DNV Landslide Risk Assessment 1231 Lennox Street 11/04/05 Raining, heavy rain for several days prior to visit.





500 - 1045 Howe Street Vancouver, BC Canada V6Z 2A9

THICKNESS OF LOOSE MATERIALS	<1 m	1-2 m	2-3 m	>3 m
FENCE LINE			\square	
15 m DOWNSLOPE FROM SLOPE CREST	$\mathbf{\nabla}$			
			SLOPE = 33 [°]	
SLOPE BELOW FENCE/ RETAINING STRUCT	TURE	CRACKS	SLIDES	EROSION
			\checkmark	$\mathbf{\nabla}$

OBSERVATIONS: Minor soil erosion. Slope below fill slope is 32"

TREES BELOW FENCE/ R	ETAINING STRUCTURE	STRAIGHT	PISTOL-BUTT	LEANING
PERCENT CONIFER:	100%	K		
OBSERVATIONS:				

RETAINING STRUCTU	JRES	YES 🗹	NO	HEIGHT= 2.0 m		
ТҮРЕ	BLOCKS	CONCRETE	TIMBER CRIB	OTHER:		
	\checkmark	\checkmark				
DEFORMATION	UNDEFORMED	CRACKED	SETTLED	BULGING		
OBSERVATIONS: No mortar used to construct the concrete block wall located at south end of backyard. Young trees are leaning at base.						

DEFORMATION IN BACKYARD	YES	№ 🗹		FILL	SLOPE = 33°			
LOCATION:	1					CREST		
DESCRIPTION:					AH02			
					0 15 m		HOUSE	
	-							
POOLS	VES	NoV			 			
FOOLS	123							E
DESCRIPTION	-	•		RF				N N N
								(ST
SEEPAGE/ SPRINGS IN OR						GA	KDEN	
BELOW FILL	YES	№⊿						
OBSERVATIONS: None observed.				НО	USE DISTAN	СЕ ТО С	CREST	= 6.0 m
RECEIVES SURFACE RUNOFF FR	OM BACK	YARD	½ R (OOF	FULL ROOF	FRON	T YARD	STREET
			\checkmark	1	\checkmark		4	
OBSERVATIONS:								
CONNECTED TO STORM SEWER				Y	ES N	o⊻	U	ISURE
OWNERS COMMENTS: DNV reports that this	s property is not co	onnected to st	torm	sewer	•			
GENERAL OBSERVATIONS								

- Patio is level, owners note there has been no change in the last 50 years.
- Possible failure scarp in gully at north property boundary with adjacent property.
- Property flattens out approximately 50 m down slope.



Figure 1. 1231 Lennox Street – Front of the house



Figure 2. 1231 Lennox Street – View of backyard and crest looking south



Figure 3. 1231 Lennox Street – View looking north along crest



Figure 4. 1231 Lennox Street – Failing concrete retaining wall

Project No. : 0404-002-01

Page 1 of 1

Location : 1231 Lennox

Drill Method : Dutch Hand Auger Inspection Date : 04 Nov 05

Logged by : SF/JB

Reviewed by : MJP

Depth (m)	AUGERHOLE: BGC05-1231LEN-AH01 on Slope Crest FINAL DEPTH OF AUGERHOLE: 2.25 m THICKNESS OF LOOSE MATERIALS: 2.25 m Lithologic Description	Depth To Water Table	Depth (m)	AUGERHOLE: BGC05-1231LEN-AH02 15 m Downslope FINAL DEPTH OF AUGERHOLE: 1.25 m THICKNESS OF LOOSE MATERIALS: 0.80 m Lithologic Description	Depth To Water Table
0.0 0.5	SILT (ML) and SAND (SP) Medium sand, dark brown, organic SAND (SW) Fine to coarse sand, some fine to coarse gravel, trace silt, well graded, loose, max particle = 30 mm, light brown, moist, homogeneous, no cementation [FILL]		0.0 - - - - 0.5	SAND (SP) Fine to medium sand, trace coarse sand, trace fine gravel, some gravel sized silt and sand clasts, poorly graded, loose, max particle size = 15 mm, sub-rounded, light brown, moist, homogeneous, no cementation, trace organics [FILL]	
- - - - - - - - -	SAND (SP) Fine to coarse sand, mainly coarse sand, max particle size = 8 mm, poorly graded, loose, light grey, moist, homogeneous, no cementation [FILL] SAND (SW) Silty, trace fine gravel, well graded, moist, max grain size = 5 mm, light brown, homogeneous, no cementation, trace organics [COLLUVIUM] 1.20 m: Increased organic matter.	1	- - - - - - - - -	SAND (SP) and SILT (ML) Medium to fine sand, poorly graded, loose, dark brown, moist, homogeneous [FILL] SAND (SW) Fine to coarse sand, some fine to medium gravel, well graded, loose to compact, max particle size = 10 mm, sub-rounded, brown, moist, homogeneous, no cementation [COLLUVIUM] 1.25 m: EOH - Refusal of auger on roots	
- 1.5 - - - - - 2.0 -	SAND (SW) Fine to coarse sand, some fine gravel, well graded, loose to compact, sub-rounded, light brown, moist, homogeneous, no cementation [Weathered GLACIOMARINE] 1.80 - 1.90 m: Some orange/brown staining present.	-	- 1.5 - - - - 2.0 -		
- - - 2.5 - - - - - 3.0	2.25 m: EOH - Refusal as material is too compact to auger through		- - - 2.5 - - - - - - - - 3.0		
BC	BGC ENGINEERING INC. AN APPLIED EARTH SCIENCES COMPANY Vancouver, BC Phone: (604) 684 5900			Client: District of North Vancouver	

DNV Landslide Risk Assessment 1275 Lennox Street 11/04/05 Raining heavily, heavy rain for several days prior to visit.





