# Polycyclic Aromatic Hydrocarbons (PAHS) In Surface Soil in Illinois

*Background PAHs*

**1011376**

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*Background PAHs*

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Technical Update, December

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# EXECUTIVE SUMMARY

One hundred and sixty (160) soil samples were collected and analyzed from sites in the State of Illinois as part of EPRI's nationwide study of polycyclic aromatic hydrocarbons (PAHs) in surface soil. The samples were collected from 10 pseudo-randomly selected locations in 16 pseudo-randomly selected populated areas throughout the State, excluding the City of Chicago. At each location, the soils were logged and samples were collected from 0 to 15 cm below ground surface. At the laboratory, the soil samples were analyzed for PAHs by EPA Method 8270 and for total organic carbon by the Walkley-Black method.

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# 1
# INTRODUCTION

The natural and anthropogenic sources of polycyclic aromatic hydrocarbons (PAHs) to the environment are many and diverse. Consequently, PAHs are found in many samples of soil, water, and biota throughout the world. The frequent detection of PAHs in surface soil and sediment samples is of particular importance for environmental investigations and cleanups, because the concentrations of PAHs often define the extent of contamination and influence the estimated risk from contamination at a variety of sites.

Further, at many sites, it becomes very important to be able to determine where the site-specific contamination ends and where the local background PAHs begin. Although there are many literature references concerning the presence of PAHs in environmental media, including surface soils, a review of those references indicated that there is a lack of consistent data on distributions and concentrations of PAHs in surface soils (EPRI, 2000). This study was designed to generate an internally consistent, rugged set of PAH concentrations in surface soils from a statistically significant number of locations in populated areas above a set size and density. The samples were collected and analyzed so that PAH data collected at different times and from different locations would be comparable, and would not contain unacceptable sampling or analytical bias.

# 2
# SAMPLING AND ANALYSIS METHODS

## 2.1 DEFINITIONS

- *Sample Location* - the actual place where each individual sample was collected. The sample location corresponds with the sample identification number on the sample jar and on the chain-of-custody form.
- *Site* - the property or plot of land containing one or more sample locations. For example, "Chestnut Hill Park" or "highway 1 median" were designated as sites.
- *Area* - the town, county, or other locality that may contain multiple sites.
- *Urbanized Area (UA)* - an area consisting of a central place and adjacent urban fringe that together have a minimum residential population of at least 50,000 people and generally an overall population density of 1,000 people per square mile of land area (U.S. Census Bureau, 2000).
- *Populated Area* - an area that has a population density of 1,000 people per square mile of land area (equivalent to the UA), but with a minimum residential population of 10,000 people. The populated area designation included smaller cities and towns that have significant urban centers, but do not meet the U.S. Census Bureau's definition of an urbanized area.

## 2.2 SAMPLING DESIGN

A layered sampling design was used that is based on random sampling. Specifically, a pseudo-random selection scheme was used to select a pre-determined number of areas within Illinois for sampling. The number of areas sampled (16) was based on the number of populated areas in Illinois, which was 205 at the time of the sampling (U.S. Census Bureau, 2000).

Next, a similar pseudo-random selection scheme was used to select a pre-determined number of sites within each area. The number of sites was based on an estimate of the number of samples

needed for statistical significance and the number of areas chosen for the particular state or region.

Samples were collected from two areal locations at each site. The sample locations at each site were chosen by the field engineer at the time of sample collection.

### 2.2.1 Selecting Areas to Sample

The number of areas sampled in Illinois was to be about 10% of the number of populated areas in the State with not less than five areas sampled. In all, 16 populated areas were sampled. Selecting areas for sampling was performed by first dividing Illinois according to the service territories of the three participating electric utilities. Then, five or six populated areas were selected randomly within each service territory. A random number generator was used to rank the populated areas from 1 to 205 and the first five or six areas from each territory were taken from the list. If a populated area could not be sampled because of lack of access or other issues, the next populated area within that territory was selected.

### 2.2.2 Selecting Sites to Sample

Once areas were selected, road maps and USGS 7.5 minute quad(s) for each area were used to select the actual sites to be sampled. The sites within each area were also selected randomly. A coordinate system was laid out over maps of each area and a random number generator was used to select points that fell on this coordinate system. In the field, the closest suitable site to each selected point was sampled. Suitable sampling sites included parks, roadway medians, utility rights-of-way, commercial properties, residential properties, parking lot buffers, or vacant lots.

### 2.2.3 Selecting Locations to Sample at Each Site

Two locations were sampled at each site. The sample locations were chosen by the field engineer at the time of sample collection by considering the area of the site, obstructions, visible evidence of contamination, and other practical matters.

## 2.3 SAMPLE COMPOSITES AND ANALYSIS

### 2.3.1 Composites

At every location, samples were collected from both the 0 - 2.54 cm depth interval and the 2.54 - 15 cm interval. The samples were labeled and shipped to the laboratory. As described in the QAPP, all of the field samples were composited in the laboratory to decrease the number of analyses. Two types of compositing were performed. At 32 (20%) of the sites, equal portions from the two samples collected from 0 to 2.54 cm combined, as were equal portions from the two samples collected from 2.54 to 15 cm. At the other 128 (80%) of the sites, the four discrete samples were composited to create one sample for the site that represented 0 to 15 cm. Specifically, 10 grams from each of the 0 to 2.54 cm samples was mixed with 50 grams from each of the 2.54 to 15 cm samples to create a composite sample representative of the interval from 0 to 15 cm. If auger refusal was encountered prior to 15 cm, the sample amounts were adjusted accordingly.

The original discrete samples are stored frozen for possible future analysis.

### 2.3.2 Sample Analysis

Each soil sample was analyzed for PAHs using vigorous Soxhlet extraction, EPA Method 3540C, followed by analysis using GC/MS, EPA Method 8270. In addition, the samples were analyzed for TPH and hydrocarbon fingerprints using GC/FID, EPA Method 8100.

Lastly, samples were analyzed for total organic carbon (TOC) using a modification (digestion with additional heat) of the Walkley-Black method (90-3).

# 3
# RESULTS

## 3.1 FIELD ACTIVITIES

From November 5 through November 15, 2001, eight of the sixteen Illinois municipalities were sampled for this study, including Lansing, Glenview, Rockford, Dixon, Galesburg, Macomb, Quincy, and Pontiac. Later, the remaining eight of the sixteen Illinois municipalities were sampled from December 4 through December 13, including Jacksonville, Decatur, Danville, Mattoon, Effingham, Centralia, Carbondale, and Belleville. The same procedures were used to sample all 16 municipalities. Table 1 (Appendix A) lists the site codes used for each of the areas sampled and whether they were within Metropolitan Statistical Areas, which have been used by the Illinois Environmental Protection Agency (IEPA) for grouping background concentrations under the Tiered Approach to Corrective Action Objectives (TACO).

For each municipality, 10 random sampling spots were identified on a map prior to the trip. Once in the field, the random spots were used to locate the nearest appropriate sampling site that met the criteria for background specified in the QAPP. A total of 160 sites in the 16 municipalities were sampled. Maps 1 through 16 (Appendix B) show the general locations of the sites sampled within each area. Two locations from each of ten sites within each municipality were sampled from 0 to 2.54 cm and 2.54 to 15 cm below grade, after peeling back surface vegetation, if present. Generally, the locations at each site were within 6 meters of each other.

## 3.2 SITE AND AREA LAND USE TYPES

A variety of different types of sites were sampled. Based on observations made in the field, a subjective classification of the land use for the site was made. The site use classifications for each site are shown in Table 2 and included municipal (28%), recreational (27%), rights of way (24%), utility (9%), open land (5%), residential (3%), conservation (2%), commercial (1%), and industrial (1%). The municipal designation was used for public areas such as police stations, fire stations, and town buildings. Recreational sites included ball fields and recreational parks. Sites

where a municipal right of way existed, such as the areas near streets, were designated as rights of way. The open land designation was used for land with no specific purpose or structures. The residential sites were home lots that had come into the possession of municipalities. Conservation sites included areas such as forest and nature preserves. Sites with businesses on them were designated as commercial for retail business, or as industrial for manufacturing or similar operations.

In addition to site use classifications, a subjective characterization of the surrounding area use was made. The area use classifications are shown in Table 2 and included heavy residential (47%), commercial (23%), light industrial (13%), light residential (8%), agricultural (4%), rural (3%), and heavy industrial (3%). Areas were considered heavy residential if houses were present at a density of at least one house per acre. Otherwise, if the houses were sparse, the area was assigned the light residential designation. Similarly, areas with a high density of non-retail businesses were considered heavy industrial, particularly if manufacturing was present. On the other hand, areas with just one or a few businesses were considered light industrial. Commercial was used to describe areas with retail businesses. For sites bordering farmland, the area was considered agricultural. Lastly, areas with very few businesses or residences, and without farmland, were designated as rural.

## 3.3 QA/QC RESULTS

For each day of sampling, field equipment blanks were collected and analyzed for PAHs. Since each municipality took approximately one day to sample, 16 field equipment blanks were collected. For all of these samples, no PAHs were detected above the reporting limits, which ranged from approximately 0.1 to 0.5 ug/L for individual PAHs.

Laboratory QC followed the quality assurance project plan (QAPP) with regard to holding times, blanks, surrogate and matrix spikes, and replicates. The results of laboratory QC checks were well within the QAPP-specified criteria with few exceptions.

The reporting limits were based on the sample equivalent of the lowest linear calibration standard. The reporting limits ranged from about 4 ug/kg to about 20 ug/kg depending on the compound and sample conditions. Detection limits were about one half of the reporting limits.

## 3.4 RESULTS

The names of the PAHs have been codified in some tables and figures for ease of formatting. Table 3 (Appendix A) shows the PAH names and codes used in this report.

The PAH concentration results for all of the samples analyzed as part of this work are shown in Table 4, including QC flags. Values flagged with a "U" were not detected at or above the concentration listed (detection limit).

Table 5 lists the sample identification, soil description, total organic carbon (TOC) content, and percent solids content for each of the samples analyzed. Consistent with the intent of the sampling plan, the samples contained various amounts of silt, sand, clay and gravel with little or no debris or other indications of dumping or filling. The TOC levels ranged from 0.2% to almost 17% with a median TOC of 2.5%. The percent solids content was generally 75 to 95%.

In order to generate statistical summaries for all of the sites sampled in Illinois, arithmetic composites were generated for those sites where the 0 – 2.54 and 2.54 - 15 cm samples were analyzed separately. This was done by generating weighted averages based on the sampling intervals, which are representative of the 0 - 15 cm interval at those locations. Table 6 presents the summarized chemical concentrations for the 160 sites sampled. Also in Table 6, all non-detects were substituted with random numbers between zero and the detection limit, as per IEPA comments. The reporting limit substitutions are shown because those data were used in all statistical analyses.

Table 7 lists the summary description statistics for the full data set from Table 6. Included in the statistics are the mean, the 95% confidence intervals of the mean, the geometric mean, the median, the minimum and maximum values, the upper and lower quartiles, and the $5^{th}$ and $95^{th}$ percentiles. All statistics were performed on natural logarithms of the raw data and then back-

transformed to concentrations because the data more closely fit log-normal distributions than normal. The same statistical summaries are presented in Tables 8 and 9 for samples collected from Metro and Non-Metro Counties, respectively.

It is recognized that, in some cases, this might not be the most appropriate method for summarizing and analyzing the data. Therefore, several other presentations of the data have been included as described below.

Figures 1 through 4 (Appendix C) are box and whisker plots that summarize the full data set from Table 6. Figures 1 and 2 show summary statistics based on the raw concentration data, while Figures 3 and 4 summarize the statistics for the natural log-transformed data. The distributions are illustrated Figures 5 through 38, which show both the normal probability plots and frequency histograms for each compound. As shown in these figures, the distributions for all compounds appear to be log-normally distributed. Prior to generating all of these graphics, non-detects were substituted with random numbers between zero and the detection limit, as per comments by IEPA.

Table 10 presents the lognormal 95$^{th}$ percentile values for three data sets: samples collected from all counties, samples collected from Metro counties, and samples collected from Non-Metro counties. These values were calculated using equation 13.24 from Gilbert, 1987, after consultation with IEPA. The lognormal 95$^{th}$ percentile values for samples collected from Metro counties were higher than in non-Metro counties in every case, except for 2-methylnaphthalene.

As shown in Table 7, benzo(a)pyrene concentrations ranged from non-detect to 5,210 μg/kg with a median concentration of 76.1 μg/kg. The upper quartile concentration was 216 μg/kg while the upper 95 percentile concentration was 1,450 μg/kg. These concentrations appear to be consistent with literature-reported levels for anthropogenic background in small to medium-sized residential, commercial, and light industrial areas, but notably lower than background observed in more highly populated cities and commercial/industrial areas.

# 4
# REFERENCES

*Literature Review of Polycyclic Aromatic Hydrocarbons*, EPRI, Palo Alto, CA: 2000. TR-114755.

Gilbert, R. O., 1987. Statistical Methods for Environmental Pollution Monitoring. John Wiley & Sons, Inc., New York, NY.

# A
# TABLES

## Table 1
## Key to Site Codes

| Site Code | City | County | Metropolitan? |
|---|---|---|---|
| **ILBE** | Belleville | St. Clair | Yes |
| **ILCA** | Carbondale | Jackson | No |
| **ILCE** | Centralia | Marion | No |
| **ILDA** | Danville | Vermilion | No |
| **ILDE** | Decatur | Macon | Yes |
| **ILDX** | Dixon | Lee | No |
| **ILEF** | Effingham | Effingham | No |
| **ILGB** | Galesburg | Knox | No |
| **ILGL** | Glenview | Cook | Yes |
| **ILJA** | Jacksonville | Morgan | No |
| **ILLA** | Lansing | Cook | Yes |
| **ILMC** | Macomb | McDonough | No |
| **ILMT** | Mattoon | Coles | No |
| **ILPT** | Pontiac | Livingston | No |
| **ILQY** | Quincy | Adams | No |
| **ILRF** | Rockford | Winnebago | Yes |

**Table 2**
**Site Uses and Area Uses**
(Page 1 of 4)

| Site Code | Site Use Type | Area Use Type |
|---|---|---|
| **ILBE01** | Residential | Heavy Residential |
| **ILBE02** | Utility | Light Residential |
| **ILBE03** | Residential | Heavy Residential |
| **ILBE04** | Recreational | Heavy Residential |
| **ILBE05** | Recreational | Heavy Residential |
| **ILBE06** | Utility | Heavy Residential |
| **ILBE07** | Municipal | Commercial |
| **ILBE08** | Municipal | Commercial |
| **ILBE09** | Recreational | Heavy Residential |
| **ILBE10** | Right of Way | Light Industrial |
| **ILCA01** | Right of Way | Light Residential |
| **ILCA02** | Recreational | Light Residential |
| **ILCA03** | Municipal | Heavy Residential |
| **ILCA04** | Municipal | Heavy Residential |
| **ILCA05** | Municipal | Light Residential |
| **ILCA06** | Right of Way | Commercial |
| **ILCA07** | Municipal | Commercial |
| **ILCA08** | Right of Way | Commercial |
| **ILCA09** | Municipal | Commercial |
| **ILCA10** | Recreational | Heavy Residential |
| **ILCE01** | Residential | Heavy Residential |
| **ILCE02** | Right of Way | Heavy Residential |
| **ILCE03** | Residential | Heavy Residential |
| **ILCE04** | Residential | Heavy Residential |
| **ILCE05** | Recreational | Light Residential |
| **ILCE06** | Municipal | Agricultural |
| **ILCE07** | Municipal | Light Industrial |
| **ILCE08** | Municipal | Light Industrial |
| **ILCE09** | Recreational | Rural |
| **ILCE10** | Right of Way | Heavy Residential |
| **ILDA01** | Utility | Commercial |
| **ILDA02** | Right of Way | Heavy Residential |
| **ILDA03** | Recreational | Heavy Residential |
| **ILDA04** | Recreational | Heavy Residential |
| **ILDA05** | Recreational | Commercial |
| **ILDA06** | Recreational | Commercial |
| **ILDA07** | Recreational | Heavy Residential |
| **ILDA08** | Municipal | Heavy Residential |
| **ILDA09** | Right of Way | Heavy Residential |
| **ILDA10** | Right of Way | Heavy Residential |

**Table 2**
**Site Uses and Area Uses**
(Page 2 of 4)

| Site Code | Site Use Type | Area Use Type |
|---|---|---|
| **ILDE01** | Conservation | Light Residential |
| **ILDE02** | Right of Way | Heavy Residential |
| **ILDE03** | Municipal | Heavy Residential |
| **ILDE04** | Right of Way | Light Residential |
| **ILDE05** | Recreational | Heavy Residential |
| **ILDE06** | Municipal | Heavy Residential |
| **ILDE07** | Right of Way | Light Residential |
| **ILDE08** | Right of Way | Heavy Residential |
| **ILDE09** | Right of Way | Heavy Residential |
| **ILDE10** | Open Land | Commercial |
| **ILDX01** | Recreational | Heavy Residential |
| **ILDX02** | Right of Way | Heavy Residential |
| **ILDX03** | Recreational | Heavy Residential |
| **ILDX04** | Right of Way | Heavy Residential |
| **ILDX05** | Recreational | Commercial |
| **ILDX06** | Recreational | Heavy Residential |
| **ILDX07** | Recreational | Heavy Residential |
| **ILDX08** | Municipal | Heavy Residential |
| **ILDX09** | Municipal | Heavy Residential |
| **ILDX10** | Open Land | Heavy Residential |
| **ILEF01** | Utility | Commercial |
| **ILEF02** | Municipal | Commercial |
| **ILEF03** | Open Land | Agricultural |
| **ILEF04** | Municipal | Heavy Residential |
| **ILEF05** | Municipal | Light Residential |
| **ILEF06** | Municipal | Commercial |
| **ILEF07** | Municipal | Rural |
| **ILEF08** | Municipal | Heavy Industrial |
| **ILEF09** | Municipal | Light Industrial |
| **ILEF10** | Municipal | Rural |
| **ILGB01** | Recreational | Heavy Residential |
| **ILGB02** | Municipal | Light Industrial |
| **ILGB03** | Open Land | Commercial |
| **ILGB04** | Right of Way | Light Residential |
| **ILGB05** | Municipal | Commercial |
| **ILGB06** | Recreational | Light Industrial |
| **ILGB07** | Municipal | Light Industrial |
| **ILGB08** | Recreational | Heavy Residential |
| **ILGB09** | Commercial | Commercial |
| **ILGB10** | Right of Way | Agricultural |

**Table 2**
**Site Uses and Area Uses**
(Page 3 of 4)

| Site Code | Site Use Type | Area Use Type |
|---|---|---|
| **ILGL01** | Municipal | Heavy Residential |
| **ILGL02** | Municipal | Commercial |
| **ILGL03** | Municipal | Light Industrial |
| **ILGL04** | Municipal | Heavy Residential |
| **ILGL05** | Open Land | Light Industrial |
| **ILGL06** | Utility | Commercial |
| **ILGL07** | Municipal | Commercial |
| **ILGL08** | Municipal | Commercial |
| **ILGL09** | Right of Way | Heavy Residential |
| **ILGL10** | Municipal | Heavy Residential |
| **ILJA01** | Recreational | Heavy Residential |
| **ILJA02** | Municipal | Light Residential |
| **ILJA03** | Municipal | Commercial |
| **ILJA04** | Open Land | Light Industrial |
| **ILJA05** | Recreational | Commercial |
| **ILJA06** | Right of Way | Commercial |
| **ILJA07** | Municipal | Heavy Residential |
| **ILJA08** | Recreational | Heavy Residential |
| **ILJA09** | Right of Way | Light Industrial |
| **ILJA10** | Municipal | Light Residential |
| **ILLA01** | Recreational | Light Industrial |
| **ILLA02** | Recreational | Heavy Residential |
| **ILLA03** | Recreational | Heavy Residential |
| **ILLA04** | Conservation | Rural |
| **ILLA05** | Right of Way | Light Residential |
| **ILLA06** | Right of Way | Heavy Residential |
| **ILLA07** | Open Land | Heavy Residential |
| **ILLA08** | Municipal | Commercial |
| **ILLA09** | Recreational | Heavy Residential |
| **ILLA10** | Right of Way | Commercial |
| **ILMC01** | Municipal | Commercial |
| **ILMC02** | Municipal | Heavy Residential |
| **ILMC03** | Recreational | Heavy Residential |
| **ILMC04** | Recreational | Heavy Residential |
| **ILMC05** | Utility | Light Industrial |
| **ILMC06** | Recreational | Heavy Residential |
| **ILMC07** | Municipal | Heavy Residential |
| **ILMC08** | Municipal | Commercial |
| **ILMC09** | Recreational | Heavy Residential |
| **ILMC10** | Conservation | Rural |

**Table 2**
**Site Uses and Area Uses**
(Page 4 of 4)

| Site Code | Site Use Type | Area Use Type |
|---|---|---|
| **ILMT01** | Right of Way | Light Industrial |
| **ILMT02** | Recreational | Heavy Residential |
| **ILMT03** | Right of Way | Heavy Residential |
| **ILMT04** | Municipal | Heavy Residential |
| **ILMT05** | Right of Way | Agricultural |
| **ILMT06** | Municipal | Light Industrial |
| **ILMT07** | Municipal | Heavy Residential |
| **ILMT08** | Recreational | Heavy Residential |
| **ILMT09** | Right of Way | Commercial |
| **ILMT10** | Right of Way | Commercial |
| **ILPT01** | Recreational | Heavy Residential |
| **ILPT02** | Recreational | Heavy Residential |
| **ILPT03** | Recreational | Heavy Residential |
| **ILPT04** | Recreational | Commercial |
| **ILPT05** | Right of Way | Commercial |
| **ILPT06** | Right of Way | Commercial |
| **ILPT07** | Recreational | Heavy Residential |
| **ILPT08** | Recreational | Agricultural |
| **ILPT09** | Open Land | Light Industrial |
| **ILPT10** | Recreational | Commercial |
| **ILQY01** | Utility | Heavy Residential |
| **ILQY02** | Right of Way | Agricultural |
| **ILQY03** | Utility | Heavy Residential |
| **ILQY04** | Utility | Heavy Residential |
| **ILQY05** | Utility | Light Industrial |
| **ILQY06** | Utility | Heavy Residential |
| **ILQY07** | Utility | Heavy Industrial |
| **ILQY08** | Utility | Commercial |
| **ILQY09** | Utility | Heavy Industrial |
| **ILQY10** | Utility | Light Industrial |
| **ILRF01** | Recreational | Heavy Residential |
| **ILRF02** | Recreational | Heavy Residential |
| **ILRF03** | Right of Way | Light Industrial |
| **ILRF04** | Recreational | Heavy Residential |
| **ILRF05** | Industrial | Light Industrial |
| **ILRF06** | Right of Way | Light Industrial |
| **ILRF07** | Right of Way | Commercial |
| **ILRF08** | Right of Way | Heavy Residential |
| **ILRF09** | Right of Way | Heavy Residential |
| **ILRF10** | Right of Way | Commercial |

## Table 3
## Key to Abbreviations for PAHs

| Compounds | Abbreviation |
|---|---|
| Naphthalene | NAP |
| 2-Methylnaphthalene | MN2 |
| Acenaphthylene | ACY |
| Acenaphthene | ACE |
| Fluorene | FLU |
| Phenanthrene | PHE |
| Anthracene | ANT |
| Fluoranthene | FLR |
| Pyrene | PYR |
| Benz(a)anthracene | BAA |
| Chrysene | CHR |
| Benzo(b)fluoranthene | BBF |
| Benzo(k)fluoranthene | BKF |
| Benzo(a)pyrene | BAP |
| Indeno(1,2,3-cd)pyrene | IND |
| Dibenz(a,h)anthracene | DAA |
| Benzo(g,h,i)perylene | BGP |

