## MONETA PORCUPINE MINES INC. 65 THIRD AVENUE TIMMINS, ONTARIO P4N 1C2



TEL: (705) 264-2296 FAX: (705) 267-7490E-MAIL:knicholson@monetaporcupine.comURL:www.monetaporcupine.com

ТО	:	Porcupine Division – Geoscience Assessment Office
COMPANY	:	MNDM – 3 <sup>rd</sup> Floor, 933 Ramsay Lake Road, Sudbury
Email	:	daniel.scholtz@ontario.ca
FROM	:	Kirsty Nicholson
DATE	:	Tuesday, January 6 <sup>th</sup> , 2015
RE	:	Amended Submission of Assessment Work
=======================================		

RE: Assessment Work Performed on Mining Lands Cody Township.

Please find attached the amended application for work performed. Revised to include Au assay results.

Please email or call the office if there are any problems.

Best regards

Diclohan

**NOTE:** TOTAL NUMBER OF PAGES (INCLUDING TRANSMITTAL) **49** PLEASE CALL BACK AS SOON AS POSSIBLE IF ALL PAGES ARE NOT RECEIVED.



Mining Act, Subsections 65(2) and 66(3), R.S.O. 1990

der Identification Number (office use y)
ansaction Number (office use)
bmission Number (office use)

S

### This form should be printed on legal paper

Ministry of

and Mines

Northern Development

Ontario

Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the *Mining Act*. Under section 8 of the *Mining Act*, this information is used to maintain a public record. This information will be also used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Senior Manager, Mining Lands Section, Ministry of Northern Development and Mines, 3<sup>rd</sup> Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5. Telephone 1-888-415-9845.

Instructions: - For work performed on Crown Lands **before recording** a claim, use form Assessment Work Performed Before Recording Claim(s)

- Please type or print in **ink**.
- Submit to Geoscience Assessment Office, 933 Ramsey Lake Road,
- Sudbury Ontario P3E 6B5. Telephone 1-888-415-9845.
- **Note** All correspondence will be sent to the address on record in the Provincial Recording Office, as required under the *Mining Act*, subsections 19(6) and (8).

### **1.** Submitter I am 🗹 an authorized agent or 🗌 the recorded holder (if a company, enter name of person submitting)

Name (last) Moneta Porcupine Mines Inc.	(Nicholson)	(first) (Kirsty)	(initial) (A.)	Client number (optional)
Address – Unit number, Street numbe 65 Third Ave	r, Street name			
City, Town or Village Timmins		Province or State ON	Country CAN	Postal Code P4N 1C2
Telephone number	Fax number		E-mail address (option	nal)
(705) 264-2296 (705) 267-7490			knicholson@mon	etaporcupine.com

### 2. Provide

- where there is a surface rights holder, before starting ground exploration work for the **first time** on a staked claim you must provide notice to the surface rights holder(s) as required by the Mining Act and provide proof of notification to the Ministry
- $\checkmark$  your technical report and maps in paper or on a compact disc
- a current legible map showing how the contiguous mining lands are linked for assigning work
  - proof of beneficial interest (if assigning amongst different recorded holders)

**3. Work Performed** – This includes the date you traveled to the field or mobilized equipment to the date the technical report was completed.

From: DD/MM/YYYY 12/11/2014	To: DD/MM/YYYY 12/12/2014

Regulations: Calculate the time-adjusted credit column, in the tables below, as follows:

- Work filed within 2 years of performance is claimed at 100%. (Enter 100% of actual costs in both of the last 2 columns).
   Work filed after 2 years and up to 5 years after performance is credited at 50%. (Enter 100% of actual costs in the 2<sup>nd</sup> last column and 50% in the last column.)
- 3. Work older than 5 years is not eligible for credit.

3(A) Dates and Costs of Work Performed							
From date DD/MM/YYYY	To date DD/MM/YYYY	Work Type	Unit of Work (example: hours/day, metres of drilling, km of grid lines)	Cost per Unit of Work	Actual Cost (\$)	Time-Adjusted Credit (\$) (See notes 1 and 2 above).	
12/11/2014	17/11/2014	Diamond Drilling	metres, inclusive	70.70	40,088.68	40,089	
12/11/2014	24/11/2014	Labour (technican)	man-hours	25.00	2,275.00	2,275	
12/11/2014	17/11/2014	Core Logging (geol)	man-days	284.00	2,272.00	2,272	
12/11/2014	17/11/2014	GIS (geologist)	man-hours	46.88	750.00	750	
09/12/2014	28/12/2014	Assay Analysis	report	1,311.00	1,311.00	1,311	

### 3(B) Associated Costs

From date DD/MM/YYYY	To date DD/MM/YYYY	Associated Costs (example: supplies, mobilization, demobilization)	Actual Costs (\$)	Time-Adjusted Credit (\$) (See notes 1 and 2 above).
12/11/2014	24/11/2014	core shack facility 9 days @ \$125 ea.	1,125.00	1,125

### 3(C) Transportation Costs

From date DD/MM/YYYY	To date DD/MM/YYYY	Transportation Costs	Actual Costs (\$)	Time-Adjusted Credit (\$) (See notes 1 and 2 above.)
· · · · · · · · · · · · · · · · · · ·				

3(D) Food and Lodging Costs							
From date DD/MM/YYYY	To date DD/MM/YYYY	Food and Lodging Costs	Actual Costs (\$)	Time-Adjusted Credit (\$) (See notes 1 and 2 above.)			

Total of Time Adjusted Credit Columns (3A through 3D)= Total Value of Assessment Work

47,822

**4.** Type of Work Performed – please check off the type of survey performed (optional)

Work Type	Survey Type	Work Type	Survey Type
Airborne geophysical	AEM AMAG AVLF	Geophysical	☐ EM ☐ GRAV ☐ IP
	☐ other airborne geophysical		☐ MAG ☐ VLF ☐ other geophysical
Assays	<ul> <li>✓ assay</li> <li>☐ beneficiation</li> <li>✓ geochemical</li> </ul>	Physical	manual work       re-cutting claim lines         mechanical work       trenching         overburden stripping       other physical
Drilling	✓ diamond drilling	Prospecting	
	drill core submission to	Rehabilitation	Rehabilitation
		Other – Please p	print
	boring other than core	examples: micro	oscopic studies, bulk sampling, downhole geophysics
Line cutting	line cutting		
Geochemical	geochemical		
Geological	geological		

5. Commodities Explored for please list (optional)

Au

### 6. Work Performed, Assigned, Banked

6(A) If you performed work on mining lands other than a staked mining claim, fill in the table below. Lease or Patented Land or Licence of Occupation (LO) or Other Mining Lands: Work performed, assigned or banked

Lease # or Parcel # or G # or LO #	GAO-Approved Identifier (office use only)	Hectares	Amount of Work Performed on this Land (\$)	Amount of Credits Assigned to Mining Claim(s) (\$)	Bank (Amount of credits to be assigned at a future date)
G6000141		16.21	12,784.73	12,784.73	0.00
G6000142		16.17	35,037.45	24,000.00	11,037.45
		· · ·			
	Col	umn Totals for 6(A)	47,822	36,785	11,037

Schedule attached (if you have more entries attach a schedule)

(B) Mining Cla	ims: Work performed	, applied, assigne	d, banked <u>or</u> assigned	from table 6(A) above
----------------	---------------------	--------------------	------------------------------	-----------------------

Mining Claim Number	Number of Claim Units	Amount of Work Performed on this Claim (\$)	Amount of Credits Applied to this Claim (\$)	Amount of Credits Assigned to Other Mining Claims (\$)	Bank (Amount of credits to be applied or assigned at a future date)
1181425	3	0.00	1,200.00		
1181451	4	0.00	1,600.00		
1181452	4	0.00	1,600.00		
1181455	1	0.00	400.00		
1181456	12	0.00	8,505.00		
1181460	2	0.00	1,600.00		
1190337	9	0.00	3,600.00		
1190918	4	0.00	1,600.00	1	
1193377	1	0.00	280.00		
1193378	12	0.00	4,800.00		
1193379	6	0.00	2,400.00		
1193380	1	0.00	400.00		
1193382	3	0.00	1,200.00		
1201582	4	0.00	3,200.00		
1201576	4	0.00	3,200.00		
1213184	3	0.00	1,200.00		
Column T	otal for 6(B)	0	36,785	0	0
Column Totals of	f 6(A) + 6(B)	47,822		36,785	11,037

Note: Work performed on mining claims = credits applied + credits banked

Schedule attached (if you have more entries attach a schedule)

7. Some of the credits claimed in this Assessment Work form may be reduced. Please indicate below how you want your credits reduced if they are not approved. Check (✓) in the boxes below. If you have not indicated how your remaining credits are to be allocated, credits will be reduced from the Bank first, followed by option number 2 if necessary.

Credits are to be cutback:

- ✓ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated; or
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this Assessment Work form; or
- 4. Credits are to be cut back as shown below:

List the claim numbers in the order you want the credits to be cut back (setting your priority list).

Priority	Claim Number
1.	
2.	
3.	
4.	
5.	

Priority	Claim Number
6.	
7.	
8.	
9.	
10.	

Schedule attached (if you have more entries attach a schedule)

### Certification by Recorded Holder or Authorized Agent

I.	Ody for	Kirsty Nicholson	do hereby certify on	06/01/2015	that I have personal
	(Signatur	re)		(DD/MMM/YYYY)	

knowledge of the facts set forth in this Assessment Work form having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

"Mining Lands Website: http://www.mndm.gov.on.ca/mndm/mines/lands/default\_e.asp"



Po	Ontario	ServiceOn	LAND REGIN OFFIC	PARCEL REGIS STRY IE #6 TIIPIED IN ACCORDANCE WITH T	STER (ABBREVIATED) FOR PROPERTY IDE 65385-0120 (LT) THE LAND TITLES ACT * SUBJECT TO RE	IFFER FACE 1 OF 1 PREPARED FOR NR ON 2014/12/03 AT 14:41:18					
PROPERTY DESCR	RIPTION:	PCL 24692 SEC SEC )	MRO; SE PT OF S PT	BROKEN LT 4 CON 5 CODY BEIN	NG MINING CLAIM P. 18624; CITY OF T	IMMINS					
PROPERTY REMAN	RKS:	CROWN GRANT SEE CP:	2836.								
ESTATE/CUALIFIER: RECT FEE SIMPLE FIRS ABSOLUTE				ERSION FROM BOOK		PIN CREATION DATE: 2004/04/26					
OWNERS' NAMES MONETA PORCUPI	INE MINES I	NC.	BENO	HARE							
REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PA	ARTIES FROM	PARTIES TO	CERT/ CHKD				
** PRINTOUT 1	INCLUDES AL	L DOCUMENT TYPES AND	DELETED INSTRUMEN	TS SINCE: 2004/04/23 **							
C517862 2	002/01/29	TRANSFER				MONETA PORCUPINE MINES INC.	c				

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCRETAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY. NOTE: ENGURE THAT YOUR FRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

€>o	ntario	ServiceOr	ntario	PARCEL REGISTER (ABBREVIATED) FOR PROPERTY IDEN STRY CG M6 KTFIFED IN ACCORDANCE WITH THE LAND TITLES ACT * SUBJECT TO RES	IFIER PAGE 1 OF 1 PREPARED FOR NR ON 2014/12/03 AT 14:42:45 VVATIONS IN CRONN GRANT *					
PROPERTY DESCR	IPTION:	PCL 24693 SEC SEC 1	MRO; NE PT OF S P	BROKEN LT 4 CON 5 CODY BEING MINING CLAIM P. 18625 AS IN CP283	7; CITY OF TIMMINS					
PROPERTY REMAR ESTATE/OUALIPI FEE SIMPLE ABSOLUTE OWNERS' NAMES MONETA PORCUPI	KS: ER:	CROWN GRANT SEE CP.	2837. RECENTLY: FIRST CON <u>CAPACITY</u> BENO	VERSION FROM BOOK	<u>PIN (REATION DATE)</u> 2004/04/26					
REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD				
** PRINTOUT I. C517862 20	NCLUDES AL	L DOCUMENT TYPES AND TRANSFER	DELETED INSTRUM	RTS SINCE: 2004/04/23 **	MONETA PORCUPINE MINES INC.	c				
L										

.

NOTE: ADJOINTNO PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY. NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.



Moneta Porcupine Mines Inc. 65 Third Avenue TIMMINS, ONTARIO, P4N 1C2

Tel: (416)579-3040 (Toronto) Tel: (705)264-2296 (Timmins) Fax: (705)267-7490

**Assessment Report:** 

### NIGHTHAWK LAKE PROJECT - 2014 DIAMOND DRILL PROGRAM

**Porcupine Mining Division** 

Timmins, Ontario

N.T.S. 42A/10

January 6<sup>th</sup>, 2015

**Kirsty Nicholson** 

### NIGHTHAWK LAKE PROJECT - 2014 DIAMOND DRILL PROGRAM:

### **Summary**

Moneta Porcupine's *Nighthawk Lake Project* consists of a large, contiguous group of staked claims, and patented-leased mining parcels located 25 kilometers east of downtown Timmins, Ontario. The property is located primarily in northeastern Cody Township. This extensive land package may be easily visited via Highway 101 East and Peninsular Road (the former Nighthawk Lake Mine access road).



Figure 1. Compilation map showing the Nighthawk Lake Project claims (blue boundary), adjacent topography and access.

The property has maintained a relatively high gold exploration profile since the 1940's due to its proximity to the prolific Destor Porcupine structural corridor (DPFZ) and the Nighthawk Break. These zones have hosted a half dozen gold mining operations, including the Nighthawk and Peninsular Mines, 1 kilometer to the south, where 185,000 ounces were produced.

Moneta completed one diamond drill hole (NHL14-01), on the property, totalling 567m depth, from November 12-17<sup>th</sup>, 2014. The inclined path of this hole was confined within two of the Company's patented mining claims; P-18624 (#G6000141) and P-18625 (#G6000142), located in Cody Township and administered under the Porcupine Mining Division.

