REPORT

ANNUAL DATA EVALUATION MONITORING REPORT
YEAR 2 LONG-TERM PILOT CAP MONITORING
REMOVAL ACTION NW NATURAL "GASCO" SITE

Prepared for

U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Prepared by

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Portland, Oregon 97224

On behalf of

NW Natural
220 NW Second Avenue
Portland, Oregon 97209

July 2009

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LIST OF ACRONYMS AND ABBREVIATIONS

Abbreviation	Definition
BTEX	benzene, toluene, ethylbenzene, and xylene
CCC	Criterion Continuous Concentration
COIs	contaminants of interest
cfs	cubic feet per second
DOC	dissolved organic carbon
EE/CA	Engineering Evaluation/Cost Analysis
EPA	Environmental Protection Agency
FS	Feasibility Study
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
MARP	Monitoring and Reporting Plan
MS/MSD	matrix spike and matrix spike duplicate
NRWQC	National Recommended Water Quality Criteria
Order	Administrative Order on Consent
PAHs	polycyclic aromatic hydrocarbons
PEC	probable effects concentration
QA/QC	quality assurance/quality control
RAO	removal action objectives
RAPP	Removal Action Project Plan
RI	Remedial Investigation
RMA	Proposed Revised Long-Term Pilot Cap Monitoring Approach – NW Natural "Gasco" Site
Site	NW Natural "Gasco" Site
SCV	Sediment Concentration Values
SVOC	semivolatile organic compound
SOW	Statement of Work
TOC	total organic carbon
VOC	volatile organic compound

1 INTRODUCTION

NW Natural entered into an Administrative Order on Consent (Order) with the U.S. Environmental Protection Agency (EPA) on April 28, 2004 to perform a removal action at the "Gasco" site (Site; EPA 2004a; Figure 1). The Order required that NW Natural perform a number of actions associated with removing a tar body (as defined in the Order) from the riverbank and nearshore sediment adjacent to the Site. The extent of the tar body was defined during the design characterization sampling (Figure 2). In December 2004, it became apparent to EPA that the removal planning process would exceed 6 months. Where a 6-month planning period exists, preparation of an Engineering Evaluation/Cost Analysis (EE/CA) is required. Consequently, NW Natural was directed by EPA in February 2005 to prepare an EE/CA consistent with a Non-Time-Critical Removal Action and in accordance with EPA's *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA* (EPA 1993). Taking into consideration the EE/CA public comments and multiple meetings with the NW Natural consultant teams, EPA drafted an Action Memorandum selecting the removal action (signed on June 20, 2005; EPA 2005). In accordance with the EPA-approved *Final Removal Action Project Plan* (RAPP; Anchor 2005), removal of the tar body was initiated in August 2005 and was completed in late October 2005.

Pending future implementation of a site-wide remedy, long-term monitoring of the tar body removal has been completed since completion of the remedy. The objectives of the long-term monitoring are two-fold: 1) to monitor the performance of the remedy with respect to the removal action objectives (RAOs) identified in Section II of the Statement of Work (SOW) attached to the Order; and 2) to evaluate the performance of the engineered pilot cap as a method to minimize chemical movement from underlying sediments. The removal action was an interim action, and the monitoring information gathered is not intended to monitor a permanent remedy.

The first two years of post-removal long-term monitoring (termed Year 0 and Year 1) was conducted in accordance with the EPA-approved *Monitoring and Reporting Plan* (MARP; Anchor 2006a). This monitoring included the sampling and analysis of bulk pilot cap sediment, pilot cap porewater, discrete and time-integrated near-bottom surface water, and depositional sediment, as well as the completion of diver reconnaissance surveys, bathymetry surveys, and visual monitoring of the removal action area. Evaluation of the first two years of monitoring data showed that a revised monitoring approach was warranted to continue to collect useful information relevant to the identified post-removal monitoring objectives. The revised

monitoring approach was summarized in a letter to EPA dated March 26, 2008, with the subject "Proposed Revised Long-Term Pilot Cap Monitoring Approach – NW Natural 'Gasco' Site" (RMA; Anchor 2008b). EPA approved of this approach in a letter to NW Natural dated April 30, 2008 (Appendix A). The approach included the continued sampling and analysis of discrete near-bottom surface water and depositional sediment, and completion of an annual diver reconnaissance survey, semi-annual bathymetry surveys, and monthly visual monitoring of the removal action area.

In accordance with the reporting requirements identified in the MARP (Anchor 2006a) and RMA (Anchor 2008c), the remainder of this annual data evaluation monitoring report provides an evaluation of all data collected during the Year 2 Event 1 and Event 2 monitoring events related to the relevant RAOs and engineered pilot cap objectives. This report also compares the discrete near-bottom surface water and depositional sediment concentrations collected during the Year 0, Year 1, and Year 2 monitoring events to evaluate potential long-term temporal and spatial data trends. Summaries of the remaining collected data during the Year 0 and Year 1 monitoring events and comment/response communications between NW Natural and EPA can be located in the following documents:

- *Data Summary Report – Year 0 Event 1 Long-Term Pilot Cap Monitoring* (Anchor 2006b)
- *Data Summary Report – Year 0 Event 2 Long-Term Pilot Cap Monitoring* (Anchor 2007a)
- *Data Summary Report – Year 0 Event 3 Long-Term Pilot Cap Monitoring* (Anchor 2007b)
- *Annual Data Evaluation Monitoring Report – Year 0 Long-Term Pilot Cap Monitoring* (Anchor 2007d)
- *Data Summary Report – Year 1 Event 1 Long-Term Pilot Cap Monitoring* (Anchor 2008a)
- *Data Summary Report – Year 1 Event 2 Long-Term Pilot Cap Monitoring* (Anchor 2008c)
- *Annual Data Evaluation Monitoring Report – Year 1 Long-Term Pilot Cap Monitoring* (Anchor 2008d)

2 SUMMARY OF MONITORING OBJECTIVES

Post-removal action long-term monitoring is required by the Order and provides information necessary to evaluate the performance of the engineered pilot cap. The RMA (Anchor 2008b) was developed to continue to collect useful information to achieve the identified post-removal monitoring RAOs identified in the Order given the Year 0 and Year 1 post-removal monitoring findings. A summary of the RMA (Anchor 2008b) proposed monitoring activities is provided in the following sections. The RMA (Anchor 2008b) is proposed to continue through 2009, at which time the need for and content of any further monitoring will be discussed with EPA.

2.1 Removal Action Objectives

The RAOs for the project are defined in Section II of the SOW and are reviewed in the RAPP (Anchor 2005). The objectives that are relevant to post-removal monitoring include:

- Evaluating the cap's ability to isolate residual sediment contamination left in place following the removal action
- Monitoring for seepage of product in the low spot created by the removal action
- Providing information that contributes to the efficient performance of any anticipated long-term remedial actions.

A description of the RMA monitoring activities to achieve these RAOs is summarized below.

2.1.1 Evaluation of Cap Physical Isolation and Stability

The RMA (Anchor 2008b) proposed the following data collection activities related to cap physical isolation and stability:

- Completion of diver reconnaissance surveys once per summer during low river elevations. These surveys covered the identical area identified in the MARP (Anchor 2006a).
- Completion of bathymetric surveys during summer low and winter high river elevation conditions. Mean annual discharges and elevations in the Willamette River in Portland are historically the highest from December through June. Therefore, a single high river elevation survey was conducted between December and June and a single low elevation survey between July and November. In accordance with the MARP (Anchor 2006a), the surveys were to cover the entire area previously bounded by the outer area containment system to monitor changes in mudline elevation and assess changes in pilot cap and

fringe cover thickness.

2.1.2 Product Seepage Monitoring

The RMA (Anchor 2008b) proposed continued monitoring for the presence of product (i.e., tar or oil) in the hydraulic low spot created by the removal action during the annual low river elevation diver reconnaissance surveys discussed above. These surveys were to facilitate diver monitoring and hand probing of depositional sediments overlying the fringe cover in the hydraulic low spot at approximately 10-foot intervals for a distance of approximately 50 feet along two transect locations (i.e., transects 60-2 and 120-2; Figure 3) in the hydraulic low spot.

2.1.3 Long-Term Remedy Information

The RMA (Anchor 2008b) proposed continued monitoring for the stability of the pilot cap armor and adjacent fringe cover to determine if the design gradations remain stable under the range of physical conditions encountered until implementation of the Site-wide remedy. The semi-annual bathymetry surveys and annual diver reconnaissance surveys were to provide the needed information for this objective.

2.2 Objectives for Engineered Pilot Cap Study

The purpose of the engineered pilot cap is to place a barrier over the area where the tar body was removed and monitor the performance of the cap until the Portland Harbor Remedial Investigation (RI)/Feasibility Study (FS) is completed and EPA selects a final remedy for the Site. The monitoring information is being used to help evaluate contaminant loading through the pilot cap due to residual contamination in sediments or any potential migration of contaminants from upland groundwater, and determine whether capping might be an effective remedy for future remediation at the Site. Information from the pilot study will be used in subsequent sediment remediation evaluations for shoreline sediments at the Site. The engineered pilot cap is designed to withstand erosive forces that might reasonably be expected over the next few years while the Site-wide remedial alternatives are evaluated.

The engineered pilot cap is not intended as a long-term permanent remedy for this area, although it might be integrated into a wider capping approach should capping be determined to be an effective remedy for the Site.

The pilot cap monitoring specific objectives defined in the MARP (Anchor 2006a) were not required by the Order. Therefore, these objectives were evaluated in the RMA (Anchor 2008b) and revised as necessary to obtain the most relevant understanding of the pilot cap performance. The following sections present a summary of the revised pilot cap monitoring specific data collection activities identified in the RMA (Anchor 2008b).

2.2.1 Additional Monitoring of Depositional Sediment Concentrations

The RMA (Anchor 2008b) proposed continued monitoring of depositional sediment concentrations both within the pilot cap area and in the fringe cover area surrounding the pilot cap area to support further evaluation of the potential concentration differences observed in these areas during the Year 0 and Year 1 monitoring events. The RMA (Anchor 2008b) proposed the collection of two additional stations beyond those identified in the MARP (Anchor 2006a), one approximately at pilot cap station PCM-04 (Figures 4a and 4b), and the other at approximately diver transect location 120-2 (Figure 3). These additional stations were to help further discern any relationship between nearshore remaining sediment contamination and spatial chemical trends in recently deposited sediments.

The field sampling procedures, laboratory analysis procedures, method reporting limits, and analyte list (i.e., full Portland Harbor analyte list) were identical to those described in the MARP (Anchor 2006a). Sampling was proposed once during summer low and winter high river elevation conditions within the same general time frame as the bathymetry surveys and/or diver reconnaissance surveys. Consistent with the depositional sediment sampling conducted to date, samples were only to be collected if the fringe cover material was visually observable beneath the overlying depositional material, indicating the material was deposited following fringe cover placement.

2.2.2 Additional Monitoring of Discrete Near-Bottom Surface Water Concentrations

The RMA (Anchor 2008b) proposed continued monitoring of the discrete near-bottom surface water concentrations at the nine pilot cap monitoring stations (Figures 4a and 4b), as well as the single downstream and three upstream stations defined in the MARP (Anchor 2006a). This monitoring was proposed to further evaluate whether the identified area of preferential groundwater discharge through the pilot cap area contributes to elevated surface water chemical concentrations relative to "other concentrations" in the vicinity of the Site but outside

the pilot cap area. Sampling of time-integrated near-bottom surface water was not conducted during the Year 2 long-term monitoring events for the reasons specified in the RMA (Anchor 2008b).

The field sampling procedures, laboratory analysis procedures, method reporting limits, and analyte list (i.e., total and dissolved organic carbon; total suspended solids; total, free and amenable cyanide; sulfides; total and dissolved iron; polycyclic aromatic hydrocarbons [PAHs]; and benzene, toluene, ethylbenzene, and xylene [BTEX]) were identical to those defined in the MARP (Anchor 2006a). Sampling was proposed concurrent with the depositional sediment sampling identified above during summer low and winter high river elevations. The samples were to be collected prior to conducting any other monitoring activities to minimize potential sampling artifacts created by disturbance of the mudline.

3 SUMMARY OF FIELD ACTIVITIES AND RESULTS

In accordance with the protocols defined in the MARP (Anchor 2006a), the following sampling activities were conducted during completion of the Year 2 data collection activities defined in the RMA (Anchor 2008b): visual inspections, diver surveys, bathymetry surveys, the collection of depositional surface sediment samples, and the collection of discrete near-bottom surface water samples. A summary of each of these monitoring activities and results is described below for Year 2 Event 1 and Event 2.

3.1 Visual Inspection/Diver Survey (RAO-Specific)

Per the RAOs, visual monitoring was conducted to identify any areas of sheen or product release. In addition, diver surveys were performed within the pilot cap area and surrounding perimeter of fringe cover (extending to at least 50 feet beyond the cap) to visually evaluate the nature and extent of potential seepage of product in the bathymetric "low spot" created by the dredging activities and to visually evaluate the integrity of the engineered pilot cap and surrounding fringe cover areas.

Following submittal of the *Annual Data Evaluation Monitoring Report – Year 1 Long-Term Pilot Cap Monitoring* (Anchor 2008d), visual monitoring was conducted on April 11, May 14, June 11, July 14, August 20, September 15, October 16, November 10, and December 16, 2008, and January 26, February 11, March 23, and April 12, 2009. Monitoring was conducted from the waterside, the top of the bank, the beach, and/or the adjacent pipeline structure to ensure visual coverage of the removal action area. The visual monitoring forms are provided in Appendix B. No areas of sheen or product release were identified during any of the visual inspections. Consistent with the visual observations noted during several of the Year 0 and Year 1 visual monitoring surveys (Anchor 2007d, Anchor 2008d), during lower river elevations the upper edge of the organoclay mat that was laid back on the top of the shoreline following installation was visible. This upper portion of the mat was not designed to act as a barrier to seepage along the cut face, but rather was placed above the cut to ensure the entire cut face was covered with the mat. The size of the exposed mat area has remained similar since first identified in 2007 and no sheen was observed along the shoreline in the vicinity of the mat during Year 2 monitoring.

A diver reconnaissance survey was conducted on August 6 to 7, 2008, during the Year 2 Event 1 monitoring using the procedures described in the MARP (Anchor 2006a). As requested by EPA in their comment letter dated April 18, 2007 (EPA 2007), the survey consisted of hand probing

and visual inspection of the depositional material overlying the pilot cap armor layer approximately every 10 feet and the use of similar equipment and lighting techniques to those used during the Year 0 and Year 1 reconnaissance surveys. The survey was conducted along four transects perpendicular to the shoreline (identical to the transects used during the Year 0 and Year 1 reconnaissance surveys), each extending 50 feet beyond the pilot cap limit on the channelward side (Figure 3). The diver utilized a BlueFin™ VX2100 SunRay Pro Lights lighting system to ensure as good video quality as possible. Even with the BlueFin™ lighting system, the visibility was limited to several feet; however, the video is of adequate quality to evaluate conditions along the transects given the relatively homogenous conditions throughout the reconnaissance area. The diver reconnaissance survey video is provided in Appendix C.

Visible staining of the diver's gloves was identified during the hand penetration inspections (approximately every 10 feet) of the depositional sediment in the following locations:

- Transect 30 – within the fringe cover area approximately 30 feet and 40 feet shoreward of the point labeled 30-2 on Figure 3. Similar staining at this location was identified during previous monitoring events. As discussed in NW Natural's response to EPA comments letter dated June 4, 2007 (Anchor 2007c), dredging did not occur in this area in order to protect the fuel-oil pipeline supports from potential damage. The diver video indicates that the staining occurred during hand probing along the steep side slope created by the dredging outside of the protected area.
- Transect 60 – within the fringe cover area approximately 30 feet shoreward of the point labeled 60-2 on Figure 3.
- Transect 180 – within the fringe cover area approximately 10, 20, and 30 feet from the point labeled 180-2 (Figure 3) as well as within the pilot cap area approximately 110 feet from the same point. As shown in Figure 3, this transect is located directly along the slope created by the upstream dredge cut. Localized slope reconfiguration in the identified areas has led to expression of underlying affected sediments below the overlying depositional sediments.

3.2 Bathymetric Survey (RAO-Specific)

Bathymetry surveys were conducted during Year 2 Event 1 and Event 2 on August 17, 2008 and January 5, 2009, respectively. Each survey was conducted within the entire area previously bounded by the outer area containment system to monitor changes in mudline elevation and assess changes in cap and fringe cover thickness. The Year 2 Event 1 and Event 2 bathymetry

results are provided in Figures 5a and 5b, respectively. These figures also portray the differences in mudline elevation between each of these events and the post-dredge survey that was conducted immediately following completion of dredging in late October 2005. These isopach surfaces verify that the pilot cap elevations, to the extent measurable given the plus or minus 0.5 feet accuracy, have generally remained stable and withstood erosive forces during the range of flows encountered since placement of the cap.

Consistent with the Year 0 and Year 1 surveys (Anchor 2007d), a small area within the protected (i.e., not dredged) area just upstream from the channelward pipeline support continues to show elevations below the as-built capping elevations (Figures 5a and 5b). Dredging in this area was limited to the area upstream of the protected area to minimize the potential for damage to the fuel-oil pipeline supports during dredging. The material that remained in the protected area was allowed to come to its natural angle of repose (given the river velocities at that time) following removal at the base of the protected area. Pilot cap material was then placed on top of the shoreward portion of the resulting slope. The negative elevation change in this area is most likely due to a combination of dispersion of the capping material that was placed along the side slope area, as well as additional natural slope reconfiguration to achieve the angle of repose under the variable river velocities. The elevations encountered during the Year 2 Event 1 and Event 2 surveys are similar to those identified during the Year 0 Event 3 survey, indicating that no significant additional slope reconfiguration and/or erosion has occurred in this area.

3.3 Recent Depositional Sediment Sampling (Site-Specific)

A depositional layer of surface sediment was identified during each of the diver reconnaissance surveys (Section 3.1; Appendix C) that overlaid the pilot cap armor layer. This layer ranged in thickness from 1 to 4 inches across the entire pilot cap area during the Year 2 monitoring. Although sampling of this layer was not required by the MARP (Anchor 2006a), NW Natural elected to collect samples of depositional sediment during Year 0, Year 1, and Year 2 monitoring both within and outside the pilot cap area to evaluate the current sediment concentrations resulting from river-wide source loadings. Consistent with the Portland Harbor Superfund Site RI/FS process, the samples were analyzed for the full list of Portland Harbor contaminants of interest (Integral 2004), rather than site-specific contaminants of interest (COIs). During Year 2 Event 1, the depositional material was sampled at four pilot cap monitoring stations (PCM-02, PCM-04, PCM-06, and PCM-09) and three stations (PCM-14, PCM-15 and PCM-22) in the fringe cover area (Figures 4a and 4b). Sampling was conducted at the same stations during Year 2 Event 2 except at station PCM-04 which lacked sufficient depositional material overlying the

pilot cap to sample (i.e., 1 inch). The sampling collection information is provided in Tables 1a and 1b and the collection forms are provided in Appendix D.

The analytical results for Year 2 Event 1 and Event 2, as well as the Year 0 monitoring events, are summarized in Table 2. As requested by EPA in its comments on the *Data Summary Report – Year 0 Event 2 Long-Term Pilot Cap Monitoring* (Anchor 2007a) dated April 18, 2007, the depositional surface sediment data is screened against ODEQ (2001) bioaccumulative level II screening values and the D. D. MacDonald et al. (2000) consensus based toxicity probable effects concentration (PEC) screening levels summarized in Table 2. Exceedences of the screening levels occurred at multiple stations for multiple chemical constituents during both Year 2 Event 1 and Event 2 monitoring events, both within and outside of the pilot cap area.

Appendix E provides a summary of the depositional sediment concentration plots identified during each monitoring event and at each station. As requested by EPA in its comments on the *Annual Data Evaluation Monitoring Report – Year 0 Long-Term Pilot Cap Monitoring* (Year 0 Annual Report; Anchor 2007d), the PAH concentration plots are limited to acenapthene, fluoranthene, and napthalene. The plots also include total PAHs and BTEX shown separately, given the large differences in concentrations of these parameters relative to the PAHs. Each plot includes the screening levels defined above. To facilitate a consistent comparison between the various plots and account for large variations in observed concentrations, the y-axis was formatted using a logarithmic scale.

3.4 Near-Bottom Surface Water Sampling (Pilot Cap-Specific)

The surface water quality directly overlying the cap and at ambient stations both upstream and downstream of the removal action area was monitored through the collection of discrete near-bottom surface water samples using the methods identified in the MARP (Anchor 2006a) and RMA (Anchor 2008b). A summary of the sampling activities and results is provided in this section.

3.4.1.1 Discrete Near-Bottom Surface Water

During Year 2 Event 1 and Event 2, nine discrete (i.e., grab sample) near-bottom surface water samples were collected within the pilot cap area (PCM-02 to PCM-06, PCM-08 to PCM-10, and PCM-21), at one downstream ambient station (PCM-01), and at three upstream ambient stations (PCM-13, PCM-19, and PCM-20; Figures 5a and 5b). The sampling collection information is

provided in Tables 1a and 1b. The samples were collected prior to collection of the depositional surface sediment samples to minimize potential disturbance to the mudline prior to sampling. The discrete samples were analyzed for total organic carbon (TOC); dissolved organic carbon (DOC); total suspended solids; free, amenable, and total cyanide; sulfide; total (Event 1 and 2) and dissolved iron (Event 2 only); PAHs; and BTEX.

The discrete near-bottom surface water concentrations for Year 2 Event 1 and Event 2, as well as the Year 0 and Year 1 monitoring events, are summarized in Table 3. As requested by EPA in their comments on the *Data Summary Report – Year 0 Event 1 Long-Term Pilot Cap Monitoring* (Anchor 2006b) dated November 17, 2006, the discrete near-bottom surface water concentrations are screened against the following ecological water quality criteria: ODEQ Chronic Ambient Water Quality Criteria (2004), EPA National Recommended Water Quality Criteria (NRWQC) Criterion Continuous Concentration (CCC) (2006), and Oak Ridge National Laboratory Tier II Sediment Concentration Values (SCV) (1996). In addition, the concentrations were compared against the EPA Human Health Drinking Water Preliminary Remediation Goals (2004b).

Appendix F provides a summary of the discrete near-bottom surface water concentration plots identified during each monitoring event and at each station. As requested by EPA in its comments on the Year 0 Annual Report (Anchor 2007d), the PAH concentration plots are limited to acenapthene, fluoranthene, and napthalene. The plots also include total PAHs and BTEX on separate plots, given the large differences in concentrations of these parameters relative to the other PAHs. Each plot includes the screening levels defined above. Where possible, a consistent y-axis scale was used to facilitate a consistent comparison between the various plots, and secondary y-axis scales were used for relatively elevated concentrations.

3.5 Quality Control/Quality Assurance

The overall data quality assurance/quality control (QA/QC) results for the Year 2 Event 1 and Event 2 monitoring efforts are described below. In summary, data quality objectives were generally met with a few exceptions, as noted in Section 3.5.3. Consequently, the overall objectives for the monitoring were judged to be met.

3.5.1 Field QA/QC

Field quality assurance/quality control (QA/QC) samples were used to evaluate the efficiency of field decontamination procedures. One trip blank accompanied samples submitted to the

laboratory during the Year 2 Event 1 and Event 2 monitoring. One rinsate blank each was submitted in conjunction with depositional sediment sampling and near-bottom surface water sampling. In addition, one field blank, consisting of analysis of the deionized water used for the rinsate blanks, was submitted and analyzed. The field QA/QC analytical results for Year 2 Event 1 and Event 2 are provided in Tables 4a and 4b, respectively. Only very low level detections of common laboratory contaminants were identified, indicating the equipment decontamination protocols were successful.

3.5.2 Laboratory QA/QC

Data qualifiers assigned as a result of the data validation and their definitions are shown on each of the respective analytical results tables (i.e., Tables 2 through 4b).

3.5.3 Data Validation

The data validation reports and a description of the data usability for each of the media monitored were provided as an appendix to the applicable data summary monitoring reports (Anchor 2008e, Anchor 2009). All data were deemed useable as qualified except for the following data, which were rejected:

- Year 2 Event 1 depositional sediment – low recoveries of the semivolatile organic compound (SVOC) laboratory control sample (LCS)and laboratory control sample duplicate LCSD) samples associated with the field blank and rinse blanks analyses resulted in the rejection of results for two analytes. Aniline and 2, 4-dimethylphenol results were rejected for samples PCM-FB-080808, PCM-DRB-080808, and PCM-DSRB-080808. Matrix spike and matrix spike duplicate (MS/MSD) analyses of hexavalent chromium did not recover; therefore, all associated sediment sample results were rejected. The results were rejected for samples PCM-02DS-080807, PCM-04DS-080807, PCM-06DS-080807, PCM-09DS-080807, PCM-14DS-080807, PCM-15DS-080807, and PCM-22DS-080807.
- Year 2 Event 2 depositional sediment – a low LCS recovery of volatile organic compound (VOC) analyte trans-1,4-dichloro-2-butene resulted in the rejection of this analyte in samples PCM-09DS-081211, PCM-14DS-081211, PCM-15DS-081211, and PCM-22DS-081211, and a low surrogate recoveries of acid compounds (phenolics) in some SVOC analyses resulted in the rejection of all acid compounds in samples PCM-14DS-081211, PCM-15DS-081211, and PCM-22DS-081211.

3.6 Monitoring Deviations from EPA-Approved Plans

This section identifies the deviations that occurred during completion of the data collection activities identified in the MARP (Anchor 2006a) and RMA (Anchor 2008b) during the Year 2 Event 1 and Event 2 sampling events.

3.6.1 Year 2 Event 1 Monitoring Deviations

Deviations encountered during the Year 2 Event 1 monitoring included:

- DOC and dissolved iron were not analyzed in the discrete near-bottom surface water due to an oversight by the field personnel.

3.6.2 Year 2 Event 2 Monitoring Deviations

Deviations encountered during the Year 2 Event 2 monitoring included:

- Depositional sediment station PCM-04 was not sampled due to insufficient depositional material overlying the pilot cap.

