

# Werkdocument

Aan

Directie Zeeland:

D. Louws, W. Roelse, P. van de Weijde,

J. van het Westende

RIKZ:

G. den Hartog, E. Hoogenboom, J. Kokke,

J. Theune, G. Wattel

Contactpersoon D. van Maldegem, G. spronk	Doorkiesnummer
-	-
Datum	Bijlage(n)
21 juni 1999	- 9
Nummer	Product
RIKZ/AB-99.826X	- Zeetunnel
Onderwerp	
Troebelheidsmetingen Westerschelde: ijkpunt DOW-steiger 1-12-98 t/m 26-5-99	

De monsters voor de ijklijnen, die genomen zijn op 26/5/99 bevatten lage gehalten aan zwevendstof. Ze passen echter wel in het beeld van de samengevoegde ijklijn. In bijlage 1 t/m 3 staan de samengevoegde ijklijnen over de periode 4/3 t/m 28/4, in bijlage 4 t/m 6 die van 26/5 en in bijlage 7 t/m 9 staan de samengevoegde ijklijnen, die gebruikt kunnen worden voor de periode 28/4/99 tot 26/5/99.

Gemiddelde ijklijn NAP-17m:  $Y = 2,246 X + 5,066$

Gemiddelde ijklijn NAP-11m:  $Y = 2,284 X + 4,634$

Gemiddelde ijklijn NAP- 4m:  $Y = 1,991 X + 0,433$

(X-as = MEX uitlezing)

(Y-as = zwevendstoffractie < 53µm).

8 case(s) deleted due to missing data.

Dep Var: DOWZS17 N: 20 Multiple R: 0.872 Squared multiple R: 0.761

Adjusted squared multiple R: 0.748 Standard error of estimate: 9.067

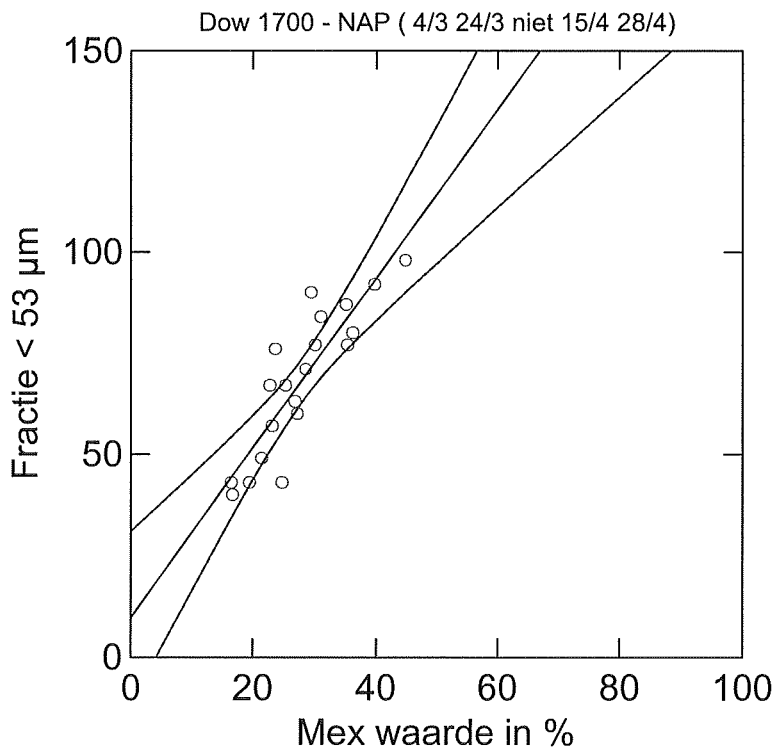
Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	9.646	8.000	0.0	1.206	0.243
DOWMEX17	2.096	0.277	0.872	7.567	0.000

Analysis of Variance

Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	4707.250	1	4707.250	57.252	0.000
Residual	1479.950	18	82.219		

Durbin-Watson D Statistic 1.428  
 First Order Autocorrelation 0.279

**1700 -NAP**



1 case(s) deleted due to missing data.

