

**Table B-6: Determination of PCB (Aroclors) in Internal Spiked Reference Material for Soils and Water**

| Sample        | Aroclor 1242 |          |          | Aroclor 1254 |          |          | Aroclor 1260 |          |          |
|---------------|--------------|----------|----------|--------------|----------|----------|--------------|----------|----------|
|               | Determined   | Expected | Recovery | Determined   | Expected | Recovery | Determined   | Expected | Recovery |
|               | (%)          |          |          | (%)          |          |          | (%)          |          |          |
| SOIL          | ppb or ng/g  |          |          |              |          |          |              |          |          |
| CL-S-SPM 710  | 45           | 52       | 87       | 48           | 48       | 100      | 47           | 49       | 96       |
| CL-S-SPM 680  | 42           | 52       | 81       | 32           | 48       | 67       | 37           | 49       | 76       |
| CL-S-SPM 687  | 40           | 52       | 77       | 34           | 48       | 71       | 41           | 49       | 84       |
| CL-S-SPM 697  | 45           | 52       | 87       | 41           | 48       | 85       | 44           | 49       | 90       |
| CL-S-SPM 688  | 38           | 52       | 73       | 37           | 48       | 77       | 38           | 49       | 78       |
| CL-S-SPM 686  | 42           | 52       | 81       | 40           | 48       | 83       | 43           | 49       | 88       |
| CL-S-SPM 684  | 41           | 52       | 79       | 39           | 48       | 81       | 42           | 49       | 86       |
| CL-S-SPM 646  | 46           | 52       | 88       | 42           | 48       | 88       | 46           | 49       | 94       |
| CL-S-SPM 645  | 71           | 52       | 140      | 38           | 59       | 64       | 40           | 46       | 87       |
| CL-S-SPM 661  | 45           | 52       | 87       | 42           | 48       | 88       | 43           | 49       | 88       |
| CL-S-SPM 647  | 50           | 52       | 96       | 41           | 59       | 69       | 41           | 46       | 89       |
| CL-S-SPM 656  | 55           | 44       | 130      | 37           | 45       | 82       | 40           | 40       | 100      |
| CL-S-SPM 631  | 41           | 44       | 93       | 37           | 45       | 82       | 41           | 40       | 100      |
| CL-S-SPM 623  | 54           | 52       | 100      | 43           | 59       | 73       | 45           | 46       | 98       |
| CL-S-SPM 624  | 60           | 44       | 140      | 34           | 45       | 76       | 37           | 40       | 93       |
| CL-S-SPM 672  | 48           | 52       | 92       | 46           | 48       | 96       | 48           | 49       | 98       |
| CL-S-SPM 669  | 62           | 52       | 120      | 35           | 45       | 78       | 44           | 46       | 96       |
| CL-S-SPM 675  | 110          | 110      | 100      | 84           | 98       | 86       | 91           | 99       | 92       |
| CL-S-SPM 648  | 37           | 52       | 71       | 42           | 48       | 88       | 41           | 49       | 84       |
| CL-S-SPM 676  | 50           | 52       | 96       | 41           | 48       | 85       | 44           | 49       | 90       |
| CL-S-SPM 685  | 45           | 52       | 87       | 38           | 48       | 79       | 41           | 49       | 84       |
| CL-S-SPM 698  | 45           | 52       | 87       | 45           | 48       | 94       | 43           | 49       | 88       |
| CL-S-SPM 673  | 46           | 52       | 88       | 38           | 59       | 64       | 42           | 46       | 91       |
| CL-S-SPM 658  | 56           | 55       | 100      | 58           | 59       | 98       | 49           | 46       | 110      |
| CL-S-SPM 674  | 51           | 52       | 98       | 44           | 59       | 75       | 42           | 46       | 91       |
| CL-S-SPM 720* | 43           | 52       | 83       | 46           | 48       | 96       | 44           | 49       | 90       |

**Table B-6: Determination of PCB (Aroclors) in Internal Spiked Reference Material for Soils and Water (cont'd)**

| Sample                | Aroclor 1242 |          |               | Aroclor 1254 |          |               | Aroclor 1260 |          |              |
|-----------------------|--------------|----------|---------------|--------------|----------|---------------|--------------|----------|--------------|
|                       | Determined   | Expected | Recovery      | Determined   | Expected | Recovery      | Determined   | Expected | Recovery     |
|                       |              |          | (%)           |              |          | (%)           |              |          | (%)          |
| CL-S-SPM 713          | 45           | 52       | 87            | 44           | 48       | 92            | 41           | 49       | 84           |
| CL-S-SPM 722          | 50           | 52       | 96            | 50           | 48       | 100           | 46           | 49       | 94           |
| <b>Average (n=28)</b> |              |          | <b>94</b>     |              |          | <b>83</b>     |              |          | <b>90</b>    |
| <b>Std Dev</b>        |              |          | <b>± 17.0</b> |              |          | <b>± 11.0</b> |              |          | <b>± 7.0</b> |

**WATER**

|                      |     |     |            |     |     |            |     |     |              |
|----------------------|-----|-----|------------|-----|-----|------------|-----|-----|--------------|
| CL-W-SPM 712         | 270 | 260 | 100        | 260 | 240 | 110        | 240 | 240 | 100          |
| CL-W-SPM 650*        | 120 | 110 | 110        | 120 | 110 | 110        | 110 | 100 | 110          |
| CL-W-SPM 597*        | 120 | 110 | 110        | 120 | 120 | 100        | 110 | 120 | 92           |
| <b>Average (n=3)</b> |     |     | <b>110</b> |     |     | <b>110</b> |     |     | <b>100</b>   |
| <b>Std Dev</b>       |     |     | <b>± 3</b> |     |     | <b>± 5</b> |     |     | <b>± 9.2</b> |