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILBE01<br>(0 to 2.54)<br>µg/kg | ILBE01<br>(2.54 to 15)<br>µg/kg | ILBE02<br>(0 to 15)<br>µg/kg | ILBE03<br>(0 to 15)<br>µg/kg | ILBE04<br>(0 to 15)<br>µg/kg | ILBE05<br>(0 to 15)<br>µg/kg | ILBE06<br>(0 to 2.54)<br>µg/kg | ILBE06<br>(2.54 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 10.1 | 14.1 | 8.11 U | 17.0 | 28.5 | 53.6 | 3,140 | 429 |
| 2-Methylnaphthalene | 23.6 | 32.3 | 8.11 U | 33.1 | 60.4 | 163 | 1,430 | 192 |
| Acenaphthylene | 2.27 J | 2.64 J | 4.05 U | 5.46 | 9.91 | 20.2 | 613 | 312 |
| Acenaphthene | 4.05 J | 3.93 U | 4.05 U | 4.25 J | 9.70 | 9.59 | 924 | 34.0 |
| Fluorene | 5.15 | 3.93 U | 4.05 U | 3.23 J | 7.35 | 10.2 | 1,070 | 37.0 |
| Phenanthrene | 125 | 52.9 | 4.05 U | 115 | 183 | 384 | 10,500 D | 835 |
| Anthracene | 13.1 | 5.80 | 4.05 U | 12.2 | 30.5 | 31.4 | 1,650 | 162 |
| Fluoranthene | 164 | 44.3 | 4.05 U | 182 | 277 | 410 | 10,000 D | 1,060 |
| Pyrene | 129 | 36.6 | 4.05 U | 157 | 273 | 374 | 9,290 D | 949 |
| Benz(a)anthracene | 59.1 | 26.4 | 4.05 U | 98.1 | 174 | 207 | 4,960 D | 675 |
| Chrysene | 81.6 | 37.1 | 4.05 U | 136 | 205 | 255 | 5,280 D | 787 |
| Benzo(b)fluoranthene | 55.0 | 25.1 | 4.05 U | 107 | 146 | 153 | 3,200 | 643 |
| Benzo(k)fluoranthene | 56.7 | 26.4 | 4.05 U | 101 | 137 | 175 | 2,350 | 609 |
| Benzo(a)pyrene | 63.5 | 31.3 | 4.05 U | 108 | 174 | 203 | 3,830 | 1,020 |
| Indeno(1,2,3-cd)pyrene | 46.4 | 17.6 J | 20.3 U | 82.8 | 113 | 122 | 2,680 | 655 |
| Dibenz(a,h)anthracene | 14.8 J | 19.7 U | 20.3 U | 28.4 | 36.0 | 47.9 | 1,060 | 241 |
| Benzo(g,h,i)perylene | 54.7 | 22.1 | 20.3 U | 102 | 145 | 152 | 3,170 | 914 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILBE07<br>(0 to 15)<br>µg/kg | ILBE08<br>(0 to 15)<br>µg/kg | ILBE09<br>(0 to 15)<br>µg/kg | ILBE10<br>(0 to 15)<br>µg/kg | ILCA01<br>(0 to 2.54)<br>µg/kg | ILCA01<br>(2.54 to 15)<br>µg/kg | ILCA02<br>(0 to 15)<br>µg/kg | ILCA03<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 24.4 | 20.0 | 203 | 7.85 U | 8.18 U | 8.22 U | 7.89 U | 10.3 |
| 2-Methylnaphthalene | 55.0 | 94.3 | 178 | 7.85 U | 8.18 U | 8.22 U | 7.89 U | 19.9 |
| Acenaphthylene | 5.18 | 2.28 J | 23.0 | 3.92 U | 4.09 U | 4.11 U | 3.94 U | 4.07 U |
| Acenaphthene | 5.45 | 3.40 J | 161 | 3.92 U | 4.09 U | 4.11 U | 3.94 U | 5.66 |
| Fluorene | 4.71 | 2.84 J | 78.8 | 3.92 U | 4.09 U | 4.11 U | 3.94 U | 3.89 J |
| Phenanthrene | 137 | 122 | 852 | 7.44 | 7.26 | 5.05 | 4.96 | 129 |
| Anthracene | 19.3 | 11.5 | 166 | 3.92 U | 4.09 U | 4.11 U | 3.94 U | 30.0 |
| Fluoranthene | 178 | 165 | 1,040 | 15.8 | 10.4 | 4.81 | 5.83 | 303 |
| Pyrene | 154 | 141 | 917 | 12.4 | 9.08 | 4.30 | 5.25 | 331 |
| Benz(a)anthracene | 86.3 | 70.3 | 535 | 6.09 | 5.45 | 4.11 U | 2.97 J | 147 |
| Chrysene | 112 | 100 | 577 | 9.75 | 8.64 | 3.01 J | 4.66 | 171 |
| Benzo(b)fluoranthene | 84.8 | 81.0 | 398 | 6.61 | 6.92 | 2.15 J | 3.60 J | 127 |
| Benzo(k)fluoranthene | 79.8 | 68.0 | 425 | 8.18 | 8.17 | 3.10 J | 3.58 J | 108 |
| Benzo(a)pyrene | 100 | 88.5 | 539 | 8.29 | 8.95 | 2.94 J | 3.49 J | 163 |
| Indeno(1,2,3-cd)pyrene | 65.9 | 63.7 | 333 | 19.6 U | 20.4 U | 20.6 U | 19.7 U | 91.2 |
| Dibenz(a,h)anthracene | 22.6 | 20.4 | 117 | 19.6 U | 20.4 U | 20.6 U | 19.7 U | 31.1 |
| Benzo(g,h,i)perylene | 75.7 | 75.2 | 372 | 19.6 U | 20.4 U | 20.6 U | 19.7 U | 147 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILCA04<br>(0 to 15)<br>µg/kg | ILCA05<br>(0 to 15)<br>µg/kg | ILCA06<br>(0 to 2.54)<br>µg/kg | ILCA06<br>(2.54 to 15)<br>µg/kg | ILCA07<br>(0 to 15)<br>µg/kg | ILCA08<br>(0 to 15)<br>µg/kg | ILCA09<br>(0 to 15)<br>µg/kg | ILCA10<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 8.66 U | 8.18 U | 7.97 U | 7.81 U | 16.4 | 99.5 | 15.4 | 9.00 U |
| 2-Methylnaphthalene | 8.66 U | 8.18 U | 7.97 U | 7.81 U | 39.6 | 105 | 22.3 | 9.00 U |
| Acenaphthylene | 4.33 U | 4.09 U | 3.98 U | 3.90 U | 6.49 | 37.9 | 4.18 U | 4.50 U |
| Acenaphthene | 4.33 U | 4.09 U | 3.98 U | 3.90 U | 9.14 | 54.2 | 2.18 J | 4.50 U |
| Fluorene | 4.33 U | 4.09 U | 3.98 U | 3.90 U | 7.12 | 34.1 | 2.67 J | 4.50 U |
| Phenanthrene | 5.43 | 5.45 | 14.7 | 3.56 J | 145 | 1,250 | 66.6 | 4.56 |
| Anthracene | 4.33 U | 4.09 U | 3.98 U | 3.90 U | 14.3 | 255 | 10.0 | 4.50 U |
| Fluoranthene | 8.40 | 5.62 | 38.2 | 5.26 | 164 | 4,100 | 134 | 5.47 |
| Pyrene | 7.29 | 6.25 | 30.1 | 4.54 | 139 | 3,300 | 106 | 4.71 |
| Benz(a)anthracene | 5.07 | 4.55 | 15.7 | 2.35 J | 89.5 | 2,770 | 60.8 | 4.50 U |
| Chrysene | 6.36 | 6.39 | 20.3 | 3.45 J | 120 | 3,210 | 86.3 | 3.64 J |
| Benzo(b)fluoranthene | 5.48 | 6.30 | 16.2 | 2.76 J | 67.4 | 3,310 | 60.5 | 2.91 J |
| Benzo(k)fluoranthene | 5.83 | 8.28 | 17.8 | 2.44 J | 67.1 | 2,090 | 59.0 | 2.76 J |
| Benzo(a)pyrene | 5.27 | 5.03 | 22.6 | 2.56 J | 79.4 | 2,880 | 68.6 | 2.63 J |
| Indeno(1,2,3-cd)pyrene | 21.6 U | 20.4 U | 11.5 J | 19.5 U | 56.0 | 2,640 | 47.4 | 22.5 U |
| Dibenz(a,h)anthracene | 21.6 U | 20.4 U | 19.9 U | 19.5 U | 19.5 J | 905 | 16.8 J | 22.5 U |
| Benzo(g,h,i)perylene | 21.6 U | 20.4 U | 13.7 J | 19.5 U | 66.9 | 2,980 | 52.1 | 22.5 U |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILCE01<br>(0 to 2.54)<br>µg/kg | ILCE01<br>(2.54 to 15)<br>µg/kg | ILCE02<br>(0 to 15)<br>µg/kg | ILCE03<br>(0 to 15)<br>µg/kg | ILCE04<br>(0 to 15)<br>µg/kg | ILCE05<br>(0 to 15)<br>µg/kg | ILCE06<br>(0 to 2.54)<br>µg/kg | ILCE06<br>(2.54 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 28.0 | 245 | 35.0 | 124 | 21.0 | 12.6 | 98.6 | 34.8 |
| 2-Methylnaphthalene | 60.8 | 316 | 72.5 | 251 | 36.0 | 23.0 | 215 | 77.7 |
| Acenaphthylene | 4.06 U | 5.65 | 3.87 U | 9.00 | 4.04 U | 4.05 U | 9.53 | 2.21 J |
| Acenaphthene | 4.06 U | 3.90 J | 3.87 U | 7.77 | 4.04 U | 4.05 U | 6.39 | 3.92 U |
| Fluorene | 4.06 U | 4.02 | 3.87 U | 6.03 | 4.04 U | 4.05 U | 6.45 | 3.92 U |
| Phenanthrene | 62.8 | 131 | 60.0 | 197 | 42.8 | 27.7 | 234 | 81.6 |
| Anthracene | 7.61 | 11.6 | 6.91 | 20.9 | 4.64 | 2.69 J | 30.4 | 7.97 |
| Fluoranthene | 49.3 | 99.5 | 40.3 | 151 | 49.4 | 23.3 | 200 | 49.1 |
| Pyrene | 52.1 | 94.8 | 44.1 | 147 | 47.4 | 23.3 | 216 | 58.0 |
| Benz(a)anthracene | 28.0 | 63.7 | 24.6 | 92.7 | 25.5 | 13.3 | 120 | 31.7 |
| Chrysene | 37.7 | 86.0 | 34.5 | 109 | 37.2 | 21.1 | 206 | 44.3 |
| Benzo(b)fluoranthene | 21.3 | 52.8 | 22.7 | 70.3 | 25.7 | 14.9 | 173 | 31.0 |
| Benzo(k)fluoranthene | 26.0 | 50.1 | 22.8 | 77.0 | 27.2 | 14.0 | 118 | 27.6 |
| Benzo(a)pyrene | 25.5 | 54.8 | 29.1 | 85.5 | 29.6 | 14.9 | 237 | 40.1 |
| Indeno(1,2,3-cd)pyrene | 16.7 J | 45.7 | 23.8 | 63.0 | 22.0 | 20.2 U | 220 | 32.3 |
| Dibenz(a,h)anthracene | 20.3 U | 16.4 J | 10.1 J | 21.8 | 20.2 U | 20.2 U | 75.5 | 12.6 J |
| Benzo(g,h,i)perylene | 22.3 | 67.1 | 53.2 | 82.2 | 30.1 | 14.8 J | 466 | 60.4 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILCE07<br>(0 to 15)<br>µg/kg | ILCE08<br>(0 to 15)<br>µg/kg | ILCE09<br>(0 to 15)<br>µg/kg | ILCE10<br>(0 to 15)<br>µg/kg | ILDA01<br>(0 to 2.54)<br>µg/kg | ILDA01<br>(2.54 to 15)<br>µg/kg | ILDA02<br>(0 to 15)<br>µg/kg | ILDA03<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 2,850 | 9.40 | 15.2 | 152 | 8.04 U | 7.73 U | 5.88 J | 6.04 J |
| 2-Methylnaphthalene | 4,290 | 17.7 | 37.5 | 385 | 8.04 U | 7.73 U | 5.73 J | 10.9 |
| Acenaphthylene | 49.3 | 4.25 U | 4.36 U | 7.56 | 4.02 U | 3.86 U | 3.90 U | 3.32 U |
| Acenaphthene | 20.6 | 4.25 U | 4.36 U | 5.28 | 4.02 U | 3.86 U | 3.90 U | 3.32 U |
| Fluorene | 31.1 | 4.25 U | 4.36 U | 3.62 J | 4.02 U | 3.86 U | 3.90 U | 3.32 U |
| Phenanthrene | 1,630 | 36.8 | 41.0 | 377 | 7.27 | 9.57 | 41.8 | 29.5 |
| Anthracene | 111 | 4.28 | 4.03 J | 25.8 | 4.02 U | 3.86 U | 6.37 | 3.73 |
| Fluoranthene | 296 | 73.2 | 16.3 | 92.0 | 13.7 | 19.9 | 112 | 35.4 |
| Pyrene | 376 | 66.6 | 24.9 | 207 | 12.0 | 15.6 | 94.1 | 31.3 |
| Benz(a)anthracene | 237 | 33.9 | 11.2 | 84.4 | 5.58 | 9.10 | 47.3 | 17.3 |
| Chrysene | 273 | 58.8 | 19.0 | 159 | 10.1 | 12.6 | 71.4 | 25.1 |
| Benzo(b)fluoranthene | 101 | 50.6 | 10.1 | 61.2 | 7.00 | 8.87 | 52.7 | 19.7 |
| Benzo(k)fluoranthene | 118 | 49.1 | 10.2 | 45.2 | 8.39 | 9.32 | 62.8 | 19.0 |
| Benzo(a)pyrene | 156 | 54.6 | 12.9 | 108 | 7.37 | 9.03 | 68.9 | 21.1 |
| Indeno(1,2,3-cd)pyrene | 75.3 | 44.3 | 21.8 U | 91.6 | 20.1 U | 19.3 U | 42.7 | 13.0 J |
| Dibenz(a,h)anthracene | 29.2 | 13.3 J | 21.8 U | 41.9 | 20.1 U | 19.3 U | 16.9 J | 16.6 U |
| Benzo(g,h,i)perylene | 118 | 54.7 | 15.9 J | 434 | 20.1 U | 19.3 U | 51.8 | 16.6 J |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILDA04<br>(0 to 15)<br>µg/kg | ILDA05<br>(0 to 15)<br>µg/kg | ILDA06<br>(0 to 2.54)<br>µg/kg | ILDA06<br>(2.54 to 15)<br>µg/kg | ILDA07<br>(0 to 15)<br>µg/kg | ILDA08<br>(0 to 15)<br>µg/kg | ILDA09<br>(0 to 15)<br>µg/kg | ILDA10<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 7.92 J | 11.5 | 7.95 U | 7.49 U | 12.3 | 18.5 | 16.4 | 304 |
| 2-Methylnaphthalene | 6.78 J | 21.3 | 7.95 U | 7.49 U | 21.1 | 40.9 | 48.2 | 190 |
| Acenaphthylene | 4.04 U | 2.81 J | 3.97 U | 3.74 U | 4.16 U | 4.29 U | 8.04 | 289 |
| Acenaphthene | 4.04 U | 4.08 U | 3.97 U | 3.74 U | 4.16 U | 3.56 J | 7.43 | 339 |
| Fluorene | 4.04 U | 4.08 U | 3.97 U | 3.74 U | 4.16 U | 2.93 J | 5.76 | 228 |
| Phenanthrene | 36.5 | 95.7 | 14.4 | 14.3 | 64.0 | 79.6 | 183 | 2,840 |
| Anthracene | 4.69 | 10.4 | 3.97 U | 3.74 U | 5.92 | 10.2 | 28.1 | 653 |
| Fluoranthene | 76.1 | 127 | 23.9 | 22.8 | 74.2 | 85.4 | 454 | 6,840 D |
| Pyrene | 64.0 | 112 | 20.8 | 20.6 | 65.5 | 76.8 | 395 | 3,980 |
| Benz(a)anthracene | 31.6 | 65.2 | 9.90 | 10.3 | 33.0 | 37.7 | 252 | 3,200 |
| Chrysene | 49.2 | 89.9 | 16.8 | 15.3 | 54.7 | 57.9 | 291 | 3,320 |
| Benzo(b)fluoranthene | 40.4 | 62.4 | 14.4 | 9.90 | 35.3 | 42.2 | 223 | 2,810 |
| Benzo(k)fluoranthene | 35.8 | 60.1 | 13.0 | 13.5 | 35.8 | 46.6 | 246 | 2,310 |
| Benzo(a)pyrene | 42.9 | 68.8 | 13.5 | 11.7 | 38.9 | 52.0 | 279 | 3,260 |
| Indeno(1,2,3-cd)pyrene | 28.1 | 38.9 | 19.9 U | 18.7 U | 25.9 | 33.5 | 176 | 2,320 |
| Dibenz(a,h)anthracene | 20.2 U | 15.1 J | 19.9 U | 18.7 U | 20.8 U | 21.4 U | 56.6 | 843 |
| Benzo(g,h,i)perylene | 33.2 | 48.5 | 10.2 J | 10.6 J | 33.8 | 42.3 | 210 | 2,560 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILDE01<br>(0 to 2.54)<br>µg/kg | ILDE01<br>(2.54 to 15)<br>µg/kg | ILDE02<br>(0 to 15)<br>µg/kg | ILDE03<br>(0 to 15)<br>µg/kg | ILDE04<br>(0 to 15)<br>µg/kg | ILDE05<br>(0 to 15)<br>µg/kg | ILDE06<br>(0 to 2.54)<br>µg/kg | ILDE06<br>(2.54 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 8.59 U | 4.41 J | 31.4 | 10.2 | 29.6 | 6.87 J | 8.00 J | 9.15 |
| 2-Methylnaphthalene | 8.59 U | 8.14 U | 33.7 | 9.69 | 40.9 | 8.00 | 10.1 | 10.6 |
| Acenaphthylene | 4.30 U | 4.07 U | 11.0 | 4.16 U | 21.4 | 3.69 J | 4.20 U | 4.14 U |
| Acenaphthene | 4.30 U | 4.07 U | 59.4 | 4.16 U | 7.76 | 4.00 U | 2.20 J | 4.14 U |
| Fluorene | 4.30 U | 4.07 U | 75.7 | 4.16 U | 9.79 | 4.00 U | 2.28 J | 4.14 U |
| Phenanthrene | 9.54 | 4.21 | 1,340 | 22.6 | 124 | 31.6 | 36.5 | 17.8 |
| Anthracene | 4.30 U | 4.07 U | 360 | 2.22 J | 33.0 | 5.19 | 6.21 | 2.25 J |
| Fluoranthene | 18.8 | 5.32 | 2,960 | 44.3 | 239 | 87.2 | 66.0 | 30.6 |
| Pyrene | 15.4 | 4.64 | 2,270 | 36.9 | 240 | 84.1 | 60.7 | 26.1 |
| Benz(a)anthracene | 10.5 | 2.62 J | 1,420 | 19.4 | 146 | 47.0 | 23.9 | 11.8 |
| Chrysene | 15.7 | 4.85 | 1,550 | 32.7 | 159 | 61.9 | 43.0 | 19.7 |
| Benzo(b)fluoranthene | 13.6 | 4.72 | 1,280 | 26.6 | 105 | 44.5 | 34.4 | 16.3 |
| Benzo(k)fluoranthene | 17.1 | 3.54 J | 1,070 | 25.4 | 119 | 46.8 | 28.4 | 14.3 |
| Benzo(a)pyrene | 14.3 | 5.14 | 1,420 | 27.1 | 154 | 56.5 | 32.4 | 15.6 |
| Indeno(1,2,3-cd)pyrene | 21.5 U | 20.3 U | 1,130 | 17.2 J | 109 | 35.2 | 22.4 | 20.7 U |
| Dibenz(a,h)anthracene | 21.5 U | 20.3 U | 376 | 20.8 U | 38.3 | 20.0 U | 21.0 U | 20.7 U |
| Benzo(g,h,i)perylene | 11.6 J | 20.3 U | 1,310 | 21.6 | 138 | 43.3 | 28.6 | 12.8 J |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILDE07<br>(0 to 15)<br>µg/kg | ILDE08<br>(0 to 15)<br>µg/kg | ILDE09<br>(0 to 15)<br>µg/kg | ILDE10<br>(0 to 15)<br>µg/kg | ILDX01<br>(0 to 2.54)<br>µg/kg | ILDX01<br>(2.54 to 15)<br>µg/kg | ILDX02<br>(0 to 15)<br>µg/kg | ILDX03<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 6.12 J | 7.81 U | 5.00 J | 7.33 U | 24.8 | 19.8 | 22.7 | 7.98 |
| 2-Methylnaphthalene | 5.39 J | 3.95 J | 4.75 J | 7.33 U | 29.7 | 29.4 | 54.2 | 6.72 J |
| Acenaphthylene | 4.33 U | 3.90 U | 4.29 U | 3.66 U | 10.2 | 9.12 | 2.04 J | 3.93 U |
| Acenaphthene | 7.77 | 3.90 U | 4.29 U | 3.66 U | 23.0 | 12.0 | 3.49 U | 3.93 U |
| Fluorene | 6.08 | 3.90 U | 4.29 U | 3.66 U | 23.3 | 12.7 | 3.49 U | 3.93 U |
| Phenanthrene | 66.6 | 20.2 | 20.6 | 9.31 | 339 | 215 | 57.0 | 14.8 |
| Anthracene | 14.3 | 2.56 J | 3.26 J | 3.66 U | 57.8 | 34.2 | 5.75 | 3.93 U |
| Fluoranthene | 92.8 | 48.8 | 33.5 | 21.6 | 417 | 269 | 45.9 | 20.7 |
| Pyrene | 77.0 | 42.3 | 29.1 | 17.8 | 335 | 227 | 41.0 | 16.2 |
| Benz(a)anthracene | 42.4 | 22.0 | 16.9 | 8.09 | 210 | 139 | 25.2 | 10.2 |
| Chrysene | 51.5 | 36.8 | 25.9 | 13.3 | 241 | 164 | 34.2 | 15.2 |
| Benzo(b)fluoranthene | 34.3 | 29.1 | 22.7 | 10.2 | 189 | 130 | 22.0 | 12.0 |
| Benzo(k)fluoranthene | 38.9 | 25.5 | 21.3 | 10.7 | 175 | 115 | 25.6 | 11.7 |
| Benzo(a)pyrene | 50.1 | 39.2 | 22.9 | 11.4 | 213 | 152 | 31.6 | 12.7 |
| Indeno(1,2,3-cd)pyrene | 25.0 | 24.0 | 15.9 J | 18.3 U | 144 | 100 | 19.4 | 19.7 U |
| Dibenz(a,h)anthracene | 21.7 U | 19.5 U | 21.4 U | 18.3 U | 43.3 | 37.0 | 17.4 U | 19.7 U |
| Benzo(g,h,i)perylene | 28.4 | 38.1 | 23.2 | 10.4 J | 178 | 133 | 36.3 | 21.7 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILDX04<br>(0 to 15)<br>µg/kg | ILDX05<br>(0 to 15)<br>µg/kg | ILDX06<br>(0 to 2.54)<br>µg/kg | ILDX06<br>(2.54 to 15)<br>µg/kg | ILDX07<br>(0 to 15)<br>µg/kg | ILDX08<br>(0 to 15)<br>µg/kg | ILDX09<br>(0 to 15)<br>µg/kg | ILDX10<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 7.34 U | 8.42 | 4.86 J | 5.07 J | 9.69 | 7.84 U | 5.32 J | 8.87 J |
| 2-Methylnaphthalene | 7.34 U | 7.71 | 7.68 U | 7.38 U | 10.3 | 4.83 J | 5.40 J | 6.55 J |
| Acenaphthylene | 3.67 U | 6.58 | 3.25 J | 2.69 J | 2.27 J | 3.92 U | 4.25 U | 5.11 |
| Acenaphthene | 3.67 U | 3.59 U | 3.84 U | 3.69 U | 4.21 U | 3.92 U | 4.18 J | 2.71 J |
| Fluorene | 3.67 U | 3.59 U | 3.84 U | 3.69 U | 2.21 J | 3.92 U | 4.02 J | 3.05 J |
| Phenanthrene | 3.67 U | 46.0 | 39.3 | 37.7 | 52.3 | 30.8 | 97.2 | 47.2 |
| Anthracene | 3.67 U | 8.94 | 6.27 | 5.40 | 6.84 | 5.01 | 13.7 | 8.59 |
| Fluoranthene | 4.56 | 187 | 88.5 | 7.49 | 107 | 50.9 | 225 | 101 |
| Pyrene | 3.47 J | 149 | 76.4 | 73.3 | 81.4 | 56.5 | 176 | 89.7 |
| Benz(a)anthracene | 3.67 U | 79.9 | 40.6 | 35.1 | 52.9 | 32.4 | 104 | 62.3 |
| Chrysene | 2.48 J | 155 | 49.3 | 45.5 | 69.1 | 41.1 | 133 | 84.5 |
| Benzo(b)fluoranthene | 2.35 J | 147 | 40.2 | 32.5 | 59.8 | 33.3 | 110 | 74.4 |
| Benzo(k)fluoranthene | 3.67 U | 116 | 42.1 | 35.9 | 56.7 | 33.7 | 105 | 76.1 |
| Benzo(a)pyrene | 2.06 J | 109 | 52.5 | 45.1 | 68.4 | 52.6 | 127 | 92.7 |
| Indeno(1,2,3-cd)pyrene | 18.3 U | 102 | 31.6 | 27.2 | 44.4 | 33.1 | 91.0 | 68.1 |
| Dibenz(a,h)anthracene | 18.3 U | 32.0 | 9.70 J | 18.4 U | 15.5 J | 13.0 J | 29.6 | 22.2 J |
| Benzo(g,h,i)perylene | 18.3 U | 124 | 40.5 | 35.1 | 54.5 | 74.5 | 109 | 86.9 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILEF01<br>(0 to 2.54)<br>µg/kg | ILEF01<br>(2.54 to 15)<br>µg/kg | ILEF02<br>(0 to 15)<br>µg/kg | ILEF03<br>(0 to 15)<br>µg/kg | ILEF04<br>(0 to 15)<br>µg/kg | ILEF05<br>(0 to 15)<br>µg/kg | ILEF06<br>(0 to 2.54)<br>µg/kg | ILEF06<br>(2.54 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 7.96 U | 7.85 U | 7.61 U | 8.17 U | 8.54 U | 19.7 | 6.59 J | 6.55 J |
| 2-Methylnaphthalene | 7.96 U | 7.85 U | 7.61 U | 8.17 U | 8.54 U | 43.2 | 7.70 U | 7.98 |
| Acenaphthylene | 3.98 U | 3.92 U | 3.80 U | 4.09 U | 4.27 U | 2.31 J | 3.50 J | 2.51 J |
| Acenaphthene | 3.98 U | 3.92 U | 3.80 U | 4.09 U | 4.27 U | 3.84 U | 3.85 U | 3.86 U |
| Fluorene | 3.98 U | 3.92 U | 3.80 U | 4.09 U | 4.27 U | 3.84 U | 3.85 U | 3.86 U |
| Phenanthrene | 2.75 J | 3.14 J | 10.4 | 13.5 | 6.21 | 50.3 | 52.6 | 45.0 |
| Anthracene | 3.98 U | 3.92 U | 3.80 U | 4.09 U | 4.27 U | 9.52 | 8.74 | 7.30 |
| Fluoranthene | 5.46 | 5.68 | 20.4 | 30.5 | 9.41 | 34.5 | 186 | 119 |
| Pyrene | 4.21 | 4.70 | 17.0 | 24.6 | 8.05 | 55.1 | 153 | 123 |
| Benz(a)anthracene | 1.99 J | 2.08 J | 7.46 | 11.3 | 4.53 | 22.9 | 83.7 | 69.7 |
| Chrysene | 3.71 J | 4.06 | 9.91 | 17.7 | 6.31 | 59.8 | 126 | 113 |
| Benzo(b)fluoranthene | 3.14 J | 2.95 J | 7.63 | 14.4 | 4.98 | 33.1 | 111 | 89.6 |
| Benzo(k)fluoranthene | 3.53 J | 2.92 J | 7.33 | 12.8 | 3.74 J | 22.3 | 101 | 64.7 |
| Benzo(a)pyrene | 3.25 J | 2.80 J | 10.3 | 14.1 | 4.55 | 65.3 | 109 | 114 |
| Indeno(1,2,3-cd)pyrene | 19.9 U | 19.6 U | 19.0 U | 20.4 U | 21.3 U | 52.6 | 84.0 | 79.7 |
| Dibenz(a,h)anthracene | 19.9 U | 19.6 U | 19.0 U | 20.4 U | 21.3 U | 25.7 | 22.3 | 31.0 |
| Benzo(g,h,i)perylene | 19.9 U | 19.6 U | 19.0 U | 11.8 J | 21.3 U | 317 | 133 | 173 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILEF07<br>(0 to 15)<br>µg/kg | ILEF08<br>(0 to 15)<br>µg/kg | ILEF09<br>(0 to 15)<br>µg/kg | ILEF10<br>(0 to 15)<br>µg/kg | ILGB01<br>(0 to 2.54)<br>µg/kg | ILGB01<br>(2.54 to 15)<br>µg/kg | ILGB02<br>(0 to 15)<br>µg/kg | ILGB03<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 7.68 U | 29.5 | 7.72 U | 16.5 | 10.2 | 10.6 | 19.5 | 7.70 U |
| 2-Methylnaphthalene | 7.68 U | 45.3 | 7.72 U | 39.2 | 12.9 | 16.6 | 45.7 | 7.70 U |
| Acenaphthylene | 3.84 U | 13.4 | 3.86 U | 3.84 J | 5.40 | 5.31 | 2.17 J | 3.85 U |
| Acenaphthene | 3.84 U | 20.8 | 3.86 U | 3.07 J | 5.17 | 3.64 J | 7.23 | 3.85 U |
| Fluorene | 3.84 U | 29.6 | 3.86 U | 2.23 J | 6.91 | 5.37 | 5.39 | 3.85 U |
| Phenanthrene | 6.46 | 845 | 11.2 | 80.9 | 138 | 109 | 135 | 3.21 J |
| Anthracene | 3.84 U | 113 | 3.86 U | 8.36 | 18.9 | 17.2 | 15.7 | 3.85 U |
| Fluoranthene | 12.9 | 1,810 | 12.3 | 39.5 | 201 | 134 | 168 | 4.54 |
| Pyrene | 11.9 | 1,400 | 10.4 | 52.7 | 157 | 105 | 136 | 3.54 J |
| Benz(a)anthracene | 4.73 | 747 | 5.63 | 33.1 | 92.2 | 66.4 | 80.3 | 3.85 U |
| Chrysene | 8.08 | 1,170 | 7.20 | 54.0 | 118 | 82.5 | 106 | 3.46 J |
| Benzo(b)fluoranthene | 5.37 | 965 | 5.74 | 30.3 | 96.4 | 55.3 | 86.5 | 3.34 J |
| Benzo(k)fluoranthene | 7.41 | 768 | 5.36 | 22.6 | 89.9 | 57.7 | 78.1 | 3.64 J |
| Benzo(a)pyrene | 6.38 | 1,060 | 6.22 | 49.7 | 111 | 74.3 | 93.6 | 2.79 J |
| Indeno(1,2,3-cd)pyrene | 19.2 U | 1,110 | 19.3 U | 39.8 | 72.4 | 46.6 | 66.6 | 19.2 U |
| Dibenz(a,h)anthracene | 19.2 U | 348 | 19.3 U | 21.1 | 22.9 | 15.2 J | 21.3 | 19.2 U |
| Benzo(g,h,i)perylene | 19.2 U | 1,700 | 19.3 U | 160 | 85.5 | 53.4 | 80.9 | 19.2 U |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILGB04<br>(0 to 15)<br>µg/kg | ILGB05<br>(0 to 15)<br>µg/kg | ILGB06<br>(0 to 2.54)<br>µg/kg | ILGB06<br>(2.54 to 15)<br>µg/kg | ILGB07<br>(0 to 15)<br>µg/kg | ILGB08<br>(0 to 15)<br>µg/kg | ILGB09<br>(0 to 15)<br>µg/kg | ILGB10<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 7.61 J | 51.5 | 68.5 | 86.7 | 189 | 22.3 | 7.67 U | 7.83 U |
| 2-Methylnaphthalene | 9.26 | 53.3 | 129 | 156 | 204 | 34.5 | 7.67 U | 7.83 U |
| Acenaphthylene | 3.85 U | 32.2 | 15.8 | 21.2 | 50.8 | 8.40 | 3.83 U | 3.91 U |
| Acenaphthene | 2.08 J | 16.2 | 20.0 | 49.3 | 77.7 | 7.64 | 3.83 U | 11.7 |
| Fluorene | 3.85 U | 21.8 | 17.2 | 36.7 | 75.9 | 7.14 | 3.83 U | 21.6 |
| Phenanthrene | 57.1 | 368 | 371 | 688 | 1,380 | 153 | 3.83 U | 251 |
| Anthracene | 9.79 | 67.4 | 66.6 | 113 | 177 | 25.1 | 3.83 U | 35.2 |
| Fluoranthene | 128 | 587 | 428 | 586 | 1,330 | 277 | 3.83 U | 335 |
| Pyrene | 106 | 484 | 402 | 541 | 1,070 | 248 | 3.83 U | 233 |
| Benz(a)anthracene | 61.5 | 341 | 242 | 351 | 651 | 207 | 3.83 U | 121 |
| Chrysene | 85.3 | 407 | 300 | 398 | 909 | 239 | 3.83 U | 140 |
| Benzo(b)fluoranthene | 88.2 | 356 | 225 | 266 | 649 | 208 | 3.83 U | 103 |
| Benzo(k)fluoranthene | 64.9 | 311 | 209 | 256 | 581 | 219 | 3.83 U | 115 |
| Benzo(a)pyrene | 98.2 | 375 | 259 | 360 | 725 | 221 | 3.83 U | 135 |
| Indeno(1,2,3-cd)pyrene | 69.8 | 270 | 186 | 291 | 569 | 175 | 19.2 U | 88.7 |
| Dibenz(a,h)anthracene | 22.2 | 72.9 | 66.7 | 95.9 | 191 | 56.1 | 19.2 U | 31.2 |
| Benzo(g,h,i)perylene | 98.2 | 318 | 247 | 425 | 773 | 203 | 19.2 U | 108 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILGL01<br>(0 to 2.54)<br>µg/kg | ILGL01<br>(2.54 to 15)<br>µg/kg | ILGL02<br>(0 to 15)<br>µg/kg | ILGL03<br>(0 to 15)<br>µg/kg | ILGL04<br>(0 to 15)<br>µg/kg | ILGL05<br>(0 to 15)<br>µg/kg | ILGL06<br>(0 to 2.54)<br>µg/kg | ILGL06<br>(2.54 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 32.5 | 250 | 12.7 | 9.14 | 34.8 | 6.96 J | 21.6 | 18.5 |
| 2-Methylnaphthalene | 41.8 | 216 | 22.7 | 8.85 | 46.5 | 9.36 U | 19.7 | 20.6 |
| Acenaphthylene | 9.31 | 60.5 | 6.00 | 1.92 J | 3.05 J | 2.48 J | 9.48 | 6.48 |
| Acenaphthene | 193 | 620 | 28.4 | 5.59 | 18.2 | 4.68 U | 20.1 | 9.62 |
| Fluorene | 252 | 768 | 27.6 | 6.92 | 18.0 | 4.68 U | 20.6 | 9.22 |
| Phenanthrene | 2,570 | 9,200 D | 366 | 99.8 | 291 | 37.9 | 418 | 214 |
| Anthracene | 419 | 1,560 | 93.3 | 16.0 | 27.6 | 5.72 | 59.0 | 35.3 |
| Fluoranthene | 3,270 | 14,200 D | 683 | 166 | 405 | 87.0 | 952 | 500 |
| Pyrene | 2,360 | 10,400 D | 537 | 139 | 303 | 67.7 | 719 | 377 |
| Benz(a)anthracene | 1,250 | 4,750 D | 365 | 74.4 | 146 | 37.0 | 419 | 253 |
| Chrysene | 1,720 | 6,300 D | 392 | 101 | 208 | 53.4 | 585 | 332 |
| Benzo(b)fluoranthene | 1,550 | 5,560 D | 362 | 92.4 | 200 | 52.1 | 581 | 279 |
| Benzo(k)fluoranthene | 1,410 | 5,050 D | 290 | 83.5 | 180 | 46.3 | 498 | 277 |
| Benzo(a)pyrene | 1,470 | 5,960 D | 394 | 94.2 | 211 | 59.7 | 585 | 302 |
| Indeno(1,2,3-cd)pyrene | 1,040 | 4,520 D | 253 | 63.6 | 144 | 35.5 | 391 | 192 |
| Dibenz(a,h)anthracene | 335 | 1,860 | 85.7 | 20.9 | 44.9 | 23.4 U | 116 | 65.9 |
| Benzo(g,h,i)perylene | 1,180 | 5,100 D | 280 | 74.7 | 170 | 45.6 | 479 | 225 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILGL07<br>(0 to 15)<br>µg/kg | ILGL08<br>(0 to 15)<br>µg/kg | ILGL09<br>(0 to 15)<br>µg/kg | ILGL10<br>(0 to 15)<br>µg/kg | ILJA01<br>(0 to 2.54)<br>µg/kg | ILJA01<br>(2.54 to 15)<br>µg/kg | ILJA02<br>(0 to 15)<br>µg/kg | ILJA03<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 32.7 | 10.3 | 30.5 | 9.87 | 16.8 | 52.1 | 190 | 50.5 |
| 2-Methylnaphthalene | 21.9 | 7.84 J | 33.0 | 9.39 | 26.6 | 96.4 | 85.3 | 75.6 |
| Acenaphthylene | 18.6 | 4.72 | 7.49 | 21.6 | 4.03 J | 11.5 | 87.3 | 48.4 |
| Acenaphthene | 280 | 37.9 | 16.8 | 11.6 | 4.54 U | 9.06 | 14.5 | 48.9 |
| Fluorene | 291 | 36.6 | 19.5 | 14.8 | 4.54 U | 13.0 | 10.3 | 59.9 |
| Phenanthrene | 4,000 | 520 | 255 | 184 | 70.9 | 277 | 302 | 656 |
| Anthracene | 690 | 89.1 | 51.3 | 42.2 | 9.67 | 21.1 | 92.6 | 115 |
| Fluoranthene | 8,310 D | 848 | 466 | 407 | 115 | 286 | 859 | 1,160 |
| Pyrene | 6,100 D | 613 | 339 | 319 | 103 | 264 | 877 | 969 |
| Benz(a)anthracene | 3,020 | 375 | 215 | 256 | 60.8 | 97.0 | 677 | 562 |
| Chrysene | 3,710 | 462 | 274 | 270 | 84.5 | 142 | 689 | 680 |
| Benzo(b)fluoranthene | 3,770 | 435 | 252 | 249 | 68.3 | 108 | 565 | 632 |
| Benzo(k)fluoranthene | 2,180 | 379 | 204 | 236 | 64.9 | 103 | 629 | 509 |
| Benzo(a)pyrene | 3,360 | 429 | 249 | 297 | 79.8 | 128 | 874 | 657 |
| Indeno(1,2,3-cd)pyrene | 2,600 | 293 | 209 | 200 | 53.8 | 80.2 | 558 | 471 |
| Dibenz(a,h)anthracene | 855 | 86.4 | 75.0 | 71.1 | 18.4 J | 25.4 | 168 | 157 |
| Benzo(g,h,i)perylene | 3,170 | 332 | 262 | 233 | 65.5 | 100 | 680 | 555 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILJA04<br>(0 to 15)<br>µg/kg | ILJA05<br>(0 to 15)<br>µg/kg | ILJA06<br>(0 to 2.54)<br>µg/kg | ILJA06<br>(2.54 to 15)<br>µg/kg | ILJA07<br>(0 to 15)<br>µg/kg | ILJA08<br>(0 to 15)<br>µg/kg | ILJA09<br>(0 to 15)<br>µg/kg | ILJA10<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 10.6 | 6.36 J | 8.05 J | 7.78 J | 4.85 J | 7.99 J | 37.7 | 21.0 |
| 2-Methylnaphthalene | 25.0 | 9.19 U | 9.22 | 10.1 | 8.12 U | 9.33 U | 22.5 | 45.3 |
| Acenaphthylene | 9.59 | 5.67 | 4.36 U | 4.15 U | 13.6 | 4.67 U | 15.6 | 5.94 |
| Acenaphthene | 17.7 | 4.59 U | 6.26 | 2.34 J | 4.06 U | 4.67 | 14.9 | 3.53 J |
| Fluorene | 19.4 | 4.59 U | 5.13 | 4.15 U | 4.06 U | 4.67 U | 22.4 | 4.82 |
| Phenanthrene | 167 | 61.9 | 115 | 49.5 | 37.7 | 52.7 | 488 | 110 |
| Anthracene | 41.5 | 9.12 | 16.9 | 7.76 | 6.71 | 10.6 | 38.2 | 21.2 |
| Fluoranthene | 276 | 228 | 294 | 121 | 96.4 | 116 | 768 | 164 |
| Pyrene | 232 | 191 | 237 | 100 | 113 | 95.0 | 790 | 157 |
| Benz(a)anthracene | 151 | 113 | 112 | 50.7 | 70.1 | 69.7 | 262 | 86.0 |
| Chrysene | 178 | 158 | 159 | 69.1 | 80.5 | 90.6 | 394 | 97.3 |
| Benzo(b)fluoranthene | 147 | 148 | 136 | 56.9 | 55.4 | 91.2 | 298 | 76.2 |
| Benzo(k)fluoranthene | 139 | 126 | 115 | 60.7 | 68.5 | 81.9 | 282 | 72.0 |
| Benzo(a)pyrene | 174 | 153 | 165 | 74.9 | 97.2 | 118 | 362 | 103 |
| Indeno(1,2,3-cd)pyrene | 108 | 110 | 112 | 48.2 | 59.1 | 88.7 | 230 | 66.0 |
| Dibenz(a,h)anthracene | 39.4 | 38.7 | 40.8 | 16.9 J | 17.9 J | 32.9 | 77.5 | 22.4 |
| Benzo(g,h,i)perylene | 118 | 124 | 145 | 64.2 | 77.5 | 107 | 302 | 129 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILLA01<br>(0 to 2.54)<br>µg/kg | ILLA01<br>(2.54 to 15)<br>µg/kg | ILLA02<br>(0 to 15)<br>µg/kg | ILLA03<br>(0 to 15)<br>µg/kg | ILLA04<br>(0 to 15)<br>µg/kg | ILLA05<br>(0 to 15)<br>µg/kg | ILLA06<br>(0 to 2.54)<br>µg/kg | ILLA06<br>(2.54 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 9.48 | 8.31 | 10.2 | 11.2 | 29.5 | 15.7 | 10.1 | 5.39 J |
| 2-Methylnaphthalene | 7.00 J | 6.65 J | 8.01 J | 9.42 | 20.2 | 11.9 | 6.95 J | 4.79 J |
| Acenaphthylene | 3.61 U | 3.57 U | 4.02 U | 3.89 U | 10.8 | 5.57 | 4.04 U | 4.09 U |
| Acenaphthene | 4.66 | 3.57 U | 4.02 U | 3.89 U | 38.7 | 21.8 | 2.28 J | 4.09 U |
| Fluorene | 6.35 | 3.57 U | 4.02 U | 3.89 U | 57.3 | 41.3 | 2.22 J | 4.09 U |
| Phenanthrene | 124 | 26.7 | 36.1 | 25.1 | 458 | 858 | 59.3 | 24.0 |
| Anthracene | 19.0 | 4.11 | 5.58 | 3.06 J | 104 | 251 | 9.94 | 3.47 J |
| Fluoranthene | 243 | 47.2 | 65.9 | 38.1 | 626 | 1,810 | 146 | 50.3 |
| Pyrene | 167 | 36.7 | 51.4 | 29.4 | 453 | 1,280 | 117 | 42.8 |
| Benz(a)anthracene | 89.2 | 25.0 | 34.8 | 18.8 | 349 | 791 | 60.5 | 23.3 |
| Chrysene | 153 | 38.7 | 49.0 | 29.5 | 376 | 900 | 90.4 | 35.7 |
| Benzo(b)fluoranthene | 132 | 31.6 | 41.6 | 22.4 | 300 | 753 | 84.4 | 33.7 |
| Benzo(k)fluoranthene | 134 | 36.1 | 39.6 | 22.6 | 298 | 768 | 70.6 | 26.7 |
| Benzo(a)pyrene | 138 | 41.2 | 51.6 | 29.7 | 342 | 829 | 84.4 | 37.4 |
| Indeno(1,2,3-cd)pyrene | 122 | 35.1 | 37.7 | 18.4 J | 245 | 448 | 52.3 | 21.3 |
| Dibenz(a,h)anthracene | 37.0 | 11.9 J | 12.1 J | 19.5 U | 83.0 | 148 | 15.2 J | 20.4 U |
| Benzo(g,h,i)perylene | 147 | 43.8 | 47.8 | 25.5 | 291 | 524 | 64.3 | 26.2 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILLA07<br>(0 to 15)<br>µg/kg | ILLA08<br>(0 to 15)<br>µg/kg | ILLA09<br>(0 to 15)<br>µg/kg | ILLA10<br>(0 to 15)<br>µg/kg | ILMC01<br>(0 to 2.54)<br>µg/kg | ILMC01<br>(2.54 to 15)<br>µg/kg | ILMC02<br>(0 to 15)<br>µg/kg | ILMC03<br>Comp(0-10)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 133 | 48.2 | 5.86 J | 52.7 | 5.14 J | 7.04 J | 24.2 | 40.6 |
| 2-Methylnaphthalene | 116 | 49.1 | 6.81 J | 43.0 | 8.39 U | 6.00 J | 35.4 | 50.1 |
| Acenaphthylene | 29.6 | 15.6 | 3.62 U | 33.3 | 4.19 U | 2.94 J | 13.8 | 44.3 |
| Acenaphthene | 16.5 | 18.8 | 3.62 U | 56.6 | 4.19 U | 3.96 U | 4.18 U | 5.72 |
| Fluorene | 12.2 | 25.7 | 3.62 U | 60.1 | 4.19 U | 3.96 U | 4.47 | 11.2 |
| Phenanthrene | 350 | 374 | 42.9 | 939 | 22.7 | 22.7 | 171 | 185 |
| Anthracene | 97.7 | 66.2 | 5.11 | 170 | 2.89 J | 3.33 J | 16.0 | 51.1 |
| Fluoranthene | 568 | 435 | 127 | 2,100 | 54.6 | 54.0 | 198 | 448 |
| Pyrene | 487 | 343 | 98.6 | 1,600 | 45.2 | 44.8 | 156 | 380 |
| Benz(a)anthracene | 391 | 199 | 40.8 | 1,000 | 25.1 | 26.8 | 83.4 | 386 |
| Chrysene | 456 | 273 | 82.3 | 1,220 | 40.3 | 42.4 | 136 | 399 |
| Benzo(b)fluoranthene | 489 | 195 | 63.2 | 1,250 | 37.3 | 42.0 | 107 | 294 |
| Benzo(k)fluoranthene | 404 | 185 | 62.9 | 984 | 36.5 | 36.7 | 112 | 287 |
| Benzo(a)pyrene | 422 | 210 | 47.9 | 1,150 | 43.0 | 48.1 | 110 | 367 |
| Indeno(1,2,3-cd)pyrene | 323 | 172 | 34.8 | 905 | 30.3 | 34.4 | 83.2 | 254 |
| Dibenz(a,h)anthracene | 100 | 46.1 | 10.9 J | 277 | 21.0 U | 19.8 U | 26.5 | 95.6 |
| Benzo(g,h,i)perylene | 386 | 204 | 41.2 | 1,050 | 39.3 | 43.9 | 119 | 294 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILMC04<br>(0 to 15)<br>µg/kg | ILMC05<br>(0 to 15)<br>µg/kg | ILMC06<br>(0 to 2.54)<br>µg/kg | ILMC06<br>(2.54 to 15)<br>µg/kg | ILMC07<br>(0 to 15)<br>µg/kg | ILMC08<br>(0 to 15)<br>µg/kg | ILMC09<br>(0 to 15)<br>µg/kg | ILMC10<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 26.9 | 8.12 U | 12.4 | 17.4 | 7.68 | 8.00 U | 7.99 U | 5.55 J |
| 2-Methylnaphthalene | 46.3 | 8.12 U | 13.2 | 20.9 | 12.7 | 8.00 U | 7.99 U | 8.49 U |
| Acenaphthylene | 4.20 | 4.06 U | 2.18 J | 4.13 U | 3.81 U | 4.00 U | 3.99 U | 7.41 |
| Acenaphthene | 3.91 J | 4.06 U | 2.94 J | 13.7 | 3.81 U | 4.00 U | 3.99 U | 4.24 U |
| Fluorene | 4.91 | 4.06 U | 2.37 J | 8.09 | 3.81 U | 4.00 U | 3.99 U | 4.24 U |
| Phenanthrene | 101 | 11.0 | 69.7 | 120 | 31.5 | 4.00 U | 10.3 | 9.46 |
| Anthracene | 15.7 | 4.06 U | 11.3 | 24.3 | 3.23 J | 4.00 U | 3.99 U | 4.24 U |
| Fluoranthene | 86.0 | 25.5 | 113 | 178 | 27.2 | 4.00 U | 17.9 | 26.1 |
| Pyrene | 73.9 | 24.4 | 92.4 | 147 | 24.8 | 4.00 U | 14.6 | 24.0 |
| Benz(a)anthracene | 49.7 | 11.8 | 55.0 | 96.4 | 15.5 | 4.00 U | 8.16 | 8.30 |
| Chrysene | 62.2 | 24.3 | 77.6 | 116 | 21.4 | 4.00 U | 12.4 | 19.3 |
| Benzo(b)fluoranthene | 46.8 | 12.2 | 61.5 | 95.2 | 14.4 | 4.00 U | 10.9 | 27.5 |
| Benzo(k)fluoranthene | 44.9 | 10.7 | 66.2 | 97.2 | 16.9 | 4.00 U | 10.4 | 17.2 |
| Benzo(a)pyrene | 62.6 | 14.7 | 74.9 | 120 | 18.6 | 4.00 U | 11.3 | 22.0 |
| Indeno(1,2,3-cd)pyrene | 36.4 | 20.3 U | 53.7 | 79.3 | 10.6 J | 20.0 U | 20.0 U | 23.6 |
| Dibenz(a,h)anthracene | 13.8 J | 20.3 U | 18.1 J | 28.1 | 19.1 U | 20.0 U | 20.0 U | 21.2 U |
| Benzo(g,h,i)perylene | 48.6 | 19.7 J | 69.5 | 103 | 13.4 J | 20.0 U | 20.0 U | 31.9 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILMT01<br>(0 to 2.54)<br>µg/kg | ILMT01<br>(2.54 to 15)<br>µg/kg | ILMT02<br>(0 to 15)<br>µg/kg | ILMT03<br>(0 to 15)<br>µg/kg | ILMT04<br>(0 to 15)<br>µg/kg | ILMT05<br>(0 to 15)<br>µg/kg | ILMT06<br>(0 to 2.54)<br>µg/kg | ILMT06<br>(2.54 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 12.1 | 9.95 | 52.6 | 14.9 | 8.33 U | 11.4 | 6.76 J | 6.60 J |
| 2-Methylnaphthalene | 15.9 | 12.0 | 89.9 | 14.4 | 8.33 U | 16.9 | 7.41 J | 7.40 J |
| Acenaphthylene | 2.22 J | 4.14 U | 6.72 | 33.8 | 4.17 U | 3.09 J | 4.32 U | 4.04 U |
| Acenaphthene | 4.28 U | 4.14 U | 9.37 | 4.80 | 5.23 | 4.11 | 4.36 | 2.69 J |
| Fluorene | 4.28 U | 4.14 U | 6.68 | 15.9 | 6.61 | 3.98 | 3.25 J | 4.04 U |
| Phenanthrene | 39.7 | 33.7 | 152 | 236 | 170 | 75.0 | 50.1 | 31.5 |
| Anthracene | 4.74 | 4.18 | 20.4 | 20.0 | 14.2 | 14.7 | 8.39 | 4.43 |
| Fluoranthene | 70.8 | 56.3 | 263 | 465 | 429 | 158 | 111 | 64.8 |
| Pyrene | 58.2 | 47.4 | 224 | 395 | 332 | 132 | 91.4 | 53.9 |
| Benz(a)anthracene | 33.2 | 22.9 | 137 | 165 | 123 | 69.9 | 47.1 | 24.7 |
| Chrysene | 48.9 | 39.0 | 170 | 255 | 173 | 87.4 | 63.4 | 35.4 |
| Benzo(b)fluoranthene | 38.4 | 31.1 | 149 | 167 | 136 | 72.3 | 50.0 | 24.7 |
| Benzo(k)fluoranthene | 36.8 | 29.7 | 150 | 202 | 136 | 66.5 | 46.3 | 27.5 |
| Benzo(a)pyrene | 45.6 | 35.9 | 174 | 193 | 155 | 81.1 | 57.0 | 28.7 |
| Indeno(1,2,3-cd)pyrene | 30.5 | 26.5 | 132 | 137 | 112 | 48.1 | 33.5 | 18.7 J |
| Dibenz(a,h)anthracene | 21.4 U | 20.7 U | 50.6 | 37.1 | 35.0 | 16.7 J | 11.6 J | 20.2 U |
| Benzo(g,h,i)perylene | 37.7 | 35.0 | 146 | 157 | 127 | 58.9 | 39.4 | 21.7 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILMT07<br>(0 to 15)<br>µg/kg | ILMT08<br>(0 to 15)<br>µg/kg | ILMT09<br>(0 to 15)<br>µg/kg | ILMT10<br>(0 to 15)<br>µg/kg | ILPT01<br>(0 to 2.54)<br>µg/kg | ILPT01<br>(2.54 to 15)<br>µg/kg | ILPT02<br>(0 to 15)<br>µg/kg | ILPT03<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 253 | 7.16 J | 365 | 79.1 | 6.88 U | 5.82 J | 7.27 J | 2.75 |
| 2-Methylnaphthalene | 404 | 5.96 J | 501 | 113 | 6.88 U | 5.65 J | 7.76 J | 389 |
| Acenaphthylene | 42.7 | 4.28 U | 8.40 | 14.0 | 3.44 U | 3.39 U | 4.02 U | 13.2 |
| Acenaphthene | 74.0 | 4.28 U | 16.7 | 39.2 | 3.44 U | 3.39 U | 4.02 U | 20.0 |
| Fluorene | 58.7 | 4.28 U | 11.2 | 31.1 | 3.44 U | 3.39 U | 4.02 U | 17.5 |
| Phenanthrene | 1,150 | 22.8 | 354 | 606 | 10.3 | 9.47 | 14.8 | 453 |
| Anthracene | 204 | 3.16 J | 40.4 | 99.2 | 3.44 U | 3.39 U | 4.02 U | 62.2 |
| Fluoranthene | 1,590 | 44.7 | 516 | 1,160 | 20.1 | 10.9 | 15.4 | 433 |
| Pyrene | 1,400 | 41.4 | 432 | 960 | 15.8 | 9.03 | 11.7 | 369 |
| Benz(a)anthracene | 853 | 24.9 | 244 | 563 | 6.33 | 4.90 | 5.94 | 242 |
| Chrysene | 945 | 31.8 | 284 | 663 | 10.8 | 7.68 | 10.2 | 262 |
| Benzo(b)fluoranthene | 723 | 23.8 | 217 | 526 | 9.79 | 5.52 | 7.28 | 175 |
| Benzo(k)fluoranthene | 753 | 29.5 | 204 | 448 | 8.70 | 5.87 | 6.84 | 207 |
| Benzo(a)pyrene | 900 | 39.5 | 247 | 572 | 9.11 | 6.07 | 6.30 | 235 |
| Indeno(1,2,3-cd)pyrene | 686 | 23.1 | 171 | 419 | 17.2 U | 16.9 U | 20.1 U | 155 |
| Dibenz(a,h)anthracene | 227 | 21.4 U | 51.0 | 140 | 17.2 U | 16.9 U | 20.1 U | 52.0 |
| Benzo(g,h,i)perylene | 832 | 27.1 | 221 | 504 | 17.2 U | 16.9 U | 20.1 U | 198 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILPT04<br>(0 to 15)<br>µg/kg | ILPT05<br>(0 to 15)<br>µg/kg | ILPT06<br>(0 to 2.54)<br>µg/kg | ILPT06<br>(2.54 to 15)<br>µg/kg | ILPT07<br>(0 to 15)<br>µg/kg | ILPT08<br>(0 to 15)<br>µg/kg | ILPT09<br>(0 to 15)<br>µg/kg | ILPT10<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 34.2 | 23.1 | 51.3 | 85.5 | 718 | 270 | 65.9 | 17.3 |
| 2-Methylnaphthalene | 45.2 | 30.1 | 97.4 | 134 | 973 | 459 | 85.4 | 20.3 |
| Acenaphthylene | 4.22 U | 2.69 J | 5.75 | 7.79 | 39.6 | 6.61 | 18.6 | 2.67 J |
| Acenaphthene | 4.22 U | 9.06 | 21.5 | 13.8 | 34.3 | 7.79 | 11.1 | 4.69 |
| Fluorene | 4.22 U | 8.74 | 27.2 | 15.8 | 24.6 | 5.58 | 13.3 | 4.24 |
| Phenanthrene | 63.4 | 165 | 397 | 334 | 968 | 185 | 219 | 68.6 |
| Anthracene | 7.27 | 23.6 | 71.6 | 52.2 | 103 | 18.4 | 36.8 | 12.3 |
| Fluoranthene | 90.4 | 336 | 683 | 629 | 692 | 96.8 | 347 | 77.4 |
| Pyrene | 73.0 | 268 | 519 | 498 | 572 | 86.4 | 290 | 63.4 |
| Benz(a)anthracene | 37.4 | 136 | 277 | 292 | 377 | 54.8 | 220 | 42.5 |
| Chrysene | 68.3 | 197 | 331 | 361 | 458 | 72.6 | 261 | 52.6 |
| Benzo(b)fluoranthene | 47.1 | 156 | 261 | 286 | 261 | 53.8 | 204 | 32.3 |
| Benzo(k)fluoranthene | 50.8 | 130 | 267 | 303 | 286 | 47.4 | 216 | 40.5 |
| Benzo(a)pyrene | 53.7 | 169 | 284 | 333 | 379 | 63.5 | 257 | 48.2 |
| Indeno(1,2,3-cd)pyrene | 40.4 | 122 | 195 | 259 | 332 | 46.2 | 221 | 32.2 |
| Dibenz(a,h)anthracene | 13.0 J | 35.9 | 72.2 | 90.1 | 110 | 15.1 J | 72.1 | 12.0 J |
| Benzo(g,h,i)perylene | 49.3 | 154 | 226 | 322 | 594 | 63.7 | 305 | 54.8 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILQY01<br>(0 to 2.54)<br>µg/kg | ILQY01<br>(2.54 to 15)<br>µg/kg | ILQY02<br>(0 to 15)<br>µg/kg | ILQY03<br>(0 to 15)<br>µg/kg | ILQY04<br>(0 to 15)<br>µg/kg | ILQY05<br>(0 to 15)<br>µg/kg | ILQY06<br>(0 to 2.54)<br>µg/kg | ILQY06<br>(2.54 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 8.33 U | 8.14 U | 8.14 U | 7.74 U | 11.2 | 8.24 U | 7.93 U | 7.64 U |
| 2-Methylnaphthalene | 8.33 U | 8.14 U | 8.14 U | 7.74 U | 14.3 | 8.24 U | 7.93 U | 7.64 U |
| Acenaphthylene | 4.16 U | 4.07 U | 4.07 U | 3.87 U | 9.79 | 4.12 U | 3.96 U | 3.82 U |
| Acenaphthene | 4.16 U | 4.07 U | 4.07 U | 3.87 U | 4.89 | 4.12 U | 2.23 J | 3.82 U |
| Fluorene | 4.16 U | 4.07 U | 4.07 U | 3.87 U | 5.57 | 4.12 U | 3.96 U | 3.82 U |
| Phenanthrene | 27.5 | 15.1 | 3.61 J | 4.35 | 93.6 | 10.8 | 24.7 | 18.4 |
| Anthracene | 4.47 | 4.07 U | 4.07 U | 3.87 U | 16.6 | 4.12 U | 4.47 | 3.19 J |
| Fluoranthene | 66.9 | 31.1 | 5.64 | 6.19 | 222 | 27.2 | 49.5 | 35.8 |
| Pyrene | 53.0 | 24.3 | 4.88 | 5.41 | 191 | 23.3 | 40.0 | 30.1 |
| Benz(a)anthracene | 28.2 | 12.7 | 3.07 J | 2.31 J | 118 | 14.0 | 22.9 | 17.0 |
| Chrysene | 38.7 | 19.3 | 3.95 J | 4.00 | 126 | 17.0 | 30.4 | 21.7 |
| Benzo(b)fluoranthene | 32.9 | 17.0 | 3.48 J | 3.29 J | 109 | 13.5 | 22.6 | 17.0 |
| Benzo(k)fluoranthene | 33.2 | 17.1 | 4.72 | 4.21 | 114 | 13.9 | 24.4 | 17.7 |
| Benzo(a)pyrene | 41.2 | 18.4 | 3.26 J | 2.02 J | 137 | 15.1 | 31.2 | 23.2 |
| Indeno(1,2,3-cd)pyrene | 26.3 | 14.3 J | 20.4 U | 19.4 U | 99.8 | 10.4 J | 17.4 J | 12.7 J |
| Dibenz(a,h)anthracene | 20.8 U | 20.3 U | 20.4 U | 19.4 U | 28.2 | 20.6 U | 19.8 U | 19.1 U |
| Benzo(g,h,i)perylene | 31.1 | 23.7 | 20.4 U | 19.4 U | 121 | 11.2 J | 21.8 | 14.7 J |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILQY07<br>(0 to 15)<br>µg/kg | ILQY08<br>(0 to 15)<br>µg/kg | ILQY09<br>(0 to 15)<br>µg/kg | ILQY10<br>(0 to 15)<br>µg/kg | ILRF01<br>(0 to 2.54)<br>µg/kg | ILRF01<br>(2.54 to 15)<br>µg/kg | ILRF02<br>(0 to 15)<br>µg/kg | ILRF03<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 25.7 | 10.2 | 120 | 13.6 | 46.4 | 35.9 | 7.08 U | 22.0 |
| 2-Methylnaphthalene | 40.5 | 9.62 | 126 | 26.1 | 39.3 | 30.5 | 7.08 U | 7.71 J |
| Acenaphthylene | 12.0 | 3.66 U | 695 | 3.73 U | 121 | 59.9 | 3.54 U | 9.96 |
| Acenaphthene | 32.4 | 9.05 | 57.6 | 3.73 U | 14.8 | 7.37 | 3.54 U | 11.3 |
| Fluorene | 37.6 | 7.53 | 47.0 | 3.73 U | 14.5 | 13.4 | 3.54 U | 13.4 |
| Phenanthrene | 512 | 158 | 1,430 | 12.9 | 417 | 237 | 18.2 | 377 |
| Anthracene | 101 | 23.3 | 598 | 3.73 U | 70.7 | 39.4 | 2.13 J | 39.7 |
| Fluoranthene | 603 | 355 | 2,510 | 4.85 | 905 | 507 | 67.0 | 1,100 |
| Pyrene | 570 | 285 | 2,100 | 4.81 | 767 | 419 | 50.8 | 8.31 |
| Benz(a)anthracene | 300 | 136 | 1,400 | 3.32 J | 457 | 244 | 24.4 | 395 |
| Chrysene | 344 | 191 | 1,680 | 3.90 | 683 | 373 | 35.1 | 841 |
| Benzo(b)fluoranthene | 262 | 148 | 2,020 | 2.58 J | 649 | 324 | 38.0 | 1,190 |
| Benzo(k)fluoranthene | 226 | 146 | 1,130 | 2.34 J | 511 | 289 | 35.7 | 840 |
| Benzo(a)pyrene | 303 | 158 | 2,190 | 2.73 J | 606 | 325 | 42.9 | 896 |
| Indeno(1,2,3-cd)pyrene | 196 | 124 | 1,970 | 18.6 U | 443 | 230 | 26.4 | 888 |
| Dibenz(a,h)anthracene | 66.6 | 38.5 | 568 | 18.6 U | 138 | 76.9 | 17.7 U | 233 |
| Benzo(g,h,i)perylene | 254 | 147 | 2,600 | 18.6 U | 521 | 268 | 30.7 | 1,130 |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 4
## Sample Results for Polycyclic Aromatic Hydrocarbons (PAHs) in Background Soils



| Site<br>Sample Interval (cm)<br>Units | ILRF04<br>(0 to 15)<br>µg/kg | ILRF05<br>(0 to 15)<br>µg/kg | ILRF06<br>(0 to 2.54)<br>µg/kg | ILRF06<br>(2.54 to 15)<br>µg/kg | ILRF07<br>(0 to 15)<br>µg/kg | ILRF08<br>(0 to 15)<br>µg/kg | ILRF09<br>(0 to 15)<br>µg/kg | ILRF10<br>(0 to 15)<br>µg/kg |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 11.1 | 5.48 J | 22.8 | 23.2 | 7.49 U | 67.0 | 3.88 J | 7.23 U |
| 2-Methylnaphthalene | 6.88 J | 4.50 J | 16.3 | 18.5 | 7.49 U | 55.9 | 7.37 U | 7.23 U |
| Acenaphthylene | 9.22 | 3.61 U | 31.4 | 27.9 | 3.74 U | 286 | 1.87 J | 3.61 U |
| Acenaphthene | 4.93 | 2.83 J | 55.4 | 55.6 | 3.74 U | 73.9 | 5.69 | 3.61 U |
| Fluorene | 4.72 | 3.27 J | 61.3 | 58.8 | 3.74 U | 248 | 6.89 | 3.61 U |
| Phenanthrene | 102 | 51.7 | 756 | 752 | 10.9 | 2,480 | 178 | 11.9 |
| Anthracene | 14.9 | 7.24 | 146 | 145 | 3.74 U | 292 | 17.5 | 2.09 J |
| Fluoranthene | 236 | 101 | 1,550 | 1,410 | 24.8 | 3,240 | 482 | 22.3 |
| Pyrene | 181 | 77.1 | 1,170 | 1,080 | 18.9 | 2,130 | 359 | 16.6 |
| Benz(a)anthracene | 106 | 42.5 | 1,030 | 1,050 | 10.1 | 1,530 | 172 | 8.87 |
| Chrysene | 154 | 61.0 | 1,470 | 1,500 | 15.8 | 1,840 | 246 | 13.2 |
| Benzo(b)fluoranthene | 155 | 68.0 | 2,170 | 2,150 | 14.2 | 1,410 | 233 | 11.6 |
| Benzo(k)fluoranthene | 144 | 55.7 | 1,610 | 1,380 | 14.1 | 1,360 | 198 | 12.2 |
| Benzo(a)pyrene | 157 | 69.8 | 1,760 | 1,760 | 21.0 | 1,500 | 240 | 18.4 |
| Indeno(1,2,3-cd)pyrene | 105 | 44.6 | 1,720 | 1,740 | 9.81 J | 1,090 | 186 | 9.23 J |
| Dibenz(a,h)anthracene | 34.1 | 14.3 J | 583 | 555 | 18.7 U | 369 | 58.6 | 18.1 U |
| Benzo(g,h,i)perylene | 118 | 52.5 | 2,010 | 2,060 | 11.7 J | 1,150 | 223 | 12.0 J |

