Interim Waste Rock Storage Plan

Doris North Gold Mine
Nunavut

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Executive Summary

All waste rock brought to surface through the development of the underground mine will be placed into storage in a temporary waste rock pile to be constructed immediately to the north of the ore stockpile and portal access road. The pile will be constructed within a 0.5 m high perimeter berm designed to contain and direct all runoff from the pile into a dedicated runoff collection pond. The berm will also direct clean runoff away from the waste rock pile. The water collected in the runoff collection pond will be analyzed as needed and if found to be contaminated pumped to the tailings impoundment area via the mill pump box. Only runoff that meets acceptable criteria for discharge will be released onto the tundra from this runoff collection pond.

1.0 Waste Rock Management Strategy

MHBL does not plan to use any of the underground waste rock for construction of the site roads, building pads, laydown areas, tailings dams or other site infrastructure to ensure that only non-acid generating rock is used in such construction. Under the mining plan it is expected that all development waste rock will be used internally as backfill within the mine workings. All of the underground waste rock brought to surface will be placed into the temporary waste rock stockpile to be returned into the underground mine during the mine life. A schedule of mine waste rock and ore production over the mine life (8 months of development and 24 months of production) is presented in Table 1. The table shows on a month by month basis the predicted tonnage of underground waste rock generated, the amount of waste rock moved from the mine to the temporary stockpile, the amount of waste rock returned into the underground mine as fill and the net stockpile balance. This production schedule shows the stockpile growing in size to reach a maximum of 137,041 tonnes in month 13 (5 months after production starts), then dropping to a zero balance by the end of the projected mine life.

Under the current production schedule (based on all required permits and authorizations being issued in 2007), the development of the underground mine would commence in January of 2008 with mill production to follow about 8 months later. Consequently the temporary surface waste rock stockpile will reach its maximum in February of 2009 and then begin to diminish as waste rock is returned into the underground mine as backfill. The pile is projected to be fully gone by the end of August 2010 with the mill ceasing production 4 months later.

Table 1: Doris North – Backfill and Waste Rock Stockpile Schedule (Oct 2006)

Month*	Tonnage Mined		Ore Tonnage Source			Fill Requirement**		Stockpile	Ending
	Ore	Waste	Dev	C&F	Open	C&F Stope	Open	Movement	Stockpile
1	0	6,387	0	0	0	0	0	6,387	6,387
2	0	12,230	0	0	0	0	0	12,230	18,617
3	0	12,638	0	0	0	0	0	12,638	31,255
4	0	13,804	0	0	0	0	0	13,804	45,059
5	0	12,136	0	0	0	0	0	12,136	57,195
6	1,738	11,817	1,738	0	0	0	0	11,817	69,012
7	5,839	16,036	5,839	0	0	0	0	16,036	85,048
8	11,430	17,440	7,182	4,248	0	1,159	0	16,281	101,329
9	12,958	16,214	5,907	2,747	4,304	6,724	0	9,489	110,818
10	19,520	14,580	3,688	5,724	10,107	6,619	0	7,961	118,779
11	21,742	13,738	5,407	5,613	10,722	7,754	0	5,984	124,763
12	18,328	12,994	3,734	4,909	9,685	6,201	0	6,793	131,556
13	21,789	12,363	5,165	5,902	10,722	6,878	0	5,485	137,041
14	19,567	10,970	3,998	11,024	4,545	6,424	21,779	-17,233	119,808
15	21,557	10,681	5,559	7,068	8,930	10,793	0	-112	119,696
16	21,767	663	4,591	0	17,176	7,377	0	-6,715	112,981
17	24,700	0	6,403	467	17,831	3,706	0	-3,706	109,275
18	21,795	0	1,759	2,206	17,831	3,372	0	-3,372	105,904
19	22,887	0	0	6,846	16,041	5,739	0	-5,739	100,165
20	17,653	0	0	6,935	10,718	5,736	0	-5,736	94,428
21	20,506	0	0	10,134	10,372	4,623	0	-4,623	89,805
22	18,487	0	0	8,756	9,731	6,756	0	-6,756	83,050
23	18,654	0	0	1,975	16,679	5,837	0	-5,837	77,212
24	17,086	0	0	4,153	12,932	1,316	0	-1,316	75,896
25	22,002	0	0	11,517	10,485	2,769	0	-2,769	73,127
26	15,498	0	0	15,498	0	7,678	0	-7,678	65,449
27	16,088	0	0	16,088	0	10,332	0	-10,332	55,117
28	19,303	0	0	19,303	0	10,725	0	-10,725	44,392
29	19,793	0	0	19,793	0	12,869	0	-12,869	31,523
30	17,245	0	0	17,245	0	13,195	0	-13,195	18,327
31	10,246	0	0	10,246	0	11,497	0	-11,497	6,831
32	0	0	0	0	0	6,831	0	-6,831	0
Total	**458,177**	**194,689**	**60,969**	**198,397**	**198,812**	**172,910**	**21,779**		

* Month 1 is the start of the main ramp development
** Fill placed takes into consideration swell factor from SG 2.7 to 1.8 (solid to broken rock)
C&F: Cut and Fill Stoping (mining method requiring fill)
Open: Open Stoping (mining method typically requiring no fill)

1.1 Source and Type of Waste Rock to be Mined

The total waste rock generated through mining of the Doris North Hinge Zone is expected to be 194,689 tonnes (~73,500 m^3 at an average specific gravity of 2.65). Approximately 7% of this (13,600 tonnes) is expected to be over break within the production stopes, and will end being milled as ore. This over break will predominantly consist of Mafic Volcanic – D1 (Dolomite/Sericite Alteration).

