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Long term trends in the seas surrounding Sweden
Part one – Nutrients

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Contents

Preface

This work is part of a short series of reports with the aim of presenting 30 years of oceanographic data from Swedish waters. This part (part 1) focuses on nutrient data, part two focuses on the physical oceanographic conditions like temperature, salinity, oxygen, waves and sea level, while the third part will handle marine biological conditions. A fourth report that will summarize the results from the three above mentioned reports and make conclusions about the trends is planned. Data have been collected mainly within the Swedish national monitoring programme by SMHI, SMF (Stockholm Marine Research Centre) and UMF (Umeå Marine Research Centre). The report would not have been possible to produce without the long term efforts by the National Board of Fisheries, the Argos crew, the SMHI oceanographic staff and the staff of SMF and UMF.

1 Abstract

The main aim of this work is to present data as typical concentration values for different nutrients in the various sea areas, and how these have varied over time. The data presented cover a 30 year period which include both increased eutrophication and years with efforts to reduce antropological input of nutrients to the sea. Trends over 30 years have been calculated for various nutrient parameters. SMHI is the Swedish National Oceanographic Data Centre (NODC) to where several countries have supplied hydrographical data originating from various platforms (vessels, buoys etc.). Stations that have been in regular use for most parts of the last 30 years are included in the analysis. Due to different water characteristics, 14 sea areas are selected to represent the waters surrounding Sweden. In this report all available data from 1976 up till 2005 is used and presented in diagrams and tables. The figures of the parameters are presented as time series. Each parameter is divided into winter, summer, surface and bottom values. In the tables, information on a yearly basis is given to indicate changes that vary over time. Both a classical linear regression method and a non-parametric method (the Mann-Kendall) are used in the trend analysis to account for normal and non-normal distribution of the data. The trend magnitude and significance are also calculated. An overview of the results of significant trends of all the areas in the surface and the bottom for the winter and the summer are presented as arrows in a summary figure.

2 Background

2.1 Importance of long term trends

Hydrographical measurements have been carried out in Swedish waters since the late 19th century. In the beginning measurements were mainly directed towards fishery hydrography and included only temperature, salinity and sometimes oxygen. During the 1960s, eutrophication became a problem and focus was drawn towards nutrients. The problems caused by eutrophication range from massive algal blooms and lowered transparency to dead anoxic bottom waters.

Today a lot of work is done to try to reduce these problems. Long term trends and estimates of typical concentrations before the onset of eutrophication are of great importance. The problem is that there exist very few measurements from these days. The question is; how are the conditions today, compared to earlier?

In climatology, a mean over 30 years is usually used as normal value to compare the measurements of today with. In meteorology, homogeneous time series are available. This is however not the case in oceanography. In this report all available data from 1976 up till 2005 is used and presented in diagrams and tables. Although, there are a lot of missing data in certain areas and for certain parameters, an overall trend for the data available is presented. It should be noted that a 30 year trend can be dubious or misleading since the 30 year period can be comprised of both positive and negative features clearly present in some of the figures.

Long time series is an important asset within the work associated with the Water Framework Directive to create reference conditions and to evaluate natural variability. Reference conditions should, if possible, be collected from historical data, with none or only little anthropogenic influence (Hansson and Håkansson, 2005, Andersen, et al. 2005).

2.2 Nutrients in the seas surrounding Sweden

The sea areas around Sweden have very different characteristics. Salinity varies from almost oceanic conditions in the Skagerrak on the west coast to nearly limnic conditions in the Bay of Bothnia in the northern part of the Baltic. As can be seen in Appendix F where box plots of the different parameters are presented, there is also a clear difference in typical concentrations for the different nutrients in various sea areas.

Surface layer:
Inorganic nutrients, phosphate (PO_4), nitrite (NO_2), nitrate (NO_3) and silicate (SiO_3) show clear annual cycles in the surface layer. During winter, when the biological nutrient uptake activity is low, nutrient concentrations increases and reaches maximal winter values, just before the onset of the spring bloom. These values indicate the potential of the bloom. During spring and summer most of the nutrients are taken up by plankton and the concentrations of the limiting inorganic component normally falls below the detection limit.

The optimal ratio of N/P nutrient uptake for most phytoplankton, the so called Redfield ratio is 16/1 (molar ratio). If this ratio is larger than 16, P is expected to be the limiting nutrient and if the ratio is less than 16, N is considered to be limiting. Normally nitrogen or phosphorus is the limiting nutrient. In Swedish waters the inorganic ratio is normally below 16, except in the Bay of Bothnia where it can be as high as 150.

Silicate is not considered limiting in Swedish waters. Normally ammonium (NH_4) shows a different behaviour compared to the other nutrients and is therefore treated separately in this report. High concentrations of ammonium are often found in the pycnocline and in the deep waters where oxygen concentrations are low or absent.

The winter concentrations of nutrients in the surface layer normally vary as follows; Phosphate from 0.5 µmol/l in the Skagerrak to 0.06 µmol/l in the Bay of Bothnia, with somewhat higher values in the Sound and in the Åland Sea. Recently, much

higher values have been measured in the whole Baltic Proper. Nitrite + nitrate concentrations range from 5 in the Skagerrak to 3 µmol/l in the Åland Sea, with higher concentrations up to 6-7 µmol/l, in the Sound, the Northern Baltic Proper and in the Gulf of Bothnia. Silicate varies typically from 5 in the Skagerrak to 30 µmol/l in the Bothnian Bay.

An excess of phosphate, in the surface layer, can cause blooms of cyanobacteria. These organisms are diazotrophic and can take up nitrogen as di-nitrogen (N_2) directly and do not need the inorganic compounds, nitrite, nitrate or ammonia. However these blooms, which can bee toxic, cause problems only in the Baltic and not in the Kattegat or Skagerrak since they can not survive in the more saline water.

The total fractions, Tot-P and Tot-N also show an annual cycle in the surface layer, although it is not as pronounced as for the inorganic fractions. They also stay on a rather high level throughout the year.

Deep water:
In more shallow areas and in the main part of the Skagerrak and Kattegat, where water exchange is good, there are annual cycles also for inorganic nutrients in the deep water. In the Baltic Proper and in areas with sporadic water exchange, no typical variations occur during a year. In these areas variations in nutrient concentrations are more coupled to water exchange rather than seasonal variation. Total fractions in the deep water, during summer and autumn can, to some extent, indicate the surface layer load during the productive period.

3 Aim

The main aim of this work is to present data as typical concentration values for different nutrients in the various sea areas, and how these have varied over time, not to discuss the reasons for these changes. An overall trend, for the whole period from 1976 up to 2005 has been calculated for all parameters, regardless of the amount of data available. In the tables, a mean value for all years are given, this indicates how changes have varied over time.

4 Methodology

4.1 Data used

SMHI is the Swedish National Oceanographic Data Centre (NODC) for hydrographical data, collected from various platforms (vessels, buoys etc.). The data, collected by several countries, is stored in the Swedish ocean data archive SHARK (Svenskt HavsARKiv). Some of the data dates back to the beginning of the last century. When performing trend analysis on a dataset, it is important that the measuring procedure is consistent (or at least well documented) throughout the time period. Since the measuring procedure from the beginning of the last century in most cases differ from the procedure today, the very early measurements have been excluded.

The stations included in the analysis are stations that have been in regular use for most parts of the last 30 years. Most of the bad data (due to errors in the measuring procedure, analysis or data treatment) has been filtered out. Most stations are situated in the open sea areas, but a few stations close to the shore have been included. Most data from each area is presented and since the starting date of performing measurements vary from station to station and from area to area, the timescale of the different figures differ.

When the amount of data is sufficient, both a linear regression and non-parametric analysis have been carried out on the data sets to analyse the last 30 years (1976 to 2005) for possible trends. During the autumn, different blooms that affect the nutrient pool and the autumn storms that mix the water make the data difficult to analyse for trends. The spring, with varying time for the spring bloom, alter the nutrient pool markedly, hence is not an ideal period to perform trend analysis. Instead, three months in the winter and three months in the summer have been chosen to be included in the analysis. In the Skagerrak and Kattegat, the spring bloom often begins in Febru-

ary or even as early as in January, hence the winter season for these areas is November through January. The summer months are May through July. In the rest of the seas surrounding Sweden, the spring and autumn blooms normally occur slightly after the occurrences on the west coast hence the winter months are set to be one month later, that is from December through February and the summer months to be from June through August.

In Appendix G, 10 representative stations surrounding Sweden has been selected to present the annual cycles of PO_4. In the figure, lines are drawn to illustrate the summer and winter months selected for the station. There is a balance of what data to include in a summer or a winter period. To be sure to receive only the winter and summer values, perhaps a shorter interval would be preferable, but that would in turn significantly reduce the amount of data available to detect and confirm possible trends.

Most of the variation in the water takes place in the surface layer, where also the biological activity is at its highest. However, there can also be large variations in the deepwater especially in the Baltic in connections with inflows of oxygen rich saltwater from the west coast. It is important to discover possible trends, for example regarding eutrophication. It is also very important to discover trends in the bottom waters concerning possible regime shifts, oxygen depletion and also eutrophication. The top ten meters represent the surface waters while only one depth from the deepest part of each station represent the bottom water. This deep water or bottom water is a sample taken from a standard depth closest to the bottom but is assumed to represent the bottom water of the station. The deepest measurements are sometimes contaminated due to contact with the sediments. In these cases the standard depth above is chosen.

The nutrients analyzed are PO_4, Tot-P, $NO_2 + NO_3$, NH_4, Tot-N, SiO_3 and the ratio of dissolved inorganic nitrogen and phosphorus (DIN/DIP ratio). If both parameters exist, the sum of NO_2 and NO_3 is used when calculating $NO_2 + NO_3$. If not, only NO_3 is used. When calculating the DIN/DIP ratio, DIN is the sum of $NO_2 + NO_3 + NH_4$ and DIP is PO_4. A list of the used parameters with corresponding units is presented in Appendix B.

4.2 Sea Basin areas

The seas surrounding Sweden has been divided into 14 sea areas (figure 1). The waters surrounding Sweden vary in character and the partition into an area is an attempt to present an area with stations that have similar water characteristics. Each area is represented by one or more stations. Most areas are sea basins, but two areas represent the coastal regime, one on the east coast and one on the west coast.

The divisions of the areas are decided from differing water characteristics, amount of data available and general area divisions made by both SMHI and HELCOM. Area 1 represents the Bohuslän coastal area with two stations situated on the west coast of Sweden. Area 2 is the Skagerrak, represented by eight stations. Area 3 is the Kattegat, represented by five stations. Area 4 is the Sound, represented by one station only. Area 5 is the Arkona Basin, represented by two stations. Area 6 is the Bornholm Basin, represented by four stations. Area 7 is the South eastern Baltic Proper, represented by two stations. Area 8 is the Western Gotland Basin, represented by two stations. Area 9 is the Eastern Gotland Basin, represented by three stations. Area 10 is the Northern Baltic Proper, represented by two stations. Area 11 represents the Södermanlands coastal area with one station situated on the east coast of Sweden. Area 12 is the Åland Sea, represented by one station. Area 13 is the Bothnian Sea, represented by four stations. Area 14 is the Bothnian Bay, represented by two stations.

In Appendix A, each area with corresponding station is listed together with a geographical description of where the area is situated. The Quark, the Archipelago Sea, the Gulf of Finland, the Gulf of Riga, the Gulf of Gdansk, the Little and Great Belt, Kiel Bay and the Bay of Mecklenburg are not included in the analysis.

4.3 Hypothesis test

A hypothesis test is performed to test a null hypothesis, H_0 (a statement that there is no trend), to a counter hypothesis, H_1 (a counter statement

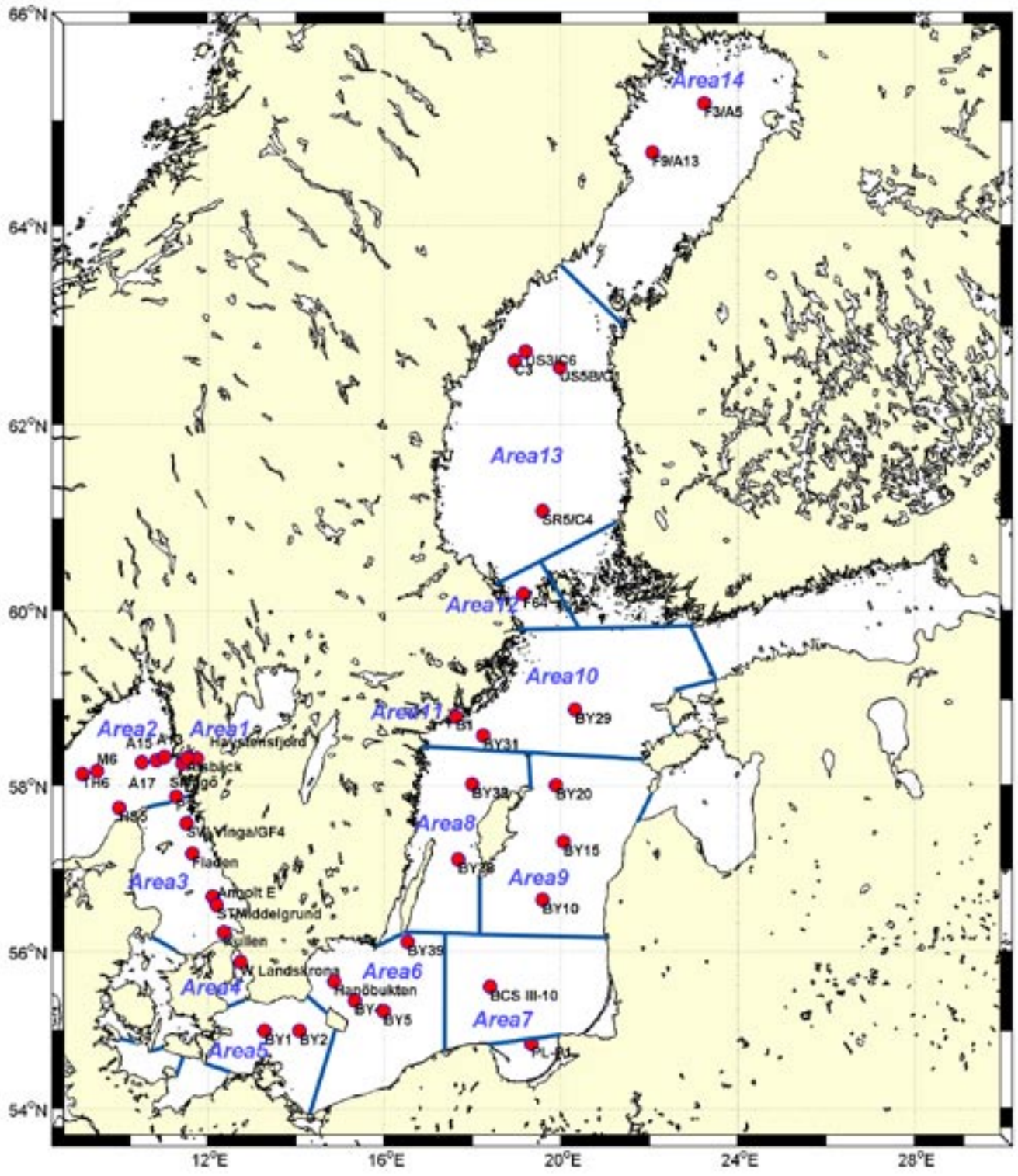

Figure 1. Stations included in the trend analysis and grouping of the stations into different sea areas. Area 1 represent the inner waters of the west coast of Sweden. The statios included in area 1 is Alsbäck and Havstensfjord. Area 11 represent the inner waters of the east coast of Sweden. The station included in area 11 is B1. The remaining stations are situated in open sea areas.

that there is a trend). H_0 is true until a test rejects it. The test gives a value of how wrong you are to claim that there is a trend when there in actuality is no trend. This value is the *P* value and it is the likelihood that the null hypothesis is wrongfully rejected. The lower the *P* value the more likely it is that rejection of the null hypothesis is the correct measure. The limiting value of P to indicate a trend or not, can differ and is determined by the cause of the study. Here, the limiting value of *P* is set to be 0.05.

4.4 Trend analysis

To analyse data for trends, it is necessary that sample handling and measurement procedures have been consistent throughout the study period. Time series can exhibit stepwise changes, indicative of a change of state, or (largely) monotonic changes. Examination of the data gave no clear indication of a step change during the previous 30 years, so linear regression analysis types were employed. Hirsch presented a comparison of classical linear regression methods compared against non-parametric methods (the Mann-Kendall test and Sen's method for slope determination) for randomly generated data (Monte-Carlo method) with seasonal signals and linear trends overlain. Where the input data were normally distributed, the increased statistical strength of linear regression made it more likely to correctly identify the presence of a trend. The relative advantages of the non-parametric methods became greater as the data distribution became less Gaussian (normally distributed). The non-parametric methods were also better to deal with values below the detection limit and also 'missing' values (Hirsch et al, 1994.).

One method that fits the latest description of non-parametric method and performs calculations of a monotonous change is the Mann-Kendall test. To be explicit, both the parametric and the non-parametric methods have been performed.

To perform the parametric test, linear regression was applied to find the coefficients of a polynomial of the first degree that fits the data in a least squares sense. In the polynomial of the first degree, the slope of the linear regression is calculated. The 95% confidence interval of the linear regression was also calculated.

To perform the non-parametric test, Mann-Kendall was applied. When there are seasonal variations, the detection of possible trends becomes difficult and the strength of the test decreases. To disregard the effects of seasonal changes, the Seasonal Kendall method, closely linked to the Mann-Kendall method, is used. The Seasonal Kendall method disregards the effect of seasonal changes by comparing values within one season or within one month and then combining the results. When applying Seasonal Kendall, a mean value of the measurements each year and month has been used to produce a test quantity and variance for each month. The real test quantity is the quota between the sum of the test quantities for the months of interest and the square root of the sum of the variances for the months of interest. The received value is entered into the cumulative normal distribution equation in order to produce a *P* value.

The *P* value is a measure of the probability that the null hypothesis is wrongfully rejected (how likely it is that it is a mistake to reject the null hypothesis and instead say that there is a trend). The less the *P* value the higher probability that there is a trend (Spent).

In the event of a trend, the magnitude of the trend is calculated by the Kendall slope estimator. The trend is expressed in the form of a slope, but that does not imply that the trend is linear. All possible pairs of values within each month the quota

$$b_{ijk} = \frac{(x_{ik} - x_{ij})}{k - j}$$

(month is i=1:12, where $k > j$) is calculated which is equivalent to the direction coefficient (slopes) between time j and k. All slopes for all the months are sorted in order of magnitude. The Kendall slope estimate B is the median of these b_{ijk} values. To receive an error estimate, a confidence interval of the B value is calculated. The level of confidence is set to 95%, which implies that estimated error of the slope estimation is within 5%. If the signs of the upper and lower bound values differ, the zero level lies within the upper and lower bounds, which indicates that there is no trend present.

4.5 Box plots

To enable comparison between areas, all areas are presented in one figure as box plots. Each parameter is divided into summer, winter, surface and bottom values. The median value is used in box plots and it is the numerical value that is situated in the middle of a dataset of descending values. A distance regularly coupled to the median value, is the inter quartile distance. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. Outliers are data with values beyond the ends of the whiskers. The red plus signs above and below the box are outliers. An outlier is a value greater than 1.5 the inter quartile range. If there is no data outside the whisker, a dot is placed at the bottom whisker. The figures in Appendix F are presented as notched box plots. The notches represent a robust estimate of the uncertainty about the medians for box-to-box comparison. Boxes whose notches do not overlap indicate that the medians of the two groups differ at the 5% significance level or that with 95% confidence, that the true medians do differ.

5 Results

5.1 Trends in figures and tables

In Appendix D, figures of the parameters are presented as time series. Each parameter is divided into winter, summer, surface and bottom values. Most data from each area is presented, hence the time series vary in length. When the amount of data is sufficient, both a linear regression and non-linear (non-parametric) analysis have been supplied on the data sets to analyse the last 30 years (1976 to 2005) for possible trends. The black dots in the figures represent each observation. The black line is the yearly mean and the dashed black lines represent the standard deviation of the mean values. The red line displays the maximum observations and the blue the minimum observations. In the case there are sufficient data to analyse for trends. There is a green line representing the best fit of a linear regression of the first order for the last 30 years. The dashed green lines represent the 95% confidence interval for the linear trend.

The inserted text box in most figures gives some indication as to if there is a significant trend present. In the first part of the text box, with the letters LR, the yearly inclination of the linear regression line is presented followed by the letter x (x representing one year). If LR is positive, the direction of the line is positive and vice versa. The two following numbers in the text box belong to the non-linear seasonal Mann-Kendall analysis. NL B is the slope of a possible trend. The NL P value is the significance of the trend. If the NL P value is less than 0.05, the trend is significant. The choice of a critical p-value to determine whether the result is judged "statistically significant" is left to the researcher. It is common to declare a result significant if the p-value is less than 0.05.

In Appendix E, every area and every parameter is presented in separate tables. In a table, the mean, standard deviation, minimum value, maximum value and number of observations for each year is presented, divided into winter, summer, surface and bottom measurements. The number of observations reflects the amount of correct values available for the specific area, year, season, parameter and depth. Below the values of 2005, the mean, max and min of the values from the 30 year period is presented. At the bottom of the table results from the trend analysis is presented. Linear trend is the resulting value of a linear regression of the first order. The remaining four values come from the non-linear seasonal Mann-Kendall analysis. NL B, NL P and two additional values connected to the Mann-Kendall slope value B. The two values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If $P > 0.05$, there is no significant trend. If the sign of the LR and NL B differ, there is no certain trend. If otherwise, there is a significant trend. To get an overview, a table that includes information of the significant trends has been put together.

Table 1. The parameters, divided into summer, winter, surface and bottom for all areas. The green/red arrows indicate a significant trend with a negative/positive direction. The black thin arrows that point downwards/upwards indicate a trend with a negative/positive direction that is close to being significant (the P value is just above 0.05). To be a significant trend, the slope direction of both the linear regression and non-parametric method must be the same, the P value must be < 0.05 and the upper and lower confidence interval for B must have the same sign.

		Area													
Parameter		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
PO_4	Surface Winter		↓	↓	↓						↑				↓
	Surface Summer					↑	↑	↑	↑	↑					↓
	Bottom Winter				↓			↑	↑		↑				↓
	Bottom Summer				↓		↑	↑	↑		↑	↑		↑	
Tot-P	Surface Winter	↓	↓	↓	↓	↓	↓								↓
	Surface Summer	↓		↓	↓	↓								↓	↓
	Bottom Winter		↓	↓	↓	↓	↑		↑		↑		↑		↓
	Bottom Summer	↓	↓	↓	↓	↓	↑		↑		↑		↓	↑	↓
NO_2+NO_3	Surface Winter	↑	↓		↓	↓		↓				↓			
	Surface Summer			↓			↓				↓	↓		↓	
	Bottom Winter			↑						↑	↓	↓		↑	
	Bottom Summer		↑	↑									↑	↑	↑
NH_4	Surface Winter		↓	↓	↓	↓	↓						↓		
	Surface Summer	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓				↓
	Bottom Winter		↓	↓	↓				↑		↑				↓
	Bottom Summer						↑		↑	↑				↑	
Tot-N	Surface Winter		↓	↓	↓										
	Surface Summer		↓				↑			↑	↑	↑	↑		
	Bottom Winter	↓		↓	↓	↓									
	Bottom Summer	↓			↓		↑			↑			↑	↑	
SiO_3	Surface Winter	↑		↓								↑		↑	↑
	Surface Summer		↓	↓				↑		↑		↑	↓	↓	↑
	Bottom Winter									↓		↑		↑	↑
	Bottom Summer									↓	↓	↑	↓		↑
Ratio DIN/DIP	Surface Winter	↑						↓							
	Surface Summer			↓	↓	↓	↓	↓	↓	↓	↓	↓			↑
	Bottom Winter			↑	↑	↑				↑		↓			↑
	Bottom Summer			↑				↓		↑		↓	↑		

Table 1 presents the seven parameters, divided into summer, winter, surface and bottom for all areas. The green arrows indicate a significant trend with a negative direction, i.e. the values are significantly decreasing. The black thin arrows that point downwards indicate a trend with a negative direction that is close to being significant (the P value is just above 0.05). The red arrows indicate a significant trend with a positive direction, i.e. the values are significantly increasing. The black thin arrows that point upwards indicate a trend with a positive direction that is close to being significant. To be a significant trend, the slope direction of both the linear regression and non-parametric method must be the same, the P value must be < 0.05 and the upper and lower confidence interval for B must have the same sign. The magnitudes of the slopes are not represented in any way in table 1. The trends of each parameter are presented separately in this chapter and conclusions of the different areas are discussed in the next chapter. To simplify the description of table 1, four abbreviations regarding the season and the depth are invented:

- SW = the Surface water during the Winter
- SS = the Surface water during the Summer
- BW = the Bottom water during the Winter and
- BS = the Bottom water during the Summer.

Only negative PO_4 trends are present in the areas 2, 3, 4 and 14 and only positive trends are present in the areas 5-13. In areas 2-4, there are negative trends in the SW. In area 4, there are also negative trends in the BW and the BS. Area 10 has a positive trend in the SW while areas 5-9 have positive trends in the SS. Area 7, 8 and 10 have positive trends in the BW and area 6, 7, 8, 10, 11 and 13 have positive trends in the BS. Area 14 present negative trends in the SW and the BW. There is a negative trend in the SS, though the trend is not significant.

There are similar trends for Tot-P. There are negative trends everywhere in the areas 1-5 except for in the BW in area 1 and in the SS in area 2 where no trend is detected. There is a negative trend in the SW in area 6, but there is a positive trend in the BW and a close to significant positive trend in the BS. In the areas 8 and 10, there are positive trends in the BW and the BS. The BW in area 12 is almost significantly positive while the BS has a negative trend. In area 13, the SS has a negative trend while there is a close to significant positive trend in the BS. In area 14 the trends are all negative though the trend in the SW is only close to being significant.

The trends for NO_2+NO_3 are generally negative in the surface and positive in the bottom. In the SW there are negative trends in the areas 4, 7 and 11 and close to significantly negative trends in the areas 2 and 5. In area 1, there is a positive trend in the SW for NO_2+NO_3. In the SS, there are negative trends in the areas 3, 6, 10, 11 and 13. There are positive trends in the BS in area 2 and 3 and almost significantly positive in the BW in area 3 and 9. There is a negative trend in the BW in area 11 and an almost significantly negative trend in the BW in area 10. There are positive trends in the BW in area 13 and in the BS in area 12-14.

The trends for NH_4 are generally negative. For the SW, there are negative trends in area 2-6 and in area 12. For the SB, there are negative trends in area 2-10 and in area 14 and there is a negative trend in area 1 that is almost significant. For the BW, there are negative trends in area 2-4 and in area 14. There is a positive trend in area 10 and an almost significantly positive trend in area 8. For the BS, there are positive trends in the areas 6, 8, 9 and 13.

For the parameter Tot-N, there are only negative trends in the areas 1-5 and positive trends in the areas 6-13. There are negative trends in the SW in area 2-4 and in the BW in area 1, 3-5 and in the BS in area 4. In the SS in area 2 and in the BS in area 1, the negative trends are almost significant. There are positive trends in the SS in the areas 6 and 9-12. For the BS, there are positive trends in the areas 6 and 12 and almost significantly positive trends in the areas 9 and 13.

There are more trends of SiO_3 in the areas 9-14 compared to the areas 1-8. In area 1 there is a positive trend in the SW. There are negative trends in the SW in area 3 and in the SS, there are negative trends in area 2 and 3. In area 7 there is a positive trend in the SS. There are positive trends in the SW in area 11, 13 and 14. There are positive trends in the SS in area 9, 11 and 14 and negative in area 12 and 13. In the BW, there is a negative trend in area 9, positive trends in area 13 and 14 and an almost significantly positive trend in area

11. In the BS, there are negative trends in area 9 and 12, positive trends in area 11 and 14 and an almost significantly negative trend in area 10.

The last parameter is the DIN/DIP ratio. In area 1-4 and area 12-14, there are mostly positive trends while there are mostly negative trends in area 6-11. In the SW there is a positive trend in area 1 and almost significantly positive trends in area 13 and 14. In the SS, there are negative trends in the areas 3 and 5-11 and in area 14 there is a positive trend. In the BW, there are positive trends in the areas 2-5, 9 and 14 and negative trends in area 8, 10 and 11. Finally in the BS, there are positive trends in the area 3 and 12, an almost significantly positive trend in area 1 and negative trends in area 7 and 11.

6 Discussion and Conclusions

A summation of the trends outlined in the previous chapter is that there are only negative PO_4 trends present in the areas 2-4 and 14 and only positive trends present in the areas 5 to 13. The trends of Tot-P display a similar pattern, though there are more negative trends in area 1-5 and less positive trends in area 6-10. The trends for NO_2+NO_3 are generally negative in the surface and positive in the bottom waters. The trends for NO_2+NO_3 are almost the contrary the trends of PO_4. The trends for NH_4 are generally negative. These negative trends are probably due to a shift in measurement technique of NH_4 in September 1998. For the parameter Tot-N, there are only negative trends in the areas 1-5 and positive trends in the areas 6-13. There is a higher density of SiO_3 trends in the areas 9-14 compared to the areas 1-8. In area 1-4 and area 12-14, there are mostly positive DIN/DIP ratio trends while there are mostly negative DIN/DIP ratio trends in area 6-11.

To generalize even further:

- There are generally negative trends in the areas 1-5 for the PO_4, Tot-P, NO_2+NO_3, NH_4 and Tot-N parameters.
- There are generally positive trends in the areas 6-11 for the PO_4, Tot-P and Tot-N parameters.
- There are generally negative trends in the areas 6-11 for the NO_2+NO_3 parameter and an even mixture of positive and negative trends in the areas 6-11 for the NH_4 parameter.
- There are generally negative trends in the areas 12-14 for the PO_4 and Tot-P parameters.
- SiO_3 shows negative trends on the west coast and positive trends in less saline water, i.e. coastal waters, the northern Baltic and the Bothnian Bay.
- There are generally positive trends in the areas 1-4 and 12-14 for the DIN/DIP ratio parameter and negative trends in the areas 6-11.
- There is a generally negative trend of the nutrients in the Skagerrak and the Kattegat.
- There are generally positive trends of the PO_4, Tot-P and Tot-N and a generally negative trend of the NO_2+NO_3 in the Baltic Proper.
- There are generally negative trends of the PO_4, Tot-P and NH_4 and generally positive trends of the NO_2+NO_3 and SiO_3 in the Bothnian Sea and the Bothnian Bay.

7 References

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Appendix A

Table with area stations

The seas surrounding Sweden has been divided into 14 sea areas. The waters surrounding Sweden vary in character and the partition into areas attempt to present an area with similar water characteristics. Each area is represented by one or more stations. In table 2, each area with corresponding station is listed together with a geographical description of where the area is situated.

Table 2. Area description and grouping of stations into different areas.

Area	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9	Area 10	Area 11	Area 12	Area 13	Area 14
Geography	The west-coast, inside the skerries	The Ska-gerrak	The Kattegat	The Sound	The Arkona Basin	The Born-holm Basin	The South-eastern Baltic Proper	The Western Gotland Basin	The Eastern Gotland Basin	The Northern Baltic Proper	The Eastern coastal area	The Åland Sea	The Bothnian Sea	The Bothnian Bay
Stations	Alsbäck Havstensfjord	Å13 Å15 Å17 HS5 M6 TH6 P2 Släggö	Anholt Fladen GF4 Kullen St Middelgrund	W Landskrona	BY1 BY2	BY4 BY5 BY39 Hanöbukten	BCS III-10 PI-P1	BY32 BY38	BY10 BY15 BY20	BY29 BY31	B1	F64	US5B SR5/C4 US3/C6 C3	F9 F3/A5

Appendix B

Parameter units

A list of the used parameters with corresponding units is presented in table 3.

Table 3. Description and units of the parameters included.

Parameter	Unit	Parameter description
PO_4	µmol/l	Phosphate -phosphorus (PO_4^{3-})
TotP	µmol/l	Sum of organic and inorganic phosphorus (P)
NO_2 + NO_3	µmol/l	Nitrite-nitrogen (NO_2^-)+ Nitrate-nitrogen (NO_3^-)
NH_4	µmol/l	Ammonium-Nitrogen (NH_4^+)
TotN	µmol/l	Sum of organic and inorganic nitrogen (N)
SiO_3	µmol/l	Sum of all soluble silicates (SiO_3-Si)
DIN	µmol/l	Sum of dissolved inorganic nitrogen compounds (NO_2^- + NO_3^- +NH_4^+)
DIP	µmol/l	Sum of dissolved inorganic phosphorus compounds (PO_4^{3-})

APPENDIX C

Trend analysis, equations

General calculations

If both parameters exist, the sum of NO_2 and NO_3 is used when calculating $NO_2 + NO_3$. If not, only NO_3 is used. When calculating the DIN/DIP ratio, DIN is the sum of $NO_2 + NO_3 + NH_4$ and DIP is PO_4. The equation for calculating the mean values included in the two consecutive appendices is:

$$\bar{x} = \frac{1}{n}\sum_{i=1}^{n} x_i$$

Where x is a vector with measurements and n is the length of x. (MATLAB function: mean.) The median value is used to produce boxplots and is the numerical value that is situated in the middle of a dataset of descending values. The median is the middle value if the length of the dataset is uneven and is the mean of the two values in the middle if the length of the dataset is even. (MATLAB function: median).

A distance regularly coupled to the median value, is the inter quartile distance. This distance is calculated by subtracting the lover quartile, the 25th percentile, from the higher quartile, the 75th percentile.

The equation for the standard deviation is (MATLAB function: std):

$$std = \left(\frac{1}{n-1} \sum_{i=1}^{n} (x_i - \bar{x})^2 \right)^{1/2}$$

Linear regression

In this report, two different approaches to analyze the data for trends have been used. One was to find the coefficients of a polynomial $p(x)$ of degree n that fits the data, $p(x(i))$ to $y(i)$, in a least squares sense. The result p is a row vector of length $n+1$ containing the polynomial coefficients in descending powers. The equation to find the coefficients of a polynomial is:

$$p(x) = p_1 x^n + p_2 x^{n-1} + \ldots + p_n x + p_{n+1}$$

In a polynomial of the first degree ($n = 1$), p_1 gives the slope of the linear regression (MATLAB function: polyfit). To plot the linear regression line and to create the 95% confidence intervals of the line, the MATLAB function polyconf, that evaluates the polynomial at each value of x, was used. The function polyconf uses input created by polyfit and assumes that the errors in the data input to polyfit are independent normal with constant variance.

Non-parametric method

The second approach to analyze the data for trends was to apply the non-parametric seasonal Kendall method. Let the time series of the data set be x_1, x_2, x_3, …, x_n. To see how the values are related to each other, they are combined in all possible variations of pairs of the dataset (x_j, x_k) where k > j and compare the number of pairs where $x_k > x_j$ (positive trend) to the number of pairs where $x_k < x_j$ (negative trend). The test quantity is S = (the amount of pairs (x_j, x_k) where $x_k > x_j$) - (the amount of pairs (x_j, x_k) where $x_k < x_j$). This can be expressed by a sgn-function:

$$\operatorname{sgn}(x_k - x_j) = \begin{cases} 1, x_k - x_j > 0; \\ 0, x_k - x_j = 0; \\ -1, x_k - x_j < 0; \end{cases}$$

The test quantity S is defined as

$$S = \sum_{j=1}^{n-1} \sum_{k=j+1}^{n} \mathrm{sgn}(x_k - x_j)$$

The seasonal Kendall method extracts the effect of variance between seasons by comparing measurements within a season. In this report, a monthly mean value each year has been used when applying seasonal Kendall to the data. The test quantity for each month then becomes:

$$S_i = \sum_{j=1}^{n_i-1} \sum_{k=j+1}^{n_i} \mathrm{sgn}(x_{ik} - x_{ij})$$

and the variance becomes:

$$Var[S_i] = \frac{n_i(n_i-1)(2n_i+5) - \sum_{t_i} t_i(t_i-1)(2t_i+5)}{18}$$

where t_i is the amount of pairs (x_j, x_k) are 'tied values', that is they have the same value (x_k - x_j = 0). The total test quantity:

$$S_{total} = \sum S_i$$

is for large data sets (large value of n) approximately normally distributed and the variance then becomes:

$$Var(S_{total}) = \sum_i Var(S_i)$$

To see if there is an indication of a trend, a hypothesis test is carried out. The null hypothesis, H_0, that there is no trend is assumed to be true until a test rejects the null hypothesis. The alternative hypothesis, H_1, that there is a trend, is the opposite of the null hypothesis. In *H1*, the trend can be both positive and negative, hence a two sided hypothesis (Sprent). To test the null hypothesis, the approximately normally distributed 'real' test quantity Z is calculated:

$$Z = \frac{S_{total}}{\sqrt{Var(S_{total})}}$$

From the test quantity Z, a P value can be calculated. The P value is a measure of the probability that the null hypothesis is wrongfully rejected (how likely it is that it is a mistake to reject the null hypothesis and instead say that there is a trend). The less the P value, the higher probability that there is a trend. To calculate P, Z is assumed to be normally distributed. The area or cumulative distribution, $F(Z)$, under the standardized normal distribution curve for $Z <= Z_F$ such that the probability $P(Z < Z_F) = F(Z)$.

$$P = F(Z) = \int_{-\infty}^{Z} \frac{1}{\sqrt{2\pi}} e^{-z^2/2} dZ$$

The value of P is affected by the sign of Z since there is a summation from $-\infty$ to Z in the equation. Since H_1 is a two sided hypothesis, (there is a positive or negative trend) the resulting P value should be doubled. If Z is negative (in MATLAB: *P=normcdf (Z) *2*):

$$P = F(Z) * 2$$

If Z is positive (in MATLAB: *P=(1-normcdf (Z)) *2*):

$$P = (1 - F(Z)) * 2$$

If there is a trend, the magnitude of the trend is calculated. This is used by the Kendall slope estimator B. The magnitude of the trend is expressed in the form of a slope, but that does not imply that the trend is linear. For every pair within each month, i = 1, 2, 3,…, 12 (x_{ij}, x_{ik}) where $k > j$, the quota

$$b_{ijk} = \frac{(x_{ik} - x_{ij})}{k - j}$$

is calculated which is equivalent to the direction coefficient (slopes) between time j and k. All slopes for all the months are sorted in order of magnitude. The Kendall slope estimate B is the median of these b_{ijk} values. To receive an error estimate, a confidence interval of the B value is calculated. The level of confidence is set to 95%, which implies that estimated error of the slope estimation is

within 5%. To extract the upper and lower bounds of the confidence interval, a trend δ, is subtracted from the data material. The upper bound is received by subtracting a negative δ in case of a significant negative trend in the data material, a positive δ_0 is subtracted if no trend is detected until the data material produces a trend with a P value as close as possible under 0.025. The upper bound is then the value of δ_0. The lower bound is similarly calculated, but here the P value is raised to 0.975. This is how the confidence interval of 95% is produced which gives the error marginal of the estimated slope of the trend. If the signs of the upper and lower bound values differ, the zero level lies within the upper and lower bounds, which indicates that there is no trend present.

Appendix D

Figures of the nutrients

In the following figures, the used parameters are presented as time series. Each parameter is divided into winter, summer, surface and bottom values. For area 1 to 3, the winter months are November through January and the summer months are May through July. For area 4 to 14, the winter months are December through February and the summer months are June through August.

The top ten meters represent the surface waters while only one depth from the deepest part of each station represent the bottom water. Most data from each area is presented and since the starting year of the time series differ from area to area, the time series vary in length.

When the amount of data points is sufficient, both a linear regression and non-linear (non-parametric) analysis have been supplied on the data sets to analyse the last 30 years (1976 to 2005) for possible trends. The black dots in the figures represent each observation. The black line is the yearly mean of the season and the dashed black lines represent the standard deviation of the mean values. The red line displays the maximum observations and the blue the minimum observations. In the case there are sufficient data to analyse for trends, there is a green line representing the best fit of a linear regression of the first order for the last 30 years. The dashed green lines represent the 95% confidence interval for the linear trend.

The inserted text box in most figures gives some indication as to if there is a significant trend present. In the first part of the text box, with the letters LR, the inclination of the linear regression line is presented followed by the letter x. The y value of where the line crosses the y-axis is not included in the text box. If LR is positive, the direction of the line is positive and vice versa. The two following numbers in the text box belong to the non-linear seasonal Mann-Kendall analysis.

To find the slope of a possible trend, all the differences between two observations in all the data are sorted from the highest negative difference to the highest positive difference. The B value is the median value of all the differences. The NL P value is the significance of the trend. If the NL P value is less than 0.05, the trend is significant.

There are two additional values connected to the Mann-Kendall slope value B that is excluded from the figures, but included in tables in the following appendix. The two values represent the 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the two values differ, there is no trend. If $P > 0.05$, there is no significant trend. If the sign of the LR and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

