We are committed to providing accessible customer service.
If you need accessible formats or communications supports, please contact us.

Nous tenons à améliorer l’accessibilité des services à la clientèle.
Si vous avez besoin de formats accessibles ou d’aide à la communication, veuillez nous contacter.

2.33536

ASSESSMENT REPORT ON THE DIAMOND DRILLING PROGRAM- AMALGAMATED KIRKLAND PROPERTY, QUEENSTON MINING INC.

Report Prepared By: F. R Ploeger

April 24, 2006

ASSESSMENT REPORT ON THE DIAMOND DRILLING PROGRAM- AMALGAMATED KIRKLAND PROPERTY, QUEENSTON MINING INC.

Description, Access, Location:

The Amalgamated Kirkland (AK) property comprises 27 claim units held under Lease as CLM 328 in southeastern Teck Township. The lease is held by Queenston Mining Inc and surface rights by the Town of Kirkland Lake, from whom permission was obtained to conduct the program.

Access is gained via Archer Drive, an industrial roadway that loops from Highway 66 at the west end of Chaput Hughes through the centre of the property, to the south end of Main Street. Additional access is gained to the northern areas by hydro and gas pipelines, and to the south through a network of old roads. Vestiges of an old 100m grid and base line cut in the 1990's are also visible in places.

General property and claim locations are illustrated in Figures 1 & 2.

History and Past Work:

The history of the AK property is summarized from a QMI Internal Report as follows:

1911-13: Hunton Gold Mines incorporated (1913) on claim staked in 1911; surface trenching.

1920-25: Hunton Gold Mines; shaft to 400 ft, levels at 125, 250 and 375 ft; north crosscut started on 375 level (main exploration level with 550 m development and 1220 m diamond drilling); further surface and underground drilling.

1921: Canadian Kirkland Mines; shaft to 100 ft on current property; further work immediately west of claim group reported as shaft to 816 ft, levels at 80, 250, 400, 800 ft with 641 m lateral development, and; a third shaft some 610 m west with 122 m lateral development on 65 and 125 ft levels; 2439 m of diamond drilling to 1939 (?) – separate from Hunton property.

1922-23: Highland Kirkland Gold Mines; 4 drill holes (977 m), 1220 m surface trenching, inclined shaft to 100 ft (at –65 degrees) with some development on 60 ft level – south and east of Canadian Kirkland and Hunton prospects.

1925-39: Kirkland Hunton Gold Mines; inclined winze from 375 to 675 level (1925), later extended to 750 ft level; shaft deepened to 500 ft (1928); 476 m underground development, 2918 m of diamond drilling.

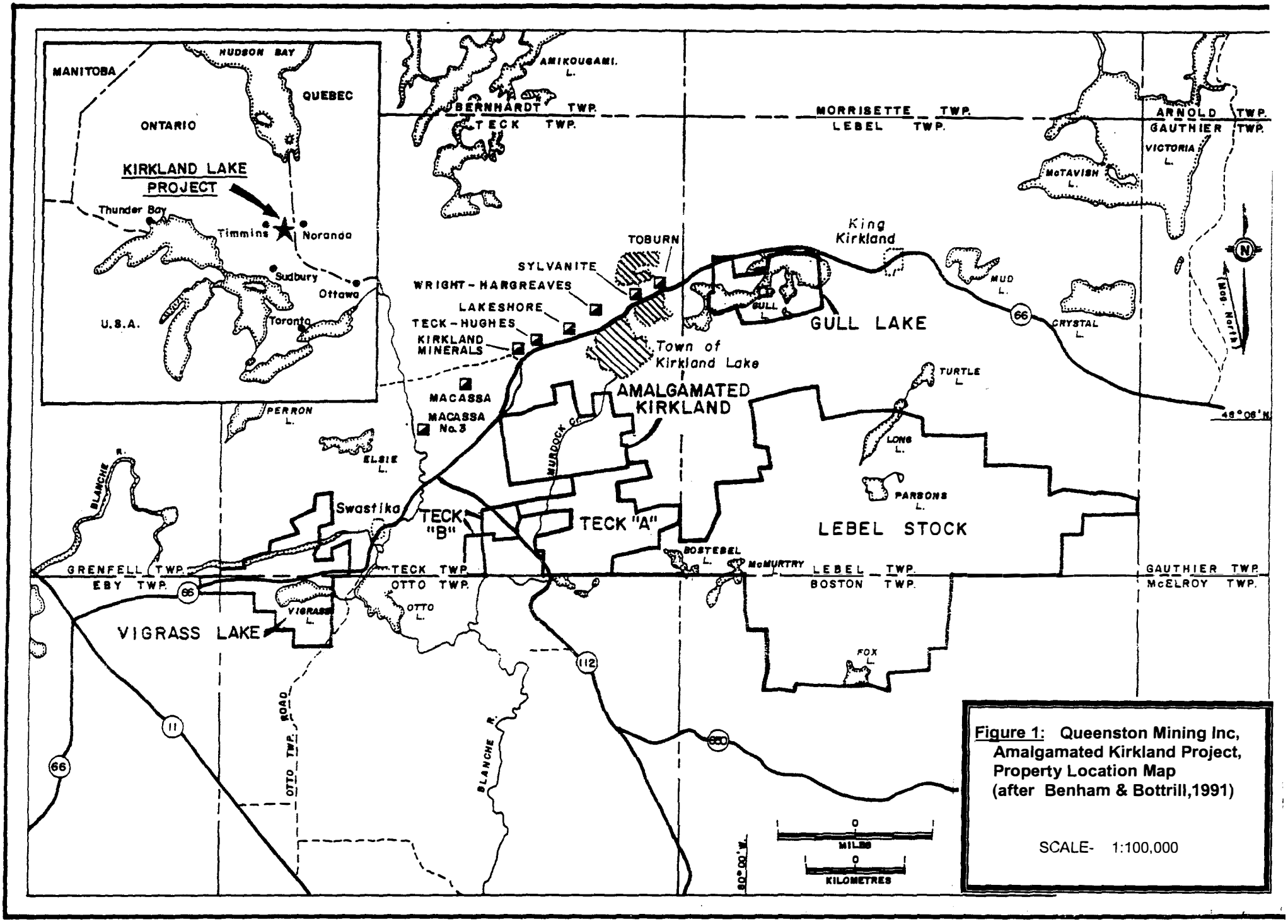


Figure 1: Queenston Mining Inc, Amalgamated Kirkland Project, Property Location Map (after Benham & Bottrill,1991)

SCALE- 1:100,000

565000 570000 575000

5335000 5330000

Amikougami Lake
Greylava Lake
BERNHARDT TWP
MORRISETTE TWP
TECK TWP
LEBEL TWP
Winnie Lake
Clearsqua Lake
Doig Lake
Gami Lake
Armer Lake
O'Connell Lake
King Kirkland
GULL LAKE
Mud Lake
Gull Lake
Kirkland Lake
SYLVANITE
HARVEY KIRKLAND
Kirkland Lake
RAND
ROSS
PAWNEE
KIRKLAND LAKE WEST
Perron Lake
Elsie Lake
GRACIE WEST
AMALGAMATED KIRKLAND
HYDRO LINE
BYER
NEW TECK
GATEFORD
TECK 'B'
LEBEL STOCK
Swastika
Vigrass Lake
GRENFELL TWP
CLM628
CLM400 106583
CLM131 103722
66

Figure 2: Queenston Mining Inc, Amalgamated Kirkland Project, Claim location Map

SCALE- 1:40,000

0 500 1000 1500 2000 2500 3

1:40,000

1936-37: Florena Kirkland Gold Mines; magnetic survey, 7 surface drill holes (2396 m) on previous Highland Kirkland ground.
1939-44: Amalgamated Kirkland Mines (incorporated 1939) as amalgamation of Hunton, Honer and Canadian Kirkland lands (10 claims of current group); 27 surface drill holes (3724 m); crosscut from Macassa 3000 ft level extended toward Amalgamated ground, 2 drill holes (844 m) drilled in 1944.
1945: Frobisher Exploration; 14 surface holes (1305 m) on Amalgamated lands.
1972: Mayfield Explorations and Development; 11 surface drill holes (855 m).
1973: Orme Prospecting Syndicate; one drill hole (37 m) under Highland Kirkland inclined shaft.
1974: Kerr Addison Mines; magnetic surveys, mapping, trenching, 4 surface holes (101 m) into carb rocks.
1978: Newmont Exploration of Canada; geophysics (includes IP), mapping, 7 drill holes (1903 m) on former Highland Kirkland / Florena property.
1981: Lampe Resources; one surface drill hole (61 m).
1983-84: Eden Rock Mineral Corp; three drill holes (359 m).
1986: Accord Resources; stripping, sampling at Hunton.
1989: Queenston Mining acquires current claim group.
1989-92: Battle Mountain Canada; geophysical surveys (including IP), mapping, stripping/trenching, 45 drill holes (11,838 m), AK Zone discovered.
1993-95: Cyprus Canada; mapping, 23 drill holes and extensions (14,368 m).
1996: Canadian Golden Dragon Resources, three drill holes (1721 m).
1997-98: property sold to Franco-Nevada (1997); part of Kirkland Lake Joint Venture (1998); no new work undertaken.
2002-03: Queenston purchased Franco- Nevada (then Newmont Mining Corp) interest; 3010.7 m surface drilling in 7 holes.

General Geology:

The southern portion of the Amalgamated Kirkland property is bisected by the Larder Lake Break. In this area, the break skirts the northern fringe of the Murdoch Creek Stock (syenite) and is represented by sheared ultramafics and green carbonate rocks of the Larder Lake Group along with local shearing in the adjacent Timiskaming suite to the north. The Timiskaming assemblage is

dominated by coarse pyroclastic and epiclastic volcanic rocks along with clastic sedimentary rocks and minor alkalic flows all of which are intruded by various dikes of alkalic affinity. The Amalgamated Kirkland fault cuts this package in the northern section of the claim group.

The AK deposit, Hunton mineralization and several parallel mineralized structures on the property are related to 070-trending structures within the Timiskaming sequence. The Amalgamated Kirkland gold zone consists of lode-style gold mineralization hosted by altered and pyritic Timiskaming trachytic volcanics that wedge out or thin at depth between two sedimentary units. The plunge of the system is estimated at 50 degrees west. In addition, Kirkland Lake Gold, which adjoins the AK property the north, has recently discovered several north- south trending gold bearing structures/ zones, a new concept for the camp that provided potential targets for the current AK program.

Current Diamond Drill Program:

The drilling campaign, which totaled 6126 m in 7 holes plus a deepened hole, was completed between February 14 and August 19, 2005. All holes were drilled with NQ piping by Heath & Sherwood Drilling (1986) Inc. and logged by F. R. Ploeger, P. Geo. The drill core designated for sampling by the geologist was sawed in half and the half core samples were analyzed by standard fire assay methods and atomic absorption or gravimetric finish by Swastika Laboratories Ltd of Swastika, Ontario. Hole details are summarized in accompanying Table 1 and locations are shown on Figure 3.

HOLE NUMBER	LENGTH (m)	DIP	AZIM	COORDINATES		TARGET
				GRID	UTM (NAD 27)	
AK-05-08	643.00	-65	262.0	76+50E 106+36N	569660E 5331243N	Test for north- south zones
AK-05-09	980.00	-75	350.0	83+00E 10390N	570366E 5331223N	Test trachyte/ syenite package and Hunton Break
AK05-51A	294.00	-63	344.0	79+96E 10062N	570172E 5330820N	Deepen hole from 443- 737 m to test trachyte/ syenite package at depth
AK-05-10	1117.0	-75	342.0	75+00E 10030N	569710E 5330628N	Test the AK zones down plunge west of previous drilling
AK-05-11	749.00	-55	202.0	76+56E 10604N	569676E 5331215N	Drill south of AK fault to test for north-south zones
AK-05-12	589.00	-45	211.0	76+56E 10604N	569676E 5331215N	Drill above hole 11 to test mineralized altered syenite and fault zone
AK-05-13	850.00	-50	217.0	81+00E 10500N	570126E 5331265	Check for any possible north- south zones north of the diabase dike
AK-05-14	904.00	-50	223.0	79+96E 10062N	570172E 5330820N	Check for possible north- south zones between the AK fault and diabase
TOTAL	6126.00					

Table 1: Summary of Drill Hole Data

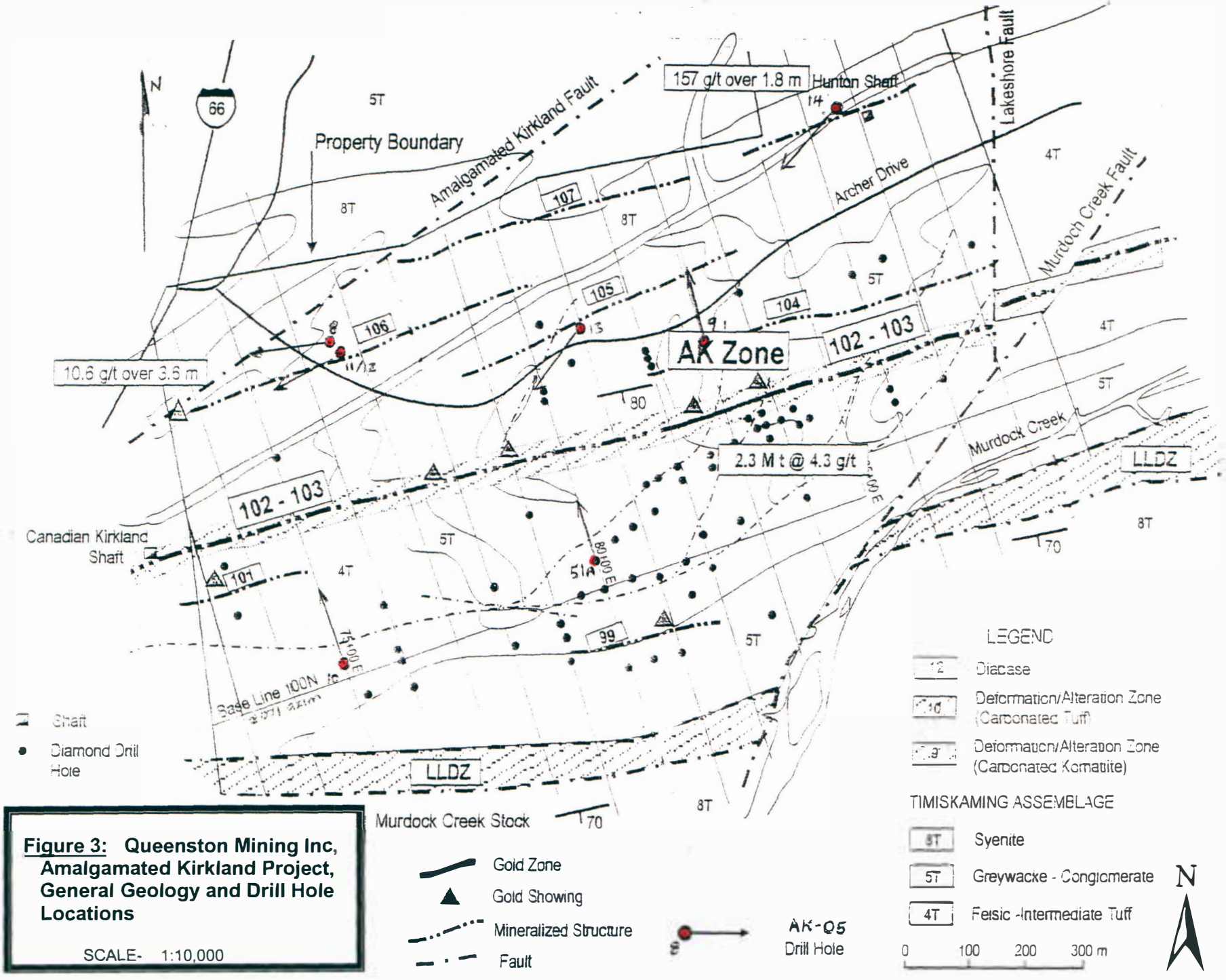


Figure 3: Queenston Mining Inc, Amalgamated Kirkland Project, General Geology and Drill Hole Locations

SCALE- 1:10,000

A brief description of the target, geology and results are given for each hole as follows:

AK-05-08 - Hole AK-05-08 was collared in the northwestern corner of the property to attempt to locate a north- south trending zone, identified as the ABM zone by Kirkland Lake Gold on their claims to the north. The hole was drilled westerly through the Amalgamated Kirkland Break and encountered a series of syenite porphyry dikes cutting Timiskaming Group wackes and conglomerates. The best values were obtained from an altered syenite at 350.00 m, 3.3gm/ 1.10m, and an altered greywacke at 4.2gm/ 0.9m.

AK-05-09 - Hole AK-05-09 was collared in the east central portion of the group to test the northern sections of the trachyte/ syenite package and the Hunton and several other 070 trending structures. It encountered a thick sequence of wackes and conglomerates with minor trachytes that was intruded by a number of syenite porphyry dikes. The best values occurred within a wide fault zone at 293.00 m (2.04gm/ 1.5m) and a conglomerate lens (1.17gm/0.95m) at 728.95 m.

AK05-51A - A hole drilled previously by Cyprus Canada in 1994 (AK-51) was deepened from 443 m to 737.00 m to test the trachyte/ syenite assemblage at depth. It encountered a well altered (ankeritic) trachytic zone centred on a strong fault at 596.45m and then tracked through sediments before ending in diabase, however, no significant values were returned.

AK-05-10 - Hole AK-05-10 was planned to test the down plunge extensions of the AK zones from the area northwest of the Highland Kirkland shaft. The hole traversed a thick section of sediments with minor trachytic tuffs which yielded an assay of 3.31gm/0.95m in a pyritic fault zone at 962.70 m.

AK-05-11 - Hole AK-05-11 was collared near the set up for Hole 8, and designed to test for possible north south structures to the south of the AK fault. It encountered a series of syenite porphyry dikes above a major fault at 550.25 m, and Timiskaming mudstones, wackes and conglomerates below. The best values were obtained in the altered syenites above the fault which ran 1/3rd of a gram over 27m including several intervals over 1 gram between 437 and 473m.

AK-05-12 - This hole was collared at the same set up as the previous hole to test the upward extension of the altered syenite mineralization and strong altered fault zone of hole 11. Values were similar but narrower, averaging approximately 0.39gm/ 5.55m, including 1.04gm/ 0.95m in the altered syenite.

AK-05-13 - Hole AK-05-13 was collared in a cleared area north of Archer Drive and drilled southwest to check for possible mineralized north- south trending structures to the north of the diabase dike. It intersected a thick section of Timiskaming sediments intercalated with a few trachytic tuff and pyroclastic lenses. All values were below 1 gram.

AK-05-13 - Hole AK-05-13 was collared in a cleared area north of Archer Drive and drilled southwest to check for possible mineralized north- south trending structures to the north of the diabase dike. It intersected a thick section of Timiskaming sediments intercalated with a few trachytic tuff and pyroclastic lenses. All values were below 1 gram.

AK-05-14 - The final hole of the program was collared near the Hunton shaft and angled to track between the AK break to the north and diabase dike to the south. It began in a mix of wacke and tuff to 122 m before entering a thick suite of alkalic intrusives that yielded a number of anomalous intersections over 0.3 grams including a number over a gram. The best value (5.49gm/ 0.8m) was obtained from a pyritic silicified zone at 740.60 m.

REFERENCES:

Benham, W. & Bottrill, T. J., 1991; Kirkland Lake Project, Report on Diamond Drilling Programme, July to October, 1991, Amalgamated Kirkland Property, Teck Township, Larder Lake Mining Division, Ontario, Canada; Internal Report.

Queenston Mining Inc, Various internal unpublished reports by various authors;

QUEENSTON MINING INC.

Apr. 12 / 06

Frank R. Ploeger, P. Geo.
Project Geologist

P.O. Box 996
Kirkland Lake, Ontario, Canada P2N 3L1
tel: (705) 567-4377 *fax:* (705) 567-4426
web site: www.queenston.ca

AK	DRILLING	COSTS	
AK-05-08	drilling	643 [redacted]	$44,975.46
	assaying	195	$2,047.50
	geology	17	$5,100.00
	geotech	13	$1,950.00
			$54,072.96
AK-05-09	drilling	980	$71,481.95
	assaying	198	$2,079.00
	geology	25	$7,500.00
	geotech	21	$3,150.00
			$84,210.95
AK-05-10	drilling	1116	$82,710.19
	assaying	160	$1,680.00
	geology	26	$7,800.00
	geotech	22	$3,300.00
			$95,490.19
AK-05-11	drilling	749	$52,756.88
	assaying	183	$1,921.50
	geology	16	$4,800.00
	geotech	12	$1,800.00
			$61,278.38
AK-05-12	drilling	589	$36,348.75
	assaying	119	$1,249.50
	geology	15	$4,500.00
	geotech	11	$1,650.00
			$43,748.25
AK-05-13	drilling	850	$53,373.48
	assaying	116	$1,218.00
	geology	14	$4,200.00
	geotech	10	$1,500.00
			$60,291.48
AK-05-14	drilling	904	$61,064.55
	assaying	219	$2,299.50
	geology	15	$4,500.00
	geotech	11	$1,650.00
			$69,514.05
AK05-51A	drilling	294	$24,776.30
	assaying	117	$1,228.50
	geology	6	$1,800.00
	geotech	2	$300.00
			$28,104.80
GRAND	TOTAL		$496,711.06

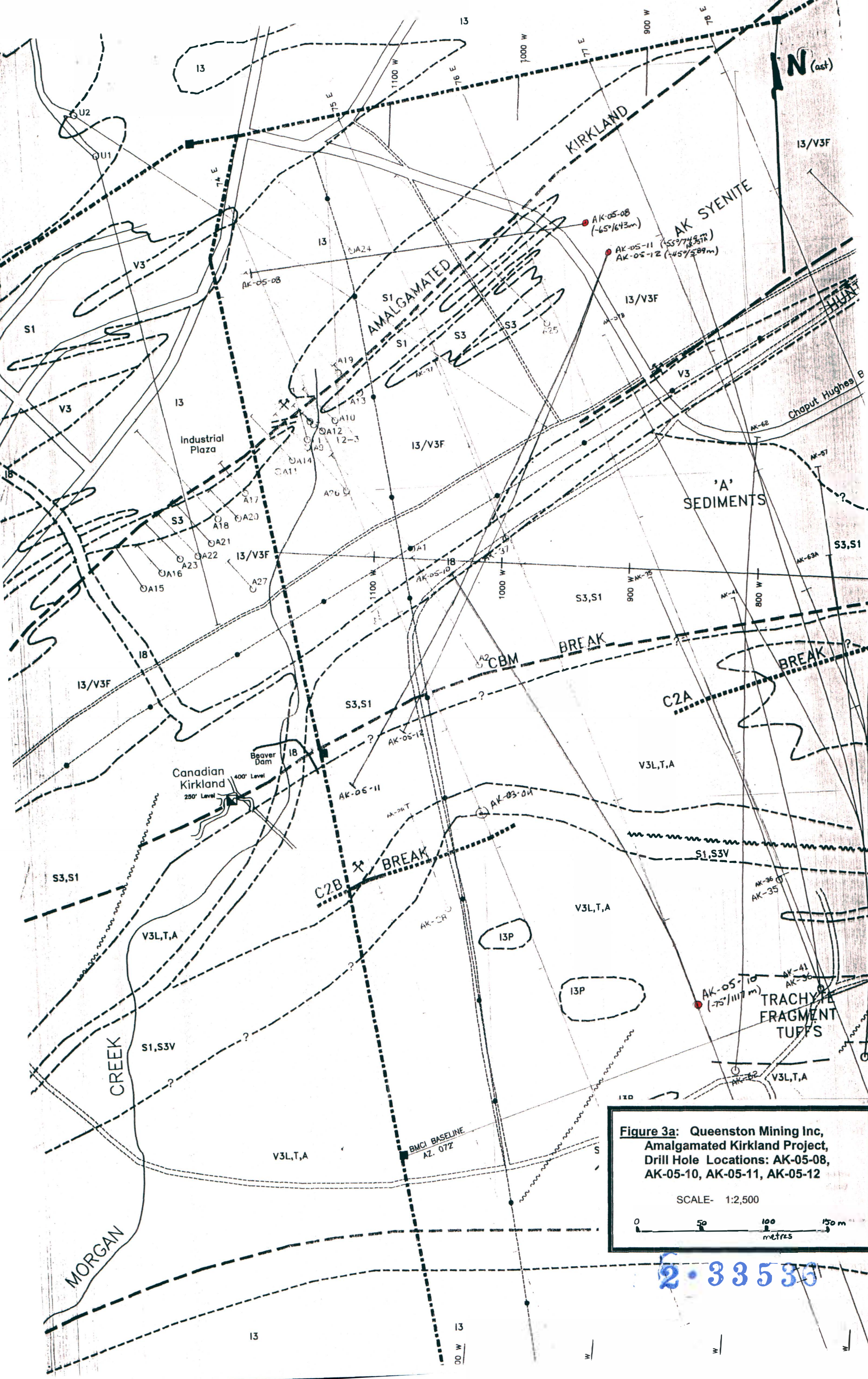


Figure 3a: Queenston Mining Inc, Amalgamated Kirkland Project, Drill Hole Locations: AK-05-08, AK-05-10, AK-05-11, AK-05-12

SCALE- 1:2,500

0 50 100 150 m
metres

2.33536

2.33536

Figure 3b: Queenston Mining Inc, Amalgamated Kirkland Project, Drill Hole Locations: AK-05-13, & AK-05-51A

SCALE- 1:2,500

0 50 100 150 m
metres

N (ast)

AK-05-13 (-50°/850m)

AK-05-51A (-63°/deepened from 443-737m)

HUNTON BREAK

HUNTON DIABASE

Chaput Hughes Bypass

'A' SEDIMENTS

MAIN TRENCHES

TRACHYTE FRAGMENT TUFFS

C3 BREAK

BREAK

SYENITE

FORT ROCK No.1

S1 S3 S3,S1 S3,S4 S3L,S4 S4,S3 13P V3L V3L,T,A 13/V3F 18

Figure 3c: Queenston Mining Inc, Amalgamated Kirkland Project, Drill Hole Locations: AK-05-09, & AK-05-14

SCALE- 1:2,500

0 50 100 150 m
metres

2 • 33536

N (ast)

Kirkland Kalgoorlie

AK-05-14 (-50°/904m)

AK-05-09 (-75°/980m)

EDEN ROCK No.1

AK SYENITE

HUNTON BREAK

HUNTON DIABASE

C1 BREAK

CBM BREAK

'C' SEDIMENTS

'B' SEDIMENTS

Hunton

Chaput Hughes Bypass

S1 S3 I3 I8 I3/V3F V3L,T,A S3L,S4 S3,S1 V3 V3F

QUEENSTON MINING INC

Drill Hole: AK-05-12

DIAMOND DRILL HOLE RECORD

2-33536

Property: AMALGAMATED KIRKLAND- Leased CLM 328 (UTM: 569676E/ 5331215N)
Northing: 10604.00
Easting: 7656.00
Elevation: 324.00

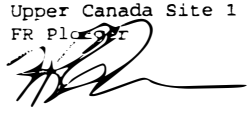
Collar Azimuth (Grid) 211.00
Collar Dip: -45.00
(0 Degrees Grid equals 341 degrees True)
Hole Length: 589.00

Date Printed: 25 Apr, 2006

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
27.0	202.6	-48.0	360.0	207.1	-45.3
60.0	204.0	-47.4	429.0	208.8	-44.2
120.0	202.4	-47.3	480.0	209.3	-43.3
180.0	204.8	-47.2	540.0	208.5	-42.9
240.0	204.1	-47.1	589.0	209.4	-42.5
300.0	205.1	-46.1			

Date Started: June 17, 2005
Date Completed: July 6, 2005

Drilled by: H & S
Core Size: NQ
Material left in hole NX CAS- pulled
Core Location: Upper Canada Site 1
Logged by: FR Plowger



From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

SUMMARY LOG

.00	20.50	CASING OVERBURDEN
20.50	71.40	PORPHYRITIC SYENITE BROKEN BLOCKY CORE
71.40	86.83	TRACHYTE TUFF
86.83	95.14	PORPHYRITIC SYENITE
95.14	108.50	TRACHYTE TUFF
108.50	122.80	SYENITE
122.80	142.43	TRACHYTE TUFF
142.43	209.05	PORPHYRITIC SYENITE
209.05	228.70	SYENITE
228.70	244.05	PORPHYRITIC SYENITE
244.05	264.55	TRACHYTE TUFF
264.55	280.30	TRACHYTE PYROCLASTIC
280.30	291.80	PORPHYRITIC SYENITE
291.80	303.76	TRACHYTE TUFF
303.76	394.20	PORPHYRITIC SYENITE
394.20	469.53	TRACHYTE TUFF
469.53	473.35	MAFIC SYENITE

From (m.)	To (m.)	Geology
473.35	500.00	GREYWACKE DEFORMATION ZONE
500.00	589.00	CONGLOMERATE GREYWACKE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

From (m.)	To (m.)	Geology
.00	20.50	CASING OVERBURDEN

The drillers report 20.5m of casing in fill, boulders and black muck. The hole is collared on the same set up, and is drilled above, AK-05-11.

20.50	71.40	PORPHYRITIC SYENITE BROKEN BLOCKY CORE

The upper portion of the porphyry, to 55.00m, is well broken up into short pieces and chips with local mildly ground up sections resulting in an estimated RQD of 30%. Up to 31.80m, it is also strongly pitted/ porous due to groundwater leaching with many oxidized slips and fractures. These sections are well fractured to moderately crushed at various angles, and, where the fractures are intersecting, the core is broken up. In afew spots, as at 44.20m, the core is ground on a possible gouge zone @ 55 DTCA. Below this structure to about 59.50m, the core again becomes porous, particularly along the fractures and slips. Down hole, the porphyry is slightly more competent but remains intermittently broken with the estimated RQD rising to 50%.

In general, the porphyry can be described as massive, homogenous, comprising 15- 20%, subhedral, dull grey, 2-4mm, feldspar phenocrysts in a fine grained, dark pinkish/ brownish grey groundmass containing 10% altered ferromagnesian grains and 3% mafic inclusions. One of these inclusions extends from 31.82 to 32.46m but most are less than 3.0cm in length. The host was tested with both potassium ferricyanide (KFeCy) solution and dilute hydrochloric acid (HCl) to determine the composition of the carbonate pervading the matrix/ groundmass and forming the veining - veining amounts to much less than 0.5%(<<0.5%). It was found that the groundmass was neutral, reacting to neither, but the fractures are calcitic. In addition, the porphyry was tested for magnetic susceptibility (MS) with meter readings ranging from lows of 1.00 to highs of 20.8 but averaging about 12.0 down to 48.00m at which point the values drop to a lower range of 3.03- 9.39 (average approximately 6.00) before increasing to 18.4/ 29.3, approaching the trailing contact with the tuff. Mineralization is essentially non existant except for a few fine specks of pyrite (py) and chalcopyrite (cp) associated with some of the fractures.

68.25 69.20 Trachyte Tuff - This large inclusion foreshadows the main trachyte tuff horizon that follows. The leading contact is sharp, natural @ 30 DTCA while at the trailing one, a tongue of the porphyry extends for 15cm into the inclusion. The host is believed to be a fine grained, massive, medium grey mottled/ coloured, fractured mafic tuff. It is fairly strongly magnetic, pervasively strongly calcitic and unmineralized.

71.40	86.83	TRACHYTE TUFF

The porphyry ends as an irregular, inundated tongue or finger that intrudes the tuff with a natural contact over a core length of about 25cm. Another

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52834	84.00	84.90	.90	TR	nil	.000	nil
52835	84.90	85.55	.65	TR	nil	.000	nil
52836	85.55	86.00	.45	TR	tr	.000	14

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		short section of porphyry with a partly digested(?)/ rubbly looking leading contact, and sharp trailing contact @ 46 DTCA, cuts the tuff from 72.05-73.03m. Overall, the trachyte tuff is massive, homogenous, fine to very fine grained, hard (barely scratchable) medium to dark grey to pink/ maroon grey coloured and granular textured. There are no obvious bedding features in the upper portion of the interval, the changes in grain sizes occuring gradually, however, faint weak, planer alteration/ bleaching at 76.65m may have migrated along, and highlighted bedding planes @ 45 DTCA.	52837	86.00	86.85	.85	TR	.001	.000	45
		In testing the unit with HCl, it was found to react violently throughout indicating strong pervasive calcite alteration of the matrix although the tuff proved to be very weakly ankeritic over about a metre below the the porphyry inclusion near the start. In addition, the 3% fine lacey fractures and veinlets that cut the host at various angles, are calcitic as well. Moderate fracturing/ crushing continues through the start of the interval but the core remains relatively intact and is not badly broken up. Overall, it is fairly strongly magnetic, with values reaching as high as 36.0 but ranging between 2.00 and 30.0 depending on the intensity of alteration. Mineralization is nil with rare specks of py or cp in some of the fractures.								
		84.00 86.83 Quartz-Carbonate Vein Zone Trachyte Tuff - The interval is characterized by progressively stronger alteration approaching a central quartz vein at 85.55- 85.90m. Alteration begins as broad fractured bands of medium yellowish grey sericitization(?) around dull grey, 0.5-1.5cm, calcite stringers. Around 84.20m, the tuff is pervasively altered to a light/ medium brownish yellow through the vein and down to the trailing contact of the tuff unit. It is moderately well crushed with the resulting spidery fractures primarily filled with chlorite along with minor calcite and specularite. The central vein is bounded on the hanging wall by a chlorite lined and fractured, 4cm ankerite- calcite vein @ 20 DTCA, and, on the footwall, by a 3cm, finely chlorite fractured zone @ 15 DTCA. The quartz has a dull grey fractured cherty appearance with mottled beigy patches (partly digested/ silicified wall rock inclusions) and fine lacey calcite fractures. Neither the quartz vein nor altered walls are mineralized apart from one small splash of cp. MS values drop below 1.50 in the weakly altered banded upper flank, and below 0.30 in the quartz vein and strongly sericitized(?) walls. Otherwise, they are high, ranging between 18.1- 36.0 (average 31.0) in the upper section to 75.0m, and dropping to a tightly constrained lower range of 20.6- 24.8 to the start of the altered zone at about 84.0m. The contact between the tuff and following dike falls at the end of the altered section on an irregular, rolling, chlorite slip @ about 40 DTCA.								
86.83	95.14	PORPHYRITIC SYENITE								
			52838	86.85	87.70	.85	TR	.003	.000	86
		Over the upper portion of the interval, the porphyry is moderately well altered and microfractured as a contact effect of the structure associated								

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

with the trailing vein zone in the tuff. To approximately 91.00m, the host is medium greyish pink coloured, laced with fine fractures and microfractures, some of which are chlorite or calcite filled, massive, medium textured with patches through which the porphyritic texture is only weakly visible or almost completely detroyed. The lower section, from 91.00m to the end, is mildly fractured with fine lacey calcite fillings that let the texture show through. Here, the host is clearly porphyritic, comprising 20%, 2-4mm, subhedral, dull grey feldspar phenocrysts in a very fine grained, dark- medium greyish maroon coloured groundmass containing 8% partially altered black ferromagnesian grains and an additional 0.5% mafic inclusions/ xenoliths. The lower contact is sharp, rolling @ 40 DTCA.

As mentioned, the fractures are calcitic in composition, some of them vuggy (90.05/ 92.75- 93.00m) while the matrix is essentially neutral/ non reactive. MS values begin in a low range of 0.54 near the contact, rising gradually through 3.26- 4.66 to 90.25m where they increase to a higher range of 11.6-18.3 to the end of the interval in the least altered section. Mineralization continues to run nil to trace.

95.14 108.50 TRACHYTE TUFF

52839	106.65	107.75	1.10	TR	.002	.000	71
52840	107.75	108.50	.75	TR	nil	.000	nil

The apearance of the tuff has not changed significantly from the previous interval at 71.40m. Overall, it is massive, very fine to fine grained, medium to dark grey to maroon grey coloured, finely granular textured, homogenous and unbedded, at least as far as the dike at 104.77m. Up to this point, the tuff is well fractured with 10% fine, dull white, 1-3mm, calcite veinlets that cut the core at various angles, but with preferred orientations between 40 and 45 DTCA. The matrix throughout the interval is strongly pervasively calcitic as well. MS values are generally fairly high, averaging around 35.0 within a range of 27.1- 40.8. Mineralization continues to run nil to trace.

104.77 106.67 Porphyritic Syenite - The leading contact of the dike occurs in splintered core but appears to be sharp, natural at a high angle (85 degrees) to the core axis while the trailing contact is highly irregular, fine grained and flamey. It is similar in appearance and texture to the leading, more altered and deformed phase of the major dike at 86.83m, medium greyish maroon coloured, massive, medium grained/ textured with faintly visible feldspar phenocrysts. Fractures continue to be calcitic in composition while the matrix is weakly calcitic as well. MS values average about 20.0 but drop to 8.55/ 13.0 in the lower half of the dike. It remains unmineralized.

106.67 108.50 Trachyte Tuff - Below the dike, the tuff becomes more strongly altered, dark greyish maroon in the walls of the dike to light greyish yellow/ green along fractures and completely over the lower 50cm of the interval. It is fine grained, massive finely granular textured, pervasively calcitic, and veined with 5% fine calcite stringers and gashy patches (near the end). The

From (m.)	To (m.)	Geology
		sulphide content increases to trace through this section with fine grains and splashes occuring in fractures and the fine network of microfractures that are megascopically difficult to distinguish.
108.50	122.80	SYENITE
		The contact, which falls on a chlorite slip accompanied by whispy calcite @ 20 DTCA, leads into an unusual dike(?) that loosely resembles the porphyries but lacks the phenocrysts. General themes running through the unit are 10% waxy green black altered, amphibole(?) laths that occur intermittently, and, the variably altered, 1% mafic inclusions/ xenoliths. The colour changes depending on the degree of alteration, generally ranging from grungy medium greyish brown where altered adjacent to chlorite calcite veinlets/ slips or in areas of stronger microfracturing, to medium greyish pink to dark grey maroon in less structured zones. These phases may grade back and forth, appear in sharp contact relationships, and, in places, a porphyritic phase seems to form as tongues or clasts/ inclusions in the host. Where present, the pheonocrysts are generally red altered (hematized) and difficult to distinguish from the groundmass. The trailing contact with the tuff is sharp, natural @ 35 DTCA.
		The unit is cut by 4% whispy, dull grey, finely shreddy calcite veining and accompanying chlorite- hematite fractures and slips up to 6cm wide, most trending @ 25- 35 DTCA. The matrix (fine microfractures) is pervasively weakly calcitic as well. The pattern displayed by the magnetic susceptibilities is erratic, with high values to 8.53/ 9.85 in greyish brown, maroon red phases (respectively) and with low values, around 1.00 in both. Mineralization, which runs trace overall, occurs as scattered blebs/ slivers, patches and grains of py and minor cp. A few sections were spot checked.
122.80	142.43	TRACHYTE TUFF
		The tuff unit displays features in the fresh and altered equivalents similar to those described above at 95.14m. It begins fairly well altered to 125.30m, a section that is traversed by several ragged, carbonate- chlorite fracture zones trending @ 20-30 DTCA which have altered the walls to a light greyish olive to yellow brown colour. Where fresher, the tuff is fine to very fine grained, massive/ unbedded, finely granular textured, and dark to medium grey coloured. The carbonate comprises a mix of ankerite and calcite in both the veining and matrix of the altered section at the start, but reverts to strongly calcitic, for the remainder of the interval. As expected, MS values begin in a low range of 0.39- 1.68 and climb immediately to a higher range of 26.2- 12.0 in the fresher zone. Mineralization is uniformly low at trace, consisting of fine specks of cp and py in fractures and carbonate veinlets.
		130.70 133.85 Porphyritic Syenite - Several narrow dikes separated by tuff

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52841	108.50	109.65	1.15	TR	tr	.000	2
52842	109.65	110.30	.65	TR	tr	.000	10
52843	110.30	111.45	1.15	TR	tr	.000	7
52844	111.45	112.50	1.05	TR	nil	.000	nil
52845	120.95	122.05	1.10	TR	.001	.000	45
52846	122.05	122.80	.75	TR	nil	.000	nil
52847	122.80	124.00	1.20	TR	.001	.000	19
52848	124.00	125.30	1.30	TR	nil	.000	nil
52849	125.30	126.15	.85	TR	tr	.000	7
52850	134.65	135.65	1.00	TR	.004	.000	130
58251	135.65	137.00	1.35	TR	.001	.000	51
52852	137.00	138.00	1.00	TR	.001	.000	41
52853	138.00	139.15	1.15	TR	.001	.000	34
52854	139.15	140.45	1.30	TR	.003	.000	89
52855	140.45	141.60	1.15	TR	.002	.000	72
52856	141.60	142.45	.85	TR	.007	.000	254

From (m.)	To (m.)	Geology
		make up the interval. It begins with a 20cm segmented section of porphyry with numerous tuffaceous inclusions followed by the thickest dike from 131.07 (sharp contact @ 55 DTCA) to 132.72m (irregular lobed contact) and a trailing one from 132.93 to the end (contacts on chlorite slip @ 40 DTCA and sharp, natural @ 65 DTCA). All are similar in appearance, comprising 15-20%, 1-3mm, dull grey to red altered, sub-anhedral feldspar phenocrysts, which, in some areas are difficult to distinguish from the fine grained, medium greyish pink/ maroon coloured, feldspathic groundmass. The MS values cluster around 12.5 and 24.0; mineralization is trace. Approximately 4% fine, dull grey, lacey calcite fractures and veinlets cut the porphyritic dikes.
133.85	142.43	Trachyte Tuff - Most of this interval is well crushed and altered with relativey fresh sections over 30 and 60cm at the begining and end, as well as a section from 137.95- 139.10m in the middle. The fresher areas are medium to dark green to purple grey, fine grained, granular textured, and massive/ unbedded while altered zones are medium to light olive green to greenish brown/ tan coloured. The strongest alteration, and weak cataclastic crushing occurs uphole over 1m from a 1cm quartz vein/ chlorite slip @ 15 DTCA at 136.92m, and a chlorite slip with a 7cm quartz vein @ 20 DTCA at 140.30m. The latter, is followed by 1.2m of carbonate breccia and fracturing. The carbonate in the cataclastic and breccia veining is mainly ankeritic with minor calcite along with quartz. Mineralization comprises anomalous (but <0.5%), fine grains and splashes of cp and py in the various carbonate vein zones.
142.43	209.05	PORPHYRITIC SYENITE The unit begins on a sharp, natural contact @ 45 DTCA. Similar to the intrusives above, the porphyry comprises 15- 20%, 1-3mm, sub- anhedral, dull grey to red altered feldspar phenocrysts in a fine grained, massive, feldspathic, dark to medium pink to maroon coloured groundmass containing 15-20%, altered mafic/ ferromagnesian grains and 3% mafic inclusions. The darker coloured (fresher) section occurs above the tuff inclusion from 144.90- 148.20m, while below, it maintains the same textures but lightens slightly in colour because of alteration around fractures and zones of microfractures. These colour changes are accompanied by variations in the MS values which are higher at the start (12.3/ 13.1) in the fresher sections, dropping below 2.00 in the strongest altered zone, and oscillating between 1.79 and 6.85 elsewhere. Calcite continues to dominate the groundmass (microfracturing?) and fractures (<0.5%) although a section between 156.90 and 165.30m, is mainly pervasively weakly ankeritic. This coincides with the most strongly altered segment of the porphyry although it is not centred on any obvious focussed structure other than a possible chlorite crush alteration fault @ 40 DTCA at the start (157.15m). Mineralization comprises

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6951	142.45	143.80	1.35	TR	.003	.000	107
52857	156.00	156.90	.90	TR	nil	.000	nil
52858	156.90	157.50	.60	TR	.001	.000	27
52859	157.50	158.70	1.20	TR	nil	.000	nil
52860	158.70	159.75	1.05	TR	tr	.000	3
52861	159.75	161.05	1.30	TR	nil	.000	nil
52862	161.05	162.45	1.40	TR	nil	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

trace to nil fracture related minor py and cp.

144.90 148.20 Trachyte Tuff - The tuff, along with the leading porphyry section are well broken up into small pieces to the degree that the estimated RQD is zero (section of BBC broken out below). Otherwise, it is relatively fresh, massive/ unbedded, fine grained, granular textured and dark grey coloured. The susceptibility rises as high as 33.4 but averages 23.0. Mineralization is trace, and the matrix, strongly calcitic.

142.43 151.60 Broken Blocky Core - As mentioned above, the core through this section is well fractured and broken into small pieces

161.00 193.30 Porphyritic Syenite (bimodal) - Below the strongest alteration, a larger fraction of feldspar phenocrysts ranging to 1cm, but averaging 0.4cm, becomes apparent. However, coincidentaly, the concentration of the regular smaller phenocrysts decreases to 5-15% while all other features such as the mafic grains/ crystals and mafic xenoliths in the groundmass, remain the same. Overall, the colour is medium greyish pink/ maroon with an earthy, finely porous texture to the core. At 188.60m, there is a gradual transition to a medium grey colour that appears to be caused by chloritic alteration centred on a strong, whispy, 10cm carbonate vein zone around a chlorite slip @ 40 DTCA at 192.47m and that extends to the end of the interval. As mentioned, MS values undulate gently between 1.79 and 6.85, and mineralization is trace. Calcite dominates the matrix and <0.5% veining except for a section below 186.0m which is pervasively weakly ankeritic, and in which the veinlets start to become partly ankeritic. In a segment between 191.70 and 192.00m, the carbonate has been partially leached leaving the host rough and spongy looking/ pummicey feeling.

193.30 209.05 Porphyritic Syenite - The transition back into the main porphyry body is through a sharp, natural contact @ 50 DTCA but it is difficult to determine which phase intruded which. Overall, it appears as previously described, comprising 15-20% faintly visible 1-3mm feldspar phenocrysts in a massive, fine grained greyish pink/ maroon groundmass containing the ubiquitous 1- 2% fine mafic inclusions/ xenoliths. The unit is punctuated by a series of minor chlorite carbonate fractures and fracture zones with accompanying dirty olive grey alteration halos over a couple to 50cm. Calcite forms the dominant carbonate mineral in veinlets and fractures/ microfractures. MS values in the fresher sections cluster between 4.38 and 8.91 but grade down as low as 0.14 in altered sections. The porphyry is barren, with no visible sulphides apart from a thin seam of py on a chlorite calcite slip @ 50 DTCA at 205.15m. This phase of the intrusive ends on an irregular rolling chlorite slip @ about 20 DTCA.

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

209.05 228.70 SYENITE

This non porphyritic phase was sufficiently thick that it was separated with a code 4. As with previous similar intervals, the host has the appearance of the porphyry but contains no significant proportions of feldspar phenocrysts. Overall, it comprises a fine grained, massive, dark greyish brown/ maroon groundmass that contains 5-10% dark green black mafic grains to 4mm, 2% small mafic inclusions/ xenoliths (excluding a possible 40cm inclusion at 212.50m) and a smattering (<0.5%) of feldspar phenos. The unit seems to have reacted more competantly than than the preceding porphyry, exibiting only about 0.5% fine thready calcitie fractures and veinlets although the matrix of the groundmass is very strongly pervasively calcitic. Susceptibilities are generally elevated, varying between 13.2 and 24.5 with tight groupings around 14.0 and 22.5. It is totally unmineralized.

215.25 215.30 Fault Zone - The fault here is consists of a 3mm mud slip and parallel slips all trending @ 25 DTCA which have altered the host to a brick orange colour for 55cm.

227.35 227.36 Fault Zone - This is a weak drusy calcite fault @ 60 DTCA.

228.70 244.05 PORPHYRITIC SYENITE

The contact between the two phases of syenite (porphyry) is sharp, natural, irregular, rolling @ about 45 DTCA. A lens/ inclusion of trachyte tuff interrupts the dike from 232.00 to 234.40m with a sharp natural, but faint, irregular leading contact @ about 50 DTCA and bulbous, fingered trailing contact that appears to have incorporated some tuffaceous material. Typically, the tuff is very fine grained, massive/ featureless, medium bluish/ greenish grey coloured, and strongly magnetic (MS to 40.8). Staining with KFeCy and testing with HCl indicate that the matrix is both weakly ankeritic and calcitic.

The porphyry comprises 20%, 1-3mm, dull grey, subhedral feldspar phenocrysts in a massive, fine grained, dark greyish maroon/ purple, feldspathic groundmass containing 8% dark green black mafic grains and an additional 3% mafic inclusions/ xenoliths to 3.5cm. In this phase of the porphyry, the feldspar phenocrysts are clearly visible and not obscured by alteration or deformation. Most of the unit is relatively fresh looking, cut by only 2% fine pink calcite veinlets and fractures outside of 15cm of pink crushing at 229.25m and 40cm of weak bleaching centred at 239.40m, neither of which is associated with any significant structure. The feshness of the host is also suggested by the MS values which average 5.00 in the portion of dike above the tuff, and, 15.0, within a range of 10.7- 27.8 below. Mineralization in both the tuff and porphyry is negligible. The trailing contact with the following tuff is sharp, natural @ 50 DTCA.

From (m.)	To (m.)	Geology
244.05	264.55	TRACHYTE TUFF

Through this section, the tuff is lighter coloured compared to above, being mottled from a medium greyish green to light greyish blue along fracture sets that grade into more pervasive patches. Otherwise, it maintains its previous characteristics of being massive/ unbedded, fine grained, and granular textured. In a few places, it appears to contain clasts of porphyry that occur singly or as trains of rubble as at 250.80 and 251.00m. The clasts tend to be rounded/ subrounded and range up to 6cm in length. In addition, several narrow porphyry dikes, described separately below, cut the tuff. When tested with HCl, the host reacts strongly indicating pervasive calcite alteration; pink and dull white calcite veining/ fracturing amounts to approximately 1%. Overall, the MS values are high, ranging between 29.8 and 46.0 to 252.00m, and 15.0- 28.0 below.

252.50 254.28 Porphyritic Syenite - The tuff is cut by two porphyry dikes separated by a 20cm lens of tuff at 253.05m. A 0.5m zone of pale pinkish grey bleaching masks the leading contact, trending along the core axis, of the upper dike. The dike is truncated by a chlorite- calcite slip @ 40 DTCA. In the lower dike, the contacts are well defined but nebulous @ about 80/ 70 DTCA. Both dikes, plus a third dike at 257.60- 258.20m (contacts rolling @ 40/ sharp @ 55 DTCA), are fairly similar in appearance, comprising 15%, subhedral feldspar phenos in a mottled pale greyish pink (altered) to medium maroon (fresher) coloured, fine grained groundmass with mafic inclusions. Neither the dikes nor walls are mineralized and they are weakly magnetic at 2.00 to 3.00, in contrast with the host tuffs which are higher.

254.28 264.55 Trachyte Tuff - The tuff, as described above, continues below the dikes but at 259.20m, weak alteration has highlighted a weak lamination fabric @ 55 DTCA that resembles bedding. Brick orange isolated clasts and trains continue to the end of the interval which was taken at a point where clasts/ fragments become more common, inviting a change in code.

From (m.)	To (m.)	Geology
264.55	280.30	TRACHYTE PYROCLASTIC

In this case, pyroclastic is a collective term that spans a leading fine fragmental, a possible welded tuff/ flow, and a crystal tuff. It begins with a fine fragmental that consists of densely packed dark greyish orange and brick orange porphyryic and trachytic, subangular fragments that appear to have formed from a rapidly decomposing protolith. From 268.20- 272.50m, the dark brown/ grey fragments seem to grade back and forth into more massive flow(?) sections, the entire package possibly fused suggesting that this may be a welded tuff or spatter field(?) near a vent. It is followed by a very fine grained, massive, dark brownish grey trachyte flow to 274.15m, and ends with a fine grained, medium brownish grey coloured, granular textured tuff that contains scattered trachytic clasts/ fragments, a considerable number

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52863	272.85	273.55	.70	TR	.001	.000	48

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		of eroded feldspar crystals of various types and sizes, and a few tongues of massive trachyte flows (275.35m).								
		Up to about 275.70m, the interval is strongly pervasively calcitic, but, at this point, there is a transition to weak pervasive ankerite through the matrix and a mix of ankerite and calcite in veinlets and fractures. MS values increase from 13.3 to 27.7 in the fine fragmental and rise to as high as 42.8 in the welded tuff. They then drop to a low of 0.30- 2.00 in the massive flow, possibly because it may have been affected by a strong, 1.5-4.0cm, carbonate- shear fault/ vein @ 25/ 45 DTCA at 273.15m, that it is centred on. Susceptibilities in the crystal tuff begin at 17.3 but drop to lower range of 2.00- 3.00 through most of the remainder of the interval. All of the above phases are weakly mineralized with trace splashes and grains of py and cp. The trailing contact was taken at a break in the texture along a ragged slip @ 15 DTCA.								
280.30	291.80	PORPHYRITIC SYENITE								
		In places, this unit resembles the crystal tuff phase described above since it is only weakly porphyritic overall and the colour varies from medium greyish pink where weakly hematized (282.40- 283.90m), to mottled greyish olive green in two zones of bleaching (carbonate- sericite) in the walls of some quartz- carbonate veining at 288.25- 289.25m and 290.65- 291.80m. Otherwise, it is medium maroon grey coloured when least altered. The porphyry is characterized by scattered, 2% white to pink, subhedral feldspar phenocrysts in two size ranges of 1-3mm and 4-8mm with local concentrations of the smaller sized, dull grey feldspars to 15% over a few decimetres which are difficult to distinguish without the use of a lens. These phenos are disseminated in a typical fine grained, feldspathic groundmass containing 10% black to altered ferromagnesian and biotite grains and only rare mafic inclusions. The combination of the colour variations and the bimodal nature of the unit, along with the lack of clear contacts and a fine microfracturing that imparts a granular look to some sections, contribute to the possible misidentification of the protolith as a crystal tuff.	52864	287.10	288.15	1.05	TR	.001	.000	45
			52865	288.15	288.85	.70	1	.018	.000	634
			52866	288.85	290.00	1.15	TR	.001	.000	41
			52867	290.00	290.90	.90	TR	.002	.000	55
			52868	290.90	291.85	.95	4	.030	.000	1042
		Staining with KFeCy indicates that the porphyry is very weakly ankeritic although the 4% veining remains mixed calcite and ankerite. MS readings are relatively low, ranging from 0.24- 0.58 in the green altered sections, and 0.56- 5.28, averaging about 2.00, in the fresher portions. Mineralization is nil to trace overall with concentrations to 15% over approximately 5cm in the walls of some of the veins (see below).								
		288.25 290.65 Quartz-Carbonate Vein Zone - The interval encompasses the two green altered/ bleached sections that are centred on quartz carbonate veins at 288.44m (2- 1cm veins @ 35 DTCA), 291.00m (5cm vein @ 30 DTCA), 591.40m (2- 1cm veins @ 35 DTCA), and 291.76m (2 gashes @ 35/ 55 DTCA). The walls of the first three sets of veins are well mineralized with up to 15% fine patches of py (marcasite?) over 1-5cm. Veining amounts to approximately 15% of the interval while sulphides may average								

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		about 0.5% overall but possibly as high as 4% between the two middle veins. The trailing contact is sharp, irregular/ stepped @ 35/ 65 DTCA.								
291.80	303.76	TRACHYTE TUFF								
		The hole now rolls back into the tuff containing the scattered trachytic and porphyritic clasts and trains of fragments as described above at 244.05m. Overall, it comprises a fine grained to gritty, medium brownish grey coloured, massive trachytic tuff with gradational contacts between the various size fractions and about 2% reddish coloured clasts (1- 6cm), trains and ribbony fragments scattered through the interval. The unit is laced with 2-3% fine, whispy, dull white carbonate veinlets, generally at steep angles, that are concentrated near the start of the interval. Up to about 297.50m, the matrix is weakly ankeritic and the veinlets a mix of ankerite and calcite, while below, both matrix and veining are completely calcitic. MS values gradually increase with distance from the two faults near the start (see below), ranging from 1.38, immediately above the faults to a high of 24.1 at 302.70m, averaging approximately 14.5 in the fresher sections below 298.00m. As with previous sections, mineralization is nil to trace, comprising rare scattered py grains in fractures.	52869	291.85	292.85	1.00	TR	.001	.000	51
			52870	292.85	293.70	.85	TR	.020	.000	686
			52871	293.70	294.95	1.25	TR	nil	.000	nil
		292.95 293.49 Fault Zone - The faults actually occur at either end of the interval with light greyish brown altered and moderately crushed tuff in between. Both are chlorite carbonate laminated to crush faults trending @ 30 DTCA, the upper one 1cm wide and the lower, 2cm. Although the walls are well altered, they are not mineralized.								
303.76	394.20	PORPHYRITIC SYENITE								
		The dike intrudes the tuff with a wavey but sharp, natural contact @ 65 DTCA. Overall, the porphyritic texture is faintly visible through the intense hairline fracturing and microfracturing that pervades the unit, mimicking the attitude (and conjugate sets) of some of the strong green bleached slips (310.60/ 312.00/ 312.72m) @ 45 DTCA; the 1% mafic inclusions are well preserved. Otherwise, the intrusive is medium grained/ textured, medium greyish pink coloured/ altered, with 20% faintly visible, red and dull pink grey altered, 1-3mm feldspar phenocrysts. It is essentially barren except for the well mineralized rims/ walls of several green altered slips where sulphides may range up to 2-4% over 2-5cm and average trace (finely disseminated py) elswhere. The fine hairline fractures (8%) are a mix of calcite and ankerite, with ankerite making a reappearance at about 306.50m as weak pervasive alteration of the matrix. MS values fall into a fairly narrow range of 7.00- 9.00 in the freshest sections but dip to about 1.00 near the altered slips. Below 318.00m, the MS values dip into a broad low zone that extends to about 353.50m. The zone is generally characterized by a number of zones of fine shreddy carbonate fracturing over a few meters and a strong central break zone. The values in the least altered section run	52872	309.40	310.50	1.10	TR	tr	.000	17
			52873	310.50	310.80	.30	0.5	.001	.000	38
			52874	310.80	311.85	1.05	TR	tr	.000	7
			52875	311.85	312.80	.95	1	.012	.000	396
			52876	312.80	313.45	.65	TR	tr	.000	7
			52877	313.45	313.90	.45	TR	nil	.000	nil
			52878	313.90	315.00	1.10	TR	tr	.000	2
			6952	325.05	326.30	1.25	TR	.001	.000	38
			6953	326.30	327.00	.70	TR	.005	.000	168
			6954	327.00	328.35	1.35	TR	.002	.000	62
			52879	328.35	329.55	1.20	TR	.011	.000	365
			52880	329.55	330.20	.65	TR	.010	.000	329
			45649	330.20	331.50	1.30	TR	nil	.000	nil
			45650	331.50	332.40	.90	TR	.003	.000	103
			52881	333.85	334.70	.85	TR	.001	.000	27
			52882	334.70	335.50	.80	TR	nil	.000	nil
			52883	338.35	339.30	.95	TR	.004	.000	130
			52884	339.30	339.75	.45	TR	.001	.000	48
			52885	339.75	341.05	1.30	TR	.001	.000	45

From (m.)	To (m.)	Geology
		between 0.75 and 2.32, particularly leading into the upper 8m, while below 325.00m, they track between 0.10 and 0.30, rising as high as 0.96 between the major structures and alteration corridors (see below).
313.70	313.73	Fault Zone - In addition to the chlorite- carbonate slips with the bleached/ sericitized walls described above, a tight, but strong chlorite quartz fault @ 50 DTCA, has light orange altered walls over 6cm along with a few splashes of cp.
328.35	330.20	Carbonated Zone - In this interval, the host is overprinted by 15- 18%, dull white ankerite shreds, slivery gashes, thready fractures and veinlets trending in various directions but commonly around 45 DTCA. The focus of this veining seems to be a chlorite alteration slip @ 47 DTCA at 330.00m that is immediately preceded by dark grey, irregular, chlorite-silica- hematite fractures. Sulphides are slightly anomalous through this corridor but do not reach 0.5% and susceptibilities drop between 0.10 and 0.15.
334.90	335.05	Fault Zone - The drillers report some ground problems in this strong gouge fault @ 20/ 35 DTCA which is characterized by 15cm of gouge and finely crushed host and quartz carbonate veining followed by 50cm of braided fracturing along the core axis into a large mafic inclusion. The immediate hanging wall is altered to a dirty, light salmon pink colour over 20cm and brick pink/ orange through the fracturing but returns to the background colour, beyond. Low MS values extent for 0.5m up hole (0.15) but continue down to the next fault/ vein in the range of 0.17- 0.33. Mineralization is trace only.
339.44	339.54	Fault Zone Quartz Vein Zone - This, the heart of the zone, comprises two parallel chlorite slips @ 15 DTCA, each accompanied by 1cm ragged/ irregular quartz- ankerite-chlorite veins containing a few scattered cp splashes (<<0.5%). The vein/ fault is preceded by 1.0m of finely shredded ankerite veining similar to that at 328.35m that is weakly mineralized with trace fine dusty py. MS values rise to 0.93 within 0.5m of the trailing portion of the vein.
341.00	354.59	Porphyritic Syenite - Below a sericite shear slip @ 25 DTCA at 340.95m, the MS values float within moderate limits of 0.24 and 1.91 indicating a moderately strong continuation of the alteration associated with the various structures above. Except for a few narrow windows, the porphyritic texture has been masked by moderate fine fracturing/ microfracturing and hematization of the groundmass and phenocrysts to a medium greyish orange/ pink colour. The mafic inclusions, although altered as well, are clearly visible, forming approximately 4% of the interval and ranging up to 10cm in length. It is weakly fractured (2% chlorite, 1% ankerite) but basically barren of mineralization. The trailing contact is unusual, consisting of

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52886	359.70	360.85	1.15	TR	.001	.000	27
52887	360.85	361.85	1.00	TR	.003	.000	114
52888	361.85	363.20	1.35	TR	.002	.000	62
52889	363.20	364.00	.80	TR	.009	.000	295
52890	364.00	365.20	1.20	TR	.018	.000	609
82498	365.20	366.45	1.25	TR	.003	.000	125
82499	366.45	367.80	1.35	TR	.008	.000	288
82500	367.80	369.00	1.20	TR	.003	.000	99
52891	369.00	370.30	1.30	TR	.008	.000	274
52892	370.30	371.30	1.00	0.5	.007	.000	223
52893	371.30	372.40	1.10	TR	.003	.000	110
52894	372.40	373.65	1.25	TR	tr	.000	7
52895	373.65	375.00	1.35	TR	.002	.000	59

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

a sharp natural contact @ 35 DTCA up hole at 354.55m, followed by 15cm of fragmented porphyry (porph clasts?), followed by 7cm of tuff and finally by an 8cm lobe of porphyry with sharp, natural contacts @ 50 DTCA.

354.59 360.38 Trachyte Tuff - The hole now moves into a mixed regime of porphyritic and non porphyritc syenites and fragmental and non fragmental tuffs, the main segments of which are detailed briefly below. It begins with a thick inclusion of tuff that is fine to very fine grained, massive, and medium (olive) grey above a 1m porphyry dike at 357.10- 358.10m, and light green grey below. The leading contact of the internal dike is stepped @ about 20 DTCA while the trailing one is sharp at 50 DTCA. Above this dike, MS values are elevated, beginning at 14.3 and gradually dropping to 6.01, while below, they drop dramatically to 0.99- 1.52. Ankerite continues to invade the matrix of the hosts, and, mineralization is trace. The lower 65cm comprises a tongue of porphyry followed by fragmental looking tuff containing small porphyry clasts that leads into a strongly hematized, brick red sharp natural contact @ 70 DTCA.

360.38 364.69 Porphyritic Syenite - Typically, the porphyry is massive, medium textured, brick red to orange coloured with the phenocrysts visible at the start of the interval but fading with increased alteration and microfracturing. MS values are low, in the range of 0.12- 0.18, but the sulphide content increases only marginally to trace. The actual dike ends at 363.61m, the last meter comprising a section of tuff or a large mafic inclusion. It is fine grained, massive and medium/ light grey coloured. The upper contact with the dike is hazy but well defined @ 55 DTCA, the trailing one, similarly nebulous @ 45 DTCA.

364.69 369.23 Syenite - In this phase of the syenite, the phenos are absent although all the normal features associated with the porphyries such as the bright medium pink colour, medium texture, and mafic inclusions (2%) are present. Susceptibilities are also low at 0.15- 0.19 with one small spike to 0.38. It is weakly mineralized with trace to weakly anomalous disseminated and fracture controlled py. The trailing contact with a phenocrystic phase is sharp, along a very fine sericite slip @ 60 DTCA.

369.23 370.40 Porphyritic Syenite - It is not clear which phase intrudes which, but in this narrow interval, the phenocrysts are barely visible with a lens in the medium brick orange/ pink groundmass. It is mineralized with trace py, weakly magnetic at 0.16, and weakly ankeritic, and weakly veined (1% quartz-ankerite) as were all the previous phases. The trailing contact is sharp @ 55 DTCA.

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

370.40 373.61 Syenite - Here, the two phases of porphyry seem to be jumbled together as large clasts and rafts in a partially hematized tuffaceous matrix, and, in part, over the upper meter or so, it appears that porphyritic inclusions have been incorporated into the non porphyritic intrusive. Sulphides occur as anomalous clusters of grains, patches and splashes up to 5% over 10cm in places but average trace overall. MS values range between 0.13 and 0.26 rising to 0.60 at the end. The trailing contact with another porphyritic phase is sharp @ 40 DTCA.

373.61 377.55 Porphyritic Syenite - There is a return to the porphyritic phase of the syenite, complete with intermittently visible feldspars and mafic inclusions in a medium textured, medium orange pink coloured groundmass. MS values rise to a higher level of 0.27- 0.41 as the alteration and deformation begin to decrease slightly although the matrix and 0.5% carbonate-quartz veining remain weakly ankeritic. The trailing contact i sharp, natural @ 35 DTCA.

377.55 380.00 Trachyte Agglomerate - This interval is best described as a finely fragmental agglomerate (pyroclastic) in which porphyritic and non porphyritic trachyte clasts, from 0.5-4cm, are contained in a fine grained tuffaceous matrix, although, over the upper 30cm, it appears as if mafic clasts occur in a trachytic matrix. Susceptibilities reflect the higher magnetics of the tuff rising to as high as 14.24. The matrix remains weakly pervasively ankeritic but the veining (<0.5%) has become calcitic; mineralization is nil to trace.

380.00 383.67 Porphyritic Syenite - The leading contact with the agglomerate is well defined and rolling but not sharp @ 75 DTCA. The phenocrysts are weakly visible through most of the interval but become clearly visible near the end of the zone. MS values climb again, rising to a higher plateau of 0.40- 1.46.

383.67 387.35 Syenite - The porphyry is cut with a sharp contact by a non phenocrystic phase of syenite or trachytic subvolcanic @ 40 DTCA. It is massive, medium textured, dark/ medium greyish pink coloured, and contains <0.5% mafic inclusions. MS values aer elevated to a range of 24.5- 31.6; mineralization is nil. The trailing contact is equally sharp @ 65 DTCA.

387.35 394.20 Porphyritic Syenite - Actually, this interval consists of syenite porphyry to 393.20m, massive syenite (weakly porphyritic) to 390.13m, tuff/ agglomerate to 390.80m, and, finally, back into porphyry to the end. All the phases are as just described immediately above. Susceptibilities were respectively measured at 0.83/ 1.23 (porph), 8.09/ 17.9 (syen), 4.08/ 7.81 (tuff), and 0.32/ 0.77 (porph). Mineralization in all zones is nil to trace and all are weakly

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		ankeritic with 0.5% dull white ankerite veinlets but some calcitic fractures. The trailing contact is sharp, natural @ 40 DTCA.								
394.20	469.53	TRACHYTE TUFF								
		This marks the transition into a thicker lens of the tuff which is interrupted by a few well altered porphyry dikes and ribbons of trachyte that are broken out separately. Similar to the intervals above, it is fine grained, massive/ unbedded, granular textured in parts and weakly clast bearing/ agglomeratic in others, and medium greyish green coloured. They are magnetically high as well, generally ranging between 5.45 and 17.4. The carbonate component of the matrix is strongly calcitic as indicated by testing with HCl but changes to dominantly ankeritic around 404.35m while 2% veinlets remain calcitic. Apart from the change to ankerite, there is no indication, either through increases in alteration or mineralization (nil - tr) to indicate the presence of the strong fault that ends the interval (see below).	52896	406.25	407.00	.75	TR	nil	.000	nil
			52897	407.00	407.70	.70	TR	nil	.000	nil
			52898	407.70	408.80	1.10	TR	nil	.000	nil
			52899	408.80	410.10	1.30	TR	.002	.000	82
			52900	429.80	430.65	.85	TR	.013	.000	455
			52901	430.65	431.50	.85	TR	.002	.000	58
			52902	431.50	432.50	1.00	1	.006	.000	219
			52903	432.50	433.50	1.00	1	.001	.000	38
			52904	433.50	434.55	1.05	0.5	.001	.000	31
			52905	434.55	435.70	1.15	0.5	nil	.000	nil
			52906	435.70	436.95	1.25	TR	.001	.000	35
			52907	436.95	438.00	1.05	TR	.001	.000	24
		407.15 407.36 Fault Zone - Ending the tuff horizon is this strong cataclastic carbonate fault @ 15 DTCA characterized by 25cm of alteration (pale grey brown/ pink) preceding the 12cm chloritic cataclastic zone. A 1-2mm mud seam then leads into 2cm of patchy to laminated pink calcite chlorite veining followed by 35cm of altered porphyry and a chlorite sericite slip that follows the core axis.								
		407.36 410.10 Porphyritic Syenite - The leading 1.2m, particularly 30cm immediately below the fault (as described above), are well fractured/ crushed with many fractures filled with a grungy grey mix of chlorite- silicification- hematite. It is medium brick orange/ pink coloured, massive, medium textured but with no obvious phenos, and, well fractured with 15% thready/ shreddy dull white ankerite veins and an additional 8% of the dull grey silicified chlorite- hematite fractures mentioned above. The interval is mineralized with trace splashes and large grains of cp and py. It ends with an irregular rubbly contact.								
		410.10 422.37 Trachyte Tuff - The hole now traverses another thick section of tuff as described, fine to very fine grained, massive with rare bedding features @ 45+/- DTCA (411.74m), and medium grey to green grey coloured. Included within the tuff are ribbons/ tongues and blobs of fine grained, hard, (dark) burgandy coloured trachyte flows that generally track at low angles to the core axis (10-20 degrees) as at 414.00, 415.15 and 416.00m. Susceptibilities undulate between lows of 6.15 and highs of 29.4 although most values cluster between 8.00 and 12.0 and around 17.0. At about 413.60m, there is a transition from ankerite back to calcite as pervasive alteration of the								

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

matrix and partly of the veins. Sulphides are nil to trace.

422.37 424.19 Porphyritic Syenite - Another porphyry dike with visible phenocrysts cuts the tuff sequence with sharp, natural contacts, the leading one highly embayed, the lower rolling @ 25 DTCA. The dike is medium greyish maroon coloured, massive, visibly porphyritic and weakly magnetic at 0.44/ 0.82. It is relatively fresh looking although cut by 3% fine thready ankerite- calcite veinlets and only weakly magnetic; mineralization is trace.

424.19 431.60 Trachyte Tuff - There is a return here to a fine to very fine grained, massive, medium/ dark grey green coloured tuff that becomes progressively more altered to a light greyish green colour towards the fault zone at the end of the interval. This is confirmed by MS values that range between 8.10 and 15.5 to 429.90m, and then steadily decrease to 0.64 by the fault. Interlensed with the tuff from 428.40- 428.88m, is a lobe of fine grained, massive, hard, pale/ medium pinkish grey trachyte (MS 2.90) with sharp, natural contacts @ 55/ 35 DTCA, the upper one including a few angular tuff fragments in the contact area. At about 427.10m, there is another reversal of the carbonate back to weakly, pervasively altering the matrix to ankerite. This interval is unmineralized in the fresher, more magnetic sections, below which trace py is present.

431.56 431.60 Fault Zone - A crush, gouge fault @ 35 DTCA followed by an 8cm cataclastic zone ends the tuff. This structure seems to represent the focus of the change to ankerite and the moderate alteration and crushing of the host lithologies.

431.60 435.67 Trachyte - At first glance, the host has the appearance of a well crushed and altered porphyry, however, there are no phenos visible with a lens, no mafic inclusions, and a fine grained matrix/ groundmass which is more typical of a trachyte flow. The colour ranges from brick orange (hematized) above a greyish green sericitized tuff lens (433.53- 433.92m), to pale pink with medium grey pink speckles, below. The entire unit is strongly crushed to microfractured with grungy grey/ black fractures (hematite- chlorite) in the hematized section, and lacey silicification in parts of the lower section. MS values gradually drop from 0.24/ 0.30 near the start to 0.09 by the end, which is formed by a natural trailing contact @ about 90 DTCA. The entire section averages trace tc anomalous in py and cp with local sections ranging up to several percent over 5-10cm.

435.67 469.53 Trachyte Tuff - Following a leading moderately to weakly fractured and altered section to 438.60m, the hole rolls into relatively fresh, massive, unbedded, fine to very fine grained, medium greyish green coloured tuff. It contains

From (m.)	To (m.)	Geology
		widely scattered (0.5%), tongues, trains and isolated clasts of medium greyish pink trachyte that generally track at low angles or along the core axis. Possible soft sediment deformation features are weakly highlighted by alteration (444.40m) indicating local bedding angles @ 35 DTCA. MS values are unusually low for the tuffs ranging mainly between 0.45 and 3.25 to 454.40m, below which, they drop to a lower grouping of 0.30- 0.50. Ankerite remains weakly infusing the matrix but veining, which amounts to 0.5% to 449.50m, rising to 8% to 457.50m, is calcitic. There is no significant mineralization associated with the increased veining, which comprises gashy breccia veins to 2.5cm, apart from a few scattered grains of py and cp.
462.75	470.75	Broken Blocky Core - The core through this interval is recovered as splinters, chips and small pieces related to zones of crushing and their intersections with a series of parallel and conjugate fractures related to a very strong late break structure at 467.14- 467.37m (see below) that cuts the core @ 16 DTCA. There is no significant alteration associated with this structure but there is a change from ankerite to calcite beginning at about 0.5m up hole of the structure. The RQD is estimated at about 10%.
467.14	467.37	Fault Zone - As mentioned above, this is a very strong late structure consisting of 25 centimetres of mud and gouge @ 16 DTCA that the drillers managed to recover intact. The core up hole is only moderately broken over 1.5m but is completely broken up over the same distance down hole. There is no alteration or mineralization associated with this structure, which, along with the fact that the host turns calcitic, suggests that the feature is post Timiskaming alteration and mineralization.
469.53	473.35	MAFIC SYENITE The leading contact was arbitrarily taken at the end of a section of broken core at which point the altered augite phenocrysts became apparent. Typically, the porphyritic textures appear as 30- 40% faint, medium grey, euhhdral, augite pseudomorphs in a fine grained, dark grey groundmass. Adjacent to some patchy pink quartz veining at 472.40m, the host is bleached/ sericitized to a yellow green colour over 25cm, otherwise it is weakly altered and pervasively calcitic. MS values range from 5.33/ 5.25 over the upper 1.5m, to a peak of 11.2 at 472.10m and lows of 0.32/ 0.37 over the trailing meter where it is well microfractured. Mineralization comprises trace fine py. The lower contact was taken at the start of a 10cm shear and streaky, gashy, quartz carbonate vein/ fault zone bearing a few specks of cp, @ 30/ 25 DTCA.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52908	471.00	472.25	1.25	TR	tr	.000	10
52909	472.25	473.35	1.10	TR	tr	.000	3

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
473.35	500.00	GREYWACKE DEFORMATION ZONE								
		The moderate fault that ends the augite syenite and marks the start of the wacke that follows, is also the beginning of a strong cataclastic/ protomylonitic fault zone @ angles that trend from along the core axis to 40 DTCA. This structural corridor extends from the contact to 500.00m at which point it decreases in intensity at a 25cm quartz vein that cuts the core @ about 20 DTCA. The upper portion of the section, which is the strongest deformed and extends to 478.00m, comprises brittly/ cataclastically deformed host wacke and mudstone and early carbonate (quartz) veining. Between the fragmented host and veins, the matrix is well fractured and moderately sheared with sericite and chlorite. The orientations of the internal shear and crush textures range from meandering along the core axis to cutting it as steeply as 35 DTCA. Below 478.00m, to the quartz vein that ends the main deformational phase, the host is intermittently brecciated, crushed, foliated and veined with slivery, streaky, gashy ankerite- (quartz) veinlets and stringers, some of them intact, and some cataclastically deformed. Overall, the veining amounts to 20%, concentrated mainly in the strong cataclastic zone at the start, and two major quartz carbonate veins at 292.80- 293.45m @ 15 DTCA and the 33cm vein at the end.	52910	473.35	474.00	.65	TR	.001	.000	17
			52911	474.00	474.65	.65	1	.003	.000	108
			52912	474.65	475.85	1.20	0.5	.001	.000	31
			52913	475.85	477.00	1.15	TR	nil	.000	nil
			52914	477.00	478.05	1.05	TR	.001	.000	21
			52915	478.05	479.05	1.00	TR	.001	.000	51
			52916	479.05	480.00	.95	TR	.001	.000	17
			52917	480.00	481.20	1.20	TR	tr	.000	3
			52918	481.20	482.05	.85	TR	.001	.000	24
			52919	482.05	483.20	1.15	TR	.001	.000	24
			52920	483.20	484.50	1.30	TR	.002	.000	55
			52921	484.50	486.00	1.50	TR	.001	.000	17
			52922	486.00	487.50	1.50	TR	tr	.000	14
			52923	487.50	488.80	1.30	TR	nil	.000	nil
			52924	488.80	489.80	1.00	2	.002	.000	54
			52925	489.80	490.75	.95	TR	tr	.000	10
			52926	490.75	491.80	1.05	TR	.003	.000	106
			52927	491.80	492.80	1.00	TR	.001	.000	31
			52928	492.80	493.55	.75	TR	.004	.000	137
			52929	493.55	495.00	1.45	TR	.011	.000	384
			52930	495.00	496.50	1.50	TR	.003	.000	117
			52931	496.50	498.00	1.50	TR	.001	.000	27
			52932	498.00	499.35	1.35	TR	.001	.000	17
			52933	499.35	500.00	.65	TR	.001	.000	24
		The host rocks for this strong deformation zone comprises a mix of wacke and mudstone, the textures of which can be identified through the various structural elements. The wacke, the dominant host, is fine grained to gritty, massive (although bedding is obliterated), medium to light drab olive grey coloured with yellowish tones (sericite) and contains widely scattered red jasper grains and green carbonate streaks/ clasts. Deformation seems to have affected the wacke to a greater extent then the mudstone which appears to have behaved as a more competent unit. The mudstone, which is also a drab medium olive grey colour, is massive, very fine grained to aphanitic, and extends from 471.90- 472.74m, contacts @ 30 (broken)/ 20 DTCA, 481.90- 490.15m, contacts @ 25/ 20 (both broken), 496.90- 497.85m, contacts down the core axis. As detailed above, deformation is the dominant element through the interval, however, the units are also weakly pervasively ankeritic, sericitic and cut by 20% carbonate (ankerite) veining. MS values are subdued, falling within a range of 0.19- 0.30 for the wacke and 0.14- 0.21 for the mudstones. The mudstone towards the end of the deformation zone is slightly higher at 0.28/ 0.34. Mineralization is generally anomalous, consisting of concentrations of fine dusty py up to 2% over a meter (489.50m) but generally amounting to 0.5% over 10- 20cm locally. Because of the high degree of alteration and deformation, the entire interval was sampled.								
500.00	589.00	CONGLOMERATE GREYWACKE								
		The deformation described above weakens, but continues as scattered zones of carbonate veining characterized by 12% irregular, gashy/ streaky/ lensey veins to 15cm and thready fracture type veining. Various vein types are dull white coloured, generally randomly oriented although 30 & 45 DTCA are common angles, discontinuous/ broken/ fractured, often associated with sericite and	52934	500.00	501.00	1.00	TR	nil	.000	nil
			52935	501.00	502.25	1.25	TR	.001	.000	31
			52936	502.25	503.60	1.35	TR	tr	.000	7
			52937	510.75	512.00	1.25	TR	tr	.000	3
			52938	512.00	513.30	1.30	TR	nil	.000	nil
			52939	517.40	518.45	1.05	TR	nil	.000	nil

From (m.)	To (m.)	Geology
		trace to anomalous fine splashes of py and cp, and, ankeritic in composition. In places, as at 538.50m, ankerite forms the matrix for the pebbles.
		The host for this carbonate veining is a fine gritty conglomerate in which the clasts are small, forming terrazo and pea gravel type lenses and zones that grade in and out through fine and gritty wacke lenses. Overall, the colour of the host is medium greenish grey, reflecting not only the colour of the wacke matrix, but also the monochrome light to dark grey and green grey coloured clasts which dominate. Only the bright red jasper clasts and grains and rare pale pink/ orange coloured trachytic pebbles (<1.0%) highlight this bland unit. Clasts generally range between 0.2 and 1.5cm in size with the odd pebble ranging up to 7cm. Not only is the veining ankeritic but staining with KFeCy indicates that the matrix has also been pervasively invaded by ankerite as well. MS values consistently range between 0.25 and 0.35 with the odd dip to 0.19, and, as mentioned, sulphides average trace overall with local anomalous py and cp associated with some vein zones (517.60m). A few check samples were taken in areas of more concentrated veining and deformation that are not necessarily detailed separate;y below.
503.10	503.53	Fault Zone - Narrow, bounding 2mm gouge zones @ 20 DTCA with moderate intermediate crushing constitute this fault zone.
531.47	531.49	Fault Zone - Here, the fault comprises a 0.5cm mud gouge zone @ 25 DTCA, with 25cm of earthy crushing up hole.
564.25	571.10	Greywacke - Through this interval, the host grades into a thick lens of fine grained to finely gritty, medium greenish grey to light grey coloured, massive, granular textured wacke. It is laced with 8% fine, dull white, ankerite filled fractures and slivery gashes at various angles to the core axis. Sulphides run nil to trace; MS values remain low at 0.24- 0.35. The lower contact is gradational back into terrazo style conglomerate interlensed with wacke.
589.00		End of hole - The bit gave out at 588.83m and the drillers were asked to stop the hole and pull the casing from both holes (AK-05-11/ 12). It ended in a mix of relatively fresh and undeformed wacke and terrazo style fine conglomerate. The matrix and veining remained ankeritic to the end.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52940	548.75	549.55	.80	TR	nil	.000	nil
52941	549.55	550.70	1.15	TR	tr	.000	5
52942	550.70	551.55	.85	TR	tr	.000	3
52943	551.55	552.70	1.15	TR	.002	.000	82

QUEENSTON MINING INC

DIAMOND DRILL HOLE RECORD

2.335386

Drill Hole: AK-05-13

Property: AMALGAMATED KIRKLAND- Leased CLM 328 (UTM: 570126E/ 5331265)
Northing: 10500.00
Easting: 8100.00
Elevation: 335.00

Collar Azimuth (Grid) 217.00
Collar Dip: -50.00
(0 Degrees Grid equals 341 degrees True)
Hole Length: 850.00

Date Printed: 25 Apr, 2006

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
14.0	217.6	-50.8	494.0	224.0	-45.7
74.0	217.0	-50.5	554.0	224.9	-44.8
134.0	220.4	-49.9	614.0	224.1	-44.2
194.0	221.7	-49.2	674.0	224.6	-44.9
254.0	222.1	-48.7	734.0	224.2	-44.7
314.0	221.5	-47.9	794.0	224.5	-44.5
374.0	223.0	-46.7	850.0	224.3	-44.2
434.0	224.1	-45.8			

Date Started: July 8, 2005
Date Completed: July 25, 2005

Drilled by: H & S
Core Size: NQ
Material left in hole NX CAS-left
Core Location: Upper Canada Site 1
Logged by: FR Ploeger

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

SUMMARY LOG

.00	8.00	CASING
8.00	122.25	TRACHYTE TUFF
122.25	151.37	GREYWACKE
151.37	181.40	TRACHYTE TUFF
181.40	213.60	SILTSTONE
213.60	332.15	GREYWACKE
332.15	346.95	TRACHYTE PYROCLASTIC
346.95	358.68	MUDSTONE SILTSTONE
358.68	450.10	GREYWACKE
450.10	534.83	TRACHYTE AGGLOMERATE CONGLOMERATE
534.83	635.05	CONGLOMERATE
635.05	748.24	GREYWACKE
748.24	757.01	CONGLOMERATE GREYWACKE
757.01	779.51	GREYWACKE CONGLOMERATE
779.51	850.00	CONGLOMERATE

From (m.)	To (m.)	Geology
.00	8.00	CASING
		The hole is collared in the large filled lot north of Archer Drive and opposite the access road used for holes AK05-51A and Ak-05-10 to the south.
8.00	122.25	TRACHYTE TUFF
		The start of the hole immediately intersects 1.25m of strongly silicified and ankeritized tuff which is characterized by a mix of 50% patchy, grungy, mottled, light creamy pink silica and ankerite overprinting medium greyish pink and orange altered tuff. Several zones of chlorite fracturing/ faulting and carbonate breccia veining faulting @ 65 DTCA also cut the host through this zone. It contains trace fine splashes and grains of pyrite (py) and chalcopyrite (cp) and is followed by a 20cm, oxidized, chlorite crushed fault zone that cuts the core @ 35 DTCA. Below this fault, the tuff is mineralized with 5% fine py over about 35cm.
		Overall, the tuff is fine grained to finely gritty, massive with no well defined bedding features but faint hints of possible bedding attitudes at 35 DTCA, and granular to ashy textured. The colour varies, depending on the degree and intensity of the fracturing/ microfracturing and alteration, ranging from light to medium beigy pink to pinkish grey in the moderately altered zones, to medium to dark grey in the fresher sections. The stronger altered sections also seem to accentuate the textures, which for the most part, particularly below about 36.00m, become finely to coarsely gritty textured, grading into fine agglomerate between 53.00 and 57.00m. Clasts, which may range up to 6cm, are generally coloured shades of medium orange, pink and beige, and are loosely packed, forming only about 20% of the interval.
		Stronger alteration is generally associated with increases in the carbonate veining and fracturing which amounts to approximately 5%. Veining occurs as creamy white and pink irregular gashes/ patches, lenses, stringers, thready veinlets and fractures which have been broken up/ fractured by a later weak to moderate chloritic crushing event. Chlorite fractures and carbonate veining trend at various angles but seem to exhibit preferred attitudes of 30- 35 DTCA and lower angles (5- 20 DTCA). All of the veining, except for a few minor late calcite fractures, is ankeritic in composition as determined by staining the core with potassium ferricyanide (KFeCy) solutions and testing with dilute hydrochloric acid (HCl). Groundwater percolation resulted in oxidation of a number of near surface fractures and slips with some migration of the oxidation into the walls down to 26.00m.
		A KP-6 meter was used to check the magnetic susceptibility (MS) values of the core. This revealed that the darker coloured, fresher sections were more strongly magnetic, with values ranging as high as 23.2 to 29.50m while the MS values in the most strongly altered zones dropped to a lower range of 0.17- 0.76. Below 29.50m, the values fall consistently into a lower overall corridor of 0.30- 3.39 although the degree of alteration and the nature of the host rocks are similar to those above. This implies that there must have

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52944	8.00	8.80	.80	0.5	.006	.000	195
52945	8.80	9.40	.60	0.5	.001	.000	45
52946	9.40	10.05	.65	3	.024	.000	837
52947	10.05	11.20	1.15	TR	.001	.000	34
52948	11.20	12.35	1.15	TR	.001	.000	21
52949	15.90	17.00	1.10	TR	.001	.000	24
52950	41.20	42.45	1.25	TR	nil	.000	nil
52951	42.45	43.60	1.15	TR	nil	.000	nil
52952	43.60	44.75	1.15	TR	tr	.000	7
52953	56.00	57.35	1.35	TR	tr	.000	7
52954	57.35	58.20	.85	TR	tr	.000	2
52955	58.20	59.45	1.25	TR	nil	.000	nil
52956	81.25	81.95	.70	TR	tr	.000	7
52957	81.95	83.20	1.25	TR	.001	.000	27
52958	83.20	83.85	.65	TR	tr	.000	10
52959	83.85	84.60	.75	TR	.001	.000	17
52960	84.60	85.55	.95	TR	.001	.000	24
52961	105.10	106.30	1.20	TR	nil	.000	nil
52962	106.30	107.60	1.30	TR	tr	.000	10
52963	107.60	108.50	.90	TR	.001	.000	27
52964	108.50	110.00	1.50	TR	.001	.000	27
52965	110.00	111.50	1.50	TR	nil	.000	nil
52966	111.50	113.00	1.50	TR	tr	.000	1
52967	113.00	114.00	1.00	TR	nil	.000	nil
52968	114.00	115.40	1.40	TR	tr	.000	7

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

been a subtle change in the primary magnetics of the host tuff. As mentioned, there is an enrichment in the sulphide content near the start of the hole, while below, it runs nil to trace. Zones of anomalous veining, alteration and mineralization were spot sampled although they were not necessarily broken out separately.

