# Hylebos Waterway Fish Injury Studies
# Individual Data and Quality Assurance Results
# CASE NARRATIVE

## Reproductive Toxicology in Flatfish
## (Revised 1/22/97)

### Rapid PCB Analysis of Livers (Table 1)

*Calibrations*

The calibration data used to quantitate the analytes (Tables 1J and 1K) met thecontinuing calibration criteria detailed in the "Hylebos Waterway Fish InjuryQuality Assurance Plan, 4/25/95" (QAP).

*Method Blank Analysis*

The criteria in the QAP for method blanks (Tables 1E and 1F) were met (nomore than 4 analytes to exceed 4 X the MDL).

*Surrogate Recoveries*

Surrogate recoveries for samples analyzed by HPLC/PDA for dioxin-like PCBs and other selected PCBs and pesticides (Tables 1A, 1D and 1G) were within the guidelines detailed in the QA Plan (60-125% recovery).

*Control Material Analyses*

An aliquot of NIST whale blubber control materW (QC91-WB1) was analyzed with each of the sample sets and the results (Tables 1E and 1F) met the criteria in the QA plan (concentrations of >70% of these selected analytes, [PCBs 105, 118,138,153,156,180, p,p'-DDE (at 266 nm), o,p'-DDD, p,p'-DDD, pp'-DDT, hexachlorobenzene] were within ±50% of the published reference values). Non-certified values for the other analytes in the NIST control material are also shown in the tables.

*Sample Duplicates*

Eleven samples were analyzed in duplicate (Tables 1H and 1I) and the criteria(RSD ≤ 50%) in the QAP were met (QA plan, Table 4).

*Reanalyses*

The method blank in one sample set (HY015 through HY028) contained a large interfering peak and therefore the English sole liver samples from that set were re-extracted, and reanalyzed as samples HY154 through HY161. The following samples from that set were not re-extracted because < 0.20 g of sample remained to be extracted and thus these samples were not analyzed: 94.35281, 94.3530, 94.3531, 94.3532, 94.3535 and 94.3544. One sample (94.3577) was inadvertently not analyzed with the other samples from the same sample set (HY043 through HY056). Therefore, the QA samples (method blank, NIST whale blubber control material and samples duplicates) from this sample set were reanalyzed with the sample 943577.

*Table Revision* (01/22/97)

Table 1B-p2. For sample 94.3600, the concentration value of.CB189 was inadvertently missed and was reported as <0.16 ng/g, wet weight. The correct value for CB189 is 1.8 ng/g wet weight.

## Hylebos Waterway Damage Assessment Project/1994-1995

## Rapid Analyses for PCBs
## Table I Notes

The concentrations of analytes were calculated using 1,7,8-trichlorodibenzo-*p*-dioxin as the surrogate standard.

The “less than” symbol (<) indicates that the analyte was not detected in concentrations above the stated value.

Analyte concentrations were determined by high-performance liquid chromatography with photodiode array detection WLC/PDA) at 220 nm except p,p’-DDE concentrations; this analyte was analyzed by BrLC/PDA at 266 nm.

Analyte concentrations are rounded to two significant figures.

The percent recoveries of the surrogate standard were calculated using 1,2,3,4-tetrachlorodibenzo-*p*-dioxin added after the acidic silica gel cleanup step.

Extract number designation was used for internal lab use and identification only. Field number and site name represent Hylebos Damage Assessment official sample identification designations.

The sample weights used to calculate concentrations for the method blanks are the mean sample weights calculated for the field samples in the corresponding sample set.

**Table 1A-p1: Sample information for English sole liver samples analyzed for dioxin-like PCBs and other selected PCBs and pesticides as part of the Hylebos Waterway Damage Assessment Project.**

| Field Number | Extract Number | Sample Matrix | Site | Sampling Date | Sample Wt. (g) | TriCDD Rec. (%) | Extract. Date |
|---|---|---|---|---|---|---|---|
| 94.3514 | HY002 | Liver | Colvos Passage | 12/02/94 | 0.30 | 114 | 05/23/95 |
| 94.3515 | HY003 | Liver | Colvos Passage | 12/02/94 | 0.86 | 120 | 05/23/95 |
| 94.3516 | HY004 | Liver | Colvos Passage | 12/02/94 | 0.60 | 120 | 05/23/95 |
| 94.3518 | HY005 | Liver | Colvos Passage | 12/02/94 | 1.03 | 116 | 05/23/95 |
| 94.3520 | HY006 | Liver | Colvos Passage | 12/02/94 | 1.20 | 116 | 05/23/95 |
| 94.3521 | HY007 | Liver | Colvos Passage | 12/02/94 | 1.08 | 107 | 05/23/95 |
| 94.3523 | HY008 | Liver | Colvos Passage | 12/02/94 | 0.97 | 111 | 05/23/95 |
| 94.3524 | HY009 | Liver | Colvos Passage | 12/02/94 | 0.40 | 118 | 05/23/95 |
| 94.3525 | HY010 | Liver | Colvos Passage | 12/02/94 | 1.25 | 112 | 05/23/95 |
| 94.3526 | HY011 | Liver | Colvos Passage | 12/02/94 | 0.59 | 118 | 05/23/95 |
| 94.3527 | HY012 | Liver | Colvos Passage | 12/02/94 | 1.30 | 116 | 05/23/95 |
| 94.3539 | HY029 | Liver | Colvos Passage | 12/02/94 | 0.40 | 103 | 06/15/95 |
| 94.3540 | HY030 | Liver | Colvos Passage | 12/02/94 | 1.35 | 99 | 06/15/95 |
| 94.3541 | HY031 | Liver | Colvos Passage | 12/02/94 | 0.42 | 101 | 06/15/95 |
| 94.3542 | HY032 | Liver | Colvos Passage | 12/02/94 | 0.43 | 93 | 06/15/95 |
| 94.3546 | HY033 | Liver | Hylebos | 12/05/94 | 1.52 | 97 | 06/15/95 |
| 94.3548 | HY035 | Liver | Hylebos | 12/05/94 | 0.87 | 102 | 06/15/95 |
| 94.3550 | HY036 | Liver | Hylebos | 12/05/94 | 0.64 | 98 | 06/15/95 |
| 94.3552 | HY037 | Liver | Hylebos | 12/05/94 | 1.19 | 99 | 06/15/95 |
| 94.3554 | HY038 | Liver | Hylebos | 12/05/94 | 1.41 | 81 | 06/15/95 |
| 94.3560 | HY039 | Liver | Hylebos | 12/05/94 | 0.92 | 96 | 06/15/95 |
| 94.3562 | HY040 | Liver | Hylebos | 12/05/94 | 1.35 | 95 | 06/15/95 |
| 94.3564 | HY043 | Liver | Hylebos | 12/05/94 | 1.47 | 89 | 06/22/95 |
| 94.3565 | HY0440 | Liver | Hylebos | 12/05/94 | 1.20 | 74 | 06/22/95 |
| 94.3566 | HY046 | Liver | Hylebos | 12/05/94 | 0.69 | 91 | 06/22/95 |
| 94.3567 | HY047 | Liver | Hylebos | 12/05/94 | 0.68 | 83 | 06/22/95 |
| 94.3568 | HY048 | Liver | Hylebos | 12/05/94 | 1.08 | 85 | 06/22/95 |
| 94.3569 | HY049 | Liver | Hylebos | 12/05/94 | 1.06 | 80 | 06/22/95 |
| 94.3572 | HY050 | Liver | Hylebos | 12/05/94 | 0.37 | 86 | 06/22/95 |
| 94.3574 | HY051 | Liver | Hylebos | 12/05/94 | 1.00 | 78 | 06/22/95 |
| 94.3575 | HY052 | Liver | Hylebos | 12/05/94 | 1.95 | 85 | 06/22/95 |
| 94.3576 | HY053 | Liver | Hylebos | 12/05/94 | 1.16 | 94 | 06/22/95 |
| 94.3577 | HY054 | Liver | Hylebos | 12/05/94 | 0.97 | 89 | 06/22/95 |
| 94.3578 | HY058 | Liver | Hylebos | 12/05/94 | 0.50 | 122 | 07/06/95 |
| 94.3581 | HY059 | Liver | Hylebos | 12/05/94 | 1.80 | 124 | 07/06/95 |
| 94.3586 | HY060 | Liver | Hylebos | 12/05/94 | 2.01 | 121 | 07/06/95 |
| 94.3587 | HY061 | Liver | Hylebos | 12/05/94 | 0.71 | 123 | 07/06/95 |

TriCDD = 1,7,8-trichlorodibenzo-*p*-dioxin
R - Tissue sample was re-extracted

Table 1A-p2: Sample information for English sole liver samples analyzed for dioxin-like PCBs and other selected PCBs and pesticides as part of the Hylebos Waterway Damage Assessment Project.

| Field Number | Extract Number | Sample Matrix | Site | Sampling Date | Sample Wt. (g) | TriCDD Rec. (%) | Extract. Date |
|---|---|---|---|---|---|---|---|
| 94.3588 | HY062 | Liver | Hylebos | 12/05/94 | 1.25 | 121 | 07/06/95 |
| 94.3589 | HY063 | Liver | Hylebos | 12/05/94 | 0.61 | 123 | 07/06/95 |
| 94.3590 | HY064 | Liver | Hylebos | 12/05/94 | 0.71 | 121 | 07/06/95 |
| 94.3591 | HY065 | Liver | Hylebos | 12/05/94 | 2.03 | 101 | 07/06/95 |
| 94.3592 | HY066 | Liver | Hylebos | 12/05/94 | 0.91 | 115 | 07/06/95 |
| 94.3593 | HY067 | Liver | Hylebos | 12/05/94 | 1.50 | 118 | 07/06/95 |
| 94.3594 | HY068 | Liver | Hylebos | 12/05/94 | 0.39 | 123 | 07/06/95 |
| 94.3594A | HY071 | Liver | Hylebos | 01/04/95 | 2.05 | 121 | 07/11/95 |
| 94.3595 | HY072 | Liver | Hylebos | 01/04/95 | 1.28 | 122 | 07/11/95 |
| 94.3598 | HY073 | Liver | Hylebos | 01/04/95 | 1.75 | 122 | 07/11/95 |
| 94.3600 | HY074 | Liver | Hylebos | 01/04/95 | 1.73 | 123 | 07/11/95 |
| 94.3602 | HY075 | Liver | Hylebos | 01/04/95 | 0.90 | 121 | 07/11/95 |
| 94.3603 | HY076 | Liver | Hylebos | 01/04/95 | 0.97 | 122 | 07/11/95 |
| 94.3604 | HY077 | Liver | Hylebos | 01/04/95 | 1.25 | 118 | 07/11/95 |
| 94.3605 | HY078 | Liver | Hylebos | 01/04/95 | 0.27 | 120 | 07/11/95 |
| 94.3607 | HY080 | Liver | Hylebos | 01/04/95 | 0.73 | 125 | 07/11/95 |
| 94.3615 | HY081 | Liver | Hylebos | 01/04/95 | 2.02 | 121 | 07/11/95 |
| 94.3616 | HY082 | Liver | Hylebos | 01/04/95 | 2.04 | 119 | 07/11/95 |
| 94.3617 | HY085 | Liver | Hylebos | 01/04/95 | 1.31 | 122 | 07/20/95 |
| 94.3618 | HY086 | Liver | Hylebos | 01/04/95 | 0.95 | 123 | 07/20/95 |
| 94.3628 | HY087 | Liver | Hylebos | 01/04/95 | 2.02 | 121 | 07/20/95 |
| 94.3629 | HY089 | Liver | Hylebos | 01/04/95 | 2.00 | 112 | 07/20/95 |
| 94.3630 | HY090 | Liver | Hylebos | 01/04/95 | 2.06 | 119 | 07/20/95 |
| 94.3631 | HY091 | Liver | Hylebos | 01/04/95 | 0.73 | 120 | 07/20/95 |
| 94.3632 | HY092 | Liver | Hylebos | 01/04/95 | 1.32 | 99 | 07/20/95 |
| 94.3633 | HY093 | Liver | Hylebos | 01/04/95 | 1.80 | 123 | 07/20/95 |
| 94.3634 | HY094 | Liver | Hylebos | 01/04/95 | 1.08 | 117 | 07/20/95 |
| 94.3635 | HY095 | Liver | Hylebos | 01/04/95 | 1.50 | 116 | 07/20/95 |
| 94.3636 | HY096 | Liver | Hylebos | 01/04/95 | 2.03 | 119 | 07/20/95 |
| 94.3637 | HY099 | Liver | Hylebos | 01/04/95 | 1.02 | 104 | 07/25/95 |
| 94.3639 | HY100 | Liver | Hylebos | 01/04/95 | 0.55 | 107 | 07/25/95 |
| 94.3644 | HY101 | Liver | Hylebos | 01/04/95 | 1.01 | 111 | 07/25/95 |
| 94.3645 | HY102 | Liver | Hylebos | 01/04/95 | 1.32 | 107 | 07/25/95 |
| 94.3647 | HY103 | Liver | Hylebos | 01/04/95 | 1.09 | 109 | 07/25/95 |
| 94.3648 | HY104 | Liver | Hylebos | 01/04/95 | 0.54 | 108 | 07/25/95 |
| 94.3649 | HY105 | Liver | Hylebos | 01/04/95 | 0.49 | 111 | 07/25/95 |
| 94.3650 | HY106 | Liver | Colvos Passage | 01/06/95 | 0.64 | 110 | 07/25/95 |

