ASSESSMENT REPORT

ON DIAMOND DRILLING

OF THE MCLEAN PROPERTY

IN HOLMES TOWNSHIP

LARDER LAKE MINING DIVISION

FOR WEST KIRKLAND MINING INC.

By Ken Kryklywy, PEng

March 14, 2013

ASSESSMENT REPORT

ON THE MCLEAN PROPERTY

IN HOLMES TOWNSHIP

This assessment report covers work performed on the McLean crown grant described as the **Northern ½ of Lot 6, Concession 2, Holmes Township, District of Timiskaming. The property was optioned from Alan McLean of Tillsonburg, Ontario.**

Nine diamond drill holes totaling 2,331m were drilled on the claim between March 23, 2011 and April 16, 2011, May 26 to 28, 2011 and from February 2 to 8, 2012. The hole collars (in NAD83 NTS coordinates) are located as follows:

Hole No.	Easting	Northing	Length
KM1123	540357E	5320969N	329m
KM1124	540357E	5320969N	200m
KM1125	540357E	5320930N	122m
KM1126	540302E	5320932N	182m
KM1127	540253E	5320870N	362m
KM1128	540056E	5320770N	281m
KM1129	539797E	5320705N	281m
KM1139	540357	5320897	296m
KM11120	539819E	5321117N	278m

Access to the work location is by paved Highway 66 to the Holmes Lake Rd. turnoff; 2 km north along the Holmes Lake Rd; then approximately 3 to 4km ENE by 4WD pickup truck and all-terrain vehicle or snowmobile along old logging roads and drill trails. The work was supervised by Ken Kryklywy and the core logging was performed by James Sumah-Momoh and Mike Laliberty, all employees of West Kirkland Mining. The work was performed from the West Kirkland Mining field office at 5500 Highway 11, Kenogami, Ontario.

PREVIOUS WORK

The main area of interest is a showing initially discovered by Pamorex in 1988 during a surface mapping and prospecting programme. This showing straddles the current McLean/Cunningham property boundary. Subsequent drilling by Pamorex in 1989 unveiled a new discovery dubbed the "M2 Zone" where gold intercepts of 0.296 opt Au over 22 ft and 0.105 opt Au over 18.5 ft were cut in hole HT-89-02. In total, 13 holes totaling 6620 ft were drilled into the showing in 1989.

Teck Exploration performed surface mapping, stripping and geophysics over the claims in 1997-98.

Another 2 holes totaling 244m were diamond drilled into the M2 showing in 2005 by Newstrike Resources.

West Kirkland Mining drilled 5 holes totaling 1528m in to the M2 Zone on the Cunningham property in 2010.

REFERENCES

Pamorex Minerals Inc., Timmins Division, Regional Exploration Dept., Holmes Twp. Project, Abel Lake Property, (0507), O.M.I.P. Report -1990, by Mike Kilbourne, January, 1991.

Teck Explorations Ltd., North Bay, Ontario, Report on the 1997 Exploration Program on the Holmes-Flavelle Property, Holmes and Flavelle Townships, Ontario, by R. Stewart

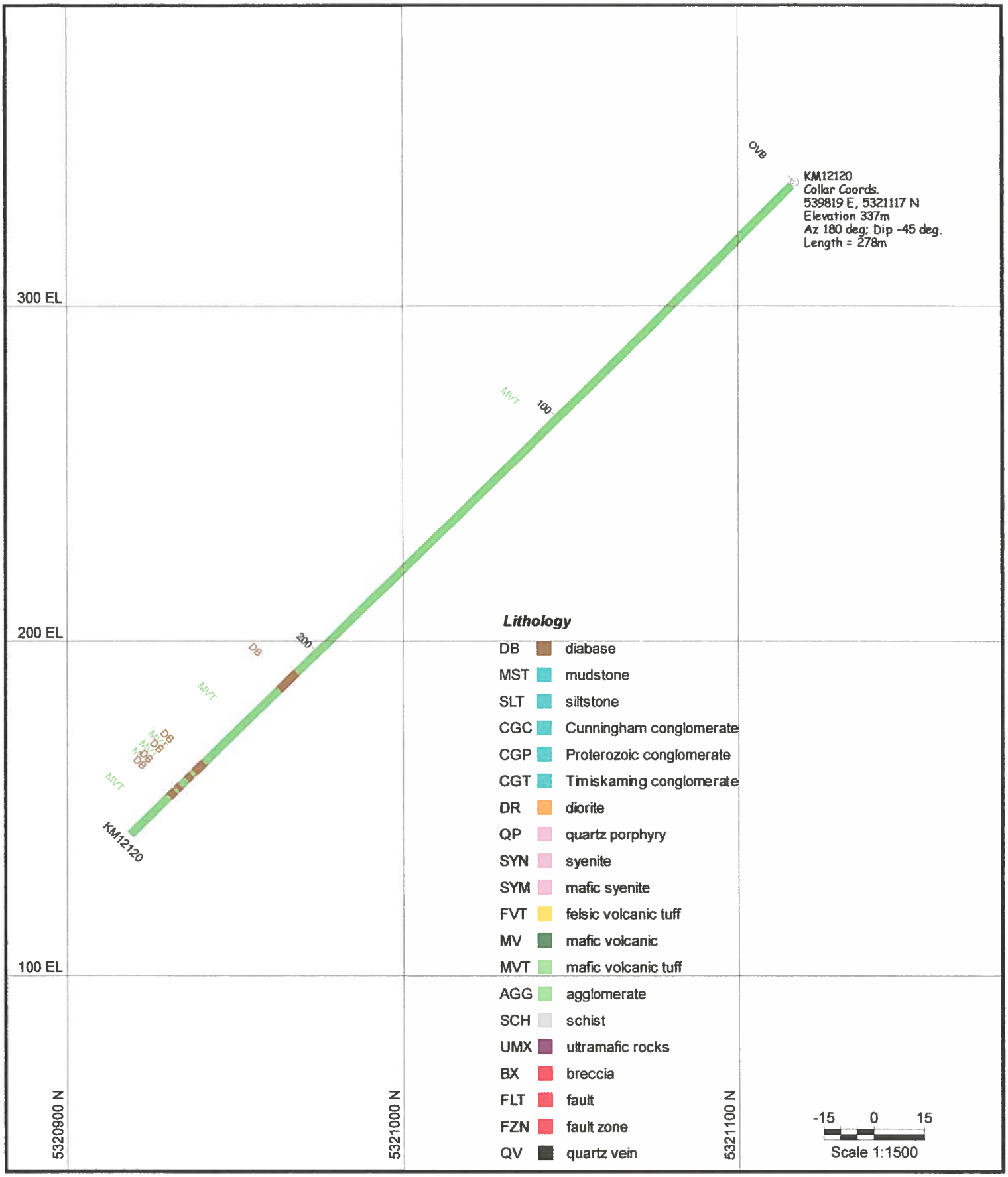
Teck Explorations Ltd., North Bay, Ontario, Report on the 1998 Exploration Program on the Holmes-Flavelle Property, Holmes and Flavelle Townships, Ontario, by R. Stewart

Report on the Diamond Drill Exploration Programme for the Period September 06 – October 16, 2005 for Newstrike Resources Ltd., on the Holmes Township Project, CMV Property Option, Larder Lake Mining Division, NTS:42A, by A.P. David Gamble, P.Geo., December 21, 2005

Assessment Report on Diamond Drilling on Claim Nos. 1222584 and 1248772 on the Cunningham Property in Holmes Township, Larder Lake Mining Division, by Ken Kryklywy, PEng, October 22, 2012.

Report submitted by

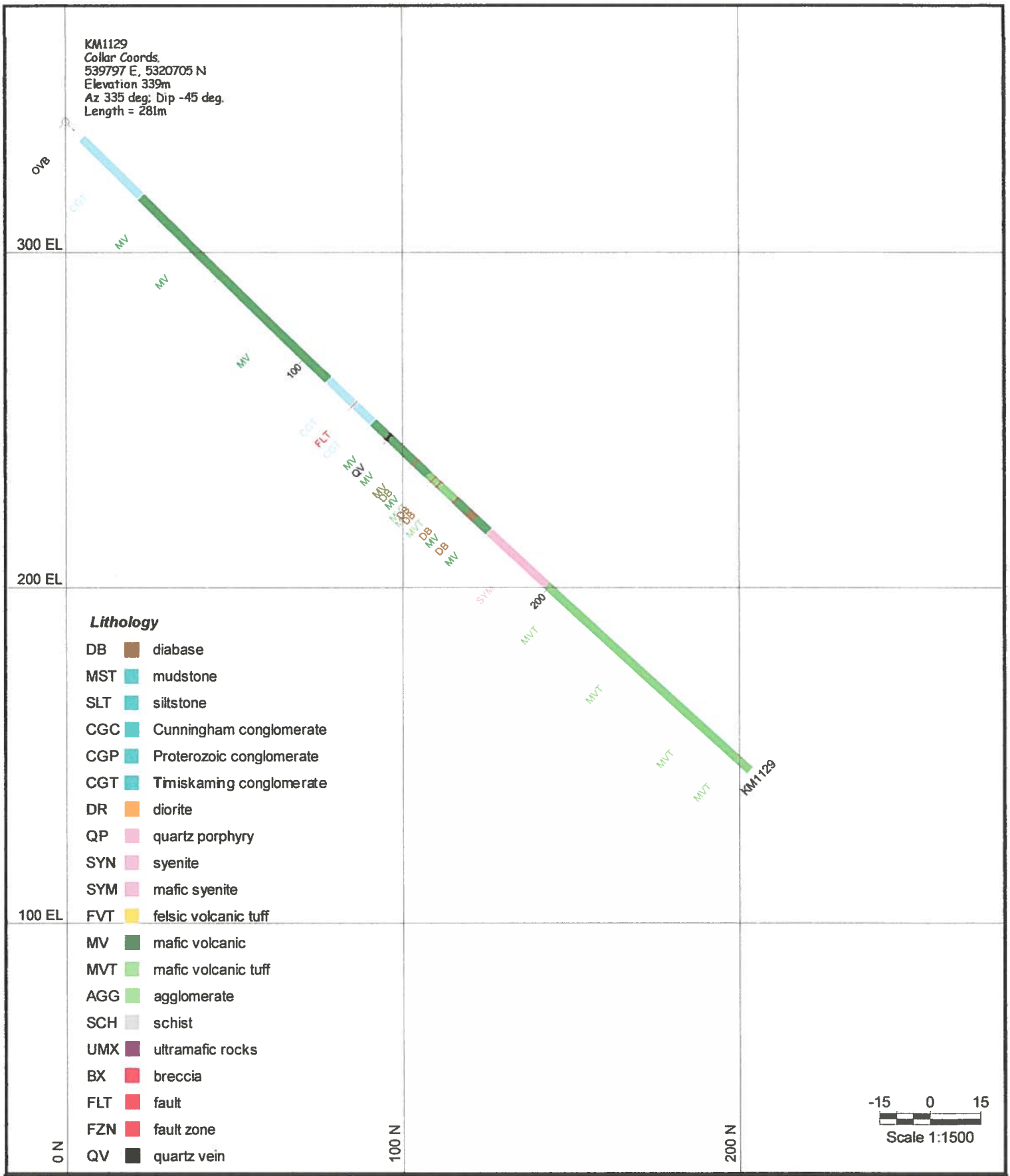
Ken Kryklywy, PEng March 14, 2012



WEST KIRKLAND MINING INC.

Property: McLean	
Township: Holmes	
Date: February 14, 2013.	
Created by: J. Suma-Momoh	
NAD 83	

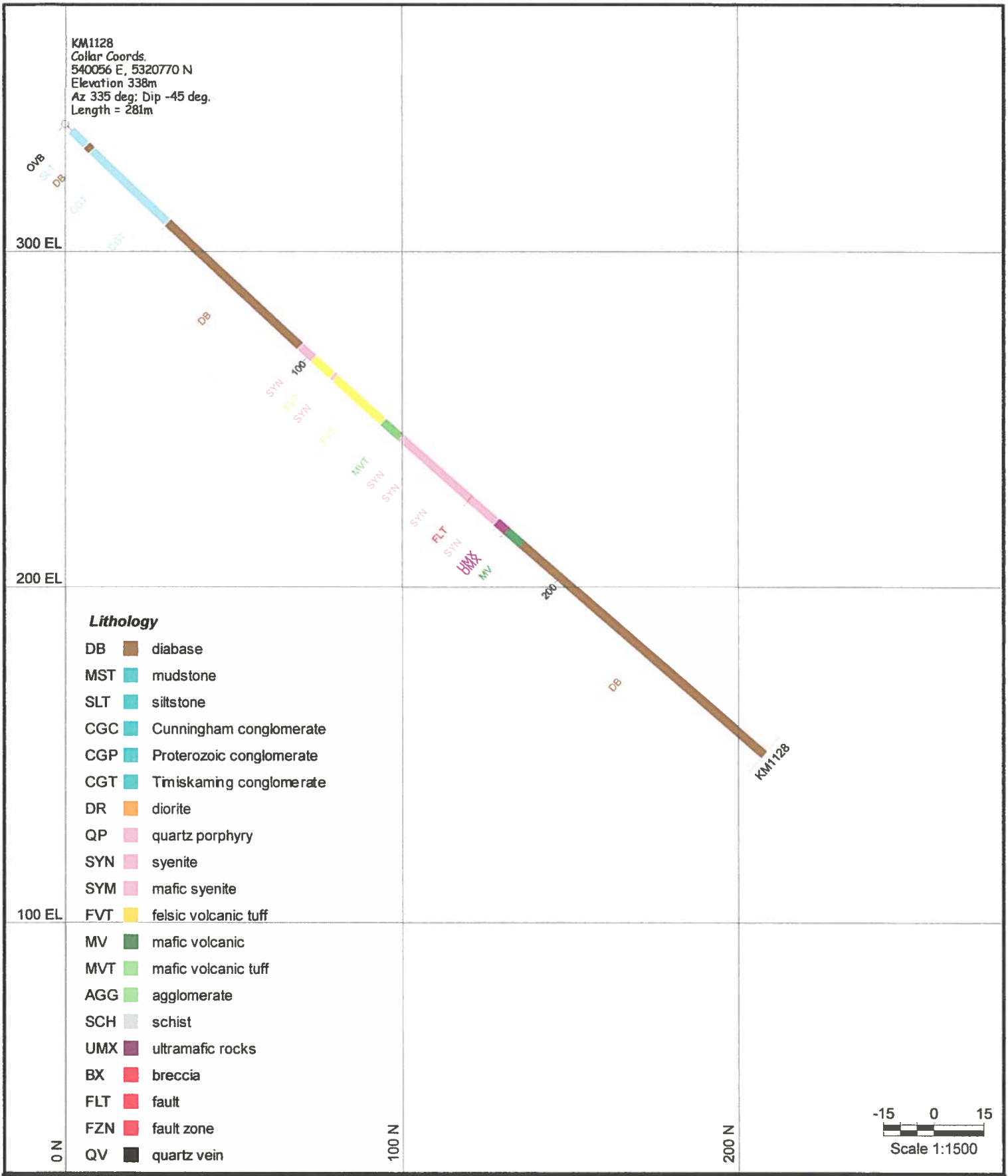
DDH KM12120
Section 539819 E
(looking West)



WEST KIRKLAND MINING INC.

Property: McLean	
Township: Holmes	
Date: Febuary 14, 2013.	
Created by: J. Suma-Momoh	
NAD 83	

DDH KM1129; Az 335 deg. (looking West)



Lithology

DB		diabase
MST		mudstone
SLT		siltstone
CGC		Cunningham conglomerate
CGP		Proterozoic conglomerate
CGT		Timiskaming conglomerate
DR		diorite
QP		quartz porphyry
SYN		syenite
SYM		mafic syenite
FVT		felsic volcanic tuff
MV		mafic volcanic
MVT		mafic volcanic tuff
AGG		agglomerate
SCH		schist
UMX		ultramafic rocks
BX		breccia
FLT		fault
FZN		fault zone
QV		quartz vein

WEST KIRKLAND MINING INC.

Property: McLean

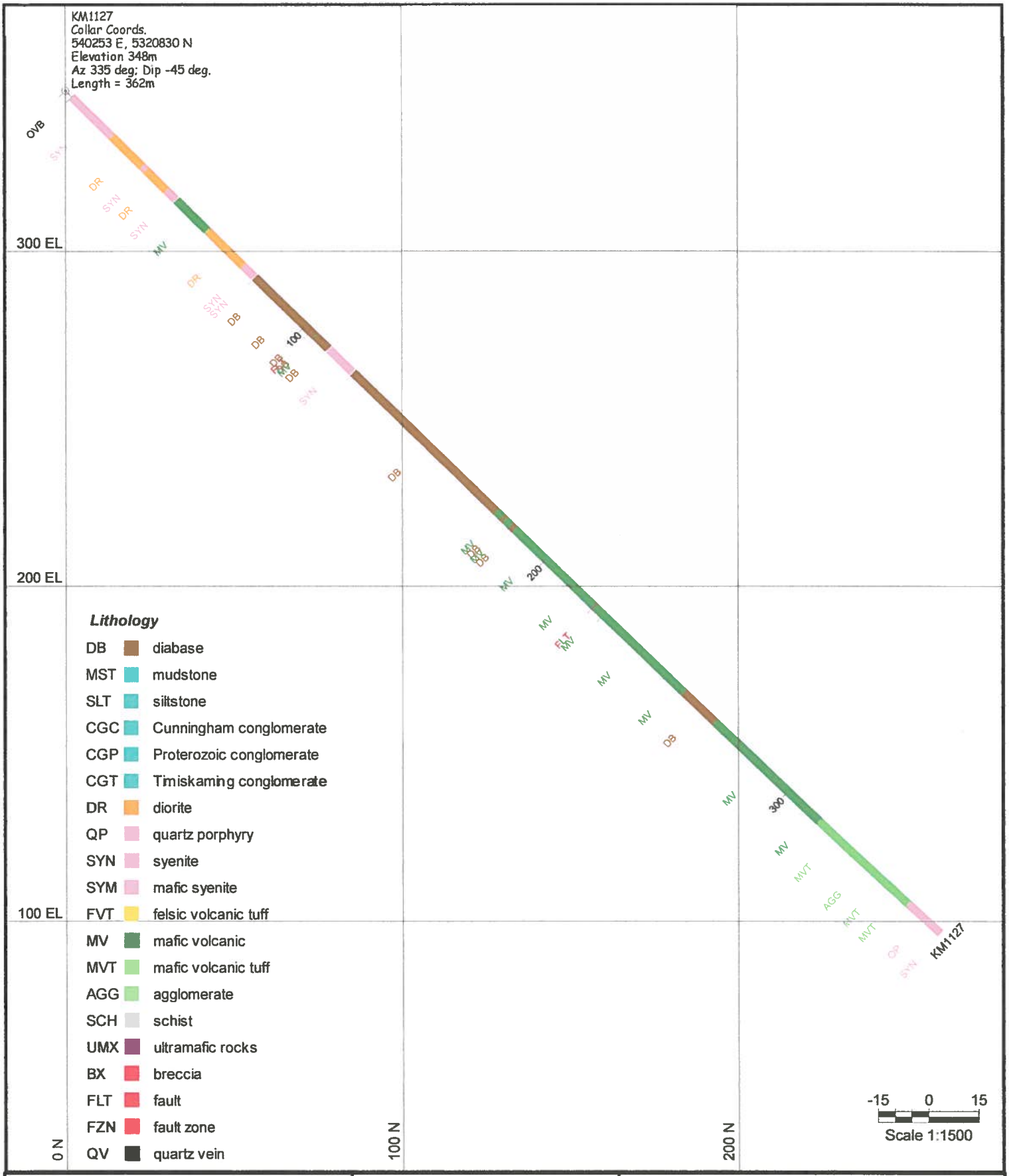
Township: Holmes

Date: Febuary 14, 2013.

