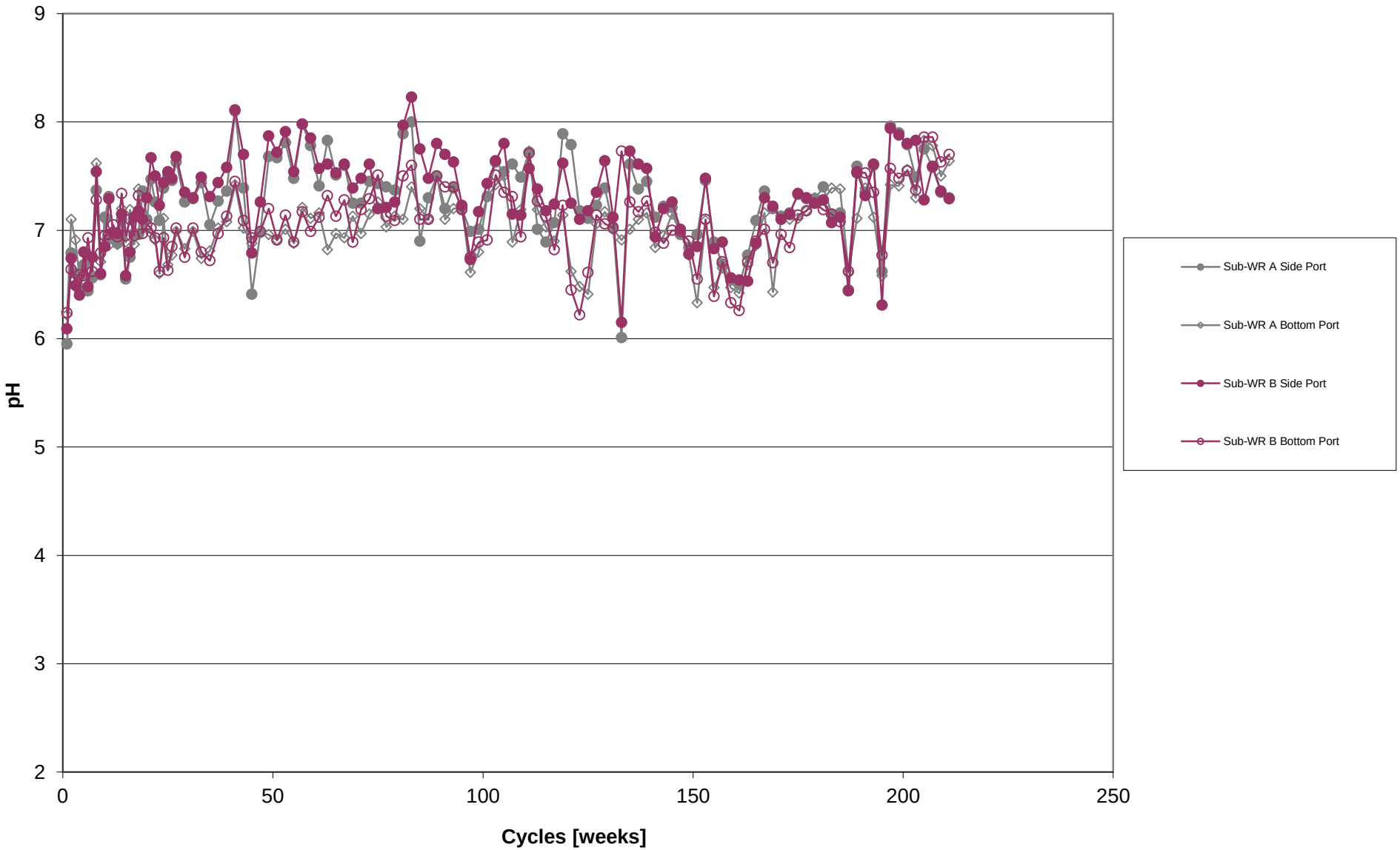
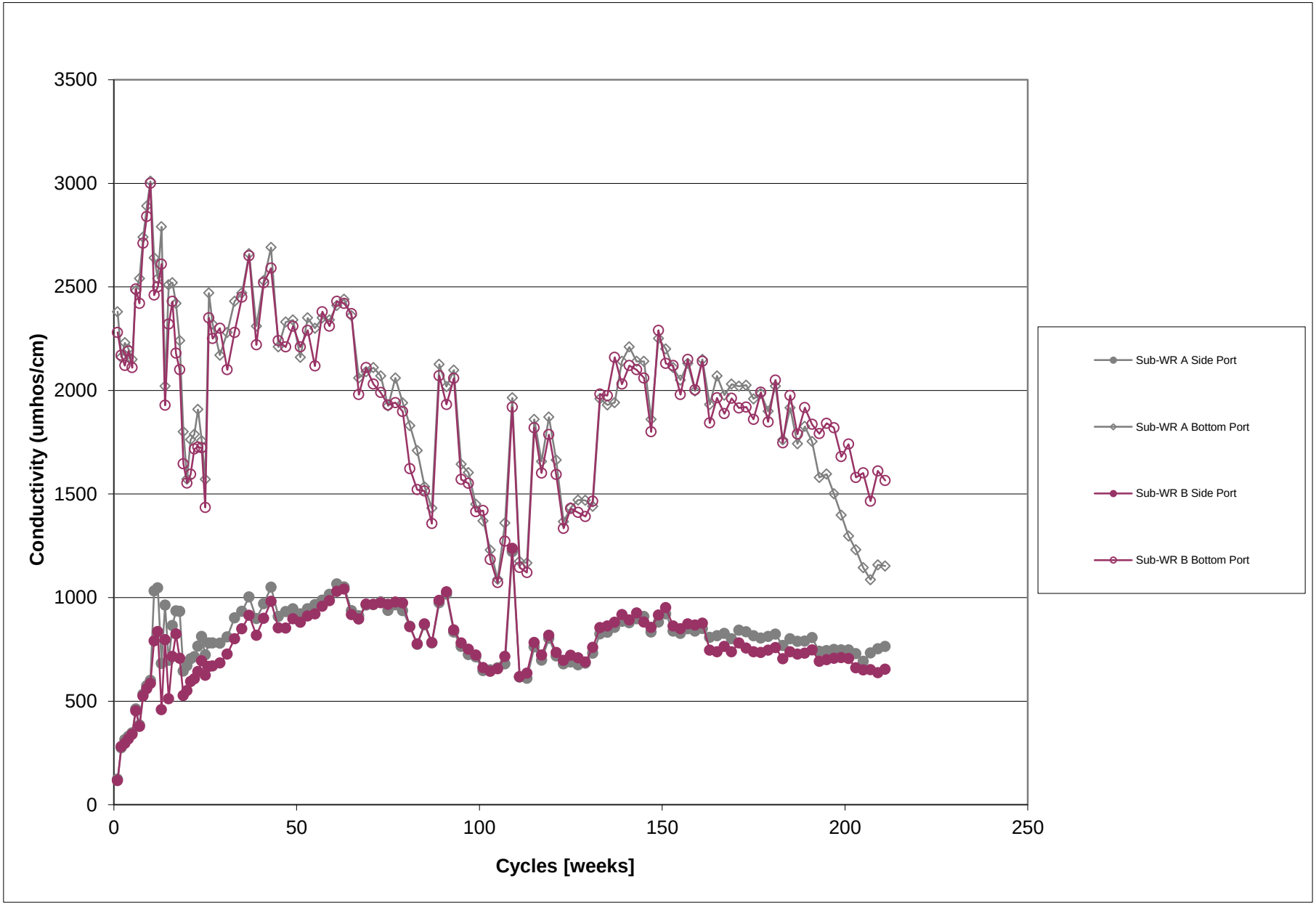
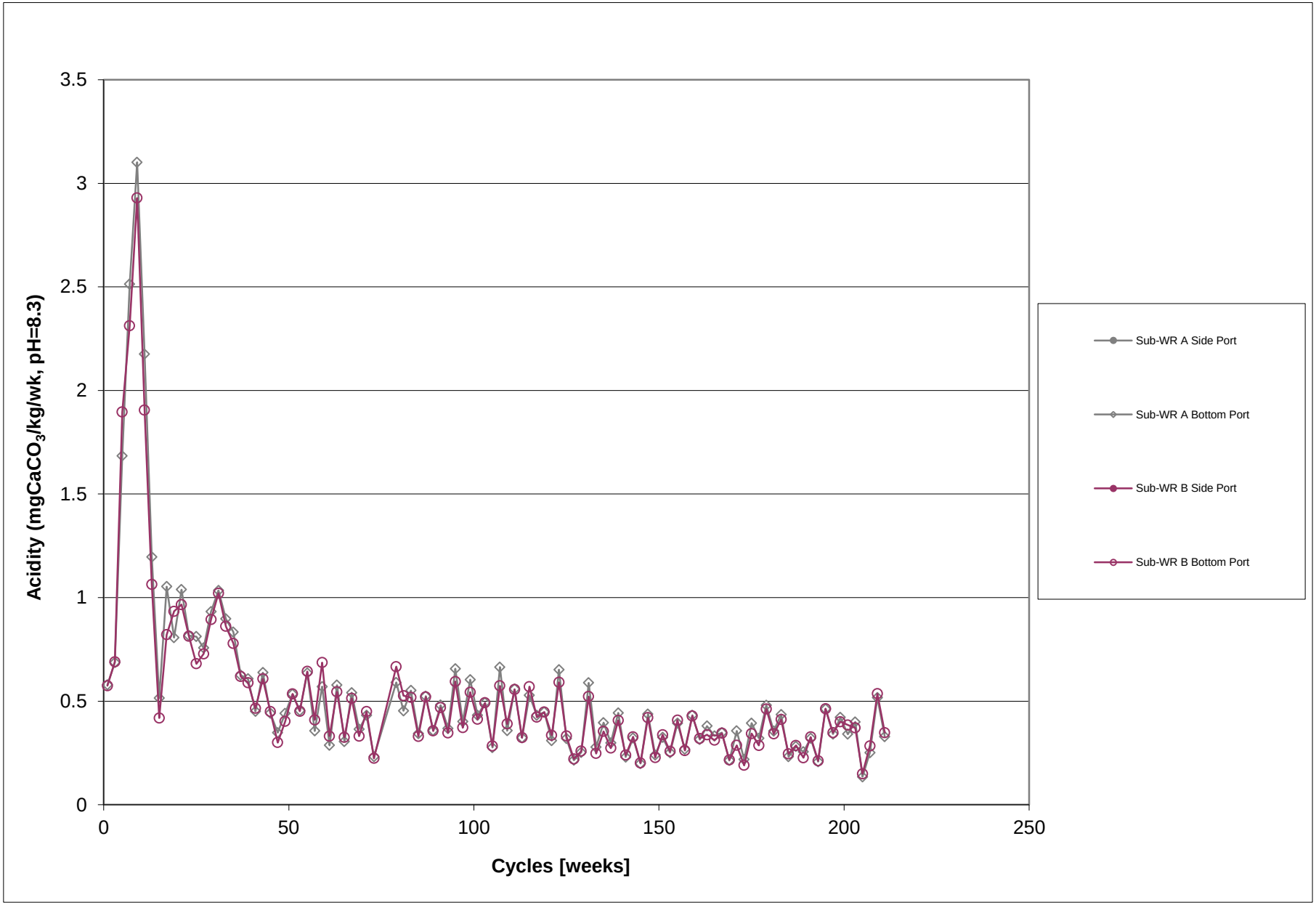
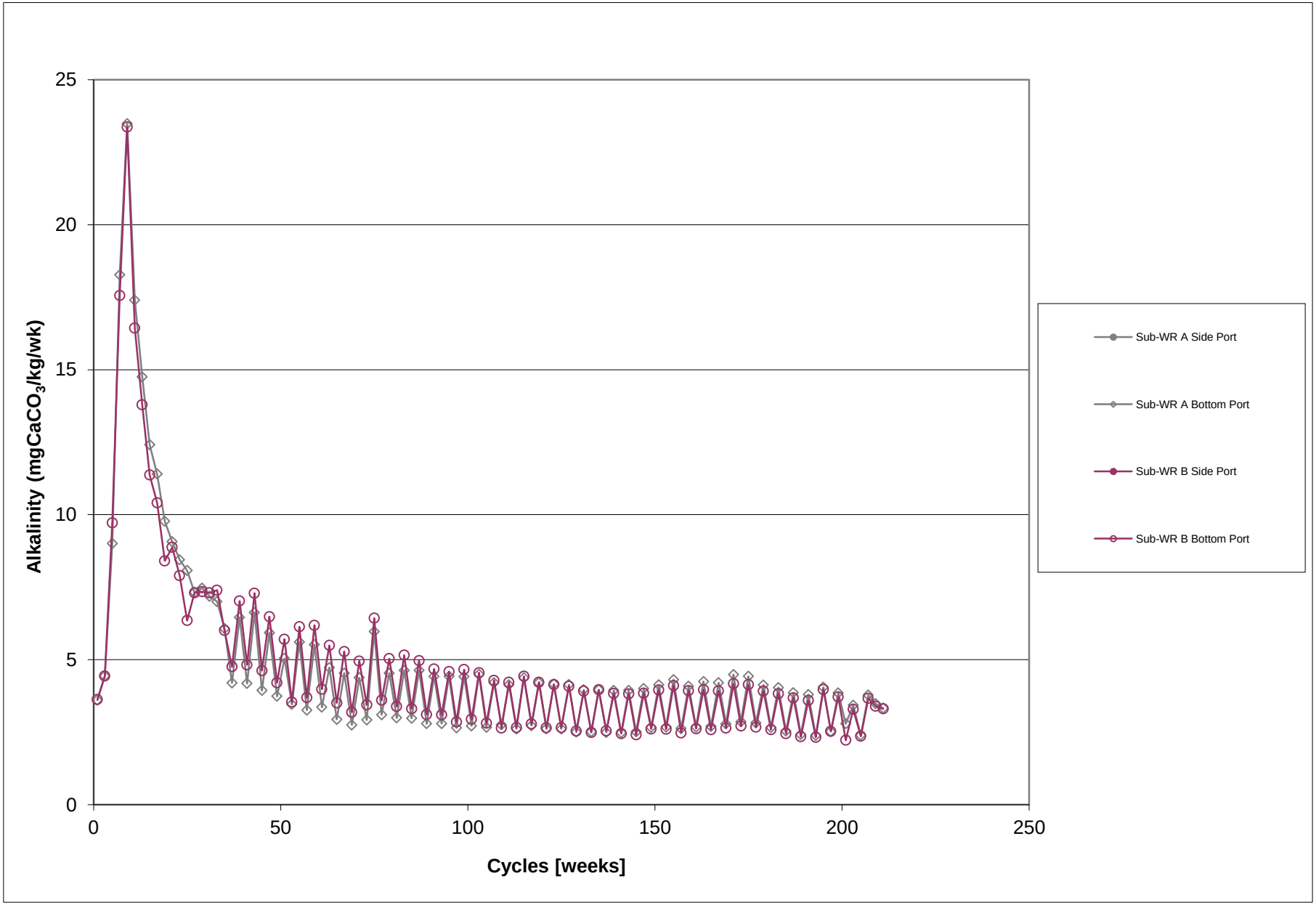
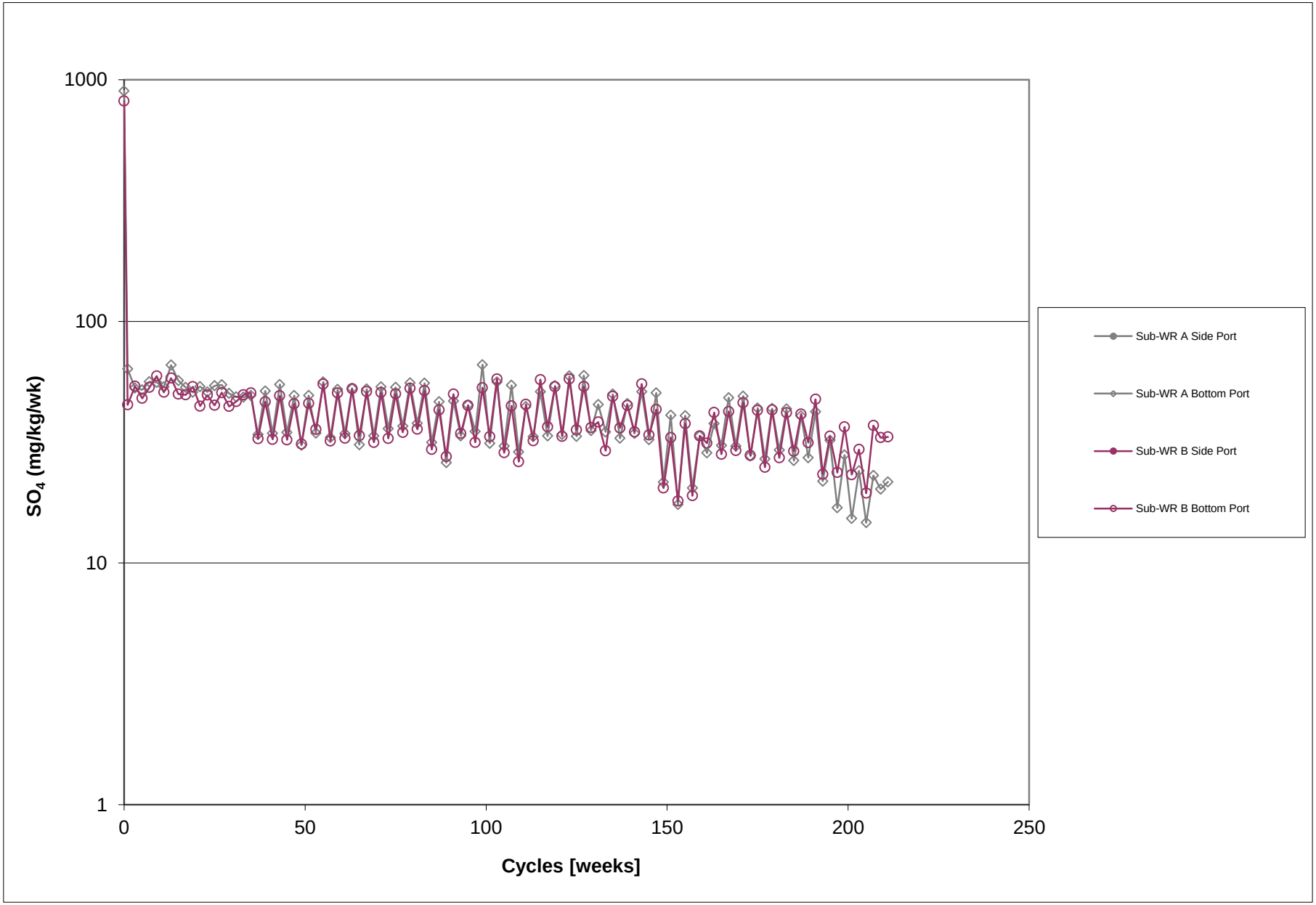
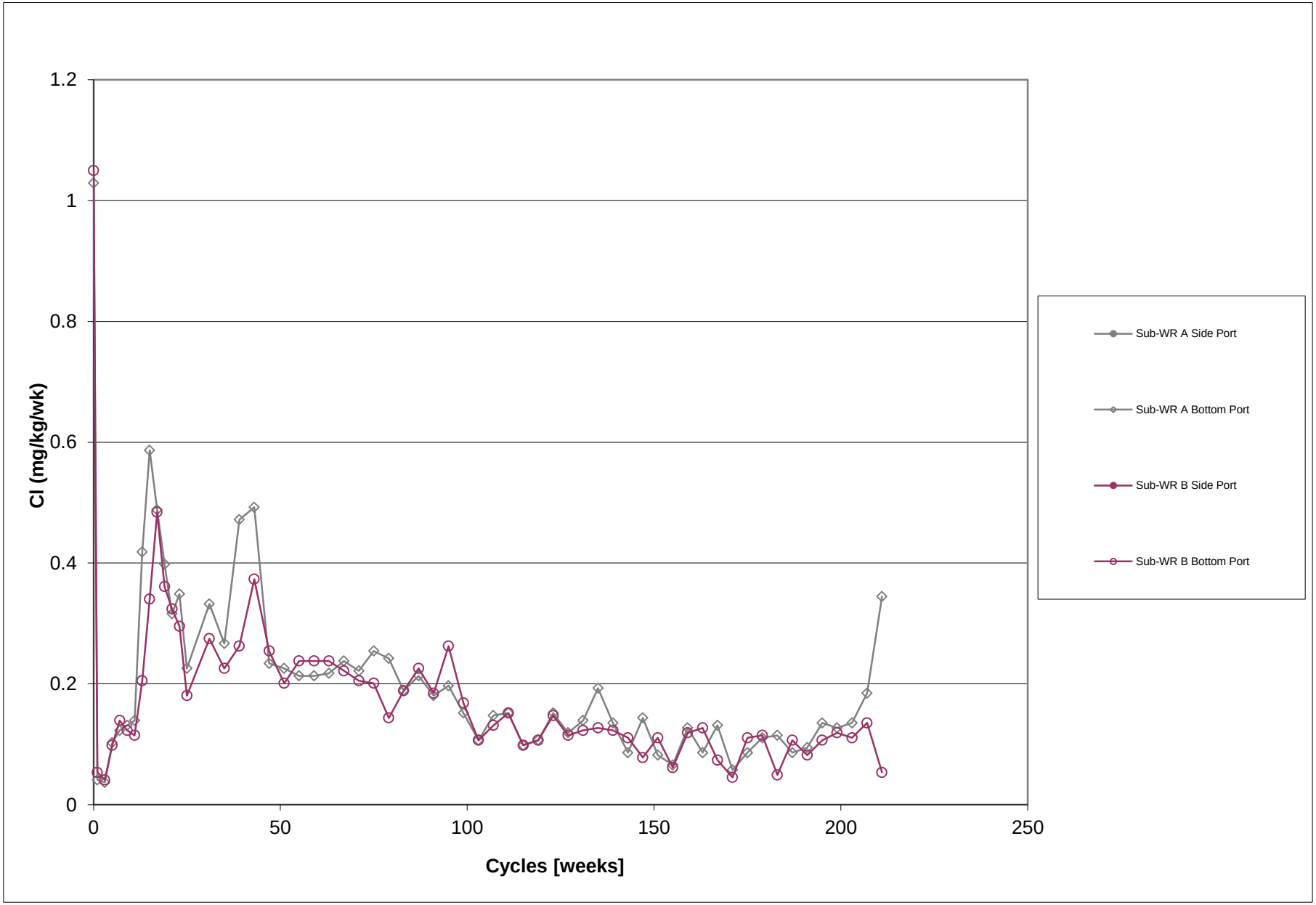