TriCDD = 1,7,8-trichlorodibenzo-*p*-dioxin
R - Tissue sample was re-extracted

**Table 1A-p3: Sample information for English sole liver samples analyzed for dioxin-like PCBs and other selected PCBs and pesticides as part of the Hylebos Waterway Damage Assessment Project.**

| Field Number | Extract Number | Sample Matrix | Site | Sampling Date | Sample Wt. (g) | TriCDD Rec. (%) | Extract. Date |
|---|---|---|---|---|---|---|---|
| 94.3652 | HY108 | Liver | Colvos Passage | 01/06/95 | 1.46 | 110 | 07/25/95 |
| 94.3651 | HY113 | Liver | Colvos Passage | 01/06/95 | 0.57 | 117 | 08/01/95 |
| 94.3653 | HY114 | Liver | Colvos Passage | 01/06/95 | 1.03 | 119 | 08/01/95 |
| 94.3654 | HY115 | Liver | Colvos Passage | 01/06/95 | 0.72 | 118 | 08/01/95 |
| 94.3655 | HY116 | Liver | Colvos Passage | 01/06/95 | 0.96 | 118 | 08/01/95 |
| 94.3656 | HY117 | Liver | Colvos Passage | 01/06/95 | 1.10 | 114 | 08/01/95 |
| 94.3657 | HY118 | Liver | Colvos Passage | 01/06/95 | 0.90 | 119 | 08/01/95 |
| 94.3658 | HY119 | Liver | Colvos Passage | 01/06/95 | 0.94 | 108 | 08/01/95 |
| 94.3659 | HY120 | Liver | Colvos Passage | 01/06/95 | 1.02 | 113 | 08/01/95 |
| 94.3660 | HY121 | Liver | Colvos Passage | 01/06/95 | 0.98 | 115 | 08/01/95 |
| 94.3661 | HY122 | Liver | Colvos Passage | 01/06/95 | 0.97 | 119 | 08/01/95 |
| 94.3663 | HY123 | Liver | Colvos Passage | 01/06/95 | 1.00 | 116 | 08/01/95 |
| 94.3664 | HY128 | Liver | Colvos Passage | 01/06/95 | 0.95 | 118 | 08/04/95 |
| 94.3666 | HY129 | Liver | Colvos Passage | 01/06/95 | 0.58 | 123 | 08/04/95 |
| 94.3667 | HY130 | Liver | Colvos Passage | 01/06/95 | 1.32 | 121 | 08/04/95 |
| 94.3669 | HY131 | Liver | Colvos Passage | 01/06/95 | 1.07 | 118 | 08/04/95 |
| 94.3670 | HY132 | Liver | Colvos Passage | 01/06/95 | 0.51 | 122 | 08/04/95 |
| 94.3672 | HY141 | Liver | Colvos Passage | 01/06/95 | 0.58 | 116 | 08/08/95 |
| 94.3681 | HY142 | Liver | Colvos Passage | 01/06/95 | 1.08 | 113 | 08/08/95 |
| 94.3682 | HY143 | Liver | Colvos Passage | 01/06/95 | 0.98 | 116 | 08/08/95 |
| 94.3683 | HY144 | Liver | Colvos Passage | 01/06/95 | 0.93 | 114 | 08/08/95 |
| 94.3684 | HY145 | Liver | Colvos Passage | 01/06/95 | 0.98 | 116 | 08/08/95 |
| 94.3685 | HY146 | Liver | Colvos Passage | 01/06/95 | 0.81 | 119 | 08/08/95 |
| 94.3687 | HY147 | Liver | Colvos Passage | 01/06/95 | 1.24 | 121 | 08/08/95 |
| 94.3688 | HY148 | Liver | Colvos Passage | 01/06/95 | 1.05 | 121 | 08/08/95 |
| 94.3689 | HY149 | Liver | Colvos Passage | 01/06/95 | 0.56 | 95 | 08/08/95 |
| 94.3690 | HY150 | Liver | Colvos Passage | 01/06/95 | 0.48 | 125 | 08/08/95 |
| 94.3537R | HY154 | Liver | Colvos Passage | 12/02/94 | 0.26 | 101 | 10/18/95 |
| 94.3538R | HY155 | Liver | Colvos Passage | 12/02/94 | 0.22 | 98 | 10/18/95 |
| 94.3536R | HY156 | Liver | Colvos Passage | 12/02/94 | 0.25 | 93 | 10/18/95 |
| 94.3543R | HY157 | Liver | Colvos Passage | 12/02/94 | 0.21 | 97 | 10/18/95 |
| 94.3529R | HY159 | Liver | Colvos Passage | 12/02/94 | 0.28 | 99 | 10/18/95 |

TriCDD = 1,7,8-trichlorodibenzo-*p*-dioxin
R - Tissue sample was re-extracted

**Table 1B-p1: Concentrations (ng/g, wet weight) of dioxin-like PCBs* in English sole liver samples analyzed as part of the Hylebos Waterway Damage Assessment Project.**

| Site | Field Number | 77 | 105 | 118 | 126 | 156 | 157 | 169 | 170 | 180 | 189 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Colvos Passage | | | | | | | | | | | |
| | 94.3514 | < 1.1 | 1.7 | 59 | < 1 | < 0.7 | < 0.64 | < 1.3 | 25 | 1.6 | < 0.67 |
| | 94.3515 | < 0.34 | 2.2 | 18 | < 0.18 | < 0.21 | < 0.2 | < 0.41 | 8.5 | 1.4 | < 0.2 |
| | 94.3516 | < 0.58 | 14 | 43 | < 0.31 | 1.7 | < 0.33 | < 0.69 | 18 | 14 | < 0.33 |
| | 94.3518 | < 0.36 | 4.7 | 40 | < 0.19 | 1.3 | < 0.21 | < 0.43 | 13 | 7.7 | < 0.21 |
| | 94.3520 | < 0.35 | 2 | 12 | < 0.19 | < 0.22 | < 0.2 | < 0.41 | 5.6 | 4.5 | < 0.2 |
| | 94.3523 | < 0.37 | 6.3 | 24 | < 0.2 | 0.8 | < 0.21 | < 0.44 | 9.3 | 6.4 | < 0.21 |
| | 94.3524 | < 0.58 | 2.9 | 13 | < 0.31 | < 0.36 | < 0.33 | < 0.7 | 12 | 3.9 | < 0.34 |
| | 94.3525 | < 0.29 | 1.5 | 12 | < 0.16 | 0.8 | < 0.17 | < 0.35 | 10 | 12 | < 0.17 |
| | 94.3526 | < 0.67 | 4.4 | 19 | < 0.36 | < 0.42 | < 0.38 | < 0.8 | 9.6 | 6.2 | < 0.39 |
| | 94.3527 | < 0.28 | 12 | 37 | < 0.15 | 1.1 | < 0.16 | < 0.34 | 9.3 | 11 | < 0.17 |
| | 94.3539 | < 1.1 | 1.4 | 12 | < 0.96 | < 0.69 | < 0.63 | < 1.4 | 2.8 | 3.2 | < 0.67 |
| | 94.3540 | < 0.32 | 6.8 | 24 | < 0.27 | 2.2 | < 0.18 | < 0.4 | 5.8 | 9.9 | < 0.19 |
| | 94.3541 | < 1 | 8.1 | 28 | < 0.89 | < 0.64 | < 0.58 | < 1.3 | 6.1 | 9.4 | < 0.62 |
| | 94.3542 | < 1.2 | 2.4 | 12 | < 01 | < 0.72 | < 0.65 | < 1.4 | 2.2 | 3.7 | < 0.7 |
| | 94.3652 | < 0.39 | 20 | 43 | < 0.32 | 2.1 | < 0.21 | < 0.43 | < 0.24 | 14 | < 0.23 |
| | 94.3651 | < 0.53 | 4.1 | 13 | < 0.44 | < 0.32 | < 0.29 | < 0.62 | 3.3 | 4.4 | < 0.31 |
| | 94.3653 | < 0.29 | 5.7 | 18 | < 0.24 | < 0.17 | < 0.16 | < 0.34 | 6.4 | 6 | < 0.17 |
| | 94.3654 | < 0.54 | 3.9 | 13 | < 0.44 | < 0.32 | < 0.29 | < 0.63 | 2.8 | 4 | < 0.31 |
| | 94.3656 | < 0.39 | 7.6 | 21 | < 0.32 | < 0.23 | < 0.21 | < 0.46 | < 0.24 | 6.5 | < 0.23 |
| | 94.3657 | < 0.49 | 4.6 | 24 | < 0.4 | < 0.29 | < 0.27 | < 0.57 | 5.7 | 8.7 | < 0.29 |
| | 94.3658 | < 0.48 | 4.4 | 9.9 | < 0.4 | < 0.29 | < 0.26 | < 0.57 | 0.66 | 2.8 | < 0.28 |
| | 94.3659 | < 0.47 | 9.6 | 17 | < 0.39 | < 0.28 | < 0.26 | < 0.55 | < 0.29 | 7.8 | < 0.28 |
| | 94.3660 | < 0.43 | 6.1 | 23 | < 0.35 | < 0.26 | < 0.23 | < 0.5 | 8.7 | 12 | < 0.25 |
| | 94.3661 | < 0.38 | 3.6 | 12 | < 0.32 | < 0.23 | < 0.21 | < 0.45 | 2.9 | 4.2 | < 0.22 |
| | 94.3663 | < 0.51 | 11 | 34 | < 0.42 | < 0.31 | < 0.28 | < 0.6 | 6 | 10 | < 0.3 |
| | 94.3664 | < 0.46 | 2.1 | 7.3 | < 0.37 | < 0.28 | < 0.25 | < 0.53 | 1.1 | 6.6 | < 0.27 |
| | 94.3666 | < 0.72 | 10 | 43 | < 0.58 | 1.2 | < 0.39 | < 0.82 | 7.7 | 23 | < 0.42 |
| | 94.3667 | < 0.3 | 3.1 | 8.5 | < 0.24 | 3.3 | < 0.16 | < 0.34 | 1.2 | 5.8 | < 0.18 |
| | 94.3669 | < 0.42 | 8.2 | 19 | < 0.33 | < 0.25 | < 0.22 | < 0.47 | 2 | 11 | < 0.24 |
| | 94.3672 | < 0.68 | 4.2 | 16 | < 0.55 | < 0.4 | < 0.37 | < 0.77 | 5.6 | 5.1 | < 0.4 |
| | 94.3681 | < 0.35 | 2.6 | 28 | < 0.29 | 7.1 | < 0.19 | < 0.4 | 12 | 4 | < 0.2 |
| | 94.3683 | < 0.47 | 9.4 | 32 | < 0.38 | 0.92 | < 0.26 | < 0.53 | 13 | 10 | < 0.27 |
| | 94.3684 | < 0.48 | 1.8 | 6.6 | < 0.39 | < 0.28 | < 0.26 | < 0.54 | 2.7 | 2.8 | < 0.28 |
| | 94.3685 | < 0.5 | 9.7 | 30 | < 0.4 | < 0.29 | < 0.27 | < 0.56 | 5.7 | 8.2 | < 0.29 |
| | 94.3687 | < 0.34 | 2.3 | 11 | < 0.27 | < 0.2 | < 0.18 | < 0.38 | 2.7 | 2.8 | < 0.2 |
| | 94.3688 | < 0.39 | 5.4 | 17 | < 0.31 | 1.6 | < 0.21 | < 0.44 | 3.2 | 5.3 | < 0.22 |

R - Tissue sample was re-extracted

* The dioxin-like PCB congeners (shown in this table) have minimal interferences from co-eluting compounds which generally contribute < 10% to the total concentration.

**Table 1B-p2: Concentrations (ng/g, wet weight) of dioxin-like PCBs* in English sole liver samples analyzed as part of the Hylebos Waterway Damage Assessment Project.**