21.00 21.92 Diabase - Sharp, but wavey/ irregular, chilled contacts @ 60/ 40 DTCA envelope this fine grained to aphanitic diabase dike. It is preceded by a similar 28cm dike that cuts the tuff higher up at 20m, also with sharp, wavey chilled contacts @ 22/ 33 DTCA. Both dikelets are very fine grained to aphanitic, massive, and dark purple grey coloured. They are fresh looking, with only minor, fine, thready, carbonate veining in the centre of the lower dikelet, and weak alteration along the contacts and minor fractures. MS values for the two dikes are extremely consistent at 16.9 and 16.8.

41.20 41.24 Fault Zone - The fault consists of 1cm of mud and gouge followed by several centimeters of fissile tuff recovered as small rock chips, all trending roughly @ 30 DTCA. Trailing down hole to 44.75m, is a zone of moderate chlorite fracturing/ crushing which mimics the attidude of the fault, and is accompanied by light greyish/ beigy pink alteration. There is no significant enrichment in carbonate veining or mineralization associated with this zone.

57.35 57.37 Fault Zone - This strong, but tight, chlorite- hematite fault @ 35 DTCA has fractured and altered the tuff to a light beigy pink colour down to 59.45m. The zone ends fairly abruptly at a 6cm, chlorite breccia/ cataclastic fault that also cuts the host @ 35 DTCA. Sulphides are not enriched within the fractured/ altered zone.

59.45 88.50 Trachyte Tuff - Below the fault, the tuff again becomes fairly fresh, dark/ medium grey coloured, fine grained, and granular textured with zones of scattered clasts and grit. MS values range up to 18.9 at 64.70m and then drop gradually through 0.72-0.94 to a lower range of 0.26- 0.51 with a minor incursion to 1.84 at 80.5m. Gradually also, the tuff takes on a purplish hue, and, at 85.75m and 86.92m, weak alteration has highlighted faint bedding features @ 30-35 DTCA. Ankerite continues to pervade the matrix and form the vein networks, comprising 4%, white irregular slivers, gashes and fine thready veinlets that cut the core at various angles to the core axis and meander along it (71.80m, 83.50m). Despite the low susceptibilities and strong veining in places, the tuff remains unmineralized.

81.87 81.91 Fault Zone - A 25cm zone of beige and pale greyish yellow bleaching and chloritic fracturing precedes this 2cm crush chlorite fault @ 25 DTCA. The actual fault is bounded by weak sericite- chlorite- hematite- carbonate walls/ slips and neither

From (m.)	To (m.)	Geology
		the fault nor the alteration zone is mineralized.
83.93	84.00	Fault Zone - Here, the fault is centred on light salmon pink alteration which extends from 83.20- 84.60m. The fault comprises a leading 4cm section of creamy white ankerite veining and altered tuff inclusions and a trailing 1cm chlorite carbonate breccia wafer @ 45 DTCA. Uphole from the fault, the tuff is fractured with 12% white streaky carbonate breccia veins undulating along the core axis, while below, it is laced with fine chlorite- hematite fractures. The entire altered section is peppered with trace fine specks of py and cp.
88.50	122.25	Trachyte Lapilli Tuff - At this point, the host becomes more obviously fragmental, perhaps due in part to the stronger, grungy greyish pink alteration which accentuates the textures. Clasts remain relatively intact through the deformation compared with the matrix and stand out as finer grained/ textured, brighter coloured (pink/ orange) blobs with subrounded edges. The matrix, which is generally fine grained to gritty, contains a large number of eroded, euhedral feldspar(?) crystals. Within the interval, the stronger alteration and fracturing/ microfracturing begin on a knife sharp, very fine, chlorite slip @ 20 DTCA at 89.10m.
102.50	122.25	Deformation Zone - Not the traditional definition of deformation zone, but, the gritty trachyte tuff through this section is very well crushed with networks of fine lacey random chlorite (- hematite) fractures and a few focussed finely brecciated and crushed chloritic fault zones that trend down, or at low angles to the core axis (105.50m, 110.00m, 111.75m, 113.00- 113.90m, 114.55m, 115.20m, 119.25m, 121.75m and 122.00m). The strong fracturing is accompanied by 3% broken fragments of white ankerite veinlets, slivers and stringers but only trace (to nil) mineralization. The finely fragmental to gritty trachyte tuff is interlensed with more massive fine grained sections that have all been altered to a grungy, light greyish orange colour and grade, locally, into shades of light brown, greyish yellow and medium grey. Both the veining and the matrix are ankeritic.
122.25	151.37	GREYWACKE
		The actual contact of this unit occurs on a crush chlorite slip @ 30 DTCA and begins with a 0.5m section of very fine grained to aphanitic, light olive grey coloured mudstone. Internal olive yellow, shreddy streaking reveals bedding attitudes of a series of aphanitic lenses @ about 35 DTCA. The trailing contact of the mudstone falls on an irregualr zone of fine chloritic crushing @ 25 DTCA. This is followed, from 122.85 to 126.20m, by a massive, fine grained, finely black speckled, light greyish/ yellowish orange coloured unit that appears to form a transition unit between the tuff

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52969	125.75	127.15	1.40	TR	.001	.000	21
52970	127.15	128.65	1.50	TR	tr	.000	14
52971	133.70	135.00	1.30	TR	.001	.000	31
52972	134.00	136.45	2.45	TR	.004	.000	139
52973	138.90	140.00	1.10	0.5	.004	.000	151
52974	140.00	141.10	1.10	TR	.003	.000	117

From (m.)	To (m.)	Geology

and wacke. It ends at a 2mm, black hematite- chlorite seam that follows a natural contact between the transition zone and another segment of mudstone @ 20 DTCA. This mudstone, which is very fine grained with an aphanitic base at 127.82m is similar to the leading mudstone, with the drab greyish olive colour, and, the yellowish internal streaking/ bedding @ 35+/-DTCA. The contact with the main wacke body falls along a 20cm finely interdigitated zone of mudstone and black speckled, very fine grained wacke @ about 30 DTCA at 128.65m. There is very little carbonate veining or fracturing in this upper mixed zone, perhaps 1%, which, along with the matrix, is ankeritic in composition. It is, however, cut by a series of black hematite- chlorite fractures, the strongest of which, a 3cm, crush chlorite carbonate fault, cuts the core @ 12 DTCA at 127.60m. Mineralization comprises trace very fine dusty py that may range up to 0.5% over 10- 20cm and is unrelated to any specific structure.

The first tiny jasper grains, which are used as a thermometer to mark the start of true sediments of mixed provenance, were noted in the leading, very fine grained wacke lens that begins at 128.65m. Overall, the wacke is fine grained, massive, granualar textured, with scattered jasper grains throughout, and mottled, light/ medium olive grey coloured with yellowish and brownish tones. It contains periodic flamey slivers and streaks (to 10cm) of the aphanitic, limey green/ yellow mudstone described above that generally are interlensed @ about 30 DTCA. Ankerite continues as the dominant carbonate mineral to pervade the matrix and fill the 2-3% gashy, slivery and thready veinlets, stringers and fractures that cut the wacke. MS values drop to a consistently low corridor of 0.13- 0.20 through the entire interval. Mineralization, trace overall, rises locally to 0.5% very fine dusty disseminated py over 20- 30cm in places (139.65m). In addition to the carbonate veining, the unit is punctuated by a series of black, chlorite-hematite fractures and crushed fault zones, the stronger ones of which are described in more detail below.

133.72 133.90 Fault Zone - This fault zone is characterized by strong crushing with shreddy sericite shearing and chlorite carbonate bounding slips @ 65/ 25 DTCA. Similar, but weaker chlorite carbonate crush structures follow at 134.73m @ 35 DTCA, 135.95m @ 26/ 46 DTCA, 137.00m along the core axis, 139.10m @ 30 DTCA, and 141.65m @ 35 DTCA.

151.37 181.40 TRACHYTE TUFF

The tuff reappears below a 2cm fine chlorite breccia (cataclastic) fault that is bounded on the footwall by a 2mm mud seam @ 25 DTCA. The return to the tuffaceous protolith is marked by a darkening of the colour to a medium to dark grey to pinkish/ maroon grey, the loss of jasper grains, mixed fine grained and finely fragmental/ gritty textures, and an overall increase in the magnetic susceptibilities to as high as 21.6. Most of the tuff comprises fine gritty ash(?) of 1-3mm sizes, the composition of which is mainly of trachytic affinity (various light to dark orange/ pink/ maroon/ grey colours). One section, between 154.55 and 158.50m, contains abundant reddish

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52975	164.60	165.25	.65	TR	.003	.000	96
52976	165.25	166.35	1.10	TR	.001	.000	27

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		coloured (pseudo)leucite crystals and fine trachyte fragments. The textures are best observed in areas of weak to moderate light greyish pink alteration that have highlighted the various fragmental and tuffaceous (ashy?) features. Veining comprises 2-3% fine thready dull white and creamy pink gashes, slivers and veinlets that cut the core at random irregular angles, none of which appear related to any structures, as well as a few pink isolated calcite gashes between 153.80 and 164.00m. In addition, the matrix remains moderately to weakly pervasively ankeritic. As mentioned, MS values rise gradually, but immediately, through 0.50/ 1.96/ 2.77 to 4.74 at the start of the pseudoleucitic unit at 154.55m, and then jump into a high plateau of 12.6- 21.6 to 161.40m. Below this point, they drop to an undulatory pattern that ranges between 0.63 and 11.3, with most values in a tighter pattern of 1.19- 9.45. Mineralization is nil outside of fractured and veined sections where trace fine py and cp grains were noted. -164.58 164.65 Fault Zone - This is a strong, 2cm wide gouge fault that cuts the core @ 30 DTCA and is followed to 166.35m, by intensive fine fracturing/ crushing and intermittent beigy grey alteration. It is weakly mineralized with trace fine py.								
181.40	213.60	SILTSTONE								
		The transition from tuff to siltstone is gradational with no perceptible difference in the colour or character of the host. Therefore, the contact was arbitrarily taken at the start of a few small scattered mafic clasts in the unit and a point at which the susceptibilities settle into a lower, more stable regime. The grain size very quickly becomes very fine but stops short of becoming aphanitic while the colour is a consistent medium/ dark greyish green that is locally highlighted by partly discontiuous, amorphous bands of light grey mudstone(?) at angles ranging from 75- 30 DTCA. This suggests a ponded environment being filled by very fine grained sediments that are slumping within the basin or deformed plastically during compaction. A flamey, embayed contact between very fine wacke and aphanitic mudstone lenses at 184.85m @ 40 DTCA, suggests that tops are up hole. In contrast with the previous units, the siltstone is relatively fresh, maintaining the darker colour throughout and lacking the same degree of deformation and alteration until the lower portion of the interval. Staining with KFeCy indicates that it remains moderately pervasively ankeritic throughout, and, that the 0.5% milky white carbonate (-quartz) fractures and veinlets are ankeritic as well. MS values are tightly confined to a range of 0.20- 0.30, with a slight dip to 0.16 in a wacke lens lower in the interval. Sulphides are negligible, ranging from nil through most of the zone, to trace py in some of the weakly bleached sections (196.00m). 202.48 202.80 Fault Zone - This, the only significant structure in the in the siltstone, marks the transition from the massive siltstone in to a mixed zone of very fine wacke/ siltstone and mudstone. The fault comprises a series of sericitic fractures with	52977	195.00	196.40	1.40	TR	nil	.000	nil
			52978	202.40	203.00	.60	TR	nil	.000	nil

From (m.)	To (m.)	Geology
		accompanying crushing @ 20- 25 DTCA.
202.80	213.60	Siltstone Greywacke Mudstone - Below the fault, the host becomes mildly to moderately altered/ sericitized to a medium greyish green coloured, very fine grained wacke/ siltstone which is accented by 12% fine flamey/ streaky to bedded lime olive green coloured mudstone lenses. Bedding attitudes of the mudstone lenses seem to cluster around 35 and 60 DTCA while flamey and scalloped textures indicate tops up hole. A few sparse very fine jasper grains were noted in the fine wacke sections. Veining continues as described but susceptibilities drop to a lower range of 0.16- 0.19; mineralization is nil to trace. The trailing contact was taken at a weak crush carbonate fault @ 20 DTCA.
213.60	332.15	**GREYWACKE**
		There is an abrupt change in texture below the fault into a massive, fine grained, granular textured, homogenous, light yellow green coloured (finely speckled) wacke unit. In the upper sections of the interval, a few very widely scattered (rare) pebbles were noted, otherwise, it is featureless although fine jasper grains were abundant when viewed with a lens. As noted, the fine yellow speckling is caused by weak sericite and moderate ankerite alteration of the matrix; veining, consisting of 0.5% fine patchy/ gashy and thready carbonate, is ankeritic in composition as well. MS values are steady at 0.14/ 0.15 with a few slight rises and dips, depending on the degree of alteration, while the sulphide content is nil to trace throughout.
		Below 224.30m, the alteration weakens and becomes intermittent, lessening down hole to the point where mild bleaching only occurs in the immediate walls of fractures and some carbonate veins. This footage also marks the beginning of interlensed gritty to pebbly zones and mudstone horizons which form minor elements within the massive, fine grained, granular textured wacke unit. In the gritty lenses, the grain size gradually increases to 1-3mm with the odd scattered pebble (ie 224.30- 225.40m), and then gradually decreases back to the finer fractions of the wacke. Likewise, pebbly lenses grade in and out (238.70- 245.40m) within a loose framework of approximately 15- 20% clasts (to 11cm), many of which are elongate (bombs?) and of odd compositions, suggesting perhaps, that these are debris flows. Typically, the mudstones and siltstones are very fine grained to aphanitic, dark grey/ black where fresh (254.45- 255.36m) and creamy drab olive where moderately altered (230.50- 231.20m), with both exhibiting soft sediment deposition features such as contorted bedding and scalloped/ flamed contacts. Generally, in the less altered sections of each of the sedimentary facies, the host darkens to a dark greenish grey colour.
		Apart from a few wider single veins noted below, overall veining amounts to 0.5% fine thready veinlets that seem to prefer orientations at 30/ 45/ 65 DTCA (conjugate sets?). The matrix reamins weakly to moderately ankeritic throughout and mineralization runs trace overall with local enrichments of

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52979	245.25	246.00	.75	TR	tr	.000	3
52980	258.15	258.85	.70	0.5	.001	.000	17
52981	291.85	292.45	.60	TR	nil	.000	nil
52982	292.45	293.00	.55	5	.008	.000	287
52983	293.00	294.00	1.00	TR	.001	.000	27
52984	318.60	319.50	.90	TR	tr	.000	7
52985	319.50	320.85	1.35	TR	nil	.000	nil
52986	320.85	322.00	1.15	TR	tr	.000	3

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

py in the walls of ankerite (-quartz) veinlets and as detrital grains. Of particular note are bedded sulphide bands in the wacke (258.66m) and at the contact of a mudstone layer (258.39m). Some of the more prominent veins are broken out below and sampled.

237.98 238.03 Quartz Vein Zone - This is a massive, dry dull white, 4cm ankerite vein that cuts the core @ 30 DTCA. It is preceded by two ragged lacey carbonate veins at 236.25m (irregular @ 15 DTCA) and 237.59m (30 DTCA).

245.42 245.69 Felsic Dyke - This appears to be a narrow, fine grained, pale creamy pinkish to greenish grey dike that contains 7% flat/ acicular green altered, 2-5mm, amphibole crystals and 0.5% red feldspar crystals to 8mm. The contacts of the dike are sharp, on chlorite slips @ 26/ 28 DTCA and it is followed at 10 and 20cm down hole by shreddy irregular ankerite quartz patches.

260.00 260.15 Quartz Vein Zone - Here, an irregular dull white quartz vein with weak carbonate sericite walls cuts the core @ about 50 DTCA. There is no significant alteration or mineralization in the vein or walls.

263.90 264.40 Greywacke - Through this section of the massive wacke, weak alteration appears to have migrated along subtle bedding planes thereby highlighting a faint fabric @ 55- 60 DTCA which is steeper then expected considering that the hole is being drilled at a shallow angle to the presumed regional fabric.

292.83 292.90 Carbonated Zone - The veining here is shredded roughly parallel with a leading carbonate chlorite slip @ about 35 DTCA. It is unusual in that there are 15% patches and fracture fillings of py in the vein and walls over about 15cm.

296.53 296.56 Fault Zone - The fault comprises a 2.5cm broken/ brecciated carbonate vein followed by a 3mm fissile mud slip @ 50 DTCA.

312.00 320.68 Trachyte Pyroclastic Greywacke - In this interval, the fine grain size and granular texture continue, however, no jasper grains were observed. The unit includes a number of small, elongate (0.2- 6.0cm), faintly visible, medium grey clasts near the start which are gradually joined by an increasing quantity of light pinkish and orange fragments within the fine grained to griity, light grey matrix. Many of the finer grains are flattened/ ashy in nature suggesting an influx of tuffaceous material, perhaps a debris flow. Coincidentilly, MS values rise to a range of 0.31- 0.36 over the upper 2m before rising to a higher plain of 8.13 to 12.9. The matrix remains moderately ankeritic through the interval and is unmineralized despite the presence of several faults.

318.72 318.85 Fault Zone - The fault is characterized by a leading 10cm zone

From (m.)	To (m.)	Geology
		of moderate crushing of the host and ankerite veining followed by a 1.0- 1.5cm chlorite shear zone @ 45/ 55 DTCA. A fine (mm) seam of hematite and a few specks of py were noted, otherwise, neither the fault or walls were significantly mineralized or altered.
320.32	320.68	Fault Zone - This is a relatively strong structure that has broken into small pieces and splinters that indicate a major fabric @ 55 and minor trend @ 25 DTCA. It consists of well crushed, beige to light orange altered host and creamy white ankerite veining with minor gouge. Mild alteration and crushing decrease fairly rapidly up and down hole (40/ 50cm); the sulphide content is trace throughout. This structure forms the contact between the tuff and the following siltstone unit.
320.68	332.15	Siltstone - Below the fault zone, the hole rolls into a very fine grained to aphanitic, medium to dark greyish green coloured siltstone and wacke in which the granular texture is evident and red jasper grains are present but rare. The internal contacts between the aphanitic and fine grained phases are often slivery/ lensey and range from angles of 45 degrees, to along the core axis. Outside of the altered sections, MS values fall consistsntly into a tight range of 0.20- 0.24 and ankerite pervades the matrix although the aphanitic sections seem to have withstood pervasive alteration. A disseminated dusting of fine pinprick sized py that weakly mineralizes the host amounts to trace overall. The lower contact follows the length of the core axis for about 40cm.
332.15	346.95	TRACHYTE PYROCLASTIC This interval is similar in appearance to that at 312.00m but is lower magnetically. It is broken out as a code 4 because of its thickness and distinctive character. Overall, it is gritty to finely fragmental with most clasts averaging between 2- 12mm but ranging up to 6cm in size, the dark grey clasts again dominating. The matrix is fine grained with a granular to ashy texture, medium grey to greenish grey in colour, and, interrupted by a couple of mudstone/ siltstone lenses from 338.00- 338.88m and 342.50- 344.60m. In the upper zone, bedding and contacts trend at low angles (15 degrees) to the core axis while in the lower lens, laminated bedding clearly cuts the core at steep angles of 70- 80 DTCA. Both are dark to medium green grey mottled, aphanitic, and massive to well bedded. Overall, the magnetic susceptibilities are tightly constrained to a field of 0.23- 0.31, dipping slightly to 0.17 in some of the altered sections,and, 0.20- 0.24 in the mudstones. The unit is punctuated by several weak creamy white ankeritic vein zones at 331.50, 337.50, 338.00, and 331.30m, which cut the host at shallow angles (+/-20 DTCA), and have bleached the immediate walls a light creamy greyish yellow green colour. Staining with KFeCy

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52987	334.75	335.25	.50	TR	tr	.000	14

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		indicates that the veins and the matrix are ankeritic. Apart from trace fine dusty py in the alteration halos of the veins, a cluster of coarse py splashes at 344.90m, and fine splashes of cp in a fault (see below) mineralization is negligible.								
		335.09 335.10 Fault Zone - This is a 1cm finely crushed, chloritic fault @ 35 DTCA that contains a few fine splashes of cp and has weakly altered the footwall over 20cm and bleached the hanging wall for 2-3cm.								
346.95	358.68	MUDSTONE SILTSTONE								
		Through a sharp natural contact @ 35 DTCA, the hole exits into a thicker unit of mudstone/ siltstone whose internal bedding features are variably oriented along, or at low angles, to the core axis in places (348.80/ 357.45m), at moderate angles of 35 DTCA (350.50/ 354.10m), and at higher angles of 65 DTCA (357.90m). This suggests possible extensive soft sediment deformation of the very fine grained to aphanitic, medium/ dark olive grey coloured sediments. Where altered in the walls of of coarsely shredded/ fractured carbonate vein zones (347.35- 350.00m) or shallow angle veins and fractures (347.40m/ 354.60/ 354.90m), the host is well altered (sericitized?) to a bright olive yellow colour. Veining accounts for approximately 4% of the unit, most of it associated with the veins around 354.70m (see below). While the aphanitic matrix resisted staining with KFeCy, the veins were found to be ankeritic in composition; MS values ranged between 0.19 and 0.25. Sulphides, nil overall, were trace in the vein zones and ranged up to anomalous in the walls of a slip in the wider vein at 354.60m.	52988	347.00	348.30	1.30	TR	tr	.000	3
			52989	348.30	349.70	1.40	TR	nil	.000	nil
			52990	354.15	355.05	.90	TR	tr	.000	7
		354.15 355.05 Quartz-Carbonate Vein Zone - Veining in the interval, amounting to approximately 65% overall, is centred around a series of chloritic and sericitic, finely brecciated (cataclastic) and weakly sheared structures @ 15/ 25 DTCA. Mineralization generally runs trace through this vein zone but increases to 1% over about 5cm in the walls of a central slip 25 DTCA at 354.65m.								
358.68	450.10	GREYWACKE								
		The contact with the mudstones, which is sharp, natural @ about 50 DTCA, leads into a fine grained, granular textured, light buff grey coloured, massive unit of wacke. The texture is extremely homogenous with no obvious pebbles or intercalated gritty sections, nor any very fine grained silty horizons. Jasper grains are absent or rare in the upper 5m but become relatively common by about 364.50m. At 373.09- 373.44m, the first silty section appears with a leading contact on a 3cm laminated carbonate chlorite vein/ weak fault @ 45 DTCA and a whispy, flamed trailing contact @ 30 DTCA. The siltstone is aphanitic, light olive to greyish yellow coloured, and very finely microfractured. An isolated green carbonate pebble was noted at	52991	366.55	367.75	1.20	TR	nil	.000	nil
			52992	367.75	368.55	.80	1	tr	.000	7
			52993	368.55	369.65	1.10	TR	nil	.000	nil
			52994	395.15	396.15	1.00	TR	tr	.000	7
			52995	396.15	397.15	1.00	0.5	nil	.000	nil
			52996	397.15	398.00	.85	TR	nil	.000	nil
			52997	427.80	428.70	.90	0.5	.001	.000	45
			52998	436.25	436.80	.55	TR	tr	.000	14
			52999	445.90	446.45	.55	TR	nil	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

338.22m. This is unremarkable but marks the start of a number of rare isolated pebbles, perhaps averaging one per 10m to about 421.00m, at which point they begin to occur in lenses of 3-6 pebbles. Likewise, siltstone lenses are periodically iterdigitated with the wacke as at 400.30- 400.58m and 400.88- 401.82m, where both have jumbled, broken up leading contacts and veined lower ones (tops up hole?). Otherwise, the wacke is massive, fine grained, granular textured and homogenous as described.

The buff yellow tone to the wacke is due to very fine sericite and pervasive moderate ankerite in the matrix. Most veining, apart from two narrow whispy, mineralized calcitic zones around 368m (see below), are ankeritic in composition as determined by staining and testing with HCl. MS values fall into a very low range of 0.10- 0.14, reflecting the moderate alteration and the lack of any significant tuffaceous component to the wacke. Overall, it is weakly mineralized with trace fine disseminated py as well as with fine trains and slivers of py along fractures.

367.80 367.82 Pyritic Silicified Zone - The interval here and another at 368.10m, comprise 1.5cm whispy calcitic and pyritic silicified zones that cut the core @ 55 & 35/ 45 DTCA, respectively. Both are well mineralized with 10/ 6% streaks, patches and fractures of py (marcasite?) over about 3cm within the vein and adjacent accompanying fractures. A 4cm crush- chlorite-carbonate fault @ 35 DTCA at 468.45m, is also slightly anomalous in py, but <<0.5%. There is no significant veining, alteration or mineralization immediately up or down hole from these vein zones.

397.15 397.50 Fault Zone - This is a strong veined fault comprising layers of creamy white carbonate, pale blue quartz, and crushed gougy vein material that are separated by chlorite fractures and slips, all trending @ 13 DTCA. The host is finely microfractured and moderately sericitized for 0.6m up hole, and, crushed (chloritic) and well sericitized down hole for 25cm. Only the hanging wall is weakly mineralized with 0.5% fine disseminated py while the remainder is dry.

401.81 401.93 Quartz-Carbonate Vein Zone - This patchy dull grey quartz-white ankerite vein ends the siltstone interval @ about 45 DTCA. Several other dry veins with little or no accompanying alteration or mineralization cut the core at 412.25m, 413.40m and 421.05m, all @ 50 DTCA.

426.08 428.18 Conglomerate - This is the first thick conglomerate lens in which the clasts are relatively densely packed into a clast supported, intact framework with local lenses of wacke. It is polymict but with generally bland colours derived mostly from clasts of volcanic and sedimentary affinity and very little alkalic component. Susceptibilities rise slightly to 0.24-0.30.

From (m.)	To (m.)	Geology
427.92	427.96	Carbonated Zone - Here, the conglomerate is cut by an ankerite breccia vein @ 70/ 65 DTCA that contains large streaks and druzey masses of pyrite/ marcasite. Neither alteration or mineralization extends into the walls.
436.44	436.55	Quartz-Carbonate Vein Zone - Although there are several other 2-4cm quartz- ankerite veins cutting the host, perhaps amounting to 2% overall, these are different in that they are weakly mineralized with anomalous (but <0.5%) fine py and splashes of cp. The leading 3.5cm vein of the interval has sharp contacts @ 40 DTCA while the trailing 5.5cm vein, which is better mineralized, has more irregular contacts @ about 75 DTCA.
445.20	450.10	Conglomerate - The wacke unit ends with a pebbly/ gritty to conglomeratic lens comprising 20- 30% subangular to subrounded pebbles to 7.5cm in a fine grained wacke matrix. The clasts are polymict but generally in subdued hues of light to dark grey/ black, beige to salmon pink, with the odd red jasper chip to 0.6cm. MS values climb to 0.31/ 0.40 towards the end of the interval indicating an increased tuffaceous component. Veining and the matrix remain ankeritic to the end where the contact, because it is subtle, was arbitrarily taken at an elongate pale greyish orange clast, below which, the jasper grains are absent or extremely scarce. Mineralization is trace.
446.05	446.08	Carbonated Zone - A 2.5cm ankerite- quartz vein with a weakly pale orange altered footwall over a few cm, cuts the core here @ 35 DTCA. The vein and wall are weakly mineraized with 1% disseminated fine py.
450.10	534.83	TRACHYTE AGGLOMERATE CONGLOMERATE Through a subtle contact, there seems to be a change in the overall make up of the conglomerate whereby the clasts, which constitute 23- 30%, of the unit, become more alkalic in composition. This is reflected through both the colour of the fragments, which become 75% coloured in various medium to dark tones of pink/ maroon/ orange suggesting a trachytic protolith, and through increased susceptibility values. As mentioned, the matrix loses the jasper grains and the distinctive granular texture although it it is still fine grained to gritty with the grain boundaries of the finer fractions hazy/ indistict. As with the clasts, the matrix material also seems to be dominated by 'pinkish' coloured grains. Most of the matrix is weakly ankeritic, however, a short section between 462.10 and 464.25m, was found to be calcitic when tested with HCl. A few jasper grains were noted in a fine grained, bedded section (@ 70- 75 DTCA) near the end of this calcitic zone. Fine carbonate veinlets amount to approximately 0.5% outside of the areas of influence of the major structures wich are detailed separately below. MS values climb immediately below the contact of the agglomerate, to a range of 6.51/ 7.43 near the start (1.5m) to a plateau of 9.12- 13.8 for the

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
53000	451.50	452.30	.80	TR	tr	.000	14
6001	468.35	469.35	1.00	TR	tr	.000	3
6002	469.35	470.30	.95	TR	nil	.000	nil
6003	470.30	471.10	.80	TR	nil	.000	nil
6004	515.95	517.25	1.30	TR	tr	.000	14
6005	517.25	517.75	.50	TR	.001	.000	29
6006	517.75	518.60	.85	TR	.001	.000	24
6007	518.60	519.95	1.35	TR	nil	.000	nil
6008	519.95	520.70	.75	TR	nil	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

remainder outside of alteration halos around veins where it decreases. Mineralization is nil overall, but, sulphides increase slightly to trace within the more strongly altered areas around the veins.

451.58 452.00 Fault Zone Quartz-Carbonate Vein Zone - Two bounding 2cm crush (cataclastic) chlorite carbonate faults @ 15/ 37 DTCA, enclose a strong zone of alteration, sericitization and bull quartz veining. Despite the strong alteration and veining, the sulphide content remains nil to trace.

469.35 470.30 Carbonated Zone Fault Zone - About 15% white carbonate veinlets and stringers are fractured and broken around a central 1-2cm chlorite crush fault zone that cuts the core @ 12 DTCA. Fine hairline sericite threads fill microfractures thereby colouring the interval a greyish yellow which extends as patches up hole. Fine py grains increase the overall mineral content to trace within this carbonated section.

470.73 484.50 Conglomerate Greywacke - Visually, there is very little change in the host except for the reappearance of jasper grains in the matrix and a greater variation of the MS values which range between lows of 0.27 to highs of 17.7 with undualting values between. The clasts reamin dominantly alkalic but with a greater proportion of dark grey to black clasts within the gritty to fine grained matrix in which the grains exhibit the hazy intergranular contacts. The upper section to 480.00m, contains about 70% clasts to 15cm, although most are smaller, while below, the fine grained to gritty wacke/ tuff contains only a few scattered pebbles. At about 476.10m, there is a gradual transition from ankerite dominated carbonate in the matrix and veining to calcite. Overall, veining occurs as 2% pink calcite (with minor ankerite speckling) shreds/ gashes, veinlets and stringers at various angles to the core axis while mineralization is nil to trace.

484.50 516.50 Trachyte Agglomerate - The transition back into the trachyte agglomerate was again taken relatively arbitrarily at the loss of obvious jasper grains, and, the sustained high MS values of 11.7- 21.6 to 491.00m which then begin to modulate in a lower range of 0.88- 16.0 to 498.50m. Again, the conglomeratic and wacke lenses, which are medium greenish grey coloured overall, resemble those above, although, through this interval, wacke predominates, forming 75% of the unit. Locally, some of the finer grained massive sections become granular textured, resembling the typical wacke but with scarce or no jasper grains. In a section between 498.50 and 506.50m, the MS values drop fairly rapidly to a low level of 023- 0.30 before starting another modulation phase of 0.31- 9.64 with some of the highest values occuring in a zone of bleaching. Beginning at about 500.75m, there is a transition back into a weakly ankeritic matrix in which some pebbles and veins remain

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		calcitic, but, by about 512.00m, the carbonate in all veining and matrix is composed of ankerite. Mineralization is generally trace with slightly anomalous fine dusty matrix py in the wacke section around 500.80m.								
502.70	502.74	Fault Zone - Two slips with 1mm mud/ gouge zones that cut the core @ 22/ 40 DTCA, are preceded by a speckled carbonate quartz breccia vein.								
516.50	524.66	Greywacke - The wacke forms a distinct massive unit here through which the jasper grains are present and the granular texture is clear and distinct and not fuzzy as in the more tuffaceous fine grained sections. The contacts are gradational and somewhat subjective because of weak to moderate veining and alteration that covers the contact areas. Included within the wacke are lenses of aphanitic, light greyish olive coloured mudstone (518.20, 518.50, 518.75 and 520.65m) generally trending @ 50/ 70 DTCA. MS values begin slightly elevated at 0.48/ 0.46 adjacent to the upper tuffs and gently decrease through the 0.20's to settle in the mid teen's. Carbonate veinlets, trend at various angles but the wider quartz carbonate vein zones at 517.50m (see below) and those overlying the upper and lower mudstones, trend @ 65/ 60/ 55 DTCA, respectively. The carbonate in the veins and matrix is ankeritic in composition but some calcitic fractures are present. Overall mineralization is nil to trace with slightly anomalous py evident near some of the veins.								
517.40	517.66	Quartz-Carbonate Vein Zone Fault Zone - The interval is characterized by 70% crushed and sheared quartz carbonate veining @ 55 DTCA with sericitized wacke. It is weakly mineralized with anomalous, but < 0.5% fine py.								
517.66	534.83	Trachyte Agglomerate - The protolith reverts back to the trachytic agglomerate as describe at 470.30m with the hazy fine grains of the matrix and the drab coloured clasts. Again, the jasper grains are absent from the matrix and the susceptibilities, although generally undulating between 0.31 and 3.84, jump as high as 21.0 at 526.90m. Between 531.50 and 533.00m, the matrix becomes weakly calcitic as do some veins within and outside of this envelope, otherwise, the host is ankeritic as before. Veining amounts to 1% and the sulphide content remains nil to trace. The lower contact between the trailing fine grained tuff and the wacke is natural, sharp and undulating @ about 35 DTCA.								
534.83	635.05	CONGLOMERATE								
		The unit begins with a thick, massive lens of fine grained, granular textured, medium grey coloured wacke that contains the odd pebble to 6cm,	6009	552.20	552.95	.75	TR	.001	.000	24
			6010	552.95	553.85	.90	TR	nil	.000	nil
			6011	553.85	555.00	1.15	TR	tr	.000	2

From (m.)	To (m.)	Geology

subtle grittier sections, and abundant jasper grains. Staining with KFeCy and testing with HCl indicate that the wacke is neutral to weakly calcitic throughout and that MS values of 0.45 in the upper meter quickly drop to a lower range of 0.31- 0.33 down to the conglomerates. The contact with the main conglomerate zone occurs at a flat volcanic clast at 539.15m.

The conglomerate body begins at 539.15m as described and leads immediately into a densely packed unit with almost no wacke matrix material or lenses. Overall, the pebbles are packed into a tight, clast supported, intact framework where 1-10mm grit fractions form some of the matrix material as well as intraformational lenses, replacing the normal fine grained wackes. Clasts are polymictic, unsorted, range from the grit sizes through pea gravel (0.5-2.0cm) lenses into pebbly lenses in which the clasts range up to 25cm but generally average between 2 and 5cm. The smaller gritty and pea gravel clasts tend to be subangular in shape while the larger pebbles are subrounded to rounded and ovoid in shape. Jaspers are abundant in all fractions. At 559.00- 559.53m and 560.00- 560.35m, the conglomerates are interrupted by massive, medium slate grey coloured, very fine grained wacke/ siltstone lenses which are contained within sharp, natural contacts. Loading features and rip up clasts suggest that tops may be down hole which is in contrast to the upper parts of the hole where tops were determined to be up hole.

Throughout the conglomerate, staining indicates that the host is weakly ankeritic and that most of the 0.5% fine thready veinlets and fractures are ankeritic as well although some are calcitic. Suaceptibilities are highly erratic, reflecting the variety of clasts of the unit, with MS values ranging between 1.80 and 49.3. Overall, the conglomerate is cut by weak chloritic faults (552.45m, 553.27m, 554.85m) @ 35- 40 DTCA which have mildly microfractured portions of the unit. Mineralization, which averages trace, becomes anomalous (but <0.5%) occuring as trains of fine py through some of these fractured sections.

568.10 568.12 Fault Zone - A 1.5cm crush carbonate fault/ vein whose walls are altered to a grungy pale orange and grey mix, cuts the core @ 50 DTCA. Both the walls and fault are unmineralized. Weaker similar structures occur about 1m up hole and 1.5m down hole.

568.96 573.84 Greywacke - The massive conglomerate zone ends abruptly, but with an indistinct contact at 468.96m. It is followed by a fine to very grained, massive, partially granular textured, partially hazy textured, medium bluish/ greenish grey coloured, wacke/ tuff lens that becomes weakly gritty near the end. The tuffwacke seems to lack both jaspers and clasts. MS values range from 4.57 at the start but drop rapidly down to 0.37 and continue dropping to 0.22 by the end. Overall, the matrix is weakly ankeritic throughout while veinlets may be either calcitic or ankeritic; the sulphide content is nil to trace.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6012	567.80	568.45	.65	TR	nil	.000	nil
6013	614.20	614.75	.55	TR	tr	.000	3
6014	633.50	634.65	1.15	TR	tr	.000	7
6015	634.65	635.15	.50	TR	nil	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

573.84 595.90 Conglomerate Greywacke - Through a wavey, somewhat hazy contact at a steep angle to the core axis, the hole transects another section of polymictic conglomerate similar to the upper zone but contains a higher proportion of matrix material. The clasts again range from fine grit (1-5mm) fractions to fine pebbles of 2-6cm, but lack the larger sizes, at least to 585m. The clasts now appear less densely packed, are matrix supported with a fine grained, wacke matrix constituting over 50% of the host. As above, the finer clasts tend to be more angular whereas the small pebbles are rounded and almost spherical in shape. The carbonate composition is both weakly ankeritic and weakly calcitic beginning at about 576.60m while veining continues as a mix of the two. In places, some of the clasts are pervasively altered to calcite, while in others they are altered with ankerite, irregardless of the carbonate in the matrix. Susceptibilities undulate within a lower corridor between 0.37 and 4.95 with most clustering around 3.00; mineralization is nil to trace.

595.90 599.15 Trachyte Agglomerate - At 595.90m, there is a noticeable change in the nature of the conglomerate to the trachyte dominated fragmental in which the clasts have hazy edges. It occurs at a pale orange 15cm alteration zone centred on a zone of shreddy, dull white ankerite veinlets @ 50 DTCA. Both the clasts and the finer grained and gritty sections of the matrix exhibit the same indistict forms where the boundaries of individual grains/ clasts are not clearly defined. MS values begin at 8.94 and decrease progressively through 7.40/ 6.51/ 3.47 to 4.40 at the end. Most of the fragments are calcite altered within a matrix that is neutral or weakly calcitic; the sulphide content is nil to trace. The trailing contact occurs at a 1-2cm weak chlorite slip zone @ 30 DTCA.

599.15 602.74 Greywacke Conglomerate - Below the slip, the hole reenters the wacke dominated conglomerate that contains only local pebbly lenses and scattered pebbles (mainly alkalic) along with the jasper grains. The wacke matrix is fine grained, massive and medium grey coloured. MS values undulate between 2.52 and 8.59 with most values falling around 3.00 while the carbonate composition also ranges from weakly ankeritic to weakly calcitic. Mineralization is trace.

602.74 609.00 Trachyte Agglomerate - The leading contact between the wacke and agglomerate is well defined and finely embayed @ 25 DTCA whereas the trailing contact appears gradational. Typically, the unit consists of light to medium pink and orange coloured clasts that generally exhibit indistinct/ hazy boundaries with equally hazy fine grains comprising the medium to dark grey matrix. It was found that when the clasts were tested with acid, they fizzed strongly suggesting that they are well calcified while the matrix remained weakly ankeritic, turning

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

faintly blue when tested with KFeCy. Susceptibilities begin at 4.00 before rising to a tight range of 7.00- 8.00 between 604.00 and 606.50m, before ending at 8.36- 10.2 over the trailing 2.0m. The unit remains unmineralized.

609.00 611.00 Greywacke - This is a short section of fine grained to gritty, massive, granular textured, pebbly wacke that is transitional between the tuff (indistinct contact) and conglomerate. Jasper grains appear at the contact and continue through to the conglomerate while pea size clasts and a few larger scattered pebbles form about 10% of the host. The unit is cut by 5% white ankerite veinlets @ 35 DTCA which compliments the ankeritic matrix. MS values range between 6.75/ 4.76 near the start but gradually decline to 0.73 at the end; mineralization is trace. The lower contact was taken at the start of the first densely packed lens of conglomerate.

611.00 635.05 Conglomerate Here, the hole reverts back to the polymict conglomerate (including jaspers) in which the pebbles and cobbles are fairly tightly packed into a clast supported framework, with local wacke matrix and lenses. Clasts, which are generally rounded and spheroid in shape, range up to 24cm but are usually less than 10cm in length. At about 623.75m, larger 10- 20cm orange fine grained and porphyritic cobbles become more common. Carbonate alteration comprises pervasive ankeritization of the matrix and of about 1.0% white veinlets and fractures while calcite fills an additional 0.5% fractures, mainly ladder type veinlets confined to the pebbles. These too, become ankeritic below about 625m. MS values fluctuate within a range of 0.71 and 20.5 although they commonly fall in a tighter corridor of 3.00- 8.00. By about 633.00m, values begin to drop gradually to between 0.21 and 0.33 around a fault structure at 635.00m. Mineralization consists of trace py and cp associated with some pebbles and fractures.

614.31 614.56 Fault Zone The fault comprises a leading 10cm zone of chlorite- quartz crushing that has broken into small splinters followed by three smaller pieces of quartz- carbonate-chlorite (crushed) veining, all trending generally @ 35/ 45 DTCA. It is mineralized with trace fine py but is not significantly altered.

634.87 635.05 Fault Zone The zone begins with a tight chlorite sericite shear @ 25 DTCA and ends with a chlorite sericite shear mud fault @ 47 DTCA. Above and through the zone, the core is weakly shredded/ fractured with fine sericite fractures and shears, while the entire surrounding area, corresponding to the low MS values, is weakly altered with chlorite and sericite. No anomalous mineralization was observed.

From (m.)	To (m.)	Geology
635.05	748.24	GREYWACKE

The wacke begins at the fault zone described above with 1.25m of light to medium grey brown altered wacke in the footwall of the fault. Overall, however, it is fine grained, granular textured with local rare scattered clasts and conglomerate lenses to 0.5m, massive/ homogenous with no obvious bedding planes, and light to medium greenish grey coloured. The lighter coloured areas are those that are pervasively weakly sericitized and which become strongly altered to pale beige/ grey adjacent to moderate to strong fault structures. In addition, the host is pervasively ankeritic, with 2% white gashy fractures, veinlets and stringers to 1cm that are ankeritic as well. MS values fall into a consistenly low range of 0.11- 0.22, dipping as low as 0.09/ 0.12 in altered areas. There appears to be an overall increase in the sulphide content to trace in the form of fine dusty py disseminated through the matrix that may represent detrital grains or that may have been introduced during the weak alteration event. Anomalous fine py and splashes of cp are associated with some of the structures (see below).

648.65 649.70 Fault Zone - The fault is characterized by a leading patchy, dull white quartz ankerite vein that ends at a 1-3mm mud slip @ 40 DTCA at 648.82m, followed by 8cm of crushed/ foliated sericitic wacke enveloping a 10cm core of chlorite fractured, ankerite quartz veining, all ending at another mud slip @ 37 DTCA at 649.12m. The trailing section encompasses fractured to sheared (@ 22 DTCA), sericitic wacke. Mineralization consists of trace fine py in the walls of the veins and a few splashes of cp in fractures. A few weaker quartz carbonate veins/ slips occur within 2.0m uphole of the main structure.

659.54 659.56 Carbonated Zone - This is a 1.5cm ankerite vein @ 55 DTCA that sports a large splash of cp, otherwise, it exhibits no wall rock alteration or mineralization.

671.30 671.95 Carbonated Zone - This is a weak carbonate breccia zone in which subangular fragments of the host wacke are floating in a diffuse, creamy white, ankerite- quartz vein material. The zone is mineralized with trace py and is basically unoriented except for a sharp trailing contact @ 45 DTCA.

678.56 684.58 Greywacke (pebbly) - The entire section is somewhat pebbly to this point, but, through this interval, some of the more prominent pebbles are strongly spherulitic/ vesicular. Generally, the clasts are 2.5- 7.0cm in length, oval/ cigar/ lens shaped with rounded to subrounded ends, and are yellowish olive coloured with dark waxy grey tabular shards and dark olive green, ovoid spherules. The overall impression is that these constitute pumice fragments that have been (partially) flattened during compaction.

688.27 695.36 Trachyte Agglomerate - The leading contact was taken at a

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6016	635.15	636.45	1.30	TR	.027	.000	922
6956	636.45	637.85	1.40	TR	nil	.000	nil
6957	637.85	639.15	1.30	TR	tr	.000	3
6017	645.30	646.65	1.35	TR	nil	.000	nil
6018	646.65	647.55	.90	TR	tr	.000	9
6019	647.55	648.65	1.10	TR	nil	.000	nil
6020	648.65	649.70	1.05	TR	tr	.000	3
6021	649.70	650.85	1.15	TR	tr	.000	14
6022	671.30	671.95	.65	TR	nil	.000	nil
6023	694.15	694.80	.65	TR	nil	.000	nil
6024	718.10	718.75	.65	TR	tr	.000	3
6025	729.50	730.38	.88	NIL	nil	.000	nil
6026	730.38	731.50	1.12	NIL	nil	.000	nil
6027	731.50	732.50	1.00	TR	.001	.000	21
6028	732.50	733.50	1.00	NIL	nil	.000	nil
6029	733.50	734.50	1.00	TR	nil	.000	nil
6030	734.50	735.50	1.00	TR	nil	.000	nil
6031	735.50	736.50	1.00	NIL	nil	.000	nil
6032	736.50	737.50	1.00	NIL	nil	.000	nil
6033	737.50	738.42	.92	NIL	nil	.000	nil
6034	738.42	739.50	1.08	NIL	tr	.000	3
6035	739.50	740.20	.70	NIL	nil	.000	nil
6036	740.20	740.84	.64	NIL	nil	.000	nil
6037	740.84	742.00	1.16	NIL	nil	.000	nil
6038	747.00	748.24	1.24	TR	.001	.000	21

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

change to a hazy textured fragmental which begins with a lens of imbricated elongate clasts @ 20 DTCA. Clasts, which range from 2-3mm to 5cm, exhibit very pale washy beige, buff and orange colours that are barely discernible from the light grey matrix. They tend to be elongate to oval in shape and subrounded to subangular in form. MS values increase to a slightly higher range of 0.26- 0.40 but then rise sharply through 0.83, beginning at 393.50m, to 23.5 by 694.90m. Ankerite remains as the dominant carbonate mineral; mineralization is nil overall with trace py and cp in some of the ankerite veinlets.

690.17 690.18 Fault Zone - The fault is weak consisting of a 1cm wafer of mildly crushed and foliated chlorite carbonate @ 55 DTCA surrounded by a 4cm halo/ zone of carbonate, chlorite-sericite fracturing with trace py.

694.15 694.80 Carbonated Zone - The interval consists of 20% shreddy creamy white ankerite veinlets and stringers that trend roughly @ 35 DTCA. The matrix is also weakly bleached but remains unmineralized.

695.36 700.50 Siltstone - This interval comprises a very fine grained wacke-siltstone/ mudstone. Generally, it is medium greenish grey coloured, very finely granular to aphanitic, and massive with a hint of bedding in a siltstone lens at 697.10m @ 65 DTCA and a 20cm fragmental zone at 697.90m. MS values range between 0.17 and 0.25 and ankerite weakly pervades the matrix and 0.5% carbonate veinlets and fractures. Mineralization consists of trace fine dusty py disseminated through the matrix. Both contacts were taken at changes to fragmental phases.

700.50 705.00 Greywacke Conglomerate - There is a change here to a fine grained wacke host that contains scattered pebbles and conglomerate lenses. Most clasts are drab/ bland coloured, generally small (2mm- 10cm), but range up to 20cm in length, and subrounded to rounded in shape and ovoid in form. The matrix, fine grained, granular textured and medium grey coloured, contains abundant jasper grains and small chips. MS values rise gradually from 0.30 over the upper 2m, through 3.11/ 3.67 over the lower section. Veining comprises a few scattered (1%) gashy white ankerite stringers while the matrix is weakly pervasively ankeritic to the end where it becomes calcitic. Sulphides are trace throughout.

705.00 723.67 Trachyte Tuff Greywacke - In this interval, the jaspers are absent, but, the host exhibits characteristics of both the wacke and tuff. It maintains the the basic medium green grey colour and granular aspect of the wacke, complete with occasional scattered clasts, but, as mentioned, lacks the jaspers, is much stronger magnetically, and contains sections

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

in which the grains become somewhat hazy. The major difference, however, is the susceptibility which fluctuates from 0.37 and 23.2 but ranges mainly between 7.16 and 17.0. The carbonate composition, which became calcitic just before the start of the interval, remains so to about 713.90m, at which point the matrix becomes weakly ankeritic again as does the veining. Mineralization is nil to trace overall, becoming slightly anomalous in some veins.

718.49 718.62 Carbonated Zone - The veining here comprises 1cm and 2-4cm fractured ankerite stringers/ veins that cut the core @ 40/ 45 DTCA. They occur in conjunction with a medium lime grey mudstone lens at a similar angle to the core axis. The wider vein is mineralized with anomalous fine py in the chlorite fractures.

723.67 730.38 Trachyte Agglomerate Conglomerate - As with the previous interval, the textures here straddle the agglomerate/ conglomerate phases. The matrix is fine grained, massive, granular textured and medium greenish grey coloured, however, the fragments are drab, monochrome coloured in shades of light beige and grey. They tend to be subangular in shape and generally well sorted into a size fraction ranging from 0.5-3.0cm forming about 20% of the host. The zone begins at a broken band of siltstone @ about 40 DTCA while a second very fine grained 20cm lens cuts the host with irregular contacts @ approximately 25 DTCA at 724.75m. Unusually, MS values are low, falling into a very tight range of 0.22- 0.27. Thready white carbonate veinlets were found to be calcitic as well as ankeritic while the matrix was very weakly ankeritic. Sulphides are nil to trace. The lower contact is sharply gradational at 24 degrees into wackes and siltstone.

730.38 738.42 Greywacke Siltstone - here, there is a return to an intercalated package of wacke and siltstone in which the wackes are dull to dark grey green and grey in colour and exhibit a finely granular to sandy texture. The silty to muddy units are much finer grained and range from dull beige to dull grey green and putty coloured. Layering is locally offset by fine fracturing that trends at low angles to the core axis but, for the most part, the layering is relatively consistent at 60 to 75 degrees. A narrow unit of the conglomerate/ agglomerate which is interlensed with the wacke from 731.81-732.10m at 36(??)/28 DTCA, contains the monochromatic (beige), subrounded to irregular fragments from a few mms to 3.5 cms in size. As before, the protolith is weakly to moderately reactive to the presence of ankerite while most of the fracturing is calcitic. There are two narrow sections with dull porcelainous ankerite stringers at 733.93-734.01 at 66/47 degrees, and, 735.28-735.43 at 78/71 degrees - the upper unit is finely fractured to sheared with chlorite and epidote, plus

From (m.)	To (m.)	Geology
		it is refractured with calcite; a similar fracturing to shearing is only noted across the top 4 cms of the second unit. There are trace amounts of very fine pyrite with these two features and very sparse mineralization elsewhere in the section. Magnetic susceptibilities continue to be low from 0.11 to 0.27. The core is partly ground to redrilled between 730.47 and 730.88 m - an apparent mechanical, rather tha a geological problem. The lower contact is sharp with a trace of grit to gouge and fine fracturing to shearing at 47 degrees.
738.42	740.84	Trachyte Agglomerate Conglomerate - The protolith returns to the style of unit with the beige, monochromatic, altered fragments, although there are some more definite foreign fragments in this corridor suggestive of a conglomeratic protolith. Fragments range from subrounded to irregular and are up to 4 cms in size. Several of the monochromatic fragments form the more strongly calcitic parts of the section. The protolith remains weakly to moderately ankeritic while the fracturing in this area appears to be almost exclusively calcite. Pyrite mineralization is minimal to absent. Magnetic susceptibilities range from 0.15 to 0.31.
740.84	748.24	Greywacke - The wacke that follows the section with altered fragments grades cleaner in nature by 741.65 m. It varies from very finely granular textured to more sandy and gritty in appearance. The section from 744.25-746.47m at 54/4 DTCA, is coarser grained with rock chips and scattered fragments to 2.3 cms in size - marginal to being a fine conglomerate, with isolated jasper chips noted. The protolith continues to be ankeritic and is weakly but finely fractured with calcite - locally leading to more pervasive calcite alteration in the presence of accessory fracturing. For the most part, mineralization is minimal but there are isolated streaks of disseminated pyrite in the system - best developed over 3 cms at 747.46 m. Magnetic susceptibilities range from 0.15 to 0.22. The lower contact of the wacke interval was taken along a finer grained wacke (at 56 degrees), the interval grading from wacke with conglomeratic intervals to more of a conglomerate with wacke sections.
748.24	757.01	CONGLOMERATE GREYWACKE As described, the contact into a sequence dominated by conglomeratic rocks intercalated with fragment lean to wacke sections was taken at a fine wacke layer. The distinction from the former interval is subtle in that conglomerate is the dominant member here. The conglomerate units vary from fragment lean in a granular textured wacke matrix to having numerous, coarse polymict fragments to 10 cms in size. The lead into the system is more of a wacke interval with rock chips common and very scattered coarser fragments to 2 cms in size. The first of the coarser conglomeratic sections occurs

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6039	748.24	749.00	.76	NIL	tr	.000	10
6040	749.00	750.00	1.00	NIL	.001	.000	21
6041	750.00	751.00	1.00	NIL	.001	.000	17
6042	751.00	752.00	1.00	TR	tr	.000	14
6043	752.00	753.00	1.00	TR	.001	.000	33
6044	753.00	754.00	1.00	TR	.001	.000	31
6045	754.00	755.00	1.00	TR	.001	.000	17
6046	755.00	756.00	1.00	TR	nil	.000	nil
6047	756.00	757.01	1.01	TR	.001	.000	17

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

from 749.92-750.49m with tentative contacts at 26/33 degrees. It contains closer-packed fragments to 3 cms in a granular textured, wacke matrix with rock chips and locally derived rock flour. The largest interval of coarser conglomerate extends from 752.19-756.82 m at 21/30 degrees. It contains the coarsest fragments in the system - the coarse fragment sections being intercalated with fragment lean sections and streaky altered silty to wacke intervals. The sequence after the first section of coarser conglomerate (749.92-750.49m) is relatively typical. It commences along a wacke interval with rock chips and erratic fragments to a cm in size, grading into a section where fragments are more common at 750.68m (at 31 DTCA). By 750.86m, fragments are larger and more common, with closer-packed fragments noted by the end of the section at 751.19m at 24 degrees. The section then repeats itself, from 751.19m leading up to the section of coarser conglomerate after 752.19m.

The pattern of the above section appears to suggest that fragment size and amount decrease uphole. The protolith remains weakly to moderately reactive to the presence of ankerite while the fracturing in the system is calcitic, and, a number of the fragments are moderate to strongly calcitic. Fracturing with calcite averages 5-10%. The rocks are weakly altered with whispy to streaky sericite alteration, particularly in the more silty portions within the coarse conglomerate from 755.80m to 756.36, and, at the lower contact from 756.82 to 757.01m. Mineralization is weak with trace only fine points of pyrite noted both in the fragment population and in the matrix component. Magnetic susceptibilities are low from 0.19 to 0.28.

The lower contact is tentatively placed along a more streaky altered, wacke to silty interval, from 756.82-757.01 at 30/46 degrees.

757.01	779.51	GREYWACKE CONGLOMERATE								
			6048	757.01	758.00	.99	NIL	nil	.000	nil
			6049	778.50	779.51	1.01	NIL	tr	.000	17

The wacke to conglomerate interval from 757.01 to 779.51m represents a a transition zone from the conglomeratic section above to much coarser, polymict conglomerate after 779.51m. The sector from 759.47- 768.21m is the most characteristic wacke sector in the sequence - upper contact along a finer grained more silty section at 49 degrees, lower contact with a conglomerate interbed at 43 degrees. It is medium to dull and dark grey green in colour and has a very fine to medium grained granular texture in addition to having very scattered altered patches to a cm in size that may reflect altered fragments. The lead into the system is more highly fractured to pervasively altered with calcite and has a coarser matrix component along with very scattered altered fragments. The conglomerate interbeds commencing at 768.21m are dominated by the calcitic altered fragments to blotches up to 11 cms in size. Although the polymict character of the fragments is evident in the first conglomerate interbed at 768.21m, chloritic and calcitic (monochromatic) fragments dominate the system. The conglomerate interbeds are best developed between 768.21 and 770.97m, with the largest interval from 769.69-770.50m at 39/66 DTCA.

Below the section with conglomerate interbeds, the wacke is fine grained

From (m.)	To (m.)	Geology

with scattered altered fragments. The more characteristic wacke with rock chips, scattered fragments and traces of jasper is not encountered until after a section with a series of very fine grained, silty layers between 772.21 and 772.60m - outside contacts at 64/79 DTCA. From 772.60m to the end of the zone, the wacke is relatively coarse with scattered fragments that crudely increase in size and amount with depth to the lower contact with a coarser, more continuous conglomeratic layer at 779.51m - contact tentative with a weak fracturing at 59 degrees. The largest fragment at 3.1 cms is just above the lower contact - the contact being realistically gradational.

The wacke and conglomerate package is weakly reactive to the presence of ankerite while the fracturing is essentially all calcite plus rare quartz, and, the sediments are often pervasively calcitic. A fine fracturing with calcite is most common at the upper contact. Fracturing is erratic thereafter from 5 to locally 15% stringers and fractures at a variety of angles to the core axis. Mineralization in the system continues to be weak with isolated streaks of disseminated pyrite and rare fine pyrite points in fragments and in the matrix. Magnetic susceptibilities range from 0.17 to 0.31. The lower contact is gradational into conglomerates - tentatively at 59 degrees.

779.51 850.00 CONGLOMERATE

Contact into a conglomerate package that extends to the end of the drillhole. The contact into conglomerate is transitional. There is a zone with coarse fragments to 779.72m, followed by a section with scattered coarse fragments to roughly 780.27m, below which coarse, immature conglomerate is the norm. The coarse conglomerate contains numerous, polymict fragments to pebbles and cobbles from a few mms to some 25 cms in size in a generally coarse, wacke matrix component with rock chips, small fragments and locally derived rock flour. Locally the matrix component is very fine grained and silty in nature. Fragments range from subrounded to angular and irregular in shape. Some 50% of the fragments are strongly overprinted with calcite. There are also fragment lean sections in the system that are more aptly described as wackes with scattered fragments to a couple of cms in size as the intervals 796.19- 797.26m at 43/46 DTCA, 807.91- 810.30m at 43/49 DTCA, and, 812.56- 813.29m at 28/37 DTCA (a coarse wacke with numerous rock chips). Contacts of these sectors are ill defined and gradational from the coarser conglomerate members.

At the top of the system, magnetic susceptibilities are low from 0.30 to 0.67, but once inside the more continuous, coarse polymict conglomerate at 780.27m, magnetic susceptibilities are erratic and variably elevated from 0.29 to 16.7. The wacke sections tend to be the slightly more weakly magnetic parts of the system - readings up to 3.45. The protolith is only locally weakly reactive to the presence of ankerite here - the system is variably fractured to pervasively altered with calcite both in the fragments and the matrix. Fracturing averages 5-10% pinkish to white calcite with rare quartz and ankerite in the system. Only a handful of gash-like stringers with ankerite are noted in the interval between 804.50 and 806.30m, while

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6050	779.51	780.50	.99	NIL	tr	.000	10
6051	780.50	781.50	1.00	NIL	nil	.000	nil
6052	803.50	804.50	1.00	NIL	.003	.000	93
6053	804.50	805.50	1.00	TR	nil	.000	nil
6054	805.50	806.50	1.00	TR	tr	.000	2
6055	806.50	807.50	1.00	TR	.004	.000	147
6056	842.00	843.00	1.00	TR	nil	.000	nil
6057	843.00	844.00	1.00	TR	.001	.000	28

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

the host remains calcitic. Most of the stringers are at less than 30 degrees to the core axis. Mineralization in the system is weak with barely trace amounts of pyrite being the norm, both in the fragments and in the matrix.

Between 838.79 and 842.80m, there are erratic slips in the system at very shallow angles to the core axis. Most of these features appear related to fracturing with calcite, but the last feature at 842.80m, has a trace of mud with that slip at 28 degrees, and, there is trace-1% pyrite in the hanging wall of this feature.

The coarse conglomerate remains moderate to strongly calcitic to the end of the hole

850.00 End of Hole.

QUEENSTON MINING INC

2.33536

DIAMOND DRILL HOLE RECORD

Drill Hole: AK-05-14

Property: AMALGAMATED KIRKLAND- Leased CLM 328 (UTM: 570581E/ 5331659N)
Northing: 10750.00
Easting: 8652.00
Elevation: 328.00

Collar Azimuth (Grid) 223.00
Collar Dip: -50.00
(0 Degrees Grid equals 341 degrees True)
Hole Length: 904.00

Date Printed: 25 Apr, 2006

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
14.0	223.0	-48.0	481.0	229.9	-46.5
61.0	218.3	-48.5	541.0	232.8	-46.2
120.0	222.9	-48.4	601.0	234.6	-46.3
181.0	224.7	-47.8	661.0	235.4	-45.8
241.0	222.7	-46.9	721.0	235.7	-45.3
301.0	222.4	-46.6	781.0	235.9	-45.1
361.0	230.5	-46.5	901.0	235.5	-42.9
420.0	230.5	-46.2			

Date Started: July 26, 2005
Date Completed: Aug 19, 2005

Drilled by: H & S
Core Size: NQ
Material left in hole NX CAS-pulled
Core Location: Upper Canada Site 1
Logged by: FR Ploeger

SUMMARY LOG

From (m.)	To (m.)	Geology
.00	7.68	OVERBURDEN
7.68	43.05	CONGLOMERATE
43.05	60.00	PORPHYRITIC SYENITE
60.00	64.90	GREYWACKE
64.90	85.48	TRACHYTE
85.48	122.54	TRACHYTE TUFF
122.54	135.50	PORPHYRITIC SYENITE
135.50	154.50	MAFIC SYENITE TRACHYTE
154.50	198.76	PORPHYRITIC SYENITE ALTERED SYENITE
198.76	227.00	PORPHYRITIC SYENITE
227.00	251.13	PORPHYRITIC SYENITE ALTERED SYENITE
251.13	446.60	MAFIC SYENITE
446.60	616.00	TRACHYTE TUFF
616.00	693.93	PORPHYRITIC SYENITE
693.93	736.70	SYENITE DEFORMATION ZONE
736.70	742.05	PYRITIC SILICIFIED ZONE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

From (m.)	To (m.)	Geology
742.05	747.85	FAULT ZONE
747.85	799.63	SYENITE
799.63	874.50	MAFIC SYENITE
874.50	900.30	SYENITE MAFIC SYENITE
900.30	904.00	DIABASE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

From (m.)	To (m.)	Geology
.00	7.68	OVERBURDEN

The hole is collared about 100m northeast of the Hunton Shaft and is designed to test an area between the Amalgamated Kirkland Break and diabase dike for North- South veins. The drillers block at 7.5m marks the start of coring but bedrock actually occurs at 7.68m when measured back from lower blocks. Some core was recovered as small ground pieces of gravel above the 7.5m marker.

From (m.)	To (m.)	Geology
7.68	43.05	CONGLOMERATE

The interval is mainly comprised of conglomerate with wacke matrix and a major wacke lens from 18.00 to 27.40m, both of which have been moderately well altered. The leading and trailing sections of conglomerate are polymict, with dense packing within a clast supported, intact framework. Clasts, which are generally rounded to subrounded and ovoid to sperical in shape, range up to 14cm in size but average more between 1.5 and 5.5cm. Compositions of clasts are highly variable as indicated, including: fine to medium grained massive to porphyritic felsic and alkalic pebbles in various shades of pink, orange and beige; fine grained mafic volcanics in variious shades of grey and green grey; and fine grained, greyish coloured sediments including black chert and red jasper, the latter which is a typical indicator lithology for a sedimentary provenance of the host rather than a trachytic tuffaceous one. Alteration, in the form of a weak to moderate bleaching, has lightened the overall colour of the conglomerate to a light to medium, mottled, grey.

The alteration appears related to a mild fracturing and microfracturing that results in bleaching and pervasive ankeritization. In addition, it is accompanied by 4% dull grey to white porcelainic ankerite fractures, gashy veinlets and stringers to 10cm, mainly in the conglomerates, and occuring particularly in ladder type fractures in the harder, aphanitic clasts. Some late fractures and a few small pale pink and orange gashes, were found to be calcitic when tested with dilute hydrochloric acid (HCl); potassium ferricyanide (KFeCy) solution was used to check for ankeritic carbonate in the matrix and veining. A Model KT-6 Kappameter was used to measure the magnetic susceptibility (MS) values of the various lithologies of the hole. Readings indicate that the upper conglomerate to 18.00m, is fairly highly magnetic and variable with values ranging between 0.67 and 43.5. The MS values in the lower conglomerate from 27.40m to the end are more subdued, generally falling in a tighter range of 0.28- 3.30 with a local narrow section of 28.8/ 32.6 over about a metre. Mineralization, trace overall, comprises scattered pyrite (py) grains and crystals in the matrix and clasts along with rare fine splashes of chalcopyrite (cp) associated with fractures and carbonate veinlets/ stringers.

18.00 27.40 Greywacke - This is a fairly massive lens of fine grained, granular textured, homogenous, light greyish pink wacke that contains a few scattered clasts and a central lens (20.50-21.65m) of polymict conglomerate similar to that described

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6058	28.30	29.40	1.10	TR	tr	.000	3
6059	34.80	36.10	1.30	TR	nil	.000	nil
6060	39.20	40.45	1.25	TR	.001	.000	48
6061	40.45	41.20	.75	TR	tr	.000	3
6062	41.20	41.80	.60	TR	.006	.000	189
6063	41.80	42.40	.60	1	.001	.000	34
6064	42.40	43.05	.65	2	.008	.000	285

From (m.)	To (m.)	Geology

above. The pink colour is the result of a predominance of pink grains or weak hematization of the grains and matrix; jasper grains are abundant. The matrix remains weakly pervasively ankeritic and veining, consisting of fine fractures and thready veinlets, amounts to about 0.5% and is ankeritic as well. MS values begin slightly elevated at 3.33- 6.44 over the upper 2.5m, before dropping to a lower range of 0.24- 2.82. The sulphide content remains trace. The leading contact occurs along weak chlorite slips @ 58/ 40 DTCA while the trailing contact is natural @ approximately 25 DTCA.

28.50 28.55 Fault Zone - A few scattered chlorite slips and weak chlorite faults at various angles accompanied by weak alteration occur above this structure which is characterized by about 15cm of mild crushing with chlorite carbonate fracture fillings folowed by a tight central chlorite fault @ 18 DTCA at 28.50m. The remainder of the zone consists of a dull grey ankerite gash vein and trailing chlorite fracture @ 45 DTCA. The fractures contain trace splashes and grains of py.

29.20 29.28 Carbonated Zone - The carbonate zone comprises a dull grey porcelaininc to cherty looking fractured ankerite vein @ 60 (wavey)/ 50 DTCA. It is weakly brecciated and contains fragmented vein material and wall rock inclusions with trace py.

34.93 34.94 Fault Zone - A 1cm chlorite carbonate fault @ 25 DTCA is bordered by a 25cm halo of weak sericite microfracturing on the uphole side. It is not mineralized.

36.03 36.05 Fault Zone - Here, a tight 0.5- 2.0cm cataclastic chlorite fault comprised of small angular carbonate shards/ fragments in a chloritic matrix cuts the core @ 30 DTCA.

41.20 43.05 Shear Zone - The interval comprises strongly sheared and sericitized wacke, conglomerate and siltstone that trends roughly @ 35- 40 DTCA. It is characterized by light olive green, whispy, sheared sections interlensed with more massive to foliated, lensoid light pink coloured zones, and a very fine grained/ aphanitic, foliated olive grey silty zone between 41.85- 42.20m. Portions of the interval, such as the silty zone, and a 9cm, finely shreddy/ foliated, sericitized orange streaked section at 42.63m, are well mineralized with 2 and 5% fine py, respectively, the rest is trace to slightly anomalous.

43.05 60.00 PORPHYRITIC SYENITE

A natural contact @ about 30 DTCA that is stepped by weak faulting (slips), leads into the syenite porphyry dike. Overall, the dike is massive, homogenous, medium pink coloured, and medium grained/ textured consisting of medium pinkish grey, subhedral, 2-4mm, feldspar phenocrysts in a fine

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6065	43.05	44.20	1.15	TR	tr	.000	14
6066	44.20	45.35	1.15	TR	.002	.000	83
6067	57.05	58.40	1.35	TR	nil	.000	nil
6068	58.40	59.20	.80	0.5	.008	.000	285
6069	59.20	60.00	.80	TR	.001	.000	34

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

grained, medium pink, feldspathic groundmass. The feldspar phenocrysts are almost invisible against the background colour of the groundmass and can best be seen with a lens. Also included in the host are 1-2% altered mafic xenoliths to 3cm and 5-8% fine sericitized and chloritized mafic grains and interstitial material in the groundmass.

Staining indicates that the host is weakly pervasively ankeritic along zones of weak microfracturing with coincident slight lightening of the colour to medium pink and a decrease in MS values. In fresher sections, such as at 51.20- 58.20m, the colour becomes mottled to darker shades of maroon and the susceptibilities climb to a range of 4.36- 16.8 with a few lower values where locally altered. Otherwise, background MS values hover around 0.12 to 46.0m, and 0.30 above and below the fresher zone, although some values drop below 0.10 in places. Mineralization consists of trace py overall with a local increase to 0.5% around a series of weak fractures with chlorite fillings and mild silicification @ 40- 45 DTCA between 58.20 and 59.20m. The trailing contact of the dike is sharp, natural, @ 75 DTCA.

60.00 64.90 GREYWACKE

A narrow section of wacke separates the main sedimentary package from the trachytic one that follows. It is fine grained, massive, granular textured with some fine gritty lenses, medium greenish/ bluuish grey coloured, and contains the odd jasper grain. The leading metre is finely gritty up to a porphyritic dikelet from 61.00- 61.48m. The dikelet exhibits sharp natural wavey contacts @ 25/ 80 DTCA and visible dull white, 2-4mm, feldspar phenocrysts in a fine grained, medium greyish pink groundmass. MS values are centred around 1.00 in the dike and range from 0.70- 1.81 over the upper portion of the wacke, rising to 4.60- 16.7 below 63.0m. This may indicate a contamination by more magnetic tuffaceous material from the following unit. Staining indicates that the wacke remains pervasively ankeritic as are the few (<0.5%) carbonate veinlets that cut the unit; mineralization is trace. In the lower 0.5m, the granular texture becomes more diffuse and there appear to be flamed, aphanitic lenses of light olive grey coloured siltstone that form the actual contact with the trachyte flows.

64.90 85.48 TRACHYTE

There is a drastic change in texture to a mixed package of black speckled/ phenocrystic rocks that appear uniform over short intervals (up to 2m) and then change abruptly. The groundmass of most phases is very fine grained to aphanitic in appearance and dark brown (orange) to brownish grey/ black coloured while the speckles seem to represent altered mafic grains or phenocrysts. In some cases, they are euhedral with amphibole forms, in others they are anhedral chloritic(?) splashes that are joined by fractures, and, in some cases, they are medium grey, euhedral, altered phenocrysts that resemble the pseudoaugites of the mafic syenite intrusives (extrusives). At 78.20m, there is a section in which 0.2- 1.5cm ovoid calcite blebs may represent carbonate filled vesicles. Because of the various textures and

From (m.)	To (m.)	Geology

features described above, the unit is interpreted as a series of massive mafic trachyte flows in which the flow contacts are finer grained, moderately altered and more jumbled up, possibly fragmental, in appearance.

Testing with HCl and staining with KFeCy indicate that the composition of the carbonate changes back and forth between calcite (68.75- 71.20m, 73.90- 85.10m), which predominates, and ankerite. About 1% fine thready, dull white to grey carbonate veinlets and gashes were found to correspond with the carbonate composition of the matrix. MS values gradually increase from 7.34 through 21.8 to 69.60m, and then undulate within a range of 3.98- 44.3. The sulphide content is nil to trace overall with local clusters of py grains in the walls of some of the carbonate veinlets.

85.48 122.54 TRACHYTE TUFF

At 85.48m, there is a sharp distinctive change in colour and texture @ 30 DTCA to a fine grained tuffaceous unit. Because there is no deformation of the tuffs by the flows at the contact, it is probable that the tuffs were deposited on top of the flows suggesting that tops are down hole. Overall, they range from very fine grained to finely gritty, massive but weakly/ faintly bedded @ 55- 65 DTCA in places, granular textured but with hazy grain boundaries and no jaspers, and, medium to dark grey and brownish grey coloured.

Over most of the interval, the carbonate composition is calcitic with local ankeritic halos around some of the stronger vein zones or structures that cut the package. These include: from the start to 97.63m, veins and/ or structures at 86.20m, 92.50m, 96.70m and 97.10m; and, from 99.70- 105.15m, strong vein at 103.20m. Background MS values seem to range between about 10.0 and 18.0 to about 116.0m after which they drop to a lower range of 3.04- 7.19. In alteration halos around some of the vein zones and structures, the susceptibilities drop to as low as 1.04. Mineralization, which amounts to trace overall, is slightly enhanced around some of the structures and vein zones where py ranges up to 5% over short intervals (97.09- 97.40m) as disseminated grains, splashes and fracture fillings.

97.09 97.11 Fault Zone - This is a fairly strong looking but tight chlorite fault that cuts the core @ 35 DTCA. It exhibits weak alteration (bleach) halos over 20cm up and 7cm down hole, the trailing one which contains 5% py. About 40cm up hole there is another gashy carbonate fractured and altered zone over 20cm (trace sulphides) while below the lower alteration halo, there is a 20cm section of fresh tuff that is laced with 5% py filled fractures. Beyond these zones the tuff is fresh and unmineralized.