This NQ diameter hole was designed to evaluate the: 1) potential for gold-associated alterationmineralization related to the adjacent Destor-Porcupine structural event, 2) validity of a report of "considerable VG" and sulphide mineralization intersected during a 1946 drill campaign in the immediate area, and 3) lithological stratigraphy.

Hole NHL14-01 encountered intercalated mafic and ultramafic volcanic intrusions and flows, minor diabase, intermediate intrusions, tuffs, and graphitic units before its 567m termination depth downhole.

No significant alteration, sulphide mineralisation, or deformation zones were observed in the hole. Minor ankerite and sericite alteration associated with quartz carbonate stringers were noted in some basaltic units.

### **Geological Framework**

alteration zone.

The geology of Nighthawk Lake is comprised of a stratigraphic package of Archean rocks where Timiskaming sediments overlay Tisdale Assemblage volcanic rocks. The Timiskaming sediments are located in the northern part of the claim group (Collins Zone), north of the DPFZ.

The Timiskaming sediments consist of greywackes, argillites, and pebble conglomerates. South of the DPFZ, the Tisdale Assemblage is comprised of ultramafic and mafic intrusions and flows. Ultramafic volcanics proximal to the DPFZ have undergone varying degrees of deformation and

Altered intermediate to mafic albitite dykes occur within the ultramafic volcanic units. These dykes are generally associated with higher concentration of sulphides and gold values within the immediate

The Nighthawk break is a major DPFZ splay which extends from the Nighthawk Lake Mine eastwards to the DPFZ at an orientation of 070. This break is associated with the presence of numerous gold zones (Goldhawk, Narrows, Ronoco, Hopson, etc.) proximal to the break.

Feldspar and quartz feldspar porphyries, aplites, syenites, and felsites are examples of felsic intrusives which occur throughout the Nighthawk Lake area.

All rocks in the Nighthawk Lake area are intruded by late diabase dykes.

alteration (talc chlorite, ankerite, green carbonate, and fuchsite).



Figure 2. Compilation map showing the OGS geology of the Nighthawk Lake claims. Map not updated with current drill hole data.

### **Previous Work**

Several exploration campaigns have been completed over the past 79 years, with primary focus on the Collins Patent Group at the Destor Porcupine Fault Zone (DPFZ) influenced contact between the Temiskaming sediments and Tisdale volcanics. For further information on historic exploration in the Collins Group, please refer to previous assessment reports. This exploration program was conducted in the Peninsula Group which is contiguous with the Collins Patents.

A brief summary of exploration work conducted in the Peninsula Group:

• A North-South fence of five drill holes (1713m) was completed by Pardee Amalgamated Mines in 1946

Exploration conducted by Moneta Porcupine Mines Inc.:

- Line cutting and a ground magnetic survey conducted in 1996
- In 1996, one diamond drill hole (NHL96-1, 354m) was drilled North-South extending the 1946 Pardee drill profile to the north to confirm the historic visible gold intersection (no significant gold values intersected)
- In 1997, two diamond drill holes (NHL 97-10 and NHL 97-11, 393m) were drilled on the basis of

magnetic surveys and preliminary IP interpretations (no significant gold values)

- Also in 1997, two IP surveys were completed on the previously cut grid
- Earlier in 2014, NHL96-1, NHL97-10, and NHL97-11 were re-logged and re-assayed

### 2014 Exploration Program

The surface rights owners in the immediate vicinity of the 2014 drilling were notified in advance of Moneta's intentions to perform assessment work.

Moneta's local drill contractor (Norex Drilling) mobilized one hydraulic top-drive 'VD' drill rig onto the property on November 12<sup>th</sup>, 2014. A 600m drill road was cut into the bush from Peninsula Road, approximately 3.8km from Highway 101 East.

Hole MNHL14-01 was designed to determine the potential of: 1) potential for gold associated alteration mineralization related to the adjacent Destor-Porcupine structural event, and, 2) validity of a report of "considerable VG" and sulphide mineralization intersected during a 1946 drill campaign in the immediate area.

This assessment drilling programme was managed on a daily basis and logged by one of the company's project geologist, Karin Ostler.

Norex crews completed 567m of drilling by November 17<sup>th</sup>; averaging 95 metres/day progress. Two days into the drilling program, the azimuth started to deviate, therefore a double hex barrel was installed to keep the drill hole from deviating further. The drill hole also steepened rapidly throughout the program. This steepening was anticipated based on historic drilling, therefore the initial dip was set at 50 deg. A rubber stemming plug, topped by one bag of Portland cement, was installed at 30m (down-hole depth). All casing was pulled and the drill rig was subsequently removed from the drill site.

After passing through 27m of overburden-casing, MNHL14-01 encountered 226m (core length) of talc chlorite and carbonate altered ultramafic volcanics intercalated with minor chloritic basalts and intermediate intrusions. From 226-567m, the hole is dominated by chloritic variolitic basaltic volcanic flows. Minor ankerite and sericite alteration observed as quartz carbonate stringer halos. One moderate to strongly magnetic, weakly carbonitised diabase dyke was observed.

No significant sulphide mineralisation was observed; volcanic units were generally comprised of ~0.5-1% disseminated pyrite. Few minor fault zones/gouge were observed in the ultramafic units.

A total of 89 halved core samples from NHL14-01 were submitted to AGAT Laboratories for gold and rock geochemistry analysis (utilising Fire Assay - ICP finish). Six of these samples were delegated for Moneta's industry standard QAQC programme. No geochemically anomalous gold values were indicated when the results were returned a few weeks later. Analysis of lithogeochemistry ICP data suggest that the intercalated mafic flows intersected in NHL14-01 are likely iron thoeliites. NHL14-01 provided valuable lithological stratigraphic information, however, this hole did not confirm the report of "considerable VG" and sulphide mineralisation observed in 1946 or the potential for gold-associated alteration-mineralization related to the proximal DPFZ.

Report prepared by: Karin Ostler *Project Geologist* 

Marmil

Report approved by: Kirsty Nicholson Project Geologist

Orcedon

January 6<sup>th</sup>, 2015

## Appendix:

Statement of Qualifications References Drill Log Assay Certificates Standard Certificates Plan Map - Section Diagram

### STATEMENT OF QUALIFICATIONS

I, Kirsty A. Nicholson, of the City of Timmins, Ontario, do hereby certify that:

- 1. I am a graduate of the University of Auckland with a BSc. in geology in 2001, and a Post Graduate Diploma in Geology in 2003.
- 2. I have been employed in the private sector as a geologist or geotechnical specialist in NZ, UK and Canada for 9 years. I have been employed within the mining sector in Ontario for 4 years.
- 3. I have reviewed this report.
- 4. I have not received, directly or indirectly or expect to receive any interest in the company and it's properties.

Signed: Dated: 12 December 2019

### **References**

- ODM Rpt. 096, Geology of the Nighthawk Lake Area, District of Cochrane; by E.J. Leahy (1971)
- Maass, R.D. (1995). Royal Oak Mines Inc. Nighthawk Lake East Peninsula 1995 Assessment Report Diamond Drilling. (W9660-00358)
- Harding, S.G. (1997). Royal Oak Mines Ltd. Nighthawk Lake Mine 1997 Assessment Report Diamond Drilling. (W00292.17832)
- Numerous historic assessment files from Moneta Porcupine Mines Inc.
- Maps and articles from Moneta Porcupine Mines Inc.'s corporate website



Hole Name: NHL14-01

Easting:	501509.00	Survey Type:	Handheld GPS	Core Size:	NQ	Zone: N/A		Logged by:	Karin Ostler Kruin Often
Northing:	5373353.00	DM Survey Method	· Reflex	Materials left:	Casing Removed	Claim:	G6000142	Dates logged:	14, 17-21 November 2014
Elevation:	298.00	Hole Type:	DDH	Drilled by:	Norex Drilling	Purpose: Hist	oric VG showing Lithology	Sample Type:	Cut Core
Collar Azimuth	: 180.0	Hole length:	567	Drill ID:	23	Core Storage:	Moneta Facility Timmins	Analysis:	
Collar DIP:	-50.0	Units:	Meters	Project	Nighthawk Lake	Date Started:	11/12/2014 3:12:21 PM	Laboratory:	AGAT
						Date Completed	<i>1:</i> 12/17/2014 9:30:49 AM	Duplicate Laboratory:	Activation

### Comments:

Drill core stored at Moneta Core Shack, 2679 Hwy 655. Casing Pulled. Rubber plug and 1 bag cement @ 30m.

### Downhole Survey Tests:

					Magnetic	
	Depth	Azimuth	Dip	Type	Strength	Comments
ſ	0.00	180.00	-50.00	COLLAR ESTIMATE	· · · · ·	
	48.00	182.60	-49.70	REFLEX	5619	
	99.00	182.20	-50.10	REFLEX	5562	
	150.00	183.50	-51.90	REFLEX	5638	
	200.00	185.00	-52.70	REFLEX	5611	
	252.00	187.30	-54.50	REFLEX	5603	
	309.00	192.60	-56.70	REFLEX	5611	
	360.00	195.10	-57.80	REFLEX	5627	
	411.00	195.70	-58.90	REFLEX	5573	
	462.00	201.50	-60.20	REFLEX	5308	
	513.00	198.90	-61.20	REFLEX	5623	6
	564.00	202.50	-62.90	REFLEX	5611	

### Veinage Percentage

From	То	Vein Type	Percentage	Comments	
36 42.42	42.42 42.51	qcs qcs	7.5 87		

42.51	49.72	qcs	7.5
49.72	49.79	qs	90
49.79	59.3	qcs	7.5
59.3	59.43		0
59.43	80	qcs	17.5
80	110.72	qcs	17.5
110.72	112.82	qcs	2
112.82	127.36	qcs	3
127.36	129.61	qcs	6
129.61	132.16	qcs	1
132.16	147.8	qcs	6
147.8	148.7	qv	82.5
148.7	175.15	acs	6
175.15	175.23	dCV	80
175.23	175.8	005	6
175.20	226	905	5
226	220	ques	5
220	220.02	qcs	/
228.82	228.91	qcv	87.5
228.91	229.42	qcs	/
229.42	229.71	qcv	50
229.71	250.58	qcs	7
250.58	257.05	qcs	4
257.05	257.14	qcv	90
257.14	269.4	qcs	4
269.4	269.51	lqcv	95
269.51	276.72	qcs	4
276.72	276.86	bqcv	80
276.86	282.85	qcs	4
282.85	283.01	lqcv	80
283.01	300	gcs	4
300	346.16	gcs	3
346.16	346.47	bacy	95
346.47	372.26	005	3
372.26	372.47	hacy	an
372 47	407.73	ace	30
407 72	407.73	qus	25
407.73	403.72	qcs	2.0
403.72	479.95	CS	0.3
4/9.95	490.19	qcs	2
490.19	497.14	qcs	3
497.14	505.21	qcs	2.5
505.21	507.12	qcs	2.5
507.12	509.37	qcs	4
509.37	509.72	bqcv	80
509.72	511.18	qcs	4
511.18	511.25	bqcv	95
511.25	520.49	qcs	4
520.49	520.77	bqcv	97
520.77	528.38	qcs	4

Litholog	Lithology						Au	FaGeo	FaGeo2	FaGrav	FaGrav2		Metallic	DUP FaGeo	DUP FaGrav				
From	То	Descrip	otion				From	То	Length	Sample #	(avg g/t)	(ppb)	(ppb)	(g/t)	(g/t)	Cert #	(g/t)	(ppb)	(g/t)
0.00	36.00	Overburd	en. Casin	g at 36m.															
36.00	59.30	Basalt. M localised moderate deg TCA carbonate 6cm true stringers grained s has a mo Moderate at a mino	Basalt. Medium grey to medium grey-green, aphanitic, strongly foliated basalt, with minor localised massive areas. Weak to moderate patchy chlorite alteration in foliated zones and moderate to strong mottled carbonate alteration in more massive zones. Foliation at 45-50 deg TCA. Unit is comprised of ~ 5-10% milky-white to greyish-white carbonate and quartz- carbonate stringers. Most of these stringers are parallel to foliation. Stringers are up to 6cm true thickness and are weakly brecciated to massive. Few irregular carbonate stringers in more massive zones. This unit is also comprised of ~ 0.5-1% fine to medium grained subhedral to euhedral disseminated pyrite. Minor pyrite in some stringers. This unit has a moderate softness, is weak to moderately coherent, and is weakly magnetic. Moderate to strong weathering at the top of the unit, decreasing with depth. This unit ends at a minor fault zone.																
	Mineraliza	ation																	
	From	То	De	scription															
	36.00	59.30	0.5- with	1% fine to me minor pyrite	edium grained subhedral to euhedr in some stringers.	al disseminated pyrite,													
	Alteration	1																	
	From	То	De	scription															
	36.00	59.30	Wea	ak to moderat	te chloritic alteration in strongly folia	ated zones													
	Veining																		
	From	To Description																	
	42.42	42.51	42.51 Light greyish-white, very weakly brecciated quartz-carbonate vein with upper contact at 50 deg TCA and a true thickness of 6cm. No pyrite or alteration halos observed.																
	Structure	9																	
	From	То	Туре	Intensity	Description	TCA Strike DIP													
	47.15	47.17	gou	m															
	48.80	49.00	49.00 BC m																
	Veining																		
	From	То	De	scription															
	49.72	49.79	Greg at 3 obse	yish-white, ma 5 deg TCA ar erved.	assive quartz stringer with upper conduct a true thickness of 3.5cm. No py	ontact subpar to foliation rrite or alteration halos													
	Structure	•																	
	From	То	Туре	Intensity	Description	TCA Strike DIP													
	51.80	51.81	fol	ms		45													
	52.40	52.41	fol	ms		50													
							55.00	56.50	1.50	E5695060	0.006	6.000							
Litholog	ду																		
From	То	Descrip	otion																
59.30	59.43	Minor Fai is mainly 1% fine to	ult Zone. T comprised o medium	his fault zone of firm, apha grained subh	e is likely the contact between two b anitic to fine grained gouge. This ur redral disseminated pyrite.	pasaltic flows. This unit hit is comprised of ~													
	Structure	•																	
	From	То	Туре	Intensity	Description	TCA Strike DIP													
	59.30	59.43	FZ	wm															
	Mineraliza	ation																	
	From	То	De	scription															
	59.30	59.43	~ 19	% fine to med	ium grained subhedral disseminate	ed pyrite.													