Dep Var: DOWZS11 N: 27 Multiple R: 0.975 Squared multiple R: 0.951

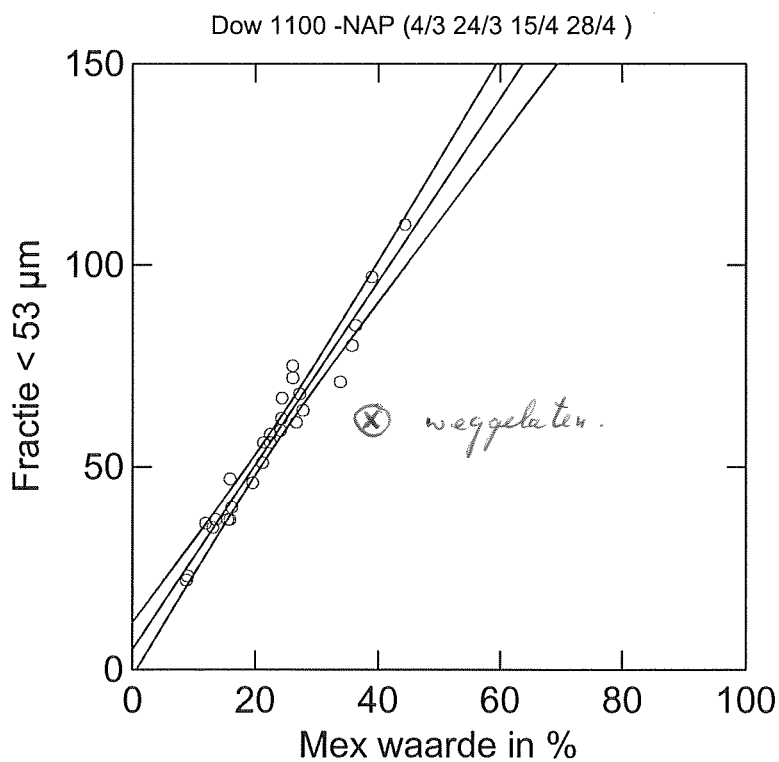
Adjusted squared multiple R: 0.949 Standard error of estimate: 4.809

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	5.008	2.552	0.0	1.962	0.061
DOWMEX11	2.273	0.103	0.975	22.060	0.000

Analysis of Variance

Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	11252.645	1	11252.645	486.626	0.000
Residual	578.095	25	23.124		

Durbin-Watson D Statistic 1.690  
 First Order Autocorrelation 0.086



Dep Var: DOWZS4 N: 28 Multiple R: 0.978 Squared multiple R: 0.956

Adjusted squared multiple R: 0.955 Standard error of estimate: 4.605

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	-1.398	2.394	0.0	.	-0.584 0.564
DOWMEX4	2.046	0.086	0.978	1.000	23.849 0.000

Analysis of Variance

Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	12059.442	1	12059.442	568.767	0.000
Residual	551.272	26	21.203		

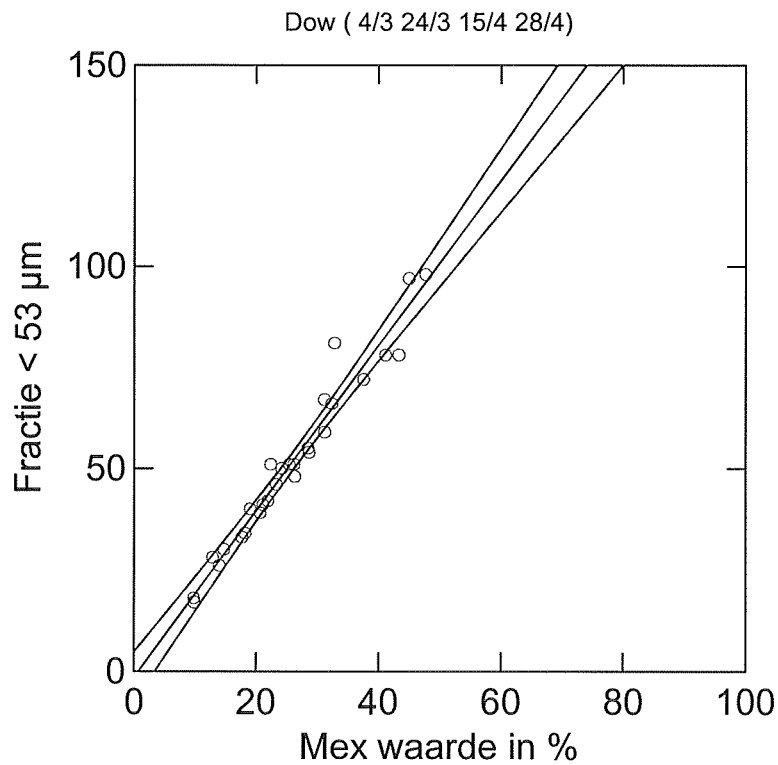
\*\*\* WARNING \*\*\*

Case 28 is an outlier (Studentized Residual = 4.477)

Durbin-Watson D Statistic 1.498

First Order Autocorrelation 0.021

- 400 NAP



1 case(s) deleted due to missing data.