Created by: J. Suma-Momoh

NAD 83

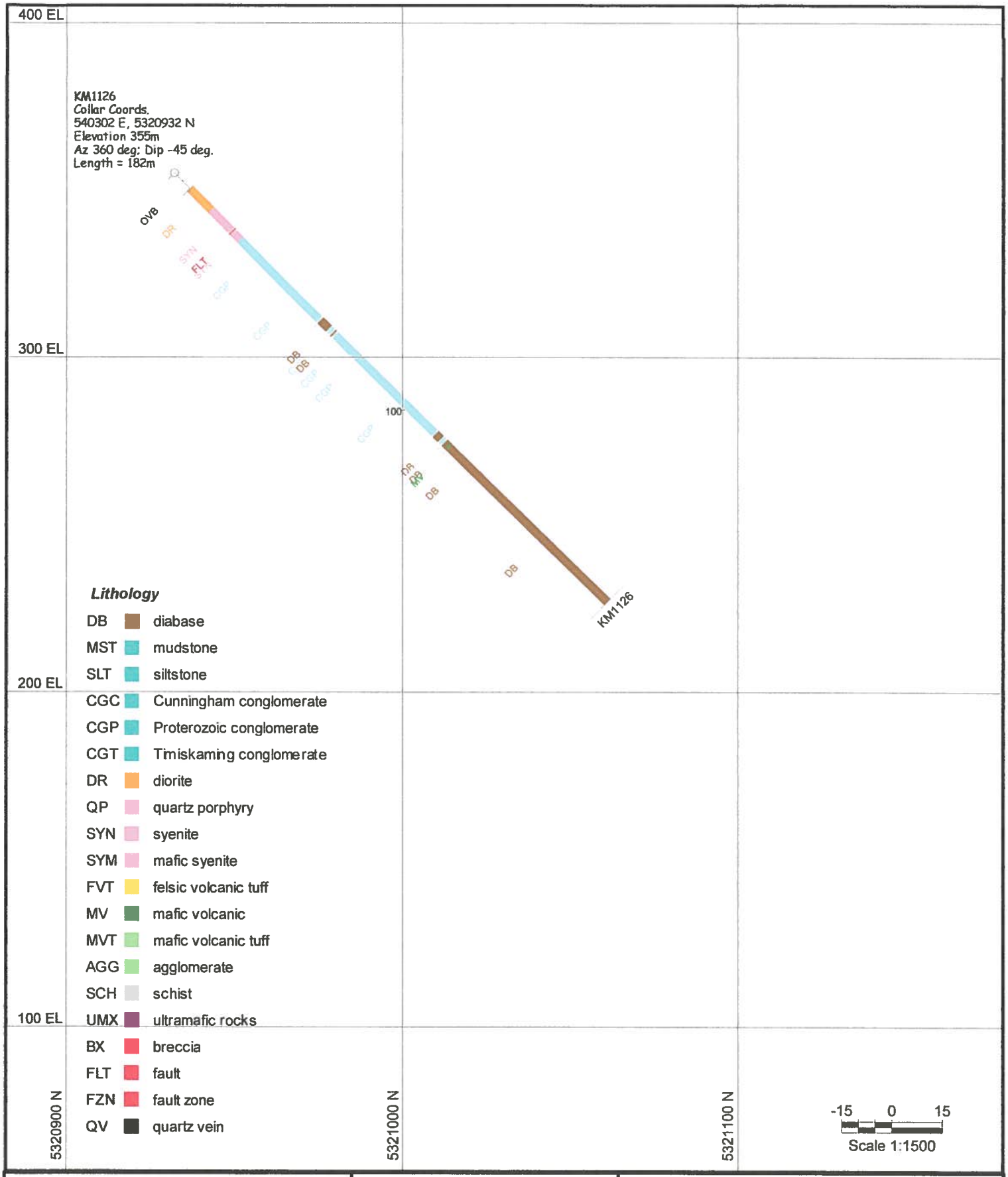
DDH KM1128; Az 335 deg. (looking West)



WEST KIRKLAND MINING INC.

Property: McLean	
Township: Holmes	
Date: Febuary 14, 2013.	
Created by: J. Suma-Momoh	
NAD 83	

DDH KM1127; Az 335 deg. (looking West)



WEST KIRKLAND MINING INC.

Property: McLean	
Township: Holmes	
Date: February 14, 2013.	
Created by: J. Suma-Momoh	
NAD 83	

DDH KM1126
SECTION 540302 E
(looking West)

400 EL

200 EL

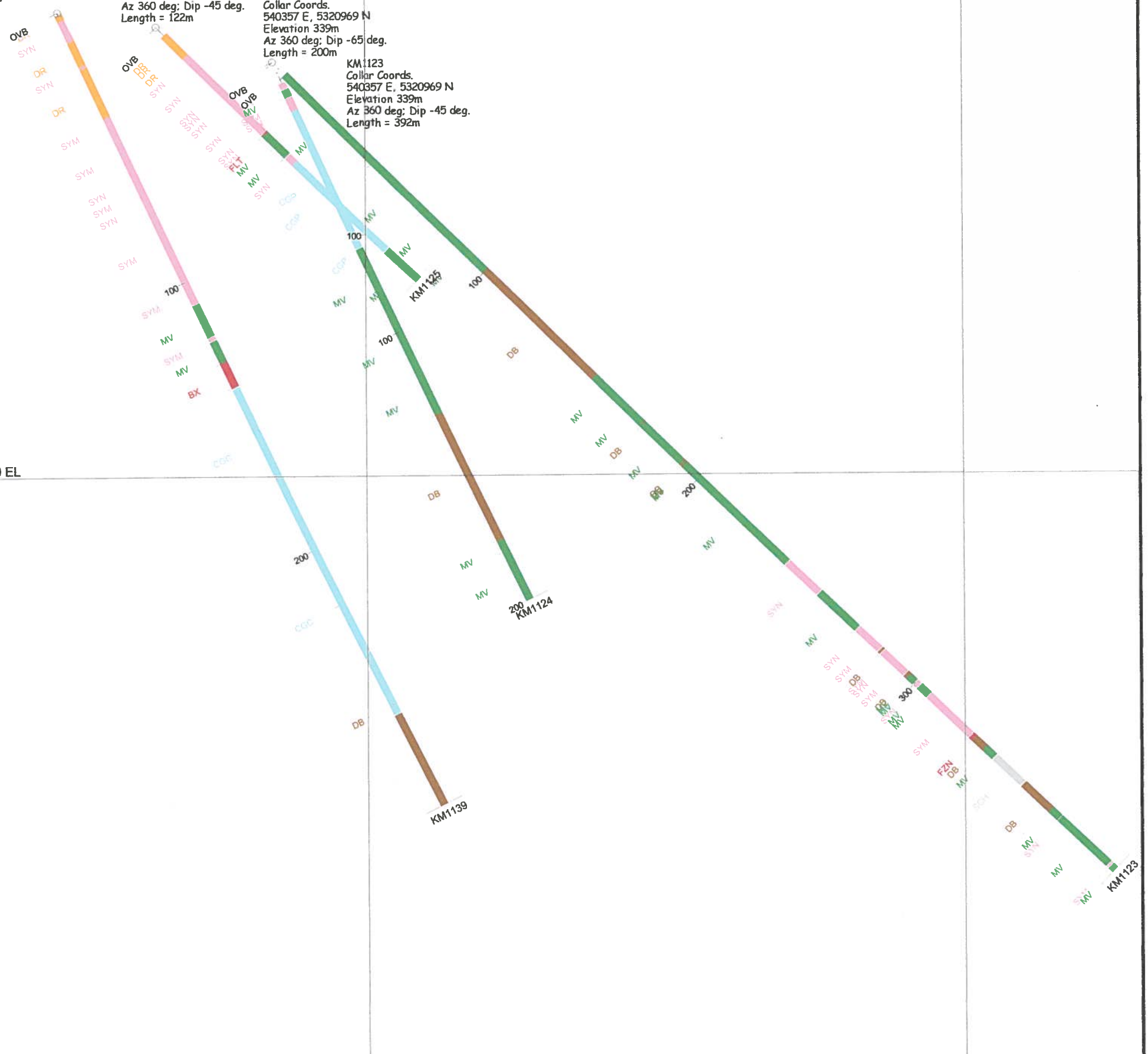
0 EL

KM1139
Collar Coords.
540357 E, 5320897 N
Elevation 356m
Az 360 deg; Dip -65 deg.
Length = 296m

KM1125
Collar Coords.
540357 E, 5320930 N
Elevation 351m
Az 360 deg; Dip -45 deg.
Length = 122m

KM1124
Collar Coords.
540357 E, 5320969 N
Elevation 339m
Az 360 deg; Dip -65 deg.
Length = 200m

KM1123
Collar Coords.
540357 E, 5320969 N
Elevation 339m
Az 360 deg; Dip -45 deg.
Length = 392m



Lithology

DB	diabase
MST	mudstone
SLT	siltstone
CGC	Cunningham conglomerate
CGP	Proterozoic conglomerate
CGT	Timiskaming conglomerate
DR	diorite
QP	quartz porphyry
SYN	syenite
SYM	mafic syenite
FVT	felsic volcanic tuff
MV	mafic volcanic
MVT	mafic volcanic tuff
AGG	agglomerate
SCH	schist
UMX	ultramafic rocks
BX	breccia
FLT	fault
FZN	fault zone
QV	quartz vein

5321000 N

5321200 N

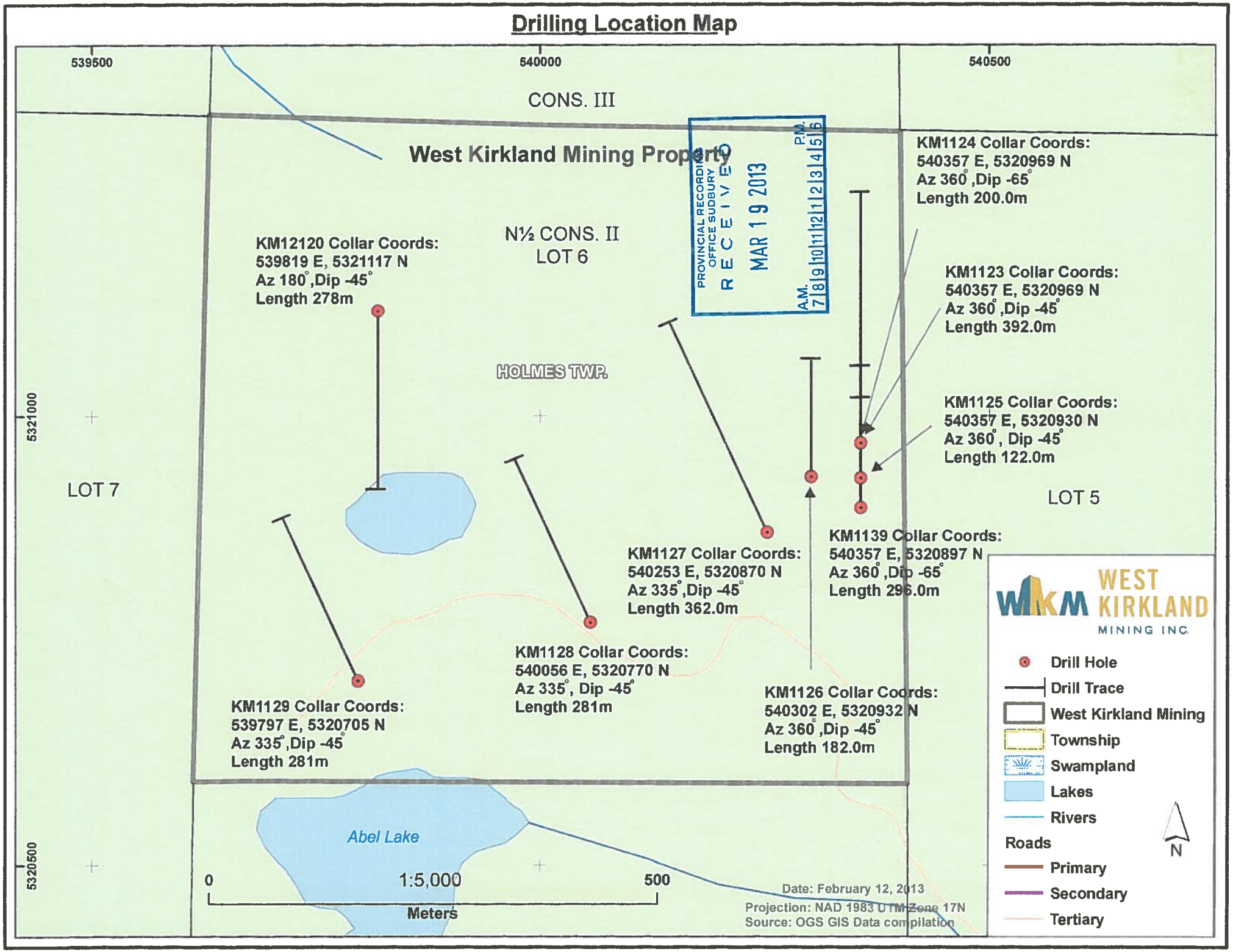
-15 0 15
Scale 1:1500

WEST KIRKLAND MINING INC.

Property: McLean
Township: Holmes
Date: February 14, 2013.
Created by: J. Suma-Momoh
NAD 83

DDHs KM1123, 24, 25 and 39
Section 540357 E
(looking West)

Drilling Location Map



DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM1139	Township:	Holmes	☑ Casing Left Behind (Y/N)	Core_Size:	NQ	Logged_By:	Mike Laliberty
NAD83E:	540357	Claim No:	23410	☐ Making Water	Collar_Survey_Type:	GPS	Contractor:	LAFRAMBOISE
NAD83N:	5320897	Start_Date:	26/05/2011	☐ Grout Plug	Downhole_Survey_Type:	REFLEX	Core Storage:	KENOGAMI
Elevation (m):	356	Finish_Date:	28/05/2011	☐ Cemented				
Azmuth:	360	Length (m):	296					
Dip:	-65	Comment:						

Survey

Depth	Azmith	Dip	Mag	Comment
30.00	342.60	-65.10	55,656.00	Azimuth not good
60.00	357.80	-64.90	54,156.00	
90.00	358.70	-64.80	54,373.00	
120.00	352.20	-64.70	56,042.00	
150.00	359.20	-64.60	55,144.00	
180.00	359.20	-64.40	54,789.00	
210.00	0.30	-63.50	54,077.00	
240.00	4.20	-63.30	55,475.00	Azimuth not good
270.00	4.70	-63.20	54,842.00	Azimuth not good
296.00	2.40	-63.20	54,725.00	

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	0.70	OVB											OVB with 1.5m of casing
0.70	2.80	DR	MAS								0		Diorite. Green. Fine - med grained, massive. Non-magnetic. Trace Py.
2.80	10.70	SYN	MAS								0		Syenite. Reddish-brown. Fine grained, massive. MagSus=0.9-1.1. Sharp contacts at 50 & 35 deg tca. Trace Py. 5.4 -5.8m: 40cm diorite dike with sharp contacts at 40 & 20 deg tca.
10.70	19.50	DR	MAS						CCV	1	0		Diorite. Green. Fine-med grained, massive. Non to strongly magnetic. MagSus=0.9-275.8. 1% calcite veins. 18.4-18.9m: 50cm highly brecciate zone with pervasive red potassic alteration and minor calcite veining. ~1% py.
19.50	20.80	SYN	MAS								0		Syenite. Reddish-brown. Fine grained, massive. MagSus=6.6-13.6. Sharp contacts at 25 & 30 deg tca. Trace Py.
20.80	38.60	DR	MAS	2	P	EPI	KSP		QV	1	0		Diorite. Green. Fine to med grained, massive. Strongly magnetic MagSus=39.1-458.9. Moderate pervasive epidote alteration with localized, fracture controlled reddish-brown potassic alteration. Trace Py. Sharp upper contact at 30 deg. 37.4-38.6m: calcite hematite vein ~5mm wide running ~parallel to core axis.
38.60	43.20	SYM	MAS						QV	1	2		Mafic syenite. Reddish dark grey to reddish grey. Med to coarse grained, massive. Moderately magnetic. Foliated upper contact at 45 deg tca. ~2% Py. 38.8-39.0m Syenite dike. Reddish-brown. Fine grained, massive at 45 deg tca. Brecciated with minor calcite veining.

Assay

From	To
0.00	0.00
18.40	18.90
38.60	40.10
40.10	41.60
41.60	43.20
113.50	114.3
129.00	130.0
130.00	131.0
131.00	132.0
136.60	137.6
137.60	138.0
138.00	139.0
148.10	149.0
219.50	221.0
221.00	222.5
222.50	224.0
224.00	225.5
225.50	227.0
227.00	228.5
228.50	230.0
230.00	231.5
231.50	233.0
233.00	234.5

43.20	60.80	SYM	MAS					QV	1	0	Gn	Mafic syenite. Reddish grey. Med to coarse grained, massive. Variable potassic alteration. Moderately to strongly magnetic with visible magnetite grains throughout. MagSus=54.8 -76.5. 50.1m: 3mm calcite vein at 40 deg tca with trace galena? And chalcopyrite?
60.80	62.60	SYN	MAS									Syenite dike. Reddish-brown. Fine grained, massive. Sharp contacts at 30 deg tca.
62.60	69.30	SYM	MAS	1	PA	KSP						Mafic syenite. Reddish-grey. Med to coarse grained, massive. Variable potassic alteration. Moderately magnetic.
69.30	71.70	SYN	MAS									Syenite dike. Reddish-brown. Fine grained, massive. Weakly magnetic. Sharp upper contact at 30 deg tca. Lower contact is broken and not well preserved. 70.8-71.1m: syenite xenolith? Similar to coarse grained syenite described above.
71.70	98.90	SYM	MAS							0		Mafic syenite. Reddish-grey. Med to coarse grained, massive. Variable potassic alteration. Moderately magnetic. 81.7m: 6cm grey qtz vein at 85 deg tca with ~20cm dark green chlorite halo. Trace Py.
98.90	108.50	SYM	FOL	2	FR	CC	KSP	QCCV	2	0		Foliated mafic syenite. Reddish-dark grey. Fine to med grained, foliated at 45 deg tca. Gradational upper contact. Moderate fracture related calcitic alteration. Minor vein controlled potassic alteration associated with qtz/calcite veins parallel to foliation. Weakly to moderately magnetic. MagSus=17.1-61.9. Trace Py.
108.50	120.10	MV	FOL	2	P	EPI	CC					Mafic volcanics. Green. Fine grained, weakly to moderately foliated at 45 deg tca. Moderately pervasive and fracture controlled epidote alteration. Minor fracture controlled calcitic alteration. Moderate to strongly magnetic. MagSus=55.2-165.1. Overall trace Py locally up to 2%. Sharp upper contact at 45 deg tca. 113.5-114.3m: localized pyrite up to 2%. 115.2-119.3m: occasional brecciated syenite xenoliths?