4 RESULTS EVALUATION

The following sections provide an evaluation of the Year 2 Event 1 and Event 2 monitoring results with respect to the RAOs summarized in Section 2.1 and the engineered pilot cap objectives described in Section 2.2. To facilitate further evaluation of potential seasonal concentration variations for each media sampled, the evaluation incorporates the Year 0 and Year 1 monitoring data where applicable.

4.1 Removal Action Objectives Results Evaluation

4.1.1 Evaluation of Physical Barrier Integrity and Stability

The pilot cap's performance as a physical barrier to underlying residual contamination, as well as the pilot cap's integrity and stability after the second year of post-removal monitoring, was evaluated through completion of the following activities:

- A diver reconnaissance survey (August 2008)
- Two bathymetry surveys (August 2008 and January 2009)

The diver reconnaissance survey (Appendix C) consistently showed a layer of recently deposited sediment ranging in thickness from approximately 1 to 4 inches overlying the pilot cap and surrounding fringe cover. The diver hand probing conducted approximately every 10 feet within the pilot cap area and fringe cover area consistently indicated that the pilot cap was stable and the armor layer withstood flows during the winter high flow events. The diver hand probing also indicated that the fringe cover material was placed with relatively minor mixing with the underlying sediments and remained relatively stable without an overlying armor layer.

4.1.2 Long-Term Remedy Information

The Year 2 Event 1 and Event 2 monitoring activities identified that the pilot cap and fringe cover design gradations are more than adequate for the range of physical conditions encountered since construction was completed in late October 2005 (Figures 5a and 5b). The relatively small mixing layer (less than 1 inch) that was identified between the pilot cap layer and the underlying sediments, coupled with the documented stability of the pilot cap layer and overlying armor layer, indicates that a cap can be effectively placed with minimal mixing with underlying sediments and can be maintained to physically isolate underlying sediments during the river conditions so far encountered.

4.2 Pilot Cap Objectives Results Evaluation

As discussed in Section 2.2, the pilot cap monitoring-specific objectives defined in the MARP (Anchor 2006a) were not required by the Order. Therefore, these objectives were evaluated in the RMA (Anchor 2008b) and revised as necessary to obtain the most relevant understanding of the pilot cap performance. The revisions included the following:

- Continued monitoring of depositional sediment concentrations both within the pilot cap area and in the fringe cover area surrounding the pilot cap area to support further evaluation of the potential concentration differences observed in these areas during the Year 0 and Year 1 monitoring events.
- Continued monitoring of the discrete near-bottom surface water concentrations at the nine pilot cap monitoring stations, as well as the single downstream and three upstream stations defined in the MARP (Anchor 2006a) to further evaluate whether the identified area of preferential groundwater discharge through the pilot cap area contributes to elevated surface water chemical concentrations relative to "other concentrations" in the vicinity of the Site but outside the pilot cap area.

The following sections evaluate the Year 0, Year 1, and Year 2 monitoring data relevant to these data collection activities.

4.2.1 Evaluation of Spatial and Temporal Depositional Sediment Concentration Trends

The Year 2 analytical data for the depositional sediment and discrete near-bottom surface water were evaluated to determine if there were observable spatial and/or temporal trends. Although not the focus of this report, the Year 0 and Year 1 analytical data for these media were also evaluated relative to the Year 2 findings to further evaluate potential observable spatial and/or temporal trends over a longer time scale. This remainder of this section provides a summary of the evaluation results.

The data evaluation and results presentation incorporates EPA comments on the Year 0 Annual Report (Anchor 2007d).

EPA's comments included three general data presentation requests that were incorporated into the data evaluation:

- "Comparisons should be made which are meaningful, such as data within each sampling period compared between depths, spatially across the cap and upstream, and from different media (sediment, ground water or porewater, and surface water)." Figures 6a through 8b show the observed concentrations of each media during each Year 0, Year 1, and Year 2 monitoring event to facilitate the evaluations requested by this comment.
- "While this section alludes to the key mobile contaminants (naphthalene, acenapthene, fluoranthene, and benzene), it is not clear that these contaminants are carefully considered when doing the interpretations since they are not highlighted in the fate and transport discussions or the plots. When the report is revised, these compounds should be given greater consideration since they are the greatest indication of discharge through the cap." Figures 6a through 8b and the media concentration plots shown in Appendices E and F are limited to these key COIs.
- "Therefore, it is more appropriate at this time to evaluate sampling event data independently, especially when evaluating surface water samples… while the report alludes to variable river hydrology, the conclusions drawn do not appear to fully acknowledge the substantial seasonal variability of river flow and the likely associated variability of concentrations detected in near-bottom surface water samples." The data evaluation for the near-bottom surface water focuses on comparisons of data during monitoring events sharing similar river discharge.

4.2.1.1 Depositional Surface Sediment

The depositional sediment COI concentrations for each station during each Year 0, Year 1, and Year 2 monitoring event are shown in Figures 6a through 8b and Appendix E. The data show no consistent observable spatial concentration trends within the pilot cap area or fringe cover area across variable mudline elevations or laterally along similar elevations across all Year 0, Year 1, and Year 2 monitoring events. The data also show no consistent observable concentration trends across the Year 0, Year 1, and Year 2 low and high river discharge periods indicating variable discharge did not significantly affect the observed concentrations.

As shown in Appendix E, the PAH COI concentrations were generally similar with lower concentrations at each station during Year 0 Event 1b and Event 2 relative to the more variable higher concentrations observed during Year 0 Event 3 and the Year 1 and Year 2 monitoring events. The benzene concentrations were highly variable at each station during each monitoring event.

The PAH COI concentrations at pilot cap station PCM-02 were elevated relative to the other pilot cap stations during the Year 1 and Year 2 monitoring events (Appendix E). Similarly, the benzene concentrations at station PCM-02 were elevated relative to the other station concentrations during Year 0 Event 2, both Year 1 events, and Year 2 Event 1. The PAH and benzene concentrations at station PCM-02 showed no consistent seasonal variations. The relatively elevated PAH COI concentrations at PCM-02 may be attributed to slope reconfiguration just downstream from this monitoring station. As discussed in Section 3.2, dredging in this area was limited to the area upstream of the protected area to minimize the potential for damage to the fuel-oil pipeline supports during dredging. The material that remained in the protected area was allowed to come to its natural angle of repose (given the river velocities at that time) following removal at the base of the protected area and continues to undergo small scale reconfigurations as shown in Figures 5a and 5b.

As discussed in Section 2.2.1, the RMA (Anchor 2008b) proposed the collection of an additional pilot cap depositional sediment sample at station PCM-04. Sampling could only be conducted during Year 2 Event 1 (August 2008) due to lack of sufficient depositional material during the Year 2 Event 2 monitoring (December 2008). The Year 2 Event 1 PAH COI concentrations at this station were generally similar to the other pilot cap stations (Appendix E) indicating that the proximity to remaining high concentrations of chemicals in nearshore sediments (i.e., sediments that are submerged under most river conditions) that were not removed during the removal action did not cause increases in observed PAH COI concentrations during this monitoring event.

The depositional sediment within the pilot cap and fringe cover areas did not show consistent spatial or temporal concentration differences across all Year 0, Year 1, and Year 2 monitoring events (Appendix E). The pilot cap PAH COI concentrations were consistently higher than those observed in the fringe cover area during Year 0 Event 3, the Year 1 events, and Year 2 Event 2. Alternatively, the pilot cap and fringe cover PAH concentrations were relatively similar during Year 0 Event 2 and Year 2 Event 1. Similarly, the observed BTEX concentrations at the pilot cap and fringe cover stations were spatially and temporally variable, showing relatively similar concentrations during Year 0 Event 2 and Year 2 Event 2 while lower fringe cover concentrations were observed during Year 0 Event 3, the Year 1 events, and Year 2 Event 1 (Appendix E).

4.2.1.2 Discrete Near-Bottom Surface Water

As stated by EPA in their comments on the Year 0 Annual Report(Anchor 2007d), variable river flows during the various monitoring events likely affect the observed near-bottom surface water concentrations and therefore it is most accurate to evaluate potential spatial and temporal concentration trends during events with similar river discharge. Review of the river discharge at the U.S. Geological Survey Willamette River gauging station (Gauge No. 14211720) provided the following approximate river discharges during the near-bottom surface water sample collection during each monitoring event:

- Year 0 Event 1b – 26,200 cubic feet per second (cfs)
- Year 0 Event 2 – 7,860 cfs
- Year 0 Event 3 – 34,900 cfs
- Year 1 Event 1 – 7,730 cfs
- Year 1 Event 2 – 13,400 cfs
- Year 2 Event 1 – 10,300 cfs
- Year 2 Event 2 – 11,600 cfs

These river discharges show that the most accurate comparisons would be between Year 0 Event 1b and Year 0 Event 3 during high river discharge, between Year 1 Event 2, Year 2 Event 1 and Year 2 Event 2 during intermediate discharge, and between Year 0 Event 2 and Year 1 Event 1 during low discharge.

The discrete near-bottom surface water concentrations for each station during the high, intermediate ,and low discharge monitoring events are shown in Figures 6a through 8b and Appendix F. The PAH COI and benzene concentrations during the high river, intermediate, and low river discharge monitoring events showed no consistent observable spatial trends within the pilot cap area across variable mudline elevations or laterally along similar elevations across all Year 0, Year 1, and Year 2 monitoring events. The PAH COI and benzene concentrations within the pilot cap area observed during the Year 0 Event 2 low discharge event was significantly elevated above those identified during the high discharge monitoring events and slightly less so for the Year 1 Event 1 low discharge and intermediate discharge monitoring events. The observable difference in near-bottom surface water during the variable discharge events indicates that river discharge may influence the observed near-bottom surface water concentrations.

Comparison of the near-bottom surface water concentrations identified in the pilot cap area versus the upstream (PCM-13, PCM-19, and PCM-20) and downstream (PCM-01) ambient locations (Figures 4a and 4b) showed no observable differences in the COI concentrations during the high river discharge events (Appendix F). The Year 2 Event 2 intermediate discharge and Year 0 Event 2 low discharge generally showed pilot cap PAH COI and benzene concentrations that were elevated above the ambient concentrations observed at upstream and/or downstream ambient stations. This concentration difference was not identified during the Year 1 Event 2 and Year 2 Event 1 intermediate discharge or Year 1 Event 2 low discharge monitoring.

The variable nature of the discrete near-bottom surface water data is likely affected by the complex nature of seasonal river conditions, potential differences in groundwater flow conditions, and remaining high concentrations of chemicals in sediments in the nearshore area.

4.2.2 Capping Effectiveness as Potential Future Site-Wide Remedy

The physical properties of the pilot cap have remained stable during the high-flow winter months, indicating that the design gradations are sufficient for capping application over a broader area of the Site. Given that the fringe cap was also stable, this may indicate either that the cap armor is over-designed or that substantial velocities did not occur in this region of the river despite the relatively high winter flow conditions. Continued cap stability monitoring will continue to monitor the performance of the design gradations over a variety of river conditions.

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TABLES

Table 1a
Sample Collection Information - Year 2 Event 1 Long-Term Monitoring

Station	Proposed (NAD 83)		Actual (NAD 83)[e]		Depositional Surface Sediment			Discrete Near-Bottom Surface Water	
	Latitude	Longitude	Latitude	Longitude	Date	Time	Depositional Layer (cm)	Date	Time
PCM-01	45.5815213	-122.7611330	45.5815213	-122.7611330	--	--	--	12/11/2008	9:20
PCM-02	45.5801345	-122.7583817	45.5801345	-122.7583817	12/11/2008	13:50	6	12/11/2008	11:30
PCM-03	45.5800443	-122.7584068	45.5800443	-122.7584068	--	--	--	12/11/2008	11:15
PCM-04[a]	45.5799599	-122.7584167	45.5799599	-122.7584167	12/11/2008	14:10	6	12/11/2008	11:00
PCM-05	45.5801330	-122.7582274	45.5801330	-122.7582274	--	--	--	12/11/2008	11:25
PCM-06	45.5800349	-122.7582066	45.5800349	-122.7582066	12/11/2008	14:20	6	12/11/2008	11:40
PCM-21[b]	45.5798940	-122.7582338	45.5798940	-122.7582338	--	--	--	12/11/2008	13:40
PCM-08	45.5800056	-122.7580492	45.5800056	-122.7580492	--	--	--	12/11/2008	11:50
PCM-09	45.5798946	-122.7581036	45.5798946	-122.7581036	12/11/2008	14:40	10	12/11/2008	12:00
PCM-10	45.5798427	-122.7582100	45.5798427	-122.7582100	--	--	--	12/11/2008	12:30
PCM-13	45.5789664	-122.7548505	45.5789664	-122.7548505	--	--	--	12/11/2008	10:00
PCM-14[c]	45.5804451	-122.7578888	45.5804451	-122.7578888	12/11/2008	15:20	3	--	--
PCM-15[c]	45.5802183	-122.7572758	45.5802183	-122.7572758	12/11/2008	15:45	3	--	--
PCM-19	45.5787667	-122.7548054	45.5787667	-122.7548054	--	--	--	12/11/2008	10:05
PCM-20	45.5791756	-122.7549144	45.5791756	-122.7549144	--	--	--	12/11/2008	10:15
PCM-22[d]	45.5802003	-122.7579525	45.5802003	-122.7579525	12/11/2008	15:30	7	--	--

Notes:

a Additional depositional sediment sampling station collected during the Year 2 Event 1 sampling to better evaluate depositional sediment concentrations within the pilot cap area.

b This station was offset approximately 15 feet southwest from station PCM-18 sampled during Year 0 Event 3. Gravel placed at the target station location as part of the Phase 2 offshore drilling actitivies precluded sampling at PCM-18.

c The grab sampler was deployed twice at the same location to retrieve sufficient sample volume for analysis.

d Additional depositional sediment sampling station collected during the Year 2 Event 1 sampling to better evaluate fringe cover depositional sediment concentrations.

e The actual sampling stations were collected when the vessel was on station.

Table 1b
Sample Collection Information - Year 2 Event 2 Long-Term Monitoring

Station	Proposed (NAD 83)		Actual (NAD 83)[e]		Depositional Surface Sediment			Discrete Near-Bottom Surface Water	
	Latitude	Longitude	Latitude	Longitude	Date	Time	Depositional Layer (cm)	Date	Time
PCM-01	45.5815213	-122.7611330	45.5815213	-122.7611330	--	--	--	12/11/2008	9:20
PCM-02	45.5801345	-122.7583817	45.5801345	-122.7583817	12/11/2008	13:50	8	12/11/2008	10:30
PCM-03	45.5800443	-122.7584068	45.5800443	-122.7584068	--	--	--	12/11/2008	11:15
PCM-04[a]	45.5799599	-122.7584167	45.5799599	-122.7584167	12/11/2008	14:10	3	12/11/2008	11:00
PCM-05	45.5801330	-122.7582274	45.5801330	-122.7582274	--	--	--	12/11/2008	11:25
PCM-06	45.5800349	-122.7582066	45.5800349	-122.7582066	12/11/2008	14:20	7	12/11/2008	11:40
PCM-21[b]	45.5798940	-122.7582338	45.5798940	-122.7582338	--	--	--	12/11/2008	13:40
PCM-08	45.5800056	-122.7580492	45.5800056	-122.7580492	--	--	--	12/11/2008	11:50
PCM-09	45.5798946	-122.7581036	45.5798946	-122.7581036	12/11/2008	14:40	9	12/11/2008	12:00
PCM-10	45.5798427	-122.7582100	45.5798427	-122.7582100	--	--	--	12/11/2008	12:30
PCM-13	45.5789664	-122.7548505	45.5789664	-122.7548505	--	--	--	12/11/2008	10:00
PCM-14[c]	45.5804451	-122.7578888	45.5804451	-122.7578888	12/11/2008	15:20	3	--	--
PCM-15[c]	45.5802183	-122.7572758	45.5802183	-122.7572758	12/11/2008	15:45	3	--	--
PCM-19	45.5787667	-122.7548054	45.5787667	-122.7548054	--	--	--	12/11/2008	10:05
PCM-20	45.5791756	-122.7549144	45.5791756	-122.7549144	--	--	--	12/11/2008	10:15
PCM-22[d]	45.5802003	-122.7579525	45.5802003	-122.7579525	12/11/2008	15:30	10	--	--

Notes:

a Additional depositional sediment sampling station collected during the Year 2 Event 1 and Year 2 Event 2 sampling to better evaluate depositional sediment concentrations within the pilot cap area. There was insufficient material to sample depositional sediment material while not collecting underlying fringe cap sand. No sample was collected and analyzed at Station PCM-04.

b This station was offset approximately 15 feet southwest from station PCM-18 sampled during Year 0 Event 3. Gravel placed at the target station location as part of the Phase 2 offshore drilling actitivies precluded sampling at PCM-18.

c The grab sampler was deployed twice at the same location to retrieve sufficient sample volume for analysis.

d Additional depositional sediment sampling station collected during the Year 2 Event 1 and Year 2 Event 2 sampling to better evaluate fringe cover depositional sediment concentrations.

e The actual sampling stations were collected when the vessel was on station.

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 1a PCM-02 PCM-02DS-060322 3/22/2006 0 - 0.26 ft	Year 0 Event 2 PCM-02 PCM-02DS-060818 8/18/2006 0 - 0.3 ft	Year 0 Event 3 PCM-02 PCM-02DS-061204 12/4/2006 0 - 0.3 ft	Year 1 Event 1 PCM-02 PCM-02DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-02 PCM-02DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-02 PCM-02DS-080807 8/7/2008 0 - 6 in	Year 2 Event 2 PCM-02 PCM-02DS-081211 12/11/2008 0 - 8 cm	Year 2 Event 1 PCM-04 PCM-04DS-080807 8/7/2008 0 - 6 in	Year 0 Event 1a PCM-06 PCM-06DS-060322 3/22/2006 0 - 0.26 ft
Conventional Parameters (mg/kg)											
Ammonia			31.8	153	54.4	80.6	75.7	64.4	83.4	1400	30.9
Cyanide			0.2 J	0.38 J	--	--	--	1.7	0.49 UJ	1	0.2 J
Sulfide			--	5	4.6	2.5 J	1.2 UJ	1.5 U	1.3 U	15.4	--
Conventional Parameters (su)											
pH			--	--	--	--	--	6.59	6.83	6.85	--
Conventional Parameters (pct)											
Total organic carbon			2.1	2.14	2.99	5.06	2.56 J	4.22 J	3.04	3.3 J	3.37
Total solids			44.9	44.9	34.4	41.5	42.5	40.4	42.7	35	42
Grain Size (pct)											
Gravel			0.1	0.02	0.02	--	0.52	0.92	1.59 J	1.37	0.35
Gravel, Medium			--	--	--	--	--	--	--	--	--
Gravel, Fine			--	--	--	--	--	--	--	--	--
Sand, Very Coarse			0.85	0.12	0.6	--	0.87	1.97	3.33	2.21	0.99
Sand, Coarse			1.47	0.38	1.4	--	1.01	1.84	4.88 J	2.1	1.69
Sand, Medium			2.19	1.25	2.89	--	3.01	3.28	7.67 J	2.93	2.22
Sand, Fine			11.8	6.79	5.16	--	9.63	5.49	14.2 J	6.29	7.8
Sand, Very Fine			30.5	25.4	7.01	--	25	10.2	22.6	13.6	30.4
Silt			48.6	57.7	73.3	--	--	62.4	39.3	57.6	49.3
Silt, Coarse			--	--	--	--	11	--	--	--	--
Silt, Medium			--	--	--	--	7.41	--	--	--	--
Silt, Fine			--	--	--	--	4.1	--	--	--	--
Silt, Very Fine			--	--	--	--	4.3	--	--	--	--
Clay			4.87	8.82	8.67	--	1.2	5.13	5.34 J	6.67	5.44
Clay, Fine			--	--	--	--	--	--	--	--	--
Clay, Very Fine			--	--	--	--	--	--	--	--	--
Metals (mg/kg)											
Aluminum			28400	23300	29900	30500	29500	24800	22900	27600	27100
Antimony	10	64	0.11	0.09	0.16	0.18 J	0.12	0.16 J	0.16 J	0.18 J	0.12
Arsenic	4	33	3.01	3.59 J	4.55	3.12	4.1	3.67	3.1	4.23	3.55
Cadmium	0.003	4.98	0.178	0.238 J	0.239	0.225	0.193	0.225	0.216	0.219	0.212
Chromium	4200	11.1	32.3	24.8	32.1	35.9	37.3	27.3	26.9	32	31.8
Chromium VI			1.3 U	1.3 UJ	R	1.2 UJ	R	R	1.3 UJ	R	1.3 U
Copper	10	149	36.4	35.2	41.6	41.4	42.6	39.3	34.1	45.5	37.4
Iron			--	--	--	--	41500	--	--	--	--
Lead	128	128	11.8	11.6	13.1	13.5 J	16.9 J	12.7	11.9 J	14.3	12.5
Mercury		1.06	0.054	0.211	0.065	0.068	0.065	0.065	0.064	0.055	0.061
Nickel	316	48.6	27.5	22.9	23.9	29.1	28.5	23	23.1	27	26.2
Selenium	0.1	5	0.19	2 U	0.13	0.15	0.13	0.22	0.27	0.21	0.19
Silver		5	0.143	0.153	0.297	0.19	0.19	0.16	0.193	0.16	0.12
Zinc	3	459	72.7	91.7	97	109	120	95.8	95.9	109	79.2
Organometallic Compounds (ug/kg)											
Butyltin			0.95 J	1.7 J	2.9 U	0.78 J	2.3 U	1.2 J	--	1.9 J	1.4 J
Dibutyltin (ion)			0.75 J	1.5 J	2.8 J	1.8 J	1.2 J	1.5 J	0.68 J	2 J	0.93 J
n-Butyltin (ion)			--	--	--	--	--	--	1.5 J	--	--
Tetrabutyltin (ion)			2.3 U	2.3 U	2.9 U	2.4 U	2.3 U	2.5 U	2.4 U	2.8 U	2.4 U
Tributyltin (ion)	190		2.3 U	4.7	3.7	2.2 J	2 J	2 J	2 J	2 J	1.5 J
Volatile Organics (ug/kg)											

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 1a PCM-02 PCM-02DS-060322 3/22/2006 0 - 0.26 ft	Year 0 Event 2 PCM-02 PCM-02DS-060818 8/18/2006 0 - 0.3 ft	Year 0 Event 3 PCM-02 PCM-02DS-061204 12/4/2006 0 - 0.3 ft	Year 1 Event 1 PCM-02 PCM-02DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-02 PCM-02DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-02 PCM-02DS-080807 8/7/2008 0 - 6 in	Year 2 Event 2 PCM-02 PCM-02DS-081211 12/11/2008 0 - 8 cm	Year 2 Event 1 PCM-04 PCM-04DS-080807 8/7/2008 0 - 6 in	Year 0 Event 1a PCM-06 PCM-06DS-060322 3/22/2006 0 - 0.26 ft
1,1,1,2-Tetrachloroethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,2,4-Trichlorobenzene		9200	**1.5 J**	--	--	760 U	--	--	--	--	**1.1 J**
1,2-Dichlorobenzene		1700	**0.74 J**	--	--	190 U	--	--	--	--	2.3 UJ
1,3-Dichlorobenzene		300	2 UJ	--	--	190 U	--	--	--	--	2.3 UJ
1,4-Dichlorobenzene		300	2 UJ	--	--	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,1,1-Trichloroethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,1,2,2-Tetrachloroethane			2 UJ	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,1,2-Trichloroethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,1'-Dichloroethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,1'-Dichloroethene			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,2,3-Trichloropropane			2 UJ	2300 UJ	6.6 U	190 U	7 U	31 U	3700 U	3.6 U	2.3 UJ
1,2-Dichloroethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,2-Dichloroethene, cis-			2 U	--	6.6 U	190 U	--	--	--	--	2.3 UJ
1,2-Dichloroethene, trans-			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,2-Dichloropropane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,3-Dichloropropene, cis-			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
1,3-Dichloropropene, trans-			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
2-Butanone (MEK)			10 UJ	9000 UJ	66 UJ	7600 UJ	14 UJ	61 UJ	15000 UJ	**6.7 J**	12 UJ
2-Chloroethylvinyl ether			4 UJ	4500 UJ	33 U	1900 U	7 U	31 U	7400 UJ	3.6 U	4.6 UJ
2-Hexanone (Methyl butyl ketone)			20 U	4500 UJ	33 U	7600 UJ	28 U	130 U	7400 UJ	15 U	23 UJ
Acetone			40 UJ	23000 UJ	**72 J**	7600 UJ	56 UJ	250 UJ	37000 U	**24 J**	46 UJ
Acrolein			40 UJ	5600 UJ	660 UJ	7600 UJ	14 UJ	160 UJ	9200 UJ	18 UJ	46 UJ
Acrylonitrile			4 U	4500 UJ	14 U	7600 U	5.6 U	130 U	7400 U	15 U	4.6 UJ
Benzene			**8.7**	**1100 J**	6.6 U	**8000**	**310**	**140**	**690 J**	**0.45 J**	**15 J**
Bromochloromethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Bromodichloromethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Bromoform			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Bromomethane			2 U	2300 UJ	6.6 U	190 U	14 U	61 UJ	3700 U	7.1 UJ	2.3 UJ
Carbon disulfide			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 UJ	3700 U	1.5 UJ	2.3 UJ
Carbon tetrachloride			2 U	2300 UJ	6.6 UJ	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Chlorobenzene			**0.7 J**	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	**0.5 J**
Chloroethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Chloroform			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Chloromethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Dibromochloromethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Dibromomethane			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Dichlorodifluoromethane			2 UJ	2300 UJ	6.6 UJ	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Dichloromethane (Methylene chloride)			**21**	12000 UJ	**15 J**	760 U	14 U	**6.6 J**	**84 J**	7.1 U	**33 J**
Ethylbenzene			**0.28 J**	**25 J**	6.6 U	**530**	**3.8**	**36**	**420 J**	**0.45 J**	**0.34 J**
Ethylene dibromide (1,2-Dibromoethane)			2 U	2300 UJ	140 U	760 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Hexachlorobutadiene		600	--	--	--	760 U	--	--	--	--	--
Iodomethane (Methyl iodide)			4 UJ	4500 UJ	66 U	1900 U	56 UJ	61 U	7400 U	7.1 U	4.6 UJ
Isopropylbenzene (Cumene)			**0.32 J**	2300 UJ	**2.5 J**	**160 J**	**5.1**	**17**	**120 J**	1.5 U	5.7 UJ
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))			4 UJ	4500 UJ	14 U	7600 U	5.6 U	25 U	7400 U	2.9 U	4.6 UJ
Methyl tert-butyl ether (MTBE)			2 U	2300 UJ	6.6 U	190 U	2.8 U	25 U	3700 U	2.9 U	2.3 UJ
m,p-Xylene			**0.42 J**	2300 UJ	**2.4 J**	**450**	**6**	**28**	**69 J**	2.9 U	**0.34 J**
Naphthalene		561	--	**6800 J**	**2400**	--	--	--	--	--	--
o-Xylene			**0.52 J**	**42 J**	**5.7 J**	**370**	**20**	**29**	**110 J**	1.5 U	2.3 UJ