500 - 1045 Howe Street Vancouver, BC Canada V6Z 2A9

THICKNESS OF LOOSE MATERIALS	<1 m	1-2 m	2-3 m	>3 m
FENCE LINE		$\mathbf{\nabla}$		
17 m DOWNSLOPE FROM SLOPE CREST	\checkmark			

	SLOPE = 45	to 15m downslope, 42	below 15m
SLOPE BELOW FENCE/ RETAINING STRUCTURE	CRACKS	SLIDES	EROSION
		Z	
OBSERVATIONS: Appears to be an old slide scarp that has partially re	e-vegetated (55°). Decidu	uous trees present arou	und the scarp. No

other slope deformation observed due to dense groundcover.

TREES BELOW FENCE/ RETAINING STRUCTURE		STRAIGHT	PISTOL-BUTT	LEANING		
PERCENT CONIFER:	20%	K				
OBSERVATIONS: Maples occupy the main slide area and the number of conifers increases towards the outside of the slide.						

RETAINING STRUCTU	RES	YES	№ 🗹	HEIGHT= n/a		
ТҮРЕ	BLOCKS	CONCRETE	TIMBER CRIB	OTHER:		
DEFORMATION	UNDEFORMED	CRACKED	SETTLED	BULGING		
OBSERVATIONS: None observed						

DEFORMATION IN BACKYARD	YES	№ 🗹	
LOCATION:		•	
DESCRIPTION: Small backyard on north side observed.	of property. No d	eformation	AH02 17 m HOUSE
POOLS	YES 🗹	NO	
DESCRIPTION : Pool is sunken into a raised of	leck		OLD SCARP GARAGE
SEEPAGE/ SPRINGS IN OR BELOW FILL	YES	№ 🗹	
OBSERVATIONS: None observed	1	1	HOUSE DISTANCE TO CREST = 0 m

RECEIVES SURFACE RUNOFF FROM	BACKYARD	1/2 ROOF	FULL ROOF	FRONT YARD	STREET
	\checkmark	V	R		
OBSERVATIONS: Uncertain where the downshouts	drain A drainage nir	e runs annroy	40 m down slone	3	

OBSERVATIONS: Uncertain where the downspouts drain. A drainage pipe runs approx. 40 m down slope.

CONNECTED TO STORM SEWER	YES	NO	
OWNERS COMMENTS: DNV reports that the connection to the storm sewer is	s uncertain.		

GENERAL OBSERVATIONS

- The elevated deck is built on and over the crest.
- Old slide site approx. 20 m down slope from the crest.
- Part of retaining wall from adjacent house runs onto this property.



Figure 1. 1275 Lennox Street – Front of the house



Figure 2. 1275 Lennox Street – View looking NW along crest

INSPECTION LOCATION # 1275 Lennox

Project : DNV Landslide Risk Assessment

Page 1 of 1 Project No. : 0404-002-01

Location : 1275 Lennox

Drill Method : Dutch Hand Auger Inspection Date : 04 Nov 05 Logged by : SF/JB

Reviewed by : MJP

		<u> </u>			
	AUGERHOLE: BGC05-1275LEN-AH01 on Slope Crest			AUGERHOLE: BGC05-1275LEN-AH02 17 m Downslope	
	FINAL DEPTH OF AUGERHOLE: 1.60 m	e		FINAL DEPTH OF AUGERHOLE: 0.75 m	e
	THICKNESS OF LOOSE MATERIALS: 1.60 m minimum	Tat		IHICKNESS OF LOOSE MATERIALS: 0.75 m minimum	Lat
Ê		5	Ê		er
і Ч		/at(і) Ч		/ate
ept	Lithologic Description	\leq	ept	Lithologic Description	\leq
ŏ		Ĕ	ă	Enhologie Description	To
		눈			oth
		l e			Jep
			0.0		
-0.0-	SAND (SP)		-0.0-	SAND (SW)	
-	Fine to coarse, trace silt, loose, dark brown, moist, some		-	Fine to coarse sand, gravelly, fine to coarse gravel, some silt,	
	organics			trace cobbles, well graded sand, loose, max particle size = 80	
- I		1	Γ	mm, sub-rounded, dark brown, moist, homogeneous, no odour,	
-	SAND (SF) Fine to medium cand, some fine to coarse gravels, poorly		-		
	graded loose brown moist homogeneous			SAND (SW)	
-	[FILL]		_	Fine to coarse sand, fine to coarse gravel, trace silt, well	
- 0.5			- 0.5	graded, loose, max particle size = 60 mm, sub-rounded, brown,	
				organic odour, moist, homogeneous	
-			_	[COLLUVIUM]	
-			-		
				0.75 m; EOH Defused on gravels, four balos attempted	
-			_	o.rom. Lori - Nelusai on gravelo, iour noies allempleu	
-	SILT (ML) and SAND (SP)		F		
1.0	Fine to coarse sand, non plastic silt, loose/soft to firm, brown		10		
- 1.0	with dark brown organines, no odour, moist, nomogeneous		- 1.0		
-	SAND (SP)		-		
	Fine to coarse sand, gravelly, fine to coarse gravel, poorly				
-	graded, loose, max particle size = 60 mm, sub-angular to		_		
-	sub-rounded, brown, moist, homogeneous		-		
	(FILL)				
-	0.95 m: Becoming sandy		-		
- 1.5	1.40 m: Gravel content increases to 'sand and gravel'		- 1.5		
-	1.60 m: EOH - Refusal on gravels		-		
-	No groundwater encountered		-		
-			_		
-			-		
- 2.0			- 2.0		
-			_		
-			-		
-			-		
-			-		
- 2.5			- 2.5		
-			-		
-			-		
-			-		
-			L		
- 3.0			- 3.0		
L		<u> </u>	ļ		L
			1		
	BGC ENGINEERING INC.				
				Client: District of North Vancouver	
DC	Vancouver, BC Phone: (604) 684 5900				

DNV Landslide Risk Assessment 1279 Lennox Street 11/04/05 Heavy rain, heavy rain for several days prior to visit.