The remaining 181,089 tonnes of waste rock is expected to come from the development of the main access ramp from surface, the internal ore access drifting and ramps, and the raises. The breakdown of this waste rock by lithological unit is as follows:

Franklin Diabase Dike Material: 50,000 tonnes (18,900 m^3) – This material will predominantly come from the west portion of the main access ramp, although some of the internal production level access ramps also intersect the Diabase dike along the Fe Tholeiites/Diabase contact, which are included in this number;

Mg Tholeiitic Basalts: 1,100 tonnes (420 m^3) – A small amount of Mg Tholeiite Basalt will be mined along the main access ramp in passing from the Diabase dike material into the Fe Tholeiite Basalts. The Mg Tholeiitic Basalts include the altered pillow basalt, altered gabbro, altered wall rock and altered amygdaloidal basalt rock types described in the ABA (Acid Base Accounting database;

Fe Tholeiitic Basalts: 129,989 tonnes (49,052 m^3) – The Fe Tholeiite Basalts will be encountered at the east end of the main access ramp, and most of the production level and internal ramp development waste extracted will come from this material. The Fe Tholeiitic Basalts include all of the Mafic Volcanic – Pillow flow, Mafic Volcanic – Dolomite Sericite Alteration, Mafic Volcanic Moderately to Weakly Foliated, and Mafic Volcanic – Finely banded to laminated, massive basalt, pillowed to massive basalt, gabbro, underground gabbro, and unaltered wall rock types described in the ABA database.

1.2 Acid Generating Potential of the Waste Rock from the UG Mine

Significant test work was completed to determine the acid rock generating and metal leaching potential of the rock to be disturbed by underground mining. Almost all of the rock outside the mineralized zones has low acid generating potential, and is not expected to be a source of acid rock drainage or other metal contaminants.

Acid rock drainage (ARD) can occur when sulphide minerals in rock are exposed to air and water. It can cause environmental degradation if allowed to enter natural water bodies. Metal leaching can also occur under near neutral conditions from rock containing soluble metals. A total of 163 samples of drill core from the Doris North deposit (Hinge Zone) were tested by acid-base accounting (ABA) analysis. This ABA database is presented in a summary Table and graphically in Appendix 1.

The following criteria are used to assess ARD potential:

AP – Acid Potential reported as kg of $CaCO_3$ equivalent per tonne of sample. AP is a measure of the maximum potential acidity that the sample can generate if all of the contained sulphide minerals oxidize and form acid. AP is a calculated value based on the total sulphur or total sulphide sulphur concentration within the sample. AP = wt% Sulphide Sulphur x 31.25. The Total Sulphur and the Sulphide Sulphur content in the

sample are determined by analysis. The factor 31.25 is based on the acidity generated as derived from the general stoichiometry for the complete oxidation of pyrite and the subsequent hydrolysis of the Fe^{3+} generated. This factor therefore relates the total acidity produced with the equivalent alkalinity as $CaCO_3$ required for neutralization.

NP – Neutralization Potential reported as kg of $CaCO_3$ equivalent per tonne of sample. NP is a measure of the neutralizing potential of the sample. NP is a measured value determined by measuring the amount of acid that the sample can neutralize under standardized laboratory conditions.

NNP – Net Neutralization Potential reported as kg of $CaCO_3$ equivalent per tonne of sample. NNP = NP-AP. NNP is a measure of the balance between the acid generating and acid consuming potential of the sample. Typically if the NNP is greater than +20 kg $CaCO_3$ equivalent per tonne, then the sample is unlikely to be a net source of acid generation. Conversely, a NNP equal to zero or less, indicates that the sample is likely be a net source of acid generation. NNP values between 0 and +20 kg $CaCO_3$ equivalent per tonne of sample indicate uncertain acid generating potential, requiring better understanding of the proportion of the neutralizing minerals that are readily available to neutralize acidity and at what rate.

NPR – Neutralization Potential Ratio. NPR = NP/AP. NPR is the ratio of Neutralizing Potential to Acid Generating Potential for the sample. Under DIAND Guidelines, the following criteria are suggested for the screening of the ARD potential of a sample:

Potential for ARD	***Initial Screening Criteria***	***Comments***
Likely	*NPR<1*	*Likely ARD generating unless sulphide minerals are non-reactive*
Possibly	*1<NPR<3*	*Possibly ARD generating if NP is insufficiently reactive or is depleted at a faster rate than sulphides*
Low	*NPR > 3*	*Not likely to be acid generating*

In Summary:

- The single sample of Franklin Diabase Dike material indicates that this material is non-acid generating (NPR (neutralizing potential ratio (NPR) of 17.6, Net Neutralization Potential (NNP) of 16.5 kg $CaCO_3$/tonne equivalent, 0.03 wt% Sulphide Sulphur;

- Four of the five samples from the Mg Tholeiite rock types (altered wall rock) were classified as non-acid generating (NPR >3), with one sample classified as having uncertain acid generating (NPR = 2.4);
- Twelve of thirteen samples of Gabbro (Fe Tholeiite group) were classified as being non-acid generating (NPR >3), with one sample classified as having uncertain acid generating (NPR = 1.3);
- All five samples of unaltered wall rock (Fe Tholeiite group) were classified as non acid generating (NPR.3);
- Sixty four of seventy three samples (87%) of Mafic Volcanic rock (Fe Tholeiite group) were classified as being non-acid generating (NPR >3), with the other nine samples all being classified as having uncertain acid generating (1<NPR>3);
- Twenty five of sixty five samples (39%) of mineralized or quartz vein material (Fe Tholeiite group) were classified as being non-acid generating (NPR >3), twenty one samples (32%) were classified as having uncertain acid generating (NPR = 1.3) and nineteen samples (29%) were classified as likely to be acid generating (1<NPR);

In general, rock excavated for the underground access ramp outside the mineralized zone will have low acid generating potential. At Doris North high or uncertain acid generating potential is associated with the mineralized quartz veining or mineralized material immediately adjacent to the quartz veining. This material is typical of ore grade and will end up being processed through the mill if mined. The surrounding country rock is typically non-acid generating with NPR values well in excess of 3.0. Consequently, bedrock material disturbed by development mining to reach the ore zones is likely to be non-acid generating. There is some mineralized material within the strong Dolomitic sericitic alteration zone surrounding the quartz veining that has low or uncertain acid generating potential.