234.50	236.0
236.00	237.5
237.50	239.0
239.00	240.5
240.50	242.0
242.00	243.5
243.50	245.0
245.00	246.5
246.50	248.0
248.00	249.5
249.50	251.0
251.00	252.5
252.50	254.0
254.00	255.5
255.50	257.0
257.00	258.5
258.50	260.0
260.00	261.0
261.00	261.9

120.10	122.10	SYM	MAS	2	FR	CC					0	Mafic syenite. Reddish-dark grey. Med to coarse grained, mostly massive with localized weak foliation at ~70 deg tca. Strong fracture controlled calcitic alteration. Weak to strongly magnetic. MagSus=31.4-212.1. Trace Py. Sharp upper contact at 85 deg tca. 120.4-121.2m: calcite filled fracture at ~5 deg tca.
122.10	130.00	MV	SZ	2	FOL	ANK	CHL	CC			0	Mafic volcanics. Green-light brown. Fine grained, strongly foliated (sheared). F1 varies from 0-45 deg tca. F2 is 315-320 deg tca. Strong Fe-carbonate foliation controlled alteration. Moderate pervasive chloritic alteration. Weak fracture controlled calcitic alteration. Non-magnetic. MagSus=0.6-0.7. Overall trace Py localized up to 3%.
130.00	139.00	BX	BX								0	Breccia. Reddish grey brown. Up to 5cm wide clast/fragments in a fine grained matrix. Moderate to weak foliation at 30 deg tca. Weakly magnetic. MagSus=1.4-7.9. Trace Py locally up to 2%.
139.00	179.00	CCG	FOL						QCCV	2	0	Cunningham conglomerate. Polymictic clasts up to 10cm wide in a dark green fine grained volcanic matrix. Weakly to moderately foliated from 5-35 deg tca. Weakly to moderately magnetic. MagSus=1.8-51.7. Trace Py locally up to 3%. Calcite-field fractures throughout the unit. Gradational upper contact. 148.1-149.0m: localized pyrite 3-4%. 166.2-166.3m: 10cm qtz vein at 45 deg tca.
179.00	261.90	CCG	FOL	1	FOL	CC			CCV	1	0	Cunningham conglomerate. Same as above. Variable foliation intensity (weak to moderate) at 15-55 deg tca stretches the clasts. Weak to moderate foliation-controlled and patchy calcitic alteration. Decrease in qtz/calcite veins (1%). Weakly to moderately magnetic. MagSus=3.9-62.1. Trace Py. Gradational upper contact. 207.2-219.4m: clast percentage drops from ~10% to ~5%. 220.3m: 5cm calcite vein. 229.8 -230.1m: highly fractured/broken up zone. 245.6 -247.4m: brecciated clasts in the conglomerate.

220.30	296.00	DB	MAS		CCV	1 0	Diabase. Dark grey. Fine to medium grained, massive. Weakly to moderately magnetic. MagSus=1.4-58.0. Generally unaltered with localized pervasive and vein-controlled epidote alteration. Trace Py. 1% average calcite veins (+/- epidote). Sharp upper chilled contact at ~15 deg tca. 267.7-279.1m: calcite veining (up to 8cm wide) is common. 282.4-289.4m: localized weak to moderate pervasive and vein-controlled epidote alteration. 296.0m EOH

Structure

12.70	QCCV	45	2cm qtz vein
34.10	QKV	45	5cm qtz k-spar vein
37.40	CCV	5	5mm calcite hematite vein
50.10	CCV	40	trace galena and chalcopyrite
52.90	QV	55	12cm grey qtz vein
81.70	QKV	85	6cm qtz vein
120.90	FR	5	Calcite filled fracture ~parallel tca.
122.30	QCCV	50	2cm qtz calcite vein
133.70	FLT	45	5cm gritty grey clay fault
137.80	QCCV	30	40cm qtz calcite vein
166.20	QCCV	45	10cm qtz calcite vein
220.30	CCV	25	5cm calcite vein
229.80	FR	30	30 cm highly fractured zone
267.70	CCV	45	8cm calcite vein
287.20	CCV	28	3cm calcite/epidote vein

DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM12120	**Township:**	Holmes	☑ **Casing Left Behind (Y/N)**	**Core_Size:**	NQ	**Logged_By:**	Mike Laliberty
NAD83E:	539819	**Claim No:**	23410	☐ **Making Water**	**Collar_Survey_Type:**	GPS	**Contractor:**	LAFRAMBOISE
NAD83N:	5321117	**Start_Date:**	02/02/2012	☐ **Grout Plug**	**Downhole_Survey_Type:**	REFLEX	**Core Storage:**	KENOGAMI
Elevation (m):	337	**Finish_Date:**	08/02/2012	☐ **Cemented**				
Azmuth:	180	**Length (m):**	278					
Dip:	-45	**Comment:**						

Survey

Depth	Azmith	Dip	Mag	Comment
30.00	180.20	-45.20	54,621.00	
60.00	180.20	-44.80	54,973.00	
90.00	180.50	-44.50	54,711.00	
210.00	180.30	-44.10	55,583.00	
240.00	181.80	-44.30	54,943.00	
120.00	180.70	-44.40	54,618.00	
150.00	181.00	-44.30	54,709.00	
180.00	181.30	-44.20	54,579.00	
270.00	181.40	-44.40	54,507.00	

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	1.30	OVB											4.5m of casing. 0 - 117.5m logged by Mike Laliberty; 117.5m - EOH logged by James Suma-Momoh.

Assay

From	To
3.50	4.50
4.50	4.90
4.90	5.90
5.90	7.00
36.20	37.20
37.20	37.70
37.70	38.70
38.70	40.20
40.20	41.30
41.30	42.30
42.30	43.30
50.10	51.60
51.60	52.80

1.30	208.90	MVT	sz	1	pa	cc	hem	ccv	3	0	Mafic volcanic tuff? Reddish-grey to dark grey. Fine grained groundmass with localized rounded to sub-angular fragments(?) up to 5cm long. Moderately to strongly foliated at 15-60 deg tca with foliation angle decreasing tca down hole. Weak patchy and vein-controlled calcitic alteration. Weak patchy hematitic alteration. 3% calcite veining. 1% qtz/calcite veining. 1 - 2% iron carbonate veining (down hole) with pull apart(?) fractures perpendicular to vein direction in-filled with quartz and a pinkish-red mineral (hematite?). Non to weakly magnetic. MagSus=0.4 - 30.8. Generally trace py but locally up to 5% associated with pinkish bleached sections over 1m. 6.5-6.7m. Iron carbonate vein set up to 3cm wide at 40-45 deg tca with 1% py. 7.4-8.0m. 60cm lost core. 14.3m. 5cm wide qtz/calcite vein at 65/70 deg tca with no visible sulphides. 37.4m. 5cm wide qtz/calcite vein at 65/70 deg tca with trace py. 37.5-37.7m. 17cm wide qtz/calcite vein at 60 deg tca with trace py. 67.5-117.5m. 1% bright white iron carbonate veining up to 8cm wide at 5-70 deg tca with pull apart(?) fractures perpendicular to vein direction in-filled with a pinkish-red mineral (hematite?). 79.3-79.5m. 2cm wide qtz/calcite vein at 30 deg tca with trace Gn(?). 96.0m. 8cm wide iron carbonate vein at 45 deg tca with pull apart(?) fractures perpendicular to vein direction in-filled with a pinkish-red mineral (hematite?). 124.6 - 126.2m: contains 2% finely disseminated py. 155.4 -155.8m: bleached interval; pinkish-coloured; ~ 5% disseminated py occur. Foliation is 50 deg tca. 158 - 163.7m: 2 - 3% fine py unevenly distributed. 169.5 - 175.3m: bleached, light pinkish-grey; 1 to local 3% py occurring as blobs and short stringers (< 2cm long) parallel to foliation plane. 178.3 - 178.9m: bleached; light grey-coloured; 3 - 4% py disseminations and stringers. Only ~ 1 - 2% py associated with the irregular Q-iron carb +/- calcite veins (<1 - 3cm wide, ~ 20 - 45 deg tca).

52.80	54.30
54.30	55.80
55.80	56.90
56.90	58.00
58.00	58.30
58.30	59.30
59.30	60.60
60.60	62.00
62.00	62.50
62.50	64.00
70.70	71.70
71.70	72.00
72.00	72.60
72.60	73.60
73.60	74.60
74.60	75.40
75.40	76.20
76.20	76.80
76.80	78.30
78.30	79.30
79.30	79.60
79.60	81.00
81.00	82.00
82.00	83.50
83.50	84.50
84.50	85.50
85.50	87.00
87.00	87.70
87.70	88.50

											182.6 - 202.5m: slight increase in iron-carb veining (~2%). Magnetism begins to increase (5.5 - 30.8). 202.5 - 208.9m: light pinkish-grey to green; iron-carb veining drops to < 1%. Trace py. Decrease in foliation angle; foliation intensity decreases to weak about a meter to lower cnt.
208.90	215.90	DB	mas					ccv	2	0	Diabase dyke. Dark grey; fine to very fine-grained; massive; mod to strongly mag; MagSus = 59.2 - 128.2 Generally unatlered. Only trace py occur. 1 - 2% calcite veins present, <1 - 2cm wide; calcite fracture-filling is common downhole. Upper cnt not preserved.
215.90	247.50	MVT	sz	1	pa	hem	ank	qcv	2	0	Mafic Volcanic Tuff? Similar to 1.3 - 208.9m. Sharp upper cnt over 35cm at 10 deg tca. 215.9 - 222.2m: Similar to 202.5 - 208.9m. Low foliation angles (0 - 25 deg tca), and increase in foliation intensity downhole. <1% Q- iron carb veining. 7cm wide Q-calcite vein (35/37 deg tca) with trace py at 218.8m. 222.2 - 245m: intensely sheared; Q-iron carbonate veining increases to 2 - 3% (up to 25cm wide) and these are generally twisted or contorted like intestines, a few showing alternating milky-white (iron-carb) and pinkish/reddish-cubes (Qtz+hematite?). Two foliation fabrics noticed: f1 is generally between 13 and 30 deg tca, and is being overprinted by F2 at 150 - 158 deg tca. Trace py; locally up to ~ 2% disseminated py. 225.7m: 3cm wide Q-iron carb vein (25 deg tca) with 1 - 2% py. 226.5 - 228.7m: contains ~ 2 - 3% finely disseminated py. 230 - 230.2m: Q-iron carb flooding, 55/45 deg tca; contains trace py. 235.9 - 236.2m: Q-iron carb flooding; 58 deg tca at lower cnt; trace py. 244.1 - 244.9m: narrow diabase dyke ~ 1cm wide (with anhedral epidote) running along core 0 - 15 deg tca.
247.50	251.30	DB	mas							0	Diabase dyke. Similar to 208.9 - 215.9m; < 1% calcite veining. Strongly magnetic; MagSus = 116.9 - 146.8. Sharp upper cnt at 74 deg tca.

88.50	90.00
90.00	91.50
91.50	93.00
93.00	94.50
94.50	96.10
96.10	97.60
102.00	103.5
103.50	104.0
104.00	105.5
105.50	107.0
107.00	108.5
108.50	110.0
110.00	111.5
111.50	113.0
113.00	114.5
114.50	116.0
116.00	117.5
123.60	124.6
124.60	125.4
125.40	126.2
126.20	127.7
154.40	155.4
155.40	155.8
155.80	156.9
156.90	158.0
158.00	159.5
159.50	161.0
161.00	162.4
162.40	163.7

251.30	252.60	MVT	sz	2	pa	cc	hem	ccv	5	0	Mafic Volcanic Tuff? Similar to 1.3 - 208.9m but lacks the milky white-pinkish (cubed) veins. Mod to strong patchy to vein-controlled calcitic alt. Weak patchy hematitic alt. Trace py. ~ 5% calcite veins present. Sharp upper cnt at 16 deg tca.
252.60	254.50	DB	mas							0	Diabase dyke. Similar to 208.9 - 215.9m; calcite fracture filling common. Sharp upper cnt at 32 deg tca.
254.50	257.30	MVT	sz	2	pa	cc	hem	ccv	3	0	Mafic Volcanic Tuff? Similar to 1.3 - 208.9m but lacking the milky white-pinkish (cubed) veins as in 251.3 - 252.6m. 50 - 55 deg tca mod to strong foliaton. Sharp upper cnt 5 deg tca is over 65cm.
257.30	258.50	DB	mas					ccv	2	0	Diabase dyke. Similar to 208.9 - 215.9m. Xenoliths of mafic volcanic tuff occur along the length of the core with cacite filling the margins (~ 0 deg tca). Sharp upper cnt at 5 deg tca over 55cm.
258.50	259.50	MVT	sz	1	pa	cc	hem	ccv	1	0	Mafic volcanic Tuff? Similar to 1.3 - 208.9m but lacking the milky white-pinkish (cubed) veins. Trace py. Mod to strong foliation generally at ~ 50 deg tca. Weakly mag; MagSus = 7.6 - 10.9. Sharp upper cnt at 15 deg tca.
259.50	261.70	DB	mas							0	Diabase dyke. Similar to 208.9 - 215.9m. Strongly magnetic; MagSus = 141.9 - 153.4. Calcite fracture-filling common. Sharp upper cnt at 50 deg tca.
261.70	278.00	MVT	sz	1	pa	cc	hem	ccv	3	0	Mafic Volcanic Tuff? Dark reddish-grey; f-grained matrix with rounded to subrounded fragments(?). Milky white-pinkish veins appearing as backbones are strectched and boudinaged in some cases. Non-mag; MagSus = 0.3 - 6.7. Strongly foliated at 35 - 53 deg tca. Weak to local strong patchy to vein-controlled calcitic alt; weak patchy hematitic alteration. Trace py but locally up to 2% over 50cm. This unit is quite similar to that at 1.3 - 208.9m. Sharp upper cnt at 6 deg tca. 267.4 - 267.9m: contains 2% finely disseminated py. Q iron carb vein at 267.7m (7cm wide, 45 deg tca) with trace py. 274.3m: 10cm wide Q-calcite vein (20 deg tca) with trace py. 278m: EOH.

163.70	164.8
169.50	171.0
171.00	172.1
172.10	173.1
173.10	174.1
174.10	175.3
175.30	176.8
176.80	178.3
178.30	178.9
178.90	179.9
187.50	189.0
189.00	190.0
190.00	191.5
191.50	192.5
197.80	199.3
199.30	200.5
200.50	202.0
222.20	223.7
223.70	225.1
225.10	226.5
226.50	227.6
227.60	228.7
228.70	230.0
230.00	230.2
230.20	231.8
231.80	233.3
233.30	234.3
234.30	235.9
235.90	236.2

236.20	237.5
237.50	239.0
239.00	240.5
240.50	242.0
242.00	243.5
243.50	245.0
265.90	267.4
267.40	267.9
267.90	269.4
269.40	270.9
270.90	272.0

Structure

3.00	f1	45	
9.00	f1	45	
13.00	f1	40	
14.30	qccv	75	5cm wide qtz/calcite vein with no visible sulphides.
16.00	f1	60	
21.00	f1	35	
25.00	f1	45	
30.00	f1	55	
34.00	f1	50	
36.20	f2	25	
36.30	f1	40	
37.40	qccv	68	5cm wide qtz/calcite vein with trace py.
37.50	qccv	60	17cm wide qtz/calcite vein with trace py.
39.00	f1	50	
42.00	f1	55	
48.00	f1	45	

51.00	f1	40	
54.00	f1	45	
58.00	f1	40	
63.00	f1	25	
67.00	f1	30	
72.00	f1	30	
75.00	f1	40	
79.40	qccv	30	2cm wide qtz/calcite vein with trace Gn(?).
82.00	f1	40	
85.00	f1	35	
88.00	f1	30	
93.00	f1	30	
100.00	f1	35	
103.00	f1	25	
105.00	f1	35	
112.00	f1	25	
115.00	f1	20	
96.00	cv	45	8cm wide iron carbonate vein with pull apart(?) fractures perpendicular to vein
6.60	cvs	43	Iron carbonate vein set up to 3cm wide at 40-45 deg tca with 1% py.
125.00	f1	40	
129.90	f1	42	
131.40	f1	45	
134.70	f1	40	
141.50	f1	48	
139.10	f1	43	
146.80	f1	50	
151.30	f1	52	
155.80	f1	44	

157.50	f1	42	
163.80	f1	42	
166.40	f1	30	
178.70	qcv	45	irregular, ~ 2cm wide; with 2% py.
170.20	f1	50	
174.60	f1	54	
180.30	f1	25	
187.70	f1	23	
192.40	f1	23	
189.40	qcv	28	5cm wide on average; with trace py.
197.00	f1	24	
201.60	f1	33	
205.00	f1	15	
215.90	cnt	10	
218.80	qccv	36	7cm wide; with trace py.
221.30	f1	15	
222.10	f1	0	
225.70	qcv	25	3cm wide, with 1 - 2% py.
230.10	qcv	50	20cm flooding, 55/45 deg tca; trace py.
228.70	f1	30	
228.80	f2	158	
232.50	f2	150	
232.60	f1	30	
235.10	f1	30	
241.00	f1	13	
245.10	f1	25	
236.10	qcv	58	30cm flooding; trace py.
247.50	cnt	74	sharp

251.30	cnt	16	sharp
252.60	cnt	32	sharp
254.50	cnt	5	sharp
257.00	f1	50	
257.30	cnt	5	sharp
258.50	cnt	15	sharp
259.20	f1	50	
259.50	cnt	50	sharp
261.70	cnt	6	sharp
267.70	qcv	45	7cm wide; with trace py.
262.60	f1	50	
266.00	f1	51	
270.00	f1	53	
272.10	f1	45	
275.10	f1	35	
274.30	qccv	20	10cm wide; with trace py.

DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM1129	Township:	Holmes	☑ Casing Left Behind (Y/N)	Core_Size:	NQ	Logged_By:	James Suma-Momoh
NAD83E:	539797	Claim No:	23410	☐ Making Water	Collar_Survey_Type:	GPS	Contractor:	LAFRAMBOISE
NAD83N:	5320705	Start_Date:	14/04/2011	☐ Grout Plug	Downhole_Survey_Type:	REFLEX	Core Storage:	KENOGAMI
Elevation (m):	339	Finish_Date:	16/04/2011	☐ Cemented				
Azmuth:	335	Length (m):	281					
Dip:	-45	Comment:						

Survey

Depth	Azmith	Dip	Mag	Comment
30.00	336.90	-45.20	5,663.00	
60.00	336.50	-44.50	5,632.00	
90.00	335.90	-44.10	5,628.00	
120.00	339.60	-43.60	5,636.00	
150.00	339.90	-43.50	5,618.00	
180.00	339.40	-43.00	5,580.00	
210.00	341.10	-42.60	5,610.00	
240.00	341.60	-42.20	5,611.00	
270.00	341.30	-42.00	5,574.00	

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	7.00	OVB											Overburden. 7.5m of Casing.
7.00	31.90	CGT	MAS								0		Conglomerate. Generally medium to dark grey green; f to m-grained matrix hosting coarse sub-rounded to rounded pebbles and dominantly cobble-sized, poorly sorted clasts (mostly pink to brown syenitic & some green mafic clasts). Unit is massive, non to strongly mag; MagSus = 0.6 - 97.1. Weak fracture-controlled calcitic alt. Trace py; local 1% py. Brecciated and with calcite cement at 22.1 - 22.5m, 25.5 - 25.7m; 26.8 - 27.2m. 1% py at 28.4 - 28.6m. Clast count decreases markedly between 30.9m and 31.9m with only ~ 5% pebbles.
31.90	41.70	MV	MAS	1	P	CHL					0		Basalt. Dark grey to black; very f- to f-grained; massive; non- to weakly mag; MagSus = 1.2 - 28.8. Weak to mod pervasive chloritic alt. Trace py, locally 1% along fractures. Less than 1% calcite stringers present. Sharp upper cnt 35 deg TCA. Q-vein (12 deg TCA upper cnt; up to 4cm wide, with ~ 1% py) straddles core axis between 40.2m and 40.8m. 1% py along fractures between 40.8m and 41.2m.

Assay

From	To
0.00	0.00
40.20	40.80
40.80	41.70
41.70	42.70
64.00	65.00
65.00	66.10
66.10	67.10
67.10	68.60
68.60	70.10
70.10	71.20
71.20	72.30
72.30	72.70
72.70	73.70
73.70	75.20
84.90	86.40
86.40	86.90
86.90	88.40

41.70	65.00	MV	MAS	1	P	ANK	CHL	QCCV	2	0	Basalt? The unit is medium grey with a faint brown sheen. Appears to have been affected by an underlying syenite intrusion; syenitic fragments present. F-grained; generally massive; weak foliated horizons occur. Weak to mod mag; MagSus = 18.0 - 48.5. Weak to mod pervasive carb(?) alt; weak to mod spotty chl alt. Trace py; local 1% py. ~ 2% Q-calcite veining. Grad upper cnt. White calcite spots (< 1 - 4mm wide) with reddish margins occur between 50.1m and 51.9m. 0 - 5 deg zig-zagging fracture at 59.9 - 60.9m. Q-calcite flooding with reddish marginal alteration and trace py at 62 - 62.2m.
65.00	109.40	MV	MAS	2	P	ANK		QCCV	4	0	Basalt? Similar to 41.7 - 65m. More Q-veining than upper unit. weak to mod mag; MagSus = 23.6 - 73.5. Trace py; local 3% py. Grad upper cnt. 0.5 - 3cm wide Q-calcite vein (20 deg TCA) with ~ 2% py at 66.8 - 67.1m. Brecciated at 69.5 - 69.7m with calcite cement. 3 - 5% py associated with calcite veining (18 deg TCA, up to ~ 1cm wide) at 72.3 - 72.6m. Occasional altered syenitic fragments from 79.1m down to lower cnt. 2-3% py around 3 Q-pods (6 - 10cm wide) at 86.4 - 86.9m. Syenite percentage increases (up to 70%) between 100.3m & 107.7m, with Q-vein at 104.7 - 105m (upper cnt not preserved; fragmented at 104.9m).
109.40	120.20	CGT	FOL	3	P	CC				1	Conglomerate. With sub-rounded to rounded pebbles/fragments and breccia. Matrix appears volcanic; rich in chlorite. Felsic clasts/fragments dominate over mafic counterparts. Unit is medium grey green-brown; f- to c-grained; foliated; non- to weak mag; MagSus = 0.9 - 17.8. Mod to intense pervasive and fracture-controlled calcitic alt. 1% py; local 2% py mainly associated with felsic-syenitic clasts/frags. Sharp upper cnt 35 deg TCA.

88.40	89.90
89.90	91.40
103.20	104.7
104.70	105.0
105.00	106.5
106.50	108.0
108.00	109.4
109.40	110.9
110.90	112.0
112.00	113.5
113.50	115.0
115.00	116.5
116.50	118.0
118.00	119.1
119.10	120.2
120.20	120.7
120.70	122.2
122.20	123.7
132.50	134.0
134.00	134.7
134.70	136.2
136.20	137.7
137.70	138.7
138.70	139.5
139.50	140.0
140.00	140.6
175.20	176.7
176.70	178.2
178.20	179.7

120.20	120.30	FLT								0		Fault. 48 deg TCA upper fracture with 5 - 7cm wide medium grey-coloured clay. Lower fracture is 39 deg TCA. No visible sulphide mineralization.
120.30	128.20	CGT	FOL	3	P	CC				0		Conglomerate. Similar to 109.4 - 120.2m. Dark grey-brown; f- to c-grained; moderately foliated; non- to weak mag; MagSus = 0.7 - 17.3. Strong pervasive and fracture-controlled calcitic alt; trace py. Upper fracture to fault is 39 deg TCA. Broken up at 122.8 - 122.9m; 125 - 125.3m. Broken up at 125.8 - 126.3m with a 50cm wide blocky interval uphole. Diabase dyke (50 & 55 deg TCA upper & lower cnts, respectively) at 126.7 - 126.8m.
128.20	134.00	MV	MAS	2	P	CHL	CC		QV	2	0	Mafic Volcanic. Medium grey; f-grained; massive; non-mag; MagSus = 0.7 - 0.8; dominant weak to mod pervasive chloritic alt; minor weak to mod pervasive calcitic alt. No visible sulphide. ~ 2% Q-veining. Upper cnt marked by calcite vein (0.5 - 2cm wide, 44 deg TCA). 132.2 - 133.2m: 0 - 5 deg TCA fracture straddles core axis with ~ 12cm Q-vein at 132.5m.
134.00	134.70	QV	MAS							0		Quartz Vein. White; crystalline; massive, with calcite fracture healing. Non-mag; MagSus = 0. Trace py. Sharp upper cnt 65 deg TCA.
134.70	141.30	MV	MAS	2	P	CHL	CC		QV	10	0	Mafic Volcanic. Similar to 128.2 - 134m. ~ 10% Q-veining (2 - 15cm wide) common between 138.7 - 139.5m; and 140 - 140.2m. No visible sulphide. Mud-slips at 135.3 - 135.5m. Unit has sharp upper cnt 80 deg TCA.
141.30	145.00	MV	MAS	1	P	CHL				0		Mafic Volcanic. Similar to 128.2 - 134m but with weak pervasive chloritic alt. Low mag; MagSus = 1.1 - 2.5. No visible sulphide. Cross-cutting calcite stringers present. Grad upper cnt. Possible fault at 141.7m with ~ 0.5cm wide gouge (80 deg TCA).

179.70	181.2
181.20	182.4
182.40	183.6
183.60	184.6
184.60	185.6
185.60	186.6
186.60	187.6
187.60	189.1
189.10	190.6
190.60	192.1
192.10	193.6
193.60	195.1
195.10	196.6
196.60	197.6
197.60	198.6
198.60	199.0
199.00	199.8
199.80	201.1
201.10	202.1
202.10	203.1
203.10	204.1
204.10	205.1
205.10	206.1
206.10	207.1
207.10	208.1
208.10	209.6
209.60	211.1
211.10	212.6
251.10	252.2

145.00	145.50	DB	MAS						0		Diabase. Dark grey-purple. Very f-grained; massive; strongly mag; MagSus = 161.4 - 197.3. Unaltered; no visible sulphide. Calcite-filled fractures present. Sharp upper chilled cnt 30 deg TCA.
145.50	150.50	MV	MAS	1	P	CHL		QV	1	0	Mafic Volcanic. Medium grey-green; f-grained; massive; non-mag; MagSus = 0.8 - 1.2. Weak pervasive chloritic alt; no visible sulphide. Sharp upper cnt 35 deg TCA.
150.50	152.60	MVT	FOL	2	FR	CC			0		Mafic Tuff? Medium to dark grey-green. F- to c-grained; foliated. Non-mag; MagSus = 1.1 - 2.4. Mod fracture-controlled calcitic alt. No visible sulphide. Sharp upper cnt 72 deg TCA.
152.60	152.90	DB	MAS						0		Diabase. Similar to 145 - 145.5m. Strong mag; MagSus = 104 - 146.6. Sharp upper cnt 45 deg TCA.
152.90	154.80	MVT	MAS	2	P	CC			0		Mafic Tuff. Similar to 150.5 - 152.6m. Light brown-grey. Mainly massive with local faint foliation. Mod pervasive calcitic alt. No visible sulphide. Groundmass seems to have an almost syenitic look with minute black (generally < 1mm diameter) crystals. Sharp upper cnt 41 deg TCA.
154.80	155.20	DB	MAS						0		Diabase. Similar to 145 - 145.5m. Sharp upper cnt 40 deg TCA.
155.20	161.60	MVT	MAS	2	P	CC			0		Mafic Tuff. Quite similar to 152.9 - 154.8m. ~ 2% calcite veining present. Weakly mag; MagSus = 12.3 - 26.9. Trace py. Sharp upper cnt 36 deg TCA. 9cm wide diabase dyke (55 deg TCA upper & lower cnts) at 156.4m
161.60	162.10	DB	MAS					CCV	2	0	Diabase. Similar to 145 - 145.5m. Sharp upper cnt ~ 20 deg TCA.
162.10	167.00	MV	MAS	2	P	CC	CHL		0		Mafic Volcanic. Dark grey to black; f-grained; semi-massive; very weakly mag to weakly mag; MagSus = 9.2 - 35.5. Mod to strong pervasive calcitic alt. minor weak pervasive chloritic alt. No visible sulphide. ~ 2% calcite veining present. Sharp upper cnt 45 deg TCA.
167.00	169.60	DB	MAS						0		Diabase. Similar to 145 - 145.5m. Very f-grained; with calcite fracture-fills; strongly mag; MagSus = 128.5 - 148.6. Contains trace py. Upper cnt not preserved.

252.20	253.3
253.30	254.5
254.50	255.6
255.60	256.1
256.10	257.6
262.30	263.8
263.80	264.4
264.40	265.7
265.70	266.5
266.50	267.9
267.90	269.4

169.60	175.20	MV	FOL	1	P	CC	CHL		0		Mafic Volcanic. Medium green to black; f-grained; weakly foliated 60 - 65 deg TCA; non- to weakly mag; MagSus = 2.8 - 26.4. Weak to mod pervasive calcitic alt; minor weak chloritic alt. No visible sulphide. Sharp upper cnt 60 deg TCA. 5cm wide calcite vein (65 deg TCA; no sulphide) at 170m. Narrow mud-slip (73 deg TCA) at 172.4m. Diabase dyke at 172.9m - 173.1m (45 deg TCA upper cnt; 14 deg average TCA lower cnt) contains calcite vein with trace chalcopy.
175.20	199.00	SYM	BX	1	P	HEM	CC	QV	5	1	Mafic Syenite breccia. Reddish grey-brown; f- to c-grained; foliated; brecciated with up to 8cm wide syenite fragments aligned parallel to foliation plane. The unit is non- to weakly magnetic; MagSus = 1.0 - 14.4. Alteration is mainly weak pervasive hematitic; with less dominant local weak to mod pervasive and patchy calcitic alt. 1% py overall; local 3% py. 5 - 6% Q-veining. ~50cm grad upper cnt. 25cm wide Q-vein (43 deg TCA; with ~ 3% py) at 187.1m. Fe-carb vein (5cm wide, 50 deg TCA with trace py and chalcopy) at 194.6m. Q-fe carb-tourmaline vein (40cm wide, 50 deg TCA; trace py) at 198.6 - 199m.
199.00	211.10	MVT	FOL	1	PA	CC	HEM	QCV	3	2	Mafic Tuff. Pale green-brown; f- to c-grained; foliated with almost massive horizons. Non mag; MagSus = 0.5 - 4.5. The matrix is chlorite rich and with syenitic & a few mafic fragments. Dominant weak to mod patchy and pervasive calcitic alt; minor local weak pervasive hematitic alt. Py is very f-grained and is trace to generally 2%. sharp upper cnt at 65 deg TCA. Q-carb flooding (50 deg TCA upper cnt) at 199.1 - 199.8m with trace py and chalco. ~ 2% py between 201.1m and 208.1m.

211.10	251.10	MVT	MAS	2	PA	CC	HEM	CCV	5	0	Mafic Tuff. Dark grey-brown to black with an almost pinkish hue; f- to c-grained; massive; non-mag; MagSus = 0.6 - 2.4. Weak to local strong patchy calcitic alt; minor weak pervasive hematitic alt. Trace py. Chloritic fragments (up to ~ 3cm wide) & abundant minute black crystals (mostly < 1 - 2mm) present. ~ 5% calcite veining and stringers common. Grad upper cnt. Q-vein (12 - 15cm wide, 55 deg TCA) with trace py at 243.6m.
251.10	268.20	MVT	MAS	1	PA	CC		QCCV	18	0	Mafic Tuff. Similar to 211.1 - 251.1m. ~ 18% Q-calcite veining present. Non- to very weakly mag; MagSus = 0.4 - 7.7. Grad upper cnt. Q-calcite veining at 252.2 - 252.7m (~ 45 deg TCA on average upper cnt; 48 deg lower cnt; no visible sulphide); 252.9 - 253.2m (15 deg TCA upper and lower cnts, no visible sulphide); 255.9 - 256.05m (55 & 50 deg TCA upper and lower cnts, respectively, no visible sulphide). Q-calcite flooding common between 263.8m & 267.9m (the largest at 266.5 - 267.9m; 60 deg TCA upper cnt; trace py).
268.20	281.00	MVT	MAS	2	PA	CC	CHL	QCCV	2	0	Mafic Tuff. Similar to 211.1 - 251.1m. The unit is black; non-mag; MagSus = 0.4 - 0.9. Mod patchy calcitic alt; minor weak pervasive chloritic alt. Only local trace py present. 2% Q-calcite veining. Grad upper cnt. Q-calcite vein (3 - 5cm wide, 20 deg TCA, with trace chalco) at 271.9m. 281m: EOH

Structure

31.90	CNT	35	
40.20	QV	12	up tp 4cm wide, with 1% py
43.80	CCV	38	1 - 3cm wide, with 1% py
63.40	QCCV	55	
66.80	QCCV	20	0.5 - 3cm wide, with ~2% py
72.40	CCV	18	up tp 1cm wide, with 3-5% py

82.00	QV	16	0.5 - 10cm wide
109.40	CNT	35	
110.00	F1	38	
110.60	FR	10	calcite fracture-fill
113.00	F1	55	
116.00	F1	35	
120.20	FLT	48	with 5 - 7cm wide clay
122.00	F1	53	
125.00	F1	50	
127.00	F1	55	
128.20	CNT	44	marked by calcite vein
132.70	FR	3	
134.00	CNT	65	
134.70	CNT	80	
135.40	SL	28	mud-slip; 10cm wide
145.00	CNT	30	
145.50	CNT	35	
147.60	QV	55	
150.50	CNT	72	
152.60	CNT	45	
152.90	CNT	41	
154.80	CNT	40	
155.20	CNT	36	
161.60	CNT	20	
162.10	CNT	45	
169.60	CNT	60	

DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM1128	Township:	Holmes	☑ Casing Left Behind (Y/N)	Core_Size:	NQ	Logged_By:	James Suma-Momoh
NAD83E:	540056	Claim No:	23410	☐ Making Water	Collar_Survey_Type:	GPS	Contractor:	LAFRAMBOISE
NAD83N:	5320770	Start_Date:	13/04/2011	☐ Grout Plug	Downhole_Survey_Type:	REFLEX	Core Storage:	KENOGAMI
Elevation (m):	338	Finish_Date:	14/04/2011	☐ Cemented				
Azmuth:	335	Length (m):	281					
Dip:	-45	Comment:						

Survey

Depth	Azmith	Dip	Mag	Comment
30.00	338.70	-43.50	5,645.00	
60.00	340.40	-43.00	5,617.00	
90.00	340.90	-42.70	5,607.00	
120.00	340.60	-42.10	5,559.00	
150.00	339.00	-41.60	5,620.00	
180.00	341.30	-41.00	5,628.00	
210.00	341.10	-41.00	5,564.00	
240.00	344.30	-40.50	5,727.00	
270.00	343.10	-42.50	4,329.00	Mag not good

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	2.70	OVB											Overburden. 3m of Casing.
2.70	9.20	SLT	FOL								0		Siltstone. Medium to dark grey; very f-grained, weakly foliated; non to weakly mag; MagSus = 2.9 - 13.4. Strong calcitic matrix. Trace py.
9.20	11.00	DB	MAS								0		Diabase. Dark grey; very f- to f-grained; massive; mod mag; MagSus = 58.4 - 70.8. Unaltered; no visible sulphide. Sharp upper cnt ~ 20 deg TCA on average. 10cm wide conglomerate unit at 10.3 - 10.4m.
11.00	27.30	CGT	FOL	3	FOL	CC					0		Pebble Conglomerate. Dark green-grey matrix (60 - 75%) with mostly pebble-sized clasts (grey to pink-coloured, 10 - 40%). Weak to mod foliation. Non- to weakly mag; MagSus = 1.0 - 28.4. Strong foliation-controlled calcitic alt. Trace py; local 1% py. Sharp upper cnt 23 deg TCA.
27.30	42.50	CGT	FOL								0		Pebble Conglomerate. Medium to dark grey. Similar to 11 - 27.3m but more strongly foliated. 30 - 40% rounded to sub-rounded polymictic clasts (mostly pebble-sized) embedded in a finer matrix. Unaltered; trace to local 2% py. Grad upper cnt. 20cm wide diabase dykes at 28.5m & 33.2m. 2% local py parallel to foliation (50 deg TCA) at 39.1m.
42.50	96.10	DB	MAS								0		Diabase. Dark grey to black; f- to m-grained; massive; non- to mod mag; MagSus = 4.4 - 55.9, unaltered; trace py to rarely 1% py. Homogeneous unit. Upper cnt not preserved. Mostly blocky between 44.3m & 46.7m.
96.10	101.60	SYN	SZ	2	P	ANK					1		Syenite. Intensely sheared. Medium brown; f-grained; non-mag to weakly mag; MagSus = 1.9 - 19.8. Mod pervasive fe-carb alt; 1% py; up to 3% py local py (at 100.8m) Sharp upper cnt 18 deg TCA on average.
101.60	109.40	FVT	SZ								1		Tuff? Intensely sheared. Pale brownish-grey; very f- to f-grained; non-mag; MagSus = 1.2 - 1.6. Mod to weak perv carb alt. 1% py; local 2% py. Upper cnt is all sheared and marked by 51 deg foliation fabric.