Notes:
D Concentration obtained from a diluted extract
E Estimated concentration detected above calibration limit
J Estimated value detected below the quantitation limit but above the detection limit
U Target compound not detected at or above the given concentration

## Table 5
## Sample Soil Descriptions, Total Organic Carbon, and Percent Solids
(Page 1 of 4)

| Sample | Soil Description | TOC (mg/kg) | % Solids |
|---|---|---|---|
| **ILBE01-Comp(0-2.54)** | Clay with silt | 17,500 | 77% |
| **ILBE01-Comp(2.54-15)** | Silt with clay | 16,800 | 82% |
| **ILBE02-Comp(0-15)** | Clay | 3,300 | 80% |
| **ILBE03-Comp(0-15)** | Silt with clay and gravel | 28,200 | 76% |
| **ILBE04-Comp(0-15)** | Clay with silt and gravel | 15,200 | 87% |
| **ILBE05-Comp(0-15)** | Silt with clay | 40,800 | 81% |
| **ILBE06-Comp(0-2.54)** | Silt with clay | 66,500 | 76% |
| **ILBE06-Comp(2.54-15)** | Silt with clay and gravel | 50,700 | 79% |
| **ILBE07-Comp(0-15)** | Clay with silt | 17,400 | 81% |
| **ILBE08-Comp(0-15)** | Silt with clay and gravel | 20,300 | 81% |
| **ILBE09-Comp(0-15)** | Silt with clay | 40,700 | 76% |
| **ILBE10-Comp(0-15)** | Silt with clay | 13,200 | 82% |
| **ILCA01-Comp(0-2.54)** | Clay with silt and gravel | 23,000 | 81% |
| **ILCA01-Comp(2.54-15)** | Clay with silt and gravel | 15,000 | 80% |
| **ILCA02-Comp(0-15)** | Silt with clay | 13,800 | 82% |
| **ILCA03-Comp(0-15)** | Clay with silt | 14,200 | 81% |
| **ILCA04-Comp(0-15)** | Clay with silt and gravel | 24,600 | 76% |
| **ILCA05-Comp(0-15)** | Clay | 6,270 | 81% |
| **ILCA06-Comp(0-2.54)** | Clay | 16,600 | 81% |
| **ILCA06-Comp(2.54-15)** | Clay | 5,210 | 85% |
| **ILCA07-Comp(0-15)** | Silt with clay | 20,200 | 77% |
| **ILCA08-Comp(0-15)** | Clay with silt and gravel | 43,800 | 79% |
| **ILCA09-Comp(0-15)** | Clay with silt | 16,200 | 78% |
| **ILCA10-Comp(0-15)** | Clay with silt and sand | 14,400 | 72% |
| **ILCE01-Comp(0-2.54)** | Clay with silt | 8,850 | 82% |
| **ILCE01-Comp(2.54-15)** | Clay with silt | 16,000 | 82% |
| **ILCE02-Comp(0-15)** | Silt with clay and gravel | 16,800 | 84% |
| **ILCE03-Comp(0-15)** | Clay with silt and gravel | 18,700 | 82% |
| **ILCE04-Comp(0-15)** | Clay | 6,720 | 82% |
| **ILCE05-Comp(0-15)** | Silt with clay | 24,900 | 81% |
| **ILCE06-Comp(0-2.54)** | Silt with clay | 37,600 | 77% |
| **ILCE06-Comp(2.54-15)** | Silt with clay | 16,400 | 81% |
| **ILCE07-Comp(0-15)** | Clay with silt and sand | 94,000 | 82% |
| **ILCE08-Comp(0-15)** | Silt with clay | 25,200 | 79% |
| **ILCE09-Comp(0-15)** | Silt with clay and sand | 34,400 | 76% |
| **ILCE10-Comp(0-15)** | Silt with clay and gravel | 41,000 | 83% |
| **ILDA01-Comp(0-2.54)** | Clay with gravel | 9,730 | 82% |
| **ILDA01-Comp(2.54-15)** | Clay with gravel | 8,670 | 84% |
| **ILDA02-Comp(0-15)** | Silt with clay and gravel | 21,100 | 83% |
| **ILDA03-Comp(0-15)** | Silt with clay and gravel | 15,700 | 100% |
| **ILDA04-Comp(0-15)** | Silt with clay and sand | 22,900 | 82% |
| **ILDA05-Comp(0-15)** | Silt with clay and sand | 27,300 | 81% |
| **ILDA06-Comp(0-2.54)** | Silt with clay and sand | 19,200 | 84% |
| **ILDA06-Comp(2.54-15)** | Silt with sand and clay | 16,400 | 87% |
| **ILDA07-Comp(0-15)** | Silt with clay | 33,800 | 78% |
| **ILDA08-Comp(0-15)** | Silt with clay and sand | 54,600 | 76% |
| **ILDA09-Comp(0-15)** | Silt with sand and clay | 15,000 | 85% |
| **ILDA10-Comp(0-15)** | Silt with clay and sand | 35,500 | 81% |

## Table 5
## Sample Soil Descriptions, Total Organic Carbon, and Percent Solids


| Sample | Soil Description | TOC (mg/kg) | % Solids |
|---|---|---|---|
| **ILDE01-Comp(0-2.54)** | Silt with clay | 34,400 | 76% |
| **ILDE01-Comp(2.54-15)** | Silt with clay | 17,800 | 81% |
| **ILDE02-Comp(0-15)** | Silt with clay | 43,700 | 77% |
| **ILDE03-Comp(0-15)** | Silt with clay | 22,800 | 79% |
| **ILDE04-Comp(0-15)** | Silt with clay and sand | 17,800 | 87% |
| **ILDE05-Comp(0-15)** | Silt with clay | 19,600 | 83% |
| **ILDE06-Comp(0-2.54)** | Silt with clay | 32,100 | 79% |
| **ILDE06-Comp(2.54-15)** | Silt with clay | 19,500 | 81% |
| **ILDE07-Comp(0-15)** | Silt with clay | 26,500 | 76% |
| **ILDE08-Comp(0-15)** | Silt with sand and gravel | 12,700 | 85% |
| **ILDE09-Comp(0-15)** | Silt with clay | 34,400 | 77% |
| **ILDE10-Comp(0-15)** | Silt with clay and gravel | 7,480 | 89% |
| **ILDX01-Comp(0-2.54)** | Silt with sand and clay | 46,200 | 83% |
| **ILDX01-Comp(2.54-15)** | Silt with sand and clay | 28,500 | 84% |
| **ILDX02-Comp(0-15)** | Sand with silt | 17,100 | 94% |
| **ILDX03-Comp(0-15)** | Silt with sand and gravel | 20,200 | 84% |
| **ILDX04-Comp(0-15)** | Silt with sand and gravel | 9,450 | 90% |
| **ILDX05-Comp(0-15)** | Silt with gravel and sand | 19,300 | 91% |
| **ILDX06-Comp(0-2.54)** | Silt with sand | 38,900 | 86% |
| **ILDX06-Comp(2.54-15)** | Silt with sand | 25,400 | 88% |
| **ILDX07-Comp(0-15)** | Silt with clay | 39,600 | 79% |
| **ILDX08-Comp(0-15)** | Silt with sand and gravel | 20,300 | 85% |
| **ILDX09-Comp(0-15)** | Silt with clay | 35,300 | 77% |
| **ILDX10-Comp(0-15)** | Clay with silt | 41,500 | 70% |
| **ILEF01-Comp(0-2.54)** | Silt with clay | 10,200 | 82% |
| **ILEF01-Comp(2.54-15)** | Silt with clay | 9,060 | 82% |
| **ILEF02-Comp(0-15)** | Silt with clay and sand | 5,210 | 86% |
| **ILEF03-Comp(0-15)** | Silt with clay | 14,600 | 81% |
| **ILEF04-Comp(0-15)** | Clay with silt | 9,460 | 80% |
| **ILEF05-Comp(0-15)** | Silt with clay and sand | 20,100 | 82% |
| **ILEF06-Comp(0-2.54)** | Silt with clay and sand | 18,500 | 84% |
| **ILEF06-Comp(2.54-15)** | Silt with clay and sand | 17,000 | 85% |
| **ILEF07-Comp(0-15)** | Clay with silt and sand | 7,820 | 85% |
| **ILEF08-Comp(0-15)** | Clay with silt | 18,600 | 82% |
| **ILEF09-Comp(0-15)** | Silt with clay and sand | 8,040 | 84% |
| **ILEF10-Comp(0-15)** | Silt with clay and sand | 15,600 | 85% |
| **ILGB01-Comp(0-2.54)** | Silt | 42,200 | 85% |
| **ILGB01-Comp(2.54-15)** | Silt | 30,000 | 84% |
| **ILGB02-Comp(0-15)** | Silt with clay | 42,600 | 82% |
| **ILGB03-Comp(0-15)** | Silt with clay | 18,800 | 85% |
| **ILGB04-Comp(0-15)** | Silt with clay | 29,600 | 84% |
| **ILGB05-Comp(0-15)** | Silt with clay | 48,300 | 81% |
| **ILGB06-Comp(0-2.54)** | Silt with clay | 69,600 | 79% |
| **ILGB06-Comp(2.54-15)** | Silt with clay | 65,500 | 80% |
| **ILGB07-Comp(0-15)** | Silt with clay | 67,700 | 84% |
| **ILGB08-Comp(0-15)** | Silt with clay | 35,800 | 87% |
| **ILGB09-Comp(0-15)** | Silt with clay | 7,760 | 86% |
| **ILGB10-Comp(0-15)** | Clay with silt | 20,000 | 83% |

## Table 5
## Sample Soil Descriptions, Total Organic Carbon, and Percent Solids


| Sample | Soil Description | TOC (mg/kg) | % Solids |
|---|---|---|---|
| **ILGL01-Comp(0-2.54)** | Silt with clay | 119,000 | 75% |
| **ILGL01-Comp(2.54-15)** | Clay | 39,600 | 77% |
| **ILGL02-Comp(0-15)** | Silt with clay | 22,400 | 88% |
| **ILGL03-Comp(0-15)** | Silt with clay and gravel | 28,000 | 86% |
| **ILGL04-Comp(0-15)** | Silt with clay | 63,800 | 79% |
| **ILGL05-Comp(0-15)** | Silt with clay | 52,900 | 71% |
| **ILGL06-Comp(0-2.54)** | Silt with clay | 71,500 | 75% |
| **ILGL06-Comp(2.54-15)** | Silt with clay | 58,700 | 76% |
| **ILGL07-Comp(0-15)** | Silt with clay | 65,200 | 74% |
| **ILGL08-Comp(0-15)** | Silt with clay | 56,600 | 77% |
| **ILGL09-Comp(0-15)** | Silt with clay | 38,300 | 77% |
| **ILGL10-Comp(0-15)** | Silt with clay | 36,400 | 83% |
| **ILJA01-Comp(0-2.54)** | Silt with clay | 59,500 | 73% |
| **ILJA01-Comp(2.54-15)** | Silt with clay | 44,900 | 76% |
| **ILJA02-Comp(0-15)** | Silt with clay and gravel | 22,900 | 83% |
| **ILJA03-Comp(0-15)** | Silt with clay | 52,200 | 76% |
| **ILJA04-Comp(0-15)** | Silt with clay | 39,300 | 74% |
| **ILJA05-Comp(0-15)** | Silt with clay | 69,800 | 72% |
| **ILJA06-Comp(0-2.54)** | Silt with clay and gravel | 41,100 | 76% |
| **ILJA06-Comp(2.54-15)** | Silt with clay and gravel | 22,100 | 80% |
| **ILJA07-Comp(0-15)** | Silt with clay | 19,200 | 80% |
| **ILJA08-Comp(0-15)** | Silt with clay | 58,800 | 71% |
| **ILJA09-Comp(0-15)** | Silt with clay | 23,100 | 78% |
| **ILJA10-Comp(0-15)** | Silt with clay | 13,300 | 83% |
| **ILLA01-Comp(0-2.54)** | Sand with silt | 6,800 | 92% |
| **ILLA01-Comp(2.54-15)** | Silt with clay and gravel | 5,320 | 92% |
| **ILLA02-Comp(0-15)** | Silt with clay | 24,300 | 83% |
| **ILLA03-Comp(0-15)** | Clay with silt | 25,200 | 85% |
| **ILLA04-Comp(0-15)** | Clay with silt | 29,600 | 84% |
| **ILLA05-Comp(0-15)** | Sand with silt and clay | 11,900 | 85% |
| **ILLA06-Comp(0-2.54)** | Silt with sand | 18,500 | 80% |
| **ILLA06-Comp(2.54-15)** | Clay with silt | 14,700 | 80% |
| **ILLA07-Comp(0-15)** | Silt with clay and sand | 48,600 | 80% |
| **ILLA08-Comp(0-15)** | Sand with silt | 9,900 | 89% |
| **ILLA09-Comp(0-15)** | Sand with silt | 10,400 | 89% |
| **ILLA10-Comp(0-15)** | Silt with sand and gravel | 17,400 | 88% |
| **ILMC01-Comp(0-2.54)** | Silt with clay | 41,500 | 79% |
| **ILMC01-Comp(2.54-15)** | Silt with clay | 31,800 | 80% |
| **ILMC02-Comp(0-15)** | Silt with clay | 42,600 | 80% |
| **ILMC03-Comp(0-10)** | Silt with clay and gravel | 27,300 | 83% |
| **ILMC04-Comp(0-15)** | Silt with clay | 30,200 | 82% |
| **ILMC05-Comp(0-15)** | Silt with clay | 25,000 | 81% |
| **ILMC06-Comp(0-2.54)** | Silt with clay | 42,200 | 80% |
| **ILMC06-Comp(2.54-15)** | Silt with clay | 31,500 | 80% |
| **ILMC07-Comp(0-15)** | Silt with clay | 27,100 | 83% |
| **ILMC08-Comp(0-15)** | Silt with clay | 11,400 | 82% |
| **ILMC09-Comp(0-15)** | Silt with clay | 30,600 | 83% |
| **ILMC10-Comp(0-15)** | Silt with clay | 20,700 | 79% |

## Table 5
## Sample Soil Descriptions, Total Organic Carbon, and Percent Solids


| Sample | Soil Description | TOC (mg/kg) | % Solids |
|---|---|---|---|
| **ILMT01-Comp(0-2.54)** | Silt with clay and sand | 59,700 | 75% |
| **ILMT01-Comp(2.54-15)** | Silt with clay and sand | 44,900 | 78% |
| **ILMT02-Comp(0-15)** | Silt with clay and sand | 60,600 | 75% |
| **ILMT03-Comp(0-15)** | Silt with clay and sand | 36,900 | 77% |
| **ILMT04-Comp(0-15)** | Silt with clay and sand | 28,400 | 79% |
| **ILMT05-Comp(0-15)** | Silt with clay and sand | 30,000 | 84% |
| **ILMT06-Comp(0-2.54)** | Silt with clay and sand | 40,000 | 77% |
| **ILMT06-Comp(2.54-15)** | Silt with clay and sand | 26,100 | 82% |
| **ILMT07-Comp(0-15)** | Silt with clay and sand | 67,200 | 79% |
| **ILMT08-Comp(0-15)** | Silt with clay and sand | 36,200 | 76% |
| **ILMT09-Comp(0-15)** | Silt with clay and gravel | 44,600 | 79% |
| **ILMT10-Comp(0-15)** | Silt with clay and sand | 45,000 | 78% |
| **ILPT01-Comp(0-2.54)** | Sand | 3,730 | 95% |
| **ILPT01-Comp(2.54-15)** | Sand with silt | 2,210 | 93% |
| **ILPT02-Comp(0-15)** | Silt with clay | 30,600 | 83% |
| **ILPT03-Comp(0-15)** | Silt with clay | 43,100 | 81% |
| **ILPT04-Comp(0-15)** | Silt with clay | 40,900 | 77% |
| **ILPT05-Comp(0-15)** | Clay with silt | 48,500 | 77% |
| **ILPT06-Comp(0-2.54)** | Silt with gravel | 27,000 | 89% |
| **ILPT06-Comp(2.54-15)** | Silt with gravel | 27,900 | 87% |
| **ILPT07-Comp(0-15)** | Silt with sand and clay | 49,600 | 81% |
| **ILPT08-Comp(0-15)** | Silt with sand and gravel | 39,900 | 87% |
| **ILPT09-Comp(0-15)** | Silt with gravel | 44,500 | 87% |
| **ILPT10-Comp(0-15)** | Silt with sand and gravel | 23,800 | 86% |
| **ILQY01-Comp(0-2.54)** | Silt with clay | 28,900 | 79% |
| **ILQY01-Comp(2.54-15)** | Silt with clay | 16,100 | 80% |
| **ILQY02-Comp(0-15)** | Silt with clay | 27,700 | 77% |
| **ILQY03-Comp(0-15)** | Silt with clay | 14,600 | 84% |
| **ILQY04-Comp(0-15)** | Silt with clay and gravel | 22,000 | 87% |
| **ILQY05-Comp(0-15)** | Silt with clay | 19,700 | 80% |
| **ILQY06-Comp(0-2.54)** | Silt with clay | 25,400 | 83% |
| **ILQY06-Comp(2.54-15)** | Silt with clay | 14,100 | 83% |
| **ILQY07-Comp(0-15)** | Silt with clay | 30,400 | 85% |
| **ILQY08-Comp(0-15)** | Silt with clay | 22,800 | 90% |
| **ILQY09-Comp(0-15)** | Silt with clay and sand | 40,600 | 86% |
| **ILQY10-Comp(0-15)** | Silt with clay and sand | 10,700 | 85% |
| **ILRF01-Comp(0-2.54)** | Silt with sand | 33,000 | 90% |
| **ILRF01-Comp(2.54-15)** | Silt with sand | 27,600 | 87% |
| **ILRF02-Comp(0-15)** | Sand with silt | 8,220 | 94% |
| **ILRF03-Comp(0-15)** | Silt with clay | 44,700 | 78% |
| **ILRF04-Comp(0-15)** | Silt with sand | 29,200 | 87% |
| **ILRF05-Comp(0-15)** | Sand with silt | 11,800 | 91% |
| **ILRF06-Comp(0-2.54)** | Silt with clay | 156,000 | 73% |
| **ILRF06-Comp(2.54-15)** | Silt with clay | 169,000 | 71% |
| **ILRF07-Comp(0-15)** | Silt with clay | 23,200 | 87% |
| **ILRF08-Comp(0-15)** | Silt with clay | 42,000 | 80% |
| **ILRF09-Comp(0-15)** | Silt with sand and clay | 24,000 | 88% |
| **ILRF10-Comp(0-15)** | Silt with sand and gravel | 11,600 | 89% |

## Table 6
## PAH Results for All Sites as 0 to 15 cm (ug/kg)
(Page 1 of 5)

| Site Code | NAP | MN2 | ACY | ACE | FLU | PHE | ANT | FLR | PYR | BAA | CHR | BBF | BKF | BAP | IND | DAA | BGP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ILBE01(Calc.)** | 13.4 | 30.9 | 2.58 | 1.08 | 2.23 | 64.9 | 7.02 | 64.3 | 52 | 31.9 | 44.5 | 30.1 | 31.5 | 36.7 | 22.4 | 11.6 | 27.5 |
| **ILBE02** | 7.22 | 1.17 | 1.47 | 1.61 | 2.77 | 1.36 | 3.52 | 2.35 | 2.1 | 3.88 | 0.25 | 3.33 | 3.14 | 1.83 | 15.4 | 6.56 | 8.59 |
| **ILBE03** | 17 | 33.1 | 5.46 | 4.25 | 3.23 | 115 | 12.2 | 182 | 157 | 98.1 | 136 | 107 | 101 | 108 | 82.8 | 28.4 | 102 |
| **ILBE04** | 28.5 | 60.4 | 9.91 | 9.7 | 7.35 | 183 | 30.5 | 277 | 273 | 174 | 205 | 146 | 137 | 174 | 113 | 36 | 145 |
| **ILBE05** | 53.6 | 163 | 20.2 | 9.59 | 10.2 | 384 | 31.4 | 410 | 374 | 207 | 255 | 153 | 175 | 203 | 122 | 47.9 | 152 |
| **ILBE06(Calc.)** | 881 | 398 | 362 | 182 | 209 | 2450 | 410 | 2550 | 2340 | 1390 | 1540 | 1070 | 899 | 1490 | 993 | 378 | 1290 |
| **ILBE07** | 24.4 | 55 | 5.18 | 5.45 | 4.71 | 137 | 19.3 | 178 | 154 | 86.3 | 112 | 84.8 | 79.8 | 100 | 65.9 | 22.6 | 75.7 |
| **ILBE08** | 20 | 94.3 | 2.28 | 3.4 | 2.84 | 122 | 11.5 | 165 | 141 | 70.3 | 100 | 81 | 68 | 88.5 | 63.7 | 20.4 | 75.2 |
| **ILBE09** | 203 | 178 | 23 | 161 | 78.8 | 852 | 166 | 1040 | 917 | 535 | 577 | 398 | 425 | 539 | 333 | 117 | 372 |
| **ILBE10** | 6.62 | 5.19 | 0.86 | 3.75 | 0.01 | 7.44 | 1.98 | 15.8 | 12.4 | 6.09 | 9.75 | 6.61 | 8.18 | 8.29 | 1.23 | 8.66 | 11 |
| **ILCA01(Calc.)** | 2.64 | 6.62 | 0.81 | 2.63 | 3.49 | 5.42 | 2.04 | 5.74 | 5.1 | 2.31 | 3.95 | 2.95 | 3.95 | 3.94 | 15.6 | 11.4 | 17.1 |
| **ILCA02** | 3.03 | 4.35 | 1.13 | 2.62 | 2.46 | 4.96 | 2.47 | 5.83 | 5.25 | 2.97 | 4.66 | 3.6 | 3.58 | 3.49 | 19.2 | 1.75 | 3.02 |
| **ILCA03** | 10.3 | 19.9 | 1.4 | 5.66 | 3.89 | 129 | 30 | 303 | 331 | 147 | 171 | 127 | 108 | 163 | 91.2 | 31.1 | 147 |
| **ILCA04** | 8.14 | 4.93 | 2.64 | 2.03 | 0.37 | 5.43 | 1.26 | 8.4 | 7.29 | 5.07 | 6.36 | 5.48 | 5.83 | 5.27 | 13.3 | 1.41 | 8.75 |
| **ILCA05** | 5.63 | 7.27 | 1.56 | 1.64 | 1.54 | 5.45 | 1.75 | 5.62 | 6.25 | 4.55 | 6.39 | 6.3 | 8.28 | 5.03 | 16.9 | 20.1 | 4.47 |
| **ILCA06(Calc.)** | 0.81 | 6.14 | 1.43 | 2.49 | 2.19 | 5.42 | 0.99 | 10.8 | 8.8 | 4.58 | 6.26 | 5 | 5 | 5.9 | 5.42 | 13.3 | 9.75 |
| **ILCA07** | 16.4 | 39.6 | 6.49 | 9.14 | 7.12 | 145 | 14.3 | 164 | 139 | 89.5 | 120 | 67.4 | 67.1 | 79.4 | 56 | 19.5 | 66.9 |
| **ILCA08** | 99.5 | 105 | 37.9 | 54.2 | 34.1 | 1250 | 255 | 4100 | 3300 | 2770 | 3210 | 3310 | 2090 | 2880 | 2640 | 905 | 2980 |
| **ILCA09** | 15.4 | 22.3 | 0.29 | 2.18 | 2.67 | 66.6 | 10 | 134 | 106 | 60.8 | 86.3 | 60.5 | 59 | 68.6 | 47.4 | 16.8 | 52.1 |
| **ILCA10** | 0.15 | 1.95 | 0.34 | 3.5 | 0.11 | 4.56 | 3.47 | 5.47 | 4.71 | 4.11 | 3.64 | 2.91 | 2.76 | 2.63 | 0.91 | 2.83 | 6.09 |
| **ILCE01(Calc.)** | 209 | 273 | 5.12 | 3.58 | 3.85 | 120 | 10.9 | 91.1 | 87.7 | 57.8 | 78 | 47.6 | 46.1 | 49.9 | 40.9 | 15.4 | 59.6 |
| **ILCE02** | 35 | 72.5 | 2.11 | 0.24 | 1.62 | 60 | 6.91 | 40.3 | 44.1 | 24.6 | 34.5 | 22.7 | 22.8 | 29.1 | 23.8 | 10.1 | 53.2 |
| **ILCE03** | 124 | 251 | 9 | 7.77 | 6.03 | 197 | 20.9 | 151 | 147 | 92.7 | 109 | 70.3 | 77 | 85.5 | 63 | 21.8 | 82.2 |
| **ILCE04** | 21 | 36 | 1.65 | 0.35 | 1.28 | 42.8 | 4.64 | 49.4 | 47.4 | 25.5 | 37.2 | 25.7 | 27.2 | 29.6 | 22 | 19.2 | 30.1 |
| **ILCE05** | 12.6 | 23 | 3.54 | 0.41 | 1.77 | 27.7 | 2.69 | 23.3 | 23.3 | 13.3 | 21.1 | 14.9 | 14 | 14.9 | 13.6 | 3.08 | 14.8 |
| **ILCE06(Calc.)** | 45.4 | 101 | 3.43 | 2.12 | 4 | 107 | 11.7 | 74.3 | 84.3 | 46.4 | 71.3 | 54.7 | 42.7 | 72.9 | 63.6 | 23.1 | 128 |
| **ILCE07** | 2850 | 4290 | 49.3 | 20.6 | 31.1 | 1630 | 111 | 296 | 376 | 237 | 273 | 101 | 118 | 156 | 75.3 | 29.2 | 118 |
| **ILCE08** | 9.4 | 17.7 | 1.63 | 3.29 | 2.25 | 36.8 | 4.28 | 73.2 | 66.6 | 33.9 | 58.8 | 50.6 | 49.1 | 54.6 | 44.3 | 13.3 | 54.7 |
| **ILCE09** | 15.2 | 37.5 | 4.02 | 2.42 | 1.55 | 41 | 4.03 | 16.3 | 24.9 | 11.2 | 19 | 10.1 | 10.2 | 12.9 | 14.2 | 18 | 15.9 |
| **ILCE10** | 152 | 385 | 7.56 | 5.28 | 3.62 | 377 | 25.8 | 92 | 207 | 84.4 | 159 | 61.2 | 45.2 | 108 | 91.6 | 41.9 | 434 |
| **ILDA01(Calc.)** | 2.63 | 1.82 | 3.48 | 2.21 | 1.82 | 9.19 | 2.28 | 18.9 | 15 | 8.51 | 12.2 | 8.56 | 9.17 | 8.75 | 11.1 | 8.32 | 9.19 |
| **ILDA02** | 5.88 | 5.73 | 2.46 | 0.73 | 0.79 | 41.8 | 6.37 | 112 | 94.1 | 47.3 | 71.4 | 52.7 | 62.8 | 68.9 | 42.7 | 16.9 | 51.8 |
| **ILDA03** | 6.04 | 10.9 | 0.53 | 1.43 | 0.27 | 29.5 | 3.73 | 35.4 | 31.3 | 17.3 | 25.1 | 19.7 | 19 | 21.1 | 13 | 5.35 | 16.6 |
| **ILDA04** | 7.92 | 6.78 | 3.22 | 2.28 | 1.11 | 36.5 | 4.69 | 76.1 | 64 | 31.6 | 49.2 | 40.4 | 35.8 | 42.9 | 28.1 | 17.7 | 33.2 |
| **ILDA05** | 11.5 | 21.3 | 2.81 | 1.78 | 3.7 | 95.7 | 10.4 | 127 | 112 | 65.2 | 89.9 | 62.4 | 60.1 | 68.8 | 38.9 | 15.1 | 48.5 |

Notes:
(Calc.) indicates weighted average value of two samples
Non-detects were substituted with random numbers between zero and the detection limit

## Table 6
## PAH Results for All Sites as 0 to 15 cm (ug/kg)
(Page 2 of 5)

| Site Code | NAP | MN2 | ACY | ACE | FLU | PHE | ANT | FLR | PYR | BAA | CHR | BBF | BKF | BAP | IND | DAA | BGP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ILDA06(Calc.)** | 3.13 | 5.75 | 2.71 | 2.39 | 0.34 | 14.3 | 2.57 | 23 | 20.6 | 10.2 | 15.6 | 10.7 | 13.4 | 12 | 2.52 | 5.75 | 10.5 |
| **ILDA07** | 12.3 | 21.1 | 3.09 | 2.21 | 3.38 | 64 | 5.92 | 74.2 | 65.5 | 33 | 54.7 | 35.3 | 35.8 | 38.9 | 25.9 | 7.37 | 33.8 |
| **ILDA08** | 18.5 | 40.9 | 2.32 | 3.56 | 2.93 | 79.6 | 10.2 | 85.4 | 76.8 | 37.7 | 57.9 | 42.2 | 46.6 | 52 | 33.5 | 12 | 42.3 |
| **ILDA09** | 16.4 | 48.2 | 8.04 | 7.43 | 5.76 | 183 | 28.1 | 454 | 395 | 252 | 291 | 223 | 246 | 279 | 176 | 56.6 | 210 |
| **ILDA10** | 304 | 190 | 289 | 339 | 228 | 2840 | 653 | 6840 | 3980 | 3200 | 3320 | 2810 | 2310 | 3260 | 2320 | 843 | 2560 |
| **ILDE01(Calc.)** | 4.04 | 1.6 | 3.45 | 0.17 | 2.68 | 5.1 | 0.56 | 7.57 | 6.43 | 3.93 | 6.66 | 6.2 | 5.8 | 6.67 | 13.5 | 8.55 | 18 |
| **ILDE02** | 31.4 | 33.7 | 11 | 59.4 | 75.7 | 1340 | 360 | 2960 | 2270 | 1420 | 1550 | 1280 | 1070 | 1420 | 1130 | 376 | 1310 |
| **ILDE03** | 10.2 | 9.69 | 0.27 | 1.35 | 1.81 | 22.6 | 2.22 | 44.3 | 36.9 | 19.4 | 32.7 | 26.6 | 25.4 | 27.1 | 17.2 | 19.4 | 21.6 |
| **ILDE04** | 29.6 | 40.9 | 21.4 | 7.76 | 9.79 | 124 | 33 | 239 | 240 | 146 | 159 | 105 | 119 | 154 | 109 | 38.3 | 138 |
| **ILDE05** | 6.87 | 8 | 3.69 | 0.59 | 0.65 | 31.6 | 5.19 | 87.2 | 84.1 | 47 | 61.9 | 44.5 | 46.8 | 56.5 | 35.2 | 6.98 | 43.3 |
| **ILDE06(Calc.)** | 8.96 | 10.5 | 3.73 | 1.93 | 1.12 | 20.9 | 2.91 | 36.5 | 31.9 | 13.8 | 23.6 | 19.3 | 16.7 | 18.4 | 18.3 | 8.98 | 15.4 |
| **ILDE07** | 6.12 | 5.39 | 2.92 | 7.77 | 6.08 | 66.6 | 14.3 | 92.8 | 77 | 42.4 | 51.5 | 34.3 | 38.9 | 50.1 | 25 | 19.9 | 28.4 |
| **ILDE08** | 1.69 | 3.95 | 2.13 | 0.32 | 2.13 | 20.2 | 2.56 | 48.8 | 42.3 | 22 | 36.8 | 29.1 | 25.5 | 39.2 | 24 | 8.95 | 38.1 |
| **ILDE09** | 5 | 4.75 | 0.98 | 4.06 | 3.8 | 20.6 | 3.26 | 33.5 | 29.1 | 16.9 | 25.9 | 22.7 | 21.3 | 22.9 | 15.9 | 20.5 | 23.2 |
| **ILDE10** | 0.01 | 2.13 | 2.06 | 1.31 | 0.82 | 9.31 | 1.75 | 21.6 | 17.8 | 8.09 | 13.3 | 10.2 | 10.7 | 11.4 | 7.22 | 10.3 | 10.4 |
| **ILDX01(Calc.)** | 20.6 | 29.5 | 9.3 | 13.8 | 14.5 | 236 | 38.1 | 294 | 245 | 151 | 177 | 140 | 125 | 162 | 107 | 38.1 | 141 |
| **ILDX02** | 22.7 | 54.2 | 2.04 | 0.95 | 2.56 | 57 | 5.75 | 45.9 | 41 | 25.2 | 34.2 | 22 | 25.6 | 31.6 | 19.4 | 10.1 | 36.3 |
| **ILDX03** | 7.98 | 6.72 | 2.11 | 3.92 | 1.35 | 14.8 | 3.25 | 20.7 | 16.2 | 10.2 | 15.2 | 12 | 11.7 | 12.7 | 8.13 | 14.3 | 21.7 |
| **ILDX04** | 0.86 | 1.44 | 0.3 | 0.33 | 2.26 | 0.47 | 2.65 | 4.56 | 3.47 | 2.04 | 2.48 | 2.35 | 1.94 | 2.06 | 4.93 | 17.9 | 6.87 |
| **ILDX05** | 8.42 | 7.71 | 6.58 | 0.96 | 2.95 | 46 | 8.94 | 187 | 149 | 79.9 | 155 | 147 | 116 | 109 | 102 | 32 | 124 |
| **ILDX06(Calc.)** | 5.04 | 2.64 | 2.78 | 2.22 | 2.24 | 38 | 5.55 | 21 | 73.8 | 36 | 46.1 | 33.8 | 36.9 | 46.3 | 27.9 | 6.73 | 36 |
| **ILDX07** | 9.69 | 10.3 | 2.27 | 1.3 | 2.21 | 52.3 | 6.84 | 107 | 81.4 | 52.9 | 69.1 | 59.8 | 56.7 | 68.4 | 44.4 | 15.5 | 54.5 |
| **ILDX08** | 1.69 | 4.83 | 2.48 | 2.69 | 1.4 | 30.8 | 5.01 | 50.9 | 56.5 | 32.4 | 41.1 | 33.3 | 33.7 | 52.6 | 33.1 | 13 | 74.5 |
| **ILDX09** | 5.32 | 5.4 | 3.76 | 4.18 | 4.02 | 97.2 | 13.7 | 225 | 176 | 104 | 133 | 110 | 105 | 127 | 91 | 29.6 | 109 |
| **ILDX10** | 8.87 | 6.55 | 5.11 | 2.71 | 3.05 | 47.2 | 8.59 | 101 | 89.7 | 62.3 | 84.5 | 74.4 | 76.1 | 92.7 | 68.1 | 22.2 | 86.9 |
| **ILEF01(Calc.)** | 6.4 | 3.22 | 1 | 2.79 | 0.65 | 3.08 | 0.51 | 5.64 | 4.62 | 2.07 | 4 | 2.98 | 3.02 | 2.88 | 9.36 | 4.88 | 11.1 |
| **ILEF02** | 7.58 | 7.55 | 0.31 | 0.14 | 2.06 | 10.4 | 0.98 | 20.4 | 17 | 7.46 | 9.91 | 7.63 | 7.33 | 10.3 | 2.75 | 5 | 9.93 |
| **ILEF03** | 7.86 | 0.45 | 1.49 | 2.54 | 1.04 | 13.5 | 0.05 | 30.5 | 24.6 | 11.3 | 17.7 | 14.4 | 12.8 | 14.1 | 16.4 | 3.59 | 11.8 |
| **ILEF04** | 6.19 | 6.25 | 0.47 | 0.33 | 2.3 | 6.21 | 1.55 | 9.41 | 8.05 | 4.53 | 6.31 | 4.98 | 3.74 | 4.55 | 16.8 | 19.9 | 0.29 |
| **ILEF05** | 19.7 | 43.2 | 2.31 | 2.87 | 3.22 | 50.3 | 9.52 | 34.5 | 55.1 | 22.9 | 59.8 | 33.1 | 22.3 | 65.3 | 52.6 | 25.7 | 317 |
| **ILEF06(Calc.)** | 6.56 | 7.7 | 2.68 | 3.04 | 0.67 | 46.3 | 7.54 | 130 | 128 | 72 | 115 | 93.2 | 70.8 | 113 | 80.4 | 29.6 | 166 |
| **ILEF07** | 7.52 | 1.47 | 0.14 | 0.07 | 2.59 | 6.46 | 3.01 | 12.9 | 11.9 | 4.73 | 8.08 | 5.37 | 7.41 | 6.38 | 10.1 | 6.64 | 0.96 |
| **ILEF08** | 29.5 | 45.3 | 13.4 | 20.8 | 29.6 | 845 | 113 | 1810 | 1400 | 747 | 1170 | 965 | 768 | 1060 | 1110 | 348 | 1700 |
| **ILEF09** | 2.46 | 6.56 | 1.89 | 3.55 | 2.51 | 11.2 | 2.83 | 12.3 | 10.4 | 5.63 | 7.2 | 5.74 | 5.36 | 6.22 | 10.4 | 7.53 | 11 |
| **ILEF10** | 16.5 | 39.2 | 3.84 | 3.07 | 2.23 | 80.9 | 8.36 | 39.5 | 52.7 | 33.1 | 54 | 30.3 | 22.6 | 49.7 | 39.8 | 21.1 | 160 |

Notes:
(Calc.) indicates weighted average value of two samples
Non-detects were substituted with random numbers between zero and the detection limit

## Table 6
## PAH Results for All Sites as 0 to 15 cm (ug/kg)
(Page 3 of 5)

| Site Code | NAP | MN2 | ACY | ACE | FLU | PHE | ANT | FLR | PYR | BAA | CHR | BBF | BKF | BAP | IND | DAA | BGP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ILGB01(Calc.)** | 10.5 | 16 | 5.33 | 3.9 | 5.63 | 114 | 17.5 | 145 | 114 | 70.7 | 88.4 | 62.2 | 63.1 | 80.4 | 50.9 | 16.5 | 58.8 |
| **ILGB02** | 19.5 | 45.7 | 2.17 | 7.23 | 5.39 | 135 | 15.7 | 168 | 136 | 80.3 | 106 | 86.5 | 78.1 | 93.6 | 66.6 | 21.3 | 80.9 |
| **ILGB03** | 5.08 | 2.87 | 2.49 | 1.45 | 1.4 | 3.21 | 0.26 | 4.54 | 3.54 | 3.56 | 3.46 | 3.34 | 3.64 | 2.79 | 11.5 | 1.99 | 7.06 |
| **ILGB04** | 7.61 | 9.26 | 0.47 | 2.08 | 2.07 | 57.1 | 9.79 | 128 | 106 | 61.5 | 85.3 | 88.2 | 64.9 | 98.2 | 69.8 | 22.2 | 98.2 |
| **ILGB05** | 51.5 | 53.3 | 32.2 | 16.2 | 21.8 | 368 | 67.4 | 587 | 484 | 341 | 407 | 356 | 311 | 375 | 270 | 72.9 | 318 |
| **ILGB06(Calc.)** | 83.7 | 152 | 20.3 | 44.4 | 33.5 | 635 | 105 | 560 | 518 | 333 | 382 | 259 | 248 | 343 | 274 | 91 | 395 |
| **ILGB07** | 189 | 204 | 50.8 | 77.7 | 75.9 | 1380 | 177 | 1330 | 1070 | 651 | 909 | 649 | 581 | 725 | 569 | 191 | 773 |
| **ILGB08** | 22.3 | 34.5 | 8.4 | 7.64 | 7.14 | 153 | 25.1 | 277 | 248 | 207 | 239 | 208 | 219 | 221 | 175 | 56.1 | 203 |
| **ILGB09** | 3.69 | 6.96 | 0.96 | 1.35 | 1.75 | 1.09 | 1.81 | 0.41 | 2.45 | 3.42 | 0.07 | 1.33 | 1.8 | 1.59 | 14.1 | 8.17 | 17.9 |
| **ILGB10** | 1.41 | 4.09 | 3.19 | 11.7 | 21.6 | 251 | 35.2 | 335 | 233 | 121 | 140 | 103 | 115 | 135 | 88.7 | 31.2 | 108 |
| **ILGL01(Calc.)** | 214 | 187 | 52 | 549 | 682 | 8100 | 1370 | 12400 | 9060 | 4170 | 5540 | 4890 | 4440 | 5210 | 3940 | 1610 | 4450 |
| **ILGL02** | 12.7 | 22.7 | 6 | 28.4 | 27.6 | 366 | 93.3 | 683 | 537 | 365 | 392 | 362 | 290 | 394 | 253 | 85.7 | 280 |
| **ILGL03** | 9.14 | 8.85 | 1.92 | 5.59 | 6.92 | 99.8 | 16 | 166 | 139 | 74.4 | 101 | 92.4 | 83.5 | 94.2 | 63.6 | 20.9 | 74.7 |
| **ILGL04** | 34.8 | 46.5 | 3.05 | 18.2 | 18 | 291 | 27.6 | 405 | 303 | 146 | 208 | 200 | 180 | 211 | 144 | 44.9 | 170 |
| **ILGL05** | 6.96 | 9 | 2.48 | 3.21 | 4.46 | 37.9 | 5.72 | 87 | 67.7 | 37 | 53.4 | 52.1 | 46.3 | 59.7 | 35.5 | 16.3 | 45.6 |
| **ILGL06(Calc.)** | 19 | 20.5 | 6.98 | 11.4 | 11.1 | 248 | 39.3 | 575 | 434 | 281 | 374 | 329 | 314 | 349 | 225 | 74.3 | 267 |
| **ILGL07** | 32.7 | 21.9 | 18.6 | 280 | 291 | 4000 | 690 | 8310 | 6100 | 3020 | 3710 | 3770 | 2180 | 3360 | 2600 | 855 | 3170 |
| **ILGL08** | 10.3 | 7.84 | 4.72 | 37.9 | 36.6 | 520 | 89.1 | 848 | 613 | 375 | 462 | 435 | 379 | 429 | 293 | 86.4 | 332 |
| **ILGL09** | 30.5 | 33 | 7.49 | 16.8 | 19.5 | 255 | 51.3 | 466 | 339 | 215 | 274 | 252 | 204 | 249 | 209 | 75 | 262 |
| **ILGL10** | 9.87 | 9.39 | 21.6 | 11.6 | 14.8 | 184 | 42.2 | 407 | 319 | 256 | 270 | 249 | 236 | 297 | 200 | 71.1 | 233 |
| **ILJA01(Calc.)** | 46.2 | 84.8 | 10.3 | 8.29 | 11.1 | 243 | 19.2 | 258 | 237 | 91 | 132 | 101 | 96.7 | 120 | 75.8 | 24.2 | 94.3 |
| **ILJA02** | 190 | 85.3 | 87.3 | 14.5 | 10.3 | 302 | 92.6 | 859 | 877 | 677 | 689 | 565 | 629 | 874 | 558 | 168 | 680 |
| **ILJA03** | 50.5 | 75.6 | 48.4 | 48.9 | 59.9 | 656 | 115 | 1160 | 969 | 562 | 680 | 632 | 509 | 657 | 471 | 157 | 555 |
| **ILJA04** | 10.6 | 25 | 9.59 | 17.7 | 19.4 | 167 | 41.5 | 276 | 232 | 151 | 178 | 147 | 139 | 174 | 108 | 39.4 | 118 |
| **ILJA05** | 6.36 | 0.18 | 5.67 | 3.95 | 4.55 | 61.9 | 9.12 | 228 | 191 | 113 | 158 | 148 | 126 | 153 | 110 | 38.7 | 124 |
| **ILJA06(Calc.)** | 7.83 | 9.95 | 1.62 | 2.99 | 0.94 | 60.4 | 9.28 | 150 | 123 | 60.9 | 84.1 | 70.1 | 69.8 | 89.9 | 58.8 | 20.9 | 77.7 |
| **ILJA07** | 4.85 | 5.72 | 13.6 | 4.05 | 0.59 | 37.7 | 6.71 | 96.4 | 113 | 70.1 | 80.5 | 55.4 | 68.5 | 97.2 | 59.1 | 17.9 | 77.5 |
| **ILJA08** | 7.99 | 3.53 | 0.84 | 4.67 | 0.03 | 52.7 | 10.6 | 116 | 95 | 69.7 | 90.6 | 91.2 | 81.9 | 118 | 88.7 | 32.9 | 107 |
| **ILJA09** | 37.7 | 22.5 | 15.6 | 14.9 | 22.4 | 488 | 38.2 | 768 | 790 | 262 | 394 | 298 | 282 | 362 | 230 | 77.5 | 302 |
| **ILJA10** | 21 | 45.3 | 5.94 | 3.53 | 4.82 | 110 | 21.2 | 164 | 157 | 86 | 97.3 | 76.2 | 72 | 103 | 66 | 22.4 | 129 |
| **ILLA01(Calc.)** | 8.51 | 6.71 | 1.18 | 2.04 | 3.15 | 42.9 | 6.59 | 79.8 | 58.4 | 35.7 | 57.8 | 48.3 | 52.4 | 57.3 | 49.6 | 16.1 | 61 |
| **ILLA02** | 10.2 | 8.01 | 2.68 | 1.96 | 1.84 | 36.1 | 5.58 | 65.9 | 51.4 | 34.8 | 49 | 41.6 | 39.6 | 51.6 | 37.7 | 12.1 | 47.8 |
| **ILLA03** | 11.2 | 9.42 | 0.16 | 1.23 | 2.14 | 25.1 | 3.06 | 38.1 | 29.4 | 18.8 | 29.5 | 22.4 | 22.6 | 29.7 | 18.4 | 14 | 25.5 |
| **ILLA04** | 29.5 | 20.2 | 10.8 | 38.7 | 57.3 | 458 | 104 | 626 | 453 | 349 | 376 | 300 | 298 | 342 | 245 | 83 | 291 |
| **ILLA05** | 15.7 | 11.9 | 5.57 | 21.8 | 41.3 | 858 | 251 | 1810 | 1280 | 791 | 900 | 753 | 768 | 829 | 448 | 148 | 524 |