| Site | Field Number | 77 | 105 | 118 | 126 | 156 | 157 | 169 | 170 | 180 | 189 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 94.3689 | < 1 | 5.3 | 34 | < 0.85 | 2.3 | 1.9 | < 1.2 | 13 | 16 | < 0.61 |
| | 94.3690 | < 1 | 5.2 | 24 | < 0.85 | < 0.62 | < 0.57 | < 1.2 | 2.2 | 6.3 | < 0.61 |
| | 94.3537R | < 2.6 | < 1.4 | 10 | < 2.1 | < 1.5 | < 1.3 | < 2.8 | < 1.5 | 20 | < 1.4 |
| | 94.3538R | < 2.8 | 11 | 42 | < 2.2 | < 1.6 | < 1.4 | < 3 | 6.4 | 26 | < 1.5 |
| | 94.3536R | < 2.6 | < 1.4 | 23 | < 2 | < 1.5 | < 1.3 | < 2.7 | 3.7 | 33 | < 1.4 |
| | 94.3543R | < 3 | < 1.6 | 6.5 | < 2.4 | < 1.7 | < 1.5 | < 3.2 | < 1.7 | 12 | < 1.6 |
| Hylebos | | | | | | | | | | | |
| | 94.3548 | < 0.56 | 39 | 92 | < 0.48 | 9 | 1.9 | < 0.69 | 50 | 67 | < 0.33 |
| | 94.3550 | < 0.61 | 63 | 160 | < 0.52 | 14 | 1.8 | < 0.75 | 43 | 90 | < 0.36 |
| | 94.3552 | < 0.37 | 130 | 530 | < 0.32 | 34 | 6 | < 0.46 | 40 | 110 | < 0.22 |
| | 94.3554 | < 0.27 | 21 | 63 | < 0.23 | 5.4 | 0.8 | < 0.33 | 28 | 51 | < 0.16 |
| | 94.3560 | < 0.42 | 10 | 29 | < 0.36 | 1.7 | < 0.23 | < 0.51 | 9.6 | 13 | < 0.25 |
| | 94.3562 | < 0.32 | 17 | 51 | < 0.27 | 3.3 | 0.7 | < 0.39 | 24 | 30 | < 0.19 |
| | 94.3564 | < 0.25 | 28 | 86 | < 0.2 | 12 | 1.4 | < 0.27 | 42 | 77 | < 0.14 |
| | 94.3566 | < 0.78 | 12 | 27 | < 0.63 | 2.9 | < 0.4 | < 0.84 | 9.5 | 19 | < 0.42 |
| | 94.3567 | < 0.7 | 69 | 220 | < 0.55 | 20 | 4.3 | < 0.75 | 76 | 130 | < 0.37 |
| | 94.3568 | < 0.43 | 38 | 110 | < 0.34 | 9.6 | 1.3 | < 0.46 | 37 | 60 | < 0.23 |
| | 94.3569 | < 0.41 | 61 | 150 | < 0.33 | 15 | 3.2 | < 0.44 | 93 | 130 | < 0.22 |
| | 94.3572 | < 1.3 | 61 | 220 | < 1 | 18 | 2.8 | < 1.4 | 20 | 48 | < 0.69 |
| | 94.3574 | 0.6 | 120 | 340 | < 0.32 | 27 | 3.2 | < 0.43 | 110 | 160 | < 0.21 |
| | 94.3575 | < 0.21 | 130 | 550 | < 0.17 | 34 | 5.1 | < 0.23 | 11 | 70 | < 0.11 |
| | 94.3576 | < 0.37 | 150 | 580 | < 0.3 | 44 | 8.6 | < 0.4 | 37 | 130 | < 0.2 |
| | 94.3577 | < 0.56 | 80 | 300 | < 0.45 | 20 | 4.4 | < 0.61 | 26 | 62 | < 0.3 |
| | 94.3578 | < 0.85 | 66 | 250 | < 0.72 | 17 | 2.9 | < 1 | 13 | 42 | < 0.49 |
| | 94.3581 | < 0.23 | 87 | 350 | < 0.2 | 23 | 4.1 | < 0.28 | 33 | 67 | < 0.14 |
| | 94.3586 | < 0.23 | 27 | 86 | < 0.2 | 7.9 | 1.8 | < 0.28 | 54 | 100 | < 0.13 |
| | 94.3587 | < 0.56 | 14 | 58 | < 0.47 | 2.9 | < 0.31 | < 0.66 | 24 | 37 | < 0.32 |
| | 94.3588 | < 0.38 | 24 | 62 | < 0.32 | 6.5 | 1.5 | < 0.45 | 26 | 43 | < 0.22 |
| | 94.3589 | < 0.82 | 17 | 42 | < 0.7 | 3.9 | < 0.45 | < 0.98 | 12 | 23 | < 0.47 |
| | 94.3590 | < 0.69 | 120 | 450 | < 0.59 | 29 | 5 | < 0.83 | 13 | 60 | < 0.4 |
| | 94.3592 | < 0.55 | 26 | 63 | < 0.47 | 5.7 | < 0.3 | < 0.66 | 18 | 31 | < 0.32 |
| | 94.3593 | < 0.35 | 3.1 | 13 | < 0.3 | < 0.22 | < 0.19 | < 0.42 | 7.5 | 14 | < 0.2 |
| | 94.3594 | < 1.3 | 5.9 | 46 | < 1.1 | 2.2 | < 0.72 | < 1.6 | 22 | 36 | < 0.76 |
| | 94.3595 | < 0.44 | 74 | 230 | < 0.36 | 20 | 4.3 | < 0.52 | 57 | 100 | < 0.26 |
| | 94.3598 | < 0.5 | 4.4 | 22 | < 0.41 | 1.1 | < 0.28 | < 0.6 | 7.4 | 14 | < 0.3 |
| | 94.3600 | < 0.27 | 110 | 400 | < 0.22 | 41 | 8.4 | < 0.33 | 210 | 370 | 1.8 |
| | 94.3602 | < 0.52 | 31 | 58 | < 0.43 | 3.5 | < 0.29 | < 0.62 | 24 | 19 | < 0.31 |

R - Tissue sample was re-extracted

* The dioxin-like PCB congeners (shown in this table) have minimal interferences from co-eluting compounds which generally contribute < 10% to the total concentration.

**Table 1B-p3: Concentrations (ng/g, wet weight) of dioxin-like PCBs* in English sole liver samples analyzed as part of the Hylebos Waterway Damage Assessment Project.**

| Site | Field Number | 77 | 105 | 118 | 126 | 156 | 157 | 169 | 170 | 180 | 189 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 94.3603 | < 0.58 | 13 | 32 | < 0.48 | 2.6 | < 0.32 | < 0.7 | 10 | 16 | < 0.34 |
| | 94.3604 | < 0.34 | 10 | 37 | < 0.28 | 2.2 | <.0.19 | < 0.41 | 15 | 27 | < 0.2 |
| | 94.3605 | < 2.2 | 15 | 93 | < 1.8 | 4.9 | < 1.2 | < 2.6 | 25 | 57 | < 1.3 |
| | 94.3607 | < 0.62 | 32 | 63 | < 0.51 | 7.1 | 0.5 | < 0.74 | 23 | 40 | < 0.37 |
| | 94.3615 | < 0.26 | 29 | 88 | < 0.21 | 7 | 1 | < 0.31 | 19 | 36 | < 0.15 |
| | 94.3616 | < 0.22 | 51 | 110 | < 0.18 | 11 | 2.2 | < 0.26 | 58 | 69 | < 0.13 |
| | 94.3617 | < 0.29 | 82 | 220 | < 0.25 | 12 | 2.4 | < 0.34 | 59 | 80 | < 0.17 |
| | 94.3618 | < 0.48 | 14 | 43 | < 0.41 | < 0.29 | < 0.25 | < 0.56 | 11 | 24 | < 0.28 |
| | 94.3629 | < 0.24 | 84 | 240 | < 0.21 | 25 | 5.9 | < 0.28 | 100 | 160 | < 0.14 |
| | 94.3630 | < 0.22 | 6.2 | 18 | < 0.19 | 1.5 | < 0.11 | < 0.26 | 6.7 | 14 | < 0.13 |
| | 94.3631 | < 0.72 | 11 | 35 | < 0.61 | 3.3 | < 0.37 | < 0.84 | 20 | 33 | < 0.41 |
| | 94.3632 | < 0.41 | 490 | 2400 | < 0.35 | 150 | 23 | < 0.48 | 150 | 450 | < 0.24 |
| | 94.3633 | < 0.2 | 3.8 | 110 | < 0.17 | 7.9 | 1.7 | < 0.23 | 53 | 61 | < 0.11 |
| | 94.3634 | < 0.36 | 86 | 230 | < 0.3 | 16 | 3.6 | < 0.42 | 80 | 110 | < 0.21 |
| | 94.3635 | < 0.32 | 7.9 | 78 | < 0.27 | 5 | 0.9 | < 0.38 | 44 | 69 | < 0.19 |
| | 94.3636 | < 0.25 | 44 | 200 | < 0.22 | 12 | 2.2 | < 0.3 | 22 | 40 | < 0.15 |
| | 94.3637 | < 0.6 | < 0.34 | 59 | < 0.48 | 2.5 | 0.37 | < 0.66 | < 0.36 | 15 | < 0.35 |
| | 94.3639 | < 0.85 | 25 | 120 | < 0.68 | 5.7 | 0.54 | < 0.94 | 38 | 59 | < 0.49 |
| | 94.3644 | < 0.54 | 5.7 | 54 | < 0.43 | 2.9 | < 0.29 | < 0.6 | 29 | 48 | < 0.31 |
| | 94.3645 | < 0.35 | 31 | 73 | < 0.28 | 5.7 | 0.69 | < 0.39 | 28 | 35 | < 0.2 |
| | 94.3647 | < 0.35 | 37 | 85 | < 0.28 | 8.2 | 1.8 | < 0.38 | 46 | 71 | < 0.2 |
| | 94.3648 | < 0.91 | 21 | 63 | < 0.73 | 5.3 | 1.4 | < 01 | 26 | 48 | < 0.52 |
| | 94.3649 | < 1.1 | 5.6 | 30 | < 0.86 | < 0.64 | < 0.58 | < 1.2 | 9.5 | 16 | < 0.62 |

R - Tissue sample was re-extracted

* The dioxin-like PCB congeners (shown in this table) have minimal interferences from co-eluting compounds which generally contribute < 10% to the total concentration.

**Table 1C-p1: Concentrations (ng/g, wet weight) of selected nondioxin-like PCBs* and pesticides in English sole liver samples analyzed as the part of the Hylebos Waterway Damage Assessment Project.**

| Site | Field Number | Nondioxin-like CB Congeners | | | | Selected Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 101 | 128 | 138 | 153 | opDDD | ppDDD | ppDDE | opDDT | ppDDT | HCB |
| Colvos Passage | | | | | | | | | | | |
| | 94.3514 | 3.4 | 0.6 | 10 | 7.6 | < 1.6 | < 3.9 | I | I | < 2.7 | < 0.64 |
| | 94.3515 | 3.3 | 1.6 | 5 | 7.9 | < 0.52 | < 0.9 | I | < 0.68 | < 0.76 | < 0.2 |
| | 94.3516 | 20 | 10 | 24 | 49 | < 0.87 | < 1.5 | I | I | < 1.3 | 1.6 |
| | 94.3518 | 6.2 | 5.3 | 14 | 27 | < 0.54 | < 0.94 | I | < 0.71 | < 0.79 | 1.2 |
| | 94.3520 | 4.4 | 2.5 | 7.7 | 10 | < 0.52 | < 0.91 | I | < 0.68 | < 0.77 | 0.4 |
| | 94.3523 | 10 | 5.5 | 12 | 25 | < 0.55 | < 0.96 | I | < 0.73 | < 0.82 | 1.4 |
| | 94.3524 | 4.1 | 3.1 | 9.9 | 11 | < 0.88 | < 1.5 | I | I | < 1.3 | 1.1 |
| | 94.3525 | 6.9 | 4.5 | 13 | 27 | < 0.44 | < 0.76 | I | I | < 0.65 | 0.6 |
| | 94.3526 | 10 | 5.4 | 13 | 21 | < 1 | < 1.7 | I | I | < 1.5 | < 0.38 |
| | 94.3527 | 14 | 8.6 | 20 | 39 | < 0.43 | < 0.74 | I | I | < 0.63 | 1.9 |
| | 94.3539 | 4.2 | 2.2 | 9.4 | 9 | < 1.6 | < 3.4 | I | I | < 2.3 | < 0.64 |
| | 94.3540 | 14 | 8.5 | 18 | 29 | < 0.45 | < 0.98 | I | I | < 0.67 | 1.1 |
| | 94.3541 | 21 | 6.8 | 19 | 31 | < 1.5 | < 3.2 | I | < 1.9 | < 2.2 | < 0.59 |
| | 94.3542 | 7.6 | < 0.62 | 9.1 | 14 | < 1.7 | < 3.5 | I | < 2.2 | < 2.4 | < 0.67 |
| | 94.3652 | 15 | 10 | 23 | 48 | < 0.52 | < 1.1 | I | I | < 0.75 | 2.8 |
| | 94.3651 | 9.7 | 3.9 | 7.9 | 17 | < 0.72 | < 1.6 | I | I | < 1.2 | < 0.29 |
| | 94.3653 | 6.5 | 4.6 | 10 | 20 | < 0.39 | < 0.89 | I | < 0.55 | < 0.63 | 1.6 |
| | 94.3654 | 7.2 | 3.6 | 7.3 | 14 | < 0.73 | < 1.6 | I | < 1 | < 1.2 | 0.8 |
| | 94.3656 | 6.4 | 5.2 | 11 | 23 | < 0.53 | < 1.2 | I | < 0.74 | I | 2.5 |
| | 94.3657 | 14 | 6.7 | 13 | 28 | < 0.66 | < 1.5 | I | I | < 1.1 | 1.4 |
| | 94.3658 | 6.5 | 1.2 | 5.3 | 13 | < 0.65 | < 1.5 | I | I | I | 1.5 |
| | 94.3659 | 9.7 | 5.9 | 14 | 29 | < 0.64 | < 1.5 | I | < 0.89 | < 1 | < 0.26 |
| | 94.3660 | 13 | 9.8 | 18 | 39 | < 0.58 | < 1.3 | I | I | < 0.93 | 1.8 |
| | 94.3661 | 8.5 | 3.5 | 6.6 | 17 | < 0.51 | < 1.2 | I | I | < 0.83 | 1.1 |
| | 94.3663 | 12 | 7.6 | 18 | 36 | < 0.69 | < 1.6 | I | I | < 1.1 | 3 |
| | 94.3664 | 6.2 | 2.6 | 8.7 | 15 | < 0.64 | < 1.4 | I | I | < 0.94 | < 0.25 |
| | 94.3666 | 25 | 14 | 30 | 56 | < 1 | < 2.2 | I | I | < 1.5 | 1.4 |
| | 94.3667 | 6.3 | 3.3 | 6.6 | 15 | < 0.42 | < 0.92 | I | < 0.54 | < 0.61 | < 0.17 |
| | 94.3669 | 7.7 | 5.3 | 11 | 26 | < 0.58 | < 1.3 | I | < 0.75 | I | < 0.23 |
| | 94.3672 | 13 | 5 | 12 | 19 | < 0.93 | < 2.2 | I | I | < 1.4 | < 0.37 |
| | 94.3681 | 29 | 2.6 | 9.7 | 12 | I | < 1.1 | I | I | < 0.72 | 1.2 |
| | 94.3683 | 16 | 6.6 | 18 | 33 | I | < 1.5 | I | < 0.84 | < 0.96 | 1.8 |
| | 94.3684 | 3.2 | 1.6 | 4.1 | 7.6 | < 0.65 | < 1.5 | I | < 0.86 | < 0.98 | < 0.26 |
| | 94.3685 | 18 | 7.6 | 16 | 32 | < 0.68 | < 1.6 | I | I | < 1 | 0.92 |
| | 94.3687 | 5.9 | 2.4 | 5.2 | 10 | < 0.46 | < 1.1 | I | < 0.6 | < 0.69 | < 0.18 |
| | 94.3688 | 8.9 | 4.3 | 9.6 | 19 | < 0.53 | < 1.2 | I | I | < 0.79 | 2.3 |
| | 94.3689 | 22 | 8.2 | 22 | 49 | < 1.4 | < 3.3 | I | I | < 2.1 | < 0.57 |

HCB = hexachlorobenzene
R - Tissue sample was re-extracted
* The nondioxin-like PCB congeners (shown in this table) generally co-elute with other PCBs, therefore we report the PCB congener that is usually present in the greatest proportion.
I = The compound could not be quantitated due to analytical interference with a coeluting PCB congener.