Assay

From	To
96.10	97.60
97.60	98.60
98.60	100.1
100.10	101.6
101.60	103.1
103.10	104.6
104.60	106.1
106.10	107.2
107.20	108.2
108.20	109.4
109.40	110.2
110.20	111.7
111.70	113.2
113.20	114.7
114.70	115.7
115.70	117.2
117.20	118.2
118.20	119.2
119.20	120.2
120.20	121.2
121.20	122.7
122.70	124.2

109.40	110.20	SYN	SZ					QV	15	2	Syenite. Intensely sheared. Orange-brown; f- to med-grained; Non-mag; MagSus = 0.3. 2 - 3% py present. ~ 10 -20% Q-veining; upper cnt marked by narrow mud-slip 62 deg TCA.
110.20	129.90	FVT	SZ	2	P	CC	CHL			1	Tuff? Intensely sheared and with contortions; similar to 101.6 - 109.4m. 1% py; local 3% py associated mainly with S1 schistocity. Mod to strong pervasive calcitic alt; weak to mod pervasive chloritic alt. syenitic/felsic fragments present. Sharp upper cnt 58 deg TCA.
129.90	136.60	MVT	FOL	3	P	CC		CCV	4	0	Mafic Tuff. Similar to 110.2 - 129.9m but more mafic and only foliated; not sheared. Medium to dard grey; f- to c-grained; mod mag; MagSus = 42.5 - 45.1. Strong pervasive calcitic alt; trace py. Syenitic fragments present. 3 -4% calcite veining. Grad upper cnt.
136.60	142.10	SYN	BX	3	FR	CC	HEM	CCV	3	0	Syenite breccia. Greyish-red; f- to c-grained; foliated 35 - 50 deg TCA. Weak to mod mag; MagSus = 26.6 - 47.9. Strong fracture-controlled calcitic alt. Mod pervasive and fracture-controlled hematitic alt. No visible sulphide. Syenite fragments are up to ~ 10cm in diameter. Upper cnt marked by foliation 48 deg TCA.
142.10	148.20	SYN	FOL	2	FR	CC				0	Syenite. Greyish-brown; c-grained; weakly foliated; semi-massive; weakly foliated 16.4 - 18.2m. Mod fracture-controlled calcitic alt. No visible sulphide. Grad upper cnt.
148.20	164.20	SYN	BX	3	FR	CC	HEM	CCV	4	0	Syenite breccia. Greyish-red; f- to c-grained; similar to 136.6 - 142.1m. Weak to mod mag; MagSus = 15.5 - 52.4. Only local trace py present. Upper grad cnt.
164.20	164.40	FLT								0	Fault. Minor; 52 deg TCA upper fracture with clay-grit 0.8 - 1cm wide.

124.20	125.7
125.70	127.2
127.20	128.5
128.50	129.9
168.00	169.0
169.00	170.0
170.00	171.0
171.00	172.0
175.10	175.9
175.90	177.1

164.40	175.00	SYN	BX	2	P	CHL	CC	CCV	3	0	Syenite/Volcanic breccia. Green groundmass with brown-red-pink syenitic fragments. 70% green groundmass to 30% syenite fragments on average. Weak to mod mag; MagSus = 15.7 - 50.8. Overall weak to strong pervasive chloritic alt; mod to strong fracture-controlled calcitic alt. Py is generally trace; locally 1% py. Upper fracture to minor fault 52 deg TCA. 164.4 - 169m: strong fracture-controlled calcitic alt; up to ~ 60% syenite fragments 169 - 175m: less fractured; chlorite alt dominates, only ~ 10 - 20% syenite fragments.
175.00	175.90	UMX	FOL	3	P	CHL	CC	QV	3	0	Ultramafic flow. Dark green; very f-grained; foliation undulates along CA ~ 0 deg TCA; non-mag; MagSus = 0.5 - 0.7. Strong to intense pervasive chlorite alt; minor strong pervasive calcitic alt. Trace py; local 1% py. ~ 3% Q-veining. Sharp upper cnt 55 deg TCA.
175.90	178.80	UMX	MAS	3	P	CHL	CC	QV	2	0	Ultramafic flow. Dark green; similar to 175 - 175.9m but massive. Chlorite alt is intence and pervasive between 178m & 178.8m. Grad upper cnt.
178.80	185.20	MV	MAS	2	P	CHL	CC	QV	2	0	Mafic Volcanic. Dark green to black; very f- to f-grained; massive; non-mag; MagSus = 6.0 - 6.6. Weak to local strong pervasive chloritic alt; minor local weak to strong pervasive calcitic alt. Only local trace py present. ~ 2 - 3% Q-veining. Q-flooding at 184.1 - 184.4m. Sharp upper cnt 40 deg TCA.
185.20	281.00	DB	MAS							0	Diabase. Medium to dark grey. Very f- to m-grained; massive; non- to mod mag; MagSus - 1.3 - 74.6. Generally unaltered with local patchy brown-orange plag feldspar alteration. Local trace py. < 1% calcite-epidote veins. Highly variable fracture angles. Sharp upper chilled cnt 53 deg TCA. Fracture zone at 253.1 - 254.2m with possible faults at 253.3m & 253.8m. 281m: EOH

Structure

6.00	F1	54
8.00	F1	45
9.20	CNT	20
11.00	CNT	23
14.00	F1	54
17.00	F1	35
20.00	F1	20
23.00	F1	5
26.00	F1	40
29.00	F1	47
38.00	F1	55
39.00	F1	50
42.00	F1	55
96.10	CNT	18
98.00	F1	12
98.10	F2	117
100.00	F1	22
100.10	F2	125
102.40	F2	120
102.50	F1	5
107.00	F1	15
107.10	F2	132
109.40	CNT	62
109.50	QV	40
110.20	CNT	58
115.90	F1	55

116.00	F2	135
125.00	F1	35
131.00	F1	40
136.00	F1	37
136.60	F1	48
163.00	F1	48

DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM1127	Township:	Holmes	☑ Casing Left Behind (Y/N)	Core_Size:	NQ	Logged_By:	James Suma-Momoh
NAD83E:	540253	Claim No:	23410	☐ Making Water	Collar_Survey_Type:	GPS	Contractor:	LAFRAMBOISE
NAD83N:	5320870	Start_Date:	04/04/2011	☐ Grout Plug	Downhole_Survey_Type:	REFLEX	Core Storage:	KENOGAMI
Elevation (m):	348	Finish_Date:	13/04/2011	☐ Cemented				
Azmuth:	335	Length (m):	362					
Dip:	-45	Comment:						

Survey

Depth	Azmith	Dip	Mag	Comment
30.00	343.60	-44.60	5,508.00	
60.00	348.50	-44.30	5,054.00	
90.00	333.60	-44.40	5,583.00	
120.00	336.50	-44.10	5,511.00	
150.00	346.40	-40.00	2,857.00	Azimuth, Dip and Mag not good
180.00	330.10	-44.20	5,572.00	
210.00	333.80	-44.10	5,577.00	
240.00	336.00	-43.80	5,566.00	
270.00	332.60	-43.70	5,597.00	
300.00	332.30	-43.70	5,556.00	
330.00	335.20	-43.00	5,586.00	
360.00	334.90	-42.40	5,603.00	

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	2.60	OVB											Overburden. 3m of Casing.
2.60	19.70	SYN	MAS						QV	2			Syenite. Purple-brown to burgundy; m- to c-grained; massive, porphyritic. Non- to almost mod mag; MagSus = 1.0 - 33.2. Generally unaltered with only local weak to mod pervasive calcitic alt. trace to local 1% py. ~ 2% Q-veining. Magnetite stringers present. Highly fractured between 6.6m & 7.8m. Up to 1% py occurs between 9.1 & 13.6m; 2% py at 15.6 - 16m. Qtz and feldspar phenocrysts become coarser (up to 1.3cm wide) between 17m & 19.7m.
19.70	32.00	DR	MAS	2	S	EPI					1		Diorite/Mafic Intrusive? Medium to dark green, black-green; m- to c-grained; massive; strongly mag; MagSus = 221.8 - 305. Mod-strong spotty yellowish-green epidote alteration. Trace to local 4% py in this unit. Upper cnt not preserved. Magnetite is significant, occurring in the groundmass and as stringers. fragmental rock at 23m. 3 - 4% very fine py at 23.4 - 25m. Syenite dyke at 28.7 - 28.8m (sharp upper and lower cnts 26 and 35 deg TCA, respectively). 29.4m - 31.6m shows 10 - 40cm wide syenitic like horizons with no sharp cnts (magma mingling?).
32.00	33.90	SYN	MAS	1	P	KSP					0		Syenite. Dark brown; m- to c-grained; massive; weak to mod mag; MagSus = 27.8 - 54.1. Weak pervasive k-feldspar alt. Trace py. Sharp upper cnt 25 deg TCA.
33.90	42.10	DR	MAS	2	P	KSP	EPI				0		Diorite/Mafic Intrusive? (60%) + Syenite (40%). A dual mixed/mingled interval with descriptions similar to 19.7 - 32m and 32 - 33.9m. Strong mag in dominant mafic horizons (MagSus = 223.8 - 265.8); more syenitic horizons are non mag (MagSus = 0.9 - 2.9). Trace to local 1% py. Local foliation (50 - 65 deg TCA) from 38.3 - 41.5m. Sharp upper cnt 33 deg TCA.
42.10	46.60	SYN	MAS	1	FR	CHL					0		Syenite. Dark brown; f-grained; semi-massive with local weak foliation. Non-mag; MagSus = 0.6 - 2.1. Weak fracture controlled chloritic alt. Trace py. Grad upper cnt.

Assay

From	To
9.10	10.60
10.60	12.10
12.10	13.60
13.60	14.60
14.60	15.60
15.60	16.00
20.40	21.90
21.90	23.40
23.40	24.20
24.20	25.00
25.00	26.50
26.50	28.00
49.20	50.70
50.70	52.20
52.20	53.70
53.70	55.20

46.60	59.20	MV	FOL	1	P	CHL				0		Mafic Volcanic. Medium to dark green; f- to very f-grained; foliated 0 - 55 deg TCA. Non-mag; MagSus = 0.5 - 2.1. weak pervasive chloritic alt; local foliation-controlled fe-carb/epidote alt. Trace to local 1% py. Sharp upper cnt 60 deg TCA.
59.20	74.20	DR	MAS							0		Diorite/Mafic Intrusive? (60%) + Syenite (40%). Similar to 33.9 - 42.1m. Semi-massive; non- to strong mag; MagSus = 1.1 - 102.2. Trace to local 1% py. Blocky and fractured at 69.1 - 74.2m. Sharp upper cnt 20 deg TCA.
74.20	76.30	SYN	MAS	4	P	KSP	HEM			1		Syenite. Brick red; massive; c-grained; massive; weakly mag; MagSus = 8.7 - 10.8. Intense pervasive k-feldspar (± hematite?) alt. Trace to local 2% py. Broken up between 74.2m & 74.9m. Upper cnt not preserved.
76.30	79.40	SYN	FOL	1	FOL	ANK				0		Syenite breccia? Brown-grey matrix with syenitic fragments. May be part of 59.2 - 74.2m but f-grained; semi-massive. Weak to mod mag; MagSus = 13.9 - 61.3. weak to mod foliation-controlled fe-carb alt. Trace py. Grad upper cnt.
79.40	87.20	DB	MAS							0		Diabase. Medium grey; very f- to f-grained; massive; mod mag; MagSus = 64.8 - 76.3. Generally unaltered; local patchy orange-brown alteration. No visible sulphide. Sharp upper cnt 35 deg TCA.
87.20	99.10	DB	MAS	3	PA	FEH	CHL		CCV	2	0	Diabase. Grey with patchy orange-brown colour. Medium-grained; massive; generally mod mag; MagSus = 33 - 55.7. Mod to strong patchy to pervasive fe-hydroxide alt (possibly alteration of clinopyroxene); local mod pervasive chloritic alt. Trace py. Grad upper cnt. ~ 2% calcite veining. Faults at 93.1m (32 deg TCA, with narrow clay); 94.2m (53 deg TCA, 2.5cm wide clay-grit)
99.10	102.30	DB	MAS	3	PA	FEH	CHL	CC	CCV	3	0	Diabase. Similar to 99.2 - 99m and contains ~ 70% syenitic fragments. Calcite fracture fills common. Mod-strong fracture-controlled calcitic alt. Grad upper cnt.
102.30	102.40	FLT								0		Fault. 50 deg TCA upper & 45 deg TCA lower fractures with 1.5 - 3cm wide clay-grit. The margins of the cnts contain as much as 5mm wide angular fragments.
102.40	104.20	DB	MAS	3	PA	FEH	CHL	CC	CCV	1	0	Diabase. Contains ~ 70% syenitic fragments as 99 - 102.3m. Upper fracture to fault is 45 deg TCA.

55.20	56.70
73.20	74.20
74.20	75.30
75.30	76.30
76.30	77.80
109.60	111.1
111.10	112.6
112.60	114.1
114.10	115.6
179.20	180.7
180.70	182.0
183.00	184.5
184.50	185.6
186.90	188.0
188.00	189.5
189.50	191.0
191.00	192.5
192.50	194.0
194.00	195.5
195.50	197.0
197.00	198.5
198.50	200.0
200.00	201.5
201.50	203.0
203.00	204.5
204.50	206.0
206.00	207.5
207.50	209.0
209.00	210.5

104.20	104.50	MV	FOL	2	P	CHL	CB			deg TCA. Non-mag; MagSus = 1.2. Mod perv chloritic and calcitic alt. No visible sulphide. Sharp upper cnt 48 deg TCA.
104.50	109.60	DB	MAS	1	P	FEH	CHL		0	Diabase. Similar to 87.2 - 99.1m. Weak perv fe-hydroxide alt; weak chloritic alt. Minor fault at 105.3m (35 deg TCA upper fracture, 0.5 - 3cm wide clay-grit. Sharp upper cnt 45 deg TCA.
109.60	120.20	SYN	FOL	1	FOL	ANK			0	Syenite breccia? Brown-grey. Quite similar to 76.3 - 79.4m. Foliated. Non-mag to very weak mag; MagSus = 1.3 - 9.8. Weak to mod foliation-controlled fe-carb alt. Trace to local 1% py. Sharp upper cnt 35 deg TCA. 20cm wide diabase at 113.4m (44 deg TCA upper cnt) blocky and fractured between 119m & 120.2m.
120.20	179.20	DB	MAS						0	Diabase. Dark grey. F- to m-grained; massive; non to mod mag; MagSus = 1.1 - 52.9. Generally unaltered; local epidote and fe-hydroxide alt. Trace py. Sharp upper cnt 20 deg TCA. Fracture zone at 120.2 - 121.7m with broken up and fragmented rock. Brecciated at lower cnt (178.8 - 179.2) with calcite cement.
179.20	182.00	MV	FOL	3	PA	ANK			0	Foliated basalt. Medium green-brown. F-grained; foliated; non-mag; MagSus = 2.8 - 5.3. Strong patchy and foliation-controlled fe-carb alteration. Trace py. Brecciated upper cnt, approximately 22 deg TCA.
182.00	183.00	DB	MAS						0	Diabase. Dark grey to black; very f-grained; massive; weak to mod mag; MagSus = 14.1 - 52.8. Unaltered. No visible sulphide. Upper cnt not preserved.
183.00	185.60	MV	FOL	2	PA	ANK			0	Foliated basalt. Medium green-brown. F-grained; foliated; non- to very weakly mag; MagSus = 4.7 - 17.4 Mod to strong patchy carbonate alt. Trace py. Brecciated upper cnt, approximately 22 deg TCA. Trace py. Local 3% py cluster at 185.1m. Sharp upper cnt 41 deg TCA.
185.60	186.90	DB	MAS						0	Diabase. Similar to 182 - 183m. Massive; trace py. Sharp upper cnt 10 ddg TCA.

212.00	213.50
213.50	215.00
215.00	216.50
216.50	218.00
218.00	219.50
219.50	221.00
221.00	222.50
222.50	223.60
223.60	224.60
224.60	225.60
225.60	226.60
226.60	228.30
228.30	230.00
230.00	231.50
231.50	233.00
233.00	234.50
234.50	236.00
236.00	237.50
237.50	239.00
239.00	240.50
240.50	242.00
242.00	243.50
243.50	245.00
245.00	245.60
245.60	247.00
247.00	248.00
248.00	249.00
249.00	250.00

186.90	206.00	MV	FOL	2	PA	ANK			QV	1	0	Foliated basalt. Dark grey-green; very f- to f-grained; foliated; non- to mod mag; MagSus = 5.1 - 81.7. Mod to strong patchy and foliation-controlled carb alt. Trace to local 1% fine dissem py; 1% Q-veining. Sharp upper cnt 25 deg TCA. Local massive horizon at 192.9 - 193.7m. Q-vein (20cm wide, 40 deg and 46 deg TCA upper and lower cnts; unmineralized) at 202.9m.
206.00	220.00	MV	FOL	3	FOL	CC	CHL	ANK			0	Foliated basalt; Similar to 186.9 - 206m. Weak to mod mag; MagSus = 23.4 - 85.3m. Mod to strong foliation-controlled and patchy calcitic alt is dominant; weak pervasive chloritic alt. Py is generally absent; local trace py. Grad upper cnt.
220.00	220.20	FLT									0	Fault. 30 deg TCA upper fracture with ~ 1mm clay. The interval is broken up; there is clay and clay-grit material on fragmented pieces. Foliated basalt fragments.
220.20	223.90	MV	FOL	3	FOL	CC	CHL				0	Foliated basalt. Similar properties as 206 - 220.2m. Upper fracture to fault is not preserved.
223.90	250.00	MV	FOL	3	FOL	CC	CHL		QV	3	0	Foliated basalt. Similar to 206 - 220.2m. Chlorite alt is weak to locally strong. Weak to strong mag; MagSus = 17.6 - 100. Trace py. Grad upper cnt. 223.9 - 225.6m: strong pervasive chlorite alt. Q-veining (~ 5%) at 224.6 - 225.6m with trace sulphide. Foliation angle narrows downhole (to ~ 0 deg TCA at 242m). From 241.4 - 248.5m the Qtz and Q-carb veins are associated with a violet to black grainy mineral (tourmaline?); trace to almost 1% py in some veins.
250.00	257.40	MV	FOL	3	FOL	CC	CHL				0	Foliated basalt. Strongly foliated. Black, striped with green-white/lime-green calcitic foliation fabric. Weak to mod mag; MagSus = 29.8 - 66.8. Strong foliation-controlled calcitic alt; minor weak pervasive chloritic alt. Local trace py. Grad upper cnt.
257.40	269.90	DB	MAS								0	Diabase. Medium grey; very f- to f-grained; massive; mod mag; MagSus = 52.5 - 73.8. Unaltered; local trace py. Occasional patches of epidote present. Sharp upper cnt 16 deg TCA truncate foliation in upper unit.