\* Analyzed HiRes GCMS

**Table B-7: Determination of PCBs (Aroclors) in Plant Tissue Internal Standard (N.I.S.T. Certified Reference Material 1588 - Cod Liver Oil)**

| Mixture      | Certified Value | Mean (n=3) |
|--------------|-----------------|------------|
|              | ppb (ng/g)      |            |
| Aroclor 1242 | 150 +/- 60      | 150 ± 15   |
| Aroclor 1254 | 1500 +/- 500    | 1800 ± 170 |
| Aroclor 1260 | 840 +/- 210     | 940 ± 56   |

**Table B-8: Analytical Blanks for PCB Aroclors**

| Sample I.D.    | Aroclor<br>1242 | Aroclor<br>1254   | Aroclor<br>1260 | Total<br>Aroclor |
|----------------|-----------------|-------------------|-----------------|------------------|
| <b>SOILS</b>   |                 | <b>ng/g (ppb)</b> |                 |                  |
| CL-S-BLK 1005  | <0.24           | <0.25             | <0.23           |                  |
| CL-S-BLK 968   | <1.6            | <1.1              | <0.62           |                  |
| CL-S-BLK 973   | <0.58           | <0.48             | <0.29           |                  |
| CL-S-BLK 984   | <0.43           | <0.38             | <0.25           |                  |
| CL-S-BLK 974   | <1.1            | <1.1              | <0.59           |                  |
| CL-S-BLK 972   | <1.1            | <1.2              | <0.7            |                  |
| CL-S-BLK 970   | <0.67           | <0.68             | <4.7            |                  |
| CL-S-BLK 918   | <1.7            | <1.3              | <0.7            |                  |
| CL-S-BLK 917   | <2.3            | <0.99             | <0.41           |                  |
| CL-S-BLK 937   | <1.4            | <0.87             | <0.46           |                  |
| CL-S-BLK 919   | <2.3            | <1.9              | <0.72           |                  |
| CL-S-BLK 932   | <2.0            | <1.8              | <1.0            |                  |
| CL-S-BLK 902   | <0.83           | <0.76             | <0.4            |                  |
| CL-S-BLK 894   | <2.3            | <1.9              | <0.37           |                  |
| CL-S-BLK 895   | <1.2            | <1.2              | <0.63           |                  |
| CL-S-BLK 954   | <0.82           | <0.74             | <0.41           |                  |
| CL-S-BLK 949   | <1.8            | <1.1              | <0.44           |                  |
| CL-S-BLK 961   | <2.0            | <3.0              | <3.6            |                  |
| CL-S-BLK 920   | <0.74           | <0.75             | <0.4            |                  |
| CL-S-BLK 962   | <0.65           | <0.49             | <0.30           |                  |
| CL-S-BLK 971   | <8.0            | 2.2               | <0.92           | 2.2              |
| CL-S-BLK 985   | <0.6            | <0.53             | <0.32           |                  |
| CL-S-BLK 957   | <1.0            | <1.6              | <1.4            |                  |
| CL-S-BLK 933   | <3.0            | <7.5              | <8.4            |                  |
| CL-S-BLK 958   | <5.0            | <2.4              | <3.0            |                  |
| CL-S-BLK 1026* | <0.15           | <0.18             | <0.12           |                  |
| CL-S-BLK 1009  | <0.18           | <0.23             | <0.3            |                  |
| CL-S-BLK 1031  | <0.12           | <0.21             | <0.26           |                  |

**Table B-8: Analytical Blanks for PCB Aroclors (cont'd)**

| Sample I.D.    | Aroclor<br>1242 | Aroclor<br>1254 | Aroclor<br>1260 | Total<br>Aroclor |
|----------------|-----------------|-----------------|-----------------|------------------|
| <b>Water</b>   |                 |                 |                 |                  |
| CL-W-BLK 1007* | <0.17           | NDR(0.3)        | 0.32            | 0.32             |
| CL-W-BLK 924*  | 0.13            | 0.25            | 0.12            | 0.5              |
| CL-W-BLK 866   | <0.08           | <0.07           | <0.02           |                  |
| <b>Plants</b>  |                 |                 |                 |                  |
| CL-T-BLK 950   | <0.78           | <1.2            | <1.4            |                  |
| CL-T-BLK 1008  | <0.14           | <0.44           | <0.79           |                  |
| CL-T-BLK 1028  | <0.33           | <0.67           | <1.3            |                  |