2.0 Use of Non-Acid Generating Underground Waste Rock During Mine Life

In the event that during the mine life, MHBL wishes to use some of the underground waste rock for use on surface for some unspecified purpose such as cover material in the non-hazardous landfill area then the following procedures will be used to demonstrate that such rock is suitable for such use:

- Only waste rock that has been demonstrated through confirmatory test work to be non-acid generating and non-metal leaching will be allowed for use on surface;
- Acid Base Accounting test work will be used to demonstrate that underground waste rock is suitable for use on surface. Typically one ABA test for every 25 tonnes of rock to be used will be required to meet this requirement assuming that the 25 tonnes is all from one rock lithology and location; and

- The NPR value derived from the ABA test must exceed 4.0 and the NNP must be greater than +20 Kg/tonne $CaCO_3$ equivalent to meet the threshold of being classified as non-acid generating for this purpose.

Appendix 1

Summary of Waste Rock ABA Database

Rock Type	Sample ID	Drill Hole #	Section	Zone	Rock Unit	Hole From (m)	Interval To (m)	Source	Paste pH	CO2 Inorg. (wt.%)	CaCO3 Equiv. (kg CaCO3/Tonne)	Total Sulphur (wt.%)	Sulphate sulphur (wt.%)	Sulphide Sulphur* (wt.%)	Maximum Potential Acidity** (kg CaCO3/Tonne)	Neutralization Potential (kg caCO3/Tonne)	Net Neutraliztion Potential (kg CaCO3/Tonne)	NPR NP/MPA
Basalt - Unaltered					Fe Tholeiites			2	8.7	5.08	115.3	0.11	**0.01**	0.11	3.4	162.9	159.5	47.4
Gabbro - M		95TDD65	15620-5350	Hinge	Fe Tholeiites	398.75	399.23	3	9.3			0.07			2.2	60.0	57.8	27.4
Gabbro - M		95TDD65	15620-5350	Hinge	Fe Tholeiites	405.62	406.22	3	9.4			0.03			0.9	31.0	30.1	33.1
Gabbro - M		96TDM115	15360	Hinge	Fe Tholeiites	17.64	17.97	3	9.8			0.10			3.1	68.0	64.9	21.8
Gabbro - M		96TDM115	15360	Hinge	Fe Tholeiites	24.97	25.28	3	9.7			0.10			3.1	51.0	47.9	16.3
Gabbro - M		96TDM115	15360	Hinge	Fe Tholeiites	25.28	25.55	3	9.8			0.15			4.7	108.0	103.3	23.0
Gabbro - M		96TDM98	15300	Hinge	Fe Tholeiites	77.26	77.53	3	9.4			0.09			2.8	322.0	319.2	114.5
Gabbro - Underground					Fe Tholeiites			2	9.0	3.53	80.1	0.06	**0.01**	0.06	1.9	117.8	115.9	62.8
Gabbro - Underground					Fe Tholeiites			2	9.3	11.12	252.4	0.11	**0.01**	0.11	3.4	225.6	222.2	65.6
Gabbro - Underground					Fe Tholeiites			2	9.1	0.79	17.9	0.03	**0.01**	0.03	0.9	26.7	25.8	28.5
Gabbro - Underground					Fe Tholeiites			2	9.1	1.35	30.6	0.08	**0.01**	0.08	2.5	42.1	39.6	16.8
Gabbro - Underground					Fe Tholeiites			2	8.3	5.71	129.6	1.85	**0.01**	1.85	57.8	77.8	20.0	1.3
Gabbro - Underground					Fe Tholeiites			2	9.0	1.58	35.9	0.10	**0.01**	0.10	3.1	45.9	42.8	14.7
Gabbro - Underground					Fe Tholeiites			2	9.0	2.67	59.2	0.11	**0.01**	0.11	3.4	68.1	64.7	19.8
Mafic Volcanic - D1		96TDM104	15270	Hinge	Fe Tholeiites	23.87	24.39	3	9.5			0.36			11.3	347.0	335.8	30.8
Mafic Volcanic - D1		96TDM106	15350	Hinge	Fe Tholeiites	54.62	54.90	3	9.4			0.13			4.1	247.0	242.9	60.8
Mafic Volcanic - D1		96TDM106	15350	Hinge	Fe Tholeiites	81.28	81.65	3	9.4			0.11			3.4	317.0	313.6	92.2
Mafic Volcanic - D1		96TDM108	15390	Hinge	Fe Tholeiites	49.68	49.95	3	9.5			0.10			3.1	346.0	342.9	110.7