Dep Var: ZW1700 N: 6 Multiple R: 0.990 Squared multiple R: 0.980

Adjusted squared multiple R: 0.975 Standard error of estimate: 0.915

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	-1.366	1.874	0.0	-.729	0.506
MEX1700	2.798	0.199	0.990	14.084	0.000

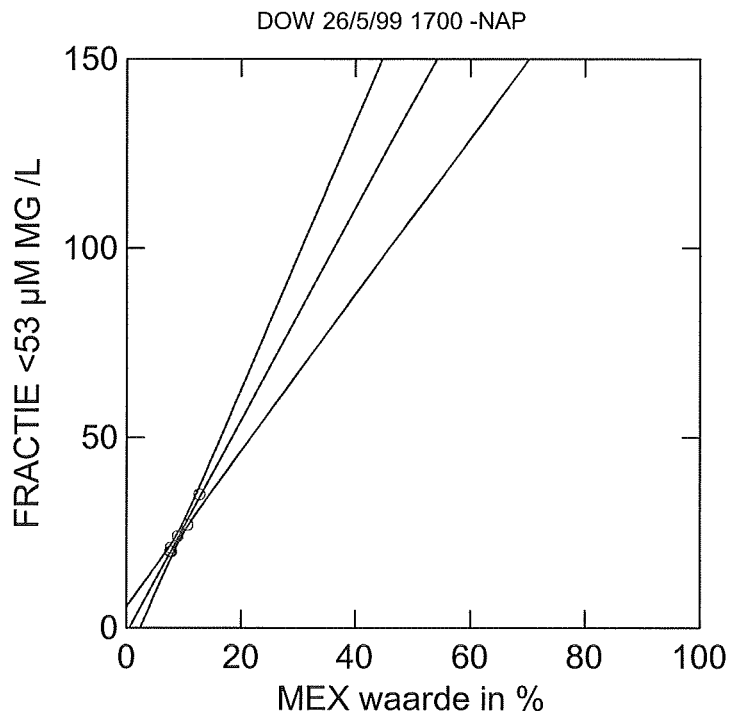
Analysis of Variance

Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	166.149	1	166.149	198.349	0.000
Residual	3.351	4	0.838		

\*\*\* WARNING \*\*\*

Case 4 is an outlier (Studentized Residual = -3.078)  
 Case 5 has large leverage (Leverage = 0.742)  
 Case 5 is an outlier (Studentized Residual = 2.133)

Durbin-Watson D Statistic 2.579  
 First Order Autocorrelation -0.347



Dep Var: ZW1100 N: 7 Multiple R: 0.628 Squared multiple R: 0.395

Adjusted squared multiple R: 0.274 Standard error of estimate: 6.394

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	8.300	9.330	0.0	.	0.890 0.414
MEX1100	1.824	1.010	0.628	1.000	1.806 0.131

Analysis of Variance

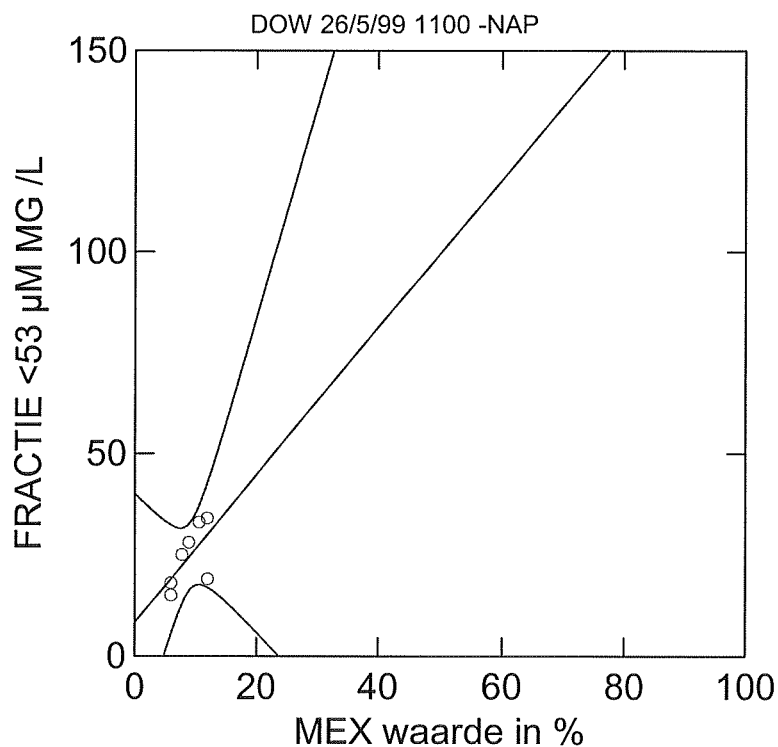
Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	133.288	1	133.288	3.260	0.131
Residual	204.426	5	40.885		