						From	То	Length	Sample #	Au (avg g/t)	FaGeo (ppb)	FaGeo2 (ppb)	FaGrav (g/t)	FaGrav2 (g/t)	Cert #	Metallic (g∕t)	DUP FaGeo (ppb)	DUP FaGrav (g/t)
Litholog	IY																	
From	То	Desc	iption															
59.43	80.00	Komati fine gra mottleo compri stringe TCA, a subheo Unit is modera	tic Basalt. Medium to d ined. Possible weakly o carbonate alteration th sed of ~ 15-20% greyisl s up to 5cm true thickn though most upper con ral-euhedral dissemina moderately coherent, un te to strongly magnetic	ark grey with dark blue tint, leveloped pillowed textures roughout unit. Alteration ~20 n-white, massive to moderat ess. Upper contacts of string tacts are irregular. ~ 0.5-1% ted pyrite throughout. Minor nweathered, has a moderate	generally massive, aphanitic to locally(?). Moderate to strong 0-25% of unit. This unit is ely brecciated, quartz-carbonate gers observed at 40-70 deg 6 fine to medium grained localised vesicles also observed. e to strong softness and is													
	Mineraliz	ation																
	From	То	Description															
	59.43	80.00	~ 0.5-1% fine to throughout.	o medium grained subhedra	I-euhedral disseminated pyrite													
	Alteration	n																
	From	То	Description															
	59.43	80.00				72.00	72.60	0.60	E5605061	0.006	6 000							
l itholo	IV					72.00	72.00	0.00	E3095001	0.000	0.000							
From	То	Desci	iption															
		it has a There i grey, a amphit strong breccia contac irregula dissem and mo	talcose feel to it indicates no clear contact betwo obtantic to medium grait ole lathes. Moderate to talcose alteration. This ted, greyish-white, quares angles of stringers observing in upper contact angles. inated pyrite. Units is we derate to strongly cohe	ting that this unit may be mo een overlying unit and this o ned and generally massive. strong mottled pervasive ca unit is comprised of ~ 15-20 tz-carbonate stringers up to rerved at 35-45 deg TCA, alt ~ 0.5-1 fine to medium grai ery soft, is moderate to stron rent.	re ultramafic in composition. ne. This unit is dark to very dark This unit is composed of ~20% arbonate alteration. Moderate to % massive to moderately ~5cm true thickness. Upper though most stringers had ned subhedral-euhedral gly magnetic, unweathered,													
	Mineraliz	ation																
	From	То	Description															
	80.00	110.72	~ 0.5-1 fine to r	nedium grained subhedral-e	euhedral disseminated pyrite.													
	From	" To	Description															
	80.00	110.72	Strong talcose															
						85.50	87.00	1.50	E5695062	0.007	7.000							
	Structure	9																
	From	То	Type Intensity	Description	TCA Strike DIP													
litholo	110.64	110.72	gou s															
From	iy To	Desci	iption															
110.72	112.82	Komati it is coa contac very da amphit up to 2 mottleo crystals alterati	ite (Ultramafic intrusion urser grained and very n s of this unit, but no cle rk grey, fine to coarse g ole lathes which are rai min size. This unit is appearance- likely an s, although original textu on. This unit is comprise	?). This unit is similar to pre- nassive. There is firm gouge ar contact angles were obse- prained, and massive. This un- ndomly oriented and have be also comprised of ~30% car alteration overprint or possib- ures were not observed. Mode of ~ 2% carbonate stringer	viously described unit, however, e at the upper and lower erved. This unit is medium to unit is comprised of ~ 5-10% een chloritised. These lathes are bonate crystals- give the unit a ole replacement of feldspar derate to strong talcose ers up to 1.5cm thick with upper													

									<b>-</b>	<b>T</b> .	1	0		Au (	FaGeo	FaGeo2	FaGrav	FaGrav2	0	Metallic	DUP FaGeo	DUP FaGrav
		Ci St	ontacts a tringers a	t 50 deg T Ind fine to	CA. ~ 0.5-1 medium gra	% pyrite. Minor coarse graine	ed subhedral pyr d pyrite througho	ite in some out wall rock.	From	10	Length	Samp	ie #	(avg g/t)	(ррь)	(ррь)	(g/t)	(g/t)	Cert #	(g/t)	(ppb)	(g/t)
	Minaral	U	unit is ver	y soπ, unv	veatnered, w	reak to moderately conerent,	and is strongly	magnetic.														
	From	Talion	1	Dec	aviation																	
		10	00	Des	19/ pyrita	Minor opprop grained aubbad	kal purita in aar	o otringoro and														
	110.72	112.	.82	fine t	o medium g	rained subhedral disseminate	ed pyrite through	nout wall rock.														
	Alteratio	on																				
	From	То		Des	scription																	
	110.72	112.	.82																			
									111.00	112.00	1.00	E56950	63	0.003	3.000							
Lithol	ogy	_																				
From	То	Ľ	Descript	tion																		
112.82	2 127.36	6 K rta u T o c c ttr T c ta u u	Komatiite- nassive to o modera init. This u This carbo of ~ 3% wl contacts a hick, whice falc-Chlor oarser gr o modera inweather	Talc-Chlo b weak to te fabric a unit is also nate alter hite to gre t 40-45 de h are givin ite Schist. ained sub tely magn red.	rite-Schist. E moderately f t ~30-35 deg ation is more yish-white qu ag TCA. In for ng the unit a ~1% fine to hedral-blebb etic, has a si	Dark to very dark grey, aphan oliated ultramafic volcanic. ~ g TCA increasing to 40 deg p of ~ 30-40% carbonate grain e predominant in foliated area uartz-carbonate stringers up bliated areas, there are bands foliated appearance. The mo- medium grained subhedral of y pyrite in foliated zones alor trong softness, is weak to mo-	itic to medium <u>c</u> 50% of this unit proximal to lowen is-likely an altera as. This unit is a to 2cm thick wit or foliated area disseminated py ng foliation. This oderately cohere	rained, has a weak contact of tition overprint. Iso comprised n upper e up to 1cm s are likely rite with unit is weak int, and														
	Structu	re																				
	From	То		Туре	Intensity	Description	TCA	Strike DIP														
	112.82	112.	.96	gou	ms																	
	Minerali	ization	า																			
	From	То		Des	scription																	
	112.82	127.	.36	~1% grain	fine to medi ed subhedra	um grained subhedral disser al-blebby pyrite in foliated zor	ninated pyrite w nes along foliatio	ith coarser m.														
	Alteratio	on																				
	From	То		Des	scription																	
	112.82	127.	.36																			
									119.50	121.00	1.50	E56950	64	0.009	9.000							
	Structu	re																				
	From	То		Туре	Intensity	Description	TCA	Strike DIP														
	120.51	120.	.52	fol	wm		30															
	121.11	121.	.12	fol	wm		35															
	125.80	125.	.81	fol	m		40															
Lithol	ogy T	_	Descrite																			
From	10	L	Jescript	ion																		
127.36	5 129.61	1 K T b a ta Ic si	Komatiite This unit is comprised peen chlor Ilteration of alcose alt ower cont tringers u	(ultramafic dark greg of ~ 3-5% itised. Thi overprint c eration. T act. This u p to 1.5cr	c intrusion?). y, fine to coa 6 randomly c is unit is also or replaceme his unit has a unit is also co n thick. Som	This unit is very similar to the tree grained and massive to vor- prientated amphibole grains u o composed of ~ 30-40% carl ent. Carbonate alteration is m a sharp upper contact at 50 comprised of ~5-7% white to go the stringers have upper contact a starger share upper contact a stringer share upper contact a	ne unit at 110.72 weakly foliated. up to 2mm in siz bonate grains. L ottled. Moderate deg TCA and a r greyish-white qu acts at 40-45 deg	-112.82m. This unit is e, which have ikely an e to strong nore diffuse artz- carbonate g TCA, other														

								From	То	l enath	Sam	nle #	Au (ava a/t)	FaGeo (nnb)	FaGeo2 (ppb)	FaGrav (a/t)	FaGrav2 (a/t)	Cert #	Metallic (a/t)	DUP FaGeo (ppb)	DUP FaGrav (a/t)
		stringe dissen has a cohere	ers have irre hinated pyri weak pitted ent. Weak fo	gular upper co e, with minor texture. Unit i liation fabric a	ontacts. ~ 0.5% fine to mediun pyrite proximal to some stringe s very soft, non-magnetic, unw at 50 deg TCA.	n grained sub er contacts. T veathered, mo	hedral his unit also oderately				,		(	(222)	(~~~)	(3' ')	(9' ')		(3/7)	(1919-27)	(3, -)
	Structur	re																			
	From	То	Туре	Intensity	Description	TCA	Strike DIP														
	127.36	127.37	Ucnt	S		50															
	Minerali	ization																			
	From	То	D	escription																	
	127.36	129.61	~ ( py	0.5% fine to m ite proximal to	edium grained subhedral disse o some stringer contacts.	eminated pyri	te, with minor														
	Alteratio	on																			
	From	То	D	escription																	
	127.36	129.61	Mo	derately talco	ose			128.10	129.60	1.50	E5695	065	0.003	3.000							
	Structur	re																			
	From	То	Туре	Intensity	Description	TCA	Strike DIP														
	128.85	128.86	fol	W		50															
								129.60	131.10	1.50	E5695	6066	0.003	3.000							
Litho	ology	Deee																			
Fron	1 10	Desc	ription																		
	01 132.10	weakly may b fine gr TCA, v ~ 0.5- 30-60 genera Moder moder hardne moder	of foliated. Ti e carbonate ained mafic vhich is disp % greyish- deg TCA. ~ ally dissemi ate pervasi ass, is weak ately diffuse	is unit is com alteration of f minerals (bio played by the white quartz-c 1-2% fine to rated through we carbonate a ve silicification ly magnetic, u	prised of ~ 5% carbonate crys feldspar grains. This unit is als tite or amphibole?). This unit h alignment of the mafic mineral arbonate stringers up to 0.8cm medium grained subhedral to 1 out with minor pyrite in some b alteration throughout unit-matrin h throughout unit also. Unit has unweathered, and moderately of the and lower contact.	tals up to 5m o comprised - has a weak fai s. This unit is n thick with up olebby pyrite- lack chlorite- kx reacts with a moderate coherent. Uni	G, massive to m in size-this of ~ 10-15% oric at ~50 deg comprised of oper contacts at Pyrite is filled fractures. HCI. Possible to strong t has a														
	Minerali	ization																			
	From	То	D	escription																	
	129.61	132.16	~ <sup>-</sup> dis fra	-2% fine to m seminated thr ctures.	nedium grained subhedral to bl roughout with minor pyrite in so	ebby pyrite. F ome black ch	y is generally orite (?)-filled														
	Alteratio	on																			
	From	То	D	escription																	
	129.61	132.16	Mo	derate pervas	sive silicification?																
								131.10	132.20	1.10	E5695	6067	0.003	3.000							
Litho	ology																				
Fron	n To	Desc	ription																		
132.	16 147.80	) Komat Very d ~ 5-7% stringe contac euhed develo foliatio	iite to basa ark grey, ap greyish-wi rs up to ~4 ts with few ral dissemin ps a weak n in this are	tic komatiite. hanitic to men- hite to white, r cm true thickn observed at 4 hated pyrite, w o moderate for a. Minor irreg	This unit is similar to previousl dium grained, generally massive to moderately brecciat less. Many stringers are irregul 5 deg TCA. ~ 0.5-1% fine to m ith minor pyrite along some stre bilation proximal to lower conta ular fractures filled with black of	y described u ve. This unit is ted quartz-can lar and have is nedium graine ringer contact ict, and minor chlorite-almost	Itramafic units. s comprised of bonate rregular upper d subhedral to s. Unit pyrite along tt resemble														

