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SEC  
Mail Processing  
Section

JUN 04 2013

Washington DC  
405

Virginia Mines Inc.  
(Registrant)

Date: May 28, 2013

By:

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**Title: Executive Secretary**

Exhibit 1

**Technical Report and Recommendations – Reconnaissance and Trenching Program,  
Ashuanipi Project Québec**

Prepared by: Pascal Simard, B.Sc., Eng. Jr., Project Geologist; Simon Hébert, Geologist in  
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**Technical Report 43-101**

**Technical Report and Recommendations  
Reconnaissance and Trenching Program  
Ashuanipi Project**

**SEC**  
**Mail Processing**  
**Section**

JUN 04 2013

**VIRGINIA MINES INC.**  
**December 2012**

**Washington DC**  
**405**

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## ITEM 1: SUMMARY

The Ashuanipi property is located south of the Caniapiscau reservoir about 180 km north-west of Fermont in the archean Superior province. The Ashuanipi metamorphic and plutonic complex is a sub-province of the Superior. The rocks observed are interpreted as the West extension of the Opinaca and the La Grande metasedimentary belts (Leclair and al., 1998).

The prospected area mainly covered the Caniapiscau lithotectonic domain as defined by Leclair and al. (1998) (Fig. 3). The amphibolite metamorphic facies of the Caniapiscau domain is lower than the granulite facies regionally observed in the Ashuanipi complex. Preserved bimodal metavolcanic sequences, alumino-silicates rich paragneiss, iron formation, plutonic rocks and post tectonic intrusions are described (Leclair and al., 1998). A favourable greenstone belt with primary textures in a lower metamorphic grade distinguishes the Caniapiscau domain from the other domains of the Ashuanipi sub-province.

Since 2007, Virginia Mines Inc. has periodically worked in the area of the Caniapiscau reservoir. This grass root prospecting led to the discovery of numerous mineralized boulders and outcrops. The Eagle and the Falcons showings outline the good potential for gold and base metal mineralization associated to the large Caniapiscau volcano-sedimentary complex and more specifically in the Raynouard belt. Land position was staked by Virginia Mines Inc. in late 2007.

In December 2011, Virginia signed a partnership with Anglo American whereby Anglo American has the option to acquire 50% of the interest in the Ashuanipi property by spending CA\$ 5 million in exploration work over a five year period.

The main objectives of the 2012 exploration program were to investigate and test the unexplained VTEM anomalies from the 2011 and 2012 ground surveys, generate possible drilling targets on the Falcon and Eagle areas and cover the new claims staked during fall 2011. The field work consisted of mechanical trenching, mapping, prospecting and rock sampling over the South Bloc area of the Ashuanipi property.

The trenching program has allowed the extension to the south west of the Eagle mineralized horizon with the discovery of new gold values in the volcano-sedimentary package of the Raynouard belt. Values of **0,31 g/t Au / 11,3 m inc. 0,63 g/t Au / 3,3 m** and **0,96 g/t Au / 4 m inc. 3,03 g/t Au / 1 m** were obtained.

Following the IP survey most of the promising targets have been tested at surface by prospecting and trenching. It is now recommended, with the geological information acquired in the past years, to proceed to a drilling program during summer 2013. Prior to the drilling program it is proposed to extend the induced polarization survey to the north of Falcon to cover completely the felsic intrusion. A new grid is also proposed in the North East area where several gold, copper and zinc showings were discovered since 2007.

## **ITEM 2: INTRODUCTION**

Since 2007, Virginia Mines Inc. has periodically worked in the area of the Caniapiscau Reservoir. This grass root prospecting led to the discovery of numerous mineralized boulders and outcrops. The Eagle and the Falcons showings outline the good potential for gold and base metal mineralization associated to the large Caniapiscau volcano-sedimentary complex and more specifically in the Raynouard belt. Land position was staked by Virginia Mines Inc. in late 2007 and was followed by mapping, prospecting, mechanical trenching, line cutting, VTEM, magnetic and IP geophysical survey in 2008, 2010 and 2011.

In December 2011, Virginia signed a partnership with Anglo American whereby Anglo American has the option to acquire 50% of the interest in the Ashuanipi property by spending CA\$ 5 million in exploration work over a five year period.

The main objectives of the 2012 exploration program were to investigate and test the unexplained VTEM anomalies from the 2011 and 2012 ground surveys, generate possible drilling targets on the Falcon and Eagle areas and cover the new claims staked during fall 2011. The field work consisted of mechanical trenching, mapping, prospecting and rock sampling over the South Bloc area of the Ashuanipi property.

This report provides the status of current technical geological information relevant to the latest Virginia Mines Inc. exploration program on the Ashuanipi project in Québec. It has been prepared in accordance with the Form 43-101 Technical Report format outlined under NI-43-101. The report also provides recommendations for future work.

## **ITEM 3: RELIANCE ON OTHER EXPERTS**

Co-author Pascal Simard, B.Sc. in geological engineering and project geologist for Virginia Mines Inc., was involved on the Ashuanipi project in 2010 and supervised the operation in 2012. Co-author Simon Hébert, B. Sc. in Geology and geologist for Virginia Mines Inc., worked on the Ashuanipi project during the summer. Co-author Paul Archer, geological engineer with a M.Sc.A in Earth Sciences and Vice President exploration of Virginia Mines Inc., is responsible for the design and is the qualified person for all Virginia's exploration programs.

## **ITEM 4: PROPERTY DESCRIPTION AND LOCATION**

The Ashuanipi property is located in the southern area of the Caniapiscau Reservoir, about 180 km North-West of Fermont (Fig. 1). At the time of the field work, the Ashuanipi property was divided in 3 blocks of claims for a total of 596 claims covering approximately 303 km<sup>2</sup> (Fig. 2).

Geographical references (central point) and SNRC sheets covered by the Ashuanipi property are:

Latitude: 53°41' North  
Longitude: -69°30' West  
SNRC: 23F/5, 23F/11, 23F/12, 23F/13, 23F/14, 23K/03 et 23K/04  
UTM zone: 19 (nad83)  
NTS: 467 000 mE  
5 961 000 mN

The claims are listed and detailed in appendix 1.

#### **ITEM 5: ACCESSIBILITY, CLIMATE, LOCAL RESSOURCES, INFRASTRUCTURES AND PHYSIOGRAPHY**

Field operations were conducted from the Ashuanipi Camp established at the end of the seasonal gravel road accessing the South Hydro-Quebec Caniapiscou reservoir infrastructures. The Ashuanipi camp is located 100 km from Brisay, Hydro-Quebec permanent installation. Team and supplies usually access to the camp by land using the all seasons Trans-Taïga gravel road to Brisay and from there the rough seasonal gravel road to the camp. The Ashuanipi property can only be reached by helicopter in a radius of about 50 km from the camp.

An Astar BA supplied by Heli-Inter was used for crew and material transportation between the camp location and the property.

The landscape of the study area is relatively flat. The property changes from low altitude rounded hills to swamps area covering the low land. The highest summit ranges at 768 m above sea level and the Caniapiscou reservoir is usually maintained around 530 m above sea level. The average temperature is changing from -23°C in January to 13°C in July. The annual average precipitations are 500 mm of rain falling from May to October and 300 cm of snow during the winter season, from November to April. The vegetation is typical of the northern boreal forest. The black spruce and the larch covered the low hill areas when small silver birch and high alder will be observed on the southern flank or near the streams. The hydrographic network is well developed. Lakes occupied large areas and rivers flowed through the north filling the largest man made reservoir, the Caniapiscou reservoir.

## ITEM 6: HISTORY

### 6.1 Property Ownership

The Ashuanipi property is wholly owned by Virginia Mines Inc. Under the terms of an agreement, Anglo American has an exclusive right to exercise an option to earn a 50% interest in the Ashuanipi project with an investment of CA\$ 5 million in exploration work over a 5 year period. Virginia Mines Inc. will be the operator of the project for this period.

### 6.2 Previous works

Historically, the Ashuanipi geological sub-province was not considered for mineral exploration. The high metamorphic facies discouraged the companies to invest time and resources in the area. However, the first exploration work, made in 1976 by the “Société de développement de la Baie James” (SDBJ), focused on the uranium potential. From the 80’s to mid 90’s the work was principally done by the provincial government. Regional lake sediments campaign and 1: 250 000 scale mapping was realized to detail and develop the potential of the Ashuanipi geological sub-province.

Based on the government compilation, Virginia Mines Inc. started exploring the area in 1996. Since 2007 Virginia acquired the Ashuanipi property and led the exploration in the area. Airborne geophysics, line cutting, ground geophysics, geochemical survey, mechanical trenching, mapping and prospecting was realized over the property and the surrounding area.

A summary of the previous works performed within NTS sheet 23F to date is available in Table 1.

**Table 1 : Summary of the previous works.**

Mines Virginia Inc. (2012)

Technical Report and Recommendation, Reconnaissance and trenching program, Ashuanipi project, 2012. Grenier. L., Lévesque, J-A. and Archer, P.

Mines Virginia Inc. (2012)

Levé de polarisation provoquée, Propriété Ashuanipi, MRC de Caniapiscau, Région du Lac Contat, Québec. Tshimbalanga, S.

Mines Virginia Inc. (2012)

Heliborne high resolution aeromagnetic survey, Coulon and Ashuanipi properties, Eastern James-Bay Area, Québec. St-Hilaire, C.

MRN (2011)

Compilation géochronologique U-Pb des sous-provinces d'Ashuanipi, d'Opinaca et de La Grande, 2011. Parent, M. (GM65524).

MRC de Caniapiscou (2011)

Cartes statistiques des ré-analyses géochimiques 2010 du levé de sédiments de fond de lac de Fermont, 2011. Hurtubise, E. (GM65580).

Mines Virginia Inc. (2011)

Rapport technique et Recommandations, Programme de décapage mécanique et de Reconnaissance, Projet Ashuanipi, 2011. Grenier, L., Simard, P., Boivin, J-F. et Archer, P. (GM-65699).

Mines Virginia Inc. (2011)

Heliborne high resolution aeromagnetic survey, Escala, Nichicun, Trieste and Ashuanipi properties, 2011. St-Hilaire, C. (GM65712)

MRN (2009)

Géologie de la région du Réservoir de Caniapiscou, SNRC 23K-23N, 2009. Simard, M., Parent, M., Paquet, L. et Lafrance, I.. (RG 2009-04).

Mines Virginia Inc. (2008)

Rapport technique et Recommandations, Rapport 43-101, Programme de Reconnaissance Projet Ashuanipi, 2008. Lavoie, J., Grenier, L. et Archer, P. (GM-64500).

Mines Virginia Inc. (2007)

Rapport technique et Recommandations, Programme de Reconnaissance Projet YZW, 2007. Lavoie, J., Savard, M. et Archer, P. (GM-53574).

Mines Virginia Inc. (2007)

Rapport technique et Recommandations, Programme de Reconnaissance Projet Ashuanipi, 2007. Lavoie, J. et Archer, P. (GM-636214).

GEOTOP (1998)

Géochronologie U-Pb du projet Moyen-Nord, Phase II, 1998. Parent, M. (GM-59904).

MRN (1998)

Géologie de la région du lac Bermen (23F), 1998. Leclair, A., Lamothe, D., Choinière, J. et Parent, M. (RG 97-11).

Mines d'Or Virginia Inc. (1997)

Rapport des travaux d'échantillonnage d'horizons B, propriété Lac Bernard, 1997. Caron, S., Cloutier, M.A. (GM 55476).

Chemex Labs Ltd. (1997)

Summary of Exploration Activities in the South East Opiscoteo Lake Area, 1997. Clark, J.G. and Tremblay, M. (GM 57065).

Clearcrop Corporation (1997)

Rapport géologique et géochimique sur le permis d'exploration 0001124, 1997. Mersereau, T.G., Northeast Exploration Services Ltd. (GM-54662).

Chimitec Ltée (1997)

Rapport de prospection, Projet Lac Gamart, 1997. Laberge, P.P. (GM 57067).

Mines d'Or Virginia Inc. (1996)

Rapport des travaux 1996, Propriétés Lac Bernard, Lac Mercator, Lac Opiscotéo, Lac Goupil, 1996. Huot, F. (GM 54422).

MRN (1996)

Perspectives sur la structure et le potentiel minérales des roches archéennes du sud-est de la province du Supérieur, 1996. Leclair, A., Lamothe, D., Choinnière, J., Dion D.J. (PRO 96-05).



MRN (1995)

Cibles d'exploration géochimiques dans le moyen-nord québécois, secteur Caniapiscou-Ashuanipi, 1995. Choinière, J., Lamothe, D., Clark, T. (PRO 05-05).

MRN (1989)

Géochimie des sédiments de lac, région de Fermont, 1989. Beaumier, M. (MB 89-33).

SDBJ (1976)

Geological Report, Uranium Project, 1976. Potvin, J.C., Macfarlane, R.L. (GM 57778).

## ITEM 7: GEOLOGICAL SETTING AND MINERALIZATION

The project is located in the archean Superior province (Fig. 1). The Ashuanipi metamorphic and plutonic complex is a sub-province of the Superior. The rocks observed are interpreted as the West extension of the Opinaca and the La Grande metasedimentary belts (Leclair and al., 1998).

### 7.1 Regional geology

The Ashuanipi complex is mainly composed of high grade metamorphic diatexite (2.68-2.66 Ga) melted from granodiorite with locally migmatites derived from paragneiss or iron formation (Percival and al., 1992; Moritz and Chevé, 1992). Large units of paragneiss (3.3-2.7 Ga, Percival and al., 1992) are injected by late intrusions and sills composed of tonalite, syenite, nepheline syenite and monzonite (2.67-2.62 Ga, Percival and al., 1992).

The prospected area mainly covered the Caniapiscou lithotectonic domain as defined by Leclair and al. (1998) (Fig. 3). The amphibolite metamorphic facies of the Caniapiscou domain is lower than the granulite facies regionally observed in the Ashuanipi complex. Preserved bimodal metavolcanic sequences, alumino-silicates rich paragneiss, iron formation, plutonic rocks and post tectonic intrusions are described (Leclair and al., 1998). A favourable greenstone belt with primary textures in a lower metamorphic grade distinguishes the Caniapiscou domain from the other domains of the Ashuanipi sub-province.

The Caniapiscou domain is divided in three groups well described by Leclair and al. (1998). The Raynouard group includes the amphibolitic basalts locally injected of gabbroic sills (Ara1) and the felsic rocks of volcanic or paragneiss origin (Ara2). The Marquiset

suite includes the diorite (Amar1), the tonalite (Amar2) and the monzogranite (Amar3). These intrusions are believed to be genetically associated to the volcanic flows of the Raynouard group (Leclair and al., 1998). The last group includes late to post-tectonic intrusions with a high magnetic signatures. The Delmothe batholith, the Viau suite, the Vignal pluton and the Pressiac dykes belong to this group.

## **7.2 Structure**

The structure and the magnetic grain of the southern part of the Ashuanipi complex are mainly East-West oriented and the northern part is NW-SE oriented (Percival, 1993; Leclair and al., 1997). Primary textures are locally observed in the basaltic pillow lava flows and in the layering of the iron formation. The principal regional deformation created a well-developed mineral foliation, a planar schistosity, a gneissosity or a migmatic layering (Leclair and al., 1998). Large ductile deformation zones such as the Guichen zone and late fragile faults can also be observed.

## **7.3 Geochronology**

During the 1998 MRN mapping program, many samples were taken over different lithologies for zircon dating. Rhyolite flows inside the basalt pillow lava sequence of the Raynouard bimodal metavolcanic group have been dated. The zircon returned a formation age of  $2702 \pm 5$  Ma (Leclair and al., 1998). The dating of the Raynouard volcanism makes it contemporary with some volcanism events of the La Grande sub-province.

## **7.4 Economic geology**

The Ashuanipi complex shows a great potential for gold mineralization in the metamorphosed Algoma type iron formation (Choinière and al., 1995). Gold is found associated to different mineral phases like iron rich silicate, sulphides or oxides. Many showings have been discovered (Moritz and Chevé, 1991 and Leclair and al., 1998). Arsenic anomalies in the regional lake sediments survey successfully outlined the gold bearing iron formations (Beaumier, 1987 and Bélanger, 1987). Base metal mineralisation associated to VMS type was found in the neighbouring Coulon archean metavolcanic belt (Coulon project, Virginia Mines Inc.). Mineralization is associated to aluminosilicates rich felsic volcanoclastite unit and forms massive sulphide lenses deformed by the complex structural history. Similar favourable lithology was mapped in the Ashuanipi sub-province. The Falcon showing discovered in 2010 (Grenier and al., 2011) outlined the great potential for copper-molybdenum-gold-silver porphyry style mineralisation. The disseminated sulphides are found surrounding an altered felsic intrusion. The Ashuanipi complex includes numerous favourable intrusions for this last type of mineralisation.

The geochronological link made between the Caniapiscau domain and the volcano-sedimentary sequences of the La Grande sub-province highlights the great potential of the Ashuanipi sub-province. By being the East extension of the well-known and rich La

Grande sub-province (Chartrand and Gauthier, 1995), the Ashuanipi is a good open territory for precious and base metal exploration.

### **7.5 Local geology**

The Ashuanipi property is divided in two areas called the North Bloc and the South Bloc. The local geology changes from both areas and will be described separately.

The South Bloc is characterised by the Raynouard volcanic belt extended over 50 km with a maximum thickness of 20 km (Fig. 3). The main lithology observed is an amphibolitic basalt composed of hornblende-plagioclase-pyroxene±garnet±biotite±carbonates. The mafic volcanic is interlayered with large paragneiss sequences composed of quartz-biotite-plagioclase and felsic volcanic composed of plagioclase-quartz±biotite±muscovite. Also observed are andesites composed of plagioclase-amphibole±biotite±quartz, iron formations composed of quartz-amphibole-magnetite-garnet-biotite±graphite±sulfides and metamorphosed ultramafic rocks composed of hornblende-pyroxene-tremolite-magnetite±serpentine±muscovite±talc. The volcano-sedimentary package is moulded around large scale tonalite to monzogranite intrusions. The belt has a NE-SW orientation and the main regional deformation generated the main schistosity, foliation and gneissosity of the same orientation with a SE dip. Locally, primary structures are identified in the pillow lava textured basalt or in the layering of the iron formation. NE-SO regional faults are mapped and may explain the low metamorphic window of the Raynouard belt by a graben style deformation.

The North Bloc is characterised by a complex belt extended over 30 km and with a maximum thickness of 7 km. The main lithologies mapped are 1) felsic paragneiss composed of quartz-plagioclase-biotite±hornblende±muscovite±garnet±graphite, 2) porphyroblastic paragneiss composed of quartz-plagioclase-biotite-sillimanite±garnet±amphibole±muscovite and 3) amphibolite composed of hornblende-plagioclase-pyroxene±biotite±garnet. Iron formations are intercalated inside the sedimentary package. Silicate, sulphide and oxide facies are described. The felsic porphyroblastic unit is interpreted as a volcanic porphyroclastite tuff with the sillimanite in the coarse mineral phase. The belt has a principal E-W orientation but turns to an N-S orientation in its Eastern part. The main schistosity is well developed and primary layering could be observed in the iron formation.

### **7.6 Mineralization**

For the Ashuanipi project, the best results were obtained in the South Bloc area. To date, two mineralized contexts are known. The first one discovered, the Eagle showing, includes massive sulphides mineralization mainly composed of pyrrhotite, pyrite, sphalerite and chalcopyrite, associated with a bimodal volcanic sequence of VMS type. The hosting andesite is largely altered by anthophyllite, phlogopite and tremolite. Felsic dykes of rhyolitic composition with preserved quartz eyes texture are locally associated with the mineralisation. The fertile horizon is spatially associated to metamorphosed ultramafic units interpreted as a basal komatiitic flow or sill. The mineralization is followed over 900

m and is associated to a NE-SW oriented VTEM anomalous trend that could be followed over 2000 m. The Eagle area shows a great potential for base metal resources following a VMS model.

The Falcons showings (South Falcon and North Falcon), discovered in 2010, are composed of Au-Ag-Cu-Mo mineralization associated to a felsic intrusion. The chalcopyrite and the molybdenite are finely disseminated in a plagioclase-quartz-hornblende-epidote composed tonalite. Strong quartz, epidote, hematite chlorite and K-feldspar alterations are associated to the mineralization. The metamorphism and structural complexity increase through the North and the mineralization extends over 3000 m following the edge of the intrusion. The characteristics of the Falcons showings are reminiscent of the porphyry type mineralization.

Prospecting works over the past years discovered numerous gold showings in various settings. The gold trend extends for 8000 m long and outlines the great potential of the Ashuanipi property.

#### **ITEM 8: DEPOSIT TYPES**

Not applicable for this report

#### **ITEM 9: EXPLORATION**

##### **9.1 SAMPLING METHOD AND APPROACH**

Rock samples collected during the 2012 reconnaissance program were obtained to determine the elemental concentrations in a quantitative way by ALS Chemex, Val d'Or. These included both mineralized and barren rocks, the latter of which were selected for lithological controls. Samples were collected at the bedrock surface by either a hammer or a saw at sub-surface. All the collected samples were located with the use of a GPS instrument. Samples from the trenches were positioned relative to one other using the GPS position of the trenches.

For surface sampling, most of the weathered crust was removed before samples were bagged. All samples were placed in individual bags with their appropriate tag number and the bags were sealed with fibreglass tape. Individual bagged samples were then placed in shipping bags. The authors are not aware of any sampling or recovery factors that would impact the reliability of the samples.

## 9.2 EXPLORATION WORK

This section describes the work performed over the Ashuanipi property during the summer of 2012. Prospecting and trenching targets were established over IP axis, magnetic signature and previous results obtained during the 2008, 2010 and 2011 exploration campaigns. A total of 586 man/days were invested during the 2012 campaign.

A total of 265 outcrops and 74 boulders were described from which 179 samples were analyzed. The trenching program has allowed picking up 645 samples.

The reader can refer to figures 5 to 10 for the localisation of outcrops and boulders and to figures 11 to 13 for samples location. The reader can also refer to appendix 2 to 6 for the complete list of outcrops and boulders, the summary of each grab and channel description, the list of abbreviations used for geological description and finally to appendix 7 for the certificates of analysis.

The field work was carried out from June 6 to July 14 and was supervised by Pascal Simard and Jérôme Lavoie. A large Virginia Mines Inc. team composed of geologist in training, Simon Hébert, Tonny Girard and Julien Avard, students Anne-Laurence Paquet, Frederic Hamel, Jean-Daniel Fortin, Patrice Rioux, Gabriel Coté, Alexandre Rodrigue and Alexandre Martel, technician Martin Gagnon and cooks Marie-Pier Savard and Jason St-Amand, supported the summer 2012 activities. Employee from Mistissini first nation, Abel Longchap also joined the Ashuanipi group for two weeks. Dene Tarkyth and Clément Dombromski, geologists from Anglo American visited the property in the middle of the campaign.

### 9.1 *Prospecting*

The exploration program began with the mapping and prospecting of the Eagle grid located at the southern edge of the Raynouard belt. This grid was covered by an Induced polarized ground survey during the 2012 winter. Mapping and prospecting was realized systematically over each line of the grid using a Beepmat in order to test and verify the IP anomaly at surface. Several IP anomalies remain unexplained. At first, the northwestern flank of the fold where the Eagle showing sits seems to explain most of the anomaly axis found in the area. As regard to the southeastern flank who gives a strong IP response, most of the anomalies are still unexplained. Prospecting realized over this area showed rare evidences of outcrops and a thick cover of overburden. The IP signatures of these anomalies are characterized by a strong increase of chargeability associated with a high decrease of resistivity. In 2008, outcrops of iron formation were described near these anomalies. Finally, prospecting realized over the fold hinge in the southern part of the property could not explain the favorable IP response. Again this area is characterized by a thick cover of overburden.

The entire block of claims staked during fall 2011 was also prospected. This area is characterized by large lakes and big swamp which resulted in long traverses and rare outcrop evidences. A total of 25 outcrops and 10 boulders were described in that area of about 100 km<sup>2</sup>.

No new showing was found following exploration work done during the summer. Most of the anomalous values come from already known showings and consist of a resampling of values obtained during past campaign.

Only four outcrops returned anomalous values during the 2012 summer. The most interesting one is a value obtained in an amphibolitized basalt that returned **0.12 g/t Au and 0.10 % Cu**. This outcrop (AH2012-JA-070) is located 4 km north east of North Falcon showing outside the intrusive complex. This basalt is composed of hornblende-plagioclase-graphite with 2 % of pyrite. The basalt is also characterized by a moderate chloritization that occurs in blebs and by a silicification occurring in veinlets. This outcrop opens a new area of interest inside the Raynourard belt at its northern end. Two other outcrops, AH2012TG-027 and AH2012FH-040, returned anomalous values and consist of a resampling of past showings. AH2012TG-027 was a resampling of a 2011 outcrop that returned values of **1.59 g/t Au and 0.13 % Cu** hosted in an intermediate orthogneiss composed of plagioclase-quartz-chlorite-amphibole-biotite with a mineralization composed of 1 % of pyrite. The value could not be repeated. AH2012FH-040 is also a return on a value obtained in 2008 and 2010 hosted in a semi-massive horizon composed of 17 % pyrrhotite and 3 % chalcopyrite inside what was described as an iron formation. The sample returned a value of **0.23 % Zn**. The other anomalous value is a grab taken on trench AH2012TR-013 and returned a value of **0.16 % Cu**.

Regarding the boulders, the most interesting value comes from an angular boulder (AH2012AM-008) located 1 km south west of Eagle showing (Fig. 4). This boulder was described as a quartz vein (Iron formation?) composed of quartz-biotite-chlorite with 5 % pyrite that returned values of **13.9 g/t Au and 1.66 % Cu and 17 g/t Ag**. The mineralization occurs in veinlets and disseminated within the vein. Another interesting value was obtained from a felsic volcanic boulder composed of plagioclase-quartz-biotite-sericite that returned values of **0.31 % Cu** with a mineralization mostly composed of pyrrhotite. This boulder is located 2 km down ice of a volcanic felsic unit. Though no mineralization was found in this dacitic unit it can be interpreted as the source of the boulder. Note that the IP survey did not cover this unit of volcanic felsic rock. AH2012PS-001 was a resampling of AHCB2011-042 located 200 m west of Eagle showing. The value of 2011 was repeated with **1 g/t Au; 39,7 g/t Ag and 1,5 % Cu**.

Table 2 : Summary of the best values obtained on grab sample.

ID	Sample #	Occurrence	UTM E	UTM N	Au (ppm)	Ag (ppm)	Cu (ppm)	Mo (ppm)	Zn (ppm)	Comments
AH2012TG-027	261409	Outcrop	478506	5947493	<b>0,976</b>	0,9	646	2	26	Resampling of AH2011AR-007; 1,59 g/t Au, 0.13 % Cu
AH2012SH-017	261463	Outcrop	458841	5934181	0,017	1,5	<b>1595</b>	383	36	Grab taken on trench AH2012-TR-013
AH2012FH-040	261570	Outcrop	479246	5948645	0,018	2,4	738	5	<b>2320</b>	Resampling; Iron formation with 18 % PO and 2 % CP
AH2012JA-002	261601	Boulder	457614	5931732	<b>0,875</b>	0,3	236	-1	43	Basalt with 1 % PY
AH2012JA-004	261602	Boulder	457466	5931587	<b>0,748</b>	0,6	468	-1	30	Basalt with 5 % PY
AH2012JA-070	261632	Outcrop	463181	5938671	<b>0,115</b>	0,7	<b>1020</b>	2	19	Amphibolitised and chloritised basalt with 2 % PY
AH2012PS-001	261751	Boulder	458213	5932909	<b>0,965</b>	30,9	<b>12350</b>	12	40	Resampling of AH2011CB-042; 1 g/t Au ; 39,7 g/t Ag; 1,5 % Cu
AH2012AM-008	261806	Boulder	457884	5931793	<b>13,9</b>	17	<b>16550</b>	1	113	Quartz vein with 5 % PY stringers
AH2012AM-016	261811	Boulder	458222	5930486	0,005	1,2	375	6	<b>6100</b>	Iron formation with 2 % PY
AH2012AM-022	261815	Boulder	456631	5929469	0,02	0,6	711	1	<b>1745</b>	Rhyolite with 2 % pyrite.
AH2012AM-025	261818	Boulder	456831	5929069	0,007	1,4	<b>1160</b>	41	483	Iron formation, 5PO, 3PY
AH2012AM-026	261819	Boulder	456694	5929208	0,048	9,4	<b>3060</b>	117	62	Volcanic felsic rock (Dacite) 2 % PO
AH2012AR-016	276310	Boulder	457191	5929250	0,02	0,8	311	8	<b>7460</b>	Basalte, 10 % PO, 5 % PY.

## 9.2 Mechanical trenching program

The trenching program of the summer was primarily designed to test geophysical targets from the 2012 winter IP survey realized over the Falcon and Eagle Area. The program was also based on the result of the 2011 trenching program in order to test the extent of the best values and mineralized zones of the property. A total of 30 trenches were opened during the program and eleven test pits did not reach the bedrock and were restored. Most of these test

pits are located in the fold hinge in the southern part of the property were the overburden cover is very thick.

A summary and geological description of each trench is following below. The reader can refer to table 3 for the best channel values of the summer and to figure 14 to 43 for the detailed mapping of each trench and sample location. Appendix 5 summarised the channel description and values.

### 9.2.1 Trenches summary

#### 9.2.1.1 AH2012TR-001

The trench AH2012TR-001 who was planned on the long IP axis located on the eastern edge of the intrusive complex (PP-5) exposed a dioritic intrusion mainly composed of plagioclase-quartz-hornblende-biotite-K-feldspar. The foliation oriented N015° and dipping at 50° was crosscut by sub vertical fractures at N280°. Local mineralization composed of traces of disseminated pyrite was observed. The diorite has a foliated to gneissic texture and was injected by a rich K-feldspar massive pegmatite. The anomaly was not explained.

#### 9.2.1.2 AH2012TR-002

The trench AH2012TR-002 was targeting a small IP axis (PP-53) on the flank of a high mag at the contact between the intermediate and felsic intrusion. The trench exposed a foliated tonalite intrusion composed of plagioclase-quartz-biotite-hornblende-K-feldspar. The tonalite was injected by centimeter scale quartz veins and is characterized by a disseminated mineralization mainly composed of traces to 1 % of pyrrhotite, pyrite, magnetite and local molybdenite. Malachite (traces-1%), azurite (traces-2%) and traces of chalcopyrite were also observed over 3 meters. The IP anomaly is probably explained by the 2011 trench AH2011TR-002 that was performed over a small BEEP MAT conductor characterized by the presence of pyrrhotite. This trench is located 65 meters south of AH2012TR-002. No substantial values were returned from this trench.

#### 9.2.1.3 AH2012TR-003

The trench AH2012TR-003 was a follow up of the trench AH2011TR-009 that was opened after the discovery of a small BEEP MAT conductor in 2011. The best result obtained was **0.3 % Cu / 6 meters**. The trench exposed a gneissic quartziferous diorite with 10 % of centimeters scale leucosomes. A weak chloritization is observed on the first 10 meters of the trench. The mineralization is composed of traces of pyrrhotite and pyrite with local blebs of pyrrhotite. A late pegmatite injection crosscut the diorite that locally affects the gneissosity. With this trench the mineralized zone is extended 25 meters to the south and is still open in that direction. Channel sample AH2012TR-003-R3 returned a value of **0.19 % Cu / 4.5 m inc. 0.58 % over 1 meter**. This value is hosted in the diorite at the footwall of a pegmatite injection which suggests a remobilization of the mineralization. These two trenches, especially AH2011TR-009 with the presence of pyrrhotite stringers, explained the conductivity of the outcrop and the IP anomaly (IP-4).



#### 9.2.1.4 AH2012TR-004 and AH2012TR-005

The trenches AH2012-TR-004 and AH2012TR-005 were planned on a weak IP anomaly located in the northern part of the property at the contact of the tonalite and diorite. Trench AH2012TR-004 exposed a tonalitic intrusion composed of plagioclase-quartz-biotite-k-feldspar while the trench AH2012TR-005 contains less quartz and was identified as a diorite. A weak and local mineralization was observed and composed of traces of pyrrhotite, pyrite and magnetite. This type of mineralization did not explain the IP anomaly.

#### 9.2.1.5 AH2012TR-006

The trench AH2012TR-006 was planned to investigate the anomaly PP-2. The trench is characterized by a strong deformation that is observed by a fine grained mylonitic tonalite composed of plagioclase-quartz-biotite-hornblende-K-feldspar. This deformation is also noticeable by a sheared zone with decimeter scale pegmatite injection. At the western contact of the mylonite a three meters metasomatic rock interpreted as a tonalite was described and characterized by a moderate to strong penetrative silicification associated with a weak sericitization and chloritisation. Millimetric k-feldspar veins were also noticed and could be the result of a potassic alteration. A weak mineralization composed of traces of pyrite also occurred locally in the mylonite. This type of alteration is similar to that in the area of Falcon South. Channeling did not return substantial values.

#### 9.2.1.6 AH2012TR-007

This trench was testing the IP anomaly PP-1 at the flank of the large mag that defined the edge of the tonalitic intrusion. The trench is characterized by a diorite composed of plagioclase-quartz-hornblende-biotite. No mineralization was observed and the IP axis remains unexplained.

#### 9.2.1.7 AH2012TR-008

Trench AH2012TR-008 tested the IP axis PP-3 at the proximity of NE-SW regional fault. The trench exposed an intermediate intrusion (diorite) composed of plagioclase-quartz-hornblende-biotite-K-feldspar. The foliation was oriented N035° and dipping at 30° and was intersected by sub vertical fractures oriented N315° and dipping at N85°. Mineralization is composed of disseminated pyrite (traces), chalcopyrite (trace) and pyrrhotite (1%). The anomaly is explained by a pegmatitic injection that seems to remobilize and concentrate the mineralization. The percentage of pyrrhotite is up to 3 % in that leucosome. Channel AH2012TR-008-R2 returned an anomalous value of **0.13 % Cu / 1 m**

#### 9.2.1.8 AH2012TR-009, AH2012TR-010 and AH2012TR-019

These trenches were planned to test the long and linear IP anomaly found over 3 km and located just 200 meters east of the South Falcon showings (PP-5). These trenches are characterized by a dioritic intrusion composed of plagioclase-quartz-hornblende-biotite-K-feldspar in contact with what is believed to be an andesitic to basaltic rock (Raynourd Belt?) composed of hornblende-plagioclase-biotite-magnetite. The contact is transitional

and characterized by volcanic enclave inside the intrusion. Mineralization was found in both the volcanic and intrusive domain and was composed of disseminated traces of pyrite and pyrrhotite. The basalt presented a strong chloritisation translated by millimetric scale chlorite veins and by a silicification occurring in millimetric veins. This basaltic unit that is followed over 1 km has a strong magnetic component and could explain the strong IP response. This IP axis is likely disrupted by a regional NE-SW fault which supports the idea of a contact between the intrusion and the Raynouard belt.

#### 9.2.1.9 AH2012TR-011

Trench AH2012TR-011 was opened to test an IP anomaly located 400 meters North of South Falcon showing. The trench revealed a gneissic diorite in contact with an andesitic rock similar to that in the trenches 009, 010 and 019. Both lithologies are altered by potassic and epidote veins, which are typical to the alteration observed on the South Falcon area. The deformation is getting stronger to the north of the trench. The mineralization is composed of disseminated pyrite (1-3%). This type of mineralization could explain the anomaly. This trench returned a value of **0.12 g/t Au over 2 meters**

#### 9.2.1.10 AH2012TR-012 and AH2012TR-016

Trench AH2012TR-012 was testing the IP anomaly PP-49 located 200 meters west of the South Falcon showing. A 3.5 meters mineralized tonalite was intersected at the NE extension of the trench mainly composed of 2 % pyrite and traces of chalcopyrite, including 2-3 % pyrite and 2 % chalcopyrite over 1.5 meters. This tonalite is composed of plagioclase-quartz-hornblende-biotite-k-feldspar and as a weak to moderate potassic alteration that occurs in veinlets and disseminated inside the matrix. The tonalite is in contact with a diorite that is characterized by a strong segregation resulting in an alternance of discontinuous centimetric to decametric amphibolite bands. A value of **0.14 % Cu over 1,5 meters** was returned from channel R1.

AH2012-TR-016 was planned 50 meters NE of AH2012TR-012 to test the extension of the mineralized zone. The mineralization zone was not extended to the North. It is possible that the trench was opened too far east because of the swamp at the western end of AH2012TR-016 and the mineralized zone was probably missed. Traces of pyrite and chalcopyrite were observed over 1 meter inside a quartziferous diorite but this mineralization is not correlated with the one intersected in AH2012TR-012. Channel AH2012TR-016-R1 returned an anomalous value of **0.13 % Cu / 1 m**.

#### 9.2.1.11 AH2012TR-013, AH2012TR-014 and AH2012TR-015

The trench AH2012TR-013 was a follow up on a 0.12% Cu value obtained on a grab sample (#198452) collected during the 2011 summer campaign. Two other trenches (014 and 015) were opened on both sides to test the extension of the mineralized zone. Unfortunately the mineralization seems to have little extension and was observed only on the trench AH2012-TR-013. The mineralization was found on approximately 4 meters but have a real extent of 1 meter and is characterized by traces of pyrite and chalcopyrite including 2 % chalcopyrite over 1 meter. The mineralization is hosted in a tonalite composed of plagioclase-quartz-hornblende-biotite-magnetite-K-feldspar. Moreover, a 1

meter metasomatic tonalite rich in quartz was observed with traces of chalcopyrite, molybdenite and 1 % pyrrhotite at the northwestern extension of the trench. This mineralization horizon was also observed on trench AH2012-TR-015 located 50 meters NE of AH2012-TR-013. As for TR-014, located south west of TR-013, the mineralized zone was not intersected. This new discovery is located 450 meters northwest of the Falcon area and sits on the flank of the highly magnetic signature of the tonalitic intrusion.