103.16 103.22 Carbonated Zone - The overall impression is that this fractured, dull white ankerite vein forms the core of a strong carbonate chlorite fault that intersects the core @ 80 DTCA. Light yellowish grey alteration (bleaching/ carbonate/ sericite) extends for 1.6m above, and an orange breccia zone

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6070	96.50	97.45	.95	2	tr	.000	3
6071	101.55	103.00	1.45	TR	tr	.000	7
6072	103.00	103.60	.60	2	nil	.000	nil
6073	103.60	104.80	1.20	TR	nil	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		for 35cm below the structure. There are trace sulphides in the upper altered zone whereas the lower section contains 6% py, cp and marcasite(?) as fracture and gash fillings.								
122.54	135.50	PORPHYRITIC SYENITE								
		Through a sharp curved contact @ 65 DTCA, the hole now traverses an odd type of syenite porphyry complex that appears as fresher masses floating in well chloritized(?) sections. To about 129.85m, the interval is dominated by a coarse grained phase (resembling the mafic syenite flows) in which obvious dark grey splashes and altered mafic phenocrysts to 7mm, and faint (best seen with a lens) medium greyish orange/ red ehhedral to subhedral phenocrysts are nested in a fine to very grained, dark greyish (brick) red groundmass. This phase is fairly massive with only a few irregular mafic patches to 127.25m, below which there are large blotches and ribbony sections of porphyry in a chloritic matrix (chloritized groundmass?). In some areas, the contacts between the chloritic sections and the porphyry are gradational, in others, relatively sharp, while in a section around 127.50m, it appears finely fragmental.	6074	128.85	129.80	.95	3	.001	.000	17
		Susceptibilities range between 8.61 and 26.5 through the upper porphyry unit, dropping as low as 2.25 near the end. Staining indicates that the host is weakly ankeritic although some fractures and slivers of the 0.5% veining are calcitic. Mineralization comprises trace to anomalous splashes and grains of py along with a short section from 129.10- 129.55m which contains 10% blebs, slivers and splashes of a brassy mineral resembling py that scratches with a brown streak (marcasite).								
		The finer grained phase of the porphyry begins along a sharp, natural contact @ 40 DTCA at 129.85m. The more massive sections, which form 65% of the unit, comprise 20%, 1-4mm sized, subhedral, light red to dull grey feldspar phenocrysts in a fine grained brick red, feldspathic groundmass. Here, the mafic (chloritic) patches seem to grade into the porphyry as if they represent large, partially recrystalized and assimilated mafic inclusions although some contacts are sharper. The trailing contact extends over 0.5m along the core axis as bulbous masses of porphyry surounded by ribbons and flames of mafic material. MS values are lower overall, ranging between 4.58 and 9.38 and ankerite continues to weakly pervade the matrix and the <0.5% thready veining. The brick red colour is caused by strong hematization of the groundmass and feldspar phenos. Mineralization consists of trace disseminated py grains and crystals.								
135.50	154.50	MAFIC SYENITE TRACHYTE								
		Most of this interval is similar to the phases in the trachyte flow package described above at 64.90m which resemble mafic (augite) syenite. Although there are weak alteration overprints and minor local compositional variations in the host, the texture is fairly uniform throughout. Overall, it is characterized by a very fine grained, dark reddish grey groundmass	6075	137.65	139.00	1.35	TR	tr	.000	10
			6076	139.00	140.00	1.00	7	tr	.000	2
			6077	140.00	141.10	1.10	2	.007	.000	243
			6078	141.10	142.35	1.25	1	.004	.000	151
			6079	152.10	153.25	1.15	TR	tr	.000	3
			6080	153.25	153.70	.45	3	.092	.000	3179

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		that contains faint medium grey euhedral augite(?) pseudomorphs and black/ dark green grey mafic grains.	6081	153.70	154.50	.80	TR	.001	.000	31
		Susceptibilities are elevated to a plateau of 20.6 to 35.2 with lower values of 0.76- 10.1 in areas of minor carbonate veining and stronger red hematization. Veining comprises 1-2% white ankerite fractures, veinlets and fine gashes along with minor calcite, none of which are concentrated in any major vein zone or structure. Through most of the interval, the matrix is weakly ankeritic, however, from 149.60- 151.25m, it is pervasively calcitic. Overall, the sulphide content is anomalous, with a segment between 139.00 and 140.00 hosting an estimated 7-10% sulphides as fracture fillings, blebs and trains. A shoulder of 1-2% disseminated grains and slivers of sulphides extends down hole for another 2m or so. The sulphide mineral has the appearance of py but scratches with a brown streak similar to that in the interval above. Over the trailing 1.25m, the colour lightens through medium maroon to pinky beige approaching the contact with the porphyry.								
		153.40 153.50 Quartz Vein Zone - This interval contains 80% ribbony, dull grey quartz veins with dull medium green sericitized walls, inclusions and fractures trending @ 60 DTCA. The fractures and inclusions are streaked with lenses of py/ marcasite, amounting to about 12%.								
154.50	198.76	PORPHYRITIC SYENITE ALTERED SYENITE								
		With a contact on a chlorite slip @ 30 DTCA, the interval begins with 2m of typical pink syenite porphyry that is moderately well fractured and microfractured and altered to a medium pink colour. Faint dull grey/ pink millimetric specks (feldspar phenocrysts) as well as small altered mafic inclusions/ xenoliths are visible through the deformation and alteration. This phase ends at a tight 2mm chlorite carbonate mud fault that intersects the core @ 20 DTCA. Below, the character of the porphyry changes completely although the porphyritic nature/ texture remains clearly evident.	6082	154.50	155.50	1.00	TR	.001	.000	51
			6083	155.50	156.40	.90	TR	.008	.000	261
			6084	156.40	157.65	1.25	TR	.001	.000	21
			6085	157.65	159.10	1.45	TR	tr	.000	3
			6086	159.10	160.15	1.05	0.5	tr	.000	3
			6087	171.50	172.90	1.40	TR	tr	.000	3
			6088	179.45	180.50	1.05	TR	nil	.000	nil
			6089	194.30	195.10	.80	TR	nil	.000	nil
			6090	195.10	196.50	1.40	TR	tr	.000	10
			6091	196.50	197.70	1.20	TR	.007	.000	226
			6092	197.70	198.75	1.05	TR	.016	.000	556
			6093	198.75	200.15	1.40	TR	nil	.000	nil
		The host is moderately well crushed/ fractured, the fractures filled with medium to dark grey chlorite and carbonate. Generally, they are randomly oriented. In places, they approach cataclastic texture and are aligned @ 25/ 40/ 50/ 65 DTCA. The stronger chloritic crushing ends at about 172m but fine thready carbonate fracturing continues down hole. Overall, the colour of the groundmass grades rapidly from the pink of the leading phase to light greyish salmon pink which continues to about 190.00m, at which point more pinkish tints gradually return to the internal contact at 198.75m. Visible in the groundmass, are 20%, 1-4mm, dull white, sub to euhedral feldspar phenocrysts and about 0.5% altered mafic inclusions.								
		Within this bleached phase of the porphyry, MS values drop immediately to a tightly constrained lower corridor of 0.03- 0.13. Both the matrix and thready carbonate veining are ankeritic in composition, however, some fractures are weakly calcitic. Sulphides occur in trace to slightly anomalous amounts as disseminated grains and trains of py, generally related								

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		to fractures. Contacts, structures and anomalous concentrations of sulphides were spot sampled although they may not be described separately.								
198.76	227.00	PORPHYRITIC SYENITE								
		At this point, the nature of the porphyry changes abruptly at a well defined but hazy contact @ 35 DTCA taken at a bleached band that leads into a fine grained contact zone. The main body of the syenite porphyry is medium textured overall although sections appear to be fine grained due to hematization which alters both groundmass and phenos to a brick pink colour, thereby blending the colours and textures together. The porphyritic texture is evident in windows throughout the unit and is generally best observed with a lens. Overall, it comprises faintly visible, 2-4mm, subhedral, dull grey to pink, feldspar phenocrysts in a fine grained, medium orange to pink groundmass containing 2% altered mafic inclusions/ xenoliths.	6094	200.15	201.50	1.35	TR	.003	.000	99
			6095	201.50	202.60	1.10	TR	nil	.000	nil
			6096	202.60	203.60	1.00	TR	.002	.000	69
			6097	203.60	204.80	1.20	TR	tr	.000	2
			6958	208.25	209.50	1.25	TR	.005	.000	156
			6959	209.50	210.70	1.20	TR	.004	.000	130
			6960	210.70	211.60	.90	TR	.002	.000	79
			6098	211.60	212.95	1.35	TR	.017	.000	590
			6099	212.95	214.15	1.20	0.5	.034	.000	1159
			6100	214.15	215.25	1.10	TR	.009	.000	309
			6101	215.25	216.00	.75	0.5	.021	.000	734
			6102	216.00	216.85	.85	TR	tr	.000	8
		MS values vary throughout the unit from about 6.00- 15.0 in the fresher sections that are darker greyish red/ maroon coloured, to 2.00- 6.00 in weakly to moderately veined and altered zones, to as low as 0.14 in the most highly altered and weakly quartz veined segments. Increased fine microfracturing and thready carbonate fractures and veinlets coincide with stronger alteration and lower MS values. Veining, generally consisting of 2-3% random, irregular, fine fractures and veinlets and some creamy white gashes to 3cm, are mainly ankeritic in composition, along with minor calcite fractures. Mineralization comprises trace fine py as very fine disseminated grains overall that is accented by anomalous sprinklings of py up to 1% over 5-15cm in some of the more fractured and altered zones. In these areas, there is a corresponding drop into the lower susceptibility ranges. Sampling reflects these more highly altered and mineralized zones which are not necessarily described separately.	6103	216.85	217.65	.80	0.5	.008	.000	281
			6104	217.65	219.00	1.35	TR	.046	.000	1586
			6961	219.00	220.10	1.10	TR	nil	.000	nil
			6962	220.10	221.25	1.15	TR	.001	.000	27
			6963	221.25	222.30	1.05	TR	nil	.000	nil
			6964	222.30	223.35	1.05	TR	tr	.000	10
			6965	223.35	224.65	1.30	TR	.001	.000	34
			6966	224.65	226.00	1.35	TR	nil	.000	nil
			6105	226.00	227.00	1.00	TR	.009	.000	302
		212.95 219.00 Altered Syenite Fault Zone - In this section, the syenite porphyry is fairly well altered and fractured to microfractured around a central 1cm quartz fault that cuts the core @ a low angle (5 degrees) at 215.50/ 215.70m. Within the core of the fault, the host is most intensely deformed, appearing as a light to medium grungy grey, dull grey speckled mass with local carbonate gashes (217.20m) and chlorite fractures. This grades outwards into well hematized (brick) orange/ red porphyry. Overall, the zone contains anomalous mineralization with local sections that grade up to 1% over 20cm. 1-2% py is also concentrated around irregular grey quartz stringers to 0.7cm at the start (15% qtz over 20cm).								
227.00	251.13	PORPHYRITIC SYENITE ALTERED SYENITE								
		The leading contact @ 70 DTCA was taken at a sharp natural break in texture from the finer grained massive preceding porphyry to a well fractured one very similar to that at 154.50m. Overall, it consists of 20% dull grey,	6106	227.00	228.10	1.10	TR	.003	.000	117
			6107	228.10	229.35	1.25	TR	.001	.000	21
			6108	229.35	230.55	1.20	0.5	.001	.000	45
			6967	238.50	239.75	1.25	TR	nil	.000	nil

From (m.)	To (m.)	Geology
		2-5mm, sub to euhhedral feldspar phenocrysts, along with 6% fine white, submillimetric speckles (bleached ferromagnesian minerals) and 1-2% altered and pale pink rimmed, mafic inclusions in a fine grained, light greyish salmon pink groundmass with gradations in colour to shades of pink to beige, the latter which is more altered. The porphyry is overprinted with weak to moderate, localized greyish, random fracturing (chloritic) and fine thready pale pink carbonate veinlets that appear to be the cause of the intense bleaching (light colour) of the host. However, with a lens, the groundmass is not significantly microfractured, and the alteration appears to be pervasive and restricted to this unit only.
		Within the porphyry, there is an immediate drop to a very well defined corridor of susceptibility values between 0.04 and 0.07. The matrix is pervasively weakly ankeritic while the thready 1% carbonate veinlets are both ankeritic and calcitic in composition. Mineralization, as disseminated py crystals and grains, ranges from anomalous throughout to 0.5- 1% over intervals of 0.5m or so. Some of the more strongly mineralized sections and the contacts were sampled.
251.13	446.60	MAFIC SYENITE
		Despite the contrasting host lithologies, the leading contact is somewhat nebulous because it is blended with similar alteration colours and textures, however, it appears to be rolling and steep @ about 70 DTCA. The upper portion of the mafic (augite) syenite to approximately 257.30m, is weakly to moderately altered resulting in coloured patches ranging from medium pinkish grey (weakly alt'd), to light pinkish grey (moderately alt'd), to brick red (most alt'd). Below, the host is fairly uniformly dark brownish grey coloured, massive, homogenous, and medium grained/ textured consisting of 30%, medium to light grey, euhedral augite pseudomorphs in a fine grained, dark brownish grey groundmass which lends the overall colour to the host.
		Pervasive ankerite alteration penetrates into the mafic syenite to about 254.20m, below which it becomes calcitic, reacting strongly with dilute HCl. Veining comprises 1% fine thready fractures and veinlets, along with slivery gashes, of pink and dull grey calcite. MS values fluctuate between 6.87-33.5 in the upper altered section to 257.30m, and generally undulate within a higher range of 21.2 and 48.5 in the remainder of the interval. Values drop in the immediate altered walls of minor structures and veins. Apart from a few rare isolated blebs of py to 1cm (252.75m, 284.20m, 291.65m), mineralization is nil.
284.55	284.80	Felsite - The mafic syenite appears to be cut by a very fine grained, mottled dark brown and grey felsite(?) dike or perhaps an inclusion of fine grained trachyte tuff with contacts that are sharp, chilled, natural @ 55/ 75 DTCA. It is weakly mineralized with anomalous to 0.5% py and the walls are weakly to moderately hematized for up to 0.5m. Similar dikelets exhibiting similar characteristics, which may represent felsic ribs in the augite syenite mass, appear

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6109	239.75	241.00	1.25	0.5	.006	.000	189
6110	241.00	242.30	1.30	0.5	.005	.000	182
6111	242.30	243.50	1.20	0.5	.029	.000	1006
6984	243.50	244.80	1.30	TR	.004	.000	134
6985	244.80	245.95	1.15	TR	.031	.000	1049
6986	245.95	247.00	1.05	TR	.003	.000	110
6112	247.00	248.30	1.30	0.5	.013	.000	453
6113	248.30	249.50	1.20	0.5	nil	.000	nil
6982	249.50	250.50	1.00	TR	tr	.000	3
6983	250.50	251.40	.90	TR	.017	.000	580
6968	251.40	252.50	1.10	TR	.017	.000	588
6114	252.50	253.75	1.25	TR	.009	.000	315
6969	253.75	254.95	1.20	TR	.003	.000	93
6115	284.05	285.10	1.05	0.5	tr	.000	3
6970	310.00	311.15	1.15	TR	.001	.000	45
6116	311.15	312.20	1.05	TR	.007	.000	230
6117	312.20	312.65	.45	0.5	.013	.000	442
6118	312.65	313.80	1.15	TR	.015	.000	507
6119	313.80	314.95	1.15	TR	.001	.000	48
6120	318.95	319.90	.95	TR	.005	.000	161
6121	319.90	321.40	1.50	TR	.003	.000	117
6122	321.40	322.25	.85	TR	.001	.000	28
6123	322.25	323.50	1.25	TR	.001	.000	45
6124	323.50	324.65	1.15	TR	.001	.000	24
6971	326.95	328.25	1.30	TR	tr	.000	3
6972	328.25	329.40	1.15	TR	.003	.000	106
6125	329.40	330.20	.80	TR	.050	.000	1720
6973	330.20	331.60	1.40	TR	nil	.000	nil
6974	331.60	332.75	1.15	TR	nil	.000	nil
6126	334.00	334.40	.40	4	.001	.000	24
6127	334.40	335.25	.85	TR	.001	.000	41
6128	335.25	336.25	1.00	1	.002	.000	75
6129	336.25	337.20	.95	3	.002	.000	79
6130	337.20	338.15	.95	TR	nil	.000	nil
6131	338.15	338.65	.50	4	.004	.000	127
6975	342.55	343.55	1.00	TR	.004	.000	139
6132	343.55	344.90	1.35	TR	.009	.000	297
6976	344.90	346.00	1.10	TR	.004	.000	147
6133	353.30	354.45	1.15	TR	.003	.000	93
6134	354.45	355.00	.55	TR	.028	.000	830

From (m.)	To (m.)	Geology
		periodically down hole.
312.20	313.80	Quartz-Carbonate Vein Zone - Approximately 12% carbonate quartz stringers and gashes with moderate light greyish pink and brick red alteration haloes cut the core @ about 60 DTCA, but, seem to be related to a 2-4cm specularite vein/ fault @ 30 DTCA at 312.44m. Sulphides, amounting to anomalous overall, are concentrated in the rims and walls of the stringers. The carbonate of the veining is ankeritic although the matrix remains calcitic.
319.00	319.90	Carbonated Zone - The interval contains 18% creamy white ankerite as matrix material to angular breccia fragments and shards. The bounding walls of the main zone at the start of the interval, trend @ 25 DTCA, and, a medium bright pink alteration that extends through the zone and 10cm up and 60cm down hole, resembles porphyry. It is mineralized with 1% py that occurs as blebs, streaky fracture fillings and splashes. Beginning at 315.20m, there is a change in the carbonate of the matrix from calcite to ankerite (to 324.40m) which is probably related to the fault detailed below.
322.85	323.50	Fault Zone - Here, the fault zone is characterized by green sericitization of the groundmass of the mafic syenite where the phenos stand out as waxy dark olive green crystals. The alteration is centred around a series of chlorite and quartz-chlorite faults/ veins (1- 2.5cm) throughout the zone that intersect the core @ 60/ 35+/- DTCA. Another 1cm chlorite fault cuts the host @ 50 DTCA at 324.30m. Mineralization is confined to slightly anomalous py splashes around some of the veins, otherwise it is trace.
329.40	338.70	Mafic Syenite (pyritic) - MS values range from 6.06 to 37.4, except for values of 0.61/ 0.88 over the leading 0.5m, and the mafic (augite) syenite is only weakly altered with minor veining through this interval. Despite the relative freshness of the host, it is punctuated by blebs of pyrite (marcasite?- scratches brown) up to 2cm, slivery fractures and disseminated splashes amounting to 0.5% overall but as high as 12- 15% over 10- 15cm. The py occurs in irregular chlorite/ carbonate/ quartz patches, fractures or chloritic alteration blebs, sometimes exhibiting hematized halos, and sometimes in the fresher host. Additional smaller blebs and spalshes of py extend beyond the limits of the interval but were not sampled.
343.57	358.26	Mafic Syenite Trachyte - At this point, it appears that the hole traverses a mixed zone that resembles an earlier trachytic flow package (64.90m) and includes syenite porphyries, mafic syenites and very fine grained sections with mottled colours ranging from dark brown/ grey, medium greyish pink and beige. However, a common thread through all the

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6135	355.00	356.00	1.00	TR	tr	.000	14
6136	356.00	357.25	1.25	TR	tr	.000	7
6137	357.25	358.25	1.00	TR	tr	.000	17
6138	358.25	359.30	1.05	5	tr	.000	10
6139	359.30	360.40	1.10	TR	nil	.000	nil
6140	418.00	419.20	1.20	TR	.001	.000	31
6141	419.20	420.20	1.00	2	.046	.000	1571
6142	420.20	421.25	1.05	TR	.029	.000	998
6977	421.25	422.45	1.20	TR	.004	.000	151

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

variations is the presence of euhedral to subhedral phenocrysts that resemble the pseudoaugites of the surrounding mafic syenites although they may be altered to different colours in the various alteration zones of the interval. Internal contacts appear to be gradational between these phases and the very fine grained lenses are probably equivalent to those detailed at 284.55m as felsites or felsic ribs. In fact, the interval begins on a 3-4cm chloritic shear @ 40-45 DTCA that occurs at immediately above a brick red hematized felsic rib. MS values range from 1.71- 32.3, the lower values occuring in the more highly altered sections as expected. The pervasive weak ankerite alteration ends just before the end at 357.75m, where it reverts to calcite. Apart from a 2.5cm pale pink calcite vein @ 30 DTCA at 352.15m, and a finely shreddy, 6cm dull grey, silicified zone @ at 354.88m, veining amounts to 1-2%. The sulphide content is trace overall as disseminated grains and splashes with local anomalous concentrations in fractures and around the shreddy silicification at 354.88m. The trailing contact was taken @ 40 DTCA at a dike that cuts the basic syenite and may have supplied the heat source to alter the host as described.

358.26 359.30 Porphyritic Syenite - Clear, sharp contacts @ 40/ 60 DTCA frame this syenite porphyry dike. It comprises 25%, 2-6mm, dull grey and red (hematized), feldspar phenocrysts in a fine grained, medium grey pink groundmass. The mafic minerals have been altered to a mix of chlorite and cp with sulphides forming 5% of the zone. Fine thready veinlets (0.5%) and fractures, as well as parts of the matrix are calcitic; MS values are fairly moderate at 0.41- 0.66.

359.30 446.60 Mafic Syenite - The hole now reverts back to the relatively fresh augite syenite similar to that described previously at 227.00m. The groundmass remains fine to very fine grained and dark grey to grey brown in colour but the phenocrysts now appear to comprise two different types. One set that is euhedral, dull grey and waxy looking appears to represent the augite pseudomorphs while the other set is black, generally euhedral (to subhedral), and tabular in form, probably representing amphibole crystals and grains. The very fine grained felsic rib(let)s are scattered through the unit, some with regular contacts and others that appear serated around the phenocrysts, possibly suggesting residual melts. The matrix is pervasively moderately calcitic as are the 0.5% pink and dull grey thready veinlets and slivers. MS values are elevated to a range of 22.0- 44.0; mineralization is trace overall, as local slivers of py/ cp along fractures and as splashes and widely scattered blebs (381.80, 383.20, 425.75 and 426.30m).

419.20 420.20 Mafic Syenite (altered)- The interval comprises fine grained

From (m.)	To (m.)	Geology
		and augite syenite phases that have been variably altered to medium to light grey and greyish pink/ beige in places. Approximately 2% coarse py grains and slivery lenses occur as disseminated grains and fracture fillings. MS values reflect the stronger alteration, dipping below 1.00 to range between 0.38 and 0.79. There are no significant vein zones or structures to account for the alteration and mineralization. Additional blebs and slivers of py occur over a short length at 421.00m.
446.60	616.00	TRACHYTE TUFF
		The leading contact with the mafic syenite is fairly well defined as it rolls and inundates the tuff with a serated edge that appears to have partially assimilated the host at a low angle (7 DTCA). The trachyte tuff is massive, fine grained but with diffuse textures that makes it difficult to distinguish individual grains, homogenous with local faint indications of bedding (@ 35 +/- DTCA) and occasional gritty lenses, and dark grey to brownish grey coloured. Overall, it is a monotonous sequence that is relatively fresh looking despite being cut by 2-3% dull white calcite veinlets that trend at various angles. The matrix was found to be strongly pervasively calcitic as well when tested with HCl. MS values generally track through a corridor of 14.0 to 27.0 with some lower values in weakly altered sections and a few values in the 30.0's. Sulphides are nil to trace overall, comprising widely scattered fine grains or short trains and splashes of py. Only sulphide zones associated with a structure, vein, or alteration zone were sampled or reported.
		446.95 446.96 Fault Zone - This is a weak chlorite carbonate fault with no alteration in the walls that cuts the core @ 30 DTCA.
		502.80 508.65 Fault Zone Trachyte Tuff (altered)- Alteration is centred around several strong fault structures centred at 504.07m and 507.60m. The former comprises a 12cm, crush chlorite quartz fault zone at 30 DTCA, and, the latter, a 12cm grungy chlorite crush gouge fault zone @ 15- 25 DTCA. A weaker 1.5cm fine chlorite breccia fault @ 30 DTCA leads the alteration zone which is characterized by fine chlorite fracturing to crushing and a lightening of the colour to light to medium brown, beige and green. Mineralization through the altered and structured section remains trace overall as rare fine specks of py and cp.
		517.36 517.39 Fault Zone - No significant alteration is associated with this finely crushed chloritic fault @ 30 DTCA, nor is there any mineralization associated with the structure.
		545.35 551.56 Fault Zone Trachyte Tuff (altered, ankerite) - The interval, which is bounded by structures, not only forms part of a larger ankerite system that extends from 535.70 to 553.45m, but is completely altered to a blend of light beigy pink and

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6143	502.80	504.30	1.50	TR	.001	.000	27
6144	504.30	505.50	1.20	TR	tr	.000	10
6145	505.50	506.65	1.15	TR	nil	.000	nil
6146	506.65	507.85	1.20	TR	tr	.000	2
6147	507.85	508.65	.80	TR	tr	.000	14
6148	543.25	544.00	.75	TR	nil	.000	nil
6149	544.00	545.25	1.25	TR	tr	.000	3
6150	545.25	546.05	.80	TR	tr	.000	14
6151	546.05	547.15	1.10	TR	tr	.000	14
6152	547.15	548.35	1.20	TR	.001	.000	21
6153	548.35	549.25	.90	TR	nil	.000	nil
6154	549.25	550.35	1.10	TR	.001	.000	45
6155	550.35	551.55	1.20	TR	tr	.000	10
6156	570.70	571.45	.75	TR	.004	.000	141
6157	571.45	571.85	.40	4	.025	.000	852
6158	571.85	573.15	1.30	TR	.003	.000	86
6159	614.90	616.00	1.10	TR	tr	.000	17

From (m.)	To (m.)	Geology
		green. A total of three faults cut the zone, a leading 1.5-2.5cm carbonate crush alteration fault @ 15 DTCA, a trailing 1cm chlorite fault accompanied by a 0.5cm pink calcite vein @ 45 DTCA, and, a central (548.84m) 2cm clorite crush carbonate fault @ 30 DTCA that is followed 20cm down hole by a 6cm pink calcite vein @ 50/ 60 DTCA. Despite the strong alteration, there is no significant increase in the amount of sulphides which consist of trace to weakly anomalous splashes, grains and trains of py. MS values dip below 0.50 over most of the interval with incursions to 3.65/ 4.88 and 11.8 in a few narrow, less altered sections. Following the interval, the magnetics of the tuffs return to higher values around 17.0-25.0 with a few isolated values to 31.0.
571.72	572.74	Fault Zone - The fault here comprises a puffy pale pink carbonate vein and weakly sheared chlorite over 2cm @ 45 DTCA. Unusually, the hanging wall is well mineralized with 10% disseminated and streaky py over 16cm.
608.00	610.65	Broken Blocky Core - This interval is broken along a series of fractures and chlorite calcite (pink) slips at low angles (<12 degrees) to the core axis. Where these are intersected by fractures at different angles, the core breaks into small pieces and shards.
616.00	693.93	PORPHYRITIC SYENITE The leading contact of the dike falls on a 2.5cm pink and white carbonate quartz vein/ fault with chlorite slivers and walls @ 50 DTCA. The phenocrysts are difficult to discern because of the moderate alteration and deformation that pervades most of the unit. Within the upper meter of the faulted contact, the porphyry is well fractured and altered to a grungy, finely shreddy mix of light to medium orange, pink and grey colours, the fabric trending parallel with the fault @ 50 DTCA. Overall, however, the host is medium greyish pink coloured, massive, medium grained and contains 1-2% mafic xenoliths/ inclusions that have also been altered to various degrees. As mentioned, the 25%, 2-5mm, subhedral feldspar phenocrysts are only visible occasionally through the interval without the aid of a lens. Their colours blend in with that of the groundmass as a result of alteration brought in by the fine spidery intragranular microfracturing that affects most of the unit. Fresher, less deformed patches are generally darker coloured and stronger magnetically. MS values range from lows of 0.19 in the most altered sections and highs of 20.7 in the least, however most values undulate in a range between 2.50-8.00. In addition to the microfracturing, the unit is laced with 3% fine thready carbonate fractures and veinlets to about 639.00m, and 0.5% below. The matrix is very weakly pervasively ankeritic, but the veinlets are mostly ankeritic with some calcitic in part. Mineralization is negligible, amounting to trace fine py grains and splashes in fractures.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6160	616.00	616.85	.85	TR	nil	.000	nil
6161	616.85	618.20	1.35	TR	.002	.000	65
6162	618.20	618.85	.65	TR	.003	.000	93
6163	618.85	619.95	1.10	TR	.013	.000	434
6978	619.95	621.10	1.15	TR	.001	.000	27
6979	621.10	622.20	1.10	TR	.001	.000	34
6164	670.50	671.65	1.15	TR	.001	.000	34
6165	671.65	672.50	.85	TR	.001	.000	21
6166	672.50	673.20	.70	TR	.003	.000	86
6167	673.20	674.35	1.15	TR	.002	.000	58
6168	682.00	683.15	1.15	TR	.001	.000	48
6169	683.15	684.45	1.30	TR	.001	.000	31
6170	684.45	685.30	.85	TR	.001	.000	38
6171	685.30	685.90	.60	TR	.003	.000	105
6172	685.90	686.90	1.00	TR	tr	.000	3
6173	690.55	691.75	1.20	TR	.001	.000	27
6174	691.75	692.95	1.20	TR	.001	.000	17
6175	692.95	693.95	1.00	TR	tr	.000	3

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

618.45 618.50 Fault Zone - The fault comprises a 4cm sericite chlorite shear @ 50 DTCA that contains slivers of py but does not extend into the walls.

654.90 658.50 Broken Blocky Core - RQD values over the interval are estimated at 25% for this section of broken core. Breakage occurs along chlorite slips and fractures that trend at low angles to the core axis and their intersections with other weak sets, resulting in a few piles of flakes/ splinters and longer pieces that are split down the axis.

664.03 664.04 Fault Zone - The fault here consists of a 0.3cm wafer of chlorite carbonate that cuts the core @ 43 DTCA.

666.18 666.54 Broken Blocky Core - Another short interval of splintered core is again related to a low angle slip.

672.85 673.05 Fault Zone - Below about 669.00m, the core becomes progressively more strongly altered towards the fault and this is supported by the MS values which remain below 0.50 to the fault, in fact they remain essentially below 1.00 for most of the remainder of the porphyry. The structure itself comprises a zone of shearing with chlorite and sericite @ about 20 DTCA and the strongest microfracturing and alteration extends for approximately 1.25m into the hanging wall and 0.30m down hole. There is no increase in the sulphide content either in the fault or the walls.

673.05 685.48 Porphyritic Syenite (fractured) - In this interval between the strong faults, the core is well fractured and microfractured which is manifested as a network of fine thready/ hairline, dull white ankerite veinlets that constitute 12% of the host. The porphyritic texture is completely obliterated and the colour is a medium/ light greyish maroon, however, the mafic inclusions were preserved to identify the host as a syenite porphyry. MS values through this section range between 0.30 and 1.30; mineralization remains trace.

685.48 685.52 Fault Zone - Fairly strong intragranular microfracturing continues down hole but the thready ankerite veining decreases significantly below this 2cm chlorite carbonate fault that cuts the core @ 15 DTCA. It is rimmed by a slivery lens of py (marcasite?).

691.78 693.93 Trachyte Tuff (altered) - As with the porphyry above, this section of tuff that ends the interval, is strongly deformed and altered to a mottled to jumbled light greyish green to greyish beige colour. Some relic bedding is preserved @ about 30- 35 DTCA and the trailing 10cm appear to be silty in composition. The leading contact, which is sharp, natural @ 40

DTCA, is preceded by a fine chlorite breccia bounded (45/ 50 DTCA) by a 5cm lens of tuff, while the trailing contact falls on a 1-6mm chlorite carbonate mud slip/ fault @ 40 DTCA. Susceptibilities in the tuff rise from bounding values of 0.19/ 0.55 near the contacts to 1.96 in the centre. Staining indicates that the unit is moderately pervasively ankeritic but mineralization remains trace as fine py grains and cp splashes in the fractures/ microfractures. The overall contact of the syenite porphyry was taken at the end of the tuff.

693.93 736.70 SYENITE DEFORMATION ZONE

The term deformation zone refers to the intense tectonism in the form of crushing and microfracturing and accompanying alteration that have combined to obliterate the primary features/ textures of the host. A protolith of syenite was deduced as a general term by the process of elimination. No remnants of feldspar phenocrysts or mafic xenoliths could be seen, even with the aid of a lens, ruling out a phase of the syenite porphyry. Neither were there indications of the preservation of any augite pseudomorphs or mafic grains, or granular or tuffaceous features. Overall, the unit may be characterized as massive and fairly homogenous looking despite the degree of deformation and alteration, medium textured with the groundmass being feldspathic in nature containing remnant 5% mafic grains preserved as yellow sericitic flecks in less deformed windows, and, medium grungy brick pink in colour with paler orange more altered sections adjacent to structures. The host is relatively hard and does not scratch easily.

Testing of the host with HCl and KFeCy indicates that it is very weakly pervasively ankeritic and that most of the slivery and gashy carbonate veinlets (1-3%) are also ankeritic but that some late fractures are calcitic. The fracturing that outlines the tectonic fabric consists mainly of chlorite and hematite (specularite) although very fine microfractures are ankeritic. The MS values are relatively low, within a range of 0.17- 0.27 with a local spike of 1.30 at 714.00m in a weakly fractured segment. These low values reflect the high degree of alteration but are also indicative of a possible porphyritic host. Mineralization varies from trace to anomalous throughout, comprising fine specks and splashes of py and cp, mainly associated with the fractures. Because the structure and alteration are so strong, the entire interval was sampled.

705.80 706.77 Porphyritic Syenite (altered) - This section is distinguished by choppy pale orange alteration and fairly well defined to sharp contacts @ 45/ 45 DTCA. The zone appears to be centred on a 1-2cm, fine cataclastic/ breccia fault @ 20 DTCA that has a fine, black, silicified chlorite- hematite matrix. The host appears to be a very strongly microfractured feldsparpheric rock in which the grains have been tectonically rounded and surrounded by fine yellow sericite. It is not anomalously mineralized.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6176	693.95	695.00	1.05	TR	.001	.000	45
6177	695.00	696.00	1.00	TR	.001	.000	48
6178	696.00	697.00	1.00	TR	.003	.000	103
6179	697.00	698.00	1.00	TR	.003	.000	96
6180	698.00	699.00	1.00	TR	tr	.000	14
6181	699.00	700.00	1.00	TR	.001	.000	21
6182	700.00	701.00	1.00	TR	.001	.000	38
6183	701.00	702.00	1.00	TR	.002	.000	58
6184	702.00	703.00	1.00	TR	.003	.000	117
6185	703.00	704.00	1.00	TR	.001	.000	27
6186	704.00	705.00	1.00	TR	.001	.000	27
6187	705.00	706.00	1.00	TR	.002	.000	69
6188	706.00	707.00	1.00	TR	.002	.000	57
6189	707.00	708.00	1.00	TR	.003	.000	86
6190	708.00	709.00	1.00	TR	.002	.000	65
6191	709.00	710.00	1.00	TR	.002	.000	72
6192	710.00	711.00	1.00	TR	.001	.000	38
6193	711.00	712.00	1.00	TR	.001	.000	41
6194	712.00	713.50	1.50	TR	tr	.000	3
6195	713.50	715.00	1.50	TR	.002	.000	58
6196	715.00	716.50	1.50	TR	.001	.000	41
6197	716.50	718.00	1.50	TR	.003	.000	96
6198	718.00	719.50	1.50	TR	.003	.000	117
6199	719.50	721.00	1.50	TR	.002	.000	55
6200	721.00	722.50	1.50	TR	.005	.000	177
6201	722.50	724.00	1.50	TR	.003	.000	96
6202	724.00	725.50	1.50	TR	.002	.000	58
6203	725.50	727.00	1.50	TR	.003	.000	99
6204	727.00	728.50	1.50	TR	.008	.000	264
6205	728.50	730.00	1.50	TR	.012	.000	422
6206	730.00	731.50	1.50	TR	.015	.000	511
6207	731.50	733.00	1.50	TR	.003	.000	96
6208	733.00	734.50	1.50	TR	.010	.000	360
6209	734.50	735.65	1.15	TR	.029	.000	993
6210	735.65	736.70	1.05	TR	.008	.000	264

From (m.)	To (m.)	Geology
		718.00 720.30 Broken Blocky Core Fault Zone - Weak chlorite (hematite) crush faulting at low angles (10 degrees) to the core axis, has broken up the core into chips and small pieces and intermittently altered the section to a pale orange and grungy pink colour. The strong chlorite- hematite crushing continues down hole to about a meter below another section of broken core along a low angle breccia fault at 721.90- 722.25m. Likewise, there is no anomalous mineralization associated with this fault.
		736.15 736.70 Fault Zone (calcitic)- There is another definite break in the texture/ fabric here that appears to result from a combination of faulting that is superimposed on a different lithology. The leading contact is somewhat irregular but well defined @ 30 DTCA while the lower one is partly fault controlled @ 35 DTCA and partly natural at low angle (about 15 degrees) to the core axis. It is finely microfractured (spidery chlorite) and altered to a mix of grungy light buff green and pink. Beginning at about 3m above this interval, there is a transition zone through which the carbonate in the matrix gradually becomes more calcitic such that this fault zone is pervasively calcitic.
736.70	742.05	PYRITIC SILICIFIED ZONE
		It appears that the syenite from the above unit (693.93m) continues but that it becomes progressively more silicified and weakly pyritized in places. The colour changes to a medium/ dark brick pink with lacey grey networks of silicification to about 739.85m, at which point it becomes a cherty grey colour (70% silicified) with small rafts of the pink host. The silicification, which seems to overprint the microfracturing, does not appear to be directly related to any structure although there is a strong late fault immediately below. MS values drop progressively from 0.14 in the weakest silicified syenite at the start, to 0.06/ 0.07 in the strongest. There also seems to be a similar correlation with the sulphide content in which fine dusty py and py grains increase from trace to 1-3% over short sections (5-15cm) near the end. The fractures and matrix are weakly calcitic throughout.
742.05	747.85	FAULT ZONE
		The interval comprises three components, a leading 1m section that has the appearance of a detrital sediment, a central 1m fault gouge zone, and a trailing trachytic looking fine fragmental. These are described below but are collectively interpreted as a mylonitic gouge break structure with the leading contact falling on a sharp, weak carbonate sliver/ slip @ 60 DTCA.
		The upper section is medium greyish green coloured, fine grained to gritty textured comprising fine subangular to subrounded grains to 1cm of limited

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6211	736.70	737.65	.95	TR	.001	.000	48
6212	737.65	738.70	1.05	TR	nil	.000	nil
6213	738.70	739.85	1.15	0.5	.003	.000	93
6214	739.85	740.60	.75	1	.027	.000	915
6215	740.60	741.40	.80	2	.160	.000	5486
6216	741.40	742.05	.65	2	.029	.000	981
6217	742.05	743.00	.95	TR	.015	.000	501
6218	743.00	744.00	1.00	TR	.005	.000	158
6219	744.00	745.00	1.00	TR	.005	.000	168
6220	745.00	746.00	1.00	TR	.003	.000	89
6221	746.00	747.00	1.00	TR	.002	.000	69
6222	747.00	747.85	.85	TR	.003	.000	86

From (m.)	To (m.)	Geology
		compositions (mainly those in shades of grey green and fewer pale pink ones) in a similar matrix that is highlighted by irregular patches of sericite alteration. The overall appearance is that of a gritty wacke. In the late break structure between 743.00 and 744.00m, the first 50cm comprises strongly crushed and gougy medium green host that contains weak internal fabrics suggesting an orientation of 20- 25 DTCA. This is followed by an intact 15cm section of the mylonite at the start of the interval and then by an unconsolidated mylonite fault @ 15 DTCA comprising fine gritty fragments in a finely ground, powdery/ gougy chloritic matrix. The trailing section of the overall structure, from 744.00m to the end, somewhat resembles the PYSZ that has been finely microfractured near the start but that becomes progressively more brecciated, ending a cataclastic zone that forms the contact with the following syenite. Overall, this segment is dark grey with a pinkish caste, in situ brecciated to cataclastic textured, somewhat similar to a fine trachyte fragmental, and hard, siliceous. The trailing contact is gradational between matrix dominated cataclastically fragmented syenite and relatively massive, fractured syenite. Due to a absence of the strong deformation and alteration that is present in the surrounding lithologies, it is interpreted that the segments bordering the central gouge fault zone, represent a healed, finely cataclastic/ mylonite zone that silicified the walls of the syenite and that was subsequently reactivated in the same plane forming the central crush, gouge break structure. MS values range between 0.23/ 0.28 in the upper section, 0.28/ 0.46 in the gouge, and 0.29- 0.42 in the lower siliceous zone. Testing with HCl indicates that the matrix is weakly to moderately pervasively calcitic overall; the sulphide content is trace.
747.85	799.63	SYENITE The upper contact was taken at a point in the cataclastic zone at which the fragments became in situ brecciated and formed more of the core than the chloritic matrix material, roughly @ 50 DTCA. Overall, the syenite is medium orange pink coloured, massive, medium textured, homogenous/ featureless, but moderately well microfractured and fractured with 2-3% black/ dark grey, chlorite- hematite, randomly oriented fractures that are overprinted by 3-4% pink and dull grey calcite veinlets that trend mainly at 25- 45 DTCA. At about 771.50m, there is a change in the composition of the carbonate in the veins to ankerite. The matrix is fairly dense/ hard and is not affected by staining with KFeCy or testing with HCl. MS values fall consistently into a narrow corridor of 0.15- 0.20 to 766.50m, where it rises slightly to a range of 0.20- 0.35. Mineralization, which generally consists of trace splashes and grains of py and cp through the interval, is accented by large irregular blebs, lenses and fracture fillings of py (marcasite?) as large as 11 x 1.5 cm at 753.70m and others at 754.07, 756.74, and 761.45m. Areas of anomalous fracturing and sulphides were spot checked but not necessarily described separately.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6223	747.85	749.15	1.30	TR	.001	.000	45
6224	749.15	750.60	1.45	TR	nil	.000	nil
6225	750.60	752.00	1.40	TR	tr	.000	14
6226	752.00	753.45	1.45	TR	.001	.000	27
6227	753.45	754.35	.90	4	.014	.000	487
6228	754.35	755.55	1.20	TR	.004	.000	151
6229	755.55	757.00	1.45	0.5	.003	.000	120
6230	761.15	761.90	.75	1	.014	.000	470
6231	784.00	785.10	1.10	TR	.003	.000	106
6232	785.10	786.30	1.20	TR	nil	.000	nil
6233	786.30	787.45	1.15	TR	nil	.000	nil
6234	787.45	788.70	1.25	TR	.001	.000	24
6235	793.00	794.30	1.30	TR	.021	.000	727
6236	794.30	795.70	1.40	TR	nil	.000	nil
6237	795.70	796.95	1.25	TR	.002	.000	62
6238	796.95	798.25	1.30	TR	.001	.000	38
6239	798.25	799.65	1.40	TR	nil	.000	nil

From (m.)	To (m.)	Geology
		779.70 781.95 Fault Zone - Two similar faults, one at each end of the interval, actually constitute the structural elements of this zone. They are weak chlorite slips and fracture zones with minor pink calcite, that cut the core at 20/ 12 DTCA. There is no significant alteration or mineralization associated with the zone but some chlorite and hematite fracturing along with minor cp and py extends beyond the structures.
		796.95 799.63 Syenite (transition zone)- A chlorite slip/ fault @ 30 DTCA, marks a change from the medium brick pink colour to a finely, sericite speckled, medium greyish pink coloured phase of the syenite which gradually turns a grungy light salmon/ orange grey by the end. The unit remains moderately well fractured and microfractured and is mineralized with anomalous to 0.5% fine py gashes/ slivers, grains and fractures.
799.63	874.50	MAFIC SYENITE
		Although the host remains moderately well fractured/ microfractured and altered, pseudoaugite phenocrysts are visible in some of the lesser deformed sections suggesting that the protolith through the entire section consists of mafic (augite) syenite. Only the crystal shape of the augite pseudomorphs, which are variably coloured from buff yellow, pink, light grey identifies the unit through apparent finer grained zones. It is possible that some of these zones represent internal fine grained contact margins of intrusive phases, syenitic/ felsitic lenses/ ribs or that they may be flow contacts of a series of mafic trachyte flows with minor interflow fragmental material. The actual leading contact is sharp, fine grained (in the preceding syenite) @ 35 DTCA. Where visible, the augite and amphibole(?) pseudomorphs, respectively, are euhedral, stubby/ tabular, and light grey-buff-pink/ medium grey- light grey coloured. They are nested in a fine grained groundmass that is light to medium orange/ pinkish grey coloured to about 821.80m, and medium to dark grey below.
		Staining with KFeCy indicates that the matrix is moderately ankeritic while the 3% fine pink carbonate veinlets and stringers are calcitic in composition. In addition to the carbonate veinlets, the upper altered section is also cut by randomly oriented chlorite- hematite fractures. In places (805.15m, 806.00m) these fractures form breccia fault zones (@ 15 DTCA) or patches. MS values begin in a low range of 0.41- 5.15 to 828.00m with most values below 2.00, before rising to a higher range of 5.44 to 38.5 over several metres to 834.50m. Susceptibilities then drop back into the lower corridor to 854.50m below which they again rise and fluctuate to as high as 31.4. Mineralization, consisting of py splashes, slivers and fracture fillings, is trace to anomalous overall. Sampling reflects some of the anomalous concentrations of py and stronger alteration patches.
		815.40 825.30 Felsite Syenite - The interval contains a number of syenitic/ felsitic zones or dikes at 815.40- 818.37m, 819.75- 821.27m, 823.52- 824.30m, and, 824.90- 825.30m as well as a few

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
6240	799.65	800.95	1.30	TR	tr	.000	10
6241	800.95	802.35	1.40	TR	tr	.000	14
6242	802.35	803.75	1.40	TR	nil	.000	nil
6243	803.75	804.90	1.15	TR	tr	.000	3
6244	804.90	806.20	1.30	TR	nil	.000	nil
6245	806.20	807.50	1.30	TR	tr	.000	7
6246	807.50	808.80	1.30	TR	nil	.000	nil
6247	815.40	816.80	1.40	TR	.001	.000	17
6248	819.75	821.10	1.35	TR	nil	.000	nil
6249	841.15	842.00	.85	TR	.001	.000	31

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

additional narrow zones further down hole. They are characterized by a lack of augite pseudomorphs, a change to a fine to very fine grain size, brick red/ orange to medium brown grey colour, and sharp, well defined contacts (mainly natural) @ 45/ 65 DTCA, 25/ 40 DTCA, 35/ 20 DTCA, and, 25/ 40 DTCA. MS values are generally below 1.00 in these felsitic zones while mineralization remains trace. At approximately 821.70m, there as a transition from an ankeritic matrix to a calcitic one.

841.50 841.52 Mafic Syenite (py) - Here, there is a 2.5 x 1.5cm patch of py (marcasite?) nested in a brick red halo (7cm) of hematite alteration that is not associated with any structure.

874.50 900.30 SYENITE MAFIC SYENITE

The nature of the mafic syentie changes at a sharp, fine grained (chilled?), contact @ 50 DTCA at a small pile of chips/ broken core. It becomes relatively fresh, and undeformed, dark grey coloured with a brownish mottling that highlights a coarse texture although it is difficult to determine the grain size in most areas. There is a distinct absence of the augite pseudomorphs, however, there are occasional alteration patches that outline ehhedral mafic grains/ crystals within the massive unit. In places, the finely mottled texture resembles a fragmental or tuffaceous unit. However, the overall appearance is that of the syenite described above at 747.85m but without the brick red hematization. Both the matrix and the 2-3% dull white, fractures, fine carbonate veinlets are calcitic in composition. MS values seem cluster between 2.00 and 9.00 with local undulations up to 31.4. Mineralization comprises trace py and very minor cp as splashes and fine streaks. There are no significant structures or alteration zones to the end of the hole.

900.30 904.00 DIABASE

There is an abrupt change at a natural embayed contact @ about 35 DTCA into a fine grained contact phase of a mafic intrusive, probably diabase. To 903.00m, it is fine grained, massive, and dark to medium bluish/ greenish grey coloured with a gradual increase in grain size towards the base. The last metre of the unit is medium grained and medium bluish grey coloured, however the diabasic texture is not well displayed, rather it is overprinted by a fine grained chloritic alteration. MS values hover around 11.0 in the fine grained phase and climb to the mid 60.0's in the medium grained zone. The matrix is neutral, neither reacting with the HCl or the KFeCy, however, the 2% random, dull grey, carbonate veinlets are calcitic in composition. Mineralization is nil.

904.00 End of hole - The hole was stopped in the diabase since there was little alteration or structure in the lower 78m and the carbonate in the veining and matrix was calcitic. The drillers

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		were asked to plug the hole and cement the top 10m and then pull the casing.								

QUEENSTON MINING INC

DIAMOND DRILL HOLE RECORD 2.33586

Drill Hole: AK05-51A

Property: AMALGAMATED KIRKLAND- Leased CLM 328 (UTM: 570172/ 5330820N)
Northing: 10063.00
Easting: 7996.00
Elevation: 343.70

Collar Azimuth (Grid) 344.00
Collar Dip: -63.00
(0 Degrees Grid equals 341 degrees True)
Hole Length: 737.00

Date Printed: 25 Apr, 2006

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
11.0	345.0	-62.5	347.0	344.0	-58.0
38.0	345.0	-62.0	386.0	344.0	-57.5
71.0	344.5	-61.5	443.0	344.0	-56.5
89.0	347.0	-61.5	480.0	342.4	-56.8
119.0	345.0	-61.0	539.0	343.1	-56.0
179.0	343.0	-60.0	599.0	342.7	-55.9
212.0	344.0	-59.5	659.0	342.4	-54.6
266.0	344.5	-59.0	737.0	342.9	-53.4
305.0	345.0	-58.0			

Date Started: April 15, 2005
Date Completed: April 20, 2005

Drilled by: H & S
Core Size: NQ
Material left in hole old NX CAS
Core Location: Upper Canada Site 1
Logged by: FR Ploeger

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

SUMMARY LOG

.00	1.00	CASING
1.00	53.60	LAPILLI TUFF
53.60	60.70	SILTSTONE
60.70	188.00	LAPILLI TUFF
188.00	189.40	AGGLOMERATE
189.40	354.90	LAPILLI TUFF
354.90	359.20	PYRITIC SILICIFIED ZONE
359.20	377.00	LAPILLI TUFF
377.00	402.15	PYRITIC SILICIFIED ZONE
402.15	406.40	CONGLOMERATE
406.40	443.56	GREYWACKE
443.56	541.35	GREYWACKE
541.35	578.00	TRACHYTE TUFF
578.00	596.55	TRACHYTE AGGLOMERATE CARBONATED ZONE
596.55	629.70	TRACHYTE TUFF GREYWACKE

From (m.)	To (m.)	Geology
629.70	633.60	CONGLOMERATE
633.60	643.87	GREYWACKE
643.87	652.32	MUDSTONE
652.32	669.72	TRACHYTE AGGLOMERATE
669.72	687.60	MUDSTONE
687.60	720.15	GREYWACKE
720.15	730.00	TRACHYTE
730.00	737.00	DIABASE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

From (m.)	To (m.)	Geology
.00	1.00	CASING
1.00	53.60	LAPILLI TUFF
53.60	60.70	SILTSTONE
60.70	188.00	LAPILLI TUFF
188.00	189.40	AGGLOMERATE
189.40	354.90	LAPILLI TUFF
354.90	359.20	PYRITIC SILICIFIED ZONE
359.20	377.00	LAPILLI TUFF
377.00	402.15	PYRITIC SILICIFIED ZONE
402.15	406.40	CONGLOMERATE
406.40	443.56	GREYWACKE
443.00	443.56	End of hole - This hole was previously drilled to 443.0m by Cyprus Canada in 1993 and was initially planned to be deepened to test the syenite- trachyte package at depth. Since hole AK-05-09 to the east did not encounter any significant structures or mineralization, this hole will test the alteration to approximately 50m below the diabase. The drillers blocks indicate 443m at the start of the box but a measurement from their first footage block puts the start of deepening at 443.56m.
443.56	541.35	GREYWACKE

The hole continues in massive, fine grained, light/ medium yellow- green grey to yellowish green coloured, granular textured wacke that grades into slightly grittier sections and contains scattered small pebbles. The clasts (<<0.5% overall) consist mainly of lime yellow mudstone (rip up), emerald green altered ultramafic, pale grey chert, and dull olive green, dark grey spotted porphyries. Also evident throughout the matrix are the typical red

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52383	456.00	457.00	1.00	TR	.001	.000	34
52384	457.00	458.00	1.00	TR	.001	.000	17
52385	458.00	459.00	1.00	TR	.000	.000	nil
52386	459.00	459.85	.85	TR	.000	.000	nil
52387	459.85	461.00	1.15	TR	tr	.000	10
52388	461.00	461.70	.70	TR	tr	.000	10
52389	461.70	462.80	1.10	TR	.001	.000	21

From (m.)	To (m.)	Geology

jasper grains. Forming approximately 2-4% of the sequence are thick lenses (461.68- 461.88, 466.18- 466.50m) of aphanitic, weakly foliated/ laminated, lime yellow coloured mudstone, the probable source of many of clasts. Some contacts of these mudstone beds are formed by quartz carbonate veins/ faults but other natural bounding contacts and internal bedding planes trend uniformly @ about 60 DTCA.

The yellowish tint to the overall colour of the host appears to be imparted by strong pervasive sericite and ankerite alteration. These alteration features are further accented by very fine thready sericitic shear planes (467.00- 467.50m) and more intense sericite patches/ zones associated with fault structures and quartz carbonate vein zones that are described in more detail below. Excluding the vein zones, the host is also inundated by 5% fine, dull white to dull grey carbonate fractures, veinlets, stringers and gashes. The composition of the carbonate, which strongly pervades the matrix and forms the vein zones and fracture sets, is ankerite as determined by staining with potassium ferricyanide solution (KFeCy). The magnetic susceptibility (MS) measurements of the altered wackes yielded fairly consistent values in the 0.10 to 0.16 range with dips below 0.10 in the most altered and strongly veined zones. Overall, the mineralization of the wacke is very weak consisting of trace fine pinpricks of pyrite (py) through the matrix and slightly anomalous disseminated py and the odd splash of chalcopyrite (cp) in the better veined and altered sections. Any significant veining, alteration and mineralization is described separately below.

452.64 453.20 Fault Zone - This appears to be a late structure comprising a series of braided crush/ mud fractures that cut the core @ 16 DTCA and partially track along the core axis. It is not accompanied by any significant veining, alteration or mineralization.

457.95 461.70 Quartz-Carbonate Vein Zone Fault Zone - The most prominent structural feature in the interval is a 6cm, chlorite lined and streaked, carbonate (white) quartz (dull grey) fault at 459.70m that cuts the core @ 50 DTCA. Ancillary weaker, chlorite- sericite lined, carbonate faults with accompanying carbonate quartz veins of varying widths occur at: 457.95m (start of zone) @ 30 DTCA with 5cm vein; 461.40m @ 55 DTCA preceded by a 35cm vein; and, 161.70m (end of zone) @ 65 DTCA with 1.5cm vein. Overall, the interval contains 20% vein material, mainly associated with the structures as noted above, but also as gashy streaks and irregular veinlets. Much of this package is also lime yellow altered/ sericitized but poorly mineralized with only trace fine py.

466.18 466.50 Mudstone - As mentioned above, this is a very fine grained/ aphanitic, lime yellow coloured, finely laminated/ foliated mudstone lens with a sharp, natural leading contact @ 60 DTCA and a trailing contact on a 3cm, quartz- carbonate- sericite fault/ vein @ 60 DTCA. Another similar bifurcated vein @ 60 DTCA intersects the mudstone 4cm from the leading contact. The

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52390	466.15	466.60	.45	TR	tr	.000	15
52391	475.65	476.25	.60	TR	.001	.000	34
52392	482.50	484.00	1.50	TR	.001	.000	29
52393	484.00	484.45	.45	TR	.000	.000	nil
52394	484.45	485.75	1.30	TR	.000	.000	nil
52395	500.00	500.85	.85	TR	.000	.000	nil
52396	500.85	501.75	.90	TR	.001	.000	21
52397	512.00	512.90	.90	TR	tr	.000	14
52398	512.90	513.25	.35	0.5	.001	.000	26
52399	513.25	514.65	1.40	TR	.000	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

MS value of the unit is 0.07 and mineralization comprises trace fine dusty py along with a 1cm patch of fine py in the lower structure.

475.73 476.24 Quartz-Carbonate Vein Zone - Unlike the previous vein zones, there is no structural element involved here where dull white carbonate quartz veins/ patches and dull greyish yellow silicification- carbonatization amount to 65%. The major vein elements generally trend @ 75/ 50 (opposing/ conjugate) & 60/ 85 DTCA but contain only trace fine py.

484.00 484.45 Fault Zone Quartz-Carbonate Vein Zone - This is a strong fault structure that is characterized by several bounding and internal white carbonate quartz veins that are lined, fractured and streaked with ragged green black chlorite and which trend uniformly between 40 & 50 DTCA. Carbonate quartz vein material and silicification amount to 75% within the interval and 20%/ 5% over 1.5m up and down hole, respectively. As with all the previous intervals, the sulphide content is trace, consisting of fine dusty py and a splash of cp.

489.05 490.20 Fault Zone - This is a weaker structure in which chlorite fractured wacke and a 2cm white carbonate quartz vein is enveloped by bounding 0.5cm chlorite shear slips @ 35 DTCA.

500.50 500.65 Fault Zone - Looking much stronger than it actually is, this 1cm wide fault, which cuts the core @ 14 DTCA, has fractured the walls for 50cm/ 75cm up and down hole, respectively. The fault zone itself comprises broken fragments of carbonate vein material in a chloritic matrix with enclosing slips containing a thin film of mud, while the walls consist of fractured altered wacke with 8% dull white gashy fractured carbonate-quartz veining. Again, mineralization is trace.

505.84 508.25 Conglomerate - A break in the massive wacke is presented here by a thick lens of conglomerate. Untypically, although polymict to a certain extent, the unit does not contain any pink, orange or reddish coloured clasts, rather they comprise pebbles to 8cm of various bland shades of pale yellow (some porphyritic textured), and the odd green carbonate altered, light grey, and medium grey green coloured clast. Pebbles are rounded and generally elongate, tightly packed (clast supported) with fine grained wacke matrix material and lenses. The lack of pinkish coloured clasts may be a result of bleaching by the strong carbonate and sericitic altering solutions. Both the upper and lower contacts were taken where the densely packed clasts begin/ end. MS readings suggest that the susceptibility is marginally higher in the conglomerates (0.16- 0.23), probably reflecting the variety of pebble types.

508.25 512.40 Greywacke - The altered greywacke,as described at the start,

From (m.)	To (m.)	Geology
		continues below the conglomerate.
	512.40 541.35	Conglomerate Greywacke - Beginning at this point, the pebbly/ conglomeratic lenses become more frequent although they still represent only 30% of the overall interval. Typically, these lenses are polymict (including small jasper clasts and grains), with clasts as detailed at 505.84m, and contain zones of pea gravel (1cm clasts) and grit (<0.5cm). From 524.84 to 525.19m, the coarser sediments are interrupted by a bed of medium greyish green mudstone with a scoured upper contact @ 65 DTCA (tops up hole) and slightly rolling, natural lower one @ 55 DTCA. Fine internal bedding features, including a very fine py layer, reflects the attitude of the lower contact of 55 DTCA. The degree of the overall alteration remains the same with pervasive, moderately strong ankeritization and sericitization along with 4- 6% fine white and dull grey ankerite fractures, veinlets and stringers. Mineralization comprises trace py as fine disseminated grains (and very minor cp) through the matrix and local enrichments associated with some structures.
	512.90 513.25	Fault Zone Carbonated Zone - The zone begins with a 25cm crush shear fault @ 45/ 70 DTCA which begins with a 5cm sericitic shear, followed by 5cm of crushed carbonate quartz vein material and 15cm of crushed and foliated wacke with fractures filled with sericite and chlorite. The trailing 10cm is formed by and embayed gashy dull white carbonate quartz vein that terminates on a knife sharp chlorite carbonate slip @ 46 DTCA. The fractured host is mineralized with 0.5% py within the fault zone.
541.35	578.00	TRACHYTE TUFF
		The leading contact of the trachyte tuff horizon was taken at the base of a zone of pale brown alteration (@ 45 DTCA) where the magnetics suddenly jump to an elevated level. Also below this point, there were no jasper grains or clasts observed and the nature of the matrix and clasts changes dramatically. Clasts, which constitute approximately 15% of the interval, still range up to 8cm in length with rounded oval shapes, however, the provenance of the pebbles is almost exclusively trachytic. All are various shades of pale to medium pink and orange in colour. The matrix component of the tuff is fine grained, medium to dark bluish to greenish grey in colour, massive, and granular textured although it appears more ashy/ flakey in nature. A very fine grained, tuff horizon with bedding and contacts @ about 55 DTCA is intercalated with the tuff at 549.10 to 549.75m.
		Veining in the tuffaceous zone consists of 5% white veinlets, stringers, patches and fine thready gashes and fractures of ankerite. In addition, as with the wacke, the matrix is pervasively moderately ankeritic as well except for a short section from 554.25- 557.85m which is weakly calcitic. MS

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52400	544.25	545.45	1.20	TR	.000	.000	nil
52401	545.45	546.60	1.15	TR	.000	.000	nil
52402	546.60	547.45	.85	TR	.000	.000	nil
52403	558.30	559.55	1.25	TR	tr	.000	11

From (m.)	To (m.)	Geology

values are generally elevated to a range of 3.44 to 18.2 with a few lower sections in areas of slightly stronger alteration. The values undulate within these limits reflecting variations in the magnetics of fragments and the tuffaceous matrix although there are sections (565.30- 567.40m, 571.70- 575.10m) that are not strongly altered but still maintain values below about 0.50. This may be partly due to very fine grained matrix material in these sections which tends to exhibit a lower susceptibility in general (eg. 549.10- 549.75m, 1.36/ 1.75). The sulphide content remains trace overall, consisting of local minor anomalous accumulations of fine dusty py in some altered sections. Sampling reflects some of these pyritic zones and higher percentages of veining.

558.30 559.55 Fault Zone - Only the two end points of the interval constitute fault zones @ 55/ 75 DTCA. Both are 1cm shreddy chlorite- carbonate wedges that contain splashes of cp and have moderately altered their respective walls over 10 and 20cm.

564.20 564.26 Fault Zone - Here, a weak chlorite crush alteration fault with 12cm of pale pinkish grey bleaching down hole cuts the core @ 45 DTCA.

578.00 596.55 TRACHYTE AGGLOMERATE CARBONATED ZONE

The code 4 reflects the fact that the trachytic unit is now fragment dominated and that it has been strongly ankerite veined and pervasively strongly carbonatized. The veining is a result of, and accompanied by intense fracturing that is probably related to the strong fault that ends the interval (see below). Overall, the agglomerate appears as a grungy mix of pale to medium orange and light to medium grey colours, the oranges representing various trachytic fragments when rounded/ oval in shape, and, the greys, altered (weakly hematized) tuffs where more massive textured. The lighter grey colourations reflect areas of tuff- mainly near the start of the section- that are less strongly altered while the medium greenish grey areas comprise nests of stronger chloritic fracturing. Clasts range up to 10cm in maximum dimension but their overall percentage is difficult to estimate because of the extreme alteration and deformation.

As mentioned above, staining with KFeCy reveals the matrix and clasts to be strongly pervasively ankertized. All the veining, 15% overall, is composed of white, fracture and microfracture fillings, shreds, fine gashes, slivers, veinlets, stringers and patches of ankerite. As alluded to above, the host is moderately chlorite fractured with some segments, generally those closer to the fault, that are more intensely fractured. In places, yellowish patches and linings to some fractures and slips are sericitic. The MS values in the upper 3m average in the high 0.30's where less altered and deformed but decrease to a lower range of 0.15- 0.30 below. Sulphide mineralization becomes slightly enriched through this interval but remains well below 0.5% (fine disseminated py). Other minerals of note are possible fine black tourmaline crystals in a 2.5cm carbonate vein @ 53 DTCA at 593.65m and

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52404	578.00	579.50	1.50	TR	.001	.000	24
52405	579.50	581.00	1.50	TR	tr	.000	0
52406	581.00	582.50	1.50	TR	tr	.000	5
52407	582.50	584.00	1.50	TR	.001	.000	21
52408	584.00	585.50	1.50	TR	.001	.000	24
52409	585.50	587.00	1.50	TR	.003	.000	81
52410	587.00	588.50	1.50	TR	.001	.000	45
52411	588.50	590.00	1.50	TR	tr	.000	12
52412	590.00	591.50	1.50	TR	.002	.000	69
52413	591.50	593.00	1.50	TR	.000	.000	nil
52414	593.00	594.10	1.10	TR	.000	.000	nil
52415	594.10	595.40	1.30	TR	tr	.000	nil
52416	595.40	596.55	1.15	TR	tr	.000	9

From (m.)	To (m.)	Geology

persistent, bright blood red patches/ masses (581.60m/ 585.40m, 588.08m) of hematite(?) that is hard and will not scratch (spinel/ ruby?).

596.45 596.55 Fault Zone - The fault zone represents a very strong structure that has not only strongly deformed and altered the entire previous interval, but that is characterized by a strong, 5cm cataclastic structure and trailing 5cm of gouge and splintered core which seem to cut the host @ about 45 DTCA.

596.55 629.70 TRACHYTE TUFF GREYWACKE

At the fault, there is an abrupt change into a fine grained to gritty, granular textured unit that lacks jasper grains but contains a high proportion of 1-3mm trachytic clasts/ grains. It has a sedimentary 'feel' but high magnetic susceptibility values in weakly altered sections suggest it is probably more tuffaceous in origin. A few sharp bedding contacts between coarser and finer layers at 604.32m and 614.12m yield primary attitudes @ 55/ 50 DTCA although most changes are gradational. Much of the interval is fine grained where the granular nature is visible only with the aid of a lens, however, between 608.60 and 614.10m, the zone is gritty and fine fragments/ clasts to 10mm are clearly visible. Conspicuously absent, are larger clasts of any kind. The colour of the tuff changes with the degree of alteration, beginning light greyish pink to medium greyish orange to about 605.00m, where it is probably influenced by alteration from the strong faault at the contact, becoming gradually medium grey to orange grey to 616.60m where it is less altered. At this point, the unit is cut by a series of weaker structures that cause numerous colour changes imparting an overall grungy mix of light to medium greys and oranges.

Corresponding to the colour changes and alteration patterns described above, are changes in the susceptibilities and veining concentrations. To 605.00m, MS values are low, in the range of 0.17- 0.35 and fine thready to gashy carbonate veinlets amount to 6%. Where the colour darkens, from 605.00 to 616.60m, the MS values increase to as high as 15.8, dropping gradually down to 0.72 near the end. At the same time, the veining drops to 1-2%, concentrated mostly adjacent to minor fault structures at 609.40/ 610.80m, increasing gradually from 615.00m to the end where the susceptibilities drop. From here to the end, MS values modulate within a narrow range of 0.29- 0.79 and carbonate- quartz veining increases to 30% over 5-10cm near the minor structures but averages approximately 10% overall. All carbonate that permiates the matrix and fills the veins is ankeritic in composition. The sulphide content is trace overall, consisting of fine isolated py grains and minor sprinklings, generally in fractures or the walls of veins.

616.05 616.10 Fault Zone - Here, a 1cm black and yellow, chlorite- sericite shear fault cuts the core @ 24 DTCA. This is approximately where the overall alteration begins to increase again and several chlorite slips parallel the main fault over a metre up and down hole.

618.43 618.45 Fault Zone - This is a strong carbonate chlorite breccia fault

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52417	596.55	597.70	1.15	TR	.000	.000	2
52418	597.70	599.00	1.30	TR	.000	.000	nil
52419	599.00	600.50	1.50	TR	.000	.000	nil
52420	600.50	602.00	1.50	TR	.000	.000	nil
52421	602.00	603.50	1.50	TR	tr	.000	12
52422	603.50	605.00	1.50	TR	tr	.000	3
52423	605.00	606.50	1.50	TR	tr	.000	14
52424	606.50	608.00	1.50	TR	tr	.000	3
52425	608.00	609.50	1.50	TR	tr	.000	14
52426	609.50	611.00	1.50	TR	tr	.000	5
52427	611.00	612.50	1.50	TR	.000	.000	nil
52428	612.50	614.00	1.50	TR	.000	.000	nil
52429	614.00	615.50	1.50	TR	.000	.000	nil
52430	615.50	617.00	1.50	TR	tr	.000	2
52431	617.00	618.50	1.50	TR	tr	.000	2
52432	618.50	620.00	1.50	TR	.000	.000	nil
52433	620.00	621.50	1.50	TR	.000	.000	nil
52434	621.50	623.00	1.50	TR	.001	.000	31
52435	623.00	624.50	1.50	TR	.001	.000	34
52436	624.50	626.00	1.50	TR	tr	.000	9
52437	626.00	627.50	1.50	TR	.000	.000	nil
52438	627.50	629.00	1.50	TR	.002	.000	58
52439	629.00	629.70	.70	TR	.001	.000	19

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		@ 60 DTCA with minor fine thready sericitic shears and fractures in the walls.								
		623.12 623.15 Fault Zone - MS values in the walls of this 2.5cm carbonate-quartz, chlorite and sericite- lined, fault that cuts the core @ 36 DTCA, drop as low as 0.23.								
		625.37 625.43 Fault Zone - This is a fairly strong crush chlorite carbonate fault zone @ 35 DTCA with irregular crushing and sericitic fractures to a sericite shear slip 20cm up hole and grungy chloritic fracturing to a chloritic shear, 15cm down hole, both of which parallel the central fault. There is no sulphide enrichment associated with this structure.								
		628.91 628.93 Fault Zone - A tight chlorite shear fault with several splashes of cp (5% over 3cm) cuts the core @ 55 DTCA.								
629.70	633.60	CONGLOMERATE								
		The leading contact occurs along a strong, dirty/ grungy, 2cm chlorite carbonate fault/ vein @ 30 DTCA which marks the start of a very strongly deformed interval containing several additional faults (see below). Overall, the protolith is identifiable by the melange of colours (pastel shades of orange, pink, tan, grey, buff white), including bright red (jasper), which define clasts of various compositions, and by some partial clast contacts which are visible. Otherwise, the host is so badly crushed, that it is inundated by chlorite fractures while the matrix is strongly altered with thready sericite. In fact, the entire interval could be considered a fault zone. The matrix consists of a light yellowish green altered wacke that is fractured as strongly as the pebbles. The entire section has been pervasdively ankeritized along with the chloritic and sericitic fracturing, while veining, amounting to 3% white ankerite, has been fractured in part, and, partly overprints the fabric. Susceptibilities are tightly constrained to a corridor of 0.29- 0.35 while mineralization remains trace.	52440	629.70	630.85	1.15	TR	.001	.000	26
			52441	630.85	632.00	1.15	TR	.001	.000	21
			52442	632.00	633.00	1.00	TR	.001	.000	22
			52443	633.00	633.60	.60	TR	.004	.000	128
		631.10 631.24 Fault Zone - This is a strong internal fault structure characterized by intense crushing and several mud and gouge slips @ 68/ 76 DTCA.								
		-633.50 633.60 Fault Zone - Although the strong deformation continues down hole for another 1.6m, this strong crush gouge fault @ about 45 DTCA terminates the conglomerate.								
633.60	643.87	GREYWACKE								
		As mentioned, the strong sericitic and chloritic fracturing continues into the wacke but ends abruptly down hole at 635.20m on a knife sharp, curved contact while the degree of alteration decreases gradually to this point. Beyond, the wacke is relatively fresh with minor fine microfracturing that	52444	633.60	634.45	.85	TR	.000	.000	nil
			52445	634.45	635.25	.80	TR	tr	.000	3
			52446	635.25	636.35	1.10	TR	tr	.000	14
			52447	636.35	637.85	1.50	TR	.000	.000	nil
			52448	637.85	639.20	1.35	TR	.000	.000	nil

From (m.)	To (m.)	Geology
		is weakly sericitic to 637.60m and then becomes ankeritic with local sericitic patches. Overall, the wacke is fine grained with minor gritty sections, massive, granualar textured, homogenous and light greenish grey coloured. Too fine to see with the naked eye, jasper grains are visible through a lens. There are no obvious pebbles until the end of the interval and along with rare flamey olive green slivers of mudstone. Up to 642.25m, the core is well fractured with 8% dull white to buff spidery ankerite fractures and veinlets. MS values range between 0.12 and 0.23, increasing to 0.26 near the end. Mineralization, trace overall, increases to 0.5% from 639.20 to 641.50m, where it occurs as very fine, disseminated py grains that don't appear to be related to any particular veining or structure.
643.87	652.32	MUDSTONE
		The leading contact was taken a break in the texture marked by a whispy spotted carbonate vein @ 22 DTCA between the trailing pebbly/ gritty lense at the base of the wacke and the very fine grained/ aphanitic mudstone. The mudstone is massive, medium bluish grey in colour, uniformly very fine grained to aphanitic with a fine granular texture and 2% gritty and sandy/ wacke lenses (644.65m & 649.35m) that are intercalated at very low angles (along & @ 12 degrees) to the core axis. Veining decreases to 3% gashes and veinlets of white ankerite along with the matrix which is also pervasively ankeritic. The lower contact occurs at the base of another pebbly lens and at a point where higher MS values mark a change into trachytic tuffs and agglomerate. Overall, the susceptibility of the mudstone ranges between 0.23 and 0.31 while mineralization is trace.
652.32	669.72	TRACHYTE AGGLOMERATE
		A pebbly lens begins the trachyte tuff/ fragmental unit which is characterized by a generally gritty matrix composed of mm to 1.5cm sized clasts grading into fine grained ashy(?) sections and clast rich agglomeratic zones. In the upper portion, to about 659.00m, the tuff is mainly gritty textured, consisting of a mix of fine, 1- 15mm, grains and fine clasts containing gradational changes into 10% fine to very fine grained, ashy tuff zones. Fragments are generally subrounded in shape, with indistict/ hazy boundaries, and of trachytic composition, ie pale orange/ pink, and light to dark grey/ grey green colours, some of which are barely distinguishable from the matrix. In the lower portion, the clasts become larger, to 5cm, but only constitute about 7% of the host, and, they are similar in colour/ composition to those described above. Overall, the matrix is fine grained to gritty and medium to dark grey green in colour.
		The matrix continues to be pervasively altered with ankerite, and, in addition, the 4% irregular white fractures, veinlets and gashy stringers are ankeritic. The overall medium grey green colour is punctuated in places by isolated and vein related patches of pale orange and orange grey alteration, that, in some areas resembles large fragments. The transition into the trachytes is marked by an increase in the susceptibility from about 5.00

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52449	639.20	639.75	.55	1	.000	.000	nil
52450	639.75	640.50	.75	0.5	tr	.000	15
52451	640.50	641.50	1.00	0.5	tr	.000	9
52452	653.40	653.90	.50	TR	tr	.000	7
52453	653.90	655.30	1.40	TR	tr	.000	5
52454	655.30	656.00	.70	TR	.002	.000	66
52455	656.00	657.00	1.00	TR	tr	.000	2
52456	657.00	658.05	1.05	TR	.000	.000	nil
52457	667.20	668.15	.95	TR	tr	.000	5
52458	668.15	668.60	.45	0.5	.001	.000	26
52459	668.60	669.35	.75	TR	.000	.000	nil
52460	669.35	669.75	.40	TR	tr	.000	10

From (m.)	To (m.)	Geology

near the start, to as high as 18.6 at 655.25m, before gradually decreasing down hole to end at values below 1.50. Mineralization, is trace.

653.57 653.58 Fault Zone - This is 1.5cm wide, dark grey (chloritic) cataclastic fault @ 60 DTCA that contains fine and coarse fragments of wall rock and carbonate veining. The structure has weakly altered the walls over 1-2cm but is not mineralized.

655.74 655.76 Fault Zone - A 1.5cm laminated chlorite carbonate vein defines the fault @ 60 DTCA.

657.47 657.48 Fault Zone - Here, the fault is characterized by a tight chloritic shear zone trending @ 30 DTCA that is preceded by 15cm of weak alteration and carbonate streaking.

668.35 669.72 Fault Zone - There are several branches of this structure, each of which define a cataclastic fault zone. It begins on a 3.5cm dark grey, finely brecciated cataclastic/ mylonite fault zone with a bounding 2cm dull grey carbonate vein @ 45/ 35 DTCA and 5% very fine dusty sulphides. Next, are two weakly in situ brecciated zones with slight dilation and rotation of fragments in a black chloritic matrix at 668.90 and 669.25m. The trailing feature of the structure begins at 669.35m with a coarse cataclastic breccia comprising in situ and locally rotated tuff fragments and ends with a 12cm protomylonite zone comprising 40% fine white angular carbonate fragments in a black chlorite- hematite, and, millimetric fragmental matrix. The lower contact of the overall fault structure cuts the core @ 50 DTCA. It appears that the fault zone has altered the hanging and footwalls 0.3 and 0.6m, respectively, as well as the included section of host, to a pale grungy greyish orange colour.It has not, however, enriched the host in sulphides which remain at trace overall.

669.72 687.60 MUDSTONE

The upper section of the mudstone to 672.80m is fine grained, but granular textured and medium greenish grey coloured, whereas the remainder is very fine grained to aphanitic. There are no jaspers within the granular zone suggesting it may be trachytic in origin rather than sedimentary, and, parts appear to contain flattened grains and small flattened clasts with indistinct grain boundaries that may further imply a welded/ hot tuffaceous source. The contacts of the first member (672.80 673.02m) of the finer grained/ aphanitic mudstones are sharp, natural @ 55/ 45 DTCA. This is followed to 674.15m, by another welded tuff(?) unit, the trailing contact of which is coarsely scalloped @ about 15 DTCA and seems to have intermixed with some of the mudstone.

Overall, the main body of the mudstone is very fine grained to aphanitic, medium olive green grey coloured with local lighter shades, and strongly

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52461	669.75	670.55	.80	TR	.000	.000	nil
52462	674.35	675.65	1.30	TR	tr	.000	12
52463	675.65	677.00	1.35	TR	tr	.000	12
52464	677.00	677.80	.80	TR	tr	.000	15
52465	677.80	678.70	.90	TR	.001	.000	24
52466	678.70	680.00	1.30	TR	tr	.000	3
52467	680.00	681.40	1.40	TR	.001	.000	49
52468	684.50	685.40	.90	TR	.000	.000	nil
52469	685.40	686.05	.65	TR	tr	.000	9
52470	686.05	687.30	1.25	TR	.001	.000	29
52471	687.30	687.90	.60	TR	tr	.000	7

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

contorted/ jumbled, in part as primary slumping (etc) and partly as a tectonic overprint. Local, relatively undisturbed sections such as at 679.90 & 682.83m, provide windows into primary bedding features @ 50- 55 DTCA.

The primary and deformation textures are highlighted by 4% shardy and shredded ankerite veinlets and slivers. In addition, there are several more massive and patchy quartz carbonate vein zones that are described separately below. The yellowish tint of the more strongly altered sections that colour the mudstone a dull greenish yellow, plus the fine microfracturing in the more deformed zones and fine thready shears, are filled with fine sericitic material. All the carbonate veining in the system along with the matrix is ankeritic in composition but the sulphide content remains trace. MS values are fairly tightly constrained to a range of 0.17- 0.28.

677.08 678.60 Quartz-Carbonate Vein Zone - Veining consists of a leading 35cm massive, mottled, pale greenish grey coloured, cloudy quartz carbonate (ankerite) vein with opposing contacts @ 43/ 45 DTCA, and, a trailing patchy 25cm dull greyish yellow vein with indistinct contacts @ 65/ 45 DTCA and a flat roll in the middle. These bounding veins, along with swirly and broken veinlets and patches in between, amount to 60% overall. Most of the interval has been well fractured and finely microfractured, the various fractures filled with sericite. Mineralization consists of trace py overall with local concentrations to 5% over 10cm or so.

681.05 681.38 Fault Zone - Several mud and gouge slips through the zone @ 60/ 85/ 60 DTCA define this fault. The deformation decreases somewhat below the fault structure to the following vein zone.

685.40 686.05 Quartz-Carbonate Vein Zone - Similar to the veining above, the interval comprises several irregular deformed patches of dull grey and dull yellow grey ankerite vein material followed by 15cm of swirly but fairly continuous veining at the end. The prevailing attitute of the veins is about 60 DTCA within a highly microfractured host through this section. Mineralization becomes anomalous as fine dusty py but remains at <0.5% overall.

687.55 687.60 Fault Zone - The mudstone unit is terminated by a strong shear, crush sericite fault with a trailing 2mm mud slip @ 45 DTCA.

687.60 720.15 GREYWACKE

The wacke, although variably altered from the start, and strongly deformed over the last 15m, was identifiable by the fine granualr texture and the presence of jasper grains which formed common threads throughout. Overall, it is massive, granular textured, and fine grained with local flamed/ irregular, soft sediment deformed, aphanitic, mudstone slivers and lenses

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52472	687.90	688.30	.40	TR	tr	.000	5
52473	688.30	689.65	1.35	TR	.000	.000	nil
52474	694.40	695.35	.95	TR	tr	.000	12
52475	695.35	696.25	.90	0.5	tr	.000	10
52476	696.25	697.15	.90	TR	.000	.000	nil
52477	697.15	698.30	1.15	0.5	.001	.000	37

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		and rare isolated pebbles. The colours vary depending on the style and intensity of alteration, ranging from: dark green grey with greyish olive slivers and flames of mudstone, in relatively fresh wacke to 691.85m; to light yellowish grey sericitized wacke to 699.65m; to light salmon pink to greenish pink (hematized?) to 702.35m; to light/ medium brownish grey altered to 710.12m with the stronger deformation beginning at 705.35m; and, a mixed zone of all the above colours occuring as patches within a breccia like texture. This texture results from the strong crushing and partial shearing of the altered host and the highlighting of the resulting 'fragments' with dark grey/ black chlorite (and hematite) fillings/ matrix, and, the thready shear planes, with fine yellowish sericite. The resultant melange has the appearance of a dirty trachytic breccia but the jasper pebbles and grains identify it as a wacke. Chloritic slip/ fault zones seem to form the boundaries of the coloured phases.	52478	698.30	699.65	1.35	0.5	.000	.000	nil
			52479	699.65	701.00	1.35	TR	.001	.000	17
			52480	701.00	702.35	1.35	TR	.001	.000	23
			52481	702.35	703.40	1.05	TR	.001	.000	33
			52482	703.40	704.55	1.15	TR	.001	.000	29
			52483	704.55	705.80	1.25	TR	.001	.000	39
			52484	705.80	707.00	1.20	TR	.002	.000	58
			52485	707.00	708.50	1.50	TR	.002	.000	74
			52486	708.50	710.00	1.50	TR	.003	.000	86
			52487	710.00	711.50	1.50	RT	.001	.000	29
			52488	711.50	713.00	1.50	TR	.002	.000	60
			52489	713.00	714.50	1.50	TR	.001	.000	17
			52490	714.50	716.00	1.50	TR	.000	.000	nil
			52491	716.00	717.50	1.50	TR	.004	.000	156
			52492	717.50	719.00	1.50	TR	.004	.000	154
			52493	719.00	720.15	1.15	TR	.003	.000	91
		Despite the varied alteration and strong deformation, veining, as dull white and pink threads, veinlets, slivers and patches of carbonate and stringers and veins of dull grey quartz, amount to approximately 1%, concentrated mainly near the start of the interval. Most of the carbonate in the veins is calcitic with local minor lenses of dull white dolomite (does not react KFeCy or fizz). The susceptibilities of 0.12- 0.18 to 707.00m, reflect possible higher degrees of alteration and more uniformly textured protolith, while the elevated values of 0.28- 1.25 in the lower portion of the unit result from the presence of pebbles, the darker matrix and host, and possible trachytic tuff contamination. Overall, the sulphide content of the interval is slightly anomalous with some local sections, such as from 695.35- 695.65m, containing 0.5% fine disseminated py. Any concentrations of veining or sulphides was sampled.								
		687.90 688.30 Quartz Vein Zone - There is about 50% dull grey quartz and minor carbonate as broken veins (to 3cm) and lenses at various angles to the core axis in this interval. The sulphide content, however, remains at trace.								
		697.58 697.68 Fault Zone - The fault is characterized by strong brecciation of the host and an early dull white carbonate vein with chloritic infilling of the fractures and matrix. The zone trends @ 30 DTCA with no significant increase in mineralization but a noticeable increase in sericite alteration uphole from the fault.								
720.15	730.00	TRACHYTE								
			52494	720.15	721.50	1.35	TR	.002	.000	70
		The contact was taken at the loss of red jasper grains and a subtle transition in texture and is by no means well defined, nor, is the nature of the host clear. With an increase in susceptibility, a loss of much of the granular texture, a sense of massiveness with local fragmental/ agglomeratic zones, increased hardness (most will not scratch), and, a brownish to orange tint to the overall medium grey colour, it was concluded that the protolith was most likely trachytic, a flow(s) with tuffaceous and agglomeratic	52495	721.50	722.85	1.35	TR	.001	.000	32
			52496	722.85	724.30	1.45	TR	.001	.000	34
			52497	724.30	725.75	1.45	TR	tr	.000	7
			52498	725.75	727.15	1.40	TR	tr	.000	10
			52499	727.15	728.50	1.35	TR	.001	.000	38
			52500	728.50	730.00	1.50	TR	.002	.000	53

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

interflow material. The primary textures are obscurred by the overall background deformation and alteration, and further masked by the contact effects of the intrusion of a major diabase dike at 730.00m and several smaller dikelets at 722.40- 722.90m, 724.75m (1.5cm), and 725.00m (9cm). A foliation fabric (@ about 30 DTCA), which continues from the sediments, weakens down hole to the first diabase dikelet and then dissapears below.

Most of the interval contains high angle (65- 75 DTCA), late, fine thready dull white, calcite veinlets and slivers, approximately amounting to 7%. In addition, the matrix was found to be intermittently pervasively calcitic as well. MS values are erratic, beginning at 0.52- 0.72 up to the first diabase dikelet, then climbing to 38.7 in an agglomerate/ breccia below a felsic dike or silicified section of trachyte (see below) at 724.45m. Then they begin to undulate between lows of 1.53 and highs of 25.9 to the end with most of the values falling in the low to mid 20.0's. The sulphide content is trace overall as small grains, slivers and splashes of py and cp, mainly associated with fracturing, however, a 30cm section near the start averages approximately 1%.

722.37 722.40 Fault Zone Carbonated Zone - The diabase dike appears to begin along this 2.5cm wide, streaky chlorite- calcite- quartz vein/ fault that cuts the core @ 35 DTCA.

722.90 724.30 Pyritic Silicified Zone - for lack of a better description, this is considered either an odd felsitic dike or a strongly silicified zone that overprints a portion of the trachyte. The leading contact is weakly chloritized by the diabase dikelet which also forms the contact @ 27 DTCA while the trailing one, fairly sharp and also @ 27 DTCA, contacts a hard, 10cm thick, fine fragmental comprising dull salmon orange coloured, angular fragments to 1cm in a fine grained, dark grey, hard (does not scratch) matrix, possibly a cataclastic fault. The silicified zone itself is mottled light to medium bluish grey coloured, fine grained to aphanitic textured, highly siliceous (95%), and massive with local weak patches of pale greyish orange host trachyte (723.30m) that may represent partially silicified remnants of the trachytic host. It is finely crackle brecciated with fractures mineralized with 0.5% grains, trains and streaks of py.