				From	То	l enath	Samnle #	Au (ava a/t)	FaGeo (ppb)	FaGeo2 (nnh)	FaGrav	FaGrav2	Cert #	Metallic	DUP FaGeo	DUP FaGrav
		weakly fo with HCI coherent are furth carbonat stringers	ormed pillow textures. Unit has a mottled carbonate alteration. Unit reacts strongly. Unit has a moderate softness, is non-magnetic, unweathered, and moderately From 146.25-147.18m, there is a shear zone and possible annealed fault, which er described in the sublithology. From 147.18-147.8m, unit becomes more quartz- e vein-rich. This interval is mainly comprised of irregular quartz-carbonate . This interval is proximal to the contact with underlying quartz vein zone.	110111	10	Length	Gample #	( <i>avg g</i> , <i>t</i> )	(ppb)	(200)	(9/1)	(9/1)	0017	(9/1)	(ppb)	19/17
	Minerali	ization														
	From	То	Description													
	132.16	147.80	~ 0.5-1% fine to medium grained subhedral to euhedral disseminated pyrite, with minor pyrite along some stringer contacts.													
	Alteratio	on														
	From	То	Description													
	132.16	147.80		132.20	133.70	1.50	E5695068	0.020	20.000							
				144.90	146.40	1.50	E5695069	0.016	16.000							
	Sublithe	2														
	From	То	Description													
	146.25	147.18	Possible shear zone and annealed fault. From 146.25-146.79m, Unit is moderate to strongly sheared. From 146.79-147.18m, unit is a possible annealed fault-moderate gouge.													
	Structur	re														
	From	То	Type Intensity Description TCA Strike DIP													
	146.25	147.18	SZ m													
				146.40	147.40	1.00	E5695070	0.003	3.000							
				147.40	147.90	0.50	E5695071	0.006	6.000							
Litholo	gy															
From	То	Descri	ption													
147.80	148.70	Massive milky-wh has an ir fragmen upper co massive grained s observed	to weakly brecciated, milky-white quartz vein zone. This interval is comprised of a ite, massive quartz vein. This vein comprises ~ 80-85% of this interval. This vein regular upper contact and a lower contact at 20 deg TCA. Minor wall rock ts in vein. Minor fine to medium grained subhedral to blebby pyrite along vein ntact. From 148.31-148.42m, vein has minor fractures which are filled with coarse grained pyrite. Total pyrite is ~5% over 10cm. Minor fine to medium subhedral to blebby pyrite along vein lower contact. No alteration halos were d.													
	Minerali	ization														
	From	То	Description													
	147.80	148.31	0.5-1% fine to medium grained subhedral disseminated pyrite along vein contacts.													
	Veining															
	From	То	Description													
	147.80	148.70	This interval is comprised of a milky-white, massive quartz vein. This vein comprises ~ 80-85% of this interval. This vein has an irregular upper contact and a lower contact at 20 deg TCA. Minor wall rock fragments in vein. Minor fine to medium grained subhedral to blebby pyrite along vein upper contact. From 148.31-148.42m, vein has minor fractures which are filled with massive coarse grained pyrite. Total pyrite is ~5% over 10cm. Minor fine to medium grained subhedral to blebby pyrite along vein lower contact. No alteration halos were observed.	147 90	148 70	0.80	F5605072	0 020	20 000							

					From	То	Length	Sample #	Au (avg g∕t)	FaGeo (ppb)	FaGeo2 (ppb)	FaGrav (g/t)	FaGrav2 (g/t)	Cert #	Metallic (g/t)	DUP FaGeo (ppb)	DUP FaGrav (g/t)
	Mineraliz	zation					-										
	From	То	Description														
	148.31	148.42	~5% over 10cm. Minor fine to medi along vein lower contact	um grained subhedral to blebby pyrite													
	148.42	148.70	0.5-1% fine to medium grained sub contacts.	hedral disseminated pyrite along vein													
Lithol	ogy																
From	То	Descri	iption														
148.7(	) 175.80	Komatiit to mediu white, m with upp medium some str TCA. Fo of foliatic alteration strong h magnetis observed	te. Medium to very dark grey, massive to m um grained ultramafic volcanic. This unit is nassive to weakly brecciated, quartz-carbor per contacts at 30-55 deg TCA with many ir grained subhedral to euhedral disseminate ringer contacts. Moderate to strong foliation pliation is strongest proximal to upper conta on throughout the rest of the unit. Moderate in. Unit is not as talcose as previously desc nardness, moderate to strongly coherent, ur ism. Possible moderate pervasive silicificat id in one stringer.	noderate to strongly foliated, aphanitic comprised of ~ 5-7% greyish-white to nate stringers up to 3.5cm true thickness rregular upper contacts also. ~ 1% fine to ed pyrite, with minor pyrite proximal to n observed in this unit at 55-60 deg act of unit, with localised moderate zones e mottled pervasive carbonate sribed ultramafic units. Moderate to nweathered, and patchy weak tion? Minor weak sericite alteration													
	Mineraliz	zation															
	From	То	Description														
	148.70	175.80	~ 1% fine to medium grained subhe minor pyrite proximal to some string	edral to euhedral disseminated pyrite, with ger contacts.													
	Alteratio	on															
	From	То	Description														
	148.70	175.80	Pervasive moderate silicification. O observed.	ne weak sericite alteration halo													
					148.70	149.20	0.50	E5695074	0.013	13.000							
							blank	E5695073	0.002	2.000							
	<b>•</b> •••••				149.20	150.70	1.50	E5695075	0.006	6.000							
	Structur	'е 															
	From	10	Type Intensity Description	ICA Strike DIP													
	150.23	150.24	fol ms	60 55													
	152.75	152.76	fol ms	55 60													
	155.41	133.42		00	173.00	174 50	1 50	E5695076	0.005	5 000							
					174.50	175.00	0.50	E5695077	0.004	4 000							
					175.00	175.30	0.30	E5695078	0.024	24.000							
	Veining																
	From	То	Description														
	175.15	175.23	Milky-white, quartz-carbonate string stringers which are joined. This strin ~0.5-1% fine grained subhedral to b alteration halos observed. This strin	Jer that is actually comprised of two nger has a upper contact of 65 deg TCA. Debby pyrite along stringer contacts. No nger was sampled.	175 30	175 80	0.50	E5605070	0.011	11 000							
Lithol	oav				175.30	175.60	0.50	L0090079	0.011	11.000							
From	То	Descri	iption														
175.80	226.00	Basalt to	o Basaltic Komatiite. Dark to very dark grey	y, aphanitic to medium grained,													

massive to moderately foliated, ultramafic volcanic to mafic volcanic. This unit is comprised of ~ 5% milky-white to greyish-white, massive to weakly brecciated quartz-

								Au	FaGeo	FaGeo2	FaGrav	FaGrav2		Metallic	DUP FaGeo	DUP FaGrav
				From	То	Length	Sample #	(avg g/t)	(ppb)	(ppb)	(g/t)	(g/t)	Cert #	(g/t)	(ppb)	(g/t)
		carbonate stri irregular uppe disseminated contacts. Loc Minor modera alteration ~ 5' coherent, mo silicification? tiny stringers, komatiite?	ingers up to 3.5cm thick with upper contacts at ~55 deg TCA and many er contacts also. ~1% fine to medium grained subhedral to euhedral pyrite, with minor pyrite in some stringers and proximal to some stringer alised zones of weak to moderate foliation throughout unit at 50-60 deg TCA. ate mottled carbonate alteration predominantly in more massive zones. Total % of unit. Unit has a moderate to strong hardness, is moderate to strongly derately magnetic, and unweathered. Possible moderate pervasive Unit reacts strongly with HCI. Minor sericite and/or ankerite alteration in some total ~0.3% of unit. Possible mafics intercalated with ultramafic or basaltic													
	Mineraliz	zation														
	From	То	Description													
	175.80	226.00	~1% fine to medium grained subhedral to euhedral disseminated pyrite, with minor pyrite in some stringers and proximal to some stringer contacts													
	Alteratio	on T-	Description													
	175.90	10	Description													
	175.00	220.00	rervasive sincification. Winor ankente/sencite observed in some stringers.	175 80	177 30	1 50	E5695080	0.008	8 000							
						203	E5695081	0.894	894.000							
				195.80	196.60	0.80	E5695082	0.009	9.000							
Lithol	logy															
From	То	Description	n													
226.00	0 250.58	Basalt. Dark t moderate to s biotite grains. moderately bi range from irr is massive. M medium grain stringer. Mino has a modera coherent, unv with HCI. Min Also, minor lo	to very dark grey to dark grey-green, aphanitic to coarse grained, massive to strongly foliated basalt. This unit is comprised of ~5-10% randomly orientated This unit is comprised of ~ 7% milky-white to greyish-white, massive to recciated quartz-carbonate stringers up to 6cm true thickness. Upper contacts regular to 30-45-65 deg TCA to parallel TCA. Minor localised zones where unit loderate to strong foliation throughout unit at 60-65 deg TCA. ~1% fine to ned subhedral disseminated pyrite. Pyrite styolites observed in one 1cm or pyrite in some stringers and in wall rock proximal to stringer contacts. Unit the softness to moderate to strong hardness, is moderate to strongly or patchy chlorite in unit, unit becomes more chloritic toward lower contact. vocalised flow-top textures observed.													
	Mineraliz	zation														
	From	То	Description													
	226.00	250.58	~1% fine to medium grained subhedral disseminated pyrite. Py styolites observed in one 1cm stringer. Minor pyrite in some stringers and in wall rock proximal to stringer contacts.													
	Alteratio	on														
	From	То	Description													
	226.00	250.58														
				227.20	228.70	1.50	E5695083	0.007	7.000							
	Voining			228.70	229.30	0.60	E5695084	0.005	5.000							
	From	То	Description													
	228 82	228.91	Milky-white, massive, 5.5cm true thickness quartz-carbonate vein with													
			upper contact at 35 deg TCA. No pyrite or alteration halos observed.	229.30	229.80	0.50	E5695085	0.003	3.000							
	Veining															
	From	То	Description													
	229.42	229.71	Milky-white, massive, quartz-carbonate vein parallel TCA. Estimated true													

							_	_		_		Au	FaGeo	FaGeo2	FaGrav	FaGrav2	_	Metallic	DUP FaGeo	DUP FaGrav
			thi	oknoce of this	voin is ~ 5cm. No pyrito obsorvos	hin stringer, however	From	То	Length	San	nple #	(avg g∕t)	(ppb)	(ppb)	(g/t)	(g/t)	Cert #	(g/t)	(ppb)	(g/t)
			fin	e to medium g ntacts. This ve	prained subhedral to blebby pyrite ein was sampled. No alteration ha	in wall rock along stringer los observed.														
							229.80	230.30	0.50	E569	95086	0.007	7.000							
							230.30	231.80	1.50	E569	95087	0.004	4.000							
							231.80	232.30	0.50	E569	95088	0.008	8.000							
							232.30	233.20	0.90	E569	95089	0.007	7.000							
							233.20	233.50	0.30	E569	95090	0.004	4.000							
							233.50	235.00	1.50	E569	95091	0.009	9.000							
	Structur	e																		
	From	То	Туре	Intensity	Description	TCA Strike DIP														
	235.87	235.88	fol	m		60														
	242.01	242.02	fol	ms		65														
	245.11	245.12	fol	ms		65														
Lithold	ogy																			
From	То	Descri	iption																	
250.58	300.00	variolitic coarse ( zones a Moderat Occurre few bas: massive with irre Occurre subhedr wall rocl patchy s Possible moderat	c basait. P c basalt. P grained zc ilso. Variol te to stron ence of var gular upp mce of stri ral to blebl k proxima sericite alt e moderat	sible pillows ossible pillows ones, likely rep les are genera g fabric throug rioles decrease . This unit is a ed to moderat er contacts to ingers decrease by pyrite. Main I to stringer co eration also. T e pervasive a	ark grey to dark grey-green, apnar s with diffuse weakly formed selve resenting the interior of a flow. Lo Illy elongated and have an orienta phout. Varioles range in size from es with increasing depth. This unil so comprised of ~ 3-5% greyish-1 ely brecciated quartz-carbonate s 40-65 deg TCA. Minor accessory ses with depth. This unit has ~1% Ily disseminated, with minor pyrite ntacts. Weak patchy chlorite alter otal alteration is <5% of unit. Unit licification also. Unit is non-magne and has a moderate to strong har	And to coarse grained, deges. Localised massive iccalised massive aphanitic tion at 50 deg TCA. a few mm to 8mm in size. t is likely comprised of a white to milky white, tringers up to 4.5cm thick chlorite in some stringers. fine to medium grained in some stringers or in ration. Weak to moderate reacts strongly with HCI. etic, unweathered, dness														
	Mineraliz	zation		<b>37</b>																
	From	То	D	escription																
	250.58	300.00	~1 dis str	% fine to med sseminated, wi	ium grained subhedral to blebby p ith minor pyrite in some stringers of	oyrite. Mainly or in wall rock proximal to														
	Alteratio	on																		
	From	То	D	escription																
	250.58	300.00																		
	Veining																			
	From	То	D	escription																
	257.05	257.14	4.8 40 we	5cm milky-whit deg TCA and ere observed.	te, massive quartz-carbonate strir true thickness of 4.5cm. No sulpl	nger with upper contact at hides or alteration halos														
	Structur	e																		
	From	То	Туре	Intensity	Description	TCA Strike DIP														
	258.68	258.69	fol	ms		50														
							267.70 269 20	269.20 269.60	1.50 0.40	E569	95092 95093	0.007 0.005	7.000 5.000							
	Veining						200.20	200.00	0.10	200		0.000	0.000							
	From	То	л	escription																