AH2012TR-013 returned the best value of the summer with **0.39 % Cu over 6 meters including 0.86 % Cu over 1 meters.**

#### 9.2.1.12 AH2012TR-017

The trench AH2012TR-017 aimed the IP anomaly PP-49. The trench exposed a gneissic dioritic intrusion mainly composed of plagioclase-quartz-hornblende-biotite-magnetite. The diorite is injected by 10 % of centimetric scale leucosomes and by centimetric to decametric scale amphibolitised bands that could be interpreted as a mineral segregation. These bands are rich in magnetite (7-8%) and are also injected by 15 % of centimetric leucosomes. The mineralization is composed of traces of disseminated pyrite. The anomaly was not explained by mineralization.

#### 9.2.1.13 AH2012TR-018

The trench AH2012TR-018 was performed on IP anomaly 48 near the South Falcon showing and located up ice of boulder discover in 2008 that returned values of **7.15 % Cu, 1.15 g/t Au and 43.70 g/t Ag**. The trench exposed a gneissic diorite composed of plagioclase-quartz-k-feldspar-biotite in contact with a narrow unit of foliated basalt similar to what was observed on trench AH2012TR-009 and AH2012TR-010. The basalt shows a strong penetrative chloritisation. The diorite as a local penetrative potassic alteration associated with millimetric scale epidote veins. Channel AH2012TR-018-R1 returned a value of **0.22 g/t Au / 1.7 m**.

#### 9.2.1.14 AH2012TR-020

The trench AH2012TR-020 was opened to test IP axis PP-46. This trench exposed a paragneiss in alternance with an andesite that contained a weak mineralization composed of pyrite traces. The paragneiss contains a disseminated mineralization composed of pyrite that also occurred locally in stringers associated with quartz veins. A late pegmatite injection brecciated both lithologies.

#### 9.2.1.15 AH2012TR-021, AH2012TR-022, AH2012TR-023 and AH2012TR-024

These trenches were planned to test the long and linear IP axis found over 2.6 km and located South West of the Eagle showing (PP-7).

AH2012TR-021 was a follow up of the 2008 trench TRAH08-011 that returned an anomalous value of **0.86 g/t Au**. The purpose of the trench was to extent the mineralized zone that was still open at the south. This trench is characterized by a gneissic basalt composed of amphibole-plagioclase-chlorite-biotite interlayered with narrow units of paragneiss of decametric to metric scale. Both units are mineralized with traces to 1 % of

pyrite and pyrrhotite. The basalt as a moderate penetrative chloritisation and is injected by quartz veins. An anomalous value of **0.31 g/t Au / 11.3 m inc. 0.63 g/t Au / 3.3 m** was returned from channels R2 to R6. Values were returned in both the paragneiss and basalt.

AH2012TR-022 and AH2012TR-023 respectively aimed anomalous values of 0.35 % Cu and 0.25 % Cu of the 2008 samples 192770 and 152741. Both trenches are characterized by a calc-silicate basalt with boudinaged diopside-quartz veins. The basaltic unit exposed a weak gneissosity and a strong chloritisation. The mineralization, mainly composed of pyrite, pyrrhotite and occasionally of traces of molybdenite occurred associated with these veins. In trench AH2012TR-023 the basalt was in contact with a silicified paragneiss unit of two to five meters of thickness also mineralized with traces of pyrite and pyrrhotite. At the contact between the volcanic unit and the paragneiss, a stockwork of pyrrhotite veins was observed over 1 meter. These veins could explain the IP anomaly. A pegmatite was observed on AH2012-TR-022 with local centimetric blebs of molybdenite.

Trench AH2012TR-022 returned an anomalous value of **0.12 g/t Au / 2 m**. This value is related to a narrow metasomatic basalt unit strongly chloritized and silicified of about 2 meters thick. Inside this metasomatic zone the percentage of mineralization is up to 4 % of pyrrhotite.

As for trench AH2012TR-023, two anomalous values were returned, **0.6 g/t Au / 4 m and 0.23 g/t Au / 6 m**. In this case the first value is explained by a silicified paragneiss composed of quartz-plagioclase-biotite-amphiboles in contact with the basalt. The second value seems to be related to boudinaged quartz veins mineralized with 2 % pyrrhotite.

#### 9.2.1.16 AH2012TR-025

The trench AH2012TR-025 was targeting the strong and conductive IP anomaly PP-8. The trench exposed a chloritised komatiitic basalt that is composed of hornblende-orthopyroxene-clinopyroxene-chlorite-plagioclase in gradual contact at the northwest with a silicified basalt of 3 meters thick. This basalt contains 2-4 % of pyrrhotite that occurs disseminated and in stringers. A late pegmatite intrusion crosscut the basalt at the end of the trench. This pegmatite is also mineralized with traces of pyrrhotite. This kind of mineralization can explain the strong chargeability of the anomaly.

Channel AH2012TR-025-R3 returned values of **0.96 g/t Au over 4 meters inc. 3.03 g/t Au / 1 m**. These values were returned from the late pegmatite injection that crosscut the basalt unit in contact at the northwest with the komatiite.

#### 9.2.1.17 AH2012TR-026

The trench AH2012-TR-026 was performed on IP anomaly PP-10. The trench exposed a foliated amphibolitized basalt. This unit was composed of plagioclase-amphibole-mica-pyroxene. The mineralization is characterized by traces of pyrite and pyrrhotite. On 2.8 meters (AH2012TR-026-R2) the basalt is brecciated by millimetric feldspars veins and the percentage of mineralization reached 12 % with 2-10 % of pyrite, 2 % pyrrhotite and local traces of chalcopyrite, sphalerite and galena. This zone is also silicified.

Although no values were returned from this trench the IP anomaly is located (PP-10) in the disrupted axis of the mag which corresponds to the NE-SW regional fault. The presence of a disseminated to semi-massive horizon suggest that this zone could be related to the Eagle showing 2.2 km North-East. However, no strong correlation can be done with the Eagle showing since the type of magnesian alteration observed on the Eagle showing was not observed on that trench. Moreover the spatial correlation with the komatiite unit observed on the Eagle showing was not intersected.

#### 9.2.1.18 AH2012TR-027

The trench AH2012TR-027 was a follow up of a **3.05 g/t Au, 9.05 g/t Ag and 0.65 % Cu** grab sample (#193149) collected during the 2008 summer campaign. Located south of the Eagle showing, the trench exposed an amphibolitised basalt with preserved pillow. A polarity at N100° was interpreted. Mineralisation was mainly observed between pillows in the hyaloclastic parts or associated with quartz-carbonate-tourmaline veins. It was mainly composed of pyrite and pyrrhotite. No substantial values were returned from that trench.

#### 9.2.1.19 AH2012TR-028 and AH2012TR-029

The trench AH2012TR-028 and AH2012TR-029 respectively aimed the IP anomaly PP-14 and PP-15. Both trenches exposed an amphibolitised basalt mainly composed of plagioclase-hornblende-chlorite-garnets. A weak mineralization was observed and characterized by traces of pyrite, pyrrhotite and molybdenite in quartz-carbonate veins.

AH2012TR-029 intersected at the northwestern end of the trench a graphitic chert composed of quartz-plagioclase-graphite-amphiboles. This chert was mineralized with 10 % of millimetric pyrite stringers. The presence of graphite and 10 % of pyrite stringers explain the strong conductivity of the anomaly. An anomalous value was returned from AH2012TR-029-R7 of **0.13 % Zn over 1.3 m**.

#### 9.2.1.20 AH2012TR-030

This trench was testing the IP anomaly PP-29. The trench is entirely composed of amphibolitised basalt. The foliation oriented N030° and dipping at 70° was crosscut by sub vertical fractures at N028° and N252°. Trace of pyrite and pyrrhotite was observed and the IP remains unexplained.

Table 3 : Summary of the bests values obtained on channel sample.

ID_Channel	From	To	Lenght	Sample #	Au_ppm	Ag_ppm	Cu_ppm	Mo_ppm	Zn_ppm	Values
AH2012-TR-003-R2	0,00	1,00	1,00	275755	0,043	0,5	1145	17	27	<i>0,19 % Cu / 4,5 m inc. 0,58 % / 1 m</i>
AH2012-TR-003-R3	0,00	1,00	1,00	275763	0,024	1,6	1015	1	36	
AH2012-TR-003-R3	1,00	2,00	1,00	275764	0,123	4,4	5820	2	94	
AH2012-TR-003-R3	3,50	4,50	1,00	275767	0,027	1	1625	4	61	
AH2012-TR-003-R4	2,00	3,00	1,00	275770	0,026	2	1720	58	33	<i>0,17 % Cu / 1 m</i>
AH2012-TR-008-R2	1,00	2,00	1,00	275835	0,038	0,5	1250	3	34	<i>0,13 % Cu / 1 m</i>
AH2012-TR-011-R2	0,00	1,00	1,00	275851	0,107	0,4	193	11	20	<i>0,12 g/t / 2 m</i>
AH2012-TR-011-R2	1,00	2,00	1,00	275853	0,138	-0,2	139	22	17	
AH2012-TR-011-R3	8,00	9,00	1,00	275865	0,203	0,6	436	10	23	<i>0,2 g/t Au / 1 m</i>
AH2012-TR-012-R1	2,00	3,50	1,50	276019	0,079	1,4	1445	10	38	<i>0,14 % Cu / 1,5 m</i>
AH2012-TR-013-R3	4,20	5,20	1,00	276213	0,055	6,2	8630	37	78	<i>0,39 % Cu / 6 m inc. 0,86 % Cu / 1 m</i>
AH2012-TR-013-R3	5,20	6,20	1,00	276214	0,025	3,6	4360	12	71	
AH2012-TR-013-R3	6,20	7,20	1,00	276215	0,045	5,3	6530	35	76	
AH2012-TR-013-R3	7,20	8,20	1,00	276216	0,052	3	3250	297	46	
AH2012-TR-013-R4	0,00	1,00	1,00	276220	0,033	2,1	2440	365	27	
AH2012-TR-016-R1	2,00	3,00	1,00	276062	0,064	0,6	1305	11	39	<i>0,13 % Cu / 1 m</i>
AH2012-TR-018-R1	3,30	4,00	0,70	276278	0,184	0,2	32	9	39	<i>0,22 g/t Au / 1.7 m</i>
AH2012-TR-018-R1	4,00	5,00	1,00	276279	0,198	-0,2	28	8	38	
AH2012-TR-021-R2	0,00	1,00	1,00	276352	0,106	0,2	71	-1	23	<i>0,31 g/t Au / 11,3 m inc. 0,63 g/t Au / 3,3 m</i>
AH2012-TR-021-R2	2,00	3,00	1,00	276354	0,536	0,3	140	1	22	
AH2012-TR-021-R4	0,00	1,00	1,00	276357	0,361	0,5	480	3	469	
AH2012-TR-021-R5	1,00	2,00	1,00	276358	0,155	0,2	104	2	131	
AH2012-TR-021-R6	0,00	1,30	1,30	276363	0,915	0,3	184	4	69	
AH2012-TR-021-R6	1,30	2,30	1,00	276364	0,99	-0,2	38	3	22	
AH2012-TR-021-R7	0,00	1,00	1,00	276365	0,18	-0,2	97	10	24	
AH2012-TR-021-R8	1,00	2,00	1,00	276373	0,113	0,2	100	-1	13	
AH2012-TR-022-R2	4,00	5,00	1,00	276386	0,138	0,4	187	1	29	<i>0,12 g/t Au / 2 m</i>
AH2012-TR-022-R2	5,00	6,00	1,00	276388	0,109	1,2	454	4	344	
AH2012-TR-022-R3	3,00	4,00	1,00	276398	0,439	0,2	157	-1	17	
AH2012-TR-023-R1	7,00	7,50	0,50	276415	0,134	0,3	448	2	234	<i>0,6 g/t Au / 4 m and 0,23 g/t Au / 6 m</i>
AH2012-TR-023-R1	7,50	8,00	0,50	276417	1,18	0,2	167	1	13	
AH2012-TR-023-R1	8,00	9,00	1,00	276418	0,549	-0,2	82	-1	10	
AH2012-TR-023-R1	9,00	10,00	1,00	276419	0,263	-0,2	41	-1	17	
AH2012-TR-023-R2	0,00	1,00	1,00	276420	0,285	-0,2	30	-1	17	
AH2012-TR-023-R3	4,00	5,00	1,00	276429	0,136	0,2	157	-1	29	
AH2012-TR-023-R3	5,00	6,00	1,00	276430	0,214	-0,2	79	-1	21	
AH2012-TR-023-R3	8,00	9,00	1,00	276434	0,277	0,2	303	-1	26	
AH2012-TR-023-R4	0,00	1,00	1,00	276435	0,655	0,2	165	-1	19	
AH2012-TR-025-R2	0,00	0,30	0,30	275923	0,154	-0,2	5	-1	29	
AH2012-TR-025-R3	0,00	1,00	1,00	275942	0,193	-0,2	9	7	13	<i>0,96 g/t Au / 4 m inc. 3,03 g/t Au / 1 m</i>
AH2012-TR-025-R3	1,00	2,00	1,00	275943	0,411	-0,2	7	9	15	
AH2012-TR-025-R3	2,00	3,00	1,00	275944	0,185	-0,2	5	13	11	
AH2012-TR-025-R3	3,00	4,00	1,00	275945	3,03	1,7	15	77	19	
AH2012-TR-029-R7	0,00	1,30	1,30	276494	0,011	1,7	734	10	1300	<i>0,13 % Zn / 1,3 m</i>

**ITEM 10: DRILLING**

Not applicable for this report

**ITEM 11: SAMPLE PREPARATION, ANALYSIS AND SECURITY****11.1 Sample security, storage and shipment**

Samples were collected and processed by the personnel contracted by Virginia. They were immediately placed in appropriate sample bags, tagged and recorded with unique sample numbers. Rocks sealed samples were placed in shipping bags, which in turn were sealed with plastic tie straps or fibreglass tape. Bags remained sealed until the ALS Chemex Val-d'Or personnel opened them.

All samples were initially stored at the campsite. Samples were not secured in locked facilities, this precaution deemed unnecessary due to the remote location of the camp. Rocks samples were then loaded onto a pickup truck for transport to Val-d'Or where Virginia personnel delivered them to the ALS Chemex sample preparation facility.

**11.2 Sample preparation assay procedures**

After logging in, the samples were crushed in their entirety at the ALS Chemex preparation laboratory in Val-d'Or to >70% passing 2 mm (ALS Chemex Procedure CRU-31). A 200- to 250-g sub-sample was obtained after splitting the finer material (<2 mm). The split portion derived from the crushing process was pulverized using a ring mill to >85% passing 75 µm (200 mesh - ALS Chemex Procedure PUL-31). From each such pulp, a 100-g sub-sample was obtained from another splitting and shipped to the ALS Chemex laboratory for assay. The remainder of the pulp (nominally 100 to 150 g) and the rejects are held at the processing lab for future reference. The AU + SCAN and WRC analytical packages have been used.

The Au + SCAN package includes Au, Ag, Al, As, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, Pb, S, Sb, Sc, Sr, Ti, V, W, and Zn. All elements, except Au, were determined by the ME-ICP41 Procedure. Au was determined by the ME-AA23 Procedure. For the sample with the value higher than 10 g/t Au, the analysis was repeated with the ME-GRA21 Procedure.

The WRC package includes Au determined by AA23, Cu, Zn determined by AA45, Zn, Zr determined by XRF05 and SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, CaO, MgO, Na<sub>2</sub>O, K<sub>2</sub>O, Cr<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, MnO, P<sub>2</sub>O<sub>5</sub>, SrO, BaO, LOI determined by XRF06.

For the Gole package, the base metals of economic interest (Ni, Cu, Co) and Ag were determined using ALS Chemex Geochemical Procedure ME-AA61, a four-acid digestion followed by atomic absorption spectrometry (AAS). The upper limit for the base metals determined by this method is 1%. Samples showing higher values were re-assayed using a

0.4-g aliquot and an AAS finish. The precious metals Au, Pt and Pd were determined by ALS Chemex Geochemical Procedure PGM-ICP23, a 30-g fire assay followed by ICP-AES finish. Elements of more general and geochemical interest such as Si, Al, Fe, Ca, Mg, Na, K, Cr, Ti, Mn, P, Sr and Ba were determined using ALS Chemex Geochemical Procedure ME-XRF06, a lithium metaborate fusion followed by XRF. Total sulfur was determined using a Leco sulfur analyzer (Geochemical Procedure S-IR08). The sample (0.5 to 5.0 g) is heated to approximately 1350°C in an induction furnace while passing a stream of oxygen through the sample. Sulfur dioxide released from the sample is measured by an IR detection system and the total sulfur result is provided.

### **11.3 Assay procedures**

#### **11.3.1 Au-AA23 et Au-AA24**

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven, 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

#### **11.3.2 ME-GRA21**

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents in order to produce a lead button. The lead button containing the precious metals is cupelled to remove the lead. The remaining gold and silver bead is parted in dilute nitric acid, annealed and weighed as gold. Silver, if requested, is then determined by the difference in weights.

#### **11.3.3 ME-ICP41**

A prepared sample is digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 mL with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter-element spectral interferences.

**NOTE:** In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

#### **11.3.4 ME-XRF05**

A finely ground sample powder (10 g minimum) is mixed with a few drops of liquid binder (Polyvinyl Alcohol) and then transferred into an aluminum cap. The sample is subsequently compressed under approximately 30 ton/in<sup>2</sup> in a pellet press. After pressing, the pellet is dried to remove the solvent and analyzed by WDXRF spectrometry for the following elements.



### 11.3.5 ME-XRF06

A calcinated or ignited sample (0.9 g) is added to 9.0g of Lithium Borate Flux (50 % - 50 %  $\text{Li}_2\text{B}_4\text{O}_7 - \text{LiBO}_2$ ), mixed well and fused in an auto fluxer between 1050 - 1100°C. A flat molten glass disc is prepared from the resulting melt. This disc is then analysed by X-ray fluorescence spectrometry.

## ITEM 12: DATA VERIFICATION

### 12.1 Channel sampling control:

A quality control procedure has been adopted for the channel sampling campaign in order to validate the laboratory results. A minimum of one standard sample, one duplicate and one blank were added systematically for each batch of 20 Channel samples collected. The quality control material is inserted randomly into the analytical sequence. Standards used were prepared and certified by WCM Minerals, British Columbia. Two standards, CU 164 and CU 160, were used as copper, molybdenum, silver and gold reference material. An uncertified material made of calcite was used as blank.

### 12.2 Exploration grab sampling control:

Due to the relative grassroots nature of the exploration program, rigorous data verification procedures were not deemed necessary. Only one standard sample was added for each batch of 50 grab samples. The same two standards, CU 160 and CU 164, were used randomly. The data has been reviewed and checked by the authors and is believed to be accurate. ALS Chemex, as part of their standard quality control, ran duplicate check samples and standards.

No sample was assayed at other laboratories. It is considered somewhat less important in grassroots projects, which are generally characterized by small batches of unmineralized to weakly-mineralized samples.

### 12.3 Quality assurance / Quality control (QA/QC)

#### 12.3.1 Batch sampling procedures

Two different certified standards (Certified Reference Materials) were used in the sample series. Standards were introduced alternately with blanks and duplicate conformably with the pattern observe at table 4. Table 4 shows an example of the sampling procedures done during fieldwork.

Table 4 : Batch Sampling procedures

▼ VIRGINIA		VIRGINIA MINES INC	
RANG	PROJET ASHUANIPI NUMERO DE BATCH : AH013	Date d'envoi:	
	Envoyé par: Pascal Simard Envoyé à: ALS Chemex, Val-d'Or, QC		
	Partie 2 - QC Positions NE PAS ENVOYER AU LABORATOIRE		
	# ECHANTILLON	PACKAGE : SMC	SAC #
1	275891	Au+Scan	1 de 2
2	275892	duplicata du rejet de 275891	1 de 2
3	275893	Au+Scan	1 de 2
4	275894	Au+Scan	1 de 2
5	275895	Au+Scan	1 de 2
6	275896	Au+Scan	1 de 2
7	275897	Cu 160	1 de 2
8	275898	Au+Scan	1 de 2
9	275899	Au+Scan	1 de 2
10	275900	Au+Scan	1 de 2
11	275901	Blank	2 de 2
12	275902	Au+Scan	2 de 2
13	275903	Au+Scan	2 de 2
14	275904	Au+Scan	2 de 2
15	275905	Au+Scan	2 de 2
16	275906	Cu 160	2 de 2
17	275907	Au+Scan	2 de 2
18	275908	Au+Scan	2 de 2
19	275909	Au+Scan	2 de 2
20	275910	Au+Scan	2 de 2

### 12.3.2 Certified Reference Materials (standards samples)

A total of 42 Cu160 and 37 Cu164 standards were inserted in the batch samples. The data verification was done using the Gold, Silver Copper and Molybdenum concentration of each standard. According to Virginia Mines policy, the comparison between the systematic measurement (analytical value) and the certified value of the standard has to be within three times the standard deviation of the population. Refer to Appendix 8 for the complete list of standard validation.

Standards underline in red are the one exceeding three times the standard deviation. Although, the entire standards are answering the Virginia Mines quality standard, the concentration of molybdenum for standards Cu164 obtained the most outranges values.

### 12.3.3 Blank samples

A total of 39 blanks samples were inserted in the sample series. The blank used were white crushed marble purchased in a hardware store. Since this type of blank are not certified it is

difficult to make good conclusion regarding laboratory contamination. Refer to appendix 8 for the analytical result of each blank.

According to Virginia Mines policy 80 % of the blank analytical results have to be under 2 to 5 times the detection limits. The result for Au, Ag, Cu and Mo are all answering this quality standard. Among the 39 blank samples analysed, 2 of them are exceeding 5 times the detection limits which means that 95 % of the blank are answering Virginia Mines quality standards.

#### 12.3.4 Duplicates

A total of 40 duplicates were inserted in the batch samples. For duplicates the difference between the average of the duplicates analyses and the average of the first analyses has to be below 5 %. The result for Au, Ag, Cu and Mo are all under this value.

Table 5 : Duplicate average values

	Au_ppm	Ag_ppm	Cu_ppm	Mo_ppm
Sample average	0,02	0,23	85,55	9,45
Duplicata average	0,01	0,23	87,65	9,78
% difference	4,36	0,52	2,40	3,32

Refer to appendix 8 for the analytical results of each duplicate.

#### ITEM 13: MINERAL PROCESSING AND METALLURGICAL TESTING

Not applicable for this report

#### ITEM 14: MINERAL RESSOURCE ESTIMATES

Not applicable for this report

#### ITEM 23: ADJACENT PROPERTIES

Not applicable for this report

#### ITEM 24: OTHER RELEVANT DATA AND INFORMATION

For detail information about the geophysical survey done during the 2012 winter, the reader may consult the respective technical reports. The IP survey was realized by Geosig Inc. (Levé de polarisation provoquée, Propriété Ashuanipi, MRC de Caniapiscau, Région du lac Contat, Québec; Tshimbalanga S.) and the high definition magnetic survey was realized by

Geo Data Solution GDS Inc. (Coulon and Ashuanipi properties, Eastern James-Bay area, Quebec; St-Hilaire C.)

## ITEM 25: INTERPRETATION AND CONCLUSION

Works realized since 2007 on the Ashuanipi property have allowed the discovery of two main mineralized contexts. The Falcon Area in the northern part of the property and the Eagle Area located in the southern part of the Raynouard belt. Both contexts have returned significant values and have been the main focus since 2010. Detail mapping realized in 2011 and 2012 on the property has helped to define mineralized context for both type of mineralization which is essential when designing exploration program.

The Falcon type mineralization seems to have all the features of a common porphyry gold-copper deposit with a mineralization composed of chalcopyrite, pyrite, pyrrhotite and molybdenite. Mineralization on both North Falcon and South Falcon is associated with composite stocks of calc-alkaline and alkaline compositions in contact to the east with the Raynouard volcanic belt. The polyphased intrusion is mainly composed of highly deformed diorite, granodiorite and tonalite on the edge of the intrusion and by a more massive tonalite in the core of the intrusive complex. The mineralization found over the Falcon area is strongly associated with the major NNE/SSW fault observed on the field and outlined by the aeromagnetic survey. The footprint of this fault is observed especially on the North Falcon showing where strongly banded felsic gneiss are observed at surface. That feature is also observed in microscopy by an almost complete recrystallization of the matrix (blastomylonitic texture). On the South Falcon showing the impact of this fault is reflected by a strong chlorite, epidote and hematite alteration. The mineralization on South Falcon is mainly associated with this alteration.

The Eagle context hosted in the Raynouard volcano-sedimentary belt at the southern end of the property exhibits common features with VMS type deposit. Mineralization found over the Eagle showing is characterized by disseminated to semi-massive mineralization mainly composed of pyrrhotite, pyrite and chalcopyrite and by a typical magnesian alteration observed particularly on the Coulon Archean metavolcanic belt (Coulon project, Virginia Mines Inc.). This alteration is characterized by phlogopite and anthophyllite that metasomatized the hosted rhyolite. The Eagle mineralized trend is also found along the NNE-SSW regional fault and may explain the low metamorphic window of the Raynouard belt by a graben style deformation. The trenching program of the 2012 summer extend the mineralization to the south west with new gold showings. These gold values associated to the Eagle mineralization raises questioning regarding the mineralization context of that area. All these values are hosted in volcanic and sedimentary sequences and are characterized by disseminated to local stockwork zones. Moreover, little evidences of semi-massive to massive sulphides zones were observed on the Ashuanipi property except for the main Eagle showing. With the information that we have right now regarding the Eagle area it is difficult to make good conclusion regarding the exact mineralized context but that kind of mineralization and values may have some affinity's with submarine gold-rich massive-sulphides. The fact that rare evidences of massive sulphides have been observed on the property may suggest that the Eagle showing and its alteration zone associated with major

faulting could have been dislocated from a main sulphide body. Several anomalies remain unexplained on that area and the values obtained during the summer confirm the great potential of the Eagle area.

The Induced polarization and aeromagnetic surveys carried out over the property yielded a great number of anomalies and helped to improve the overall comprehension of the property. The IP signature of the Falcon area seems to be inconsistent. Most of the showings on the South Falcon and North Falcon area are not responding to the IP survey. This poor response may be explained by a mineralization, in the case of the best showings, mainly composed of chalcopyrite. The fact that the bedding is weakly dipping to the East increase the difficulty of following the mineralized zone and evaluate the real thickness of the zones may be another relevant element. Overall few anomalies were explained in the Falcon area by trenching and prospecting during 2011 and 2012.

Several anomalies were outlined by the IP survey on the Eagle area. A focus was made on anomalies that were not associated with high mag considering that they were probably correlated to iron formation. The 3D inversion of the 2011 mag survey realized by Circé Malo-Lalande of AAEC confirms the presence of a synform in the Eagle area. The Magnetic survey also revealed a second fault well defined that probably crosscut the intrusion as well as the fold hinge in the south. This fold hinge becomes one of the most interesting targets of the property with the convergence of the two faults and the presence of a very conductive anomaly discordant with the main regional foliation.

Even though mineralization discovered over the Ashuanipi project has little extension at surface the distribution of gold and copper values are found over 7 kilometers. To date, no conclusions can be made regarding the relationship between the Falcon porphyry style and the Eagle mineralization context but in both cases the well-defined regional scale fault is probably the main reason why mineralization is found on these two coexisting mineralization context.

## **ITEM 26: RECOMMENDATIONS**

With the 2012 reconnaissance and trenching program new exploration avenues have to be considered for 2013. Following the IP survey most of the promising targets have been tested at surface by prospecting and trenching. With the results and the geological information acquired on the property since 2007 the Ashuanipi project is ready to be drilled. It is strongly recommended to proceed to a small drilling program of about 1000 meters with the purpose of testing the three main showings at shallow depth during summer 2013.

Finally a new grid is proposed in the North East area where several gold, copper and zinc showings were discovered since 2007. Considering that this area is characterized by large swamp and lakes, geophysics could be the best alternative.

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## Date and signatures page

### CERTIFICATE OF QUALIFICATIONS

I, *Pascal Simard*, resident at 1492 4e Avenue Québec, Qc, G1J 3B8, hereby certify that:

- I am presently employed as Geologist with Virginia Mines inc., 300 St-Paul, bureau 200, Québec (Québec), G1K 7R1.
- I have received a B.Sc. in Geological Engineering in 2008 from the Université du Québec à Chicoutimi.
- I have been working as a geologist in mineral exploration since 2008.
- I am a professional geologist presently registered to the board of the *Ordre des Ingénieurs du Québec*, permit number 5002937.
- I am a qualified person with respect to the Ashuanipi Project in accordance with section 5.1 of the national instrument 43-101.
- I supervised and visited the region in 2010 and 2012.
- I am responsible for writing the present technical report in collaboration with the other author, utilizing proprietary exploration data generated by Mines Virginia inc. and information from various authors and sources as summarized in the reference section of this report.
- I am not aware of any missing information or changes, which would have caused the present report to be misleading.
- I do not fulfill the requirements set out in section 5.3 of the National Instrument 43-101 for an «independant qualified person» relative to the issuer being a direct employee of Mines Virginia inc.
- I have been involved in the Ashuanipi project since 2010.
- I have read and used the National Instrument 43-101 and the Form 43-101A1 to make the present report in accordance with their specifications and terminology.

Dated in Québec City this 10<sup>th</sup> day of December 2012.

"Pascal Simard"



Pascal Simard, B.Sc., Ing. Geo.

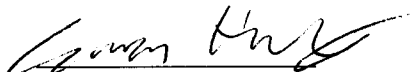
**CERTIFICATE OF QUALIFICATIONS**

I, *Simon Hébert*, resident at 1340 rue d'Edimbourg, Québec, Qc, G3J 0H2, hereby certify that:

- I am presently employed as a Geologist in training with Virginia Mines Inc., 300 St-Paul, bureau 200, Québec (Québec), G1K 7R1.
- I will receive a B.Sc. in Geology in 2013 from *Université Laval*
- I have been working as a mineral exploration geologist since 2012.
- I have worked on the property during the summer 2012 program.
- I am responsible for writing the present technical report in collaboration with the other author, utilizing proprietary exploration data generated by Virginia Mines Inc. and information from various authors and sources as summarized in the reference section of this report.
- I am not aware of any missing information or changes, which would have caused the present report to be misleading.
- I do not fulfil the requirements set out in section 5.3 of the National Instrument 43-101 for an « independent qualified person » relative to the issuer being a direct employee of Virginia Mines Inc.
- I am involved in the Ashuanipi project since June 2012.
- I read and used the National Instrument 43-101 and the Form 43-101A1 to make the present report in accordance with their specifications and terminology.

Dated in Québec City this 10<sup>th</sup> day of December 2012.

**"Simon Hébert"**



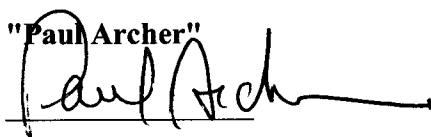
Simon Hébert, géo.stag.

**CERTIFICATE OF QUALIFICATIONS**

I, *Paul Archer*, resident at the 4772 rue du Courlis, St-Augustin-de-Desmaures, Qc, G3A 2B5, hereby certify that:

- I am presently the Vice President, Exploration with Mines Virginia inc., 300 St-Paul, bureau 200, Québec (Québec), G1K 7R1.
- I received a B.Sc. in Geological Engineering from the Université du Québec à Chicoutimi in 1979 and a M.Sc.A. in Earth Sciences from the Université du Québec à Chicoutimi in 1982.
- I have been working as a professional geologist in exploration since 1980.
- I am an active professional engineer in geology presently registered to the board of the *Ordre des Ingénieurs du Québec*, permit number 36271.
- I am a qualified person with respect to the Ashuanipi Project in accordance with section 5.1 of the national instrument 43-101.
- I have already visited the immediate region where the exploration activities were undertaken during summer 2007.
- In collaboration with the author, I am responsible for supervising the present technical report, utilizing proprietary exploration data generated by Virginia Mines Inc. and information from various authors and sources as summarized in the reference section of this report.
- I am not aware of any missing information or change, which would have caused the present report to be misleading.
- I do not fulfil the requirements set out in section 5.3 of the National Instrument 43-101 for an «independant qualified person» relative to the issuer being a direct employee of Virginia Mines inc.
- I have been involved in the Ashuanipi project since 2007.
- I read and used the National Instrument 43-101 and the Form 43-101F1 to make the present report in accordance with their specifications and terminology.

Dated in Québec city this 10<sup>st</sup> day of December 2012.

**"Paul Archer"**  


Paul Archer, M.Sc., P. Eng.