9
8
7
6
5
4
3
2
pH
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

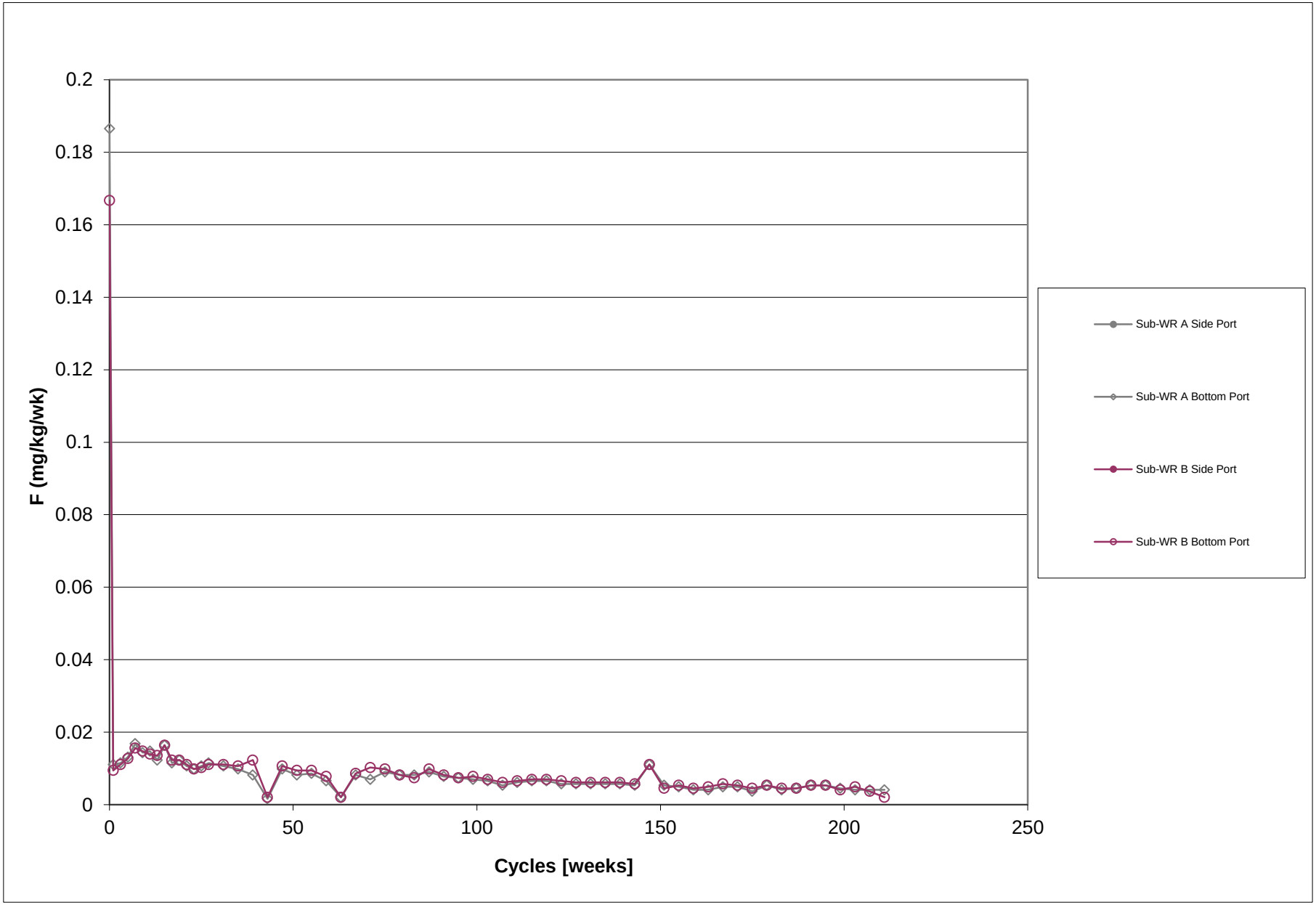

3500
3000
2500
2000
1500
1000
500
0
Conductivity (umhos/cm)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

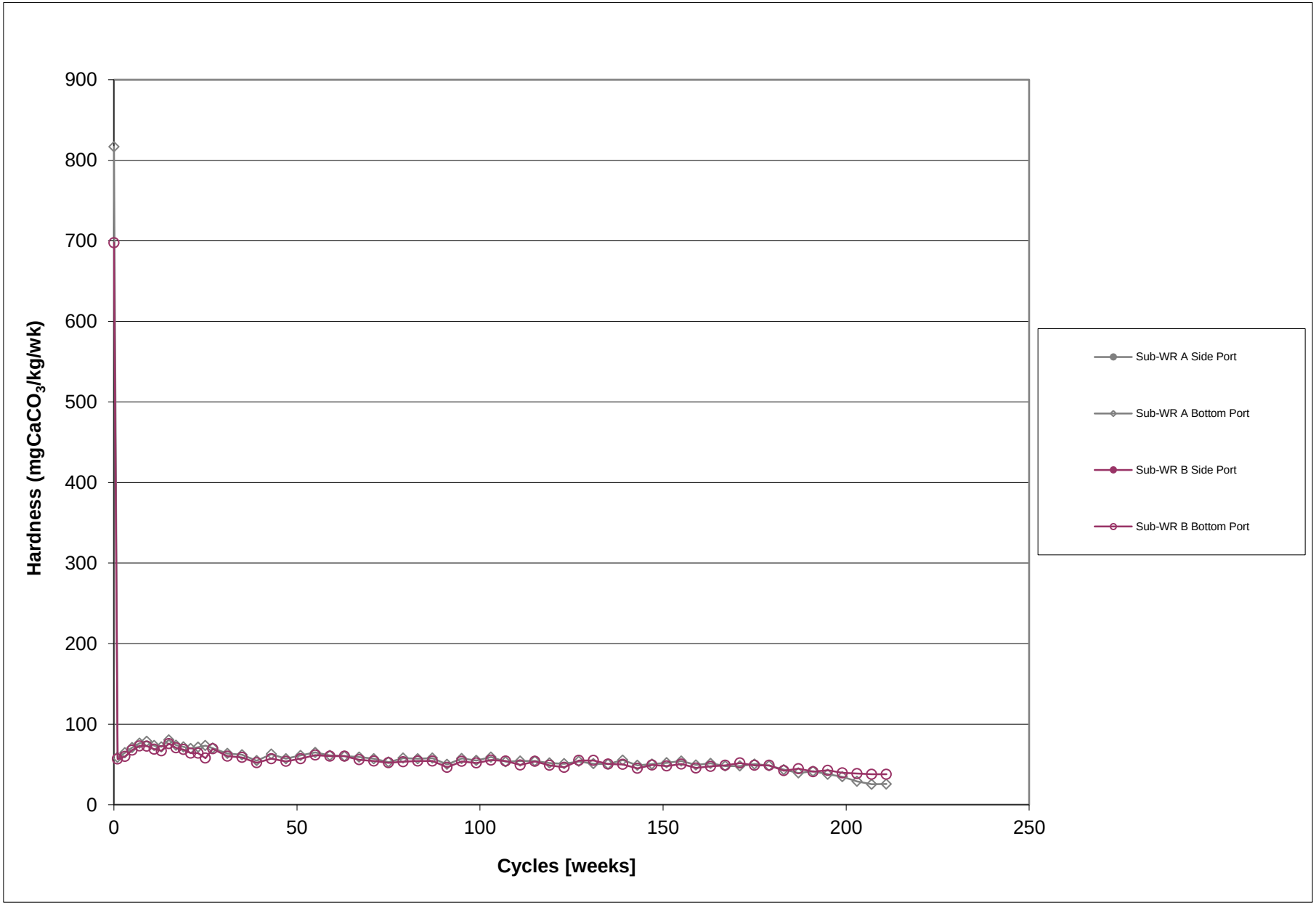

3.5
3
2.5
2
1.5
1
0.5
0
0
50
100
150
200
250
Acidity (mgCaCO3/kg/wk, pH=8.3)
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

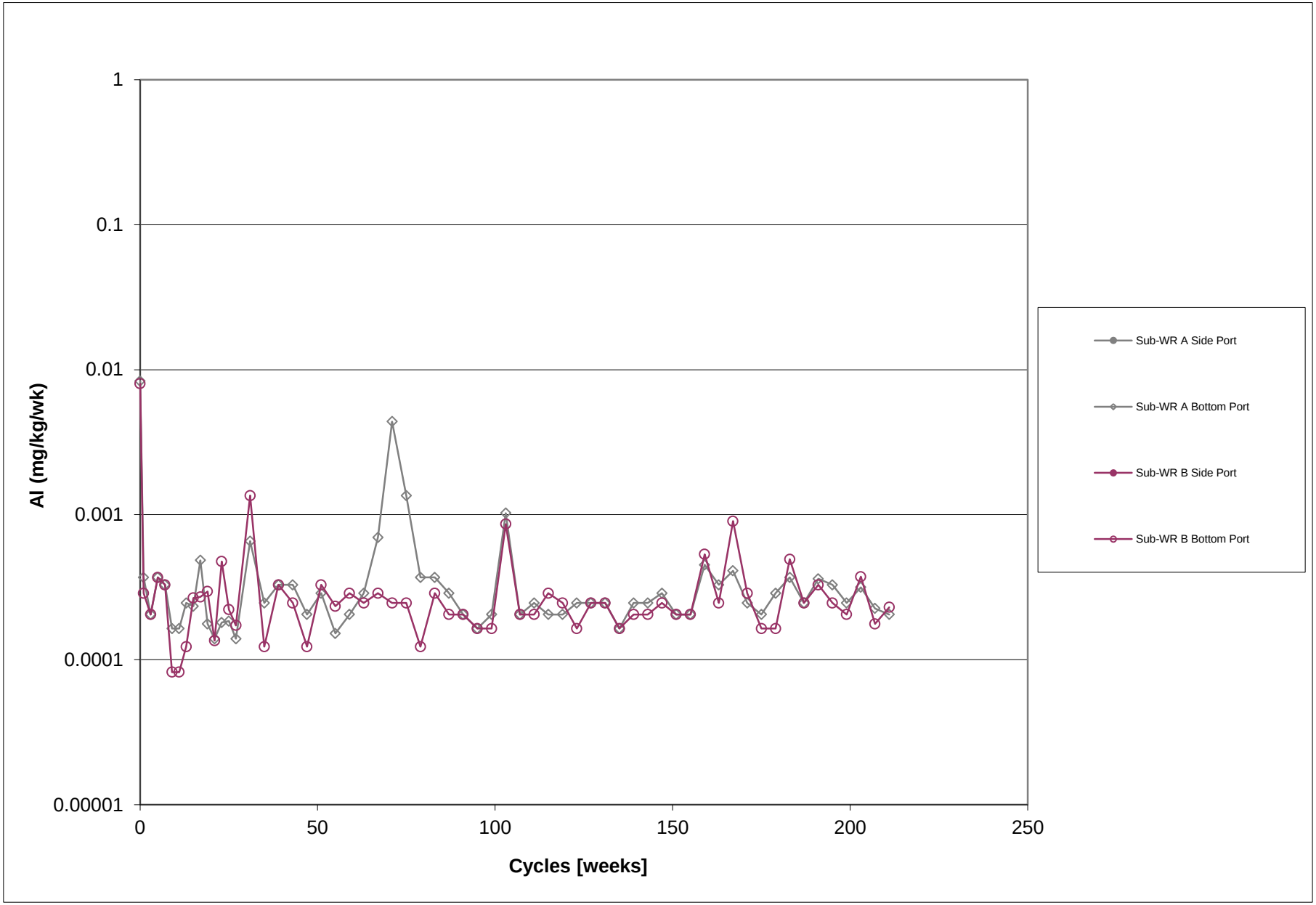

25
20
15
10
5
0
0
50
100
150
200
250
Alkalinity (mgCaCO3/kg/wk)
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

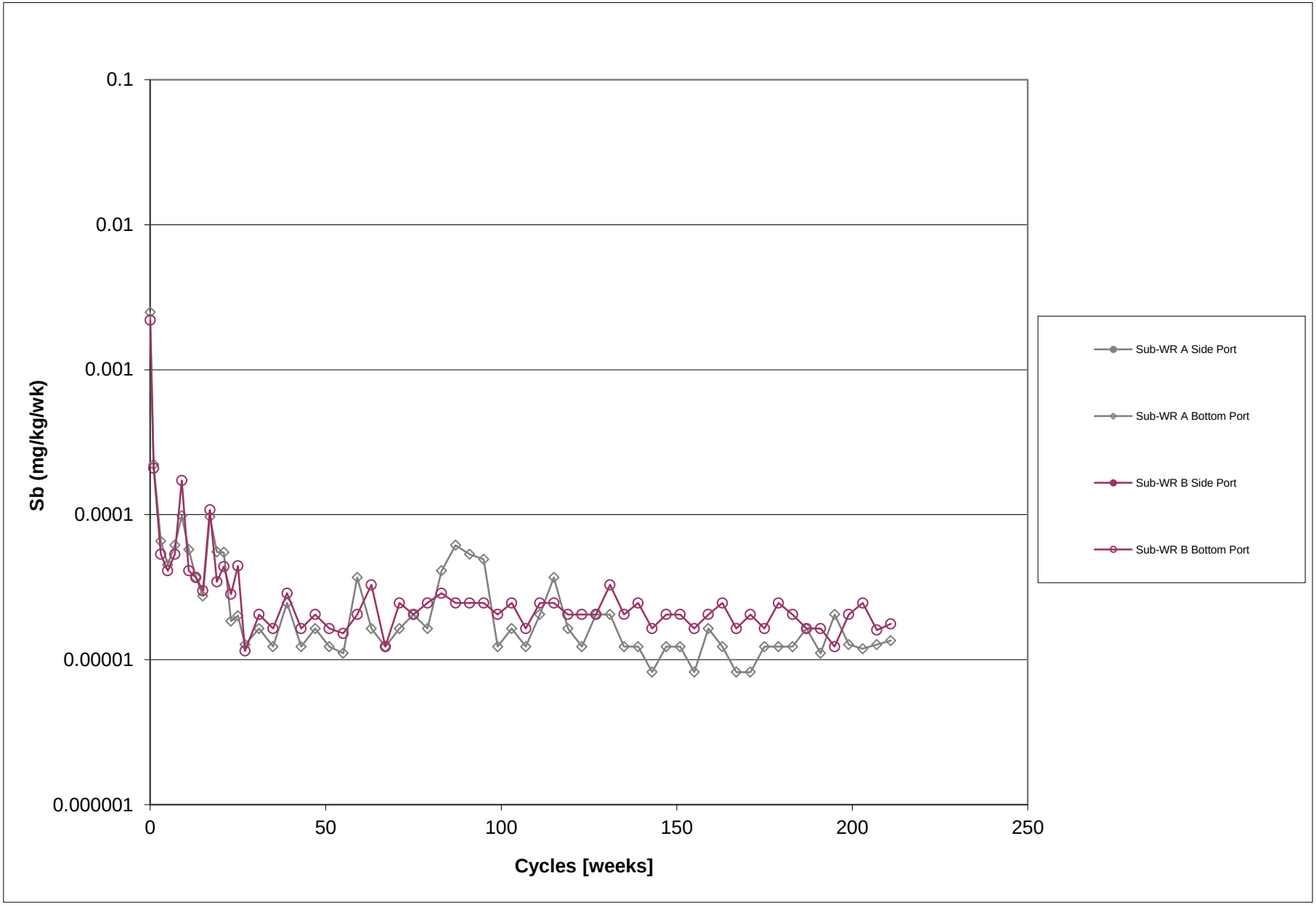

1000
100
10
1
0
50
100
150
200
250
SO4 (mg/kg/wk)
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

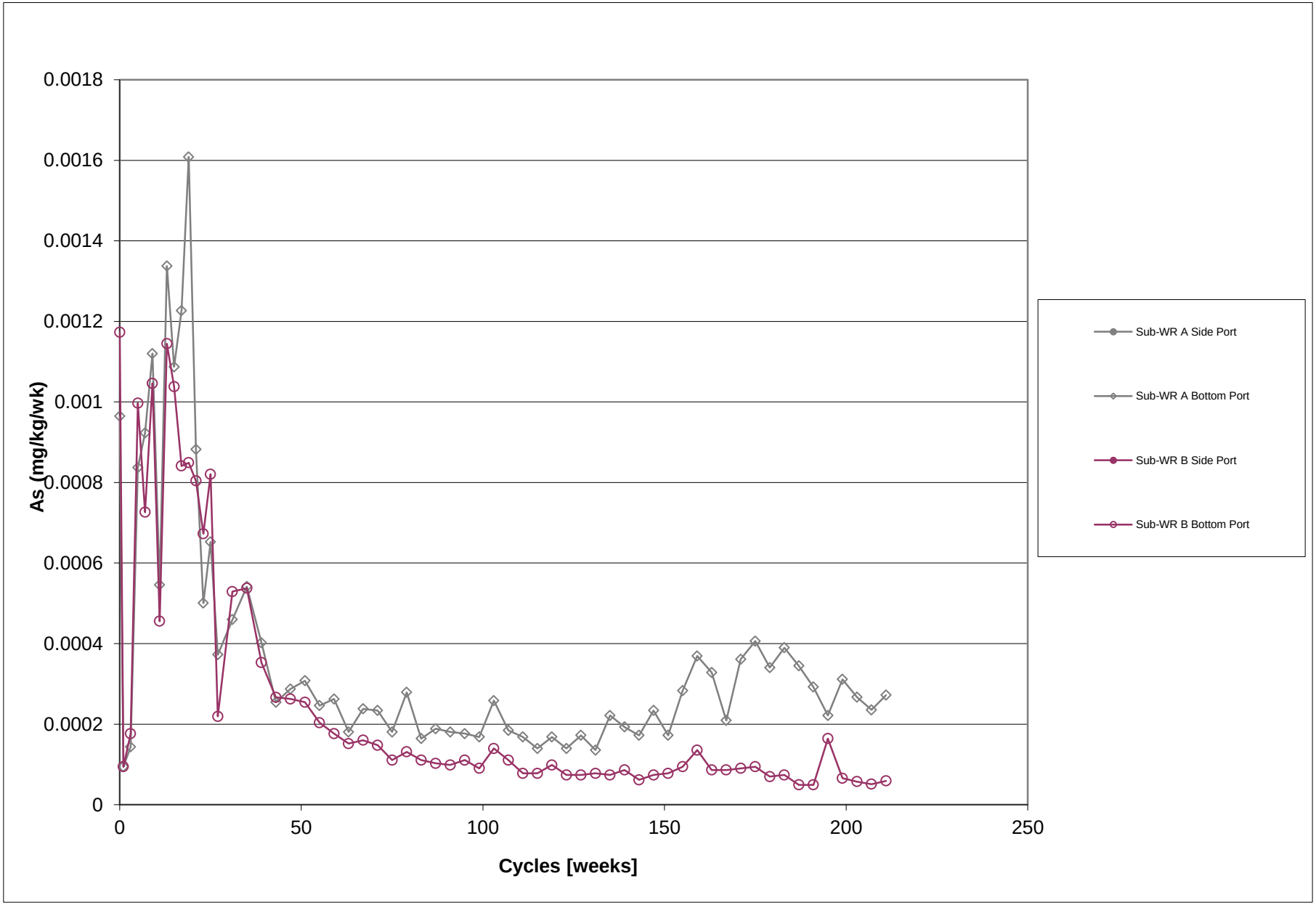

1.2
1
0.8
0.6
0.4
0.2
0
Cl (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