										Au	FaGeo	FaGeo2	FaGrav	FaGrav2		Metallic	DUP FaGeo	DUP FaGrav
						From	То	Length	Sample #	(avg g∕t)	(ppb)	(ppb)	(g/t)	(g/t)	Cert #	(g/t)	(ppb)	(g/t)
	269.40	269.51	This interval is of stringers up to 1 comprised of ~1 contacts and mi observed.	comprised of numerous, laminated 1cm thick with upper contact at 70 1% fine to medium grained blebby inor pyrite infilling fractures in strin	d quartz-carbonate deg TCA. This vein is pyrite along stringer gers. No alteration halos	260.60	271 10	1 50	5505004	0.006	6.000							
						209.00	271.10	1.50	E3695094	0.000	0.000							
	Chrusotum	<b>10</b>				275.20	276.70	1.50	E0090090	0.006	6.000							
	Erom	e To	Tuna Intensity	Description	TCA Strike DID													
	FI0III	10	fol mo	Description	TCA SUIKE DIP													
	276.37	276.38	101 1115		50	276.70	277.00	0.30	E5695096	0.008	8.000							
	Veining																	
	From	То	Description															
	276.72	276.86	Milky-white to g stringer with up stringer is comp alteration halos	reyish-white, moderately brecciate per contact at 40 deg TCA and tru prised of ~1% fine to medium grain observed. Minot accessory black	ed, quartz-carbonate e thickness of ~2cm. This red blebby pyrite. No chlorite.													
						277.00	278.50	1.50	E5695097	0.005	5.000							
						278.50	280.00	1.50	E5695098	0.005	5.000							
						280.00	281.50	1.50	E5695099	0.004	4.000							
						281.50	282.80	1.30	E5695100	0.006	6.000							
						282.80	283.10	0.30	E5695101	0.003	3.000							
	Veining																	
	From	То	Description															
	282.85	283.01	Milky-white to g contact at 55 de estimated true t fine to medium black chlorite in	reyish-white, laminated, quartz-ca ag TCA and very irregular lower co hickness of ~5.5cm. This vein is c grained blebby pyrite along vein si this vein. No alteration halos obsi	rbonate vein with upper intact. This vein has an comprised of ~ 0.5-1% tyolites. Minor accessory erved.	283.10	284.60	1.50	E5695102	0.005	5.000							
	Structur	re																
	From	То	Type Intensity	Description	TCA Strike DIP													
	299.33	299.62	BC m	•														
Litholo	ogy																	
From	То	Descrip	otion															
300.00	407.73	Variolitic massive size than 4mm in s 40 deg T textures Therefor of ~ 3% g are mass 60-70 de chlorite/t througho comprise along stri througho sericite a to strong grained z moderate	Basalt. Medium to dat to weakly foliated vari- the previously describ ize and elongated. Th CA with increasing de with zones of massive e this unit is likely com greyish-white to pinkis ive to laminated to zo g TCA. Minor accesso ourmaline (?) in some ut unit also. Larger str d of ~ 0.5-1% pyrite. Finger contacts. Fine to ut wall rock. Trace ble nd epidote alteration. silicification throughou tones where there are e to strong hardness w	rk grey to medium grey-green, aph olitic chloritic basalt. The varioles bed unit and are more coalesced. the orientation of the varioles is at 5 ppth. This unit consists of localised a phanitic basalts, and massive cor posed of multiple basaltic flows. T h-white quartz-carbonate stringers and to moderately brecciated. upp pry pink carbonate, sericite/epidote stringers generally occur proximal to Fine to medium grained blebby pri o medium grained subhedral to eut bbby cpy observed in some stringe Total alteration ~ 10-15% of unit. I ut unit. Unit does not react with HC carbonate grains. Minor chlorite th with moderate patchy softness (chli	anitic to coarse grained, in this unit are smaller in Varioles are generally 2- 0 deg TCA shallowing to zones of variolitic barser grained basalts. This unit is also comprised to up to 5cm thick. Stringers ere contacts are generally e, ankerite, and black tz-carbonate stringers varioles. This unit is also tite in some stringers and nedral disseminated pyrite rs. Minor patchy weak Possible patchy moderate 2), except in coarser proughout unit. Unit has a portic areas), is moderate													

				From	Te	Longth	Comple #	Au	FaGeo	FaGeo2	FaGrav	FaGrav2	Cort #	Metallic	DUP FaGeo	DUP FaGrav
				From	10	Length	Sample #	(avg g/t)	(ррь)	(ррь)	(g/t)	(g/t)	Cert #	( <b>g</b> /t)	(ррь)	(g/t)
Minorali	to strong	ly conerent, non-magnetic. Unit has a glassy appearance	е.													
From	То	Description														
300.00	407.73	~ 0.5-1% pyrite. Fine to medium grained blebby p along stringer contacts. Fine to medium grained s disseminated pyrite throughout wall rock. Trace b observed in some stringers.	write in some stringers and subhedral to euhedral lebby chalcopyrite													
Alteratio	on															
From	То	Description														
300.00	407.73	Moderate pervasive silicification?														
				333.40	334.90	1.50	E5695103	0.005	5.000							
				334.90	335.50	0.60	E5695104	0.005	5.000							
				335.50	337.00	1.50	E5695105	0.004	4.000							
Structur	re															
From	То	Type Intensity Description	TCA Strike DIP													
338.47	338.48	fol m	50													
				344.10	345.60	1.50	E5695106	0.004	4.000							
				345.60	346.10	0.50	E5695107	0.004	4.000							
				346.10	346.50	0.40	E5695108	0.007	7.000							
Veining	_															
From	То	Description														
346.16	346.47	milky-white to smokey-grey quartz vein with pink strong sericite and ankerite, accessory black tour chlorite. The vein is comprised of at least 2 joined an approximate upper contact at 60 deg TCA and This vein is moderately brecciated and zoned. Th to medium grained blebby pyrite along chlorite/tou the presence of multiple stringers and irregular lo of vein could not be determined.	carbonate, moderate to maline (?) and/or black d stringers. This vein has d an irregular lower contact. is vein contains ~ 1% fine urmaline fragments. Due to wer contact, true thickness													
				346.50	347.00	0.50	E5695110	0.004	4.000							
						blank	E5695109	0.003	3.000							
				347.00	348.50	1.50	E5695111	0.006	6.000							
				370.20	371.70	1.50	E5695112	0.004	4.000							
				371.70	372.20	0.50	E5695114	0.006	6.000							
						15d	E5695113	1.620	1620.000							
				372.20	372.60	0.40	E5695115	0.004	4.000							
Veining From	То	Description														
372.26	372.47	Pink to pinkish-white to tan-green to emerald-gre brecciated quartz-carbonate vein. This vein is cor irregular stringers. Accessory pink-carbonate, and epidote. There are multiple generations of dilatior is also comprised of ~1% fine to medium grained minor accessory black tourmaline also.	en, zones, moderately mprised of at least 2 kerite and sericite, and n in this interval. This vein blebby pyrite. Possible	372.60 373.10	373.10 374 60	0.50	E5695116 E5695117	0.006	6.000							
Structur	re			575.10	574.00	1.50	20030117	0.004	4.000							
From	To	Type Intensity Description	TCA Strike DIP													
387.86	387.87	fol m	40													
007.00	007.07															

								From	То	Lenath	Sample #	Au (ava a/t)	FaGeo (ppb)	FaGeo2 (ppb)	FaGrav (a/t)	FaGrav2 (a/t)	Cert #	Metallic (a/t)	DUP FaGeo (ppb)	DUP FaGrav (a/t)
	388 31	388 40	BC	m						Longin	campic "	(	(000)	(000)	(9/ 1/	(9/ 7/	0011 //	(9/ 7	(000)	(9/-/
	Sublitho	)	-																	
	From	То	D	escription																
	401.90	402.17	M	inor FZ w/ modera	derate to strongly broken core and -	-5mm of	fine to coarse													
	Structur	е	9.	anica, nicacie			e ee aeg i er a													
	From	То	Туре	Intensity	Description	ТСА	Strike DIP													
	401.90	402.17	FZ	m		30														
Litholo	gy																			
From	То	Desci	ription																	
407.73	463.72	Variolit grainec 50 deg white tr true thi Stringe chlorite observ euhedr bandec up is lik ~3-5% hardne fault zo unit ha lower o underly	ic Basalt. I d, moderatt TCA. This o greyish-w ckness wit ers are mass e, sericite, a ed. This ur al dissemind appearan kely up hole of unit. Th rss, is unwe s a modera contact. Un ying diabas	Dark to very da ely foliated, mi s unit has a baa white to pinkish h upper contar ssive to lamina and pink carbo nit is also comp nated pyrite th ice. Minor carb e. Minor variol is unit has a m eathered, mod ded from 401.9- ately diffuse/gr it becomes mo e intrusion.	ark grey, medium to dark grey-green nor variolitic basalt. This unit has a nded appearance. This unit is comp i-white quartz-carbonate stringers. S cts generally at 50 deg TCA. Few ir ted to moderately brecciated. Minoi onate and trace pyrite in some string prised of ~0.5-1% fine to medium g roughout wall rock. Minor patchy we sonate-filled amygdules proximal to es which are elongate and parallel to noderate softness with patchy mode erate to strongly coherent, and wea 402.17m, which is further describer adational upper contact and a mode ore strongly foliated proximal to low	n, aphanim moderate prised of s Stringers regular st caccesso jers. No a aained su baak to mo the top o so foliation rate to st kly magn d in the s prately sh er contac	ic to coarse a fabric at45- -2-3% milky- are up to 4cm ringers also. ry black uteration halos bhedral- iderate chlorite- f the unit. Way- n. Total varioles rong etic. Minor ub-litho. This arp, irregular t with													
	Mineraliz	zation	-																	
	From	То	D	escription																
	407.73	463.72	~C thi	).5-1% fine to r roughout wall r	medium grained subhedral-euhedra rock.	l dissemi	nated pyrite													
	Alteratio	n																		
	From	То	D	escription																
	407.73	463.72																		
	Structur	'е	_																	
	From	То	Туре	e Intensity	Description	TCA	Strike DIP													
	410.71	410.72	fol	m		50 50														
	413.04	413.33	101	ino		00		430.00	431.50	1.50	E5695118	0.005	5.000							
	Structur	e																		
	From	То	Туре	Intensity	Description	ТСА	Strike DIP													
	430.67	430.68	fol	m		45														
	443.39	443.40	fol	m		50														
Litholo	ду	_																		
From	То	Desci	ription																	
463.72	479.95	Diabas proxim of ~10° abunda colour. Irregula unweat	e. Very da al to unit co % feldspar ant in intrus Trace cart ar, sharp co thered, mo	rk grey, aphan ontacts and co lathes up to 3 sion interior. Th conate stringe ontacts at both derate to stror	itic to coarse grained, massive diab parser grained in interior of intrusion cm in size. These lathes are randor hese feldspar lathes are also very li rs present. This unit is also compris e ends of unit. This unit is moderate poly coherent, and has a strong hare	base. Fine . This uni nly orient ght pinkis ed of trac to strong dness. Gi	e grained t is comprised ated and most sh-white in ce pyrite. Iy magnetic, oundmass													

						Erom	То	Longth	Sampla #	Au (ava a/t)	FaGeo	FaGeo2	FaGrav	FaGrav2	Cort #	Metallic	DUP FaGeo	DUP FaGrav
						FIUIII	10	Lengin	Sample #	(avy y/l)	(ppb)	(ppb)	(g/l)	(g/l)	Cert #	( <i>g/l)</i>	(ppb)	(g/l)
	Minorali	reacts w	eakly with HCI. Weak p	ervasive carbonate alteration.														
	From		Description															
	463.72	179.95	Description															
	Alteratio	479.95 nn																
	From	Το	Description															
	463 72	479.95	Decemption															
Lithol	oav	170.00																
From	То	Descri	otion															
479.95	5 490.19	Felsite? ankerite of unit. L interval u grains in interval i 481-490. 55 deg T glassy al ~1% fine 2% greyi contacts gouge-pr further d Weak be was not	This unit appears to be alteration and moderatu Init is more coarsely gra unit is comprised of ~ 11 this interval also. Unit 1 s also comprised of ~ 3 .19m, unit more aphani 'CA. Sericite and anker opearance, possibly we to medium grained sul sh-white, massive quar at 45-60 deg TCA. Fro ossible minor fault zone escribed in the sub-lithe e to strong hardness, al adding textures observed.	felsic in composition. Weak to mo to strong pervasive silicification p tined also at top of unit from 479.9 % quartz-eyes up to 1-2mm in siz as a moderate to strong fabric at -5% fine to medium grained pyrite ic to fine grained and has a weak i te alteration decreases with depth akly silicified. Pyrite content in this obedral disseminated. Overall, this scarbonate stringers up to 2cm tr m 483.85-483.9m, core is moderat . From 487-487.32m, there is anot 0. Unit is weak to moderately cohern d is non-magnetic. Patchy modera d at 55 deg TCA. Unit could possil	derate sericite and roximal to upper contact 5-481m, where in this e. Elongate carbonate -55 deg TCA. This along foliation. From o moderate foliation at . Unit has an aphanitic interval decreases to unit is comprised of ~ ue thickness with upper e to strongly broken with her fault zone-which is ent, unweathered, has ate reaction to HCI. bly be a tuff, but bedding													
	Structur	re																
	From	То	Type Intensity	Description	TCA Strike DIP													
	479.95	479.96	Ucnt ms	Irregular, sharp contact between overlying diabase and underlying tuff unit.														
	Minerali	zation																
	From	То	Description															
	479.95	481.00	~ 3-5% fine to m	edium grained pyrite along foliatior	۱.													
	Alteratio	on																
	From	То	Description															
	479.95	481.00				480.00	481.00	1.00	E5695119	0.004	4.000							
	Structur	re																
	From	То	Type Intensity	Description	TCA Strike DIP													
	480.15	480.16	fol ms		55													
	Minerali	zation																
	From	То	Description															
	481.00	490.19	~1% fine to med	ium grained subhedral disseminate	ed.													
	Alteratio	on	_															
	From	То	Description															
	481.00	490.19	Weak pervasive	silicification?		401.00	400 50	1.50	FEAAEtaa	0.000	0 000							
						481.00	482.50	1.50	E5695120	0.003	3.000							
						482.50	484.00	1.50	E5695121	0.018	18.000							