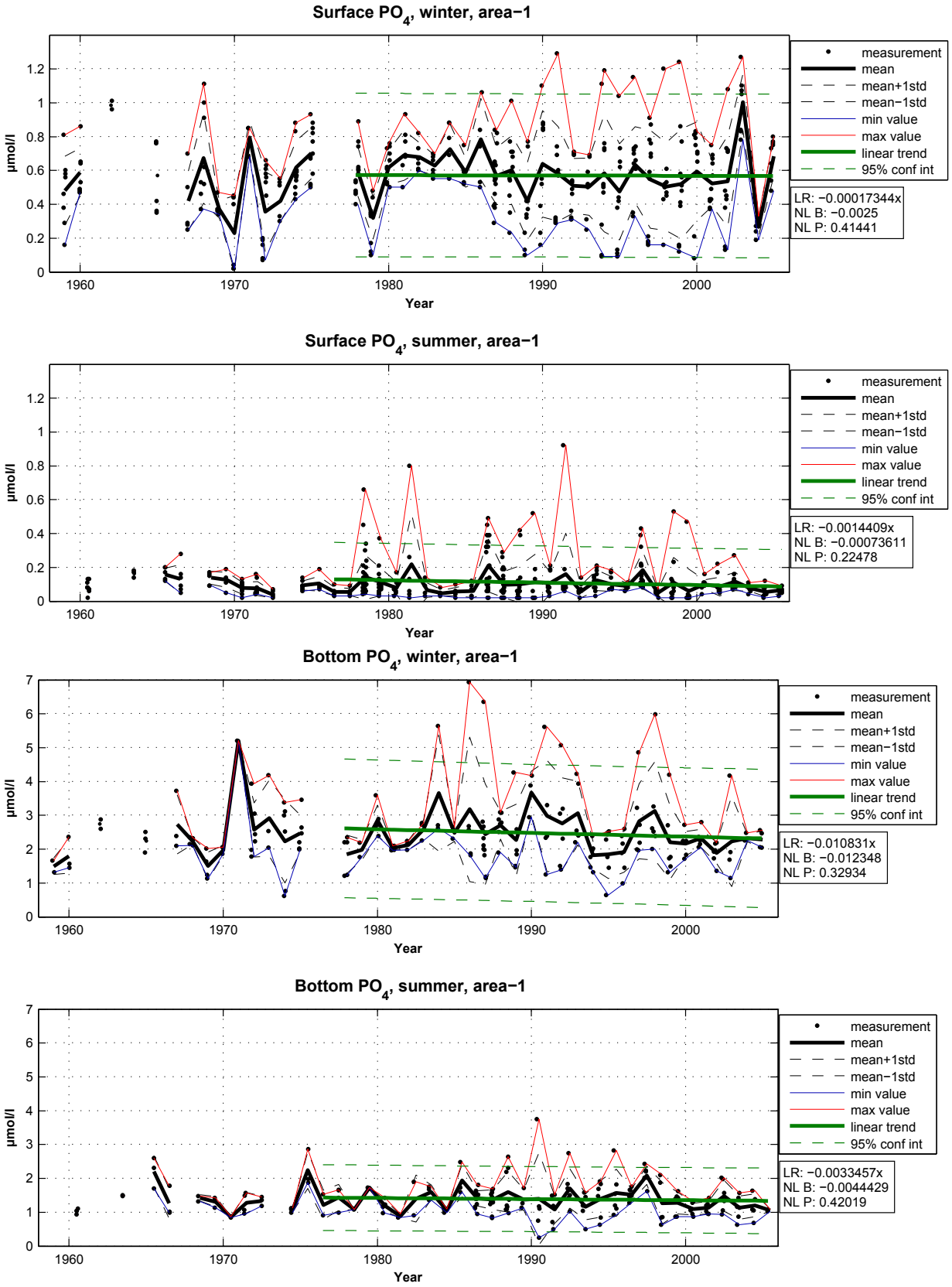

Figure 2. Area 1, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

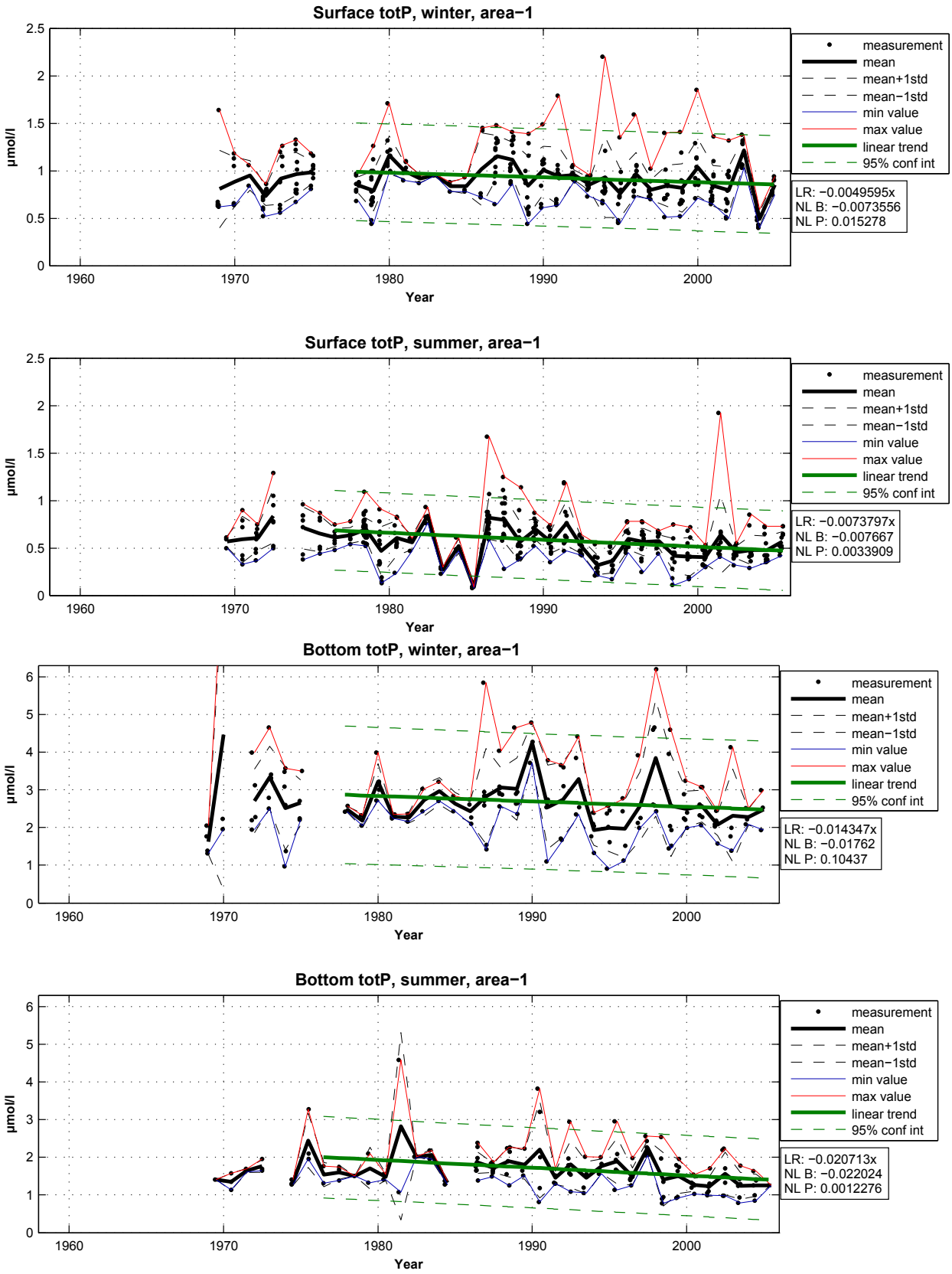

Figure 3. Area 1, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

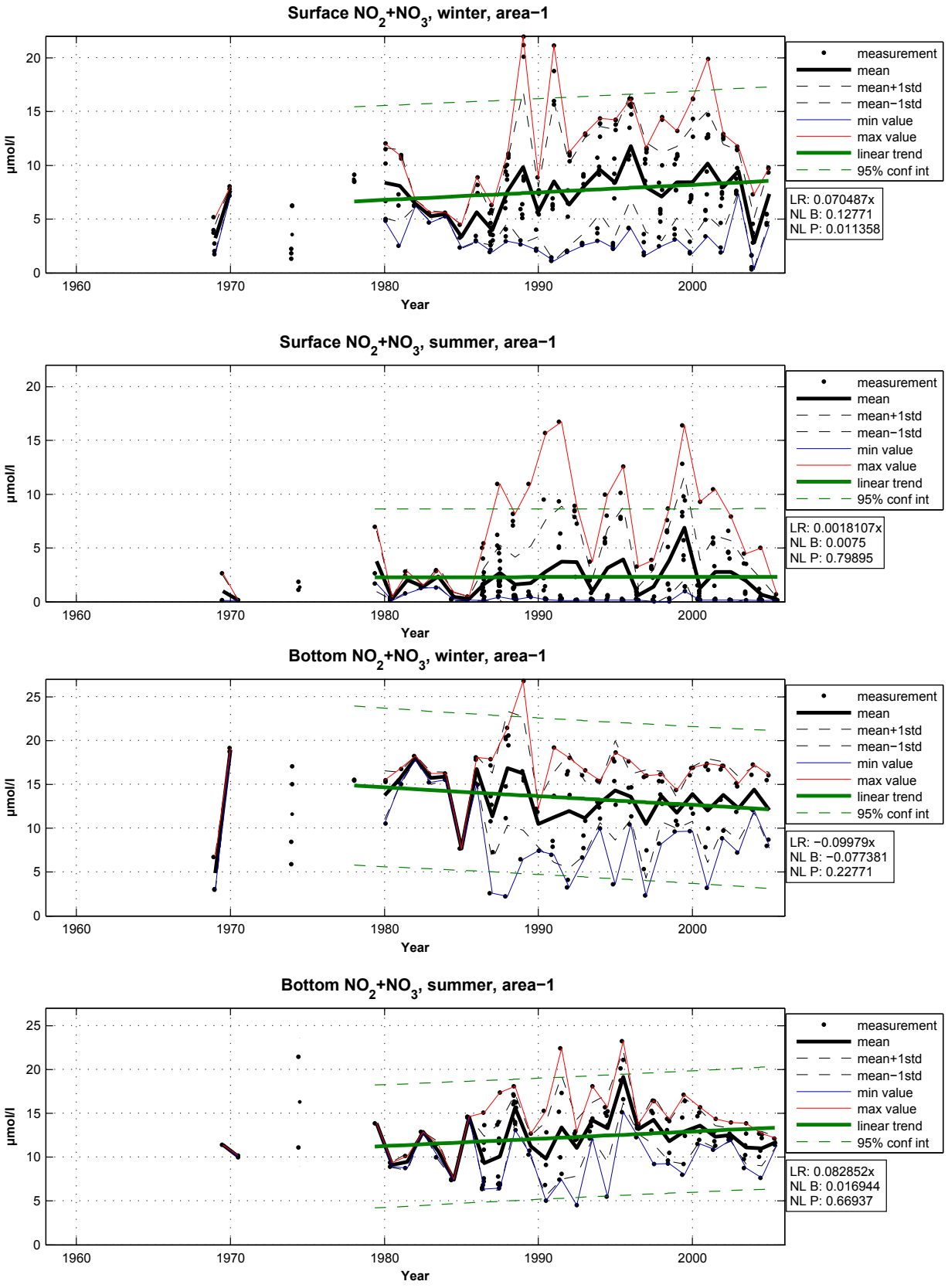

Figure 4. Area 1, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

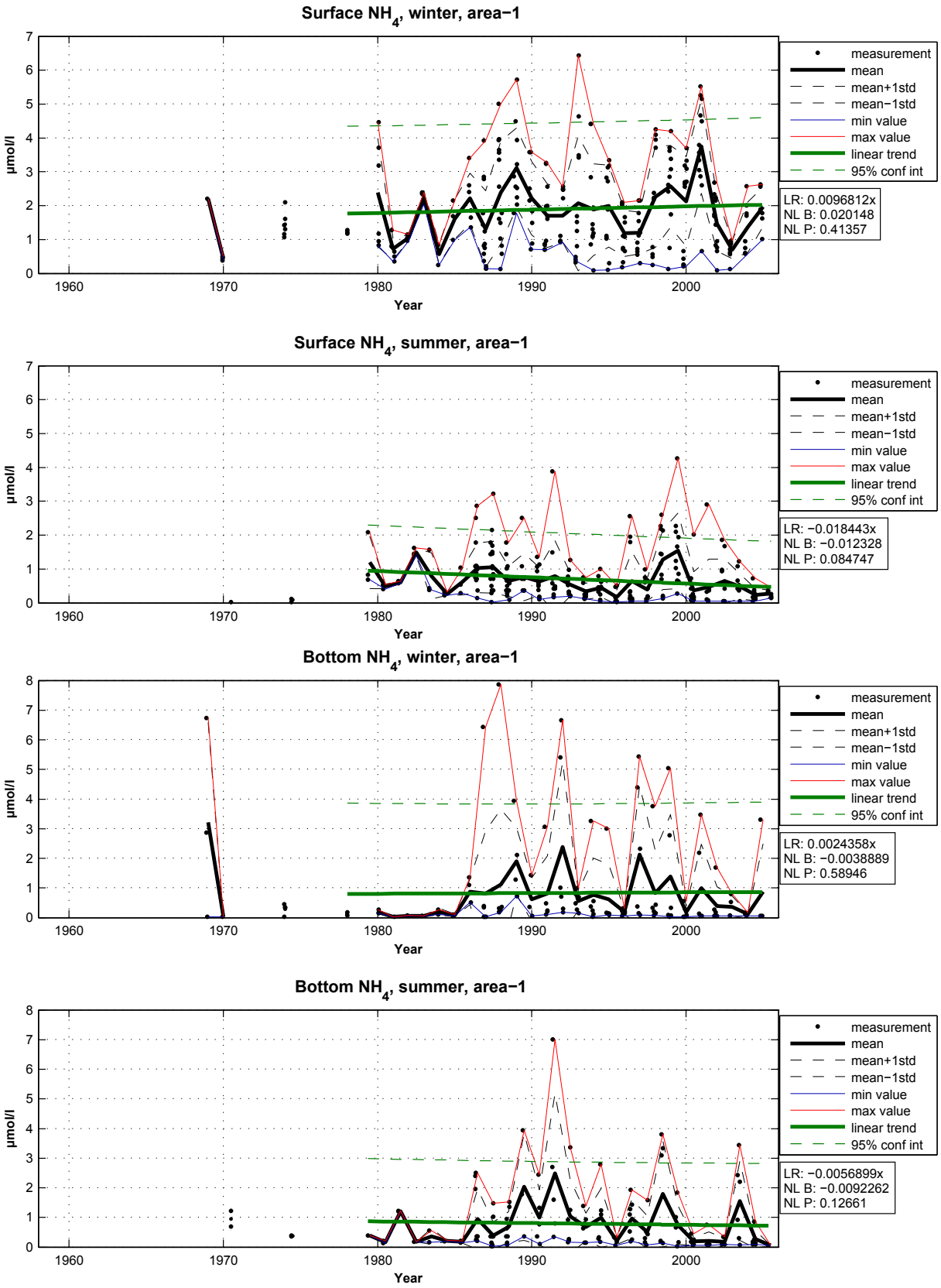

Figure 5. Area 1, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

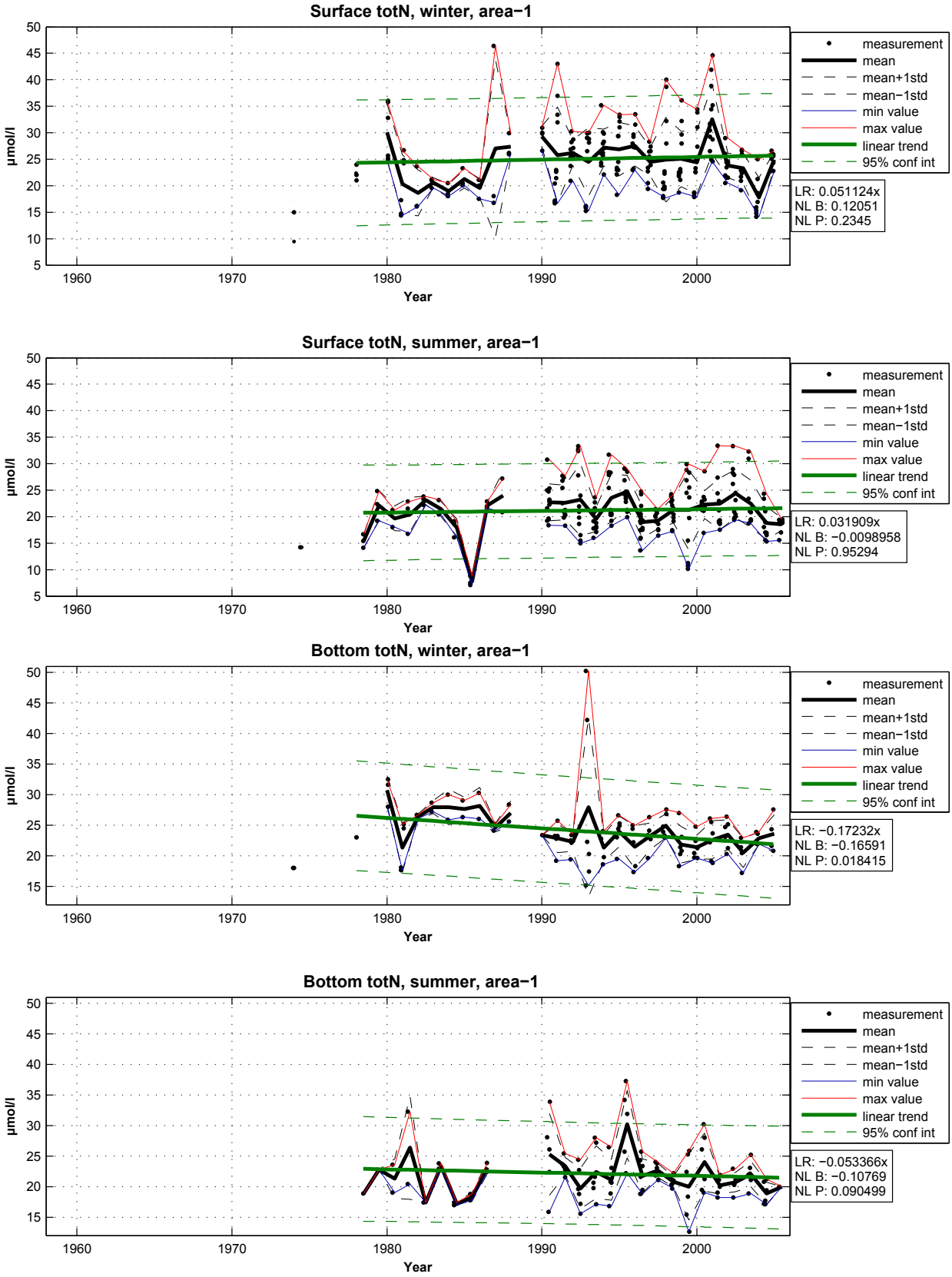

Figure 6. Area 1, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

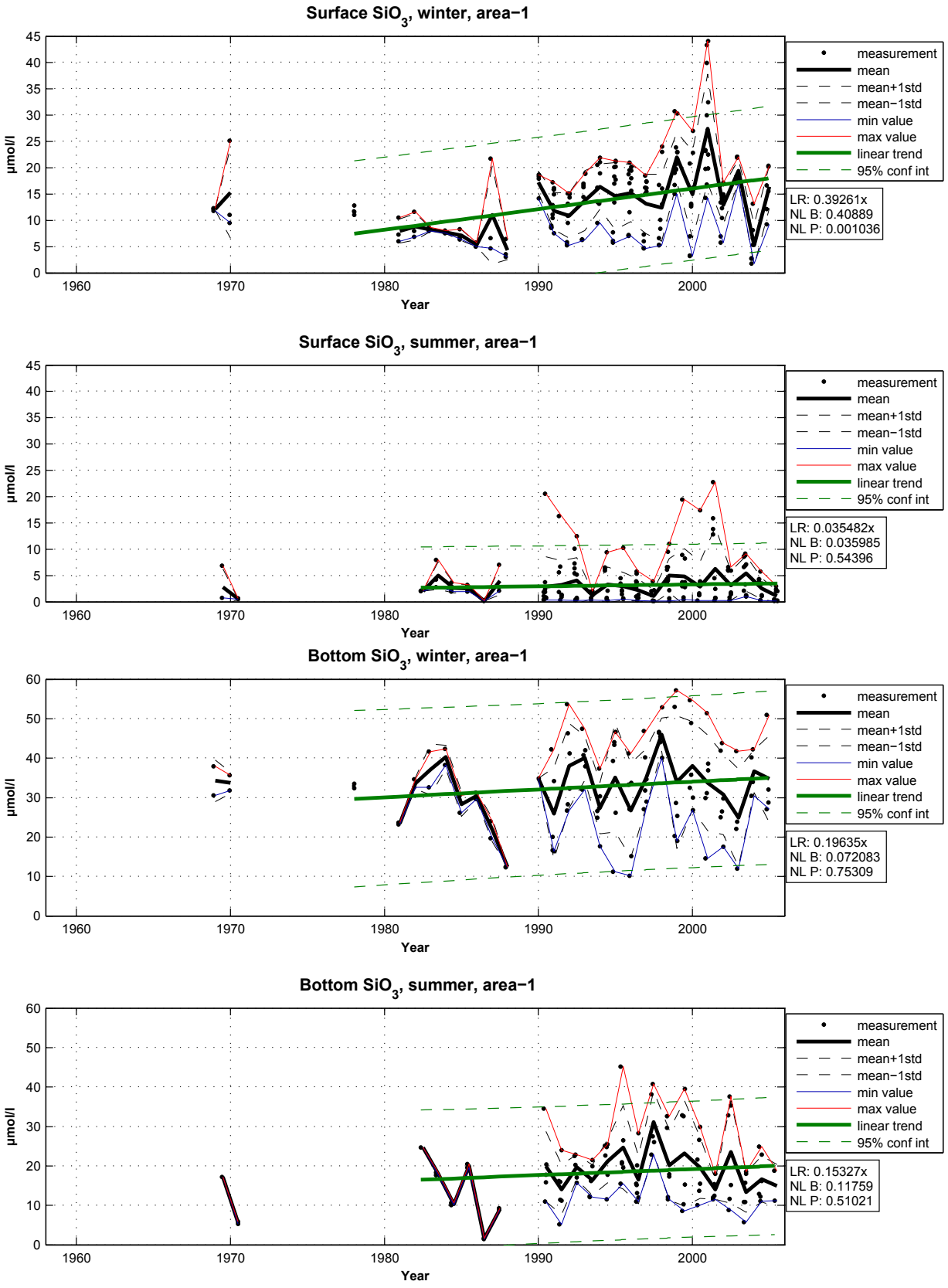

Figure 7. Area 1, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

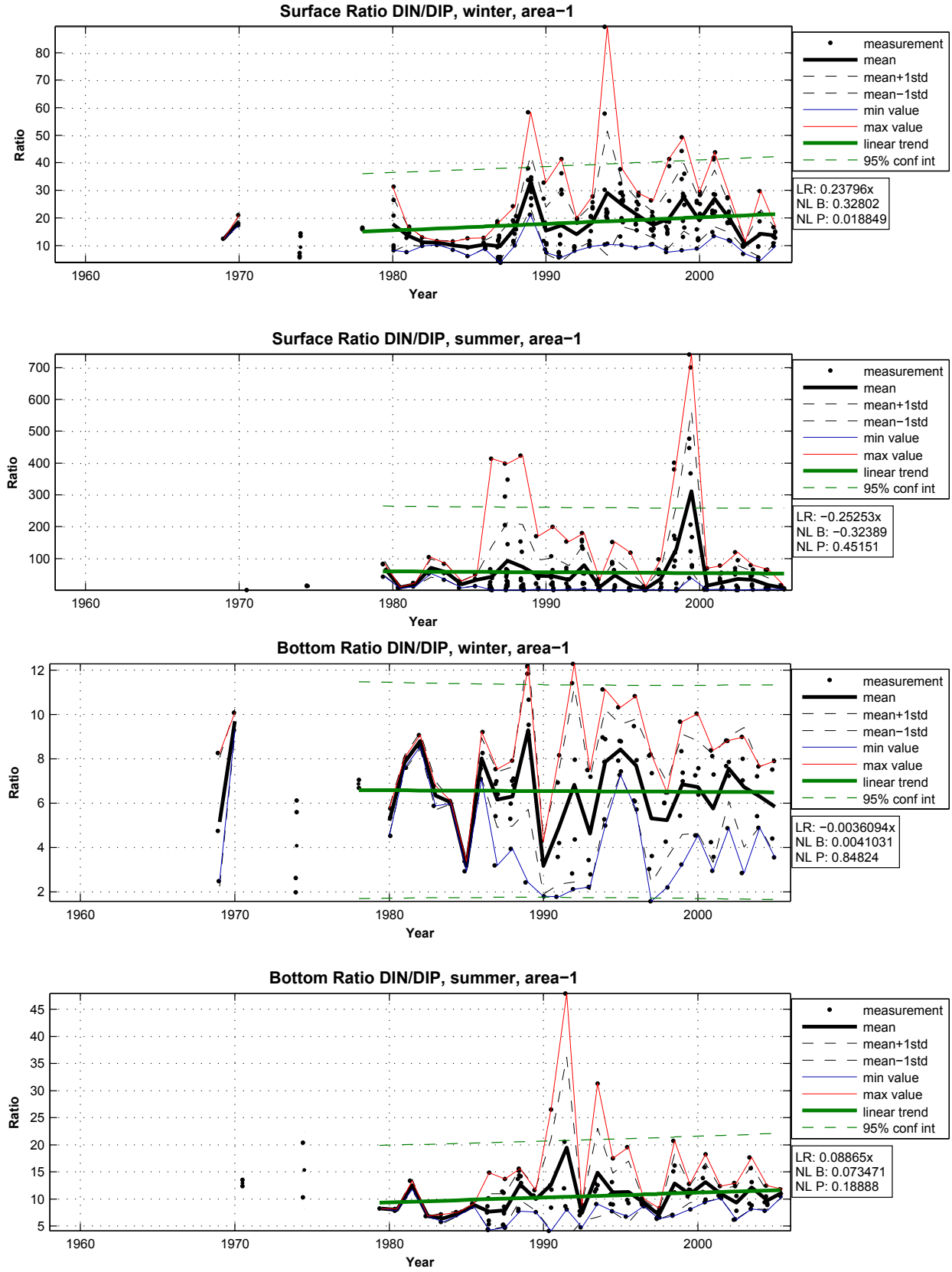

Figure 8. Area 1, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

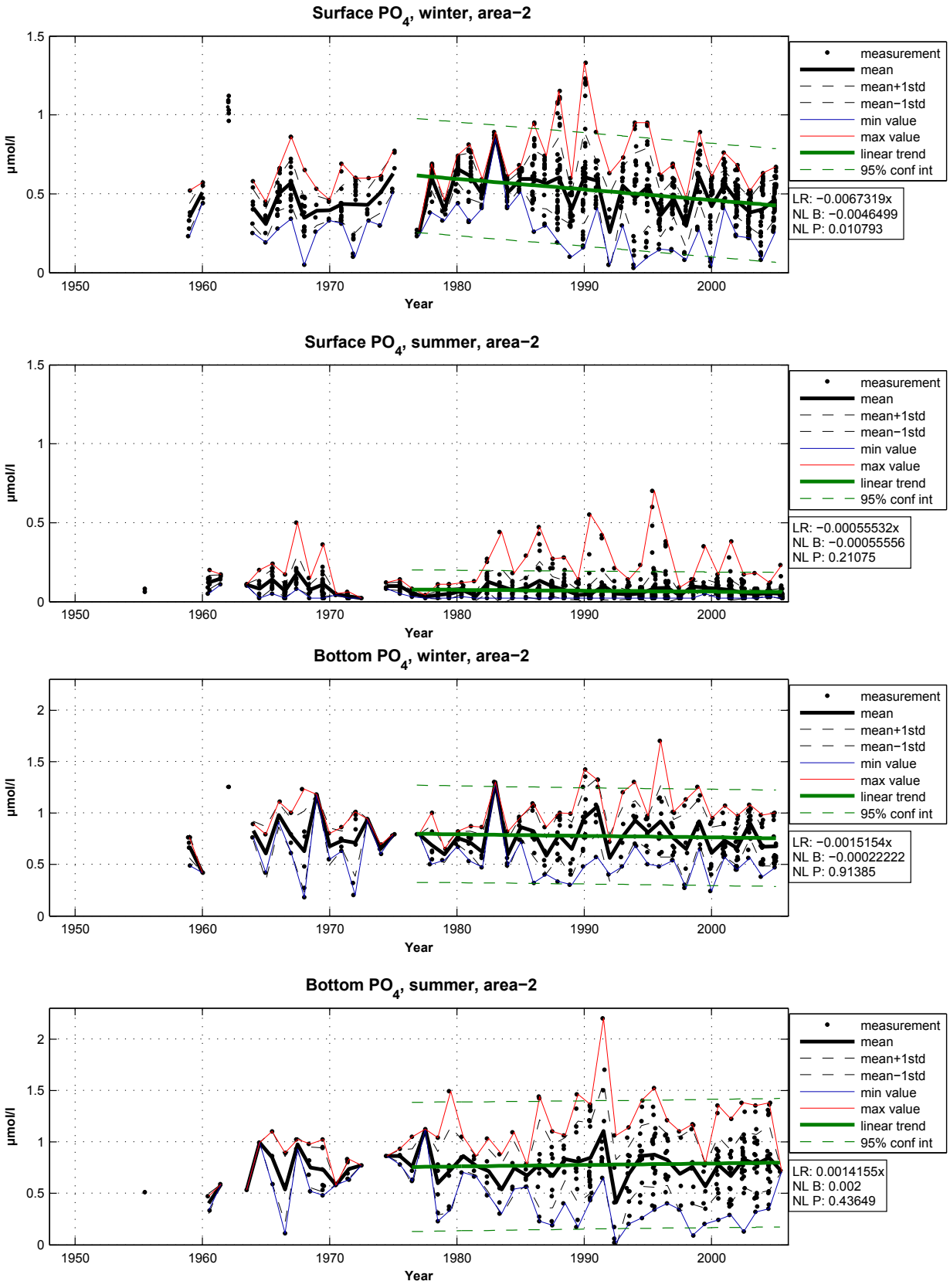

Figure 9. Area 2, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

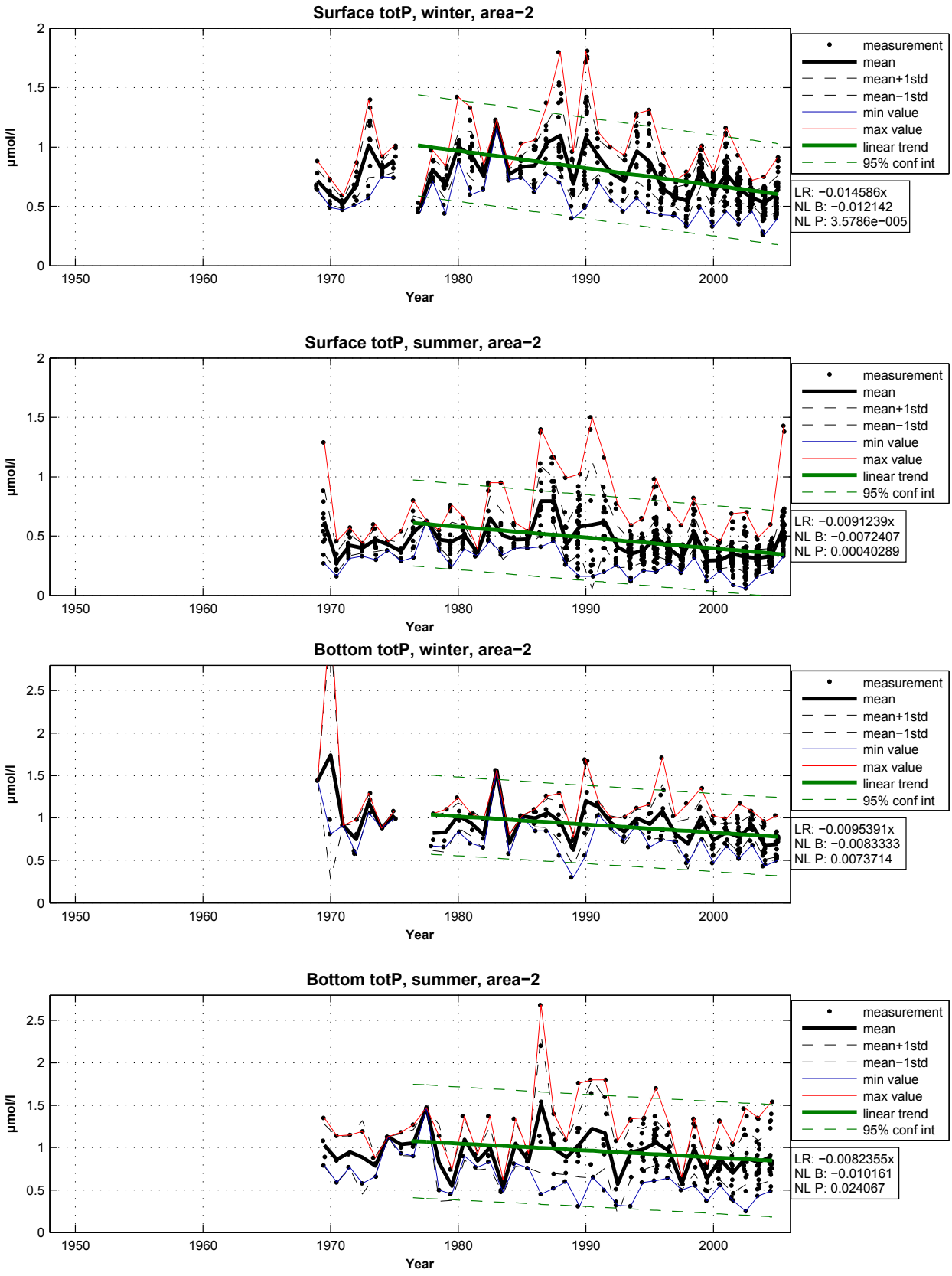

Figure 10. Area 2, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

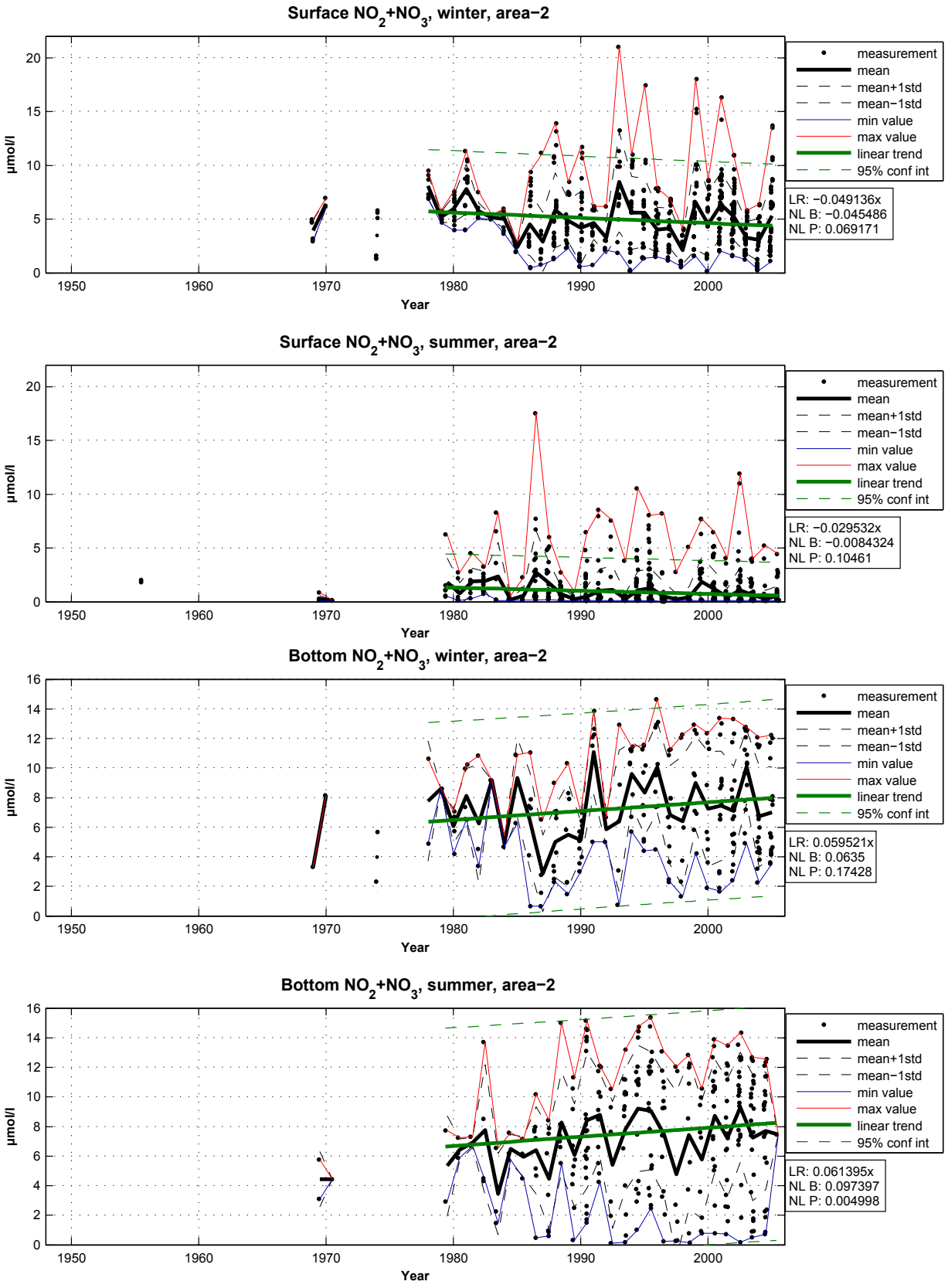

Figure 11. Area 2, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

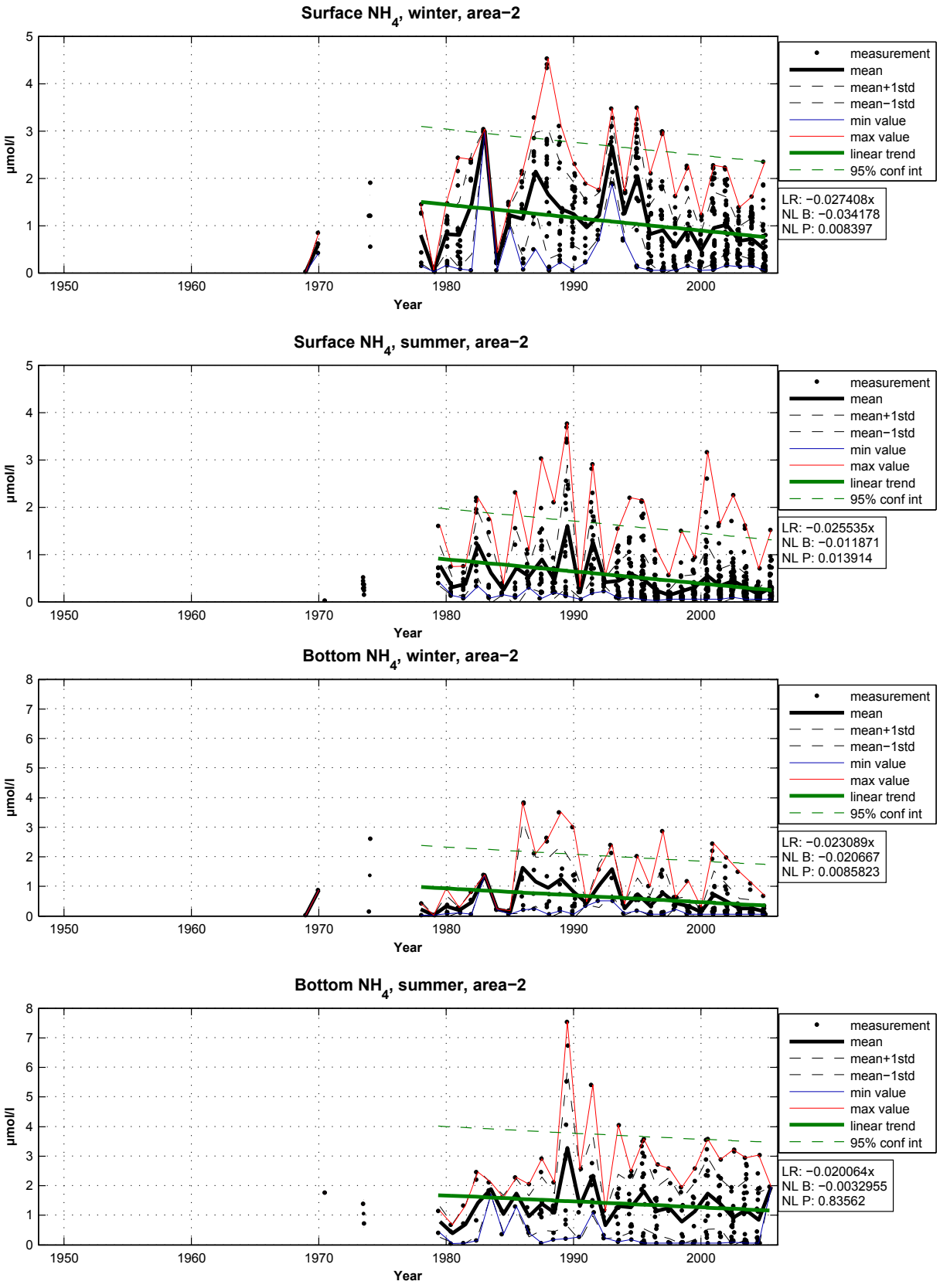

Figure 12. Area 2, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

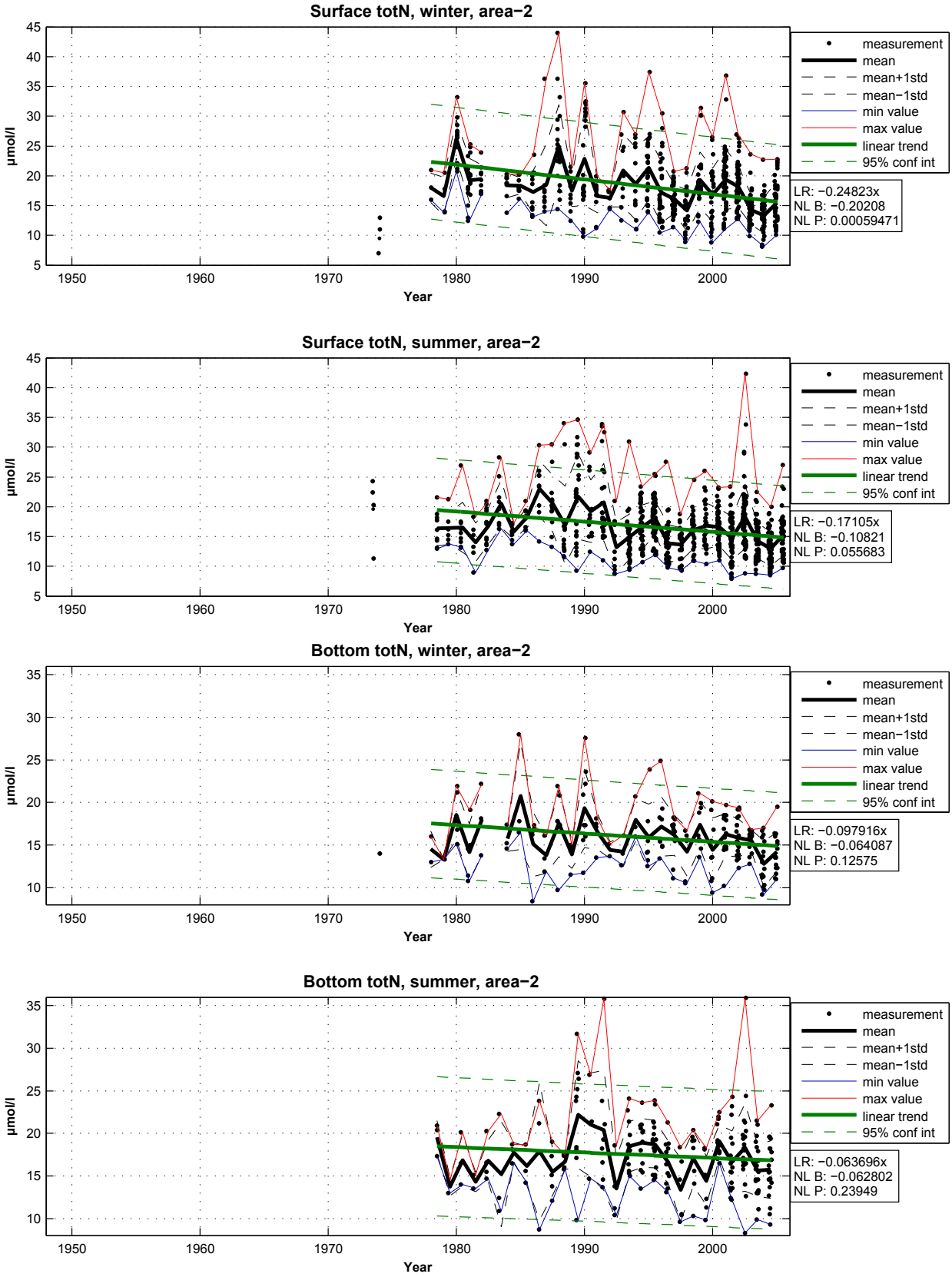

Figure 13. Area 2, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

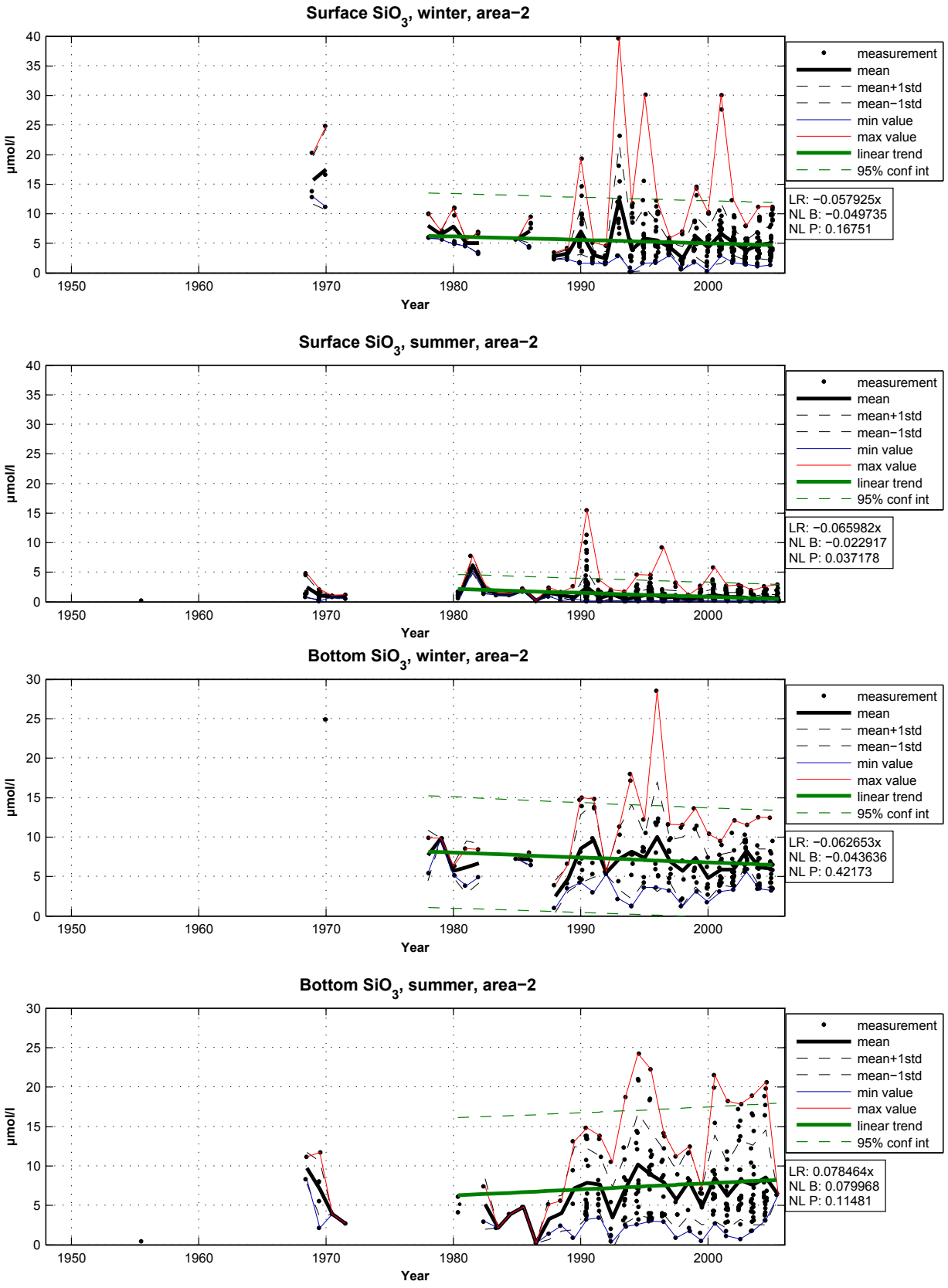

Figure 14. Area 2, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

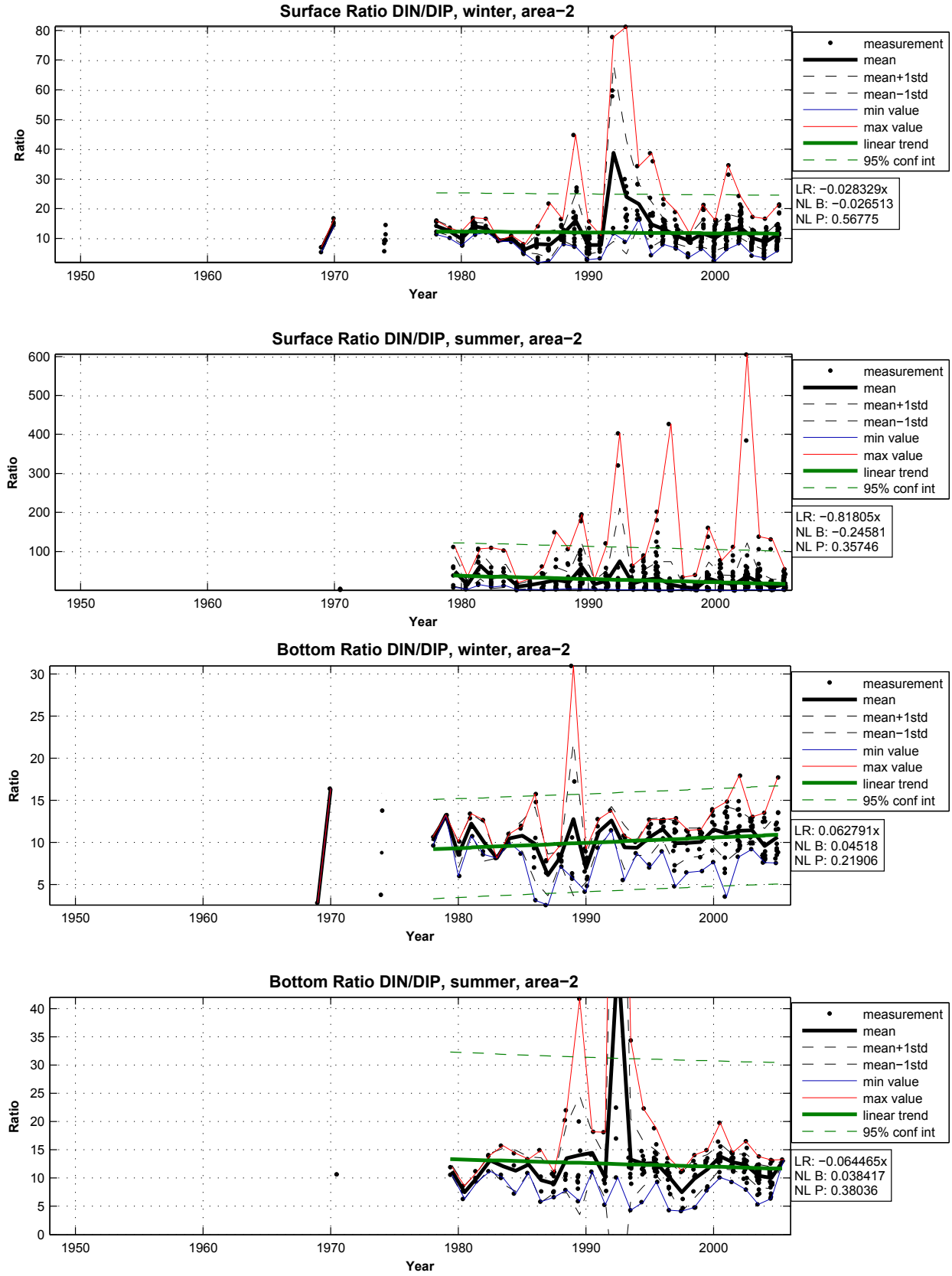

Figure 15. Area 2, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

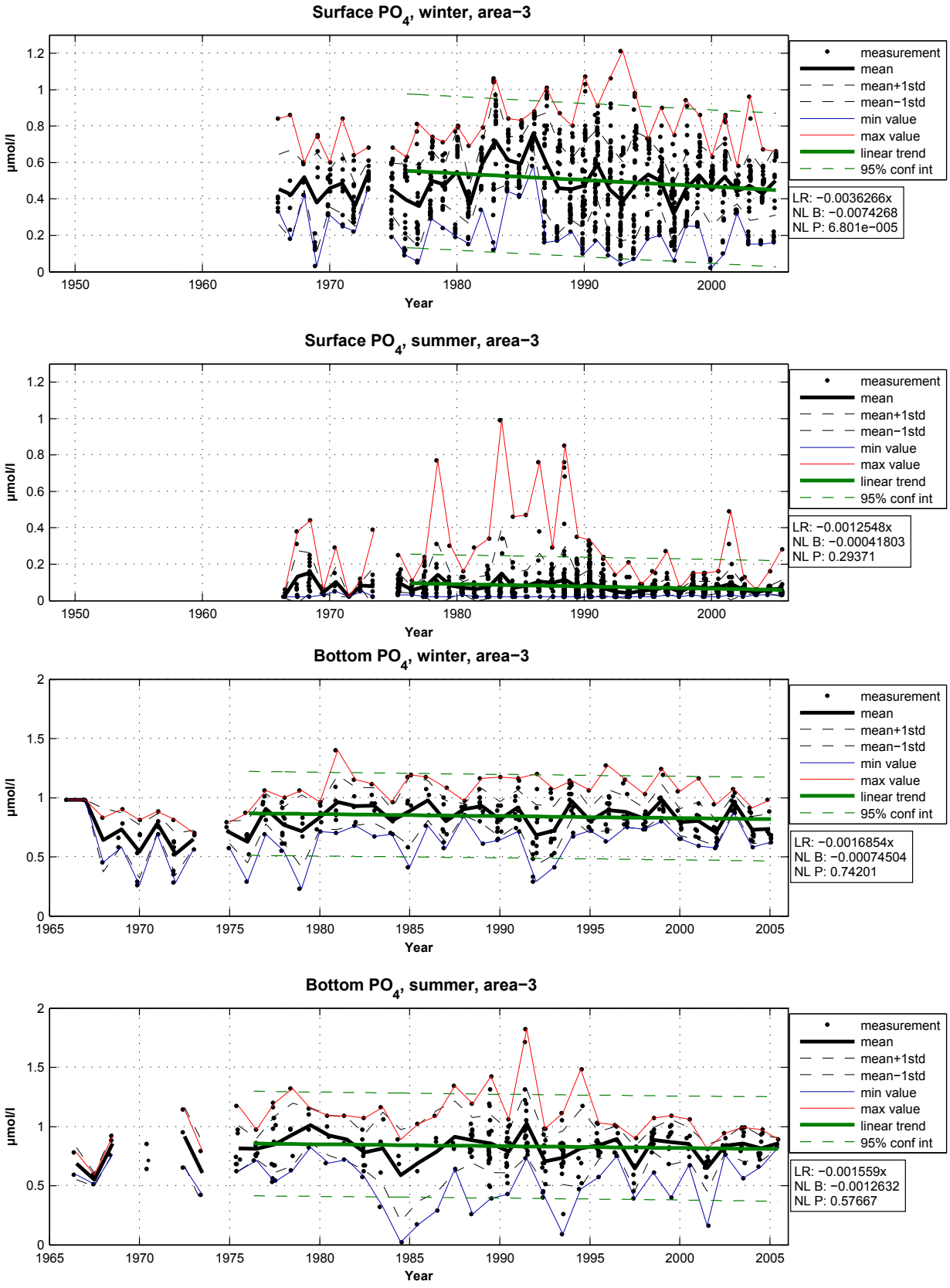

Figure 16. Area 3, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

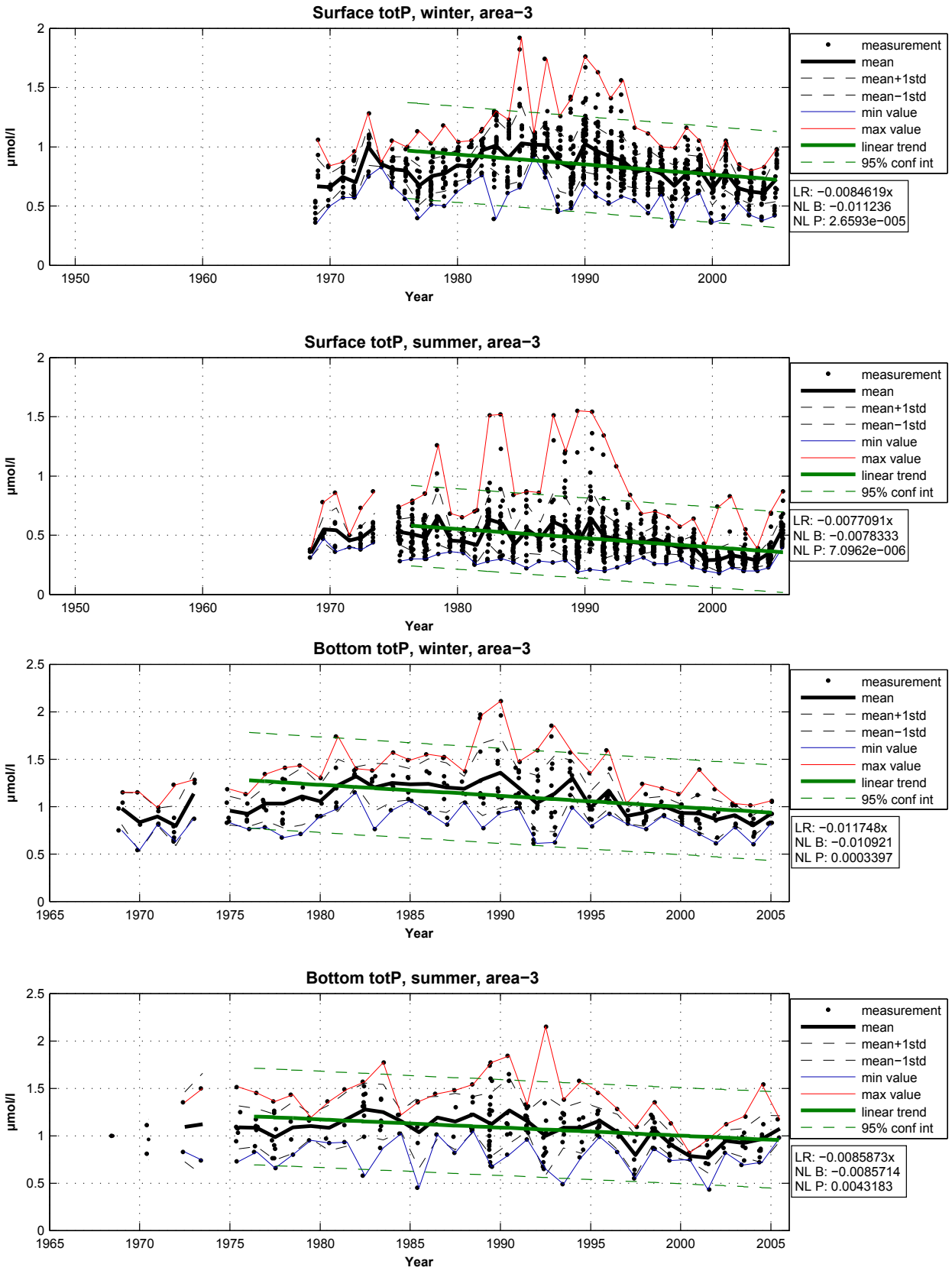

Figure 17. Area 3, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

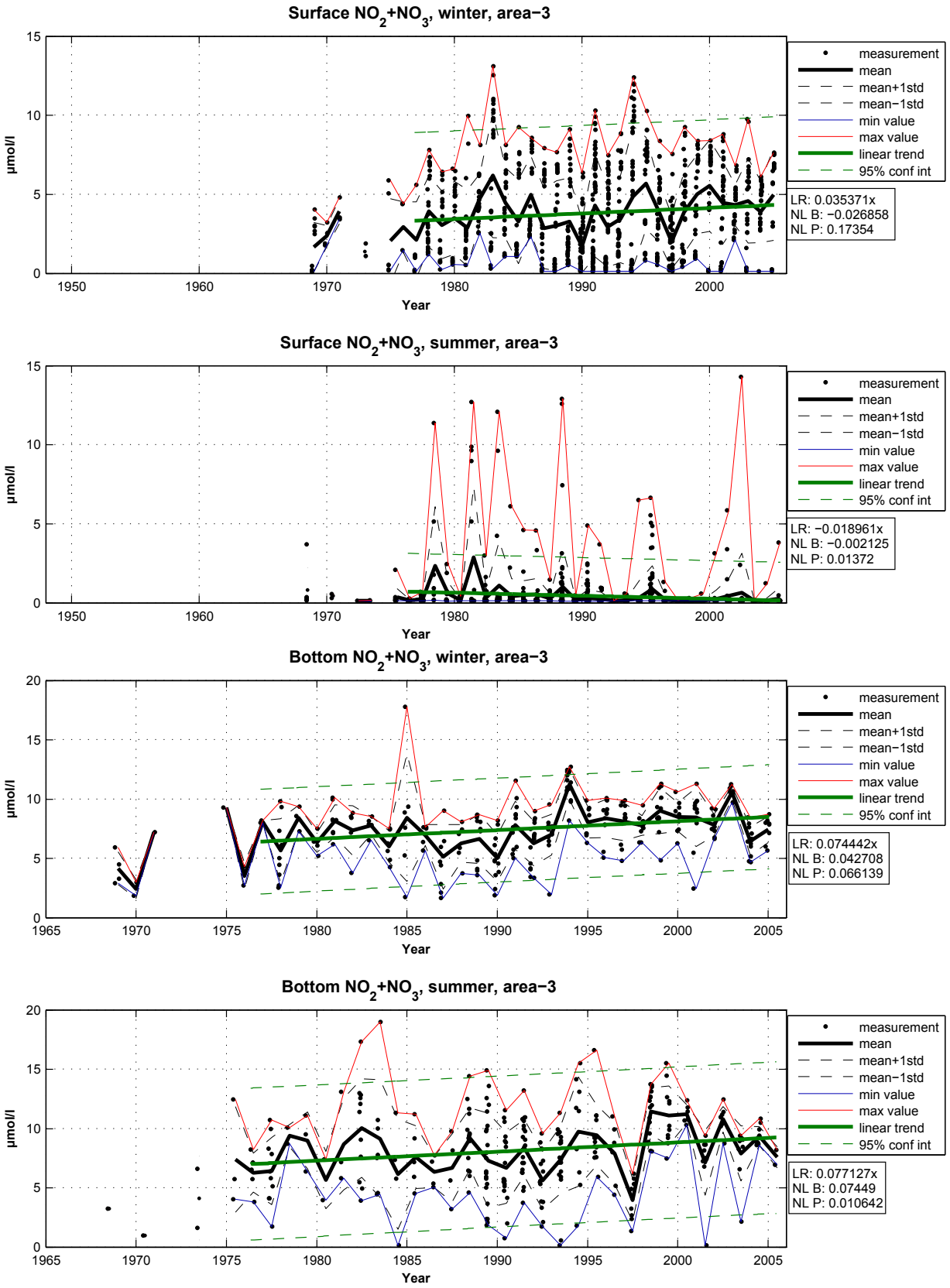

Figure 18. Area 3, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

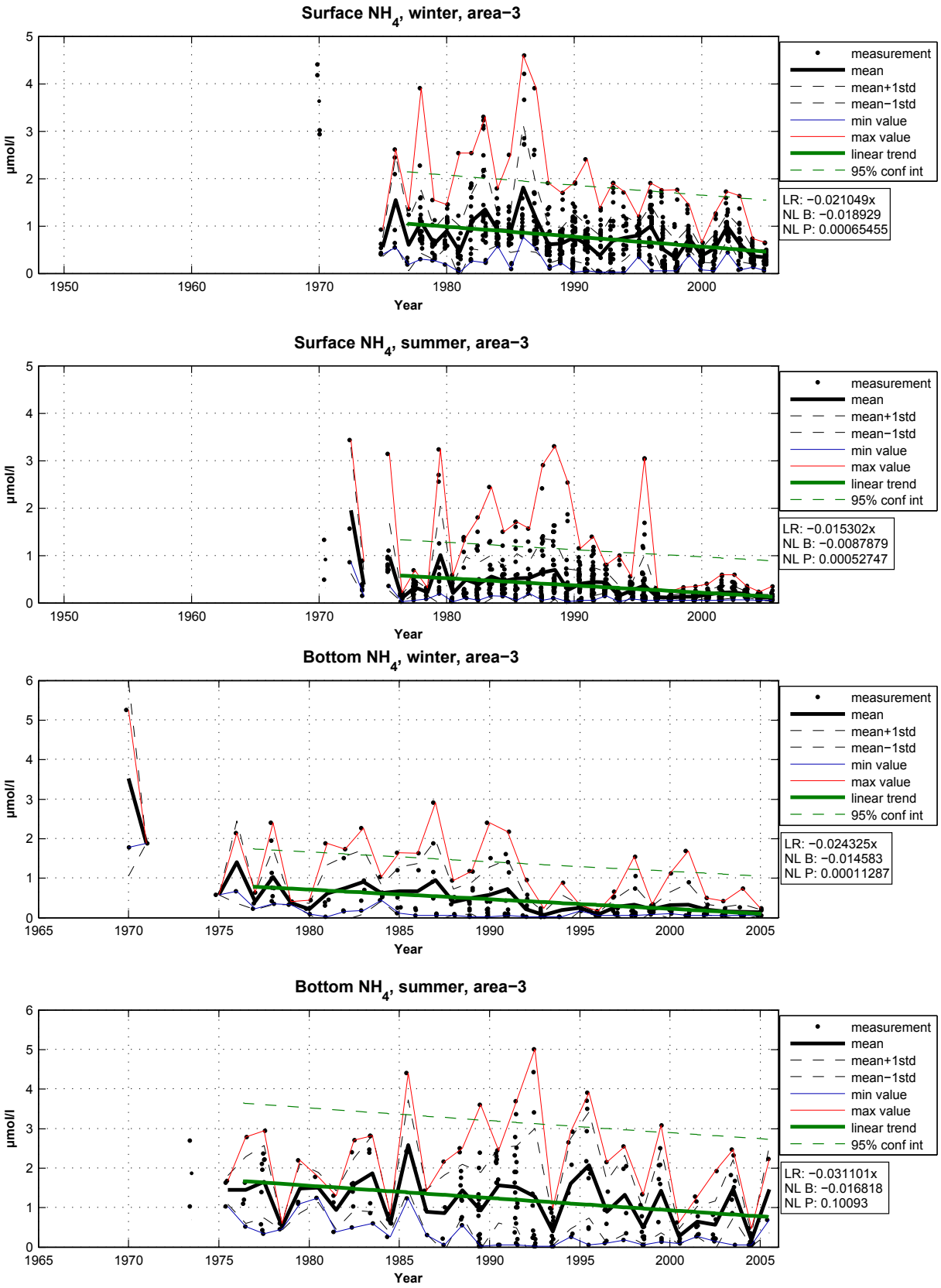

Figure 19. Area 3, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

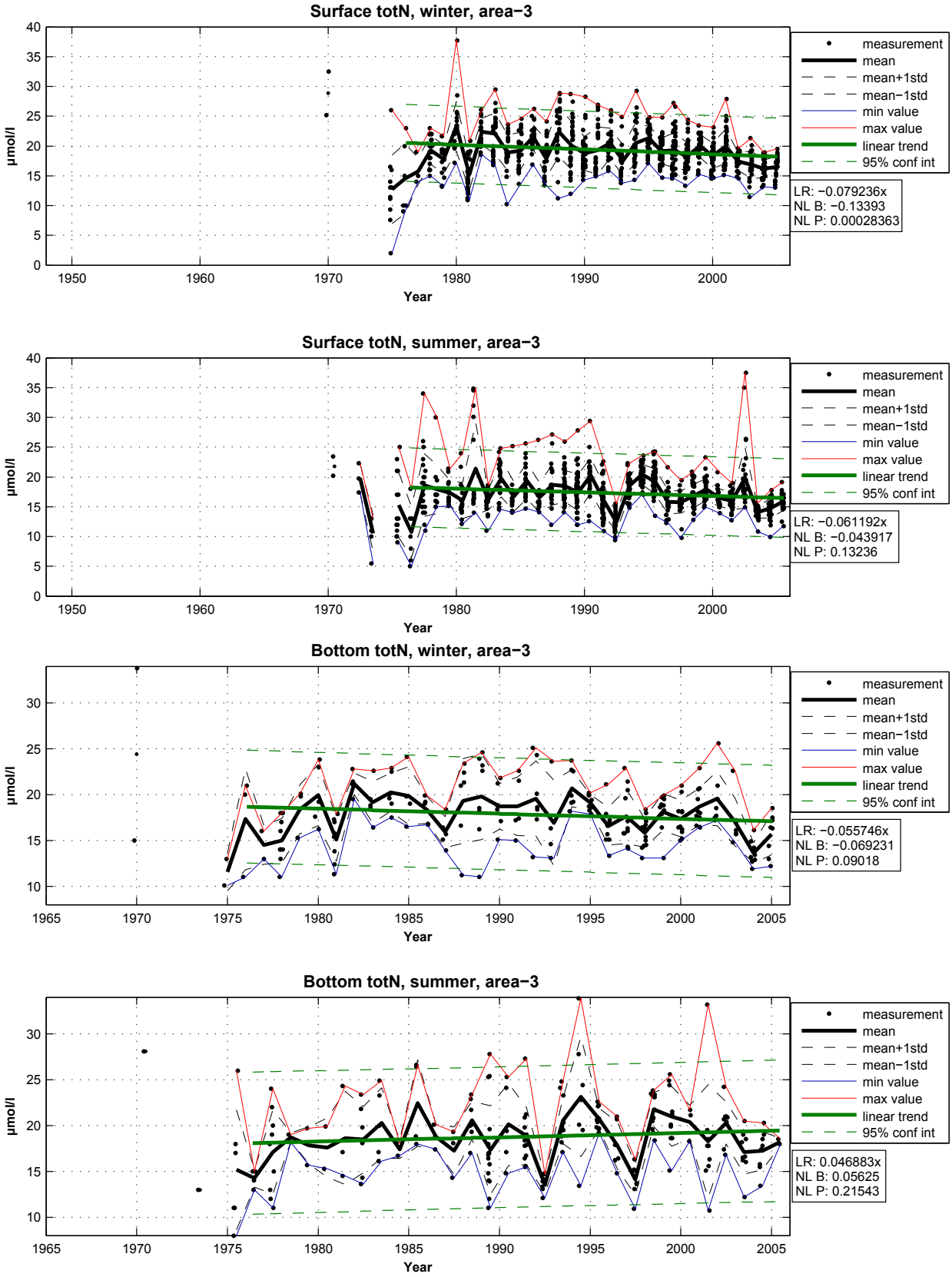

Figure 20. Area 3, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

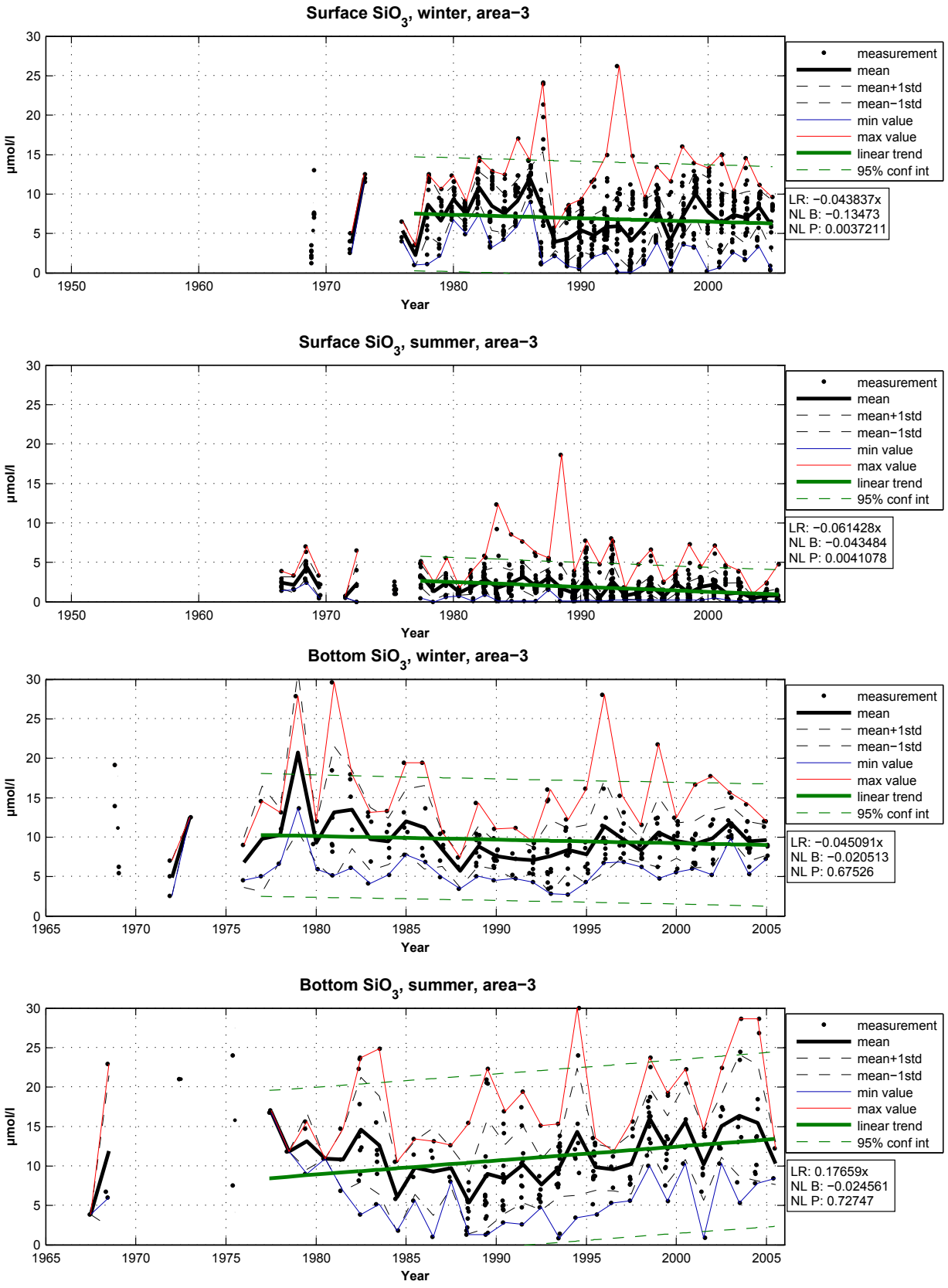

Figure 21. Area 3, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

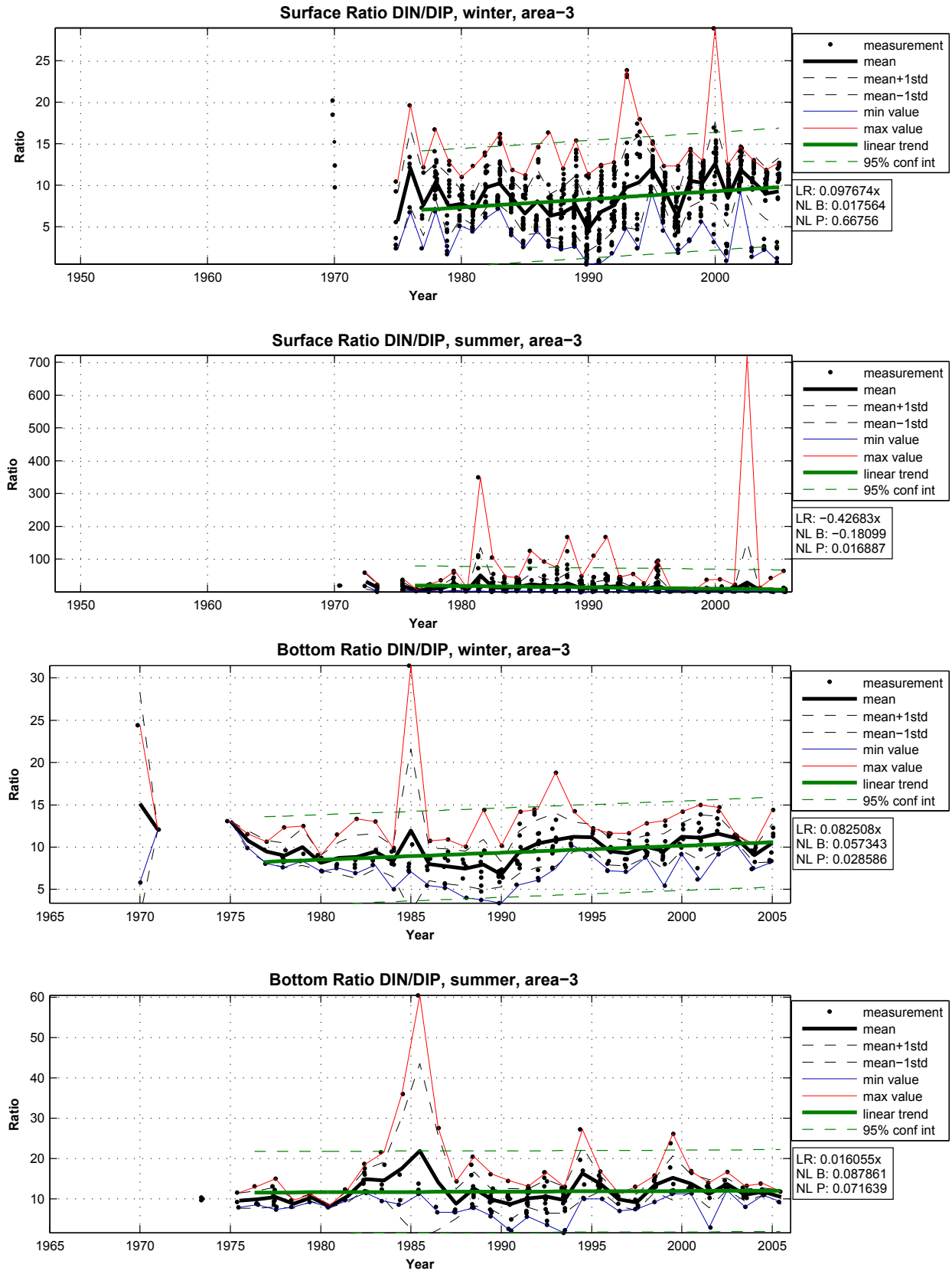

Figure 22. Area 3, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

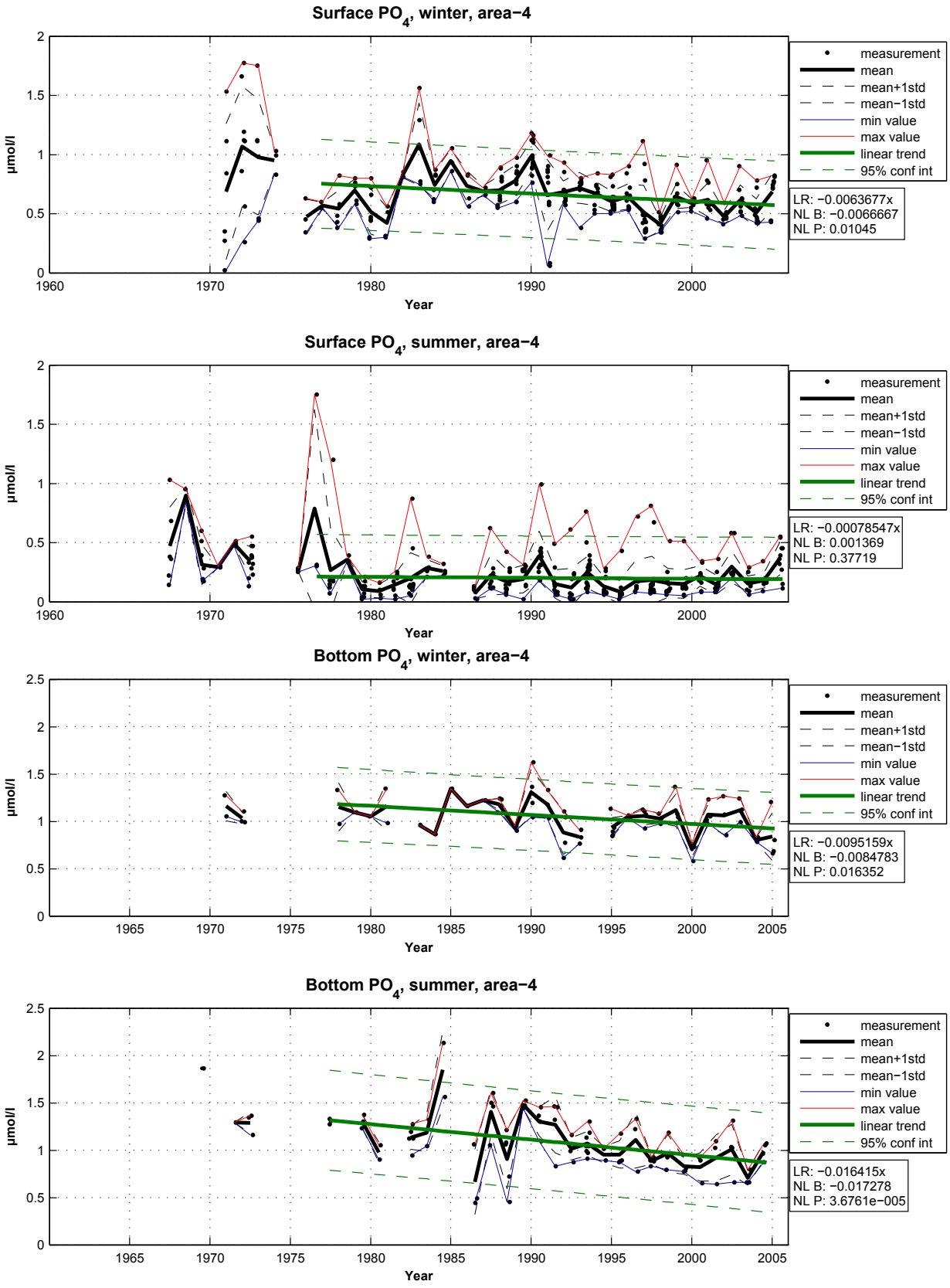

Figure 23. Area 4, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

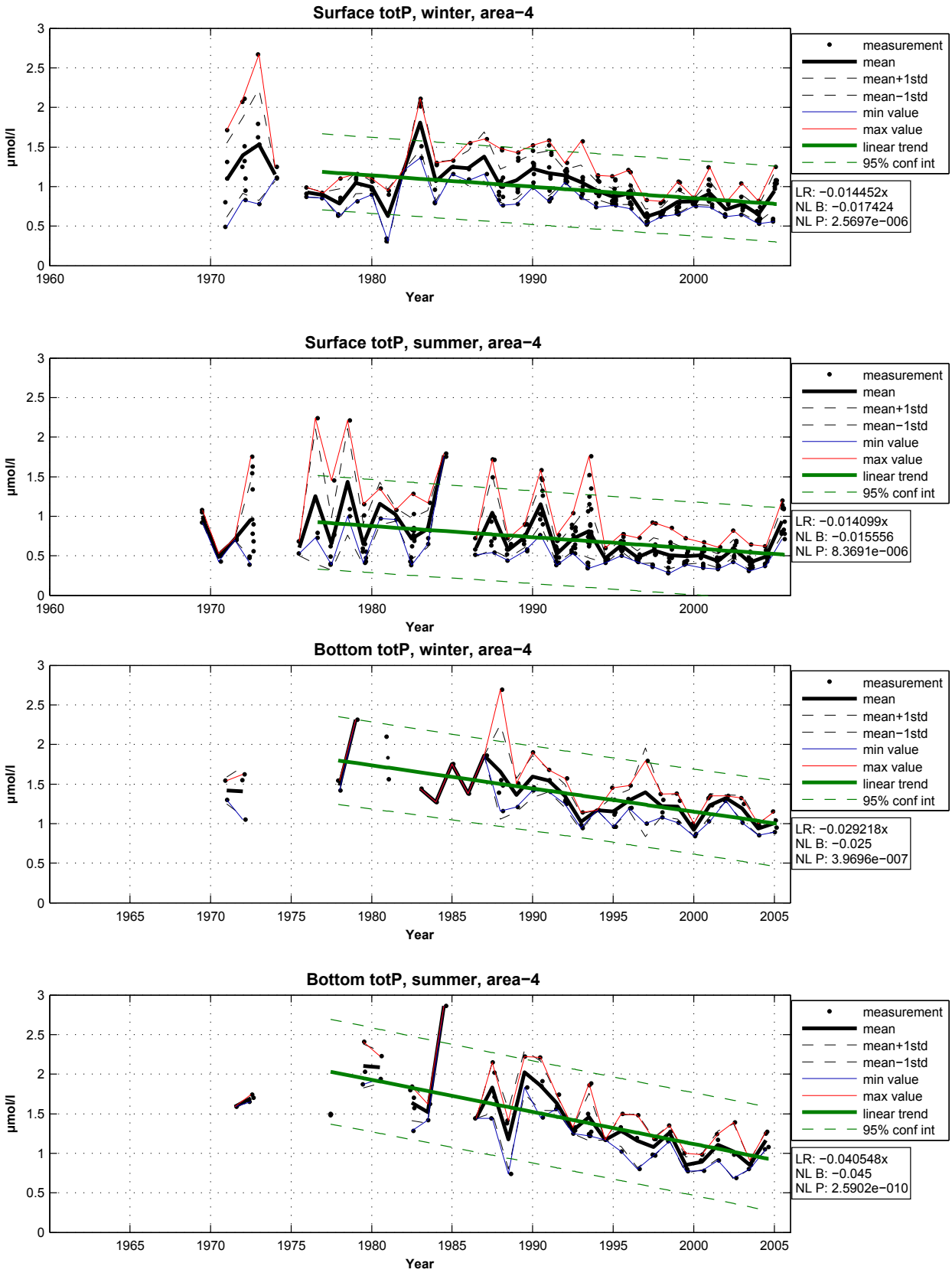

Figure 24. Area 4, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

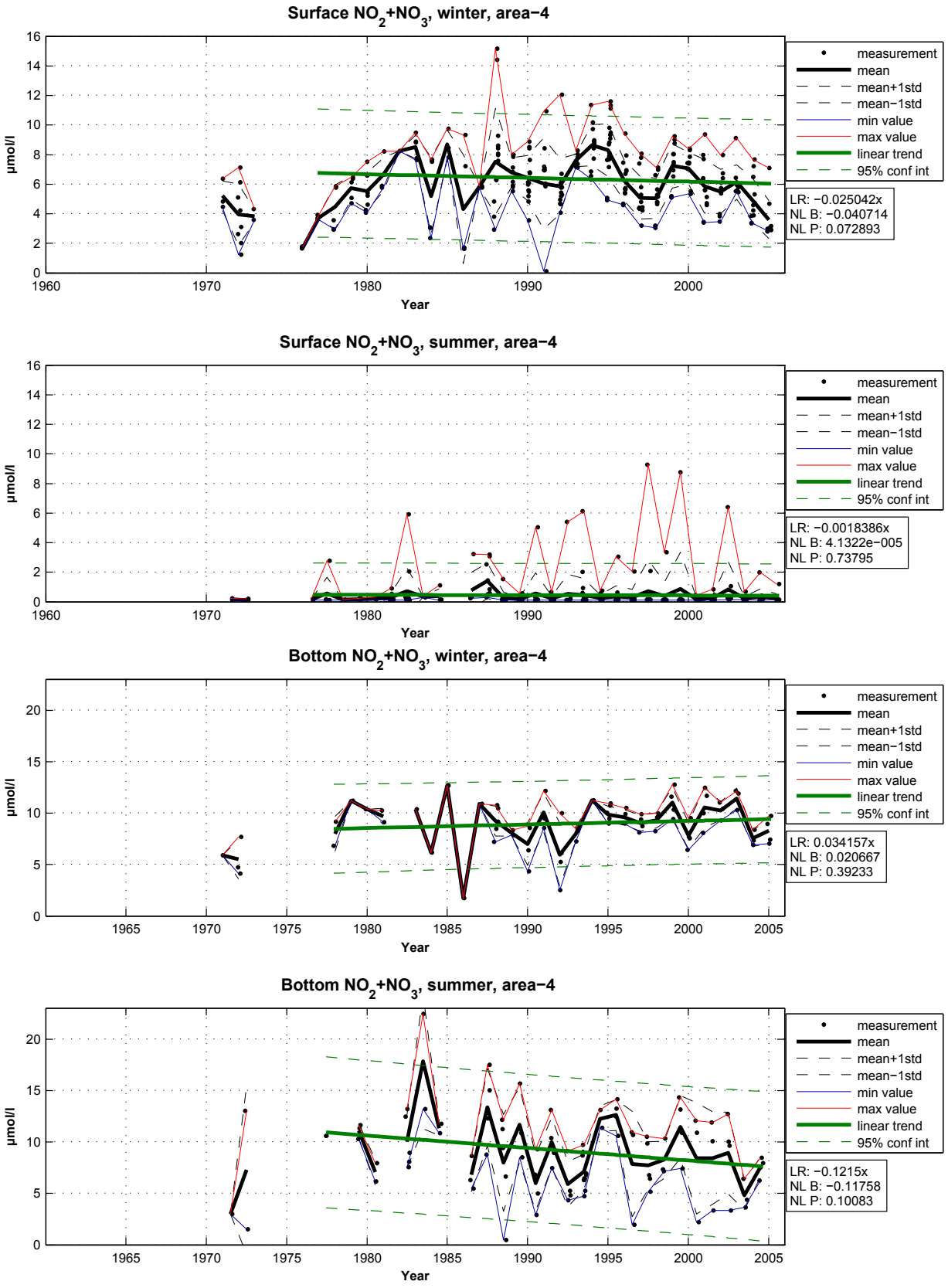

Figure 25. Area 4, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

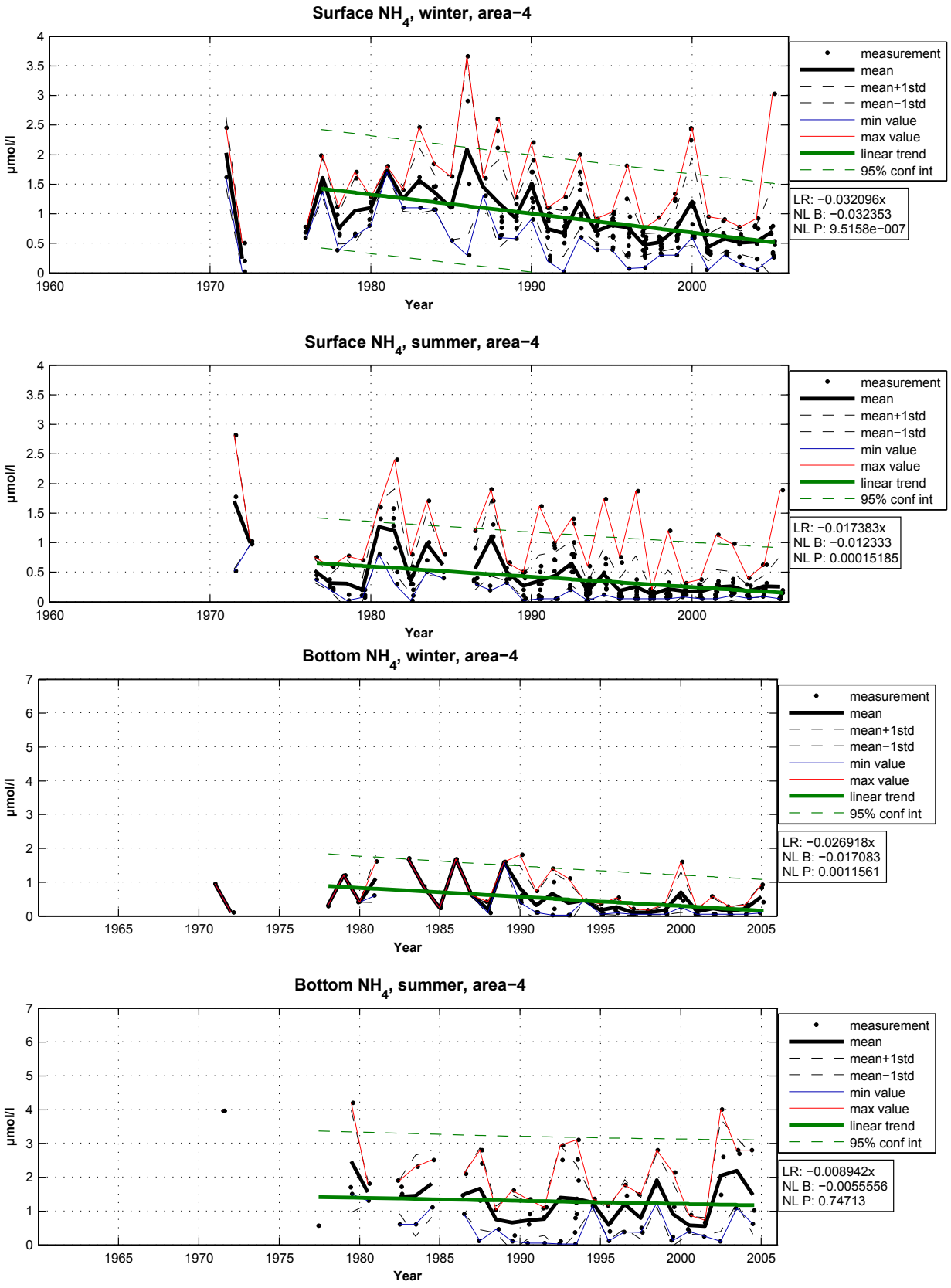

Figure 26. Area 4, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

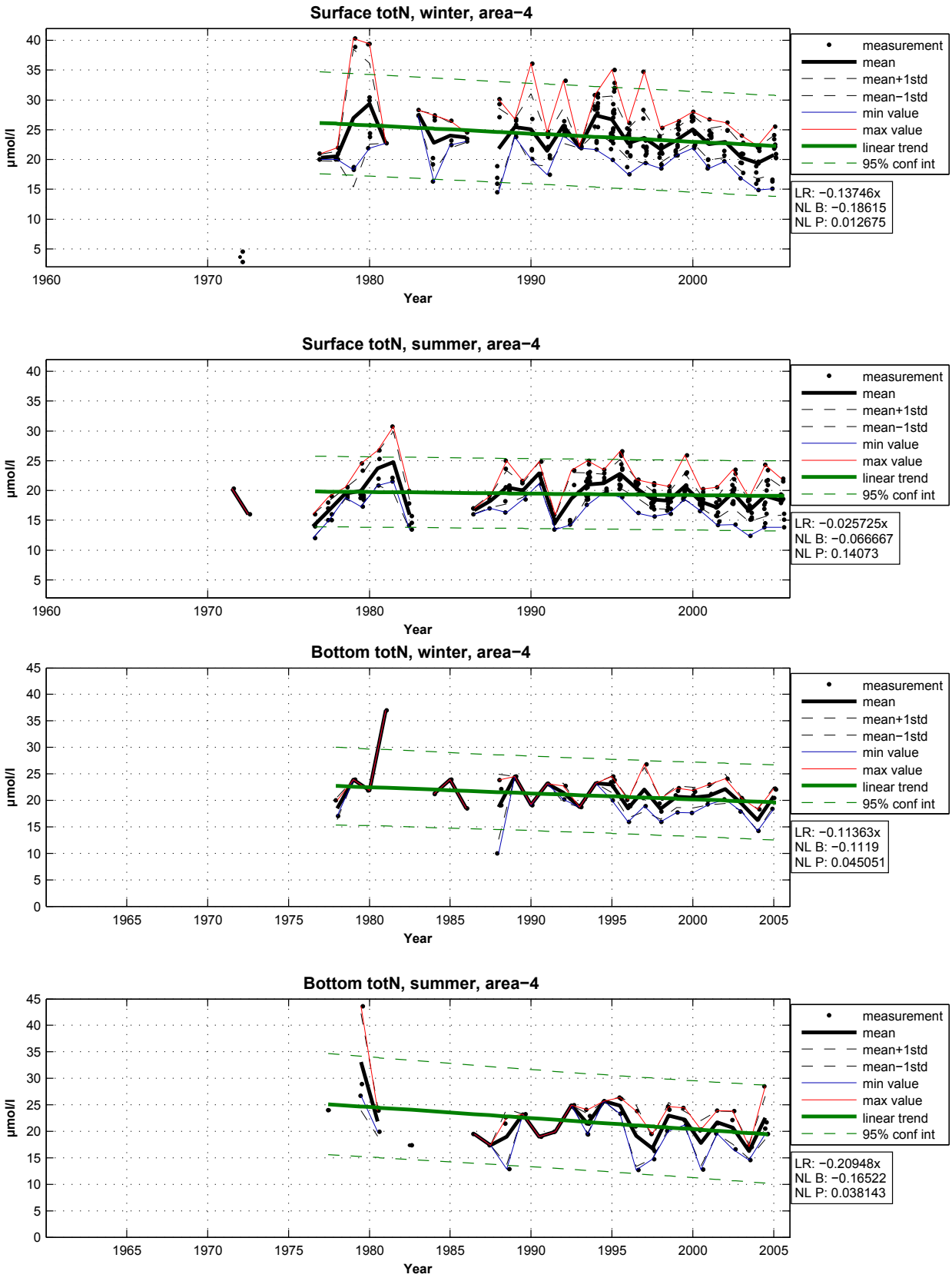

Figure 27. Area 4, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

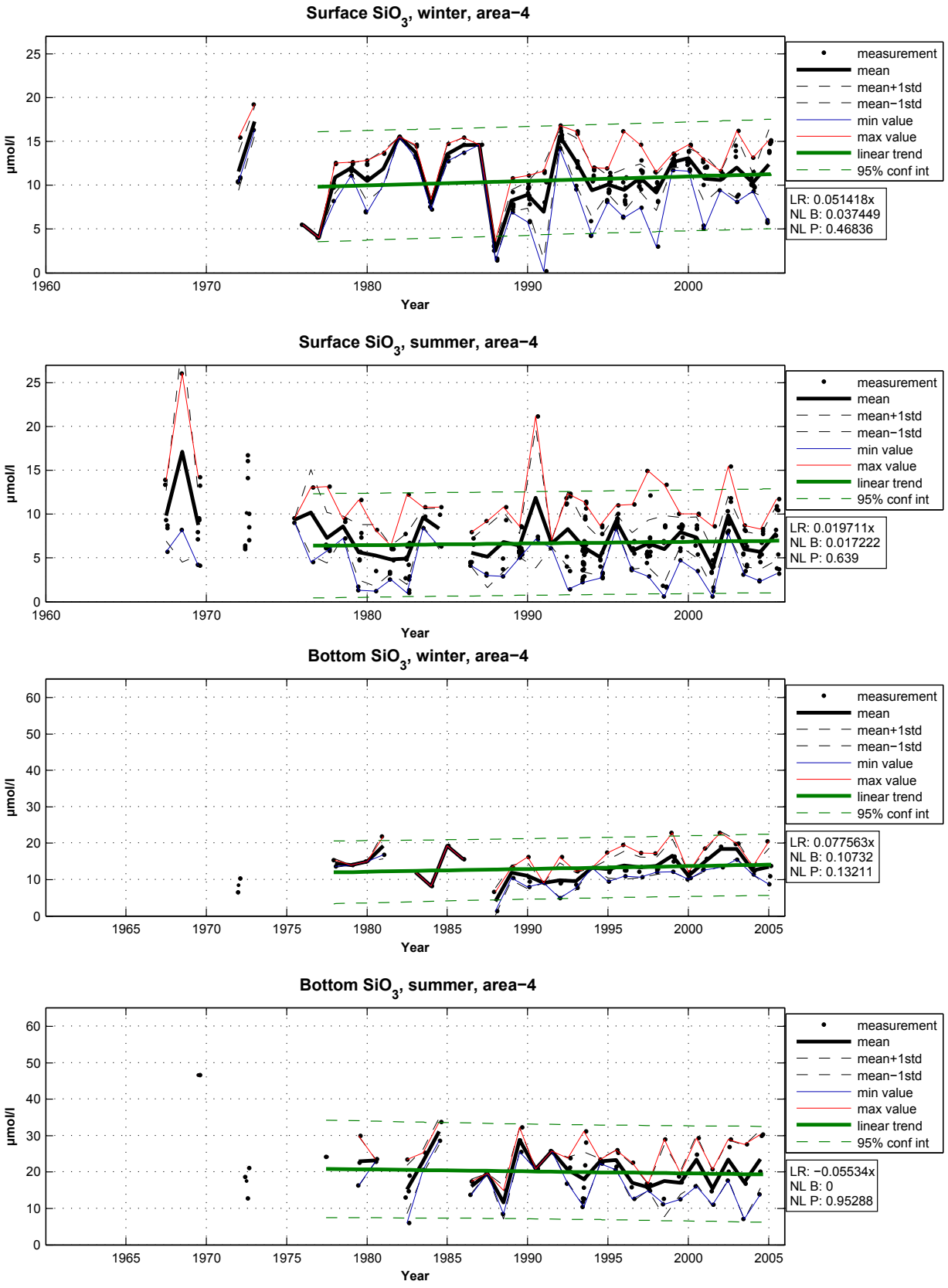

Figure 28. Area 4, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

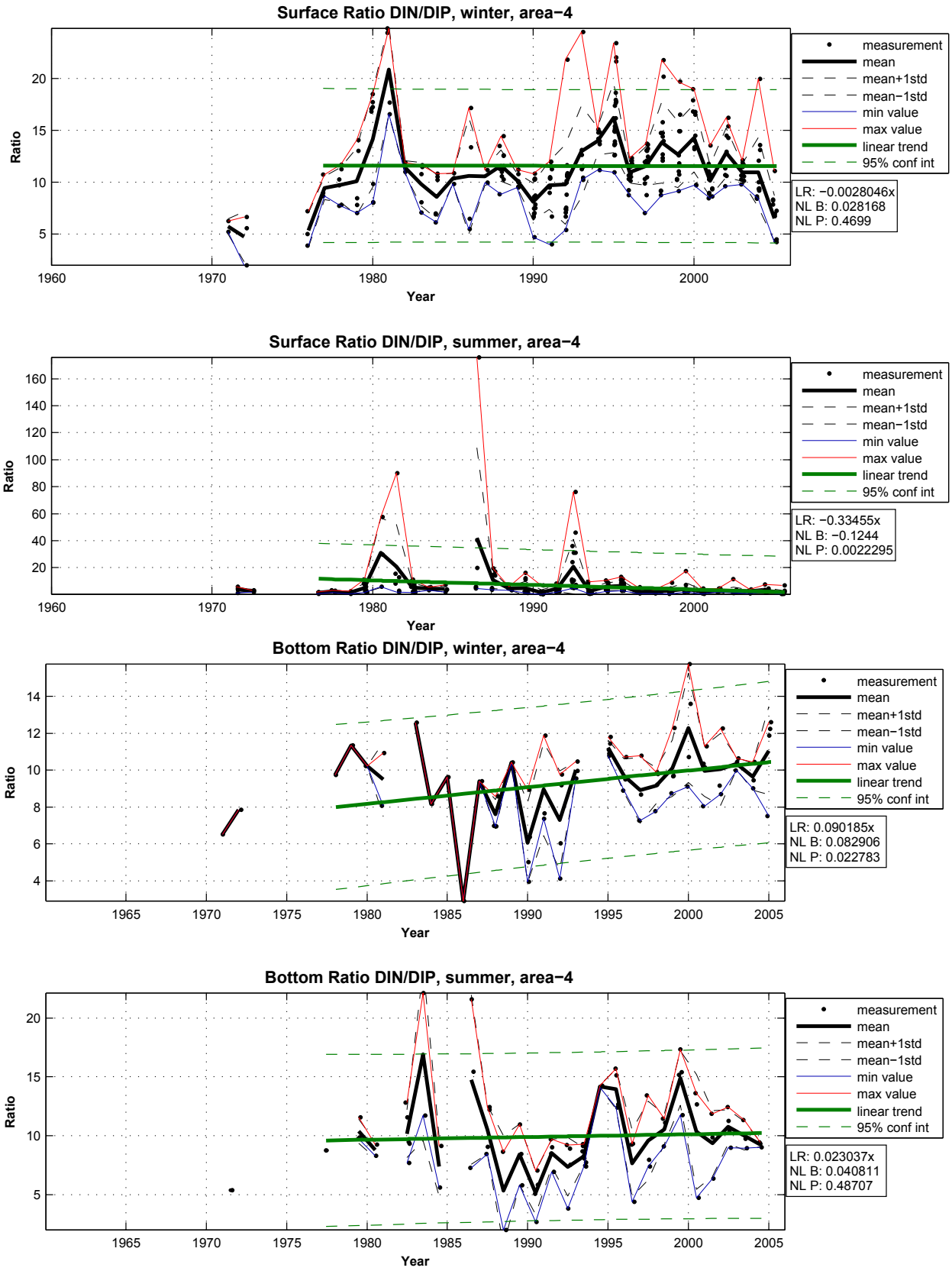

Figure 29. Area 4, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

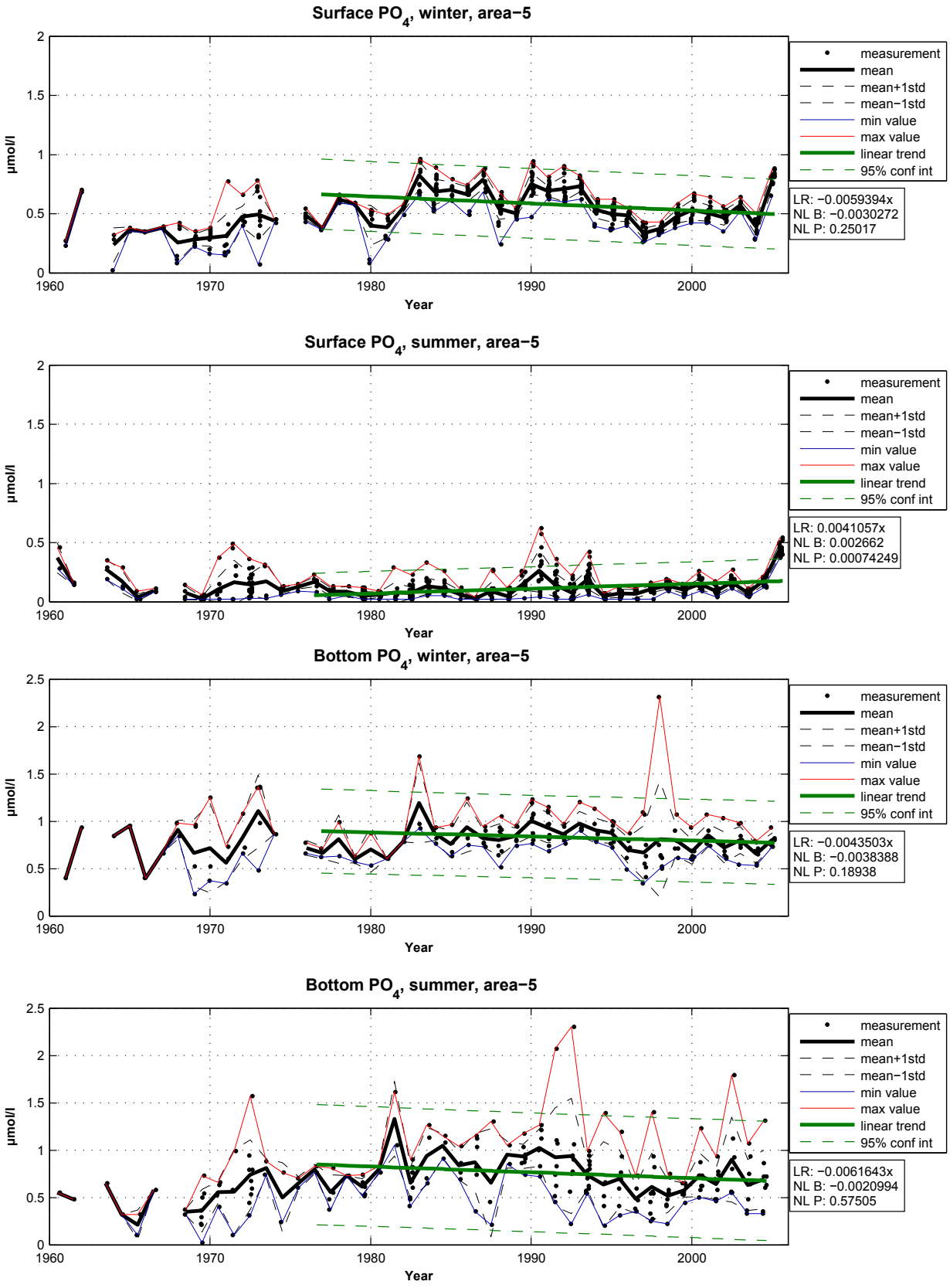

Figure 30. Area 5, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

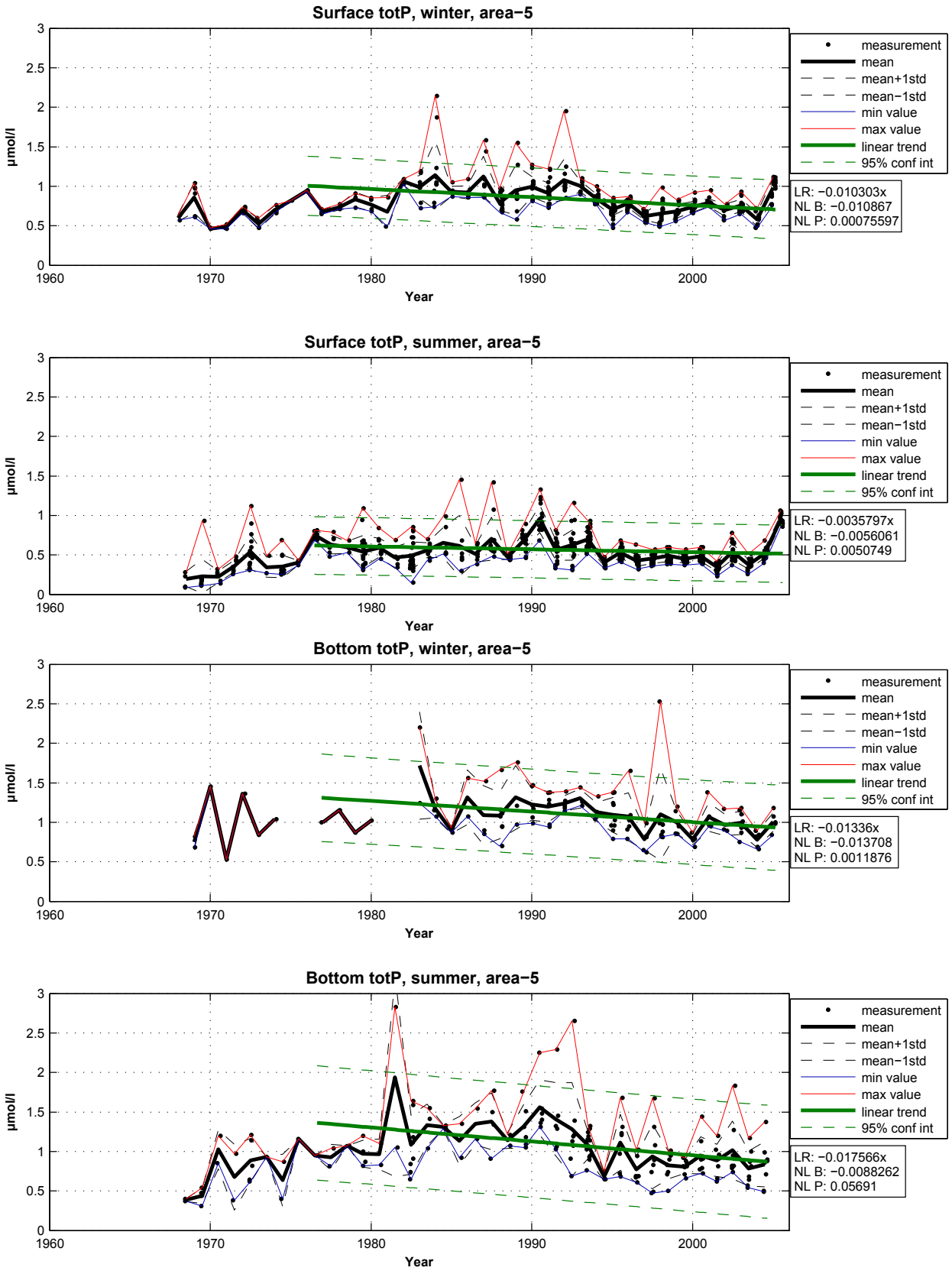

Figure 31. Area 5, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

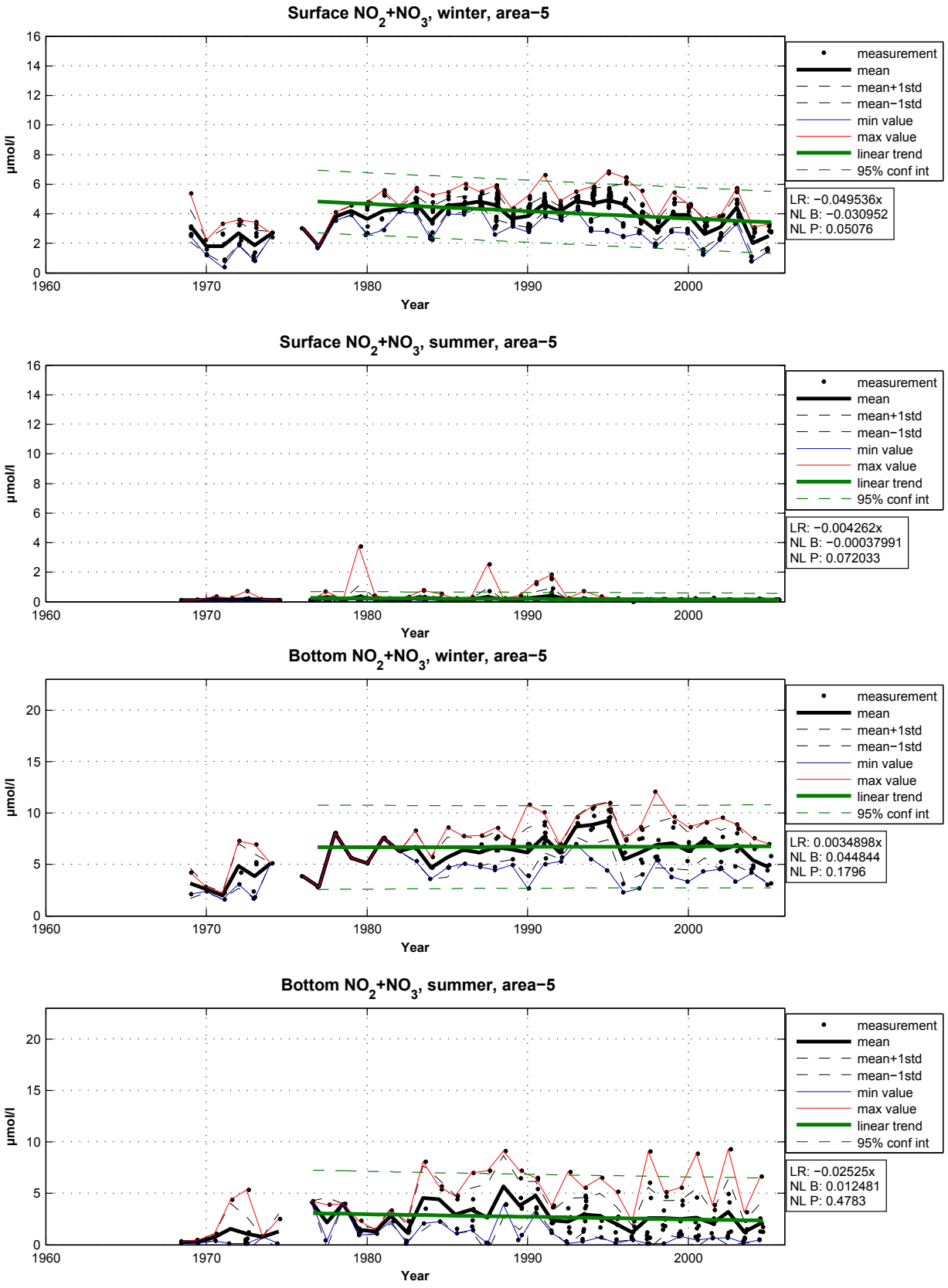

Figure 32. Area 5, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

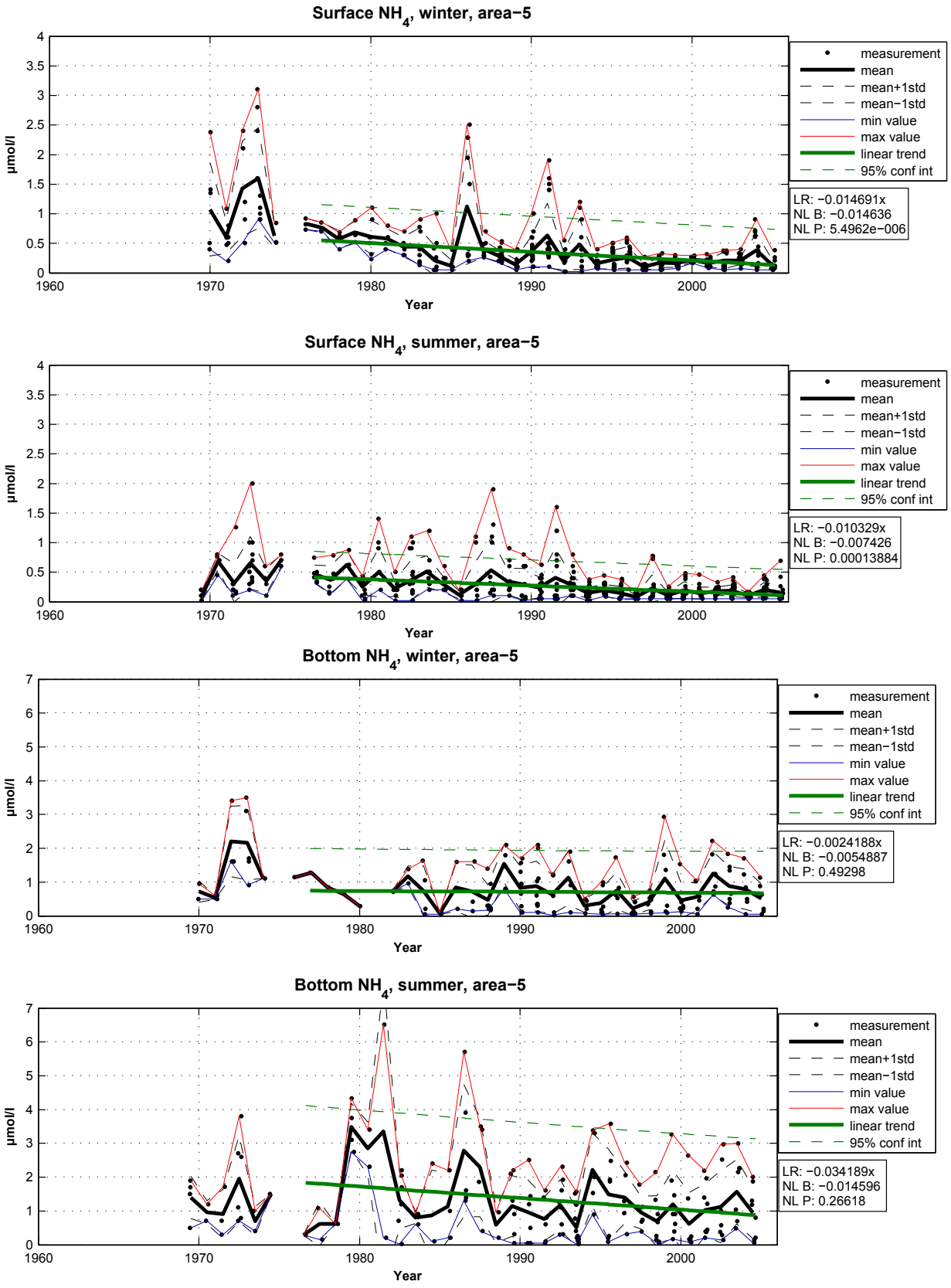

Figure 33. Area 5, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

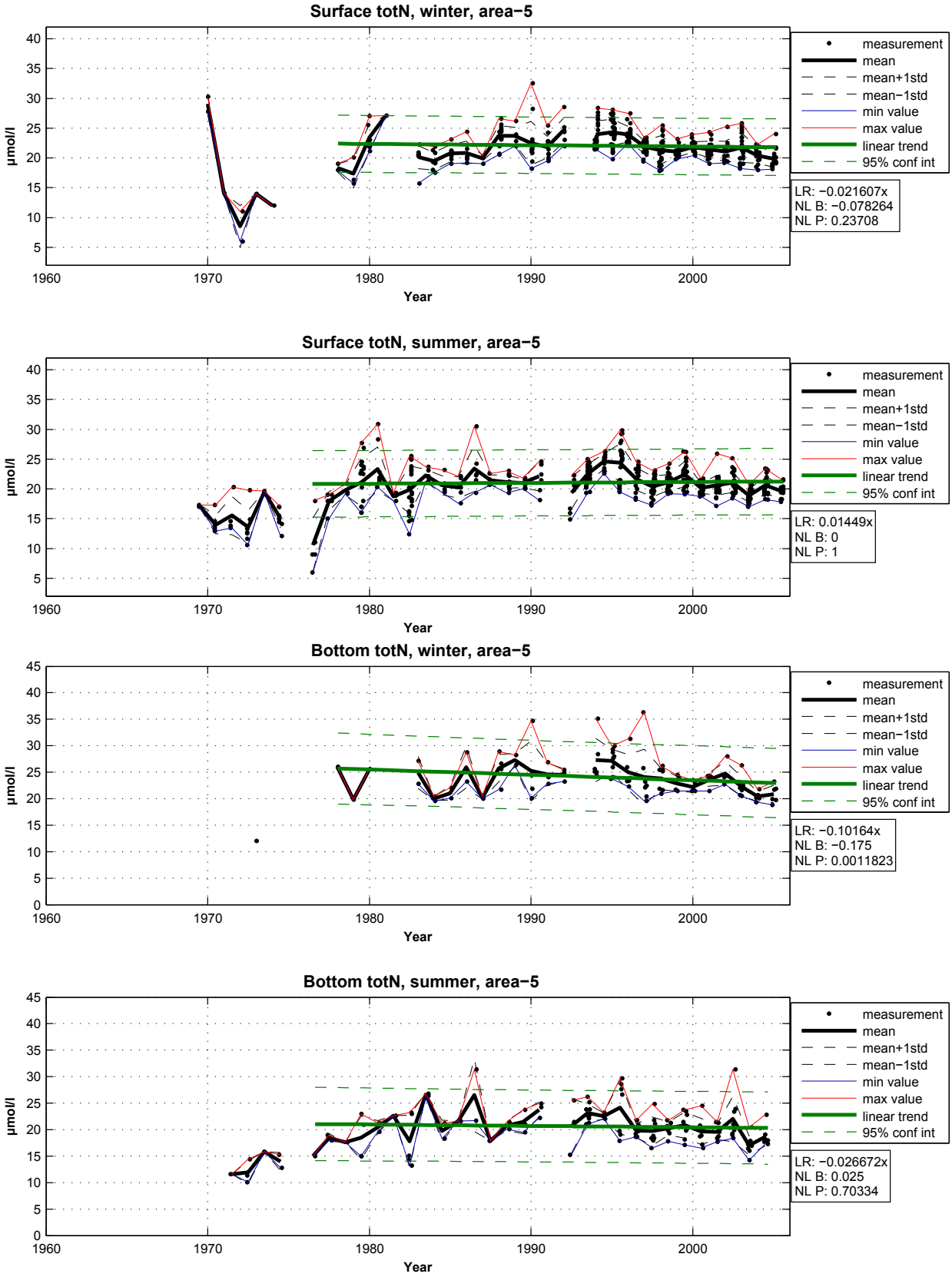

Figure 34. Area 5, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

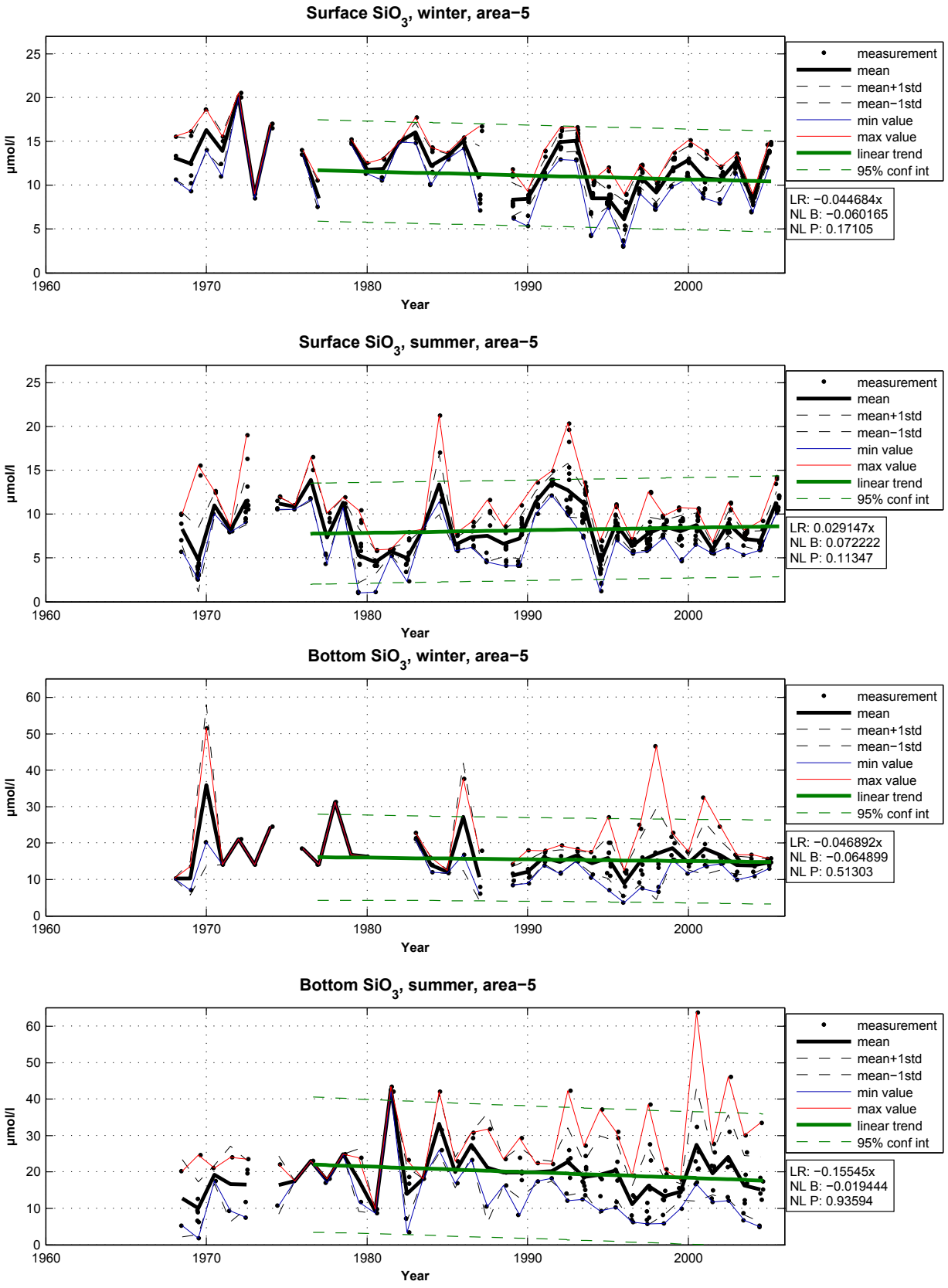

Figure 35. Area 5, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

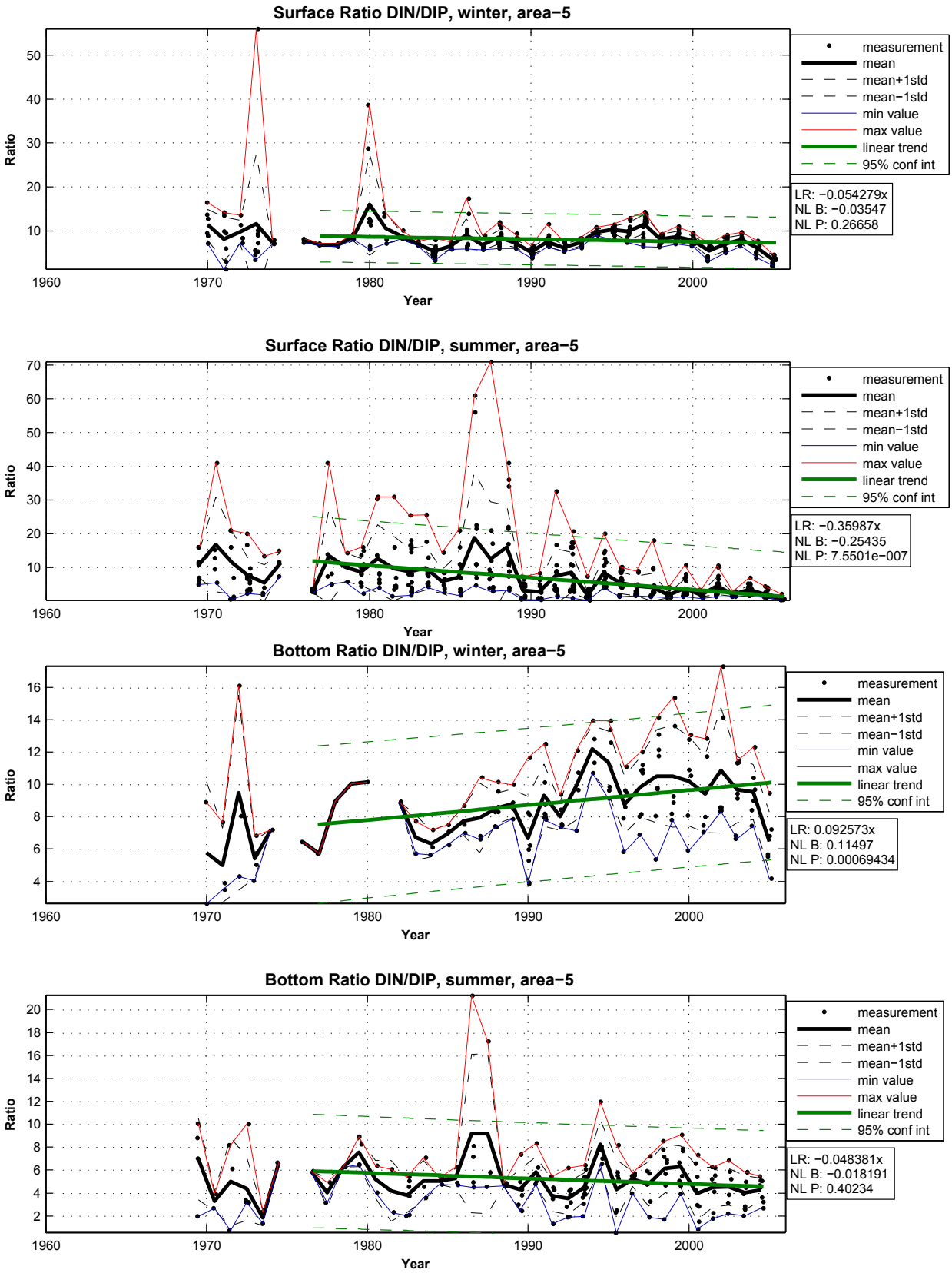

Figure 36. Area 5, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

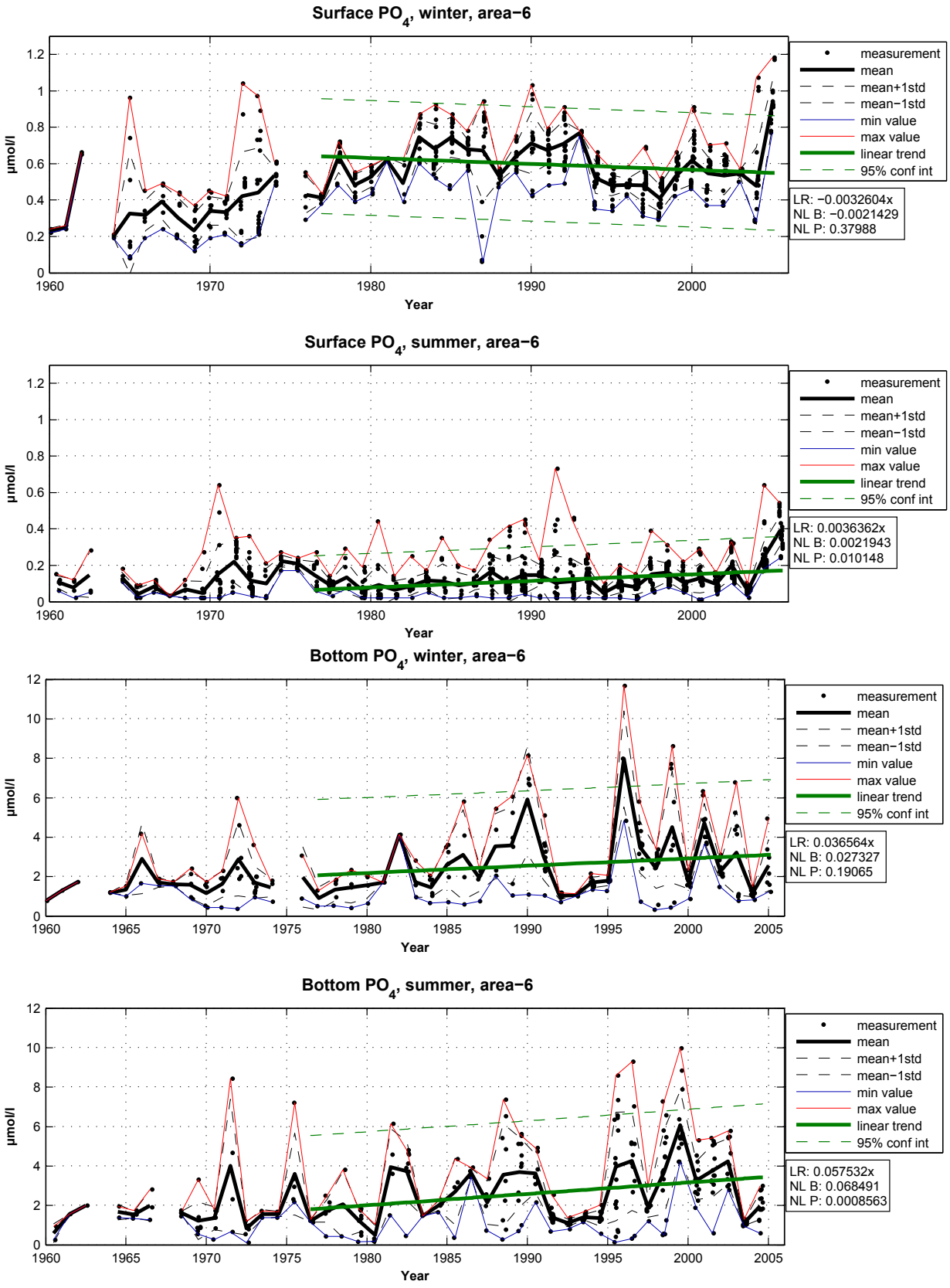

Figure 37. Area 6, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

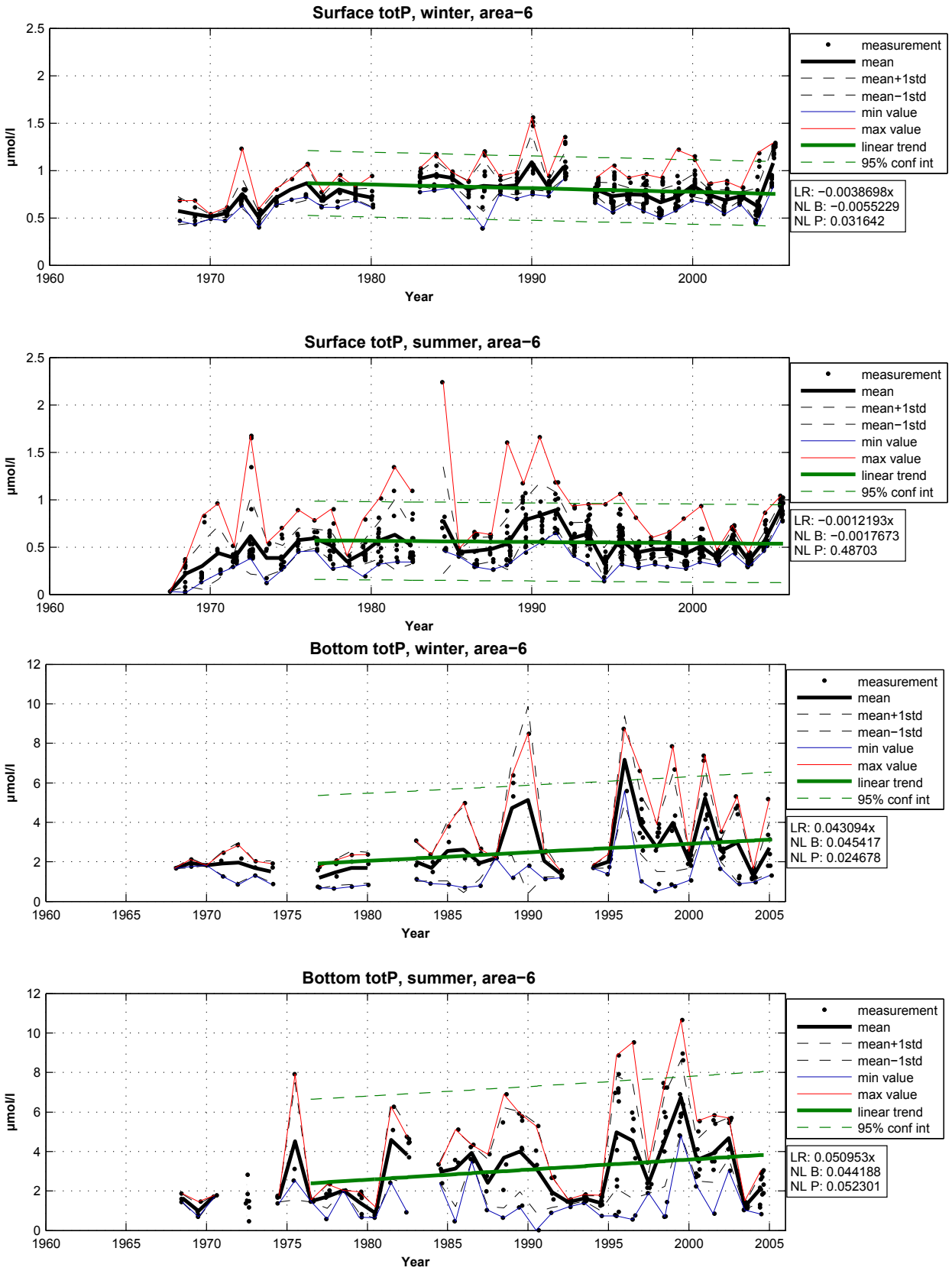

Figure 38. Area 6, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

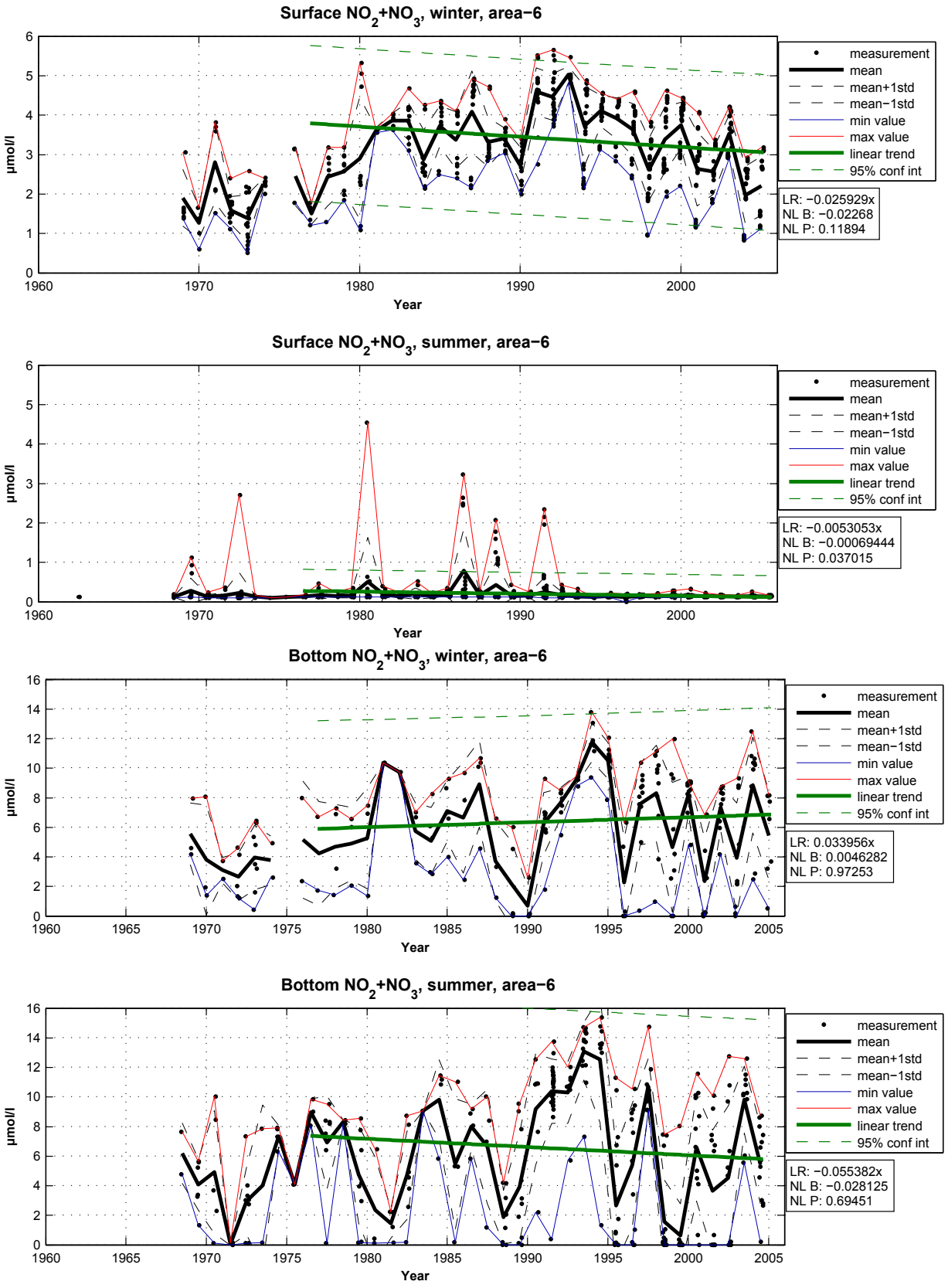

Figure 39. Area 6, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

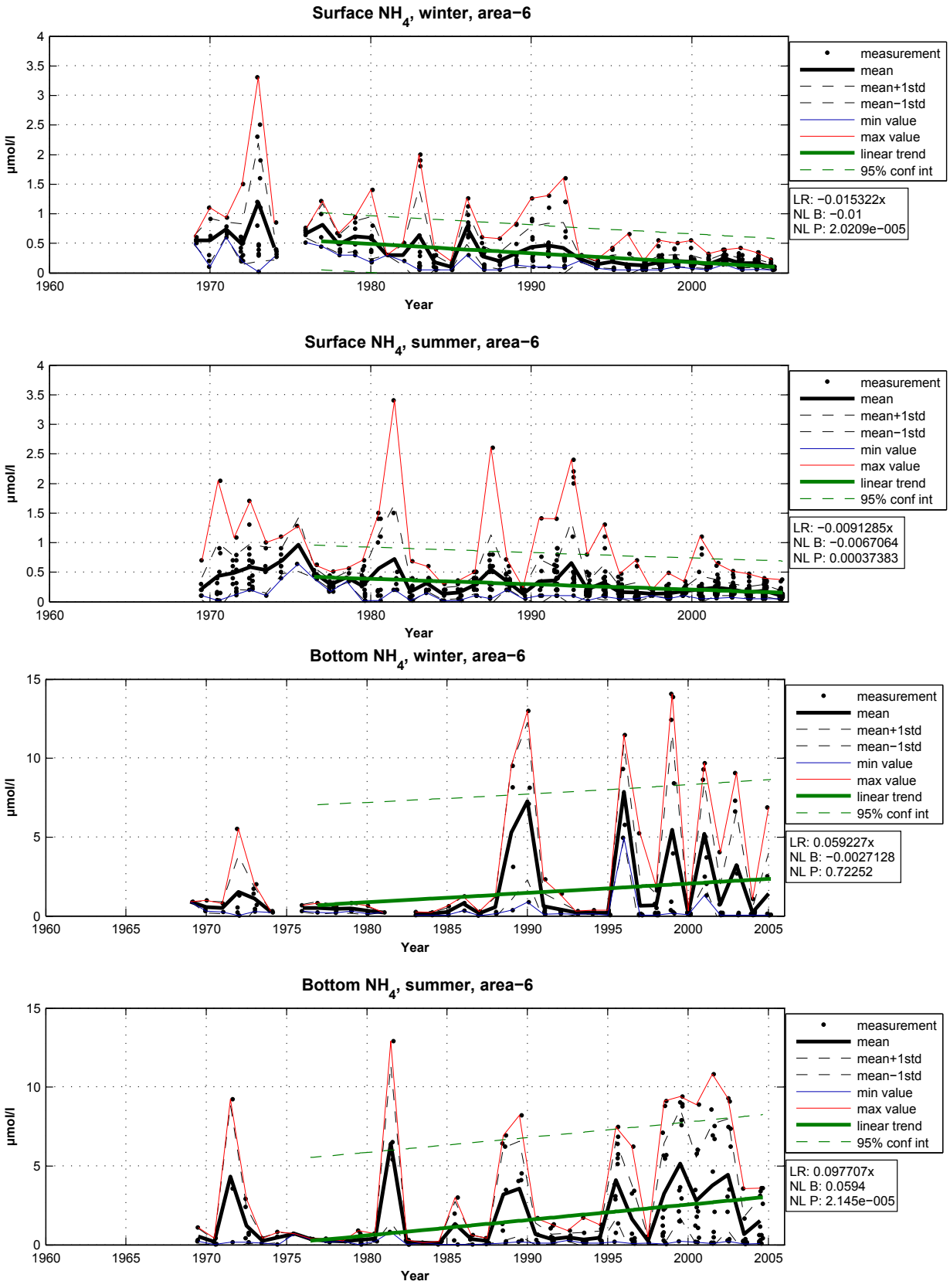

Figure 40. Area 6, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

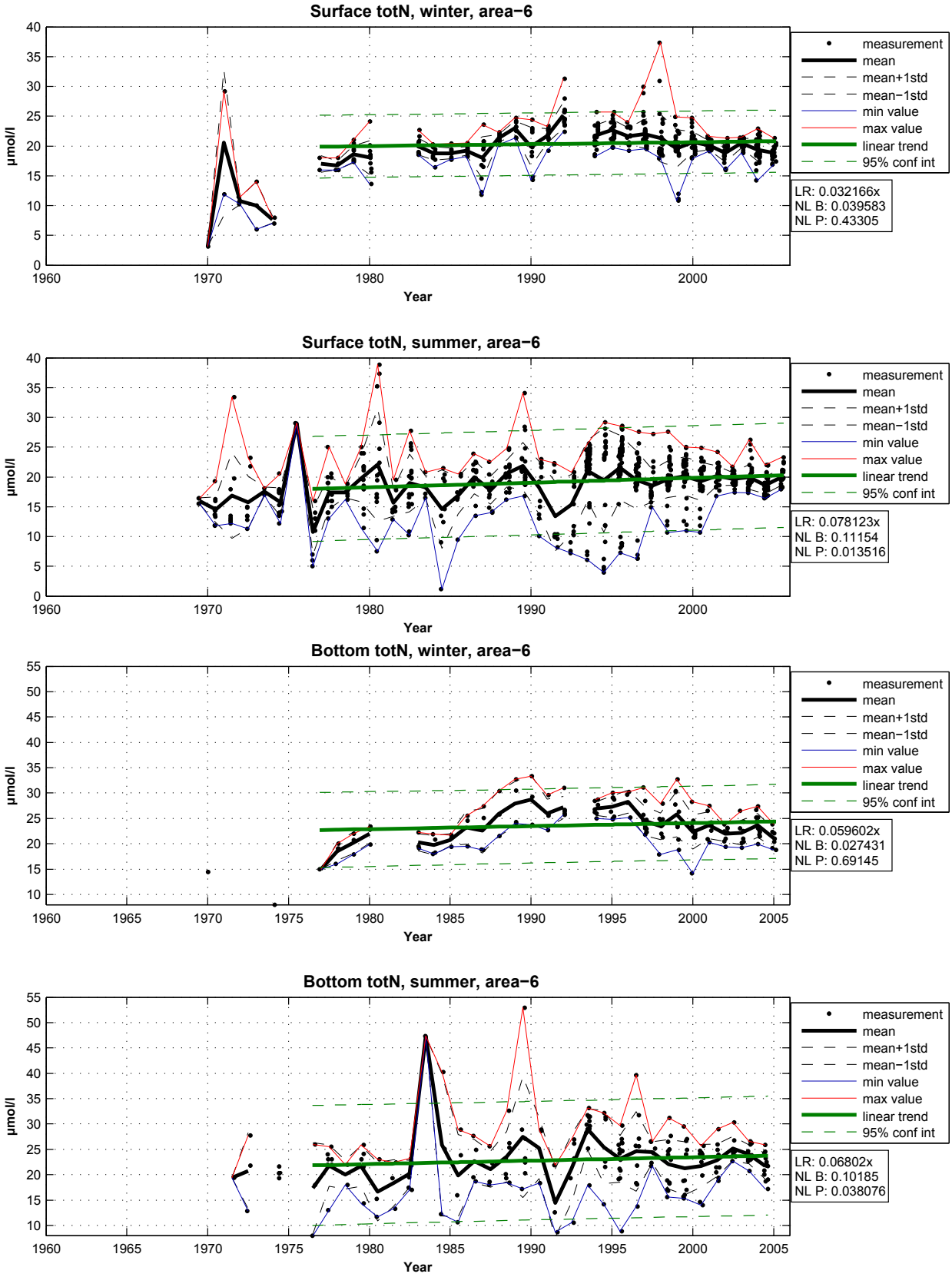

Figure 41. Area 6, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

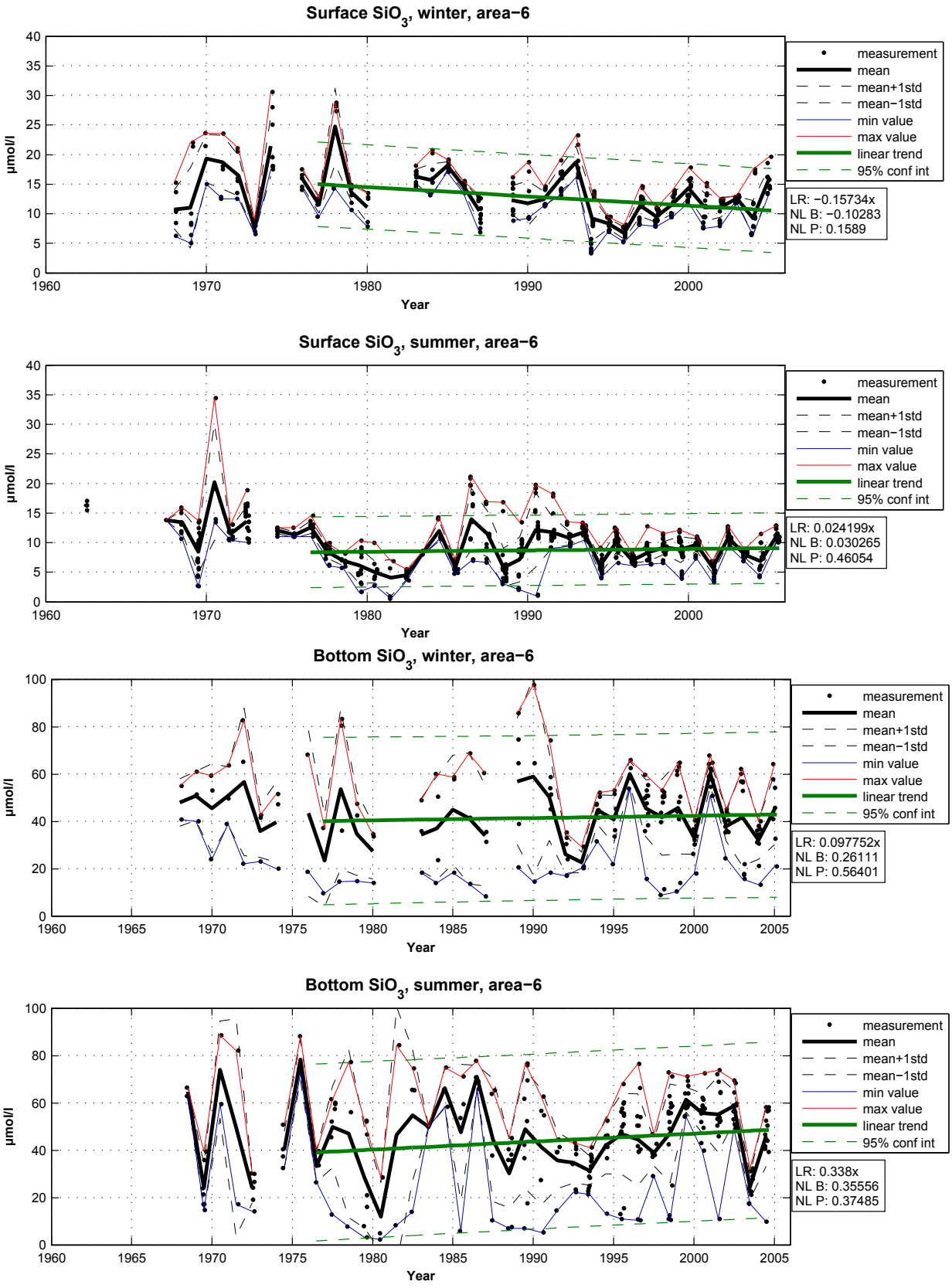

Figure 42. Area 6, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

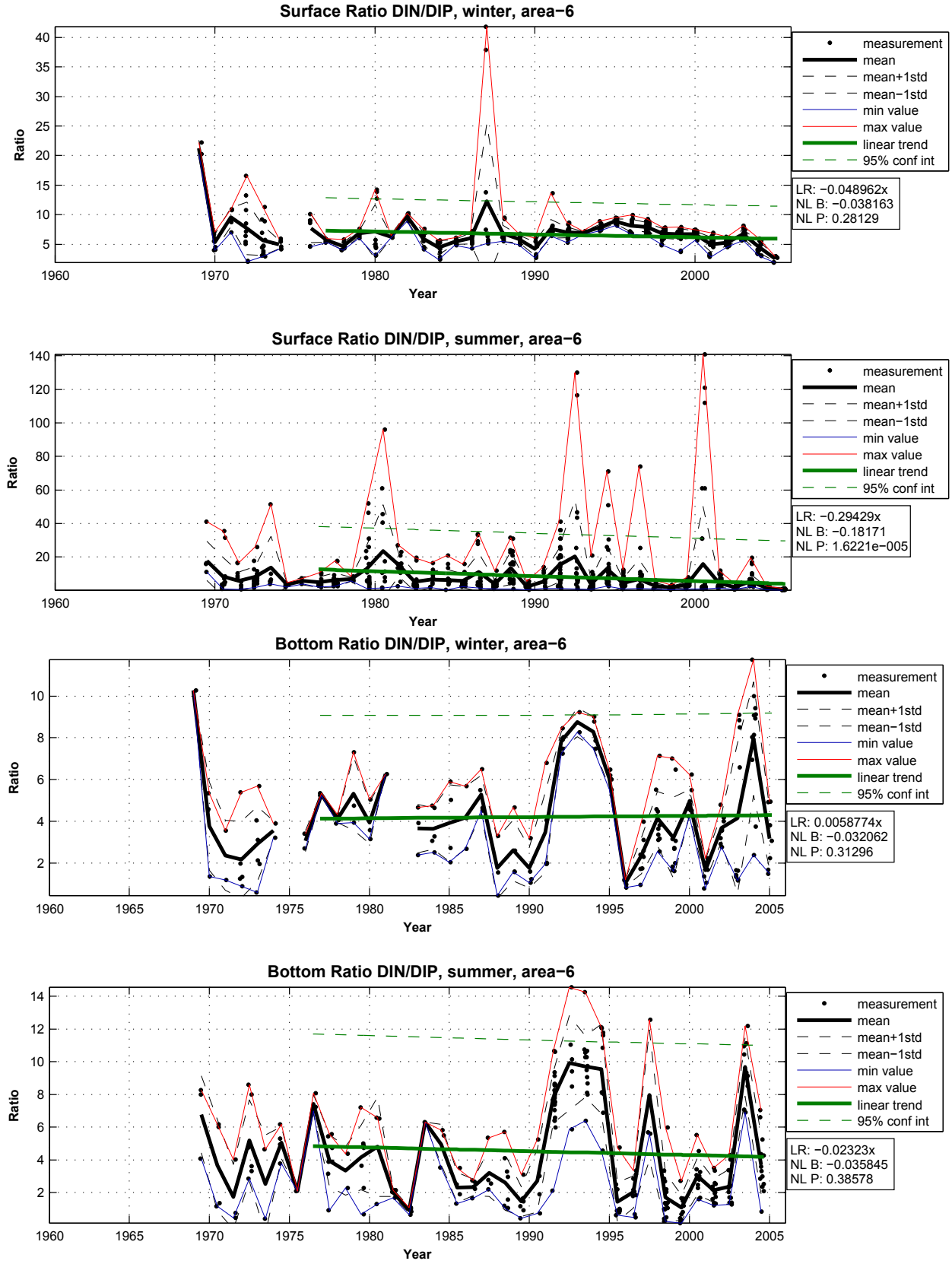

Figure 43. Area 6, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

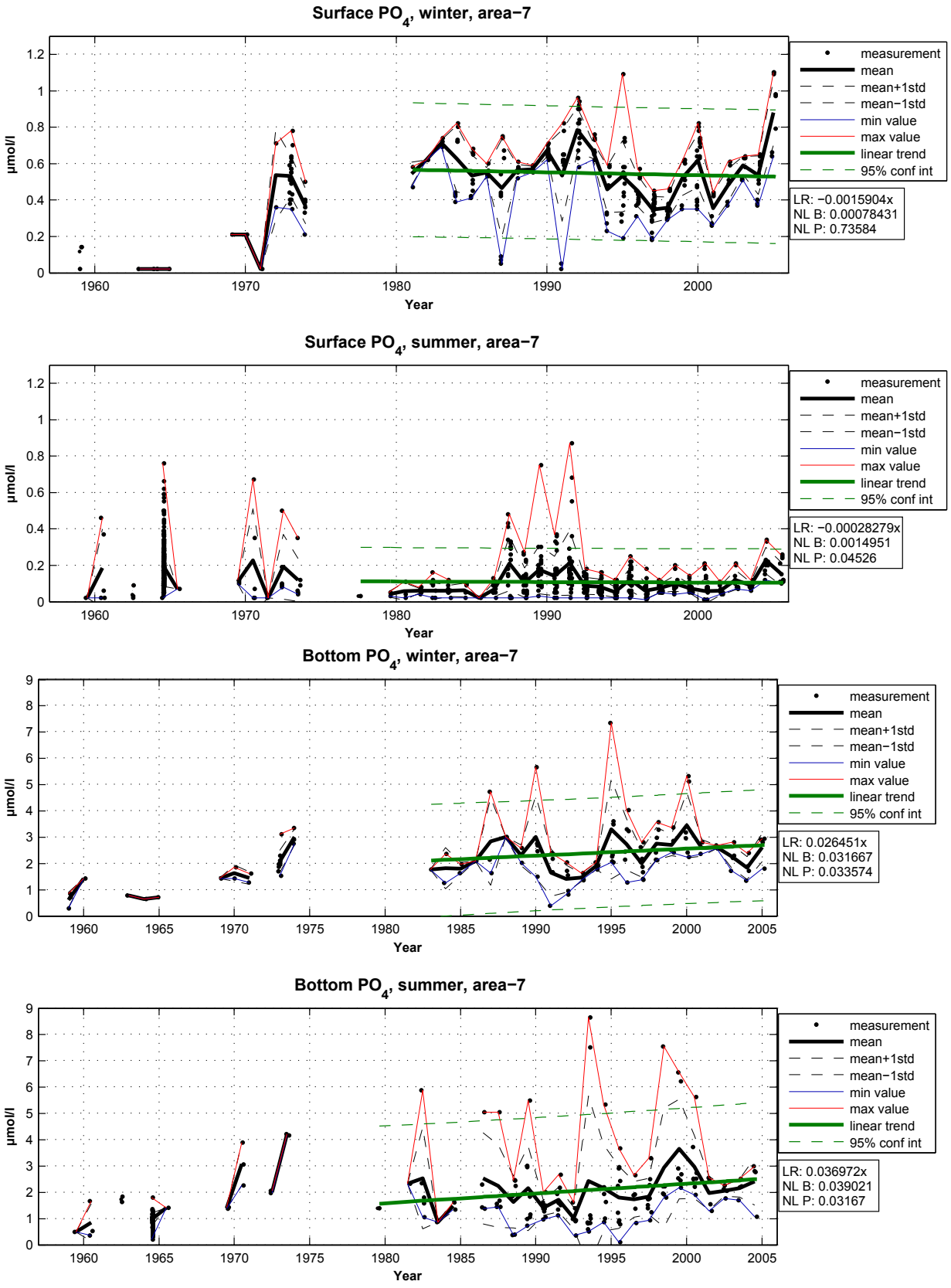

Figure 44. Area 7, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

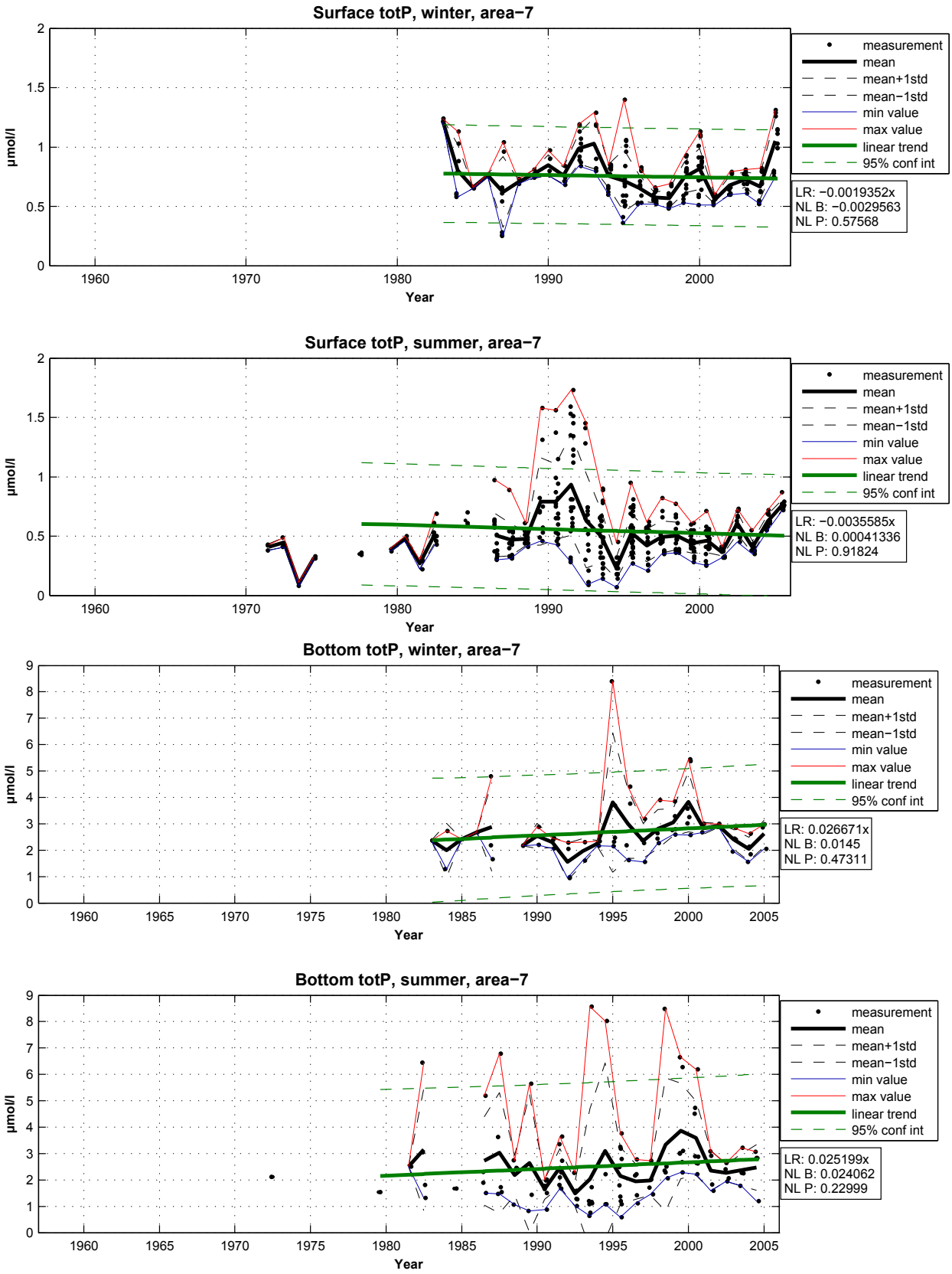

Figure 45. Area 7, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

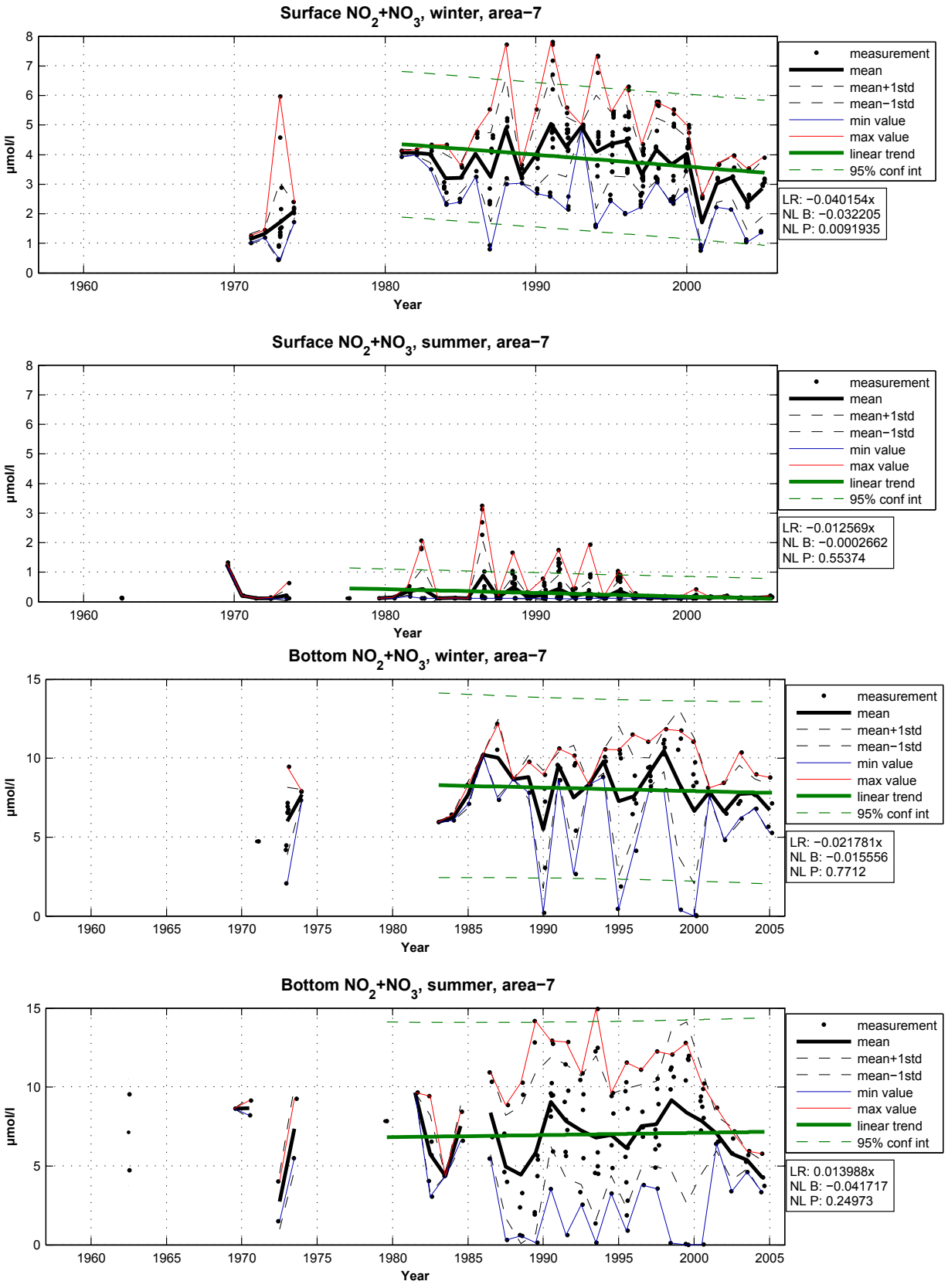

Figure 46. Area 7, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

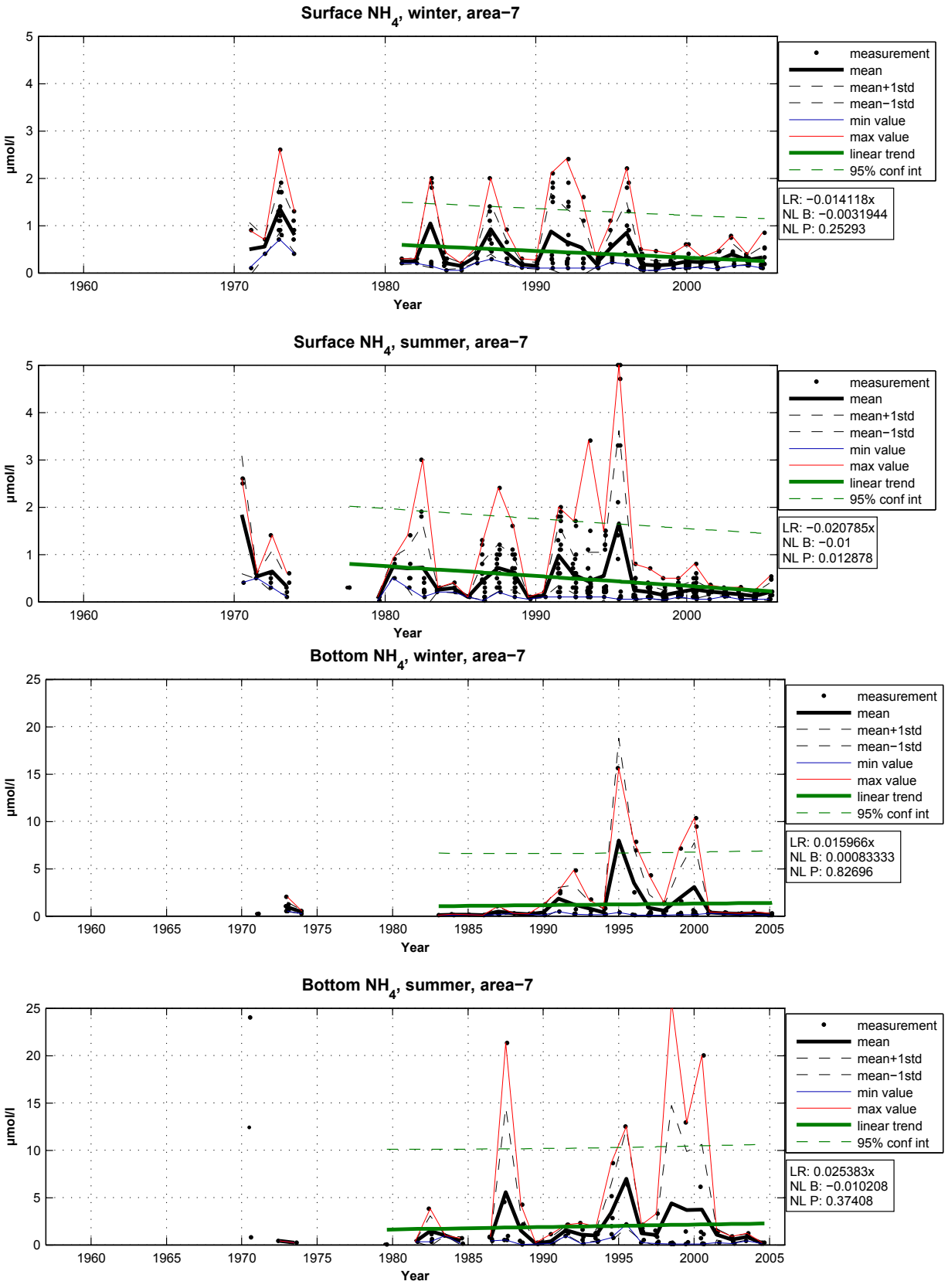

Figure 47. Area 7, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

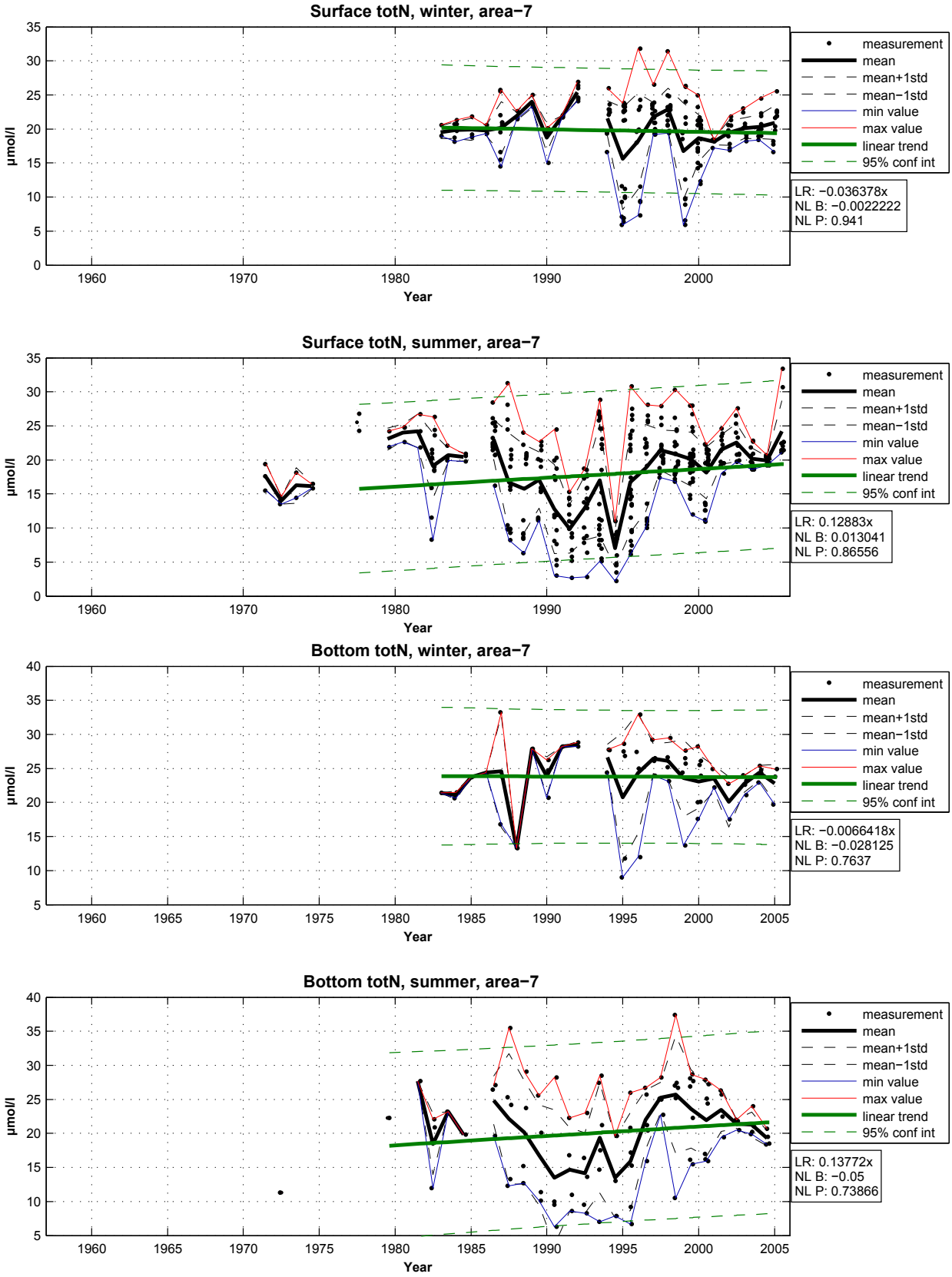

Figure 48. Area 7, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

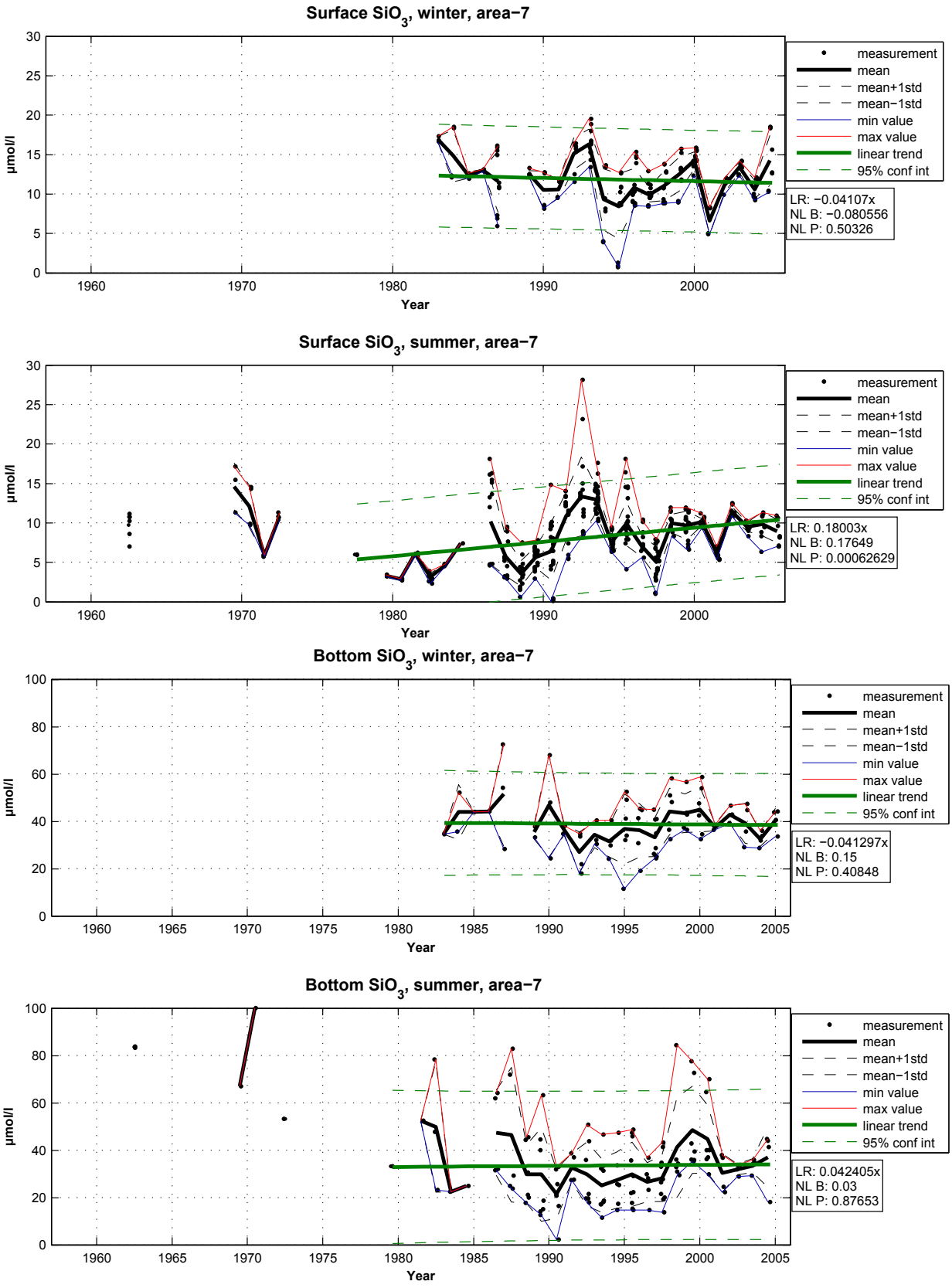

Figure 49. Area 7, SiO3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

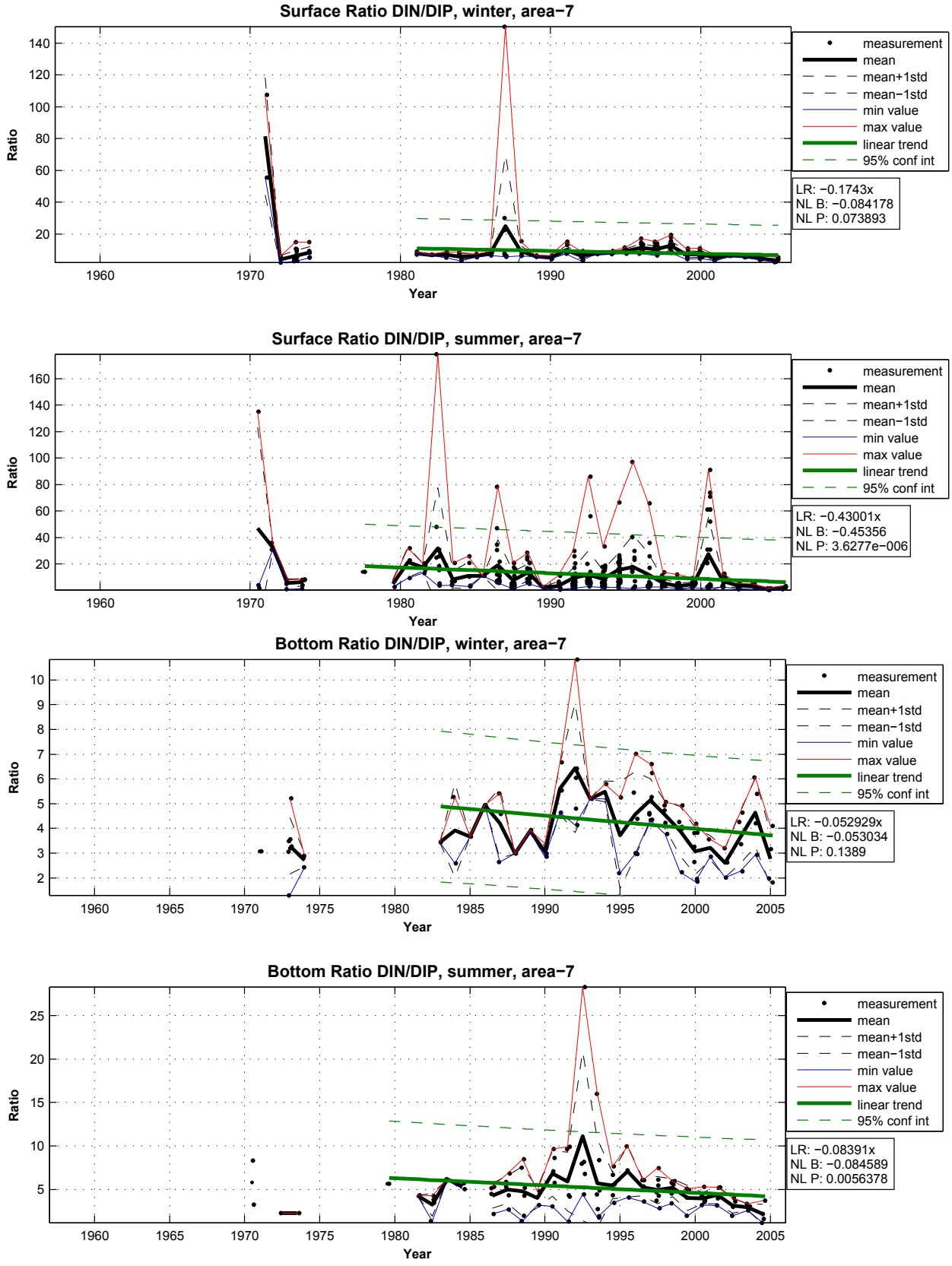

Figure 50. Area 7, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

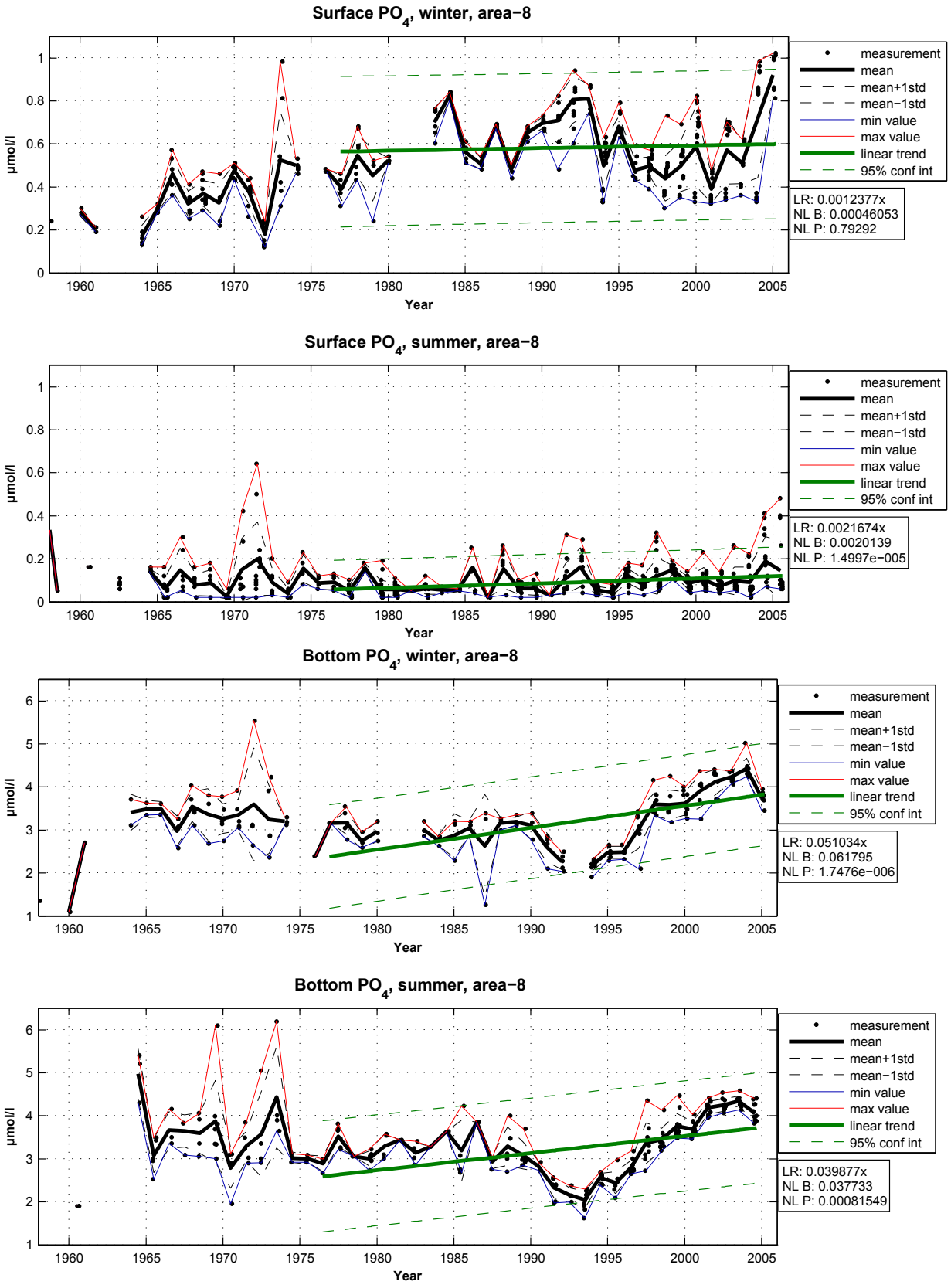

Figure 51. Area 8, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

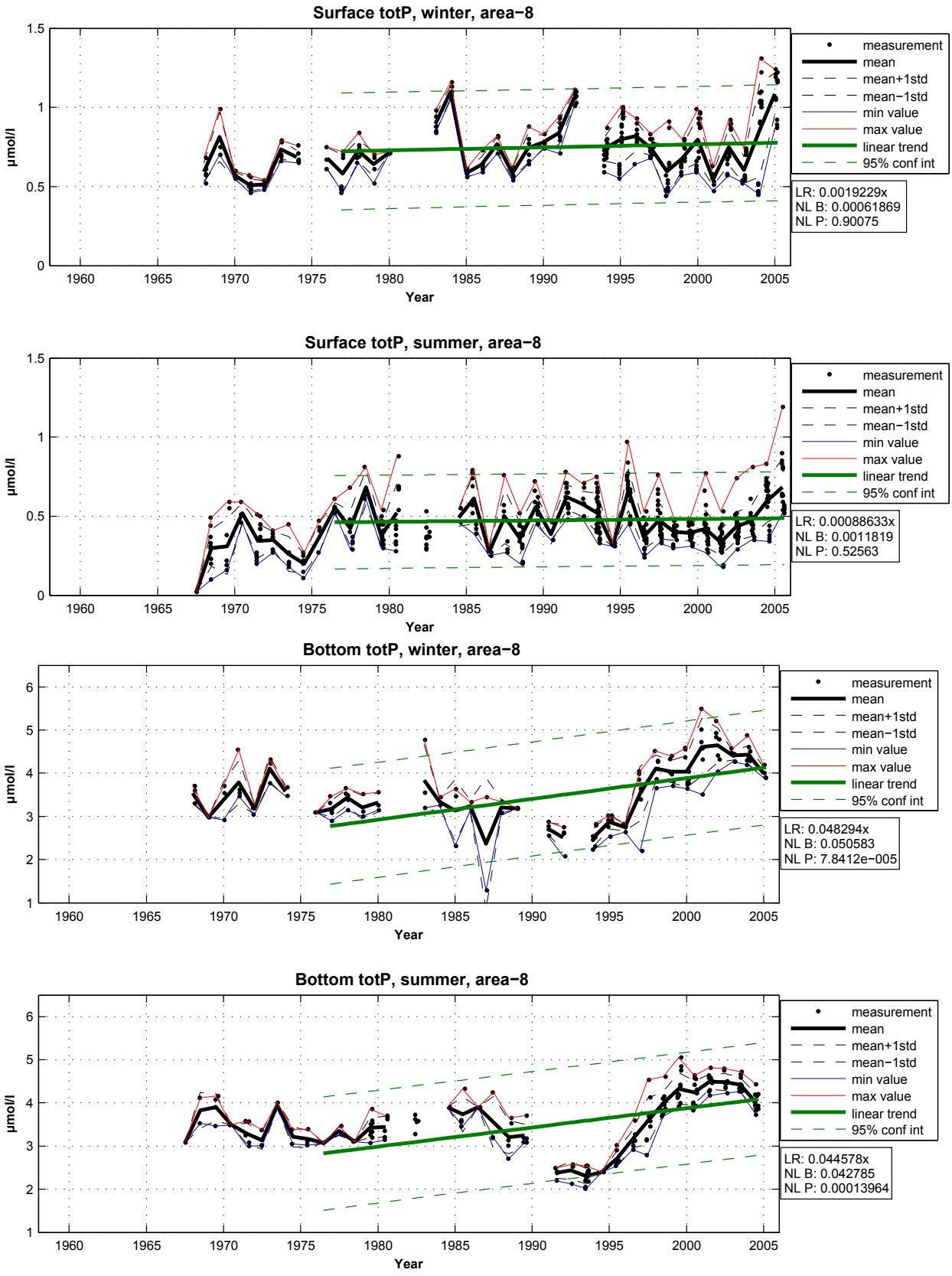

Figure 52. Area 8, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

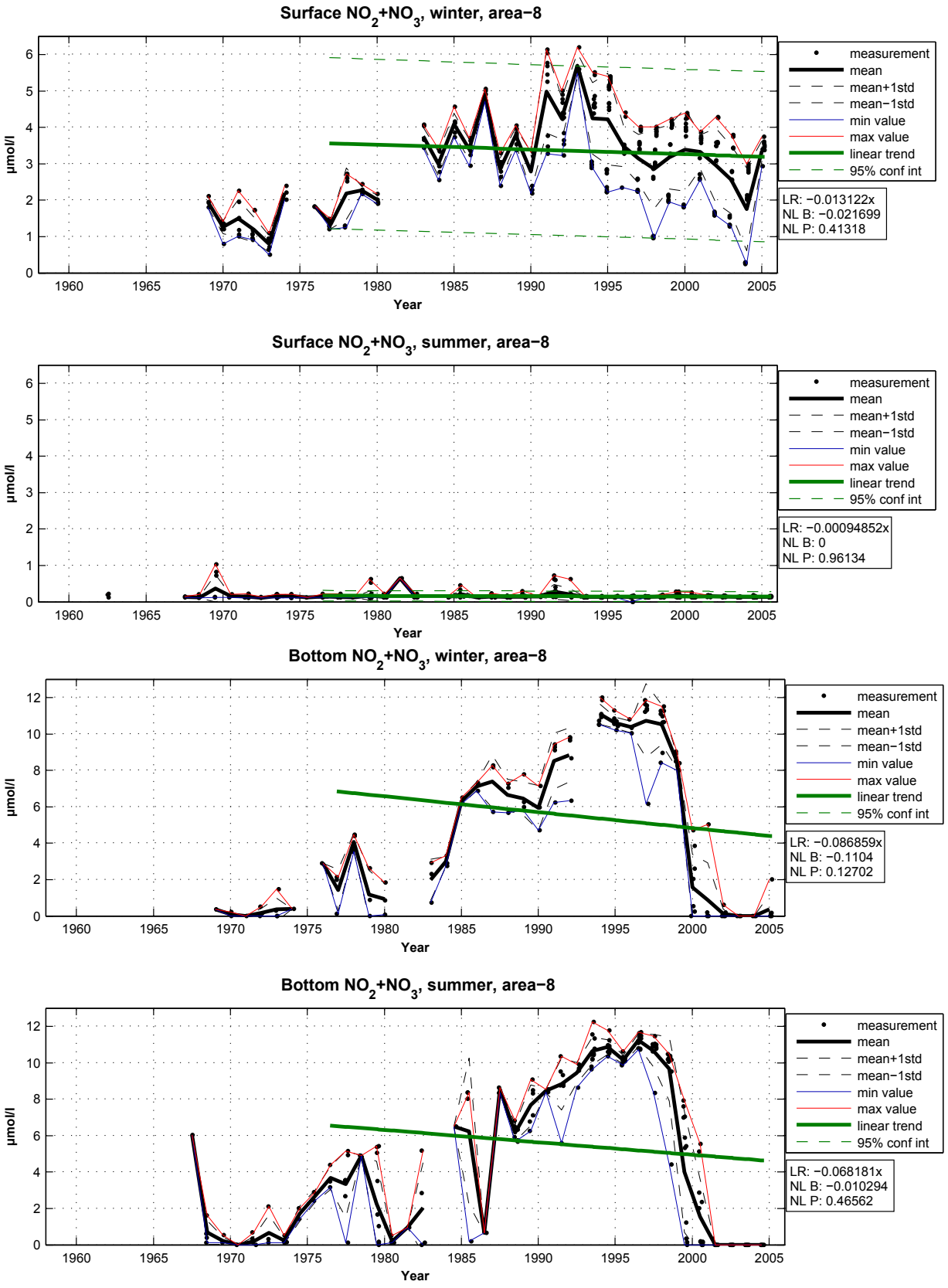

Figure 53. Area 8, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

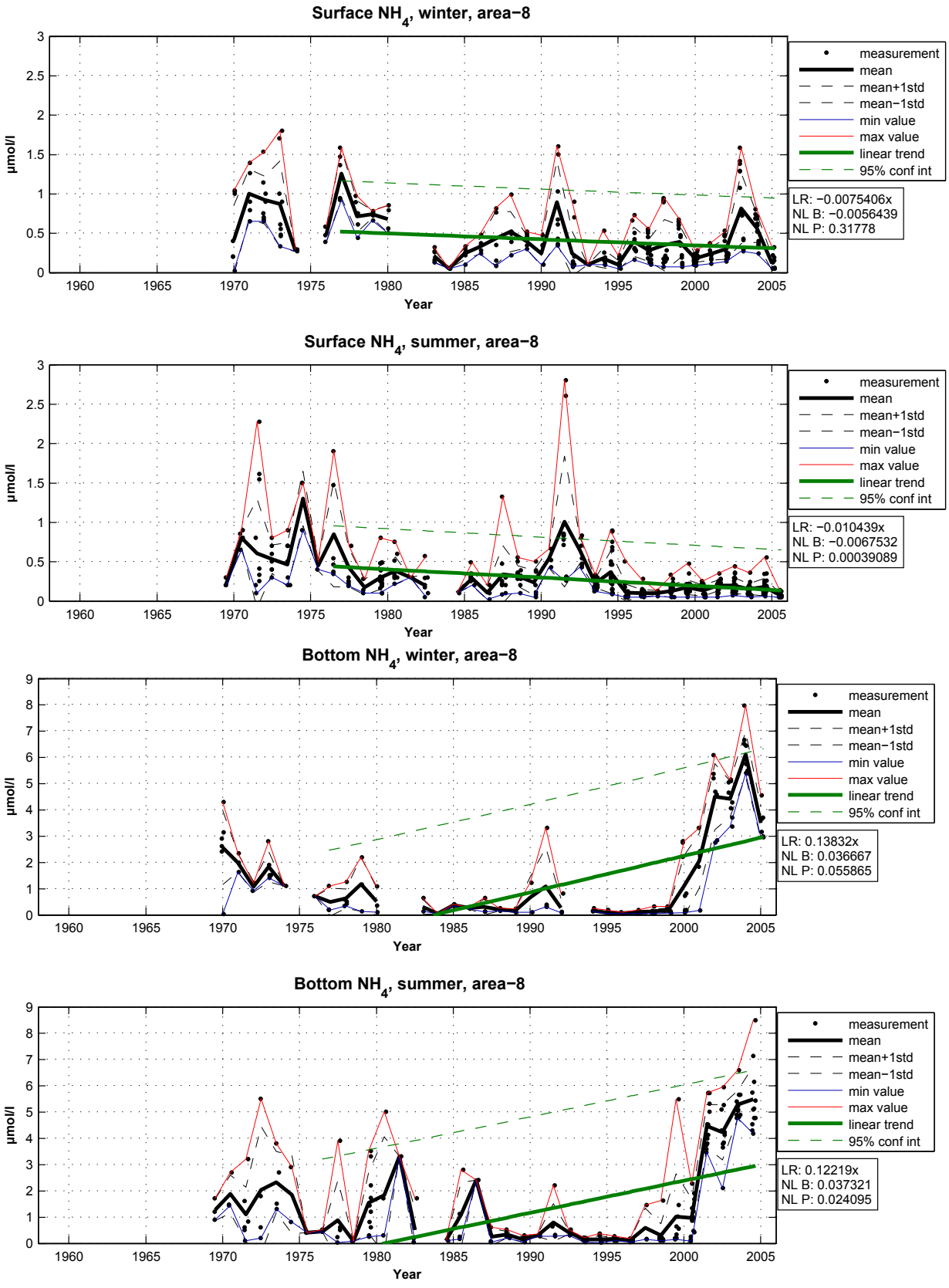

Figure 54. Area 8, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

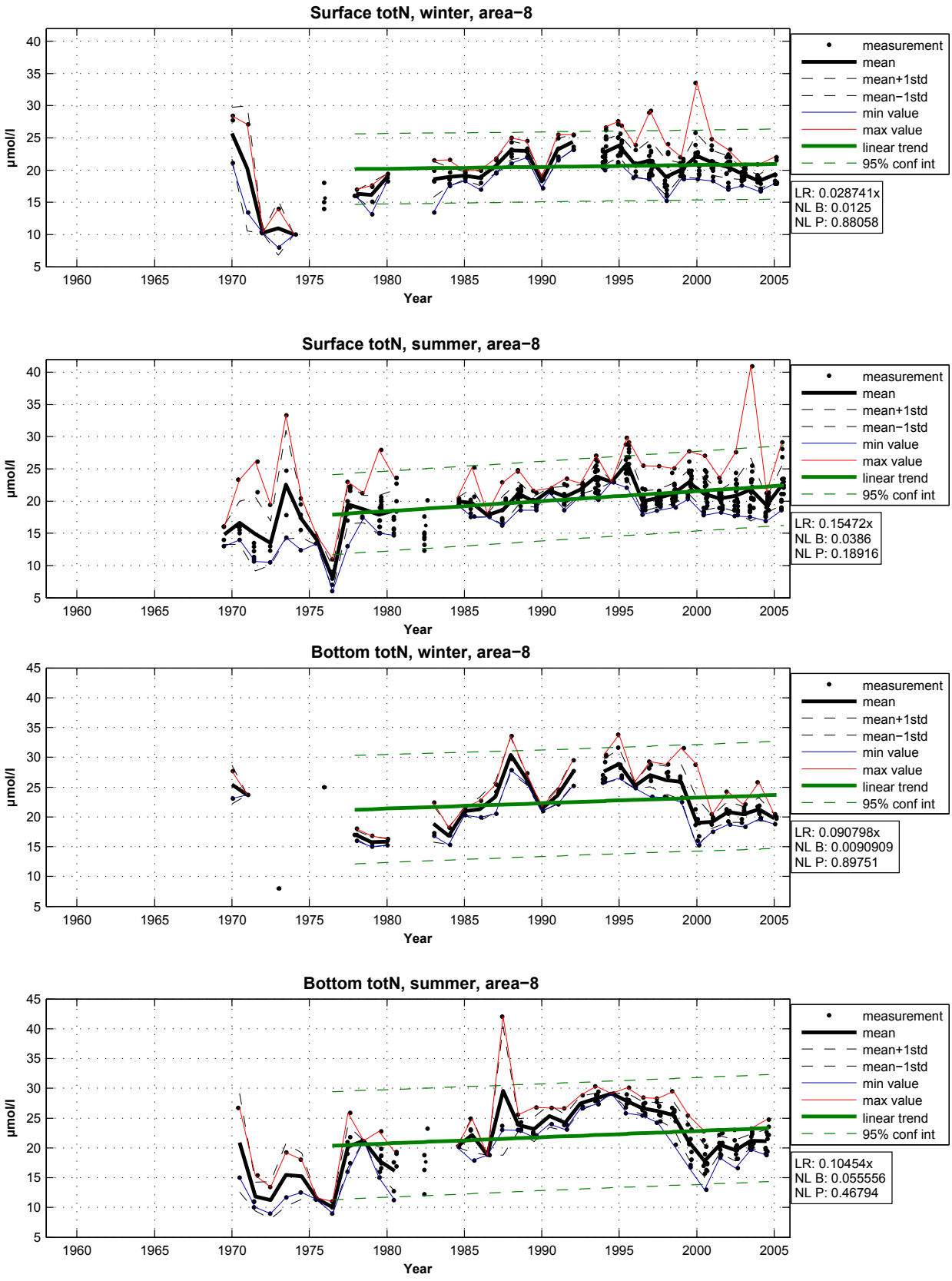

Figure 55. Area 8, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

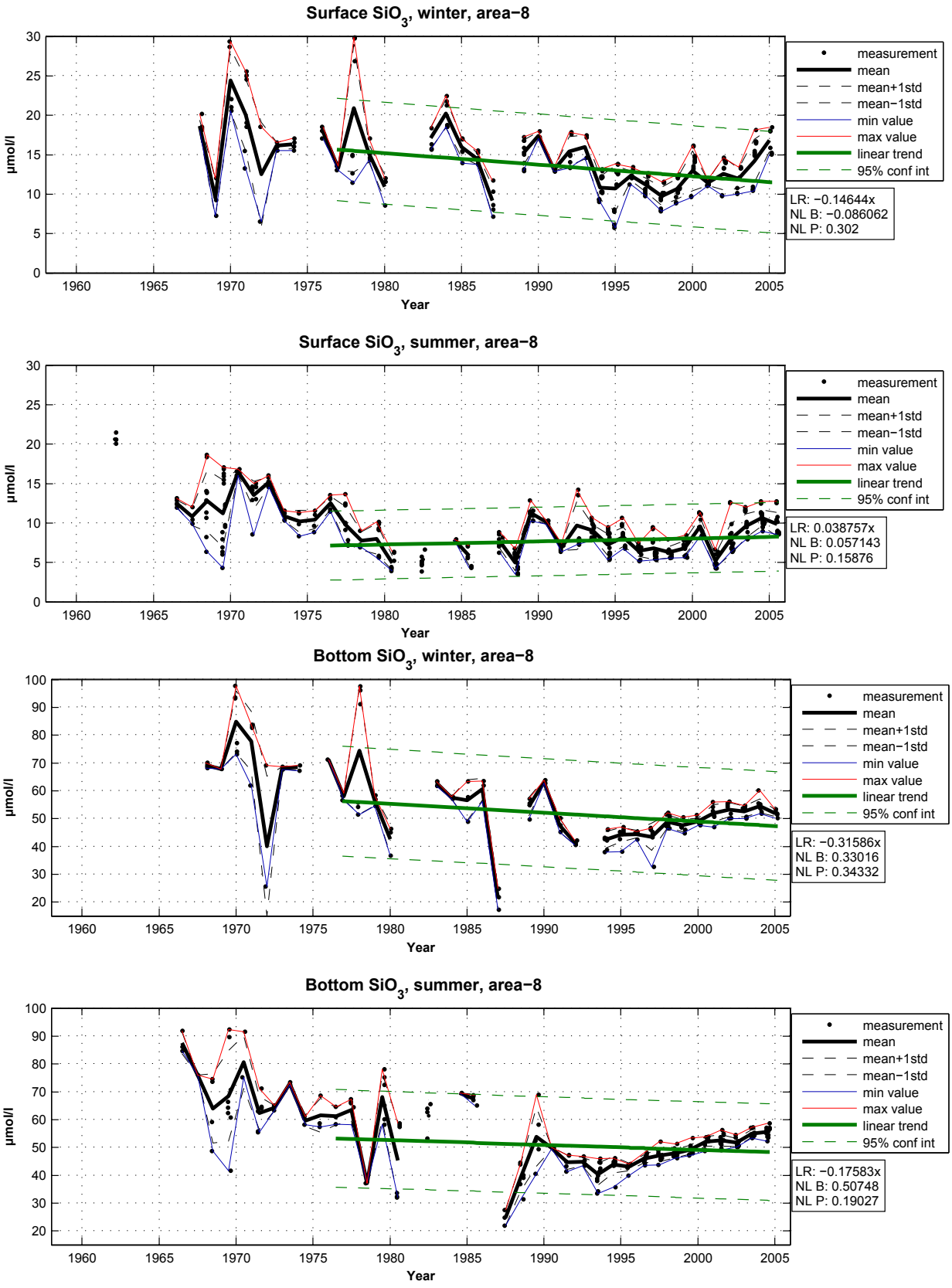

Figure 56. Area 8, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

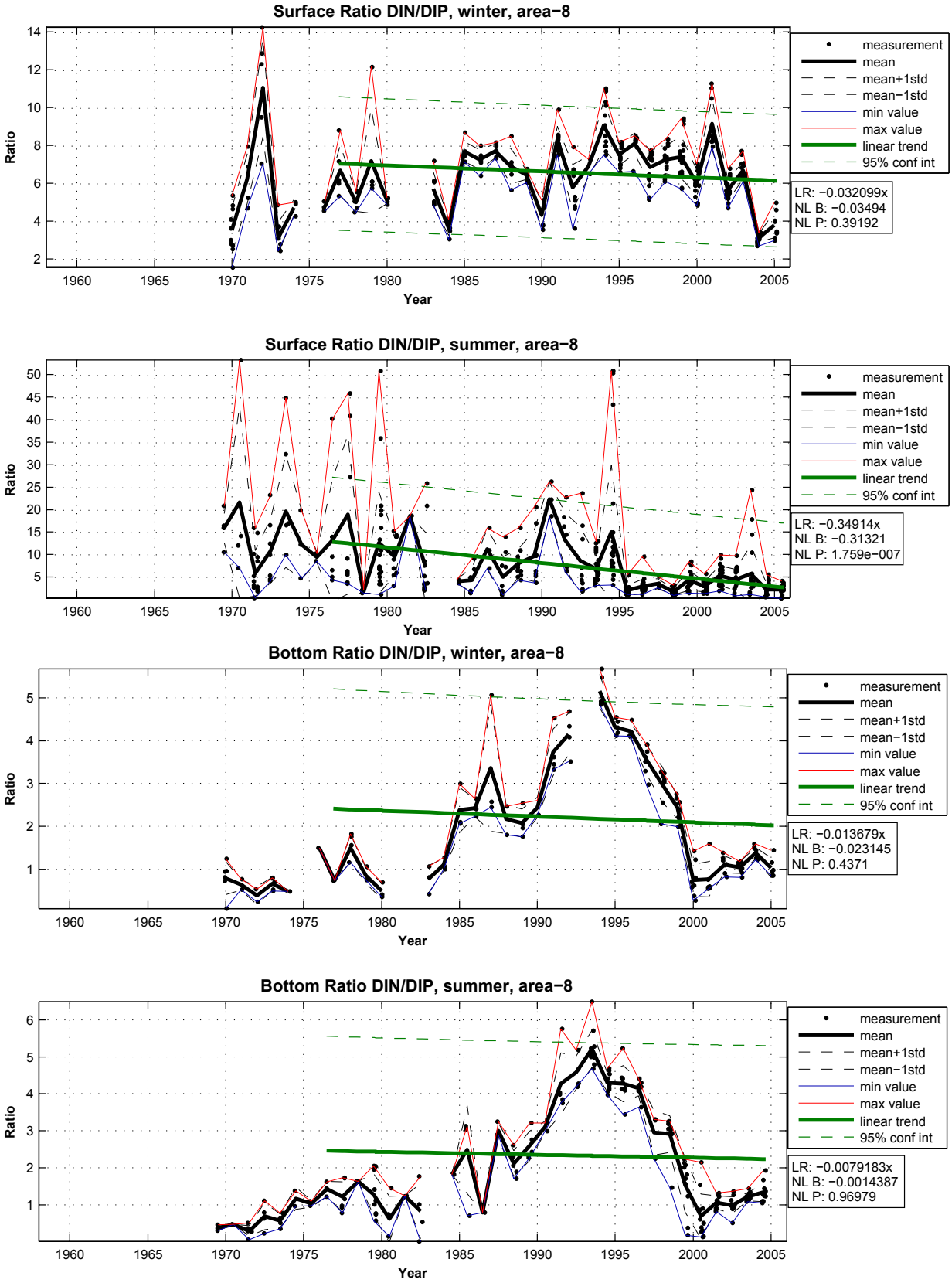

Figure 57. Area 8, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

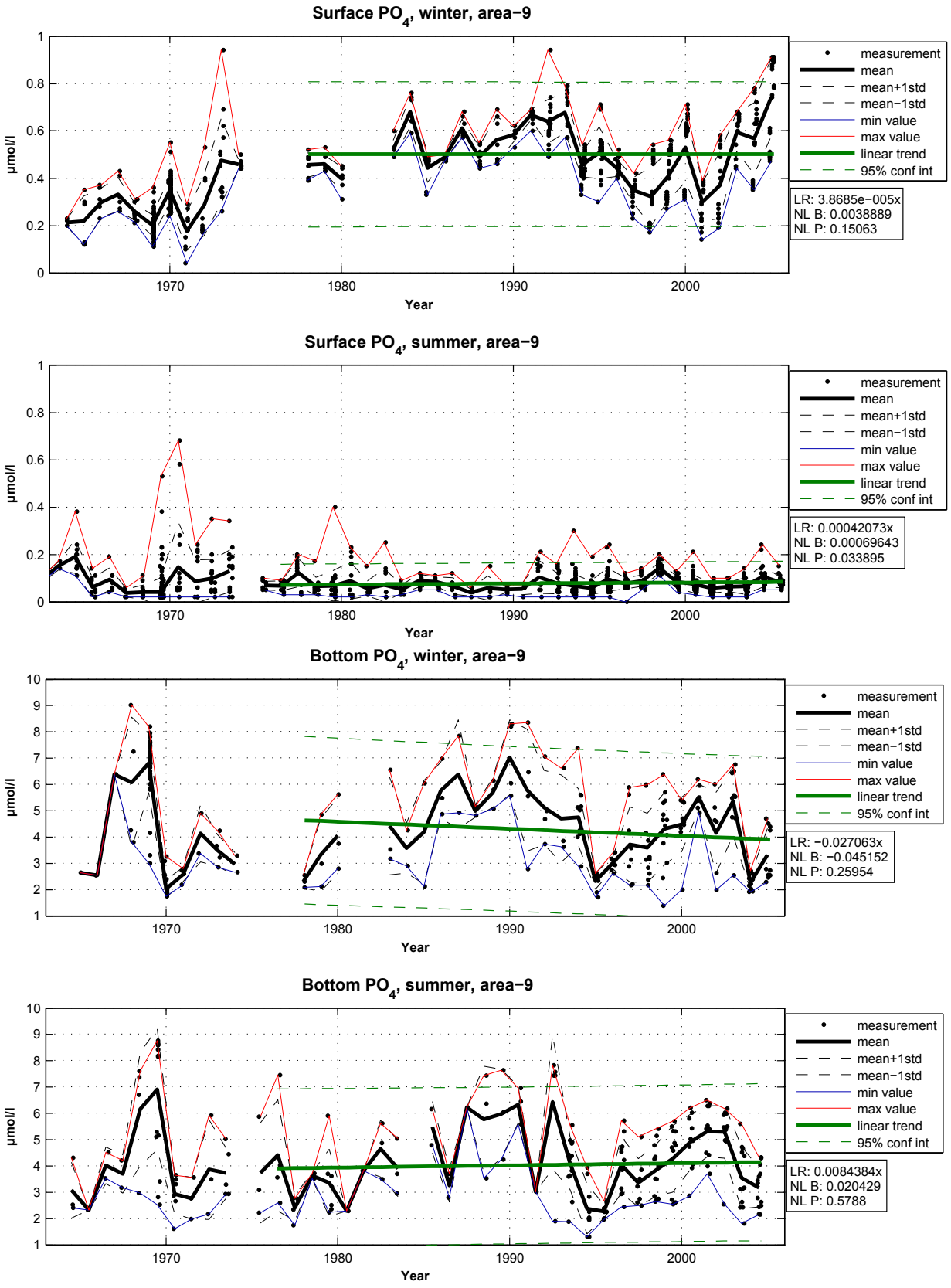

Figure 58. Area 9, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

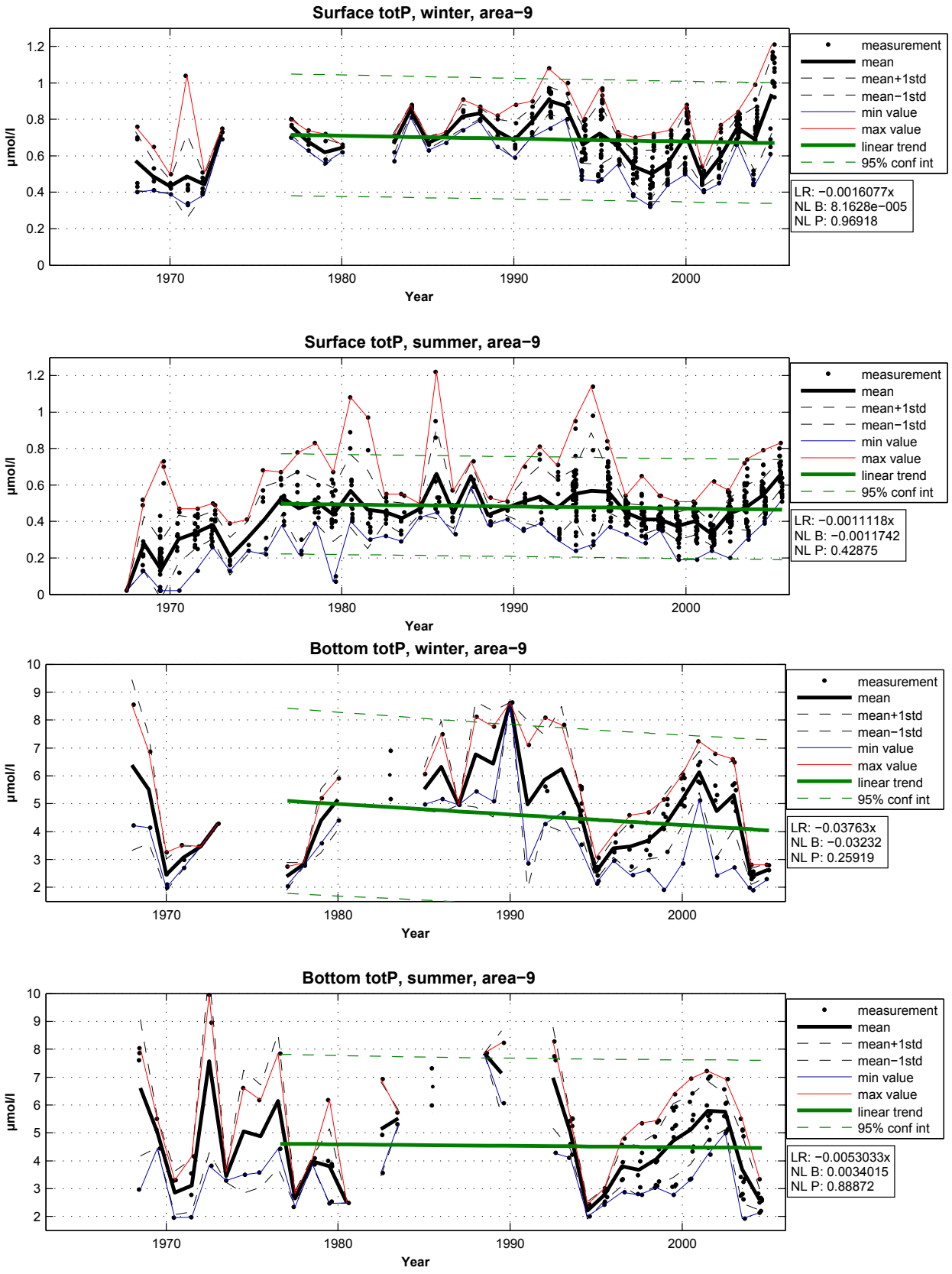

Figure 59. Area 9, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

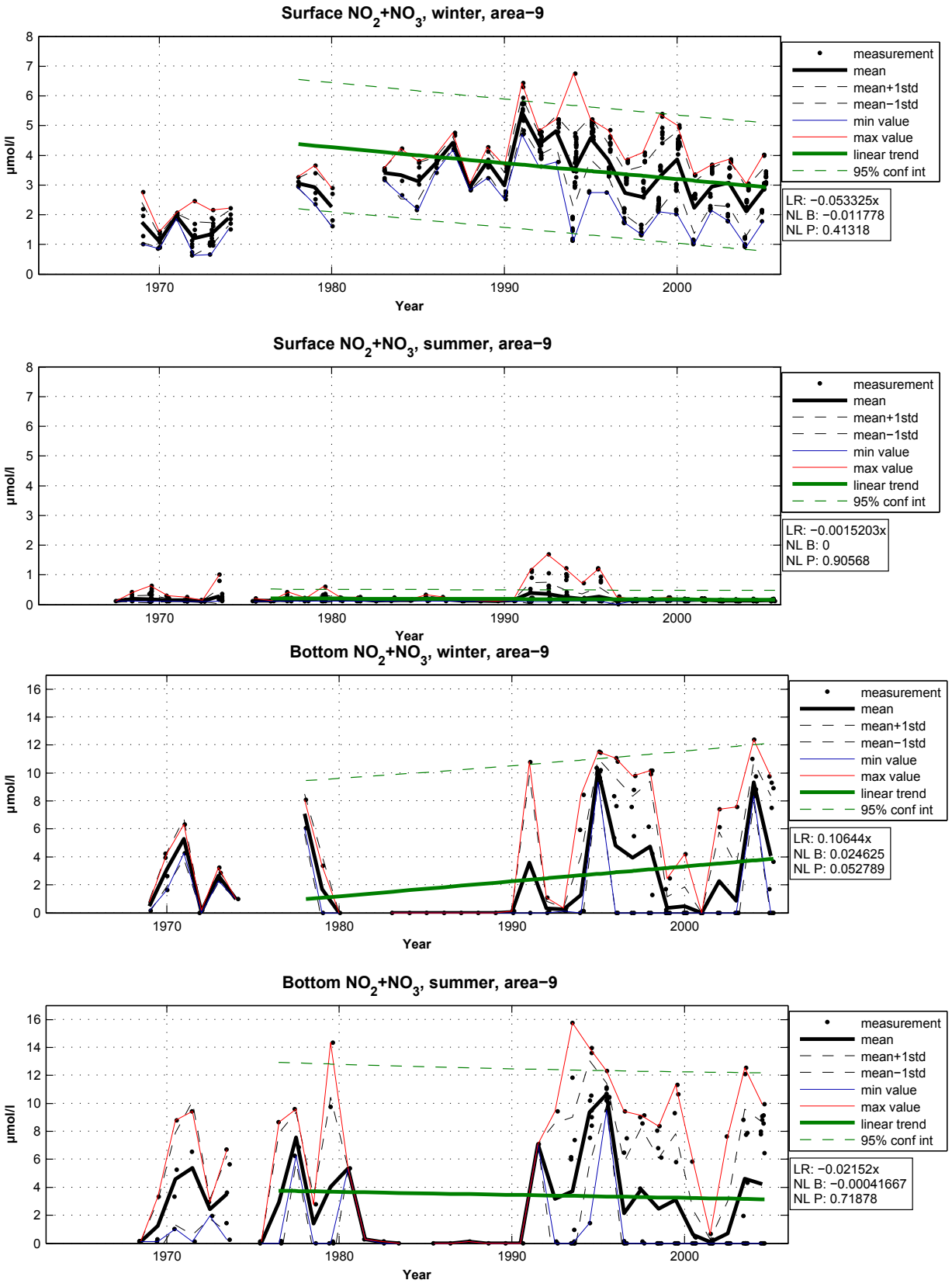

Figure 60. Area 9, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

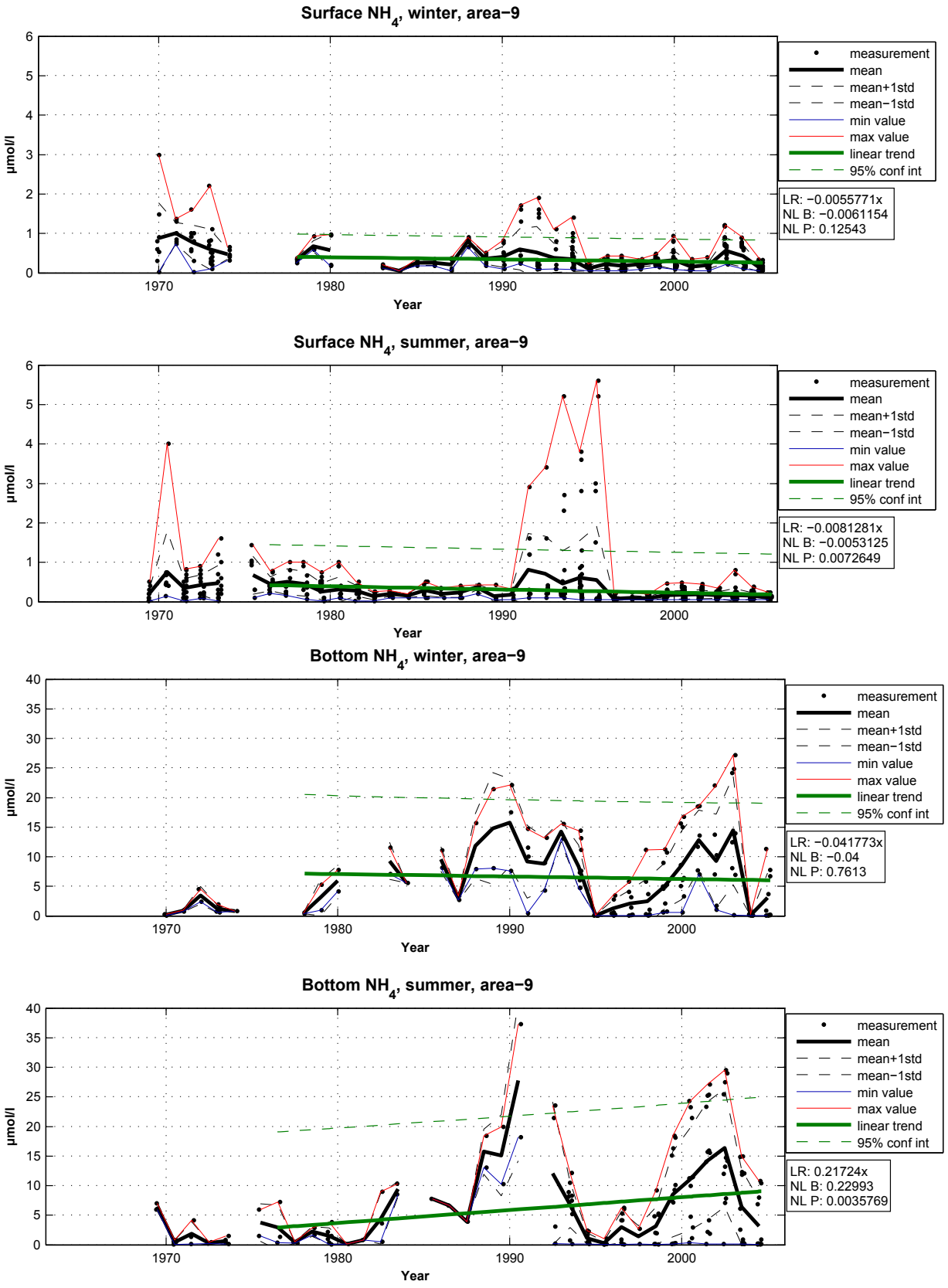

Figure 61. Area 9, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

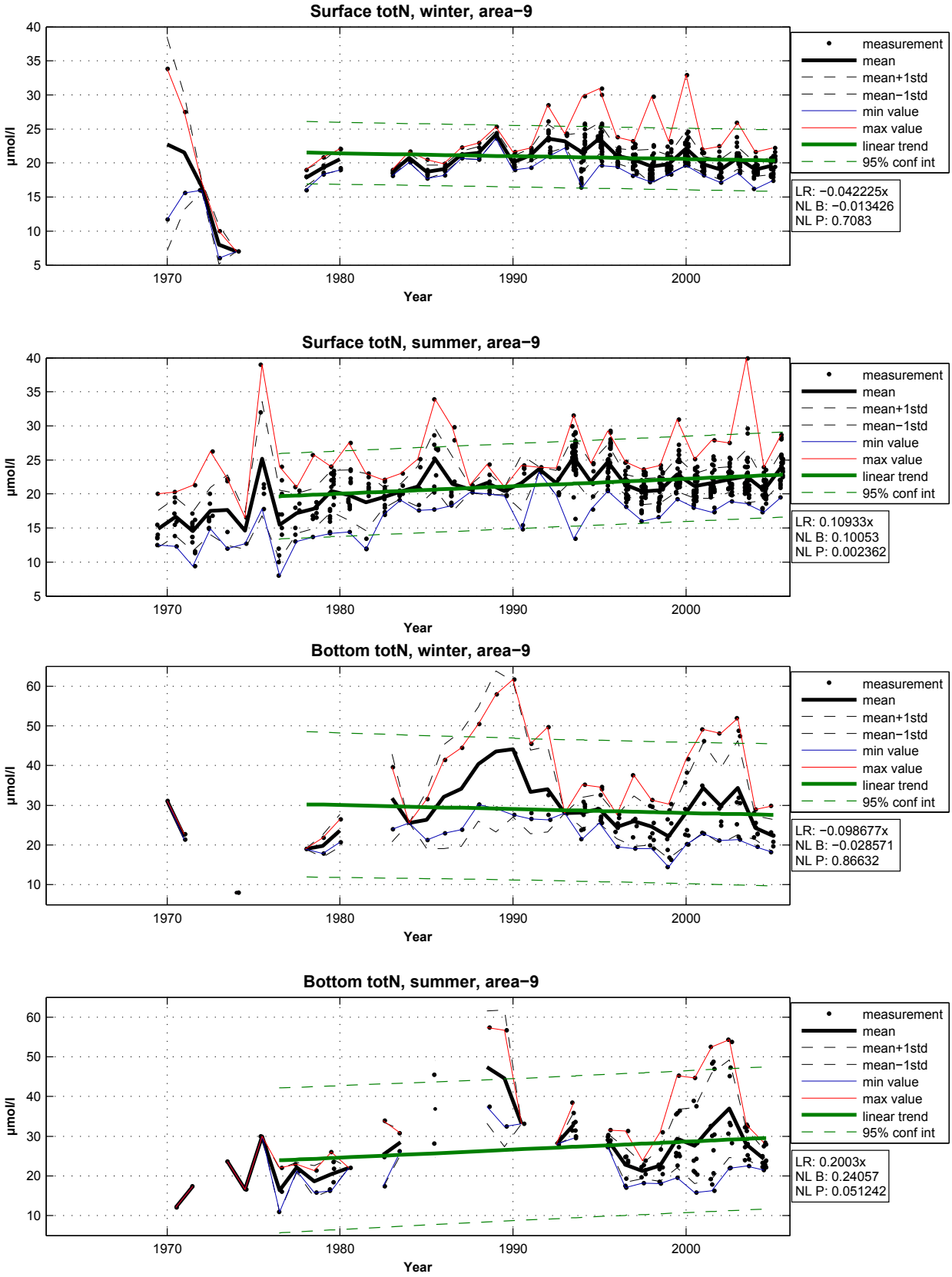

Figure 62. Area 9, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

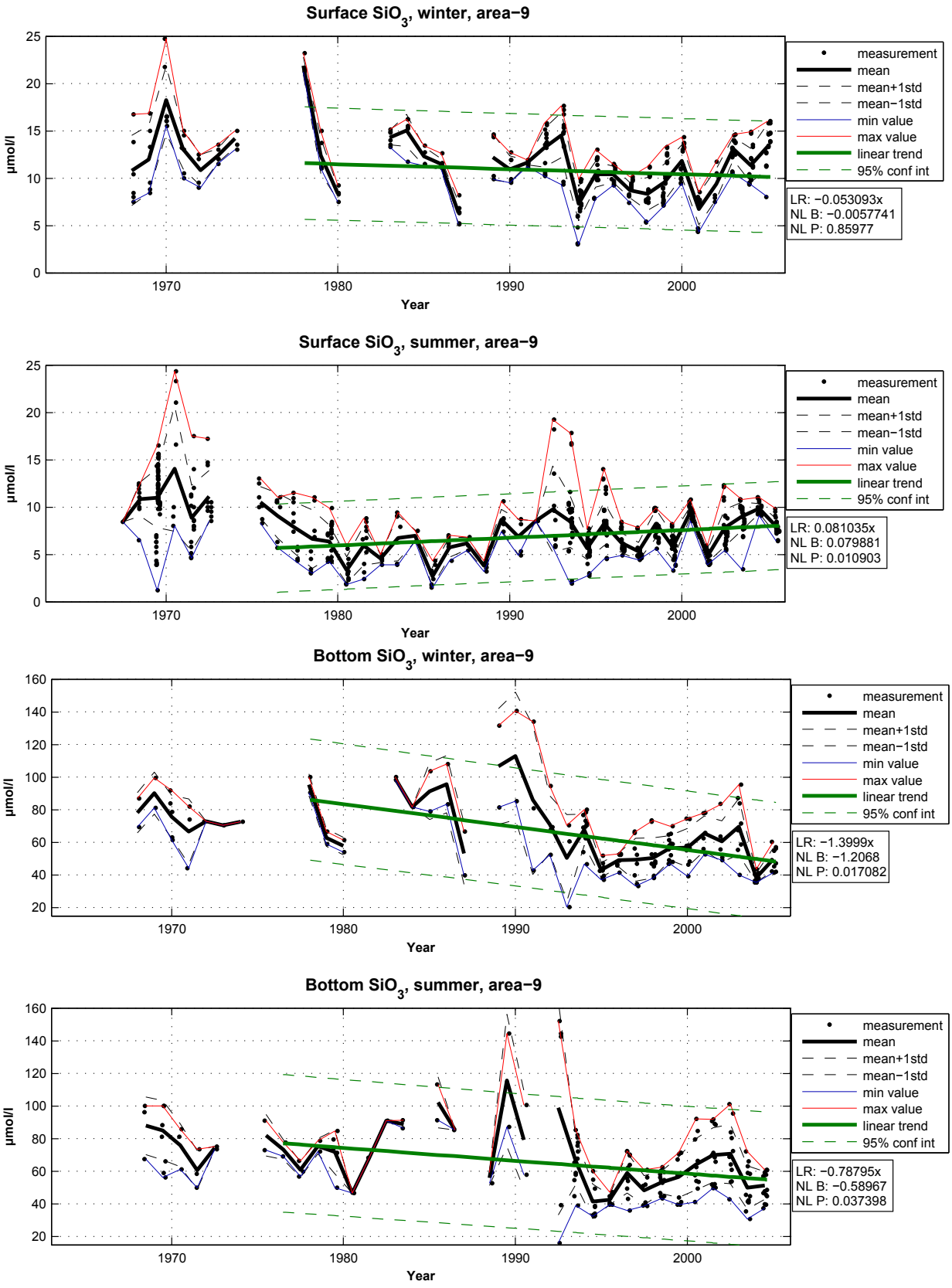

Figure 63. Area 9, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

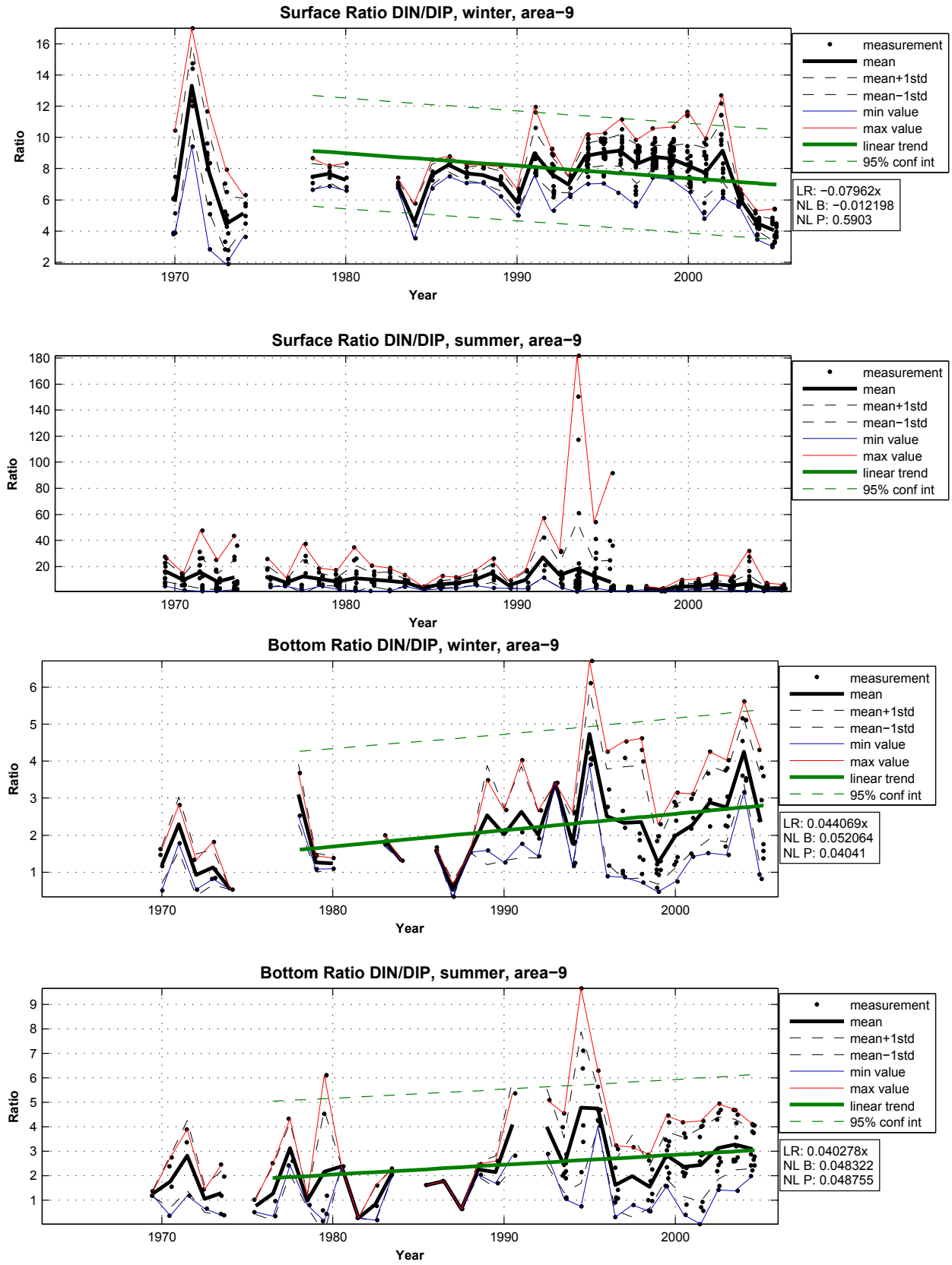

Figure 64. Area 9, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

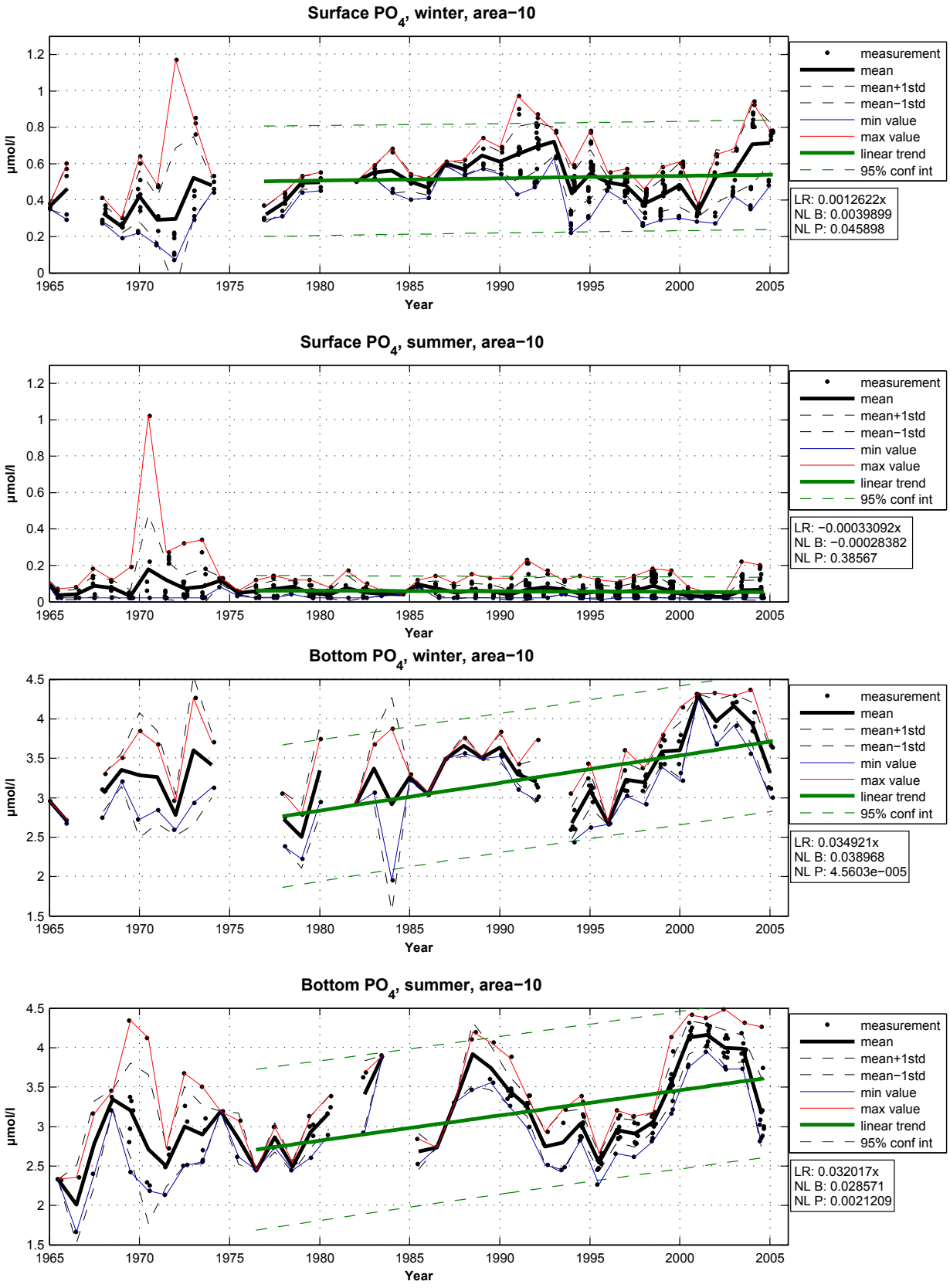

Figure 65. Area 10, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

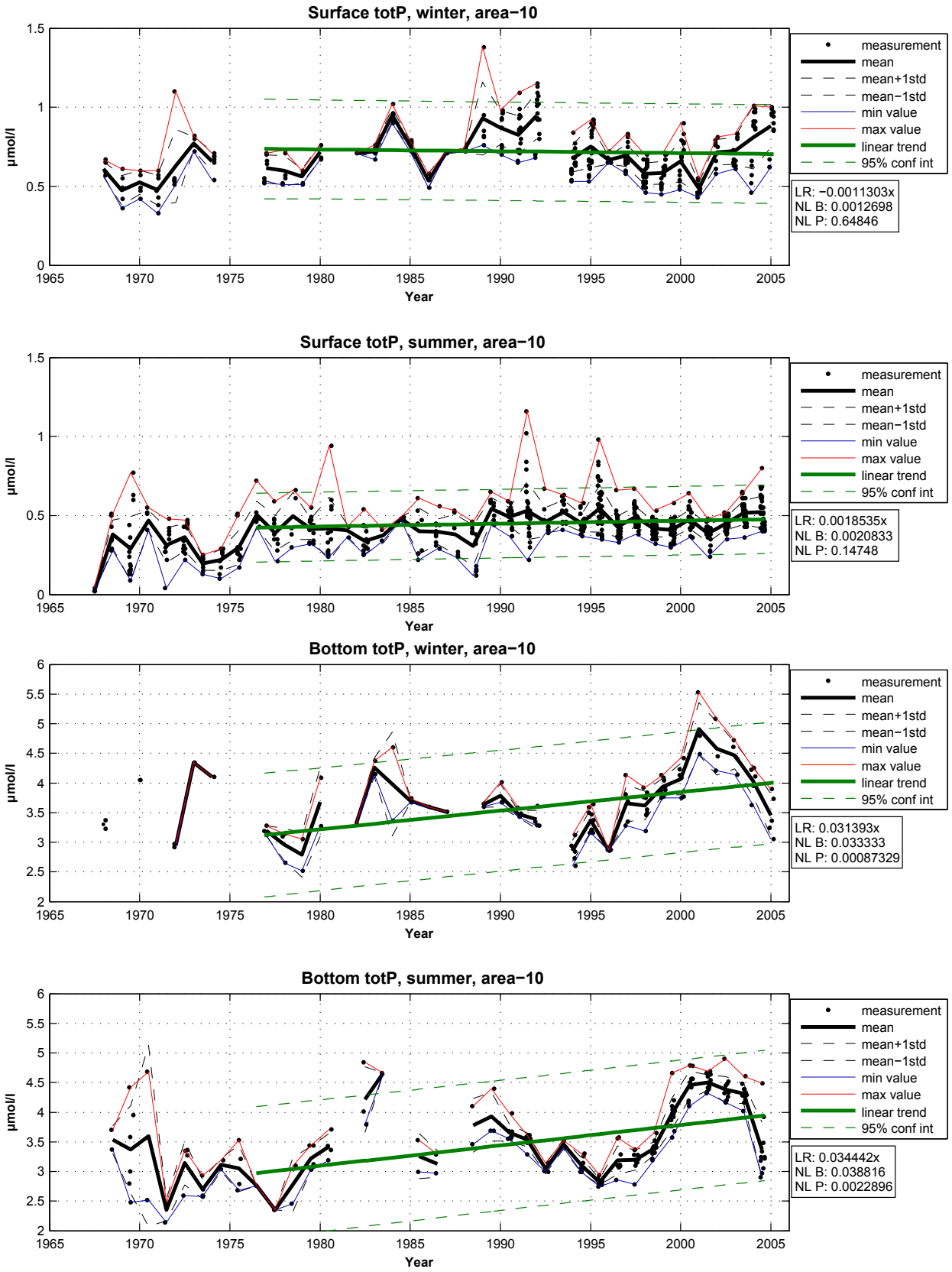

Figure 66. Area 10, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

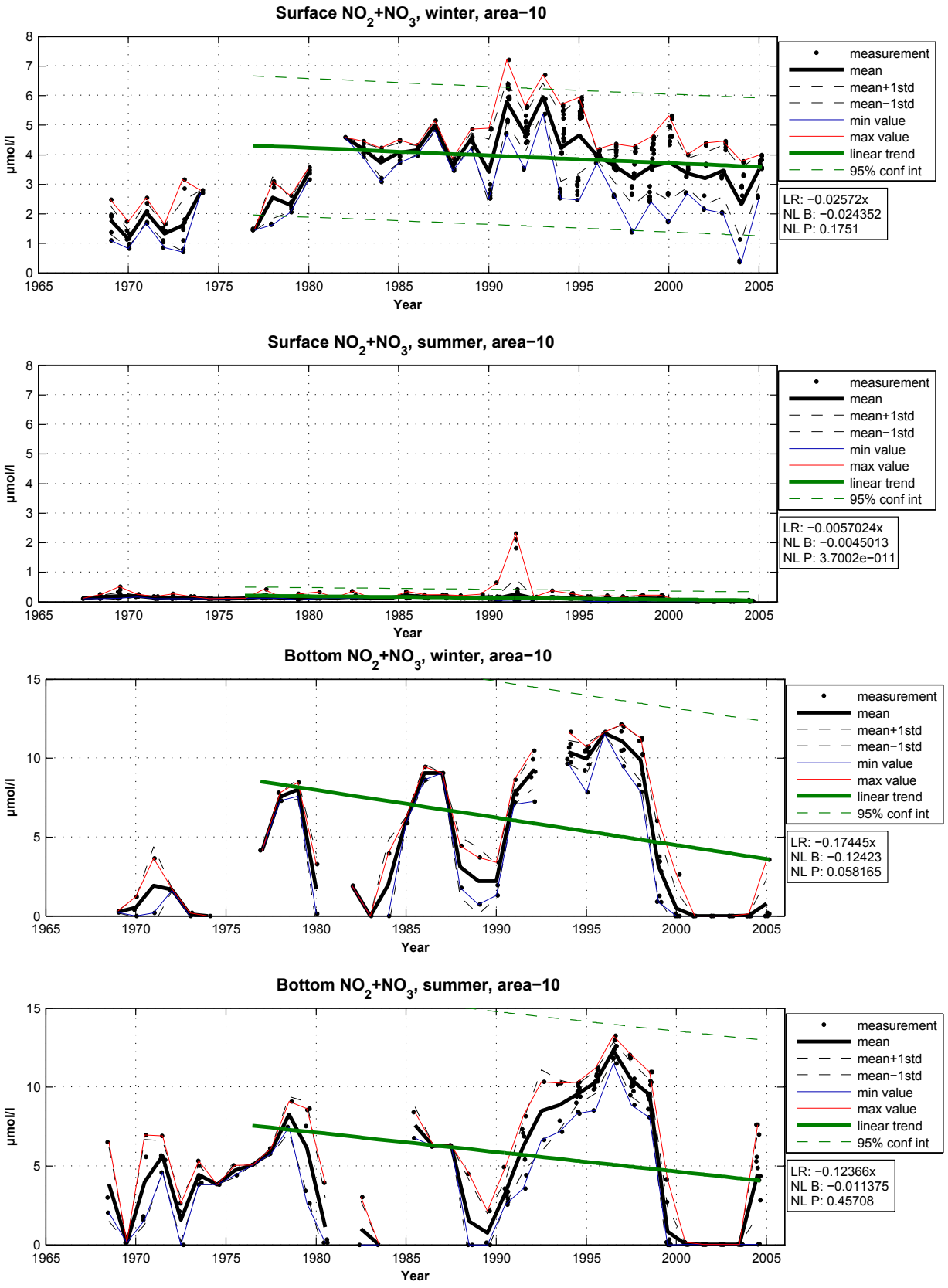

Figure 67. Area 10, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

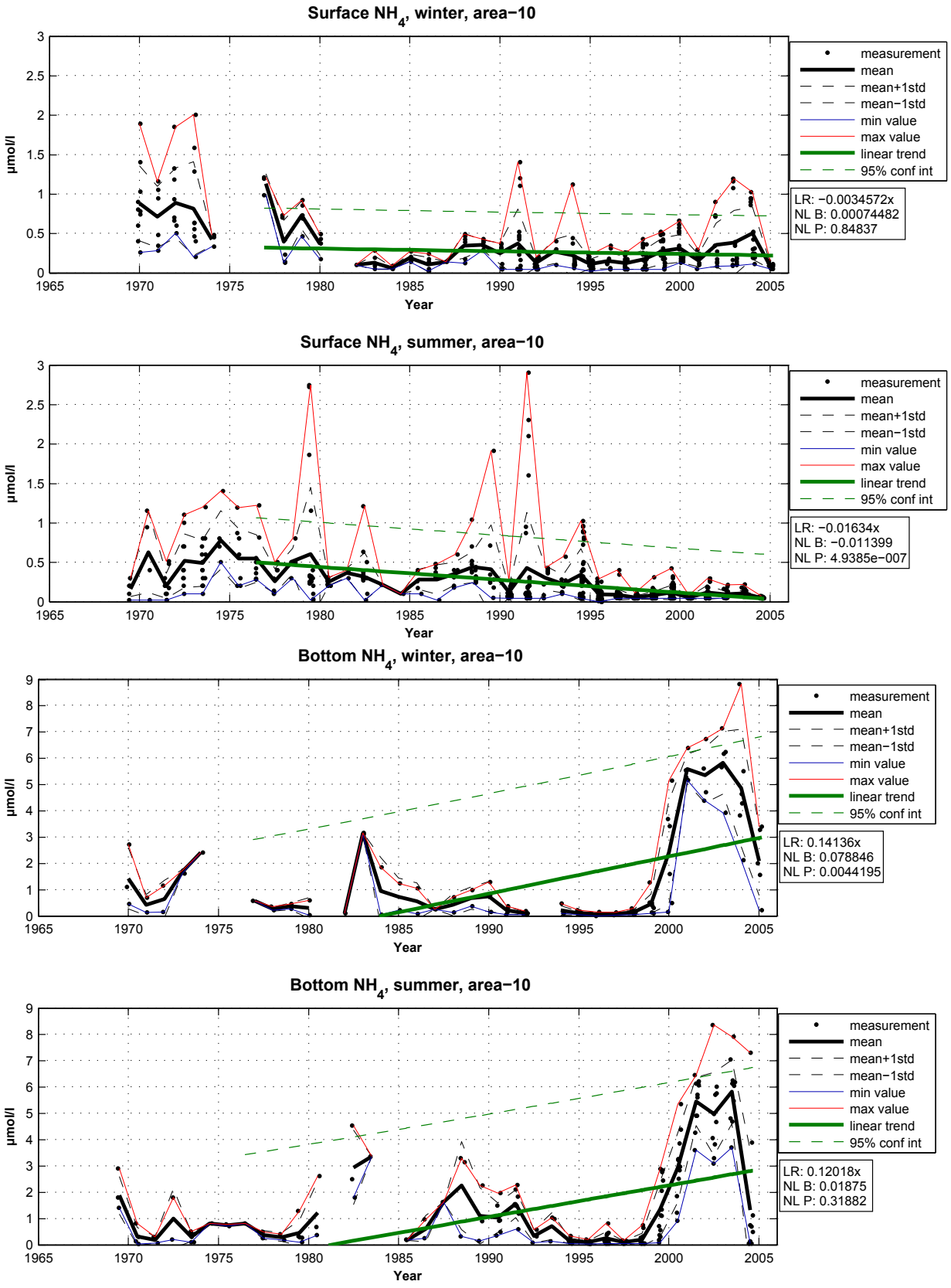

Figure 68. Area 10, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

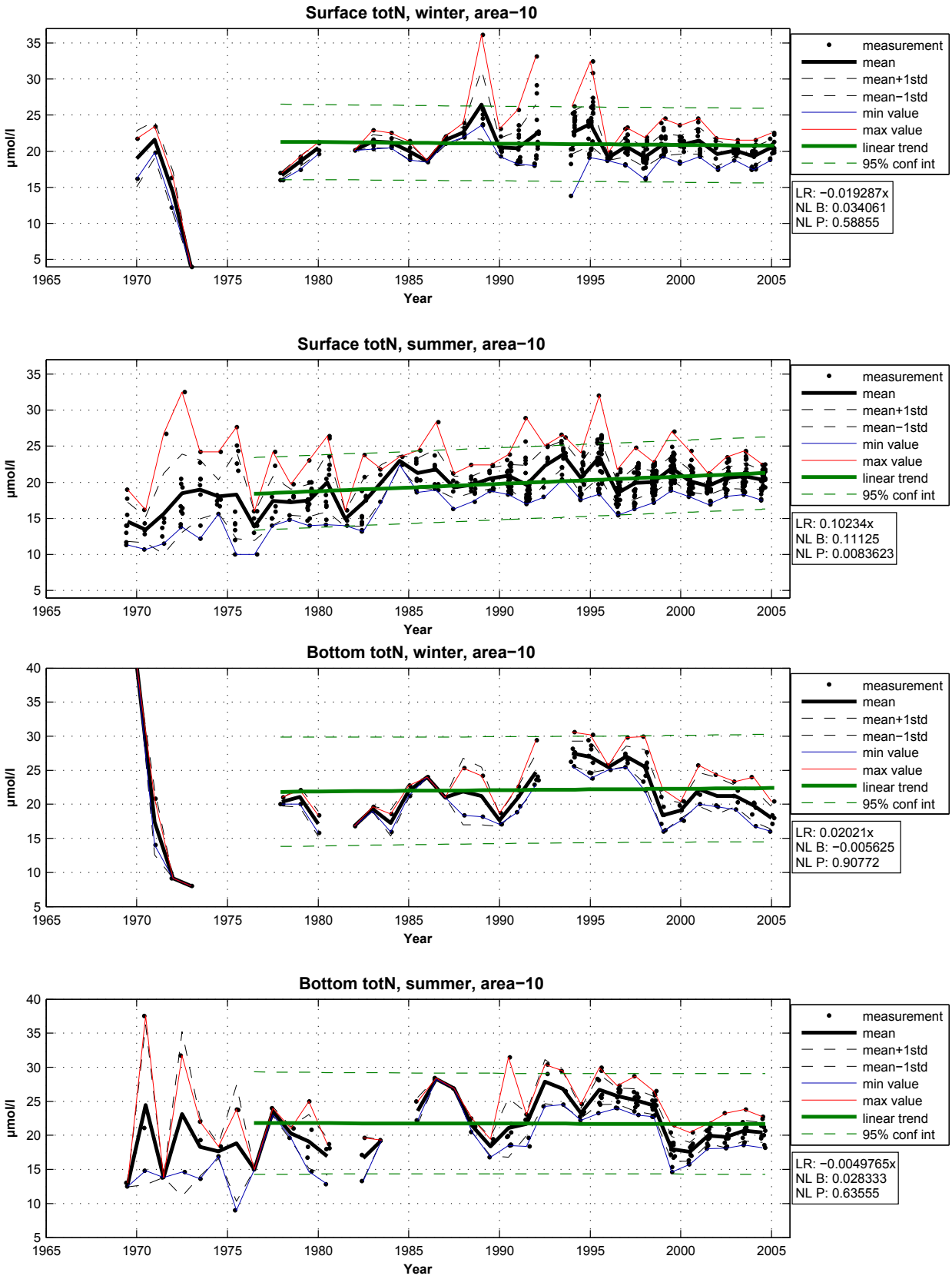

Figure 69. Area 10, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

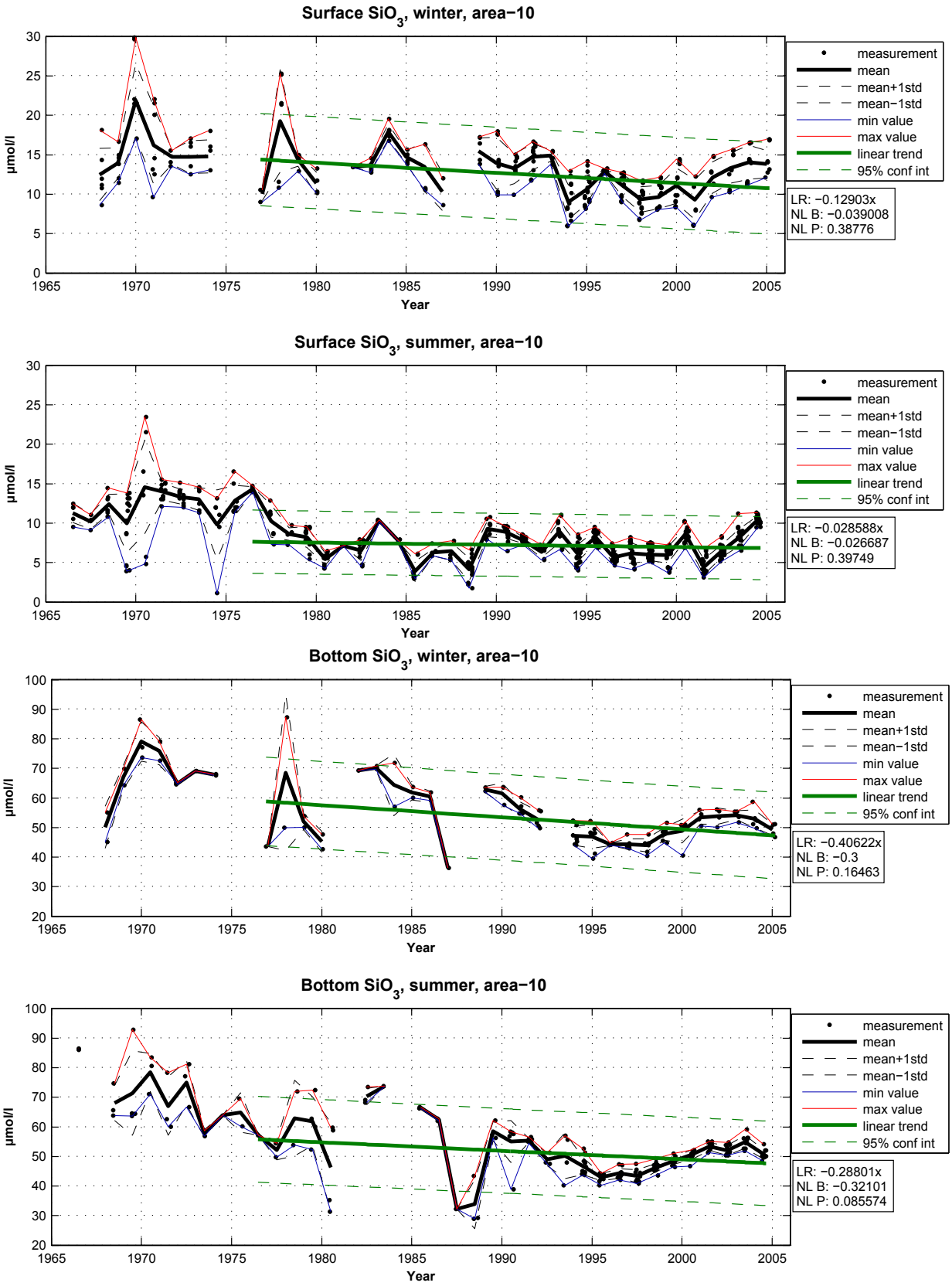

Figure 70. Area 10, SiO3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

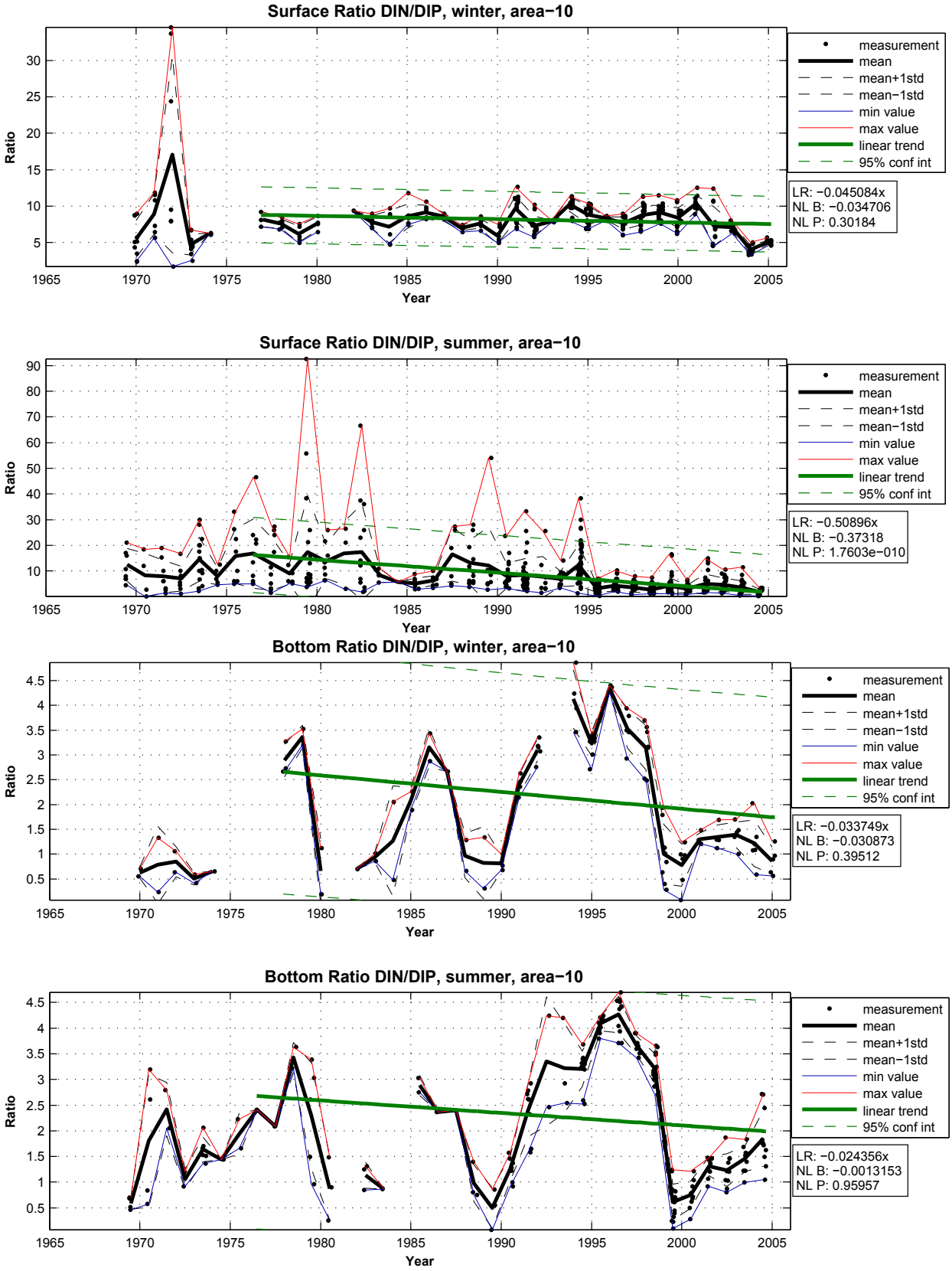

Figure 71. Area 10, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

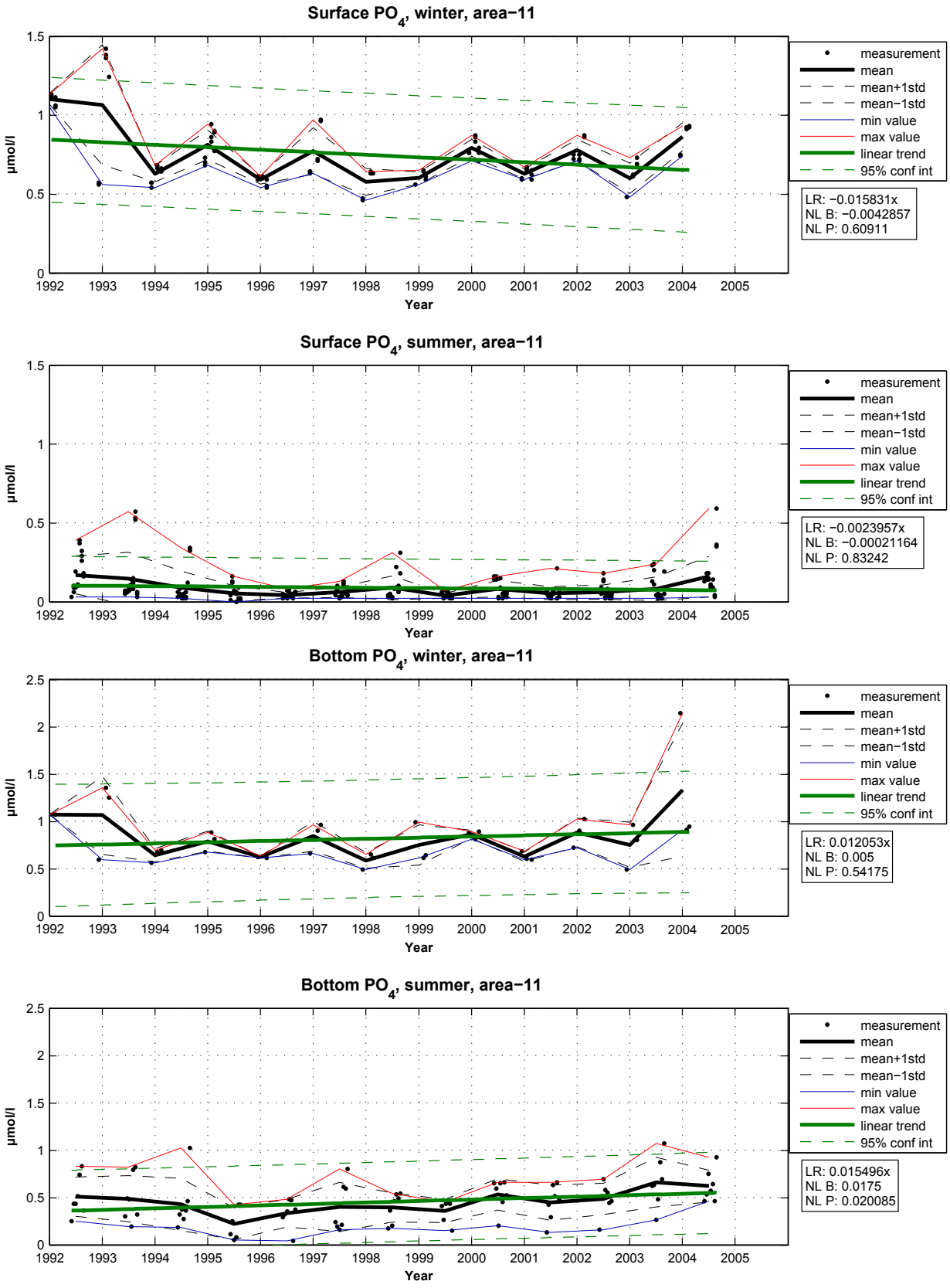

Figure 72. Area 11, PO4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

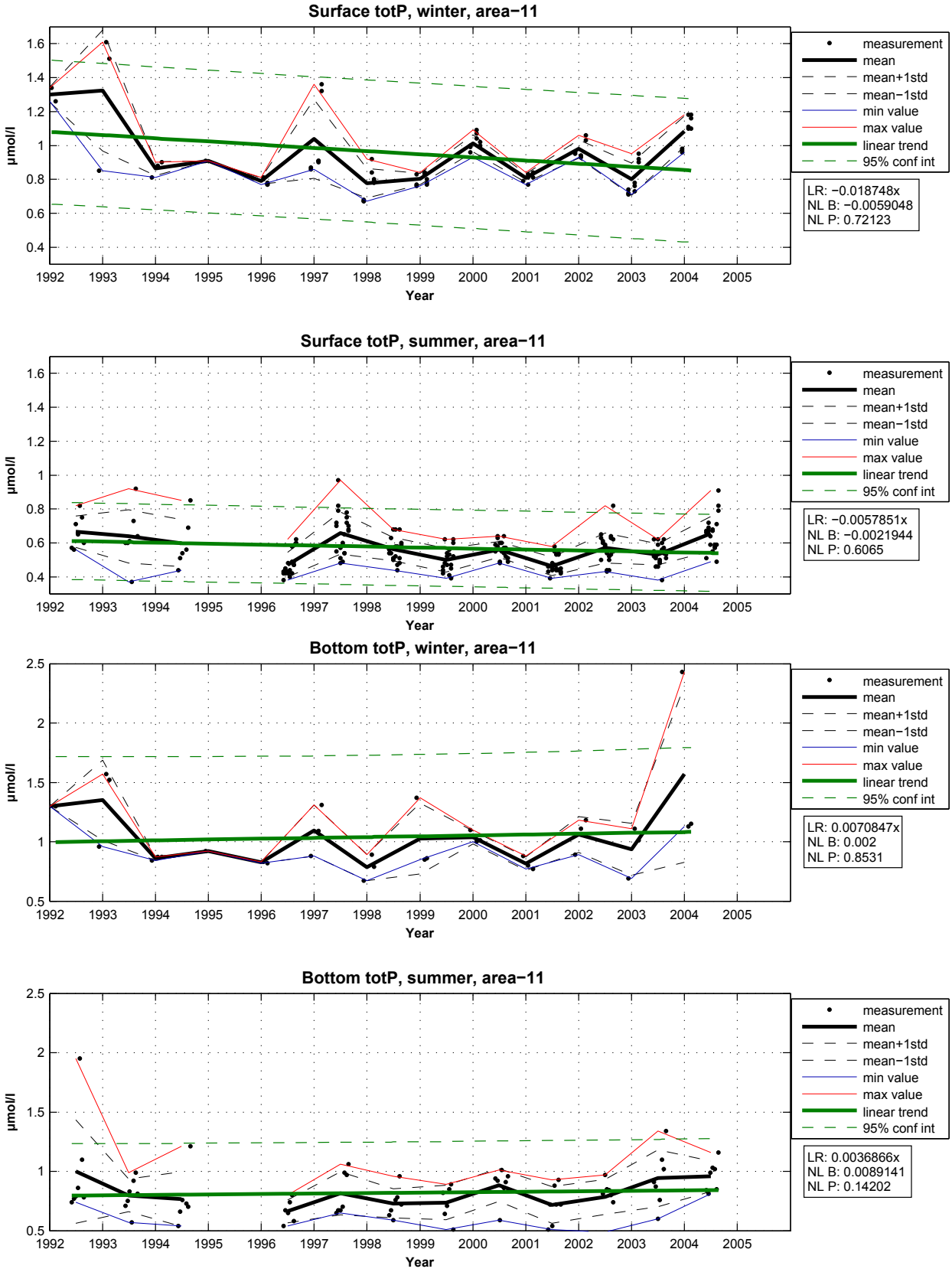

Figure 73. Area 11, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

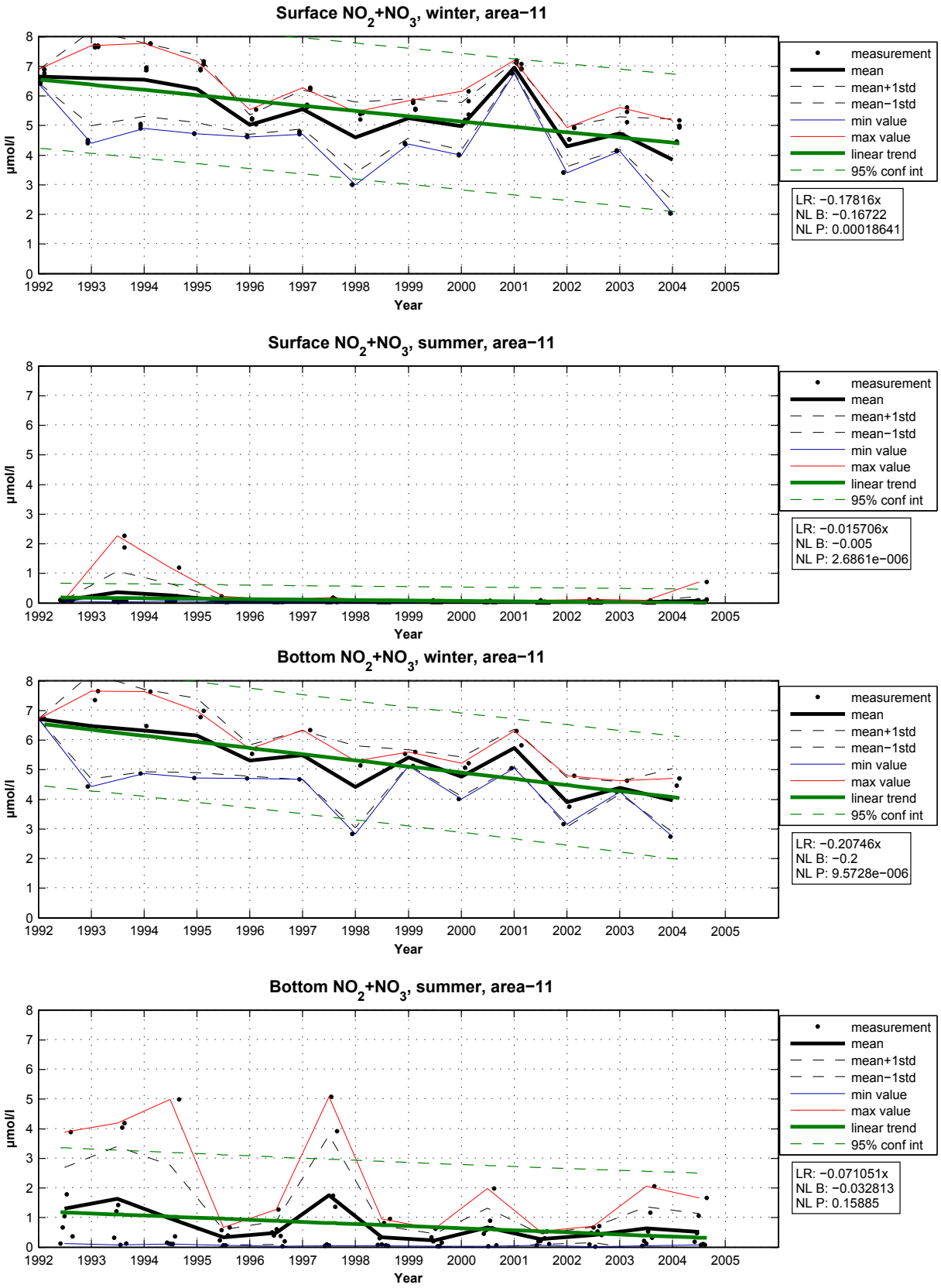

Figure 74. Area 11, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

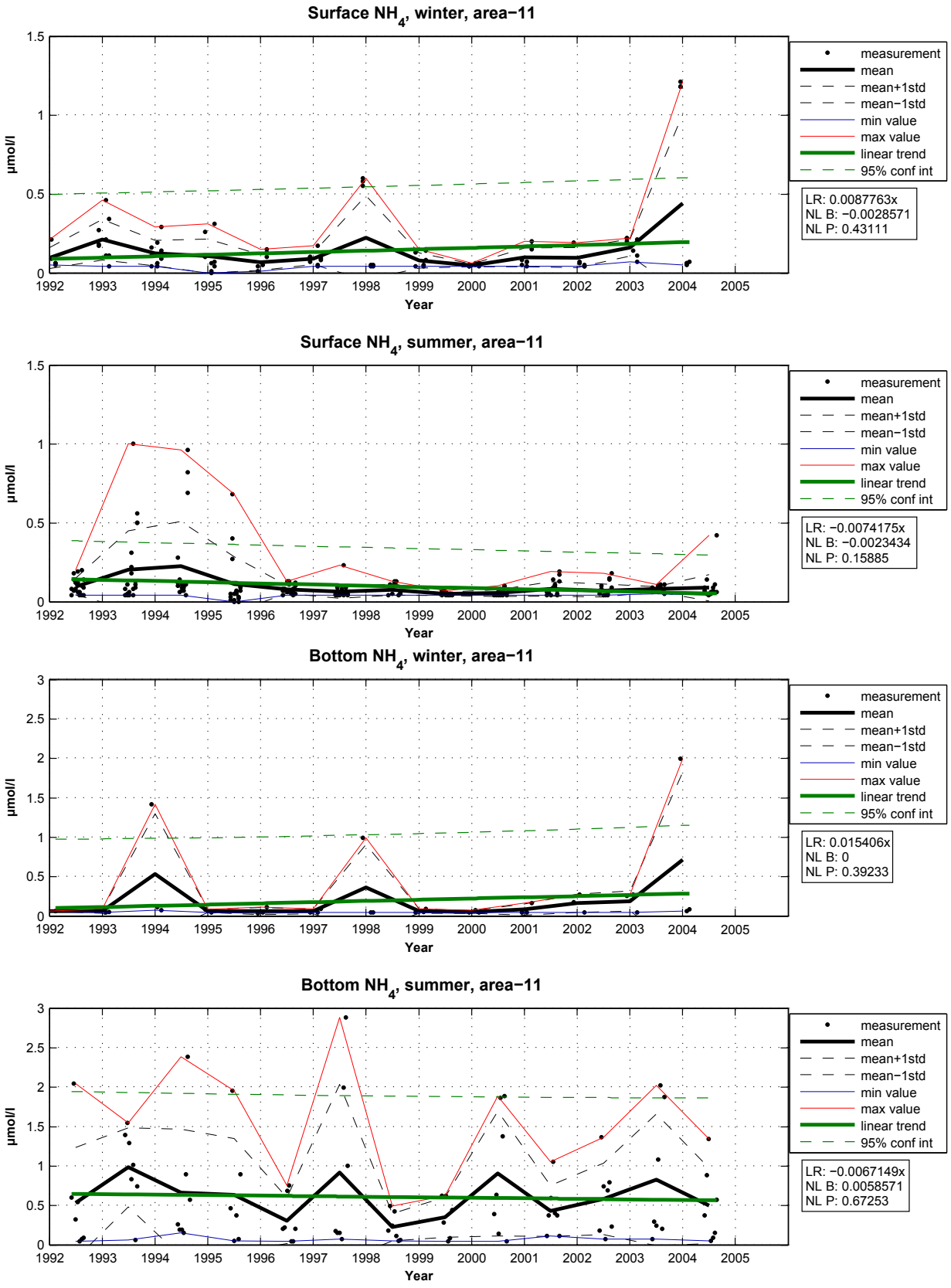

Figure 75. Area 11, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

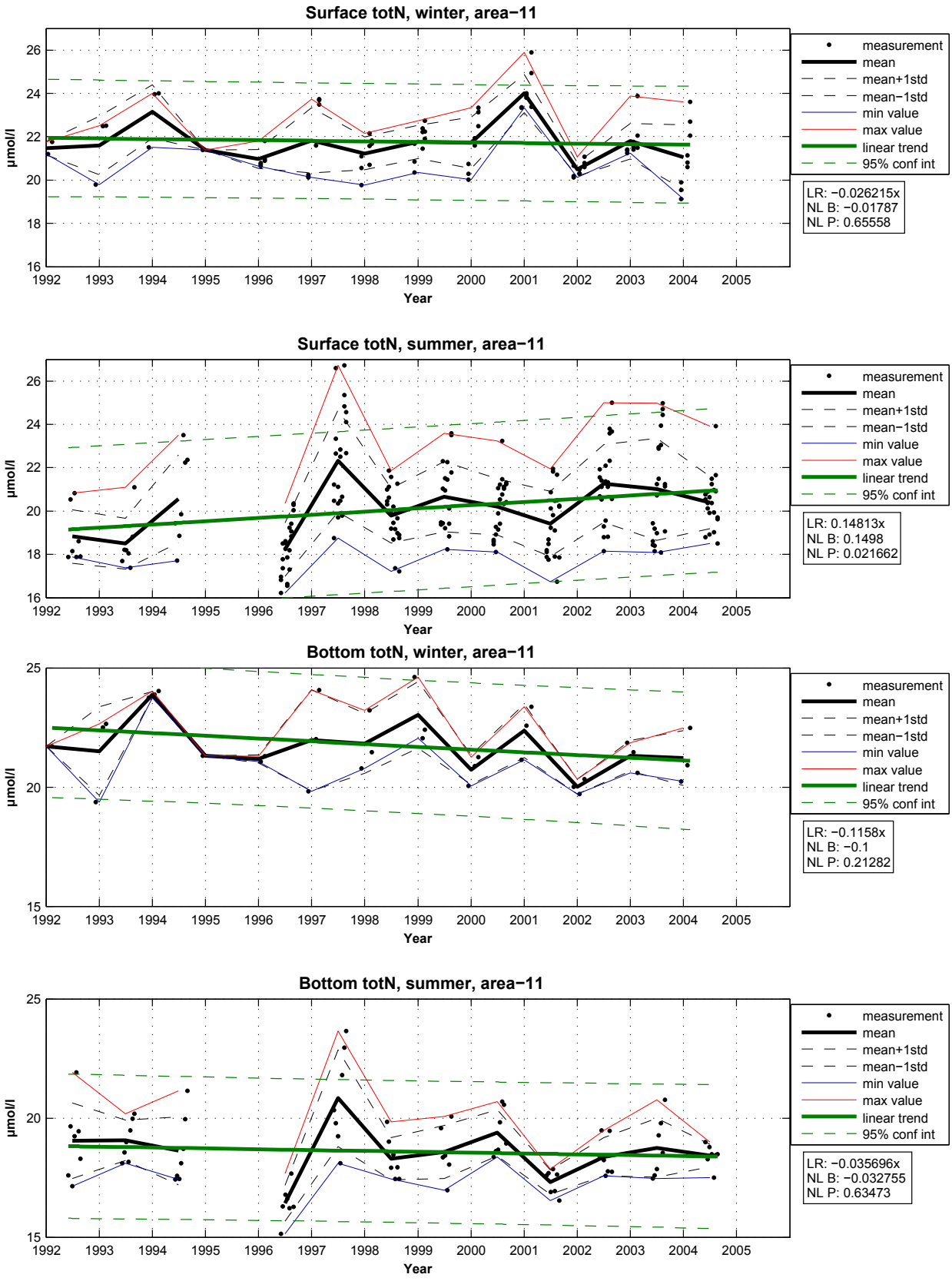

Figure 76. Area 11, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

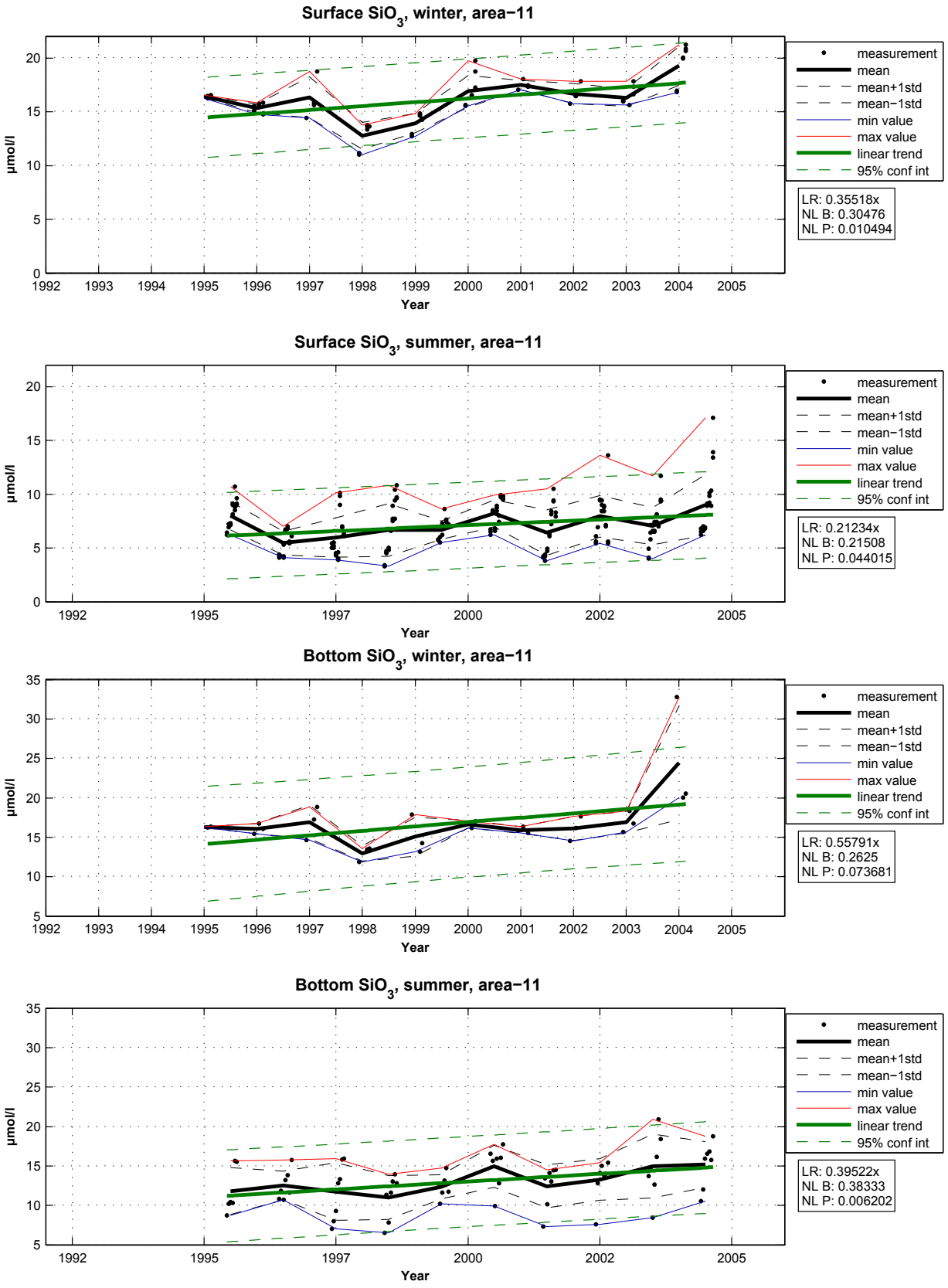

Figure 77. Area 11, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

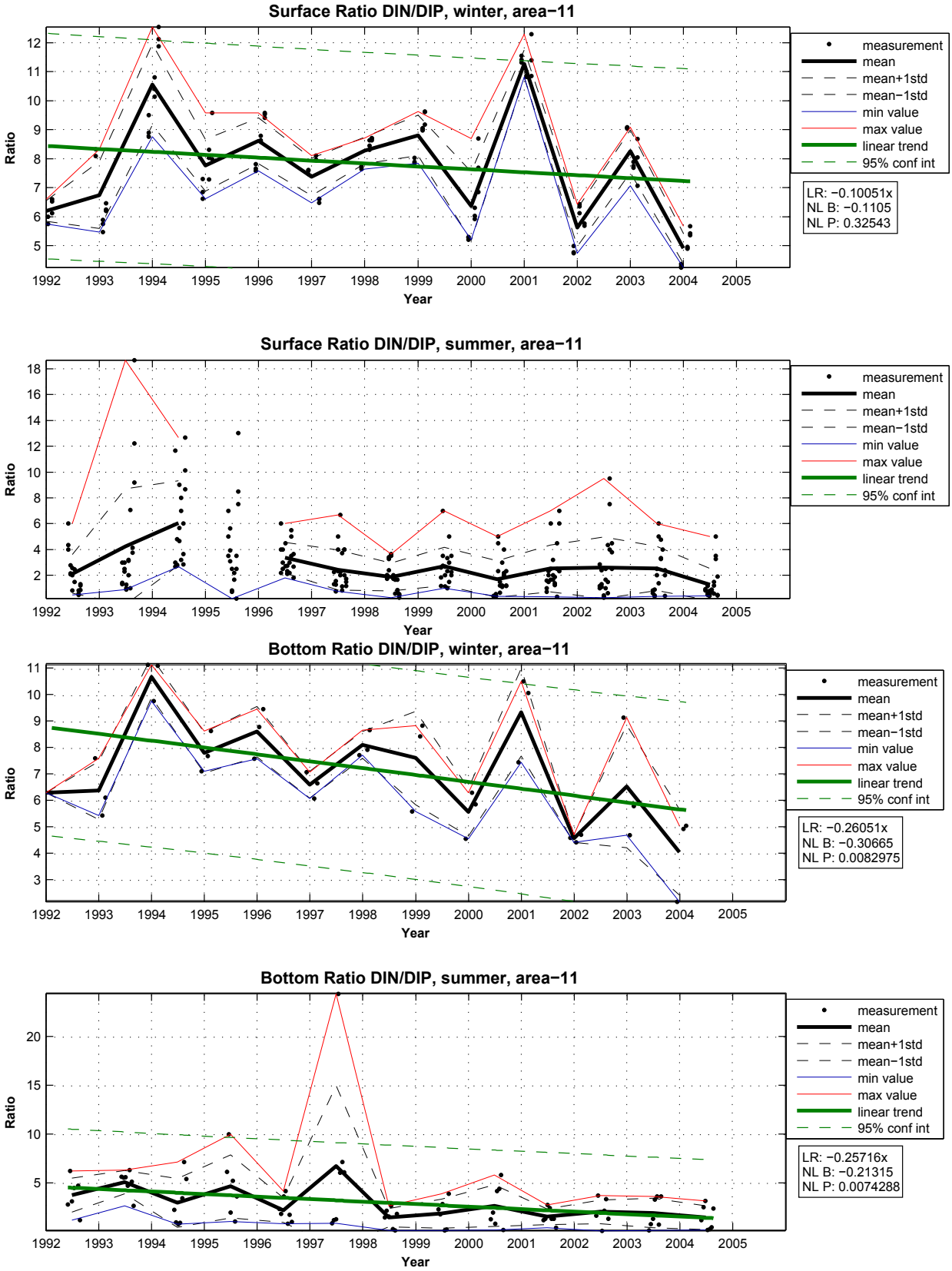

Figure 78. Area 11, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

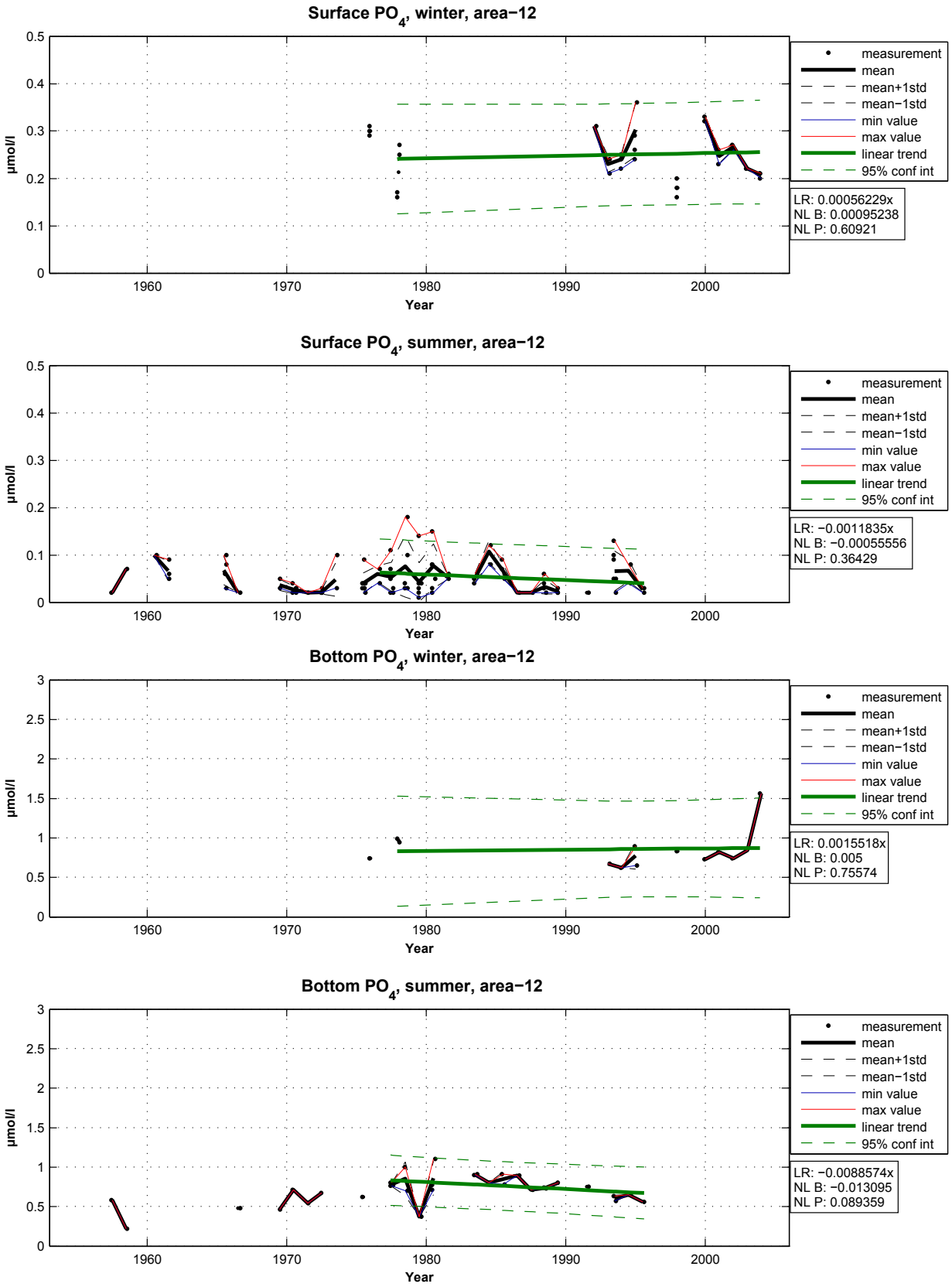

Figure 79. Area 12, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

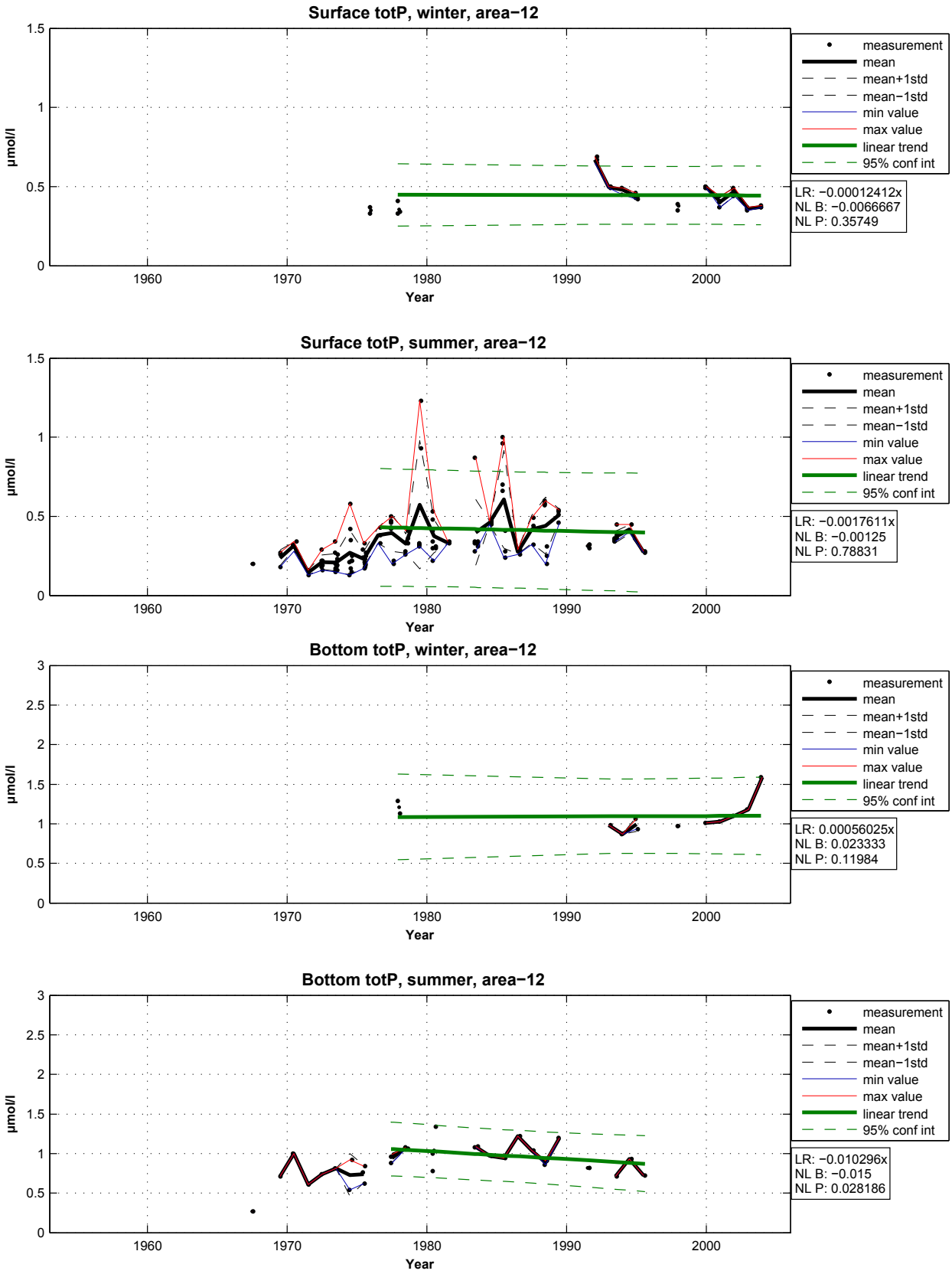

Figure 80. Area 12, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

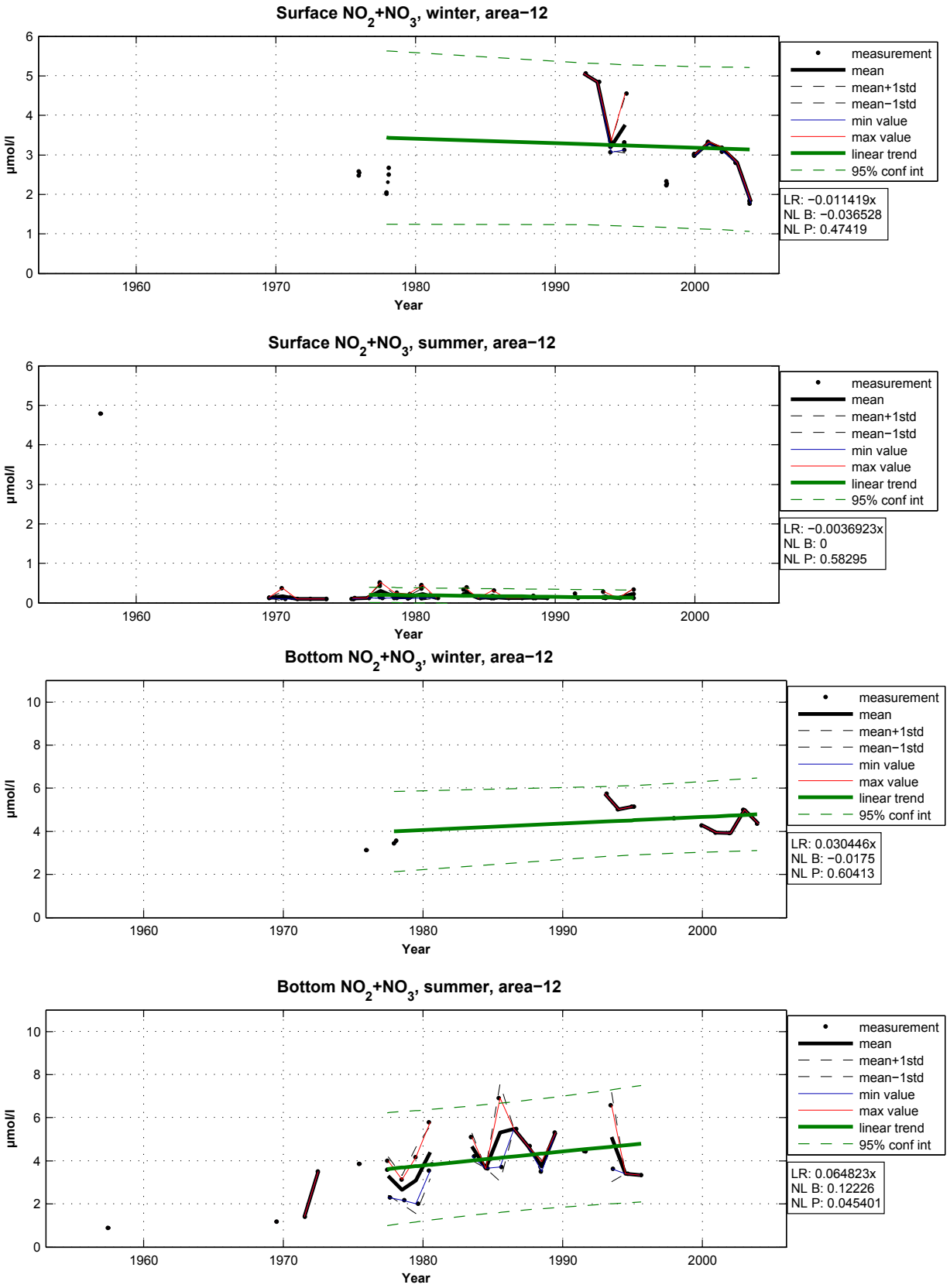

Figure 81. Area 12, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

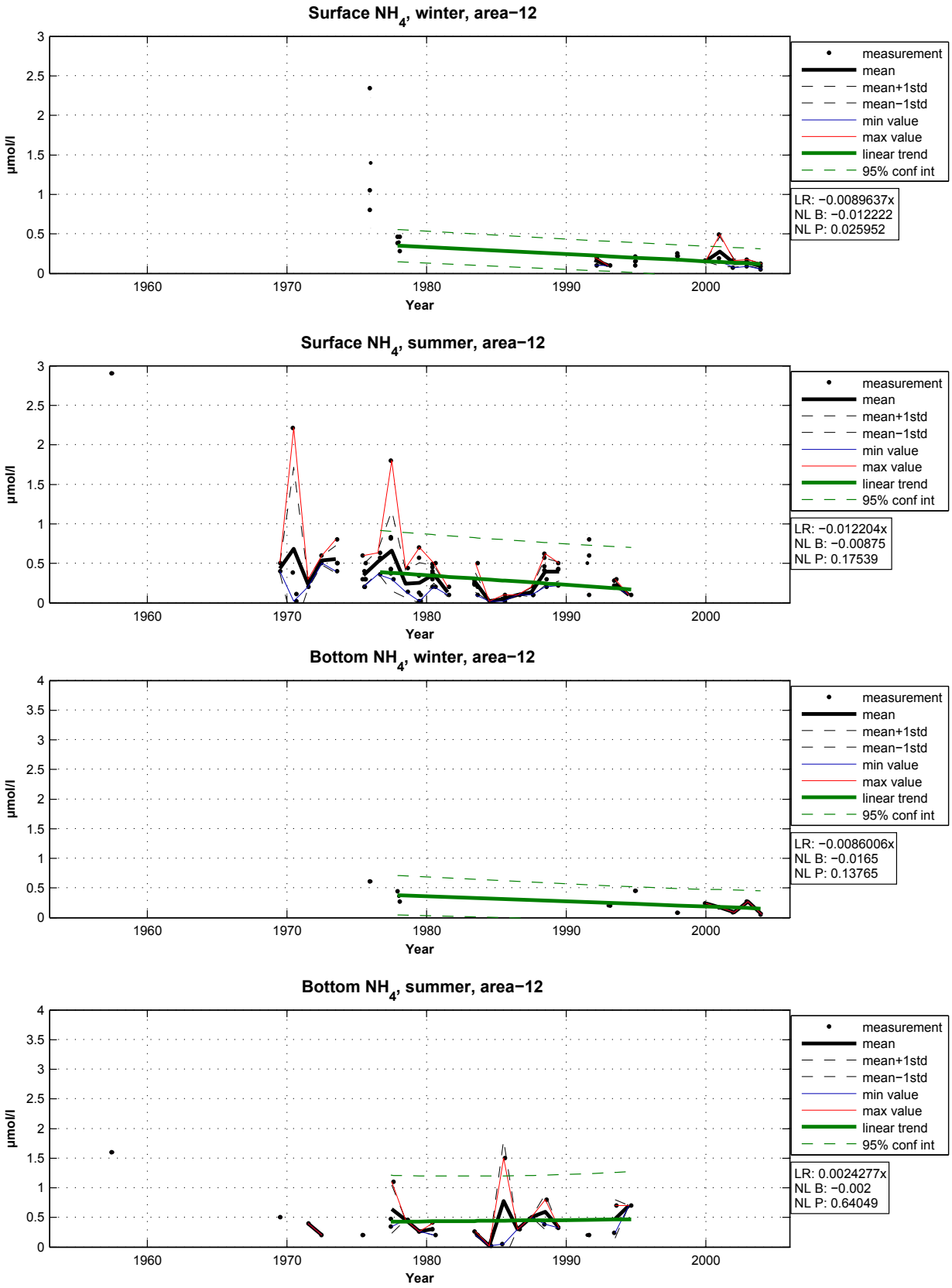

Figure 82. Area 12, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

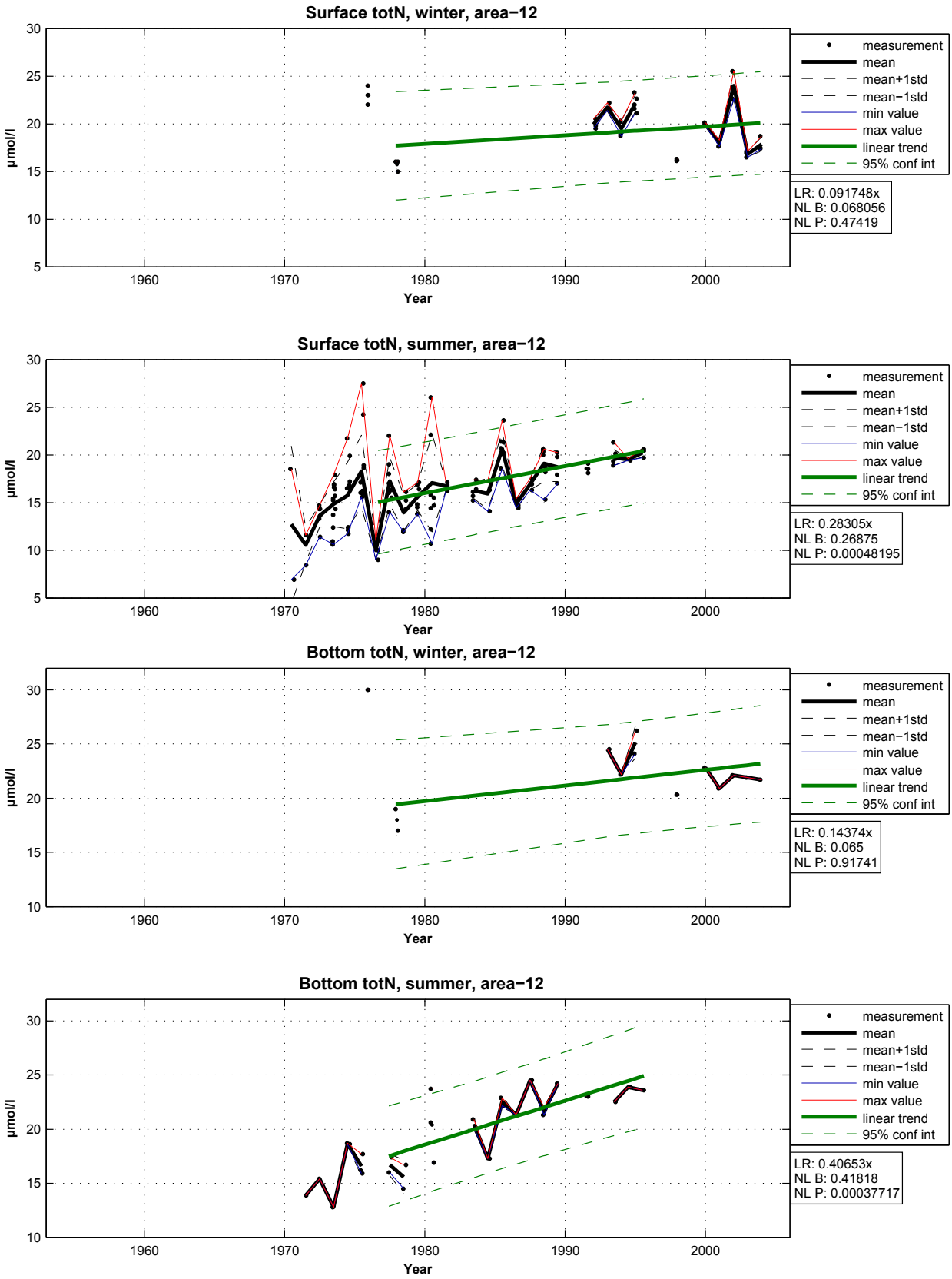

Figure 83. Area 12, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

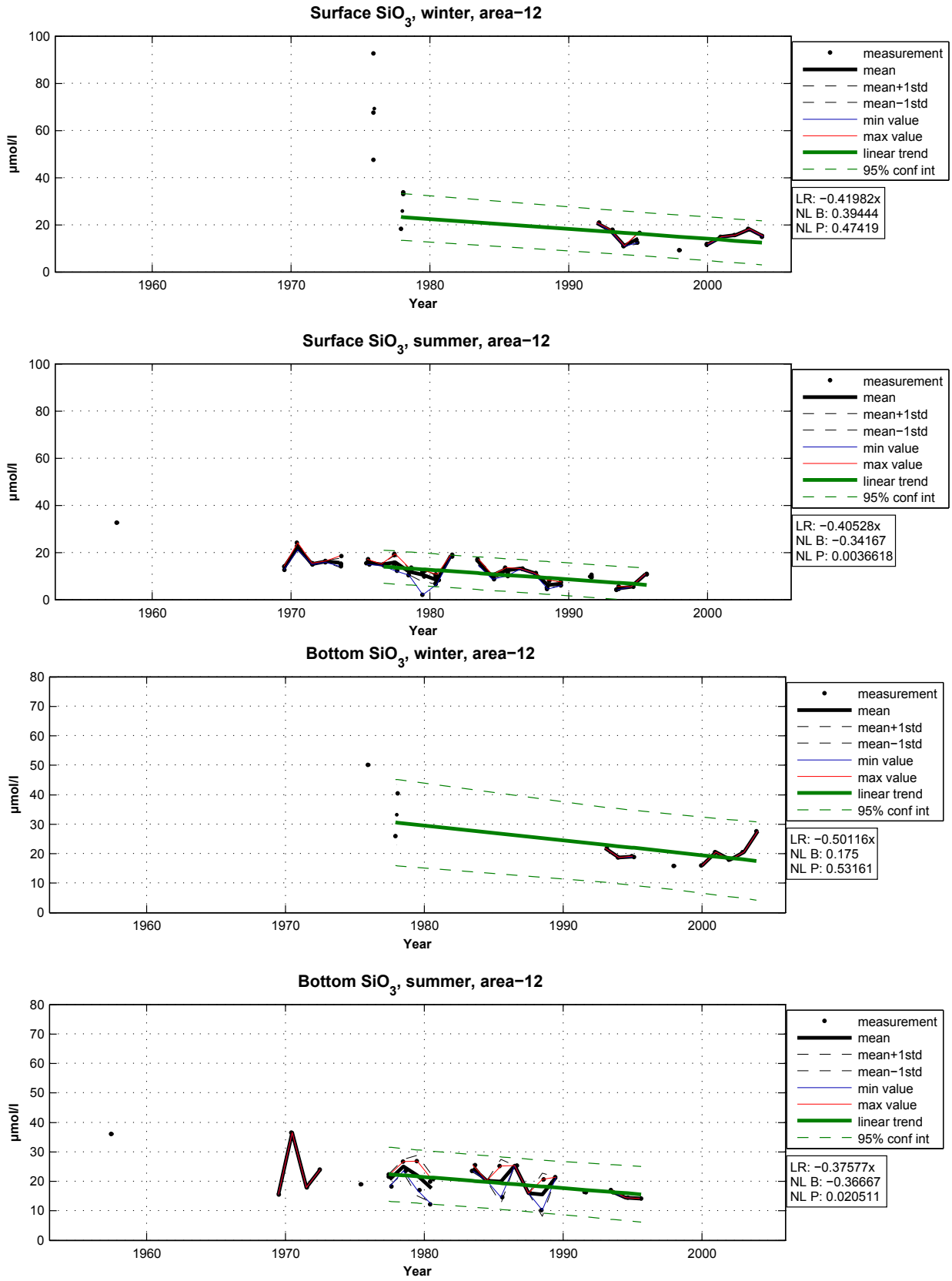

Figure 84. Area 12, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

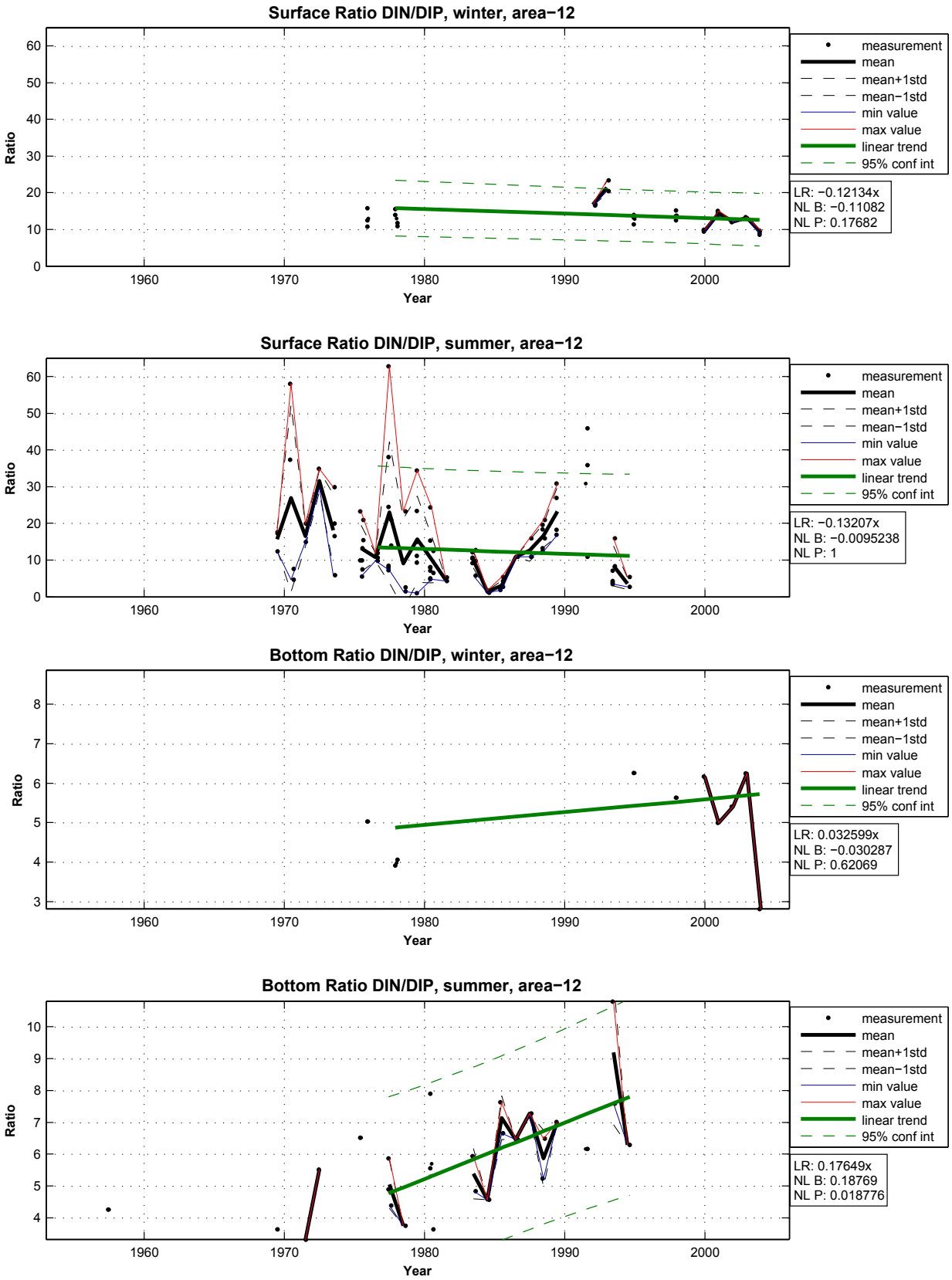

Figure 85. Area 12, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

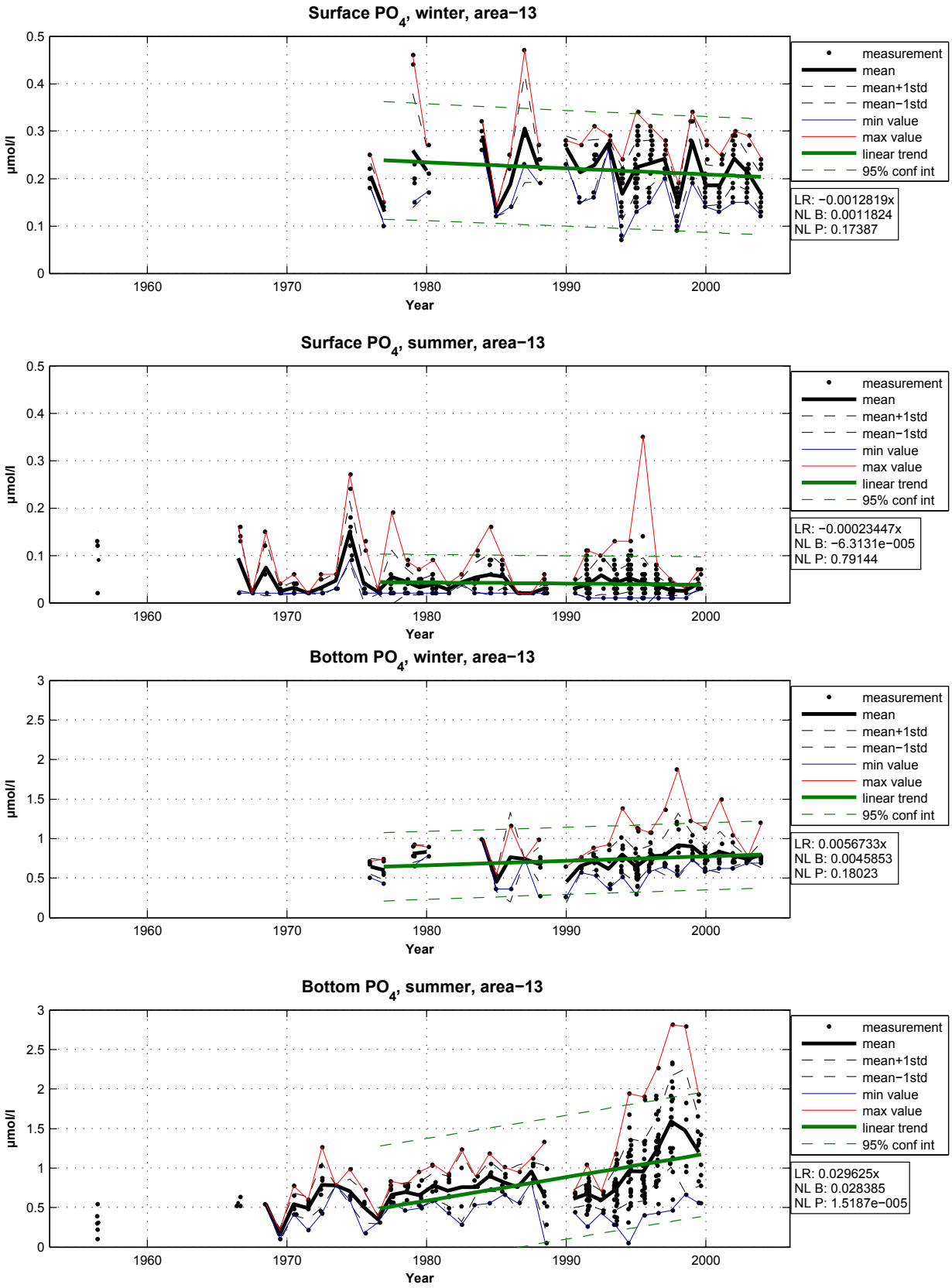

Figure 86. Area 13, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

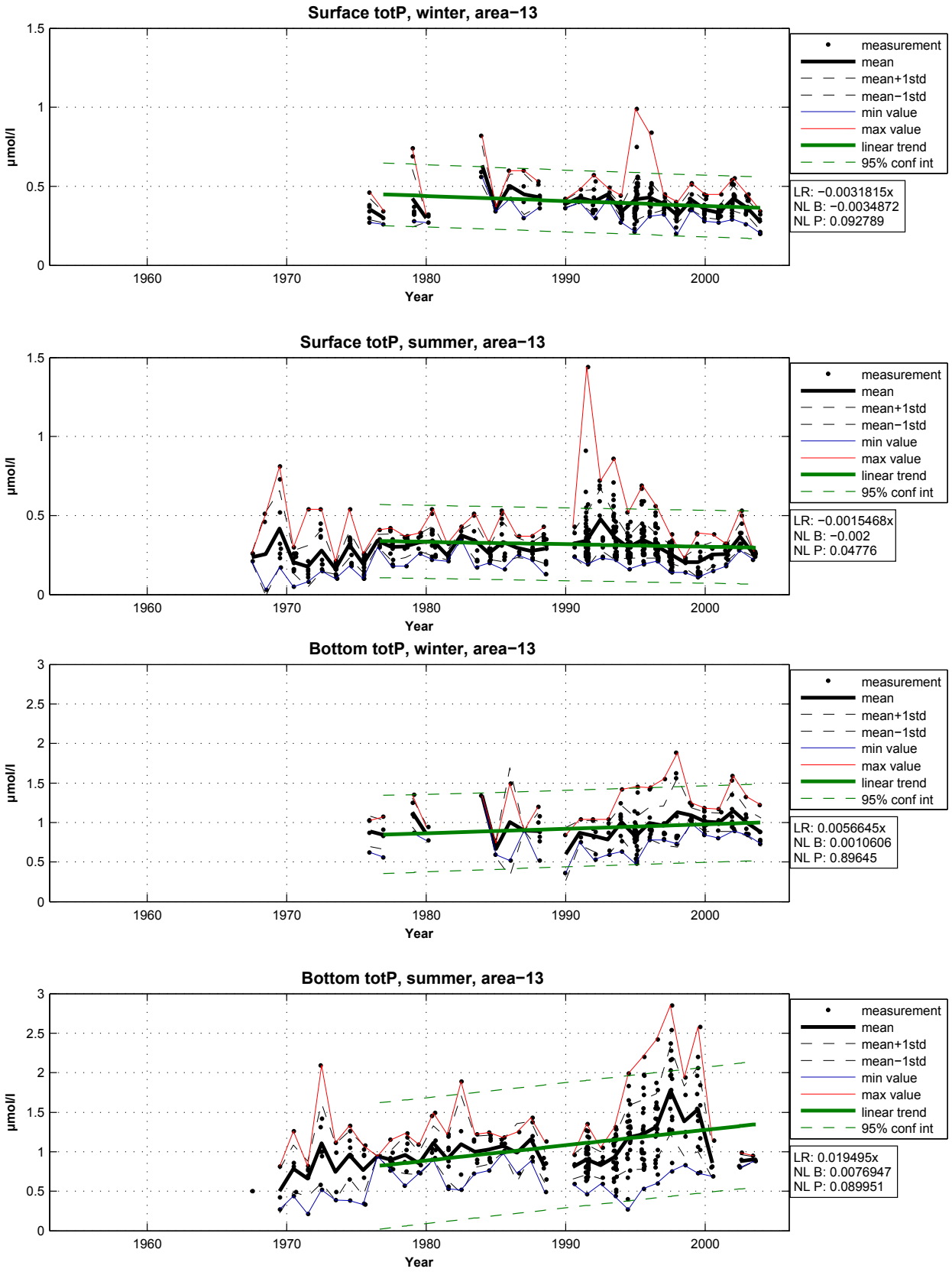

Figure 87. Area 13, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

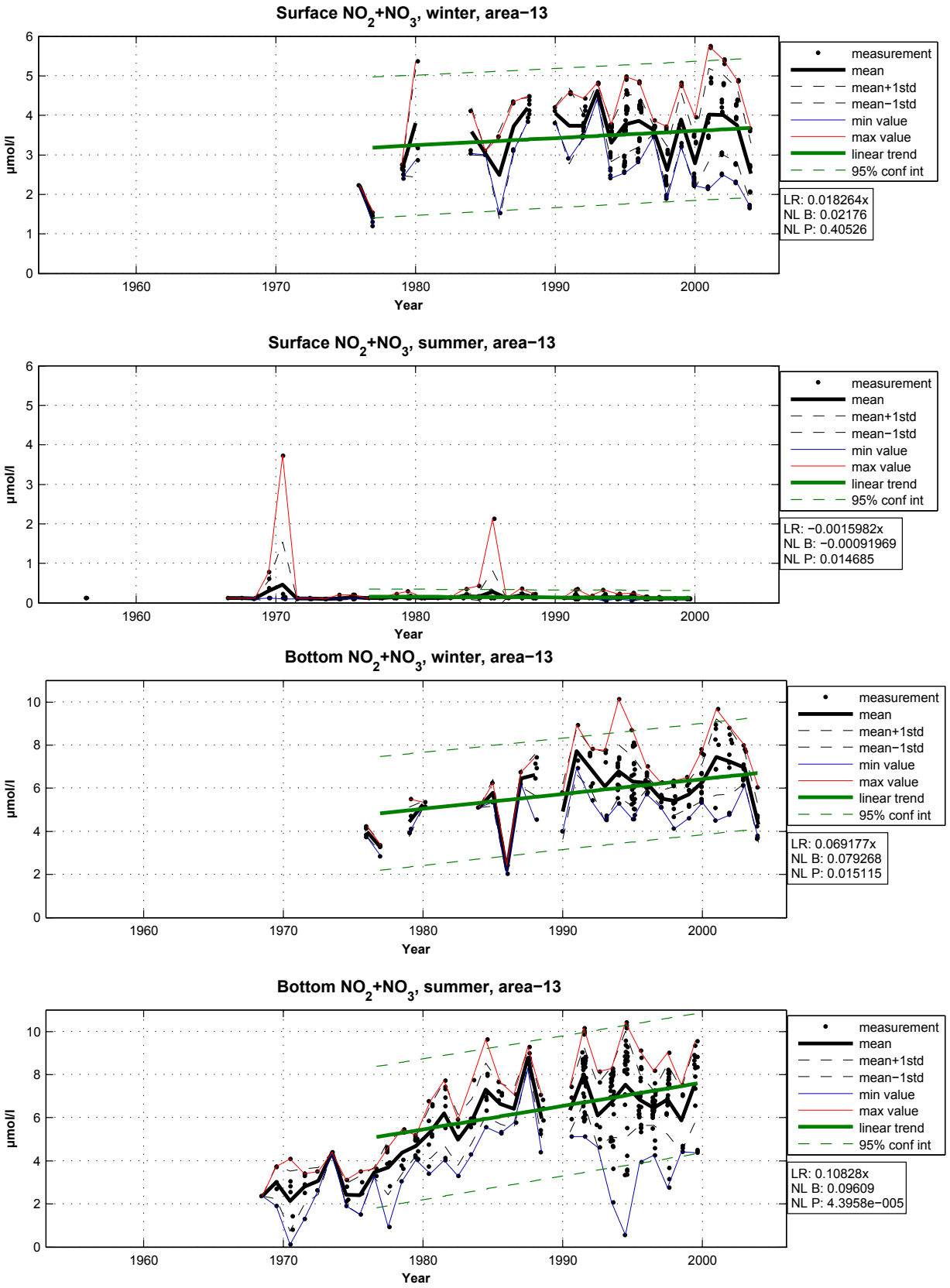

Figure 88. Area 13, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

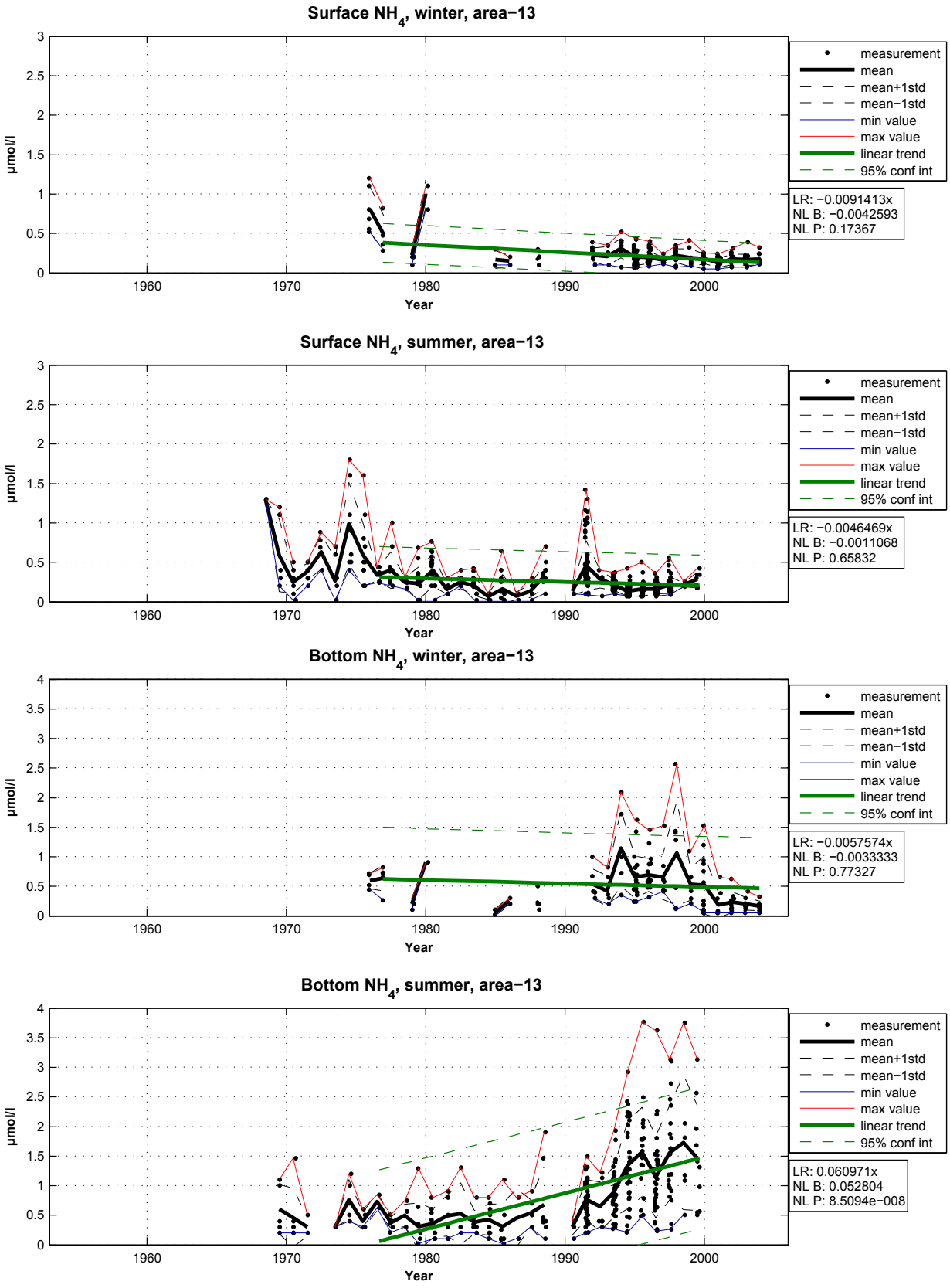

Figure 89. Area 13, NH4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

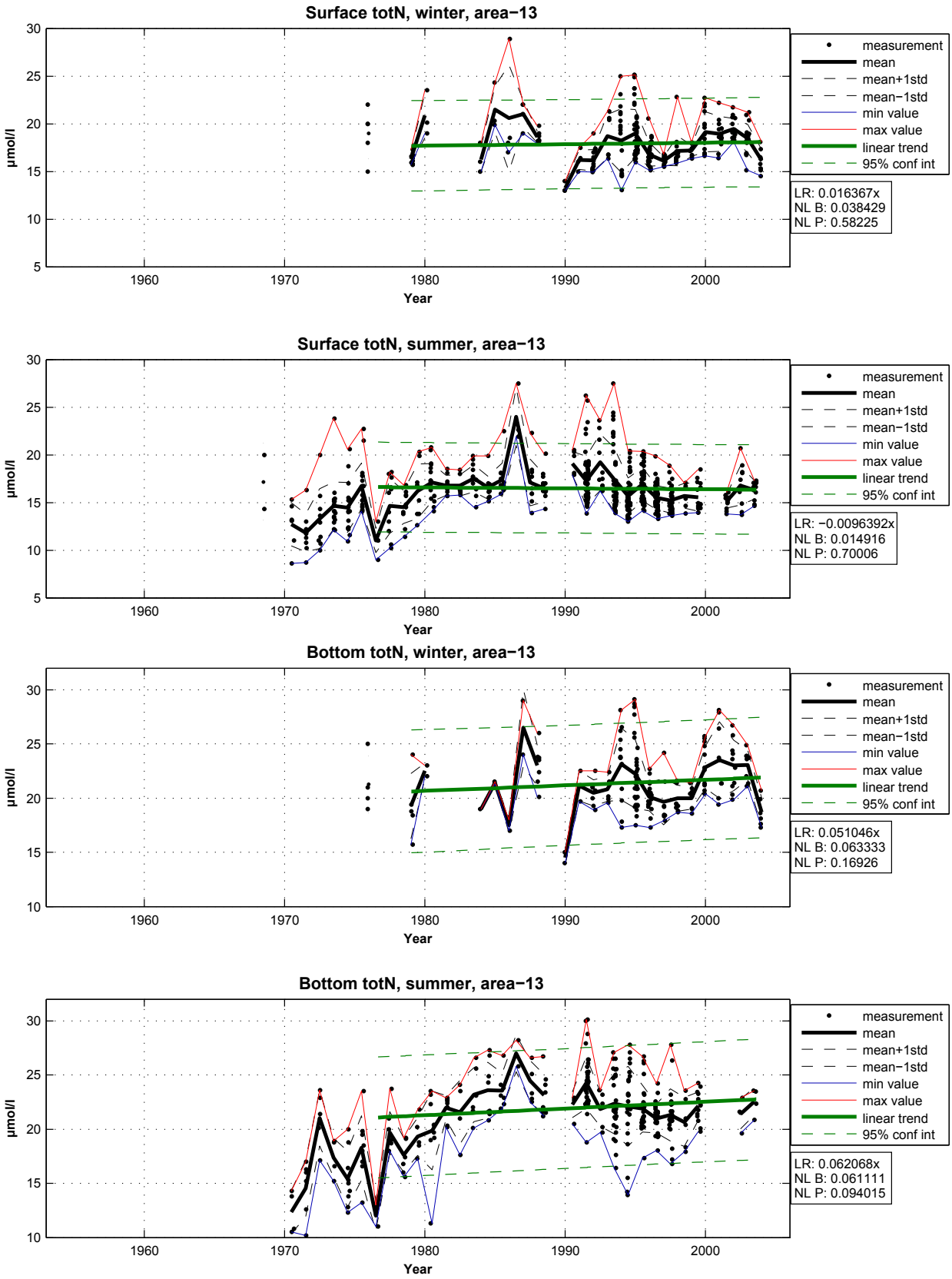

Figure 90. Area 13, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

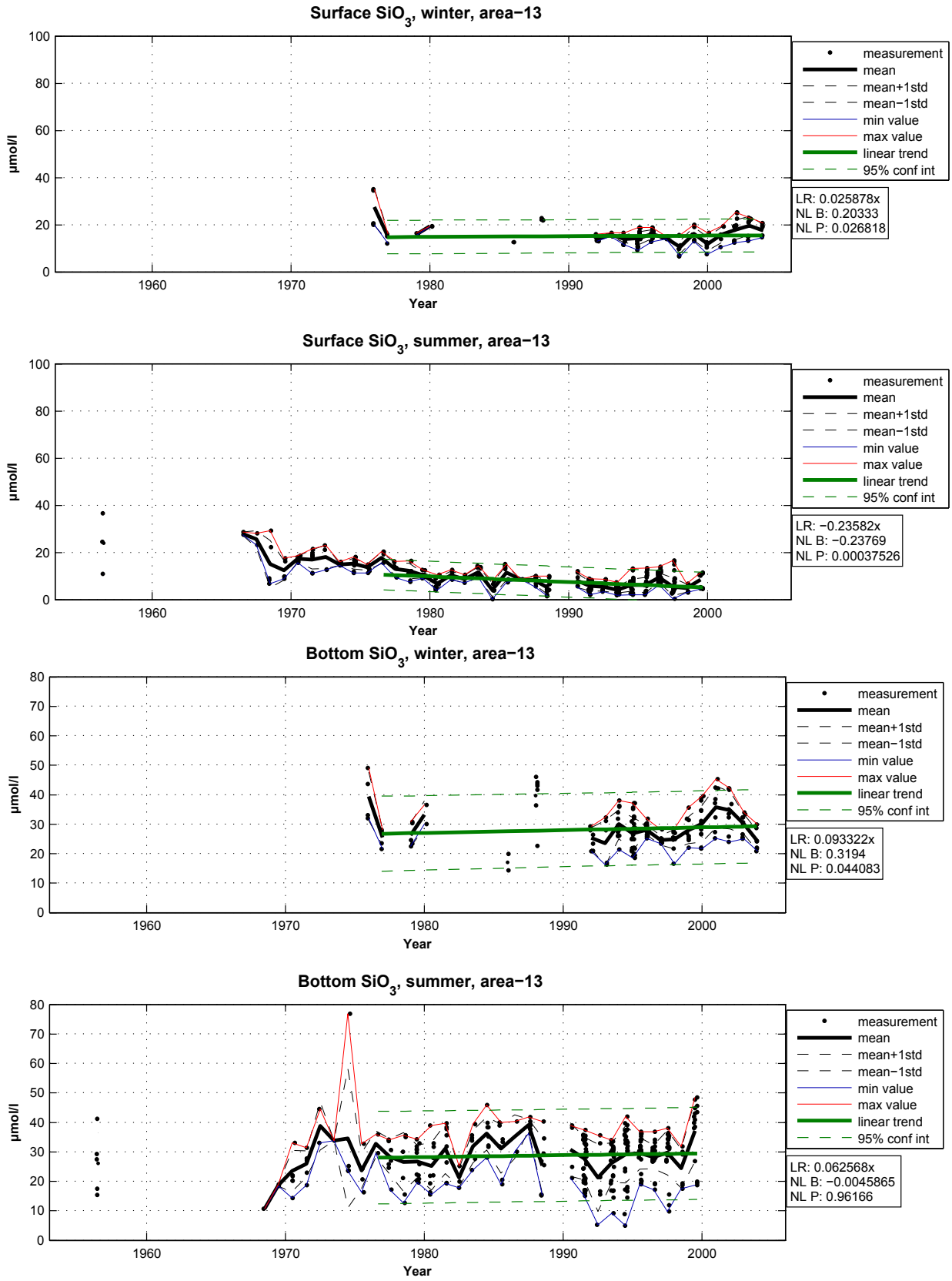

Figure 91. Area 13, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

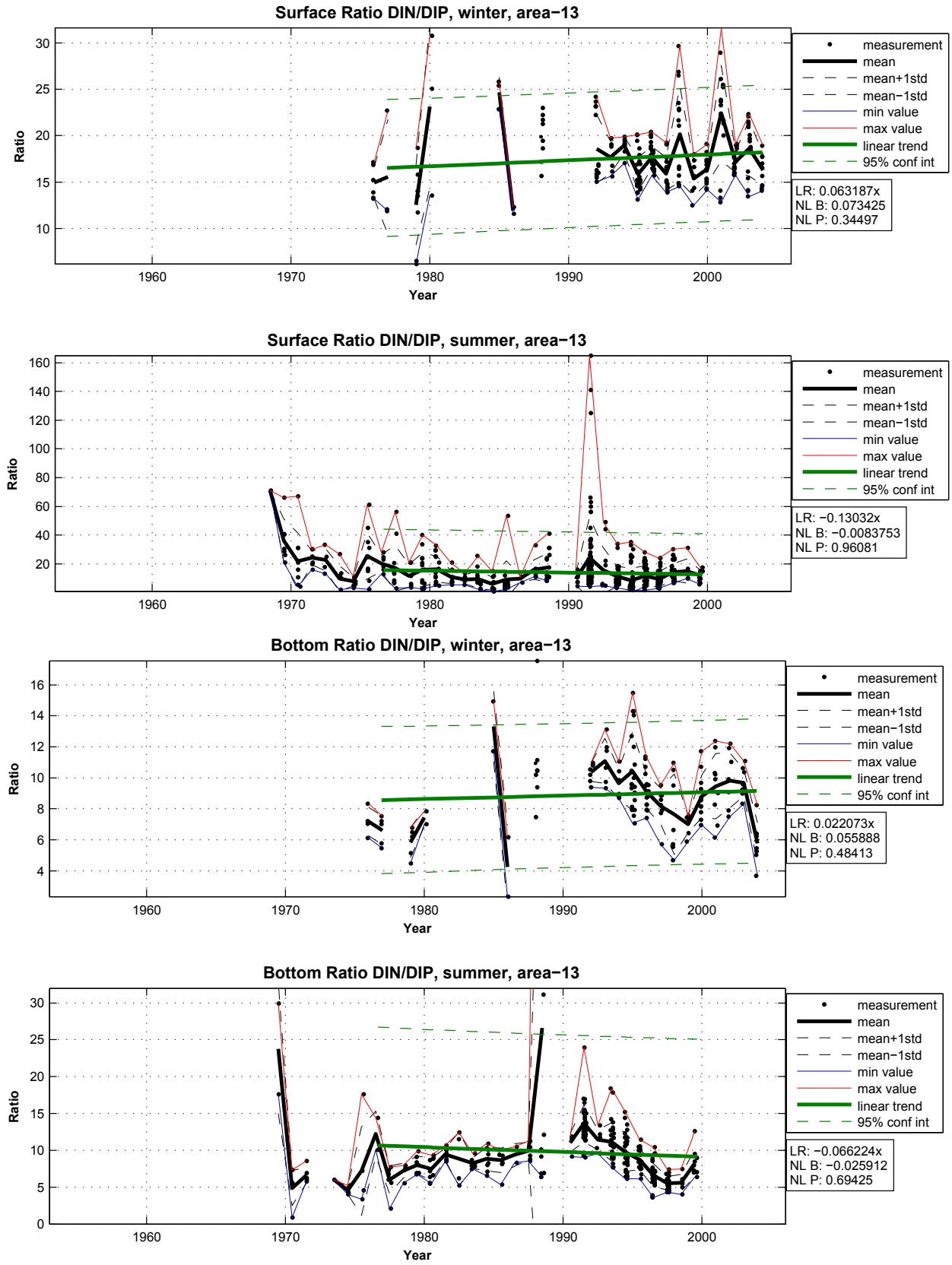

Figure 92. Area 13, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

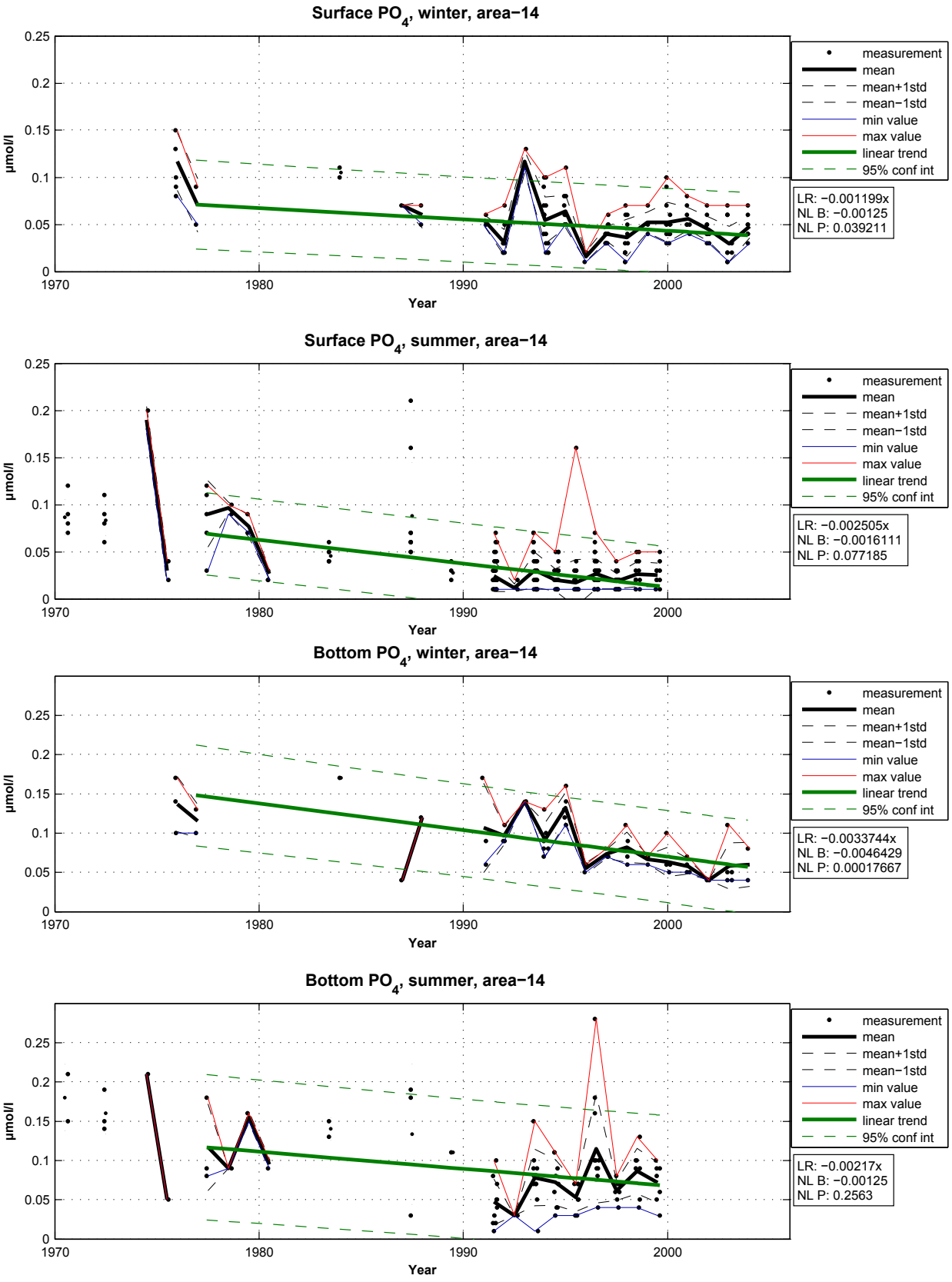

Figure 93. Area 14, PO_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

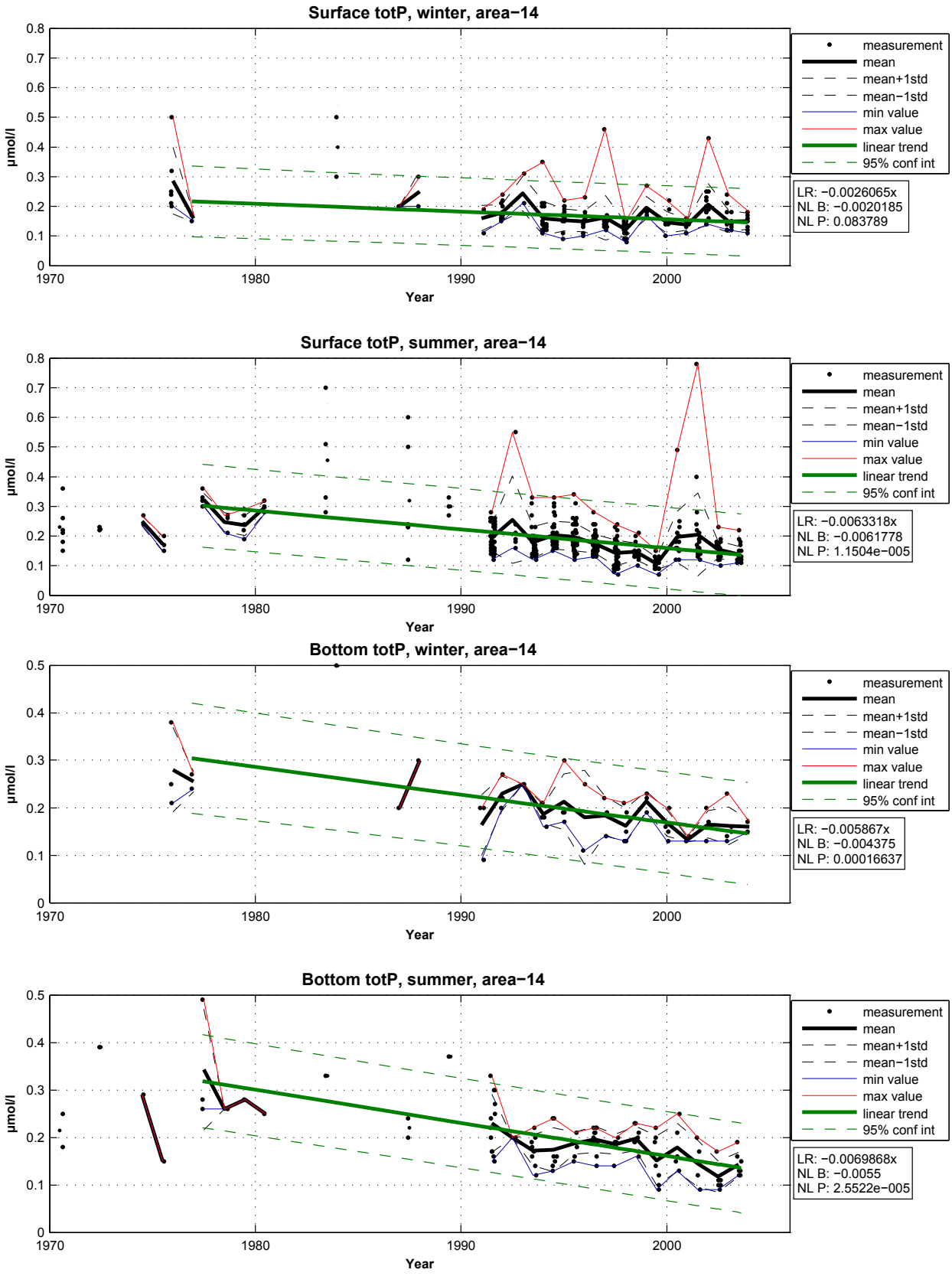

Figure 94. Area 14, TotP at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

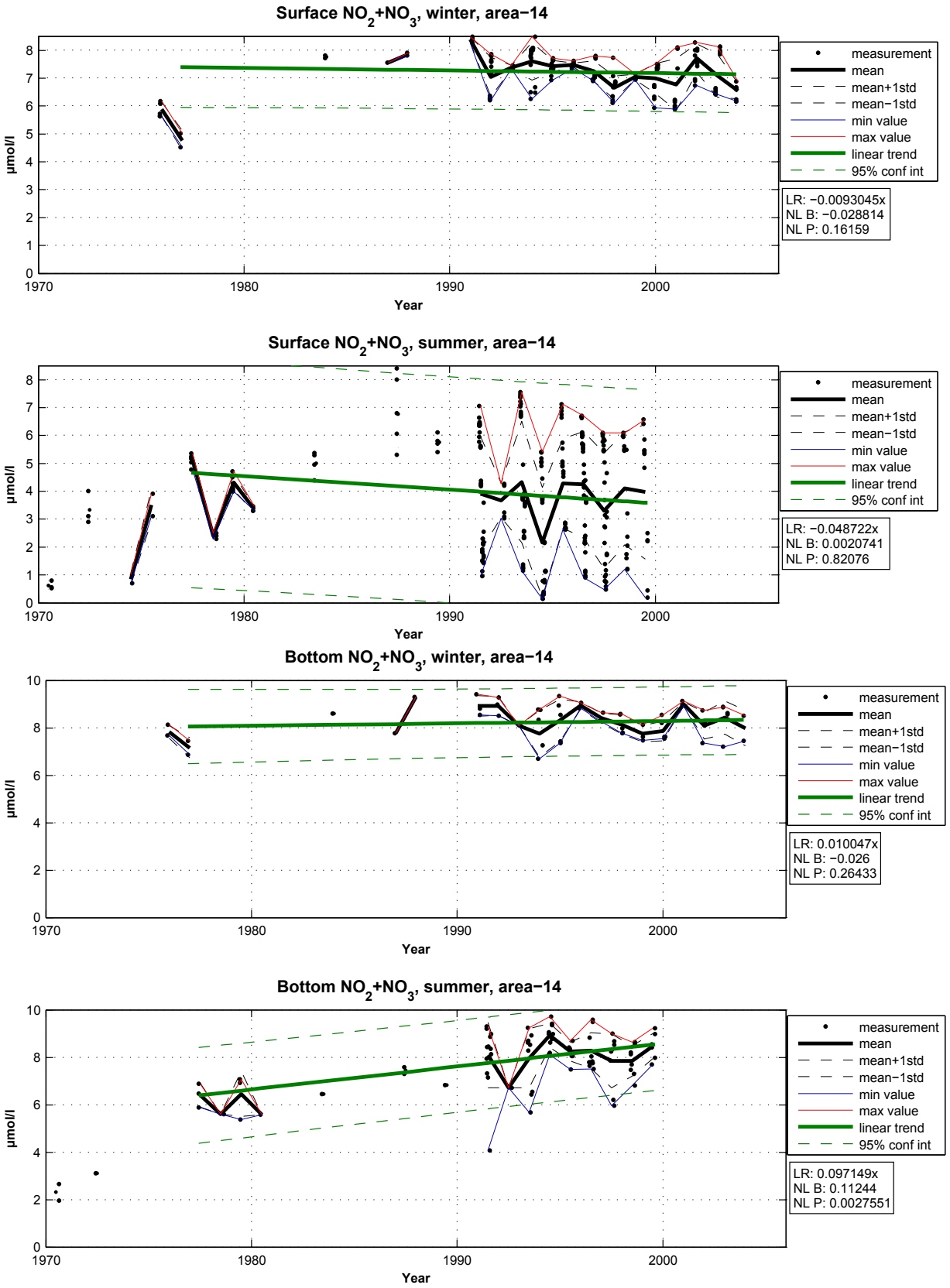

Figure 95. Area 14, NO_2+NO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

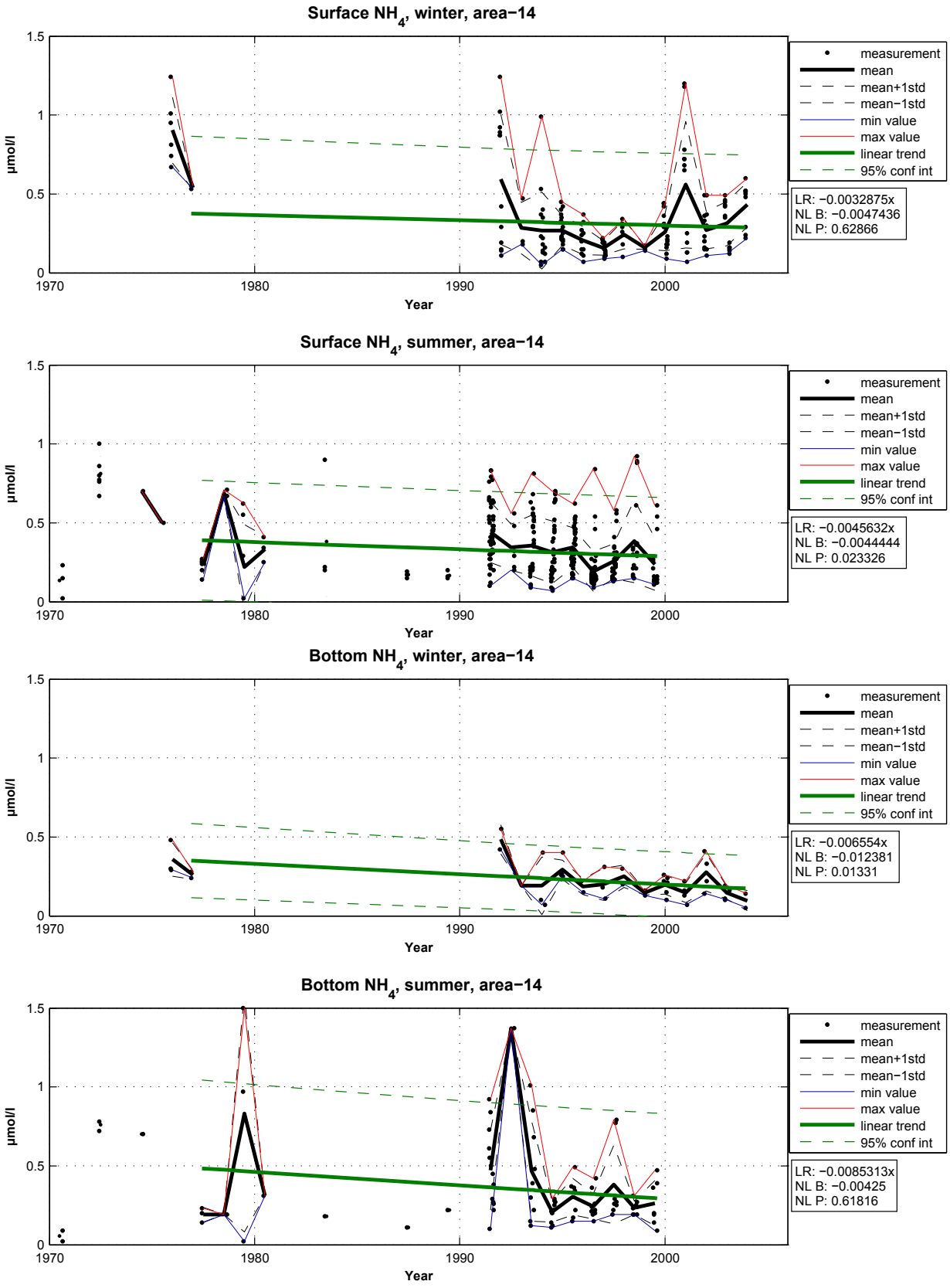

Figure 96. Area 14, NH_4 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

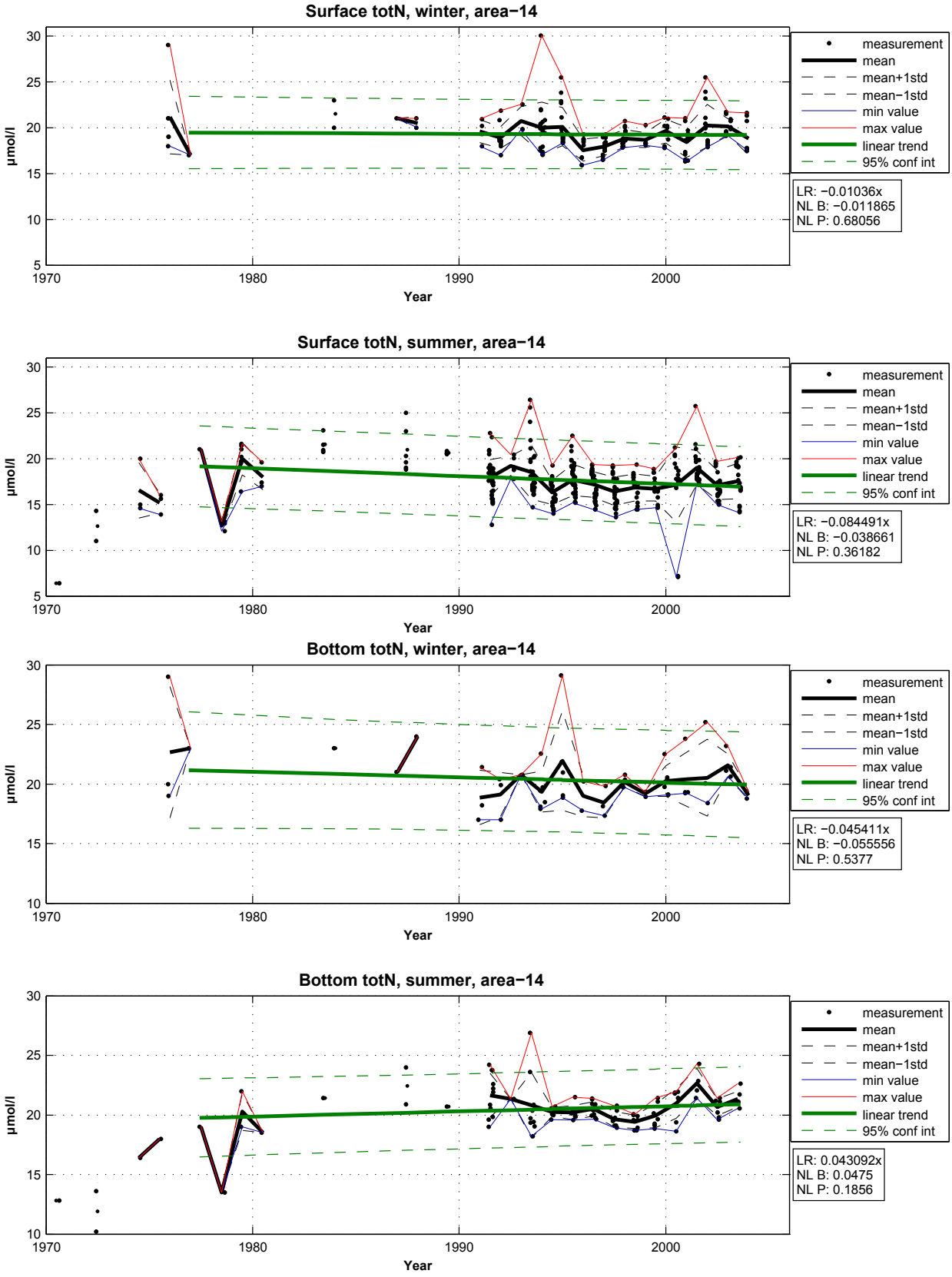

Figure 97. Area 14, TotN at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

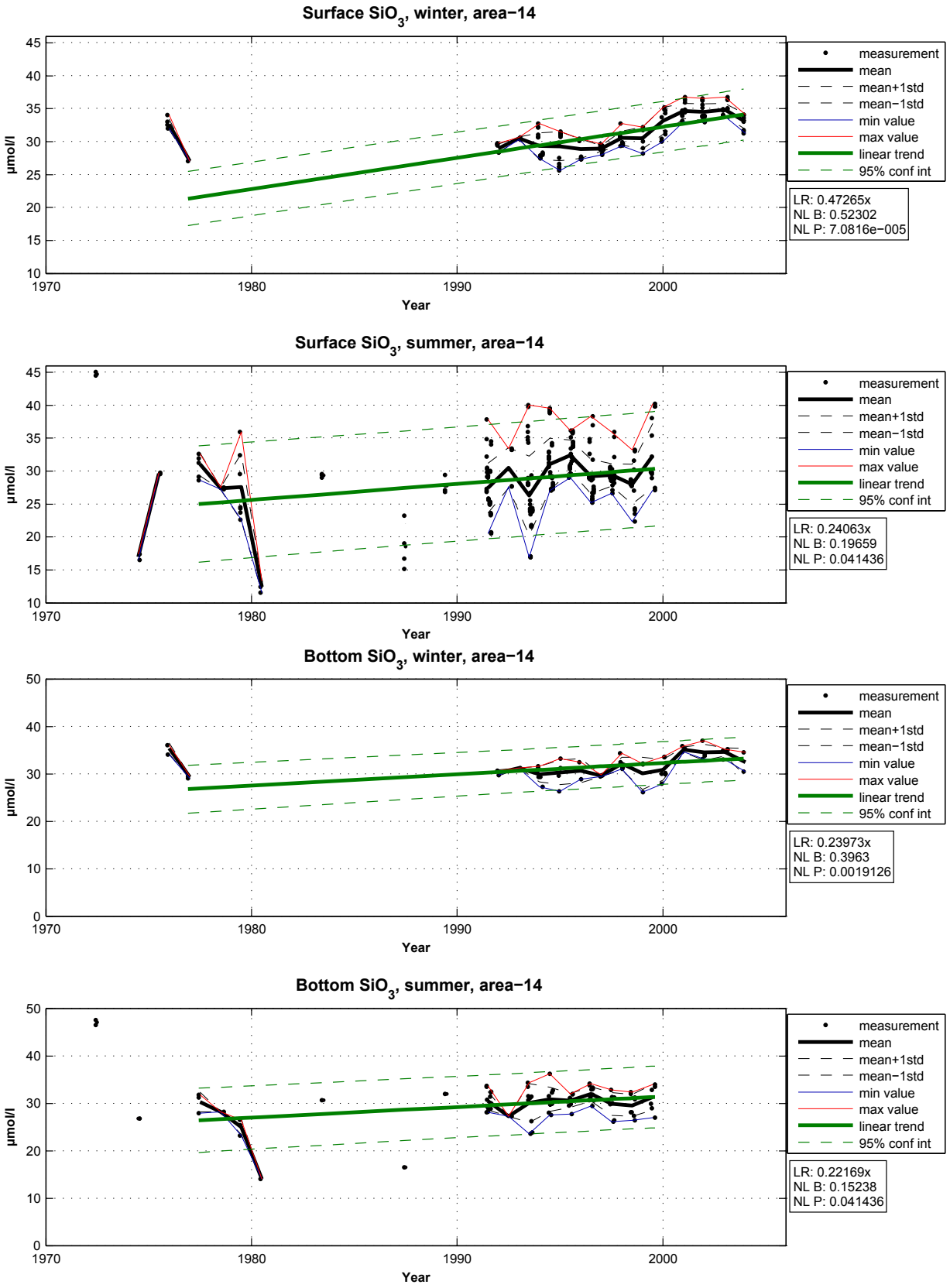

Figure 98. Area 14, SiO_3 at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

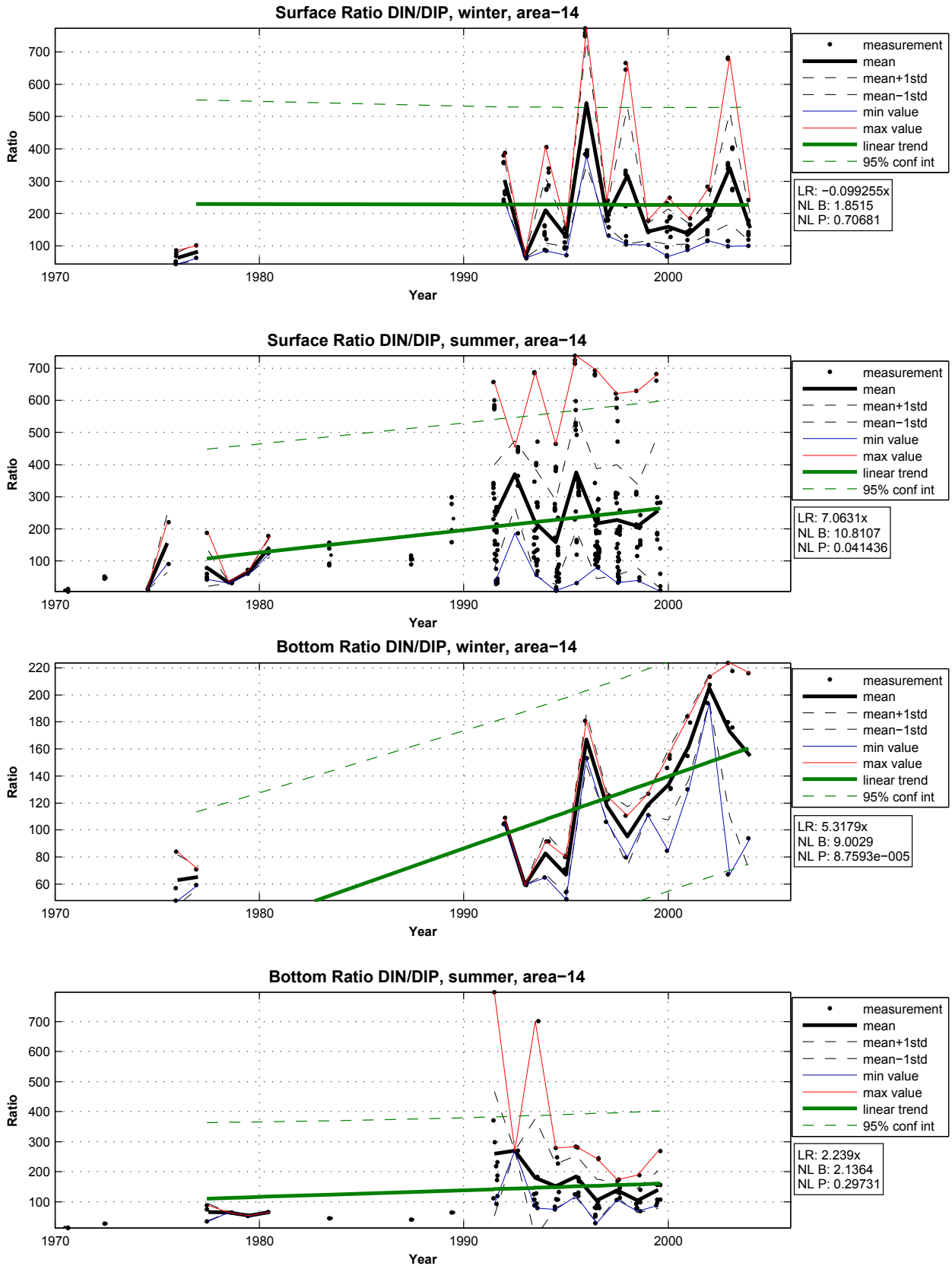

Figure 99. Area 14, DIN/DIP ratio at the surface (0-10 meters) and at the bottom during winter (November to January) and summer (May to July). The black dots are the measurements. The black line is the yearly seasonal mean and the dashed black line is the mean +/- 1 std. The red line represent the maximum values during the season and the blue the minimum values. The green line represent the linear regression fit between 1976 to 2005 with green dashed lines as the 95% confidence interval. The box contains 3 values. LR= the slope of the linear regression line (1st order), NL B= the median slope of the non linear Seasonal Kendall equation and NL P= the probability that there is a significant trend, using the non linear method. NL P values < 0.05 indicate significance.

Appendix E

Tables of the nutrients

In the following tables, the last 30 years (1976 to 2005) of the used parameters are presented year by year. Each table contains the winter, summer, surface and bottom values. For area 1 to 3, the winter months are November through January and the summer months are May through July. For area 4 to 14, the winter months are December through February and the summer months are June through August.

The top ten meters represent the surface waters while only one depth from the deepest part of each station represent the bottom water.

Every area and every parameter is presented in separate tables. In a table, the mean, standard deviation, minimum value, maximum value and number of observations for each year is presented, divided into winter, summer, surface and bottom measurements. The number of observations reflect the amount of correct values available for the specific area, year, season, parameter and depth.

Below the values of 2005, the mean, max and min of the values from the 30 year period is presented.

When the amount of data points is sufficient, both a linear regression and non-linear (non-parametric) analysis have been supplied on the data sets to analyse the last 30 years for possible trends. At the bottom of the table, results from the trend analysis is presented. Linear trend is the resulting value of a linear regression of the first order. The value gives the inclination of the linear regression line. If LR is positive, the direction of the line is positive and vice versa. The remaining four values come from the non-linear seasonal Mann-Kendall analysis.

To find the slope of a possible trend, all the differences between two observations in all the data are sorted from the highest negative difference to the highest positive difference. The B value (NL B) is the median value of all the differences. The NL P value is the significance of the trend. If the NL P value is less than 0.05, the trend is significant.

There are two additional values connected to the Mann-Kendall slope value B. The two values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If $P > 0.05$, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

The choice of a critical p-value to determine whether the result is judged “statistically significant” is left to the researcher. It is common to declare a result significant if the p-value is less than 0.05.

Table 4. Area 1, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 1	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.06	0.03	0.03	0.10	6	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.05	0.02	0.03	0.09	6	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	0.59	0.15	0.40	0.89	12	0.14	0.13	0.04	0.66	34	1.84	0.56	1.21	2.35	5	1.84	0.56	1.21	2.35	5
1979	0.32	0.12	0.10	0.48	12	0.11	0.08	0.03	0.37	17	1.98	0.30	1.76	2.19	2	1.98	0.30	1.76	2.19	2
1980	0.62	0.10	0.50	0.76	12	0.08	0.04	0.03	0.17	11	2.85	0.45	2.39	3.58	5	2.85	0.45	2.39	3.58	5
1981	0.69	0.15	0.50	0.93	8	0.22	0.30	0.02	0.80	6	2.03	0.06	1.96	2.10	5	2.03	0.06	1.96	2.10	5
1982	0.68	0.08	0.60	0.82	6	0.07	0.04	0.03	0.14	6	2.12	0.14	1.97	2.24	3	2.12	0.14	1.97	2.24	3
1983	0.63	0.06	0.55	0.70	6	0.05	0.02	0.03	0.08	6	2.58	0.28	2.25	2.77	3	2.58	0.28	2.25	2.77	3
1984	0.73	0.15	0.55	0.88	6	0.06	0.03	0.02	0.10	6	3.65	1.72	2.61	5.63	3	3.65	1.72	2.61	5.63	3
1985	0.59	0.09	0.52	0.75	6	0.06	0.04	0.02	0.12	6	2.48	0.25	2.30	2.65	2	2.48	0.25	2.30	2.65	2
1986	0.78	0.24	0.50	1.06	9	0.21	0.16	0.02	0.49	27	3.17	2.14	1.81	6.93	5	3.17	2.14	1.81	6.93	5
1987	0.57	0.17	0.29	0.84	18	0.10	0.08	0.02	0.29	24	2.44	1.48	1.14	6.35	10	2.44	1.48	1.14	6.35	10
1988	0.60	0.20	0.23	1.01	12	0.10	0.11	0.02	0.42	21	2.71	0.41	1.90	3.09	7	2.71	0.41	1.90	3.09	7
1989	0.42	0.23	0.10	0.77	12	0.11	0.17	0.02	0.52	9	2.27	1.06	1.46	4.26	6	2.27	1.06	1.46	4.26	6
1990	0.64	0.31	0.16	1.10	10	0.11	0.07	0.03	0.21	12	3.66	0.64	2.94	4.17	3	3.66	0.64	2.94	4.17	3
1991	0.58	0.28	0.29	1.29	12	0.16	0.24	0.06	0.92	12	2.97	1.64	1.25	5.61	5	2.97	1.64	1.25	5.61	5
1992	0.51	0.16	0.31	0.71	12	0.06	0.04	0.02	0.14	12	2.75	1.36	1.40	5.06	6	2.75	1.36	1.40	5.06	6
1993	0.50	0.17	0.25	0.69	12	0.12	0.06	0.03	0.21	12	3.06	0.94	2.20	4.22	5	3.06	0.94	2.20	4.22	5
1994	0.58	0.35	0.09	1.19	12	0.10	0.04	0.07	0.18	12	1.82	0.39	1.31	2.39	6	1.82	0.39	1.31	2.39	6
1995	0.47	0.28	0.09	1.04	12	0.09	0.02	0.06	0.11	12	1.85	0.72	0.64	2.52	6	1.85	0.72	0.64	2.52	6
1996	0.63	0.22	0.33	1.15	12	0.18	0.11	0.08	0.43	16	1.91	0.60	0.99	2.59	6	1.91	0.60	0.99	2.59	6
1997	0.55	0.29	0.16	0.91	12	0.05	0.02	0.02	0.07	12	2.82	1.11	1.96	4.86	6	2.82	1.11	1.96	4.86	6
1998	0.50	0.26	0.16	1.20	12	0.11	0.15	0.02	0.53	12	3.13	1.46	2.00	5.98	6	3.13	1.46	2.00	5.98	6
1999	0.52	0.32	0.12	1.24	12	0.06	0.13	0.02	0.47	12	2.20	1.09	1.31	4.19	6	2.20	1.09	1.31	4.19	6
2000	0.59	0.29	0.08	0.83	12	0.10	0.03	0.04	0.16	12	2.16	0.35	1.71	2.71	6	2.16	0.35	1.71	2.71	6
2001	0.52	0.13	0.37	0.75	12	0.09	0.06	0.05	0.22	11	2.32	0.26	2.05	2.80	6	2.32	0.26	2.05	2.80	6
2002	0.54	0.27	0.13	1.08	12	0.12	0.05	0.07	0.27	12	1.88	0.31	1.35	2.18	6	1.88	0.31	1.35	2.18	6
2003	1.00	0.17	0.78	1.27	8	0.07	0.02	0.04	0.11	12	2.23	1.34	1.14	4.17	4	2.23	1.34	1.14	4.17	4
2004	0.27	0.05	0.19	0.33	8	0.05	0.03	0.02	0.12	12	2.32	0.10	2.25	2.47	4	2.32	0.10	2.25	2.47	4
2005	0.68	0.12	0.48	0.80	8	0.06	0.02	0.03	0.09	12	2.28	0.27	2.04	2.55	4	2.28	0.27	2.04	2.55	4