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 1a PCM-02 PCM-02DS-060322 3/22/2006 0 - 0.26 ft	Year 0 Event 2 PCM-02 PCM-02DS-060818 8/18/2006 0 - 0.3 ft	Year 0 Event 3 PCM-02 PCM-02DS-061204 12/4/2006 0 - 0.3 ft	Year 1 Event 1 PCM-02 PCM-02DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-02 PCM-02DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-02 PCM-02DS-080807 8/7/2008 0 - 6 in	Year 2 Event 2 PCM-02 PCM-02DS-081211 12/11/2008 0 - 8 cm	Year 2 Event 1 PCM-04 PCM-04DS-080807 8/7/2008 0 - 6 in	Year 0 Event 1a PCM-06 PCM-06DS-060322 3/22/2006 0 - 0.26 ft
Styrene			**0.38 J**	2300 UJ	6.6 U	190 U	**1.2 J**	13 U	3700 U	1.5 U	**0.36 J**
Tetrachloroethene (PCE)		500	2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Toluene			**0.44 J**	2300 UJ	**86**	**68 J**	**1.9 J**	**7 J**	3700 U	**0.21 J**	**1 J**
trans-1,4-Dichloro-2-butene			4 UJ	4500 UJ	17 U	3800 U	7 U	130 U	7400 U	15 U	4.6 UJ
Trichloroethene (TCE)		2100	2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Trichlorofluoromethane (Fluorotrichloromethane)			2 U	2300 UJ	6.6 UJ	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Vinyl acetate			5 UJ	2300 UJ	17 UJ	1900 UJ	7 UJ	31 UJ	3700 UJ	3.6 UJ	5.7 UJ
Vinyl chloride			2 U	2300 UJ	6.6 U	190 U	2.8 U	13 U	3700 U	1.5 U	2.3 UJ
Total Xylene (U = 0)			**0.94 J**	**42**	**8.1 J**	**820**	**26**	**57**	**179 J**	2.9 U	**0.34**
Aromatic Hydrocarbons (ug/kg)											
2-Methylnaphthalene		200	**120**	**140**	**350**	--	**1800**	--	**710**	--	**47**
Acenaphthene		300	**310**	**510**	**1100**	**32000**	**7700**	**10000**	**3100**	**630**	**130**
Acenaphthylene		200	**89**	**110**	**440**	**4300**	**2100**	**2500**	**1200**	**920**	**40**
Anthracene		845	**360**	**610**	**2000**	**28000**	**17000**	**11000**	**3700**	**2200**	**140**
Benzo(a)anthracene		1050	**750**	**920**	**2600**	**33000**	**19000**	**14000**	**6100**	**4000**	**320**
Benzo(a)pyrene		1450	**1100**	**1300**	**4000**	**42000**	**29000**	**21000**	**9900**	**6900**	**440**
Benzo(b)fluoranthene			**680**	**850**	**2500**	**42000**	**24000**	**18000**	**8400**	**5900**	**280**
Benzo(g,h,i)perylene		300	**890**	**1100**	**3500**	**35000**	**27000**	**16000**	**9100**	**5900**	**360**
Benzo(k)fluoranthene		13000	**580**	**830**	**2200**	**11000**	**8900**	**5900**	**2700**	**1800**	**250**
Chrysene		1290	**870**	**1200**	**3600**	**32000**	**24000**	**18000**	**7500**	**5800**	**370**
Dibenzo(a,h)anthracene		1300	**99**	**110**	**290**	**3500**	**2600**	**2500**	**1200**	**830**	**42**
Fluoranthene		2230	**2100**	**2600**	**8300**	**120000**	**59000**	**45000**	**17000**	**10000**	**750**
Fluorene		536	**180**	**300**	**780**	**18000**	**4700**	**5600**	**1500**	**480**	**79**
Indeno(1,2,3-c,d)pyrene		100	**790**	**940**	**2800**	**33000**	**24000**	**15000**	**7700**	**5400**	**320**
Naphthalene		561	**370**	--	--	**50000 J**	**10000**	**11000**	**4400**	**800**	**120**
Phenanthrene		1170	**1700**	**2200**	**7100**	**160000**	**42000**	**52000**	**13000**	**5400**	**560**
Pyrene		1520	**2900**	**3200**	**9200**	**150000**	**70000**	**61000**	**21000**	**13000**	**850**
Total Benzofluoranthenes (U = 0)			**1260**	**1680**	**4700**	**53000**	**32900**	**23900**	**11100**	**7700**	**530**
Total LPAH (U = 0)			**3009**	**10530**	**13820**	**292300**	**83500**	**92100**	**26900**	**10430**	**1069**
Total HPAH (U = 0)			**10759**	**13050**	**38990**	**501500**	**287500**	**216400**	**90600**	**59530**	**3982**
Total PAH (U = 0)			**13768**	**23580**	**52810**	**793800**	**371000**	**308500**	**117500**	**69960**	**5051**
Total cPAH TEF (7 minimum) (U = 0)			**1398.6**	**1677**	**5075**	**54570**	**37090**	**26720**	**12585**	**8751**	**564.9**
Semi-Volatile Organics (ug/kg)											
1,2,4-Trichlorobenzene		9200	--	56 U	30 U	--	240 UJ	130 U	300 U	71 U	--
1,2-Dichlorobenzene		1700	--	56 U	30 U	--	240 UJ	130 U	300 UJ	71 U	--
1,3-Dichlorobenzene		300	--	56 U	30 U	--	240 UJ	130 U	300 UJ	71 U	--
1,4-Dichlorobenzene		300	--	56 U	30 U	--	240 UJ	130 U	--	71 U	--
2,3,4,5-Tetrachlorophenol			11 U	11 U	15 U	12 U	12 U	13 UJ	12 U	15 UJ	12 U
2,3,5,6-Tetrachlorophenol			11 U	11 U	15 U	12 U	**0.62 J**	13 UJ	12 U	15 UJ	12 U
2,4,5-Trichlorophenol			--	--	--	300 U	240 UJ	--	300 U	--	--
2,4,6-Trichlorophenol			--	--	--	--	240 UJ	--	--	--	--
2,4-Dichlorophenol			11 U	56 U	30 U	300 UJ	240 UJ	130 U	300 U	71 U	12 U
2,4-Dimethylphenol			22 U	120 U	59 U	**R**	**R**	610 UJ	1500 UJ	360 UJ	24 U
2,4-Dinitrophenol			220 UJ	1200 U	590 U	6000 UJ	4700 UJ	2500 U	5900 UJ	1500 U	240 UJ
2,4-Dinitrotoluene			11 U	56 U	30 U	300 U	240 UJ	130 U	300 U	71 U	12 U
2,6-Dinitrotoluene			11 UJ	56 U	30 U	300 U	240 U	130 U	300 U	71 U	12 U
2-Chloronaphthalene			11 U	56 U	30 U	300 UJ	240 UJ	130 U	300 U	71 U	12 U
2-Chlorophenol			11 U	56 U	30 U	300 UJ	240 UJ	130 U	300 UJ	71 U	12 U

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2-Methylphenol (o-Cresol)			11 U	56 U	30 U	300 UJ	**R**	130 U	300 UJ	71 U	12 U
2-Nitroaniline			22 U	120 U	59 U	600 U	470 U	250 U	590 U	150 U	24 U
2-Nitrophenol			11 U	56 U	30 U	300 UJ	240 UJ	130 U	300 U	71 U	12 U
3,3'-Dichlorobenzidine			110 U	560 U	300 U	3000 UJ	2400 UJ	1300 U	3000 U	710 U	120 U
3-Nitroaniline			22 UJ	120 U	59 U	600 U	470 UJ	250 U	590 U	150 U	24 U
4-Bromophenyl-phenyl ether			11 U	56 U	30 U	300 U	240 U	130 U	300 U	71 U	12 U
4-Chloro-3-methylphenol			11 U	56 U	30 U	300 U	240 UJ	130 U	300 U	71 U	12 U
4-Chloroaniline			11 UJ	56 U	30 U	**R**	240 UJ	130 U	300 U	71 U	12 U
4-Chlorophenyl phenyl ether			11 U	56 U	30 U	300 U	240 UJ	130 U	300 U	71 U	12 U
4-Methylphenol (p-Cresol)			**7.2 J**	56 U	**25 J**	300 UJ	**R**	130 U	300 UJ	71 U	**15**
4-Nitroaniline			22 U	120 U	59 U	600 U	470 UJ	250 U	590 U	150 U	24 U
4-Nitrophenol			110 U	560 U	300 U	3000 U	2400 U	1300 U	3000 U	710 U	120 U
Aniline			22 UJ	**R**	59 U	**R**	**R**	250 UJ	590 UJ	150 UJ	24 UJ
Azobenzene			11 U	56 U	30 U	300 U	240 UJ	130 U	300 U	71 U	12 U
Benzoic acid			220 UJ	1200 U	590 UJ	**R**	4700 UJ	2500 UJ	5900 UJ	1500 UJ	**280 J**
Benzyl alcohol			11 U	56 U	30 U	600 UJ	470 UJ	250 U	590 U	150 U	**27**
bis(2-Chloroethoxy)methane			11 UJ	56 U	30 U	300 UJ	240 UJ	130 U	300 UJ	71 U	12 U
bis(2-Chloroethyl)ether			11 UJ	56 U	30 U	300 UJ	240 UJ	130 U	300 UJ	71 U	12 U
bis(2-Chloroisopropyl) ether			11 U	56 U	30 U	300 UJ	240 UJ	130 U	300 UJ	71 U	12 U
Bis(2-ethylhexyl) phthalate	330	800	**52**	150 U	**72**	3000 U	**220 J**	**140 J**	3000 U	**200 J**	**75**
Diethyl phthalate		600	11 U	56 U	30 U	300 U	240 U	130 U	300 U	71 U	12 U
Butylbenzyl phthalate			11 U	56 U	30 U	300 U	240 U	130 U	300 U	71 U	12 U
Dimethyl phthalate			11 UJ	56 U	30 U	300 U	240 U	130 U	300 U	71 U	12 U
Di-n-butyl phthalate		100	**7.7 J**	56 U	30 U	600 U	470 U	250 U	590 U	150 U	**11 J**
Carbazole		1600	**28**	**61**	**80**	**2600**	**340**	**980**	**450**	**150**	**15**
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)			110 U	560 U	300 U	3000 UJ	2400 U	1300 U	3000 U	710 U	120 U
Di-n-octyl phthalate			11 U	56 U	30 U	300 U	240 U	130 U	300 U	71 U	12 U
Hexachlorobenzene		100	--	--	--	--	240 U	130 U	--	71 U	--
Hexachlorobutadiene		600	--	--	--	--	240 U	130 U	--	71 U	--
Dibenzofuran			**30**	--	**94**	**2400**	**480**	**690**	**190**	**67**	**25**
Hexachlorocyclopentadiene		400	55 U	280 U	150 U	**R**	1200 UJ	610 UJ	1500 UJ	360 UJ	59 U
Hexachloroethane			--	--	--	--	240 UJ	130 U	--	71 U	--
Isophorone			11 UJ	56 U	30 U	300 UJ	240 UJ	130 U	300 U	71 U	12 U
Nitrobenzene			11 U	56 U	30 U	300 UJ	240 UJ	130 U	300 UJ	71 U	12 U
N-Nitrosodimethylamine			55 U	280 U	150 U	--	--	--	--	--	59 U
N-Nitrosodi-N-propylamine			11 U	56 U	30 U	300 UJ	240 UJ	130 U	300 UJ	71 U	12 U
N-Nitrosodiphenylamine			11 UJ	56 U	30 U	300 UJ	240 UJ	130 U	300 U	71 U	12 U
Pentachlorophenol		1000	--	--	--	--	2400 U	--	--	--	--
Phenol		50	**23 J**	170 U	**15 J**	890 UJ	710 UJ	370 U	880 UJ	220 U	36 U
PCB Aroclors (ug/kg)											
Aroclor 1016	420	530	5 U	10 U	12 U	29 U	12 U	13 U	12 U	15 U	5 U
Aroclor 1221			10 U	22 U	24 U	160 U	24 U	36 U	80 U	29 U	10 U
Aroclor 1232			5 U	13 U	12 U	72 U	12 U	18 U	31 U	15 U	5 U
Aroclor 1242	2		5 UJ	10 U	12 U	10 U	12 U	21 U	12 U	15 U	5 UJ
Aroclor 1248	4	1500	5 UJ	10 U	12 U	10 U	12 U	13 U	12 U	15 U	5 UJ
Aroclor 1254	10	300	5 UJ	31 U	12 U	22 U	53 U	32 U	44 U	29 U	22 UJ
Aroclor 1260		200	**68 J**	12 U	12 U	15 U	12 U	15 U	12 U	15 U	11 UJ
Aroclor 1262			5 UJ	10 U	--	10 U	12 U	13 U	12 U	15 U	5 UJ

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Aroclor 1268			5 UJ	10 U	--	10 U	12 U	13 U	12 U	15 U	5 UJ
Total PCB (U = 0)		676	**68**	31 U	24 U	160 U	53 U	36 U	80 U	29 U	22 U
PCB Congeners (ng/kg)											
PCB-001			**9.52**	**12.15 J**	**15.99 J**	--	**18.4**	--	9.83 U	--	42.94 U
PCB-002			**6.39**	**9.36 J**	**24.19 J**	--	**16.7**	--	**20.8**	--	2.147 U
PCB-003			**6.41**	10.35 UJ	**25.1 J**	--	**22**	--	**14.9**	--	42.94 U
PCB-004			162 U	99.415 UJ	**49.73 J**	--	**47.5**	--	**40.5**	--	107 U
PCB-005			--	--	25.369 U	--	0.568 U	--	9.83 U	--	--
PCB-005/008			16.17 U	**160.16**	--	--	--	--	--	--	10.74 U
PCB-006			16.17 U	9.941 U	25.369 U	--	**16.9**	--	**15.8**	--	10.74 U
PCB-007			16.17 U	9.941 U	25.369 U	--	**2.71**	--	9.83 U	--	10.74 U
PCB-008			--	--	**63.05 J**	--	**76.5**	--	**65**	--	--
PCB-009			16.17 U	9.941 U	25.369 U	--	**5.49**	--	9.83 U	--	10.74 U
PCB-010			16.17 U	9.941 U	25.369 U	--	**1.82**	--	9.83 U	--	10.74 U
PCB-011			64.67 U	**213.67**	**362.29**	--	**198**	--	**184**	--	42.94 U
PCB-012/013			**97.95**	19.883 U	50.739 U	--	**11**	--	19.7 U	--	**63.79**
PCB-014			32.33 U	19.883 UJ	50.739 U	--	0.516 U	--	9.83 U	--	21.47 U
PCB-015			162 U	99.415 U	253.69 U	--	**111**	--	**75.3**	--	107 U
PCB-016			--	--	50.739 U	--	**111**	--	**47.2**	--	--
PCB-017			**18.96**	**38.03 J**	**52.63 J**	--	**110**	--	**66.5**	--	**13.55**
PCB-018/030			**34.53**	**59.8 J**	**99.38 J**	--	**254**	--	**123**	--	**20.66**
PCB-019			**9.88**	**18.8 J**	**24.22 J**	--	**56**	--	**34.5**	--	**8.08**
PCB-020/021/028/033			**87.73**	**161.6 J**	--	--	--	--	--	--	**71.99**
PCB-020/028			--	--	**209.77 J**	--	**465**	--	**302**	--	--
PCB-021			--	--	--	--	--	--	--	--	--
PCB-021/033			--	--	**95.4 J**	--	**156**	--	**103**	--	--
PCB-022			**14.79**	**28.14 J**	101.47 U	--	**131**	--	**76.3**	--	**14.27**
PCB-023			--	--	101.47 U	--	0.379 U	--	9.83 U	--	--
PCB-023/034			64.67 U	39.766 UJ	--	--	--	--	--	--	42.94 U
PCB-024			--	--	--	--	0.224 U	--	9.83 U	--	--
PCB-024/027			--	--	**41.67 J**	--	--	--	--	--	--
PCB-025			64.67 U	39.766 UJ	**25.66 J**	--	**31.3**	--	**24.6**	--	**4.06**
PCB-026/029			**11.7**	**15.58 J**	**46.9 J**	--	**66.5**	--	**50.1**	--	**8.49**
PCB-027			--	--	--	--	**22.3**	--	**14**	--	--
PCB-031			**55.7**	**93.71 J**	**202.1 J**	--	**347**	--	**220**	--	**41.28**
PCB-032			**10.22**	**16.02 J**	**21.95 J**	--	0.209 U	--	**53.3**	--	**8.86**
PCB-034			--	--	101.47 U	--	**2.59**	--	9.83 U	--	--
PCB-035			64.67 U	39.766 UJ	**29.91 J**	--	**9.54**	--	**8.27 J**	--	42.94 U
PCB-036			**4.24**	39.766 UJ	101.47 U	--	**1.11**	--	9.83 U	--	**3.43**
PCB-037			**16.57**	**20.87**	**82.31 J**	--	**167**	--	**95.5**	--	**13.94**
PCB-038			**7.04**	39.766 UJ	**25.55 J**	--	**0.856**	--	9.83 U	--	**4.59**
PCB-039			64.67 U	39.766 UJ	101.47 U	--	**3.37**	--	9.83 U	--	42.94 U
PCB-040/041/071			**40.4**	**47.36 J**	**144.19 J**	--	--	--	--	--	**36.44**
PCB-040/071			--	--	--	--	**304**	--	**188**	--	--
PCB-041			--	--	--	--	**53.5**	--	**32.8 J**	--	--
PCB-042			--	--	101.47 U	--	**188**	--	**118**	--	--
PCB-042/059/062/075			**15.19**	**20.49 J**	--	--	--	--	--	--	**17.19**
PCB-043			--	--	--	--	**28.7**	--	**16.1**	--	--

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 1a PCM-02 PCM-02DS-060322 3/22/2006 0 - 0.26 ft	Year 0 Event 2 PCM-02 PCM-02DS-060818 8/18/2006 0 - 0.3 ft	Year 0 Event 3 PCM-02 PCM-02DS-061204 12/4/2006 0 - 0.3 ft	Year 1 Event 1 PCM-02 PCM-02DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-02 PCM-02DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-02 PCM-02DS-080807 8/7/2008 0 - 6 in	Year 2 Event 2 PCM-02 PCM-02DS-081211 12/11/2008 0 - 8 cm	Year 2 Event 1 PCM-04 PCM-04DS-080807 8/7/2008 0 - 6 in	Year 0 Event 1a PCM-06 PCM-06DS-060322 3/22/2006 0 - 0.26 ft
PCB-043/052/073			**262**	**373.4 J**	**345.78**	--	--	--	--	--	**192**
PCB-044/047/065			**425**	**279.81 J**	**309.25**	--	**697**	--	**502**	--	**221**
PCB-045			--	--	--	--	**85.4**	--	**57.7**	--	--
PCB-045/051			**45.16**	**29.89 J**	**54.68 J**	--	--	--	--	--	**25.19**
PCB-046			**3.39**	**7.09 J**	101.47 U	--	**36.3**	--	**27.1**	--	**5.43**
PCB-048			64.67 U	**15.47 J**	101.47 U	--	**112**	--	**73.2**	--	42.94 U
PCB-049/069			**70.6**	**105.91 J**	**170.13 J**	--	**400**	--	**320**	--	**62.27**
PCB-050			--	--	--	--	--	--	--	--	--
PCB-050/053			**18.64**	**21.47 J**	**46.24 J**	--	**104**	--	**92**	--	**18.21**
PCB-051			--	--	--	--	**40.4**	--	**43.5**	--	--
PCB-052			--	--	--	--	**796**	--	**558**	--	--
PCB-054			162 U	99.415 UJ	253.69 U	--	**9.42**	--	**8.27**	--	**0.95**
PCB-055			--	--	253.69 U	--	**5.52**	--	9.83 U	--	--
PCB-055/066			**92.01**	99.415 UJ	--	--	--	--	--	--	**93.94**
PCB-056			--	--	**130.93**	--	**296**	--	**192**	--	--
PCB-056/060			**60.52**	**81.79 J**	--	--	--	--	--	--	**54.71**
PCB-057			**4.32**	**8.42 J**	253.69 U	--	**2.75**	--	9.83 U	--	107 U
PCB-058			--	--	253.69 U	--	**1.99**	--	9.83 U	--	--
PCB-058/067			162 U	99.415 UJ	--	--	--	--	--	--	107 U
PCB-059/062/075			--	--	101.47 U	--	**50.1**	--	**38.4**	--	--
PCB-060			--	--	**35.27 J**	--	**122**	--	**86.6**	--	--
PCB-061/070/074/076			**263**	**170.05 J**	**595.02**	--	**1070**	--	**714**	--	**186**
PCB-063			162 U	**388.98 J**	253.69 U	--	**20.8**	--	**16.7**	--	107 U
PCB-064			**32.33**	**48.01 J**	**65.59 J**	--	**242**	--	**174**	--	**33.29**
PCB-066			--	--	**136.61 J**	--	**617**	--	**422**	--	--
PCB-067			--	--	253.69 U	--	**16.9**	--	**12.7**	--	--
PCB-068			**51.64**	**22.67 J**	253.69 U	--	**5.93**	--	9.83 U	--	**22.5**
PCB-072			162 U	99.415 UJ	253.69 U	--	**7.74**	--	9.83 U	--	107 U
PCB-073			--	--	--	--	0.277 U	--	9.83 U	--	--
PCB-077			**6.36**	**10.48 J**	**63.82 J**	--	**74.8**	--	**54.1**	--	**7.02**
PCB-078			162 U	99.415 UJ	253.69 U	--	0.924 U	--	9.83 U	--	107 U
PCB-079			162 U	99.415 UJ	**29.55 J**	--	**7.43**	--	9.83 U	--	107 U
PCB-080			162 U	99.415 UJ	253.69 U	--	0.808 U	--	9.83 U	--	107 U
PCB-081			162 U	99.415 U	**23.72 J**	--	**2.82**	--	9.83 U	--	107 U
PCB-082			**22.9**	**38.94**	**47.36 J**	--	**113**	--	**84.7**	--	**18.84**
PCB-083			--	--	--	--	**49.4**	--	**53.9**	--	--
PCB-083/099			--	--	**188.3 J**	--	--	--	--	--	--
PCB-083/099/112			**63.43**	**135.18**	--	--	--	--	--	--	**55.78**
PCB-084			**36.82**	**89.04**	**86.77 J**	--	**194**	--	**175**	--	**32.62**
PCB-085/116			--	--	--	--	**131**	--	**132**	--	--
PCB-085/116/117			**43.26**	**95.37**	**239.65**	--	--	--	--	--	**36.55**
PCB-086/087/097/108/119			--	--	**263.43**	--	--	--	--	--	--
PCB-086/087/097/108/119/125			**73.69**	99.415 U	--	--	**544**	--	**445**	--	**63.48**
PCB-088			--	--	--	--	0.648 U	--	9.83 U	--	--
PCB-088/091			**33.02**	**58.93**	**105.98 J**	--	--	--	--	--	**24.03**
PCB-089			162 U	99.415 U	253.69 U	--	**12.4**	--	**15.3**	--	**0.94**
PCB-090/101/113			**138**	**316.78**	**412.64 J**	--	**857**	--	**796**	--	**116**
PCB-091			--	--	--	--	**105**	--	**102**	--	--