**Table 1C-p2: Concentrations (ng/g, wet weight) of selected nondioxin-like PCBs* and pesticides in English sole liver samples analyzed as the part of the Hylebos Waterway Damage Assessment Project.**

| Site | Field Number | Nondioxin-like CB Congeners | | | | Selected Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 101 | 128 | 138 | 153 | opDDD | ppDDD | ppDDE | opDDT | ppDDT | HCB |
| | 94.3690 | 30 | 4.9 | 11 | 24 | < 1.4 | < 3.3 | I | I | < 2.1 | < 0.57 |
| | 94.3537R | 9.8 | 3.6 | 6.7 | 11 | < 3.5 | < 7.3 | I | < 4.5 | < 4.9 | < 1.7 |
| | 94.3538R | 18 | 2 | 25 | 35 | < 3.7 | < 7.8 | I | I | < 5.2 | < 1.8 |
| | 94.3536R | 8.6 | 10 | 14 | 22 | < 3.4 | < 7.2 | I | I | < 4.8 | < 1.6 |
| | 94.3543R | 7.6 | < 1.5 | < 1.8 | 8 | < 4 | < 8.3 | I | I | < 5.5 | < 1.9 |
| Hylebos | | | | | | | | | | | |
| | 94.3548 | 160 | 38 | 77 | 250 | < 0.79 | 15 | I | I | < 1.2 | 62 |
| | 94.3550 | 340 | 53 | 120 | 320 | < 0.86 | 31 | I | I | < 1.3 | 52 |
| | 94.3552 | 1100 | 120 | 300 | 710 | < 0.52 | 84 | I | I | < 0.77 | 18 |
| | 94.3554 | 100 | 21 | 61 | 150 | < 0.38 | 9.2 | I | I | < 0.57 | 21 |
| | 94.3560 | 19 | 9.8 | 21 | 41 | < 0.59 | < 1.3 | I | I | < 0.87 | 2.6 |
| | 94.3562 | 63 | 15 | 31 | 120 | < 0.45 | 4.8 | I | I | < 0.66 | 19 |
| | 94.3564 | 140 | 30 | 86 | 230 | < 0.35 | 16 | I | I | < 0.52 | 40 |
| | 94.3566 | 50 | 13 | 27 | 65 | < 1.1 | < 2.2 | I | I | < 1.6 | 22 |
| | 94.3567 | 410 | 32 | 180 | 490 | < 0.96 | 49 | I | I | < 1.4 | 130 |
| | 94.3568 | 220 | 40 | 93 | 240 | < 0.6 | 15 | I | I | < 0.88 | 28 |
| | 94.3569 | 240 | 38 | 140 | 420 | < 0.57 | 30 | I | I | < 0.84 | 98 |
| | 94.3572 | 480 | 64 | 140 | 310 | < 1.8 | 20 | I | I | < 2.6 | 16 |
| | 94.3574 | 700 | 110 | 230 | 700 | < 0.56 | 80 | I | I | < 0.82 | 120 |
| | 94.3575 | 1300 | 120 | 260 | 710 | < 0.29 | 110 | I | I | I | 22 |
| | 94.3576 | 1300 | 170 | 390 | 840 | < 0.51 | 96 | I | I | I | 26 |
| | 94.3577 | 710 | 86 | 190 | 440 | < 0.78 | 48 | I | I | < 1.1 | 27 |
| | 94.3578 | 530 | 63 | 130 | 330 | < 1.2 | 35 | I | I | I | 16 |
| | 94.3581 | 770 | 85 | 210 | 470 | < 0.33 | 45 | I | I | < 0.5 | 16 |
| | 94.3586 | 160 | 29 | 90 | 250 | < 0.33 | 15 | I | I | < 0.49 | 26 |
| | 94.3587 | 61 | 20 | 50 | 110 | < 0.79 | 6.6 | I | I | < 1.2 | 16 |
| | 94.3588 | 120 | 26 | 58 | 160 | < 0.54 | 8 | I | I | < 0.8 | 29 |
| | 94.3589 | 75 | 17 | 36 | 90 | < 1.2 | 9.1 | I | I | < 1.7 | 20 |
| | 94.3590 | 1000 | 110 | 220 | 630 | < 0.99 | 140 | I | I | < 1.5 | 38 |
| | 94.3592 | 100 | 23 | 47 | 120 | < 0.79 | < 1.7 | I | I | < 1.2 | 23 |
| | 94.3593 | 19 | 5.5 | 14 | 32 | < 0.5 | < 1.1 | I | I | < 0.75 | 6.9 |
| | 94.3594 | 24 | 17 | 40 | 80 | < 1.9 | < 4 | I | I | < 2.8 | < 0.73 |
| | 94.3595 | 540 | 72 | 160 | 440 | < 0.65 | 35 | I | I | < 1 | 59 |
| | 94.3598 | 22 | 9.1 | 19 | 40 | < 0.74 | < 1.6 | I | I | < 1.2 | 5.9 |
| | 94.3600 | 700 | 130 | 390 | 1100 | < 0.4 | 55 | I | I | < 0.64 | 94 |
| | 94.3602 | 94 | 23 | 33 | 130 | < 0.76 | 12 | I | I | < 1.2 | 47 |
| | 94.3603 | 57 | 14 | 23 | 72 | < 0.86 | 5.2 | I | I | 10 | 35 |
| | 94.3604 | 44 | 13 | 31 | 76 | < 0.5 | 8.5 | I | I | 32 | 23 |

HCB = hexachlorobenzene
R - Tissue sample was re-extracted
* The nondioxin-like PCB congeners (shown in this table) generally co-elute with other PCBs, therefore we report the PCB congener that is usually present in the greatest proportion.
I = The compound could not be quantitated due to analytical interference with a coeluting PCB congener.

**Table 1C-p3: Concentrations (ng/g, wet weight) of selected nondioxin-like PCBs* and pesticides in English sole liver samples analyzed as the part of the Hylebos Waterway Damage Assessment Project.**

| Site | Field Number | Nondioxin-like CB Congeners | | | | Selected Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 101 | 128 | 138 | 153 | opDDD | ppDDD | ppDDE | opDDT | ppDDT | HCB |
| | 94.3605 | 91 | 30 | 64 | 130 | < 3.2 | < 6.9 | I | I | < 5.1 | < 1.2 |
| | 94.3607 | 120 | 30 | 56 | 160 | < 0.92 | 11 | I | I | I | 54 |
| | 94.3615 | 140 | 25 | 53 | 130 | < 0.38 | 17 | I | I | < 0.61 | 40 |
| | 94.3616 | 140 | 45 | 81 | 250 | < 0.32 | 24 | I | I | < 0.51 | 89 |
| | 94.3617 | 310 | 65 | 110 | 340 | < 0.42 | 38 | I | I | < 0.7 | 100 |
| | 94.3618 | 70 | 13 | 30 | 110 | < 0.69 | 12 | I | I | 37 | 24 |
| | 94.3629 | 280 | 67 | 230 | 480 | < 0.35 | 58 | I | I | < 0.58 | 96 |
| | 94.3630 | 32 | 7.2 | 18 | 45 | < 0.31 | < 0.7 | I | I | < 0.52 | 9.5 |
| | 94.3631 | 80 | 14 | 39 | 110 | < 1 | 11 | I | I | < 1.7 | 24 |
| | 94.3632 | 3700 | 460 | 1400 | 3300 | I | 400 | I | I | < 0.98 | 27 |
| | 94.3633 | 160 | 34 | 69 | 230 | < 0.28 | 25 | I | I | I | 69 |
| | 94.3634 | 360 | 71 | 170 | 480 | < 0.51 | 28 | I | I | < 0.85 | 79 |
| | 94.3635 | 62 | 33 | 83 | 180 | I | < 1 | I | I | < 0.77 | 1 |
| | 94.3636 | 270 | 40 | 98 | 220 | I | 25 | I | I | < 0.6 | 16 |
| | 94.3637 | 72 | 14 | 32 | 81 | < 0.8 | 13 | I | I | I | 25 |
| | 94.3639 | 78 | 42 | 93 | 180 | < 1.1 | < 2.5 | I | I | < 1.6 | 5.6 |
| | 94.3644 | 34 | 24 | 56 | 120 | I | < 1.6 | I | I | < 1 | 4.1 |
| | 94.3645 | 120 | 24 | 49 | 140 | < 0.47 | 17 | I | I | < 0.67 | 46 |
| | 94.3647 | 130 | 29 | 72 | 200 | < 0.46 | 21 | I | I | < 0.66 | 66 |
| | 94.3648 | 85 | 24 | 52 | 120 | < 1.2 | < 2.6 | I | I | < 1.7 | 8.8 |
| | 94.3649 | 29 | 7.8 | 18 | 50 | < 1.4 | < 3.1 | I | I | < 2.1 | 13 |

HCB = hexachlorobenzene
R - Tissue sample was re-extracted
* The nondioxin-like PCB congeners (shown in this table) generally co-elute with other PCBs, therefore we report the PCB congener that is usually present in the greatest proportion.
I = The compound could not be quantitated due to analytical interference with a coeluting PCB congener.

Table 1D-p1: Quality assurance sample information in method blanks and standard control material analyzed for dioxin-like PCBs and other selected PCBs and pesticides as part of the Hylebos Waterway Damage Assessment Project.

| Extract Number | Sample Matrix | Sample Wt. (g) | TriCDD Rec. (%) | Extract. Date |
|---|---|---|---|---|
| **Method Blank** | | | | |
| HY001 | Method Blank | 0.89 | 113 | 05/23/95 |
| HY042 | Method Blank | 1.00 | 98 | 06/15/95 |
| HY055◊ | Method Blank | 1.07 | 72 | 06/22/95 |
| HY055◊ | Method Blank | 1.07 | 72 | 06/22/95 |
| HY057 | Method Blank | 1.21 | 121 | 07/06/95 |
| HY083 | Method Blank | 1.41 | 119 | 07/11/95 |
| HY097 | Method Blank | 1.57 | 120 | 07/20/95 |
| HY111 | Method Blank | 0.95 | 107 | 07/25/95 |
| HY125 | Method Blank | 0.93 | 112 | 08/01/95 |
| HY127 | Method Blank | 0.83 | 122 | 08/04/95 |
| HY151 | Method Blank | 0.89 | 125 | 08/08/95 |
| HY160 | Method Blank | 0.25 | 103 | 10/18/95 |
| **NIST Whale Blubber** | | | | |
| HY014 | NIST Whale Blubber | 0.30 | 101 | 05/23/95 |
| HY041 | NIST Whale Blubber | 0.34 | 84 | 06/15/95 |
| HY056◊ | NIST Whale Blubber | 0.36 | 83 | 06/22/95 |
| HY056◊ | NIST Whale Blubber | 0.36 | 82 | 06/22/95 |
| HY069 | NIST Whale Blubber | 0.30 | 113 | 07/06/95 |
| HY084 | NIST Whale Blubber | 0.32 | 116 | 07/11/95 |
| HY098 | NIST Whale Blubber | 0.32 | 115 | 07/20/95 |
| HY112 | NIST Whale Blubber | 0.29 | 103 | 07/25/95 |
| HY126 | NIST Whale Blubber | 0.31 | 106 | 08/01/95 |
| HY138 | NIST Whale Blubber | 0.30 | 118 | 08/04/95 |
| HY152 | NIST Whale Blubber | 0.33 | 110 | 08/08/95 |
| HY161 | NIST Whale Blubber | 0.36 | 93 | 10/18/95 |

TriCDD = 1,7,8-trichlorodibenzo-*p*-dioxin
◊ Sample was analyzed twice by HPLC/PDA.

