00	256.50	W1434973	1.50	3	556	0.2	8
	256.50	258.00	W1434974	1.50	3	106	0.2	1
	258.00	259.50	W1434975	1.50	3	5	0.2	1
	259.50	261.00	W1434976	1.50	10	19	0.2	2
	261.00	262.50	W1434977	1.50	3	228	0.2	1
	262.50	264.00	W1434978	1.50	3	157	0.2	1
	264.00	265.50	W1434979	1.50	3	24	0.2	1
	265.50	267.00	W1434980	1.50	3	264	0.2	5
	267.00	268.50	W1434981	1.50	3	41	0.2	1
	268.50	270.00	W1434982	1.50	3	314	0.2	1
	270.00	271.50	W1434983	1.50	3	8	0.2	1
	271.50	273.00	W1434984	1.50	8	21	0.2	1
	273.00	274.50	W1434985	1.50	3	11	0.2	1
	274.50	276.00	W1434986	1.50	3	486	0.2	5
	276.00	277.50	W1434988	1.50	3	1,110	0.2	6
	277.50	279.00	W1434989	1.50	3	615	0.4	6
	279.00	280.50	W1434991	1.50	3	152	0.2	7
	280.50	282.00	W1434992	1.50	3	390	0.2	4
	282.00	283.50	W1434993	1.50	3	3	0.2	1
	283.50	285.00	W1434994	1.50	3	4	0.2	1
	285.00	286.50	W1434995	1.50	3	39	0.2	1
	286.50	288.00	W1434996	1.50	3	35	0.2	2
	288.00	289.50	W1434997	1.50	3	7	0.2	1

Description	Assay							
	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	289.50	291.00	W1434998	1.50	3	1	0.2	4
	291.00	292.50	W1434999	1.50	3	1	0.2	1
	292.50	294.00	W1435000	1.50	7	277	0.2	4
	294.00	295.50	W1435002	1.50	3	9	0.2	1
	295.50	297.00	W1435003	1.50	3	16	0.2	2
	297.00	298.50	W1435004	1.50	9	113	0.2	9
	298.50	300.00	W1435005	1.50	15	3	0.2	1
	300.00	301.50	W1435006	1.50	29	292	0.2	38
	301.50	303.00	W1435007	1.50	6	18	0.2	2
	303.00	304.50	W1435008	1.50	8	50	0.2	1
	304.50	306.00	W1435009	1.50	12	435	0.2	14
	306.00	307.50	W1435010	1.50	10	272	0.2	5
	307.50	309.00	W1435011	1.50	3	29	0.2	1
	309.00	310.50	W1435012	1.50	20	364	0.2	22
	310.50	312.00	W1435013	1.50	6	67	0.2	1
	312.00	313.50	W1435014	1.50	7	73	0.2	2
	313.50	315.00	W1435015	1.50	15	394	0.2	1
	315.00	316.50	W1435016	1.50	3	46	0.2	1
	316.50	318.00	W1435017	1.50	10	354	0.2	1
316.65 327.35 ALT **Highly Altered Rocks** Highly altered and bleached zone; unrecognizable protolith. Intercalated between same volcanics so is likely the same unit. Only a couple of minor faults and is coherent throughout. Minor brecciation. Cp diss and on fractures/veins 1-1.5% overall. Py 0.5-1% overall, same stle. Locally magnetic (magnetite patches). 70-80deg foliation with monzonite.								
316.65 327.35 TUFF **Tuff**								
316.65 327.35 CCC **Clay-Chlorite-Carbonate** Clay-Carbonate-Chlorite-Hematite > Albite-Quartz-Ksp. Highly altered and bleached zone featuring pervasive clay alteration and intense mottled alteration texture with unrecognizable protolith. Very minor rhodochrosite.	318.00	319.50	W1435018	1.50	6	393	0.2	1
	319.50	321.00	W1435019	1.50	10	1,340	0.2	1
	321.00	322.50	W1435020	1.50	8	357	0.2	1
	322.50	324.00	W1435021	1.50	10	78	0.2	1
	324.00	325.50	W1435022	1.50	56	281	0.2	1
	325.50	327.00	W1435023	1.50	68	1,850	1.2	6

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
	327.00	328.50	W1435024	1.50	31	223	0.3	1
327.35 342.20 TUFF **Tuff** Lapilli tuff. Intermediate-mafic. As in above volcanic unit (215.8-316.65m). Black sulfide veining 1-3% overall. Minor intercalated ash tuff. Hard, hornfelsed volcanics. Strongly magnetic. Py disseminated and lining fractures 0.5-1%. Cp tr-0.5% locally.								
327.35 342.20 ALT **Highly Altered Rocks**								
327.35 342.20 PROP	328.50	330.00	W1435025	1.50	40	242	0.4	1
Propylitic	330.00	331.50	W1435026	1.50	31	258	0.2	4
Strong propylitic alteration. Minor Rhodochrosite-hematite veining.	331.50	333.00	W1435028	1.50	34	317	0.2	2
	333.00	334.50	W1435029	1.50	9	97	0.2	1
	334.50	336.00	W1435030	1.50	31	489	0.2	4
	336.00	337.50	W1435032	1.50	15	157	0.2	1
	337.50	339.00	W1435033	1.50	35	445	0.2	1
	339.00	340.50	W1435034	1.50	41	899	0.4	4
	340.50	342.00	W1435035	1.50	73	1,640	0.4	3
	342.00	343.50	W1435036	1.50	29	1,070	0.4	3
342.20 347.60 MDIOR **Monzodiorite** Medium-grained to plag porphyritic monzodiorite to monzonite dyke. Sharp, wavy contacts. Fg primary ksp. Chilled margin/baked contact on dyke contacts with country rocks. Tough to get a fresh surface. Relatively hard. Minor black sulfide/potassic veining. Cp>Py ~0.5% disseminated locally and on fracs. Py ~0.5% or less. Magnetic. Hem-Carb-Chl veining on fault (minor fault sub-1mm gouge).								
342.20 347.60 MONZ **Monzonite**								
342.20 347.60 SODIC	343.50	345.00	W1435037	1.50	23	1,030	0.3	3
Sodic	345.00	346.50	W1435038	1.50	26	1,820	0.6	4
Highly altered. Sodic/Propylitic. Chlorite replaced mafics. Alteration may be slightly less than surrounding rocks but pretty much the same. Albite/actinolite alteration? Minor black sulfide/potassic veining Epidote replacement of plag. Hem-Carb-Chl veining on fault (minor fault	346.50	348.00	W1435039	1.50	17	909	0.2	3

Description	From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
sub-1mm gouge).								
347.60 362.00 TUFF **Tuff** Intermediate-mafic (Nicola Central Group) lapilli Tuff. 347.68 to 347.89 is minor brecciated clay altered hem-carb-alb-chl veined fault zone (coherent). Heterolithic lapilli tuff features monzonite fragemnts at start of interval, then primarily volcanic clasts (and lesser diorite); lapilli rounded. Minor fg-mg tuff. Local bedding. Magnetic. Black sulfide/actinolite veining ~1.5% overall. Py disseminated and on fractures tr-0.5% to ~357m, then up to ~3% to end of interval. No visible Cp.								
347.60 362.00 VBX **Vein Breccia**								
347.60 362.00 PROP **Propylitic** Propylitic/Sodic + Mag. Strong patchy propylitic alteration and ca-na sodic alb/act. Black sulfide/actinolite veining ~1.5% overall. Lapilli are rounded and epidote flooded often.	348.00	349.50	W1435040	1.50	14	1,530	0.6	2
	349.50	351.00	W1435042	1.50	5	55	0.2	8
	351.00	352.50	W1435043	1.50	6	160	0.2	9
	352.50	354.00	W1435044	1.50	3	19	0.2	1
	354.00	355.50	W1435045	1.50	3	29	0.2	6
	355.50	357.00	W1435046	1.50	3	102	0.2	14
	357.00	358.50	W1435047	1.50	3	117	0.2	6
	358.50	360.00	W1435048	1.50	3	279	0.2	6
	360.00	361.50	W1435049	1.50	3	106	0.2	1
	361.50	363.00	W1435050	1.50	14	599	0.4	3
362.00 365.00 MONZ **Monzonite** Mg monzonite dyke similar to 342.2-347.6m but with more equigranular texture and greatly increased fg ksp in groundmass. Magnetic. Disseminated Py tr-0.5%.								
362.00 365.00								
362.00 365.00 PROP **Propylitic** Propylitic/Sodic + Mag. Epidote replacement of plag. Chlorite replacing mafics. Hem on frac's with minor specular hematite.	363.00	364.50	W1435051	1.50	25	1,050	1.0	1
	364.50	366.00	W1435052	1.50	23	897	1.0	4
365.00 387.00 TUFF **Tuff**								

Xstrata Copper Exploration

Description				From	To	Number	Length	Au (ppb)	Cu (ppm)	Ag (ppm)	Mo (ppm)
365.00	387.00		Intermediate-mafic lapilli tuff as seen above. Lesser interbedded crystal tuffs. Heterolithic. Matrix (ash tuff) supported. Mostly volcanic lapilli, lesser monzonite/diorite. Augite phyric and plag phyric crystal tuffs. Hematite veining and patches. Minor rhodochrosite in Hem-carb-chl veins associated with minor faults. Weak-moderately magnetic. Possible microdiorite dykes/dykelets but could just be larger blocks - no distinct margins or clear contacts visible due to alteration. Tr Cp locally on fractures, + ~2% at 379.4-379.9. Minor black sulfide veining <0.5%. Py disseminated and on fractures 0.5% locally. EOH								
365.00	387.00	SODIC **Sodic** Sodic/Propylitic. Hematite veining and patches. Minor rhodochrosite in Hem-carb-chl veins association with minor faults. Small potassically altered zone at 379.4-379.9 that features Qtz-ksp-magnetite alteration +/- actinolite.		366.00	367.50	W1435053	1.50	28	1,050	0.6	1
				367.50	369.00	W1435054	1.50	7	27	0.2	1
				369.00	370.50	W1435055	1.50	3	8	0.2	1
				370.50	372.00	W1435056	1.50	3	6	0.2	1
				372.00	373.50	W1435057	1.50	6	18	0.2	1
				373.50	375.00	W1435058	1.50	3	5	0.2	1
				375.00	376.50	W1435059	1.50	3	1	0.2	1
				376.50	378.00	W1435060	1.50	3	2	0.2	1
				378.00	379.50	W1435061	1.50	3	26	0.2	2
				379.50	381.00	W1435062	1.50	27	805	0.4	2
				381.00	382.50	W1435063	1.50	3	14	0.2	1
				382.50	384.00	W1435064	1.50	6	177	0.2	2
				384.00	385.50	W1435065	1.50	3	294	0.3	1
				385.50	387.00	W1435066	1.50	3	24	0.2	1

387.00 **End of DDH**

Number of samples: 188

Number of QAQC samples: 0

Total sampled length: 282.00

Appendix E

Rock Geochemistry Assays & Sample Descriptions

Quality Analysis ... *Innovative Technologies*

Date Submitted:	04-Oct-12
Invoice No.:	A12-11028
Invoice Date:	22-Oct-12
Your Reference:	BIG KIDD

Xstrata Copper Exploration
10050 Hwy 101E
Timmins Ontario
Canada

ATTN: Sandra Rosset

CERTIFICATE OF ANALYSIS

122 Crushed Rock samples were submitted for analysis.

The following analytical packages were requested:

Code 1A2 Au - Fire Assay AA
Code 1A3 Au - Fire Assay Gravimetric (QOP AA-Au)
Code 1E3 Aqua Regia ICP(AQUAGEO)
Code 1F2 Total Digestion ICP(TOTAL)
Code 4C (11+) Whole Rock Analysis-XRF

REPORT **A12-11028**

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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY :

Emmanuel Eseme , Ph.D.
Quality Control

ISO/IEC 17025
SCC Accredited
LAB 266
LAB 266
Accrédité CCN

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Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La	Mg
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	%
Detection Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10	0.01
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
828-1A	6																							
828-1B	< 5																							
826-2	< 5																							
828-3	< 5																							
828-4	8	< 0.2	< 0.5	13	725	1	15	< 2	35	2.57	4	< 10	67	< 0.5	< 2	2.67	31	53	4.32	< 10	< 1	0.17	< 10	1.86
828-5	< 5																							
828-6	9	< 0.2	< 0.5	36	757	< 1	16	< 2	38	2.50	3	< 10	73	< 0.5	< 2	2.31	32	57	4.64	< 10	< 1	0.40	< 10	2.04
831-1	28																							
831-2	< 5																							
829-1	< 5																							
829-2	< 5																							
829-3	< 5																							
829-4	< 5																							
829-5	< 5																							
829-6	< 5																							
829-7	< 5																							
829-8	< 5																							
829-9	65	0.2	< 0.5	790	615	6	9	< 2	33	2.13	6	< 10	37	< 0.5	< 2	2.62	26	24	6.47	< 10	< 1	0.55	< 10	2.09
825-1	< 5																							
825-2	67	0.6	< 0.5	714	726	13	5	< 2	53	1.87	25	< 10	52	< 0.5	< 2	2.57	24	19	5.81	< 10	< 1	0.18	< 10	1.18
825-3	15	0.6	< 0.5	1210	681	5	6	2	45	1.91	22	26	28	< 0.5	< 2	2.57	6	15	4.44	< 10	< 1	0.06	< 10	1.06
825-4	8																							
825-5	11																							
825-6	20																							
825-7	< 5																							
825-8	< 5																							
825-9	< 5																							
825-10	< 5																							
825-11	< 5																							
825-12	< 5																							
825-13	< 5																							
826-1	67																							
826-2	21																							
826-3	6																							
826-4	12																							
826-5	< 5																							
826-6A	7																							
826-6B	< 5																							
826-7	< 5																							
826-8	< 5																							
826-9	< 5																							
827-1	21	< 0.2	< 0.5	608	419	10	6	14	38	2.16	10	12	51	< 0.5	< 2	2.12	13	7	5.41	< 10	< 1	0.28	< 10	1.47
827-2	11																							
827-3	28																							
827-4	< 5																							
827-5	115																							
906-1	< 5																							
906-2	< 5																							
906-3	< 5																							
906-4	< 5																							
906-5	< 5																							
906-6A	< 5																							

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La	Mg
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	%
Detection Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10	0.01
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
906-6B	188	> 100	12.7	> 10000	2240	50	41	1050	4870	3.57	21	11	32	< 0.5	< 2	0.62	36	70	11.0	< 10	33	0.18	< 10	3.05
906-7	< 5																							
916-1	< 5																							
916-2	< 5	0.2	< 0.5	820	1330	2	108	< 2	95	3.46	< 2	< 10	43	0.6	< 2	3.42	25	151	5.81	10	< 1	0.58	18	3.62
916-3	< 5	0.3	< 0.5	755	1080	16	68	< 2	98	3.42	< 2	< 10	96	0.5	< 2	2.91	25	115	5.92	10	< 1	0.61	14	3.12
916-4	< 5	0.5	< 0.5	626	469	17	34	< 2	15	3.33	2	< 10	25	< 0.5	< 2	3.95	39	45	6.26	10	< 1	0.11	13	0.86
916-5	< 5	< 0.2	< 0.5	531	862	< 1	30	< 2	62	2.92	< 2	< 10	279	< 0.5	< 2	1.81	22	63	5.14	10	< 1	0.36	16	2.43
916-6	< 5	0.4	< 0.5	112	493	< 1	5	< 2	30	2.38	< 2	< 10	47	< 0.5	< 2	3.32	16	10	3.31	< 10	< 1	0.11	10	0.81
917-1	39	5.1	0.7	> 10000	1950	10	1	5	208	2.49	6	< 10	111	< 0.5	< 2	0.65	23	2	5.51	10	< 1	0.27	13	2.32
715-16																								
715-18																								
930-1	< 5																							
931-1																								
724-1	< 5																							
724-2	< 5																							
724-3	< 5																							
724-4	< 5																							
724-5	< 5																							
724-6	< 5																							
724-7	9																							
724-8	< 5																							
724-8B	< 5																							
725-1	< 5																							
725-2	< 5																							
725-3	15																							
725-4	< 5																							
725-5 (missing)																								
725-6	< 5																							
725-7	< 5																							
725-8	< 5																							
725-9	< 5																							
725-10	< 5																							
725-11	< 5																							
725-12	7																							
725-13	< 5																							
725-14	< 5																							
725-15	< 5																							
725-16	< 5																							
725-17	< 5																							
725-18	< 5																							
725-19	30																							
725-20	132																							
725-21	9																							
725-22	11																							
726-1	8																							
726-2	18																							
726-3	< 5																							
726-4	12																							
726-5	6																							
726-6	76																							
726-7	< 5																							
726-8	< 5																							