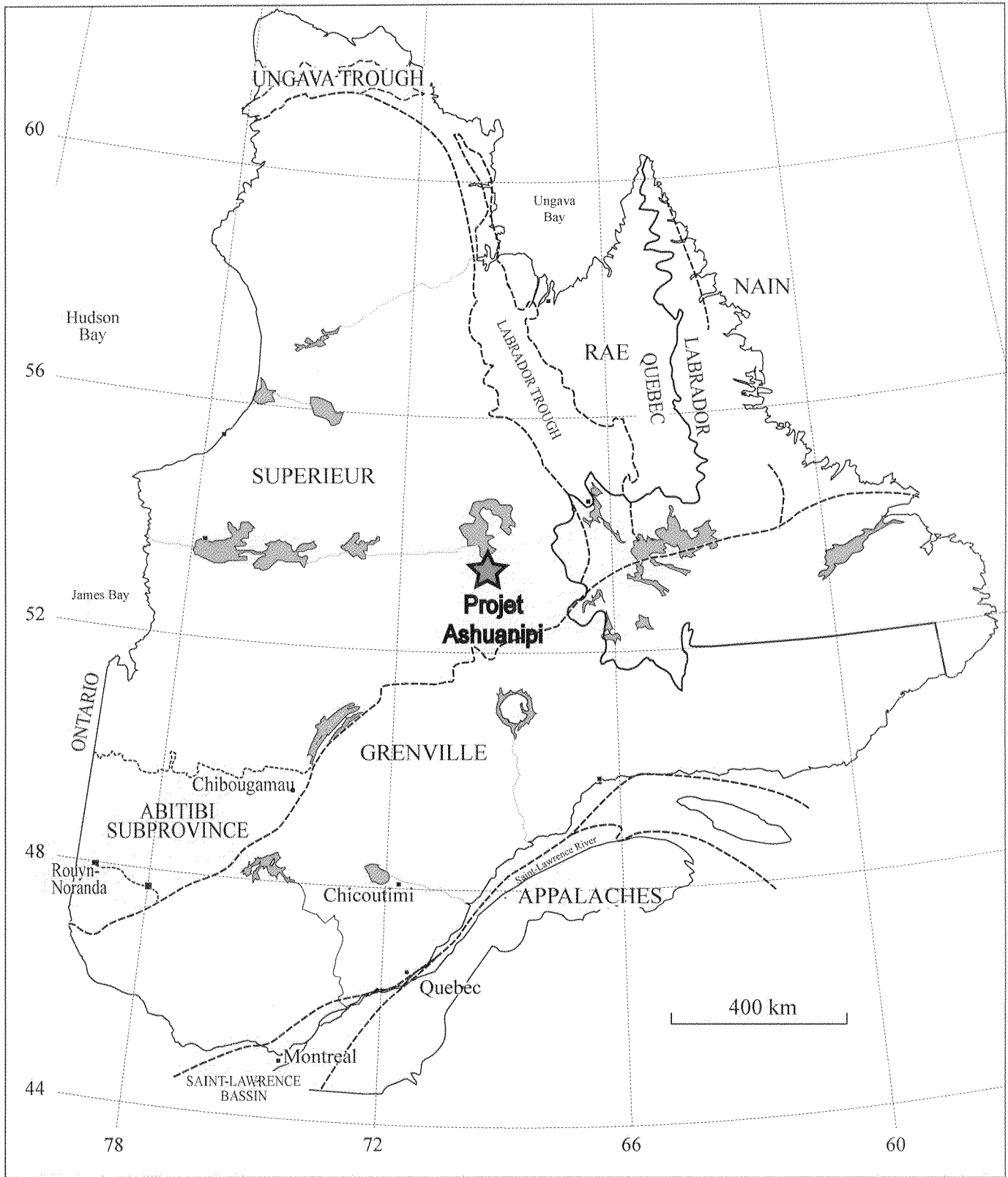
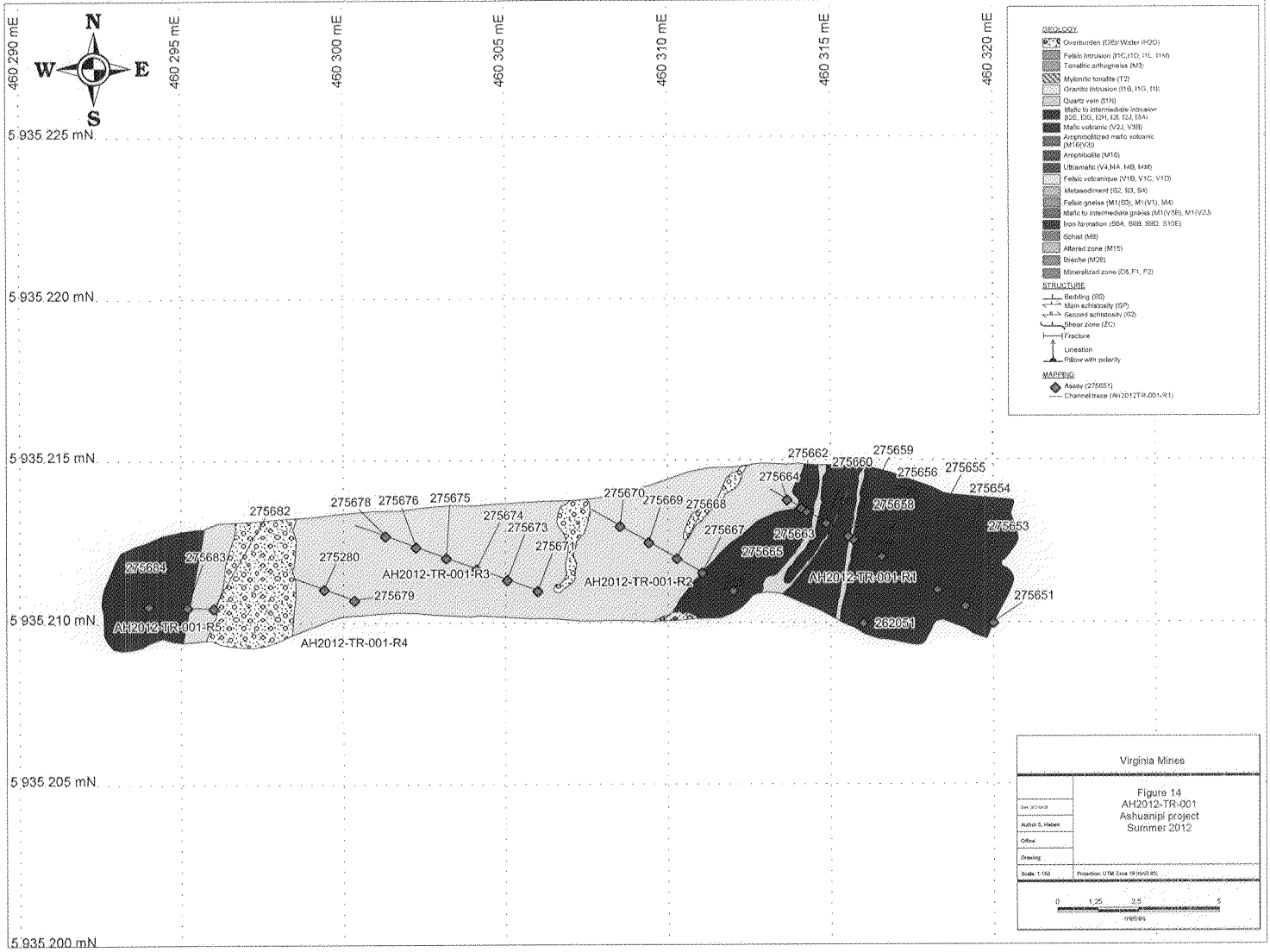


Figure 1 : Ashuanipi project



**GEOLOGY**

- Orebodies (OB) Water (W2)
- Feldic intrusion (F1C, F1D, F1E, F1M)
- Tonalitic orthogneiss (A3)
- Mylonitic tonalite (T2)
- Granitic intrusion (G1B, G1C, G1D)
- Quartz vein (Q1)
- Mafic to intermediate intrusion (I2C, I2D, I2E, I2F, I2G, I2H)
- Mafic volcanic (V2J, V3B)
- Amphibolized mafic volcanic (M1G1)
- Amphibolite (M1G)
- Ultramafic (U1A, U1B, U1M)
- Feldic volcanic (V1B, V1C, V1D)
- Metasediment (S2, S3, S4)
- Foliated gneiss (M1S5, M1V1, M4)
- Mafic to intermediate gneiss (M1V2B, M1V2C)
- Iron formation (S8A, S8B, S8D, S19E)
- Schist (M8)
- Altered zone (M15)
- Dike (M26)
- Mineralized zone (M2F1, F2)

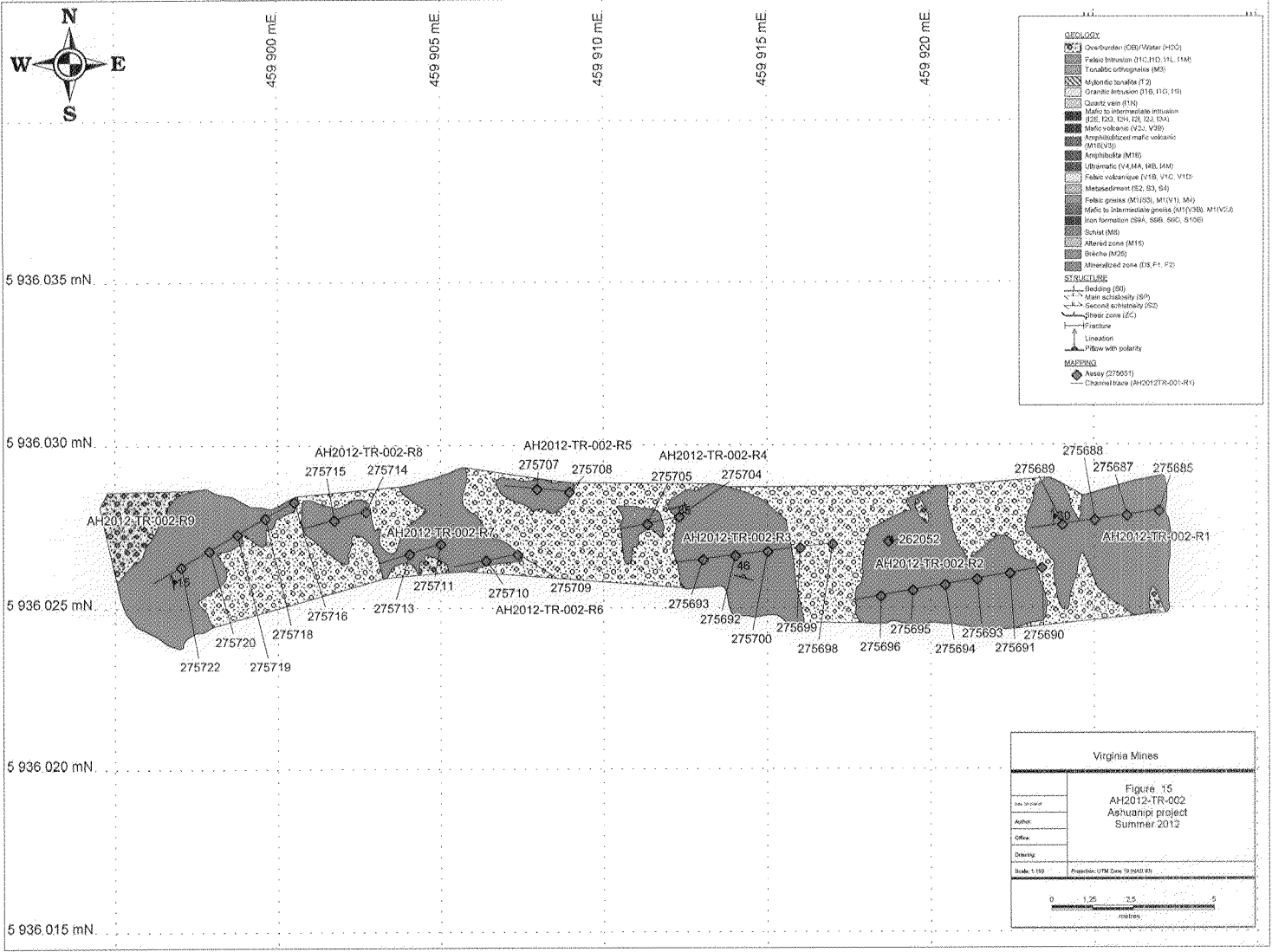
**STRUCTURE**

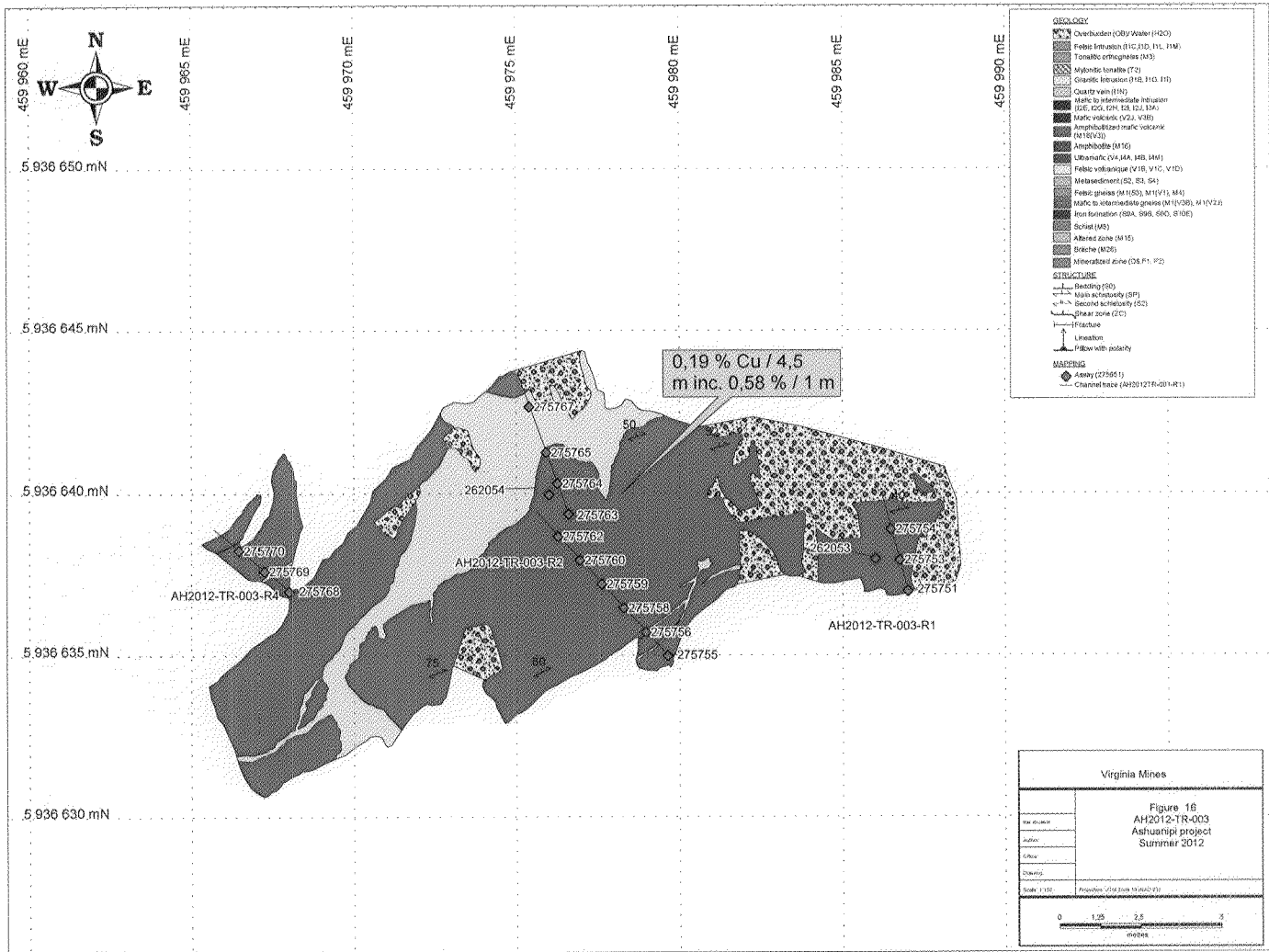
- Faulting (F5)
- Main schistosity (S1)
- Secondary schistosity (S2)
- Shear zone (S7)
- Fracture
- Lineation
- Pileup with polarity

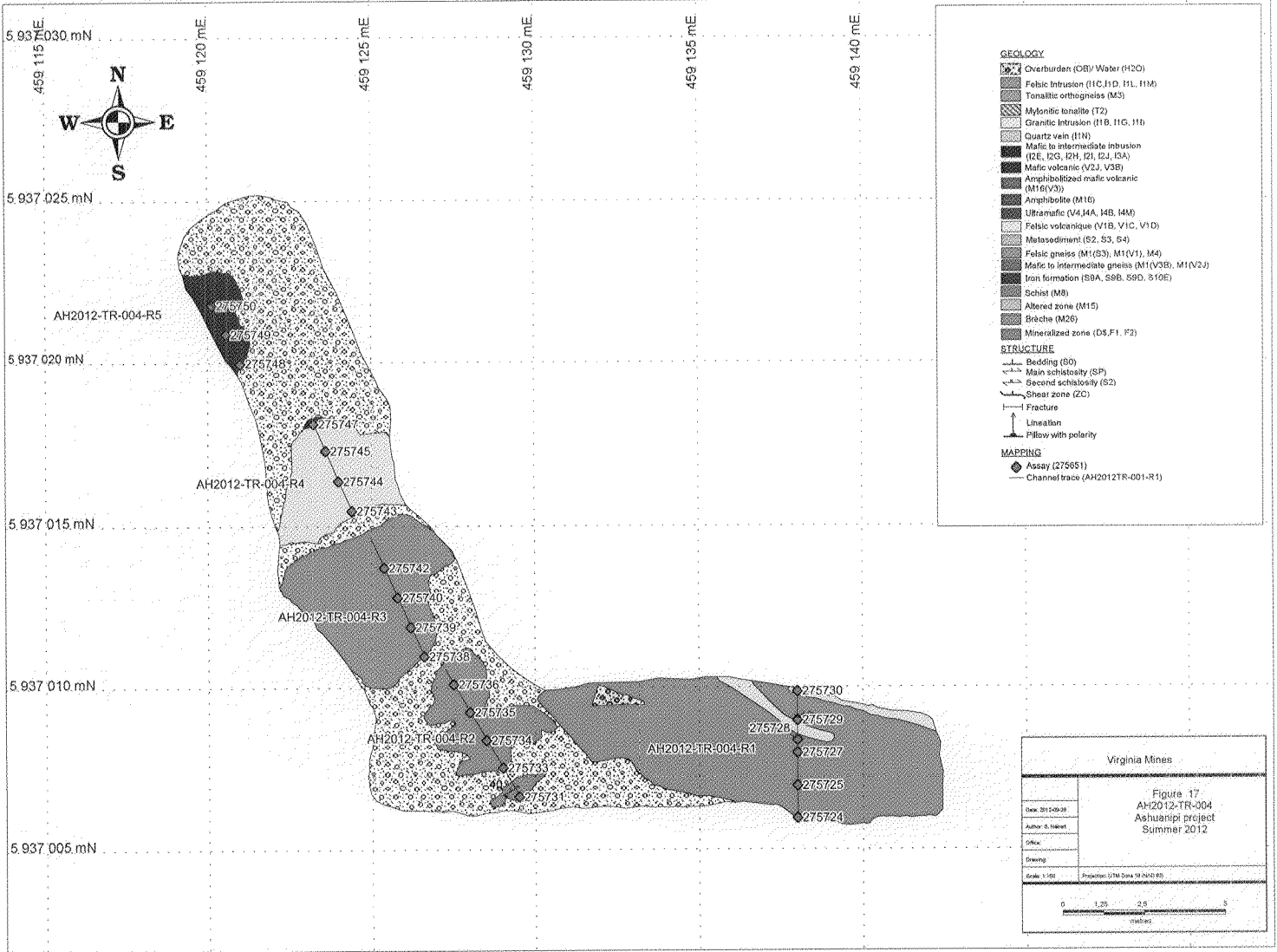
**MAPPING**

- ◆ Assay (275651)
- Chained trace (AH2012-TR-001-R1)

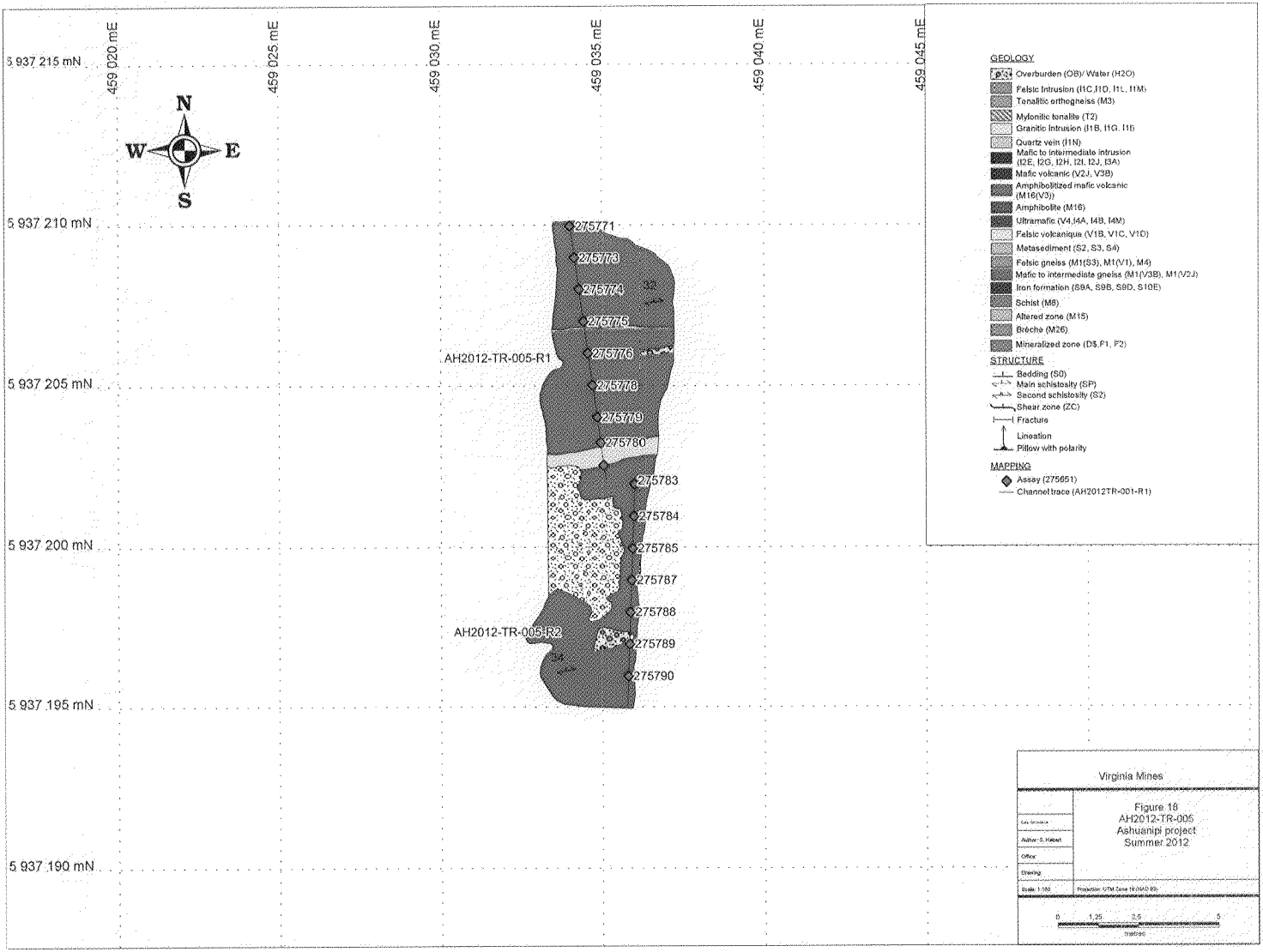
Virginia Mines	
Figure 14 AH2012-TR-001 Ashuañpi project Summer 2012	
Drawn by:	
Auth'd. S. Weber	
Other:	
Checked:	
Scale: 1:50	Projection: UTM Zone 19 (500 85)

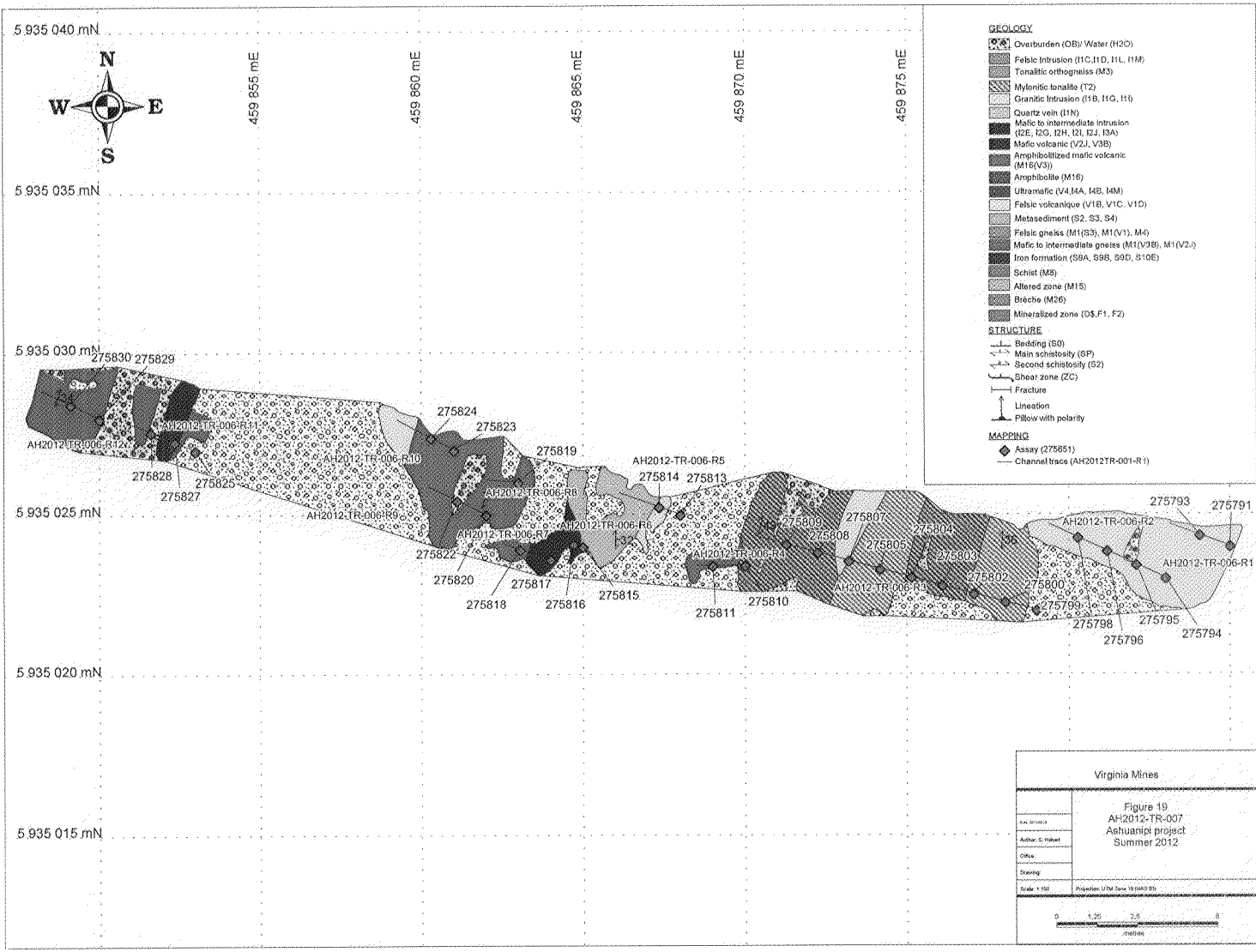










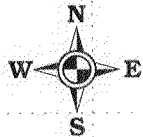


Virginia Mines

Figure 19  
AH2012-TR-007  
Ashuanipi project  
Summer 2012

Scale 1:50  
Projection UTM Zone 18N 2000000

0 1.25 2.5 5  
meters



459 585 mE

459 590 mE

459 595 mE

459 600 mE

459 605 mE

5 935 035 mN

5 935 030 mN

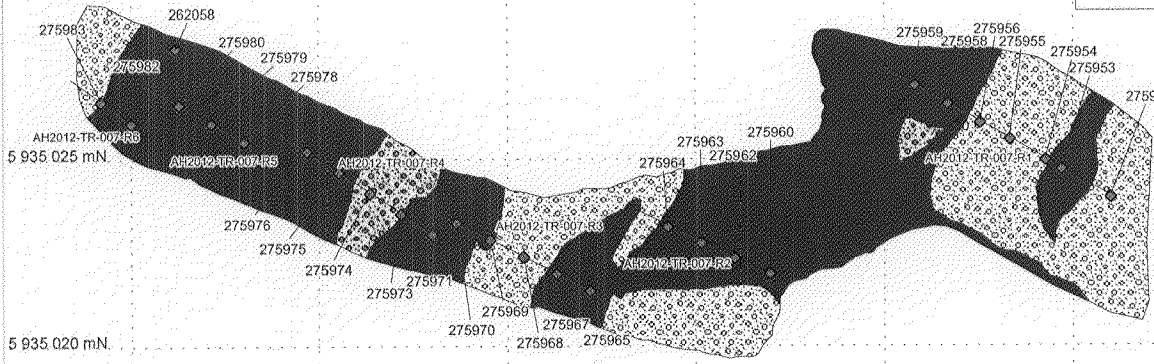
5 935 025 mN

5 935 020 mN

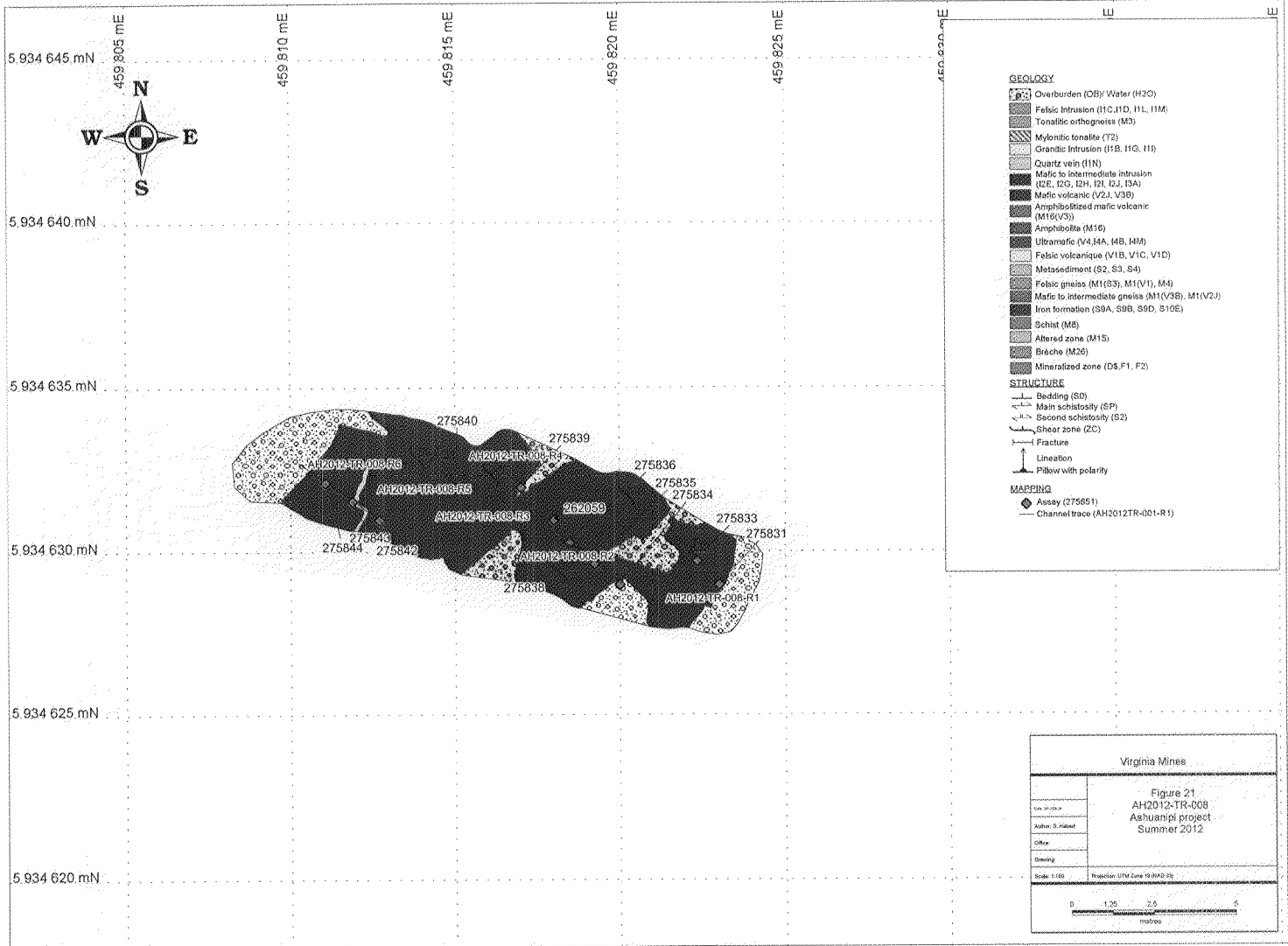
5 935 015 mN

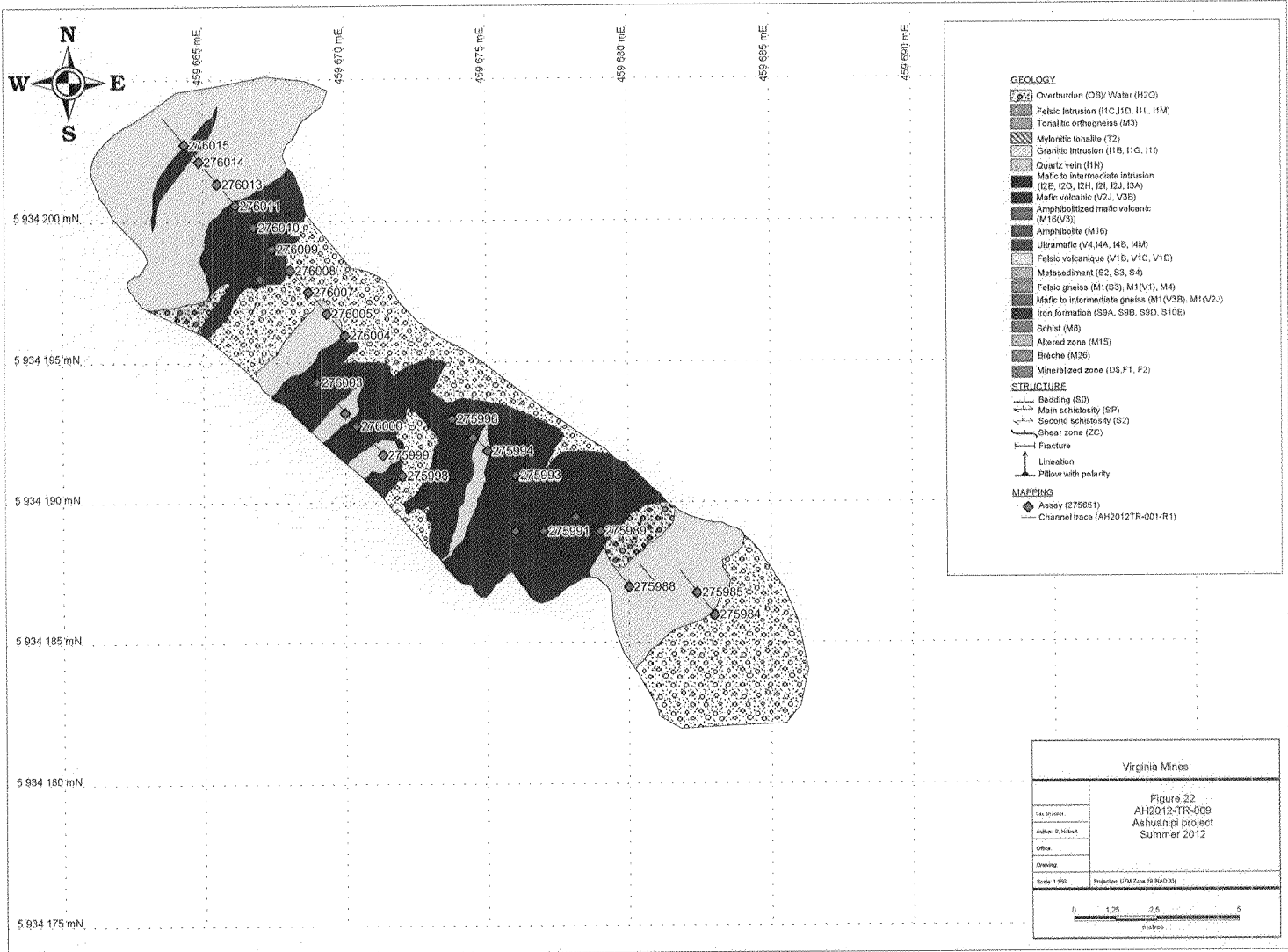
**GEOLOGY**

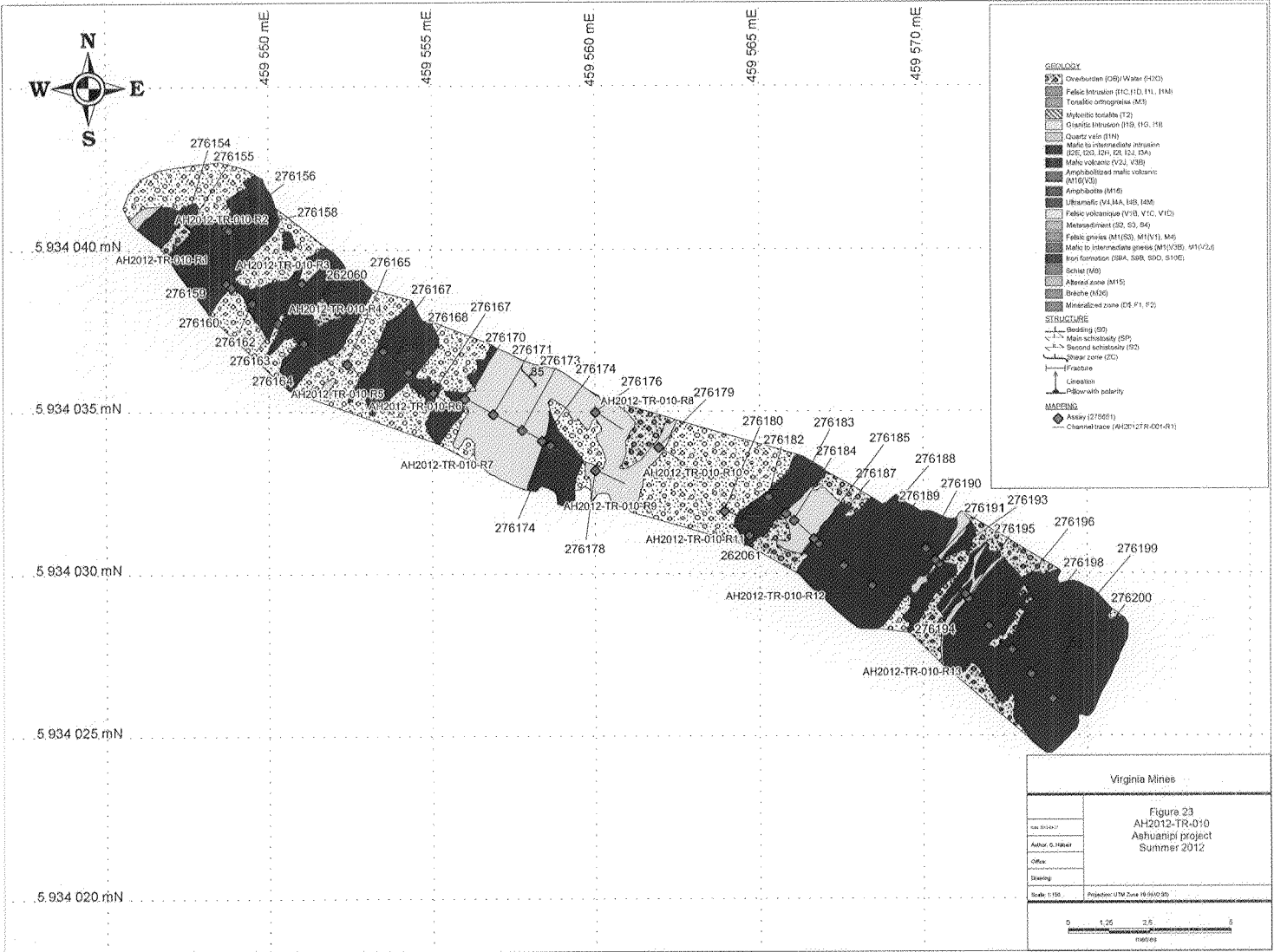
- Overburden (OB): Water (H2O)
  - Felsic intrusion (I1C, I1D, I1L, I1M)
  - Tonalite orthogneiss (M3)
  - Mylonitic tonalite (T2)
  - Granitic intrusion (I1B, I1G, I1I)
  - Quartz vein (I1H)
  - Mafic to intermediate intrusion (I2E, I2G, I2H, I2I, I2J, I2A)
  - Mafic volcanic (V2J, V3B)
  - Amphibolized mafic volcanic (M16(V3))
  - Amphibolite (M16)
  - Ultramafic (V4, I4A, I4B, I4W)
  - Felsic volcanique (V1B, V1C, V1F)
  - Metasediment (S2, S3, S4)
  - Felsic gneiss (M1(S3), M1(V1), M4)
  - Mafic to intermediate gneiss (M1(V3B), M1(V2J)
  - Iron formation (S9A, S9B, S9D, S10E)
  - Schist (M5)
  - Altered zone (M15)
  - Brèche (M26)
  - Mineralized zone (D3, F1, F2)
- STRUCTURE**
- Bedding (S0)
  - Main schistosity (SP)
  - Second schistosity (S2)
  - Shear zone (ZC)
  - Fracture
  - Lineation
  - Pilow with polarity
- MAPPING**
- Assay (275651)
  - Channel trace (AH2012TR-001-R1)