730.00 737.00 DIABASE

As mentioned above, there are several minor diabase dikelets cutting the syenite unit above at 722.40- 722.90m, 724.75m, and 725.00m. The contact of the main dike is sharp but highly irregular/ undulatory @ about 35 DTCA. The contact phase is chilled and very fine grained to fine grained to about 733.00m where it becomes more medium grained and ophitic textured to the end of the hole. The overall colour, in both the fine and medium grained sections is a medium grey green with local weak orange tinges. The magnetic susceptibilities average 21.5 within a narrow range of 17.8 and 27.8 in the

From (m.)	To (m.)	Geology
		fine grained phase and then climb to a higher range of 39.5- 63.3 to the end. Although not as strongly fractured as the trachyte, the diabase is cut by 3% white calcite veinlets and stringers. It is mineralized with anomlous grains and splashes of pyrrhotite (po) with local concentrations of 5% over 15cm or so.
737.00		End of hole - The hole ended in the diabase dike.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

QUEENSTON MINING INC

Drill Hole: AK-05-08

DIAMOND DRILL HOLE RECORD

2.33536

Property: AMALGAMATED KIRKLAND- Leased CLM 328 (UTM: 569660E/ 5331243N)
Northing: 10636.00
Easting: 7650.00
Elevation: 324.00

Collar Azimuth (Grid) 262.00
Collar Dip: -65.00
(0 Degrees Grid equals 341 degrees True)
Hole Length: 643.35

Date Printed: 25 Apr, 2006

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
60.0	263.6	-65.5	362.0	252.2	-63.1
120.0	258.8	-65.2	422.0	260.5	-63.2
179.0	263.5	-64.9	480.0	263.2	-62.5
240.0	265.1	-64.7	540.0	264.5	-62.1
300.0	254.1	-63.9	602.0	266.3	-61.5

Date Started: Feb 14, 2005
Date Completed: March 6, 2005

Drilled by: HEATH AND SHERWOOD
Core Size: NQ
Material left in hole NX CASING
Core Location: Upper Canada Site 1
Logged by: FR Ploeger

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

SUMMARY LOG

.00	14.00	OVERBURDEN
14.00	58.35	TRACHYTE
58.35	107.64	PORPHYRITIC SYENITE
107.64	110.75	CONGLOMERATE
110.75	111.00	FAULT ZONE
111.00	128.10	GREYWACKE
128.10	144.40	TUFF TRACHYTE GREYWACKE
144.40	172.05	GREYWACKE
172.05	274.25	PORPHYRITIC SYENITE
274.25	331.13	GREYWACKE
331.13	348.50	CONGLOMERATE
348.50	381.35	PORPHYRITIC SYENITE
381.35	393.15	CONGLOMERATE GREYWACKE
393.15	409.00	PORPHYRITIC SYENITE
409.00	423.00	GREYWACKE WITH FELDSPAR PORPHYRY
423.00	438.60	PORPHYRITIC SYENITE
438.60	504.75	GREYWACKE WITH FELDSPAR PORPHYRY

From (m.)	To (m.)	Geology
504.75	515.30	ALTERED GREYWACKE WITH FELDSPAR PORPHYRY
515.30	597.70	GREYWACKE
597.70	608.70	CONGLOMERATE
608.70	643.35	GREYWACKE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

From (m.)	To (m.)	Geology
.00	14.00	OVERBURDEN
		The hole is located on the empty Town of Kirkland Lake lots on Archer Drive at the south end of Chaput Hughes in fill and boulders. It is drilled west to attempt to cut the North-South trending mineralization intersected by Kirkland Lake Gold on the south edge of their tailings.
14.00	58.35	TRACHYTE
		The protolith is undoubtedly trachytic but it is difficult to determine the specific phase. Portions, such as at 17.10m, appear fragmental, while others, at 19.65m, appear bedded granular, at 27.60m, bedded cherty, and, much of the unit, massive, fine grained. The massive phase may represent fine, thick tuffaceous units or possibly massive flows mixed with tuffs. Overall, the trachyte is medium to dark grey coloured with local dark red/ maroon patches and streaks that may highlight primary features such as beds, fragments or segments of flows or may represent hematized zones, or, a mix of alteration and primary features. Most alteration occurs in the form of a network of (10%) random, spidery, fine, thready, dull grey, calcitic fractures, veinlets and gashes that cut the trachyte @ various angles to the core axis. They are ubiquitous and appear unrelated to any major structures. Mineralization consists of trace chalcopyrite (cp) and pyrite (py) splashes along with minor specularite (spec) and chlorite. Magnetic susceptibility (MS) values are fairly high, ranging between 30.0 and 66.0, average 40.0, in the fresher sections, but dropping to below 1.00 in zones of alteration and in the walls of major structures.
	31.20 31.30	Fault Zone - This is a fairly strong fault @ 45 DTCA, characterized by a trailing 3mm mud wafer, preceded by purple grey healed sheared/ crushed wall rock over 10cm accompanied by minor yellow sericite streaking. Faint patchy alteration (greenish bleaching) with corresponding drops in the MS values to as low as 0.66 occurs for a metre up, and several metres down hole. There does not appear to be any enrichment in sulphides or change to ankerite from calcite in the walls of the fault.
	31.37 31.50	Felsite - Sharp bounding contacts @ 40 DTCA frame this fine textured, mottled, medium pink grey/ maroon colured dike. Although similar in appearance to phases of the trachytic host, the hematite lined, chilled contacts and colour of the dike, are in sharp contrast with the surrounding greenish grey altered host. It is moderately fractured and finely microfrctured but unmineralized.
	34.00 35.00	Felsite - This is similar to the narrow felsite dikelet above but some of the internal textures are more evident. The contacts of the dike are partially obscured by broken core but appear sharp @ about 40/ 45 DTCA. Overall, it is medium grey pink/ brown coloured and massive, composed of 10%, 2-4mm, dark green/ grey, subhedral, altered ferromagnesian grains in a fine grained

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52001	29.35	30.75	1.40	TR	.001	.000	26
52002	30.75	31.50	.75	TR	.001	.000	29
52003	31.50	32.30	.80	TR	.004	.000	136
52004	55.10	56.00	.90	TR	.003	.000	117
52005	56.00	57.20	1.20	TR	.001	.000	33
52006	57.20	58.45	1.25	TR	.001	.000	31

From (m.)	To (m.)	Geology
		medium pink/ brown groundmass which lends the colour to the dike. It has some of the characteristics of the mafic syenites but lacks the higher proportion of augite phenocrysts, therefore, it could be considered a 'felsic syenite' equivalent. In the Kirkland Lake Camp, this is one of the three main alkalic intrusive phases that are associated with the gold deposits. Veining, mineralization and alteration are insignificant. MS values average about 12.0.
35.00	58.35	Trachyte - The various trachyte phases, as described at the start, continue below the dike. Overall, it is mottled medium grey to maroon/ brown, massive textured, and fine grained. In this section, the fine veinlets decrease to 2% but the matrix has become pervasively calcitic (fizzy with dilute HCl) and the susceptibility range has decreased to a lower range of 0.83 to 14.6 but averaging around 5.00. Below 52.00m, MS values rise to 28.0. Although there is a short (30cm) section of broken core at 46.60m, and the MS values have dropped, there is no dominant structure through this section. Mineralization is trace and some slips are partly covered with a bright red coating (hematite?).
54.70	58.35	Trachyte Pyroclastic - The lower portion of the tuff horizon becomes weakly fragmental, beginning with the odd scattered rounded clast and ending with a pebbly, pea gravel zone. It is also cut by a narrow red felsitic dike with irregular contacts at 55.80- 56.00m and a grey quartz vein (@ 25/ 30 DTCA) at 55.45m.
58.35	107.64	PORPHYRITIC SYENITE
		The leading contact is tongue- like at a low angle to the core axis and then rolls into a 20cm section of broken/ splintered core before entering the main porphyry mass. It is not the typical fresh syenite porphyry seen elsewhere in the camp but is well altered and microfractured which has obscured the primary textures. The unit begins with a weakly porphyritic, medium greyish pink phase in which some primary features are preserved. They include 25%, dull grey, euhedral, tabular, 2-4mm feldspar phenocrysts in a fine grained, medium pink/ orange groundmass along with 1% dull grey green altered mafic inclusions/ xenoliths. Within about 4m, the porphyritic texture is largely obliterated by intense fine, intergranular, microfracturing, and bright orange pink colouration which is accompanied by a change to pervasive ankerite alteration. Many of the mafic inclusions and grains are altered to yellow sericite and white carbonate, the carbonate composition determined by staining with ferricyanide solution.
		In addition to the fine crackle microfracturing, the porphyry is cut by 6% fine thready quartz- carbonate- chlorite- specularite gashes, veinlets and veins to 1.5cm. The fine fractures contain up to 5% py and cp grains and splashes over 10- 20cm but mineralization is only slightly anomalous through the interval. More heavily veined and mineralized sections are broken out

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52007	58.45	59.55	1.10	TR	.001	.000	36
52008	59.55	60.85	1.30	TR	.001	.000	34
52009	60.85	62.00	1.15	TR	.001	.000	24
52010	62.00	63.50	1.50	TR	.002	.000	75
52011	63.50	65.00	1.50	TR	.002	.000	75
52012	65.00	66.50	1.50	TR	.008	.000	252
52013	66.50	68.00	1.50	TR	.002	.000	67
52014	68.00	69.50	1.50	TR	.001	.000	46
52015	69.50	70.65	1.15	0.5	.001	.000	36
52016	70.65	71.00	.35	2	.007	.000	259
52017	71.00	71.90	.90	2	.005	.000	170
52018	71.90	72.95	1.05	0.5	.003	.000	93
52019	72.95	74.00	1.05	0.5	.002	.000	57
52020	74.00	75.50	1.50	TR	.001	.000	36
52021	75.50	76.60	1.10	TR	.002	.000	63
52022	76.60	77.45	.85	TR	.002	.000	67
52023	77.45	78.85	1.40	TR	.002	.000	60
52024	78.85	80.00	1.15	TR	.002	.000	67
52025	80.00	81.00	1.00	TR	.001	.000	39
52026	81.00	82.40	1.40	TR	.001	.000	36
52027	82.40	83.65	1.25	TR	.003	.000	103

From (m.)	To (m.)	Geology
		separately below. MS values vary depending on the degree of alteration and fracturing, with values at the start to 62.5m, ranging between 0.92 and 2.59, rising to 10.5/ 11.3 to 64.0m, and then falling to a lower range of 0.09 to 0.40 but clustering around 0.12- 0.18.
70.60	70.64	Quartz-Carbonate Vein Zone - The structure comprises a strong chlorite slip @ 15 DTCA with well fractured walls that are filled with 75% dull grey quartz over 3cm. Strong microfracturing accompanied by 20% lacey grey and dull white quartz and carbonate veinlets extend down to the next structure. The fractures contain about 2-3% combined py, cp and spec.
71.30	71.75	Quartz-Carbonate Vein Zone - This interval is bisected by a 1-2cm gashy dull white carbonate quartz vein with 1-2% py- cp- spec. There is a possible fine speck of visible gold (VG) at 71.43m although some of the surrounding smeared gold coloured metallic coating on the core was rubbed off.
72.95	73.45	Conglomerate - A narrow lens of well altered conglomerate is included in the porphyry with contacts that are sharp, natural @ 75/ 55 DTCA. It is bleached to a mottled mix of pale yellow green sericitized matrix, pinkish and emerald green altered clasts, all laced with 25% fine, random, thready, dull white carbonate (ankerite) veinlets and anomalous sulphides. This is the first of several similar lenses that are also broken out below.
77.20	78.85	Greywacke Conglomerate - Another lens of pebbly wacke cuts the core through this interval. It is well altered to a grungy mix of pale yellow green to green grey sediments with splashes of pale pink and dull emerald green which represent clasts. Similar to that above, it contains 10% lacey dull grey to green carbonate and quartz veinlets with trace sulphides. The leading contact is irregular/ wavey @ a low angle to the core axis while the trailing contact falls on a sericite slip @ 30 DTCA.
85.00	93.75	Conglomerate Trachyte Porphyritic Syenite - As indicated by the code 5, this interval contains an interbedded lens of trachyte tuff and several slivers of porphyry dike within the conglomerate. The tuff, from 89.63 to 91.28m, is distinguished by its massive nature, consistent fine grain size, uniform medium grey colour, high MS values (to 23.6) and textures consistent with the tuffs at the start of the hole. The contacts are sharp, natural, embayed @ 35/ 45 DTCA. Slivers of dike cut the host at 87.75- 89.15m with contacts on chlorite carbonate sericite alteration faults @ 15 DTCA and at 92.88- 93.27m along irregular but natural contacts @ 60/ 65 DTCA. The former is well chlorite crushed over the upper 0.5m, bright brick pink coloured, massive and apparently fine textured, having lost the original textures to fine microfracturing and alteration. The latter, is more medium pinkish orange coloured but similarly

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52028	83.65	84.95	1.30	TR	.002	.000	62
52029	84.95	86.00	1.05	TR	.002	.000	60
52030	86.00	87.00	1.00	TR	.002	.000	82
52031	87.00	87.80	.80	TR	.004	.000	131
52032	87.80	89.15	1.35	TR	.002	.000	53
52033	89.15	90.00	.85	TR	.001	.000	51
52034	90.00	91.35	1.35	TR	tr	.000	2
52035	91.35	92.80	1.45	TR	.002	.000	58
52036	92.80	93.80	1.00	TR	.001	.000	51
52037	93.80	94.30	.50	TR	.001	.000	50
52038	94.30	95.55	1.25	TR	.002	.000	53
52039	95.55	96.50	.95	TR	.002	.000	60
52040	96.50	98.00	1.50	TR	.003	.000	86
52041	98.00	99.40	1.40	TR	.004	.000	142
52042	105.35	106.70	1.35	TR	.001	.000	38
42043	106.70	107.65	.95	TR	.005	.000	187

From (m.)	To (m.)	Geology
		textured, cut by a network of 15% cherty grey quartz veinlets. The conglomerate itself, appears as described at 77.20m above. The trailing contact is strongly/ coarsely serated/ embayed by cherty, gashy, quartz veinlets. Overall, mineralization is trace to slightly anomalous; MS values average around 0.35 in the porphyries and are highly variable in the conglomerates.
93.75	94.25	Porphyritic Syenite - The porphyry here becomes well altered and mottled to a pale pink and beige mix with some streaky sericite near the fault which forms the lower contact. Mineralization is trace, the susceptibility, 0.50.
94.25	94.30	Fault Zone - The fault consists of a 2cm core of dull grey quartz surrounded by streaks of dark green chlorite along with white and orange flakes of ankerite (carbonate). The overall trend of the vein/ fault is 40 DTCA and mineralization consists of 0.5% py grains, mainly in the chloritic rim.
94.50	107.64	Porphyritic Syenite - The remainder of the porphyry is relatively homogenous except for a well altered inclusion (described below) from 97.73- 99.37m. As with much of the previous syenite, the porphyritic texture has been obliterated to a great extent by alteration and fine microfracturing, however, faint ghosts of feldspar phenocrysts, clouded and corroded by alteration products, are visible with the aid of a lens. 10% Fine white lacey carbonate lattices/ veinlets as well as the fine intergranular carbonate in the microfractures are ankeritic in composition. Some of the phenos are altered to a bright red colour which blends into the medium orange pink colour of the host. MS values are highly variable, ranging from lows of 0.23 near the start to highs of 18.7 but clustering around 12.0 through the middle and end of the interval. The trailing contact of the porphyry begins at 107.00m and meanders down the core for 0.5m before ending in a strongly embayed, but natural, contact at 20 DTCA.
97.33	99.37	Conglomerate - As mentioned, this is a well altered conglomeratic inclusion in the syenite porphyry. Bounding contacts are sharp, the upper natural @ 35 DTCA, the lower on a chlorite slip @ 32 DTCA. The conglomerate is mottled to spotty pale greyish pink coloured with patches and veinlet nests of pale beigy bleaching along with the odd dull emerald green spot (clast). MS values average approximately 1.50; mineralization is trace.
107.64	110.75	CONGLOMERATE In the conglomerate, which is well altered as described above, the matrix becomes a streaky, grungy, pale grey- grey green mix with a variety of pebble types that are also well altered to various shades of lime to dull

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52044	107.65	108.85	1.20	TR	.004	.000	129
52045	108.85	110.00	1.15	TR	.002	.000	74
52046	110.00	110.75	.75	TR	.003	.000	94

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		green, grey, pink/ mauve/ purple. The entire package is also strongly microfractured and laced with fine thready dull white carbonate veinlets. Magnetic susceptibilities range from 0.70 to as high as 14.9, clustering around 2.00 and 12.0, depending on the degree of alteration and the lithology of the local clasts. Mineralization consists of a sprinkling of py and cp grains, anomalous overall, but less than 0.5%. The carbonate pervading the matrix and forming the veinlets with some quartz, remains ankeritic in composition.								
110.75	111.00	FAULT ZONE								
		The strong fault, which terminates the conglomerate, may represent the Amalgamated Kirkland Fault. It also appears that the strongest alteration and fine microfracturing end at this structure although weak fracturing and some bleaching continue down hole for several metres. The fault is characterized by a series of carbonate- quartz wafers and shreddy veins to 8mm separated by chloritic fractures, some mud lined, and chlorite-sericite- carbonate layers, all trending roughly @ 50/ 55 DTCA. There is no apparent 'ore type' veining or mineralization associated with the fault.	52047	110.75	111.20	.45	TR	.002	.000	65
111.00	128.10	GREYWACKE								
		Overall, there is a distinct change in both the lithology and the degrees of alteration and deformation below the fault. The host becomes fine grained, massive, medium greenish to bluish grey coloured, granular textured with a fine to very fine grained homogenous matrix that is punctuated by rare isolated pebbles and the odd gritty (1-5mm) lens. With a lens, it is evident that the particles and clasts are polymict, including red jasper chips/ grains. Fine fracturing and microfracturing, highlighted by thready, dull grey carbonate veinlets decreases down hole to constitute approximately 3% of the core below 114.0m. The carbonate mineral is ankerite down to a chlorite fracture fault centred @ 50 DTCA at 116.40m and becomes calcitic below. MS values generally range between 13.9 and 33.6, reflecting the composition of the sediment and then drop to below 2.00 in areas of stronger veining and bleaching. Mineralization comprises the odd speck of py and cp with occasional hematite lined slips.	52048	111.20	112.60	1.40	TR	tr	.000	2
			52049	116.00	116.60	.60	TR	.003	.000	120
			52050	123.60	124.60	1.00	TR	.001	.000	39
			52051	124.60	125.25	.65	TR	.001	.000	50
			52052	125.25	126.20	.95	TR	.004	.000	124
		123.60 125.20 Greywacke (altered) - This is one of the olive grey green altered sections in which the susceptibility drops to as low as 0.52. The bleaching seems to be associated with a network of spidery black (spec) lined carbonate fractures that end at a trailing chlorite sericite crush slip @ 45 DTCA. Only minor py and cp accompanies the fracturing.								
128.10	144.40	TUFF TRACHYTE GREYWACKE								
		A subtle change in composition, perhaps more apparent than real, appears to occur at a 2mm pale pink calcite slip @ 72 DTCA at this point. Essentially,	52053	136.10	136.50	.40	TR	.003	.000	96
			52054	138.80	139.90	1.10	TR	.003	.000	111
			52055	139.90	140.40	.50	TR	.001	.000	50

From (m.)	To (m.)	Geology
		the colour and fabric remain the same, medium to dark green grey with shades of maroon, and, massive, relatively homogenous, fine grained and granular textured. However, there is a loss of the red jasper grains and an increase in reddish/ brownish/ maroon coloured particles/ grains indicating deposition from an alkalic dominated terrain. The trailing contact is nebulous but was arbitrarily taken at the end of an altered zone, below which, the jasper grains begin to reappear more prominently. Bedding, @ 50-60 DTCA, is faintly highlighted by the weak alteration in places. MS values in the fresher zones are up at 14.0- 21.0 and drop as low as 0.41 in zones of stronger alteration. Both the 2% fine pink and dull grey carbonate veins and veinlets in fresher zones are calcitic in composition while those in the core of the wider veins and alteration zones are ankeritic as detailed below. Overall, the sulphide content is trace.
		136.26 136.28 Quartz-Carbonate Vein Zone - The vein consists of a 2cm ankerite and porcelainic quartz @ 53 DTCA with inclusions of wall rock and a weak alteration halo for 10cm up and 20cm down hole.
		138.50 140.80 Tuff (altered) - Here, the alteration is centred on a zone of crushing from 139.90 to 140.40m, in which chlorite and hematite fractures and carbonate (ankerite) veins are aligned roughly @ 30 DTCA. The core of this zone is medium grey olive and brownish olive coloured (sericitized and carbonatized) while the surrounding walls are medium grey to olive grey bleached. Mineralization consists of clots of py in the crushed zone; MS values on the flanks of the alteration are 0.84/ 0.61 with the core at 0.45.
144.40	172.05	GREYWACKE
		With the reappearance of the jasper grains, the hole traverses back into truer sediments with acomposition more varied than stricktly of trachytic provenance. They are as described at 111.00m, massive, relatively homogenous, fine grained with gritty (1-4mm) horizons and the odd scattered pebble to 4cm. Colours range from medium/ dark grey to greenish and brownish grey depending on the degree and style of alteration. It is shortly after entering the wacke that, at 144.85m, that the host becomes calcitic, but, at about 154.00m the veinlets again become ankeritic although the matrix is weakly, but pervasively, ankeritic from a metre above. As before, the MS values decrease from highs of 22.0 in the fresher sections to 0.22 in the centres of stronger alteration. The sulphide content remains nil to trace overall.
		149.70 149.80 Quartz-Carbonate Vein Zone - Here, a weak quartz carbonate breccia zone, surrounded by 0.5m of mild bleaching, cuts the core @ 40 DTCA.
		154.50 155.20 Carbonated Zone - Actually, there is only about 10% irregular carbonate (ankerite) shreds/ gashes through the interval,

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52056	140.40	141.50	1.10	TR	.001	.000	35
52057	149.50	149.95	.45	TR	.000	.000	nil
45522	152.70	153.75	1.05	TR	.003	.000	92
52058	153.75	154.50	.75	TR	.009	.000	294
52059	154.50	155.20	.70	TR	.004	.000	139
52060	155.20	156.50	1.30	TR	.002	.000	62
52061	156.50	158.00	1.50	TR	.001	.000	40
45523	162.80	164.00	1.20	TR	.000	.000	nil
52062	164.00	165.50	1.50	TR	.006	.000	221
52063	165.50	166.65	1.15	TR	.002	.000	75
52064	166.65	168.00	1.35	TR	.001	.000	28
52065	168.00	169.50	1.50	TR	.003	.000	93

From (m.)	To (m.)	Geology
		associated with bounding and internal chlorite hematite fractures/ slips @ 65/ 45/ 60 DTCA. The sulphide content is trace and susceptibility low at 0.22. The carbonate zone is light grey brown coloured but the alteration halos, which are medium brown/ pink grey, extend only 0.5m up hole but 3.0m down.
163.40	166.30	Conglomerate - Through this section, the host becomes dominantly pebbly/ conglomeratic, polymict and clast supported with 40% wacke lenses. It is weakly to moderately altered to light grey olive and pink grey, with the strongest alteration in the immediate walls of a 2cm shear sericite- chlorite fault @ 25 DTCA at 166.85m.
168.00	169.50	Greywacke (altered) - In this section, the wacke becomes gritty/ medium grained, and medium grey pink/ brown coloured, the colours caused by alteration around a series of chlorite-hematite slips @ 25/30 DTCA in the lower half of the interval. Accompanying these structures are 20% dull white/ grey quartz carbonate gashes and veinlets but the sulphide content remains trace.
172.05	274.25	PORPHYRITIC SYENITE
		Through a sharp natural contact @ 62 DTCA, the hole rolls into a thick, complex, feldspar porphyry dike in which the phases are distinguished by colour, degree of alteration and magnetics. The upper portion to 180.00m is mottled dark/ medium greyish pink/ purple and medium pink, the lighter shades related to moderate alteration along fractures. Dark areas are stronger magnetically, up to 13.3 while lighter shades range down to 0.10. The next segment from 180.00- 184.00m, is green tinged and is detailed separately below. The lower section/ remainder of the porphyry (to 226.35m) is basically bright medium orange coloured and magnetically low, in the range of 0.12- 0.18 with the odd lower and higher value. All phases are texturally similar, they are massive, homogenous, medium grained, consisting of 2-5mm, subhedral to euhedral, tabular to stubby, dull white and dull grey, feldspar phenocrysts in a fine grained feldspathic groundmass containing altered (sericitic/ chloritic) ferromagnesians and mafic inclusions/ xenoliths. Veining, except in the zones described in more detail below, is negligible, however, fine pervasive carbonate in the matrix and the inclusions is ankeritic in composition. The orange colouration probably results from fine dusty hematite in the matrix. Mineralization is trace.
		180.00 184.00 Porphyritic Syenite (altered) - As mentioned in the preamble, this section of the porphyry is coloured various shades of green, from greenish brown to medium grass green depending on the degree of sericitization. The strongest alteration occurs within a quartz carbonate breccia vein zone between 182.75 and 183.55m whose internal and bounding structures (chlorite slips) trend @ 45 DTCA. The vein material, which comprises 35%

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52066	180.00	181.15	1.15	TR	.001	.000	27
52067	181.15	182.00	.85	TR	.001	.000	17
52068	182.00	182.75	.75	TR	.001	.000	22
52069	182.75	183.55	.80	TR	tr	.000	2
52070	183.55	184.00	.45	TR	.001	.000	26
52071	184.00	185.00	1.00	TR	.004	.000	123
45524	186.35	187.50	1.15	TR	.001	.000	48
45525	187.50	188.80	1.30	TR	.004	.000	144
52072	188.80	189.75	.95	TR	.003	.000	111
52073	189.75	190.15	.40	5	.037	.000	1287
52074	190.15	191.35	1.20	TR	.028	.000	972
45526	191.35	192.50	1.15	TR	.013	.000	797
45527	192.50	194.00	1.50	TR	.008	.000	278
45533	194.00	195.05	1.05	TR	.002	.000	55
45534	195.05	196.15	1.10	TR	.029	.000	419
52075	204.05	204.55	.50	TR	.004	.000	147
52076	220.35	221.05	.70	TR	.003	.000	111
52077	221.05	221.45	.40	0.5	.015	.000	507
52078	221.45	222.45	1.00	TR	.006	.000	218
45528	222.45	223.65	1.20	TR	.003	.000	99
52079	226.35	227.10	.75	TR	.002	.000	72
45535	227.10	228.10	1.00	TR	.029	.000	1012
45536	228.10	229.00	.90	TR	.036	.000	1229
45537	229.00	230.00	1.00	TR	.029	.000	1011
45529	230.00	231.25	1.25	TR	.027	.000	926
45530	231.25	232.65	1.40	TR	.014	.000	482
52080	232.55	233.50	.95	TR	.006	.000	219

From (m.)	To (m.)	Geology
		dull white quartz and ankerite, is randomly oriented/ irregular, and contains angular wall rock inclusions and trace sulphides. MS values range from 0.08 to 0.14.
189.80	190.15	Porphyritic Syenite (altered)- In this section, the porphyritic texture is partially obscured by alteration and cut by 15% grey, cherty quartz veinlets and 5% splashes and grains of cp and py. It appears that these features relate to a trailing mud chlorite slip @ 43 DTCA.
204.42	204.46	Carbonated Zone - There are two parallel bounding chlorite slips @ 70 DTCA which are partly joined by an orange- white- dull grey, shreddy/ spotty, carbonate quartz ladder vein. There is a weak halo of orange alteration but no increase in mineralization.
221.25	221.35	Quartz Vein Zone Fault Zone - Here, there are two parallel chlorite slips, 1cm apart at the start @ 45 DTCA, that are accompanied by strong alteration and 20% grey quartz veining and 1% py and cp.
226.35	239.90	Porphyritic Syenite - It is at about this point that the brighter orange colouration of the porphyry moves through lighter greyish orange/ brown phases that indicate a higher grade of more sericitic alteration associated with chlorite-hematite fractures and diffuse dull grey quartz veins. The main areas of veining occur over 65cm (12% quartz veins to 1cm) at the start, and, fracturing, at 234.00m (chlorite alteration slip @ 35 DTCA), although additional scattered veins and fractures were noted. MS values range between 0.08 and 0.22 but cluster around 0.14 while the matrix and veinlets remain ankeritic.
239.90	257.00	Porphyritic Syenite - Through this section, the porphyry tends to become somewhat fresher as evidenced by a return to a medium orange to pink grey mottling of colours, better defined porphyritic textures and higher, but undulating, MS values that range as high as 11.4 between 249.70 and 256.00m. Veining, which amounts to about 1% dull white quartz, is concentrated at 245.00m (see below), and followed by several 1-2mm hematite fractures. Upper and lower contacts were gradational and taken where the following phase of alteration begins to predominate.
244.55	245.10	Quartz Vein Zone - The wacke here, is cut along its length by a 0.5- 2.0cm dull white quartz vein (25% overall) with conjugate whispy ankerite slivers, the zone terminating when the vein rolls to 30 DTCA. There is about 0.5% py and cp in the walls of the vein as well as specularite needles and grains in the rims.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52081	233.50	234.35	.85	TR	.003	.000	93
52082	234.35	235.05	.70	TR	.001	.000	45
52083	244.55	245.10	.55	0.5	.000	.000	nil
52084	245.10	246.25	1.15	TR	.001	.000	22
52085	257.00	258.00	1.00	TR	.001	.000	45
52086	258.00	258.75	.75	TR	.001	.000	48
52087	258.75	260.00	1.25	TR	.005	.000	187
52088	260.00	260.60	.60	TR	.004	.000	123
52089	260.60	261.95	1.35	TR	.001	.000	26
52090	261.95	262.90	.95	TR	.007	.000	225
52091	271.90	273.05	1.15	TR	.000	.000	nil
52092	273.05	274.25	1.20	TR	.001	.000	33

From (m.)	To (m.)	Geology
		257.00 260.60 Porphyritic Syenite Altered) - The porphyry again appears to become more fractured and thus more altered and mineralized along the fractures. Quartz carbonate veining only amounts to 3% over the interval and fine py and minor cp are anomalous overall but range up to 4% over 5- 10cm in a few places. MS values begin around 0.12 but begin to undulate as high as 0.40 before the end of the zone.
		260.60 274.25 Porphyritic Syenite - The porphyry reverts back to the fresher, magnetically higher (to 17.9) version with local altered patches in which the MS values drop to around 1.40 and finally as low as 0.25 over the lower 3m. The freshest sections are dark grey maroon/ purple coloured while the more altered zones are medium pink and have had their porphyritic texture obscured. Several chlorite slips and fractures cut the core @ 35- 60 DTCA, the strongest being at the start at 273.06m (a 3mm chlorite mud fault @ 55 DTCA). Veining is negligible as is mineralization.
274.25	331.13	GREYWACKE
		The contact with the porphyry is sharp, falling on a sericite slip @ 60 DTCA but which is probably natural. The upper 40cm of the wacke is crushed and partly altered with sericite patches and chlorite- hematite fractures and streaks containing only trace sulphides. It ends abruptly on a chlorite-sericite slip @ 70 DTCA, beyond which the wacke becomes fresh, dark/ medium greenish to bluish grey coloured, massive, homogenous and fine grained/ granular with the ubiquitous red jasper grains and rare isolated clasts and lenses of finer pebbles. There is no clear evidence of any bedding in the sequence as all the subtle grain size changes are gradational.
		The carbonate changes very quickly through a narrow transition zone from ankerite to calcite by 275.90m, beyond which the matrix and veining are calcitic. Fine thready, dull grey and pink calcite/ calcite quartz veinlets and fractures amount to about 5% to 282.50m, and drop off dramatically to <0.5% below. As expected, susceptibilities are variable in the partially altered and veined upper section to 282.50m where they range between 2.12 and 25.9, while they rise into a higher tier of 17.0 to 46.4 below. The sulphide content remains nil to trace throughout.
		295.25 296.33 Porphyritic Syenite - The contacts of the dike are irregular and ribbony/ blebby, appearing as if this is a large porphyritic bomb or boulder that is eroding (disintegrating) into the sediment. Overall, it is massive, dark grey brown/ maroon coloured, fine grained with 10% faint dull grey, pink and red altered subhedral, millimetric feldspar phenos in a fine grained, well fractured groundmass. MS values average 8.70, the fractures are calcitic, and, mineralization, trace. A similar, narrow (15cm), dark brown coloured, weakly porphyritic, fine grained dike cuts the core lower down at

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52093	274.25	275.00	.75	TR	.001	.000	45
52094	275.00	276.40	1.40	TR	tr	.000	10
52095	281.65	282.50	.85	TR	.001	.000	50
52096	301.30	301.70	.40	TR	.001	.000	46
52097	304.65	305.50	.85	TR	.000	.000	nil
52098	305.50	306.45	.95	2	.001	.000	36
52099	306.45	307.35	.90	1	tr	.000	5

From (m.)	To (m.)	Geology
		297.25m.
		301.62 301.63 Greywacke (altered) - At this point, the wacke is cut by a chlorite slip @ 60 DTCA. The downhole side is weakly altered and mineralized with 6% py and cp over 5cm.
		305.50 307.15 Greywacke - Here, there are splashes of up to 15% cp and py over 5cm or so, averaging about 0.5% through the interval. They are not apparently related to any visible alteration or veining, nor do they appear detrital.
		323.90 325.25 Porphyritic Syenite - As with the porphyry at 295.25m, the leading contact comprises a train of rubble composed of porphyry clasts that appear to have been eroded or decomposed from the main body of this unit. The lower contact is irregular/ wavey and does not exhibit chilled margins or any other intrusive features. There are several other cobbles of the porphyry 0.3 and 1.5m lower in the wacke. Overall, the 'dike' is similar in appearance to those above, massive, medium textured consisting of 15%, 1-3mm, subhedral, tabular to stubby, dull white to pale pink feldspar phenocrysts in a fine grained, feldspathic, dark/ medium grey orange- brown coloured groundmass. MS values are 4.14/ 6.18, mineralization and veining, nil to trace.
331.13	348.50	CONGLOMERATE
		The conglomerate begins rather abruptly at a gritty lens @ 40 DTCA. This leads into a polymict, pebble to cobble conglomerate (including jasper) which contains zones that are clast supported, others that are matrix supported, and wacke rich lenses. The overall colour is medium/ dark bluish grey similar to the wacke. Between 339.85 and 344.70m, there are several thick porphyritic dike/ rubble zones, as at 323.90m, that have hazy contacts and appear to have incorporated pebbles into the intrusive(?). The conglomerate is cut by approximately 0.5% fine pink and dull grey calcitic veinlets, particularly through the porphyritic section, and only trace sulphides. MS values are generally elevated in the range of 22.0 to 40.0 except in the psuedo dike section where it drops to 11.6- 14.4.
		344.70 348.50 Greywacke - Below the porphyritic zone, the unit is dominated by wacke with only scattered pebbly zones. It is medium grey coloured/ mottled, massive, fine grained, and granular textured. The slightly lighter colouration results from weak pervasive calcification of the matrix, possibly by the following dike. Mineralization and veining, however are negligible.
348.50	381.35	PORPHYRITIC SYENITE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
45538	347.65	348.55	.90	TR	.003	.000	51
45539	348.55	349.50	.95	TR	.017	.000	576

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		The leading contact of the porphyry, which is sharp, natural, wavey @ 75 DTCA, is weakly chilled/ fine grained over the first 10cm but has not significantly metamorphosed the wacke. The porphyry can be divided into two phases, a weakly altered upper section to about 362.50m, and a relatively fresh trailing segment which are distinguishable by colour, magnetic susceptibilities, and veining. In the upper section, the porphyritic texture has been partially destroyed by fine microfracturing and veining, fine dull white ankerite speckling throughout the matrix, and, grungy medium greyish orange and orange pink alteration. The phenocrysts, 15% 1-4cm dull grey feldspars, are visible in the least altered sections where the colour darkens to a grey brown, or, with a lens in the other parts. MS values drop as low as 0.21 and range up to 10.8, but cluster around 0.30 and 6.00. Veining consists of 5% fine, dull grey calcite veinlets/ threads along with white spotted, dull grey (and pink) ankerite- calcite- quartz veins to 4cm, some of which are broken out below. Most are less than 1cm in width and cut the porphyry @ high angles, 60- 80 DTCA. Mineralization is anomalous (but <0.5%) in the upper altered zone to 362.50m, ranging as high as 5% over 5-10cm in places, generally in the walls of the veins.	52100	349.50	350.00	.50	TR	.009	.000	310
			52101	350.00	351.10	1.10	TR	.096	.000	3305
			52102	351.10	351.95	.85	0.5	.003	.000	91
			52103	351.95	353.25	1.30	TR	.013	.000	432
			52104	353.25	354.40	1.15	TR	.000	.000	nil
			52105	354.40	355.65	1.25	TR	.001	.000	26
			52106	355.65	356.85	1.20	TR	.007	.000	254
			52107	356.85	358.20	1.35	TR	.004	.000	122
			52108	358.20	359.00	.80	TR	tr	.000	10
			52109	359.00	359.95	.95	TR	.001	.000	29
			52110	359.95	361.10	1.15	TR	.001	.000	38
		As mentioned, the lower section from 362.50 to 381.35m, is weakly altered, medium grained/ textured, massive and more visibly porphyritic, containing 25%, 1-4mm, dull grey, euhedral/ subhedral, feldspar phenocrysts in a fine grained, dark grey brown/ maroon, feldspathic groundmass containing 10%, millimetric, altered, ferromagnesian needles/ grains and 6% dark green/ black mafic inclusions/ xenoliths. The MS values fall fairly consistently between 15.1 and 19.8 with the odd lower and higher value. Veining and mineralization are negligible. The trailing contact is sharp, natural, finely scalloped @ 80 DTCA.								
		351.30 351.50 Quartz-Carbonate Vein Zone - Here, the host is cut by a network of 25%, dull grey and white speckled quartz ankerite veins and veinlets with 2% py and cp, at an overall trend of 40 DTCA.								
		356.36 356.40 Carbonated Zone - A dull grey/ white speckled, carbonate-feldspar- quartz vein/ inclusion containing 2% py, cuts the porphyry @ 55 DTCA. There is no significant mineralization or alteration in the walls.								
		359.10 359.16 Carbonated Zone Fault Zone - The interval comprises a plug of pale orange and pink calcite and minor quartz with chloritic fracturing that cuts the core @ 45/ 35 DTCA. The 15cm immediately below the vein are broken into chips along random chlorite fractures, which are, in turn, followed by 1.5m of moderate microfracturing and medium orange alteration with anomalous to 0.5% py, cp and spec.								
381.35	393.15	CONGLOMERATE GREYWACKE								
			52111	381.35	382.40	1.05	TR	tr	.000	5
		The interval comprises a mix of clast and matrix supported conglomerate	52112	382.40	383.00	.60	1	.002	.000	84

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		interbedded with massive lenses of wacke and pebbly wacke and tongues and derived / eroded clasts of the finely porphyritic syenite described above at 331.13m. The conglomerate phase, which is polymict, including jasper, grades into the wacke phases,and also into the porphyritic phases which occur at 383.20- 383.70m, 385.80- 386.30m, 389.00m, 389.50- 390.40m. In addition, there are a number of ribbony clasts of the porphyry scattered through the unit. MS values range from 18.0 to 38.7 except for a low segment between 382.40 and 383.80m, where it averages about 1.30. This low section occurs in the walls of a 1-2cm chlorite carbonate vein/ fault @ 55 DTCA. There are splashes and streaks of cp within the vein and approximately 1% over another 40cm down hole. Otherwise, the sulphide content is trace in the conglomerate and wacke. Likewise, veining is negligible, say about 0.5% fine calcitic and minor ankeritic veinlets and fractures.	52113	383.00	383.80	.80	TR	.008	.000	280
			45540	383.80	384.85	1.05	TR	.003	.000	98
			45541	384.85	386.60	1.75	TR	.003	.000	89
393.15	409.00	PORPHYRITIC SYENITE								
			52114	394.95	396.00	1.05	TR	.001	.000	17
			52115	396.00	397.50	1.50	TR	tr	.000	3
			52116	397.50	398.45	.95	1	.008	.000	269
			52117	398.45	399.30	.85	0.5	.015	.000	516
			52118	399.30	400.45	1.15	TR	.001	.000	26
		The leading contact is barely discernable but appears to undulate and wrap around clasts @ about 20 DTCA. It is fine grained and weakly porphyritic over the leading 40cm but then the porphyritic phase ends abruptly at 393.75m at a sharp contact @ about 65 DTCA. It is difficult to determine if the next 30cm are a fine grained, chilled contact zone of a second dike or a well altered tuff or wacke with hazy porphyritic clasts. Since there is no clear contact, it is the writers opinion that this contact zone, and, in fact, much of the unit, is comprised of multiple dikes of porphyritic affinity, that intrude each other and which are being cored along/ parallel with the contact. Overall, they are massive, dark grey orange to dark brown grey coloured, fine grained with porphyritic, to weakly porphyritic to non phenocrystic sections with gradational to sharp internal contacts as well as rubbly contacts with included wacke lenses. In the porphyritic zones, the phenos are dull white to pink coloured, 1-3mm in size, subhedral, and feldspathic, but overall, the distinguishing features of the porphyry are the 2-3% mafic inclusions that characterize the Kirkland Lake type syenite (feldspar) porphyries.								
		The dike complex is cut by 2% fine thready calcite veinlets, fractures and gashes while the matrix, according to staining with ferricyanide solution, is weakly ankeritic. Susceptibilities range between 11.0 and 15.0, averaging about 13.0 with lower values in areas that are weakly to moderately altered as from 397.50 to 399.30m where it drops to as low as 1.08. It is also through this window that fine microfracturing occurs and mineralization increases from the background of nil/ trace, to 1%. The trailing contact is lost in fine clasts that appear to have been exfoliated/ eroded from the porphyry or that have been rolled/ incorporated into the chilled margin of the intrusive.								
		406.00 407.30 Broken Blocky Core - The core through this section is splintered along fractures at low angles to the core axis and is not related to any major structure.								

From (m.)	To (m.)	Geology
409.00	423.00	GREYWACKE WITH FELDSPAR PORPHYRY
		As implied by the code 4 heading, this interval is dominated by wacke intruded(?) by lenses of porphyry, most of which exhibit the nebulous chilled margins and rubbly contacts described several times above. The wacke is massive, dark grey to brown/ pink grey coloured, and fine grained, granular textured with jasper grains and rare scattered clasts. It is cut by 3% dull white, irregular thready to gashy calcite veinlets, which, when concentrated, tend to alter the wacke to shades of medium pink/ brown grey. The sulphide content, which is otherwise trace/ nil, becomes slightly anomalous in the walls of the veins. MS values generally range between 15.0 and 23.0, except in areas that have been altered to some degree, where it drops lower.
		The porphyritic sections, which form 30% of the interval, are as detailed above at 393.15m, massive, dark grey brown/ maroon coloured with a fine grained feldspathic groundmass and variable concentrations of millimetric feldspar phenocrysts. MS values range from 12.0 to 18.0; veining and mineralization are negligible. The contacts range from sharp to wavey to corroded/ clastic.
423.00	438.60	PORPHYRITIC SYENITE
		The leading contact is highly embayed with wacke and it appears to have enveloped up to 50% wacke inclusions over the upper section to 426.00m, at which point, there is a sharp contact @ 50 DTCA. Overall, the porphyry is massive, medium/ dark grey brown coloured and intermittently phenocrystic grading in and out of weakly to strongly porphyritic zones in which millimetric dull white to orange subhedral feldspar phenos form up to 25% of the host. Again, it contains 1-2% ubiquitous dark green black mafic inclusions and the matrix is weakly pervasively ankeritic while the 2-3% fine, thready, dull grey carbonate veinlets are calcitic. Mineralization is trace/ nil overall with slight enrichments in the alteration zones adjacent to fractures and veins. MS values average about 16.0 in a range between 12.0 and 20.0, dropping lower in altered sections.
		429.40 431.30 Broken Blocky Core - Several chlorite slips that track along the core axis form the basis for the broken ground through this interval.
		438.15 438.60 Quartz-Carbonate Vein Zone Fault Zone - This is a massive, 35cm, white calcite quartz vein followed by a 10cm broken up sericitic shear crush fault zone, both trending @ 40 DTCA, that collectively, end the porphyry intrusive. It is preceded, at 437.00m, by a 20cm zone of 40% quartz- calcite- chlorite veining @ 45/ 30 DTCA. Neither vein zone or the altered porphyry in between are significantly mineralized.
438.60	504.75	GREYWACKE WITH FELDSPAR PORPHYRY

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52119	410.85	411.90	1.05	TR	.004	.000	127
45531	413.00	413.80	.80	TR	.003	.000	103
52120	413.80	414.85	1.05	TR	.006	.000	204
45532	414.85	416.00	1.15	TR	.002	.000	62
52121	434.35	435.35	1.00	TR	.000	.000	nil
52122	435.35	436.75	1.40	TR	.000	.000	nil
52123	436.75	438.10	1.35	TR	.000	.000	nil
52124	438.10	438.65	.55	TR	.001	.000	36

From (m.)	To (m.)	Geology

Below the fault, the hole traverses through another section of wacke that grades in and out of minor pebbly, gritty, and conglomeratic sections and segments of fine grained, weakly porphyritic syenites similar to those described above at 409.00m. The wackes are medium to dark pink and green grey coloured while the conglomeratic/ pebbly zones tend to be more reddish coloured although they are polymict (multicoloured) in places. As before, the porphyritic sections do not exhibit sharp regular contacts but seem to grade into the core of the intrusive through rubbly, clastic zones or through fine grained/ aphanitic, tonguey/ lensey fingers. These intrusive phases comprise a medium/ dark greyish brown/ red coloured groundmass with minor faint dull grey to pink, millimetric feldspar phenocrysts. They are mainly concentrated between 448.60 and 453.90m.

The mixed unit is weakly microfractured and fractured which has resulted in an overall weak alteration in the form of reddish syenitization(?) in some places and mild bleaching and dirty grey orange silicification(?) in others, the latter, usually associated with a structure as well. The magneticas reflect the alteration and fracturing, averaging between 10.0 and 26.0 in the fresher sections and 0.34 and 10.0 where altered. Veining consists of 3% fine thready/ lacey, networks of dull white carbonate veinlets and fractures. The faulted contact also marks a change in composition of the carbonate in the veinlets and pervasively in the matrix to ankerite. Mineralization through this mixed package comprises trace scattered py grains with slight enrichments (but still <0.5%) in the walls of some minor slips.

458.55 458.65 Fault Zone - The main structures consist of two chlorite shear slips @ 25/ 35 DTCA that are surrounded by fine carbonate breccia and grungy orange alteration which include both ankerite and calcite, as well as minor quartz; but, the 5 sulphide content remains trace.
Sulphide content remains trace.

461.35 461.36 Fault Zone - Actually, this is a strong chlorite slip @ 30 DTCA that is paralleled by several weaker slips up and down hole. It contains a few slivers and grains of py in the walls.

465.75 465.77 Fault Zone - This laminated quartz chlorite mud wafer forms the core of a zone of crushing and grungy greyish orange alteration for 0.40m up, and 1.50m down hole. Overall, the structure cuts the host @ 40 DTCA although the crushing is random. Fractures are generally chloritic, with minor ankerite, sericite and quartz filings while mineralization consists of the odd splash and grain of py and minor cp, trace overall.

467.00 474.50 Altered Greywacke with Feldspar Porphyry - In this section, the host, a mix of wacke and porphyry in a ratio of 60/ 40, is moderately well minrofractured and fractured and laced with 5% fine dull white to pink thready carbonate fractures. Both the

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52125	438.65	439.50	.85	TR	.001	.000	26
52126	439.50	440.80	1.30	TR	.001	.000	19
52127	440.80	442.15	1.35	TR	.003	.000	118
52128	452.00	452.70	.70	TR	.001	.000	19
52129	458.45	458.85	.40	TR	tr	.000	2
52130	461.75	462.50	.75	TR	.002	.000	67
52131	462.50	464.00	1.50	TR	tr	.000	10
52132	464.00	465.30	1.30	TR	tr	.000	9
52133	465.30	466.00	.70	TR	.001	.000	31
52134	466.00	467.00	1.00	TR	.007	.000	245
52135	467.00	468.05	1.05	TR	tr	.000	3
52136	468.05	469.35	1.30	TR	tr	.000	2
52137	469.35	470.00	.65	TR	tr	.000	15
52138	470.00	471.05	1.05	TR	.005	.000	173
52139	471.05	472.40	1.35	TR	.007	.000	238
52140	472.40	473.20	.80	TR	.002	.000	55
52141	473.20	474.50	1.30	TR	.005	.000	187
52142	474.50	476.00	1.50	TR	.001	.000	33
52143	478.75	479.85	1.10	TR	tr	.000	3
52144	479.85	480.35	.50	TR	tr	.000	9
52145	480.35	481.30	.95	TR	.000	.000	nil
52146	481.30	481.75	.45	4	.006	.000	213
52147	481.75	482.80	1.05	TR	.003	.000	103
52148	488.00	489.05	1.05	TR	.001	.000	29
52149	489.05	490.40	1.35	TR	.000	.000	nil
52150	490.40	491.00	.60	4	.009	.000	326
52151	491.00	491.85	.85	TR	.000	.000	nil
52152	493.95	494.60	.65	TR	.001	.000	39
52153	503.65	504.75	1.10	TR	.001	.000	36

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

fractures and matrix are ankeritic with the entire section altered to a dirty, medium greyish pink colour. The intensity of the deformation has obliterated much of the porphyritic features of the intrusives. Mineralization is trace except for a 1cm patch of cp at 472.95m, and MS values are low, ranging from 0.18- 0.80 to 471.00m, before increasing gradually to 7.85.

469.55 469.88 Carbonated Zone Fault Zone - A 0.5cm chloritic gouge slip @ 45 DTCA starts the zone which is characterized by 50% creamy pink calcite veins to 5cm @ 45/ 65 DTCA. These are clean veins with no significant alteration or mineralization in the walls although there are a few dirty chlorite crush slips down hole.

474.50 483.07 Porphyritic Syenite - The porphyry begins on a weak chlorite slip @ 43 DTCA. The fine microfracturing and fracturing carries through from the unit above, but the degree of alteration decreases as evidenced by the MS values which begin at 3.37 and rise to 9.95. The porphyritic texture becomes faintly visible at about 477.50m where the colour darkens to a dark grey brown/ maroon. Fine fractures and the matrix are ankeritic while the sulphide content is trace except in the walls of two chlorite quartz alteration faults/ strong slips at 480.08m @ 40 DTCA and 481.60m @ 20 DTCA where MS values drop to 0.39/ 0.66 and py and cp increase to as high as 10% over 5-10cm. The trailing metre consists of very fine grained, medium/ dark greyish maroon bulbous masses of the porphyry with 20% inclusions of wacke and basic/ mafic syenite ending at an irregular wavey contact @ about 75 DTCA.

483.07 504.75 Greywacke - The wacke contains a few ribbons/ tongues of fine porphyry over the upper 2m of the unit. Otherwise, the wacke host is massive, medium blue grey coloured with local light grey brown/ pink coloured sections where altered, and fine grained (including jasper grains) with local scattered pebbles and pebbly zones. In the fresher sections, fine thready veinlets drop to <0.5% while they increase to 6% in the brownish altered sections. Conversely, MS values rise to as high as 34.0 in the fresh sections and drop to 0.28 where altered. Ankerite is the dominant carbonate in the veinlets and weakly pervading the matrix although there are some minor fizzy (calcitic) fractures. Overall, mineralization is nil/ trace, again, increasing within the alteration zones and rising to 7% over a core length of 30cm around an irregular 2cm carbonate- quartz- carbonate vein @ 25 DTCA at 490.60m.

493.95 494.65 Greywacke (altered) - The wacke through this section is spotted with a few tongues of porphyry, all of which are altered around an arcuate pink calcite (strong) alteration slip that runs down the core axis. There is a slight increase in py around the slip, otherwise it remains trace and MS

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		values drop below 2.00. The alteration encompasses a flecky/ shreddy, dull white/ grey ankeritic graining and lightening of the dark grey colour to a medium/ light greyish pink.								
504.75	515.30	ALTERED GREYWACKE WITH FELDSPAR PORPHYRY								
		There does not appear to be a dominant fault or structure to account for the degree of alteration and fracturing encountered within this interval although there are a few weaker features which may relate to local zones. These features cut two segments of altered porphyry and the bounding pebbly wackes, all of which are described separately below. Overall, the interval is characterized by dirty brick orange coloured porphyry and light pink grey pebbly wacke, all cut by varying amounts of fine ankerite veinlets, fractures and gashes. Mineralization probably averages approximately 0.5% throughout and susceptibilities range down to 0.22 in the strongest altered sections and just over 1.00 in the lesser altered ones. The main features are broken out separately below.	52154	504.75	505.50	.75	TR	.001	.000	31
			52155	505.50	506.40	.90	7	.122	.000	4200
			52156	506.40	507.35	.95	TR	.003	.000	106
			52157	507.35	508.15	.80	TR	.001	.000	27
			52158	508.15	509.00	.85	10	.022	.000	748
			52159	509.00	510.05	1.05	TR	tr	.000	10
			52160	510.05	511.30	1.25	1	.007	.000	226
			52161	511.30	512.00	.70	0.5	.004	.000	153
			52162	512.00	512.85	.85	3	.012	.000	427
			52163	512.85	513.95	1.10	TR	.003	.000	91
			52164	513.95	515.30	1.35	1	.011	.000	394
		505.55 506.40 Porphyritic Syenite (altered)- This syenite porphyry is preceded by mildly altered, light green grey wacke with little to no veining or mineralization although the magnetics drop below 1.00. On the other hand, the porphyry is strongly laced with 40% fine speckles and thready veinlets, fractures and patches of ankerite and minor quartz, possibly related to a series of weak chlorite carbonate slips @ 40/ 60/ 45 DTCA, the central one, at 506.10m, which contains a partial coating of molybdenite(?)- graphite. This combination is typically associated with gold bearing structures in the Kirkland Lake camp. Accompanying the alteration and veining is 7% fine disseminated crystalline py. Contacts are sharp but along a chlorite slip (leading) and streaky carbonate veinlet (trailing) @ 40 DTCA.								
		507.45 507.48 Carbonated Zone Fault Zone - This appears to be one of the more prominent structures within the interval comprising a vuggy, crudely laminated/ banded, pink and grey calcite mass with dark green chlorite fractures that cuts the core @ 45 DTCA. The walls are weakly bleached over 60cm down hole and sericitized for 30cm up hole. Mineralization both up and down, however, is trace.								
		508.44 508.85 Pyritic Silicified Zone - The wacke is pink altered through, and surrounding, this section which contains 40% dull grey quartz pods/ lenses, gashes and and veinlets that appear to be conjugate with, or related to a dull grey, carbonate quartz breccia vein/ fault @45 DTCA, near the end of the zone. Sulphides, a mix of py and cp streaks, trains and disseminated grains amount to approximately 15% through the interval and a few percent over 10- 25cm in the walls.								

From (m.)	To (m.)	Geology
		509.70 511.15 Fault Zone - Actually, the interval ends on a 3.5cm dull white, ankerite vein/ slip, containing chlorite fractures, @ 35 DTCA. It is preceded by grungy medium pink (greyish pink) altered wacke that is fractured along its length for over a metre, by a ragged, gashy, meandering, chlorite- quartz-carbonate vein with mildly mineralized walls. The interval may contain about 1% py and minor cp overall.
		511.30 513.95 Porphyritic Syenite (altered)- Only the upper 2/3 of the interval are significantly veined or altered. Here, the porphyryic texture is overprinted with 35%, speckles, patches and thready veinlets/ fractures of dull grey, white and pale orange ankerite and calcite along with minor quartz. Py amounts to about 1% in the upper portion to a ragged quartz carbonate gash vein at 512.00m, increasing to 3% py & cp below the vein to 512.85m. The lower part of the zone comprises medium/ dark greyish brown syenite porphyry in which the phenocrysts are very faintly visible and which lacks any significant veining or mineralization. The leading contact was taken at the start of brick red alteration in the porphyry while the trailing contact is marked by a rapid, natural transition from brown/ pink syenite to grey coloured wacke.
		513.95 515.30 Altered Greywacke with Feldspar Porphyry - Although the wacke is interupted by only one small patch of syenite, there are several (4) 0.5- 2.0cm, dull white ankerite veins trending generally @ 30 DTCA. They contain fine dusty sprinklings of hematite/ specularite- pyrite- chalcopyrite within the veins and mostly fine py in the walls, amounting to 1% overall. The host wacke through this section is pebbly and moderately altered around the veins. Below, the MS values rise sharply to as high as 27.7 indicating that the wacke is only mildly altered.
515.30	597.70	GREYWACKE
		At this point, the porphyry, which formed an integral component of the wacke above, essentially disappears, leaving a massive, fine grained, locally pebbly, medium/ dark grey green to green grey, granualr textured unit. In the fresher sections, susceptibilities range up to about 30.0 but cluster in the high teen's and low 20's, and, fine thready carbonate veining amounts to about 2%. Mineralization is trace overall except as noted below.
		522.30 522.32 Quartz Vein Zone - This is a weak, 1cm, medium grey, siliceous vein zone with slightly anomalous sulphides that cuts the wacke @ 45 DTCA. It is followed 30cm down hole by a second 0.5cm dull grey carbonate quartz vein @ 60 DTCA.
		525.80 527.20 Greywacke (altered) - MS values drop below 0.50 through this section and the wacke is moderately altered to a light pinkish

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52165	515.30	516.50	1.20	TR	.000	.000	nil
52166	521.15	521.80	.65	TR	.000	.000	nil
52167	525.80	527.20	1.40	TR	.002	.000	68
52168	531.65	533.00	1.35	TR	.000	.000	nil
52169	533.00	533.45	.45	TR	.001	.000	24
52170	533.45	534.25	.80	TR	tr	.000	3
52171	557.50	558.85	1.35	TR	tr	.000	7
52172	558.85	559.80	.95	TR	tr	.000	2
52173	559.80	560.25	.45	TR	.001	.000	46
52174	560.25	561.40	1.15	TR	.011	.000	368
52175	561.40	562.40	1.00	TR	.002	.000	62

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

to greenish grey colour, the alteration probably related to several weak quartz carbonate stringers that cut the section @ about 30 DTCA. Py and cp are weakly anomalous near the veins but trail off to trace elsewhere.

530.65 534.25 Greywacke (altered) - Similar to the zone above, this area is also weakly altered/ bleached to a fairly uniform, light grey colour. Again, MS values dip to as low as 0.18, but maintain a range below 0.50 throughout. There is little or no veining (about 0.5% calcite and ankerite fractures and veinlets) except for a 1cm, streaky, pale pink quartz calcite, vein at 533.28m which cuts the host @ 40 DTCA. It exhibits a 10cm olive green coloured alteration rim on the hanging wall side and is mineralized with a few splashes of cp. Otherwise, the interval contains only trace fine grains/ specks of py and cp.

537.85 538.40 Greywacke with Feldspar Porphyry - This section is fresh and contains small dikelets, tongues and gashes of finely porhyritic, salami brown coloured syenite.

558.88 559.38 Fault Zone - The actual faults consist of 1cm and 0.5 cm calcite- quartz- chlorite laminated wafers at the extremities of the interval @ 78/ 80 DTCA. These structures are accompanied by a decrease in the susceptibilities which begin dropping around 3.5m up hole until they fall below 0.50 by the start of the interval. Moderate sericitic alteration and chlorite- hematite fracturing/ crushing both increase in the vicinity of these minor faults while fine py and cp are marginally anomalous. All these features continue down hole to a 6cm pink calcite vein at 560.00m that cuts the core @ 70 DTCA, and below which, the alteration tails off to the following dike.

561.40 562.40 Porphyritic Syenite - With a leading contact on a chlorite slip @ 45 DTCA, and a natural sharp trailing contact @ 35 DTCA, the hole passes through this narrow porphyry dike and into the following thick sequence of wacke. Fine 1-3mm subhedral phenos and mafic inclusions to 3cm are faintly visible in the medium greyish orange/ maroon groundmass. Mineralization and veining are minimal while MS values rise to 3.75.

562.40 597.70 Greywacke - The hole now rolls into a thick wacke unit that is punctuated by scattered pebbles and the odd gritty to pea gravel lens. Overall, however, the wacke is fine grained, massive (no bedding planes evident) and uniformly medium greyish green coloured. MS values vary between 6.00 and 30.0, reflecting the composition of the wacke/ pebbles and very weak zones of alteration. Generally, mineralization is confined to trace py and minor cp in the walls of the 1-2% fine carbonate veinlets that transect the host at various angles to the core

From (m.)	To (m.)	Geology
		axis. The veinlets are mainly calcitic while the matrix is very weakly ankeritic.
597.70	608.70	CONGLOMERATE
		Although there have been scattered clasts and pebbly lenses to this point, it is here that conglomeratic zones become predominant. They are polymict, (including jasper), and clast supported in the core of the lenses although towards the contacts, they become matrix supported and separated by wacke lenses to 1m in thickness. As expected, MS values are highly variable, reflecting the compositions of the various pebbles, but don't generally dip below 16.0 except in patches of alteration. Mineralization and veining are both negligible except as noted.
		607.33 607.40 Fault Zone - This is an unusual lime green sericitic, weak, shear, zone alteration zone @ 55 DTCA, the alteration of which does not continue into the walls, nor is it mineralized or veined.
608.70	643.35	GREYWACKE
		Through a gradual decrease in the number of pebbles, the host reverts back to wacke. The scattered clasts and pebbly horizons become subordinate to the wacke which is fresh, massive (non bedded), fine grained and medium blue to grey green coloured. Fine, thready, dull grey, calcitic fractures constitute 0.5% of the unit while mineralization is nil to trace. Staining indicates that the matrix is intermittently very weakly ankeritic and weakly to moderately calcitic in places, becoming more calcitic down hole. MS values take a gradual dip to 0.86 and 2.94 between 609.00 and 612.50m for no apparent reason before falling back into the normal range of 12.0- 21.0.
		627.79 628.00 Fault Zone - This is a weak 1cm, quartz carbonate gouge fault with undeformed, unaltered and unmineralized walls that cuts the core @ 42 DTCA.
		632.40 635.40 Conglomerate - At this point, there is a change through gradational contacts into a lens of tightly packed, clast supported, polymict conglomerate. Pebbles are rounded, and range up to 7cm in diameter. As with the wacke, it is fresh, unveined and unmineralized; MS values range between 30.8 and 36.5.
		638.50 639.10 Conglomerate - The interval begins on a chlorite calcite fracture (zone) @ 35 DTCA that contains 5% py crystals and trains over 10cm. It ends at a 1cm calcite chlorite vein @ 40 DTCA that is laced with 12% patches and disseminated grains of py over 10cm. The host comprises a pebbly phase of the wacke, which, although mineralized, is not significantly altered, the susceptibility remaining elevated at 13.6/ 15.7 except

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52176	637.50	638.40	.90	TR	tr	.000	12
52177	638.40	639.10	.70	4	.032	.000	1106
52178	639.10	639.65	.55	6	.046	.000	1586
52179	639.65	640.65	1.00	TR	.006	.000	201

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		immediately above the contact where it drops to 5.00.								
639.10	641.49	Porphyritic Syenite - This is a different looking porphyry that is characterized by generally larger phenocrysts. They are concentrated over 0.5m down from the mineralized vein forming part the leading contact, the other part being natural, chilled, with mm size phenocrysts over the upper 5cm. Overall, the porphyry contains 15% dull white to pink, 2-7mm, euhedral, zoned feldspar phenocrysts in a fine to medium grained, dark pinkish grey coloured, feldspathic groundmass. Rare, larger phenos to 1cm are composed of clusters or twinned feldspars. The lower contact which is also chilled and rimmed with fine phenocrysts is coarsely serated/ embayed @ about 30 DTCA. The mineralization reported in the adjacent conglomerate continues as 8% disseminated py over 40cm into the porphyry, ending @ a 10cm crushed (chloritic) zone. MS values are tightly confined between 21.5 and 25.5, averaging about 24.0. Approximately 2% fine calcite veinlets are concentrated mostly around the chloritic fractures that end the mineralized zone.								
641.49	643.35	Greywacke - Below the dike, the hole reenters, and ends in, the fresh wacke as described previously.								
643.35		End of hole - The hole was stopped here in fresh sediments when the wireline snapped and there was no point in continuing to the intended depth of 650m since there was no indication of an upcoming zone.								

QUEENSTON MINING INC

Drill Hole: AK-05-09

DIAMOND DRILL HOLE RECORD

2.33536

Property: AMALGAMATED KIRKLAND- Leased CLM 328 (UTM: 0570366E/ 5331223N)
Northing: 10390.00
Easting: 8300.00
Elevation: 328.00

Collar Azimuth (Grid) 350.00
Collar Dip: -75.00
(0 Degrees Grid equals 341 degrees True)
Hole Length: 980.00

Date Printed: 25 Apr, 2006

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
6.0	346.3	-75.5	482.0	329.8	-66.6
62.0	336.0	-71.6	539.0	328.5	-66.0
120.0	334.4	-70.8	598.0	329.2	-65.6
180.0	335.6	-69.5	662.0	326.6	-64.9
240.0	334.9	-69.5	720.0	328.3	-64.4
300.0	331.9	-67.8	780.0	330.1	-64.1
360.0	329.5	-66.6	839.0	326.5	-63.6
422.0	330.0	-66.8	900.0	329.7	-63.3

Date Started: March 7, 2005
Date Completed: April 12, 2005

Drilled by: H & S
Core Size: NQ
Material left in hole NX CASING
Core Location: Upper Canada Site 1
Logged by: FR Ploeger

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

SUMMARY LOG

.00	4.15	OVERBURDEN
4.15	49.60	GREYWACKE
49.60	58.20	CONGLOMERATE
58.20	73.40	MUDSTONE CONGLOMERATE
73.40	237.05	GREYWACKE
237.05	258.23	MUDSTONE GREYWACKE
258.23	322.40	FAULT ZONE GREYWACKE
322.40	332.03	MUDSTONE
332.03	349.12	DIABASE
349.12	371.68	TUFF
371.68	380.74	TRACHYTE SYENITE
380.74	401.25	MAFIC SYENITE TRACHYTIC
401.25	413.15	TRACHYTE
413.15	413.50	FAULT ZONE
413.50	435.85	TRACHYTE TUFF MAFIC SYENITE
435.85	489.95	TRACHYTE TUFF

From (m.)	To (m.)	Geology
489.95	535.10	PORPHYRITIC SYENITE
535.10	614.14	GREYWACKE ARKOSE
614.14	641.35	PORPHYRITIC SYENITE
641.35	657.20	GREYWACKE
657.20	730.25	CONGLOMERATE
730.25	752.92	PORPHYRITIC SYENITE
752.92	783.00	CONGLOMERATE
783.00	797.00	PORPHYRITIC SYENITE
797.00	822.50	CONGLOMERATE
822.50	976.20	TRACHYTE TUFF GREYWACKE
976.20	980.00	PORPHYRITIC SYENITE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

From (m.)	To (m.)	Geology
.00	4.15	OVERBURDEN
		The time sheets indicate 4m of casing (deepened by 2') in the hole which is located on the south edge of Archer Drive about half way between the CoGen Plant and Chaput hughes.
4.15	49.60	GREYWACKE
		The hole is collared in wacke that contains a few small gritty clasts and the odd pebbly (pea gravel) horizon. Overall, the wacke is fine grained, granular textured and massive with gradations into the pebbly zones and also into finer grained sections; there are no distinctive bedding features. Clasts are subdued in colour and have fuzzy/ indistinct contacts with the enclosing wacke. They tend to be shades of pale, pastel grey, buff or pink and subangular to subrounded in shape, perhaps indicating an immature, possibly alkalic (trachytic) origin rather then a sedimentary one. Only a few, widely scattered, fine red jasper grains were noted. The overall colour of the unit is medium grey with shades of red/ pink and green and lighter and darker tones related to weaker and stronger degrees of alteration.
		Alteration comprises a pervasive weak ankeritization as well as 2-4% fine thready to lensey/ gashy, dull white to pale pink ankerite quartz veinlets and stringers that cut the core at various angles but commonly @ 25/30 and 45/50 DTCA. Magnetic susceptibility (MS) measurements indicate a complex provenance and alteration regime for the wacke. Values undulate from lows of 0.43 to as high as 44.5 but seem to cluster around 1.5, 6.0, 16.0 and 25-31. Generally, the MS values decrease in areas of alteration adjacent to structures and vein zones and appear to increase in sections that are primarily derived from trachytic sources which contain more magnetite. Freshness is indicated by darker colours while areas of alteration are bleached to lighter shades of grey or hematized to a brick pink or red. Mineralization, which is nil to trace overall, consists of fine grains and splashes of pyrite (py) and chalcopyrite (cp), usually in fractures or veinlets associated with structures, vein zones or altered sections. Hematite/ specularite (hem/ spec) often occurs in fractures or on slips throughout the various lithological packages. Zones of anomalous veining, mineralization, and alteration and stronger structures are broken out below and sampled.
		7.10 7.75 Broken Blocky Core / LOST CORE - The blocks indicate that there is a 50cm section of core lost or ground out through this interval although there is no problem reported by the drillers. They do note, however, that they hit a water seam at 9.0m, the site of a weakly oxidized carbonate slip @ 50 DTCA.
		22.75 22.95 Fault Zone - The fault zone consists of intermittent fine crushing and shearing @ 55-63 DTCA with chloritic fractures and ankerite linings. Weak alteration and moderate fracturing/ crushing end fairly abruptly above the zone but continue for 65cm downhole. There is no appreciable py or cp associated with

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52180	21.70	22.65	.95	TR	.001	.000	43
52181	22.65	23.60	.95	TR	.000	.000	nil
52182	23.60	24.55	.95	TR	tr	.000	12
52183	29.00	29.65	.65	TR	tr	.000	2
52184	33.30	33.80	.50	TR	tr	.000	3
52185	48.25	48.95	.70	TR	.000	.000	nil

From (m.)	To (m.)	Geology
		the structural corridor.
		29.44 29.45 Carbonated Zone - This is a yellow carbonate vein @ 80 DTCA with some orthoganal gashy type, white ankerite fractures in the walls but only weak pinkish alteration and no mineralization over 15cm in the walls.
		32.43 32.55 Fault Zone - Here, the fault is characterized by 10cm of crushed, pale blue grey, strongly carbonatized wacke that cuts the hanging wall @ 45 DTCA but gradually rotates to 85 DTCA into a chloritic mylonite zone that ends the structure. Apart from a few tiny specks of py, there is no significant mineralization in the structure or the weak 10cm alteration zone in the walls.
		48.37 48.82 Fault Zone - In this interval, the fault consists of bounding 2.5 and 5.0cm dull white carbonate veins @ 40 DTCA that are partly chlorite fractured and contain slivers/ streaks of pale pink quartz. In addition, there is a similar laminated, internal vein as well as halos of weak light greenish yellow sericite alteration, however, the sulphide content remains at trace. Beginning at about 2.5m above the fault, the MS values suddenly fall into a tight range between 4.25 and 7.42.
49.60	58.20	CONGLOMERATE
		The previous 4m of the wacke contains thick lenses of grit or pea gravel size conglomerate similar to this unit. Here, the contact was taken at the end of the wacke lenses where there is a gradation into the fine conglomerate that roughly coincides with an alteration slip @ 40 DTCA. Overall, the host is characterized by massive grit consisting of mm to 1cm sized, subangular, clasts and eroded feldspar crystals in a fine wacke matrix. Most of the clasts are light grey, buff or pink coloured, however, through the middle to the end of the unit, elongated, dark grey clasts that seem to be crudely imbricated at a low angle to the core axis (say 15 degrees) are prominent, forming 10% of the conglomerate. One small red jasper chip was noted near the start of the interval. The degree of alteration increases progressively through the the conglomerate as evidenced by: the steady decrease in the MS values from 5.70/ 8.17 at the start to 0.39 by the end; the overall lightening of the colour of the matrix; and, the increase in fine pale yellow and green buff thready sericite- carbonate altered veinlets; mineralization remains trace. The trailing contact falls on a sharp natural change to very fine grained, bedded wacke.
58.20	73.40	MUDSTONE CONGLOMERATE
		The zone is essentially composed of 4 phases, a very fine grained muddy zone to 64.75m, a central fine conglomerate to 67.0m, a lower section containing abundant eroded(?) mafic laths/ phenocrysts to 72.60, and, a trailing mudstone. The upper and lower mudstones are very fine grained to aphanitic,

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52186	66.60	67.45	.85	TR	.001	.000	19
52187	67.45	68.00	.55	4	.000	.000	nil
52188	68.00	69.30	1.30	TR	.000	.000	nil
52189	69.30	70.65	1.35	0.5	.000	.000	nil
52190	70.65	71.75	1.10	TR	tr	.000	3

From (m.)	To (m.)	Geology
		massive to moderately well bedded @ 40- 50 DTCA, and creamy light green grey to buff yellow coloured, depending on the degree of alteration- those at the end are well altered to a yellow green colour and partly bedded at a steeper angle of 70 DTCA. The intermediate conglomerates are similar to those described above at 49.60m, consisting of bean sized and smaller clasts and grit with tongues and lenses of very fine grained wacke in a fine wacke matrix. As mentioned, the remaining section appears to consist of a strange sort of crystal 'tuff' in which the black/ dark grey laths, needles and stubby grains and small fragments are prominent. A fine jasper grain was noted indicating that the unit is sedimentary in origin, possibly derived from rapid decomposition/ erosion of a mafic porphyritic trachyte(?) host. MS values in the finer fractions of the mudstone are low, averaging about 0.35 in the upper section and 0.12 in the lower while the wacke component is higher at 1.53 to 9.01. In both the fine conglomerate and crystal tuff, the susceptibilities fall into a very narrow range centred at 0.26. Staining indicates that the matrix and 5% spotty, to shreddy, to gashy white carbonate veining is ankeritic in composition. Mineralization, which is generally trace, becomes anomalous within parts of the crystal tuff and particularly in the walls of a low angle, ragged spotty ankerite vein at 67.50- 68.00, where the py content increases to 4%. 71.45 71.55 Fault Zone - The host is cut by a sericite shear crush ankerite fault @ 45 DTCA.
73.40	237.05	GREYWACKE The leading contact is sharp and natural along a bedding plane @ 60 DTCA. Overall, the wacke is fine grained, massive, homogenous, light grey to yellow grey coloured and granular textured containing local zones and isolated pale lime green rip up clasts derived from very fine grained mudstone beds that have been disrupted. These clasts are partly aligned or imbricated @ 35/ 50 DTCA. Red jasper grains have also become more common throughout the wacke as well. Ankerite continues to form the main carbonate mineral in the veining and pervasively through the matrix. In addition to the carbonate, fine yellowish veinlets, speckles and alteration patches which all contribute to an overall yellow caste to the wacke, indicate strong pervasive sericitization. White/ dull grey ankerite quartz veins to 6cm, along with finer carbonate stringers and lacey veinlets form 5% of the interval; the py content remains trace. MS values consistently range between 0.10 and 0.16 down to 88.20m where the wacke begins to become gritty and the magnetics rise to 0.30. Significant veining and mineralized zones are described separately below. 79.24 79.29 Quartz-Carbonate Vein Zone - This is a massive dull white quartz ankerite vein @ 70 DTCA that is moderately crushed for 20cm down hole and that contains anomalous very fine dusty py in the walls. 87.27 87.35 Quartz-Carbonate Vein Zone - Another streaky quartz carbonate chlorite vein trending @ 50 DTCA cuts the core with 5cm of

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52191	79.10	79.55	.45	TR	tr	.000	2
52192	86.15	86.60	.45	TR	.000	.000	nil
52193	95.00	95.80	.80	TR	.000	.000	nil
52194	99.65	100.00	.35	TR	tr	.000	12
52195	104.70	105.30	.60	TR	.001	.000	19
52196	108.30	109.20	.90	TR	.000	.000	nil
52197	113.55	114.15	.60	TR	.001	.000	24
52198	118.55	119.50	.95	TR	.000	.000	nil
52199	131.20	131.80	.60	TR	.004	.000	159
52200	134.40	135.60	1.20	TR	tr	.000	10
52201	135.60	137.00	1.40	TR	.003	.000	98
52202	137.00	137.80	.80	TR	.001	.000	19
52203	145.60	146.30	.70	TR	tr	.000	2
52204	151.15	152.00	.85	TR	.001	.000	24
52205	174.80	175.25	.45	TR	.001	.000	17
52206	176.90	178.15	1.25	TR	.001	.000	22
52207	178.15	179.30	1.15	TR	.000	.000	nil
52208	179.30	180.70	1.40	TR	.000	.000	nil
52209	187.80	189.00	1.20	TR	tr	.000	15
52210	202.05	203.10	1.05	TR	tr	.000	10
52211	203.10	204.45	1.35	TR	tr	.000	5
52212	217.35	218.00	.65	TR	tr	.000	5
52213	223.35	224.40	1.05	TR	tr	.000	9
52214	224.00	225.10	1.10	TR	tr	.000	10

From (m.)	To (m.)	Geology
		weakly crushed and sericitized walls. It contains a few scattered fine py grains.
95.05	95.07	Quartz-Carbonate Vein Zone - The quartz carbonate vein with chloritic fractures and a footwall shear slip defines a fault structure that cuts the core @ 38 DTCA. There is no significant mineralization associated with this fault.
99.80	100.00	Quartz Vein Zone - As above, there appear to be weak fault structures combined with the veins which occur at either contact. Both consist of 2.5cm of dull grey quartz with flakes of white ankerite and chlorite slips and fractures, the upper one trending @ 75 DTCA, the lower, @ 40 DTCA.
105.05	105.10	Quartz Vein Zone - This interval consists entirely of a white dry quartz vein with opposing contacts @ 70/ 42 DTCA.
105.30	107.47	Conglomerate - This is more of a coarse wacke to gritty zone which contains a number of creamy greenish yellow rip up mudstone clasts. Also of note are several bright to dull emerald green carbonate clasts which seem to be the altered equivalent to mafic and ultramafic pebbles in the less altered sections. Both contacts fall on ragged chlorite carbonate slips @ about 70 DTCA.
108.70	109.00	Fault Zone - The fault is characterized by a series of thready, yellow sericite shears combined with chlorite slips/ fractures and white carbonate and dull grey quartz streaks and veinlets which collectively trend @ 55 DTCA. The sulphide content is trace although a smear of py was noted in a fracture.
113.65	113.95	Fault Zone - Here, a central zone of quartz carbonate is surrounded by broken chips and flakes of core along with mud/ gouge filled and chlorite slips trending generally @ 30 DTCA. There is no associated alteration, veining or mineralization in the walls of the structure.
118.55	119.50	Fault Zone - The main portion of the fault occurs over the trailing 3cm @ 70 DTCA as a quartz carbonate chlorite vein/ slip. Above this vein, the wacke is well altered and fractured/ crushed with 20% dull white ankerite quartz veinlets, gashes and patches, but contains only trace sulphides.
131.40	131.43	Fault Zone - This is just one of several quartz carbonate veins lined with chlorite slips (@ 65 DTCA) that represent minor fault structures. Others occur at 134.46m (@ 65), 135.50m (@ 78), and, 137.40- 137.55m (@ 55-60). All have sericitized halos but contain only trace sulphides.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52215	225.10	225.75	.65	TR	.000	.000	nil
52216	225.75	226.85	1.10	TR	.000	.000	nil
52217	226.85	228.20	1.35	TR	.000	.000	nil
52218	228.20	229.45	1.25	TR	.000	.000	nil
52219	236.00	236.95	.95	TR	.000	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

146.00 146.15 Quartz-Carbonate Vein Zone - This is, again, a vein and fault that cuts the core @ 45 DTCA. It comprises white and dull grey ankerite and quartz with numerous subparallel yellow sericite fractures, slips and shears, but only trace py.

150.48 153.23 Mudstone - The leading contact is sharp, natural and well contrasted between a coarse wacke and the very fine grained mudstone @ 23 DTCA. The colour ranges from a creamy olive yellow in the aphanitic phases to light yellowish grey in the very fine grained sections, the latter which often exhibit contorted bedding, to shallow angle (about 20 DTCA) bedding features. Susceptibilities range between 0.08 and 0.22; mineralization is trace.

151.40 141.55 Quartz-Carbonate Vein Zone - The vein is laminated with chloritic slips over the upper 5cm and 10cm below the vein (also a mud slip), all of which trend @ 23 DTCA.

174.90 175.10 Carbonated Zone - In this section, the wacke is well fractured (chloritic) with 80% dull beigy white ankerite patches and contains slightly anomalous very fine py.

176.60 191.20 Greywacke (fractured) - Here, the wacke is not only altered to a mottled light yellow to greenish grey, it is also well fractured to crushed in random patterns/ orientations. Fractures are dark grey (chloritic), generally occuring as fine spidery clusters with minor gashes/ slivers of white ankerite. The host remains a gritty, fine grained wacke, with scattered pebbles, including jasper and green carbonate, but dominated by ovoid ripped up mudstone fragments. Mineralization is trace and MS values range between 0.12 and 0.16 with a few slightly higher and lower values. A few areas of concentrated fracturing were check sampled.

191.20 237.05 Greywacke - The abundant chloritic fracturing decreases but continues as weak intermittent nests clustered around fracture/ fault zones. There is an overall decrease in the degree of alteration, particularly sericitization, as evidenced by a darkening of the colour to a medium green grey with local mottled yellowish patches. Otherwise, the protolith remains a fine gritty wacke with local scattered pebbles. MS values consistently fall within a narrow range of 0.15 and 0.20 while mineralization is trace.

202.60 202.75 Fault Zone - The main fault feature comprises several interconnected chlorite breccia structures which are characterized by a black chloritic matrix containing angular chips of the altered wacke that cut the core @ 45 DTCA. The fault zone ends at a chlorite slip @ 55 DTCA, but, there are several ancillary zones of chloritic fracturing accompanied by dull white ankerite veining over a couple of metres up and

From (m.)	To (m.)	Geology
		down hole. There is no enrichment of sulphides in the fault or the surrounding veins.
209.75	209.85	Fault Zone - The fault consists of a series of mud/ gouge slips @ 25 DTCA and some brownish alteration but no significant veining or mineralization.
224.40	225.05	Fault Zone - This appears to be a somewhat stronger structure that comprises a leading 6cm chlorite breccia zone followed by 25cm of dull beige, chlorite fractured, carbonated sediment, and finally, a finely shreddy/ sheared, yellow, sericitized zone from 224.75m, to the end. The upper breccia and sericitic shear zone both trend @ 55 DTCA while the trailing slip terminates the zone @ 38 DTCA. Several minor chlorite carbonate (breccia) slips occur uphole at 217.75 (@45), 219.45 (@35), 222.20 (@35), 223.45 (@65) and downhole at 226.25 (@45), 226.70 (@65), and, 228.45m (@50 DTCA), none with any significant veining, alteration or mineralization.
236.60	236.65	Fault Zone - This is a strong, finely crushed (cataclastic) carbonate chlorite mud fault that cuts the wacke @ 35 DTCA. A zone of moderate sericitic crushing extends up hole for 60cm while mineralization is trace.
237.05	258.23	MUDSTONE GREYWACKE
		The leading contact is wavey, but sharp and lined with yellow sericite imparting a ropey appearance. The change in lithology is marked by a dramatic change in colour to dark green grey and a doubling of the susceptibility to a range of 0.29 to 0.36. Texturally, the host becomes finer grained in places but this is more apparent then real since it maintains its granualar appearence, complete with gritty sections and occasional light beige patches to 25cm that may represent volcanic bombs or large clasts. The matrix is finely crackle microfractured on a granular level, but not sericitized, thereby remaining dark coloured. There is a decline in the number of fine red jasper grains and local fining of the grain size suggesting an overall change in the primary composition of the sediment, possibly to trachyte tuff. Ankerite remains the primary carbonate mineral, pervasively infusing the matrix and occuring as 6% very fine spidery carbonate veinlets, gashes and fracture fillings. Mineralization, trace overall, comprises fine isolated py grains and rare bean sized pods.
258.23	322.40	FAULT ZONE GREYWACKE
		The host for this interval remains the mudstone- wacke- conglomerate mix although only rare red jasper grains were noted, mainly in the pebbly zones. The interval encompasses the entire fault zone surrounding the main central structure, a 15cm zone of strong crushing with mud slips and 4cm of gouge centred at 271.17m and trending @ about 65 DTCA. The zone begins with a

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52220	258.25	259.60	1.35	TR	.000	.000	nil
52221	259.60	260.80	1.20	TR	.002	.000	78
52222	260.80	261.90	1.10	TR	tr	.000	2
52223	261.90	263.00	1.10	TR	tr	.000	15
52224	263.00	264.50	1.50	TR	.001	.000	33
52225	264.50	266.00	1.50	TR	.000	.000	nil

From (m.)	To (m.)	Geology

sudden increase in the degree of alteration which is characterized by patchy bleaching of the sedimentary host to a pale brown/ beige colour, grading in and out of weaker, medium brownish grey/ green grey altered sections over the leading 6m. The patchy alteration is accompanied by nests of chloritic fractures which seem to increase in density down hole towards the fault.

In general, there is no preferred orientation of the fractures, but several mimic the attitude of the main fault. Below the fault, the deformation consists mainly of low angle chlorite and mud slips, some of which trend down the core axis, along with numerous dull white carbonate stringers, veinlets and gashes that roughly parallel the main fault but that are also conjugate with, or offshoots (gash and breccia veins) of, the low angle slips. Above the main fault structure, these various ankerite veinlets form approximately 3% of the host, while below, they constitute 10%. Despite the intense fracturing, veining, and alteration, the sulphide content comprises only trace fine grains and slivers of py and cp, but, because of the high degree of deformation and alteration, the entire interval was sampled. MS values fall fairly consistently into a narrow corridor of 0.24- 0.35.

280.50 310.00 Deformation Zone - This is not a deformation zone associated with the Larder Lake Break, which is the intended use of the term, but rather a continuation of the deformation corridor related to the strong fault at 271.17m. Here, the fine grained wacke, gritty wacke and mudstone are well fractured throughout with local intensely crushed and cataclastic zones oriented mainly at 40- 50 & 60- 65 DTCA. Early sets of ankerite veinlets, stringers and gashes that intersect the core at various angles to the core axis, are cut by the chloritic fractures and nests and help to display these cataclastic features. As above, the susceptibilities generally fall within the tight range as before (0.26- 0.36) with some higher and lower values depending on the degree of alteration, while the sulphide content remains as trace scattered grains of py and cp. At 297.70m, there is an overall change in the colour of the mixed sediments whereby they become darker coloured, losing the grungy pinkish alteration and becoming marginally fresher. A little further down at 298.90m, calcite gradually replaces ankerite as the dominant carbonate mineral in fractures and the matrix of the wacke although some shreddy ankerite streaks and gashes persist.

310.00 322.40 Greywacke Deformation Zone - Here, the deformation zone changes character making it more difficult to distinguish the various sedimentary phases. Some sections (314.30m) are very fine grained/ aphanitic, dark/ medium brownish grey coloured, probably originating as a mudstone, while others contain remnants of pebbles (317.60m), indicating that there are still some gritty/ pebbly sections in the wacke host. At 322.40m, the texture changes again, as detailed below, and the fine jasper grains end. The deformation changes to a crush texture which seems to have altered and remobalized the matrix into

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52226	266.00	267.50	1.50	TR	.000	.000	nil
52227	267.50	269.00	1.50	TR	.001	.000	24
52228	269.00	270.50	1.50	TR	tr	.000	15
52229	270.50	271.40	.90	TR	.001	.000	48
52230	271.40	272.30	.90	TR	.000	.000	nil
52231	272.30	273.50	1.20	TR	.002	.000	64
52232	273.50	275.00	1.50	TR	tr	.000	9
52233	275.00	276.50	1.50	TR	tr	.000	2
52234	276.50	278.00	1.50	TR	.001	.000	19
52235	278.00	279.50	1.50	TR	tr	.000	12
52236	279.50	280.50	1.00	TR	.000	.000	nil
52237	280.50	281.80	1.30	TR	.001	.000	19
52238	281.80	283.00	1.20	TR	.000	.000	nil
52239	283.00	284.00	1.00	TR	.000	.000	nil
52240	284.00	285.50	1.50	TR	.001	.000	19
52241	285.50	287.00	1.50	TR	tr	.000	7
52242	287.00	288.50	1.50	TR	tr	.000	3
52243	288.50	290.00	1.50	TR	.000	.000	nil
52244	290.00	291.50	1.50	TR	.000	.000	nil
52245	291.50	293.00	1.50	TR	.001	.000	26
52246	293.00	294.50	1.50	TR	.059	.000	2040
52247	294.50	296.00	1.50	TR	.000	.000	nil
52248	296.00	297.50	1.50	TR	tr	.000	7
52249	297.50	299.00	1.50	TR	.002	.000	57
52250	299.00	300.50	1.50	TR	tr	.000	12
52251	300.50	302.00	1.50	TR	.001	.000	26
52252	302.00	303.50	1.50	TR	tr	.000	15
52253	303.50	305.00	1.50	TR	.001	.000	19
52254	305.00	306.50	1.50	TR	tr	.000	2
52255	306.50	308.00	1.50	TR	tr	.000	14
52256	308.00	309.50	1.50	TR	tr	.000	5
52257	309.50	311.00	1.50	TR	.001	.000	17
52258	311.00	312.50	1.50	RT	tr	.000	3
52259	312.50	314.00	1.50	TR	.001	.000	26
52260	314.00	315.50	1.50	TR	.001	.000	39
52261	315.50	317.00	1.50	TR	.001	.000	45
52262	317.00	318.50	1.50	TR	.000	.000	nil
52263	318.50	320.00	1.50	TR	.001	.000	17
52264	320.00	321.50	1.50	TR	.000	.000	nil
52265	321.50	322.40	.90	TR	.000	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

the fractures rather than them being filled with carbonate or chlorite imparting an overall breccia/ fragmental aspect to the sediments. Some fine fractures and the 0.5% gashy carbonate veinlets, as well as parts of the matrix, are calcitic. MS values become somewhat irregular within a higher range of 0.35 to 1.25, which along with the darker overall greenish grey colour and the presence of calcite, suggests an overall decrease in the intensity of alteration. Mineralization remains trace.