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La	Mg
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	%
Detection Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10	0.01
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
726-9	< 5																							
726-10	< 5																							
726-11	< 5																							
726-12	< 5																							
726-13	< 5																							
726-14	< 5																							
726-15	< 5																							
726-16	< 5																							
726-17	< 5																							
726-18	< 5																							
726-19	< 5																							
726-20	< 5																							
726-21	5																							
726-22	26																							
726-23	8																							
726-24	< 5																							
726-25	20																							
726-26	29																							

Analyte Symbol	Na	P	S	Sb	Sc	Sr	Ti	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.001	0.001	0.01	2	1	1	0.01	1	2	10	1	10	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
828-1A														
828-1B														
828-2														
828-3														
828-4	0.132	0.137	0.53	< 2	9	227	0.36	3	< 2	< 10	154	< 10	13	12
828-5														
828-6	0.115	0.152	0.56	< 2	9	165	0.36	4	< 2	< 10	159	< 10	12	11
831-1														
831-2														
829-1														
829-2														
829-3														
829-4														
829-5														
829-6														
829-7														
829-8														
829-9	0.126	0.150	3.18	2	12	51	0.38	2	< 2	< 10	210	< 10	13	8
825-1														
825-2	0.100	0.141	0.42	7	4	114	0.28	3	< 2	< 10	182	< 10	12	7
825-3	0.119	0.150	0.11	5	5	277	0.28	2	< 2	< 10	147	< 10	12	6
825-4														
825-5														
825-6														
825-7														
825-8														
825-9														
825-10														
825-11														
825-12														
825-13														
826-1														
826-2														
826-3														
826-4														
826-5														
826-6A														
826-6B														
826-7														
826-8														
826-9														
827-1	0.109	0.170	2.16	< 2	6	116	0.42	6	< 2	< 10	198	< 10	13	6
827-2														
827-3														
827-4														
827-5														
906-1														
906-2														
906-3														
906-4														
906-5														
906-6A														

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
Detection Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
828-1A	0.4	8.07	4	549	< 1	< 2	6.72	< 0.3	35	52
828-1B	0.6	9.58	9	714	1	< 2	4.02	< 0.3	13	8
828-2	0.5	7.66	< 3	> 1000	< 1	< 2	6.14	< 0.3	29	57
828-3	0.5	8.03	6	> 1000	< 1	< 2	5.45	0.3	31	66
828-4	0.5	8.24	< 3	952	< 1	< 2	5.47	< 0.3	41	104
828-5	< 0.3	9.22	< 3	955	< 1	< 2	4.50	< 0.3	15	14
828-6	0.4	7.12	< 3	> 1000	< 1	< 2	4.71	< 0.3	39	78
831-1	0.8	7.85	< 3	974	< 1	< 2	4.68	< 0.3	16	95
831-2	0.5	6.89	< 3	> 1000	< 1	< 2	6.32	< 0.3	32	285
829-1	0.4	8.92	4	621	< 1	< 2	7.14	< 0.3	27	35
829-2	0.5	9.57	9	959	1	< 2	4.32	< 0.3	15	8
829-3	< 0.3	7.61	13	306	< 1	< 2	6.73	< 0.3	27	70
829-4	0.6	9.30	14	253	< 1	< 2	8.87	< 0.3	18	26
829-5	0.4	8.89	7	911	< 1	< 2	5.14	< 0.3	23	72
829-6	1.2	9.12	19	678	1	3	8.01	< 0.3	17	24
829-7	< 0.3	8.83	8	680	< 1	< 2	6.90	< 0.3	15	28
829-8	< 0.3	4.12	< 3	254	< 1	< 2	8.43	0.3	41	630
829-9	0.5	7.66	4	133	< 1	< 2	3.81	< 0.3	32	25
825-1	0.5	9.33	10	701	1	< 2	6.07	< 0.3	24	39
825-2	1.4	8.52	30	864	< 1	< 2	4.86	< 0.3	30	23
825-3	0.9	9.02	20	414	< 1	3	5.75	0.4	9	25
825-4	0.5	8.65	5	> 1000	< 1	< 2	5.10	< 0.3	24	12
825-5	0.5	8.38	3	> 1000	< 1	< 2	5.49	0.5	23	16
825-6	0.8	8.74	7	> 1000	2	< 2	4.61	< 0.3	14	23
825-7	0.4	7.60	11	> 1000	< 1	< 2	5.05	0.4	29	60
825-8	< 0.3	8.09	4	792	< 1	< 2	5.45	< 0.3	27	74
825-9	0.3	8.85	13	205	< 1	< 2	6.27	< 0.3	24	5
825-10	0.5	8.20	15	688	1	3	6.39	< 0.3	33	72
825-11	< 0.3	3.95	7	342	< 1	< 2	8.66	< 0.3	41	601
825-12	1.0	9.33	5	855	< 1	< 2	5.57	0.7	19	11
825-13	0.4	9.26	3	526	< 1	< 2	6.97	< 0.3	21	15
826-1	0.6	8.51	13	> 1000	< 1	< 2	5.16	< 0.3	14	23
826-2	0.6	8.73	27	857	< 1	< 2	5.25	< 0.3	13	27
826-3	0.6	8.60	5	> 1000	< 1	< 2	5.40	< 0.3	25	13
826-4	0.4	8.30	9	974	< 1	< 2	5.13	< 0.3	30	32
826-5	0.4	8.45	< 3	> 1000	1	< 2	5.47	< 0.3	28	67
826-6A	41.7	7.70	4	581	1	4	5.14	66.0	27	48
826-6B	52.2	7.78	7	730	< 1	2	5.44	36.7	28	44
826-7	0.5	8.41	7	> 1000	< 1	< 2	6.45	< 0.3	29	46
826-8	0.4	9.00	5	115	1	< 2	5.45	0.4	31	22
826-9	< 0.3	4.64	< 3	209	1	< 2	7.23	< 0.3	28	65
827-1	0.5	8.10	6	167	< 1	< 2	5.09	0.3	17	19
827-2	0.6	8.58	< 3	> 1000	< 1	< 2	6.01	< 0.3	25	17
827-3	0.7	8.42	3	> 1000	< 1	< 2	5.75	0.6	26	13
827-4	< 0.3	9.53	< 3	351	< 1	< 2	5.81	< 0.3	27	16
827-5	0.7	8.68	10	> 1000	< 1	< 2	5.12	0.3	11	23
906-1	0.5	9.38	< 3	> 1000	< 1	< 2	6.20	< 0.3	28	12
906-2	0.4	9.38	< 3	742	< 1	< 2	4.65	< 0.3	19	6
906-3	0.4	8.26	14	944	< 1	< 2	6.19	< 0.3	33	24
906-4	0.3	8.28	12	168	< 1	3	4.94	< 0.3	30	24
906-5	< 0.3	8.56	13	> 1000	< 1	< 2	5.48	< 0.3	26	12
906-6A	0.6	8.22	< 3	354	< 1	< 2	7.72	0.4	43	86

Analyte Symbol	Na	P	S	Sb	Sc	Sr	Ti	Te	Tl	U	V	W	Y	Zr	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Unit Symbol	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
Detection Limit	0.001	0.001	0.01	2	1	1	0.01	1	2	10	1	10	1	1	0.3	0.01	3	7	1	2	0.01	0.3	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
906-6B	0.032	0.101	0.98	8	27	88	0.24	14	< 2	< 10	234	< 10	7	9	> 100	5.91	21	70	< 1	< 2	1.03	12.2	48	74
906-7															2.0	8.87	11	445	< 1	< 2	6.08	< 0.3	29	15
916-1															0.7	10.6	3	554	2	< 2	3.94	< 0.3	20	23
916-2	0.069	0.181	1.41	2	13	141	0.09	< 1	< 2	< 10	254	< 10	10	8	0.3	7.31	< 3	278	1	< 2	3.62	< 0.3	30	129
916-3	0.057	0.125	1.07	2	12	70	0.01	< 1	< 2	< 10	212	< 10	7	7	0.4	7.65	< 3	238	< 1	< 2	3.02	< 0.3	30	112
916-4	0.072	0.103	1.48	< 2	7	381	0.38	5	< 2	< 10	144	< 10	9	19	1.0	8.49	< 3	73	< 1	< 2	9.15	< 0.3	42	64
916-5	0.183	0.142	0.35	< 2	13	166	0.35	3	< 2	< 10	220	< 10	14	9	0.4	8.09	< 3	562	< 1	< 2	2.60	< 0.3	24	65
916-6	0.122	0.185	0.79	< 2	6	592	0.31	3	< 2	< 10	131	< 10	14	10	0.9	8.32	< 3	551	< 1	< 2	6.17	< 0.3	24	17
917-1	0.099	0.187	0.24	< 2	12	26	0.20	2	< 2	< 10	185	< 10	16	7	5.8	8.94	3	849	< 1	< 2	0.73	0.4	26	11
715-16																								
715-18																								
930-1															0.6	8.92	< 3	> 1000	1	< 2	2.52	< 0.3	3	7
931-1																								
724-1															0.4	8.30	< 3	53	< 1	< 2	4.83	< 0.3	14	20
724-2															0.5	9.01	10	610	< 1	< 2	6.46	< 0.3	17	29
724-3															0.4	9.33	9	440	1	< 2	3.90	< 0.3	16	9
724-4															< 0.3	9.12	29	> 1000	1	< 2	4.70	< 0.3	19	10
724-5															0.5	9.34	14	> 1000	< 1	< 2	4.80	< 0.3	23	7
724-6															0.4	8.27	3	487	< 1	< 2	6.26	< 0.3	35	15
724-7															0.5	8.94	7	607	< 1	2	6.34	< 0.3	16	37
724-8															0.5	8.83	< 3	382	< 1	< 2	5.58	0.3	18	33
724-8B															0.6	9.19	< 3	733	< 1	< 2	4.96	< 0.3	19	22
725-1															0.8	8.45	< 3	> 1000	< 1	< 2	4.52	< 0.3	11	19
725-2															0.7	8.36	7	943	< 1	< 2	5.94	< 0.3	20	40
725-3															0.9	6.96	8	431	< 1	< 2	4.69	< 0.3	28	47
725-4															0.5	8.79	10	> 1000	< 1	< 2	5.82	< 0.3	28	37
725-5 (missing)																								
725-6															0.5	9.27	10	678	< 1	< 2	5.78	0.5	26	31
725-7															1.5	9.05	12	474	< 1	< 2	6.42	< 0.3	38	29
725-8															0.6	8.95	17	130	< 1	< 2	4.78	2.0	36	36
725-9															0.8	8.61	23	217	< 1	< 2	4.86	< 0.3	37	39
725-10															0.3	8.59	5	> 1000	< 1	< 2	5.86	0.4	30	50
725-11															0.9	8.55	5	> 1000	< 1	< 2	6.45	< 0.3	30	41
725-12															0.3	7.73	11	577	< 1	< 2	5.20	< 0.3	23	38
725-13															0.8	9.61	31	681	1	2	6.44	< 0.3	20	21
725-14															0.4	8.66	13	> 1000	< 1	< 2	5.78	< 0.3	28	39
725-15															0.4	8.91	6	> 1000	< 1	< 2	4.25	< 0.3	34	38
725-16															0.4	8.48	6	> 1000	1	< 2	6.33	< 0.3	27	35
725-17															< 0.3	9.14	< 3	717	< 1	< 2	3.48	< 0.3	34	14
725-18															0.5	9.36	< 3	> 1000	1	< 2	4.99	< 0.3	26	16
725-19															0.7	8.94	11	> 1000	< 1	< 2	3.15	< 0.3	20	16
725-20															4.5	8.56	7	> 1000	< 1	< 2	4.28	0.4	14	19
725-21															0.7	8.96	5	> 1000	< 1	< 2	4.72	< 0.3	10	8
725-22															0.7	8.51	9	> 1000	1	< 2	4.71	< 0.3	17	12
726-1															1.3	8.61	17	554	< 1	< 2	4.75	0.4	15	16
726-2															1.4	9.04	20	582	< 1	< 2	4.99	< 0.3	17	16
726-3															0.5	8.95	8	> 1000	< 1	< 2	5.77	< 0.3	32	22
726-4															0.6	9.11	14	> 1000	< 1	< 2	5.40	< 0.3	27	7
726-5															0.4	7.46	18	918	< 1	< 2	5.33	< 0.3	29	11
726-6															0.7	8.76	3	> 1000	< 1	< 2	2.94	0.5	17	5
726-7															0.4	8.45	11	907	< 1	< 2	6.19	< 0.3	26	20
726-8															0.5	6.83	19	68	< 1	< 2	9.66	< 0.3	35	16

Analyte Symbol	Na	P	S	Sb	Sc	Sr	Ti	Te	Tl	U	V	W	Y	Zr	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Unit Symbol	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
Detection Limit	0.001	0.001	0.01	2	1	1	0.01	1	2	10	1	10	1	1	0.3	0.01	3	7	1	2	0.01	0.3	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
726-9															< 0.3	8.72	< 3	> 1000	< 1	< 2	4.47	< 0.3	22	18
726-10															< 0.3	8.36	8	913	1	< 2	4.59	< 0.3	26	18
726-11															0.5	9.35	13	> 1000	< 1	< 2	3.24	< 0.3	17	9
726-12															0.5	8.87	9	888	< 1	< 2	4.26	0.3	28	11
726-13															2.5	8.68	10	> 1000	1	< 2	3.74	< 0.3	18	16
726-14															5.9	6.80	11	758	< 1	< 2	3.71	20.6	18	9
726-15															< 0.3	8.62	12	> 1000	< 1	< 2	1.88	< 0.3	44	11
726-16															0.5	8.56	9	982	< 1	< 2	4.45	0.3	29	10
726-17															< 0.3	8.74	23	587	< 1	< 2	3.30	0.3	36	8
726-18															< 0.3	8.76	5	452	< 1	< 2	3.56	< 0.3	29	6
726-19															0.5	8.77	5	896	< 1	< 2	4.86	< 0.3	21	12
726-20															0.4	9.43	< 3	> 1000	< 1	< 2	5.52	< 0.3	24	5
726-21															0.4	9.22	12	896	< 1	< 2	4.66	< 0.3	25	7
726-22															2.2	9.33	8	> 1000	< 1	< 2	4.26	0.5	22	14
726-23															0.7	8.38	6	> 1000	< 1	< 2	4.70	< 0.3	13	10
726-24															0.5	8.29	5	> 1000	< 1	< 2	3.78	< 0.3	16	29
726-25															2.5	8.80	7	221	< 1	< 2	5.21	0.4	23	21
726-26															0.9	8.20	8	559	< 1	< 2	4.76	< 0.3	20	44