\* HR-GCMS

**Table B-9: PCB Aroclor Results for Soil and Sediment Field Duplicates**

| Sample     | Aroclor<br>1242 | Aroclor<br>1254 | Aroclor<br>1260 | Total<br>Aroclor | Replicate<br>Std Dev | Replicate<br>Rel Std Dev | Location                                                   |
|------------|-----------------|-----------------|-----------------|------------------|----------------------|--------------------------|------------------------------------------------------------|
| ppb (ng/g) |                 |                 |                 |                  |                      |                          |                                                            |
| ESG7702A   | <3.0            | <2.0            | <1.1            |                  |                      |                          | ~3.5 km N of site in lush vegetation                       |
| ESG7702B   | <2.7            | <1.7            | <1.0            |                  |                      |                          |                                                            |
| ESG7719    | <3.6            | <3.2            | <1.7            |                  |                      |                          | 24m ENE of ESG7704                                         |
| ESG7720    | <2.2            | <1.9            | 1.7             | 1.7              |                      |                          |                                                            |
| ESG7714    | <6.6            | <3.3            | <1.8            |                  |                      |                          | 1.5m S of POL tank 3 below valve                           |
| ESG7715    | <8.9            | <2.1            | <1.1            |                  |                      |                          |                                                            |
| ESG7741    | <2.2            | 4.9             | 5.4             | 10               | 37                   | 100                      | In narrow drainage, 63m W of<br>ESG7740                    |
| ESG7742    | <2.2            | 32              | 30              | 62               |                      |                          |                                                            |
| ESG7750    | <12             | 11              | 6.4             | ?                | 3.5                  | 24                       | In stain, 3m SE of ESG7749                                 |
| ESG7751    | <10             | 12              | <4.3            | ?                |                      |                          |                                                            |
| ESG7789    | <2.0            | 21              | 5.7             | 27               | 1.4                  | 5.4                      | 10.5m W of W side of Garage<br>foundation, 9m E of ESG7750 |
| ESG7790    | <2.2            | 17              | 7.8             | 25               |                      |                          |                                                            |
| ESG7731    | <0.64           | 10              | 6.6             | 17               | 16                   | 56                       | 55m W of ESG7729                                           |
| ESG7732    | <0.47           | 27              | 12              | 29               |                      |                          |                                                            |
| ESG7761    | <19             | <10             | <3.2            |                  |                      |                          | In stain within DOT Mess Hall<br>foundation                |
| ESG7762    | <4.6            | <2.3            | <1.2            |                  |                      |                          |                                                            |
| ESG7774    | <9.0            | <3.9            | <2.0            |                  |                      |                          | In stain on beach 9m W of<br>ESG7773                       |
| ESG7775    | <8.9            | <4.3            | <2.2            |                  |                      |                          |                                                            |
| ESG7655    | <2.6            | <1.4            | <0.87           |                  |                      |                          | ~ 1.5 nautical miles NE of the site.                       |
| ESG7656    | <0.52           | <0.68           | <0.3            |                  |                      |                          |                                                            |

Table B-9: PCB Aroclor Results for Soil and Sediment Field Duplicates (cont'd)

| Sample  | Aroclor<br>1242 | Aroclor<br>1254 | Aroclor<br>1260 | Total<br>Aroclor | Replicate<br>Std Dev | Replicate<br>Rel Std Dev | Location                                                 |
|---------|-----------------|-----------------|-----------------|------------------|----------------------|--------------------------|----------------------------------------------------------|
| ESG7513 | <14             | 590             | 86              | 680              | 130                  | 22                       | ~ 4.5 m S of NE corner of the<br>maintenance shed        |
| ESG7514 | 8.5             | 430             | 61              | 500              |                      |                          |                                                          |
| ESG7521 | <5.7            | <2.9            | 6.6             | 6.6              | 0.1                  | 2.2                      | S edge of maintenance garage close<br>to SW corner (5m). |
| ESG7522 | <3.6            | <2.8            | 6.4             | 6.4              |                      |                          |                                                          |
| ESG7530 | <2.6            | <3.5            | 3.9             | 3.9              | 0.2                  | 5.2                      | In the middle of N wall of generator<br>building         |
| ESG7531 | <6.8            | <8.1            | 4.2             | 4.2              |                      |                          |                                                          |
| ESG7541 | <1.5            | <1.4            | <0.76           |                  |                      |                          | At the N end, midway along the<br>foundation             |
| ESG7542 | <2.7            | <3.8            | <3.6            |                  |                      |                          |                                                          |
| ESG7550 | <2.6            | 4               | <4.2            | 4                | 2.1                  | 39                       | At SW corner of supply depot,<br>12 m SSE of tag 46.     |
| ESG7551 | <3.4            | 3               | 4               | 7                |                      |                          |                                                          |
| ESG7562 | 45              | 98              | 15              | 160              | 54                   | 44                       | At SE corner of kitchen / mess hall                      |
| ESG7563 | <2.6            | 73              | 11              | 84               |                      |                          |                                                          |
| ESG7590 | <4.6            | <2.2            | <1.8            |                  |                      |                          | ~ 9.5 m SW of tag 83,<br>5.5 m WSW of tag 85             |
| ESG7591 | <4.9            | <2.3            | <1.9            |                  |                      |                          |                                                          |
| ESG7580 | 3.1             | 14              | 12              | 29               | 9.2                  | 41                       | At E edge of garbage dump,<br>14 m due E of tag 73.      |
| ESG7581 | <7.1            | 8.2             | 8.1             | 16               |                      |                          |                                                          |
| ESG7572 | <3.4            | <3.2            | <1.6            |                  |                      |                          | In a drainage ~ 90 m SSW of SW<br>corner of messhall     |
| ESG7573 | <2.9            | <2.6            | <1.3            |                  |                      |                          |                                                          |
| ESG7601 | <1.4            | 19              | 6               | 25               | 53                   | 85                       | In the center of the dump due E of<br>tag 92             |
| ESG7602 | <1.8            | 86              | 14              | 100              |                      |                          |                                                          |
| ESG7614 | <4.0            | 5.9             | <4.8            | 5.9              |                      |                          | At toe of crushed barrel pile                            |
| ESG7615 | <12.0           | <5.3            | <5.8            |                  |                      |                          | ~ 11 m N of the shoreline.                               |

