Station Information							
ID*	**Type***	**Location**	**Latitude***	**Longitude***	**Coordinate System Units**	**Coordinate Reference System**	**Coordinate Collection Method**
16	Ocean	Hudson Bay	62.2796	-85.906	decimal degrees	Unknown	GPS - Unspecified
18	Ocean	Hudson Bay	63.7138	-88.417	decimal degrees	Unknown	GPS - Unspecified
21	Ocean	Hudson Bay	60.9113	-89.3586	decimal degrees	Unknown	GPS - Unspecified
24	Ocean	Hudson Bay	61.6966	-87.7641	decimal degrees	Unknown	GPS - Unspecified
25	Ocean	Hudson Bay	62.0219	-87.0088	decimal degrees	Unknown	GPS - Unspecified
36	Ocean	Hudson Bay	57.774	-86.0311	decimal degrees	Unknown	GPS - Unspecified
38	Ocean	Hudson Bay	58.7224	-86.3045	decimal degrees	Unknown	GPS - Unspecified
40	Ocean	Hudson Bay	58.23267	-88.56332	decimal degrees	Unknown	GPS - Unspecified

SAMPLE VARIABLE DETAILS

Sheet 1 "Ice_Volume_HB"

Variable Name*	Variable Description	Variable Speciation	Variable Sample Fraction*	Variable Media Type	Activity Collection Type	Result Value Type
Year		None	None	Other	n/a	Actual
Month		None	None	Other	n/a	Actual
Day		None	None	Other	n/a	Actual
Station	ID	None	None	Other	n/a	Actual
Lat	Latitude in Decimal Degrees	None	None	Other	Satellite	Actual
Long	Longitude in Decimal Degrees	None	None	Other	Satellite	Actual
Sample_Type	Bottom ice	None	None	Other	Field Observation	Actual
Bottom_Core_height_cm	Height of the collected ice core bottom section	None	None	Ice Core	Field Observation	Actual
Sampling_device	Core barrel	None	None	Other	Field Observation	Actual
Numbers_of_cores	Number of bottom core sections that were pooled in this sample	None	None	Ice Core	Lab Measurement	Calculated

Dilution_factor	Dilution factor that accounts for the added filtered seawater	None	None	Other	Lab Measurement	Calculated
Filtered_Volume_mL	Filtered Volume	None	Filtrate	Ice Core	Lab Measurement	Calculated
Dill_corr_Filtere d Volume_mL	Dilution corrected filtered volume	None	Filtrate	Ice Core	Lab Measurement	Calculated
Chlorolide_b_ug_L-1	Chlorophyllide b	None	Filtrate	Biological	Lab Measurement	Calculated

Chl c3_ug_L-1	chlorophyll c3	None	Filtrate	Biological	Lab Measurement	Calculated
MgDVP_ug_L-1	Mg-2,4-divinyl pheoporphyrin	None	Filtrate	Biological	Lab Measurement	Calculated
Chl c1+2_ug_L-1	chlorophyll c1+2	None	Filtrate	Biological	Lab Measurement	Calculated
Chlorolide a_ng_L-1	Chlorophyllide a	None	Filtrate	Biological	Lab Measurement	Calculated
Peridinin_ug_L-1	Peridinin	None	Filtrate	Biological	Lab Measurement	Calculated
19-But_ug_L-1	19-butanoyl-oxy-fucoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Fuco_ug_L-1	Fucoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Neo_ug_L-1	Neoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
19-Hex_ug_L-1	19-hexanoyl-oxy-fucoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Aphanizo_ug_L-1	Aphanizophyll	None	Filtrate	Biological	Lab Measurement	Calculated
Prasino_ug_L-1	Prasinoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated

Viola_ug_L-1	Violaxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Asta_ug_L-1	Astaxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Diadino_ug_L-1	Diadinoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Dino_ug_L-1	Dinoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Anthera_ug_L-1	Antheraxanthin	None	Filtrate	Biological	Lab Measurement	Calculated

Allo_ug_L-1	Alloxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Myxo_ug_L-1	Myxoxanthophyll	None	Filtrate	Biological	Lab Measurement	Calculated
Diato_ug_L-1	Diatoxoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Zea_ug_L-1	Zeaxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Lutein_ug_L-1	Lutein	None	Filtrate	Biological	Lab Measurement	Calculated
Gyrodiester_ug_L-1	Gyroxanthin diester	None	Filtrate	Biological	Lab Measurement	Calculated
Div b_ug_L-1	Divinyl Chlorophyll b	None	Filtrate	Biological	Lab Measurement	Calculated
Chl b_ug_L-1	Chlorophyll b	None	Filtrate	Biological	Lab Measurement	Calculated
Echinenone_ug_L-1	Echineone	None	Filtrate	Biological	Lab Measurement	Calculated
Div a_ug_L-1	Divinyl Chlorophyll a	None	Filtrate	Biological	Lab Measurement	Calculated
Chl a_ug_L-1	Chlorophyll a	None	Filtrate	Biological	Lab Measurement	Calculated