						From	То	Length	Sample #	Au (avg g/t)	FaGeo (ppb)	FaGeo2 (ppb)	FaGrav (g/t)	FaGrav2 (g/t)	Cert #	Metallic (g/t)	DUP FaGeo (ppb)	DUP FaGrav (g/t)
	Structur	e						-										
	From	То	Type Intensity	Description	TCA Strike DIP													
	483.85	483.90	gou ms	Core is moderate to strongly broken in this interval, gouge- likely minor FZ?														
	Sublitho	)																
	From	То	Description															
	487.00	487.32	Minor FZ, where	e core is moderately broken, and r	minor fine grained gouge.													
	Structur	re																
	From	То	Type Intensity	Description	TCA Strike DIP													
	489.33	489.34	fol wm		55													
Lithol	ogy _	_																
From	То	Descri	iption															
490.1	9 497.14	Graphiti graphiti tuff(?) la stringer of ~ 3-5 the tuff. magnet	ic bedding. Dark to very c argillite(?). Bedding at ayers. This unit is compr s up to 2cm true thickne % banded pyrite. This u Tuff total ~ 2-3%. This u ic, and weak to moderat	dark grey, aphanitic, moderate to 55 deg TCA. The graphitic layers ised of ~ 3% milky-white to greyis ss generally parallel to bedding. T nit does not has sharp contacts, s unit is unweathered, has a moder ely coherent.	e strongly foliated/bedded s are interbedded with mino sh-white carbonate This unit is also comprised since it is interbedded with ate softness, is non-	r												
	Minerali	zation																
	From	То	Description															
	490.19	497.14	~ 3-5% banded	pyrite.														
						491.30	492.80	1.50	E5695122	0.034	34.000							
						492.80	494.30	1.50	E5695123	0.018	18.000							
	Structur From	re To	Type Intensity	Description	TCA Strike DIP													
	493.54	493.55	bed ms		55													
						494.30	494.70	0.40	E5695124	0.025	25.000							
						494.70	496.20	1.50	E5695125	0.037	37.000							
						496.20	497.20	1.00	E5695126	0.019	19.000							
Litho	ogy	_																
From	То	Descri	iption															
497.1	4 505.21	Tuff? Li massive 2mm in massive white qu some a Fine to pyrite in hardnes	ght to medium grey, aph a tuff. This unit is compri- size. Bedding at 50-55 of a zones at 50 deg TCA. Juartz and quartz-carbona t 50 deg TCA opposite tr medium grained subhed some stringers. Patchy ss, is unweathered, non-	anitic to medium grained, weak to ised of ~ 5% quartz eyes and ~15 deg TCA. Weak to moderate lines This unit is comprised of ~ 2-3% ate stringers. Most stringers are p o bedding. This unit is also compi ral-blebby pyrite generally paralle moderate reaction to HCI. This u magnetic, and moderately cohere	o moderately bedded to i-20% feldspar grains 1- ation of grains in more greyish-white to milky- arallel to bedding with rised of ~ 1-2% pyrite. el to foliation, minor blebby init has moderate ent.													
	Minerali	zation																
	From	То	Description															
	497.14	505.21	~ 1-2% pyrite. Fi parallel to foliation	ine to medium grained subhedral- on, minor blebby pyrite in some st	blebby pyrite generally bringers.													
	Alteratio	on																
	From	То	Description															
	497.14	505.21																

									_	-		o , , , ,	Au	FaGeo	FaGeo2	FaGrav	FaGrav2	<b>.</b>	Metallic	DUP FaGeo	DUP FaGrav
									From	10	Length	Sample #	(avg g/t)	(ррь)	(ppb)	(g/t)	(g/t)	Cert #	(g/t)	(ppb)	(g/t)
	Structur	~ <b>D</b>							497.20	498.70	1.50	E5695127	0.007	7.000							
	From	То	Type	Intensity	Description	ТСА	Strike	DIP													
	499.47	499.48	bed	wm	···· [···	55															
	501.60	501.61	fol	wm		50															
Lithol	ogy																				
From	То	Descr	ption																		
505.21	507.12	Graphiti grey, ap compris thicknes banded modera interbec Modera	c bedding hanitic, ar ed of ~ 2- s with upp pyrite. Thi tely cohere lded with r tely broke	This unit is s ad moderate to 3% milky-whit ber contacts p s unit has a m ent. Hardness ninor tuff beds a core observe	imilar to the previously describe o strongly bedded. Bedding at 5 e to greyish-white carbonate str arallel to bedding. This unit is al noderate softness, magnetic, un of unit increases towards lower s proximal to upper contact. Tot ed from 507.23-507.44m.	d graphitic 5-60 deg T ingers up to so compris weathered contact. T al tuff ~1-2°	unit. Very CA. This u o 1cm true ed of ~1-2' and weak his unit is a % of unit.	dark nit is % to Ilso													
	Mineraliz	zation																			
	From	То	D	escription																	
	505.21	507.12	~1	-2% banded p	oyrite.																
	Structur	re Ta	<b>T</b>	laten eiter	Description	тол	Chrilton	0/0													
	<b>FIOM</b>	10 506 20	l ype	me	Description	55	Strike	DIP													
	506.29	506.30	beu	1115		55			506 80	508 30	1.50	E5695128	0.013	13 000							
Lithol	ogy																				
From	То	Descr	iption																		
507.12	2 528.38	Basalt. foliated This un breccial smaller irregula tab. Acc 1% fine some v pervasi foliation is mode observe	Medium to basalt. Ur t is compr ed to lami stringers l contacts essory ch to mediur eins and s ve carbona observed rately coh d at 508.6	dark grey-gre it is generally ised of ~ 3-5% nated quartz- nave upper co or are parallel lorite, sericite, n grained sublitringers. Unit in te alteration. Unit is also v erent, unweat -508.79m, wh	een, aphanitic to medium graine massive with localised zones o 6 milky-white to greyish-white, n carbonate stringers and veins u intacts at50-60 deg TCA. The la I TCA. The larger veins are furth , and black tourmaline (?) obser hedral-blebby disseminated pyri reacts strongly with HCl, therefo Localised zones of banded carb weak to moderately chloritic. Un hered, and has patchy weak ma nich is further described in the su	d, weak to f foliation at nassive to r to to 24cm ti rger veins f ler describe ved in som te. Pyrite a re moderat ionate grain t has a mo gnetism. N ub-litho.	moderately t 50 deg TC noderately hick. Most ypically ha ed in the ve e veins. ~ I so observe e to strong hs parallel derate hard linor fault z	/ CA. vining 0.5- ed in to dness one													
	Mineraliz –	zation	_																		
	From	10	D	escription	modium arginged subbadies 1-1-1	by discost	notod musik	o Br													
	507.12	528.38	~ ( als	o observed in	some veins and stringers.	by uissem	nateu pyrit	с. Гу													
	Alteratio	on																			
	From	То	D	escription																	
	507.12	528.38	W	eak to modera	ate pervasive chlorite alteration																
	Structur	re To	<b>T</b>	Intonaite	Description	TOA	Chrille	סוס													
	507 22	507 44	BC	m	Description	TCA	SILIKE	DIP													
	507.25	507.44	50						508.30	508.80	0.50	E5695129	0.006	6.000							
	Sublitho	)																			
	From	То	D	escription																	

							<b>5</b>	<b>T</b> -	1	0	Au	FaGeo	FaGeo2	FaGrav	FaGrav2	0	Metallic	DUP FaGeo	DUP FaGrav
	508 60	508 79	Minor	EZ with 5cm	of very firm fine to coarse grain		From	10	Length	Sample #	(avg g/t)	( <b>ppb</b> )	(ррь)	(g/t)	(g/t)	Cert #	( <b>g</b> /t)	(ppb)	( <i>g/t</i> )
	Structur	re	WITTOT		or very mini me to coarse gran	ieu gouge.													
	From	То	Type In	tensity	Description	TCA Strike DIP													
	508.60	508.79	FZ m	-															
							508.80	509.30	0.50	E5695130	0.008	8.000							
							509.30	510.00	0.70	E5695131	0.004	4.000							
	Veining																		
	From	То	Desc	ription															
	509.37	509.72	Milky-w with up determ to med alteration	white to grey oper contact nined. Minor lium grained on halo obs	ish-white, moderately brecciate parallel TCA. True thickness of accessory chlorite and pink car l blebby pyrite along chloritic fra erved.	d quartz-carbonate vein f this vein cannot be bonate in vein. ~1% fine gments in vein. No													
							510.00	510.90	0.90	E5695132	0.008	8.000							
							510.90	511.40	0.50	E5695133	0.008	8.000							
	Veining –	_	_																
	From	То	Desc	ription															
	511.18	511.25	6cm gr contact tourma grained	t at 55 deg aline fragme pyrite alon	arbonate weakly brecciated to la FCA. ~10% accessory pink cark nts in vein. This vein is compris g fragments in vein. No alteratio	aminated vein with upper ponate and ~5% black ed of ~0.5-1% fine on halos observed.													
							511.40	512.90	1.50	E5695134	0.005	5.000							
							512.90	514.40	1.50	E5695135	0.004	4.000							
							514.40	516.90	2.50	E5695136	0.007	7.000							
							516.90	517.40	0.50	E5695138	0.008	8.000							
									201	E5695137	0.539	539.000							
							517.40	518.90	1.50	E5695139	0.005	5.000							
							518.90	519.90	1.00	E5695140	0.004	4.000							
							519.90	520.40	0.50	E3093141	0.002	2.000							
	Veinina						520.40	520.00	0.40	L3093142	0.002	2.000							
	From	То	Desc	ription															
	520.49	520.77	Milky-w contact ~2% cf fracture	vhite, weakly t at 50 deg hloritic frags es in the vei	y brecciate, 26cm quartz-carbor ICA. This vein contains minor v . This vein is also comprised of n. No alteration halos observed	nate vein with upper vall rock fragments and ~ 1-2% pyrite infilling													
							520.80	521.30	0.50	E5695144	0.004	4.000							
									blank	E5695143	0.003	3.000							
	<u>.</u>						521.30	522.80	1.50	E5695145	0.003	3.000							
	Structur From	re To	Type In	tensity	Description	TCA Strike DIP													
	528.07	528.08	fol wr	m		50													
Litholo	gy																		
From	То	Descrip	otion																
528.38	567.00	Variolitic foliated, sericite/e parallel to to greyisl	Basalt. Media variolitic basa pidote (~5-10 p foliation at 5 n-white, mass	um to dark g Ilt. Weak to 0%) through 55-60 deg T sive to mode	grey-green, aphanitic to medium moderate chlorite with patchy w out unit. Varioles are up to 3mm CA. Overall, this unit is compris arately brecciated to laminated of	n grained, moderately veak to moderate n in size and are elongated ed of ~ 2-3% milky-white quartz-carbonate stringers													

						<b>F</b>	<b>T</b> .	1	0	Au	FaGeo	FaGeo2	FaGrav	FaGrav2	0	Metallic	DUP FaGeo	DUP FaGrav
		up to 7c 50-60 de subhedr some sti moderat where it	m true thickness. Man eg TCA. Accessory ch ral to blebby dissemina ringers also. Unit has i tely coherent. From 56 is comprised of ~ 75-8	y irregular upper contacts, with lorite in some stringers. ~0.5-1 ated pyrite. Minor fine to mediu a moderate hardness, is unwe 5.99-566.75m, this interval is 80% veins. This unit is further	n some parallel to foliation at % fine to medium grained m grained blebby pyrite in athered, non-magnetic, and a quartz-carbonate vein zone, described in the sub-litho.	From	10	Length	Sample #	(avg g/t)	( <i>ppb)</i>	(DDD)	(g/t)	(g/t)	Cen #	( <i>g</i> /t)	(ppo)	(g/1)
	Minerali	ization	Description															
	528.38	567.00	~0.5-1% fine to	o medium grained subhedral to	blebby disseminated pyrite.													
			Minor fine to m	edium grained blebby pyrite in	some stringers also													
	Alteratio	on To	Description															
	F10111	F07.00	Week to mede	roto notobu oblazita														
	528.38	567.00	weak to mode	rate patchy chlonie														
	From	To	Type Intensity	Description	TCA Strike DI	2												
	543.97	543.98	fol m	Description	55													
	040.07	040.00				564.40	565.90	1.50	E5695146	0.006	6.000							
	Structu	re																
	From	То	Type Intensity	/ Description	TCA Strike DII	2												
	564.43	564.44	fol ms		60	565.90	566.50	0.60	E5695147	0.003	3.000							
	Sublithe	2																
	From	То	Description	1														
	565.99	566.75	This interval is Veins/stringers brecciated to n stringers/veins white to greyisl fragments. ~0 styolites in strin	comprised of ~75-80% quartz s are up to 7cm true thickness, nassive. Some upper contacts have irregular upper contacts h-white in colour and contain c 5-1% fine to medium grained I ngers/veins.	-carbonate veining. generally moderately @ 55 deg TCA, although mos Veins/stringers are milky- hloritic styolites and wall rock blebby py along fragments and	st												
	Veining																	
	From	То	Description	1														
	565.99	566.75	This interval is Veins/stringers brecciated to m stringers/veins white to greyist fragments. ~0.4 and styolites in	comprised of ~75-80% quartz s are up to 7cm true thickness, nassive. Some upper contacts have irregular upper contacts. n-white in colour and contain c 5-1% fine to medium grained b stringers/veins.	-carbonate veining. generally moderately at 55 deg TCA, although mos Veins/stringers are milky- hloritic styolites and wall rock blebby pyrite along fragments	t	507.00	0.50	55005140	0.001	01.000							
1:44-						566.50	567.00	0.50	E5695148	0.021	21.000							
Lithol From	ogy To	Descri	iption															
567.00	567.00	) End of h	nole.															
							EOH	: 567.000										
							Total	# of samples	. 89									

Total footage sampled : 87.10



5623 MCADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

CLIENT NAME: MONETA PORCUPINE MINES 65 THIRD AVE. TIMMINS, ON P4N1C2 (705) 264-2296

### ATTENTION TO: KIRSTY NICHOLSON

PROJECT: NHL

AGAT WORK ORDER: 14U926453

SOLID ANALYSIS REVIEWED BY: Kevin Motomura, Data Review Supervisor

DATE REPORTED: Dec 23, 2014

PAGES (INCLUDING COVER): 10

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

\*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



AGAT WORK ORDER: 14U926453 PROJECT: NHL 5623 McADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.aqatlabs.com