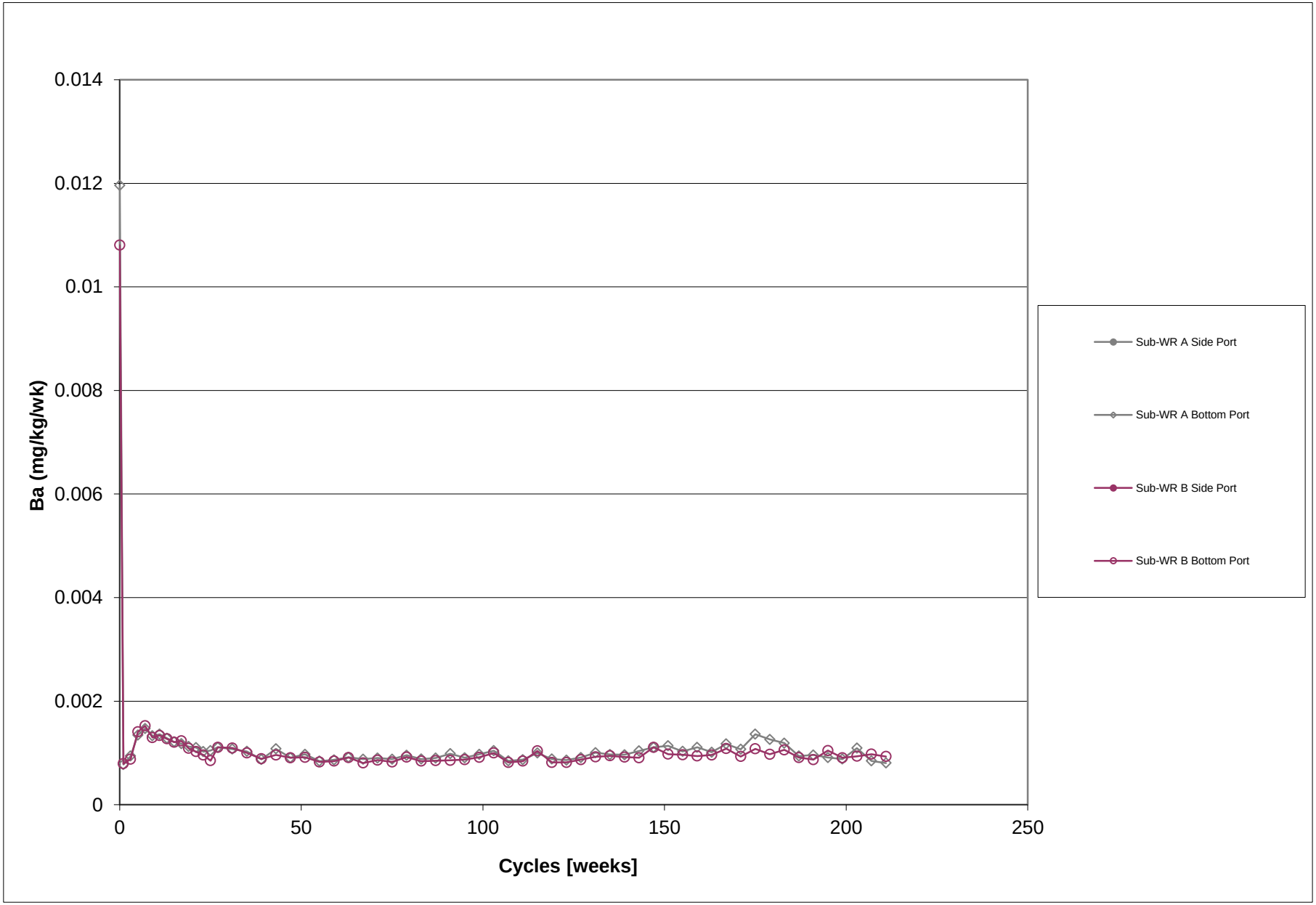

0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
F (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

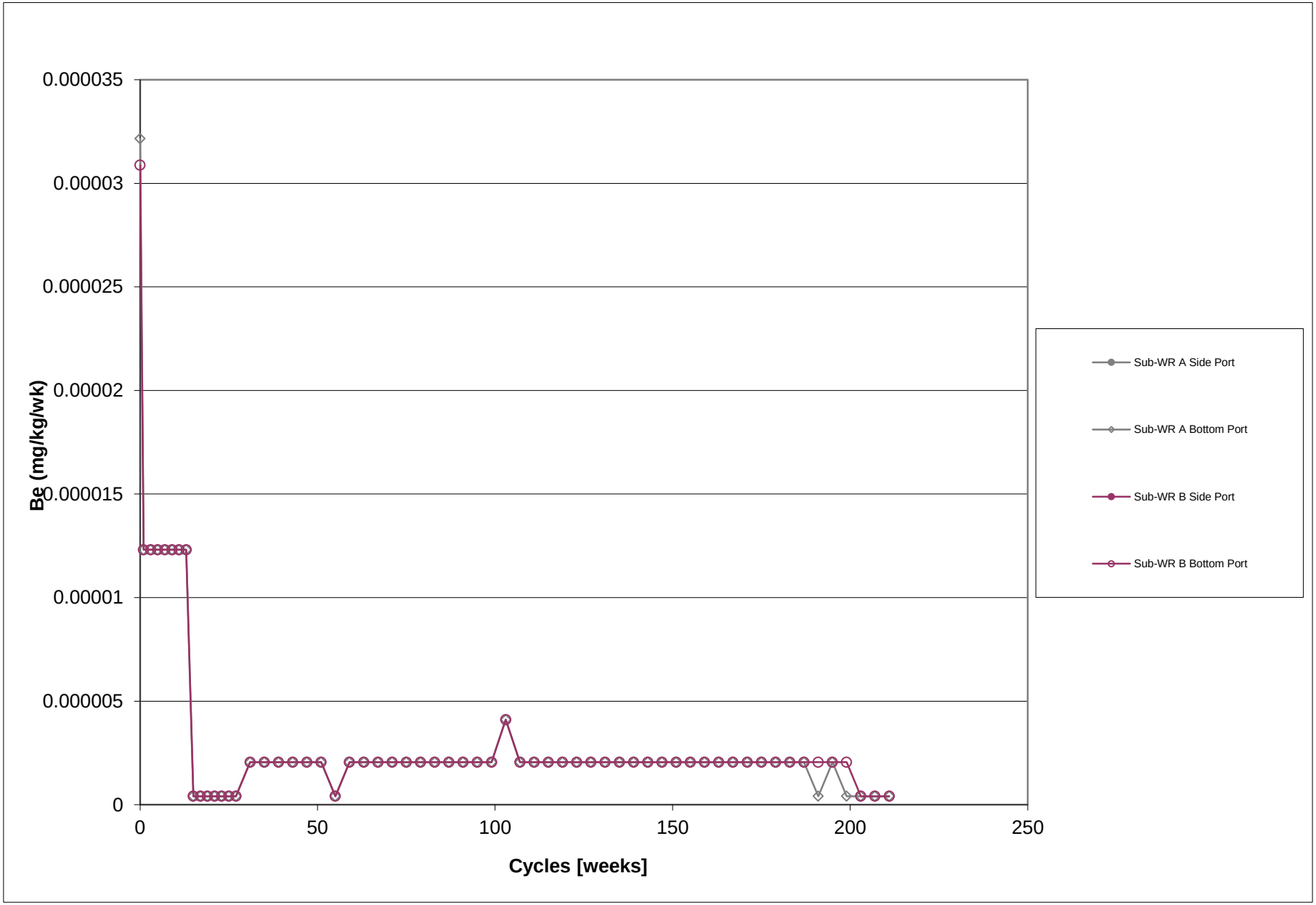

900
800
700
600
500
400
300
200
100
0
Hardness (mgCaCO3/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

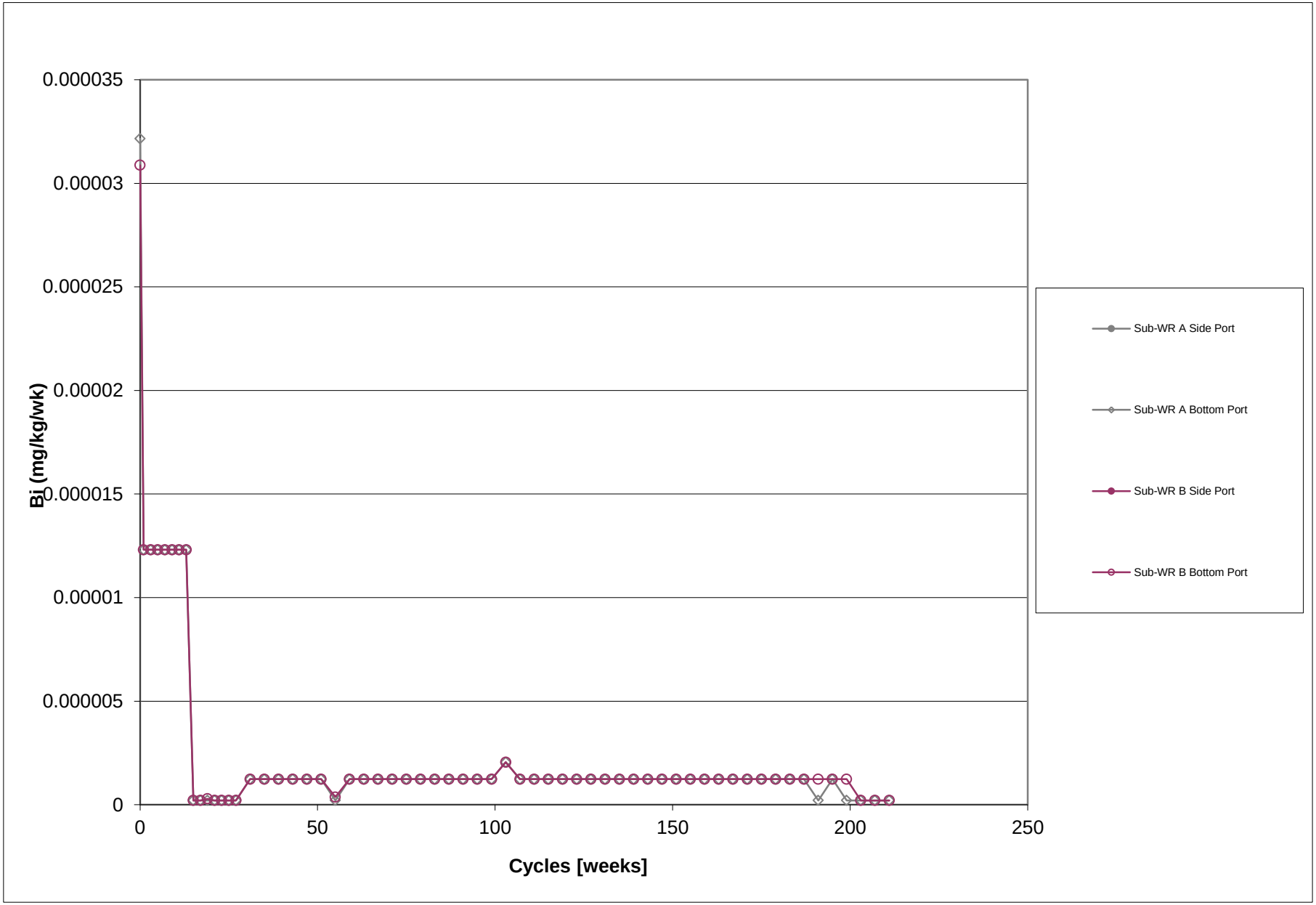

1
0.1
0.01
0.001
0.0001
0.00001
Al (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

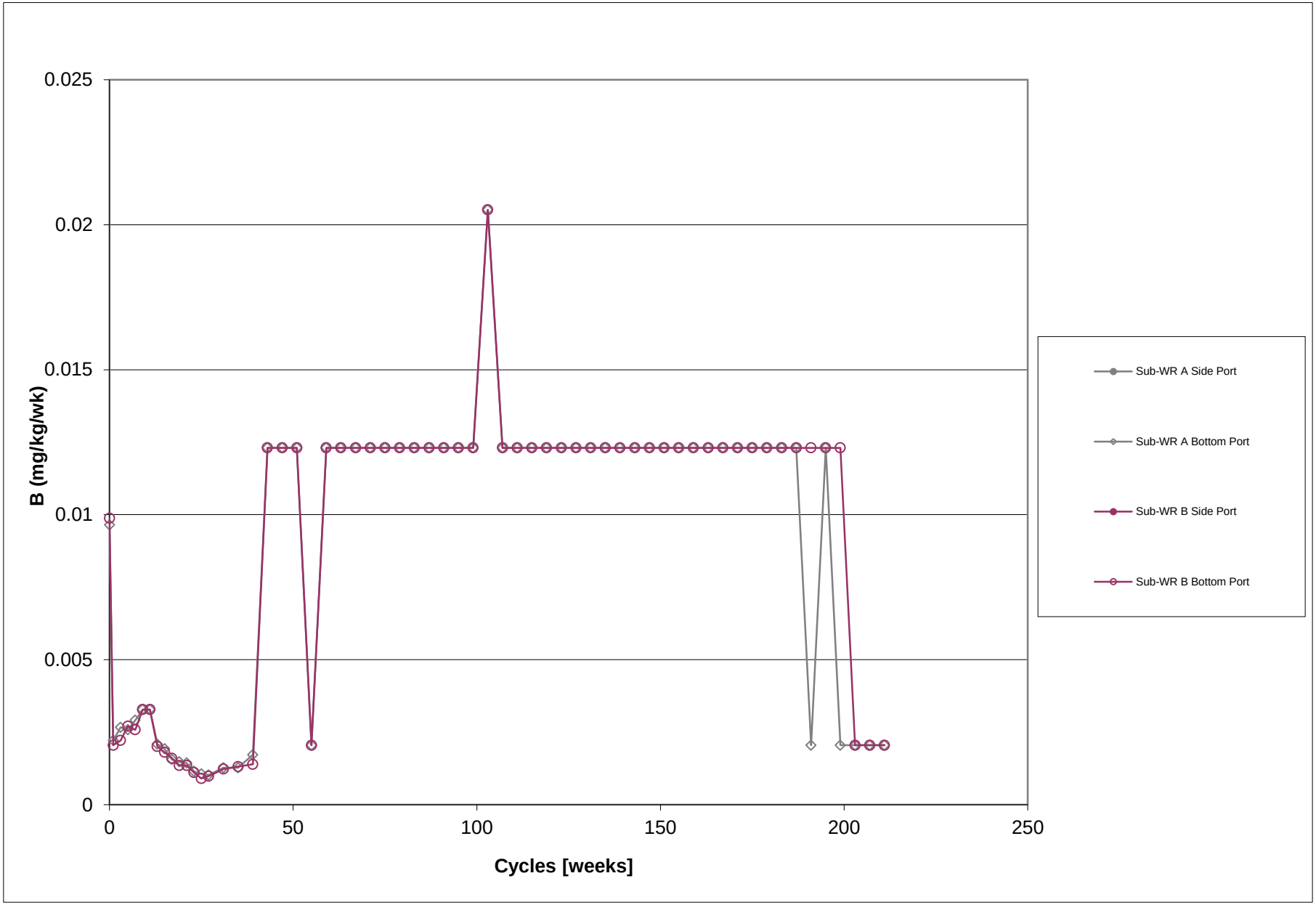

0.1
0.01
0.001
0.0001
0.00001
0.000001
Sb (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

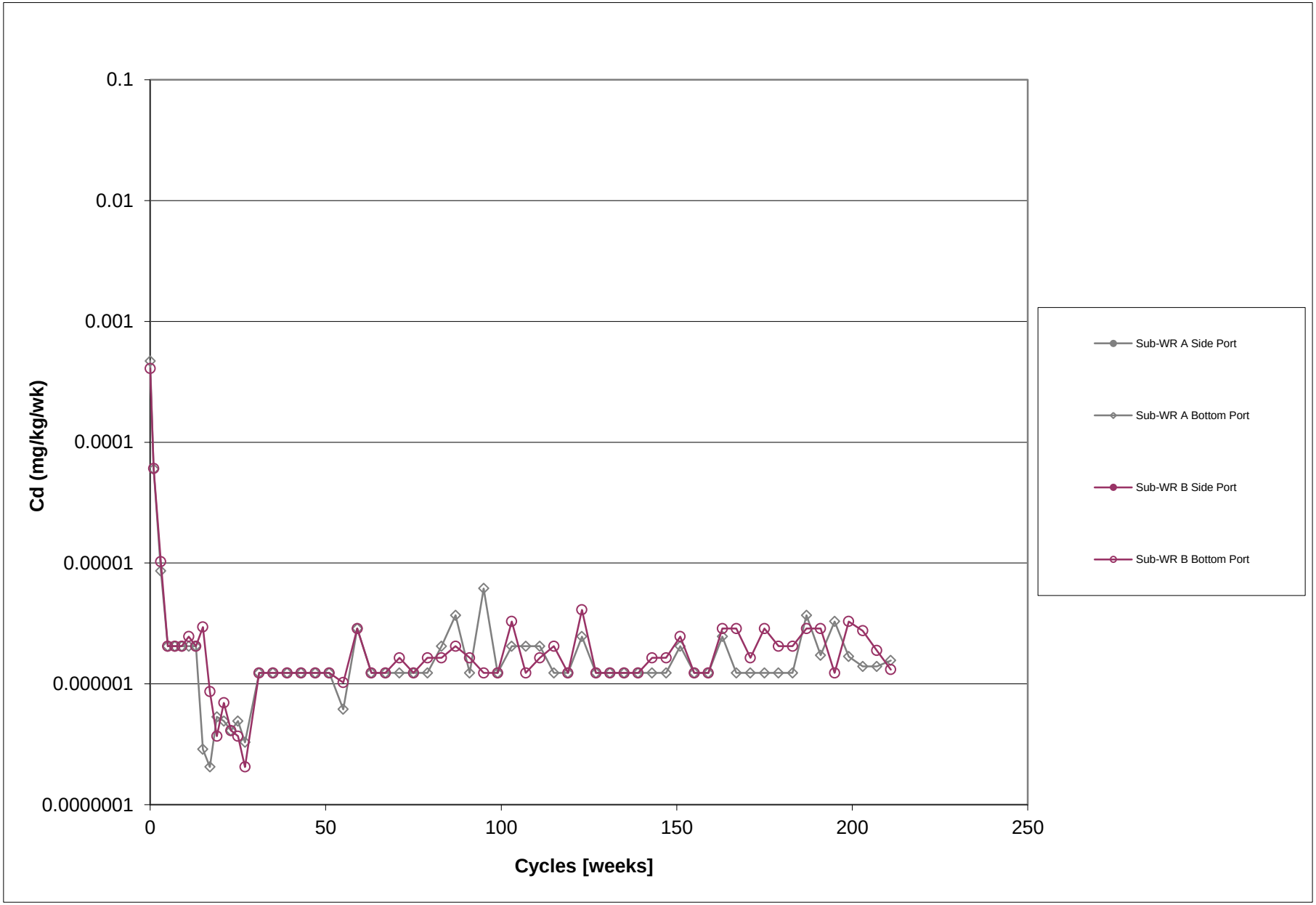

0.0018
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
As (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