Notes:
(Calc.) indicates weighted average value of two samples
Non-detects were substituted with random numbers between zero and the detection limit

## Table 6
## PAH Results for All Sites as 0 to 15 cm (ug/kg)
(Page 4 of 5)

| Site Code | NAP | MN2 | ACY | ACE | FLU | PHE | ANT | FLR | PYR | BAA | CHR | BBF | BKF | BAP | IND | DAA | BGP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ILLA06(Calc.)** | 6.18 | 5.15 | 0.79 | 2.79 | 3.48 | 29.9 | 4.55 | 66.3 | 55.2 | 29.5 | 44.8 | 42.2 | 34 | 45.2 | 26.5 | 8.68 | 32.6 |
| **ILLA07** | 133 | 116 | 29.6 | 16.5 | 12.2 | 350 | 97.7 | 568 | 487 | 391 | 456 | 489 | 404 | 422 | 323 | 100 | 386 |
| **ILLA08** | 48.2 | 49.1 | 15.6 | 18.8 | 25.7 | 374 | 66.2 | 435 | 343 | 199 | 273 | 195 | 185 | 210 | 172 | 46.1 | 204 |
| **ILLA09** | 5.86 | 6.81 | 2.8 | 3.26 | 0.65 | 42.9 | 5.11 | 127 | 98.6 | 40.8 | 82.3 | 63.2 | 62.9 | 47.9 | 34.8 | 10.9 | 41.2 |
| **ILLA10** | 52.7 | 43 | 33.3 | 56.6 | 60.1 | 939 | 170 | 2100 | 1600 | 1000 | 1220 | 1250 | 984 | 1150 | 905 | 277 | 1050 |
| **ILMC01(Calc.)** | 6.72 | 6.11 | 2.81 | 0.85 | 1.56 | 22.7 | 3.26 | 54.1 | 44.9 | 26.5 | 42.1 | 41.2 | 36.7 | 47.3 | 33.7 | 9.46 | 43.1 |
| **ILMC02** | 24.2 | 35.4 | 13.8 | 2.47 | 4.47 | 171 | 16 | 198 | 156 | 83.4 | 136 | 107 | 112 | 110 | 83.2 | 26.5 | 119 |
| **ILMC03** | 40.6 | 50.1 | 44.3 | 5.72 | 11.2 | 185 | 51.1 | 448 | 380 | 386 | 399 | 294 | 287 | 367 | 254 | 95.6 | 294 |
| **ILMC04** | 26.9 | 46.3 | 4.2 | 3.91 | 4.91 | 101 | 15.7 | 86 | 73.9 | 49.7 | 62.2 | 46.8 | 44.9 | 62.6 | 36.4 | 13.8 | 48.6 |
| **ILMC05** | 7.08 | 6.65 | 0.02 | 2.16 | 2.88 | 11 | 2.81 | 25.5 | 24.4 | 11.8 | 24.3 | 12.2 | 10.7 | 14.7 | 10.9 | 9.73 | 19.7 |
| **ILMC06(Calc.)** | 16.6 | 19.6 | 1.66 | 11.9 | 7.14 | 112 | 22.1 | 167 | 138 | 89.5 | 110 | 89.6 | 92 | 112 | 75 | 26.4 | 97.4 |
| **ILMC07** | 7.68 | 12.7 | 1.26 | 2.1 | 1.37 | 31.5 | 3.23 | 27.2 | 24.8 | 15.5 | 21.4 | 14.4 | 16.9 | 18.6 | 10.6 | 10.8 | 13.4 |
| **ILMC08** | 2.52 | 7.54 | 1.9 | 2.64 | 0.37 | 3.21 | 2.79 | 0.02 | 2.25 | 2.82 | 0.62 | 3.39 | 2.24 | 0.11 | 12.7 | 17.8 | 6.38 |
| **ILMC09** | 5.59 | 0.54 | 1.62 | 1.55 | 3.42 | 10.3 | 0.13 | 17.9 | 14.6 | 8.16 | 12.4 | 10.9 | 10.4 | 11.3 | 15.6 | 4.95 | 7.48 |
| **ILMC10** | 5.55 | 3.71 | 7.41 | 3.06 | 4.02 | 9.46 | 1.53 | 26.1 | 24 | 8.3 | 19.3 | 27.5 | 17.2 | 22 | 23.6 | 18.7 | 31.9 |
| **ILMT01(Calc.)** | 10.3 | 12.7 | 0.55 | 1.64 | 1.25 | 34.7 | 4.27 | 58.7 | 49.2 | 24.6 | 40.7 | 32.3 | 30.9 | 37.5 | 27.2 | 19.4 | 35.5 |
| **ILMT02** | 52.6 | 89.9 | 6.72 | 9.37 | 6.68 | 152 | 20.4 | 263 | 224 | 137 | 170 | 149 | 150 | 174 | 132 | 50.6 | 146 |
| **ILMT03** | 14.9 | 14.4 | 33.8 | 4.8 | 15.9 | 236 | 20 | 465 | 395 | 165 | 255 | 167 | 202 | 193 | 137 | 37.1 | 157 |
| **ILMT04** | 5.8 | 7.86 | 3.77 | 5.23 | 6.61 | 170 | 14.2 | 429 | 332 | 123 | 173 | 136 | 136 | 155 | 112 | 35 | 127 |
| **ILMT05** | 11.4 | 16.9 | 3.09 | 4.11 | 3.98 | 75 | 14.7 | 158 | 132 | 69.9 | 87.4 | 72.3 | 66.5 | 81.1 | 48.1 | 16.7 | 58.9 |
| **ILMT06(Calc.)** | 6.63 | 7.4 | 3.82 | 2.97 | 0.58 | 34.6 | 5.09 | 72.5 | 60.2 | 28.4 | 40.1 | 28.9 | 30.6 | 33.4 | 21.2 | 13.5 | 24.7 |
| **ILMT07** | 253 | 404 | 42.7 | 74 | 58.7 | 1150 | 204 | 1590 | 1400 | 853 | 945 | 723 | 753 | 900 | 686 | 227 | 832 |
| **ILMT08** | 7.16 | 5.96 | 1.27 | 3.98 | 3.45 | 22.8 | 3.16 | 44.7 | 41.4 | 24.9 | 31.8 | 23.8 | 29.5 | 39.5 | 23.1 | 10.5 | 27.1 |
| **ILMT09** | 365 | 501 | 8.4 | 16.7 | 11.2 | 354 | 40.4 | 516 | 432 | 244 | 284 | 217 | 204 | 247 | 171 | 51 | 221 |
| **ILMT10** | 79.1 | 113 | 14 | 39.2 | 31.1 | 606 | 99.2 | 1160 | 960 | 563 | 663 | 526 | 448 | 572 | 419 | 140 | 504 |
| **ILPT01(Calc.)** | 5.77 | 4.86 | 1.32 | 1.8 | 1.18 | 9.61 | 2.69 | 12.4 | 10.2 | 5.14 | 8.2 | 6.23 | 6.34 | 6.58 | 8.69 | 2.64 | 13.8 |
| **ILPT02** | 7.27 | 7.76 | 1.21 | 3.45 | 2.15 | 14.8 | 0.44 | 15.4 | 11.7 | 5.94 | 10.2 | 7.28 | 6.84 | 6.3 | 7.36 | 3.39 | 5.63 |
| **ILPT03** | 2.75 | 389 | 13.2 | 20 | 17.5 | 453 | 62.2 | 433 | 369 | 242 | 262 | 175 | 207 | 235 | 155 | 52 | 198 |
| **ILPT04** | 34.2 | 45.2 | 0.66 | 2.35 | 0.02 | 63.4 | 7.27 | 90.4 | 73 | 37.4 | 68.3 | 47.1 | 50.8 | 53.7 | 40.4 | 13 | 49.3 |
| **ILPT05** | 23.1 | 30.1 | 2.69 | 9.06 | 8.74 | 165 | 23.6 | 336 | 268 | 136 | 197 | 156 | 130 | 169 | 122 | 35.9 | 154 |
| **ILPT06(Calc.)** | 79.8 | 128 | 7.45 | 15.1 | 17.7 | 345 | 55.4 | 638 | 502 | 290 | 356 | 282 | 297 | 325 | 248 | 87.1 | 306 |
| **ILPT07** | 718 | 973 | 39.6 | 34.3 | 24.6 | 968 | 103 | 692 | 572 | 377 | 458 | 261 | 286 | 379 | 332 | 110 | 594 |
| **ILPT08** | 270 | 459 | 6.61 | 7.79 | 5.58 | 185 | 18.4 | 96.8 | 86.4 | 54.8 | 72.6 | 53.8 | 47.4 | 63.5 | 46.2 | 15.1 | 63.7 |
| **ILPT09** | 65.9 | 85.4 | 18.6 | 11.1 | 13.3 | 219 | 36.8 | 347 | 290 | 220 | 261 | 204 | 216 | 257 | 221 | 72.1 | 305 |
| **ILPT10** | 17.3 | 20.3 | 2.67 | 4.69 | 4.24 | 68.6 | 12.3 | 77.4 | 63.4 | 42.5 | 52.6 | 32.3 | 40.5 | 48.2 | 32.2 | 12 | 54.8 |

Notes:
(Calc.) indicates weighted average value of two samples
Non-detects were substituted with random numbers between zero and the detection limit

## Table 6
## PAH Results for All Sites as 0 to 15 cm (ug/kg)
(Page 5 of 5)

| Site Code | NAP | MN2 | ACY | ACE | FLU | PHE | ANT | FLR | PYR | BAA | CHR | BBF | BKF | BAP | IND | DAA | BGP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ILQY01(Calc.)** | 3.89 | 5.55 | 2.67 | 1.89 | 1.81 | 17.2 | 1.92 | 37.1 | 29.1 | 15.3 | 22.5 | 19.7 | 19.8 | 22.2 | 16.3 | 3.1 | 24.9 |
| **ILQY02** | 3.68 | 3.48 | 2.51 | 3.36 | 3.89 | 3.61 | 1.46 | 5.64 | 4.88 | 3.07 | 3.95 | 3.48 | 4.72 | 3.26 | 9.47 | 13.1 | 14.1 |
| **ILQY03** | 5.21 | 1.51 | 1.15 | 1.47 | 0.86 | 4.35 | 2.8 | 6.19 | 5.41 | 2.31 | 4 | 3.29 | 4.21 | 2.02 | 18.2 | 12.7 | 3.43 |
| **ILQY04** | 11.2 | 14.3 | 9.79 | 4.89 | 5.57 | 93.6 | 16.6 | 222 | 191 | 118 | 126 | 109 | 114 | 137 | 99.8 | 28.2 | 121 |
| **ILQY05** | 0.66 | 5.39 | 3.3 | 2.47 | 3.65 | 10.8 | 2.87 | 27.2 | 23.3 | 14 | 17 | 13.5 | 13.9 | 15.1 | 10.4 | 9.1 | 11.2 |
| **ILQY06(Calc.)** | 6.8 | 6.88 | 1.93 | 0.66 | 3.01 | 19.5 | 3.4 | 38.1 | 31.8 | 18 | 23.2 | 17.9 | 18.8 | 24.5 | 13.5 | 6.7 | 15.9 |
| **ILQY07** | 25.7 | 40.5 | 12 | 32.4 | 37.6 | 512 | 101 | 603 | 570 | 300 | 344 | 262 | 226 | 303 | 196 | 66.6 | 254 |
| **ILQY08** | 10.2 | 9.62 | 2.29 | 9.05 | 7.53 | 158 | 23.3 | 355 | 285 | 136 | 191 | 148 | 146 | 158 | 124 | 38.5 | 147 |
| **ILQY09** | 120 | 126 | 695 | 57.6 | 47 | 1430 | 598 | 2510 | 2100 | 1400 | 1680 | 2020 | 1130 | 2190 | 1970 | 568 | 2600 |
| **ILQY10** | 13.6 | 26.1 | 1.4 | 0.85 | 3.56 | 12.9 | 0.3 | 4.85 | 4.81 | 3.32 | 3.9 | 2.58 | 2.34 | 2.73 | 6.27 | 8.17 | 8.28 |
| **ILRF01(Calc.)** | 37.7 | 32 | 70.1 | 8.61 | 13.6 | 267 | 44.6 | 573 | 477 | 280 | 425 | 378 | 326 | 372 | 266 | 87.1 | 310 |
| **ILRF02** | 0.86 | 5.83 | 2.03 | 1.79 | 1.45 | 18.2 | 2.13 | 67 | 50.8 | 24.4 | 35.1 | 38 | 35.7 | 42.9 | 26.4 | 4.95 | 30.7 |
| **ILRF03** | 22 | 7.71 | 9.96 | 11.3 | 13.4 | 377 | 39.7 | 1100 | 8.31 | 395 | 841 | 1190 | 840 | 896 | 888 | 233 | 1130 |
| **ILRF04** | 11.1 | 6.88 | 9.22 | 4.93 | 4.72 | 102 | 14.9 | 236 | 181 | 106 | 154 | 155 | 144 | 157 | 105 | 34.1 | 118 |
| **ILRF05** | 5.48 | 4.5 | 0.65 | 2.83 | 3.27 | 51.7 | 7.24 | 101 | 77.1 | 42.5 | 61 | 68 | 55.7 | 69.8 | 44.6 | 14.3 | 52.5 |
| **ILRF06(Calc.)** | 23.1 | 18.1 | 28.5 | 55.6 | 59.2 | 753 | 145 | 1430 | 1100 | 1050 | 1500 | 2150 | 1420 | 1760 | 1740 | 560 | 2050 |
| **ILRF07** | 1.75 | 5.92 | 2.71 | 3.13 | 1.57 | 10.9 | 2.45 | 24.8 | 18.9 | 10.1 | 15.8 | 14.2 | 14.1 | 21 | 9.81 | 17.9 | 11.7 |
| **ILRF08** | 67 | 55.9 | 286 | 73.9 | 248 | 2480 | 292 | 3240 | 2130 | 1530 | 1840 | 1410 | 1360 | 1500 | 1090 | 369 | 1150 |
| **ILRF09** | 3.88 | 2.57 | 1.87 | 5.69 | 6.89 | 178 | 17.5 | 482 | 359 | 172 | 246 | 233 | 198 | 240 | 186 | 58.6 | 223 |
| **ILRF10** | 1.63 | 6.78 | 2.09 | 0.24 | 2.64 | 11.9 | 2.09 | 22.3 | 16.6 | 8.87 | 13.2 | 11.6 | 12.2 | 18.4 | 9.23 | 2.16 | 12 |

Notes:
(Calc.) indicates weighted average value of two samples
Non-detects were substituted with random numbers between zero and the detection limit

## Table 7
## Descriptive Statistics for Samples from All Sites as 0 to 15 cm (ug/kg)

| PAH | Valid N | Mean | Confidence Interval -95% | Confidence Interval +95% | Median | Minimum | Maximum | Lower Quartile | Upper Quartile | Percentile 5% | Percentile 95% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NAP** | 160 | 13.8 | 10.8 | 17.6 | 10.8 | 0.01 | 2,850 | 6.18 | 29.5 | 1.66 | 211 |
| **MN2** | 160 | 17.6 | 13.8 | 22.5 | 14.3 | 0.18 | 4,290 | 6.19 | 45.5 | 1.71 | 324 |
| **ACY** | 160 | 4.17 | 3.29 | 5.29 | 3.20 | 0.02 | 695 | 1.88 | 9.69 | 0.40 | 50.0 |
| **ACE** | 160 | 4.78 | 3.78 | 6.06 | 3.66 | 0.07 | 549 | 2.11 | 11.3 | 0.34 | 66.3 |
| **FLU** | 160 | 4.61 | 3.56 | 5.96 | 3.75 | 0.01 | 682 | 1.95 | 11.7 | 0.46 | 67.5 |
| **PHE** | 160 | 73.2 | 55.5 | 96.7 | 67.6 | 0.47 | 8,100 | 21.7 | 245 | 4.45 | 1,360 |
| **ANT** | 160 | 11.7 | 8.91 | 15.4 | 10.3 | 0.05 | 1,370 | 3.24 | 37.4 | 0.98 | 253 |
| **FLR** | 160 | 110 | 81.9 | 149 | 114 | 0.02 | 12,400 | 34.9 | 419 | 5.63 | 2,300 |
| **PYR** | 160 | 97.1 | 74.0 | 127 | 96.8 | 2.10 | 9,060 | 29.2 | 335 | 4.84 | 1,830 |
| **BAA** | 160 | 58.2 | 44.3 | 76.4 | 61.2 | 2.04 | 4,170 | 17.1 | 207 | 3.37 | 1,210 |
| **CHR** | 160 | 75.4 | 56.7 | 100 | 84.3 | 0.07 | 5,540 | 24.7 | 258 | 3.95 | 1,520 |
| **BBF** | 160 | 62.7 | 47.9 | 82.1 | 62.3 | 1.33 | 4,890 | 20.8 | 197 | 3.33 | 1,260 |
| **BKF** | 160 | 59.9 | 46.2 | 77.7 | 62.8 | 1.80 | 4,440 | 19.4 | 200 | 3.61 | 1,030 |
| **BAP** | 160 | 69.7 | 52.6 | 92.4 | 76.1 | 0.11 | 5,210 | 22.5 | 216 | 2.83 | 1,450 |
| **IND** | 160 | 58.9 | 46.2 | 75.1 | 51.7 | 0.91 | 3,940 | 18.2 | 163 | 7.29 | 1,100 |
| **DAA** | 160 | 25.4 | 20.6 | 31.2 | 20.2 | 1.41 | 1,610 | 11.1 | 50.8 | 3.24 | 372 |
| **BGP** | 160 | 71.9 | 55.5 | 93.1 | 74.6 | 0.29 | 4,450 | 22.4 | 207 | 6.62 | 1,300 |

Notes:
Statistics were performed on the ln-transformed data and the results back-transformed to concentrations
Non-detects were substituted with random numbers between zero and the detection limit
95% confidence intervals are of the mean

## Table 8
## Descriptive Statistics for Samples from Metro County Sites as 0 to 15 cm (ug/kg)

| PAH | Valid N | Mean | Confidence Interval -95% | Confidence Interval +95% | Median | Minimum | Maximum | Lower Quartile | Upper Quartile | Percentile 5% | Percentile 95% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NAP** | 50 | 13.1 | 8.20 | 21.0 | 11.9 | 0.01 | 881 | 6.62 | 30.5 | 1.63 | 203 |
| **MN2** | 50 | 15.7 | 10.9 | 22.8 | 10.1 | 1.17 | 398 | 6.71 | 40.9 | 2.13 | 178 |
| **ACY** | 50 | 5.41 | 3.49 | 8.39 | 4.20 | 0.16 | 362 | 2.09 | 15.6 | 0.65 | 70.1 |
| **ACE** | 50 | 7.20 | 4.37 | 11.9 | 5.64 | 0.17 | 549 | 2.04 | 18.8 | 0.32 | 182 |
| **FLU** | 50 | 7.74 | 4.50 | 13.3 | 6.47 | 0.01 | 682 | 2.64 | 25.7 | 0.65 | 248 |
| **PHE** | 50 | 118 | 70.2 | 200 | 123 | 1.36 | 8,100 | 29.9 | 377 | 7.44 | 2,480 |
| **ANT** | 50 | 19.9 | 11.8 | 33.4 | 16.7 | 0.56 | 1,370 | 4.55 | 89.1 | 1.98 | 410 |
| **FLR** | 50 | 215 | 130 | 358 | 207 | 2.35 | 12,400 | 65.9 | 626 | 15.8 | 3,240 |
| **PYR** | 50 | 158 | 94.7 | 263 | 155 | 2.10 | 9,060 | 50.8 | 477 | 8.31 | 2,340 |
| **BAA** | 50 | 102 | 62.1 | 168 | 102 | 3.88 | 4,170 | 29.5 | 365 | 6.09 | 1,530 |
| **CHR** | 50 | 132 | 78.5 | 223 | 145 | 0.25 | 5,540 | 44.5 | 425 | 9.75 | 1,840 |
| **BBF** | 50 | 120 | 73.3 | 196 | 106 | 3.33 | 4,890 | 34.3 | 378 | 6.61 | 2,150 |
| **BKF** | 50 | 110 | 68.9 | 176 | 110 | 3.14 | 4,440 | 34.0 | 326 | 8.18 | 1,420 |
| **BAP** | 50 | 131 | 80.5 | 212 | 129 | 1.83 | 5,210 | 42.9 | 394 | 8.29 | 1,760 |
| **IND** | 50 | 93.4 | 57.5 | 152 | 93.2 | 1.23 | 3,940 | 25.0 | 266 | 9.23 | 1,740 |
| **DAA** | 50 | 38.6 | 25.5 | 58.3 | 31.1 | 2.16 | 1,610 | 12.1 | 86.4 | 6.56 | 560 |
| **BGP** | 50 | 116 | 73.0 | 184 | 110 | 8.59 | 4,450 | 30.7 | 310 | 11.0 | 2,050 |

Notes:
Statistics were performed on the ln-transformed data and the results back-transformed to concentrations
Non-detects were substituted with random numbers between zero and the detection limit
95% confidence intervals are of the mean

## Table 9
## Descriptive Statistics for Samples from Non-Metro County Sites as 0 to 15 cm (ug/kg)

| PAH | Valid N | Mean | Confidence Interval -95% | Confidence Interval +95% | Median | Minimum | Maximum | Lower Quartile | Upper Quartile | Percentile 5% | Percentile 95% |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NAP** | 110 | 14.1 | 10.6 | 18.7 | 10.4 | 0.15 | 2,850 | 6.04 | 26.9 | 1.69 | 253 |
| **MN2** | 110 | 18.5 | 13.5 | 25.4 | 16.4 | 0.18 | 4,290 | 6.14 | 46.3 | 1.51 | 389 |
| **ACY** | 110 | 3.71 | 2.79 | 4.92 | 2.95 | 0.02 | 695 | 1.62 | 8.40 | 0.34 | 48.4 |
| **ACE** | 110 | 3.97 | 3.08 | 5.12 | 3.40 | 0.07 | 339 | 2.12 | 8.29 | 0.35 | 48.9 |
| **FLU** | 110 | 3.64 | 2.75 | 4.81 | 3.47 | 0.02 | 228 | 1.75 | 7.14 | 0.37 | 37.6 |
| **PHE** | 110 | 58.9 | 42.5 | 81.4 | 61.1 | 0.47 | 2,840 | 14.8 | 183 | 3.61 | 1,150 |
| **ANT** | 110 | 9.22 | 6.72 | 12.6 | 9.20 | 0.05 | 653 | 3.01 | 23.6 | 0.51 | 115 |
| **FLR** | 110 | 81.5 | 57.0 | 116 | 94.2 | 0.02 | 6,840 | 25.5 | 294 | 5.47 | 1,330 |
| **PYR** | 110 | 77.8 | 56.7 | 107 | 87.0 | 2.25 | 3,980 | 24.4 | 245 | 4.71 | 1,070 |
| **BAA** | 110 | 45.0 | 32.7 | 61.9 | 53.8 | 2.04 | 3,200 | 11.8 | 136 | 2.97 | 677 |
| **CHR** | 110 | 58.4 | 41.8 | 81.5 | 72.0 | 0.07 | 3,320 | 19.3 | 173 | 3.90 | 909 |
| **BBF** | 110 | 46.7 | 34.2 | 63.8 | 54.2 | 1.33 | 3,310 | 14.4 | 147 | 2.98 | 649 |
| **BKF** | 110 | 45.4 | 33.6 | 61.5 | 49.9 | 1.80 | 2,310 | 13.9 | 126 | 3.02 | 629 |
| **BAP** | 110 | 52.4 | 37.5 | 73.4 | 68.5 | 0.11 | 3,260 | 14.9 | 158 | 2.73 | 874 |
| **IND** | 110 | 47.8 | 36.4 | 62.8 | 45.3 | 0.91 | 2,640 | 16.3 | 108 | 6.27 | 569 |
| **DAA** | 110 | 21.0 | 16.7 | 26.3 | 18.9 | 1.41 | 905 | 10.5 | 37.1 | 3.08 | 191 |
| **BGP** | 110 | 57.9 | 42.6 | 78.8 | 59.2 | 0.29 | 2,980 | 16.6 | 147 | 5.63 | 773 |

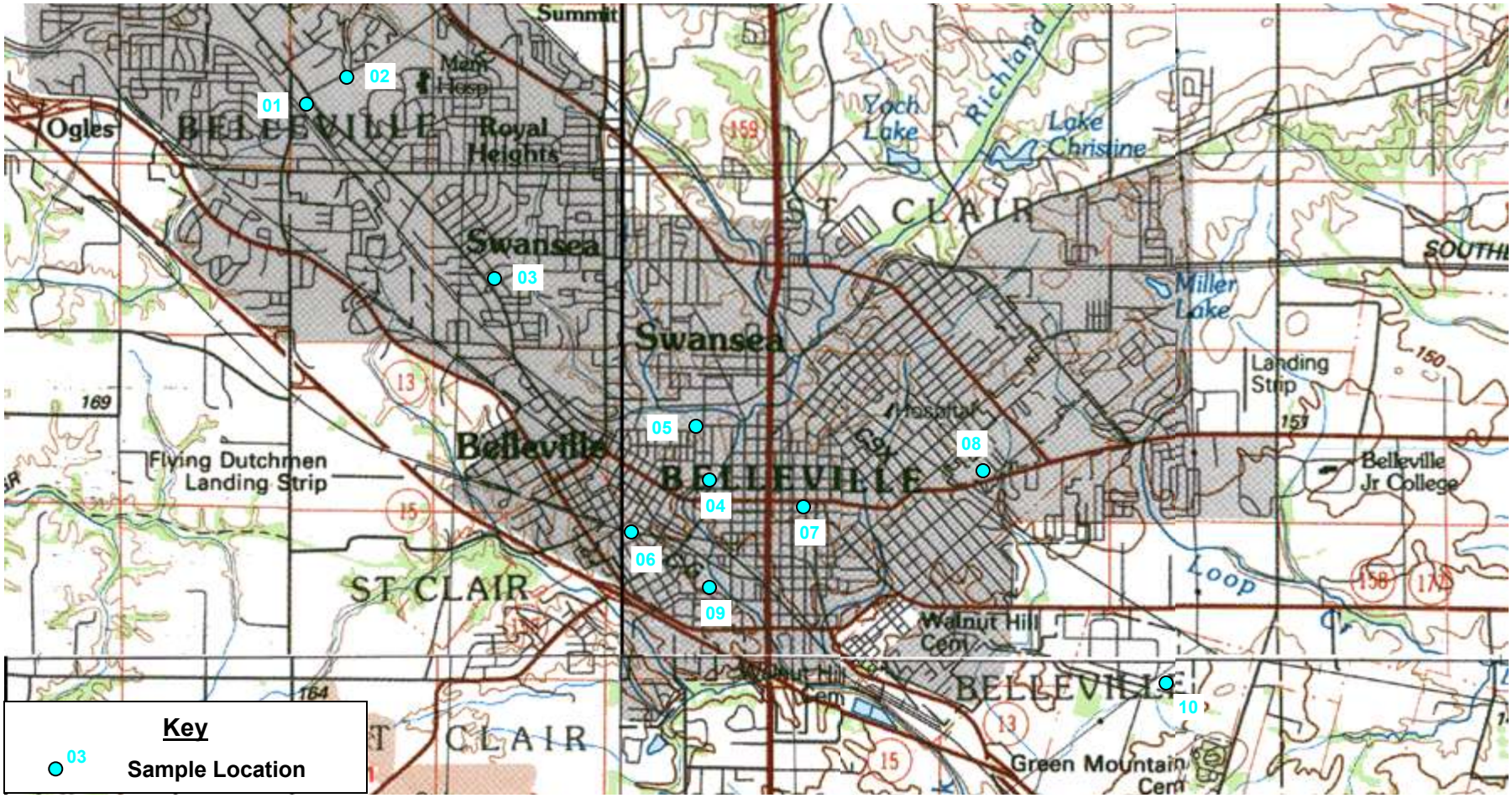
Notes:
Statistics were performed on the ln-transformed data and the results back-transformed to concentrations
Non-detects were substituted with random numbers between zero and the detection limit
95% confidence intervals are of the mean

## Table 10
## Summary of Lognormal 95th Percentiles (ug/kg)

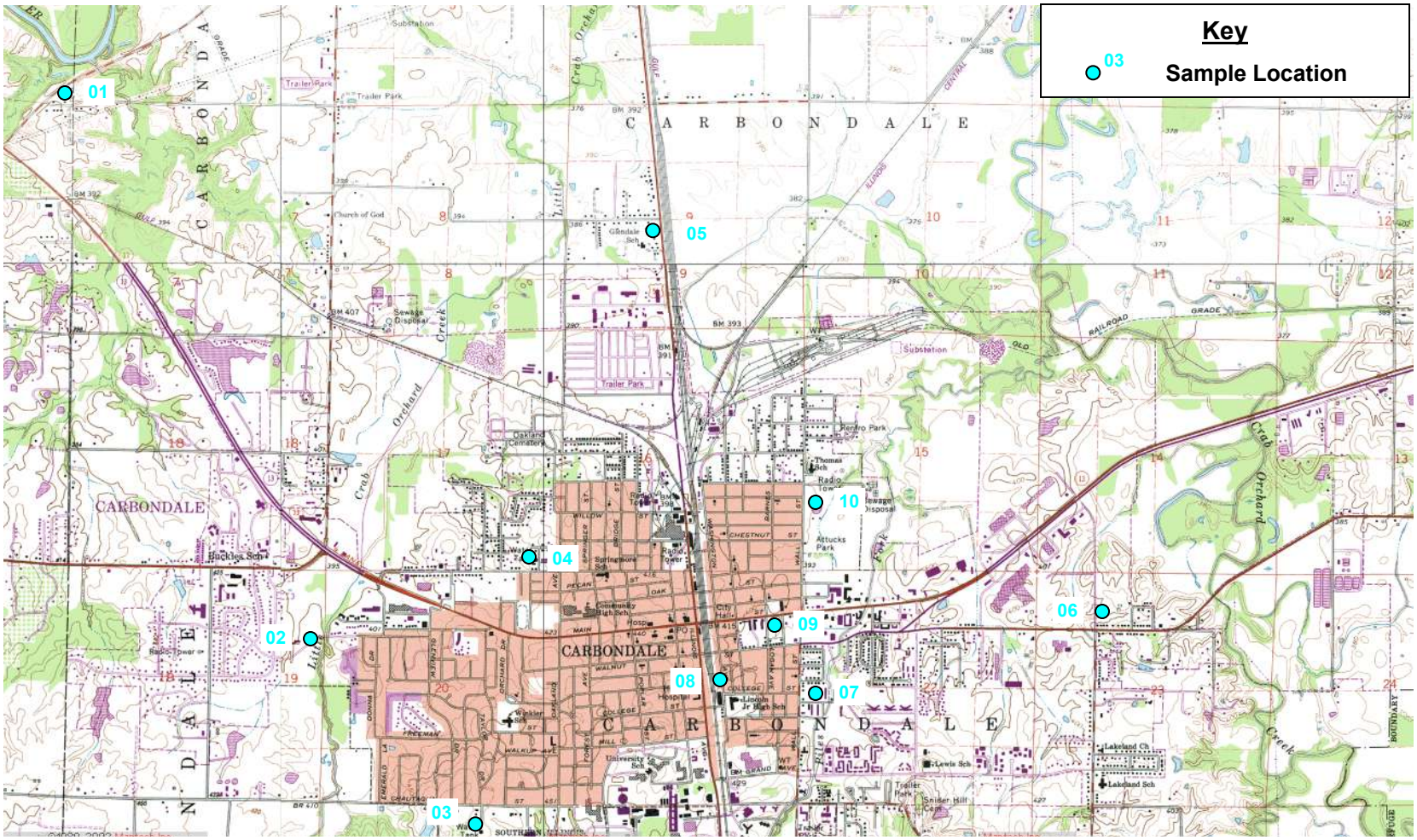
| | All Counties | | Metro Counties | | Non-Metro Counties | |
|---|---|---|---|---|---|---|
| **PAH** | **Valid N** | **Lognormal 95% Percentile** | **Valid N** | **Lognormal 95% Percentile** | **Valid N** | **Lognormal 95% Percentile** |
| **Naphthalene** | 160 | 177 | 50 | 201 | 110 | 168 |
| **2-Methylnaphthalene** | 160 | 230 | 50 | 135 | 110 | 289 |
| **Acenaphthylene** | 160 | 51.0 | 50 | 68.6 | 110 | 44.0 |
| **Acenaphthene** | 160 | 57.4 | 50 | 131 | 110 | 36.5 |
| **Fluorene** | 160 | 69.9 | 50 | 179 | 110 | 41.0 |
| **Phenanthrene** | 160 | 1,370 | 50 | 2,460 | 110 | 991 |
| **Anthracene** | 160 | 209 | 50 | 402 | 110 | 143 |
| **Fluoranthene** | 160 | 2,550 | 50 | 4,080 | 110 | 1,830 |
| **Pyrene** | 160 | 1,700 | 50 | 3,030 | 110 | 1,230 |
| **Benz(a)anthracene** | 160 | 1,030 | 50 | 1,840 | 110 | 719 |
| **Chrysene** | 160 | 1,510 | 50 | 2,720 | 110 | 1,070 |
| **Benzo(b)fluoranthene** | 160 | 1,070 | 50 | 2,050 | 110 | 704 |
| **Benzo(k)fluoranthene** | 160 | 928 | 50 | 1,680 | 110 | 634 |
| **Benzo(a)pyrene** | 160 | 1,350 | 50 | 2,140 | 110 | 980 |
| **Indeno(1,2,3-cd)pyrene** | 160 | 762 | 50 | 1,550 | 110 | 513 |
| **Dibenz(a,h)anthracene** | 160 | 222 | 50 | 422 | 110 | 154 |
| **Benzo(g,h,i)perylene** | 160 | 1,090 | 50 | 1,670 | 110 | 843 |