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.58		0.08	1.29		0.10		0.02	0.92		2.48		0.64	6.93		2.48		0.64	6.93	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00017	-0.003	0.41441	0.00188	-0.00713	-0.00144	-0.001	0.22478	0.00028	-0.00219	-0.01083	-0.012	0.32934	0.00583	-0.03389	-0.00335	-0.004	0.42019	0.00375	-0.01357

Table 5. Area 1, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 1	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.61	0.09	0.48	0.75	6	ND	ND	ND	ND	0	1.54	0.33	1.31	1.77	2
1977	ND	ND	ND	ND	0	0.63	0.08	0.54	0.78	6	ND	ND	ND	ND	0	1.60	0.19	1.39	1.74	3
1978	0.85	0.09	0.68	0.97	9	0.70	0.11	0.52	1.09	34	2.48	0.08	2.42	2.57	3	1.50	0.00	1.50	1.50	1
1979	0.79	0.21	0.44	1.26	18	0.47	0.26	0.13	0.91	12	2.19	0.19	2.05	2.32	2	1.71	0.55	1.32	2.10	2
1980	1.16	0.20	0.99	1.71	12	0.61	0.18	0.24	0.83	9	3.22	0.47	2.72	3.99	5	1.48	0.10	1.41	1.55	2
1981	1.00	0.09	0.90	1.10	6	0.56	0.08	0.47	0.60	3	2.29	0.05	2.24	2.35	4	2.83	2.48	1.07	4.58	2
1982	0.92	0.04	0.87	0.95	3	0.84	0.09	0.76	0.93	3	2.26	0.14	2.16	2.36	2	2.01	0.00	2.01	2.01	1
1983	0.95	0.01	0.95	0.96	3	0.27	0.04	0.23	0.30	3	2.73	0.42	2.43	3.02	2	2.07	0.16	1.95	2.18	2
1984	0.84	0.05	0.78	0.88	3	0.52	0.08	0.47	0.61	3	2.97	0.36	2.71	3.22	2	1.33	0.06	1.28	1.37	2
1985	0.84	0.08	0.78	0.93	3	0.09	0.01	0.08	0.09	2	2.64	0.29	2.43	2.84	2	ND	ND	ND	ND	0
1986	1.02	0.38	0.72	1.45	5	0.82	0.23	0.59	1.67	21	2.43	0.30	2.10	2.74	4	1.86	0.28	1.39	2.38	11
1987	1.15	0.22	0.65	1.48	15	0.80	0.24	0.28	1.25	21	2.83	1.27	1.42	5.84	9	1.72	0.11	1.49	1.87	11
1988	1.11	0.19	0.86	1.41	15	0.56	0.21	0.38	1.14	15	3.06	0.51	2.56	4.04	6	1.89	0.41	1.26	2.26	6
1989	0.84	0.31	0.44	1.39	12	0.70	0.11	0.52	0.87	9	3.02	0.83	2.36	4.65	6	1.80	0.38	1.52	2.23	3
1990	1.01	0.25	0.61	1.49	10	0.56	0.12	0.35	0.74	12	4.25	0.54	3.71	4.78	3	2.20	1.29	0.82	3.82	5
1991	0.94	0.31	0.64	1.79	12	0.76	0.24	0.47	1.19	12	2.54	1.11	1.10	3.79	4	1.46	0.18	1.30	1.69	4
1992	0.95	0.05	0.89	1.06	12	0.51	0.08	0.42	0.64	12	2.74	0.99	1.67	3.65	5	1.82	0.62	1.09	2.94	6
1993	0.85	0.07	0.73	0.95	9	0.32	0.10	0.21	0.54	12	3.29	1.00	2.35	4.42	4	1.46	0.43	1.05	2.02	4
1994	0.93	0.42	0.66	2.20	12	0.36	0.13	0.17	0.55	11	1.93	0.40	1.33	2.40	5	1.77	0.19	1.56	2.00	4
1995	0.76	0.25	0.45	1.35	12	0.60	0.11	0.45	0.78	12	1.99	0.63	0.91	2.57	6	1.90	0.61	1.14	2.95	6
1996	0.97	0.22	0.73	1.59	12	0.56	0.14	0.25	0.78	16	1.96	0.77	1.12	2.78	4	1.49	0.23	1.25	1.98	7
1997	0.80	0.11	0.70	1.02	8	0.57	0.07	0.44	0.68	12	2.57	0.91	1.99	3.92	4	2.25	0.21	2.05	2.56	6
1998	0.84	0.22	0.51	1.40	12	0.42	0.18	0.11	0.75	12	3.85	1.54	2.43	6.20	6	1.41	0.70	0.78	2.54	6
1999	0.82	0.25	0.52	1.41	12	0.41	0.20	0.17	0.72	12	2.58	1.35	1.45	4.59	6	1.50	0.45	0.92	1.96	6
2000	1.04	0.30	0.71	1.85	12	0.40	0.08	0.30	0.53	12	2.49	0.47	1.99	3.24	6	1.27	0.17	1.03	1.54	6
2001	0.84	0.21	0.65	1.36	12	0.64	0.41	0.41	1.92	12	2.57	0.43	2.06	3.07	6	1.23	0.26	0.99	1.71	6
2002	0.80	0.24	0.50	1.32	12	0.46	0.07	0.32	0.55	12	2.07	0.28	1.58	2.44	6	1.57	0.56	0.98	2.23	6
2003	1.22	0.14	1.03	1.38	8	0.48	0.16	0.29	0.85	12	2.32	1.23	1.38	4.13	4	1.24	0.35	0.79	1.78	6
2004	0.49	0.07	0.40	0.59	8	0.48	0.14	0.35	0.73	12	2.27	0.22	2.09	2.51	3	1.26	0.29	0.85	1.64	6
2005	0.85	0.07	0.75	0.94	8	0.57	0.10	0.42	0.73	12	2.48	0.53	1.93	2.99	3	1.25	0.00	1.25	1.25	1
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.91		0.40	2.20		0.54		0.08	1.92		2.64		0.91	6.20		1.67		0.78	4.58	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00496	-0.007	0.01528	-0.00208	-0.01399	-0.00738	-0.008	0.00339	-0.00307	-0.01185	-0.01435	-0.018	0.10437	0.00136	-0.03962	-0.02071	-0.022	0.00123	-0.011	-0.03292

Table 6. Area 1, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 1	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	8.70	0.35	8.45	9.10	3	ND	ND	ND	ND	0	15.47	0.07	15.42	15.52	2	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	3.76	2.81	1.69	6.95	3	ND	ND	ND	ND	0	13.82	0.00	13.82	13.82	1
1980	8.36	3.25	4.85	12.03	6	0.27	0.14	0.12	0.40	3	13.75	2.78	10.54	15.45	3	9.11	0.33	8.87	9.34	2
1981	8.07	3.38	2.52	10.92	6	2.00	1.08	0.77	2.79	3	15.61	0.77	15.02	16.74	4	9.44	0.98	8.75	10.13	2
1982	6.43	0.32	6.20	6.80	3	1.38	0.13	1.28	1.52	3	18.02	0.28	17.82	18.22	2	12.84	0.00	12.84	12.84	1
1983	5.25	0.49	4.68	5.59	3	2.35	0.90	1.31	2.91	3	15.73	0.72	15.22	16.24	2	10.70	1.03	9.97	11.42	2
1984	5.45	0.18	5.25	5.60	3	0.45	0.39	0.17	0.89	3	15.87	0.50	15.52	16.22	2	7.40	0.07	7.35	7.45	2
1985	3.36	1.07	2.34	4.48	3	0.28	0.18	0.16	0.49	3	7.69	0.01	7.68	7.69	2	14.55	0.07	14.50	14.60	2
1986	5.63	2.79	2.94	8.86	6	1.65	1.54	0.12	5.43	21	16.74	1.45	14.96	18.05	4	9.27	3.10	6.34	15.06	11
1987	3.95	1.39	1.92	6.28	15	2.70	2.54	0.42	10.92	21	11.32	4.94	2.57	17.87	9	10.06	3.82	6.44	17.34	11
1988	7.59	2.91	2.93	11.08	15	1.59	2.54	0.17	8.14	21	16.82	6.48	2.21	21.41	9	15.59	1.60	13.06	18.07	11
1989	9.81	7.07	2.64	21.92	12	1.72	3.45	0.43	10.92	9	16.22	6.46	6.43	26.78	6	11.21	1.25	10.29	12.64	3
1990	5.68	2.32	2.07	8.85	10	2.80	4.81	0.19	15.65	12	10.49	2.67	7.42	12.21	3	9.80	4.21	5.04	15.25	5
1991	8.49	7.37	1.09	21.09	12	3.71	5.15	0.12	16.69	12	11.25	5.15	6.97	19.20	5	13.37	5.91	7.40	22.37	6
1992	6.34	3.85	1.94	11.19	12	3.67	4.04	0.12	8.90	12	11.96	6.55	3.26	18.00	6	11.05	3.23	4.50	12.92	6
1993	8.13	4.38	2.60	12.95	12	0.99	1.17	0.16	3.73	12	11.15	4.22	6.67	16.56	6	14.17	2.08	12.08	18.05	6
1994	9.55	4.03	2.98	14.35	12	3.13	3.60	0.15	9.94	12	12.86	2.21	9.97	15.40	6	13.27	3.88	5.48	15.64	6
1995	8.36	4.94	2.23	14.21	12	3.94	4.83	0.14	12.55	12	14.29	5.67	3.60	18.62	6	19.14	2.97	15.12	23.22	6
1996	11.76	4.95	4.15	16.18	12	0.59	0.80	0.13	3.24	16	13.59	2.60	10.41	17.60	6	13.18	0.57	12.23	13.71	7
1997	7.96	4.14	1.65	11.59	12	1.40	1.58	0.04	3.90	12	10.47	6.17	2.30	15.95	6	14.21	2.75	9.20	16.44	6
1998	7.07	4.09	2.45	14.46	12	3.83	3.25	0.04	8.64	12	13.60	2.89	8.25	16.12	6	11.80	2.30	9.26	14.34	6
1999	8.40	3.32	3.08	13.18	12	6.86	4.82	0.97	16.39	12	11.73	1.77	9.62	14.34	6	12.93	3.75	7.98	17.09	6
2000	8.39	5.22	1.79	16.17	12	1.27	2.56	0.15	9.28	12	13.89	3.10	9.63	16.88	6	13.60	1.74	11.48	15.64	6
2001	10.14	4.86	3.40	19.88	12	2.76	3.37	0.16	10.42	12	12.00	5.90	3.20	17.33	6	12.29	1.27	10.83	14.33	6
2002	7.95	3.97	1.89	12.89	12	2.77	2.92	0.14	7.92	12	13.77	3.79	8.83	17.10	6	12.52	0.74	11.93	13.95	6
2003	9.44	1.90	7.32	11.72	8	1.93	1.69	0.13	4.46	12	12.24	3.65	7.23	15.12	4	11.09	1.92	8.72	13.85	6
2004	2.80	2.34	0.31	7.27	8	0.66	1.40	0.12	5.00	12	14.38	2.66	12.03	17.24	4	10.95	1.94	7.64	12.64	6
2005	7.32	2.51	4.46	9.78	8	0.22	0.16	0.13	0.67	11	12.04	4.30	7.95	16.04	4	11.76	0.49	11.41	12.10	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	7.42		0.31	21.92		2.17		0.04	16.69		13.44		2.21	26.78		12.19		4.50	23.22	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.07049	0.128	0.01136	0.20125	0.04924	0.00181	0.008	0.79895	0.05572	-0.02017	-0.09979	-0.077	0.22771	0.02958	-0.17318	0.08285	0.017	0.66937	0.106	-0.06423

Table 7. Area 1, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 1	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	1.22	0.06	1.17	1.28	3	ND	ND	ND	ND	0	0.12	0.07	0.07	0.17	2	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	1.19	0.77	0.68	2.08	3	ND	ND	ND	ND	0	0.39	0.00	0.39	0.39	1
1980	2.38	1.59	0.83	4.46	6	0.48	0.07	0.40	0.53	3	0.19	0.07	0.14	0.27	3	0.17	0.05	0.13	0.20	2
1981	0.72	0.32	0.35	1.27	6	0.60	0.03	0.58	0.64	3	0.02	0.00	0.02	0.02	2	1.21	0.01	1.20	1.21	2
1982	1.05	0.09	0.96	1.14	3	1.49	0.12	1.39	1.62	3	0.06	0.01	0.05	0.07	2	0.18	0.00	0.18	0.18	1
1983	2.25	0.19	2.04	2.38	3	0.79	0.68	0.37	1.57	3	0.06	0.01	0.05	0.06	2	0.36	0.28	0.16	0.55	2
1984	0.56	0.30	0.25	0.84	3	0.26	0.05	0.22	0.31	3	0.19	0.12	0.10	0.27	2	0.21	0.02	0.19	0.22	2
1985	1.60	0.58	0.98	2.14	3	0.62	0.39	0.28	1.04	3	0.08	0.04	0.05	0.10	2	0.18	0.05	0.14	0.21	2
1986	2.21	0.74	1.36	3.40	6	1.03	0.73	0.14	2.86	17	0.86	0.43	0.50	1.35	4	0.94	1.02	0.21	2.50	9
1987	1.31	1.13	0.14	3.91	15	1.05	0.76	0.02	3.21	20	0.81	2.11	0.02	6.43	9	0.38	0.46	0.02	1.47	11
1988	2.39	1.52	0.13	5.00	14	0.64	0.44	0.08	1.78	18	1.12	2.53	0.18	7.85	9	0.68	0.51	0.07	1.52	9
1989	3.11	1.17	1.78	5.71	11	0.75	0.70	0.36	2.50	9	1.90	1.13	0.71	3.93	6	2.02	1.80	0.36	3.93	3
1990	2.21	1.08	0.71	3.57	10	0.63	0.41	0.10	1.35	12	0.61	0.72	0.05	1.43	3	0.99	0.93	0.10	2.44	5
1991	1.70	0.94	0.70	3.26	12	0.79	1.03	0.17	3.88	12	0.81	1.26	0.10	3.05	5	2.49	2.68	0.34	7.00	5
1992	1.70	0.78	0.92	2.55	8	0.53	0.34	0.19	1.26	12	2.37	2.87	0.18	6.65	6	1.03	1.22	0.16	3.36	6
1993	2.06	1.99	0.32	6.42	12	0.33	0.24	0.11	0.74	11	0.56	0.32	0.14	0.99	6	0.67	0.48	0.15	1.38	6
1994	1.88	1.36	0.08	4.41	12	0.45	0.28	0.05	1.00	11	0.76	1.24	0.03	3.26	6	0.98	0.99	0.17	2.79	6
1995	1.98	1.21	0.10	3.33	12	0.17	0.21	0.02	0.51	8	0.61	1.17	0.08	3.00	6	0.21	0.12	0.05	0.32	4
1996	1.18	0.68	0.18	2.09	12	0.64	0.86	0.05	2.55	13	0.18	0.09	0.05	0.31	6	0.95	0.65	0.19	1.92	7
1997	1.19	0.61	0.30	2.15	12	0.39	0.33	0.05	0.99	12	2.12	2.33	0.08	5.42	6	0.51	0.55	0.07	1.57	6
1998	2.25	1.49	0.25	4.24	12	1.27	0.88	0.13	2.59	12	0.82	1.44	0.07	3.75	6	1.79	1.78	0.13	3.79	6
1999	2.57	1.21	0.12	4.19	12	1.53	1.12	0.27	4.26	11	1.38	2.08	0.02	5.03	6	0.73	0.65	0.02	1.83	6
2000	2.12	1.32	0.20	3.69	12	0.36	0.55	0.05	2.01	12	0.17	0.21	0.02	0.55	6	0.19	0.14	0.05	0.44	6
2001	3.74	1.38	0.66	5.51	12	0.47	0.82	0.05	2.90	11	0.99	1.47	0.06	3.46	6	0.21	0.30	0.05	0.74	5
2002	1.46	0.80	0.09	2.68	12	0.64	0.65	0.05	1.86	12	0.38	0.65	0.05	1.69	6	0.18	0.12	0.08	0.34	6
2003	0.69	0.26	0.13	0.96	8	0.48	0.37	0.05	1.22	12	0.36	0.36	0.05	0.79	4	1.55	1.34	0.07	3.44	6
2004	1.36	0.75	0.57	2.57	8	0.24	0.18	0.05	0.72	12	0.11	0.05	0.05	0.16	4	0.26	0.29	0.08	0.85	6
2005	1.96	0.58	1.01	2.62	8	0.27	0.11	0.14	0.46	8	0.86	1.63	0.05	3.30	4	0.05	0.00	0.05	0.05	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	1.81		0.08	6.42		0.67		0.02	4.26		0.69		0.02	7.85		0.72		0.02	7.00	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.00968	0.02	0.41357	0.06042	-0.01969	-0.01844	-0.012	0.08475	0	-0.02333	0.00244	-0.004	0.58946	0.00556	-0.01607	-0.00569	-0.009	0.12661	0.00119	-0.02111

Table 8. Area 1, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 1	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	22.3	1.5	21.0	24.0	3	15.4	1.3	14.1	16.7	3	23.0	0.0	23.0	23.0	2	18.9	0.0	18.9	18.9	1
1979	ND	ND	ND	ND	0	22.1	2.8	19.2	24.8	3	ND	ND	ND	ND	0	22.8	0.0	22.8	22.8	1
1980	30.1	5.4	25.0	36.0	6	19.7	2.3	18.0	21.3	2	30.7	2.4	28.0	32.5	3	21.3	3.3	19.0	23.6	2
1981	20.4	5.5	14.4	26.7	6	20.4	3.2	16.8	22.9	3	21.3	4.0	17.6	25.1	4	26.4	8.4	20.4	32.3	2
1982	18.6	4.3	16.1	23.6	3	23.1	0.8	22.2	23.8	3	26.4	0.4	26.1	26.7	2	17.4	0.0	17.4	17.4	1
1983	20.6	0.9	19.6	21.2	3	21.4	1.5	20.4	23.1	3	28.0	1.1	27.2	28.7	2	23.4	0.6	22.9	23.8	2
1984	19.0	1.3	18.0	20.5	3	17.9	1.6	16.1	19.1	3	28.0	2.9	25.9	30.0	2	17.2	0.3	17.0	17.4	2
1985	21.3	1.7	20.1	23.3	3	7.8	0.9	7.1	8.8	3	27.7	1.9	26.3	29.0	2	18.3	0.7	17.8	18.8	2
1986	19.5	1.8	17.5	21.1	3	22.1	0.7	21.6	22.9	3	28.2	3.0	26.0	30.3	2	23.2	1.1	22.4	23.9	2
1987	27.1	16.8	16.8	46.4	3	24.0	4.5	20.8	27.2	2	24.6	0.7	24.1	25.1	2	ND	ND	ND	ND	0
1988	27.3	2.2	25.9	29.9	3	ND	ND	ND	ND	0	27.0	2.0	25.6	28.4	2	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	29.3	1.9	26.6	30.9	4	22.7	3.5	18.4	30.8	12	23.4	0.0	23.4	23.4	1	25.3	6.7	15.9	33.9	5
1991	25.8	9.1	16.7	43.0	11	22.7	3.3	18.3	27.7	12	22.8	2.3	19.2	25.7	5	23.3	1.4	21.5	25.4	5
1992	26.2	2.4	20.9	30.3	12	23.2	6.8	15.0	33.3	12	22.2	1.5	19.4	23.5	6	19.7	3.3	15.6	24.4	6
1993	24.5	6.5	15.2	30.0	12	19.5	2.4	16.0	23.6	12	27.9	14.6	15.1	50.2	6	22.4	4.3	17.1	28.0	6
1994	27.2	3.5	22.1	35.2	12	23.5	4.5	18.3	31.7	12	21.3	2.2	18.6	24.0	5	21.1	3.4	16.8	26.5	6
1995	26.9	5.1	18.3	33.4	12	24.8	3.1	19.9	29.1	12	24.0	2.5	19.5	26.6	6	30.2	5.5	22.2	37.3	6
1996	27.5	3.8	23.0	33.5	12	19.0	2.9	13.6	24.7	16	21.4	3.5	17.3	25.0	5	21.7	2.8	18.8	25.7	7
1997	24.5	2.7	19.4	28.3	12	19.2	1.6	16.4	21.4	12	23.2	2.2	19.6	26.3	6	22.7	1.2	21.1	24.0	6
1998	24.9	8.0	17.7	40.0	12	21.3	2.5	17.3	24.2	12	24.9	1.9	22.9	27.6	6	20.8	0.9	19.7	22.2	6
1999	25.0	5.2	18.7	36.1	12	21.2	7.5	10.1	29.9	12	21.8	3.0	18.3	27.0	6	20.0	5.4	12.6	25.9	6
2000	24.4	6.0	17.9	34.4	12	22.3	2.6	16.9	28.6	12	21.4	2.0	19.6	24.8	6	24.0	4.7	19.0	30.2	6
2001	32.6	6.6	24.6	44.6	12	22.4	4.9	17.5	33.4	12	22.6	3.1	18.8	26.1	6	20.2	1.4	18.2	21.9	6
2002	23.8	2.3	20.5	29.0	12	24.4	4.5	19.4	33.3	12	23.5	2.4	20.3	26.4	6	20.8	1.6	18.2	22.9	6
2003	23.3	2.8	19.1	26.8	8	22.4	4.5	18.7	32.3	12	20.5	2.4	17.2	22.9	4	22.1	2.1	18.9	25.2	6
2004	17.7	3.7	14.1	25.0	8	18.8	3.1	15.3	24.3	12	22.9	1.0	21.9	23.9	4	18.9	1.8	17.1	21.2	6
2005	24.9	1.4	22.8	26.6	8	18.6	1.1	15.6	19.5	12	23.6	3.1	20.8	27.6	4	20.0	0.0	20.0	20.0	1
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	24.4		14.1	46.4		20.8		7.1	33.4		24.3		15.1	50.2		21.7		12.6	37.3	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.05112	0.121	0.2345	0.26667	-0.075	0.03191	-0.01	0.95294	0.14375	-0.15	-0.17232	-0.166	0.01842	-0.05833	-0.25	-0.05337	-0.108	0.0905	0	-0.17407

Table 9. Area 1, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 1	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	11.80	0.92	11.00	12.80	3	ND	ND	ND	ND	0	32.85	0.78	32.30	33.40	2	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1980	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1981	7.93	2.32	6.00	10.50	3	ND	ND	ND	ND	0	23.40	0.28	23.20	23.60	2	ND	ND	ND	ND	0
1982	8.77	2.51	6.80	11.60	3	2.03	0.06	2.00	2.10	3	33.55	1.49	32.50	34.60	2	24.60	0.00	24.60	24.60	1
1983	8.20	0.36	7.90	8.60	3	4.97	2.64	2.80	7.90	3	37.05	6.43	32.50	41.60	2	17.95	0.50	17.60	18.30	2
1984	7.70	0.26	7.50	8.00	3	2.57	0.91	1.90	3.60	3	40.25	2.90	38.20	42.30	2	10.30	0.42	10.00	10.60	2
1985	7.10	1.06	6.30	8.30	3	2.53	0.65	1.90	3.20	3	28.30	3.11	26.10	30.50	2	19.95	0.64	19.50	20.40	2
1986	5.30	0.36	5.00	5.70	3	0.17	0.06	0.10	0.20	3	30.40	1.13	29.60	31.20	2	1.50	0.14	1.40	1.60	2
1987	10.97	9.35	4.60	21.70	3	3.97	2.65	2.10	7.00	3	21.75	3.04	19.60	23.90	2	9.05	0.21	8.90	9.20	2
1988	4.30	1.84	3.00	6.40	3	ND	ND	ND	ND	0	12.35	0.07	12.30	12.40	2	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	17.23	2.10	14.10	18.60	4	2.88	5.63	0.30	20.50	12	34.80	0.00	34.80	34.80	1	19.84	8.89	10.90	34.50	5
1991	11.73	3.49	7.50	17.20	12	3.14	4.63	0.30	16.30	12	25.86	11.67	16.40	42.20	5	13.95	6.33	5.20	24.00	6
1992	10.85	4.27	5.20	15.10	12	4.07	4.33	0.20	12.40	12	38.03	10.74	26.70	53.60	6	19.64	3.20	15.70	22.80	5
1993	13.73	5.68	6.20	18.90	12	1.27	0.69	0.30	2.00	12	39.98	5.64	32.00	47.40	5	16.38	3.84	12.10	21.50	6
1994	16.36	4.28	9.50	21.90	12	3.24	3.38	0.20	9.40	12	27.30	6.48	17.60	37.30	6	21.17	5.54	11.50	25.40	6
1995	14.55	6.40	5.70	21.30	12	2.92	2.65	0.50	10.20	12	35.05	13.80	11.10	46.60	6	24.67	10.60	15.50	45.10	6
1996	15.17	5.45	7.00	20.90	12	2.20	2.05	0.20	5.70	16	26.72	11.93	10.10	41.20	6	16.43	6.03	10.90	28.30	7
1997	13.08	5.63	4.60	18.50	12	1.06	1.20	0.10	3.90	12	34.87	7.44	27.00	46.80	6	31.02	7.89	22.80	40.70	5
1998	12.38	6.37	5.20	24.00	12	4.93	3.27	0.10	11.00	12	45.88	4.17	40.00	52.80	6	20.15	8.92	11.50	32.60	6
1999	21.91	4.76	15.00	30.70	12	4.77	5.33	0.40	19.40	12	33.85	16.80	19.00	57.10	6	23.15	13.36	8.60	39.50	6
2000	14.89	8.22	3.20	27.00	12	2.87	4.77	0.20	17.40	12	38.03	11.14	26.80	54.60	6	19.50	7.75	10.00	29.80	6
2001	27.41	10.35	14.20	44.00	12	6.22	7.88	0.20	22.70	12	33.70	12.08	14.60	51.30	6	13.95	2.48	11.50	18.00	6
2002	12.90	3.56	5.70	17.10	12	3.06	2.74	0.20	6.60	12	30.70	10.21	17.50	43.80	6	23.52	13.04	8.80	37.50	6
2003	19.38	2.18	17.00	22.00	8	5.35	3.33	1.00	9.10	12	24.85	12.39	11.90	41.70	4	13.25	5.00	5.70	18.50	6
2004	5.25	3.95	1.70	13.10	8	2.47	1.97	0.20	5.70	12	36.65	5.46	30.40	42.20	4	16.62	5.85	11.00	24.80	6
2005	16.35	4.07	9.20	20.30	8	1.04	1.06	0.10	2.90	12	34.65	11.03	27.00	50.90	4	14.90	5.37	11.10	18.70	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	12.61		1.70	44.00		3.08		0.10	22.70		32.03		10.10	57.10		17.79		1.40	45.10	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.39261	0.409	0.00104	0.57	0.19667	0.03548	0.036	0.54396	0.11875	-0.04773	0.19635	0.072	0.75309	0.38409	-0.24375	0.15327	0.118	0.51021	0.5	-0.21

Table 10. Area 1, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 1	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	16.26	0.35	15.93	16.63	3	ND	ND	ND	ND	0	6.86	0.26	6.68	7.04	2	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	69.81	23.22	43.00	83.67	3	ND	ND	ND	ND	0	8.26	0.00	8.26	8.26	1
1980	17.80	9.96	8.27	31.48	6	10.16	2.37	7.43	11.63	3	5.21	0.63	4.52	5.75	3	7.99	0.23	7.83	8.15	2
1981	13.69	3.32	7.58	16.87	6	19.70	5.64	13.19	23.23	3	7.83	0.33	7.60	8.06	2	12.59	1.06	11.85	13.34	2
1982	11.26	1.59	9.93	13.02	3	71.22	28.99	53.40	104.67	3	8.81	0.37	8.55	9.07	2	6.89	0.00	6.89	6.89	1
1983	11.02	0.78	10.18	11.72	3	57.37	25.03	33.60	83.50	3	6.34	0.64	5.88	6.79	2	6.48	0.98	5.79	7.17	2
1984	10.15	1.55	8.48	11.53	3	19.83	10.80	8.50	30.00	3	6.05	0.09	5.98	6.11	2	7.33	0.41	7.04	7.62	2
1985	9.43	3.24	6.26	12.73	3	33.89	18.26	14.67	51.00	3	3.15	0.33	2.92	3.38	2	8.91	0.42	8.61	9.21	2
1986	10.40	1.51	8.76	12.87	6	42.97	97.79	1.09	414.50	17	8.02	0.93	7.08	9.20	4	7.66	3.33	4.33	14.88	9
1987	9.76	4.82	3.84	18.82	15	93.73	121.41	1.52	399.50	20	6.16	1.25	3.20	7.54	9	7.95	3.01	4.72	13.72	11
1988	16.46	4.37	10.07	24.42	11	73.70	134.36	1.88	425.00	18	6.29	1.33	3.95	7.91	7	12.71	2.87	7.79	15.63	9
1989	33.25	9.71	21.29	58.60	11	45.70	49.95	4.16	171.00	9	9.28	3.57	2.43	12.17	6	9.97	2.10	7.60	11.62	3
1990	15.52	8.46	7.48	32.91	10	45.14	58.40	1.61	200.25	12	3.17	1.26	1.79	4.28	3	12.67	8.40	4.17	26.50	5
1991	17.36	13.12	5.77	41.47	12	33.67	44.27	4.83	154.29	12	4.93	2.58	1.79	8.15	5	19.46	16.68	8.09	47.94	5
1992	14.12	5.35	8.17	19.91	8	79.29	68.11	3.70	181.00	12	6.83	4.38	2.13	12.29	6	7.45	1.47	4.80	8.88	6