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 1a PCM-02 PCM-02DS-060322 3/22/2006 0 - 0.26 ft	Year 0 Event 2 PCM-02 PCM-02DS-060818 8/18/2006 0 - 0.3 ft	Year 0 Event 3 PCM-02 PCM-02DS-061204 12/4/2006 0 - 0.3 ft	Year 1 Event 1 PCM-02 PCM-02DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-02 PCM-02DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-02 PCM-02DS-080807 8/7/2008 0 - 6 in	Year 2 Event 2 PCM-02 PCM-02DS-081211 12/11/2008 0 - 8 cm	Year 2 Event 1 PCM-04 PCM-04DS-080807 8/7/2008 0 - 6 in	Year 0 Event 1a PCM-06 PCM-06DS-060322 3/22/2006 0 - 0.26 ft
PCB-092			**28.05**	**60.53**	**99.43 J**	--	**179**	--	**154**	--	**23.54**
PCB-093/095/100			--	--	**425.12**	--	--	--	--	--	--
PCB-093/098/100/102			**150**	7.48 U	--	--	--	--	--	--	**108**
PCB-093/100			--	--	--	--	**19.9**	--	**19.9 J**	--	--
PCB-094			**3.53**	99.415 U	253.69 U	--	**7.35**	--	9.83 U	--	**3.33**
PCB-095			**45.28**	**526.08**	--	--	**583**	--	**558**	--	**31.18**
PCB-096			**1.5**	**2.35**	253.69 U	--	**11.9**	--	**9.62**	--	**1.31**
PCB-098			--	--	253.69 U	--	**1.67**	--	9.83 U	--	--
PCB-099			--	--	--	--	**392**	--	**315**	--	--
PCB-102			--	--	--	--	**28.5**	--	**27.9**	--	--
PCB-103			162 U	**3.91**	253.69 U	--	**14.2**	--	**15**	--	107 U
PCB-104			162 U	99.415 U	253.69 U	--	**1.37**	--	9.83 U	--	107 U
PCB-105			**44.2**	**59.26**	**153.64**	--	**326**	--	**241**	--	**30.62**
PCB-106			--	--	**122.39 J**	--	0.476 U	--	9.83 U	--	--
PCB-106/109/123			64.67 U	39.766 U	--	--	--	--	--	--	42.94 U
PCB-107/124			**10.52**	198.83 U	**18.3 J**	--	**28**	--	**25.4 J**	--	**4.42**
PCB-109			--	--	**18.84 J**	--	**51.1**	--	**46.3**	--	--
PCB-110			--	--	--	--	**969**	--	**714**	--	--
PCB-110/115			**185**	**376.27**	**492.32 J**	--	--	--	--	--	**166**
PCB-111			323 U	198.83 U	507.39 U	--	**0.916**	--	9.83 U	--	215 U
PCB-112			--	--	507.39 U	--	0.5 U	--	9.83 U	--	--
PCB-114			--	--	**11.93 J**	--	**18.6**	--	**13.9 J**	--	--
PCB-114/122			162 U	99.415 U	--	--	--	--	--	--	107 U
PCB-115			--	--	--	--	0.391 U	--	9.83 U	--	--
PCB-117			--	--	--	--	**14.5**	--	9.83 U	--	--
PCB-118			**120**	**198.04**	**293.46**	--	**773**	--	**601**	--	**90.92**
PCB-120			162 U	99.415 U	253.69 U	--	**5.3**	--	9.83 U	--	**1.57**
PCB-121			162 U	99.415 U	253.69 U	--	**0.922**	--	9.83 U	--	107 U
PCB-122			--	--	**7.4 J**	--	**9.94**	--	9.83 U	--	--
PCB-123			--	--	253.69 U	--	**15.5**	--	**11.5**	--	--
PCB-126			162 U	99.415 U	**28.22 J**	--	**3.87**	--	9.83 U	--	107 U
PCB-127			323 U	198.83 U	507.39 U	--	0.424 U	--	9.83 U	--	215 U
PCB-128/166			**35.03**	**31.94**	**127.78 J**	--	**169**	--	**145**	--	**32.05**
PCB-129/138/160/163			**525**	**306.77**	**424.63**	--	--	--	--	--	**221**
PCB-129/138/163			--	--	--	--	**1330**	--	**1020**	--	--
PCB-130			--	--	**15.23 J**	--	**77.1**	--	**62.5**	--	--
PCB-130/137/164			162 U	**9.58**	--	--	--	--	--	--	107 U
PCB-131			--	--	--	--	**10.8**	--	**10.4 J**	--	--
PCB-131/142			162 U	99.415 U	253.69 U	--	--	--	--	--	107 U
PCB-132			**113**	**99.91**	**189.9 J**	--	**366**	--	**290**	--	**54.01**
PCB-133			**2.35**	99.415 U	253.69 U	--	**23.8**	--	**23**	--	107 U
PCB-134			--	--	--	--	**74.9**	--	**63.2**	--	--
PCB-134/147/149			**520**	**378.91**	**722.16**	--	--	--	--	--	**278**
PCB-135/151			--	--	--	--	**505**	--	**389**	--	--
PCB-135/151/154			**138**	**125.71**	**202.21 J**	--	--	--	--	--	**90.84**
PCB-136			**26.73**	**36.09**	**85.07 J**	--	**211**	--	**145**	--	**19.15**
PCB-137			--	--	507.39 U	--	**32.3**	--	**22.7 J**	--	--
PCB-139/140			162 U	99.415 U	253.69 U	--	**18.2**	--	**18.5**	--	107 U

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PCB-141			--	--	**134.19**	--	**237**	--	**184**	--	--
PCB-141/153/168			**609**	**336.52**	--	--	--	--	--	--	**330**
PCB-142			--	--	--	--	0.307 U	--	9.83 U	--	--
PCB-143			162 U	**8.33**	253.69 U	--	0.269 U	--	9.83 U	--	**2.89**
PCB-144			162 U	99.415 U	253.69 U	--	**68**	--	**53.1**	--	107 U
PCB-145			323 U	198.83 U	507.39 U	--	**0.51**	--	9.83 U	--	215 U
PCB-146			--	--	**59.53 J**	--	**244**	--	**179**	--	--
PCB-146/161			**47**	**40**	--	--	--	--	--	--	**23.05**
PCB-147/149			--	--	--	--	**1060**	--	**791**	--	--
PCB-148			323 U	198.83 U	507.39 U	--	**5.25**	--	9.83 U	--	215 U
PCB-150			--	--	--	--	**4.94**	--	9.83 U	--	--
PCB-150/152			323 U	198.83 U	507.39 U	--	--	--	--	--	215 U
PCB-152			--	--	--	--	**1.83**	--	9.83 U	--	--
PCB-153/168			--	--	**867.52**	--	**1170**	--	**852**	--	--
PCB-154			--	--	--	--	**27**	--	**23.5**	--	--
PCB-155			323 U	198.83 U	507.39 U	--	**0.408**	--	9.83 U	--	215 U
PCB-156/157			**32.35**	**23.2**	**78.04 J**	--	**121**	--	**105**	--	**14.53**
PCB-158			**28.11**	**17.25**	**46.76 J**	--	**118**	--	**96.2**	--	**10.97**
PCB-159			**5.41**	198.83 U	**32.02 J**	--	**16.9**	--	**13.8**	--	**7.49**
PCB-016/024/027			**3.93**	**6.4 J**	--	--	--	--	--	--	**2.52**
PCB-160			--	--	--	--	0.221 U	--	9.83 U	--	--
PCB-161			--	--	507.39 U	--	0.193 U	--	9.83 U	--	--
PCB-162			323 U	198.83 U	**14.5 J**	--	**3.19**	--	9.83 U	--	215 U
PCB-164			--	--	**161.86 J**	--	**83.2**	--	**69.4**	--	--
PCB-165			323 U	198.83 U	507.39 U	--	**1.55**	--	9.83 U	--	215 U
PCB-167			**14.67**	**7.83**	**18.01 J**	--	**45.5**	--	**40.3**	--	**7.38**
PCB-169			162 U	99.415 U	**32.12 J**	--	**3.37**	--	9.83 U	--	**7.8**
PCB-170			**221**	**80.79**	**799.93**	--	**334**	--	**261**	--	**213**
PCB-171/173			--	--	**214.01 J**	--	**125**	--	**84.7**	--	--
PCB-171/173/181			**78.17**	**26.74**	--	--	--	--	--	--	**52.01**
PCB-172			323 U	**13.2**	**242.18 J**	--	**62.7**	--	**46.3**	--	215 U
PCB-174			--	--	**1726.63**	--	**455**	--	**292**	--	--
PCB-174/183/185			**1105**	55.45 U	--	--	--	--	--	--	**1868**
PCB-175			**73.89**	50.77 U	**1142.2**	--	**19**	--	**15.6**	--	215 U
PCB-176			**40.8**	**18.76**	**71.11 J**	--	**46**	--	**39.9**	--	**37.04**
PCB-177			**147**	**57.87**	**695.04**	--	**276**	--	**165**	--	**183**
PCB-178			**141**	94.45 U	**510.76**	--	**85.8**	--	**68.7**	--	**254**
PCB-179			**105**	53.3 U	**390.41**	--	**207**	--	**156**	--	**116**
PCB-180			--	--	--	--	--	--	--	--	--
PCB-180/193			**555**	247.06 U	**5254.91**	--	**822**	--	**577**	--	**1447**
PCB-181			--	--	507.39 U	--	**12.5**	--	**12.4**	--	--
PCB-182			--	--	**28.19 J**	--	**2.76**	--	9.83 U	--	--
PCB-182/187			**535**	332.72 U	--	--	--	--	--	--	**1417**
PCB-183			--	--	**795.78**	--	**215**	--	**152**	--	--
PCB-184			323 U	198.83 U	507.39 U	--	**0.684**	--	9.83 U	--	215 U
PCB-185			--	--	507.39 U	--	**34**	--	**31.2**	--	--
PCB-186			323 U	198.83 U	507.39 U	--	**0.606**	--	9.83 U	--	215 U
PCB-187			--	--	**5444.25**	--	**584**	--	**379**	--	--

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 1a PCM-02 PCM-02DS-060322 3/22/2006 0 - 0.26 ft	Year 0 Event 2 PCM-02 PCM-02DS-060818 8/18/2006 0 - 0.3 ft	Year 0 Event 3 PCM-02 PCM-02DS-061204 12/4/2006 0 - 0.3 ft	Year 1 Event 1 PCM-02 PCM-02DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-02 PCM-02DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-02 PCM-02DS-080807 8/7/2008 0 - 6 in	Year 2 Event 2 PCM-02 PCM-02DS-081211 12/11/2008 0 - 8 cm	Year 2 Event 1 PCM-04 PCM-04DS-080807 8/7/2008 0 - 6 in	Year 0 Event 1a PCM-06 PCM-06DS-060322 3/22/2006 0 - 0.26 ft
PCB-188			162 U	99.415 U	253.69 U	--	**1.1**	--	9.83 U	--	107 U
PCB-189			**5.53**	**2.13**	**28.6 J**	--	**14.1**	--	**11.5**	--	**4.03**
PCB-190			**25.96**	14.7 U	**467.45**	--	**77.5**	--	**70.6**	--	**51.03**
PCB-191			323 U	198.83 U	**29.15 J**	--	**16.1**	--	**14.2**	--	**9.18**
PCB-192			**21.93**	198.83 U	507.39 U	--	0.825 U	--	9.83 U	--	**31.49**
PCB-194			**42.55**	43.6 U	**4710.23**	--	**220**	--	**152**	--	**773**
PCB-195			**25.71**	21.53 U	**1234.96**	--	**88.3**	--	**64.4**	--	**253**
PCB-196			--	--	**2274.83**	--	**94.8**	--	**87.4**	--	--
PCB-196/203			**144**	150.09 U	--	--	--	--	--	--	**2189**
PCB-197			--	--	--	--	**8.86**	--	**8.02**	--	--
PCB-197/200			**15.89**	13.24 U	**487.86 J**	--	--	--	--	--	**134**
PCB-198/199			**84.6**	99.59 U	**4712.59**	--	**311**	--	**215**	--	**1326**
PCB-200			--	--	--	--	**32.6**	--	**32.8**	--	--
PCB-201			**21.49**	17.12 U	**438.24 J**	--	**32.6**	--	**29.6**	--	**141**
PCB-202			**21.35**	17.77 U	**686.23**	--	**50.2**	--	**46.4**	--	**138**
PCB-203			--	--	**3165.72**	--	**162**	--	**127**	--	--
PCB-204			323 U	3.89 U	507.39 U	--	0.382 U	--	9.83 U	--	215 U
PCB-205			**2.56**	2.12 U	**177.51 J**	--	**11**	--	**8.71 J**	--	**34.04**
PCB-206			**26.41**	46.32 UJ	**3414.73 J**	--	**222**	--	**127**	--	**851**
PCB-207			**4.82**	6.71 U	**401.83 J**	--	**21**	--	**27.2**	--	**94.26**
PCB-208			**9.19**	12.89 U	**583.04**	--	**63.6**	--	**38.9**	--	**131**
PCB-209			**23.76**	**26.09**	**218.65 J**	--	**204**	--	**138**	--	**45.93**
Total PCB Congener (U=0)			**8359.58**	**6093.88**	**50222.31**	--	**24264.982**	--	**18014.29**	--	**14956.95**
Monochlorobiphenyls (total)			--	--	--	--	**57.1**	--	**35.8**	--	--
Dichlorobiphenyls (total)			--	--	--	--	**471**	--	**381**	--	--
Trichlorobiphenyls (total)			--	--	--	--	**1930**	--	**1220 J**	--	--
Tetrachlorobiphenyls (total)			--	--	--	--	**5400**	--	**3750 J**	--	--
Pentachlorobiphenyls (total)			--	--	--	--	**5460**	--	**4560 J**	--	--
Hexachlorobiphenyls (total)			--	--	--	--	**6020**	--	**4600 J**	--	--
Heptachlorobiphenyls (total)			--	--	--	--	**3390**	--	**2380**	--	--
Octachlorobiphenyls (total)			--	--	--	--	**1010**	--	**772 J**	--	--
Nonachlorobiphenyls (total)			--	--	--	--	**307**	--	**193**	--	--
Pesticides (ug/kg)											
2,4'-DDD (o,p'-DDD)			**8.2 J**	9.4 U	3.4 U	**11 J**	19 U	2.6 U	**13 J**	**5 J**	3.7 UJ
2,4'-DDE (o,p'-DDE)			1 U	5 U	1.2 U	1.4 U	5.9 U	1.3 U	2 U	1.5 U	1.2 UJ
2,4'-DDT (o,p'-DDT)			1.8 U	5 U	3 U	**4.8 J**	**11 J**	3.3 U	2.1 U	2.4 U	**5.5 J**
4,4'-DDD (p,p'-DDD)	0.3	28	**17 J**	5 U	**8.8**	**20**	**25**	**20 J**	**34 J**	**16 J**	**8.8**
4,4'-DDE (p,p'-DDE)	0.3	31.3	**3.3**	**2.7 J**	**3.9**	2.8 U	**5.4 J**	**5.9**	**6.2 J**	**4.6**	**3.3**
4,4'-DDT (p,p'-DDT)	0.3	62.9	**18 J**	5 U	**25**	**1.3**	**20**	**11 J**	**44 J**	**4.5 J**	**3.7**
Total DDT (U = 0)			**46.5**	**2.7**	**37.7**	**37.1**	**61.4**	**36.9**	**97.2**	**30.1**	**21.3**
Aldrin		40	1.1 U	5 U	**3.5 J**	1.6 U	7 U	2.1 U	2.3 UJ	2.2 U	1.2 U
alpha-BHC			1 U	5 U	1.2 U	1 U	5.9 U	1.3 UJ	1.2 UJ	1.5 UJ	1 U
beta-BHC			3.8 U	5.4 U	1.2 U	6.8 U	12 U	1.3 U	1.2 UJ	1.5 U	2.2 U
alpha-Chlordane (cis-Chlordane)			1 U	5 U	1.2 U	1.3 U	5.9 U	4.3 U	3.4 U	5.2 U	1.7 U
Chlordane		17.6	--	50 U	--	--	--	--	--	--	--
Chlordane (technical)			1 U	5 U	1.2 U	1 U	5.9 U	1.3 U	--	1.5 U	**0.71 J**
cis-Nonachlor			4.5 U	5 U	**1.4**	4.5 U	**4.2 J**	5.4 U	8 U	1.7 U	1 U
trans-Nonachlor			**1.3**	5 U	1.2 U	1 U	5.9 UJ	1.4 U	1.3 U	1.5 U	**0.81 J**

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delta-BHC			1 U	5 U	1.2 U	1 U	5.9 U	1.3 UJ	1.2 UJ	1.5 UJ	1 U
Dieldrin		61.8	1 U	5 U	1.2 U	1.4 U	5.9 U	1.4 UJ	1.2 U	1.5 UJ	1 U
Endosulfan-alpha (I)			1 U	5 U	1.2 U	1 U	5.9 U	1.9 U	1.2 U	1.5 U	1 U
Endosulfan-beta (II)			1 U	5 U	**1.8 J**	1 U	5.9 U	1.3 U	1.2 U	1.5 U	1 U
Endosulfan sulfate			1 U	5 U	1.4 U	**3.4**	5.9 U	2.1 UJ	1.2 UJ	1.5 UJ	1 U
Endrin		207	1.2 U	5 U	**2.8 J**	1 U	5.9 U	1.3 UJ	1.7 U	1.5 UJ	2.7 U
Endrin aldehyde			3.2 U	5 U	1.2 U	3.3 U	5.9 U	2.5 UJ	1.2 U	3.3 UJ	1.1 U
Endrin ketone			2.5 U	5 U	1.3 U	2.2 U	5.9 U	1.3 UJ	**3**	1.6 UJ	**1.4 J**
gamma-BHC (Lindane)		4.99	1.1 U	5 U	1.7 U	2.2 U	5.9 U	3.1 UJ	5.7 UJ	1.5 UJ	1.1 U
gamma-Chlordane			--	--	--	--	--	--	1.2 UJ	--	--
Heptachlor		10	1 U	5 U	1.2 U	**2.4**	**3.6 J**	**1.3 J**	3.6 UJ	1.5 UJ	1 U
Heptachlor epoxide		16	1 U	5 U	1.2 U	1 U	**3.2 J**	1.4 U	1.2 U	1.5 U	1 U
Hexachlorobenzene		100	1 U	**2.1 J**	**5**	1 U	5.9 U	1.3 U	1.3 U	1.5 UJ	1 U
Hexachlorobutadiene		600	2.2 U	5.5 U	1.5 U	--	5.9 U	1.5 U	6.6 U	**2.8**	2.3 UJ
Hexachloroethane			1 UJ	5 U	1.2 UJ	1 U	5.9 UJ	**0.4 J**	1.2 U	**0.43 J**	1 UJ
Methoxychlor			2.5 U	5 U	**2.1 J**	5.5 UJ	9.4 UJ	5.8 UJ	1.2 U	2.9 UJ	1.7 U
Mirex			1.4 U	5 U	1.2 U	1 U	5.9 UJ	**4.4 J**	**8.6 J**	1.9 U	1.2 U
Oxychlordane			1 U	5 U	**2.9 J**	1 U	5.9 U	1.8 U	2.5 U	1.5 U	1.4 U
Toxaphene			130 U	250 UJ	470 U	690 U	400 U	420 U	660 U	280 U	140 U
Herbicides (ug/kg)											
2,2-Dichloropropionic acid (Dalapon)			250 U	280 U	730 U	300 U	120 U	62 U	300 U	72 U	250 U
2,4-D (2,4-Dichlorophenoxyacetic acid)			250 U	280 U	730 U	300 U	120 UJ	62 U	300 U	72 U	250 U
2,4-DB (2,4-D derivative)			250 U	280 U	730 U	**49 J**	120 U	62 U	300 U	72 U	250 U
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)			250 U	280 U	730 U	300 U	120 U	62 U	300 U	72 U	250 U
2,4,5-TP (Silvex)			250 U	280 U	730 U	300 U	120 U	62 U	300 U	72 U	250 U
2,4,5-Trichlorophenol			11 U	11 U	15 U	--	12 U	13 UJ	--	15 UJ	12 U
2,4,6-Trichlorophenol			11 U	**3.5 J**	15 U	12 UJ	**0.38 J**	13 U	12 U	15 U	12 U
3,4-Dichlorophenol			--	35 U	--	--	--	--	--	--	--
3,5-Dichlorophenol			--	22 U	--	--	--	--	--	--	--
Dicamba			250 U	280 U	730 U	300 U	120 U	62 U	300 U	72 U	250 U
Dichlorprop			250 U	280 U	730 U	300 U	120 U	62 U	300 U	72 U	250 U
Dinoseb			250 U	280 U	730 U	300 U	120 U	62 U	300 U	72 U	250 U
MCPA			50000 U	56000 UJ	150000 U	60000 U	24000 U	13000 U	59000 U	15000 U	50000 U
Mecoprop (MCPP)			50000 U	56000 U	150000 UJ	60000 U	24000 U	13000 UJ	59000 UJ	15000 UJ	50000 U
Pentachlorophenol		1000	11 U	**1.3 J**	**2.4 J**	**1.5 J**	**3.4 J**	13 UJ	12 U	15 UJ	12 U
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		9	**0.18 J**	1.517 U	1.647 U	--	**0.332 J**	--	**0.446 J**	--	**0.327 J**
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)			**0.402 J**	7.586 U	**0.432 J**	--	**0.9 J**	--	**1.38 J**	--	**0.448 J**
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			**0.296 J**	7.586 U	**0.58 J**	--	**1.56 J**	--	**2.87**	--	**0.405 J**
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			**1.127 J**	**0.682 J**	**2.801 J**	--	**8.21**	--	**11.3**	--	**1.918 J**
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)			**0.844 J**	**0.538 J**	**1.087 J**	--	**3.38 J**	--	**4.5**	--	**1.38 J**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)			**29.839**	**19.409**	**65.247**	--	**296**	--	**290**	--	**51.147**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)			**249.616**	**135.533**	**561.013**	--	**2520**	--	**2310**	--	**677.663**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)			**2.384**	**1.822**	**2.846**	--	**21.6**	--	**80**	--	**20.546**
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)			**2.463 J**	**2.461 J**	**4.474 J**	--	**20.7**	--	**70.7**	--	**7.999**
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)			**0.908 J**	**0.93 J**	**1.573 J**	--	**11.6**	--	**40.3**	--	**4.431 J**
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)			**4.25 J**	**6.299 J**	**13.236**	--	**37.2**	--	**121**	--	**9.829**
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)			**1.634 J**	**2.046 J**	**2.946 J**	--	**7.78**	--	**33**	--	**2.019 J**

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1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)			**0.102 J**	7.586 U	**0.2 J**	--	**4.12**	--	**18.9**	--	6.533 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)			**0.649 J**	**0.585 J**	**0.585 J**	--	**3.2 J**	--	**8.57**	--	**0.92 J**
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)			**6.368 J**	**5.141**	**15.694**	--	**40.2**	--	**116**	--	**11.28**
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)			**1.18 J**	**1.539 J**	**3.261 J**	--	**8.01**	--	**21.1**	--	**1.608 J**
1,2,3,4,5,6,7,8-Octachlorodibenzofuran (OCDF)			**24.071**	**20.745**	**55.975**	--	**144**	--	**446**	--	**48.749**
Total Tetrachlorodibenzo-p-dioxin (TCDD)			**0.722**	**0.808**	**2.583**	--	**7.46**	--	**15.6 J**	--	**1.533**
Total Pentachlorodibenzo-p-dioxin (PeCDD)			**0.523**	7.586 U	**1.897**	--	**9.95**	--	**9.9 J**	--	**1.404**
Total Hexachlorodibenzo-p-dioxin (HxCDD)			**8.04**	**6.404**	**19.413**	--	**83.2**	--	**68.1 J**	--	**11.879**
Total Heptachlorodibenzo-p-dioxin (HpCDD)			**66.28**	**44.628**	**148.894**	--	**692**	--	**582**	--	**101.582**
Total Tetrachlorodibenzofuran (TCDF)			**5.981**	**6.821**	**6.79**	--	**67.6**	--	**185 J**	--	**50.224**
Total Pentachlorodibenzofuran (PeCDF)			**8.189**	**6.954**	**13.324**	--	**64.1**	--	**190 J**	--	**26.829**
Total Hexachlorodibenzofuran (HxCDF)			**13.186**	**13.123**	**32.427**	--	**93.1**	--	**268**	--	**24.926**
Total Heptachlorodibenzofuran (HpCDF)			**19.255**	**13.31**	**46.939**	--	**135**	--	**435**	--	**35.996**
Total Dioxin/Furan TEQ (Mammal) (U = 0)			**2.5128661**	**1.8578034**	**4.4933364**	--	**18.2793**	--	**49.1488**	--	**6.9042436**
Total Petroleum Hydrocarbons (mg/kg)											
Diesel Range Hydrocarbons			**130**	**130**	**500**	**3300**	**4100**	**850**	**800**	**230**	**92**
Gasoline Range			11 U	**9.9 J**	**4.2 J**	**80**	**24**	**15 J**	**48**	**5.8 J**	12 U
Residual Range			**460**	**480**	**830**	**3400**	**3700**	**1400**	**1300**	**880**	**480**

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Conventional Parameters (mg/kg)											
Ammonia			84.2	54.2	84.6	116	98.8	78.9	46	108	72.6
Cyanide			0.49 J	--	--	--	0.9	0.52 UJ	0.2 J	3.4	--
Sulfide			32.9	9.2	2.2 J	2.3 J	13.2	1.3 U	--	21.3	16.3
Conventional Parameters (su)											
pH			--	--	--	--	6.71	6.89	--	--	--
Conventional Parameters (pct)											
Total organic carbon			3.7	3.23	2.33	2.3 J	3.23 J	2.95	3.08	2.89	4.14
Total solids			41.4	33.1	47.3	43.4	38.3	41	40	40.8	40
Grain Size (pct)											
Gravel			0.14	0.28	--	0.98	1.77	0.62 J	0.07	0.1	0.45
Gravel, Medium			--	--	0	--	--	--	--	--	--
Gravel, Fine			--	--	2.5	--	--	--	--	--	--
Sand, Very Coarse			0.53	0.98	0.8	0.62	3.39	1.56	0.3	0.21	0.83
Sand, Coarse			1.15	0.96	1.63	1.2	2.89	2.55 J	1.4	0.96	1.91
Sand, Medium			1.86	1.66	4.91	2.22	4.46	4.33 J	1.88	4.5	4.53
Sand, Fine			5.28	4.76	9.47	7.73	6.04	7.1 J	5.07	5.4	12.8
Sand, Very Fine			27.7	16.6	23	47.6	13.9	23.5	24.3	19.1	26.6
Silt			51.8	64.9	--	--	60.2	58.9	60.6	59.4	55.2
Silt, Coarse			--	--	22	9.54	--	--	--	--	--
Silt, Medium			--	--	12.7	8.66	--	--	--	--	--
Silt, Fine			--	--	6.75	4.42	--	--	--	--	--
Silt, Very Fine			--	--	--	3.95	--	--	--	--	--
Clay			8.97	8.63	2.37	2.22	7.45	6 J	7.2	9.57	10.1
Clay, Fine			--	--	4.79	--	--	--	--	--	--
Clay, Very Fine			--	--	4.86	--	--	--	--	--	--
Metals (mg/kg)											
Aluminum			24300	28700	28300	25100	26800	26900	28300	20300	20500
Antimony	10	64	0.11	0.15	0.15 UJ	0.12	0.14 J	0.2 J	0.12	0.12	0.18
Arsenic	4	33	3.36 J	4.77	2.65	3.2	4.17	3.6	3.49	3.95 J	3.48
Cadmium	0.003	4.98	0.224 J	0.234	0.186	0.194	0.234	0.248	0.215	0.336 J	0.226
Chromium	4200	11.1	24.1	29.2	34.7	33.5	30.2	30.5	33.5	25.5	27.8
Chromium VI			1.3 UJ	R	1.2 UJ	R	R	1.3 UJ	1.3 U	1.3 UJ	R
Copper	10	149	35.8	42.1	38.2	39.2	44.5	39.5	40	38.9	32.7
Iron			--	--	--	36700	--	--	--	--	--
Lead	128	128	10.8	13.9	11.8 J	11.8 J	13.5	13 J	12.4	11.8	12.8
Mercury		1.06	0.244	0.071	0.1	0.054 U	0.048	0.063	0.059	0.075	0.08
Nickel	316	48.6	23.2	21.7	26.2	26.3	25.9	25.8	27.3	24.5	22.7
Selenium	0.1	5	2.2 U	0.09	0.11	0.15	0.18	0.32	0.18	2.7 U	0.11 U
Silver		5	0.161	0.244	0.18	0.196	0.14	0.184	0.126	0.164	0.213
Zinc	3	459	93	88.8	103	105	107	109	77.9	103	96
Organometallic Compounds (ug/kg)											
Butyltin			4.2	3.1 U	0.47 J	0.64 J	1.8 J	--	4	2.3 J	1.9 J
Dibutyltin (ion)			13	2.8 J	0.91 J	1.5 J	2 J	0.79 J	2.2 J	1.5 J	2.7
n-Butyltin (ion)			--	--	--	--	--	1.2 J	--	--	--
Tetrabutyltin (ion)			2.5 U	3.1 U	2.1 U	2.3 U	2.6 U	2.4 U	2.5 U	2.5 U	2.5 U
Tributyltin (ion)	190		2.8	2.6 J	1.5 J	2.6	2 J	1.5 J	1.5 J	1.5 J	5.7
Volatile Organics (ug/kg)											