Analyte Symbol	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
828-1A	130	7.52	21	< 1	1.74	3.54	13	1480	< 1	2.28	32	0.155	< 3	< 5	0.06	40	654	3	0.49	< 5	< 10	297	< 5	16
828-1B	46	4.34	24	< 1	2.30	1.26	33	1340	< 1	4.04	5	0.122	10	< 5	0.03	12	785	4	0.31	< 5	< 10	173	< 5	16
828-2	45	6.72	22	< 1	1.10	3.00	17	1250	< 1	2.45	31	0.139	3	< 5	0.08	35	625	< 2	0.43	< 5	< 10	272	< 5	17
828-3	217	7.13	21	< 1	2.75	3.39	16	1330	< 1	1.90	34	0.137	7	< 5	0.05	36	476	6	0.43	< 5	< 10	255	< 5	17
828-4	14	7.13	23	< 1	1.98	3.26	12	1520	< 1	2.60	30	0.141	< 3	< 5	0.62	30	604	17	0.49	< 5	< 10	270	< 5	17
828-5	71	7.50	21	< 1	3.17	2.54	13	1230	< 1	2.37	15	0.103	< 3	< 5	0.55	33	510	< 2	0.50	< 5	< 10	276	< 5	27
828-6	34	6.73	21	< 1	2.18	3.11	11	1430	< 1	2.29	29	0.142	< 3	< 5	0.60	26	569	10	0.46	< 5	< 10	257	< 5	14
831-1	292	6.46	20	< 1	2.56	2.60	12	1100	2	2.49	42	0.149	< 3	< 5	0.06	29	575	< 2	0.39	< 5	< 10	283	< 5	14
831-2	196	7.16	19	< 1	2.16	4.47	10	1640	< 1	1.59	129	0.114	6	< 5	0.11	37	595	5	0.23	< 5	< 10	176	< 5	14
829-1	27	7.93	23	< 1	2.11	3.16	27	1420	< 1	1.90	18	0.194	< 3	< 5	0.06	38	673	13	0.33	< 5	< 10	219	< 5	22
829-2	88	4.79	24	< 1	2.79	1.44	20	1430	< 1	3.69	6	0.167	< 3	< 5	0.04	13	691	6	0.34	< 5	< 10	131	< 5	22
829-3	65	6.10	22	< 1	0.69	2.47	32	980	< 1	3.65	45	0.091	< 3	< 5	0.06	32	194	< 2	0.26	< 5	< 10	126	< 5	15
829-4	42	5.84	24	< 1	0.64	1.74	21	1350	< 1	1.53	15	0.093	5	< 5	0.07	22	754	< 2	0.32	< 5	< 10	147	< 5	16
829-5	76	6.34	22	< 1	1.58	2.32	28	1470	< 1	3.22	17	0.104	4	< 5	0.04	22	466	7	0.33	< 5	< 10	162	< 5	17
829-6	43	6.05	26	< 1	1.44	0.94	14	1120	< 1	1.26	15	0.109	9	< 5	0.06	20	1470	2	0.39	< 5	< 10	207	< 5	16
829-7	46	4.86	22	< 1	0.91	1.49	16	1220	< 1	1.72	13	0.087	< 3	< 5	0.06	19	377	4	0.40	< 5	< 10	190	< 5	14
829-8	28	6.91	16	< 1	0.28	5.92	76	1610	< 1	0.48	103	0.087	4	< 5	0.32	52	184	< 2	0.30	< 5	< 10	209	< 5	8
829-9	715	7.36	22	< 1	2.82	2.37	14	801	5	2.67	19	0.147	< 3	< 5	3.46	19	465	4	0.52	< 5	< 10	227	< 5	17
825-1	14	6.31	22	< 1	2.02	2.91	21	1060	< 1	3.10	27	0.296	< 3	< 5	0.05	25	720	7	0.54	< 5	< 10	293	< 5	15
825-2	684	7.12	22	< 1	3.84	1.90	9	1380	12	2.80	14	0.145	4	13	0.51	18	458	3	0.44	< 5	< 10	208	< 5	18
825-3	1170	6.17	24	< 1	1.67	1.89	12	1530	4	3.75	18	0.149	9	8	0.17	20	690	3	0.44	< 5	< 10	218	< 5	19
825-4	222	6.37	22	< 1	3.88	2.16	14	1220	< 1	3.05	13	0.178	< 3	< 5	0.05	28	612	11	0.47	< 5	< 10	299	< 5	17
825-5	496	6.69	22	< 1	2.15	2.51	16	1150	1	2.59	19	0.135	7	< 5	0.07	30	524	3	0.48	< 5	< 10	248	< 5	17
825-6	861	4.80	19	< 1	3.04	1.52	16	963	< 1	3.55	17	0.296	< 3	< 5	0.08	16	264	< 2	0.38	< 5	< 10	201	< 5	12
825-7	224	6.62	19	< 1	2.59	3.45	39	2320	< 1	2.82	35	0.186	11	< 5	0.04	32	419	< 2	0.47	< 5	< 10	285	< 5	13
825-8	135	6.38	22	< 1	2.37	3.32	49	1570	< 1	3.00	50	0.193	13	< 5	0.04	29	353	< 2	0.42	< 5	< 10	294	< 5	14
825-9	58	5.77	22	< 1	0.66	2.22	19	1470	< 1	2.96	11	0.155	< 3	< 5	0.05	20	298	3	0.48	< 5	< 10	242	< 5	16
825-10	86	6.65	21	< 1	1.72	3.36	23	1890	< 1	2.66	38	0.206	11	< 5	0.05	31	477	5	0.47	< 5	< 10	255	< 5	15
825-11	20	6.09	13	< 1	0.93	6.96	26	1250	3	1.35	101	0.089	< 3	< 5	0.06	50	161	< 2	0.22	< 5	< 10	172	< 5	6
825-12	321	5.50	23	< 1	1.76	1.83	12	1300	< 1	3.25	12	0.157	< 3	< 5	0.04	19	1100	5	0.29	< 5	< 10	157	< 5	20
825-13	91	6.47	23	< 1	1.01	2.26	13	1690	< 1	2.61	12	0.152	< 3	< 5	0.06	23	613	12	0.44	< 5	< 10	225	< 5	22
826-1	1030	6.04	22	< 1	4.22	1.91	9	1230	7	2.17	18	0.128	< 3	< 5	0.40	17	433	4	0.39	< 5	< 10	188	< 5	18
826-2	804	5.99	23	< 1	2.90	1.91	13	1650	3	3.06	17	0.140	< 3	8	0.11	18	476	8	0.45	< 5	< 10	213	< 5	19
826-3	79	6.53	21	< 1	3.45	2.34	17	1370	< 1	2.49	13	0.176	< 3	< 5	0.04	28	772	< 2	0.41	< 5	< 10	251	< 5	17
826-4	241	7.29	21	< 1	2.55	2.90	13	1440	1	2.98	23	0.164	< 3	< 5	0.05	36	696	< 2	0.43	< 5	< 10	269	< 5	16
826-5	58	6.57	21	2	3.15	3.38	23	990	< 1	2.52	57	0.216	< 3	< 5	0.04	29	451	10	0.48	< 5	< 10	297	< 5	13
826-6A	> 10000	6.20	21	< 1	1.83	3.49	56	2220	< 1	3.00	33	0.232	> 5000	< 5	0.22	33	340	2	0.46	< 5	< 10	297	< 5	14
826-6B	> 10000	6.23	21	< 1	2.18	3.55	59	2210	< 1	3.08	34	0.212	> 5000	< 5	0.37	33	287	3	0.43	< 5	< 10	291	< 5	14
826-7	15	7.19	22	< 1	2.41	3.40	45	2200	< 1	2.60	38	0.188	25	< 5	0.05	35	398	4	0.50	< 5	< 10	310	< 5	15
826-8	49	6.70	23	< 1	0.66	2.65	21	3510	< 1	3.69	21	0.218	52	< 5	0.04	28	188	4	0.48	< 5	< 10	248	< 5	18
826-9	8	6.34	26	< 1	0.75	2.68	10	1400	< 1	2.48	40	0.185	5	< 5	0.05	15	283	9	0.42	< 5	< 10	252	< 5	8
827-1	552	6.72	23	< 1	2.57	2.34	11	903	9	2.46	16	0.157	15	< 5	2.22	25	629	6	0.54	< 5	< 10	273	< 5	17
827-2	184	6.78	22	< 1	2.45	2.45	13	1170	< 1	2.70	13	0.186	12	< 5	0.07	29	781	< 2	0.44	< 5	< 10	292	< 5	16
827-3	610	7.02	22	< 1	3.51	2.41	12	1350	< 1	2.59	15	0.190	< 3	< 5	0.10	30	751	6	0.46	< 5	< 10	316	< 5	16
827-4	31	6.16	22	< 1	1.07	2.65	20	1190	< 1	3.45	17	0.139	6	< 5	0.05	24	228	< 2	0.36	< 5	< 10	187	< 5	15
827-5	1100	5.89	21	< 1	3.55	1.71	9	1200	34	2.62	12	0.134	< 3	< 5	0.44	16	353	< 2	0.40	< 5	< 10	190	< 5	18
906-1	32	6.65	23	< 1	3.11	2.65	24	1290	< 1	1.93	19	0.158	5	< 5	0.05	24	713	< 2	0.42	< 5	< 10	239	< 5	16
906-2	60	5.77	21	< 1	1.82	1.61	20	1570	< 1	4.24	8	0.149	4	< 5	0.04	14	511	7	0.38	< 5	< 10	83	< 5	22
906-3	79	7.56	22	< 1	2.30	2.95	31	1390	2	2.75	25	0.154	< 3	< 5	0.05	35	450	< 2	0.39	< 5	< 10	215	< 5	17
906-4	97	6.97	20	< 1	0.44	2.94	19	1230	< 1	3.43	24	0.151	< 3	< 5	0.04	28	261	9	0.63	< 5	< 10	250	< 5	16
906-5	41	6.56	22	< 1	1.90	2.58	33	1370	< 1	2.90	13	0.169	6	< 5	0.04	26	276	< 2	0.35	< 5	< 10	282	< 5	18
906-6A	55	8.77	20	< 1	1.26	4.96	28	1580	< 1	0.83	66	0.022	6	< 5	0.06	43	696	< 2	0.24	< 5	< 10	205	< 5	8

Analyte Symbol	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
906-6B	> 10000	11.8	17	9	0.61	3.16	28	2350	53	0.92	60	0.111	1140	< 5	1.15	42	258	17	0.35	< 5	< 10	279	< 5	8
906-7	32	6.80	24	< 1	1.97	2.33	39	2360	< 1	2.89	21	0.180	13	< 5	0.05	27	820	11	0.46	< 5	< 10	281	5	16
916-1	35	5.36	23	< 1	1.91	2.25	11	1030	< 1	3.37	32	0.249	< 3	< 5	0.10	13	669	< 2	0.65	< 5	< 10	181	< 5	18
916-2	731	6.41	22	< 1	1.57	3.60	21	1330	2	1.70	125	0.174	< 3	< 5	1.49	22	273	4	0.62	< 5	< 10	311	< 5	13
916-3	732	6.85	22	< 1	1.84	3.26	19	1120	13	1.68	89	0.120	< 3	< 5	1.20	25	161	6	0.61	< 5	< 10	294	< 5	11
916-4	565	9.56	34	< 1	0.37	0.77	5	822	14	1.44	45	0.104	< 3	< 5	1.56	13	822	< 2	0.49	< 5	< 10	249	< 5	11
916-5	470	5.51	21	< 1	1.17	2.50	12	931	< 1	2.76	40	0.121	< 3	< 5	0.36	21	461	3	0.44	< 5	< 10	210	< 5	15
916-6	101	5.40	22	< 1	1.78	1.55	4	1110	< 1	2.71	15	0.170	< 3	< 5	0.84	19	1170	10	0.43	< 5	< 10	232	< 5	17
917-1	> 10000	5.74	23	< 1	3.06	2.22	25	1880	10	3.40	5	0.180	8	< 5	0.27	15	422	5	0.36	< 5	< 10	189	< 5	16
715-16																								
715-18																								
930-1	121	1.65	22	< 1	3.00	0.27	4	401	4	3.28	3	0.035	7	< 5	0.32	< 4	825	2	0.16	< 5	< 10	29	< 5	13
931-1																								
724-1	314	7.03	20	< 1	0.81	1.66	12	1020	< 1	4.28	10	0.144	< 3	< 5	0.11	18	157	3	0.43	< 5	< 10	198	< 5	14
724-2	57	7.13	23	< 1	2.78	3.34	22	1220	< 1	2.31	35	0.135	< 3	< 5	0.05	29	577	4	0.46	< 5	< 10	250	< 5	15
724-3	30	5.11	23	< 1	1.74	1.70	18	1200	< 1	3.83	7	0.140	< 3	< 5	0.03	14	533	5	0.34	< 5	< 10	178	< 5	17
724-4	8	6.33	20	< 1	2.73	1.74	30	1370	< 1	2.33	13	0.161	4	< 5	0.04	20	475	9	0.29	< 5	< 10	143	< 5	22
724-5	23	6.41	23	< 1	2.98	2.11	41	1290	< 1	3.02	11	0.142	< 3	< 5	0.04	20	500	7	0.26	< 5	< 10	116	< 5	17
724-6	12	9.33	24	< 1	1.00	2.77	34	2410	< 1	2.88	15	0.118	< 3	< 5	0.05	40	585	< 2	0.20	< 5	< 10	115	< 5	23
724-7	129	8.32	22	< 1	3.35	2.47	17	1170	3	2.19	26	0.137	< 3	< 5	0.28	28	494	10	0.41	< 5	< 10	277	< 5	16
724-8	137	7.77	23	< 1	1.67	3.34	17	1300	< 1	2.69	30	0.123	< 3	< 5	0.06	29	623	< 2	0.29	< 5	< 10	181	< 5	12
724-8B	157	5.30	22	< 1	3.05	2.08	14	1260	< 1	3.26	16	0.127	< 3	< 5	0.05	20	513	< 2	0.28	< 5	< 10	149	< 5	20
725-1	454	5.76	20	< 1	4.79	1.82	14	1360	< 1	2.10	15	0.137	< 3	< 5	0.05	16	519	3	0.32	< 5	< 10	154	< 5	16
725-2	209	5.81	21	< 1	3.23	3.24	28	1530	< 1	2.28	31	0.164	< 3	< 5	0.07	32	626	5	0.47	< 5	< 10	371	< 5	15
725-3	1520	8.66	20	< 1	1.60	2.65	23	1330	8	2.76	40	0.132	< 3	< 5	0.11	19	593	4	0.51	< 5	< 10	285	< 5	8
725-4	105	6.41	23	< 1	2.41	3.07	21	1170	< 1	2.19	32	0.140	< 3	< 5	0.05	27	487	5	0.42	< 5	< 10	237	< 5	15
725-5 (missing)																								
725-6	10	6.65	21	< 1	1.44	3.25	69	2100	< 1	2.77	27	0.131	6	< 5	0.04	28	592	7	0.32	< 5	< 10	195	< 5	15
725-7	229	7.19	23	< 1	3.06	3.19	74	2750	< 1	1.43	36	0.132	7	< 5	0.06	28	747	< 2	0.32	< 5	< 10	176	< 5	14
725-8	58	6.93	21	< 1	0.60	3.17	56	2120	< 1	3.72	37	0.140	35	< 5	0.04	31	405	5	0.40	< 5	< 10	224	< 5	15
725-9	177	7.25	20	< 1	0.80	3.74	43	1370	< 1	3.18	38	0.140	4	< 5	0.04	31	523	5	0.45	< 5	< 10	223	< 5	15
725-10	125	6.98	22	4	1.78	3.77	26	1580	< 1	2.79	53	0.161	< 3	< 5	0.04	30	467	2	0.53	< 5	< 10	244	< 5	16
725-11	346	7.11	24	< 1	3.41	3.33	21	1300	< 1	2.17	34	0.198	< 3	< 5	0.05	32	875	< 2	0.52	< 5	< 10	316	< 5	16
725-12	85	6.61	22	< 1	2.09	2.12	22	1260	< 1	3.11	30	0.186	< 3	< 5	0.04	27	219	4	0.56	< 5	< 10	333	< 5	15
725-13	389	4.69	25	< 1	2.19	2.15	34	1290	< 1	3.26	17	0.198	3	< 5	0.05	15	321	< 2	0.42	< 5	< 10	154	< 5	14
725-14	13	6.67	23	< 1	2.01	2.82	48	1470	< 1	2.64	33	0.169	5	< 5	0.04	28	534	11	0.38	< 5	< 10	228	< 5	16
725-15	81	7.08	21	< 1	2.96	2.45	44	1470	< 1	2.58	39	0.180	5	< 5	0.03	29	572	9	0.53	< 5	< 10	294	< 5	17
725-16	136	6.43	23	< 1	2.61	3.36	54	1690	< 1	2.14	43	0.159	16	< 5	0.05	26	461	< 2	0.49	< 5	< 10	305	< 5	15
725-17	5	7.16	22	< 1	2.03	3.18	30	1870	< 1	3.43	14	0.150	< 3	< 5	0.03	27	338	7	0.38	< 5	< 10	184	< 5	21
725-18	110	6.86	24	< 1	2.09	2.16	31	1240	< 1	3.38	12	0.153	< 3	< 5	0.04	24	636	2	0.40	< 5	< 10	200	< 5	22
725-19	1440	6.81	23	< 1	3.93	2.09	22	1000	15	1.77	15	0.203	3	< 5	0.13	19	229	3	0.45	< 5	< 10	216	< 5	13
725-20	2940	6.54	22	< 1	4.18	1.67	17	1340	7	2.04	18	0.148	4	< 5	0.14	16	607	< 2	0.42	< 5	< 10	181	< 5	17
725-21	176	3.87	21	< 1	4.92	1.52	10	1370	2	1.73	6	0.127	< 3	< 5	0.05	11	592	< 2	0.39	< 5	< 10	130	< 5	18
725-22	459	4.87	19	< 1	4.59	1.72	10	1390	1	2.25	10	0.128	< 3	< 5	0.10	17	355	< 2	0.41	< 5	< 10	171	< 5	18
726-1	1030	5.14	21	< 1	3.05	1.92	12	1460	2	3.44	13	0.148	3	< 5	0.09	19	601	6	0.38	< 5	< 10	194	< 5	18
726-2	1060	5.45	23	< 1	3.09	2.03	13	1540	3	3.63	15	0.162	4	< 5	0.10	20	623	7	0.48	< 5	< 10	224	< 5	19
726-3	114	7.87	21	< 1	2.62	3.15	20	1500	< 1	2.96	24	0.157	< 3	< 5	0.05	38	581	8	0.37	< 5	< 10	215	< 5	19
726-4	276	6.77	23	< 1	3.16	2.69	18	1250	< 1	2.46	16	0.157	4	< 5	0.06	28	623	4	0.34	< 5	< 10	195	< 5	19
726-5	81	6.76	22	< 1	1.60	2.46	22	1560	< 1	2.74	14	0.152	< 3	< 5	0.06	23	520	8	0.58	< 5	< 10	274	< 5	15
726-6	1560	4.50	23	1	2.61	1.23	8	865	< 1	4.26	6	0.138	7	< 5	0.05	9	372	3	0.39	< 5	< 10	149	< 5	17
726-7	4	5.73	21	2	2.22	2.24	22	1210	< 1	2.77	17	0.168	< 3	< 5	0.04	24	573	4	0.43	< 5	< 10	187	< 5	18
726-8	45	5.76	24	< 1	0.12	3.04	28	1930	< 1	1.15	21	0.125	5	< 5	0.07	19	736	8	0.34	< 5	< 10	181	< 5	15