1993	18.36	6.63	9.71	27.87	12	10.89	11.30	1.80	35.67	11	4.63	2.52	2.22	7.50	5	14.85	8.18	9.06	31.31	6
1994	29.18	22.61	10.41	89.78	12	47.67	50.62	1.17	153.14	11	7.85	2.36	4.99	11.12	6	11.22	3.60	7.78	17.50	6
1995	24.89	7.96	10.29	37.89	12	17.68	40.89	1.64	118.73	8	8.42	1.13	7.27	10.31	6	11.35	5.65	6.75	19.59	4
1996	21.00	5.70	9.32	29.20	12	6.27	4.29	1.27	13.27	13	7.70	2.10	5.71	10.83	6	9.37	0.49	8.65	10.04	7
1997	17.51	4.74	10.48	26.53	12	36.77	31.43	3.29	97.80	12	5.32	2.91	1.59	8.19	6	7.06	0.77	6.40	8.32	6
1998	19.87	10.65	7.63	41.56	12	130.25	136.50	0.74	403.00	12	5.24	1.70	2.20	6.49	6	12.87	5.46	6.93	20.71	6
1999	27.58	12.33	8.23	49.50	12	312.36	253.02	39.68	744.00	11	6.84	2.26	3.24	9.67	6	10.93	1.62	8.09	12.84	6
2000	19.23	7.59	8.95	29.62	12	15.62	22.60	2.67	70.56	12	6.72	2.08	4.54	10.03	6	13.11	3.52	9.44	18.26	6
2001	27.16	10.26	13.52	43.91	12	25.24	24.18	3.83	78.75	11	5.76	2.44	2.96	8.37	6	11.00	0.89	10.15	12.39	5
2002	19.50	4.86	11.72	27.54	12	36.33	41.98	1.38	120.57	12	7.54	1.46	4.87	8.83	6	9.36	3.01	6.16	12.95	6
2003	10.18	1.52	6.99	11.54	8	33.17	26.85	2.57	80.25	12	6.72	2.69	2.86	8.98	4	12.13	3.99	8.18	17.68	6
2004	14.30	8.68	4.79	29.82	8	16.85	22.81	4.17	66.63	12	6.29	1.34	4.89	7.65	4	9.70	1.61	7.81	12.49	6
2005	13.63	2.32	9.91	16.81	8	8.39	4.92	3.86	17.00	7	5.84	2.18	3.56	7.89	4	11.20	0.84	10.61	11.80	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	17.37		3.84	89.78		51.62		0.74	744.00		6.44		1.59	12.29		10.39		4.17	47.94	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.23796	0.328	0.01885	0.54998	0.10068	-0.25253	-0.324	0.45151	0.28324	-1.56945	-0.00361	0.004	0.84824	0.06904	-0.05605	0.08865	0.073	0.18888	0.16195	-0.01738

Table 11. Area 2, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 2	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.05	0.01	0.03	0.08	18	ND	ND	ND	ND	0	0.76	0.17	0.62	1.05	5
1977	0.25	0.02	0.23	0.27	3	0.03	0.01	0.02	0.04	3	0.79	0.00	0.79	0.79	1	1.12	0.00	1.12	1.12	1
1978	0.60	0.08	0.38	0.69	21	0.04	0.03	0.02	0.11	18	0.69	0.19	0.50	1.00	6	0.60	0.31	0.23	1.04	6
1979	0.39	0.04	0.33	0.46	7	0.05	0.03	0.02	0.11	18	0.60	0.08	0.54	0.65	2	0.73	0.42	0.34	1.49	6
1980	0.66	0.08	0.44	0.74	21	0.07	0.02	0.03	0.12	18	0.76	0.06	0.67	0.82	7	0.86	0.14	0.70	1.05	4
1981	0.61	0.15	0.32	0.81	24	0.04	0.03	0.02	0.13	15	0.71	0.11	0.53	0.87	7	0.77	0.09	0.66	0.86	4
1982	0.49	0.06	0.41	0.59	12	0.12	0.07	0.02	0.27	18	0.62	0.17	0.47	0.86	4	0.72	0.21	0.48	1.03	5
1983	0.87	0.02	0.85	0.89	3	0.10	0.11	0.02	0.44	15	1.30	0.00	1.30	1.30	1	0.54	0.25	0.30	0.88	4
1984	0.51	0.07	0.41	0.61	14	0.07	0.05	0.02	0.18	15	0.60	0.15	0.49	0.82	4	0.75	0.26	0.54	1.09	4
1985	0.59	0.05	0.51	0.68	18	0.09	0.06	0.02	0.29	15	0.86	0.10	0.72	0.96	6	0.67	0.09	0.56	0.78	5
1986	0.59	0.18	0.26	0.95	33	0.13	0.12	0.02	0.47	30	0.82	0.25	0.32	1.09	10	0.78	0.43	0.23	1.44	9
1987	0.57	0.16	0.30	0.74	18	0.10	0.06	0.02	0.27	33	0.58	0.18	0.40	0.86	5	0.66	0.30	0.19	1.10	10
1988	0.60	0.25	0.19	1.15	48	0.07	0.06	0.02	0.28	37	0.79	0.22	0.33	1.00	13	0.83	0.21	0.40	1.06	9
1989	0.40	0.10	0.10	0.60	30	0.04	0.03	0.02	0.14	39	0.65	0.26	0.30	0.99	9	0.80	0.40	0.17	1.46	12
1990	0.60	0.29	0.16	1.33	50	0.05	0.06	0.02	0.55	95	0.95	0.28	0.48	1.42	15	0.84	0.34	0.43	1.36	23
1991	0.58	0.11	0.41	0.89	22	0.10	0.09	0.02	0.42	33	1.06	0.27	0.57	1.32	7	1.11	0.47	0.65	2.20	12
1992	0.26	0.24	0.05	0.63	6	0.05	0.04	0.02	0.21	21	0.56	0.23	0.40	0.72	2	0.41	0.42	0.02	1.06	6
1993	0.55	0.12	0.30	0.73	15	0.04	0.03	0.02	0.14	46	0.77	0.29	0.48	1.20	5	0.69	0.27	0.20	1.14	15
1994	0.47	0.28	0.03	0.95	30	0.05	0.03	0.02	0.23	60	0.92	0.19	0.68	1.30	9	0.86	0.30	0.26	1.40	18
1995	0.54	0.25	0.10	0.95	33	0.08	0.12	0.02	0.70	79	0.81	0.16	0.50	0.97	10	0.87	0.32	0.34	1.52	22
1996	0.36	0.14	0.15	0.62	42	0.09	0.09	0.02	0.38	51	0.92	0.35	0.48	1.70	11	0.82	0.25	0.40	1.21	13
1997	0.47	0.12	0.14	0.69	42	0.04	0.02	0.02	0.09	24	0.75	0.18	0.54	1.01	11	0.69	0.36	0.34	1.10	5
1998	0.30	0.14	0.08	0.47	27	0.09	0.03	0.02	0.14	27	0.65	0.35	0.27	1.13	7	0.76	0.37	0.09	1.17	9
1999	0.61	0.16	0.27	0.89	26	0.09	0.06	0.05	0.35	27	0.92	0.22	0.65	1.25	9	0.57	0.21	0.20	0.79	9
2000	0.42	0.19	0.04	0.61	31	0.08	0.04	0.02	0.17	54	0.61	0.25	0.24	0.95	9	0.77	0.28	0.24	1.35	17
2001	0.56	0.08	0.41	0.76	48	0.07	0.07	0.02	0.38	54	0.73	0.15	0.57	1.07	16	0.66	0.26	0.29	1.22	18
2002	0.45	0.10	0.23	0.68	59	0.05	0.03	0.02	0.17	69	0.66	0.17	0.45	0.97	20	0.83	0.27	0.13	1.38	22
2003	0.38	0.10	0.22	0.52	51	0.05	0.02	0.02	0.18	68	0.90	0.15	0.56	1.08	17	0.78	0.29	0.32	1.35	23
2004	0.40	0.17	0.08	0.63	50	0.05	0.02	0.03	0.12	69	0.67	0.19	0.38	0.98	16	0.84	0.31	0.35	1.38	21
2005	0.47	0.12	0.26	0.67	51	0.05	0.03	0.02	0.23	54	0.67	0.19	0.47	1.00	17	0.71	0.00	0.71	0.71	1
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.50		0.03	1.33		0.07		0.02	0.70		0.77		0.24	1.70		0.76		0.02	2.20	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00673	-0.005	0.01079	-0.00182	-0.00822	-0.00056	-0.001	0.21075	0.00022	-0.00176	-0.00152	0	0.91385	0.005	-0.00443	0.00142	0.002	0.43649	0.00564	-0.00208

Table 12. Area 2, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 2	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.53	0.14	0.32	0.80	12	ND	ND	ND	ND	0	1.06	0.16	0.90	1.27	4
1977	0.49	0.04	0.45	0.53	3	0.63	0.01	0.62	0.63	3	ND	ND	ND	ND	0	1.47	0.00	1.47	1.47	1
1978	0.81	0.10	0.71	0.97	9	0.47	0.06	0.38	0.55	9	0.82	0.20	0.67	1.05	3	0.82	0.45	0.50	1.14	2
1979	0.68	0.13	0.44	0.84	10	0.46	0.16	0.24	0.76	15	0.83	0.24	0.66	1.10	3	0.55	0.17	0.45	0.74	3
1980	1.00	0.12	0.88	1.42	18	0.51	0.08	0.39	0.65	12	1.03	0.15	0.84	1.24	5	1.10	0.24	0.90	1.37	3
1981	0.93	0.20	0.60	1.33	18	0.36	0.03	0.33	0.39	6	0.94	0.15	0.70	1.05	5	0.85	0.11	0.77	0.92	2
1982	0.75	0.09	0.64	0.85	9	0.65	0.19	0.46	0.95	11	0.80	0.17	0.65	0.99	3	1.00	0.25	0.83	1.37	4
1983	1.20	0.04	1.16	1.23	3	0.50	0.20	0.34	0.95	9	1.56	0.00	1.56	1.56	1	0.53	0.08	0.48	0.62	3
1984	0.77	0.04	0.72	0.83	9	0.47	0.08	0.40	0.61	9	0.70	0.11	0.58	0.80	3	1.05	0.27	0.81	1.34	3
1985	0.83	0.10	0.74	1.03	9	0.47	0.05	0.40	0.54	9	1.02	0.01	1.01	1.03	2	0.84	0.09	0.76	0.93	3
1986	0.84	0.18	0.62	1.06	13	0.80	0.29	0.41	1.40	18	1.00	0.10	0.85	1.10	6	1.51	0.81	0.45	2.68	6
1987	1.04	0.17	0.77	1.37	12	0.79	0.20	0.46	1.16	24	1.06	0.17	0.85	1.26	4	0.99	0.29	0.52	1.40	7
1988	1.10	0.31	0.70	1.80	27	0.43	0.17	0.26	0.99	24	0.95	0.24	0.56	1.29	7	0.88	0.21	0.60	1.09	6
1989	0.69	0.16	0.40	0.96	18	0.58	0.23	0.16	1.02	30	0.62	0.19	0.30	0.77	5	1.04	0.39	0.31	1.76	9
1990	1.08	0.40	0.49	1.81	29	0.59	0.53	0.16	1.50	12	1.20	0.41	0.56	1.69	9	1.22	0.58	0.65	1.80	4
1991	0.91	0.14	0.70	1.12	12	0.62	0.21	0.20	1.16	23	1.13	0.07	1.03	1.18	4	1.17	0.41	0.50	1.80	8
1992	0.78	0.19	0.55	1.00	6	0.41	0.18	0.26	0.77	12	0.94	0.08	0.88	1.00	2	0.57	0.35	0.32	1.08	4
1993	0.71	0.17	0.46	0.93	9	0.35	0.11	0.12	0.59	37	0.84	0.15	0.73	1.01	3	0.94	0.32	0.31	1.34	9
1994	0.96	0.26	0.57	1.28	12	0.38	0.10	0.21	0.65	45	0.99	0.11	0.92	1.12	3	0.98	0.24	0.59	1.35	13
1995	0.87	0.25	0.45	1.31	27	0.49	0.16	0.20	0.98	70	0.93	0.18	0.66	1.16	7	1.06	0.26	0.61	1.70	19
1996	0.65	0.13	0.43	0.95	34	0.39	0.10	0.27	0.73	49	1.08	0.32	0.74	1.71	9	0.96	0.20	0.64	1.27	10
1997	0.58	0.09	0.42	0.72	21	0.31	0.09	0.19	0.59	24	0.81	0.14	0.72	1.02	4	0.57	0.08	0.50	0.65	3
1998	0.55	0.14	0.33	0.79	23	0.54	0.14	0.32	0.82	26	0.69	0.29	0.47	1.17	5	0.99	0.30	0.55	1.34	9
1999	0.81	0.13	0.49	1.01	27	0.29	0.09	0.12	0.53	27	1.01	0.20	0.75	1.35	7	0.64	0.16	0.37	0.80	9
2000	0.62	0.14	0.33	0.79	31	0.30	0.07	0.21	0.46	48	0.73	0.19	0.47	1.02	9	0.86	0.25	0.56	1.32	13
2001	0.77	0.17	0.46	1.16	47	0.35	0.11	0.09	0.69	53	0.83	0.10	0.67	0.99	10	0.70	0.23	0.38	1.05	14
2002	0.64	0.12	0.35	0.93	55	0.32	0.13	0.06	0.70	69	0.77	0.18	0.52	1.17	19	0.88	0.32	0.25	1.46	16
2003	0.57	0.06	0.46	0.72	47	0.32	0.07	0.16	0.49	68	0.92	0.12	0.68	1.08	14	0.83	0.26	0.43	1.35	21
2004	0.53	0.13	0.26	0.75	51	0.33	0.07	0.20	0.60	69	0.68	0.17	0.43	0.96	16	0.90	0.29	0.49	1.54	21
2005	0.61	0.15	0.40	0.91	50	0.57	0.19	0.33	1.43	53	0.69	0.15	0.50	1.03	16	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.79		0.26	1.81		0.47		0.06	1.50		0.91		0.30	1.71		0.93		0.25	2.68	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01459	-0.012	0.00004	-0.00733	-0.01705	-0.00912	-0.007	0.0004	-0.00457	-0.01056	-0.00954	-0.008	0.00737	-0.0025	-0.01378	-0.00824	-0.010	0.02407	-0.00288	-0.0156

Table 13. Area 2, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 2	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	8.06	1.15	6.85	9.50	6	ND	ND	ND	ND	0	7.75	4.06	4.88	10.62	2	ND	ND	ND	ND	0
1979	5.15	0.47	4.65	5.75	4	1.83	2.20	0.48	6.25	6	8.60	0.00	8.60	8.60	1	5.32	3.39	2.92	7.72	2
1980	5.90	1.22	3.95	7.55	15	0.77	0.99	0.10	2.70	9	6.06	1.16	4.17	7.05	5	6.42	0.73	5.86	7.24	3
1981	7.78	2.29	3.97	11.30	18	1.89	1.22	0.32	4.51	9	8.11	1.83	6.50	10.22	5	6.90	0.35	6.70	7.30	3
1982	5.69	0.74	5.10	7.50	9	1.91	0.91	0.74	3.27	12	6.24	4.02	3.38	10.83	3	7.74	4.41	4.29	13.68	4
1983	5.11	0.22	4.95	5.36	3	2.36	3.14	0.12	8.30	9	9.15	0.00	9.15	9.15	1	3.43	2.73	1.47	6.55	3
1984	4.98	0.87	3.64	5.95	9	0.21	0.15	0.12	0.58	9	4.91	0.42	4.66	5.39	3	6.48	0.96	5.71	7.56	3
1985	2.37	0.34	1.94	2.85	9	0.56	0.72	0.13	2.27	9	9.33	2.66	6.25	10.89	3	5.93	1.35	4.48	7.15	3
1986	4.50	2.92	0.43	9.35	21	2.71	3.86	0.14	17.49	23	6.44	3.26	0.64	11.03	7	6.37	2.94	0.46	10.15	8
1987	2.88	2.75	0.78	11.15	12	1.73	1.88	0.19	6.01	24	2.87	2.57	0.64	6.50	4	4.47	3.39	0.60	8.42	8
1988	5.82	3.47	1.28	13.90	30	0.67	0.66	0.12	2.70	28	4.99	2.43	2.29	8.97	9	8.27	3.41	5.50	15.00	6
1989	4.82	1.94	2.30	8.44	21	0.22	0.16	0.12	0.93	30	5.47	3.51	1.47	10.30	7	6.04	3.49	0.31	11.30	10
1990	4.18	3.35	0.56	11.69	32	0.46	0.99	0.10	6.46	98	5.12	1.24	3.00	7.00	11	8.41	4.59	1.50	15.14	24
1991	4.62	1.55	0.73	6.15	22	1.02	2.04	0.10	8.52	33	11.08	2.89	4.99	13.84	7	8.76	2.83	4.25	12.10	12
1992	3.25	1.47	2.10	6.15	6	1.09	2.21	0.12	7.52	21	5.83	1.17	5.00	6.66	2	5.40	4.29	0.12	10.51	6
1993	8.44	4.62	1.86	21.00	15	0.28	0.55	0.12	3.78	46	6.39	4.79	0.75	12.92	5	7.79	4.13	0.16	13.18	15
1994	5.57	3.38	0.14	11.00	30	1.04	1.81	0.12	10.53	60	9.57	2.17	5.69	11.42	9	9.20	4.28	1.02	14.73	18
1995	5.58	3.14	1.35	17.40	33	1.28	1.77	0.12	8.02	79	8.30	2.85	4.40	11.56	10	9.05	3.99	2.46	15.35	22
1996	4.02	2.08	1.48	7.86	42	0.49	1.31	0.04	8.20	51	10.04	3.07	4.48	14.63	11	7.46	4.08	0.24	13.06	13
1997	4.13	1.87	1.13	6.89	42	0.24	0.53	0.12	2.74	24	6.81	3.36	2.27	11.26	11	4.76	5.59	0.27	12.04	6
1998	2.09	1.29	0.51	4.10	27	0.40	0.95	0.12	5.08	27	6.40	4.41	1.31	12.25	7	7.40	5.00	0.15	12.82	9
1999	6.53	4.34	1.56	18.01	27	1.85	2.30	0.12	7.68	27	8.99	3.18	4.22	12.92	9	5.76	4.00	0.77	10.55	9
2000	4.51	2.99	0.12	8.61	31	1.12	1.67	0.12	6.47	54	7.22	3.89	1.88	12.34	9	8.72	3.80	0.78	13.86	17
2001	6.34	2.98	2.01	16.30	48	0.46	0.77	0.12	4.04	54	7.43	3.69	1.66	13.36	16	7.19	4.00	0.71	13.44	18
2002	5.26	2.19	1.55	10.92	59	1.04	2.16	0.12	11.89	69	7.06	3.02	2.39	13.29	20	9.27	3.71	0.16	14.31	22
2003	3.25	1.49	1.21	5.81	51	0.61	0.91	0.12	4.02	68	10.08	2.51	4.90	12.74	17	7.23	4.26	0.49	12.66	23
2004	3.06	2.00	0.24	6.36	51	0.28	0.78	0.12	5.21	69	6.73	3.42	2.24	12.05	17	7.69	3.97	0.71	12.54	21
2005	5.28	3.33	1.12	13.68	51	0.57	0.91	0.12	4.43	54	6.98	3.06	3.53	12.20	17	7.45	0.00	7.45	7.45	1
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	4.97		0.12	21.00		1.00		0.04	17.49		7.28		0.64	14.63		7.00		0.12	15.35	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04914	-0.045	0.06917	-0.00344	-0.11049	-0.02953	-0.008	0.10461	0.00014	-0.02714	0.05952	0.063	0.17428	0.11833	-0.00653	0.0614	0.097	0.005	0.14273	0.04635

Table 14. Area 2, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 2	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	0.79	0.59	0.15	1.45	6	ND	ND	ND	ND	0	0.22	0.28	0.02	0.41	2	ND	ND	ND	ND	0
1979	0.03	0.02	0.02	0.06	4	0.76	0.43	0.39	1.60	6	0.02	0.00	0.02	0.02	1	0.77	0.52	0.40	1.14	2
1980	0.82	0.40	0.16	1.47	15	0.31	0.19	0.13	0.74	9	0.32	0.36	0.07	0.93	5	0.38	0.32	0.04	0.67	3
1981	0.80	0.69	0.08	2.43	17	0.37	0.22	0.07	0.75	9	0.20	0.08	0.10	0.28	4	0.69	0.64	0.05	1.32	3
1982	1.46	1.07	0.05	2.39	9	1.19	0.70	0.33	2.19	12	0.46	0.38	0.05	0.81	3	1.41	1.10	0.15	2.46	4
1983	3.00	0.03	2.97	3.03	3	0.61	0.63	0.08	1.74	9	1.38	0.00	1.38	1.38	1	1.88	0.21	1.70	2.11	3
1984	0.23	0.12	0.05	0.43	6	0.25	0.10	0.15	0.38	9	0.22	0.01	0.21	0.23	2	1.04	0.63	0.36	1.60	3
1985	1.22	0.21	0.96	1.50	9	0.71	0.79	0.09	2.31	9	0.13	0.07	0.05	0.18	3	1.73	0.50	1.29	2.27	3
1986	1.13	0.78	0.07	2.15	15	0.54	0.25	0.30	1.10	15	1.62	1.55	0.20	3.82	7	0.96	0.69	0.40	2.04	5
1987	2.14	0.83	0.50	3.28	12	0.89	0.70	0.07	3.02	24	1.16	0.83	0.24	2.11	4	1.39	0.90	0.05	2.90	8
1988	1.65	1.37	0.05	4.52	30	0.46	0.39	0.19	2.10	25	0.94	1.01	0.05	2.64	9	1.08	0.64	0.18	2.11	7
1989	1.34	0.93	0.23	3.10	21	1.60	1.29	0.12	3.76	30	1.24	1.13	0.17	3.50	7	3.26	2.63	0.21	7.52	10
1990	1.24	0.67	0.05	2.30	33	0.20	0.12	0.05	0.32	9	0.81	0.88	0.05	3.00	11	1.31	1.16	0.26	2.56	3
1991	0.96	0.53	0.22	1.88	12	1.26	0.78	0.18	2.90	24	0.43	0.06	0.34	0.48	4	2.33	1.36	1.10	5.40	8
1992	1.22	0.48	0.70	1.75	6	0.42	0.10	0.22	0.56	12	1.03	0.75	0.50	1.56	2	0.66	0.45	0.22	1.14	4
1993	2.66	0.53	1.87	3.47	12	0.44	0.41	0.08	1.54	35	1.57	0.85	0.51	2.39	4	1.31	1.06	0.10	4.04	12
1994	1.25	0.44	0.68	1.73	9	0.58	0.48	0.08	2.19	37	0.25	0.22	0.09	0.40	2	1.26	0.84	0.18	2.49	11
1995	2.04	1.01	0.12	3.49	27	0.46	0.53	0.04	2.14	70	0.74	0.54	0.18	2.01	8	1.81	1.28	0.05	3.57	19
1996	0.81	0.62	0.05	2.10	36	0.23	0.26	0.02	1.08	51	0.34	0.34	0.05	1.00	8	1.14	0.82	0.05	2.71	13
1997	0.90	0.92	0.05	2.99	40	0.14	0.11	0.05	0.56	23	0.77	0.92	0.05	2.86	11	1.24	1.03	0.05	2.57	6
1998	0.55	0.46	0.05	1.62	27	0.22	0.32	0.05	1.50	27	0.44	0.15	0.22	0.62	7	0.78	0.77	0.05	1.94	9
1999	0.94	0.67	0.15	2.26	27	0.31	0.26	0.05	0.94	27	0.33	0.33	0.06	1.17	9	1.13	0.95	0.05	2.58	9
2000	0.47	0.39	0.05	1.22	31	0.54	0.63	0.05	3.16	51	0.12	0.10	0.05	0.29	9	1.72	1.21	0.06	3.57	16
2001	0.95	0.75	0.06	2.27	48	0.33	0.36	0.05	1.66	54	0.72	0.80	0.05	2.44	16	1.38	0.84	0.05	2.88	18
2002	1.01	0.58	0.16	2.22	59	0.44	0.36	0.09	2.25	66	0.50	0.57	0.05	1.97	20	0.91	0.93	0.09	3.21	21
2003	0.68	0.31	0.13	1.38	50	0.30	0.29	0.05	1.61	68	0.24	0.34	0.05	1.49	17	1.17	1.00	0.05	2.93	23
2004	0.72	0.44	0.15	1.61	50	0.15	0.12	0.05	0.70	69	0.25	0.29	0.05	1.10	17	0.84	0.93	0.05	3.03	21
2005	0.48	0.54	0.05	2.34	50	0.29	0.30	0.05	1.51	51	0.14	0.17	0.05	0.67	16	1.96	0.00	1.96	1.96	1
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	1.12		0.02	4.52		0.52		0.02	3.76		0.59		0.02	3.82		1.32		0.04	7.52	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.02741	-0.034	0.0084	-0.00883	-0.05433	-0.02554	-0.012	0.01391	-0.00519	-0.01928	-0.02309	-0.021	0.00858	-0.00471	-0.042	-0.02006	-0.003	0.83562	0.01548	-0.025

Table 15. Area 2, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 2	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	18.0	2.5	16.0	21.0	6	16.4	2.9	13.0	21.6	9	14.5	2.1	13.0	16.0	2	19.5	2.0	17.3	20.9	3
1979	16.6	3.2	13.9	20.5	4	16.4	2.7	13.7	21.3	6	13.3	0.0	13.3	13.3	1	13.8	1.1	13.0	14.5	2
1980	26.1	3.2	20.7	33.2	15	16.5	4.2	13.1	26.9	9	18.6	2.9	15.1	21.9	5	16.9	3.1	14.0	20.1	3
1981	19.2	3.7	12.4	25.3	18	14.0	3.2	9.0	18.3	6	14.2	3.3	10.8	19.1	5	14.3	1.1	13.5	15.1	2
1982	19.5	2.3	17.0	23.9	9	16.8	3.0	12.7	21.0	11	18.0	4.2	13.8	22.2	3	16.8	2.5	14.7	20.3	4
1983	ND	ND	ND	ND	0	20.5	4.0	16.3	28.3	9	ND	ND	ND	ND	0	15.2	6.2	10.9	22.3	3
1984	18.4	2.0	13.8	20.3	9	15.8	1.2	13.7	17.3	9	15.7	1.5	14.6	17.4	3	17.8	1.1	16.5	18.7	3
1985	18.3	1.3	16.1	20.2	9	18.2	1.7	16.0	21.0	9	20.8	6.3	16.5	28.0	3	16.2	2.3	14.2	18.7	3
1986	17.3	3.6	13.1	23.5	10	23.0	4.7	14.2	30.3	9	15.1	3.8	8.4	17.3	5	17.9	8.1	8.7	23.8	3
1987	18.5	6.8	14.0	36.3	9	20.6	4.8	13.3	30.5	12	13.8	2.1	11.9	16.1	3	15.5	2.7	12.1	19.0	5
1988	25.0	6.9	14.4	44.0	21	16.9	6.6	11.5	34.0	15	17.5	3.9	9.7	21.9	7	16.7	0.9	15.8	17.5	4
1989	17.5	2.7	12.4	21.5	12	21.7	7.2	9.3	34.6	30	13.9	1.6	11.5	15.0	4	22.2	6.3	9.8	31.7	10
1990	22.9	7.8	9.8	35.5	27	19.3	5.3	12.4	29.1	12	19.3	4.6	11.7	27.6	10	21.0	6.1	14.7	26.9	3
1991	16.6	2.8	11.2	19.9	11	20.7	6.5	11.0	33.9	24	16.6	2.1	13.5	18.1	4	20.4	7.1	13.7	35.8	8
1992	16.3	1.5	14.4	17.6	6	13.2	4.3	8.7	21.0	12	14.4	1.0	13.7	15.1	2	13.5	3.7	10.4	18.6	4
1993	20.9	6.1	12.5	30.7	9	15.0	3.8	9.4	30.9	37	14.2	1.8	12.6	16.1	3	18.5	3.0	15.0	24.1	12
1994	18.7	6.1	11.0	26.9	12	16.6	3.7	10.7	23.4	45	17.9	2.5	16.0	20.7	3	18.9	2.9	13.5	23.6	13
1995	21.4	5.3	13.9	37.4	27	18.1	2.9	11.9	25.5	70	15.9	3.9	12.5	23.9	7	18.7	2.8	14.5	23.9	19
1996	17.2	5.1	10.5	30.5	34	13.9	3.1	9.8	27.5	49	17.2	3.5	13.4	24.9	9	16.6	2.5	13.1	21.3	12
1997	16.1	2.4	11.4	20.7	41	13.6	2.8	9.3	18.8	24	16.1	2.4	11.1	18.2	11	13.4	3.7	9.6	18.4	6
1998	14.1	3.5	8.9	21.3	23	16.1	3.1	10.9	24.5	27	14.2	2.8	10.5	16.7	6	17.1	3.3	10.3	20.4	9
1999	19.3	4.7	12.3	31.4	27	16.8	3.8	10.4	26.0	27	17.4	2.7	13.6	21.1	8	14.4	2.9	9.8	18.3	9
2000	16.8	4.5	8.8	26.5	31	16.6	3.1	11.0	23.2	51	14.4	3.7	9.4	20.1	9	19.1	2.0	16.5	22.5	14
2001	19.4	5.1	11.1	36.8	48	14.7	3.6	7.9	23.4	54	16.3	2.4	10.2	19.7	15	16.6	3.7	12.2	24.3	18
2002	18.2	3.5	12.7	26.9	57	18.3	5.3	8.8	42.3	68	15.8	2.2	12.3	19.4	20	18.3	5.1	8.3	35.9	22
2003	14.2	2.5	9.9	23.6	46	14.2	2.9	8.7	22.5	68	15.5	1.2	12.8	16.8	14	15.7	3.1	9.9	21.5	22
2004	13.4	3.0	8.1	22.7	51	13.0	2.9	8.5	20.0	69	12.8	2.7	9.2	17.0	17	15.7	3.4	9.3	23.3	21
2005	15.5	3.6	10.1	22.8	50	15.2	3.5	9.7	27.0	53	14.2	2.3	11.0	19.5	17	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	18.3		8.1	44.0		16.9		7.9	42.3		15.8		8.4	28.0		17.1		8.3	35.9	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.24823	-0.202	0.00059	-0.10444	-0.30689	-0.17105	-0.108	0.05568	-0.01523	-0.20062	-0.09792	-0.064	0.12575	0.00667	-0.1272	-0.0637	-0.063	0.23949	0.04405	-0.16