# B
# MAPS

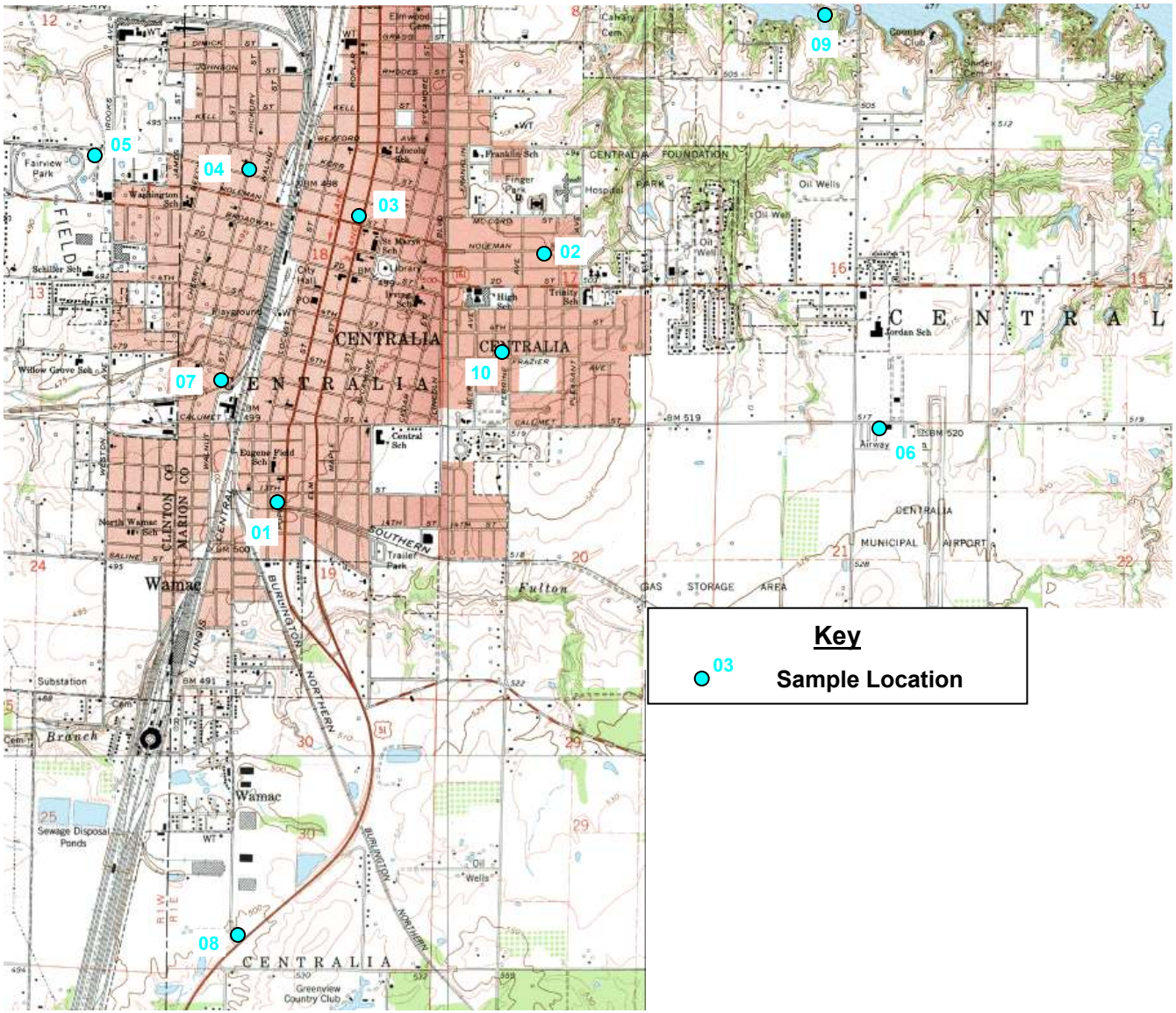
**Map 1**
**Belleville, Illinois**



**Map 2**
**Carbondale, Illinois**

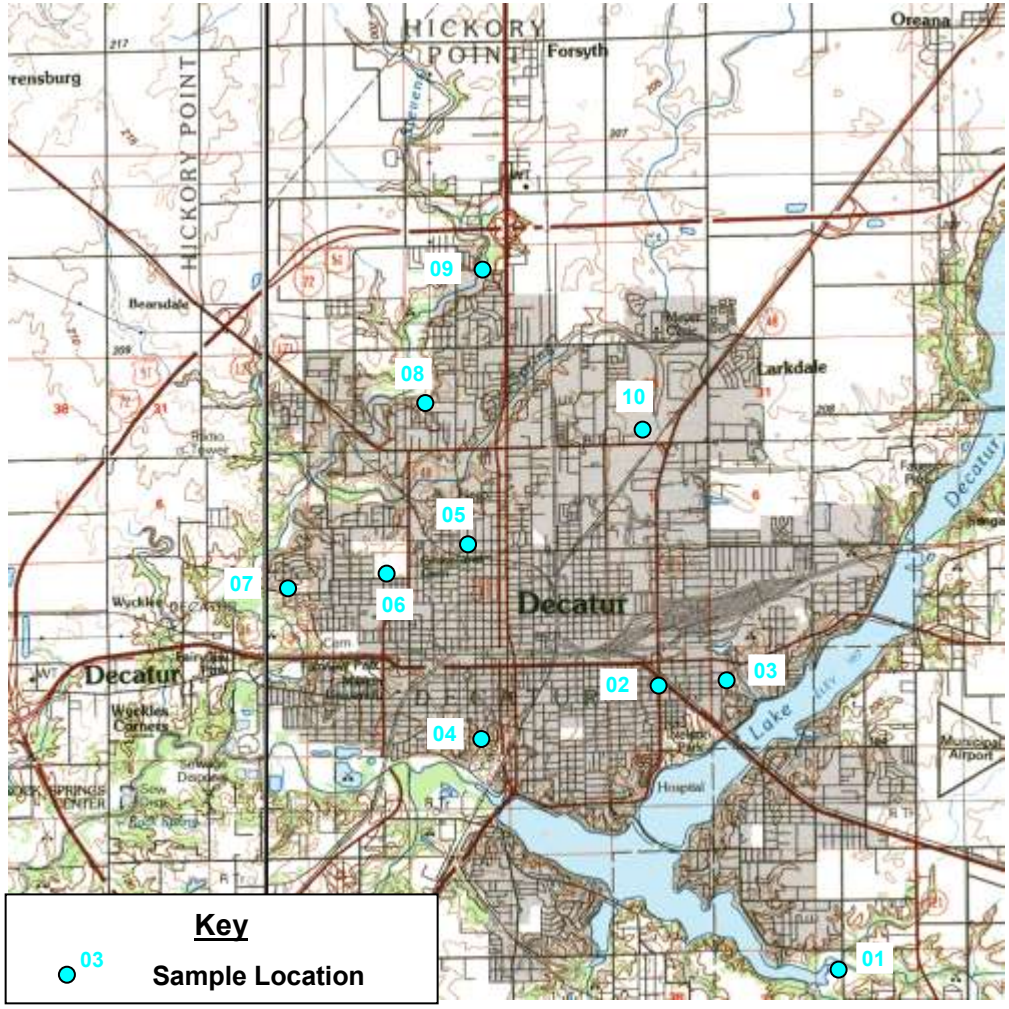


**Map 3**
**Centralia, Illinois**

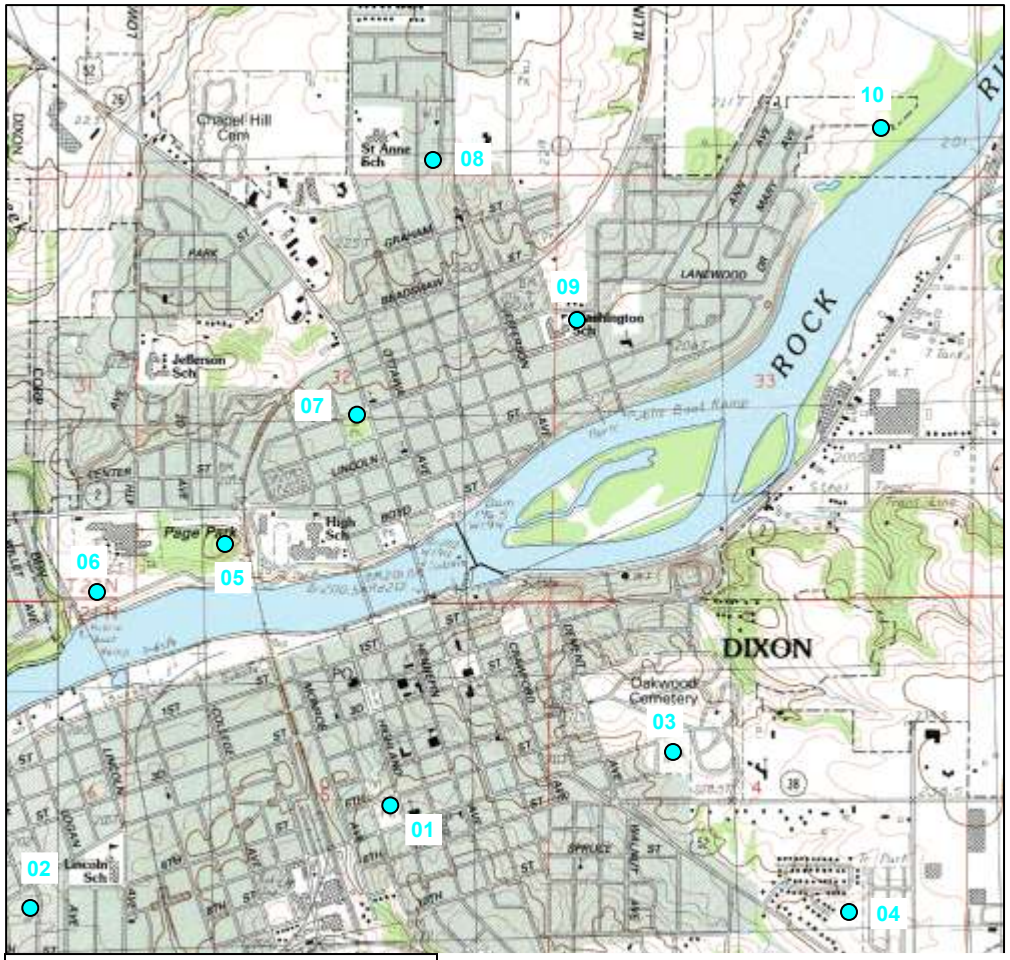


**Map 4**
**Danville, Illinois**

**Map 5**
**Decatur, Illinois**



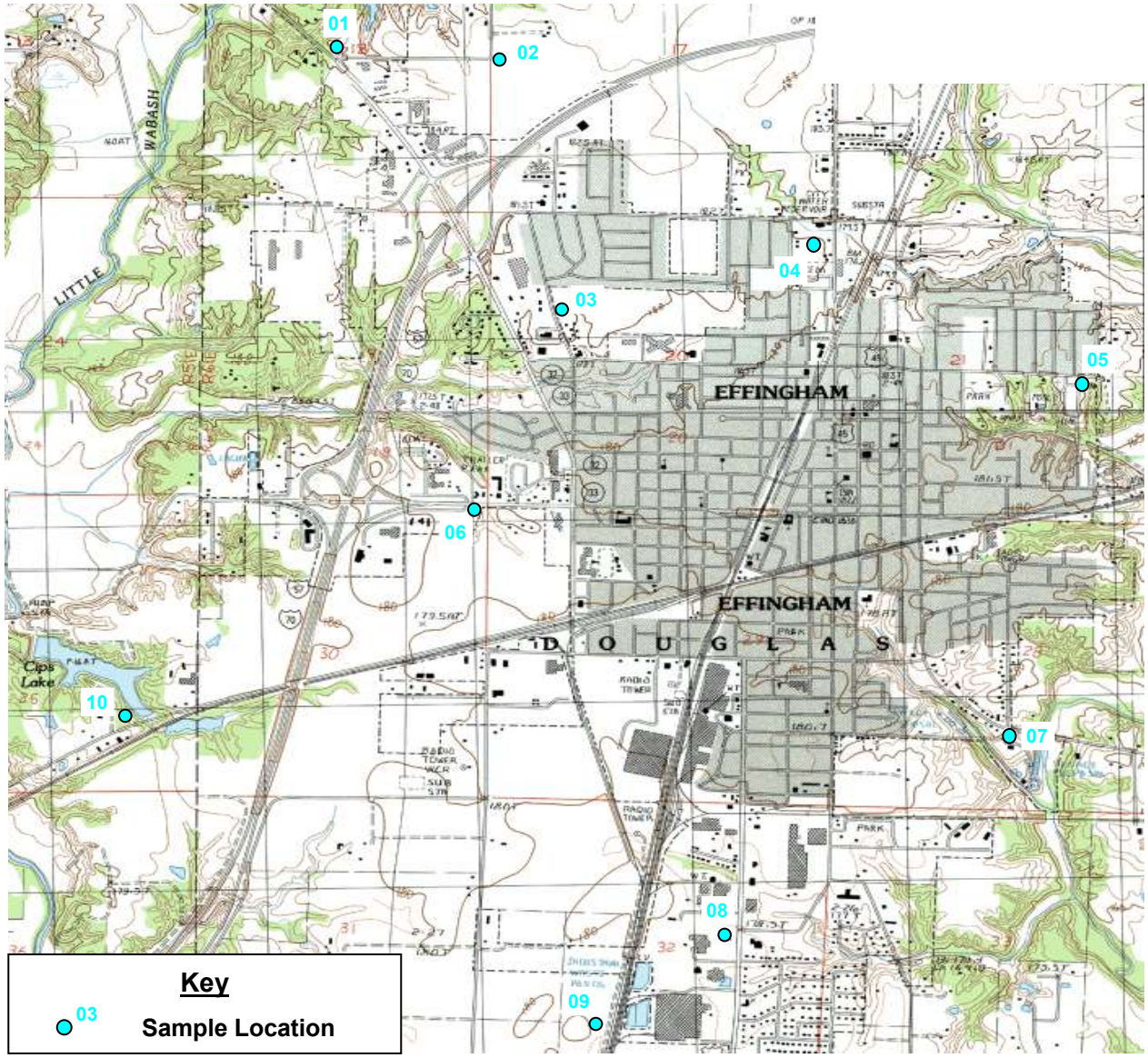
**Map 6**
**Dixon, Illinois**



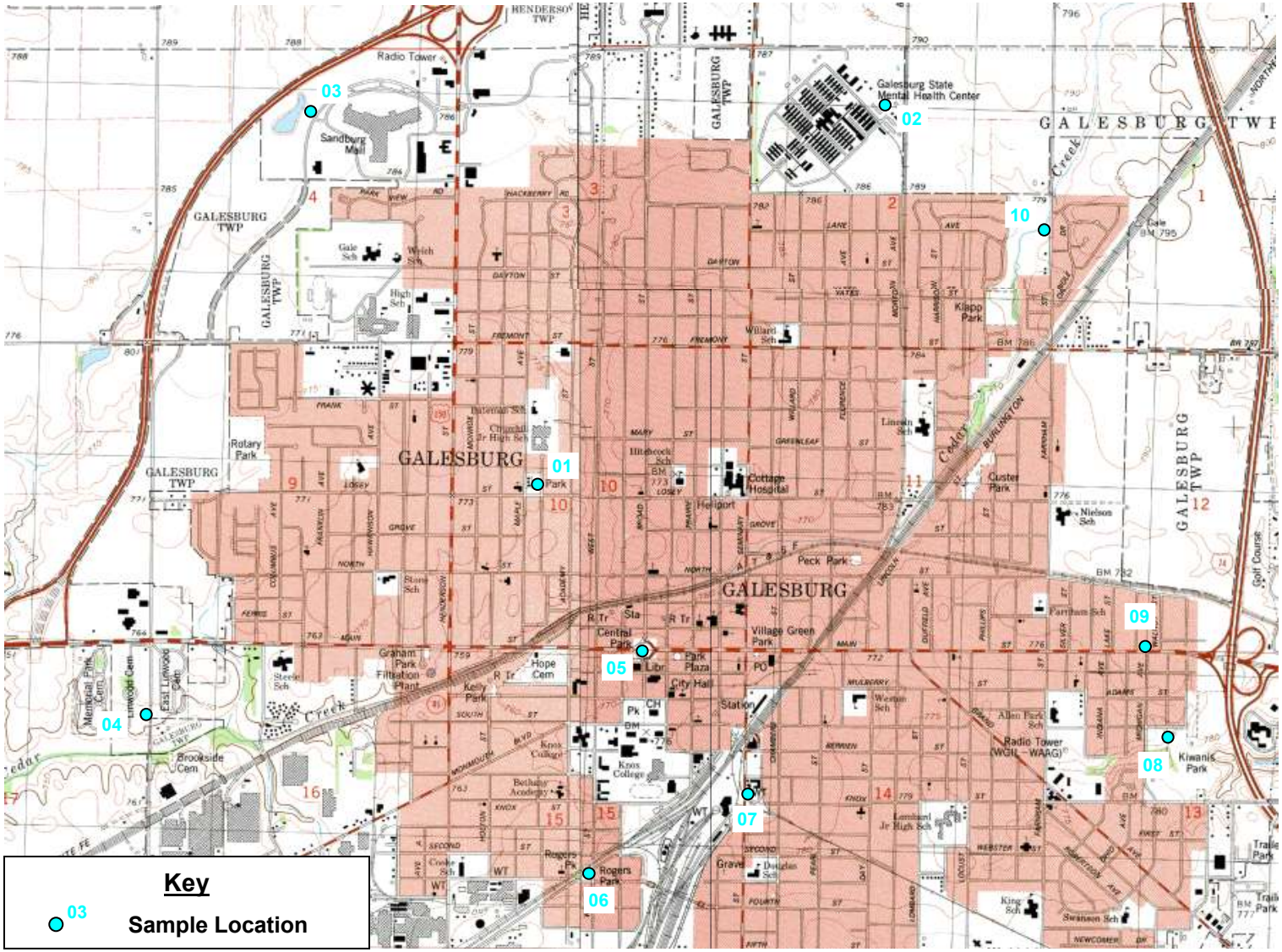

**Key**

03 Sample Location

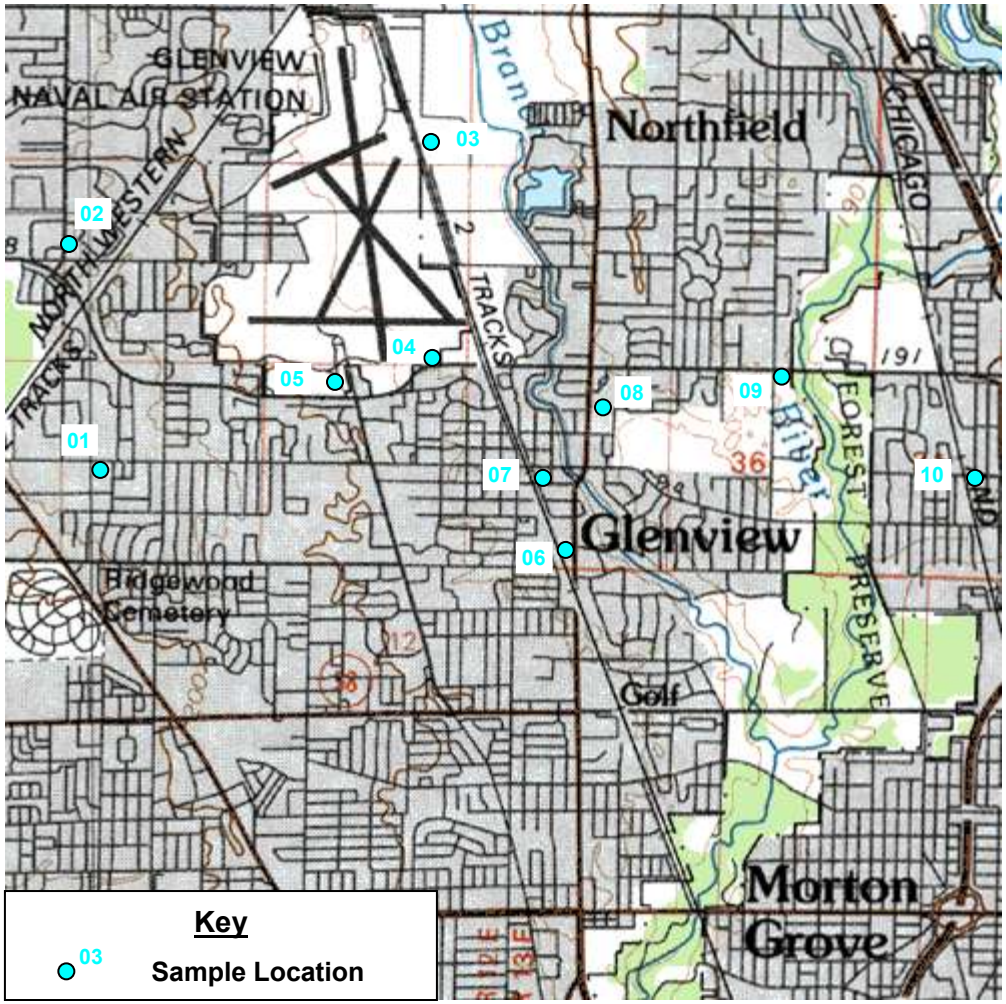
**Map 7**
**Effingham, Illinois**



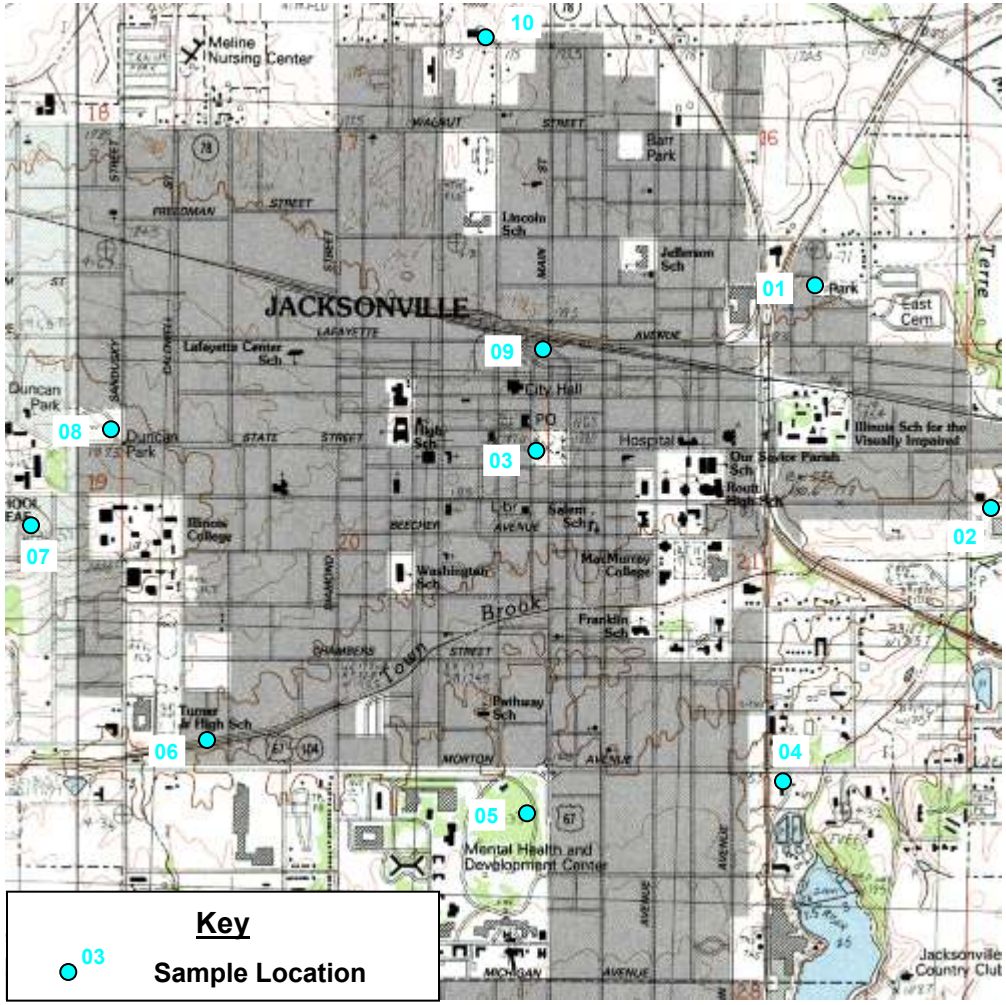
# Map 8
# Galesburg, Illinois



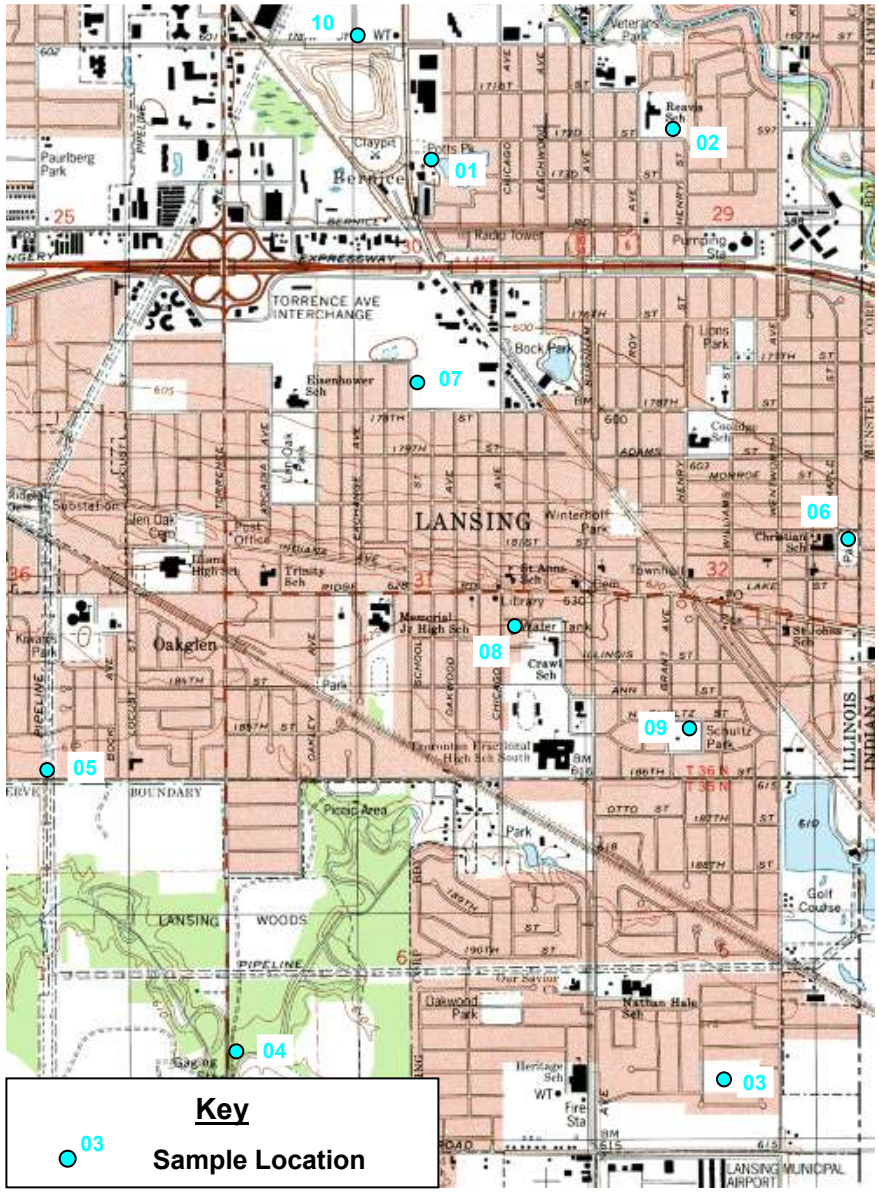
**Map 9**
**Glenview, Illinois**



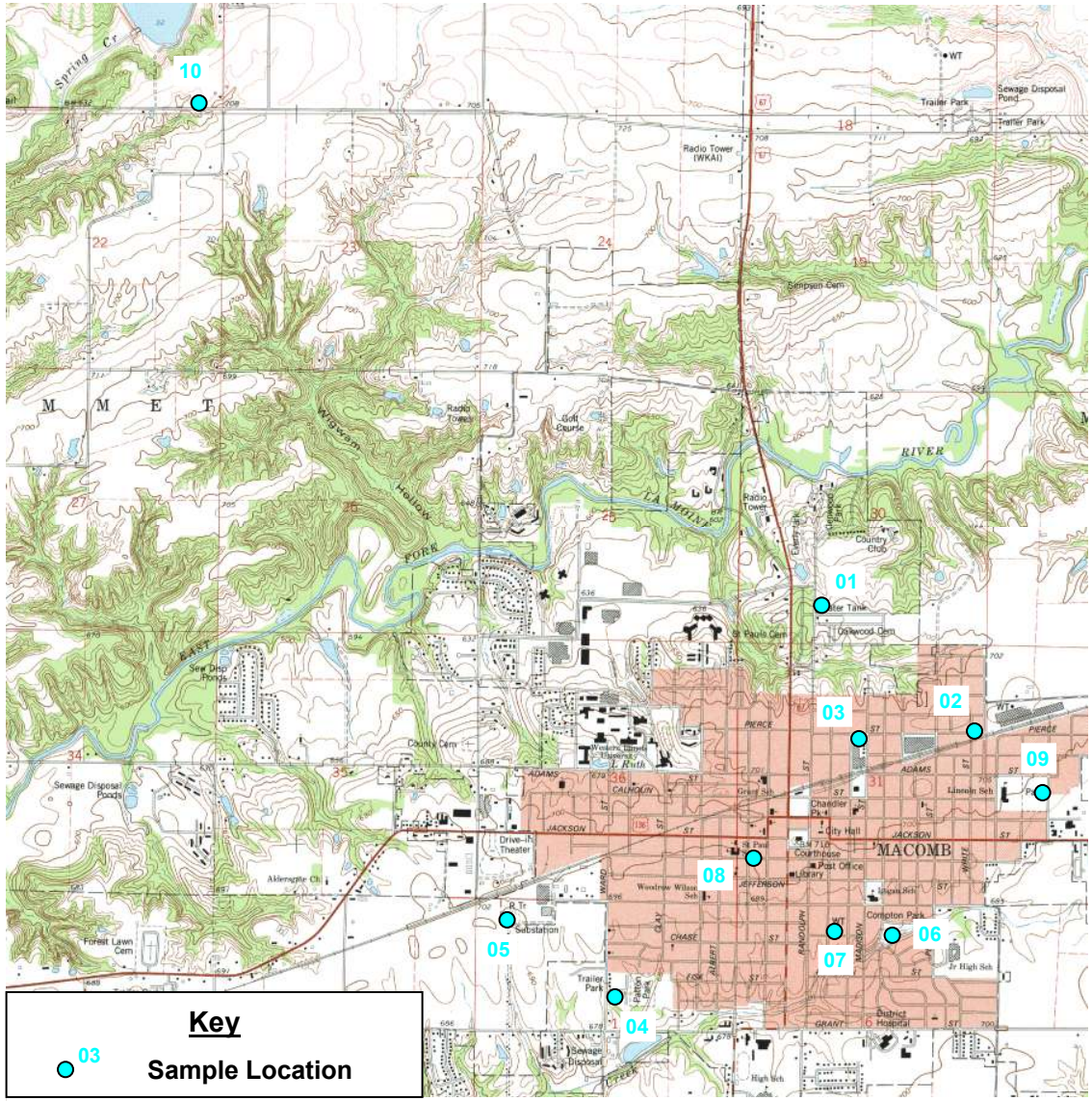
# Map 10
# Jacksonville, Illinois



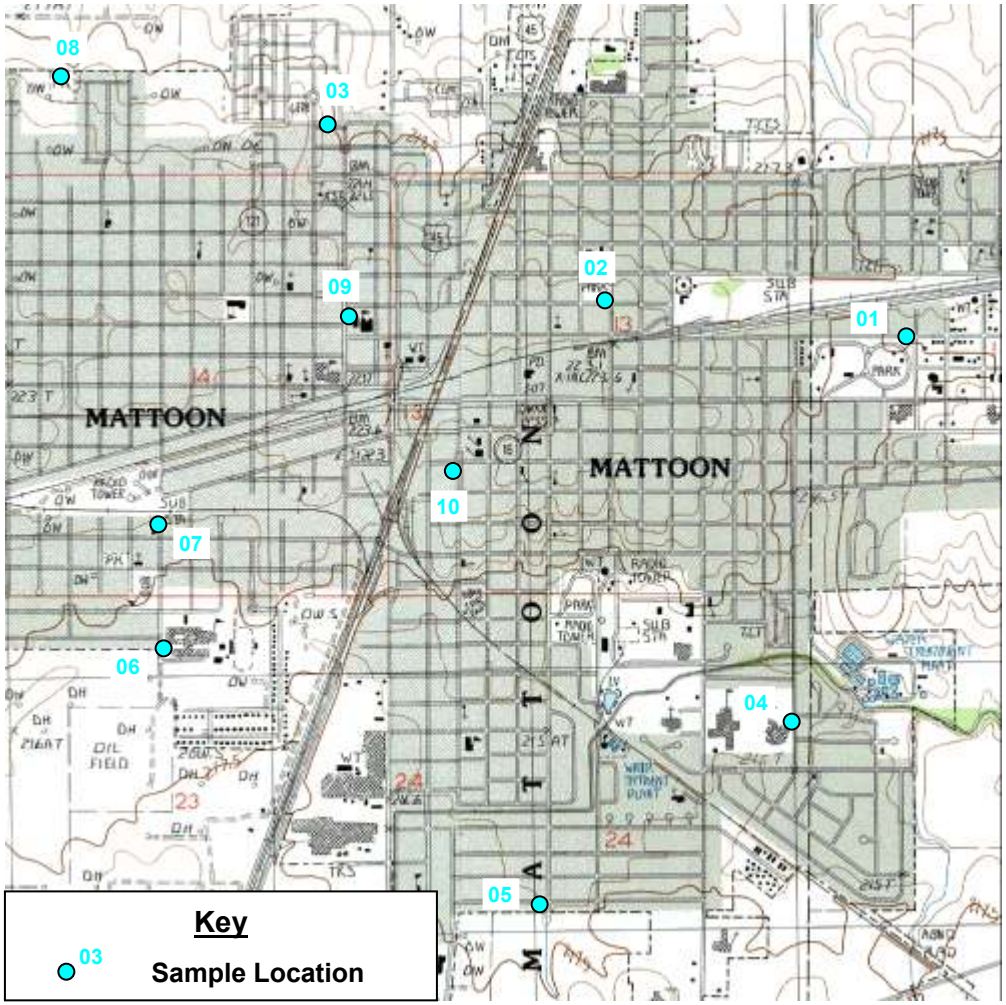
# Map 11
# Lansing, Illinois



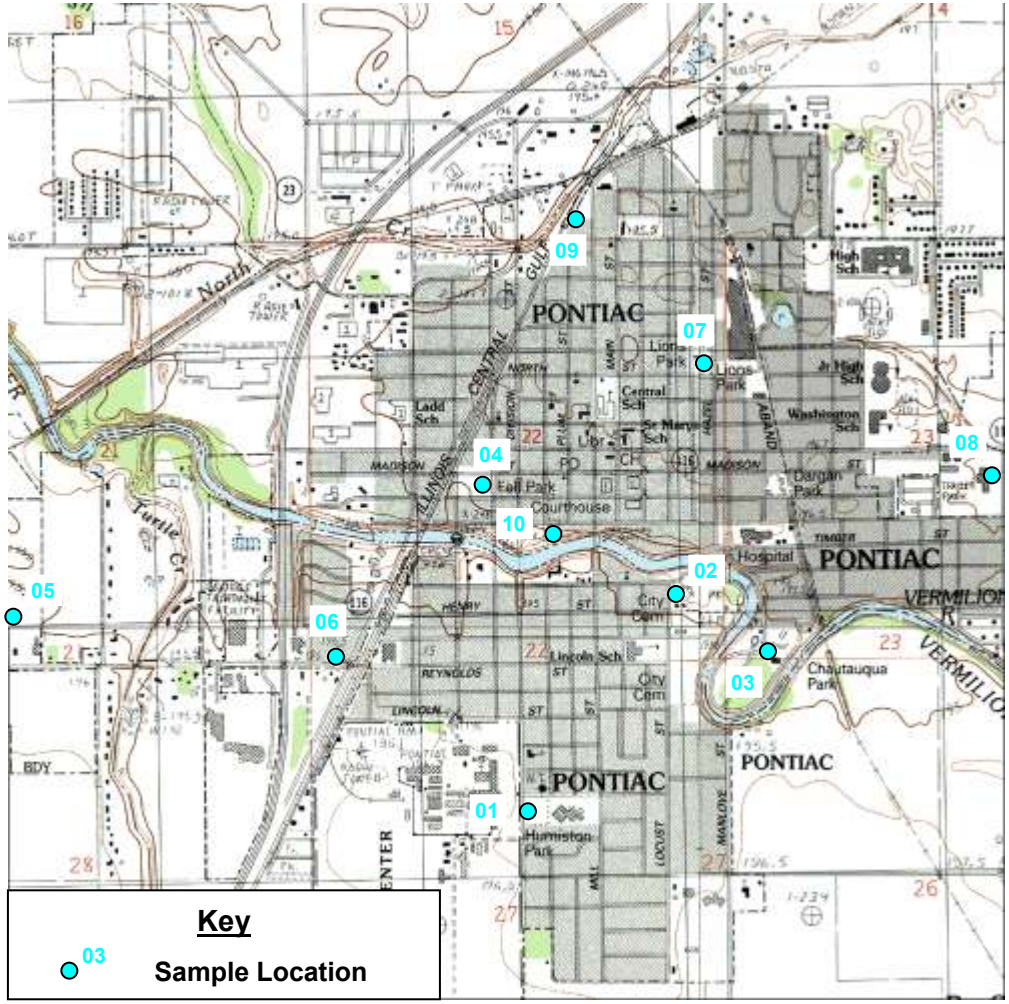
# Map 12
# Macomb, Illinois



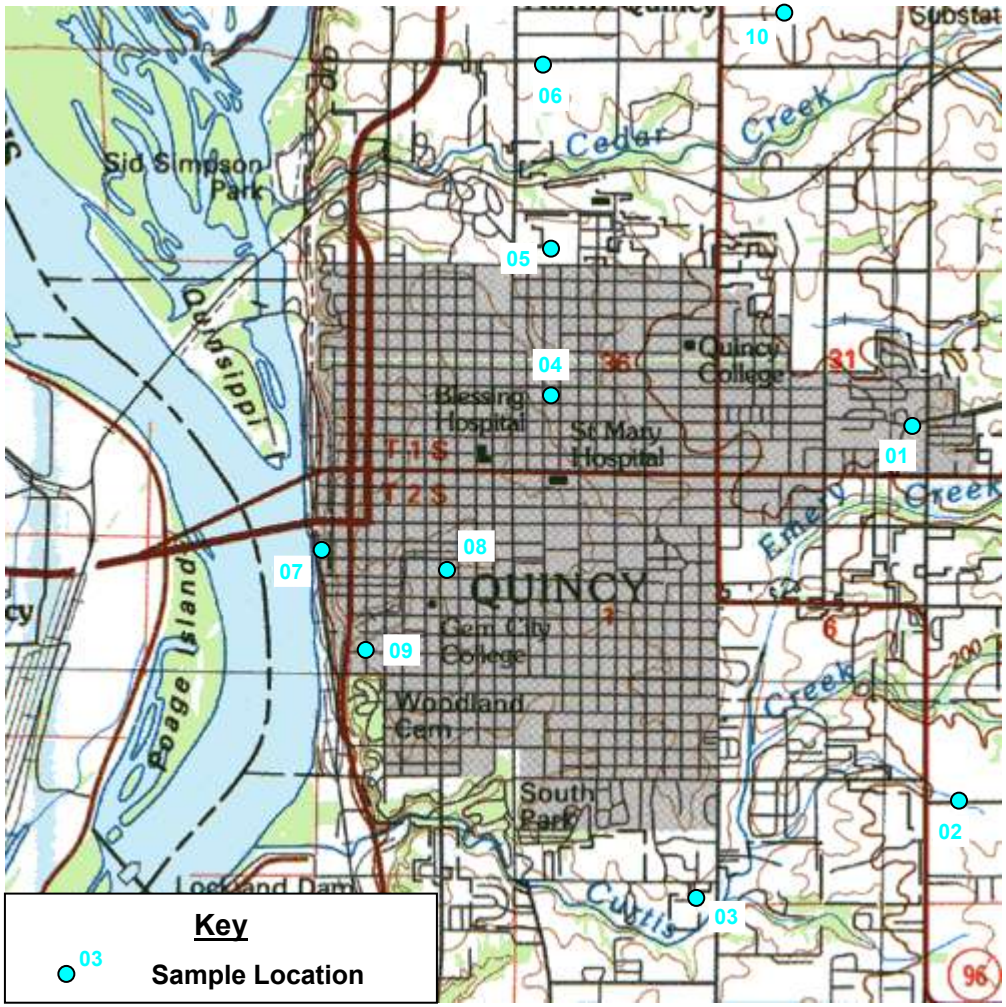
**Map 13**
**Mattoon, Illinois**



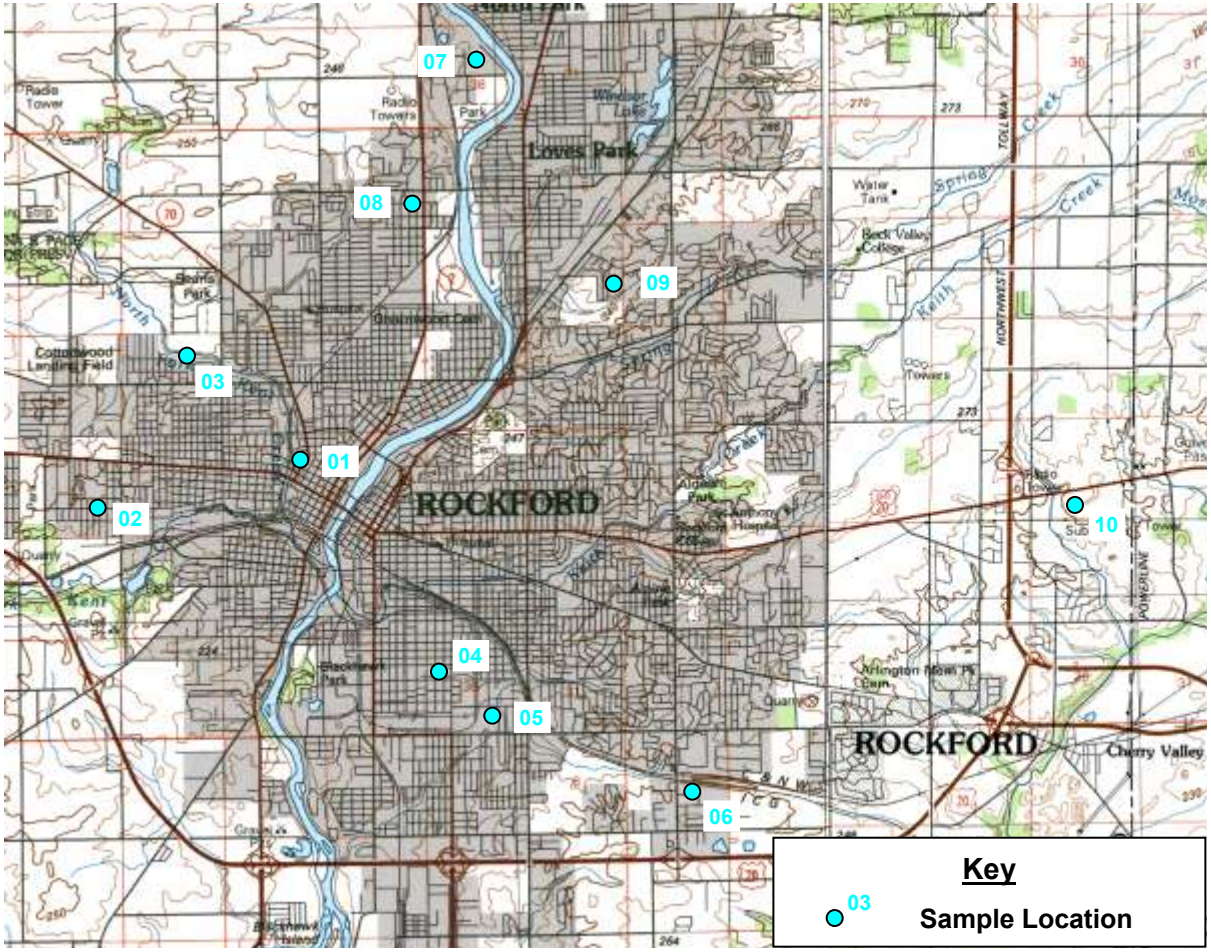
**Map 14**
**Pontiac, Illinois**



**Map 15**
**Quincy, Illinois**

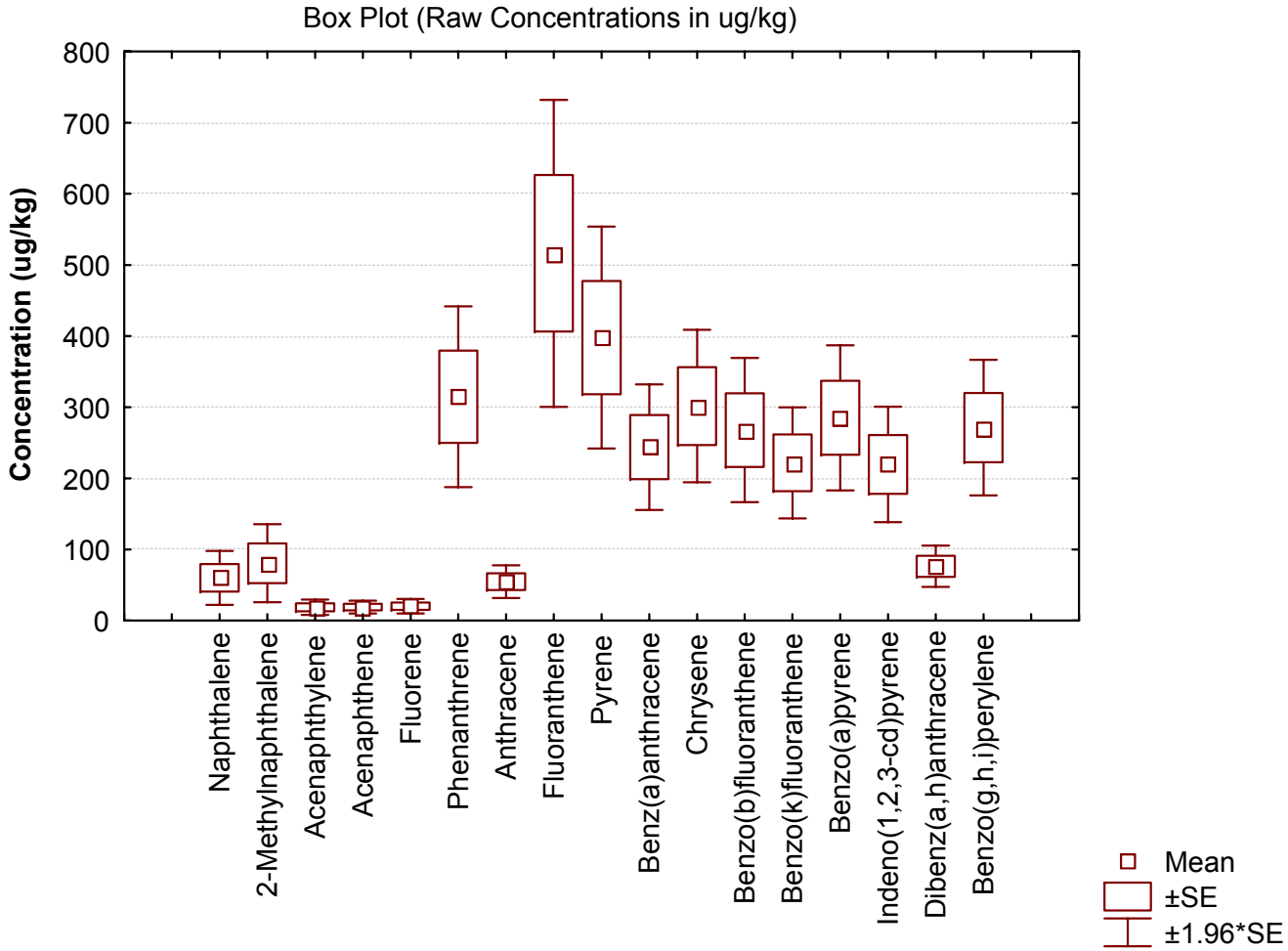


**Map 16**
**Rockford, Illinois**



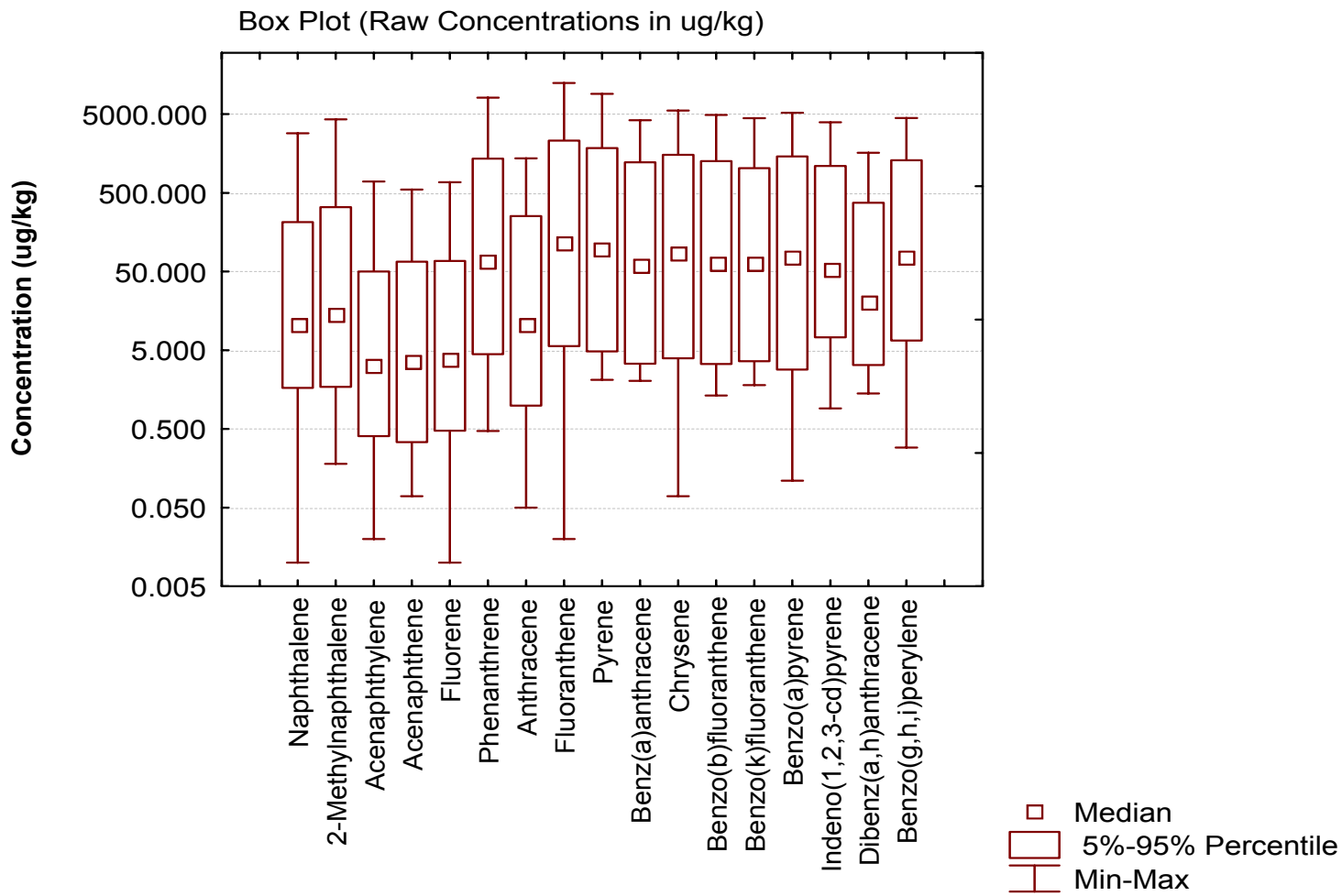
# C
# FIGURES

**Figure 1**
**Box and Whisker Plot of Raw Data**
**Showing Mean and Standard Error Statistics**



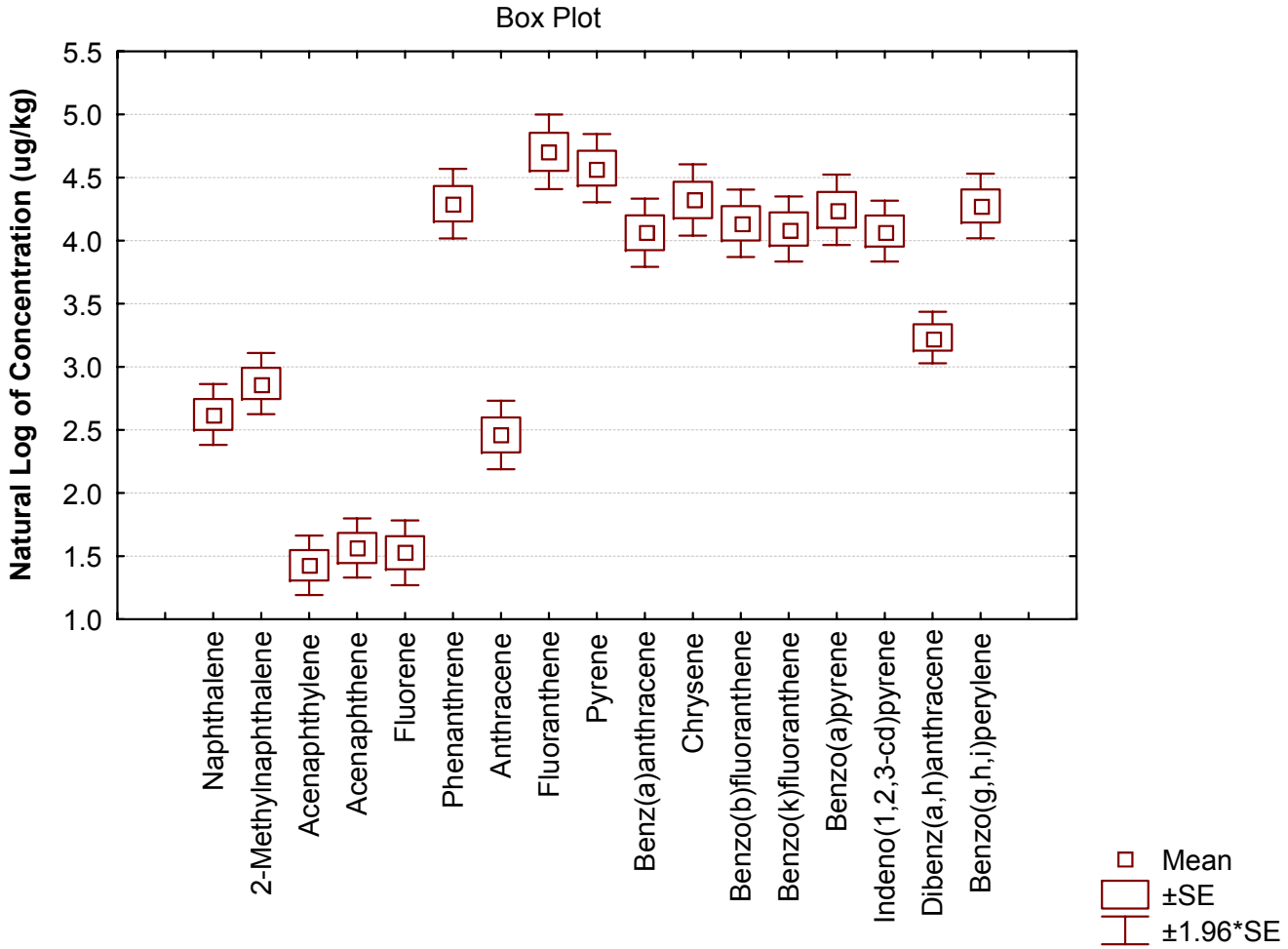

Notes:
Graph is based on raw concentration data from all samples in Illinois expressed as interval from 0 to 15 cm
Non-detects were substituted with random numbers between zero and the detection limit