Analyte Symbol	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
726-9	6	6.91	22	3	3.43	2.56	16	1230	< 1	2.40	20	0.164	< 3	< 5	0.04	25	581	7	0.37	< 5	< 10	204	< 5	19
726-10	32	7.27	21	< 1	2.98	2.16	18	1140	< 1	3.39	16	0.159	5	< 5	0.03	24	341	5	0.27	< 5	< 10	145	< 5	17
726-11	10	5.34	23	< 1	3.01	1.71	20	1140	< 1	4.37	10	0.153	11	< 5	0.03	15	586	5	0.35	< 5	< 10	134	< 5	18
726-12	12	6.75	24	< 1	1.84	2.49	33	1610	< 1	3.56	17	0.145	8	< 5	0.04	24	611	9	0.33	< 5	< 10	167	< 5	20
726-13	1120	5.36	23	< 1	2.85	1.50	20	1180	< 1	3.90	10	0.156	9	< 5	0.03	15	587	4	0.41	< 5	< 10	186	< 5	18
726-14	4930	3.78	21	< 1	2.08	1.60	30	1940	< 1	3.58	10	0.148	7	< 5	0.05	10	300	5	0.43	< 5	< 10	154	< 5	13
726-15	44	6.91	22	< 1	2.24	3.89	102	4440	< 1	3.30	16	0.154	6	< 5	0.02	27	465	3	0.48	< 5	< 10	210	< 5	17
726-16	67	7.29	21	< 1	2.47	3.04	86	4610	< 1	2.81	14	0.166	18	< 5	0.03	31	341	4	0.38	< 5	< 10	235	< 5	17
726-17	32	7.83	23	< 1	1.91	2.63	36	1730	< 1	3.83	15	0.158	5	< 5	0.02	31	345	< 2	0.26	< 5	< 10	171	< 5	19
726-18	49	7.41	21	< 1	1.32	2.45	29	1210	< 1	4.01	12	0.129	4	< 5	0.03	31	350	< 2	0.20	< 5	< 10	139	< 5	19
726-19	149	7.01	23	< 1	2.81	1.49	18	1510	< 1	3.31	13	0.146	< 3	< 5	0.06	26	542	< 2	0.24	< 5	< 10	138	< 5	20
726-20	76	6.59	23	< 1	2.72	2.10	23	1460	< 1	3.14	11	0.151	< 3	< 5	0.04	23	676	7	0.29	< 5	< 10	156	< 5	22
726-21	44	6.71	24	< 1	2.24	2.19	23	1310	< 1	3.66	12	0.146	4	< 5	0.04	24	641	< 2	0.31	< 5	< 10	163	< 5	22
726-22	1660	4.20	24	< 1	4.50	1.47	12	1150	1	3.07	13	0.141	6	< 5	0.07	14	489	13	0.38	< 5	< 10	165	< 5	19
726-23	365	5.19	21	< 1	3.89	1.58	12	1480	3	2.44	9	0.131	< 3	< 5	0.07	15	524	< 2	0.41	< 5	< 10	177	< 5	17
726-24	192	5.89	20	< 1	2.15	1.82	16	1470	< 1	2.22	17	0.143	< 3	< 5	0.03	14	395	12	0.38	< 5	< 10	188	< 5	15
726-25	2960	5.04	21	3	2.04	1.84	13	1250	1	3.71	15	0.138	4	< 5	0.45	16	357	6	0.45	< 5	< 10	180	< 5	19
726-26	599	7.99	21	< 1	3.60	3.15	17	1170	12	1.73	33	0.126	< 3	< 5	0.72	26	480	5	0.47	< 5	< 10	247	< 5	14

Analyte Symbol	Zn	Zr	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Cr2O3	V2O5	LOI	Total
Unit Symbol	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Detection Limit	1	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.003		0.01
Analysis Method	TD-ICP	TD-ICP	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF
828-1A	77	41														
828-1B	71	73														
828-2	74	50														
828-3	116	58														
828-4	55	59														
828-5	54	31	50.27	17.58	10.91	0.162	4.31	6.41	3.01	3.28	0.91	0.27	0.02	0.065	3.08	100.3
828-6	54	48														
831-1	51	48														
831-2	110	26														
829-1	77	17														
829-2	63	29														
829-3	64	34														
829-4	63	49														
829-5	88	57														
829-6	53	68														
829-7	64	57														
829-8	96	24														
829-9	38	36														
825-1	72	49														
825-2	63	49														
825-3	52	42														
825-4	60	23														
825-5	57	31	51.00	15.90	9.85	0.157	4.32	7.97	3.49	3.33	0.86	0.34	0.01	0.061	2.44	99.73
825-6	51	110														
825-7	118	59														
825-8	145	50														
825-9	91	64														
825-10	206	89														
825-11	62	19														
825-12	66	48														
825-13	88	44														
826-1	50	43														
826-2	61	50														
826-3	67	20	51.28	16.55	9.61	0.182	4.00	7.80	3.23	3.91	0.80	0.46	0.01	0.060	1.70	99.59
826-4	75	20														
826-5	46	80														
826-6A	262	59														
826-6B	270	58														
826-7	220	66	47.55	15.40	10.10	0.296	5.63	9.08	3.17	2.65	0.78	0.45	0.02	0.061	3.84	99.02
826-8	416	102														
826-9	81	51														
827-1	44	21														
827-2	52	18														
827-3	63	20														
827-4	71	52														
827-5	51	48														
906-1	77	53	48.66	18.09	9.70	0.188	4.50	9.03	2.42	3.93	0.80	0.40	0.01	0.056	2.26	99.96
906-2	162	83	53.57	17.02	8.25	0.212	2.54	6.31	5.40	1.93	0.81	0.37	0.01	0.020	2.42	98.86
906-3	120	41														
906-4	89	79														
906-5	92	43														
906-6A	113	20	42.16	16.07	13.19	0.229	9.04	12.50	0.94	1.45	0.65	0.06	0.02	0.058	3.63	99.99

Analyte Symbol	Zn	Zr	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Cr2O3	V2O5	LOI	Total
Unit Symbol	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Detection Limit	1	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.003		0.01
Analysis Method	TD-ICP	TD-ICP	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF
906-6B	5210	21														
906-7	230	73														
916-1	57	184	46.87	19.89	7.79	0.134	3.77	5.60	4.34	1.98	1.05	0.63	0.02	0.037	4.56	98.67
916-2	100	53														
916-3	111	42														
916-4	15	41														
916-5	63	42														
916-6	45	36														
917-1	205	68														
715-16			72.91	13.26	2.20	0.065	0.44	1.07	3.97	4.15	0.22	0.07	0.01	0.006	0.70	99.07
715-18			73.88	13.91	1.09	0.014	0.02	0.22	3.53	5.55	0.10	0.01	0.01	< 0.003	0.63	98.96
930-1	35	31	67.76	17.20	2.51	0.054	0.41	3.38	4.50	2.88	0.25	0.08	0.01	0.010	0.85	99.89
931-1			68.97	15.21	3.41	0.080	0.74	2.25	3.98	3.99	0.32	0.13	0.01	0.007	0.81	99.91
724-1	48	53														
724-2	46	51														
724-3	93	75														
724-4	65	58														
724-5	75	36														
724-6	118	19														
724-7	50	36														
724-8	44	16														
724-8B	63	65														
725-1	67	37														
725-2	70	36														
725-3	84	40														
725-4	62	56														
725-5 (missing)																
725-6	105	43														
725-7	200	41														
725-8	276	35														
725-9	148	55														
725-10	83	69														
725-11	75	76														
725-12	73	78														
725-13	96	72														
725-14	80	66														
725-15	98	76														
725-16	162	64														
725-17	151	56														
725-18	66	38														
725-19	91	53														
725-20	74	41														
725-21	53	101														
725-22	56	55														
726-1	70	37														
726-2	73	45														
726-3	75	35														
726-4	61	31														
726-5	71	68														
726-6	52	53														
726-7	81	65														
726-8	88	42														

Analyte Symbol	Zn	Zr	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Cr2O3	V2O5	LOI	Total
Unit Symbol	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Detection Limit	1	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.003		0.01
Analysis Method	TD-ICP	TD-ICP	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF
726-9	61	58														
726-10	87	38														
726-11	105	62														
726-12	153	58														
726-13	83	97														
726-14	68	98														
726-15	440	63														
726-16	229	45														
726-17	96	33														
726-18	93	22														
726-19	70	40														
726-20	88	28														
726-21	95	14														
726-22	59	74														
726-23	62	76														
726-24	74	51														
726-25	60	69														
726-26	63	43														

Quality Control

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La	Mg
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	%
Detection Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10	0.01
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas		27.3	3.8	1210	846	14	25	662	684	0.37	355	12	450	0.8	1540	0.81	2	6	22.1	< 10	5	0.03	< 10	0.14
GXR-1 Cert		31.0	3.30	1110	852	18.0	41.0	730	760	3.52	427	15.0	750	1.22	1380	0.960	8.20	12.0	23.6	13.8	3.90	0.050	7.50	0.217
GXR-1 Meas																								
GXR-1 Cert																								
DH-1a Meas																								
DH-1a Cert																								
DH-1a Meas																								
DH-1a Cert																								
MICA-FE Meas																								
MICA-FE Cert																								
GXR-4 Meas		3.2	0.6	6590	168	302	35	43	70	3.00	98	< 10	47	1.4	17	0.99	13	54	2.92	10	< 1	1.82	51	1.66
GXR-4 Cert		4.00	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5	1.66
GXR-4 Meas																								
GXR-4 Cert																								
AN-G Meas																								
AN-G Cert																								
SDC-1 Meas																								
SDC-1 Cert																								
SDC-1 Meas																								
SDC-1 Cert																								
SCO-1 Meas																								
SCO-1 Cert																								
SCO-1 Meas																								
SCO-1 Cert																								
GXR-6 Meas		0.3	0.7	71	1180	2	17	98	134	7.72	243	< 10	936	0.9	< 2	0.16	13	85	5.34	20	< 1	1.22	12	0.43
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9	0.609
GXR-6 Meas																								
GXR-6 Cert																								
BE-N Meas																								
BE-N Cert																								
AC-E Meas																								
AC-E Cert																								
MICA-Mg Meas																								
MICA-Mg Cert																								
SAR-M (U.S.G.S.) Meas		3.0	5.0	318	4440	12	39	964	922	1.33	34		208	1.1	< 2	0.37	9	96	2.83	< 10		0.34	55	0.38
SAR-M (U.S.G.S.) Cert		3.64	5.27	331	5220	13.10	41.50	982	930.0	6.30	38.8		801	2.20	1.94	0.61	10.70	79.7	2.99	16.8		2.94	57.4	0.50
SAR-M (U.S.G.S.) Meas																								
SAR-M (U.S.G.S.) Cert																								
DNC-1a Meas																								
DNC-1a Cert																								
DNC-1a Meas																								
DNC-1a Cert																								
CDN-GS-P3C Meas	261																							
CDN-GS-P3C Cert	263.00																							
CDN-GS-P3C Meas	248																							
CDN-GS-P3C Cert	263.00																							
CDN-GS-P3C Meas	251																							
CDN-GS-P3C Cert	263.00																							
CDN-GS-P3C Meas	252																							
CDN-GS-P3C Cert	263.00																							
CDN-GS-P3C Meas	249																							
CDN-GS-P3C Cert	263.00																							
CDN-GS-1L Meas	1170																							
CDN-GS-1L Cert	1160.00																							
CDN-GS-1L Meas	1030																							
CDN-GS-1L Cert	1160.00																							
CDN-GS-1L Meas	1190																							

Quality Control

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La	Mg
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	%
Detection Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10	0.01
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
CDN-GS-1L Cert	1160.00																							
829-1 Orig	< 5																							
829-1 Dup	< 5																							
829-2 Orig																								
829-2 Dup																								
825-2 Orig	66																							
825-2 Dup	68																							
825-7 Orig																								
825-7 Dup																								
825-12 Orig	< 5																							
825-12 Split	< 5																							
825-13 Orig	< 5																							
825-13 Dup	< 5																							
827-3 Orig	25																							
827-3 Dup	31																							
827-4 Orig																								
827-4 Dup																								
906-4 Orig	< 5																							
906-4 Split	< 5																							
916-4 Orig																								
916-4 Dup																								
916-6 Orig	< 5	0.4	< 0.5	112	493	< 1	5	< 2	30	2.38	< 2	< 10	47	< 0.5	< 2	3.32	18	10	3.31	< 10	< 1	0.11	10	0.81
916-6 Split	< 5	0.4	< 0.5	107	477	< 1	5	< 2	28	2.29	< 2	< 10	45	< 0.5	< 2	3.19	17	9	3.19	< 10	< 1	0.11	< 10	0.78
930-1 Orig	< 5																							
930-1 Dup	< 5																							
725-6 Orig	< 5																							
725-6 Dup	< 5																							
725-7 Orig																								
725-7 Dup																								
725-16 Orig	< 5																							
725-16 Split	< 5																							
725-17 Orig	< 5																							
725-17 Dup	< 5																							
726-3 Orig	< 5																							
726-3 Dup	< 5																							
726-4 Orig	12																							
726-4 Split	8																							
726-9 Orig																								
726-9 Dup																								
726-17 Orig	< 5																							
726-17 Dup	< 5																							
726-23 Orig																								
726-23 Dup																								
726-24 Orig	< 5																							
726-24 Split	6																							
726-26 Orig	29																							
726-28 Split	30																							
726-26 Orig	32																							
726-26 Dup	27																							
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10	< 0.01
Method Blank	< 5																							

Quality Control

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La	Mg
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	%
Detection Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10	0.01
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank	< 5																							
Method Blank																								