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1,1,1,2-Tetrachloroethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,2,4-Trichlorobenzene		9200	--	--	640 U	--	--	--	1.9 U	--	--
1,2-Dichlorobenzene		1700	--	--	160 U	--	--	--	1.9 U	--	--
1,3-Dichlorobenzene		300	--	--	160 U	--	--	--	1.9 U	--	--
1,4-Dichlorobenzene		300	--	--	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	--
1,1,1-Trichloroethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,1,2,2-Tetrachloroethane			2.3 U	3 UJ	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,1,2-Trichloroethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,1'-Dichloroethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,1'-Dichloroethene			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,2,3-Trichloropropane			5.6 UJ	3 UJ	160 U	5.6 U	2600 U	3900 U	1.9 U	6 UJ	250 U
1,2-Dichloroethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,2-Dichloroethene, cis-			--	3 U	160 U	--	--	--	1.9 U	--	250 U
1,2-Dichloroethene, trans-			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,2-Dichloropropane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
1,3-Dichloropropene, cis-			12 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	12 U	250 U
1,3-Dichloropropene, trans-			5.6 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	6 U	250 UJ
2-Butanone (MEK)			23 UJ	30 UJ	6400 UJ	12 UJ	11000 UJ	16000 UJ	9.5 UJ	24 UJ	9800 UJ
2-Chloroethylvinyl ether			5.6 U	15 U	1600 U	5.6 U	5200 UJ	7800 UJ	3.8 UJ	6 U	2500 U
2-Hexanone (Methyl butyl ketone)			12 UJ	15 U	6400 UJ	23 U	5200 U	7800 UJ	19 U	12 UJ	9800 UJ
Acetone			45 UJ	**26 J**	6400 UJ	45 UJ	26000 UJ	39000 U	38 UJ	48 UJ	9800 UJ
Acrolein			53 U	300 UJ	6400 UJ	15 UJ	6500 UJ	9700 UJ	38 UJ	51 U	9800 UJ
Acrylonitrile			4.5 UJ	6 U	6400 U	4.5 U	5200 U	7800 U	3.8 U	4.8 UJ	9800 UJ
Benzene			2.3 U	**1100**	**4100**	2.3 U	**140 J**	**2300 J**	**0.43 J**	2.4 U	**3700**
Bromochloromethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
Bromodichloromethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
Bromoform			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
Bromomethane			12 U	3 U	160 U	12 U	2600 U	3900 U	1.9 U	12 U	250 U
Carbon disulfide			2.3 U	3 U	160 U	2.3 U	2600 UJ	3900 U	1.9 U	2.4 U	250 U
Carbon tetrachloride			2.3 U	3 UJ	160 U	2.3 U	2600 UJ	3900 U	1.9 U	2.4 U	250 UJ
Chlorobenzene			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	**0.25 J**	2.4 U	250 U
Chloroethane			12 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	12 U	250 U
Chloroform			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
Chloromethane			12 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	12 U	250 U
Dibromochloromethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
Dibromomethane			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
Dichlorodifluoromethane			5.6 UJ	3 UJ	160 U	2.3 U	2600 U	3900 U	1.9 UJ	6 UJ	250 U
Dichloromethane (Methylene chloride)			12 U	15 U	640 U	12 U	**62 J**	**85 J**	**28**	12 U	980 U
Ethylbenzene			2.3 U	**13**	**150 J**	2.3 U	2600 U	**470 J**	1.9 U	**2 J**	**270**
Ethylene dibromide (1,2-Dibromoethane)			2.3 U	60 U	640 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	980 U
Hexachlorobutadiene		600	--	--	640 U	--	--	--	--	--	--
Iodomethane (Methyl iodide)			12 UJ	30 U	1600 U	45 UJ	5200 U	7800 U	3.8 UJ	12 UJ	2500 U
Isopropylbenzene (Cumene)			5.6 U	**3.2**	**79 J**	2.3 U	**39 J**	**110 J**	4.8 U	6 U	**150 J**
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))			45 U	6 U	6400 U	4.5 U	5200 UJ	7800 U	3.8 UJ	48 U	9800 UJ
Methyl tert-butyl ether (MTBE)			2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
m,p-Xylene			4.5 U	**16**	**180**	2.3 U	**49 J**	**180 J**	1.9 U	4.8 U	**230 J**
Naphthalene		561	--	**440 J**	--	--	--	--	--	--	**100000**
o-Xylene			2.3 U	**25**	**200**	**0.6 J**	**46 J**	**250 J**	1.9 U	2.4 U	**280**

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Styrene			5.6 U	3 U	160 U	2.3 U	2600 U	3900 U	**0.21 J**	6 U	250 U
Tetrachloroethene (PCE)		500	2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
Toluene			2.3 U	**72**	**51 J**	2.3 U	2600 U	3900 U	**0.68 J**	**0.76 J**	250 U
trans-1,4-Dichloro-2-butene			5.6 UJ	7.5 UJ	3200 U	5.6 U	5200 U	7800 U	3.8 U	6 UJ	4900 U
Trichloroethene (TCE)		2100	2.3 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	2.4 U	250 U
Trichlorofluoromethane (Fluorotrichloromethane)			5.6 U	3 UJ	160 U	2.3 U	2600 UJ	3900 U	1.9 U	6 U	250 U
Vinyl acetate			5.6 UJ	7.5 UJ	1600 UJ	5.6 UJ	2600 UJ	3900 UJ	4.8 UJ	6 UJ	2500 UJ
Vinyl chloride			12 U	3 U	160 U	2.3 U	2600 U	3900 U	1.9 U	12 U	250 U
Total Xylene (U = 0)			4.5 U	**41**	**380**	**0.6**	**95 J**	**430 J**	1.9 U	4.8 U	**510**
Aromatic Hydrocarbons (ug/kg)											
2-Methylnaphthalene		200	**66**	**150**	--	**830**	--	**190 J**	**29**	**140**	**9200**
Acenaphthene		300	**200**	**710**	**970**	**2100**	**1300**	**990**	**85**	**390**	**22000**
Acenaphthylene		200	**81**	**310**	**190**	**430**	**360**	**430**	**32**	**140**	**4600**
Anthracene		845	**500**	**1800**	**1100**	**2500**	**690**	**2000**	**110**	**740**	**20000**
Benzo(a)anthracene		1050	**790**	**2300**	**2000**	**2700**	**1600**	**3500**	**260**	**1100**	**21000**
Benzo(a)pyrene		1450	**1200**	**3600**	**2700**	**4300**	**2600**	**5200**	**360**	**1700**	**30000**
Benzo(b)fluoranthene			**710**	**2300**	**2900**	**3700**	**2200**	**4400**	**240**	**1100**	**17000**
Benzo(g,h,i)perylene		300	**1000**	**3000**	**2400**	**3900**	**2200**	**4300**	**290**	**1500**	**22000**
Benzo(k)fluoranthene		13000	**750**	**1900**	**760**	**1700**	**730**	**1400**	**200**	**1000**	**17000**
Chrysene		1290	**1100**	**3300**	**2400**	**3800**	**2000**	**4100**	**330**	**1500**	**23000**
Dibenzo(a,h)anthracene		1300	**110**	**270**	**230**	**380**	**310**	**660**	**33**	**140**	**2000**
Fluoranthene		2230	**1900**	**7300**	**5800**	**9200**	**4100**	**8800**	**630**	**3000**	**84000**
Fluorene		536	**140**	**520**	**390**	**1200**	**390**	**450 J**	**50**	**270**	**14000**
Indeno(1,2,3-c,d)pyrene		100	**850**	**2500**	**2100**	**3500**	**2000**	**3800**	**260**	**1200**	**19000**
Naphthalene		561	**210**	--	**9300 J**	**2400**	**4200**	**5200**	**96**	**500**	--
Phenanthrene		1170	**1300**	**5300**	**3900**	**8200**	**2600**	**4200**	**390**	**2300**	**110000**
Pyrene		1520	**2500**	**8200**	**7200**	**11000**	**5100**	**10000**	**720**	**3900**	**100000**
Total Benzofluoranthenes (U = 0)			**1460**	**4200**	**3660**	**5400**	**2930**	**5800**	**440**	**2100**	**34000**
Total LPAH (U = 0)			**2431**	**9080**	**15850**	**16830**	**9540**	**13270**	**763**	**4340**	**270600**
Total HPAH (U = 0)			**10910**	**34670**	**28490**	**44180**	**22840**	**46160**	**3323**	**16140**	**335000**
Total PAH (U = 0)			**13341**	**43750**	**44340**	**61010**	**32380**	**59430**	**4086**	**20480**	**605600**
Total cPAH TEF (7 minimum) (U = 0)			**1532**	**4560**	**3523**	**5536**	**3304**	**6617**	**462.6**	**2169**	**37830**
Semi-Volatile Organics (ug/kg)											
1,2,4-Trichlorobenzene		9200	61 U	31 U	--	57 UJ	64 U	310 U	--	13 U	250 U
1,2-Dichlorobenzene		1700	**96**	31 U	--	57 UJ	64 U	310 UJ	--	13 U	250 U
1,3-Dichlorobenzene		300	61 U	31 U	--	57 UJ	64 U	310 UJ	--	13 U	250 U
1,4-Dichlorobenzene		300	**59 J**	31 U	--	57 UJ	64 U	--	--	--	250 U
2,3,4,5-Tetrachlorophenol			12 U	15 U	11 U	12 U	14 UJ	12 U	12 U	12 U	12 U
2,3,5,6-Tetrachlorophenol			12 U	15 U	11 UJ	**0.87 J**	14 UJ	12 U	12 U	12 U	12 U
2,4,5-Trichlorophenol			--	--	53 U	57 UJ	--	310 U	--	--	--
2,4,6-Trichlorophenol			--	--	--	57 UJ	--	--	--	--	--
2,4-Dichlorophenol			61 U	31 U	53 UJ	57 UJ	64 U	310 U	13 U	13 U	250 U
2,4-Dimethylphenol			130 U	61 U	**R**	**R**	320 UJ	1600 UJ	25 U	25 U	500 U
2,4-Dinitrophenol			1300 U	610 U	1100 UJ	1200 UJ	1300 U	6100 UJ	250 UJ	250 U	5000 U
2,4-Dinitrotoluene			61 U	31 U	53 U	57 U	64 U	310 U	13 U	13 U	250 U
2,6-Dinitrotoluene			61 U	31 U	53 U	57 U	64 U	310 U	13 U	13 U	250 U
2-Chloronaphthalene			61 U	31 U	53 UJ	57 UJ	64 U	310 U	13 U	13 U	250 U
2-Chlorophenol			61 U	31 U	53 UJ	57 UJ	64 U	310 UJ	13 U	13 U	250 U

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2-Methylphenol (o-Cresol)			61 U	31 U	53 UJ	**R**	64 U	310 UJ	13 U	13 U	250 U
2-Nitroaniline			130 U	61 U	110 U	120 U	130 U	610 U	25 U	25 U	500 U
2-Nitrophenol			61 U	31 U	53 UJ	57 UJ	64 U	310 U	13 U	13 U	250 U
3,3'-Dichlorobenzidine			610 U	310 U	530 UJ	570 UJ	640 U	3100 U	130 UJ	130 U	2500 U
3-Nitroaniline			130 U	61 U	110 U	120 UJ	130 U	610 U	25 UJ	25 U	500 U
4-Bromophenyl-phenyl ether			61 U	31 U	53 U	57 U	64 U	310 U	13 U	13 U	250 U
4-Chloro-3-methylphenol			61 U	31 U	53 U	57 UJ	64 U	310 U	13 U	13 U	250 U
4-Chloroaniline			61 U	31 U	**R**	57 UJ	64 U	310 U	13 UJ	13 U	250 U
4-Chlorophenyl phenyl ether			61 U	31 U	53 U	57 UJ	64 U	310 U	13 U	13 U	250 U
4-Methylphenol (p-Cresol)			61 U	**52**	53 UJ	**R**	64 U	310 UJ	13 U	13 U	250 U
4-Nitroaniline			130 U	61 U	110 U	120 UJ	130 U	610 U	25 UJ	25 U	500 U
4-Nitrophenol			610 U	310 U	530 U	570 U	640 U	3100 U	130 U	130 U	2500 U
Aniline			**R**	61 U	**R**	**R**	130 UJ	610 UJ	25 UJ	**R**	500 U
Azobenzene			61 U	31 U	53 U	57 UJ	64 U	310 U	13 U	13 U	250 U
Benzoic acid			1300 U	610 UJ	**R**	1200 UJ	1300 UJ	6100 UJ	250 UJ	250 U	5000 UJ
Benzyl alcohol			61 U	31 U	110 UJ	120 UJ	130 U	610 U	13 U	13 U	250 U
bis(2-Chloroethoxy)methane			61 U	31 U	53 UJ	57 UJ	64 U	310 UJ	13 U	13 U	250 U
bis(2-Chloroethyl)ether			61 U	31 U	53 UJ	57 UJ	64 U	310 UJ	13 U	13 U	250 U
bis(2-Chloroisopropyl) ether			61 U	31 U	53 UJ	57 UJ	64 U	310 UJ	13 U	13 U	250 U
Bis(2-ethylhexyl) phthalate	330	800	130 U	**62**	**150 J**	**82 J**	**370 J**	3100 U	**120**	**150**	500 U
Diethyl phthalate		600	61 U	31 U	53 U	57 U	64 U	310 U	13 U	13 U	250 U
Butylbenzyl phthalate			61 U	31 U	53 U	57 U	64 U	310 U	13 U	**10 J**	250 U
Dimethyl phthalate			61 U	31 U	53 U	57 U	64 U	**49 J**	13 U	13 U	250 U
Di-n-butyl phthalate		100	61 U	31 U	110 U	120 U	130 U	610 U	**11 J**	39 U	250 U
Carbazole		1600	**44 J**	**36**	**320**	**66**	**310**	**300 J**	**9.9 J**	**54**	**2100**
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)			610 U	310 U	530 UJ	570 U	640 U	3100 U	130 U	130 U	2500 U
Di-n-octyl phthalate			61 U	31 U	53 U	57 U	64 U	310 U	13 U	13 U	250 U
Hexachlorobenzene		100	--	--	--	57 U	64 U	--	--	--	--
Hexachlorobutadiene		600	--	--	--	57 U	64 U	--	--	--	--
Dibenzofuran			--	**63**	**73**	**150**	**74**	**76 J**	**13**	--	**1600**
Hexachlorocyclopentadiene		400	310 U	160 U	**R**	290 UJ	320 UJ	1600 UJ	62 U	62 U	1300 U
Hexachloroethane			--	--	--	57 UJ	64 U	--	--	--	--
Isophorone			61 U	31 U	53 UJ	57 UJ	64 U	310 U	13 U	13 U	250 U
Nitrobenzene			61 U	31 U	53 UJ	57 UJ	64 U	310 UJ	13 U	13 U	250 U
N-Nitrosodimethylamine			310 U	160 U	--	--	--	--	62 U	62 U	1300 U
N-Nitrosodi-N-propylamine			61 U	31 U	53 UJ	57 UJ	64 U	310 UJ	13 U	13 U	250 U
N-Nitrosodiphenylamine			61 U	31 U	53 UJ	57 UJ	64 U	310 U	13 U	13 U	250 U
Pentachlorophenol		1000	--	--	--	570 U	--	--	--	--	--
Phenol		50	190 U	91 U	160 UJ	180 UJ	200 U	910 UJ	**28 J**	37 U	750 U
PCB Aroclors (ug/kg)											
Aroclor 1016	420	530	10 U	13 U	10 U	12 U	13 U	13 U	5 U	10 U	10 U
Aroclor 1221			20 U	25 U	20 U	29 U	26 U	57 U	10 U	25 U	80 U
Aroclor 1232			27 U	13 U	10 U	15 U	13 U	22 U	5 U	10 U	29 U
Aroclor 1242	2		14 U	13 U	10 U	12 U	13 U	13 U	5 UJ	10 U	10 U
Aroclor 1248	4	1500	10 U	13 U	10 U	12 U	13 U	13 U	5 UJ	10 U	10 U
Aroclor 1254	10	300	22 U	13 U	17 U	27 U	22 U	19 U	12 UJ	16 U	57 U
Aroclor 1260		200	11 U	13 U	10 U	12 U	13 U	13 U	7.8 UJ	10 U	17 U
Aroclor 1262			10 U	--	10 U	12 U	13 U	13 U	5 UJ	10 U	--

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 2 PCM-06 PCM-06DS-060818 8/18/2006 0 - 0.42 ft	Year 0 Event 3 PCM-06 PCM-06DS-061204 12/4/2006 0 - 0.3 ft	Year 1 Event 1 PCM-06 PCM-06DS-070910 9/10/2007 4 - 4 in	Year 1 Event 2 PCM-06 PCM-06DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-06 PCM-06DS-080807 8/7/2008 0 - 6 in	Year 2 Event 2 PCM-06 PCM-06DS-081211 12/11/2008 0 - 7 cm	Year 0 Event 1a PCM-09 PCM-09DS-060322 3/22/2006 0 - 0.3 ft	Year 0 Event 2 PCM-09 PCM-09DS-060818 8/18/2006 0 - 0.26 ft	Year 0 Event 3 PCM-09 PCM-09DS-061204 12/4/2006 0 - 0.3 ft
Aroclor 1268			10 U	--	10 U	12 U	13 U	13 U	5 UJ	10 U	--
Total PCB (U = 0)		676	27 U	25 U	20 U	29 U	26 U	57 U	12 U	25 U	80 U
PCB Congeners (ng/kg)											
PCB-001			8.79 UJ	**17.15 J**	--	**8.43**	--	9.71 U	**23.96**	**11.47 J**	**25.16 J**
PCB-002			**6.02 J**	**15 J**	--	**10**	--	9.71 U	**9.78**	**9.38 J**	**30.78 J**
PCB-003			6.08 UJ	**14.32 J**	--	**10.6**	--	**8.62 J**	**32.66**	10.34 U	**20.61 J**
PCB-004			128.06 UJ	**44.07 J**	--	**32.2**	--	**32**	**521**	105.05 UJ	**56.66 J**
PCB-005			--	22.793 UJ	--	**0.91**	--	9.71 U	--	--	22.188 UJ
PCB-005/008			**146.31**	--	--	--	--	--	**1573**	10.505 U	--
PCB-006			12.806 U	22.793 UJ	--	**12.8**	--	9.71 U	**108**	10.505 U	22.188 UJ
PCB-007			12.806 U	22.793 UJ	--	**2.1**	--	9.71 U	11.27 U	10.505 U	22.188 UJ
PCB-008			--	227.93 UJ	--	**48.6**	--	**55.2**	--	--	221.88 UJ
PCB-009			12.806 U	22.793 UJ	--	**4.09**	--	9.71 U	11.27 U	10.505 U	22.188 UJ
PCB-010			12.806 U	22.793 UJ	--	**1.13**	--	9.71 U	**95.32**	10.505 U	22.188 UJ
PCB-011			**228.47**	**326.81 J**	--	**148**	--	**152**	**1003**	**252.46**	**185.15 J**
PCB-012/013			25.613 U	45.586 UJ	--	**8.38**	--	19.4 U	**1644**	21.01 U	44.377 UJ
PCB-014			25.613 UJ	45.586 UJ	--	**0.271**	--	9.71 U	22.54 U	21.01 UJ	44.377 UJ
PCB-015			128.06 U	227.93 U	--	**74.6**	--	**62.8**	113 U	**42.4**	221.88 U
PCB-016			--	45.586 U	--	**58.1**	--	**40.2**	--	--	44.377 UJ
PCB-017			**45.61 J**	**46.69 J**	--	**65.9**	--	**55.4**	**12346**	**42.38**	88.755 UJ
PCB-018/030			**66.57 J**	**89.02 J**	--	**140**	--	**104**	**28643**	**71.49**	**98.56 J**
PCB-019			**26.7 J**	**23.91 J**	--	**42.2**	--	**28.8**	**6483**	**26.95**	**21.32 J**
PCB-020/021/028/033			**197.21 J**	--	--	--	--	--	**162076**	**712.78**	--
PCB-020/028			--	**181.3 J**	--	**285**	--	**285**	--	--	**230.55 J**
PCB-021			--	**83.59 J**	--	--	--	--	--	--	--
PCB-021/033			--	--	--	**89.9**	--	**93.7**	--	--	**59.5 J**
PCB-022			**43 J**	**50.51 J**	--	**77.4**	--	**70.2**	**37016**	**125.96**	**58.49 J**
PCB-023			--	91.173 U	--	**0.296**	--	9.71 U	--	--	88.755 UJ
PCB-023/034			51.226 UJ	--	--	--	--	--	45.07 U	42.021 U	--
PCB-024			--	--	--	**1**	--	9.71 U	--	--	--
PCB-024/027			--	**38.95 J**	--	--	--	--	--	--	88.755 UJ
PCB-025			**11.43 J**	**12.65 J**	--	**27.3**	--	**24.7**	45.07 U	**15.07**	88.755 UJ
PCB-026/029			**23.69 J**	**36.23 J**	--	**46.6**	--	**46.2**	45.07 U	**58.48**	**40.77 J**
PCB-027			--	--	--	**15**	--	**15.1**	--	--	--
PCB-031			**112.94 J**	**178.09 J**	--	**195**	--	**197**	**46747**	**319.71**	**222.24 J**
PCB-032			**19.77 J**	**30.68 J**	--	**44.7**	--	**44.3**	**29138**	**27.84**	88.755 UJ
PCB-034			--	91.173 U	--	**2.14**	--	9.71 U	--	--	88.755 UJ
PCB-035			51.226 UJ	91.173 U	--	**7.01**	--	**6.66 J**	45.07 U	42.021 U	88.755 UJ
PCB-036			51.226 UJ	91.173 U	--	**1.16**	--	9.71 U	45.07 U	42.021 U	88.755 UJ
PCB-037			**29.5**	**44.42 J**	--	**108**	--	**93**	**19516**	**130.26**	**59.03 J**
PCB-038			51.226 UJ	91.173 U	--	**0.819**	--	9.71 U	45.07 U	42.021 U	88.755 UJ
PCB-039			51.226 UJ	91.173 U	--	0.222 U	--	9.71 U	45.07 U	42.021 U	88.755 UJ
PCB-040/041/071			**75.38**	**104.35 J**	--	--	--	--	**57698**	**422.19**	**176.8 J**
PCB-040/071			--	--	--	**193**	--	**178**	--	--	--
PCB-041			--	--	--	**31**	--	**30.7**	--	--	--
PCB-042			--	91.173 U	--	**124**	--	**106**	--	--	**67.87 J**
PCB-042/059/062/075			**23.75**	--	--	--	--	--	45.07 U	**36.33**	--
PCB-043			--	--	--	**17.9**	--	**15.8**	--	--	--