500 - 1045 Howe Street Vancouver, BC Canada V6Z 2A9

THICKNESS OF LOOSE MATERIALS	<1 m	1-2 m	2-3 m	>3 m
FENCE LINE		Z		
10 m DOWNSLOPE FROM SLOPE CREST	$\mathbf{\nabla}$			

	SLOPE = 40						
SLOPE BELOW FENCE/ RETAINING STRUCTURE	CRACKS	SLIDES	EROSION				
		$\mathbf{\nabla}$	V				
OBSERVATIONS: Minor erosion. Small slide above AH02. 40° from crest of slope to 10 m down slope, 35° from 10 m down slope to							
bottom. Possible oversteepening.							

TREES BELOW FENCE/ RETAINING STRUCTURE		STRAIGHT	PISTOL-BUTT	LEANING
PERCENT CONIFER:	90%	V		
OBSERVATIONS:				

RETAINING STRUCTURES		YES 🗹	NO	HEIGHT= 0.70 m			
ТҮРЕ	BLOCKS	CONCRETE	TIMBER CRIB	OTHER:			
DEFORMATION	UNDEFORMED	CRACKED	SETTLED	BULGING			
				\checkmark			
OBSERVATIONS: Structure collapsing.							

DEFORMATION IN BACKYARD	YES	NO	⊿		CREST			•
LOCATION: Backyard					1			
DESCRIPTION: Backyard dips toward crest of slope.				A	10 m	H01	HOUSE	N
POOLS	YES	NO	Δ					LEN
DESCRIPTION: None.					ų			NOX ST
SEEPAGE/ SPRINGS IN OR BELOW FILL	YES	NO			\\			.
OBSERVATIONS: None observed.				но	USE DISTAN	СЕ ТО С	CREST	= 6.5 m
	BACK	ARD	½ R(OOF	FULL ROOF	FRON		STREET
RECEIVES SURFACE RUNOFF FR		1						
OBSERVATIONS:								
							1	
CONNECTED TO STORM SEWER				YE	s⊻	NO	UN	ISURE
OWNERS COMMENTS: DNV reports that this	s property is conne	ected to ste	orm sev	ver.				

GENERAL OBSERVATIONS

• House distance to crest measurement is to retaining wall. Balcony foundation is 3.5 m from retaining wall.

• Natural slope crest appears to be closer to the house (4 m).



Figure 1. 1279 Lennox Street – Front of the house



Figure 2. 1279 Lennox Street - View down-slope from AH#2



Figure 3. 1279 Lennox Street – View looking north at slumping backyard

INSPECTION LOCATION # 1279 Lennox

Project : DNV Landslide Risk Assessment

Project No. : 0404-002-01

Location : 1279 Lennox Drill Method : Dutch Hand Auger

Inspection Date : 04 Nov 05

Logged by : MB/ES

Reviewed by : MJP

01.GPJ 800.GDT

(u	AUGERHOLE: BGC05-1279LEN-AH01 on Slope Crest FINAL DEPTH OF AUGERHOLE: 1.40 m THICKNESS OF LOOSE MATERIALS: 1.40 m minimum	ır Table	(u	AUGERHOLE: BGC05-1279LEN-AH02 10 m Downslope FINAL DEPTH OF AUGERHOLE: 1.00 m THICKNESS OF LOOSE MATERIALS: 1.00 m minimum	r Table
Depth (r	Lithologic Description	Depth To Wate	Depth (r	Lithologic Description	Depth To Wate
	SAND (SM) Fine to medium sand, silty, trace fine to medium gravel, trace cobbles, poorly graded sand, loose, max particle size recovered = 10 mm, sub-rounded to rounded, dark brown, no odour, moist, homogeneous, no cementation, trace charcoal, trace rootlets [FILL] 0.50 m: Material colour changes from dark brown to light brown.		0.0 - - - - - 0.5 -	GRAVEL (GM) Sandy, cobbley, some gravel, some silt, gap graded, loose, max particle size = 200 mm, sub-rounded, dark brown, no odour, moist, homogeneous, no cementation [FILL] SAND (SW) Some silt, some fine to coarse gravel, trace cobbles, well graded, loose, max particle size = 50 mm, sub-rounded, brown, no odour, moist, homogeneous, no cementation [COLLUVIUM]	
- - 1.0 -			- - - 1.0 -	1.00 m: EOH - Refusal of auger on cobble	-
- - 1.5 - -	1.20 m: Gravel content increases to 'some gravel'.1.40 m: EOH - Refusal of auger on cobbles. Cobbles sloughing into hole.		- - - 1.5 - -		
- - 2.0 - -			- - 2.0 - -		
- - 2.5 - -			- - 2.5 - -		
- 3.0			- - 3.0		
BC	BGC ENGINEERING INC. AN APPLIED EARTH SCIENCES COMPANY Vancouver, BC Phone: (604) 684 5900			Client: District of North Vancouver	

DNV Landslide Risk Assessment 1305 Lennox Street 11/04/05 Heavy rain, heavy rain for several days prior to visit.