250.00	251.0
251.00	252.5
252.50	254.0
254.00	255.7
255.70	257.4
283.90	284.9
284.90	286.0
286.00	287.1
287.10	288.1
292.40	293.4
293.40	294.5
294.50	295.0
295.00	296.0
304.80	306.0
306.00	307.2
307.20	308.3
308.30	309.4
309.40	310.4
310.40	311.4
311.40	312.4
312.40	313.4
316.80	317.8
317.80	318.1
318.10	319.1

269.90	307.20	MV	FOL	3	FOL	CC	CHL	QV	3	0	Foliated basalt. Similar to 250 - 257.4m. Sharp upper cnt 20 deg TCA. ~ 3% Q-veining. Trace to local 5% py. Sinusoidal foliation (with peaks ~ 85 deg TCA) at 284.5 - 284.9m. Main Q-veining at 284.9 - 287.1m and at 294.5 - 295m with trace py and up to ~ 5% marginal py. Some of the veins have zig-zag edges; some are discontinuous, and some occurring as blobs (up to ~ 5cm wide). Appears tuffaceous downhole.
307.20	312.60	MV	FOL	3	P	CHL	ANK	QCV	10	0	Foliated basalt. Dark green. F- to very f-grained; foliated; very weak - to mod mag; Magsus = 11.8 - 83.4. Strong to intense pervasive chloritic alt; mod foliation-controlled fe-carb alt. Trace to local 2% py mainly associated with Q-fe carb veins. These veins (10 - 15%) measure 0.5 - 30cm wide. smaller sized veins are folded and twiste, with undulating to jagged edges. 30cm wide Q-fe carb vein (~ 38 deg TCA) with 1 - 2% py at 309.4m. Folded Q-fe carb vein (roughly 25 deg TCA) with 2 - 3% py at 309.8m. Grad upper cnt.
312.60	326.70	MVT	FOL	2	P	CHL	ANK			0	Mafic Tuff? Pale grey-green matrix; f- to c-grained; foliated; non- to very weakly mag; MagSus = 0.4 - 13.9 mod to strong pervasive chlorite alt; minor weak to mod fe-carb alt. Trace to local 3% py at 317.8 - 318.1m. Qtz and fe carb-rich matrix. Upper cnt is sheared and determined based on texture. Diabase dyke (partially ~ 48 deg TCA upper cnt and runs along core axis; partly brecciated with ~ 1% py) at 325.6 - 325.9m.
326.70	336.20	AGG	FOL	2	P	CHL	ANK			0	Agglomerate? Medium to dark grey-green; f- to c-grained; foliated; non-mag; MagSus = 0.2 - 0.6; mod pervasive chloritic alt; mod foliation-controlled fe-carb alt. Trace to local 1% py. Grad upper cnt. F- to c-grained matrix; clasts/fragments(?) are up to ~ 3.5cm wide. 1.5cm wide clast/fragment (brown) at 332.9m with a f-grained matrix.
336.20	342.10	MVT	FOL	3	P	ANK	CHL	QCCV	1	0	Mafic Tuff? Buff grey-green. Similar to 312.6 - 326.7m. Non to weakly mag; MagSus = 4.5 - 18.5. mod pervasive and foliation-controlled fe-carb alt; weak to mod chloritic alt. Trace py. Grad upper cnt. Q-calcite veinset at 339.4 - 340m (40 deg TCA).

342.10	348.90	MVT	FOL	2	P	ANK			0		Mafic Tuff? Similar to 336.2 - 342.1m but Grey-brown to purple-brown. Mod to strong foliation-controlled carb alt. Grad upper cnt.
348.90	361.50	QP	FOL	2	FOL	CC	CHL	QCCV	1	0	Mafic Quartz Porphyry? Brown-purple; f- to c-grained; foliated; non-mag; MagSus = 0 - 0.5. Strong foliation-controlled calcitic alt; weak foliation-controlled chloritic alt. Trace py. Sharp upper cnt 33 deg TCA. Q-phenocrysts are generally ellipsoidal. 348.9 - 358.3m: calcitic alt imparts a pinkish hue to the rock. 4cm wide syenitic xenolith at 353.8m. 358.3 - 361.5m: chlorite alt becomes moderate.
361.50	362.00	SYB	FOL	1	FR	CHL			0		Syenite. Pinkish-brown; c-grained; massive; weak to mod mag; foliated. MagSus = 38.3 - 44.8. Weak fracture-controlled chloritic alt; trace py. Sharp upper cnt 68 deg TCA. 362m: EOH

Structure

32.00	CNT	25
33.90	CNT	33
38.80	F1	50
41.00	F1	65
46.60	CNT	60
47.00	F1	42
50.80	F1	30
53.90	F1	15
55.20	F1	0
55.40	FR	8
58.00	F1	20
59.20	CNT	20
62.00	F1	50

68.00	F1	63	
93.10	FLT	32	
94.20	FLT	53	
99.60	FR	20	calcite fracture-filled
102.30	FLT	50	1.5 - 3cm wide clay-grit
104.20	CNT	48	
104.50	CNT	45	
105.20	FR	3	
105.30	FLT	35	
109.60	CNT	35	
111.00	F1	28	
116.00	F1	42	
119.00	F1	40	
120.20	CNT	20	
179.20	CNT	22	
173.00	F1	15	
183.00	CNT	41	
184.00	F1	12	
185.60	CNT	10	
186.90	CNT	25	
189.50	F1	20	
192.00	F1	20	
195.00	F1	12	
202.00	F1	10	
202.90	QV	40	20cm wide
203.80	F1	15	
206.00	F1	50	
208.00	F1	25	

212.00	F1	20	
215.00	F1	10	
217.00	F1	34	
220.00	FLT	30	
221.00	F1	26	
225.10	QVs	55	up to 14cm wide; with trace py
226.50	F1	43	
230.00	F1	30	
233.00	F1	35	
235.00	F1	22	
237.50	F1	18	
239.00	F1	10	
242.00	F1	0	
245.00	F1	10	
249.00	F1	22	
251.00	F1	40	
254.00	F1	35	
257.00	F1	32	
257.40	CNT	16	
272.00	F1	45	
275.00	F1	45	
279.00	F1	33	
283.00	F1	53	
286.30	QV	50	4 - 13cm wide, with trace py
288.00	F1	40	
290.00	F1	35	
293.00	F1	27	
293.50	QV	40	50cm wide trace to 1% py

296.00	F1	48	
298.80	QV	40	
300.00	F1	35	
302.00	F1	48	
305.00	F1	60	
307.00	F1	50	
309.40	QCV	38	with 1 - 2% py
309.80	QCV	25	folded 25 deg TCA roughly; 2 - 3% py
310.90	QCV	40	roughly 40 deg TCA, 30cn wide; with trace py
312.50	F1	40	
316.00	F1	60	
320.00	F1	58	
323.00	F1	40	
329.00	F1	53	
332.00	F1	40	
335.00	F1	32	
338.00	F1	40	
339.70	QCCVs	40	
341.00	F1	42	
344.00	F1	55	
352.00	F1	40	
348.90	CNT	33	
356.00	F1	50	
359.00	F1	53	
361.00	F1	50	

DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM1126	Township:	Holmes	☑ Casing Left Behind (Y/N)	Core_Size:	NQ	Logged_By:	James Suma-Momoh
NAD83E:	540302	Claim No:	23410	☐ Making Water	Collar_Survey_Type:	GPS	Contractor:	LAFRAMBOISE
NAD83N:	5320932	Start_Date:	03/04/2011	☐ Grout Plug	Downhole_Survey_Type:	REFLEX	Core Storage:	KENOGAMI
Elevation (m):	355	Finish_Date:	04/04/2011	☐ Cemented				
Azmuth:	360	Length (m):	182					
Dip:	-45	Comment:						

Survey

Depth	Azmith	Dip	Mag	Comment
14.00	0.80	-45.50	5,698.00	
30.00	1.80	-45.50	5,564.00	
60.00	359.40	-44.80	5,594.00	
90.00	2.60	-44.50	5,633.00	
120.00	4.40	-44.50	5,662.00	
150.00	356.90	-44.10	7,405.00	Azimuth and Mag not good
180.00	4.30	-44.00	5,592.00	

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	6.50	OVB											Overburden. 6m of Casing.

Assay

From	To	Spl #	Len	Py %	Au PPM
		445224			0.01
		445218			4
12.70	13.40	445217	0.7	3	0.01
13.40	14.10	445219	0.70	3	0.01

6.50	15.40	DR	MAS	1	FR	CC			CCV	1	0	Diorite/Mafic Intrusive (?, 55%) + Syenite (45%). A mixed/contact zone of diorite/mafic intrusive(?) and syenite. The mafic horizon is medium green; m- to c-grained; strongly mag; MagSus = 136.4 - 255.4. Syenite is pale to dark pinkish-brown and f- to c-grained; very weak to almost mod mag; MagSus = 10.6 - 31.4. The entire unit is generally massive although a few foliated horizons are present. Weak fracture-controlled calcitic alt. Fragmented at 7 - 7.2m & 8.1 - 8.2m. Py is generally trace; local 2-5% py in more syenitic horizon at 12.7 - 14.1m.
15.40	24.50	SYN	FOL	2	FR	CC	CHL	HEM	QV	3	0	Syenite. Dark grey-brown; f- to c-grained; foliated; non to weak mag; MagSus = 3.2 - 24.4. Mod to strong fracture-controlled calcitic alt; minor weak pervasive chloritic alt. Hematite stringers common. Trace to ~ 1% local py. 3% Q-veining. Almost like a mafic syenite. Sharp upper cnt 50 deg TCA.
24.50	24.70	FLT									0	Fault. 35 deg TCA upper fracture with a thin film of clay, followed by a 5cm interval of clay-grit. Main fault at 24.7m with upper fracture 42 deg TCA followed by a 2cm wide clay-grit and 1cm wide clay on a 42 deg TCA lower fracture.
24.70	27.80	SYN	FOL								0	Syenite. Dark grey-brown; f- to c-grained. Similar to 15.4 - 24.5m. Foliated; almost brecciated. Trace py.
27.80	41.10	CGP	FOL	1	P	CHL	CC		CCV	4	0	Pebble Conglomerate (Proterozoic). Brown-grey; f- to c-grained; more strongly foliated (generally 25 - 45 deg TCA) than upper unit. Mod mag; MagSus = 44.7 - 74.9. Weak pervasive chloritic alt; mod to strong fracture-controlled calcitic alt. Only local trace py present. Upper cnt difficult to determine and marked based on grain size; colour and foliation intensity.
41.10	62.00	CGP	FOL	1	FOL	CHL					0	Pebble Conglomerate (Proterozoic). Grey-coloured matrix hosting subrounded and stretched pebbles with shades of brown, grey, pink and rarely green. Larger pebble number in this interval. Weak to mod mag; MagSus equals 22.3 - 60.4. Local weak foliation-controlled chloritic alt. Trace py. 5% local py in discontinuous, wavy-edged calcite vein (1 - 2cm wide, 45 deg TCA) at 50.5m. Grad upper cnt.

14.10	15.40
15.40	16.00
16.00	17.00
17.00	18.50
18.50	20.00
20.00	21.50
21.50	23.00
23.00	24.50
75.40	76.90
76.90	78.20
78.20	79.70

62.00	65.30	DB	MAS						0	Diabase. Medium to dark grey; very f-grained; massive; mod mag; MagSus = 69.6 - 79.4. Unaltered. No visible sulphide. Syenitic xenolith at 62.9m. Sharp upper cnt 15 deg TCA.
65.30	67.20	CGP	FOL	2	FOL	CC			0	Pebble Conglomerate (Proterozoic). Similar to 41.1 - 62m. Mod to strong foliation-controlled calcitic alt. Trace py. Brecciated at 65.9 - 66m with calcite matrix. Diabase occurring with conglomerate at 66.5 - 66.8m. Sharp upper cnt 45 deg TCA.
67.20	67.60	DB	MAS						0	Diabase. Similar to 62 - 65.3m. Sharp upper cnt 5 deg TCA.
67.60	75.40	CGP	FOL	2	FOL	CC		CCV	3 0	Pebble Conglomerate (Proterozoic). Similar to 41.1 - 62m. Non to weak mag; MagSus = 4.1 - 13.4. Local weak to strong pervasive and foliation-controlled calcitic alt. Trace py. Sharp wavy upper cnt, 10 deg TCA on average.
75.40	79.70	CGP	FOL	3	FOL	CC		CCV	2 2	Pebble Conglomerate (Proterozoic). Similar to 67.6 - 75.4m. Contains 1% to local 3% py. Grad upper cnt.
79.70	110.30	CGP	FOL						0	Pebble Conglomerate (Proterozoic). Similar to 67.6 - 75.4m. Medium-grey matrix. Non- to weak mag; MagSus = 0.7 - 20.5. Trace py. Grad upper cnt. 79.7 - 97.8m: brown-grey. Trace py. Non to weak mag. Diabase dyke (10 deg TCA sharp upper and lower cnts) spreads linearly between 84.1m and 84.5m. 97.8 - 110.3m: more grey-brown and appears to be weak- mod fe carb altered.
110.30	112.30	DB	MAS						0	Diabase. Medium grey; very f-grained and massive. Non-mag; MagSus = 1.1. Unaltered. No visible sulphide. Brecciated with calcite infilling at 110.6 - 110.7m. Sharp upper and lower cnts 18 deg TCA.
112.30	114.00	CGP	FOL	2	P	ANK			0	Pebble Conglomerate (Proterozoic). Medium brown; f- to c-grained; more strongly foliated; non-mag; MagSus = 1.9 - 2.8. Mod-strong pervasive fe-carb alt. Only local trace py present. Sharp upper cnt 18 deg TCA
114.00	115.30	DB	MAS						0	Diabase. Medium grey. Similar to 110.3 - 112.3m. Sharp upper cnt 33 deg TCA.

115.30	116.00	MV	FOL	2	P	ANK	0	Foliated basalt? Dark grey to black; f-grained; foliated. Non-mag; MagSus = 1.3 - 5.1. Mod-strong foliation-controlled carb alt. Trace py. Sharp upper cnt 38 deg TCA.
116.00	127.20	DB	MAS				0	Diabase. Medium grey. Similar to 110.3 - 112.3m. Sharp upper cnt 35 deg TCA.
127.20	182.00	DB					0	Diabase. Medium grey-green to green-black; f- to c-grained; massive; non to mod mag; MagSus = 2.8 - 69.8. Generally unaltered. Local patchy epidotization. Trace py. Vein of talc(?) at 146.4m (soft, fibrous, shiny lime-green; 8 - 9cm wide, 40 deg TCA). Grad upper cnt. 154.4m - 158.6m shows a mod-strong pervasive fe(?) mineral alteration and mod epidotization; it shows brown-orange and yellow-green colouration. 158.6 - 182m is unaltered; medium-coarse grained with occasional patchy 'popcorn-like' epidote up to 2cm wide. 182m: EOH

Structure

15.40	CNT	50	
15.80	QV	48	23cm wide, with 1% py
16.30	F1	44	
16.90	QV	53	10cm wide, with 1% py
17.50	F1	50	
20.00	F1	45	
24.50	FLT	35	
24.70	FLT	42	
27.20	F1	57	
31.50	F1	43	
35.00	F1	35	
37.00	F1	30	
42.50	F1	60	

DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM1125	Township:	Holmes	☑ Casing Left Behind (Y/N)	Core_Size:	NQ	Logged_By:	James Suma-Momoh
NAD83E:	540357	Claim No:	23410	☐ Making Water	Collar_Survey_Type:	GPS	Contractor:	LAFRAMBOISE
NAD83N:	5320930	Start_Date:	02/04/2011	☐ Grout Plug	Downhole_Survey_Type:	REFLEX	Core Storage:	KENOGAMI
Elevation (m):	351	Finish_Date:	03/04/2011	☐ Cemented				
Azmuth:	360	Length (m):	122					
Dip:	-45	Comment:						

Survey

Depth	Azmith	Dip	Mag	Comment
11.00	3.50	-44.30	5,465.00	
30.00	0.20	-44.40	5,555.00	
60.00	0.40	-44.60	5,630.00	
90.00	356.20	-44.00	5,605.00	Azimuth not good
120.00	0.60	-42.80	5,626.00	

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	3.90	OVB											Overburden. 4.5m of Casing.
3.90	6.90	DR	MAS								0		Diorite/Mafic Intrusive? Medium green; m-grained; massive; non-mag; MagSus = 0.6 - 0.8. Unaltered. Trace py. 3.9 - 5.6m is blocky, and broken up at 4.7 - 4.8m and at 4.9 - 5.1m. 20cm wide syenite xenolith at 6.7 - 6.9m.

Assay

From	To	Spl #	Len	Py %	Au PPM
		445652			0.95
		445212			0.01
6.90	7.80	445197	0.90	0	0.01
13.80	14.20	445198	0.4	1	0.01
14.20	14.50	445199	0.30	2	0.03
14.50	14.90	445200	0.4	5	0.04

6.90	7.80	DR	BX	2	PA	ANK			0	Diorite/Mafic Intrusive(?) Breccia. Brown-green with a rusty look. Contains syenitic fragments. Weakly mag; MagSus = 11.1 - 15.4. Mod-strong fe carb alt. Trace py. At 7.2 - 7.8m, fracture runs along core axis at 0 - 5 deg TCA. Parent rock could be as 3.9 - 6.9m before brecciation. Grad upper cnt.
7.80	13.80	DR	MAS	1	FR	HEM			0	Diorite/Mafic Intrusive? Similar to 3.9 - 6.9m. Non-mag; MagSus = 1.0 - 2.9. Weak fracture-controlled hematitic alt. Trace py. Local foliation (15 deg TCA) at 8.8 - 9.2m. Thin syenitic dykes & compositional development between 13.3m and 13.8m. Grad upper cnt.
13.80	15.50	SYN	MAS	2	PA	KSP	CHL	QV	20 3	Syenite. Dark reddish-brown; f- to c-grained; massive. Weak-strong mag; MagSus = 10.2 - 164. Mod Patchy and pervasive k-feldspar alt; weak to mod spotty chloritic alt. 1% to local 5% py fine py. ~ 20% Q-veins present. Sharp upper cnt 41 deg TCA. Smoky Q-vein (30cm wide, 70 deg TCA) with 2% py at 14.2 - 14.5m. 5% very fine py at 14.5 - 14.9m. 14.9 - 15.5m contains 6 Q-veins (1 - 10cm wide, 45 - 70 deg TCA) with brick red alteration halo and ~ 3% fine py.
15.50	28.00	SYN	MAS	2	S	KSP	CHL	QV	2 0	Syenite. Dark reddish-brown; m- to c-grained; massive. Mod-mag; MagSus = 38.6 – 56.9. Mod spotty and pervasive k-feldspar alt; weak to mod spotty chloritic alt. Trace to local 3% py fine py. ~ 2% Q-veins present; ~ 1% calcite-hematite veining. Grad upper cnt. 3% py within a brick red alteration halo at 21.9 - 22.1m.
28.00	29.00	SYN	MAS	4	P	KSP		QCCV	2 0	Syenite. Brick red; m- to c-grained; massive; weakly mag; MagSus = 11.9 - 13.6. Intense pervasive ksp (and hem?) alt. Trace to local 1% py. Contains 2% Q-calcite veining. Grad upper cnt.
29.00	32.30	SYN	MAS	2	S	KSP	CHL	QCCV	1 0	Syenite. Dark reddish-brown. Similar to 15.5 - 28m. Grad upper cnt.
32.30	35.80	SYN	FOL	2	FOL	CHL	CC	CCV	5 0	Syenite. Grey-brown; f- to c-grained; foliated 60 - 65 deg TCA. Weak to mod mag; MagSus = 6.3 - 51.8. Moderate foliation-controlled chloritic alt; weak to mod foliation-controlled calcitic alt. Trace to local 2% py. Grad upper cnt.