Mafic Volcanic - D1		96TDM110	15490	Hinge	Fe Tholeiites	59.63	57.50	3	9.6			0.15			4.7	296.0	291.3	63.1
Mafic Volcanic - D1		96TDM97	15290	Hinge	Fe Tholeiites	30.07	30.67	3	9.6			0.15			4.7	323.0	318.3	68.9
Mafic Volcanic - D2		96TDM102	15260	Hinge	Fe Tholeiites	13.56	14.09	3	9.2			2.61			81.6	308.0	226.4	3.8
Mafic Volcanic - D2		96TDM105	15310	Hinge	Fe Tholeiites	63.91	64.40	3	8.7			2.47			77.2	253.0	175.8	3.3
Mafic Volcanic - D2		96TDM105	15310	Hinge	Fe Tholeiites	64.49	65.10	3	8.9			3.43			107.2	311.0	203.8	2.9
Mafic Volcanic - D2		96TDM112	15590	Hinge	Fe Tholeiites	11.00	11.56	3	8.9			4.20			131.3	310.0	178.8	2.4
Mafic Volcanic - D2		96TDM98	15300	Hinge	Fe Tholeiites	94.08	94.70	3	8.8			3.36			105.0	289.0	184.0	2.8
Mafic Volcanic - D2		96TDM99A	15290	Hinge	Fe Tholeiites	55.62	56.08	3	9.3			3.16			98.8	327.0	228.3	3.3
Mafic Volcanic - F		95TDD17	15240	Hinge	Fe Tholeiites	105.22	105.68	3	8.8			0.21			6.6	41.0	34.4	6.2
Mafic Volcanic - F		95TDD17	15240	Hinge	Fe Tholeiites	107.65	108.51	3	8.8			0.06			1.9	87.0	85.1	46.4
Mafic Volcanic - F		95TDD21	15280	Hinge	Fe Tholeiites	90.09	91.36	3	8.7			0.09			2.8	123.0	120.2	43.7
Mafic Volcanic - F		95TDD21	15280	Hinge	Fe Tholeiites	92.47	92.81	3	8.8			0.07			2.2	91.0	88.8	41.6
Mafic Volcanic - F		95TDD65	15620	Hinge	Fe Tholeiites	231.02	231.50	3	8.7			0.02			0.6	40.0	39.4	64.0
Mafic Volcanic - F		96TDM100	15310	Hinge	Fe Tholeiites	26.87	27.16	3	8.8			0.16			5.0	86.0	81.0	17.2
Mafic Volcanic - F		96TDM102	15260	Hinge	Fe Tholeiites	82.00	82.26	3	8.8			0.07			2.2	54.0	51.8	24.7
Mafic Volcanic - F		96TDM106	15350	Hinge	Fe Tholeiites	21.05	21.29	3	8.8			0.02			0.6	66.0	65.4	105.6
Mafic Volcanic - F		96TDM109	15440	Hinge	Fe Tholeiites	33.16	33.47	3	8.8			0.13			4.1	108.0	103.9	26.6
Mafic Volcanic - F		96TDM115	15360	Hinge	Fe Tholeiites	11.96	12.20	3	8.9			0.14			4.4	74.0	69.6	16.9
Mafic Volcanic - F		96TDM99A	15290	Hinge	Fe Tholeiites	69.19	69.50	3	8.7			0.04			1.3	100.0	98.8	80.0
Mafic Volcanic - H		95TDD65	15620	Hinge	Fe Tholeiites	318.57	319.02	3	8.9			0.01			0.3	35.0	34.7	112.0
Mafic Volcanic - L		95TDD54	15690	Hinge	Fe Tholeiites	101.20	101.60	3	8.5			0.11			3.4	233.0	229.6	67.8
Mafic Volcanic - L		95TDD54	15690	Hinge	Fe Tholeiites	104.28	104.57	3	8.5			0.11			3.4	175.0	171.6	50.9
Mafic Volcanic - L		95TDD57	15800	Hinge	Fe Tholeiites	113.47	117.82A	3	8.5			0.05			1.6	179.0	177.4	114.6
Mafic Volcanic - L		95TDD57	15800	Hinge	Fe Tholeiites	122.13	127.20	3	8.5			0.10			3.1	131.0	127.9	41.9
Mafic Volcanic - L		95TDD57	15800	Hinge	Fe Tholeiites	113.47	117.82B	3	8.5			0.12			3.8	184.0	180.3	49.1
Mafic Volcanic - L		96TDM110	15490	Hinge	Fe Tholeiites	90.00	90.30	3	8.6			0.15			4.7	208.0	203.3	44.4
Mafic Volcanic - L		96TDM110	15490	Hinge	Fe Tholeiites	90.30	90.53	3	8.7			0.12			3.8	158.0	154.3	42.1
Mafic Volcanic - L		96TDM97	15290	Hinge	Fe Tholeiites	83.63	83.93	3	8.8			0.04			1.3	144.0	142.8	115.2
Mafic Volcanic - L		96TDM97	15290	Hinge	Fe Tholeiites	83.93	84.20	3	9.0			0.05			1.6	153.0	151.4	97.9
Mafic Volcanic - L		96TDM99A	15290	Hinge	Fe Tholeiites	68.26	68.59	3	8.5			0.04			1.3	143.0	141.8	114.4
Mafic Volcanic - L		96TDM99A	15290	Hinge	Fe Tholeiites	68.59	68.85	3	8.9			0.03			0.9	124.0	123.1	132.3