\*\*\* WARNING \*\*\*

Case 1 is an outlier (Studentized Residual = -6.695)

Durbin-Watson D Statistic 0.876

First Order Autocorrelation 0.227



Dep Var: ZW400 N: 7 Multiple R: 0.958 Squared multiple R: 0.919

Adjusted squared multiple R: 0.902 Standard error of estimate: 2.221

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	-5.059	3.459	0.0	-1.462	0.203
MEX400	2.768	0.369	0.958	7.510	0.001

Analysis of Variance

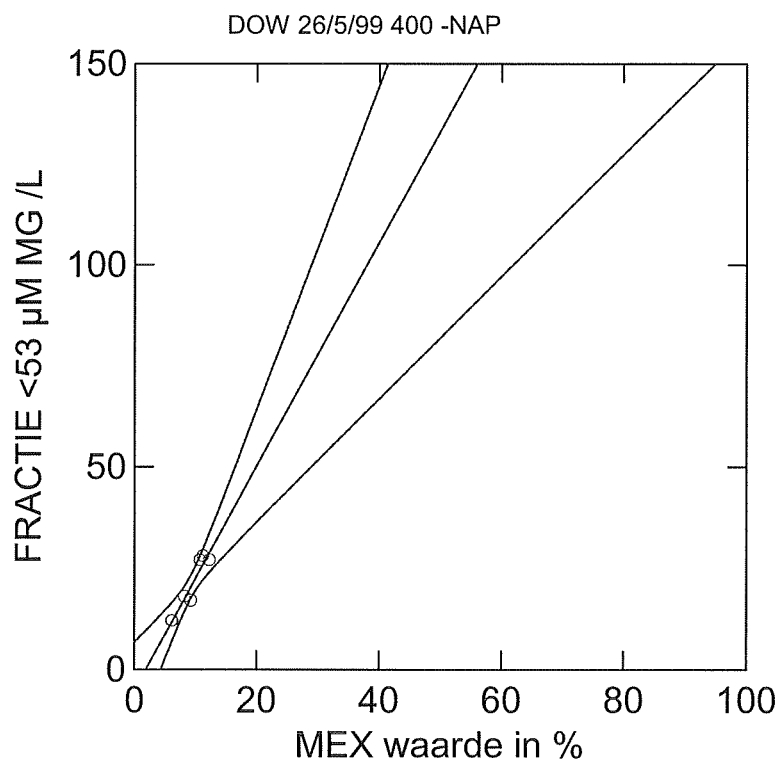
Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	278.193	1	278.193	56.396	0.001
Residual	24.664	5	4.933		

\*\*\* WARNING \*\*\*

Case 7 is an outlier (Studentized Residual = -2.164)

Durbin-Watson D Statistic 2.644

First Order Autocorrelation -0.558



10 case(s) deleted due to missing data.

Dep Var: DOWZS17 N: 26 Multiple R: 0.948 Squared multiple R: 0.899

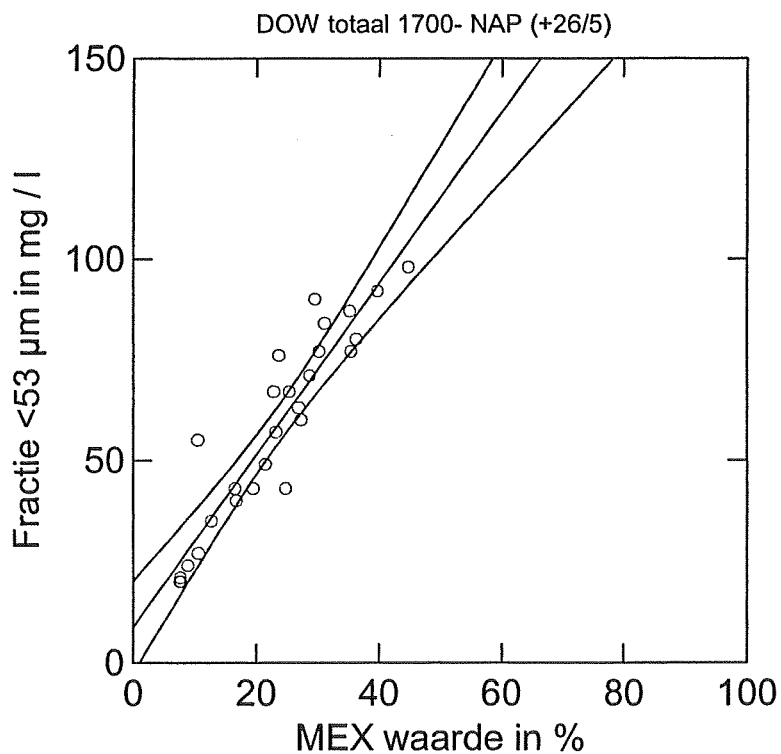
Adjusted squared multiple R: 0.895 Standard error of estimate: 7.978