500 - 1045 Howe Street Vancouver, BC Canada V6Z 2A9

THICKNESS OF LOOSE MATERIALS	<1 m	1-2 m	2-3 m	>3 m
FENCE LINE			\Box	
15 m DOWNSLOPE FROM SLOPE CREST			Z	
			SLOPE = 36	
SLOPE BELOW FENCE/ RETAINING STRUCTURE		CRACKS	SLIDES	EROSION
				N

OBSERVATIONS: Minor erosion.

TREES BELOW FENCE/ RETAINING STRUCTURE		STRAIGHT	PISTOL-BUTT	LEANING			
PERCENT CONIFER:	55 %	K					
OBSERVATIONS: Trees are generally straight, however a few leaning trees observed.							

RETAINING STRUCTURES		YES 🗹	NO	HEIGHT= 3.3 m			
ТҮРЕ	BLOCKS	CONCRETE	TIMBER CRIB	OTHER:			
		\checkmark	\checkmark				
DEFORMATION	UNDEFORMED	CRACKED	SETTLED	BULGING			
		\checkmark		\square			
OBSERVATIONS: Many generations of retaining structures some tilting mainly built with timber cribbing with stones. Main retaining wall							

is concrete. Complicated system of steps, timbers and retaining walls down slope. Timber crib is bulging and cracking.

DEFORMATION IN BACKYARD	YES 🗹	NO		CREST				
LOCATION: Backyard			0		\sim			
DESCRIPTION: Backyard dips toward crest of slope.				P	OOL	N		
POOLS	YES 🗹 NO							
DESCRIPTION:				VALLS		NOX ST.		
SEEPAGE/ SPRINGS IN OR BELOW FILL	YES NO			L.		I		
OBSERVATIONS: None observed.			НС	OUSE DISTANC	CE TO CREST	= 11.2 m		
	BACK	YARD 1/2 F	ROOF	FULL ROOF	FRONT YARD	STREET		
RECEIVES SURFACE RUNOFF FR	0M 🗸		\checkmark	\checkmark				
OBSERVATIONS:								
CONNECTED TO STORM SEWER			Y	ES NC	י ע ר	JNSURE		
OWNERS COMMENTS: Unsure if large drain uncertain if property is connected. DNV report	in driveway is cor s that this property	nected to sewer y is not connecte	r systen ed to sto	n. Owner recalls sto orm sewer.	orm sewer being b	uilt but is		

GENERAL OBSERVATIONS

• Owner claims to have some sort of drain in the backyard, but cannot recall where the drain exits. A corrugated drain was observed downslope.



Figure 1. 1305 Lennox Street – Front of the house



Figure 2. 1305 Lennox Street – View up-slope at timber crib wall



Figure 3. 1305 Lennox Street – Wooden crib wall and shed Figure 4. 1305 Lennox Street – View down-slope from just below the crest perched on slope



Figure 5. 1305 Lennox Street – Concrete retaining wall above the shed with built in steps