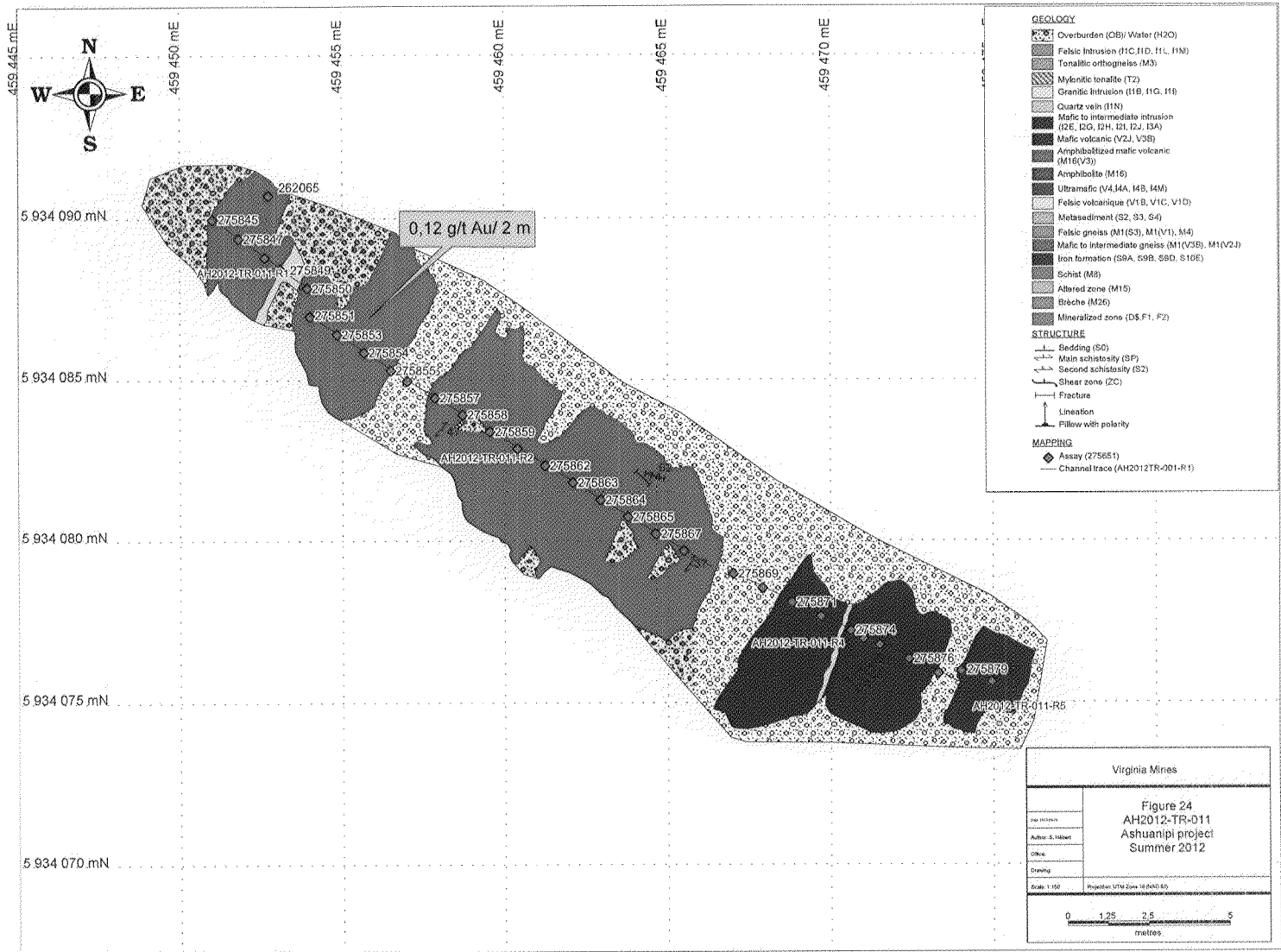


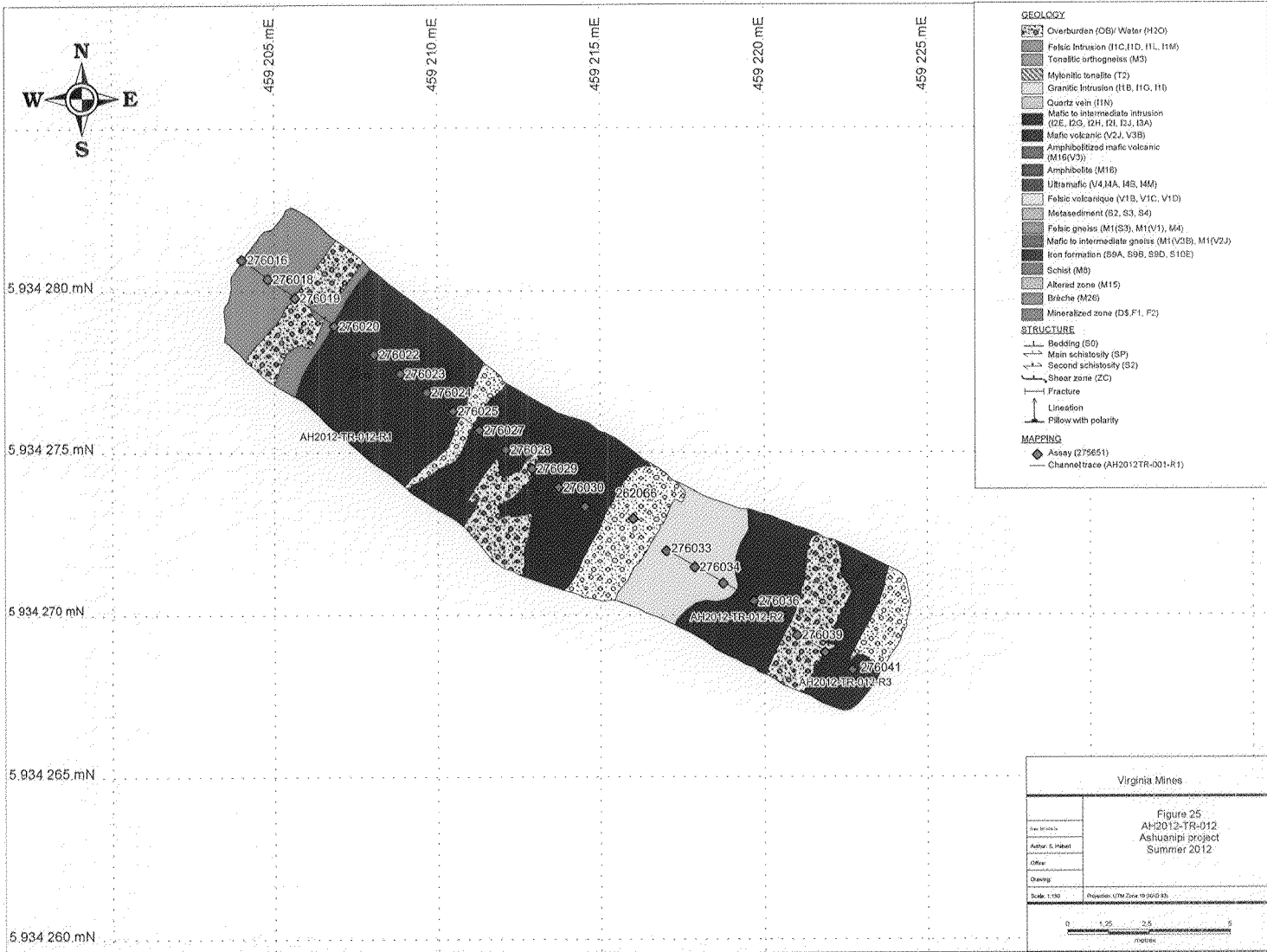
Virginia Mines	
Figure 20 AH2012-TR-007 Asbuanipi project Summer 2012	
Scale: 1:100	Projection: UTM Zone 18N (NAD 83)