14.90	15.50
15.50	17.00
21.90	22.10
28.00	29.00
33.40	34.40
36.60	37.30
55.80	56.80
56.80	57.80
57.80	59.30
59.30	60.40
60.40	61.50
61.50	62.50
62.50	64.00
64.00	65.20
65.20	66.20
66.20	67.20
91.00	92.30
92.30	93.30
93.30	94.30

35.80	45.60	SYN	MAS	1	P	CHL	HEM	QV	3	0	Syenite. Dark grey-brown; f- to c-grained; massive; very weak to weak mag; MagSus = 10.8 - 31.3. weak pervasive and patchy chloritic alt; minor mod fracture controlled hematitic alt. Trace py. ~ 3% Q-veining present. Grad upper cnt. Q-calcite vein (up to 1cm wide, 25 deg TCA) with 1% local chalcopy at 36.6m. Q-veinset (0.5 - 10 cm wide, 55 deg TCA) with trace py between 36.7m and 37.3m. local foliation (45 deg TCA) at 45.2 - 45.6m.
45.60	47.50	SYN	MAS	3	P	KSP				0	Syenite. Medium reddish-brown; f- to c-grained; massive. Very weakly mag; MagSus = 8.6 - 11.5. Strong pervasive ksp alt. Dark grey-brown horizons similar to 35.8 - 45.6m occur. Trace py. Grad upper cnt
47.50	50.90	SYN	FOL	1	P	CHL				0	Syenite. Dark grey-brown; f- to c-grained; similar to 35.8 - 45.6m but with weak to mod foliation. Non- to very weakly mag; MagSus = 6.1 - 9.1. Weak to mod perv chloritic alt. Only local trace py present. Brecciated at 49.8 - 50.m. Grad upper cnt.
50.90	51.20	FLT								0	Fault. 55 deg upper fracture with 3 - 4cm wide clay; followed by a 20cm wide clay-grit; and fault at 51.2m, 50 deg TCA and with 1cm wide clay-grit. No visible sulphide.
51.20	56.70	MV	MAS	1	P	CHL		QCCV	1	0	Mafic Volcanic. Medium to dark grey-green; f- to very f-grained; massive; mod-strong mag; MagSus = 51.9 - 293.3m. Weak to mod pervasive chloritic alt. Trace py. 1% Q-calcite veining. Upper cnt marked by fracture to fault 50 deg TCA.
56.70	61.50	MV	FOL	2	P	CHL		QCCV	1	0	Mafic Volcanic; Foliated basalt. Dark green to black; mod to strong foliation; locally massive. Non-mag; MagSus = 1.8 - 2.3. Mod to strong pervasive chloritic alt; local weak to mod calcitic alt. Trace to local 3% fine py. 1% Q-calcite veining parallel to f2 foliation plane. Grad upper cnt.

61.50	65.20	SYN	SZ	2	FOL	ANK	CHL		2	Syenite. Pale pinkish-brown. F- to c-grained; sheared; non to mod mag; MagSus = 3.4 – 33.9. Mod foliation-controlled fe-carb alt; weak foliation-controlled chloritic alt. 1 to local 4% py. Py mineralization is mainly associated with the more common f2 foliation fabric (40 - 45 deg TCA) and sometimes with f1 foliation (140 - 160 deg). Fractured between 63m & 63.7m, with core having both syenite and basalt with contact margin running almost along core axis. Sharp upper cnt 63 deg TCA.
65.20	91.00	CGP	FOL	1	FOL	CHL	CC	CCV	5 0	Pebble Conglomerate (Proterozoic). Medium grey-green with pink syenitic & felsic clasts (~ 20%); and brown, grey & green-coloured clast. The majority of clasts are of pebble diameter; have subrounded to well-rounded edges. Poorly sorted clasts. Unit is f- to c-grained; foliated (60 - 65 deg TCA). Non- to strong mag; MagSus = 8.6 - 91.3. Weak to local mod pervasive and foliation-controlled chloritic alt; minor local weak to strong pervasive calcitic alt. Trace to 1% local py ~ 5% calcite veining present. Upper cnt not preserved.
91.00	107.90	CGP	FOL	2	FOL	CHL	CC	CCV	5 1	Pebble Conglomerate (Proterozoic). Similar to 65.2 - 91m but more strongly foliated and with mainly pale brown and pink coloured clasts. Very weak to mod mag; MagSus = 7.9 - 36.6. Trace to local 3% py occurring parallel to foliation. Grad upper cnt.
107.90	122.00	MV	FOL	2	FOL	CC	CHL	CCV	3 0	Foliated basalt. Dark green to black with a pinkish hue (most likely from calcitic alteration). Foliated. F-grained and contains white to pink ovoidal to ellipsoidal bodies that react well with acid (calcitic). Weak to strong foliation-controlled and patchy calcitic alt; weak to mod foliation-controlled chloritic alt. Weak to strong mag; MagSus = 31.5 -104.4. Only local trace py present. upper cnt difficult to determine and was made based on the last fragment occurring in upper unit. 122m: EOH

Structure

7.40	FR	3	
13.80	CNT	41	
14.20	QV	70	30cm wide, with 2%py
15.30	QVs	58	with 2 - 3% py
17.80	QV	55	with trace marginal py
28.20	QCCV	17	
33.80	F1	60	
35.50	F1	65	
36.60	QCCV	25	with 1% local cp
36.70	QV	55	with trace marginal py
49.00	F1	68	
50.60	F1	53	
50.90	FLT	55	
51.20	FLT	50	
59.20	F1	145	
59.30	F2	40	
59.50	QV	25	
61.50	CNT	63	
61.70	F1	160	
61.80	F2	40	
63.00	FR	0	
71.00	F1	65	
75.70	F1	60	
94.00	F1	53	
100.80	F1	50	
111.00	F1	60	

		F1	55

WEST K
KIRKLA

Hole No:	KM
NAD83E:	54
NAD83N:	53
Elevation (m):	33
Azmuth:	3
Dip:	-6

Survey

De
20
3
6
9
12
1
1
1

Ge

From
0.00

February-28-13

uma-Momoh

IBOISE

AMI

n	Py %	Au PPM
		0.01
		0.01
		0.03

119.00	F1	55

DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM1124	Township:	Holmes	☑ Casing Left Behind (Y/N)	Core_Size:	NQ	Logged_By:	James Suma-Momoh
NAD83E:	540357	Claim No:	23410	☐ Making Water	Collar_Survey_Type:	GPS	Contractor:	LAFRAMBOISE
NAD83N:	5320969	Start_Date:	25/03/2011	☐ Grout Plug	Downhole_Survey_Type:	REFLEX	Core Storage:	KENOGAMI
Elevation (m):	339	Finish_Date:	30/03/2011	☐ Cemented				
Azmuth:	360	Length (m):	200					
Dip:	-65	Comment:						

Survey

Depth	Azmith	Dip	Mag	Comment
20.00	356.90	-65.40	5,681.00	
30.00	354.60	-65.40	5,608.00	
60.00	356.10	-64.90	5,588.00	
90.00	353.90	-64.90	5,619.00	Azimuth not good
120.00	352.80	-64.30	6,883.00	Azimuth and Mag not good
150.00	357.40	-64.40	5,617.00	
180.00	357.80	-63.90	5,635.00	
200.00	356.60	-64.10	5,523.00	

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	7.70	OVB											Overburden. 12m of Casing

Assay

From	To	Spl #	Len	Py %	Au PPM
		446567			0.01
		445067			0.01
		445070			0.03

7.70	10.10	SYN	SZ	3	P	ANK			0		Syenite. Pale brown-pink; f- to m-grained. Sheared. Weakly mag; MagSus = 10.1 - 37.5. Mod-strong pervasive fe-carb alt. Trace to local 2% py. At least 3 deformation events affected this unit. f1 measures ~ 0 - 70 deg TCA and has been folded at higher angles tc CA. f2 crenulations overprint f1 at ~ 175 deg TCA. A blocky unit, and broken up at 8 - 8.4m and at 8.7 - 9m.
10.10	12.70	MV	FOL	1	P	CHL	ANK	QCCV	1	0	Foliated basalt + syenite (40%). Syenite is mixed in with basalt. Dark brown-green; very f- to c-grained. Foliated 0 - 18 deg TCA. Weak pervasive chloritic alt; minor local mod pervasive fe-carb alt up hole. Only local trace py present. 1% Q-calcite veins and stringers present. Grad upper cnt.
12.70	15.20	SYM	FOL	1	P	CHL	CC	QCCV	1	0	Mafic Syenite. Pale brown-pink. Greenish-dirty brown; f- to c-grained. Foliated 20 - 25 deg TCA. Non- to weakly mag; MagSus = 1.8 - 11.2. Weak to mod pervasive chloritic alt; minor weak to moderate calcitic alt. Trace py. Grad upper cnt.
15.20	17.80	SYM	SZ	1	FR	CHL	ANK		1		Syenite. Pale brown-pink. Sheared. Similar to 7.7 - 10.1m. Non-mag; MagSus = 3.9 - 4.5. Weak fracture-controlled chloritic alt; minor weak foliation-controlled fe-carb alt. 1% to local 5% py. Grad upper cnt.
17.80	69.10	CGP	FOL	1	FOL	CHL	CC	CCV	5	0	Pebble Conglomerate (Proterozoic). Medium grey-green with pink syenitic & felsic clasts (~ 20%); f- to c-grained; strongly but less foliated (33 - 48 deg TCA) compared to upper unit. Non- to mod mag; MagSus = 4.8 - 47.2. Weak to local mod pervasive and foliation-controlled chloritic alt; minor local weak to strong pervasive calcitic alt. Trace to 3% py. Sharp upper cnt 30 deg TCA. The majority of clasts are in the pebble size class (4 - 64mm diameter) and these have subrounded to well-rounded edges. poorly sorted clasts. 3% local py at 57.2 - 58.3m. ~ 5% calcite veining present. 54.4 - 58.7m: core box was dropped after splitting and is now mixed up.

7.70	9.00
9.00	10.10
10.10	11.10
15.20	16.70
16.70	17.80
54.40	55.90
55.90	57.20
57.20	58.30
58.30	59.30
59.30	60.80
60.80	62.00
62.00	63.50
63.50	65.00
65.00	66.50
66.50	67.80
67.80	69.10
69.10	70.50
70.50	72.00
72.00	73.50
73.50	75.00
75.00	76.50
76.50	78.00
78.00	79.50
79.50	81.00
81.00	82.50

69.10	94.90	MV	FOL	2	P	CC	CHL	CCV	5	0	Foliated basalt + syenitic fragments(20%). Dark grey-black groundmass with a reddish hue from calcite alteration. F-grained groundmass; foliated 33 - 40 deg TCA. Non to strong mag; MagSus = 4.6 - 128.5. Weak to strong pervasive calcitic alt; minor weak pervasive chloritic alt. Trace to local 2% py. Upper cnt not clearly defined, and chosen based on last rounded pebble clast in upper unit
94.90	114.80	MV	FOL	2	P	CC	CHL	CCV	5	0	Foliated basalt. Dark grey to black; f-grained; foliated 30 - 45 deg TCA. Weak to strong mag; MagSus = 27.1 - 115.2; weak to strong pervasive and foliation-controlled calcitic alt; minor local weak pervasive chloritic alt. Only local trace py. Sharp upper cnt 17 deg TCA.
114.80	130.60	MV	FOL	1	P	CC				0	Foliated basalt. Similar to 94.9 - 114.8m but with general weak to local strong pervasive and spotty calcitic alt. < 1% calcite veining. Trace py. Grad upper cnt.
130.60	177.60	DB	MAS							0	Diabase. Dark grey; f- to m-grained; massive; non- to mod mag; MagSus = 1.6 - 76.5. Unaltered; local trace py. Sharp upper cnt 20 deg TCA. Calcite-healed fractures between 130.6m & 134m. Calcite-epidote veins and stringers present (< 1%). Brecciated at 177.2 - 177.6m
177.60	182.00	MV	FOL	2	FOL	ANK				0	Mafic Volcanic. Dark grey to black. F-grained; strongly foliated (0 - 30 deg TCA); non- to weakly mag; MagSus = 2.5 - 11. Moderate foliation-controlled carb alt. Trace py. Sharp upper brecciated cnt 5 deg TCA.
182.00	200.00	MV	FOL							0	Mafic Volcanic. Medium grey-green to black; f-grained; weakly foliated (~ 25 deg TCA); semi-massive. Non- to mod-mag; MagSus = 1.4 - 47.6. Local weak to mod pervasive calcitic alt. Trace to local 1% py. Grad upper cnt. 200m: EOH

82.50	84.00
84.00	85.50
85.50	87.00
87.00	88.50
88.50	90.00
90.00	91.50
91.50	92.50
92.50	93.70
93.70	94.90
94.90	96.40
96.40	98.00
98.00	99.50
99.50	101.00
101.00	102.50
102.50	104.00
104.00	105.50
105.50	107.00
107.00	108.50
108.50	110.00
110.00	111.50
111.50	113.00
113.00	114.50
114.50	116.00
116.00	117.50
117.50	119.00
119.00	120.50
120.50	122.00
122.00	123.50
123.50	125.00

125.00	126.50
126.50	128.00
128.00	129.50
129.50	130.60

Structure

8.60	F1	0	
9.30	F1	70	
9.40	F2	175	
16.90	F1	48	
17.00	F2	160	
17.80	CNT	30	
37.00	F1	44	
49.50	F1	35	
62.00	F1	31	
78.00	F1	36	
89.00	F1	32	
94.90	CNT	17	
101.00	F1	36	
110.00	F1	40	
122.00	F1	37	
130.60	CNT	20	
176.20	CCV	15	calcite-epidote vein; trace py
177.60	CNT	5	
178.80	F1	0	
181.00	F1	25	
193.00	F1	15	

DDH LOG REPORT

WEST KIRKLAND MINING

KIRKLAND LAKE PROJECT

Hole No:	KM1123	Township:	Holmes	☑ Casing Left Behind (Y/N)	Core_Size:	NQ	Logged_By:	James Suma-Momoh
NAD83E:	540357	Claim No:	23410	☐ Making Water	Collar_Survey_Type:	GPS	Contractor:	LAFRAMBOISE
NAD83N:	5320969	Start_Date:	23/03/2011	☐ Grout Plug	Downhole_Survey_Type:	REFLEX	Core Storage:	KENOGAMI
Elevation (m):	339	Finish_Date:	02/04/2011	☐ Cemented				
Azmuth:	360	Length (m):	392					
Dip:	-45	Comment:						

Survey

Depth	Azmith	Dip	Mag	Comment
29.00	358.10	-45.00	5,605.00	
60.00	359.20	-44.40	5,634.00	
90.00	1.00	-44.30	5,663.00	
120.00	358.90	-44.70	5,605.00	
150.00	359.00	-44.80	5,625.00	
180.00	2.50	-44.40	5,596.00	
210.00	1.80	-44.20	5,584.00	
240.00	1.90	-43.80	6,215.00	Mag not good
270.00	3.00	-43.50	5,583.00	
300.00	3.50	-43.50	5,555.00	
330.00	5.90	-43.40	5,628.00	
360.00	0.10	-42.90	5,687.00	
392.00	351.20	-43.10	4,220.00	Azimuth and Mag not good

Geology

From	To	Litho Code	Txt Typ	Alt Int	Alt Style	Alt 1	Alt 2	Alt 3	Vn Type	Vn %	Py %	Oth Min	Comments
0.00	6.00	OVB											6m of Casing
6.00	47.50	MV	FOL	1	P	CHL	CC		CCV	4	0		Foliated Basalt with syenitic fragments(~ 30%). Dark grey to black; f-grained; foliated 40 - 53 deg TCA. Very weak to weak mag; MagSus = 7.8 - 46.7. Weak pervasive chloritic alt with local weak to strong pervasive calcitic alt. Trace py. 6m - 6.5m is blocky and broken up. late calcite veins and stringers common.
47.50	71.00	MV	FOL	2	FOL	CC	CHL		CCV	5	0		Foliated Basalt. Similar to 6 - 47.5m but with only about 5% syenitic fragments. Weak to mod mag; MagSus = 25.5 - 73.3. Mod to strong foliation-controlled calcitic alt; minor weak pervasive chloritic alt. Grad upper cnt.
71.00	80.00	MV	FOL	3	P	CC	CHL		CCV	3	0		Foliated Basalt. Dark grey to black; f-grained; foliated 35 - 60 deg TCA with local semi-massive horizons. Mod mag; MagSus = 32.7 - 76.6; Strong to intense pervasive calcitic alt; minor weak to mod pervasive chloritic alt. Trace to local 1% py. ~ 3% calcite veins present. Grad upper cnt.
80.00	100.10	MV	FOL	3	FOL	ANK	CHL	CC	QV	5	1		Foliated Basalt. Strongly foliated (0 - 55 deg TCA) with local well-developed crenulation cleavages of a late tectonic event. Unit is medium to dark green; f-grained; non-mag; MagSus = 0.7 - 3.4. Strong foliation-controlled carbonate alteration; followed by a mod to strong pervasive and foliation-controlled chloritic alt; and minor local weak to mod pervasive calcitic alt. Trace to local 3% py mainly associated with Q-veining. ~ 5% Q-veining. Grad upper cnt.
100.10	151.00	DB	MAS								0		Diabase. Dark greenish-grey; f- to m-grained; massive; weak to mod mag; MagSus = 16.5 - 71.5. Unaltered; local trace py. A quite homogeneous unit. Chilled and sharp upper cnt 34 deg TCA.