Table B-9: PCB Aroclor Results for Soil and Sediment Field Duplicates (cont'd)

| Sample                     | Aroclor<br>1242 | Aroclor<br>1254 | Aroclor<br>1260 | Total<br>Aroclor | Replicate<br>Std Dev | Replicate<br>Rel Std Dev | Location                                                      |
|----------------------------|-----------------|-----------------|-----------------|------------------|----------------------|--------------------------|---------------------------------------------------------------|
| ESG7646                    | <1.5            | <1.1            | <0.72           |                  |                      |                          | ~ 24 m WSW of tag 135 and<br>37 m S of tag 133                |
| ESG7647                    | <2.8            | <1.0            | <0.65           |                  |                      |                          |                                                               |
| ESG7631                    | 1.6             | 520             | 62              | 580              | 240                  | 32                       | ~ 1.5 m W of W side of the<br>original warehouse foundation   |
| ESG7632                    | <13             | 840             | 83              | 920              |                      |                          |                                                               |
| ESG8477                    | <1.5            | <1.4            | <0.82           |                  |                      |                          | 61°18'583''N, 64°50,549''W                                    |
| ESG8478                    | <1.8            | <1.7            | <1.0            |                  |                      |                          |                                                               |
| ESG8403                    | <3.0            | 6.2             | <2.0            | 6.2              | 14                   | 87                       | 1m N of N wall of storage house                               |
| ESG8406                    | <11             | 15              | 11              | 26               |                      |                          |                                                               |
| ESG8437                    | <5.6            | <1.2            | <0.69           |                  |                      |                          | Adjacent to small pool of water<br>in winch shed drainage     |
| ESG8438                    | <1.2            | <0.90           | <0.59           |                  |                      |                          |                                                               |
| ESG8453                    | 1.3             | 25              | 14              | 40               | 4.2                  | 11                       | S side of foundation of generator<br>building, 3m from E wall |
| ESG8454                    | <2.2            | 21              | 13              | 4                |                      |                          |                                                               |
| ESG8463                    | <4.3            | 26              | 9.6             | 36               | 0                    | 0                        | Drainage leading from S of<br>generator foun., 13m from 8453  |
| ESG8464                    | <4.0            | 26              | 9.6             | 36               |                      |                          |                                                               |
| ESG8425                    | 1.9             | <1.2            | <0.75           | 1.9              | 0                    | 0                        | Narrow drainage, 6m from ocean                                |
| ESG8426                    | 1.9             | <1.3            | <0.75           | 1.9              |                      |                          |                                                               |
| Average Rel Std Dev (n=29) |                 |                 |                 |                  |                      | 35                       |                                                               |
| Std Dev                    |                 |                 |                 |                  |                      | ± 33                     |                                                               |

**Table B-10: PCB Aroclor Results for Soil Analytical Duplicates**

| Sample I.D. | Aroclor 1242 | Aroclor<br>1254 | Aroclor<br>1260 | Aroclor<br>Total | Std Dev | Rel Std Dev |
|-------------|--------------|-----------------|-----------------|------------------|---------|-------------|
| ESG7708     | <2.4         | 14              | 34              | 48               | 5.7     | 13          |
| ESG7708     | <2.1         | 12              | 28              | 40               |         |             |
| ESG8454     | <2.2         | 22              | 14              | 36               | 2.8     | 8.3         |
| ESG8454     | <3.0         | 20              | 12              | 32               |         |             |
| ESG7770     | <1.3         | <1.1            | <0.71           |                  | -       | -           |
| ESG7770     | <1.3         | <1.0            | <0.67           |                  |         |             |
| ESG8463     | <4.3         | 25              | 9.1             | 34               | 1.3     | 3.8         |
| ESG8463     | <4.3         | 26              | 10              | 36               |         |             |
| ESG8434     | NDR (12)     | 16              | 11              | 27               | 4.2     | 14          |
| ESG8434     | NDR (11)     | 20              | 13              | 33               |         |             |
| ESG8400     | <2.3         | 9.4             | 4.2             | 14               | 8.8     | 44          |
| ESG8400     | <2.3         | 21              | 5               | 26               |         |             |
| ESG7746     | <6.1         | 590             | 380             | 970              | 160     | 18          |
| ESG7746     | 6.3          | 400             | 340             | 750              |         |             |
| ESG7533     | <15          | 10              | 32              | 42               | 5.7     | 12          |
| ESG7533     | <18          | 14              | 36              | 50               |         |             |
| ESG7773     | <5.9         | <2.6            | <1.4            |                  | -       | -           |
| ESG7773     | <9.3         | <4.1            | <2.1            |                  |         |             |
| ESG7787     | <4.9         | 290             | 69              | 360              | 61      | 15          |
| ESG7787     | <5.7         | 370             | 75              | 450              |         |             |

Table B-10: PCB Aroclor Results for Soil Analytical Duplicates (cont'd)

| Sample I.D. | Aroclor 1242 | Aroclor | Aroclor | Aroclor | Std Dev | Rel Std Dev |
|-------------|--------------|---------|---------|---------|---------|-------------|
|             |              | 1254    | 1260    | Total   |         |             |
| ESG7530     | <2.6         | <3.5    | 3.8     | 3.8     | 0.1     | 3.6         |
| ESG7530     | <2.6         | <3.4    | 4       | 4       |         |             |
| ESG7516     | <8.7         | <14     | <5.1    | -       | -       | -           |
| ESG7516     | <7.8         | <14     | <5.3    | -       |         |             |
| ESG7508     | <1.6         | 36      | 6.6     | 43      | 5.2     | 11          |
| ESG7508     | <15          | 43      | 7       | 50      |         |             |
| ESG7611     | <1.6         | <1.4    | <0.8    | -       | -       | -           |
| ESG7611     | <1.7         | <1.4    | <0.8    | -       |         |             |
| ESG7783     | <5.9         | 7.8     | <1.8    | 7.8     | 3.1     | 56          |
| ESG7783     | <5.5         | 3.4     | <1.7    | 3.4     |         |             |
| ESG7562     | 45           | 85      | 13      | 140     | 20      | 13          |
| ESG7562     | 45           | 110     | 16      | 170     |         |             |
| ESG7792     | <1.8         | <1.6    | <0.86   | -       | -       | -           |
| ESG7792     | <1.3         | <1.3    | <0.67   | -       |         |             |
| ESG7638     | <1.8         | <1.6    | 2.1     | 2.1     | 0.2     | 11          |
| ESG7638     | <1.9         | <2.0    | 1.8     | 1.8     |         |             |
| ESG7658     | <7.8         | <6.0    | <3.8    | -       | -       | -           |
| ESG7658     | <4.9         | <3.3    | <2.1    | -       |         |             |
| ESG7629     | <2.1         | 11      | 1.7     | 13      | 2.1     | 19          |
| ESG7629     | <1.7         | 8.1     | 1.6     | 9.7     |         |             |
| ESG7615     | <12          | <5.3    | <3.5    | -       | -       | -           |
| ESG7615     | <7.0         | <4.9    | <5.8    | -       |         |             |