Total_Chl a_ug_L-1	Total chlorophyll a (the sum of chlorophyll a, divinylchlorophyll a and chlorophyllide a)	None	Filtrate	Biological	Lab Measurement	Calculated
Phytin b_ug_L-1	Phaeophythin b	None	Filtrate	Biological	Lab Measurement	Calculated
a-caroten_ug_L-1	alpha Carotene	None	Filtrate	Biological	Lab Measurement	Calculated
ß-caroten_ug_L-	beta Carotene	None	Filtrate	Biological	Lab Measurement	Calculated

1						
Phorbid a_ug_L-1	Phaephorbide a	None	Filtrate	Biological	Lab Measurement	Calculated
pPhorbid a_ug_L-1	Pyrophaephorbide a	None	Filtrate	Biological	Lab Measurement	Calculated
Phytin a_ug_L-1	Phaeophythin a	None	Filtrate	Biological	Lab Measurement	Calculated
pPhytin a_ug_L-1	Pyrophaeophythin a	None	Filtrate	Biological	Lab Measurement	Calculated
Myxo-like_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Gyro-diesterlike_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
a_carotlike_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated

Antheralike_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Apha-like_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated

chl_a-like_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
chlc2-like_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
chlc3-like_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Chlide-like_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Diato-like_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
MgDVP-like_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Phaeocarot_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Prasinolike_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Pyro-carot_ug_L-1	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated

Sheet 2 "Ice_Area_HB"

Variable Name*	Variable Description	Variable Speciation	Variable Sample Fraction*	Variable Media Type	Activity Collection Type	Result Value Type
Year		None	None	Other	n/a	Actual
Month		None	None	Other	n/a	Actual
Day		None	None	Other	n/a	Actual
Station	ID	None	None	Other	n/a	Actual
Lat	Latitude in Decimal Degrees	None	None	Other	Satellite	Actual
Long	Longitude in Decimal Degrees	None	None	Other	Satellite	Actual

Sample_Type	Bottom ice	None	None	Other	Field Observation	Actual
Bottom_Core_height_cm	Height of the collected ice core bottom section	None	None	Ice Core	Field Observation	Actual
Sampling_device	Core barrel	None	None	Other	Field Observation	Actual
Numbers_of_cores	Number of bottom core sections that were pooled in this sample	None	None	Ice Core	Lab Measurement	Calculated
Dilution_factor	Dilution factor that accounts for the added filtered seawater	None	None	Other	Lab Measurement	Calculated
Filtered_Volume_mL	Filtered Volume	None	Filtrate	Ice Core	Lab Measurement	Calculated
Dill_corr_Filtered Volume_mL	Dilution corrected filtered volume	None	Filtrate	Ice Core	Lab Measurement	Calculated
Chlorolide_b_mg	Chlorophyllide b	None	Filtrate	Biological	Lab Measurement	Calculated

_m-2						
Chl c3_mg_m-2	chlorophyll c3	None	Filtrate	Biological	Lab Measurement	Calculated
MgDVP_mg_m-2	Mg-2,4-divinyl pheoporphyrin	None	Filtrate	Biological	Lab Measurement	Calculated
Chl c1+2_mg_m-2	chlorophyll c1+2	None	Filtrate	Biological	Lab Measurement	Calculated
Chlorolide a_mg_m-2	Chlorophyllide a	None	Filtrate	Biological	Lab Measurement	Calculated
Peridinin_mg_m-2	Peridinin	None	Filtrate	Biological	Lab Measurement	Calculated

19-But_mg_m-2	19-butanoyl-oxy-fucoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Fuco_mg_m-2	Fucoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Neo_mg_m-2	Neoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
19-Hex_mg_m-2	19-hexanoyl-oxy-fucoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Aphanizo_mg_m-2	Aphanizophyll	None	Filtrate	Biological	Lab Measurement	Calculated
Prasino_mg_m-2	Prasinoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Viola_mg_m-2	Violaxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Asta_mg_m-2	Astaxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Diadino_mg_m-2	Diadinoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Dino_mg_m-2	Dinoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated

Anthera_mg_m-2	Antheraxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Allo_mg_m-2	Alloxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Myxo_mg_m-2	Myxoxanthophyll	None	Filtrate	Biological	Lab Measurement	Calculated
Diato_mg_m-2	Diatoxoxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Zea_mg_m-2	Zeaxanthin	None	Filtrate	Biological	Lab Measurement	Calculated
Lutein_mg_m-2	Lutein	None	Filtrate	Biological	Lab Measurement	Calculated
Gyrodiester_mg_m-2	Gyroxanthin diester	None	Filtrate	Biological	Lab Measurement	Calculated