INSPECTION LOCATION # 1305 Lennox

Project : DNV Landslide Risk Assessment

Page 1 of 1 Project No. : 0404-002-01

Location : 1305 Lennox

Drill Method : Dutch Hand Auger Inspection Date : 04 Nov 05

 $\textit{Logged by}: \mathsf{MB}/\mathsf{ES}$

Reviewed by : MJP

01.GPJ 800.GDT

Image: Construct Sector 1991; EN-MADE 1991; Construction 1						
Find. Derrin Außerholte: 2.30 m THRCKNESS OF LOOSE MATERIALS: 2.40 m THRCKNESS OF		AUGERHOLE: BGC05-1305LEN-AH01 on Slope Crest			AUGERHOLE: BGC05-1305LEN-AH02 15 m Downslope	
E E		THICKNESS OF LOOSE MATERIALS: 2.30 m	able		THICKNESS OF LOOSE MATERIALS: 2.40 m	able
Uthologic Description Uthologic Description Uthologic Description Uthologic Description 0.0 SAND (SM) Fine to medium sand, silty, poorly graded, loose, max particle = 1 mm, dark brown, moist, homogeneous, no cementation 0.0 SILT (ML) and SAND (SP) Fine to medium sand, trace fine gravel, low plastic, soft, brown, no odour, moist, homogeneous, no cementation, no dilatancy, trace charcoal 0.5 SILT (ML) and SAND (SP) 0.0 Silt FILL] 0.5 SILT (ML) 0.5 0.1 Silt NO (SW) 0.5 0.5 0.1 SILT (ML) 0.5 0.5 0.2 SILT (ML) 0.5 0.5 0.3 SILT (ML) 0.5 0.5 0.4 Silt T (ML) 0.5 0.5 0.5 SAND (SP) 0.5 0.6 Silt T (ML) 0.5 0.7 Silt T (ML) 0.5 0.8 SAND (SP) (field medium sand, trace fine gravel, low plastic, soft do firm, grey to light brown with orange motiling, no odour, moist, homogeneous, no cementation 1.0 1.10 Interval density becomes 'firm' 1.10 1.10 Sand, fine to medium sand, trace fine to coarse gravel, low plastic, soft dark brown, no odour, moist, homogeneo	Ê		r T	Ê		er Ta
B Lithologic Description P <td>, L</td> <td></td> <td>Vate</td> <td>L)</td> <td></td> <td>/ate</td>	, L		Vate	L)		/ate
□ SAND (SM) 0.0 SILT (ML) and SAND (SP) Fine to medium sand, silty, poorly graded, loose, max particle = 1 mm, dark brown, moist, homogeneous, no cementation [TOPSOIL] 0.0 SILT (ML) and SAND (SP) SILT (ML) and SAND (SP) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, soft, ight brown with orange motifing, max particle size = 30 mm, sub-angular, no odour, moist, homogeneous, no cementation, ifiLL] 0.5 Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-founded, grey and black peppered appearance, moist, homogeneous, no cementation 0.5 SILT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy. [FILL] 1.10 m: Material density becomes 'firm' SILT (ML) Sandy, fine to medium sand, trace day, low plastic, soft to firm, grey to light brown with orange motiling, no odour, moist, homogeneous, no cementation 1.10 I.10 SILT (ML) SILT (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots 1.10 I.11 SILT (ML) SILT (ML) 1.10 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots 1.5 <t< td=""><td>ept</td><td>Lithologic Description</td><td>> .0</td><td>ept</td><td>Lithologic Description</td><td>× ∘</td></t<>	ept	Lithologic Description	> .0	ept	Lithologic Description	× ∘
0.0 SAND (SM) Fine to medium sand, silty, poorly graded, loose, max particle = 1 mm, dark brown, moist, homogeneous, no cementation [TOPSOL] 0.0 SILT (ML) and SAND (SP) Fine to medium sand, trace fine gravel, low plastic, soft, brown, no odour, moist, homogeneous, no cementation, no dilatancy, trace charcoal 0.5 SILT (ML) and SAND (SP) 0.0 SILT (ML) and SAND (SP) 0.5 IFILI 0.1 SAND (SW) 0.5 0.5 0.5 SAND (SW) 0.5 0.5 0.6 0.5 0.5 1.0 IFILI 0.5 SAND (SP) 0.5 0.5 1.0 Sandy, fine to medium sand, trace fine gravel, low plastic, or cementation, slow dilatancy to light brown with orange moting, no odour, moist, homogeneous, no cementation [FILI] 1.10 m: Material density becomes 'firm' 1.10 SILT (ML) SAND (SP) and SILT (ML) 1.10 m: Material density becomes 'firm' 1.10 SILT (ML) asand, fixe break, no codour, moist, homogeneous, no cementation [FILI] 1.10 m: Material density becomes 'firm' 1.15 SiLT (ML) SILT (ML) SILT (ML) SILT (ML) 1.10 m: Material density becomes 'firm' 1.15 SILT (ML) SILT (ML) SILT (ML) SILT (ML) 1.10 m: Material density becomes 'firm' 1.15 SILT (ML) SILT (ML) SILT (ML) SILT (ML) 1.10 m: Material density becomes 'firm' 1.15 </td <td></td> <td></td> <td>th</td> <td></td> <td></td> <td>Ч</td>			th			Ч
0.0 SAND (SM) 0.0 SILT (ML) and SAND (SP) Fine to medium sand, silty, poorly graded, loose, max particle 1 1 1 SILT (ML) and SAND (SP) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, soft, light brown with orange mottling, max particle size = 30 mm, sub-angular, no odour, moist, homogeneous, no cementation [FILL] 0.0 SAND (SW) 0.0 SAND (SW) 0.0 SAND (SW) 0.0 IFILL] 0.1 SLT (ML) and SAND (SP) 1.0 IFILL] 0.1 SLT (ML) 0.2 0.5 0.4 IFILL] 0.5 SAND (SW) 0.6 0.5 0.7 SAND (SW) 0.8 Sondy, fine to medium sand, trace fine gravel, low plastic, soft of firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation 1.10 IfILL 1.10 SILT (ML)			Jep			Jepi
 SAND (SM) SAND (SM) Fine to medium sand, silty, poorly graded, loose, max particle = 1 mm, dark brown, moist, homogeneous, no cementation [TOPSOIL] SILT (ML) and SAND (SP) Fine to medium sand, trace fine gravel, low plastic, soft, brown, no odour, moist, homogeneous, no cementation of dilatancy, trace charcoal FIL1 SAND (SW) Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation FIL1 SAND (SW) Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation FIL1 SAND (SP) and SILT (ML) Fine to medium sand, trace fine gravel, low plastic, soft, fifth to modur, moist, homogeneous, no cementation FIL1 SAND (SP) and SILT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft to firm, grey to light brown with orange motiling, no odour, moist, homogeneous, no cementation Fine to coarse sand, trace fine to coarse gravel, low plastic, low plastic, loose to compact, max particle size = 10 mm, brown to dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] T.15 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, loose to compact, max particle size = 10 mm, brown to dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] T.15 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, loose to compact, max particle size = 30 mm, porly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange motiling, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] T.16 	0 0			0 0		