Table B-10: PCB Aroclor Results for Soil Analytical Duplicates (cont'd)

| Sample I.D.                | Aroclor 1242 | Aroclor<br>1254 | Aroclor<br>1260 | Aroclor<br>Total | Std Dev | Rel Std Dev |
|----------------------------|--------------|-----------------|-----------------|------------------|---------|-------------|
| ESG7749                    | <2.4         | 32              | 12              | 44               | 2.1     | 4.7         |
| ESG7749                    | <2.1         | 36              | 11              | 47               |         |             |
| ESG7705*                   | 0.24         | 4.1             | 5.8             | 10               | 0.2     | 2.3         |
| ESG7705*                   | 0.22         | 3.4             | 6.2             | 9.8              |         |             |
| Average Rel Std Dev (n=23) |              |                 |                 |                  |         | 16          |
| Std Dev                    |              |                 |                 |                  |         | ± 15        |
| <b>Plants</b>              |              |                 |                 |                  |         |             |
| ESG 7653 P                 | <0.45        | <0.93           | <1.1            |                  | -       | -           |
| ESG 7653 P                 | <0.38        | <0.78           | <1.2            | -                |         |             |

\* Sample run at high resolution

**Table B-11: Determination of Pesticides in Internal Spiked Reference Material for Soils and Water**

| Compounds             | Soil Solution #1 |          |            | Soil Solution #2 |          |            |
|-----------------------|------------------|----------|------------|------------------|----------|------------|
|                       | Mean (n=2)       | Expected | Recovery % | Mean (n=2)       | Expected | Recovery % |
| Concentration in ng/g |                  |          |            |                  |          |            |
| Hexachlorobenzene     | 6.1              | 5.4      | 110        | 5.3              | 5.8      | 91         |
| alpha BHC             | 4.6              | 5.8      | 79         | 5.3              | 6        | 88         |
| beta BHC              | 8.7              | 8.5      | 100        | 7.5              | 8.3      | 90         |
| gamma BHC             | 5.3              | 5.9      | 90         | 5.1              | 5.9      | 86         |
| Heptachlor            | 5.8              | 6.4      | 91         | 5.9              | 6        | 98         |
| Aldrin                | 3.8              | 4.3      | 88         | 4.3              | 4.2      | 100        |
| Oxychlordan           | 6.1              | 7        | 87         | 7                | 5.6      | 130        |
| trans-Chlordane       | 3.3              | 3.4      | 97         | 3.5              | 3.2      | 110        |
| cis-Chlordane         | 4.5              | 4.8      | 94         | 5.3              | 5.2      | 100        |
| o,p'-DDE              | 5.7              | 6.1      | 93         | 5.9              | 6        | 98         |
| p,p'-DDE              | 5.3              | 5.5      | 96         | 5.5              | 5.8      | 95         |
| trans-Nonachlor       | 3.8              | 4.2      | 90         | 4.5              | 4.4      | 100        |
| cis-Nonachlor         | 2.8              | 3.1      | 90         | 2.7              | 2.6      | 100        |
| o,p'-DDD              | 4.7              | 5.8      | 81         | 6.1              | 5.4      | 110        |
| p,p'-DDD              | 5                | 6.6      | 76         | 7.7              | 7.1      | 110        |
| p,p'-DDT              | 6.5              | 6.1      | 110        | 6.1              | 6.4      | 95         |
| Mirex                 | 5.5              | 5.4      | 100        | 5.3              | 5.9      | 90         |
| Heptachlor Epoxide    | 2.9              | 3.8      | 76         | 4.3              | 5.4      | 80         |
| alpha-Endosulphan     | 3.7              | 3.8      | 97         | 3.9              | 4.2      | 93         |
| Dieldrin              | 4.2              | 4.9      | 86         | 4.7              | 6.3      | 75         |
| Endrin                | 9.6              | 8.9      | 110        | 11               | 12       | 92         |
| Methoxychlor          | 30               | 22       | 140        | 27               | 24       | 110        |