Mafic Volcanic - Open Pit					Fe Tholeiites			2	8.7	3.76	85.4	0.21	**0.01**	0.21	6.6	137.8	131.2	21.0
Mafic Volcanic - Open Pit					Fe Tholeiites			2	8.9	6.10	138.5	0.02	**0.01**	**0.02**	0.6	172.9	172.3	276.6
Mafic Volcanic - Open Pit					Fe Tholeiites			2	9.3	14.68	333.2	0.80	**0.01**	0.80	25.0	280.7	255.7	11.2
Mafic Volcanic - Open Pit					Fe Tholeiites			2	9.1	14.95	339.4	1.35	**0.01**	1.35	42.2	308.3	266.1	7.3
Mafic Volcanic - Open Pit					Fe Tholeiites			2	9.4	16.99	385.7	1.68	**0.01**	1.68	52.5	337.1	284.6	6.4
Mafic Volcanic - Open Pit					Fe Tholeiites			2	9.0	6.96	158.0	0.09	**0.01**	0.09	2.8	195.5	192.7	69.5
Mafic Volcanic - Open Pit					Fe Tholeiites			2	9.0	16.37	371.6	0.78	**0.01**	0.78	24.4	307.0	282.6	12.6
Mafic Volcanic - Open Pit					Fe Tholeiites			2	9.3	13.60	308.7	1.17	**0.01**	1.17	36.6	358.4	321.8	9.8
Mafic Volcanic - Open Pit					Fe Tholeiites			2	9.4	18.02	409.1	0.33	**0.01**	0.33	10.3	364.7	354.4	35.4
Mafic Volcanic - Open Pit					Fe Tholeiites			2	9.1	6.17	140.1	0.13	**0.01**	0.13	4.1	171.7	167.6	42.3
Mafic Volcanic - P		96TDM104	15270	Hinge	Fe Tholeiites	55.98	56.26	3	8.4			0.11			3.4	242.0	238.6	70.4
Mafic Volcanic - P		96TDM104	15270	Hinge	Fe Tholeiites	58.02	58.27	3	8.6			0.12			3.8	194.0	190.3	51.7
Mafic Volcanic - P		96TDM108	15390	Hinge	Fe Tholeiites	29.55	29.74	3	8.5			0.34			10.6	149.0	138.4	14.0
Mafic Volcanic - P		96TDM110	15490	Hinge	Fe Tholeiites	83.93	84.24	3	8.8			0.13			4.1	164.0	159.9	40.4
Mafic Volcanic - P		96TDM113	15230	Hinge	Fe Tholeiites	59.10	59.70	3	9.2			0.08			2.5	319.0	316.5	127.6
Mafic Volcanic - P		96TDM98	15300	Hinge	Fe Tholeiites	23.00	23.26	3	8.5			0.37			11.6	166.0	154.4	14.4
Mafic Volcanic - Underground					Fe Tholeiites			2	9.4	14.49	328.9	0.16	**0.01**	0.16	5.0	266.9	261.9	53.4
Mafic Volcanic - Underground					Fe Tholeiites			2	9.2	12.18	276.5	1.69	**0.01**	1.69	52.8	243.1	190.3	4.6
Mafic Volcanic - Underground					Fe Tholeiites			2	8.9	11.62	263.8	6.57	**0.01**	6.54	205.3	229.3	24.0	1.1
Mafic Volcanic - Underground					Fe Tholeiites			2	9.1	0.86	19.5	0.17	**0.01**	0.17	5.3	28.2	22.9	5.3
Mafic Volcanic - Underground					Fe Tholeiites			2	8.7	15.31	347.5	0.23	**0.01**	0.23	7.2	297.0	289.8	41.3
Mafic Volcanic - Underground					Fe Tholeiites			2	8.9	14.07	319.4	6.09	**0.01**	6.09	190.3	249.4	59.1	1.3
Mafic Volcanic - Underground					Fe Tholeiites			2	9.2	15.65	355.3	0.14	**0.01**	0.14	4.4	273.2	268.8	62.4
Mafic Volcanic - Underground					Fe Tholeiites			2	9.4	16.23	368.4	0.04	**0.01**	0.04	1.3	264.4	263.2	211.5
Mafic Volcanic - Underground					Fe Tholeiites			2	9.2	15.95	362.1	1.05	**0.01**	1.05	32.8	278.2	245.4	8.5
Mafic Volcanic - Underground					Fe Tholeiites			2	9.3	16.33	370.7	0.20	**0.01**	0.20	6.3	238.1	231.9	38.1
Mafic Volcanic - Underground					Fe Tholeiites			2	9.2	14.91	338.5	0.09	**0.01**	0.09	2.8	234.3	231.5	83.3
Mafic Volcanic - Underground					Fe Tholeiites			2	8.9	16.63	377.5	1.64	**0.01**	1.64	51.3	280.7	229.5	5.5
Mafic Volcanic - Underground					Fe Tholeiites			2	8.9	14.40	362.9	0.35	**0.01**	0.35	10.9	213.0	202.1	19.5
Mafic Volcanic - Underground					Fe Tholeiites			2	8.7	12.31	279.4	0.08	**0.01**	0.08	2.5	242.5	240.0	97.0
Mafic Volcanic - Underground					Fe Tholeiites			2	8.6	12.62	286.5	4.50	**0.01**	4.50	140.6	243.8	103.2	1.7