**Table 1E-p1: QA: Concentrations (ng/g, wet weight) of dioxin-like PCBs in method blanks and standard control material analyzed as part of the Hylebos Waterway Damage Assessment Project.**

| Field Number | | 77 | 105 | 118 | 126 | 156 | 157 | 169 | 170 | 180 | 189 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Method Blank** | | | | | | | | | | | |
| HY001 | Method Blank | <0.45 | <0.27 | <0.29 | <0.24 | <0.28 | <0.26 | <0.53 | 4.8 | <0.28 | <0.26 |
| HY042 | Method Blank | <0.52 | <0.3 | <0.33 | <0.44 | <0.32 | <0.29 | <0.63 | <0.32 | <0.32 | <0.31 |
| HY055◊ | Method Blank | <0.73 | <0.41 | <0.46 | <0.59 | <0.43 | <0.37 | <0.79 | <0.43 | 1.9 | <0.39 |
| HY055◊ | Method Blank | <0.44 | <0.25 | 0.7 | <0.35 | <0.26 | <0.22 | <0.47 | <0.26 | <0.25 | <0.23 |
| HY057 | Method Blank | <0.5 | <0.28 | <0.31 | <0.42 | <0.3 | <0.27 | <0.59 | 16 | <0.32 | <0.29 |
| HY083 | Method Blank | <0.4 | <0.22 | 0.63 | <0.33 | <0.24 | <0.22 | <0.48 | 1.6 | <0.25 | <0.23 |
| HY097 | Method Blank | <0.3 | <0.17 | 0.56 | <0.26 | <0.18 | <0.16 | <0.36 | <0.19 | <0.18 | <0.18 |
| HY111 | Method Blank | <0.46 | 0.65 | 1.6 | <0.37 | <0.27 | <0.25 | <0.5 | <0.28 | <0.27 | <0.26 |
| HY125 | Method Blank | <0.5 | <0.28 | 0.73 | <0.42 | <0.3 | <0.27 | <0.59 | <0.3 | <0.3 | <0.29 |
| HY127 | Method Blank | <0.6 | <0.33 | 1.2 | <0.48 | <0.36 | <0.32 | <0.68 | <0.37 | <0.35 | <0.35 |
| HY151 | Method Blank | <0.41 | <0.23 | <0.25 | <0.34 | <0.24 | <0.23 | <0.47 | <0.25 | <0.25 | <0.24 |
| HY160 | Method Blank | <2 | <1.1 | <1.2 | <1.6 | <1.1 | <1 | <2.1 | <1.2 | <1.1 | <1.1 |
| | Average* | | 0.65 | 0.90 | | | | | 7.47 | 2 | |
| | SD | | 0.00 | 0.37 | | | | | 6.17 | 0 | |
| **NIST Whale Blubber** | | | | | | | | | | | |
| HY014 | NIST Whale Blubber | <1.1 | 100 | 330 | <1 | 32 | 8.9 | <1.3 | 170 | 540 | 7.7 |
| HY041 | NIST Whale Blubber | <1.5 | 100 | 310 | <1.3 | 34 | 7.4 | <1.8 | 190 | 550 | 3.2 |
| HY056◊ | NIST Whale Blubber | <1 | 75 | 240 | <0.8 | 29 | 9.7 | <1.1 | 160 | 480 | 4.7 |
| HY056◊ | NIST Whale Blubber | <1.3 | 79 | 240 | <1 | 28 | 8.1 | <1.4 | 140 | 480 | 6.2 |
| HY069 | NIST Whale Blubber | <1.7 | 82 | 230 | <1.5 | 23 | 7.2 | <2 | 170 | 430 | 5.4 |
| HY084 | NIST Whale Blubber | <1.7 | 91 | 270 | <1.4 | 28 | 11 | <2.1 | 140 | 480 | 5.8 |
| HY098 | NIST Whale Blubber | <1.4 | 88 | 260 | <1.2 | 29 | 10 | <1.7 | 160 | 490 | 3 |
| HY112 | NIST Whale Blubber | <1.4 | 83 | 260 | <1.1 | 28 | 8.7 | <1.5 | 130 | 480 | 3.5 |
| HY126 | NIST Whale Blubber | <1.4 | 91 | 260 | <1.2 | 26 | 6.8 | <1.7 | 150 | 470 | 3.9 |
| HY138 | NIST Whale Blubber | <1.8 | 88 | 240 | <1.4 | 27 | 5 | <2 | 150 | 470 | 3 |
| HY152 | NIST Whale Blubber | <1.3 | 85 | 250 | <1 | 25 | 7.4 | <1.5 | 150 | 460 | 4.1 |
| HY161 | NIST Whale Blubber | <1.7 | 77 | 230 | <1.4 | 28 | 6.6 | <1.8 | 140 | 460 | 3.4 |
| | Average* | | 86.58 | 260.00 | | 28.08 | 8.07 | | 154.17 | 483 | 4.49 |
| | SD | | 7.76 | 29.72 | | 2.78 | 1.60 | | 16.05 | 32 | 1.43 |
| **NIST Whale Blubber Published concentrations (ng/g, wet wt)** | X | — | 88.9 | 267 | — | 38.2 | — | — | 226 | 483 | — |
| | X + 0.5X | | 133.4 | 400.5 | | 57.3 | | | 339 | 724.5 | |
| | X - 0.5X | | 44.4 | 133.5 | | 19.1 | | | 113 | 241.5 | |

X is the average concentration (ng/g, wet wt)
X + 0.5X is the upper control limit (+50% of published value)
X - 0.5X is the lower control limit (-50% of published value)

◊ Sample was analyzed twice by HPLC/PDA.

* When an analyte was detected in some, but not all of the method blanks, the average concentration is based on the concentration when detected and not included in the average calculation when not detected. When an analyte was not detected in any of the method blanks or control materials, the average and SD analyte values are blank.

**Table 1F-p1: QA: Concentrations (ng/g, wet weight) of selected nondioxin-like PCBs and pesticides in method blanks and control material analyzed as part of the Hylebos Waterway Damage Assessment Project.**

| Field Number | | Nondioxin-like Congeners | | | | Selected Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 101 | 128 | 138 | 153 | opDDD | ppDDD | ppDDE | opDDT | ppDDT | HCB |
| **Method Blank** | | | | | | | | | | | |
| HY001 | Method Blank | < 0.29 | < 0.25 | 6.9 | 1.1 | < 0.67 | < 1.2 | 2.5 | < 0.88 | < 0.99 | < 0.25 |
| HY042 | Method Blank | < 0.33 | < 0.27 | 5.6 | < 0.29 | < 0.72 | < 1.6 | < 0.83 | < 0.96 | < 1.1 | < 0.29 |
| HY055◊ | Method Blank | 0.84 | < 0.38 | < 0.45 | 0.55 | < 1 | < 2 | < 1.1 | < 1.3 | < 1.5 | < 0.45 |
| HY055◊ | Method Blank | < 0.28 | < 0.23 | 4.7 | < 0.25 | < 0.61 | < 1.2 | < 0.68 | < 0.79 | < 0.89 | < 0.27 |
| HY057 | Method Blank | < 0.31 | < 0.26 | 7.3 | 0.63 | < 0.71 | < 1.5 | < 0.82 | 11 | < 1.1 | < 0.28 |
| HY083 | Method Blank | < 0.25 | < 0.21 | 4.3 | 0.92 | < 0.59 | < 1.3 | < 0.65 | < 0.73 | < 0.93 | < 0.22 |
| HY097 | Method Blank | 1.1 | < 0.16 | < 0.19 | 17 | < 0.44 | < 0.98 | < 0.49 | < 0.57 | < 0.72 | < 0.17 |
| HY111 | Method Blank | 2.6 | < 0.24 | < 0.29 | 2.4 | < 0.61 | < 1.3 | < 0.73 | < 0.83 | < 0.88 | < 0.25 |
| HY125 | Method Blank | < 0.31 | < 0.26 | 3.7 | 2.5 | < 0.68 | < 1.5 | < 0.82 | < 0.94 | < 1.1 | < 0.28 |
| HY127 | Method Blank | 1.9 | < 0.31 | 10 | 2.2 | < 0.83 | < 1.8 | < 0.96 | 1.6 | < 1.2 | < 0.33 |
| HY151 | Method Blank | 4 | < 0.22 | 3.1 | 0.97 | < 0.56 | < 1.3 | < 0.64 | < 0.74 | < 0.85 | < 0.23 |
| HY160 | Method Blank | < 1.2 | 3.7 | < 1.2 | 2.2 | < 2.6 | < 5.5 | < 2.9 | < 3.4 | < 3.7 | < 1.3 |
| | Average* | 2.1 | 3.7 | 5.7 | 2.6 | | | 2.5 | 6.3 | | |
| | SD | 1.1 | 0.0 | 2.1 | 4.4 | | | 0.0 | 4.7 | | |
| **NIST Whale Blubber** | | | | | | | | | | | |
| HY014 | NIST Whale Blubber | 540 | 170 | 560 | 950 | 46 | 370 | 2900 | 520 | 1200 | 29 |
| HY041 | NIST Whale Blubber | 520 | 160 | 570 | 960 | 45 | 320 | 2800 | 520 | 990 | 41 |
| HY056◊ | NIST Whale Blubber | 440 | 110 | 470 | 840 | 33 | 310 | 2400 | 400 | 910 | 42 |
| HY056◊ | NIST Whale Blubber | 430 | 120 | 480 | 840 | 34 | 340 | 2600 | 400 | 930 | 38 |
| HY069 | NIST Whale Blubber | 390 | 120 | 440 | 740 | 36 | 270 | 1900 | 400 | 910 | 32 |
| HY084 | NIST Whale Blubber | 440 | 150 | 500 | 840 | 46 | 320 | 2300 | 470 | 1000 | 37 |
| HY098 | NIST Whale Blubber | 490 | 140 | 510 | 950 | 34 | 300 | 2700 | 410 | 920 | 36 |
| HY112 | NIST Whale Blubber | 520 | 140 | 500 | 860 | 36 | 330 | 2600 | 410 | 1100 | 37 |
| HY126 | NIST Whale Blubber | 460 | 140 | 490 | 840 | 37 | 310 | 2500 | 460 | 960 | 35 |
| HY138 | NIST Whale Blubber | 420 | 120 | 490 | 820 | 39 | 300 | 2100 | 390 | 920 | 36 |
| HY152 | NIST Whale Blubber | 390 | 130 | 470 | 780 | 40 | 310 | 2700 | 430 | 930 | 29 |
| HY161 | NIST Whale Blubber | 450 | 120 | 470 | 810 | 34 | 330 | 3000 | 370 | 920 | 39 |
| | Average* | 457.5 | 135.0 | 495.8 | 852.5 | 38.3 | 317.5 | 2541.7 | 431.7 | 974.2 | 35.9 |
| | SD | 48.0 | 17.6 | 35.7 | 65.8 | 4.7 | 23.5 | 309.5 | 47.8 | 86.1 | 4.0 |
| **NIST Whale Blubber Published concentrations (ng/g, wet wt)** | X | 261** | 99** | 664 | 870 | 58.4 | 260 | 1750 | 222** | 651 | 36.9 |
| | X + 0.5X | 391.5** | 148.5** | 996 | 1305 | 87.6 | 390 | 2625 | 333** | 976.5 | 55.4 |
| | X - 0.5X | 130.5** | 49.5** | 332 | 435 | 29.2 | 130 | 875 | 111** | 325.5 | 18.4 |

HCB = hexachlorobenzene

X is the average concentration (ng/g, wet wt)
X + 0.5X is the upper control limit (+50% of published value)
X - 0.5X is the lower control limit (-50% of published value)

◊ Sample was analyzed twice by HPLC/PDA.

* When an analyte was detected in some, but not all of the method blanks, the average concentration is based on the concentration when detected and not included in the average calculation when not detected. When an analyte was not detected in any of the method blanks or control materials, the average and SD analyte values are blank.

** Other PCBs coelute with these analytes when analyzed by HPLC/PDA, therefore these compounds were not included in the analytes selected for reference material performance criteria.

**Table 1G-p1: QA: Sample information for English sole tissue analyzed in replicate for dioxin-like PCBs and other PCBs and pesticides as part of the Hylebos Waterway Damage Assessment Project.**

| Field Number | Extract Number | Sample Matrix | Site | Sampling Date | Sample Wt. (g) | TriCDD Rec. (%) | Extract. Date |
|---|---|---|---|---|---|---|---|
| 94.3521 | HY007 | Liver | Colvos Passage | 12/02/94 | 1.01 | 107 | 05/23/95 |
| 94.3521 | HY013 | Liver | Colvos Passage | 12/02/94 | 1.15 | 70 | 05/23/95 |
| 94.3529R | HY158 | Liver | Colvos Passage | 12/02/94 | 0.28 | 97 | 10/18/95 |
| 94.3529R | HY159 | Liver | Colvos Passage | 12/02/94 | 0.28 | 99 | 10/18/95 |
| 94.3546 | HY033 | Liver | Hylebos | 12/05/94 | 1.52 | 97 | 06/15/95 |
| 94.3546 | HY034 | Liver | Hylebos | 12/05/94 | 1.44 | 98 | 06/15/95 |
| 94.3565 | HY044◊ | Liver | Hylebos | 12/05/94 | 1.20 | 77 | 06/22/95 |
| 94.3565 | HY044◊ | Liver | Hylebos | 12/05/94 | 1.20 | 74 | 06/22/95 |
| 94.3565 | HY045◊ | Liver | Hylebos | 12/05/94 | 1.25 | 67 | 06/22/95 |
| 94.3565 | HY045◊ | Liver | Hylebos | 12/05/94 | 1.25 | 70 | 06/22/95 |
| 94.3591 | HY065 | Liver | Hylebos | 12/06/94 | 2.03 | 101 | 07/06/95 |
| 94.3591 | HY070 | Liver | Hylebos | 12/06/94 | 2.06 | 101 | 07/06/95 |
| 94.3594A | HY071 | Liver | Hylebos | 01/04/95 | 2.05 | 121 | 07/11/95 |
| 94.3594A | HY079 | Liver | Hylebos | 01/04/95 | 1.97 | 119 | 07/11/95 |
| 94.3628 | HY087 | Liver | Hylebos | 01/05/95 | 2.02 | 121 | 07/20/95 |
| 94.3628 | HY088 | Liver | Hylebos | 01/05/95 | 2.02 | 118 | 07/20/95 |
| 94.3650 | HY106 | Liver | Colvos Passage | 01/06/95 | 0.64 | 110 | 07/25/95 |
| 94.3650 | HY107 | Liver | Colvos Passage | 01/06/95 | 1.34 | 110 | 07/25/95 |
| 94.3655 | HY116 | Liver | Colvos Passage | 01/06/95 | 0.96 | 118 | 08/01/95 |
| 94.3655 | HY124 | Liver | Colvos Passage | 01/06/95 | 0.97 | 113 | 08/01/95 |
| 94.3670 | HY132 | Liver | Colvos Passage | 01/06/95 | 0.51 | 122 | 08/04/95 |
| 94.3670 | HY140 | Liver | Colvos Passage | 01/06/95 | 0.54 | 122 | 08/04/95 |
| 94.3682 | HY143 | Liver | Colvos Passage | 01/09/95 | 0.98 | 116 | 08/08/95 |
| 94.3682 | HY153 | Liver | Colvos Passage | 01/09/95 | 1.09 | 121 | 08/08/95 |

TriCDD = 1,7,8-trichlorodibenzo-*p*-dioxin
R - Tissue sample was re-extracted
◊ Sample was analyzed twice by HPLC/PDA.