Table 16. Area 2, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 2	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	7.97	2.19	5.90	10.00	6	ND	ND	ND	ND	0	7.65	3.18	5.40	9.90	2	ND	ND	ND	ND	0
1979	6.43	0.64	5.60	7.10	4	ND	ND	ND	ND	0	9.80	0.00	9.80	9.80	1	ND	ND	ND	ND	0
1980	7.83	3.00	4.90	11.00	6	1.17	0.43	0.60	1.70	6	5.70	0.85	5.10	6.30	2	5.10	1.41	4.10	6.10	2
1981	5.05	0.43	4.50	5.50	6	6.13	1.37	5.20	7.70	3	6.15	3.32	3.80	8.50	2	ND	ND	ND	ND	0
1982	5.05	1.89	3.20	6.90	6	2.08	0.52	1.30	2.80	6	6.65	2.48	4.90	8.40	2	5.15	3.18	2.90	7.40	2
1983	ND	ND	ND	ND	0	1.23	0.15	1.10	1.40	3	ND	ND	ND	ND	0	2.10	0.00	2.10	2.10	1
1984	ND	ND	ND	ND	0	1.20	0.10	1.10	1.30	3	ND	ND	ND	ND	0	3.90	0.00	3.90	3.90	1
1985	5.67	0.06	5.60	5.70	3	2.00	0.26	1.70	2.20	3	7.20	0.00	7.20	7.20	1	4.80	0.00	4.80	4.80	1
1986	7.06	2.06	4.30	9.50	9	0.17	0.06	0.10	0.20	3	7.13	0.81	6.40	8.00	3	0.20	0.00	0.20	0.20	1
1987	ND	ND	ND	ND	0	1.48	0.61	0.90	2.40	6	ND	ND	ND	ND	0	3.25	2.62	1.40	5.10	2
1988	2.82	0.50	2.30	3.40	6	1.08	0.39	0.20	1.60	10	2.45	2.05	1.00	3.90	2	4.00	2.26	2.40	5.60	2
1989	3.29	0.70	2.20	4.20	9	0.73	0.60	0.40	2.60	12	4.73	1.64	3.50	6.60	3	7.15	5.27	0.90	13.10	4
1990	7.01	3.90	1.60	19.30	30	2.44	2.69	0.10	15.40	93	8.51	4.34	4.20	15.00	10	7.83	4.38	3.20	14.80	23
1991	2.96	0.77	1.60	5.10	22	0.67	0.79	0.10	3.60	31	9.57	4.68	3.00	14.80	7	7.60	3.62	3.40	13.80	11
1992	2.40	1.18	1.50	4.60	6	1.23	0.52	0.20	2.00	21	5.45	0.21	5.30	5.60	2	3.43	3.89	0.40	10.50	6
1993	12.38	9.26	2.80	39.60	15	0.38	0.34	0.10	1.70	46	7.24	3.91	2.10	11.30	5	7.09	4.32	2.30	18.70	15
1994	3.86	3.70	0.20	11.70	30	0.87	0.89	0.10	4.60	60	8.10	5.96	1.20	18.00	9	10.16	6.52	2.60	24.20	18
1995	5.76	5.40	1.60	30.10	33	1.22	0.93	0.20	4.50	79	7.33	2.95	3.60	12.20	10	8.85	5.44	3.00	22.20	22
1996	5.48	3.09	1.70	12.20	42	0.71	1.31	0.10	9.20	51	10.02	6.92	3.60	28.50	11	7.91	4.09	2.90	14.10	13
1997	4.30	0.78	3.00	5.90	42	0.80	1.04	0.20	3.20	24	6.88	2.73	3.20	11.60	11	5.67	3.76	0.90	11.20	6
1998	2.43	2.00	0.60	7.00	27	0.33	0.22	0.20	1.20	27	5.67	4.34	1.20	11.50	7	8.01	4.29	1.70	12.40	9
1999	6.14	3.43	1.80	14.50	27	0.77	0.88	0.20	2.70	27	7.32	3.69	3.10	13.60	9	4.87	2.35	0.50	7.10	9
2000	4.29	3.06	0.20	10.20	31	1.12	1.14	0.20	5.80	54	4.79	2.72	1.70	10.40	9	8.44	5.45	2.70	21.50	17
2001	6.63	5.07	2.80	30.00	48	0.81	0.70	0.10	2.70	54	5.84	1.94	3.10	9.50	16	6.21	4.18	1.10	18.20	18
2002	5.06	2.17	1.70	12.30	59	0.78	0.76	0.10	2.80	69	5.89	2.25	3.30	12.10	20	8.20	5.00	0.70	17.80	22
2003	3.80	1.72	1.40	8.00	51	0.48	0.47	0.10	1.90	68	8.22	1.72	5.60	11.50	17	7.56	5.03	1.70	18.90	23
2004	4.73	2.38	1.10	11.10	51	0.68	0.55	0.10	2.60	69	6.12	2.32	3.40	12.50	17	8.54	6.00	3.10	20.60	21
2005	5.04	2.91	1.30	11.10	51	0.58	0.59	0.10	2.90	54	6.00	2.48	3.20	12.40	17	6.30	0.00	6.30	6.30	1
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	5.34		0.20	39.60		1.20		0.10	15.40		6.82		1.00	28.50		6.09		0.20	24.20	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.05793	-0.05	0.16751	0.01296	-0.09969	-0.06598	-0.023	0.03718	-0.00556	-0.03528	-0.06265	-0.044	0.42173	0.0373	-0.10238	0.07846	0.08	0.11481	0.16667	-0.00801

Table 17. Area 2, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 2	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	14.32	1.97	11.44	16.18	6	ND	ND	ND	ND	0	10.13	0.72	9.62	10.64	2	ND	ND	ND	ND	0
1979	12.65	1.62	10.24	13.74	4	48.82	38.09	7.91	112.00	6	13.26	0.00	13.26	13.26	1	11.24	0.99	10.55	11.94	2
1980	9.94	1.62	7.65	12.44	15	14.79	11.04	3.63	37.25	9	8.50	1.54	5.97	10.10	5	7.51	1.15	6.29	8.56	3
1981	14.13	1.34	11.33	16.95	17	63.98	34.19	14.67	107.33	9	12.22	1.19	10.73	13.42	4	10.21	0.94	9.38	11.23	3
1982	13.48	1.76	12.09	16.71	6	33.95	28.04	9.33	110.00	12	10.03	2.28	8.53	12.65	3	13.10	1.30	11.25	14.09	4
1983	9.32	0.13	9.17	9.39	3	38.06	29.87	12.50	102.67	9	8.10	0.00	8.10	8.10	1	12.10	3.17	10.00	15.75	3
1984	9.90	0.73	8.95	10.96	6	10.43	7.33	1.56	20.50	9	10.48	0.76	9.94	11.02	2	11.30	3.65	7.27	14.37	3
1985	6.32	1.07	4.90	8.17	9	15.51	10.48	3.50	31.55	9	10.76	1.82	8.68	11.98	3	12.41	1.33	10.89	13.37	3
1986	8.17	3.37	1.92	14.11	15	20.90	20.94	2.19	62.25	14	9.81	4.39	3.13	15.73	7	9.67	3.95	5.86	14.93	4
1987	8.01	4.73	2.61	21.86	12	28.00	31.21	3.82	150.00	24	6.12	2.47	2.56	7.84	4	9.01	1.65	6.60	11.06	8
1988	11.41	2.04	8.11	16.58	30	22.37	24.36	5.00	107.00	25	8.20	0.70	7.12	9.66	9	13.48	6.03	7.86	22.00	6
1989	16.17	8.91	7.27	45.00	21	60.44	59.92	4.50	195.50	30	12.75	9.10	5.68	31.00	7	14.03	10.50	5.88	41.75	10
1990	7.92	3.17	2.90	15.86	32	15.82	10.46	4.00	28.00	9	6.91	1.65	4.11	9.23	11	14.50	3.56	11.13	18.22	3
1991	7.90	2.21	3.32	11.00	12	26.25	26.20	3.50	121.00	21	11.26	1.44	9.35	12.74	4	10.08	3.69	5.27	18.13	8
1992	38.89	29.80	11.83	78.00	6	76.15	135.71	2.71	403.50	12	12.58	1.65	11.42	13.75	2	48.86	64.84	10.12	145.83	4
1993	24.04	19.16	8.96	81.57	12	18.30	17.35	2.10	64.00	35	9.40	2.60	5.51	10.79	4	13.27	7.19	4.30	34.36	12
1994	21.65	6.83	16.36	34.40	9	27.45	27.38	3.33	90.33	37	9.37	0.93	8.72	10.03	2	12.52	3.98	5.72	22.27	11
1995	14.74	7.54	4.43	38.79	27	32.36	42.24	1.13	203.00	70	10.63	2.18	7.02	12.73	8	12.66	2.16	9.35	18.84	19
1996	13.12	3.24	7.94	23.27	36	14.67	59.37	1.62	428.50	51	11.60	1.32	8.91	12.71	8	10.18	2.56	4.30	13.48	13
1997	10.87	2.74	6.61	19.00	40	9.17	6.83	3.71	34.22	23	9.89	2.68	4.76	12.87	11	7.51	3.45	4.15	11.33	5
1998	9.18	2.17	3.84	11.75	27	6.20	7.95	1.55	40.21	27	9.93	1.74	6.43	11.45	7	9.89	3.42	4.78	14.05	9
1999	11.74	4.56	6.55	21.32	26	30.90	42.33	1.89	161.00	27	10.01	1.69	6.55	11.51	9	11.54	2.62	7.80	14.93	9
2000	10.27	4.43	2.43	16.32	31	20.78	19.87	1.58	77.80	51	11.53	2.14	7.65	13.92	9	13.84	2.19	10.12	19.78	16
2001	12.87	5.29	6.47	34.72	48	16.25	22.32	0.74	112.50	54	11.03	3.24	3.54	14.82	16	12.80	1.35	9.28	14.51	18
2002	13.77	3.44	8.49	24.40	59	36.73	85.71	3.00	607.00	66	11.40	2.36	8.29	17.93	20	12.32	1.96	8.00	16.50	21
2003	10.07	2.39	4.20	17.37	50	20.37	24.18	2.75	139.00	68	11.40	1.28	9.17	13.01	17	10.42	2.02	5.35	13.83	23
2004	8.90	2.82	3.41	16.71	49	9.56	19.69	2.42	132.25	69	9.58	2.05	7.59	13.50	16	10.05	1.95	6.37	13.23	21
2005	11.62	3.87	6.03	21.58	50	16.08	13.38	2.33	55.50	51	10.62	2.77	7.53	17.72	16	13.25	0.00	13.25	13.25	1
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	12.91		1.92	81.57		27.20		0.74	607.00		10.27		2.56	31.00		12.88		4.15	145.83	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.02833	-0.027	0.56775	0.07012	-0.14681	-0.81805	-0.246	0.35746	0.14119	-0.67412	0.06279	0.045	0.21906	0.10249	-0.01762	-0.06447	0.038	0.38036	0.1008	-0.03649

Table 18. Area 3, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 3	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.39	0.20	0.09	0.63	21	0.06	0.02	0.03	0.11	23	0.63	0.18	0.29	0.87	7	0.81	0.09	0.71	0.97	7
1977	0.36	0.22	0.05	0.81	21	0.08	0.06	0.02	0.24	48	0.90	0.13	0.69	1.06	7	0.85	0.24	0.53	1.20	14
1978	0.50	0.16	0.29	0.74	39	0.14	0.17	0.02	0.77	18	0.77	0.15	0.55	1.00	11	0.93	0.26	0.63	1.32	5
1979	0.48	0.11	0.24	0.71	24	0.08	0.06	0.02	0.30	17	0.71	0.31	0.23	1.06	5	1.01	0.15	0.82	1.15	4
1980	0.55	0.23	0.19	0.80	24	0.07	0.04	0.03	0.16	24	0.83	0.10	0.71	0.96	6	0.92	0.17	0.69	1.09	4
1981	0.37	0.11	0.15	0.69	24	0.06	0.07	0.02	0.29	17	0.96	0.23	0.70	1.40	7	0.89	0.19	0.72	1.09	3
1982	0.60	0.12	0.34	0.79	22	0.08	0.06	0.02	0.34	38	0.93	0.16	0.76	1.15	5	0.78	0.15	0.57	1.07	11
1983	0.72	0.27	0.12	1.06	36	0.15	0.25	0.02	0.99	28	0.93	0.15	0.67	1.11	6	0.81	0.31	0.32	1.16	6
1984	0.61	0.13	0.44	0.84	27	0.07	0.08	0.02	0.46	32	0.80	0.10	0.69	0.96	6	0.59	0.39	0.02	0.89	4
1985	0.59	0.14	0.41	0.83	29	0.08	0.09	0.02	0.47	27	0.89	0.29	0.41	1.19	7	0.69	0.32	0.17	1.02	5
1986	0.76	0.09	0.58	0.88	27	0.11	0.15	0.02	0.76	26	0.97	0.17	0.76	1.17	5	0.79	0.35	0.29	1.09	4
1987	0.60	0.28	0.16	1.01	38	0.10	0.06	0.02	0.29	29	0.80	0.18	0.57	1.08	9	0.91	0.30	0.64	1.34	4
1988	0.46	0.24	0.17	0.87	32	0.11	0.18	0.02	0.85	64	0.90	0.05	0.84	0.97	6	0.88	0.19	0.26	1.19	17
1989	0.45	0.17	0.22	0.80	45	0.07	0.06	0.02	0.35	89	0.93	0.15	0.61	1.16	11	0.85	0.24	0.39	1.42	25
1990	0.47	0.24	0.10	1.07	63	0.10	0.08	0.02	0.33	144	0.82	0.15	0.64	1.17	12	0.79	0.18	0.43	1.06	17
1991	0.59	0.19	0.17	0.91	68	0.07	0.05	0.02	0.24	87	0.92	0.15	0.71	1.16	13	1.03	0.28	0.73	1.82	22
1992	0.45	0.24	0.09	1.06	57	0.05	0.03	0.02	0.14	51	0.68	0.25	0.29	1.20	15	0.70	0.20	0.40	0.98	14
1993	0.39	0.22	0.04	1.21	52	0.04	0.03	0.02	0.21	67	0.72	0.21	0.41	1.07	13	0.74	0.23	0.09	1.11	20
1994	0.48	0.29	0.07	0.98	51	0.05	0.02	0.02	0.09	34	0.97	0.15	0.67	1.14	14	0.81	0.33	0.47	1.48	9
1995	0.53	0.20	0.18	0.73	36	0.06	0.03	0.02	0.16	64	0.80	0.11	0.72	1.06	8	0.84	0.12	0.57	1.03	14
1996	0.50	0.15	0.20	0.90	46	0.07	0.05	0.03	0.27	27	0.89	0.17	0.63	1.27	12	0.89	0.11	0.75	1.01	6
1997	0.32	0.17	0.06	0.75	52	0.05	0.02	0.02	0.07	30	0.88	0.13	0.75	1.15	13	0.64	0.19	0.39	0.90	8
1998	0.45	0.19	0.25	0.94	35	0.08	0.03	0.03	0.15	46	0.82	0.09	0.73	1.03	10	0.88	0.10	0.61	1.07	15
1999	0.53	0.17	0.25	0.86	36	0.07	0.04	0.02	0.15	33	0.98	0.13	0.80	1.24	11	0.87	0.19	0.40	1.09	11
2000	0.45	0.20	0.02	0.63	33	0.07	0.03	0.02	0.16	30	0.79	0.11	0.65	1.05	11	0.85	0.14	0.67	1.06	6
2001	0.52	0.20	0.10	0.86	39	0.09	0.09	0.03	0.49	35	0.80	0.16	0.59	1.16	11	0.65	0.20	0.16	0.81	9
2002	0.44	0.07	0.32	0.58	30	0.06	0.03	0.02	0.13	33	0.70	0.11	0.57	0.94	10	0.84	0.06	0.76	0.94	8
2003	0.47	0.19	0.15	0.96	30	0.05	0.01	0.03	0.06	33	0.96	0.07	0.87	1.07	9	0.86	0.15	0.56	0.99	9
2004	0.43	0.14	0.15	0.67	36	0.06	0.02	0.03	0.16	36	0.73	0.11	0.58	0.91	12	0.81	0.11	0.66	0.97	10
2005	0.50	0.19	0.16	0.66	27	0.07	0.05	0.03	0.28	27	0.73	0.13	0.62	0.98	8	0.86	0.04	0.83	0.89	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.50		0.02	1.21		0.08		0.02	0.99		0.84		0.23	1.40		0.83		0.02	1.82	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00363	-0.007	0.00007	-0.00449	-0.01039	-0.00125	0	0.29371	0.00024	-0.00102	-0.00169	-0.001	0.74201	0.002	-0.00381	-0.00156	-0.001	0.57667	0.00188	-0.00424

Table 19. Area 3, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 3	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.80	0.12	0.56	1.00	18	0.51	0.14	0.30	0.79	24	0.92	0.14	0.76	1.13	6	1.08	0.20	0.83	1.45	7
1977	0.67	0.16	0.40	1.13	18	0.48	0.13	0.30	0.85	39	1.03	0.18	0.78	1.34	6	0.98	0.24	0.66	1.36	10
1978	0.75	0.15	0.51	1.03	35	0.66	0.24	0.34	1.26	15	1.03	0.26	0.67	1.41	9	1.09	0.27	0.80	1.43	4
1979	0.78	0.15	0.50	1.18	21	0.46	0.08	0.36	0.68	14	1.11	0.30	0.71	1.43	4	1.10	0.13	0.95	1.19	3
1980	0.84	0.13	0.62	1.04	21	0.45	0.07	0.35	0.65	21	1.06	0.17	0.90	1.30	5	1.08	0.24	0.92	1.36	3
1981	0.83	0.09	0.70	1.05	27	0.42	0.15	0.25	0.71	17	1.22	0.27	0.98	1.74	7	1.18	0.29	0.93	1.49	3
1982	0.97	0.11	0.76	1.15	22	0.63	0.21	0.28	1.51	38	1.32	0.10	1.15	1.40	5	1.27	0.28	0.58	1.57	11
1983	1.01	0.22	0.39	1.30	34	0.60	0.29	0.30	1.52	25	1.20	0.25	0.76	1.38	5	1.25	0.29	0.87	1.77	7
1984	0.91	0.23	0.61	1.23	25	0.42	0.13	0.27	0.84	24	1.25	0.20	0.96	1.57	6	1.15	0.12	1.02	1.22	3
1985	1.03	0.32	0.66	1.92	29	0.55	0.20	0.22	0.87	19	1.23	0.17	1.06	1.49	6	1.03	0.38	0.45	1.36	5
1986	1.02	0.06	0.91	1.12	27	0.47	0.14	0.28	0.86	19	1.24	0.27	0.93	1.55	5	1.19	0.22	1.01	1.44	3
1987	1.01	0.20	0.74	1.74	34	0.61	0.24	0.27	1.51	30	1.20	0.26	0.81	1.52	8	1.15	0.30	0.82	1.48	4
1988	0.87	0.24	0.45	1.26	32	0.56	0.25	0.29	1.21	36	1.19	0.13	1.04	1.37	5	1.22	0.19	1.05	1.54	8
1989	0.82	0.22	0.48	1.42	42	0.44	0.19	0.19	1.55	84	1.29	0.38	0.77	1.97	11	1.12	0.34	0.67	1.77	23
1990	1.02	0.24	0.68	1.76	60	0.64	0.24	0.21	1.54	49	1.36	0.37	0.93	2.11	12	1.27	0.35	0.80	1.84	9
1991	0.96	0.20	0.58	1.63	50	0.49	0.18	0.20	1.34	68	1.20	0.19	0.98	1.47	11	1.15	0.11	0.96	1.33	16
1992	0.92	0.18	0.52	1.41	58	0.47	0.13	0.23	1.08	49	1.04	0.29	0.61	1.59	14	1.00	0.42	0.65	2.15	12
1993	0.88	0.20	0.58	1.56	48	0.44	0.12	0.27	0.84	62	1.14	0.40	0.62	1.85	12	1.08	0.21	0.49	1.38	13
1994	0.79	0.14	0.54	1.16	37	0.43	0.09	0.31	0.68	27	1.30	0.18	0.99	1.57	9	1.08	0.27	0.77	1.58	7
1995	0.81	0.16	0.44	1.11	36	0.47	0.11	0.26	0.70	55	0.99	0.17	0.79	1.35	8	1.16	0.13	0.99	1.45	11
1996	0.77	0.12	0.60	1.00	40	0.42	0.08	0.26	0.66	27	1.17	0.19	0.92	1.59	10	1.04	0.19	0.83	1.28	4
1997	0.67	0.17	0.33	0.99	36	0.39	0.06	0.29	0.57	30	0.90	0.08	0.82	1.03	6	0.80	0.22	0.55	1.09	7
1998	0.77	0.15	0.55	1.16	37	0.40	0.09	0.23	0.64	42	0.94	0.15	0.76	1.24	10	1.07	0.15	0.86	1.35	14
1999	0.80	0.12	0.61	1.05	29	0.29	0.05	0.20	0.43	30	1.01	0.10	0.90	1.19	7	0.90	0.12	0.74	1.13	8
2000	0.65	0.14	0.36	0.79	33	0.29	0.10	0.18	0.74	27	0.93	0.09	0.81	1.13	11	0.79	0.05	0.75	0.82	2
2001	0.79	0.16	0.39	1.05	38	0.33	0.10	0.23	0.83	35	0.93	0.20	0.71	1.39	10	0.77	0.16	0.43	0.96	8
2002	0.65	0.09	0.53	0.85	21	0.31	0.09	0.20	0.55	32	0.86	0.21	0.61	1.18	6	0.95	0.11	0.82	1.12	5
2003	0.62	0.11	0.42	0.80	26	0.28	0.05	0.20	0.39	33	0.91	0.11	0.78	1.03	7	0.92	0.15	0.69	1.20	9
2004	0.61	0.09	0.38	0.83	36	0.35	0.10	0.23	0.69	36	0.80	0.11	0.60	1.01	12	0.97	0.25	0.72	1.54	9
2005	0.73	0.19	0.42	0.98	27	0.55	0.11	0.40	0.87	26	0.92	0.09	0.82	1.06	8	1.08	0.13	0.98	1.17	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.82		0.33	1.92		0.46		0.18	1.55		1.09		0.60	2.11		1.06		0.43	2.15	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00846	-0.011	0.00003	-0.0074	-0.01496	-0.00771	-0.008	0.00001	-0.00502	-0.01028	-0.01175	-0.011	0.00034	-0.00622	-0.01478	-0.00859	-0.009	0.00432	-0.00374	-0.01312

Table 20. Area 3, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 3	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	2.92	1.61	1.45	4.39	6	0.16	0.05	0.12	0.28	10	3.49	1.13	2.69	4.29	2	6.26	1.65	3.80	8.20	5
1977	2.10	2.42	0.12	5.60	7	0.22	0.14	0.12	0.70	29	8.06	0.10	8.00	8.17	3	6.39	2.82	1.70	10.71	10
1978	3.91	2.24	1.20	7.80	29	2.32	3.74	0.15	11.37	9	5.64	2.70	2.50	9.80	9	9.38	0.95	8.70	10.05	2
1979	3.05	2.13	0.23	6.40	18	0.57	0.72	0.11	2.46	14	8.38	1.06	7.25	9.35	3	8.98	2.39	6.37	11.07	3
1980	3.50	2.30	0.54	6.60	21	0.15	0.07	0.12	0.40	18	6.32	0.83	5.20	7.50	5	5.65	2.42	3.94	7.36	2
1981	2.86	2.41	0.51	9.95	27	2.88	4.46	0.12	12.70	17	8.14	1.36	6.17	10.10	8	8.67	3.86	5.80	13.06	3
1982	4.73	1.57	2.52	8.10	22	0.33	0.54	0.12	2.99	38	7.32	2.08	3.77	8.80	5	10.01	4.15	3.92	17.29	11
1983	6.20	3.96	0.29	13.10	34	1.08	2.82	0.12	12.06	29	7.76	0.76	6.50	8.50	5	9.13	4.96	4.42	18.97	7
1984	4.45	2.22	1.05	8.10	27	0.41	1.10	0.12	6.10	32	5.97	1.33	4.25	7.49	6	6.13	4.64	0.12	11.31	4
1985	3.27	2.66	1.05	9.25	29	0.50	0.91	0.12	4.61	27	8.41	5.37	1.71	17.75	6	7.57	2.64	4.50	11.18	5
1986	4.96	2.45	2.31	8.55	28	0.51	1.04	0.12	4.58	26	6.94	0.89	5.65	7.60	5	6.32	1.33	5.03	7.70	4
1987	2.83	2.54	0.12	7.90	39	0.27	0.29	0.12	1.46	30	5.11	2.73	1.66	9.00	9	6.66	2.89	3.17	9.75	4
1988	3.00	2.84	0.12	7.65	32	1.02	2.43	0.10	12.89	61	6.25	1.58	3.70	8.05	6	9.14	2.56	4.60	14.39	16
1989	3.27	2.78	0.51	9.10	45	0.18	0.09	0.10	0.46	83	6.64	2.07	3.57	8.65	11	7.27	3.98	1.82	14.90	23
1990	1.72	1.66	0.12	6.35	63	0.29	0.54	0.10	4.87	145	4.99	1.97	1.86	8.18	12	6.67	3.00	0.72	11.53	18
1991	4.30	3.25	0.12	10.30	65	0.24	0.42	0.10	3.68	89	7.78	2.03	4.99	11.53	12	8.36	2.38	3.71	13.17	22
1992	2.94	2.53	0.12	7.45	58	0.12	0.00	0.12	0.14	52	6.25	1.90	3.33	8.96	15	5.60	2.44	1.73	9.56	14
1993	3.43	2.75	0.12	8.84	52	0.16	0.10	0.12	0.58	67	6.99	1.73	1.95	9.53	13	7.34	2.85	0.12	11.29	20
1994	4.86	4.46	0.12	12.39	51	0.32	1.09	0.12	6.49	34	11.23	1.29	8.18	12.71	14	9.72	4.59	1.79	15.50	9
1995	5.68	2.90	0.82	10.25	36	0.85	1.49	0.12	6.63	64	8.02	1.33	6.27	9.86	8	9.42	2.52	5.92	16.60	14
1996	3.94	1.91	0.53	8.37	46	0.19	0.25	0.12	1.31	27	8.34	1.62	5.02	10.06	12	7.87	2.62	4.39	11.01	6
1997	1.99	1.69	0.12	7.53	53	0.13	0.01	0.12	0.18	30	8.09	1.60	4.79	9.87	13	3.96	1.79	1.34	6.16	8
1998	3.86	2.56	0.41	9.23	46	0.14	0.04	0.12	0.30	46	7.76	0.83	6.31	9.47	13	11.42	1.98	8.04	13.70	15
1999	4.99	2.49	0.93	8.36	36	0.14	0.08	0.12	0.58	33	9.00	1.91	4.81	11.26	11	11.07	2.50	7.47	15.48	11
2000	5.54	2.88	0.12	8.38	32	0.25	0.55	0.12	3.13	30	8.48	1.20	6.24	10.58	11	11.20	0.77	10.29	12.34	6
2001	4.46	2.63	0.12	8.78	39	0.44	1.11	0.12	5.85	35	8.45	2.46	2.45	11.27	11	7.10	2.73	0.14	9.39	9
2002	4.31	1.29	2.12	6.80	30	0.65	2.48	0.12	14.29	33	7.79	0.91	6.62	9.19	10	10.76	1.07	8.74	12.45	8
2003	4.58	2.67	0.14	9.76	30	0.14	0.01	0.12	0.17	33	10.53	0.54	9.67	11.21	9	7.89	2.33	2.12	9.39	9
2004	3.89	1.95	0.13	6.10	36	0.15	0.18	0.12	1.22	36	6.43	1.20	4.67	8.43	12	9.34	0.79	8.59	10.80	10
2005	4.98	2.91	0.12	7.64	27	0.28	0.71	0.12	3.80	27	7.42	1.08	5.65	8.68	8	7.55	0.89	6.92	8.18	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.88		0.12	13.10		0.50		0.10	14.29		7.40		1.66	17.75		8.09		0.12	18.97	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.03537	-0.027	0.17354	0.00544	-0.06193	-0.01896	-0.002	0.01372	-0.00051	-0.00464	0.07444	0.043	0.06614	0.07627	0.00636	0.07713	0.074	0.01064	0.13373	0.03296

Table 21. Area 3, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 3	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	1.54	0.95	0.54	2.61	6	0.10	0.09	0.02	0.21	10	1.40	1.04	0.66	2.13	2	1.44	0.84	0.52	2.78	5
1977	0.60	0.54	0.18	1.35	6	0.33	0.15	0.05	0.68	26	0.40	0.21	0.22	0.63	3	1.65	0.92	0.33	2.94	10
1978	1.08	0.66	0.30	3.90	29	0.22	0.07	0.08	0.32	9	1.03	0.71	0.34	2.40	9	0.52	0.10	0.45	0.59	2
1979	0.62	0.33	0.27	1.54	18	1.01	1.03	0.19	3.23	14	0.37	0.04	0.32	0.40	3	1.47	0.62	1.09	2.19	3
1980	0.90	0.35	0.18	1.45	21	0.20	0.19	0.02	0.58	14	0.21	0.15	0.08	0.44	5	1.51	0.37	1.24	1.77	2
1981	0.46	0.54	0.02	2.53	23	0.48	0.48	0.10	1.38	17	0.60	0.73	0.02	1.87	5	0.94	0.49	0.38	1.30	3
1982	1.11	0.59	0.26	2.53	22	0.39	0.45	0.05	1.80	32	0.74	0.80	0.15	1.73	5	1.58	0.66	0.49	2.70	9
1983	1.35	0.87	0.22	3.30	33	0.55	0.46	0.15	2.44	29	0.90	0.81	0.18	2.26	5	1.86	0.96	0.60	2.81	7
1984	0.91	0.32	0.57	1.79	27	0.45	0.30	0.14	1.50	32	0.62	0.21	0.44	1.02	6	0.60	0.25	0.25	0.83	4
1985	0.89	0.45	0.09	2.50	29	0.52	0.52	0.05	1.70	27	0.66	0.62	0.11	1.64	6	2.58	1.14	1.23	4.40	5
1986	1.81	1.32	0.76	4.59	23	0.53	0.34	0.19	1.56	23	0.66	0.71	0.05	1.63	5	0.89	0.56	0.30	1.42	3
1987	1.14	0.70	0.51	3.90	34	0.64	0.72	0.05	2.90	30	0.94	1.02	0.05	2.90	8	0.86	0.96	0.05	2.16	4
1988	0.61	0.39	0.10	1.90	32	0.69	0.63	0.10	3.30	38	0.39	0.32	0.05	0.93	6	1.43	0.66	0.55	2.50	11
1989	0.63	0.33	0.21	1.69	45	0.27	0.44	0.02	2.53	65	0.49	0.40	0.02	1.17	11	0.92	0.96	0.02	3.59	18
1990	0.76	0.50	0.02	1.91	61	0.40	0.28	0.05	1.15	55	0.57	0.70	0.02	2.40	12	1.56	0.95	0.05	2.44	12
1991	0.60	0.41	0.05	2.40	49	0.44	0.30	0.05	1.39	75	0.72	0.74	0.05	2.17	11	1.52	1.04	0.05	3.69	21
1992	0.37	0.42	0.02	1.37	42	0.43	0.22	0.15	0.80	51	0.21	0.29	0.02	0.94	13	1.28	1.72	0.02	5.00	14
1993	0.68	0.56	0.02	1.90	39	0.15	0.21	0.02	1.00	61	0.06	0.08	0.02	0.23	11	0.39	0.35	0.02	0.98	18
1994	0.75	0.45	0.02	1.70	18	0.26	0.14	0.08	0.55	23	0.19	0.38	0.02	0.88	5	1.60	1.14	0.26	2.92	6
1995	0.80	0.24	0.34	1.19	23	0.36	0.64	0.05	3.04	54	0.24	0.08	0.16	0.31	4	2.07	1.35	0.05	3.90	11
1996	1.00	0.44	0.05	1.90	43	0.12	0.07	0.05	0.31	26	0.08	0.04	0.05	0.16	11	0.88	0.79	0.10	2.14	6
1997	0.49	0.49	0.05	1.75	46	0.11	0.05	0.05	0.24	23	0.27	0.21	0.05	0.65	10	1.32	0.99	0.17	2.54	6
1998	0.32	0.37	0.05	1.76	46	0.13	0.08	0.05	0.33	42	0.33	0.47	0.05	1.53	13	0.49	0.42	0.05	1.33	13
1999	0.73	0.25	0.38	1.44	36	0.13	0.07	0.05	0.34	30	0.21	0.08	0.07	0.33	11	1.42	1.06	0.13	3.07	10
2000	0.38	0.15	0.07	0.65	27	0.18	0.08	0.05	0.40	27	0.31	0.33	0.10	1.12	8	0.27	0.19	0.08	0.62	6
2001	0.53	0.31	0.05	1.26	39	0.21	0.15	0.05	0.59	33	0.32	0.54	0.05	1.68	10	0.64	0.39	0.27	1.27	8
2002	0.98	0.28	0.44	1.72	30	0.22	0.12	0.06	0.59	33	0.20	0.13	0.05	0.49	10	0.56	0.60	0.14	1.92	8
2003	0.60	0.36	0.07	1.63	27	0.17	0.07	0.06	0.35	33	0.15	0.12	0.05	0.41	8	1.47	0.74	0.05	2.46	9
2004	0.36	0.16	0.13	0.73	35	0.11	0.06	0.05	0.23	35	0.15	0.19	0.05	0.73	12	0.18	0.16	0.05	0.47	9
2005	0.34	0.14	0.05	0.65	27	0.11	0.07	0.05	0.34	27	0.13	0.07	0.05	0.23	8	1.46	1.10	0.68	2.23	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.78		0.02	4.59		0.33		0.02	3.30		0.45		0.02	2.90		1.18		0.02	5.00	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.02105	-0.019	0.00065	-0.01021	-0.0274	-0.0153	-0.009	0.00053	-0.00497	-0.01333	-0.02433	-0.015	0.00011	-0.0086	-0.02173	-0.0311	-0.017	0.10093	0	-0.03321

Table 22. Area 3, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 3	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	14.5	5.9	9.0	23.0	6	10.8	4.3	5.0	18.0	8	17.3	5.5	11.0	21.0	3	14.3	1.0	13.0	15.0	4
1977	15.8	2.2	14.0	19.0	4	18.6	5.2	11.0	34.0	22	14.5	2.1	13.0	16.0	2	17.1	4.6	11.0	24.0	9
1978	19.3	2.4	15.0	23.0	29	17.9	4.1	15.0	30.0	12	15.0	2.4	11.0	18.0	9	18.7	0.5	18.2	19.0	3
1979	17.8	2.4	13.2	21.7	18	17.3	2.0	15.1	21.4	14	18.4	2.7	15.3	20.1	3	17.8	2.0	15.7	19.7	3
1980	23.3	4.1	17.2	37.7	21	16.0	3.0	12.1	24.0	18	20.0	3.3	16.2	23.8	5	17.6	3.3	15.3	19.9	2
1981	15.2	2.6	10.9	20.9	27	21.4	7.7	14.0	34.8	15	15.1	2.4	11.3	17.9	8	18.6	5.1	14.5	24.3	3
1982	22.4	2.2	18.5	26.1	18	16.2	1.7	11.0	18.6	30	21.2	1.2	19.5	22.8	5	18.5	3.6	13.6	23.4	7
1983	22.1	3.4	16.8	29.5	30	19.7	3.1	14.5	24.8	21	19.2	2.2	16.4	22.6	5	20.3	3.8	16.1	24.9	5
1984	18.9	3.0	10.2	23.6	27	16.7	2.5	14.0	25.2	18	20.3	2.1	17.5	22.9	6	17.4	1.0	16.7	18.1	2
1985	19.2	3.1	13.6	24.6	25	19.3	3.0	14.7	25.6	19	19.9	3.2	16.5	24.1	4	22.5	4.7	18.0	26.6	4
1986	21.5	2.0	16.9	26.2	28	16.5	2.5	14.1	26.2	19	18.3	1.5	16.7	19.9	5	18.8	1.4	17.4	20.1	3
1987	17.9	3.1	13.4	24.1	28	18.7	3.4	12.0	27.1	22	15.9	1.7	13.9	18.4	5	17.2	2.6	14.3	19.3	3
1988	22.4	4.1	11.2	28.9	32	18.5	2.6	14.1	25.9	35	19.3	4.6	11.2	23.4	6	20.6	2.1	17.0	23.4	8
1989	20.0	4.0	12.0	28.7	34	17.4	3.1	12.0	27.8	62	19.8	4.7	11.0	24.6	8	17.3	4.8	11.0	27.8	17
1990	18.7	2.9	14.3	28.3	40	20.2	3.0	12.6	29.4	31	18.7	2.5	15.1	21.8	6	20.1	4.5	14.8	25.3	5
1991	19.3	4.0	14.9	26.9	27	16.1	2.5	10.9	22.6	52	18.7	3.2	15.0	22.6	5	18.9	3.1	15.5	27.3	13
1992	20.5	2.5	15.8	26.0	34	12.4	1.5	9.4	15.5	28	19.6	4.1	13.2	25.1	7	13.5	0.9	12.1	14.7	6
1993	17.6	2.6	13.8	24.9	25	18.6	1.8	14.8	22.3	39	16.9	4.7	13.1	23.6	4	20.5	2.5	17.1	24.8	11
1994	20.5	3.4	14.3	29.2	34	20.4	1.7	17.0	23.6	27	20.7	2.0	18.2	23.7	8	23.1	6.5	13.4	33.9	7
1995	21.3	2.0	17.1	24.8	35	19.2	2.1	13.5	24.3	55	19.1	0.9	17.9	20.2	8	20.7	1.1	19.2	22.6	11
1996	19.2	2.1	14.7	24.8	39	15.8	2.0	12.3	21.6	27	16.6	2.1	13.3	21.1	10	17.8	2.5	14.8	21.0	6
1997	19.3	2.9	14.5	27.2	50	15.8	1.8	9.8	19.4	30	17.6	3.0	14.1	22.9	11	14.1	1.7	10.9	16.3	8
1998	18.2	2.3	13.3	24.4	46	16.8	2.0	12.8	20.9	42	15.8	1.6	13.1	18.4	13	21.8	1.8	18.4	23.8	14
1999	20.0	1.9	15.2	23.4	33	17.9	1.9	14.9	23.3	30	18.1	2.0	13.1	19.9	10	21.0	3.3	15.1	25.6	10
2000	18.3	2.2	14.5	23.1	33	16.5	1.5	13.9	20.8	27	17.4	2.0	15.0	21.0	11	20.4	1.8	18.3	21.7	3
2001	20.0	2.9	15.1	27.9	38	15.9	1.4	12.7	19.0	35	18.7	2.0	16.4	22.9	11	18.3	6.2	10.7	33.2	9
2002	17.4	1.5	14.5	19.6	21	19.8	5.1	14.9	37.5	32	19.6	3.0	17.2	25.6	7	20.3	2.3	16.8	24.2	8
2003	16.8	2.3	11.4	21.3	26	14.1	1.0	10.8	15.6	33	17.0	2.6	14.8	22.6	7	17.1	2.4	12.2	20.5	9
2004	16.2	1.5	13.1	18.9	35	14.8	1.6	9.9	17.8	36	13.6	1.1	11.9	16.1	12	17.2	2.1	13.4	20.3	9
2005	16.5	1.8	13.0	19.5	27	15.9	1.5	11.7	19.1	27	15.7	2.3	12.2	18.5	8	18.3	0.4	18.0	18.5	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	19.0		9.0	37.7		17.2		5.0	37.5		17.9		11.0	25.6		18.7		10.7	33.9	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.07924	-0.134	0.00028	-0.0701	-0.20154	-0.06119	-0.044	0.13236	0.00423	-0.09962	-0.05575	-0.069	0.09018	-0.00301	-0.12	0.04688	0.056	0.21543	0.14394	-0.0197

Table 23. Area 3, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 3	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	5.33	1.29	4.00	6.50	6	ND	ND	ND	ND	0	6.75	3.18	4.50	9.00	2	ND	ND	ND	ND	0
1977	2.25	1.37	1.00	3.50	6	3.18	1.46	0.40	5.10	12	9.75	6.72	5.00	14.50	2	16.85	0.21	16.70	17.00	2
1978	8.63	3.90	1.10	12.50	15	1.32	1.07	0.00	2.40	6	10.23	3.32	6.60	13.10	3	11.80	0.00	11.80	11.80	1
1979	6.62	3.06	2.20	10.60	12	2.44	1.45	0.60	5.50	11	20.70	10.04	13.60	27.80	2	13.10	3.58	9.00	15.60	3
1980	9.34	1.74	6.70	12.30	18	1.19	0.35	0.70	1.80	15	9.25	2.54	5.90	12.00	4	10.90	0.00	10.90	10.90	1
1981	7.45	1.19	4.90	9.10	24	1.97	1.06	0.10	4.00	17	13.09	8.40	5.10	29.60	7	10.77	3.95	6.80	14.70	3
1982	10.86	1.98	7.40	14.60	22	2.81	1.20	0.90	5.80	38	13.46	4.95	6.10	17.90	5	14.58	6.60	3.80	23.70	11
1983	8.44	3.10	3.20	12.90	34	1.78	2.74	0.10	12.30	29	9.72	4.00	4.10	13.10	5	12.61	6.23	5.10	24.80	7
1984	7.50	2.46	4.20	12.40	27	2.33	1.64	0.10	8.50	28	9.43	2.94	5.20	13.30	6	6.03	4.35	1.80	10.50	3
1985	9.09	2.69	5.90	17.00	26	3.13	1.78	0.10	7.60	24	11.98	4.04	7.70	19.40	6	9.75	3.40	5.60	13.40	4
1986	11.95	1.39	9.00	14.30	28	1.94	1.43	0.10	6.20	27	11.20	5.29	6.80	19.40	5	9.25	5.57	1.00	13.10	4
1987	8.13	7.16	1.10	24.10	28	3.07	1.23	1.50	5.50	19	8.40	2.16	4.90	10.60	6	9.73	2.50	8.00	12.60	3
1988	3.96	1.16	2.10	5.70	20	1.67	2.91	0.10	18.60	40	5.67	2.05	3.40	7.40	3	5.34	3.94	1.30	15.40	11
1989	4.32	2.78	0.80	8.60	42	1.04	0.87	0.10	3.90	74	8.82	2.53	5.00	14.30	11	8.99	6.87	1.30	22.30	19
1990	5.42	2.68	0.50	9.30	62	2.85	1.52	0.20	7.70	126	7.56	1.70	4.50	11.00	12	8.35	4.38	2.80	16.90	14
1991	4.72	2.62	2.00	11.80	31	0.53	0.75	0.10	4.70	54	7.22	2.55	4.70	11.10	5	10.17	4.88	2.60	19.40	13
1992	5.80	2.44	2.60	14.90	46	2.56	2.28	0.20	8.00	49	7.05	1.70	4.30	9.40	11	7.61	3.22	4.70	15.10	10
1993	5.89	4.07	0.10	26.20	52	0.77	0.49	0.20	1.80	67	7.53	4.60	2.80	16.00	13	9.77	3.70	0.80	15.30	20
1994	4.10	3.74	0.10	14.80	51	1.13	0.89	0.20	4.70	34	8.35	2.72	2.70	12.20	14	14.31	8.03	3.40	30.00	9
1995	5.91	3.38	1.10	9.60	36	1.99	1.19	0.20	6.60	64	7.79	3.74	4.30	16.10	8	9.84	2.93	3.80	13.50	14
1996	8.02	2.13	3.80	13.40	46	0.65	0.69	0.20	2.50	26	11.34	5.83	6.70	28.00	12	9.53	2.70	5.30	11.80	6
1997	4.07	2.51	0.20	11.60	53	2.30	1.24	0.20	3.80	30	9.76	2.40	6.80	15.20	13	10.23	3.82	5.60	15.60	8
1998	7.15	2.47	3.60	16.00	35	1.08	1.44	0.20	7.30	46	8.30	1.52	6.20	11.50	10	15.99	3.85	10.00	23.70	15
1999	9.98	2.94	3.20	13.90	36	1.89	1.32	0.20	4.50	33	10.58	4.44	4.70	21.70	11	12.08	4.24	5.50	19.20	11
2000	7.74	4.31	0.20	13.30	33	2.19	1.71	0.50	7.10	30	9.49	2.24	5.50	12.40	11	15.60	4.80	10.30	22.20	6
2001	6.32	3.93	0.70	15.00	39	1.01	1.35	0.20	4.60	36	9.06	2.97	6.00	16.60	11	10.14	4.50	0.90	14.60	9
2002	7.33	2.48	2.60	10.40	30	1.19	1.22	0.10	3.90	33	9.81	3.59	5.20	17.70	10	15.05	3.98	10.30	22.40	8
2003	6.94	3.33	1.60	14.50	30	0.41	0.26	0.10	1.00	33	11.82	2.12	9.80	15.60	9	16.34	7.74	5.30	28.60	9
2004	8.33	2.17	3.30	11.10	36	0.79	0.53	0.10	2.40	36	9.43	2.50	5.30	14.10	12	15.44	7.36	7.80	28.60	10
2005	5.91	3.29	0.30	9.60	27	0.74	0.88	0.10	4.70	27	9.59	1.92	7.20	12.00	8	10.30	2.69	8.40	12.20	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	6.92		0.10	26.20		1.72		0.00	18.60		9.77		2.70	29.60		11.40		0.80	30.00	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04384	-0.135	0.00372	-0.05314	-0.20278	-0.06143	-0.043	0.00411	-0.01898	-0.07083	-0.04509	-0.021	0.67526	0.05729	-0.078	0.17659	-0.025	0.72747	0.09333	-0.09924

Table 24. Area 3, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 3	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	12.02	4.69	6.77	19.67	6	5.51	1.83	3.50	8.50	8	10.71	1.18	9.88	11.55	2	9.80	2.19	8.55	13.09	4
1977	7.66	3.69	2.40	12.19	6	9.88	5.91	1.58	24.00	26	9.46	1.32	8.05	10.65	3	10.42	2.43	7.24	14.97	10
1978	10.43	2.25	6.91	16.78	26	11.37	10.97	2.10	36.94	9	9.00	1.46	7.61	12.31	8	8.77	1.15	7.95	9.58	2
1979	7.51	3.72	1.75	12.98	18	25.09	20.52	4.50	65.50	14	10.02	2.19	8.37	12.50	3	10.25	0.96	9.21	11.10	3
1980	7.83	1.67	5.13	11.03	21	6.61	2.68	2.33	10.50	14	8.15	0.91	7.14	9.07	5	8.08	0.27	7.89	8.28	2
1981	7.10	1.92	4.48	12.38	20	51.03	84.34	3.33	350.50	17	8.70	1.87	7.49	11.49	4	10.59	1.51	9.63	12.33	3
1982	9.81	2.46	6.13	14.00	22	14.91	20.84	1.05	106.50	32	8.85	2.57	6.93	13.33	5	14.90	2.45	11.40	18.60	9
1983	10.29	2.64	7.20	16.24	33	13.80	12.14	2.31	48.00	28	9.49	2.08	7.89	13.03	5	14.54	4.54	9.36	21.50	6
1984	8.49	2.10	4.02	11.91	27	16.38	12.23	4.33	45.00	32	8.32	1.82	5.00	9.89	6	17.56	12.73	8.54	36.00	4
1985	6.61	2.55	2.61	11.25	29	23.95	33.10	2.63	126.50	27	11.97	9.62	7.10	31.47	6	21.89	21.62	11.18	60.53	5
1986	8.10	3.83	4.58	14.71	22	19.79	21.10	2.27	94.00	22	7.97	1.93	5.47	10.74	5	14.05	11.74	6.64	27.59	3
1987	6.34	2.63	2.67	16.38	33	16.73	21.97	1.25	76.00	29	7.70	2.06	5.17	10.90	8	8.72	3.70	6.58	14.25	4
1988	6.72	3.10	2.32	12.03	32	25.76	34.70	3.21	168.00	38	7.45	2.07	4.03	10.07	6	12.50	4.18	7.72	20.39	11
1989	7.58	3.59	2.67	15.42	45	10.06	10.34	0.40	48.33	62	7.93	2.95	3.74	14.41	11	9.68	2.46	5.60	16.13	17
1990	4.72	2.64	0.52	11.37	61	14.62	16.60	0.65	111.33	54	6.76	1.50	3.41	10.17	12	8.63	3.87	2.03	14.38	11
1991	6.85	3.76	0.68	12.50	49	15.95	22.36	1.60	169.00	73	9.40	2.50	5.55	14.17	11	10.12	2.27	5.49	13.03	21
1992	7.60	3.08	1.85	12.81	41	18.98	13.84	2.70	46.00	50	10.40	2.80	6.10	14.44	13	10.53	4.19	3.53	16.58	14
1993	9.78	4.90	4.78	23.92	39	8.88	7.54	2.80	56.00	61	10.87	3.15	7.48	18.81	11	9.64	3.28	1.56	12.93	18
1994	10.36	5.68	2.40	18.00	18	9.43	5.29	4.00	27.50	23	11.19	1.75	10.16	14.26	5	16.27	6.57	9.94	27.21	6
1995	12.02	1.69	9.09	15.31	23	18.69	25.63	1.47	95.67	54	11.17	1.51	8.94	12.21	4	13.65	1.81	9.97	16.72	11
1996	9.48	2.05	4.55	12.35	43	4.28	1.82	1.77	10.33	26	9.49	1.62	7.17	11.63	11	9.79	1.67	6.98	11.41	6
1997	6.27	2.43	1.88	12.37	45	4.41	0.72	3.00	5.50	23	9.27	1.51	7.06	11.61	10	9.07	2.06	7.36	12.92	6
1998	10.59	3.16	3.33	14.40	35	3.90	1.73	1.42	11.25	42	10.07	1.28	8.77	12.80	10	13.36	1.76	9.17	15.76	13
1999	10.32	2.09	5.64	13.02	36	6.21	6.62	1.73	38.00	30	9.50	2.10	5.44	13.14	11	15.15	5.50	11.23	26.05	10
2000	12.66	4.94	3.17	29.00	26	6.90	7.29	1.38	39.22	27	11.21	1.66	9.13	14.19	8	13.77	2.28	11.29	16.87	6
2001	8.52	3.49	0.92	12.53	39	7.36	5.23	2.00	23.00	31	11.10	2.71	6.16	14.97	10	11.23	3.55	2.88	13.93	8
2002	11.94	1.65	9.25	14.69	30	29.50	124.29	2.92	721.50	33	11.59	2.06	9.16	14.73	10	13.62	1.40	12.11	16.66	8
2003	10.51	3.22	1.40	13.09	27	6.85	1.95	3.00	12.75	33	11.04	0.42	10.30	11.51	8	10.91	1.53	7.93	13.15	9
2004	9.06	3.09	2.25	11.86	35	5.24	6.62	1.63	42.67	35	9.07	0.90	7.41	10.32	12	11.75	0.90	10.85	13.73	9
2005	9.29	4.05	0.77	12.73	27	7.03	11.85	0.64	64.67	27	10.50	2.23	8.27	14.37	8	10.43	1.80	9.16	11.70	2
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	8.88		0.52	29.00		13.97		0.40	721.50		9.61		3.41	31.47		11.99		1.56	60.53	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.09767	0.018	0.66756	0.07149	-0.05713	-0.42683	-0.181	0.01689	-0.04846	-0.34289	0.08251	0.057	0.02859	0.09472	0.01515	0.01605	0.088	0.07164	0.15931	0.00724

Table 25. Area 4, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 4	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.47	0.15	0.34	0.63	3	0.79	0.83	0.30	1.75	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	0.57	0.03	0.55	0.60	3	0.26	0.35	0.07	1.20	9	ND	ND	ND	ND	0	1.30	0.04	1.27	1.33	2
1978	0.54	0.16	0.38	0.82	6	0.35	0.03	0.33	0.39	3	1.15	0.25	0.97	1.33	2	ND	ND	ND	ND	0
1979	0.70	0.10	0.58	0.80	5	0.10	0.06	0.02	0.21	9	1.09	0.00	1.09	1.09	1	1.30	0.07	1.23	1.37	3
1980	0.52	0.19	0.29	0.80	8	0.09	0.06	0.03	0.16	4	1.05	0.00	1.05	1.05	1	0.98	0.11	0.90	1.05	2
1981	0.42	0.13	0.30	0.56	4	0.14	0.08	0.02	0.25	8	1.16	0.25	0.98	1.34	2	ND	ND	ND	ND	0
1982	0.83	0.03	0.81	0.85	2	0.20	0.21	0.05	0.87	14	ND	ND	ND	ND	0	1.13	0.12	0.94	1.27	5
1983	1.08	0.35	0.75	1.56	5	0.29	0.07	0.21	0.38	4	0.96	0.00	0.96	0.96	1	1.18	0.20	1.04	1.32	2
1984	0.74	0.12	0.60	0.87	6	0.26	0.04	0.22	0.32	4	0.86	0.00	0.86	0.86	1	1.85	0.40	1.56	2.13	2
1985	0.95	0.10	0.86	1.05	3	ND	ND	ND	ND	0	1.34	0.00	1.34	1.34	1	ND	ND	ND	ND	0
1986	0.73	0.13	0.56	0.83	5	0.07	0.05	0.02	0.13	7	1.16	0.00	1.16	1.16	1	0.66	0.34	0.44	1.06	3
1987	0.69	0.04	0.66	0.72	2	0.23	0.17	0.11	0.62	8	1.22	0.00	1.22	1.22	1	1.40	0.24	1.05	1.60	4
1988	0.70	0.12	0.55	0.89	15	0.17	0.10	0.06	0.42	14	1.18	0.06	1.09	1.24	5	0.90	0.31	0.45	1.21	5
1989	0.77	0.13	0.60	0.97	9	0.19	0.12	0.02	0.31	12	0.93	0.04	0.90	0.95	2	1.48	0.04	1.44	1.52	3
1990	0.98	0.13	0.76	1.18	14	0.39	0.21	0.18	0.99	12	1.30	0.25	1.04	1.62	4	1.30	0.15	1.09	1.45	4
1991	0.65	0.30	0.06	0.99	12	0.15	0.12	0.06	0.49	13	1.18	0.15	1.03	1.33	3	1.27	0.30	0.83	1.46	4
1992	0.68	0.09	0.57	0.93	15	0.12	0.16	0.02	0.61	15	0.88	0.23	0.61	1.10	4	1.01	0.12	0.87	1.16	4
1993	0.72	0.13	0.38	0.80	9	0.25	0.14	0.08	0.76	32	0.83	0.08	0.76	0.91	3	1.07	0.13	0.91	1.30	8
1994	0.67	0.10	0.50	0.84	11	0.13	0.08	0.06	0.28	12	ND	ND	ND	ND	0	0.95	0.08	0.89	1.01	2
1995	0.60	0.09	0.50	0.83	24	0.08	0.10	0.02	0.43	16	0.93	0.11	0.84	1.13	6	0.95	0.15	0.87	1.17	4
1996	0.64	0.11	0.53	0.90	15	0.17	0.18	0.08	0.72	12	1.04	0.02	1.03	1.06	4	1.11	0.30	0.77	1.33	3
1997	0.51	0.23	0.29	1.11	16	0.18	0.20	0.07	0.81	19	1.05	0.09	0.92	1.12	4	0.89	0.04	0.83	0.92	5
1998	0.41	0.06	0.34	0.51	13	0.16	0.12	0.06	0.51	12	1.03	0.05	0.97	1.08	4	0.96	0.20	0.79	1.18	3
1999	0.64	0.10	0.51	0.91	12	0.15	0.12	0.05	0.51	12	1.12	0.17	0.98	1.36	4	0.83	0.08	0.77	0.95	4
2000	0.59	0.03	0.52	0.63	12	0.22	0.09	0.08	0.34	12	0.70	0.08	0.58	0.76	4	0.82	0.15	0.65	0.92	3
2001	0.62	0.14	0.46	0.95	12	0.14	0.08	0.08	0.36	12	1.07	0.11	0.98	1.23	4	0.92	0.24	0.64	1.09	3
2002	0.47	0.06	0.41	0.59	9	0.30	0.13	0.20	0.58	12	1.06	0.21	0.85	1.26	3	1.01	0.27	0.66	1.31	4
2003	0.61	0.13	0.48	0.90	9	0.15	0.07	0.06	0.29	12	1.12	0.13	0.99	1.24	3	0.70	0.08	0.66	0.79	3
2004	0.51	0.12	0.42	0.78	12	0.18	0.06	0.09	0.34	12	0.80	0.03	0.78	0.83	3	0.99	0.09	0.87	1.07	4
2005	0.69	0.15	0.43	0.82	12	0.37	0.14	0.11	0.55	12	0.84	0.25	0.66	1.20	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.66		0.06	1.56		0.22		0.02	1.75		1.04		0.58	1.62		1.08		0.44	2.13	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00637	-0.007	0.01045	-0.00211	-0.01167	-0.00079	0.001	0.37719	0.00433	-0.00119	-0.00952	-0.008	0.01635	-0.00316	-0.01423	-0.01641	-0.017	0.00004	-0.01111	-0.02385

Table 26. Area 4, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 4	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.92	0.06	0.87	0.99	3	1.25	0.86	0.73	2.24	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	0.89	0.04	0.85	0.92	3	0.65	0.33	0.39	1.45	9	ND	ND	ND	ND	0	1.49	0.01	1.48	1.50	2
1978	0.78	0.19	0.63	1.10	6	1.43	0.67	1.00	2.21	3	1.48	0.08	1.42	1.54	2	ND	ND	ND	ND	0
1979	1.04	0.14	0.81	1.16	5	0.65	0.26	0.41	1.15	9	2.31	0.00	2.31	2.31	1	2.10	0.28	1.87	2.41	3
1980	1.00	0.07	0.90	1.10	6	1.16	0.27	0.97	1.35	2	ND	ND	ND	ND	0	2.09	0.21	1.94	2.23	2
1981	0.63	0.35	0.31	0.95	4	1.02	0.08	0.96	1.08	2	1.83	0.38	1.56	2.10	2	ND	ND	ND	ND	0
1982	1.22	0.01	1.21	1.22	2	0.72	0.26	0.38	1.28	13	ND	ND	ND	ND	0	1.64	0.23	1.28	1.84	5
1983	1.81	0.35	1.36	2.11	5	0.84	0.23	0.65	1.17	4	1.44	0.00	1.44	1.44	1	1.52	0.14	1.42	1.62	2
1984	1.07	0.25	0.79	1.30	6	1.77	0.03	1.75	1.79	2	1.27	0.00	1.27	1.27	1	2.86	0.00	2.86	2.86	1
1985	1.25	0.09	1.16	1.33	3	ND	ND	ND	ND	0	1.75	0.00	1.75	1.75	1	ND	ND	ND	ND	0
1986	1.23	0.22	1.07	1.55	4	0.60	0.11	0.51	0.72	3	1.38	0.00	1.38	1.38	1	1.44	0.00	1.44	1.44	1
1987	1.38	0.31	1.16	1.60	2	1.05	0.47	0.54	1.72	9	1.86	0.00	1.86	1.86	1	1.83	0.32	1.44	2.15	4
1988	1.01	0.21	0.76	1.48	15	0.58	0.10	0.44	0.72	8	1.65	0.60	1.16	2.69	5	1.18	0.38	0.74	1.41	3
1989	1.08	0.23	0.78	1.43	9	0.74	0.13	0.56	0.90	9	1.36	0.21	1.21	1.51	2	2.03	0.28	1.83	2.22	2
1990	1.22	0.19	0.99	1.52	9	1.15	0.26	0.76	1.58	12	1.59	0.27	1.42	1.90	3	1.86	0.31	1.45	2.21	4
1991	1.17	0.29	0.81	1.58	11	0.52	0.12	0.38	0.76	13	1.54	0.14	1.40	1.68	3	1.63	0.09	1.56	1.74	3
1992	1.14	0.07	1.05	1.30	15	0.72	0.16	0.53	1.04	14	1.35	0.15	1.25	1.57	4	1.29	0.04	1.25	1.33	3
1993	1.05	0.22	0.87	1.57	9	0.81	0.34	0.34	1.76	31	1.02	0.11	0.94	1.14	3	1.46	0.30	1.22	1.88	7
1994	0.95	0.11	0.74	1.14	15	0.47	0.06	0.41	0.60	8	1.17	0.00	1.17	1.17	1	1.17	0.00	1.17	1.17	1
1995	0.87	0.10	0.76	1.13	23	0.63	0.08	0.50	0.77	16	1.15	0.19	0.96	1.45	6	1.28	0.20	1.02	1.50	4
1996	0.91	0.14	0.72	1.21	15	0.48	0.08	0.42	0.73	12	1.30	0.13	1.19	1.48	4	1.16	0.34	0.80	1.48	3
1997	0.62	0.10	0.52	0.83	8	0.57	0.16	0.36	0.92	16	1.40	0.56	1.00	1.79	2	1.08	0.12	0.97	1.18	4
1998	0.68	0.06	0.62	0.81	13	0.51	0.17	0.28	0.85	12	1.22	0.14	1.08	1.37	4	1.26	0.10	1.15	1.35	3
1999	0.81	0.15	0.65	1.06	12	0.49	0.10	0.39	0.72	12	1.22	0.16	1.01	1.38	4	0.85	0.10	0.77	1.00	4
2000	0.81	0.04	0.75	0.86	12	0.51	0.10	0.35	0.67	12	0.92	0.08	0.84	1.00	4	0.89	0.10	0.78	0.98	3
2001	0.92	0.15	0.74	1.24	12	0.44	0.09	0.33	0.61	12	1.23	0.14	1.03	1.35	4	1.11	0.17	0.91	1.24	3
2002	0.71	0.09	0.62	0.80	6	0.59	0.11	0.42	0.82	12	1.32	0.04	1.29	1.35	2	1.02	0.35	0.69	1.39	3
2003	0.78	0.12	0.64	1.04	9	0.42	0.10	0.31	0.64	12	1.19	0.16	1.01	1.32	3	0.85	0.06	0.80	0.91	3
2004	0.65	0.10	0.53	0.82	12	0.49	0.07	0.37	0.62	12	0.94	0.08	0.85	1.00	3	1.16	0.11	1.05	1.27	4
2005	0.94	0.23	0.56	1.25	12	0.94	0.18	0.71	1.20	12	1.01	0.11	0.89	1.15	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.98		0.31	2.11		0.76		0.28	2.24		1.38		0.84	2.69		1.45		0.69	2.86	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01445	-0.017	0	-0.01152	-0.02449	-0.0141	-0.016	0.00001	-0.00954	-0.02161	-0.02922	-0.025	0	-0.01733	-0.034	-0.04055	-0.045	0	-0.03563	-0.05538

Table 27. Area 4, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 4	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	1.70	0.06	1.66	1.76	3	0.13	0.01	0.12	0.14	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	3.73	0.18	3.57	3.92	3	0.57	1.07	0.12	2.76	6	ND	ND	ND	ND	0	10.55	0.00	10.55	10.55	1
1978	4.47	1.48	2.92	5.85	6	0.13	0.01	0.12	0.14	3	7.96	1.68	6.77	9.15	2	ND	ND	ND	ND	0
1979	5.72	0.80	4.68	6.44	5	0.15	0.03	0.12	0.22	9	11.16	0.00	11.16	11.16	1	11.07	0.71	10.27	11.61	3
1980	5.52	1.25	4.05	7.49	8	0.20	0.09	0.13	0.33	4	10.33	0.00	10.33	10.33	1	7.04	1.24	6.16	7.91	2
1981	6.62	1.13	5.76	8.21	4	0.28	0.29	0.12	0.90	8	9.66	0.79	9.10	10.22	2	ND	ND	ND	ND	0
1982	8.23	0.01	8.22	8.24	2	0.71	1.58	0.12	5.91	14	ND	ND	ND	ND	0	10.02	2.61	7.51	13.17	5
1983	8.49	0.78	7.63	9.45	5	0.35	0.04	0.29	0.39	4	10.36	0.00	10.36	10.36	1	17.80	6.54	13.17	22.42	2
1984	5.19	2.62	2.34	7.65	6	0.38	0.48	0.12	1.09	4	6.15	0.00	6.15	6.15	1	11.29	0.66	10.82	11.75	2
1985	8.67	0.99	7.80	9.75	3	ND	ND	ND	ND	0	12.65	0.00	12.65	12.65	1	ND	ND	ND	ND	0
1986	4.30	3.69	1.63	9.32	5	0.78	1.20	0.23	3.22	6	1.72	0.00	1.72	1.72	1	6.77	1.63	5.46	8.60	3
1987	5.80	0.07	5.75	5.85	2	1.41	1.19	0.28	3.19	9	10.88	0.00	10.88	10.88	1	13.37	3.74	8.75	17.46	4
1988	7.51	3.58	2.91	15.15	15	0.26	0.39	0.10	1.53	13	9.20	1.46	7.20	10.76	5	7.96	4.70	0.44	12.14	5
1989	6.78	0.98	5.50	7.97	9	0.17	0.12	0.12	0.55	12	8.07	0.33	7.84	8.30	2	11.66	3.65	8.50	15.65	3
1990	6.40	1.52	3.56	8.85	14	0.55	1.41	0.12	5.02	12	6.98	2.07	4.31	8.71	4	5.99	2.72	2.87	9.28	4
1991	6.03	3.08	0.12	10.92	12	0.21	0.15	0.12	0.66	13	10.03	1.88	8.51	12.13	3	9.95	2.41	7.44	13.08	4
1992	5.84	1.86	4.06	12.03	15	0.52	1.35	0.12	5.39	15	5.95	3.08	2.50	9.95	4	5.86	2.19	4.30	9.10	4
1993	7.58	0.42	7.11	8.27	9	0.45	1.10	0.12	6.11	32	7.97	0.64	7.24	8.43	3	7.09	1.71	4.73	9.71	9
1994	8.63	1.40	6.28	11.34	15	0.27	0.21	0.12	0.75	12	11.21	0.00	11.21	11.21	1	12.23	1.24	11.35	13.10	2
1995	8.29	1.77	4.90	11.57	24	0.35	0.73	0.12	3.04	16	9.85	0.82	8.98	10.90	6	12.60	1.50	10.58	14.12	4
1996	6.25	1.36	4.56	9.39	15	0.29	0.56	0.12	2.05	12	9.58	0.74	8.94	10.49	4	7.83	5.12	1.92	10.92	3
1997	5.07	1.44	3.20	8.06	16	0.71	2.12	0.12	9.26	19	9.00	0.78	8.08	9.87	4	7.72	2.30	5.15	10.46	5
1998	5.04	1.36	3.03	7.11	13	0.39	0.93	0.10	3.33	12	9.27	0.73	8.24	9.96	4	8.25	1.79	7.12	10.31	3
1999	7.22	1.49	5.08	9.21	12	0.85	2.49	0.12	8.75	12	11.00	1.46	9.39	12.73	4	11.42	3.03	7.39	14.29	4
2000	7.06	1.08	5.32	8.38	12	0.17	0.10	0.12	0.43	12	7.78	1.28	6.39	9.49	4	8.38	5.40	2.18	12.06	3
2001	5.84	1.81	3.40	9.35	12	0.23	0.21	0.12	0.82	12	10.52	1.94	8.07	12.43	4	8.42	4.49	3.34	11.85	3
2002	5.49	1.50	3.45	7.94	9	0.83	1.86	0.15	6.39	11	10.20	0.88	9.25	10.98	3	8.91	3.97	3.31	12.69	4
2003	6.13	1.15	5.45	9.09	9	0.21	0.15	0.14	0.68	12	11.40	1.01	10.25	12.11	3	4.81	1.43	3.64	6.41	3
2004	4.87	1.48	3.34	7.65	12	0.34	0.52	0.12	1.98	12	7.52	0.76	6.87	8.35	3	7.52	0.94	6.24	8.45	4
2005	3.59	1.28	2.78	7.08	12	0.23	0.31	0.13	1.20	12	8.26	1.26	7.01	9.68	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	6.07		0.12	15.15		0.42		0.10	9.26		9.06		1.72	12.73		9.38		0.44	22.42	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.02504	-0.041	0.07289	-0.00167	-0.08585	-0.00184	0	0.73795	0.0025	-0.00132	0.03416	0.021	0.39233	0.07727	-0.01875	-0.1215	-0.118	0.10083	0.00083	-0.20591

Table 28. Area 4, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 4	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.68	0.09	0.59	0.77	3	0.52	0.20	0.37	0.75	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	1.60	0.33	1.36	1.98	3	0.32	0.15	0.19	0.59	6	ND	ND	ND	ND	0	0.56	0.00	0.56	0.56	1
1978	0.75	0.26	0.38	1.11	6	0.30	0.41	0.02	0.77	3	0.29	0.00	0.29	0.29	1	ND	ND	ND	ND	0
1979	1.05	0.55	0.62	1.70	5	0.20	0.20	0.07	0.70	9	1.20	0.00	1.20	1.20	1	2.47	1.50	1.50	4.20	3
1980	1.10	0.17	0.80	1.28	8	1.27	0.42	0.80	1.60	3	0.40	0.00	0.40	0.40	1	1.55	0.35	1.30	1.80	2
1981	1.73	0.05	1.70	1.80	4	1.19	0.71	0.30	2.40	7	1.10	0.71	0.60	1.60	2	ND	ND	ND	ND	0
1982	1.25	0.21	1.10	1.40	2	0.36	0.22	0.02	0.80	11	ND	ND	ND	ND	0	1.42	0.50	0.60	1.90	5
1983	1.56	0.56	1.10	2.46	5	0.98	0.53	0.50	1.70	4	1.70	0.00	1.70	1.70	1	1.45	1.20	0.60	2.30	2
1984	1.36	0.29	1.07	1.84	6	0.63	0.21	0.40	0.80	4	0.87	0.00	0.87	0.87	1	1.80	0.99	1.10	2.50	2
1985	1.10	0.54	0.55	1.63	3	ND	ND	ND	ND	0	0.23	0.00	0.23	0.23	1	ND	ND	ND	ND	0
1986	2.09	1.49	0.30	3.66	4	0.55	0.35	0.30	1.20	7	1.67	0.00	1.67	1.67	1	1.49	0.60	0.90	2.10	3
1987	1.45	0.21	1.30	1.60	2	1.08	0.65	0.19	1.90	9	0.60	0.00	0.60	0.60	1	1.65	1.21	0.11	2.80	4
1988	1.17	0.74	0.59	2.60	12	0.49	0.15	0.32	0.66	6	0.19	0.16	0.09	0.42	4	0.74	0.40	0.46	1.02	2
1989	0.93	0.26	0.58	1.27	6	0.27	0.20	0.02	0.50	12	1.59	0.00	1.59	1.59	1	0.66	0.82	0.10	1.60	3
1990	1.48	0.37	0.90	2.20	14	0.35	0.44	0.05	1.61	12	0.81	0.67	0.39	1.80	4	0.72	0.54	0.05	1.34	4
1991	0.74	0.34	0.20	1.10	12	0.44	0.40	0.05	0.99	13	0.31	0.36	0.10	0.73	3	0.76	0.49	0.05	1.10	4
1992	0.66	0.39	0.02	1.28	15	0.65	0.37	0.20	1.40	15	0.66	0.65	0.02	1.39	4	1.39	1.55	0.02	2.94	4
1993	1.20	0.47	0.60	2.00	9	0.19	0.13	0.02	0.60	31	0.38	0.62	0.02	1.10	3	1.35	1.00	0.02	3.10	9
1994	0.70	0.18	0.39	0.91	11	0.46	0.44	0.12	1.73	12	0.46	0.00	0.46	0.46	1	1.25	0.15	1.14	1.35	2
1995	0.80	0.18	0.39	1.02	20	0.19	0.21	0.05	0.75	16	0.16	0.12	0.05	0.35	5	0.58	0.45	0.11	1.16	4
1996	0.76	0.51	0.07	1.81	15	0.26	0.52	0.05	1.87	12	0.26	0.24	0.09	0.53	3	1.19	0.73	0.37	1.76	3
1997	0.47	0.18	0.09	0.75	16	0.12	0.05	0.05	0.21	11	0.10	0.09	0.05	0.20	3	0.78	0.61	0.36	1.48	3
1998	0.52	0.16	0.30	0.93	13	0.21	0.32	0.05	1.20	12	0.09	0.05	0.05	0.16	4	1.91	0.80	1.23	2.79	3
1999	0.75	0.34	0.30	1.33	12	0.18	0.06	0.08	0.31	12	0.16	0.13	0.05	0.35	4	0.90	0.93	0.13	2.13	4
2000	1.20	0.74	0.59	2.44	12	0.17	0.11	0.05	0.37	12	0.70	0.61	0.24	1.59	4	0.57	0.27	0.39	0.88	3
2001	0.43	0.23	0.05	0.95	12	0.25	0.29	0.05	1.13	12	0.13	0.09	0.05	0.21	4	0.54	0.26	0.25	0.72	3
2002	0.58	0.22	0.30	0.90	9	0.26	0.25	0.10	0.98	12	0.22	0.30	0.05	0.57	3	2.04	1.66	0.10	4.00	4
2003	0.51	0.19	0.14	0.77	9	0.17	0.10	0.06	0.40	12	0.14	0.12	0.05	0.27	3	2.18	0.97	1.07	2.79	3
2004	0.52	0.28	0.05	0.92	12	0.26	0.18	0.09	0.62	12	0.21	0.14	0.05	0.32	3	1.47	1.17	0.61	2.80	3
2005	0.70	0.76	0.26	3.02	12	0.25	0.51	0.05	1.88	12	0.56	0.39	0.09	0.92	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.99		0.02	3.66		0.43		0.02	2.40		0.56		0.02	1.80		1.26		0.02	4.20	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.0321	-0.032	0	-0.02167	-0.04167	-0.01738	-0.012	0.00015	-0.00714	-0.01833	-0.02692	-0.017	0.00116	-0.008	-0.03143	-0.00894	-0.006	0.74713	0.01867	-0.02412

Table 29. Area 4, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 4	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	14.0	2.0	12.0	16.0	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	20.3	0.6	20.0	21.0	3	16.7	1.6	15.0	19.0	6	ND	ND	ND	ND	0	24.0	0.0	24.0	24.0	1
1978	20.5	0.8	20.0	22.0	6	19.5	0.9	18.8	20.5	3	18.5	2.1	17.0	20.0	2	ND	ND	ND	ND	0
1979	27.0	11.6	18.3	40.3	5	19.9	2.5	17.3	24.5	8	23.9	0.0	23.9	23.9	1	33.1	9.2	26.7	43.6	3
1980	29.4	6.8	21.9	39.4	8	23.7	2.8	20.8	26.7	4	21.9	0.0	21.9	21.9	1	21.9	2.8	19.9	23.9	2
1981	22.7	0.0	22.7	22.7	1	24.8	5.1	21.5	30.7	3	37.0	0.0	37.0	37.0	1	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	15.9	2.5	13.4	19.9	6	ND	ND	ND	ND	0	17.4	0.0	17.4	17.4	1
1983	27.7	0.6	27.3	28.3	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1984	22.8	4.8	16.3	27.4	6	ND	ND	ND	ND	0	21.2	0.0	21.2	21.2	1	ND	ND	ND	ND	0
1985	24.0	2.2	22.4	26.5	3	ND	ND	ND	ND	0	23.9	0.0	23.9	23.9	1	ND	ND	ND	ND	0
1986	23.7	0.8	23.0	24.5	3	16.7	0.6	16.0	17.0	3	18.5	0.0	18.5	18.5	1	19.5	0.0	19.5	19.5	1
1987	ND	ND	ND	ND	0	18.2	1.1	17.0	19.2	3	ND	ND	ND	ND	0	17.4	0.0	17.4	17.4	1
1988	21.8	6.8	14.5	30.1	7	20.5	2.8	16.3	25.0	8	18.8	6.1	10.0	23.8	4	19.0	5.3	12.9	22.6	3
1989	25.4	1.3	23.8	26.8	5	20.0	1.2	18.5	21.6	6	24.5	0.0	24.5	24.5	1	23.2	0.0	23.2	23.2	1
1990	25.1	5.9	20.1	36.1	6	22.9	1.9	21.1	24.8	3	19.2	0.1	19.1	19.2	2	19.0	0.0	19.0	19.0	1
1991	21.5	2.6	17.4	24.6	6	14.6	1.0	13.4	15.9	4	23.1	0.0	23.1	23.1	1	19.9	0.0	19.9	19.9	1
1992	25.6	3.0	24.0	33.2	9	18.6	4.4	14.3	23.4	6	21.5	1.8	20.2	22.7	2	24.9	0.0	24.9	24.9	1
1993	22.1	0.2	21.9	22.2	3	21.0	1.9	17.6	25.0	23	18.7	0.0	18.7	18.7	1	21.5	1.9	19.4	24.1	6
1994	27.4	3.0	21.7	31.0	15	21.2	1.5	19.6	23.5	8	23.2	0.0	23.2	23.2	1	25.7	0.0	25.7	25.7	1
1995	26.8	3.9	19.9	35.0	24	22.8	2.4	18.9	26.6	16	23.0	1.6	20.0	24.5	6	24.8	1.7	23.3	26.4	4
1996	22.7	2.5	17.5	26.1	15	20.4	1.5	16.2	21.8	12	18.5	1.8	15.9	20.1	4	19.1	5.8	12.7	23.8	3
1997	23.7	4.3	19.4	34.7	12	18.5	1.5	15.6	21.2	16	22.0	4.2	18.9	26.8	3	16.8	2.0	14.7	19.5	4
1998	21.8	2.3	18.5	25.3	13	18.3	1.4	16.1	20.7	12	18.4	1.9	15.9	20.3	4	23.0	2.5	20.1	24.7	3
1999	23.2	2.1	20.7	26.4	12	20.7	2.2	18.5	25.9	12	20.7	2.1	17.7	22.3	4	22.2	1.5	21.2	24.4	4
2000	25.0	2.3	21.9	28.0	12	18.2	1.1	16.5	20.2	12	20.5	2.0	17.6	21.9	4	17.8	4.3	12.8	20.3	3
2001	22.6	2.6	18.5	26.7	12	17.1	1.8	14.2	20.5	12	20.8	1.7	19.2	23.0	4	21.7	2.2	19.6	23.9	3
2002	23.0	2.7	19.7	26.2	6	19.6	2.6	14.3	23.5	12	22.2	2.8	20.2	24.1	2	20.7	3.1	16.6	23.8	4
2003	20.3	2.3	16.8	24.0	9	16.6	1.9	12.4	18.8	12	19.4	1.3	17.9	20.4	3	16.2	1.4	14.6	17.1	3
2004	19.4	2.6	14.9	22.3	12	19.1	3.4	13.8	24.3	12	16.3	2.1	14.2	18.3	3	22.6	4.1	19.5	28.5	4
2005	20.7	3.3	15.1	25.5	12	18.2	2.4	13.8	22.0	12	20.8	1.8	18.4	22.2	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	23.6		14.5	40.3		19.2		12.0	30.7		21.4		10.0	37.0		21.4		12.7	43.6	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.13746	-0.186	0.01267	-0.05606	-0.31905	-0.02572	-0.067	0.14073	0.0125	-0.15333	-0.11363	-0.112	0.04505	-0.03077	-0.22667	-0.20948	-0.165	0.03814	-0.025	-0.29286

Table 30. Area 4, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 4	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	5.50	0.00	5.50	5.50	3	10.17	4.91	4.50	13.00	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	4.00	0.00	4.00	4.00	3	7.28	2.86	5.80	13.10	6	ND	ND	ND	ND	0	24.10	0.00	24.10	24.10	1
1978	10.88	1.81	8.20	12.50	6	8.57	1.19	7.20	9.40	3	14.45	1.20	13.60	15.30	2	ND	ND	ND	ND	0
1979	11.94	0.61	11.10	12.60	5	5.62	3.14	1.30	11.60	9	13.90	0.00	13.90	13.90	1	22.90	6.81	16.30	29.90	3
1980	10.45	2.32	6.90	12.80	8	5.28	3.51	1.20	8.20	4	14.90	0.00	14.90	14.90	1	23.15	0.50	22.80	23.50	2
1981	11.83	2.11	10.00	13.70	4	4.80	1.57	2.50	6.40	8	19.25	3.61	16.70	21.80	2	ND	ND	ND	ND	0
1982	15.50	0.00	15.50	15.50	2	4.90	2.94	1.00	12.20	14	ND	ND	ND	ND	0	15.16	6.58	5.90	23.40	5
1983	13.74	0.71	13.10	14.60	5	9.60	0.98	8.40	10.80	4	12.00	0.00	12.00	12.00	1	22.85	3.32	20.50	25.20	2
1984	7.93	0.48	7.20	8.40	6	8.35	2.34	6.30	10.80	4	8.10	0.00	8.10	8.10	1	31.10	3.68	28.50	33.70	2
1985	13.53	1.04	12.70	14.70	3	ND	ND	ND	ND	0	19.20	0.00	19.20	19.20	1	ND	ND	ND	ND	0
1986	14.57	0.85	13.70	15.40	3	5.59	1.57	4.10	7.90	7	15.50	0.00	15.50	15.50	1	15.97	1.97	13.70	17.30	3
1987	14.60	0.00	14.60	14.60	1	5.13	3.52	3.00	9.20	3	ND	ND	ND	ND	0	19.60	0.00	19.60	19.60	1
1988	2.53	0.88	1.40	3.60	6	6.82	3.37	2.90	10.80	6	3.95	3.75	1.30	6.60	2	11.65	4.60	8.40	14.90	2
1989	8.21	1.26	6.90	10.80	9	6.40	1.35	5.00	8.60	12	11.85	2.05	10.40	13.30	2	28.77	3.35	25.50	32.20	3
1990	8.87	1.52	5.80	11.10	14	11.87	8.00	7.10	21.10	3	11.00	3.58	7.90	16.10	4	20.80	0.00	20.80	20.80	1
1991	6.95	5.38	0.20	11.60	6	6.65	0.39	6.10	7.00	4	9.00	0.00	9.00	9.00	1	25.70	0.00	25.70	25.70	1
1992	15.58	0.79	14.10	16.80	15	8.27	4.30	1.40	12.30	12	9.80	4.68	4.80	16.10	4	20.53	3.48	16.80	23.70	3
1993	12.70	2.71	9.50	16.10	9	6.20	2.79	2.20	11.40	31	9.47	2.40	7.70	12.20	3	18.00	7.47	10.40	31.10	9
1994	9.39	3.03	4.20	12.00	15	5.07	2.15	2.70	8.70	12	13.20	0.00	13.20	13.20	1	22.85	0.78	22.30	23.40	2
1995	10.04	1.06	8.10	11.90	24	9.20	0.74	8.30	11.00	16	12.87	2.56	9.40	17.30	6	23.25	2.70	20.50	25.90	4
1996	9.43	2.43	6.30	16.10	15	5.78	2.09	3.60	11.10	12	13.83	3.85	10.90	19.50	4	16.93	5.06	12.60	22.50	3
1997	10.81	1.58	7.40	14.60	16	6.64	2.68	2.90	14.90	19	13.33	2.83	10.60	17.20	4	15.80	0.86	14.80	16.80	5
1998	9.16	2.04	3.00	11.50	13	6.00	3.82	0.60	13.30	12	13.65	2.33	12.00	17.10	4	17.53	9.87	11.10	28.90	3
1999	12.61	0.55	11.70	13.60	12	7.93	1.65	4.70	10.00	12	16.53	4.53	12.10	22.80	4	16.98	3.16	12.50	19.60	4
2000	13.04	1.15	11.60	14.60	12	7.33	2.32	3.50	10.00	12	11.00	0.94	10.00	11.90	4	23.33	6.75	16.00	29.30	3
2001	10.73	2.71	5.00	12.90	12	3.79	2.16	0.60	8.60	12	14.83	2.76	12.60	18.40	4	15.43	4.90	11.00	20.70	3
2002	10.59	0.92	9.40	11.60	9	9.84	2.16	7.80	15.40	12	18.37	4.78	13.30	22.80	3	23.33	5.38	17.60	28.90	4
2003	11.98	3.49	8.10	16.20	9	5.99	2.01	3.10	8.70	12	18.30	2.51	15.40	19.80	3	17.07	10.26	7.00	27.50	3
2004	10.27	1.08	9.30	13.10	12	5.68	1.97	2.30	8.30	12	12.40	1.15	11.30	13.60	3	23.50	7.99	13.80	30.20	4
2005	12.35	3.96	5.70	15.10	12	7.83	3.10	3.20	11.70	12	13.38	5.13	8.60	20.40	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	10.66		0.20	16.80		6.98		0.60	21.10		13.23		1.30	22.80		20.65		5.90	33.70	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.05142	0.037	0.46836	0.12857	-0.042	0.01971	0.017	0.639	0.07424	-0.02917	0.07756	0.107	0.13211	0.23182	-0.01176	-0.05534	0	0.95288	0.15625	-0.22

Table 31. Area 4, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 4	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	5.35	1.68	3.87	7.18	3	1.33	0.72	0.51	1.84	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	9.44	1.13	8.63	10.73	3	2.56	0.65	1.55	3.21	6	ND	ND	ND	ND	0	8.75	0.00	8.75	8.75	1
1978	9.72	1.69	7.70	11.70	6	1.27	1.24	0.41	2.70	3	9.73	0.00	9.73	9.73	1	ND	ND	ND	ND	0
1979	10.06	3.22	7.03	14.03	5	4.82	3.35	1.59	11.00	9	11.34	0.00	11.34	11.34	1	10.38	1.01	9.73	11.54	3
1980	14.15	4.64	8.01	18.49	8	31.17	25.86	6.00	57.67	3	10.22	0.00	10.22	10.22	1	8.77	0.68	8.29	9.25	2
1981	20.88	4.37	16.55	24.87	4	20.90	30.97	1.76	90.00	7	9.50	2.01	8.07	10.92	2	ND	ND	ND	ND	0
1982	11.43	0.63	10.99	11.88	2	5.16	3.24	1.57	11.20	11	ND	ND	ND	ND	0	10.17	2.02	7.69	12.80	5
1983	9.80	2.11	7.04	11.64	5	4.58	0.95	3.31	5.50	4	12.56	0.00	12.56	12.56	1	16.93	7.36	11.72	22.14	2
1984	8.58	2.14	6.11	10.80	6	4.10	2.30	1.72	7.23	4	8.16	0.00	8.16	8.16	1	7.37	2.50	5.60	9.13	2
1985	10.34	0.52	9.81	10.84	3	ND	ND	ND	ND	0	9.61	0.00	9.61	9.61	1	ND	ND	ND	ND	0
1986	10.62	5.61	5.46	17.18	4	41.99	67.08	4.62	176.00	6	2.92	0.00	2.92	2.92	1	14.76	7.18	7.27	21.59	3
1987	10.53	0.85	9.93	11.14	2	10.82	6.26	3.67	19.59	8	9.41	0.00	9.41	9.41	1	10.52	2.07	8.44	12.41	4
1988	11.59	1.51	8.81	14.46	12	4.41	0.99	3.25	5.70	5	7.62	0.79	6.95	8.57	4	5.31	4.68	2.00	8.61	2
1989	10.17	0.68	9.48	11.22	6	4.69	5.14	1.31	16.00	12	10.41	0.00	10.41	10.41	1	8.39	2.58	5.77	10.94	3
1990	8.11	1.79	4.69	10.81	14	1.67	1.69	0.38	6.70	12	6.07	2.16	3.95	8.95	4	5.14	1.83	2.67	7.02	4
1991	9.70	2.33	4.00	11.98	12	4.60	2.37	1.73	8.30	13	8.96	2.52	7.36	11.87	3	8.52	1.19	6.90	9.69	4
1992	9.77	3.84	5.36	21.82	15	20.86	20.24	4.84	76.00	15	7.28	2.67	4.13	9.77	4	7.35	2.49	3.79	9.21	4
1993	12.97	4.42	10.21	24.50	9	2.42	2.17	0.48	9.57	31	10.00	0.46	9.55	10.47	3	8.24	0.74	7.37	9.28	8
1994	13.96	1.33	11.18	15.10	7	5.90	2.60	2.35	10.60	12	ND	ND	ND	ND	0	14.18	0.12	14.10	14.27	2
1995	16.20	3.36	10.93	23.43	20	6.41	3.58	2.71	13.00	16	11.21	0.41	10.79	11.80	5	13.96	1.68	12.40	15.68	4
1996	10.93	1.04	8.73	12.31	15	2.30	1.28	1.00	5.44	12	9.70	0.92	8.89	10.70	3	7.65	2.84	4.38	9.32	3
1997	11.55	1.86	7.00	13.71	16	2.29	0.80	1.00	3.60	11	8.90	1.77	7.26	10.78	3	9.58	3.34	7.36	13.42	3
1998	13.82	3.93	8.73	21.79	13	2.88	2.18	0.68	8.88	12	9.16	0.97	7.78	9.90	4	10.54	1.28	9.08	11.43	3
1999	12.68	3.18	9.13	19.71	12	4.26	4.43	1.82	17.49	12	10.10	1.52	8.76	12.29	4	14.91	2.32	11.75	17.33	4
2000	14.26	3.27	9.69	18.96	12	2.08	1.59	0.50	4.63	12	12.29	2.97	9.11	15.76	4	10.33	4.89	4.71	13.60	3
2001	10.11	1.51	8.43	13.55	12	2.94	0.91	1.75	4.44	12	9.95	1.37	8.04	11.29	4	9.35	2.79	6.34	11.86	3
2002	12.83	2.37	9.60	16.20	9	2.73	2.94	1.17	11.33	11	10.04	1.94	8.69	12.27	3	10.76	1.46	8.95	12.42	4
2003	10.93	0.84	9.80	12.10	9	2.58	0.82	1.04	4.00	12	10.35	0.33	9.98	10.63	3	10.01	1.21	8.95	11.33	3
2004	10.95	3.36	8.41	19.98	12	2.99	1.71	1.61	7.65	12	9.64	0.73	9.01	10.45	3	9.25	0.21	9.01	9.42	3
2005	6.50	2.20	4.21	11.09	12	1.44	1.85	0.40	6.84	12	11.06	2.38	7.52	12.60	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	11.26		3.87	24.87		7.11		0.38	176.00		9.47		2.92	15.76		10.04		2.00	22.14	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.0028	0.028	0.4699	0.09881	-0.04634	-0.33455	-0.124	0.00223	-0.06589	-0.19599	0.09019	0.083	0.02278	0.14905	0.03093	0.02304	0.041	0.48707	0.14194	-0.03997

Table 32. Area 5, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 5	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.48	0.04	0.43	0.54	6	0.17	0.04	0.08	0.23	9	0.72	0.08	0.66	0.77	2	0.80	0.05	0.76	0.83	2
1977	0.37	0.01	0.36	0.38	5	0.09	0.03	0.02	0.13	12	0.67	0.06	0.62	0.71	2	0.55	0.19	0.37	0.81	4
1978	0.62	0.03	0.59	0.66	6	0.08	0.04	0.05	0.13	3	0.81	0.25	0.63	0.99	2	0.73	0.00	0.73	0.73	1
1979	0.58	0.01	0.57	0.59	5	0.05	0.03	0.02	0.12	25	0.60	0.04	0.57	0.62	2	0.61	0.08	0.51	0.74	6
1980	0.40	0.17	0.08	0.53	10	0.06	0.02	0.02	0.09	10	0.70	0.24	0.53	0.87	2	0.80	0.05	0.76	0.83	2
1981	0.38	0.09	0.28	0.49	7	0.08	0.09	0.02	0.29	9	0.60	0.00	0.60	0.60	1	1.33	0.40	1.05	1.61	2
1982	0.55	0.03	0.49	0.58	5	0.07	0.05	0.02	0.23	32	0.78	0.00	0.78	0.78	1	0.66	0.17	0.41	0.90	9
1983	0.82	0.12	0.66	0.96	14	0.13	0.07	0.05	0.33	17	1.19	0.43	0.92	1.68	3	0.94	0.31	0.65	1.26	4
1984	0.68	0.11	0.52	0.89	20	0.12	0.06	0.05	0.26	14	0.87	0.07	0.76	0.93	5	1.05	0.12	0.91	1.15	3
1985	0.70	0.07	0.61	0.79	12	0.07	0.03	0.02	0.12	13	0.76	0.15	0.63	0.96	4	0.84	0.15	0.69	1.04	4
1986	0.66	0.06	0.49	0.74	17	0.03	0.01	0.02	0.04	15	0.94	0.27	0.75	1.24	3	0.87	0.30	0.35	1.15	6
1987	0.79	0.08	0.68	0.88	12	0.09	0.07	0.02	0.27	18	0.82	0.09	0.73	0.94	5	0.65	0.57	0.21	1.30	3
1988	0.54	0.09	0.24	0.68	32	0.05	0.04	0.02	0.12	24	0.80	0.17	0.51	1.05	9	0.95	0.14	0.85	1.05	2
1989	0.50	0.03	0.45	0.55	18	0.15	0.05	0.03	0.26	24	0.84	0.09	0.74	0.95	6	0.93	0.13	0.74	1.17	8
1990	0.75	0.09	0.47	0.94	30	0.26	0.18	0.04	0.62	21	1.00	0.16	0.76	1.23	9	1.02	0.20	0.72	1.26	7
1991	0.69	0.05	0.62	0.81	30	0.14	0.10	0.02	0.36	23	0.93	0.16	0.68	1.15	10	0.92	0.52	0.45	2.07	8
1992	0.71	0.10	0.60	0.90	20	0.08	0.06	0.02	0.22	29	0.86	0.08	0.76	0.97	6	0.94	0.61	0.22	2.30	8
1993	0.73	0.05	0.62	0.82	17	0.19	0.08	0.06	0.42	48	0.97	0.13	0.90	1.20	5	0.73	0.15	0.54	0.99	13
1994	0.53	0.07	0.39	0.62	24	0.05	0.02	0.02	0.07	24	0.90	0.13	0.78	1.13	6	0.63	0.45	0.20	1.39	5
1995	0.50	0.07	0.36	0.62	35	0.07	0.03	0.02	0.13	27	0.87	0.11	0.72	1.00	10	0.70	0.30	0.31	1.19	7
1996	0.48	0.05	0.40	0.55	23	0.07	0.04	0.02	0.11	23	0.70	0.13	0.49	0.87	6	0.48	0.15	0.35	0.73	6
1997	0.33	0.04	0.26	0.43	28	0.11	0.03	0.02	0.16	35	0.67	0.28	0.34	1.09	8	0.61	0.35	0.25	1.40	10
1998	0.37	0.04	0.32	0.43	25	0.14	0.03	0.09	0.19	25	0.81	0.61	0.50	2.31	8	0.52	0.17	0.22	0.75	8
1999	0.47	0.05	0.38	0.58	18	0.10	0.03	0.04	0.15	24	0.80	0.16	0.61	1.07	6	0.58	0.07	0.44	0.65	8
2000	0.53	0.09	0.42	0.67	18	0.15	0.04	0.09	0.26	23	0.68	0.13	0.59	0.93	6	0.74	0.23	0.50	1.23	8
2001	0.50	0.07	0.42	0.64	18	0.09	0.04	0.04	0.17	24	0.85	0.12	0.74	1.07	6	0.64	0.17	0.46	0.93	8
2002	0.47	0.06	0.35	0.56	18	0.16	0.04	0.11	0.27	24	0.72	0.16	0.60	1.03	6	0.90	0.45	0.55	1.79	7
2003	0.57	0.04	0.52	0.64	24	0.07	0.02	0.04	0.11	24	0.80	0.14	0.54	0.98	8	0.63	0.27	0.33	1.07	8
2004	0.39	0.07	0.28	0.50	18	0.18	0.04	0.12	0.23	24	0.65	0.10	0.53	0.79	6	0.69	0.31	0.33	1.31	8
2005	0.78	0.07	0.65	0.88	18	0.44	0.05	0.37	0.54	24	0.81	0.07	0.73	0.93	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.56		0.08	0.96		0.12		0.02	0.62		0.80		0.34	2.31		0.77		0.20	2.30	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00594	-0.003	0.25017	0.00129	-0.00647	0.00411	0.003	0.00074	0.00425	0.00144	-0.00435	-0.004	0.18938	0.00059	-0.00875	-0.00616	-0.002	0.57505	0.00423	-0.00656

Table 33. Area 5, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 5	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.94	0.01	0.93	0.95	2	0.75	0.06	0.69	0.81	5	ND	ND	ND	ND	0	0.95	0.00	0.95	0.95	1
1977	0.68	0.03	0.65	0.71	3	0.63	0.12	0.48	0.79	6	1.00	0.00	1.00	1.00	1	0.93	0.16	0.81	1.04	2
1978	0.73	0.03	0.71	0.77	3	0.60	0.08	0.53	0.68	3	1.15	0.00	1.15	1.15	1	1.07	0.00	1.07	1.07	1
1979	0.83	0.09	0.73	0.91	3	0.54	0.20	0.31	1.09	20	0.87	0.00	0.87	0.87	1	0.97	0.17	0.82	1.20	4
1980	0.77	0.09	0.68	0.85	4	0.59	0.12	0.45	0.84	10	1.02	0.00	1.02	1.02	1	0.97	0.19	0.83	1.10	2
1981	0.68	0.21	0.49	0.86	4	0.47	0.14	0.34	0.69	5	ND	ND	ND	ND	0	1.94	1.26	1.05	2.83	2
1982	1.06	0.04	1.03	1.09	2	0.49	0.18	0.15	0.85	30	ND	ND	ND	ND	0	1.08	0.37	0.65	1.64	8
1983	0.99	0.15	0.72	1.19	10	0.56	0.09	0.43	0.70	8	1.72	0.68	1.24	2.20	2	1.33	0.26	1.04	1.55	3
1984	1.14	0.43	0.74	2.14	12	0.66	0.19	0.51	0.99	7	1.17	0.12	1.07	1.30	3	1.31	0.03	1.29	1.33	2
1985	0.93	0.07	0.87	1.05	6	0.62	0.38	0.30	1.45	7	0.90	0.04	0.87	0.93	2	1.14	0.30	0.92	1.35	2
1986	0.92	0.08	0.86	1.09	7	0.52	0.11	0.38	0.65	6	1.32	0.35	1.07	1.56	2	1.35	0.27	1.16	1.54	2
1987	1.12	0.26	0.86	1.58	8	0.70	0.27	0.48	1.42	12	1.09	0.37	0.85	1.52	3	1.38	0.36	0.91	1.77	4
1988	0.79	0.10	0.67	0.97	18	0.47	0.02	0.44	0.51	12	1.08	0.30	0.70	1.66	7	1.14	0.10	1.07	1.21	2
1989	0.95	0.32	0.58	1.55	8	0.68	0.11	0.46	0.89	18	1.31	0.41	0.97	1.76	3	1.32	0.27	1.05	1.76	6
1990	0.99	0.13	0.81	1.27	16	0.96	0.17	0.68	1.33	17	1.23	0.20	0.99	1.47	6	1.56	0.35	1.31	2.25	6
1991	0.91	0.13	0.73	1.22	24	0.56	0.13	0.33	0.81	22	1.20	0.19	0.94	1.38	6	1.41	0.46	1.03	2.29	6
1992	1.08	0.26	0.85	1.95	15	0.62	0.19	0.31	1.16	24	1.24	0.10	1.14	1.39	5	1.28	0.59	0.69	2.65	8
1993	1.00	0.07	0.90	1.10	9	0.70	0.09	0.51	0.93	44	1.30	0.12	1.21	1.44	3	1.08	0.17	0.76	1.32	13
1994	0.84	0.06	0.77	1.00	21	0.40	0.04	0.33	0.47	12	1.13	0.12	1.04	1.33	5	0.68	0.06	0.65	0.75	3
1995	0.71	0.08	0.47	0.85	33	0.53	0.06	0.41	0.68	27	1.09	0.21	0.79	1.38	9	1.11	0.35	0.68	1.68	7
1996	0.78	0.06	0.67	0.87	21	0.43	0.07	0.32	0.63	21	1.07	0.30	0.79	1.65	6	0.77	0.17	0.61	1.02	6
1997	0.62	0.05	0.54	0.71	28	0.45	0.06	0.36	0.57	28	0.79	0.13	0.62	0.99	6	0.94	0.41	0.47	1.67	8
1998	0.66	0.13	0.49	0.98	25	0.49	0.07	0.38	0.60	25	1.10	0.58	0.81	2.53	8	0.83	0.17	0.50	1.01	8
1999	0.68	0.09	0.56	0.83	18	0.45	0.05	0.37	0.57	24	1.00	0.14	0.85	1.20	6	0.81	0.09	0.66	0.92	8
2000	0.74	0.07	0.66	0.92	18	0.48	0.06	0.39	0.60	24	0.78	0.06	0.69	0.87	5	0.95	0.24	0.72	1.44	8
2001	0.79	0.05	0.74	0.95	18	0.35	0.05	0.23	0.42	24	1.07	0.18	0.95	1.38	5	0.89	0.20	0.62	1.20	7
2002	0.70	0.08	0.57	0.77	11	0.54	0.10	0.37	0.78	24	0.97	0.14	0.89	1.17	4	1.02	0.37	0.74	1.83	8
2003	0.76	0.08	0.65	0.93	24	0.38	0.06	0.26	0.51	24	0.99	0.15	0.75	1.18	8	0.79	0.22	0.54	1.17	8
2004	0.58	0.09	0.47	0.72	15	0.52	0.06	0.40	0.68	24	0.78	0.10	0.66	0.89	5	0.84	0.28	0.49	1.37	8
2005	0.98	0.12	0.76	1.12	18	0.95	0.06	0.86	1.06	18	1.00	0.11	0.84	1.18	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.85		0.47	2.14		0.57		0.15	1.45		1.09		0.62	2.53		1.10		0.47	2.83	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.0103	-0.011	0.00076	-0.006	-0.01544	-0.00358	-0.006	0.00507	-0.00207	-0.00922	-0.01336	-0.014	0.00119	-0.0072	-0.02278	-0.01757	-0.009	0.05691	-0.00147	-0.01771

Table 34. Area 5, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 5	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	3.00	0.01	3.00	3.01	3	0.12	0.01	0.12	0.14	6	3.84	0.00	3.84	3.84	1	4.23	0.00	4.23	4.23	1
1977	1.75	0.08	1.68	1.84	3	0.31	0.29	0.12	0.68	6	2.80	0.00	2.80	2.80	1	2.15	2.43	0.43	3.87	2
1978	3.79	0.28	3.52	4.08	3	0.13	0.00	0.13	0.13	3	8.05	0.00	8.05	8.05	1	3.96	0.00	3.96	3.96	1
1979	4.19	0.31	3.91	4.53	3	0.31	0.77	0.12	3.74	22	5.60	0.00	5.60	5.60	1	1.44	0.55	0.92	2.32	5
1980	3.63	0.98	2.56	4.78	8	0.18	0.11	0.12	0.42	10	5.11	0.00	5.11	5.11	1	1.27	0.27	1.08	1.46	2
1981	4.18	1.19	2.88	5.56	7	0.13	0.04	0.12	0.23	9	7.57	0.00	7.57	7.57	1	2.80	0.75	2.27	3.33	2
1982	4.30	0.15	4.12	4.52	5	0.16	0.05	0.12	0.32	32	6.29	0.00	6.29	6.29	1	1.18	0.81	0.13	2.27	9
1983	4.72	0.53	4.03	5.73	14	0.29	0.20	0.12	0.78	14	6.70	1.48	5.30	8.25	3	4.53	3.12	2.08	8.04	3
1984	3.50	0.99	2.21	5.25	18	0.18	0.11	0.12	0.52	14	4.65	1.07	3.58	5.71	3	4.42	1.89	2.24	5.66	3
1985	4.53	0.47	3.97	5.46	12	0.15	0.03	0.12	0.22	13	5.67	1.93	4.68	8.57	4	2.94	1.88	1.11	4.70	4
1986	4.62	0.55	3.93	5.99	17	0.17	0.07	0.12	0.33	15	6.40	1.35	5.06	7.75	3	3.40	2.08	1.41	6.98	6
1987	4.83	0.35	4.42	5.47	12	0.33	0.57	0.12	2.53	18	6.14	1.30	4.76	7.80	5	2.61	3.31	0.13	7.17	4
1988	4.57	0.96	2.57	5.89	30	0.13	0.02	0.12	0.23	24	6.66	1.46	4.45	8.51	8	5.65	3.00	3.90	9.11	3
1989	3.67	0.40	3.12	4.36	18	0.15	0.09	0.12	0.42	24	6.43	0.97	4.93	7.31	6	3.82	2.34	0.47	7.17	8
1990	3.82	0.76	2.76	5.19	29	0.30	0.39	0.12	1.31	21	6.13	2.41	2.65	10.80	9	4.73	1.40	3.01	6.49	7
1991	4.63	0.53	3.79	6.59	30	0.40	0.53	0.10	1.82	24	7.66	1.53	5.03	10.05	10	2.35	0.94	1.16	3.79	8
1992	4.17	0.33	3.54	4.84	20	0.13	0.02	0.10	0.22	28	6.12	0.59	5.26	6.97	6	2.22	2.26	0.12	7.06	8
1993	4.86	0.34	4.25	5.49	17	0.15	0.09	0.12	0.72	48	8.66	0.99	6.97	9.56	5	2.91	1.67	0.33	5.54	13
1994	4.67	1.04	2.83	5.83	24	0.15	0.06	0.12	0.36	24	8.84	1.89	5.49	10.60	6	2.78	2.20	0.73	6.47	5
1995	4.91	0.90	2.80	6.83	36	0.14	0.03	0.12	0.23	27	9.21	1.82	4.39	10.94	10	2.02	1.68	0.15	5.16	7
1996	4.64	1.38	2.44	6.44	23	0.11	0.03	0.00	0.14	23	5.50	2.25	2.26	7.45	6	1.19	0.72	0.47	2.29	6
1997	3.69	0.71	2.67	5.54	28	0.14	0.02	0.12	0.18	35	6.15	2.17	2.66	8.63	8	2.57	3.02	0.13	9.06	10
1998	2.85	0.67	1.78	3.63	25	0.13	0.01	0.12	0.16	25	6.88	2.20	5.40	12.05	8	2.60	1.68	0.12	5.11	8
1999	3.90	0.88	2.77	5.41	18	0.14	0.02	0.12	0.18	24	7.07	2.47	3.75	9.60	6	2.51	1.81	0.80	5.53	8
2000	3.92	0.82	2.66	4.62	18	0.13	0.02	0.12	0.23	24	6.25	1.80	3.33	8.62	6	2.64	2.82	0.44	8.85	8
2001	2.62	0.92	1.22	3.67	18	0.15	0.04	0.12	0.27	24	7.35	1.74	4.33	9.07	6	2.05	1.19	0.62	3.83	8
2002	3.10	0.66	2.21	3.89	18	0.14	0.01	0.12	0.15	24	6.36	1.97	4.52	9.52	6	3.17	3.17	0.66	9.26	7
2003	4.41	0.87	3.32	5.71	24	0.12	0.01	0.12	0.14	24	6.88	1.98	3.34	8.88	8	1.25	1.04	0.19	3.16	8
2004	2.02	0.85	0.78	3.06	18	0.14	0.03	0.12	0.20	24	5.38	1.32	4.19	7.54	6	2.05	1.98	0.46	6.61	8
2005	2.48	0.70	1.46	3.30	18	0.13	0.01	0.12	0.14	24	4.71	1.53	3.02	6.96	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.86		0.78	6.83		0.18		0.00	3.74		6.37		2.26	12.05		2.81		0.12	9.26	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04954	-0.031	0.05076	-0.00545	-0.05136	-0.00426	0	0.07203	0	-0.00151	0.00349	0.045	0.1796	0.08344	-0.00444	-0.02525	0.012	0.4783	0.04393	-0.01781

Table 35. Area 5, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 5	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.82	0.10	0.73	0.92	3	0.47	0.15	0.32	0.74	6	1.14	0.00	1.14	1.14	1	0.29	0.00	0.29	0.29	1
1977	0.76	0.08	0.70	0.85	3	0.37	0.24	0.14	0.78	6	1.27	0.00	1.27	1.27	1	0.62	0.66	0.15	1.08	2
1978	0.57	0.15	0.40	0.68	3	0.62	0.25	0.38	0.87	3	0.84	0.00	0.84	0.84	1	0.62	0.00	0.62	0.62	1
1979	0.68	0.19	0.52	0.89	3	0.26	0.14	0.02	0.43	16	0.64	0.00	0.64	0.64	1	3.48	0.70	2.74	4.33	4
1980	0.61	0.29	0.23	1.10	8	0.50	0.42	0.20	1.40	11	0.28	0.00	0.28	0.28	1	2.85	0.78	2.30	3.40	2
1981	0.58	0.17	0.40	0.80	4	0.22	0.14	0.02	0.50	9	ND	ND	ND	ND	0	3.35	4.45	0.20	6.50	2
1982	0.44	0.17	0.30	0.70	5	0.36	0.34	0.02	1.10	23	0.70	0.00	0.70	0.70	1	1.31	0.84	0.02	2.20	6
1983	0.44	0.30	0.13	0.90	8	0.51	0.26	0.20	1.20	11	1.17	0.30	0.96	1.38	2	0.80	0.17	0.60	0.90	3
1984	0.21	0.25	0.05	1.00	18	0.30	0.13	0.20	0.60	12	0.73	0.74	0.05	1.63	4	0.87	1.33	0.10	2.40	3
1985	0.11	0.11	0.05	0.39	9	0.11	0.07	0.02	0.20	10	0.07	0.03	0.05	0.10	3	1.13	1.01	0.20	2.20	3
1986	1.12	0.97	0.20	2.50	11	0.29	0.37	0.02	1.10	12	0.84	0.70	0.20	1.59	3	2.78	1.95	1.30	5.70	5
1987	0.41	0.15	0.26	0.70	8	0.53	0.54	0.10	1.90	15	0.72	0.77	0.14	1.60	3	2.29	1.47	0.40	3.50	4
1988	0.28	0.10	0.17	0.53	24	0.34	0.22	0.10	0.90	15	0.47	0.45	0.17	1.40	8	0.59	0.53	0.21	0.96	2
1989	0.14	0.09	0.05	0.40	12	0.29	0.27	0.02	0.80	18	1.54	0.56	0.80	2.10	4	1.14	0.90	0.05	2.20	6
1990	0.36	0.26	0.10	1.00	24	0.24	0.18	0.05	0.62	18	0.83	0.65	0.10	1.70	8	0.95	0.95	0.05	2.50	6
1991	0.63	0.55	0.10	1.90	25	0.40	0.50	0.05	1.60	18	0.88	0.74	0.10	2.10	9	0.76	0.65	0.05	1.60	6
1992	0.20	0.16	0.02	0.55	18	0.28	0.16	0.10	0.80	27	0.63	0.58	0.02	1.22	5	1.17	0.74	0.30	2.30	8
1993	0.48	0.42	0.02	1.20	14	0.15	0.09	0.02	0.37	44	1.13	0.80	0.10	1.90	4	0.51	0.56	0.02	1.56	13
1994	0.15	0.09	0.07	0.40	15	0.19	0.10	0.09	0.44	20	0.30	0.20	0.07	0.49	4	2.22	1.09	0.89	3.37	5
1995	0.22	0.16	0.05	0.50	27	0.15	0.11	0.05	0.38	25	0.37	0.40	0.05	0.99	7	1.48	1.34	0.08	3.57	7
1996	0.26	0.18	0.05	0.59	22	0.08	0.04	0.05	0.16	22	0.74	0.55	0.06	1.73	6	1.40	0.76	0.31	2.43	6
1997	0.10	0.06	0.05	0.27	28	0.22	0.23	0.05	0.77	22	0.22	0.21	0.05	0.56	8	0.95	0.48	0.39	1.78	6
1998	0.17	0.08	0.05	0.33	25	0.11	0.06	0.05	0.25	24	0.40	0.23	0.07	0.74	8	0.70	0.74	0.05	2.15	8
1999	0.16	0.07	0.07	0.30	17	0.20	0.14	0.05	0.48	24	1.10	1.14	0.09	2.92	6	1.20	1.00	0.17	3.26	8
2000	0.21	0.04	0.16	0.29	18	0.14	0.10	0.05	0.46	24	0.46	0.53	0.12	1.52	6	0.61	0.93	0.07	2.64	8
2001	0.16	0.06	0.08	0.31	18	0.18	0.06	0.05	0.33	21	0.56	0.41	0.05	1.04	6	1.02	0.78	0.20	2.19	8
2002	0.21	0.14	0.05	0.37	16	0.19	0.10	0.05	0.41	24	1.25	0.64	0.63	2.21	6	1.12	1.06	0.14	2.97	8
2003	0.21	0.07	0.07	0.40	24	0.10	0.04	0.05	0.16	24	0.88	0.58	0.25	1.83	8	1.57	0.95	0.48	2.99	8
2004	0.38	0.28	0.05	0.90	16	0.20	0.12	0.05	0.44	24	0.79	0.60	0.05	1.70	6	0.94	0.77	0.06	2.00	8
2005	0.13	0.09	0.05	0.38	18	0.15	0.14	0.05	0.69	24	0.51	0.44	0.05	1.13	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.37		0.02	2.50		0.27		0.02	1.90		0.74		0.02	2.92		1.34		0.02	6.50	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01469	-0.015	0.00001	-0.01107	-0.01823	-0.01033	-0.007	0.00014	-0.0044	-0.01089	-0.00242	-0.005	0.49298	0.00571	-0.018	-0.03419	-0.015	0.26618	0.00889	-0.04567

Table 36. Area 5, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 5	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	10.6	4.5	6.0	18.0	5	ND	ND	ND	ND	0	15.0	0.0	15.0	15.0	1
1977	ND	ND	ND	ND	0	18.0	1.6	15.0	19.0	6	ND	ND	ND	ND	0	18.5	0.7	18.0	19.0	2
1978	18.3	0.6	18.0	19.0	3	19.8	0.9	19.2	20.8	3	26.0	0.0	26.0	26.0	1	17.6	0.0	17.6	17.6	1
1979	17.4	2.4	15.7	20.1	3	21.1	3.9	16.0	27.7	18	19.8	0.0	19.8	19.8	1	18.5	4.1	15.0	23.0	4
1980	23.5	2.3	21.1	27.0	6	23.3	3.7	20.3	30.9	9	25.6	0.0	25.6	25.6	1	20.5	1.2	19.6	21.3	2
1981	27.1	0.0	27.1	27.1	1	18.7	0.7	18.0	19.3	3	ND	ND	ND	ND	0	22.6	0.0	22.6	22.6	1
1982	ND	ND	ND	ND	0	19.8	4.0	12.4	25.5	22	ND	ND	ND	ND	0	17.8	4.9	13.2	23.2	5
1983	20.1	1.9	15.7	22.3	8	22.2	1.0	21.3	23.7	6	25.0	3.0	22.8	27.1	2	26.6	0.3	26.4	26.8	2
1984	19.5	1.5	17.5	21.9	10	20.6	1.6	19.4	23.2	5	20.0	0.4	19.6	20.4	3	19.8	2.1	18.3	21.2	2
1985	20.8	1.4	19.0	23.1	6	20.2	1.8	17.6	22.1	5	21.1	1.3	20.1	22.0	2	21.6	0.0	21.6	21.6	1
1986	20.9	1.9	19.2	24.4	6	23.4	3.8	19.3	30.5	6	26.0	3.9	23.2	28.7	2	26.6	6.9	21.7	31.4	2
1987	20.0	0.5	19.0	20.3	6	21.5	0.9	20.7	22.6	4	20.2	0.3	20.0	20.4	2	17.9	0.0	17.9	17.9	1
1988	23.7	1.8	20.5	26.6	14	21.2	1.1	19.3	23.0	12	25.7	2.6	21.7	28.9	5	20.8	0.9	20.1	21.4	2
1989	23.7	1.4	22.0	26.2	6	21.0	0.7	20.0	21.8	9	27.3	1.3	26.4	28.2	2	21.4	2.1	19.5	23.7	3
1990	22.5	3.7	18.2	32.5	14	22.1	2.5	18.1	24.6	7	25.2	5.7	20.1	34.7	5	23.8	1.4	22.2	24.9	3
1991	21.8	1.8	19.5	25.4	12	ND	ND	ND	ND	0	24.6	2.1	22.8	26.9	3	ND	ND	ND	ND	0
1992	24.6	2.0	22.0	28.5	7	19.3	2.7	14.9	22.3	9	24.5	1.2	23.2	25.4	3	20.7	5.2	15.2	25.5	3
1993	ND	ND	ND	ND	0	22.5	1.5	19.3	25.0	36	ND	ND	ND	ND	0	23.2	1.6	21.0	26.2	10
1994	23.9	2.3	21.4	28.4	21	24.6	1.3	22.6	26.3	12	27.3	4.1	24.4	35.1	6	22.5	0.6	22.0	23.2	3
1995	24.3	2.2	19.8	28.1	33	24.3	3.2	19.5	29.8	27	27.1	2.2	23.7	29.9	9	24.2	5.0	17.9	29.7	7
1996	24.0	1.4	22.4	27.5	21	21.7	1.9	18.2	24.5	21	25.0	3.3	22.3	31.3	6	19.8	1.3	18.6	21.8	6
1997	21.9	1.0	19.4	23.4	28	20.4	1.7	17.2	23.1	28	24.1	5.3	19.6	36.3	8	19.7	2.7	16.5	24.8	8
1998	21.3	2.4	17.8	25.4	25	21.1	1.3	19.2	24.2	25	23.8	2.1	20.9	26.2	8	20.2	1.3	17.8	21.8	8
1999	21.0	0.9	19.8	23.2	18	22.4	2.1	19.1	26.3	24	22.9	1.4	21.4	24.5	6	20.8	2.5	17.1	23.7	8
2000	21.8	0.9	20.4	23.9	18	20.1	0.9	18.7	21.7	24	22.2	1.0	21.4	23.5	5	19.7	2.5	16.5	24.5	8
2001	21.4	1.4	19.0	24.3	18	20.6	1.7	17.1	25.9	24	23.6	1.2	21.4	24.3	5	19.6	1.4	17.7	21.4	7
2002	21.1	1.7	19.2	25.2	12	21.0	1.7	18.4	25.1	24	24.8	2.3	22.7	28.0	4	22.0	4.3	18.4	31.4	8
2003	21.7	2.5	18.2	25.8	24	18.9	1.1	17.0	20.7	24	22.3	1.8	20.5	26.3	8	17.0	1.8	14.2	20.4	8
2004	20.4	1.3	18.0	22.3	15	20.6	1.5	18.2	23.4	24	20.4	0.9	19.3	21.8	5	18.7	1.8	17.3	22.8	8
2005	19.8	1.4	18.1	24.0	18	19.6	1.0	17.8	21.6	18	20.9	1.7	18.8	23.2	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	21.8		15.7	32.5		20.7		6.0	30.9		23.8		18.8	36.3		20.6		13.2	31.4	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.02161	-0.078	0.23708	0.0346	-0.1746	0.01449	0	1	0.06272	-0.06111	-0.10164	-0.175	0.00118	-0.08	-0.27	-0.02667	0.025	0.70334	0.11111	-0.06875