315.50 315.55 Fault Zone - This fault consists of a pile of gouge and chips adjacent to a chlorite slip @ 45 DTCA.

322.40 332.03 MUDSTONE

Although the strong crush texture ends above, a weaker form seems to continue into the finer grained sediments here. Overall, they are medium grey to greenish grey coloured, very fine grained to aphanitic, massive/ homogenous, featureless with gradational changes back and forth into the finer phases and with faint hints of possible bedding @ 50/60 DTCA in the altered area adjacent to the following dike. A granular texture is visible in places (325.70m). Deformation decreases with depth in the interval, the crush textures replaced by moderate, very fine, thready fractures filled with calcite. MS values range between 0.32 to 0.55, the sulphide content is trace. Because of the degree of deformation, the leading contact is poorly defined while the lower contact with the diabase dike falls on a 5cm zone of chips and gouge associated with a mud slip/ fault @ 50 DTCA. Apart from minor very fine chlorite gashes/ slivers, moderate calcitic fracturing, and weak orange colouration of poorly banded aphanitic sediments, there is no significant contact metamorphism caused by the dike.

332.03 349.12 DIABASE

The upper 1.5m of the dike is fine grained, grading into a fine to medium grained section to 338.90m where it passes into a coarse grained central phase. The coarse, almost pegmatitic zone continues to about 344.00m where the gradation reverses, becoming medium grained to 346.50m, and then fine grained to the trailing contact. Overall, the diabase is dark/ medium green grey coloured, mildly to moderately fractured with epidote, calcite and hematite fillings, and moderately well amphibolitized. The relic diabasic texture is weakly displayed in the medium and coarse grained phases despite the high degree of alteration. Magnetic susceptibilities rise rapidly from around 10.0/ 15.0 at the contacts to an average of about 40.0 to 339.00m, and 30.0, below with a peak of 82.3 at 338.20m where some of the primary mineralogy appears to have been preserved. The dike, which ends at a sharp, natural, intrusive contact @ 45 DTCA, is poorly mineralized with trace fine py and cp.

From (m.)	To (m.)	Geology
349.12	371.68	TUFF

The exact nature of the protolith is uncertain here since there appears to be considerable brittle deformation into the footwall of the dike to 358.20m. Through this portion of the interval, the host has the appearance of grading in and out of a fine fragmental/ breccia in which the contacts grade from massive fine grained sections through chlorite fractures, into finely brecciated zones where the fragments may be fitted back together within a chlorite matrix. Overall, where not brecciated (below 358.20m), the host is fine to very fine grained, massive, and dark pinkish to brownish grey coloured. In places, the grain size allows identification a very fine granular texture, however, in most places it is too fine grained to distinguish. Apart from the tectonic texture (brecciation), there are no conglomeratic or pebbly zones and a distict absence of red jasper grains, therefore it is concluded that this is a very fine grained tuffaceous horizon. There is, however, a resemblance to sections in the Munro drilling in which tongues and lenses of trachyte flows are enveloped in fine mafic tuffs. MS values are highly variable, ranging from lows of 0.42 and highs of 26.0, but clustering between 2.00 and 10.0 to 358.20m, below which it peaks at 2.26 at 263.80m and then drops into a lower range of 0.26 to 0.40. 2% veining, consisting of gashes fractures and fine veinlets, is calcitic in composition along with the matrix which is pervasively calcitic as well. Mineralization remains trace, comprising splashes and slivers of py and cp in fractures.

358.20 358.60 Fault Zone - The fault, which ends the tectonically brecciated zone, is characterized by a leading 1cm, chlorite, carbonate, crush fault @ 18 DTCA followed by broken core. This fault is preceded by a ragged chlorite fault @ 32 DTCA (recovered as chips) and followed by a crush chlorite gouge fault @ 40/ 12 DTCA at 359.60- 359.80m. There is no anomalous veining, alteration or mineralization associated with any of these structures.

365.90 365.95 Fault Zone - This is a fairly strong clorite crush mud fault @ 25 DTCA with a congugate 3cm pink calcite gash vein and 1.5m of associated crushing up hole. The uphole deformation also includes two parallel 3cm dull grey quartz carbonate vein zones with slightly anomalous sulphides (<0.5%).

The lower contact of the tuff corridor is along a 7 cm chloritic breccia at 32 degrees, hanging wall to a 3 mm gouge at 32 degrees. The clasts in chloritic breccia are feldspathic and creamy to reddish toned in a dark chloritic matrix.

From (m.)	To (m.)	Geology
371.68	380.74	TRACHYTE SYENITE

Contact into a short section of trachytic flows that are riddled with narrow irregular dykes of syenite. The trachyte is dull orangish green to dark green in colour with variable orangish tones. It is fine grained with a

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52266	357.75	359.00	1.25	TR	tr	.000	7
52267	359.00	360.20	1.20	TR	.000	.000	nil
52268	371.00	371.68	.68	NIL	.001	.000	31
52269	371.68	372.75	1.07	TR	.000	.000	nil
52270	372.75	373.85	1.10	TR	.000	.000	nil
52271	373.85	375.00	1.15	NIL	.002	.000	53
52272	375.00	376.00	1.00	NIL	.005	.000	177

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		finely granular to mottled texture. The trachyte is moderate to strongly magnetic with susceptibilities from 8.79 to 31.0, versus the more weakly magnetic syenite dykelets which have susceptibilities from 0.23 to 16.4. The syenite dykelets are commonly at very shallow angles to the core axis and have irregular contacts. They tend to be dark to quite bright orange red in colour and very fine grained. The dykelets are hard and siliceous with a poorly developed porphyritic nature. The syenites are moderate to well fractured with calcite, hematite and chlorite - the trachytes being somewhat more weakly fractured. Veining averages 5-10% calcite at variable angles to the core axis. Mineralization is very weak throughouut, but there are traces of pyrite blebs and isolated splashes of chalcopyrite in the system - both in the syenite dykelets and in the trachyte flows. The syenite dykelets are not interpreted to be more siliceous flow margin material.	52273	376.00	376.90	.90	NIL	.002	.000	60
			52274	376.90	378.00	1.10	NIL	1.001	.000	27
			52275	378.00	379.15	1.15	NIL	.000	.000	nil
			52276	379.15	380.05	.90	TR	.001	.000	19
			52277	380.05	380.75	.70	TR	.002	.000	58
		The top of the package is variably altered with calcite - both as a fine fracturing and as pervasive alteration. That changes circa 376.89 m, along one of the syenite dykelets - from there to the lower contact, the core remains weakly fractured with calcite, but the sequence is weakly to moderately reactive to the presence of ankerite. At the upper contact, the trachyte is fractured to brecciated and streaky altered with sericite (and pervasive calcite) over 4 cms at 32/33 degrees, between the overlying fault gouge and the first of the syenite dykelets that follow. A second narrow breccia section occurs from 379.93-380.07 at 57/58 degrees - it is footwall to a syenite dykelet and contains numerous syenitic fragments in a dull grey ankeritic gangue. The lower contact is along a 1 cm, hematitic seam to fine breccia at 47 degrees.								
		Syenite dykelets in the system (contacts are invariably irregular) include: 371.76-373.85 at 33/30 degrees (the largest dyke); 374.80-374.96 at 13/51 degrees; at 375.24 - a 3 cm patch just cutting the core axis; 375.46-375.68 just cutting the core axis; 375.89-376.28 - upper contact just threading the core axis, lower contact at 46 degrees; 376.89-377.05 upper contact at 28 degrees, lower contact along core axis; 377.25-377.42 at 31/46 degrees; 378.47-378.57 just threading the core axis; 378.72-379.02 also threading the core axis, and; 379.16-379.93 upper contact partly threading the core axis up to the prior dykelet but at 46 degrees at 379.16, lower contact with the ankeritic breccia described above at 57 degrees.								
		The lower contact of the trachyte section is along a 1 cm, hematitic seam to breccia at 47 degrees.								
380.74	401.25	MAFIC SYENITE TRACHYTIC								
		Contact into an interesting sequence of apparent flows of trachytic composition. The sequence is characterized by pale grey green and earthy, to dark green altered blebs to spots to 8 mms in size +/- potential altered fragments/xenoliths in a very fine grained, dull orangish green matrix with local more orangish tones. It is coarsely porphyritic given that the altered blebs to spots are pseudomorphic after feldspar, pyroxene (augite ??) and amphibole. The rocks are moderately hard and siliceous and are generally	52278	380.75	381.50	.75	NIL	.003	.000	105
			52279	381.50	382.15	.65	NIL	.003	.000	110
			52280	382.15	383.00	.85	NIL	.001	.000	21
			52281	383.00	384.00	1.00	NIL	.001	.000	27
			52282	384.00	385.00	1.00	NIL	.001	.000	21
			52283	400.00	401.25	1.25	NIL	.002	.000	62

From (m.)	To (m.)	Geology

strongly magnetic - susceptibilities past the upper contact zone range from 14.3 to 39.2, and, 0.46 to 14.8 in the contact zone rocks. The contact zone is highly fractured to brecciated, veined and bleached to paler orangish tones. The contact zone rocks are strongly ankeritic with the wider veins in the contact zone being dull, rather porcelainous ankerite at 0 to 30 degrees to the core axis. Susceptibilities are lowest in the more strongly bleached rocks at the upper contact, gradually but not uniformly increasing with depth. Fracturing and brecciation associated with the contact zone extends to 382.17 m - contacts at 47/57 degrees. Beyond 382.17, the package grades duller in colour to more dull orange green tones by 383 m. Mineralization, however, in both the contact zone rocks and across the system is minimal. The first calcite is noted in the system at 383.92 m, with more pervasive calcite noted after 385.30 m and continuing to the end of the zone.

FRP- This has the appearance of the fine grained contact phase of a mafic (basic/ augite) syenite of the Kirkland Lake camp with euhedral augite pseudomorphs in a fine grained groundmass, which, typically, should grade fairly rapidly into a medium grained main body of the unit. By remaining fine grained throughout, it may represent a mafic trachyte equivalent, ie augite trachyte.

The package is finely fractured with 10 to 15% carbonate fractures and stringers at variable angles to the core axis - most are at less than 30 degrees. Hematite and chlorite are commonly associated with the fracturing such that veins are locally more pinkish to orangish toned. Mineralization across the system is very weak. The lower contact is partly bleached and more pinkish toned over 5 cms - contact at 17 degrees.

401.25 413.15 TRACHYTE

Return to a sequence of trachytic flows. The flows are generally very fine grained and dull to dark grey green in colour with weak orangish casts. As previous, the trachytes are cut by a handful of syenite dykelets - perhaps synvolcanic. The syenite dykelets are more prominent in the lower part of the sequence here, after 407.67 m. The trachyte is weakly to moderately ankeritic throughout most of this corridor - the ankerite alteration (and more weakly represented veining) appears to be earlier than erratic fine fracturing with calcite - both types of veins being at variable angles to the core axis. Veining averages 5-10% at the top of the system and is slightly elevated to 10% below 407 m. Commencing at 407.30 m, there are a series of fractured and discontinuous ankerite veins in the system. The veins yield a rather chattered appearance from a fracturing with hematite and chlorite, and, are usually refractured to crossfractured with off white to pinkish calcite, while the discontinuous ankerite portions are dull and porcelainous in appearance as the sections 407.30-407.67 - ankerite veining primarily at 0 to 15 degrees; 408.64-409.20 - ankerite veining just threading the core axis; 409.52-410.03 at 16/23 degrees, and; 412.40-412.74 also threading the core axis and hanging wall to a sheared and faulted lower contact.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52284	401.25	402.00	.75	NIL	.001	.000	41
52285	405.50	406.50	1.00	NIL	.003	.000	117
52286	406.50	407.30	.80	NIL	.004	.000	149
52287	407.30	408.35	1.05	NIL	.001	.000	43
52288	408.35	409.50	1.15	TR	.003	.000	86
52289	409.50	410.50	1.00	TR	.001	.000	48
52290	410.50	411.50	1.00	TR	.001	.000	38
52291	411.50	412.40	.90	NIL	.001	.000	38
52292	412.40	413.50	1.10	NIL	.013	.000	438

From (m.)	To (m.)	Geology
		Mineralization in the system is minimal with rare traces of pyrite and isolated splashes of chalcopyrite. As in the earlier sequence, the trachyte is magnetic with susceptibilities from 0.45 to 28.6. Most of the lower readings (less than 3) tend to be tied to the sections with ankerite veining and elevated hematite while the norm for the trachytes is greater than 10. Susceptibilities in the syenite dykelets range from 1.53 to 7.83. The syenites are dull to dark orange red in colour and very fine grained. They are finely fractured with hematite and chlorite and are also fractured with calcite. While some of the ankerite veining can trail into the syenites, they are generally nonreactive to the presence of ankerite. Feldspar phenocrysts are locally visible but are not well developed. Contacts are invariably irregular and at shallow angles to the core axis. Dykelets include: 407.67-408.35 at 32/28 degrees (footwall to the dull porcelainous ankerite veining noted above); an irregular, 3.5 cm patch at 409.20; 410.03-410.52 at 23/28 degrees, but more or less threading the core axis, and again footwall to an ankeritic section, and; 410.86-411.30 at 15/56 degrees - upper contact threading the core but lower contact steeper and sharp. The lower contact of the trachyte package becomes strongly sheared and calcitic from 412.70 to the lower contact - strong shearing is adjacent to the last of the ankeritic sections suggesting a genetic relationship between the broken ankeritic vein sections and both the syenite dykelets and shearing. The lower contact is strongly sheared at 10 to 20 degrees - lower contact at 15 degrees, with a 5 mm gouge just 3.2 cms above the lower contact at a similar orientation.
413.15	413.50	FAULT ZONE Contact into a short faulted section, coded separately because of its strength. This short section is characterized by a 2 to 3 cm, hematitic breccia to fault breccia at 15 degrees, followed by a strong 10cm thick gouge section at 6 to 20 degrees at the upper contact and 22 degrees at the lower contact. The hematitic section is calcitic, magnetic susceptibility of 0.99.
413.50	435.85	TRACHYTE TUFF MAFIC SYENITE Contact into a second package of porphyritic rocks that are characterized by numerous altered blebs/ spots (phenocrysts) to 8 mms in size that range from euhedral to subhedral in habit with pseudomorphs after feldspar, amphibole and pyroxene common. The altered spots vary from yellow green to dark green, beige, pink to orange pink, reddish, pale green and dull earthy beige to greyish tones. The variance in colour here is partially a reflection of the host and the strong alteration and fracturing to brecciation footwall to the above fault zone. The trachytic rocks vary through similar tones from pale green to dark green and various shades of red to beige. The probable protolith here was an augite trachyte or syenite.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52293	413.50	414.75	1.25	TR	.004	.000	139
52294	414.75	416.00	1.25	TR	.001	.000	41
52295	416.00	417.50	1.50	TR	.002	.000	82
52296	417.50	419.00	1.50	TR	.001	.000	51
52297	426.85	428.00	1.15	TR	.005	.000	183
52298	431.05	432.95	1.90	TR	.000	.000	nil
52299	435.75	437.00	1.25	TR	.000	.000	nil

From (m.)	To (m.)	Geology
		Alteration includes a complex mix of ankerite and calcite along with chlorite, sericite, epidote and hematite. Aside from the fault contact at 413.50 down to 416.54 m, which is strongly calcitic, the sequence is weakly to moderately reactive to the presence of ankerite throughout. However, calcite persists across the overall zone as streaks, stringers and fractures in addition to more patchy calcitic alteration related to accessory fracturing and brecciation (more common in some of the patchy reddish alteration related to hematite) while ankerite alteration is more pervasive through parts of the matrix. The mottled colours of the host reflect alteration associated with the intense microfracturing and crushing below the strong fault at the contact. Darker colours indicate chloritic fractures, medium pink/ orange areas represent hematization, yellowish zones- sericitization, and dull grey sections, carbonatization. MS values fall into three distinct regimes: from the start to 421.80m, a magnetically low zone where values all fall below 0.50; from 421.80- 430.05m, an intermediate zone where the susceptibility is framed between 0.38 and 7.31; and, the trailing section to the end of the interval where they range as high as 21.0. All three sections are well altered, microfractured and variably coloured with no distinctive criteria to determine the magnetic susceptibility except proximity to the main fault. Mineralization consists of trace py overall with slightly anomalous concentrations (but <0.5%) near the fault at the start.
		426.90 427.90 Fault Zone - The interval comprises a series of three separate structures including bounding ragged, chlorite crush faults @ 10 & 22 DTCA and a central hematite ankerite fault with bounding contacts @ 75/ 40 DTCA. The central fault comprises a 15cm massive plug of fine grained hematite with patches of dull white ankerite and grey quartz containing 5% fine grains and splashes of py and cp.
		432.60 432.65 Fault Zone - 30cm of mottled dull lime green sericite alteration and white ankerite precede this strong chlorite calcite shear fault that cuts the core @ 26 DTCA. There does not appear to be any sulphide enrichment within the area of influence of the fault.
		435.73 435.85 Fault Zone - A 2mm mud slip @ 58 DTCA leads the fault zone. It is followed by a massive central section of finely fractured/ microfractured, yellow altered (ankerite- sericite), host and ends on a 0.5cm ankerite vein/ fault with chloritic fractures @ 30 DTCA. This fault structure forms the trailing contact of the augite trachyte unit.
435.85	489.95	TRACHYTE TUFF
		There is a very distinctive change to a fine to very fine grained, massive, homogenous unit that maintains a finely granular texture throughout. Most variable is the colour which migrates between light pastel shades of pink, green, brown, tan and orange, depending on the degree of alteration, medium

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52300	443.65	444.50	.85	TR	.001	.000	33
52301	448.00	449.00	1.00	TR	tr	.000	2
52302	449.00	449.85	.85	TR	.002	.000	67
52303	453.15	454.00	.85	TR	.003	.000	89
52304	454.00	455.00	1.00	TR	.001	.000	46

From (m.)	To (m.)	Geology

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52305	455.00	455.90	.90	TR	.003	.000	111

to dark greenish grey representing the least altered. There is only a single subtle hint of bedding at 440.15m where it is weakly highlighted by alteration @ 60 DTCA. From the textures and the high magnetics of the fresher sections, it is concluded that that the protolith is a trachyte tuff.

Overlapping/ superimposed on the various alteration/ colour schemes are fine ubiquitous fractures that may be carbonate or chlorite filled along with more regular vein/ fracture sets, particularly between 443.75 and 449.00m where they trend mainly @ 25-35 DTCA. These veins, which may range up to 2cm in width, are filled with ankerite- chlorite- hematite combinations and generally represent minor structures. It is, however, fine nests of microfractures that seem to control the strongest centres of alteration, the latter, which are further defined by lower MS values. The freshest sections, which are also the darker grey coloured areas, generally yield susceptibilities above 8.00 (as high as 33.6) while those in the stronger altered sections commonly fall between 1.00 and 4.00. Most of the carbonate in the veining described above is ankeritic in composition, however, some of the weaker fractures and slips are calcitic; the matrix is weakly pervasively ankeritic. Sulphides, in the form of very fine py and cp grains, are generally present in trace amounts in some of the vein/ fracture zones while the main body of the tuff is barren.

451.70 489.95 Tuff Trachyte - There is a very abrupt change in the degree of alteration beginning at a 2cm dull grey quartz carbonate vein with chloritic fractures that cuts the core @ 18 DTCA at the start of this transition. Below, the tuff becomes fresher looking- medium/ dark grey to greenish grey coloured- yet the massive, homogenous, granular texture persists. Again, bedding features are rare, with faint bedding planes evident @ 65 DTCA at 452.20m. In places, the tuff contains narrow interbeds of gritty/ lapilli material and possible tongues and bombs of various types of trachyte which are detailed separately below. The carbonate of the veining and the weak pervasive alteration of the matrix is ankeritic in composition up to a major fault zone at 453.90m below which both become strongly calcitic. Susceptibilities reflect the more pristine nature of the tuff by rising to a higher range of 13.0 - 36.0. The sulphide content remains negligible at nil to trace.

453.87 453.92 Fault Zone - A central zone of crushed dull white carbonate, flanked by a 7mm dark grey mylonite and 2-7mm red hematite rims @ 50/ 57 DTCA, form the basis of this fault. Up hole, the influence of the structure comprises strong to moderate crushing with moderate creamy yellow grey alteration and chlorite slips along the core axis and @ 20/ 30 DTCA over 70cm. For 2m down hole, the core is moderately fractured/ microfractured and weakly to moderately bleached to a pale yellow grey colour. Despite the degree of deformation and alteration around the fault, mineralization remains trace. Susceptibilities, as expected, fall to a low range of 0.50 to 3.60 within the area affected by the fault and the matrix and

From (m.)	To (m.)	Geology
		fractures are calcitic.
463.30	465.20	Trachyte Flow - Through this section, there are several hazy internal contacts between various phases of, what appear to be trachyte flows or bombs and fine fragmental material. The contacts, @ various angles TCA, are very subtle but mark changes in colour and textural regimes that may distinguish the different flows. Individual flow types range from 10 to 30cm in thickness and may be pale brownish grey coloured with fine 1-3mm feromagnesian phenocrysts/ speckles, fine grained brick orange, creamy medium brown with fine mafic needles/ specks, and light greyish pink with fine (1-4mm) ferromagnesian laths. The leading bounding contact is somewhat fuzzy but natural, embayed/ corrugated @ 20 DTCA while the lower one is curved along a 1mm calcite slip @ 30 DTCA. A possible rubbly tongue of trachyte flow extends for 60cm around 465.80m.
489.85	489.95	Fault Zone - The fault consists of 9cm of crushed and altered tuff which leads into a 1cm zone of gouge and fine slivers that cut the core @ 80 DTCA.
489.95	535.10	PORPHYRITIC SYENITE The syenite porphyry begins immediately below the fault described above but on what seems to be a natural contact @ about 65 DTCA. At first glance, this seems to be a misnomer since there is no obvious porphyritic texture, but, the presence of mafic inclusions and ghostly remnants of dull grey, stubby, subhedral feldspar phenocrysts that are visible with a hand lens, suggest that this indeed a Kirkland Lake type syenite porphyry intrusive. The texture has been almost obliterated by fine intragranular microfracturing and pervasive ankerite alteration. An overall light/ medium greyish pink colour is mixed with 10- 20% fine, creamy beige coloured, sericite-ankerite, thready fracture and microfracture fillings. As mentioned, ankerite, which forms most of the veinlet material, replaces calcite as the carbonate mineral within 20cm of the contact. MS values are variable over the upper 10m, generally ranging between 0.26 and 4.50 but ranging as high as 18.8/ 13.9 in a few places. Below, the range becomes more confined to a corridor of 0.20 to 1.48 with concentrations around 0.22, 0.64, 0.96 and 1.33. Mineralization comprises trace scattered fine grains and splashes of py, mainly related to fractures.
493.05	493.08	Fault Zone - Streaks/ shreds of dull yellow sericite and carbonate indicate a weak shear sericite fault @ 70 DTCA.
510.75	510.80	Fault Zone - Here, a low angle chlorite mud slip, that cuts the core @ 20 DTCA, exhibits a footwall that is well crushed with chlorite fractures and moderate bleaching to a grungy pale pink colour.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52306	492.85	493.70	.85	TR	.002	.000	84
52307	510.50	511.15	.65	TR	tr	.000	10
47972	516.85	518.00	1.15	TR	.001	.000	45
52308	518.00	518.75	.75	0.5	.006	.000	218
47973	518.75	519.90	1.15	TR	.004	.000	150
47974	522.75	524.00	1.25	TR	.006	.000	212
47975	524.00	525.15	1.15	TR	.005	.000	156
52309	525.15	526.10	.95	TR	.012	.000	406
52310	526.10	526.75	.65	TR	.003	.000	115
52311	526.75	527.65	.90	TR	.004	.000	123
52312	527.65	528.55	.90	TR	.005	.000	171
47976	528.55	529.75	1.20	TR	.004	.000	144

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
518.40	518.41	Pyritic Silicified Zone - A 1cm quartz ankerite vein that is rimmed with massive lenses of py crystals, cuts the core @ 50 DTCA.								
526.10	528.55	Greywacke - The main body of the syenite ends on a series of chlorite fractures accompanied by fairly strong crushing @ 50 DTCA. Below, the host, although intensely altered and deformed by a strong fault, becomes fine grained, granular textured with tendencies towards a gritty grain size and scattered pebbles, suggesting a wacke protolith. In the upper section, which is more strongly affected by the fault (see below), the colour is olive yellow and pinkish tan coloured reflecting strong sericitization and moderate hematization around the fault while the lower portion is a swirly mix of dull green grey to pinkish grey sericite and carbonate alteration. MS values are tightly constrained to a range between 0.37- 0.41. The gashy carbonate streaks associated with the fault as well as the swirly and thready veinlets and fractures through the lower section are all ankeritic in composition while mineralization comprises trace to slightly anomalous fine disseminated py and cp. The trailing contact falls on a tight chlorite slip @ 26 DTCA.								
526.10	526.70	Fault Zone - The fault zone actually begins with the fracture zone that forms the lower contact of the porphyry. It then rolls into a 20cm sericitic shear zone with a few lenses of pinkish altered sediment that cut the core @ a steep angle (about 80 DTCA) and a diagonal wedge of black hematite breccia @ 65/ 30 DTCA. Next, is a 12cm pinkish altered section which surrounds a 4.5cm central carbonate- hematite breccia fault zone with a strong footwall, black hematite slip (2-3mm) @ 40 DTCA. The remainder of the structure comprises creamy beige to pale green altered wacke with dull grey and creamy pink coloured quartz carbonate stringers and silicification to 1cm and fine thready/ hairline sericite shears, all trending @ 35-45 DTCA. As mentioned, mineralization is trace to slightly anomalous.								
528.55	535.10	Syenite - The syenite here, similar to that above because it also lacks an obvious porphyritic texture, is medium pink to orange pink coloured and medium grained, however, there are no feldspar phenocrysts visible with a lens. The medium grained texture is partly the result of fine microfracturing and invasion of ankerite into the fractures. Another similarity is the presence of well altered mafic inclusions which is generally diagnostic of the Kirkland Lake syenite porphyries. MS values begin low, at 0.29, then rise to 0.63 before dropping back down to 0.31 and then rising again around 532.50m to end at 2.73; sulphides are trace. The lower contact is partly lost in splintered core but may trend @ 45 DTCA.								

From (m.)	To (m.)	Geology
535.10	614.14	GREYWACKE ARKOSE

The hole now traverses a thick, massive, granular textured, fine to medium grained, medium yellowish grey coloured sequence of a non typical wacke that contains thick gritty pebbly sections. With a hand lens, the wacke appears to comprise subrounded, millimetric, glassy looking grains, mainly in various shades of light grey (with minor darker greys and some pink) and those of felsitic origin, that maintain an intact framework (clast supported) and that are cemented with carbonate. There is an overall grain gradation with fine to very fine grained sections occuring in the upper section to 545.60m and the medium grained to gritty/ pebbly sections, below. Most of the larger clasts are very fine grained/ aphanitic, cherty looking, and variably coloured from dark to light grey to creamy to medium pink/ beige. Several syenite dikes, which are detailed separately below, cut the wacke.

The entire sequence is cut by a miriad of fine thready fracture and vein types including dull grey to yellow grey ankerite veinlets that constitute about 5% of the host, mainly above 557.00m, 1%, to 1cm, dull grey quartz stringers concentrated around 544.45m, and minor clusters of black chlorite and hematite, and, yellow sericite veinlets. These are above and beyond the pervasive ankerite matrix of the sediment and the fine zones of microfracturing. The magnetics of the hole are highly variable, but generally elevated and undulating within a range of 2.00 to 20.0. Mineralization consists of trace to slightly anomalous fine specks and slivers of py and cp, generally associated with the carbonate veinlets. In scratching the wacke, it was found to be moderately hard and that small black specks in the matrix smeared with a reddish/ maroon streak indicating that they were hematitic.

541.60 542.25 Syenite - Through well defined, embayed/ serated bounding contacts @ about 35 DTCA, the wacke is intruded by a syenite dike similar to that described above at 528.55m. It is medium textured, massive, and medium pink coloured. MS values range from 11.7 to 25.3. The syenite host is finely fractured/ microfractured and weakly ankeritized ans sericitized. It is also cut by 0.5cm, x- shaped, dull blue grey quartz stringers at 541.90m and weakly mineralized with up to 0.5% fine grains and splashes of py and cp.

549.05 551.50 Porphyritic Syenite - Another syenite dike, this one porphyritic, cuts the sedimentary package here with a chlorite slip @ 40 DTCA as a leading contact and a subtle/ indistinct, natural trailing contact @ about 30 DTCA. The dull grey/ pink grey, millimetric, subhedral feldspar phenocrysts are best viewed with the aid of a hand lens through most of the interval, although they seem to disappear over the trailing 40cm. Otherwise, the dike is medium greyish pink/ orange coloured, medium grained/ textured and massive. It too, is cut by grey quartz stringers and patches along the core axis in

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
47977	535.70	537.00	1.30	TR	.006	.000	195
47978	537.00	538.25	1.25	TR	.005	.000	165
52313	538.25	539.40	1.15	TR	.004	.000	134
52314	539.40	540.50	1.10	TR	.004	.000	144
52315	540.50	541.55	1.05	TR	.007	.000	233
52316	541.55	542.40	.85	TR	.008	.000	273
52317	542.40	543.65	1.25	TR	.004	.000	127
47979	543.65	545.00	1.35	TR	.000	.000	nil
47980	545.00	545.90	.90	TR	.005	.000	175
52318	550.00	551.00	1.00	TR	.003	.000	86
52319	551.00	552.20	1.20	TR	.002	.000	72
52320	559.90	561.20	1.30	TR	.005	.000	178
52321	561.20	562.00	.80	TR	.004	.000	153
52322	562.00	563.00	1.00	TR	.001	.000	34
52323	563.00	564.15	1.15	TR	.002	.000	57
52324	564.15	564.75	.60	TR	.005	.000	165
52325	564.75	565.55	.80	TR	.001	.000	17
52326	601.05	602.00	.95	TR	.002	.000	71
52327	602.00	603.50	1.50	TR	.002	.000	82
52328	603.50	605.00	1.50	TR	.001	.000	43

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

the middle of the dike while the sulphide content is trace. MS values range from 2.82 in the quartz stringer zone to a high of 21.1 although the average is approximately 13.0.

561.42 561.45 Quartz-Carbonate Vein Zone - This is a 2cm ankerite breccia vein @ 28 DTCA which is characterized by angular pinkish altered wall rock fragments in an ankerite (+ quartz?) matrix. There is no significant alteration or mineralization in the walls or vein.

564.45 564.55 Fault Zone - Here, the fault comprises two equal sections, the upper, a pale salmon pink, porcelainic ankerite plug with a sericitic shear and late calcitic fracture, and, the lower, a zone of chloritic crushing and yellow sericite and black chlorite- hematite shearing. Both trend @ 70 DTCA and are not significantly mineralized. Moderate alteration of the walls to a pale pink to tan colour over 1.5m up and 0.6m down hole is confirmed by the MS values which drop to below 2.00 through this section.

570.00 570.40 Fault Zone - The actual fault occurs at the end of the interval in the form of two parallel chlorite slips @ 35 DTCA, however, they have caused a part in situ, and part matrix rich (chloritic) breccia texture up hole to the start of the interval. There is no other alteration and no sulphides associated with this structure.

571.10 572.85 Porphyritic Syenite - The interval is composed of two similar porphyry dikes (0.30 & 1.05m) with irregular, somewhat nebulous, natural intrusive contacts @ 65/ 20 and 30/ 55 DTCA that are separated by a 45cm section of wacke. Typically, they are massive, medium grey pink/ maroon coloured and medium textured with faintly visible subhedral feldspar phenos. Susceptibilities cluster around 10.0 but drop as low as 1.48 locally; mineralization is trace.

584.20 589.85 Porphyritic Syenite - This is a major porphyry dike that is similar to most of those above, massive, medium grey brown (orange/ pink) coloured, and medium grained/ textured with 20%, visible, sub- euhedral, dull grey to orange, 1-4mm, feldspar phenocrysts. It is weakly to, locally, moderately fractured and microfractured with hematitic and ankeritic alteration and fracture fillings. MS values are variable with initial values of 6.67, dropping to 3.00 for several metres and between 1.00 and 2.00 through the lower middle section before ending up around 2.00/ 4.50. The leading contact is poorly defined, but natural at about 15 DTCA while the trailing contact is similarly weak @ 40 DTCA. Up hole from the dike, the sediments are relatively intact and fresh compaared with those below which are moderately well altered to a grungy yellowish to tan/ brownish grey green colour and fractured

From (m.)	To (m.)	Geology
		with spidery to whispy dark green grey chlorite- hematite fillings.
601.07	605.00	Conglomerate Debris Flow - As with the wacke, this is not a typical conglomerate as neither contains jasper grains although there is a relatively polymict collection of clasts of dull pastel colourations with some darker toned ones. They tend to be fine grained to aphanitic, earthy to siliceous (very hard) in texture, subrounded and relatively tightly packed into a clast supported framework although with the moderate degree of alteration and fracturing, clast boundaries are sometimes difficult to establish. MS values are highly variable within a range of 2.63- 23.0. The matrix continues to be pervasively ankeritic as are the fractures, although some fine late fractures may be calcitic. Mineralization consists mainly of fine grains and splashes of cp in the various fractures.
605.00	614.14	Greywacke Argillite - The fine grained exotic wacke continues to the end of the interval. It is generally very fine grained with few gritty or pebbly sections, medium/ light blue grey coloured, massive/ homogenous with a weakly pervasively ankeritic matrix. The fine fracturing and microfracturing decrease rapidly down hole with creamy white carbonate fillings forming approximately 0.5% of the host. Except for an isolated trough of 0.93 at 608.80m, susceptibilities fall into two populations clustered between 4.00- 7.00 and 15.00- 18.00. Mineralization remains trace.
614.14	641.35	PORPHYRITIC SYENITE
		The leading contact is natural intrusive (irregular @ 15 DTCA) but indistinct in places because of the similarity in the colours and grain size to the wacke. Overall, however, the main body of the porphyry is massive, medium grained, homogenous, medium greyish brown/ pink coloured, and distinctly porphyritic with two feldspar populations forming a bimodal texture. Phenocrysts range from well formed and visible (megascopically) to weak/ faint where masked by moderate degrees of fine fracturing, microfracturing, veining and alteration. In the finer grouping, the sizes of the feldspar phenocrysts range from 1-4mm while those in the coarser fraction grade up to 10mm. Both fractions are sub- euhedral shaped, tabular to stubby, (may be) partly zoned, and dull white/ grey coloured where relatively fresh grading to dark brick red where strongly hematized. It is the moderately well altered (hematized) groundmass that imparts the overall reddish/ brownish colouration to the host.
		Veining in the porphyry comprises about 2% fine spidery, dull grey carbonate veinlets asssociated with the random fracturing along with 1-2% blue grey glassy quartz patches and wormy stringers that track at various angles to the core axis. Sulphides, fine specks and splashes of cp and py, are found

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52329	615.70	616.70	1.00	TR	.002	.000	74
52330	621.50	622.65	1.15	TR	.003	.000	91
52331	626.90	627.75	.85	TR	.004	.000	142
52332	627.75	629.00	1.25	TR	.002	.000	55
52333	633.55	635.00	1.45	TR	.002	.000	57
52334	635.00	636.20	1.20	TR	.001	.000	27
52335	636.20	637.10	.90	TR	.000	.000	nil
52336	637.10	638.00	.90	TR	.001	.000	38
52337	638.00	639.20	1.20	TR	.002	.000	57
52338	639.20	640.20	1.00	0.5	.003	.000	108
52339	640.20	641.35	1.15	0.5	.005	.000	161

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		in trace amounts in fractures throughout the interval but are slightly more common near the quartz vein zones centred at 616.15, 621.85, 627.30m, 635.00 and 640.30m. The carbonate composition of the veinlets, and that which weakly pervades the matrix is ankeritic in composition. Magnetic values undulate gently between lows of 0.28, in the strongest altered sections, and highs of 1.80 with the odd value to 6.44 in some of the least altered or deformed parts of the porphyry. Sampling reflects sections of anomalous quartz veining and/or mineralization.								
		636.10 636.18 Fault Zone - The fault comprises two parallel bounding chlorite carbonate crush slips @ 20 DTCA. The zone between is laced with dull white ankerite along with minor chlorite and 1% cp. There is very little alteration, veining or mineralization outside (in the walls of) the structure.								
		639.20 641.00 Quartz Vein Zone - Veining here, amounts to approximately 12% medium to dark grey wormy, 3-7mm quartz stringers that generally cut the core @ 40 DTCA or in branching stringers at lower angles. Associated with these stringers are 0.5% fine cp grains, splashes and trains.								
641.35	657.20	GREYWACKE								
			52340	641.35	642.50	1.15	TR	.001	.000	38
			52341	642.50	644.00	1.50	TR	.001	.000	36
			52342	644.00	644.85	.85	TR	.001	.000	33
			52343	644.85	645.75	.90	TR	.002	.000	57
			52344	645.75	647.00	1.25	0.5	.002	.000	70
			52345	647.00	648.50	1.50	TR	.001	.000	41
		The leading contact between the dike and sediment is sharp, intrusive, wavey to serated @ 30 DTCA but does not appear to have contact metamorphosed the wacke. Generally, the host wacke is fine grained to gritty, massive, pale yellowish blue mottled, and granular textured with scattered pebbles and an apparent grain (clast) supported framework that is cemented with carbonate. It is the combination of a weak to moderate, pervasive ankerite alteration and bleaching along very fine microfracture and fine spidery fracture zones that creates the lighter creamy yellow/ buff mottled areas. These fine fractures, which may be filled with dull white ankerite, dark green black chlorite, dull grey quartz or any combination of the above, amount to 5% of the core, with individual veinlets generally averaging less than 1cm. Staining indicates that ankerite is the dominant carbonate mineral and quartz veining constitutes approximately 0.5% of the veinlets, concentrated mainly around 546.50m. Sulphides consist of grains, spalshes and fine slivers of py and cp, trace overall, that may range up to 2% over 10- 20cm, mainly in the fracture zones. Magnetic susceptibilities are highly variable ranging between 0.89 and 30.6 with most values contained within a range of 4.00 to 17.0.								
657.20	730.25	CONGLOMERATE								
			52346	675.50	676.40	.90	TR	.002	.000	69
			47981	726.65	727.85	1.20	TR	.002	.000	66
			47982	727.85	728.95	1.10	TR	.001	.000	21
			52347	728.95	729.90	.95	TR	.034	.000	1173
			47983	729.90	730.25	.35	TR	.000	.000	nil
		The upper contact of the conglomerate was arbitrarily taken at the point where pebbles start to predominate over matrix material. Fracturing and microfracturing continue to cause the mottled colouration between pale grey blue and greyish beige/ yellow, to medium blue grey, and the fine spidery dull grey carbonate veinlets. In addition, there is a brittle late fine								

From (m.)	To (m.)	Geology

fracturing that is ubiquitous to the conglomerate resulting in pitted/ incised fracture sets. Overall, the conglomerate consists of polymict clasts to 8cm that occur in lenses which are clast supported with some wacke matrix material and separated by thick wacke lenses. Very few jasper pebbles were noted while sand sized grains appear to be absent.

Ankerite is the main carbonate mineral at the start although some fractures were calcitic. At about 673.10m, however, there is a gradual change whereby all fractures and veinlets become calcitic and the matrix migrates back and forth between very weak pervasive ankerite and calcite with calcitic zones more prominent. Despite the moderate amount of fracturing and microfracturing, there are no major fault structures to account for the pervasive degree of deformation or alteration. Mineralization is nil to trace, comprising widely scattered fine py and cp grains or small clusters up to 0.5% over a few cm, generally associated with the fractures. MS values, although highly variable, begin in a relatively low range of 1.00-17.0 to 678.00m and then climb to a higher range of 13.0 to 47.0 with a spike to 83.8 at 699.80m.

675.95 676.10 Fault Zone Carbonated Zone - As the coding implies, this is a shear calcite fault @ 30 DTCA composed of vuggy pink calcite containing slivers/ lenses of dull grey quartz, green chlorite and dull white carbonate. The walls are weakly altered with flamey dull lime yellow sericite 'flames' but no anomalous sulphides.

724.85 728.00 Conglomerate - Here, the conglomerate becomes dark grey, almost black, coloured, the darker shade overprinting both the wacke matrix and the pebbles. Contacts are gradational over 10cm or so but there is no obvious reason for the colouration.

729.84 729.86 Fault Zone - The interval focusses on a 2cm wide, grungy light pink crush calcite alteration vein @ 85 DTCA that has altered (sericitized/ bleached the walls for approximately 80cm up hole and 5cm down. Portions of the walls are mineralized with 4% fine py over 5cm or so.

730.25 752.92 PORPHYRITIC SYENITE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
47984	730.25	731.50	1.25	TR	.000	.000	nil

Both the leading and trailing contacts of the porphyry are sharp, falling on chlorite slips @ 20/ 30 DTCA. The interval actually includes two sections of dike separated by a thin lens of conglomerate between 741.63 and 743.80m. Internal contacts with the conglomerate are also sharp, the upper one along a 5cm dull greyish yellow shear zone @ 60 DTCA while the lower contact is sharp, natural, scalloped @ 45 DTCA. The two sections of syenite porphyry are essentially the same in composition, medium grained/ textured, massive, homogenous, medium greyish pink coloured with faint, 2-5mm, subhedral, dull grey to pink feldspar phenocrysts and 1% mafic zenoliths, while structurally, they differ. The upper unit has been well microfractured which has destroyed the primary textures in places while the lower unit is only

From (m.)	To (m.)	Geology
		weaklky fractured. In both intrusives, as well as in the intervening conglomerate, the fractures and portions of the matrix are calcitic. Mineralization is restricted to trace local py grains in the fractures. Magnetic susceptibilities in the both porphyries range between 0.55 and 6.80, averaging about 3.30, whereas the intermediate conglomerate is much higher at 12.3- 20.0.
752.92	783.00	CONGLOMERATE
		The hole now reenters the typical Timiskaming conglomerate below the dike. As before, it is polymict, clast supported with a wacke matrix and lenses and is mottled a grungy, dull medium grey, to greenish grey, to pinkish grey colour depending on the degree of fine microfracturing and resulting alteration/ bleaching. This also affects the MS values which range up to 19.0 in fresher sections but decrease to around 2.50 in more altered zones to about 760.00m. Below, the conglomerate becomes much fresher and the MS values climb into a higher range of 20.0- 53.5, averaging about 28.0. Mineralization is trace and calcite remains the dominant carbonate mineral in fractures, veinlets and the matrix.
		754.07 754.09 Fault Zone - This is a weak, 1cm thick, pink calcite crush vein @ 25 DTCA with minor chloritic crushing/ fracturing in the walls but no associated mineralization.
		781.55 783.00 Contact Zone - There is a sudden change in the character of the conglomerate approaching the lower contact with the following porphyry. It becomes progressively more altered as evidenced by the decrease in the magnetic susceptibility from values as high as 48.3 through 7.00 to 0.74 near the end along with a change in colour whereby it lightens to a spotty/ mottled light greyish yellow to light orange. The changes begin at a leading 0.5cm, shear, chlorite- carbonate fault @ 25 DTCA which has strongly fractured (chloritic) the interval and sericitized and carbonatized the matrix. Mineralization increases to approximately 0.5% as fine py grains and aggregates concentrated mainly in the fractures; calcite remains the dominant carbonate mineral. The actual contact with the porphyry follows along the core axis over the trailing metre.
783.00	797.00	PORPHYRITIC SYENITE
		As mentioned, the leading contact falls along the core axis over about 60cm, and, the trailing contact is similar, trending along, or at a low angle to the core axis over about 75cm. The host porphyry is fairly typical of the Kirkland Lake type, medium grained, massive, medium greyish pink coloured, with 15-20% faint to well defined dull grey/ pink, 2-5mm, feldspar phenocrysts in a fine grained feldspathic groundmass containing 10% fine altered, (sericite and carbonate) ferromagnesian needles and laths as well

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52348	781.45	782.60	1.15	TR	.001	.000	33
47985	784.70	785.95	1.25	TR	.000	.000	nil
52349	785.95	786.95	1.00	TR	.003	.000	105
47986	786.95	788.00	1.05	TR	.002	.000	77
47987	788.00	788.85	.85	TR	.002	.000	81
52350	788.85	790.15	1.30	TR	.014	.000	479
47988	790.15	791.00	.85	TR	.006	.000	211
47989	791.00	792.10	1.10	TR	.008	.000	285
47990	792.10	793.35	1.25	TR	.002	.000	77

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		as 3% mafic xenoliths. Most of the dike is moderately fractured to microfractured resulting in lighter pinkish grey and orange coloured areas where the textures are partially destroyed and MS values drop below 1.00. In fresher sections, the colour is darker pink grey, the porphyritic texture is better preserved, and MS values rise as high as 8.67. The more strongly altered areas contain slightly anomalous py (and cp) concentrations which are reflected in the sampling. Both the leading and trailing contact areas along the flat slips are broken up into small chips and fragments.	52351	793.35	794.15	.80	TR	.001	.000	335
			47991	794.15	795.35	1.20	TR	.008	.000	279
			47992	795.35	796.65	1.30	TR	.001	.000	48
797.00	822.50	CONGLOMERATE								
		The hole now returns to the conglomerate unit as described previously, however, here it appears fresher, dark green grey coloured overall with only minor (0.5%) fine calcitic fractures and generally higher magnetic susceptibilities, commonly above 40.0 and 50.0. As before, it is polymict, although no jasper pebbles or grains were observed, with an intact framework (clast supported) and cobbles to 15cm, and a fine grained wacke matrix and lenses. With the decrease in alteration, the sulphide content drops to nil to trace.									
822.50	976.20	TRACHYTE TUFF GREYWACKE								
			52352	936.10	937.10	1.00	TR	.003	.000	91
		There is a general transformation from a clast dominated unit to a more finely granular protolith that contains local gritty sections (1-5mm) and the odd scattered pebble and pebbly lens. At the same point, the colour becomes dark grey with green, blue and brownish tints and the magnetics rocket to as high as 139.0, averaging about 85.0. These changes imply a change from an overall sedimentary environment to a primarily trachytic fine tuffaceous sequence with local sedimentary components. The clasts through this interval are rounded but are mainly shades of light to medium beige and pink/ orange although, particularly near the start, there are a large number of dark brick red trains of gritty to pea sized clasts and ribbons. In places, they appear primary, while in others, it appears to constitute selective replacement or alteration of the clasts and matrix.									
		The tuff is weakly veined with epidote- calcite- chlorite altered fractures and veinlets amounting to about 1-2%. Some walls of the fractures are orange altered (hematized) over 2- 10cm. As mentioned, MS values commonly climb over 100.0 averaging approximately 85.0 within an overall range of 35.0-139.0. Calcite remains the dominant carbonate mineral and mineralization consists of trace py and cp, mainly associated with the fractures and weak alteration halos.									
		838.53 838.56 Fault Zone - This structure comprises a 2-3cm pink calcite vein lined with chlorite and grungy dull grey quartz and calcite @ 35 DTCA. The hanging wall is weakly bleached over 5cm while an opposing chlorite mud conjugate slip, also @ 35 DTCA occurs 25cm down hole.									

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

848.95 849.44 Trachyte - This interval represents either a very large clast, a tongue, or bomb of fine pseudoleucite porphyry. Contacts are subtle, but sharp @ 75 (irregular) & 30 DTCA, enclosing this dark greyish brown/ maroon, medium grained/ textured, massive section which comprises 40% fine, euhedral, dark reddish coloured, 2-5mm, pseudoleucite(?) phenocrysts in a fine grained, medium grey groundmass. MS values drop to a low range of 5.00.

850.00 864.50 Trachyte Tuff - The main unit continues here but the colour lightens to a medium grey with bluish and greenish tinges indicating that the degree of alteration has increased slightly. Correspondingly, susceptibilities decrease to a lower range of 19.5- 79.6 with a mean of approximately 45.0. The tuffwacke is fine to very fine grained with gritty sections and scattered large clasts, some of which are coarsely porphyritic but whose contacts blend into the matrix.

864.50 885.35 Trachyte Tuff - Below 854.50m, the MS values again migrate into a higher range of 42.7- 103.0 (mean about 65.0) in conjunction with a darkening of the colour. Here, the trachyte tuff becomes fine to very fine grained, massive, homogenous with only rare scattered large cobbles or bombs. There are less than 0.5% fine white carbonate fractures and veinlets which are calcitic while sulphides are nil to trace.

885.35 890.00 Trachyte Tuff - The end of the magnetically high zone was taken at a banded contact @ 65 DTCA at which the colour again lightens slightly to medium/ dark greenish to bluish grey and the susceptibilities decline to a lower range below 50.0. The bands represent bedding planes in the tuff and mark the transition into a phase which includes gritty lenses, fine to very finely (weakly/ faintly) bedded sections @ about 65 DTCA, and, an increase in fracturing and alteration.

890.00 924.20 Trachyte Tuff - Another change into a higher range between 31.5 and 63.7 with an average of approximately 50.0, is marked by a change in the colour and fabric. Overall, the colour is medium to dark greenish grey with increasing proportions that are orange brown coloured around zones of fine calcitic fracturing. The tuff remains generally fine grained but now contains thick sections that are gritty and medium textured, resembling fine augite syenite but of a granular nature, perhaps a welded tuff. It appears that many of the clasts in the 2-6mm range represent eroded crystals. There was also a 2cm bedded cherty band noted at 895.80m @ 55 DTCA. The matrix is weakly pervasively calcitic while all fractures and veinlets are composed of dull grey to pink, sometimes vuggy/ porous calcite. Mineralization consists of trace fine py and cp. By about 901.50m, the matrix becomes moderately pervasively calcitic as the fine fracturing/ microfracturing,

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

and orange/ brownish alteration, become more prominent. These fine structures appear to end at the lower contact of an irregular orange alteration front on a clast at 924.20m.

908.10 909.20 Trachyte Cherty Sediments - The interval is distinguished by a very fine grain size, dark greyish orange colouration, granular texture, and a relatively massive nature that is punctuated by a leading sharp bedding(?) contact @ 45 DTCA and a second similar internal contact at 908.81m at 35 DTCA. These grade into slightly coarser fractions suggesting this section is weakly graded with tops up hole.

924.20 976.20 Trachyte Tuff - Below the microfractured zone, the tuff again becomes fine to very grained, massive with local aphanitic/ cherty bands @ 75- 80 DTCA (943.30, 944.55m) and dark grey to brown grey coloured. Susceptibilities, again, rise into a higher range between 56.5 and 94.5, averaging approximately 70.0, with lower values in the 40.0's in weakly microfractured or altered sections, to as low as 5.00/11.1 in a strongly altered and crushed zone at 936.10- 937.10m. In places, the tuff is cut by up to 4% pale pink to dull white/ grey, vuggy calcite stringers to 0.5cm over 3m, but the average is 0.5% overall while the matrix is weakly pervasively calcitic locally also.

941.88 942.90 Porphyritic Syenite - A narrow typical feldspar porphyry dike cuts the tuff with sharp irregular contacts at a high angle to the core axis that are difficult to distinguish because it has altered the walls to a similar colour. Overall, it is medium/ dark brownish grey coloured, massive, and medium grained comprising 2-5mm, subhedral, tabular, dull pink feldspar phenocrysts in a fine grained, brownish grey groundmass.

942.90 976.20 Trachyte Tuff - The trachyte tuff continues below the dike, generally as previously described, fine to very fine grained with local fine fragmental horizons, some consisting of eroded crystals, as well as fine cherty lenses as at 969.00m where the bedding was measured @ 73 DTCA.

963.00 963.50 Fault Zone - Here, the tuff is is cut by a low angle (14 DTCA) chlorite- hematite fracture centred on a nest of accompanying crushing and medium pink- beige pink alteration. Mineralization is slightly anomalous within the fracture zone and MS values dip as low as 2.00.

976.20 980.00 PORPHYRITIC SYENITE

The leading contact of the porphyry is fairly well defined (but not sharp) and highly embayed @ about 25 DTCA with a few inclusions/ ribbons of host tuff incorporated into the upper 40cm. Typically, it is medium grungy,

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

pinkish grey coloured, massive, medium grained/ textured with 20%, 2-4mm, subhedral, dull grey to pale pink/ orange feldspar phenocrysts in a fine grained medium orange/ orange grey groundmass dotted with 15% millimetric ferromagnesians and 3% fine mafic inclusions. The host is laced with fine chloritic fractures and 4% fine dull grey calcite veinlets and fractures. Mineralization is trace; MS values begin at 26.5 and gradually decrease to 15.0 by the end.

980.00 End of hole - The hole ends in porphyry as described.

QUEENSTON MINING INC

DIAMOND DRILL HOLE RECORD

2.33536

Drill Hole: AK-05-10

Property: AMALGAMATED KIRKLAND- Leased CLM 328 (UTM: 569710E/ 5330628N)
Northing: 10030.00
Easting: 7500.00
Elevation: 332.00

Collar Azimuth (Grid) 342.00
Collar Dip: -75.00
(0 Degrees Grid equals 341 degrees True)
Hole Length: 1117.00

Date Printed: 25 Apr, 2006

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
12.0		-75.0	600.0	331.0	-68.3
62.0	342.5	-75.4	660.0	332.1	-67.7
122.0	341.8	-74.8	722.0	331.3	-66.4
182.0	338.9	-73.8	780.0	332.4	-66.4
239.0	335.4	-72.8	839.0	330.8	-66.4
299.0	334.0	-72.0	900.0	331.5	-66.0
362.0	332.9	-71.0	960.0	331.5	-65.6
420.0	331.8	-70.3	1022.0	330.0	-64.5
480.0	331.5	-69.5	1080.0	329.9	-63.7
540.0	333.1	-68.9			

Date Started: April 25, 2005
Date Completed: May 27, 2005

Drilled by: H & S
Core Size: NQ
Material left in hole NX CAS left in hole
Core Location: Upper Canada Site 1
Logged by: FR Plogger

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

SUMMARY LOG

.00	3.00	OVERBURDEN
3.00	20.70	CONGLOMERATE
20.70	58.00	GREYWACKE CONGLOMERATE
58.00	86.10	CONGLOMERATE GREYWACKE
86.10	101.25	TRACHYTE TUFF GREYWACKE
101.25	125.50	TRACHYTE LAPILLI TUFF GREYWACKE
125.50	170.10	TRACHYTE LAPILLI TUFF
170.10	215.45	TRACHYTE TUFF GREYWACKE
215.45	261.37	GREYWACKE
261.37	539.50	CONGLOMERATE
539.50	591.46	DIABASE
591.46	615.35	GREYWACKE
615.35	654.90	CONGLOMERATE
654.90	674.00	TRACHYTE TUFF GREYWACKE
674.00	702.10	GREYWACKE

From (m.)	To (m.)	Geology
702.10	931.60	CONGLOMERATE
931.60	995.60	GREYWACKE
995.80	1117.00	CONGLOMERATE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
45648.00	989.75	990.95	trace	trace	0	11.	

From (m.)	To (m.)	Geology
.00	3.00	OVERBURDEN The hole is collared opposite (north of) the old road to the Kirkland Gateway (Florena) shaft site.
3.00	20.70	CONGLOMERATE The upper section of the hole comprises densely packed, intact framework (clast supported) conglomerate that has a bland appearance compared with the typical conglomerates of the area. The composition of most clasts is characterized by: a fine internal grain size with only local porphyritic pebbles (5%); a dominantly trachytic provenance suggested by 75% dull/ grungy to medium brown/ red/ orange shades; minor mafic volcanic and sedimentary components (20%) represented by clasts that are coloured various shades of dull to dark grey to greenish grey and only rare small jasper chips (<0.7cm); and, subrounded to rounded and spherical to ovoid shapes. There is very little greywacke matrix material; smaller pebbles generally fill the voids between larger cobbles with the clast size ranging from a few millimeters to 25cm. The overall colour of the conglomerate despite the abundant clasts, is medium/ dark greenish to brownish grey. The dark colour probably results from moderate chlorite alteration of the matrix. Testing of the host with hydrochloric acid (HCl) and potassium ferricyanide solution (KFeCy) reveals that in the upper section from the start to about 14m, the matrix is pervasively calcitic, while below, it stains blue with the KFeCy indicating that it becomes ankeritic. Likewise, the few scattered pale pink carbonate veinlets and gashes (<<0.5%) are calcitic above 14m, but they become ankeritic below and increase to 5% of the host. From 16.00m to the end, there are several slips and fractures that are moderately oxidized due to groundwater percolation. Absolute measurements with a magnetic susceptibility (MS) meter generally range between 7.50 and 13.5 in the weakly altered sections, reflecting the variable compositions of the clasts, while the MS values of individual larger cobbles were 2.19/ 3.26 and 25.9/ 36.2. It was found that as the degree of alteration increased down hole, the average susceptibility decreased. Mineralization, overall, is nil to trace, consisting mainly of isolated grains of pyrite (py). 20.65 20.70 Fault Zone - Ending the conglomerate is a 2.5cm wide chlorite-sericite shear fault that cuts the core @ 30- 35 DTCA and may be the reason for the change to ankerite. It is preceded by a 0.5m zone of weak carbonate veining and weak shearing that appears to be conjugate or orthoganal (@ 65 DTCA) to the fault.
20.70	58.00	GREYWACKE CONGLOMERATE Beginning at the fault, there is a sudden change to a wacke dominated host that contains local scattered small clasts and pebbly zones. The oxidation

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52501	17.95	19.35	1.40	TR	tr	.000	7
52502	19.35	20.70	1.35	TR	.001	.000	22
52503	20.70	21.55	.85	TR	.001	.000	17
52504	21.55	22.70	1.15	TR	tr	.000	7
52505	22.70	23.60	.90	0.5	tr	.000	9

From (m.)	To (m.)	Geology

of slips and fractures, and their walls, continues fairly strongly in this unit to about 28.50m. There is an overall increase in the degree of alteration that is reflected in the colours of the matrix which grade back and forth between light to medium shades of greenish grey and greyish orange/ pink. Generally, the wacke is fine grained, massive with rare indications of bedding @ 35 DTCA defined by magnetite trains (42.60m) or by imbrication of flat clasts in the pebbley lenses. Because the clasts are also altered to colours similar to the matrix, it is difficult to estimate the actual percentage of pebbles in the host. The presence of multicoloured clasts, jasper grains, and green carbonate altered pebbles suggest a polymict source of the conglomerate layers. It should be noted that a strongly altered porphyry dike cuts the host from 25.25- 29.26m (see below).

As mentioned, alteration is stronger in the wacke unit. The lime greenish tones that are prominent to about 29.26m, result from fine thready sericite shears and fractures that are probably related to the strong fault near the start (see description below). Pervasive weak hematite alteration is the probable source of the reddish/ orange tinges. Superimosed on these zones is 6% fine thready, gashy, shreddy and fracture related dull white ankerite veining while staining with KFeCy reveals that the matrix is pervasively invaded by ankerite as well. As expected, MS values decrease to a low range of 0.13- 0.23 in the most strongly altered and deformed corridor around the fault to about 27.80m, increasing gradually down hole through a zone of 0.20 to 2.00 to 39.25m, and then 4.23- 10.5 to 45.00m, before climbing to as high as 20.2 at 45.20m. Despite the intensity of the alteration, particularly near the start, the sulphide content becomes only slightly anomalous (to 0.5%) near the fault zone while remaining nil to trace throughout the rest of the interval except as noted.

22.70 23.60 Fault Zone - This fault, which seems to represent the focus of the sericite alteration and fracturing, is centred on a 4cm wide, laminated, carbonate- chlorite- quartz- sericite zone at 23.09m that intersects the core @ 50 DTCA. The remainder of the fault zone comprises greyish olive green, sericitized, sheared wacke at a similar attitude (45- 50 DTCA) to the central structure. More erratic and weaker shearing continue up and down hole for another metre or so. Fine dusty py is concentrated up to 0.5% over 10- 20cm in the walls of the fault but is trace to slightly anomalous beyond. A splash of chalcopyrite (cp) was noted in the carbonate of the fault.

25.25 29.26 Porphyritic Syenite - Because it is so strongly altered and intensely microfractured, most of the primary texture of the host has been wiped out. There are, however, a few windows that have preserved some of the typical features of the syenite porphyry such as mafic inclusions/ xenoliths (28.10m) and very faint feldspar phenocrysts (26.15m). Otherwise the host could be termed a felsite. The fine microfractures are filled with a mix of nests of fine thready/ hairline sericite and ankerite, which combined, constitutes 30% of the intrusive. There are several 15- 35cm sections of oxidized core through the interval centred

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52506	23.60	24.55	.95	TR	tr	.000	3
52507	24.55	25.30	.75	TR	tr	.000	5
52508	25.30	26.45	1.15	TR	.000	.000	nil
52509	26.45	27.90	1.45	TR	.000	.000	nil
52510	27.90	29.25	1.35	TR	.000	.000	nil
52511	29.25	30.50	1.25	TR	.000	.000	nil
52512	30.50	32.00	1.50	TR	.000	.000	nil
52513	32.00	32.90	.90	TR	tr	.000	9
52514	32.90	33.30	.40	TR	tr	.000	5
52515	33.30	34.25	.95	TR	.001	.000	21
52516	34.25	35.40	1.15	TR	.001	.000	19
52517	35.40	36.10	.70	TR	tr	.000	3
52518	36.10	37.20	1.10	TR	.000	.000	nil
52519	37.20	38.30	1.10	TR	.007	.000	238
52520	50.25	51.45	1.20	TR	tr	.000	2
52521	54.15	54.65	.50	TR	.000	.000	nil

From (m.)	To (m.)	Geology
		on slips/ fractures or weak faults such as a sericite- chlorite fault @ 30 DTCA at 27.90m. Sulphides, fine grains and splashes of py and cp, occur in trace to anomalous (<0.5%) amounts in the fractures. Both contacts are sharp, the leading one natural, intrusive @ 32 DTCA, and, the trailing contact, on a weak chlorite- sericite fault @ 47 DTCA.
		33.04 33.06 Fault Zone - Another chlorite- sericite shear fault cuts the core here 25 DTCA. The immediate footwall is mineralized with 3% fine py over 10cm.
		35.50 35.70 Carbonated Zone - An odd, 1-2cm, creamy white ankerite vein cuts the core and then follows it for 20cm before splaying into several thready zones. It is unusually lined with fine black needles of tourmaline(?) or possibly chlorite.
		38.20 38.21 Fault Zone - A 0.8cm chlorite carbonate wafer with several carbonate patches/ veins/ gashes cuts the core @ 45 DTCA. This feature seems to mark a subtle change to less altered and deformed pebbly wacke.
		45.00 46.50 Greywacke - The jump to a higher range of the magnetics from values of 15.2 to 20.2 is caused by trains and fine lenses of magnetite grains that highlight bedding planes @ 35 DTCA.
		49.65 49.75 Broken Blocky Core - The core here is broken into small chips and gouge on a zone of oxidation, probably associated with a fault @ 45 DTCA.
		50.25 51.45 Fault Zone - This entire interval is weakly to strongly deformed/ crushed, strengthening down hole, although there is no well foccused structure. It begins on a chlorite slip @ 60 DTCA with an accompanying 3cm carbonate gash vein/ lens and ends with a grungy light orange to greyish orange zone of crushed host and quartz- carbonate veining and silicification that may be centred on a sericite chlorite slip @ 47 DTCA at 51.30m. The zone contains only trace fine pinpricks of py.
		54.44 54.47 Fault Zone - Here, a 0.4- 1.0cm chlorite carbonate vein/ fault with light greenish sericitic bleaching over 5cm in the walls, intersects the pebbly wackes @ 24 DTCA. There are splashes and trains of py and cp in the vein zone.
58.00	86.10	CONGLOMERATE GREYWACKE
		There is a general feeling that the proportion of pebbles and gritty to pebbly lenses has increased to the point where conglomerate now forms the dominant rock type in the core. As indicated, the change is gradual, therefore the contact is somewhat arbitrary. Overall, the conglomeratic and gritty lenses are polymict although the clast outlines blend into the matrix

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52522	63.40	64.60	1.20	TR	tr	.000	3
52523	68.65	69.85	1.20	TR	tr	.000	10
52524	77.75	79.10	1.35	TR	tr	.000	5

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

because both are similar in composition and both are overprinted with pervasive ankerite alteration formed along a very fine network of microfractures. It should be noted that pinkish (trachytic) clasts are more common and that red jaspers, which are used to distinguish sediments from tuff(wacke)s, are very scarce as clasts and even fine grains. The overall colour is medium greenish grey with 25% pale greyish orange/ pink blobs that represent the larger trachytic clasts. Generally, the most common clast size ranges between 0.3 and 2.0cm making the conglomerate more gritty to pea gravel in nature although lenses of pebbles and cobbles (to 6cm) occur up to 1m thick.

The pervasive ankerite alteration was determined by staining with KFeCy, but, in addition, another 5% ankerite occurs as fine, thready, dull white veinlets and gashes. Some of the thicker veinlets (to 0.6cm) and concentrations of veinlets support weak bleached (pale greyish yellow) halos that begin to contain slightly anomalous amounts of fine py compared to the normal background values of trace py and cp. Check sampling concentrated on these areas. As expected, the susceptibility varies considerably, from 3.56 to 28.1, reflecting the variable compositions of the clasts and matrix.

69.44 69.45 Fault Zone - A tight chlorite fault @ 60 DTCA is noteworthy because it contains a moderately sericitized halo and a few large splashes of py in the walls.

77.84 77.85 Fault Zone - Another weak quartz carbonate fault with sericitic walls cuts the core here @ 78 DTCA.

80.10 86.10 Conglomerate (gritty) - The remainder of the unit comprises mainly medium grained wacke to gritty wacke with only a few scattered pebbles. The pervasive ankerite alteration persists and additional veining amounts to another 2%. Mineralization remains trace to weakly anomalous with scattered specks of py and cp, mainly in the weakly altered zones adjacent to veins and minor structures. MS values continue to vary between 5.85 and 21.2.

86.10 101.25 TRACHYTE TUFF GREYWACKE

52525	94.65	95.45	.80	TR	tr	.000	12
52526	95.45	96.20	.75	TR	.001	.000	22
25227	96.20	97.30	1.10	TR	tr	.000	2
52528	97.30	98.35	1.05	TR	.000	.000	nil

The base of a gritty/ pea gravel lens marks an overall change to a finer grained unit that exhibits characteristics more typical of trachyte tuff than of wacke and may mark a transition into more fragmental tuffs lower in the hole. Overall, the tuff(wacke) is fine grained with gradations into gritty sections near the end, massive, and variably coloured from pale pink/ tan in sections that are well altered adjacent to vein zones, to light/ medium grey in weakly to moderately altered sections, to dark/ medium grey in the least altered parts. In the finer grained sections, although the texture is granular to some extent, it is not the same as in the wacke lenses near the start. The grain boundaries are not distinct and there are more chloritic grains or alteration, and the grains are not rounded. At 91.40m and 91.67m, magnetic highs of 68.0 & 50.8, identify fine bedding

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		features @ 30 DTCA as trains of black magnetite. In this interval, veining as clusters of fine, white, thready, ankerite veinlets and stringers amount to approximately 12%, cutting the host at various angles to the core but angled mainly @ 50+/-DTCA which seems to be sympathetic with a fault at 95.80m (see below). Alteration comprises pervasive moderate ankerite through the matrix and halos of pale pink/ beige bleaching (sericite- carbonate- hematite?) around some veinlets and the fault. Despite the intensive veining, there is no significant increase in mineralization from previous units (trace). The influence of alteration on the magnetics of the tuffwacke is evident from the MS values which range between about 30.0 and 50.0 in the least altered sections and drop progressively through the teen's in moderately altered sections to below 1.00 in the pale pink/ tan halos. 95.80 95.85 Fault Zone - This, the most significant structure in the interval, has affected the orientation of the veining in the area and moderately altered/ bleached the walls over 12 cm up hole, and, intermittently, for 3m down. The fault consists of 5cm of shearing followed by 2mm of mud/ gouge and a few cm of crushing. There is slightly anomalous (<<0.5%) sulphides- streaks and splashes of py- associated with the alteration halos of this fault. 101.22 101.25 Quartz Vein Zone - A 2.5cm quartz carbonate vein bounded on the upper contact by a sericite chlorite slip @ 45 DTCA was taken as the lower contact. Some minor sericitic alteration continues for another 10cm down hole.								
101.25	125.50	TRACHYTE LAPILLI TUFF GREYWACKE The hole now rolls into a fine fragmental dominated regime which begins with a thick unit of fine to coarse gritty tuff in which grain sizes most commonly vary between 1mm to 1cm and local sections where clasts range to 3cm. Overall, the host is massive, gritty, homogenous, granular textured with most clasts and the matrix a dark grey colour. In the upper portion to about 107.80m, the host is weakly altered to a medium grey colour with pinkish tones caused by zones containing abundant greyish pink (trachytic?) clasts from 0.5 to 3cm. Below, the degree of alteration decreases and the clasts and matrix become darker/ more mafic (chloritic?) looking (altered) although variably pinkish grey coloured grit fragments remain common. Very rare, widely scattered red jasper grains were noted, indicating that there was limited input of some normal sedimentary components. Contacts between the finer and coarser phases are transitional. The gross alteration changes between the upper and lower segments of the unit, which were described above, coincide roughly with an overall conversion of a pervasive ankeritic alteration of the matrix, to strongly calcitic. This change in the composition of the carbonate is not completely reflected in the veining which covers about 2-3% of the unit. Fine 'grainy'	52529	119.60	120.50	.90	TR	.000	.000	nil
			52530	120.50	121.95	1.45	TR	.000	.000	nil
			52531	121.95	123.05	1.10	TR	tr	.000	5
			52532	123.05	124.60	1.55	TR	tr	.000	2
			52533	124.60	125.50	.90	TR	tr	.000	3

From (m.)	To (m.)	Geology

textured, pinkish coloured carbonate veinlets and stringers are calcitic, while the brighter white, porcelainic stringers are either weakly ankeritic or dolomitic. The sulphide content remains trace as fine specks and spalshes of py and cp. MS values fall into a higher range of 16.5- 33.7 in the altered section at the start to 107.80m, below which, the range tightens to 8.62- 16.8 with one anomalous zone to 94.0 (see below).

118.20 119.40 Tuff Oxide Iron Formation - In this fine grained section, the magnetics rocket to a high of 30.0- 94.0, indicating the presence of abundant magnetite in the matrix but not to the extent of a typical BIF. The zone begins on a 17cm weakly sheared zone @ 55 DTCA with low MS values (1.80), centred on a 1cm calcite vein.

119.85 125.50 Carbonated Zone - This does not represent a carbonate altered zone but rather a section of the gritty tuffwacke that is cut by 8% white to pink, whispy veinlets to 4cm thick veins of calcite and minor ankerite/ dolomite. The strongest veining and alteration occur at the beginning and end of the zone on a strong sericite- shear (3cm)- carbonate (4cm) fault @ 50 DTCA, and, a crush (2cm)- carbonate (2cm) fault @ 35 DTCA, respectively. The former, is weakly to moderately bleached/ altered for 20cm up hole and 1.30m down, and, the latter, for 25cm up hole only. There is no significant mineralization associated with either of the structures.

125.50 170.10 TRACHYTE LAPILLI TUFF

Below the vein/ fault, the hole progresses naturally into a coarser fragmental in which the clasts are generally subangular but almost all have exhibited indistinct boundaries. It appears that they meld into one another and into the matrix, suggesting perhaps that the unit represents a welded tuff. There is very little variety in the clast composition, approximately 70% being fine to very fine grained and light grey to greyish pink coloured and containing tiny chlorite flecks. The remainder are generally darker shades of grey. When tested with acid, almost all fragments reacted strongly, indicating that they have been extensively replaced with calcite (and some with weak ankerite) which may account, in part, for the fuzzy boundaries. The overall impression is that the unit represents a fine trachytic agglomerate or lapilli tuff, possibly a coarse welded tuff.

As mentioned, the clasts, and, to a lessor (weaker) extent, the matrix are pervasively calcite altered to about 136.90m where there is a transition to pervasive ankerite. Below, not as many fragments have been completely replaced by carbonate but the boundaries remain hazy. Veining amounts to <<0.5% in the calcitic section but increases to 3% white ankerite veinlets over 4.5m around a wide quartz carbonate fault (see below) at 149.20m. MS values range between lows of 1.94 and highs of 41.4 while most values fall within a narrower corridor of 15.00- 22.0, with a few lower sections (below 4.00) over a 1-2m centred at 150.20 and 160.00m (see below). Mineralization

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52534	125.50	126.55	1.05	TR	.000	.000	nil
52535	140.90	141.75	.85	TR	tr	.000	3
52536	141.75	143.00	1.25	TR	.000	.000	nil
52537	145.90	146.65	.75	TR	.000	.000	nil

From (m.)	To (m.)	Geology

continues to run nil to trace.

141.12 141.25 Quartz-Carbonate Vein Zone - As mentioned, this carbonate-quartz vein @ 55 DTCA, with a few chlorite- hematite needles and fractures and wall rock inclusions is the probable focus of the carbonate veining over 2m up and down hole. There are anomalous splashes of cp in the hematite and py within the vein.

145.54 145.56 Fault Zone - A minor 1.5cm sericitic shear fault with a 1mm mud slip cuts the core here, @ 20 DTCA.

149.18 149.45 Fault Zone - Both ends of the interval represent similar minor chlorite- carbonate- sericite- quartz crush faults @ 75/ 65 DTCA. Although they contain only a few fine specks of cp and py (trace) and no significant alteration halos, the MS values drop to 1.94- 3.79 between 149.65 and 150.75m.

159.47 159.48 Fault Zone - The fault here is represented by a 1cm carbonate-chlorite- hematite wafer @ 60 DTCA with a few slivers of cp within the vein and trace fine py grains in the wall. THere is a magnetic low surrounding the vein with MS values ranging between 1.35 and 4.15 from 159.00 to 161.60m.

170.10 215.45 TRACHYTE TUFF GREYWACKE

There is an abrupt (but not a sharp contact) change here, to a higher intensity of alteration and a corresponding decrease in the susceptibility. In addition, the host loses the fine fragmental (lapilli) aspect and becomes more gritty/ terrazo textured with less than 10% scattered larger clasts from 3- 6cm. The matrix comprises fine grained tuff that, in places may grade to wacke. With the aid of a lens, the granular texture can be seen as well as fine microfracturing and infilling with carbonate and sericite. The matrix is also dusted with fine grains resembling black pepper or magnetite, but this is precluded by the low magnetics. Many of the millimetre sized grains are reddish coloured but do not appear to represent sedimentary jasper but rather a hematized grain (they have the appearance of garnets) of some sort. The overall colour of the gritty tuffwacke unit is a mottled light greyish green to pink, depending on the type and strength of the alteration.

As stated above, alteration comprises strong pervasive ankeritization of the host along with fine sericitization (greenish yellow) and weak salmon pink hematization(?). The yellowish green colour is more prominent near structures while the pink shades are more background colours. The MS values decrease from 1.83/ 2.55 near the start to a stable platform of 0.24- 0.40 with a few isolated higher zones, generally to around 1.00 but spiking as high as 13.3 at 179.35m. Mineralization is trace overall but increases to 0.5% cp and py over a few cm locally in vein zones, usually when nested with hematite. Overall, ankerite (-quartz) veining accounts for 4% of the

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52538	172.35	173.35	1.00	TR	tr	.000	10
52539	177.70	178.45	.75	TR	.002	.000	58
52540	181.25	182.35	1.10	TR	.000	.000	nil
52541	182.35	182.60	.25	TR	.000	.000	nil
52542	182.60	183.35	.75	TR	tr	.000	2
52543	188.70	189.35	.65	TR	.001	.000	24
52544	189.35	189.90	.55	TR	tr	.000	3
52545	189.90	190.85	.95	TR	.000	.000	nil
52546	190.85	191.10	.25	TR	.001	.000	33
52547	191.10	192.05	.95	TR	.000	.000	nil
52548	201.90	202.65	.75	TR	.000	.000	nil
52549	215.20	216.35	1.15	TR	.002	.000	51

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

interval, the most prominent of which are described below.

173.00 173.23 Fault Zone - This is more of a zone of moderate crushing accompanied by fine thready ankerite veining and 1% py and cp within hematite filled fractures. The veining and crushing terminate at a tight (1mm) chlorite- carbonate slip @ 55 DTCA.

178.88 179.22 Fault Zone - This constitutes a zone of patchy bleaching to grungy medium green grey and light tan and shreddy 30% carbonate veining, rather than a focussed structure. The veins trend roughly @ 55 DTCA and contain fracture fillings and fine grains of black hematite and very minor cp and py.

181.80 181.90 Mafic Intrusive - A thin (4-7cm), fine grained, medium grey mafic dike cuts the tuff @ 45/ 25 DTCA. There are no chilled margins but it does contain fine 1-3mm ovoid wall rock(?) inclusions aligned down the dike that imparts the appearance of a mylonite.

182.40 182.50 Fault Zone - The central 6cm comprise a dull white carbonate quartz vein with bounding contacts @ 65/ 55 DTCA and internal chlorite- hematite fractures. The walls on either side are laced with fine yellow sericitic shears over 5cm up hole and for 50cm down hole, ending at a quartz- carbonate vein at 183.04- 183.24m. Mineralization consists of trace splashes of cp and py in some of the chlorite- hematite and sericitic fractures.

184.95 184.97 Mudstone - Here, there is the first of a series of rare very fine grained to aphanitc mudstone/ tuff lenses that occur as cm sized bands/ beds @ 50 DTCA. This mudstone is medium chocolate brown coloured whereas those further down hole at 185.80m and 190.85m are light greyish yellow (olive) coloured and are interbedded @ 60- 65 DTCA. Only those zones of significant widths are detailed separately below.

189.09 189.16 Fault Zone - The core of the fault comprises a 2cm crushed quartz carbonate (ankerite) vein @ 55 DTCA followed by a 4cm quartz carbonate breccia zone. There are several (4) 1cm wide similar veins over 40cm up hole, and, another breccia zone down hole at 189.60- 189.80m. The fractures in the various veins, particularly the main fault, are filled with chlorite-hematite, some of which are replaced by py blebs and cp splashes.

190.94 190.96 Sulphide Iron Formation - For lack of a better description, the term sulphide iron formation was used for this interval which comprises a jagged, medium grey lens (to 2cm) of almost massive, very fine grained pyrite or marcasite. The wedge trends @ about 45 DTCA but it is not clear whether it is a primary feature or alteration, although the latter seems to be

From (m.)	To (m.)	Geology
		more probable since contacts are generally gradational and sulphides appear to overprint existing textures.
190.96	196.80	Trachyte Tuff - The core here is dominated by gritty lenses and matrix with an increased percentage of clasts larger than 2cm (15%) scattered through the grit. Grit fragments and clasts represent similar lithologies, mostly trachyte derived according to colours and textures. They are of a similar nature to those described at 125.50m, subangular, fine grained, and coloured light shades of grey, pink, orange, and buff (yellow). Towards the end of the interval, there is an influx of elongate/ lensoid dark green grey clasts that are aligned in the plane of bedding @ about 40 DTCA. The matrix remains ankeritic in composition and mineralization, trace. Susceptibilities are moderate in a range of 0.71- 3.54, having risen inexplicably from the background of 0.30 at 183.80m, to a gradual peak of 18.0 at 185.25m and back down again to 0.30's by the end of the lapilli tuff zone.
196.80	215.45	Trachyte Tuff - Some of the nebulous larger trachyte and gritty clasts are present intermittently in a fine grained matrix to about 200.00m, below which, the host is generally fine to very fine grained, massive, and variably coloured from light/ medium grey green, to grey, to purple grey, depending on the degree of alteration. The very fine grained section occurs between 206.00 and 208.50m through gradational contacts. Susceptibilities form an apron of values below 0.30 from the start to 202.00m and then rise gently to a peak of 23.3 at 204.00m before falling gradually to the low range again by 208.50m. The matrix and 1% carbonate fracture fillings and veinlets remain ankeritic and the sulphide content, trace.
202.15	202.16	Fault Zone - Actually, the fault comprises a 1mm chlorite slip @ 55 DTCA, that is followed by thready sericite shearing and fracturing over 15cm down hole. A 1.5cm streaky ankerite vein parallels the slip and contains fine black chlorite- hematite grains with a splash of cp.
215.35	215.45	Fault Zone - The end of the tuff interval occurs on this quartz carbonate vein/ fault @ 45 DTCA. It is well fractured/ crushed with chlorite, hematite, and minor sericite and contains trace fine py and cp.
215.45	261.37	GREYWACKE
		The texture on both sides of the vein/ structure is similar, fine grained and granualar, but the wacke displays a distinct variety of grain types, including red jasper which is absent in the tuffs. Apart from the upper 2.3m, which comprises a mix of aphanitic mudstone and wacke, and a few

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52550	216.35	217.85	1.50	TR	.001	.000	21
52551	217.85	218.55	.70	TR	tr	.000	13
52552	218.55	219.50	.95	TR	.001	.000	24
52553	223.80	224.95	1.15	TR	.000	.000	nil
52554	244.50	245.30	.80	TR	.001	.000	48

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

additional mudstone zones (see descriptions below), the wacke host exhibits uniform characteristics throughout. It is fine grained, massive and homogenous except for rare scattered bean sized pebbles (<<<0.5%) of varying compositions including green carbonate (223.20m/ 230.08m), jasper (224.97m), and chert/ quartz (230.41m) as well as others. The colours range from dark green grey in the fresher, less altered sections and grade through various shades to bright greyish yellow in the most highly altered sections. The aphanitic mudstone lenses tend to be pervasively altered to olive green while, in the wacke, the yellowish sericite alteration ranges from whispy/ thready fracture fillings to pervasive filling of intragranular microfractures.

Sericite alteration as described above, gives the core a spectacular streaky yellow appearance, at least to 235.00m, at which point, the overall sericite alteration begins to decrease and become more patchy to the contact with the conglomerate. In addition to, and overprinting the sericite, is a strong pervasive ankerite alteration as determined by staining with KFeCy. The wacke is also cut by 5% dull white ankerite veining that occurs as veinlets, shreds, gashes, fractured stringers and veins to 3cm that intersect the core at various angles. The magnetics essentially remain below 0.20 in the most strongly sericitized sections to 235.00m, below which they fluctuate slightly within a range of 0.20 and 0.32. The sulphide content is trace overall, but becomes weakly anomalous over 10cm or so locally, particularly within the vein zones. Sampling reflects increases in carbonate quartz veining, sericite alteration and mineralization, although they may not be described individually.

215.45 217.82 Mudstone Greywacke - As mentioned, mudstone and wacke lenses are mixed at the start. The mudstone occurs as lenses or bands/ beds @ 40- 45 DTCA that often exhibit flamey altered contacts, highlighted by alteration, that may represent primary slump textures. Overall, the mudstones are aphanitic, massive to 'bedded' as described, and are coloured various shades of light to medium grey and olive/ yellow grey.

218.24 218.39 Fault Zone - One side of the core appears as a cataclastic breccia zone with a chloritic matrix between bounding chlorite (carbonate) slips @ 50 DTCA, while the other side is only weakly crushed. This is followed at 218.80m and 219.38m by chlorite crush faults @ 30 and 40 DTCA. None of the structures carries any anomalous sulphides.

224.06 224.12 Fault Zone - Here, the fault comprises a crushed/ brecciated mix of carbonate and host within enclosing chlorite slips @ 55 DTCA and is surrounded by sericitic fracturing/ shearing.

231.50 257.60 Mudstone Greywacke - In this section, aphanitic mudstone occurs as massive lenses, plastically deformed bands, flamed and slumped masses, and rip up clasts and patches. Typically, they are creamy olive yellow altered grading to medium slate grey where fresher. No attempt was made to determine top

From (m.)	To (m.)	Geology

directions from the various textures and the only bedding features were the alignments of platey rip up clasts @ about 40 DTCA (446.60- 446.75m).

261.37 539.50 CONGLOMERATE

The leading contact was taken at a point where the massive wacke was interrupted by a lense of grit that quickly graded into a pebbly wacke and then conglomerate. By about 266.50m. clasts predominate and the matrix becomes more gritty than fine grained wacke and the conglomerate is basically clast supported. Overall, the conglomerate is polymict with clasts ranging from grit size (2-15mm) to cobbles of 15cm, but with the majority of the clasts averaging between 2 and 7cm. They are subrounded to rounded and ovoid in shape with various colours distinguishing their different provenances. Light to medium grey and buff grey colours, which probably represent rocks of sedimentary origin are most common. They are followed by medium to dark grey green to grey volcanics and ultramafics, some spinifex textured (264.70m), some altered to weak green carbonate (266.62m), some lighter toned altered or dacitic in composition and containing sulphide blebs (py filled amygdules? - 264.80m), and, finally by pinkish/ orange coloured or porphyritic felsic and alkalic pebbles which are noticeably rare. Fine red jasper grains and clasts to 1.5cm are ubiquitous. At about 279.50m, the wacke content begins to increase and support the pebbles which become finer overall within a range of 1-4cm. By the middle of the unit the ratio of matrix to pebbles is 60/ 40.