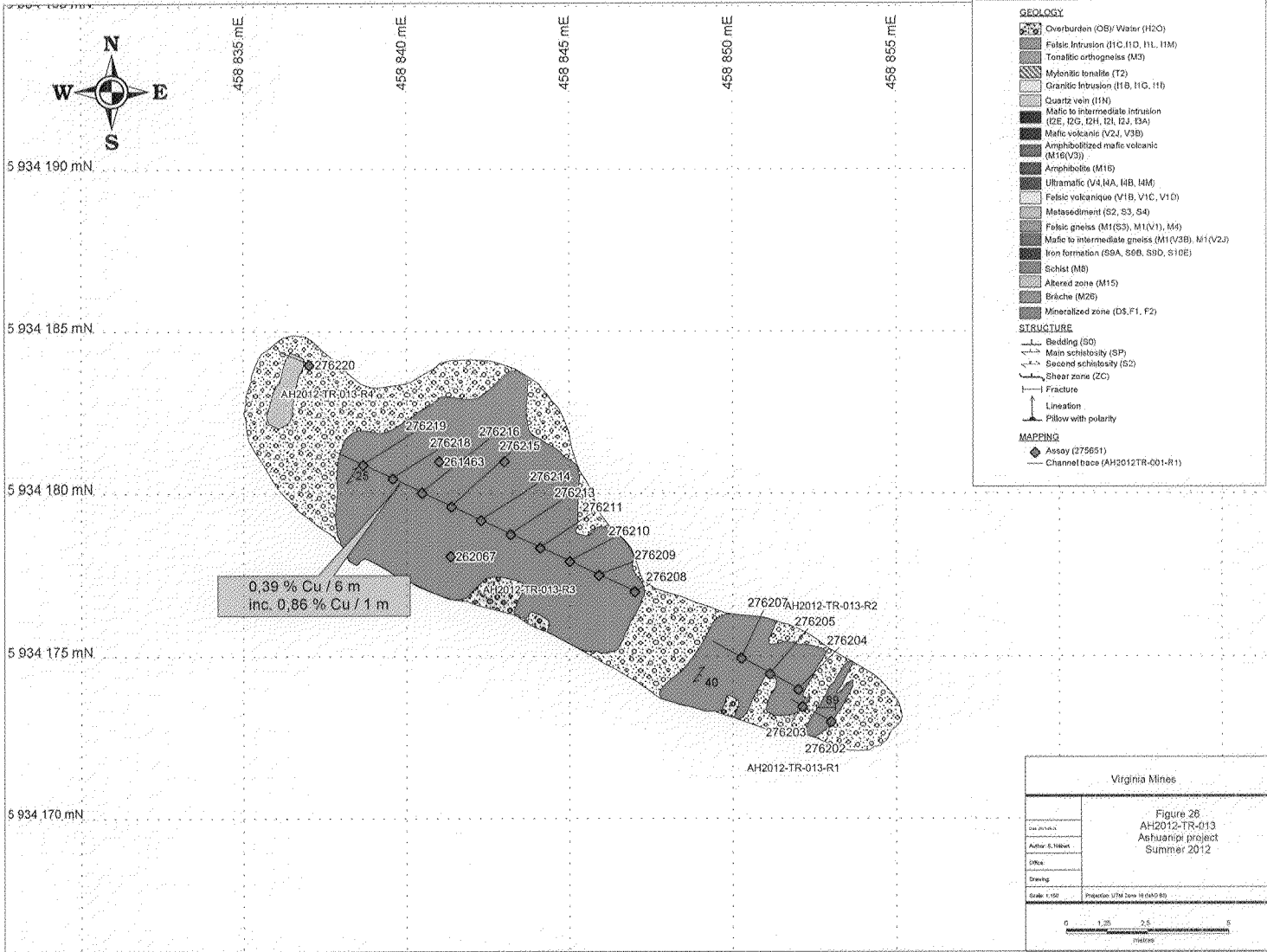


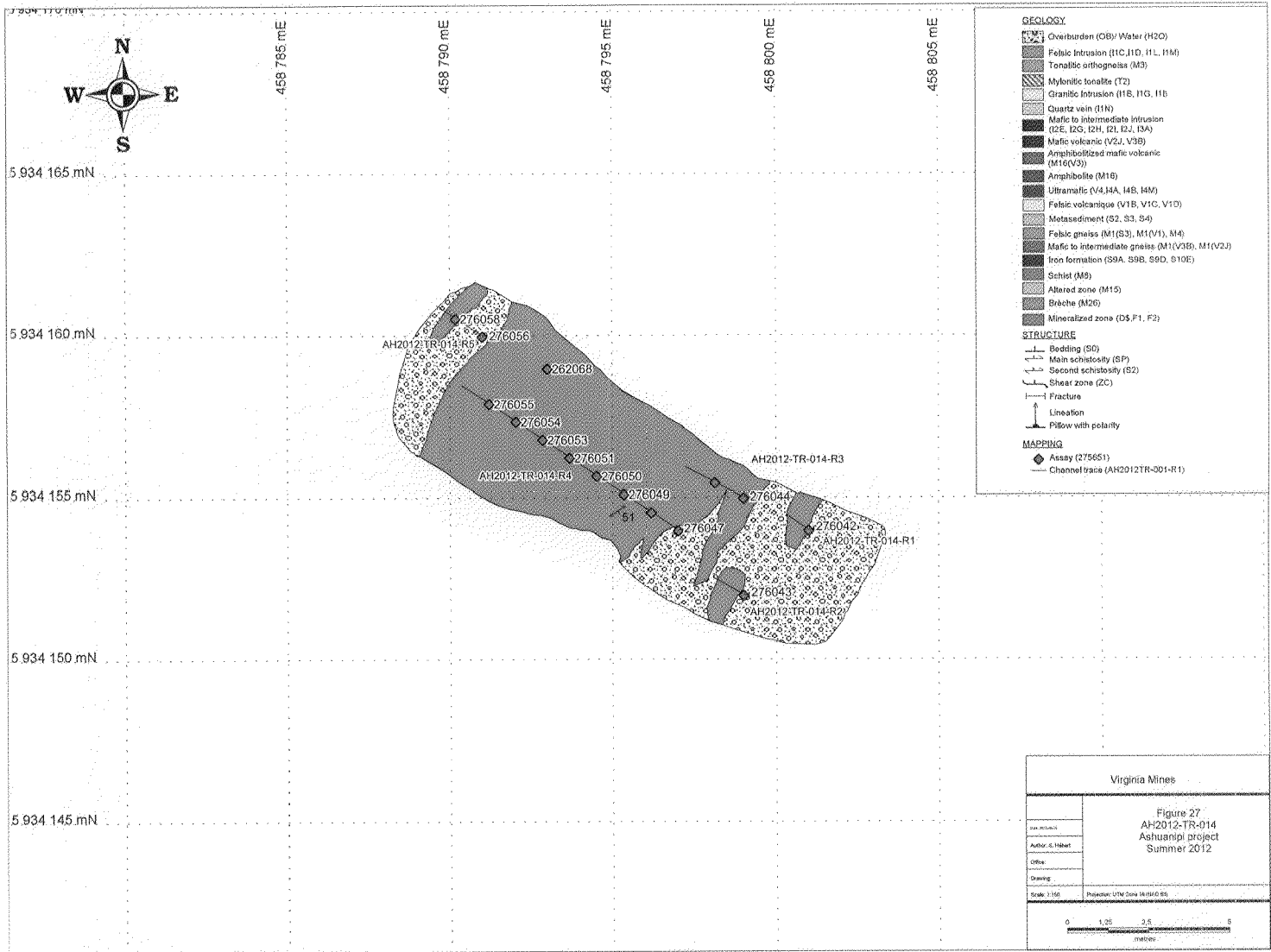




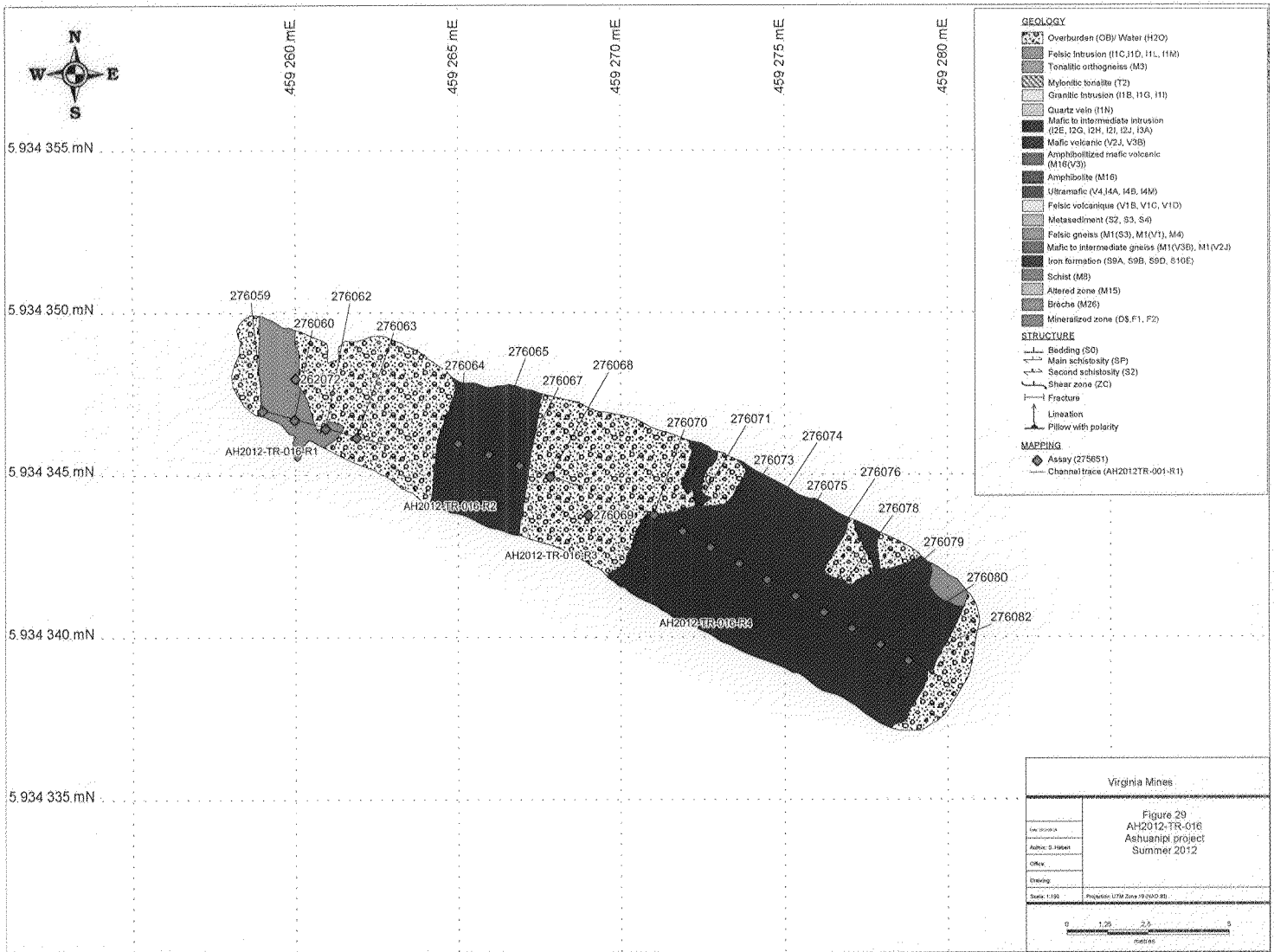


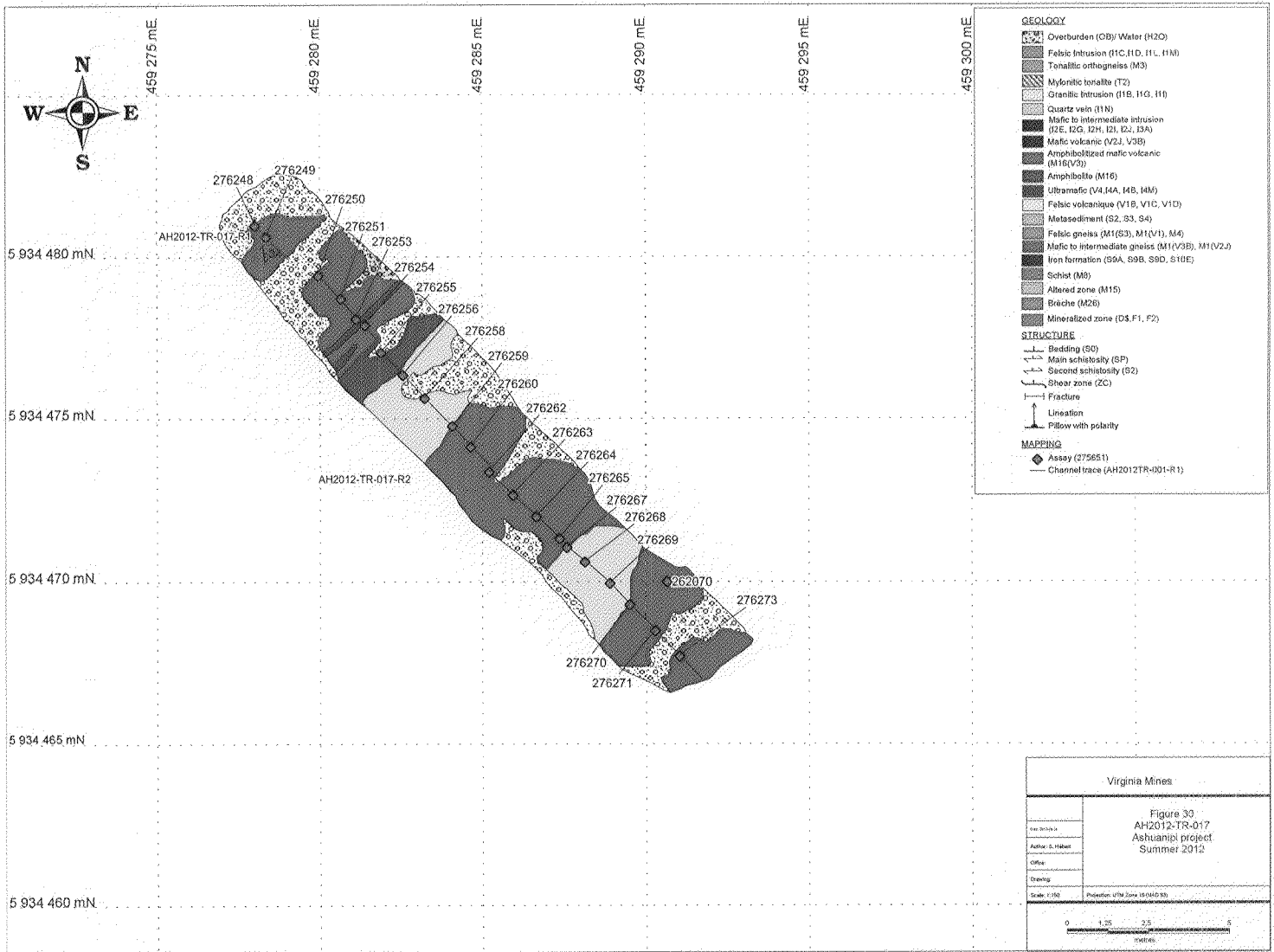


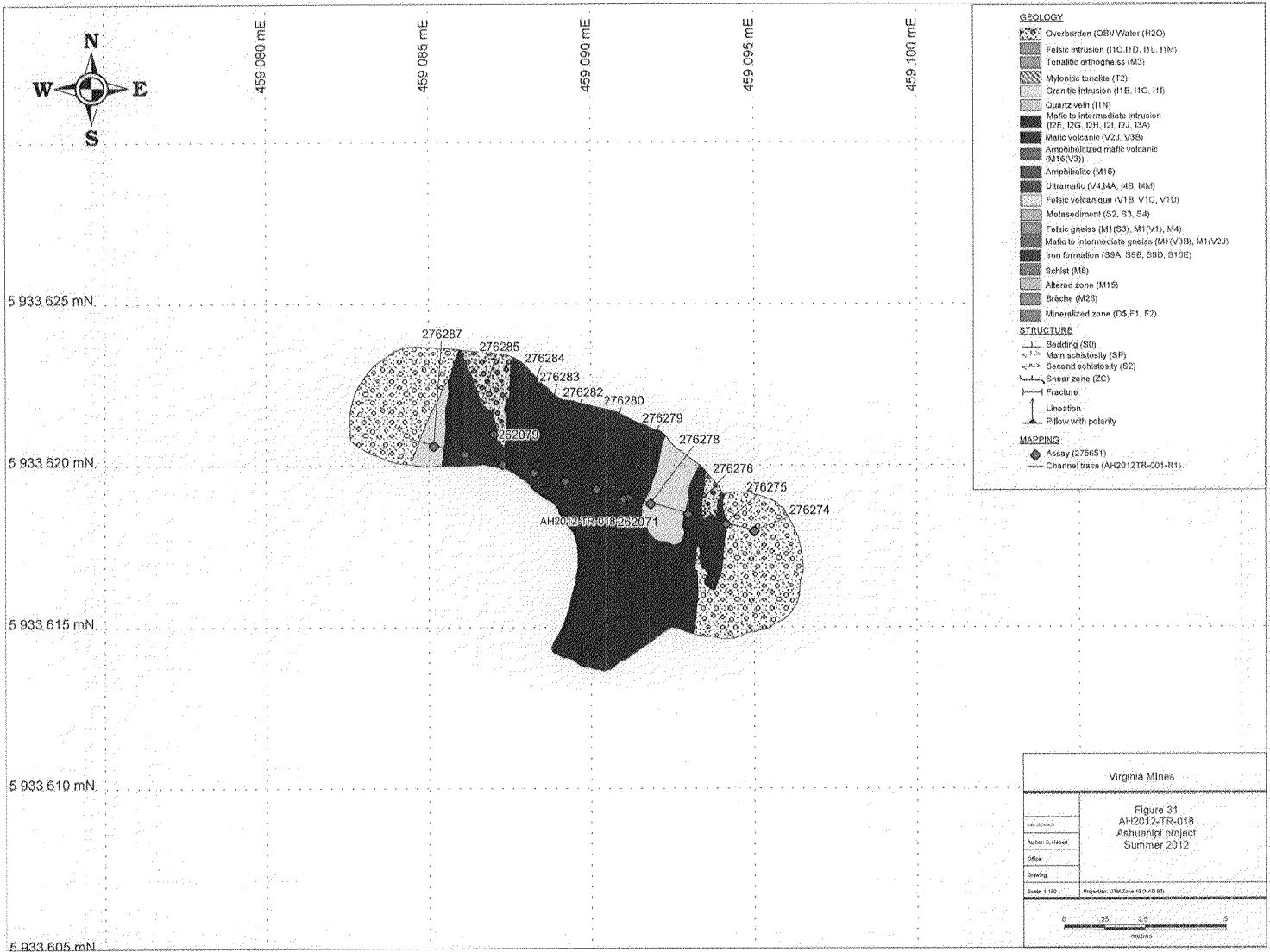


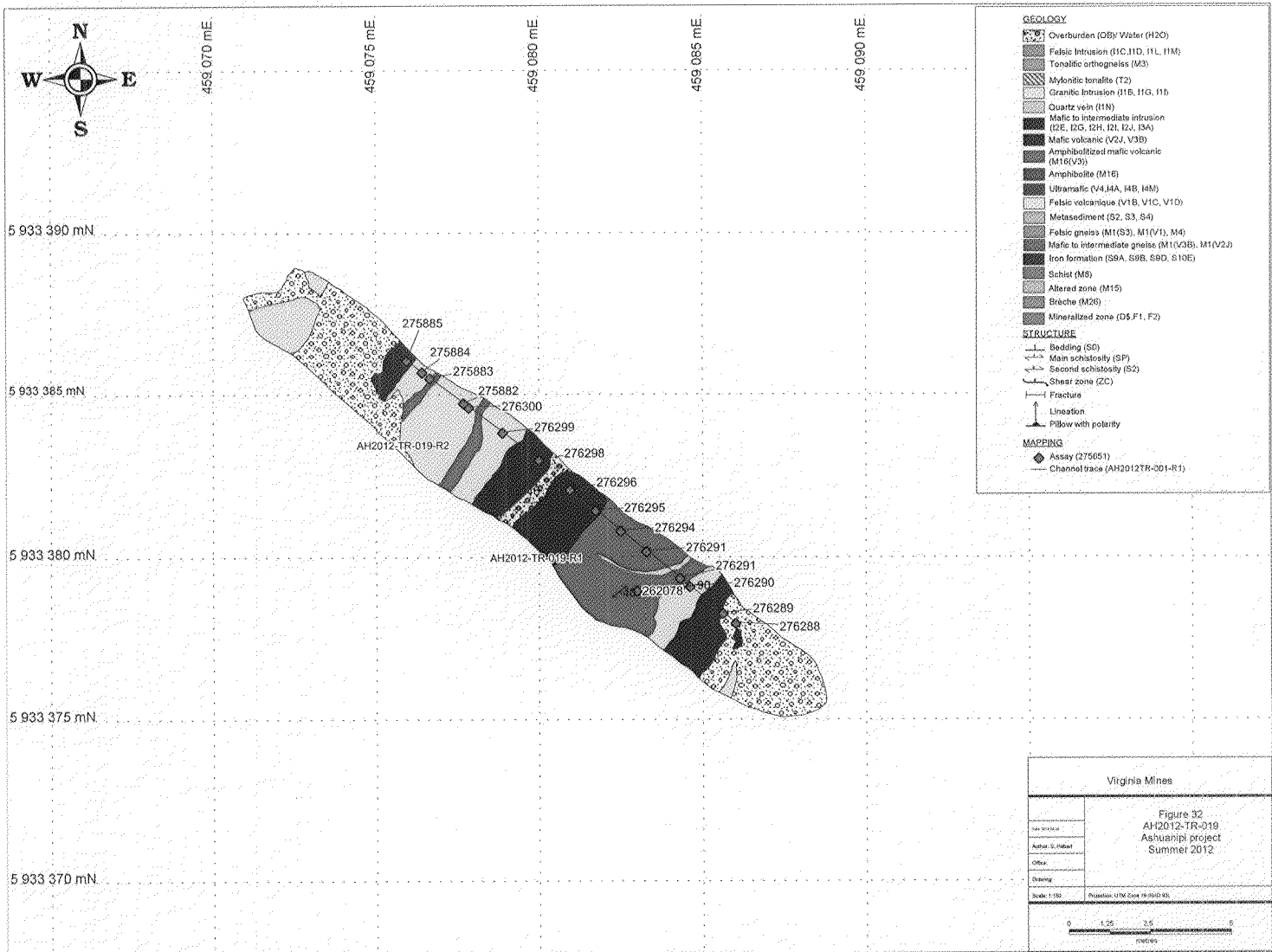


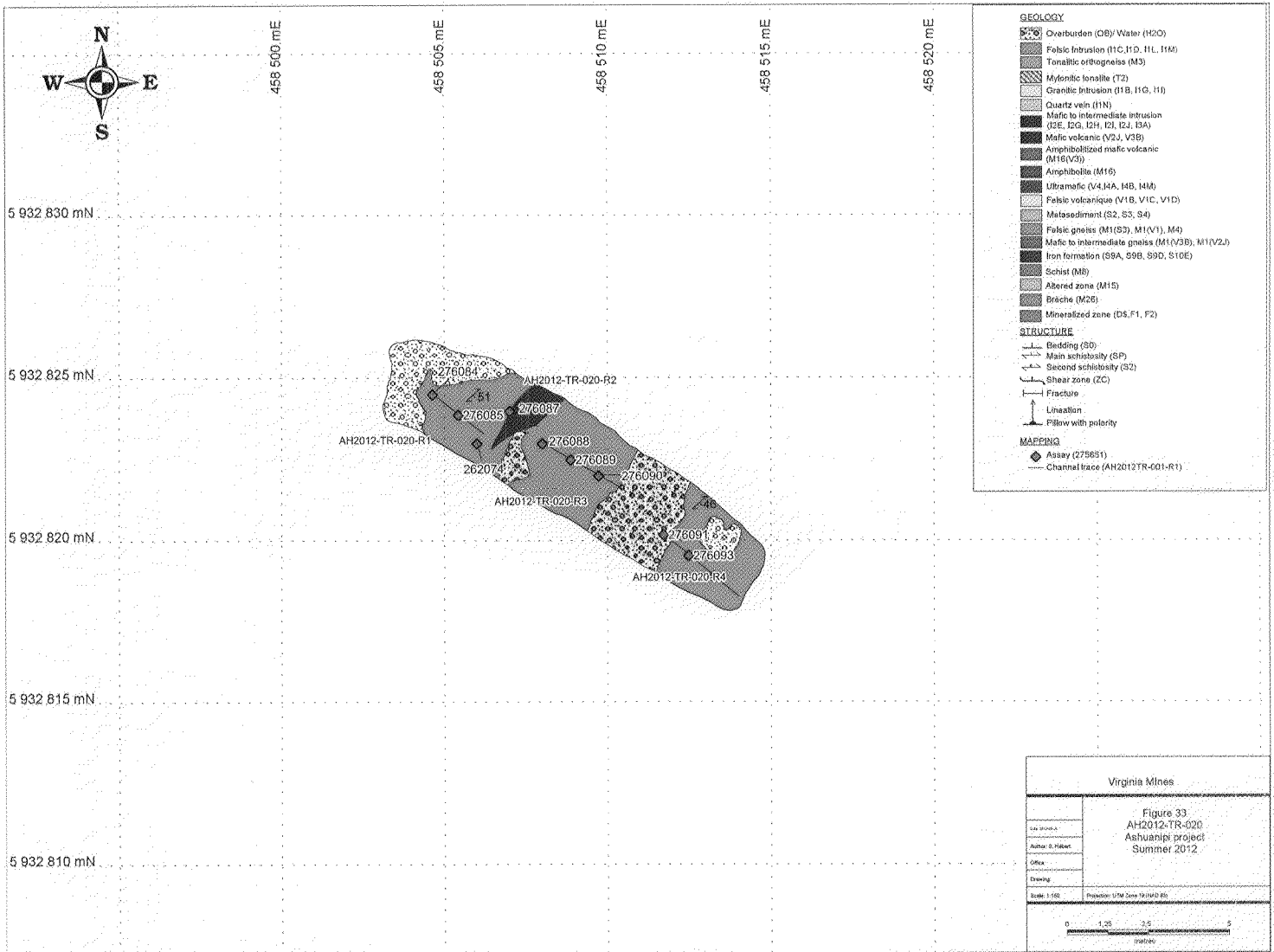




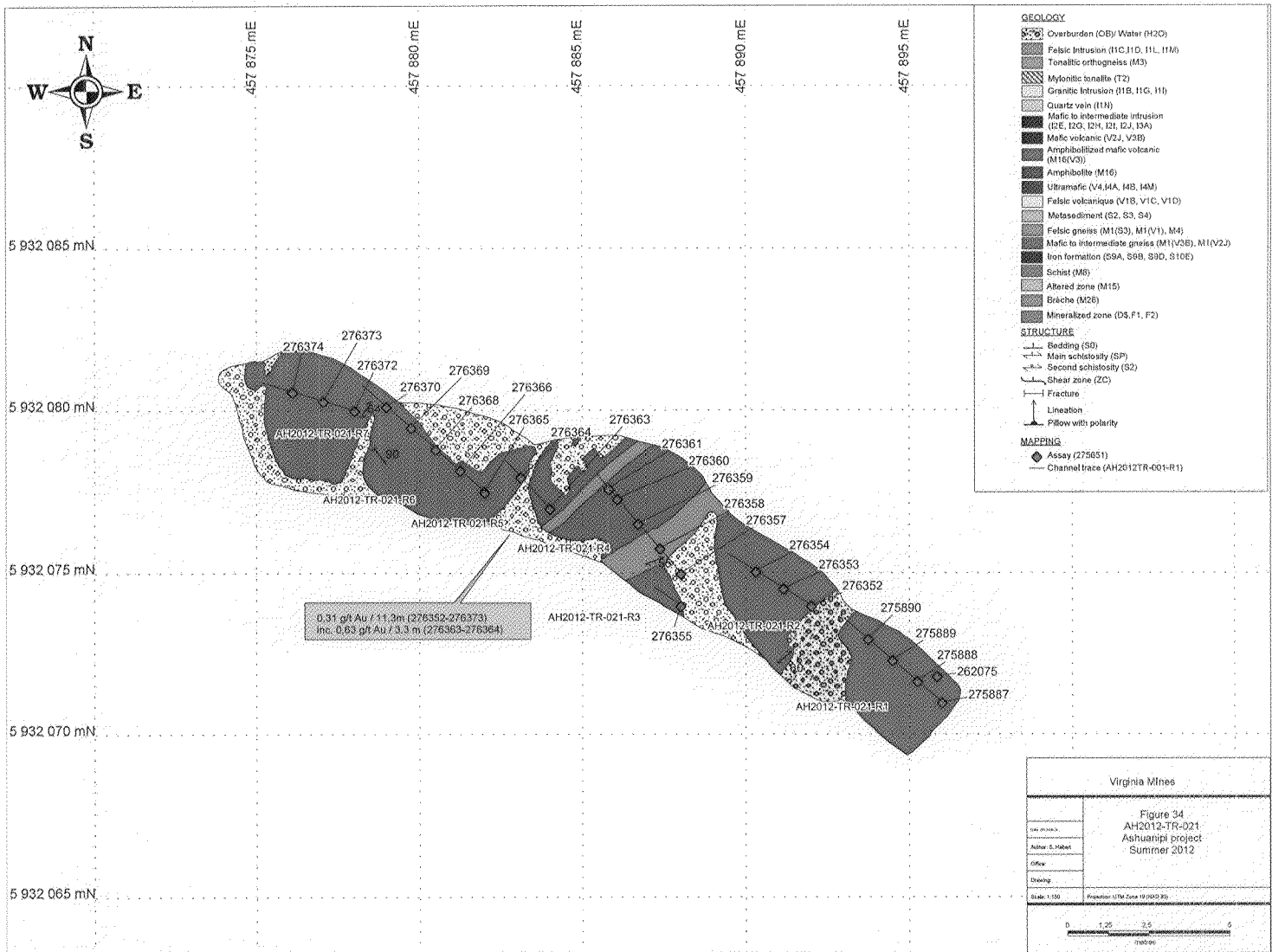


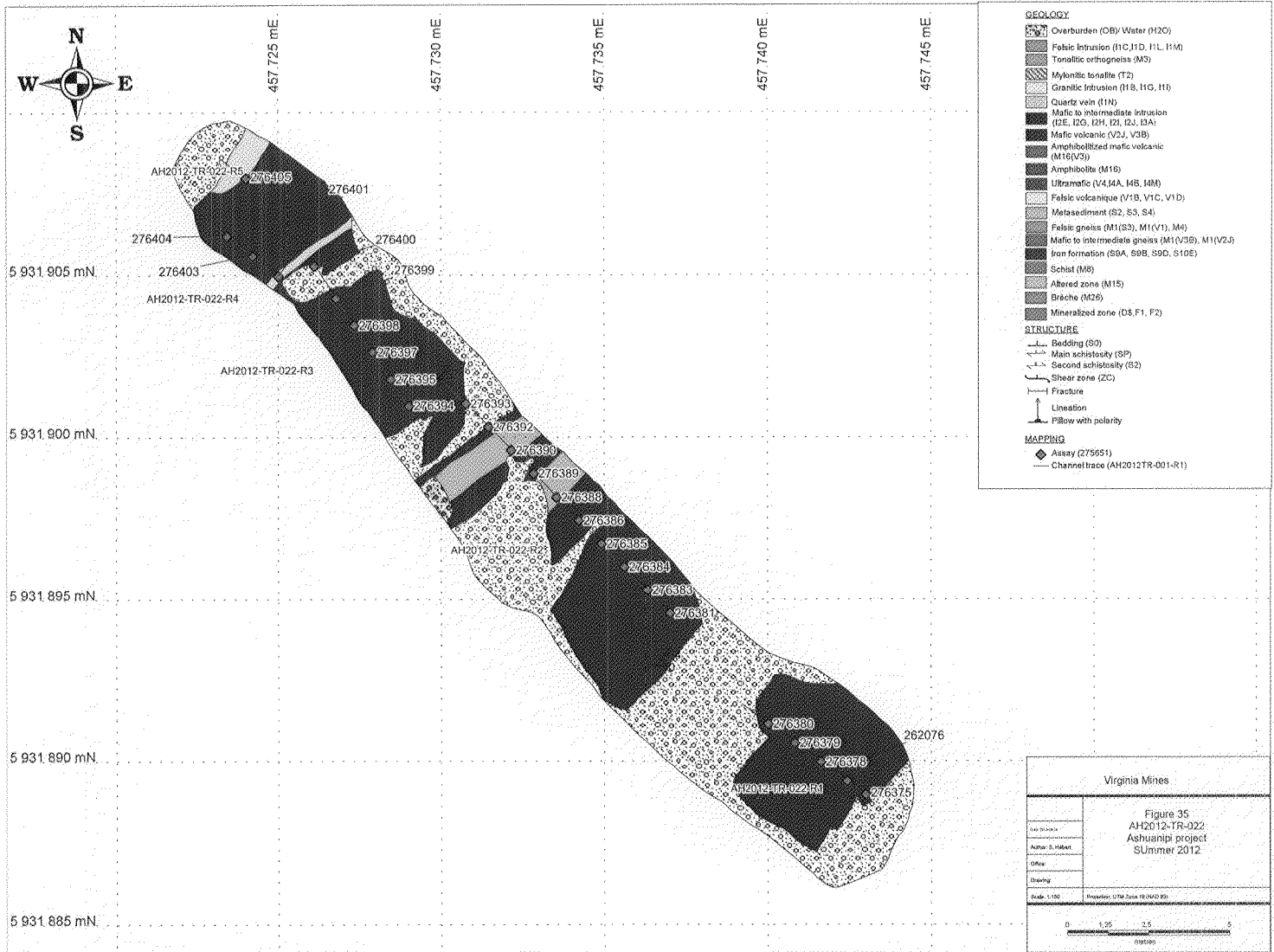






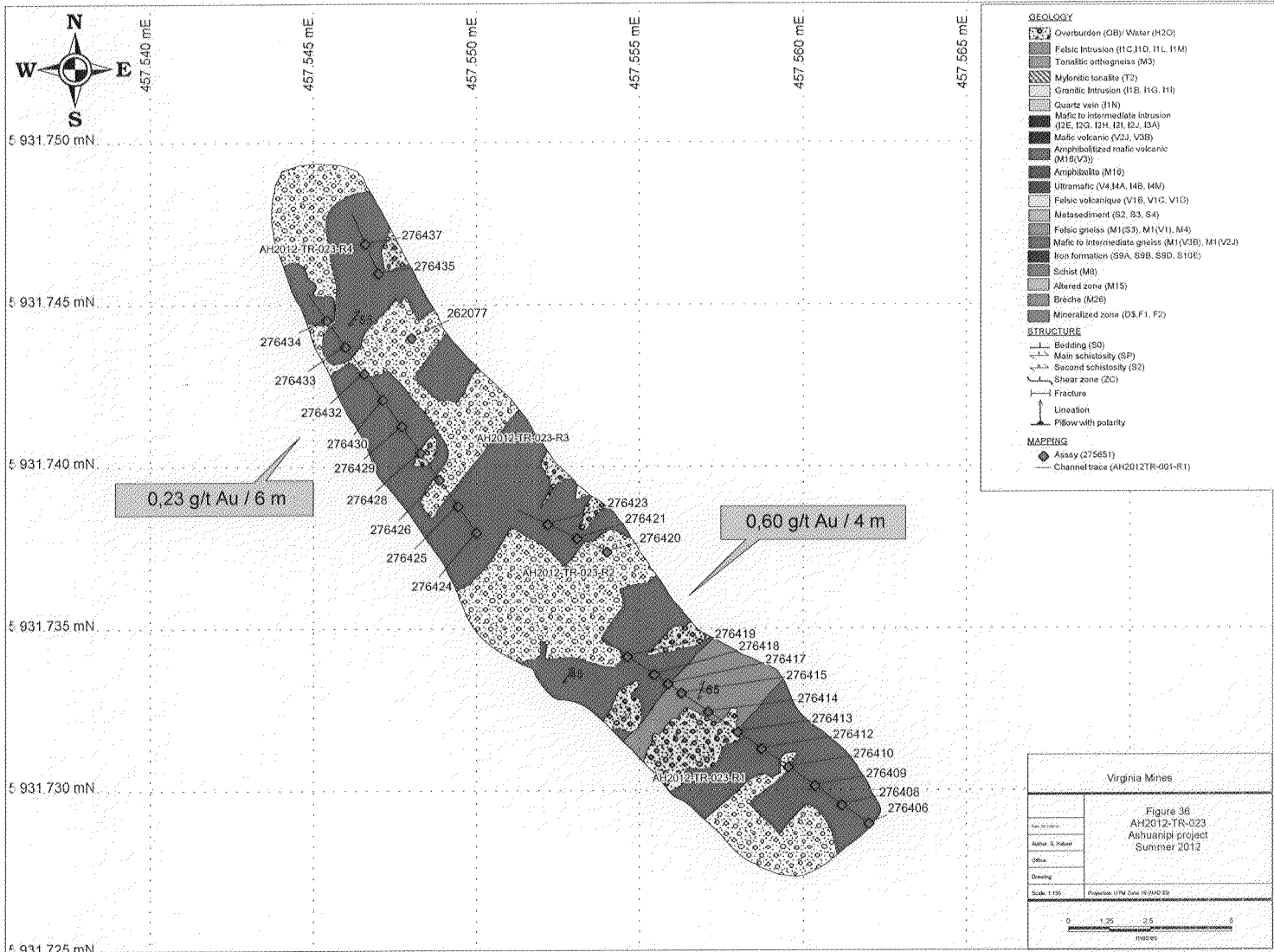


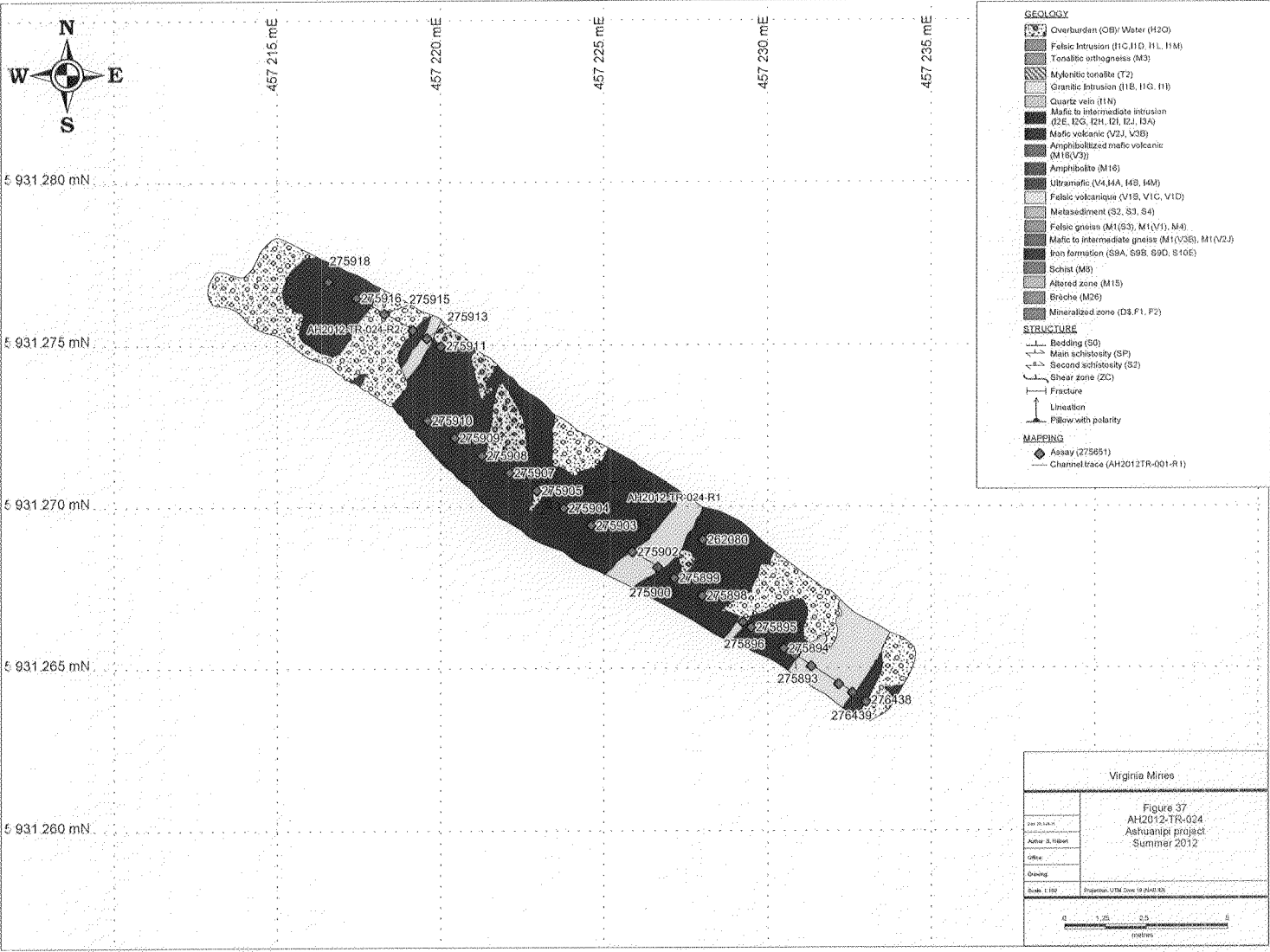


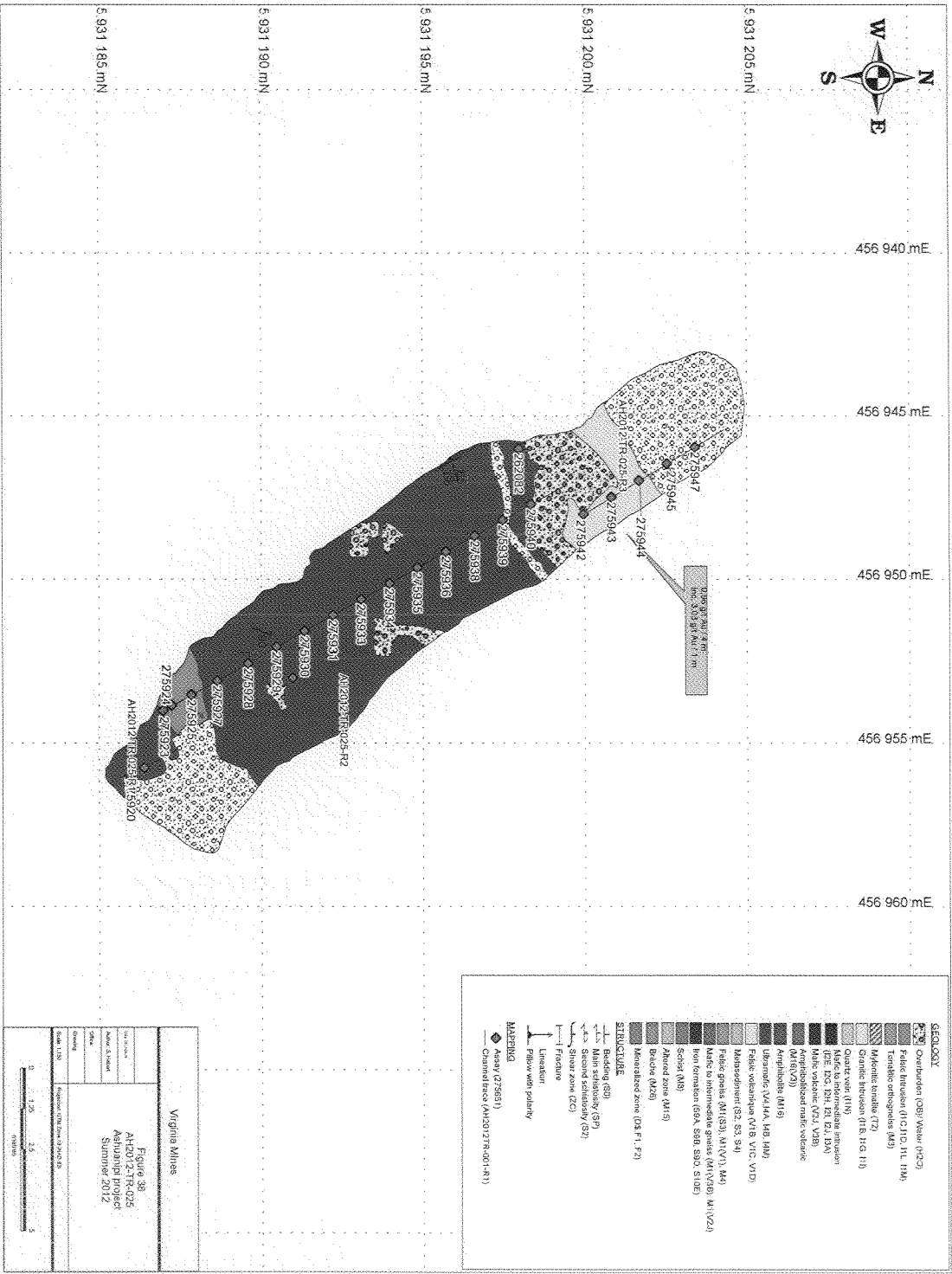


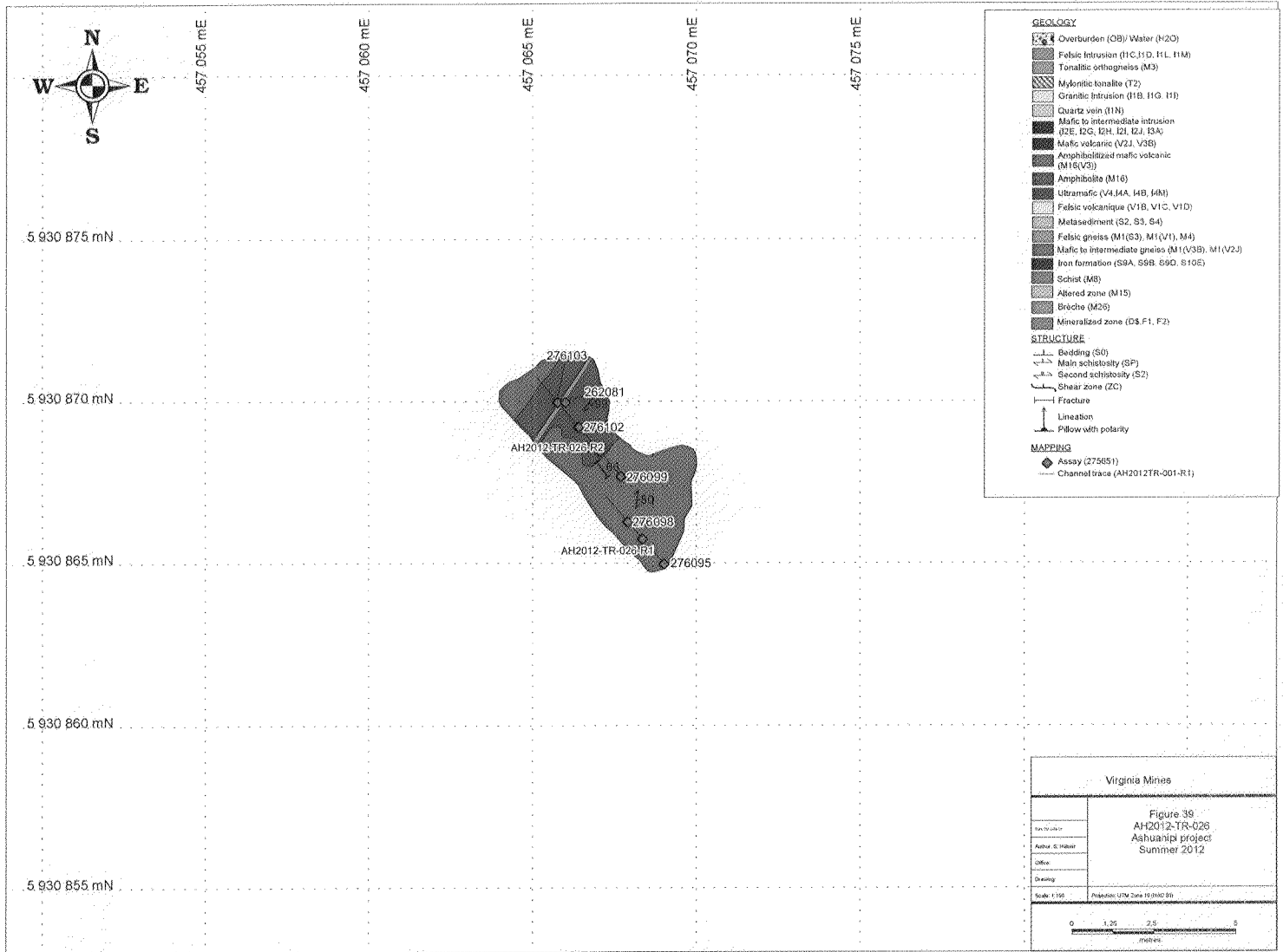
- GEOLOGY**
- Overburden (OB) Water (H2O)
  - Felsic intrusion (I1C, I1D, I1L, I1M)
  - Tonalitic orthogneiss (M3)
  - Mylonitic tonalite (T2)
  - Granitic intrusion (I1B, I1G, I1H)
  - Quartz vein (I1N)
  - Mafic to intermediate intrusion (I2E, I2G, I2H, I2J, I2J, I2A)
  - Mafic volcanic (V2J, V3B)
  - Amphibolized mafic volcanic (M16(V3))
  - Amphibolite (M1B)
  - Ultramafic (V4, I4A, I4B, I4M)
  - Felsic volcanique (V1B, V1C, V1D)
  - Metasediment (S2, S3, S4)
  - Felsic gneiss (M1(S3), M1(V1), M4)
  - Mafic to intermediate gneiss (M1(V3E), M1(V2))
  - Iron formation (S6A, S6B, S6D, S10E)
  - Schist (M8)
  - Altered zone (M15)
  - Brèche (M26)
  - Mineralized zone (O3, F1, F2)
- STRUCTURE**
- Bedding (S0)
  - Main schistosity (SP)
  - Second schistosity (S2)
  - Shear zone (ZC)
  - Fracture
  - Lamination
  - Pillow with polarity
- MAPPING**
- Assay (275951)
  - Channel trace (AH2012TR-001-R1)

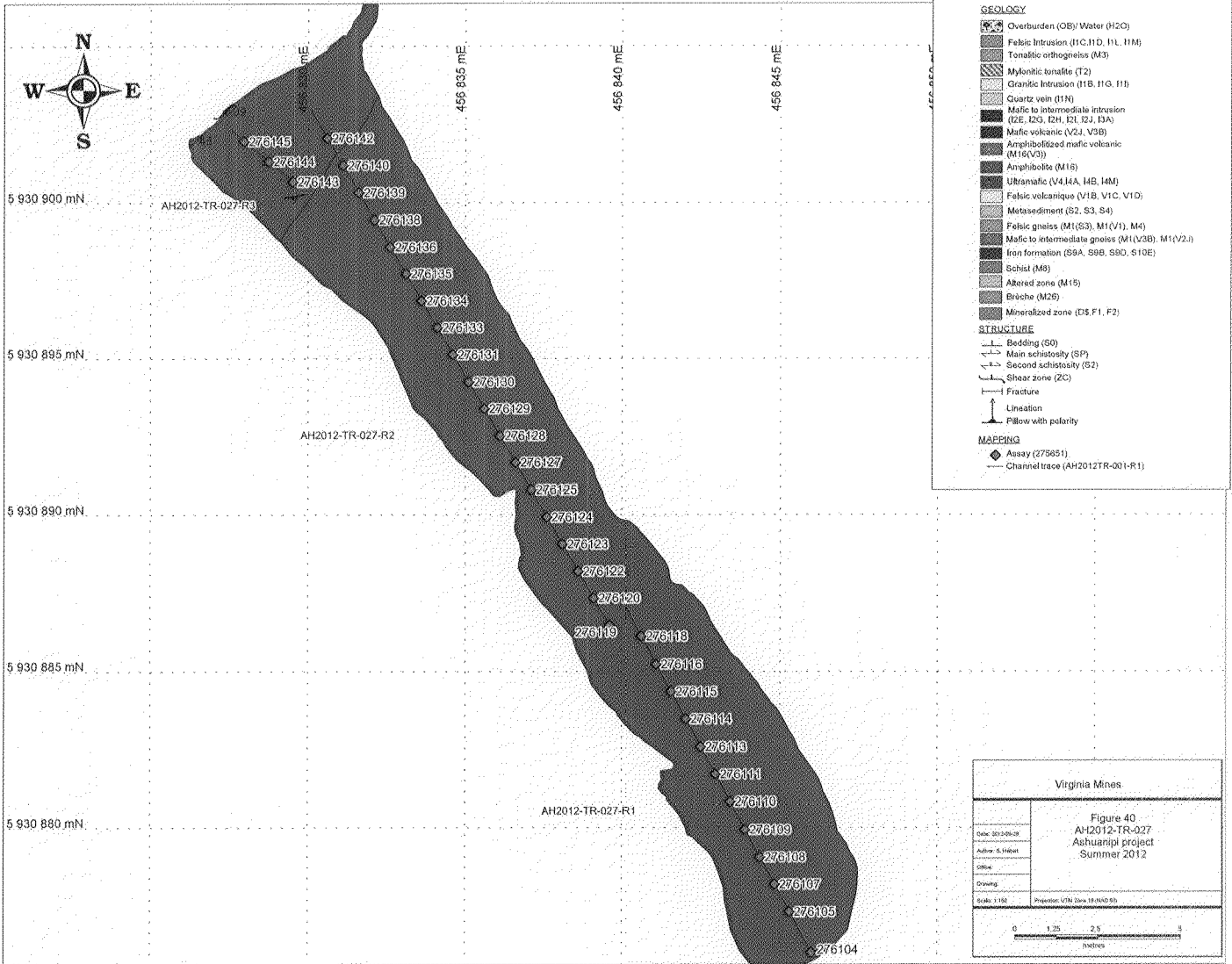
Virginia Mines	
Figure 35 AH2012-TR-022 Ashuanipi project Summer 2012	
Drawn by	
Author: S. H. Bell	
Office	
Drawing	
Scale: 1:50	Revision: 07/06/2012/02/08

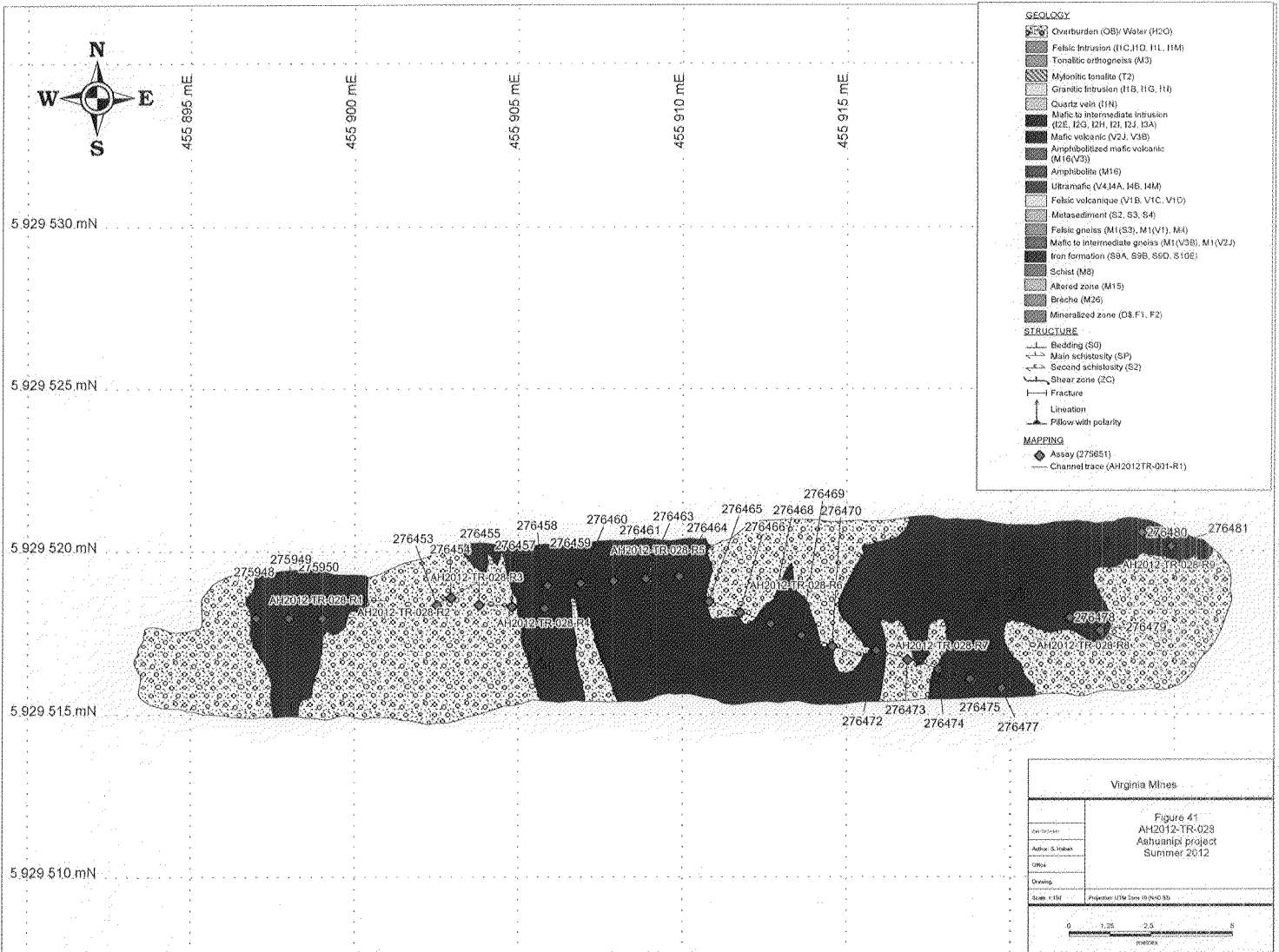




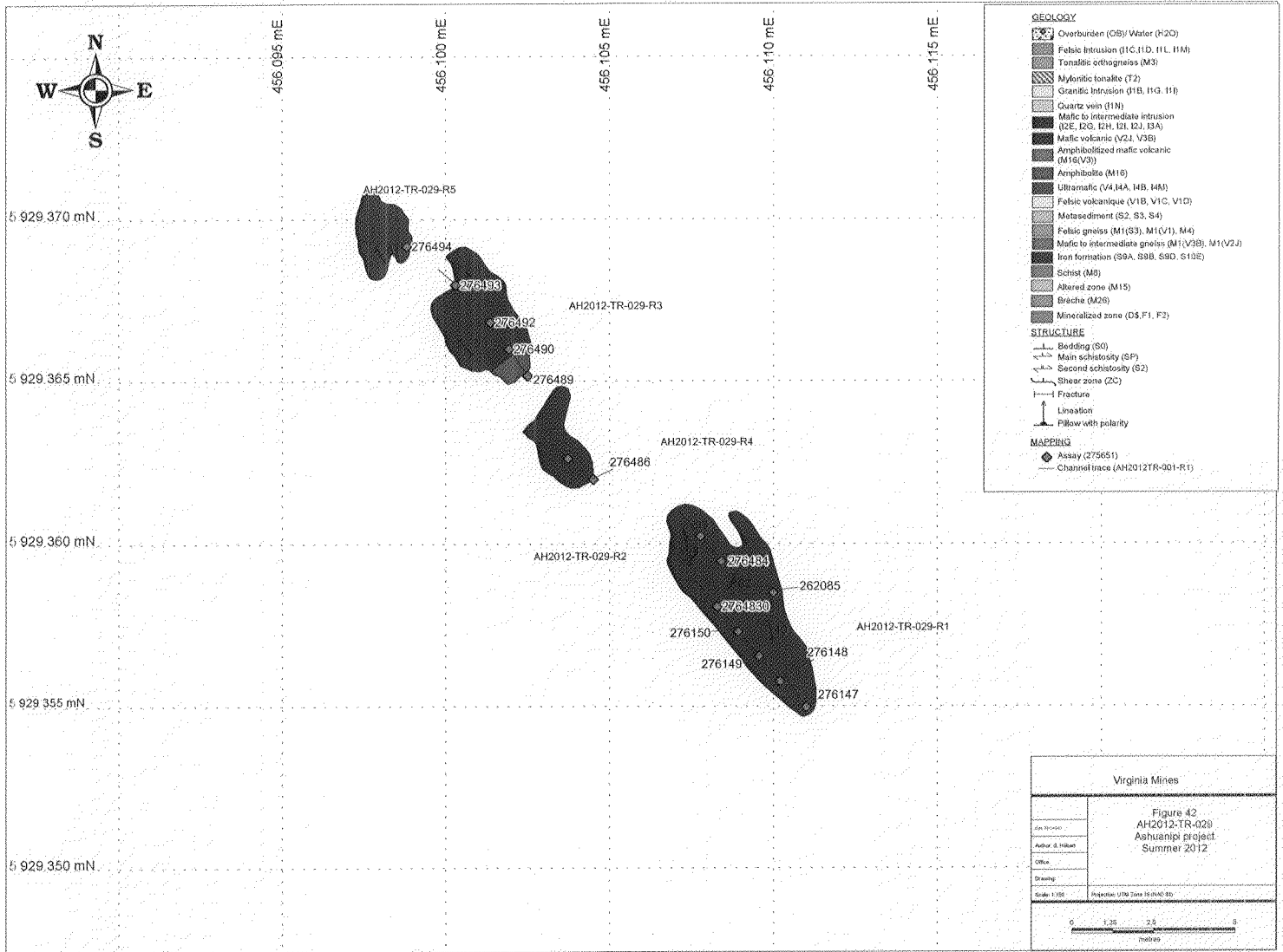


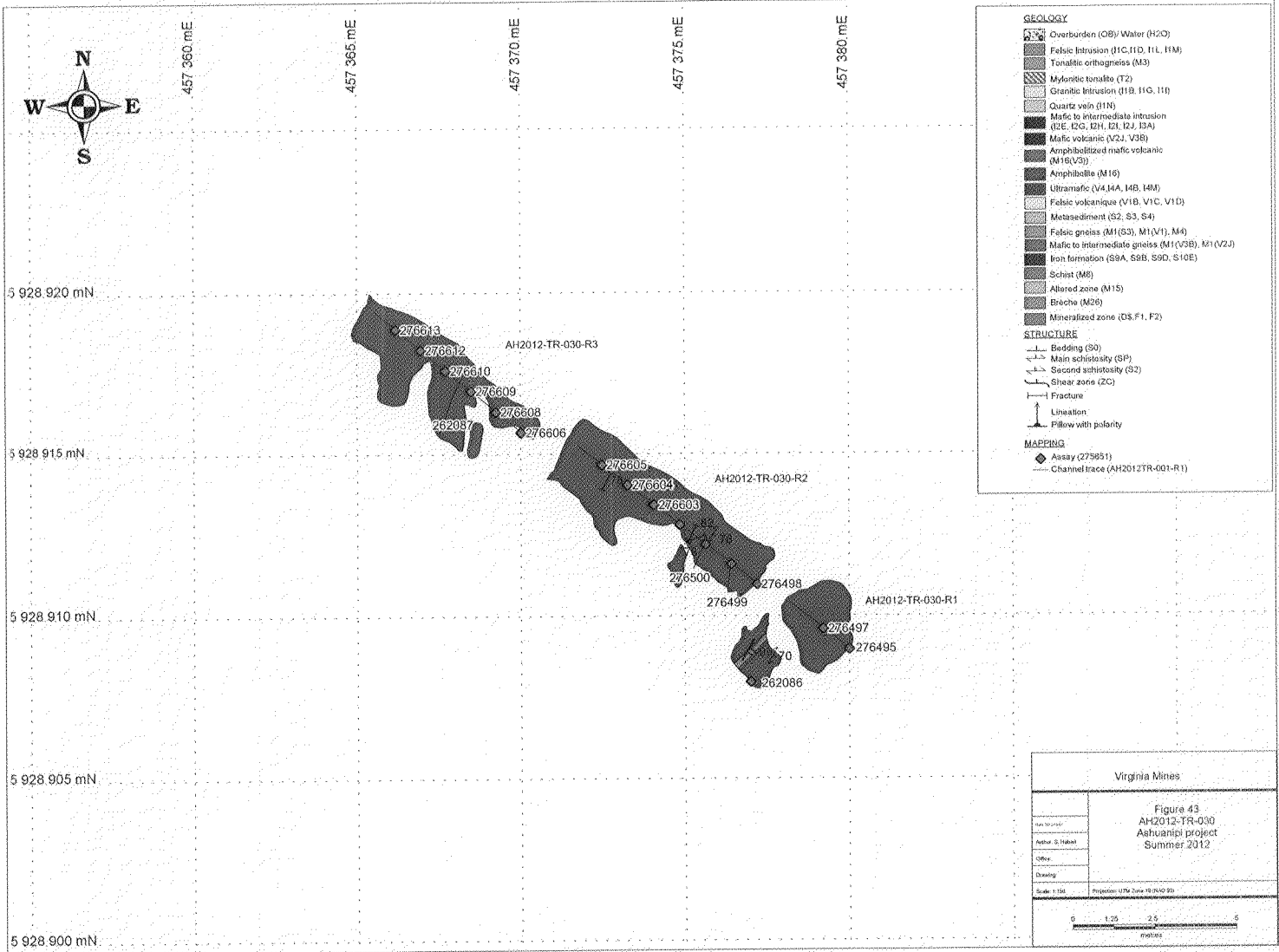












Appendix 1

CDC list, Ashuanipi project

2012

INFORMATION AVAILABLE UPON REQUEST  
SUBMITTED TO VIRGINIA MINES INC.

[info@minesvirginia.com](mailto:info@minesvirginia.com)

Toll free number: 800 476-1853

Appendix 2

Outcrops summary, Ashuanipi project

2012

INFORMATION AVAILABLE UPON REQUEST  
SUBMITTED TO VIRGINIA MINES INC.

[info@minesvirginia.com](mailto:info@minesvirginia.com)

Toll free number: 800 476-1853

**Appendix 3**

**Boulders summary, Ashuanipi project**

**2012**

**INFORMATION AVAILABLE UPON REQUEST  
SUBMITTED TO VIRGINIA MINES INC.**

**[info@minesvirginia.com](mailto:info@minesvirginia.com)**

**Toll free number: 800 476-1853**

**Appendix 4**

**Sample summary, Ashuanipi project**

**2012**

**INFORMATION AVAILABLE UPON REQUEST  
SUBMITTED TO VIRGINIA MINES INC.**

**[info@minesvirginia.com](mailto:info@minesvirginia.com)**

**Toll free number: 800 476-1853**

Appendix 5

Channel description, Ashuanipi project

2012

INFORMATION AVAILABLE UPON REQUEST  
SUBMITTED TO VIRGINIA MINES INC.