Quality Control

Analyte Symbol	Na	P	S	Sb	Sc	Si	Ti	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.001	0.001	0.01	2	1	1	0.01	1	2	10	1	10	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	0.055	0.042	0.19	84	1	19[illegible]		12	< 2	30	80	148	24	14
GXR-1 Cert	0.0520	0.0650	0.257	122	1.58	27[illegible]		13.0	0.390	34.9	80.0	164	32.0	38.0
GXR-1 Meas														
GXR-1 Cert														
DH-1a Meas														
DH-1a Cert														
DH-1a Meas														
DH-1a Cert														
MICA-FE Meas														
MICA-FE Cert														
GXR-4 Meas	0.170	0.122	1.56	5	7	8[illegible]		< 1	2	< 10	82	21	12	12
GXR-4 Cert	0.564	0.120	1.77	4.80	7.70	22[illegible]		0.970	3.20	6.20	87.0	30.8	14.0	186
GXR-4 Meas														
GXR-4 Cert														
AN-G Meas														
AN-G Cert														
SDC-1 Meas														
SDC-1 Cert														
SDC-1 Meas														
SDC-1 Cert														
SCO-1 Meas														
SCO-1 Cert														
SCO-1 Meas														
SCO-1 Cert														
GXR-6 Meas	0.082	0.035	0.01	3	25	3[illegible]		1	< 2	< 10	188	< 10	7	14
GXR-6 Cert	0.104	0.0350	0.0160	3.60	27.6	35[illegible]		0.0180	2.20	1.54	186	1.90	14.0	110
GXR-6 Meas														
GXR-6 Cert														
BE-N Meas														
BE-N Cert														
AC-E Meas														
AC-E Cert														
MICA-Mg Meas														
MICA-Mg Cert														
SAR-M (U.S.G.S.) Meas	0.042	0.064		5	4	3[illegible]	0.08	2	< 2	< 10	41	< 10	24	
SAR-M (U.S.G.S.) Cert	1.140	0.070		6.00	7.83	151	2.7	0.96	2.88	3.57	67.20	9.78	28.00	
SAR-M (U.S.G.S.) Meas														
SAR-M (U.S.G.S.) Cert														
DNC-1a Meas														
DNC-1a Cert														
DNC-1a Meas														
DNC-1a Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-1L Meas														
CDN-GS-1L Cert														
CDN-GS-1L Meas														
CDN-GS-1L Cert														
CDN-GS-1L Meas														

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
Detection Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	31.5	4.55	350	> 1000	1	1390	0.91	3.3	8	16
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0
GXR-1 Meas	32.9	2.23	368	638	1	1470	0.88	3.5	9	10
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0
DH-1a Meas										
DH-1a Cert										
DH-1a Meas										
DH-1a Cert										
MICA-FE Meas										
MICA-FE Cert										
GXR-4 Meas	3.6	6.83	97	313	2	11	1.06	0.4	15	45
GXR-4 Cert	4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0
GXR-4 Meas	3.5	6.59	89	> 1000	2	13	1.01	0.4	15	49
GXR-4 Cert	4.00	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0
AN-G Meas										
AN-G Cert										
SDC-1 Meas	< 0.3	8.27	< 3	630	3	< 2	1.06	< 0.3	19	52
SDC-1 Cert	0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00
SDC-1 Meas	< 0.3	8.27	< 3	612	3	< 2	1.05	< 0.3	19	54
SDC-1 Cert	0.0410	8.34	0.220	630	3.00	2.60	1.00	0.0800	18.0	64.00
SCO-1 Meas	< 0.3	7.35	6	559	2	< 2	1.90	< 0.3	12	55
SCO-1 Cert	0.134	7.24	12.00	570	1.80	0.37	1.87	0.140	11.00	68.0
SCO-1 Meas	< 0.3	7.27	5	554	2	< 2	1.89	< 0.3	12	58
SCO-1 Cert	0.134	7.24	12.00	570	1.80	0.37	1.87	0.140	11.00	68.0
GXR-6 Meas	0.5	13.8	228	> 1000	1	< 2	0.17	0.5	16	61
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0
GXR-6 Meas	0.5	14.8	198	> 1000	1	< 2	0.21	0.5	15	42
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0
BE-N Meas										
BE-N Cert										
AC-E Meas										
AC-E Cert										
MICA-Mg Meas										
MICA-Mg Cert										
SAR-M (U.S.G.S.) Meas	3.5	6.26	28	813	3	< 2	0.69	4.8	12	82
SAR-M (U.S.G.S.) Cert	3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70	79.7
SAR-M (U.S.G.S.) Meas	3.2	6.16	21	781	3	< 2	0.67	4.6	11	77
SAR-M (U.S.G.S.) Cert	3.64	6.30	38.8	801	2.20	1.94	0.61	5.27	10.70	79.7
DNC-1a Meas				95					56	191
DNC-1a Cert				118					57.0	270
DNC-1a Meas				95					55	189
DNC-1a Cert				118					57.0	270
CDN-GS-P3C Meas										
CDN-GS-P3C Cert										
CDN-GS-P3C Meas										
CDN-GS-P3C Cert										
CDN-GS-P3C Meas										
CDN-GS-P3C Cert										
CDN-GS-P3C Meas										
CDN-GS-P3C Cert										
CDN-GS-P3C Meas										
CDN-GS-P3C Cert										
CDN-GS-1L Meas										
CDN-GS-1L Cert										
CDN-GS-1L Meas										
CDN-GS-1L Cert										
CDN-GS-1L Meas										

Quality Control

Analyte Symbol	Na	P	S	Sb	Sc	Si	Ti	Te	Tl	U	V	W	Y	Zr	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Unit Symbol	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
Detection Limit	0.001	0.001	0.01	2	1	1	0.01	1	2	10	1	10	1	1	0.3	0.01	3	7	1	2	0.01	0.3	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
CDN-GS-1L Cert																								
829-1 Orig																								
829-1 Dup																								
829-2 Orig															0.5	9.53	10	960	1	< 2	4.32	< 0.3	14	6
829-2 Dup															0.4	9.61	9	957	1	2	4.32	< 0.3	15	10
825-2 Orig																								
825-2 Dup																								
825-7 Orig															0.4	8.04	11	> 1000	< 1	< 2	5.25	0.4	30	51
825-7 Dup															0.4	7.16	12	> 1000	< 1	< 2	4.84	0.3	28	68
825-12 Orig															1.0	9.33	5	855	< 1	< 2	5.57	0.7	19	11
825-12 Split															1.0	9.29	3	646	< 1	< 2	5.53	0.7	20	14
825-13 Orig																								
825-13 Dup																								
827-3 Orig																								
827-3 Dup																								
827-4 Orig															< 0.3	9.30	4	344	< 1	< 2	5.72	< 0.3	27	17
827-4 Dup															< 0.3	9.76	< 3	358	< 1	< 2	5.91	< 0.3	28	16
906-4 Orig															0.3	8.28	12	168	< 1	3	4.94	< 0.3	30	24
906-4 Split															0.4	10.7	16	177	< 1	2	5.15	< 0.3	30	24
916-4 Orig															1.1	10.1	4	76	< 1	< 2	9.38	< 0.3	43	58
916-4 Dup															0.9	6.87	< 3	69	< 1	< 2	8.92	< 0.3	41	71
916-6 Orig	0.122	0.185	0.79	< 2	6	592	0.31	3	< 2	< 10	131	< 10	14	10	0.9	8.32	< 3	551	< 1	< 2	6.17	< 0.3	24	17
916-6 Split	0.117	0.181	0.77	< 2	6	568	0.30	4	< 2	< 10	126	< 10	13	10	0.8	8.33	< 3	469	< 1	< 2	6.08	< 0.3	23	19
930-1 Orig																								
930-1 Dup																								
725-6 Orig																								
725-6 Dup																								
725-7 Orig															1.4	9.01	12	475	< 1	< 2	6.50	< 0.3	38	31
725-7 Dup															1.5	9.09	12	473	< 1	< 2	6.34	< 0.3	38	26
725-16 Orig															0.4	8.46	6	> 1000	1	< 2	6.33	< 0.3	27	35
725-16 Split															0.3	8.41	7	> 1000	< 1	< 2	6.35	< 0.3	28	37
725-17 Orig																								
725-17 Dup																								
726-3 Orig																								
726-3 Dup																								
726-4 Orig															0.6	9.11	14	> 1000	< 1	< 2	5.40	< 0.3	27	7
726-4 Split															0.6	9.20	12	> 1000	< 1	< 2	5.45	< 0.3	29	8
726-9 Orig															< 0.3	8.66	< 3	> 1000	< 1	< 2	4.44	0.3	22	18
726-9 Dup															0.5	8.77	20	> 1000	< 1	< 2	4.50	< 0.3	22	18
726-17 Orig																								
726-17 Dup																								
726-23 Orig															0.7	6.79	7	> 1000	< 1	< 2	4.84	< 0.3	14	10
726-23 Dup															0.7	7.98	5	> 1000	< 1	< 2	4.55	< 0.3	13	10
726-24 Orig															0.5	8.29	5	> 1000	< 1	< 2	3.78	< 0.3	16	29
726-24 Split															0.5	8.30	13	> 1000	< 1	< 2	3.78	< 0.3	16	33
726-26 Orig															0.9	8.20	8	559	< 1	< 2	4.76	< 0.3	20	44
726-26 Split															0.9	8.25	8	583	< 1	< 2	4.74	0.3	21	32
726-26 Orig																								
726-28 Dup																								
Method Blank															< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	
Method Blank															< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	
Method Blank															< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	
Method Blank															< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	
Method Blank															< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	
Method Blank															< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	
Method Blank	0.013	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 1	< 2	< 10	< 1	< 10	< 1	< 1										
Method Blank																								

Quality Control

Analyte Symbol	Na	P	S	Sb	Sc	Sr	Ti	Te	Tl	U	V	W	Y	Zr	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Unit Symbol	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
Detection Limit	0.001	0.001	0.01	2	1	1	0.01	1	2	10	1	10	1	1	0.3	0.01	3	7	1	2	0.01	0.3	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Method Blank																								
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Quality Control

Analyte Symbol	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	1090	23.3	11	2	0.05	0.30	11	948	14	0.06	48	0.056	725	18	0.24	< 4	286	13		< 5	30	81	157	25
GXR-1 Cert	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0
GXR-1 Meas	1140	24.5	9	5	0.05	0.21	8	937	15	0.05	49	0.058	774	30	0.25	< 4	291	15		< 5	40	84	156	26
GXR-1 Cert	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730	122	0.257	1.58	275	13.0		0.390	34.9	80.0	164	32.0
DH-1a Meas																					2480			
DH-1a Cert																					2629			
DH-1a Meas																					2330			
DH-1a Cert																					2629			
MICA-FE Meas																								
MICA-FE Cert																								
GXR-4 Meas	6540	3.12	22	< 1	4.15	1.73	11	163	314	0.51	46	0.134	49	< 5	1.77	8	217	4		< 5	< 10	93	37	13
GXR-4 Cert	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0
GXR-4 Meas	6110	2.97	22	< 1	4.25	1.63	11	157	299	0.49	44	0.128	46	< 5	1.71	8	213	9		< 5	< 10	89	36	12
GXR-4 Cert	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0	4.80	1.77	7.70	221	0.970		3.20	6.20	87.0	30.8	14.0
AN-G Meas																								
AN-G Cert																								
SDC-1 Meas	28	4.72	26	< 1	2.38	0.98	34	887	< 1	1.49	40	0.052	22	< 5	0.07	16	171		0.22	< 5	< 10	58	< 5	30
SDC-1 Cert	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0
SDC-1 Meas	28	4.69	28	< 1	2.18	0.99	34	903	< 1	1.50	38	0.054	19	< 5	0.07	16	168		0.22	< 5	< 10	58	< 5	30
SDC-1 Cert	30.00	4.82	21.00	0.20	2.72	1.02	34.00	880.00	0.250	1.52	38.0	0.0690	25.00	0.54	0.0650	17.00	180.00		0.606	0.70	3.10	102.00	0.800	40.0
SCO-1 Meas	33	3.58	22		2.80	1.57	42	413	< 1	0.66	31	0.080	26	< 5	0.08	13	158		0.35			132	< 5	19
SCO-1 Cert	29	3.59	15		2.30	1.64	45	410	1.4	0.670	27	0.0900	31.0	2.50	0.0630	11.0	170		0.380			130	1.4	26
SCO-1 Meas	28	3.53	21		2.27	1.56	42	407	< 1	0.66	32	0.077	27	< 5	0.08	12	158		0.26			116	< 5	18
SCO-1 Cert	29	3.59	15		2.30	1.64	45	410	1.4	0.670	27	0.0900	31.0	2.50	0.0630	11.0	170		0.380			130	1.4	26
GXR-6 Meas	68	5.91	36	< 1	2.57	0.61	34	1170	< 1	0.09	31	0.036	104	< 5	0.02	33	38	< 2		< 5	< 10	138	< 5	13
GXR-6 Cert	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	166	1.90	14.0
GXR-6 Meas	65	5.46	38	< 1	2.01	0.64	37	1060	< 1	0.10	30	0.034	93	< 5	0.02	30	44	< 2		< 5	< 10	118	< 5	13
GXR-6 Cert	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0
BE-N Meas																								
BE-N Cert																								
AC-E Meas																								
AC-E Cert																								
MICA-Mg Meas																								
MICA-Mg Cert																								
SAR-M (U.S.G.S.) Meas	329	3.42	21		3.24	0.50	30	5020	7	1.19	53	0.063	984	< 5		10	153	4	0.33	< 5	< 10	61	10	36
SAR-M (U.S.G.S.) Cert	331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	962	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00
SAR-M (U.S.G.S.) Meas	294	3.32	21		2.69	0.50	30	4840	4	1.14	51	0.052	965	< 5		10	147	7	0.25	< 5	< 10	44	11	35
SAR-M (U.S.G.S.) Cert	331	2.99	16.8		2.94	0.50	27.4	5220	13.10	1.140	41.50	0.070	982	6.00		7.83	151.0	0.96	2.7	2.88	3.57	67.20	9.78	28.00
DNC-1a Meas	93						4				256			< 5		31	126					140		14
DNC-1a Cert	100.0						5.20				247			0.96		31	144.0					148.0		18.0
DNC-1a Meas	90						4				253			< 5		31	127					141		14
DNC-1a Cert	100.0						5.20				247			0.96		31	144.0					148.0		18.0
CDN-GS-P3C Meas																								
CDN-GS-P3C Cert																								
CDN-GS-P3C Meas																								
CDN-GS-P3C Cert																								
CDN-GS-P3C Meas																								
CDN-GS-P3C Cert																								
CDN-GS-P3C Meas																								
CDN-GS-P3C Cert																								
CDN-GS-P3C Meas																								
CDN-GS-P3C Cert																								
CDN-GS-1L Meas																								
CDN-GS-1L Cert																								
CDN-GS-1L Meas																								
CDN-GS-1L Cert																								
CDN-GS-1L Meas																								