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 2 PCM-06 PCM-06DS-060818 8/18/2006 0 - 0.42 ft	Year 0 Event 3 PCM-06 PCM-06DS-061204 12/4/2006 0 - 0.3 ft	Year 1 Event 1 PCM-06 PCM-06DS-070910 9/10/2007 4 - 4 in	Year 1 Event 2 PCM-06 PCM-06DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-06 PCM-06DS-080807 8/7/2008 0 - 6 in	Year 2 Event 2 PCM-06 PCM-06DS-081211 12/11/2008 0 - 7 cm	Year 0 Event 1a PCM-09 PCM-09DS-060322 3/22/2006 0 - 0.3 ft	Year 0 Event 2 PCM-09 PCM-09DS-060818 8/18/2006 0 - 0.26 ft	Year 0 Event 3 PCM-09 PCM-09DS-061204 12/4/2006 0 - 0.3 ft
PCB-043/052/073			**513.4**	**253.94**	--	--	--	--	**525676**	**1723.3**	**359.89 J**
PCB-044/047/065			**383.56**	**243.86**	--	**526**	--	**454**	45.07 U	**1642.29**	**359.88 J**
PCB-045			--	--	--	**46**	--	**48.9**	--	--	--
PCB-045/051			**41.52**	**45.6 J**	--	--	--	--	**63690**	**214.98**	**64.95 J**
PCB-046			**6.38**	91.173 U	--	**22.2**	--	**22.4 J**	45.07 U	**33.29**	88.755 U
PCB-048			**5.4**	91.173 U	--	**68.4**	--	**65.6**	45.07 U	42.021 U	88.755 UJ
PCB-049/069			**142.19**	**127.85 J**	--	**312**	--	**283**	**298447**	**573.06**	**158.79 J**
PCB-050			--	--	--	--	--	--	--	--	**63.49 J**
PCB-050/053			**32.02**	**41.2 J**	--	**78.1**	--	**94.2**	**60039**	**161.61**	--
PCB-051			--	--	--	**41.1**	--	**44.7**	--	--	--
PCB-052			--	--	--	**684**	--	**493**	--	--	--
PCB-054			128.06 U	227.93 U	--	**8.54**	--	**7.37**	**891**	105.05 U	221.88 UJ
PCB-055			--	227.93 U	--	**4.27**	--	9.71 U	--	--	221.88 U
PCB-055/066			**187.89**	--	--	--	--	--	**564226**	**1486.2**	--
PCB-056			--	**98.19**	--	**200**	--	**169**	--	--	**140.02**
PCB-056/060			**110.98**	--	--	--	--	--	**397373**	**1199.21**	--
PCB-057			128.06 U	227.93 U	--	0.585 U	--	9.71 U	113 U	105.05 U	221.88 UJ
PCB-058			--	227.93 U	--	0.676 U	--	9.71 U	--	--	221.88 UJ
PCB-058/067			128.06 U	--	--	--	--	--	113 U	105.05 U	--
PCB-059/062/075			--	91.173 U	--	**33.4**	--	**36.4**	--	--	88.755 UJ
PCB-060			--	**35.91 J**	--	**69.1**	--	**71.9**	--	--	**46.4 J**
PCB-061/070/074/076			**484.3**	**423.12**	--	**817**	--	**632**	**630135**	**3889.98**	**540.27 J**
PCB-063			128.06 U	227.93 U	--	**14.8**	--	**15.5**	113 U	105.05 U	**145.45 J**
PCB-064			**57.33**	**60.43 J**	--	**163**	--	**158**	**124253**	**387.15**	**132.77 J**
PCB-066			--	**144.38 J**	--	**447**	--	**378**	--	--	**94.49 J**
PCB-067			--	227.93 U	--	**12.3**	--	**9.99 J**	--	--	221.88 UJ
PCB-068			**22.49**	227.93 U	--	**5.12**	--	9.71 U	113 U	**104.32**	221.88 UJ
PCB-072			128.06 U	227.93 U	--	**6.7**	--	**8.83**	113 U	105.05 U	221.88 UJ
PCB-073			--	--	--	**2.03**	--	9.71 U	--	--	--
PCB-077			**13.77**	**18.99 J**	--	**52.3**	--	**51.1**	**28132**	**55.57**	**27 J**
PCB-078			128.06 U	227.93 U	--	0.67 U	--	9.71 U	113 U	105.05 U	221.88 UJ
PCB-079			128.06 U	227.93 U	--	**8.3**	--	9.71 U	113 U	105.05 U	221.88 UJ
PCB-080			128.06 U	227.93 U	--	0.586 U	--	9.71 U	113 U	105.05 U	221.88 UJ
PCB-081			128.06 U	227.93 U	--	**1.65**	--	9.71 U	113 U	105.05 U	221.88 U
PCB-082			**32.78**	**39.13 J**	--	**117**	--	**77.8**	**50645**	**163.28**	**51.75 J**
PCB-083			--	--	--	**59.9**	--	9.71 U	--	--	--
PCB-083/099			--	227.93 U	--	--	--	--	--	--	**138.28 J**
PCB-083/099/112			**148.49**	--	--	--	--	--	**123768**	**453.78**	--
PCB-084			**84.32**	**69.4 J**	--	**222**	--	**160**	**69914**	**260.28**	**55.04 J**
PCB-085/116			--	--	--	**133**	--	**129**	--	--	--
PCB-085/116/117			**121.27**	**107.74**	--	--	--	--	45.07 U	**318.65**	**123.37**
PCB-086/087/097/108/119			--	227.93 U	--	--	--	--	--	--	**198.76 J**
PCB-086/087/097/108/119/125			**169.31**	--	--	**632**	--	**418**	**186013**	**527.51**	--
PCB-088			--	--	--	0.375 U	--	9.71 U	--	--	--
PCB-088/091			**95.29**	**71.6 J**	--	--	--	--	**45528**	**308.43**	**79.08 J**
PCB-089			128.06 U	227.93 U	--	**10.5**	--	**12.7 J**	113 U	**8.33**	221.88 U
PCB-090/101/113			**385.15**	**280.58 J**	--	**964**	--	**764**	**180877**	**780.68**	**324.39 J**
PCB-091			--	--	--	**114**	--	**102**	--	--	--

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PCB-092			**75.55**	**56.62 J**	--	**206**	--	**159**	**27670**	**143.76**	**79.55 J**
PCB-093/095/100			--	**302.74**	--	--	--	--	--	--	**379.12**
PCB-093/098/100/102			9.65 U	--	--	--	--	--	113 U	**37.29**	--
PCB-093/100			--	--	--	**19.4**	--	**22.6**	--	--	--
PCB-094			128.06 U	227.93 U	--	**7.7**	--	**8.58**	113 U	105.05 U	221.88 U
PCB-095			**739.58**	--	--	**667**	--	**529**	**209734**	**1665.99**	--
PCB-096			**3.33**	227.93 U	--	**10.2**	--	**11.3 J**	**3037**	**8.46**	221.88 U
PCB-098			--	227.93 U	--	**1.31**	--	9.71 U	--	--	221.88 U
PCB-099			--	--	--	**415**	--	**347**	--	--	--
PCB-102			--	--	--	**26.8**	--	**31.7**	--	--	--
PCB-103			128.06 U	227.93 U	--	**14**	--	**15.7**	113 U	105.05 U	221.88 U
PCB-104			128.06 U	227.93 U	--	**1.19**	--	9.71 U	113 U	105.05 U	221.88 U
PCB-105			**69.21**	**75.86 J**	--	**357**	--	**210**	**103851**	**360.42**	**110.58**
PCB-106			--	**32.25 J**	--	0.276 U	--	9.71 U	--	--	**75.91 J**
PCB-106/109/123			**8.5**	--	--	--	--	--	45.07 U	**43.32**	--
PCB-107/124			256.13 U	**9.35 J**	--	**34.8**	--	**25.3**	225 U	**22.29**	**12.09 J**
PCB-109			--	**10.65 J**	--	**56.9**	--	**46.4**	--	--	**16.23 J**
PCB-110			--	--	--	**1080**	--	**667**	--	--	--
PCB-110/115			**376.89**	**371.25 J**	--	--	--	--	**447387**	**1113.22**	**430.59 J**
PCB-111			256.13 U	455.86 U	--	**0.979**	--	9.71 U	225 U	210.1 U	443.77 U
PCB-112			--	455.86 U	--	0.29 U	--	9.71 U	--	--	443.77 U
PCB-114			--	227.93 U	--	**22.2**	--	**16.3**	--	--	221.88 U
PCB-114/122			128.06 U	--	--	--	--	--	113 U	**8.79**	--
PCB-115			--	--	--	0.227 U	--	9.71 U	--	--	--
PCB-117			--	--	--	**24.9**	--	9.71 U	--	--	--
PCB-118			**188.56**	**191.77 J**	--	**894**	--	**536**	**151804**	**871.33**	**286.94**
PCB-120			128.06 U	227.93 U	--	**4.71**	--	9.71 U	**811**	105.05 U	221.88 U
PCB-121			128.06 U	227.93 U	--	**0.775**	--	9.71 U	113 U	105.05 U	221.88 U
PCB-122			--	227.93 U	--	**11.1**	--	**11.2**	--	--	221.88 U
PCB-123			--	227.93 U	--	**15.5**	--	9.71 U	--	--	221.88 U
PCB-126			128.06 U	227.93 U	--	**3.18**	--	9.71 U	**1888**	105.05 U	221.88 U
PCB-127			256.13 U	455.86 U	--	0.248 U	--	9.71 U	225 U	210.1 U	443.77 U
PCB-128/166			**31.86**	**73.59 J**	--	**199**	--	**207**	**5298**	**58.47**	**72.76 J**
PCB-129/138/160/163			**435.08**	**245.01**	--	--	--	--	**43816**	**424.99**	**438.25**
PCB-129/138/163			--	--	--	**1420**	--	**1570**	--	--	--
PCB-130			--	**10.4 J**	--	**89**	--	**76.4**	--	--	221.88 U
PCB-130/137/164			128.06 U	--	--	--	--	--	113 U	**77.7**	--
PCB-131			--	--	--	**14.6**	--	**12.4 J**	--	--	--
PCB-131/142			128.06 U	227.93 U	--	--	--	--	**1836**	105.05 U	221.88 U
PCB-132			**130.84**	**135.93 J**	--	**396**	--	**341**	**17566**	**193.28**	**196.5 J**
PCB-133			128.06 U	227.93 U	--	**24.2**	--	**32.7**	113 U	105.05 U	221.88 U
PCB-134			--	--	--	**81.2**	--	**73.9**	--	--	--
PCB-134/147/149			**604.97**	**474.57**	--	--	--	--	**42781**	**704.19**	**827.27**
PCB-135/151			--	--	--	**467**	--	**523**	--	--	--
PCB-135/151/154			**227.03**	**138.65 J**	--	--	--	--	**14699**	**187.69**	**214 J**
PCB-136			**62.4**	**55.32 J**	--	**196**	--	**180**	**5159**	**59.23**	**81.15 J**
PCB-137			--	455.86 U	--	**39.9**	--	**37**	--	--	443.77 U
PCB-139/140			128.06 U	227.93 U	--	**22.3**	--	**21.5 J**	**1854**	105.05 U	221.88 U

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PCB-141			--	**88.38 J**	--	**237**	--	**288**	--	--	**76.54 J**
PCB-141/153/168			**523.84**	--	--	--	--	--	**36188**	**537.32**	--
PCB-142			--	--	--	**1.23**	--	9.71 U	--	--	--
PCB-143			128.06 U	227.93 U	--	**3.23**	--	9.71 U	113 U	105.05 U	221.88 U
PCB-144			128.06 U	**10.09 J**	--	**64.7**	--	**70.4**	113 U	105.05 U	221.88 U
PCB-145			256.13 U	455.86 U	--	**0.479**	--	9.71 U	225 U	210.1 U	443.77 U
PCB-146			--	**38.22 J**	--	**237**	--	**282**	--	--	**52.17 J**
PCB-146/161			**54.57**	--	--	--	--	--	113 U	**60.4**	--
PCB-147/149			--	--	--	**999**	--	**1100**	--	--	--
PCB-148			256.13 U	455.86 U	--	**4.59**	--	**5.41 J**	225 U	210.1 U	443.77 U
PCB-150			--	--	--	**4.19**	--	**7.47 J**	--	--	--
PCB-150/152			256.13 U	455.86 U	--	--	--	--	**211**	**0.57**	443.77 U
PCB-152			--	--	--	**1.8**	--	9.71 U	--	--	--
PCB-153/168			--	**413.1**	--	**1130**	--	**1620**	--	--	**529.91**
PCB-154			--	--	--	**24.1**	--	**35.9**	--	--	--
PCB-155			256.13 U	455.86 U	--	**0.496**	--	9.71 U	225 U	210.1 U	443.77 U
PCB-156/157			**27.05**	**30.68 J**	--	**160**	--	**148**	**4523**	**50.4**	**42.86 J**
PCB-158			**21.58**	**28.18 J**	--	**138**	--	**145**	45.07 U	**30.12**	**31.27 J**
PCB-159			256.13 U	**15.5 J**	--	**15**	--	**39.9**	**378**	210.1 U	**13.46 J**
PCB-016/024/027			**7.04 J**	--	--	--	--	--	**4185**	**10.06**	--
PCB-160			--	--	--	0.209 U	--	9.71 U	--	--	--
PCB-161			--	455.86 U	--	0.182 U	--	9.71 U	--	--	443.77 U
PCB-162			256.13 U	**7.63 J**	--	**4.89**	--	9.71 U	**503**	**4.52**	443.77 U
PCB-164			--	**78.97 J**	--	**91.5**	--	**97.3**	--	--	**88.95 J**
PCB-165			256.13 U	455.86 U	--	**1.09**	--	9.71 U	225 U	210.1 U	443.77 U
PCB-167			**11.25**	**9.59 J**	--	**54.8**	--	**60.4**	**1348**	**18.81**	**14.9 J**
PCB-169			128.06 U	227.93 U	--	**4.21**	--	**12**	**37.11**	105.05 U	221.88 U
PCB-170			**153**	**297.11**	--	**318**	--	**920**	**4526**	**113.19**	**184.5 J**
PCB-171/173			--	**76.97 J**	--	**118**	--	**275**	--	--	**67.18 J**
PCB-171/173/181			**49.02**	--	--	--	--	--	**1932**	**36.07**	--
PCB-172			**22.15**	**82.28 J**	--	**58.6**	--	**168**	225 U	**16.23**	**55.44 J**
PCB-174			--	**691.07**	--	**404**	--	**915**	--	--	**437.2**
PCB-174/183/185			41.51 U	--	--	--	--	--	**8894**	**733.36**	--
PCB-175			256.13 U	**343.89 J**	--	**17.5**	--	**49.4**	225 U	85.77 U	**157.97 J**
PCB-176			**35.93**	**40.55 J**	--	**38.8**	--	**121**	**1302**	**25.41**	**32.94 J**
PCB-177			**97.75**	**269.47**	--	**248**	--	**537**	113 U	**84.69**	**182.97 J**
PCB-178			**158.39**	**204.14 J**	--	**71.3**	--	**205**	113 U	121.73 U	**134.11 J**
PCB-179			**93.98**	**177.73 J**	--	**172**	--	**451**	**1733**	**85.04**	**144.04 J**
PCB-180			--	--	--	--	--	--	--	--	**1004.75**
PCB-180/193			393.78 U	**1782.65**	--	**744**	--	**2210**	**9727**	423.39 U	--
PCB-181			--	455.86 U	--	**10.8**	--	9.71 U	--	--	443.77 U
PCB-182			--	455.86 U	--	**2.65**	--	9.71 U	--	--	443.77 U
PCB-182/187			542.76 U	--	--	--	--	--	**10645**	500.54 U	--
PCB-183			--	**288.16 J**	--	**186**	--	**543**	--	--	**180 J**
PCB-184			256.13 U	455.86 U	--	**0.812**	--	9.71 U	**4.63**	210.1 U	443.77 U
PCB-185			--	455.86 U	--	**35.6**	--	**77.4**	--	--	443.77 U
PCB-186			256.13 U	455.86 U	--	0.176 U	--	9.71 U	225 U	210.1 U	443.77 U
PCB-187			--	**2066.66**	--	**510**	--	**1180**	--	--	**1144.41**

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PCB-188			128.06 U	227.93 U	--	1.02	--	9.71 U	113 U	105.05 U	221.88 U
PCB-189			3.12	227.93 U	--	15	--	43.8	294	5.11	221.88 U
PCB-190			21.57 U	149.24 J	--	73.2	--	248	720	15.17 U	65.94 J
PCB-191			5.68	8.64 J	--	14.7	--	43.9	277	210.1 U	443.77 U
PCB-192			256.13 U	455.86 U	--	0.898 U	--	9.71 U	731	210.1 U	443.77 U
PCB-194			60.06 U	1464.56	--	194	--	683	3355	134.03 U	717.55
PCB-195			27.16 U	396.53 J	--	83.9	--	275	1307	52.05 U	207.4 J
PCB-196			--	641.61	--	82.7	--	331	--	--	292.83 J
PCB-196/203			152.25 U	--	--	--	--	--	7715	328.73 U	--
PCB-197			--	--	--	7.53	--	26.4	--	--	--
PCB-197/200			12.06 U	182.28 J	--	--	--	--	872	24.06 U	93.21 J
PCB-198/199			97.77 U	1548.05	--	251	--	676	5602	206.54 U	698.93
PCB-200			--	--	--	28.3	--	97.1	--	--	--
PCB-201			15.81 U	168.13 J	--	27.5	--	94.3	854	35.48 U	92.69 J
PCB-202			20.16 U	257.7 J	--	41.5	--	111	962	35.72 U	139.66 J
PCB-203			--	1204.23	--	130	--	419	--	--	220.83 J
PCB-204			2.37 U	455.86 U	--	0.405 U	--	9.71 U	225 U	6.36 U	443.77 U
PCB-205			2.89 U	55.5 J	--	10.1	--	35.3	124	6.95 U	30.61 J
PCB-206			36.01 UJ	1140.35 J	--	121	--	210	1931	132.84 UJ	597.35 J
PCB-207			4.13 U	141.8 J	--	15.1	--	35.1	235	15.19 U	74.58 J
PCB-208			9.48 U	213.51 J	--	35.2	--	47.8	420	25.32 U	119.84 J
PCB-209			30.72	88.87 J	--	142	--	124	119	45.35	122.08 J
Total PCB Congener (U=0)			8343.06	20285.64	--	22022.207	--	27229.03	4945126.46	24434.12	15727.57
Monochlorobiphenyls (total)			--	--	--	29.1	--	8.62 J	--	--	--
Dichlorobiphenyls (total)			--	--	--	333	--	302	--	--	--
Trichlorobiphenyls (total)			--	--	--	1210	--	1100	--	--	--
Tetrachlorobiphenyls (total)			--	--	--	3990	--	3370 J	--	--	--
Pentachlorobiphenyls (total)			--	--	--	6130	--	4300 J	--	--	--
Hexachlorobiphenyls (total)			--	--	--	6120	--	6990 J	--	--	--
Heptachlorobiphenyls (total)			--	--	--	3040	--	7980	--	--	--
Octachlorobiphenyls (total)			--	--	--	857	--	2750	--	--	--
Nonachlorobiphenyls (total)			--	--	--	171	--	293	--	--	--
Pesticides (ug/kg)											
2,4'-DDD (o,p'-DDD)			23 U	3.2 J	6.7 J	19 U	7.2	9.2	2.8 U	8 U	28 J
2,4'-DDE (o,p'-DDE)			5 U	1.3 U	1 U	5.8 U	1.3 U	1.3 U	1.1 U	5 U	10 U
2,4'-DDT (o,p'-DDT)			5 U	1.3 U	0.91 J	5.8 UJ	1.2 J	1.3 U	1.6 J	5 U	15 J
4,4'-DDD (p,p'-DDD)	0.3	28	12	12	11	12	12 J	15	12	5 U	50
4,4'-DDE (p,p'-DDE)	0.3	31.3	3.1 J	3.9	3.3	5.8	5.1	5.3	3.7 J	5 U	10 UJ
4,4'-DDT (p,p'-DDT)	0.3	62.9	9.9	4.8	6.3	15	22 J	14 J	13	23	9.3 J
Total DDT (U = 0)			25	23.9	28.21	32.8	47.5	43.5	30.3	23	102.3
Aldrin		40	5 U	1.3 U	1 U	9.5 U	1.3 U	1.3 UJ	1.2 U	5 U	24 J
alpha-BHC			5 U	1.3 U	1 U	5.8 U	1.3 UJ	1.4 J	1 U	5 U	10 U
beta-BHC			5 U	3 U	1 U	5.8 U	1.3 U	1.9 UJ	2.2 U	9.8 U	53 U
alpha-Chlordane (cis-Chlordane)			5 U	1.3 U	1 U	5.8 U	4.8 U	3.6 U	1.2 U	5 U	10 U
Chlordane		17.6	50 U	--	--	--	--	--	--	50 U	--
Chlordane (technical)			5 U	1.3 U	1 U	5.8 U	1.3 U	--	0.96 J	5 U	10 U
cis-Nonachlor			5 U	0.96 J	1.5 U	5.8 UJ	1.3 U	3.9 U	1 U	5 U	11 U
trans-Nonachlor			5 U	0.67 J	1 U	5.8 UJ	0.35 J	1.3 U	1.1	5 U	10 U

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delta-BHC			5 U	1.3 U	1 U	5.8 U	1.3 UJ	1.7 UJ	1 U	5 U	10 U
Dieldrin		61.8	5 U	1.3 U	1 U	5.8 U	1.3 UJ	1.3 U	1.4 U	5 U	10 U
Endosulfan-alpha (I)			5 U	1.3 U	1 U	5.8 U	1.3 U	1.3 U	1 U	5 U	10 U
Endosulfan-beta (II)			5 U	**0.62 J**	1 U	5.8 U	1.3 U	1.3 U	1 U	5 U	10 U
Endosulfan sulfate			5 U	1.3 U	1 U	5.8 U	1.3 UJ	1.3 U	1.2 U	5 U	**16 J**
Endrin		207	5 U	1.3 U	1 U	5.8 U	1.3 UJ	1.3 U	1 U	5 U	10 U
Endrin aldehyde			5 U	**1.7 J**	1 U	5.8 U	1.3 UJ	1.3 U	1.6 U	5 U	10 U
Endrin ketone			5 U	1.3 U	1 U	5.8 U	1.3 UJ	1.3 U	1 U	5 U	22 U
gamma-BHC (Lindane)		4.99	5 U	1.3 U	2 U	9.6 U	1.3 UJ	4.5 UJ	1.2 U	5 U	21 U
gamma-Chlordane			--	--	--	--	--	1.3 U	--	--	--
Heptachlor		10	5 U	1.3 U	1 U	**4.7 J**	1.3 UJ	1.3 UJ	1 U	5 U	10 U
Heptachlor epoxide		16	5 U	1.3 U	**3 J**	5.8 U	1.3 U	1.3 U	2.8 U	5 U	**7.9 J**
Hexachlorobenzene		100	5 U	1.3 U	1 U	5.8 U	**1.2 J**	1.3 U	**0.62 J**	5 U	10 U
Hexachlorobutadiene		600	6 U	1.5 U	--	5.8 U	**4.5 J**	4.6 UJ	2.4 U	6.1 U	13 U
Hexachloroethane			5 U	1.3 UJ	1 U	5.8 UJ	**0.46 J**	1.3 UJ	1 U	5 U	10 U
Methoxychlor			5 U	**0.99 J**	1 UJ	17 UJ	1.3 UJ	1.3 U	1 U	**1.7 J**	41 U
Mirex			5 U	1.3 U	1 U	5.8 UJ	1.3 U	1.3 U	**0.73 J**	5 U	26 U
Oxychlordane			5 U	**4.2 J**	**0.32 J**	6.8 U	1.3 U	1.3 U	1.5 U	5 U	10 U
Toxaphene			830 UJ	61 U	180 U	380 U	65 U	310 U	110 U	350 UJ	780 U
Herbicides (ug/kg)											
2,2-Dichloropropionic acid (Dalapon)			310 U	760 U	270 U	120 U	66 U	310 U	250 U	250 U	630 U
2,4-D (2,4-Dichlorophenoxyacetic acid)			310 U	760 U	270 U	120 UJ	66 U	310 U	250 U	250 U	630 U
2,4-DB (2,4-D derivative)			310 U	760 U	270 U	150 U	66 U	310 U	250 U	250 U	630 U
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)			310 U	760 U	270 U	120 U	66 U	310 U	250 U	250 U	630 U
2,4,5-TP (Silvex)			310 U	760 U	270 U	120 U	66 U	310 U	250 U	250 U	630 U
2,4,5-Trichlorophenol			12 U	15 U	--	12 U	14 UJ	--	12 U	12 U	12 U
2,4,6-Trichlorophenol			12 U	15 U	11 UJ	12 U	14 U	12 U	12 U	**2.3 J**	12 U
3,4-Dichlorophenol			24 U	--	--	--	--	--	--	27 U	--
3,5-Dichlorophenol			24 U	--	--	--	--	--	--	24 U	--
Dicamba			310 U	760 U	270 U	120 U	66 U	310 U	250 U	250 U	630 U
Dichlorprop			310 U	760 U	270 U	120 U	66 U	310 U	250 U	250 U	630 U
Dinoseb			310 U	760 U	270 UJ	120 U	66 U	310 U	250 U	250 U	630 UJ
MCPA			61000 UJ	160000 U	53000 U	23000 U	14000 U	61000 U	50000 U	50000 UJ	130000 UJ
Mecoprop (MCPP)			61000 U	160000 UJ	53000 U	23000 U	14000 UJ	61000 UJ	50000 U	50000 U	130000 UJ
Pentachlorophenol		1000	**1.5 J**	**4.9 J**	11 U	**12 J**	14 UJ	12 U	12 U	**0.57 J**	**1.4 J**
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		9	1.488 U	1.947 U	--	0.58 U	--	**0.388 J**	**0.348 J**	1.605 U	1.545 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)			7.44 U	**0.533 J**	--	**0.826 J**	--	**0.614 J**	**0.646 J**	8.026 U	**0.392 J**
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			7.44 U	**0.575 J**	--	**1.17 J**	--	**1.31 J**	**0.703 J**	8.026 U	**0.611 J**
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			7.44 U	**3.285 J**	--	**5.29**	--	**6.15**	**2.866 J**	8.026 U	**3.704 J**
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)			7.44 U	**1.767 J**	--	**2.5 J**	--	**2.78**	**1.972 J**	8.026 U	**1.515 J**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)			**10.475**	**76.38**	--	**133**	--	**160**	**59.305**	**8.308**	**147.049 J**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)			**89.283**	**642.25**	--	**1240**	--	**2140**	**482.723**	**62.216**	**1253.718**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)			**0.889 J**	**5.551**	--	**14.6**	--	**9.65**	**4.447**	1.605 U	**6.66**
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)			**0.636 J**	**5.568 J**	--	**19.6**	--	**9.91**	**5.119 J**	8.026 U	**8.175**
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)			**0.373 J**	**2.461 J**	--	**10.3**	--	**6.3**	**1.915 J**	8.026 U	**3.579 J**
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)			**0.768 J**	**15.224**	--	**41.5**	--	**16.7**	**10.839**	8.026 U	**10.318 J**
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)			**0.421 J**	**3.305 J**	--	**9.89**	--	**4.93**	**3.295 J**	8.026 U	**2.809 J**