Table 37. Area 5, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 5	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	13.67	0.29	13.50	14.00	3	13.87	2.40	11.70	16.50	6	18.50	0.00	18.50	18.50	1	23.00	0.00	23.00	23.00	1
1977	8.50	1.73	7.50	10.50	3	7.30	2.54	4.30	10.10	6	14.00	0.00	14.00	14.00	1	17.55	0.78	17.00	18.10	2
1978	ND	ND	ND	ND	0	11.27	0.60	10.70	11.90	3	31.20	0.00	31.20	31.20	1	24.80	0.00	24.80	24.80	1
1979	14.93	0.25	14.70	15.20	3	5.26	3.11	1.00	10.40	13	16.70	0.00	16.70	16.70	1	17.75	8.56	11.70	23.80	2
1980	11.77	0.58	11.30	12.50	6	4.53	1.40	1.10	5.90	10	16.30	0.00	16.30	16.30	1	9.20	0.71	8.70	9.70	2
1981	11.83	1.31	10.50	13.00	4	5.72	0.40	5.20	6.00	6	ND	ND	ND	ND	0	42.70	0.99	42.00	43.40	2
1982	14.90	0.00	14.90	14.90	2	4.96	1.76	2.30	7.90	18	ND	ND	ND	ND	0	13.88	7.37	3.40	23.20	6
1983	16.00	1.09	14.80	17.70	8	8.30	0.00	8.30	8.30	2	21.85	1.20	21.00	22.70	2	18.10	0.00	18.10	18.10	1
1984	12.22	1.86	10.00	14.30	12	13.36	3.43	11.40	21.20	9	13.97	2.00	12.00	16.00	3	33.17	8.13	26.00	42.00	3
1985	13.27	0.29	12.90	13.70	6	6.51	0.76	5.80	7.70	7	12.10	0.57	11.70	12.50	2	19.90	4.24	16.90	22.90	2
1986	15.00	0.45	14.20	15.40	6	7.38	1.01	6.20	9.10	10	27.20	14.71	16.80	37.60	2	27.38	3.33	23.20	30.70	4
1987	10.65	3.77	7.10	16.70	8	7.51	2.97	4.50	11.60	8	10.63	6.36	6.10	17.90	3	21.10	14.99	10.50	31.70	2
1988	ND	ND	ND	ND	0	6.61	1.49	4.10	8.60	15	ND	ND	ND	ND	0	19.83	3.65	16.20	23.50	3
1989	8.35	1.96	6.20	11.80	12	7.23	2.31	4.10	11.00	18	10.95	2.54	8.40	14.20	4	19.78	7.01	8.20	29.30	6
1990	8.41	1.03	5.30	9.30	17	11.38	1.24	10.00	13.60	6	12.13	3.16	8.90	18.00	6	19.90	3.54	17.40	22.40	2
1991	11.61	1.10	10.70	13.90	15	13.58	0.93	12.10	14.90	6	15.98	1.68	13.80	17.80	5	20.15	2.76	18.20	22.10	2
1992	14.92	1.17	12.90	16.50	15	12.72	3.06	9.90	20.30	22	14.82	3.24	11.60	19.30	5	22.78	9.27	12.10	42.30	8
1993	15.04	1.22	12.80	16.60	17	11.17	1.67	7.30	13.60	49	16.48	1.50	14.90	18.30	5	18.56	4.13	12.40	27.20	13
1994	8.49	2.27	4.20	10.50	24	4.42	1.55	1.20	7.00	24	14.37	2.81	10.50	17.50	6	19.24	10.67	9.30	37.10	5
1995	8.48	0.99	7.40	12.00	36	8.87	1.17	7.00	11.10	27	15.93	5.67	7.10	27.10	10	20.41	7.99	10.20	31.00	7
1996	6.10	2.12	3.00	9.00	23	6.32	0.57	5.50	7.10	23	8.87	3.75	3.60	12.40	6	11.12	5.00	6.20	19.00	6
1997	10.96	1.18	9.00	12.30	28	7.79	1.89	5.80	12.50	35	14.89	6.41	7.60	24.90	8	16.08	10.66	5.70	38.50	10
1998	9.16	1.11	7.20	10.40	25	8.59	0.70	7.30	9.80	25	17.03	12.52	6.60	46.60	8	13.33	5.04	5.80	20.70	8
1999	11.80	1.56	9.80	13.70	18	8.05	1.77	4.60	10.70	24	18.60	3.26	15.30	22.70	6	14.49	2.26	9.90	17.80	8
2000	12.84	1.61	10.80	15.10	18	8.74	1.36	6.50	10.60	24	14.48	1.96	11.60	17.60	6	27.46	15.47	16.60	63.70	8
2001	10.80	2.15	8.50	13.90	18	5.95	0.49	5.50	6.80	24	18.50	7.16	13.60	32.40	6	19.53	5.85	11.70	27.70	8
2002	10.63	1.30	7.90	12.10	18	8.89	1.37	6.20	11.30	24	16.58	3.95	14.30	24.50	6	24.04	11.63	12.10	46.10	7
2003	12.74	0.60	11.30	13.60	24	7.15	0.87	5.30	8.20	24	13.89	2.50	9.90	16.70	8	16.30	8.18	6.70	30.00	8
2004	8.20	0.73	6.90	9.00	18	6.95	1.13	5.90	9.20	24	13.82	2.20	10.80	16.80	6	15.09	8.95	4.90	33.40	8
2005	13.96	0.99	12.00	14.90	18	11.39	1.14	10.10	14.20	24	14.63	1.06	13.00	15.70	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	11.62		3.00	17.70		8.39		1.00	21.20		16.09		3.60	46.60		20.23		3.40	63.70	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04468	-0.06	0.17105	0.01667	-0.13409	0.02915	0.072	0.11347	0.13889	-0.00476	-0.04689	-0.065	0.51303	0.07187	-0.18636	-0.15545	-0.019	0.93594	0.15758	-0.20833

Table 38. Area 5, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 5	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	7.8	0.4	7.3	8.1	3	3.1	0.6	2.6	3.8	6	6.5	0.0	6.5	6.5	1	5.9	0.0	5.9	5.9	1
1977	6.8	0.2	6.6	7.1	3	13.4	13.9	4.9	41.0	6	5.7	0.0	5.7	5.7	1	4.1	1.3	3.1	5.0	2
1978	6.7	0.4	6.4	7.1	3	10.1	4.3	5.8	14.3	3	9.0	0.0	9.0	9.0	1	6.3	0.0	6.3	6.3	1
1979	8.7	1.0	8.0	9.3	2	8.6	4.0	2.2	16.0	16	10.1	0.0	10.1	10.1	1	7.6	1.2	6.5	8.9	4
1980	16.0	11.6	5.8	38.6	8	12.6	10.1	4.0	31.0	10	10.2	0.0	10.2	10.2	1	5.2	1.6	4.1	6.4	2
1981	10.6	3.6	7.1	14.0	4	9.8	9.6	1.5	31.0	9	ND	ND	ND	ND	0	4.2	2.7	2.4	6.1	2
1982	8.7	0.8	8.2	10.0	5	8.8	6.8	1.8	25.5	23	9.0	0.0	9.0	9.0	1	3.8	1.5	2.0	5.4	6
1983	7.0	0.3	6.6	7.6	8	9.9	6.6	4.2	25.6	11	6.7	1.4	5.7	7.7	2	5.1	1.8	3.6	7.1	3
1984	5.3	1.4	3.2	8.3	18	5.9	3.5	2.7	14.4	11	6.3	0.8	5.7	7.2	3	5.1	0.3	4.7	5.3	3
1985	6.4	0.6	5.8	7.5	9	7.1	6.7	1.7	21.0	10	7.0	0.6	6.3	7.5	3	5.3	0.9	4.7	6.3	3
1986	9.0	3.7	5.8	17.3	11	18.8	19.5	4.7	61.0	12	7.8	0.9	7.0	8.7	3	9.2	6.9	4.5	21.3	5
1987	6.8	1.3	5.7	8.9	8	12.5	17.0	2.9	71.0	15	8.0	2.2	6.6	10.4	3	9.2	7.0	4.6	17.3	3
1988	8.5	1.5	5.9	11.9	24	16.0	12.3	3.3	41.0	15	8.5	1.0	7.4	10.2	8	4.8	0.2	4.6	4.9	2
1989	7.3	1.0	6.0	9.3	12	3.2	2.2	0.6	7.2	18	8.8	0.9	7.9	10.0	4	4.3	1.8	2.5	7.4	6
1990	5.2	0.8	3.8	6.6	23	2.8	2.6	0.4	8.3	18	6.7	2.6	3.9	11.7	8	5.9	1.3	4.8	8.3	6
1991	7.5	1.1	6.3	11.5	25	7.4	8.1	1.3	32.5	15	9.3	1.9	7.9	12.5	9	3.8	1.4	1.3	5.5	6
1992	6.1	0.8	5.2	7.7	18	8.5	6.0	1.0	20.7	26	8.1	0.9	7.4	9.4	5	3.6	1.4	1.9	6.2	8
1993	7.3	0.8	6.0	8.3	14	1.8	1.2	0.3	7.3	43	9.9	2.1	7.1	12.1	4	4.5	1.2	2.0	6.4	13
1994	9.7	0.6	9.0	10.8	15	8.4	4.4	3.9	20.0	20	12.2	1.5	10.7	14.0	4	8.3	2.2	6.5	12.0	5
1995	10.2	0.8	8.0	11.4	26	5.5	3.2	1.3	10.2	25	11.4	2.0	9.2	14.0	7	4.3	2.6	0.6	8.2	7
1996	9.9	2.0	7.3	12.9	22	4.5	3.0	1.5	9.0	22	8.8	1.8	5.9	11.1	6	5.3	0.7	4.0	5.8	6
1997	11.5	2.2	6.4	14.3	28	4.2	4.1	1.4	18.0	22	9.9	1.9	6.9	12.0	8	4.8	1.9	1.9	7.2	6
1998	8.1	1.1	6.3	9.2	25	1.8	0.7	1.1	4.1	24	10.5	2.9	5.4	14.2	8	6.2	2.2	1.7	8.6	8
1999	8.6	1.2	7.0	11.0	17	3.9	2.6	1.4	10.7	24	10.5	3.2	7.8	15.4	6	6.3	1.8	3.9	9.1	8
2000	7.8	1.0	6.4	9.5	18	1.9	0.6	0.9	3.3	23	10.2	2.8	5.9	13.1	6	4.0	2.3	0.9	7.3	8
2001	5.4	1.4	3.1	7.1	18	4.6	2.5	1.4	10.5	21	9.4	2.4	7.1	12.9	6	4.5	1.7	1.8	6.3	8
2002	7.0	1.5	5.0	9.0	16	2.0	0.5	1.3	2.9	24	10.9	3.9	8.3	17.4	6	4.6	1.6	2.2	6.9	7
2003	8.0	1.0	6.4	9.6	24	3.4	1.3	1.5	7.0	24	9.7	2.1	6.6	11.5	8	4.1	1.5	2.0	5.9	8
2004	6.1	1.3	3.8	7.7	16	2.0	1.0	1.0	4.4	24	9.6	1.7	7.5	12.4	6	4.3	1.0	2.7	5.5	8
2005	3.3	0.8	2.0	4.5	18	0.7	0.4	0.4	2.2	24	6.5	1.8	4.2	9.5	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	7.9		2.0	38.6		6.8		0.3	71.0		8.9		3.9	17.4		5.3		0.6	21.3	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.05428	-0.035	0.26658	0.02071	-0.10292	-0.35987	-0.254	0	-0.18241	-0.34409	0.09257	0.115	0.00069	0.16863	0.0696	-0.04838	-0.018	0.40234	0.02335	-0.05908

Table 39. Area 6, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 6	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.43	0.10	0.29	0.55	6	0.15	0.07	0.06	0.27	12	1.97	1.53	0.88	3.05	2	1.22	0.07	1.12	1.29	4
1977	0.41	0.02	0.38	0.43	4	0.09	0.03	0.03	0.14	26	0.89	0.57	0.48	1.29	2	1.71	0.57	0.41	2.49	9
1978	0.64	0.09	0.48	0.72	10	0.13	0.08	0.07	0.29	9	1.33	0.58	0.52	1.82	5	2.04	1.68	0.43	3.79	3
1979	0.48	0.06	0.39	0.55	12	0.06	0.05	0.02	0.19	29	1.44	0.79	0.39	2.31	4	1.23	0.61	0.14	1.83	10
1980	0.53	0.06	0.43	0.59	12	0.09	0.12	0.02	0.44	15	1.54	0.66	0.62	2.06	4	0.50	0.46	0.17	1.02	3
1981	0.62	0.01	0.61	0.63	2	0.07	0.05	0.02	0.14	13	1.68	0.00	1.68	1.68	1	3.94	1.95	1.48	6.13	4
1982	0.49	0.11	0.39	0.62	5	0.08	0.05	0.02	0.25	20	4.10	0.00	4.10	4.10	1	3.73	1.51	0.44	4.78	7
1983	0.74	0.10	0.60	0.87	15	0.12	0.04	0.05	0.17	17	1.72	0.78	0.95	2.80	4	1.46	0.01	1.45	1.46	2
1984	0.68	0.14	0.52	0.92	19	0.11	0.10	0.02	0.35	17	1.44	0.51	0.65	2.02	7	1.99	0.26	1.65	2.27	4
1985	0.74	0.11	0.46	0.87	20	0.09	0.07	0.02	0.20	13	2.60	1.11	0.70	3.59	6	2.69	1.68	0.34	4.34	4
1986	0.68	0.06	0.56	0.78	17	0.10	0.04	0.03	0.17	21	3.09	2.30	0.57	5.78	4	3.63	0.23	3.42	3.90	4
1987	0.67	0.28	0.06	0.94	19	0.17	0.08	0.02	0.34	20	1.93	0.70	0.74	2.41	5	2.13	1.10	0.71	3.33	4
1988	0.53	0.03	0.47	0.57	13	0.11	0.11	0.02	0.41	35	3.53	1.64	2.03	5.42	4	3.53	2.60	0.26	7.34	9
1989	0.63	0.06	0.55	0.75	16	0.15	0.11	0.04	0.45	39	3.56	1.96	1.04	6.03	6	3.68	1.78	0.68	5.60	11
1990	0.71	0.17	0.42	1.03	18	0.15	0.06	0.02	0.23	22	5.89	2.76	1.08	8.11	5	3.61	0.97	2.13	4.91	7
1991	0.67	0.08	0.48	0.79	23	0.11	0.15	0.02	0.73	52	3.02	1.19	1.04	5.09	8	1.38	0.28	0.67	2.52	30
1992	0.71	0.13	0.49	0.91	22	0.11	0.12	0.02	0.46	32	1.01	0.18	0.68	1.16	7	1.10	0.20	0.78	1.38	7
1993	0.77	0.02	0.75	0.78	7	0.13	0.06	0.02	0.26	62	1.06	0.05	0.99	1.11	4	1.39	0.14	1.15	1.66	15
1994	0.52	0.09	0.35	0.66	34	0.05	0.02	0.02	0.10	38	1.68	0.27	1.33	2.13	8	1.35	0.40	0.56	2.01	9
1995	0.48	0.06	0.34	0.57	26	0.09	0.05	0.02	0.20	59	1.78	0.24	1.26	2.06	8	3.96	2.76	0.12	8.56	17
1996	0.48	0.03	0.42	0.58	17	0.08	0.04	0.01	0.15	46	7.95	2.44	4.81	11.64	5	4.24	2.50	0.30	9.27	12
1997	0.48	0.09	0.31	0.69	37	0.15	0.08	0.05	0.39	29	3.47	1.30	0.72	5.79	11	1.92	0.52	1.18	3.00	8
1998	0.41	0.07	0.29	0.52	34	0.16	0.05	0.08	0.31	50	2.42	1.02	0.31	3.37	11	3.69	2.14	0.49	7.25	16
1999	0.53	0.08	0.42	0.66	30	0.10	0.05	0.05	0.22	44	4.50	2.83	0.41	8.59	10	6.05	1.76	4.19	9.94	13
2000	0.62	0.13	0.46	0.91	34	0.13	0.08	0.01	0.29	41	1.74	0.37	0.86	2.30	11	3.24	0.97	1.86	5.29	13
2001	0.55	0.09	0.37	0.70	27	0.10	0.03	0.04	0.16	39	4.71	0.98	3.63	6.30	9	3.74	1.33	0.57	5.40	13
2002	0.53	0.11	0.37	0.71	27	0.20	0.07	0.10	0.33	36	2.25	0.48	1.46	3.08	9	4.22	1.16	2.77	5.77	11
2003	0.55	0.02	0.50	0.57	30	0.06	0.02	0.02	0.10	36	3.19	2.13	0.76	6.75	10	1.10	0.12	0.94	1.29	10
2004	0.48	0.21	0.28	1.07	33	0.24	0.08	0.18	0.64	39	1.15	0.19	0.81	1.49	11	1.97	0.69	0.58	2.97	13
2005	0.93	0.12	0.77	1.18	21	0.39	0.08	0.24	0.54	33	2.55	1.30	1.22	4.92	7	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.59		0.06	1.18		0.13		0.01	0.73		2.64		0.31	11.64		2.64		0.12	9.94	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00326	-0.002	0.37988	0.00198	-0.00504	0.00364	0.002	0.01015	0.00357	0.00069	0.03656	0.027	0.19065	0.07718	-0.01	0.05753	0.068	0.00086	0.10308	0.03625

Table 40. Area 6, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 6	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.87	0.18	0.72	1.07	5	0.59	0.10	0.46	0.78	9	ND	ND	ND	ND	0	1.48	0.05	1.45	1.54	3
1977	0.68	0.05	0.61	0.77	8	0.51	0.15	0.27	0.90	20	1.19	0.55	0.70	1.73	4	1.72	0.61	0.57	2.34	6
1978	0.80	0.12	0.61	0.95	8	0.35	0.06	0.30	0.41	3	1.47	0.65	0.64	2.07	4	2.02	0.00	2.02	2.02	1
1979	0.75	0.05	0.68	0.83	9	0.43	0.12	0.19	0.79	17	1.69	0.85	0.73	2.34	3	1.45	0.56	0.66	1.95	6
1980	0.72	0.10	0.61	0.94	10	0.57	0.20	0.32	1.01	13	1.70	0.79	0.83	2.36	3	0.87	0.28	0.65	1.18	3
1981	ND	ND	ND	ND	0	0.63	0.37	0.34	1.34	9	ND	ND	ND	ND	0	4.59	1.96	2.42	6.25	3
1982	ND	ND	ND	ND	0	0.52	0.20	0.34	1.09	18	ND	ND	ND	ND	0	3.82	1.47	0.91	4.75	6
1983	0.91	0.07	0.77	1.02	11	ND	ND	ND	ND	0	2.00	0.99	1.11	3.07	3	ND	ND	ND	ND	0
1984	0.95	0.15	0.79	1.17	11	0.78	0.56	0.46	2.24	9	1.68	0.64	0.89	2.36	4	2.95	0.51	2.38	3.35	3
1985	0.92	0.06	0.82	0.99	9	0.44	0.03	0.40	0.49	10	2.55	1.52	0.85	3.79	3	3.14	1.94	0.47	5.10	4
1986	0.80	0.10	0.61	0.89	9	0.46	0.14	0.29	0.66	14	2.61	2.17	0.70	4.97	3	3.92	0.43	3.49	4.34	4
1987	0.84	0.27	0.39	1.20	13	0.48	0.13	0.26	0.63	14	1.95	0.83	0.79	2.65	4	2.41	1.20	1.03	3.85	4
1988	0.83	0.06	0.75	0.94	9	0.54	0.27	0.31	1.60	22	2.18	0.00	2.18	2.18	1	3.68	2.53	0.65	6.90	5
1989	0.84	0.10	0.70	0.98	9	0.78	0.20	0.44	1.17	22	4.72	2.39	1.19	6.37	4	3.99	2.03	1.17	5.91	7
1990	1.09	0.29	0.75	1.56	11	0.83	0.34	0.54	1.66	16	5.14	4.73	1.79	8.48	2	3.17	2.25	0.02	5.29	4
1991	0.83	0.05	0.73	0.94	15	0.89	0.19	0.65	1.18	17	2.05	0.81	1.11	2.55	3	1.94	0.76	0.89	2.70	5
1992	1.04	0.13	0.91	1.35	18	0.59	0.16	0.41	0.93	19	1.41	0.17	1.19	1.58	6	1.44	0.14	1.18	1.57	6
1993	ND	ND	ND	ND	0	0.64	0.12	0.32	0.95	48	ND	ND	ND	ND	0	1.62	0.13	1.40	1.82	10
1994	0.80	0.07	0.66	0.92	24	0.33	0.16	0.14	0.95	23	1.73	0.08	1.69	1.82	3	1.38	0.38	0.74	1.77	6
1995	0.73	0.14	0.56	1.05	26	0.58	0.14	0.32	1.06	59	2.01	0.33	1.37	2.38	8	4.97	2.86	0.74	8.86	15
1996	0.75	0.07	0.65	0.92	15	0.44	0.09	0.28	0.81	37	7.16	2.22	5.59	8.73	2	4.53	2.92	0.56	9.51	8
1997	0.74	0.09	0.57	0.96	37	0.47	0.10	0.32	0.60	21	3.88	1.51	1.00	6.60	10	2.40	0.54	1.90	3.44	6
1998	0.66	0.14	0.50	0.92	28	0.48	0.08	0.29	0.66	44	2.73	1.23	0.52	3.90	9	4.57	2.35	0.70	7.47	13
1999	0.72	0.13	0.58	1.22	30	0.43	0.11	0.27	0.80	38	3.96	2.47	0.76	7.84	8	6.74	1.88	4.80	10.66	11
2000	0.84	0.12	0.68	1.15	34	0.51	0.12	0.34	0.93	32	2.08	0.42	1.05	2.52	11	3.56	1.06	2.24	5.54	10
2001	0.74	0.06	0.65	0.86	21	0.39	0.04	0.31	0.47	30	5.21	1.49	3.71	7.38	7	3.91	1.46	0.84	5.82	10
2002	0.69	0.11	0.54	0.89	21	0.60	0.09	0.43	0.73	27	2.55	0.57	1.64	3.51	8	4.68	1.04	3.03	5.69	8
2003	0.73	0.04	0.64	0.82	24	0.36	0.04	0.29	0.44	35	2.97	1.99	0.88	5.32	8	1.22	0.15	1.04	1.50	10
2004	0.63	0.19	0.44	1.18	33	0.57	0.09	0.46	0.86	39	1.28	0.21	0.97	1.67	9	2.14	0.72	0.82	3.05	13
2005	1.08	0.17	0.83	1.29	21	0.90	0.07	0.77	1.04	27	2.71	1.32	1.31	5.18	7	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.81		0.39	1.56		0.56		0.14	2.24		2.72		0.52	8.73		3.01		0.02	10.66	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00387	-0.006	0.03164	-0.00147	-0.00948	-0.00122	-0.002	0.48703	0.00225	-0.00597	0.04309	0.045	0.02468	0.08895	0.01194	0.05095	0.044	0.0523	0.08778	0.00577

Table 41. Area 6, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 6	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	2.45	0.75	1.77	3.14	6	0.13	0.02	0.12	0.18	9	5.15	3.97	2.34	7.95	2	8.96	0.89	8.06	9.83	3
1977	1.50	0.26	1.21	1.77	4	0.17	0.10	0.12	0.46	20	4.20	3.52	1.71	6.69	2	6.91	3.14	0.12	9.49	7
1978	2.43	0.74	1.28	3.18	8	0.14	0.05	0.12	0.24	6	4.67	2.85	1.39	7.25	4	8.29	0.16	8.17	8.40	2
1979	2.56	0.48	1.84	3.17	9	0.16	0.06	0.12	0.34	26	4.86	2.46	2.04	6.55	3	4.73	3.29	0.13	8.53	9
1980	2.90	1.55	1.08	5.31	10	0.50	1.13	0.12	4.53	15	5.23	3.39	1.33	7.45	3	2.33	3.57	0.12	6.44	3
1981	3.60	0.07	3.55	3.65	2	0.18	0.09	0.12	0.39	13	10.33	0.00	10.33	10.33	1	1.44	0.99	0.14	2.22	4
1982	3.86	0.18	3.62	4.02	5	0.14	0.03	0.12	0.23	20	9.70	0.00	9.70	9.70	1	4.68	2.99	0.18	8.70	7
1983	3.85	0.46	3.10	4.67	12	0.20	0.15	0.12	0.52	13	5.73	1.90	3.54	7.00	3	9.05	0.00	9.05	9.05	1
1984	2.87	0.75	2.13	4.25	14	0.14	0.03	0.12	0.22	17	5.06	2.27	2.81	8.23	5	9.81	2.67	5.82	11.43	4
1985	3.72	0.51	2.49	4.35	17	0.19	0.08	0.12	0.34	13	7.08	2.07	3.97	9.26	5	5.44	4.42	0.17	11.00	4
1986	3.37	0.72	2.40	4.10	13	0.79	1.07	0.12	3.22	18	6.63	3.75	2.43	9.65	3	7.97	1.52	5.80	9.17	4
1987	4.08	1.04	2.15	4.92	17	0.16	0.05	0.12	0.30	20	8.90	2.92	4.54	10.65	4	6.63	3.85	1.16	10.02	4
1988	3.31	0.63	2.84	4.72	13	0.43	0.57	0.12	2.07	32	3.70	2.70	1.21	6.57	3	1.85	1.80	0.00	4.18	8
1989	3.41	0.27	3.03	3.89	13	0.15	0.06	0.12	0.42	36	2.16	2.87	0.00	6.00	5	3.90	3.66	0.00	9.52	10
1990	2.73	0.45	1.99	3.37	15	0.15	0.04	0.12	0.25	19	0.68	1.27	0.00	2.59	4	9.15	3.76	2.20	12.51	6
1991	4.59	0.60	2.74	5.51	23	0.24	0.37	0.10	2.34	93	6.23	2.10	1.78	9.24	8	10.37	2.19	0.38	13.73	30
1992	4.45	0.59	3.71	5.64	22	0.18	0.10	0.10	0.42	31	7.55	1.06	5.46	8.49	7	10.28	2.08	5.70	11.99	7
1993	5.02	0.21	4.82	5.46	7	0.13	0.03	0.12	0.32	57	9.17	0.30	8.74	9.39	4	13.07	1.95	7.30	14.70	15
1994	3.72	1.01	2.14	4.87	31	0.12	0.01	0.10	0.14	38	11.73	1.30	9.34	13.74	8	12.52	4.27	1.31	15.34	9
1995	4.10	0.40	3.12	4.56	26	0.14	0.02	0.12	0.22	59	10.48	1.22	7.83	12.02	8	2.63	3.95	0.00	11.27	17
1996	3.91	0.52	2.83	4.40	17	0.12	0.04	0.00	0.20	45	2.25	3.00	0.00	6.28	5	5.35	4.17	0.00	10.52	12
1997	3.62	0.66	2.39	4.59	37	0.14	0.02	0.12	0.19	29	7.55	2.76	0.35	10.35	11	10.70	1.87	9.10	14.73	8
1998	2.61	0.79	0.94	3.82	34	0.14	0.03	0.11	0.21	48	8.28	3.25	0.95	11.11	11	1.57	2.80	0.00	7.45	16
1999	3.38	0.83	1.93	4.61	30	0.15	0.04	0.10	0.28	44	4.64	4.37	0.00	11.94	10	0.62	2.13	0.00	8.02	14
2000	3.74	0.59	2.20	4.43	34	0.15	0.06	0.11	0.32	41	8.17	1.28	4.79	9.08	11	6.58	3.64	0.00	11.54	13
2001	2.63	0.94	1.15	4.07	26	0.14	0.02	0.12	0.22	38	2.34	2.92	0.00	6.83	9	3.64	4.11	0.00	10.06	13
2002	2.56	0.57	1.77	3.37	27	0.14	0.02	0.12	0.18	36	7.31	1.53	4.16	8.74	9	4.52	4.85	0.00	12.72	11
2003	3.53	0.47	2.90	4.21	30	0.13	0.01	0.12	0.16	36	3.90	3.73	0.00	9.29	10	9.79	2.27	5.55	12.57	10
2004	1.97	0.73	0.82	2.91	33	0.14	0.03	0.12	0.26	39	8.84	3.22	2.47	12.46	11	5.41	2.64	0.19	8.71	13
2005	2.20	0.75	1.13	3.18	21	0.13	0.01	0.12	0.16	33	5.41	2.99	0.49	8.14	7	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.29		0.82	5.64		0.19		0.00	4.53		6.26		0.00	13.74		6.49		0.00	15.34	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.02593	-0.023	0.11894	0.00223	-0.04167	-0.00531	-0.001	0.03701	-0.00013	-0.00159	0.03396	0.005	0.97253	0.0955	-0.09746	-0.05538	-0.028	0.69451	0.08743	-0.14167

Table 42. Area 6, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 6	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.67	0.09	0.51	0.76	6	0.48	0.09	0.38	0.62	9	0.49	0.25	0.31	0.66	2	0.35	0.04	0.32	0.39	3
1977	0.81	0.35	0.44	1.21	4	0.29	0.08	0.17	0.51	20	0.51	0.42	0.21	0.80	2	0.25	0.08	0.16	0.37	7
1978	0.48	0.15	0.30	0.67	8	0.41	0.09	0.34	0.56	6	0.43	0.23	0.17	0.64	4	0.23	0.04	0.20	0.25	2
1979	0.62	0.26	0.30	0.94	9	0.27	0.21	0.02	0.70	24	0.47	0.30	0.29	0.81	3	0.29	0.34	0.02	0.88	8
1980	0.59	0.36	0.18	1.40	10	0.56	0.57	0.02	1.50	14	0.33	0.27	0.13	0.63	3	0.39	0.27	0.20	0.70	3
1981	0.30	0.00	0.30	0.30	2	0.72	0.93	0.20	3.40	13	0.20	0.00	0.20	0.20	1	6.40	4.99	0.80	12.90	4
1982	0.30	0.17	0.20	0.50	3	0.17	0.19	0.02	0.68	16	ND	ND	ND	ND	0	0.14	0.14	0.02	0.30	5
1983	0.63	0.78	0.05	2.00	12	0.31	0.13	0.15	0.60	13	0.16	0.10	0.05	0.24	3	0.14	0.00	0.14	0.14	1
1984	0.17	0.13	0.05	0.40	14	0.14	0.11	0.02	0.30	14	0.12	0.06	0.05	0.20	5	0.11	0.09	0.02	0.20	3
1985	0.10	0.05	0.05	0.20	12	0.15	0.10	0.02	0.36	13	0.24	0.24	0.05	0.60	4	1.32	1.42	0.02	3.00	4
1986	0.77	0.29	0.30	1.26	12	0.28	0.15	0.10	0.50	18	0.79	0.46	0.32	1.23	3	0.36	0.25	0.02	0.60	4
1987	0.28	0.17	0.05	0.60	13	0.54	0.58	0.05	2.60	17	0.16	0.11	0.02	0.26	4	0.24	0.19	0.05	0.40	4
1988	0.20	0.14	0.05	0.58	13	0.34	0.12	0.20	0.71	32	0.54	0.62	0.13	1.26	3	3.19	2.94	0.10	6.92	8
1989	0.32	0.24	0.13	0.83	13	0.13	0.08	0.05	0.24	21	5.28	4.28	0.36	9.50	4	3.55	3.01	0.17	8.20	6
1990	0.43	0.35	0.10	1.26	15	0.34	0.38	0.10	1.41	13	7.26	4.97	0.87	12.97	4	0.68	0.70	0.10	1.67	4
1991	0.46	0.38	0.10	1.30	18	0.36	0.23	0.10	1.40	88	0.60	0.85	0.10	2.30	6	0.36	0.31	0.10	1.30	28
1992	0.42	0.43	0.09	1.60	20	0.65	0.70	0.10	2.40	25	0.42	0.49	0.12	1.40	6	0.47	0.24	0.28	0.90	6
1993	0.24	0.05	0.20	0.30	5	0.21	0.13	0.02	0.80	55	0.20	0.14	0.10	0.30	2	0.33	0.44	0.10	1.70	13
1994	0.14	0.05	0.08	0.21	18	0.32	0.29	0.09	1.30	37	0.19	0.10	0.12	0.34	4	0.44	0.42	0.09	1.25	9
1995	0.18	0.11	0.05	0.42	18	0.16	0.10	0.05	0.47	49	0.18	0.15	0.05	0.35	4	4.09	2.46	0.18	7.47	12
1996	0.14	0.17	0.05	0.65	13	0.16	0.17	0.05	0.70	41	7.86	3.05	4.94	11.44	4	1.63	2.16	0.06	6.20	9
1997	0.12	0.05	0.05	0.21	34	0.13	0.04	0.10	0.20	10	0.64	1.72	0.05	5.23	9	0.24	0.23	0.10	0.50	3
1998	0.18	0.11	0.05	0.55	33	0.14	0.08	0.05	0.49	48	0.66	0.73	0.05	1.88	11	3.23	3.20	0.05	9.10	16
1999	0.20	0.10	0.10	0.50	30	0.17	0.06	0.10	0.34	40	5.45	6.09	0.15	14.04	10	5.14	3.46	0.22	9.38	13
2000	0.19	0.10	0.07	0.55	26	0.21	0.23	0.05	1.10	41	0.15	0.08	0.06	0.33	9	2.79	2.75	0.15	8.88	12
2001	0.14	0.07	0.05	0.32	27	0.24	0.14	0.06	0.65	36	5.19	3.24	1.29	9.67	9	3.76	3.89	0.07	10.79	13
2002	0.24	0.08	0.14	0.39	27	0.20	0.10	0.07	0.52	36	0.74	1.28	0.05	4.04	9	4.43	3.55	0.20	9.26	11
2003	0.16	0.08	0.05	0.42	30	0.15	0.10	0.05	0.47	35	3.21	3.36	0.05	9.03	10	0.66	1.12	0.05	3.56	10
2004	0.16	0.07	0.06	0.34	32	0.19	0.10	0.05	0.40	39	0.23	0.29	0.05	1.07	11	1.51	1.47	0.06	3.57	13
2005	0.10	0.06	0.05	0.22	18	0.11	0.08	0.05	0.37	33	1.39	2.58	0.05	6.87	7	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.33		0.05	2.00		0.29		0.02	3.40		1.52		0.02	14.04		1.61		0.02	12.90	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01532	-0.01	0.00002	-0.00615	-0.01458	-0.00913	-0.007	0.00037	-0.00337	-0.00976	0.05923	-0.003	0.72252	0.01256	-0.01333	0.09771	0.059	0.00002	0.09171	0.03461

Table 43. Area 6, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 6	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	10.8	3.9	5.0	16.0	9	ND	ND	ND	ND	0	17.3	9.0	8.0	26.0	3
1977	17.0	1.4	16.0	18.0	2	17.4	2.8	13.0	25.0	20	15.0	0.0	15.0	15.0	1	21.8	4.1	13.0	25.5	7
1978	16.8	0.7	16.0	18.0	8	17.4	0.9	16.2	18.8	6	18.5	1.7	16.0	20.0	4	20.0	2.8	18.0	22.0	2
1979	18.6	1.4	17.3	21.0	9	19.7	3.9	11.4	25.0	17	20.2	2.1	17.9	22.0	3	21.7	4.0	14.3	25.9	6
1980	18.1	2.8	13.6	24.1	10	22.0	9.5	7.5	38.8	15	22.0	1.9	19.8	23.4	3	16.6	5.8	11.7	23.0	3
1981	ND	ND	ND	ND	0	15.7	2.2	12.9	19.5	9	ND	ND	ND	ND	0	18.3	4.6	13.3	22.4	3
1982	ND	ND	ND	ND	0	19.0	4.8	10.2	27.7	18	ND	ND	ND	ND	0	20.2	2.7	17.0	23.2	6
1983	19.9	1.4	18.5	22.7	11	18.3	1.9	16.5	20.8	4	20.3	1.7	19.1	22.2	3	47.3	0.0	47.3	47.3	1
1984	18.8	1.1	16.4	20.3	11	14.6	6.6	1.2	21.5	9	19.7	1.9	18.0	21.9	4	25.8	14.0	12.2	40.2	3
1985	18.8	0.9	17.7	20.4	8	16.9	3.2	9.5	20.5	9	20.7	1.2	19.4	21.7	3	19.8	8.1	10.6	28.9	4
1986	19.2	0.7	18.2	20.5	9	20.0	2.9	13.5	23.9	14	23.2	3.2	19.5	25.5	3	22.7	4.3	18.7	27.6	4
1987	18.0	3.5	11.8	23.6	13	17.8	2.4	14.0	22.5	14	22.6	4.4	18.8	27.4	4	21.1	3.5	18.0	25.6	4
1988	21.3	0.6	20.2	22.3	9	20.5	2.3	16.2	24.8	22	25.9	4.5	21.5	30.4	3	23.6	5.0	18.4	32.6	7
1989	23.0	1.2	21.3	24.7	9	21.8	4.0	16.8	34.1	22	27.9	4.4	24.0	32.7	4	27.4	11.9	17.2	52.9	7
1990	19.9	3.2	14.3	24.4	11	18.2	4.4	10.1	23.0	12	28.7	4.8	23.7	33.3	3	25.3	6.0	18.3	28.9	3
1991	21.7	1.2	19.2	23.3	11	13.4	5.8	8.2	22.3	10	25.9	2.8	22.7	29.6	4	14.4	6.8	8.7	21.9	3
1992	25.2	2.2	22.4	31.3	15	15.4	5.0	7.2	20.8	16	27.2	2.2	25.7	31.0	5	21.2	6.7	10.5	26.9	5
1993	ND	ND	ND	ND	0	21.1	5.1	6.1	25.6	48	ND	ND	ND	ND	0	28.9	4.0	17.9	33.1	12
1994	21.8	1.8	18.3	25.7	24	19.5	8.7	4.0	29.2	23	27.0	1.4	25.0	28.7	7	25.5	7.2	14.2	32.2	6
1995	22.6	1.8	19.7	25.7	26	21.6	5.4	7.3	28.6	59	27.3	2.1	24.8	30.0	8	23.1	4.6	8.8	29.7	17
1996	21.6	1.4	19.2	24.0	15	19.5	4.9	6.3	27.6	37	28.3	2.3	25.2	30.2	4	24.6	7.8	13.7	39.6	9
1997	22.0	2.4	19.5	29.9	37	18.5	2.7	14.9	27.2	21	24.5	2.9	21.8	31.1	11	24.4	2.1	21.7	26.6	6
1998	21.3	4.0	17.9	37.3	31	19.6	3.1	10.7	27.6	44	23.4	2.6	17.9	27.9	10	22.1	4.9	15.6	31.2	13
1999	19.6	3.2	10.8	24.9	30	20.1	3.2	11.0	25.0	38	25.8	4.5	18.8	32.7	10	21.3	5.2	15.3	29.5	11
2000	20.7	1.7	17.9	24.7	33	19.3	3.2	10.7	24.9	32	22.3	3.4	14.2	28.3	11	21.7	4.2	14.0	25.7	10
2001	20.1	0.7	19.1	21.6	21	20.2	1.7	16.8	24.2	30	23.7	2.7	20.3	27.5	7	22.9	3.2	18.8	29.0	10
2002	18.8	1.5	16.0	21.3	21	19.7	1.0	17.4	21.7	27	21.9	1.5	19.4	23.8	8	25.1	2.4	22.7	30.3	8
2003	20.5	0.8	18.8	21.5	24	20.0	2.1	17.3	26.2	35	22.2	2.4	19.2	26.5	8	24.0	1.9	20.7	26.6	10
2004	19.4	1.9	14.2	22.9	33	18.6	1.5	16.4	22.0	39	23.6	2.3	19.9	27.4	11	21.7	2.5	17.2	25.9	13
2005	18.9	1.1	16.9	21.3	21	20.0	1.4	17.9	23.3	27	21.1	1.8	18.8	23.8	7	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	20.1		10.8	37.3		18.6		1.2	38.8		23.4		14.2	33.3		23.1		8.0	52.9	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.03217	0.04	0.43305	0.09069	-0.0546	0.07812	0.112	0.01352	0.17131	0.04012	0.0596	0.027	0.69145	0.18889	-0.14167	0.06802	0.102	0.03808	0.19778	0.01818

Table 44. Area 6, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 6	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	15.75	1.29	14.00	17.50	6	12.60	1.12	11.00	14.50	9	43.25	35.00	18.50	68.00	2	33.13	6.56	26.40	39.50	3
1977	11.50	1.41	9.50	12.50	4	8.47	1.10	6.10	9.90	20	23.25	19.45	9.50	37.00	2	49.76	17.23	12.80	61.50	7
1978	24.74	6.39	14.20	28.70	8	6.90	0.85	5.70	8.20	9	53.50	33.80	14.50	83.20	4	46.87	35.52	7.70	77.00	3
1979	13.64	1.50	10.60	14.80	9	6.17	2.98	1.60	10.30	19	34.70	17.58	14.60	47.20	3	28.36	21.33	3.10	52.30	7
1980	11.04	2.57	7.80	13.50	7	4.95	1.84	2.70	9.90	12	27.27	11.67	13.80	34.50	3	11.77	14.47	2.10	28.40	3
1981	ND	ND	ND	ND	0	4.03	3.11	0.50	6.80	7	ND	ND	ND	ND	0	46.30	53.74	8.30	84.30	2
1982	ND	ND	ND	ND	0	4.52	0.68	3.60	5.50	13	ND	ND	ND	ND	0	54.68	27.60	13.80	74.50	4
1983	16.28	1.18	14.50	18.10	9	8.25	0.30	8.00	8.60	4	34.23	15.31	18.20	48.70	3	49.70	0.00	49.70	49.70	1
1984	15.63	2.73	13.10	20.70	11	11.93	1.69	10.50	14.20	11	36.90	21.81	13.80	60.00	4	66.17	8.33	58.30	74.90	3
1985	18.04	0.74	17.00	19.10	9	5.76	0.93	4.70	7.10	10	44.80	23.04	18.20	58.50	3	47.40	28.74	5.70	71.00	4
1986	14.71	0.76	13.50	15.50	9	13.91	5.22	6.90	21.10	15	41.17	27.60	13.40	68.60	3	70.78	5.03	65.80	77.70	4
1987	10.48	2.11	6.80	13.10	13	11.41	3.84	6.60	16.90	14	33.83	21.30	8.30	60.30	4	44.18	25.95	10.20	65.20	4
1988	ND	ND	ND	ND	0	5.79	3.25	3.00	16.80	26	ND	ND	ND	ND	0	30.15	14.67	6.90	45.00	8
1989	12.26	2.44	8.80	16.10	13	7.15	3.77	2.00	13.40	30	56.76	26.65	20.50	85.60	5	48.72	25.07	6.80	76.50	9
1990	11.70	3.84	9.20	18.70	9	12.09	6.27	1.00	19.70	16	58.80	41.78	14.50	97.50	3	41.22	24.33	5.10	62.60	5
1991	12.39	1.40	11.30	14.60	18	11.74	2.71	9.00	18.20	17	50.17	18.44	18.30	74.10	6	35.64	12.03	14.50	44.50	5
1992	15.72	2.04	13.10	19.00	18	10.81	1.23	9.30	13.50	22	26.03	7.99	16.80	35.20	6	34.63	8.64	22.10	43.10	7
1993	18.64	2.77	16.10	23.20	7	11.72	0.69	10.40	13.30	62	22.60	4.35	20.10	29.10	4	31.31	6.18	21.20	41.00	15
1994	9.17	3.80	3.30	13.80	34	6.07	1.33	4.00	9.10	38	44.70	6.33	31.50	51.90	8	41.73	11.85	13.20	52.40	9
1995	8.34	0.90	6.90	9.50	26	10.01	1.74	6.50	12.50	59	40.66	10.18	21.70	53.00	8	46.74	17.04	10.90	67.90	17
1996	6.68	0.96	5.20	8.10	13	6.98	0.47	6.10	8.20	46	60.00	5.25	53.70	65.80	4	44.34	19.38	10.30	76.40	12
1997	11.35	1.81	8.10	14.60	37	8.38	1.54	6.30	12.70	26	45.36	12.15	15.50	59.60	11	38.70	5.46	28.90	46.70	7
1998	9.48	1.02	7.80	11.00	34	9.14	1.07	6.50	11.50	50	41.62	16.11	8.80	52.90	11	46.98	20.82	10.50	72.70	16
1999	11.59	1.62	9.40	13.90	30	8.80	2.16	3.90	12.10	44	45.57	19.49	10.20	64.70	10	61.25	5.36	54.10	71.00	13
2000	14.33	1.70	11.90	17.80	30	9.60	1.03	7.30	11.00	41	32.93	6.95	17.80	40.30	10	55.54	8.37	39.70	72.30	13
2001	11.09	2.40	7.50	15.10	27	5.75	1.05	3.30	6.80	39	60.10	5.38	50.60	67.70	9	55.05	16.02	10.80	73.60	13
2002	11.04	1.64	7.90	12.50	27	10.83	0.80	9.40	12.70	36	37.80	6.31	24.30	45.00	9	58.55	6.64	48.90	69.40	11
2003	12.56	0.41	11.70	13.10	30	7.97	0.51	6.80	8.90	36	41.64	20.52	15.50	61.90	10	24.43	5.33	17.20	32.20	10
2004	9.25	2.96	6.40	17.50	33	6.81	1.59	4.20	11.40	38	32.06	8.13	13.20	40.00	11	45.95	12.88	9.70	58.10	13
2005	15.81	2.00	13.30	19.60	21	11.06	0.85	10.00	12.90	33	45.09	15.08	20.80	64.00	7	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	13.08		3.30	28.70		8.65		0.50	21.10		41.29		8.30	97.50		44.48		2.10	84.30	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.15734	-0.103	0.1589	0.02449	-0.22049	0.0242	0.03	0.46054	0.11122	-0.05082	0.09775	0.261	0.56401	0.69744	-0.2537	0.338	0.356	0.37485	0.8375	-0.17569

Table 45. Area 6, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 6	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	7.67	2.40	4.60	10.11	6	4.96	3.23	2.19	10.57	9	3.06	0.50	2.71	3.41	2	7.43	0.58	6.98	8.08	3
1977	5.62	0.30	5.25	5.93	4	6.32	4.25	2.58	17.67	20	5.29	0.08	5.23	5.35	2	3.94	1.59	0.93	5.57	7
1978	4.65	0.63	3.98	5.80	8	6.74	1.12	5.75	8.57	6	4.11	0.17	3.90	4.31	4	3.33	1.48	2.28	4.38	2
1979	6.83	0.49	6.04	7.64	9	12.96	13.72	1.38	52.00	24	5.33	1.76	3.94	7.31	3	4.15	1.97	0.68	7.21	8
1980	7.14	4.54	3.09	14.21	10	23.50	27.71	1.50	96.00	14	3.93	0.99	3.16	5.05	3	4.80	3.03	1.30	6.59	3
1981	6.29	0.26	6.11	6.48	2	15.29	6.85	2.50	27.08	13	6.27	0.00	6.27	6.27	1	2.00	0.23	1.66	2.15	4
1982	9.74	0.75	8.88	10.28	3	5.21	5.50	1.17	19.50	16	ND	ND	ND	ND	0	0.92	0.18	0.65	1.09	5
1983	5.92	1.14	4.12	7.61	12	6.62	4.73	1.69	16.40	12	3.66	1.16	2.39	4.67	3	6.29	0.00	6.29	6.29	1
1984	4.42	1.15	2.43	5.69	14	6.37	6.27	0.40	21.00	14	3.65	0.99	2.52	4.74	5	4.95	1.23	3.54	5.82	3
1985	5.40	0.41	4.85	6.14	12	5.89	4.20	2.40	16.00	13	3.93	1.83	2.05	5.90	4	2.31	0.93	1.32	3.50	4
1986	6.00	0.95	4.31	7.23	11	11.07	11.25	1.57	33.67	18	4.17	1.50	2.68	5.68	3	2.32	0.50	1.64	2.74	4
1987	12.25	13.12	5.12	41.83	12	3.88	2.40	1.11	11.87	17	5.28	0.91	4.52	6.49	4	3.21	1.44	2.18	5.34	4
1988	6.82	1.41	5.52	9.53	10	13.46	9.74	0.98	31.50	32	1.77	1.44	0.46	3.30	3	2.61	1.70	1.01	5.69	8
1989	5.90	0.63	4.89	6.75	13	2.38	1.46	0.40	5.63	21	2.61	1.46	1.58	4.67	4	1.45	0.92	0.43	3.10	6
1990	4.25	1.10	2.74	6.04	15	5.13	4.42	1.22	14.00	13	1.78	0.98	1.06	3.20	4	2.72	1.93	0.72	5.25	4
1991	7.61	1.57	6.42	13.63	18	15.01	9.89	1.33	41.00	48	3.48	1.92	1.96	6.79	6	7.81	1.56	2.12	10.67	28
1992	7.00	0.92	5.29	8.66	20	20.29	33.91	0.89	130.00	24	7.84	0.43	7.24	8.46	6	9.92	2.88	5.87	14.56	6
1993	6.90	0.25	6.62	7.26	5	3.82	3.32	0.67	21.00	50	8.75	0.68	8.26	9.23	2	9.71	1.88	6.38	14.26	13
1994	7.85	0.47	7.26	8.92	15	12.90	13.61	2.70	71.00	37	8.28	0.73	7.47	9.01	4	9.55	2.73	4.57	12.10	9
1995	8.89	0.36	8.11	9.47	18	4.52	2.72	1.06	12.50	49	6.05	0.41	5.51	6.48	4	1.44	1.19	0.60	4.74	12
1996	8.18	1.07	6.71	9.98	13	6.76	11.80	1.33	74.00	40	1.05	0.18	0.82	1.21	4	2.03	0.99	0.49	3.33	9
1997	7.93	0.75	6.51	9.26	34	3.00	1.81	1.05	6.17	10	2.36	0.87	0.96	3.99	9	7.95	4.00	5.61	12.57	3
1998	6.82	0.78	4.79	7.80	33	1.77	0.63	0.55	3.45	46	4.15	1.29	2.56	7.13	11	1.72	1.48	0.24	5.98	16
1999	6.72	0.93	3.69	7.90	30	3.74	1.82	1.14	7.83	40	3.22	1.94	1.61	7.00	10	1.07	0.78	0.14	2.72	12
2000	6.69	0.56	5.62	7.47	26	15.90	34.34	0.89	141.00	41	4.91	0.61	4.23	6.24	9	3.00	1.12	1.59	5.52	12
2001	4.96	1.24	2.84	6.92	26	4.55	2.49	1.50	12.00	36	1.67	0.50	0.79	2.24	9	2.13	0.73	1.22	3.50	13
2002	5.28	0.50	4.54	6.23	27	1.96	0.87	0.61	4.13	36	3.69	0.66	2.76	4.79	9	2.35	1.08	1.27	4.28	11
2003	6.75	0.75	5.65	8.13	30	5.55	4.25	2.25	19.50	35	4.15	3.60	1.17	9.09	10	9.67	1.79	6.90	12.18	10
2004	4.55	0.98	3.00	5.95	32	1.43	0.53	0.58	2.56	39	7.96	2.72	2.38	11.75	11	3.69	1.79	0.83	7.05	13
2005	2.57	0.45	1.93	2.98	18	0.67	0.27	0.35	1.38	33	3.17	1.44	1.50	4.95	7	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	6.59		1.93	41.83		7.72		0.35	141.00		4.33		0.46	11.75		4.29		0.14	14.56	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04896	-0.038	0.28129	0.02146	-0.09852	-0.29429	-0.182	0.00002	-0.1175	-0.27678	0.00588	-0.032	0.31296	0.02919	-0.09078	-0.02323	-0.036	0.38578	0.02493	-0.08602

Table 46. Area 7, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 7	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.03	0.00	0.03	0.03	2	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	0.04	0.01	0.03	0.05	2	ND	ND	ND	ND	0	1.39	0.00	1.39	1.39	1
1980	ND	ND	ND	ND	0	0.06	0.05	0.02	0.11	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1981	0.54	0.06	0.47	0.58	3	0.06	0.02	0.04	0.08	5	ND	ND	ND	ND	0	2.31	0.00	2.31	2.31	1
1982	0.62	0.00	0.62	0.62	3	0.06	0.05	0.02	0.16	17	ND	ND	ND	ND	0	2.53	1.93	1.05	5.87	5
1983	0.71	0.02	0.69	0.74	6	0.06	0.03	0.02	0.12	9	1.75	0.00	1.75	1.75	1	0.86	0.00	0.86	0.86	1
1984	0.63	0.18	0.39	0.82	10	0.06	0.04	0.02	0.10	6	1.81	0.78	1.25	2.36	2	1.47	0.20	1.33	1.61	2
1985	0.53	0.11	0.41	0.68	8	0.02	0.00	0.02	0.02	3	1.79	0.24	1.62	1.96	2	ND	ND	ND	ND	0
1986	0.55	0.03	0.53	0.60	6	0.07	0.04	0.02	0.13	17	2.08	0.00	2.08	2.08	1	2.52	1.73	1.36	5.04	4
1987	0.47	0.27	0.05	0.75	12	0.21	0.15	0.02	0.48	22	2.83	1.66	1.63	4.72	3	2.23	1.57	1.43	5.03	5
1988	0.56	0.03	0.52	0.61	6	0.10	0.08	0.02	0.27	25	2.99	0.00	2.99	2.99	1	1.63	0.99	0.37	2.46	6
1989	0.57	0.02	0.55	0.59	6	0.18	0.13	0.03	0.75	28	2.30	0.39	2.02	2.57	2	2.14	1.61	0.73	5.48	8
1990	0.67	0.03	0.62	0.71	11	0.14	0.11	0.02	0.37	27	3.00	1.56	1.48	5.65	5	1.40	0.29	0.96	2.00	10
1991	0.53	0.25	0.02	0.82	17	0.21	0.18	0.02	0.87	33	1.64	0.90	0.38	2.38	4	1.71	0.46	1.12	2.65	9
1992	0.78	0.13	0.58	0.96	16	0.09	0.05	0.02	0.18	32	1.41	0.52	0.81	2.03	5	1.01	0.40	0.34	1.60	7
1993	0.68	0.05	0.62	0.76	11	0.08	0.04	0.02	0.16	36	1.45	0.15	1.35	1.62	3	2.42	3.22	0.50	8.64	9
1994	0.46	0.13	0.23	0.59	13	0.05	0.03	0.02	0.12	28	1.90	0.14	1.76	2.03	3	2.15	1.64	0.86	5.33	6
1995	0.53	0.20	0.19	1.09	23	0.12	0.06	0.02	0.25	37	3.29	1.89	2.03	7.32	7	1.80	1.18	0.09	3.66	10
1996	0.45	0.09	0.31	0.57	19	0.06	0.05	0.01	0.18	19	2.72	0.97	1.27	4.01	6	1.72	0.68	0.83	2.64	5
1997	0.35	0.07	0.18	0.45	27	0.07	0.02	0.05	0.12	37	1.99	0.53	1.36	2.80	8	1.83	0.69	0.92	3.29	10
1998	0.36	0.06	0.29	0.46	19	0.10	0.04	0.04	0.20	20	2.74	0.62	2.11	3.56	6	2.94	2.26	1.79	7.53	6
1999	0.52	0.10	0.35	0.62	15	0.07	0.03	0.05	0.14	25	2.70	0.41	2.40	3.35	5	3.63	1.89	2.17	6.54	7
2000	0.62	0.15	0.35	0.82	23	0.06	0.07	0.01	0.21	28	3.44	1.25	2.23	5.30	7	2.96	1.19	1.90	5.61	8
2001	0.36	0.08	0.26	0.44	6	0.06	0.03	0.04	0.11	12	2.58	0.31	2.36	2.80	2	1.96	0.64	1.29	2.54	4
2002	0.48	0.09	0.37	0.61	8	0.12	0.05	0.07	0.21	12	2.61	0.06	2.56	2.68	3	2.04	0.21	1.76	2.25	4
2003	0.59	0.05	0.51	0.64	12	0.09	0.02	0.06	0.12	12	2.25	0.45	1.71	2.80	4	2.15	0.34	1.69	2.51	4
2004	0.54	0.11	0.37	0.65	12	0.23	0.07	0.12	0.34	12	1.82	0.43	1.34	2.38	4	2.40	0.90	1.06	2.98	4
2005	0.88	0.18	0.64	1.10	12	0.16	0.06	0.10	0.26	12	2.60	0.54	1.80	2.93	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.56		0.02	1.10		0.09		0.01	0.87		2.33		0.38	7.32		2.05		0.09	8.64	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00159	0.001	0.73584	0.005	-0.00336	-0.00028	0.001	0.04526	0.00305	0.00021	0.02645	0.032	0.03357	0.05722	0.00571	0.03697	0.039	0.03167	0.05806	0.01294

Table 47. Area 7, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 7	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.35	0.01	0.34	0.36	2	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	0.38	0.01	0.37	0.39	2	ND	ND	ND	ND	0	1.53	0.00	1.53	1.53	1
1980	ND	ND	ND	ND	0	0.48	0.02	0.46	0.50	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1981	ND	ND	ND	ND	0	0.27	0.04	0.22	0.30	3	ND	ND	ND	ND	0	2.51	0.00	2.51	2.51	1
1982	ND	ND	ND	ND	0	0.52	0.07	0.43	0.69	14	ND	ND	ND	ND	0	3.15	2.31	1.32	6.44	4
1983	1.22	0.02	1.21	1.24	3	ND	ND	ND	ND	0	2.37	0.00	2.37	2.37	1	ND	ND	ND	ND	0
1984	0.80	0.22	0.58	1.13	7	0.63	0.06	0.59	0.70	3	2.00	1.02	1.28	2.72	2	1.67	0.00	1.67	1.67	1
1985	0.66	0.01	0.65	0.66	3	ND	ND	ND	ND	0	2.42	0.00	2.42	2.42	1	ND	ND	ND	ND	0
1986	0.76	0.01	0.75	0.77	3	0.51	0.18	0.30	0.97	15	2.67	0.00	2.67	2.67	1	2.72	1.67	1.50	5.18	4
1987	0.62	0.30	0.25	1.04	10	0.47	0.14	0.31	0.89	19	2.88	1.68	1.66	4.80	3	3.03	2.28	1.47	6.78	5
1988	0.70	0.02	0.69	0.73	3	0.48	0.06	0.41	0.61	12	ND	ND	ND	ND	0	2.18	0.76	1.06	2.75	4
1989	0.77	0.04	0.74	0.81	3	0.79	0.37	0.46	1.58	10	2.17	0.00	2.17	2.17	1	2.64	2.62	0.83	5.64	3
1990	0.85	0.09	0.76	0.97	5	0.79	0.32	0.43	1.56	18	2.54	0.48	2.20	2.88	2	1.65	0.38	0.88	2.01	7
1991	0.76	0.07	0.68	0.84	8	0.93	0.43	0.28	1.73	29	2.30	0.20	2.07	2.45	3	2.46	0.72	1.68	3.65	8
1992	0.99	0.13	0.84	1.19	12	0.63	0.40	0.09	1.45	25	1.56	0.71	0.94	2.28	4	1.48	0.48	1.01	2.27	5
1993	1.03	0.21	0.80	1.29	6	0.50	0.22	0.14	0.90	34	1.96	0.49	1.61	2.30	2	2.03	2.66	0.63	8.56	8
1994	0.76	0.10	0.60	0.85	11	0.23	0.09	0.07	0.45	16	2.25	0.11	2.17	2.33	2	3.10	3.33	1.08	8.03	4
1995	0.72	0.26	0.36	1.40	20	0.53	0.16	0.27	0.95	37	3.80	2.64	2.15	8.39	5	2.15	1.09	0.59	3.76	10
1996	0.66	0.11	0.52	0.83	13	0.42	0.14	0.21	0.62	19	2.99	1.30	1.63	4.40	4	1.94	0.67	1.12	2.78	5
1997	0.57	0.04	0.52	0.66	15	0.49	0.14	0.35	0.82	15	2.35	0.66	1.56	3.18	4	1.97	0.55	1.45	2.72	4
1998	0.57	0.08	0.48	0.69	13	0.50	0.12	0.36	0.77	20	2.81	0.74	2.27	3.89	4	3.34	2.53	2.07	8.49	6
1999	0.74	0.13	0.53	0.93	15	0.44	0.08	0.28	0.61	25	3.06	0.52	2.59	3.85	5	3.86	1.80	2.29	6.64	7
2000	0.82	0.17	0.51	1.13	23	0.46	0.10	0.25	0.71	28	3.83	1.14	2.57	5.45	7	3.58	1.40	2.21	6.19	8
2001	0.56	0.04	0.51	0.60	6	0.36	0.03	0.32	0.41	12	2.83	0.23	2.67	2.99	2	2.36	0.76	1.59	3.09	4
2002	0.68	0.08	0.60	0.79	9	0.61	0.09	0.45	0.73	12	2.94	0.08	2.88	2.99	2	2.27	0.32	1.95	2.64	4
2003	0.73	0.06	0.61	0.81	11	0.41	0.05	0.35	0.55	12	2.41	0.37	1.94	2.84	4	2.38	0.60	1.77	3.21	4
2004	0.66	0.10	0.52	0.82	12	0.63	0.06	0.55	0.72	12	2.04	0.45	1.56	2.62	4	2.48	0.86	1.19	3.06	4
2005	1.05	0.20	0.75	1.31	12	0.77	0.04	0.72	0.87	9	2.63	0.51	2.05	2.98	3	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.77		0.25	1.40		0.52		0.07	1.73		2.58		0.94	8.39		2.45		0.59	8.56	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00194	-0.003	0.57568	0.00312	-0.00956	-0.00356	0	0.91824	0.00629	-0.00394	0.02667	0.015	0.47311	0.04	-0.00744	0.0252	0.024	0.22999	0.05079	-0.00767

Table 48. Area 7, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 7	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	2	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	2	ND	ND	ND	ND	0	7.82	0.00	7.82	7.82	1
1980	ND	ND	ND	ND	0	0.14	0.02	0.12	0.15	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1981	4.05	0.12	3.92	4.12	3	0.34	0.13	0.18	0.52	5	ND	ND	ND	ND	0	9.64	0.00	9.64	9.64	1
1982	4.06	0.09	3.98	4.16	3	0.43	0.70	0.12	2.06	17	ND	ND	ND	ND	0	5.73	2.46	3.03	9.40	5
1983	4.01	0.29	3.50	4.33	6	0.12	0.00	0.12	0.12	7	5.93	0.00	5.93	5.93	1	4.34	0.00	4.34	4.34	1
1984	3.19	0.79	2.30	4.32	10	0.12	0.01	0.12	0.13	6	6.23	0.25	6.05	6.40	2	7.51	1.31	6.58	8.43	2
1985	3.21	0.49	2.40	3.63	8	0.12	0.00	0.12	0.12	3	7.69	0.86	7.08	8.29	2	ND	ND	ND	ND	0
1986	4.02	0.72	3.24	4.76	6	0.88	1.15	0.12	3.24	17	10.20	0.00	10.20	10.20	1	8.38	2.66	5.46	10.92	4
1987	3.23	1.50	0.80	5.52	12	0.15	0.03	0.12	0.21	22	10.01	2.44	7.35	12.15	3	4.94	3.25	0.29	8.84	5
1988	4.86	1.70	3.00	7.70	6	0.49	0.38	0.12	1.65	25	8.65	0.00	8.65	8.65	1	4.43	4.35	0.55	10.25	6
1989	3.27	0.26	3.02	3.65	6	0.15	0.05	0.12	0.32	27	8.78	1.38	7.80	9.75	2	5.81	5.11	0.12	14.17	8
1990	3.98	1.09	2.68	5.52	11	0.23	0.18	0.12	0.78	27	5.49	3.73	0.17	8.93	5	9.04	2.83	3.51	12.93	10
1991	5.03	1.63	2.57	7.80	17	0.43	0.47	0.10	1.75	35	9.52	0.82	8.60	10.59	4	7.82	3.61	0.62	12.84	9
1992	4.25	1.01	2.14	5.57	17	0.20	0.10	0.10	0.44	32	7.47	3.31	2.65	10.15	5	7.24	3.44	2.53	10.86	7
1993	4.93	0.07	4.82	5.00	5	0.29	0.38	0.12	1.92	37	8.32	0.00	8.32	8.32	1	6.77	5.20	0.13	14.92	9
1994	4.09	1.92	1.55	7.33	16	0.13	0.01	0.12	0.17	28	9.79	0.74	8.78	10.53	4	6.96	2.59	3.25	9.61	6
1995	4.35	1.08	2.43	5.44	23	0.37	0.34	0.12	1.03	37	7.25	4.76	0.45	10.51	6	6.13	3.76	0.88	11.52	10
1996	4.46	1.22	1.99	6.28	19	0.16	0.06	0.11	0.28	19	7.57	2.47	4.12	11.49	6	7.51	2.64	3.78	11.08	5
1997	3.33	0.67	2.22	4.34	27	0.14	0.02	0.12	0.19	36	9.05	0.96	7.93	11.02	8	7.64	2.70	3.56	12.23	10
1998	4.16	1.06	3.06	5.77	19	0.13	0.02	0.11	0.19	20	10.46	1.33	7.97	11.82	6	9.15	4.49	0.11	12.03	6
1999	3.66	1.35	2.33	5.52	15	0.13	0.02	0.10	0.16	25	8.38	4.68	0.39	11.72	5	8.37	5.75	0.00	12.77	7
2000	4.02	0.57	2.77	4.99	23	0.14	0.06	0.11	0.41	28	6.63	4.61	0.00	11.02	7	7.82	3.30	0.01	10.21	8
2001	1.70	0.93	0.74	2.59	6	0.14	0.01	0.12	0.17	12	7.86	0.34	7.62	8.10	2	7.03	1.10	6.37	8.67	4
2002	3.02	0.64	2.21	3.67	9	0.17	0.02	0.13	0.21	12	6.57	1.80	4.81	8.41	3	5.77	1.70	3.38	7.18	4
2003	3.22	0.70	2.13	3.96	12	0.13	0.01	0.12	0.15	12	7.72	1.82	6.16	10.35	4	5.37	0.58	4.61	5.94	4
2004	2.36	0.91	1.04	3.52	12	0.12	0.00	0.12	0.13	12	7.78	0.90	6.77	8.97	4	4.27	1.07	3.33	5.76	4
2005	2.84	0.95	1.37	3.89	12	0.15	0.02	0.13	0.20	12	6.70	1.60	5.24	8.76	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.73		0.74	7.80		0.22		0.10	3.24		8.00		0.00	12.15		6.89		0.00	14.92	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04015	-0.032	0.00919	-0.01146	-0.05494	-0.01257	0	0.55374	0.00047	-0.00196	-0.02178	-0.016	0.7712	0.07833	-0.09625	0.01399	-0.042	0.24973	0.032	-0.13

Table 49. Area 7, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 7	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.30	0.00	0.30	0.30	2	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	0.06	0.06	0.02	0.10	2	ND	ND	ND	ND	0	0.02	0.00	0.02	0.02	1
1980	ND	ND	ND	ND	0	0.73	0.21	0.50	0.90	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1981	0.23	0.06	0.20	0.30	3	0.70	0.43	0.30	1.40	5	ND	ND	ND	ND	0	0.30	0.00	0.30	0.30	1
1982	0.25	0.07	0.20	0.30	2	0.72	0.91	0.10	3.00	13	ND	ND	ND	ND	0	1.46	1.59	0.33	3.80	4
1983	1.05	0.94	0.15	2.00	6	0.25	0.04	0.20	0.30	6	0.07	0.00	0.07	0.07	1	0.96	0.00	0.96	0.96	1
1984	0.21	0.13	0.05	0.43	10	0.28	0.10	0.20	0.40	6	0.12	0.09	0.05	0.18	2	0.40	0.42	0.10	0.70	2
1985	0.15	0.06	0.05	0.20	6	0.10	0.00	0.10	0.10	3	0.10	0.00	0.10	0.10	1	ND	ND	ND	ND	0
1986	0.33	0.13	0.20	0.52	6	0.44	0.41	0.02	1.30	17	0.07	0.00	0.07	0.07	1	0.66	0.20	0.40	0.82	4
1987	0.92	0.53	0.29	2.00	10	0.71	0.50	0.20	2.40	22	0.47	0.47	0.11	1.00	3	5.54	8.97	0.50	21.30	5
1988	0.44	0.28	0.20	0.91	6	0.62	0.37	0.10	1.60	25	0.28	0.00	0.28	0.28	1	1.48	1.61	0.02	4.20	6
1989	0.17	0.08	0.11	0.30	6	0.09	0.02	0.05	0.10	5	0.18	0.04	0.15	0.20	2	0.13	0.11	0.05	0.20	2
1990	0.15	0.07	0.10	0.27	8	0.13	0.05	0.10	0.20	11	0.37	0.55	0.09	1.20	4	0.34	0.43	0.10	1.10	5
1991	0.88	0.80	0.10	2.10	14	0.98	0.64	0.10	2.00	26	1.81	1.20	0.43	2.60	3	1.53	0.48	0.90	2.10	6
1992	0.65	0.71	0.10	2.40	17	0.57	0.40	0.10	1.70	27	1.22	2.01	0.18	4.80	5	1.06	0.88	0.10	2.30	5
1993	0.54	0.59	0.10	1.60	11	0.43	0.61	0.10	3.40	33	0.77	0.83	0.10	1.70	3	0.98	0.56	0.30	1.90	7
1994	0.20	0.08	0.10	0.34	12	0.54	0.51	0.10	1.50	28	0.36	0.38	0.12	0.80	3	3.39	2.99	0.74	8.60	6
1995	0.54	0.32	0.22	1.10	8	1.65	1.96	0.05	5.00	16	7.97	10.79	0.34	15.60	2	6.98	5.21	2.14	12.50	3
1996	0.85	0.65	0.18	2.20	16	0.24	0.21	0.05	0.80	18	3.48	3.69	0.05	7.80	5	1.19	0.81	0.21	2.10	5
1997	0.17	0.13	0.05	0.50	27	0.21	0.14	0.07	0.70	25	0.81	1.41	0.08	4.25	8	1.03	1.12	0.10	3.30	7
1998	0.15	0.10	0.05	0.46	16	0.14	0.11	0.03	0.50	20	0.54	0.52	0.05	1.40	5	4.35	10.36	0.05	25.50	6
1999	0.18	0.08	0.10	0.40	15	0.20	0.13	0.10	0.50	17	1.83	3.00	0.11	7.10	5	3.66	6.19	0.08	12.90	4
2000	0.24	0.15	0.10	0.60	21	0.26	0.19	0.05	0.80	28	3.02	4.68	0.10	10.30	7	3.69	6.88	0.06	20.00	8
2001	0.22	0.07	0.12	0.33	6	0.21	0.08	0.05	0.35	12	0.34	0.08	0.28	0.40	2	1.07	0.59	0.23	1.54	4
2002	0.25	0.16	0.08	0.46	9	0.19	0.07	0.11	0.30	12	0.27	0.11	0.15	0.36	3	0.54	0.36	0.14	0.87	4
2003	0.39	0.24	0.15	0.78	12	0.15	0.09	0.05	0.31	12	0.19	0.07	0.11	0.27	4	0.83	0.32	0.42	1.18	4
2004	0.27	0.09	0.16	0.39	10	0.12	0.06	0.05	0.24	12	0.25	0.10	0.18	0.40	4	0.17	0.06	0.10	0.23	4
2005	0.32	0.23	0.10	0.84	12	0.20	0.19	0.05	0.53	12	0.11	0.09	0.05	0.24	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.39		0.05	2.40		0.40		0.02	5.00		1.07		0.05	15.60		1.74		0.02	25.50	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01412	-0.003	0.25293	0.00206	-0.00778	-0.02078	-0.01	0.01288	-0.00264	-0.01715	0.01597	0.001	0.82696	0.00857	-0.01154	0.02538	-0.01	0.37408	0.0105	-0.04

Table 50. Area 7, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 7	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	25.6	1.8	24.3	26.8	2	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	23.1	1.6	21.9	24.2	2	ND	ND	ND	ND	0	22.3	0.0	22.3	22.3	1
1980	ND	ND	ND	ND	0	24.0	1.2	22.6	24.8	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1981	ND	ND	ND	ND	0	24.2	2.5	21.8	26.7	3	ND	ND	ND	ND	0	27.7	0.0	27.7	27.7	1
1982	ND	ND	ND	ND	0	19.1	4.8	8.3	26.3	14	ND	ND	ND	ND	0	18.5	4.5	12.0	22.1	4
1983	19.5	0.9	19.0	20.6	3	20.7	1.0	19.9	22.1	4	21.4	0.0	21.4	21.4	1	23.2	0.0	23.2	23.2	1
1984	19.9	1.3	18.1	21.3	6	20.4	0.6	19.8	20.9	3	21.1	0.6	20.6	21.5	2	19.8	0.0	19.8	19.8	1
1985	19.9	1.6	18.8	21.8	3	ND	ND	ND	ND	0	23.7	0.0	23.7	23.7	1	ND	ND	ND	ND	0
1986	19.8	0.7	19.3	20.6	3	23.0	2.9	16.2	28.4	15	24.4	0.0	24.4	24.4	1	24.9	3.5	19.6	27.1	4
1987	20.2	3.8	14.5	25.7	10	16.7	7.3	8.2	31.3	19	24.6	8.2	16.8	33.2	3	22.1	9.6	12.3	35.5	5
1988	21.9	0.6	21.4	22.6	3	15.8	6.4	6.3	24.0	14	13.3	0.0	13.3	13.3	1	20.2	7.6	12.7	29.1	4
1989	24.0	0.9	23.3	25.0	3	17.0	4.1	11.1	22.7	13	27.9	0.0	27.9	27.9	1	16.8	7.4	10.1	25.6	4
1990	18.7	2.1	15.0	20.1	5	12.8	6.6	3.0	24.5	15	23.9	2.8	20.7	26.2	3	13.5	9.9	6.3	28.2	4
1991	21.8	0.2	21.7	22.0	3	9.9	3.6	2.7	15.3	16	28.2	0.0	28.2	28.2	1	14.7	6.1	8.6	22.3	4
1992	25.4	1.2	24.1	26.9	6	13.0	4.8	2.8	18.7	19	28.5	0.4	28.2	28.8	2	14.2	5.9	8.3	23.0	5
1993	ND	ND	ND	ND	0	17.0	8.2	5.1	28.8	28	ND	ND	ND	ND	0	19.4	8.1	7.0	28.5	6
1994	21.6	2.6	16.6	26.0	11	7.0	2.7	2.2	11.0	12	26.6	1.9	24.4	27.7	3	13.5	5.9	7.9	19.6	3
1995	15.6	7.5	5.9	23.8	20	16.8	7.4	6.1	30.8	25	20.7	9.5	9.0	28.6	5	15.9	7.2	6.7	26.0	6
1996	18.2	7.1	7.3	31.8	13	18.8	6.4	10.0	28.1	19	24.3	8.9	12.0	32.9	4	22.0	4.4	15.9	26.7	5
1997	21.8	2.1	19.2	26.5	15	21.4	3.0	17.4	27.9	15	26.4	2.2	23.9	29.2	4	25.3	2.3	22.7	28.2	4
1998	22.9	3.1	19.4	31.4	13	20.8	3.4	16.8	30.3	20	26.1	2.7	23.1	29.5	4	25.7	8.6	10.5	37.4	6
1999	16.7	7.1	5.9	26.3	15	20.1	4.0	12.0	28.0	25	23.6	5.6	13.7	27.6	5	23.6	5.7	15.5	28.7	7
2000	18.7	3.5	11.9	24.9	22	18.1	3.8	10.9	22.3	24	23.1	3.9	17.6	28.2	7	22.0	5.4	15.9	27.9	7
2001	18.1	0.5	17.2	18.4	6	21.5	2.2	18.0	24.6	11	23.6	1.9	22.2	24.9	2	23.5	3.2	19.4	26.3	4
2002	19.4	1.8	16.9	21.8	9	22.6	2.7	19.7	27.6	12	20.1	3.7	17.5	22.7	2	21.4	0.7	20.5	22.0	4
2003	20.1	1.5	18.2	23.0	11	20.2	1.6	18.6	22.8	12	22.7	1.2	21.1	24.0	4	21.3	1.9	19.9	24.0	4
2004	20.3	1.8	18.4	24.5	12	19.9	0.6	19.2	20.7	12	24.4	1.1	22.9	25.4	4	19.3	1.1	18.4	20.7	4
2005	20.9	2.5	16.6	25.5	12	24.2	4.5	21.1	33.4	9	22.8	2.7	19.7	24.9	3	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	20.2		5.9	31.8		19.0		2.2	33.4		23.7		9.0	33.2		20.4		6.3	37.4	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.03638	-0.002	0.941	0.08542	-0.08039	0.12883	0.013	0.86556	0.19008	-0.11964	-0.00664	-0.028	0.7637	0.10952	-0.16667	0.13772	-0.05	0.73866	0.18864	-0.25556

Table 51. Area 7, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 7	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	5.95	0.07	5.90	6.00	2	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	3.30	0.14	3.20	3.40	2	ND	ND	ND	ND	0	33.10	0.00	33.10	33.10	1
1980	ND	ND	ND	ND	0	2.83	0.12	2.70	2.90	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1981	ND	ND	ND	ND	0	6.07	0.23	5.80	6.20	3	ND	ND	ND	ND	0	52.40	0.00	52.40	52.40	1
1982	ND	ND	ND	ND	0	3.14	0.48	2.30	3.90	10	ND	ND	ND	ND	0	49.73	27.61	23.20	78.30	3
1983	16.90	0.36	16.60	17.30	3	4.63	0.13	4.50	4.80	4	34.50	0.00	34.50	34.50	1	22.30	0.00	22.30	22.30	1
1984	14.84	3.30	12.10	18.50	7	7.40	0.00	7.40	7.40	3	43.80	11.60	35.60	52.00	2	24.80	0.00	24.80	24.80	1
1985	12.37	0.40	11.90	12.60	3	ND	ND	ND	ND	0	43.80	0.00	43.80	43.80	1	ND	ND	ND	ND	0
1986	13.00	0.10	12.90	13.10	3	10.19	5.48	4.60	18.10	15	44.00	0.00	44.00	44.00	1	47.30	17.98	31.50	64.00	4
1987	11.55	3.93	5.90	16.10	10	5.67	2.44	2.90	9.50	19	51.50	22.16	28.20	72.30	3	46.40	28.46	23.60	82.70	5
1988	ND	ND	ND	ND	0	3.56	1.60	0.60	7.50	22	ND	ND	ND	ND	0	29.77	12.40	17.60	45.30	6
1989	12.60	0.35	12.30	13.30	6	5.66	1.34	2.90	7.80	26	35.40	3.11	33.20	37.60	2	29.66	19.68	12.50	63.10	7
1990	10.52	2.36	8.10	12.70	6	6.37	3.65	0.10	14.80	24	46.63	21.83	24.20	67.80	3	21.50	10.44	2.20	32.90	7
1991	10.58	1.12	9.50	11.70	6	10.82	3.02	5.40	14.00	16	36.40	2.40	34.70	38.10	2	32.50	6.04	27.20	38.50	4
1992	15.06	1.99	11.50	16.40	12	13.33	5.00	8.10	28.10	25	26.93	8.45	17.80	34.70	4	29.80	13.43	17.90	50.60	7
1993	16.30	1.88	13.40	19.50	11	12.94	1.68	10.20	17.60	37	34.17	5.37	30.30	40.30	3	25.06	11.32	11.40	46.60	9
1994	9.29	3.88	3.90	13.60	16	7.48	0.94	6.30	9.40	28	31.45	6.68	24.10	40.20	4	27.23	11.90	14.60	47.30	6
1995	8.40	4.12	0.70	12.70	20	9.89	2.77	4.10	18.10	35	36.62	14.75	11.40	52.40	6	29.73	13.56	14.70	48.50	10
1996	10.76	2.45	8.50	15.30	16	7.07	1.40	5.60	10.40	19	36.12	11.22	19.00	45.10	5	26.44	8.22	14.60	36.70	5
1997	9.90	0.96	8.40	12.90	27	5.04	1.89	1.00	7.90	37	33.15	8.20	24.30	44.90	8	28.00	9.85	13.60	43.20	10
1998	10.99	1.87	8.80	13.80	19	9.92	1.14	8.30	11.90	20	44.10	9.85	32.30	58.10	6	41.22	21.19	29.40	84.20	6
1999	12.47	2.17	8.90	15.70	15	9.66	1.80	6.60	11.90	25	43.32	8.07	36.40	56.60	5	48.41	18.40	35.10	77.40	7
2000	14.24	1.09	12.30	15.80	23	10.08	0.41	9.30	11.20	28	44.83	9.54	32.30	58.50	7	44.64	14.37	29.80	69.90	8
2001	6.60	1.83	4.90	8.30	6	6.07	0.60	5.30	7.00	12	37.35	1.49	36.30	38.40	2	30.25	8.15	22.10	37.80	4
2002	11.04	0.90	9.90	12.00	9	11.43	0.63	10.90	12.50	12	42.77	3.70	39.10	46.50	3	31.85	2.27	28.70	33.60	4
2003	13.39	0.67	12.30	14.20	12	9.46	0.57	8.30	10.30	12	39.10	8.44	28.90	47.30	4	33.38	2.92	29.10	35.70	4
2004	10.58	1.13	9.20	12.10	12	9.84	1.52	6.30	11.30	12	32.45	3.14	28.50	35.90	4	36.93	12.70	18.00	44.70	4
2005	14.24	3.18	10.30	18.50	12	8.93	1.49	7.00	10.90	12	40.38	4.93	33.40	44.00	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	12.07		0.70	19.50		7.66		0.10	28.10		39.03		11.40	72.30		34.27		2.20	84.20	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04107	-0.081	0.50326	0.06481	-0.17436	0.18003	0.176	0.00063	0.25926	0.10175	-0.0413	0.15	0.40848	0.4625	-0.2	0.0424	0.03	0.87653	0.4	-0.3125

Table 52. Area 7, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 7	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	14.00	0.00	14.00	14.00	2	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1978	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1979	ND	ND	ND	ND	0	5.07	3.21	2.80	7.33	2	ND	ND	ND	ND	0	5.64	0.00	5.64	5.64	1
1980	ND	ND	ND	ND	0	21.52	11.30	9.55	32.00	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1981	7.97	1.09	7.10	9.19	3	17.53	3.08	13.14	20.50	5	ND	ND	ND	ND	0	4.30	0.00	4.30	4.30	1
1982	6.87	0.18	6.74	7.00	2	32.02	45.64	3.67	178.50	13	ND	ND	ND	ND	0	3.21	1.29	1.33	4.23	4
1983	7.11	1.65	5.13	8.76	6	8.45	6.29	4.11	21.00	6	3.43	0.00	3.43	3.43	1	6.16	0.00	6.16	6.16	1
1984	5.79	1.87	3.26	8.54	10	11.26	9.99	3.20	26.00	6	3.92	1.89	2.58	5.26	2	5.35	0.46	5.02	5.67	2
1985	6.42	0.87	5.53	7.42	6	11.00	0.00	11.00	11.00	3	3.66	0.00	3.66	3.66	1	ND	ND	ND	ND	0
1986	7.90	0.93	6.69	8.98	6	19.16	19.25	5.64	78.40	17	4.94	0.00	4.94	4.94	1	4.26	1.45	2.17	5.29	4
1987	25.07	44.81	5.81	150.40	10	7.87	6.67	1.52	21.00	22	4.21	1.42	2.64	5.41	3	4.97	1.58	2.66	6.81	5
1988	9.40	3.31	6.35	15.66	6	13.93	6.32	5.17	28.40	25	2.99	0.00	2.99	2.99	1	4.79	2.87	1.36	8.46	6
1989	6.06	0.39	5.61	6.60	6	2.31	0.30	2.00	2.75	5	3.90	0.05	3.87	3.94	2	3.99	1.11	3.21	4.78	2
1990	5.29	0.87	4.27	6.68	8	3.40	3.24	0.78	11.00	11	3.05	0.22	2.87	3.37	4	6.82	2.59	3.03	9.65	5
1991	10.05	2.45	7.71	15.18	14	9.35	7.33	1.63	30.00	24	5.61	1.02	4.63	6.67	3	5.89	3.37	1.30	9.89	6
1992	6.45	1.91	3.17	9.24	16	12.26	17.79	2.93	86.00	27	6.44	2.62	4.14	10.83	5	11.11	9.72	4.39	28.29	5
1993	7.71	0.27	7.45	8.14	5	8.85	6.53	2.44	33.23	32	5.20	0.00	5.20	5.20	1	5.72	5.06	1.76	15.96	7
1994	8.17	0.55	7.34	9.34	9	15.47	12.46	2.44	66.50	28	5.49	0.42	5.19	5.78	2	5.44	1.54	3.42	7.64	6
1995	9.28	1.59	7.71	11.54	8	17.77	24.33	1.38	97.17	16	3.72	2.16	2.19	5.25	2	7.07	2.94	4.07	9.96	3
1996	11.20	2.64	7.65	17.11	16	12.09	16.22	2.67	66.00	18	4.56	1.72	2.97	7.02	5	5.24	1.00	3.61	6.06	5
1997	10.37	1.99	6.71	15.11	27	5.57	3.03	2.78	13.67	24	5.13	0.87	4.32	6.60	8	4.92	1.56	2.80	7.46	7
1998	12.71	3.08	8.34	19.57	16	3.22	2.45	1.22	12.20	20	4.55	0.53	3.78	5.07	5	5.18	1.03	3.40	5.97	6
1999	7.39	2.24	4.31	11.14	15	4.64	1.82	1.93	9.29	17	3.89	1.00	2.24	4.93	5	4.02	1.44	1.98	5.10	4
2000	7.27	1.70	4.58	10.98	21	27.47	27.62	1.69	91.00	28	3.08	0.95	1.85	4.20	7	3.98	0.62	3.19	5.26	8
2001	5.10	1.63	3.19	6.81	6	6.91	3.52	2.57	12.75	12	3.21	0.49	2.86	3.55	2	4.38	1.03	3.11	5.25	4
2002	6.56	0.26	6.21	6.95	8	3.56	1.49	1.14	5.38	12	2.61	0.59	2.02	3.19	3	3.14	0.88	1.98	4.01	4
2003	6.11	0.43	5.54	6.68	12	3.32	1.14	1.55	5.00	12	3.63	1.05	2.27	4.64	4	2.91	0.36	2.55	3.36	4
2004	4.52	0.81	3.65	6.46	10	1.18	0.42	0.52	1.80	12	4.64	1.37	2.93	6.05	4	2.15	1.12	1.16	3.72	4
2005	3.60	1.21	2.24	5.57	12	2.30	0.63	0.90	3.27	12	2.76	1.07	1.81	4.09	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	8.17		2.24	150.40		10.77		0.52	178.50		4.11		1.81	10.83		5.03		1.16	28.29	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.1743	-0.084	0.07389	-0.00162	-0.16284	-0.43001	-0.454	0	-0.30693	-0.6164	-0.05293	-0.053	0.1389	0.00734	-0.10518	-0.08391	-0.085	0.00564	-0.03404	-0.13637

Table 53. Area 8, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 8	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.48	0.01	0.47	0.48	3	0.09	0.03	0.05	0.13	6	2.39	0.00	2.39	2.39	1	2.88	0.18	2.67	2.99	3
1977	0.39	0.06	0.31	0.46	5	0.05	0.03	0.02	0.10	10	3.15	0.00	3.15	3.15	1	3.51	0.24	3.22	3.81	6
1978	0.55	0.10	0.43	0.68	8	0.16	0.02	0.14	0.18	3	3.16	0.27	2.77	3.54	6	3.05	0.00	3.05	3.05	1
1979	0.45	0.12	0.24	0.52	5	0.06	0.04	0.02	0.19	24	2.74	0.19	2.58	2.95	3	3.00	0.17	2.73	3.22	10
1980	0.52	0.01	0.51	0.54	4	0.06	0.03	0.02	0.11	13	2.95	0.23	2.74	3.19	3	3.29	0.29	3.00	3.57	6
1981	ND	ND	ND	ND	0	0.05	0.00	0.05	0.05	1	ND	ND	ND	ND	0	3.43	0.00	3.43	3.43	1
1982	ND	ND	ND	ND	0	0.06	0.03	0.02	0.12	13	ND	ND	ND	ND	0	3.13	0.24	2.85	3.40	4
1983	0.70	0.07	0.60	0.76	6	0.06	0.02	0.04	0.07	2	3.01	0.18	2.85	3.20	3	3.28	0.00	3.28	3.28	1
1984	0.82	0.02	0.80	0.84	6	0.05	0.01	0.05	0.06	3	2.75	0.11	2.62	2.84	3	3.63	0.00	3.63	3.63	1
1985	0.56	0.04	0.51	0.61	6	0.16	0.09	0.04	0.25	10	2.86	0.51	2.28	3.19	3	3.18	0.71	2.68	4.22	4
1986	0.51	0.03	0.48	0.54	6	0.02	0.00	0.02	0.02	3	3.04	0.17	2.85	3.18	3	3.85	0.00	3.85	3.85	1
1987	0.68	0.01	0.67	0.69	5	0.15	0.09	0.03	0.26	10	2.63	1.19	1.25	3.38	3	2.92	0.15	2.75	3.02	3
1988	0.48	0.02	0.44	0.50	6	0.06	0.03	0.02	0.10	16	3.16	0.15	2.99	3.26	3	3.29	0.45	2.70	3.99	6
1989	0.65	0.02	0.61	0.68	8	0.06	0.03	0.02	0.13	15	3.19	0.11	3.10	3.34	4	3.07	0.31	2.84	3.69	6
1990	0.70	0.03	0.66	0.73	6	0.03	0.00	0.03	0.03	3	3.10	0.31	2.77	3.38	3	2.82	0.13	2.73	2.91	2
1991	0.71	0.11	0.48	0.82	9	0.11	0.07	0.04	0.31	16	2.60	0.34	2.10	2.85	4	2.32	0.24	1.97	2.56	7
1992	0.80	0.11	0.60	0.94	12	0.16	0.09	0.04	0.29	9	2.26	0.19	2.03	2.49	5	2.16	0.16	1.99	2.38	4
1993	0.81	0.07	0.74	0.87	4	0.06	0.02	0.03	0.09	29	ND	ND	ND	ND	0	2.04	0.19	1.62	2.29	12
1994	0.50	0.11	0.33	0.63	21	0.04	0.02	0.02	0.08	27	2.18	0.13	1.90	2.31	8	2.56	0.10	2.39	2.69	10
1995	0.68	0.05	0.63	0.79	16	0.12	0.03	0.04	0.18	20	2.47	0.14	2.28	2.64	6	2.44	0.25	2.08	2.97	8
1996	0.48	0.05	0.43	0.59	10	0.08	0.03	0.03	0.17	25	2.48	0.14	2.31	2.65	4	2.79	0.16	2.64	3.17	11
1997	0.49	0.05	0.39	0.57	19	0.12	0.08	0.05	0.32	22	3.01	0.45	2.09	3.42	7	3.36	0.47	2.72	4.35	9
1998	0.44	0.10	0.30	0.73	19	0.15	0.02	0.10	0.19	24	3.59	0.26	3.33	4.15	9	3.45	0.26	3.18	4.13	11
1999	0.49	0.12	0.35	0.69	18	0.09	0.03	0.04	0.14	24	3.58	0.34	3.17	4.24	7	3.75	0.29	3.48	4.46	12
2000	0.59	0.19	0.33	0.82	18	0.10	0.05	0.05	0.23	24	3.61	0.27	3.26	3.99	9	3.68	0.17	3.45	4.02	12
2001	0.39	0.06	0.32	0.48	11	0.07	0.03	0.04	0.14	24	3.90	0.39	3.25	4.36	6	4.18	0.15	3.95	4.41	12
2002	0.57	0.16	0.34	0.70	17	0.10	0.06	0.05	0.26	24	4.11	0.30	3.69	4.40	7	4.24	0.14	4.06	4.53	10
2003	0.51	0.09	0.36	0.62	17	0.09	0.07	0.02	0.22	21	4.22	0.12	4.06	4.37	8	4.34	0.12	4.13	4.57	11
2004	0.72	0.28	0.33	0.98	18	0.19	0.11	0.07	0.41	24	4.42	0.23	4.23	5.01	9	4.07	0.21	3.82	4.40	12
2005	0.92	0.09	0.81	1.02	12	0.14	0.14	0.06	0.48	18	3.74	0.17	3.44	3.94	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.59		0.24	1.02		0.09		0.02	0.48		3.12		1.25	5.01		3.23		1.62	4.57	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.00124	0	0.79292	0.00587	-0.00345	0.00217	0.002	0.00001	0.0028	0.00133	0.05103	0.062	0	0.08222	0.04308	0.03988	0.038	0.00082	0.05714	0.02233

Table 54. Area 8, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 8	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.68	0.07	0.61	0.75	3	0.55	0.03	0.52	0.61	6	3.09	0.00	3.09	3.09	1	3.07	0.00	3.07	3.07	1
1977	0.58	0.12	0.46	0.72	9	0.42	0.11	0.29	0.68	10	3.17	0.20	2.89	3.46	6	3.35	0.10	3.27	3.46	3
1978	0.73	0.07	0.65	0.84	6	0.68	0.11	0.61	0.81	3	3.44	0.19	3.14	3.65	5	3.10	0.00	3.10	3.10	1
1979	0.64	0.08	0.52	0.70	5	0.38	0.07	0.30	0.54	22	3.21	0.27	3.00	3.52	3	3.42	0.23	3.07	3.86	10
1980	0.72	0.01	0.71	0.72	4	0.52	0.18	0.28	0.88	13	3.32	0.22	3.14	3.56	3	3.45	0.25	3.14	3.70	6
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	0.37	0.07	0.29	0.53	10	ND	ND	ND	ND	0	3.55	0.19	3.28	3.72	4
1983	0.90	0.05	0.84	0.98	6	ND	ND	ND	ND	0	3.84	0.82	3.20	4.77	3	ND	ND	ND	ND	0
1984	1.10	0.04	1.05	1.16	6	0.49	0.05	0.46	0.55	3	3.34	0.09	3.26	3.44	3	3.90	0.00	3.90	3.90	1
1985	0.58	0.03	0.56	0.61	3	0.61	0.16	0.39	0.79	10	3.13	0.72	2.31	3.63	3	3.74	0.40	3.45	4.33	4
1986	0.64	0.05	0.59	0.73	6	0.28	0.03	0.25	0.31	3	3.24	0.13	3.14	3.33	2	3.90	0.00	3.90	3.90	1
1987	0.77	0.05	0.71	0.82	5	0.50	0.17	0.27	0.76	10	2.37	1.52	1.29	3.44	2	3.54	0.60	3.18	4.24	3
1988	0.59	0.03	0.54	0.62	6	0.36	0.10	0.20	0.52	16	3.21	0.18	3.08	3.34	2	3.21	0.38	2.71	3.65	5
1989	0.74	0.09	0.64	0.88	6	0.56	0.08	0.45	0.72	12	3.18	0.01	3.17	3.19	3	3.25	0.26	3.08	3.70	5
1990	0.78	0.05	0.74	0.83	3	0.39	0.06	0.35	0.46	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	0.84	0.08	0.71	0.94	9	0.62	0.08	0.48	0.78	17	2.72	0.13	2.55	2.87	4	2.37	0.12	2.20	2.49	4
1992	1.06	0.04	1.01	1.11	9	0.58	0.08	0.49	0.71	9	2.51	0.30	2.07	2.75	4	2.44	0.21	2.13	2.57	4
1993	ND	ND	ND	ND	0	0.52	0.13	0.33	0.75	29	ND	ND	ND	ND	0	2.30	0.17	2.01	2.54	12
1994	0.74	0.08	0.59	0.87	19	0.32	0.01	0.31	0.33	3	2.52	0.21	2.23	2.82	8	2.40	0.00	2.40	2.40	1
1995	0.80	0.16	0.55	1.00	24	0.67	0.13	0.45	0.97	20	2.88	0.17	2.53	3.02	8	2.71	0.18	2.54	3.02	7
1996	0.82	0.10	0.64	0.93	7	0.37	0.08	0.24	0.53	22	2.75	0.09	2.63	2.82	4	3.16	0.20	2.91	3.59	8
1997	0.74	0.04	0.68	0.83	18	0.47	0.12	0.33	0.76	22	3.53	0.63	2.20	4.05	7	3.58	0.53	2.79	4.53	9
1998	0.60	0.16	0.44	0.91	16	0.40	0.05	0.30	0.48	21	4.11	0.31	3.65	4.51	6	4.00	0.26	3.69	4.61	10
1999	0.68	0.08	0.57	0.80	12	0.39	0.05	0.31	0.48	24	4.04	0.25	3.70	4.40	7	4.32	0.38	3.88	5.05	12
2000	0.80	0.15	0.59	0.99	17	0.42	0.12	0.27	0.77	24	4.04	0.37	3.64	4.59	9	4.25	0.27	3.83	4.64	12
2001	0.55	0.04	0.47	0.63	12	0.33	0.08	0.18	0.53	24	4.60	0.67	3.51	5.49	6	4.49	0.18	4.17	4.81	12
2002	0.75	0.12	0.57	0.92	17	0.43	0.09	0.29	0.74	23	4.65	0.40	4.04	5.21	7	4.48	0.20	4.22	4.79	8
2003	0.60	0.09	0.52	0.74	17	0.47	0.10	0.35	0.81	21	4.41	0.10	4.26	4.57	8	4.42	0.16	4.26	4.72	11
2004	0.86	0.29	0.45	1.31	18	0.60	0.14	0.34	0.83	24	4.43	0.21	4.19	4.88	9	4.01	0.20	3.72	4.43	12
2005	1.09	0.13	0.87	1.24	12	0.68	0.18	0.52	1.19	18	4.00	0.14	3.89	4.19	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.75		0.44	1.31		0.48		0.18	1.19		3.45		1.29	5.49		3.48		2.01	5.05	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.00192	0.001	0.90075	0.0063	-0.00542	0.00089	0.001	0.52563	0.00367	-0.00206	0.04829	0.051	0.00008	0.08133	0.03464	0.04458	0.043	0.00014	0.05972	0.02833

Table 55. Area 8, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 8	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	1.81	0.01	1.81	1.82	3	0.14	0.04	0.12	0.22	6	2.87	0.00	2.87	2.87	1	3.67	0.65	3.15	4.39	3
1977	1.33	0.11	1.19	1.48	5	0.13	0.03	0.12	0.22	10	1.41	1.12	0.12	2.13	3	3.32	1.83	0.12	5.14	6
1978	2.17	0.71	1.24	2.72	6	0.12	0.00	0.12	0.12	3	4.07	0.47	3.52	4.45	5	4.90	0.00	4.90	4.90	1
1979	2.27	0.11	2.16	2.43	5	0.17	0.13	0.12	0.62	24	1.16	1.33	0.00	2.61	3	2.24	2.34	0.00	5.42	10
1980	2.00	0.12	1.89	2.17	4	0.13	0.03	0.12	0.22	13	0.91	0.88	0.07	1.82	3	0.19	0.16	0.12	0.51	6
1981	ND	ND	ND	ND	0	0.64	0.00	0.64	0.64	1	ND	ND	ND	ND	0	0.95	0.00	0.95	0.95	1
1982	ND	ND	ND	ND	0	0.14	0.04	0.12	0.22	13	ND	ND	ND	ND	0	2.03	2.47	0.00	5.17	4
1983	3.75	0.25	3.43	4.06	6	ND	ND	ND	ND	0	1.97	1.12	0.72	2.90	3	ND	ND	ND	ND	0
1984	2.98	0.33	2.54	3.40	6	0.12	0.00	0.12	0.12	3	2.97	0.29	2.73	3.29	3	6.49	0.00	6.49	6.49	1
1985	4.08	0.29	3.72	4.56	6	0.20	0.11	0.12	0.45	10	6.28	0.18	6.15	6.49	3	6.22	4.03	0.18	8.35	4
1986	3.39	0.28	2.94	3.70	6	0.12	0.00	0.12	0.12	3	7.11	0.23	6.85	7.30	3	0.64	0.00	0.64	0.64	1
1987	4.87	0.16	4.70	5.05	5	0.15	0.04	0.12	0.23	10	7.37	1.44	5.70	8.25	3	8.52	0.17	8.32	8.62	3
1988	2.84	0.31	2.39	3.28	6	0.12	0.01	0.12	0.17	16	6.64	0.87	5.65	7.25	3	6.15	0.46	5.65	6.80	6
1989	3.77	0.21	3.37	4.04	9	0.15	0.05	0.12	0.29	15	6.45	0.90	5.79	7.77	4	7.66	1.11	6.25	9.06	6
1990	2.78	0.55	2.18	3.31	6	0.14	0.01	0.13	0.15	3	5.92	1.22	4.69	7.12	3	8.45	0.10	8.38	8.52	2
1991	4.97	1.15	3.27	6.13	9	0.27	0.20	0.13	0.72	20	8.49	1.52	6.21	9.40	4	8.82	1.41	5.58	10.33	8
1992	4.23	0.57	3.22	5.00	12	0.20	0.16	0.12	0.62	9	8.83	1.48	6.32	9.81	5	9.43	0.56	8.62	9.89	4
1993	5.69	0.34	5.48	6.19	4	0.13	0.01	0.12	0.15	29	ND	ND	ND	ND	0	10.64	0.75	9.62	12.22	12
1994	4.24	0.98	2.88	5.50	21	0.13	0.01	0.12	0.15	27	11.07	0.56	10.48	11.97	8	10.85	0.41	10.33	11.76	10
1995	4.22	1.26	2.21	5.39	24	0.13	0.01	0.12	0.15	20	10.59	0.31	10.18	11.26	9	10.15	0.24	9.86	10.61	8
1996	3.48	0.57	2.34	4.40	10	0.12	0.05	0.00	0.17	25	10.36	0.32	10.03	10.79	4	11.23	0.36	10.70	11.67	11
1997	3.13	0.66	2.23	4.00	19	0.13	0.01	0.12	0.15	22	10.72	2.03	6.14	11.84	7	10.64	0.90	8.32	11.45	9
1998	2.85	1.09	0.95	4.00	19	0.14	0.02	0.12	0.19	24	10.50	1.09	8.39	11.48	9	9.64	1.75	4.41	10.46	11
1999	3.17	0.88	1.95	4.21	18	0.16	0.05	0.12	0.28	22	8.47	0.37	7.99	9.02	7	3.99	3.31	0.00	7.92	12
2000	3.37	1.13	1.80	4.38	18	0.14	0.03	0.12	0.25	24	1.55	1.82	0.00	4.70	9	1.54	2.05	0.00	5.52	12
2001	3.32	0.47	2.56	3.87	12	0.15	0.01	0.13	0.18	24	0.87	2.03	0.00	5.01	6	0.00	0.00	0.00	0.00	12
2002	2.94	1.03	1.58	4.28	18	0.14	0.01	0.12	0.16	24	0.11	0.23	0.00	0.61	7	0.00	0.00	0.00	0.00	10
2003	2.56	0.93	1.27	3.78	18	0.13	0.01	0.12	0.14	21	0.00	0.00	0.00	0.00	8	0.00	0.00	0.00	0.00	11
2004	1.74	1.13	0.24	2.99	18	0.13	0.01	0.12	0.18	24	0.00	0.00	0.00	0.00	9	0.00	0.00	0.00	0.00	12
2005	3.35	0.27	2.92	3.74	12	0.13	0.01	0.12	0.15	18	0.36	0.81	0.00	2.01	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.26		0.24	6.19		0.16		0.00	0.72		5.08		0.00	11.97		5.30		0.00	12.22	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01312	-0.022	0.41318	0.01767	-0.05778	-0.00095	0	0.96134	0.00037	-0.00067	-0.08686	-0.11	0.12702	0	-0.34889	-0.06818	-0.01	0.46562	0.06511	-0.12714

Table 56. Area 8, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 8	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.48	0.10	0.39	0.58	3	0.85	0.67	0.34	1.90	6	0.71	0.00	0.71	0.71	1	0.46	0.05	0.43	0.51	3
1977	1.25	0.31	0.92	1.58	5	0.42	0.24	0.19	0.70	10	0.49	0.52	0.18	1.09	3	0.88	1.50	0.02	3.90	6
1978	0.71	0.20	0.44	0.97	6	0.17	0.09	0.10	0.28	3	0.61	0.37	0.33	1.25	5	0.07	0.00	0.07	0.07	1
1979	0.74	0.05	0.66	0.78	5	0.29	0.15	0.10	0.80	24	1.16	1.03	0.13	2.19	3	1.53	1.16	0.25	3.50	10
1980	0.68	0.17	0.50	0.85	4	0.38	0.18	0.22	0.75	10	0.51	0.51	0.09	1.08	3	1.83	2.22	0.30	5.00	4
1981	ND	ND	ND	ND	0	0.30	0.00	0.30	0.30	1	ND	ND	ND	ND	0	3.30	0.00	3.30	3.30	1
1982	ND	ND	ND	ND	0	0.19	0.15	0.05	0.57	12	ND	ND	ND	ND	0	0.49	0.81	0.05	1.70	4
1983	0.21	0.08	0.13	0.32	6	ND	ND	ND	ND	0	0.30	0.29	0.13	0.63	3	ND	ND	ND	ND	0
1984	0.05	0.00	0.05	0.05	6	0.10	0.00	0.10	0.10	3	0.05	0.00	0.05	0.05	3	0.10	0.00	0.10	0.10	1
1985	0.24	0.08	0.10	0.33	6	0.28	0.09	0.20	0.49	10	0.37	0.04	0.33	0.40	3	1.08	1.22	0.16	2.80	4
1986	0.33	0.09	0.24	0.48	6	0.11	0.09	0.02	0.20	3	0.26	0.03	0.23	0.28	3	2.40	0.00	2.40	2.40	1
1987	0.43	0.34	0.08	0.81	5	0.34	0.36	0.08	1.32	10	0.29	0.29	0.11	0.63	3	0.24	0.31	0.05	0.60	3
1988	0.52	0.26	0.22	0.99	6	0.31	0.13	0.10	0.55	13	0.20	0.05	0.14	0.24	3	0.32	0.13	0.20	0.51	5
1989	0.40	0.09	0.30	0.52	9	0.23	0.15	0.05	0.50	9	0.15	0.06	0.10	0.23	4	0.15	0.10	0.05	0.30	5
1990	0.24	0.16	0.10	0.47	6	0.54	0.12	0.43	0.66	3	0.66	0.78	0.10	1.21	2	0.30	0.06	0.26	0.34	2
1991	0.89	0.52	0.34	1.60	9	1.01	0.83	0.26	2.80	12	1.07	1.49	0.29	3.30	4	0.80	0.71	0.26	2.20	6
1992	0.24	0.28	0.07	0.90	11	0.65	0.18	0.43	0.83	9	0.27	0.36	0.08	0.80	4	0.41	0.09	0.30	0.51	4
1993	0.10	0.00	0.10	0.10	2	0.22	0.06	0.12	0.33	29	ND	ND	ND	ND	0	0.14	0.05	0.05	0.22	11
1994	0.18	0.12	0.10	0.53	12	0.37	0.27	0.09	0.89	27	0.16	0.04	0.13	0.24	5	0.15	0.13	0.03	0.36	10
1995	0.10	0.06	0.05	0.22	15	0.11	0.11	0.05	0.50	20	0.08	0.06	0.05	0.18	5	0.16	0.06	0.10	0.27	8
1996	0.39	0.18	0.16	0.73	10	0.10	0.05	0.05	0.28	24	0.06	0.03	0.05	0.10	4	0.11	0.04	0.05	0.17	9
1997	0.28	0.14	0.10	0.55	19	0.10	0.03	0.06	0.13	4	0.09	0.05	0.05	0.18	7	0.59	0.75	0.15	1.45	3
1998	0.35	0.33	0.07	0.94	17	0.12	0.08	0.05	0.33	22	0.12	0.08	0.05	0.32	9	0.29	0.45	0.09	1.63	11
1999	0.39	0.21	0.07	0.67	17	0.18	0.10	0.05	0.47	21	0.18	0.09	0.06	0.32	7	1.02	1.62	0.14	5.47	10
2000	0.18	0.05	0.09	0.28	18	0.13	0.07	0.05	0.25	24	1.09	1.16	0.07	2.80	9	0.96	0.73	0.08	2.27	12
2001	0.24	0.08	0.11	0.37	9	0.19	0.07	0.05	0.35	24	2.05	1.05	0.16	3.31	6	4.45	0.81	3.46	5.72	12
2002	0.30	0.13	0.14	0.53	18	0.20	0.10	0.07	0.44	24	4.49	1.26	2.75	6.07	7	4.23	1.05	2.09	5.94	10
2003	0.81	0.45	0.27	1.58	17	0.15	0.07	0.05	0.36	20	4.41	0.68	3.35	5.14	8	5.27	0.54	4.76	6.58	11
2004	0.56	0.18	0.24	0.80	18	0.18	0.11	0.06	0.55	24	6.10	0.87	5.37	7.96	9	5.47	1.27	4.17	8.49	12
2005	0.11	0.09	0.05	0.32	12	0.07	0.03	0.05	0.14	18	3.49	0.61	2.94	4.55	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.41		0.05	1.60		0.29		0.02	2.80		1.09		0.05	7.96		1.33		0.02	8.49	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00754	-0.006	0.31778	0.00372	-0.01537	-0.01044	-0.007	0.00039	-0.00327	-0.01046	0.13832	0.037	0.05587	0.12458	0.0025	0.12219	0.037	0.02409	0.12725	0.00379

Table 57. Area 8, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 8	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	15.7	2.1	14.0	18.0	3	8.0	1.8	6.0	11.0	6	25.0	0.0	25.0	25.0	1	10.0	1.0	9.0	11.0	3
1977	ND	ND	ND	ND	0	19.5	3.0	13.0	23.0	10	ND	ND	ND	ND	0	20.2	3.5	16.0	25.9	6
1978	16.3	0.5	16.0	17.0	6	18.7	2.1	17.4	21.2	3	17.0	0.7	16.0	18.0	5	21.2	0.0	21.2	21.2	1
1979	16.1	2.0	13.1	17.6	5	17.9	3.0	15.0	27.9	22	15.8	0.9	15.0	16.8	3	17.9	2.3	15.0	22.8	10
1980	18.9	0.5	18.2	19.4	4	18.5	3.2	14.7	23.6	13	15.8	0.6	15.2	16.3	3	16.1	3.4	11.2	19.3	6
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	16.2	3.0	12.3	20.1	10	ND	ND	ND	ND	0	17.6	4.6	12.2	23.2	4
1983	18.6	2.8	13.4	21.5	6	ND	ND	ND	ND	0	18.8	3.1	16.8	22.4	3	ND	ND	ND	ND	0
1984	19.0	1.5	17.5	21.6	6	20.0	0.5	19.5	20.4	3	16.8	1.5	15.3	18.2	3	20.1	0.0	20.1	20.1	1
1985	19.1	0.6	18.3	19.9	6	19.7	2.2	17.5	25.2	10	21.0	0.7	20.3	21.6	3	22.2	3.0	17.9	24.9	4
1986	18.8	1.1	17.0	20.0	6	17.8	0.3	17.5	18.1	3	21.3	2.0	19.9	22.7	2	18.8	0.0	18.8	18.8	1
1987	20.6	1.1	19.5	21.8	5	18.6	2.2	16.2	22.9	10	23.4	2.6	20.5	25.4	3	29.6	10.8	23.0	42.0	3
1988	23.0	1.5	21.0	25.0	6	21.2	1.8	18.6	24.8	16	30.4	3.0	27.8	33.6	3	23.8	1.0	22.9	25.6	6
1989	23.0	0.9	21.9	24.5	6	19.9	0.9	18.6	21.6	12	26.3	0.9	25.7	27.3	3	23.1	2.1	21.8	26.8	5
1990	18.2	0.9	17.2	18.9	3	21.7	0.4	21.2	22.0	3	21.4	0.5	21.0	21.7	2	25.4	1.9	24.0	26.7	2
1991	23.2	1.7	21.5	25.5	6	20.7	1.6	18.6	23.5	10	23.6	1.3	22.1	24.6	3	24.2	1.4	23.1	26.6	5
1992	24.4	1.2	23.1	25.5	6	21.8	0.7	20.8	22.8	6	27.5	2.2	25.2	29.5	3	27.4	1.2	26.6	28.8	3
1993	ND	ND	ND	ND	0	23.8	2.0	20.2	27.0	29	ND	ND	ND	ND	0	28.3	0.9	27.3	30.3	12
1994	22.7	2.0	20.0	26.6	19	23.0	0.1	22.9	23.0	3	27.6	2.0	25.7	30.4	8	29.1	0.0	29.1	29.1	1
1995	23.8	1.7	21.0	27.6	24	25.9	2.3	22.1	29.8	20	28.9	2.6	26.5	33.8	8	27.9	1.3	25.8	30.1	8
1996	20.9	1.9	18.8	23.9	7	20.0	1.6	17.9	25.5	22	25.2	0.5	24.8	25.9	4	26.6	1.1	25.4	28.4	8
1997	21.5	3.1	18.6	29.2	18	20.4	1.4	18.5	25.4	22	27.0	2.0	23.4	29.3	7	26.1	1.4	24.2	28.3	9
1998	18.9	2.7	15.2	24.0	16	21.2	1.6	19.0	25.1	21	26.2	2.3	23.2	28.8	6	25.5	2.3	20.5	29.5	10
1999	20.1	1.0	18.6	22.0	18	22.9	1.8	20.3	27.7	24	25.9	3.0	22.5	31.5	7	21.1	3.0	16.7	25.4	12
2000	22.2	3.5	18.6	33.5	17	21.1	2.5	17.8	27.0	24	19.0	4.1	15.2	28.7	9	17.8	2.7	13.0	22.8	12
2001	21.2	1.9	18.3	24.8	12	20.4	1.3	18.2	23.6	24	19.1	1.0	17.5	20.4	6	20.5	1.5	18.3	22.9	12
2002	20.5	1.7	17.0	23.2	17	20.8	2.4	17.7	27.6	22	20.8	1.8	18.7	24.2	7	19.6	1.8	16.6	23.0	10
2003	19.3	0.9	17.6	20.8	18	21.8	4.9	17.5	40.9	21	20.4	1.3	18.3	22.1	8	21.2	1.2	19.7	23.2	11
2004	18.3	1.0	16.7	20.9	17	19.3	1.2	16.9	21.3	24	21.3	1.9	19.6	25.8	9	21.1	2.0	18.8	24.7	12
2005	19.3	1.6	17.9	22.0	12	22.5	3.0	18.6	29.1	18	19.7	0.7	18.8	20.4	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	20.1		13.1	33.5		20.1		6.0	40.9		22.5		15.0	33.8		22.3		9.0	42.0	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.02874	0.013	0.88058	0.08958	-0.11472	0.15472	0.039	0.18916	0.10556	-0.00877	0.0908	0.009	0.89751	0.17576	-0.25111	0.10454	0.056	0.46794	0.21667	-0.1

Table 58. Area 8, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 8	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	17.83	0.76	17.00	18.50	3	12.50	0.84	11.40	13.50	6	71.00	0.00	71.00	71.00	1	61.17	3.07	58.30	64.40	3
1977	13.30	0.27	13.00	13.50	5	9.71	2.33	7.10	13.60	10	57.83	1.26	56.50	59.00	3	63.32	4.04	58.10	67.20	6
1978	20.85	8.09	11.40	29.80	8	7.70	1.14	6.90	9.00	3	74.18	22.62	51.30	97.30	6	37.10	0.00	37.10	37.10	1
1979	15.10	1.10	14.30	17.00	5	7.95	1.94	5.60	10.10	10	56.43	1.98	54.30	58.20	3	68.07	8.26	58.00	77.90	6
1980	10.88	1.60	8.50	12.00	4	4.90	0.89	3.90	6.30	13	42.53	5.27	36.50	46.20	3	45.27	13.89	31.90	58.60	6
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	5.35	0.98	3.80	6.60	10	ND	ND	ND	ND	0	61.25	5.56	53.10	65.50	4
1983	17.08	1.35	15.60	18.30	6	ND	ND	ND	ND	0	62.67	0.92	61.60	63.20	3	ND	ND	ND	ND	0
1984	20.17	1.80	18.50	22.40	6	7.90	0.00	7.90	7.90	3	57.37	0.35	57.00	57.70	3	69.40	0.00	69.40	69.40	1
1985	15.92	1.27	13.90	17.00	6	5.80	1.16	4.30	7.10	10	56.50	7.31	48.70	63.20	3	67.23	1.67	65.00	68.70	4
1986	14.48	0.74	13.70	15.50	6	ND	ND	ND	ND	0	60.40	3.89	56.00	63.40	3	ND	ND	ND	ND	0
1987	9.14	1.85	7.10	11.70	5	7.62	0.91	6.20	8.80	10	21.20	3.78	17.20	24.70	3	24.67	2.85	21.80	27.50	3
1988	ND	ND	ND	ND	0	4.98	1.03	3.50	6.70	16	ND	ND	ND	ND	0	39.20	4.85	31.30	44.40	6
1989	15.17	1.59	12.90	17.20	9	11.22	0.68	10.20	12.80	12	54.15	3.25	49.50	57.00	4	53.78	10.55	40.40	68.80	5
1990	17.37	0.47	17.00	17.90	3	10.10	0.26	9.80	10.30	3	63.10	0.85	62.50	63.70	2	49.65	0.35	49.40	49.90	2
1991	13.05	0.19	12.80	13.30	6	6.87	0.40	6.30	7.40	9	47.50	2.50	45.00	50.00	3	44.64	2.57	41.20	47.20	5
1992	15.39	1.84	13.30	17.80	9	9.67	3.07	7.20	14.20	9	41.15	0.69	40.50	42.00	4	44.83	1.50	43.30	46.70	4
1993	15.93	1.53	14.60	17.40	4	9.01	0.77	7.80	10.60	29	ND	ND	ND	ND	0	40.30	3.91	33.40	45.80	12
1994	10.76	1.46	9.00	13.10	21	7.23	1.35	5.30	9.40	27	42.33	2.98	37.80	46.10	8	43.71	2.99	35.60	46.10	10
1995	10.67	2.88	5.70	13.80	24	8.21	1.22	6.70	10.60	20	44.12	2.58	38.00	46.90	9	42.93	1.39	39.70	44.00	8
1996	12.29	0.60	11.20	13.40	10	6.43	0.68	5.10	7.40	25	44.30	1.36	42.30	45.20	4	45.86	1.39	43.50	48.00	11
1997	11.11	0.88	9.70	12.60	19	6.74	1.40	5.30	9.40	22	43.37	4.94	32.50	46.50	7	47.06	2.35	43.60	51.90	9
1998	9.68	1.14	7.80	11.50	19	6.25	0.72	5.50	7.90	24	48.79	2.35	46.30	52.00	9	47.75	1.49	46.00	51.20	11
1999	10.62	1.30	8.80	12.40	18	6.79	0.93	5.60	8.40	24	47.40	2.18	44.60	50.40	7	49.09	1.64	47.00	53.20	12
2000	12.92	2.52	9.60	16.10	18	9.55	1.14	8.30	11.30	24	48.93	1.11	47.50	51.10	9	51.98	1.68	48.60	53.70	12
2001	11.39	0.31	11.00	11.80	12	5.16	0.83	4.20	6.60	24	51.82	3.10	46.90	55.80	6	52.39	2.10	49.00	56.20	12
2002	12.54	2.07	9.70	14.60	18	7.97	1.96	6.30	12.60	24	53.09	2.56	49.90	56.00	7	51.67	1.42	50.00	54.40	10
2003	11.93	1.26	10.00	13.40	18	9.62	1.51	7.90	12.00	21	52.43	1.90	49.90	54.50	8	54.92	1.42	53.20	57.10	11
2004	14.13	2.74	10.40	18.10	18	10.61	1.00	8.90	12.70	24	54.40	2.51	51.70	60.00	9	55.44	1.82	52.10	58.50	12
2005	16.81	1.45	15.00	18.40	12	9.80	1.50	8.50	12.70	18	51.88	1.19	50.00	53.20	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	13.94		5.70	29.80		7.99		3.50	14.20		51.88		17.20	97.30		50.49		21.80	77.90	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.14644	-0.086	0.302	0.03571	-0.19766	0.03876	0.057	0.15876	0.13951	-0.0131	-0.31586	0.33	0.34332	0.68519	-0.13889	-0.17583	0.507	0.19027	0.81111	-0.12778