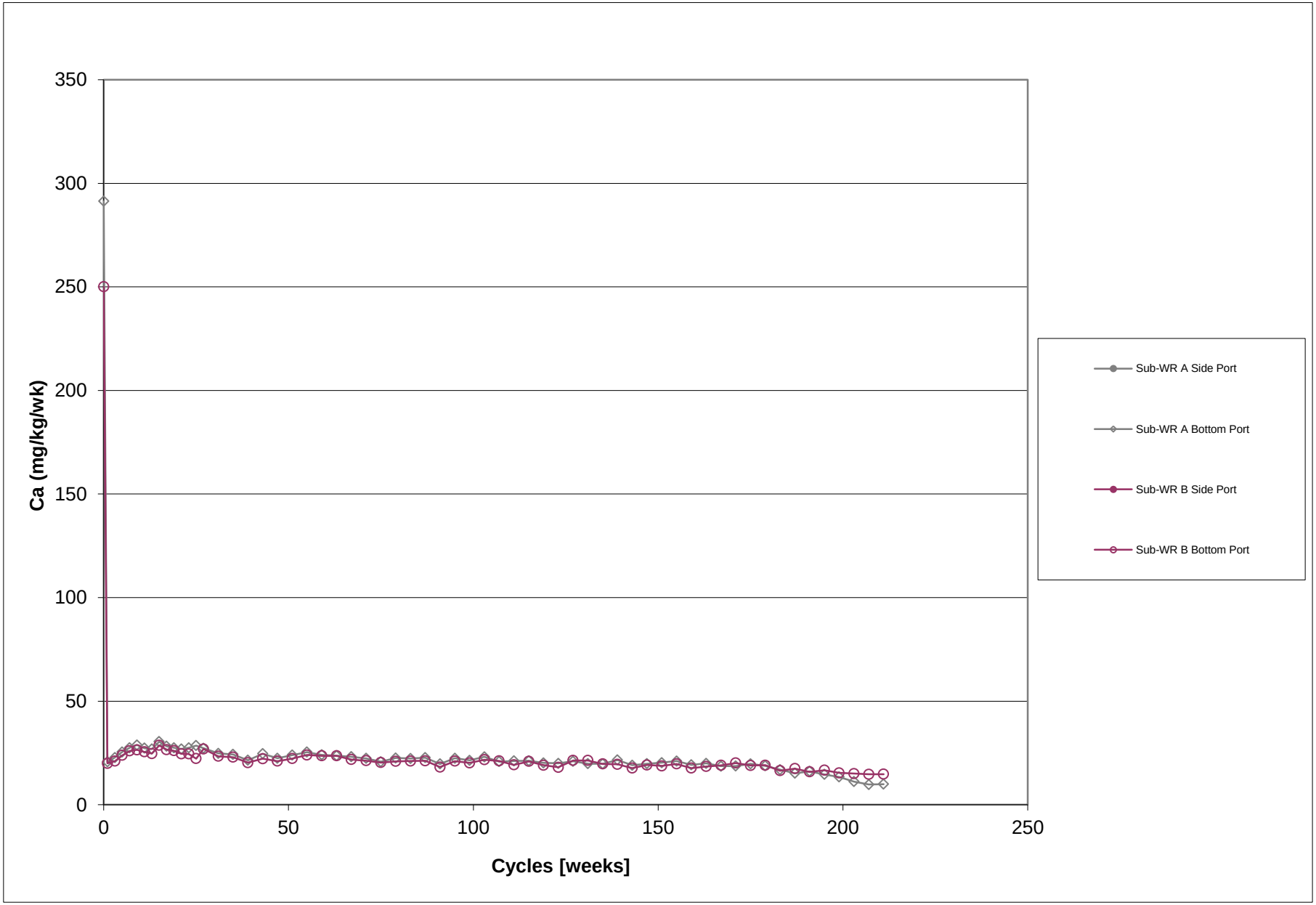

0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
Ba (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

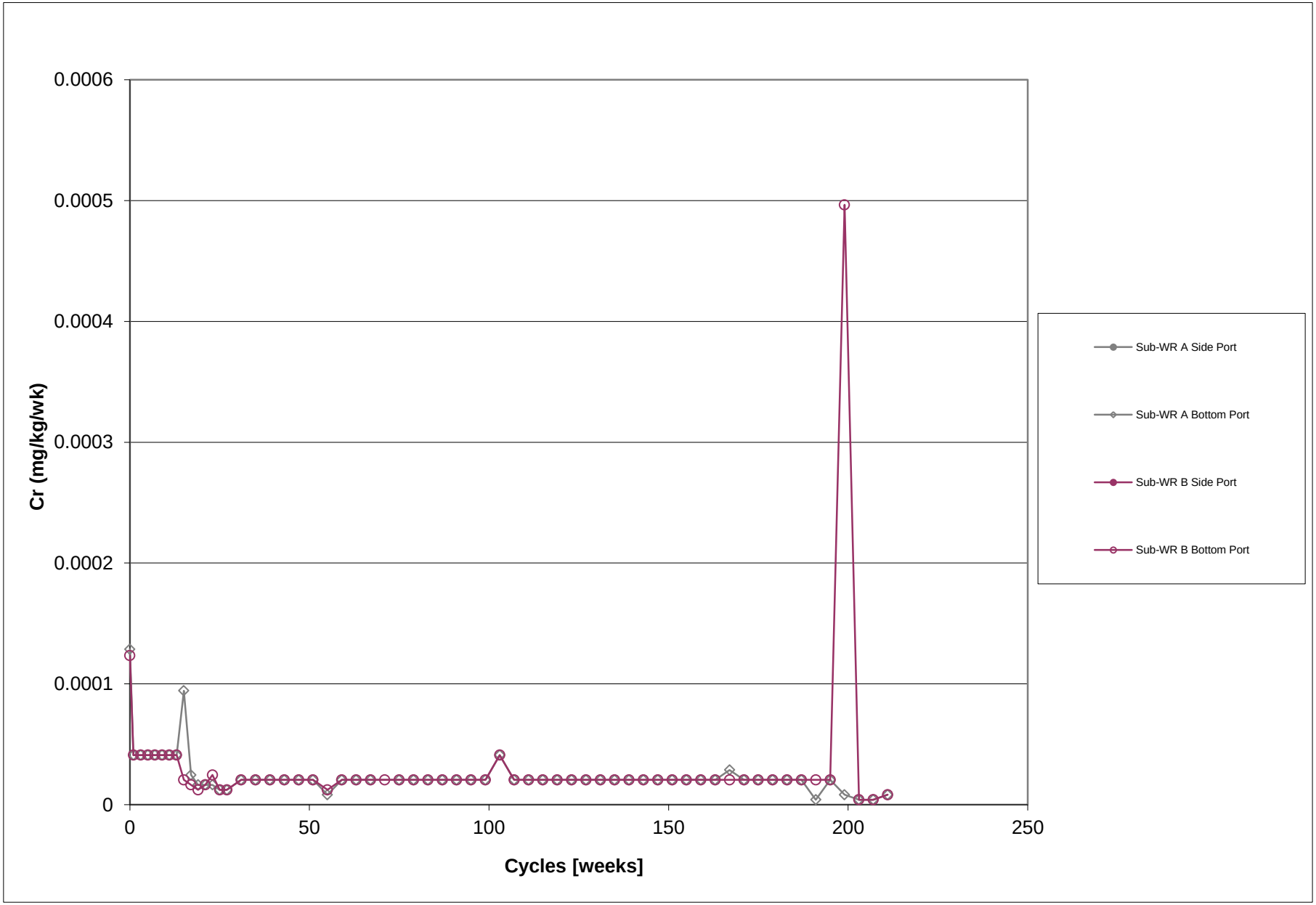

0.000035
0.00003
0.000025
0.00002
0.000015
0.00001
0.000005
0
Be (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

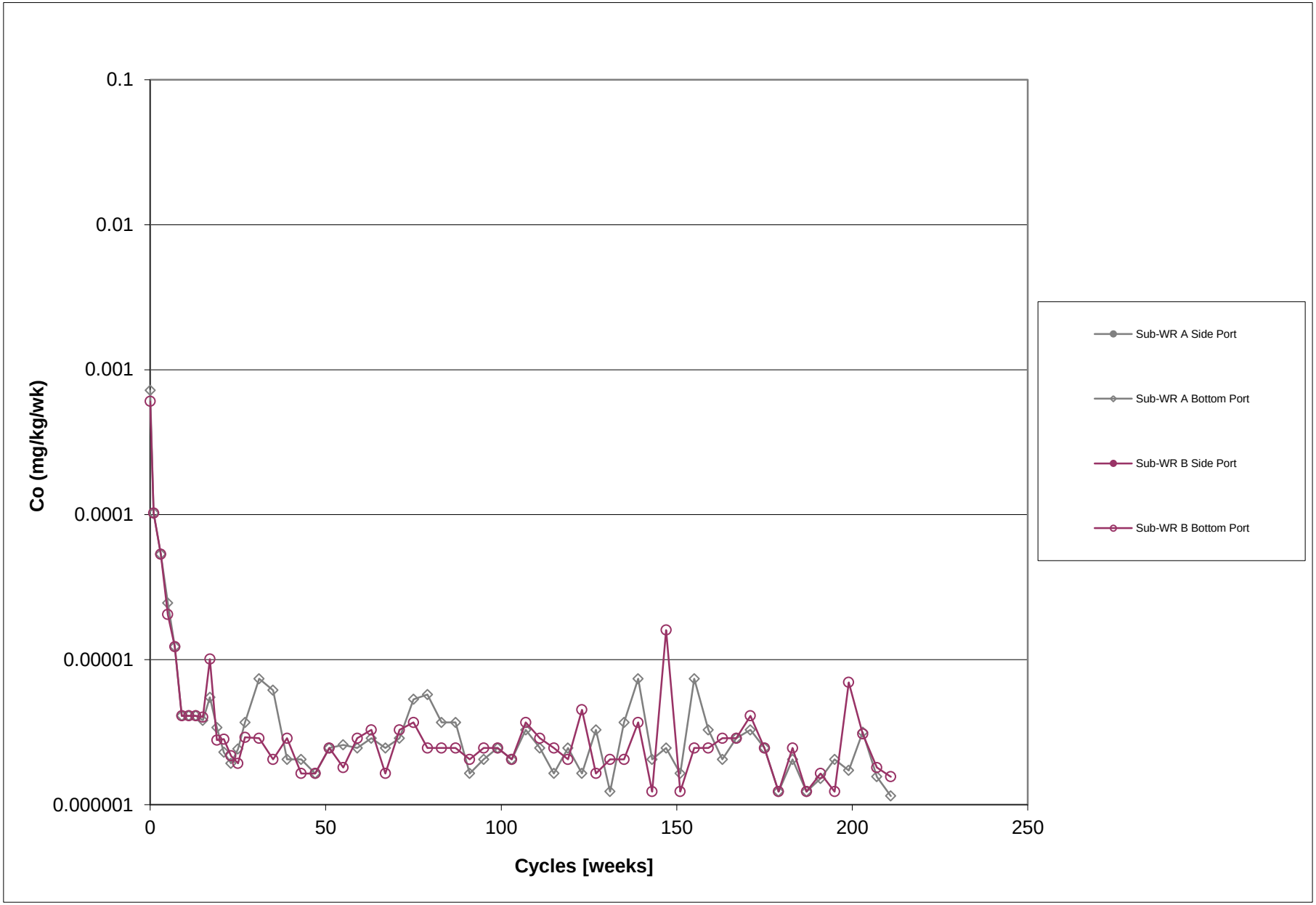

0.000035
0.00003
0.000025
0.00002
0.000015
0.00001
0.000005
0
Bi (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

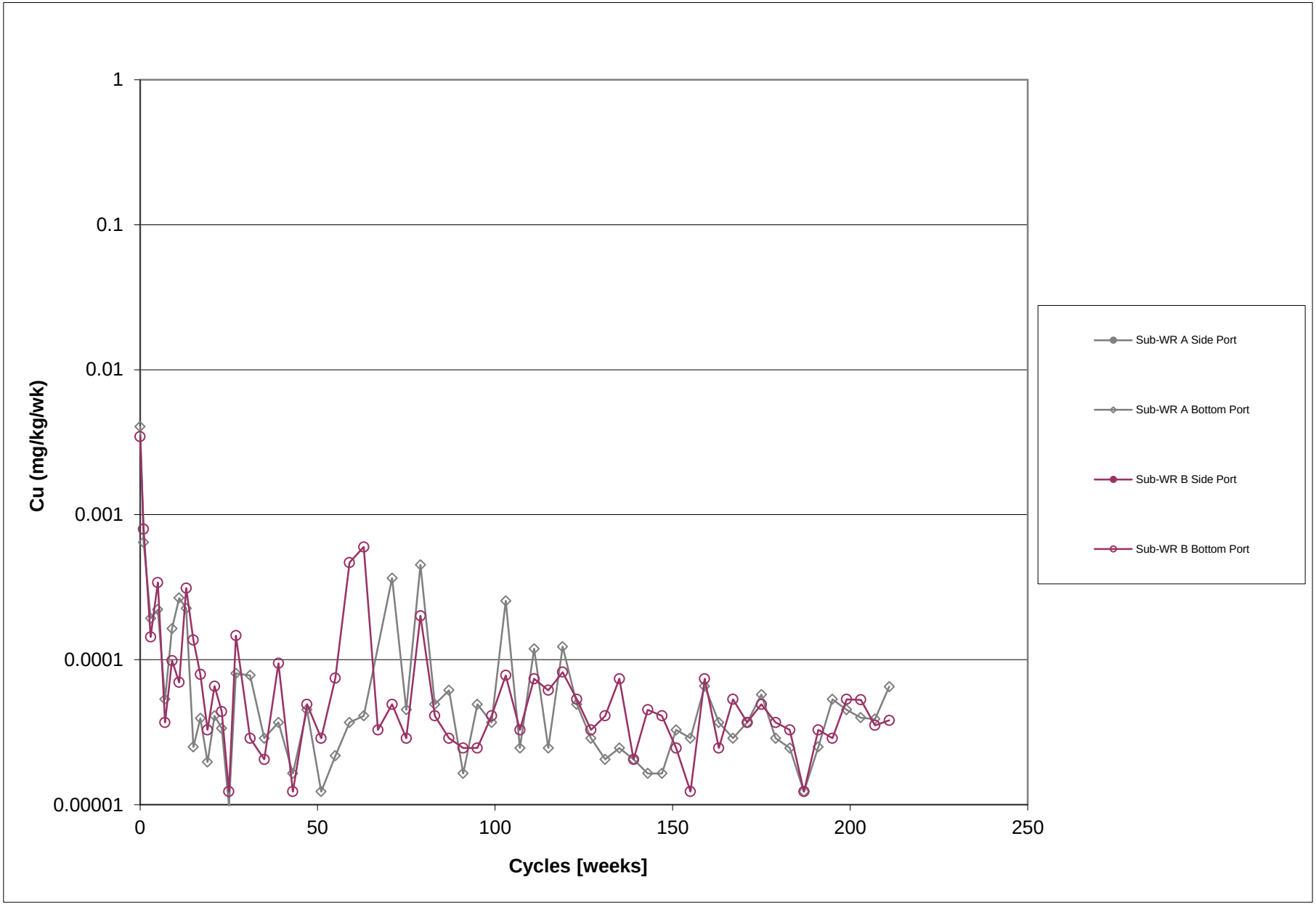

0.025
0.02
0.015
0.01
0.005
0
B (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

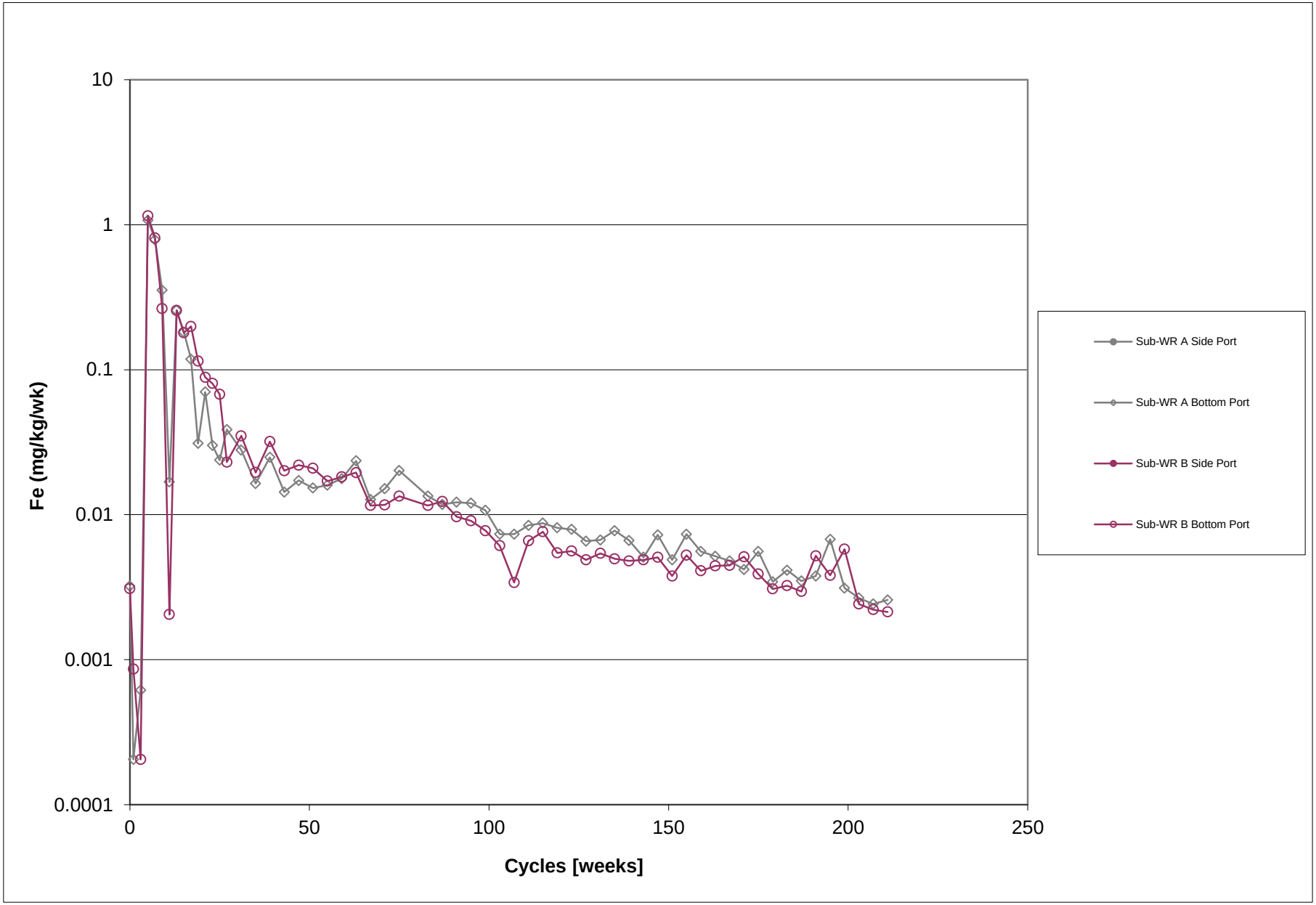

0.1
0.01
0.001
0.0001
0.00001
0.000001
0.0000001
Cd (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

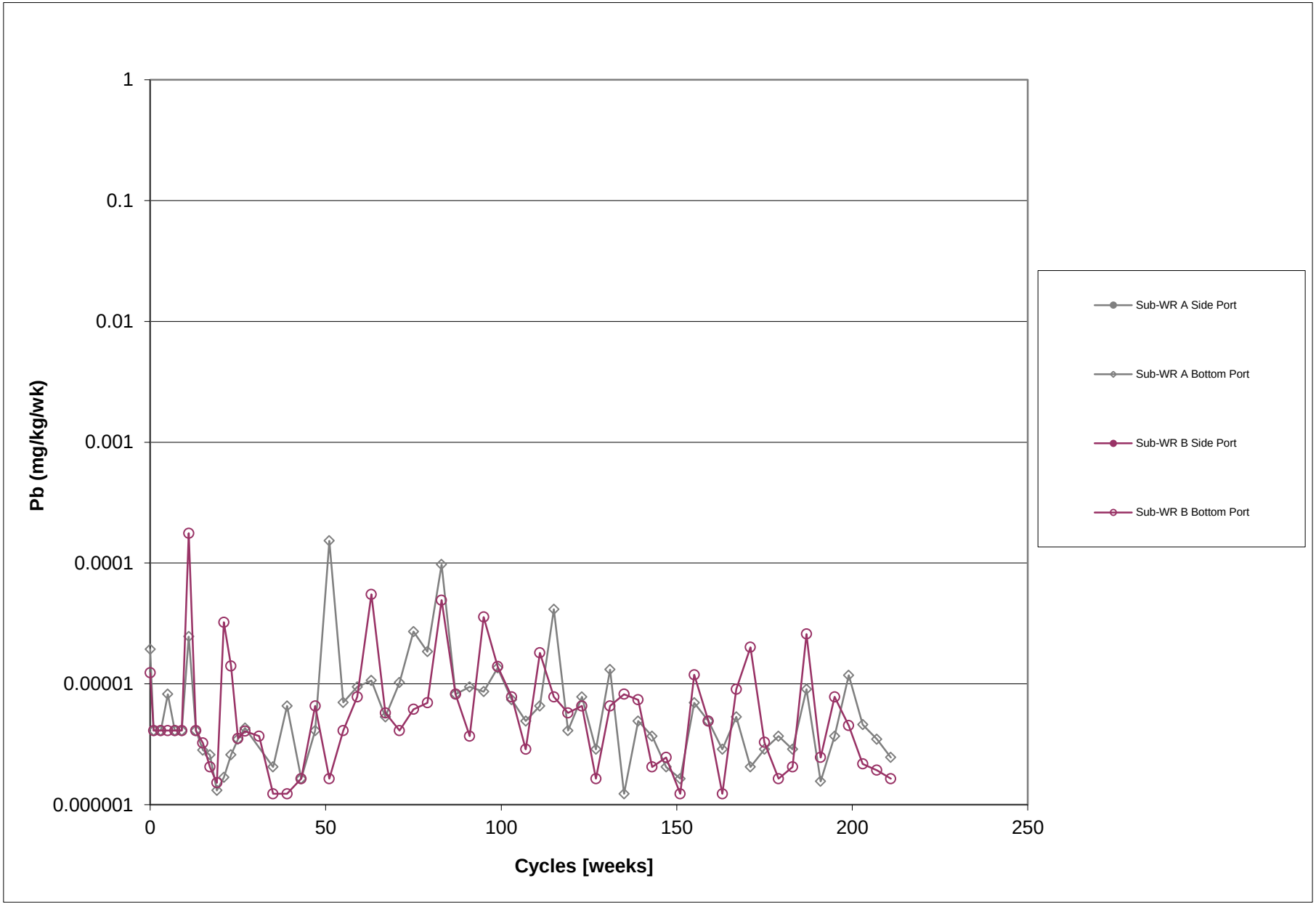

350
300
250
200
150
100
50
0
Ca (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