**Table 1H-p1: QA: Concentrations (ng/g, wet weight) of dioxin-like PCBs* in English sole tissue analyzed in replicate as part of the Hylebos Waterway Damage Assessment Project.**

| Field Number | Extract Number | 77 | 105 | 118 | 126 | 156 | 157 | 169 | 170 | 180 | 189 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 94.3521 | HY007 | < 0.37 | 12 | 48 | < 0.2 | 1.9 | < 0.21 | < 0.45 | 16 | 17 | < 0.22 |
| 94.3521 | HY013 | < 0.61 | 8.3 | 48 | < 0.33 | 2.3 | < 0.35 | < 0.73 | 15 | 16 | < 0.35 |
| | Average† | | 10.15 | 48.00 | | 2.10 | | | 15.50 | 16.50 | |
| | SD | | 1.85 | 0.00 | | 0.20 | | | 0.50 | 0.50 | |
| | RSD | ? | 18.2% | 0.0% | ? | 9.5% | ? | ? | 3.2% | 3.0% | ? |
| 94.3529R | HY158 | < 2 | 14 | 57 | < 1.6 | < 1.1 | < 1 | < 2.1 | 12 | 32 | < 1.1 |
| 94.3529R | HY159 | < 2.1 | 17 | 56 | < 1.6 | < 1.2 | < 1.1 | < 2.2 | 14 | 25 | < 1.1 |
| | Average† | | 15.50 | 56.50 | | | | | 13.00 | 28.50 | |
| | SD | | 1.50 | 0.50 | | | | | 1.00 | 3.50 | |
| | RSD | ? | 9.7% | 0.9% | ? | ? | ? | ? | 7.7% | 12.3% | ? |
| 94.3546 | HY033 | < 0.27 | 77 | 190 | < 0.23 | 21 | 3.9 | < 0.33 | 100 | 130 | < 0.16 |
| 94.3546 | HY034 | < 0.31 | 81 | 200 | < 0.27 | 23 | 4 | < 0.38 | 110 | 140 | < 0.19 |
| | Average† | | 79.00 | 195.00 | | 22.00 | 3.95 | | 105.00 | 135.00 | |
| | SD | | 2.00 | 5.00 | | 1.00 | 0.05 | | 5.00 | 5.00 | |
| | RSD | ? | 2.5% | 2.6% | ? | 4.5% | 1.3% | ? | 4.8% | 3.7% | ? |
| 94.3565 | HY044◊ | < 0.51 | 99 | 260 | < 0.41 | 30 | 6.5 | < 0.55 | 210 | 270 | < 0.27 |
| 94.3565 | HY044◊ | < 0.49 | 120 | 320 | < 0.39 | 44 | 8 | < 0.53 | 260 | 320 | < 0.26 |
| 94.3565 | HY045◊ | < 0.44 | 140 | 370 | < 0.35 | 45 | 4.2 | < 0.48 | 340 | 330 | < 0.24 |
| 94.3565 | HY045◊ | < 0.32 | 160 | 360 | < 0.26 | 14 | 4.2 | < 0.35 | 300 | 330 | < 0.17 |
| | Average† | | 129.75 | 327.50 | | 33.25 | 5.73 | | 277.50 | 312.50 | |
| | SD | | 22.70 | 43.23 | | 12.60 | 1.61 | | 48.15 | 24.87 | |
| | RSD | ? | 17.5% | 13.2% | ? | 37.9% | 28.2% | ? | 17.4% | 8.0% | ? |
| 94.3591 | HY065 | < 0.33 | 74 | 190 | < 0.28 | 17 | 3.5 | < 0.4 | 99 | 150 | < 0.19 |
| 94.3591 | HY070 | < 0.32 | 74 | 190 | < 0.27 | 18 | 3.6 | < 0.38 | 96 | 150 | < 0.19 |
| | Average† | | 74.00 | 190.00 | | 17.50 | 3.55 | | 97.50 | 150.00 | |
| | SD | | 0.00 | 0.00 | | 0.50 | 0.05 | | 1.50 | 0.00 | |
| | RSD | ? | 0.0% | 0.0% | ? | 2.9% | 1.4% | ? | 1.5% | 0.0% | ? |
| 94.3594A | HY071 | < 0.26 | 41 | 160 | < 0.22 | 14 | 2.4 | < 0.32 | 61 | 100 | < 0.16 |
| 94.3594A | HY079 | < 0.25 | 46 | 160 | < 0.21 | 15 | 3 | < 0.3 | 63 | 97 | < 0.15 |
| | Average† | | 43.50 | 160.00 | | 14.50 | 2.70 | | 62.00 | 98.50 | |
| | SD | | 2.50 | 0.00 | | 0.50 | 0.30 | | 1.00 | 1.50 | |
| | RSD | ? | 5.7% | 0.0% | ? | 3.4% | 11.1% | ? | 1.6% | 1.5% | ? |

R - Tissue sample was re-extracted
◊ Sample was analyzed twice by HPLC/PDA.
* The dioxin-like PCB congeners (shown in this table) have minimal interferences from co-eluting compounds which generally contribute < 10% to the total concentration.

† When an analyte was detected in some, but not all of the replicates, the average concentration is based on the concentration when detected and not included in the average calculation when not detected. When an analyte was not detected in any of the replicates, the average and SD analyte values are blank and a "?" is reported for the RSD.

**Table 1H-p2: QA: Concentrations (ng/g, wet weight) of dioxin-like PCBs* in English sole tissue analyzed in replicate as part of the Hylebos Waterway Damage Assessment Project.**

| Field Number | Extract Number | 77 | 105 | 118 | 126 | 156 | 157 | 169 | 170 | 180 | 189 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 94.3628 | HY087 | < 0.23 | 33 | 100 | < 0.2 | 10 | 2.2 | < 0.27 | 50 | 86 | < 0.13 |
| 94.3628 | HY088 | < 0.28 | 29 | 110 | < 0.24 | 10 | 2.5 | < 0.33 | 50 | 77 | < 0.16 |
| | Average† | | 31.00 | 105.00 | | 10.00 | 2.35 | | 50.00 | 81.50 | |
| | SD | | 2.00 | 5.00 | | 0.00 | 0.15 | | 0.00 | 4.50 | |
| | RSD | ? | 6.5% | 4.8% | ? | 0.0% | 6.4% | ? | 0.0% | 5.5% | ? |
| 94.3650 | HY106 | < 0.69 | 3.6 | 16 | < 0.56 | < 0.41 | < 0.38 | < 0.76 | 3.8 | 9.9 | < 0.4 |
| 94.3650 | HY107 | < 0.37 | 4.4 | 17 | < 0.3 | < 0.22 | < 0.2 | < 0.41 | 4 | 7.2 | < 0.22 |
| | Average† | | 4.00 | 16.50 | | | | | 3.90 | 8.55 | |
| | SD | | 0.40 | 0.50 | | | | | 0.10 | 1.35 | |
| | RSD | ? | 10.0% | 3.0% | ? | ? | ? | ? | 2.6% | 15.8% | ? |
| 94.3655 | HY116 | < 0.39 | 4.1 | 14 | < 0.33 | < 0.24 | < 0.21 | < 0.46 | 3.2 | 5.2 | < 0.23 |
| 94.3655 | HY124 | < 0.45 | 3.9 | 15 | < 0.37 | < 0.27 | < 0.25 | < 0.53 | 3 | 4.9 | < 0.26 |
| | Average† | | 4.00 | 14.50 | | | | | 3.10 | 5.05 | |
| | SD | | 0.10 | 0.50 | | | | | 0.10 | 0.15 | |
| | RSD | ? | 2.5% | 3.4% | ? | ? | ? | ? | 3.2% | 3.0% | ? |
| 94.3670 | HY132 | < 1 | 2 | 9.8 | < 0.8 | < 0.6 | < 0.54 | < 1.1 | 2.3 | 13 | < 0.59 |
| 94.3670 | HY140 | < 0.94 | 1.7 | 8.1 | < 0.75 | < 0.56 | < 0.51 | < 1.1 | 1.8 | 12 | < 0.55 |
| | Average† | | 1.85 | 8.95 | | | | | 2.05 | 12.50 | |
| | SD | | 0.15 | 0.85 | | | | | 0.25 | 0.50 | |
| | RSD | ? | 8.1% | 9.5% | ? | ? | ? | ? | 12.2% | 4.0% | ? |
| 94.3682 | HY143 | < 0.44 | 1.5 | 5.4 | < 0.36 | < 0.26 | < 0.24 | < 0.5 | 1 | 1.7 | < 0.26 |
| 94.3682 | HY153 | < 0.31 | 1.1 | 4.8 | < 0.25 | < 0.18 | < 0.17 | < 0.35 | 1 | 2.1 | < 0.18 |
| | Average† | | 1.30 | 5.10 | | | | | 1.00 | 1.90 | |
| | SD | | 0.20 | 0.30 | | | | | 0.00 | 0.20 | |
| | RSD | ? | 15.4% | 5.9% | ? | ? | ? | ? | 0.0% | 10.5% | ? |

R - Tissue sample was re-extracted
◊ Sample was analyzed twice by HPLC/PDA.
* The dioxin-like PCB congeners (shown in this table) have minimal interferences from co-eluting compounds which generally contribute < 10% to the total concentration.

† When an analyte was detected in some, but not all of the replicates, the average concentration is based on the concentration when detected and not included in the average calculation when not detected. When an analyte was not detected in any of the replicates, the average and SD analyte values are blank and a "?" is reported for the RSD.

**Table 1l-p1: QA: Concentrations (ng/g, wet weight) of selected nondioxin-like PCBs* and pesticides in English sole tissue analyzed in replicate as part of the Hylebos Waterway Damage Assessment Project.**

| Field Number | Extract Number | Nondioxin-like CB Congeners | | | | Selected Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 101 | 128 | 138 | 153 | opDDD | ppDDD | ppDDE | opDDT | ppDDT | HCB |
| 94.3521 | HY007 | 21 | 12 | 28 | 55 | < 0.56 | < 0.98 | I | I | < 0.83 | 2.2 |
| 94.3521 | HY013 | 25 | 12 | 24 | 54 | < 0.92 | < 1.6 | I | I | < 1.4 | 1.6 |
| | Average† | 23.00 | 12.00 | 26.00 | 54.50 | | | 0.00 | 0.00 | | 1.90 |
| | SD | 2.00 | 0.00 | 2.00 | 0.50 | | | 0.00 | 0.00 | | 0.30 |
| | RSD | 8.7% | 0.0% | 7.7% | 0.9% | ? | ? | ? | ? | ? | 15.8% |
| 94.3529R | HY158 | 31 | 18 | 36 | 65 | < 2.6 | < 5.5 | I | < 3.4 | < 3.6 | < 1.2 |
| 94.3529R | HY159 | 34 | 15 | 36 | 67 | < 2.7 | < 5.7 | I | < 3.6 | < 3.8 | < 1.3 |
| | Average† | 32.50 | 16.50 | 36.00 | 66.00 | | | 0.00 | | | |
| | SD | 1.50 | 1.50 | 0.00 | 1.00 | | | 0.00 | | | |
| | RSD | 4.6% | 9.1% | 0.0% | 1.5% | ? | ? | ? | ? | ? | ? |
| 94.3546 | HY033 | 340 | 77 | 150 | 500 | < 0.38 | 41 | I | I | < 0.56 | 110 |
| 94.3546 | HY034 | 370 | 61 | 170 | 540 | < 0.44 | 42 | I | I | < 0.65 | 110 |
| | Average† | 355.00 | 69.00 | 160.00 | 520.00 | | 41.50 | 0.00 | 0.00 | | 110.00 |
| | SD | 15.00 | 8.00 | 10.00 | 20.00 | | 0.50 | 0.00 | 0.00 | | 0.00 |
| | RSD | 4.2% | 11.6% | 6.3% | 3.8% | ? | 1.2% | ? | ? | ? | 0.0% |
| 94.3565 | HY044◊ | 380 | 100 | 230 | 770 | 43 | 42 | I | I | < 1 | 130 |
| 94.3565 | HY044◊ | 470 | 130 | 280 | 960 | 54 | 49 | I | I | < 1 | 160 |
| 94.3565 | HY045◊ | 480 | 120 | 300 | 1300 | 110 | 90 | I | I | < 0.9 | 160 |
| 94.3565 | HY045◊ | 460 | 120 | 280 | 1100 | 69 | 63 | I | I | < 0.66 | 160 |
| | Average† | 447.50 | 117.50 | 272.50 | 1032.50 | 69.00 | 61.00 | 0.00 | 0.00 | | 152.50 |
| | SD | 39.61 | 10.90 | 25.86 | 193.83 | 25.41 | 18.37 | 0.00 | 0.00 | | 12.99 |
| | RSD | 8.9% | 9.3% | 9.5% | 18.8% | 36.8% | 30.1% | ? | ? | ? | 8.5% |
| 94.3591 | HY065 | 250 | 71 | 160 | 440 | < 0.47 | 36 | I | I | < 0.7 | 120 |
| 94.3591 | HY070 | 270 | 71 | 160 | 440 | < 0.46 | 34 | I | I | < 0.68 | 120 |
| | Average† | 260.00 | 71.00 | 160.00 | 440.00 | | 35.00 | 0.00 | 0.00 | | 120.00 |
| | SD | 10.00 | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 0.00 | | 0.00 |
| | RSD | 3.8% | 0.0% | 0.0% | 0.0% | ? | 2.9% | ? | ? | ? | 0.0% |
| 94.3594A | HY071 | 220 | 45 | 120 | 320 | < 0.39 | 26 | I | I | < 0.62 | 55 |
| 94.3594A | HY079 | 220 | 42 | 110 | 300 | < 0.37 | 26 | I | I | < 0.59 | 52 |
| | Average† | 220.00 | 43.50 | 115.00 | 310.00 | | 26.00 | 0.00 | 0.00 | | 53.50 |
| | SD | 0.00 | 1.50 | 5.00 | 10.00 | | 0.00 | 0.00 | 0.00 | | 1.50 |
| | RSD | 0.0% | 3.4% | 4.3% | 3.2% | ? | 0.0% | ? | ? | ? | 2.8% |

HCB = hexachlorobenzene
R - Tissue sample was re-extracted
◊ Sample was analyzed twice by HPLC/PDA.
* The nondioxin-like PCB congeners (shown in this table) generally co-elute with other PCBs, therefore we report the PCB congener that is usually present in the greatest proportion.
I = The DDT could not be quantitated due to analytical interference with a coeluting PCB congener.