Alteration is mild compared with the previous wacke. The consistent medium grey colour indicates the lack sericite in the system although staining confirms the presence of pervasive moderate ankerite. This is supplimented by 0.5% white ankerite veinlets, stringers and two major dry veins at 307.30m (7cm) and 326.35m (10cm with minor pink calcite) which constitute most of the veining. MS values fall fairly consistently within a low range of 0.20- 0.36 despite the variety of the clasts. Mineralization is trace, consisting of scattered grains and clusters of py often associated with carbonate alteration and fractures near pebble rims. The most prolific sulphides occur in the dacite pebble (264.80m) and over the 80cm below (up to 0.5%).

286.80 287.30 Fault Zone - Here, a sericite carbonate shear fault follows along the core axis for the length of the interval. It is weakly mineralized with trace fine py.

309.27 309.38 Fault Zone - The upper 8cm of the fault comprise a proto-cataclastic texture with strong chloritic matrix material/ alteration followed by a 1.5cm carbonate- chlorite- quartz wafer, all trending @ about 50 DTCA. A similar but weaker chloritic fault structure but trending @ 37 DTCA occurs down hole at 209.63m. Sulphides within the structures and walls comprise slightly anomalous fine py and cp grains and splashes. At 312.00- 312.50m, a zone of coarse brecciation

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52555	264.65	265.60	.95	TR	.001	.000	24
52556	209.30	209.70	.40	TR	tr	.000	12
52557	209.70	210.65	.95	TR	.000	.000	nil
52558	210.65	211.95	1.30	TR	.000	.000	nil
52559	211.95	212.85	.90	TR	tr	.000	2
52560	262.60	263.50	.90	TR	.000	.000	nil
52561	401.40	401.80	.40	TR	.000	.000	nil
52562	408.25	408.85	.60	TR	.000	.000	nil
52563	408.85	410.00	1.15	TR	tr	.000	14
52564	410.00	410.90	.90	TR	.000	.000	nil
52565	410.90	411.95	1.05	TR	.000	.000	nil
52566	426.00	427.05	1.05	TR	tr	.000	7
52567	427.05	427.65	.60	TR	.004	.000	144
52568	427.65	428.40	.75	TR	.004	.000	134
52569	431.60	432.35	.75	TR	.003	.000	103
52570	441.50	442.90	1.40	TR	.002	.000	72
52571	458.65	459.35	.70	TR	.000	.000	nil
52572	479.00	480.15	1.15	TR	tr	.000	2
52573	532.35	533.00	.65	TR	.002	.000	65
52574	533.00	533.60	.60	TR	tr	.000	3
52575	533.60	534.90	1.30	TR	.001	.000	50
52576	538.40	539.50	1.10	TR	tr	.000	3

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

that resulted in a polygonally patterned ankerite chlorite vein system formed in the hanging wall of a 1cm carbonate chlorite vein/ fault @ 45 DTCA at 312.68m.

326.90 353.00 Greywacke - A subtle change in magnetics and clast composition to a higher percentage (20%) of orange to pink/ red coloured felsic, trachytic and porphyric varieties at about this point may be related. Although they are not necessarily stronger magnetically themselves, these clasts may represent and overall change in the origin of the clasts to a more alkalic source resulting in a higher tuffaceous component and correspondingly higher MS values due to detrital magnetite(?) in the matrix. Values rise gradually to a peak of 14.3 at 329.53m and then drop to a range of 1.22- 5.10 below 332.00m. By about 353.00m, the percentage of pinkish clasts drops to below 2% and MS values drop correspondingly to a lower, well defined range of 0.33- 0.44 with a local drop to 0.25 in an altered fault zone. Fine thready veining and the matrix of the conglomerate remain moderately ankeritic; sulphides are trace.

353.00 396.00 Conglomerate - Through this interval the pinkish clasts form less than 2% of the host while those of a mafic volcanic origin (shades of light, medium and dark grey) increase to over 80%. The clasts range from grit sizes of 0.2- 1.5cm to cobbles of 25cm, in a clast supported setting. In a pea gravel section from 371.80 to 372.35m, the voids between the pebbles were filled by later white ankerite. MS values drop to a low range averaging approxomately 0.35 with an occasional spike to 0.48. White ankerite fills 2% irregular gashes and veinlets as well as pebble intersticies. Some py blebs occur in patches of carbonate but the general background sulphide content is trace.

363.00 363.40 Fault Zone - This is more of a fractured carbonate zone with dull grey quartz, trace sulphides and a weak structural orientation of 40/ 45 DTCA.

383.00 384.80 Conglomerate - The conglomerate through this interval resembles the pea gravel lens at 371.80m, where white ankerite has filled the voids between the pebbles which range from 2.00- 9.0cm here.

396.00 417.50 Conglomerate - Although the conglomerate continues without interruption, there is a distinctive visible change in character as well as an abrupt increase in susceptibilities. There is a reversal from the dominance of greyish coloured volcanic clasts to a higher percentage of alkalic derived pebbles and cobbles. There was an inherent 'brightness' to the previous conglomerate whereas here, the host is dull/ bland coloured. This is due perhaps to a drop in the amount of shreddy white and pink carbonate veining which decreases from

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

about 3% to <0.5%, except for a zone of low angle and sinusoidal cloudy white ankerite quartz stringers, amounting to 15% between 408.30 and 412.50m. The MS values become erratic, rising to as high as 16.8 (399.00m), and dropping down to 0.23 (404.30/ 415.00m) in places. Otherwise, the conglomerate remains polymict (with jasper clasts), clast supported with wacke matrix, and clast dominated with almost no significant wacke lenses.

401.50 401.60 Fault Zone - The structure comprises a leading fractured ankerite vein @ 60 DTCA followed with 6cm of choppy carbonate alteration carrying a few splashes of py.

417.50 429.00 Conglomerate - The subdued colours and textures continue but the susceptibilities suddenly fall back into the low range of the conglomerate, to 0.25- 0.37, at 353.00m. A possible explanation for these low values is the presence of a strong fault, described below, that cuts the host at 427.38m that may have subtly altered the interval. Otherwise, there is no anomalous veining (1%) or mineralization (trace).

425.09 426.43 Greywacke - Interrupting the clast dominated conglomerate unit is a massive, fine grained, granualar textured, medium greenish grey coloured wacke lens with gradational contacts. MS values are uniformly low at 0.24/ 0.28; mineralization is trace.

427.20 427.46 Fault Zone - A very strong sericite shear gouge fault cuts the core @ 55 DTCA. Sericite occurs as fine fracture fillings and shreds in the walls of the 1cm central gouge zone at 427.37m accompanied by slightly anomalous py splashes and a 1cm pale pink quartz vein.

429.00 461.00 Conglomerate - The Ms values begin to fluctuate in a higher range again although it doesn't appear that the previous parameters apply. The host becomes well fractured and veined with 5%, fairly uniformly thick 3- 8mm, white ankerite stringers and veinlets, most of which trend @ 40- 55 DTCA. As it becomes more matrix dominated and supported, the clasts become smaller overall and more scattered with only a few massive conglomeratic horizons. The clasts are still entirely polymict, (including jaspers) with alkalic compositions still well represented. There is a sense of increasing alteration down hole although the matrix remains moderately pervasively ankeritic. MS values rise as high as 8.78 but seem to cluster around 5.00; mineraliation is trace.

432.29 432.30 Fault Zone - More a silicified 0.5cm slip @ 68 DTCA, weak bleaching and sericite alteration has migrated up hole to a 6cm bleached carbonate breccia zone @ 70/ 58 DTCA at 431.80m. Only trace fine py occurs with either zone.

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

441.50 442.90 Greywacke - The pebbly wacke here is overprinted with patches of weak to moderate bleaching and contains a few splashes of py. There is no structure to account for the alteration.

454.60 454.68 Fault Zone - Unusually, the pink coloured carbonate in this chlorite- carbonate fault @ 45/ 50 DTCA is calcitic in composition. Almost all of the other carbonate veining through this section to 461.30m, is white ankerite; the matrix is also weakly pervasively ankeritic.

458.70 459.15 Fault Zone - The entire interval is moderately bleached with several tight chlorite and carbonate chlorite slips @ 70/ 75 / 60 DTCA while the main structure, a 2cm quartz- chlorite vein/ fault occurs at the end of the zone @ 75 DTCA, partly in broken core (chips). Mineralization consists of trace fine py.

461.00 482.00 Conglomerate (calcitic and ankeritic) - This interval represents a transition zone in which the matrix fizzes weakly when tested with HCl and also stains weakly with KFeCy indicating the presence of both calcite and ankerite. Conjointly, the veining also includes both pinkish calcite and white ankerite.

474.60 480.10 Greywacke - The calcite pervading the matrix becomes progressively stronger through this section which comprises mainly greywacke with thick zones of very faint, subtly coloured, gritty/ terazzo looking clasts and only scattered larger pebbles. MS values occur in a fairly low range of 0.42-3.18 with one local elevated value to 7.23. The medium bluish grey colour and washed out texture suggests a moderate degree of alteration, but there is no obvious structure to act as a source.

480.10 507.30 Conglomerate (calcitic) - Beginning at this point, the pebbles become dominantly (60%) brick orange/ red/ brown coloured in various medium to dark shades. The conglomerate remains polymict overall, including some of the largest jasper clasts seen in the hole (5cm at 492.10m), clast supported, matrix poor/ clast rich, and generally becomes dark green grey coloured. Furthermore, the average susceptibility also rises to an estimated 16.0 within limits of 5.67 and 43.9 while the host becomes moderately pervasively calcitic, losing the final weak ankeritic components. Mineralization is trace.

503.49 503.52 Fault Zone - This is a relatively weak chlorite calcite fault @ 60 DTCA with no significant alteration or mineralization.

507.30 532.50 Conglomerate - The polymict, densely packed, clast rich, clast supported conglomerate continues but the colours become more subdued, mainly shades of medium to dark grey which are tinted

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		blue, green and brown. Jasperoid and porphyritic clasts persist but the brick coloured pebbles become more rare. Included in the unit are several unusually large greyish brown coloured cobbles and boulders (36cm at 512.45m; 24cm at 514.80m; 22cm at 515.25m). Corresponding with this apparent compositional change, is a decrease in the MS values into a tight corridor of 0.60- 3.54 with an estimated mean of about 2.00. The matrix remains strongly calcitic while calcite veining amounts to <0.5%. There was no significant mineralization noted (trace).								
	529.77	Carbonated Zone - The interval is cut here by alternating pink and dull white calcite veins @ 50 DTCA separated by slivers of host rock. There is no significant alteration or mineralization associated with the zone.								
	539.50	Contact Zone - In context, the contact zone here is the apparent metamorphic aureole produced by the diabase dike that intrudes the conglomerate/ wacke package at 539.50m. It begins on a 2cm laminated zone of crushing, calcite and quartz followed by 3cm of silicification @ 45 DTCA at 532.50m. Most of the interval comprises very fine grained to aphanitic, medium grey to blue grey coloured, massive matrix material that contains 5% scattered pebbles and cobbles. The fining of the matrix may be partly a primary depositional feature but it seems to be more of an alteration effect overall. The MS values, which drop to an estimated average value of 0.62 in the 6m preceding this interval, continue with this same mean value to the dike with fluctuations in the range of 0.29-1.09. It is near the start of this contact effect that the carbonate composition of the matrix changes from calcite to weak pervasive ankerite. Overall, the sulphide content is trace to anomalous with increases to 0.5% over 10cm or so near the leading silicified zone and at 533.45m.								
539.50	591.46	DIABASE								
			52577	539.50	540.60	1.10	TR	tr	.000	7
			52578	540.60	541.55	.95	TR	tr	.000	3
		Despite the strong metamorphic effect, the leading contact of the diabase dike is poorly defined. It is not marked by a chilled margin as expected, but rather is defined by a hazy contact between an orange speckled (altered) wacke and the medium greenish grey coloured diabase @ about 40 DTCA. There may even be contamination caused by partial assimilation of the wacke into the contact. The dike rapidly grades into a coarse grained phase of the diabase which is characterized by clusters/ rosettes of acicular amphiboles that appear as 0.4cm dark greenish grey blebs in a fine grained yellowish green altered groundmass. By about 543.60m, the diabase becomes medium grained/ textured whereby the appearance is not as blebby but more a uniform medium blue green with a yellowish tinge. At 556.57m, there appears to be an internal contact @ 40 DTCA that is defined by a very fine grained chilled zone with shreddy/ streaky epidote- carbonate over 80cm. The dike then								

From (m.)	To (m.)	Geology
		grades into massive, homogenous, medium grained, medium grey green coloured diabase forming the central portion of the intrusive. Staining with KFeCy indicates that the dike is weakly pervasively ankeritic but that fine grey fractures, veinlets and patches (<< 0.5%) are calcitic in composition. MS values are tightly constrained to a corridor of 0.40- 0.52 and mineralization is nil to trace. From 540.80- 541.50m, an irregular, ragged, chlorite fracture that is rimmed with streaky epidote/ sericite-carbonate alteration meanders along the core axis. Another thready/ whispy, weakly sheared zone trends across the core @ about 55 DTCA between 574.00 and 574.47m. The (very) fine grained trailing contact of the diabase blends into the very) fine grained wacke disguising the actual contact. It was taken at a section of finely splintered core with minor gouge accomapanied by 5cm of yellowish alteration @ 38 DTCA.
591.46	615.35	GREYWACKE Similar to the hanging wall contact metamorphic zone, the wacke here has been 'cooked up' to 602.80m, thereby masking some of the primary textures and colours and rendering the upper section a medium to darkish bluish grey colour, and more fine grained/ textured. Clasts from grit (0.4cm) to pebble (4cm) sizes, including jaspers, constitute approximately 5% of the host but the exact percentage is unclear. They are relatively bland coloured because of the alteration although they represent a number of lithologies. The matrix is pervasively weakly to moderately calcitic; veining amounts to <0.5%. MS values, which range between 0.40 and 0.60, rise gently to 0.87 over the lower 2.5m. Despite the strong contact metamorphism, mineralization remains at nil to trace. 597.95 598.18 Fault Zone - The fault interval includes several zones of strong crushing and minor gouge @ 55 +/- DTCA. It is cut by a few calcitic fractures and contains trace fine py grains and slivers. The core is moderately crushed for several meters up the hole from the structure, but not altered or mineralized. 603.30 612.50 Greywacke (sericitized) - In this interval, the pebbly wacke is very well fractured/ crushed with fine thready bright yellow shears, shreds and fracture fillings dramatically contrasted against a dark greenish grey to black coloured matrix. Several minor shear/ crush/ carbonate fault structures centred at 603.45, 604.16, 606.46, 606.68, 607.62, 610.00, 611.37, and 612.00m, and trending @ 30, 38, 45, 55 DTCA probably all contribute to the strong alteration. Overall, the sulphide content is trace to anomalous with a few short intervals of 5cm or so that may average up to 1%. The entire section was sampled for completeness.
615.35	654.90	CONGLOMERATE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52579	603.30	604.45	1.15	TR	.001	.000	41
52580	604.45	605.60	1.15	TR	.001	.000	21
52581	605.60	606.90	1.30	TR	tr	.000	7
52582	606.90	608.00	1.10	TR	tr	.000	7
52583	608.00	609.50	1.50	TR	tr	.000	7
52584	609.50	610.40	.90	TR	.001	.000	45
52585	610.40	611.70	1.30	TR	tr	.000	3
52586	611.70	612.50	.80	0.5	.001	.000	24
58287	612.50	613.70	1.20	TR	tr	.000	14
52588	616.00	617.20	1.20	TR	tr	.000	10

From (m.)	To (m.)	Geology
		At this point, there is a change in the appearance of the host due to alteration but clasts start to become more abundant, increasing in proportion to matrix material down hole. In the upper section of the conglomerate, a weak, pale orange coloured hematization combined with a mixed calcitic and ankeritic alteration has pervaded/ overprinted the matrix and clasts, rendering them almost indistinguishable from one another to 623.40m. Most of the pebbles appear coloured in various pastel shades of pink and orange or medium grey. Everything is covered with a very fine black speckling, possibly original black detrital grains that have not been altered, or, hematite. Despite the moderately strong alteration, fine red jasper grains are clearly visible throughout. The sulphide content is trace to slightly anomalous, consisting of widely disseminated fine py crystals and a few splashes of cp in a 2cm chlorite calcite vein @ 60 DTCA at 616.31m. There is no obvious source for this altered section except perhaps that it may be a wider down hole alteration halo of the sericitic zone above. MS values are irregular, ranging between 0.46 and 10.3.
		The main conglomerate zone, which begins at about 623.40m, continues to be weakly altered to 627.90m, at which point it becomes relatively fresh. Overall, it is polymict, with clasts weighted towards those of alkalic affinity but including jaspers, and, densely packed into an intact/ clast supported framework with little matrix material (wacke) or wacke lenses. In most cases, grit sized clasts (2-7mm) fill the voids between larger clasts, or in some cases (631m), white calcite and black chlorite were observed to fill the intersticies. Black (chloritic?) clasts are also present through the unit, in places clearly representing primary clasts while in others, apparently comprising late fissure fillings. Clast sizes range from grit, to pea gravel (1-2cm) as at 631m, through pebble and cobble to boulders (41/ 41cm) at 640.00 and 641.70m.
		The matrix is weakly to moderately pervasively calcitic through this section of the conglomerate as are the 3% fine thready carbonate veinlets, gashes and stringers that cut the host at various angles. With the low degree of alteration, the susceptibilities are elevated, ranging from 7.08 to 23.6, reflecting the compositions of the clasts. Overall, the sulphide content is trace, comprising splashes, grains and patches of py in pebbles and matrix, including a primary sulphide clast at 641.92m, and rare fine splashes of cp in some of the carbonate veinlets.
654.73	654.90	Carbonated Zone - A 6cm, cloudy pale pinkish white, carbonate (ankerite/ dolomite)- quartz vein @ 25/ 12 DTCA, seems to mark the beginning of an increase in alteration
654.90	674.00	TRACHYTE TUFF GREYWACKE
		The increase in the degree of alteration below the vein may be characterized by: a darkening in the overall colour to dark/ medium green grey; an increase in carbonate veining as fine gashes, fractures and thready veinlets comprised of dull grey and pink calcite and minor white ankerite, to 7%; and, the appearance of a few narrow sections of pervasive ankerite

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52589	617.20	618.20	1.00	TR	.001	.000	17
52590	668.25	668.85	.60	TR	tr	.000	2
52591	668.85	670.00	1.15	TR	.000	.000	nil
52592	670.00	671.00	1.00	TR	.000	.000	nil
52593	671.00	672.20	1.20	TR	.000	.000	nil
52594	672.20	673.00	.80	TR	.000	.000	nil
52595	673.00	674.00	1.00	TR	.000	.000	nil

From (m.)	To (m.)	Geology

alteration in addition to the calcite. Along with the change to a tuff (wacke?) dominated host, is a change in the appearance and the composition of the clasts from polymict to those of dull/ light to medium pink and orange colours, probably of alkalic origin, that commonly exhibit fuzzy/ indistinct boundaries. Through most of this interval, the fine grained to gritty matrix material also exhibits the indistinct grain boundaries of the larger clasts and lacks the red jasper grains and clasts that are common in the upper sediments. This further suggests that the host is tuffaceous (possibly a welded tuff) rather than sedimentary in provenance. There are, however, a few narrow lenses as at 657.80- 658.30m, that are obviously different textured, returning to a finely granular, pebbly wacke complete with jasper grains. Susceptibilities gently undulate from lows of 0.97/ 1.69 (655.75/ 661.50m) to highs of 9.74/ 9.61 (665.85/ 668.85m). Despite the increased veining, mineralization remains negligible at nil to trace.

668.58 668.66 Quartz-Carbonate Vein Zone - This is a weak carbonate breccia structure @ about 35 DTCA, with intertwined branches. There is no wall rock alteration and only a few fine specks of cp.

672.50 672.90 Fault Zone - Overall, this is a zone of mild fracturing and crushing @ 35- 45 DTCA that is accompanied by weak carbonate (ankerite) veinlets and thready, streaky and patchy, medium pinkish brown alteration. A few fine splashes of cp (<<0.5%) were noted in the walls.

674.00 702.10 GREYWACKE

There is an overall change to a mixed zone comprised of fine grained, granular textured wacke and gritty zones that contain numerous scattered clasts and occasional pebbly horizons, all of which are gradational into one another. The package is characterized by the reappearance of jasper grains and clasts, polymict clasts grading up to 10cm, an abundance (5%) of green black/ black subangular to subrounded shards/ fragments averaging 0.4- 1.0cm in length but ranging up to 5cm, MS values between 0.32 and 5.61, with most falling into a narrower corridor of 1.43- 2.78, and an overall medium bluish to greenish grey colour. The carbonate composition alternates between weak pervasive ankerite and similar weak calcite alteration of the matrix. Veining, which amounts to 3% overall, is also mixed with white porcelainic veinlets, slivers and stringers being ankeritic while dull grey veinlets and fractures tend to be calcitic. Over the upper 2.0m, 0.5% fine py is disseminated through the wacke, however, below, mineralization decreases to trace overall.

694.35 695.15 Fault Zone Carbonated Zone - The interval is bounded by fractured/ crushed ankerite veins/ faults (1.5 & 10.0cm) @ 35/ 30-35 DTCA. The walls of the veins are also crushed to weakly foliated and altered (sericite and carbonate) as well as dusted with slightly anomalous fine py. The gritty wacke between the veins is relatively fresh and unaltered containing

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52596	674.00	675.00	1.00	TR	.000	.000	nil
52597	675.00	676.00	1.00	TR	tr	.000	7
52598	676.00	677.00	1.00	TR	.000	.000	nil
52599	693.40	694.30	.90	TR	.000	.000	nil
52600	694.30	695.25	.95	TR	tr	.000	15
52601	695.25	696.30	1.05	TR	.001	.000	48

From (m.)	To (m.)	Geology
		only trace sulphides.
702.10	931.60	CONGLOMERATE
		The leading contact of the conglomerate was taken at the edge of a large (18cm) cobble that leads into a clast dominated unit that is polymict, clast supported with minor wacke matrix, lenses and gritty zones, and fairly dark green grey coloured. Clasts range from grit (0.2cm) to cobble (18cm) sizes with an estimated 40% by volume larger than 5cm and about the same percentage that are alkalic (various shades of light to dark pink, brown and orange coloured) in composition although red jasper grains and pebbles are present throughout. MS values reflect the magnetically higher clasts, becoming elevated to a higher plane of 4.18- 17.0 with plateaus around 5.50 and 10.0. Mineralization continues as trace fine specks of py and cp and calcite has weakly pervaded the matrix and partially replaced some clasts. Carbonate, amounting to approximately 1% overall, occurs mainly as fine ladder veinlets in pebbles and a few stringers to 1cm.
		705.38 705.39 Fault Zone - The fault is characterized by a 0.5cm chlorite-calcite wafer @ 65 DTCA containing a few cp splashes.
		727.16 727.19 Fault Zone - Another weak calcite chlorite fault cuts the core here @ 45 DTCA.
		727.15 746.60 Conglomerate Fault Zone - The interval here comprises typical polymict, clast supported conglomerate that is cut by a number of weak to moderate structures that are grouped together and described collectively. The stronger faults, and to a lesser extent, the weaker faults, have induced moderate fracturing in the conglomerates resulting in 8% fine thready fractures, ladder veinlets and slivery veinlets of pink and white calcite. Many of the ladder type veinlets/ fractures occur in pebbles and stop at their boundaries. The various chlorite carbonate slips and faults occur as follow: 727.15m @ 45 DTCA; 736.30m & 736.63m @ 30 DTCA; 737.32m @ 14 DTCA; 741.90m @ 17 DTCA; and 746.60m @ 38 DTCA. The most intense fracturing occurs between the faults at 736.30 and 737.32m where there is a corresponding drop in the MS values to below 2.00 over 2.0m. There is no significant mineralization associated with the faults, however, there are anomalous to 5% sulphides (py) over 5-15cm locally, in pebbles and parts of the matrix (732.27, 733.79, 738.65, 739.45, & 742.55m).
		744.50 745.20 Conglomerate - Here, the conglomerate, which comprises mainly fine pebbles up to 6cm but averaging approximately 1.5cm, has had the voids/ intersticies between the clasts filled with late (low temperature?), black chlorite. This also occured over 25cm further up in the hole at 741.10m.
		749.30 750.80 Conglomerate (ankeritic)- The conglomerate continues through

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52602	735.95	737.00	1.05	TR	.000	.000	nil
52603	737.00	738.30	1.30	TR	tr	.000	3
52604	738.30	739.50	1.20	0.5	tr	.000	7
52605	751.35	752.00	.65	TR	.000	.000	nil
52606	773.00	774.05	1.05	TR	tr	.000	14
52607	774.05	774.95	.90	TR	.000	.000	nil
52608	779.25	780.05	.80	TR	tr	.000	7
52609	810.30	811.55	1.25	TR	tr	.000	14
52610	811.55	812.55	1.00	TR	.000	.000	3
52611	812.55	813.50	.95	1	.000	.000	nil
52612	813.50	815.00	1.50	TR	.000	.000	nil
52613	863.90	864.45	.55	TR	tr	.000	10
52614	890.50	891.45	.95	TR	tr	.000	10
52615	891.45	891.95	.50	TR	tr	.000	7
52616	891.95	893.00	1.05	TR	.001	.000	17
52617	893.00	894.50	1.50	TR	.001	.000	17
52618	894.50	895.55	1.05	TR	.000	.000	nil
52619	895.55	896.85	1.30	TR	tr	.000	2
52620	896.85	897.90	1.05	TR	.001	.000	48

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

this section as previously described, however, it becomes weakly to moderately pervasively ankeritic. There is no structure or alteration zone to account for this change.

751.57 751.67 Fault Zone - The fault zone @ 35 DTCA, is characterized by chlorite slips and carbonate slivers and stringers that exhibit ladder type chlorite fractures. There is no significant alteration or mineralization associated with this structure.

771.60 779.65 Conglomerate Fault Zone - As At 727.15m, this interval encompasses a number of weak fault structures that are characterized by chloritic slips/ fractures and weak localized shears accompanied by pink calcite stringers and gashes up to 5cm. These occur as follow: 771.60m, a 2.5cm zone @ 55/ 60 DTCA; 773.30m, a 5cm zone @ 40 DTCA; 774.75m, a 7cm zone @ 35 DTCA; and, 779.62, a 7cm zone @ 45/ 50 DTCA. Apart from the calcite veining, there is no other significant alteration associated with these structures, but, the veins contain anomalous splashes of cp and the walls, up to 8% splashes and lenses of py (minor cp) over 5-10cm. Some of these pyritic lenses occur in pebbles and may be primary. The host for these features is the typical polymict conglomerate detailed several times above, however, the usual spread of the susceptibilities from 4- 17 is narrowed considerably through this interval to 1.36- 11.3, with all the values near the faults falling below 3.58. Also of note is the darker overall colour resulting from more chlorite through the matrix.

788.28 788.36 Fault Zone - This fault is characterized by moderate shearing over the width of the zone which includes, not only chlorite and calcite, but fine whispy sericite as well, all trending @ 30+/- DTCA. There are no anomalous sulphides associated with this structure.

811.55 812.57 Broken Blocky Core - The core is well broken into small pieces and chips (estimated RQD of 15%) along a ragged, braided fracture set that seems to traverse along the core axis and at shallow angles up to about 30 DTCA. The susceptibilities begin to drop below 1.00 at 809.00m, continuing in the low range to several metres below. There is no associated mineralization with this structural corridor, however, immediately below a 0.2- 2.5cm pink, vuggy calcite vein @ 18 DTCA at 813.00m, several large pebbles are peppered with 25 fine py over 20cm. Coincidentaly with this mineralization is the appearance of a series of fine slivery ankerite/ dolomite veinlets and gashes. The dolomitic veining ends at 815.00m and the hole reverts to the calcite veined and altered, densely packed, polymict, clast supported, chloritic conglomerate with variable susceptibilities to 17.1.

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
833.00	870.00	Conglomerate - There is a subtle change in the magnetics of the conglomerate system whereby it drops into a lower overall range below 8.00 with most values falling between 2.00 and 6.50. One spike of 43.7 occurs over a sulphide iron formation clast at 858.65m. Generally, the clast sizes also begin to decrease on average, with an ever increasing proportion of finer grit and pea gravel lenses, resembling terrazzo, comprising the host. Overall, mineralization is trace, confined mainly to clasts and the 0.5% carbonate veining that cuts the conglomerate. Both the veins and matrix are calcitic although there is a narrow section between 860.00 and 866.50 in which the matrix is pervasively weakly ankeritic.								
837.70	838.29	Quartz-Carbonate Vein Zone - The interval is centred around one pale creamy pink and white calcite vein.								
848.13	848.18	Fault Zone - The fault consists of a solid piece of foliated (@ 40 DTCA) host containing slivers of carbonate but devoid of suphides.								
863.95	863.20	Quartz-Carbonate Vein Zone - This is a gashy, sinusoidal vein with leading and trailing finely speckled carbonate quartz lenses @ 20 DTCA and a short joining section along the core axis. The carbonate is comprised of ankerite with minor calcite and mineralization is confined to trace fine splashes of py and cp.								
870.00	911.70	Conglomerate (ankerite) - From about this point, several more changes occur in the conglomerate. There is an increase in the overall fracturing/ deformation of the host, at least over the upper 3m, which is accompanied by a change to ankerite as gashy veinlets and stringers as well as weak pervasive ankerite alteration of the matrix that persists down hole. Some fractures remain calcitic. In addition, MS values increase to a higher range of 1.03- 15.1 with the majority of the values falling between about 2.00 and 7.00. Pyrite, although trace overall, begins to occur in isolated blebs (a 0.7cm sphere at 870.55m) and streaks to 1 x 3cm (872.43m) in the matrix and pebbles. Otherwise, the basic characteristics of the conglomerate, ie the polymict nature, including jaspers, dense packing with an intact/ clast supported framework, and wacke matrix and lenses, remain the same.								
891.50	896.80	Conglomerate Fault Zone - Within the conglomerate in this interval, there are several individual minor structures which are described collectively. Most are carbonate- quartz-chlorite veins/ faults (391.51m, 3.5cm @ 85 DTCA; 895.70m, 7cm @ 35/ 45 DTCA; and, 896.31m, 2.5cm @ 65 DTCA) consisting of white ankerite and pink calcite in varying proportions with chloritic laminae or fracture fillings and minor quartz. Generally the veins contain trace splashes of cp while the								

From (m.)	To (m.)	Geology
		walls are weakly anomalously dusted with py. The trailing 30cm of the interval are weakly sheared with fine thready sericite.
	911.70 931.60	Conglomerate - There is a coincidental change back to a pervasively calcitic matrix and from a variably sized pebble conglomerate to a pea gravel (0.5- 2.0) dominated one with scattered clasts to 4.0cm and a wacke and grit matrix and lenses. Despite the finer overall size of the clasts, they still appear to form in a clast supported/ intact framework environment as evidenced by a short section at 921.48m, where late calcite filled the former void between the bean sized clasts, and all the pebbles are touching. As above, they are polymict, complete with jaspers, although there are noticeably more rounded to angular black pebbles. Susceptibilities gently undulate up to a high of 8.36 at 919.65m, and then back down to 0.49 at 923.30m. Veining drops to approximately 0.5% dull white to pink calcite and very minor ankerite veinlets and gashy stringers; mineralization is trace.
931.60	995.60	GREYWACKE
		The end of the conglomerate was taken at a natural bedding plane @ 55 DTCA between gritty and fine grained wacke beds. This marks a change into an overall finer grained package consisting essentially of fine grained wacke containing interdigitated lenses of grit and fine pebble conglomerate plus a major conglomerate band at 943.32- 948.50m. The upper section of wacke above the conglomerate is dark greenish grey coloured while that below is medium greyish green. Basically the wacke comprises an unsorted mix of fine grained wacke and fine (1-5mm) gritty lenses that are intimately interwoven. The fine clasts in the grit are polymict, complete with jasper grains and chips. Bedding fabrics are highlighted by changes in the grain sizes as well as by weak alteration along the bedding planes @ 40- 50 DTCA.
		Alteration of the package comprises weak to moderate pervasive calcification of the matrix along with 3% thready and gashy pink to dull white calcite veining and an additional 5% strong dull grey calcitic patches at 937.40m (45cm), 938.40m (35cm), 940.30m (40cm) and 941.75m (40cm). Beginning at 942.00m, parts of the carbonate veining become ankeritic, and, by 951.50m, the matrix as well as the veining is ankeritic. Magnetic susceptibilities seem to vary with the phases, the values in the gritty wacke undulating between 0.47 and 9.43, while in the conglomerate (943.32- 948.50m), they decrease to a lower range of 0.32- 4.10. Finally, in the gritty wacke below the conglomerate, they drop again to a mean of about 0.30. Mineralization is trace through all phases.
	943.32 948.50	Conglomerate - As mentioned above, the hole traverses through a polymict, densely packed, clast supported conglomerate lens with wacke matrix. The carbonate in the matrix and veining becomes intermittently ankeritic through the background calcite. Minealization remains trace and MS values migrate

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52621	959.30	960.50	1.20	TR	.000	.000	nil
52622	960.50	962.00	1.50	1	.004	.000	125
52623	962.00	962.70	.70	TR	.001	.000	27
52624	962.70	963.65	.95	1	.096	.000	3306
52625	963.65	965.00	1.35	TR	tr	.000	2
52626	965.00	966.25	1.25	TR	.000	.000	nil
52627	966.25	967.35	1.10	TR	.000	.000	nil
52628	967.35	968.55	1.20	TR	tr	.000	3
52629	968.55	969.80	1.25	TR	.005	.000	171
52630	969.80	971.00	1.20	TR	.001	.000	17
52631	971.00	972.10	1.10	TR	tr	.000	10
52632	972.10	973.50	1.40	TR	.000	.000	nil
52633	984.60	985.20	.60	TR	.001	.000	31
52634	990.95	992.20	1.25	TR	.025	.000	863
52635	992.20	993.20	1.00	0.5	.009	.000	305
52636	993.20	994.00	.80	0.5	.016	.000	545
52637	994.00	994.65	.65	TR	.003	.000	96
52638	994.65	995.80	1.15	TR	tr	.000	3

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

between lows of 0.32 and highs of 4.10.

948.50 960.50 Greywacke - Here, the hole reenters a section of intermixed wacke and grit although the overall characteristics differ from the unit at the start of the hole above the conglomerate. Gritty fractions, which are polymict to a certain extent, retain their jasper grains, but now include a higher percent of black angular to subangular, chloritic, mafic clasts and very few pinkish (alkalic) ones. At 949.60m, the matrix loses the calcite and becomes predominantly ankeritic as does the veining with only a few isolated fractures remaining calcitic. Along with the change in the lithology, the MS values drop gradually from 0.73 into a fairly stable range of 0.27- 0.34 with a few higher values in the more coarsely gritty sections.

960.50 971.75 Carbonated Zone - Beginning at about 960.50m, there is an increase in the degree of alteration and accompanying mineralization as the gritty wacke host becomes progressively more intensely fractured and microfractured over the upper few metres. Overall, the interval is laced with 10% fine thready, dull white ankerite veinlets, fractures, fine gashes and stringers in random orientations, many meandering down the length of the core. Through the microfracturing, the matrix becomes more pervasively ankeritic and sericite is introduced as separate fine thready fracture fillings thereby lightening the host to light/ medium greyish to yellowish green. Accompanying this alteration package is weak py (and cp) mineralization in the form of disseminated grains/ crystals and patches up to 1% over a metre. The highest concentrations of sulphides are associated with moderately strong shear/ crush carbonate fault zones at 961.60 and 963.05m @ 25/ 20 DTCA. The most intense crushing, veining and sericite alteration decrease significantly at a weak shear fault @ 50 DTCA at 971.75m, below which, the pervasive ankerite alteration continues but veining decreases to 3%. MS values do not change significantly from the background values described above at 948.50.

971.75 995.80 Greywacke - The gritty wacke zone as described at 948.50m continues, the grit fraction dominating and the wacke becoming subordinate. Clasts are polymict and range up to 5cm in size, with the size fractions of the grit increasing steadily down hole. The pervasive ankerite alteration persists but appears to weaken from 983.70- 991.00m coincidentaly with an increase in the susceptibility from the background values of 0.28- 0.35, gradually, to a peak of 2.25 at 988.15m and then back down. Sulphides remain trace through most of this section except as noted below.

984.83 984.93 Fault Zone - This weak carbonate crush fault containing a few small splashes of cp, cuts the core @ 20/ 30 DTCA.

From (m.)	To (m.)	Geology
991.00	995.80	Carbonated Zone Fault Zone - Several things happen through this interval, the degree of pervasive ankerite alteration increases, sulphides- fine disseminated py- increase to 0.5% between 992.15 and 994.00m, and early ankerite veining from 994.60- 995.55m, has been cataclastically fractured. The only hint of an attitude for the structure associated with the cataclasis, is a weak to moderate shearing of the wacke below this fracturing which trends @ 20 DTCA. The MS values in the wacke within, and surrounding, the pyritized section drop into the low 0.20's but increase to background (0.32) to the end.
995.80	1117.00	CONGLOMERATE A little of the fracturing and weak shearing from the fault near the end of the wacke continues through the natural contact with the conglomerate. Overall, is coarsely gritty to pebbly, imparting a terrazo style appearance to much of the interval but grading into more pebble dominated lenses where the clast size averages only 2-3cm. The matrix comprises a mix of fine to coarse wacke, which form massive lenses up to 1.5m in places. The colour is a blotchy/ patchy mix of light yellow green grey to medium greenish grey which results from carbonate alteration associated with fine microfracturing and (shreddy) crushing. Carbonate fracture filling, veinlets and shreddy gashes amount to about 5%. Accompanying some of the carbonate in the fractures is fine thready sericite. MS values are fairly tightly constrained to a corridor of 0.31- 0.36 with lower values in areas of stronger alteration (0.19- 0.27). The sulphide content is anomalous to trace with local enhanced sections as detailed below.
999.80	1001.00	Pyritic Silicified Zone - The zone is not really silicified but it is well mineralized with up to 4% finely disseminated and streaky py. It seems to be related (down hole from) a 'pinch and swell' carbonate breccia vein that cuts the host @ 25 DTCA. In places, the clastic texture of the conglomerate is partly washed out by pervasive carbonate alteration that resembles silicification. MS values drop to 0.19/ 0.22 and contacts are gradational.
1007.37	1014.53	Mudstone - The mudstone unit begins as a series of thick bands of 30cm and 8cm, separated by wacke which precedes the main massive segment beginning at 1009.38m. Contacts of the upper bands are natural, sharp @ 40/ 60 DTCA, but partly slumped indicating tops up hole. The leading contact of the main section is sharp @ 45 DTCA but bright lime sericite alteration of some beds suggests that the mudstone has been plastically deformed through slumping or compaction resulting in contorted to low bedding angles of around 30 DTCA. Overall, it is very fine grained to aphanitic, bedded as indicated, and lime green coloured where altered (sericitized) and dark grey where fresh. MS values are

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52639	998.40	999.70	1.30	TR	.000	.000	nil
52640	999.70	1001.00	1.30	3	.013	.000	463
52641	1001.00	1002.30	1.30	TR	.001	.000	17
52642	1012.55	1013.75	1.20	TR	tr	.000	10
52643	1013.75	1014.60	.85	TR	.001	.000	43
52644	1014.60	1015.75	1.15	TR	.001	.000	24
52645	1021.50	1022.45	.95	TR	tr		0
52646	1022.45	1023.85	1.40	TR	tr	.000	7
52647	1023.85	1025.00	1.15	TR	tr	.000	10
52648	1025.00	1026.00	1.00	TR	tr	.000	7
52649	1029.60	1030.35	.75	TR	.001	.000	21
52650	1034.90	1036.10	1.20	TR	tr	.000	10
52651	1049.35	1050.05	.70	TR	.000	.000	nil
52652	1050.05	1051.40	1.35	TR	tr	.000	3
52653	1051.40	1052.40	1.00	0.5	tr	.000	7
52654	1052.40	1053.40	1.00	TR	.000	.000	nil
52655	1053.40	1054.85	1.45	TR	tr	.000	10
52656	1054.85	1056.20	1.35	TR	.000	.000	nil
52657	1056.20	1057.60	1.40	TR	tr	.000	3
52658	1067.00	1068.00	1.00	TR	.000	.000	nil
52659	1075.65	1076.35	.70	TR	tr	.000	14

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

markedly lower at 0.16- 0.19, mineralization is trace despite the strong apparent alteration. Very fine ankerite slivers/ shreds and thready fracture fillings amount to 3%.

1013.90 1014.60 Fault Zone - The mudstone terminates at the end of a moderately strong shear crush sericite fault zone @ 40 DTCA centred around a 2.5cm crush carbonate mud structure 40 DTCA at 1014.08m. The zone is weakly mineralized with trace fine py and cp.

1014.60 1030.30 Conglomerate - The hole continues in the pebble conglomerate but is so intensely fractured/ crushed in places that the primary clasts are obscured by 10% carbonate and sericite fracture fillings, veinlets, shreds and patches of alteration. Some of these deformation and alteration features line up as shears, generally at low angles (10-30 degrees) to the core axis although some are undulating along the axis and some cut it at steeper angles. The overall colour is a 'chopped up' medium (to dark) greyish green, however, despite the degree of deformation and alteration, the red jasper pebbles are well preserved. Mineralization consists of trace to slightly anomalous py and cp associated with the ankerite veining and structures. MS values generally hover around 0.33 but may range between 0.21 and 0.41. Some of the better mineralized and veined features were spot sampled.

1030.30 1117.00 Conglomerate - By this point, the primary features in the conglomerate again become recognizable with only sporatic short corridors of deformation, the most significant of which are detailed below. The conglomerate remains polymict, pervasively ankeritic with 3% thready veinlets, shreds and fractures of ankeritic and MS values continue in the lower numbers of 0.27- 0.41 except in the walls of the following dike where they rise to 0.42- 5.27 between 1045.00 and 1054.15m. At 1061.00m, they begin to undulate in a range of 0.42 and 10.8, but most are more tightly confined to a corridor of 0.60- 2.72.

1034.90 1036.10 Fault Zone - Overall, this is a weak sericite- shear fault zone characterized by intermittent, thready sericitic shearing @ 32/ 42 /48 DTCA with the steeper angles being more prominent. The structure is accompanied by trace fine py pinpricks and rare py'c streaks but no other significant alteration.

1050.44 1053.39 Porphyritic Syenite (altered) - Through a natural sharp contact @ 50 DTCA, the conglomerate is cut by a well altered, light salmon pink/ orange coloured, syenite porphyry dike in which most primary features have been obliterated. It has the appearance of a fine textured/

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

grained felsite but 2% scattered altered mafic inclusions/ xenoliths and abraided (by microfracturing) and altered feldspar phenocrysts, that are only visible with a lens, suggest a porphyritic provenance. In places, the intragranular microfracturing has tectonically rounded the phenos thereby imparting a sedimentary arkosic appearance to the host. MS values are consistently low, beginning at 0.23 and dropping to a tight range of 0.13- 0.15. As mentioned, the MS values rise to 0.42 and 5.27 from 4.5m up and 0.75m down hole. The porphyry is weakly pervasively ankeritic as are the 2% thready and gashy veinlets that cut the unit. Finely disseminated and splashy py is anomalous and rises to 0.5% over a few decimetres in places. The trailing contact follows an irregular chlorite slip @ 35 DTCA.

1054.15 1054.70 Fault Zone - The fault zone comprises three separate structures, one at each end, and a central one at 1055.55m. They all consist of crush- chlorite- shear slips @ 48/ 35 /55 DTCA with minor similar structures down hole (1056.15m @ 40 DTCA; 1057.45m @ 45 DTCA; and 1060.75m @ 35 DTCA) and trace accompanying py.

1067.40 1067.70 Fault Zone - This area is characterized by a zone of crushing/ cataclasis with whispy sericite which trends generally @ 60 DTCA and carries trace sulphides.

1067.70 1073.00 Trachyte Pyroclastic - In this interval, the textures of the host become indistinct, washed out, with clasts that are mainly pinkish coloured blending into the finer grained, background matrix material. The overall impression is that of a welded tuff/ breccia (debris flow) zone in which fragments and matrix are jumbled together and fused thereby creating these indistinct features. MS values average around 7.00 with a slight drop to 2.73 in a short (0.5m) section that is more typically conglomeratic (1070.80m). The matrix remains weakly pervasively ankeritic and mineralization remains trace. As with the unit itself, contacts are hazy and unclear.

1075.80 1076.00 Fault Zone - This is a zone of crushing/ weak cataclasis @ 70 DTCA similar to that at 1067.40m. The interval is weakly mineralized with 0.5% fine py grains and splashes.

1077.60 1082.75 Conglomerate (transitional carbonate zone) - In this interval, the carbonate in the matrix and veining is transitional between ankerite and calcite, below, it is predominantly calcitic. Otherwise the conglomerate is as previously described and only weakly deformed and altered.

1082.75 1117.00 Conglomerate (calcitic) - The 3% veining and pervasive alteration of the matrix and some clasts has become

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		exclusively calcitic below 1082.75m. Overall, the conglomerate remains polymict although alkalic clasts are not as prominent, forming less than 10% of the host. The pebbles, which occur in a clast supported framework, tend to be of flatter/ elongate shapes, particularly for those of mafic/ volcanic provenance, while felsic/ porphyry ones maintain rounder shapes. Overall, mafic clasts form a smaller size fraction than those of a felsic character and a weak crush fabric has also added to the flattened appearance of the unit. Many of the clasts of felsic composition have reacted brittly to the deformation as evidenced by extensive fine thready ladder and cross fracturing through these pebbles. Mineralization in the bottom of the hole comprises trace py grains and splashes. It was noted that MS values seemed to fall into distinct regimes from the carbonate transition to the end of the hole although there are no obvious lithological reasons for these corridors. They include: 1077.60- 1080.00m, 1.13- 2.63; 1080.00- 1083.00m, 0.47- 0.63; 1083.00- 1087.00m 0.72- 2.07; 1087.00- 1092.00m, 0.27- 0.41; 1092.00- 1105.50m, 0.43- 2.53 with most values in a tighter range of 0.82- 1.46; and, 1105.50- 1117.00, 2.01- 5.89. The last 3m of the hole becomes chloritic (medium green coloured) and strongly pervasively calcitic.								
1117.00		End of hole - The hole ends in the chloritic conglomerate at 1116.80m. The drillers were asked to leave the casing after cementing the top of the hole.								

QUEENSTON MINING INC

Drill Hole: AK-05-11

DIAMOND DRILL HOLE RECORD

2.33536

Property: AMALGAMATED KIRKLAND- Leased CLM 328 (UTM: 569676E/ 5331215N)
Northing: 10604.00
Easting: 7656.00
Elevation: 324.00

Collar Azimuth (Grid) 202.00
Collar Dip: -55.00
(0 Degrees Grid equals 341 degrees True)
Hole Length: 749.00

Date Printed: 25 Apr, 2006

*** Dip Tests ***			*** Dip Tests ***		
Depth	Azi.	Dip	Depth	Azi.	Dip
26.0	202.6	-54.6	420.0	206.1	-51.7
62.0	205.2	-54.1	482.0	209.2	-50.7
120.0	208.0	-54.1	542.0	211.9	-49.9
180.0	208.6	-53.6	602.0	211.9	-49.2
240.0		-53.2	662.0	211.9	-48.8
299.0	207.6	-52.7	749.0	212.6	-47.1
359.0	208.5	-52.2			

Date Started: May 29, 2005
Date Completed: June 17, 2005

Drilled by: H & S
Core Size: NQ
Material left in hole NX CAS left
Core Location: Upper Canada Site 1
Logged by: FR Ploeger

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

SUMMARY LOG

.00	19.00	OVERBURDEN
19.00	27.93	PORPHYRITIC SYENITE
27.93	35.90	SYENITE
35.90	43.26	PORPHYRITIC SYENITE
43.26	55.56	PORPHYRITIC SYENITE
55.56	180.48	TRACHYTE TUFF
180.48	198.77	PORPHYRITIC SYENITE
198.77	221.30	TRACHYTE TUFF
221.30	248.30	PORPHYRITIC SYENITE TRACHYTE TUFF
248.30	376.06	SYENITE
376.06	391.50	TRACHYTE TUFF
391.50	427.00	TRACHYTE AGGLOMERATE
427.00	485.20	PORPHYRITIC SYENITE
485.20	550.25	TRACHYTE LAPILLI TUFF
550.25	551.20	FAULT ZONE
551.20	603.18	GREYWACKE

From (m.)	To (m.)	Geology
603.18	627.21	MUDSTONE
627.21	645.12	GREYWACKE
645.12	653.70	MUDSTONE
653.70	684.88	GREYWACKE
684.88	725.00	CONGLOMERATE
725.00	749.00	GREYWACKE

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

.00 19.00 OVERBURDEN

Coring in bedrock begins at about 19.00m although the drillers indicate driving the casing to 20m. The hole is collared in the vacant, backfilled lot near the entrance to Archer drive across from the industrial mall. It is designed to thread a narrow gap between the Amalgamated Kirkland Break to the north and E-W diabase dike to the south, testing for N-S veins (ABM Zone). The resulting hole will cut the stratigraphic section at a shallow angle since coring is subparallel to the core axis. Overburden comprises backfill, black muck, boulders (to 50cm) and fine sand.

19.00 27.93 PORPHYRITIC SYENITE

This interval contains two distinct porphyry dikes, the lower one cutting the dike that starts the hole, at 21.23m. The upper dike is characterized by a well defined (strongly) porphyritic texture comprising 30% euhedral, 2-10mm, pale pink/ dull white feldspar phenocrysts, many of them zoned, in a fine grained groundmass composed of 20% fine, millimetric, altered ferromagnesian laths and fine grained, medium pinkish grey feldspar which imparts the overall colour to the host. The upper section is fairly well broken up (RQD estimated at 25%) along oxidized slips and fractures. Testing with dilute hydrochloric acid (HCl) and potassium ferricyanide (KFeCy) indicates that fractures and thready veinlets are calcitic in composition. The porphyry is essentially barren as no sulphides were noted in the system. Magnetic susceptibility (MS) readings were well constrained to a corridor of 19.0- 24.1, averaging 22.2.

A second porphyry dike with more subtle, poorly defined phenocrysts, cuts the previous unit with a faint but sharp, intrusive contact @ 35 DTCA at 21.23m. It consists of 30% poorly defined, 1-3mm, dull white to grey, subhedral feldspar phenocrysts (1- 7mm) in a fine grained, medium pinkish grey groundmass containing 20% fine, altered ferromagnesian grains and an additional 1-2% dark green altered mafic inclusions to 5cm. This porphyry is also well fractured with fine thready pinkish calcite veinlets and sections that are well broken up (21.90- 22.40m) with an overall RQD estimated at 35%. As with the upper dike, mineralization is nil, and, neither contains any veining other than the thready calcitic fractures. MS values are lower in the this dike, averaging about 10.0 through most of the interval and gradually dropping to 7.63 near the end. The porphyry cuts the following unit with another subtle but sharp conatact that is partially natural @ 45 DTCA and partly along a chlorite slip at an opposing 45 DTCA.

27.93 35.90 SYENITE

The first impression of the protolith, because of the dark (brownish) grey colour, is that of some type of mafic syenite, however, when viewed with a lens, the host has the appearance of a fresh syenite porphyry without the feldspar phenocrysts. In other words, it consists entirely of the matrix portion of the porphyry, complete with 15% black and green black altered,

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

amphibole (ferromagnesian) laths and 5% mafic inclusions/ xenoliths along with 1-2% millimetric, feldspar phenocrysts. The dark brownish grey colour masks many of the primary features. The degree of fracturing/ deformation in the mafic syenite compared with that in the previous porphyries is minimal, suggesting that it, in fact, intrudes the upper porphyry. Thus the apparent chilled margin at the lower contact of the preceding syenite porphyry may be a contact metamorphosed zone caused by the intrusion of this unit. Overall, it is weakly pervasively calcitic with 1% fine random calcite fractures although a portion of the central core of the interval is weakly ankeritic as indicated by staining. It is unmineralized and uniformly magnetic with MS values constrained to a narrow field between 19.6 and 22.3. The trailing contact of the dike is lost in a section of broken/ slivered core (35.70-35.95m).

35.90 43.26 PORPHYRITIC SYENITE

This unit is similar to the porphyritic syenite described at the start of hole except that strong microfracturing/ crushing has obliterated much of the primary texture. Some original features, such as the 25% coarser, 2-8mm, dull pink/ grey, euhedral feldspar phenocrysts nested in a fine grained, feldspathic, medium greyish brown/ pink coloured groundmass containing 15% altered ferromagnesian grains are preserved. In the remainder of the interval, the strong crushing, in combination with groundwater percolation, has caused the core to become weathered looking and porous with oxidation along many of the slips and fractures. Testing the porphyry with HCl indicates that the matrix and fractures are calcitic; mineralization, trace. MS values are generally higher through the upper half of the unit, ranging between 4.53 and 16.9, while below 39.50m, they settle into a narrow corridor of 6.08 and 8.81, ending at 10.3. The lower contact is natural but highly irregular @ 25-30 DTCA.

43.26 55.56 PORPHYRITIC SYENITE

The bulk of the code 4 comprises typical syenite porphyry as described at 21.23m although it actually starts with 2.25m of trachyte tuff. Overall, this tuffaceous section is dark greyish green coloured, massive, fine grained and finely granular textured. It is strongly pervasively calcitic, fizzing wildly when tested with HCl, but only weakly fractured and altered otherwise. MS values are elevated to a high plain of 41.7- 69.9, but drop to 18.6/ 18.9 near the end of the tuff zone at 45.54m. A thin lens of porphyry, similar to that of the main porphyry unit (below) separates the magnetically high and low segments of the tuff with natural contacts @ 75/ 12 DTCA between 44.50 and 44.95m.

The syenite porphyry forming the bulk of the interval begins on a lobed, shallow angled contact @ about 14 DTCA at 45.54m. It is as described above, massive, and finely porphyritic with 20- 30% dull grey and pink, 1-3mm sized, subhedral, feldspar phenocrysts in a fine grained, dark greyish burgandy/ pink coloured, feldspathic groundmass containing 10% black,

From (m.)	To (m.)	Geology

altered ferromagnesian grains and an additional 1% mafic inclusions/ xenoliths to 3cm. The syenite is moderately crushed and microfractured causing mild pitting, particularly near the start. These fractures are filled with chlorite and calcite but no significant veining or mineralization- in fact, sulphides are non existant. MS values range between 6.13 and 20.3, with most falling between 14.0 and 18.0 to a section of broken core around 51.0m where they drop to 7.63/ 5.85. Below the end of the broken core (50.60- 52.00m), the susceptibilities rise to 20.4- 27.5 before dropping to 7.16/ 7.63 through more broken core at 53.50m, ending with values between 14.5 and 19.3. The lower contact is sharp, natural @ about 55 DTCA and has inlcuded a wedge of tuff.

55.56 180.48 TRACHYTE TUFF

The interval consists primarily of trachyte tuff which is periodically punctuated by narrow dikes of syenite porphyry which will be collectively described with the thickest of these. The tuff, overall, is fine to very fine grained, unusually massive with no indications of bedding or grain size gradations, and medium to light grey coloured depending on the degree of weak bleaching which slightly lightens the colour. The host is well fractured/ crushed which has caused sections of broken/ fractured core and porous/ rough fracture surfaces where not broken. As mentioned, the tuff is uniformly very fine grained over great widths with no obvious bedding planes which is difficult to explain in terms of depositional provenance. Some weakly bleached planer features may constitute alteration along poorly defined bedding planes @ 30 DTCA.

Alteration comprises weak bleaching which is accompanied by strong pervasive calcite invasion of the matrix, as well as patchy purplish hematization adjacent to some vein/ fracture zones and dikes. Veining, as fine thready fracture fillings and veinlets at various angles to the core axis covers approximately 5% of the host, however, rarely is it associated with any major structure. All the carbonate in the veining and matrix is calcitic in composition as determined by testing with HCl and KFeCy. MS values, which are generally high in the tuffs, range from lows 1.14 in the altered walls of a fault structure to highs of 51.0 in areas of weak crushing and alteration. The majority of the values, however, fall between 26.0 and 39.0. Mineralization remains essentially nil throughout, with trace amounts of pyrite (py) and chalcopyrite (cp) appearing in vein zones associated with some of the structures. Some of these are broken out below.

64.63 64.70 Fault Zone - The core of this fault comprises a vuggy, 1cm, dull white calcite vein @ 30 DTCA which is accompanied by moderate sericitic shearing and crushing in the walls over 20cm up and 2cm down hole. A few isolated specks of py and cp were noted in the walls of the vein.

74.45 79.30 Porphyritic Syenite - This is the first of a series of syenite porphyry dikelet zones and dikes, all of which generally exhibit the same features and properties. A leading dike (74.45- 76.45m)

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52660	63.05	64.35	1.30	TR	.001	.000	24
52661	64.35	65.00	.65	TR	.001	.000	24
52662	65.00	66.00	1.00	TR	.003	.000	89
82481	86.55	87.40	.85	TR	.002	.000	62
52663	87.40	88.40	1.00	TR	.010	.000	360
82782	88.40	89.40	1.00	TR	.001	.000	21
52664	129.55	130.25	.70	TR	.001	.000	21
52665	134.35	135.35	1.00	TR	nil	.000	nil
52666	135.35	136.25	.90	TR	nil	.000	nil
52667	136.25	136.65	.40	0.5	.007	.000	243
52668	136.65	137.30	.65	TR	nil	.000	nil
52669	137.30	138.50	1.20	TR	nil	.000	nil
52670	138.50	139.85	1.35	TR	nil	.000	nil
52671	139.85	140.40	.55	TR	.001	.000	50
52672	140.40	141.65	1.25	TR	nil	.000	nil
52673	141.65	143.00	1.35	TR	.001	.000	41
52674	143.00	144.10	1.10	TR	nil	.000	nil
52675	164.35	165.40	1.05	TR	.001	.000	21
52676	165.40	166.75	1.35	TR	.002	.000	72

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

with natural intrusive contacts @ 20/ 30 DTCA is followed at 77.50 and 78.40m by narrow dikelets that seem to meander along the core axis and include many wall rock lenses and xenoliths. A thin (2cm) flamey aphanitic dikelet was also noted at 77.15m. Overall, these dikes comprise 10-20%, 1-3mm, dull grey, an-subhedral feldspar phenocrysts in a medium greyish pink coloured, feldspathic groundmass containing 8-12% fine, altered ferromagnesian grains plus 3% mafic inclusions. The contacts of these dikes/ dikelets tend to be finer grained with fewer obvious phenocrysts. Alteration consists of weak pervasive calcite alteration and 4% calcite fracturing; mineralization is nil. MS values seem to cluster around 23.0 for the upper dike and range from 2.34- 46.1 in the dikelets. Another dikelet with abundant tuffaceous inclusions occurs between 84.38m and 84.65m.

88.85 88.90 Fault Zone - A drop in the MS values to as low as 1.14 suggests strong alteration associated with this crush mud fault @ 36 DTCA. The walls are finely microfractured over 15-20cm and crushed for another 30cm beyond, however, apart from strong calcitic alteration, there is no other veining or mineralization.

98.00 109.37 Porphyritic Syenite - The interval comprises a series of porphyry dikes separated by lenses of tuff as at 101.30-102.40m and 103.75- 105.95m that are described generally above as, massive, very fine grained, granular textured, homogenous, mottled medium and dark grey coloured, fractured and pervasively calcitic. The porphyry is also as previously described, finely porphyritic with 15- 20%, 1-3mm sub-anhedral, dull grey, faint, feldspar phenocrysts in a fine grained, feldspathic, greyish pink/ burgandy coloured groundmass containing 10% fine altered mafic grains and an additional 2% mafic inclusions/ xenoliths. The host is moderately crushed/ fractured with calcitic fillings but no significant veining. Sulphides are negligible; MS values average about 26.0 within a range of 0.58 to 48.4. Although the leading contact falls on a carbonate slip @ 50 DTCA, all other internal and trailing contacts are natural with rolling irregular contacts @ 20 and 50 DTCA. Additional dikelets occur downhole at: 113.00m, 25cm with contacts @ 35/ 30 DTCA; 117.75m, 20cm with contacts @ 50/ 50 DTCA; 121.20- 122.70m, with contacts @ 40/ 55 DTCA; and 124.30- 125.35, with contacts @ 80/ 65 DTCA.

109.37 135.35 Trachyte Tuff - Excluding the dike(let)s of porphyry listed above, the interval consists of the tuff as detailed in several previous sections. To summarize, it is very fine to fine grained, massive, finely granular textured, homogenous with no distinct indications of bedding, and variably coloured depending on the degree and type of alteration. The base colour, medium to dark grey, is altered to lighter shades resulting from weak bleaching (calcification and sericitization), and, to maroon/ purple, by hematization, both

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

associated with minor structures and veining. The host remains well fractured, but barren, the fractures and 3% thready veinlets and stringers cutting the core at various angles and calcitic in composition. MS values continue to fluctuate in higher ranges of 26.0 to 63.0 through most of the interval but decrease to 15.8- 28.1 over the lower 3m.

129.80 129.81 Fault Zone - This is a tight 3mm specularite fault @ 30 DTCA that is greyish yellow altered for 15cm down hole but not mineralized.

135.35 147.47 Porphyritic Syenite - As before, the interval actually comprises a series of narrow porphyry dikes separated by slivers of tuff at: 137.32- 138.15m, with contacts @ 37 (chl slip)/ 35 DTCA; 140.00- 140.79m, with contacts @ 38 (fault, see below)/ 60 (slip) DTCA; 141.60m, 20cm with jagged contacts @ 30/ 55 DTCA; 143.73- 146.63m, with contacts @ 25/ 35 DTCA (all contacts natural unless noted otherwise). Overall, the dike appears as previously described but in this phase, most phenos and primary features/ textures have been masked by intense microfracturing that has recoloured the host with bright pink pervasive hematization and concentrated thready calcite and sericite fracture fillings. In addition, at 136.40m, there are a series of narrow (2-4mm) dark grey quartz stringers @ about 45 DTCA with splashes of py and cp amounting to approximately 1% over 10cm, otherwise mineralization is trace. MS values vary considerably through the dikes decreasing from 9.97 near the beginning of the upper dike and 19.4 in the lowermost dike, to values below 3.65 in the central dikes (as low as 0.14) near the strong fault (see below). The trailing contact of the lowermost dike in the swarm falls on a 0.6- 1.0cm chlorite calcite wafer/ slip @ 50 DTCA that contains a few splashes of cp.

140.00 140.10 Fault Zone - Here, a strong shear sericite fault @ 40 DTCA may represent the focus of the strong microfracturing of the porphyries and yellowish greenish- grey alteration of the tuffs. There is a minor patchy/ gashy quartz- carbonate vein in the wall but mineralization amounts to a few scattered specularite, py and cp blebs and grains, trace overall.

145.55 145.57 Fault Zone - The fault here comprises a vuggy calcite vein accompanied by chloritic shearing @ 20 DTCA and a few weaker parallel shears over 1.5m down hole. None of these structures is mineralized.

147.47 180.48 Trachyte Tuff - A return is made here to very fine to fine grained, massive, finely granular textured, fairly homogenous trachyte tuff. Overall, the colour remains medium to dark grey with local lightening to pale greyish green and yellow near some minor structures. However, a section between 149.60 and

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

158.70m, is 50% reddish/ burgandy stained/ altered by hematization associated with irregular patches/ nests of calcitic fractures. Some of these reddish alterations have preferentially invaded a series of bedding planes, particularly at 151.00m, where the bedding attitudes were measured @ 55 DTCA. Testing with HCl indicates that the tuff is pervasively impregnated with calcite as are the 2-3% thready veinlets and narrow stringers that cut the host. Mineralization is nil. MS values are highly variable within a range of 24.7- 68.4 to 161.50m where they start to drop gradually approaching an alteration corridor between 164.70 and 166.67m. Here, they undulate between 37.3 and 13.1 immediately above, to 7.47/ 6.88 at the first altered section, to a low of 1.29 within, to 34.4 between, to 3.78 in the second altered zone, and, rising again to a range of 23.0 to 50.4 below.

164.70 166.67 Fault Zone Carbonated Zone - The interval is characterized by a series of dull white/ grey, whispy calcite veins/ lenses @ 25- 30 DTCA accompanied by moderate parallel fracturing and foliation as well as mild bleaching/ lightening of the tuff. The susceptibility changes through this corridor were noted above; mineralization is nil.

180.48 198.77 PORPHYRITIC SYENITE

It would be redundant to describe the syenite porphyry in detail again. As before, it is finely porphyritic with 15-20%, 1-3mm, feldspar phenocrysts in a fine grained, medium greyish pink groundmass. The host is moderately crushed and microfractured, which, along with the weak accompanying alteration, has combined to partly obliterate much of the primary texture of the porphyry, particularly the phenos. The fractures are calcite filled as are a number of vuggy pink carbonate stringers to 0.5cm that cut the core @ 30-35 DTCA. Crushing/ microfracturing has also caused the core to break up into sections of shorter pieces. MS values fluctuate in a low range of 0.66-8.49 to 187.50m before rising into a higher track of 11.2 to 21.1. The sulphide content remains nil. Both contacts are well defined and natural, the leading contact embayed to wavey @ 50 DTCA, the trailing one, in the form of a tongue into the tuff.

198.77 221.30 TRACHYTE TUFF

The hole now traverses back through mafic trachyte tuff which has also been previously described as fine/ very fine grained, massive, homogenous, finely granular textured, and featureless with no apparent bedding or other pyroclastic textures. It too is well crushed with mild alteration in nested fracture zones lightening the colour from the normal dark grey to medium mottled yellowy grey and greenish/ bluish grey. Intruded into the tuff are narrow tongues and lenses of the surrounding porphyry dikes as follow: at

From (m.)	To (m.)	Geology
		207.70m, a few 3-5cm tongues; at 213.60m, a 25cm lens; and, at 217.80-219.00m, dikelet. Alteration fractures between the lower two porhpyry lenses uniformly trend @ 50-55 DTCA. These fractures as well as the matrix are strongly calcitic as are the thready fine fractures/ veinlets in the porphyries. Mineralization remains nil to trace; MS values range between 23.0 and 48.5 with most falling between 34.0 and 43.0.
221.30	248.30	PORPHYRITIC SYENITE TRACHYTE TUFF
		Basically, the intrusives and tuffs alternate back and forth through the interval, probably because the hole tracks at such a shallow angle to the stratigraphy that it is skimming along the contact between the two. The porphyry intrusives range from blobs of less than 10cm to dikelets and small dikes to 1.5m, aggregating approximately 40% of the overall interval. All dikes are similar in appearance, medium/ dark greyish maroon/ burgandy coloured with dull grey feldspar phenocrysts in varying amounts. In much of the interval, the textures of the dikes, and the tuffs, have been masked by strong crushing/ microfracturing and moderate alteration. The tuffs are basically massive, fine/ very fine grained, homogenous, finely granular textured and well fractured/ weakly altered as previously described. Mineralization in both the tuff and intrusives is nil to trace. MS values continue fairly high, 30.0- 48.0 in the tuffs and are variable, 3.32- 19.4, in the porphyries. As with many of the previous intervals that were well crushed, the fracturing has caused the core to become broken up.
248.30	376.06	SYENITE
		The leading contact of this strange dike occurs on a 2mm mud fault @ 23 DTCA. It has the overall appearance of a syenite porphyry dike without the phenocrysts. In fact, the intrusive begins with approximately 8% fine, 1-3mm, sub-anhedral, dull white/ grey feldspar phenos that deteriorate less than 1% down hole. They are hosted in a fine grained, massive, medium grey to greyish brown coloured, homogenous groundmass that includes 5-15%, acicular to tabular, millimetric, black to green black altered ferromagnesian crystals and 1% dark grey green mafic inclusions/ xenoliths to 4cm. The matrix of the syenite is very strongly pervasively calcitic, fizzing violently when tested with dilute HCl. Near the end, however, there is a 1.5m transition zone of mixed calcite and ankerite, where below 269.80m, it becomes completely weakly pervasively ankeritic. The upper 1.5m of the interval may be partially contaminated with tuff or the previous porphyry because of the high susceptibilities (19.5/ 13.1), whereas in the remainder, the values fall into a fairly low zone of 0.37- 1.13 with a few minor higher incursions to 2.14\ 5.86. Mineralization is nil to trace.
		258.05 258.17 Fault Zone - A zone of moderate crushing with chloritic fractures @ 35 DTCA defines this ragged fault zone. There is no obvious alteration or mineralization associated with the structure.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52677	275.00	276.20	1.20	TR	.001	.000	51
52678	276.20	277.40	1.20	TR	.002	.000	82
52679	277.40	278.30	.90	TR	.003	.000	95
52680	288.35	289.30	.95	TR	.001	.000	45
52681	289.30	290.35	1.05	TR	.004	.000	154
52682	290.35	290.90	.55	0.5	.003	.000	117
52683	290.90	291.35	.45	6	.012	.000	418
52684	291.35	292.60	1.25	0.5	.009	.000	305
52685	292.60	293.60	1.00	0.5	.009	.000	324
52686	293.60	294.15	.55	0.5	.007	.000	257
52687	294.15	295.15	1.00	TR	.005	.000	165
82483	295.15	296.15	1.00	TR	.001	.000	21
82484	303.85	304.80	.95	TR	.002	.000	75
52688	304.80	305.30	.50	TR	.006	.000	189
52689	305.30	306.60	1.30	TR	.017	.000	576
52690	306.60	307.70	1.10	TR	.020	.000	699
52691	307.70	308.90	1.20	TR	.012	.000	418
52692	308.90	309.90	1.00	0.5	.003	.000	113
82485	333.40	334.35	.95	TR	.001	.000	27
52693	334.35	335.00	.65	TR	.007	.000	243
82486	335.00	336.15	1.15	TR	.002	.000	64
52694	365.75	366.60	.85	TR	.003	.000	91
52695	366.60	367.60	1.00	0.5	.026	.000	888

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
276.20	277.40	Fault Zone - The FAZ is characterized by a central corridor of deformation from 276.50- 276.60m, consisting of 2cm of gouge, 1-2cm of orange calcite chlorite laminated veining, and 2-4cm cataclastic chlorite faulting, all trending @ 30 DTCA. Up hole, the host is altered and strongly finely brecciated (cataclastically) over 10cm becoming fractured and more solid to the contact. Down hole it is finely fractured/ crushed and strongly altered to a porcelainic broken/ mottled/ patchy brick orange, pale orange and greyish tan colour, the fractures generally filled with specularite. The zone is unmineralized.	52696	367.60	368.60	1.00	TR	.004	.000	146
			82487	368.60	369.90	1.30	TR	.020	.000	696
			6980	369.90	371.00	1.10	TR	nil	.000	nil
			6981	371.00	372.20	1.20	TR	nil	.000	nil
277.40	280.30	Syenite - The phenocryst deficient syenite continues below the fault. It has become brick pink coloured through hematization and fine microfracturing but the basic textures such as the mafic grains in the groundmass and the mafic xenoliths, show through. A few scattered clots/ splashes of py and cp occur in the fractures and xenoliths. MS values range from 0.21- 0.37.								
280.30	281.96	Porphyritic Syenite - Through a whispy/ feathery, chlorite-sericite fault contact @ 50 DTCA, there is an abrupt change into a regular porhyritic syenite phase of intrusive in which the 20% faint pinkish grey phenocrysts are discernible with the aid of a lens. The fine grained, medium greyish pink coloured groundmass containing 10% fine bright yellowish altered, millimetric ferromagnesian grains and 1% mafic inclusions, is well hematized and microfractured. It is also mineralized with trace py and exhibits low susceptibilities at 0.22/ 0.28. The trailing contact, @ 55 DTCA, is faintly distinguishable from the similarly coloured tuff/ wacke that follows.								
281.96	283.02	Trachyte Tuff - The hole now traverses a thin lens of tuff/ wacke(?) that is fine grained, massive, mottled medium buff grey to greyish purple, and granular textured with rare rounded clasts to 2cm. MS values were measured at: 0.23/ 3.57 and mineralization runs trace.								
283.02	289.00	Syenite - The leading contact of another segment of phenocryst poor syenite is sharp, natural @ 35 DTCA. Although it is also well microfractured and altered near the start, masking some textures, it becomes less deformed by 286.00m allowing the textures to show through. Typical for this unit, are the 2% mafic inclusions/ xenoliths in the groundmass and occasional feldspar phenocrysts. Unusually, there appears to be a narrow porphyritic lens at 285.17- 285.66m with a gradationally sharp leading contact @ about 40 DTCA and sharper trailing contact (partly faulted) @ 60 DTCA as well as an increased proportion of altered mafic/ ferromagnesian groundmass material, estimated at 20% at 287.00m. MS values are highly variable, bouncing erratically between lows of 0.28 and highs of 17.4/								

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

23.3 within a few decimetres of one another. Mineralization is trace, and, staining indicates that the syenite remains weakly ankeritic while some fractures and carbonate veinlets are calcitic in composition.

289.00 290.36 Porphyritic Syenite - A return to the porphyritic phase occurs at a sharp, bright maroon red coloured, 0.5- 1.0cm, wavey, chilled margin within the non phenocrystic phase @ 80 DTCA. The phenocrysts are subtle, blending into the medium greyish pink/ maroon, fine grained groundmass, but are easily discerned with the aid of a hand lens. They comprise 20%, 1-3mm, anhedral, dull pinkish grey crystals, whose shapes are partially modified by fine intragranular microfracturing and subsequent sericite and carbonate fracture fillings. Susceptibilities are relatively low, falling in a range of 0.13- 0.38 to the internal contact at 290.38m. The carbonate in the microfractures is ankeritic in composition as are the 2% gashy veins and fracture fillings; mineralization is trace.

290.36 294.16 Aplite - This is an unusual bleached porphyritic unit that appears to be infused with several light grey to greyish orange coloured, aphanitic, siliceous dikelets at 290.36- 290.72m (contacts wavey, irregular @ 55?/ 45 DTCA), 290.92- 291.32m (a series of finger- like dikelets @ various angles), and 293.68- 294.14m (sharp @ 45/ 40 DTCA). In the contained syenite porphyry, which has been strongly bleached to a pale buff grey colour, the dull white, 1-4mm, subhedral, feldspar phenocrysts are clearly visible. Fractures and quartz carbonate stringers in the felsic dikelets, particularly those in the central aplitic fingers, contain trains and clots of py amounting to 7% over 20cm while the porphyry contains approximately 0.5% disseminated and fracture related py. The carbonate in both the matrix and veining is ankeritic; MS values drop to 0.05- 0.08 through most of the interval.

294.16 376.06 Porphyritic Syenite - Below the trailing aplitic dike, the hole traverses back into the typical syenite porphyry in which the phenocrysts are well masked by the fine microfracturing and alteration except in a few well preserved fresher rafts of the host (295.60/ 301.75m) where they become obvious. Overall, the porphyry assumes the characteristics of the groundmass, the medium greyish maroon colour, fine to medium grained texture, and, the presence of 3-5% altered mafic inclusions/ xenoliths. Staining with KFeCy indicates that the matrix is pervasively ankeritic but fine fractures and veinlets (<<<0.5%) are weakly calcitic. The sulphide content is nil to trace and MS values revert to the highly erratic sinusoidal patterns between 0.37- and 14.3.

304.99 305.01 Fault Zone - The fault consists of a 0.5cm chlorite carbonate slip @ 36 DTCA with grungy chlorite and sericite, and trace

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

py, in the walls.

306.60 308.90 Aplite - Another two narrow aplitic dikes that have a felsitic appearance, ie, they are aphanitic to fine grained, massive, and light greyish pink coloured, are separateed by a narrow zone of altered porphyry from 307.14- 307.67m. The upper felsite dikelet is bounded by sharp contacts along chlorite breccia slips @ 85/ 50 DTCA while the contacts of the lower dike are well defined and wavey, but not sharp, @ 30/ 40 DTCA. Both dikes are weakly ankeritic in conjunction with the host and are mineralized with 1% py as disseminated grains and splashes. MS values drop sharply to a low range of 0.04- 0.09.

308.90 319.90m Porphyritic Syenite - Below the felsites, the hole rolls back into the intermittently altered syenite porphyry where the porphyritic texture fades with increased alteration and fine microfracturing, and returns in the fresher sections. These changes are reflected by changes in colour to medium pink to greyish pink/ maroon where altered and dark pinkish/ purplish grey where fresher, and, by susceptibilities which are highest in the freshest sections (to 44.7), and lowest in the most altered (0.47).

319.90 332.25 Porphyritic Syenite (fresh) - Through this interval, the host becomes almost totally unaltered and undeformed, exhibiting the typical characteristics of fresh porphyry. These include 20%, sub- euhedral, 1.5- 6mm, dull white to dull pink, sometimes zoned, feldspar phenocrysts in a fine grained, dark greyish purple/ brown groundmass containing 15% fine altered ferromagnesian grains, and 0.5% altered mafic inclusions/ xenoliths. Additionally, MS values are high, in the range of 12.7- 26.5, and, calcitic alteration of the matrixbegns to reoccur as local patches. Mineralization remains nil to trace, and, contacts are gradational into the altered phases.

332.25 376.06 Porphyritic Syenite - Here, the hole reverts back to the moderately well altered and microfractured phase of the intrusive as described several times above, with most of these features associated with minor chlorite slips at various angles and accompanied by crushed and altered walls. MS values dip as low as 0.25 and rise as high as 14.8 while the sulphide content remains at nil to trace. Staining with KFeCy indicates that the matrix is weakly pervaded with ankerite while most of the 1-2% fine thready veinlets and fractures cutting the porphyry are calcitic, although a few are ankeritic. Below 371m, the dike becomes weakly pervasively calcitic to the end where it exits on a sharp natural contact @ 55 DTCA.

334.49 334.63 Fault Zone - The actual fault comprises a tight, but strong, chlorite slip/ fault @ 80 DTCA and braided chlorite fractures @ 70/ 80 DTCA at the start of the interval. This is followed

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

by 20% finely brecciated host in a dull grey coloured, sugary, silicified matrix and slightly anomalous py.

367.02 367.10 Fault Zone - This is a fairly strong, partly vuggy fault @ 60/ 45 DTCA that comprises a series of chlorite lined, calcite slips/ stringers with altered walls over 45cm down, and 40cm up hole. The veins and walls contain a few scattered py grains/ crystals, however, at 20 and 35cm up hole, parallel chlorite crush slips @ about 65 DTCA, contain up to 5% py over 2-4cm. Similar slips 15/ 45cm down hole are more weakly mineralized with 0.5% py over 2-4cm.

376.06 391.50 TRACHYTE TUFF

Typically, the trachyte tuffs are massive (non bedded), fine to very fine grained, dark grey to purple/ brown grey coloured, and granular textured. They contain, what seem to be, ribbons and trains of blebs/ clasts of the porphyritic syenite above, and of the narrow dike that intrudes the tuff. These may represent small dikelets that fill fractures and that may have been tectonically disrupted along the edge/ contact of the dike that is being skimmed at a shallow angle to the strike by the hole. Above the internal dike at 381.05m, the susceptibilities cluster consistently around 12.8 while below, they group tightly around 18.1, rising gradually to 41.6 at 1.5m before the end of the interval, and dropping to 20.5 at the trailing contact. Pervasive calcite alteration increases in strength down hole as do the 3% fine carbonate stringers that cut the core at fairly steep angles (70-80 degrees) to the core axis. Mineralization consists mainly of weak specularite associated with fractures and stringers; the sulphide content is nil.

381.05 387.15 Porphyritic Syenite - Both the leading and trailing contacts of the dike are nebulous and appear to have partly assimilated some of the tuffaceous material into the contacts which occur somewhere within a 10- 15cm mixed zone at either edge of the dike. The porphyry itself resembles the fresher phases of the preceding dike, comprising 15%, 1-3mm, dull white, subhedral, feldspar phenocrysts in a fine grained, dark greyish purple, feldspathic groundmass with very fine ferromagnesian grains and 0.5% mafic inclusions. Phenos begin to thin while the matrix becomes very fine grained over the lower metre of the dike. MS values are fairly high at 10.1- 19.5, and, the matrix and 2% fine thready veinlets are calcitic in composition. Sulphides run trace.

391.50 427.00 TRACHYTE AGGLOMERATE

The upper contact of the trachyte fragmental was taken at a lens of subrounded to subangular porphyritic clasts that resemble the contact zone and composition of the porphyry dike. Below, the clasts, which range up to

From (m.)	To (m.)	Geology

11cm but average approximately 1-2cm, are all coloured various shades of orange/ maroon/ brown/ grey and represent a variety of alkalic lithologies that are hosted in a fine grained to gritty, dark greyish purple matrix. Although some clasts are well rounded, perhaps suggesting a sedimentary provenance, the matrix lacks the jasper grains noted in all conglomerates. Since the source of the clasts and matrix is exclusively alkalic, the unit was classified as a trachyte fragmental. MS values are highly variable, ranging from 0.76- 34.9, but seem to concentrate in a mid range of 2.00- 7.00 or a higher one of 17.0- 25.0. The matrix is strongly calcitic as are the 0.5% gashy pink and dull grey veinlets and chlorite carbonate stringers that cut the unit. As above, sulphides are absent or negligible while specularite commonly occurs in fractures and the edges of some stringers.

424.95 426.30 Porphyritic Syenite - Overall. The unit has the appearance of a phenocryst poor type of dike, however, examination with a lens confirms that it is indeed porphyritic and that the phenos are altered to the same colour as the groundmass, dark greyish purple, rendering them megascopically unrecognizable. The mafic inclusions (2%) are visible but the fine (20%) ferromagnesian grains in the groundmass also require a lens. MS values of the intrusive are high at 25.8/ 28.3, the matrix, strongly pervasively calcitic, and, the sulphide content, nil. Both contacts are highly irregular, the upper one finely serated @ 35 DTCA, the lower, coarsely saw tooth along a series of weak offsetting (1.5cm) slips/ faults.

427.00 485.20 PORPHYRITIC SYENITE

Through a contact on a weak calcite chlorite slip @ 40 DTCA, the hole now encounters a thicker syenite porphyry dike that contains a number of conglomerate(?) lenses and that is cut by a series of strong faults. The sedimentary inclusions occur at 429.40- 429.80m (contacts @ 40/ 40 DTCA, fractured but natural), 430.86- 431.65m (contacts on slips @ 20/ 52 DTCA), and 433.50- 435.13m (contacts on a strong fault @ 45 & natural @ 65 DTCA).

The host porphyry varies between phases in which the phenocrysts are well defined, to those in which they have been partially or completely masked by fine microfracturing and alteration. In the leading syenite interval, 15% phenos are subhedral, 1-5mm, dull grey to pink coloured, and, the groundmass, fine grained, medium geryish pink/ orange coloured, containing 1% scattered mafic inclusions/ xenoliths and 10% fine altered ferromagnesian grains. In the other phases, these primary textures are variably apparent through the deformation. Within 20cm of the leading contact, the carbonate in the matrix becomes ankeritic in composition while most of the fractures remain calcitic. MS values vary between lows of 0.11 and highs of 1.12, the lowest values near the structures; mineralization consists of trace py as small grains and clots.