Assay

From	To
16.50	18.00
18.00	19.50
19.50	21.00
21.00	22.50
22.50	24.00
24.00	25.50
25.50	27.00
27.00	28.50
28.50	30.00
30.00	31.50
31.50	33.00
33.00	34.50

151.00	160.90	MV	FOL	2	FOL	ANK			0	Mafic Volcanic. Medium greenish-black; f- to c-grained and with up to ~ 1cm wide plag feldspar phenocrysts (porphyritic) in f-grained groundmass. Foliated 48 - 50 deg TCA. Very weakly mag; MagSus = 1.2 - 6.7. Weak to mod foliation-controlled carbonate alteration. Trace py. Sharp upper baked cnt 10 deg TCA.
160.90	173.70	MV	FOL	1	P	CHL			0	Mafic Volcanic. Medium greenish-black; not porphyritic. Foliated 30 - 45 deg TCA. Non-mag; MagSus = 0.6 -5.2. Weak pervasive chloritic alt; minor local weak foliation-controlled calcitic alt. Trace to local 1% py. Grad upper cnt. 1% local py occasionally between 168m & 169.5m.
173.70	174.00	DB	MAS						0	Diabase. Dark green to almost black; very f-grained; massive; strongly mag; MagSus = 113.1 - 133.2. Unaltered. No visible sulphide. Sharp upper cnt 28 deg TCA.
174.00	192.20	MV	FOL	1	P	CHL			0	Mafic Volcanic. Similar to 160.9 - 173.7m. Sharp upper cnt 22 deg TCA. 20cm wide diabase dyke at 179.7 - 179.9m (with 30 deg and 25 deg sharp upper & lower cnts, respectively. Weak rusty brown (fe?) alteration between 181.6m & 189.5m with ~ 1% py at 185 - 192.2m.
192.20	192.70	DB	MAS						0	Diabase. Similar to 173.7 - 174m. Trace py. Fractured interval and broken up at 192.3 - 192.7m. Brecciated at lower cnt with calcite in-fill. Sharp upper cnt 35 deg TCA.
192.70	193.30	MV	FOL	2	P	CHL	QCCV	40	3	Mafic Volcanic. Dark green. F-grained. Foliated; Q-calcite flooding present (~ 40%). Weakly mag; MagSus = 12.6 - 13.1. Moderate pervasive chloritic alt. Contains 3% py disseminations. Upper cnt grounded up by drill.
193.30	193.50	DB	MAS						0	Diabase. Similar to 173.7 - 174m. Trace py. Contains ~ 50% lower mafic volcanic unit due to lower cnt running 9 deg TCA (on average). Sharp upper cnt 30 deg TCA
193.50	194.00	MV	FOL	2	P	CHL	QCCV	20	2	Mafic Volcanic. Similar to 192.7 - 193.3m. Contains ~ 20% Q-calcite veining. 2 - 3% py present. Sharp upper cnt 9 deg TCA (on average).

34.50	36.00
36.00	37.50
37.50	39.00
39.00	40.50
40.50	42.00
42.00	43.50
43.50	44.50
44.50	45.50
45.50	46.50
46.50	47.50
80.00	80.80
80.80	81.60
81.60	82.30
82.30	82.90
82.90	83.80
83.80	84.40
84.40	84.80
84.80	86.00
86.00	87.50
87.50	89.00
89.00	90.50
90.50	92.00
92.00	93.50
93.50	95.00
95.00	96.50
96.50	97.30
97.30	98.00
98.00	99.10
99.10	100.10

194.00	240.80	MV	FOL	2	P	CHL	CC			0	Mafic Volcanic. Medium green-grey. F-grained; dominant f2 foliation 48 - 60 deg TCA. Non-mag; MagSus = 0.6 - . Mod pervasive chloritic alt; mod to local strong foliation-controlled calcitic alt giving the rock a reddish hue. Trace to local 2% py. Grad upper cnt.
240.80	256.10	SYN	SZ	2	FOL	ANK	CC	CHL		2	Syenite. Pale pinkish-brown. F- to c-grained; sheared; at least 3 deformation events observed. Moderately mag; MagSus = 40.5 - 79.5. Mod foliation-controlled fe carb alt; minor weak to strong pervasive calcitic alt anc weak foliation-controlled chloritic alt. Upper cnt is strongly sheared. 1 to local 4% py. Py mineralization is mainly associated with the more common f2 foliation fabric (40 - 45 deg TCA) and sometimes with f1 foliation (140 - 150 deg, rarely 0 deg TCA). f3 fabric is uncommon at gives lower angles (30 - 35 deg TCA) compared to f2. Contorted at 247.7 - 248m.
256.10	273.10	MV	SZ	2	FOL	CHL	CC			2	Foliated basalt with syenite fragment (~ 30%). Dark green with patchy pink from the syenite. F- to c-grained. Sheared but not as much as upper unit. Non- to weakly mag; MagSus = 0.7 - 28.9. Mod to strong foliation-controlled chloritic alt; minor mod to strong pervasive calcitic alt. Trace to local 5% py. Upper cnt is sheared and angle difficult to determine. 256.1 - 265.2m: mainly of mod chloritic alt. 5% local py at 258.7m - 259.1m, 259.3m, and 260m. 265.2 - 273.1: mod to mostly strong chloritic alt; only ~ 10% syenite fragments in this interval. 3 - 4% local py at 267.2 - 267.5m.
273.10	276.50	SYN	MAS	1	PA	CHL			QV	5 0	Syenite. Pink. C-grained; massive; very weakly mag to weakly mag; MagSus = 6.2 - 18.3. Weak patchy and fracture-controlled chloritic alt. Py is generally absent, except in Q-vein (18 and 33 deg TCA upper and lower cnts, respectively) close to upper cnt (273.2 - 273.5m) having 3 - 4% py. Sharp upper cnt 35 deg TCA.

151.00	152.00
168.00	169.50
169.50	171.00
179.00	180.00
180.00	181.50
185.00	186.50
186.50	188.00
188.00	189.50
189.50	191.00
191.00	192.20
192.70	193.30
193.30	194.00
198.20	199.70
199.70	201.20
201.20	202.50
210.50	212.00
212.00	213.50
223.00	223.80
227.00	228.10
228.10	229.10
239.30	240.80
240.80	242.00
242.00	243.00
243.00	244.00
244.00	244.80
244.80	246.00
246.00	247.50
247.50	249.00
249.00	250.00

276.50	284.00	SYM	FOL	1	P	CHL	CC	0	Mafic Syenite. Dark pinkish brown-green; m- to c-grained; single foliation plane 35 - 45 deg TCA. Non-mag; MagSus = 0.9 - 1.8. Weak to mod pervasive chloritic alt; minor weak to mod foliation-controlled calcitic alt. Trace py. Sharp upper cnt 35 deg TCA. 1 - 18cm wide diabase dyke runs along core at 0 - 18 deg TCA from 280.1 - 280.6m. The dyke contains 'popcorn-textured' epidote.
284.00	284.60	DB	MAS					0	Diabase. Black; very f-grained; massive; strongly magnetic; MagSus = 131. Unaltered. No visible sulphide. Sharp upper cnt 22 deg TCA.
284.60	287.70	SYM	FOL	1	P	CHL	CC	0	Mafic Syenite. Pinkish-green. Similar to 276.5 - 284m. Only weakly foliated; almost massive. Non-mag; MagSus = 2.1 - 4.3. Sharp and irregular upper cnt, 22 deg TCA on average.
287.70	288.40	SYN	MAS					0	Syenite. Burgundy-coloured; f- to m-grained; massive; weakly mag; MagSus = 24.5 - 28.7. very weak pervasive calcitic alt, almost unaltered. Trace py. Sharp upper cnt 55 deg TCA.
288.40	295.80	SYM	FOL	1	P	CHL	CC	0	Mafic Syenite. Pinkish-green. Similar to 276.5 - 284m. Only weakly foliated; with semi-massive horizons. Felsic dykes common (1cm - 20cm wide). 20cm wide felsic dyke at 290.6m (22 and 25 deg TCA upper and lower cnts). Sharp upper cnt 30 deg TCA.
295.80	296.80	DB	MAS					0	Diabase. Black; very f-grained; massive. Similar to 284 - 284.6m. Sharp upper cnt 7 deg TCA.
296.80	297.50	MV	FOL	2	P	CHL	CC	0	Foliated basalt with syenite fragments (40%). Similar to 256.1 - 273.1m. Mod perv chloritic alt; minor weak to mod foliation-controlled calcitic alt. Trace py. Sharp wavy upper cnt 60 deg TCA on average.
297.50	299.70	MV	FOL	2	P	CHL	CC	1	Foliated basalt. Dark green; very f-grained; schistose textured. non -mag to weakly mag; MagSus = 1.1 - 22.1. mod to strong pervasive chlorite alt. Strong foliation-controlled calcitic alt. Contains ~ 1% py. Sharp upper cnt 30 deg TCA.
299.70	301.90	SYN	MAS	1	PA	CHL		1	Syenite. Pale pink; c-grained; masssive but with local weak foliation. Weakly mag; magSus = 8.8 - 22.4. Weak patchy and fracture-controlled chloritic alt. 1 to local 3% py. Sharp upper cnt 41 deg TCA.

250.00	251.20
251.20	252.20
252.20	253.20
253.20	254.70
254.70	256.10
256.10	257.60
257.60	258.70
258.70	259.50
259.50	261.00
261.00	262.50
262.50	264.00
264.00	265.20
265.20	266.20
266.20	267.20
267.20	267.50
267.50	269.00
269.00	270.50
270.50	271.80
271.80	273.10
273.10	273.60
273.60	275.00
275.00	276.50
297.50	298.60
298.60	299.70
299.70	300.70
300.70	301.10
301.10	301.90
331.80	333.30
333.30	334.80

301.90	303.50	MV	FOL	2	P	CHL	CC	0	Foliated basalt. Similar to 297.5 - 299.7m but with trace py. Sharp upper cnt 31 deg TCA.
303.50	305.90	MV	FOL	1	P	CHL	CC	0	Foliated basalt with syenite fragments (10%). Medium green groundmass. Non- to weakly mag; MagSus = 0.8 - 23. Weak to mod perv chloritic alt. Mod-strong foliation-controlled calcitic alt. Trace py. Sharp upper cnt 31 deg TCA.
305.90	326.00	SYM	FOL	2	P	CC	CHL	0	Mafic Syenite. Pale pinkish-grey; f- to c-grained, porphyritic; foliated 20 - 50 deg TCA. Non- to mod mag; MagSus = 0.6 - 71.7. Dominant weak to strong pervasive and foliation-controlled calcitic alt; minor local weak to mod chloritic alt. only local trace py present. Sharp upper cnt 30 deg TCA. 305.9 - 322.4m: quite homogeneous. 23 - 50 deg foliation. Pink syenite dyke at 318.7m - 319m (sharp upper cnt 44 deg and 35 deg lower cnt). 0.6 - 14.5 MagSus. 322.4 - 336m: foliation becomes 25 - 27 deg TCA; calcite alt is mod-strong; mod mag; MagSus = 50.5 - 71.7.
326.00	327.20	FZN						0	Fault Zone. This interval contains series of faults and is blocky as well. Host rock is mafic syenite. Fault with thin clay at 326m, 19 deg TCA; fault with thin mud at 326.2m, 25 deg TCA; crushed rock at 326.2 - 326.3m; possible fault at 326.8m with crushed rock up to 327m; fault at 327.2m with 3 - 5mm thick mud, 30 deg TCA. Trace py in this unit. Fault Zone. This interval contains series of faults and is blocky as well. Host rock is mafic syenite. Fault with thin clay at 326m, 19 deg TCA; fault with thin mud at 326.2m, 25 deg TCA; crushed rock at 326.2 - 326.3m; possible fault at 326.8m with crushed rock up to 327m; fault at 327.2m with 3 - 5mm thick mud, 30 deg TCA. Trace py in this unit. Fault Zone. This interval contains series of faults and is blocky as well. Host rock is mafic syenite. Fault with thin clay at 326m, 19 deg TCA; fault with thin mud at 326.2m, 25 deg TCA; crushed rock at 326.2 - 326.3m; possible fault at 326.8m with crushed rock up to 327m; fault at 327.2m with 3 - 5mm thick mud, 30 deg TCA. Trace py in this unit.

334.80	336.30
336.30	337.80
337.80	339.00
339.00	340.10
340.10	341.60
341.60	343.10
343.10	344.60
344.60	346.10
346.10	347.60
347.60	348.80
348.80	350.00
362.40	363.90
363.90	365.20
365.20	366.40
366.40	366.80
366.80	368.20
373.50	375.00
375.00	376.50
376.50	378.00
378.00	379.50
379.50	381.00
381.00	382.50
382.50	383.70
383.70	383.90
383.90	384.60
384.60	388.80

327.20	331.80	DB	MAS						CCV	1	0		Diabase. Brownish-grey; f-grained; massive; mod-mag; MagSus = 48.6 - 60. Unaltered; trace py. Sharp upper cnt 28 deg TCA. 4 - 11cm wide unmineralized calcite vein at 331.3m (21 deg TCA).
331.80	336.30	MV	FOL	2	P	CHL	CC	ANK			0		Foliated basalt. Carbonate Chlorite Schist? Dark green to black; f-grained; foliated with an almost schistose texture downhole. Non-mag; Magsus = 0.9 - 1.9. mod-strong pervasive chloritic alt; weak to strong foliation controlled calcitic alt and local mod foliation-controlled fe-carb alt. Trace to local 2% fine py. Sharp upper cnt 38 deg TCA.
336.30	350.00	SCH	SCH	3	FOL	CHL	ANK	CC	QCV	3	1		Carbonate Chlorite Schist. Dark green with buff fe-carb lamellae & horizons, and white calcitic lamellae. A high strain zone; schistose-textured. F- to c-grained; non-mag; MagSus = 0.7 - 1. Strong foliation-controlled chloritic alt; followed by mod-strong foliation-controlled fe carb and minor local weak to mod calcitic alt. 1% to local 3% fine disseminated py. Grad upper cnt. 340.1 - 340.8m is more buff-coloured and seemingly ankerite. ~ 3 - 4% Q-carb veining with undulating edges. 10cm wide porphyritic felsic dyke (40 and 25 deg TCA sharp upper and lower cnts, respectively) at 346.1m.
350.00	362.40	DB	MAS								0		Diabase. Medium to dark grey; very f- to f-grained; massive; contains 'popcorn-textured' epidote. Mod mag; MagSus = 60.1 - 78.6. Unaltered. Trace py. Sharp upper chilled and bleached cnt 38 deg TCA. Chilled lower cnt.
362.40	366.40	MV	FOL	2	FOL	ALB			CCV	1	5	Cp 0	Mafic Volcanic. Black; very f-grained; very thinly foliated ~ 38 deg TCA. Strongly mag; MagSus = 176.7 - 337.8. Local strong foliation-controlled and patchy albitite alt. Contains ~ 5% fine py occurring parallel to foliation; trace chalcopy. 1% calcite veining. Sharp upper cnt 45 deg TCA.
366.40	366.80	SYN	MAS								1		Syenite. Pink; c-grained; massive; weak to strong mag; MagSus = 18.8 - 91.7; unaltered. ~ 1% f-grained py. Contains slivers of upper unit. Sharp upper cnt 30 deg TCA.

366.80	388.90	MV	FOL	2	FOL	ALB	QV	1 2	Cp 0	Mafic Volcanic. Medium grey-green; f- to c-grained; foliated. Weak to strong-mag; MagSus = 7.1 - 399.3. Local mod to strong foliation-controlled and pervasive albitite alt. Trace to local 3% fine py; local trace chalcopy. Sharp upper cnt 25 deg TCA.
388.90	390.30	SYM	FOL					0		Mafic Syenite. Medium grey-brown; medium to c-grained; only weakly foliated. Non- to very weakly mag; MagSus = 1.7 - 9.1; unaltered. Trace py. Sharp upper cnt 40 deg TCA.
390.30	392.00	MV	FOL					0		Mafic Volcanic. Similar to 366.8 - 388.9. Unaltered. Syenite dyke at 391.4m (1 - 3cm wide, 53 deg TCA) and at 391.8m (60 deg TCA). Trace to 1% py; 40 - 50 deg TCA foliation. Sharp upper cnt 25. 392m: EOH

Structure

11.00	F1	40	
13.80	F2	30	
26.10	QCCV	33	
35.00	F1	50	
50.00	F1	52	
70.00	F1	51	
79.60	F1	35	
83.40	QV	35	with 3% py
84.40	QV	50	with 1% py
84.90	F1	14	
85.00	F2	57	
88.70	QV	48	with trace marginal py
93.60	F1	0	
93.70	F2	65	
97.40	F1	37	
97.50	F2	76	

100.10	CNT	34	
151.00	CNT	10	
154.50	F1	48	
164.00	F1	43	
168.50	F1	40	
173.70	CNT	28	
174.00	CNT	22	
177.00	F1	43	
179.70	CNT	30	
179.90	CNT	25	
185.60	QV	33	1 -2.5cmwide; with trace marginal py
192.20	CNT	35	
193.30	CNT	30	
193.50	CNT	9	
203.00	F2	55	
227.00	F2	50	
233.00	F1	0	
233.10	F2	53	
244.90	F1	155	
245.00	F2	44	
249.00	F3	35	
249.10	F1	145	
249.20	F2	45	
253.30	F1	144	
253.40	F2	45	
257.60	F1	150	
257.70	F2	45	
266.40	F1	140	

266.50	F2	25	
273.10	CNT	35	
273.20	QV	18	30cm wide; with 3-4% py
275.50	QV	65	4cm wide, with trace py
276.50	CNT	35	
278.00	F1	35	
284.00	CNT	22	
284.60	CNT	22	
286.40	F1	30	
287.70	CNT	55	
288.40	CNT	30	
290.00	F1	23	
293.00	F1	20	
295.80	CNT	7	
296.80	CNT	60	
297.20	F1	50	
297.50	CNT	30	
298.30	F1	20	
299.70	CNT	41	
301.90	CNT	31	
302.50	F1	30	
303.50	CNT	31	
305.00	F1	34	
305.90	CNT	30	
307.70	F1	25	
318.40	F1	50	
326.00	FLT	19	
326.20	FLT	25	

327.20	FLT	30	
331.20	QCV	24	discontinuous
331.30	CCV	21	
331.80	CNT	38	
338.00	F2	46	
338.10	F1	140	
341.00	F2	40	
347.00	F2	25	
350.00	CNT	38	
362.40	CNT	45	
364.00	F1	38	
365.80	F1	38	
366.40	CNT	25	
370.00	F1	36	
375.50	F1	52	
380.00	F1	58	
384.00	F1	52	
388.90	CNT	40	
390.30	CNT	25	
391.00	F1	40	