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1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)			7.44 U	**0.167 J**	--	**4.23**	--	**2.43**	**0.104 J**	8.026 U	7.728 UJ
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)			7.44 U	**1.551 J**	--	**3.23**	--	**2.51**	**1.177 J**	8.026 U	**0.698 J**
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)			**1.493 J**	**19.262**	--	**31.8**	--	**32.4**	**13.146**	**1.069 J**	**16.88 J**
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)			7.44 U	**3.238 J**	--	**7.61**	--	**4.87**	**1.836 J**	8.026 U	**2.499 J**
1,2,3,4,5,6,7,8-Octachlorodibenzofuran (OCDF)			**4.197 J**	**63.485**	--	**96**	--	**113**	**36.711**	**3.072 J**	**100.081**
Total Tetrachlorodibenzo-p-dioxin (TCDD)			**0.282**	**3.492**	--	**6.47**	--	**8.09 J**	**1.725**	1.605 U	**3.937**
Total Pentachlorodibenzo-p-dioxin (PeCDD)			**0.461**	**2.729**	--	**6.78**	--	**7.31 J**	**3.033**	8.026 U	**0.943**
Total Hexachlorodibenzo-p-dioxin (HxCDD)			**2.924**	**21.36**	--	**36.6**	--	**44.3**	**17.739**	**2.085**	**64.726 J**
Total Heptachlorodibenzo-p-dioxin (HpCDD)			**24.513**	**173.343**	--	**307**	--	**340**	**124.474**	**19.204**	**365.031 J**
Total Tetrachlorodibenzofuran (TCDF)			**1.748**	**16.682**	--	**49.5**	--	**35.6 J**	**8.482**	**0.5**	**19.864**
Total Pentachlorodibenzofuran (PeCDF)			**2.15**	**19.886**	--	**60.6**	--	**37.6**	**17.647**	**0.434**	**23.486**
Total Hexachlorodibenzofuran (HxCDF)			**3.768**	**38.059**	--	**91.7**	--	**64.9**	**29.396**	**1.223**	**34.559 J**
Total Heptachlorodibenzofuran (HpCDF)			**4.689**	**53.099**	--	**96.1**	--	**116 J**	**36.592**	**3.032**	**62.523 J**
Total Dioxin/Furan TEQ (Mammal) (U = 0)			**0.486504**	**5.7813605**	--	**14.8699**	--	**10.4839**	**5.1610702**	**0.1133564**	**6.4128697**
Total Petroleum Hydrocarbons (mg/kg)											
Diesel Range Hydrocarbons			**120**	**190**	**220**	**190**	**240**	**220**	**99**	**130**	**1800**
Gasoline Range			13 U	**4.1 J**	**35**	12 U	**42 J**	**58**	13 U	12 U	**70**
Residual Range			**740**	**630**	**670**	**730**	**940**	**770**	**530**	**570**	**1700**

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 1 Event 1 PCM-09 PCM-09DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-09 PCM-09DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-09 PCM-09DS-080807 8/7/2008 0 - 10 in	Year 2 Event 2 PCM-09 PCM-09DS-081211 12/11/2008 0 - 9 cm	Year 0 Event 2 PCM-14 PCM-14DS-060818 8/18/2006 0 - 0.16 ft	Year 0 Event 3 PCM-14 PCM-14DS-061207 12/7/2006 0 - 0.1 ft	Year 1 Event 1 PCM-14 PCM-14DS-070914 9/14/2007 2 - 2 in	Year 1 Event 2 PCM-14 PCM-14DS-071107 11/7/2007 0 - 1 in	Year 2 Event 1 PCM-14 PCM-14DS-080807 8/7/2008 0 - 3 in
Conventional Parameters (mg/kg)											
Ammonia			70.6	62.8	91.7	149	82.3	48	40.2	23.2 J	40.1
Cyanide			--	--	0.6	44 UJ	0.31 J	--	--	--	0.5
Sulfide			5.5 J	1.2 UJ	4.6	9.2	14.8	12.1	2.2	R	1.5 U
Conventional Parameters (su)											
pH			--	--	6.67	6.91	--	--	--	--	6.77
Conventional Parameters (pct)											
Total organic carbon			2.7	2.25 J	3.38 J	2.92	1.52	1.96	1.6	0.46 J	1.45 J
Total solids			44.7	45.5	36.8	41.9	42.2	44.1	48.3	57	52.1
Grain Size (pct)											
Gravel			--	0.52	1.81	1.73 J	0.35	0.32	--	0.27	1.39
Gravel, Medium			0	--	--	--	--	--	0	--	--
Gravel, Fine			4.25	--	--	--	--	--	1.6	--	--
Sand, Very Coarse			1.35	0.87	2.34	2.5	3.18	3.02	3.48	3	2.87
Sand, Coarse			2.83	2.22	1.97	3.39 J	6.36	8.56	8.15	8.52	6.51
Sand, Medium			8.37	6.7	2.71	7.44 J	25.8	21	31.9	35.6	30
Sand, Fine			8.93	7.95	4.34	7.31 J	3.35	4.72	5.78	6.2	8.64
Sand, Very Fine			14.3	46.2	12.8	12.1	3.89	1.58	4.2	3.07	7.55
Silt			--	--	68.6	63	50.1	47.3	--	--	39.4
Silt, Coarse			22	9.32	--	--	--	--	17.9	7.76	--
Silt, Medium			14.5	7.96	--	--	--	--	11.5	4.95	--
Silt, Fine			6.58	3.99	--	--	--	--	6.84	3.09	--
Silt, Very Fine			5.43	4.29	--	--	--	--	4.28	2.68	--
Clay			3.31	1.56	6.11	8.12 J	7.8	12.2	2.12	1.41	3.82
Clay, Fine			3.81	--	--	--	--	--	2.94	--	--
Clay, Very Fine			--	--	--	--	--	--	--	--	--
Metals (mg/kg)											
Aluminum			25400	23900	32100	26500	19900	20700	24700	13600	18900
Antimony	10	64	0.14 UJ	0.11	0.17 J	0.17 J	0.12	0.11	0.11 UJ	0.08	0.09 J
Arsenic	4	33	2.66	3.1	4.65	3.8	4.02 J	3.71	2.84	2.4	3.39
Cadmium	0.003	4.98	0.19	0.186	0.25	0.252	0.206 J	0.184	0.156	0.104	0.145
Chromium	4200	11.1	31.5	32.4	33.7	31.1	22.6	27.3	28.7	19	21.2
Chromium VI			1.2 UJ	R	R	1.3 UJ	1.3 UJ	R	1.2 UJ	0.14 J	R
Copper	10	149	34.5	37.2	47.6	41.9	35.9	31.9	29.8	20.6	25.8
Iron			--	35200	--	--	--	--	--	24600	--
Lead	128	128	10.7 J	12.6 J	14.2	13.4 J	13	11.4	12.4 J	7.48	8.8
Mercury		1.06	0.048	0.049 U	0.063	0.062	0.063	0.047	0.049	0.054 U	0.037
Nickel	316	48.6	22.3	22.6	29.1	25.2	21.1	18.6	21.9	15.1	18.4
Selenium	0.1	5	0.19	0.13	0.24	0.3	2.2 U	0.1	0.14	0.1	0.11
Silver		5	0.15	0.178	0.16	0.176	0.181	0.209	0.13	0.122	0.09
Zinc	3	459	90.1	100	116	103	98.8	93.6	90	61.9	75.2
Organometallic Compounds (ug/kg)											
Butyltin			0.97 J	0.81 J	2.8 J	--	2.7	0.43 J	0.58 J	0.74 J	0.97 J
Dibutyltin (ion)			2.4	1.7 J	1.8 J	1.1 J	2.8	3.1 J	1.7 J	1.7 J	1.5 J
n-Butyltin (ion)			--	--	--	1.1 J	--	--	--	--	--
Tetrabutyltin (ion)			2.2 U	2.2 U	2.7 U	2.4 U	2.4 U	2.3 UJ	2.1 U	1.8 U	2 U
Tributyltin (ion)	190		2.6	2.1 J	1.7 J	1.6 J	4	15 J	2.4	3.7	2.3
Volatile Organics (ug/kg)											

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1,1,1,2-Tetrachloroethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,2,4-Trichlorobenzene		9200	48 U	--	--	--	--	--	46 U	--	--
1,2-Dichlorobenzene		1700	2.4 U	--	--	--	--	--	2.3 U	--	--
1,3-Dichlorobenzene		300	2.4 U	--	--	--	--	--	2.3 U	--	--
1,4-Dichlorobenzene		300	2.4 U	2.1 U	1.4 U	2.4 U	--	--	2.3 U	1.7 U	0.96 U
1,1,1-Trichloroethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,1,2,2-Tetrachloroethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,1,2-Trichloroethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,1'-Dichloroethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,1'-Dichloroethene			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,2,3-Trichloropropane			6 U	5.2 U	3.4 U	12 U	5.8 UJ	2.3 U	2.3 U	4.1 U	2.4 U
1,2-Dichloroethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,2-Dichloroethene, cis-			2.4 U	--	--	--	--	2.3 U	2.3 U	--	--
1,2-Dichloroethene, trans-			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,2-Dichloropropane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
1,3-Dichloropropene, cis-			2.4 U	2.1 U	1.4 U	2.4 U	12 U	2.3 U	2.3 U	1.7 U	0.96 U
1,3-Dichloropropene, trans-			2.4 U	2.1 U	1.4 U	6 U	5.8 U	2.3 U	2.3 U	1.7 U	0.96 U
2-Butanone (MEK)			12 UJ	11 UJ	6.8 UJ	24 UJ	24 UJ	23 UJ	9.2 UJ	8.2 UJ	4.8 UJ
2-Chloroethylvinyl ether			12 U	5.2 U	3.4 U	6 U	5.8 U	12 U	12 U	4.1 U	2.4 U
2-Hexanone (Methyl butyl ketone)			12 U	21 U	14 U	9.6 U	12 UJ	12 U	12 U	17 U	9.6 U
Acetone			24 U	41 UJ	28 UJ	24 UJ	**19 J**	**19 J**	23 UJ	33 UJ	20 UJ
Acrolein			240 UJ	13 UJ	17 UJ	9500 UJ	220 U	230 UJ	230 UJ	11 UJ	12 UJ
Acrylonitrile			4.8 U	4.1 U	14 U	4.8 U	4.7 UJ	4.6 U	4.6 UJ	3.3 U	9.6 U
Benzene			2.4 U	2.1 U	1.4 U	2.4 U	**21**	2.3 U	2.3 U	1.7 U	0.96 U
Bromochloromethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Bromodichloromethane			2.4 U	2.1 U	1.4 U	6 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Bromoform			2.4 U	2.1 U	1.4 U	6 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Bromomethane			2.4 U	11 U	6.8 UJ	6 UJ	12 U	2.3 U	5.7 U	8.2 U	4.8 UJ
Carbon disulfide			2.4 U	2.1 U	1.4 UJ	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 UJ
Carbon tetrachloride			2.4 U	2.1 U	1.4 U	6 U	2.4 U	2.3 UJ	2.3 U	1.7 U	0.96 U
Chlorobenzene			**0.43 J**	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Chloroethane			2.4 U	2.1 U	1.4 U	2.4 U	12 U	2.3 U	2.3 U	1.7 U	0.96 U
Chloroform			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Chloromethane			2.4 U	2.1 U	1.4 U	2.4 U	12 U	2.3 U	2.3 U	1.7 U	0.96 U
Dibromochloromethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Dibromomethane			2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Dichlorodifluoromethane			2.4 U	2.1 U	1.4 U	6 U	5.8 UJ	2.3 UJ	2.3 U	1.7 U	0.96 U
Dichloromethane (Methylene chloride)			12 U	11 U	6.8 U	12 UJ	12 U	12 U	12 U	8.2 U	4.8 U
Ethylbenzene			**1.3 J**	2.1 U	1.4 U	2.4 U	**1.2 J**	2.3 U	**1.3 J**	1.7 U	0.96 U
Ethylene dibromide (1,2-Dibromoethane)			48 U	2.1 U	1.4 U	2.4 U	2.4 U	46 U	46 U	1.7 U	0.96 U
Hexachlorobutadiene		600	4.8 U	--	--	--	--	--	4.6 U	--	--
Iodomethane (Methyl iodide)			24 U	41 UJ	6.8 U	24 UJ	12 UJ	23 U	23 U	33 UJ	4.8 U
Isopropylbenzene (Cumene)			**0.45 J**	2.1 U	1.4 U	2.4 U	**1.6 J**	2.3 U	**0.8 J**	1.7 U	0.96 U
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))			4.8 U	4.1 U	2.8 U	12 U	47 U	4.6 U	4.6 U	3.3 U	2 U
Methyl tert-butyl ether (MTBE)			2.4 U	2.1 U	2.8 U	9.6 U	2.4 U	2.3 U	2.3 U	1.7 U	2 U
m,p-Xylene			2.4 U	2.1 U	2.8 U	4.8 U	**0.76 J**	4.6 U	2.3 U	1.7 U	2 U
Naphthalene		561	--	--	--	--	**1500 J**	**11**	--	--	--
o-Xylene			2.4 U	2.1 U	1.4 U	2.4 U	**5.8**	2.3 U	**0.57 J**	1.7 U	0.96 U

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Styrene			2.4 U	2.1 U	1.4 U	2.4 U	5.8 U	2.3 U	2.3 U	1.7 U	0.96 U
Tetrachloroethene (PCE)		500	2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Toluene			**0.38 J**	2.1 U	1.4 U	2.4 U	**4.7**	2.3 U	2.3 U	1.7 U	0.96 U
trans-1,4-Dichloro-2-butene			4.8 U	5.2 U	14 U	**R**	5.8 UJ	5.8 U	4.6 U	4.1 U	9.6 U
Trichloroethene (TCE)		2100	2.4 U	2.1 U	1.4 U	2.4 U	2.4 U	2.3 U	2.3 U	1.7 U	0.96 U
Trichlorofluoromethane (Fluorotrichloromethane)			2.4 U	2.1 U	1.4 U	6 U	5.8 U	2.3 UJ	2.3 U	1.7 U	0.96 U
Vinyl acetate			6 UJ	5.2 UJ	3.4 UJ	12 UJ	5.8 UJ	5.8 UJ	2.3 UJ	4.1 UJ	2.4 UJ
Vinyl chloride			2.4 U	2.1 U	1.4 U	2.4 U	12 U	2.3 U	2.3 U	1.7 U	0.96 U
Total Xylene (U = 0)			2.4 U	2.1 U	2.8 U	4.8 U	**6.56**	4.6 U	**0.57**	1.7 U	2 U
Aromatic Hydrocarbons (ug/kg)											
2-Methylnaphthalene		200	--	**120**	--	**140**	**84**	**54**	--	**78**	--
Acenaphthene		300	**690**	**600**	**200**	**480**	**400**	**210**	**120 J**	**220**	**1000**
Acenaphthylene		200	**310**	**490**	**280**	**440**	**78**	**140**	**50 J**	**66**	**160**
Anthracene		845	**1500**	**2000**	**610**	**860**	**290**	**270**	**190**	**200**	**1200**
Benzo(a)anthracene		1050	**2900**	**3600**	**1400**	**2800**	**660**	**780**	**490**	**700**	**1700**
Benzo(a)pyrene		1450	**3900**	**5900**	**2400**	**4100**	**960**	**1300**	**830**	**1100**	**2500**
Benzo(b)fluoranthene			**4100**	**5100**	**2100**	**3500**	**610**	**760**	**700**	**980**	**2100**
Benzo(g,h,i)perylene		300	**3400**	**5200**	**1900**	**3400**	**770**	**930**	**750**	**850**	**1800**
Benzo(k)fluoranthene		13000	**1000**	**2000**	**660**	**1100**	**520**	**590**	**220**	**310**	**690**
Chrysene		1290	**3200**	**4500**	**2000**	**3000**	**880**	**940**	**590**	**910**	**1900**
Dibenzo(a,h)anthracene		1300	**400**	**550**	**300**	**440**	**91**	**100**	**76**	**100**	**270**
Fluoranthene		2230	**8100**	**10000**	**3500**	**6900**	**1400**	**1800**	**1200**	**1400**	**5800**
Fluorene		536	**440**	**400**	**130**	**280**	**130**	**88**	**57**	**86**	**500**
Indeno(1,2,3-c,d)pyrene		100	**3000**	**4800**	**1900**	**3000**	**670**	**820**	**700**	**780**	**1800**
Naphthalene		561	**890 J**	**670**	**270**	**640**	--	--	**140 J**	**350**	**320**
Phenanthrene		1170	**5000**	**4800**	**1500**	**2900**	**930**	**770**	**510**	**630**	**5200**
Pyrene		1520	**9600**	**12000**	**4200**	**8100**	**2000**	**2100**	**1200**	**1700**	**7800 J**
Total Benzofluoranthenes (U = 0)			**5100**	**7100**	**2760**	**4600**	**1130**	**1350**	**920**	**1290**	**2790**
Total LPAH (U = 0)			**8830**	**8960**	**2990**	**5600**	**3328**	**1489**	**1067**	**1552**	**8380**
Total HPAH (U = 0)			**39600**	**53650**	**20360**	**36340**	**8561**	**10120**	**6756**	**8830**	**26360**
Total PAH (U = 0)			**48430**	**62610**	**23350**	**41940**	**11889**	**11609**	**7823**	**10382**	**34740**
Total cPAH TEF (7 minimum) (U = 0)			**5072**	**7550**	**3056**	**5214**	**1223.9**	**1614.4**	**1054.5**	**1396.1**	**3175**
Semi-Volatile Organics (ug/kg)											
1,2,4-Trichlorobenzene		9200	--	110 UJ	68 U	300 U	12 U	12 U	--	44 UJ	48 U
1,2-Dichlorobenzene		1700	--	110 UJ	68 U	300 UJ	**730**	12 U	--	44 UJ	48 U
1,3-Dichlorobenzene		300	--	110 UJ	68 U	300 UJ	**45**	12 U	--	44 UJ	48 U
1,4-Dichlorobenzene		300	--	110 UJ	68 U	--	**350**	12 U	--	44 UJ	48 U
2,3,4,5-Tetrachlorophenol			12 U	11 U	14 UJ	12 U	12 U	11 U	11 U	8.5 U	9.6 U
2,3,5,6-Tetrachlorophenol			12 UJ	11 U	14 UJ	12 U	12 U	11 U	11 UJ	8.5 U	9.6 U
2,4,5-Trichlorophenol			56 U	110 UJ	--	300 U	--	--	52 U	44 UJ	--
2,4,6-Trichlorophenol			--	110 UJ	--	--	--	--	--	44 UJ	--
2,4-Dichlorophenol			56 UJ	110 UJ	68 U	300 U	12 U	12 U	52 U	44 UJ	48 U
2,4-Dimethylphenol			**R**	**R**	340 UJ	1500 UJ	24 U	23 U	**R**	**R**	240 UJ
2,4-Dinitrophenol			1200 UJ	2200 UJ	1400 U	6000 UJ	240 U	230 U	1100 UJ	870 UJ	950 U
2,4-Dinitrotoluene			56 U	110 U	68 U	300 U	12 U	12 U	52 UJ	44 U	48 U
2,6-Dinitrotoluene			56 U	110 U	68 U	300 U	12 U	12 U	52 U	44 U	48 U
2-Chloronaphthalene			56 UJ	110 UJ	68 U	300 U	12 U	12 U	52 UJ	44 UJ	48 U
2-Chlorophenol			56 UJ	110 UJ	68 U	300 UJ	12 U	12 U	52 U	44 UJ	48 U

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2-Methylphenol (o-Cresol)			56 UJ	**R**	68 U	300 UJ	12 U	12 U	52 UJ	**R**	48 U
2-Nitroaniline			120 U	220 U	140 U	600 U	24 U	23 U	110 U	87 U	95 U
2-Nitrophenol			56 UJ	110 UJ	68 U	300 U	12 U	12 U	52 U	44 UJ	48 U
3,3'-Dichlorobenzidine			560 UJ	1100 UJ	680 U	3000 U	120 U	120 U	**R**	440 UJ	480 U
3-Nitroaniline			120 U	220 UJ	140 U	600 U	24 U	23 U	110 U	87 UJ	95 U
4-Bromophenyl-phenyl ether			56 U	110 U	68 U	300 U	12 U	12 U	52 U	44 U	48 U
4-Chloro-3-methylphenol			56 U	110 UJ	68 U	300 U	12 U	12 U	52 U	44 UJ	48 U
4-Chloroaniline			**R**	110 UJ	68 U	300 U	12 U	12 U	**R**	44 UJ	48 U
4-Chlorophenyl phenyl ether			56 U	110 UJ	68 U	300 U	12 U	12 U	52 U	44 UJ	48 U
4-Methylphenol (p-Cresol)			56 UJ	**R**	68 U	300 UJ	**10 J**	**8.5 J**	52 UJ	**R**	48 U
4-Nitroaniline			120 U	220 UJ	140 U	600 U	24 U	23 U	110 U	87 UJ	95 U
4-Nitrophenol			560 U	1100 U	680 U	3000 U	120 U	120 U	520 UJ	440 U	480 U
Aniline			**R**	**R**	140 UJ	600 UJ	**R**	23 U	**R**	**R**	95 UJ
Azobenzene			56 U	110 UJ	68 U	300 U	12 U	12 U	52 U	44 UJ	48 U
Benzoic acid			**R**	2200 UJ	1400 UJ	6000 UJ	240 U	230 UJ	**R**	870 UJ	950 UJ
Benzyl alcohol			120 UJ	220 UJ	140 U	600 U	12 U	12 U	110 U	87 UJ	95 U
bis(2-Chloroethoxy)methane			56 UJ	110 UJ	68 U	300 UJ	12 U	12 U	52 U	44 UJ	48 U
bis(2-Chloroethyl)ether			56 UJ	110 UJ	68 U	300 UJ	12 U	12 U	52 UJ	44 UJ	48 U
bis(2-Chloroisopropyl) ether			56 UJ	110 UJ	68 U	300 UJ	12 U	12 U	52 UJ	44 UJ	48 U
Bis(2-ethylhexyl) phthalate	330	800	**190 J**	**160 J**	**240 J**	3000 U	**200**	**58**	**83 J**	**53 J**	**89 J**
Diethyl phthalate		600	56 U	110 U	68 U	300 U	12 U	12 U	52 U	44 U	48 U
Butylbenzyl phthalate			56 U	110 U	68 U	300 U	12 U	12 U	52 U	44 U	48 U
Dimethyl phthalate			56 U	110 U	68 U	300 U	12 U	12 U	52 U	44 U	48 U
Di-n-butyl phthalate		100	120 U	220 U	140 U	600 U	21 U	**14**	110 U	87 U	95 U
Carbazole		1600	**99**	**87 J**	**50 J**	**66 J**	**73**	**33**	**32 J**	**20 J**	**96**
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)			560 UJ	1100 U	680 U	3000 U	120 U	120 U	520 UJ	440 U	480 U
Di-n-octyl phthalate			56 U	110 U	68 U	300 U	12 U	12 U	52 U	44 U	48 U
Hexachlorobenzene		100	--	110 U	68 U	--	--	--	--	44 U	48 U
Hexachlorobutadiene		600	--	110 U	68 U	--	--	--	--	44 U	48 U
Dibenzofuran			**64**	**45 J**	**26 J**	**46 J**	--	**15**	**12**	**15**	**53**
Hexachlorocyclopentadiene		400	**R**	550 UJ	340 UJ	1500 UJ	60 U	57 U	310 UJ	220 UJ	240 UJ
Hexachloroethane			--	110 UJ	68 U	--	--	--	--	44 UJ	48 U
Isophorone			56 UJ	110 UJ	68 U	300 U	12 U	12 U	52 U	44 UJ	48 U
Nitrobenzene			56 UJ	110 UJ	68 U	300 UJ	12 U	12 U	52 UJ	44 UJ	48 U
N-Nitrosodimethylamine			--	--	--	--	60 U	57 U	--	--	--
N-Nitrosodi-N-propylamine			56 UJ	110 UJ	68 U	300 UJ	12 U	12 U	52 UJ	44 UJ	48 U
N-Nitrosodiphenylamine			56 UJ	110 UJ	68 U	300 U	12 U	12 U	52 UJ	44 UJ	48 U
Pentachlorophenol		1000	--	1100 U	--	--	--	--	--	440 UJ	--
Phenol		50	170 UJ	330 UJ	210 U	890 UJ	**48**	34 U	160 U	140 UJ	150 U
PCB Aroclors (ug/kg)											
Aroclor 1016	420	530	9.9 U	11 U	14 U	12 U	10 U	10 U	8.3 U	9.9 U	10 U
Aroclor 1221			20 U	22 U	35 U	49 U	20 U	20 U	17 U	21 U	24 U
Aroclor 1232			9.9 U	11 U	14 U	30 U	10 U	10 U	8.3 U	9.9 U	10 U
Aroclor 1242	2		9.9 U	11 U	14 U	13 U	10 U	10 U	8.3 U	9.9 U	10 U
Aroclor 1248	4	1500	9.9 U	11 U	14 U	12 U	10 U	10 U	8.3 U	9.9 U	10 U
Aroclor 1254	10	300	34 U	29 U	20 U	27 U	22 U	10 U	18 U	23 U	10 U
Aroclor 1260		200	11 U	11 U	14 U	12 U	13 U	**22**	8.3 U	9.9 U	10 U
Aroclor 1262			9.9 U	11 U	14 U	12 U	10 U	--	8.3 U	9.9 U	10 U