The included lenses of sediments, are all strongly altered and deformed, particularly adjacent to the faults near the start or end of the intervals.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52697	428.45	429.40	.95	TR	tr	.000	3
52698	429.40	429.85	.45	TR	.002	.000	75
52699	429.85	430.75	.90	TR	.005	.000	165
52700	430.75	431.65	.90	TR	.002	.000	58
52701	431.65	432.55	.90	TR	.012	.000	400
52702	432.55	433.50	.95	TR	.011	.000	363
52703	433.50	434.00	.50	TR	.002	.000	69
52704	434.00	435.10	1.10	TR	.001	.000	31
52705	435.10	436.25	1.15	TR	.003	.000	96
52706	436.25	436.85	.60	TR	.002	.000	51
52707	436.85	437.80	.95	TR	.003	.000	103
52708	437.80	438.75	.95	5	.032	.000	1096
52709	438.75	439.30	.55	TR	.002	.000	83
82488	442.70	444.00	1.30	TR	.002	.000	69
82489	444.00	445.20	1.20	TR	.008	.000	267
52710	445.20	446.30	1.10	TR	.017	.000	573
52711	446.30	447.35	1.05	0.5	.019	.000	645
82490	447.35	448.60	1.25	TR	nil	.000	nil
82491	448.60	450.00	1.40	TR	.006	.000	206
82492	450.00	451.00	1.00	TR	.003	.000	110
82493	451.00	452.40	1.40	TR	.002	.000	75
82494	452.40	453.70	1.30	TR	.002	.000	60
82495	453.70	455.05	1.35	TR	.003	.000	89

From (m.)	To (m.)	Geology
		Generally, they are light to medium yellow green coloured with pale orange altered clasts, granular textured and well crushed to finely microfractured. The yellow colouration results from a mix of fine whispy sericite and ankerite that has invaded the (micro)fractures. Ankerite continues as the dominant carbonate mineral pervading the matrix and a few gashy veins while pink calcite still occurs in most fractures and stronger structures. Despite the intense deformation and alteration, the sulphide content is trace; MS values fall in a low range of 0.19- 0.34.
429.73	429.76	Fault Zone - This strong crush calcite- chlorite fault ends the sedimentary interval @ 30 DTCA and is not mineralized.
430.85	430.88	Fault Zone - In contrast with the previous structure, this carbonate (calcite & ankerite)- breccia fault/ slip @ 20 DTCA, begins a sedimentary segment.
433.50	433.60	Fault Zone - This, the strongest of the faults in the interval thus far, comprises a series of pink calcite veinlets, shreddy chlorite fractures, dull grey quartz lenses and mud slips which combine to cut the core at 45 DTCA and form the leading contact of the third sedimentary lens. Neither the fault zone or altered and deformed sediments in the footwall are mineralized with more than the odd rare speck of py.
435.13	485.20	Porphyritic Syenite - Below this lowermost altered sedimentary lens, the core traverses the main section of a thick syenite porphyry dike, in particular, the phase in which most of the primary texture has been masked by deformation and alteration where only a few windows of relatively fresh host are preserved. Overall, the colour is mottled in patches from medium to dark greyish maroon/ purple in fresher zones, to medium greyish pink/ orange in moderately altered and deformed sections, to brick orange in fracture zones and adjacent to strong and minor structures. Generally, the stronger altered zones also contain slight enrichments of py and minor cp, ie around 447m and 456m where the brick orange alteration around chlorite slips is enhanced with up to 5% py and cp over 5cm in places. MS values are generally confined to a range of 0.72-2.07 with a few higher values in fresher porphyry, and lower ones in more altered host. Ankerite continues to weakly pervade the matrix, but most fractures and thready (quartz-) carbonate veinlets (1-2%) are calcitic in composition. Sampling reflects areas of increased sulphides in the altered fracture zones although they are not necessarily described separately.
437.85	438.25	Pyritic Silicified Zone - Weak lacey dirty buff grey silicified fractures and streaks, amounting to 20% of the interval, are confined between two bounding weak chloritic fracture sets @ 85/ 50 DTCA. The zone is well mineralized with 5% py (minor cp) as splashes and streaks in fractures.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52712	455.05	456.15	1.10	TR	.016	.000	535
52713	456.15	457.50	1.35	TR	.006	.000	189
52714	457.50	458.50	1.00	TR	.003	.000	89
52715	458.50	459.35	.85	TR	.016	.000	535
52716	459.35	459.90	.55	TR	.027	.000	938
52717	459.90	460.65	.75	TR	.005	.000	178
52718	460.65	461.40	.75	0.5	.005	.000	185
52719	461.40	462.45	1.05	TR	.003	.000	110
52720	462.45	463.25	.80	TR	nil	.000	nil
52721	463.25	464.00	.75	TR	.010	.000	350
92496	464.00	465.05	1.05	TR	.041	.000	1389
92497	465.05	466.10	1.05	TR	.004	.000	137
52722	466.10	467.50	1.40	TR	.008	.000	271
52723	467.50	468.90	1.40	TR	.011	.000	376
52724	468.90	470.00	1.10	TR	.012	.000	411
52725	470.00	471.35	1.35	TR	.006	.000	219
52726	471.35	471.85	.50	1	.016	.000	545
52727	471.85	472.50	.65	0.5	.011	.000	394
52728	472.50	473.10	.60	12	.030	.000	1022
52729	473.10	474.10	1.00	0.5	.007	.000	240
52730	474.10	474.70	.60	1	.012	.000	418
52731	474.70	475.55	.85	TR	.004	.000	123
52732	475.55	476.75	1.20	1	.002	.000	65
52733	476.75	477.65	.90	TR	.004	.000	151
52734	477.65	478.20	.55	TR	.005	.000	161
52735	478.20	479.00	.80	TR	.006	.000	209
52736	479.00	479.45	.45	1	.019	.000	665
52737	479.45	480.25	.80	TR	.001	.000	24
52738	480.25	481.00	.75	TR	.009	.000	326
52739	481.00	481.55	.55	2	.020	.000	679
52740	481.55	482.10	.55	1	.007	.000	246
52741	482.10	483.25	1.15	TR	tr	.000	10
52742	483.25	483.95	.70	TR	.003	.000	117
52743	483.95	485.20	1.25	TR	nil	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

459.43 459.60 Quartz Vein Zone - This is the first vein in the hole that has a close resemblance to typical ore type veins from the Kirkland Lake gold mines although it it is more py rich then normal. The interval comprises a late(?) chlorite- quartz-carbonate vein @ about 15 DTCA that is overprinted on an earlier(?) dark blue grey quartz breccia vein @ 35 DTCA that contains 15% coarse to fine py and a graphite- moly(bdenite) slip. The exact relationships are obscured by broken core.

461.24 461.26 Fault Zone - The core is well crushed and altered to brick orange for 55cm down hole, but only 5cm up hole, from this 1cm chlorite- mud fault @ 30 DTCA. The hanging wall contains up to 0.5% py in fractures.

467.50 482.10 Altered Syenite - In this interval, the syenite porphyry ranges from weakly to strongly hematized and fractured, with the porphyritic textures fading in and out. In addition, there are a number of medium grey and dull white coloured quartz breccia veins containing abundant py and cp cutting the host at fairly steep angles of 50/ 65/ 75 DTCA. Many chlorite fractures through the zone also carry splashes and slivers of py, particularly near the main veins. Generally, the amount of py depends on the width of the veins, the strongest vein zone, which occurs between 472.72 and 473.05m, carrying approximately 12% within a strongly grungy light greyish orange alteration envelope. Lesser veins cut the porphyry as follow: 471.65m, 0.6- 2.0cm; 474.35- 474.58m, 30% veining; 475.15m, 1cm; 477.52m, 2 veins of 1cm; 479.23m, 2cm chlorite-calcite laminated fault @ 85 DTCA; 480.36m, 1.5cm; 480.81m, 2.5cm; 481.34m, 6.5cm dark grey silicification; and, 482.04m, 2.5cm. Each of these veins contains from 3-15% py and/ or cp through the vein and several cm into each wall with the interstitial material hosting perhaps tr- 1% on average. Sampling reflects narrow areas of influence around the veins with longer samples between. It should be noted that these veins strongly resemble the typical auxilliary veins found in the walls of the Main Break, either as splays or parallel structures, the main difference being the high sulphide content of the present zone.

482.10 485.20 Porphyritic Syenite - This, the trailing section of the porphyry mass, is weakly to moderately altered and deformed with the phenocrystic texture showing through faintly. Overall, it is medium greyish pink coloured, with 25% pale pink and orange, 1-3mm, feldspar phenos in a fine grained, feldspathic groundmass with 15-20% fine altered mafic grains as well as 5% larger mafic xenoliths. By this point, parts of the matrix are weakly calcitic as are all the fine fractures and 2% fine, thready, carbonate veinlets. The susceptibilities, which had dipped to as low as 0.19 in the

From (m.)	To (m.)	Geology
		veined zone (within limits of 0.33 to 3.02), climbs to a higher range of 2.12 to 10.3 over the lower portion of the dike. Mineralization runs trace, and, the trailing contact is sharp, natural @ 65 DTCA.
485.20	550.25	TRACHYTE LAPILLI TUFF
		The porphyry exits into a massive unit of finely fragmental (gritty) trachyte tuff/ lappili tuff in which most fragments range from 1- 10mm, averaging 0.5mm, with a few larger clasts to 3cm, and, what appear to be 'tongues' of trachyte rubble (of similar compositions) in early stages of disintigration. The fine fragments/ clasts, subangular to subrounded in shape, are of trachytic composition, being coloured various light to dark shades of greyish brown, orange, pink, and grey and are matrixed by fine tuff of similar composition which imparts an overall dark to medium brownish grey tone to the host. MS values are elevated to a range of 11.2- 34.5 through which they undulate and the matrix becomes strongly pervasively calcitic as indicated from the violent reaction with HCl. About 1% fine dull pink and grey carbonate veinlets, which are also calcitic, cut the tuff, while sulphides run trace.
		505.40 505.80 Quartz-Carbonate Vein Zone - The interval consists 20% fine calcite/ quartz/ silicified breccia vein zones and patches of lacey veinlets to 3cm, that host 2% cp and py overall. These features seem to cut the core in X shaped patterns and do not appear to be related to any particular structure in the core.
		513.65 542.60 Trachyte Lapilli Tuff - MS values start to drop to lower levels, from 0.59- 8.28 in areas that seem to be dominated with porphyry clasts and porphyritic rubbly flows(?) while the lapilli and tuffaceous host remains magnetically high at 15.0- 31.6. The upper section begins at 514.55m, with fine fragments to 1cm that grade into a massive, 50cm, central core from 514.80 to 515.30m, and then into a rubbly fragmental with clasts of various shapes ranging up to 12cm, to 517.35m. This latter section has the appearance of a rapidly disintegrating protolith. A massive finer grained trachyte flow(?), with sharp, natural contacts from 520.62- 521.17m, does not contain the bounding fragmental trains. Similar to the first zone, a section from 526.54- 529.45m, represents a rubbly pile of 85% dull brick orange coloured porphyritic fragments in 15% dark grey tuffaceous material. A trailing porphyritic flow(?) at 535.46- 537.90m, exhibits a sharp leading irregular contact @ 25 DTCA, and a 20cm, very fine grained chilled margin, followed by a medium grained, weakly porphyritic, dark greyish maroon body, and nebulous, finely fragmental(?) trailing contact. It should be noted that these units are being designated as flows although they exhibit many visual compositional characteristics that are similar to the syenite porphyry intrusives.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52744	485.20	485.95	.75	TR	nil	.000	nil
52745	485.95	486.95	1.00	TR	tr	.000	7
52746	504.25	505.40	1.15	TR	.005	.000	168
52747	505.40	506.00	.60	1	.010	.000	340
52748	506.00	507.05	1.05	TR	.002	.000	79
52749	544.65	545.65	1.00	TR	.004	.000	123
52750	545.65	546.60	.95	TR	.001	.000	34
52751	546.60	548.00	1.40	TR	.009	.000	298
52752	548.00	549.25	1.25	TR	.001	.000	38
52753	549.25	550.25	1.00	TR	.002	.000	58

From (m.)	To (m.)	Geology
		538.70 541.25 Broken Blocky Core - The core here is broken into small pieces and chips along intersections of fracture nests and a weak fracture system that tracks down the core axis.
		542.60 544.65 Start of Deformation Zone (ankerite) - The start of weak pervasive ankerite alteration was taken as the start of the zone of very strong crushing that follows. Fine trachytic fragmentals and tuffs remain as the primary protolith although the degree of fracturing and alteration increase while the MS values start to fluctuate.
		544.65 550.25 Deformation Zone - The deformation zone may be characterized as a zone of intense crushing centred around a mammoth break structure and accompanied by strong sericitization. It begins with a couple of weak carbonate fracture nests and a drop in susceptibility to below 2.5. At 547.65m, the matrix begins to become more strongly ankeritized and crushed while MS values remain consistently below 0.30. Mineralization increases to anomalous overall as fine dustings of pinprick py up to 1% over 10- 20cm.
550.25	551.20	FAULT ZONE
		The main break structure begins at 550.25m @ 15-25 DTCA as a medium greenish grey zone of mud and gouge over 30cm, grading into a segment of strongly crushed remnants of host rock in a pale green gouge and mud matrix which meanders along the core axis from 550.60- 551.20m. Below the break the host changes to a strongly altered and tectonized wacke. There are no obvious sulphides within the fault structure.
551.20	603.18	GREYWACKE
		As mentioned, the break marks a change of lithology to a massive (possibly pebbly) wacke which is identified by fine red jasper grains that have been preserved despite the high degree of alteration and deformation. Up to 555.06m, the wacke is fractured into cataclstic zones forming a grungy light to medium grey green coloured mix with rafts of pale salmon orange/ pink remnants of clasts(?). On a sharp chlorite carbonate contact @ 42 DTCA, the colour then becomes mottled to patchy pale yellowish to greenish tan/ beige to the end of the interval. Between 752.00 and 755.75m, the sediment becomes very fine grained and a porcelainic creamy/ pale greenish yellow colour indicating a change to mudstone(?). The granular texture of the sediment is evident throughout the entire interval but the jasper grains appear to be more prominent in the greenish toned sections but seem to be absent from some of the beigy altered sections. This may result from a change in primary composition to a more tuffaceous source or from reduction of the iron in the jasper grains.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52754	550.25	551.20	.95	TR	.001	.000	31
52755	551.20	551.90	.70	TR	nil	.000	nil
52756	551.90	553.10	1.20	TR	.001	.000	17
52757	553.10	554.00	.90	TR	.001	.000	21
52758	554.00	555.10	1.10	TR	nil	.000	nil
52759	555.10	556.75	1.65	TR	nil	.000	nil
52760	556.75	557.35	.60	TR	tr	.000	2
52761	557.35	558.75	1.40	TR	nil	.000	nil
52762	558.75	560.00	1.25	TR	tr	.000	3
52763	560.00	561.00	1.00	TR	tr	.000	3
52764	561.00	561.50	.50	TR	nil	.000	nil
52765	561.50	562.65	1.15	TR	nil	.000	nil
52766	562.65	563.75	1.10	TR	nil	.000	nil
52767	563.75	565.00	1.25	TR	nil	.000	nil
52768	565.00	566.00	1.00	TR	nil	.000	nil
52769	566.00	566.90	.90	TR	tr	.000	7
52770	566.90	567.60	.70	TR	tr	.000	10
52771	567.60	568.80	1.20	TR	tr	.000	7

From (m.)	To (m.)	Geology
		Below 555.06m, nests of randomly oriented, dark green black, hematite-chlorite crushing along with distinct cataclastic fault zones (561.20m, 8cm @ 25 DTCA; 566.09m, 3cm @ 35 DTCA) and lesser weaker zones gradually decrease to 572.00m. The presence of hematite in the system suggests that these structures are related to Timiskaming age hydrothermal events, possibly to mineralization. Associated with the deformation and alteration are 8% broken vein segments, stringers breccia zones, gashes, slivers, veinlets and fracture fillings of creamy white ankerite. MS values remain below 0.30 throughout, and, fine dustings of py up to several percent over 10-20cm render the entire interval anomalous in sulphides resulting in the sampling of the entire system.
579.20	579.62	Fault Zone - This fault constitutes another in the series of weakly cataclastic structures which is preceded by 25cm of strong crushing. The actual fault comprises a zone of intense brecciation of the host into 1-14mm shards in a dark grey, carbonate- hematite- chlorite matrix that exhibits a sharp leading contact @ 35 DTCA, but trails off gradually in the lower contact area. It is not significantly mineralized.
579.62	603.18	- The trailing section of the strongly altered and deformed footwall zone of the break continues to the lower contact. The colours remain mottled in thick patches grading back and forth between light greenish grey and light greyish salmon pink, and the matrix, fine grained and granular textured with rare scattered small clasts. Red jasper grains are scarce but present in a few spots. Both the dark grey cataclastic type fracturing, and the broken white carbonate veinlets continue as described. MS values are consistently below 0.30 and very fine dusty py and the odd splash of cp are anomalous throughout the the remainder of the interval. The lower contact with the main mudstone unit is sharp, natural @ 37 DTCA, but paralleled by a 2mm chlorite slip about a centimeter up hole.
603.18	627.21	MUDSTONE
		The upper metre contains an included, angular shaped lens of very fine grained, pale creamy greenish yellow coloured, wacke. Otherwise, the mudstone is very fine grained to aphanitic, massive but with slivers and lenses of one in the other, and light to medium greenish to yellowish grey in colour. Dull white/ beige, lensey spotting through some sections appears to form as an alteration feature rather than as a primary texture. With the strongly overprinted structural elements, it is difficult to determine relict bedding orientations, however, by taking the attitudes of contrasting colour regimes, which probably represent compositional variations, it yielded angles ranging from 25-40 DTCA.
		By about 611.00m, the cataclastic zones described above have become relatively insignificant. However, carbonate veining, in the form of

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52772	568.80	569.90	1.10	TR	nil	.000	nil
52773	569.90	570.85	.95	TR	nil	.000	nil
52774	570.85	572.00	1.15	TR	nil	.000	nil
52775	572.00	573.40	1.40	TR	tr	.000	2
52776	573.40	574.65	1.25	TR	nil	.000	nil
52777	574.65	575.75	1.10	TR	.001	.000	17
52778	575.75	577.05	1.30	TR	tr	.000	14
52779	577.05	578.45	1.40	TR	tr	.000	10
52780	578.45	579.65	1.20	TR	.001	.000	24
52781	579.65	581.00	1.35	TR	tr	.000	10
52782	581.00	582.50	1.50	TR	nil	.000	nil
52783	582.50	584.00	1.50	TR	tr	.000	3
52784	584.00	585.50	1.50	TR	nil	.000	nil
52785	585.50	587.00	1.50	TR	nil	.000	nil
52786	587.00	588.50	1.50	TR	tr	.000	7
52787	588.50	590.00	1.50	TR	tr	.000	2
52788	590.00	591.50	1.50	TR	nil	.000	nil
52789	591.50	593.00	1.50	TR	tr	.000	14
52790	593.00	594.50	1.50	TR	nil	.000	nil
52791	594.50	596.00	1.50	TR	tr	.000	3
52792	596.00	597.50	1.50	TR	nil	.000	nil
52793	597.50	599.00	1.50	TR	nil	.000	nil
52794	599.00	600.50	1.50	TR	tr	.000	3
52795	600.50	602.00	1.50	TR	nil	.000	nil
52796	602.00	603.20	1.20	TR	nil	.000	nil
52797	603.20	604.35	1.15	TR	tr	.000	10
52798	604.35	605.45	1.10	TR	tr	.000	3
52799	605.45	606.50	1.05	TR	tr	.000	7
52800	606.50	608.00	1.50	TR	tr	.000	2
52801	608.00	609.50	1.50	TR	nil	.000	nil
52802	609.50	611.00	1.50	TR	.002	.000	71
52803	611.00	612.50	1.50	TR	tr	.000	4
52804	612.50	614.00	1.50	TR	tr	.000	7
52805	614.00	615.50	1.50	TR	.001	.000	40
52806	615.50	617.00	1.50	TR	.001	.000	38
52807	617.00	618.50	1.50	TR	.001	.000	38
52808	618.50	620.00	1.50	TR	.001	.000	34
52809	620.00	621.50	1.50	TR	.001	.000	31
52810	621.50	623.00	1.50	TR	tr	.000	7

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
		fracture fillings, thready/ lacey nests of veinlets, small shreds and lensy blebs, and broken white stringers amount to approximately 8%. In addition, the matrix remains strongly ankeritic while the fine dusty py remains anomalous, except for within 5- 10cm of the lower contact which carries about 5%. Measurements of the magnetic susceptibility consistently yielded values below 0.24 with most running between 0.13 and 0.18.	52811	623.00	624.50	1.50	TR	tr	.000	3
			52812	624.50	626.00	1.50	TR	.004	.000	139
			52813	626.00	627.25	1.25	0.5	.003	.000	99
627.21	645.12	GREYWACKE								
			52814	627.25	628.40	1.15	TR	.007	.000	237
		The leading contact is mainly natural @ 65 DTCA and partly on a chlorite-carbonate slip, both of which are oblique to bedding features that trend @ 40 DTCA. The upper section of the unit comprises a section of gritty wacke resembling a mix of fine to coarse (2-15mm) terrazo in monochrome shades of pale to dark greens and greys with the odd red jasper grain. In places, the clasts are tightly packed into an intact, clast supported framework where the original voids were filled with late ankerite (629.85m). Beginning at what appears to be a natural contact @ 40 DTCA at 632.70m, the hole rolls through a very fine grained to aphanitic mudstone horizon, that, along with the structural fabric, cuts the core @ 25 DTCA to lower angles of 5- 15 DTCA. Overall, the colour ranges from medium grey to streaky pale greyish yellow where fine thready sericite seems to highlight both bedding features and fine shears/ fractures. The lower contact is sharp, natural, undulating along at a low angle (10 degrees?) to the core axis.	52815	631.35	632.45	1.10	TR	tr	.000	4
			52816	632.45	633.70	1.25	TR	tr	.000	14
			52817	633.70	634.65	.95	TR	nil	.000	nil
			52818	634.65	635.50	.85	TR	tr	.000	10
			52819	644.00	645.20	1.20	TR	tr	.000	3
		Beginning at 634.70m and running for 2.5m, the hole intersects a fine grained to finely gritty, massive, medium greenish grey coloured wacke section before ending in another gritty to finely pebbly horizon similar to the one at the start. This zone starts at 627.35m as a terrazo style grit with a few jasper chips over about a meter and then grades in and out of fine wacke to 639.80m. The trailing section grades back and forth between the terrazo size grit to fine conglomerate with clasts ranging up to 3cm in diameter. Apart from a few small, isolated, pale pink pebbles, the clasts are coloured in the monochromatic shades of greys and greens as at the start.								
		The alteration and deformation decreases through this interval except for 50%, fractured, ankerite- quartz veining that trends at low angles (10 degrees) and along the core axis within the lower section of the mudstone unit between 632.55 and 634.55m. Otherwise, carbonate (ankerite) veining as fractures, fine slivers, gashes and veinlets along with the fillings between the clasts amounts to approximately 4% overall. The entire interval remains moderately pervasively ankeritic which is reflected in the magnetics that range between 0.23 and 0.35. Mineralization averages trace overall but becomes anomalous through the mudstone, ranging up to several percent over 5- 15cm as fine streaks and clusters of very fine grains.								
645.12	653.70	MUDSTONE								
			52820	645.20	645.95	.75	TR	nil	.000	nil
		The leading contact of this mudstone interval was taken at a thready sericitic shear zone @ 40 DTCA. Where freshest, the colour is dark/ medium								

From (m.)	To (m.)	Geology

grey, but in areas of weak to moderate alteration near fractures and crushed zones, it gradually lightens to pale greyish olive green. Overall, it is very fine grained to aphanitic and, massive with rare bedding features @ 15 DTCA (wavey, 650.87m). Some swirly and flamey textures that are highlighted by the alteration suggest primary soft sediment deformation (slumping). The mudstone is cut by 4% white ankerite veining as fracture fillings, fine thready veinlets and gashy slivers, and irregular patches while the matrix remains pervasively moderately ankeritized as well. Susceptibilities fall below 0.26 and the sulphide content is weakly anomalous but <0.5%. As with the internal bedding attitudes, the trailing contact is natural, sharp, undulatory at about 15 DTCA.

653.70 684.88 GREYWACKE

This interval constitutes several components, beginning from the contact to 658.23m, a fine to very fine grained, massive, homogenous, medium grey to olive grey coloured wacke that includes a few irregular patches and lenses of aphanitic mudstone. Jasper grains and pebbly lenses were noticeably absent. About 10% creamy white ankerite veinlets and stringers to 3cm cut the core at various angles but with prefered orientations of 20/ 40/ 45 DTCA.

From a broken, but natural contact @ 35 DTCA at 658.23m to a sharp, natural trailing contact @ 50 DTCA at 667.43m, the host consists mainly of very fine grained to aphanitic, medium grey to olive yellow coloured, mudstone lenses along with rip up clasts and entire sections of ripped up bedded sections to 14cm in length. These are interbedded with, and included in, very fine grained, medium to dark grey wacke beds (without jasper grains). Internal bedding in the wacke and contacts with the mudstone are generally highlighted by weak to strong alteration (carbonate- sericite) and flamey to irregular bedding features @ 25- 35 DTCA. In this portion, carbonate veining is reduced to about 3% fine veinlets and stringers, mainly at 30 +\-DTCA, with an additional 50% fractured patches of ankerite- quartz between 665.75 and 666.75m.

The hole then rolls through a section of mixed gritty wacke and lenses of terrazo sized to fine pebbly conglomerate with a few clasts to 2.5cm. Clasts are generally elongate to ovoid, subangular to subrounded, and polymict in composition (including jaspers). Included within the gritty wacke with a gradational leading contact and carbonate slip @ 25 DTCA at the base, is a very fine grained, massive, medium grey coloured wacke lens of the type that bears no jasper grains. Otherwise, the internal changes in phases occur gradationally. Overall carbonate veining amounts to 3-4%, concentrated mainly as irregular gashes and stringers along the core axis and as 1.5-2.0cm veins @ 75 DTCA, near the start of the interval.

The lowermost unit consists of a massive, very fine grained, homogenous, granualr textured, medium greenish grey coloured wacke (without jaspers). The leading contact is well defined @ 25 DTCA, the trailing one sharp, but controlled by a fractured carbonate vein @ 35 DTCA. Veining here amounts to less than 0.5% overall.

Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52821	665.75	666.75	1.00	TR	nil	.000	nil
52822	681.05	682.35	1.30	TR	tr	.000	3
52823	682.35	683.70	1.35	1	nil	.000	nil
52824	683.70	684.80	1.10	3	nil	.000	nil
52825	684.80	686.00	1.20	TR	tr	.000	2

From (m.)	To (m.)	Geology

In all of the phases above, the carbonate veining is ankeritic in composition while staining of the matrix with KFeCy indicates that it too, is pervasively ankeritic. MS values in the grittier sections are marginally higher at 0.23- 0.35, than those of the fine wackes which range from 0.11-0.21. Mineralization, consisting of very fine sporatic dustings and disseminations of py, is trace overall in the grits but ranges up to 5%, averaging 2% in the lower very fine wacke section.

684.88 725.00 CONGLOMERATE

This is basically a continuation of the gritty wacke above but the grit and fine pebbly conglomerates now form the more prominent lithology. Overall, they tend to be terrazo looking with mixed clast sizes ranging from 1mm to 3.5cm, fairly densely packed with 35% fine to very fine grained wacke lenses to 1.8m but averaging much narrower, and polymict, with jasper clasts but very few pink/ orange (alkalic) pebbles resulting in monochromatic colours of light to dark shades of grey and green. Clasts tend to be subangular to subrounded and elongate to ovoid in shape with crude imbrication and bedding @ about 30 DTCA. The package is cut by 3% dull white ankerite and quartz-ankerite fractures, veinlets, gashes, and veins to 2cm at various angles to the core axis while the matrix remains pervasively ankeritic. MS values fall within a narrow corridor of 0.25- 0.35 with fine grained wacke lenses averaging lower at 0.17; mineralization consists of trace to anomalous fine py. A few intervals with more abundant veining were spot checked.

690.06 690.08 Fault Zone - A crush carbonate fault with a few mud slips and fractures cuts the core here @ 25 DTCA.

723.80 725.00 Carbonated Zone - The gritty conglomerate and fine grained matrix are pervaded by strong ankerite which has bleached/ altered the host to a pale grey to buff grey colour. In the trailing 20cm, the carbonate is crushed with the interval ending on a mud slip @ 15 DTCA.

725.00 749.00 GREYWACKE

The final interval of the hole consists of three components, a leading mudstone, central wacke from 727.80 to 746.15m, and a trailing gritty conglomerate to the end, all of which have been described previously. The mudstone is very fine grained to aphanitic, massive, and medium green grey coloured. Some partial, fractured, irregular internal contacts suggest bedding attitudes of about 30 DTCA. A 6cm weak sericite- carbonate shear zone @ 15 DTCA separates the mudstone from the following wacke. Overall, the wacke is massive, fine to very fine grained, medium grey coloured (with bluish and greenish tinges), and granular textured including widely scattered red jasper grains. In places, the wacke includes primary rip up mudstone clasts and soft sediment disrupted bedding as well as tectonically fractured/ broken bedding. The contact with the grit horizon in part follows

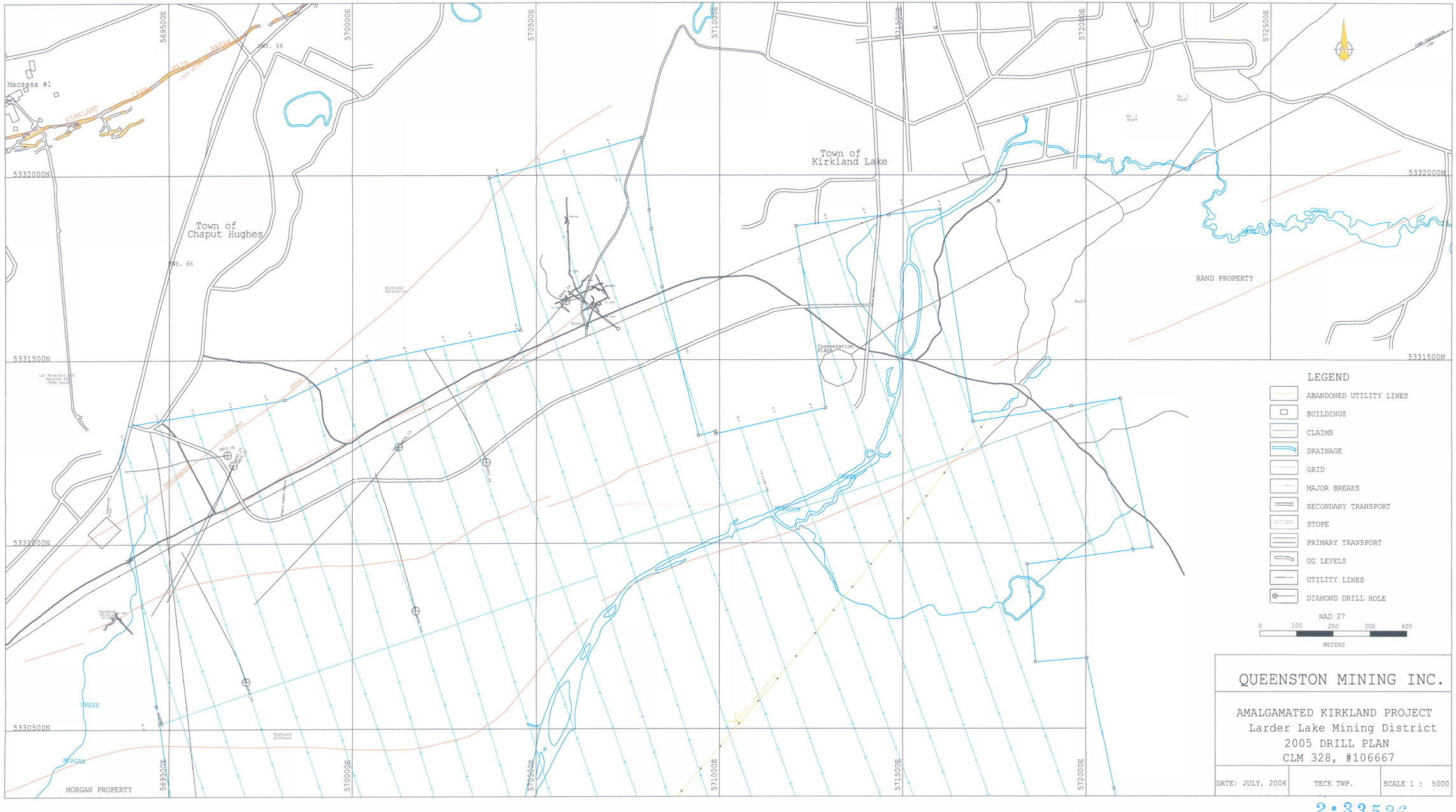
Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb
52826	689.00	690.25	1.25	TR	tr	.000	7
52827	723.75	725.00	1.25	TR	nil	.000	nil
52828	736.80	737.75	.95	0.5	nil	.000	nil
52829	737.75	739.15	1.40	TR	nil	.000	nil
52830	744.20	745.40	1.20	1	tr	.000	14
52831	745.40	746.55	1.15	0.5	nil	.000	nil
52832	746.55	747.80	1.25	TR	nil	.000	nil
52833	747.80	749.00	1.20	TR	nil	.000	nil

From (m.)	To (m.)	Geology	Sample No.	From (m.)	To (m.)	Len (m.)	Sul %	AU OZ/T	AU1 OZ/T	AU2 ppb

a carbonated mudstone band @ 28 DTCA, and, in part tracks along a wavey wacke lens @ 15 DTCA. Typically, the gritty conglomerate comprises a mixture of terrazo texture, fine gritty wacke and fine conglomerate with pebbles to 3.5cm. Clasts in the terrazo style zone tend to be subangular to subrounded while those in the conglomerate are well rounded and ovoid in shape.

All phases are pervasively altered with ankerite although testing with HCl indicates that a few patches of the matrix over the trailing 7.5m are weakly calcitic. Fine thready ankerite veinlets and fractures are ubiquitous to all phases as well and amount to approximately 7% overall. These veinlets are accompanied by anomalous fine dusty py as disseminated grains, scattered patches and fracture fillings. Some of the zones of more abundant veining and mineralization were spot sampled, particularly when fine thready sericitic shearing was present. MS values generally continued in the low range below 0.31 but moved up slightly to around 1.00 in the gritty conglomerate zone.

749.00 End of hole - The hole was stopped short of the boundary in the gritty conglomerate. The drillers were asked to plug the hole at 40m with 2 bags of cement and to leave the casing.

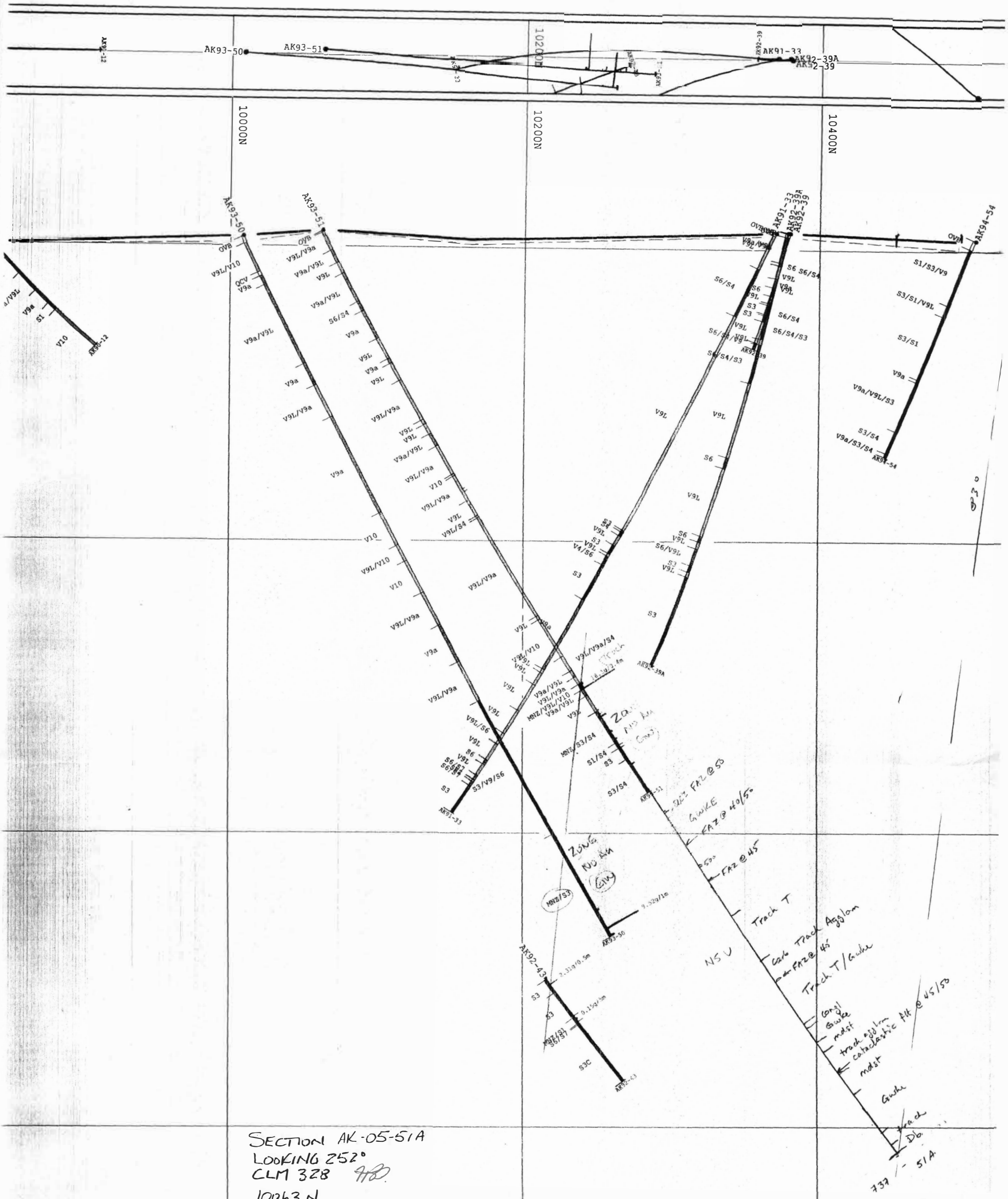


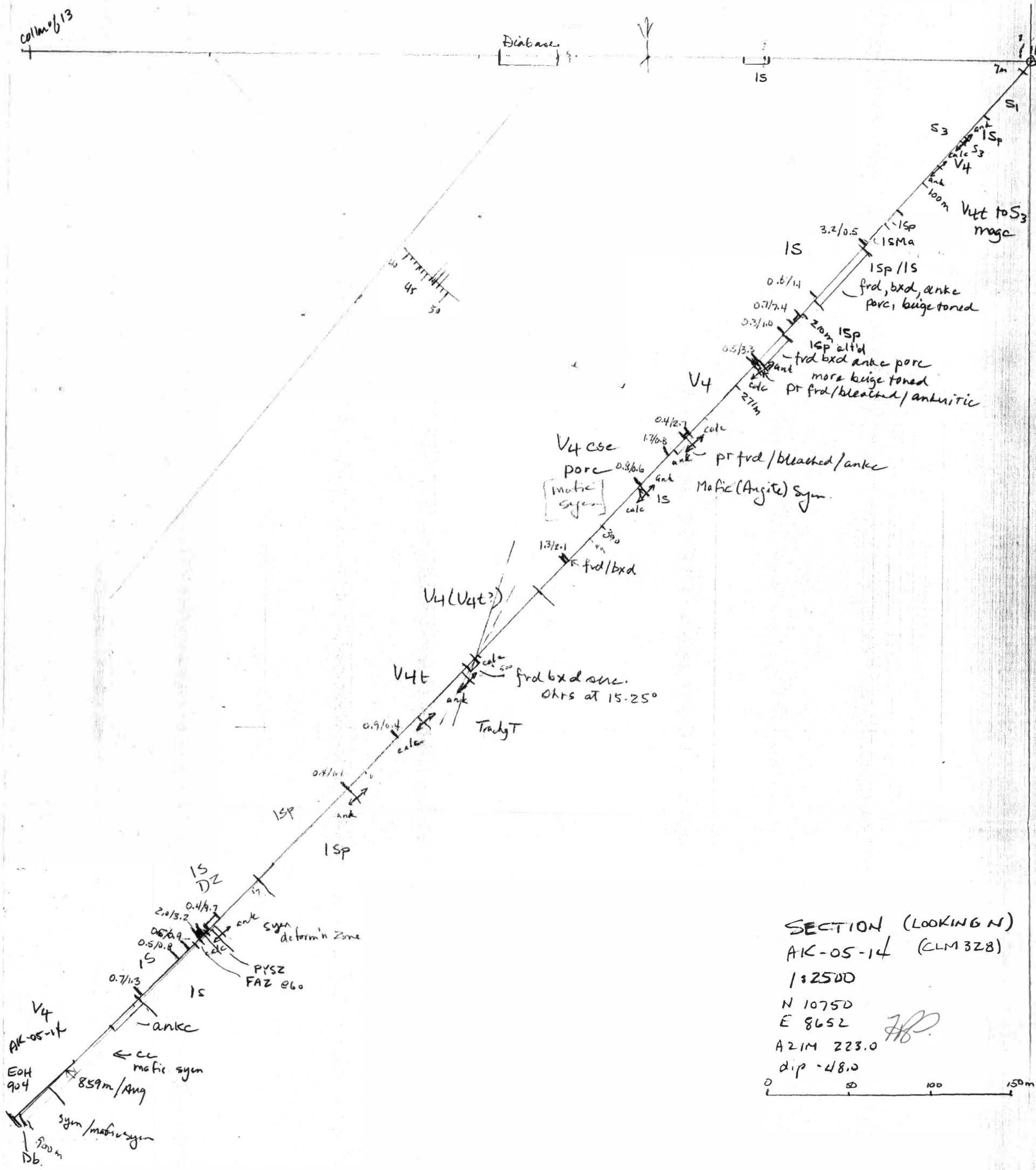
QUEENSTON MINING INC.

AMALGAMATED KIRKLAND PROJECT
Larder Lake Mining District
2005 DRILL PLAN
CLM 328, #106667

DATE: JULY, 2006	TECK TWP.	SCALE 1 : 5000

2.33536


AK93-50
AK93-51
AK91-33
AK92-39A
AK92-39
10000N
10200N
10400N
AK94-54
AK93-50
AK93-51
AK91-33
AK92-39A
AK92-39
AK94-54
AK92-43
AK93-30
AK91-33
AK92-39A
AK92-43
Track
Track T
Carb Track Agglom
Track T/Gauge
Gouge
mdst
track agglom
cataclastic flt @ 45/50
mdst
Gouge
Track
Dike
51A
737
NS V
MNZ/S3
SECTION AK-05-51A
LOOKING 252°
CLM 328
10063 N
79+96 E
azim 344°
dip -62.5°
1:2500
0
50
100
150 m
2·33536



1:2500

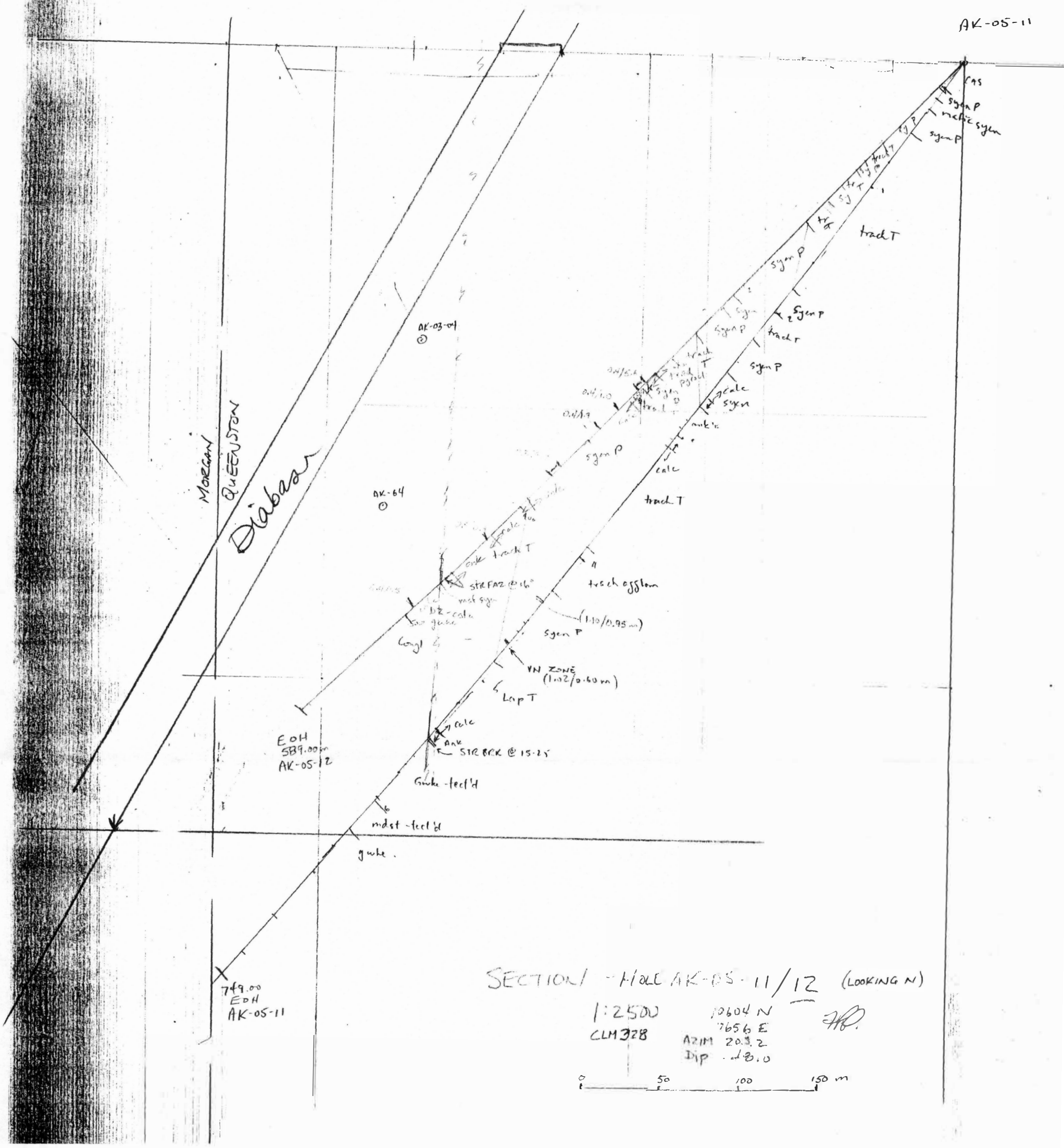
2·33536

1:2500

SECTION AK-05-11

-55°

AK-05-11



SECTION/ - HOLE AK-05-11/12 (LOOKING N)

1:2500

CLM328

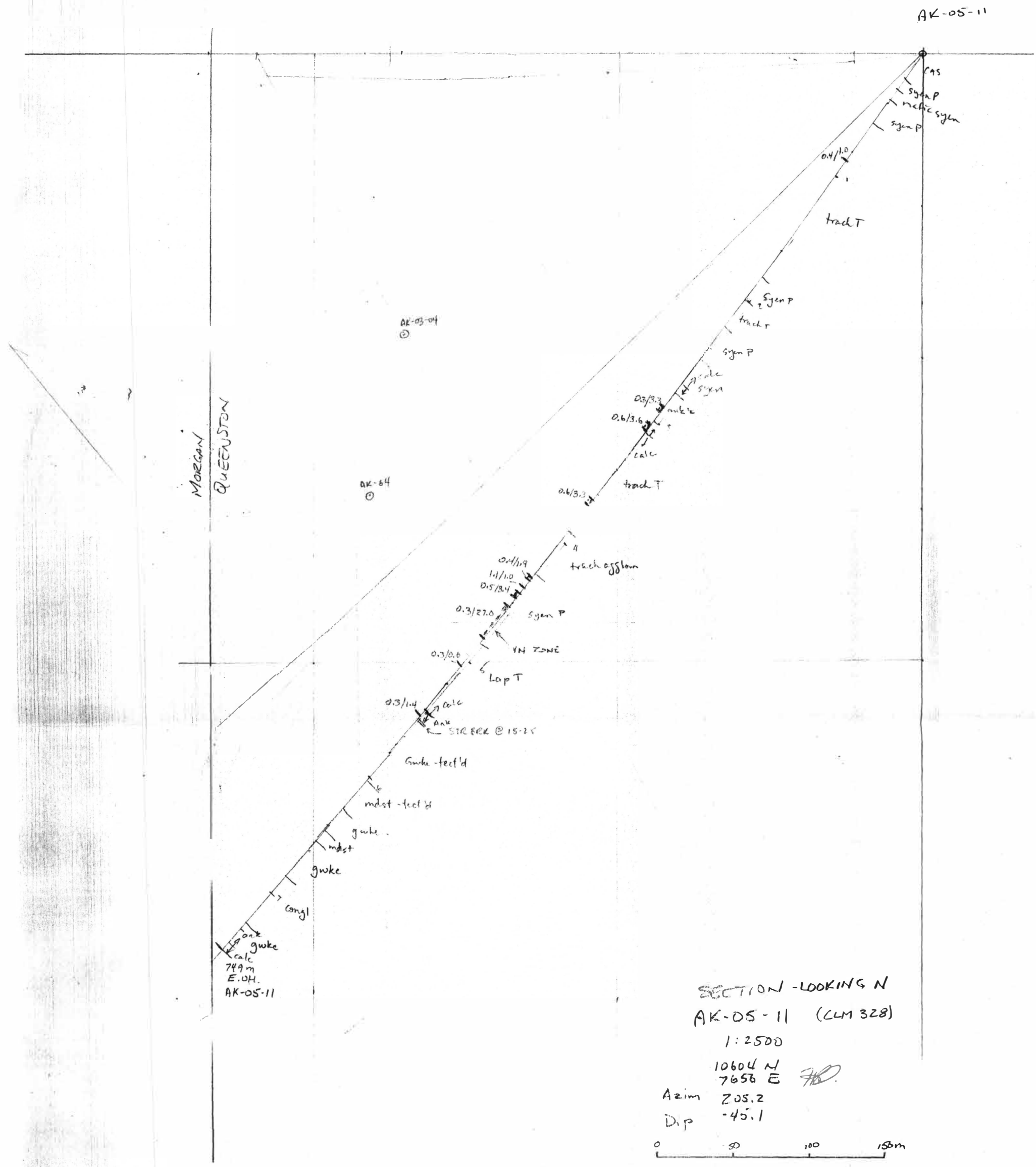
10604 N
7656 E
AZIM 20.32
Dip -48.0

0 50 100 150 m

2·33536

1:2500 SECTION AK-05-11

-55°



SECTION - LOOKING N

AK-05-11 (CLM 328)

1:2500

10604 N
7656 E

Azim 205.2

Dip -45.1

0 50 100 150m

2·33536

AK-05-10

AK94-62

OVB
V9a
S1/S3
V9L
S1
S3
V9L
V9L/V9a
AK94-62

conql
FAZ @ 45
gwke/conql

conql/gwke

trach T/gwke

90

trach kpT/gwke

trach kpT

150

trachT/gwke

210

gwke

270

conql

FAZ @ 50

Ank

calc

300

Accalc

Ank

Db

gwke

calc

360

Gwke

conql

calc

sink + calc
Tract T/gwke

gwke

420

conql

sink + calc

calc

vertical
mineralization

Bas

conql.

9

calc
sink
gwke

3.31/0.95m

0.60/30°

0.46/1.3

1000

Congl.

Sink

calc

AK91-33

OVB
V9L

3D

V4 & V8

V4

1SP

3.44g/10.2m

S1

1.16g/ 0.50m

1SP

AK91-37

Mac
Low

SECTION - AK-05-10
LOOKING 252°
CLM 328
10030N
75+00E
azim 342°
dip -75°
1:2500

0 50 100 150 m

10000N

10200N

10400N

2·33536

QUEE
AK DE
SECT
LITH
Scale: 1: 250

1:2500

AK-05-09

dip -70° azim @ 350° (planned)

gwke

congl
mvrst/wvgl.

qcv

qcv

gwke

chl fract'd

FAZ @ 55°

FAZ @ 35°

mvrst/gwke

STR FAZ @ 65°

FAZ (GWKE)

2.04/1.5m

ank
calc

mdst

Db

T
calc

track/sycn?

ank

matic sycn/track

track
FAZ

0.44/1.1m

track/matic sycn

track T

sycn porph

0.25/3.35m

0.21/6.7m

Gwke/Ank

6

sycn porph

gwke

ank
calc

congl

1.17/0.95m

sycn porph

congl

sycn porph

0.28/65m

8

congl

Trachyte T/Gwke

9

sycn porph

4180 m
E 011
AK-05-09

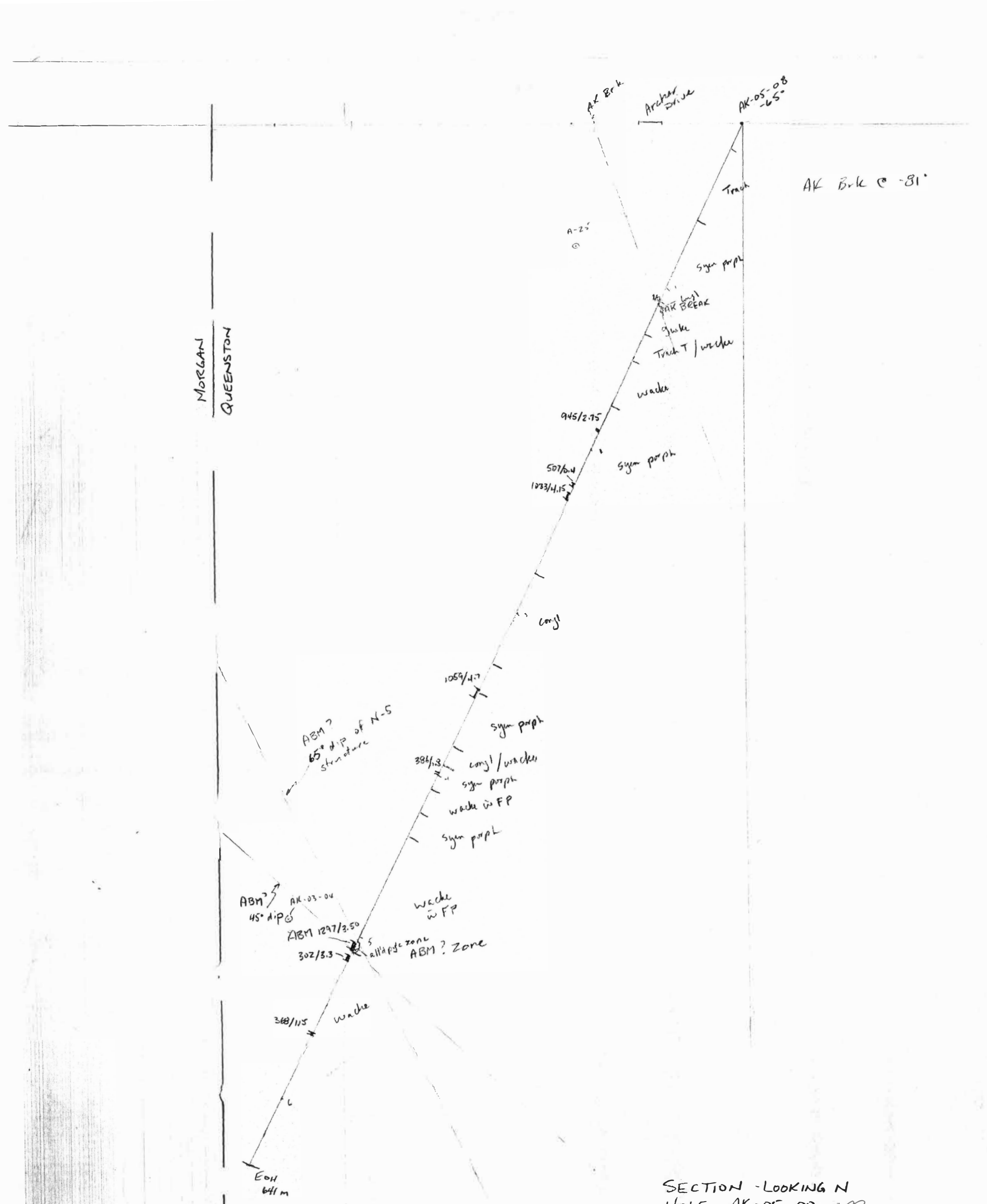
SECTION AK-05-09
(looking west)

SECTION AK-05-09
1:2500 (CLM 328)
10390 N
8300 E
Azim - 336.0
Dip -71.6°
(Looking West)

0 50 100 150 200 m

2·33536

AK-05-09
1:2500



SECTION - LOOKING N
HOLE AK-05-08
10636 N
7650 E (CLM 328)
AZIM. 263.6
DIP -65.5°

2·33536 1:2000

AK-05-13 dip@ azim@220

AK [illegible] PROJ vertical

-90°

50°

60°

0.8/0.7m

cas cm

1.5m VM ZONE

-50°

Track T

100

FAZ @ 0-20°

Gwke

track T

20° SHst

0.3/0.6

Gwke

30°

track pyrocl

SHst

Gwke

Conglom

N5°

calc+gwke Congl

Wacke

wk gwke. matrix & calc m'g fracts (to EOH)

S_1S_3

764m

750

S_3S_1

S_1

850m EOH

AK-05-13

(apparent dip of dS)

UTM NAD 72

570126 E

5331265 N

SECTION THROUGH AK-05-13

(looking NW) CLM 328

1:2500 10500N

8100 E

AZIM 217.0

DIP -50.5°

0 5 100 150 m

2733536

DATUM

-200m elev

-400m elev

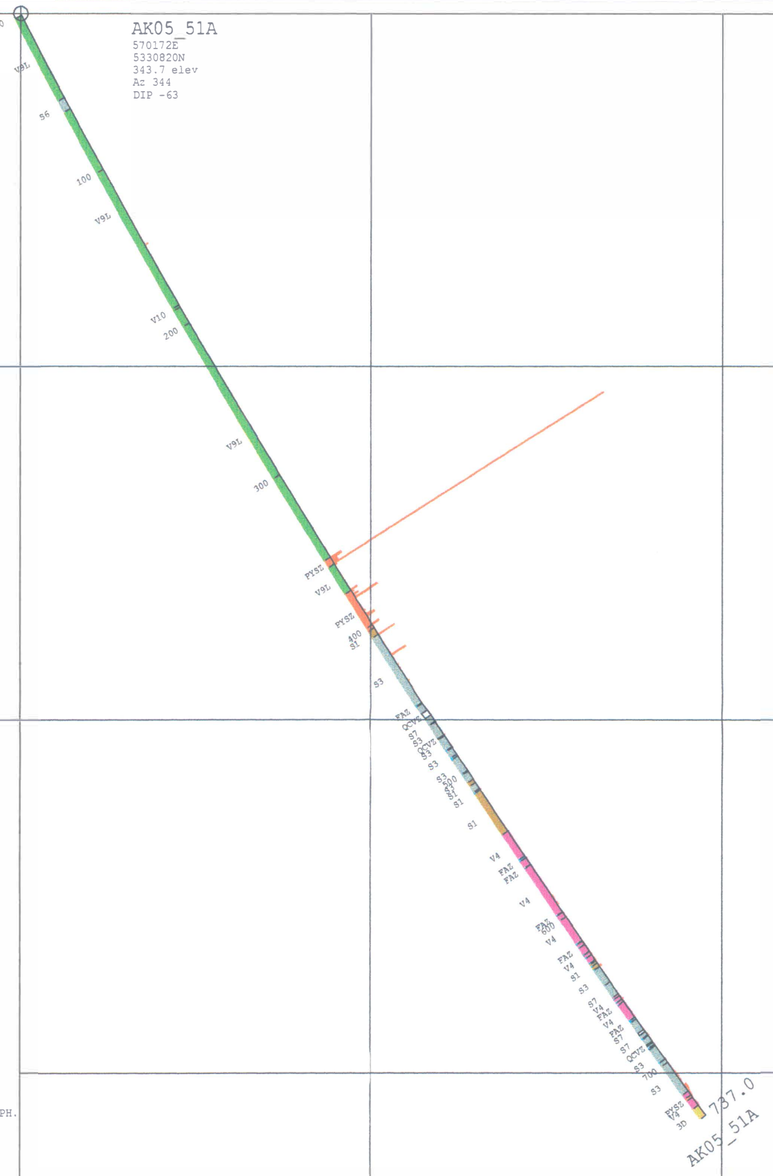
←163.6 °

343.6 °→

DATUM

-200m elev

-400m elev



-600m elev

0 20 40 60 80 100

meters

2·33536

HISTOGRAMS

Au - 10m = 1g/t Au

ALTERATION / VEINING

- CARB - CARBONATED ZONE
- DZ - DEFORMATION ZONE
- FAZ - FAULT ZONE
- GCZ - GREEN CARBONATED ZONE
- LLB - LARDER LAKE BREAK
- MNZ - MINERALIZED ZONE
- PYSZ - PYRITIC SILICIFIED ZONE
- QCVZ - QUARTZ-CARBONATE VEIN ZONE
- QVZ - QUARTZ VEIN ZONE
- SHZ - SHEAR ZONE

INTRUSIVES

- 1F - FELSITE/FELSIC DYKE
- 1G - GRANITE
- 1P - APLITE
- 1S - SYENITE
- 1SMa - MAFIC SYENITE
- 1Sp - PORPHYRITIC SYENITE
- 1Sa - ALTERED SYENITE
- 3D - DIABASE
- FD - FELSIC DYKE
- MI - MAFIC INTRUSIVE

VOLCANICS

- V4 - TRACHYTE
- V7 - BASALT
- V9 - TUFF
- V9L - LAPILLI TUFF
- V10 - AGGLOMERATE
- V13 - ULTRAMAFIC FLOW

SEDIMENTS

- F2 - SULPHIDE IRON FORMATION
- GS - GRAPHITIC SEDIMENTS
- S1 - CONGLOMERATE
- S3 - GREYWACKE
- S3AP - ALT.GREYW.+FELDS. PORPH.
- S3C - CHLORITIC GREYWACKE
- S3P - GREYWACKE with FELDS. PORPH.
- S4 - ARGILLITE/MUDSTONE
- S6 - SILTSTONE
- S7 - MUDSTONE

OTHER

- CAS - Casing
- CTZ - CONTACT ZONE
- BBC - BROKEN BLOCKY CORE
- SDZ - START DEFORMATION ZONE

QUEENSTON MINING INC.
AMALGAMATED KIRKLAND PROJECT
SECTION AK05_51A LOOKING 253.6°
CLM 328/LEASE No. 106667

1 : 2500	TECK TWP	AUG 21, 2006

DATUM

229.6 °

49.6 °

AK05_14
570581E
5331659N
328 elev
Az 223
DIP -50

-200m elev

-400m elev

-600m elev

HISTOGRAMS

Au - 10m = 1g/t Au

ALTERATION / VEINING

- CARB - CARBONATED ZONE
- DZ - DEFORMATION ZONE
- FAZ - FAULT ZONE
- GCZ - GREEN CARBONATED ZONE
- LLB - LARDER LAKE BREAK
- MNZ - MINERALIZED ZONE
- PYSZ - PYRITIC SILICIFIED ZONE
- QCVZ - QUARTZ-CARBONATE VEIN ZONE
- QVZ - QUARTZ VEIN ZONE
- SHZ - SHEAR ZONE

INTRUSIVES

- 1F - FELSITE/FELSIC DYKE
- 1G - GRANITE
- 1P - APLITE
- 1S - SYENITE
- 1SMa - MAFIC SYENITE
- 1Sp - PORPHYRITIC SYENITE
- 1Sa - ALTERED SYENITE
- 3D - DIABASE
- FD - FELSIC DYKE
- MI - MAFIC INTRUSIVE

VOLCANICS

- V4 - TRACHYTE
- V7 - BASALT
- V9 - TUFF
- V9L - LAPILLI TUFF
- V10 - AGGLOMERATE
- V13 - ULTRAMAFIC FLOW

SEDIMENTS

- F2 - SULPHIDE IRON FORMATION
- GS - GRAPHITIC SEDIMENTS
- S1 - CONGLOMERATE
- S3 - GREYWACKE
- S3AP - ALT.GREYW.+FELDS. PORPH.
- S3C - CHLORITIC GREYWACKE
- S3P - GREYWACKE with FELDS. PORPH.
- S4 - ARGILLITE/MUDSTONE
- S6 - SILTSTONE
- S7 - MUDSTONE

OTHER

- CAS - Casing
- CTZ - CONTACT ZONE
- BBC - BROKEN BLOCKY CORE
- SDZ - START DEFORMATION ZONE

AK05_14
904.0

2·33536

0 20 40 60 80 100
meters

QUEENSTON MINING INC.
AMALGAMATED KIRKLAND PROJECT
SECTION AK05_14 LOOKING 319.6 °
CLM 328/LEASE No. 106667

1 : 2500	TECK TWP	AUG 21, 2006

DATUM

222.7 °

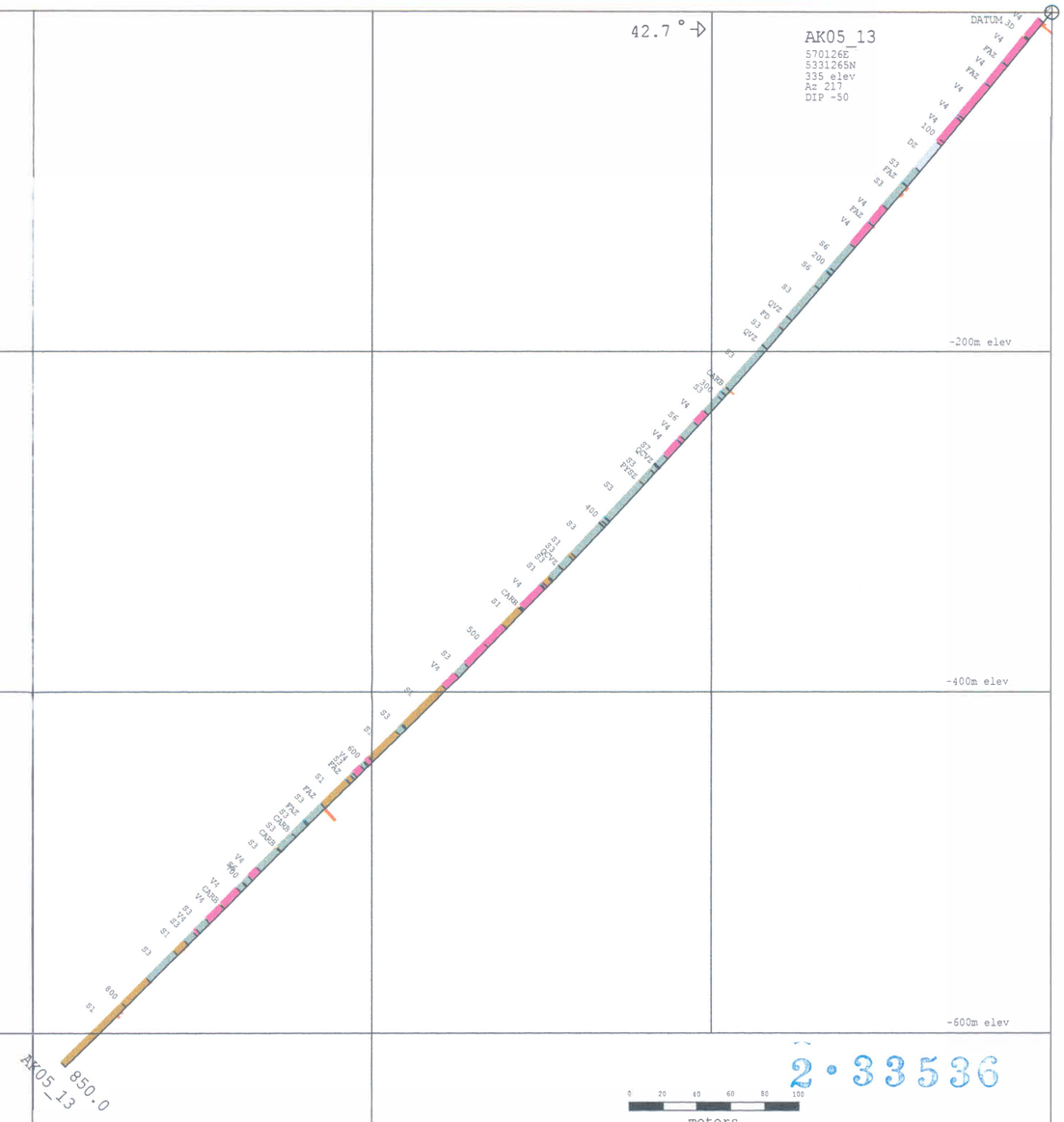
42.7 °

AK05_13
570126E
5331265N
335 elev
Az 217
DIP -50

-200m elev

-400m elev

-600m elev



HISTOGRAMS

Au - 10m = 1g/t Au

ALTERATION / VEINING

- CARB - CARBONATED ZONE
- DZ - DEFORMATION ZONE
- FAZ - FAULT ZONE
- GCZ - GREEN CARBONATED ZONE
- LLB - LARDER LAKE BREAK
- MNZ - MINERALIZED ZONE
- PYSZ - PYRITIC SILICIFIED ZONE
- QCVZ - QUARTZ-CARBONATE VEIN ZONE
- QVZ - QUARTZ VEIN ZONE
- SHZ - SHEAR ZONE

INTRUSIVES

- 1F - FELSITE/FELSIC DYKE
- 1G - GRANITE
- 1P - APLITE
- 1S - SYENITE
- 1SMa - MAFIC SYENITE
- 1Sp - PORPHYRITIC SYENITE
- 1Sa - ALTERED SYENITE
- 3D - DIABASE
- FD - FELSIC DYKE
- MI - MAFIC INTRUSIVE

VOLCANICS

- V4 - TRACHYTE
- V7 - BASALT
- V9 - TUFF
- V9L - LAPILLI TUFF
- V10 - AGGLOMERATE
- V13 - ULTRAMAFIC FLOW

SEDIMENTS

- F2 - SULPHIDE IRON FORMATION
- GS - GRAPHITIC SEDIMENTS
- S1 - CONGLOMERATE
- S3 - GREYWACKE
- S3AP - ALT.GREYW.+FELDS. PORPH.
- S3C - CHLORITIC GREYWACKE
- S3P - GREYWACKE with FELDS. PORPH.
- S4 - ARGILLITE/MUDSTONE
- S6 - SILTSTONE
- S7 - MUDSTONE

OTHER

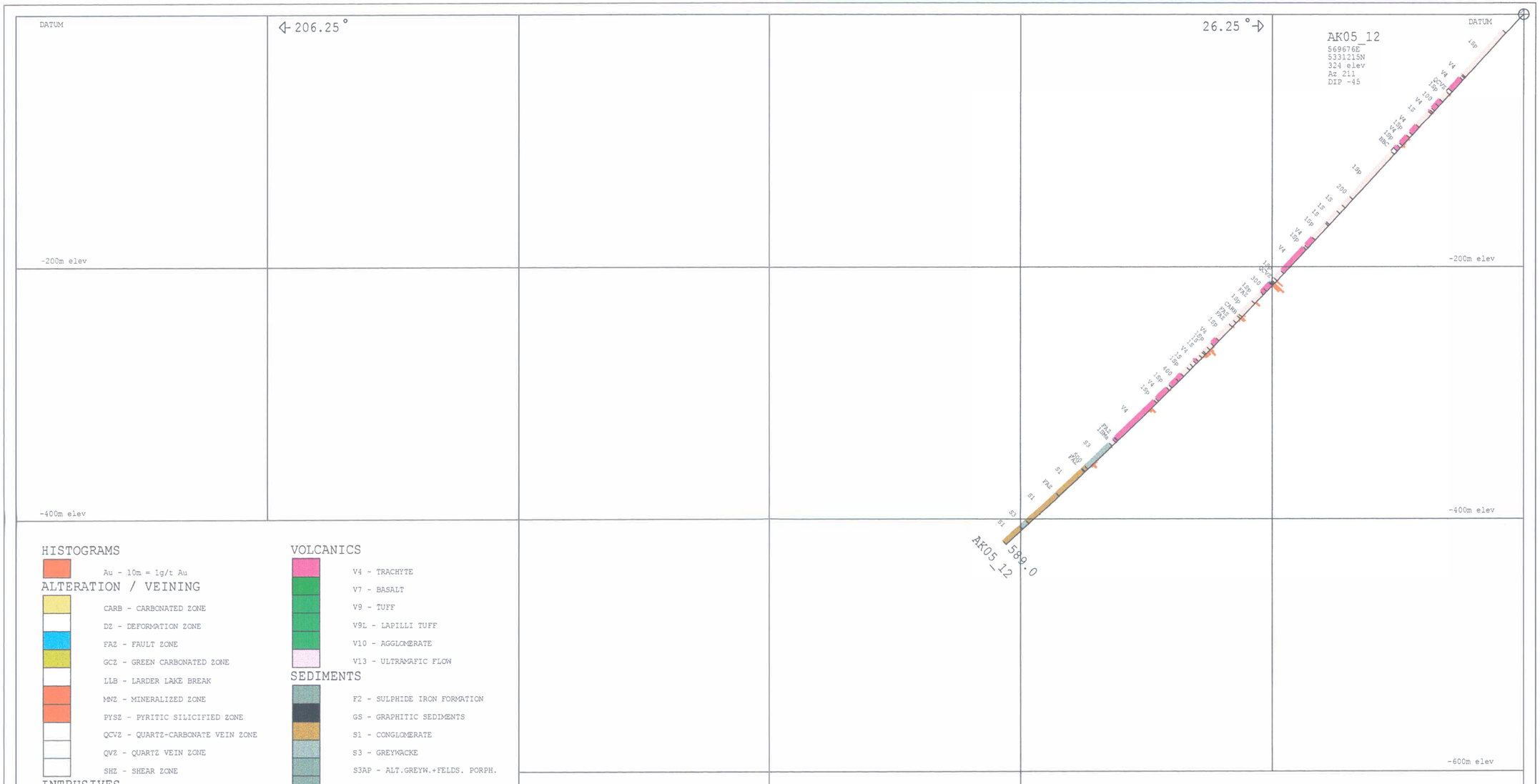
- CAS - Casing
- CTZ - CONTACT ZONE
- BBC - BROKEN BLOCKY CORE
- SDZ - START DEFORMATION ZONE

2·33536

0 20 40 60 80 100
meters

QUEENSTON MINING INC.
AMALGAMATED KIRKLAND PROJECT
SECTION AK05_13 LOOKING 312.7 °
CLM 328/LEASE No. 106667

1 : 2500	TECK TWP	AUG 21, 2006



HISTOGRAMS

Au - 10m = 1g/t Au

ALTERATION / VEINING

- CARB - CARBONATED ZONE
- DZ - DEFORMATION ZONE
- FAZ - FAULT ZONE
- GCZ - GREEN CARBONATED ZONE
- LLB - LARDER LAKE BREAK
- MNZ - MINERALIZED ZONE
- PYSZ - PYRITIC SILICIFIED ZONE
- QCVZ - QUARTZ-CARBONATE VEIN ZONE
- QVZ - QUARTZ VEIN ZONE
- SHZ - SHEAR ZONE

INTRUSIVES

- 1F - FELSITE/FELSIC DYKE
- 1G - GRANITE
- 1P - APLITE
- 1S - SYENITE
- 1SMa - MAFIC SYENITE
- 1Sp - PORPHYRITIC SYENITE
- 1Sa - ALTERED SYENITE
- 3D - DIABASE
- FD - FELSIC DYKE
- MI - MAFIC INTRUSIVE

VOLCANICS

- V4 - TRACHYTE
- V7 - BASALT
- V9 - TUFF
- V9L - LAPILLI TUFF
- V10 - AGGLOMERATE
- V13 - ULTRAMAFIC FLOW

SEDIMENTS

- F2 - SULPHIDE IRON FORMATION
- GS - GRAPHITIC SEDIMENTS
- S1 - CONGLOMERATE
- S3 - GREYWACKE
- S3AP - ALT.GREYW.+FELDS. PORPH.
- S3C - CHLORITIC GREYWACKE
- S3P - GREYWACKE with FELDS. PORPH.
- S4 - ARGILLITE/MUDSTONE
- S6 - SILTSTONE
- S7 - MUDSTONE

OTHER

- CAS - Casing
- CTZ - CONTACT ZONE
- BBC - BROKEN BLOCKY CORE
- SDZ - START DEFORMATION ZONE

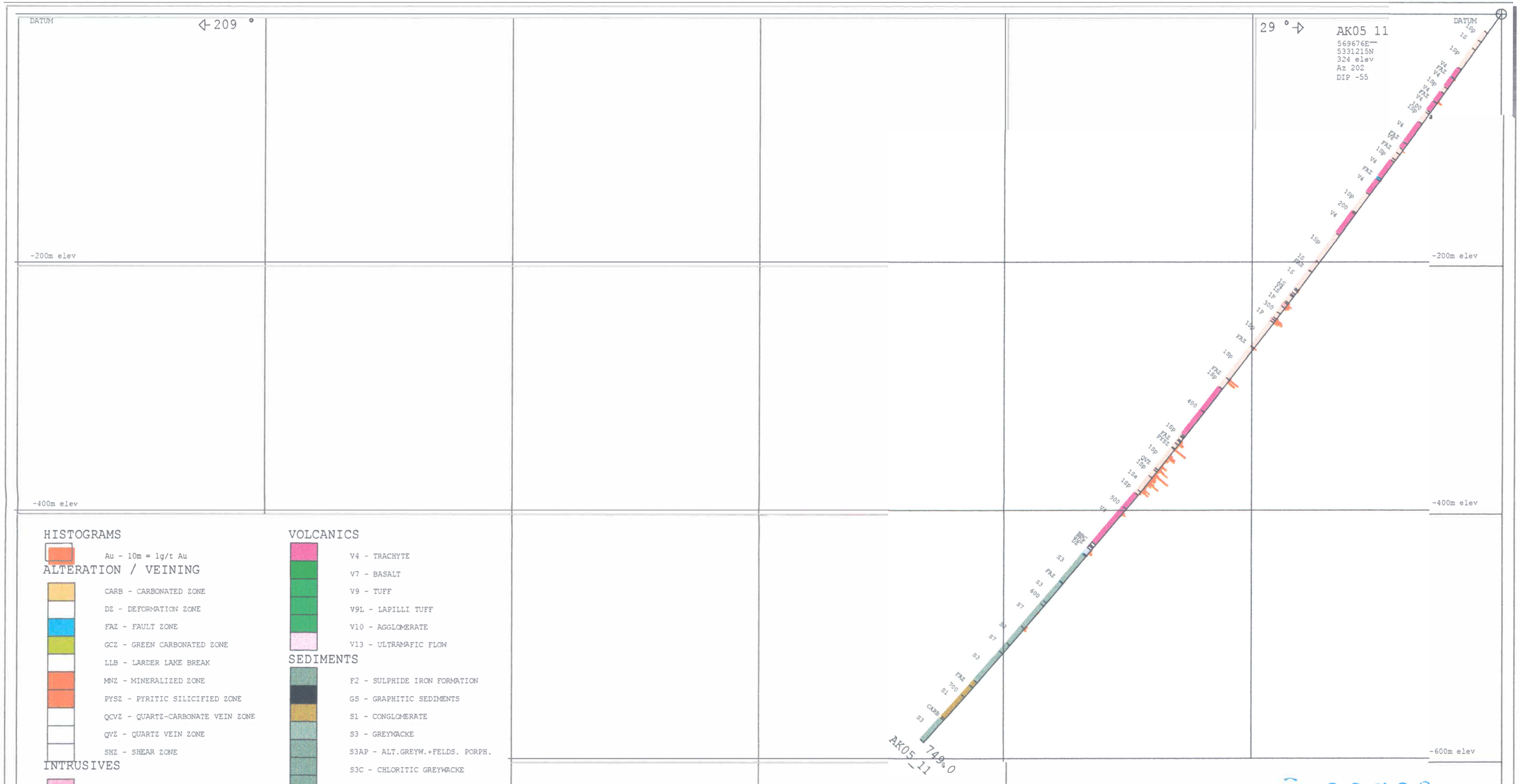
2·33536

0 20 40 60 80 100

meters

QUEENSTON MINING INC.
AMALGAMATED KIRKLAND PROJECT
SECTION AK05_12 LOOKING 296.25 °
CLM 328/LEASE No. 106667

1 : 2500	TECK TWP	AUG 21, 2006



HISTOGRAMS

Au - 10m = 1g/t Au

ALTERATION / VEINING

- CARB - CARBONATED ZONE
- DZ - DEFORMATION ZONE
- FAZ - FAULT ZONE
- GCZ - GREEN CARBONATED ZONE
- LLB - LARDER LAKE BREAK
- MNZ - MINERALIZED ZONE
- PYSZ - PYRITIC SILICIFIED ZONE
- QCVZ - QUARTZ-CARBONATE VEIN ZONE
- QVZ - QUARTZ VEIN ZONE
- SHZ - SHEAR ZONE

INTRUSIVES

- 1F - FELSITE/FELSIC DYKE
- 1G - GRANITE
- 1P - APLITE
- 1S - SYENITE
- 1SMa - MAFIC SYENITE
- 1Sp - PORPHYRITIC SYENITE
- 1Sa - ALTERED SYENITE
- 3D - DIABASE
- FD - FELSIC DYKE
- MI - MAFIC INTRUSIVE

VOLCANICS

- V4 - TRACHYTE
- V7 - BASALT
- V9 - TUFF
- V9L - LAPILLI TUFF
- V10 - AGGLOMERATE
- V13 - ULTRAMAFIC FLOW

SEDIMENTS

- F2 - SULPHIDE IRON FORMATION
- GS - GRAPHITIC SEDIMENTS
- S1 - CONGLOMERATE
- S3 - GREYWACKE
- S3AP - ALT.GREYW.+FELDS. PORPH.
- S3C - CHLORITIC GREYWACKE
- S3P - GREYWACKE with FELDS. PORPH.
- S4 - ARGILLITE/MUDSTONE
- S6 - SILTSTONE
- S7 - MUDSTONE

OTHER

- CAS - Casing
- CTZ - CONTACT ZONE
- BBC - BROKEN BLOCKY CORE
- SDZ - START DEFORMATION ZONE

2.33536

5 20 40 60 100
meters

QUEENSTON MINING INC.
AMALGAMATED KIRKLAND PROJECT
SECTION AK05 11 LOOKING 299 °
CLM 328/LEASE No. 106667

1 : 2500	TECK TWP	AUG 21, 2006

DATUM 0

260.5°

-200m elev

-400m elev

80.5°

DATUM 0

AK05_08
569660E
5331243N
324 m elev
AZ 262°
DIP -65°

-200m elev

-400m elev

-600m elev

643.4

AK05_08

HISTOGRAMS

Au - 10m = 1g/t Au

ALTERATION / VEINING

- CARB - CARBONATED ZONE
- DZ - DEFORMATION ZONE
- FAZ - FAULT ZONE
- GCZ - GREEN CARBONATED ZONE
- LLB - LARDER LAKE BREAK
- MNZ - MINERALIZED ZONE
- PYSZ - PYRITIC SILICIFIED ZONE
- QCVZ - QUARTZ-CARBONATE VEIN ZONE
- QVZ - QUARTZ VEIN ZONE
- SHZ - SHEAR ZONE

INTRUSIVES

- 1F - FELSITE/FELSIC DYKE
- 1G - GRANITE
- 1P - APLITE
- 1S - SYENITE
- 1SMa - MAFIC SYENITE
- 1Sp - PORPHYRITIC SYENITE
- 1Sa - ALTERED SYENITE
- 3D - DIABASE
- FD - FELSIC DYKE
- MI - MAFIC INTRUSIVE

VOLCANICS

- V4 - TRACHYTE
- V7 - BASALT
- V9 - TUFF
- V9L - LAPILLI TUFF
- V10 - AGGLOMERATE
- V13 - ULTRAMAFIC FLOW

SEDIMENTS

- F2 - SULPHIDE IRON FORMATION
- GS - GRAPHITIC SEDIMENTS
- S1 - CONGLOMERATE
- S3 - GREYWACKE
- S3AP - ALT.GREYW.+FELDS. PORPH.
- S3C - CHLORITIC GREYWACKE
- S3P - GREYWACKE with FELDS. PORPH.
- S4 - ARGILLITE/MUDSTONE
- S6 - SILTSTONE
- S7 - MUDSTONE