Div b_mg_m-2	Divinyl Chlorophyll b	None	Filtrate	Biological	Lab Measurement	Calculated
Chl b_mg_m-2	Chlorophyll b	None	Filtrate	Biological	Lab Measurement	Calculated
Echinenone_mg _m-2	Echineone	None	Filtrate	Biological	Lab Measurement	Calculated
Div a_mg_m-2	Divinyl Chlorophyll a	None	Filtrate	Biological	Lab Measurement	Calculated
Chl a_mg_m-2	Chlorophyll a	None	Filtrate	Biological	Lab Measurement	Calculated
Total_Chl a_mg_m-2	Total chlorophyll a (the sum of chlorophyll a, divinylchlorophyll a and chlorophyllide a)	None	Filtrate	Biological	Lab Measurement	Calculated
Phytin b_mg_m-2	Phaeophythin b	None	Filtrate	Biological	Lab Measurement	Calculated
a-	alpha Carotene	None	Filtrate	Biological	Lab Measurement	Calculated

caroten_mg_m-2						
ß-caroten_mg_m-2	beta Carotene	None	Filtrate	Biological	Lab Measurement	Calculated
Phorbid a_mg_m-2	Phaephorbide a	None	Filtrate	Biological	Lab Measurement	Calculated
pPhorbid a_mg_m-2	Pyrophaephorbide a	None	Filtrate	Biological	Lab Measurement	Calculated
Phytin a_mg_m-2	Phaeophythin a	None	Filtrate	Biological	Lab Measurement	Calculated

pPhytin a_mg_m-2	Pyrophaeophythin a	None	Filtrate	Biological	Lab Measurement	Calculated
Myxolike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Gyro-diesterlike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
a_carotlike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Antheralike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated

Aphalike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
chl_alike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
chlc2like_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
chlc3like_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Chlidelike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Diatolike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
MgDVP-like_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Phaeocarot_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Prasinolike_mg_m-2	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated

	Pigment could not be clearly identified, but had similar shape than indicated pigment	None	Filtrate	Biological	Lab Measurement	Calculated
Pyrocarot_mg_m-2						

DATA FILE DETAILS

Column Name*	Unit	Description	Statistic Applied
Sample_Type	None	Bottom ice	
Bottom_Core_height_cm	cm	Height of the collected ice core bottom section	
Sampling_device	None	Core barrel	
Numbers_of_cores	None	Number of bottom core sections that were pooled in this sample	
Dilution_factor	None	Dilution factor that accounts for the added filtered seawater	
Filtered_Volume_mL	mL	Filtered Volume	
Dill_corr_Filtered Volume_mL	mL	Dilution corrected filtered volume	
Pigment_name_ug_L-1	μg L-1	Pigment concentration - Volume	
Pigment_name_mg_m-2	mg m-2	Pigment concentration - Area	

Table 1. Code list

CanWIN Short Code	Definition	User Code
ADL	Above Detection Limit	
BDL	Below Detection Limit	
$	Incorrect sample container	
EFAI	Equipment failure, sample lost	
FEF	Field equipment failed	
FEQ	Field Equipment Questionable	
FFB	Failed. Field blank not acceptable.	
FFD	Failed. Field Duplicate.	
FFS	Failed. Field spike not acceptable.	
H	Holding time exceeded	
ISP	Improper sample preservation	
ITNA	Incubation time not attained	
ITNM	Incubation temperature not maintained	
JCW	Sample container damaged, sample lost	
NaN	Value is missing and reason is not known	
NC	Not collected	
ND	Not detected	
NR	Sample taken/measured on site but information in this field not recorded	
NS	Sample collected but not submitted	
OC	Master Coordinate List Used	
P	Analysis requested and result pending	
prob_good	probably good value. Data value that is probably consistent with real phenomena but this is unconfirmed or data value forming part of a malfunction that is considered too small to affect the overall quality of the data object of which it is a part.	
prob_bad	probably bad value. Data value recognised as unusual during quality control that	
	forms part of a feature that is probably inconsistent with real phenomena.	
Interpolated	This value has been derived by interpolation from other values in the data object.	
Q	Below limit of quantification (LOQ). The value was below the LOQ of the analytical method. The value in the result field is the limit of quantification (limit of detection) for the method.	
LAF	Lab Analysis Failure (value cannot be trusted due to detected lab instrument	New code added by LCM

	failure (e.g. contamination) during sample processing	

Table 2. Options for Statistics Applied

Statistics Applied	Description
30DADMean	Thirty-day average daily mean
7DADM	Seven-day average daily maximum
7DADMean	Seven-day average daily mean
7DADMin	Seven-day average daily minimum
Coefficient of variation	The ratio of the standard deviation σ to the mean, μ.
Daily Geometric Mean	Provides a number that is more representative of the median and helps reduce the effect of a few extreme values.
Daily Maximum	The largest value of a set, each period of a day cycle
Daily Minimum	The smallest value of a set, each period of a day cycle
Hourly Maximum	The largest value of a set, each period of an hour cycle
Hourly Minimum	The smallest value of a set, each period of an hour cycle
MatLab script	Provide the MatLab script or the link to it
Mean	The sum of all the numbers in the set divided by the amount of numbers in the set
Median	The middle point of a number set, in which half the numbers are above the median and half are below.
None	None
R script	Provide the R script or the link to it
Standard Deviation	This describes the spread of values in the sample
Standard Error	The standard deviation of the sample mean, $\bar{x}$, which describes its accuracy as an estimate of the population mean, μ.