**Figure 2**
**Box and Whisker Plot of Raw Data**
**Showing Median, 5th Percentile, 95th Percentile, Minimum and Maximum Values**



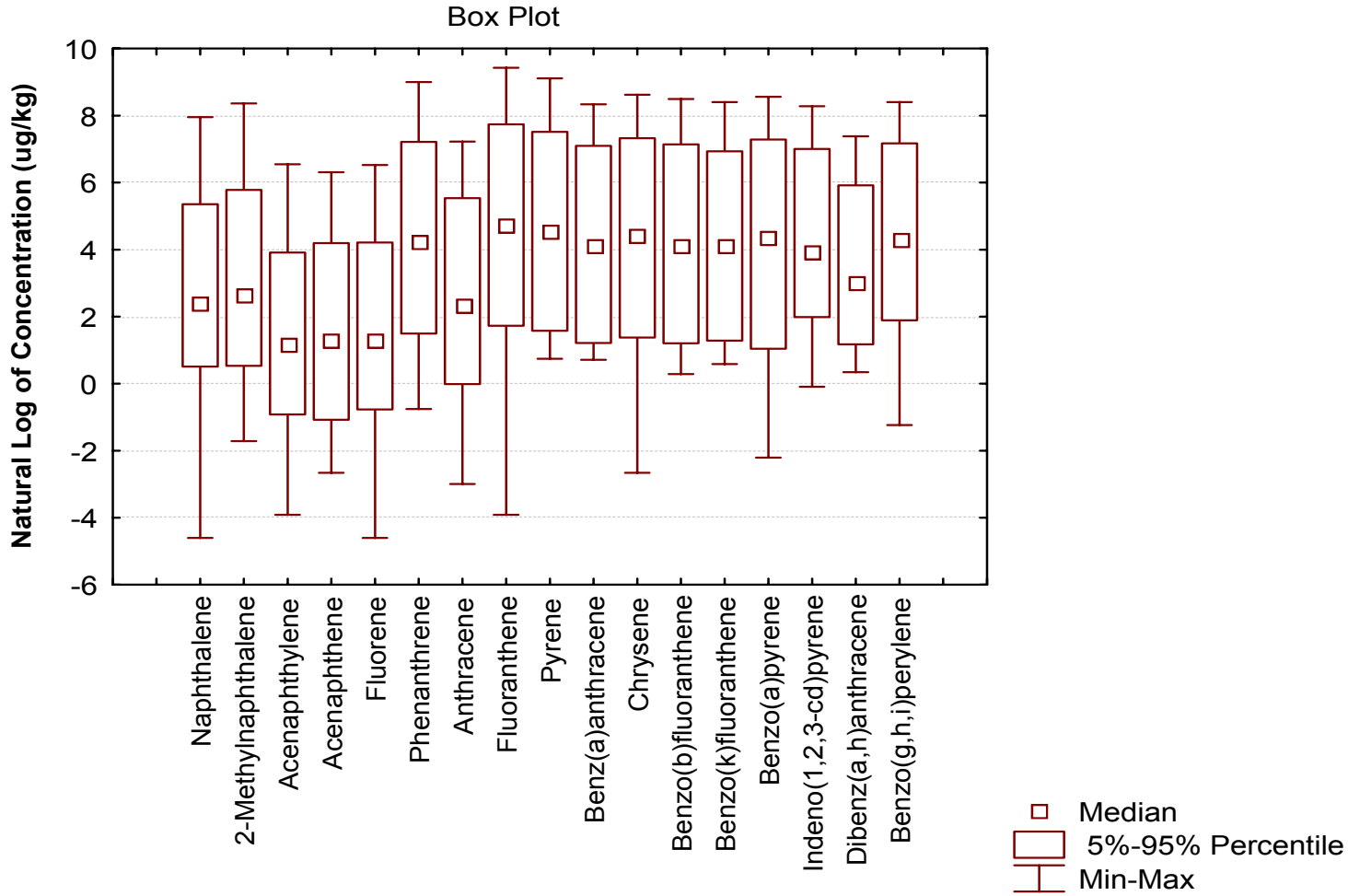

Notes:
Graph is based on raw concentration data from all samples in Illinois expressed as interval from 0 to 15 cm
Non-detects were substituted with random numbers between zero and the detection limit
Y-axis is a logarithmic scale

**Figure 3**
**Box and Whisker Plot of Natural Log-Transformed Data**
**Showing Mean and Standard Error Statistics**




Notes:
Graph is based on natural logarithm of data from all samples in Illinois expressed as interval from 0 to 15 cm
Non-detects were substituted with random numbers between zero and the detection limit

**Figure 4**
**Box and Whisker Plot of Natural Log-Transformed Data**
**Showing Median, 5th Percentile, 95th Percentile, Minimum and Maximum Values**




Notes:
Graph is based on natural logarithm of data from all samples in Illinois expressed as interval from 0 to 15 cm
Non-detects were substituted with random numbers between zero and the detection limit