[info@minesvirginia.com](mailto:info@minesvirginia.com)

Toll free number: 800 476-1853

**Appendix 6**

**Abbreviation list, Ashuanipi project**

**2012**



Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
VIA	Alteration	ALB	Albitisation	
VIA	Alteration	CAR	Carbonatation	
VIA	Alteration	CHL	Chloritisation	
VIA	Alteration	FRE	Fresh-Unaltered	
VIA	Alteration	HEM	Hematisation	
VIA	Alteration	KSP	Potassic Alt	
VIA	Alteration	SER	Sericitisation	
VIA	Alteration	SIL	Silicification	
VIA	Alteration	SUL	Sulfurisation	
VIA	Control	CTC	... associé à un contact	
VIA	Control	CTL	... associé au litage	
VIA	Control	BFR	... bordure de fragments	
VIA	Control	BCO	... bordures de coussins	
VIA	Control	PSC	... dans le plan de la schistosité	
VIA	Control	ZCI	... dans une zone de cisaillement	
VIA	Control	FRP	... en plaquage de fracture	
VIA	Control	VEI	... en veines et veinules	
VIA	Control	GTE	... grid texture	
VIA	Control	PEN	... pénétrant - pervasive	
VIA	Control	RAM	... remplissage d'amygdules	
VIA	Control	STO	... stockwerk	
VIA	Control	VAR	... variable - mottled	
VIA	Control	ZAN	... zones anastomosée	
SIGEOM	Mineralization	Ag	Argent natif (visible)	PRO2000-08
SIGEOM	Mineralization	AS	Arsénopyrite	PRO2000-08
SIGEOM	Mineralization	Bi	Bismuth	PRO2000-08
SIGEOM	Mineralization	BM	Bismuthinite	PRO2000-08
SIGEOM	Mineralization	BS	Bismutite	PRO2000-08
SIGEOM	Mineralization	BN	Bornite	PRO2000-08
SIGEOM	Mineralization	BG	Boulangérite	PRO2000-08
SIGEOM	Mineralization	WO	Bournonite	PRO2000-08
SIGEOM	Mineralization	CT	Chalcocite(ne)	PRO2000-08
SIGEOM	Mineralization	CP	Chalcopyrite	PRO2000-08
SIGEOM	Mineralization	CM	Chromite	PRO2000-08
SIGEOM	Mineralization	CE	Cobaltite	PRO2000-08
SIGEOM	Mineralization	NB	Columbite/Niobite	PRO2000-08
SIGEOM	Mineralization	TO	Columbo-tantalite	PRO2000-08
SIGEOM	Mineralization	CV	Covellite	PRO2000-08
SIGEOM	Mineralization	CF	Cubanite	PRO2000-08
SIGEOM	Mineralization	Cu	Cuivre natif (visible)	PRO2000-08
SIGEOM	Mineralization	CU	Cuprite	PRO2000-08
SIGEOM	Mineralization	DG	Digenite	PRO2000-08
SIGEOM	Mineralization	EM	Électrum	PRO2000-08
SIGEOM	Mineralization	EG	Enargite	PRO2000-08
SIGEOM	Mineralization	Fe	Fer	PRO2000-08
SIGEOM	Mineralization	FM	Ferrimolybdite	PRO2000-08
SIGEOM	Mineralization	GH	Gahnite	PRO2000-08
SIGEOM	Mineralization	GL	Galène	PRO2000-08
SIGEOM	Mineralization	GO	Goethite	PRO2000-08
SIGEOM	Mineralization	HM	Hématite	PRO2000-08
SIGEOM	Mineralization	IM	Ilménite	PRO2000-08
SIGEOM	Mineralization	LM	Limonite	PRO2000-08
SIGEOM	Mineralization	LG	Loellingite	PRO2000-08
SIGEOM	Mineralization	MG	Magnétite	PRO2000-08
SIGEOM	Mineralization	MC	Malachite	PRO2000-08
SIGEOM	Mineralization	MS	Marcasite	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Mineralization	MK	Merenskyite	PRO2000-08
SIGEOM	Mineralization	NS	Millerite	PRO2000-08
SIGEOM	Mineralization	OP	Minéraux opaques	PRO2000-08
SIGEOM	Mineralization	MR	Minéraux radioactifs	PRO2000-08
SIGEOM	Mineralization	MO	Molybdénite	PRO2000-08
SIGEOM	Mineralization	MB	Molybdite(dine)	PRO2000-08
SIGEOM	Mineralization	UN	Nickeline	PRO2000-08
SIGEOM	Mineralization	VG	Or natif (visible)	
SIGEOM	Mineralization	OF	Oxyde de fer	PRO2000-08
SIGEOM	Mineralization	PB	Pechblende	PRO2000-08
SIGEOM	Mineralization	PD	Pentlandite	PRO2000-08
SIGEOM	Mineralization	PY	Pyrite	PRO2000-08
SIGEOM	Mineralization	PM	Pyrochlore	PRO2000-08
SIGEOM	Mineralization	PO	Pyrrhotine	PRO2000-08
SIGEOM	Mineralization	SW	Scheelite	PRO2000-08
SIGEOM	Mineralization	SG	Sélénite	PRO2000-08
SIGEOM	Mineralization	Se	Sélénium	PRO2000-08
SIGEOM	Mineralization	S	Souffre	PRO2000-08
SIGEOM	Mineralization	HS	Spécularite	PRO2000-08
SIGEOM	Mineralization	SP	Sphalérite	PRO2000-08
SIGEOM	Mineralization	SB	Stibine/Stibnite	PRO2000-08
SIGEOM	Mineralization	HD	Stilbite (Heulandite)	PRO2000-08
SIGEOM	Mineralization	SF	Sulfures	PRO2000-08
SIGEOM	Mineralization	OT	Tétraferroplatine	PRO2000-08
SIGEOM	Mineralization	TH	Tétrahédrite	PRO2000-08
SIGEOM	Mineralization	TR	Thorianite	PRO2000-08
SIGEOM	Mineralization	TI	Thorite	PRO2000-08
SIGEOM	Mineralization	NM	Titanomagnétite	PRO2000-08
SIGEOM	Mineralization	UR	Uraninite	PRO2000-08
SIGEOM	Mineralization	UP	Uranophane	PRO2000-08
SIGEOM	Mineralization	UI	Uranopilite	PRO2000-08
SIGEOM	Mineralization	UH	Uranothorianite	PRO2000-08
SIGEOM	Mineralization	UT	Uranothorite	PRO2000-08
SIGEOM	Mineralization	GU	Uvarovite	PRO2000-08
SIGEOM	Mineralization	WF	Wolframite	PRO2000-08
SIGEOM	Mineralogy	AV	Acanthite	PRO2000-08
SIGEOM	Mineralogy	AC	Actinote	PRO2000-08
SIGEOM	Mineralogy	EC	Aeschnite - Y	PRO2000-08
SIGEOM	Mineralogy	AE	Agate	PRO2000-08
SIGEOM	Mineralogy	BP	Aikinite	PRO2000-08
SIGEOM	Mineralogy	KA	Akermanite	PRO2000-08
SIGEOM	Mineralogy	AB	Albite	PRO2000-08
SIGEOM	Mineralogy	AL	Allanite	PRO2000-08
SIGEOM	Mineralogy	TP	Altaïte	PRO2000-08
SIGEOM	Mineralogy	AI	Amazonite	PRO2000-08
SIGEOM	Mineralogy	AH	Améthyste	PRO2000-08
SIGEOM	Mineralogy	AO	Amiante (Asbestos)	PRO2000-08
SIGEOM	Mineralogy	AM	Amphibole	PRO2000-08
SIGEOM	Mineralogy	NT	Anatase	PRO2000-08
SIGEOM	Mineralogy	AD	Andalousite	PRO2000-08
SIGEOM	Mineralogy	AA	Andésine	PRO2000-08
SIGEOM	Mineralogy	GD	Andradite	PRO2000-08
SIGEOM	Mineralogy	LR	Anglésite	PRO2000-08
SIGEOM	Mineralogy	AY	Anhydrite	PRO2000-08
SIGEOM	Mineralogy	AK	Ankérite	PRO2000-08
SIGEOM	Mineralogy	NG	Annabergite	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Mineralogy	AN	Anorthite	PRO2000-08
SIGEOM	Mineralogy	AT	Anthophyllite	PRO2000-08
SIGEOM	Mineralogy	Sb	Antimoine	PRO2000-08
SIGEOM	Mineralogy	AP	Apatite	PRO2000-08
SIGEOM	Mineralogy	OA	Aragonite	PRO2000-08
SIGEOM	Mineralogy	AG	Augite	PRO2000-08
SIGEOM	Mineralogy	AU	Autunite	PRO2000-08
SIGEOM	Mineralogy	NF	Awaruite	PRO2000-08
SIGEOM	Mineralogy	AX	Axinite	PRO2000-08
SIGEOM	Mineralogy	AZ	Azurite	PRO2000-08
SIGEOM	Mineralogy	BR	Barytine	PRO2000-08
SIGEOM	Mineralogy	BA	Bastnaesite	PRO2000-08
SIGEOM	Mineralogy	BL	Béryl	PRO2000-08
SIGEOM	Mineralogy	BF	Bétafite	PRO2000-08
SIGEOM	Mineralogy	BO	Biotite	PRO2000-08
SIGEOM	Mineralogy	BI	Birnessite	PRO2000-08
SIGEOM	Mineralogy	BD	Boltwoodite	PRO2000-08
SIGEOM	Mineralogy	DI	Braggite	PRO2000-08
SIGEOM	Mineralogy	BE	Brannerite	PRO2000-08
SIGEOM	Mineralogy	BV	Bravoïte	PRO2000-08
SIGEOM	Mineralogy	BU	Britholite	PRO2000-08
SIGEOM	Mineralogy	BH	Brochantite	PRO2000-08
SIGEOM	Mineralogy	BC	Brucite	PRO2000-08
SIGEOM	Mineralogy	BT	Bytownite	PRO2000-08
SIGEOM	Mineralogy	CA	Calaverite	PRO2000-08
SIGEOM	Mineralogy	CQ	Calcédoine	PRO2000-08
SIGEOM	Mineralogy	CC	Calcite	PRO2000-08
SIGEOM	Mineralogy	CB	Carbonate	PRO2000-08
SIGEOM	Mineralogy	CJ	Cattierite	PRO2000-08
SIGEOM	Mineralogy	WD	Céruosite	PRO2000-08
SIGEOM	Mineralogy	OS	Cervantite	PRO2000-08
SIGEOM	Mineralogy	ZB	Chabazite(Chabasite)	PRO2000-08
SIGEOM	Mineralogy	DN	Chamosite	PRO2000-08
SIGEOM	Mineralogy	CH	Chert	PRO2000-08
SIGEOM	Mineralogy	CO	Chloanthite	PRO2000-08
SIGEOM	Mineralogy	CL	Chlorite	PRO2000-08
SIGEOM	Mineralogy	CR	Chloritoïde	PRO2000-08
SIGEOM	Mineralogy	HR	Chondrodite	PRO2000-08
SIGEOM	Mineralogy	CY	Chrysocolle	PRO2000-08
SIGEOM	Mineralogy	CS	Chrysotile	PRO2000-08
SIGEOM	Mineralogy	UC	Clarkeite	PRO2000-08
SIGEOM	Mineralogy	CI	Clevelandite	PRO2000-08
SIGEOM	Mineralogy	HO	Clinohypersthène	PRO2000-08
SIGEOM	Mineralogy	CX	Clinopyroxène	PRO2000-08
SIGEOM	Mineralogy	CZ	Clinzoïsite	PRO2000-08
SIGEOM	Mineralogy	UB	Coffinite	PRO2000-08
SIGEOM	Mineralogy	OO	Coopérite	PRO2000-08
SIGEOM	Mineralogy	CD	Cordiérite	PRO2000-08
SIGEOM	Mineralogy	CN	Corindon	PRO2000-08
SIGEOM	Mineralogy	PI	Cosalite	PRO2000-08
SIGEOM	Mineralogy	CK	Cryptomelane	PRO2000-08
SIGEOM	Mineralogy	CG	Cummingtonite	PRO2000-08
SIGEOM	Mineralogy	ZU	Cyrtolite	PRO2000-08
SIGEOM	Mineralogy	DT	Danaïte	PRO2000-08
SIGEOM	Mineralogy	DL	Devilline	PRO2000-08
SIGEOM	Mineralogy	DP	Diopside	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Mineralogy	DJ	Djurleïte	PRO2000-08
SIGEOM	Mineralogy	DM	Dolomite	PRO2000-08
SIGEOM	Mineralogy	TG	Dravite	PRO2000-08
SIGEOM	Mineralogy	DS	Dravite-Schorlïte	PRO2000-08
SIGEOM	Mineralogy	ES	Enstatite	PRO2000-08
SIGEOM	Mineralogy	EP	Epidote	PRO2000-08
SIGEOM	Mineralogy	ER	Erythrite	PRO2000-08
SIGEOM	Mineralogy	EU	Eudialyte	PRO2000-08
SIGEOM	Mineralogy	EX	Euxénite - (Y)	PRO2000-08
SIGEOM	Mineralogy	FA	Fayalite	PRO2000-08
SIGEOM	Mineralogy	FP	Feldspath	PRO2000-08
SIGEOM	Mineralogy	FN	Feldspath noir	PRO2000-08
SIGEOM	Mineralogy	FK	Feldspath potassique	PRO2000-08
SIGEOM	Mineralogy	FV	Feldspath vert/brun	PRO2000-08
SIGEOM	Mineralogy	FD	Feldspathoïde	PRO2000-08
SIGEOM	Mineralogy	FT	Ferghanite	PRO2000-08
SIGEOM	Mineralogy	FS	Fergusonite	PRO2000-08
SIGEOM	Mineralogy	FB	Fibrolite	PRO2000-08
SIGEOM	Mineralogy	AF	Fluorapatite	PRO2000-08
SIGEOM	Mineralogy	FL	Fluorite (fluorine)	PRO2000-08
SIGEOM	Mineralogy	FO	Forstérite	PRO2000-08
SIGEOM	Mineralogy	FR	Franklinite	PRO2000-08
SIGEOM	Mineralogy	FG	Freibergite	PRO2000-08
SIGEOM	Mineralogy	FC	Fuchsite	PRO2000-08
SIGEOM	Mineralogy	NC	Gaspéite	PRO2000-08
SIGEOM	Mineralogy	GT	Gédrite	PRO2000-08
SIGEOM	Mineralogy	NA	Gersdorffite	PRO2000-08
SIGEOM	Mineralogy	GC	Glaucophane	PRO2000-08
SIGEOM	Mineralogy	GP	Graphite	PRO2000-08
SIGEOM	Mineralogy	GF	Greenalite	PRO2000-08
SIGEOM	Mineralogy	GK	Greenockite	PRO2000-08
SIGEOM	Mineralogy	GR	Grenat	PRO2000-08
SIGEOM	Mineralogy	GM	Grenat manganésifère	PRO2000-08
SIGEOM	Mineralogy	GA	Grenat-almandin	PRO2000-08
SIGEOM	Mineralogy	GG	Grenat-grossulaire	PRO2000-08
SIGEOM	Mineralogy	GY	Grenat-pyrope	PRO2000-08
SIGEOM	Mineralogy	GN	Grunérite	PRO2000-08
SIGEOM	Mineralogy	UD	Gudmundite	PRO2000-08
SIGEOM	Mineralogy	GB	Gummite	PRO2000-08
SIGEOM	Mineralogy	GI	Gunningite	PRO2000-08
SIGEOM	Mineralogy	GE	Gypse	PRO2000-08
SIGEOM	Mineralogy	HL	Halite	PRO2000-08
SIGEOM	Mineralogy	HZ	Heazlewoodite	PRO2000-08
SIGEOM	Mineralogy	HG	Hédenbergite	PRO2000-08
SIGEOM	Mineralogy	HE	Hemimorphite	PRO2000-08
SIGEOM	Mineralogy	HC	Hercynite	PRO2000-08
SIGEOM	Mineralogy	HK	Holmquistite	PRO2000-08
SIGEOM	Mineralogy	HB	Hornblende	PRO2000-08
SIGEOM	Mineralogy	HT	Hydrocerussite	PRO2000-08
SIGEOM	Mineralogy	HN	Hydromagnésite	PRO2000-08
SIGEOM	Mineralogy	ZH	Hydrozincite	PRO2000-08
SIGEOM	Mineralogy	HP	Hypersthène	PRO2000-08
SIGEOM	Mineralogy	ID	Idaïte	PRO2000-08
SIGEOM	Mineralogy	IG	Iddingsite	PRO2000-08
SIGEOM	Mineralogy	IR	Iriginite	PRO2000-08
SIGEOM	Mineralogy	IF	Isoferroplatine	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Mineralogy	JA	Jade	PRO2000-08
SIGEOM	Mineralogy	JS	Jarosite	PRO2000-08
SIGEOM	Mineralogy	JP	Jaspe	PRO2000-08
SIGEOM	Mineralogy	KL	Kaolinite	PRO2000-08
SIGEOM	Mineralogy	KS	Kasolite	PRO2000-08
SIGEOM	Mineralogy	KM	Kermésite	PRO2000-08
SIGEOM	Mineralogy	KK	Klockmannite	PRO2000-08
SIGEOM	Mineralogy	KP	Kornérupine	PRO2000-08
SIGEOM	Mineralogy	KR	Krennerite	PRO2000-08
SIGEOM	Mineralogy	KN	Kyanite/Disthène	PRO2000-08
SIGEOM	Mineralogy	LB	Labradorite	PRO2000-08
SIGEOM	Mineralogy	LU	Laumontite	PRO2000-08
SIGEOM	Mineralogy	LI	Laurite	PRO2000-08
SIGEOM	Mineralogy	LS	Lawsonite	PRO2000-08
SIGEOM	Mineralogy	LD	Lepidocrocite	PRO2000-08
SIGEOM	Mineralogy	LP	Lépidolite	PRO2000-08
SIGEOM	Mineralogy	LE	Lessingite	PRO2000-08
SIGEOM	Mineralogy	LC	Leucite	PRO2000-08
SIGEOM	Mineralogy	LX	Leucoxène	PRO2000-08
SIGEOM	Mineralogy	LN	Linnaéite	PRO2000-08
SIGEOM	Mineralogy	DH	Maghémite	PRO2000-08
SIGEOM	Mineralogy	IC	Magnésiochromite	PRO2000-08
SIGEOM	Mineralogy	MN	Magnésite	PRO2000-08
SIGEOM	Mineralogy	MM	Manganite	PRO2000-08
SIGEOM	Mineralogy	MT	Mariposite	PRO2000-08
SIGEOM	Mineralogy	ZF	Marmatite	PRO2000-08
SIGEOM	Mineralogy	MH	Martite	PRO2000-08
SIGEOM	Mineralogy	ME	Méililite	PRO2000-08
SIGEOM	Mineralogy	MW	Melonite	PRO2000-08
SIGEOM	Mineralogy	NE	Ménéghinite	PRO2000-08
SIGEOM	Mineralogy	MP	Mésoperthite	PRO2000-08
SIGEOM	Mineralogy	WH	Meymacite	PRO2000-08
SIGEOM	Mineralogy	MI	Mica	PRO2000-08
SIGEOM	Mineralogy	ML	Microcline	PRO2000-08
SIGEOM	Mineralogy	MA	Minéraux argileux	PRO2000-08
SIGEOM	Mineralogy	MD	Minéraux décoratifs	PRO2000-08
SIGEOM	Mineralogy	MX	Minéraux lourds	PRO2000-08
SIGEOM	Mineralogy	MF	Minéraux mafiques	PRO2000-08
SIGEOM	Mineralogy	MU	Minnesotaite	PRO2000-08
SIGEOM	Mineralogy	MZ	Monazite	PRO2000-08
SIGEOM	Mineralogy	OM	Monticellite	PRO2000-08
SIGEOM	Mineralogy	MV	Muscovite	PRO2000-08
SIGEOM	Mineralogy	NP	Néphéline	PRO2000-08
SIGEOM	Mineralogy	OI	Niocalite	PRO2000-08
SIGEOM	Mineralogy	OC	Ocre	PRO2000-08
SIGEOM	Mineralogy	OG	Oligoclasse	PRO2000-08
SIGEOM	Mineralogy	OV	Olivine	PRO2000-08
SIGEOM	Mineralogy	OR	Orthoclase (orthose)	PRO2000-08
SIGEOM	Mineralogy	OX	Orthopyroxène	PRO2000-08
SIGEOM	Mineralogy	OL	Ottrelite	PRO2000-08
SIGEOM	Mineralogy	OH	Oxyhornblende (Hornblende brune)	PRO2000-08
SIGEOM	Mineralogy	PE	Paragonite	PRO2000-08
SIGEOM	Mineralogy	PT	Penninite/Pennine	PRO2000-08
SIGEOM	Mineralogy	II	Péristérite	PRO2000-08
SIGEOM	Mineralogy	PK	Perovskite	PRO2000-08
SIGEOM	Mineralogy	PR	Perthite	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Mineralogy	PZ	Petzite	PRO2000-08
SIGEOM	Mineralogy	PA	Phénacite/Phénakite	PRO2000-08
SIGEOM	Mineralogy	PH	Phlogopite	PRO2000-08
SIGEOM	Mineralogy	PU	Phosphuranylite	PRO2000-08
SIGEOM	Mineralogy	AR	Picrolite	PRO2000-08
SIGEOM	Mineralogy	PC	Pistachite	PRO2000-08
SIGEOM	Mineralogy	PG	Plagioclase	PRO2000-08
SIGEOM	Mineralogy	ZP	Pollucite	PRO2000-08
SIGEOM	Mineralogy	PJ	Posniakite	PRO2000-08
SIGEOM	Mineralogy	PN	Préhnite	PRO2000-08
SIGEOM	Mineralogy	PP	Pumpellyite	PRO2000-08
SIGEOM	Mineralogy	PS	Pyrolusite	PRO2000-08
SIGEOM	Mineralogy	PL	Pyrophyllite	PRO2000-08
SIGEOM	Mineralogy	PX	Pyroxène	PRO2000-08
SIGEOM	Mineralogy	QZ	Quartz	PRO2000-08
SIGEOM	Mineralogy	QB	Quartz bleu	PRO2000-08
SIGEOM	Mineralogy	RD	Rhodochrosite	PRO2000-08
SIGEOM	Mineralogy	RN	Rhodonite	PRO2000-08
SIGEOM	Mineralogy	RB	Riebeckite	PRO2000-08
SIGEOM	Mineralogy	RM	Romanechite	PRO2000-08
SIGEOM	Mineralogy	RC	Roscoelite	PRO2000-08
SIGEOM	Mineralogy	RZ	Rozénite	PRO2000-08
SIGEOM	Mineralogy	RL	Rutile	PRO2000-08
SIGEOM	Mineralogy	FF	Safflorite	PRO2000-08
SIGEOM	Mineralogy	SK	Samarskite	PRO2000-08
SIGEOM	Mineralogy	UL	Samarskite - (Y)	PRO2000-08
SIGEOM	Mineralogy	SA	Sanidine	PRO2000-08
SIGEOM	Mineralogy	SH	Sapphirine	PRO2000-08
SIGEOM	Mineralogy	SC	Scapolite	PRO2000-08
SIGEOM	Mineralogy	TF	Schorlite(Schorl)	PRO2000-08
SIGEOM	Mineralogy	VS	Sénarmontite	PRO2000-08
SIGEOM	Mineralogy	SR	Séricite	PRO2000-08
SIGEOM	Mineralogy	ST	Serpentine	PRO2000-08
SIGEOM	Mineralogy	SD	Sidérite(sidérose)	PRO2000-08
SIGEOM	Mineralogy	SI	Sidérotit	PRO2000-08
SIGEOM	Mineralogy	SM	Sillimanite	PRO2000-08
SIGEOM	Mineralogy	DW	Skłodowskite	PRO2000-08
SIGEOM	Mineralogy	TW	Smaltite/Smaltine	PRO2000-08
SIGEOM	Mineralogy	ZO	Smithsonite	PRO2000-08
SIGEOM	Mineralogy	SS	Sodalite	PRO2000-08
SIGEOM	Mineralogy	DY	Soddyite	PRO2000-08
SIGEOM	Mineralogy	GS	Spessartine	PRO2000-08
SIGEOM	Mineralogy	SN	Sphène/Titanite	PRO2000-08
SIGEOM	Mineralogy	SL	Spinnelle	PRO2000-08
SIGEOM	Mineralogy	SO	Spodumène	PRO2000-08
SIGEOM	Mineralogy	NN	Stannite	PRO2000-08
SIGEOM	Mineralogy	SY	Starkéyite	PRO2000-08
SIGEOM	Mineralogy	SU	Staurotide	PRO2000-08
SIGEOM	Mineralogy	TS	Stéatite	PRO2000-08
SIGEOM	Mineralogy	ON	Stibiconite	PRO2000-08
SIGEOM	Mineralogy	SE	Stilpnomélane	PRO2000-08
SIGEOM	Mineralogy	SV	Sylvanite	PRO2000-08
SIGEOM	Mineralogy	SZ	Szomolnokite	PRO2000-08
SIGEOM	Mineralogy	TC	Talc	PRO2000-08
SIGEOM	Mineralogy	TN	Tantalite	PRO2000-08
SIGEOM	Mineralogy	TB	Tellurobismuthite	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Mineralogy	TT	Tennantite	PRO2000-08
SIGEOM	Mineralogy	TE	Tenorite	PRO2000-08
SIGEOM	Mineralogy	TD	Tétradymite	PRO2000-08
SIGEOM	Mineralogy	ZT	Thomsonite	PRO2000-08
SIGEOM	Mineralogy	HU	Thucholite	PRO2000-08
SIGEOM	Mineralogy	TZ	Topaze	PRO2000-08
SIGEOM	Mineralogy	TU	Torbernite	PRO2000-08
SIGEOM	Mineralogy	TL	Tourmaline	PRO2000-08
SIGEOM	Mineralogy	TA	Tourmaline zincifère	PRO2000-08
SIGEOM	Mineralogy	TM	Trémolite	PRO2000-08
SIGEOM	Mineralogy	US	Ulvöspinel	PRO2000-08
SIGEOM	Mineralogy	VA	Valentinite	PRO2000-08
SIGEOM	Mineralogy	VL	Valleriite	PRO2000-08
SIGEOM	Mineralogy	VR	Vermiculite	PRO2000-08
SIGEOM	Mineralogy	VV	Vésuvianite	PRO2000-08
SIGEOM	Mineralogy	VO	Violarite	PRO2000-08
SIGEOM	Mineralogy	WM	Willemite	PRO2000-08
SIGEOM	Mineralogy	WS	Wilsonite	PRO2000-08
SIGEOM	Mineralogy	WL	Wollastonite	PRO2000-08
SIGEOM	Mineralogy	WN	Wulfenite	PRO2000-08
SIGEOM	Mineralogy	TX	Xénotime-(Y)	PRO2000-08
SIGEOM	Mineralogy	ZL	Zéolite	PRO2000-08
SIGEOM	Mineralogy	ZN	Zincite	PRO2000-08
SIGEOM	Mineralogy	ZC	Zircon	PRO2000-08
SIGEOM	Mineralogy	ZS	Zoisite	PRO2000-08
SIGEOM	Fossils	XX	Autres	PRO2000-08
SIGEOM	Fossils	XB	Bioclastes	PRO2000-08
SIGEOM	Fossils	YB	Brachiopodes	PRO2000-08
SIGEOM	Fossils	YZ	Bryozoaires	PRO2000-08
SIGEOM	Fossils	YC	Céphalopodes	PRO2000-08
SIGEOM	Fossils	XC	Ciment	PRO2000-08
SIGEOM	Fossils	YA	Conulaires	PRO2000-08
SIGEOM	Fossils	YX	Coraux	PRO2000-08
SIGEOM	Fossils	YR	Crinoïdes	PRO2000-08
SIGEOM	Fossils	YD	Échinodermes	PRO2000-08
SIGEOM	Fossils	YE	Éponges	PRO2000-08
SIGEOM	Fossils	YY	Fossile	PRO2000-08
SIGEOM	Fossils	YT	Gastéropodes	PRO2000-08
SIGEOM	Fossils	YG	Graptolites	PRO2000-08
SIGEOM	Fossils	XH	Hydrocarbures	PRO2000-08
SIGEOM	Fossils	XL	Liant	PRO2000-08
SIGEOM	Fossils	XR	Lithoclastes	PRO2000-08
SIGEOM	Fossils	XG	Matière organique	PRO2000-08
SIGEOM	Fossils	XM	Matrice	PRO2000-08
SIGEOM	Fossils	XT	Oncolites	PRO2000-08
SIGEOM	Fossils	XO	Oolites	PRO2000-08
SIGEOM	Fossils	YO	Ostracodes	PRO2000-08
SIGEOM	Fossils	YP	Péléciopodes	PRO2000-08
SIGEOM	Fossils	XP	Pellets	PRO2000-08
SIGEOM	Fossils	XD	Péloïdes	PRO2000-08
SIGEOM	Fossils	YN	Plantes	PRO2000-08
SIGEOM	Fossils	YK	Poissons	PRO2000-08
SIGEOM	Fossils	YS	Stromatoïdes	PRO2000-08
SIGEOM	Fossils	YI	Stromatoporoides	PRO2000-08
SIGEOM	Fossils	YF	Traces fossiles	PRO2000-08
SIGEOM	Fossils	YL	Trilobites	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Rock	I4QA	Aillikite	MB96-28
SIGEOM	Rock	I1K	Alaskite	MB96-28
SIGEOM	Rock	I4OA	Alnoite	MB96-28
SIGEOM	Rock	V2J	Andésite	MB96-28
SIGEOM	Rock	S12C	Anhydrite	MB96-28
SIGEOM	Rock	I3G	Anorthosite	MB96-28
SIGEOM	Rock	I3T	Anorthosite à hyperstène	MB96-28
SIGEOM	Rock	I3GR	Anorthosite foidifère	MB96-28
SIGEOM	Rock	I3H	Anorthosite gabbroïque	MB96-28
SIGEOM	Rock	I3GQ	Anorthosite quartzifère	MB96-28
SIGEOM	Rock	I1F	Aplite	MB96-28
SIGEOM	Rock	S2	Arénite	MB96-28
SIGEOM	Rock	S2D	Arénite arkosique	MB96-28
SIGEOM	Rock	S2E	Arénite lithique	MB96-28
SIGEOM	Rock	S2A	Arénite Quartzitique	MB96-28
SIGEOM	Rock	S1C	Arkose	MB96-28
SIGEOM	Rock	S2C	Arkose	MB96-28
SIGEOM	Rock	S7J	Bafflestone	MB96-28
SIGEOM	Rock	V3B	Basalte	MB96-28
SIGEOM	Rock	V3E	Basalte à olivine	MB96-28
SIGEOM	Rock	V3C	Basalte à quartz	MB96-28
SIGEOM	Rock	V3A	Basalte andésitique/Andésite basaltique	MB96-28
SIGEOM	Rock	V3F	Basalte magnésien	MB96-28
SIGEOM	Rock	V3H	Basanite	MB96-28
SIGEOM	Rock	V3HP	Basanite phonolitique	MB96-28
SIGEOM	Rock	V2FB	Benmoréite	MB96-28
SIGEOM	Rock	V3J	Bonninite	MB96-28
SIGEOM	Rock	S7I	Boundstone	MB96-28
SIGEOM	Rock	S5	Brèche	MB96-28
SIGEOM	Rock	S5G	Brèche Intraformationnel	MB96-28
SIGEOM	Rock	S5H	Brèche Intraformationnel Fermé	MB96-28
SIGEOM	Rock	S5I	Brèche Intraformationnel Ouvert	MB96-28
SIGEOM	Rock	S5A	Brèche Monogénique	MB96-28
SIGEOM	Rock	S5B	Brèche Monogénique Fermé	MB96-28
SIGEOM	Rock	S5C	Brèche Monogénique Ouvert	MB96-28
SIGEOM	Rock	S5D	Brèche Polygénique	MB96-28
SIGEOM	Rock	S5E	Brèche Polygénique Fermé	MB96-28
SIGEOM	Rock	S5F	Brèche Polygénique Ouvert	MB96-28
SIGEOM	Rock	S7	Calcaire	MB96-28
SIGEOM	Rock	S7C	Calcarénite	MB96-28
SIGEOM	Rock	S7A	Calcilulite	MB96-28
SIGEOM	Rock	I4QC	Calciocarbonatite	MB96-28
SIGEOM	Rock	S7D	calcirudite	MB96-28
SIGEOM	Rock	S7B	calcisiltite	MB96-28
SIGEOM	Rock	I4OC	Camptonite	MB96-28
SIGEOM	Rock	I4Q	Carbonatite	MB96-28
SIGEOM	Rock	I1P	Charnockite (Granite à hyperstène)	MB96-28
SIGEOM	Rock	I1O	Charnockite à feldspath alcalin	MB96-28
SIGEOM	Rock	S10	Chert	MB96-28
SIGEOM	Rock	S10B	Chert Carbonaté	MB96-28
SIGEOM	Rock	S10F	Chert Ferrugineux	MB96-28
SIGEOM	Rock	S10E	Chert Graphiteux/Carboné	MB96-28
SIGEOM	Rock	S10A	Chert Oxydé	MB96-28
SIGEOM	Rock	S10C	Chert Silicaté	MB96-28
SIGEOM	Rock	S10D	Chert Sulfuré	MB96-28
SIGEOM	Rock	S6H	Clayshale	MB96-28



Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Rock	S6I	Clayslate	MB96-28
SIGEOM	Rock	S6G	Claystone	MB96-28
SIGEOM	Rock	I4C	Clinopyroxénite	MB96-28
SIGEOM	Rock	I4F	Clinopyroxénite à olivine	MB96-28
SIGEOM	Rock	V1BC	Commendite	MB96-28
SIGEOM	Rock	S4	Conglomérat	MB96-28
SIGEOM	Rock	S4G	Conglomérat intraformationnel	MB96-28
SIGEOM	Rock	S4H	Conglomérat intraformationnel Fermé	MB96-28
SIGEOM	Rock	S4I	Conglomérat intraformationnel Ouvert	MB96-28
SIGEOM	Rock	S4A	Conglomérat monogénique	MB96-28
SIGEOM	Rock	S4B	Conglomérat monogénique fermé	MB96-28
SIGEOM	Rock	S4C	Conglomérat monogénique Ouvert	MB96-28
SIGEOM	Rock	S4D	Conglomérat polygénique	MB96-28
SIGEOM	Rock	S4E	Conglomérat polygénique Fermé	MB96-28
SIGEOM	Rock	S4F	Conglomérat polygénique Ouvert	MB96-28
SIGEOM	Rock	V1D	Dacite	MB96-28
SIGEOM	Rock	I4QD	Damtiernite	MB96-28
SIGEOM	Rock	I3B	Diabase	MB96-28
SIGEOM	Rock	I3M	Diabase à olivine	MB96-28
SIGEOM	Rock	I3F	Diabase à quartz	MB96-28
SIGEOM	Rock	I2J	Diorite	MB96-28
SIGEOM	Rock	I2Q	Diorite à hyperstène	MB96-28
SIGEOM	Rock	I2JR	Diorite foidifère	MB96-28
SIGEOM	Rock	I2JF	Diorite foidique	MB96-28
SIGEOM	Rock	I2I	Diorite quartzifère	MB96-28
SIGEOM	Rock	S8C	Dolarénite	MB96-28
SIGEOM	Rock	S8A	Dololuite	MB96-28
SIGEOM	Rock	S8	Dolomite	MB96-28
SIGEOM	Rock	S8D	Dolorudite	MB96-28
SIGEOM	Rock	S8B	Dolosilite	MB96-28
SIGEOM	Rock	I4M	Dunite	MB96-28
SIGEOM	Rock	I1T	Enderbite (Tonalite à hyperstène)	MB96-28
SIGEOM	Rock	S12	Évaporite	MB96-28
SIGEOM	Rock	S11	Exhalite	MB96-28
SIGEOM	Rock	I4QF	Ferrocyanatite	MB96-28
SIGEOM	Rock	I3D	Ferrogabbro	MB96-28
SIGEOM	Rock	I1N	Filon/Veine de quartz	MB96-28
SIGEOM	Rock	V4I	Foidite	MB96-28
SIGEOM	Rock	V4IP	Foidite phonolitique	MB96-28
SIGEOM	Rock	V4IT	Foidite téphritique	MB96-28
SIGEOM	Rock	I4S	Foidolite	MB96-28
SIGEOM	Rock	S9	Formation de fer	MB96-28
SIGEOM	Rock	S9C	Formation de fer Carbonatée	MB96-28
SIGEOM	Rock	S9A	Formation de fer indéterminée	MB96-28
SIGEOM	Rock	S9B	Formation de fer oxydée	MB96-28
SIGEOM	Rock	S9D	Formation de fer Silicatée	MB96-28
SIGEOM	Rock	S9E	Formation de fer Sulfurée	MB96-28
SIGEOM	Rock	I3A	Gabbro	MB96-28
SIGEOM	Rock	I3K	Gabbro à olivine	MB96-28
SIGEOM	Rock	I3E	Gabbro à quartz	MB96-28
SIGEOM	Rock	I3I	Gabbro anorthosite	MB96-28
SIGEOM	Rock	I3AR	Gabbro foidifère	MB96-28
SIGEOM	Rock	I3Q	Gabbronorite	MB96-28
SIGEOM	Rock	I3R	Gabbronorite à olivine	MB96-28
SIGEOM	Rock	S7H	Grainstone	MB96-28
SIGEOM	Rock	I1B	Granite	MB96-28

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Rock	I1A	Granite à feldspath alcalin	MB96-28
SIGEOM	Rock	I1I	Granitoïde riche en quartz	MB96-28
SIGEOM	Rock	I1C	Granodiorite	MB96-28
SIGEOM	Rock	I1S	Grano-diotite à hyperstène	MB96-28
SIGEOM	Rock	I1H	Granophyre	MB96-28
SIGEOM	Rock	S1	Grès	MB96-28
SIGEOM	Rock	S1D	Grès Arkosique	MB96-28
SIGEOM	Rock	S1B	Grès Feldspathique	MB96-28
SIGEOM	Rock	S1E	Grès Lithique	MB96-28
SIGEOM	Rock	S1F	Grès Lithique subfeldspathitique	MB96-28
SIGEOM	Rock	S1A	Grès Quartzique	MB96-28
SIGEOM	Rock	S12D	Gypse	MB96-28
SIGEOM	Rock	S12A	Halite	MB96-28
SIGEOM	Rock	I4L	Harzburgite	MB96-28
SIGEOM	Rock	V3DH	Hawaïite	MB96-28
SIGEOM	Rock	I4A	Hornblendite	MB96-28
SIGEOM	Rock	V2JI	Icelandite	MB96-28
SIGEOM	Rock	V3AI	Icelandite basaltique	MB96-28
SIGEOM	Rock	I1	Intrusion felsique	MB96-28
SIGEOM	Rock	I2	Intrusion Intermédiaire	MB96-28
SIGEOM	Rock	I3	Intrusion mafique	MB96-28
SIGEOM	Rock	I4	Intrusion ultramafique	MB96-28
SIGEOM	Rock	S10J	Jaspe, Jaspilite	MB96-28
SIGEOM	Rock	I2P	Jotunite (Monzodiorite à hyperstène)	MB96-28
SIGEOM	Rock	I3OK	Kersantite	MB96-28
SIGEOM	Rock	I4P	Kimberlite	MB96-28
SIGEOM	Rock	I4PA	Kimberlite (groupe I)	MB96-28
SIGEOM	Rock	I4PB	Kimberlite (groupe II)	MB96-28
SIGEOM	Rock	V4A	Komatiite	MB96-28
SIGEOM	Rock	V4D	Komatiite dunitique	MB96-28
SIGEOM	Rock	V4C	Komatiite péridotitique	MB96-28
SIGEOM	Rock	V4B	Komatiite pyroxénitique	MB96-28
SIGEOM	Rock	I4R	Lamproïte	MB96-28
SIGEOM	Rock	I3O	Lamprophyre mafique	MB96-28
SIGEOM	Rock	I4O	Lamprophyre ultrabasique	MB96-28
SIGEOM	Rock	V2FL	Latite	MB96-28
SIGEOM	Rock	V2LR	Latite foidifère	MB96-28
SIGEOM	Rock	V2E	Latite quartzifère	MB96-28
SIGEOM	Rock	I3P	Leuconorite	MB96-28
SIGEOM	Rock	I4K	Lherzolite	MB96-28
SIGEOM	Rock	I4QM	Magnésiocarbonatite	MB96-28
SIGEOM	Rock	I2O	Mangérite (Monzonite à hyperstène)	MB96-28
SIGEOM	Rock	V4E	Meimechite	MB96-28
SIGEOM	Rock	V4F	Melilitite	MB96-28
SIGEOM	Rock	V4FO	Melilitite à olivine	MB96-28
SIGEOM	Rock	I4T	Ménilitolite	MB96-28
SIGEOM	Rock	I3OM	Minette	MB96-28
SIGEOM	Rock	I4OM	Monchiquite	MB96-28
SIGEOM	Rock	I2H	Monzodiorite	MB96-28
SIGEOM	Rock	I2HR	Monzodiorite foidifère	MB96-28
SIGEOM	Rock	I2HF	Monzodiorite foidique	MB96-28
SIGEOM	Rock	I2G	Monzodiorite quartzifère	MB96-28
SIGEOM	Rock	I3C	Monzogabbro	MB96-28
SIGEOM	Rock	I3CR	Monzogabbro foidifère	MB96-28
SIGEOM	Rock	I3CF	Monzogabbro foidique	MB96-28
SIGEOM	Rock	I3CQ	Monzogabbro quartzifère	MB96-28