† When an analyte was detected in some, but not all of the replicates, the average concentration is based on the concentration when detected and not included in the average calculation when not detected. When an analyte was not detected in any of the replicates, the average and SD analyte values are blank and a "?" is reported for the RSD.

Table 1l-p2: QA: Concentrations (ng/g, wet weight) of selected nondioxin-like PCBs* and pesticides in English sole tissue analyzed in replicate as part of the Hylebos Waterway Damage Assessment Project.

| Field Number | Extract Number | Nondioxin-like CB Congeners | | | | Selected Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 101 | 128 | 138 | 153 | opDDD | ppDDD | ppDDE | opDDT | ppDDT | HCB |
| 94.3628 | HY087 | 130 | 22 | 82 | 240 | < 0.33 | 12 | I | I | < 0.55 | 49 |
| 94.3628 | HY088 | 130 | 35 | 89 | 250 | < 0.41 | 12 | I | I | < 0.67 | 52 |
| | Average† | 130.00 | 28.50 | 85.50 | 245.00 | | 12.00 | 0.00 | 0.00 | | 50.50 |
| | SD | 0.00 | 6.50 | 3.50 | 5.00 | | 0.00 | 0.00 | 0.00 | | 1.50 |
| | RSD | 0.0% | 22.8% | 4.1% | 2.0% | ? | 0.0% | ? | ? | ? | 3.0% |
| 94.3650 | HY106 | 12 | 5.2 | 10 | 22 | < 0.92 | < 2 | I | < 1.3 | < 1.3 | 0.95 |
| 94.3650 | HY107 | 9 | 4.4 | 10 | 21 | < 0.5 | < 1.1 | I | < 0.68 | < 0.71 | 1.6 |
| | Average† | 10.50 | 4.80 | 10.00 | 21.50 | | | 0.00 | | | 1.28 |
| | SD | 1.50 | 0.40 | 0.00 | 0.50 | | | 0.00 | | | 0.33 |
| | RSD | 14.3% | 8.3% | 0.0% | 2.3% | ? | ? | ? | ? | ? | 25.5% |
| 94.3655 | HY116 | 9.2 | 3.7 | 7.9 | 16 | < 0.53 | < 1.2 | I | I | < 0.86 | 1 |
| 94.3655 | HY124 | 8.9 | 4 | 8.7 | 19 | < 0.61 | < 1.4 | I | I | < 0.98 | 1.4 |
| | Average† | 9.05 | 3.85 | 8.30 | 17.50 | | | 0.00 | 0.00 | | 1.20 |
| | SD | 0.15 | 0.15 | 0.40 | 1.50 | | | 0.00 | 0.00 | | 0.20 |
| | RSD | 1.7% | 3.9% | 4.8% | 8.6% | ? | ? | ? | ? | ? | 16.7% |
| 94.3670 | HY132 | 6.2 | 7 | 6.6 | 23 | < 1.4 | < 3.1 | I | I | < 2 | < 0.55 |
| 94.3670 | HY140 | 6.6 | 3.8 | 6.4 | 20 | < 1.3 | < 2.9 | I | I | < 1.9 | < 0.51 |
| | Average† | 6.40 | 5.40 | 6.50 | 21.50 | | | 0.00 | 0.00 | | |
| | SD | 0.20 | 1.60 | 0.10 | 1.50 | | | 0.00 | 0.00 | | |
| | RSD | 3.1% | 29.6% | 1.5% | 7.0% | ? | ? | ? | ? | ? | ? |
| 94.3682 | HY143 | 3.1 | 1.3 | 3.3 | 5.8 | < 0.6 | < 1.4 | I | I | < 0.91 | < 0.24 |
| 94.3682 | HY153 | 4.2 | 1.4 | 3.4 | 5.6 | < 0.42 | < 0.97 | I | I | < 0.63 | < 0.17 |
| | Average† | 3.65 | 1.35 | 3.35 | 5.70 | | | 0.00 | 0.00 | | |
| | SD | 0.55 | 0.05 | 0.05 | 0.10 | | | 0.00 | 0.00 | | |
| | RSD | 15.1% | 3.7% | 1.5% | 1.8% | ? | ? | ? | ? | ? | ? |

HCB = hexachlorobenzene
R - Tissue sample was re-extracted
◊ Sample was analyzed twice by HPLC/PDA.
* The nondioxin-like PCB congeners (shown in this table) generally co-elute with other PCBs, therefore we report the PCB congener that is usually present in the greatest proportion.
I = The DDT could not be quantitated due to analytical interference with a coeluting PCB congener.

† When an analyte was detected in some, but not all of the replicates, the average concentration is based on the concentration when detected and not included in the average calculation when not detected. When an analyte was not detected in any of the replicates, the average and SD analyte values are blank and a "?" is reported for the RSD.

**Table 1J-p1: Continuing calibration verification data* for dioxin-like PCBs in standards run before, during and after the samples in English sole tissue sets analyzed as part of the Hylebos Waterway Damage Assessment Project.**

| Standard Name | 77 | 105 | 118 | 126 | 156 | 157 | 169 | 170 | 180 | 189 |
|---|---|---|---|---|---|---|---|---|---|---|
| **09/06/95** | | | | | | | | | | |
| PCB/DDT Calib 09/06/95A | 0.32184 | 0.31157 | 0.31947 | 0.32514 | 0.32026 | 0.31378 | 0.31769 | 0.31596 | 0.32440 | 0.32510 |
| PCB/DDT Calib 09/06/95B | 0.32752 | 0.32485 | 0.31910 | 0.30763 | 0.32468 | 0.32271 | 0.32702 | 0.32323 | 0.32461 | 0.32180 |
| PCB/DDT Calib 09/06/95C | 0.32032 | 0.32812 | 0.32623 | 0.33227 | 0.32285 | 0.32937 | 0.32034 | 0.32933 | 0.32693 | 0.32507 |
| PCB/DDT Calib 09/06/95D | 0.31832 | 0.32347 | 0.32320 | 0.32790 | 0.32021 | 0.32214 | 0.32294 | 0.31948 | 0.31206 | 0.31604 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32324 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.003423 | 0.006255 | 0.002922 | 0.009361 | 0.001880 | 0.005532 | 0.003443 | 0.004952 | 0.005824 | 0.003694 |
| **RSD** | 1.1% | 1.9% | 0.9% | 2.9% | 0.6% | 1.7% | 1.1% | 1.5% | 1.9% | 1.2% |
| **09/11/95** | | | | | | | | | | |
| PCB/DDT Calib 09/11/95A | 0.31954 | 0.31844 | 0.31776 | 0.32314 | 0.32092 | 0.32047 | 0.33864 | 0.31706 | 0.32114 | 0.31873 |
| PCB/DDT Calib 09/11/95B | 0.32703 | 0.32434 | 0.32682 | 0.32079 | 0.32290 | 0.32343 | 0.30931 | 0.32772 | 0.31822 | 0.32459 |
| PCB/DDT Calib 09/11/95C | 0.32013 | 0.32059 | 0.32379 | 0.32149 | 0.31916 | 0.31492 | 0.32047 | 0.32576 | 0.32563 | 0.32057 |
| PCB/DDT Calib 09/11/95D | 0.32129 | 0.32463 | 0.31963 | 0.32259 | 0.32501 | 0.32918 | 0.31958 | 0.31746 | 0.32302 | 0.32411 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.002973 | 0.002601 | 0.003537 | 0.000918 | 0.002185 | 0.005149 | 0.010561 | 0.004792 | 0.002704 | 0.002444 |
| **RSD** | 0.9% | 0.8% | 1.1% | 0.3% | 0.7% | 1.6% | 3.3% | 1.5% | 0.8% | 0.8% |
| **09/12/95** | | | | | | | | | | |
| PCB/DDT Calib 09/12/95A | 0.31947 | 0.31739 | 0.32105 | 0.32730 | 0.32267 | 0.32216 | 0.32318 | 0.31582 | 0.32254 | 0.32041 |
| PCB/DDT Calib 09/12/95B | 0.32691 | 0.32362 | 0.32868 | 0.31932 | 0.32573 | 0.32666 | 0.32106 | 0.33127 | 0.31649 | 0.32947 |
| PCB/DDT Calib 09/12/95C | 0.32290 | 0.32266 | 0.31542 | 0.32573 | 0.31819 | 0.31849 | 0.31535 | 0.32014 | 0.31747 | 0.31855 |
| PCB/DDT Calib 09/12/95D | 0.31873 | 0.32434 | 0.32285 | 0.31565 | 0.32141 | 0.32069 | 0.32841 | 0.32077 | 0.33150 | 0.31958 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.003241 | 0.002729 | 0.004731 | 0.004730 | 0.002703 | 0.002991 | 0.004679 | 0.005681 | 0.005946 | 0.004361 |
| **RSD** | 1.0% | 0.8% | 1.5% | 1.5% | 0.8% | 0.9% | 1.4% | 1.8% | 1.8% | 1.4% |
| **09/21/95** | | | | | | | | | | |
| PCB/DDT Calib 09/21/95A | 0.32456 | 0.32645 | 0.32969 | 0.32000 | 0.32041 | 0.31829 | 0.31877 | 0.32605 | 0.32029 | 0.32122 |
| PCB/DDT Calib 09/21/95B | 0.32508 | 0.32692 | 0.31263 | 0.31508 | 0.32430 | 0.33407 | 0.31673 | 0.31178 | 0.31975 | 0.32561 |
| PCB/DDT Calib 09/21/95C | 0.31882 | 0.31443 | 0.32155 | 0.32849 | 0.32007 | 0.31603 | 0.33007 | 0.30543 | 0.32422 | 0.31949 |
| PCB/DDT Calib 09/21/95D | 0.31954 | 0.32021 | 0.32413 | 0.32442 | 0.32322 | 0.31961 | 0.32243 | 0.33214 | 0.32374 | 0.32168 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.31885 | 0.32200 | 0.32200 |
| **SD** | 0.002837 | 0.005112 | 0.006158 | 0.004997 | 0.001805 | 0.007085 | 0.005087 | 0.010707 | 0.001996 | 0.002238 |
| **RSD** | 0.9% | 1.6% | 1.9% | 1.5% | 0.6% | 2.2% | 1.6% | 3.2% | 0.6% | 0.7% |

* Data are reported as analyte concentrations using a single point calibration analyzed with each day's sample analyses. This continuing calibration data format is the result of the Millennium PDA Software.

**Table 1J-p2: Continuing calibration verification data* for dioxin-like PCBs in standards run before, during and after the samples in English sole tissue sets analyzed as part of the Hylebos Waterway Damage Assessment Project.**