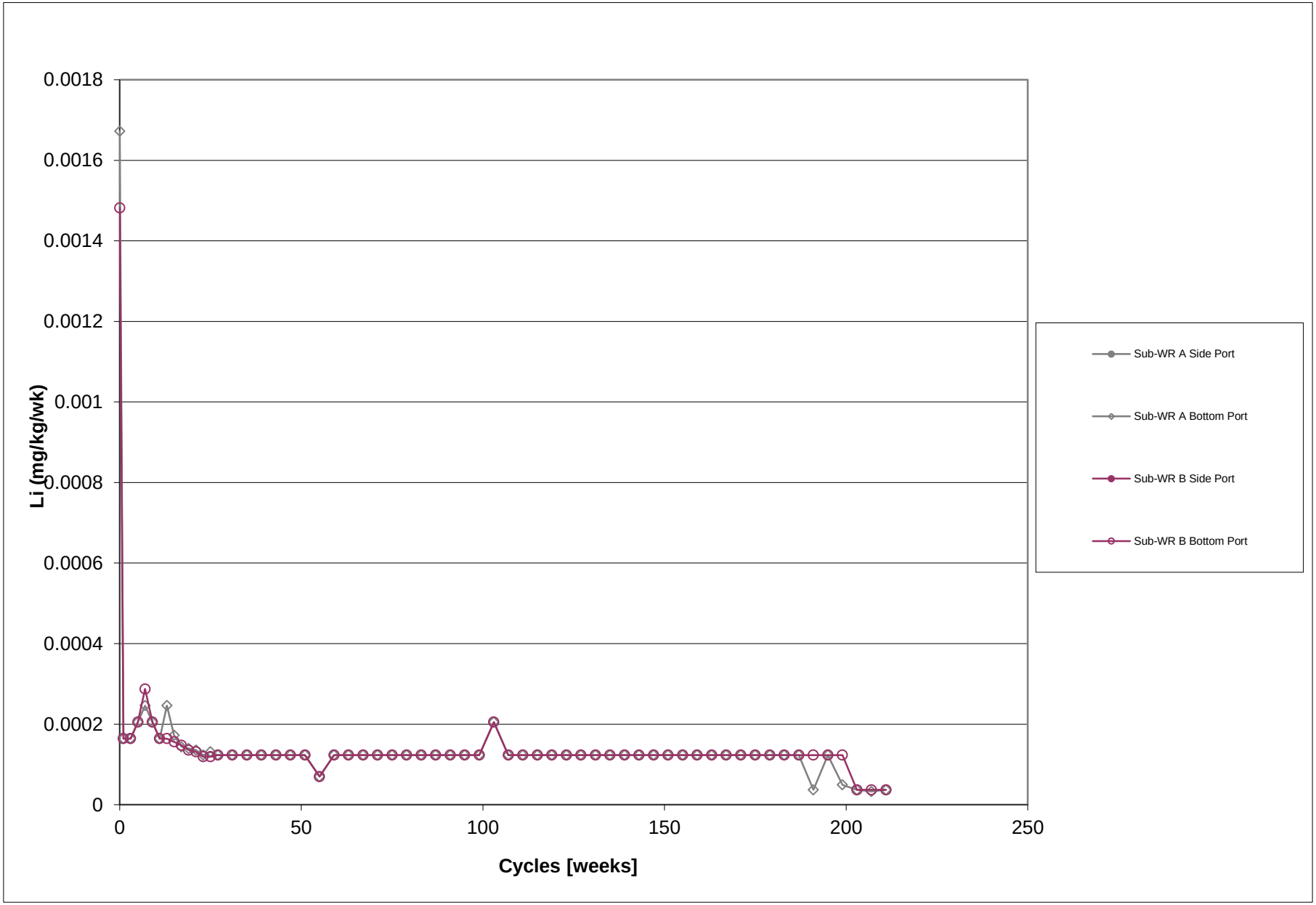

0.0006
0.0005
0.0004
0.0003
0.0002
0.0001
0
Cr (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

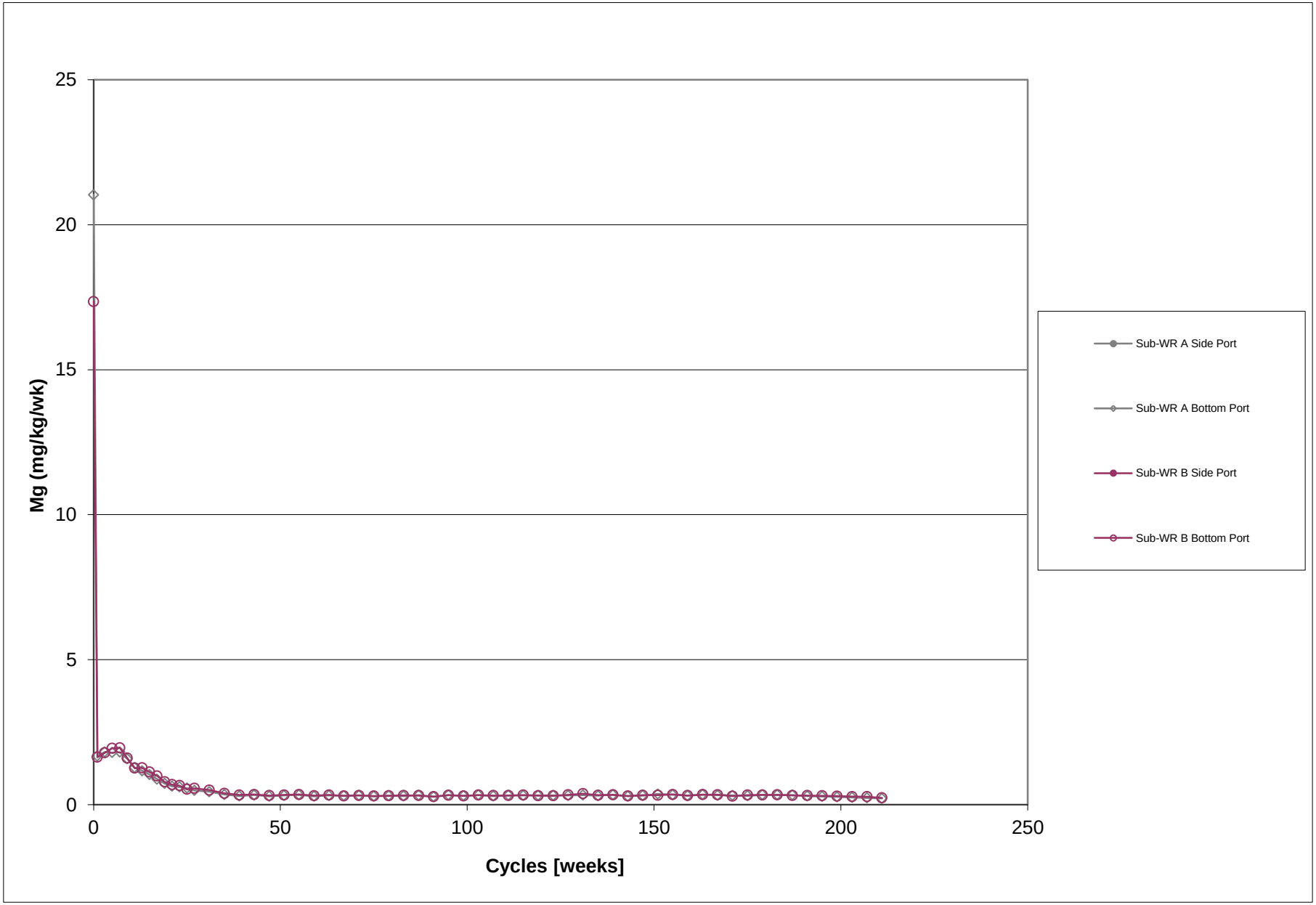

0.1
0.01
0.001
0.0001
0.00001
0.000001
Co (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

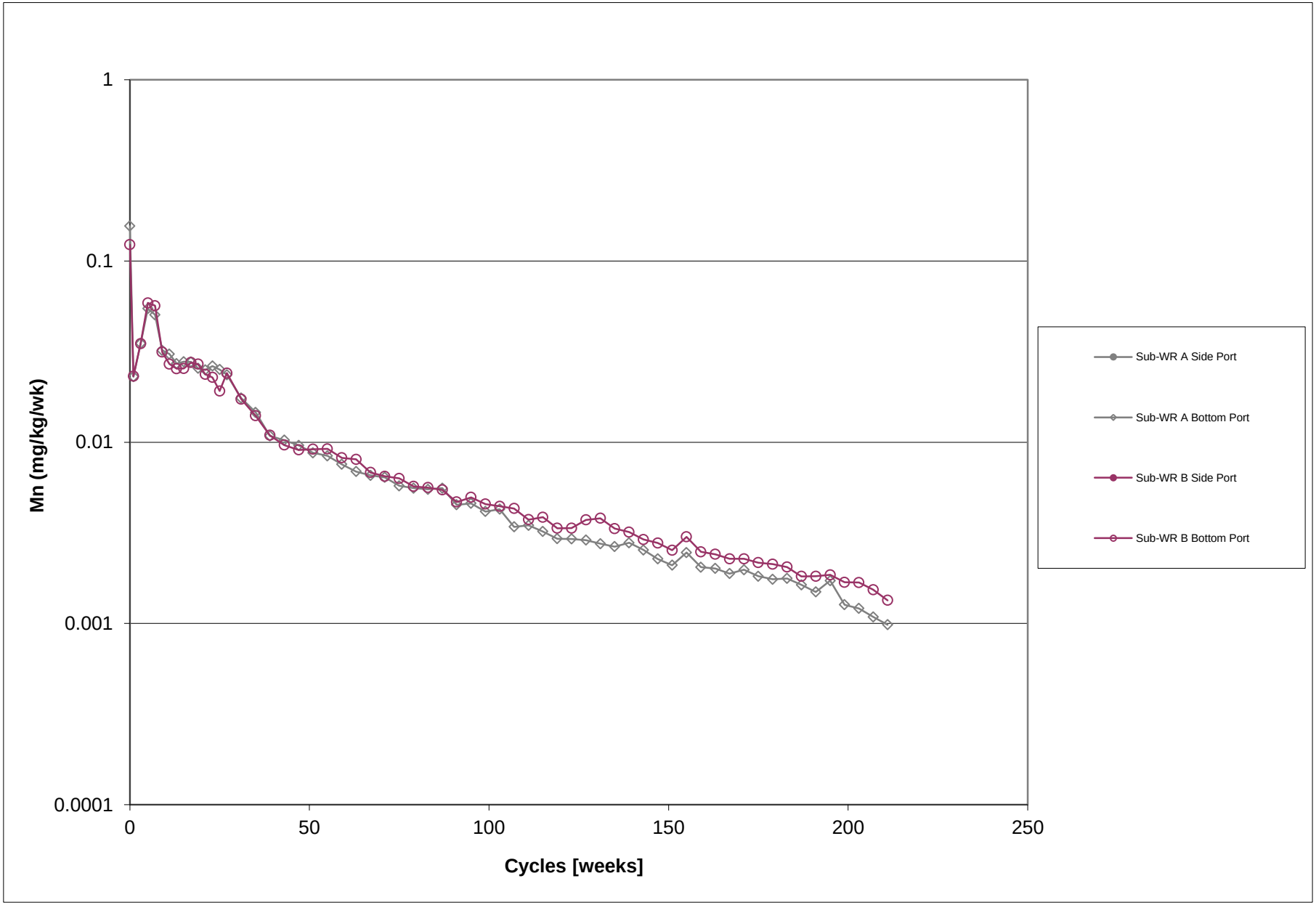

1
0.1
0.01
0.001
0.0001
0.00001
Cu (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

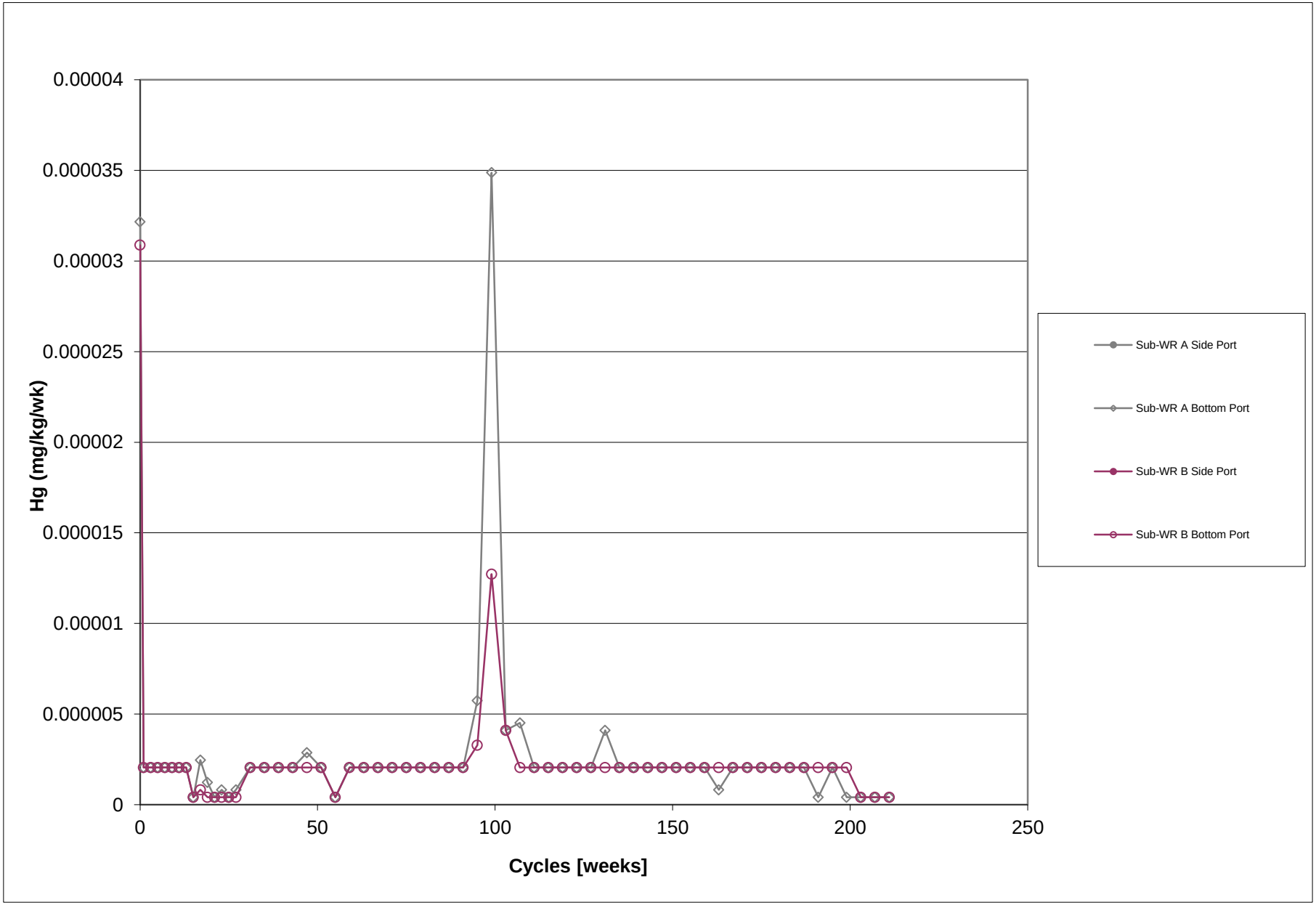

10
1
0.1
0.01
0.001
0.0001
Fe (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

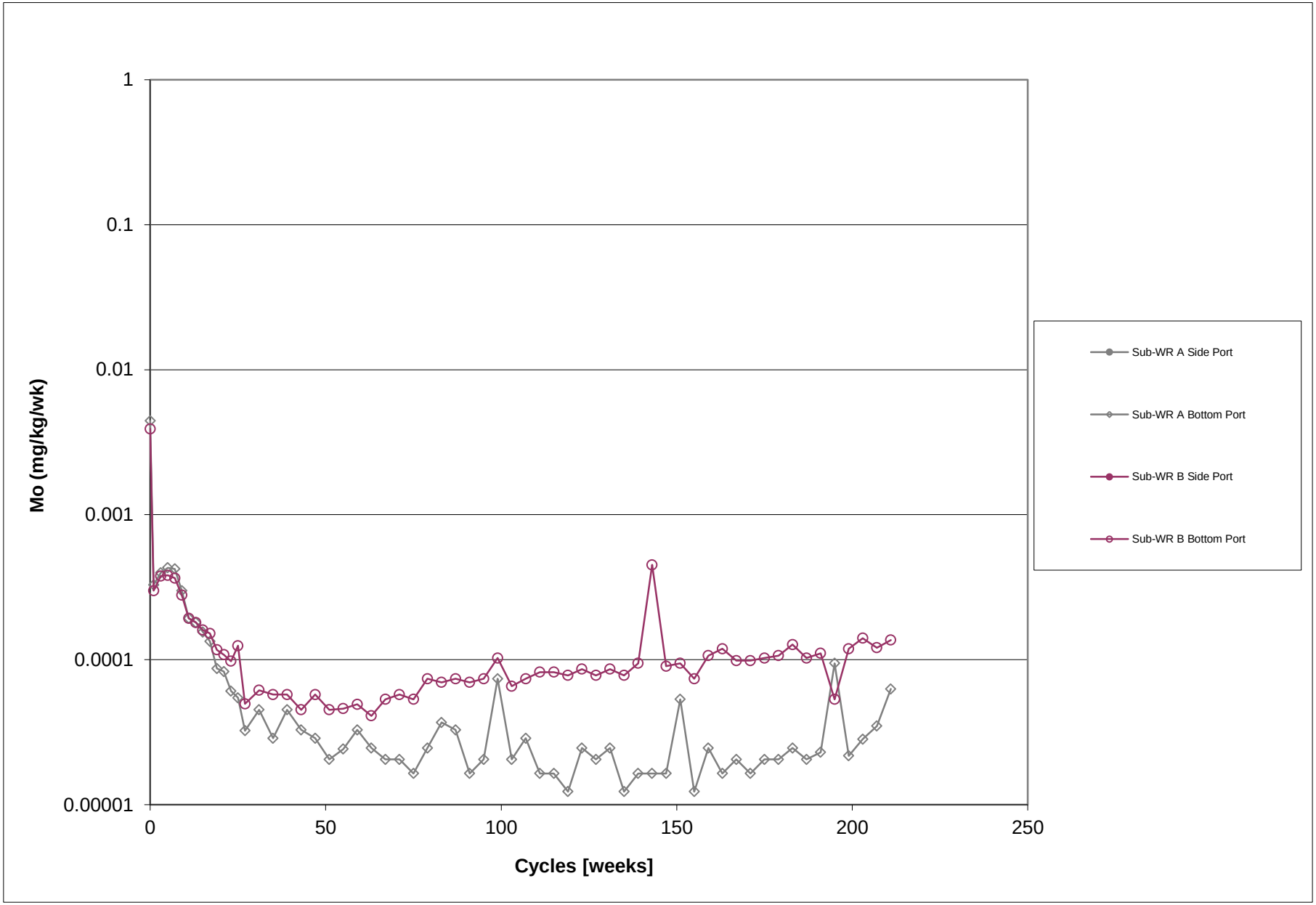

1
0.1
0.01
0.001
0.0001
0.00001
0.000001
Pb (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