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Rock	I1M	Monzo-Granite	MB96-28
SIGEOM	Rock	I1R	Monzo-granite à hyperstène	MB96-28
SIGEOM	Rock	I2F	Monzonite	MB96-28
SIGEOM	Rock	I2FR	Monzonite foidifère	MB96-28
SIGEOM	Rock	I2E	Monzonite quartzifère	MB96-28
SIGEOM	Rock	I3S	Monzonorite	MB96-28
SIGEOM	Rock	I2K	Monzosyérite	MB96-28
SIGEOM	Rock	I2KF	Monzosyérite foidique	MB96-28
SIGEOM	Rock	OB	Mort Terrain (Overburden)	
SIGEOM	Rock	S6	Mudrock	MB96-28
SIGEOM	Rock	S6E	Mudshale	MB96-28
SIGEOM	Rock	S6F	Mudslate	MB96-28
SIGEOM	Rock	S6D	Mudstone	MB96-28
SIGEOM	Rock	S7E	Mudstone	MB96-28
SIGEOM	Rock	V3GM	Mugéargite	MB96-28
SIGEOM	Rock	V4IN	Néphéline	MB96-28
SIGEOM	Rock	I3J	Norite	MB96-28
SIGEOM	Rock	I3L	Norite à olivine	MB96-28
SIGEOM	Rock	I4E	Orthopyroxénite	MB96-28
SIGEOM	Rock	I4H	Orthopyroxénite à olivine	MB96-28
SIGEOM	Rock	S7G	Packstone	MB96-28
SIGEOM	Rock	V1BP	Pantellérite	MB96-28
SIGEOM	Rock	I1G	Pegmatite (granitique)	MB96-28
SIGEOM	Rock	I4I	Péridotite	MB96-28
SIGEOM	Rock	V2G	Phonolite	MB96-28
SIGEOM	Rock	V2GT	Phonolite téphritique	MB96-28
SIGEOM	Rock	V4H	Picrite	MB96-28
SIGEOM	Rock	V4G	Picrobasalte	MB96-28
SIGEOM	Rock	I4OP	Polzénite	MB96-28
SIGEOM	Rock	I4B	Pyroxénite	MB96-28
SIGEOM	Rock	I1J	Quartzolite (Silexite)	MB96-28
SIGEOM	Rock	V1C	Rhyodacite	MB96-28
SIGEOM	Rock	V1B	Rhyolite	MB96-28
SIGEOM	Rock	V1A	Rhyolite à feldspath alcalin	MB96-28
SIGEOM	Rock	V4M	Rock volcanique ultramafique à melilite	MB96-28
SIGEOM	Rock	S7K	Rudstone	MB96-28
SIGEOM	Rock	I4OS	Sannaite	MB96-28
SIGEOM	Rock	S	Sédiments	MB96-28
SIGEOM	Rock	I4N	Serpentinite	MB96-28
SIGEOM	Rock	V3GS	Shoshonite	MB96-28
SIGEOM	Rock	S6B	Siltshale	MB96-28
SIGEOM	Rock	S6C	Siltslate	MB96-28
SIGEOM	Rock	S6A	Siltstone	MB96-28
SIGEOM	Rock	I3OS	Spessartite	MB96-28
SIGEOM	Rock	S2B	SubArkose	MB96-28
SIGEOM	Rock	S2F	Sublitharénite	MB96-28
SIGEOM	Rock	S12E	Sulfate	MB96-28
SIGEOM	Rock	F1	Sulfures Massifs	MB96-28
SIGEOM	Rock	F2	Sulfures semi-Massifs	MB96-28
SIGEOM	Rock	I2D	Syérite	MB96-28
SIGEOM	Rock	I2B	Syérite à feldspath alcalin	MB96-28
SIGEOM	Rock	I2N	Syérite à hyperstène	MB96-28
SIGEOM	Rock	I2DR	Syérite foidifère	MB96-28
SIGEOM	Rock	I2BR	Syérite foidifère à feldspath alcalin	MB96-28
SIGEOM	Rock	I2DF	Syérite foidique	MB96-28
SIGEOM	Rock	I2C	Syérite quartzifère	MB96-28

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Rock	I2A	Syénite quartzifère à feldspath alcalin	MB96-28
SIGEOM	Rock	I2M	Syénite quartzifère à feldspath alcalin avec hyperstène	MB96-28
SIGEOM	Rock	I1L	Syéno-granite	MB96-28
SIGEOM	Rock	I1Q	Syéno-granite à hyperstène	MB96-28
SIGEOM	Rock	S12B	Sylvite	MB96-28
SIGEOM	Rock	V3I	Téphrite	MB96-28
SIGEOM	Rock	V3IP	Téphryte phonolitique	MB96-28
SIGEOM	Rock	S4J	Tillite	MB96-28
SIGEOM	Rock	I1D	Tonalite	MB96-28
SIGEOM	Rock	V2F	Trachyandésite	MB96-28
SIGEOM	Rock	V3G	Trachyandésite basaltique	MB96-28
SIGEOM	Rock	V3D	Trachybasalte	MB96-28
SIGEOM	Rock	V3DK	Trachybasalte potassique	MB96-28
SIGEOM	Rock	V1E	Trachydacite	MB96-28
SIGEOM	Rock	V2D	Trachyte	MB96-28
SIGEOM	Rock	V2B	Trachyte à feldspath alcalin	MB96-28
SIGEOM	Rock	V2DC	Trachyte commenditique	MB96-28
SIGEOM	Rock	V2DR	Trachyte foidifère	MB96-28
SIGEOM	Rock	V2BR	Trachyte foidifère à feldspath alcalin	MB96-28
SIGEOM	Rock	V2DP	Trachyte pantellétique	MB96-28
SIGEOM	Rock	V2C	Trachyte quartzifère	MB96-28
SIGEOM	Rock	V2A	Trachyte quartzifère à feldspath alcalin	MB96-28
SIGEOM	Rock	I3N	Troctolite	MB96-28
SIGEOM	Rock	I1E	Trondhémite	MB96-28
SIGEOM	Rock	I3OV	Vogesite	MB96-28
SIGEOM	Rock	V	Volcanite	
SIGEOM	Rock	V1	Volcanite felsique	MB96-28
SIGEOM	Rock	V2	Volcanite Intermédiaire	MB96-28
SIGEOM	Rock	V3	Volcanite mafique	MB96-28
SIGEOM	Rock	V4	Volcanite ultramafique	MB96-28
SIGEOM	Rock	S3	Wacke	MB96-28
SIGEOM	Rock	S3C	Wacke Arkosique	MB96-28
SIGEOM	Rock	S3D	Wacke Feldspathique	MB96-28
SIGEOM	Rock	S3E	Wacke Lithique	MB96-28
SIGEOM	Rock	S3A	Wacke Quartzitique	MB96-28
SIGEOM	Rock	S7F	Wackestone	MB96-28
SIGEOM	Rock	I4D	Websterite	MB96-28
SIGEOM	Rock	I4G	Websterite à olivine	MB96-28
SIGEOM	Rock	I4J	Wehrlite	MB96-28
SIGEOM	Metamorphic Rock	M23	Agmatite	MB96-28
SIGEOM	Metamorphic Rock	M16	Amphibolite	MB96-28
SIGEOM	Metamorphic Rock	M26	Brèche Tectonique	MB96-28
SIGEOM	Metamorphic Rock	M24	Cataclastite	MB96-28
SIGEOM	Metamorphic Rock	M18	Cornéenne	MB96-28
SIGEOM	Metamorphic Rock	M31	Coticule	MB96-28
SIGEOM	Metamorphic Rock	M21	Diatexite	MB96-28
SIGEOM	Metamorphic Rock	M17	Éclogite	MB96-28
SIGEOM	Metamorphic Rock	M1	Gneiss	MB96-28
SIGEOM	Metamorphic Rock	T3A	Gneiss droit («straight gneiss»)	MB96-28
SIGEOM	Metamorphic Rock	M6	Gneiss granitique	MB96-28
SIGEOM	Metamorphic Rock	T3D	Gneiss irrégulier	MB96-28
SIGEOM	Metamorphic Rock	T3B	Gneiss porphyroclastique	MB96-28
SIGEOM	Metamorphic Rock	M5	Gneiss Quartzofeldspathique	MB96-28
SIGEOM	Metamorphic Rock	T3C	Gneiss régulier	MB96-28
SIGEOM	Metamorphic Rock	M2	Gneiss Rubané	MB96-28
SIGEOM	Metamorphic Rock	M21A	Granite d'Anatexie	MB96-28

Appendix 6: Abbreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Metamorphic Rock	M7	Granulite	MB96-28
SIGEOM	Metamorphic Rock	M13	Marbre	MB96-28
SIGEOM	Metamorphic Rock	M20	Métatexite	MB96-28
SIGEOM	Metamorphic Rock	M22	Migmatite	MB96-28
SIGEOM	Metamorphic Rock	M25	Mylonite	MB96-28
SIGEOM	Metamorphic Rock	M3	Orthogneiss	MB96-28
SIGEOM	Metamorphic Rock	M9	Orthoschiste	MB96-28
SIGEOM	Metamorphic Rock	M4	Paragneiss	MB96-28
SIGEOM	Metamorphic Rock	M10	Paraschiste	MB96-28
SIGEOM	Metamorphic Rock	M11	Phyllade	MB96-28
SIGEOM	Metamorphic Rock	M12	Quartzite	MB96-28
SIGEOM	Metamorphic Rock	M14	Rock Calco-Silicatée	MB96-28
SIGEOM	Metamorphic Rock	M15	Rock Métasomatique (Skarn)	MB96-28
SIGEOM	Metamorphic Rock	M8	Schiste	MB96-28
SIGEOM	Metamorphic Rock	M30	Tourmalinite	MB96-28
SIGEOM	Tectonic Rock	T2E	Blastomylonite	MB96-28
SIGEOM	Tectonic Rock	T1A	Brèche de Faille	MB96-28
SIGEOM	Tectonic Rock	T1F	Brèche d'Impact	MB96-28
SIGEOM	Tectonic Rock	T4	Brèche tectonique	MB96-28
SIGEOM	Tectonic Rock	T4B	Brèche tectonique à matrice de marbre	MB96-28
SIGEOM	Tectonic Rock	T1	Cataclastite	MB96-28
SIGEOM	Tectonic Rock	T1C	Gouge de faille	MB96-28
SIGEOM	Tectonic Rock	T1G	Impactite	MB96-28
SIGEOM	Tectonic Rock	T4A	Mélange tectonique	MB96-28
SIGEOM	Tectonic Rock	T1B	Microbrèche de Faille	MB96-28
SIGEOM	Tectonic Rock	T1E	Myololithénite	MB96-28
SIGEOM	Tectonic Rock	T2	Mylonite	MB96-28
SIGEOM	Tectonic Rock	T2B	Orthomylonite	MB96-28
SIGEOM	Tectonic Rock	T2D	Phyllonite	MB96-28
SIGEOM	Tectonic Rock	T2A	Protomylonite	MB96-28
SIGEOM	Tectonic Rock	T1D	Pseudotachylite	MB96-28
SIGEOM	Tectonic Rock	T2C	Ultramylonite	MB96-28
VIA	Structure	APL	Axe de Pli	
VIA	Structure	DIA	Diaclase, Joint, Fracture	
VIA	Structure	DYK	Dyke	
VIA	Structure	FAI	Faille, Cisaillement	
VIA	Structure	FOL	Foliation	
VIA	Structure	LAM	Lamination, Rubannement, Flow banding	
VIA	Structure	LIN	Linéation	
VIA	Structure	LIT	Litage, Bedding, S0, Stratification	
VIA	Structure	PAX	Plan Axial	
VIA	Structure	SCH	Schistosité, Gneissosité, SP, S1, S2, S3	
VIA	Structure	SGL	Strie Glaciaire	
VIA	Structure	VEI	Veine	
SIGEOM	Structure	L	Axe de mullion	PRO2000-08
SIGEOM	Structure	B	Axe de boudin	PRO2000-08
SIGEOM	Structure	J	Axe de joint en colonne	PRO2000-08
VIA	Structure	AP	Axe de pli	
SIGEOM	Structure	Q	Axe de stylolithe	PRO2000-08
SIGEOM	Structure	E	Axe d'étirement	PRO2000-08
SIGEOM	Structure	A	Axe d'étirement d'objet déformé	PRO2000-08
SIGEOM	Structure	Y	Axe d'étirement plaquage minéral	PRO2000-08
SIGEOM	Structure	M	Axe Minérale primaire (magmatique)	PRO2000-08
SIGEOM	Structure	N	Axe Minérale secondaire (tectonométamorphique)	PRO2000-08
VIA	Structure	LE	Linéation d'étirement	
SIGEOM	Structure	L1	Linéation d'intersection	PRO2000-08

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Source	Domain	Code	Signification (French)	Reference
SIGEOM	Structure	L2	Linéation d'intersection	PRO2000-08
SIGEOM	Structure	L3	Linéation d'intersection	PRO2000-08
SIGEOM	Structure	L4	Linéation d'intersection	PRO2000-08
SIGEOM	Structure	L	Linéation Indéterminée	PRO2000-08
VIA	Structure	LM	Linéation minérale	
SIGEOM	Structure	F	Strie de faille	PRO2000-08
VIA	Structure	SG	Strie glaciaire	
SIGEOM	Structure	T	Strie intercouche	PRO2000-08
VIA	Structure	CC	Clivage de crénulation	
VIA	Structure	DY	Dyke	
VIA	Structure	FA	Faille	
VIA	Structure	FR	Fracture	
VIA	Structure	LI	Litage	
VIA	Structure	PA	Plan axial	
VIA	Structure	S1	Schistosité S1	
VIA	Structure	S2	Schistosité S2	
VIA	Structure	S3	Schistosité S3	
VIA	Structure	VN	Veine	
VIA	Structure	ZC	Zone de cisaillement	
SIGEOM	Texture	AC	Aciculaire	PRO2000-08
SIGEOM	Texture	AD	Adcumulat	PRO2000-08
SIGEOM	Texture	AA	Affleurement caractérisé par le plissement	PRO2000-08
SIGEOM	Texture	AT	Agmatitique	PRO2000-08
SIGEOM	Texture	AL	Alaskitique	PRO2000-08
SIGEOM	Texture	AE	Altéré	PRO2000-08
SIGEOM	Texture	AO	Amas arrondis (globulaires)	PRO2000-08
SIGEOM	Texture	AB	Amiboïdal(e)	PRO2000-08
SIGEOM	Texture	AM	Amygdalaire	PRO2000-08
SIGEOM	Texture	AM	Amygdalaire	PRO2000-08
SIGEOM	Texture	AN	Anastomosé	PRO2000-08
SIGEOM	Texture	AR	Antirapakivi	PRO2000-08
SIGEOM	Texture	AP	Aphanitique	PRO2000-08
SIGEOM	Texture	AY	Apophyse (en)	PRO2000-08
SIGEOM	Texture	AS	Arborescent	PRO2000-08
SIGEOM	Texture	AU	Autoclastique	PRO2000-08
SIGEOM	Texture	XX	Autres	PRO2000-08
SIGEOM	Texture	BA	Bancs (en)	PRO2000-08
SIGEOM	Texture	BM	Bandes de cimentation	PRO2000-08
SIGEOM	Texture	BS	Basal(e)	PRO2000-08
SIGEOM	Texture	BE	Birds eyes	PRO2000-08
SIGEOM	Texture	BI	Biseau	PRO2000-08
SIGEOM	Texture	BL	Blocs (à)	PRO2000-08
SIGEOM	Texture	BU	Bordure / limite de coulée	PRO2000-08
SIGEOM	Texture	BV	Botryoïdal	PRO2000-08
SIGEOM	Texture	BO	Boudinage	PRO2000-08
SIGEOM	Texture	BC	Brèche à coussins ordinaires isolés	PRO2000-08
SIGEOM	Texture	BG	Brèche à coussins peu serrés	PRO2000-08
SIGEOM	Texture	BF	Brèche à méga-coussins isolés	PRO2000-08
SIGEOM	Texture	BB	Brèche à mini-coussins isolés	PRO2000-08
SIGEOM	Texture	BQ	Brèche de coulée / Brèche de lave	PRO2000-08
SIGEOM	Texture	BH	Brèche de coussins désagrégés / brisés	PRO2000-08
SIGEOM	Texture	BK	Brèche de coussins fragmentés	PRO2000-08
SIGEOM	Texture	BN	Brèche d'intrusion	PRO2000-08
SIGEOM	Texture	BP	Brèche pyroclastique	PRO2000-08
SIGEOM	Texture	BT	Brèche tectonique	PRO2000-08
SIGEOM	Texture	BR	Bréchique / Brèche	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Texture	BY	Broyage	PRO2000-08
SIGEOM	Texture	CA	Cailloux 4-64 mm	PRO2000-08
SIGEOM	Texture	PK	Cailloux alignés «pebble stringers»	PRO2000-08
SIGEOM	Texture	CN	Cannelure	PRO2000-08
SIGEOM	Texture	CQ	Cataclastique	PRO2000-08
SIGEOM	Texture	CE	Cendre (à)	PRO2000-08
SIGEOM	Texture	VP	Centre volcanique/ faciès proximal	PRO2000-08
SIGEOM	Texture	DN	Cheminée d'alimentation (dyke nourricier)	PRO2000-08
SIGEOM	Texture	CV	Cheminée volcanique	PRO2000-08
SIGEOM	Texture	CH	Chenal	PRO2000-08
SIGEOM	Texture	CD	Chenal d'érosion ( à )	PRO2000-08
SIGEOM	Texture	CG	Chenalisé	PRO2000-08
SIGEOM	Texture	CS	Cisaillé(e)	PRO2000-08
VIA	Texture	CIS	Cisaillement	
SIGEOM	Texture	JC	Columnaire/ (joints en colonnes)	PRO2000-08
SIGEOM	Texture	CB	Convolutions (à)	PRO2000-08
SIGEOM	Texture	KO	Coronitique	PRO2000-08
SIGEOM	Texture	NM	Coulé massive à noyaux saussuritisés	PRO2000-08
SIGEOM	Texture	CL	Coulée	PRO2000-08
SIGEOM	Texture	NC	Coulée coussinée à noyaux saussuritisés	PRO2000-08
SIGEOM	Texture	FZ	Coulée fragmentée	PRO2000-08
SIGEOM	Texture	CK	Coulée massive	PRO2000-08
SIGEOM	Texture	CZ	Coulée massive à surface coussinée	PRO2000-08
SIGEOM	Texture	CW	Coulée massive grenue et/ou partie basale grenue de coulée	PRO2000-08
SIGEOM	Texture	CO	Coussiné (coussins)	PRO2000-08
SIGEOM	Texture	CO	Coussiné (coussins)	PRO2000-08
SIGEOM	Texture	XP	Coussins allongés	PRO2000-08
SIGEOM	Texture	FP	Coussins aplatis	PRO2000-08
SIGEOM	Texture	MD	Coussins en molaire	PRO2000-08
SIGEOM	Texture	CF	Coussins fragmentés	PRO2000-08
SIGEOM	Texture	CI	Coussins isolés	PRO2000-08
SIGEOM	Texture	CJ	Coussins jointifs	PRO2000-08
SIGEOM	Texture	CT	Crescumulat	PRO2000-08
SIGEOM	Texture	CR	Cristalloblastique	PRO2000-08
SIGEOM	Texture	CX	Cristaux (en)	PRO2000-08
SIGEOM	Texture	CP	Cryptalgaire	PRO2000-08
SIGEOM	Texture	CU	Cumulat (à)	PRO2000-08
SIGEOM	Texture	CM	Cumulite	PRO2000-08
SIGEOM	Texture	DS	Cupules («dish structure»)	PRO2000-08
SIGEOM	Texture	CY	Cyclique(Cyclicité)	PRO2000-08
SIGEOM	Texture	DG	Désagrégés / brisés	PRO2000-08
SIGEOM	Texture	DQ	Diabasique	PRO2000-08
SIGEOM	Texture	DB	Diablastique	PRO2000-08
SIGEOM	Texture	DC	Diaclasé	PRO2000-08
SIGEOM	Texture	DR	Direction de courant	PRO2000-08
SIGEOM	Texture	DE	Direction d'écoulement de coulés	PRO2000-08
SIGEOM	Texture	DD	Discordance	PRO2000-08
SIGEOM	Texture	DK	Drusique	PRO2000-08
SIGEOM	Texture	DU	Dunes	PRO2000-08
SIGEOM	Texture	DW	Durchbewegung	PRO2000-08
SIGEOM	Texture	SB	Échappement (structure d')	PRO2000-08
SIGEOM	Texture	ED	Écharde	PRO2000-08
SIGEOM	Texture	EO	Écoulement (structure d')	PRO2000-08
SIGEOM	Texture	EF	Effondrement (structure d')	PRO2000-08
SIGEOM	Texture	EL	Empreinte de cannelures	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Texture	EC	Empreinte de charge (« load cast»)	PRO2000-08
SIGEOM	Texture	EI	Empreinte d'impact	PRO2000-08
SIGEOM	Texture	EE	En échelon	PRO2000-08
SIGEOM	Texture	ES	En festons	PRO2000-08
SIGEOM	Texture	EN	Enclave	PRO2000-08
SIGEOM	Texture	EM	Encroûtement («crustification»)	PRO2000-08
SIGEOM	Texture	EP	Épiclastique	PRO2000-08
SIGEOM	Texture	EQ	Équigranulaire	PRO2000-08
SIGEOM	Texture	ER	Excroissances	PRO2000-08
SIGEOM	Texture	EX	Extrusif (ve)	PRO2000-08
SIGEOM	Texture	FJ	Faille intra-formationnelle	PRO2000-08
SIGEOM	Texture	FV	Faille synvolcanique	PRO2000-08
SIGEOM	Texture	FD	Fente de dessiccation	PRO2000-08
SIGEOM	Texture	FM	Fente de refroidissement	PRO2000-08
SIGEOM	Texture	FI	Fibreux (se)	PRO2000-08
SIGEOM	Texture	FB	Fibroblastique	PRO2000-08
SIGEOM	Texture	FS	Filandré « Flaser »	PRO2000-08
SIGEOM	Texture	FH	Filons-couches cogénitiques (synvolcaniques)	PRO2000-08
SIGEOM	Texture	FE	Flammes	PRO2000-08
SIGEOM	Texture	FL	Flué, par fluage - fluidal	PRO2000-08
SIGEOM	Texture	FL	Fluidal(e) (à structure)	PRO2000-08
SIGEOM	Texture	FT	Flûte («flutecast»)	PRO2000-08
SIGEOM	Texture	FX	Flûte déformée par surcharge	PRO2000-08
SIGEOM	Texture	FO	Folié(e)	PRO2000-08
SIGEOM	Texture	FF	Fossilifère	PRO2000-08
SIGEOM	Texture	FA	Fracturé(e)	PRO2000-08
SIGEOM	Texture	FC	Fractures radiales dans les coussins	PRO2000-08
SIGEOM	Texture	FG	Fragmenté	PRO2000-08
SIGEOM	Texture	FW	Fragments allongés «monomictes»/monogéniques	PRO2000-08
SIGEOM	Texture	FU	Fragments allongés «polymictic»/polygéniques	PRO2000-08
SIGEOM	Texture	FQ	Fragments aplatis «monomictic»/monogénique	PRO2000-08
SIGEOM	Texture	FK	Fragments aplatis «polymictic»/polygénique	PRO2000-08
SIGEOM	Texture	FR	Frites («pencil structure») (en crayon)	PRO2000-08
SIGEOM	Texture	GA	Galets (à)(64-256 mm)	PRO2000-08
SIGEOM	Texture	GE	Géode	PRO2000-08
SIGEOM	Texture	GB	Gloméroblastique	PRO2000-08
SIGEOM	Texture	GC	Gloméroblastique	PRO2000-08
SIGEOM	Texture	GX	Glomérocrystallin(e)	PRO2000-08
SIGEOM	Texture	GH	Glomérophyrique	PRO2000-08
SIGEOM	Texture	NR	Gneiss à crayons	PRO2000-08
SIGEOM	Texture	GD	Gneiss droit («straight gneiss»)	PRO2000-08
SIGEOM	Texture	GS	Gneissique	PRO2000-08
SIGEOM	Texture	GW	Gradation densimétrique	PRO2000-08
SIGEOM	Texture	VG	Gradation granulométrique	PRO2000-08
SIGEOM	Texture	GF	Grains fins (à) < 1mm Rocks ignées	PRO2000-08
SIGEOM	Texture	GG	Grains grossiers (à) >5 mm Rocks ignées	PRO2000-08
SIGEOM	Texture	GM	Grains moyens (à) 1-5 mm Rocks ignées	PRO2000-08
SIGEOM	Texture	GT	Grains très fins	PRO2000-08
SIGEOM	Texture	GO	Grains très grossiers	PRO2000-08
SIGEOM	Texture	GR	Granoblastique	PRO2000-08
SIGEOM	Texture	GI	Granoclasement inverse	PRO2000-08
SIGEOM	Texture	GJ	Granoclasement inverse suivi de normal	PRO2000-08
SIGEOM	Texture	GN	Granoclasement normal	PRO2000-08
SIGEOM	Texture	GK	Granoclasement normal suivi d'inverse	PRO2000-08
SIGEOM	Texture	GQ	Granoclastique	PRO2000-08
SIGEOM	Texture	GY	Granophyrique	PRO2000-08



Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Texture	GU	Granules (à) (2-4 mm)	PRO2000-08
SIGEOM	Texture	GP	Graphique	PRO2000-08
SIGEOM	Texture	GV	Griffon	PRO2000-08
SIGEOM	Texture	HA	Harrisitic	PRO2000-08
SIGEOM	Texture	HE	Hélicitique	PRO2000-08
SIGEOM	Texture	HU	Hétéradcumulat	PRO2000-08
SIGEOM	Texture	HB	Hétéroblastique	PRO2000-08
SIGEOM	Texture	HK	Hétérogène	PRO2000-08
SIGEOM	Texture	HG	Hétérogranulaire	PRO2000-08
SIGEOM	Texture	HC	Holocristallin(e)	PRO2000-08
SIGEOM	Texture	HH	Holohyalin(e)	PRO2000-08
SIGEOM	Texture	HL	Hololeucocrate	PRO2000-08
SIGEOM	Texture	HM	Holomélanocrate	PRO2000-08
SIGEOM	Texture	HQ	Homéoblastique	PRO2000-08
SIGEOM	Texture	HJ	Homogène	PRO2000-08
SIGEOM	Texture	HT	Homotactique	PRO2000-08
SIGEOM	Texture	HY	Hyaloclastites	PRO2000-08
SIGEOM	Texture	HR	Hyaloclastites remaniées	PRO2000-08
SIGEOM	Texture	HP	Hyalopilitique	PRO2000-08
SIGEOM	Texture	TH	Hyalotuf	PRO2000-08
SIGEOM	Texture	HD	Hypidiomorphe	PRO2000-08
SIGEOM	Texture	HX	Hypocristallin(e)	PRO2000-08
SIGEOM	Texture	IM	Imbrication de cailloux, blocs	PRO2000-08
SIGEOM	Texture	IP	Imprégnation	PRO2000-08
SIGEOM	Texture	IS	Intersertale	PRO2000-08
SIGEOM	Texture	IT	Intraclastes (à)	PRO2000-08
SIGEOM	Texture	IR	Intraformationnel(le)	PRO2000-08
SIGEOM	Texture	IU	Intrusif(ve) / injection	PRO2000-08
SIGEOM	Texture	IC	Iridescence	PRO2000-08
SIGEOM	Texture	IL	Isolés	PRO2000-08
SIGEOM	Texture	JC	Joints en colonnes	PRO2000-08
SIGEOM	Texture	KR	Karstique	PRO2000-08
SIGEOM	Texture	LU	Labradorescence	PRO2000-08
SIGEOM	Texture	LA	Laminaire (laminé)	PRO2000-08
SIGEOM	Texture	LC	Laminations convolutées	PRO2000-08
SIGEOM	Texture	CP	Laminations cryptalgaires	PRO2000-08
SIGEOM	Texture	LQ	Laminations obliques	PRO2000-08
SIGEOM	Texture	LO	Laminations ondulantes	PRO2000-08
SIGEOM	Texture	LL	Laminations ondulantes lenticulaires	PRO2000-08
SIGEOM	Texture	LP	Laminations parallèles	PRO2000-08
SIGEOM	Texture	LI	Lapilli (à)	PRO2000-08
SIGEOM	Texture	TO	Lapillistone	PRO2000-08
SIGEOM	Texture	LT	Lattes (en)	PRO2000-08
SIGEOM	Texture	LV	Lave / coulée de lave	PRO2000-08
SIGEOM	Texture	LK	Lave en blocs	PRO2000-08
SIGEOM	Texture	LF	Lépidoblastique	PRO2000-08
SIGEOM	Texture	LX	Leucocrate	PRO2000-08
SIGEOM	Texture	LS	Leucosome	PRO2000-08
SIGEOM	Texture	SA	Lité(e), stratifié(e)	PRO2000-08
SIGEOM	Texture	AG	Lits amalgamés	PRO2000-08
SIGEOM	Texture	LN	Lits d'épaisseur moyenne (10 à 25 cm)	PRO2000-08
SIGEOM	Texture	LG	Lits épais (>25 cm)	PRO2000-08
SIGEOM	Texture	LD	Lits lenticulaires	PRO2000-08
SIGEOM	Texture	LM	Lits minces (1-10 cm)	PRO2000-08
SIGEOM	Texture	LB	Lobe	PRO2000-08
SIGEOM	Texture	MC	Mégacoussins (à)	PRO2000-08

## Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Texture	MP	Mégaporphyrique	PRO2000-08
SIGEOM	Texture	MX	Mélanocrate	PRO2000-08
SIGEOM	Texture	MS	Mélanosome	PRO2000-08
SIGEOM	Texture	MK	Mésocrate	PRO2000-08
SIGEOM	Texture	MF	Mésocumulat	PRO2000-08
SIGEOM	Texture	ME	Métamorphisé	PRO2000-08
SIGEOM	Texture	ML	Miarolitique	PRO2000-08
SIGEOM	Texture	MT	Micritique	PRO2000-08
SIGEOM	Texture	MB	Microbrèche	PRO2000-08
SIGEOM	Texture	MI	Microlitique	PRO2000-08
SIGEOM	Texture	MR	Microporphyrique	PRO2000-08
SIGEOM	Texture	MU	Minicoussins (à)	PRO2000-08
SIGEOM	Texture	MZ	Mobilisat	PRO2000-08
SIGEOM	Texture	MM	Monogénique «Monomictic»	PRO2000-08
SIGEOM	Texture	MO	Mosaïque	PRO2000-08
SIGEOM	Texture	MN	Mylonitique	PRO2000-08
SIGEOM	Texture	MY	Myrmékitique	PRO2000-08
SIGEOM	Texture	NB	Nébulitique	PRO2000-08
SIGEOM	Texture	NE	Nématoblastique	PRO2000-08
SIGEOM	Texture	NS	Néosome	PRO2000-08
SIGEOM	Texture	NY	Noyaux	PRO2000-08
SIGEOM	Texture	OC	Ocellaire	PRO2000-08
SIGEOM	Texture	OE	Oeillé(e)	PRO2000-08
SIGEOM	Texture	OI	Olikocryst (à)	PRO2000-08
SIGEOM	Texture	OO	Oolitique	PRO2000-08
SIGEOM	Texture	OP	Ophitique	PRO2000-08
SIGEOM	Texture	OR	Orbculaire	PRO2000-08
SIGEOM	Texture	OU	Orthocumulat	PRO2000-08
SIGEOM	Texture	PS	Paléosome	PRO2000-08
SIGEOM	Texture	PE	Paléosurface d'érosion	PRO2000-08
SIGEOM	Texture	PA	Panidiomorphe	PRO2000-08
SIGEOM	Texture	PV	Patron d'interférence	PRO2000-08
SIGEOM	Texture	PG	Pegmatitique	PRO2000-08
SIGEOM	Texture	PL	Pellets (à)	PRO2000-08
SIGEOM	Texture	PD	Péloïdes	PRO2000-08
SIGEOM	Texture	PT	Perlitique	PRO2000-08
SIGEOM	Texture	LR	Peu serrés (loosely packed)	PRO2000-08
SIGEOM	Texture	PH	Phanéritique	PRO2000-08
SIGEOM	Texture	PI	Phénocristique	PRO2000-08
SIGEOM	Texture	PZ	Plis ptygmatisques	PRO2000-08
SIGEOM	Texture	PU	Plutonique	PRO2000-08
SIGEOM	Texture	PC	Poecilitique	PRO2000-08
SIGEOM	Texture	PB	Poeciloblastique	PRO2000-08
SIGEOM	Texture	PM	Polygénique /«polymictic»	PRO2000-08
SIGEOM	Texture	PN	Ponce	PRO2000-08
SIGEOM	Texture	PP	Porphyre	PRO2000-08
SIGEOM	Texture	PO	Porphyrique	PRO2000-08
SIGEOM	Texture	PQ	Porphyroblastique	PRO2000-08
SIGEOM	Texture	PJ	Porphyroclastique	PRO2000-08
SIGEOM	Texture	PX	Prismatique	PRO2000-08
SIGEOM	Texture	PF	Protoclastique	PRO2000-08
SIGEOM	Texture	PR	Pyroclastique	PRO2000-08
SIGEOM	Texture	RO	Radeaux (en)	PRO2000-08
SIGEOM	Texture	RK	Rapakivique	PRO2000-08
SIGEOM	Texture	RG	Régolite	PRO2000-08
SIGEOM	Texture	RN	Remanié(e)	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Texture	RL	Remplacement	PRO2000-08
SIGEOM	Texture	RF	Réniforme	PRO2000-08
SIGEOM	Texture	RE	Réticulé(e)	PRO2000-08
SIGEOM	Texture	RC	Rides de courant	PRO2000-08
SIGEOM	Texture	RP	Rides de plage	PRO2000-08
SIGEOM	Texture	RM	Rill mark(s)	PRO2000-08
SIGEOM	Texture	RI	Rip-up clast(s)	PRO2000-08
SIGEOM	Texture	RQ	Ruban de quartz	PRO2000-08
SIGEOM	Texture	RU	Rubané(e)	PRO2000-08
SIGEOM	Texture	RA	Rubanement concentrique	PRO2000-08
SIGEOM	Texture	LJ	Rubanement de diffusion («Liesegang rings»)	PRO2000-08
SIGEOM	Texture	RS	Rubanement symétrique	PRO2000-08
SIGEOM	Texture	RT	Rubanement tectonique	PRO2000-08
SIGEOM	Texture	SD	Saccaroïdale (granoblastique)	PRO2000-08
SIGEOM	Texture	SC	Schisteux	PRO2000-08
SIGEOM	Texture	SH	Schlieren	PRO2000-08
SIGEOM	Texture	SR	Scoriacé(e)	PRO2000-08
SIGEOM	Texture	SV	shatter cone	PRO2000-08
SIGEOM	Texture	SL	Slump	PRO2000-08
SIGEOM	Texture	SM	Sommital(e)	PRO2000-08
SIGEOM	Texture	SP	Sphérolitique	PRO2000-08
SIGEOM	Texture	SX	Spinifex (à)	PRO2000-08
SIGEOM	Texture	SN	Stratifications / laminations obliques planaires	PRO2000-08
SIGEOM	Texture	SQ	Stratifications / laminations obliques tangentielles	PRO2000-08
SIGEOM	Texture	SF	Stratifications entrecroisées defosse	PRO2000-08
SIGEOM	Texture	ST	Stratifié(e) / stratiforme	PRO2000-08
SIGEOM	Texture	SG	Streaky mafiques en trait	PRO2000-08
SIGEOM	Texture	SI	Strie	PRO2000-08
SIGEOM	Texture	SK	Stromatic	PRO2000-08
SIGEOM	Texture	SU	Stromatolitique	PRO2000-08
SIGEOM	Texture	DW	Structure «durchbewegung »	PRO2000-08
SIGEOM	Texture	ET	Structure de percement («piercement»)	PRO2000-08
SIGEOM	Texture	PW	Structure en peigne («comb»)	PRO2000-08
SIGEOM	Texture	SY	Stylolites	PRO2000-08
SIGEOM	Texture	SO	Subophitique	PRO2000-08
SIGEOM	Texture	SE	Surface d'érosion	PRO2000-08
SIGEOM	Texture	TA	Tabulaire	PRO2000-08
SIGEOM	Texture	TT	Talus (de)	PRO2000-08
SIGEOM	Texture	TE	Tectonique	PRO2000-08
SIGEOM	Texture	YH	Tectonique hétéroclastique	PRO2000-08
SIGEOM	Texture	YL	Tectonite en L	PRO2000-08
SIGEOM	Texture	YS	Tectonite en L/S	PRO2000-08
SIGEOM	Texture	YZ	Tectonite en S	PRO2000-08
SIGEOM	Texture	YM	Tectonite homoclastique	PRO2000-08
SIGEOM	Texture	TF	Tracesfossiles (trous de vers, etc.)	PRO2000-08
SIGEOM	Texture	TR	Trachytique / trachytoïde	PRO2000-08
SIGEOM	Texture	TP	Trempe (de)	PRO2000-08
SIGEOM	Texture	TM	Tuf à blocs	PRO2000-08
SIGEOM	Texture	TZ	Tuf à blocs et tuf à lapilli	PRO2000-08
SIGEOM	Texture	TD	Tuf à cendre	PRO2000-08
SIGEOM	Texture	TX	Tuf à cristaux	PRO2000-08
SIGEOM	Texture	TL	Tuf à lapilli	PRO2000-08
SIGEOM	Texture	TY	Tuf à lapilli et tuf à blocs	PRO2000-08
SIGEOM	Texture	TC	Tuf cherteux	PRO2000-08
SIGEOM	Texture	TG	Tuf graphiteux	PRO2000-08
SIGEOM	Texture	TI	Tuf lithique	PRO2000-08