**Figure 5**
**Normal Probability Plot for Naphthalene**

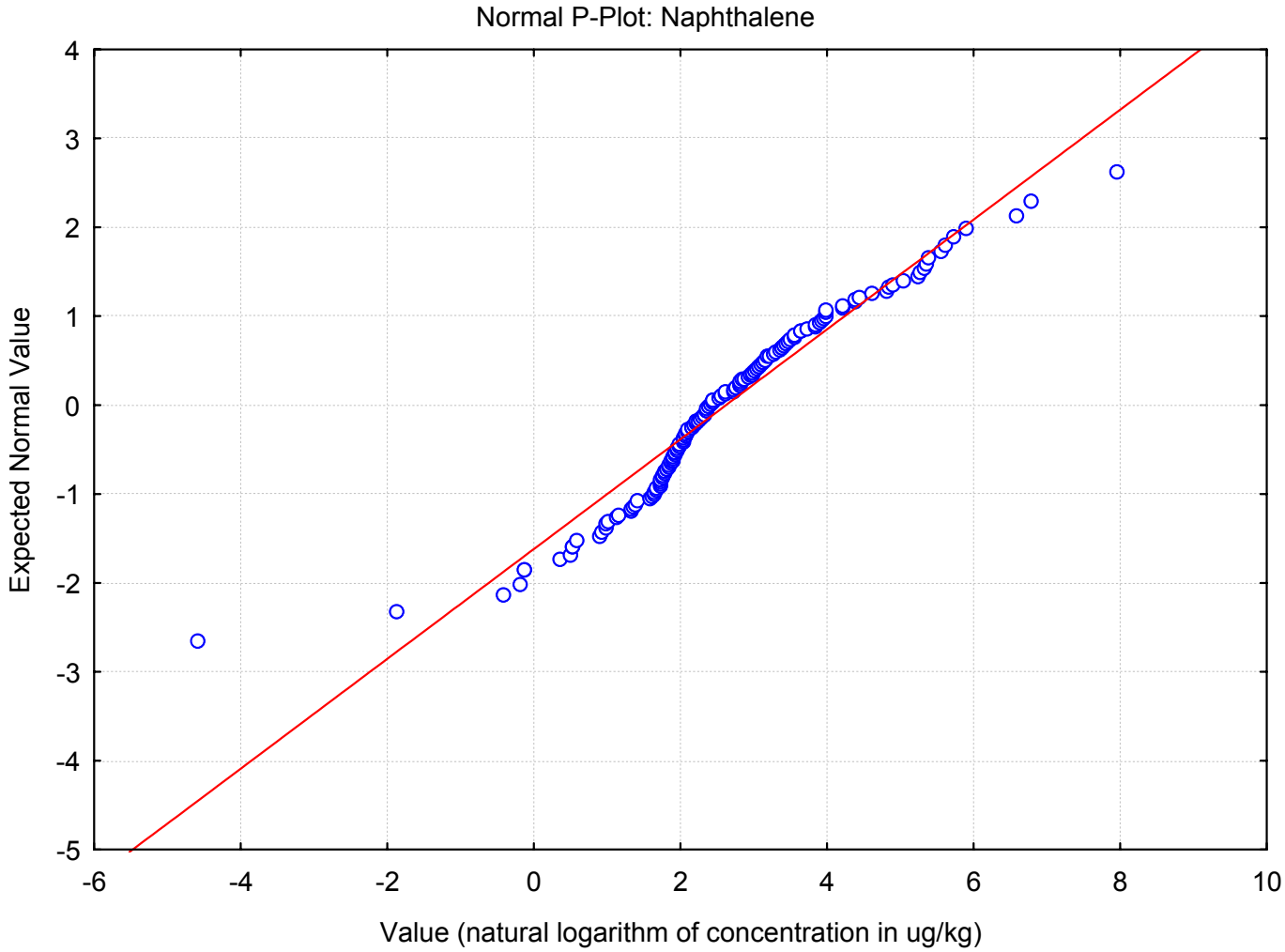


**Figure 6**
**Frequency Histogram for Naphthalene**

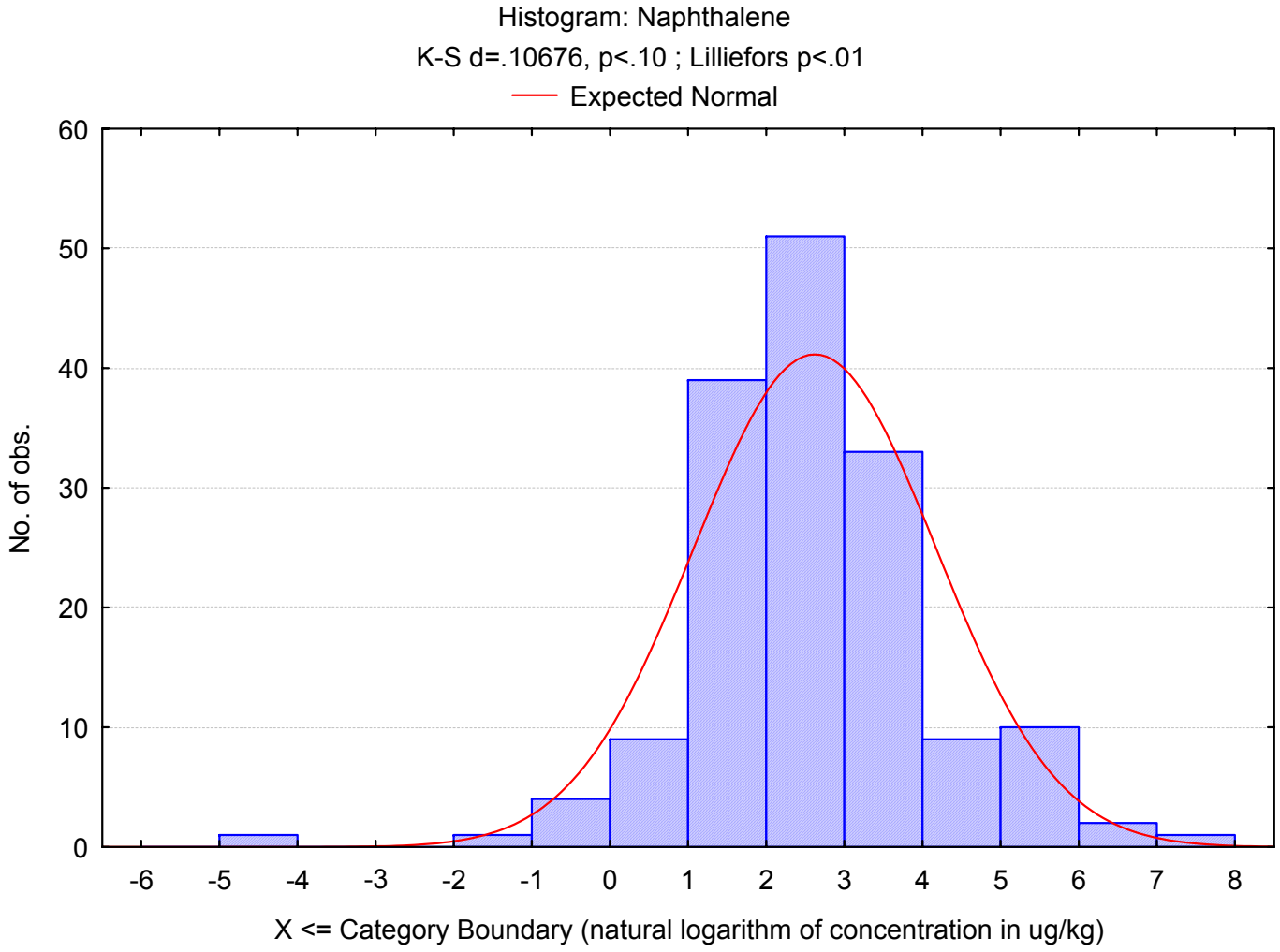


**Figure 7**
**Normal Probability Plot for 2-Methylnaphthalene**

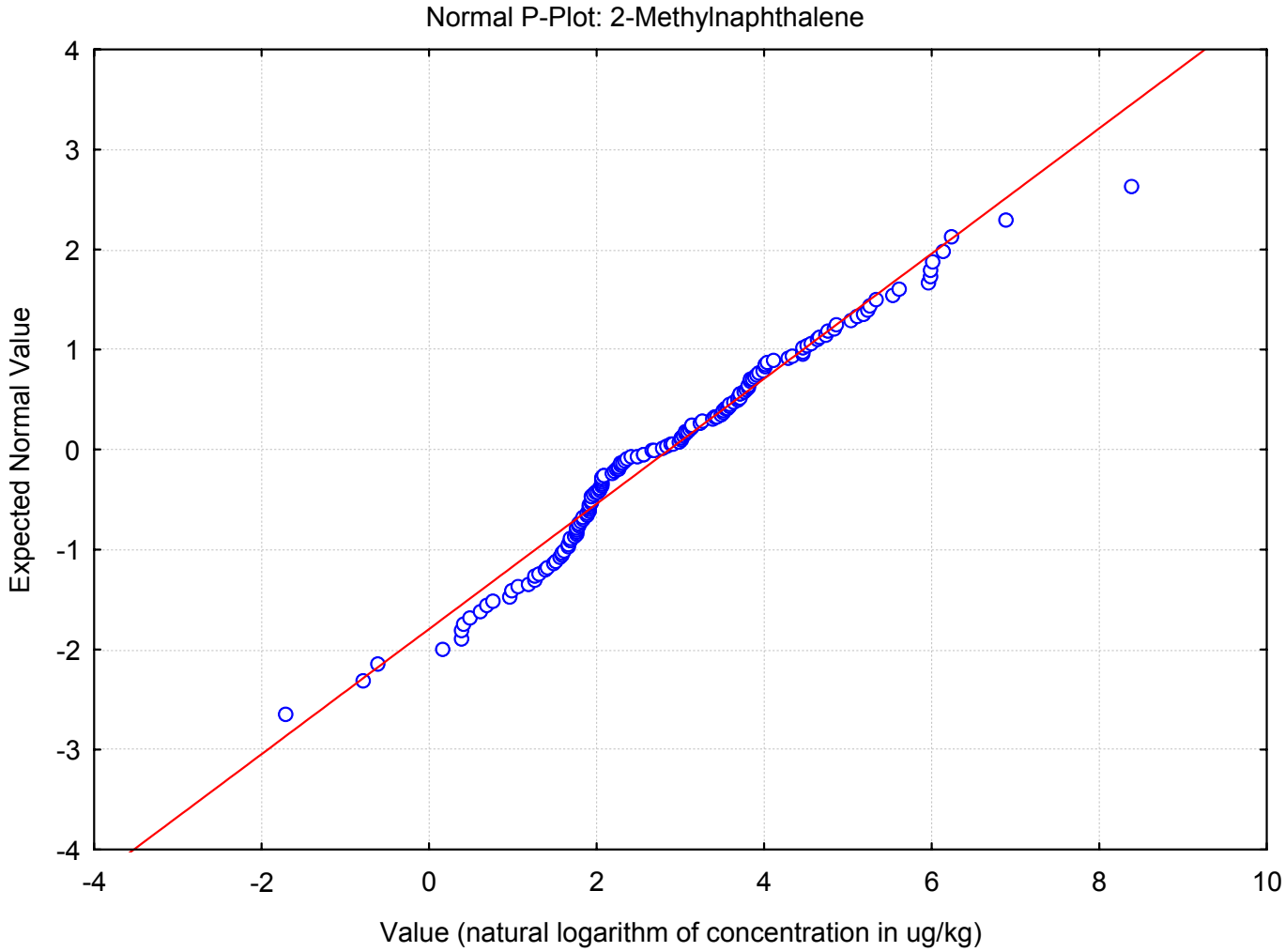


**Figure 8**
**Frequency Histogram for 2-Methylnaphthalene**

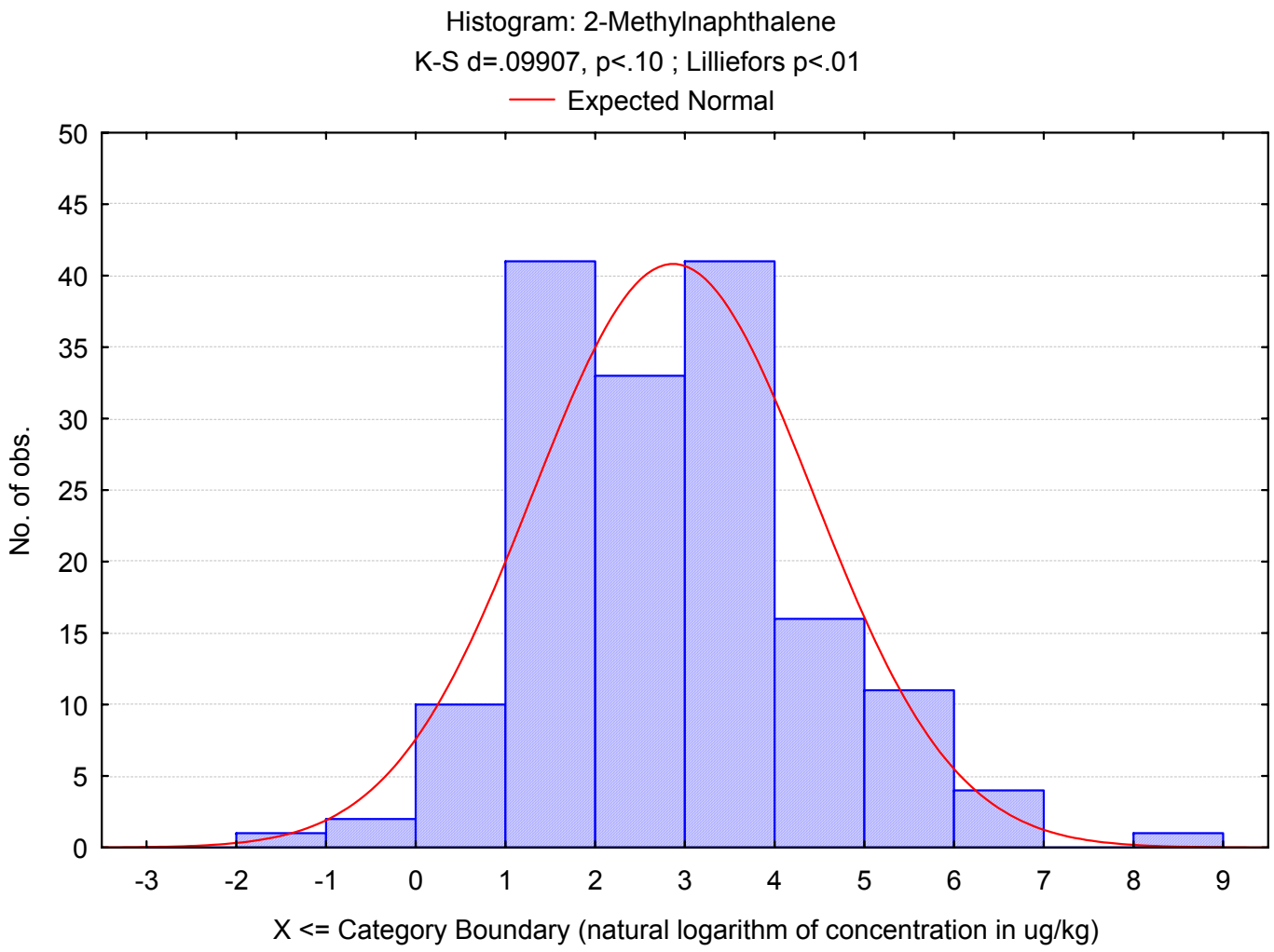


**Figure 9**
**Normal Probability Plot for Acenaphthylene**

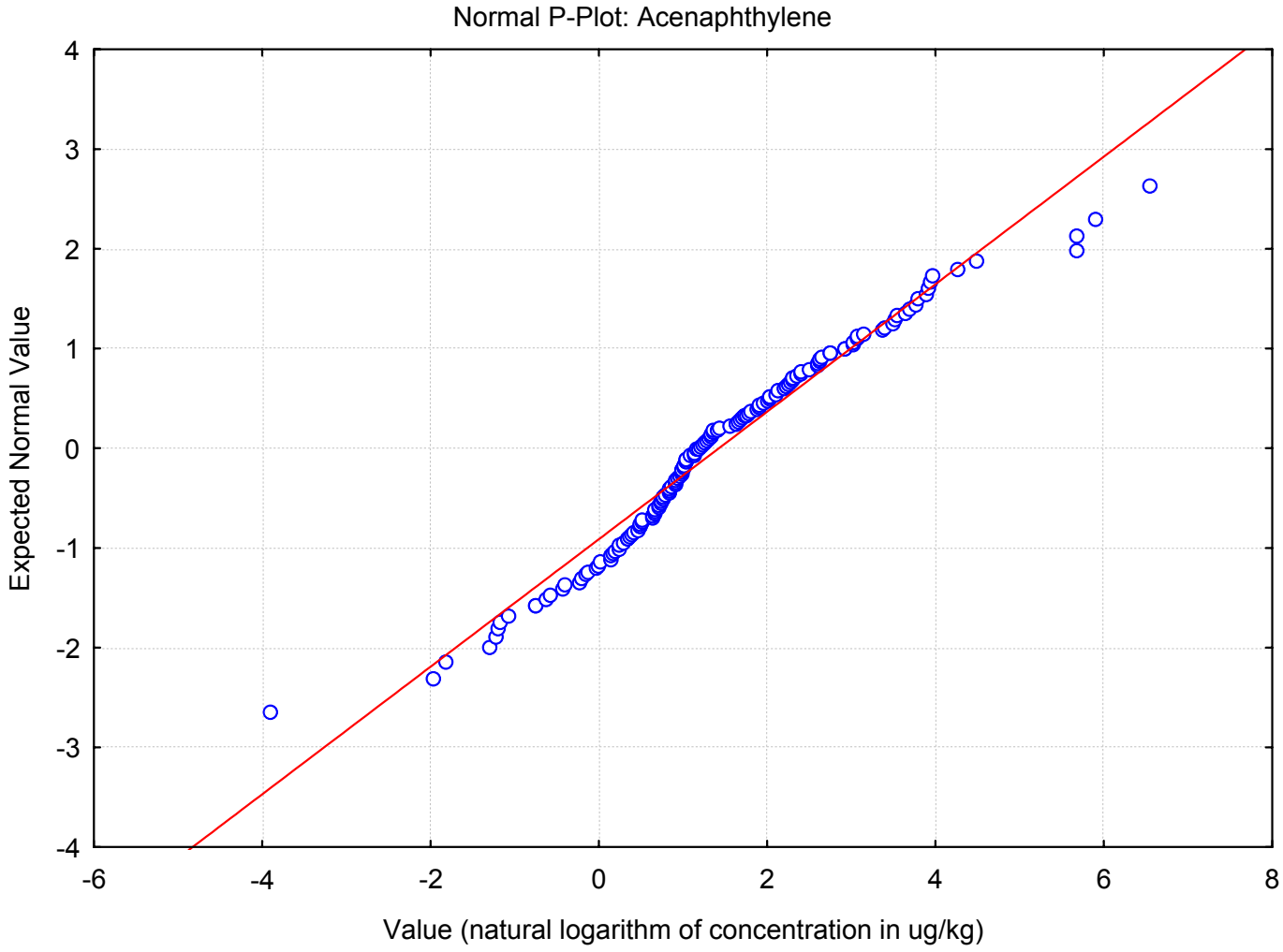


**Figure 10**
**Frequency Histogram for Acenaphthylene**

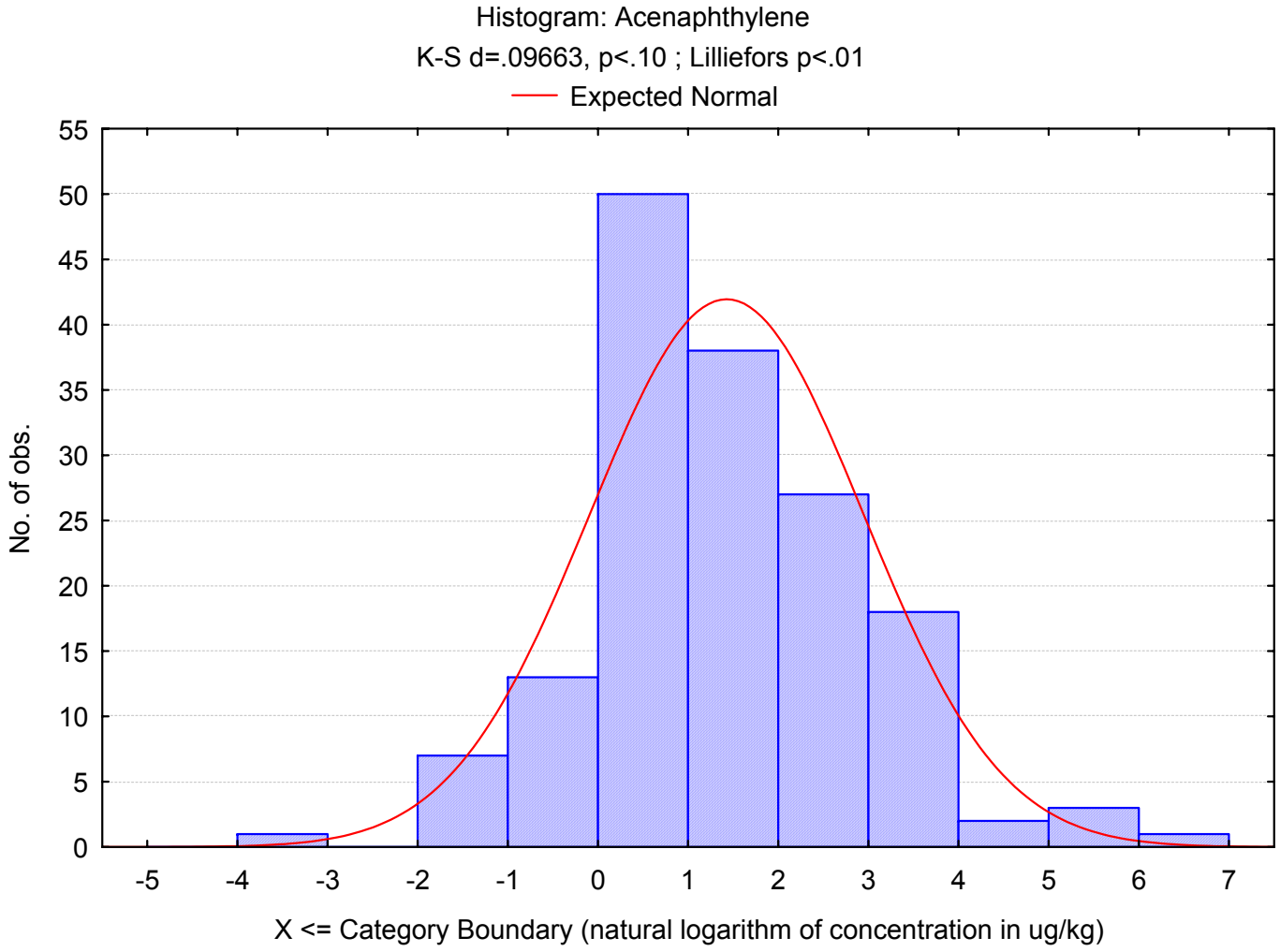


**Figure 11**
**Normal Probability Plot for Acenaphthene**

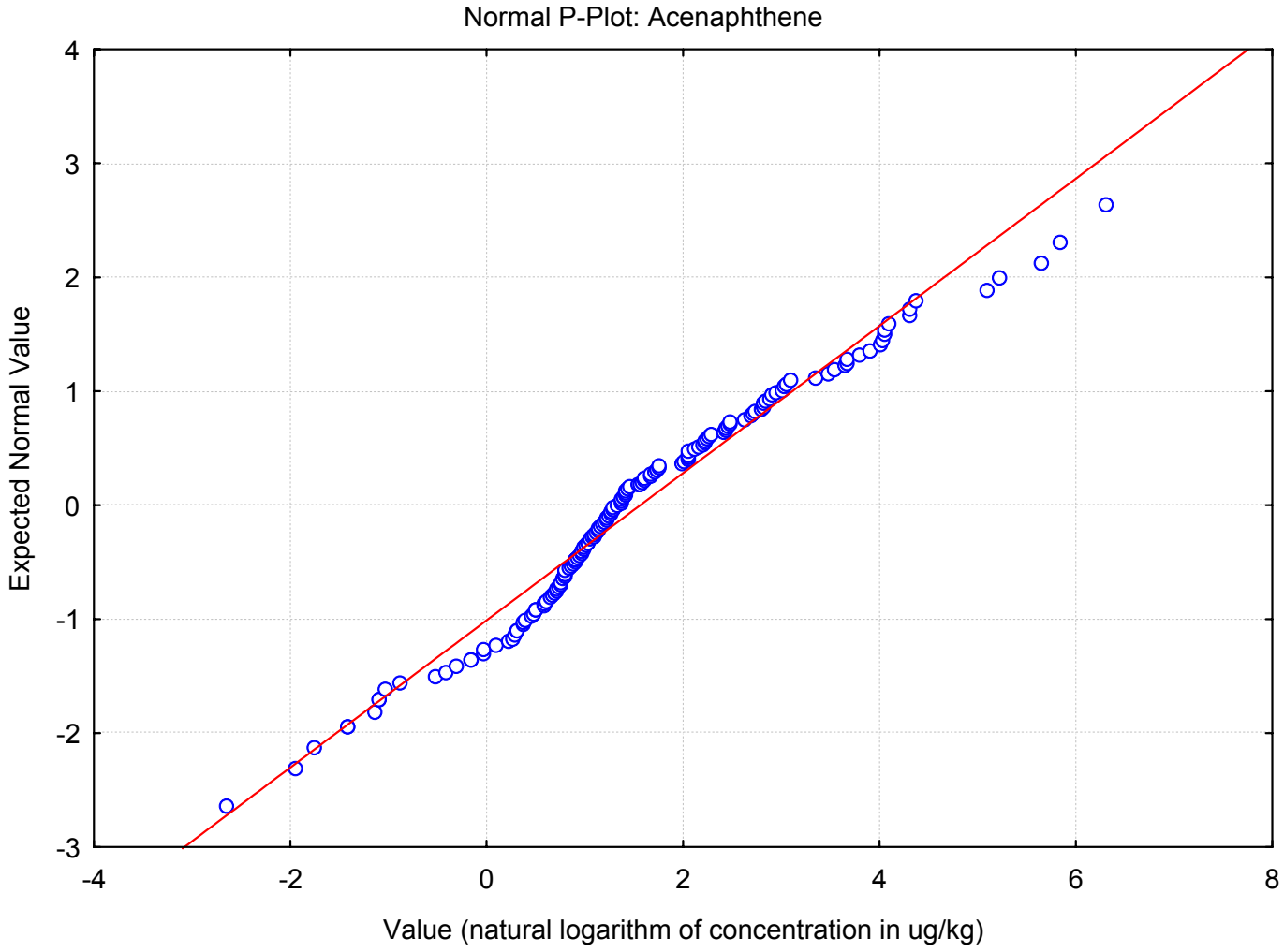


**Figure 12**
**Frequency Histogram for Acenaphthene**

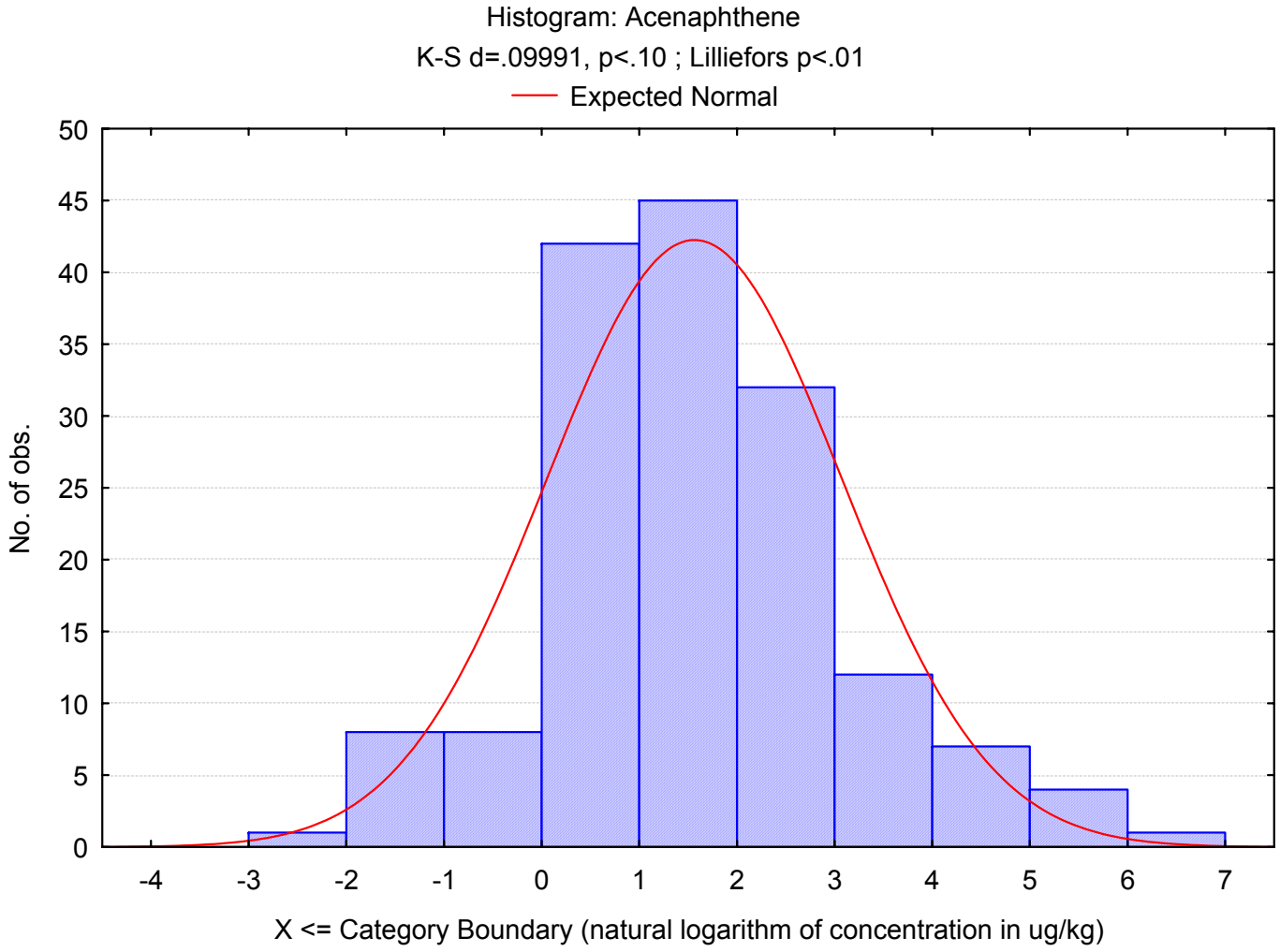


**Figure 13**
**Normal Probability Plot for Fluorene**

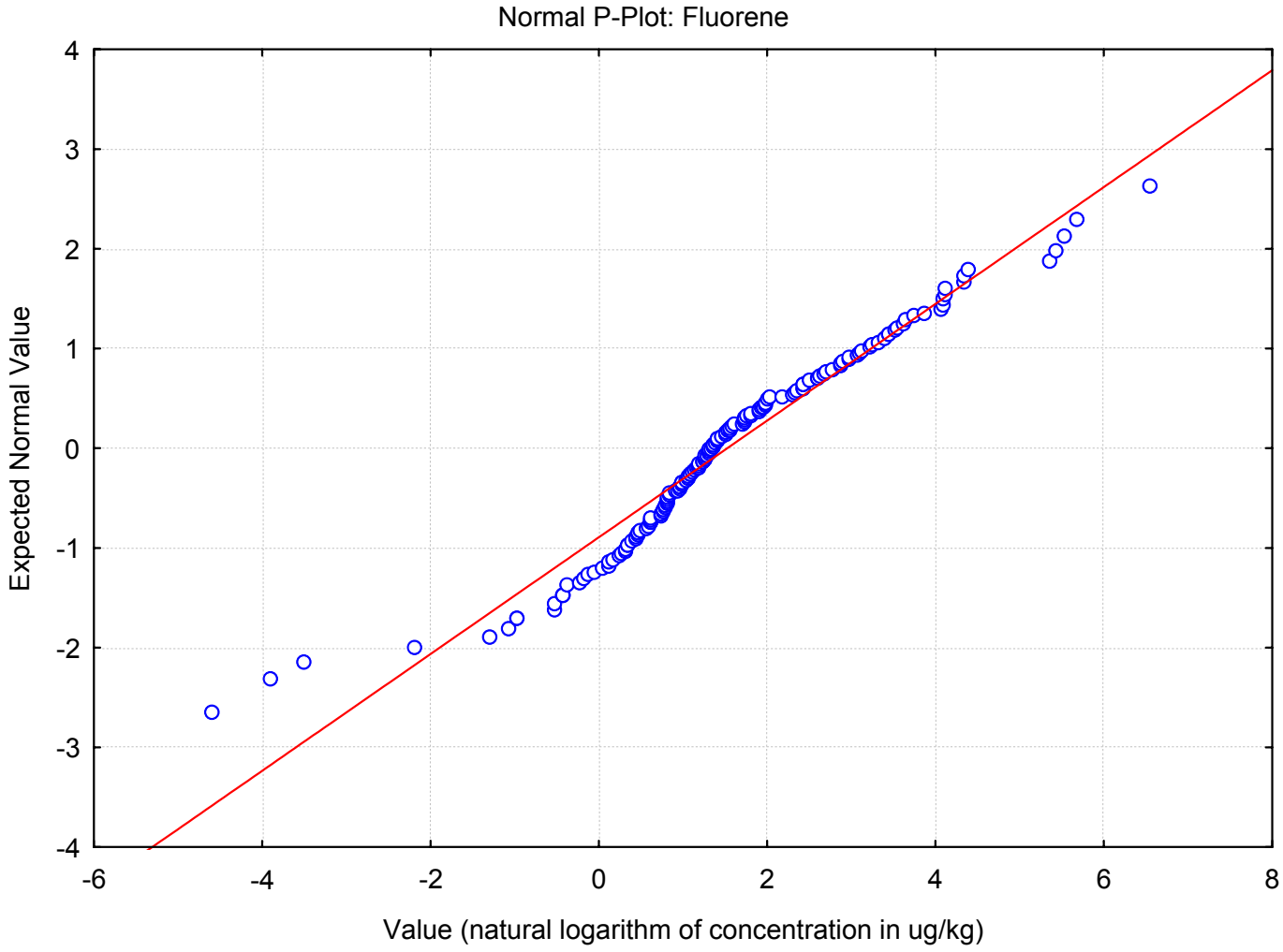


**Figure 14**
**Frequency Histogram for Fluorene**

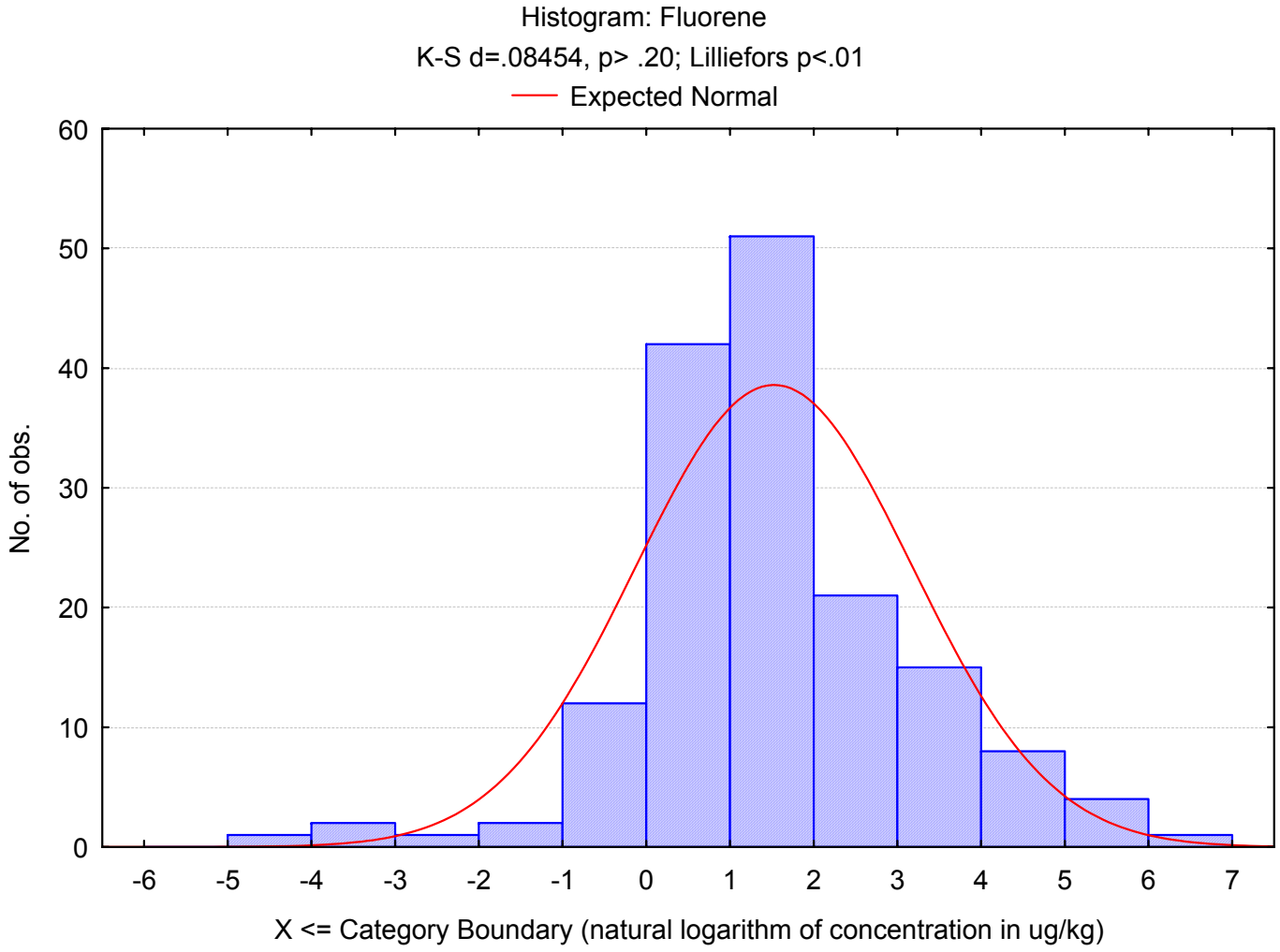


**Figure 15**
**Normal Probability Plot for Phenanthrene**

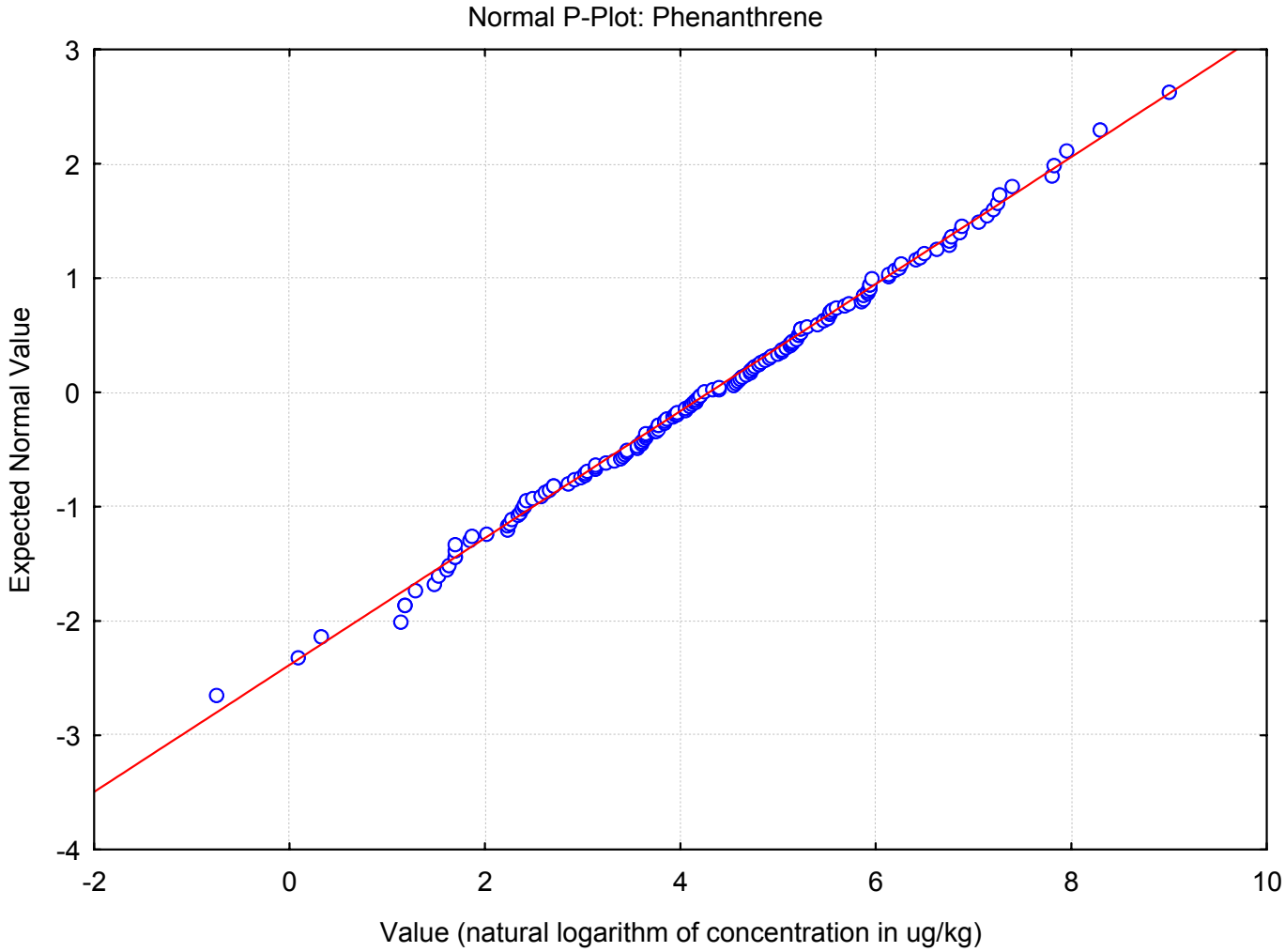


**Figure 16**
**Frequency Histogram for Phenanthrene**

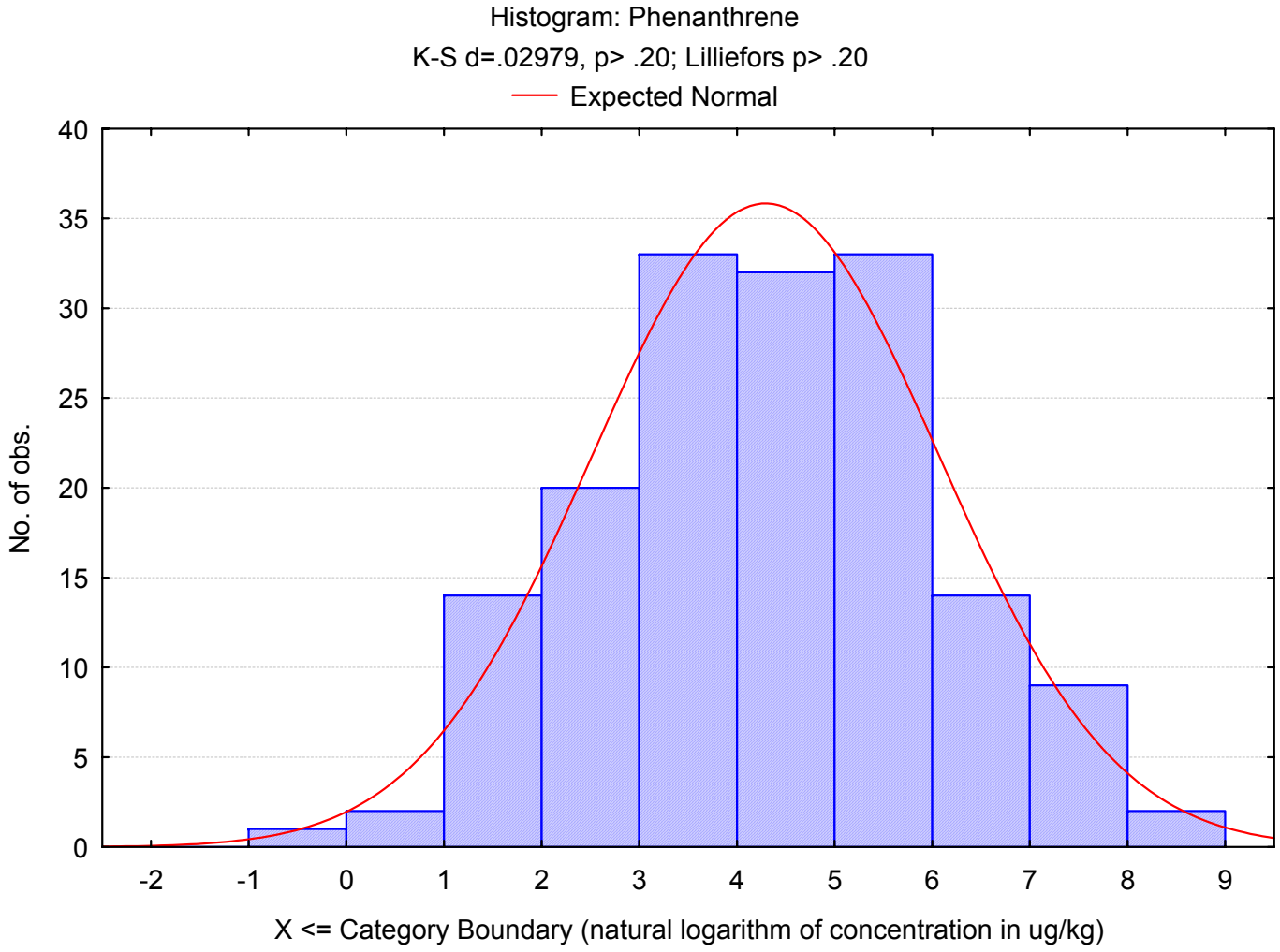


**Figure 17**
**Normal Probability Plot for Anthracene**

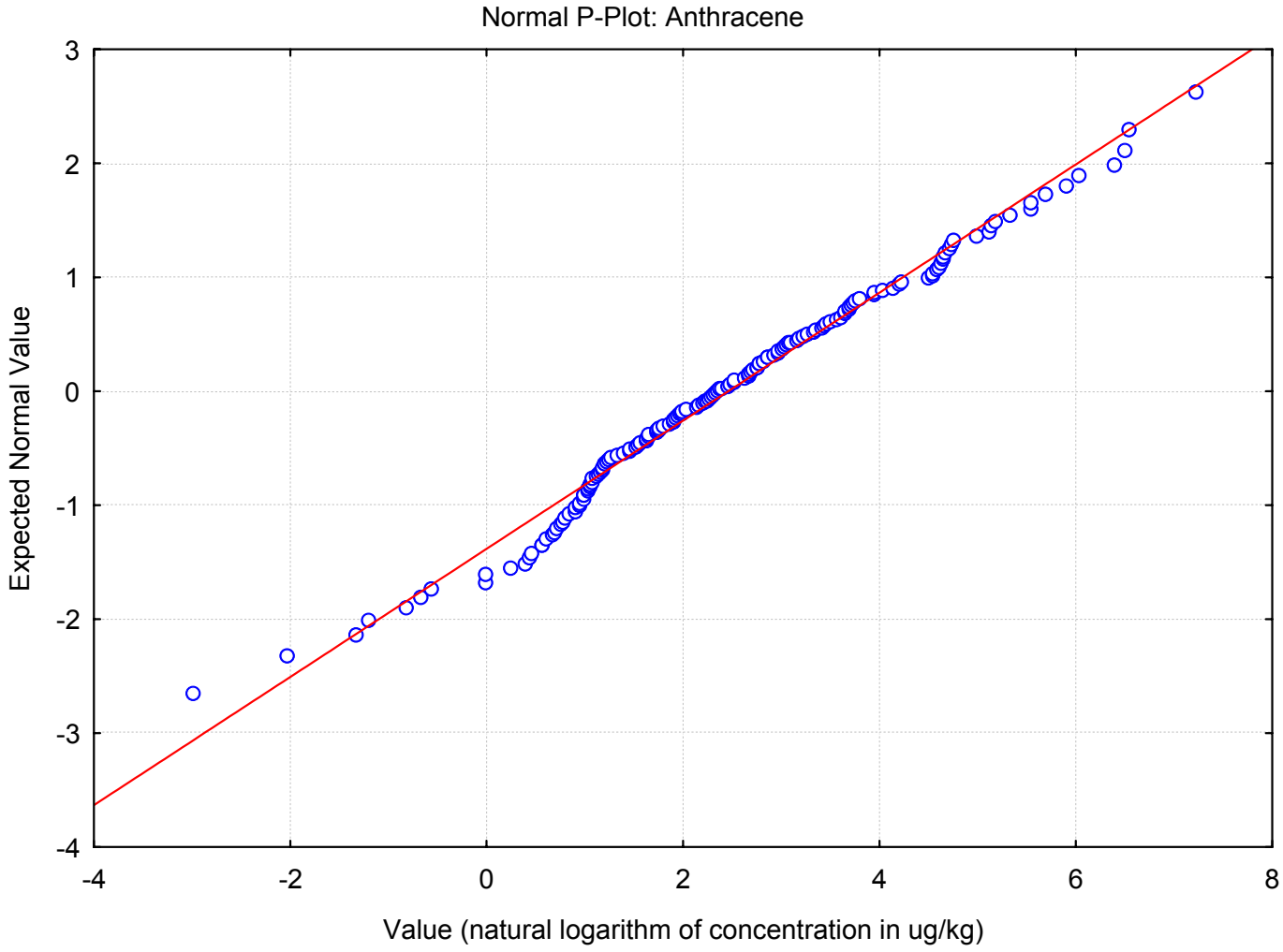


**Figure 18**
**Frequency Histogram for Anthracene**

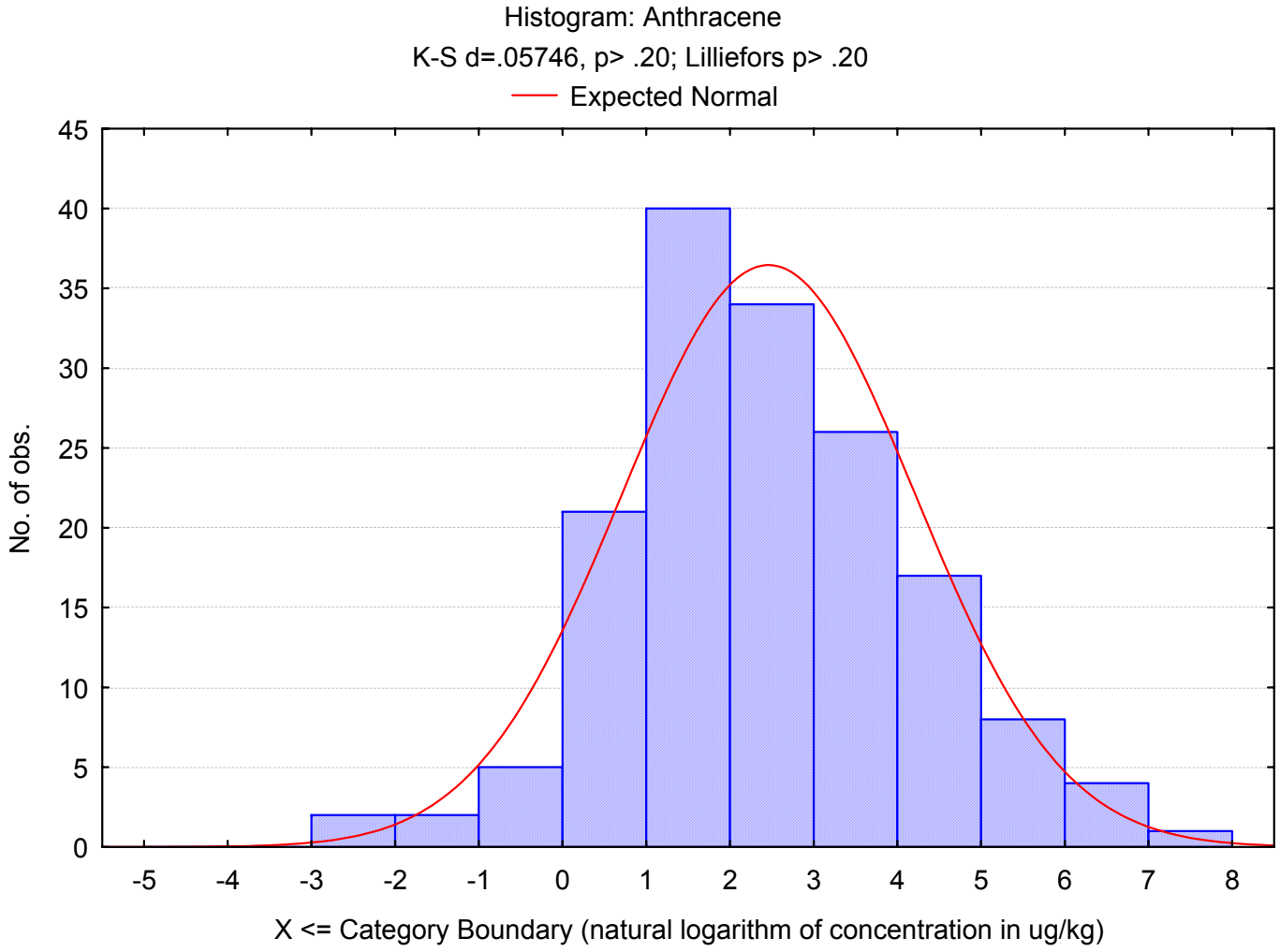


**Figure 19**
**Normal Probability Plot for Fluoranthene**

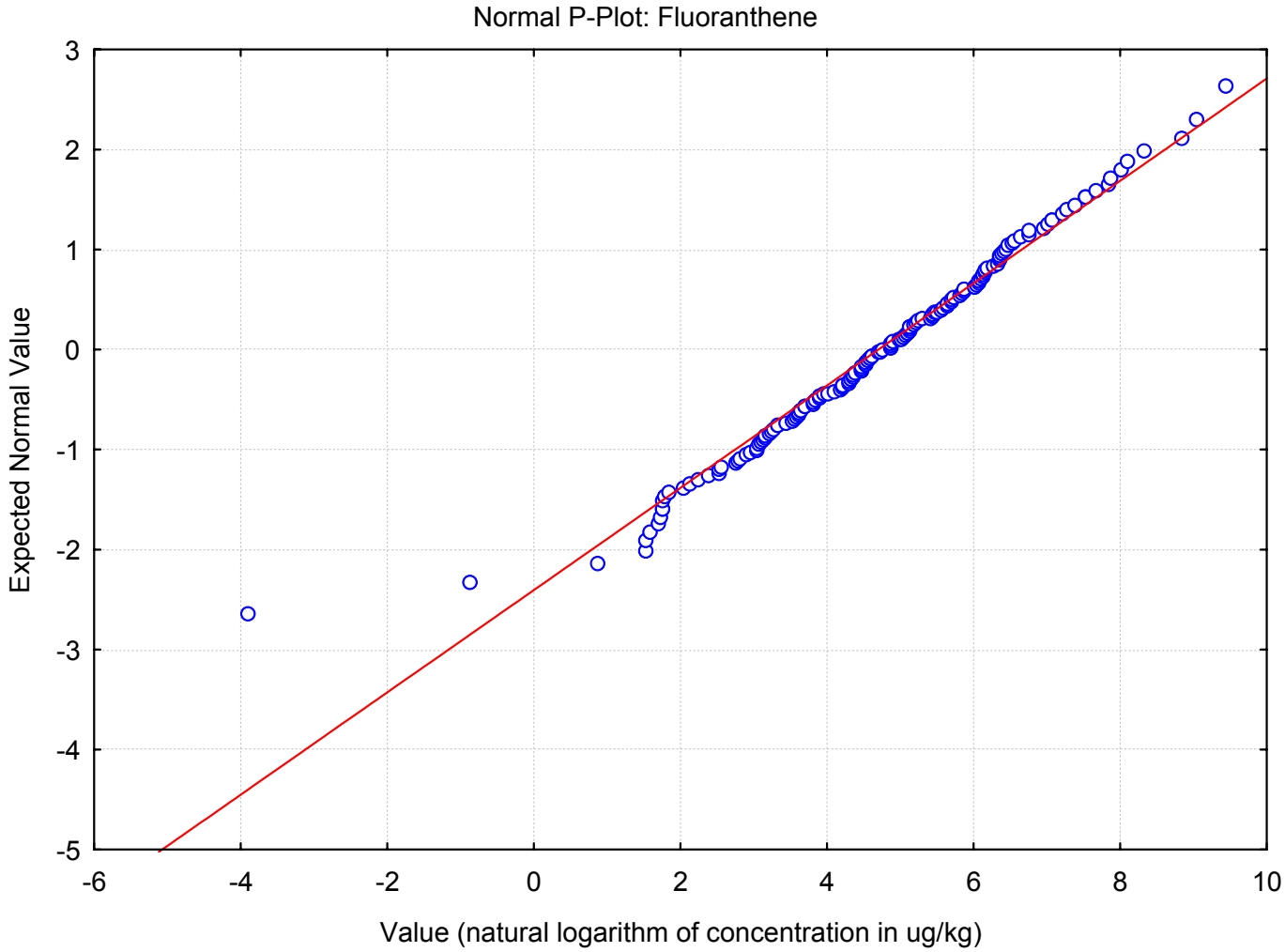


**Figure 20**
**Frequency Histogram for Fluoranthene**

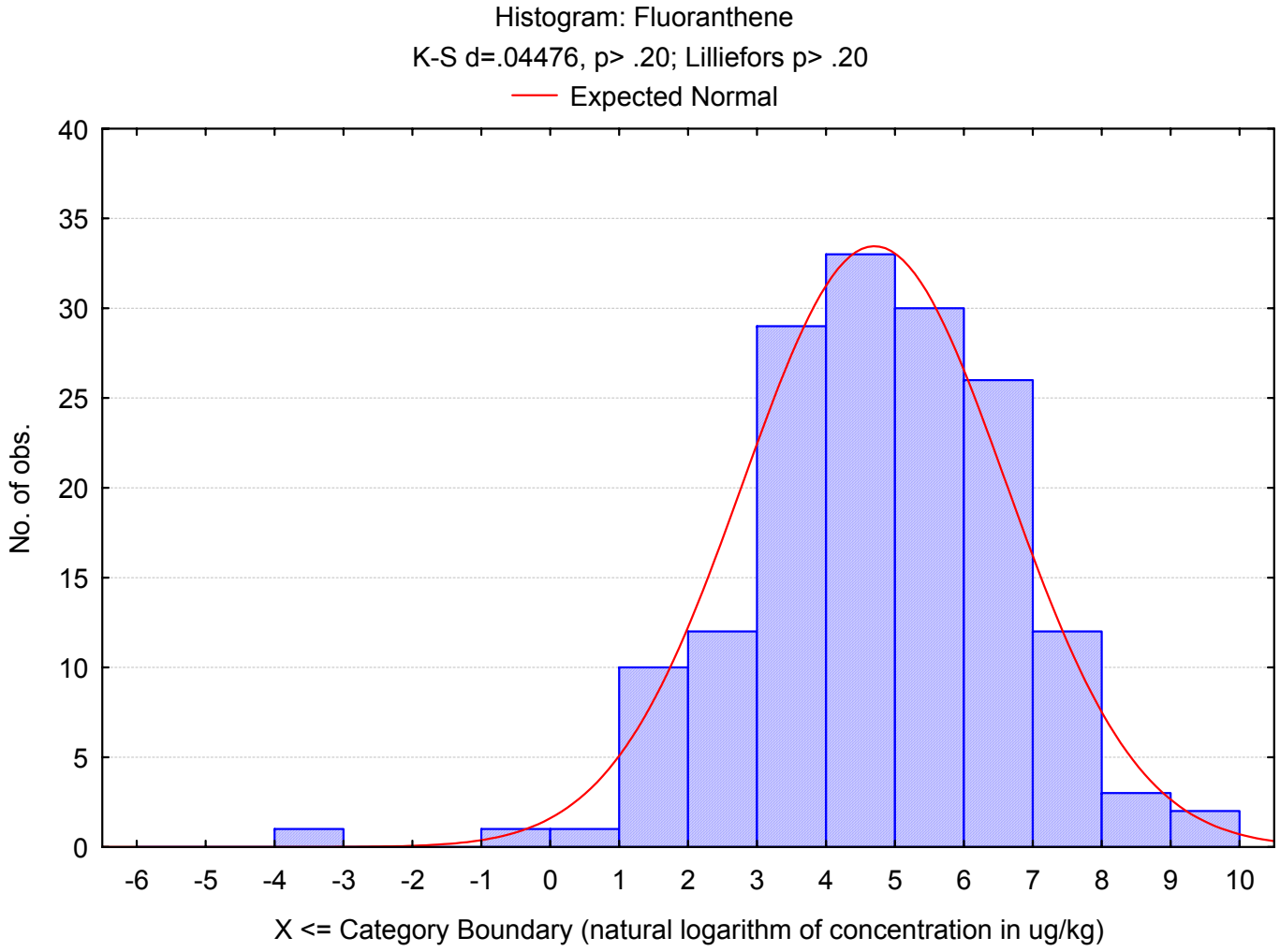


**Figure 21**
**Normal Probability Plot for Pyrene**

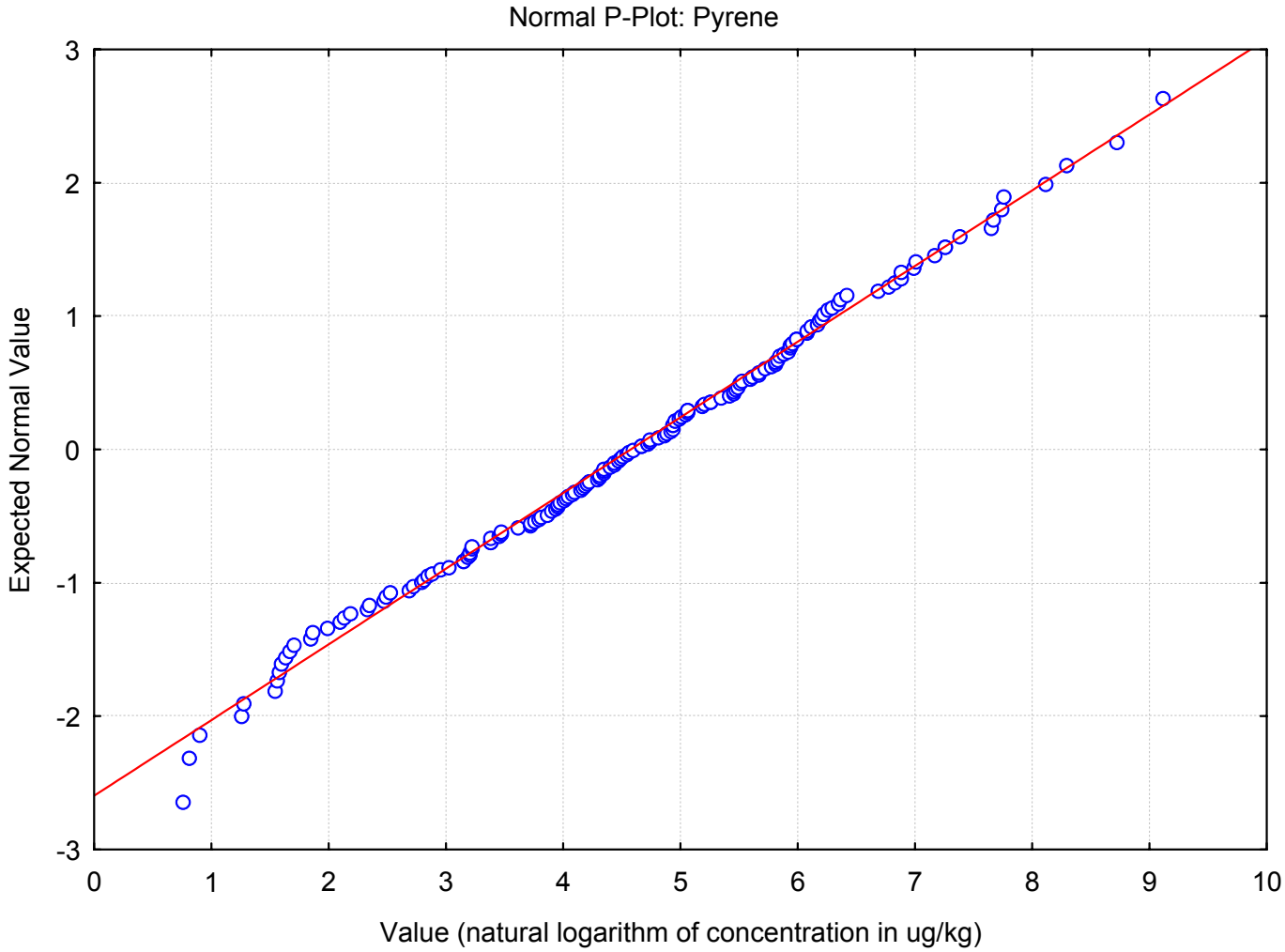


**Figure 22**
**Frequency Histogram for Pyrene**

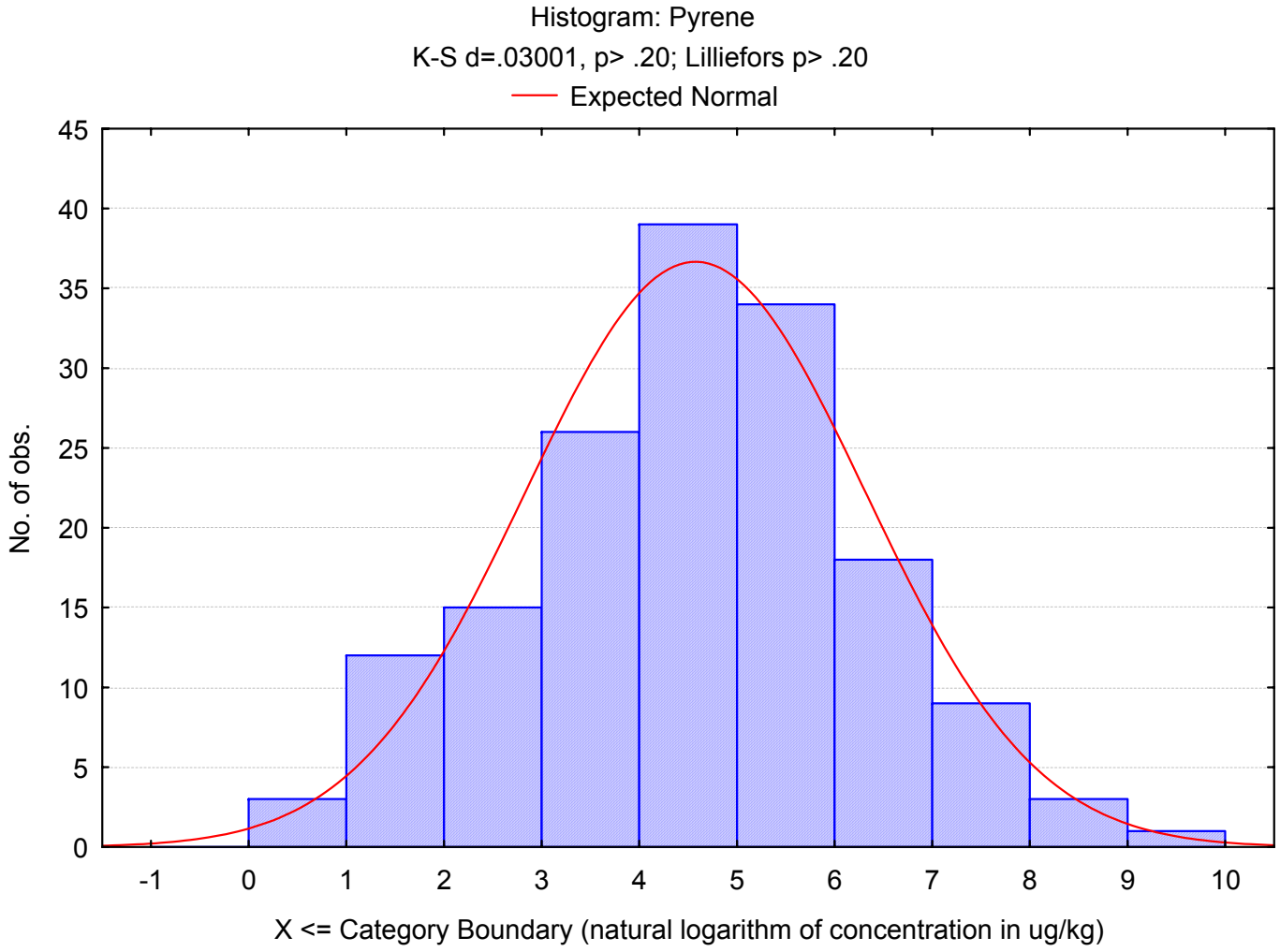