Table 59. Area 8, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 8	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	4.81	0.25	4.58	5.09	3	13.38	13.71	4.45	40.40	6	1.50	0.00	1.50	1.50	1	1.43	0.20	1.22	1.62	3
1977	6.73	1.35	5.37	8.84	5	19.01	17.74	3.60	46.00	10	0.74	0.00	0.74	0.74	1	1.22	0.41	0.78	1.73	6
1978	5.04	0.47	4.51	5.62	6	1.85	0.38	1.47	2.22	3	1.49	0.32	1.16	1.83	5	1.63	0.00	1.63	1.63	1
1979	7.23	2.79	5.76	12.21	5	12.72	11.32	1.16	51.00	24	0.85	0.18	0.74	1.06	3	1.28	0.56	0.57	2.06	10
1980	5.12	0.16	4.92	5.27	4	9.62	4.19	3.09	15.33	10	0.49	0.18	0.36	0.70	3	0.62	0.62	0.14	1.45	4
1981	ND	ND	ND	ND	0	18.80	0.00	18.80	18.80	1	ND	ND	ND	ND	0	1.24	0.00	1.24	1.24	1
1982	ND	ND	ND	ND	0	7.20	7.87	2.13	26.00	12	ND	ND	ND	ND	0	0.83	0.74	0.02	1.77	4
1983	5.75	0.91	4.92	7.22	6	ND	ND	ND	ND	0	0.77	0.32	0.42	1.06	3	ND	ND	ND	ND	0
1984	3.68	0.39	3.08	4.12	6	4.16	0.42	3.67	4.40	3	1.10	0.15	1.00	1.27	3	1.82	0.00	1.82	1.82	1
1985	7.72	0.53	7.16	8.73	6	4.40	2.70	1.48	9.25	10	2.38	0.53	2.06	2.99	3	2.49	1.19	0.71	3.13	4
1986	7.30	0.53	6.44	8.04	6	11.33	4.51	7.00	16.00	3	2.43	0.20	2.24	2.64	3	0.79	0.00	0.79	0.79	1
1987	7.75	0.36	7.36	8.20	5	5.10	4.53	1.11	14.00	10	3.36	1.48	2.45	5.06	3	3.01	0.20	2.88	3.24	3
1988	6.94	0.94	5.67	8.54	6	8.16	3.16	4.44	16.00	13	2.17	0.34	1.81	2.47	3	2.12	0.35	1.71	2.61	5
1989	6.49	0.25	6.09	6.78	8	9.71	5.64	3.83	20.67	9	2.08	0.33	1.76	2.54	4	2.60	0.40	2.26	3.22	5
1990	4.36	0.70	3.59	5.15	6	22.44	3.83	18.67	26.33	3	2.44	0.24	2.27	2.61	2	3.11	0.16	3.00	3.22	2
1991	8.36	0.70	7.55	9.94	9	13.31	6.10	6.29	22.86	8	3.73	0.55	3.33	4.53	4	4.27	0.84	3.75	5.75	5
1992	5.81	1.22	3.64	7.97	11	8.74	7.54	1.90	23.75	9	4.15	0.49	3.51	4.68	4	4.58	0.45	4.19	5.18	4
1993	6.93	0.55	6.54	7.31	2	6.95	2.82	3.22	13.00	29	ND	ND	ND	ND	0	5.21	0.50	4.68	6.49	11
1994	9.11	1.27	7.54	11.06	12	15.13	14.88	3.29	51.00	27	5.16	0.39	4.84	5.68	5	4.30	0.25	3.97	4.68	10
1995	7.55	0.56	6.63	8.23	15	2.12	1.09	1.20	5.50	20	4.32	0.18	4.11	4.54	5	4.27	0.49	3.45	5.23	8
1996	8.14	0.54	6.67	8.56	10	3.05	1.60	1.24	9.67	24	4.22	0.18	4.10	4.48	4	4.16	0.22	3.64	4.41	9
1997	6.89	0.91	5.17	7.78	19	3.62	1.11	2.71	5.20	4	3.56	0.34	2.97	3.91	7	2.95	0.61	2.25	3.31	3
1998	7.29	0.73	6.13	8.39	17	1.82	0.67	1.00	3.36	22	2.98	0.41	2.06	3.28	9	2.91	0.50	1.46	3.26	11
1999	7.44	1.12	5.74	9.45	17	4.38	2.29	1.55	8.50	20	2.44	0.26	1.99	2.75	7	1.53	0.73	0.18	2.23	10
2000	6.06	0.68	4.86	7.08	18	2.97	1.14	1.43	5.80	24	0.74	0.37	0.27	1.42	9	0.69	0.61	0.13	2.15	12
2001	9.21	1.35	7.98	11.31	9	5.39	2.19	2.00	10.00	24	0.77	0.41	0.54	1.59	6	1.06	0.18	0.82	1.32	12
2002	5.67	0.56	4.71	6.82	17	4.50	2.35	0.88	9.83	24	1.11	0.19	0.82	1.38	7	0.99	0.23	0.51	1.36	10
2003	6.73	0.45	6.13	7.75	16	5.84	6.29	1.18	24.50	20	1.04	0.13	0.82	1.18	8	1.21	0.11	1.09	1.44	11
2004	3.15	0.21	2.73	3.43	18	2.31	1.43	0.59	5.67	24	1.38	0.13	1.23	1.59	9	1.34	0.25	1.05	1.93	12
2005	3.82	0.67	3.00	5.01	12	2.33	1.15	0.35	4.17	18	1.04	0.23	0.85	1.44	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	6.47		2.73	12.21		7.94		0.35	51.00		2.16		0.27	5.68		2.27		0.02	6.49	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.0321	-0.035	0.39192	0.03417	-0.09617	-0.34914	-0.313	0	-0.2045	-0.41761	-0.01368	-0.023	0.4371	0.02158	-0.09626	-0.00792	-0.001	0.96979	0.03514	-0.03643

Table 60. Area 9, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 9	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.07	0.02	0.03	0.09	15	ND	ND	ND	ND	0	4.40	2.12	2.58	7.45	4
1977	ND	ND	ND	ND	0	0.12	0.06	0.03	0.20	13	ND	ND	ND	ND	0	2.39	0.48	1.74	2.76	4
1978	0.46	0.05	0.39	0.52	6	0.07	0.04	0.03	0.17	11	2.30	0.24	2.07	2.54	3	3.62	0.13	3.53	3.71	2
1979	0.46	0.04	0.43	0.53	7	0.07	0.06	0.02	0.40	35	3.32	1.40	2.12	4.85	3	3.35	1.27	2.23	5.90	7
1980	0.40	0.05	0.31	0.45	6	0.09	0.08	0.02	0.23	15	4.05	1.43	2.80	5.61	3	2.29	0.00	2.29	2.29	1
1981	ND	ND	ND	ND	0	0.06	0.03	0.03	0.15	12	ND	ND	ND	ND	0	3.81	0.00	3.81	3.81	1
1982	ND	ND	ND	ND	0	0.07	0.07	0.02	0.25	15	ND	ND	ND	ND	0	4.65	1.08	3.48	5.61	3
1983	0.52	0.04	0.49	0.60	7	0.05	0.02	0.03	0.09	11	4.41	1.86	3.17	6.55	3	3.89	1.06	2.94	5.04	3
1984	0.68	0.06	0.59	0.76	7	0.09	0.03	0.05	0.12	6	3.58	0.95	2.90	4.25	2	ND	ND	ND	ND	0
1985	0.44	0.06	0.33	0.49	9	0.08	0.02	0.05	0.11	11	4.18	1.96	2.12	6.03	3	5.47	0.98	4.78	6.16	2
1986	0.49	0.01	0.47	0.50	7	0.07	0.04	0.02	0.12	11	5.77	1.08	4.86	6.97	3	3.25	0.64	2.80	3.70	2
1987	0.61	0.04	0.57	0.68	9	0.04	0.02	0.02	0.06	10	6.38	2.06	4.92	7.84	2	6.23	0.00	6.23	6.23	1
1988	0.49	0.04	0.44	0.55	7	0.06	0.05	0.02	0.15	10	4.99	0.23	4.82	5.15	2	5.76	2.02	3.52	7.42	3
1989	0.56	0.10	0.46	0.69	7	0.05	0.01	0.03	0.07	7	5.67	0.55	5.07	6.14	3	5.97	1.70	4.24	7.63	3
1990	0.58	0.03	0.53	0.62	10	0.05	0.02	0.02	0.07	10	7.03	1.43	5.56	8.30	4	6.32	0.70	5.57	6.96	3
1991	0.67	0.02	0.60	0.69	17	0.10	0.07	0.02	0.21	16	5.78	2.32	2.77	8.34	4	3.01	0.00	3.01	3.01	1
1992	0.64	0.09	0.49	0.94	25	0.08	0.05	0.02	0.16	18	5.11	1.41	3.72	7.06	4	6.43	2.54	1.89	7.81	5
1993	0.68	0.09	0.57	0.79	15	0.07	0.05	0.02	0.30	55	4.69	1.67	3.62	6.62	3	4.09	1.00	1.87	5.55	13
1994	0.46	0.05	0.33	0.54	43	0.06	0.03	0.02	0.19	37	4.75	1.09	2.88	7.37	13	2.36	0.94	1.30	3.93	9
1995	0.51	0.11	0.30	0.71	33	0.09	0.05	0.02	0.24	41	2.32	0.31	1.71	2.61	9	2.27	0.26	1.96	2.66	9
1996	0.44	0.04	0.40	0.52	25	0.08	0.02	0.00	0.12	38	3.01	0.24	2.61	3.40	9	4.04	1.07	2.43	5.71	11
1997	0.35	0.05	0.23	0.42	28	0.09	0.02	0.05	0.14	36	3.71	1.43	2.16	5.88	8	3.36	0.92	2.49	5.10	7
1998	0.32	0.12	0.17	0.54	30	0.14	0.02	0.11	0.20	38	3.58	1.32	2.16	5.98	11	3.82	0.98	2.64	5.40	12
1999	0.41	0.10	0.27	0.56	36	0.08	0.03	0.04	0.13	36	4.30	1.38	1.39	6.37	13	4.27	1.27	2.54	5.69	12
2000	0.53	0.14	0.31	0.71	27	0.07	0.04	0.03	0.21	36	4.47	1.04	1.99	5.39	9	4.89	1.05	2.86	6.21	10
2001	0.30	0.08	0.14	0.39	18	0.06	0.02	0.02	0.10	36	5.51	0.49	4.92	6.19	6	5.31	0.97	3.69	6.50	12
2002	0.37	0.14	0.19	0.58	18	0.06	0.02	0.02	0.10	36	4.15	1.54	1.97	6.00	6	5.29	1.00	2.54	6.17	11
2003	0.59	0.08	0.44	0.68	27	0.07	0.03	0.02	0.14	36	5.36	1.29	2.53	6.74	9	3.54	1.18	1.80	5.60	12
2004	0.57	0.15	0.35	0.78	27	0.11	0.05	0.05	0.24	36	2.26	0.29	1.91	2.71	9	3.17	0.74	2.14	4.32	16
2005	0.74	0.17	0.47	0.91	27	0.08	0.02	0.05	0.15	30	3.32	1.00	2.28	4.70	10	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.51		0.14	0.94		0.08		0.00	0.40		4.38		1.39	8.34		4.19		1.30	7.81	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.00004	0.004	0.15063	0.00815	-0.00054	0.00042	0.001	0.03389	0.00118	0.00014	-0.02706	-0.045	0.25954	0.0237	-0.10153	0.00844	0.02	0.5788	0.05528	-0.01595

Table 61. Area 9, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 9	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.53	0.09	0.38	0.67	12	ND	ND	ND	ND	0	6.14	2.41	4.43	7.84	2
1977	0.77	0.05	0.70	0.80	4	0.47	0.20	0.22	0.78	10	2.39	0.50	2.04	2.74	2	2.64	0.26	2.35	2.82	3
1978	0.68	0.05	0.63	0.74	4	0.51	0.12	0.39	0.83	11	2.82	0.07	2.77	2.87	2	3.98	0.16	3.87	4.09	2
1979	0.62	0.07	0.56	0.72	5	0.44	0.15	0.07	0.67	28	4.39	1.15	3.58	5.20	2	3.81	1.35	2.47	6.18	6
1980	0.65	0.02	0.62	0.66	4	0.57	0.20	0.40	1.08	16	5.15	1.07	4.39	5.91	2	2.48	0.00	2.48	2.48	1
1981	ND	ND	ND	ND	0	0.47	0.21	0.30	0.97	11	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	0.45	0.06	0.32	0.55	15	ND	ND	ND	ND	0	5.14	1.70	3.56	6.93	3
1983	0.67	0.06	0.57	0.71	6	0.42	0.08	0.29	0.55	10	6.03	1.23	5.16	6.90	2	5.52	0.30	5.31	5.73	2
1984	0.85	0.03	0.81	0.88	6	0.47	0.03	0.42	0.50	6	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1985	0.67	0.03	0.63	0.70	6	0.66	0.25	0.45	1.22	11	5.53	0.77	4.98	6.07	2	6.66	0.94	5.99	7.32	2
1986	0.71	0.02	0.67	0.73	6	0.45	0.09	0.33	0.57	10	6.33	1.65	5.16	7.49	2	ND	ND	ND	ND	0
1987	0.82	0.07	0.74	0.91	6	0.65	0.07	0.59	0.73	3	4.96	0.00	4.96	4.96	1	ND	ND	ND	ND	0
1988	0.83	0.03	0.79	0.87	6	0.44	0.06	0.38	0.53	6	6.77	1.90	5.43	8.11	2	7.86	0.00	7.86	7.86	1
1989	0.74	0.06	0.65	0.82	6	0.47	0.04	0.41	0.51	6	6.43	1.90	5.08	7.77	2	7.14	1.53	6.06	8.22	2
1990	0.69	0.10	0.59	0.88	8	0.51	0.11	0.35	0.70	8	8.63	0.00	8.63	8.63	1	ND	ND	ND	ND	0
1991	0.78	0.08	0.70	0.90	11	0.54	0.17	0.39	0.81	10	4.98	3.01	2.85	7.10	2	ND	ND	ND	ND	0
1992	0.90	0.08	0.75	1.08	19	0.47	0.16	0.30	0.71	12	5.86	1.61	4.27	8.09	4	6.98	1.81	4.29	8.27	4
1993	0.88	0.07	0.80	1.00	8	0.55	0.14	0.24	0.95	49	6.25	2.24	4.66	7.83	2	5.01	0.60	4.11	5.52	8
1994	0.66	0.10	0.47	0.80	36	0.57	0.32	0.27	1.14	9	4.87	0.73	3.53	5.63	8	2.22	0.31	2.00	2.44	2
1995	0.72	0.17	0.46	0.97	34	0.56	0.11	0.37	0.84	41	2.55	0.28	2.14	3.07	9	2.78	0.22	2.43	3.02	8
1996	0.66	0.05	0.55	0.73	20	0.45	0.05	0.33	0.54	36	3.40	0.32	2.95	3.89	6	3.80	0.70	2.87	4.80	7
1997	0.54	0.09	0.38	0.70	27	0.41	0.08	0.28	0.65	31	3.46	0.92	2.44	4.59	5	3.67	0.93	2.78	5.34	7
1998	0.50	0.13	0.32	0.72	30	0.41	0.05	0.35	0.54	38	3.67	0.65	2.61	4.69	8	4.05	0.94	3.03	5.43	10
1999	0.56	0.09	0.44	0.74	36	0.37	0.08	0.19	0.51	36	4.21	1.12	1.91	5.17	8	4.72	1.33	2.78	6.39	12
2000	0.71	0.14	0.50	0.88	27	0.40	0.08	0.19	0.51	33	5.15	0.97	2.85	6.04	9	5.12	1.24	3.32	6.95	10
2001	0.47	0.04	0.40	0.54	18	0.33	0.06	0.24	0.62	36	6.13	0.73	5.12	7.23	6	5.80	1.06	4.22	7.22	12
2002	0.60	0.10	0.45	0.77	18	0.44	0.08	0.20	0.57	33	4.73	1.65	2.43	6.79	6	5.76	0.65	4.99	6.93	10
2003	0.75	0.06	0.66	0.84	27	0.48	0.12	0.30	0.74	35	5.30	1.22	2.71	6.59	8	3.70	1.22	1.93	5.50	11
2004	0.69	0.18	0.44	0.99	27	0.55	0.09	0.39	0.79	36	2.39	0.29	1.90	2.81	9	2.60	0.38	2.13	3.34	8
2005	0.94	0.21	0.61	1.21	26	0.66	0.08	0.51	0.83	27	2.63	0.24	2.30	2.81	4	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.71		0.32	1.21		0.49		0.07	1.22		4.81		1.90	8.63		4.68		1.93	8.27	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00161	0	0.96918	0.00516	-0.00325	-0.00111	-0.001	0.42875	0.00156	-0.00348	-0.03763	-0.032	0.25919	0.02351	-0.10393	-0.0053	0.003	0.88872	0.05759	-0.04792

Table 62. Area 9, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 9	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.12	0.00	0.12	0.13	12	ND	ND	ND	ND	0	2.92	4.95	0.00	8.63	3
1977	ND	ND	ND	ND	0	0.19	0.11	0.12	0.42	10	ND	ND	ND	ND	0	7.56	1.77	6.25	9.58	3
1978	3.06	0.14	2.94	3.25	4	0.15	0.04	0.12	0.22	11	7.06	1.43	6.05	8.07	2	1.40	1.97	0.00	2.79	2
1979	2.92	0.57	2.34	3.65	5	0.20	0.12	0.12	0.59	32	1.68	2.37	0.00	3.35	2	4.03	6.37	0.00	14.33	6
1980	2.25	0.64	1.61	2.89	4	0.17	0.05	0.12	0.23	15	0.00	0.00	0.00	0.00	2	5.34	0.00	5.34	5.34	1
1981	ND	ND	ND	ND	0	0.17	0.05	0.12	0.25	12	ND	ND	ND	ND	0	0.27	0.00	0.27	0.27	1
1982	ND	ND	ND	ND	0	0.12	0.01	0.12	0.14	15	ND	ND	ND	ND	0	0.07	0.06	0.00	0.12	3
1983	3.40	0.16	3.16	3.55	6	0.14	0.04	0.12	0.23	10	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	0.00	2
1984	3.33	0.80	2.65	4.22	3	0.14	0.02	0.13	0.18	6	0.00	0.00	0.00	0.00	1	ND	ND	ND	ND	0
1985	3.12	0.63	2.15	3.79	8	0.21	0.08	0.12	0.33	11	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	0.00	2
1986	3.71	0.20	3.41	3.99	6	0.18	0.05	0.12	0.25	10	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	0.00	1
1987	4.41	0.20	4.18	4.74	8	0.13	0.01	0.12	0.16	12	0.00	0.00	0.00	0.00	2	0.12	0.00	0.12	0.12	1
1988	2.92	0.09	2.81	3.04	6	0.12	0.00	0.12	0.13	9	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	0.00	2
1989	3.78	0.38	3.22	4.27	6	0.12	0.00	0.12	0.12	6	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	0.00	2
1990	2.98	0.44	2.51	3.64	9	0.14	0.01	0.12	0.15	9	0.04	0.07	0.00	0.12	3	0.00	0.00	0.00	0.00	2
1991	5.44	0.52	4.69	6.43	17	0.38	0.35	0.10	1.15	20	3.59	6.22	0.00	10.77	3	7.07	0.00	7.07	7.07	1
1992	4.35	0.37	3.61	4.82	25	0.35	0.40	0.10	1.69	20	0.30	0.52	0.00	1.07	4	3.17	5.39	0.00	9.40	3
1993	4.80	0.51	3.76	5.20	12	0.24	0.25	0.12	1.22	54	0.23	0.15	0.12	0.33	2	3.70	5.31	0.00	15.73	13
1994	3.45	1.23	1.13	6.74	46	0.19	0.16	0.12	0.72	37	1.26	2.81	0.00	8.41	12	9.35	3.68	1.44	13.95	9
1995	4.57	0.71	2.74	5.20	33	0.26	0.32	0.12	1.21	41	10.21	0.80	9.32	11.50	9	10.62	0.81	9.48	12.29	9
1996	3.84	0.55	2.74	4.84	24	0.15	0.05	0.01	0.26	38	4.79	4.85	0.00	11.06	9	2.14	3.69	0.00	9.41	11
1997	2.72	0.74	1.72	3.84	28	0.14	0.02	0.12	0.18	36	3.94	4.39	0.00	9.76	8	3.84	4.39	0.00	9.14	8
1998	2.59	1.05	1.31	4.08	30	0.14	0.02	0.12	0.20	38	4.72	4.67	0.00	10.14	11	2.44	3.65	0.00	8.35	12
1999	3.26	1.08	2.09	5.38	36	0.16	0.03	0.12	0.24	32	0.34	0.79	0.00	2.45	13	3.08	4.73	0.00	11.31	12
2000	3.86	0.93	2.01	5.01	27	0.14	0.02	0.12	0.19	36	0.46	1.39	0.00	4.18	9	0.61	1.74	0.00	5.82	11
2001	2.23	0.87	1.01	3.35	18	0.16	0.02	0.12	0.21	36	0.00	0.00	0.00	0.00	6	0.08	0.20	0.00	0.67	12
2002	2.93	0.62	2.13	3.68	18	0.13	0.01	0.12	0.16	36	2.25	3.51	0.00	7.40	6	0.69	2.30	0.00	7.63	11
2003	3.07	0.79	1.77	3.85	27	0.13	0.01	0.12	0.17	36	0.84	2.52	0.00	7.56	9	4.61	4.96	0.00	12.52	12
2004	2.11	0.81	0.91	3.04	27	0.14	0.02	0.12	0.19	36	9.33	1.44	8.33	12.35	9	4.23	4.43	0.00	9.93	16
2005	2.85	0.69	1.77	4.01	27	0.14	0.02	0.12	0.19	30	4.07	4.30	0.00	9.75	10	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.38		0.91	6.74		0.17		0.01	1.69		2.12		0.00	12.35		2.76		0.00	15.73	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.05333	-0.012	0.41318	0.01097	-0.03788	-0.00152	0	0.90568	0.00036	-0.00056	0.10644	0.025	0.05279	0.13933	0	-0.02152	0	0.71878	0.0875	-0.10213

Table 63. Area 9, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 9	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.45	0.18	0.21	0.78	12	ND	ND	ND	ND	0	2.94	3.73	0.31	7.21	3
1977	ND	ND	ND	ND	0	0.50	0.33	0.15	1.00	10	ND	ND	ND	ND	0	0.41	0.11	0.30	0.52	3
1978	0.31	0.05	0.24	0.37	4	0.45	0.31	0.06	1.00	10	0.38	0.01	0.37	0.39	2	2.22	0.84	1.62	2.81	2
1979	0.68	0.14	0.58	0.92	5	0.26	0.21	0.02	0.74	28	3.10	3.07	0.93	5.27	2	1.46	1.38	0.02	3.80	6
1980	0.57	0.44	0.18	0.97	4	0.31	0.32	0.10	1.00	16	5.91	2.56	4.10	7.72	2	0.10	0.00	0.10	0.10	1
1981	ND	ND	ND	ND	0	0.28	0.14	0.02	0.50	12	ND	ND	ND	ND	0	0.80	0.00	0.80	0.80	1
1982	ND	ND	ND	ND	0	0.14	0.09	0.02	0.26	15	ND	ND	ND	ND	0	4.36	4.29	0.51	8.98	3
1983	0.15	0.03	0.12	0.21	6	0.20	0.06	0.10	0.28	10	9.27	3.15	7.04	11.50	2	9.39	1.29	8.48	10.30	2
1984	0.05	0.00	0.05	0.05	6	0.15	0.05	0.10	0.20	6	5.58	0.00	5.58	5.58	1	ND	ND	ND	ND	0
1985	0.25	0.07	0.17	0.34	5	0.29	0.14	0.10	0.50	11	ND	ND	ND	ND	0	7.75	0.00	7.75	7.75	1
1986	0.25	0.06	0.18	0.35	5	0.20	0.09	0.10	0.34	10	9.58	2.11	8.09	11.07	2	6.62	0.00	6.62	6.62	1
1987	0.21	0.15	0.05	0.37	6	0.23	0.12	0.10	0.40	12	3.02	0.47	2.68	3.35	2	3.90	0.00	3.90	3.90	1
1988	0.80	0.09	0.65	0.90	6	0.36	0.08	0.20	0.43	9	11.78	5.47	7.91	15.64	2	15.70	3.82	13.00	18.40	2
1989	0.36	0.13	0.18	0.50	6	0.14	0.14	0.05	0.43	6	14.73	9.43	8.06	21.40	2	15.09	6.84	10.25	19.92	2
1990	0.40	0.26	0.10	0.81	9	0.17	0.09	0.05	0.32	7	15.73	7.42	7.59	22.10	3	27.70	13.53	18.13	37.27	2
1991	0.60	0.52	0.23	1.70	14	0.81	0.92	0.10	2.90	10	9.16	6.16	0.40	14.70	4	ND	ND	ND	ND	0
1992	0.52	0.65	0.08	1.90	20	0.70	0.96	0.10	3.40	13	8.80	4.47	4.27	13.20	3	12.03	12.11	0.21	23.48	4
1993	0.38	0.37	0.10	1.10	11	0.45	0.84	0.10	5.20	49	14.25	1.77	13.00	15.50	2	6.73	3.86	0.14	12.10	10
1994	0.35	0.31	0.08	1.40	32	0.61	0.93	0.05	3.80	34	8.36	3.62	4.70	14.40	9	1.08	0.94	0.11	2.36	7
1995	0.11	0.06	0.05	0.22	28	0.55	1.36	0.05	5.60	37	0.07	0.03	0.04	0.14	7	0.25	0.33	0.05	1.05	8
1996	0.22	0.10	0.05	0.42	23	0.07	0.04	0.05	0.21	38	1.23	1.47	0.05	3.43	6	3.00	2.63	0.05	6.19	9
1997	0.18	0.10	0.05	0.43	28	0.10	0.05	0.05	0.23	12	2.10	2.27	0.05	5.79	7	1.42	1.82	0.13	2.70	2
1998	0.22	0.06	0.09	0.35	30	0.08	0.04	0.05	0.19	38	2.48	3.82	0.05	11.13	9	3.16	3.11	0.06	9.16	9
1999	0.28	0.09	0.14	0.48	36	0.17	0.09	0.05	0.46	36	4.97	3.90	0.58	11.24	11	8.53	7.22	0.10	18.34	12
2000	0.32	0.23	0.09	0.93	27	0.18	0.11	0.05	0.48	36	8.58	5.83	0.57	16.74	9	11.08	8.66	0.33	24.23	11
2001	0.15	0.10	0.05	0.34	18	0.18	0.12	0.05	0.45	36	12.80	5.04	6.95	18.54	6	14.17	9.97	0.15	27.02	12
2002	0.19	0.08	0.05	0.39	18	0.16	0.08	0.05	0.34	35	9.27	7.94	0.99	22.02	6	16.38	9.96	0.15	29.44	11
2003	0.56	0.32	0.21	1.21	26	0.17	0.16	0.05	0.80	34	14.43	9.16	0.14	27.14	9	6.35	6.31	0.10	14.92	12
2004	0.43	0.28	0.10	0.89	24	0.15	0.09	0.05	0.38	36	0.12	0.06	0.05	0.23	9	3.14	4.43	0.05	10.74	12
2005	0.12	0.08	0.05	0.33	27	0.10	0.06	0.05	0.23	30	3.08	4.10	0.05	11.29	10	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.33		0.05	1.90		0.29		0.02	5.60		7.15		0.04	27.14		6.88		0.02	37.27	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00558	-0.006	0.12543	0.00093	-0.01222	-0.00813	-0.005	0.00726	-0.00225	-0.00895	-0.04177	-0.04	0.7613	0.15	-0.25706	0.21724	0.23	0.00358	0.37498	0.07333

Table 64. Area 9, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 9	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	15.5	5.1	8.0	24.0	11	ND	ND	ND	ND	0	16.3	5.5	11.0	22.0	3
1977	ND	ND	ND	ND	0	17.2	3.0	13.0	21.0	10	ND	ND	ND	ND	0	22.2	1.2	21.3	23.0	2
1978	17.8	1.3	16.0	19.0	4	17.9	3.0	13.7	25.7	11	19.0	0.0	19.0	19.0	2	18.6	4.0	15.8	21.4	2
1979	19.3	1.0	18.3	20.8	5	20.4	3.0	14.2	24.0	27	19.8	2.8	17.8	21.8	2	20.4	4.0	16.3	26.0	6
1980	20.6	1.7	19.0	22.1	4	19.8	3.7	14.4	27.5	16	23.6	4.1	20.7	26.5	2	22.0	0.0	22.0	22.0	1
1981	ND	ND	ND	ND	0	18.8	4.2	11.9	23.0	11	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	19.5	1.6	16.9	22.1	15	ND	ND	ND	ND	0	25.3	8.3	17.4	33.9	3
1983	18.6	0.3	18.1	19.0	6	20.4	1.1	19.1	23.0	10	31.8	11.0	24.0	39.6	2	28.5	3.2	26.2	30.7	2
1984	20.8	0.6	20.1	21.7	6	21.1	3.0	17.6	25.1	6	25.5	0.0	25.5	25.5	1	ND	ND	ND	ND	0
1985	18.7	1.0	17.7	20.5	6	25.1	4.5	17.7	33.9	11	26.4	7.3	21.2	31.5	2	36.9	12.2	28.2	45.5	2
1986	19.1	0.6	18.2	19.9	6	21.5	4.0	18.3	29.8	10	32.2	13.1	22.9	41.4	2	ND	ND	ND	ND	0
1987	21.2	0.6	20.7	22.3	6	20.7	0.6	20.2	21.3	3	34.2	14.5	23.9	44.4	2	ND	ND	ND	ND	0
1988	21.5	0.9	20.5	22.9	6	21.6	1.7	20.0	24.3	6	40.4	14.4	30.2	50.5	2	47.4	14.1	37.4	57.4	2
1989	24.2	0.6	23.6	25.3	6	20.4	0.5	19.7	21.0	6	43.6	20.3	29.2	57.9	2	44.6	17.2	32.4	56.7	2
1990	20.1	0.9	19.0	21.6	8	21.6	4.0	14.8	24.2	8	44.1	17.1	27.6	61.7	3	33.1	0.0	33.1	33.1	1
1991	21.2	1.0	19.3	22.2	8	23.6	0.4	23.2	23.9	3	33.4	10.5	26.6	45.5	3	ND	ND	ND	ND	0
1992	23.6	2.1	20.9	28.5	13	21.6	1.8	19.8	23.8	6	34.1	10.8	26.3	49.7	4	27.9	0.0	27.9	27.9	1
1993	23.2	0.9	22.2	24.3	5	25.4	3.2	13.4	31.5	43	28.0	0.0	28.0	28.0	1	32.9	3.1	29.5	38.5	8
1994	21.6	2.9	16.4	29.8	36	21.8	2.8	17.7	24.5	6	28.1	3.8	21.5	35.2	11	ND	ND	ND	ND	0
1995	23.6	2.3	19.6	30.9	34	24.7	2.6	20.4	29.3	35	29.1	3.6	25.5	34.6	9	29.1	1.5	27.2	31.6	8
1996	21.1	1.1	19.4	23.8	20	21.4	1.5	18.1	24.7	36	24.5	2.9	19.5	27.7	6	22.8	4.4	17.1	31.3	9
1997	20.5	1.4	18.1	23.2	28	20.3	1.9	16.0	23.6	31	26.0	6.3	19.1	37.5	6	21.2	1.9	18.2	23.8	7
1998	19.5	2.5	17.2	29.7	30	20.5	1.9	16.6	24.2	34	24.6	4.6	19.1	31.3	9	22.6	4.0	18.1	31.0	9
1999	19.8	1.4	18.3	23.2	36	22.9	2.5	19.2	30.9	36	22.1	5.5	14.4	30.3	10	29.4	7.4	19.5	45.2	12
2000	22.2	2.5	19.6	32.9	27	21.2	1.8	18.0	25.1	33	28.2	8.3	20.1	41.6	9	27.6	9.6	15.8	44.7	10
2001	19.8	1.1	18.2	22.0	17	21.6	2.2	17.3	27.9	36	34.4	11.3	22.8	49.1	6	32.5	13.4	16.3	52.5	12
2002	19.0	1.5	17.1	22.5	17	22.1	1.9	18.9	27.5	33	29.8	9.5	21.1	48.1	6	36.9	12.2	21.9	54.3	10
2003	20.7	1.6	18.5	25.9	27	22.6	3.9	18.6	39.9	35	34.4	11.8	21.4	51.9	9	28.0	3.8	22.5	32.9	11
2004	19.0	1.0	16.2	21.6	27	20.5	1.5	17.3	23.9	36	24.3	3.0	19.5	28.9	9	24.3	2.4	21.5	28.4	12
2005	19.6	1.3	17.4	22.2	26	23.8	2.3	19.5	28.7	27	22.4	4.1	18.2	29.8	6	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	20.6		16.0	32.9		21.2		8.0	39.9		29.4		14.4	61.7		28.3		11.0	57.4	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04223	-0.013	0.7083	0.04383	-0.09167	0.10933	0.101	0.00236	0.15675	0.04394	-0.09868	-0.029	0.86632	0.20263	-0.29167	0.2003	0.241	0.05124	0.43833	0.03

Table 65. Area 9, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 9	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	9.04	2.38	5.70	11.00	9	ND	ND	ND	ND	0	73.25	6.01	69.00	77.50	2
1977	ND	ND	ND	ND	0	7.80	2.71	4.30	11.50	10	ND	ND	ND	ND	0	60.90	4.81	56.80	66.20	3
1978	21.85	0.91	21.20	23.20	4	6.61	3.09	3.00	11.00	11	95.20	6.79	90.40	100.00	2	75.25	4.60	72.00	78.50	2
1979	12.36	1.87	11.00	15.00	5	6.36	1.72	4.20	9.90	23	62.80	5.37	59.00	66.60	2	71.76	13.31	49.80	84.50	5
1980	8.35	0.70	7.50	9.20	4	3.34	1.38	1.80	5.90	16	57.75	5.30	54.00	61.50	2	46.50	0.00	46.50	46.50	1
1981	ND	ND	ND	ND	0	5.92	2.08	2.40	8.80	12	ND	ND	ND	ND	0	68.30	0.00	68.30	68.30	1
1982	ND	ND	ND	ND	0	4.55	0.40	3.90	5.00	6	ND	ND	ND	ND	0	90.80	0.00	90.80	90.80	1
1983	14.27	0.77	13.30	15.10	6	6.71	2.41	3.90	9.40	10	99.00	1.41	98.00	100.00	2	88.80	3.39	86.40	91.20	2
1984	15.02	1.68	11.70	16.20	6	6.95	0.60	6.40	7.50	6	81.50	0.00	81.50	81.50	1	ND	ND	ND	ND	0
1985	12.28	1.00	11.30	13.40	6	2.65	0.95	1.50	4.30	11	91.25	17.32	79.00	103.50	2	102.15	15.49	91.20	113.10	2
1986	11.47	0.59	11.00	12.60	6	5.75	1.06	4.30	7.00	10	95.65	17.47	83.30	108.00	2	85.20	0.00	85.20	85.20	1
1987	6.33	1.14	5.10	8.20	6	6.14	0.65	5.40	6.80	7	53.15	18.88	39.80	66.50	2	ND	ND	ND	ND	0
1988	ND	ND	ND	ND	0	3.78	0.39	3.20	4.30	6	ND	ND	ND	ND	0	55.90	4.53	52.70	59.10	2
1989	12.22	2.43	9.90	14.60	6	8.65	1.08	7.40	10.60	6	106.45	35.43	81.40	131.50	2	115.60	40.45	87.00	144.20	2
1990	10.93	1.39	9.50	12.70	6	6.85	1.86	4.90	8.70	6	112.80	39.17	85.10	140.50	2	79.15	30.19	57.80	100.50	2
1991	11.61	0.23	11.20	11.90	8	8.50	0.00	8.50	8.50	3	85.90	45.71	42.90	133.90	3	ND	ND	ND	ND	0
1992	13.18	2.01	10.20	15.80	19	9.75	4.55	5.80	19.20	13	70.95	17.47	52.30	94.50	4	98.76	65.62	16.00	152.00	5
1993	14.53	2.38	9.30	17.60	15	8.45	2.72	1.90	17.80	55	50.47	26.50	20.40	70.40	3	66.21	14.50	39.00	85.20	13
1994	7.31	1.84	3.00	9.90	46	5.65	1.21	2.70	7.70	37	67.59	9.59	46.50	80.10	13	41.43	10.51	32.30	59.90	9
1995	10.40	1.37	7.80	13.00	34	8.23	2.29	4.50	14.00	41	43.00	4.52	37.10	51.70	9	42.43	2.97	39.50	47.20	9
1996	10.39	0.85	9.20	11.50	21	6.22	1.01	4.90	8.40	38	49.11	4.22	41.50	52.90	8	58.95	12.37	36.00	72.40	11
1997	8.71	0.80	7.40	10.10	28	5.30	0.93	4.40	7.80	36	49.38	13.12	33.10	66.50	8	48.33	8.89	38.60	60.90	7
1998	8.32	1.74	5.30	11.20	30	8.23	1.53	5.60	9.90	38	50.40	12.32	38.00	73.50	11	53.14	6.79	43.30	62.50	12
1999	9.55	1.94	7.10	13.30	36	5.76	1.30	3.30	8.20	36	56.57	7.59	46.90	69.80	13	56.33	12.47	39.50	71.20	12
2000	11.81	1.69	9.40	14.30	27	9.47	0.58	8.50	10.80	36	56.68	11.77	39.30	74.40	9	64.16	15.69	41.10	92.10	11
2001	6.71	1.64	4.30	8.50	18	4.77	0.66	3.90	5.90	36	65.45	10.71	52.70	78.10	6	69.90	16.77	49.70	91.80	12
2002	9.36	1.61	7.50	11.70	18	7.79	1.97	5.40	12.30	36	60.65	12.61	49.10	83.60	6	70.56	18.16	42.90	101.00	11
2003	13.10	1.22	10.50	14.60	27	9.00	1.49	3.40	10.80	36	69.62	17.28	40.00	95.40	9	49.94	13.24	30.60	72.10	12
2004	11.34	1.80	9.30	14.90	27	9.84	0.52	9.10	11.00	36	38.48	2.74	35.40	43.50	9	51.32	8.44	37.30	60.70	16
2005	13.35	2.40	8.00	16.00	27	7.93	0.83	6.40	9.80	30	49.48	7.03	41.30	60.20	10	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	11.39		3.00	23.20		6.87		1.50	19.20		68.77		20.40	140.50		68.65		16.00	152.00	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.05309	-0.006	0.85977	0.12315	-0.10741	0.08103	0.08	0.0109	0.13071	0.02436	-1.39986	-1.207	0.01708	-0.42467	-1.82667	-0.78795	-0.59	0.0374	-0.14667	-0.99722

Table 66. Area 9, DIN/DIO ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 9	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	7.68	2.09	4.86	11.33	12	ND	ND	ND	ND	0	1.28	1.11	0.36	2.52	3
1977	ND	ND	ND	ND	0	12.45	12.93	1.82	37.33	10	ND	ND	ND	ND	0	3.12	1.06	2.42	4.33	3
1978	7.46	0.87	6.65	8.68	4	10.13	4.70	5.00	18.67	10	3.10	0.81	2.53	3.68	2	0.99	0.28	0.80	1.19	2
1979	7.67	0.54	6.87	8.18	5	8.17	3.45	2.30	17.00	28	1.26	0.25	1.09	1.44	2	2.17	2.51	0.16	6.11	6
1980	7.29	0.77	6.59	8.32	4	10.91	10.40	1.39	34.67	15	1.24	0.20	1.10	1.38	2	2.38	0.00	2.38	2.38	1
1981	ND	ND	ND	ND	0	9.91	5.29	0.93	20.67	12	ND	ND	ND	ND	0	0.28	0.00	0.28	0.28	1
1982	ND	ND	ND	ND	0	8.92	6.97	0.96	19.00	15	ND	ND	ND	ND	0	0.85	0.71	0.18	1.60	3
1983	7.01	0.24	6.77	7.43	6	7.57	2.87	4.50	13.33	10	1.88	0.17	1.76	2.00	2	2.17	0.18	2.04	2.30	2
1984	4.56	1.12	3.55	5.77	3	3.51	0.95	1.92	4.60	6	1.31	0.00	1.31	1.31	1	ND	ND	ND	ND	0
1985	7.58	0.69	6.73	8.59	5	6.20	2.82	2.75	12.80	11	ND	ND	ND	ND	0	1.62	0.00	1.62	1.62	1
1986	8.24	0.46	7.49	8.77	5	7.22	3.22	3.17	11.80	10	1.63	0.05	1.59	1.66	2	1.79	0.00	1.79	1.79	1
1987	7.69	0.44	7.08	8.28	6	9.56	4.44	5.50	16.50	10	0.51	0.24	0.34	0.68	2	0.65	0.00	0.65	0.65	1
1988	7.60	0.56	7.07	8.22	6	14.61	7.04	3.53	26.00	9	1.54	0.00	1.54	1.54	1	2.26	0.31	2.05	2.48	2
1989	7.21	0.63	6.22	8.13	6	5.40	2.26	3.00	9.17	6	2.54	1.34	1.59	3.49	2	2.16	0.64	1.70	2.61	2
1990	5.85	0.59	5.00	6.70	9	9.71	6.53	2.71	17.00	7	2.02	0.72	1.26	2.68	3	4.09	1.80	2.82	5.35	2
1991	8.98	1.41	7.54	11.96	14	27.14	16.32	11.19	57.14	7	2.63	1.23	1.76	4.03	3	ND	ND	ND	ND	0
1992	7.66	1.14	5.30	9.26	20	13.46	9.20	3.69	31.81	12	2.01	0.62	1.44	2.67	3	3.99	1.55	2.90	5.08	2
1993	6.98	0.54	6.18	7.56	8	18.02	36.19	0.90	182.00	48	3.42	0.00	3.42	3.42	1	2.43	1.12	1.06	4.54	10
1994	8.81	0.79	7.02	10.19	29	12.62	11.43	3.43	54.00	34	1.78	0.63	1.17	2.62	7	4.78	3.09	0.75	9.65	7
1995	9.00	0.83	7.06	10.25	27	7.93	16.78	1.29	91.57	37	4.73	1.16	3.90	6.71	7	4.75	0.80	4.04	6.29	8
1996	9.17	1.00	6.44	11.15	22	Inf	ND	1.58	Inf	38	2.51	1.27	0.89	4.26	6	1.62	1.02	0.32	3.23	9
1997	8.30	1.25	5.60	9.83	28	2.98	0.76	2.22	4.88	12	2.33	1.52	0.87	4.53	7	1.98	1.67	0.80	3.16	2
1998	8.75	0.74	7.43	10.59	30	1.59	0.49	1.11	3.09	38	2.36	1.52	0.72	4.61	9	1.54	0.87	0.55	2.85	9
1999	8.65	0.83	7.31	10.65	36	4.55	2.49	1.69	9.75	32	1.24	0.57	0.47	2.29	11	2.83	0.96	1.56	4.45	12
2000	8.18	1.43	6.49	11.62	27	4.85	2.08	2.22	10.33	36	1.98	0.87	0.74	3.15	9	2.36	1.21	0.41	4.18	10
2001	7.74	1.58	4.80	9.91	18	6.46	2.75	3.00	14.00	36	2.27	0.72	1.41	3.12	6	2.44	1.50	0.03	4.24	12
2002	9.15	1.99	6.12	12.68	18	5.31	2.55	1.90	12.33	35	2.89	0.99	1.51	4.26	6	3.13	1.27	1.43	4.94	11
2003	6.10	0.36	5.56	6.75	26	6.80	7.36	1.50	31.67	34	2.76	0.94	1.47	4.03	9	3.28	1.04	1.39	4.69	12
2004	4.51	0.46	3.46	5.30	24	3.15	1.50	0.91	7.20	36	4.26	0.88	3.17	5.61	9	3.09	0.80	1.99	4.12	12
2005	4.06	0.72	2.98	5.43	27	3.14	1.06	1.73	6.17	30	2.35	1.25	0.82	4.30	10	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	7.47		2.98	12.68		8.62		0.90	182.00		2.26		0.34	6.71		2.37		0.03	9.65	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.07962	-0.012	0.5903	0.04085	-0.09931	Inf	-0.167	0.00268	-0.07162	-0.27092	0.04407	0.052	0.04041	0.08704	0.0103	0.04028	0.048	0.04876	0.08923	0.01463

Table 67. Area 10, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 10	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.06	0.03	0.02	0.12	9	ND	ND	ND	ND	0	2.44	0.00	2.44	2.44	1
1977	0.32	0.04	0.29	0.37	3	0.07	0.05	0.02	0.14	13	ND	ND	ND	ND	0	2.86	0.18	2.73	2.99	2
1978	0.39	0.05	0.31	0.44	6	0.08	0.03	0.04	0.12	6	2.73	0.34	2.38	3.05	3	2.49	0.07	2.44	2.54	2
1979	0.49	0.04	0.44	0.53	5	0.05	0.03	0.02	0.12	22	2.50	0.40	2.22	2.78	2	2.93	0.20	2.60	3.13	5
1980	0.50	0.05	0.45	0.55	4	0.04	0.02	0.02	0.08	13	3.34	0.57	2.94	3.74	2	3.17	0.21	2.89	3.38	4
1981	ND	ND	ND	ND	0	0.08	0.07	0.02	0.17	4	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	0.50	0.00	0.50	0.50	1	0.05	0.03	0.02	0.10	16	2.91	0.00	2.91	2.91	1	3.41	0.42	2.92	3.68	3
1983	0.55	0.03	0.52	0.59	6	0.04	0.01	0.03	0.06	5	3.37	0.43	3.06	3.67	2	3.90	0.00	3.90	3.90	1
1984	0.56	0.12	0.44	0.68	6	0.04	0.00	0.04	0.04	2	2.91	1.36	1.95	3.87	2	ND	ND	ND	ND	0
1985	0.50	0.05	0.40	0.54	6	0.09	0.01	0.08	0.12	9	3.26	0.05	3.22	3.29	2	2.68	0.23	2.52	2.84	2
1986	0.47	0.04	0.41	0.52	6	0.07	0.04	0.02	0.14	10	3.05	0.02	3.03	3.06	2	2.73	0.00	2.73	2.73	1
1987	0.60	0.01	0.59	0.61	2	0.05	0.04	0.02	0.10	7	3.49	0.00	3.49	3.49	1	3.30	0.00	3.30	3.30	1
1988	0.57	0.03	0.53	0.62	6	0.06	0.04	0.02	0.15	16	3.66	0.13	3.56	3.75	2	3.92	0.40	3.46	4.19	3
1989	0.64	0.07	0.57	0.74	6	0.06	0.04	0.02	0.13	10	3.50	0.01	3.49	3.51	2	3.74	0.28	3.55	4.06	3
1990	0.61	0.06	0.54	0.69	9	0.04	0.03	0.02	0.13	26	3.63	0.17	3.52	3.83	3	3.46	0.18	3.26	3.88	8
1991	0.65	0.15	0.43	0.97	18	0.07	0.06	0.02	0.23	41	3.29	0.12	3.10	3.42	5	3.26	0.13	2.99	3.39	8
1992	0.69	0.13	0.47	0.87	20	0.08	0.06	0.02	0.17	8	3.20	0.27	2.97	3.73	6	2.74	0.21	2.51	2.93	3
1993	0.72	0.08	0.63	0.78	5	0.07	0.03	0.04	0.12	17	ND	ND	ND	ND	0	2.80	0.39	2.45	3.21	4
1994	0.43	0.11	0.22	0.59	24	0.04	0.02	0.02	0.14	44	2.68	0.20	2.43	3.05	7	3.04	0.18	2.82	3.38	12
1995	0.54	0.13	0.30	0.78	33	0.06	0.04	0.01	0.12	44	3.09	0.22	2.62	3.43	9	2.54	0.11	2.26	2.66	12
1996	0.50	0.03	0.45	0.55	10	0.05	0.03	0.02	0.11	41	2.68	0.02	2.66	2.70	3	2.95	0.16	2.65	3.20	11
1997	0.48	0.05	0.39	0.57	22	0.06	0.04	0.02	0.14	33	3.22	0.22	3.02	3.60	6	2.91	0.17	2.61	3.13	10
1998	0.38	0.06	0.26	0.46	29	0.09	0.06	0.02	0.18	46	3.19	0.14	2.91	3.37	8	3.06	0.12	2.81	3.18	14
1999	0.43	0.09	0.29	0.58	27	0.06	0.04	0.02	0.17	45	3.58	0.16	3.38	3.79	8	3.54	0.26	3.16	4.13	14
2000	0.48	0.12	0.30	0.61	21	0.03	0.02	0.02	0.08	31	3.60	0.35	3.21	4.14	6	4.13	0.21	3.75	4.41	10
2001	0.34	0.03	0.28	0.38	12	0.03	0.01	0.02	0.05	32	4.29	0.02	4.27	4.31	4	4.16	0.13	3.94	4.37	11
2002	0.53	0.15	0.27	0.65	12	0.03	0.01	0.02	0.05	33	3.97	0.27	3.67	4.32	4	3.99	0.23	3.72	4.48	10
2003	0.55	0.11	0.42	0.68	15	0.06	0.05	0.02	0.22	30	4.16	0.14	3.91	4.29	5	3.98	0.17	3.73	4.31	10
2004	0.70	0.22	0.35	0.94	18	0.06	0.06	0.02	0.20	33	3.93	0.27	3.55	4.36	6	3.18	0.44	2.81	4.26	11
2005	0.71	0.11	0.48	0.78	15	ND	ND	ND	ND	0	3.31	0.31	3.00	3.66	5	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.53		0.22	0.97		0.06		0.01	0.23		3.33		1.95	4.36		3.23		2.26	4.48	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.00126	0.004	0.0459	0.00786	0.00052	-0.00033	0	0.38567	0.00028	-0.00087	0.03492	0.039	0.00005	0.05229	0.022	0.03202	0.029	0.00212	0.04306	0.016

Table 68. Area 10, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 10	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.50	0.08	0.43	0.72	9	ND	ND	ND	ND	0	2.76	0.00	2.76	2.76	1
1977	0.62	0.08	0.52	0.71	7	0.39	0.11	0.21	0.59	10	3.20	0.08	3.12	3.28	3	2.35	0.00	2.35	2.35	1
1978	0.60	0.10	0.51	0.73	6	0.50	0.15	0.30	0.66	6	2.96	0.27	2.65	3.14	3	2.78	0.45	2.46	3.10	2
1979	0.56	0.04	0.51	0.60	5	0.42	0.07	0.32	0.55	18	2.79	0.37	2.52	3.05	2	3.22	0.21	3.03	3.44	5
1980	0.72	0.05	0.67	0.76	4	0.42	0.20	0.24	0.94	13	3.68	0.58	3.27	4.09	2	3.42	0.22	3.19	3.71	4
1981	ND	ND	ND	ND	0	0.41	0.04	0.36	0.43	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	0.71	0.00	0.71	0.71	1	0.34	0.08	0.25	0.54	13	3.30	0.00	3.30	3.30	1	4.21	0.55	3.79	4.84	3
1983	0.72	0.03	0.67	0.76	6	0.38	0.05	0.34	0.41	2	4.26	0.16	4.15	4.37	2	4.66	0.00	4.66	4.66	1
1984	0.95	0.04	0.90	1.02	6	0.48	0.01	0.47	0.49	2	3.98	0.88	3.36	4.60	2	ND	ND	ND	ND	0
1985	0.76	0.03	0.72	0.79	6	0.40	0.15	0.22	0.61	9	3.71	0.05	3.67	3.74	2	3.26	0.38	2.99	3.53	2
1986	0.54	0.05	0.49	0.58	3	0.40	0.08	0.29	0.56	10	3.60	0.00	3.60	3.60	1	3.13	0.23	2.97	3.29	2
1987	0.72	0.01	0.71	0.72	2	0.38	0.13	0.24	0.53	7	3.51	0.00	3.51	3.51	1	ND	ND	ND	ND	0
1988	0.73	0.01	0.72	0.74	6	0.31	0.13	0.12	0.46	16	ND	ND	ND	ND	0	3.78	0.45	3.46	4.10	2
1989	0.93	0.23	0.76	1.38	6	0.54	0.07	0.44	0.65	10	3.63	0.04	3.60	3.65	2	3.93	0.41	3.69	4.40	3
1990	0.87	0.11	0.70	0.98	9	0.49	0.06	0.37	0.59	26	3.79	0.19	3.67	4.01	3	3.66	0.14	3.55	3.98	8
1991	0.82	0.12	0.65	1.09	18	0.53	0.18	0.22	1.16	37	3.48	0.06	3.43	3.58	5	3.53	0.12	3.29	3.61	7
1992	0.95	0.15	0.68	1.15	18	0.46	0.09	0.39	0.67	9	3.38	0.15	3.28	3.61	4	3.05	0.08	2.99	3.14	3
1993	ND	ND	ND	ND	0	0.52	0.07	0.41	0.63	14	ND	ND	ND	ND	0	3.46	0.08	3.40	3.52	2
1994	0.68	0.08	0.53	0.84	24	0.45	0.05	0.37	0.58	24	2.85	0.18	2.60	3.12	6	3.11	0.13	2.99	3.30	7
1995	0.75	0.13	0.53	0.92	33	0.54	0.15	0.35	0.98	44	3.37	0.19	3.16	3.64	9	2.82	0.05	2.74	2.94	12
1996	0.67	0.02	0.65	0.72	8	0.43	0.07	0.33	0.66	31	2.87	0.01	2.86	2.87	3	3.19	0.24	2.86	3.57	9
1997	0.69	0.07	0.58	0.83	22	0.49	0.06	0.38	0.67	33	3.66	0.31	3.28	4.13	6	3.20	0.17	2.78	3.37	10
1998	0.58	0.07	0.46	0.70	29	0.42	0.05	0.32	0.53	46	3.62	0.24	3.19	3.92	8	3.39	0.12	3.19	3.65	14
1999	0.59	0.07	0.45	0.71	27	0.41	0.05	0.30	0.58	44	3.93	0.14	3.75	4.13	8	3.97	0.26	3.57	4.66	14
2000	0.66	0.13	0.48	0.90	21	0.48	0.06	0.36	0.64	33	4.07	0.26	3.75	4.42	6	4.46	0.23	4.10	4.79	11
2001	0.49	0.04	0.43	0.55	12	0.39	0.05	0.24	0.48	32	4.91	0.44	4.49	5.53	4	4.50	0.13	4.32	4.69	11
2002	0.72	0.08	0.58	0.81	9	0.45	0.04	0.35	0.52	33	4.58	0.45	4.21	5.08	3	4.38	0.22	4.16	4.90	10
2003	0.72	0.08	0.61	0.83	15	0.52	0.08	0.36	0.65	30	4.46	0.22	4.14	4.72	5	4.32	0.17	4.02	4.61	10
2004	0.81	0.20	0.46	1.01	18	0.52	0.10	0.40	0.80	33	4.03	0.25	3.63	4.25	5	3.37	0.46	2.90	4.49	11
2005	0.88	0.14	0.62	1.00	15	ND	ND	ND	ND	0	3.46	0.35	3.05	3.90	5	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.72		0.43	1.38		0.45		0.12	1.16		3.66		2.52	5.53		3.53		2.35	4.90	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00113	0.001	0.64846	0.00526	-0.00256	0.00185	0.002	0.14748	0.00423	-0.00036	0.03139	0.033	0.00087	0.04941	0.01857	0.03444	0.039	0.00229	0.05346	0.01893

Table 69. Area 10, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 10	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	9	ND	ND	ND	ND	0	5.06	0.00	5.06	5.06	1
1977	1.45	0.02	1.44	1.48	3	0.16	0.10	0.12	0.42	10	4.16	0.00	4.16	4.16	1	5.92	0.24	5.75	6.09	2
1978	2.54	0.70	1.62	3.08	6	0.12	0.01	0.12	0.14	6	7.55	0.25	7.30	7.80	3	8.26	1.14	7.45	9.06	2
1979	2.28	0.22	2.04	2.60	5	0.13	0.05	0.05	0.26	22	8.01	0.63	7.56	8.45	2	6.14	2.90	2.63	8.63	5
1980	3.38	0.18	3.15	3.56	4	0.14	0.06	0.12	0.32	13	1.70	2.21	0.13	3.26	2	1.12	1.87	0.12	3.92	4
1981	ND	ND	ND	ND	0	0.13	0.01	0.12	0.15	4	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	4.58	0.00	4.58	4.58	1	0.16	0.07	0.12	0.36	16	1.91	0.00	1.91	1.91	1	1.01	1.74	0.00	3.02	3
1983	4.19	0.20	3.92	4.45	6	0.12	0.00	0.12	0.12	3	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	0.00	1
1984	3.73	0.48	3.07	4.22	6	0.13	0.00	0.13	0.13	2	1.98	2.79	0.00	3.95	2	ND	ND	ND	ND	0
1985	4.05	0.34	3.71	4.49	6	0.21	0.09	0.12	0.34	9	6.04	0.23	5.87	6.20	2	7.58	1.17	6.75	8.40	2
1986	4.15	0.15	3.96	4.31	6	0.15	0.04	0.12	0.23	10	9.04	0.59	8.62	9.45	2	6.25	0.07	6.20	6.30	2
1987	4.99	0.22	4.83	5.14	2	0.18	0.04	0.12	0.23	7	9.05	0.00	9.05	9.05	1	6.30	0.00	6.30	6.30	1
1988	3.61	0.15	3.45	3.86	6	0.13	0.02	0.12	0.20	16	3.10	1.90	1.76	4.44	2	1.50	2.60	0.00	4.50	3
1989	4.52	0.22	4.20	4.86	6	0.15	0.05	0.12	0.25	10	2.21	2.11	0.71	3.70	2	0.76	1.20	0.00	2.14	3
1990	3.41	1.10	2.51	4.88	9	0.11	0.12	0.04	0.64	26	2.20	1.06	1.29	3.37	3	3.28	0.74	2.53	4.92	8
1991	5.77	0.71	4.67	7.19	18	0.25	0.52	0.05	2.30	41	7.70	0.63	7.07	8.63	5	6.22	1.60	3.54	8.15	8
1992	4.70	0.64	3.50	5.64	20	0.11	0.04	0.05	0.16	9	9.12	1.11	7.23	10.45	6	8.49	2.60	6.65	10.32	2
1993	5.94	0.47	5.37	6.68	5	0.15	0.06	0.12	0.37	17	ND	ND	ND	ND	0	8.85	1.58	7.16	10.23	4
1994	4.22	1.14	2.52	5.68	24	0.13	0.04	0.12	0.28	44	10.37	0.73	9.64	11.66	7	9.51	0.65	8.31	10.30	12
1995	4.63	1.27	2.46	5.93	33	0.09	0.05	0.01	0.18	44	9.96	0.95	7.82	10.71	9	10.29	0.70	8.51	11.18	12
1996	3.97	0.14	3.70	4.18	10	0.09	0.05	0.01	0.21	37	11.56	0.07	11.50	11.64	3	12.29	0.53	11.47	13.24	11
1997	3.60	0.56	2.56	4.36	22	0.08	0.05	0.02	0.18	33	11.04	1.06	9.46	12.13	6	10.46	1.09	8.85	12.01	10
1998	3.20	0.91	1.36	4.27	29	0.09	0.06	0.02	0.22	46	9.88	1.35	7.84	11.26	8	9.50	0.96	8.05	10.94	14
1999	3.58	0.80	2.40	4.59	27	0.10	0.07	0.02	0.22	45	3.13	2.10	0.85	6.02	8	0.84	1.56	0.00	4.16	14
2000	3.73	1.28	1.71	5.30	21	0.03	0.01	0.02	0.05	33	0.46	1.07	0.00	2.63	6	0.05	0.05	0.02	0.15	11
2001	3.36	0.49	2.68	4.00	12	0.02	0.01	0.01	0.03	33	0.00	0.00	0.00	0.00	4	0.01	0.01	0.01	0.02	11
2002	3.19	0.89	2.14	4.38	12	0.02	0.01	0.01	0.03	33	0.00	0.00	0.00	0.00	4	0.01	0.01	0.01	0.02	10
2003	3.45	0.87	2.01	4.44	15	0.02	0.01	0.01	0.03	30	0.00	0.00	0.00	0.00	5	0.01	0.00	0.01	0.02	10
2004	2.32	1.23	0.36	3.76	18	0.02	0.01	0.01	0.05	33	0.02	0.05	0.00	0.12	6	4.47	2.65	0.02	7.59	11
2005	3.49	0.50	2.53	3.98	15	ND	ND	ND	ND	0	0.77	1.56	0.00	3.55	5	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.79		0.36	7.19		0.11		0.01	2.30		4.85		0.00	12.13		4.97		0.00	13.24	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.02572	-0.024	0.1751	0.0065	-0.05593	-0.0057	-0.005	0	-0.00364	-0.00573	-0.17445	-0.124	0.05817	0	-0.30442	-0.12366	-0.011	0.45708	0.03667	-0.16028

Table 70. Area 10, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 10	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	0.55	0.30	0.28	1.22	9	ND	ND	ND	ND	0	0.81	0.00	0.81	0.81	1
1977	1.13	0.13	0.98	1.21	3	0.26	0.15	0.10	0.50	10	0.57	0.00	0.57	0.57	1	0.37	0.16	0.25	0.48	2
1978	0.39	0.27	0.13	0.73	6	0.52	0.16	0.30	0.80	6	0.26	0.07	0.21	0.34	3	0.29	0.16	0.17	0.40	2
1979	0.73	0.18	0.46	0.92	5	0.61	0.84	0.02	2.74	20	0.36	0.13	0.27	0.45	2	0.45	0.47	0.10	1.28	5
1980	0.37	0.14	0.17	0.49	4	0.25	0.05	0.20	0.31	9	0.31	0.39	0.03	0.58	2	1.21	1.21	0.36	2.60	3
1981	ND	ND	ND	ND	0	0.37	0.06	0.30	0.40	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	0.10	0.00	0.10	0.10	1	0.32	0.30	0.02	1.21	16	0.10	0.00	0.10	0.10	1	2.94	1.42	1.80	4.53	3
1983	0.13	0.09	0.05	0.28	6	0.21	0.00	0.21	0.21	3	3.13	0.04	3.10	3.15	2	3.36	0.00	3.36	3.36	1
1984	0.06	0.02	0.05	0.09	6	0.10	0.00	0.10	0.10	2	0.95	1.27	0.05	1.85	2	ND	ND	ND	ND	0
1985	0.19	0.05	0.14	0.27	6	0.28	0.13	0.10	0.40	9	0.72	0.72	0.21	1.23	2	0.18	0.01	0.17	0.19	2
1986	0.11	0.09	0.02	0.24	6	0.28	0.19	0.02	0.48	10	0.56	0.69	0.07	1.04	2	0.61	0.50	0.25	0.96	2
1987	0.14	0.00	0.14	0.14	2	0.36	0.14	0.18	0.60	7	0.24	0.00	0.24	0.24	1	1.62	0.00	1.62	1.62	1
1988	0.34	0.16	0.12	0.49	6	0.44	0.20	0.24	1.04	16	0.42	0.40	0.13	0.70	2	2.24	1.67	0.32	3.28	3
1989	0.35	0.06	0.28	0.43	6	0.41	0.56	0.05	1.91	10	0.67	0.42	0.37	0.97	2	1.10	1.07	0.14	2.25	3
1990	0.24	0.13	0.04	0.37	9	0.12	0.07	0.04	0.27	22	0.74	0.57	0.15	1.29	3	1.03	0.56	0.35	1.96	7
1991	0.37	0.44	0.04	1.40	18	0.43	0.70	0.04	2.90	37	0.22	0.15	0.04	0.37	4	1.56	0.53	0.59	2.26	8
1992	0.13	0.06	0.04	0.20	16	0.30	0.15	0.04	0.43	9	0.10	0.05	0.04	0.18	5	0.32	0.25	0.08	0.57	3
1993	0.27	0.15	0.10	0.40	3	0.22	0.11	0.10	0.57	14	ND	ND	ND	ND	0	0.71	0.51	0.12	1.03	3
1994	0.22	0.26	0.06	1.12	16	0.34	0.33	0.04	1.02	44	0.21	0.18	0.10	0.47	4	0.14	0.10	0.05	0.33	11
1995	0.11	0.06	0.02	0.23	22	0.09	0.08	0.00	0.29	41	0.10	0.06	0.05	0.21	8	0.10	0.05	0.02	0.20	12
1996	0.15	0.10	0.04	0.34	10	0.09	0.07	0.04	0.40	41	0.06	0.07	0.00	0.14	3	0.24	0.24	0.05	0.81	11
1997	0.12	0.08	0.04	0.26	18	0.05	0.02	0.04	0.11	21	0.08	0.05	0.02	0.13	5	0.09	0.05	0.04	0.16	7
1998	0.17	0.12	0.04	0.43	29	0.08	0.05	0.04	0.31	45	0.13	0.09	0.04	0.28	8	0.20	0.23	0.04	0.74	13
1999	0.28	0.16	0.04	0.52	27	0.12	0.09	0.04	0.42	45	0.46	0.37	0.09	1.27	8	1.33	1.05	0.07	2.87	14
2000	0.31	0.18	0.13	0.66	21	0.05	0.01	0.04	0.08	33	2.41	1.97	0.14	5.13	6	2.94	1.32	0.91	5.34	11
2001	0.16	0.08	0.05	0.29	12	0.12	0.09	0.04	0.29	33	5.58	0.55	5.16	6.38	4	5.45	0.92	3.59	6.44	11
2002	0.35	0.28	0.08	0.90	12	0.09	0.04	0.04	0.21	33	5.35	1.05	4.37	6.72	4	4.97	1.57	3.09	8.35	10
2003	0.38	0.40	0.09	1.19	15	0.10	0.04	0.07	0.22	30	5.82	1.18	3.92	7.12	5	5.81	1.21	3.70	7.90	10
2004	0.50	0.33	0.11	1.02	18	0.05	0.01	0.04	0.07	33	4.86	2.24	2.12	8.81	6	1.32	2.27	0.04	7.29	11
2005	0.08	0.03	0.05	0.15	15	ND	ND	ND	ND	0	2.08	1.31	0.21	3.38	5	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.28		0.02	1.40		0.25		0.00	2.90		1.35		0.00	8.81		1.53		0.02	8.35	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00346	0.001	0.84837	0.00472	-0.00384	-0.01634	-0.011	0	-0.00681	-0.01509	0.14136	0.079	0.00442	0.16269	0.01984	0.12018	0.019	0.31882	0.07875	-0.00549

Table 71. Area 10, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 10	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	13.9	2.0	10.0	16.0	8	ND	ND	ND	ND	0	15.0	0.0	15.0	15.0	1
1977	ND	ND	ND	ND	0	17.4	3.4	14.0	24.2	10	ND	ND	ND	ND	0	23.5	0.7	23.0	24.0	2
1978	16.7	0.5	16.0	17.0	6	17.2	1.8	14.8	19.7	6	20.3	0.6	20.0	21.0	3	20.3	1.0	19.6	21.0	2
1979	18.6	0.7	17.4	19.2	5	17.5	2.2	14.0	23.0	18	21.1	1.5	20.0	22.1	2	19.1	4.0	14.7	25.0	5
1980	20.5	0.8	19.6	21.2	4	20.0	4.0	14.1	26.4	13	17.1	1.8	15.8	18.4	2	16.9	2.8	12.8	18.7	4
1981	ND	ND	ND	ND	0	14.9	1.1	14.0	16.1	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	20.1	0.0	20.1	20.1	1	17.2	3.3	13.2	23.8	13	16.8	0.0	16.8	16.8	1	16.7	3.2	13.3	19.6	3
1983	21.4	0.9	20.3	22.9	6	20.0	2.4	17.3	21.8	3	19.3	0.4	19.0	19.6	2	19.3	0.0	19.3	19.3	1
1984	21.2	0.8	20.5	22.5	6	23.0	0.8	22.4	23.5	2	17.3	1.9	15.9	18.6	2	ND	ND	ND	ND	0
1985	20.0	1.1	18.8	21.4	6	21.3	2.1	18.6	24.4	9	22.0	1.1	21.2	22.7	2	23.6	2.0	22.2	25.0	2
1986	18.6	0.1	18.5	18.7	3	21.8	2.8	18.9	28.3	10	24.0	0.0	24.0	24.0	1	28.3	0.1	28.2	28.4	2
1987	21.5	0.7	21.0	22.0	2	19.3	1.5	16.3	21.2	7	21.0	0.0	21.0	21.0	1	26.9	0.0	26.9	26.9	1
1988	22.6	0.8	21.9	23.9	6	19.7	1.2	17.3	22.4	16	21.9	4.9	18.4	25.3	2	21.4	1.0	20.5	22.5	3
1989	26.5	4.8	23.6	36.1	6	20.5	1.4	18.8	22.4	10	21.2	4.2	18.2	24.2	2	18.4	1.4	16.8	19.4	3
1990	20.5	1.2	19.3	23.1	9	20.9	1.6	18.3	23.9	26	17.6	0.9	17.1	18.7	3	21.1	4.3	18.5	31.4	8
1991	20.4	2.4	18.2	25.7	15	19.7	2.7	17.0	28.9	30	20.9	1.6	18.9	22.6	5	21.7	1.7	18.4	23.1	8
1992	22.3	4.1	18.0	33.1	18	22.3	2.5	18.0	25.1	9	24.7	2.7	22.9	29.4	5	27.9	3.2	24.2	30.4	3
1993	ND	ND	ND	ND	0	23.8	1.9	20.4	26.6	14	ND	ND	ND	ND	0	26.8	2.5	24.5	29.5	3
1994	22.5	2.9	13.8	26.2	21	20.6	2.1	17.6	24.1	23	27.5	1.8	25.6	30.6	6	23.2	0.7	22.2	24.6	7
1995	23.8	3.0	19.1	32.4	33	23.5	2.8	18.4	32.0	41	26.9	2.3	23.8	30.2	9	26.7	2.2	23.3	29.9	11
1996	19.1	0.4	18.7	19.9	8	18.5	1.6	15.5	21.8	31	25.4	0.3	25.1	25.7	3	25.8	1.2	24.0	27.3	9
1997	20.6	1.4	18.1	23.3	22	19.9	2.2	16.3	24.8	33	27.0	1.5	25.4	29.8	6	25.2	1.6	23.0	28.7	10
1998	19.1	1.3	16.1	21.9	29	20.1	1.5	17.2	22.8	46	25.5	2.5	22.0	29.9	8	24.4	1.3	22.7	26.5	14
1999	20.9	1.5	19.3	24.5	27	22.0	1.8	18.9	27.0	43	18.3	2.4	16.0	22.2	8	18.0	1.8	14.6	21.5	14
2000	20.9	1.3	18.3	23.6	20	20.2	1.5	18.0	24.3	33	19.1	1.2	17.6	20.4	6	17.6	1.4	15.7	20.5	11
2001	21.5	1.8	19.2	24.5	12	19.5	1.2	16.9	21.2	32	22.2	2.5	20.0	25.7	4	19.9	1.2	18.0	21.8	11
2002	19.6	1.8	17.4	21.8	9	20.6	1.4	18.0	23.5	33	21.2	2.7	19.6	24.3	3	19.8	1.6	18.1	23.3	10
2003	20.1	0.7	18.7	21.5	15	20.8	1.8	18.3	24.3	30	21.2	1.6	19.2	23.3	5	20.7	1.5	18.6	23.8	10
2004	19.3	1.3	17.4	21.5	18	20.3	1.3	17.5	22.5	33	19.9	2.4	16.8	24.0	6	20.4	1.4	18.2	22.7	11
2005	20.5	1.1	18.8	22.5	15	ND	ND	ND	ND	0	18.0	1.6	16.0	20.4	5	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	20.7		13.8	36.1		19.9		10.0	32.0		21.4		15.8	30.6		21.8		12.8	31.4	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01929	0.034	0.58855	0.10405	-0.04504	0.10234	0.111	0.00836	0.16182	0.04751	0.02021	-0.006	0.90772	0.12	-0.13821	-0.00498	0.028	0.63555	0.14292	-0.0875

Table 72. Area 10, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 10	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	14.27	0.31	13.90	14.70	6	ND	ND	ND	ND	0	57.00	0.00	57.00	57.00	1
1977	10.00	0.87	9.00	10.50	3	10.22	2.06	7.30	12.80	10	43.50	0.00	43.50	43.50	1	52.05	3.32	49.70	54.40	2
1978	19.23	6.49	10.80	25.20	6	8.57	0.80	7.20	9.70	6	68.45	26.38	49.80	87.10	2	62.85	12.80	53.80	71.90	2
1979	14.34	0.83	12.90	14.90	5	8.21	1.30	5.40	9.50	14	51.90	2.69	50.00	53.80	2	61.78	8.26	52.30	72.30	4
1980	11.33	1.44	10.10	13.20	4	5.42	0.75	4.20	6.40	13	45.10	3.54	42.60	47.60	2	46.18	15.08	31.20	59.60	4
1981	ND	ND	ND	ND	0	7.10	0.00	7.10	7.10	1	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	13.40	0.00	13.40	13.40	1	6.50	1.28	4.50	7.90	13	69.20	0.00	69.20	69.20	1	70.13	2.78	68.10	73.30	3
1983	13.60	0.77	12.70	14.50	6	10.27	0.15	10.10	10.40	3	70.10	0.71	69.60	70.60	2	73.60	0.00	73.60	73.60	1
1984	17.83	0.96	16.70	19.50	6	7.90	0.00	7.90	7.90	2	64.30	10.47	56.90	71.70	2	ND	ND	ND	ND	0
1985	14.70	0.81	13.80	15.60	6	3.87	1.27	2.90	6.10	9	61.70	2.55	59.90	63.50	2	66.35	0.35	66.10	66.60	2
1986	13.45	3.12	10.50	16.30	6	6.25	0.47	5.80	7.40	10	60.35	1.91	59.00	61.70	2	62.30	0.57	61.90	62.70	2
1987	10.30	2.40	8.60	12.00	2	6.40	1.14	5.30	7.70	7	36.30	0.00	36.30	36.30	1	32.20	0.00	32.20	32.20	1
1988	ND	ND	ND	ND	0	4.08	1.45	1.70	6.60	16	ND	ND	ND	ND	0	33.77	8.26	28.80	43.30	3
1989	15.43	1.64	13.80	17.20	6	9.24	1.03	7.90	10.70	10	62.80	0.85	62.20	63.40	2	58.43	3.14	56.10	62.00	3
1990	13.90	3.30	9.90	17.90	9	8.85	0.80	6.40	9.60	26	61.50	3.47	57.50	63.60	3	54.94	7.13	38.80	58.20	7
1991	13.20	1.89	9.90	15.00	15	7.78	0.40	7.20	8.50	31	56.20	2.43	54.60	60.10	5	55.31	0.63	54.30	56.40	8
1992	14.71	1.65	11.70	16.60	18	6.30	0.75	5.30	7.20	9	52.50	2.86	49.60	55.70	5	48.83	2.06	47.40	51.20	3
1993	14.84	0.73	13.70	15.40	5	8.89	1.39	6.60	11.00	16	ND	ND	ND	ND	0	50.13	7.77	40.10	56.90	4
1994	8.95	2.18	5.90	12.90	24	6.12	1.07	4.00	8.50	44	47.07	3.21	43.90	52.20	7	46.68	2.88	43.60	52.50	12
1995	10.55	1.81	8.10	14.10	33	8.21	0.83	6.80	9.50	44	46.86	4.03	39.40	52.10	9	42.93	1.20	40.10	44.20	12
1996	12.81	0.20	12.60	13.20	10	5.63	0.65	4.60	7.40	41	44.23	0.42	43.90	44.70	3	44.18	1.62	42.00	47.30	11
1997	11.06	1.39	9.00	12.70	22	6.15	1.30	4.10	8.20	33	44.25	1.74	42.80	47.60	6	43.26	2.14	40.70	47.40	10
1998	9.29	1.62	6.70	11.70	29	5.98	0.72	5.00	7.50	46	43.89	2.15	40.30	47.60	8	46.03	1.34	43.40	49.00	14
1999	9.61	1.47	8.00	12.10	27	5.93	1.01	3.70	7.20	45	47.70	2.08	44.70	51.50	8	48.35	1.15	46.30	50.90	14
2000	11.04	2.26	8.30	14.40	21	8.57	0.77	6.80	10.20	33	48.68	4.04	40.50	50.90	6	50.43	1.60	46.60	52.10	10
2001	9.28	2.52	6.00	12.20	12	4.41	1.00	3.10	6.70	33	53.30	2.31	50.40	55.80	4	53.26	1.29	51.10	55.00	11
2002	12.09	1.99	9.60	14.80	12	6.42	0.77	5.10	8.30	33	53.68	2.71	50.00	56.00	4	51.93	1.67	50.30	54.60	10
2003	13.27	1.93	10.20	15.60	15	8.19	1.07	6.50	11.20	30	54.00	1.54	51.60	55.30	5	54.85	2.18	51.80	59.00	10
2004	14.01	2.16	11.20	16.50	18	10.39	0.50	9.40	11.30	33	52.85	3.02	49.70	58.50	6	50.65	1.56	48.30	54.10	11
2005	13.76	1.74	12.10	16.90	15	ND	ND	ND	ND	0	49.22	1.91	46.60	51.00	5	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	12.81		5.90	25.20		7.45		1.70	14.70		53.45		36.30	87.10		52.53		28.80	73.60	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.12903	-0.039	0.38776	0.04167	-0.11623	-0.02859	-0.027	0.39749	0.01806	-0.09524	-0.40622	-0.3	0.16463	0.02105	-0.62381	-0.28801	-0.321	0.08557	-0.01111	-0.56923

Table 73. Area 10, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 10	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	ND	ND	ND	ND	0	16.81	13.49	5.00	46.50	9	ND	ND	ND	ND	0	2.41	0.00	2.41	2.41	1
1977	8.15	1.02	7.16	9.21	3	12.77	10.14	1.57	27.33	10	ND	ND	ND	ND	0	2.08	0.00	2.08	2.08	1
1978	7.61	0.61	6.82	8.47	6	9.00	4.20	5.08	15.50	6	2.89	0.33	2.67	3.27	3	3.43	0.29	3.22	3.63	2
1979	6.16	1.15	4.92	7.55	5	17.35	22.09	3.75	92.67	20	3.36	0.23	3.20	3.53	2	2.30	1.03	0.96	3.38	5
1980	7.59	0.91	6.42	8.64	4	13.72	6.68	6.33	26.00	9	0.65	0.66	0.19	1.12	2	0.88	0.62	0.25	1.48	3
1981	ND	ND	ND	ND	0	16.85	12.26	3.06	26.50	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	9.36	0.00	9.36	9.36	1	17.43	18.67	1.88	66.50	16	0.69	0.00	0.69	0.69	1	1.14	0.25	0.85	1.31	3
1983	7.86	0.79	6.96	8.92	6	8.25	2.75	5.50	11.00	3	0.94	0.11	0.86	1.01	2	0.86	0.00	0.86	0.86	1
1984	7.15	2.21	4.73	9.70	6	5.75	0.00	5.75	5.75	2	1.26	1.11	0.48	2.05	2	ND	ND	ND	ND	0
1985	8.58	1.65	7.42	11.80	6	5.21	2.04	2.90	8.88	9	2.07	0.26	1.89	2.26	2	2.89	0.20	2.75	3.02	2
1986	9.15	0.96	8.20	10.63	6	6.33	1.83	3.50	10.00	10	3.15	0.40	2.87	3.43	2	2.36	0.00	2.36	2.36	1
1987	8.55	0.57	8.15	8.95	2	16.49	10.50	4.22	27.33	7	2.66	0.00	2.66	2.66	1	2.40	0.00	2.40	2.40	1
1988	6.97	0.35	6.42	7.43	6	13.25	8.85	3.80	28.00	16	0.97	0.44	0.66	1.28	2	0.98	0.36	0.75	1.39	3
1989	7.62	0.67	6.59	8.56	6	12.14	14.96	2.77	54.00	10	0.82	0.73	0.31	1.34	2	0.50	0.39	0.08	0.86	3
1990	5.92	1.07	4.92	7.52	9	8.07	4.90	3.20	23.67	22	0.81	0.17	0.67	1.00	3	1.26	0.24	0.92	1.57	7
1991	9.70	1.71	6.85	12.63	18	8.45	6.39	2.20	33.20	37	2.40	0.21	2.14	2.63	4	2.40	0.52	1.58	2.92	8
1992	7.26	1.38	5.74	10.19	16	7.76	7.93	1.50	25.50	8	3.10	0.22	2.75	3.35	5	3.35	1.26	2.46	4.24	2
1993	7.91	0.14	7.77	8.04	3	6.93	2.90	3.43	14.00	14	ND	ND	ND	ND	0	3.22	0.87	2.54	4.20	3
1994	10.24	0.97	7.93	11.37	16	12.29	7.93	1.29	38.33	44	4.12	0.59	3.46	4.86	4	3.21	0.35	2.53	3.69	11
1995	8.82	1.28	6.83	10.35	22	3.31	1.56	0.33	7.00	41	3.22	0.24	2.71	3.42	8	4.09	0.14	3.80	4.24	12
1996	8.31	0.20	8.00	8.62	10	4.29	2.15	2.00	10.25	37	4.34	0.06	4.27	4.39	3	4.26	0.35	3.71	4.70	11
1997	7.65	0.87	6.00	8.93	18	3.58	1.79	0.89	8.00	21	3.52	0.39	2.92	3.94	5	3.67	0.18	3.42	3.90	7
1998	8.77	1.29	6.48	11.27	29	2.79	1.48	1.13	7.50	45	3.15	0.45	2.48	3.69	8	3.21	0.29	2.71	3.66	13
1999	9.14	0.96	7.56	11.45	27	4.25	3.20	1.20	16.50	45	1.00	0.60	0.27	1.93	8	0.61	0.35	0.10	1.24	14
2000	8.42	1.33	6.17	10.80	21	3.04	1.41	0.86	6.50	31	0.78	0.42	0.08	1.24	6	0.75	0.27	0.28	1.22	10
2001	10.38	1.08	8.87	12.55	12	4.95	3.91	1.75	15.00	32	1.30	0.13	1.21	1.48	4	1.31	0.19	0.92	1.48	11
2002	7.21	2.64	4.55	12.37	12	4.71	2.51	1.40	10.50	33	1.35	0.24	1.12	1.69	4	1.23	0.32	0.80	1.87	10
2003	7.07	0.58	6.25	8.05	15	3.56	2.58	0.41	11.50	30	1.39	0.25	1.00	1.70	5	1.45	0.25	0.99	1.84	10
2004	4.01	0.56	3.30	5.04	18	1.88	1.08	0.32	3.50	33	1.22	0.47	0.58	2.02	6	1.85	0.55	1.05	2.72	11
2005	5.04	0.28	4.56	5.67	15	ND	ND	ND	ND	0	0.86	0.28	0.56	1.25	5	ND	ND	ND	ND	0
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	7.88		3.30	12.63		8.66		0.32	92.67		2.00		0.08	4.86		2.15		0.08	4.70	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.04508	-0.035	0.30184	0.02357	-0.09682	-0.50896	-0.373	0	-0.29431	-0.48153	-0.03375	-0.031	0.39512	0.01008	-0.08681	-0.02436	-0.001	0.95957	0.03283	-0.04096

Table 74. Area 11, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 11	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976																				
1977																				
1978																				
1979																				
1980																				
1981																				
1982																				
1983																				
1984																				
1985																				
1986																				
1987																				
1988																				
1989																				
1990																				
1991																				
1992	1.10	0.04	1.05	1.13	6	0.17	0.12	0.03	0.39	21	1.07	0.00	1.07	1.07	1	0.51	0.21	0.25	0.83	7
1993	1.06	0.38	0.56	1.42	9	0.15	0.17	0.03	0.57	21	1.06	0.41	0.59	1.35	3	0.48	0.24	0.19	0.82	7
1994	0.63	0.05	0.54	0.68	9	0.09	0.10	0.02	0.34	21	0.64	0.07	0.56	0.69	3	0.43	0.28	0.18	1.02	7
1995	0.81	0.09	0.68	0.94	9	0.05	0.05	0.00	0.16	18	0.79	0.11	0.67	0.88	3	0.22	0.17	0.05	0.42	6
1996	0.59	0.03	0.54	0.61	9	0.04	0.02	0.02	0.08	21	0.62	0.01	0.61	0.63	3	0.33	0.15	0.04	0.48	7
1997	0.77	0.15	0.63	0.97	9	0.06	0.03	0.02	0.13	21	0.84	0.16	0.66	0.96	3	0.40	0.26	0.16	0.80	7
1998	0.58	0.08	0.46	0.64	9	0.09	0.07	0.02	0.31	21	0.58	0.08	0.49	0.65	3	0.39	0.15	0.17	0.54	7
1999	0.60	0.04	0.56	0.65	9	0.04	0.02	0.02	0.07	18	0.75	0.21	0.61	0.99	3	0.36	0.12	0.15	0.45	6
2000	0.79	0.05	0.71	0.87	9	0.08	0.05	0.02	0.16	21	0.86	0.04	0.81	0.89	3	0.53	0.17	0.20	0.66	7
2001	0.63	0.03	0.59	0.67	9	0.05	0.04	0.02	0.21	21	0.62	0.05	0.59	0.68	3	0.44	0.19	0.13	0.66	7
2002	0.78	0.07	0.71	0.87	9	0.06	0.04	0.02	0.18	21	0.88	0.15	0.72	1.02	3	0.48	0.17	0.16	0.69	7
2003	0.60	0.10	0.48	0.73	9	0.08	0.07	0.02	0.24	21	0.75	0.24	0.49	0.96	3	0.66	0.26	0.26	1.07	7
2004	0.86	0.09	0.74	0.93	9	0.16	0.13	0.03	0.59	21	1.33	0.70	0.91	2.14	3	0.62	0.17	0.46	0.92	7
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.75		0.46	1.42		0.09		0.00	0.59		0.83		0.49	2.14		0.45		0.04	1.07	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01583	-0.004	0.60911	0.01067	-0.01933	-0.0024	0	0.83242	0.00354	-0.00267	0.01205	0.005	0.54175	0.024	-0.013	0.0155	0.018	0.02009	0.02833	0.00533

Table 75. Area 11, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 11	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976																				
1977																				
1978																				
1979																				
1980																				
1981																				
1982																				
1983																				
1984																				
1985																				
1986																				
1987																				
1988																				
1989																				
1990																				
1991																				
1992	1.30	0.04	1.26	1.34	6	0.67	0.09	0.56	0.82	21	1.30	0.00	1.30	1.30	1	1.00	0.44	0.74	1.95	7
1993	1.32	0.36	0.85	1.61	9	0.64	0.16	0.37	0.92	21	1.35	0.34	0.96	1.57	3	0.80	0.14	0.57	0.99	7
1994	0.86	0.04	0.81	0.90	9	0.60	0.14	0.44	0.85	18	0.86	0.02	0.84	0.87	3	0.77	0.23	0.54	1.21	6
1995	0.91	0.00	0.91	0.91	3	ND	ND	ND	ND	0	0.92	0.00	0.92	0.92	1	ND	ND	ND	ND	0
1996	0.79	0.02	0.77	0.81	6	0.47	0.07	0.38	0.62	21	0.83	0.01	0.82	0.83	2	0.66	0.10	0.54	0.80	6
1997	1.04	0.23	0.86	1.36	9	0.66	0.13	0.48	0.97	21	1.09	0.22	0.88	1.31	3	0.82	0.18	0.65	1.06	7
1998	0.78	0.09	0.67	0.92	9	0.56	0.07	0.44	0.68	21	0.78	0.11	0.67	0.89	3	0.73	0.12	0.59	0.96	7
1999	0.80	0.03	0.76	0.84	9	0.50	0.07	0.39	0.62	18	1.03	0.30	0.85	1.37	3	0.74	0.14	0.51	0.89	6
2000	1.01	0.05	0.93	1.09	9	0.56	0.05	0.48	0.64	21	1.04	0.06	1.00	1.10	3	0.88	0.14	0.59	1.01	7
2001	0.81	0.02	0.77	0.84	9	0.46	0.05	0.39	0.58	21	0.82	0.06	0.77	0.88	3	0.72	0.16	0.51	0.93	7
2002	0.98	0.05	0.93	1.06	9	0.57	0.09	0.43	0.82	21	1.06	0.15	0.89	1.18	3	0.79	0.15	0.49	0.97	7
2003	0.80	0.09	0.71	0.95	9	0.53	0.06	0.38	0.62	21	0.94	0.22	0.69	1.11	3	0.94	0.24	0.60	1.34	7
2004	1.08	0.09	0.96	1.18	9	0.65	0.10	0.49	0.91	21	1.57	0.74	1.13	2.43	3	0.96	0.13	0.81	1.16	7
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.96		0.67	1.61		0.57		0.37	0.97		1.04		0.67	2.43		0.82		0.49	1.95	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01875	-0.006	0.72123	0.01148	-0.02	-0.00579	-0.002	0.6065	0.00361	-0.00889	0.00708	0.002	0.8531	0.02333	-0.01667	0.00369	0.009	0.14202	0.02074	-0.00143

Table 76. Area 11, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 11	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976																				
1977																				
1978																				
1979																				
1980																				
1981																				
1982																				
1983																				
1984																				
1985																				
1986																				
1987																				
1988																				
1989																				
1990																				
1991																				
1992	6.64	0.21	6.40	6.88	6	0.08	0.02	0.06	0.12	17	6.70	0.00	6.70	6.70	1	1.30	1.39	0.11	3.87	6
1993	6.58	1.61	4.39	7.67	9	0.35	0.71	0.03	2.25	20	6.46	1.78	4.41	7.63	3	1.62	1.78	0.07	4.18	7
1994	6.53	1.24	4.88	7.75	9	0.25	0.39	0.06	1.18	21	6.31	1.39	4.85	7.61	3	0.96	1.80	0.10	4.98	7
1995	6.22	1.14	4.70	7.14	9	0.06	0.05	0.00	0.22	18	6.14	1.25	4.70	6.96	3	0.32	0.26	0.05	0.65	6
1996	5.01	0.33	4.60	5.52	9	0.04	0.02	0.03	0.10	21	5.29	0.53	4.69	5.68	3	0.47	0.39	0.03	1.26	7
1997	5.53	0.66	4.68	6.26	9	0.06	0.04	0.02	0.18	21	5.47	0.84	4.65	6.32	3	1.75	2.02	0.04	5.07	7
1998	4.58	1.19	2.98	5.44	9	0.03	0.01	0.02	0.06	21	4.40	1.38	2.81	5.27	3	0.33	0.39	0.04	0.94	7
1999	5.23	0.65	4.35	5.82	9	0.04	0.02	0.02	0.08	18	5.40	0.25	5.11	5.58	3	0.22	0.22	0.03	0.61	6
2000	4.96	0.80	3.98	6.13	9	0.03	0.01	0.02	0.07	21	4.75	0.66	3.99	5.20	3	0.65	0.66	0.03	1.97	7
2001	6.94	0.17	6.74	7.18	9	0.02	0.02	0.01	0.08	21	5.71	0.63	5.04	6.29	3	0.27	0.18	0.05	0.52	7
2002	4.27	0.68	3.39	4.92	9	0.02	0.03	0.01	0.12	21	3.89	0.83	3.15	4.78	3	0.41	0.26	0.01	0.70	7
2003	4.72	0.56	4.12	5.60	9	0.02	0.02	0.01	0.09	21	4.37	0.21	4.24	4.61	3	0.63	0.73	0.04	2.05	7
2004	3.83	1.38	2.01	5.15	9	0.07	0.15	0.02	0.70	21	3.95	1.07	2.72	4.68	3	0.51	0.62	0.07	1.66	7
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	5.46		2.01	7.75		0.08		0.00	2.25		5.29		2.72	7.63		0.73		0.01	5.07	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.17816	-0.167	0.00019	-0.11556	-0.24222	-0.01571	-0.005	0	-0.0034	-0.0065	-0.20746	-0.2	0.00001	-0.142	-0.25667	-0.07105	-0.033	0.15885	0.00389	-0.063

Table 77. Area 11, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 11	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976																				
1977																				
1978																				
1979																				
1980																				
1981																				
1982																				
1983																				
1984																				
1985																				
1986																				
1987																				
1988																				
1989																				
1990																				
1991																				
1992	0.09	0.07	0.05	0.21	5	0.10	0.05	0.04	0.20	21	0.06	0.00	0.06	0.06	1	0.53	0.70	0.04	2.04	7
1993	0.21	0.13	0.04	0.46	9	0.20	0.25	0.04	1.00	21	0.06	0.03	0.04	0.09	3	0.98	0.50	0.06	1.54	7
1994	0.12	0.08	0.04	0.29	9	0.22	0.28	0.04	0.96	18	0.53	0.76	0.07	1.41	3	0.66	0.80	0.15	2.38	7
1995	0.11	0.11	0.00	0.31	9	0.11	0.17	0.00	0.68	18	0.06	0.02	0.04	0.08	3	0.63	0.72	0.05	1.95	6
1996	0.07	0.05	0.01	0.15	9	0.08	0.03	0.04	0.13	21	0.06	0.04	0.03	0.11	3	0.30	0.29	0.04	0.75	7
1997	0.09	0.04	0.04	0.17	9	0.06	0.04	0.04	0.23	21	0.06	0.03	0.04	0.09	3	0.92	1.12	0.07	2.88	7
1998	0.22	0.27	0.04	0.60	9	0.08	0.03	0.04	0.13	21	0.36	0.55	0.04	0.99	3	0.22	0.17	0.05	0.49	7
1999	0.08	0.05	0.04	0.15	9	0.05	0.01	0.04	0.07	18	0.06	0.03	0.04	0.09	3	0.35	0.26	0.04	0.62	6
2000	0.05	0.01	0.04	0.06	9	0.05	0.02	0.04	0.10	21	0.05	0.02	0.04	0.07	3	0.90	0.79	0.04	1.88	7
2001	0.10	0.06	0.04	0.20	9	0.08	0.05	0.04	0.19	21	0.08	0.07	0.04	0.16	3	0.43	0.32	0.11	1.05	7
2002	0.10	0.06	0.04	0.19	9	0.07	0.04	0.04	0.18	21	0.16	0.12	0.04	0.27	3	0.58	0.45	0.07	1.36	7
2003	0.16	0.05	0.07	0.22	9	0.08	0.02	0.05	0.11	20	0.19	0.13	0.04	0.27	3	0.82	0.83	0.07	2.02	7
2004	0.44	0.56	0.05	1.21	9	0.09	0.08	0.04	0.42	20	0.71	1.11	0.06	1.99	3	0.49	0.48	0.05	1.34	7
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.14		0.00	1.21		0.10		0.00	1.00		0.19		0.03	1.99		0.60		0.04	2.88	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.00878	-0.003	0.43111	0.00333	-0.00778	-0.00742	-0.002	0.15885	0.00032	-0.00525	0.01541	0	0.39233	0.005	0	-0.00671	0.006	0.67253	0.04317	-0.02667

Table 78. Area 11, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 11	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976																				
1977																				
1978																				
1979																				
1980																				
1981																				
1982																				
1983																				
1984																				
1985																				
1986																				
1987																				
1988																				
1989																				
1990																				
1991																				
1992	21.5	0.3	21.2	21.8	6	18.8	1.2	17.9	20.8	21	21.7	0.0	21.7	21.7	1	19.0	1.6	17.1	21.9	7
1993	21.6	1.4	19.8	22.5	9	18.5	1.2	17.4	21.1	21	21.5	1.9	19.4	22.7	3	19.1	0.8	18.1	20.2	7
1994	23.2	1.2	21.5	24.0	9	20.6	2.0	17.7	23.5	21	23.9	0.1	23.8	24.0	3	18.6	1.4	17.4	21.2	7
1995	21.4	0.0	21.4	21.4	3	ND	ND	ND	ND	0	21.3	0.0	21.3	21.3	1	ND	ND	ND	ND	0
1996	21.0	0.4	20.6	21.8	6	18.2	1.2	16.2	20.4	21	21.2	0.2	21.1	21.3	2	16.4	0.8	15.2	17.7	7
1997	21.8	1.5	20.1	23.7	9	22.3	2.4	18.7	26.7	21	22.0	2.1	19.8	24.1	3	20.8	2.0	18.1	23.7	7
1998	21.2	0.8	19.8	22.2	9	19.8	1.3	17.2	21.9	21	21.8	1.3	20.8	23.2	3	18.3	0.9	17.4	19.8	7
1999	21.8	0.8	20.4	22.7	9	20.7	1.6	18.2	23.6	18	23.0	1.4	22.1	24.6	3	18.6	1.1	17.0	20.1	6
2000	21.7	1.2	20.0	23.3	9	20.2	1.3	18.1	23.2	21	20.7	0.6	20.1	21.3	3	19.4	1.0	18.4	20.7	7
2001	24.0	0.9	23.3	25.9	9	19.4	1.5	16.7	22.0	21	22.4	1.1	21.1	23.4	3	17.3	0.5	16.5	17.9	7
2002	20.5	0.3	20.1	21.1	9	21.3	1.8	18.2	25.0	21	20.0	0.3	19.7	20.3	3	18.4	0.8	17.6	19.5	7
2003	21.8	0.8	21.3	23.9	9	21.0	2.4	18.1	25.0	21	21.3	0.6	20.6	21.9	3	18.8	1.2	17.5	20.8	7
2004	21.1	1.5	19.1	23.6	9	20.4	1.2	18.5	23.9	21	21.2	1.2	20.2	22.5	3	18.4	0.5	17.5	19.0	7
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	21.7		19.1	25.9		20.1		16.2	26.7		21.7		19.4	24.6		18.6		15.2	23.7	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.02621	-0.018	0.65558	0.08611	-0.11267	0.14813	0.15	0.02166	0.29133	0.03861	-0.1158	-0.1	0.21282	0.038	-0.205	-0.0357	-0.033	0.63473	0.05	-0.13889

Table 79. Area 11, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 11	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976																				
1977																				
1978																				
1979																				
1980																				
1981																				
1982																				
1983																				
1984																				
1985																				
1986																				
1987																				
1988																				
1989																				
1990																				
1991																				
1992	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1993	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1994	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1995	16.38	0.12	16.20	16.50	6	7.97	1.30	6.20	10.70	18	16.25	0.07	16.20	16.30	2	11.78	2.98	8.70	15.60	6
1996	15.28	0.41	14.70	15.80	9	5.44	1.09	4.10	7.00	21	16.03	0.65	15.40	16.70	3	12.51	1.82	10.70	15.70	7
1997	16.28	1.91	14.40	18.70	9	5.96	1.81	3.90	10.10	21	16.87	2.12	14.60	18.80	3	11.73	3.65	7.00	15.90	7
1998	12.73	1.26	11.00	13.70	9	6.67	2.45	3.30	10.80	21	12.90	0.95	11.80	13.50	3	10.99	2.79	6.50	13.90	7
1999	13.90	0.88	12.70	14.80	9	6.65	0.86	5.50	8.60	18	15.03	2.46	13.10	17.80	3	12.33	1.54	10.20	14.70	6
2000	16.86	1.46	15.50	19.70	9	8.21	1.25	6.20	9.90	21	16.60	0.46	16.10	17.00	3	14.91	2.66	9.90	17.70	7
2001	17.44	0.44	17.00	18.00	9	6.42	2.11	3.80	10.50	21	15.87	0.40	15.50	16.30	3	12.40	2.71	7.30	14.50	7
2002	16.64	0.92	15.70	17.80	9	7.94	1.94	5.40	13.60	21	16.07	1.55	14.50	17.60	3	13.24	2.63	7.60	15.40	7
2003	16.26	0.81	15.60	17.80	9	7.02	1.73	4.00	11.70	21	16.87	1.36	15.60	18.30	3	14.96	4.06	8.40	20.90	7
2004	19.22	1.82	16.80	21.20	9	8.99	2.84	6.20	17.10	21	24.40	7.19	20.00	32.70	3	15.16	2.87	10.50	18.70	7
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	16.10		11.00	21.20		7.13		3.30	17.10		16.69		11.80	32.70		13.00		6.50	20.90	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.35518	0.305	0.01049	0.56667	0.12222	0.21234	0.215	0.04401	0.41389	0.04444	0.55791	0.263	0.07368	0.65	0.02857	0.39522	0.383	0.0062	0.56429	0.175

Table 80. Area 11, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 11	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976																				
1977																				
1978																				
1979																				
1980																				
1981																				
1982																				
1983																				
1984																				
1985																				
1986																				
1987																				
1988																				
1989																				
1990																				
1991																				
1992	6.20	0.36	5.74	6.61	5	2.12	1.50	0.50	6.00	17	6.32	0.00	6.32	6.32	1	3.79	1.76	1.22	6.26	6
1993	6.75	1.16	5.46	8.32	9	4.24	4.46	0.90	18.67	20	6.41	1.11	5.46	7.63	3	5.12	1.19	2.69	6.38	7
1994	10.56	1.39	8.75	12.53	9	6.06	3.27	2.67	12.67	18	10.71	0.78	9.81	11.18	3	3.00	2.50	0.78	7.17	7
1995	7.77	0.89	6.62	9.57	9	Inf	ND	0.22	Inf	18	7.84	0.77	7.13	8.67	3	4.71	3.24	1.10	10.04	6
1996	8.62	0.80	7.57	9.58	9	3.38	1.18	1.80	6.00	21	8.64	0.95	7.61	9.49	3	2.25	1.25	0.87	4.19	7
1997	7.38	0.64	6.47	8.11	9	2.43	1.55	0.78	6.67	21	6.63	0.50	6.10	7.11	3	6.75	8.27	0.88	24.48	7
1998	8.28	0.46	7.64	8.71	9	1.88	1.08	0.29	3.67	21	8.14	0.50	7.76	8.71	3	1.47	0.92	0.18	2.67	7
1999	8.80	0.70	7.84	9.63	9	2.70	1.47	1.00	7.00	18	7.64	1.77	5.61	8.86	3	1.89	1.48	0.16	3.93	6
2000	6.36	1.19	5.21	8.69	9	1.72	1.40	0.38	5.00	21	5.60	0.91	4.58	6.32	3	2.69	2.13	0.19	5.83	7
2001	11.27	0.47	10.82	12.29	9	2.54	1.82	0.33	7.00	21	9.37	1.66	7.47	10.55	3	1.56	0.79	0.45	2.76	7
2002	5.62	0.65	4.75	6.44	9	2.59	2.38	0.28	9.50	21	4.59	0.14	4.44	4.73	3	2.08	1.22	0.14	3.73	7
2003	8.25	0.73	7.07	9.08	9	2.54	1.70	0.38	6.00	20	6.56	2.32	4.71	9.16	3	1.96	1.53	0.18	3.66	7
2004	4.91	0.52	4.25	5.67	9	1.29	1.23	0.43	5.00	20	4.07	1.62	2.20	5.06	3	1.47	1.22	0.21	3.19	7
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	7.75		4.25	12.53		2.79		0.22	18.67		7.12		2.20	11.18		2.98		0.14	24.48	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.10051	-0.11	0.32543	0.0641	-0.29695	NaN	-0.207	0.01661	-0.08686	-0.33154	-0.26051	-0.307	0.0083	-0.07509	-0.5003	-0.25716	-0.213	0.00743	-0.08894	-0.32424

Table 81. Area 12, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 12	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.30	0.01	0.29	0.31	3	0.06	0.02	0.04	0.07	3	0.74	0.00	0.74	0.74	1	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.05	0.03	0.02	0.11	8	ND	ND	ND	ND	0	0.78	0.02	0.76	0.80	3
1978	0.21	0.06	0.16	0.27	4	0.08	0.07	0.03	0.18	5	0.97	0.04	0.94	0.99	2	0.85	0.21	0.70	1.00	2
1979	ND	ND	ND	ND	0	0.04	0.04	0.01	0.14	8	ND	ND	ND	ND	0	0.37	0.00	0.37	0.37	1
1980	ND	ND	ND	ND	0	0.08	0.05	0.02	0.15	9	ND	ND	ND	ND	0	0.86	0.21	0.71	1.10	3
1981	ND	ND	ND	ND	0	0.05	0.01	0.05	0.06	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	0.05	0.01	0.04	0.06	7	ND	ND	ND	ND	0	0.91	0.01	0.90	0.91	2
1984	ND	ND	ND	ND	0	0.11	0.02	0.08	0.12	3	ND	ND	ND	ND	0	0.80	0.00	0.80	0.80	1
1985	ND	ND	ND	ND	0	0.07	0.01	0.05	0.09	7	ND	ND	ND	ND	0	0.85	0.09	0.78	0.91	2
1986	ND	ND	ND	ND	0	0.02	0.00	0.02	0.02	3	ND	ND	ND	ND	0	0.89	0.00	0.89	0.89	1
1987	ND	ND	ND	ND	0	0.02	0.00	0.02	0.02	3	ND	ND	ND	ND	0	0.71	0.00	0.71	0.71	1
1988	ND	ND	ND	ND	0	0.03	0.02	0.02	0.06	7	ND	ND	ND	ND	0	0.74	0.01	0.73	0.74	2
1989	ND	ND	ND	ND	0	0.02	0.01	0.02	0.03	4	ND	ND	ND	ND	0	0.80	0.00	0.80	0.80	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	0.02	0.00	0.02	0.02	3	ND	ND	ND	ND	0	0.75	0.00	0.75	0.75	1
1992	0.31	0.00	0.31	0.31	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1993	0.23	0.02	0.21	0.24	3	0.07	0.04	0.02	0.13	7	0.67	0.00	0.67	0.67	1	0.60	0.04	0.57	0.63	2
1994	0.24	0.01	0.22	0.25	4	0.07	0.02	0.04	0.08	3	0.62	0.00	0.62	0.62	1	0.65	0.00	0.65	0.65	1
1995	0.30	0.06	0.24	0.36	5	0.03	0.01	0.02	0.03	3	0.77	0.17	0.65	0.89	2	0.56	0.00	0.56	0.56	1
1996	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1997	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1998	0.18	0.02	0.16	0.20	3	ND	ND	ND	ND	0	0.83	0.00	0.83	0.83	1	ND	ND	ND	ND	0
1999	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
2000	0.32	0.01	0.32	0.33	3	ND	ND	ND	ND	0	0.73	0.00	0.73	0.73	1	ND	ND	ND	ND	0
2001	0.25	0.02	0.23	0.26	3	ND	ND	ND	ND	0	0.82	0.00	0.82	0.82	1	ND	ND	ND	ND	0
2002	0.27	0.01	0.26	0.27	3	ND	ND	ND	ND	0	0.74	0.00	0.74	0.74	1	ND	ND	ND	ND	0
2003	0.22	0.00	0.22	0.22	3	ND	ND	ND	ND	0	0.84	0.00	0.84	0.84	1	ND	ND	ND	ND	0
2004	0.21	0.01	0.20	0.21	3	ND	ND	ND	ND	0	1.56	0.00	1.56	1.56	1	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.25		0.16	0.36		0.05		0.01	0.18		0.84		0.62	1.56		0.74		0.37	1.10	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.00056	0.001	0.60921	0.0072	-0.01333	-0.00118	-0.001	0.36429	0.00063	-0.00273	0.00155	0.005	0.75574	0.0525	-0.008	-0.00886	-0.013	0.08936	0	-0.022

Table 82. Area 12, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 12	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.35	0.03	0.33	0.37	2	0.38	0.05	0.33	0.43	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.40	0.12	0.20	0.50	8	ND	ND	ND	ND	0	0.94	0.06	0.88	0.99	3
1978	0.36	0.04	0.33	0.41	4	0.33	0.06	0.26	0.41	5	1.21	0.11	1.13	1.29	2	1.07	0.01	1.06	1.08	2
1979	ND	ND	ND	ND	0	0.57	0.40	0.31	1.23	6	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1980	ND	ND	ND	ND	0	0.37	0.10	0.22	0.53	9	ND	ND	ND	ND	0	1.04	0.28	0.78	1.34	3
1981	ND	ND	ND	ND	0	0.33	0.01	0.33	0.34	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	0.40	0.21	0.28	0.87	7	ND	ND	ND	ND	0	1.09	0.01	1.08	1.09	2
1984	ND	ND	ND	ND	0	0.46	0.01	0.45	0.47	3	ND	ND	ND	ND	0	0.97	0.00	0.97	0.97	1
1985	ND	ND	ND	ND	0	0.61	0.31	0.24	1.00	7	ND	ND	ND	ND	0	0.94	0.00	0.94	0.94	1
1986	ND	ND	ND	ND	0	0.28	0.02	0.26	0.29	3	ND	ND	ND	ND	0	1.22	0.00	1.22	1.22	1
1987	ND	ND	ND	ND	0	0.42	0.09	0.32	0.49	3	ND	ND	ND	ND	0	1.04	0.00	1.04	1.04	1
1988	ND	ND	ND	ND	0	0.44	0.18	0.20	0.60	7	ND	ND	ND	ND	0	0.89	0.04	0.86	0.91	2
1989	ND	ND	ND	ND	0	0.51	0.04	0.46	0.54	4	ND	ND	ND	ND	0	1.20	0.00	1.20	1.20	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	0.31	0.01	0.30	0.32	3	ND	ND	ND	ND	0	0.82	0.00	0.82	0.82	1
1992	0.67	0.02	0.65	0.69	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1993	0.50	0.01	0.49	0.50	3	0.37	0.04	0.34	0.45	7	0.98	0.00	0.98	0.98	1	0.71	0.00	0.71	0.71	1
1994	0.48	0.02	0.45	0.49	4	0.42	0.03	0.40	0.45	3	0.87	0.00	0.87	0.87	1	0.93	0.00	0.93	0.93	1
1995	0.44	0.01	0.42	0.46	5	0.27	0.01	0.27	0.28	3	1.00	0.09	0.93	1.06	2	0.72	0.00	0.72	0.72	1
1996	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1997	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1998	0.38	0.02	0.35	0.39	3	ND	ND	ND	ND	0	0.97	0.00	0.97	0.97	1	ND	ND	ND	ND	0
1999	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
2000	0.50	0.01	0.49	0.50	3	ND	ND	ND	ND	0	1.01	0.00	1.01	1.01	1	ND	ND	ND	ND	0
2001	0.40	0.04	0.37	0.44	3	ND	ND	ND	ND	0	1.03	0.00	1.03	1.03	1	ND	ND	ND	ND	0
2002	0.47	0.03	0.44	0.49	3	ND	ND	ND	ND	0	1.10	0.00	1.10	1.10	1	ND	ND	ND	ND	0
2003	0.36	0.01	0.35	0.37	3	ND	ND	ND	ND	0	1.18	0.00	1.18	1.18	1	ND	ND	ND	ND	0
2004	0.37	0.01	0.37	0.38	3	ND	ND	ND	ND	0	1.59	0.00	1.59	1.59	1	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.44		0.33	0.69		0.40		0.20	1.23		1.09		0.87	1.59		0.97		0.71	1.34	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00012	-0.007	0.35749	0.00381	-0.02167	-0.00176	-0.001	0.78831	0.00733	-0.00667	0.00056	0.023	0.11984	0.05889	0.00571	-0.0103	-0.015	0.02819	-0.00353	-0.02273

Table 83. Area 12, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 12	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	2.54	0.06	2.47	2.58	3	0.12	0.00	0.12	0.12	3	3.12	0.00	3.12	3.12	1	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.30	0.18	0.12	0.51	8	ND	ND	ND	ND	0	3.29	0.89	2.29	4.00	3
1978	2.31	0.33	2.01	2.67	4	0.15	0.06	0.12	0.26	5	3.50	0.08	3.44	3.55	2	2.65	0.67	2.17	3.12	2
1979	ND	ND	ND	ND	0	0.14	0.03	0.11	0.22	11	ND	ND	ND	ND	0	3.09	1.53	2.00	4.17	2
1980	ND	ND	ND	ND	0	0.22	0.14	0.12	0.45	9	ND	ND	ND	ND	0	4.38	1.23	3.54	5.79	3
1981	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	0.26	0.08	0.19	0.39	7	ND	ND	ND	ND	0	4.66	0.63	4.21	5.10	2
1984	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	3	ND	ND	ND	ND	0	3.65	0.00	3.65	3.65	1
1985	ND	ND	ND	ND	0	0.15	0.07	0.12	0.31	7	ND	ND	ND	ND	0	5.30	2.26	3.70	6.90	2
1986	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	3	ND	ND	ND	ND	0	5.46	0.00	5.46	5.46	1
1987	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	3	ND	ND	ND	ND	0	4.68	0.00	4.68	4.68	1
1988	ND	ND	ND	ND	0	0.13	0.02	0.12	0.18	7	ND	ND	ND	ND	0	3.73	0.32	3.50	3.95	2
1989	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	4	ND	ND	ND	ND	0	5.30	0.00	5.30	5.30	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	0.15	0.06	0.12	0.23	4	ND	ND	ND	ND	0	4.43	0.00	4.43	4.43	1
1992	5.05	0.00	5.05	5.05	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1993	4.84	0.00	4.84	4.84	3	0.15	0.06	0.12	0.28	7	5.74	0.00	5.74	5.74	1	5.10	2.08	3.63	6.57	2
1994	3.21	0.12	3.06	3.34	4	0.12	0.00	0.12	0.12	3	5.02	0.00	5.02	5.02	1	3.40	0.00	3.40	3.40	1
1995	3.76	0.72	3.12	4.54	5	0.22	0.11	0.12	0.33	3	5.14	0.01	5.13	5.14	2	3.33	0.00	3.33	3.33	1
1996	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1997	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1998	2.27	0.06	2.23	2.33	3	ND	ND	ND	ND	0	4.60	0.00	4.60	4.60	1	ND	ND	ND	ND	0
1999	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
2000	2.99	0.03	2.97	3.02	3	ND	ND	ND	ND	0	4.27	0.00	4.27	4.27	1	ND	ND	ND	ND	0
2001	3.30	0.02	3.29	3.32	3	ND	ND	ND	ND	0	3.93	0.00	3.93	3.93	1	ND	ND	ND	ND	0
2002	3.13	0.06	3.07	3.18	3	ND	ND	ND	ND	0	3.92	0.00	3.92	3.92	1	ND	ND	ND	ND	0
2003	2.80	0.01	2.79	2.80	3	ND	ND	ND	ND	0	4.99	0.00	4.99	4.99	1	ND	ND	ND	ND	0
2004	1.81	0.04	1.76	1.84	3	ND	ND	ND	ND	0	4.35	0.00	4.35	4.35	1	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.17		1.76	5.05		0.16		0.11	0.51		4.42		3.12	5.74		4.16		2.00	6.90	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01142	-0.037	0.47419	0.04402	-0.15889	-0.00369	0	0.58295	0	0	0.03045	-0.017	0.60413	0.058	-0.15571	0.06482	0.122	0.0454	0.19818	0.038

Table 84. Area 12, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 12	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	1.40	0.83	0.80	2.34	3	0.52	0.14	0.36	0.63	3	0.61	0.00	0.61	0.61	1	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	0.66	0.51	0.30	1.80	8	ND	ND	ND	ND	0	0.64	0.41	0.34	1.10	3
1978	0.40	0.09	0.28	0.46	4	0.24	0.17	0.14	0.44	3	0.36	0.12	0.27	0.44	2	0.46	0.00	0.46	0.46	1
1979	ND	ND	ND	ND	0	0.25	0.25	0.02	0.70	9	ND	ND	ND	ND	0	0.26	0.00	0.26	0.26	1
1980	ND	ND	ND	ND	0	0.36	0.11	0.20	0.50	9	ND	ND	ND	ND	0	0.30	0.11	0.20	0.41	3
1981	ND	ND	ND	ND	0	0.13	0.06	0.10	0.20	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	0.26	0.12	0.10	0.50	7	ND	ND	ND	ND	0	0.23	0.04	0.20	0.26	2
1984	ND	ND	ND	ND	0	0.02	0.00	0.02	0.02	3	ND	ND	ND	ND	0	0.02	0.00	0.02	0.02	1
1985	ND	ND	ND	ND	0	0.05	0.03	0.02	0.10	7	ND	ND	ND	ND	0	0.78	1.03	0.05	1.50	2
1986	ND	ND	ND	ND	0	0.10	0.00	0.10	0.10	3	ND	ND	ND	ND	0	0.30	0.00	0.30	0.30	1
1987	ND	ND	ND	ND	0	0.13	0.06	0.10	0.20	3	ND	ND	ND	ND	0	0.50	0.00	0.50	0.50	1
1988	ND	ND	ND	ND	0	0.39	0.17	0.20	0.62	7	ND	ND	ND	ND	0	0.59	0.30	0.38	0.80	2
1989	ND	ND	ND	ND	0	0.39	0.12	0.22	0.50	4	ND	ND	ND	ND	0	0.32	0.00	0.32	0.32	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	0.50	0.36	0.10	0.80	3	ND	ND	ND	ND	0	0.20	0.00	0.20	0.20	1
1992	0.17	0.06	0.10	0.20	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1993	0.10	0.00	0.10	0.10	3	0.23	0.04	0.20	0.30	7	0.20	0.00	0.20	0.20	1	0.47	0.33	0.24	0.70	2
1994	ND	ND	ND	ND	0	0.10	0.00	0.10	0.10	3	ND	ND	ND	ND	0	0.70	0.00	0.70	0.70	1
1995	0.15	0.06	0.10	0.21	3	ND	ND	ND	ND	0	0.45	0.00	0.45	0.45	1	ND	ND	ND	ND	0
1996	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1997	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1998	0.22	0.04	0.18	0.25	3	ND	ND	ND	ND	0	0.08	0.00	0.08	0.08	1	ND	ND	ND	ND	0
1999	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
2000	0.15	0.01	0.15	0.16	3	ND	ND	ND	ND	0	0.24	0.00	0.24	0.24	1	ND	ND	ND	ND	0
2001	0.28	0.19	0.15	0.49	3	ND	ND	ND	ND	0	0.17	0.00	0.17	0.17	1	ND	ND	ND	ND	0
2002	0.13	0.05	0.07	0.16	3	ND	ND	ND	ND	0	0.09	0.00	0.09	0.09	1	ND	ND	ND	ND	0
2003	0.13	0.04	0.09	0.17	3	ND	ND	ND	ND	0	0.27	0.00	0.27	0.27	1	ND	ND	ND	ND	0
2004	0.09	0.04	0.05	0.12	3	ND	ND	ND	ND	0	0.05	0.00	0.05	0.05	1	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.29		0.05	2.34		0.27		0.02	1.80		0.25		0.05	0.61		0.41		0.02	1.50	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00896	-0.012	0.02595	-0.00381	-0.02	-0.0122	-0.009	0.17539	0.00533	-0.02762	-0.0086	-0.017	0.13765	0.0025	-0.04667	0.00243	-0.002	0.64049	0.02375	-0.02353

Table 85. Area 12, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 12	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	23.0	1.0	22.0	24.0	3	10.0	1.0	9.0	11.0	3	30.0	0.0	30.0	30.0	1	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	17.2	2.5	14.0	22.0	8	ND	ND	ND	ND	0	16.7	1.0	16.0	17.4	2
1978	15.8	0.5	15.0	16.0	4	13.9	1.9	11.9	16.1	5	18.0	1.4	17.0	19.0	2	15.6	1.6	14.5	16.7	2
1979	ND	ND	ND	ND	0	15.6	1.4	13.8	17.1	6	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1980	ND	ND	ND	ND	0	17.1	5.1	10.7	26.0	9	ND	ND	ND	ND	0	20.4	3.4	16.9	23.7	3
1981	ND	ND	ND	ND	0	16.7	0.5	16.2	17.1	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	16.3	0.9	15.2	17.4	7	ND	ND	ND	ND	0	20.5	0.6	20.1	20.9	2
1984	ND	ND	ND	ND	0	15.9	1.6	14.1	17.3	3	ND	ND	ND	ND	0	17.3	0.0	17.3	17.3	1
1985	ND	ND	ND	ND	0	20.6	1.8	18.5	23.6	7	ND	ND	ND	ND	0	22.6	0.5	22.2	22.9	2
1986	ND	ND	ND	ND	0	14.8	0.5	14.4	15.4	3	ND	ND	ND	ND	0	21.3	0.0	21.3	21.3	1
1987	ND	ND	ND	ND	0	16.9	0.6	16.3	17.5	3	ND	ND	ND	ND	0	24.5	0.0	24.5	24.5	1
1988	ND	ND	ND	ND	0	19.1	1.9	15.3	20.6	7	ND	ND	ND	ND	0	21.7	0.5	21.3	22.0	2
1989	ND	ND	ND	ND	0	18.7	1.5	17.0	20.2	4	ND	ND	ND	ND	0	24.2	0.0	24.2	24.2	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	18.6	0.5	18.1	19.1	3	ND	ND	ND	ND	0	23.0	0.0	23.0	23.0	1
1992	19.9	0.5	19.5	20.5	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1993	21.7	0.4	21.4	22.2	3	19.7	0.8	18.9	21.3	7	24.5	0.0	24.5	24.5	1	22.5	0.0	22.5	22.5	1
1994	19.5	0.8	18.7	20.3	4	19.5	0.1	19.4	19.6	3	22.2	0.0	22.2	22.2	1	23.9	0.0	23.9	23.9	1
1995	22.1	0.9	21.1	23.3	5	20.2	0.5	19.7	20.6	3	25.2	1.5	24.1	26.2	2	23.6	0.0	23.6	23.6	1
1996	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1997	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1998	16.2	0.1	16.1	16.3	3	ND	ND	ND	ND	0	20.3	0.0	20.3	20.3	1	ND	ND	ND	ND	0
1999	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
2000	19.9	0.2	19.8	20.1	3	ND	ND	ND	ND	0	22.8	0.0	22.8	22.8	1	ND	ND	ND	ND	0
2001	18.0	0.4	17.6	18.3	3	ND	ND	ND	ND	0	20.9	0.0	20.9	20.9	1	ND	ND	ND	ND	0
2002	24.0	1.5	22.6	25.5	3	ND	ND	ND	ND	0	22.1	0.0	22.1	22.1	1	ND	ND	ND	ND	0
2003	16.8	0.3	16.5	17.1	3	ND	ND	ND	ND	0	21.9	0.0	21.9	21.9	1	ND	ND	ND	ND	0
2004	17.9	0.7	17.4	18.7	3	ND	ND	ND	ND	0	21.7	0.0	21.7	21.7	1	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	19.6		15.0	25.5		17.1		9.0	26.0		22.7		17.0	30.0		21.3		14.5	24.5	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.09175	0.068	0.47419	0.37059	-0.47333	0.28305	0.269	0.00048	0.39394	0.18889	0.14374	0.065	0.91741	0.2	-0.2	0.40653	0.418	0.00038	0.6375	0.325