Quality Control

Analyte Symbol	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
CDN-GS-1L Cert																								
829-1 Orig																								
829-1 Dup																								
829-2 Orig	74	4.81	24	< 1	2.97	1.44	20	1420	< 1	3.71	6	0.166	< 3	< 5	0.04	13	687	3	0.31	< 5	< 10	121	< 5	22
829-2 Dup	101	4.78	24	< 1	2.60	1.44	20	1430	< 1	3.67	6	0.168	< 3	< 5	0.04	13	694	9	0.37	< 5	< 10	141	< 5	22
825-2 Orig																								
825-2 Dup																								
825-7 Orig	240	6.93	20	< 1	3.04	3.52	41	2400	< 1	2.94	37	0.192	11	< 5	0.04	33	439	< 2	0.49	< 5	< 10	298	< 5	14
825-7 Dup	208	6.30	19	< 1	2.14	3.38	37	2230	< 1	2.70	33	0.179	11	< 5	0.04	30	400	< 2	0.45	< 5	< 10	272	< 5	12
825-12 Orig	321	5.50	23	< 1	1.76	1.83	12	1300	< 1	3.25	12	0.157	< 3	< 5	0.04	19	1100	5	0.29	< 5	< 10	157	< 5	20
825-12 Split	321	5.50	24	< 1	1.61	1.82	12	1300	< 1	3.24	12	0.155	< 3	< 5	0.04	19	1110	< 2	0.31	< 5	< 10	165	< 5	19
825-13 Orig																								
825-13 Dup																								
827-3 Orig																								
827-3 Dup																								
827-4 Orig	31	6.05	22	< 1	1.05	2.59	20	1190	< 1	3.38	16	0.137	7	< 5	0.04	23	223	5	0.33	< 5	< 10	177	< 5	15
827-4 Dup	32	6.27	22	< 1	1.10	2.70	20	1190	< 1	3.52	17	0.142	5	< 5	0.05	24	234	< 2	0.38	< 5	< 10	196	< 5	16
906-4 Orig	97	6.97	20	< 1	0.44	2.94	19	1230	< 1	3.43	24	0.151	< 3	< 5	0.04	28	261	9	0.63	< 5	< 10	250	< 5	16
906-4 Split	102	7.27	20	< 1	0.49	3.08	20	1270	1	3.60	24	0.177	< 3	< 5	0.04	37	275	8	0.86	< 5	< 10	322	< 5	22
916-4 Orig	577	9.71	35	< 1	0.40	0.83	6	826	13	1.49	46	0.106	4	< 5	1.61	16	867	< 2	0.48	< 5	< 10	247	< 5	12
916-4 Dup	554	9.42	33	< 1	0.34	0.70	5	817	15	1.40	44	0.102	< 3	< 5	1.52	10	777	6	0.49	< 5	< 10	252	< 5	9
916-6 Orig	101	5.40	22	< 1	1.78	1.55	4	1110	< 1	2.71	15	0.170	< 3	< 5	0.84	19	1170	10	0.43	< 5	< 10	232	< 5	17
916-6 Split	97	5.30	22	< 1	1.86	1.54	4	1040	< 1	2.66	16	0.169	< 3	< 5	0.82	19	1130	8	0.42	< 5	< 10	226	< 5	17
930-1 Orig																								
930-1 Dup																								
725-6 Orig																								
725-6 Dup																								
725-7 Orig	227	7.19	23	< 1	3.08	3.22	73	2770	< 1	1.43	35	0.130	6	< 5	0.06	28	746	< 2	0.31	< 5	< 10	174	< 5	14
725-7 Dup	230	7.20	24	< 1	3.04	3.15	74	2730	1	1.43	36	0.133	7	< 5	0.06	28	749	5	0.33	< 5	< 10	177	< 5	14
725-16 Orig	136	6.43	23	< 1	2.61	3.36	54	1690	< 1	2.14	43	0.159	16	< 5	0.05	26	461	< 2	0.49	< 5	< 10	305	< 5	15
725-16 Split	131	6.44	23	< 1	2.65	3.29	54	1770	< 1	2.14	42	0.153	15	< 5	0.05	26	462	2	0.40	< 5	< 10	264	< 5	15
725-17 Orig																								
725-17 Dup																								
726-3 Orig																								
726-3 Dup																								
726-4 Orig	276	6.77	23	< 1	3.16	2.69	18	1250	< 1	2.46	15	0.157	4	< 5	0.06	28	623	4	0.34	< 5	< 10	195	< 5	19
726-4 Split	275	6.78	23	< 1	3.27	2.70	18	1280	< 1	2.47	15	0.161	3	< 5	0.06	28	634	2	0.30	< 5	< 10	175	< 5	19
726-9 Orig	6	6.82	21	3	3.18	2.53	16	1210	< 1	2.37	20	0.164	5	< 5	0.04	25	574	9	0.37	< 5	< 10	203	< 5	18
726-9 Dup	6	6.99	22	4	3.67	2.58	16	1240	< 1	2.43	20	0.165	< 3	< 5	0.03	25	587	4	0.36	< 5	< 10	204	< 5	19
726-17 Orig																								
726-17 Dup																								
726-23 Orig	381	5.37	22	< 1	5.05	1.64	13	1500	3	2.53	9	0.136	< 3	< 5	0.08	16	547	9	0.42	< 5	< 10	181	< 5	17
726-23 Dup	349	5.01	20	3	2.72	1.53	12	1460	3	2.35	8	0.127	< 3	< 5	0.07	15	501	< 2	0.40	< 5	< 10	173	< 5	16
726-24 Orig	192	5.89	20	< 1	2.15	1.82	16	1470	< 1	2.22	17	0.143	< 3	< 5	0.03	14	395	12	0.38	< 5	< 10	188	< 5	15
726-24 Split	192	5.86	20	< 1	2.45	1.81	16	1450	< 1	2.22	16	0.146	< 3	< 5	0.03	14	393	3	0.38	< 5	< 10	191	< 5	16
726-26 Orig	599	7.99	21	< 1	3.60	3.15	17	1170	12	1.73	33	0.126	< 3	< 5	0.72	26	480	5	0.47	< 5	< 10	247	< 5	14
726-26 Split	603	7.93	22	< 1	3.17	3.15	17	1160	10	1.71	33	0.126	< 3	< 5	0.76	27	479	6	0.44	< 5	< 10	223	< 5	14
726-26 Orig																								
726-26 Dup																								
Method Blank	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1
Method Blank	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1
Method Blank	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1
Method Blank	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1
Method Blank	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1
Method Blank	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1
Method Blank																								
Method Blank																								

Quality Control

Analyte Symbol	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y
Unit Symbol	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Detection Limit	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1
Analysis Method	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank																								
Method Blank																								

Quality Control

Analyte Symbol	Zn	Zr	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Cr2O3	V2O5
Unit Symbol	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%	%
Detection Limit	1	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.003
Analysis Method	TD-ICP	TD-ICP	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF
GXR-1 Meas	728	38												
GXR-1 Cert	760	38.0												
GXR-1 Meas	768	24												
GXR-1 Cert	760	38.0												
DH-1a Meas														
DH-1a Cert														
DH-1a Meas														
DH-1a Cert														
MICA-FE Meas			34.51	19.36	25.84	0.356	4.55	0.46	0.29	8.76	2.55	0.41	0.01	0.021
MICA-FE Cert			34.4	19.5	25.6	0.350	4.55	0.430	0.300	8.75	2.50	0.450	0.01	0.024
GXR-4 Meas	77	49												
GXR-4 Cert	73.0	186												
GXR-4 Meas	75	59												
GXR-4 Cert	73.0	186												
AN-G Meas			46.42	29.81	3.34	0.040	1.74	16.00	1.65	0.15	0.23	0.01	< 0.01	0.013
AN-G Cert			46.30	29.8	3.36	0.040	1.79	15.90	1.63	0.13	0.22	0.01	0.01	0.012
SDC-1 Meas	103	44												
SDC-1 Cert	103.00	290.00												
SDC-1 Meas	102	46												
SDC-1 Cert	103.00	290.00												
SCO-1 Meas	102	86												
SCO-1 Cert	100	160												
SCO-1 Meas	103	82												
SCO-1 Cert	100	160												
GXR-6 Meas	141	85												
GXR-6 Cert	118	110												
GXR-6 Meas	132	78												
GXR-6 Cert	118	110												
BE-N Meas			38.69	9.99	12.88	0.206	13.18	13.89	3.30	1.37	2.64	1.09	0.05	0.044
BE-N Cert			38.2	10.1	12.8	0.200	13.1	13.9	3.18	1.39	2.61	1.05	0.0500	0.042
AC-E Meas			70.24	14.56	2.57	0.056	0.01	0.37	6.49	4.47	0.11			
AC-E Cert			70.35	14.70	2.56	0.058	0.03	0.34	6.54	4.49	0.11			
MICA-Mg Meas			38.01	15.21	9.46	0.255	20.32	< 0.01	0.11	9.86	1.59	< 0.01	0.01	
MICA-Mg Cert			38.30	15.20	9.46	0.26	20.40	0.08	0.12	10.00	1.63	0.01	0.01	
SAR-M (U.S.G.S.) Meas	939													
SAR-M (U.S.G.S.) Cert	930.0													
SAR-M (U.S.G.S.) Meas	872													
SAR-M (U.S.G.S.) Cert	930.0													
DNC-1a Meas	57	38												
DNC-1a Cert	70.0	38												
DNC-1a Meas	55	37												
DNC-1a Cert	70.0	38												
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-P3C Meas														
CDN-GS-P3C Cert														
CDN-GS-1L Meas														
CDN-GS-1L Cert														
CDN-GS-1L Meas														
CDN-GS-1L Cert														
CDN-GS-1L Meas														

Quality Control

Analyte Symbol	Zn	Zr	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Cr2O3	V2O5
Unit Symbol	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%	%
Detection Limit	1	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.003
Analysis Method	TD-ICP	TD-ICP	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF
CDN-GS-1L Cert														
829-1 Orig														
829-1 Dup														
829-2 Orig	63	34												
829-2 Dup	63	24												
825-2 Orig														
825-2 Dup														
825-7 Orig	123	69												
825-7 Dup	112	49												
825-12 Orig	66	48												
825-12 Split	67	49												
825-13 Orig														
825-13 Dup														
827-3 Orig														
827-3 Dup														
827-4 Orig	71	50												
827-4 Dup	71	54												
906-4 Orig	89	79												
906-4 Split	91	106												
916-4 Orig	15	44												
916-4 Dup	15	38												
916-6 Orig	45	36												
916-6 Split	44	35												
930-1 Orig														
930-1 Dup														
725-6 Orig														
725-6 Dup														
725-7 Orig	201	40												
725-7 Dup	199	42												
725-16 Orig	162	64												
725-16 Split	163	53												
725-17 Orig														
725-17 Dup														
726-3 Orig														
726-3 Dup														
726-4 Orig	61	31												
726-4 Split	64	33												
726-9 Orig	61	55												
726-9 Dup	62	60												
726-17 Orig														
726-17 Dup														
726-23 Orig	63	77												
726-23 Dup	60	75												
726-24 Orig	74	51												
726-24 Split	76	50												
726-26 Orig	63	43												
726-26 Split	61	39												
726-28 Orig														
726-28 Dup														
Method Blank	< 1	< 5												
Method Blank	< 1	< 5												
Method Blank	< 1	< 5												
Method Blank	< 1	< 5												
Method Blank	< 1	< 5												
Method Blank	< 1	< 5												
Method Blank														
Method Blank														

Quality Control

Analyte Symbol	Zn	Zr	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Cr2O3	V2O5
Unit Symbol	ppm	ppm	%	%	%	%	%	%	%	%	%	%	%	%
Detection Limit	1	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.003
Analysis Method	TD-ICP	TD-ICP	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF
Method Blank														
Method Blank														
Method Blank														
Method Blank														
Method Blank														
Method Blank														
Method Blank			< 0.01	< 0.01	< 0.01	< 0.001	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.003

Sample_ Number	Easting_ m	Northing _m	Description	Magnetism	Alteration	Alteration _Type	Alteration_Intensity	Mineralization	Lith
724-1	672605	5535220	Fg diorite; sample could be a breccia clast. Medium hardness. Rusty.	Strong	Chlorite - weak (2), Pch, R	Chlorite	2	Trace Pyrite	Diorite
724-2	672666	5535102	Hard, very altered, flooded with a diffuse texture. Pale-medium green with pale green bleached vein haloes. Was possibly a porphyritic plag + augite phryic andesitic basalt? Hornfelsed. Strongly magnetic. Patchy/fracture weak (1) epidote. Ca-Na veining?? (2-3). Cream green...	Strong	Epidote - weak (1) Pch, F. Ca-na vng? (2-3)	Ca-Na?	3		Andesitic Basalt
724-3	673491	5534271	Plag crowded volcanics. Green/maroon. Likely clastic. Moderate (3) epidote, Pch, F, V. Hematite rich.	None	Epidote - moderate (3), Pch, F, V.	Epidote	3		Plag phyric volcanics.
724-4	673331	5534454	Grey-maroon andesitic basalt. Moderate (3) epidote and chlorite alteration. Pch and R.	Strong	Epidote and chlorite (3) Pch, R.	Epidote-Chlorite	3		Andesitic Basalt
724-5	673074	5534709	Strongly magnetic. Disseminated magnetite. Very hard. Diffuse texture. Volcaniclastic/lithic tuff? Epidote (1-2) Pch. Grey-medium green.	Strong	Epidote (1-2) Pch.	Epidote	2		Volcaniclastic/lithic tuff?
724-6	673038	5534709	Grey volcanic? All weathered faces - no visible fresh textures. Epidote (2) fractures weak. Strong magnetism.	Strong	Epidote (2) F.	Epidote	2		Volcanic?
724-7	672689	5535149	Cream green Ca-Na alt (intense (4))? Mottled diffuse texture with cream green alteration and grey mottled appearance (alb-act?). Could also be due to saussuritization of plag… Appears to be originally plag phyric texture. Andesite/diorite? Diseminated magnetite - strongly magnetic. Very hard. Py to 2% (possible vein). Weak epidote (1 - V).	Strong	Epidote (1) V.	Epidote - Ca-Na	1	Pyrite to 2% (V?).	Andesite or diorite?
724-8	672631	5535210	Strongly magnetic. Face very altered…vfg diorite intrusive or andesitic flow? Epidote veining/F (2). Disseminated magnetite. Calcite vng.	Strong	Epidote (2) V, F. Calcite (V).	Epidote - Calcite	2		Vfg diorite or andesite?

724-9	672631	5535210	Pale-medium green porphyritic with euhedral, hornblende phenos to 5mm and subhedral plag phenos in a fg green gm. Strongly magnetic. Disseminated magnetite. Relatively unaltered with a clear, distinct texture.	Strong	None	None	0		Hornblende phyric porphyritic rock
725-1	672551	5535102	Black and white matrix looks like diorite, with rounded to subrounded pink syenite clasts.	Moderate - strong	Epidote (2) Pch, F. Chlorite (3) Pch, R.	Epidote - Chlorite	3		Intrusive breccia?
725-2	672572	5535018	Sample shows sharp, clear boundary between syenite and very altered green volcanics? Disemianted magnetite.	Moderate - strong	Epidote (2) Pch, F, R. Chlorite (2) Pch, R.	Epidote - Chlorite	2		Breccia?
725-3	672640	5534884	Medium-green-gray feldspar porphyritic volcanics? Altered, alteration of plag to turquoise saussuritization. Lots of disseminated magnetite.	Strong	Epidote (1) Pch, F. Chlorite (1) Pch, R.	Epidote - Chlorite	1		Plag phyric volcanics?
725-4	672680	5534851	Hornfelsed, augite phyric, plag phyric with minor saussuritization of plag. Disseminated magnetite. Pale-medium green-blue fg gm. Very hard. Flow?	Strong	Epidote (1) F.	Epidote	1		Augite and plag phyric flow?
725-6	672915	5534605	Mottled texture from alteration shows diffuse resorbed boundaries of diorite clast in a fg medium-dark green gm.	Moderate - strong	Epidote (3) Pch, R. Chlorite (2-3) Pch. R.	Epidote - Chlorite	3		Lithic tuff or flow? Andesite
725-7	672969	5534521	Disseminated magnetite. Same as 725-6. Plag phyric andesite/lithic tuff or flow?	Moderate - strong	Epidote (3) Pch, R. Chlorite (3) Pch, R.	Epidote - Chlorite	3	Trace Chalcopyrite, Pyrite	Lithic tuff or flow? Andesite
725-8	672995	5534444	Volcaniclastic with maroon basalt clasts, diorite and andesite, mottled, altered. Medium grained, white/green color.	Moderate	Epidote (3-4), Pch, R, V. Chlorite (2) R, Pch.	Epidote - Chlorite	3		Volcaniclastic
725-9	673063	5534384	Hematite stained medium green volcanics. Saussuritization of plag. Disseminated magnetite. Mottled appearance. Lapilli tuff? Flattening in one direction.	Strong	Epidote (3) Pch, R. chlorite (1-2) R.	Epidote - Chlorite	2		Lapilli tuff?