OTHER

- CAS - Casing
- CTZ - CONTACT ZONE
- BBC - BROKEN BLOCKY CORE
- SDZ - START DEFORMATION ZONE

0 20 40 60 80 100

meters

QUEENSTON MINING INC.
AMALGAMATED KIRKLAND PROJECT
SECTION AK05_08 LOOKING 300.5°
CLM 328/LEASE No. 106667

1 : 2500	TECK TWP	AUG 21, 2006

2.33536

DATUM ← 151 °

331 ° → DATUM

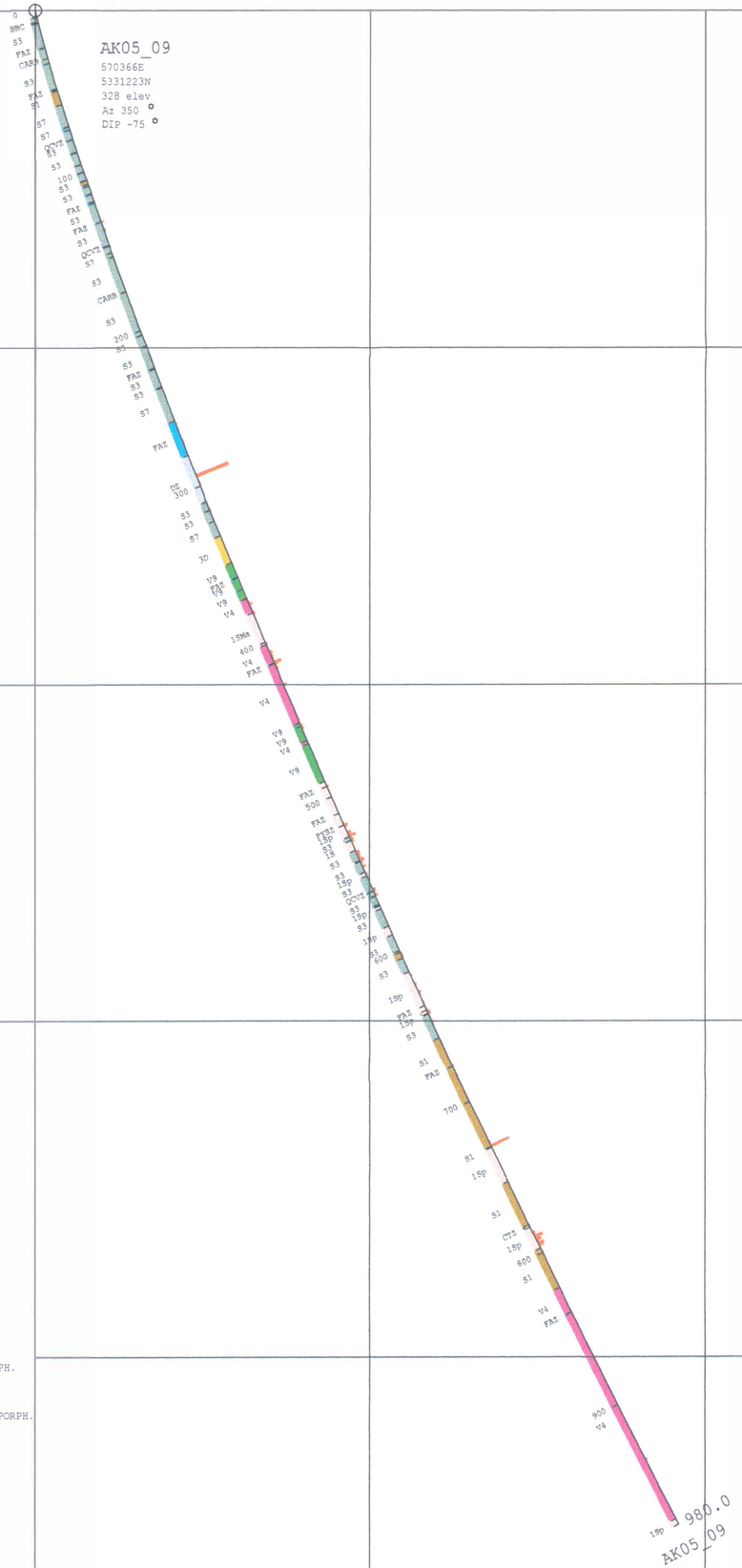
-200m elev

-400m elev

-600m elev

-800m elev

AK05_09
570366E
5331223N
328 elev
Az 350 °
DIP -75 °



HISTOGRAMS

Au - 10m = 1g/t Au

ALTERATION / VEINING

- CARB - CARBONATED ZONE
- DZ - DEFORMATION ZONE
- FAZ - FAULT ZONE
- GCZ - GREEN CARBONATED ZONE
- LLB - LARDER LAKE BREAK
- MNZ - MINERALIZED ZONE
- PYSZ - PYRITIC SILICIFIED ZONE
- QCVZ - QUARTZ-CARBONATE VEIN ZONE
- QVZ - QUARTZ VEIN ZONE
- SHZ - SHEAR ZONE

INTRUSIVES

- 1F - FELSITE/FELSIC DYKE
- 1G - GRANITE
- 1P - APLITE
- 1S - SYENITE
- 1SMa - MAFIC SYENITE
- 1SP - PORPHYRITIC SYENITE
- 1Sa - ALTERED SYENITE
- 3D - DIABASE
- FD - FELSIC DYKE
- MI - MAFIC INTRUSIVE

VOLCANICS

- V4 - TRACHYTE
- V7 - BASALT
- V9 - TUFF
- V9L - LAPILLI TUFF
- V10 - AGGLOMERATE
- V13 - ULTRAMAFIC FLOW

SEDIMENTS

- F2 - SULPHIDE IRON FORMATION
- GS - GRAPHITIC SEDIMENTS
- S1 - CONGLOMERATE
- S3 - GREYWACKE
- S3AP - ALT.GREYW.+FELDS. PORPH.
- S3C - CHLORITIC GREYWACKE
- S3P - GREYWACKE with FELDS. PORPH.
- S4 - ARGILLITE/MUDSTONE
- S6 - SILTSTONE
- S7 - MUDSTONE

OTHER

- CAS - Casing
- CTZ - CONTACT ZONE
- BBC - BROKEN BLOCKY CORE
- SDZ - START DEFORMATION ZONE

0 20 40 60 80 100
meters

QUEENSTON MINING INC.
AMALGAMATED KIRKLAND PROJECT
SECTION AK05_09 LOOKING 241 °
CLM 328/LEASE No. 106667

1 : 2500	TECK TWP	AUG 21, 2006

2·33536

DATUM 153.25°

DATUM 333.25°

AK05_10
568710E
5330628N
332 elev
Az 342°
DIP -75°

-200m elev

-400m elev

-600m elev

-800m elev

-1000m elev

1117.0
AK05_10

0 20 40 60 80 100
meters

2·33536

HISTOGRAMS
Au - 10m = 1g/t Au

ALTERATION / VEINING
- CARB - CARBONATED ZONE
- DZ - DEFORMATION ZONE
- FAZ - FAULT ZONE
- GCZ - GREEN CARBONATED ZONE
- LLB - LARDER LAKE BREAK
- MNZ - MINERALIZED ZONE
- PYSZ - PYRITIC SILICIFIED ZONE
- QCVZ - QUARTZ-CARBONATE VEIN ZONE
- QVZ - QUARTZ VEIN ZONE
- SHZ - SHEAR ZONE

INTRUSIVES
- 1F - FELSITE/FELSIC DYKE
- 1G - GRANITE
- 1P - APLITE
- 1S - SYENITE
- 1SMa - MAFIC SYENITE
- 1Sp - PORPHYRITIC SYENITE
- 1Sa - ALTERED SYENITE
- 3D - DIABASE
- FD - FELSIC DYKE
- MI - MAFIC INTRUSIVE

VOLCANICS
- V4 - TRACHYTE
- V7 - BASALT
- V9 - TUFF
- V9L - LAPILLI TUFF
- V10 - AGGLOMERATE
- V13 - ULTRAMAFIC FLOW

SEDIMENTS
- F2 - SULPHIDE IRON FORMATION
- GS - GRAPHITIC SEDIMENTS
- S1 - CONGLOMERATE
- S3 - GREYWACKE
- S3AP - ALT.GREYW.+FELDS. PORPH.
- S3C - CHLORITIC GREYWACKE
- S3P - GREYWACKE with FELDS. PORPH.
- S4 - ARGILLITE/MUDSTONE
- S6 - SILTSTONE
- S7 - MUDSTONE

OTHER
- CAS - Casing
- CTZ - CONTACT ZONE
- BBC - BROKEN BLOCKY CORE
- SDZ - START DEFORMATION ZONE

QUEENSTON MINING INC.
AMALGAMATED KIRKLAND PROJECT
SECTION AK05 10 LOOKING 243.25°
CLM 328/LEASE No. 106667

1 : 2500	TECK TWP	AUG 21, 2006

2 • 33536

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0286-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date. FEB-24-05

We hereby certify the following Geochemical Analysis of 53 Core samples submitted FEB-21-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52001	26	-	0.001	-
52002	29	-	0.001	-
52003	122	149	0.004	0.004
52004	117	-	0.003	-
52005	33	-	0.001	-
52006	31	-	<0.001	-
52007	36	-	0.001	-
52008	34	-	0.001	-
52009	24	-	<0.001	-
52010	75	-	0.002	-
Blank	Nil	-	<0.001	-
STD OxK18	3470	-	0.101	-
52011	75	-	0.002	-
52012	237	266	0.007	0.008
52013	67	-	0.002	-
52014	46	-	0.001	-
52015	31	41	0.001	0.001
52016	267	250	0.008	0.007
52017	170	-	0.005	-
52018	93	-	0.003	-
52019	57	-	0.002	-
52020	36	-	0.001	-
52021	63	-	0.002	-
52022	67	-	0.002	-
52023	60	-	0.002	-
52024	67	-	0.002	-
52025	39	-	0.001	-
52026	36	-	0.001	-
52027	101	105	0.003	0.003
52028	62	-	0.002	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0286-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date FEB-24-05

We hereby certify the following Geochemical Analysis of 53 Core samples submitted FEB-21-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52029	60	-	0.002	-
Blank	Nil	-	<0.001	-
STD OxK18	3614	-	0.105	-
52030	82	-	0.002	-
52031	135	127	0.004	0.004
52032	53	-	0.002	-
52033	51	-	0.001	-
52034	2	-	<0.001	-
52035	58	-	0.002	-
52036	51	-	0.001	-
52037	50	-	0.001	-
52038	53	-	0.002	-
52039	60	-	0.002	-
52040	86	-	0.003	-
52041	142	-	0.004	-
52042	38	-	0.001	-
52043	177	197	0.005	0.006
52044	129	-	0.004	-
52045	74	-	0.002	-
52046	94	-	0.003	-
52047	65	-	0.002	-
52048	2	-	<0.001	-
52049	120	-	0.003	-
52050	39	-	0.001	-
52051	50	-	0.001	-
52052	122	125	0.004	0.004
52053	96	-	0.003	-

Certified by Denis Chartier

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0287-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: FEB-24-05

We hereby certify the following Geochemical Analysis of 30 Core samples submitted FEB-21-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52054	111	-	0.003	-
52055	50	-	0.001	-
52056	36	34	0.001	0.001
52057	Nil	-	<0.001	-
52058	309	278	0.009	0.008
52059	139	-	0.004	-
52060	62	-	0.002	-
52061	34	45	0.001	0.001
52062	221	-	0.006	-
52063	75	-	0.002	-
Blank	Nil	-	<0.001	-
STD OxK18	3600	-	0.105	-
52064	26	29	<0.001	<0.001
52065	93	-	0.003	-
52066	27	-	<0.001	-
52067	17	-	<0.001	-
52068	22	-	<0.001	-
52069	2	-	<0.001	-
52070	26	-	<0.001	-
52071	123	-	0.004	-
52072	111	-	0.003	-
52073	1294	1279	0.038	0.037
52074	972	-	0.028	-
52075	147	-	0.004	-
52076	111	-	0.003	-
52077	504	509	0.015	0.016
52078	218	-	0.006	-
52079	72	-	0.002	-
52080	219	-	0.006	-
52081	93	-	0.003	-

Certified by Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0287-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: FEB-24-05

We hereby certify the following Geochemical Analysis of 30 Core samples submitted FEB-21-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52082	45	-	0.001	-
52083	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3368	-	0.098	-

Certified by Denis Craig

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0322-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: FEB-28-05

We hereby certify the following Geochemical Analysis of 30 Core samples submitted FEB-23-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52084	22	-	<0.001	-
52085	45	-	0.001	-
52086	48	-	0.001	-
52087	187	-	0.005	-
52088	123	-	0.004	-
52089	26	-	<0.001	-
52090	211	279	0.006	0.008
52091	Nil	-	<0.001	-
52092	33	-	0.001	-
52093	45	-	0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3649	-	0.106	-
52094	10	-	<0.001	-
52095	50	-	0.001	-
52096	46	-	0.001	-
52097	Nil	-	<0.001	-
52098	36	-	0.001	-
52099	5	-	<0.001	-
52100	300	319	0.009	0.009
52101	3523	3086	0.103	0.090
52105	26	-	<0.001	-
52106	254	-	0.007	-
52107	122	-	0.004	-
52108	10	-	<0.001	-
52109	29	-	<0.001	-
52110	38	-	0.001	-
52111	5	-	<0.001	-
52112	84	-	0.002	-
52113	312	247	0.009	0.009
52102	91	-	0.003	

Certified by Denis Chartier

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0322-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: FEB-28-05

We hereby certify the following Geochemical Analysis of 30 Core samples submitted FEB-23-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52103	432	-	0.013	
52104	Nil	-	<0.001	

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0342-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: MAR-03-05

We hereby certify the following Geochemical Analysis of 28 Core samples submitted FEB-25-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52114	17	-	<0.001	-
52115	3	-	<0.001	-
52116	269	-	0.008	-
52117	482	550	0.014	0.016
52118	26	-	<0.001	-
52119	127	-	0.004	-
52120	242	166	0.007	0.005
52121	Nil	-	<0.001	-
52122	Nil	-	<0.001	-
52123	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3368	-	0.098	-
52124	36	-	0.001	-
52125	26	-	<0.001	-
52126	19	-	<0.001	-
52127	118	-	0.003	-
52128 not rec'd	-	-	-	-
52129	2	-	<0.001	-
52130	67	-	0.002	-
52131	7	12	<0.001	<0.001
52132	9	-	<0.001	-
52133	31	-	<0.001	-
52134	245	-	0.007	-
52135	3	-	<0.001	-
52136	2	-	<0.001	-
52137	15	-	<0.001	-
52138	173	-	0.005	-
52139	257	219	0.007	0.006
52140	55	-	0.002	-
52141	187	-	0.005	-

Certified by Denis Charter

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0342-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: MAR-03-05

We hereby certify the following Geochemical Analysis of 28 Core samples submitted FEB-25-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52142	33	-	0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3429	-	0.100	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0390-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: MAR-05-05

We hereby certify the following Geochemical Analysis of 23 Core samples submitted MAR-03-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52143	3	-	<0.001	-
52144	9	-	<0.001	-
52145	Nil	-	<0.001	-
52146	204	221	0.006	0.006
52147	103	-	0.003	-
52148	29	-	<0.001	-
52149	Nil	-	<0.001	-
52150	339	312	0.010	0.009
52151	Nil	-	<0.001	-
52152	39	-	0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3470	-	0.101	-
52153	36	-	0.001	-
52154	31	-	<0.001	-
52155	4080	4320	0.119	0.126
52156	106	-	0.003	-
52157	27	-	<0.001	-
52158	797	699	0.023	0.020
52159	10	-	<0.001	-
52160	226	-	0.007	-
52161	153	-	0.004	-
52162	435	418	0.013	0.012
52163	91	-	0.003	-
52164	394	-	0.011	-
52165	Nil	-	<0.001	-

Certified by Judy Renaud

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0413-RG1

Company: **QUEENSTON MINING INC.**

Date: MAR-08-05

Project:

Attn:

We hereby certify the following Geochemical Analysis of 10 Core samples submitted MAR-07-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52166	Nil	-	<0.001	-
52167	74	62	0.002	0.002
52168	Nil	-	<0.001	-
52169	24	-	<0.001	-
52170	3	-	<0.001	-
52171	7	-	<0.001	-
52172	2	-	<0.001	-
52173	46	-	0.001	-
52174	398	338	0.012	0.010
52175	62	-	0.002	-

Certified by Denis Ahonen

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0408-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: MAR-08-05

We hereby certify the following Geochemical Analysis of 12 Core samples submitted MAR-07-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
45522	91	93	0.003	0.003
45523	Nil	-	<0.001	-
45524	48	-	0.001	-
45525	144	-	0.004	-
45526	766	828	0.022	0.024
45527	278	-	0.008	-
45528	99	-	0.003	-
45529	926	-	0.027	-
45530	514	449	0.015	0.013
45531	103	-	0.003	-
45532	62	-	0.003	-
52128	19	-	<0.001	-
Blank	19	-	<0.001	-
STD OxK18	3388	-	0.099	-

Certified by Denis Church

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0483-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAR-17-05

We hereby certify the following Geochemical Analysis of 53 Core samples submitted MAR-14-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
45533	55	-	0.002	-	
45534	374	463	0.011	0.014	
45535	986	1037	0.029	0.030	
45536	1229	-	0.036	-	
45537	1011	-	0.029	-	
45538	51	-	0.001	-	
45539	576	-	0.017	-	
45540	98	-	0.003	-	
45541	89	-	0.003	-	end of Hole AK-05-08
52176	12	-	<0.001	-	start AK-05-09
Blank	Nil	-	<0.001	-	
STD OxK18	3429	-	0.100	-	
52177	1265	946	0.037	0.028	
52178	1543	1629	0.045	0.048	
52179	202	204	0.006	0.006	
52180	43	-	0.001	-	
52181	Nil	-	<0.001	-	
52182	12	-	<0.001	-	
52183	2	-	<0.001	-	
52184	3	-	<0.001	-	
52185	Nil	-	<0.001	-	
52186	19	-	<0.001	-	
52187	Nil	-	<0.001	-	
52188	Nil	-	<0.001	-	
52189	Nil	-	<0.001	-	
52190	3	-	<0.001	-	
52191	2	-	<0.001	-	
52192	Nil	-	<0.001	-	
52193	Nil	-	<0.001	-	
52194	12	9	<0.001	<0.001	

Certified by Dennis Chrétien

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0483-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAR-17-05

We hereby certify the following Geochemical Analysis of 53 Core samples submitted MAR-14-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52195	19	-	<0.001	-
Blank	Nil	-	<0.001	-
STD Oxk18	3374	-	0.098	-
52196	Nil	-	<0.001	-
52197 not rec'd		-		-
52198	Nil	-	<0.001	-
52199	166	151	0.005	0.004
52200	10	-	<0.001	-
52201	98	-	0.003	-
52202	19	-	<0.001	-
52203	2	-	<0.001	-
52204	24	-	<0.001	-
52205	17	-	<0.001	-
52206	22	-	<0.001	-
52207	Nil	-	<0.001	-
52208	Nil	-	<0.001	-
52209	15	34	<0.001	<0.001
52210	10	-	<0.001	-
52211	5	-	<0.001	-
52212	5	-	<0.001	-
52213	9	-	<0.001	-
52214	10	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3512	-	0.102	-
52215	Nil	-	<0.001	-
52216	Nil	-	<0.001	-
52217	Nil	-	<0.001	-
52218	Nil	-	<0.001	-
52219	Nil	Nil	<0.001	<0.001

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0483-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAR-17-05

We hereby certify the following Geochemical Analysis of 53 Core samples submitted MAR-14-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
45533	55	-	0.002	-	
45534	374	463	0.011	0.014	
45535	986	1037	0.029	0.030	
45536	1229	-	0.036	-	
45537	1011	-	0.029	-	
45538	51	-	0.001	-	
45539	576	-	0.017	-	
45540	98	-	0.003	-	
45541	89	-	0.003	-	end of AK-05-08
52176	12	-	<0.001	-	start AK-05-09
Blank	Nil	-	<0.001	-	
STD OxK18	3429	-	0.100	-	
52177	1265	946	0.037	0.028	
52178	1543	1629	0.045	0.048	
52179	202	204	0.006	0.006	
52180	43	-	0.001	-	
52181	Nil	-	<0.001	-	
52182	12	-	<0.001	-	
52183	2	-	<0.001	-	
52184	3	-	<0.001	-	
52185	Nil	-	<0.001	-	
52186	19	-	<0.001	-	
52187	Nil	-	<0.001	-	
52188	Nil	-	<0.001	-	
52189	Nil	-	<0.001	-	
52190	3	-	<0.001	-	
52191	2	-	<0.001	-	
52192	Nil	-	<0.001	-	
52193	Nil	-	<0.001	-	
52194	12	9	<0.001	<0.001	

Certified by Dennis Chorth

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0483-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAR-17-05

We hereby certify the following Geochemical Analysis of 53 Core samples submitted MAR-14-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52195	19	-	<0.001	-
Blank	Nil	-	<0.001	-
STD Oxk18	3374	-	0.098	-
52196	Nil	-	<0.001	-
52197 not rec'd		-		-
52198	Nil	-	<0.001	-
52199	166	151	0.005	0.004
52200	10	-	<0.001	-
52201	98	-	0.003	-
52202	19	-	<0.001	-
52203	2	-	<0.001	-
52204	24	-	<0.001	-
52205	17	-	<0.001	-
52206	22	-	<0.001	-
52207	Nil	-	<0.001	-
52208	Nil	-	<0.001	-
52209	15	34	<0.001	<0.001
52210	10	-	<0.001	-
52211	5	-	<0.001	-
52212	5	-	<0.001	-
52213	9	-	<0.001	-
52214	10	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3512	-	0.102	-
52215	Nil	-	<0.001	-
52216	Nil	-	<0.001	-
52217	Nil	-	<0.001	-
52218	Nil	-	<0.001	-
52219	Nil	Nil	<0.001	<0.001

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0576-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: MAR-24-05

We hereby certify the following Geochemical Analysis of 37 Core samples submitted MAR-21-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52197	24	-	<0.001	-
52220	Nil	-	<0.001	-
52221	81	75	0.002	0.002
52222	2	-	<0.001	-
52223	15	-	<0.001	-
52224	33	-	0.001	-
52225	Nil	-	<0.001	-
52226	Nil	-	<0.001	-
52227	24	-	<0.001	-
52228	15	-	<0.001	-
Blank	2	-	<0.001	-
STD OxK18	3299	-	0.096	-
52229	48	-	0.001	-
52230	Nil	-	<0.001	-
52231	53	75	0.002	0.002
52232	9	-	<0.001	-
52233	2	-	<0.001	-
52234	19	-	<0.001	-
52235	12	-	<0.001	-
52236	Nil	-	<0.001	-
52237	19	-	<0.001	-
52238	Nil	-	<0.001	-
52239	Nil	-	<0.001	-
52240	19	-	<0.001	-
52241	7	-	<0.001	-
52242	3	-	<0.001	-
52243	Nil	-	<0.001	-
52244	Nil	-	<0.001	-
52245	26	-	<0.001	-
52246	2091	1989	0.061	0.058

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0576-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: MAR-24-05

We hereby certify the following Geochemical Analysis of 37 Core samples submitted MAR-21-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52247	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3471	-	0.101	-
52248	7	-	<0.001	-
52249	57	-	0.002	-
52250	12	-	<0.001	-
52251	26	-	<0.001	-
52252	15	-	<0.001	-
52253	19	-	<0.001	-
52254	2	-	<0.001	-
52255	14	-	<0.001	-

Certified by Denis Chamberland

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0581-RG1

Company: **QUEENSTON MINING INC.**

Date: MAR-24-05

Project:

Attn:

We hereby certify the following Geochemical Analysis of 47 Core samples submitted MAR-21-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
52256	5	-	<0.001	-	
52257	19	15	<0.001	<0.001	
52258	3	-	<0.001	-	
52259	26	-	<0.001	-	
52260	39	-	0.001	-	
52261	45	-	0.001	-	
52262	Nil	-	<0.001	-	
52263	17	-	<0.001	-	
52264	Nil	-	<0.001	-	
52265	Nil	-	<0.001	-	
Blank	2	-	<0.001	-	
STD OxK18	3368	-	0.098	-	
52266	7	5	<0.001	<0.001	
52267	Nil	-	<0.001	-	AR-05-09
56571	17	-	<0.001	-	PR-05-10B
56572	3	-	<0.001	-	
56573	3	-	<0.001	-	
56574	Nil	-	<0.001	-	
56575	Nil	-	<0.001	-	
56576	Nil	-	<0.001	-	
56577	9	-	<0.001	-	
56578	111	111	0.003	0.003	
56579	154	-	0.004	-	
56580	19	-	<0.001	-	
56581	91	-	0.003	-	
56582	14	-	<0.001	-	
56583	26	-	<0.001	-	
56584	62	-	0.002	-	
56585	79	-	0.002	-	
56586	192	219	0.006	0.006	

Certified by Denis Chrétien

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0581-RG1

Company: **QUEENSTON MINING INC.**

Date: MAR-24-05

Project:

Attn:

We hereby certify the following Geochemical Analysis of 47 Core samples submitted MAR-21-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
56587	103	-	0.003	-
Blank	2	-	<0.001	-
STD OxK18	3395	-	0.099	-
56588	69	-	0.002	-
56589	171	149	0.005	0.004
56590	130	149	0.004	0.004
56591	87	-	0.003	-
56592	12	-	<0.001	-
56593	27	-	<0.001	-
56594	57	-	0.002	-
56595	2	-	<0.001	-
56596	Nil	-	<0.001	-
56597	9	-	<0.001	-
56598	21	-	<0.001	-
56599	Nil	-	<0.001	-
56600	Nil	-	<0.001	-
56601	7	-	<0.001	-
56602	75	53	0.002	0.002
56603	58	-	0.002	-
56604	341	326	0.010	0.010
56605	3	-	<0.001	-

Certified by Denis Chartre

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0676-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: APR-04-05

We hereby certify the following Geochemical Analysis of 15 Core samples submitted MAR-29-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52268	31	-	<0.001	-
52269	Nil	-	<0.001	-
52270	Nil	-	<0.001	-
52271	53	-	0.002	-
52272	180	173	0.005	0.005
52273	60	-	0.002	-
52274	27	-	<0.001	-
52275	Nil	-	<0.001	-
52276	19	-	<0.001	-
52277	58	-	0.002	-
52278	105	-	0.003	-
52279	110	-	0.003	-
52280	21	-	<0.001	-
52281	27	-	<0.001	-
52282	21	-	<0.001	-
52283 not rec'd	-	-	-	-
Blank	Nil	-	<0.001	-
STD OxK18	3635	-	0.106	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0695-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: APR-06-05

We hereby certify the following Geochemical Analysis of 40 Core samples submitted MAR-30-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52283	62	-	0.002	-
52284	41	-	0.001	-
52285	108	125	0.003	0.004
52286	149	-	0.004	-
52287	43	-	0.001	-
52288	86	-	0.003	-
52289	48	-	0.001	-
52290	38	-	0.001	-
52291	38	-	0.001	-
52292	345	531	0.010	0.015
Blank	2	-	<0.001	-
STD OxK18	3627	-	0.106	-
52293	139	-	0.004	-
52294	43	39	0.001	0.001
52295	82	-	0.002	-
52296	51	-	0.001	-
52297	183	-	0.005	-
52298	Nil	-	<0.001	-
52299	Nil	-	<0.001	-
52300	33	-	0.001	-
52301	2	-	<0.001	-
52302	67	-	0.002	-
52303	89	-	0.003	-
52304	46	-	0.001	-
52305	111	-	0.003	-
52306	84	-	0.002	-
52307	10	-	<0.001	-
52308	218	-	0.006	-
52309	427	385	0.012	0.011
52310	115	-	0.003	-

Certified by Denis Chartre

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0695-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: APR-06-05

We hereby certify the following Geochemical Analysis of 40 Core samples submitted MAR-30-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52311	123	-	0.004	-
Blank	Nil	-	<0.001	-
STD OxK18	3435	-	0.100	-
52312	170	171	0.005	0.005
52313	134	-	0.004	-
52314	144	-	0.004	-
52315	233	-	0.007	-
52316	273	-	0.008	-
52317	127	-	0.004	-
52318	86	-	0.003	-
52319	72	-	0.002	-
52320	178	177	0.005	0.005
52321	153	-	0.004	-
52322	34	-	0.001	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0707-RG1

Company: **QUEENSTON MINING INC.**
Project: PR
Attn:

Date: APR-05-05

We hereby certify the following Geochemical Analysis of 28 Core samples submitted MAR-31-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52323	57	-	0.002	-
52324	171	159	0.005	0.005
52325	17	-	<0.001	-
52326	84	58	0.002	0.002
52327	82	-	0.002	-
52328	43	-	0.001	-
52329	74	-	0.002	-
52330	91	-	0.003	-
52331	142	-	0.004	-
52332	55	-	0.002	-
Blank	2	-	<0.001	-
STD OxK18	3511	-	0.102	-
52333	57	-	0.002	-
52334	26	27	<0.001	<0.001
52335	Nil	-	<0.001	-
52336	38	-	0.001	-
52337	57	-	0.002	-
52338	108	-	0.003	-
52339	161	-	0.005	-
52340	38	-	0.001	- AR-05-09 |
56770	108	-	0.003	- | PR-05-10B
56771	463	509	0.014	0.015
56772	291	-	0.008	-
56773	194	-	0.006	-
56774	27	-	<0.001	-
56775	89	-	0.003	-
56776	39	-	0.001	-
56777	127	-	0.004	-
56778	38		0.001	
56779	31		<0.001	

Certified by Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0737-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: APR-07-05

We hereby certify the following Geochemical Analysis of 7 Core samples submitted APR-04-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52341	36	-	0.001	-
52342	38	27	0.001	<0.001
52343	57	-	0.002	-
52344	70	-	0.002	-
52345	41	-	0.001	-
52346	69	-	0.002	-
52347	1200	1145	0.035	0.033

Certified by Denis Chartier

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0865-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: APR-22-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted APR-19-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52348	33	-	0.001	-
52349	105	-	0.003	-
52350	453	504	0.013	0.015
52351	327	343	0.010	0.010
52352	91	-	0.003	-
52383	34	-	<0.001	-
52384	17	-	<0.001	-
52385	Nil	-	<0.001	-
52386	Nil	-	<0.001	-
52387	10	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3368	-	0.098	-
52388	10	-	<0.001	-
52389	21	-	<0.001	-
52390	15	-	<0.001	-
52391	34	-	0.001	-
52392	29	-	<0.001	-
52393	Nil	-	<0.001	-
52394	Nil	-	<0.001	-
52395	Nil	-	<0.001	-
52396	22	19	<0.001	<0.001
52397	14	-	<0.001	-
52398	26	-	<0.001	-
52399	Nil	-	<0.001	-
52400	Nil	-	<0.001	-
52401	Nil	-	<0.001	-
52402	Nil	-	<0.001	-
52403	12	9	<0.001	<0.001
52404	24	-	<0.001	-
52405	2	-	<0.001	-

AK-05-09 EOH

AK-05-51A Extension.

Certified by Denis Christy

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0865-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: APR-22-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted APR-19-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52406	5	-	<0.001	-
52407	21	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3429	-	0.100	-
52408	24	-	<0.001	-
52409	89	72	0.003	0.002
52410	45	-	0.001	-
52411	12	-	<0.001	-
52412	69	-	0.002	-
52413	Nil	-	<0.001	-
52414	Nil	-	<0.001	-
52415	Nil	-	<0.001	-
52416	9	-	<0.001	-
52417	2	-	<0.001	-
52418	Nil	-	<0.001	-

Certified by Dennis Christy

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1103-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAY-18-05

We hereby certify the following Geochemical Analysis of 33 Core samples submitted MAY-13-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
47972	45	-	0.001	-	
47973	150	-	0.004	-	
47974	228	195	0.007	0.006	
47975	156	-	0.005	-	
47976	144	-	0.004	-	
47977	195	-	0.006	-	
47978	165	165	0.005	0.005	
47979	Nil	-	<0.001	-	
47980	175	-	0.005	-	
47981	82	69	0.002	0.002	
Blank	Nil	-	<0.001	-	
STD OxK18	3470	-	0.101	-	
47982	21	-	<0.001	-	
47983	Nil	-	<0.001	-	
47984	Nil	-	<0.001	-	
47985	Nil	-	<0.001	-	
47986	77	-	0.002	-	
47987	81	-	0.002	-	
47988	211	-	0.006	-	
47989	297	273	0.009	0.008	
47990	77	-	0.002	-	
47991	279	-	0.008	-	
47992	48	-	0.001	-	AK-05-09 full-ins.
52590	2	-	<0.001	-	
52591	Nil	-	<0.001	-	AK-05-10
52592	Nil	-	<0.001	-	
52593	Nil	-	<0.001	-	
52594	Nil	-	<0.001	-	
52595	Nil	-	<0.001	-	
52596	Nil	-	<0.001	-	

Certified by Denis Chartier

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1103-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAY-18-05

We hereby certify the following Geochemical Analysis of 33 Core samples submitted MAY-13-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52597	7	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3354	-	0.098	-
52598	Nil	-	<0.001	-
52599	Nil	-	<0.001	-
52600	15	-	<0.001	-
52601	48	-	0.001	-

Certified by Denis Christie

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

2.33535

Geochemical Analysis Certificate

5W-0955-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: MAY-04-05

We hereby certify the following Geochemical Analysis of 24 Core samples submitted MAY-02-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52501	7	-	<0.001	-
52502	26	17	<0.001	<0.001
52503	17	-	<0.001	-
52504	7	-	<0.001	-
52505	9	-	<0.001	-
52506	3	-	<0.001	-
52507	5	-	<0.001	-
52508	Nil	-	<0.001	-
52509	Nil	-	<0.001	-
52510	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3374	-	0.098	-
52511	Nil	-	<0.001	-
52512	Nil	-	<0.001	-
52513	9	-	<0.001	-
52514	5	-	<0.001	-
52515	21	-	<0.001	-
52516	19	-	<0.001	-
52517	3	-	<0.001	-
52518	Nil	-	<0.001	-
52519	230	245	0.007	0.007
52520	2	-	<0.001	-
52521	Nil	-	<0.001	-
52522	3	-	<0.001	-
52523	10	-	<0.001	-
52524	5	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3299	-	0.096	-

Certified by Denis Charity

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0983-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAY-05-05

We hereby certify the following Geochemical Analysis of 13 Core samples submitted MAY-03-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52525	12	-	<0.001	-
52526	21	22	<0.001	<0.001
52527	2	-	<0.001	-
52528	Nil	-	<0.001	-
52529	Nil	-	<0.001	-
52530	Nil	-	<0.001	-
52531	5	-	<0.001	-
52532	2	-	<0.001	-
52533	3	5	<0.001	<0.001
52534	Nil	-	<0.001	-
52535	3	-	<0.001	-
52536	Nil	-	<0.001	-
52537	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3292	-	0.096	-

Certified by Denis Chartier

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1015-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: MAY-13-05

We hereby certify the following Geochemical Analysis of 23 Core samples submitted MAY-06-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52538	9	10	<0.001	<0.001
52539	58	-	0.002	-
52540	Nil	-	<0.001	-
52541	Nil	-	<0.001	-
52542	2	2	<0.001	<0.001
52543	24	-	<0.001	-
52544	3	-	<0.001	-
52545	Nil	-	<0.001	-
52546	33	-	0.001	-
52547	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3347	-	0.098	-
52548	Nil	-	<0.001	-
52549	51	-	0.001	-
52550	21	-	<0.001	-
52551	12	14	<0.001	<0.001
52552	24	-	<0.001	-
52553	Nil	-	<0.001	-
52554	48	-	0.001	-
52555	24	-	0.001	-
52556	12	-	<0.001	-
52557	Nil	-	<0.001	-
52558	Nil	Nil	<0.001	<0.001
52559	2	-	<0.001	-
52560	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3422	-	0.100	-

Certified by Denis Thwaites

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1041-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: MAY-11-05

We hereby certify the following Geochemical Analysis of 29 Core samples submitted MAY-09-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52561	Nil	-	<0.001	-
52562	Nil	-	<0.001	-
52563	14	-	<0.001	-
52564	Nil	-	<0.001	-
52565	Nil	-	<0.001	-
52566	7	-	<0.001	-
52567	144	-	0.004	-
52568	123	144	0.003	0.004
52569	103	-	0.003	-
52570	72	-	0.002	-
Blank	Nil	-	<0.001	-
STD OxK18	3346	-	0.098	-
52571	Nil	-	<0.001	-
52572	2	-	<0.001	-
52573	65	-	0.002	-
52574	3	-	<0.001	-
52575	58	41	0.002	0.001
52576	3	-	<0.001	-
52577	7	-	<0.001	-
52578	3	-	<0.001	-
52579	41	-	0.001	-
52580	21	-	<0.001	-
52581	7	-	<0.001	-
52582	7	-	<0.001	-
52583	7	-	<0.001	-
52584	45	-	0.001	-
52585	3	-	<0.001	-
52586	24	-	<0.001	-
52587	17	10	<0.001	-
52588	10	-	<0.001	-

Certified by Dennis C Lavoie

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1041-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: MAY-11-05

We hereby certify the following Geochemical Analysis of 29 Core samples submitted MAY-09-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52589	17	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3312	-	0.097	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1103-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAY-18-05

We hereby certify the following Geochemical Analysis of 33 Core samples submitted MAY-13-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
47972	45	-	0.001	-
47973	150	-	0.004	-
47974	228	195	0.007	0.006
47975	156	-	0.005	-
47976	144	-	0.004	-
47977	195	-	0.006	-
47978	165	165	0.005	0.005
47979	Nil	-	<0.001	-
47980	175	-	0.005	-
47981	82	69	0.002	0.002
Blank	Nil	-	<0.001	-
STD OxK18	3470	-	0.101	-
47982	21	-	<0.001	-
47983	Nil	-	<0.001	-
47984	Nil	-	<0.001	-
47985	Nil	-	<0.001	-
47986	77	-	0.002	-
47987	81	-	0.002	-
47988	211	-	0.006	-
47989	297	273	0.009	0.008
47990	77	-	0.002	-
47991	279	-	0.008	-
47992	48	-	0.001	-
52590	2	-	<0.001	-
52591	Nil	-	<0.001	-
52592	Nil	-	<0.001	-
52593	Nil	-	<0.001	-
52594	Nil	-	<0.001	-
52595	Nil	-	<0.001	-
52596	Nil	-	<0.001	-

AK-05-09 fill-ins

AK-05-10

Certified by Denis Christie

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1103-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: MAY-18-05

We hereby certify the following Geochemical Analysis of 33 Core samples submitted MAY-13-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52597	7	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3354	-	0.098	-
52598	Nil	-	<0.001	-
52599	Nil	-	<0.001	-
52600	15	-	<0.001	-
52601	48	-	0.001	-

Certified by Denis Christy

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1126-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: MAY-18-05

We hereby certify the following Geochemical Analysis of 7 Core samples submitted MAY-16-05 by .

Sample Number	Au PPB	Au oz/ton
52602	Nil	<0.001
52603	3	<0.001
52604	7	<0.001
52605	Nil	<0.001
52606	14	<0.001
52607	Nil	<0.001
52608	7	<0.001

Certified by Dennis Chasta

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1192-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: MAY-26-05

We hereby certify the following Geochemical Analysis of 31 Core samples submitted MAY-24-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52609	7	21	<0.001	<0.001
52610	3	-	<0.001	-
52611	Nil	-	<0.001	-
52612	Nil	-	<0.001	-
52613	10	-	<0.001	-
52614	10	-	<0.001	-
52615	7	-	<0.001	-
52616	17	-	<0.001	-
52617	17	-	<0.001	-
52618	Nil	-	<0.001	-
Blank	2	-	<0.001	-
STD OxK18	3409	-	0.099	-
52619	2	-	<0.001	-
52620	48	-	0.001	-
52621	Nil		<0.001	-
52622	127	123	0.004	0.004
52623	27		<0.001	-
52624	3213	3398	0.094	0.099
52625	2	-	<0.001	-
52626	Nil	-	<0.001	-
52627	Nil	-	<0.001	-
52628	3	-	<0.001	-
52629	171	-	0.005	-
52630	17	-	<0.001	-
52631	10	-	<0.001	-
52632	Nil	-	<0.001	-
52633	31	-	<0.001	-
52634	789	936	0.023	0.027
52635	305	-	0.009	-
52636	576	514	0.017	0.015

Certified by Denis Chyster

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1192-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: MAY-26-05

We hereby certify the following Geochemical Analysis of 31 Core samples submitted MAY-24-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52637	96	-	0.003	-
52638	3	-	<0.001	-
52639	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3395	-	0.099	-

Certified by Dennis Christy

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1241-RG1

Company: **QUEENSTON MIMING INC.**
Project: A.K.
Attn:

Date: JUN-01-05

We hereby certify the following Geochemical Analysis of 20 Core samples submitted MAY-27-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52640	459	466	0.013	0.014
52641	17	-	<0.001	-
52642	10	-	<0.001	-
52643	45	41	0.001	0.001
52644	24	-	<0.001	-
52645	3	-	<0.001	-
52646	7	-	<0.001	-
52647	10	-	<0.001	-
52648	7	7	<0.001	<0.001
52649	21	-	<0.001	-
Blank	2	-	<0.001	-
STD OxK18	3339	-	0.097	-
52650	10	-	<0.001	-
52651	Nil	-	<0.001	-
52652	3	-	<0.001	-
52653	7	-	<0.001	-
52654	Nil	-	<0.001	-
52655	10	-	<0.001	-
52656	Nil	-	<0.001	-
52657	3	-	<0.001	-
52658	Nil	-	<0.001	-
52659	14	-	<0.001	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1401-RG1

Company: **QUEENSTON MINING INC.**

Date: JUN-15-05

Project: **AK**

Attn:

We hereby certify the following Geochemical Analysis of 4 Core samples submitted JUN-13-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
45648	7	-	<0.001	-	AK-05-10
52677	51	-	0.001	-	AK-05-11
52678	82	-	0.002	-	
52679	103	86	0.003	0.003	

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1323-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUN-09-05

We hereby certify the following Geochemical Analysis of 17 Core samples submitted JUN-03-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52660	24	-	<0.001	-
52661	24	-	<0.001	-
52662	89	-	0.003	-
52663	360	-	0.010	-
52664	21	-	<0.001	-
52665	Nil	-	<0.001	-
52666	Nil	-	<0.001	-
52667	243	243	0.007	0.007
52668	Nil	-	<0.001	-
52669	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3778	-	0.110	-
52670	Nil	-	<0.001	-
52671	55	45	0.002	0.001
52672	Nil	-	<0.001	-
52673	41	-	0.001	-
52674	Nil	-	<0.001	-
52675	21	-	<0.001	-
52676	82	62	0.002	0.002

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1401-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUN-15-05

We hereby certify the following Geochemical Analysis of 4 Core samples submitted JUN-13-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
45648	7	-	<0.001	-	AK-05-10
52677	51	-	0.001	-	AK-05-11
52678	82	-	0.002	-	
52679	103	86	0.003	0.003	

Certified by _____

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1420-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUN-15-05

We hereby certify the following Geochemical Analysis of 36 Core samples submitted JUN-14-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52680	45	-	0.001	-
52681	154	-	0.004	-
52682	123	110	0.004	0.003
52683	418	-	0.012	-
52684	305	-	0.009	-
52685	295	353	0.009	0.010
52686	257	-	0.007	-
52725	219	-	0.006	-
52726	665	425	0.019	0.012
52727	394	-	0.011	-
Blank	Nil	-	<0.001	-
STD OxK18	3422	-	0.100	-
52728	1022	-	0.030	-
52729	237	243	0.007	0.007
52730	418	-	0.012	-
52731	123	-	0.004	-
52732	65	-	0.002	-
52733	151	-	0.004	-
52734	161	-	0.005	-
52735	178	237	0.005	0.007
52736	665	-	0.019	-
52737	24	-	<0.001	-
52738	329	322	0.010	0.009
52739	679	-	0.020	-
52740	230	261	0.007	0.008
52756	17	-	<0.001	-
52757	21	-	<0.001	-
52758	Nil	-	<0.001	-
52759	Nil	-	<0.001	-
52760	2	-	<0.001	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1420-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUN-15-05

We hereby certify the following Geochemical Analysis of 36 Core samples submitted JUN-14-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52761	Nil	-	<0.001	-
Blank	14	-	<0.001	-
STD OxK18	3409	-	0.099	-
52762	3	-	<0.001	-
52776	Nil	Nil	<0.001	<0.001
52777	17	-	<0.001	-
52778	14	-	<0.001	-
52779	10	-	<0.001	-
52780	24	-	<0.001	-
52781	10	-	<0.001	-

Certified by Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1425-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUN-20-05

We hereby certify the following Geochemical Analysis of 14 Core samples submitted JUN-15-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52687	192	137	0.006	0.004
52688	189	-	0.006	-
52689	525	627	0.015	0.018
52690	699	-	0.020	-
52691	418	-	0.012	-
52692	113	-	0.003	-
52693	243	-	0.007	-
52694	89	93	0.003	0.003
52695	888	-	0.026	-
52696	161	130	0.005	0.004
52697	3	-	<0.001	-
52698	75	-	0.002	-
52699	165	-	0.005	-
52700	58	-	0.002	-
Blank	Nil	-	<0.001	-
STD OxK18	3409	-	0.099	-

Certified by .

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1531-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUN-30-05

We hereby certify the following Geochemical Analysis of 38 Core samples submitted JUN-27-05 by .

Sample Number	Au PPB	Au Check PPB	Au Check g/tonne	Au oz/ton	Au Check oz/ton
52701	401	398	-	0.012	0.012
52702	363	-	-	0.011	-
52703	69	-	-	0.002	-
52704	31	-	-	<0.001	-
52705	96	-	-	0.003	-
52706	51	-	-	0.001	-
52707	103	-	-	0.003	-
52708	1121	-	1.07	0.033	-
52709	72	93	-	0.002	0.003
52710	555	590	-	0.016	0.017
Blank	Nil	-	-	<0.001	-
STD OxK18	3505	-	-	0.102	-
52711	645	-	-	0.019	-
52712	535	-	-	0.016	-
52713	189	-	-	0.006	-
52714	89	-	-	0.003	-
52715	535	-	-	0.016	-
52716	998	878	-	0.029	0.026
52717	178	-	-	0.005	-
52718	185	-	-	0.005	-
52719	110	-	-	0.003	-
52720	Nil	-	-	<0.001	-
52721	350	-	-	0.010	-
52722	271	-	-	0.008	-
52723	425	326	-	0.012	0.010
52724	411	-	-	0.012	-
52741	10	-	-	<0.001	-
52742	117	-	-	0.003	-
52743	Nil	-	-	<0.001	-
52744	Nil	-	-	<0.001	-

Certified by :

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1531-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUN-30-05

We hereby certify the following Geochemical Analysis of 38 Core samples submitted JUN-27-05 by .

Sample Number	Au PPB	Au Check PPB	Au Check g/tonne	Au oz/ton	Au Check oz/ton
52745	7	-	-	<0.001	-
Blank	Nil	-	-	<0.001	-
STD OxK18	3422	-	-	0.100	-
52746	168	-	-	0.005	-
52747	322	357	-	0.009	0.010
52748	79	-	-	0.002	-
52749	123	-	-	0.004	-
52750	34	-	-	0.001	-
52751	298	-	-	0.009	-
52752	34	41	-	<0.001	0.001
52753	58	-	-	0.002	-
52754	31	-	-	<0.001	-

Certified by Denis Christie

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1542-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-04-05

We hereby certify the following Geochemical Analysis of 35 Core samples submitted JUN-28-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52755	Nil	-	<0.001	-
52763	3	-	<0.001	-
52764	Nil	-	<0.001	-
52765	Nil	7	<0.001	<0.001
52766	Nil	-	<0.001	-
52767	Nil	-	<0.001	-
52768	Nil	-	<0.001	-
52769	7	-	<0.001	-
52770	10	-	<0.001	-
52771	7	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3361	-	0.098	-
52772	Nil	-	<0.001	-
52773	Nil	-	<0.001	-
52774	Nil	-	<0.001	-
52775	3	Nil	<0.001	<0.001
52782	Nil	-	<0.001	-
52783	3	-	<0.001	-
52784	Nil	-	<0.001	-
52785	Nil	-	<0.001	-
52786	7	-	<0.001	-
52787	2	-	<0.001	-
52788	Nil	-	<0.001	-
52789	14	-	<0.001	-
52790	Nil	-	<0.001	-
52791	3	-	<0.001	-
52792	Nil	-	<0.001	-
52793	Nil	Nil	<0.001	<0.001
52794	3	-	<0.001	-
52795	Nil	-	<0.001	-

Certified by Judy Rosa

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1542-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-04-05

We hereby certify the following Geochemical Analysis of 35 Core samples submitted JUN-28-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52796	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3436	-	0.100	-
52797	10	-	<0.001	-
52798	3	-	<0.001	-
52799	7	-	<0.001	-
52800	2	-	<0.001	-
52801	Nil	-	<0.001	-
52802	72	69	0.002	0.002

Certified by: Judy Rieux

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1551-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-06-05

We hereby certify the following Geochemical Analysis of 46 Core samples submitted JUN-29-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52803	Nil	7	<0.001	<0.001
52804	7	-	<0.001	-
52805	45	34	0.001	<0.001
52806	38	-	0.001	-
52807	38	-	0.001	-
52808	34	-	0.001	-
52809	31	-	<0.001	-
52810	7	-	<0.001	-
52811	3	-	<0.001	-
52812	130	147	0.004	0.004
Blank	Nil	-	<0.001	-
STD OxK18	3422	-	0.100	-
52813	99	-	0.003	-
52814	237	-	0.007	-
52815	Nil	7	<0.001	<0.001
52816	14	-	<0.001	-
52817	Nil	-	<0.001	-
52818	10	-	<0.001	-
52819	3	-	<0.001	-
52820	Nil	-	<0.001	-
52821	Nil	Nil	<0.001	<0.001
52822	3	-	<0.001	-
52823	Nil	-	<0.001	-
52824	Nil	-	<0.001	-
52825	2	-	<0.001	-
52826	7	-	<0.001	-
52827	Nil	-	<0.001	-
52828	Nil	-	<0.001	-
52829	Nil	-	<0.001	-
52830	14	-	<0.001	-

Certified by Judy Rear

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1551-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-06-05

We hereby certify the following Geochemical Analysis of 46 Core samples submitted JUN-29-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52831	Nil	-	<0.001	-
52832	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3511	-	0.102	-
52833	Nil	-	<0.001	-
52834	Nil	-	<0.001	-
52835	Nil	-	<0.001	-
52836	14	-	<0.001	-
52837	45	-	0.001	-
52838	89	82	0.003	0.002
52839	69	72	0.002	0.002
52840	Nil	-	<0.001	-
52841	2	-	<0.001	-
52842	10	-	<0.001	-
52843	7	-	<0.001	-
52844	Nil	-	<0.001	-
52845	45	-	0.001	-
52846	Nil	-	<0.001	-
52847	17	21	<0.001	<0.001
52848	Nil	-	<0.001	-

AK-05-11

AK-05-12

Certified by Judy Reece

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2114-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-09-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted SEP-06-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
6956	Nil	-	<0.001	-	
6957	3	-	<0.001	-	AK-05-13
6958	141	171	0.004	0.005	AK-05-14
6959	130	-	0.004	-	
6960	79	-	0.002	-	
6961	Nil	-	<0.001	-	
6962	27	-	<0.001	-	
6963	Nil	-	<0.001	-	
6964	10	-	<0.001	-	
6965	34	-	0.001	-	
Blank	Nil	-	<0.001	-	
STD OxJ36	2387	-	0.070	-	
6966	Nil	-	<0.001	-	
6967	Nil	-	<0.001	-	
6968	569	607	0.017	0.018	
6969	93	-	0.003	-	
6970	45	-	0.001	-	
6971	3	-	<0.001	-	
6972	106	-	0.003	-	
6973	Nil	-	<0.001	-	
6974	Nil	-	<0.001	-	
6975	154	123	0.004	0.004	
6976	147	-	0.004	-	
6977	151	-	0.004	-	
6978	27	-	<0.001	-	
6979	34	-	0.001	-	AK-05-14
82481	62	-	0.002	-	AK-05-11
82482	21	-	<0.001	-	
82483	21	-	<0.001	-	
82484	75	-	0.002	-	

Certified by Denis Chrétien

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2114-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-09-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted SEP-06-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
82485	27	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2414	-	0.070	-
82486	65	62	0.002	0.002
82487	706	686	0.021	0.020
82488	69	-	0.002	-
82489	267	-	0.008	-
82490	Nil	-	<0.001	-
82491	206	-	0.006	-
82492	110	-	0.003	-
82493	75	-	0.002	-
82494	60	-	0.002	-
82495	89	-	0.003	-
82496	1306	1471	0.038	0.043
82497	137	-	0.004	-

Certified by Denis Chown

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2192-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-19-05

We hereby certify the following Geochemical Analysis of 4 Core samples submitted SEP-15-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
6980	Nil	-	<0.001	-	
6981	Nil	-	<0.001	-	AK-05-11
6982	3	-	<0.001	-	AK-05-14
6983	576	583	0.017	0.017	

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

2.33536

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1551-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-06-05

We hereby certify the following Geochemical Analysis of 46 Core samples submitted JUN-29-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52803	Nil	7	<0.001	<0.001
52804	7	-	<0.001	-
52805	45	34	0.001	<0.001
52806	38	-	0.001	-
52807	38	-	0.001	-
52808	34	-	0.001	-
52809	31	-	<0.001	-
52810	7	-	<0.001	-
52811	3	-	<0.001	-
52812	130	147	0.004	0.004
Blank	Nil	-	<0.001	-
STD OxK18	3422	-	0.100	-
52813	99	-	0.003	-
52814	237	-	0.007	-
52815	Nil	7	<0.001	<0.001
52816	14	-	<0.001	-
52817	Nil	-	<0.001	-
52818	10	-	<0.001	-
52819	3	-	<0.001	-
52820	Nil	-	<0.001	-
52821	Nil	Nil	<0.001	<0.001
52822	3	-	<0.001	-
52823	Nil	-	<0.001	-
52824	Nil	-	<0.001	-
52825	2	-	<0.001	-
52826	7	-	<0.001	-
52827	Nil	-	<0.001	-
52828	Nil	-	<0.001	-
52829	Nil	-	<0.001	-
52830	14	-	<0.001	-

Certified by Judy Rowe

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1551-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-06-05

We hereby certify the following Geochemical Analysis of 46 Core samples submitted JUN-29-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52831	Nil	-	<0.001	-
52832	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3511	-	0.102	-
52833	Nil	-	<0.001	-
52834	Nil	-	<0.001	-
52835	Nil	-	<0.001	-
52836	14	-	<0.001	-
52837	45	-	0.001	-
52838	89	82	0.003	0.002
52839	69	72	0.002	0.002
52840	Nil	-	<0.001	-
52841	2	-	<0.001	-
52842	10	-	<0.001	-
52843	7	-	<0.001	-
52844	Nil	-	<0.001	-
52845	45	-	0.001	-
52846	Nil	-	<0.001	-
52847	17	21	<0.001	<0.001
52848	Nil	-	<0.001	-

AK-05-11

AK-05-12

Certified by: Judy Reeves

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1648-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-12-05

We hereby certify the following Geochemical Analysis of 46 Core samples submitted JUL-08-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52849	7	-	<0.001	-
52850	123	137	0.004	0.004
52851	51	-	0.001	-
52852	41	-	0.001	-
52853	34	-	0.001	-
52854	89	-	0.003	-
52855	72	-	0.002	-
52856	261	247	0.008	0.007
52857	Nil	-	<0.001	-
52858	27	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3305	-	0.096	-
52859	Nil	-	<0.001	-
52860	3	-	<0.001	-
52861	Nil	-	<0.001	-
52862	Nil	-	<0.001	-
52863	48	-	0.001	-
52864	45	-	0.001	-
52865	641	627	0.019	0.018
52866	41	-	0.001	-
52867	55	-	0.002	-
52868	1042	-	0.030	-
52869	51	-	0.001	-
52870	686	-	0.020	-
52871	Nil	-	<0.001	-
52872	17	-	<0.001	-
52873	38	-	<0.001	-
52874	7	-	<0.001	-
52875	374	418	0.011	0.012
52876	7	-	<0.001	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1648-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-12-05

We hereby certify the following Geochemical Analysis of 46 Core samples submitted JUL-08-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52877	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3353	-	0.098	-
52878	2	-	<0.001	-
52879	353	377	0.010	0.011
52880	329	-	0.010	-
52881	27	-	<0.001	-
52882	Nil	-	<0.001	-
52883	130	-	0.004	-
52884	48	-	0.001	-
52885	45	-	0.001	-
52886	27	-	<0.001	-
52887	117	110	0.003	0.003
52888	62	-	0.002	-
52889	295	-	0.009	-
52890	655	562	0.019	0.016
52891	274	-	0.008	-
52892	223	-	0.007	-
52893	110	-	0.003	-
52894	7	-	<0.001	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1664-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-15-05

We hereby certify the following Geochemical Analysis of 66 Core samples submitted JUL-11-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52895	48	69	0.001	0.002
52896	Nil	-	<0.001	-
52897	Nil	-	<0.001	-
52898	Nil	-	<0.001	-
52899	82	-	0.002	-
52900	453	456	0.013	0.013
52901	58	-	0.002	-
52902	219	-	0.006	-
52903	38	-	0.001	-
52904	31	-	<0.001	-
Blank	2	-	<0.001	-
STD OxK18	3415	-	0.100	-
52905	Nil	-	<0.001	-
52906	38	31	0.001	<0.001
52907	24	-	<0.001	-
52908	10	-	<0.001	-
52909	3	-	<0.001	-
52910	17	-	<0.001	-
52911	120	96	0.003	0.003
52912	31	-	<0.001	-
52913	Nil	-	<0.001	-
52914	21	-	<0.001	-
52915	51	-	0.001	-
52916	17	-	<0.001	-
52917	3	-	<0.001	-
52918	24	-	<0.001	-
52919	24	-	<0.001	-
52920	55	-	0.002	-
52921	17	-	<0.001	-
52922	14	-	<0.001	-

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1664-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-15-05

We hereby certify the following Geochemical Analysis of 66 Core samples submitted JUL-11-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52923	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3319	-	0.097	-
52924	62	45	0.002	0.001
52925	10	-	<0.001	-
52926	106	-	0.003	-
52927	31	-	<0.001	-
52928	137	-	0.004	-
52929	350	418	0.010	0.012
52930	117	-	0.003	-
52931	27	-	<0.001	-
52932	17	-	<0.001	-
52933	24	-	<0.001	-
52934	Nil	-	<0.001	-
52935	31	-	<0.001	-
52936	7	-	<0.001	-
52937	3	-	<0.001	-
52938	Nil	-	<0.001	-
52939	Nil	-	<0.001	-
52940	Nil	-	<0.001	-
52941	3	7	<0.001	<0.001
52942	3	-	<0.001	-
52943	82	-	0.002	- | AK-05-12
52944	195	-	0.006	- | AK-05-13
52945	45	-	0.001	-
52946	823	850	0.024	0.025
52947	34	-	0.001	-
52948	21	-	<0.001	-
52949	24	-	<0.001	-
52950	Nil	-	<0.001	-

Certified by Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1664-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-15-05

We hereby certify the following Geochemical Analysis of 66 Core samples submitted JUL-11-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52951	Nil	-	<0.001	-
52952	7	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3367	-	0.098	-
52953	7	-	<0.001	-
52954	2	-	<0.001	-
52955	Nil	-	<0.001	-
52956	7	-	<0.001	-
52957	27	-	<0.001	-
52958	10	-	<0.001	-
52959	17	-	<0.001	-
52960	24	-	<0.001	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2090-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-02-05

We hereby certify the following Geochemical Analysis of 35 Core samples submitted SEP-01-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
6224	Nil	-	<0.001	-	
6225	14	-	<0.001	-	
6226	27	-	<0.001	-	
6227	477	497	0.014	0.014	
6228	151	-	0.004	-	
6229	120	-	0.003	-	
6230	470	-	0.014	-	
6231	106	-	0.003	-	
6232	Nil	-	<0.001	-	
6233	Nil	-	<0.001	-	
Blank	Nil	-	<0.001	-	
STD OxJ36	2353	-	0.069	-	
6234	24	-	<0.001	-	
6235	727	-	0.021	-	
6236	Nil	-	<0.001	-	
6237	62	-	0.002	-	
6238	38	-	0.001	-	
6239	Nil	-	<0.001	-	
6240	10	-	<0.001	-	
6241	14	-	<0.001	-	
6242	Nil	-	<0.001	-	
6243	3	-	<0.001	-	
6244	Nil	-	<0.001	-	
6245	7	-	<0.001	-	
6246	Nil	-	<0.001	-	
6247	17	-	<0.001	-	
6248	Nil	-	<0.001	-	
6249	31	-	<0.001	-	AK-05-14
6951	117	96	0.003	0.003	fill-ins AK-05-12
6952	38	-	0.001	-	

Certified by Denis Thorne

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2090-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-02-05

We hereby certify the following Geochemical Analysis of 35 Core samples submitted SEP-01-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6953	168	-	0.005	-
Blank	Nil	-	<0.001	-
STD OxJ36	2538	-	0.074	-
6954	62	-	0.002	-
45649	Nil	-	<0.001	-
45650	103	-	0.003	-
82498	134	117	0.004	0.003
82499	288	-	0.008	-
82500	99	-	0.003	-

Certified by Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

2-33536

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1664-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-15-05

We hereby certify the following Geochemical Analysis of 66 Core samples submitted JUL-11-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52895	48	69	0.001	0.002
52896	Nil	-	<0.001	-
52897	Nil	-	<0.001	-
52898	Nil	-	<0.001	-
52899	82	-	0.002	-
52900	453	456	0.013	0.013
52901	58	-	0.002	-
52902	219	-	0.006	-
52903	38	-	0.001	-
52904	31	-	<0.001	-
Blank	2	-	<0.001	-
STD OxK18	3415	-	0.100	-
52905	Nil	-	<0.001	-
52906	38	31	0.001	<0.001
52907	24	-	<0.001	-
52908	10	-	<0.001	-
52909	3	-	<0.001	-
52910	17	-	<0.001	-
52911	120	96	0.003	0.003
52912	31	-	<0.001	-
52913	Nil	-	<0.001	-
52914	21	-	<0.001	-
52915	51	-	0.001	-
52916	17	-	<0.001	-
52917	3	-	<0.001	-
52918	24	-	<0.001	-
52919	24	-	<0.001	-
52920	55	-	0.002	-
52921	17	-	<0.001	-
52922	14	-	<0.001	-

Certified by: Denis Chasse

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1664-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-15-05

We hereby certify the following Geochemical Analysis of 66 Core samples submitted JUL-11-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52923	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3319	-	0.097	-
52924	62	45	0.002	0.001
52925	10	-	<0.001	-
52926	106	-	0.003	-
52927	31	-	<0.001	-
52928	137	-	0.004	-
52929	350	418	0.010	0.012
52930	117	-	0.003	-
52931	27	-	<0.001	-
52932	17	-	<0.001	-
52933	24	-	<0.001	-
52934	Nil	-	<0.001	-
52935	31	-	<0.001	-
52936	7	-	<0.001	-
52937	3	-	<0.001	-
52938	Nil	-	<0.001	-
52939	Nil	-	<0.001	-
52940	Nil	-	<0.001	-
52941	3	7	<0.001	<0.001
52942	3	-	<0.001	-
52943	82	-	0.002	-
52944	195	-	0.006	-
52945	45	-	0.001	-
52946	823	850	0.024	0.025
52947	34	-	0.001	-
52948	21	-	<0.001	-
52949	24	-	<0.001	-
52950	Nil	-	<0.001	-

AK-05-12
AK-05-13

Certified by Denis Thorne

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1664-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-15-05

We hereby certify the following Geochemical Analysis of 66 Core samples submitted JUL-11-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52951	Nil	-	<0.001	-
52952	7	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3367	-	0.098	-
52953	7	-	<0.001	-
52954	2	-	<0.001	-
52955	Nil	-	<0.001	-
52956	7	-	<0.001	-
52957	27	-	<0.001	-
52958	10	-	<0.001	-
52959	17	-	<0.001	-
52960	24	-	<0.001	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1679-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-14-05

We hereby certify the following Geochemical Analysis of 8 Core samples submitted JUL-12-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52961	Nil	-	<0.001	-
52962	10	-	<0.001	-
52963	27	-	<0.001	-
52964	27	-	<0.001	-
52965	Nil	-	<0.001	-
52966	Nil	2	<0.001	<0.001
52967	Nil	-	<0.001	-
52968	7	-	<0.001	-

Certified by: Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1722-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-19-05

We hereby certify the following Geochemical Analysis of 28 Core samples submitted JUL-15-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52969	21	-	<0.001	-
52970	14	-	<0.001	-
52971	31	-	<0.001	-
52972	154	123	0.004	0.004
52973	147	154	0.004	0.004
52974	117	-	0.003	-
52975	96	-	0.003	-
52976	27	-	<0.001	-
52977	Nil	-	<0.001	-
52978	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3442	-	0.100	-
52979	3	-	<0.001	-
52980	17	-	<0.001	-
52981	Nil	-	<0.001	-
52982	295	278	0.009	0.008
52983	27	-	<0.001	-
52984	7	-	<0.001	-
52985	Nil	-	<0.001	-
52986	3	-	<0.001	-
52987	14	-	<0.001	-
52988	3	-	<0.001	-
52989	Nil	-	<0.001	-
52990	7	7	<0.001	<0.001
52991	Nil	-	<0.001	-
52992	7	-	<0.001	-
52993	Nil	-	<0.001	-
52994	7	-	<0.001	-
52995	Nil	-	<0.001	-
52996	Nil	-	<0.001	-

Certified by Denis Chastko

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1773-RG1

Company: **QUEENSTON MINING INC**
Project: AK
Attn:

Date: JUL-26-05

We hereby certify the following Geochemical Analysis of 20 Core samples submitted JUL-22-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6001	3	-	<0.001	-
6002	Nil	-	<0.001	-
6003	Nil	-	<0.001	-
6004	14	-	<0.001	-
6005	34	24	0.001	<0.001
6006	24	-	<0.001	-
6007	Nil	-	<0.001	-
6008	Nil	-	<0.001	-
6009	24	-	<0.001	-
6010	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OXJ36	2242	-	0.065	-
6011	2	-	<0.001	-
6012	Nil	-	<0.001	-
6013	3	-	<0.001	-
6014	7	-	<0.001	-
6015	Nil	-	<0.001	-
6016	898	946	0.026	0.028
52997	45	-	0.001	-
52998	14	-	<0.001	-
52999	Nil	-	<0.001	-
53000	14	-	<0.001	-

Certified by: Denis Chrétien

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1796-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-29-05

We hereby certify the following Geochemical Analysis of 32 Core samples submitted JUL-26-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6017	Nil	-	<0.001	-
6018	10	7	<0.001	<0.001
6019	Nil	-	<0.001	-
6020	3	-	<0.001	-
6021	14	-	<0.001	-
6022	Nil	-	<0.001	-
6023	Nil	-	<0.001	-
6024	3	-	<0.001	-
6025	Nil	-	<0.001	-
6026	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2229	-	0.065	-
6027	21	-	<0.001	-
6028	Nil	-	<0.001	-
6029	Nil	-	<0.001	-
6030	Nil	-	<0.001	-
6031	Nil	-	<0.001	-
6032	Nil	-	<0.001	-
6033	Nil	-	<0.001	-
6034	3	-	<0.001	-
6035	Nil	-	<0.001	-
6036	Nil	-	<0.001	-
6037	Nil	-	<0.001	-
6038	21	-	<0.001	-
6039	10	-	<0.001	-
6040	21	-	<0.001	-
6041	17	-	<0.001	-
6042	14	-	<0.001	-
6043	41	24	0.001	<0.001
6044	31	-	<0.001	-

Certified by Denis Charbonneau

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1796-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: JUL-29-05

We hereby certify the following Geochemical Analysis of 32 Core samples submitted JUL-26-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6045	17	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2469	-	0.072	-
6046	Nil	-	<0.001	-
6047	17	-	<0.001	-
6048	Nil	-	<0.001	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1863-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-04-05

We hereby certify the following Geochemical Analysis of 9 Core samples submitted AUG-03-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6049	17	-	<0.001	-
6050	10	-	<0.001	-
6051	Nil	-	<0.001	-
6052	82	103	0.002	0.003
6053	Nil	-	<0.001	-
6054	2	-	<0.001	-
6055	147	-	0.004	-
6056	Nil	-	<0.001	-
6057	21	34	<0.001	0.001
Blank	Nil	-	<0.001	-
STD OxJ36	2462	-	0.072	-

Certified by _____

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2114-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-09-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted SEP-06-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
6956	Nil	-	<0.001	-	
6957	3	-	<0.001	-	AK-05-13
6958	141	171	0.004	0.005	AK-05-14
6959	130	-	0.004	-	
6960	79	-	0.002	-	
6961	Nil	-	<0.001	-	
6962	27	-	<0.001	-	
6963	Nil	-	<0.001	-	
6964	10	-	<0.001	-	
6965	34	-	0.001	-	
Blank	Nil	-	<0.001	-	
STD OxJ36	2387	-	0.070	-	
6966	Nil	-	<0.001	-	
6967	Nil	-	<0.001	-	
6968	569	607	0.017	0.018	
6969	93	-	0.003	-	
6970	45	-	0.001	-	
6971	3	-	<0.001	-	
6972	106	-	0.003	-	
6973	Nil	-	<0.001	-	
6974	Nil	-	<0.001	-	
6975	154	123	0.004	0.004	
6976	147	-	0.004	-	
6977	151	-	0.004	-	
6978	27	-	<0.001	-	
6979	34	-	0.001	-	AK-05-14
82481	62	-	0.002	-	AK-05-11 fill-ins
82482	21	-	<0.001	-	
82483	21	-	<0.001	-	
82484	75	-	0.002	-	

Certified by Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2114-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-09-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted SEP-06-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
82485	27	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2414	-	0.070	-
82486	65	62	0.002	0.002
82487	706	686	0.021	0.020
82488	69	-	0.002	-
82489	267	-	0.008	-
82490	Nil	-	<0.001	-
82491	206	-	0.006	-
82492	110	-	0.003	-
82493	75	-	0.002	-
82494	60	-	0.002	-
82495	89	-	0.003	-
82496	1306	1471	0.038	0.043
82497	137	-	0.004	-

Certified by Denis Thomas

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

2-33580

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1955-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-17-05

We hereby certify the following Geochemical Analysis of 37 Core samples submitted AUG-15-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6058	3	-	<0.001	-
6059	Nil	Nil	<0.001	<0.001
6060	48	-	0.001	-
6061	3	-	<0.001	-
6062	189	-	0.006	-
6063	34	-	0.001	-
6064	285	-	0.008	-
6065	14	-	<0.001	-
6066	69	96	0.002	0.003
6067	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2448	-	0.071	-
6068	285	-	0.008	-
6069	34	-	0.001	-
6070	3	-	<0.001	-
6071	7	-	<0.001	-
6072	Nil	-	<0.001	-
6073	Nil	-	<0.001	-
6074	17	-	<0.001	-
6075	10	-	<0.001	-
6076	2	-	<0.001	-
6077	219	267	0.006	0.008
6078	151	-	0.004	-
6079	3	-	<0.001	-
6080	3477	2880	0.101	0.084
6081	31	-	<0.001	-
6082	51	-	0.001	-
6083	261	-	0.008	-
6084	21	-	<0.001	-
6085	3	-	<0.001	-

Certified by Denis Chasko

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1955-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-17-05

We hereby certify the following Geochemical Analysis of 37 Core samples submitted AUG-15-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6086	3	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2527	-	0.074	-
6087	3	-	<0.001	-
6088	Nil	-	<0.001	-
6089	Nil	-	<0.001	-
6090	10	-	<0.001	-
6091	226	-	0.007	-
6092	549	562	0.016	0.016
6093	Nil	-	<0.001	-
6094	99	-	0.003	-

Certified by Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1961-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-18-05

We hereby certify the following Geochemical Analysis of 73 Core samples submitted AUG-16-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6095	Nil	-	<0.001	-
6096	69	-	0.002	-
6097	2	-	<0.001	-
6098	590	-	0.017	-
6099	1111	1207	0.032	0.035
6100	309	-	0.009	-
6101	734	-	0.021	-
6102	8	-	0.001	-
6103	281	-	0.008	-
6104	1721	1450	0.050	0.042
Blank	Nil	-	<0.001	-
STD OxJ36	2307	-	0.067	-
6105	302	-	0.009	-
6106	117	-	0.003	-
6107	21	-	<0.001	-
6108	45	-	0.001	-
6109	189	-	0.006	-
6110	182	-	0.005	-
6111	977	1035	0.028	0.030
6112	480	425	0.014	0.012
6113	Nil	-	<0.001	-
6114	315	-	0.009	-
6115	3	-	<0.001	-
6116	230	-	0.007	-
6117	442	-	0.013	-
6118	507	-	0.015	-
6119	48	-	0.001	-
6120	161	-	0.005	-
6121	117	-	0.003	-
6122	34	21	0.001	<0.001

Certified by _____

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1961-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-18-05

We hereby certify the following Geochemical Analysis of 73 Core samples submitted AUG-16-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6123	45	-	0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2256	-	0.066	-
6124	24	-	<0.001	-
6125	1608	1831	0.047	0.053
6126	24	-	<0.001	-
6127	41	-	0.001	-
6128	75	-	0.002	-
6129	79	-	0.002	-
6130	Nil	-	<0.001	-
6131	127	-	0.004	-
6132	302	291	0.009	0.008
6133	93	-	0.003	-
6134	703	957	0.021	0.028
6135	14	-	<0.001	-
6136	7	-	<0.001	-
6137	17	-	<0.001	-
6138	10	-	<0.001	-
6139	Nil	-	<0.001	-
6140	31	-	<0.001	-
6141	1729	1413	0.050	0.041
6142	998	-	0.029	-
6143	27	-	<0.001	-
6144	10	-	<0.001	-
6145	Nil	-	<0.001	-
6146	2	-	<0.001	-
6147	14	-	<0.001	-
6148	Nil	-	<0.001	-
6149	3	-	<0.001	-
6150	14	-	<0.001	-

Certified by _____

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-1961-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-18-05

We hereby certify the following Geochemical Analysis of 73 Core samples submitted AUG-16-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6151	14	-	<0.001	-
6152	21	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2297	-	0.067	-
6153	Nil	-	<0.001	-
6154	45	-	0.001	-
6155	10	-	<0.001	-
6156	141	-	0.004	-
6157	782	922	0.023	0.027
6158	86	-	0.003	-
6159	17	-	<0.001	-
6160	Nil	-	<0.001	-
6161	65	-	0.002	-
6162	93	-	0.003	-
6163	432	435	0.013	0.013
6164	34	-	0.001	-
6165	21	-	<0.001	-
6166	86	-	0.003	-
6167	58	-	0.002	-

Certified by J. Reuer

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2027-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-29-05

We hereby certify the following Geochemical Analysis of 32 Core samples submitted AUG-25-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6168	48	-	0.001	-
6169	31	-	<0.001	-
6170	38	-	0.001	-
6171	117	93	0.003	0.003
6172	3	-	<0.001	-
6173	27	-	<0.001	-
6174	17	-	<0.001	-
6175	3	-	<0.001	-
6176	45	-	0.001	-
6177	48	-	0.001	-
Blank	2	-	<0.001	-
STD OxJ36	2331	-	0.068	-
6178	103	-	0.003	-
6179	96	-	0.003	-
6180	14	-	<0.001	-
6181	21	-	<0.001	-
6182	38	-	0.001	-
6183	58	-	0.002	-
6184	110	123	0.003	0.004
6185	27	-	<0.001	-
6186	27	-	<0.001	-
6187	69	-	0.002	-
6188	51	62	0.001	0.002
6189	86	-	0.003	-
6190	65	-	0.002	-
6191	72	-	0.002	-
6192	38	-	0.001	-
6193	41	-	0.001	-
6194	3	-	<0.001	-
6195	58	-	0.002	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2027-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-29-05

We hereby certify the following Geochemical Analysis of 32 Core samples submitted AUG-25-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6196	41	-	0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2318	-	0.068	-
6197	96	-	0.003	-
6198	117	-	0.003	-
6199	55	-	0.002	-

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2041-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: AUG-31-05

We hereby certify the following Geochemical Analysis of 24 Core samples submitted AUG-26-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6200	168	185	0.005	0.005
6201	96	-	0.003	-
6202	58	-	0.002	-
6203	99	-	0.003	-
6204	264	-	0.008	-
6205	422	-	0.012	-
6206	511	-	0.015	-
6207	96	-	0.003	-
6208	401	319	0.012	0.009
6209	1162	823	0.034	0.024
Blank	Nil	-	<0.001	-
STD OxJ36	2386	-	0.070	-
6210	264	-	0.008	-
6211	48	-	0.001	-
6212	Nil	-	<0.001	-
6213	93	-	0.003	-
6214	915	-	0.027	-
6215	5623	5349	0.164	0.156
6216	1070	891	0.031	0.026
6217	501	-	0.015	-
6218	158	-	0.005	-
6219	120	216	0.003	0.006
6220	89	-	0.003	-
6221	69	-	0.002	-
6222	86	-	0.003	-
6223	45	-	0.001	-

Certified by Denis Charter

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2090-RG1

Company: **QUEENSTON MINING INC.**
Project: **AK**
Attn:

Date: SEP-02-05

We hereby certify the following Geochemical Analysis of 35 Core samples submitted SEP-01-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
6224	Nil	-	<0.001	-	
6225	14	-	<0.001	-	
6226	27	-	<0.001	-	
6227	477	497	0.014	0.014	
6228	151	-	0.004	-	
6229	120	-	0.003	-	
6230	470	-	0.014	-	
6231	106	-	0.003	-	
6232	Nil	-	<0.001	-	
6233	Nil	-	<0.001	-	
Blank	Nil	-	<0.001	-	
STD OxJ36	2353	-	0.069	-	
6234	24	-	<0.001	-	
6235	727	-	0.021	-	
6236	Nil	-	<0.001	-	
6237	62	-	0.002	-	
6238	38	-	0.001	-	
6239	Nil	-	<0.001	-	
6240	10	-	<0.001	-	
6241	14	-	<0.001	-	
6242	Nil	-	<0.001	-	
6243	3	-	<0.001	-	
6244	Nil	-	<0.001	-	
6245	7	-	<0.001	-	
6246	Nil	-	<0.001	-	
6247	17	-	<0.001	-	
6248	Nil	-	<0.001	-	
6249	31	-	<0.001	-	AK-05-14
6951	117	96	0.003	0.003	fill-ins AK-05-12
6952	38	-	0.001	-	

Certified by Denis Thorne

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2090-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-02-05

We hereby certify the following Geochemical Analysis of 35 Core samples submitted SEP-01-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6953	168	-	0.005	-
Blank	Nil	-	<0.001	-
STD OxJ36	2538	-	0.074	-
6954	62	-	0.002	-
45649	Nil	-	<0.001	-
45650	103	-	0.003	-
82498	134	117	0.004	0.003
82499	288	-	0.008	-
82500	99	-	0.003	-

Certified by Denis Chantha

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2114-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-09-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted SEP-06-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
6956	Nil	-	<0.001	-	
6957	3	-	<0.001	-	AK-05-13
6958	141	171	0.004	0.005	
6959	130	-	0.004	-	AK-05-14
6960	79	-	0.002	-	
6961	Nil	-	<0.001	-	
6962	27	-	<0.001	-	
6963	Nil	-	<0.001	-	
6964	10	-	<0.001	-	
6965	34	-	0.001	-	
Blank	Nil	-	<0.001	-	
STD OxJ36	2387	-	0.070	-	
6966	Nil	-	<0.001	-	
6967	Nil	-	<0.001	-	
6968	569	607	0.017	0.018	
6969	93	-	0.003	-	
6970	45	-	0.001	-	
6971	3	-	<0.001	-	
6972	106	-	0.003	-	
6973	Nil	-	<0.001	-	
6974	Nil	-	<0.001	-	
6975	154	123	0.004	0.004	
6976	147	-	0.004	-	
6977	151	-	0.004	-	
6978	27	-	<0.001	-	
6979	34	-	0.001	-	AK-05-14
82481	62	-	0.002	-	AK-05-11 fill-ins
82482	21	-	<0.001	-	
82483	21	-	<0.001	-	
82484	75	-	0.002	-	

Certified by: Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2114-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-09-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted SEP-06-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
82485	27	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxJ36	2414	-	0.070	-
82486	65	62	0.002	0.002
82487	706	686	0.021	0.020
82488	69	-	0.002	-
82489	267	-	0.008	-
82490	Nil	-	<0.001	-
82491	206	-	0.006	-
82492	110	-	0.003	-
82493	75	-	0.002	-
82494	60	-	0.002	-
82495	89	-	0.003	-
82496	1306	1471	0.038	0.043
82497	137	-	0.004	-

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2192-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: SEP-19-05

We hereby certify the following Geochemical Analysis of 4 Core samples submitted SEP-15-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton	
6980	Nil	-	<0.001	-	
6981	Nil	-	<0.001	-	AK-05-11
6982	3	-	<0.001	-	AK-05-14
6983	576	583	0.017	0.017	

Certified by Denis Charette

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-2287-RG1

Company: **QUEENSTON MINING INC.**

Date: SEP-30-05

Project: AK

Attn:

We hereby certify the following Geochemical Analysis of 3 Core samples submitted SEP-26-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
6984	134	-	0.004	-
6985	1073	1025	0.031	0.030
6986	110	-	0.003	-

Certified by Denis Charter

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

2.33536

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0865-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: APR-22-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted APR-19-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52348	33	-	0.001	-
52349	105	-	0.003	-
52350	453	504	0.013	0.015
52351	327	343	0.010	0.010
52352	91	-	0.003	-
52383	34	-	<0.001	-
52384	17	-	<0.001	-
52385	Nil	-	<0.001	-
52386	Nil	-	<0.001	-
52387	10	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3368	-	0.098	-
52388	10	-	<0.001	-
52389	21	-	<0.001	-
52390	15	-	<0.001	-
52391	34	-	0.001	-
52392	29	-	<0.001	-
52393	Nil	-	<0.001	-
52394	Nil	-	<0.001	-
52395	Nil	-	<0.001	-
52396	22	19	<0.001	<0.001
52397	14	-	<0.001	-
52398	26	-	<0.001	-
52399	Nil	-	<0.001	-
52400	Nil	-	<0.001	-
52401	Nil	-	<0.001	-
52402	Nil	-	<0.001	-
52403	12	9	<0.001	<0.001
52404	24	-	<0.001	-
52405	2	-	<0.001	-

AK-05-09 EOH

AK-05-51A (extension)

Certified by Denise Chastey

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0865-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K.
Attn:

Date: APR-22-05

We hereby certify the following Geochemical Analysis of 41 Core samples submitted APR-19-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52406	5	-	<0.001	-
52407	21	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3429	-	0.100	-
52408	24	-	<0.001	-
52409	89	72	0.003	0.002
52410	45	-	0.001	-
52411	12	-	<0.001	-
52412	69	-	0.002	-
52413	Nil	-	<0.001	-
52414	Nil	-	<0.001	-
52415	Nil	-	<0.001	-
52416	9	-	<0.001	-
52417	2	-	<0.001	-
52418	Nil	-	<0.001	-

Certified by Dennis Clarke

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0905-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: APR-28-05

We hereby certify the following Geochemical Analysis of 50 Core samples submitted APR-26-06 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52419	Nil	-	<0.001	-
52420	Nil	-	<0.001	-
52421	12	-	<0.001	-
52422	3	-	<0.001	-
52423	14	-	<0.001	-
52424	3	-	<0.001	-
52425	14	-	<0.001	-
52426	5	-	<0.001	-
52427	Nil	-	<0.001	-
52428	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3326	-	0.097	-
52429	Nil	-	<0.001	-
52430	3	-	<0.001	-
52431	2	Nil	<0.001	<0.001
52432	Nil	-	<0.001	-
52433	Nil	-	<0.001	-
52434	31	-	<0.001	-
52435	34	34	0.001	0.001
52436	9	-	<0.001	-
52437	Nil	-	<0.001	-
52438	58	-	0.002	-
52439	19	-	<0.001	-
52440	26	-	<0.001	-
52441	21	-	<0.001	-
52442	22	-	<0.001	-
52443	132	123	0.004	0.004
52444	Nil	-	<0.001	-
52445	3	-	<0.001	-
52446	14	-	<0.001	-

Certified by Denis Thomas

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0905-RG1

Company: **QUEENSTON MINING INC.**
Project: A.K
Attn:

Date: APR-28-05

We hereby certify the following Geochemical Analysis of 50 Core samples submitted APR-26-06 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52447	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3291	-	0.096	-
52448	Nil	-	<0.001	-
52449	Nil	-	<0.001	-
52450	15	-	<0.001	-
52451	9	-	<0.001	-
52452	7	-	<0.001	-
52453	5	-	<0.001	-
52454	60	72	0.002	0.002
52455	2	-	<0.001	-
52456	Nil	-	<0.001	-
52457	5	-	<0.001	-
52458	26	-	<0.001	-
52459	Nil	-	<0.001	-
52460	10	-	<0.001	-
52461	Nil	-	<0.001	-
52462	12	-	<0.001	-
52463	12	-	<0.001	-
52464	15	-	<0.001	-
52465	24	-	<0.001	-
52466	3	-	<0.001	-
52467	46	51	0.001	0.001
52468	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3265	-	0.095	-

Certified by Denis Chartrand

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0929-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: MAY-03-05

We hereby certify the following Geochemical Analysis of 32 Core samples submitted APR-28-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52469	9	-	<0.001	-
52470	29	-	<0.001	-
52471	5	9	<0.001	<0.001
52472	5	-	<0.001	-
52473	Nil	-	<0.001	-
52474	12	-	<0.001	-
52475	10	-	<0.001	-
52476	Nil	-	<0.001	-
52477	46	27	0.001	<0.001
52478	Nil	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3429	-	0.100	-
52479	17	-	<0.001	-
52480	19	27	<0.001	<0.001
52481	33	-	0.001	-
52482	29	-	<0.001	-
52483	39	-	0.001	-
52484	58	-	0.002	-
52485	74	-	0.002	-
52486	89	82	0.003	0.002
52487	29	-	<0.001	-
52488	60	-	0.002	-
52489	17	-	<0.001	-
52490	Nil	-	<0.001	-
52491	195	117	0.006	0.003
52492	154	-	0.004	-
52493	91	-	0.003	-
52494	70	-	0.002	-
52495	29	34	<0.001	0.001
52496	34	-	0.001	-

Certified by Denis Thomas

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Established 1928

Swastika Laboratories Ltd

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-0929-RG1

Company: **QUEENSTON MINING INC.**
Project: AK
Attn:

Date: MAY-03-05

We hereby certify the following Geochemical Analysis of 32 Core samples submitted APR-28-05 by .

Sample Number	Au PPB	Au Check PPB	Au oz/ton	Au Check oz/ton
52497	7	-	<0.001	-
Blank	Nil	-	<0.001	-
STD OxK18	3312	-	0.097	-
52498	10	-	<0.001	-
52499	38	-	0.001	-
52500	53	53	0.002	0.002

Certified by Denis Chartier

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300