 Interview of the tore of the tore	0.0	SAND (SM)		0.0	SILT (ML) and SAND (SP)	
ITOPSOIL motifing, max particle size = 30 mm, sub-angular, no odour, moist, homogeneous, no cementation, no dilatancy, trace charcoal 0.5 SAND (SW) 3 Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation 0.5 IFILL1 SAND (SW) Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation 0.5 IFILL1 Sandy, fine to medium sand, trace fine gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation 1.0 IFILL1 Sandy, fine to medium sand, trace fine gravel, low plastic, soft to firm, grey to light brown with orange motifing, no odour, moist, homogeneous, no cementation 1.10 1.10 I.10 m: Material density becomes 'firm' SiLT (ML) SiLT (ML) SiLT (ML) and SAND (SW) Sondy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation 1.10 IFILL1 SiLT (ML) SiLT (ML) and SAND (SW) Fine to medium sand, trace fine to coarse gravel, low plastic, loose to compact, max particle size = 10 mm, brown to dark brown, no odour, moist, homogeneous, no cementation IFILL1 SiLT (ML) SiLT (ML) and SAND (SP) Medium to coarse sand, trace fine to coars		= 1 mm, dark brown, moist, homogeneous, no cementation		_	poorly graded sand, low plastic, soft, light brown with orange	
SILT (ML) and SAND (SF) Fine to medium sand, trace fine gravel, low plastic, soft, brown, no odour, moist, homogeneous, no cementation, no dilatancy, trace charcoal Indist, nonogeneous, no cementation - 0.5 [FILL] SAND (SW) 0.5 Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation 0.5 IIII - 1.0 SiLT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft dark brown, no odour, moist, homogeneous, no cementation 1.0 - 1.0 SiLT (ML) SanD (SP) and SILT (ML) - 1.0 Fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation 1.10 m: Material density becomes 'firm' - 1.5 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, loose to compact, max particle size = 10 mm, brown to dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] - 1.5 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, loose to compact, max particle size = 10 mm, brown to dark brown, no odour, moist, homogeneous, no cementation [COLLUVIUM] - 1.5 SiLT (ML) SiLT (ML) - 1.5 Sandy, fine to medium sand, trace charcoal and roots [FILL] - 1.5 SiLT (ML) SiLT (ML) - 1.5	-			-	mottling, max particle size = 30 mm, sub-angular, no odour,	
brown, no odour, moist, homogeneous, no cementation, no dilatancy, trace charcoal 0.5 - 0.5 [FILL] SAND (SW) 0.5 Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation 0.5 IFILL] SilT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation 1.0 - 1.0 SilT (ML) SILT (ML) Sandy, fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation 1.0 SilT (ML) Silt (ML) Silt (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft dark brown, no odour, moist, homogeneous, no cementation 1.10 - 1.5 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation 1.15 - 1.5 Silt (ML) Silt (ML) Silt (ML) - 1.5 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, loose to compact, max particle size = 10 mm, brown to dark brown, no odour, moist, homogeneous, no cementation - 1.5 Silt (ML) Silt (ML) and SAND (SP) - 1.6 Silt	-	SILT (ML) and SAND (SP) Fine to medium sand, trace fine gravel, low plastic, soft.		-	FILL	
dilatancy, trace charcoal FILL] SAND (SW) Some fine gravel, trace silt, well graded, loose, max particle = 6 fm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation [FILL] SILT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy [FILL] SAND (SP) and SILT (ML) Fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] SILT (ML) Silt (ML) Silt (ML) cmentation, slow dilatancy, trace charcoal and roots [FILL] Silt (ML) cmentation, slow dilatancy, trace charcoal and roots [FILL] Silt (ML) cmentation, slow dilatancy, trace charcoal and roots [FILL] - 1.5 Silt, (ML) cmentation, slow dilatancy, trace charcoal and roots [FILL] - 1.5 cmentation, slow dilatancy, trace charcoal and roots [FILL] - 1.5 cmentation, slow dilatancy, trace charcoal		brown, no odour, moist, homogeneous, no cementation, no		-		
SAND (SW) SAND (SW) Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation [FILL] SILT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy [FILL] SAND (SP) and SILT (ML) Sandy, fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] SILT (ML) Sardy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] II.10 SILT (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] II.12	- 0.5	dilatancy, trace charcoal		- 0.5		
Some fine gravel, trace silt, well graded, loose, max particle = 6 mm, sub-rounded, grey and black peppered appearance, moist, homogeneous, no cementation [FILL] SILT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy [FILL] SAND (SP) and SILT (ML) - to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] I.10 Interval density becomes 'firm' SILT (ML) and SAND (SW) Fine to coarse sand, trace fine gravel, trace clay, well graded sand, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] I.15 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] I.15 COLLUVIUM/ SILT (ML) and SAND (SP) Medium to coarse gravel, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM / Weathered GLACIOMARINE]	0.0	SAND (SW)		0.0		
 In the sub-order of the sub-ordero of the sub-order of the sub-order of the sub-order of the su		Some fine gravel, trace silt, well graded, loose, max particle		-		