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	5.066	3.947	0.0	1.284	0.212
DOWMEX17	2.246	0.153	0.948	14.641	0.000

Analysis of Variance

Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	13643.148	1	13643.148	214.360	0.000
Residual	1527.505	24	63.646		

Durbin-Watson D Statistic 1.445  
 First Order Autocorrelation 0.276





2 case(s) deleted due to missing data.

Dep Var: DOWZS11 N: 34 Multiple R: 0.978 Squared multiple R: 0.956

Adjusted squared multiple R: 0.955 Standard error of estimate: 4.978

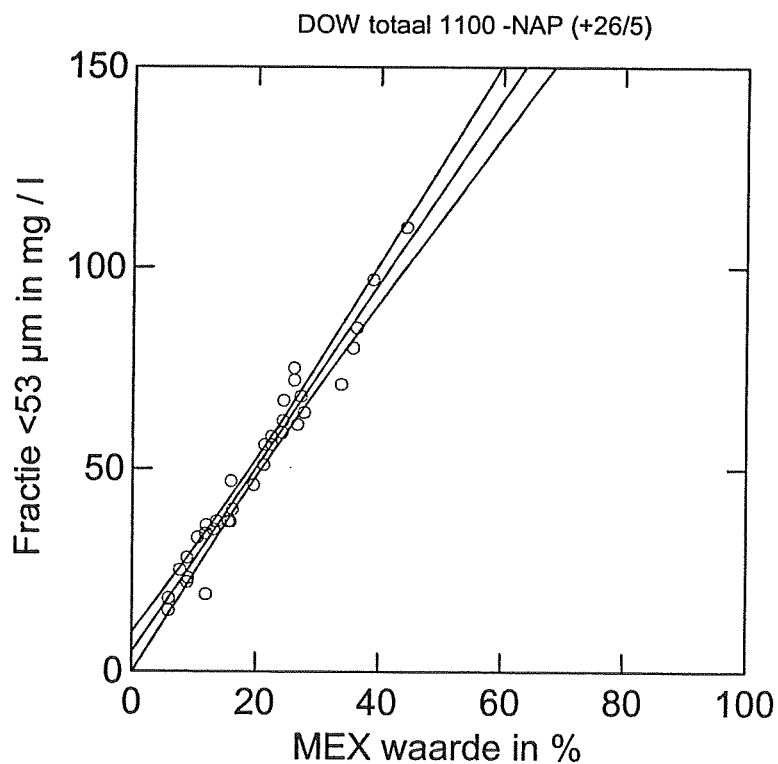
Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)	
CONSTANT	4.634	1.937	0.0	2.392	0.023	
DOWMEX11	2.284	0.086	0.978	1.000	26.496	0.000

#### Analysis of Variance

Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	17396.142	1	17396.142	702.062	0.000
Residual	792.917	32	24.779		

---

Durbin-Watson D Statistic 2.028  
First Order Autocorrelation -0.031



1 case(s) deleted due to missing data.

Dep Var: DOWZS4 N: 35 Multiple R: 0.983 Squared multiple R: 0.966

Adjusted squared multiple R: 0.965 Standard error of estimate: 4.364

Effect	Coefficient	Std Error	Std Coef Tolerance	t	P(2 Tail)
CONSTANT	0.433	1.644	0.0	.	0.263 0.794
DOWMEX4	1.991	0.065	0.983	1.000	30.649 0.000

Analysis of Variance

Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	17892.118	1	17892.118	939.342	0.000
Residual	628.567	33	19.047		

\*\*\* WARNING \*\*\*

Case 28 is an outlier (Studentized Residual = 4.516)

Durbin-Watson D Statistic 1.821  
 First Order Autocorrelation 0.071