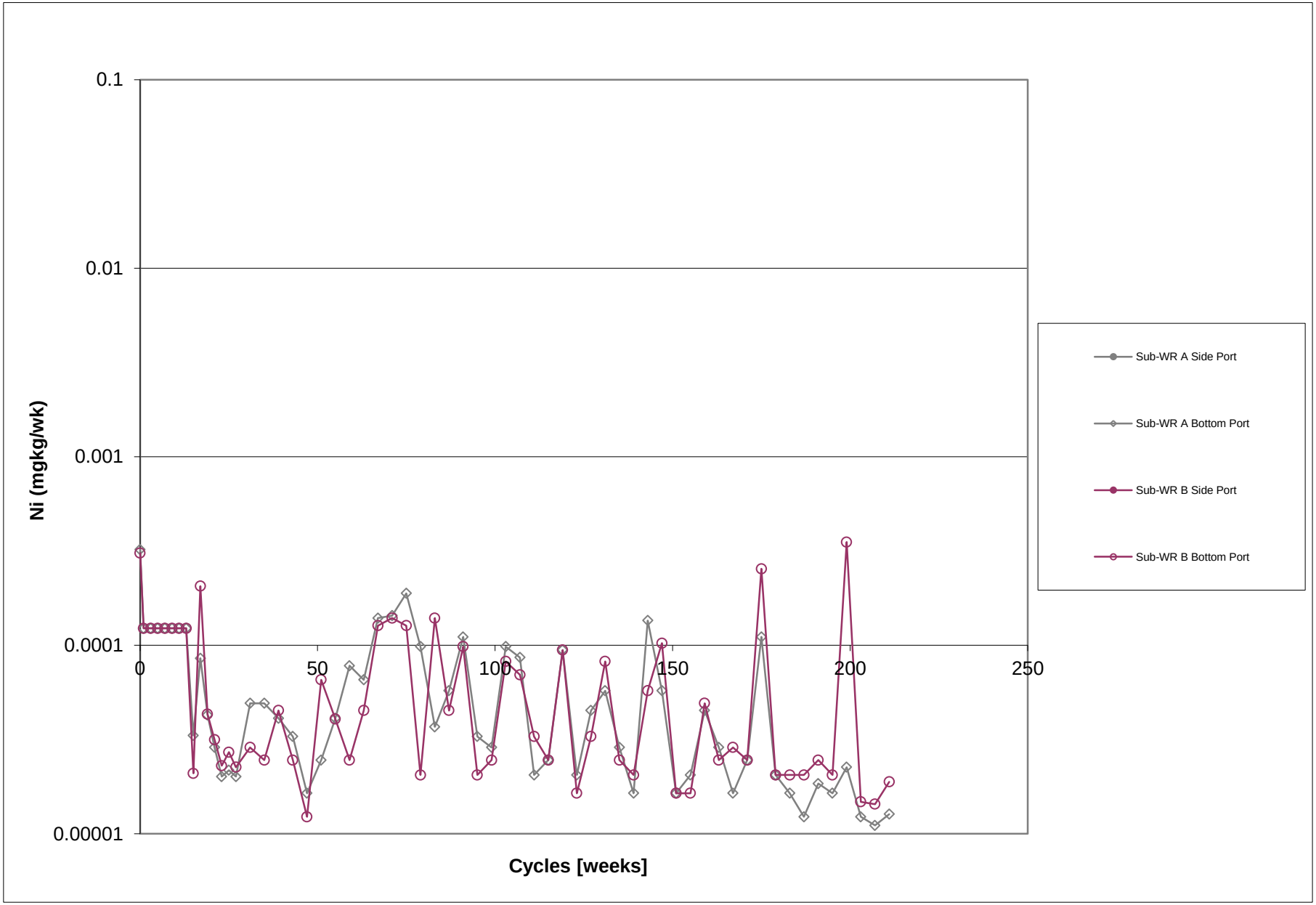

0.0018
0.0016
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
Li (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

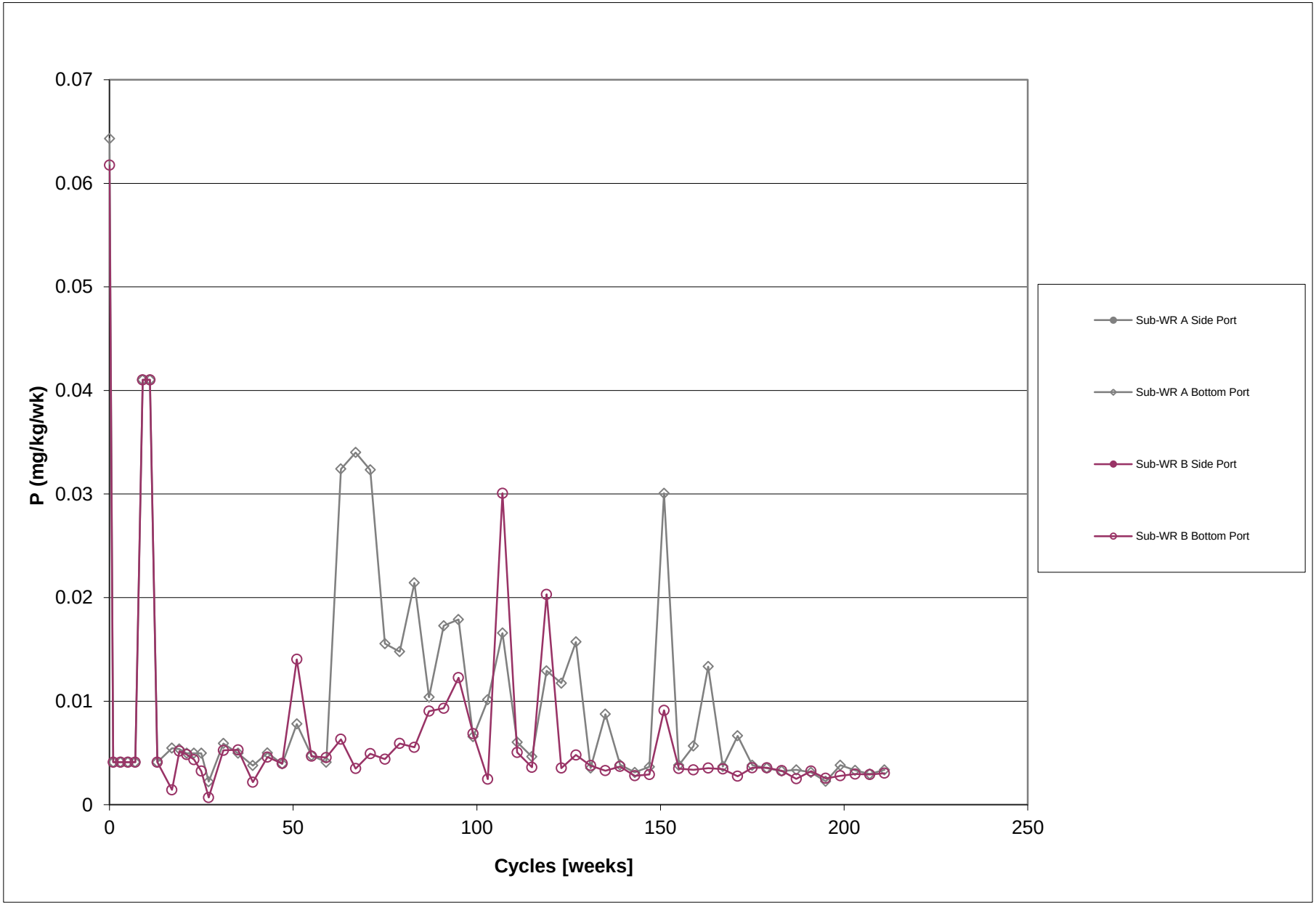

25
20
15
10
5
0
Mg (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

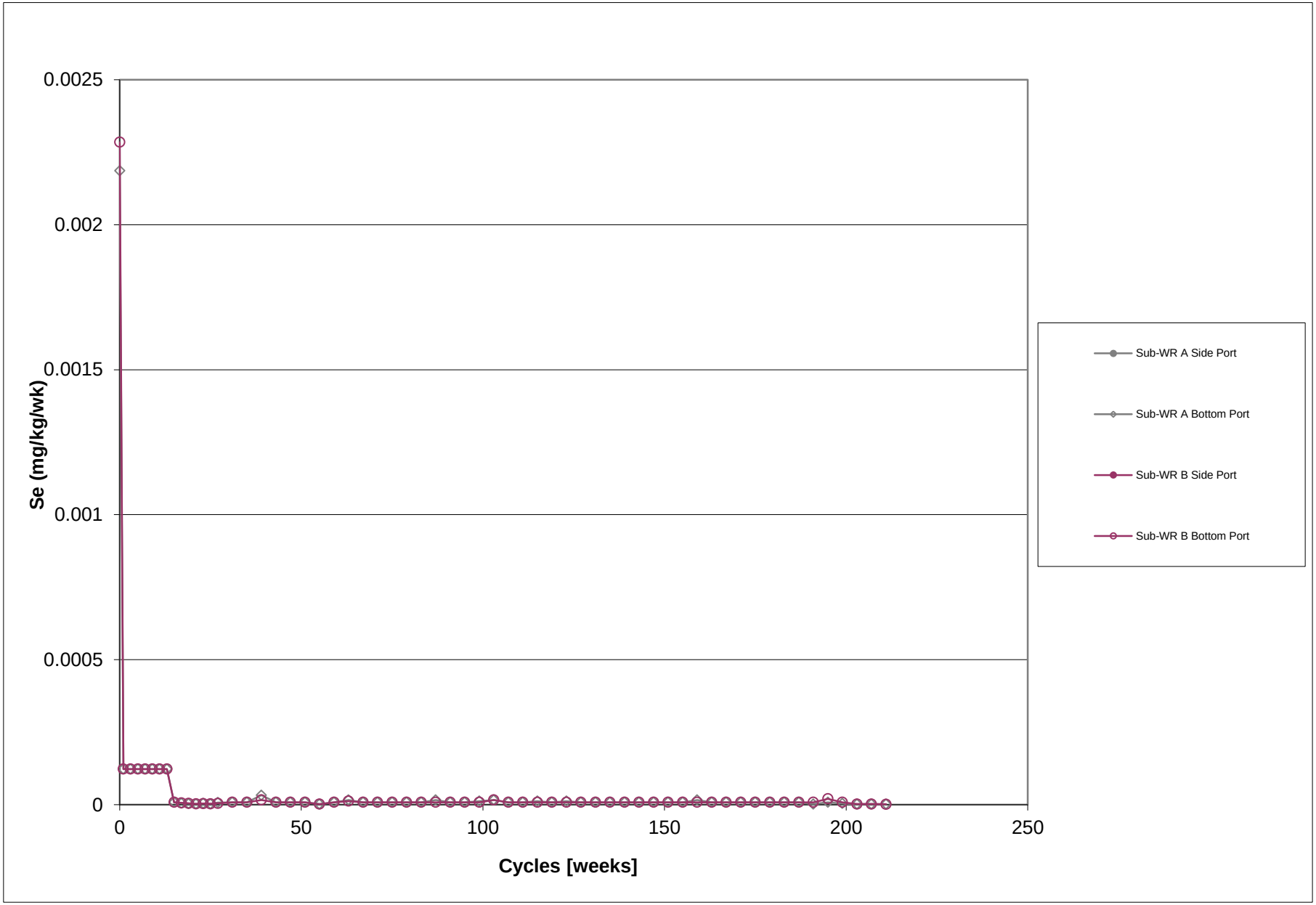

1
0.1
0.01
0.001
0.0001
Mn (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

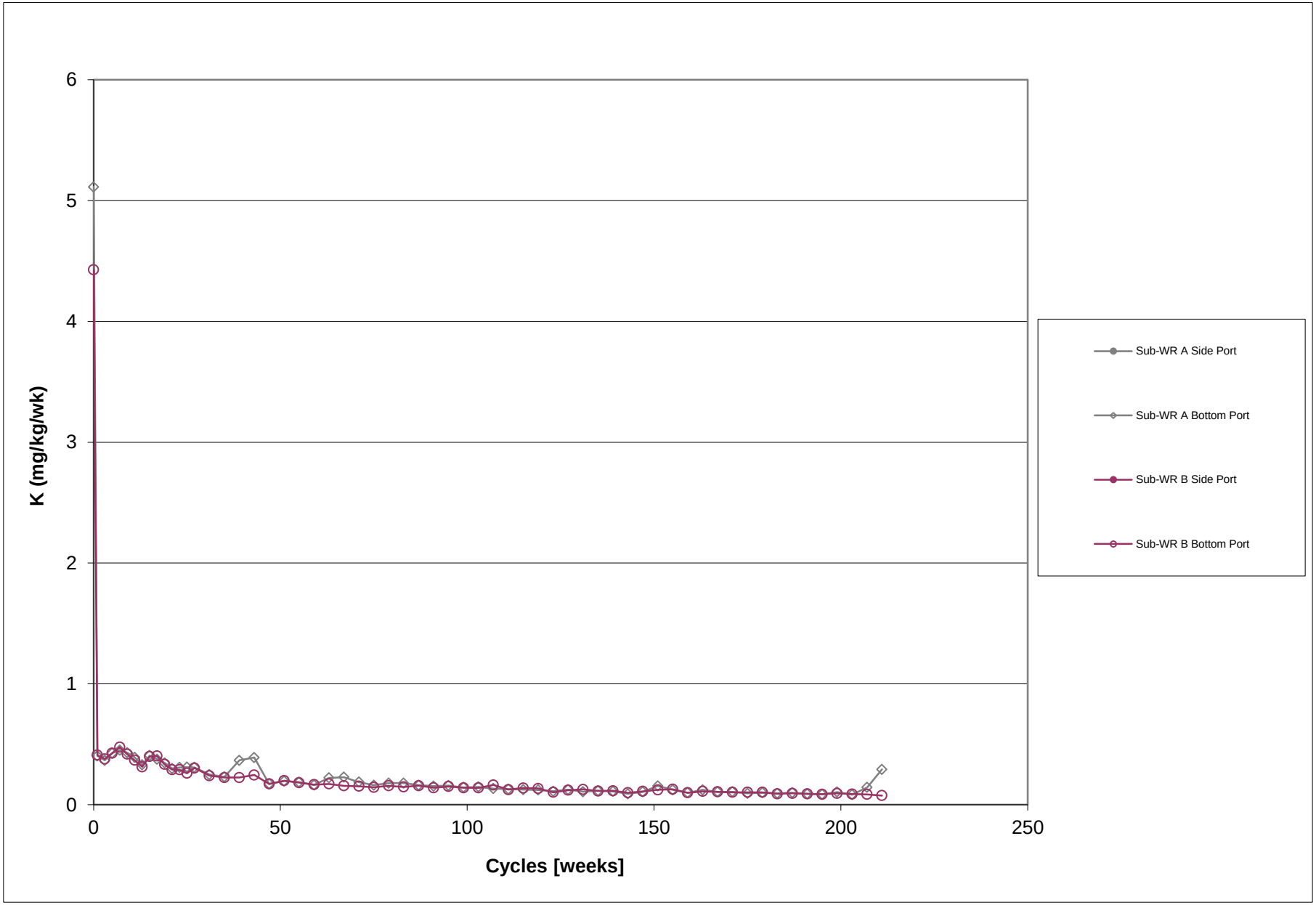

0.00004
0.000035
0.00003
0.000025
0.00002
0.000015
0.00001
0.000005
0
Hg (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

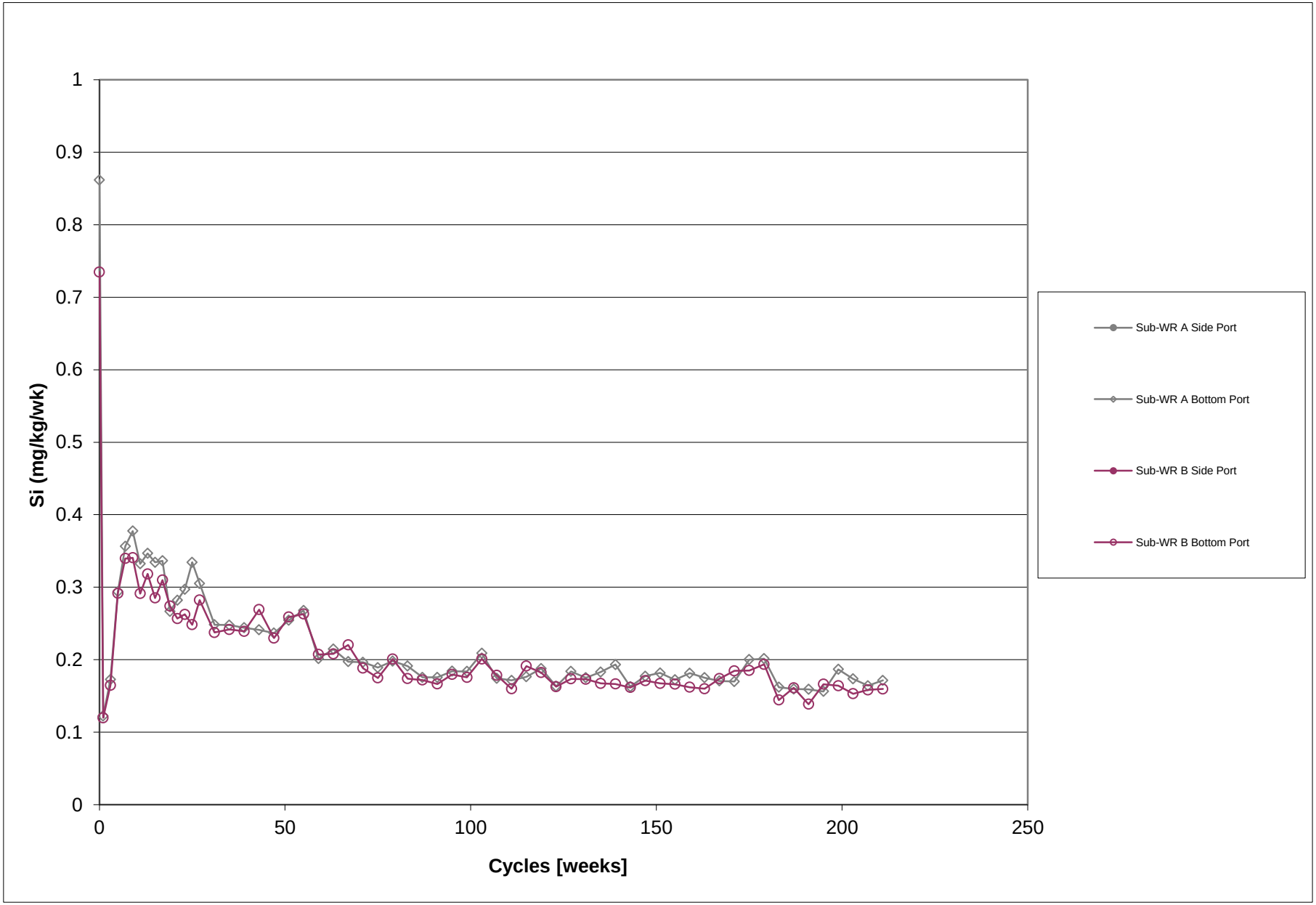

1
0.1
0.01
0.001
0.0001
0.00001
Mo (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