Table B-11: Determination of Pesticides in Internal Spiked Reference Material for Soils and Water (cont'd)

| Compound            | Water      |          |            |
|---------------------|------------|----------|------------|
|                     | Determined | Expected | Recovery % |
| <b>HR-GCMS ng/L</b> |            |          |            |
| Hexachlorobenzene   | 29         | 29       | 100        |
| alpha BHC           | 29         | 30       | 97         |
| beta BHC            | 41         | 42       | 98         |
| gamma BHC           | 30         | 30       | 100        |
| Heptachlor          | 36         | 30       | 120        |
| Aldrin              | 20         | 21       | 95         |
| Oxychlordane        | 36         | 28       | 130        |
| trans-Chlordane     | 19         | 16       | 120        |
| cis-Chlordane       | 31         | 26       | 120        |
| o,p'-DDE            | 30         | 30       | 100        |
| p,p'-DDE            | 28         | 29       | 97         |
| trans-Nonachlor     | 26         | 22       | 120        |
| cis-Nonachlor       | 17         | 13       | 130        |
| o,p'-DDD            | 33         | 27       | 120        |
| p,p'-DDD            | 43         | 36       | 120        |
| p,p'-DDT            | 33         | 32       | 100        |
| Mirex               | 28         | 30       | 93         |
| Heptachlor          | 28         | 27       | 100        |
| <b>Epoxide</b>      |            |          |            |
| alpha-Endosulphan   | 22         | 21       | 100        |
| Dieldrin            | 28         | 32       | 88         |
| Endrin              | 53         | 60       | 88         |
| Methoxychlor        | 170        | 120      | 140        |

**Table B-12: Determination of Pesticides in N.I.S.T. Certified Reference Material 1588 Cod Liver Oil**

| Plants            |            |            |
|-------------------|------------|------------|
| CL-T-CRM 401      |            |            |
| Compounds         | Determined | Certified  |
| Hexachlorobenzene | 150        | 148 +/- 21 |
| alpha HCH         | 100        | 86 +/- 19  |
| gamma HCH         | 23         | 24 +/- 6   |
| trans-Chlordane   | 37         | 50 +/- 13  |
| cis-Chlordane     | 180        | 158 +/- 8  |
| p,p'-DDE          | 640        | 641 +/- 62 |
| trans-Nonachlor   | 230        | 209 +/- 11 |
| o,p'-DDD          | 37         | 37 +/- 8   |
| p,p'-DDD          | 270        | 277 +/- 15 |
| p,p'-DDT          | 530        | 529 +/- 45 |
| Dieldrin          | 140        | 150 +/- 12 |

**Table B-13: Analytical Blanks for Pesticides in Soils, Plants and Water**

| Sample             | Soil         |              |               |               | Plants        | Water      |
|--------------------|--------------|--------------|---------------|---------------|---------------|------------|
|                    | CL-S-BLK 957 | CL-S-BLK 933 | CL-S-BLK 1009 | CL-S-BLK 1010 | CL-T-BLK 1028 | CL-W-BLK 1 |
| Compounds          | ng/g         |              |               |               |               | ng/L       |
| HCB                | <0.1         | <0.12        | 0.02          | <0.02         | 0.02          | 0.04       |
| alpha BHC          | <0.18        | <0.49        | <0.04         | <0.12         | <0.12         | 0.007      |
| beta BHC           | <0.47        | <0.78        | <0.07         | <0.24         | <0.23         | <0.01      |
| gamma BHC          | <0.38        | <0.69        | <0.06         | <0.16         | <0.16         | <0.008     |
| Heptachlor         | <0.52        | <2.6         | <0.14         | <0.34         | <0.26         | NDR(0.008) |
| Aldrin             | <0.14        | <0.89        | <0.03         | <0.07         | <0.06         | <0.003     |
| Oxychlordane       | <0.55        | <4.0         | <0.3          | <0.4          | <0.34         | <0.01      |
| trans-Chlordane    | <0.1         | <0.71        | <0.02         | <0.04         | <0.04         | NDR(0.004) |
| cis-Chlordane      | <0.13        | <0.68        | <0.02         | <0.05         | <0.05         | NDR(0.004) |
| o,p'-DDE           | <0.04        | <0.2         | NDR(0.009)    | <0.02         | <0.02         | <0.01      |
| p,p'-DDE           | <0.07        | <0.22        | NDR(0.02)     | <0.03         | <0.03         | <0.01      |
| trans-Nonachlor    | <0.11        | <0.62        | <0.02         | <0.05         | <0.04         | <0.003     |
| cis-Nonachlor      | <0.13        | <0.47        | <0.02         | <0.04         | <0.03         | <0.003     |
| o,p'-DDD           | <0.04        | <0.21        | <0.02         | <0.03         | <0.03         | <0.01      |
| p,p'-DDD           | <0.04        | <0.22        | <0.02         | <0.04         | <0.04         | <0.02      |
| p,p'-DDT           | <0.14        | <0.28        | <0.03         | <0.04         | <0.07         | <0.02      |
| Mirex              | <0.12        | <0.24        | NDR(0.04)     | <0.03         | <0.06         | <0.001     |
| Heptachlor Epoxide | <0.02        | <0.03        | <0.03         | <0.02         | <0.02         | <0.57      |
| alpha-Endosulphan  | <0.03        | <0.04        | <0.02         | <0.02         | <0.02         | <0.46      |
| Dieldrin           | <0.02        | <0.04        | <0.03         | <0.02         | <0.02         | <0.59      |
| Endrin             | <0.08        | <0.13        | <0.05         | <0.04         | <0.05         | <0.95      |
| Methoxychlor       | <0.2         | <0.2         | <0.1          | <0.11         | <0.07         | <1.9       |