725-10	673157	5534081	Mottled maroon volcanics, lithic tuff or volcanic bx/agglomerate? Altered, diffuse texture with mottled plag. Hematite staining. Plag phyric grey gm.	None	Epidote (2) Pch. Chlorite (1) R.	Epidote - Chlorite	2		Lithic tuff or volc. Bx/agglom.
725-11	673160	5533976	Maroon basalt, augite phyric, fg maroon gm.	Moderate	Chlorite (2) R. Epidote (1) F.	Epidote - Chlorite	2		Basalt
725-12	672679	5533818	Plag and analcite phyric trachybasalt. Maroon fg gm, mottled white feldspar/analcime. Hematite staining.	None	Chlorite (1) R, Pch. Epidote (1) R, Pch.	Epidote - Chlorite	1		Plagioclase and analcime trachybasalt
725-13	672756	5533821	Mafic crystal-lithic tuff, maroon, very weathered, limited fresh surface for id.	None	Epidote (3) Pch, V, F. Chlorite (2-3) Pch, R, F.	Epidote-Chlorite.	3		Crystal lithic tuff (mafic)
725-14	672681	5533872	Plagioclase and augite phyric maroon andesitic basalt.	None	Epidote (1) Pch. Chlorite (1) R.	Epidote - Chlorite	1		Andesitic Basalt
725-15	672657	5533962	Amygdaloidal maroon basalt with calcite-chlorite-feldspar infilling. Plagioclase phryic/mb. Analcite.	None	Chlorite (2) R.	Chlorite	2		Amygdaloidal Basalt.
725-16	672631	5534171	As 725-15 + augite.	Weak	Chlorite (2) R. Epidote (2) R.	Epidote - Chlorite	2		Amygdaloidal Basalt.
725-17	672544	5534681	Medium green plag phyric cyrstal tuff, weakly rusty.	Moderate	Chlorite (1-2) R. Epidote (1) Pch, R.	Epidote - Chlorite	2		Plag phyric crystal tuff.
725-18	672537	5534774	Grey, diffuse textured gm. Plag phyric, crowded. Andesite flow? Very hard. Disseminated magnetite. Weak saussuritization.	Strong	Epidote (1-2) Pch, R, F. Chlorite (1-2), Pch, R, F.	Epidote - Chlorite	2	Malachite (F) 0.5%	Andesite flow
725-19	672510	5534879	Diffuse textures. Possible volcanic bx. Parts look syenitic, others augite-phyric volcanics. Maroon - rusty to medium green. With weak saussuritization. Mostly maroon volcanics.	Weak - moderate	Possible potassic but hard to discern...	Potassic???? - likely just hematite	1	Tr - 0.5% Malachite (F). Pyrite (0.5%).	Lahar?

725-20	672481	5534003	Rusty, no fresh surfaces. Plag phyric, grey.	Moderate - strong	Epidote (1) Pch, R.	Epidote	1	Up to 1% malachite. Trace Pyrite. Trace Chalcopyrite.	Plag phyric
725-21	672507	5535149	Grey, plagioclase crowded, sub-euhedral, and lesser augite, Weak saussuritization.	Strong	Epidote (1) F.	Epidote	1		Plag phyric
725-22	672522	5535242	Mottled appearance, Breccia. Plag volcanics, diorite, syenite clasts.	Strong	Epidote (2-3) R. Chlorite (2) R, Pch.	Epidote - Chlorite	3		Breccia
726-1	672386	5535167	Diorite matrix? Monzonite and dacite clasts.	Strong	Epidote (2-3) Pch, R. Chlorite (2-3) Pch, R.	Epidote - Chlorite	3	Trace Pyrite (V?).	Breccia.
726-2	672342	5535048	Medium-green, diffuse texture, fg volcanics. Disseminated magnetite. Remnant augite and plag phenos.	Moderate - Strong	Chlorite (3) P. Epidote (1) Pch, R.	Epidote - Chlorite	3	Trace - 0.5% Pyrite.	Volcanics?
726-3	672256	5535000	Microdiorite, medium green-gray colour, weak saussuritization.	Strong	Chlorite (2-3) R, V. Epidote (2) Pch, R, F. Calcite veining.	Epidote - Chlorite - Calcite	3		Microdiorite
726-4	672243	5534935	Medium green, augite-phyric (remnant) diffuse texture, crisscrossed by intense epidote veining.	Moderate	Epidote (3-4) Pch, V, F. Chlorite (2) R.	Epidote - Chlorite	3		Volcanics/microdiorite?
726-5	672191	5534895	Medium-green augite phyric flow? As above, epidote veining, or microdiorite?? Not sure.	Moderate - Strong	Epidote (3-4) Pch, R, V. Chlorite (1) R.	Epidote - Chlorite	4		Volcanics/microdiorite?

726-6	672157	5534839	Pale green, plag crowded groundmass is fifuse and weakly saussuritized. Malachite in clusters - veins on cross section? Microdiorite is my best guess. Disseminated magnetite.	Moderate	Chlorite (1) R.	Chlorite	1	Trace - 0.5% Malachite. Trace - 0.5% Pyrite. Trace Chalcopyrite. D.	Volcanics/microdiorite?
726-7	672126	5534703	Medium green-gray, pinkish hue to grey groundmass, diffuse, mottled texture with intense epidote, patchy replacmeents - possibly clastic or could be patchy alteration. Disseminated magnetite. Plag. Sparse hornblende visible. Dacite?	None	Epidote (3-4) Pch, R. Chlorite (2) R. pinkish hue…	Epidote - Chlorite - pinkish hue…?	4		Volcaniclastic?
726-8	672108	5534691	As abov e, but looks more brecciated/clastic. Diseased epidote texture/brecciation through host. Possible microdiorite matrix.	None	Epidote (4) P, Pch, R, D. Chlorite (2) R.	Epidote - Chlorite	3		Volcaniclastic?
726-10	672132	5534552	A) Dark grey with patchy green epidote alteration. Possible remnant augite. Diffuse texture. Hematite staining. Looks tuffaceous but could be an alteration texture. B) Maroon basalt - agglomerate. Very hard, crystals and lithics to >2cm, subrounded to subangular clasts, matrix supported. Volcanic clasts.	A) None B) None	A) Epidote (3) V, R. Chlorite (2) Pch, R. Calcite veining. B) none	Epidote - Chlorite - Calcite	3		Volcanics/ Maroon basalt agglomerate
726-11	672023	5534524	Coarse, matrix supported lahar deposit? Agglomerate. Clastic with lithics to >4cm, subrounded in fg grey gm, clasts very altered, either pinkish hue or flooded with epidote alteration. Hard.	None	Epidote alteration of clasts (4) P. In groundmass (2) Pch.	Epidote	3		Lahar?
726-12	671802	5534223	As 726-10B. Amygdaloidal maroon basalt clasts.	None	None	None	0		Maroon basalt agglomerate.

726-13	671855	5534179	Maroon, rusty (Jar, Goe>>). Very hard, plag phyric volcanics, with vague, possible augite phenos that have been replaced by epidote and chlorite. Weak saussuritization.	None	Epidote (1-2) R, Pch. Chlorite (1-2) R, Pch. Calcite veinlets.	Epidote - Chlorite - Calcite	2	Malachite 0.5-0.7% coatings, Rusty sulfide veinlets.	Maroon volcanics.
726-14	671869	5534176	Hard, medium grey-purplish, green, augite phyric, diffuse texture, albitic? Blebs/wormy - alteration or clastic? Devitrification texture?? Rusty.	None	Chlorite (2-3) Pch, R. Calcite veining.	Chlorite - Calcite	3	Malachite to 3%.	Augite phyric volcanics
726-15	672060	5534132	Maroon basalt mottled (slightly) with feldspars (as above, possible devitrification or wormy/pch alteration). Feldspar phyric. Tuff??	None	none	None	0		Maroon basalt
726-16	672272	5534200	Maroon agglomerate as 726-10B. Amygdaloidal basalt clasts (grey).	None	Epidote (2) R, Pch. Chlorite (2) R, Pch. Both only in clasts.	Epidote - Chlorite	2		Maroon basalt agglomerate.
726-17	672420	5534448	Medium grey volcaniclastic with lithic clasts mostly <1.5cm (some to >2cm). Matrix supported. Very hard, anhedral plag in gm, rusty. Some clasts with resorbed boundaries. Volcanic, syenite and diorite clasts.	None	Epidote (2) and Chlorite (1) in clasts.	Epidote - Chlorite	2		Volcaniclastic
726-18	672579	5534660	Medium grey volcaniclastic with lithic clasts mostly <1.5cm (some to >2cm). Matrix supported. Very hard, anhedral plag in gm, rusty. Some clasts with resorbed boundaries. Volcanic, syenite and diorite clasts.	Strong	Epidote (2) and Chlorite (1) in clasts.	Epidote - Chlorite	2		Volcaniclastic
726-19	672562	5534692	Rusty, with strong Limonite weathering. Medium grey mottled gm (with feldspars). Hard to see (very weathered). Manganese Oxides. Probably clastic judging by texture but really can't see much. Disseminated magnetite.	Strong	Epidote (2) F, V. Calcite veining.	Epidote - Calcite	2		

726-20	672514	5534769	Medium grey-pale grey, feldspar rich with disseminated magnetite and weak saussuritization. Crowded subhedral phenos overprinted by weathering. Moderate hardness. Could be intrusive, unsure. Or just diorite clasts?? Rusty vugs.	Strong	Epidote (1-2) F, Pch. Epidote flooded clasts.	Epidote	2		
726-21	672499	5534819	As 726-20 but definite diorite clasts and bleached vein haloes (epidote/carb?).	Strong	Epidote (2) in clasts and weak veining.	Epidote	2		
726-22	672515	5534949	Pale grey, medium grained with moderate-strong saussuritization of plag phenos. Disseminated magnetite. Andesite flow - or intrusive?? Weak alignment of phenos. Weakly rusty. Sparse augite.	Modera te - Strong	Epidote (1) Pch, R.	Epidote	1	Trace malachite.	Intermediate flow/intrusive?
726-23	672555	5535015	As 726-22 but coarser phenos to 4mm. Subhedral-euhedral. Very hard.	Modera te	Epidote (1) Pch, R.	Epidote	1	Trace malachite. Trace Cp. Trace Py.	Intermediate flow/intrusive?
726-24	672555	5535086	BK breccia, with syenite clats in a diorite looking :) matrix. Rusty. Mn oxides. Clasts rounded to subrounded. Nearly clast supported.	Modera te	Epidote (1-2) Pch.	Epidote	2		BK breccia.
726-25	672601	5535126	Very rusty. Breccia. AS above. Medium grained diorite groundmass (composition/texture). Disseminated magnetite. No syenite clasts. Mafic dark grey volcanic clasts.	Weak - modera te	Epidote (1) Pch, R. Chlorite (1) Pch, R.	Epidote - Chlorite	1	Malachite to 1.5%. Cp 0.3%. Tr Py.	BK breccia.

726-26	672717	5535146	Medium green-gray, moderate to hard. Diorite. Part of clast or matrix? Diffuse grey texture in places, with plag phenos more clear in diorite areas.	Strong	Chlorite (2) Pch, V, R. Epidote (2) Pch, V, R. Calcite veining/Pch.	Epidote - Chlorite - Calcite	2	Cp tr. Py to 4% - Red metallic mineral -> sphalerite ? Tetrahedrons. (Pyrrh? - weath).	BK breccia.
825-1	672558	5535332	Coarse grained granitic float boulder	Strong		Epidote	2		Granite.
825-2	672442	5535324	Strongly altered + mineralized PBX heterolithic breccia		Strongly altered.		3	Mineralized.	Heterolithic breccia.
825-3	672378	5535254	Stong ep alt'd + pyrite, Nicola dioritic stock			Epidote	3	Pyrite	Diorite
825-4	672309	5535220	Strongly altered porphyry? Fine grained mineralization, bornite? Int Nicola volcanic but not diorite stock				3	Fine grained mineralization, bornite?	Nicola volcanics.
825-5	672161	5535105	Altered Nicola stock diorite, strong green subtle pink alteration, possilbe fine grained mineralization				1		
825-6	671995	5535059	Mineralized mottled volcanic rock, possible contact metamorphism? Strongly fractured/sheared, more quartz,				2	Finegrained pyrite and chalcopyrite, minor malachite	
825-7	671948	5535066	Change of rock type. Maroon Mafic/basalt, slightly altered, less epidote, slight light pink, not magnetic	None			1	Unmineralized.	Maroon Basalt.

825-8	671889	5534962	Same rock as 7, mafic/basalt maroon, sheared/faulted, not magnetic not mineralized	None			1	Unmineralized.	Maroon Basalt.
825-9	671756	5534924	Same Nicola vol'c, green-purple hue, non magnetic, non mineralized, some small zones of epidote mixing, possibly getting closer to faults or contact	None			0		Nicola volcanics.
825-10	671647	5534905	Similar Nicola rock, but epidote flooded, Ep replacement of feldspars + strong epidote on fractures with fault lineations preserved,	None			3	Unmineralized.	Nicola volcanics.
825-11	671551	5534758	Fresh purple Nicola basalt, with olivine rich?, green much too glassy to be epidote, narrow late qtz vein	None			0	Unmineralized.	Nicola basalt.
825-12	671392	5534753	Much more silceous, intermediate Nicola volcanic, very fractured, veinlets of epidote + albite? Almost a bleached alteration, no visible mineralization, moderately magnetic				3		Intermediate volanics.
825-13	671344	5534727	Siliceous, ep/alb flooded, possbily a mixing zone with Nicola stock? No mineralization, not magnetic				3		Diorite
826-1	672430	5535301	Strongly altered + mineralized siliceous volcanic. Feldspars are alt'd pale green, conchoidally fracturing likely hornfels, strongly magnetic, very fine grained pyrite + trace chalcopyrite				3		Nicola volcanic.
826-2	672372	5535268	Strongly green altered + siliceous + mineralized int volcanic? Could be matrix of breccia but not obvious and no pink clasts, fg pyrite + chalco + native copper?				3		Nicola volcanic.
826-3	672272	5535282	Med-grained, altered Nicola stock diorite. Light pink+green alteration.	Strong			1	Unmineralized.	Diorite.
826-4	672135	5535264	Epidote altered Nicola stock diorite, stongly fractured with ep coated fractures.	Strong		Epidote	2	Unmineralized.	
826-5	671977	5535267	Altered intermeditate Nicola volcanic, distinct from Nicola stock, coarser grained, feldspars altered mildly pink+green. Very hard / hornfelsed?	Moderate to strong			2	Trace chalcopyrite	Intermediate volcanics.

826-6 A	671855	5535229	Sub crop sample, but a good one! Malachite staining from fine grained bornite? Finely disseminated throughout rock, strongly altered int-mafic volcanic (hard to tell). Non magnetic, this much staining could be a new minfile.	None			3	malachite, bornite	
826-6 B	671855	5535229	Sub crop sample, but a good one! Malachite staining from fine grained bornite? Finely disseminated throughout rock, strongly altered int-mafic volcanic (hard to tell). Non magnetic, this much staining could be a new minfile.				2		
826-7	671795	5535217	Purplish maroon Nicola basalt, altered amygdules light green.	None			1	Unmineral ized.	Maroon basalt.
826-8	671554	5535207	Tree growing out of rock, sub-crop or boulder. Altered Nicola basalt, lots of epidote flooding, non magnetic, no mineralization.		Epidote	Epidote	2		
826-9	671421	5535256	Mafic coarse grained dark green, light green feldsparss, likely int Nicola volcanic, weakly-moderately magnetic, extremely hard rock				1	Unmineral ized.	
828-1	680001	5502398	Medium green, relatively finegrained, porphyritic volcanic. Likely a crystal-lithic tuff or sparsely phyric andesitic basalt. Augite and plagioclase crystals, trace to 0.7% Pyrite, vein and disseminated. Trace patchy epidote (1), could also be limited to pebble sized clasts. Sugary, altered texture, but is also very weathered. Relatively soft. Chlorite and carbonate alteration.	Strong	Propylitic - epidote is weak (1), stronger chlorite and carbonate alteration (2+). Tr-0.7% Pyrite.	Propylitic	2	Unmineral ized.	Intermediate volcanics.
828-2	679505	5502402	Medium green, very distinct clear texture with large, euhedral augite phenocrysts, to 4mm, up to 30%. Lesser, very indistinct plag? Andesitic basalt. Medium hardness. Gossanous. Disseminated Pyrite up to 2%. Patchy, blebby epidote (2).	Modera te	Patchy, blebby epidote (2). Pyrite disseminated to 2%.	Propylitic	2	Pyrite to 2%.	Andesitic basalt.