I[FILL] SILT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy I[FILL] SAND (SP) and SILT (ML) Fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] SILT (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] - 1.5 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] - 1.5 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation [COLLUVIUM] - 1.5 Silt T (ML) - 1.5 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation [COLLUVIUM] - 1.5 - 1.6 - 1.7 - 1.8 - 1.9 - 1.5 - 1.6 - 1.7 - 1.8<	-	moist, homogeneous, no cementation		-		
 SiLT (ML) Sandy, fine to medium sand, trace fine gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy [FILL] SAND (SP) and SILT (ML) Fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] SiLT (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] [FILL] Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] [FILL] [COLLUVIUM] SILT (ML) and SAND (SP) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM / Weathered GLACIOMARINE] 	-			-		
 soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy [FILL] SAND (SP) and SILT (ML) Fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] SILT (ML) SILT (ML) Silt T (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation [FILL] I.5 Sandy, fine to medium sand, trace charcoal and roots [FILL] [FILL] SILT (ML) Silt T (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation [COLLUVIUM] SILT (ML) and SAND (SP) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM / Weathered GLACIOMARINE] 	_	SILI (IVIL) Sandy, fine to medium sand, trace fine gravel. low plastic.		L		
 1.0 cementation, slow dilatancy [FILL] SAND (SP) and SILT (ML) Fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] SILT (ML) SILT (ML) Silt T (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] I.5 SILT (ML) SILT (ML) SILT (ML) SILT (ML) Silt T (ML) Soury, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation [COLLUVIUM] Silt T (ML) and SAND (SP) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM / Weathered GLACIOMARINE] 	_ 10	soft, dark brown, no odour, moist, homogeneous, no		- 10		
 SAND (SP) and SILT (ML) Fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] SILT (ML) Silt (ML)<td>1.0</td><td>cementation, slow dilatancy</td><td></td><td>1.0</td><td></td><td></td>	1.0	cementation, slow dilatancy		1.0		
 Fine to medium sand, trace clay, low plastic, soft to firm, grey to light brown with orange mottling, no odour, moist, homogeneous, no cementation [FILL] SILT (ML) SILT (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] I.5 SILT (ML) Substite (Soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] SILT (ML) SILT (ML) SILT (ML) Substite (Soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] SILT (ML) SILT		SAND (SP) and SILT (ML)		-	1.10 m: Material density becomes 'firm'	
 Fine to coarse sand, trace fine gravel, trace clay, well graded sand, low plastic, loose to compact, max particle size = 10 mm, brown to dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] To graded sand, low plastic, loose to compact, max particle size = 10 mm, brown to dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] To graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM] 		Fine to medium sand, trace clay, low plastic, soft to firm, grey		-	SILT (ML) and SAND (SW)	-
[FILL] SILT (ML) SILT (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots - 1.5 [FILL] - 1.5 Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation - 1.5 [FILL] - 1.5 SILT (ML) and SAND (SP) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM] [COLLUVIUM]	_	homogeneous, no cementation		_	Fine to coarse sand, trace fine gravel, trace clay, well graded	
 SILT (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low plastic, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] [FILL] [FILL] [COLLUVIUM] SILT (ML) and SAND (SP) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM] 	_			_	sand, low plastic, loose to compact, max particle size = 10 mm,	
 plastić, soft, dark brown, no odour, moist, homogeneous, no cementation, slow dilatancy, trace charcoal and roots [FILL] [FILL] [FILL] [FILL] [FILL] [COLLUVIUM] SILT (ML) and SAND (SP) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM] 	15	SILT (ML) Sandy, fine to medium sand, trace fine to coarse gravel, low		_ 1.5	cementation	
Cementation, slow dilatancy, trace charcoal and roots [FILL] Image: Single (ML) and SAND (SF) Medium to coarse sand, trace fine to coarse gravel, trace clay, poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM / Weathered GLACIOMARINE]	1.5	plastic, soft, dark brown, no odour, moist, homogeneous, no		- 1.5		
poorly graded sand, low plastic, firm, max particle size = 30 mm, light brown with orange mottling, no odour, moist, homogeneous, no cementation [COLLUVIUM / Weathered GLACIOMARINE]	-	cementation, slow dilatancy, trace charcoal and roots	_	-	Medium to coarse sand, trace fine to coarse gravel, trace clay,	
homogeneous, no cementation	-	[···]	T	-	poorly graded sand, low plastic, firm, max particle size = 30	
	-			-	homogeneous, no cementation	
	_			_	[COLLUVIUM / Weathered GLACIOMARINE]	
- 20	20			- 20		
	2.0			2.0		
	-			-		
	-			-		
	-			-		
- Medium to coarse sand, poorly graded, compact, max	-	Medium to coarse sand, poorly graded, compact, max		-		
particle size = 1 mm, grey and light brown with trace orange 2.40 m: EOH - Refusal as material is too stiff to auger through.	- 25	particle size = 1 mm, grey and light brown with trace orange		- 25	2.40 m: EOH - Refusal as material is too stiff to auger through.	
cementation	2.0	cementation		2.0		
[Weathered GLACIOMARINE]	-	[Weathered GLACIOMARINE]		-		
L 2.50 m: EOH - Refusal as material is too stiff to auger	-	2.50 m: EOH - Refusal as material is too stiff to auger through		-		
	-			-		
	-			L		
- 30	- 30			- 30		
	0.0			0.0		
BGC ENGINEERING INC.		BGC ENGINEERING INC.				
AN APPLIED EARTH SCIENCES COMPANY Client: District of North Vancouver		AN APPLIED EARTH SCIENCES COMPANY			Client: District of North Vancouver	
BGC Vancouver, BC Phone: (604) 684 5900	B(·	Vancouver, BC Phone: (604) 684 5900				