| Standard Name | 77 | 105 | 118 | 126 | 156 | 157 | 169 | 170 | 180 | 189 |
|---|---|---|---|---|---|---|---|---|---|---|
| **10/02/95** | | | | | | | | | | |
| PCB/DDT Calib 10/02/95A | 0.31834 | 0.30779 | 0.30671 | 0.31207 | 0.31395 | 0.31254 | 0.30998 | 0.30978 | 0.31436 | 0.32024 |
| PCB/DDT Calib 10/02/95B | 0.32695 | 0.33192 | 0.33374 | 0.32264 | 0.32799 | 0.32689 | 0.32526 | 0.33146 | 0.32173 | 0.32547 |
| PCB/DDT Calib 10/02/95C | 0.31455 | 0.31941 | 0.31730 | 0.32138 | 0.31717 | 0.31819 | 0.32229 | 0.31573 | 0.32263 | 0.31415 |
| PCB/DDT Calib 10/02/95D | 0.32816 | 0.32888 | 0.33026 | 0.33191 | 0.32889 | 0.33037 | 0.33047 | 0.33103 | 0.32928 | 0.32814 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.005730 | 0.009412 | 0.010746 | 0.007029 | 0.006548 | 0.007035 | 0.007532 | 0.009483 | 0.005288 | 0.005349 |
| **RSD** | 1.7% | 2.9% | 3.3% | 2.1% | 2.0% | 2.1% | 2.3% | 2.9% | 1.6% | 1.6% |
| **10/05/95** | | | | | | | | | | |
| PCB/DDT Calib 10/05/95A | 0.29918 | 0.30965 | 0.30563 | 0.31166 | 0.31187 | 0.31497 | 0.31828 | 0.31327 | 0.31076 | 0.32410 |
| PCB/DDT Calib 10/05/95B | 0.33097 | 0.32095 | 0.32985 | 0.32607 | 0.32595 | 0.32171 | 0.32347 | 0.32439 | 0.32811 | 0.31861 |
| PCB/DDT Calib 10/05/95C | 0.33584 | 0.33541 | 0.33053 | 0.32826 | 0.32819 | 0.32932 | 0.32425 | 0.32834 | 0.32713 | 0.32329 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.016256 | 0.010543 | 0.011581 | 0.007364 | 0.007223 | 0.005862 | 0.002650 | 0.006380 | 0.007958 | 0.002420 |
| **RSD** | 4.8% | 3.1% | 3.5% | 2.2% | 2.2% | 1.8% | 0.8% | 1.9% | 2.4% | 0.7% |
| **10/16/95** | | | | | | | | | | |
| PCB/DDT Calib 10/16/95A | 0.31935 | 0.32145 | 0.33388 | 0.32362 | 0.32564 | 0.32442 | 0.32305 | 0.33210 | 0.33167 | 0.33115 |
| PCB/DDT Calib 10/16/95B | 0.32401 | 0.31275 | 0.31911 | 0.32098 | 0.31865 | 0.32392 | 0.31395 | 0.31871 | 0.32142 | 0.31918 |
| PCB/DDT Calib 10/16/95C | 0.33459 | 0.33039 | 0.32184 | 0.32194 | 0.32771 | 0.32844 | 0.32642 | 0.31878 | 0.32223 | 0.32436 |
| PCB/DDT Calib 10/16/95D | 0.31005 | 0.32341 | 0.31316 | 0.32146 | 0.31600 | 0.31122 | 0.32458 | 0.31842 | 0.31267 | 0.31331 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.008837 | 0.006290 | 0.007544 | 0.000995 | 0.004824 | 0.006466 | 0.004798 | 0.005831 | 0.006726 | 0.006572 |
| **RSD** | 2.9% | 1.9% | 2.4% | 0.3% | 1.5% | 2.1% | 1.5% | 1.8% | 2.2% | 2.1% |
| **11/01/95** | | | | | | | | | | |
| PCB/DDT Calib 11/01/95A | 0.32745 | 0.32078 | 0.32363 | 0.31921 | 0.32606 | 0.32835 | 0.32445 | 0.32370 | 0.32391 | 0.33525 |
| PCB/DDT Calib 11/01/95B | 0.31123 | 0.31703 | 0.31491 | 0.31780 | 0.31524 | 0.31533 | 0.31110 | 0.31084 | 0.31128 | 0.30693 |
| PCB/DDT Calib 11/01/95C | 0.32732 | 0.32819 | 0.32746 | 0.32900 | 0.32470 | 0.32233 | 0.33045 | 0.33146 | 0.33081 | 0.32382 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.007616 | 0.004637 | 0.005252 | 0.004981 | 0.004812 | 0.005320 | 0.008087 | 0.008503 | 0.008087 | 0.011633 |
| **RSD** | 2.3% | 1.4% | 1.6% | 1.5% | 1.5% | 1.7% | 2.4% | 2.6% | 2.4% | 3.6% |

* Data are reported as analyte concentrations using a single point calibration analyzed with each day's sample analyses. This continuing calibration data format is the result of the Millennium PDA Software.

Table 1K-p1: Continuing calibration verification data* for selected nondioxin-like PCBs and pesticides in standards run before, during and after the samples in English sole tissue sets analyzed as part of the Hylebos Waterway Damage Assessment Project.

| Standard Name | Nondioxin-like CB Congeners | | | | Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 101 | 128 | 138 | 153 | opDDD | ppDDD | ppDDE | opDDT | ppDDT | HCB |
| **09/06/95** | | | | | | | | | | |
| PCB/DDT Calib 09/06/95A | 0.31072 | 0.31287 | 0.31442 | 0.31606 | 0.30738 | 0.29297 | 0.3177 | 0.30888 | 0.33245 | 0.31648 |
| PCB/DDT Calib 09/06/95B | 0.32546 | 0.32782 | 0.32321 | 0.32588 | 0.33181 | 0.33424 | 0.32395 | 0.33617 | 0.31119 | 0.32368 |
| PCB/DDT Calib 09/06/95C | 0.32419 | 0.32484 | 0.32581 | 0.32300 | 0.32570 | 0.35087 | 0.32359 | 0.32101 | 0.31325 | 0.32442 |
| PCB/DDT Calib 09/06/95D | 0.32763 | 0.32247 | 0.32456 | 0.32306 | 0.32311 | 0.31458 | 0.32276 | 0.32194 | 0.33110 | 0.32342 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32317 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.006628 | 0.005602 | 0.004472 | 0.003622 | 0.009013 | 0.021654 | 0.002520 | 0.009668 | 0.009816 | 0.003208 |
| **RSD** | 2.0% | 1.7% | 1.4% | 1.1% | 2.8% | 3.0% | 0.8% | 3.0% | 3.0% | 1.0% |
| **09/11/95** | | | | | | | | | | |
| PCB/DDT Calib 09/11/95A | 0.31685 | 0.31885 | 0.31997 | 0.32235 | 0.31685 | 0.32139 | 0.32285 | 0.32821 | 0.32011 | 0.31895 |
| PCB/DDT Calib 09/11/95B | 0.32148 | 0.32832 | 0.32546 | 0.32390 | 0.32693 | 0.34005 | 0.32761 | 0.32059 | 0.32793 | 0.32048 |
| PCB/DDT Calib 09/11/95C | 0.32639 | 0.32293 | 0.32145 | 0.32645 | 0.32873 | 0.30920 | 0.32084 | 0.32053 | 0.31558 | 0.32583 |
| PCB/DDT Calib 09/11/95D | 0.32328 | 0.31790 | 0.32112 | 0.31530 | 0.31549 | 0.31736 | 0.31670 | 0.31867 | 0.32438 | 0.32273 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.003453 | 0.004109 | 0.002072 | 0.004136 | 0.005884 | 0.011309 | 0.003925 | 0.003667 | 0.004626 | 0.002589 |
| **RSD** | 1.1% | 1.3% | 0.6% | 1.3% | 1.9% | 1.4% | 1.2% | 1.2% | 1.4% | 0.8% |
| **09/12/95** | | | | | | | | | | |
| PCB/DDT Calib 09/12/95A | 0.31701 | 0.31925 | 0.32014 | 0.32004 | 0.31865 | 0.32627 | 0.32541 | 0.32585 | 0.33046 | 0.32271 |
| PCB/DDT Calib 09/12/95B | 0.32670 | 0.32975 | 0.32608 | 0.32513 | 0.32727 | 0.32814 | 0.32124 | 0.31981 | 0.33055 | 0.32529 |
| PCB/DDT Calib 09/12/95C | 0.32261 | 0.32022 | 0.31831 | 0.31997 | 0.31106 | 0.31493 | 0.32067 | 0.32123 | 0.29412 | 0.31880 |
| PCB/DDT Calib 09/12/95D | 0.32168 | 0.31879 | 0.32347 | 0.32285 | 0.33101 | 0.31866 | 0.32068 | 0.32111 | 0.33287 | 0.32119 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.003445 | 0.004503 | 0.002995 | 0.002150 | 0.007744 | 0.005410 | 0.001982 | 0.002291 | 0.016125 | 0.002357 |
| **RSD** | 1.1% | 1.4% | 0.9% | 0.7% | 2.3% | 4.8% | 0.6% | 0.7% | 4.8% | 0.7% |
| **09/21/95** | | | | | | | | | | |
| PCB/DDT Calib 09/21/95A | 0.32626 | 0.33424 | 0.32678 | 0.32618 | 0.32149 | 0.33083 | 0.33578 | 0.34025 | 0.32806 | 0.32732 |
| PCB/DDT Calib 09/21/95B | 0.31843 | 0.31987 | 0.32002 | 0.31910 | 0.31098 | 0.30932 | 0.31942 | 0.31210 | 0.29539 | 0.31360 |
| PCB/DDT Calib 09/21/95C | 0.32372 | 0.31524 | 0.31477 | 0.32488 | 0.33090 | 0.33945 | 0.31609 | 0.31583 | 0.40544 | 0.32331 |
| PCB/DDT Calib 09/21/95D | 0.31959 | 0.31865 | 0.32643 | 0.31784 | 0.32463 | 0.30640 | 0.31670 | 0.31982 | 0.30426 | 0.32377 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.33329 | 0.32200 |
| **SD** | 0.003149 | 0.007268 | 0.004967 | 0.003588 | 0.007208 | 0.013493 | 0.008055 | 0.010885 | 0.043336 | 0.005092 |
| **RSD** | 1.0% | 2.3% | 1.5% | 1.1% | 2.2% | 14.2% | 2.5% | 3.4% | 14.2% | 1.6% |

* Data are reported as analyte concentrations using a single point calibration analyzed with each day's sample analyses. This continuing calibration data format is the result of the Millennium PDA Software.

**Table 1K-p2: Continuing calibration verification data* for selected nondioxin-like PCBs and pesticides in standards run before, during and after the samples in English sole tissue sets analyzed as part of the Hylebos Waterway Damage Assessment Project.**

| Standard Name | Nondioxin-like CB Congeners | | | | Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 101 | 128 | 138 | 153 | opDDD | ppDDD | ppDDE | opDDT | ppDDT | HCB |
| **10/02/95** | | | | | | | | | | |
| PCB/DDT Calib 10/02/95A | 0.31992 | 0.30716 | 0.31311 | 0.31006 | 0.30847 | 0.29296 | 0.31774 | 0.31438 | 0.31175 | 0.31462 |
| PCB/DDT Calib 10/02/95B | 0.32666 | 0.33126 | 0.33084 | 0.32918 | 0.34135 | 0.32894 | 0.32370 | 0.32194 | 0.32068 | 0.32720 |
| PCB/DDT Calib 10/02/95C | 0.31511 | 0.32117 | 0.31845 | 0.32026 | 0.31914 | 0.31928 | 0.31764 | 0.32335 | 0.33187 | 0.31923 |
| PCB/DDT Calib 10/02/95D | 0.32632 | 0.32840 | 0.32560 | 0.32850 | 0.31904 | 0.34682 | 0.32892 | 0.32834 | 0.32370 | 0.32695 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.004800 | 0.009322 | 0.006759 | 0.007736 | 0.011984 | 0.019461 | 0.004689 | 0.005002 | 0.007196 | 0.005331 |
| **RSD** | 1.5% | 2.8% | 2.1% | 2.4% | 3.8% | 2.2% | 1.4% | 1.5% | 2.2% | 1.6% |
| **10/05/95** | | | | | | | | | | |
| PCB/DDT Calib 10/05/95A | 0.30100 | 0.31100 | 0.30799 | 0.30423 | 0.31705 | 0.31553 | 0.31448 | 0.30297 | 0.30634 | 0.27380 |
| PCB/DDT Calib 10/05/95B | 0.33176 | 0.32209 | 0.32686 | 0.32925 | 0.32220 | 0.31928 | 0.32809 | 0.33251 | 0.33642 | 0.34648 |
| PCB/DDT Calib 10/05/95C | 0.33324 | 0.33291 | 0.33115 | 0.33252 | 0.32674 | 0.33120 | 0.32344 | 0.33052 | 0.32324 | 0.34572 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.014862 | 0.008945 | 0.010060 | 0.012636 | 0.003959 | 0.006681 | 0.005648 | 0.013481 | 0.012311 | 0.034084 |
| **RSD** | 4.5% | 2.7% | 3.0% | 3.8% | 1.2% | 3.8% | 1.7% | 4.1% | 3.8% | 9.9% |
| **10/16/95** | | | | | | | | | | |
| PCB/DDT Calib 10/16/95A | 0.33209 | 0.32275 | 0.32572 | 0.33055 | 0.33925 | 0.33669 | 0.33378 | 0.33512 | 0.33017 | 0.32156 |
| PCB/DDT Calib 10/16/95B | 0.31145 | 0.31927 | 0.31587 | 0.31341 | 0.30755 | 0.30910 | 0.31565 | 0.31934 | 0.32087 | 0.32502 |
| PCB/DDT Calib 10/16/95C | 0.32818 | 0.33048 | 0.32825 | 0.33162 | 0.32670 | 0.31727 | 0.32632 | 0.31925 | 0.31987 | 0.32474 |
| PCB/DDT Calib 10/16/95D | 0.31629 | 0.31549 | 0.31817 | 0.31241 | 0.31450 | 0.32494 | 0.31225 | 0.31429 | 0.31709 | 0.31667 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.008425 | 0.005530 | 0.005127 | 0.009102 | 0.012090 | 0.010164 | 0.008556 | 0.007846 | 0.004916 | 0.003363 |
| **RSD** | 2.7% | 1.8% | 1.6% | 2.9% | 3.8% | 1.6% | 2.7% | 2.5% | 1.6% | 1.1% |
| **11/01/95** | | | | | | | | | | |
| PCB/DDT Calib 11/01/95A | 0.32530 | 0.32486 | 0.32124 | 0.31968 | 0.32212 | 0.33013 | 0.32687 | 0.33191 | 0.31426 | 0.32299 |
| PCB/DDT Calib 11/01/95B | 0.32099 | 0.31287 | 0.31787 | 0.31948 | 0.30818 | 0.30566 | 0.31807 | 0.31851 | 0.33634 | 0.31426 |
| PCB/DDT Calib 11/01/95C | 0.31971 | 0.32827 | 0.32689 | 0.32685 | 0.33570 | 0.33021 | 0.32107 | 0.31558 | 0.31540 | 0.32875 |
| **Average** | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 | 0.32200 |
| **SD** | 0.002391 | 0.006604 | 0.003721 | 0.003428 | 0.011235 | 0.011554 | 0.003653 | 0.007109 | 0.010151 | 0.005957 |
| **RSD** | 0.7% | 2.0% | 1.1% | 1.0% | 3.3% | 3.2% | 1.1% | 2.3% | 3.2% | 1.8% |

* Data are reported as analyte concentrations using a single point calibration analyzed with each day's sample analyses. This continuing calibration data format is the result of the Millennium PDA Software.