Rock Type	Sample ID	Drill Hole #	Section	Zone	Rock Unit	Hole From (m)	Interval To (m)	Source	Paste pH	CO2 Inorg. (wt.%)	CaCO3 Equiv. (kg CaCO3/Tonne)	Total Sulphur (wt.%)	Sulphate sulphur (wt.%)	Sulphide Sulphur* (wt.%)	Maximum Potential Acidity** (kg CaCO3/Tonne)	Neutralization Potential (kg caCO3/Tonne)	Net Neutraliztion Potential (kg CaCO3/Tonne)	NPR NP/MPA
Mafic Volcanic - Underground					Fe Tholeiites			2	9.2	1.01	22.9	0.13	**0.01**	0.13	4.1	76.3	72.2	18.8
Mafic Volcanic - Underground					Fe Tholeiites			2	8.9	16.02	363.7	0.06	**0.01**	0.06	1.9	293.8	291.9	156.7
Mafic Volcanic - Underground					Fe Tholeiites			2	8.7	15.82	359.1	2.20	**0.01**	2.20	68.8	256.3	187.6	3.7
Mafic Volcanic - Underground					Fe Tholeiites			2	8.8	15.55	353.0	3.79	**0.01**	3.79	118.4	223.8	105.4	1.9
Mafic Volcanic - Underground					Fe Tholeiites			2	8.6	13.05	296.2	3.35	**0.01**	3.35	104.7	241.3	136.6	2.3
Mafic Volcanic - Underground					Fe Tholeiites			2	8.8	15.21	345.3	0.20	**0.01**	0.20	6.3	230.0	223.8	36.8
Mafic Volcanic - Underground					Fe Tholeiites			2	8.9	12.38	281.0	2.75	**0.01**	2.75	85.9	211.3	125.4	2.5
Mineralization	27	TDD212	15340	Hinge	Fe Tholeiites	72.24	73.24	1	8.6	6.65	151.0	1.50	**0.01**	1.50	46.9	133.1	86.2	2.8
Mineralization	34	TDD216A	15280	Hinge	Fe Tholeiites	165.53	166.53	1	8.1	1.21	27.5	1.18	**0.01**	1.18	36.9	33.6	-3.3	0.9
Mineralization	25	TDD225	15400	Hinge	Fe Tholeiites	48.77	49.80	1	8.6	1.00	22.7	0.27	**0.01**	0.27	8.4	27.4	19.0	3.2
Mineralization	24	TDD230	15450	Hinge	Fe Tholeiites	73.74	74.74	1	8.7	2.58	58.6	0.75	**0.01**	0.75	23.4	58.5	35.1	2.5
Mineralization	5	TDD238			Fe Tholeiites	73.00	74.00	1	8.5	12.26	278.3	0.16	**0.01**	0.16	5.0	260.7	255.7	52.1
Quartz - Open Pit					Fe Tholeiites			2	8.3	23.00	5.2	**0.02**	**0.01**	**0.02**	0.6	6.0	5.4	9.6
Quartz - Open Pit					Fe Tholeiites			2	8.3	1.32	30.0	1.40	**0.01**	1.40	43.8	22.3	-21.5	0.5
Quartz - Open Pit					Fe Tholeiites			2	8.3	0.42	9.5	0.09	**0.01**	0.09	2.8	8.0	5.2	2.8
Quartz - Open Pit					Fe Tholeiites			2	8.0	0.66	15.0	**0.02**	**0.01**	0.02	0.6	12.5	11.9	20.0
Quartz - Open Pit					Fe Tholeiites			2	8.4	**0.05**	1.1	**0.02**	**0.01**	0.02	0.6	2.7	2.1	4.3
Quartz - Open Pit					Fe Tholeiites			2	8.3	0.42	9.5	0.43	**0.01**	0.43	13.4	12.3	-1.1	0.9
Quartz - Open Pit					Fe Tholeiites			2	8.5	0.89	20.2	0.08	**0.01**	0.08	2.5	18.0	15.5	7.2
Quartz - Open Pit					Fe Tholeiites			2	8.4	0.24	5.4	0.07	**0.01**	0.07	2.2	5.0	2.8	2.3
Quartz - Open Pit					Fe Tholeiites			2	8.0	**0.05**	1.1	**0.02**	**0.01**	0.02	0.6	1.3	0.7	2.1
Quartz - Open Pit					Fe Tholeiites			2	8.7	1.32	30.0	0.63	**0.01**	0.63	19.7	24.1	4.4	1.2
Quartz - Open Pit					Fe Tholeiites			2	8.4	0.10	2.3	0.08	**0.01**	0.08	2.5	2.5	0.0	1.0
Quartz - Open Pit					Fe Tholeiites			2	8.3	0.52	11.8	0.02	**0.01**	0.02	0.6	12.3	11.7	19.7
Quartz - Open Pit					Fe Tholeiites			2	8.1	0.66	15.0	2.38	**0.01**	2.38	74.4	14.5	-59.9	0.2
Quartz - Open Pit					Fe Tholeiites			2	8.3	1.81	41.1	2.98	0.01	2.97	93.1	36.3	-56.8	0.4
Quartz - Open Pit					Fe Tholeiites			2	8.2	0.31	7.0	0.38	**0.01**	0.38	11.9	5.0	-6.9	0.4
Quartz - Open Pit					Fe Tholeiites			2	8.1	0.17	3.9	**0.02**	**0.01**	0.02	0.6	4.3	3.7	6.9
Quartz - Underground					Fe Tholeiites			2	8.8	4.08	92.6	1.87	**0.01**	1.87	58.4	68.3	9.9	1.2
Quartz - Underground					Fe Tholeiites			2	8.6	0.67	15.2	0.12	**0.01**	0.12	3.8	13.0	9.3	3.5
Quartz - Underground					Fe Tholeiites			2	8.2	0.21	362.1	0.03	**0.01**	0.03	0.9	3.5	2.6	3.7
Quartz - Underground					Fe Tholeiites			2	7.9	0.10	2.3	0.02	**0.01**	0.02	0.6	3.5	2.9	5.6
Quartz - Underground					Fe Tholeiites			2	8.5	9.54	338.5	4.54	0.01	4.53	141.9	199.2	57.3	1.4
Quartz - Underground					Fe Tholeiites			2	8.5	0.10	2.3	0.02	**0.01**	**0.02**	0.6	2.2	1.6	3.5
Quartz - Underground					Fe Tholeiites			2	8.5	3.24	326.9	1.60	**0.01**	1.60	50.0	62.7	12.7	1.3
Quartz - Underground					Fe Tholeiites			2	8.7	4.62	104.9	2.28	**0.01**	2.28	71.3	84.0	12.8	1.2
Quartz - Underground					Fe Tholeiites			2	8.2	0.24	286.5	0.04	**0.01**	0.04	1.3	4.8	3.6	3.8