NDR = Peak detected but did not meet quantification criteria

**Table B-14: Pesticide Results for Soil : Analytical Duplicates**

| Sample             | ESG 8410 | duplicate | Rel Std Dev | ESG 7525 | duplicate | Rel Std Dev |
|--------------------|----------|-----------|-------------|----------|-----------|-------------|
| <b>Compound</b>    |          |           |             |          |           |             |
| Hexachlorobenzene  | <0.16    | <0.14     | -           | 0.05     | 0.12      | 58          |
| alpha BHC          | <0.72    | <0.58     | -           | <0.72    | <1.4      | -           |
| beta BHC           | <1.2     | <0.94     | -           | <1.3     | <2.6      | -           |
| gamma BHC          | <1.0     | <0.83     | -           | <0.96    | <1.8      | -           |
| Heptachlor         | <3.4     | <2.4      | -           | <1.4     | <0.47     | -           |
| Aldrin             | <1.2     | <0.82     | -           | <0.35    | <0.56     | -           |
| Oxychlorane        | <5.2     | <3.7      | -           | <3.8     | <3.4      | -           |
| trans-Chlordane    | <0.94    | <0.66     | -           | <0.13    | <0.03     | -           |
| cis-Chlordane      | <0.9     | <0.63     | -           | <0.15    | <0.03     | -           |
| o,p'-DDE           | <0.49    | <0.22     | -           | <0.14    | <0.21     | -           |
| p,p'-DDE           | <0.54    | <0.25     | -           | 0.29     | <0.3      | -           |
| trans-Nonachlor    | <0.79    | <0.57     | -           | <0.15    | <0.14     | -           |
| cis-Nonachlor      | <0.6     | <0.43     | -           | <0.07    | <0.07     | -           |
| o,p'-DDD           | <0.31    | <0.19     | -           | 0.81     | 0.83      | 1.7         |
| p,p'-DDD           | 0.76     | 0.6       | 17.0        | 2.2      | 2.1       | 3.3         |
| p,p'-DDT           | <0.58    | <0.34     | -           | 13       | 5.6       | 56          |
| Mirex              | <0.36    | <0.25     | -           | <0.43    | <0.38     | -           |
| Heptachlor Epoxide | <0.05    | <0.05     | -           | <0.05    | <0.08     | -           |
| alpha-Endosulphan  | <0.08    | <0.08     | -           | <0.04    | <0.06     | -           |
| Dieldrin           | <0.07    | <0.07     | -           | <0.05    | <0.08     | -           |
| Endrin             | <0.25    | <0.24     | -           | <0.08    | <0.13     | -           |
| Methoxychlor       | <0.37    | <0.35     | -           | <0.16    | <0.27     | -           |

**Table B-15: Results of PAH Analysis for NRC Canada Certified Reference Material, Harbour Sediment at ESG lab**

| Sample                     | 96-lab-1      | 96-lab-2      | 96-lab-3      | 96-lab-4      | 96-lab-5      | 96-lab-6      | 96-lab-7      | 96-lab-8      |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Compound ng/g (ppb)</b> |               |               |               |               |               |               |               |               |
| Naphthalene                | 26600         | 24900         | 17000         | 13200         | 19200         | 16500         | 17500         | 18500         |
| Phenanthrene               | 76200         | 84600         | 71200         | 67600         | 70700         | 84900         | 76600         | 76700         |
| Pyrene                     | 33900         | 40300         | 31100         | 31500         | 31100         | 34900         | 30400         | 32300         |
| Benzo(a)anthracene         | 15000         | 16700         | 9800          | 10600         | 10000         | 11000         | 8000          | 10000         |
| Benzo(b)fluoranthene       | 11700         | 11500         | 6400          | 7000          | 6200          | 7600          | 4700          | 5000          |
| Benzo(k)fluoranthene       | 14100         | 10200         | 5300          | 6400          | 6100          | 5100          | 4900          | 4900          |
| Benzo(a)pyrene             | 11500         | 8900          | 4400          | 4900          | 4400          | 4200          | 3700          | 3500          |
| Indeno(1,2,3-cd)pyrene     | 1800          | -             | 6100          | 7600          | 5500          | 1700          | 1500          | 2700          |
| Dibenz(a,h)anthracene      | 1800          | 4400          | 2500          | 2900          | 980           | -             | 940           | 1700          |
| <b>Total</b>               | <b>192600</b> | <b>201500</b> | <b>153800</b> | <b>151700</b> | <b>154180</b> | <b>165900</b> | <b>148240</b> | <b>155300</b> |

|                        | Average       | Rel Std   | Average    | Certified  | %        |
|------------------------|---------------|-----------|------------|------------|----------|
|                        |               | Dev       |            | Value      | Recovery |
|                        | ppb           |           | ppm        |            |          |
| Naphthalene            | 19200         | 23        | 19.2       | 9          | 213      |
| Phenanthrene           | 76100         | 8.3       | 76.1       | 85         | 90       |
| Pyrene                 | 33200         | 9.8       | 33.2       | 39         | 85       |
| Benzo(a)anthracene     | 11400         | 26        | 11.4       | 14.6       | 78       |
| Benzo(b)fluoranthene   | 7500          | 36        | 7.5        | 7.7        | 97       |
| Benzo(k)fluoranthene   | 7100          | 47        | 7.1        | 2.8        | 254      |
| Benzo(a)pyrene         | 5700          | 51        | 5.7        | 7.4        | 77       |
| Indeno(1,2,3-cd)pyrene | 3400          | 80        | 3.4        | 5.4        | 63       |
| Dibenz(a,h)anthracene  | 1900          | 72        | 1.9        | 1.3        | 146      |
| <b>Total</b>           | <b>165000</b> | <b>12</b> | <b>170</b> | <b>170</b> |          |

Note - the results are reported based on the weight of dry sediment.