### CLIENT NAME: MONETA PORCUPINE MINES

### ATTENTION TO: KIRSTY NICHOLSON

			(201	-073) Aq	ua Regia	a Digest	- Metals	Package	e, ICP-OI	ES finisł	า				
DATE SAMPLED: De	ec 10, 2014		l	DATE RECI	EIVED: Dec	09, 2014		DATE	REPORTED	): Dec 23, 2	2014	SAM	IPLE TYPE:	Drill Core	
	Analyte:	Ag	Al	As	В	Ва	Be	Bi	Ca	Cd	Ce	Со	Cr	Cu	Fe
	Unit:	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
Sample ID (AGAT ID)	RDL:	0.2	0.01	1	5	1	0.5	1	0.01	0.5	1	0.5	0.5	0.5	0.01
E5695060 (6166215)		0.2	1.83	54	6	17	0.5	<1	4.31	<0.5	4	49.1	542	178	3.78
E5695061 (6166216)		<0.2	2.71	6	9	21	<0.5	<1	2.22	<0.5	3	56.4	986	118	5.91
E5695062 (6166217)		0.2	2.94	2	11	125	0.6	<1	4.61	<0.5	7	56.9	1010	146	6.56
E5695063 (6166218)		0.3	1.12	8	6	2	<0.5	<1	3.91	<0.5	1	38.3	917	64.3	4.19
E5695064 (6166219)		0.3	3.25	6	13	148	0.6	<1	5.71	<0.5	1	53.2	601	137	7.07
E5695066 (6166221)		<0.2	1.11	3	5	189	0.7	<1	2.79	<0.5	20	19.1	127	17.8	3.05
E5695082 (6166237)		0.6	3.42	12	12	126	<0.5	<1	8.01	<0.5	10	61.6	727	165	6.59
E5695089 (6166244)		0.5	2.72	17	14	24	<0.5	<1	6.78	<0.5	7	70.5	740	133	7.38
E5695103 (6166258)		<0.2	1.69	9	6	156	0.9	<1	1.33	<0.5	1	44.9	83.6	190	3.64
E5695118 (6166273)		0.4	3.06	11	11	92	0.8	<1	5.35	<0.5	6	46.3	181	164	5.95
E5695121 (6166276)		0.3	2.00	16	8	32	<0.5	<1	4.00	<0.5	28	14.1	44.5	34.0	3.53
	Analyte:	Ga	Hg	In	к	La	Li	Mg	Mn	Мо	Na	Ni	Р	Pb	Rb
	Unit:	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm
Sample ID (AGAT ID)	RDL:	5	1	1	0.01	1	1	0.01	1	0.5	0.01	0.5	10	0.5	10
E5695060 (6166215)		9	1	<1	0.02	3	22	1.48	1540	3.9	0.03	184	488	3.0	<10
E5695061 (6166216)		8	<1	<1	0.25	4	23	4.69	607	4.0	<0.01	513	266	<0.5	19
E5695062 (6166217)		12	<1	<1	1.27	6	30	4.55	1200	3.2	<0.01	448	309	1.4	126
E5695063 (6166218)		7	<1	<1	0.02	2	9	2.84	1080	4.5	<0.01	216	185	1.2	<10
E5695064 (6166219)		15	<1	<1	1.02	3	22	6.41	1940	3.6	0.02	318	418	<0.5	84
E5695066 (6166221)		7	<1	2	0.46	10	7	2.20	629	3.0	0.23	75.1	791	2.8	32
E5695082 (6166237)		18	2	<1	0.55	6	21	3.48	3470	3.6	0.02	372	474	0.5	29
E5695089 (6166244)		15	<1	2	0.05	5	21	3.28	3620	5.3	0.01	428	441	<0.5	<10
E5695103 (6166258)		<5	<1	<1	0.43	1	15	1.30	774	3.4	0.04	97.0	431	2.1	34
E5695118 (6166273)		15	<1	1	0.21	4	18	2.46	2220	4.6	0.03	110	505	<0.5	12
E5695121 (6166276)		9	2	1	0.18	14	27	1.13	1360	3.5	0.05	47.3	948	<0.5	<10

Certified By:

Page 2 of 10

mur



AGAT WORK ORDER: 14U926453

PROJECT: NHL

5623 MCADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

#### CLIENT NAME: MONETA PORCUPINE MINES

### ATTENTION TO: KIRSTY NICHOLSON

			(201	-073) Aq	ua Regia	a Digest	- Metals	Package	e, ICP-O	ES finisł	า				
DATE SAMPLED: De	ec 10, 2014			DATE REC	EIVED: Dec	: 09, 2014		DATE	REPORTED	D: Dec 23, 2	2014	SAM	IPLE TYPE:	Drill Core	
	Analyte:	S	Sb	Sc	Se	Sn	Sr	Та	Te	Th	Ti	TI	U	V	W
	Unit:	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
Sample ID (AGAT ID)	RDL:	0.005	1	0.5	10	5	0.5	10	10	5	0.01	5	5	0.5	1
E5695060 (6166215)		0.174	<1	2.7	<10	5	43.4	<10	<10	<5	0.22	<5	<5	89.1	<1
E5695061 (6166216)		0.133	<1	1.9	<10	<5	140	<10	<10	<5	0.08	<5	<5	125	<1
E5695062 (6166217)		0.150	<1	7.2	<10	6	313	<10	<10	<5	0.18	<5	<5	160	<1
E5695063 (6166218)		0.169	2	10.8	<10	<5	148	<10	<10	<5	<0.01	<5	<5	89.7	<1
E5695064 (6166219)		0.253	1	25.1	<10	5	168	<10	<10	<5	0.17	<5	5	197	<1
E5695066 (6166221)		0.170	1	15.5	<10	<5	132	<10	<10	<5	0.10	<5	<5	103	<1
E5695082 (6166237)		0.153	3	28.9	<10	<5	197	<10	<10	<5	0.12	<5	7	232	<1
E5695089 (6166244)		0.345	3	15.7	<10	<5	117	<10	<10	<5	0.02	<5	<5	130	<1
E5695103 (6166258)		0.358	<1	3.1	<10	10	19.9	<10	<10	<5	0.27	<5	<5	76.5	<1
E5695118 (6166273)		0.278	<1	9.5	<10	8	80.2	<10	<10	<5	0.28	<5	<5	181	<1
E5695121 (6166276)		0.282	<1	3.0	<10	<5	93.0	<10	<10	<5	<0.01	<5	<5	31.3	<1
	Analyte:	Y	Zn	Zr											
	Unit:	ppm	ppm	ppm											
Sample ID (AGAT ID)	RDL:	1	0.5	5											
E5695060 (6166215)		4	48.9	<5											
E5695061 (6166216)		3	20.2	<5											
E5695062 (6166217)		6	24.2	<5											
E5695063 (6166218)		3	7.2	<5											
E5695064 (6166219)		3	62.2	<5											
E5695066 (6166221)		4	55.9	28											
E5695082 (6166237)		8	65.3	<5											
E5695089 (6166244)		4	90.7	<5											
E5695103 (6166258)		3	66.1	<5											
E5695118 (6166273)		9	73.4	<5											
E5695121 (6166276)		6	75.2	<5											
1															

Comments: RDL - Reported Detection Limit

mun Certified By:



AGAT WORK ORDER: 14U926453 PROJECT: NHL 5623 MCADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

### CLIENT NAME: MONETA PORCUPINE MINES

	Moneta - Drill Core - Fire Assay - Trace Au, ICP-OES finish (ppb)										
DATE SAMPLED: De	c 10, 2014		D	ATE RECEIVED: Dec 09, 2014	DATE REPORTED: Dec 23, 2014	SAMPLE TYPE: Drill Core					
	Analyte:	Sample Login Weight	Au								
	Unit:	kg	ppb								
Sample ID (AGAT ID)	RDL:	0.01	1								
E5695060 (6166215)		3.42	6								
E5695061 (6166216)		1.32	6								
E5695062 (6166217)		3.26	7								
E5695063 (6166218)		2.16	3								
E5695064 (6166219)		3.52	9								
E5695065 (6166220)		3.32	3								
E5695066 (6166221)		3.62	3								
E5695067 (6166222)		2.18	3								
E5695068 (6166223)		3.54	20								
E5695069 (6166224)		3.38	16								
E5695070 (6166225)		2.28	3								
E5695071 (6166226)		1.28	6								
E5695072 (6166227)		1.84	20								
E5695073 (6166228)		0.58	2								
E5695074 (6166229)		1.38	13								
E5695075 (6166230)		3.24	6								
E5695076 (6166231)		3.44	5								
E5695077 (6166232)		1.14	4								
E5695078 (6166233)		0.80	24								
E5695079 (6166234)		1.04	11								
E5695080 (6166235)		3.40	8								
E5695081 (6166236)		0.12	894								
E5695082 (6166237)		1.56	9								
E5695083 (6166238)		3.42	7								
E5695084 (6166239)		1.42	5								
E5695085 (6166240)		0.98	3								
E5695086 (6166241)		1.26	7								
E5695087 (6166242)		3.44	4								
E5695088 (6166243)		1.16	8								
E5695089 (6166244)		1.90	7								
E5695090 (6166245)		0.78	4								
L						1 4					

Certified By:



AGAT WORK ORDER: 14U926453 PROJECT: NHL 5623 MCADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

### CLIENT NAME: MONETA PORCUPINE MINES

			Monet	ta - Drill Core - Fire Assay - T	race Au, ICP-OES finish (ppb)	
DATE SAMPLED: De	c 10, 2014		C	DATE RECEIVED: Dec 09, 2014	DATE REPORTED: Dec 23, 2014	SAMPLE TYPE: Drill Core
	Analyte:	Sample Login Weight	Au			
	Unit:	kg	ppb			
Sample ID (AGAT ID)	RDL:	0.01	1			
E5695091 (6166246)		3.74	9			
E5695092 (6166247)		3.40	7			
E5695093 (6166248)		0.98	5			
E5695094 (6166249)		3.22	6			
E5695095 (6166250)		3.52	6			
E5695096 (6166251)		0.72	8			
E5695097 (6166252)		3.32	5			
E5695098 (6166253)		3.54	5			
E5695099 (6166254)		3.42	4			
E5695100 (6166255)		2.98	6			
E5695101 (6166256)		0.70	3			
E5695102 (6166257)		3.60	5			
E5695103 (6166258)		3.96	5			
E5695104 (6166259)		1.48	5			
E5695105 (6166260)		3.66	4			
E5695106 (6166261)		3.94	4			
E5695107 (6166262)		1.26	4			
E5695108 (6166263)		1.06	7			
E5695109 (6166264)		0.54	3			
E5695110 (6166265)		1.14	4			
E5695111 (6166266)		3.74	6			
E5695112 (6166267)		3.80	4			
E5695113 (6166268)		0.10	1620			
E5695114 (6166269)		1.02	6			
E5695115 (6166270)		1.18	4			
E5695116 (6166271)		1.18	6			
E5695117 (6166272)		3.68	4			
E5695118 (6166273)		3.52	5			
E5695119 (6166274)		2.34	4			
E5695120 (6166275)		3.56	3			
E5695121 (6166276)		3.34	18			

Certified By:



AGAT WORK ORDER: 14U926453 PROJECT: NHL 5623 MCADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

### CLIENT NAME: MONETA PORCUPINE MINES

ATTENTION TO: KIRSTY NICHOLSON

	Moneta - Drill Core - Fire Assay - Trace Au, ICP-OES finish (ppb)										
DATE SAMPLED: Dec	c 10, 2014		D	ATE RECEIVED: Dec 09, 2014	DATE REPORTED: Dec 23, 2014	SAMPLE TYPE: Drill Core					
	Analyte:	Sample Login Weight	Au								
	Unit:	kg	ppb								
Sample ID (AGAT ID)	RDL:	0.01	1								
E5695122 (6166277)		3.22	34								
E5695123 (6166278)		3.62	18								
E5695124 (6166279)		1.04	25								
E5695125 (6166280)		3.50	37								
E5695126 (6166281)		2.16	19								
E5695127 (6166282)		3.32	7								
E5695128 (6166283)		3.36	13								
E5695129 (6166284)		1.00	6								
E5695130 (6166285)		1.48	8								
E5695131 (6166286)		1.02	4								
E5695132 (6166287)		2.14	8								
E5695133 (6166288)		1.14	8								
E5695134 (6166289)		3.48	5								
E5695135 (6166290)		3.40	4								
E5695136 (6166291)		3.82	7								
E5695137 (6166292)		0.10	539								
E5695138 (6166293)		3.42	8								
E5695139 (6166294)		3.18	5								
E5695140 (6166295)		2.48	4								
E5695141 (6166296)		1.28	2								
E5695142 (6166297)		0.78	2								
E5695143 (6166298)		0.58	<1								
E5695144 (6166299)		1.26	4								
E5695145 (6166300)		3.70	3								
E5695146 (6166301)		3.92	6								
E5695147 (6166302)		1.08	3								
E5695148 (6166303)		1.14	21								

Comments: RDL - Reported Detection Limit

Certified By:

mur



Quality Assurance - Replicate AGAT WORK ORDER: 14U926453 PROJECT: NHL 5623 McADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

### CLIENT NAME: MONETA PORCUPINE MINES

	(201-073) Aqua Regia Digest - Metals Package, ICP-OES finish													
		REPLIC	ATE #1											
Parameter	Sample ID	Original	Replicate	RPD										
Ag	6166215	0.2	0.4											
AI	6166215	1.83	1.87	2.2%										
As	6166215	54	37											
В	6166215	6	6	0.0%										
Ва	6166215	17	18	5.7%										
Be	6166215	0.5	0.5	0.0%										
Bi	6166215	< 1	< 1	0.0%										
Ca	6166215	4.31	4.45	3.2%										
Cd	6166215	< 0.5	< 0.5	0.0%										
Ce	6166215	4	3	28.6%										
Co	6166215	49.1	42.8	13.7%										
Cr	6166215	542	553	2.0%										
Cu	6166215	178	184	3.3%										
Fe	6166215	3.78	3.87	2.4%										
Ga	6166215	9	9	0.0%										
Hg	6166215	1	< 1											
In	6166215	< 1	< 1	0.0%										
к	6166215	0.02	0.02	0.0%										
La	6166215	3	3	0.0%										
Li	6166215	22	22	0.0%										
Mg	6166215	1.48	1.50	1.3%										
Mn	6166215	1540	1540	0.0%										
Мо	6166215	3.9	2.5											
Na	6166215	0.03	0.03	0.0%										
Ni	6166215	184	187	1.6%										
Р	6166215	488	507	3.8%										
Pb	6166215	3.0	2.3	26.4%										
Rb	6166215	< 10	< 10	0.0%										
S	6166215	0.174	0.177	1.7%										
Sb	6166215	< 1	< 1	0.0%										
Sc	6166215	2.7	2.9	7.1%										