DNV Landslide Risk Assessment 1345 Lennox Street 11/04/05 Heavy rain, heavy rain for several days prior to visit.





500 - 1045 Howe Street Vancouver, BC Canada V6Z 2A9

THICKNESS OF LOOSE MATERIALS	<1 m	1-2 m	2-3 m	>3 m
FENCE LINE		$\mathbf{\nabla}$		
10 m DOWNSLOPE FROM SLOPE CREST			$\mathbf{\nabla}$	

SLOPE BELOW FENCE/ RETAINING STRUCTURE

SLOPE = 37 CRACKS SLIDES EROSION

OBSERVATIONS: Surficial erosion and slumping on slope below retaining walls.

TREES BELOW FENCE/ RETAINING STRUCTURE		STRAIGHT	PISTOL-BUTT	LEANING	
PERCENT CONIFER:	30%	$\mathbf{\nabla}$	$\mathbf{\nabla}$		
OBSERVATIONS: Some large conifers with pistol butts observed.					

RETAINING STRUCTURES		YES 🗹	NO	HEIGHT= 0.3 – 1.5 m			
ТҮРЕ	BLOCKS	CONCRETE	TIMBER CRIB	OTHER:			
			\checkmark				
DEFORMATION	UNDEFORMED	CRACKED	SETTLED	BULGING			
	\checkmark						
OBSERVATIONS: 4 terraces ranging in height; walls increase with height down slope. Total height = 5 m. Top wall (0.30 m high) is slightly tilted.							

DEFORMATION IN BACKYARD	YES 🗹	NO					
LOCATION: Backyard lawn.	WALLS AH01						
DESCRIPTION: Lawn is hummocky and there that may have been from a septic tank. Appear crest of slope.	AH02 HOUSE N						
POOLS	YES 🗹	NO					
DESCRIPTION: Hot tub on elevated deck							
SEEPAGE/ SPRINGS IN OR							
BELOW FILL	YES NO						
OBSERVATIONS: None observed.		HOUSE DISTANCE TO CREST = 10.5 m					
	BACKY	ARD 1	⁄2 RC	OOF FULL ROOF FRONT YARD STREET			
RECEIVES SURFACE RUNOFF FRO	SM ⊻		\checkmark				
OBSERVATIONS: Backyard lawn is very wet, poorly drained.							
OWNERS COMMENTS: DNV reports that this	property is not co	nnected to th	e sto	torm sewer system.			

GENERAL OBSERVATIONS

• Sprinkler system in back yard.

• Two crests, one beneath the house and the second in the back yard. All auger holes are referenced to the second crest.

• Surficial slumping and erosion down slope; silty colluvium, potentially an old slide path on south side of slope.



Figure 1. 1345 Lennox Street – Front of the house

Figure 2. 1345 Lennox Street – View looking NW along timber crib retaining wall



Figure 3. 1345 Lennox Street – View looking NW along property line



Figure 4. 1345 Lennox Street – View of backyard looking SE

INSPECTION LOCATION # 1345 Lennox

Project : DNV Landslide Risk Assessment

Page 1 of 1 Project No. : 0404-002-01

Location : 1345 Lennox

Drill Method : Dutch Hand Auger Inspection Date : 04 Nov 05 Logged by : SF/JB

Reviewed by : MJP

	AUGERHOLE: BGC05-1345LEN-AH01 on Slope Crest			AUGERHOLE: BGC05-1345LEN-AH02 10 m Downslope	
	FINAL DEPTH OF AUGERHOLE: 1.70 m	e		FINAL DEPTH OF AUGERHOLE: 2.30 m	e
	THICKNESS OF LOOSE MATERIALS: 1.15 m	Lab		THICKNESS OF LOOSE MATERIALS: 2.30 m	Tab
Ê		Ŀ.	Ê		e_
) h		/at	ц Ч		/ate
ept	Lithologic Description	\leq	ept	Lithologic Description	1
ŏ		Ĕ	ŏ	Entrologio Boschiption	Ĕ
		bt			bth
		De			De
-0.0-			-0 0-		
0.0	SILT (ML)		0.0	ORGANICS	r
-	I race medium to coarse sand, trace clay, low plasticity, firm,		-	Silt, moist, brown	I
-	homogeneous no cementation no dilatancy		_	Trace clay, trace fine to coarse sand, trace fine to medium	
	[FILL]			gravel, gravel sized silt clasts, low plastic, firm, light grey	
-			-	brown, moist, homogeneous, slow dilatancy, trace charcoal	
-			-	and organics	
0.5			0.5		
- 0.5			- 0.5		
-			-	0.60 m: Minor and Janaa	
_			_		
-			-		
_	SILT (ML)		_		
	Some fine sand, trace clay, low plastic, firm, grey with trace				
- 1.0	orange mottling, moist, homogeneous, no cementation, slow		- 1.0		
-	dilatancy		_		
		-			
-	Fine to medium sand some silt loose to compact grev wet		-	1.20 m: Some partially decomposed wood	
-	homogeneous, no cementation		-		
	[Weathered GLACIOMARINE]			1.30 m: Trace charcoal and organics	
-			-	1.40 m: Sand content increases from 'trace' to 'some'.	
- 1.5		-	- 1.5		
	SILI (IVIL) Trace fine sand trace clay, low plastic, firm to stiff, grey with	Í			
_	orange brown mottling moist homogeneous no	-	Γ		_
-	cementation, no dilatancy, trace organics	Į. <u>▼</u>	-	SILT (ML)	
_	[Weathered GLACIOMARINE]		_	brown moist homogeneous organics	
	SAND (SW)			[COLLUVIUM]	
-	Fine to coarse sand, trace fine gravel, trace slit, trace clay, well graded loose to compact, may particle size = 5 mm		-	SAND (SP)	-
- 2.0	sub-angular, grev, wet, homogeneous		- 2.0	Fine to medium sand, fine gravel sized sand clasts, poorly	
-	[Weathered GLACIOMARINE]			graded, loose to compact, light yellow brown with orange brown	
-	1.70 m: EOH - Refusal as material is too stiff to auger		-	mottling, moist, homogeneous	
-	through		-		
_			Γ	2.30 m: EOH - Refusal as material is too stiff to auger through.	
-			-		
- 25			- 25		
2.0			2.0		
-			-		
-			_		
-			-		
-			-		
- 3 0			- 3.0		
5.0			5.0		
				-	
	BGC ENGINEERING INC.				
	AN APPLIED EARTH SCIENCES COMPANY		1	Client: District of North Vancouver	
R			1		
	✓I Vancouver, BC Phone: (604) 684 5900		1		