Appendix 6: Abreviation list, Ashuanipi project

Source	Domain	Code	Signification (French)	Reference
SIGEOM	Texture	TS	Tuf soudé	PRO2000-08
SIGEOM	Texture	TU	Tufacé	PRO2000-08
SIGEOM	Texture	TB	Turbidite (voir guide des géofiches)	PRO2000-08
SIGEOM	Texture	VA	Variolitique	PRO2000-08
SIGEOM	Texture	VE	Vesiculaire	PRO2000-08
SIGEOM	Texture	VI	Vitreux(se)	PRO2000-08
SIGEOM	Texture	VO	Volcanique	PRO2000-08
SIGEOM	Texture	VC	Volcanoclastites	PRO2000-08
SIGEOM	Texture	XB	Xénoblastique	PRO2000-08
SIGEOM	Texture	XM	Xénomorphe	PRO2000-08
SIGEOM	Texture	ZS	Zone de cisaillement	PRO2000-08
SIGEOM	Texture	ZC	Zone de contact	PRO2000-08
SIGEOM	Texture	ZD	Zone de déformation	PRO2000-08
SIGEOM	Texture	ZF	Zone de faille	PRO2000-08
SIGEOM	Texture	ZM	Zone minéralisée	PRO2000-08
SIGEOM	Texture	ZR	Zone rouillée	PRO2000-08
SIGEOM	Texture	AI	Amas irréguliers, agrégats	PRO2000-08
SIGEOM	Texture	OL	Colloforme	PRO2000-08
SIGEOM	Texture	CC	Concrétion(s) nodules	PRO2000-08
SIGEOM	Texture	DT	Dendritique	PRO2000-08
SIGEOM	Texture	DI	Disséminé	PRO2000-08
SIGEOM	Texture	FN	Filonien	PRO2000-08
SIGEOM	Texture	RB	Framboïdal	PRO2000-08
SIGEOM	Texture	ID	Idiomorphe	PRO2000-08
SIGEOM	Texture	IG	Intergranulaire	PRO2000-08
SIGEOM	Texture	LE	Lenticulaire	PRO2000-08
SIGEOM	Texture	MA	Massif(ve)	PRO2000-08
SIGEOM	Texture	NO	Nodulaire	PRO2000-08
VIA	Texture	SSM	Semi-Massif	
SIGEOM	Texture	SW	Stockwerk	PRO2000-08
SIGEOM	Texture	SJ	Stratoïde («stratabound»)	PRO2000-08
SIGEOM	Texture	SS	Stringer	PRO2000-08
SIGEOM	Texture	PY	Structure en cocarde (crustification , «cockade»)	PRO2000-08
VIA	Texture	VN	Veine	

**Appendix 7**

**Certificates of analysis, Ashuanipi project**

**2012**

**INFORMATION AVAILABLE UPON REQUEST  
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**Toll free number: 800 476-1853**

**Appendix 8**

**Data verification, Ashuanipi project**

**2012**

Appendix 8 : Data verification, Ashuanipi project

Table 1: Standard validation of Au concentration for standards Cu160

Cu 160 (Au ppm)						
Sample number	Certified value (Au ppm)	Analytical value (Au ppm)	Subtraction (ppm)	Standard deviation ( $\sigma$ )	3 $\sigma$	Comments
275657	2,84	2,81	0,03	0,46530622	1,39591866	OK
275686	2,84	2,83	0,01	0,46530622	1,39591866	OK
275706	2,84	2,77	0,07	0,46530622	1,39591866	OK
275717	2,84	2,81	0,03	0,46530622	1,39591866	OK
275746	2,84	2,73	0,11	0,46530622	1,39591866	OK
275757	2,84	3,02	-0,18	0,46530622	1,39591866	OK
275777	2,84	3,07	-0,23	0,46530622	1,39591866	OK
275797	2,84	2,92	-0,08	0,46530622	1,39591866	OK
275826	2,84	2,97	-0,13	0,46530622	1,39591866	OK
275837	2,84	1,08	1,76	0,46530622	1,39591866	OK
275846	2,84	2,91	-0,07	0,46530622	1,39591866	OK
275957	2,84	2,81	0,03	0,46530622	1,39591866	OK
275986	2,84	2,78	0,06	0,46530622	1,39591866	OK
276006	2,84	2,89	-0,05	0,46530622	1,39591866	OK
276046	2,84	2,9	-0,06	0,46530622	1,39591866	OK
276157	2,84	2,87	-0,03	0,46530622	1,39591866	OK
276186	2,84	2,84	0	0,46530622	1,39591866	OK
276206	2,84	2,9	-0,06	0,46530622	1,39591866	OK
276217	2,84	2,92	-0,08	0,46530622	1,39591866	OK
275897	2,84	2,93	-0,09	0,46530622	1,39591866	OK
275906	2,84	2,88	-0,04	0,46530622	1,39591866	OK
275937	2,84	2,75	0,09	0,46530622	1,39591866	OK
276057	2,84	2,87	-0,03	0,46530622	1,39591866	OK
276146	2,84	2,83	0,01	0,46530622	1,39591866	OK
276257	2,84	2,91	-0,07	0,46530622	1,39591866	OK
276286	2,84	2,98	-0,14	0,46530622	1,39591866	OK
276356	2,84	2,87	-0,03	0,46530622	1,39591866	OK
276396	2,84	2,91	-0,07	0,46530622	1,39591866	OK
276416	2,84	2,95	-0,11	0,46530622	1,39591866	OK
276436	2,84	2,97	-0,13	0,46530622	1,39591866	OK
276476	2,84	2,88	-0,04	0,46530622	1,39591866	OK
276496	2,84	2,48	0,36	0,46530622	1,39591866	OK
276607	2,84	2,22	0,62	0,46530622	1,39591866	OK
276376	2,84	2,48	0,36	0,46530622	1,39591866	OK
276026	2,84	1,18	1,66	0,46530622	1,39591866	OK
276086	2,84	2,96	-0,12	0,46530622	1,39591866	OK
276106	2,84	2,68	0,16	0,46530622	1,39591866	OK
276117	2,84	1,205	1,635	0,46530622	1,39591866	OK
276456	2,84	2,85	-0,01	0,46530622	1,39591866	OK
276246	2,84	2,94	-0,1	0,46530622	1,39591866	OK
276017	2,84	2,93	-0,09	0,46530622	1,39591866	OK

Appendix 8 : Data verification, Ashuanipi project

Table 2 : Standard validation of Ag concentration for standards Cu160

Cu 160 (Ag ppm)						
Sample number	Certified value (Ag ppm)	Analytical value (Ag ppm)	Subtraction (ppm)	Standard deviation ( $\sigma$ )	3 $\sigma$	Comments
275657	48	53,5	-5,5	4,48642125	13,4592637	OK
275686	48	51	-3	4,48642125	13,4592637	OK
275706	48	50,7	-2,7	4,48642125	13,4592637	OK
275717	48	47	1	4,48642125	13,4592637	OK
275746	48	51,3	-3,3	4,48642125	13,4592637	OK
275757	48	48,4	-0,4	4,48642125	13,4592637	OK
275777	48	49,6	-1,6	4,48642125	13,4592637	OK
275797	48	47,7	0,3	4,48642125	13,4592637	OK
275826	48	50,3	-2,3	4,48642125	13,4592637	OK
275837	48	30,5	17,5	4,48642125	13,4592637	-3 $\sigma$
275846	48	49,8	-1,8	4,48642125	13,4592637	OK
275957	48	50,6	-2,6	4,48642125	13,4592637	OK
275986	48	50,2	-2,2	4,48642125	13,4592637	OK
276006	48	49	-1	4,48642125	13,4592637	OK
276046	48	49,7	-1,7	4,48642125	13,4592637	OK
276157	48	49,8	-1,8	4,48642125	13,4592637	OK
276186	48	50,3	-2,3	4,48642125	13,4592637	OK
276206	48	50	-2	4,48642125	13,4592637	OK
276217	48	50,7	-2,7	4,48642125	13,4592637	OK
275897	48	49,3	-1,3	4,48642125	13,4592637	OK
275906	48	49,9	-1,9	4,48642125	13,4592637	OK
275937	48	54,1	-6,1	4,48642125	13,4592637	OK
276057	48	49,6	-1,6	4,48642125	13,4592637	OK
276146	48	49,1	-1,1	4,48642125	13,4592637	OK
276257	48	51,4	-3,4	4,48642125	13,4592637	OK
276286	48	50,4	-2,4	4,48642125	13,4592637	OK
276356	48	51	-3	4,48642125	13,4592637	OK
276396	48	49	-1	4,48642125	13,4592637	OK
276416	48	51,5	-3,5	4,48642125	13,4592637	OK
276436	48	49,7	-1,7	4,48642125	13,4592637	OK
276476	48	49,6	-1,6	4,48642125	13,4592637	OK
276496	48	49,9	-1,9	4,48642125	13,4592637	OK
276607	48	47,4	0,6	4,48642125	13,4592637	OK
276376	48	47,8	0,2	4,48642125	13,4592637	OK
275926	48	30	18	4,48642125	13,4592637	OK
276086	48	47	1	4,48642125	13,4592637	OK
276106	48	46,6	1,4	4,48642125	13,4592637	OK
276117	48	48,6	-0,6	4,48642125	13,4592637	OK
276456	48	48,8	-0,8	4,48642125	13,4592637	OK
276246	48	47,1	0,9	4,48642125	13,4592637	OK
276017	48	48,7	-0,7	4,48642125	13,4592637	OK



Appendix 8 : Data verification, Ashuanipi project

Table 3 : Standard validation of Cu concentration for standards Cu160

Cu 160 (Cu ppm)						
Sample number	Certified value (Cu ppm)	Analytical value (Cu ppm)	Subtraction (ppm)	Standard deviation ( $\sigma$ )	3 $\sigma$	Comments
275657	3500	3770	-270	124,386298	373,158895	OK
275686	3500	3560	-60	124,386298	373,158895	OK
275706	3500	3400	100	124,386298	373,158895	OK
275717	3500	3490	10	124,386298	373,158895	OK
275746	3500	3560	-60	124,386298	373,158895	OK
275757	3500	3560	-60	124,386298	373,158895	OK
275777	3500	3630	-130	124,386298	373,158895	OK
275797	3500	3410	90	124,386298	373,158895	OK
275826	3500	3640	-140	124,386298	373,158895	OK
275837	3500	3390	110	124,386298	373,158895	OK
275846	3500	3520	-20	124,386298	373,158895	OK
275957	3500	3740	-240	124,386298	373,158895	OK
275986	3500	3540	-40	124,386298	373,158895	OK
276006	3500	3550	-50	124,386298	373,158895	OK
276046	3500	3540	-40	124,386298	373,158895	OK
276157	3500	3470	30	124,386298	373,158895	OK
276186	3500	3650	-150	124,386298	373,158895	OK
276206	3500	3530	-30	124,386298	373,158895	OK
276217	3500	3510	-10	124,386298	373,158895	OK
275897	3500	3430	70	124,386298	373,158895	OK
275906	3500	3540	-40	124,386298	373,158895	OK
275937	3500	3820	-320	124,386298	373,158895	OK
276057	3500	3410	90	124,386298	373,158895	OK
276146	3500	3470	30	124,386298	373,158895	OK
276257	3500	3550	-50	124,386298	373,158895	OK
276286	3500	3480	20	124,386298	373,158895	OK
276356	3500	3470	30	124,386298	373,158895	OK
276396	3500	3520	-20	124,386298	373,158895	OK
276416	3500	3590	-90	124,386298	373,158895	OK
276436	3500	3630	-130	124,386298	373,158895	OK
276476	3500	3600	-100	124,386298	373,158895	OK
276496	3500	3520	-20	124,386298	373,158895	OK
276607	3500	3330	170	124,386298	373,158895	OK
276376	3500	3330	170	124,386298	373,158895	OK
275926	3500	3160	340	124,386298	373,158895	OK
276086	3500	3350	150	124,386298	373,158895	OK
276106	3500	3360	140	124,386298	373,158895	OK
276117	3500	3510	-10	124,386298	373,158895	OK
276456	3500	3450	50	124,386298	373,158895	OK
276246	3500	3410	90	124,386298	373,158895	OK
276017	3500	3490	10	124,386298	373,158895	OK

Appendix 8 : Data verification, Ashuanipi project

Table 4 : Standard validation of Mo concentration for standards Cu160

Cu 160 ( Mo ppm)						
Sample number	Certified value (Mo ppm)	Analytical value (Mo ppm)	Subtraction (ppm)	Standard deviation ( $\sigma$ )	3 $\sigma$	Comments
275657	680	661	19	35,1687396	105,506219	OK
275686	680	660	20	35,1687396	105,506219	OK
275706	680	624	56	35,1687396	105,506219	OK
275717	680	638	42	35,1687396	105,506219	OK
275746	680	640	40	35,1687396	105,506219	OK
275757	680	623	57	35,1687396	105,506219	OK
275777	680	628	52	35,1687396	105,506219	OK
275797	680	607	73	35,1687396	105,506219	OK
275826	680	632	48	35,1687396	105,506219	OK
275837	680	737	-57	35,1687396	105,506219	OK
275846	680	622	58	35,1687396	105,506219	OK
275957	680	683	-3	35,1687396	105,506219	OK
275986	680	620	60	35,1687396	105,506219	OK
276006	680	644	36	35,1687396	105,506219	OK
276046	680	623	57	35,1687396	105,506219	OK
276157	680	612	68	35,1687396	105,506219	OK
276186	680	666	14	35,1687396	105,506219	OK
276206	680	633	47	35,1687396	105,506219	OK
276217	680	626	54	35,1687396	105,506219	OK
275897	680	606	74	35,1687396	105,506219	OK
275906	680	627	53	35,1687396	105,506219	OK
275937	680	647	33	35,1687396	105,506219	OK
276057	680	603	77	35,1687396	105,506219	OK
276146	680	623	57	35,1687396	105,506219	OK
276257	680	635	45	35,1687396	105,506219	OK
276286	680	641	39	35,1687396	105,506219	OK
276356	680	629	51	35,1687396	105,506219	OK
276396	680	607	73	35,1687396	105,506219	OK
276416	680	632	48	35,1687396	105,506219	OK
276436	680	638	42	35,1687396	105,506219	OK
276476	680	629	51	35,1687396	105,506219	OK
276496	680	641	39	35,1687396	105,506219	OK
276607	680	632	48	35,1687396	105,506219	OK
276376	680	587	93	35,1687396	105,506219	OK
275926	680	766	-86	35,1687396	105,506219	OK
276086	680	575	105	35,1687396	105,506219	OK
276106	680	595	85	35,1687396	105,506219	OK
276117	680	610	70	35,1687396	105,506219	OK
276456	680	613	67	35,1687396	105,506219	OK
276246	680	579	101	35,1687396	105,506219	OK
276017	680	614	66	35,1687396	105,506219	OK

Appendix 8 : Data verification, Ashuanipi project

Table 5 : Standard validation of Au concentration for standards Cu164

Cu 164 (Au ppm)						
Sample number	Certified value (Au ppm)	Analytical value (Au ppm)	Subtraction (ppm)	Standard deviation ( $\sigma$ )	3 $\sigma$	Comments
275666	1,14	1,125	0,015	0,04517075	0,13551226	OK
275677	1,14	1,015	0,125	0,04517075	0,13551226	OK
275697	1,14	1,125	0,015	0,04517075	0,13551226	OK
275726	1,14	1,095	0,045	0,04517075	0,13551226	OK
275737	1,14	1,105	0,035	0,04517075	0,13551226	OK
275766	1,14	1,135	0,005	0,04517075	0,13551226	OK
275786	1,14	1,195	-0,055	0,04517075	0,13551226	OK
275806	1,14	1,145	-0,005	0,04517075	0,13551226	OK
275866	1,14	1,175	-0,035	0,04517075	0,13551226	OK
275966	1,14	1,145	-0,005	0,04517075	0,13551226	OK
275977	1,14	1,07	0,07	0,04517075	0,13551226	OK
275997	1,14	1,18	-0,04	0,04517075	0,13551226	OK
276026	1,14	1,175	-0,035	0,04517075	0,13551226	OK
276037	1,14	1,1	0,04	0,04517075	0,13551226	OK
276166	1,14	1,125	0,015	0,04517075	0,13551226	OK
276177	1,14	1,135	0,005	0,04517075	0,13551226	OK
276197	1,14	1,175	-0,035	0,04517075	0,13551226	OK
276226	1,14	1,12	0,02	0,04517075	0,13551226	OK
275877	1,14	1,125	0,015	0,04517075	0,13551226	OK
275946	1,14	1,14	0	0,04517075	0,13551226	OK
276066	1,14	1,065	0,075	0,04517075	0,13551226	OK
276137	1,14	1,155	-0,015	0,04517075	0,13551226	OK
276237	1,14	1,135	0,005	0,04517075	0,13551226	OK
276266	1,14	1,165	-0,025	0,04517075	0,13551226	OK
276277	1,14	1,14	0	0,04517075	0,13551226	OK
276297	1,14	1,15	-0,01	0,04517075	0,13551226	OK
276387	1,14	1,155	-0,015	0,04517075	0,13551226	OK
276407	1,14	1,155	-0,015	0,04517075	0,13551226	OK
276427	1,14	1,115	0,025	0,04517075	0,13551226	OK
276467	1,14	1,065	0,075	0,04517075	0,13551226	OK
276487	1,14	1,04	0,1	0,04517075	0,13551226	OK
276367	1,14	1,205	-0,065	0,04517075	0,13551226	OK
275917	1,14	1,15	-0,01	0,04517075	0,13551226	OK
276077	1,14	1,035	0,105	0,04517075	0,13551226	OK
276097	1,14	1,1	0,04	0,04517075	0,13551226	OK
276126	1,14	1,175	-0,035	0,04517075	0,13551226	OK

Appendix 8 : Data verification, Ashuanipi project

Table 6 : Standard validation of Ag concentration for standards Cu164

Cu 164 (Ag ppm)						
Sample number	Certified value (Ag ppm)	Analytical value (Ag ppm)	Subtraction (ppm)	Standard deviation ( $\sigma$ )	3 $\sigma$	Comments
275666	29	30,9	-1,9	1,27745717	3,83237151	OK
275677	29	32,4	-3,4	1,27745717	3,83237151	OK
275697	29	31	-2	1,27745717	3,83237151	OK
275726	29	27,6	1,4	1,27745717	3,83237151	OK
275737	29	30,3	-1,3	1,27745717	3,83237151	OK
275766	29	28,5	0,5	1,27745717	3,83237151	OK
275786	29	31,3	-2,3	1,27745717	3,83237151	OK
275806	29	28,2	0,8	1,27745717	3,83237151	OK
275866	29	31,8	-2,8	1,27745717	3,83237151	OK
275966	29	30,4	-1,4	1,27745717	3,83237151	OK
275977	29	30,8	-1,8	1,27745717	3,83237151	OK
275997	29	29,1	-0,1	1,27745717	3,83237151	OK
276026	29	29,2	-0,2	1,27745717	3,83237151	OK
276037	29	27	2	1,27745717	3,83237151	OK
276166	29	29,8	-0,8	1,27745717	3,83237151	OK
276177	29	30,8	-1,8	1,27745717	3,83237151	OK
276197	29	30,5	-1,5	1,27745717	3,83237151	OK
276226	29	30,1	-1,1	1,27745717	3,83237151	OK
275877	29	31,4	-2,4	1,27745717	3,83237151	OK
275946	29	32,4	-3,4	1,27745717	3,83237151	OK
276066	29	29,3	-0,3	1,27745717	3,83237151	OK
276137	29	30,3	-1,3	1,27745717	3,83237151	OK
276237	29	31,1	-2,1	1,27745717	3,83237151	OK
276266	29	31,2	-2,2	1,27745717	3,83237151	OK
276277	29	30,1	-1,1	1,27745717	3,83237151	OK
276297	29	29,9	-0,9	1,27745717	3,83237151	OK
276387	29	30,3	-1,3	1,27745717	3,83237151	OK
276407	29	30,4	-1,4	1,27745717	3,83237151	OK
276427	29	29,9	-0,9	1,27745717	3,83237151	OK
276467	29	30,7	-1,7	1,27745717	3,83237151	OK
276487	29	31,2	-2,2	1,27745717	3,83237151	OK
276367	29	29,4	-0,4	1,27745717	3,83237151	OK
275917	29	29,5	-0,5	1,27745717	3,83237151	OK
276077	29	29,9	-0,9	1,27745717	3,83237151	OK
276097	29	27,7	1,3	1,27745717	3,83237151	OK
276126	29	28,5	0,5	1,27745717	3,83237151	OK

Appendix 8 : Data verification, Ashuanipi project

Table 7 : Standard validation of Cu concentration for standards Cu164

Cu 164 (Cu ppm)						
Sample number	Certified value (Cu ppm)	Analytical value (Cu ppm)	Subtraction (ppm)	Standard deviation ( $\sigma$ )	$3\sigma$	Comments
275666	3100	3350	-250	122,127633	366,382899	OK
275677	3100	3360	-260	122,127633	366,382899	OK
275697	3100	3110	-10	122,127633	366,382899	OK
275726	3100	3170	-70	122,127633	366,382899	OK
275737	3100	3210	-110	122,127633	366,382899	OK
275766	3100	3300	-200	122,127633	366,382899	OK
275786	3100	3320	-220	122,127633	366,382899	OK
275806	3100	3020	80	122,127633	366,382899	OK
275866	3100	3400	-300	122,127633	366,382899	OK
275966	3100	3300	-200	122,127633	366,382899	OK
275977	3100	3190	-90	122,127633	366,382899	OK
275997	3100	3150	-50	122,127633	366,382899	OK
276026	3100	3190	-90	122,127633	366,382899	OK
276037	3100	3310	-210	122,127633	366,382899	OK
276166	3100	3180	-80	122,127633	366,382899	OK
276177	3100	3290	-190	122,127633	366,382899	OK
276197	3100	3180	-80	122,127633	366,382899	OK
276226	3100	3200	-100	122,127633	366,382899	OK
275877	3100	3440	-340	122,127633	366,382899	OK
275946	3100	3440	-340	122,127633	366,382899	OK
276066	3100	3060	40	122,127633	366,382899	OK
276137	3100	3210	-110	122,127633	366,382899	OK
276237	3100	3480	-380	122,127633	366,382899	> 3 $\sigma$
276266	3100	3220	-120	122,127633	366,382899	OK
276277	3100	3150	-50	122,127633	366,382899	OK
276297	3100	3110	-10	122,127633	366,382899	OK
276387	3100	3190	-90	122,127633	366,382899	OK
276407	3100	3170	-70	122,127633	366,382899	OK
276427	3100	3140	-40	122,127633	366,382899	OK
276467	3100	3320	-220	122,127633	366,382899	OK
276487	3100	3060	40	122,127633	366,382899	OK
276367	3100	3090	10	122,127633	366,382899	OK
275917	3100	3060	40	122,127633	366,382899	OK
276077	3100	3200	-100	122,127633	366,382899	OK
276097	3100	3000	100	122,127633	366,382899	OK
276126	3100	3120	-20	122,127633	366,382899	OK

Appendix 8 : Data verification, Ashuanipi project

Table 8 : Standard validation of Mo concentration for standards Cu164

Cu 164 (Mo ppm)						
Sample number	Certified value (Mo ppm)	Analytical value (Mo ppm)	Subtraction (ppm)	Standard deviation ( $\sigma$ )	$3\sigma$	Comments
275666	810	753	57	36,5034462	109,510339	OK
275677	810	777	33	36,5034462	109,510339	OK
275697	810	717	93	36,5034462	109,510339	OK
275726	810	736	74	36,5034462	109,510339	OK
275737	810	725	85	36,5034462	109,510339	OK
275766	810	722	88	36,5034462	109,510339	OK
275786	810	734	76	36,5034462	109,510339	OK
275806	810	697	113	36,5034462	109,510339	> $3\sigma$
275866	810	792	18	36,5034462	109,510339	OK
275966	810	781	29	36,5034462	109,510339	OK
275977	810	693	117	36,5034462	109,510339	> $3\sigma$
275997	810	721	89	36,5034462	109,510339	OK
276029	810	694	116	36,5034462	109,510339	> $3\sigma$
276037	810	714	96	36,5034462	109,510339	OK
276166	810	718	92	36,5034462	109,510339	OK
276177	810	773	37	36,5034462	109,510339	OK
276197	810	751	59	36,5034462	109,510339	OK
276226	810	726	84	36,5034462	109,510339	OK
275877	810	766	44	36,5034462	109,510339	OK
275946	810	723	87	36,5034462	109,510339	OK
276066	810	691	119	36,5034462	109,510339	> $3\sigma$
276137	810	711	99	36,5034462	109,510339	OK
276237	810	764	46	36,5034462	109,510339	OK
276266	810	732	78	36,5034462	109,510339	OK
276277	810	743	67	36,5034462	109,510339	OK
276297	810	718	92	36,5034462	109,510339	OK
276387	810	738	72	36,5034462	109,510339	OK
276407	810	670	140	36,5034462	109,510339	> $3\sigma$
276427	810	695	115	36,5034462	109,510339	OK
276467	810	729	81	36,5034462	109,510339	OK
276487	810	700	110	36,5034462	109,510339	> $3\sigma$
276507	810	696	114	36,5034462	109,510339	> $3\sigma$
275917	810	744	66	36,5034462	109,510339	OK
276077	810	688	124	36,5034462	109,510339	> $3\sigma$
276097	810	623	187	36,5034462	109,510339	> $3\sigma$
276128	810	679	135	36,5034462	109,510339	> $3\sigma$

Appendix 8 : Data verification, Ashuanipi project

Table 9 : Blanks validation

No Échantillon	Type	Au_ppm	Ag_ppm	Cu_ppm	Mo_ppm	Comments
275661	Blank	<0,005	<0,2	<1	<1	OK
275681	Blank	<0,005	<0,2	<1	<1	OK
275701	Blank	<0,005	<0,2	3	<1	OK
275721	Blank	<0,005	<0,2	1	<1	OK
275741	Blank	<0,005	<0,2	<1	<1	OK
275761	Blank	<0,005	<0,2	2	<1	OK
275781	Blank	<0,005	0,2	1	<1	OK
275801	Blank	<0,005	<0,2	2	<1	OK
275821	Blank	<0,005	<0,2	<1	<1	OK
275841	Blank	<0,005	<0,2	1	<1	OK
275861	Blank	<0,005	<0,2	<1	<1	OK
275961	Blank	<0,005	<0,2	<1	<1	OK
275981	Blank	<0,005	<0,2	<1	<1	OK
276001	Blank	<0,005	<0,2	<1	<1	OK
276021	blank	<0,005	<0,2	4	<1	OK
276161	Blank	<0,005	<0,2	1	<1	OK
276181	Blank	<0,005	<0,2	<1	<1	OK
276201	Blank	<0,005	0,2	1	<1	OK
276221	Blank	<0,005	0,2	14	1	
275901	Blank	<0,005	0,2	<1	<1	OK
275941	Blank	<0,005	<0,2	8	<1	
276061	Blank	<0,005	0,2	1	<1	OK
276141	Blank	<0,005	<0,2	2	<1	OK
276261	Blank	<0,005	<0,2	1	<1	OK
276281	Blank	<0,005	<0,2	1	<1	OK
276351	Blank	<0,005	<0,2	1	<1	OK
276391	Blank	<0,005	<0,2	1	<1	OK
276411	Blank	<0,005	<0,2	<1	<1	OK
276431	Blank	<0,005	0,2	1	<1	OK
276471	Blank	<0,005	<0,2	<1	<1	OK
276491	Blank	<0,005	<0,2	1	<1	OK
276611	Blank	<0,005	<0,2	1	<1	OK
276371	Blank	0,005	<0,2	1	<1	OK
275921	Blank	<0,005	0,2	1	<1	OK
276081	Blank	0,006	<0,2	<1	<1	OK
276101	Blank	<0,005	<0,2	2	<1	OK
276121	Blank	<0,005	<0,2	1	<1	OK
276451	Blank	<0,005	<0,2	<1	<1	OK
276241	Blank	0,006	0,2	1	<1	OK

Appendix 8 : Data verification, Ashuanipi project

Table 10 : Duplicates validation

Sample number	Sample				Sample number	Duplicata			
	Au_ppm	Ag_ppm	Cu_ppm	Mo_ppm		Au_ppm	Ag_ppm	Cu_ppm	Mo_ppm
275651	0,035	<0,2	42	3	275652	0,029	<0,2	43	3
275671	<0,005	<0,2	6	<1	275672	<0,005	<0,2	4	<1
275691	<0,005	0,5	135	54	275692	<0,005	0,6	143	53
275711	<0,005	0,2	73	1	275712	<0,005	0,4	74	1
275731	<0,005	<0,2	31	2	275732	<0,005	<0,2	23	1
275751	0,027	0,3	345	137	275752	0,021	0,3	378	139
275771	<0,005	<0,2	43	1	275772	<0,005	<0,2	42	1
275791	<0,005	0,2	4	<1	275792	<0,005	<0,2	3	<1
275811	0,034	<0,2	108	<1	275812	0,039	<0,2	109	<1
275831	0,056	0,3	513	2	275832	0,049	0,3	497	3
275851	0,107	0,4	193	11	275852	0,115	0,4	198	12
275951	<0,005	<0,2	8	20	275952	<0,005	<0,2	8	6
275971	<0,005	<0,2	6	<1	275972	<0,005	<0,2	4	<1
275991	<0,005	<0,2	70	4	275992	<0,005	<0,2	73	2
276011	0,007	<0,2	2	<1	276012	0,007	<0,2	1	<1
276031	0,005	0,2	26	1	276032	0,005	<0,2	25	1
276151	0,007	<0,2	1	<1	276152	<0,005	<0,2	2	<1
276171	<0,005	<0,2	5	4	276172	<0,005	<0,2	2	1
276191	<0,005	<0,2	2	<1	276192	<0,005	<0,2	2	<1
276211	0,005	0,3	241	1	276212	0,008	0,2	266	2
275871	<0,005	<0,2	11	<1	275872	<0,005	<0,2	10	<1
275891	0,017	<0,2	9	<1	275892	0,005	<0,2	9	<1
275931	<0,005	<0,2	151	1	275932	0,008	<0,2	148	1
276051	<0,005	<0,2	2	<1	276052	<0,005	<0,2	2	<1
276131	0,006	<0,2	38	<1	276132	<0,005	<0,2	41	<1
276231	<0,005	<0,2	1	6	276232	<0,005	<0,2	1	5
276051	<0,005	<0,2	2	<1	276252	<0,005	<0,2	18	<1
276271	0,011	0,3	416	105	276272	0,012	0,3	502	135
276291	<0,005	0,2	48	1	276292	<0,005	<0,2	47	1
276481	0,009	0,2	120	1	276382	0,017	<0,2	56	<1
276401	0,024	<0,2	37	<1	276402	0,027	<0,2	39	<1
276421	0,061	<0,2	52	<1	276422	0,054	<0,2	53	<1
276461	0,01	0,2	141	<1	276462	0,012	0,2	140	<1
276481	0,009	0,2	120	1	276482	0,008	0,2	117	1
276601	<0,005	<0,2	81	<1	276602	<0,005	<0,2	86	<1
276361	0,04	0,3	82	1	276362	0,041	0,2	85	<1
275911	0,008	<0,2	88	<1	275912	0,011	0,2	74	<1
276071	0,007	<0,2	41	1	276072	0,006	<0,2	46	1
276091	0,015	<0,2	74	2	276092	0,014	<0,2	80	2
276111	0,011	<0,2	54	<1	276112	0,011	<0,2	55	<1
<b>Average</b>	<b>0,02404762</b>	<b>0,27142857</b>	<b>85,55</b>	<b>16,3636364</b>	<b>0,0237619</b>	<b>0,3</b>	<b>87,65</b>	<b>18,55</b>	



# CERTIFICATE OF ANALYSIS WCM MINERALS

## CU 160

Copper, Molybdenum, Silver, Gold Reference Material

LAB	LAB1	LAB1	LAB1	LAB1	LAB1	LAB2	LAB2	LAB2	LAB2	LAB2	LAB3	LAB3	LAB3	LAB3	LAB3	LAB4	
Replicate	Cu %	Mo %	Ag g/t	Au g/t	Cu %	Mo %	Ag g/t	Au g/t	Cu %	Mo %	Ag g/t	Au g/t	Cu %	Mo %	Ag g/t	Au g/t	Cu %
1	0.341	0.064	46	2.86	0.349	0.065	48	2.74	0.35	0.068	51.6	2.83	0.36				0.36
2	0.336	0.063	45	2.88	0.345	0.065	48	2.90	0.36	0.068	50.4	2.80	0.35				0.35
3	0.343	0.065	46	2.84	0.354	0.066	49	2.98	0.35	0.068	49.9	2.85	0.35				0.35
4	0.337	0.064	48	2.79	0.359	0.067	50	2.98	0.36	0.069	49.2	2.87	0.36				0.36
5	0.338	0.063	46	2.88	0.349	0.066	49	2.93	0.35	0.068	49.9	2.85	0.35				0.35
Average	0.339	0.064	46.200	2.850	0.351	0.066	48.800	2.906	0.354	0.068	50.200	2.840	0.354				0.354
Std Dev.	0.0029	0.0008	1.0954	0.0374	0.0054	0.0008	0.8367	0.0989	0.0055	0.0004	0.8916	0.0265	0.0055				0.0055
Average T	0.350	0.068	48.495	2.843													
Std Dev. T	0.0078	0.0033	1.6703	0.0852													
Report	Cu %	Mo %	Ag g/t	Au g/t													
	0.35	0.068	48	2.84													

## CERTIFICATE OF ANALYSIS WCM MINERALS

### CU 164

Copper, Molybdenum, Silver, Gold Reference Material

Page 1 of 2

LAB	LAB 1	LAB 1	LAB 1	LAB 1	LAB 2	LAB 2	LAB 2	LAB 2	LAB 3	LAB 3
Replicate	Cu %	Mo %	Ag g/t	Au g/t	Cu %	Mo %	Ag g/t	Au g/t	Cu %	Mo %
1	0.32	0.076	28	1.145	0.312	0.079	30	1.18	0.317	0.079
2	0.31	0.076	28	1.150	0.305	0.079	29	1.15	0.317	0.078
3	0.31	0.077	28	1.160	0.309	0.079	30	1.15	0.319	0.079
4	0.31	0.077	28	1.180	0.316	0.081	29	1.16	0.319	0.080
5	0.31	0.077	28	1.175	0.313	0.081	28	1.15	0.319	0.080
6								1.17		
7								1.17		
8								1.16		
Average	0.312	0.077	28.000	1.162	0.311	0.080	29.200	1.161	0.318	0.079
Std Dev.	0.0045	0.0005	0.0000	0.0152	0.0042	0.0011	0.8367	0.0113	0.0011	0.0008
Average T	0.312	0.081	29.056	1.140						
Std Dev.	0.0080	0.0039	1.3071	0.0310						
<b>Recommended</b>	<b>Cu %</b>	<b>Mo %</b>	<b>Ag g/t</b>	<b>Au g/t</b>						
<b>Value</b>	<b>0.31</b>	<b>0.081</b>	<b>29</b>	<b>1.14</b>						

Country of Origin - Canada

**Legal Notice:**

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Lloyd Twaites  
Registered Assayers, Province of British Columbia

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## CERTIFICATE OF ANALYSIS WCM MINERALS

### CU 164

Copper, Molybdenum, Silver, Gold Reference Material

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LAB	LAB 3	LAB 3	LAB 4	LAB 4	LAB 4	LAB 4	LAB 5	LAB 5	LAB 5	LAB 5	LAB 6
Replicate	Ag g/t	Au g/t	Cu %	Mo %	Ag g/t	Au g/t	Cu %	Mo %	Ag g/t	Au g/t	Mo %
1	27.5	1.13	0.301	0.081	28.0	1.09	0.31	0.0771	30.2	1.15	0.087
2	32.2	1.11	0.302	0.081	28.6	1.11	0.30	0.0742	30.0	1.15	0.087
3	31.7	1.13	0.303	0.081	27.6	1.06	0.33	0.0809	29.9	1.16	0.090
4	27.7	1.14	0.304	0.080	28.3	1.07	0.33	0.0831	30.1	1.14	0.087
5	30.3	1.13	0.306	0.082	28.2	1.10	0.31	0.0789	30.1	1.14	0.089
6											
7											
8											
Average	29.880	1.128	0.303	0.081	28.140	1.086	0.316	0.079	30.060	1.148	0.088
Std Dev.	2.1959	0.0110	0.0019	0.0007	0.3715	0.0207	0.0134	0.0034	0.1140	0.0084	0.0014
Average T	0.312	0.081	29.056	1.140							
Std Dev.	0.0080	0.0039	1.3071	0.0310							
<b>Rec.</b>	<b>Cu %</b>	<b>Mo %</b>	<b>Ag g/t</b>	<b>Au g/t</b>							
<b>Value:</b>	<b>0.31</b>	<b>0.081</b>	<b>29</b>	<b>1.14</b>							

Country of Origin - Canada

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