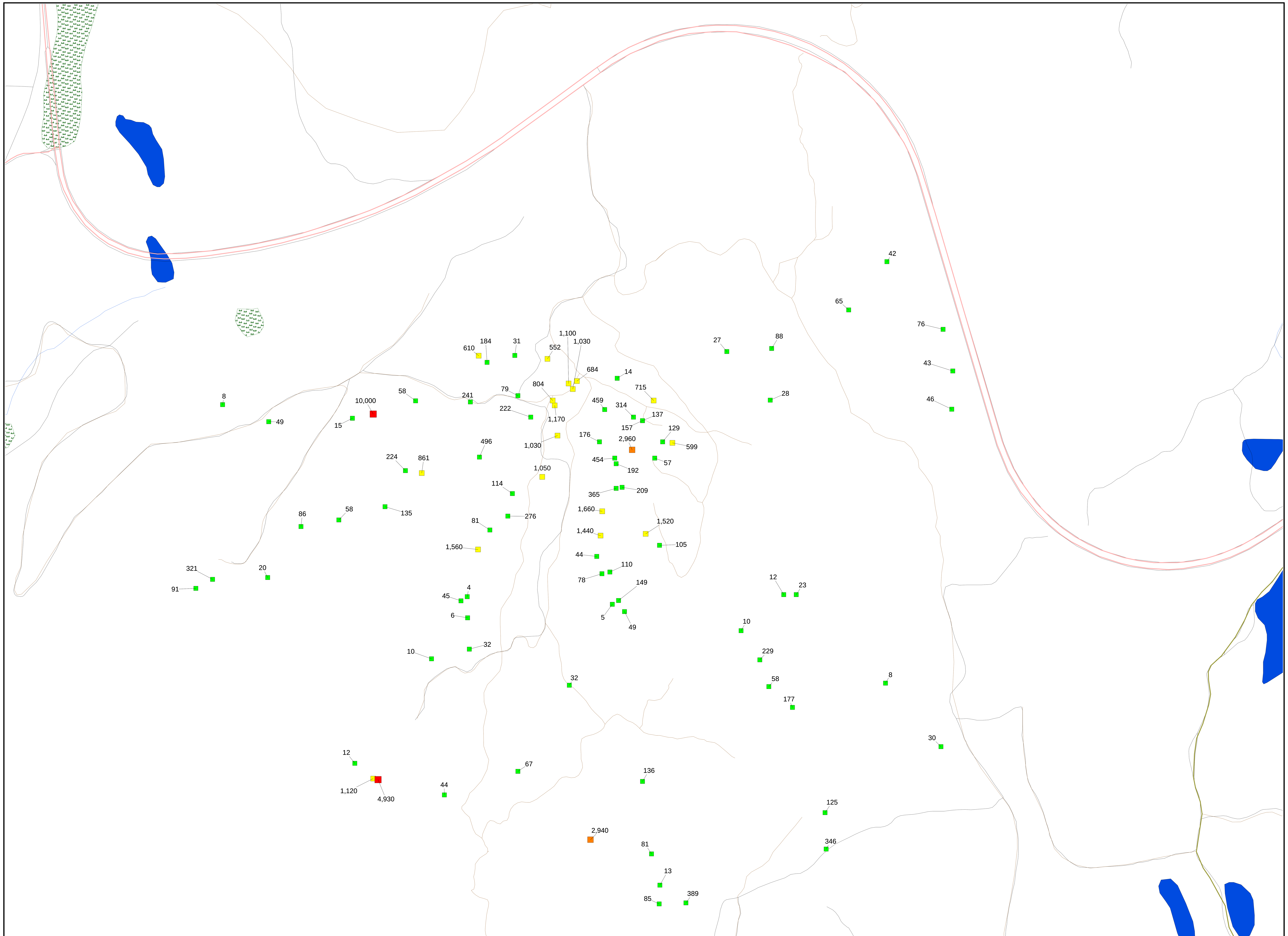
829-1	672874	5535409	Strongly magnetic. Outcrop very limited and highly weathered so difficult to discern lithology. Very soft. Medium to pale grey-green. Patchy/fracture epidote (1-2), flaky texture, sub-transparent, likely chlorite and carbonate rich. Chlorite replacement of mafics. Could be an augite-phyric basalt to andesitic-basalt. Cream green soft groundmass. Calcite veining (2-3). Very diffuse, altered texture.	Strong	Patchy/F epidote (1-2), chlorite and carbonate. Trace-0.3% disseminated Py.	Propylitic, Ca-Na	2	Pyrite, tr to 0.3% disseminated	Nicola volcanics.
829-2	673003	5535418	Same as 829-1. Harder than 829-1, with disseminated Pyrite to 0.5%. Scarce augite phenos, very diffuse texture, cream green color. Albite-actinolite? No calcite veining.	Strong	Patchy/F epidote (1-2), chlorite and carbonate. Trace-0.5% disseminated Py.	Propylitic, Ca-Na	2	Pyrite, to 0.5%	Nicola volcanics.
829-3	673225	5535529	Likely a crystal - lithic tuff (sparse crystals and pebble sized lithics). Sheeted fractures/bedding @ 296 azi/ dip 46 degrees. Maroon basalt, fg tuff with sparse clasts of same material. Relatively soft. Very weathered, having a hard time getting a good sample. Diffuse texture, weak epidote alteration V/F (1).	None	Epidote alteration V/F (1).	Epidote	1	Unmineralized.	Intermediate-mafic tuff.
829-4	673335	5535668	Maroon, volcanic sandstone? Resedimented material, very homogeneous, well sorted. Coarse ss. Bedding layers - finely bedded. Parts are epidote flooded (pervasive at a 3-4!). Calcite +/- Hematite veining. Bedding at 334 azi, near vertical dip (86).		Epidote domainal, flooding at 3-4 in areas (layers).	Epidote	4	Unmineralized.	Volcanic sandstone
829-5	673497	5535473	As 829-4, with the exception of random clasts (~2cm). Coarser and less well sorted. More of a volcanic conglomerate. Clasts is grey plag phyric andesite.		Epidote domainal, flooding at 3-4 in areas (layers).	Epidote	4	Unmineralized.	Volcanic sandstone

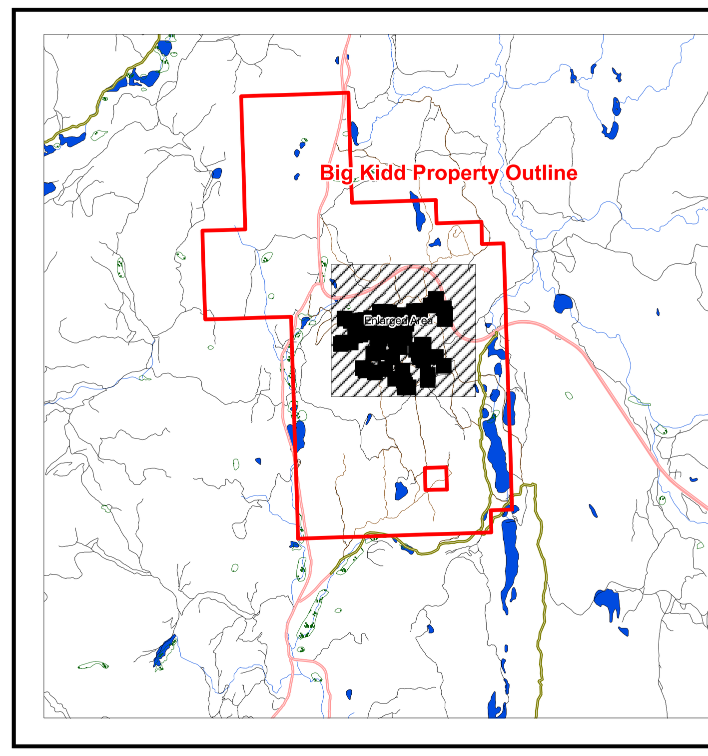
829-6	673525	5535353	Maroon, resedimented volcanics as before. Float in this general area features epidote flooded boulders and strong epidote veining, often with calcite as epidote vein selvages. Outcrop on other side of highway displays wavy bedding, alternating between maroon and green beds - likely epidote flooding as well). Sheared?? Isolated sub-cm red, hematitic/FeOx fragments. Calcite veining.		Calcite veining (2). Epidote domainal, to 3.	Epidote	3	Unmineral ized.	Volcanic sandstone
829-7	673522	5535243	Same lithology but sample is epidote flooded (4 - pervasive) in bands; grading into the maroon ss. Nonmagnetic. Evenly spaced micro-vugs.		Epidote flooding, domainal to 5.	Epidote	4	Unmineral ized.	Volcanic sandstone
829-8	672999	5535269	Medium green-gray, Pyrite disseminated and vein controlled <0.5%. Very soft, likely carbonaceous, calcite veining (2+). Tuffaceous texture but very diffuse/weathered, and could be alteration related, hard to see fresh face. Diffuse plagioclase phenos - andesite crystal tuff? Sparse lithics faintly visible. Chlorite pervasive (2) with weak epidote V/Pch (1). Calcite/epidote veining, red metallic mineral in chunk on fracture plane - scratches off - Py tarnish?	modera te	Chlorite, pervasive (2), weak epidote V/Pch (1). Carbonates weak. Pyrite diss/V <0.5%.	Propylitic	2	Trace pyrite.	Intermediate-mafic volcanics.
829-9	672663	5535268	Super gossanous trench (flagged off already) Lim/Jar/Goe/Hem. Loaded with Py. Part of BK breccia, with py clots up to nearly 20%. Dogs breakfast, mafic and pale white-green felsic clasts, altered/weathered. Epidote Pch 1-2, trace Cp. Soft, calcite veining/clots and chlorite (2+). Quartz also present.	modera te	Pyrite to nearly 20%. Epidote Pch 1-2, chlorite/calcite, Pch, 2+. Quartz.	Propylitic	2	Pyrite rich.	BK breccia.

829-10	672650	5535245	Very gossanous outcrop with heavy jarosite and goethite, Lesser Limonite. Relatively soft. Strongly magnetic. Disseminated Py <1%. Disseminated magnetite. Greeny-gray (cream green medium color with purple tinge - potassic alteration. Chloritic, VERY diffuse texture, wquite homogeneous with small lithics, subrounded to rounded, matrix supported <0.5cm, plag phyric.		Disseminated Py <1%. Possible very weak potassic alteration patches. Chloritic (2) pervasive.	Potassic	1	Pyrite <1%.	
829-11	673533	5534963	Maroon volcanics, finegrained. Weak epidote on fractures (1), sparse sub-mm mafic crystals, calcite veinlets (2).	None	Calcite veining (2). Weak epidote on Fractures (1).	Epidote	2		Maroon basalt.

Station	Easting_m	Westing_m	Area	Lithology	Alteration	Mineralization
1	670665	5534199	DAGO	Nicola Maroon Crystal Tuff	Unaltered	Unmineralized
2	670797	5533755	DAGO	Nicola Maroon Crystal Tuff	Epidote	Tr silver sulfide
3	671024	5533511	DAGO	Coarse Maroon Volcaniclastic	Epidote, Quartz	Unmineralized
4	670997	5533279	DAGO	Coarse Maroon Volcaniclastic	Epidote	Unmineralized
5	671016	5532785	DAGO	Intermediate - Mafic Lithic Tuff	Hornfelsed, epidote	Trace Cp, Py
6	671130	5532772	DAGO	Intermediate Volcanics	Chlorite	Trace Bornite?
7	671143	5532826	DAGO	Maroon Volcanics	Unaltered	Unmineralized
8	671191	5532993	DAGO	Intermediate - Mafic Volcanics	Epidote	Unmineralized
9	671190	5533709	DAGO	Maroon Lithic Tuff	Epidote	Unmineralized
10	671310	5539268	Highway	Resedimented Maroon Volcanics	Epidote	Unmineralized
11	672382	5533834	Falcon	Maroon Amygdaloidal Basalt	Weak epidote	Unmineralized
12	672289	5533624	Falcon	Vesicular Basalt	Unaltered	Unmineralized
13	672271	5533534	Falcon	Vesicular Basalt	Unaltered	Unmineralized
14	672332	5533465	Falcon	Vesicular Basalt	Unaltered	Unmineralized
15	672464	5533168	Falcon	Maroon Amygdaloidal Basalt	Weak Chlorite-Epidote	Unmineralized
16	671993	5532992	Falcon	Vesicular Basalt	Unaltered	Unmineralized
17	672060	5532945	Falcon	Maroon Basalt	Weak Epidote	Unmineralized
18	672385	5532801	Falcon	Trachybasalt	Weak Epidote-Chlorite	Unmineralized
19	672030	5532750	Falcon	Maroon Vesicular Trachybasalt	Weak Epidote-Chlorite	Unmineralized
20	671844	5532826	Falcon	Bedded Crystal-Lithic Maroon Tuff	Unaltered	Unmineralized
21	671431	5532742	Falcon	Bedded Crystal-Lithic Maroon Tuff	Moderate Epidote	Unmineralized


Big Kidd Property Outline
Inset Map Scale 1:125,000
Legend
Highways
Roads
Ranch/FSR's
Minor Roads
Wetland
Rivers
Lakes
Legend - Au (ppb)
51.56 to 133 (6)
9.87 to 30.72 (16)
0 to 9.87 (73)
Big Kidd Property
2012 Rock Sampling
Au (ppb) with Assay Values
April 2013
Geologist: S. Rosset
NAD 83, UTM Zone 10
xstrata copper
Scale 1:5 000
0 125 250
meters





Inset Map Scale 1:125,000

Legend
- Highways
- Roads
- Ranch/FSR's
- Minor Roads
- Wetland
- Lakes
- Rivers

Legend: Cu (ppm)
- 3,486 to 12,000 (3)
- 2,008.7 to 3,486 (2)
- 531.7 to 2,008.7 (17)
- 0 to 531.7 (73)

Big Kidd Property
2012 Rock Sampling
Cu (ppm) with Assay Values

April 2013
Geologist: S. Rosset

NAD 83, UTM Zone 10

xstrata copper

Scale 1:5 000
0 125 250
meters

Appendix F

Statement of Expenditures

Property Name:	Big Kidd	**Tenure holder:**	Xstrata Canada Corp. & Jiulian Resources
Work Started:	January 4, 2012	**Work End:**	December 23, 2012

Tenure Number(s):

399035, 509561, 509569, 509579

Total Hectares: 4055.77

Description of work completed:

Diamond Drilling, Geochemical Rock Sampling, Prospecting

Assessment work completed:	**$665,218.95**

Personnel

Employee	***Day Rate***	***Days***	***Partial Total***	***Total***
Geologist				$95,162.50
S. Rosset	$325.00	116.5	$37,862.50	
M. Keogh	$375.00	145	$54,375.00	
T. Miller	$325.00	9	$2,925.00	
Geotechnician				$7,000.00
C. Pountney	$250.00	28	$7,000.00	
Student				$10,800.00
J. Zak	$200.00	5	$1,000.00	
J. Wilson	$200.00	49	$9,800.00	
Levert (contract)				$78,875.00
T. Quewezance	$300.00	53	15,900.00	
M. Sam	$300.00	43	12,900.00	
J. Billy	$325.00	78	23,400.00	
J. Tom	$300.00	9	2,925.00	
I. Tom	$325.00	51	15,300.00	
K. Dennis	$300.00	26	8,450.00	
Total				**$191,837.50**

Geophysics - IP Survey: Costs ($195,666.55) submitted in previous work filing event ID #5437108

Geochemical Rock Sampling

Type	***Cost***	***# of samples***		***Total***
ICP, AA etc.	$45.00	96		$4,320.00
Total				**$4,320.00**

Diamond Drilling (cost includes accommodation & consumables)

Type	***Cost***	***Meters***		***Total***
6 DDH	$249,538.54	1808.7		$249,538.54
Total				**$249,538.54**

Miscellaneous

Type	***Cost***	***Days***	***Partial Total***	***Total***
Truck/Gas (multiple)	$150.00	400		$60,000.00
ATV/Gas	$50.00	30		$1,500.00
Sat Phone	$5.00	125		$625.00
SPOT	$5.00	125		$625.00
Room and Board				$43,770.00

S. Rosset	$90.00	117	$10,530.00	
M. Keogh	$90.00	145	$13,050.00	
T. Miller	$90.00	9	$810.00	
C. Pountney	$90.00	28	$2,520.00	
J. Zak	$90.00	5	$450.00	
J. Wilson	$90.00	49	$4,410.00	
M. Sam	$125.00	43	$5,375.00	
T. Quewezance	$125.00	53	$6,625.00	
K. Dennis	$125.00	26	$3,250.00	
Field Supplies				$26,235.22
Total				**$132,755.22**

Total		
Assessment Work		$578,451.26
Overhead (15% of Assessment Work)		$86,767.69
Total Work		**$665,218.95**