**Table B-16: Analytical Blanks for PAHs in Soil - ESG lab**

| PAH                    | Blank      | Blank | Blank | Blank |
|------------------------|------------|-------|-------|-------|
|                        | ng/g (ppb) |       |       |       |
| Naphthalene            | < 20       | < 20  | < 20  | < 20  |
| Phenanthrene           | < 20       | < 20  | < 20  | < 20  |
| Pyrene                 | < 20       | < 20  | < 20  | < 20  |
| Benzo(a)anthracene     | < 20       | < 20  | < 20  | < 20  |
| Benzo(b)fluoranthene   | < 20       | < 20  | < 20  | < 20  |
| Benzo(k)fluoranthene   | < 20       | < 20  | < 20  | < 20  |
| Benzo(a)pyrene         | < 20       | < 20  | < 20  | < 20  |
| Indeno(1,2,3-cd)pyrene | < 20       | < 20  | < 20  | < 20  |
| Dibenz(a,h)anthracene  | < 20       | < 20  | < 20  | < 20  |
| Total                  | < 20       | < 20  | < 20  | < 20  |

**Table B-17: PAH Results for Analytical Duplicates - ESG Lab**

| PAH                    | ESG 7791H  | ESG 7791HD | Rel Std | ESG 7773H | ESG 7773HD | Rel Std | ESG 7585 | ESG 7585D |
|------------------------|------------|------------|---------|-----------|------------|---------|----------|-----------|
|                        | Dev        |            |         | Dev       |            |         |          |           |
| Compounds              | ng/g (ppb) |            |         |           |            |         |          |           |
| Naphthalene            | < 20       | < 20       |         | < 20      | < 20       |         | < 20     | < 20      |
| Phenanthrene           | < 20       | < 20       |         | < 20      | < 20       |         | < 20     | < 20      |
| Pyrene                 | 120        | 140        | 9.7     | 920       | 730        | 17      | 25       | < 20      |
| Benzo(a)anthracene     | < 20       | < 20       |         | < 20      | < 20       |         | < 20     | < 20      |
| Benzo(b)fluoranthene   | < 20       | < 20       |         | < 20      | < 20       |         | < 20     | < 20      |
| Benzo(k)fluoranthene   | < 20       | < 20       |         | < 20      | < 20       |         | < 20     | < 20      |
| Benzo(a)pyrene         | < 20       | < 20       |         | < 20      | < 20       |         | < 20     | < 20      |
| Indeno(1,2,3-cd)pyrene | < 20       | < 20       |         | < 20      | < 20       |         | < 20     | < 20      |
| Dibenz(a,h)anthracene  | < 20       | < 20       |         | < 20      | < 20       |         | < 20     | < 20      |

**Table B-18: TPH Results for Analytical Duplicates**

| Sample              | TPH   | duplicate | triplicate | Rel std Dev |
|---------------------|-------|-----------|------------|-------------|
| ug/g                |       |           |            |             |
| ESG8465             | 45    | <40       |            |             |
| ESG7642             | 3780  | 3730      |            | 0.94        |
| ESG7714/7715*       | <40   | <40       |            |             |
| ESG7761/7762*       | 11250 | 6470      | 7400       | 9           |
| ESG7764             | 6780  | 7550      | 7900       | 8           |
| ESG7773             | 24300 | 19300     |            | 16.2        |
| ESG7791             | 8600  | 5748      | 3600       | 35          |
| ESG7745H            | 16200 | 23200     |            | 25          |
| Average Rel Std Dev |       |           |            | 19          |
| Std Dev             |       |           |            | ± 13        |

\* One Sample

## Appendix C: SITE DESCRIPTIONS

### A. Sampling Locations and Descriptions for Radio Island

#### 1. Background Samples

Six background samples, including one field duplicate, were collected at locations outside the influence of the station activities. Plant samples were collected at three of the background sample locations and a water sample was collected at one location.

- 8476
  - 61°18'890'' N, 64°52'072'' W
  - Freshwater sample FW8406 was collected for analysis
  - At the top of a ridge on east side of island
- 8477
  - 61°18'583'' N, 64°50'549'' W
  - *Salix arctica* was collected for analysis
- 8478
  - Field duplicate of 8477
- 8479
  - 61°19'307'' N, 64°51'042'' W
  - *Salix arctica* was collected for analysis
- 8480
  - 61°19'428'' N, 64°53'217'' W
  - *Salix arctica* was collected for analysis
- 8481
  - 61°18'832'' N, 64°52'727'' W

#### 2. Area A: Main Site

The main station was located in the central part of the island. Two buildings remained in tact and the foundations of two other buildings remained. Vegetation in the area was generally sparse due to the geographical nature of the site. Exposed bedrock covered much of the site. Soil samples were collected from areas surrounding the buildings and foundations and in the drainage pathways leading from the main site.

- 8400
- On the west side of the main house, 0.5 m from the stairs and door .
  - A layer of ash covering gravel and coarse sand.
  - Debris: coal, rusty nails, wood fragments, rust fragments.
  - Vegetation present: species of moss
  - ESG tag # 1.
- 8401
- Located on the south side of the winch shed, 5 m northwest of 8400.
  - A 3 cm layer of medium to coarse sand matted with paint chips and packing material. The soil was heavily stained with hydrocarbons and had a strong hydrocarbon odour.
  - Debris: coal, rusty nails, wood fragments, rusty metal parts, paint chips, hinge, oil coated packing material.
  - Vegetation present: none.
  - ESG tag # 2.
- 8402
- Located on the north side of the winch shed, 0.05 m north of the north wall and 0.3 m west of the door frame.
  - A 1 cm mossy surface layer covered a dark brown soil mixed with wood fragments and rust fragments. The soil had a hydrocarbon odour.
  - Debris: coal, rusty nails and wire, wood fragments, shotgun shell,.
  - Vegetation present: species of moss and lichen.
  - ESG tag # 3.
- 8403
- 1 m north of the north wall of the main house and 4 m south east of sample 8405 (ESG tag # 5).
  - Coarse sand covered by 5 cm of debris.
  - Debris: coal, rust fragments, wood fragments, packing material, clutch parts, roofing tile, I beam, 3 m wood beam.
  - Vegetation present: none.
  - ESG tag # 6.