Quartz - Underground					Fe Tholeiites			2	8.3	0.30	6.8	0.07	**0.01**	0.07	2.2	6.0	3.8	2.7
Quartz - Underground					Fe Tholeiites			2	8.3	2.16	136.7	2.20	0.01	2.19	68.8	42.6	-26.2	0.6
Quartz - Underground					Fe Tholeiites			2	8.2	0.07	359.1	0.02	**0.01**	**0.02**	0.6	2.5	1.9	4.0
Quartz - Underground					Fe Tholeiites			2	8.4	5.12	353.0	1.14	**0.01**	1.14	35.6	102.8	67.2	2.9
Quartz - Underground					Fe Tholeiites			2	8.3	1.05	23.8	0.95	**0.01**	0.95	29.7	21.2	-8.5	0.7
Quartz - Underground					Fe Tholeiites			2	8.3	0.88	20.0	0.08	**0.01**	0.08	2.5	16.7	14.2	6.7
Quartz - Underground					Fe Tholeiites			2	8.7	3.34	281.0	2.35	**0.01**	2.35	73.4	61.4	-12.0	0.8
Quartz - Underground					Fe Tholeiites			2	8.4	0.52	377.5	0.16	**0.01**	0.16	5.0	8.8	3.8	1.8
Quartz - Underground					Fe Tholeiites			2	8.0	4.25	19.5	6.02	0.03	5.99	188.1	89.0	-99.1	0.5
Quartz - Underground					Fe Tholeiites			2	8.4	0.17	301.9	0.03	**0.01**	0.03	0.9	4.3	3.4	4.6
Quartz - Underground					Fe Tholeiites			2	8.4	0.56	97.3	0.14	**0.01**	0.14	4.4	10.3	5.9	2.4
Quartz Veins Q1		96TDM101	15240	Hinge	Fe Tholeiites	33.73	34.35	3	8.5			0.51			15.9	13.0	-2.9	0.8
Quartz Veins Q1		96TDM101	15240	Hinge	Fe Tholeiites	43.57	44.17	3	8.8			0.75			23.4	76.0	52.6	3.2
Quartz Veins Q1		96TDM113	15230	Hinge	Fe Tholeiites	57.10	57.65	3	8.6			1.86			58.1	65.0	6.9	1.1
Quartz Veins Q1		96TDM97	15290	Hinge	Fe Tholeiites	74.55	75.00	3	8.0			1.14			35.6	8.0	-27.6	0.2
Quartz Veins Q1		96TDM97	15290	Hinge	Fe Tholeiites	75.70	76.38	3	8.2			0.31			9.7	7.0	-2.7	0.7
Quartz Veins Q1		96TDM97	15290	Hinge	Fe Tholeiites	77.23	77.91	3	8.5			1.57			49.1	47.0	-2.1	1.0
Quartz Veins Q2		96TDM100	15310	Hinge	Fe Tholeiites	76.97	77.57	3	8.0			0.34			10.6	6.0	-4.6	0.6
Quartz Veins Q2		96TDM102	15260	Hinge	Fe Tholeiites	46.93	47.40	3	7.4			0.36			11.3	1.0	-10.3	0.1
Quartz Veins Q2		96TDM113	15230	Hinge	Fe Tholeiites	55.50	56.07	3	8.5			0.08			2.5	7.0	4.5	2.8
Quartz Veins Q2		96TDM97	15290	Hinge	Fe Tholeiites	74.00	74.60	3	8.6			0.05			1.6	20.0	18.4	12.8
Quartz Veins Q2		96TDM98	15300	Hinge	Fe Tholeiites	98.38	99.00	3	8.1			0.16			5.0	6.0	1.0	1.2
Quartz Veins Q2		96TDM99A	15290	Hinge	Fe Tholeiites	56.08	58.65	3	8.8			1.22			38.1	63.0	24.9	1.7
Quartz Veins Q3		96TDM104	15270	Hinge	Fe Tholeiites	20.20	20.72	3	8.4			0.06			1.9	14.0	12.1	7.5
Quartz Veins Q3		96TDM104	15270	Hinge	Fe Tholeiites	21.36	22.06	3	8.5			0.06			1.9	13.0	11.1	6.9
Quartz Veins Q3		96TDM97	15290	Hinge	Fe Tholeiites	33.21	33.95	3	8.7			0.17			5.3	49.0	43.7	9.2
Quartz Veins Q3		96TDM98	15300	Hinge	Fe Tholeiites	54.94	52.47	3	8.7			0.46			14.4	55.0	40.6	3.8
Quartz Veins Q3		96TDM99	15290	Hinge	Fe Tholeiites	26.75	27.55	3	8.5			0.31			9.7	37.0	27.3	3.8
Quartz Veins Q3		96TDM99A	15290	Hinge	Fe Tholeiites	23.47	23.97	3	8.8			0.48			15.0	47.0	32.0	3.1
Quartz Veins Q4		96TDM100	15310	Hinge	Fe Tholeiites	44.63	45.20	3	8.3			0.19			5.9	1.0	-4.9	0.2
Quartz Veins Q4		96TDM102	15260	Hinge	Fe Tholeiites	17.59	18.37	3	8.9			0.62			19.4	108.0	88.6	5.6
Quartz Veins Q4		96TDM102	15260	Hinge	Fe Tholeiites	18.45	19.03	3	8.7			0.40			12.5	35.0	22.5	2.8
Quartz Veins Q4		96TDM99	15290	Hinge	Fe Tholeiites	32.20	32.70	3	8.4			4.08			127.5	92.0	-35.5	0.7
Quartz Veins Q4		96TDM99	15290	Hinge	Fe Tholeiites	47.55	48.11	3	8.3			1.25			39.1	15.0	-24.1	0.4
Quartz Veins Q4		96TDM99	15290	Hinge	Fe Tholeiites	48.84	49.50	3	8.2			1.03			32.2	6.0	-26.2	0.2
Wall Rock - Unaltered	4	TDD209	15300	Hinge	Fe Tholeiites	5.18	5.70	1	8.6	5.74	130.3	0.15	**0.01**	0.15	4.7	169.2	164.5	36.1
Wall Rock - Unaltered	35	TDD215	15360	Hinge	Fe Tholeiites	1.67	41.35	1	8.7	11.07	251.3	0.08	**0.01**	0.08	2.5	196.5	194.0	78.6
Wall Rock - Unaltered	33	TDD222	15320	Hinge	Fe Tholeiites	28.60	28.95	1	8.3	7.37	167.3	0.07	**0.01**	0.07	2.2	179.1	176.9	81.9
Wall Rock - Unaltered	32	TDD224	15400	Hinge	Fe Tholeiites	71.65	72.15	1	8.9	11.10	252.0	1.46	**0.01**	1.46	45.6	227.6	182.0	5.0
Wall Rock - Unaltered	30	TDD242	15450	Hinge	Fe Tholeiites	79.25	79.75	1	8.9	8.95	203.2	0.12	**0.01**	0.12	3.8	223.9	220.2	59.7