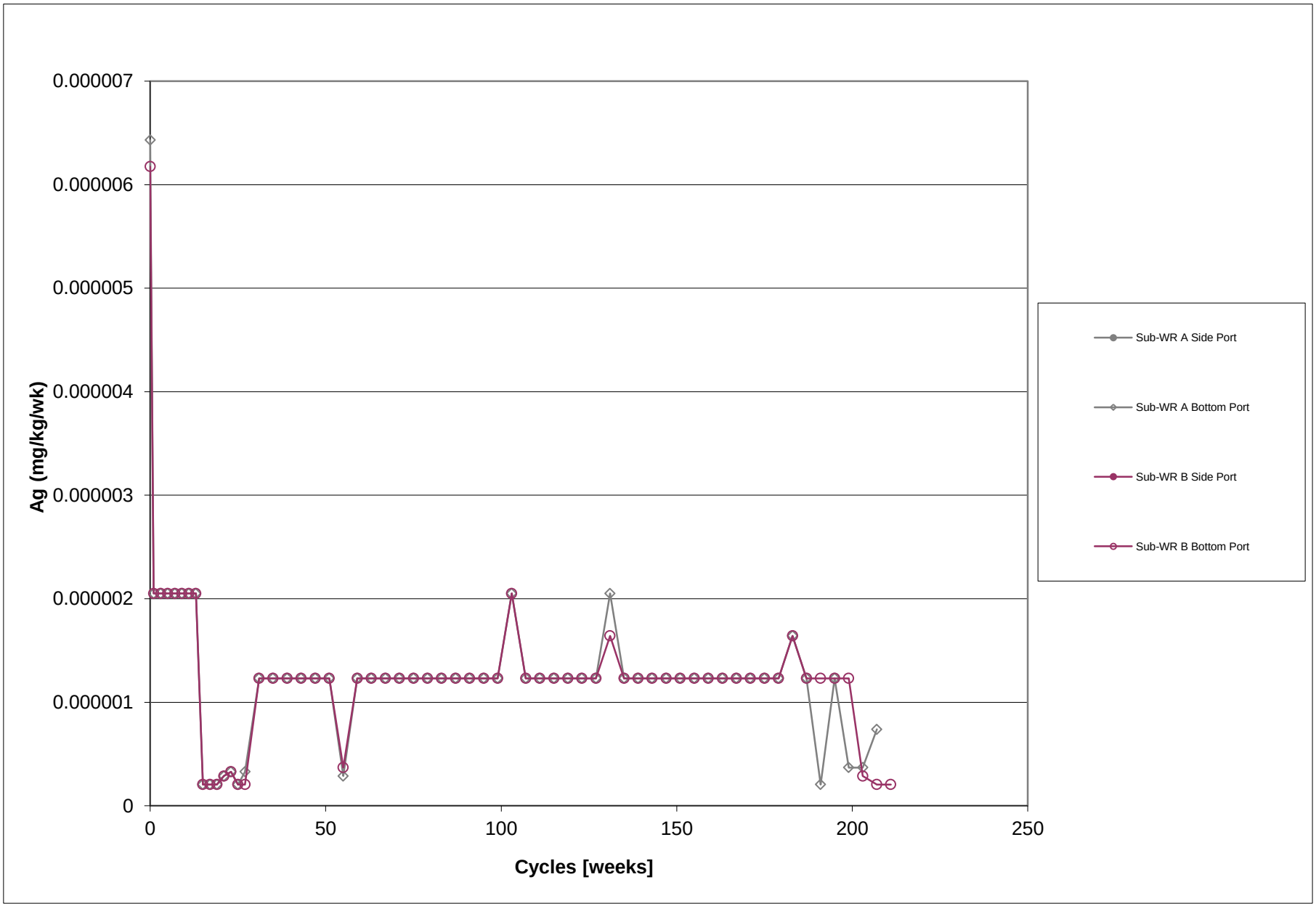

0.1
0.01
0.001
0.0001
0.00001
Ni (mgkg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

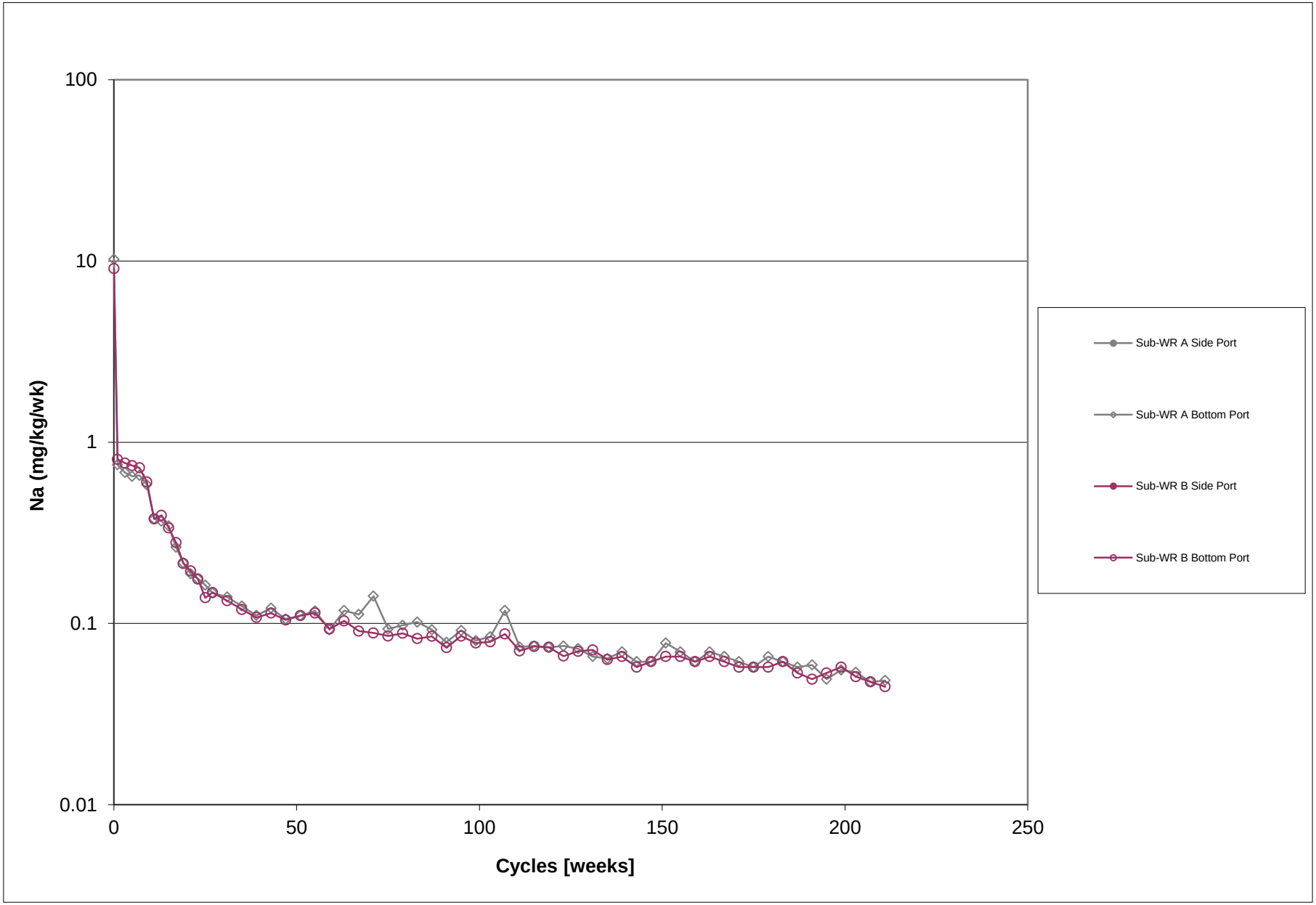

0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
P (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

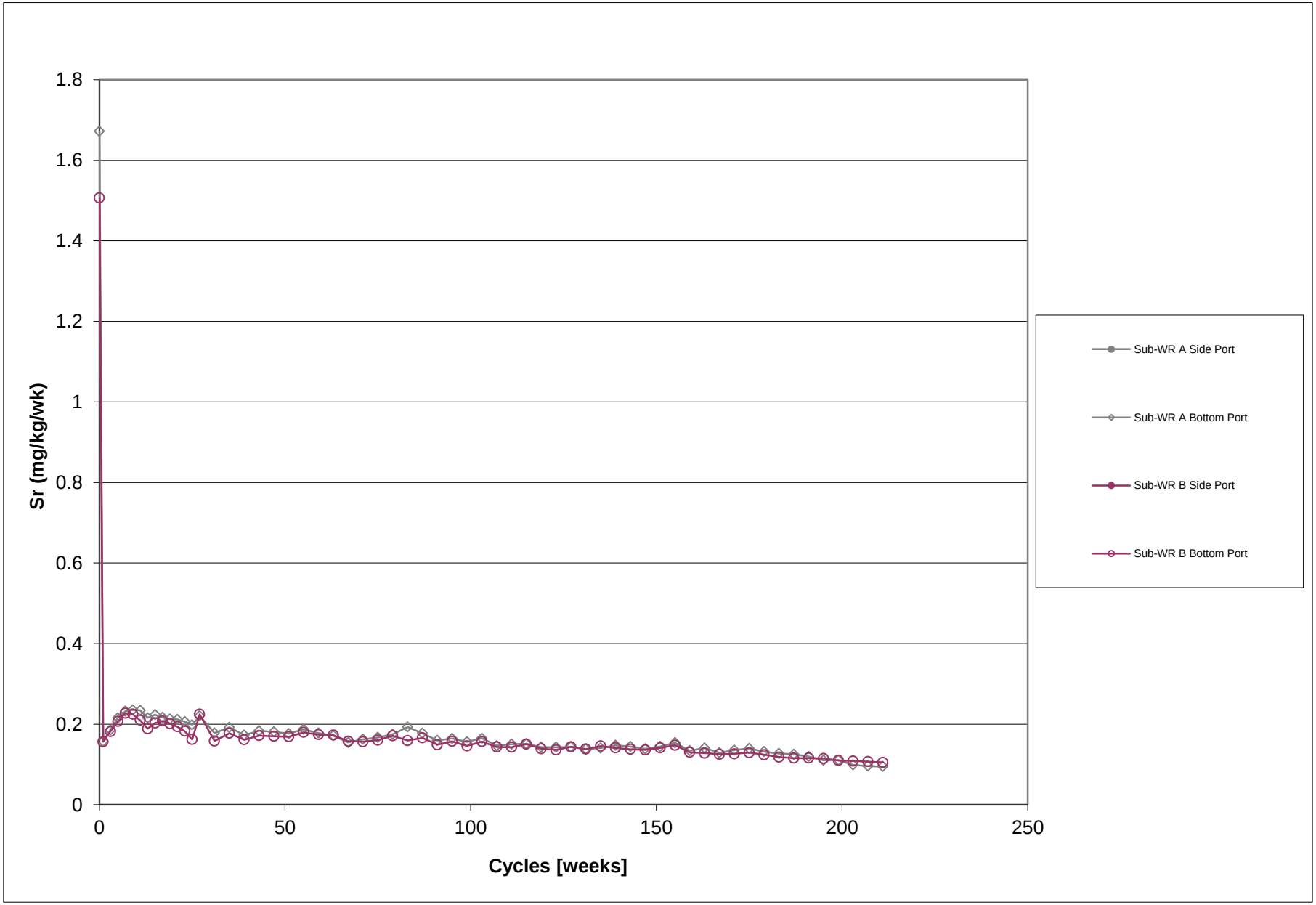

0.0025
0.002
0.0015
0.001
0.0005
0
Se (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

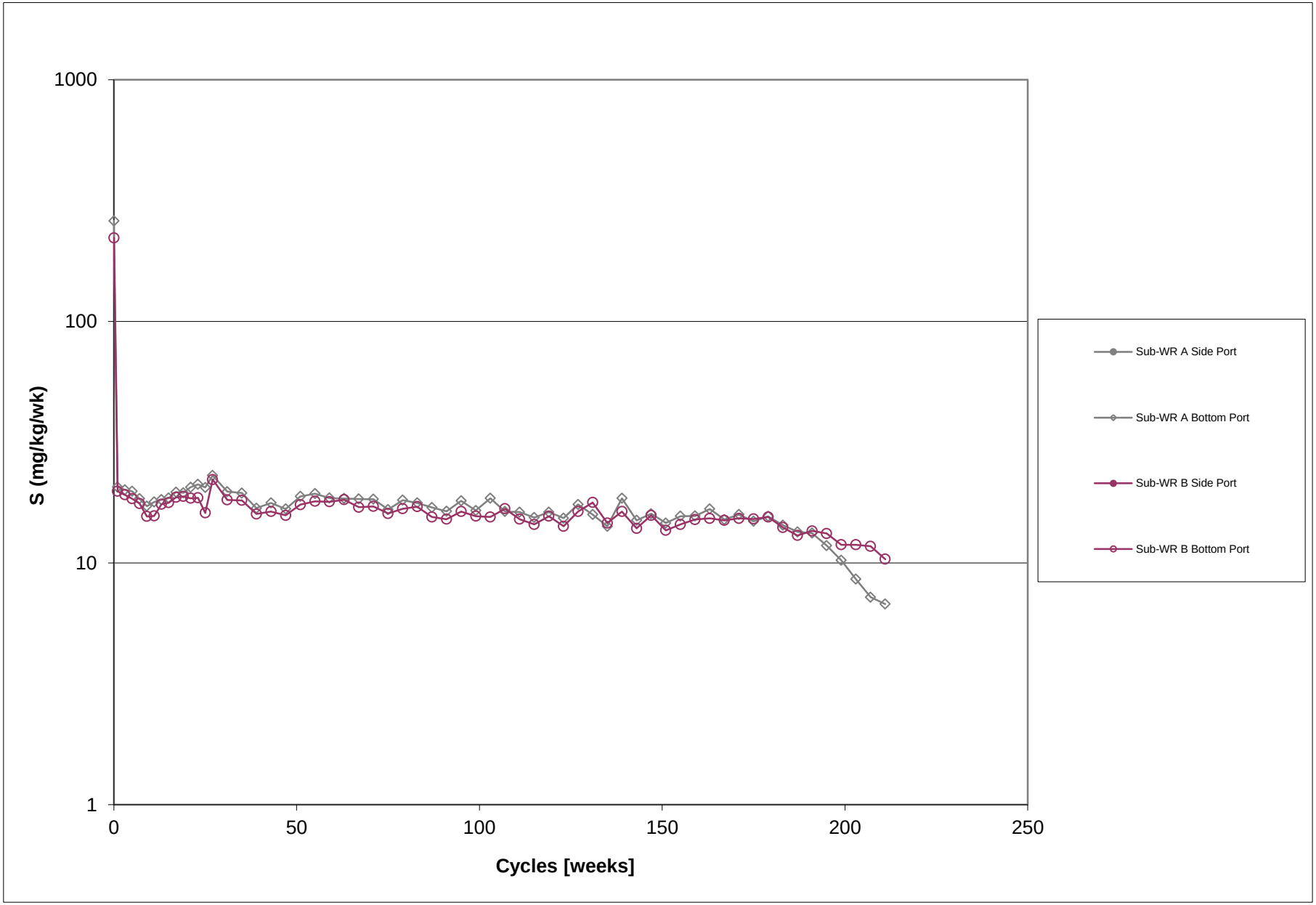

6
5
4
3
2
1
0
K (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

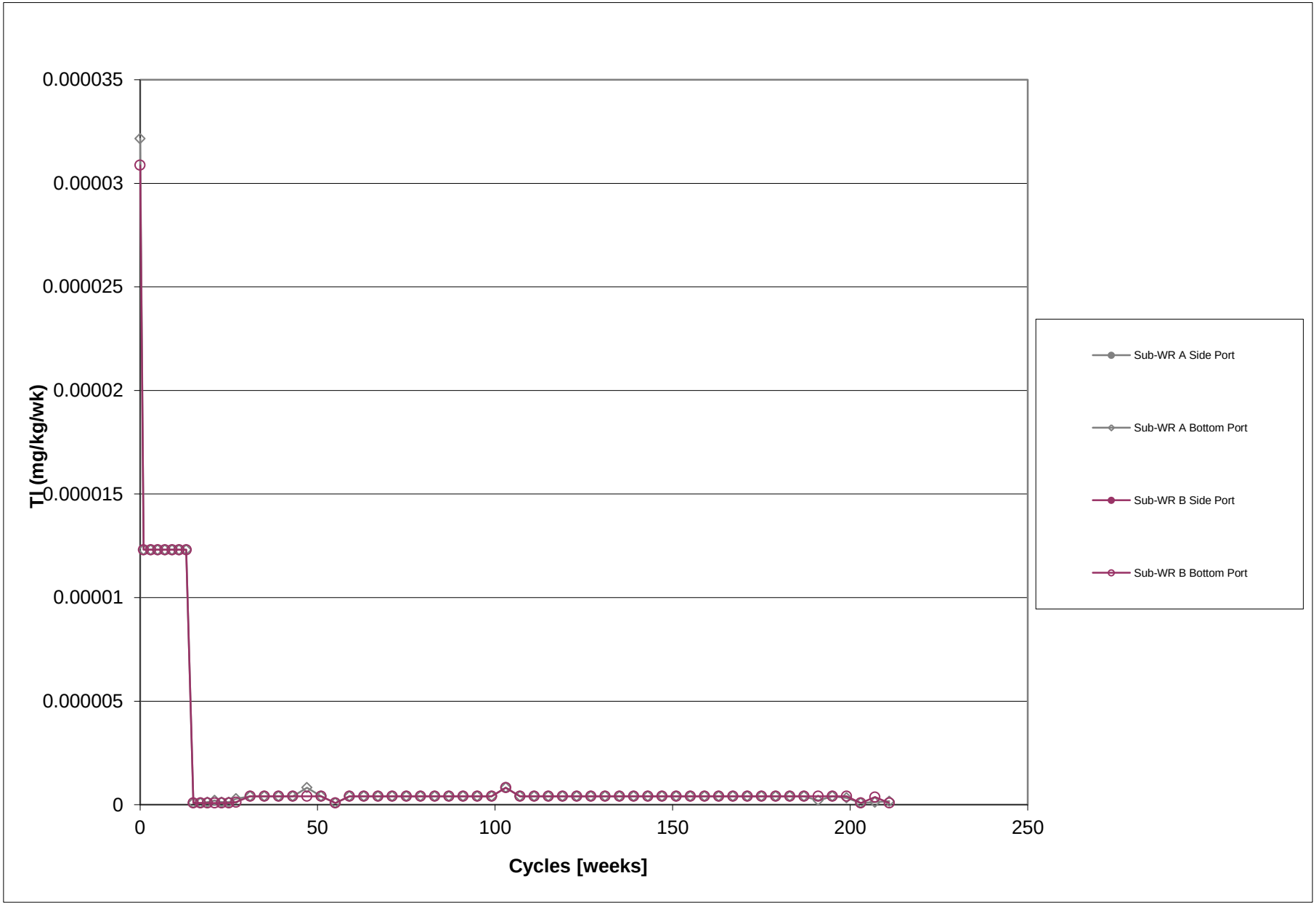

1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Si (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

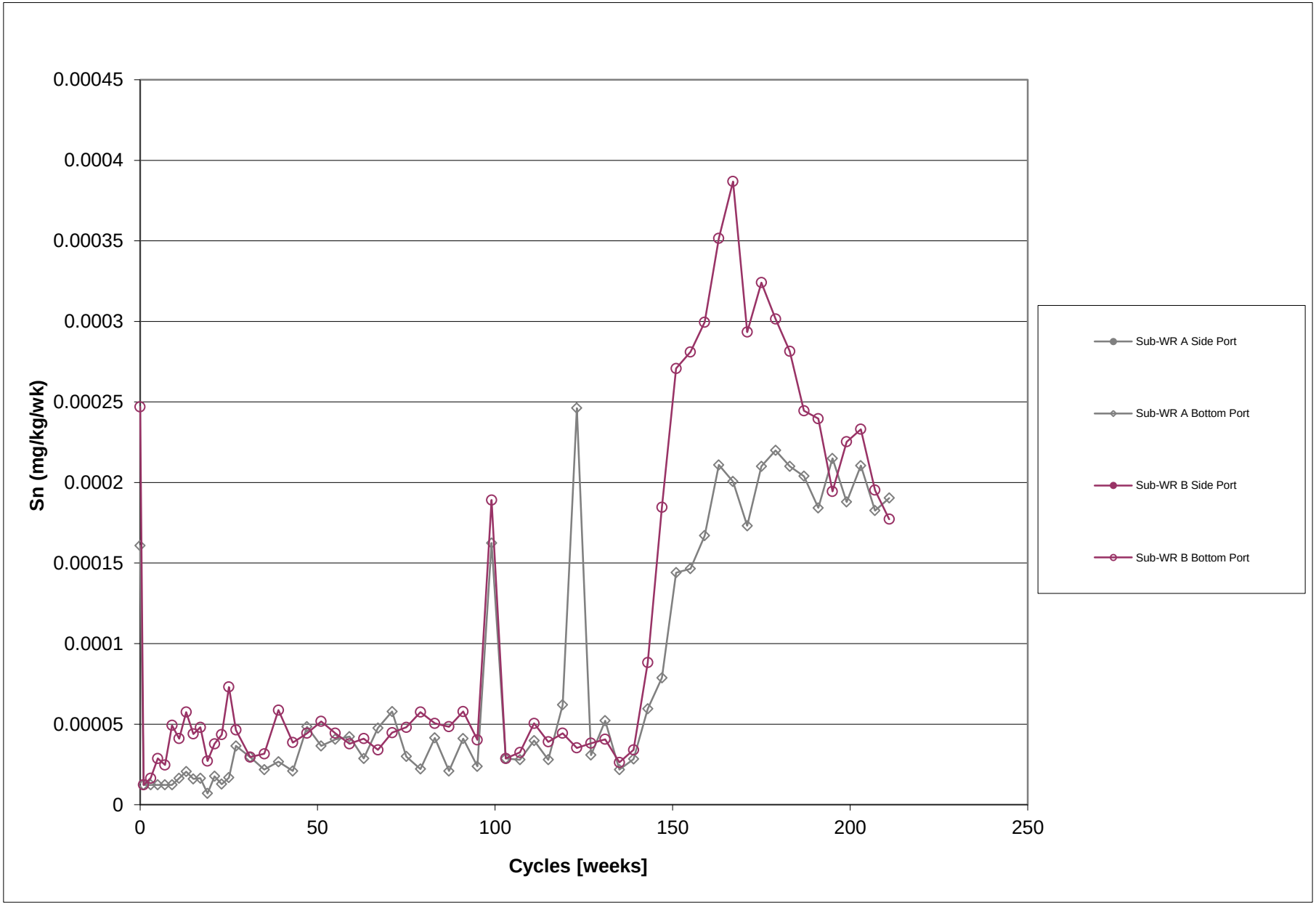

0.000007
0.000006
0.000005
0.000004
0.000003
0.000002
0.000001
0
Ag (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