Table 86. Area 12, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 12	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	69.17	22.55	47.50	92.50	3	14.83	0.29	14.50	15.00	3	50.00	0.00	50.00	50.00	1	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	15.79	2.93	12.10	19.40	8	ND	ND	ND	ND	0	20.63	2.14	18.20	22.20	3
1978	25.80	8.67	18.30	33.70	4	11.82	1.39	10.30	13.40	5	33.15	10.25	25.90	40.40	2	25.05	2.33	23.40	26.70	2
1979	ND	ND	ND	ND	0	10.45	2.94	2.00	12.30	11	ND	ND	ND	ND	0	21.90	6.93	17.00	26.80	2
1980	ND	ND	ND	ND	0	8.16	1.62	6.50	10.70	9	ND	ND	ND	ND	0	17.57	4.76	12.10	20.80	3
1981	ND	ND	ND	ND	0	18.67	0.40	18.20	18.90	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	15.86	1.28	14.50	17.10	7	ND	ND	ND	ND	0	24.40	1.41	23.40	25.40	2
1984	ND	ND	ND	ND	0	9.80	1.04	8.60	10.50	3	ND	ND	ND	ND	0	20.20	0.00	20.20	20.20	1
1985	ND	ND	ND	ND	0	12.30	1.36	10.00	13.40	7	ND	ND	ND	ND	0	19.90	7.50	14.60	25.20	2
1986	ND	ND	ND	ND	0	13.10	0.17	12.90	13.20	3	ND	ND	ND	ND	0	25.30	0.00	25.30	25.30	1
1987	ND	ND	ND	ND	0	11.17	0.12	11.10	11.30	3	ND	ND	ND	ND	0	15.90	0.00	15.90	15.90	1
1988	ND	ND	ND	ND	0	6.19	1.66	4.40	8.20	7	ND	ND	ND	ND	0	15.40	7.35	10.20	20.60	2
1989	ND	ND	ND	ND	0	6.65	0.71	5.90	7.40	4	ND	ND	ND	ND	0	21.40	0.00	21.40	21.40	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	9.80	0.56	9.30	10.40	3	ND	ND	ND	ND	0	16.20	0.00	16.20	16.20	1
1992	20.67	0.12	20.60	20.80	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1993	17.50	0.36	17.10	17.80	3	4.53	0.55	4.00	5.50	7	21.80	0.00	21.80	21.80	1	16.60	0.57	16.20	17.00	2
1994	10.98	0.05	10.90	11.00	4	5.40	0.00	5.40	5.40	3	18.70	0.00	18.70	18.70	1	14.40	0.00	14.40	14.40	1
1995	14.04	2.29	12.30	16.60	5	10.67	0.12	10.60	10.80	3	18.95	0.21	18.80	19.10	2	14.10	0.00	14.10	14.10	1
1996	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1997	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1998	9.17	0.06	9.10	9.20	3	ND	ND	ND	ND	0	15.80	0.00	15.80	15.80	1	ND	ND	ND	ND	0
1999	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
2000	11.57	0.12	11.50	11.70	3	ND	ND	ND	ND	0	15.90	0.00	15.90	15.90	1	ND	ND	ND	ND	0
2001	14.73	0.06	14.70	14.80	3	ND	ND	ND	ND	0	20.50	0.00	20.50	20.50	1	ND	ND	ND	ND	0
2002	15.50	0.00	15.50	15.50	3	ND	ND	ND	ND	0	17.90	0.00	17.90	17.90	1	ND	ND	ND	ND	0
2003	18.10	0.10	18.00	18.20	3	ND	ND	ND	ND	0	20.50	0.00	20.50	20.50	1	ND	ND	ND	ND	0
2004	15.00	0.10	14.90	15.10	3	ND	ND	ND	ND	0	27.60	0.00	27.60	27.60	1	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	20.18		9.10	92.50		10.89		2.00	19.40		23.71		15.80	50.00		19.26		10.20	26.80	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.41982	0.394	0.47419	0.97222	-0.16	-0.40528	-0.342	0.00366	-0.1627	-0.5475	-0.50116	0.175	0.53161	0.94444	-0.23478	-0.37577	-0.367	0.02051	-0.06667	-0.6

Table 87. Area 12, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 12	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	13.09	2.52	10.90	15.84	3	10.86	1.08	9.86	12.00	3	5.04	0.00	5.04	5.04	1	ND	ND	ND	ND	0
1977	ND	ND	ND	ND	0	23.08	19.27	7.29	63.00	8	ND	ND	ND	ND	0	5.07	0.75	4.40	5.88	3
1978	13.11	2.13	10.96	15.63	4	9.16	12.28	1.56	23.33	3	3.99	0.10	3.92	4.06	2	3.76	0.00	3.76	3.76	1
1979	ND	ND	ND	ND	0	15.78	11.74	1.07	34.50	6	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1980	ND	ND	ND	ND	0	10.24	6.36	4.80	24.50	9	ND	ND	ND	ND	0	5.71	2.13	3.65	7.91	3
1981	ND	ND	ND	ND	0	4.71	0.54	4.40	5.33	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	10.16	2.29	5.83	12.83	7	ND	ND	ND	ND	0	5.40	0.78	4.85	5.96	2
1984	ND	ND	ND	ND	0	1.36	0.34	1.17	1.75	3	ND	ND	ND	ND	0	4.59	0.00	4.59	4.59	1
1985	ND	ND	ND	ND	0	3.13	1.31	1.89	5.50	7	ND	ND	ND	ND	0	7.15	0.69	6.67	7.64	2
1986	ND	ND	ND	ND	0	11.00	0.00	11.00	11.00	3	ND	ND	ND	ND	0	6.47	0.00	6.47	6.47	1
1987	ND	ND	ND	ND	0	12.67	2.89	11.00	16.00	3	ND	ND	ND	ND	0	7.30	0.00	7.30	7.30	1
1988	ND	ND	ND	ND	0	16.70	3.19	12.50	21.00	7	ND	ND	ND	ND	0	5.88	0.89	5.24	6.51	2
1989	ND	ND	ND	ND	0	23.33	6.77	17.00	31.00	4	ND	ND	ND	ND	0	7.03	0.00	7.03	7.03	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	31.00	18.03	11.00	46.00	3	ND	ND	ND	ND	0	6.17	0.00	6.17	6.17	1
1992	16.83	0.19	16.61	16.94	3	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1993	21.56	1.70	20.58	23.52	3	8.47	5.45	3.50	16.00	7	8.87	0.00	8.87	8.87	1	9.20	2.27	7.60	10.81	2
1994	ND	ND	ND	ND	0	3.67	1.59	2.75	5.50	3	ND	ND	ND	ND	0	6.31	0.00	6.31	6.31	1
1995	12.96	1.34	11.48	14.08	3	ND	ND	ND	ND	0	6.27	0.00	6.27	6.27	1	ND	ND	ND	ND	0
1996	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1997	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1998	13.90	1.38	12.55	15.31	3	ND	ND	ND	ND	0	5.64	0.00	5.64	5.64	1	ND	ND	ND	ND	0
1999	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
2000	9.73	0.25	9.45	9.94	3	ND	ND	ND	ND	0	6.18	0.00	6.18	6.18	1	ND	ND	ND	ND	0
2001	14.53	0.59	13.92	15.09	3	ND	ND	ND	ND	0	5.00	0.00	5.00	5.00	1	ND	ND	ND	ND	0
2002	12.21	0.13	12.08	12.33	3	ND	ND	ND	ND	0	5.42	0.00	5.42	5.42	1	ND	ND	ND	ND	0
2003	13.32	0.16	13.14	13.46	3	ND	ND	ND	ND	0	6.26	0.00	6.26	6.26	1	ND	ND	ND	ND	0
2004	9.17	0.59	8.62	9.80	3	ND	ND	ND	ND	0	2.82	0.00	2.82	2.82	1	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	13.67		8.62	23.52		12.21		1.07	63.00		5.55		2.82	8.87		6.16		3.65	10.81	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.12134	-0.111	0.17682	0.20978	-0.42195	-0.13207	-0.01	1	0.69472	-0.70423	0.0326	-0.03	0.62069	0.10268	-0.37958	0.17649	0.188	0.01878	0.31455	0.09309

Table 88. Area 13, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 13	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.21	0.03	0.18	0.25	6	0.02	0.01	0.02	0.03	6	0.65	0.10	0.50	0.71	4	0.35	0.06	0.31	0.39	2
1977	0.13	0.03	0.10	0.15	3	0.05	0.06	0.02	0.19	15	0.60	0.13	0.43	0.74	5	0.66	0.11	0.56	0.83	9
1978	ND	ND	ND	ND	0	0.05	0.03	0.02	0.09	10	ND	ND	ND	ND	0	0.69	0.12	0.46	0.79	7
1979	0.26	0.12	0.15	0.46	8	0.03	0.02	0.02	0.07	16	0.80	0.11	0.65	0.92	5	0.65	0.16	0.49	0.95	9
1980	0.22	0.05	0.17	0.27	3	0.04	0.02	0.02	0.09	18	0.83	0.08	0.77	0.89	2	0.78	0.17	0.58	1.04	9
1981	ND	ND	ND	ND	0	0.03	0.01	0.02	0.04	12	ND	ND	ND	ND	0	0.71	0.19	0.43	0.92	8
1982	ND	ND	ND	ND	0	0.04	0.01	0.04	0.06	6	ND	ND	ND	ND	0	0.76	0.44	0.28	1.23	4
1983	ND	ND	ND	ND	0	0.05	0.03	0.02	0.11	14	ND	ND	ND	ND	0	0.76	0.11	0.53	0.89	7
1984	0.29	0.03	0.26	0.32	4	0.06	0.04	0.02	0.16	12	0.99	0.00	0.99	0.99	1	0.90	0.19	0.55	1.18	8
1985	0.13	0.01	0.12	0.14	3	0.06	0.02	0.02	0.09	14	0.45	0.13	0.36	0.54	2	0.82	0.13	0.66	1.01	7
1986	0.19	0.06	0.14	0.25	4	0.02	0.00	0.02	0.02	3	0.76	0.57	0.36	1.16	2	0.76	0.28	0.56	0.95	2
1987	0.31	0.11	0.23	0.47	4	0.02	0.00	0.02	0.02	9	0.74	0.00	0.74	0.74	1	0.95	0.13	0.81	1.12	6
1988	0.22	0.03	0.19	0.27	8	0.03	0.01	0.02	0.06	17	0.68	0.21	0.27	0.98	7	0.63	0.40	0.05	1.33	8
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	0.27	0.02	0.23	0.28	4	0.03	0.01	0.02	0.05	6	0.45	0.27	0.26	0.64	2	0.61	0.11	0.44	0.69	4
1991	0.21	0.07	0.15	0.27	4	0.04	0.03	0.01	0.11	79	0.65	0.10	0.57	0.76	3	0.67	0.15	0.26	1.04	41
1992	0.23	0.05	0.16	0.31	17	0.06	0.04	0.01	0.10	12	0.72	0.12	0.53	0.88	7	0.59	0.12	0.43	0.70	6
1993	0.27	0.01	0.26	0.29	6	0.04	0.02	0.01	0.13	42	0.61	0.25	0.36	0.92	6	0.72	0.26	0.28	1.18	29
1994	0.17	0.05	0.07	0.24	20	0.05	0.03	0.01	0.13	53	0.80	0.23	0.51	1.38	13	0.96	0.41	0.05	1.94	28
1995	0.22	0.05	0.13	0.34	46	0.04	0.05	0.01	0.35	48	0.64	0.20	0.29	1.13	31	0.95	0.38	0.40	1.90	24
1996	0.23	0.05	0.15	0.31	33	0.04	0.02	0.01	0.08	54	0.77	0.14	0.58	1.07	19	1.23	0.40	0.43	2.26	31
1997	0.24	0.03	0.20	0.28	15	0.03	0.01	0.01	0.05	43	0.78	0.24	0.64	1.36	8	1.59	0.57	0.46	2.81	23
1998	0.15	0.03	0.09	0.19	18	0.03	0.01	0.01	0.03	6	0.91	0.40	0.54	1.87	11	1.48	0.78	0.66	2.79	6
1999	0.28	0.07	0.19	0.34	9	0.04	0.02	0.03	0.07	15	0.90	0.17	0.73	1.22	8	1.20	0.43	0.55	1.93	15
2000	0.19	0.04	0.14	0.28	19	ND	ND	ND	ND	0	0.76	0.15	0.58	1.13	13	ND	ND	ND	ND	0
2001	0.19	0.04	0.13	0.25	17	ND	ND	ND	ND	0	0.83	0.26	0.62	1.49	9	ND	ND	ND	ND	0
2002	0.24	0.05	0.15	0.30	18	ND	ND	ND	ND	0	0.78	0.13	0.62	1.04	10	ND	ND	ND	ND	0
2003	0.21	0.04	0.15	0.29	18	ND	ND	ND	ND	0	0.74	0.03	0.69	0.78	9	ND	ND	ND	ND	0
2004	0.17	0.04	0.12	0.24	12	ND	ND	ND	ND	0	0.79	0.17	0.69	1.20	8	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.22		0.07	0.47		0.04		0.01	0.35		0.73		0.26	1.87		0.84		0.05	2.81	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00128	0.001	0.17387	0.00233	-0.00052	-0.00023	0	0.79144	0.00048	-0.00071	0.00567	0.005	0.18023	0.00939	-0.00037	0.02962	0.028	0.00002	0.03708	0.01627

Table 89. Area 13, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 13	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.35	0.07	0.27	0.46	6	0.34	0.04	0.30	0.41	6	0.89	0.19	0.62	1.03	4	0.94	0.00	0.94	0.94	2
1977	0.30	0.03	0.26	0.34	4	0.30	0.08	0.18	0.42	12	0.84	0.18	0.56	1.07	5	0.90	0.13	0.76	1.15	8
1978	ND	ND	ND	ND	0	0.30	0.07	0.18	0.37	10	ND	ND	ND	ND	0	0.96	0.24	0.57	1.23	7
1979	0.42	0.18	0.28	0.74	8	0.33	0.05	0.26	0.39	8	1.13	0.18	0.87	1.35	5	0.85	0.15	0.73	1.09	5
1980	0.30	0.03	0.27	0.32	3	0.34	0.10	0.22	0.54	18	0.86	0.12	0.77	0.94	2	1.11	0.22	0.90	1.49	9
1981	ND	ND	ND	ND	0	0.25	0.03	0.21	0.32	12	ND	ND	ND	ND	0	0.91	0.26	0.53	1.22	8
1982	ND	ND	ND	ND	0	0.38	0.03	0.35	0.43	6	ND	ND	ND	ND	0	1.10	0.62	0.52	1.89	4
1983	ND	ND	ND	ND	0	0.34	0.12	0.17	0.51	14	ND	ND	ND	ND	0	1.00	0.20	0.72	1.22	6
1984	0.63	0.13	0.56	0.82	4	0.26	0.04	0.20	0.33	12	1.34	0.00	1.34	1.34	1	1.03	0.18	0.76	1.24	8
1985	0.36	0.02	0.34	0.37	3	0.33	0.12	0.16	0.53	13	0.67	0.11	0.59	0.74	2	1.07	0.08	0.98	1.18	7
1986	0.50	0.07	0.42	0.60	4	0.30	0.06	0.25	0.37	3	1.01	0.69	0.52	1.49	2	0.99	0.37	0.73	1.25	2
1987	0.45	0.13	0.30	0.60	4	0.28	0.05	0.22	0.37	9	0.90	0.00	0.90	0.90	1	1.16	0.22	0.88	1.43	6
1988	0.43	0.06	0.36	0.53	8	0.29	0.09	0.13	0.43	17	0.89	0.22	0.52	1.20	7	0.81	0.20	0.49	1.13	7
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	0.39	0.02	0.36	0.42	4	0.32	0.08	0.24	0.43	6	0.60	0.34	0.36	0.84	2	0.81	0.16	0.59	0.96	4
1991	0.43	0.04	0.40	0.48	4	0.34	0.17	0.19	1.44	78	0.87	0.15	0.75	1.04	3	0.90	0.19	0.46	1.35	40
1992	0.40	0.08	0.30	0.57	17	0.48	0.19	0.23	0.72	12	0.83	0.20	0.53	1.04	7	0.83	0.17	0.59	1.05	6
1993	0.45	0.03	0.42	0.49	6	0.36	0.14	0.22	0.86	48	0.79	0.21	0.59	1.04	6	0.93	0.25	0.44	1.31	29
1994	0.34	0.04	0.27	0.44	18	0.30	0.07	0.16	0.52	45	1.00	0.21	0.63	1.42	12	1.18	0.41	0.27	1.99	24
1995	0.42	0.13	0.21	0.99	48	0.35	0.12	0.19	0.69	48	0.82	0.24	0.48	1.45	30	1.22	0.44	0.53	2.20	25
1996	0.43	0.11	0.31	0.84	23	0.31	0.08	0.21	0.56	54	0.99	0.20	0.78	1.44	14	1.32	0.42	0.60	2.42	23
1997	0.39	0.04	0.32	0.45	14	0.25	0.06	0.14	0.38	43	0.96	0.25	0.78	1.55	8	1.78	0.55	0.75	2.85	20
1998	0.32	0.05	0.20	0.40	18	0.21	0.03	0.14	0.23	6	1.13	0.44	0.73	1.88	9	1.39	0.44	0.83	1.94	5
1999	0.42	0.07	0.35	0.52	9	0.20	0.10	0.11	0.39	15	1.09	0.09	0.99	1.25	8	1.54	0.54	0.73	2.58	15
2000	0.35	0.05	0.28	0.45	18	0.25	0.08	0.15	0.38	7	1.01	0.12	0.84	1.18	14	0.86	0.19	0.69	1.14	4
2001	0.33	0.04	0.27	0.45	16	0.26	0.05	0.18	0.32	12	1.00	0.12	0.80	1.17	8	ND	ND	ND	ND	0
2002	0.42	0.08	0.29	0.55	18	0.37	0.09	0.28	0.53	12	1.14	0.26	0.89	1.59	10	0.88	0.09	0.80	0.99	4
2003	0.36	0.05	0.26	0.45	17	0.25	0.01	0.22	0.27	12	0.99	0.16	0.84	1.32	8	0.91	0.03	0.88	0.95	4
2004	0.27	0.05	0.20	0.34	9	ND	ND	ND	ND	0	0.88	0.18	0.73	1.22	6	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.39		0.20	0.99		0.31		0.11	1.44		0.94		0.36	1.88		1.05		0.27	2.85	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00318	-0.003	0.09279	0	-0.00696	-0.00155	-0.002	0.04776	-0.00042	-0.00373	0.00566	0.001	0.89645	0.00896	-0.00757	0.01949	0.008	0.08995	0.01639	0.00013

Table 90. Area 13, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 13	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	2.23	0.01	2.22	2.23	6	0.12	0.00	0.12	0.12	6	3.98	0.24	3.73	4.23	4	3.46	0.23	3.29	3.62	2
1977	1.37	0.15	1.19	1.53	4	0.12	0.00	0.12	0.12	12	3.23	0.22	2.84	3.35	5	3.68	1.26	0.92	4.61	8
1978	ND	ND	ND	ND	0	0.14	0.04	0.12	0.22	10	ND	ND	ND	ND	0	4.37	0.98	3.05	5.44	7
1979	2.59	0.11	2.40	2.74	8	0.14	0.04	0.12	0.29	16	4.43	0.68	3.92	5.50	5	4.67	0.44	4.03	5.17	12
1980	3.79	1.37	2.86	5.36	3	0.12	0.00	0.12	0.13	18	5.24	0.16	5.13	5.35	2	5.33	1.23	3.39	6.75	9
1981	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	12	ND	ND	ND	ND	0	6.20	1.47	4.02	7.72	8
1982	ND	ND	ND	ND	0	0.13	0.01	0.12	0.14	6	ND	ND	ND	ND	0	4.96	1.17	3.28	5.90	4
1983	ND	ND	ND	ND	0	0.16	0.06	0.12	0.35	14	ND	ND	ND	ND	0	5.84	1.01	4.29	7.74	7
1984	3.59	0.60	3.03	4.10	4	0.16	0.09	0.12	0.43	12	5.10	0.00	5.10	5.10	1	7.29	1.24	5.56	9.62	8
1985	3.03	0.06	3.00	3.10	3	0.28	0.53	0.12	2.12	14	5.79	0.62	5.35	6.23	2	6.63	0.95	5.27	7.65	7
1986	2.49	1.12	1.52	3.46	4	0.12	0.00	0.12	0.12	3	2.22	0.28	2.02	2.42	2	6.41	0.92	5.76	7.06	2
1987	3.72	0.70	3.10	4.34	4	0.18	0.08	0.12	0.36	9	6.45	0.40	6.17	6.73	2	8.78	0.34	8.24	9.27	6
1988	4.19	0.25	3.83	4.48	8	0.14	0.04	0.12	0.22	17	6.61	0.96	4.54	7.42	7	5.95	0.89	4.40	7.05	8
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	4.05	0.17	3.80	4.20	4	0.12	0.00	0.12	0.12	6	4.90	1.27	4.00	5.80	2	6.35	1.03	5.12	7.43	4
1991	3.73	0.96	2.90	4.58	4	0.14	0.06	0.10	0.35	80	7.70	1.07	6.92	8.92	3	7.99	1.30	5.12	10.13	41
1992	3.73	0.30	3.43	4.42	17	0.14	0.02	0.12	0.18	12	6.89	0.96	5.42	7.82	7	6.10	1.44	4.61	8.13	6
1993	4.61	0.21	4.42	4.82	6	0.13	0.04	0.05	0.32	49	6.08	1.60	4.52	7.76	6	6.71	1.64	2.07	8.27	29
1994	3.30	0.48	2.41	3.76	20	0.13	0.03	0.10	0.22	54	6.79	1.21	5.29	10.11	13	7.53	2.47	0.54	10.41	31
1995	3.77	0.74	2.54	4.98	45	0.14	0.05	0.05	0.24	48	6.30	1.15	4.55	8.68	31	6.82	1.19	3.94	9.10	26
1996	3.85	0.65	2.81	4.85	33	0.11	0.01	0.10	0.15	54	6.24	0.31	5.71	7.01	19	6.45	0.81	4.25	8.16	31
1997	3.63	0.12	3.45	3.87	15	0.10	0.01	0.10	0.14	43	5.52	0.37	5.09	6.25	8	6.84	1.62	2.76	8.99	23
1998	2.62	0.60	1.88	3.71	18	0.11	0.01	0.10	0.11	6	5.40	0.66	4.11	6.35	11	5.87	1.46	4.41	7.50	6
1999	3.89	0.69	3.20	4.82	9	0.10	0.01	0.10	0.12	15	5.70	0.65	4.60	6.50	8	7.61	1.80	4.36	9.53	15
2000	2.78	0.64	2.21	3.95	19	ND	ND	ND	ND	0	6.28	0.87	5.32	7.79	14	ND	ND	ND	ND	0
2001	4.01	1.18	2.13	5.75	17	ND	ND	ND	ND	0	7.44	1.76	4.49	9.67	9	ND	ND	ND	ND	0
2002	4.01	1.01	2.48	5.41	18	ND	ND	ND	ND	0	7.21	1.49	4.77	8.80	9	ND	ND	ND	ND	0
2003	3.75	0.94	2.28	4.89	18	ND	ND	ND	ND	0	6.95	0.73	6.11	7.98	9	ND	ND	ND	ND	0
2004	2.52	0.77	1.65	3.66	12	ND	ND	ND	ND	0	4.30	0.82	3.65	6.03	8	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	3.38		1.19	5.75		0.14		0.05	2.12		5.70		2.02	10.11		6.17		0.54	10.41	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.01826	0.022	0.40526	0.05212	-0.01364	-0.0016	-0.001	0.01468	-0.00026	-0.00175	0.06918	0.079	0.01512	0.12877	0.03767	0.10828	0.096	0.00004	0.14697	0.06344

Table 91. Area 13, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 13	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.81	0.28	0.52	1.20	6	0.34	0.07	0.24	0.44	6	0.59	0.13	0.44	0.71	4	0.73	0.16	0.62	0.84	2
1977	0.48	0.24	0.28	0.82	4	0.40	0.23	0.20	1.00	12	0.64	0.22	0.26	0.82	5	0.37	0.09	0.21	0.51	7
1978	ND	ND	ND	ND	0	0.25	0.06	0.16	0.31	8	ND	ND	ND	ND	0	0.49	0.19	0.30	0.74	5
1979	0.23	0.07	0.10	0.30	8	0.23	0.21	0.02	0.68	14	0.20	0.10	0.10	0.30	5	0.31	0.40	0.02	1.29	10
1980	1.00	0.17	0.80	1.10	3	0.40	0.20	0.02	0.76	18	0.90	0.00	0.90	0.90	2	0.36	0.24	0.10	0.80	9
1981	ND	ND	ND	ND	0	0.16	0.07	0.10	0.30	12	ND	ND	ND	ND	0	0.49	0.34	0.10	0.90	8
1982	ND	ND	ND	ND	0	0.25	0.08	0.20	0.40	6	ND	ND	ND	ND	0	0.53	0.52	0.20	1.30	4
1983	ND	ND	ND	ND	0	0.20	0.12	0.02	0.42	14	ND	ND	ND	ND	0	0.38	0.20	0.20	0.80	7
1984	ND	ND	ND	ND	0	0.07	0.04	0.02	0.10	12	ND	ND	ND	ND	0	0.43	0.26	0.10	0.80	8
1985	0.17	0.12	0.10	0.30	3	0.16	0.18	0.02	0.64	14	0.06	0.06	0.02	0.10	2	0.31	0.38	0.02	1.10	7
1986	0.15	0.07	0.10	0.20	2	0.07	0.05	0.02	0.10	3	0.25	0.07	0.20	0.30	2	0.45	0.50	0.10	0.80	2
1987	ND	ND	ND	ND	0	0.14	0.08	0.02	0.30	9	ND	ND	ND	ND	0	0.53	0.23	0.30	0.90	6
1988	0.18	0.09	0.10	0.30	8	0.32	0.15	0.10	0.70	17	0.23	0.13	0.10	0.50	7	0.68	0.64	0.10	1.90	8
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	ND	ND	ND	ND	0	0.13	0.05	0.10	0.20	6	ND	ND	ND	ND	0	0.30	0.14	0.10	0.40	4
1991	ND	ND	ND	ND	0	0.46	0.32	0.09	1.42	78	ND	ND	ND	ND	0	0.76	0.34	0.20	1.49	37
1992	0.23	0.09	0.10	0.39	14	0.29	0.12	0.07	0.40	12	0.53	0.25	0.30	0.99	7	0.64	0.42	0.30	1.22	6
1993	0.21	0.12	0.10	0.35	6	0.21	0.07	0.10	0.37	44	0.42	0.26	0.20	0.82	6	0.89	0.42	0.27	1.93	29
1994	0.31	0.12	0.07	0.52	9	0.13	0.07	0.07	0.42	54	1.15	0.65	0.35	2.09	6	1.34	0.74	0.21	2.92	32
1995	0.20	0.11	0.06	0.44	35	0.16	0.09	0.07	0.50	42	0.65	0.36	0.24	1.62	20	1.57	0.76	0.48	3.76	20
1996	0.20	0.08	0.08	0.40	33	0.16	0.07	0.07	0.36	54	0.69	0.28	0.31	1.45	19	1.15	0.69	0.23	3.62	31
1997	0.16	0.03	0.11	0.24	15	0.21	0.11	0.09	0.56	43	0.66	0.38	0.41	1.52	8	1.55	0.80	0.26	3.13	23
1998	0.22	0.09	0.07	0.35	15	0.21	0.03	0.19	0.26	6	1.06	0.88	0.12	2.56	7	1.73	1.13	0.50	3.75	6
1999	0.19	0.11	0.09	0.41	8	0.29	0.08	0.17	0.42	12	0.54	0.27	0.21	1.09	8	1.46	0.89	0.50	3.13	10
2000	0.18	0.06	0.05	0.25	15	ND	ND	ND	ND	0	0.52	0.49	0.05	1.52	13	ND	ND	ND	ND	0
2001	0.12	0.06	0.05	0.24	17	ND	ND	ND	ND	0	0.18	0.21	0.05	0.65	9	ND	ND	ND	ND	0
2002	0.17	0.06	0.07	0.31	18	ND	ND	ND	ND	0	0.23	0.17	0.05	0.62	9	ND	ND	ND	ND	0
2003	0.17	0.07	0.07	0.39	17	ND	ND	ND	ND	0	0.20	0.10	0.05	0.41	9	ND	ND	ND	ND	0
2004	0.17	0.07	0.11	0.32	11	ND	ND	ND	ND	0	0.16	0.08	0.05	0.32	8	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.28		0.05	1.20		0.23		0.02	1.42		0.49		0.02	2.56		0.76		0.02	3.76	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00914	-0.004	0.17367	0.00018	-0.00944	-0.00465	-0.001	0.65832	0.00319	-0.00588	-0.00576	-0.003	0.77327	0.01041	-0.0213	0.06097	0.053	0	0.06667	0.03817

Table 92. Area 13, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 13	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	19.0	2.6	15.0	22.0	5	11.0	1.3	9.0	13.0	6	21.3	2.6	19.0	25.0	4	12.0	1.4	11.0	13.0	2
1977	ND	ND	ND	ND	0	14.6	2.9	10.2	18.2	12	ND	ND	ND	ND	0	19.7	1.9	18.0	23.7	8
1978	ND	ND	ND	ND	0	14.5	1.7	11.4	16.8	10	ND	ND	ND	ND	0	17.6	1.6	15.6	19.2	7
1979	16.3	0.5	15.7	17.3	8	16.2	2.9	12.6	20.3	8	19.3	3.0	15.7	24.0	5	19.3	1.7	17.3	21.8	5
1980	20.9	2.3	19.0	23.5	3	17.1	2.0	14.1	20.8	18	22.5	0.7	22.0	23.0	2	19.9	3.6	11.3	23.5	9
1981	ND	ND	ND	ND	0	16.8	1.1	15.7	18.5	12	ND	ND	ND	ND	0	22.0	1.1	20.2	22.9	8
1982	ND	ND	ND	ND	0	16.8	1.1	15.8	18.4	6	ND	ND	ND	ND	0	21.6	3.0	17.6	24.1	4
1983	ND	ND	ND	ND	0	17.5	1.4	14.5	19.9	14	ND	ND	ND	ND	0	23.2	2.5	20.1	26.6	6
1984	16.3	1.3	15.0	18.0	4	16.6	1.2	15.1	19.9	12	19.0	0.0	19.0	19.0	1	23.6	2.6	20.8	27.3	8
1985	21.5	2.4	19.9	24.3	3	17.4	1.8	15.9	22.5	12	21.4	0.1	21.3	21.5	2	23.6	1.6	21.9	26.8	7
1986	20.6	5.6	17.0	28.9	4	24.0	3.1	21.9	27.5	3	17.5	0.7	17.0	18.0	2	27.0	1.7	25.8	28.2	2
1987	21.0	1.4	19.0	22.0	4	17.1	2.4	13.9	22.3	9	26.5	3.5	24.0	29.0	2	24.5	1.9	22.5	26.6	6
1988	18.6	0.6	17.9	19.8	8	16.5	1.4	14.3	20.1	17	23.0	1.9	20.1	26.0	7	23.1	1.9	21.2	26.7	8
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	13.3	0.5	13.0	14.0	4	19.1	1.3	17.9	20.5	6	14.5	0.7	14.0	15.0	2	22.3	1.2	20.5	22.9	4
1991	16.2	1.0	15.0	17.5	4	17.3	2.5	13.8	26.2	72	21.1	1.4	19.7	22.5	3	24.3	2.4	18.8	30.1	37
1992	16.2	1.1	14.9	19.0	17	19.2	3.0	16.2	23.6	12	20.5	1.2	18.9	22.5	7	21.9	1.6	19.7	23.6	6
1993	18.7	2.3	16.4	21.3	6	17.4	3.3	13.9	27.5	49	20.8	1.1	19.6	22.4	6	22.3	2.8	16.4	27.1	29
1994	18.2	3.3	13.1	25.0	20	15.7	1.9	13.0	20.4	45	23.1	3.3	17.3	28.1	13	22.1	3.7	13.9	27.8	25
1995	19.0	2.5	16.0	25.1	48	16.9	1.7	14.1	20.3	48	22.2	3.2	17.5	29.1	31	21.9	2.2	17.3	26.7	26
1996	16.8	1.2	15.1	20.6	32	15.5	1.2	13.3	19.8	54	20.1	1.3	17.3	22.7	19	21.0	1.3	18.0	24.2	28
1997	16.1	0.5	15.5	16.8	14	15.2	1.3	13.6	18.8	43	19.7	2.1	17.9	24.2	8	21.3	2.4	16.8	27.8	23
1998	17.1	1.5	15.9	22.8	18	15.7	1.3	13.9	17.1	6	20.0	1.2	18.7	21.6	11	20.7	2.3	17.9	23.6	6
1999	17.2	0.6	16.4	18.1	9	15.6	1.5	13.9	18.5	15	20.0	1.0	18.6	21.4	8	22.1	1.3	19.8	24.3	15
2000	19.1	2.1	16.6	22.7	15	ND	ND	ND	ND	0	22.9	1.9	20.4	25.7	13	ND	ND	ND	ND	0
2001	19.0	1.8	16.4	22.2	14	15.1	0.7	13.8	16.1	12	23.5	3.5	19.4	28.1	8	ND	ND	ND	ND	0
2002	19.5	1.1	18.1	21.7	18	16.8	2.0	13.7	20.7	12	23.0	2.3	19.9	26.7	10	21.4	1.4	19.6	22.9	4
2003	18.4	1.5	15.1	21.2	18	16.3	1.0	14.6	17.3	12	23.1	1.4	21.1	24.9	8	22.6	1.3	20.9	23.6	4
2004	16.1	1.1	14.5	18.1	9	ND	ND	ND	ND	0	18.7	1.3	17.3	20.7	6	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	18.0		13.0	28.9		16.6		9.0	27.5		21.0		14.0	29.1		21.6		11.0	30.1	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.01637	0.038	0.58225	0.14311	-0.06078	-0.00964	0.015	0.70006	0.06611	-0.04315	0.05105	0.063	0.16926	0.15152	-0.015	0.06207	0.061	0.09402	0.139	0.00564

Table 93. Area 13, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 13	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	27.50	7.85	20.00	35.00	6	17.67	2.40	15.50	20.20	6	39.38	8.26	32.00	49.00	4	32.65	4.45	29.50	35.80	2
1977	14.75	1.89	12.00	16.00	4	12.85	2.57	9.40	16.10	12	25.50	2.85	21.50	28.00	5	28.34	5.95	17.10	34.10	8
1978	ND	ND	ND	ND	0	12.09	3.23	7.50	16.40	10	ND	ND	ND	ND	0	26.44	9.93	12.60	35.60	7
1979	15.81	0.42	15.30	16.40	8	10.27	1.15	8.90	12.50	16	26.26	3.95	22.40	30.70	5	26.68	5.50	19.60	34.20	12
1980	19.27	0.06	19.20	19.30	3	6.71	2.25	3.90	10.50	18	33.20	4.67	29.90	36.50	2	25.08	8.12	15.40	38.80	9
1981	ND	ND	ND	ND	0	10.23	1.72	8.40	12.60	12	ND	ND	ND	ND	0	30.98	8.36	19.20	39.60	8
1982	ND	ND	ND	ND	0	8.58	1.65	7.10	10.50	6	ND	ND	ND	ND	0	21.15	3.14	17.80	25.20	4
1983	ND	ND	ND	ND	0	11.60	2.23	9.30	14.20	14	ND	ND	ND	ND	0	31.74	5.53	23.70	39.30	7
1984	ND	ND	ND	ND	0	4.06	2.81	0.10	7.90	12	ND	ND	ND	ND	0	36.13	5.61	28.00	45.80	8
1985	ND	ND	ND	ND	0	11.39	3.15	7.30	15.00	14	ND	ND	ND	ND	0	31.06	8.33	18.90	39.90	7
1986	12.60	0.00	12.60	12.60	2	8.60	0.00	8.60	8.60	3	17.05	4.03	14.20	19.90	2	35.10	7.35	29.90	40.30	2
1987	ND	ND	ND	ND	0	8.23	1.83	5.50	10.00	9	ND	ND	ND	ND	0	38.98	2.00	36.10	41.80	6
1988	22.03	0.43	21.70	22.70	8	5.04	2.81	1.40	9.90	17	39.59	8.08	22.60	46.00	7	25.28	9.46	15.10	40.20	8
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	ND	ND	ND	ND	0	8.30	3.05	5.60	12.00	6	ND	ND	ND	ND	0	30.73	9.06	21.10	38.80	4
1991	ND	ND	ND	ND	0	5.68	1.90	1.90	8.80	79	ND	ND	ND	ND	0	27.71	7.21	15.00	37.40	40
1992	14.09	1.06	13.00	15.90	15	5.46	1.93	3.30	8.50	12	25.24	3.55	20.80	29.20	7	21.18	11.42	5.20	35.60	6
1993	15.70	0.77	15.00	16.50	6	4.08	1.31	1.80	7.20	50	23.48	7.68	16.20	32.30	6	26.26	6.65	9.10	33.90	29
1994	13.90	1.60	11.50	16.60	20	6.07	2.50	2.00	13.20	54	29.92	4.91	21.30	38.00	13	29.00	9.68	4.90	41.90	32
1995	14.18	2.77	9.10	18.80	48	6.12	3.17	2.00	13.30	48	26.76	5.50	18.50	37.10	31	29.44	5.30	18.90	36.80	26
1996	15.89	1.90	12.70	18.70	33	9.29	1.99	6.10	13.80	54	28.07	1.66	25.10	31.80	19	28.21	3.99	17.20	36.80	31
1997	14.21	0.30	13.90	15.00	15	5.34	3.81	0.30	16.50	43	24.53	1.59	23.30	28.10	8	29.61	7.52	9.80	38.00	23
1998	10.44	2.70	6.50	15.60	18	4.77	1.75	3.00	6.70	6	24.84	3.33	16.50	28.50	11	24.32	6.56	17.40	31.70	6
1999	16.14	2.80	12.90	20.00	9	8.33	3.04	4.50	11.40	15	27.86	4.53	21.90	35.50	8	37.09	10.51	18.70	48.40	15
2000	11.86	2.83	7.40	16.60	19	ND	ND	ND	ND	0	30.13	6.23	21.60	39.50	14	ND	ND	ND	ND	0
2001	15.67	3.26	10.40	19.40	17	ND	ND	ND	ND	0	35.76	7.00	25.10	45.20	9	ND	ND	ND	ND	0
2002	17.78	4.13	12.40	25.20	18	ND	ND	ND	ND	0	34.68	6.37	23.90	42.10	10	ND	ND	ND	ND	0
2003	19.50	3.98	13.20	23.00	18	ND	ND	ND	ND	0	29.92	3.43	25.00	33.90	9	ND	ND	ND	ND	0
2004	17.47	2.67	14.60	20.70	12	ND	ND	ND	ND	0	24.09	3.41	20.70	29.80	8	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	16.25		6.50	35.00		8.29		0.10	20.20		28.75		14.20	49.00		29.27		4.90	48.40	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.02588	0.203	0.02682	0.42222	0.03933	-0.23582	-0.238	0.00038	-0.12906	-0.33194	0.09332	0.319	0.04408	0.624	0.03714	0.06257	-0.005	0.96166	0.20093	-0.17286

Table 94. Area 13, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 13	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	14.94	1.75	13.23	17.15	6	20.36	5.77	12.67	28.00	6	7.18	0.91	6.13	8.34	4	12.21	3.08	10.03	14.39	2
1977	15.54	6.20	11.86	22.70	3	17.00	16.02	2.74	56.00	12	6.60	0.92	5.47	7.54	5	6.02	1.87	2.10	7.71	7
1978	ND	ND	ND	ND	0	11.68	8.08	3.50	21.00	8	ND	ND	ND	ND	0	7.24	0.98	5.54	7.92	5
1979	12.54	4.33	6.17	18.67	8	15.89	11.70	2.43	40.00	14	5.82	0.96	4.49	6.77	5	7.98	1.20	6.75	9.86	7
1980	23.13	8.76	13.56	30.76	3	16.21	9.03	4.67	32.50	18	7.43	0.57	7.02	7.83	2	7.45	1.53	5.44	9.32	9
1981	ND	ND	ND	ND	0	10.99	4.57	5.50	21.00	12	ND	ND	ND	ND	0	9.43	0.77	8.50	10.66	8
1982	ND	ND	ND	ND	0	9.01	2.84	5.33	13.50	6	ND	ND	ND	ND	0	8.84	3.66	5.20	12.43	4
1983	ND	ND	ND	ND	0	9.33	6.46	2.27	25.50	14	ND	ND	ND	ND	0	8.22	0.72	7.43	9.60	7
1984	ND	ND	ND	ND	0	6.08	4.53	0.88	15.00	12	ND	ND	ND	ND	0	8.82	1.58	6.57	10.87	8
1985	24.69	1.60	22.86	25.83	3	8.99	13.02	2.13	53.50	14	13.32	2.26	11.72	14.92	2	8.64	1.65	5.32	10.07	7
1986	11.93	0.51	11.57	12.29	2	9.67	2.31	7.00	11.00	3	4.26	2.70	2.34	6.17	2	9.37	1.55	8.27	10.46	2
1987	ND	ND	ND	ND	0	15.89	6.76	11.00	33.00	9	ND	ND	ND	ND	0	9.91	1.19	8.55	11.26	6
1988	19.89	2.59	15.67	23.00	8	17.52	9.96	8.00	41.00	17	10.95	3.14	7.48	17.56	7	26.58	42.57	6.40	130.00	8
1989	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1990	ND	ND	ND	ND	0	9.46	4.03	4.40	16.00	6	ND	ND	ND	ND	0	11.04	1.27	9.16	11.86	4
1991	ND	ND	ND	ND	0	24.22	28.29	4.09	165.00	78	ND	ND	ND	ND	0	13.65	2.50	9.01	23.96	37
1992	18.58	3.69	15.04	24.19	14	15.46	15.71	4.67	49.00	12	10.37	0.59	9.39	10.96	7	11.42	1.36	9.56	13.36	6
1993	17.68	1.74	15.59	19.73	6	11.25	7.04	3.31	34.00	42	11.09	1.45	9.33	13.11	6	11.14	2.61	7.69	18.39	29
1994	18.97	0.85	17.04	19.90	9	8.42	8.50	1.69	35.00	53	9.64	0.96	8.70	11.06	6	9.72	2.54	6.14	15.20	28
1995	15.85	1.81	13.09	20.13	30	11.55	6.98	1.71	28.00	42	10.41	2.54	7.07	15.48	20	8.74	1.41	6.10	11.46	19
1996	17.67	1.16	15.68	20.40	33	9.35	5.08	2.83	24.00	54	9.14	1.13	7.42	11.38	19	6.60	1.59	3.61	10.42	31
1997	15.90	1.78	13.86	19.25	15	14.04	5.97	6.50	30.00	43	8.18	1.16	5.71	9.54	8	5.52	0.92	4.29	7.38	23
1998	20.17	5.15	14.56	29.67	15	14.92	8.29	9.67	31.00	6	7.65	2.60	4.67	10.97	7	5.61	1.13	4.03	7.44	6
1999	15.36	1.86	12.50	18.00	8	11.79	3.86	5.71	17.33	12	7.02	0.56	5.90	7.54	8	8.21	1.83	6.37	12.59	10
2000	16.44	1.54	14.18	19.11	15	ND	ND	ND	ND	0	8.81	1.38	6.96	11.72	12	ND	ND	ND	ND	0
2001	22.43	5.15	12.82	31.62	17	ND	ND	ND	ND	0	9.46	2.10	6.14	12.38	9	ND	ND	ND	ND	0
2002	17.20	1.14	15.76	19.10	18	ND	ND	ND	ND	0	9.82	1.76	7.50	12.21	8	ND	ND	ND	ND	0
2003	18.65	2.98	13.46	22.33	17	ND	ND	ND	ND	0	9.67	0.87	8.34	11.10	9	ND	ND	ND	ND	0
2004	16.27	1.69	14.07	18.93	11	ND	ND	ND	ND	0	5.78	1.32	3.68	8.25	8	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	17.69		6.17	31.62		13.00		0.88	165.00		8.63		2.34	17.56		9.67		2.10	130.00	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.06319	0.073	0.34497	0.23347	-0.13574	-0.13032	-0.008	0.96081	0.20732	-0.24444	0.02207	0.056	0.48413	0.1434	-0.09583	-0.06622	-0.026	0.69425	0.08076	-0.1404

Table 95. Area 14, PO_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 14	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
PO_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.12	0.03	0.08	0.15	6	ND	ND	ND	ND	0	0.14	0.04	0.10	0.17	3	ND	ND	ND	ND	0
1977	0.07	0.03	0.05	0.09	2	0.09	0.04	0.03	0.12	6	0.12	0.02	0.10	0.13	2	0.12	0.06	0.08	0.18	3
1978	ND	ND	ND	ND	0	0.10	0.01	0.09	0.10	3	ND	ND	ND	ND	0	0.09	0.00	0.09	0.09	1
1979	ND	ND	ND	ND	0	0.08	0.01	0.07	0.09	3	ND	ND	ND	ND	0	0.16	0.01	0.15	0.16	2
1980	ND	ND	ND	ND	0	0.03	0.01	0.02	0.03	6	ND	ND	ND	ND	0	0.10	0.01	0.09	0.10	2
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	0.05	0.01	0.04	0.06	7	ND	ND	ND	ND	0	0.14	0.01	0.13	0.15	2
1984	0.11	0.01	0.10	0.11	2	ND	ND	ND	ND	0	0.17	0.00	0.17	0.17	1	ND	ND	ND	ND	0
1985	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1986	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1987	0.07	0.00	0.07	0.07	1	0.09	0.06	0.05	0.21	9	0.04	0.00	0.04	0.04	1	0.13	0.09	0.03	0.19	3
1988	0.06	0.01	0.05	0.07	2	ND	ND	ND	ND	0	0.12	0.00	0.12	0.12	1	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	0.03	0.01	0.02	0.04	4	ND	ND	ND	ND	0	0.11	0.00	0.11	0.11	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	0.06	0.01	0.05	0.06	4	0.02	0.02	0.01	0.07	44	0.11	0.06	0.06	0.17	3	0.05	0.03	0.01	0.10	10
1992	0.03	0.01	0.02	0.07	14	0.01	0.00	0.01	0.02	6	0.10	0.01	0.09	0.11	3	0.03	0.00	0.03	0.03	1
1993	0.12	0.01	0.11	0.13	3	0.03	0.02	0.01	0.07	34	0.14	0.00	0.14	0.14	1	0.08	0.04	0.01	0.15	10
1994	0.05	0.02	0.02	0.10	21	0.02	0.01	0.01	0.05	42	0.09	0.02	0.07	0.13	6	0.07	0.03	0.03	0.11	10
1995	0.06	0.02	0.05	0.11	19	0.02	0.02	0.01	0.16	39	0.13	0.02	0.11	0.16	5	0.05	0.02	0.03	0.07	7
1996	0.02	0.01	0.01	0.02	12	0.03	0.02	0.01	0.07	48	0.06	0.01	0.05	0.06	2	0.11	0.07	0.04	0.28	11
1997	0.04	0.01	0.03	0.06	18	0.02	0.01	0.01	0.04	39	0.07	0.01	0.07	0.08	3	0.06	0.01	0.04	0.08	8
1998	0.04	0.02	0.01	0.07	15	0.03	0.01	0.01	0.05	18	0.08	0.02	0.06	0.11	5	0.09	0.03	0.04	0.13	8
1999	0.05	0.01	0.04	0.07	5	0.03	0.01	0.01	0.05	15	0.07	0.01	0.06	0.07	3	0.07	0.03	0.03	0.10	7
2000	0.05	0.02	0.03	0.10	14	ND	ND	ND	ND	0	0.06	0.02	0.05	0.10	6	ND	ND	ND	ND	0
2001	0.06	0.01	0.04	0.08	12	ND	ND	ND	ND	0	0.06	0.01	0.05	0.07	4	ND	ND	ND	ND	0
2002	0.04	0.01	0.03	0.07	15	ND	ND	ND	ND	0	0.04	0.00	0.04	0.04	3	ND	ND	ND	ND	0
2003	0.03	0.02	0.01	0.07	15	ND	ND	ND	ND	0	0.06	0.03	0.04	0.11	5	ND	ND	ND	ND	0
2004	0.05	0.01	0.03	0.07	9	ND	ND	ND	ND	0	0.06	0.03	0.04	0.08	2	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.06		0.01	0.15		0.04		0.01	0.21		0.09		0.04	0.17		0.09		0.01	0.28	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.0012	-0.001	0.03921	-0.00028	-0.00256	-0.00251	-0.002	0.07718	-0.00014	-0.00283	-0.00337	-0.005	0.00018	-0.00286	-0.00656	-0.00217	-0.001	0.2563	0.00125	-0.00271

Table 96. Area 14, Tot-P at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 14	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot P	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.29	0.11	0.20	0.50	6	ND	ND	ND	ND	0	0.28	0.09	0.21	0.38	3	ND	ND	ND	ND	0
1977	0.16	0.01	0.15	0.17	2	0.32	0.02	0.30	0.36	6	0.26	0.02	0.24	0.27	2	0.34	0.13	0.26	0.49	3
1978	ND	ND	ND	ND	0	0.25	0.03	0.21	0.27	3	ND	ND	ND	ND	0	0.26	0.00	0.26	0.26	1
1979	ND	ND	ND	ND	0	0.24	0.03	0.19	0.29	7	ND	ND	ND	ND	0	0.28	0.00	0.28	0.28	1
1980	ND	ND	ND	ND	0	0.30	0.02	0.28	0.32	3	ND	ND	ND	ND	0	0.25	0.00	0.25	0.25	1
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	0.46	0.19	0.28	0.70	4	ND	ND	ND	ND	0	0.33	0.00	0.33	0.33	1
1984	0.40	0.14	0.30	0.50	2	ND	ND	ND	ND	0	0.50	0.00	0.50	0.50	1	ND	ND	ND	ND	0
1985	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1986	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1987	0.20	0.00	0.20	0.20	1	0.32	0.19	0.12	0.60	6	0.20	0.00	0.20	0.20	1	0.22	0.03	0.20	0.24	2
1988	0.25	0.07	0.20	0.30	2	ND	ND	ND	ND	0	0.30	0.00	0.30	0.30	1	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	0.30	0.02	0.27	0.33	4	ND	ND	ND	ND	0	0.37	0.00	0.37	0.37	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	0.16	0.04	0.11	0.19	3	0.19	0.04	0.12	0.28	47	0.16	0.06	0.09	0.20	3	0.23	0.06	0.15	0.33	12
1992	0.18	0.03	0.15	0.24	14	0.26	0.15	0.16	0.55	6	0.23	0.04	0.20	0.27	3	0.20	0.00	0.20	0.20	1
1993	0.24	0.06	0.21	0.31	3	0.18	0.05	0.12	0.33	36	0.25	0.00	0.25	0.25	1	0.17	0.03	0.12	0.22	8
1994	0.16	0.06	0.11	0.35	20	0.20	0.05	0.15	0.33	33	0.19	0.02	0.16	0.21	6	0.17	0.05	0.13	0.24	7
1995	0.15	0.04	0.09	0.22	19	0.20	0.05	0.12	0.34	39	0.21	0.06	0.17	0.30	4	0.19	0.02	0.15	0.21	8
1996	0.15	0.04	0.10	0.23	12	0.17	0.03	0.13	0.28	48	0.18	0.10	0.11	0.25	2	0.20	0.03	0.14	0.22	10
1997	0.16	0.08	0.12	0.46	18	0.14	0.04	0.07	0.24	39	0.18	0.04	0.14	0.22	3	0.19	0.02	0.14	0.20	7
1998	0.12	0.02	0.08	0.15	15	0.15	0.03	0.10	0.21	18	0.16	0.04	0.13	0.21	5	0.20	0.03	0.16	0.23	8
1999	0.20	0.04	0.17	0.27	6	0.11	0.02	0.07	0.15	15	0.21	0.02	0.19	0.23	3	0.15	0.05	0.09	0.22	7
2000	0.15	0.04	0.10	0.22	10	0.20	0.09	0.12	0.49	16	0.17	0.03	0.13	0.20	6	0.18	0.05	0.13	0.25	8
2001	0.14	0.02	0.11	0.16	12	0.21	0.14	0.12	0.78	23	0.13	0.01	0.13	0.14	4	0.15	0.05	0.09	0.20	4
2002	0.21	0.07	0.14	0.43	15	0.15	0.03	0.10	0.23	24	0.17	0.03	0.13	0.20	4	0.12	0.03	0.09	0.17	8
2003	0.15	0.04	0.12	0.24	15	0.14	0.03	0.11	0.22	24	0.16	0.04	0.13	0.23	5	0.14	0.03	0.12	0.19	7
2004	0.15	0.03	0.11	0.18	9	ND	ND	ND	ND	0	0.16	0.01	0.15	0.17	2	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.19		0.08	0.50		0.22		0.07	0.78		0.22		0.09	0.50		0.22		0.09	0.49	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00261	-0.002	0.08379	0	-0.00593	-0.00633	-0.006	0.00001	-0.00435	-0.0085	-0.00587	-0.004	0.00017	-0.00303	-0.00786	-0.00699	-0.005	0.00003	-0.00364	-0.007

Table 97. Area 14, NO_2+NO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 14	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NO_2 + NO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	5.88	0.25	5.62	6.17	6	ND	ND	ND	ND	0	7.82	0.26	7.67	8.12	3	ND	ND	ND	ND	0
1977	4.76	0.35	4.51	5.01	2	5.12	0.20	4.77	5.35	6	7.15	0.42	6.85	7.45	2	6.41	0.51	5.87	6.88	3
1978	ND	ND	ND	ND	0	2.40	0.11	2.29	2.50	3	ND	ND	ND	ND	0	5.60	0.00	5.60	5.60	1
1979	ND	ND	ND	ND	0	4.30	0.27	3.99	4.70	7	ND	ND	ND	ND	0	6.45	0.95	5.36	7.07	3
1980	ND	ND	ND	ND	0	3.35	0.10	3.29	3.46	3	ND	ND	ND	ND	0	5.58	0.00	5.58	5.58	1
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	5.00	0.45	4.38	5.37	4	ND	ND	ND	ND	0	6.45	0.00	6.45	6.45	1
1984	7.75	0.07	7.70	7.80	2	ND	ND	ND	ND	0	8.60	0.00	8.60	8.60	1	ND	ND	ND	ND	0
1985	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1986	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1987	7.55	0.00	7.55	7.55	1	6.77	1.21	5.30	8.40	6	7.77	0.00	7.77	7.77	1	7.44	0.19	7.30	7.57	2
1988	7.85	0.07	7.80	7.90	2	ND	ND	ND	ND	0	9.30	0.00	9.30	9.30	1	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	5.75	0.29	5.40	6.10	4	ND	ND	ND	ND	0	6.82	0.00	6.82	6.82	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	8.37	0.10	8.25	8.48	4	3.91	2.05	0.95	7.05	51	8.91	0.44	8.54	9.40	3	8.08	1.38	4.06	9.30	13
1992	7.03	0.70	6.20	7.85	14	3.67	0.62	3.02	4.26	6	8.92	0.39	8.50	9.27	3	6.71	0.00	6.71	6.71	1
1993	7.38	0.07	7.32	7.45	3	4.33	2.17	1.14	7.55	41	8.09	0.00	8.09	8.09	1	7.95	1.25	5.67	9.23	10
1994	7.59	0.68	6.24	8.47	21	2.16	1.96	0.14	5.42	42	7.74	0.99	6.68	8.76	6	8.91	0.51	8.11	9.70	10
1995	7.42	0.20	6.92	7.70	19	4.28	1.61	2.62	7.12	33	8.31	0.89	7.35	9.33	5	8.23	0.39	7.49	8.68	8
1996	7.47	0.07	7.33	7.61	12	4.23	1.91	0.90	6.69	48	8.93	0.16	8.82	9.04	2	8.27	0.76	7.50	9.58	11
1997	7.24	0.37	6.89	7.78	18	3.30	2.07	0.48	6.08	39	8.40	0.21	8.26	8.64	3	7.84	1.14	5.96	8.99	8
1998	6.65	0.42	6.10	7.72	15	4.10	2.02	1.20	6.08	18	8.13	0.41	7.76	8.57	5	7.84	0.64	6.80	8.64	8
1999	7.03	0.09	6.93	7.14	6	3.97	2.41	0.18	6.57	15	7.74	0.34	7.47	8.12	3	8.46	0.53	7.69	9.22	7
2000	6.98	0.54	5.93	7.49	14	ND	ND	ND	ND	0	7.86	0.41	7.54	8.54	6	ND	ND	ND	ND	0
2001	6.77	0.93	5.88	8.09	12	ND	ND	ND	ND	0	9.00	0.09	8.91	9.12	4	ND	ND	ND	ND	0
2002	7.71	0.51	6.73	8.26	15	ND	ND	ND	ND	0	8.09	0.57	7.35	8.72	4	ND	ND	ND	ND	0
2003	7.08	0.77	6.41	8.13	15	ND	ND	ND	ND	0	8.42	0.70	7.20	8.88	5	ND	ND	ND	ND	0
2004	6.53	0.28	6.15	6.88	9	ND	ND	ND	ND	0	7.98	0.74	7.45	8.50	2	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	7.11		4.51	8.48		4.16		0.14	8.40		8.27		6.68	9.40		7.32		4.06	9.70	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.0093	-0.029	0.16159	0.01939	-0.07278	-0.04872	0.002	0.82076	0.05596	-0.0457	0.01005	-0.026	0.26433	0.02222	-0.074	0.09715	0.112	0.00276	0.14722	0.06956

Table 98. Area 14, NH_4 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 14	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
NH_4	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	0.90	0.21	0.67	1.24	6	ND	ND	ND	ND	0	0.36	0.11	0.29	0.48	3	ND	ND	ND	ND	0
1977	0.54	0.01	0.53	0.55	2	0.23	0.05	0.14	0.27	6	0.26	0.03	0.24	0.28	2	0.19	0.05	0.14	0.23	3
1978	ND	ND	ND	ND	0	0.68	0.02	0.67	0.71	3	ND	ND	ND	ND	0	0.19	0.00	0.19	0.19	1
1979	ND	ND	ND	ND	0	0.22	0.27	0.02	0.62	7	ND	ND	ND	ND	0	0.83	0.75	0.02	1.50	3
1980	ND	ND	ND	ND	0	0.33	0.08	0.25	0.41	3	ND	ND	ND	ND	0	0.31	0.00	0.31	0.31	1
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	0.38	0.35	0.20	0.90	4	ND	ND	ND	ND	0	0.18	0.00	0.18	0.18	1
1984	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1985	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1986	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1987	ND	ND	ND	ND	0	0.17	0.02	0.15	0.19	4	ND	ND	ND	ND	0	0.11	0.00	0.11	0.11	1
1988	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	0.17	0.02	0.15	0.20	4	ND	ND	ND	ND	0	0.22	0.00	0.22	0.22	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	0.44	0.19	0.10	0.83	51	ND	ND	ND	ND	0	0.47	0.25	0.10	0.92	13
1992	0.59	0.41	0.11	1.24	12	0.35	0.14	0.20	0.56	6	0.49	0.09	0.42	0.55	2	1.37	0.00	1.37	1.37	1
1993	0.28	0.16	0.18	0.47	3	0.36	0.19	0.09	0.81	31	0.19	0.00	0.19	0.19	1	0.47	0.32	0.12	1.01	9
1994	0.27	0.24	0.05	0.99	15	0.31	0.20	0.07	0.70	42	0.19	0.18	0.07	0.40	3	0.21	0.07	0.11	0.29	10
1995	0.27	0.09	0.15	0.45	19	0.34	0.13	0.15	0.62	39	0.29	0.06	0.25	0.40	5	0.30	0.12	0.15	0.49	8
1996	0.20	0.09	0.07	0.37	12	0.19	0.13	0.09	0.84	48	0.19	0.05	0.15	0.22	2	0.24	0.08	0.15	0.42	11
1997	0.16	0.05	0.09	0.22	18	0.26	0.11	0.13	0.58	39	0.20	0.10	0.11	0.31	3	0.38	0.25	0.19	0.79	8
1998	0.24	0.09	0.10	0.34	9	0.38	0.26	0.15	0.92	18	0.25	0.07	0.20	0.30	2	0.23	0.04	0.19	0.31	8
1999	0.16	0.01	0.14	0.17	6	0.24	0.17	0.11	0.61	15	0.15	0.02	0.13	0.16	3	0.26	0.14	0.09	0.47	7
2000	0.26	0.12	0.09	0.44	14	ND	ND	ND	ND	0	0.20	0.06	0.10	0.26	6	ND	ND	ND	ND	0
2001	0.56	0.40	0.07	1.20	12	ND	ND	ND	ND	0	0.15	0.06	0.07	0.22	4	ND	ND	ND	ND	0
2002	0.27	0.12	0.11	0.49	15	ND	ND	ND	ND	0	0.28	0.12	0.14	0.41	4	ND	ND	ND	ND	0
2003	0.31	0.14	0.12	0.49	15	ND	ND	ND	ND	0	0.15	0.04	0.10	0.19	5	ND	ND	ND	ND	0
2004	0.43	0.14	0.22	0.60	9	ND	ND	ND	ND	0	0.10	0.06	0.05	0.14	2	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	0.36		0.05	1.24		0.32		0.02	0.92		0.23		0.05	0.55		0.37		0.02	1.50	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.00329	-0.005	0.62866	0.00667	-0.01389	-0.00456	-0.004	0.02333	-0.00078	-0.012	-0.00655	-0.012	0.01331	-0.00375	-0.025	-0.00853	-0.004	0.61816	0.00389	-0.01125

Table 99. Area 14, Tot-N at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 14	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
Tot N	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	21.2	4.0	18.0	29.0	6	ND	ND	ND	ND	0	22.7	5.5	19.0	29.0	3	ND	ND	ND	ND	0
1977	17.0	0.0	17.0	17.0	1	21.0	0.0	21.0	21.0	3	23.0	0.0	23.0	23.0	1	19.0	0.0	19.0	19.0	1
1978	ND	ND	ND	ND	0	12.7	0.5	12.1	13.1	3	ND	ND	ND	ND	0	13.5	0.0	13.5	13.5	1
1979	ND	ND	ND	ND	0	20.0	1.8	16.4	21.6	7	ND	ND	ND	ND	0	20.3	1.6	19.0	22.0	3
1980	ND	ND	ND	ND	0	18.0	1.4	17.0	19.6	3	ND	ND	ND	ND	0	18.5	0.0	18.5	18.5	1
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	21.6	1.1	20.7	23.1	4	ND	ND	ND	ND	0	21.4	0.0	21.4	21.4	1
1984	21.5	2.1	20.0	23.0	2	ND	ND	ND	ND	0	23.0	0.0	23.0	23.0	1	ND	ND	ND	ND	0
1985	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1986	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1987	21.0	0.0	21.0	21.0	1	21.0	2.5	18.8	25.0	6	21.0	0.0	21.0	21.0	1	22.5	2.2	20.9	24.0	2
1988	20.5	0.7	20.0	21.0	2	ND	ND	ND	ND	0	24.0	0.0	24.0	24.0	1	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	20.6	0.1	20.5	20.8	4	ND	ND	ND	ND	0	20.7	0.0	20.7	20.7	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	19.6	1.3	18.0	20.9	4	17.9	2.0	12.8	22.8	41	18.9	2.3	17.0	21.4	3	21.7	1.8	19.0	24.2	11
1992	18.9	1.2	17.0	21.8	14	19.2	1.1	17.8	20.4	5	19.1	1.8	17.0	20.4	3	21.3	0.0	21.3	21.3	1
1993	20.7	1.6	19.8	22.6	3	18.5	3.0	14.7	26.4	36	20.8	0.0	20.8	20.8	1	20.8	2.7	18.2	26.9	9
1994	20.0	2.8	17.1	30.1	20	16.3	1.3	14.0	19.3	33	19.4	1.7	17.9	22.6	6	20.2	0.4	19.6	20.7	7
1995	20.1	2.1	18.3	25.5	19	17.7	1.7	15.2	22.5	39	22.0	4.2	18.8	29.1	5	20.2	0.6	19.6	21.5	8
1996	17.5	1.2	15.9	19.3	12	17.2	1.4	14.4	19.4	48	19.0	1.7	17.8	20.2	2	20.5	0.6	19.6	21.4	11
1997	18.0	1.0	16.5	19.2	18	16.4	1.6	13.6	19.3	39	18.4	1.3	17.3	19.8	3	19.6	0.6	18.9	20.8	8
1998	18.8	1.0	17.8	20.7	15	16.8	1.5	14.4	19.3	18	20.2	0.4	19.7	20.8	5	19.4	0.6	18.7	20.1	8
1999	18.6	0.8	18.1	20.3	6	16.7	1.3	14.6	18.8	15	19.2	0.2	18.9	19.3	3	19.9	1.0	18.8	21.4	7
2000	19.6	1.3	17.8	21.1	11	17.2	4.1	7.1	21.2	16	20.2	1.3	19.1	22.5	6	21.0	1.3	18.6	21.9	8
2001	18.4	1.7	16.3	21.0	12	19.0	1.9	17.3	25.7	23	20.4	2.3	19.2	23.8	4	22.7	1.2	21.4	24.3	4
2002	20.2	2.3	17.9	25.5	15	17.1	1.6	15.0	19.7	24	20.5	3.2	18.4	25.2	4	20.7	0.7	19.6	21.4	8
2003	20.1	0.9	19.1	21.7	14	17.5	1.9	14.1	20.1	24	21.6	1.0	20.6	23.2	5	21.3	0.7	20.6	22.6	7
2004	18.8	1.8	17.4	21.6	9	ND	ND	ND	ND	0	19.0	0.4	18.8	19.3	2	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	19.5		15.9	30.1		18.1		7.1	26.4		20.6		17.0	29.1		20.3		13.5	26.9	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.01036	-0.012	0.68056	0.05803	-0.10535	-0.08449	-0.039	0.36182	0.03071	-0.11053	-0.04541	-0.056	0.5377	0.10643	-0.15214	0.04309	0.047	0.1856	0.11283	-0.01053

Table 100. Area 14, SiO_3 at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 14	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
SiO_3	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	32.58	0.80	32.00	34.00	6	ND	ND	ND	ND	0	35.33	1.15	34.00	36.00	3	ND	ND	ND	ND	0
1977	27.00	0.00	27.00	27.00	2	31.00	1.75	28.60	32.60	6	29.25	0.35	29.00	29.50	2	30.27	2.06	27.90	31.70	3
1978	ND	ND	ND	ND	0	27.33	0.15	27.20	27.50	3	ND	ND	ND	ND	0	28.20	0.00	28.20	28.20	1
1979	ND	ND	ND	ND	0	27.56	5.10	22.60	35.90	7	ND	ND	ND	ND	0	25.00	1.67	23.20	26.50	3
1980	ND	ND	ND	ND	0	12.40	0.90	11.50	13.30	3	ND	ND	ND	ND	0	14.00	0.00	14.00	14.00	1
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	29.33	0.22	29.00	29.50	4	ND	ND	ND	ND	0	30.60	0.00	30.60	30.60	1
1984	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1985	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1986	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1987	ND	ND	ND	ND	0	18.50	3.52	15.10	23.20	4	ND	ND	ND	ND	0	16.50	0.00	16.50	16.50	1
1988	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	27.78	1.16	26.80	29.40	4	ND	ND	ND	ND	0	31.90	0.00	31.90	31.90	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	27.40	3.77	20.50	37.80	51	ND	ND	ND	ND	0	30.47	1.96	28.10	33.60	13
1992	28.95	0.63	28.30	29.70	12	30.47	3.07	27.60	33.40	6	30.15	0.64	29.70	30.60	2	27.20	0.00	27.20	27.20	1
1993	30.50	0.17	30.30	30.60	3	26.24	6.01	16.90	40.00	41	31.20	0.00	31.20	31.20	1	30.01	4.08	23.50	34.30	10
1994	29.29	2.00	27.40	32.70	15	31.02	3.94	27.00	39.50	42	29.88	1.63	27.20	31.60	6	30.79	2.52	27.50	36.20	10
1995	29.28	2.20	25.60	31.50	19	32.37	2.35	29.00	36.10	39	30.28	2.57	26.30	33.20	5	30.53	1.47	27.70	31.90	8
1996	28.87	1.45	27.30	30.40	12	29.16	2.59	25.20	38.30	48	30.60	2.55	28.80	32.40	2	31.94	1.54	29.40	34.10	11
1997	28.95	0.45	28.00	29.60	18	29.38	1.72	26.60	35.90	39	29.60	0.20	29.40	29.80	3	29.84	2.40	26.10	32.80	8
1998	30.53	1.06	29.30	32.70	15	27.99	3.02	22.30	33.20	18	32.10	1.34	31.00	34.30	5	29.51	2.29	26.40	32.30	8
1999	30.50	1.68	28.20	32.20	6	32.34	4.90	27.10	40.20	15	30.03	3.41	26.10	32.10	3	31.23	2.67	26.90	33.90	7
2000	33.10	2.04	30.00	35.20	14	ND	ND	ND	ND	0	30.80	2.21	27.90	33.50	6	ND	ND	ND	ND	0
2001	34.64	1.16	33.00	36.70	12	ND	ND	ND	ND	0	35.05	0.57	34.60	35.80	4	ND	ND	ND	ND	0
2002	34.45	1.29	32.90	36.50	15	ND	ND	ND	ND	0	34.48	1.68	33.10	36.90	4	ND	ND	ND	ND	0
2003	34.81	0.97	33.80	36.70	15	ND	ND	ND	ND	0	34.58	0.89	33.00	35.10	5	ND	ND	ND	ND	0
2004	32.98	1.16	31.20	34.10	9	ND	ND	ND	ND	0	32.45	2.90	30.40	34.50	2	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	31.10		25.60	36.70		27.52		11.50	40.20		31.72		26.10	36.90		28.00		14.00	36.20	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	0.47265	0.523	0.00007	0.80778	0.30556	0.24063	0.197	0.04144	0.4953	0.0391	0.23973	0.396	0.00191	0.5375	0.18333	0.22169	0.152	0.04144	0.3125	0.03125

Table 101. Area 14, DIN/DIP ratio at the surface and at the bottom during winter and summer. Yearly seasonal mean, standard deviation, minimum value, maximum value and number of observations are presented. Below the values of 2005, a mean, a maximum and a minimum value for the entire 30 year period is presented. At the bottom of the table, results from the trend analysis are presented. Linear trend gives the slope of a linear regression of the first order. The remaining four values come from the non-parametric seasonal Mann-Kendall analysis. The slope of a possible trend is the NL B value. The NL P value is the significance of the trend. The 90 conf up and 90 conf low values represent the upper and lower 90% confidence interval for the B (Mann-Kendall slope) value. If the sign of the upper and lower confidence interval differ, there is no trend. If P > 0.05, there is no significant trend. If the sign of the linear trend and NL B differ, there is no certain trend. If otherwise, there is a significant trend.

AREA 14	Winter, surface					Summer, surface					Winter, bottom					Summer, bottom				
DIN/DIP Ratio	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs	mean	1 std	min	max	no of obs
1976	61.9	17.3	43.9	85.5	6	ND	ND	ND	ND	0	63.0	18.8	47.9	84.1	3	ND	ND	ND	ND	0
1977	81.3	27.6	61.8	100.8	2	76.4	55.4	41.8	186.3	6	65.2	8.1	59.5	70.9	2	65.3	28.0	33.9	87.8	3
1978	ND	ND	ND	ND	0	31.9	2.3	29.6	34.1	3	ND	ND	ND	ND	0	64.3	0.0	64.3	64.3	1
1979	ND	ND	ND	ND	0	66.6	6.7	59.1	72.1	3	ND	ND	ND	ND	0	53.1	0.7	52.6	53.6	2
1980	ND	ND	ND	ND	0	142.4	30.0	123.7	177.0	3	ND	ND	ND	ND	0	65.4	0.0	65.4	65.4	1
1981	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1982	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1983	ND	ND	ND	ND	0	117.9	34.8	85.7	156.8	4	ND	ND	ND	ND	0	44.2	0.0	44.2	44.2	1
1984	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1985	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1986	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1987	ND	ND	ND	ND	0	104.6	11.8	88.6	116.2	4	ND	ND	ND	ND	0	40.4	0.0	40.4	40.4	1
1988	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1989	ND	ND	ND	ND	0	232.0	66.7	157.5	298.0	4	ND	ND	ND	ND	0	64.0	0.0	64.0	64.0	1
1990	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0	ND	ND	ND	ND	0
1991	ND	ND	ND	ND	0	236.7	162.1	27.1	657.0	44	ND	ND	ND	ND	0	260.0	207.8	93.0	798.0	10
1992	303.7	58.5	236.3	388.0	12	370.6	103.1	185.5	455.0	6	106.8	3.3	104.4	109.1	2	269.3	0.0	269.3	269.3	1
1993	65.9	4.4	60.9	68.7	3	219.2	167.0	56.7	688.0	30	59.1	0.0	59.1	59.1	1	179.0	198.1	78.9	701.0	9
1994	209.4	100.8	84.1	406.0	15	157.6	131.4	7.0	464.0	42	82.6	15.4	64.8	91.5	3	152.0	72.9	74.7	279.3	10
1995	128.0	29.9	70.5	159.4	19	375.5	181.7	30.6	740.0	33	66.8	14.4	48.9	80.0	5	183.9	70.4	119.6	283.0	7
1996	542.1	193.4	377.0	774.0	12	215.6	171.6	78.3	693.0	48	167.0	19.5	153.2	180.8	2	103.8	72.1	28.0	244.5	11
1997	190.1	30.5	130.8	240.3	18	227.3	172.1	32.0	622.0	39	117.8	10.3	106.0	125.0	3	138.0	24.9	105.6	174.0	8
1998	317.4	212.4	103.4	666.0	9	207.9	131.0	39.0	629.0	18	95.2	21.9	79.7	110.8	2	104.6	40.2	68.5	188.5	8
1999	143.2	27.0	102.7	178.8	5	256.0	237.2	7.5	683.0	15	118.7	7.8	111.1	126.7	3	140.2	62.9	87.9	268.7	7
2000	158.6	54.8	66.6	248.7	14	ND	ND	ND	ND	0	133.4	26.1	84.6	155.4	6	ND	ND	ND	ND	0
2001	136.8	31.5	86.6	185.3	12	ND	ND	ND	ND	0	162.1	24.9	130.1	184.0	4	ND	ND	ND	ND	0
2002	192.6	55.7	114.4	283.0	15	ND	ND	ND	ND	0	205.0	10.0	194.0	213.5	3	ND	ND	ND	ND	0
2003	340.7	172.5	97.7	683.0	15	ND	ND	ND	ND	0	172.9	62.9	67.2	223.8	5	ND	ND	ND	ND	0
2004	154.5	42.1	99.4	241.3	9	ND	ND	ND	ND	0	154.9	86.4	93.8	216.0	2	ND	ND	ND	ND	0
2005																				
	mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max		mean mean		min min	max max	
Extreme values:	201.8		43.9	774.0		189.9		7.0	740.0		118.0		47.9	223.8		120.5		28.0	798.0	
	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low	Linear trend	NL B	NL P	90 conf up	90 conf low
Trend analysis	-0.09926	1.851	0.70681	6.50607	-8.22032	7.0631	10.811	0.04144	14.50158	3.56317	5.31789	9.003	0.00009	11.9625	5.28667	2.239	2.136	0.29731	4.83801	-1.05159

Appendix F

Comparison of the areas, box plots

Box plots of the parameters for all the areas are presented in Appendix F. All areas are presented in one figure to enable comparison between areas. Each parameter is divided into summer, winter, surface and bottom values. The unit of all the box plots but the DIN/DIP ratio plot is µmol/l. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. Outliers are data with values beyond the ends of the whiskers. The red plus signs above and below the box are outliers. An outlier is a value greater than 1.5 the interquartile range. If there is no data outside the whisker, a dot is placed at the bottom whisker. These figures are presented as notched box plots. The notches represent a robust estimate of the uncertainty about the medians for box-to-box comparison. Boxes whose notches do not overlap indicate that the medians of the two groups differ at the 5% significance level or that with 95% confidence, that the true medians do differ.

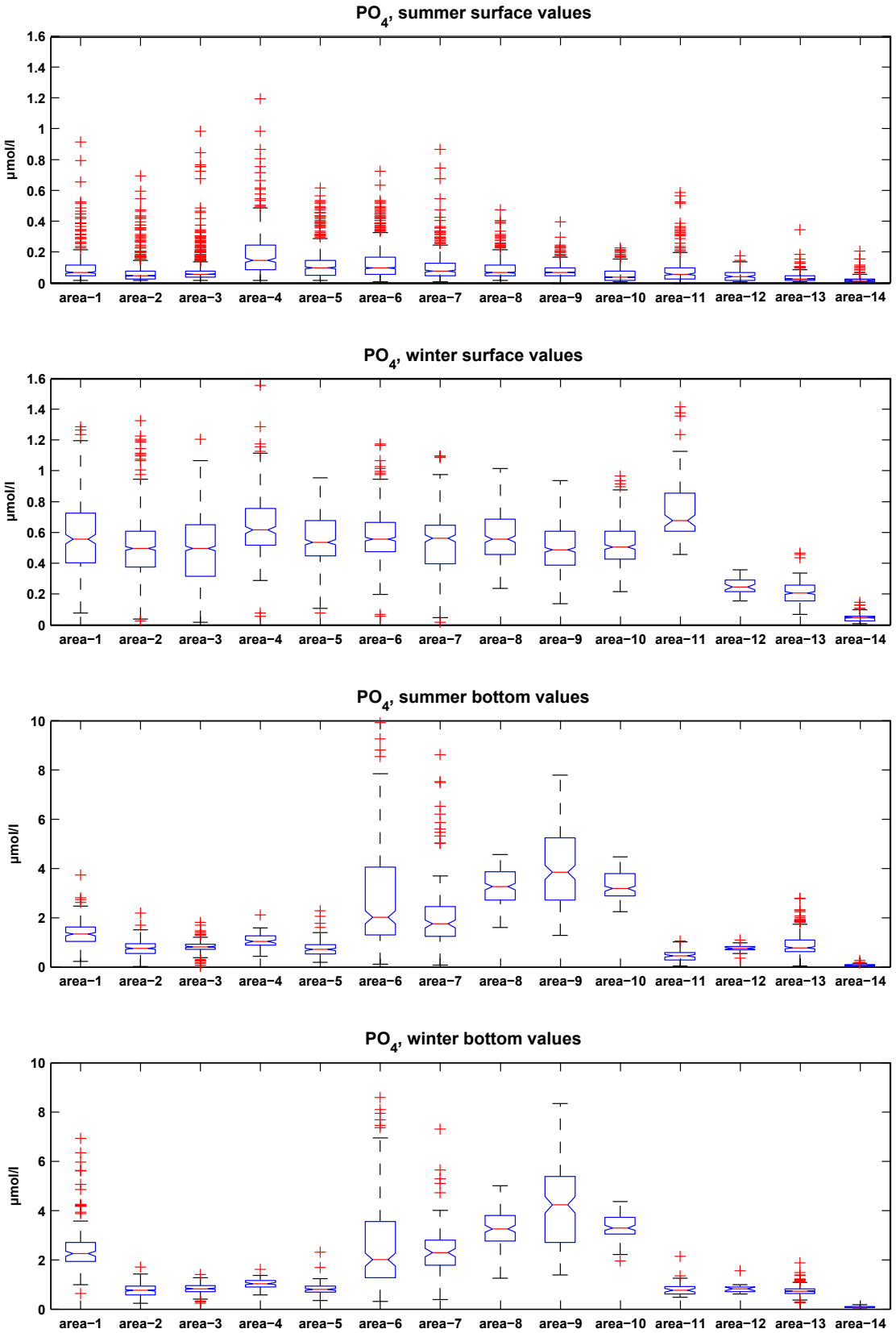

Figure 100. PO_4 for all the areas divided into summer, winter, surface and bottom box plots. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. The red plus signs above and below the box are outliers which are data with values beyond the ends of the whiskers. The figures are presented as notched box plots. Boxes whose notches do not overlap indicate with 95% confidence that the true medians do differ.

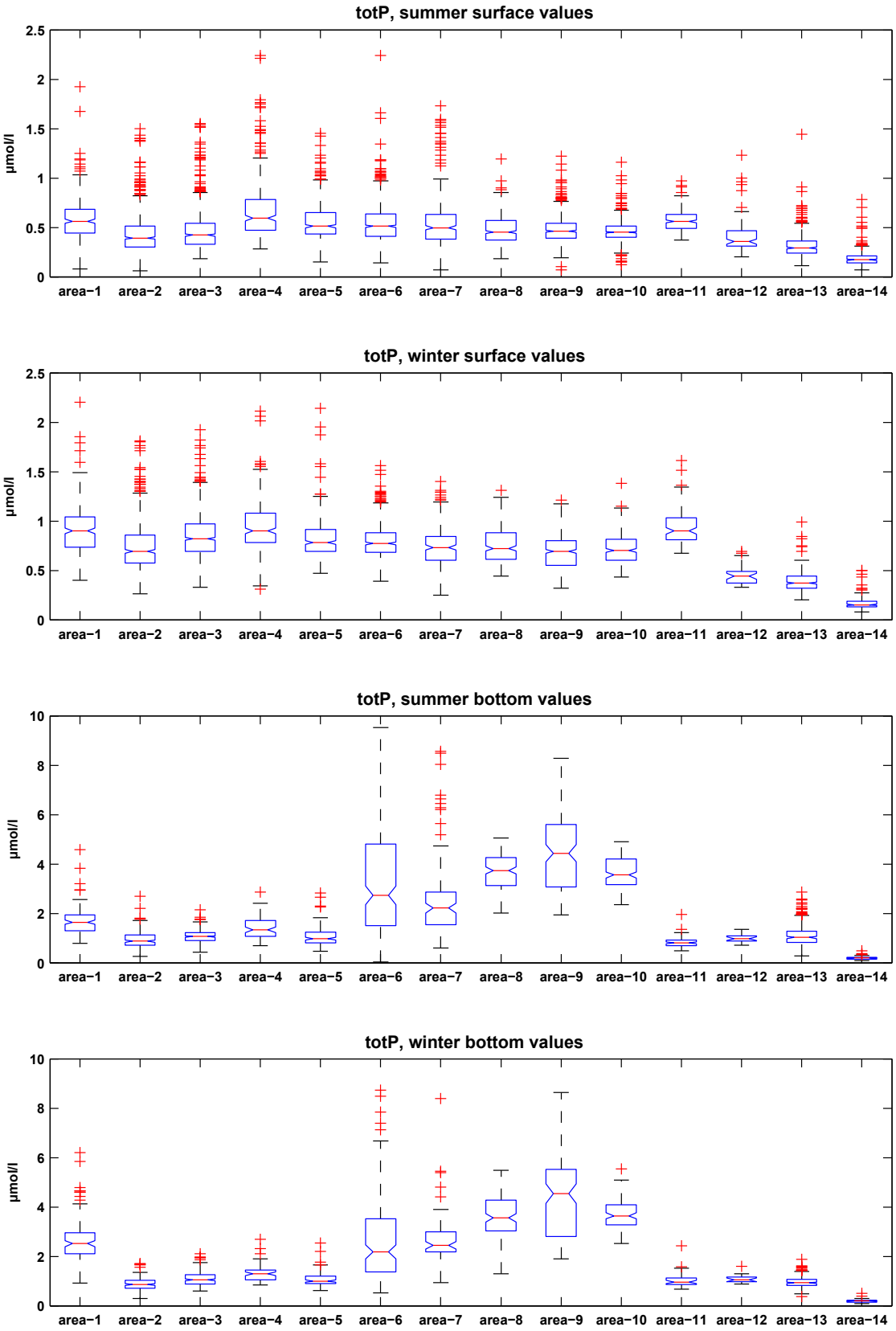

Figure 101. Tot-P for all the areas divided into summer, winter, surface and bottom box plots. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. The red plus signs above and below the box are outliers which are data with values beyond the ends of the whiskers. The figures are presented as notched box plots. Boxes whose notches do not overlap indicate with 95% confidence that the true medians do differ.

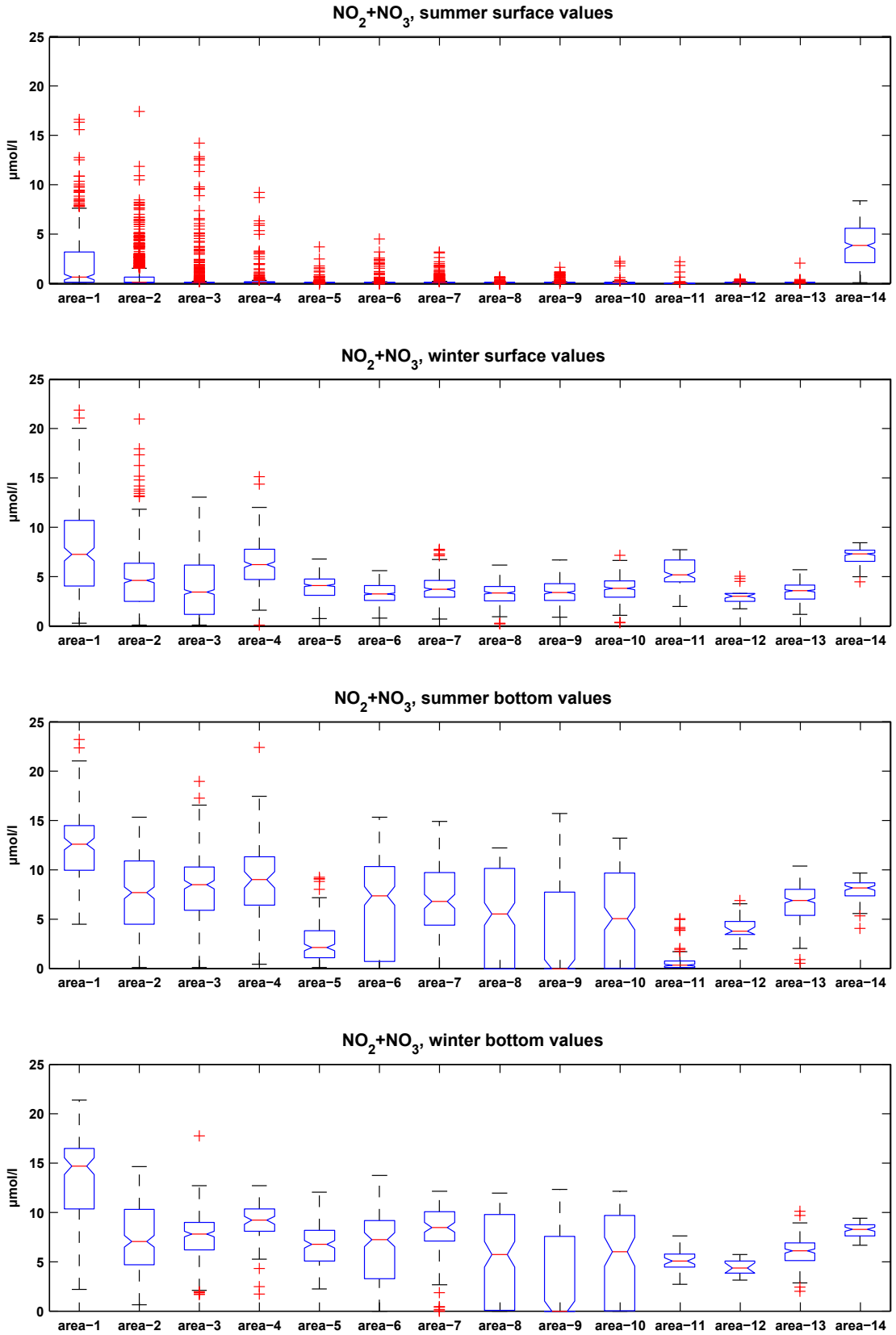

Figure 102. NO_2+NO_3 for all the areas divided into summer, winter, surface and bottom box plots. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. The red plus signs above and below the box are outliers which are data with values beyond the ends of the whiskers. The figures are presented as notched box plots. Boxes whose notches do not overlap indicate with 95% confidence that the true medians do differ.

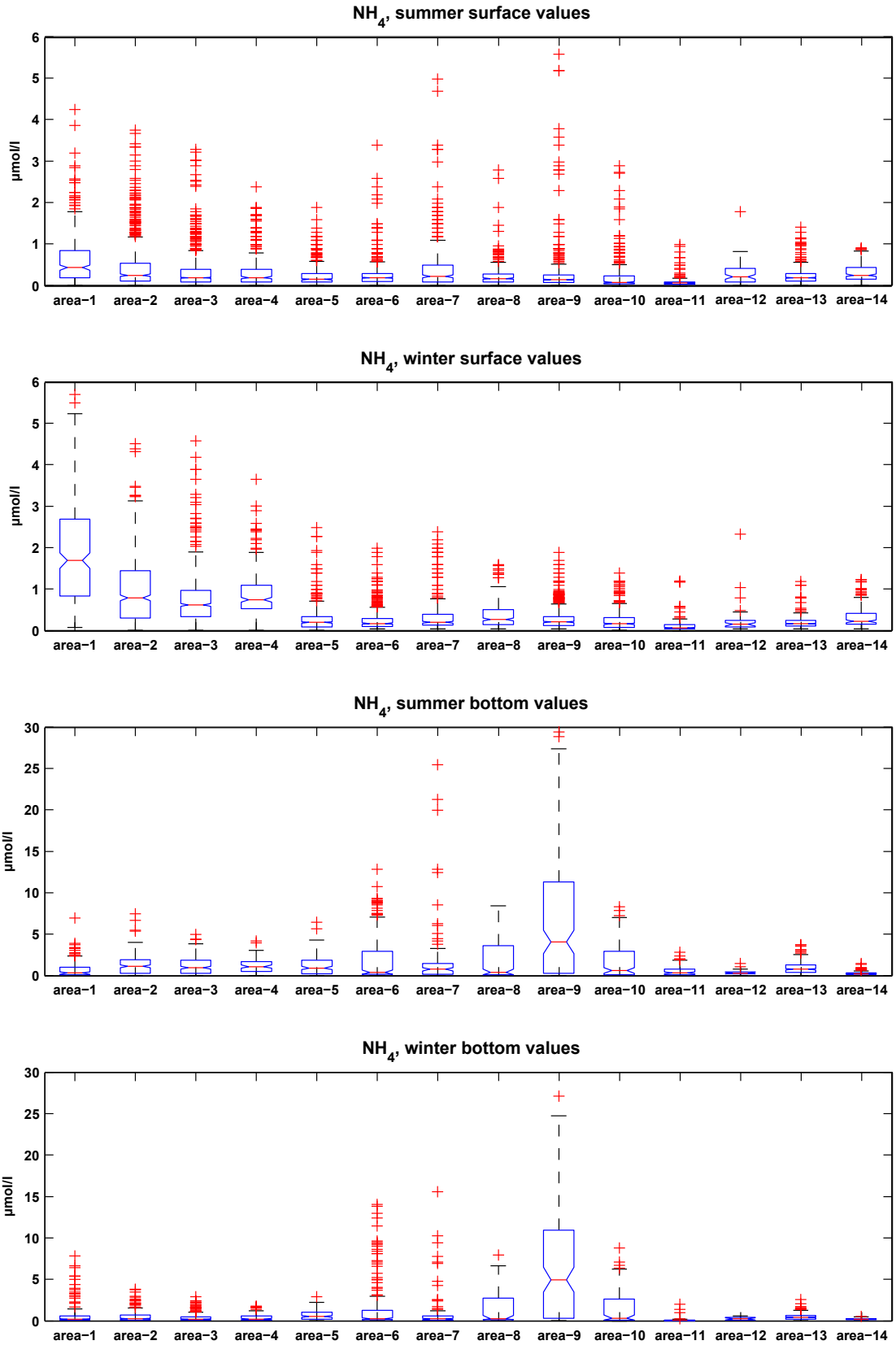

Figure 103. NH_4 for all the areas divided into summer, winter, surface and bottom box plots. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. The red plus signs above and below the box are outliers which are data with values beyond the ends of the whiskers. The figures are presented as notched box plots. Boxes whose notches do not overlap indicate with 95% confidence that the true medians do differ.

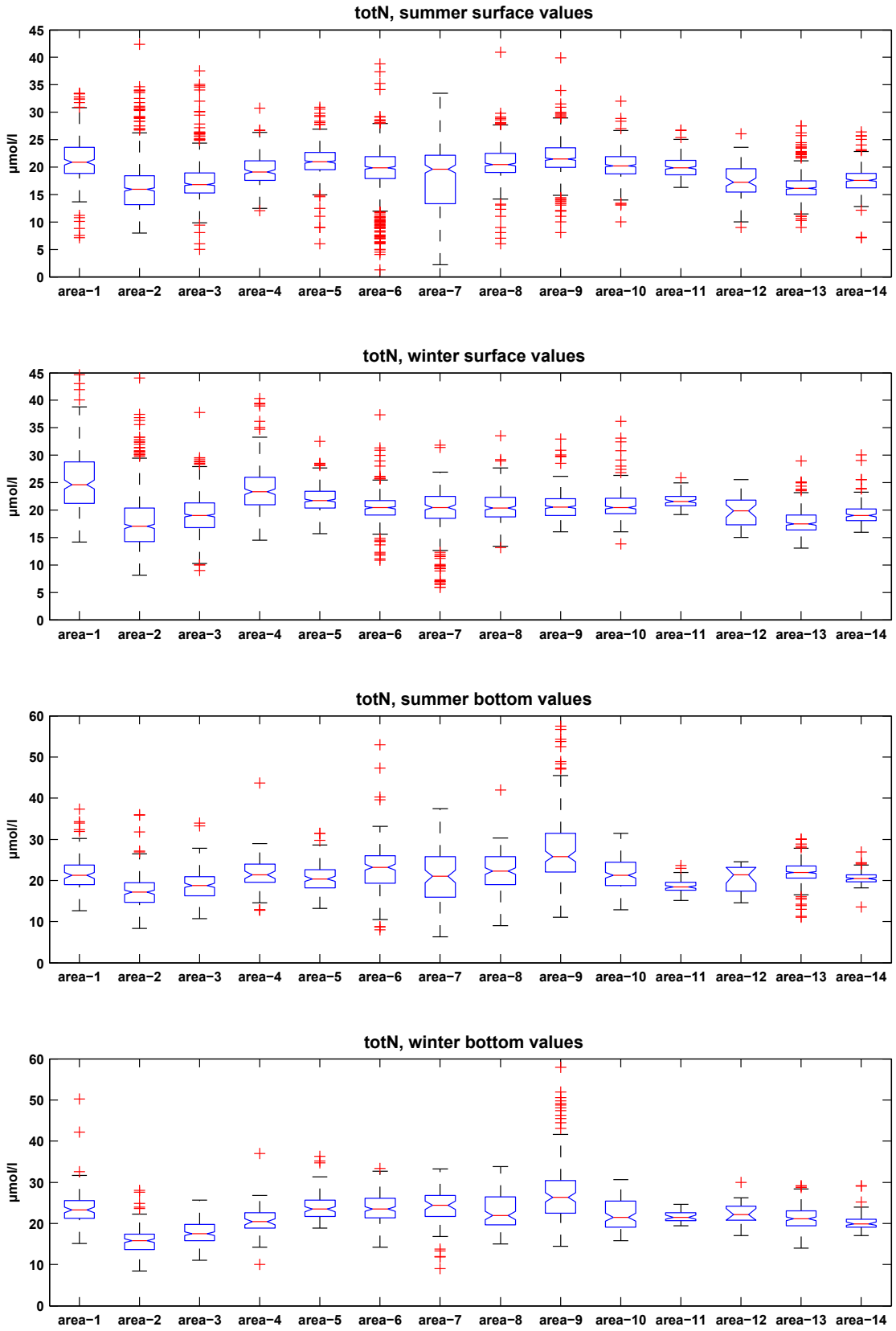

Figure 104. Tot-N for all the areas divided into summer, winter, surface and bottom box plots. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. The red plus signs above and below the box are outliers which are data with values beyond the ends of the whiskers. The figures are presented as notched box plots. Boxes whose notches do not overlap indicate with 95% confidence that the true medians do differ.

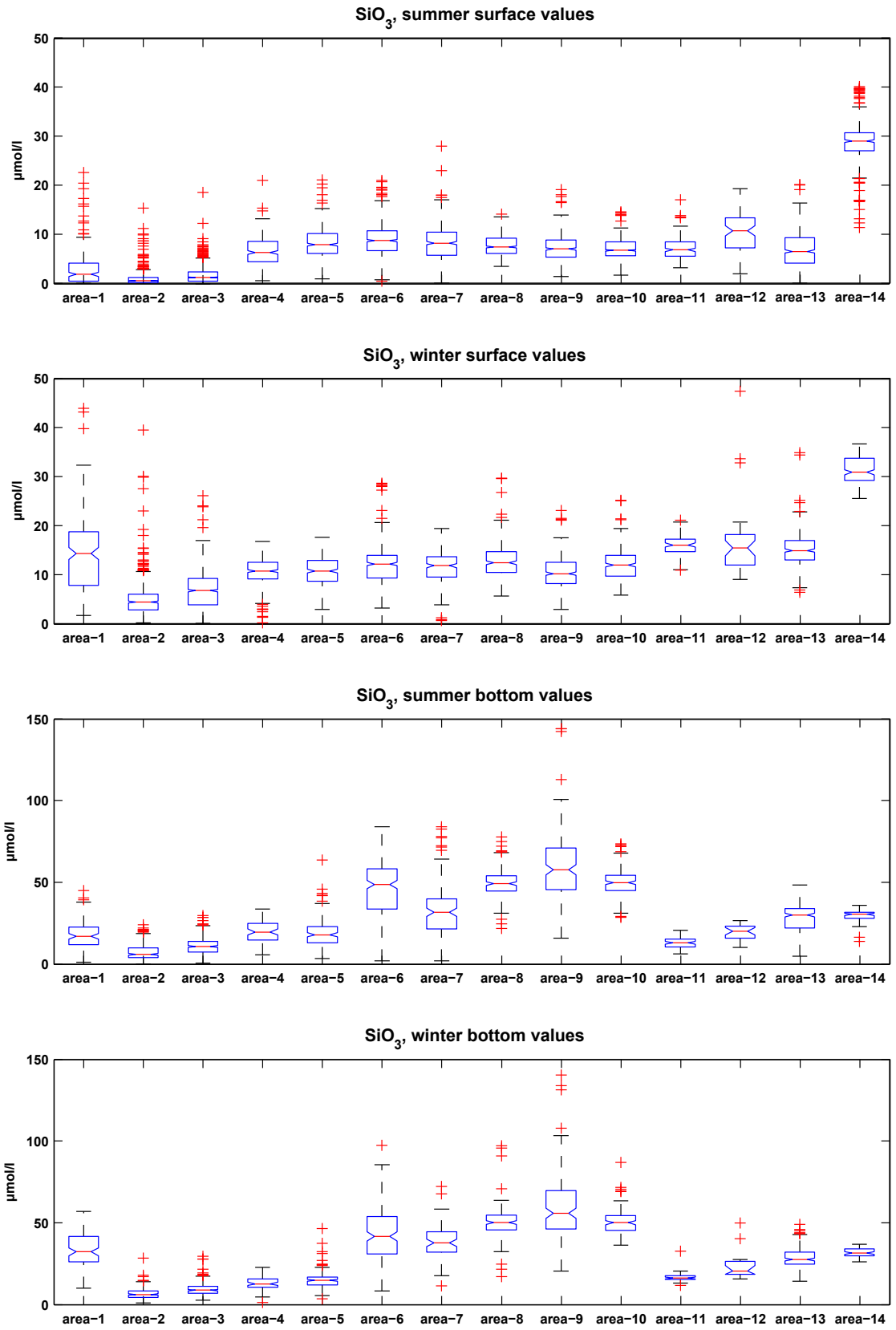

Figure 105. SiO_3 for all the areas divided into summer, winter, surface and bottom box plots. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. The red plus signs above and below the box are outliers which are data with values beyond the ends of the whiskers. The figures are presented as notched box plots. Boxes whose notches do not overlap indicate with 95% confidence that the true medians do differ.

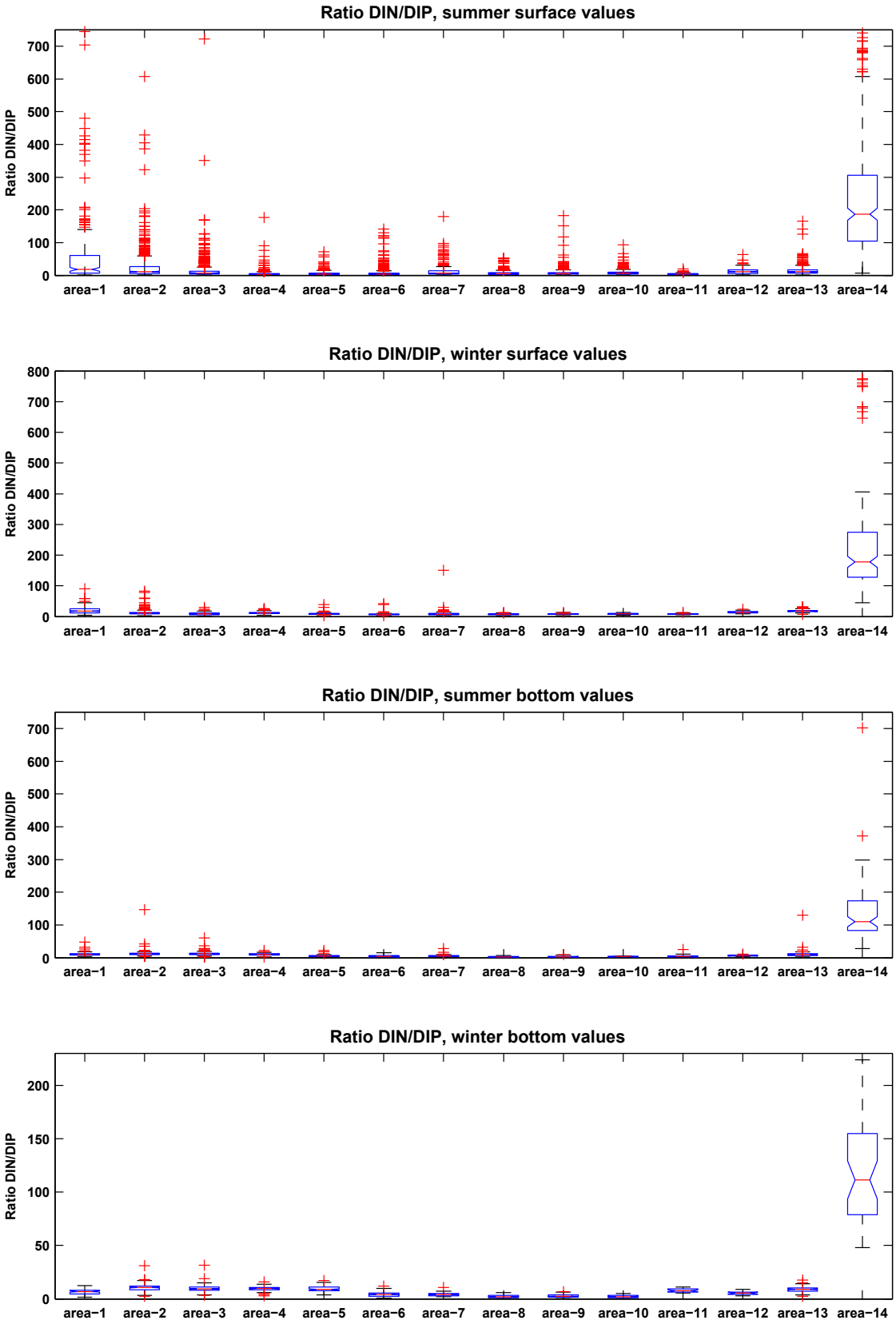

Figure 106. DIN/DIP ratio for all the areas divided into summer, winter, surface and bottom box plots. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. The red plus signs above and below the box are outliers which are data with values beyond the ends of the whiskers. The figures are presented as notched box plots. Boxes whose notches do not overlap indicate with 95% confidence that the true medians do differ.

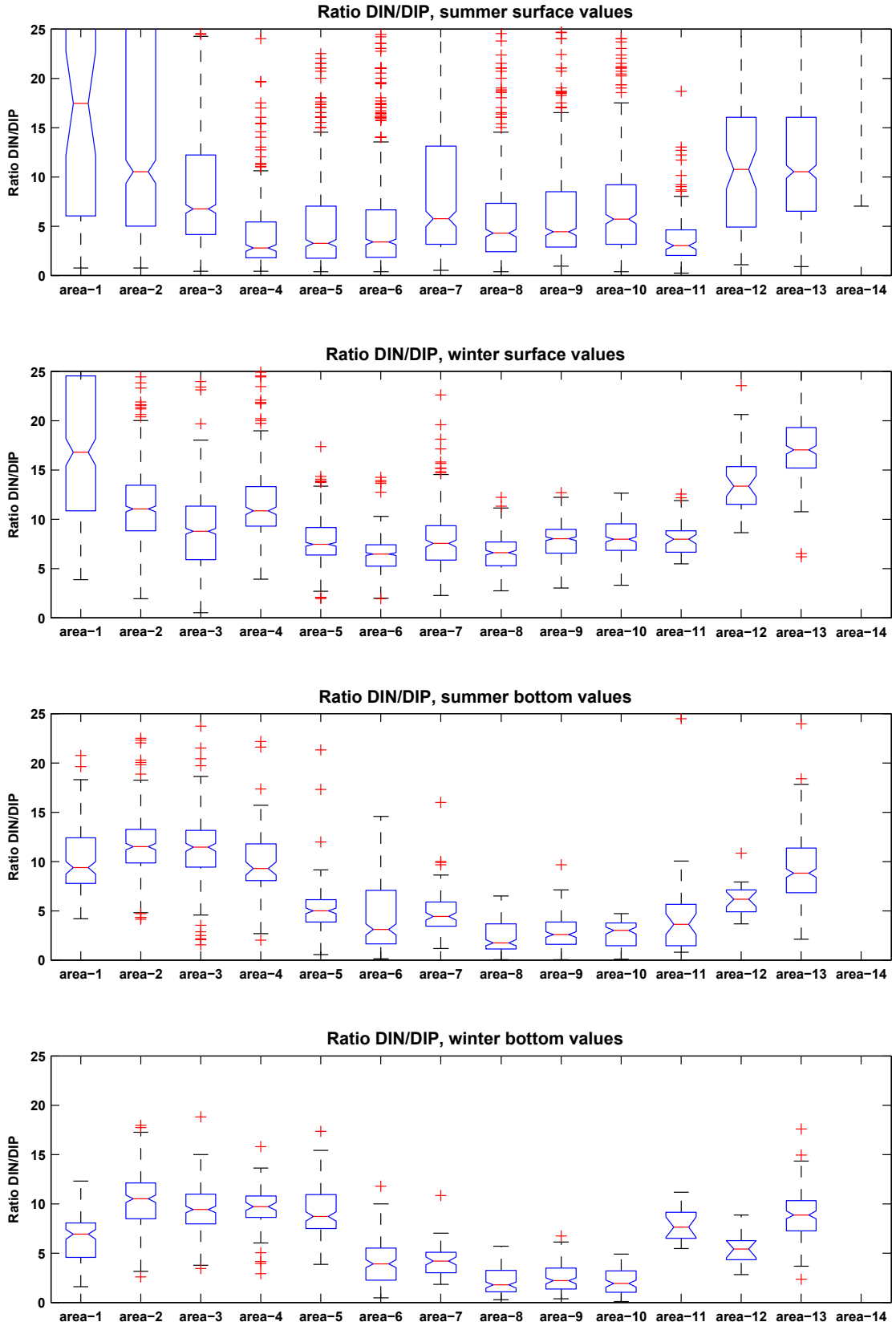

Figure 107. Zoom of the DIN/DIP ratio for all the areas divided into summer, winter, surface and bottom box plots. The box has lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the box to show the extent of the rest of the data. Maximum whisker length is 1.5 times the inter quartile range. The red plus signs above and below the box are outliers which are data with values beyond the ends of the whiskers. The figures are presented as notched box plots. Boxes whose notches do not overlap indicate with 95% confidence that the true medians do differ.

Appendix G

Annual cycles PO4

10 representative stations surrounding Sweden has been selected to present the annual cycles of PO_4. In the figure, lines are drawn to illustrate the summer and winter months selected for the station. There is a balance of what data to include in a summer or a winter period. To be sure to receive only the winter and summer values, perhaps a shorter interval would be preferable, but that would in turn significantly reduce the amount data available to detect and confirm possible trends.

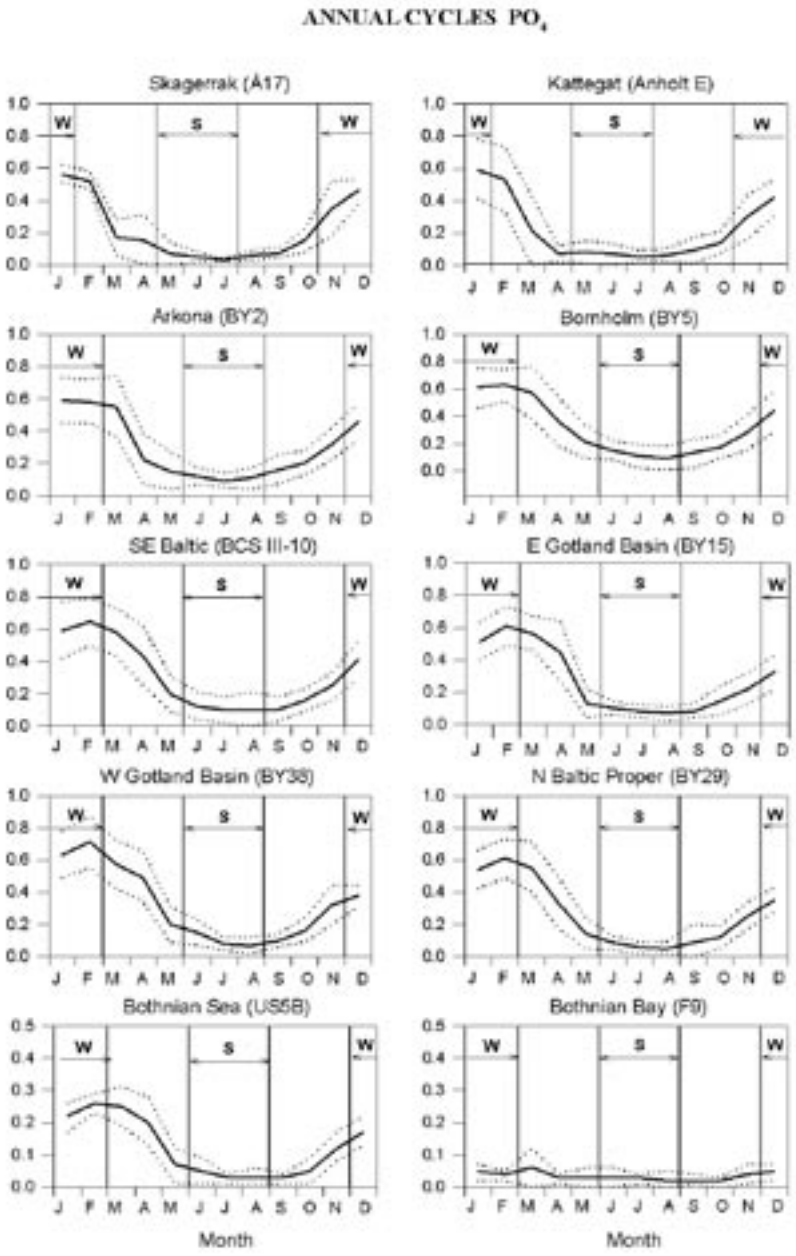

Figure 108. Ten representative stations surrounding Sweden has been selected to present the annual cycles of PO_4. In the figure, lines are drawn to illustrate the summer and winter months selected for the station.

APPENDIX H

SMHI publications

SMHI publishes six report series. Three of these, the R-series, are intended for international readers and are in most cases written in English. For the others the Swedish language is used.

Names of the Series	Published since
RMK (Report Meteorology och Climatology)	1974
RH (Report Hydrology)	1990
RO (Report Oceanography)	1986
METEOROLOGI	1985
HYDROLOGI	1985
OCEANOGRAFI	1985

Earlier issues published in RO

1 Lars Gidhagen, Lennart Funkquist and Ray Murthy (1986)
Calculations of horizontal exchange coefficients using Eulerian time series current meter data from the Baltic Sea.

2 Thomas Thompson (1986)
Ymer-80, satellites, arctic sea ice and weather.

3 Stig Carlberg et al (1986)
Program för miljökvalitetsövervakning - PMK.

4 Jan-Erik Lundqvist och Anders Omstedt (1987)
Isförhållandena i Sveriges södra och västra farvatten.

5 Stig Carlberg, Sven Engström, Stig Fonselius, Håkan Palmén, Eva-Gun Thelén, Lotta Fyrberg och Bengt Yhlen (1987)
Program för miljökvalitetsövervakning - PMK. Utsjöprogram under 1986.

6 Jorge C. Valderama (1987)
Results of a five year survey of the distribution of UREA in the Baltic sea.

7 Stig Carlberg, Sven Engström, Stig Fonselius, Håkan Palmén, Eva-Gun Thelén, Lotta Fyrberg, Bengt Yhlen och Danuta Zagradkin (1988).
Program för miljökvalitetsövervakning - PMK. Utsjöprogram under 1987

8 Bertil Håkansson (1988)
Ice reconnaissance and forecasts in Storfjorden, Svalbard.

9 Stig Carlberg, Sven Engström, Stig Fonselius, Håkan Palmén, Eva-Gun Thelén, Lotta Fyrberg, Bengt Yhlen, Danuta Zagradkin, Bo Juhlin och Jan Szaron (1989)
Program för miljökvalitetsövervakning - PMK. Utsjöprogram under 1988.

10 L. Fransson, B. Håkansson, A. Omstedt och L. Stehn (1989)
Sea ice properties studied from the ice-breaker Tor during BEPERS-88.

11 Stig Carlberg, Sven Engström, Stig Fonselius, Håkan Palmén, Lotta Fyrberg, Bengt Yhlen, Bo Juhlin och Jan Szaron (1990)
Program för miljökvalitetsövervakning - PMK. Utsjöprogram under 1989.

12 Anders Omstedt (1990)
Real-time modelling and forecasting of temperatures in the Baltic Sea.

13 Lars Andersson, Stig Carlberg, Elisabet Fogelqvist, Stig Fonselius, Håkan Palmén, Eva-Gun Thelén, Lotta Fyrberg, Bengt Yhlen och Danuta Zagradkin (1991) Program för miljökvalitetsöver vakning – PMK. Utsjöprogram under 1989.

14 Lars Andersson, Stig Carlberg, Lars Edler, Elisabet Fogelqvist, Stig Fonselius, Lotta Fyrberg, Marie Larsson, Håkan Palmén, Björn Sjöberg, Danuta Zagradkin, och Bengt Yhlen (1992)
Haven runt Sverige 1991. Rapport från SMHI, Oceanografiska Laboratoriet, inklusive PMK - utsjöprogrammet. (The conditions of the seas around Sweden. Report from the activities in 1991, including PMK - The National Swedish Programme for Monitoring of Environmental Quality Open Sea Programme.)

15 Ray Murthy, Bertil Håkansson and Pekka Alenius (ed.) (1993)
The Gulf of Bothnia Year-1991 - Physical transport experiments.

16 Lars Andersson, Lars Edler and Björn Sjöberg (1993)
The conditions of the seas around Sweden. Report from activities in 1992.

17 Anders Omstedt, Leif Nyberg and Matti Leppäranta (1994)
A coupled ice-ocean model supporting winter navigation in the Baltic Sea. Part 1. Ice dynamics and water levels.

18 Lennart Funkquist (1993)
An operational Baltic Sea circulation model. Part 1. Barotropic version.

19 Eleonor Marmefelt (1994)
Currents in the Gulf of Bothnia. During the Field Year of 1991.

20 Lars Andersson, Björn Sjöberg and Mikaell Krysell (1994)
The conditions of the seas around Sweden. Report from the activities in 1993.

21 Anders Omstedt and Leif Nyberg (1995)
A coupled ice-ocean model supporting winter navigation in the Baltic Sea. Part 2. Thermodynamics and meteorological coupling.

22 Lennart Funkquist and Eckhard Kleine (1995)

Application of the BSH model to Kattegat and Skagerrak.

23 Tarmo Köuts and Bertil Håkansson (1995)
Observations of water exchange, currents, sea levels and nutrients in the Gulf of Riga.

24 Urban Svensson (1998)
PROBE An Instruction Manual.

25 Maria Lundin (1999)
Time Series Analysis of SAR Sea Ice Backscatter Variability and its Dependence on Weather Conditions.

26 Markus Meier[1], Ralf Döscher[1], Andrew, C. Coward[2], Jonas Nycander[3] and Kristofer Döös[3] (1999). RCO – Rossby Centre regional Ocean climate model: model description (version 1.0) and first results from the hindcast period 1992/93.

[1] Rossby Centre, SMHI [2] James Rennell Division, Southampton Oceanography Centre, [3] Department of Meteorology, Stockholm University

27 H. E. Markus Meier (1999)

First results of multi-year simulations using a 3D Baltic Sea model.

28 H. E. Markus Meier (2000)
The use of the $k - \varepsilon$ turbulence model within the Rossby Centre regional ocean climate model: parameterization development and results.

29 Eleonor Marmefelt, Bertil Håkansson, Anders Christian Erichsen and Ian Sehested Hansen (2000)
Development of an Ecological Model System for the Kattegat and the Southern Baltic. Final Report to the Nordic Councils of Ministers.

30 H.E Markus Meier and Frank Kauker (2002).
Simulating Baltic Sea climate for the period 1902-1998 with the Rossby Centre coupled ice-ocean model.

31 Bertil Håkansson (2003)
Swedish National Report on Eutrophication Status in the Kattegat and the Skagerrak
OSPAR ASSESSMENT 2002

32 Bengt Karlson & Lars Andersson (2003)

The Chattonella-bloom in year 2001 and effects of high freshwater input from river Göta Älv to the Kattegat-Skagerrak area

33 Philip Axe and Helma Lindow (2005)

Hydrographic Conditions Around Offshore Banks

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