## Quality Assurance - Replicate AGAT WORK ORDER: 14U926453 PROJECT: NHL

5623 McADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

#### CLIENT NAME: MONETA PORCUPINE MINES

Se	6166215	< 10	< 10	0.0%												
Sn	6166215	5	8													
Sr	6166215	43.4	43.5	0.2%												
Та	6166215	< 10	< 10	0.0%												
Te	6166215	< 10	< 10	0.0%												
Th	6166215	< 5	< 5	0.0%												
Ti	6166215	0.218	0.226	3.6%												
ТІ	6166215	< 5	< 5	0.0%												
U	6166215	< 5	< 5	0.0%												
V	6166215	89.1	90.8	1.9%												
W	6166215	< 1	< 1	0.0%												
Y	6166215	4	4	0.0%												
Zn	6166215	48.9	52.5	7.1%												
Zr	6166215	< 5	< 5	0.0%												
				Moneta	- Drill C	ore - Fi	re Assa	ay - Tra	ce Au, IC	CP-OES	6 finish	(ppb)				
		REPLIC	ATE #1			REPLIC	ATE #2			REPLIC	ATE #3			REPLIC	ATE #4	
Parameter	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD	Sample ID	Original	Replicate	RPD
Au	6166290	4	5	22.2%	6166232	4	5	22.2%	6166252	5	4	22.2%	6166273	5	5	0.0%



Quality Assurance - Certified Reference materials AGAT WORK ORDER: 14U926453 PROJECT: NHL 5623 MCADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

#### CLIENT NAME: MONETA PORCUPINE MINES

	(201-073) Aqua Regia Digest - Metals Package, ICP-OES finish														
		CF	RM #1		C	CRM #2 (ref.	CDN-ME-1	303)		CR	M #3				
Parameter	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits			
Ag					152	161	106%	90% - 110%							
Со	184	171	93%	90% - 110%											
Cu	3494	3306	95%	90% - 110%	3440	3444	100%	90% - 110%							
Ni	2985	2697	90%	90% - 110%											
Pb					12200	12767	105%	90% - 110%							
Zn					9310	9458	102%	90% - 110%							
				Moneta	- Drill (	Core - F	Fire As	say - Tra	ce Au, I	CP-OE	S finisl	n (ppb)			
		CF	RM #1			CF	RM #2			CR	M #3				
Parameter	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits			
Au	6090	5740	94%	90% - 110%	1440	1440	100%	90% - 110%	722	672	93%	90% - 110%			



5623 McADAM ROAD MISSISSAUGA, ONTARIO CANADA L4Z 1N9 TEL (905)501-9998 FAX (905)501-0589 http://www.agatlabs.com

## Method Summary

CLIENT NAME: MONETA PORCUPINE MINES PROJECT: NHL

AGAT WORK ORDER: 14U926453 ATTENTION TO: KIRSTY NICHOLSON

SAMPLING SITE:		SAMPLED BY:	
PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag	MIN-200-12020		ICP/OES
AI	MIN-200-12020		ICP/OES
As	MIN-200-12020		ICP/OES
В	MIN-200-12020		ICP/OES
Ва	MIN-200-12020		ICP/OES
Ве	MIN-200-12020		ICP/OES
Bi	MIN-200-12020		ICP/OES
Са	MIN-200-12020		ICP/OES
Cd	MIN-200-12020		ICP/OES
Се	MIN-200-12020		ICP/OES
Со	MIN-200-12020		ICP/OES
Cr	MIN-200-12020		ICP/OES
Cu	MIN-200-12020		ICP/OES
Fe	MIN-200-12020		ICP/OES
Ga	MIN-200-12020		ICP/OES
Hg	MIN-200-12020		ICP/OES
In	MIN-200-12020		ICP/OES
к	MIN-200-12020		ICP/OES
La	MIN-200-12020		ICP/OES
Li	MIN-200-12020		ICP/OES
Mg	MIN-200-12020		ICP/OES
Mn	MIN-200-12020		ICP/OES
Мо	MIN-200-12020		ICP/OES
Na	MIN-200-12020		ICP/OES
Ni	MIN-200-12020		ICP/OES
P	MIN-200-12020		ICP/OES
Pb	MIN-200-12020		ICP/OES
Rb	MIN-200-12020		ICP/OES
S	MIN-200-12020		ICP/OES
Sb	MIN-200-12020		ICP/OES
Sc	MIN-200-12020		ICP/OES
Se	MIN-200-12020		ICP/OES
Sn	MIN-200-12020		ICP/OES
Sr	MIN-200-12020		ICP/OES
Та	MIN-200-12020		ICP/OES
Те	MIN-200-12020		ICP/OES
Th	MIN-200-12020		ICP/OES
Ti	MIN-200-12020		ICP/OES
ТІ	MIN-200-12020		ICP/OES
U	MIN-200-12020		ICP/OES
V	MIN-200-12020		ICP/OES
w	MIN-200-12020		ICP/OES
Y	MIN-200-12020		ICP/OES
Zn	MIN-200-12020		ICP/OES
Zr	MIN-200-12020		ICP/OES
Sample Login Weight			BALANCE
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP-OES



ORE RESEARCH & EXPLORATION PTY LTD

6-8 Gatwick Drive, Bayswater North, Vic 3153 AUSTRALIA Telephone: 61-3-9729 0333 Facsimile: 61-3-9729 4777

### CERTIFICATE OF ANALYSIS FOR

## **GOLD ORE REFERENCE MATERIAL**

### OREAS 15d

## SUMMARY STATISTICS

Constituent	Recommended Value	1SD
Gold, Au (ppm)	1.559	0.042

Prepared by: Ore Research & Exploration Pty Ltd September 2008

**REPORT 07-723** 



ORE RESEARCH & EXPLORATION P/L ABN 28 006 859 856 37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA • 61 3 9729 0333 \* 61 3 9761 7878 info@ore.com.au # www.ore.com.au

## **CERTIFICATE OF ANALYSIS FOR**

# GOLD ORE CERTIFIED REFERENCE MATERIAL OREAS 201

### Table 1. Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 201

Constituent	Certified	1SD	95% Confidence Limits		95% Tolerance Limits*	
	Value		Low	High	Low	High
Fire Assay						
Gold, Au (ppm)	0.514	0.017	0.507	0.521	0.510	0.518
Aqua Regia Digestion						
Gold, Au (ppm)	0.498	0.030	0.481	0.516	0.494	0.503

Note: intervals may appear asymmetric due to rounding; \*determined from RSD of INAA data for 30g and 25g analytical subsample weights for fire assay and aqua regia digestion, respectively.





## CERTIFICATE OF ANALYSIS FOR

# GOLD ORE CERTIFIED REFERENCE MATERIAL OREAS 203

### Table 1. Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 203

Constituent	Certified	Certified 1SD Value	95% Confidence Limits		95% Tolerance Limits*	
	Value		Low	High	Low	High
Fire Assay						
Gold, Au (ppm)	0.871	0.030	0.859	0.884	0.861	0.881
Aqua Regia Digestion						
Gold, Au (ppm)	0.825	0.062	0.793	0.857	0.815	0.835

Note: intervals may appear asymmetric due to rounding; \*determined from RSD of INAA data for 30g and 25g analytical subsample weights for fire assay and aqua regia digestion, respectively.



	5372700N	5372800N	5372900N
501500E			
	NOOZ	NOON	NOOE
Scale 1:1000	2372	23722	53729
	5372700	5372800	5372900
UL	TRAMAFIC VOLCANICS		
	1UULTRAMAFIC VOLCANICS - UNDIVIDED1KULTRAMAFIC VOLCANICS - KOMATIITE1KIFULTRAMAFIC VOLCANICS - IRON FORMATION1BKULTRAMAFIC VOLCANICS - BASALTIC KOMATIITE		
300EL	1CB       ULTRAMAFIC VOLCANICS - CARBONATE         1GC       ULTRAMAFIC VOLCANICS - GREEN CARBONATE         1GGC       ULTRAMAFIC VOLCANICS - GREY/GREEN CARBONATE         1SER       ULTRAMAFIC VOLCANICS - SERICITIC CARBONATE         1TCS       ULTRAMAFIC VOLCANICS - TALC CHLORITE SCHIST		
MA	2U MAFIC VOLCANICS - UNDIVIDED		
	2A MAFIC VOLCANICS - ALTERED 2B BASALT 2BA BASALT - ALTERED 2BAM BASALT - AMYGDALOIDAL 2BBX BASALT - TECTONIC BRECCIA		
	2BFB     BASALT - FLOW BRECCIA       2BH     BASALT - HYALOCLASTITE       2BIF     BASALT - HYALOCLASTITE       2BM     BASALT - MASSIVE       2BP     BASALT - PILLOWED		
	2BPR BASALT - PORPHYRITIC 2BS BASALT - SULPHIDES 2BSH BASALT - SHEARED 2BT BASALT - TUFF		
2005I	3F FELSIC VOLCANICS - UNDIVIDED		
	3I       INTERMEDIATE VOLCANICS - UNDIVIDED         3A       ANDESITE         3AAM       ANDESITE - AMYGDALOIDAL         3ABX       ANDESITE - TECTONIC BRECCIA         3AFB       ANDESITE - FLOW BRECCIA		
	3AM     ANDESITE - MASSIVE       3AP     ANDESITE - PILLOWED       3AS     ANDESITE - SULPHIDES       3ASH     ANDESITE - SHEARED       3AT     ANDESITE - THEE		
	3AV ANDESITE - VARIOLITIC 3D DACITE 3DAM DACITE - AMYGDALOIDAL 3DBX DACITE - TECTONIC BRECCIA		
	3DFB     DACITE - FLOW BRECCIA       3DM     DACITE - MASSIVE       3DP     DACITE - PILLOW ED       3DS     DACITE - SULPHIDES       3DSH     DACITE - SHEARED		
	3DT     DACITE - TUFF       3DV     DACITE - VARIOLITIC       3R     RHYOLITE       3RAM     RHYOLITE - AMYGDALOIDAL       3RBX     RHYOLITE - TECTONIC BRECCIA		
100EL	3RFB       RHYOLITE - FLOW BRECCIA         3RM       RHYOLITE - MASSIVE         3RP       RHYOLITE - PILLOWED         3RS       RHYOLITE - SULPHIDES		
SE	3RSH RHYOLITE - SHEARED 3RT RHYOLITE - TUFF 3RV RHYOLITE - VARIOLITIC EDIMENTS		
	4IF IRON FORMATION 4IFG IRON FORMATION - GREYWACKE MIXED 4IFH IRON FORMATION - HEMATITE 4IFM IRON FORMATION - MAGNETITE		
	4IFO IRON FORMATION - OXIDE 5GIF GREYWACKE - IRON FORMATION MIXED 5 SEDIMENTS 5A ARKOSE		
	5AA ARKOSE - ALTERED 5AM ARKOSE - MAGNETITE 5AE ARENITE 5AEA ARENITE - ALTERED 5AR ARGILLITE		
OEL	5ARA       ARGILLITE - ALTERED         5ARG       ARGILLITE-GRAPHITIC         5ARM       ARGILLITE - MAGNETITE         5CAR       CHERT/ARGILLITE         5CH       CHERT		*
	5CG       CONGLOMERATE         5CGA       CONGLOMERATE - ALTERED         5CGM       CONGLOMERATE - MAGNETITE         5GW       GREYWACKE         5GWA       GREYWACKE - ALTERED		
	5GWM       GREYWACKE - MAGNETITE         5GWS       GREYWACKE - SILICIFIED         5GWG       GREYWACKE - GRAPHITIC         5LA       LITH-ARENITE		
	SLAA       LITH-ARENITE - ALTERED         SLAF       LITH-ARENITE - FELDSPATHIC         SMC       MICRO-CONGLOMERATE         SMCA       MICRO-CONGLOMERATE - ALTERED         SMCM       MICRO-CONGLOMERATE - MAGNETITE		
	5SS       SANDSTONE         5SSA       SANDSTONE - ALTERED         5SSM       SANDSTONE - MAGNETITE         5SAM       SANDSTONE - ALTERED - MAGNETITE		
100EL	6D DIORITE 6G GABBRO 6L LAMPROPHYRE		
	6M MAFIC INTRUSIVE 6U ULTRAMAFIC INTRUSIVE 8U DIABASE		
L L L L L L L L L L L L L L L L L L L	7APL     APLITE DYKE       7F     FELSIC INTRUSIVE       7FA     FELSIC INTRUSIVE - ALTERED		
	7FP     FELDSPAR PORPHYRY       7FPA     FELDSPAR PORPHYRY - ALTERED       7QFP     QUARTZ FELDSPAR PORPHYRY       7GRA     GRANITIC DYKE       7I     INTERMEDIATE INTRUSIVE		
VE	7S SYENITE 7SA SYENITE - ALTERED		
-200EL	CV     CARBONATE VEIN       QCV     QUARTZ-CARBONATE VEIN       QCVZ     QUARTZ-CARBONATE VEIN ZONE       QV     QUARTZ VEIN		
ST	QVB QUARTZ VEIN BRECCIA QVZ QUARTZ VEIN ZONE VBZ VEIN BRECCIA ZONE		
	BXZ BRECCIA ZONE FZ FAULT ZONE LC LOST CORE SBX SHEAR-BRECCIA ZONE		
TO	SZ SHEAR ZONE		
	CAVE CAVE DDH DIAMOND DRILL HOLE EOH END OF HOLE OVEN OVERBURDEN		
-300EL	UNK LITHOLOGY UNCERTAIN WED WEDGE ALTZ ALTERATION ZONE		
	Z	Z	z
Scale 1:1000	5372700	5372800	53729001
Au Assay Le (grams gold	egend d)		
0.00 t     0.25 t     0.50 t     1.00 t     2.00 c	o 0.23 o 0.50 o 1.00 o 2.00 and greater		