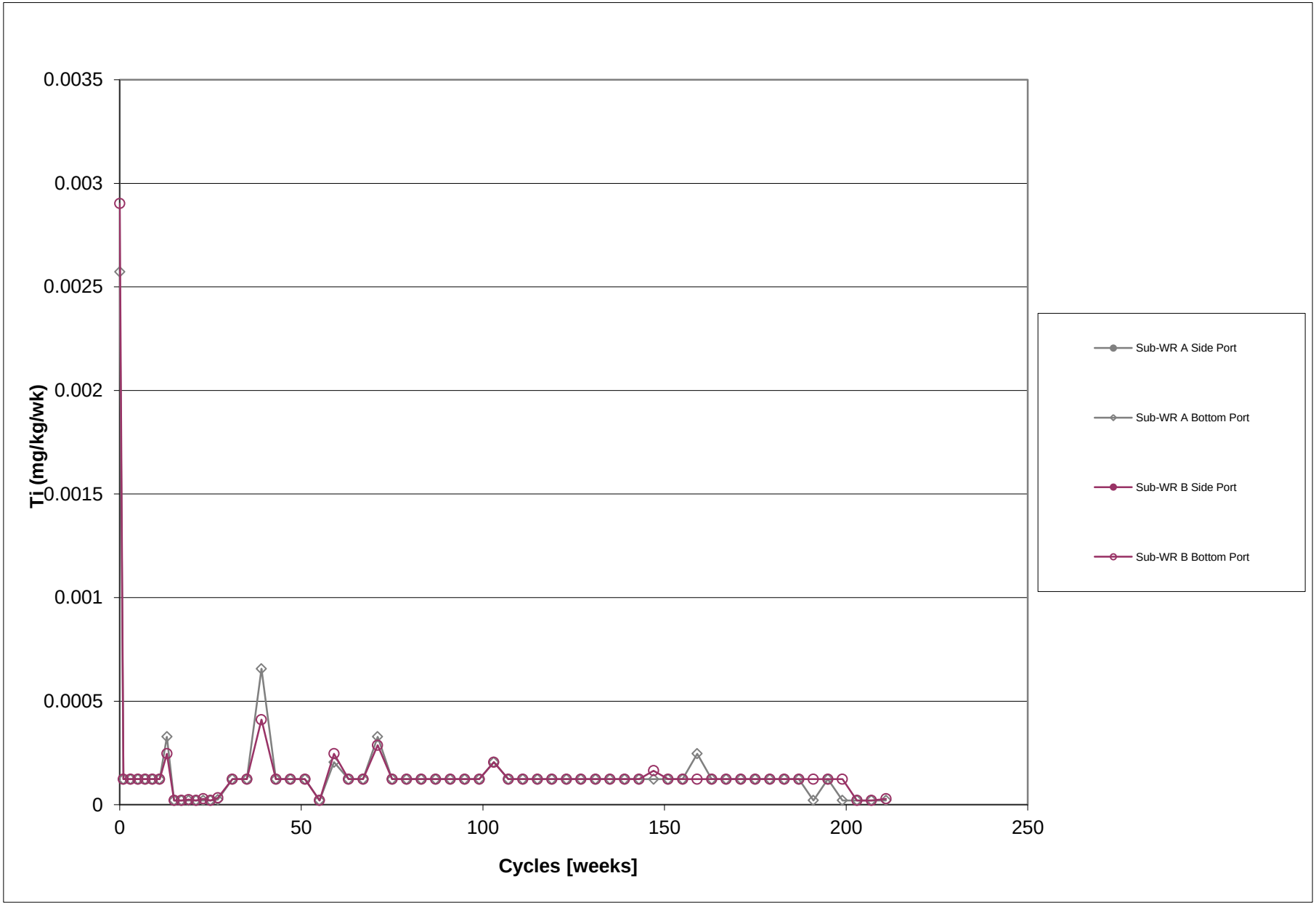

100
10
1
0.1
0.01
Na (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

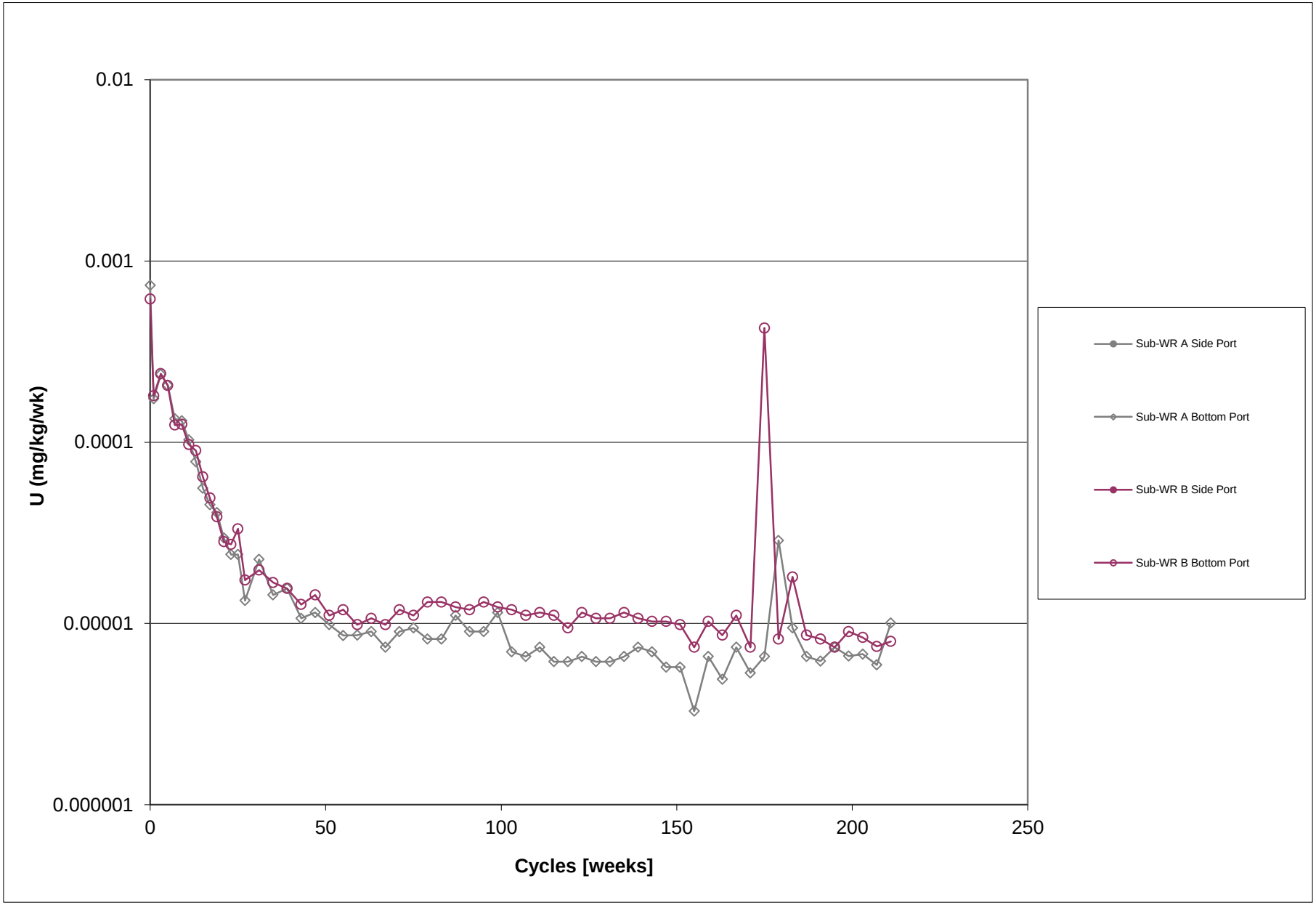

1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Sr (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

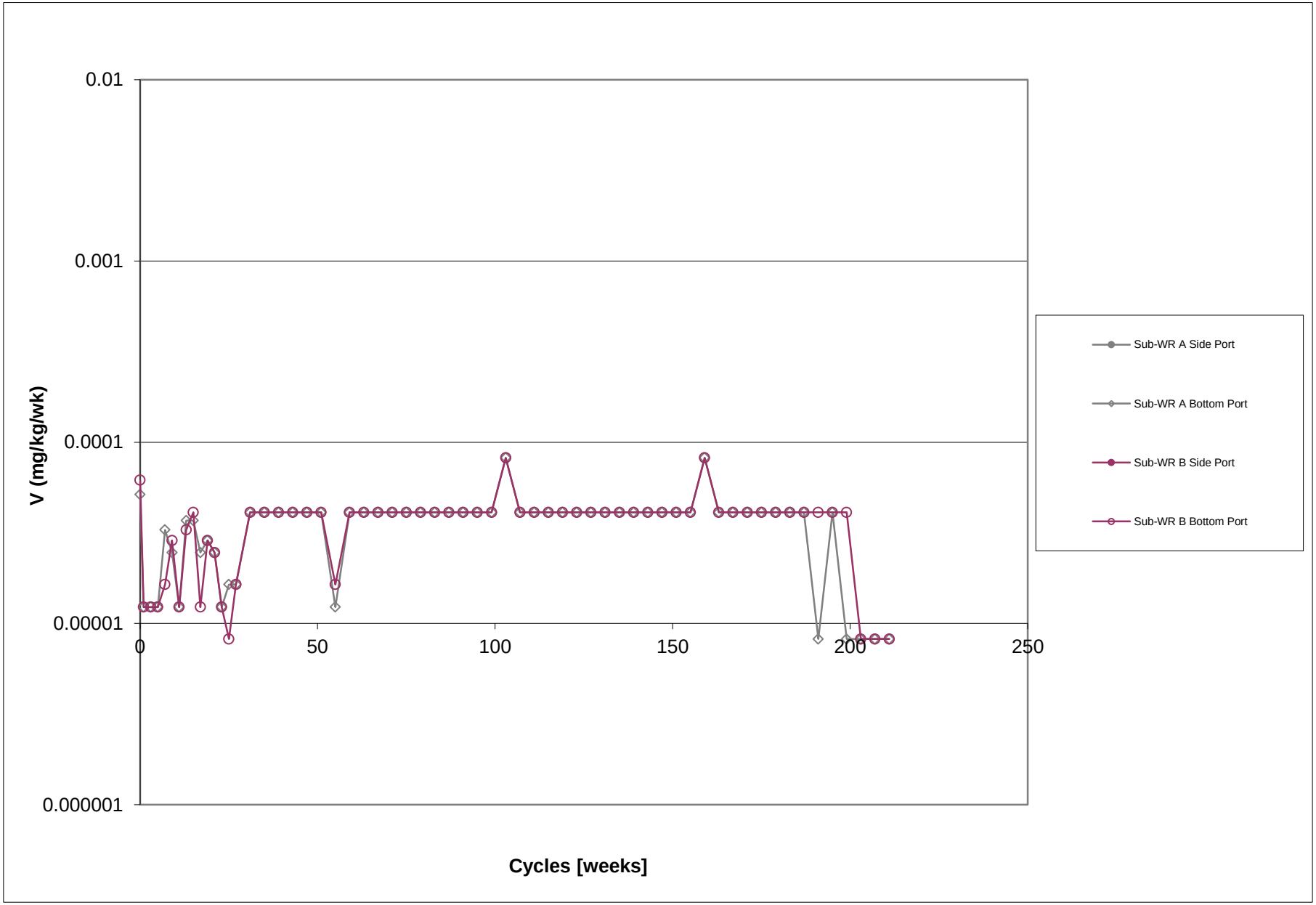

1000
100
10
1
S (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

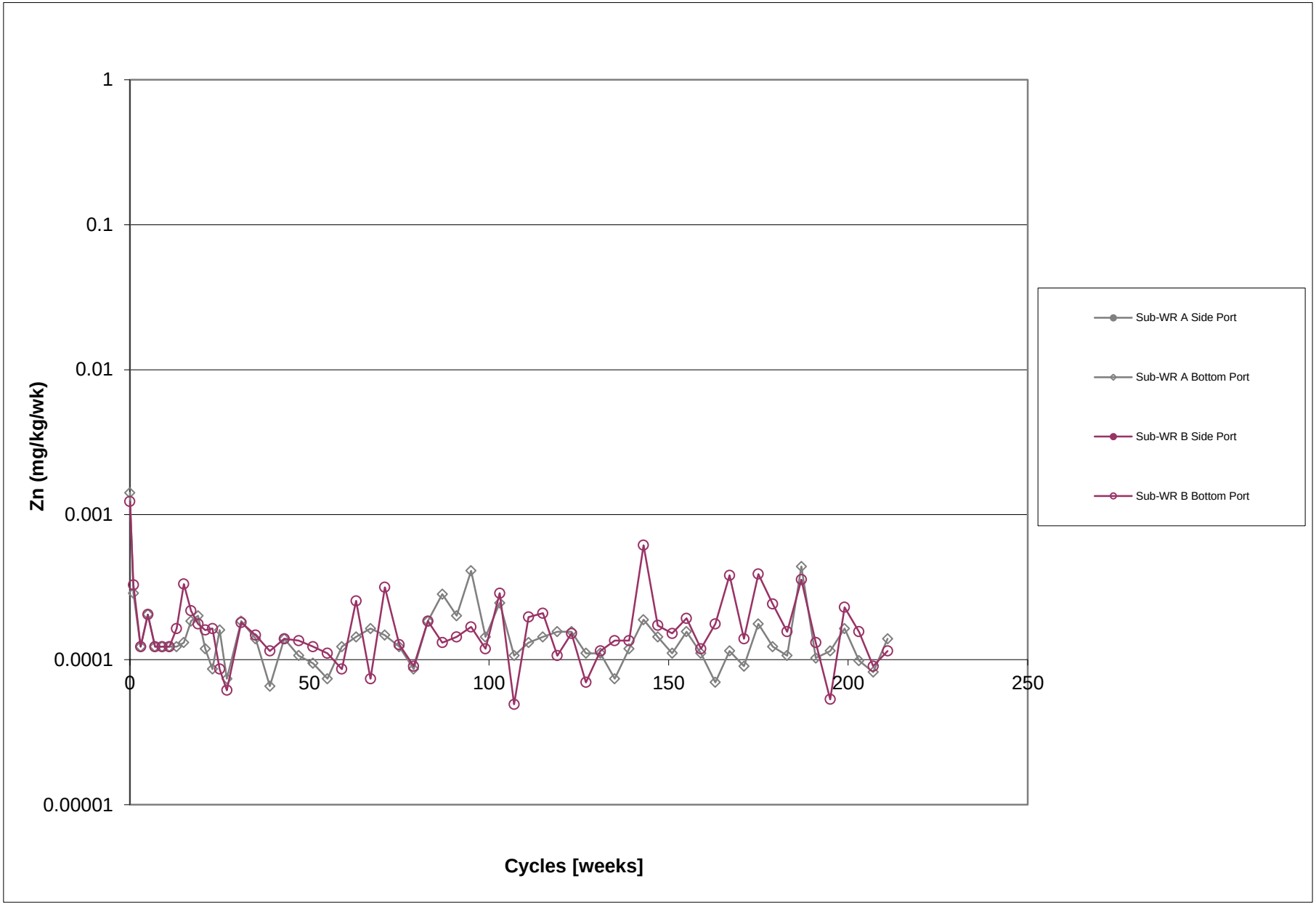

0.000035
0.00003
0.000025
0.00002
0.000015
0.00001
0.000005
0
Tl (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port

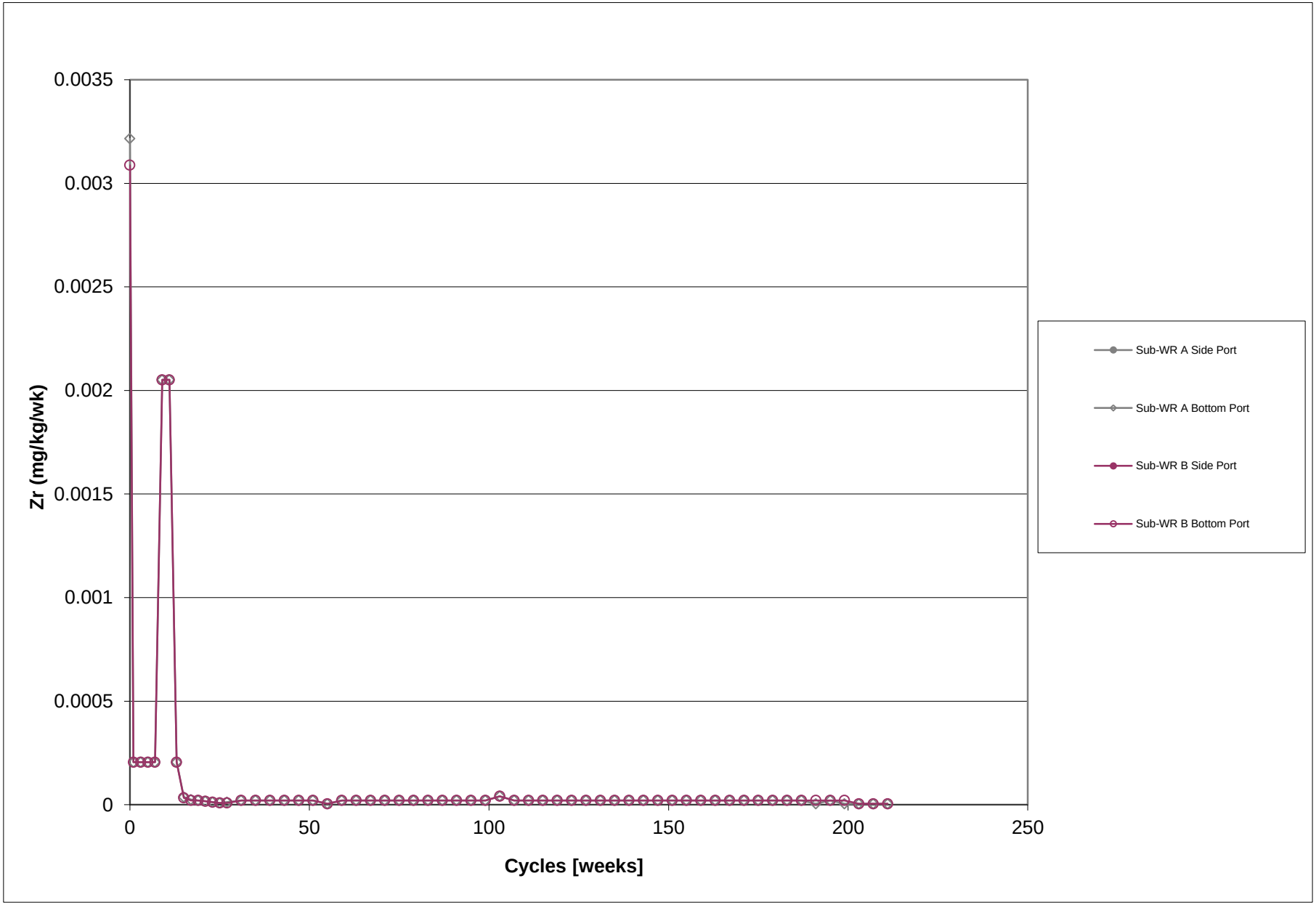

0.00045
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
Sn (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port


0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
Ti (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port


0.01
0.001
0.0001
0.00001
0.000001
U (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port


0.01
0.001
0.0001
0.00001
0.000001
V (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port


1
0.1
0.01
0.001
0.0001
0.00001
Zn (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port


0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
Zr (mg/kg/wk)
0
50
100
150
200
250
Cycles [weeks]
Sub-WR A Side Port
Sub-WR A Bottom Port
Sub-WR B Side Port
Sub-WR B Bottom Port