**Figure 23**
**Normal Probability Plot for Benz(a)anthracene**

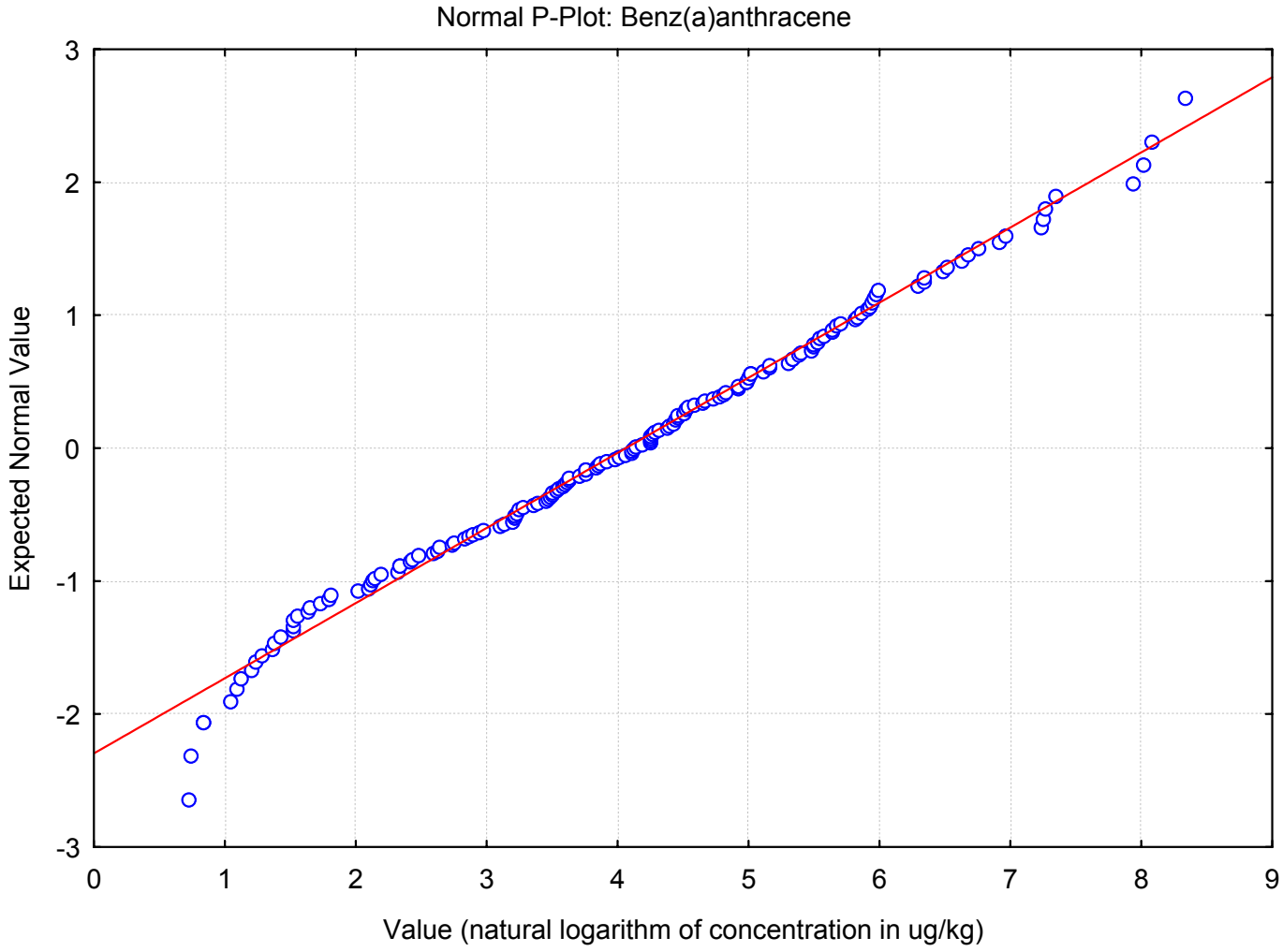


**Figure 24**
**Frequency Histogram for Benz(a)anthracene**

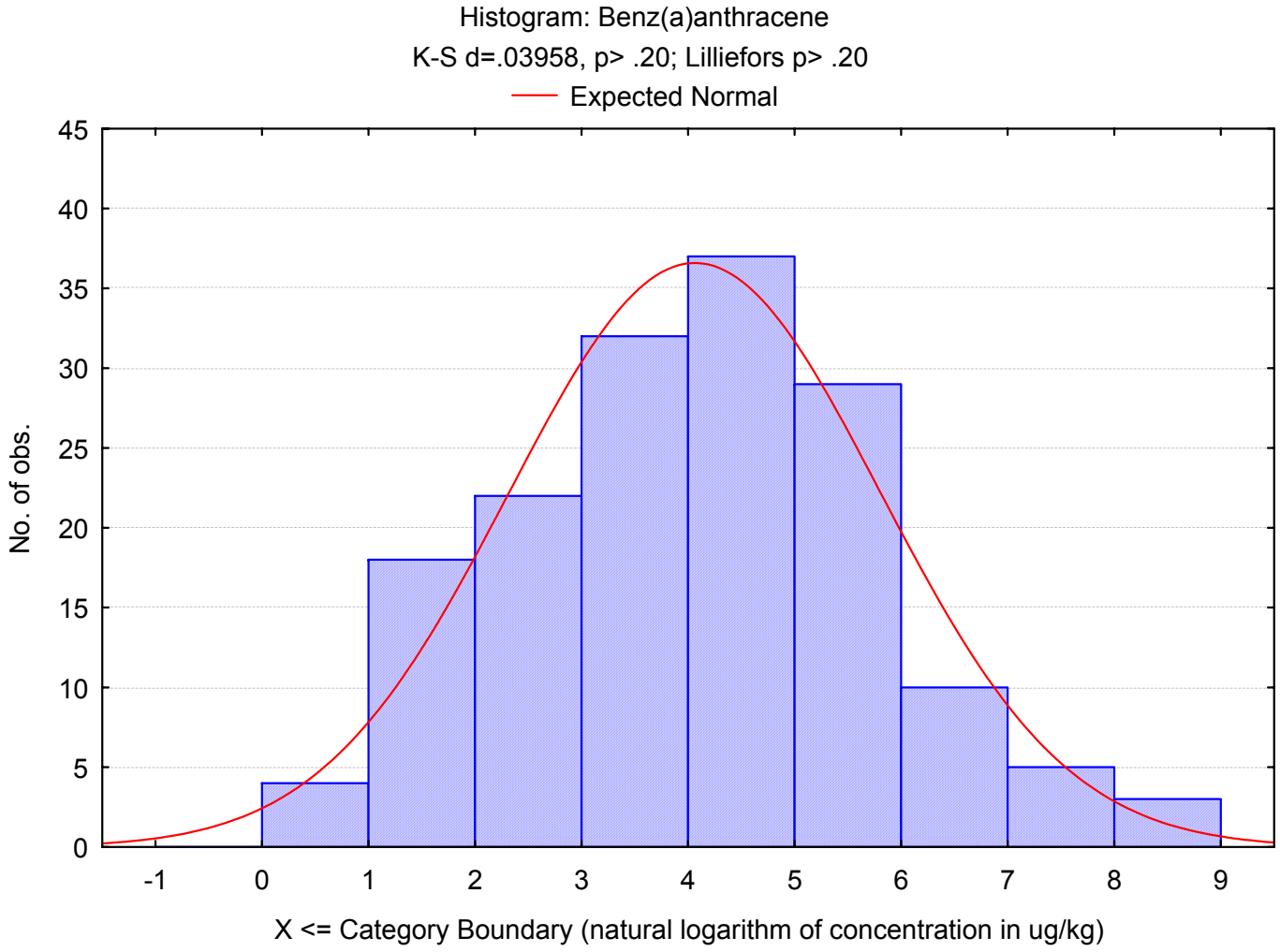


**Figure 25**
**Normal Probability Plot for Chrysene**

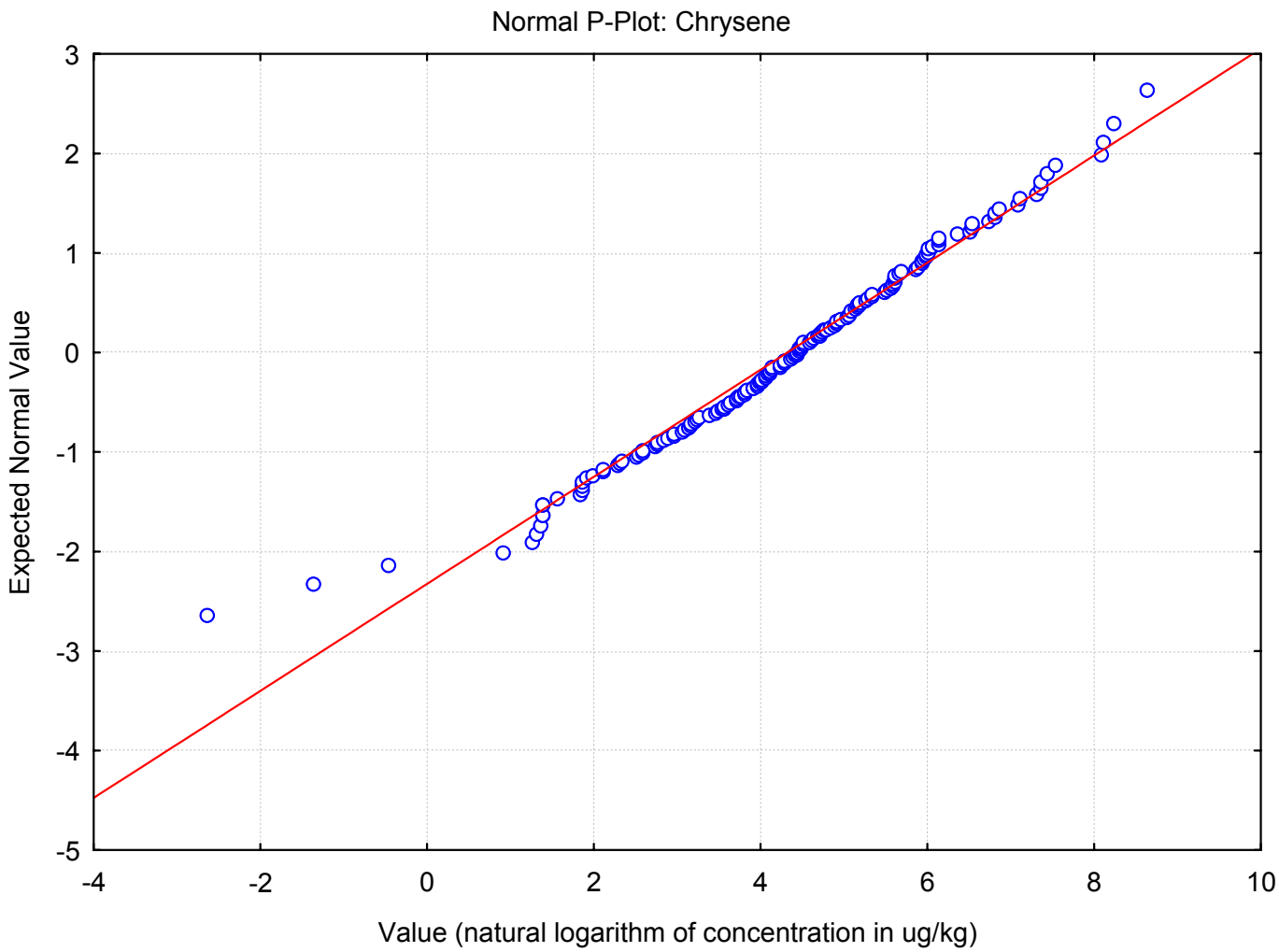


**Figure 26**
**Frequency Histogram for Chrysene**

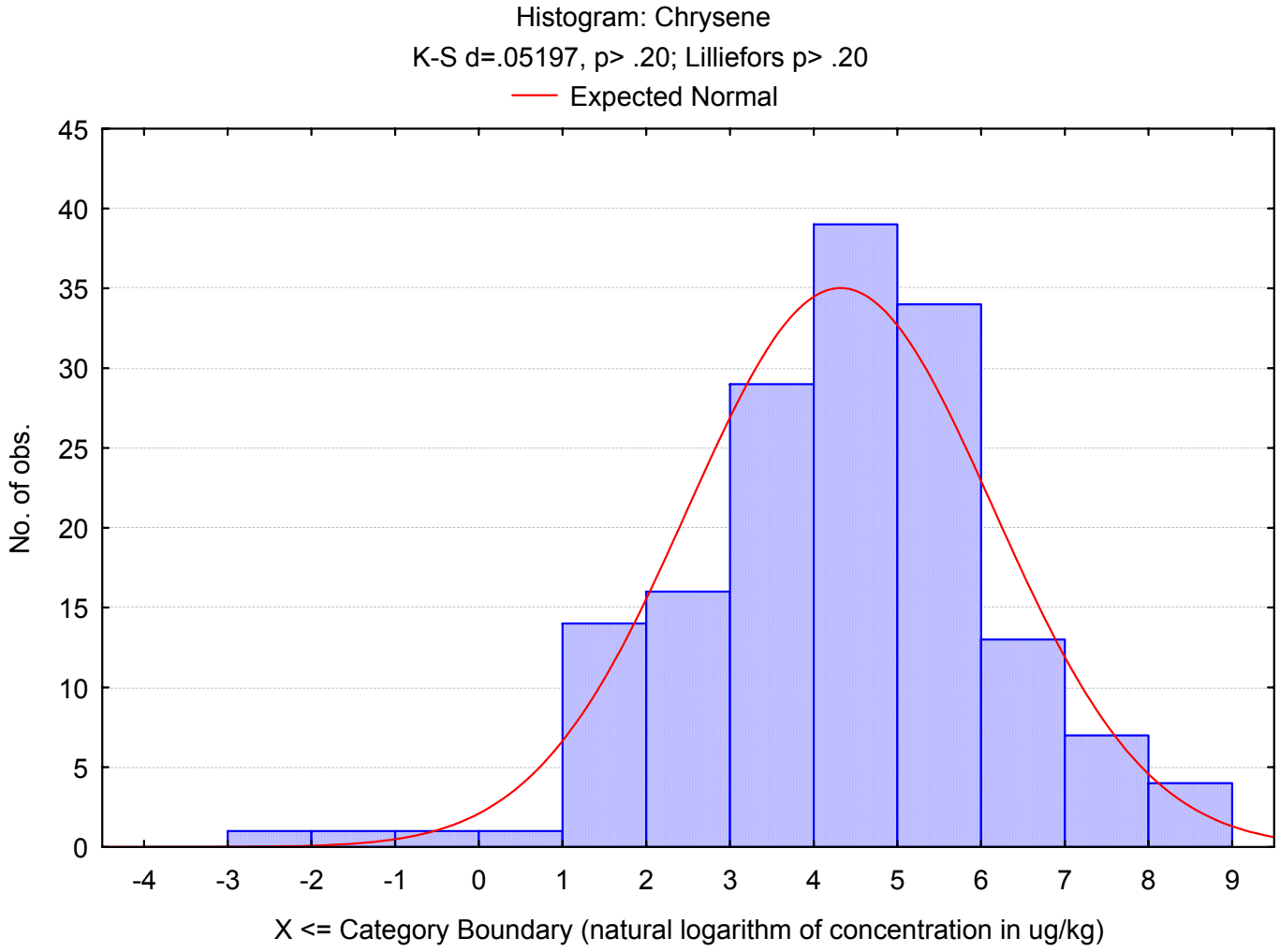


**Figure 27**
**Normal Probability Plot for Benzo(b)fluoranthene**

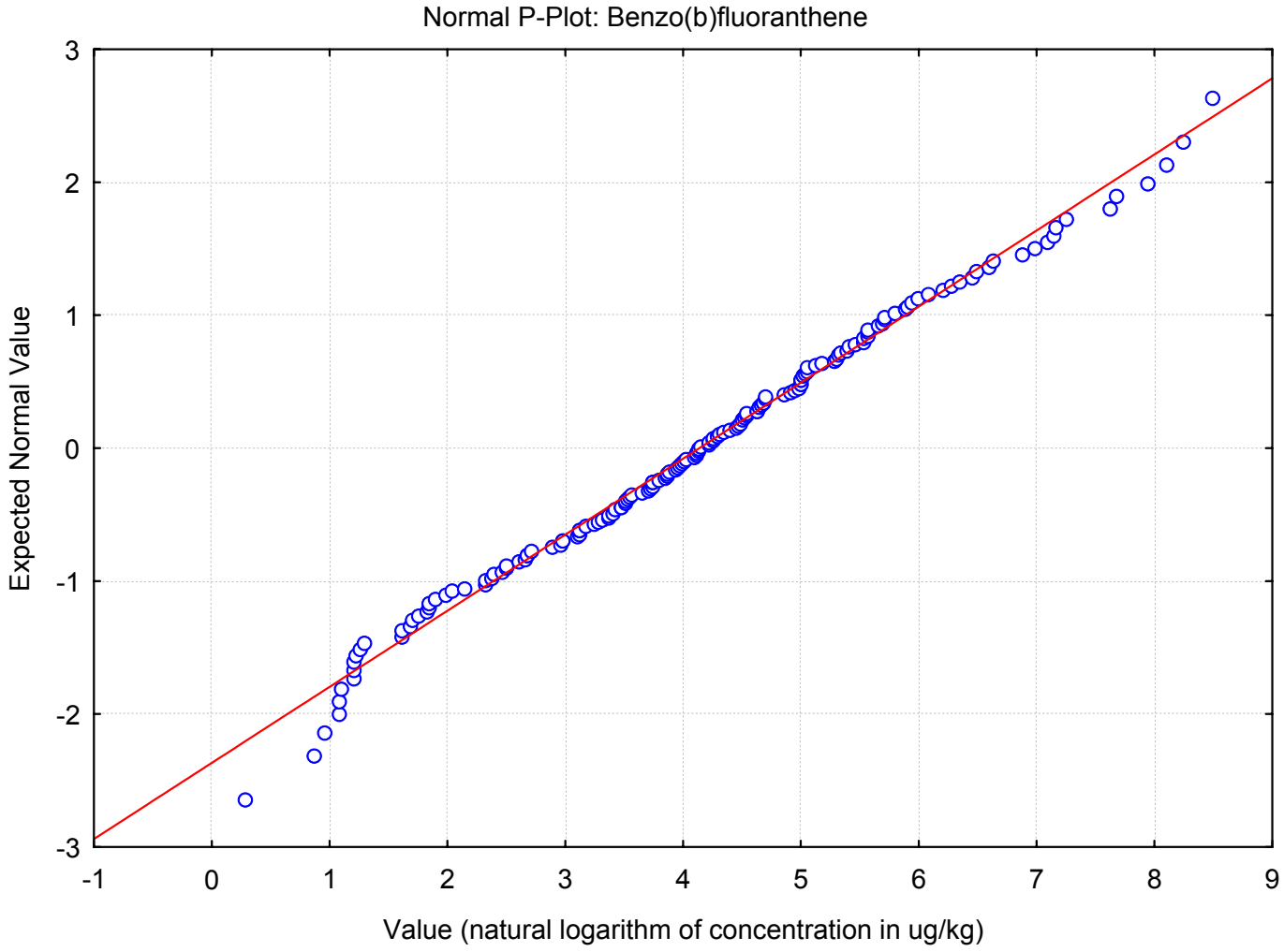


**Figure 28**
**Frequency Histogram for Benzo(b)fluoranthene**

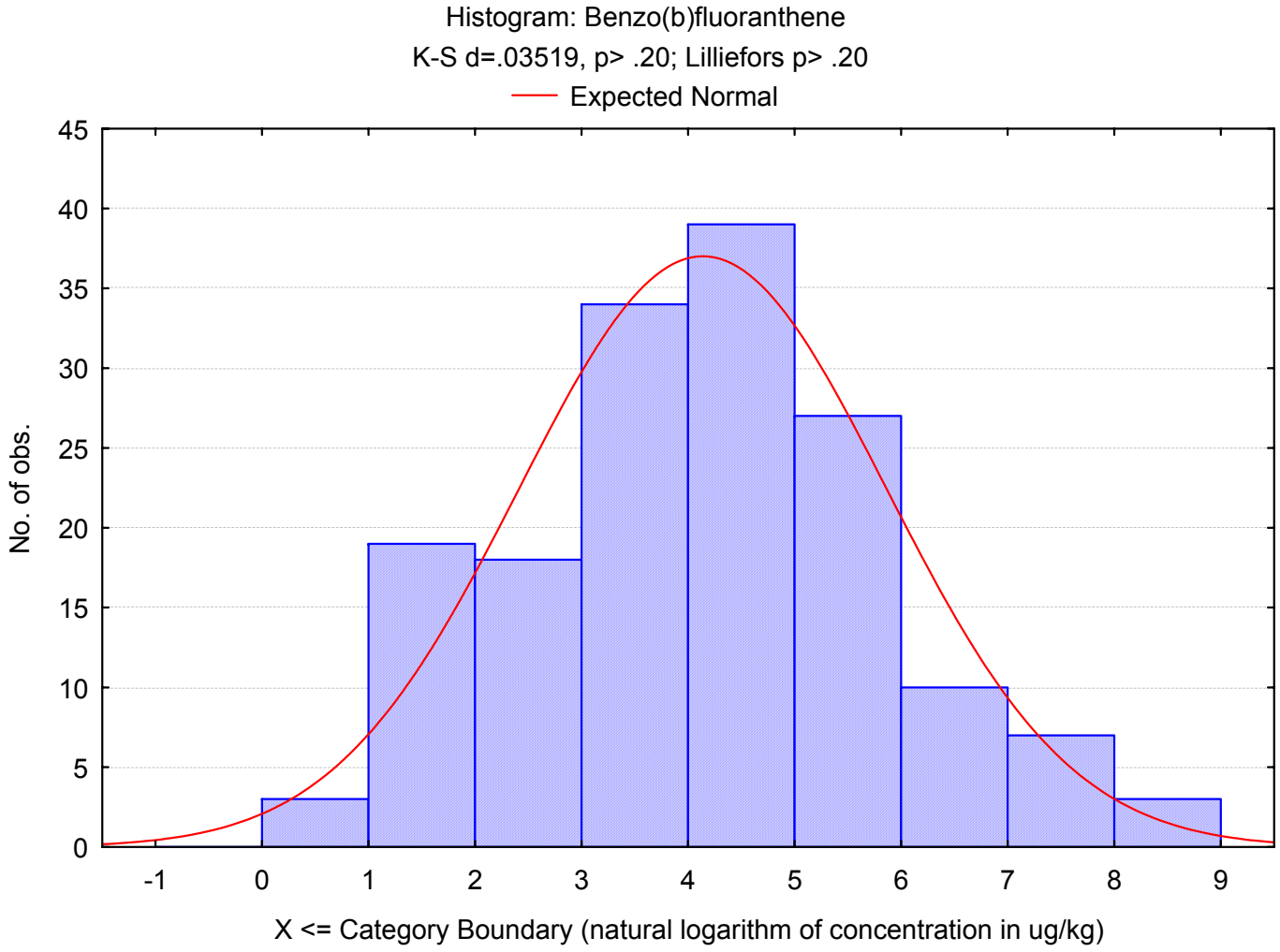


**Figure 29**
**Normal Probability Plot for Benzo(k)fluoranthene**

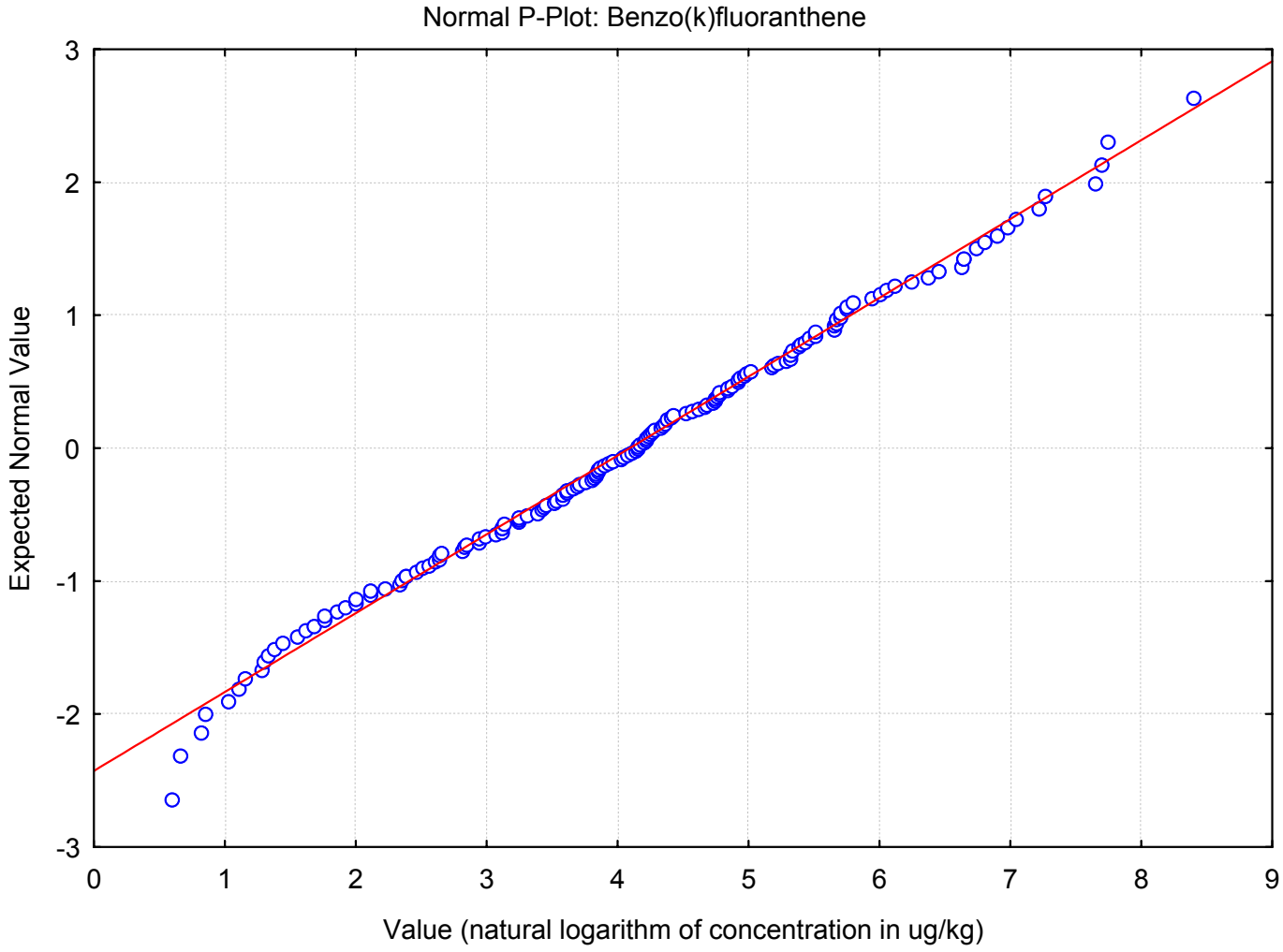


**Figure 30**
**Frequency Histogram for Benzo(k)fluoranthene**

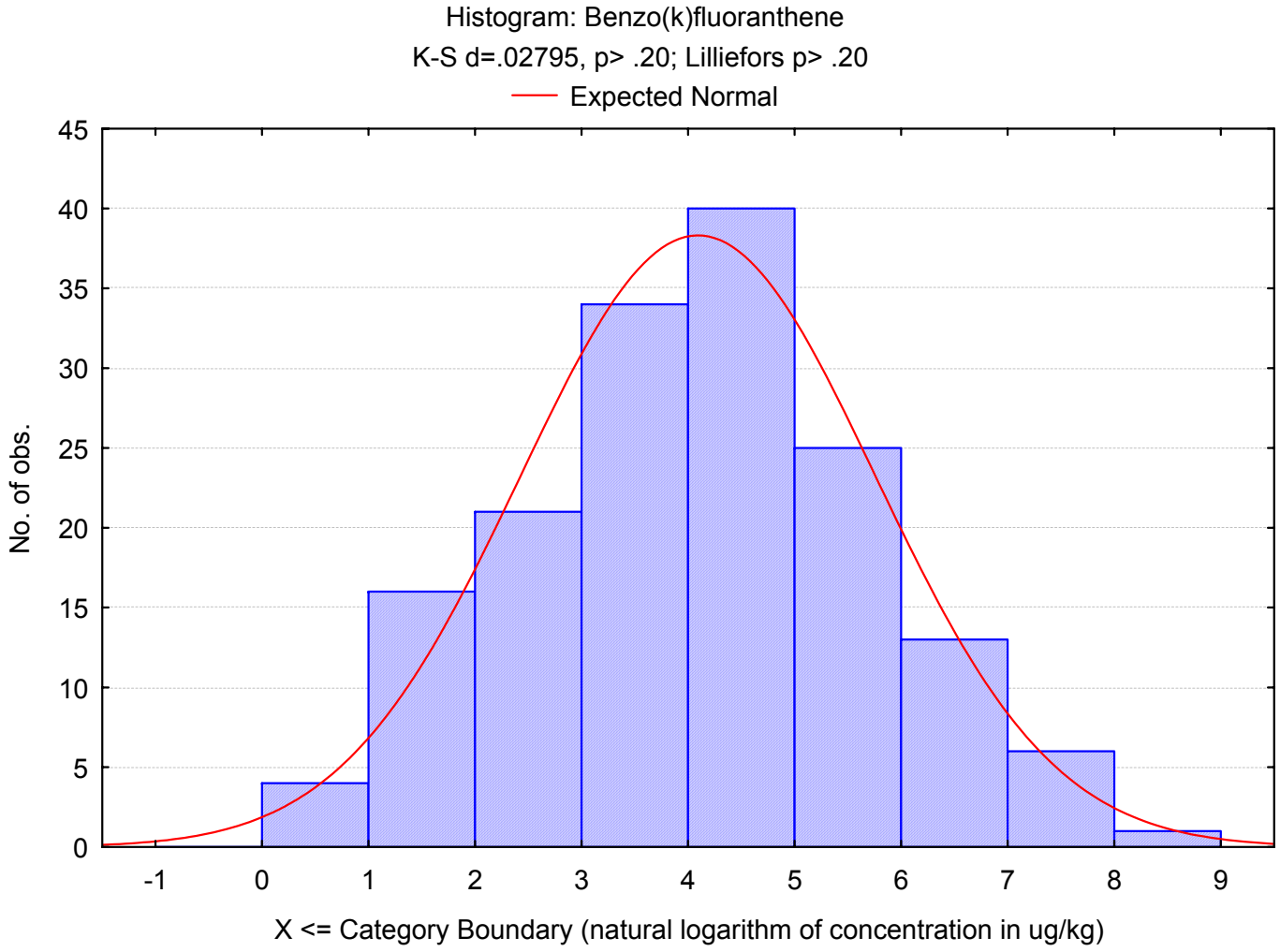


**Figure 31**
**Normal Probability Plot for Benzo(a)pyrene**

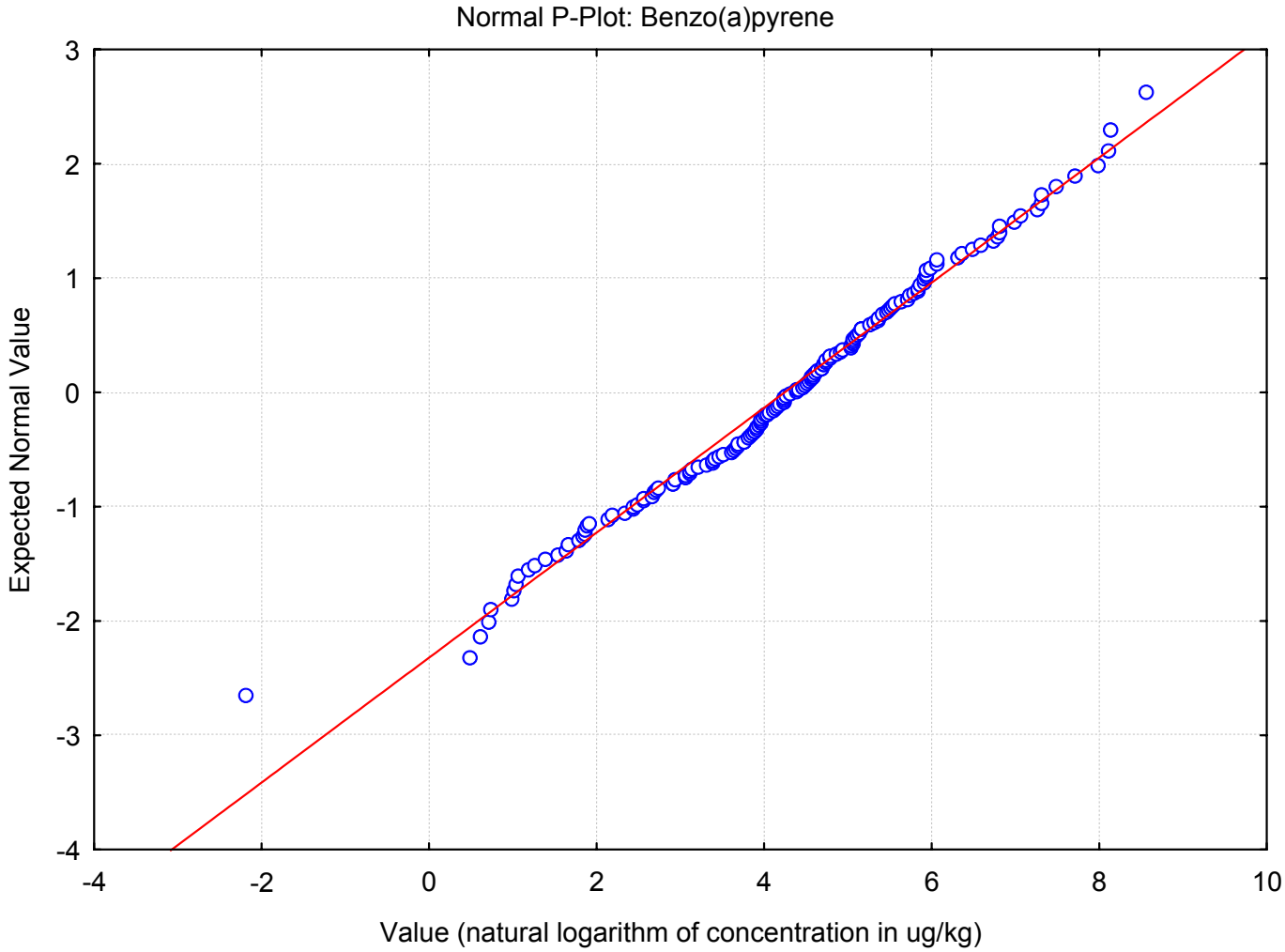


**Figure 32**
**Frequency Histogram for Benzo(a)pyrene**

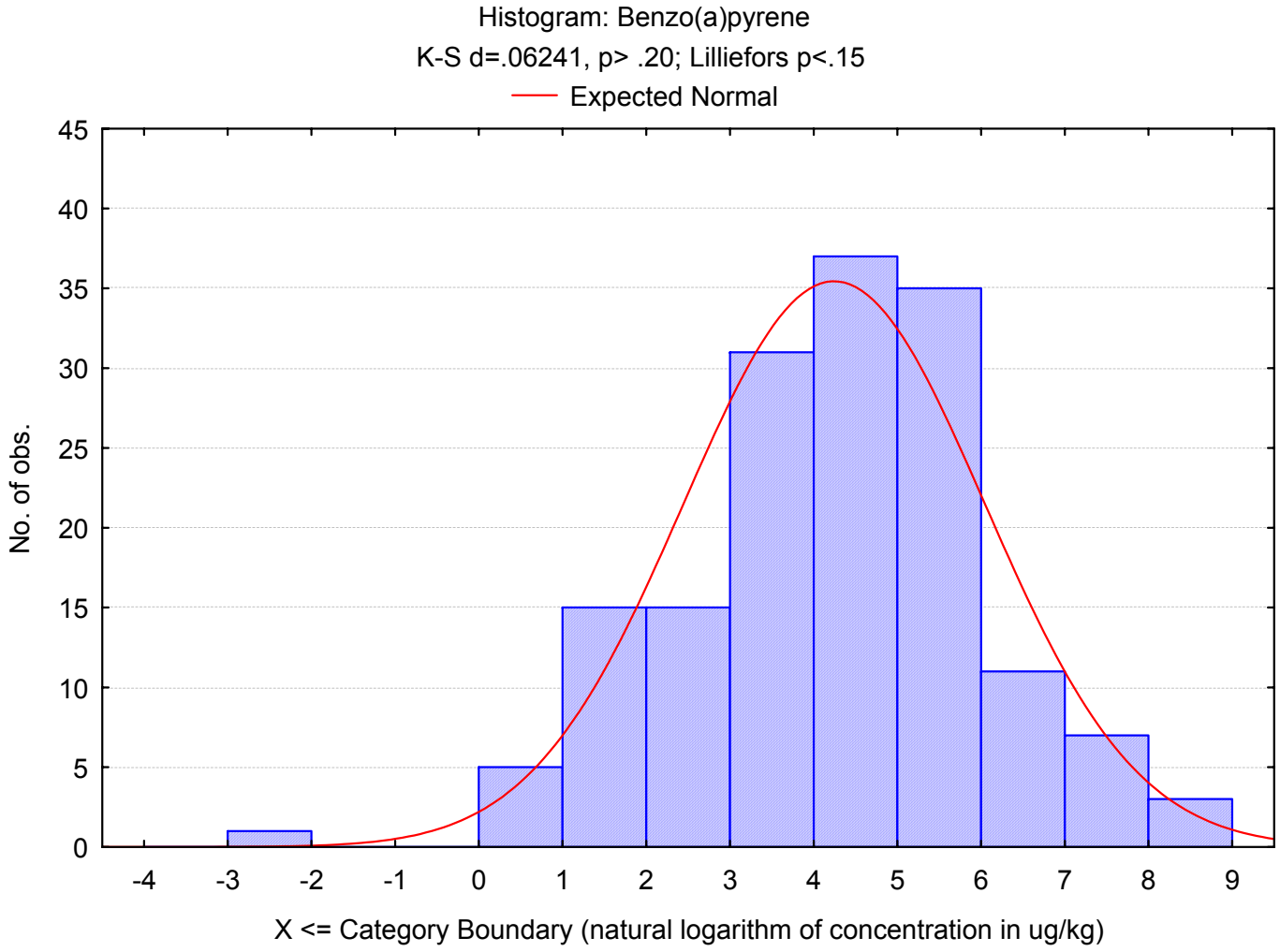


**Figure 33**
**Normal Probability Plot for Indeno(1,2,3-cd)pyrene**

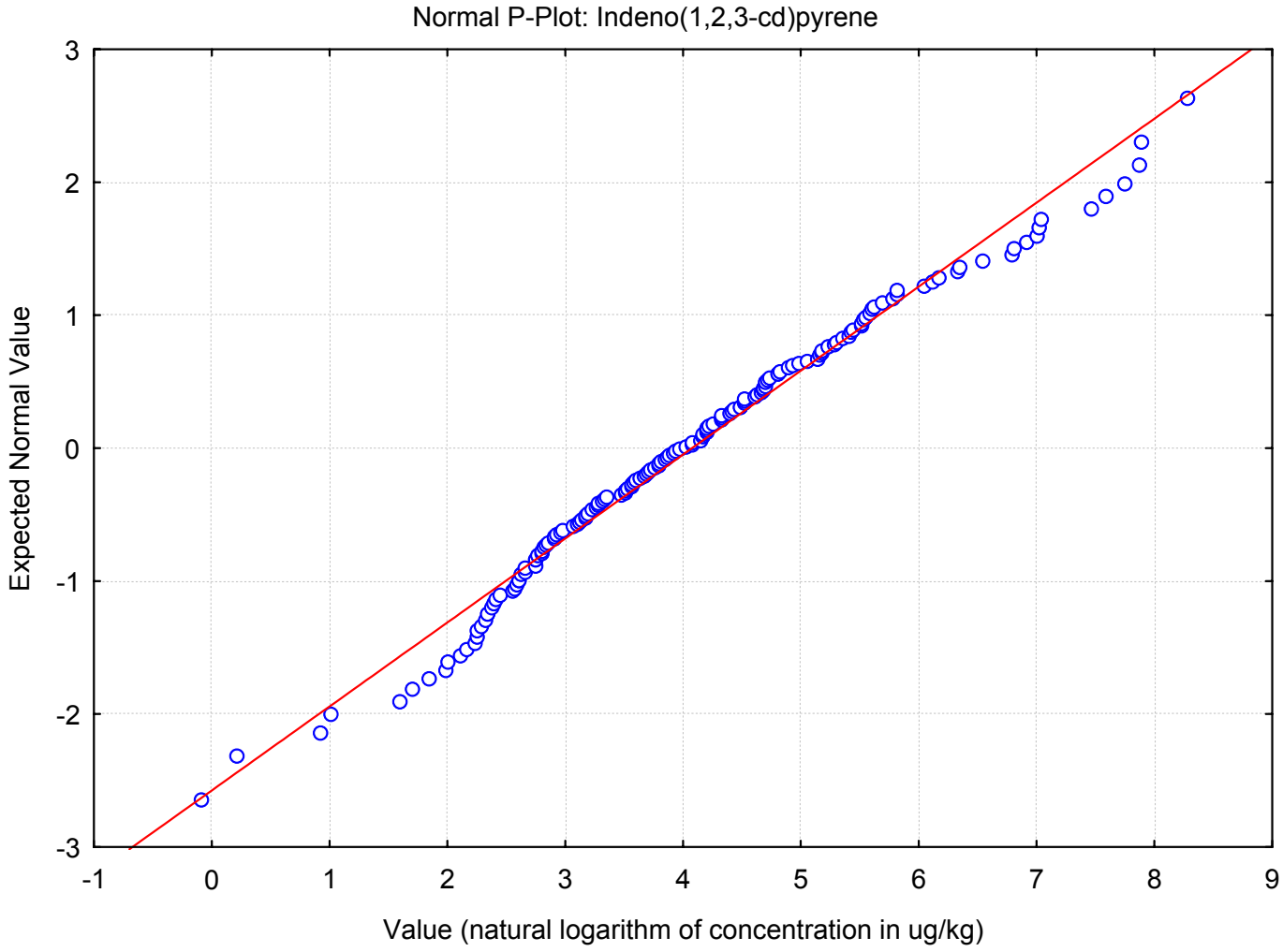


**Figure 34**
**Frequency Histogram for Indeno(1,2,3-cd)pyrene**

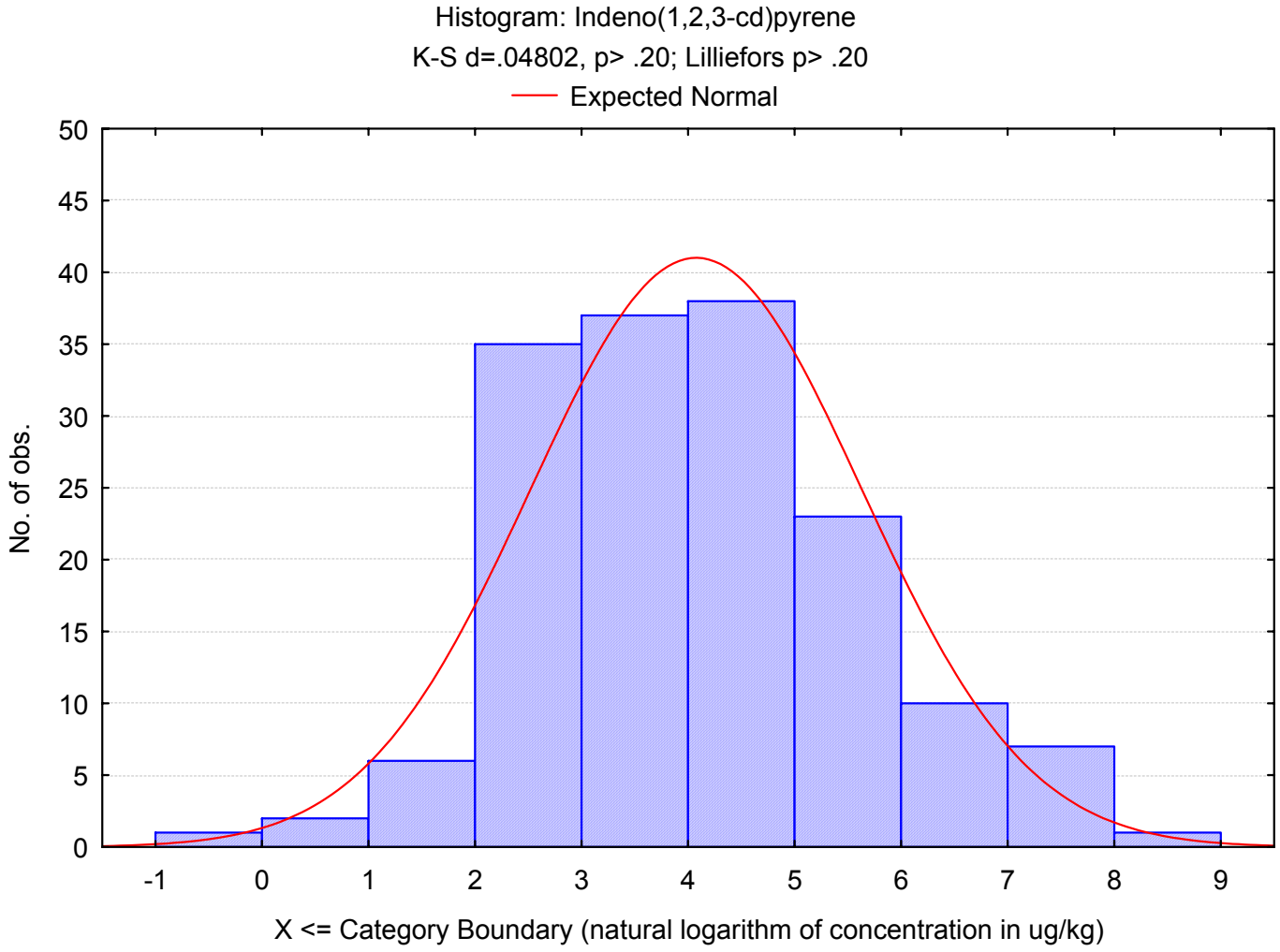


**Figure 35**
**Normal Probability Plot for Dibenz(a,h)anthracene**

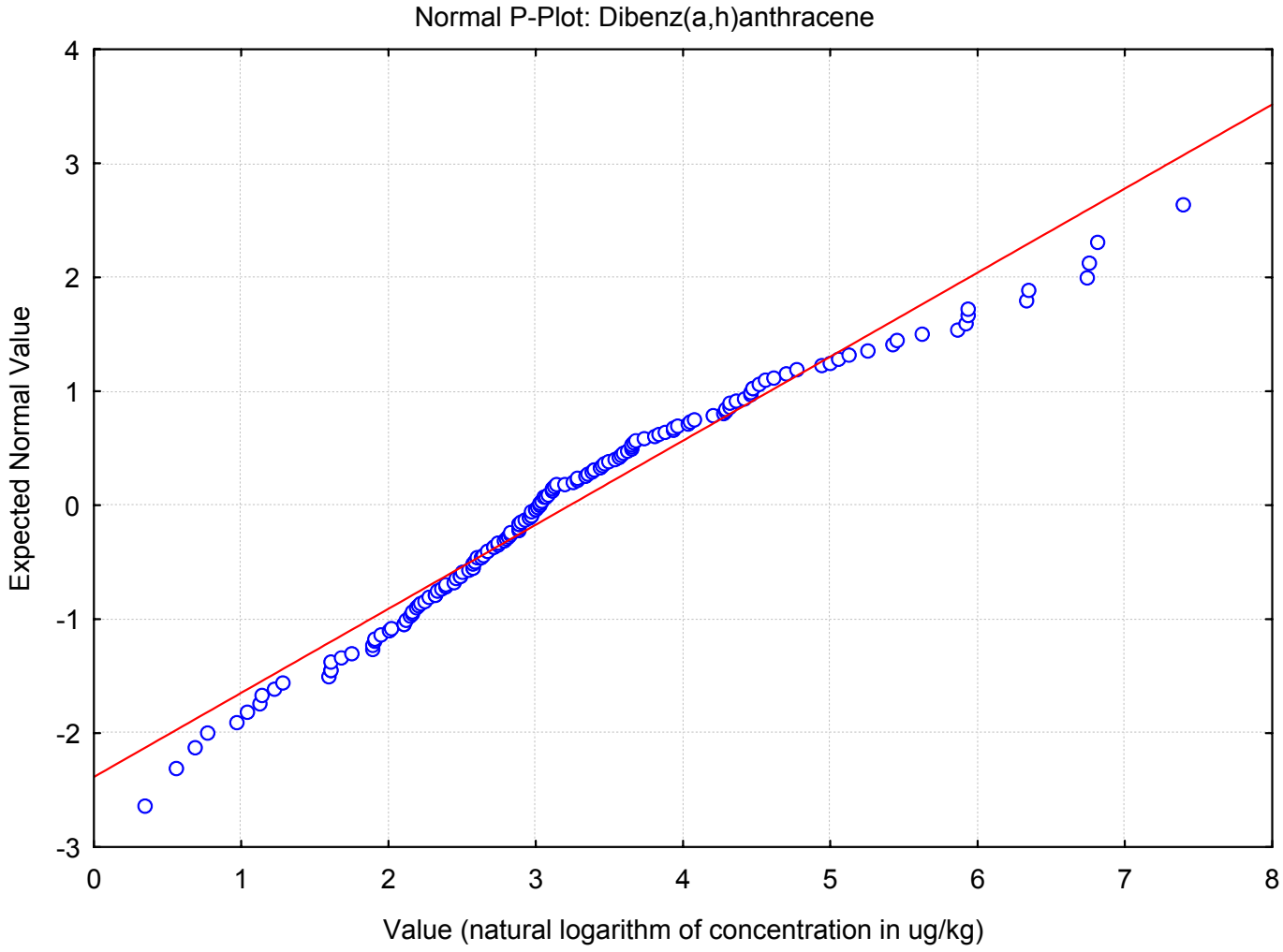


**Figure 36**
**Frequency Histogram for Dibenz(a,h)anthracene**

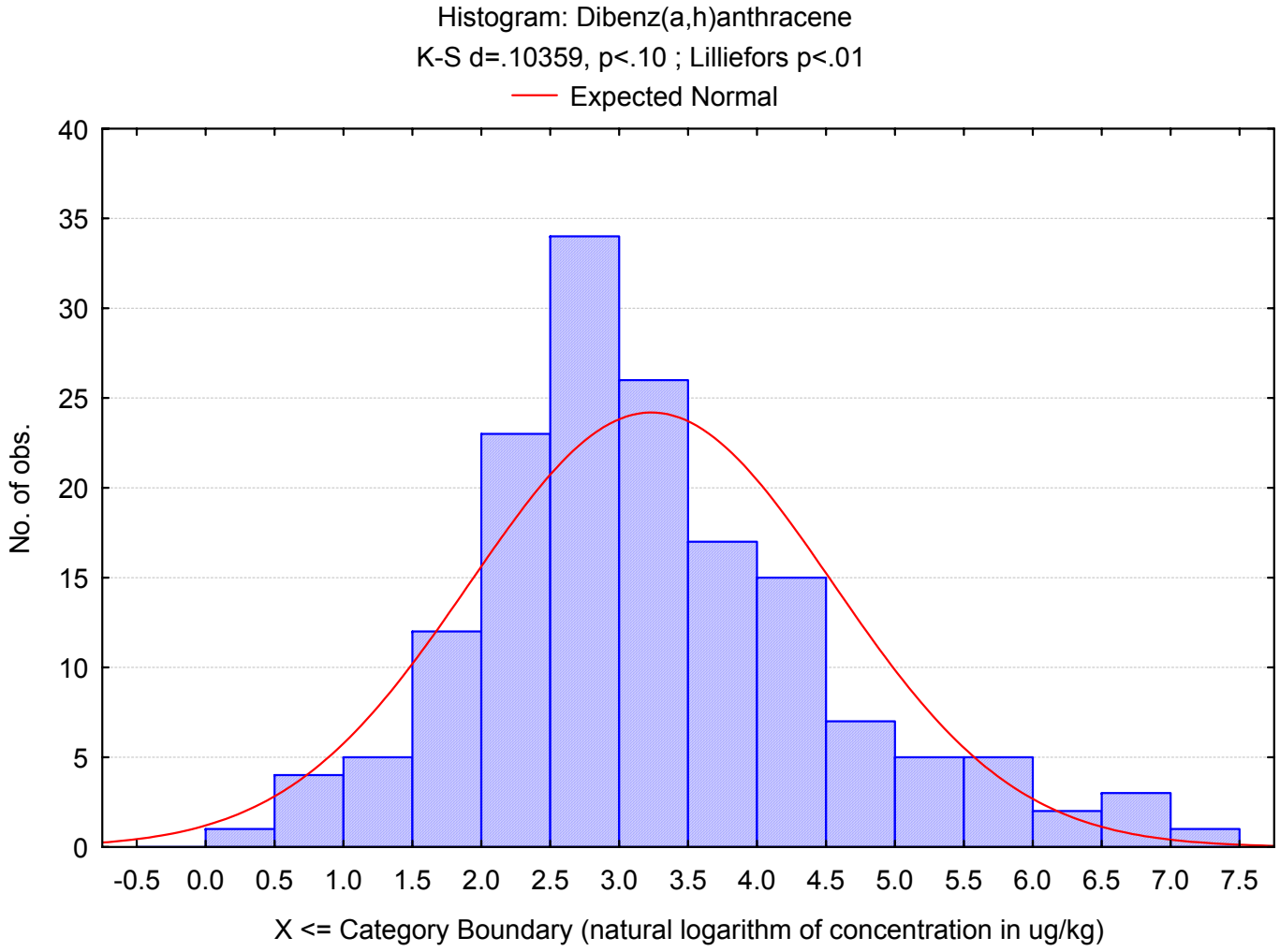


**Figure 37**
**Normal Probability Plot for Benzo(g,h,i)perylene**

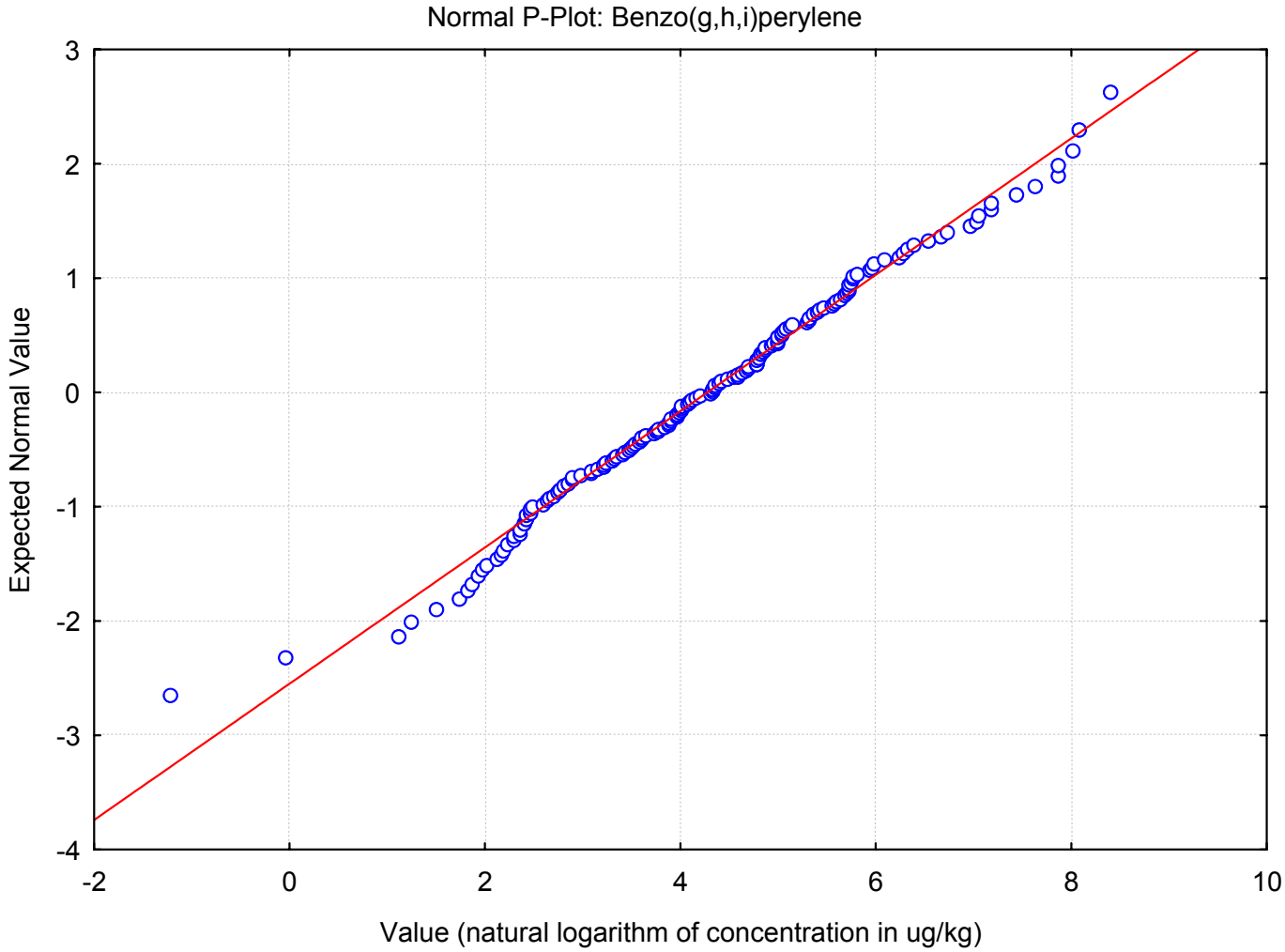
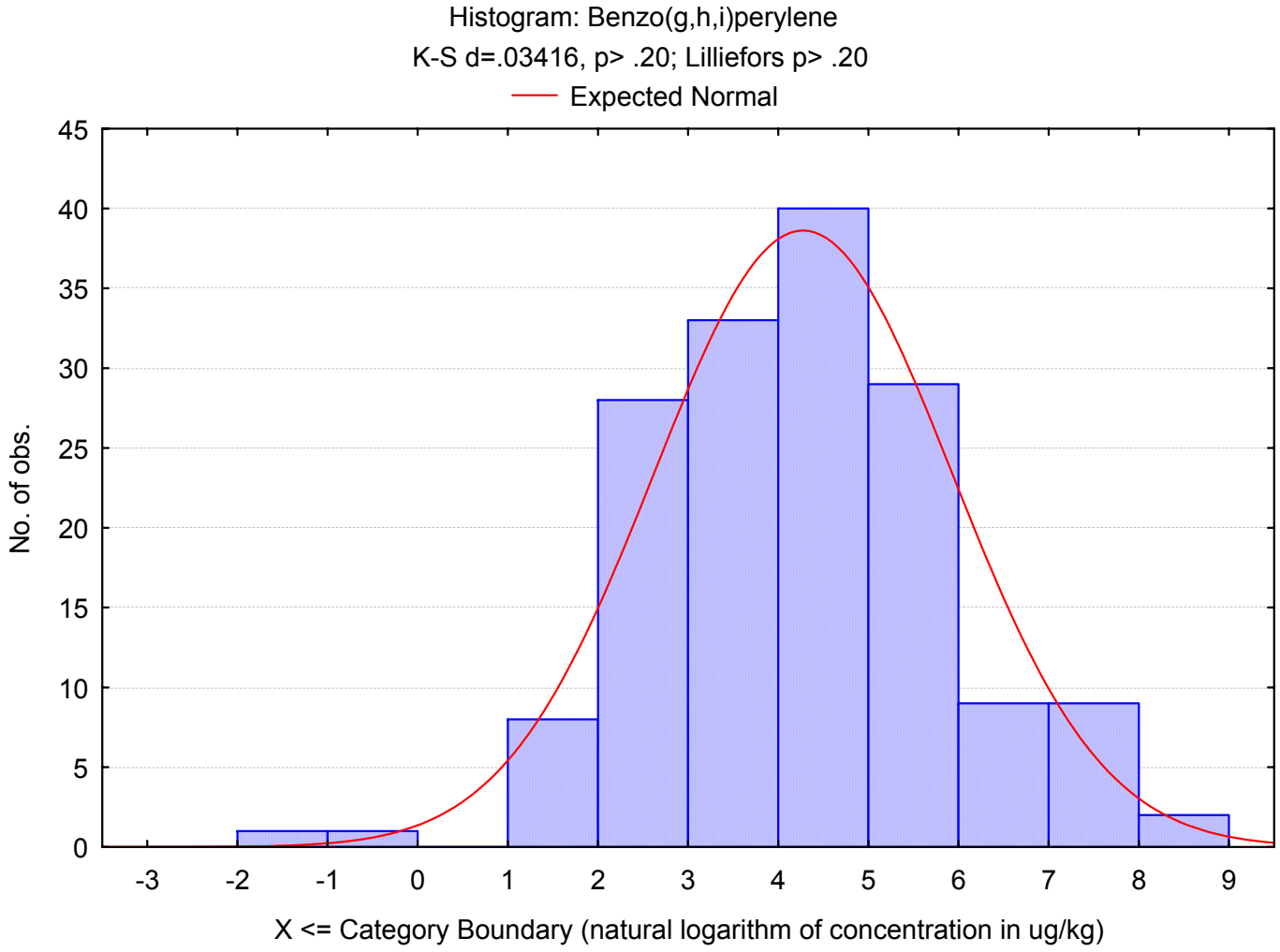


**Figure 38**
**Frequency Histogram for Benzo(g,h,i)perylene**



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