Rock Type	Sample ID	Drill Hole #	Section	Zone	Rock Unit	Hole From (m)	Interval To (m)	Source	Paste pH	CO2 Inorg. (wt.%)	CaCO3 Equiv. (kg CaCO3/Tonne)	Total Sulphur (wt.%)	Sulphate sulphur (wt.%)	Sulphide Sulphur* (wt.%)	Maximum Potential Acidity** (kg CaCO3/Tonne)	Neutralization Potential (kg caCO3/Tonne)	Net Neutraliztion Potential (kg CaCO3/Tonne)	NPR NP/MPA
Diabase Dyke - Doris North Portal		02TDD547		Portal	Franklin Diabase			4	8.1	0.06	1.4	0.03	**0.01**	0.03	0.9	16.5	15.6	17.6
Wall Rock - Altered	26	TDD223	15400	Hinge	Mg Tholeiites	118.50	119.00	1	9.3	14.16	321.4	0.11	**0.01**	0.11	3.4	272.4	269.0	79.2
Wall Rock - Altered	29	TDD231	15450	Hinge	Mg Tholeiites	75.29	75.72	1	9.4	16.46	373.6	0.05	**0.01**	0.05	1.6	335.8	334.2	214.9
Wall Rock - Altered	31	TDD236	15260	Hinge	Mg Tholeiites	37.47	38.47	1	9.0	8.13	184.6	0.33	**0.01**	0.33	10.3	264.9	254.6	25.7
Wall Rock - Altered	28	TDD241	15360	Hinge	Mg Tholeiites	77.00	77.85	1	8.8	20.20	458.5	5.37	**0.01**	5.37	167.8	405.5	237.7	2.4
Wall Rock - Altered	23	TDD245	15450	Hinge	Mg Tholeiites	40.05	40.50	1	9.3	16.78	380.9	0.17	**0.01**	0.17	5.3	285.7	280.4	53.8
Average									8.7	7.2	185.30	0.80	0.01	0.96	24.9	133.0	108.1	30.6
Minimum Value									7.4	0.1	1.1	0.01	0.01	0.02	0.3	1.0	-99.1	0.1
Maximum Value									9.8	23.0	458.5	6.57	0.03	6.54	205.3	405.5	354.4	276.6
Standard Deviation									0.43	6.62	149.30	1.32	0.00	1.50	41.2	114.3	110.6	44.6
Count									163	92	92	163	92	92	163	163	163	163
Notes:																		
1: Source Code 1 = Preliminary ARD and Metal Leaching Assement for the Doris and Naartok Mineralized zones, knight Piesold Ltd., Nov. 2001.																		
2: Source Code 2 = 2000 Supplemental Environmental Baseline Data Report Hope Bay Belt Project, Rexcan Environmental Services Ltd., March 2001.																		
3: Source Code 3 = 1996 Environmental Baseline Report, Rescan Environmental Services Ltd., 1997.																		
4: Source Code 4 = Sample tested in May 2002, not previously reported.																		
5: Numbers in bold represent values that were below the analytical detection limit. For the purposes of calculating statistics, the detection limit was used as the value.																		
6: Sulphide sulphur is calculated as the difference between total sulfphur and sulphate sulphur.																		
7: MPA = sulphide sulphur x 31.25.																		
8: NNP = NP=MPA.																		
9: NPR = NP/MPA.																		
Likely Non Acid Generating	NPR>3																	
Potentially Acid Generating	1<NPR<3																	
Likely Acid Generating	NPR<1																	