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 1 Event 1 PCM-09 PCM-09DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-09 PCM-09DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-09 PCM-09DS-080807 8/7/2008 0 - 10 in	Year 2 Event 2 PCM-09 PCM-09DS-081211 12/11/2008 0 - 9 cm	Year 0 Event 2 PCM-14 PCM-14DS-060818 8/18/2006 0 - 0.16 ft	Year 0 Event 3 PCM-14 PCM-14DS-061207 12/7/2006 0 - 0.1 ft	Year 1 Event 1 PCM-14 PCM-14DS-070914 9/14/2007 2 - 2 in	Year 1 Event 2 PCM-14 PCM-14DS-071107 11/7/2007 0 - 1 in	Year 2 Event 1 PCM-14 PCM-14DS-080807 8/7/2008 0 - 3 in
Aroclor 1268			9.9 U	11 U	14 U	12 U	10 U	--	8.3 U	9.9 U	10 U
Total PCB (U = 0)		676	34 U	29 U	35 U	49 U	22 U	**22**	18 U	23 U	24 U
PCB Congeners (ng/kg)											
PCB-001			--	**7.46**	--	9.43 U	6.53 UJ	**16.21 J**	--	**17.5**	--
PCB-002			--	**8.3**	--	**12.2**	**4.44 J**	**13.73**	--	**5.14**	--
PCB-003			--	**9.69**	--	**8.4**	**15.24 J**	**11.77 J**	--	**7.22**	--
PCB-004			--	**28.7**	--	**31.3**	**18.02 J**	**35.34 J**	--	**24.4**	--
PCB-005			--	**0.813**	--	9.43 U	--	18.096 U	--	**0.535**	--
PCB-005/008			--	--	--	--	98.81 U	--	--	--	--
PCB-006			--	**11.5**	--	**15.3**	9.218 U	18.096 U	--	**7.31**	--
PCB-007			--	**1.76**	--	9.43 U	9.218 U	18.096 U	--	**1.32**	--
PCB-008			--	**46.7**	--	**55.7**	--	**35.99 J**	--	**31.4**	--
PCB-009			--	**3.82**	--	9.43 U	9.218 U	18.096 U	--	**2.44**	--
PCB-010			--	**1.07**	--	9.43 U	9.218 U	18.096 U	--	**0.749**	--
PCB-011			--	**168**	--	**197**	**138.85**	**242.3**	--	**88**	--
PCB-012/013			--	**7.3**	--	**10.4**	18.436 U	36.193 U	--	**4.55**	--
PCB-014			--	0.173 U	--	9.43 U	18.436 UJ	36.193 U	--	**0.198**	--
PCB-015			--	**65.6**	--	**70.5**	92.182 U	180.96 U	--	**39.4**	--
PCB-016			--	**54.6**	--	**43.8**	--	36.193 U	--	**29.7**	--
PCB-017			--	**55.6**	--	**53.3**	**25.94**	**40.47 J**	--	**34.3**	--
PCB-018/030			--	**126**	--	**107**	**49.04**	**71.65 J**	--	**72.3**	--
PCB-019			--	**35.2**	--	**28.4**	**15.03**	**26.57 J**	--	**21.3**	--
PCB-020/021/028/033			--	--	--	--	56.44 U	--	--	--	--
PCB-020/028			--	**240**	--	**261**	--	**151.3 J**	--	**137**	--
PCB-021			--	--	--	--	--	--	--	--	--
PCB-021/033			--	**80.4**	--	**92.8**	--	**45.89 J**	--	**43.2**	--
PCB-022			--	**66.9**	--	**69.2**	**14.47**	**37.43 J**	--	**36**	--
PCB-023			--	**0.254**	--	9.43 U	--	72.387 U	--	0.112 U	--
PCB-023/034			--	--	--	--	36.873 U	--	--	--	--
PCB-024			--	**1.36**	--	9.43 U	--	--	--	**0.952**	--
PCB-024/027			--	--	--	--	--	**30.17 J**	--	--	--
PCB-025			--	**19.3**	--	**21.7**	**39.77**	**10.5 J**	--	**11.1**	--
PCB-026/029			--	**36.9**	--	**48.2**	**19.47**	**29.93 J**	--	**19.7**	--
PCB-027			--	**12.9**	--	**12.4**	--	--	--	**7.54**	--
PCB-031			--	**166**	--	**191**	**67.01**	**136.11 J**	--	**89.2**	--
PCB-032			--	**39.5**	--	**43.3**	5.25 U	**14.02 J**	--	**22.8**	--
PCB-034			--	**1.64**	--	9.43 U	--	72.387 U	--	**0.885**	--
PCB-035			--	**6.24**	--	**6.55**	36.873 U	72.387 U	--	**3.37**	--
PCB-036			--	**1**	--	9.43 U	36.873 U	72.387 U	--	**0.514**	--
PCB-037			--	**93.8**	--	**90.7**	**17.47**	**34.13 J**	--	**53.5**	--
PCB-038			--	**0.538**	--	9.43 U	36.873 U	72.387 U	--	**0.342**	--
PCB-039			--	**2.13**	--	9.43 U	36.873 U	72.387 U	--	**1.27**	--
PCB-040/041/071			--	--	--	--	**53.35**	**85.25 J**	--	--	--
PCB-040/071			--	**152**	--	**141**	--	--	--	**83.2**	--
PCB-041			--	**23.9**	--	**22.7**	--	--	--	**12.8**	--
PCB-042			--	**98.1**	--	**86.3**	--	**21.43 J**	--	**54.7**	--
PCB-042/059/062/075			--	--	--	--	**16.39**	--	--	--	--
PCB-043			--	**13.6**	--	**12**	--	--	--	**7.7**	--

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PCB-043/052/073			--	--	--	--	**276.07**	**215.38**	--	--	--
PCB-044/047/065			--	**374**	--	**379**	**173.28**	**203.72**	--	**218**	--
PCB-045			--	**37.2**	--	**41.7**	--	--	--	**18.9**	--
PCB-045/051			--	--	--	--	**42.32**	**46.39 J**	--	--	--
PCB-046			--	**17.8**	--	**18**	36.873 U	72.387 U	--	**9.96**	--
PCB-048			--	**52.5**	--	**50.7**	**247.68**	72.387 U	--	**29.5**	--
PCB-049/069			--	**223**	--	**242**	**98.67**	**106.98 J**	--	**129**	--
PCB-050			--	--	--	--	--	--	--	--	--
PCB-050/053			--	**59.8**	--	**64.5**	**24.55**	**44.85 J**	--	**35.4**	--
PCB-051			--	**33.3**	--	**28.7**	--	--	--	**22.2**	--
PCB-052			--	**419**	--	**455**	--	--	--	**230**	--
PCB-054			--	**6.46**	--	**5.87**	**0.66**	180.96 U	--	**4.24**	--
PCB-055			--	**3.55**	--	9.43 U	--	180.96 U	--	**2.01**	--
PCB-055/066			--	--	--	--	**37.09**	--	--	--	--
PCB-056			--	**150**	--	**147**	--	**75.79**	--	**86.9**	--
PCB-056/060			--	--	--	--	**58.29**	--	--	--	--
PCB-057			--	**1.75**	--	**2.13**	92.182 U	180.96 U	--	**0.866**	--
PCB-058			--	**1.54**	--	9.43 U	--	180.96 U	--	0.331 U	--
PCB-058/067			--	--	--	--	92.182 U	--	--	--	--
PCB-059/062/075			--	**26.7**	--	**28.2**	--	72.387 U	--	**15.2**	--
PCB-060			--	**54.1**	--	**58.9**	--	**26.8 J**	--	**30.7**	--
PCB-061/070/074/076			--	**556**	--	**561**	**200.29**	**351.19**	--	**309**	--
PCB-063			--	**10.6**	--	**12.2**	**142.9**	180.96 U	--	**6.08**	--
PCB-064			--	**119**	--	**127**	**16.37**	**65.15 J**	--	**65.5**	--
PCB-066			--	**336**	--	**328**	--	**108.4 J**	--	**192**	--
PCB-067			--	**9.8**	--	**8.14 J**	--	180.96 U	--	**6.48**	--
PCB-068			--	**3.97**	--	**3.9**	**16.25**	180.96 U	--	**2.7**	--
PCB-072			--	**5.69**	--	**6.65**	92.182 U	180.96 U	--	**3.18**	--
PCB-073			--	**1.77**	--	9.43 U	--	--	--	**1.04**	--
PCB-077			--	**44.6**	--	**47.1**	**4.04**	**15.55 J**	--	**25.8**	--
PCB-078			--	0.64 U	--	9.43 U	92.182 U	180.96 U	--	0.329 U	--
PCB-079			--	**5.77**	--	**7.24**	92.182 U	180.96 U	--	**3.18**	--
PCB-080			--	0.56 U	--	9.43 U	92.182 U	180.96 U	--	0.287 U	--
PCB-081			--	**1.79**	--	9.43 U	92.182 U	180.96 U	--	**0.998**	--
PCB-082			--	**65.9**	--	**74.6**	92.182 U	**41.45 J**	--	**34.8**	--
PCB-083			--	**22.7**	--	**30.7 J**	--	--	--	**16.7**	--
PCB-083/099			--	--	--	--	--	**112.55 J**	--	--	--
PCB-083/099/112			--	--	--	--	**67.24**	--	--	--	--
PCB-084			--	**114**	--	**148**	**22.38**	**67.7 J**	--	**60.2**	--
PCB-085/116			--	**75.9**	--	**106**	--	--	--	**44.1**	--
PCB-085/116/117			--	--	--	--	**87.14**	**79.61**	--	--	--
PCB-086/087/097/108/119			--	--	--	--	--	**146.74 J**	--	--	--
PCB-086/087/097/108/119/125			--	**348**	--	**405**	**51.63**	--	--	**176**	--
PCB-088			--	0.376 U	--	9.43 U	--	--	--	0.252 U	--
PCB-088/091			--	--	--	--	**66.35**	**63.66 J**	--	--	--
PCB-089			--	**6.66**	--	**10.4**	92.182 U	180.96 U	--	**3.38**	--
PCB-090/101/113			--	**610**	--	**711**	**209.38**	**246.19 J**	--	**294**	--
PCB-091			--	**68.3**	--	**87.1**	--	--	--	**38.4**	--

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PCB-092			--	**128**	--	**140**	**41.76**	**65.34 J**	--	**65**	--
PCB-093/095/100			--	--	--	--	--	**280.17**	--	--	--
PCB-093/098/100/102			--	--	--	--	92.182 U	--	--	--	--
PCB-093/100			--	**16.2**	--	**15.5**	--	--	--	**10.7**	--
PCB-094			--	**4.92**	--	**5.7**	92.182 U	180.96 U	--	**3.3**	--
PCB-095			--	**356**	--	**485**	**322.28**	--	--	**193**	--
PCB-096			--	**6.45**	--	**9.04**	**0.87**	180.96 U	--	**3.99**	--
PCB-098			--	**0.738**	--	9.43 U	--	180.96 U	--	0.227 U	--
PCB-099			--	**303**	--	**291**	--	--	--	**137**	--
PCB-102			--	**16.6**	--	**23**	--	--	--	**9.97**	--
PCB-103			--	**11.4**	--	**11.5**	92.182 U	180.96 U	--	**6.89**	--
PCB-104			--	**0.947**	--	**0.953**	92.182 U	180.96 U	--	**0.78**	--
PCB-105			--	**223**	--	**222**	**52.9**	**74.16**	--	**102**	--
PCB-106			--	0.276 U	--	9.43 U	--	**30.77 J**	--	**0.233**	--
PCB-106/109/123			--	--	--	--	36.873 U	--	--	--	--
PCB-107/124			--	**18.1**	--	**26.4**	184.36 U	**10.03 J**	--	**9.21**	--
PCB-109			--	**48.7**	--	**42.8**	--	**14.01 J**	--	**18.2**	--
PCB-110			--	**609**	--	**668**	--	--	--	**321**	--
PCB-110/115			--	--	--	--	**139.96**	**344.52 J**	--	--	--
PCB-111			--	**3.89**	--	9.43 U	184.36 U	361.93 U	--	**0.492**	--
PCB-112			--	0.29 U	--	9.43 U	--	361.93 U	--	0.195 U	--
PCB-114			--	**16.4**	--	**14.4**	--	180.96 U	--	**6.01**	--
PCB-114/122			--	--	--	--	92.182 U	--	--	--	--
PCB-115			--	0.227 U	--	9.43 U	--	--	--	0.152 U	--
PCB-117			--	**12.3**	--	**11.5 J**	--	--	--	**5**	--
PCB-118			--	**498**	--	**556**	**176.98**	**184.91**	--	**267**	--
PCB-120			--	**15.4**	--	9.43 U	92.182 U	180.96 U	--	**2.24**	--
PCB-121			--	**1.05**	--	9.43 U	92.182 U	180.96 U	--	**0.464**	--
PCB-122			--	**6.03**	--	**10.9**	--	180.96 U	--	**3.41**	--
PCB-123			--	**8.3**	--	**12.8**	--	180.96 U	--	**4.61**	--
PCB-126			--	**3.6**	--	9.43 U	92.182 U	180.96 U	--	**1.79**	--
PCB-127			--	0.251 U	--	9.43 U	184.36 U	361.93 U	--	0.163 U	--
PCB-128/166			--	**116**	--	**152**	**26.28**	**46.81 J**	--	**56.2**	--
PCB-129/138/160/163			--	--	--	--	**207.19**	**256.29 J**	--	--	--
PCB-129/138/163			--	**1150**	--	**1010**	--	--	--	**498**	--
PCB-130			--	**111**	--	**62**	--	**10.79 J**	--	**29.2**	--
PCB-130/137/164			--	--	--	--	**78.68**	--	--	--	--
PCB-131			--	**7.15**	--	**10.7**	--	--	--	**3.72**	--
PCB-131/142			--	--	--	--	**18.41**	180.96 UJ	--	--	--
PCB-132			--	**260**	--	**273**	**62.41**	**126.67 J**	--	**136**	--
PCB-133			--	**121**	--	**20.8**	92.182 U	180.96 UJ	--	**10.4**	--
PCB-134			--	**55.6**	--	**54.1**	--	--	--	**27.9**	--
PCB-134/147/149			--	--	--	--	**347.77**	**489.18 J**	--	--	--
PCB-135/151			--	**517**	--	**352**	--	--	--	**194**	--
PCB-135/151/154			--	--	--	--	**138.93**	**129.42 J**	--	--	--
PCB-136			--	**129**	--	**137**	**36.91**	**60.21 J**	--	**76.2**	--
PCB-137			--	**31**	--	**31**	--	361.93 UJ	--	**12.3**	--
PCB-139/140			--	**83.5**	--	**15.9**	92.182 U	180.96 UJ	--	**7.23**	--

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 1 Event 1 PCM-09 PCM-09DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-09 PCM-09DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-09 PCM-09DS-080807 8/7/2008 0 - 10 in	Year 2 Event 2 PCM-09 PCM-09DS-081211 12/11/2008 0 - 9 cm	Year 0 Event 2 PCM-14 PCM-14DS-060818 8/18/2006 0 - 0.16 ft	Year 0 Event 3 PCM-14 PCM-14DS-061207 12/7/2006 0 - 0.1 ft	Year 1 Event 1 PCM-14 PCM-14DS-070914 9/14/2007 2 - 2 in	Year 1 Event 2 PCM-14 PCM-14DS-071107 11/7/2007 0 - 1 in	Year 2 Event 1 PCM-14 PCM-14DS-080807 8/7/2008 0 - 3 in
PCB-141			--	**170**	--	**172**	--	**81.83 J**	--	**87.7**	--
PCB-141/153/168			--	--	--	--	**317.95**	--	--	--	--
PCB-142			--	**0.833**	--	9.43 U	--	--	--	0.12 U	--
PCB-143			--	**1.45**	--	9.43 U	92.182 U	180.96 UJ	--	0.105 U	--
PCB-144			--	**45.5**	--	**47.3**	92.182 U	**10.25 J**	--	**24.6**	--
PCB-145			--	0.191 U	--	9.43 U	184.36 U	361.93 UJ	--	0.0756 U	--
PCB-146			--	**1020**	--	**164**	--	**39.36 J**	--	**96.5**	--
PCB-146/161			--	--	--	--	**33.48**	--	--	--	--
PCB-147/149			--	**765**	--	**729**	--	--	--	**402**	--
PCB-148			--	**39.8**	--	**4.19**	184.36 U	361.93 UJ	--	**2.49**	--
PCB-150			--	**16.9**	--	**3.44**	--	--	--	**2.07**	--
PCB-150/152			--	--	--	--	184.36 U	361.93 UJ	--	--	--
PCB-152			--	**1.26**	--	**1.88 J**	--	--	--	**0.789**	--
PCB-153/168			--	**1310**	--	**813**	--	**343.42 J**	--	**452**	--
PCB-154			--	**207**	--	**19.9**	--	--	--	**11.7**	--
PCB-155			--	**1.62**	--	9.43 U	**0.32**	361.93 U	--	**0.319**	--
PCB-156/157			--	**121**	--	**94.5**	**13.72**	**34.02 J**	--	**44.6**	--
PCB-158			--	**101**	--	**93.9**	**11.9**	**25.73 J**	--	**42.8**	--
PCB-159			--	**41.6**	--	**12.2**	184.36 U	**11.57 J**	--	**6.69**	--
PCB-016/024/027			--	--	--	--	**6.44**	--	--	--	--
PCB-160			--	0.228 U	--	9.43 U	--	--	--	0.0865 U	--
PCB-161			--	0.199 U	--	9.43 U	--	361.93 UJ	--	0.0755 U	--
PCB-162			--	**4.63**	--	9.43 U	184.36 U	**6.78 J**	--	**1.27**	--
PCB-164			--	**70.8**	--	**65.6**	--	**49.85 J**	--	**32.2**	--
PCB-165			--	**2.85**	--	9.43 U	184.36 U	361.93 UJ	--	**0.737**	--
PCB-167			--	**48.2**	--	**37.3**	**5.79**	**13.14 J**	--	**17.1**	--
PCB-169			--	**16**	--	9.43 U	92.182 U	180.96 U	--	**1.76**	--
PCB-170			--	**1280**	--	**256**	**81.33**	**230.68**	--	**138**	--
PCB-171/173			--	**309**	--	**81.7**	--	**55.68 J**	--	**50.7**	--
PCB-171/173/181			--	--	--	--	**15.95**	--	--	--	--
PCB-172			--	**246**	--	**48.5**	**11.29**	**48.99 J**	--	**25.6**	--
PCB-174			--	**1110**	--	**294**	--	**506.8**	--	**184**	--
PCB-174/183/185			--	--	--	--	523.57 U	--	--	--	--
PCB-175			--	**44.1**	--	**17.8**	184.36 U	**167.5 J**	--	**7.04**	--
PCB-176			--	**88.4**	--	**37.4**	16.14 U	**23.58 J**	--	**19**	--
PCB-177			--	**950**	--	**174**	53.42 U	**185.76**	--	**111**	--
PCB-178			--	**297**	--	**68.7**	119.99 U	**131.01 J**	--	**37**	--
PCB-179			--	**415**	--	**147**	**69.12**	**115.54 J**	--	**87.8**	--
PCB-180			--	--	--	--	--	--	--	--	--
PCB-180/193			--	**3460**	--	**598**	348.66 U	**1330.49**	--	**343**	--
PCB-181			--	**8.11**	--	**7.3**	--	361.93 U	--	**3.39**	--
PCB-182			--	**38.3**	--	9.43 U	--	361.93 U	--	**1.18**	--
PCB-182/187			--	--	--	--	530.22 U	--	--	--	--
PCB-183			--	**599**	--	**154**	--	**181.12 J**	--	**88.4**	--
PCB-184			--	**3**	--	9.43 U	184.36 U	361.93 U	--	**0.325**	--
PCB-185			--	**81.2**	--	**28**	--	361.93 U	--	**14**	--
PCB-186			--	0.192 U	--	9.43 U	184.36 U	361.93 U	--	0.154 U	--
PCB-187			--	**2030**	--	**385**	--	**1424.42**	--	**236**	--

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 1 Event 1 PCM-09 PCM-09DS-070910 9/10/2007 3 - 3 in	Year 1 Event 2 PCM-09 PCM-09DS-071105 11/5/2007 0 - 5 in	Year 2 Event 1 PCM-09 PCM-09DS-080807 8/7/2008 0 - 10 in	Year 2 Event 2 PCM-09 PCM-09DS-081211 12/11/2008 0 - 9 cm	Year 0 Event 2 PCM-14 PCM-14DS-060818 8/18/2006 0 - 0.16 ft	Year 0 Event 3 PCM-14 PCM-14DS-061207 12/7/2006 0 - 0.1 ft	Year 1 Event 1 PCM-14 PCM-14DS-070914 9/14/2007 2 - 2 in	Year 1 Event 2 PCM-14 PCM-14DS-071107 11/7/2007 0 - 1 in	Year 2 Event 1 PCM-14 PCM-14DS-080807 8/7/2008 0 - 3 in
PCB-188			--	11.2	--	9.43 U	92.182 U	180.96 U	--	0.639	--
PCB-189			--	77.1	--	10.9	92.182 U	180.96 U	--	6.22	--
PCB-190			--	376	--	69.8	17.66 U	97.97 J	--	32	--
PCB-191			--	64.6	--	12.6	184.36 U	8.78 J	--	6.31	--
PCB-192			--	1.07 U	--	9.43 U	184.36 U	361.93 U	--	0.482 U	--
PCB-194			--	1670	--	154	116.88 U	1066.21	--	90.9	--
PCB-195			--	652	--	60.9	43.44 U	293.24 J	--	38.3	--
PCB-196			--	649	--	77.7	--	446.76	--	39	--
PCB-196/203			--	--	--	--	322.64 U	--	--	--	--
PCB-197			--	50.8	--	6.98	--	--	--	3.44	--
PCB-197/200			--	--	--	--	21.14 U	123.26 J	--	--	--
PCB-198/199			--	1680	--	203	214.9 U	1042.98	--	114	--
PCB-200			--	167	--	26.6	--	--	--	12.3	--
PCB-201			--	175	--	26.9	36.62 U	114.58 J	--	12.7	--
PCB-202			--	210	--	39	35.41 U	169.76 J	--	19.3	--
PCB-203			--	909	--	117	--	771.8	--	61.6	--
PCB-204			--	0.539 U	--	9.43 U	184.36 U	361.93 U	--	0.32 U	--
PCB-205			--	85.3	--	7.95	4.56 U	41.46 J	--	4.39	--
PCB-206			--	522	--	107	120.98 U	843.55 J	--	63	--
PCB-207			--	57	--	15.9	15.76 U	101.42 J	--	7.5	--
PCB-208			--	91.2	--	33.6	23.93 U	153.26 J	--	18.4	--
PCB-209			--	599	--	123	29.44	73.91 J	--	73.9	--
Total PCB Congener (U=0)			--	33435.753	--	16241.313	4585.13	15598.03	--	8491.047	--
Monochlorobiphenyls (total)			--	25.4	--	20.6	--	--	--	29.9	--
Dichlorobiphenyls (total)			--	335	--	380	--	--	--	200	--
Trichlorobiphenyls (total)			--	1040	--	1070	--	--	--	585	--
Tetrachlorobiphenyls (total)			--	2840	--	2890 J	--	--	--	1610	--
Pentachlorobiphenyls (total)			--	3620	--	4120 J	--	--	--	1840	--
Hexachlorobiphenyls (total)			--	6550	--	4370	--	--	--	2280	--
Heptachlorobiphenyls (total)			--	11500	--	2390	--	--	--	1390	--
Octachlorobiphenyls (total)			--	6250	--	720	--	--	--	396	--
Nonachlorobiphenyls (total)			--	670	--	156	--	--	--	88.9	--
Pesticides (ug/kg)											
2,4'-DDD (o,p'-DDD)			2.2 U	3.1 J	5	8.7 J	4.8	3.6	2.7	4 J	2.1
2,4'-DDE (o,p'-DDE)			0.99 U	1.1 U	1.4 U	1.2 U	1 U	1.3 U	0.83 U	0.99 U	1 U
2,4'-DDT (o,p'-DDT)			1.9	3.6 J	1.4 U	1.5 U	1.6 U	2 U	0.83 U	2.9	1 U
4,4'-DDD (p,p'-DDD)	0.3	28	12	12	11 J	14	5.3	8.1	6.6	6.6	3.8 J
4,4'-DDE (p,p'-DDE)	0.3	31.3	4.3	3.8	4.8	3.7	2 J	3.5 J	2.7	2.6	2
4,4'-DDT (p,p'-DDT)	0.3	62.9	300	36	16 J	26 J	1 U	4.8	6.7	3.7	2.2 J
Total DDT (U = 0)			318.2	58.5	36.8	52.4	12.1	20	18.7	19.8	10.1
Aldrin		40	0.99 U	1.6 U	1.4 U	2.6 UJ	1 U	1 U	0.36 J	0.99 U	1 U
alpha-BHC			0.99 U	1.1 U	1.4 UJ	1.2 UJ	1 U	1 U	0.83 U	0.99 U	1 UJ
beta-BHC			0.99 U	1.1 U	1.4 U	2.4 UJ	1.6 U	2.6 U	0.83 U	0.99 U	1 U
alpha-Chlordane (cis-Chlordane)			0.99 U	1.1 U	1.4 U	1.2 U	1 U	1 U	0.83 U	0.99 U	1 U
Chlordane		17.6	--	--	--	--	16 U	--	--	--	--
Chlordane (technical)			0.99 U	1.1 U	1.4 U	--	1 U	1 U	0.83 U	0.45 J	1 U
cis-Nonachlor			1.3 U	1.6 J	1.4 U	4.5 U	0.84 J	1.4 U	0.83 U	0.99 U	1 U
trans-Nonachlor			0.99 U	1.1 UJ	1.4 U	1.2 U	1 U	1 U	0.83 U	0.99 U	0.15 J

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delta-BHC			0.99 U	1.1 U	1.4 UJ	1.3 UJ	1 U	1 U	0.83 U	0.99 U	1 UJ
Dieldrin		61.8	0.99 U	1.1 U	1.4 UJ	1.2 U	1 U	1 U	0.83 U	0.99 U	1 UJ
Endosulfan-alpha (I)			0.99 U	1.1 U	1.4 U	1.2 U	1 U	1 U	0.83 U	0.99 U	1 U
Endosulfan-beta (II)			0.99 U	1.1 U	1.4 U	1.2 U	1 U	1 U	0.83 U	0.99 U	1 U
Endosulfan sulfate			0.99 U	1.1 U	1.4 UJ	1.2 U	**0.37 J**	1 U	0.83 U	0.99 U	1 UJ
Endrin		207	0.99 U	1.1 U	1.4 UJ	1.2 U	1.1 U	1 U	0.93 U	2.6 U	1 UJ
Endrin aldehyde			0.99 U	1.1 U	1.4 UJ	1.2 U	**0.75 J**	1 U	**0.24 J**	0.99 U	1 UJ
Endrin ketone			**1.2 J**	1.1 U	1.4 UJ	1.2 U	**0.95 J**	1 U	0.83 U	0.99 U	1 UJ
gamma-BHC (Lindane)		4.99	0.99 U	2.5 U	1.4 UJ	4.6 UJ	1.2 U	2.8 U	0.83 U	0.99 U	1 UJ
gamma-Chlordane			--	--	--	1.2 U	--	--	--	--	--
Heptachlor		10	0.99 U	1.1 U	1.4 UJ	1.3 UJ	1 U	1 U	**0.75 J**	0.99 U	1 UJ
Heptachlor epoxide		16	0.99 U	1.1 U	1.4 U	1.2 U	1 U	1 U	0.83 U	0.99 U	1 U
Hexachlorobenzene		100	0.99 U	**0.4 J**	**1.4 J**	1.9 U	**0.52 J**	**0.2 J**	0.83 U	**0.45 J**	**0.78 J**
Hexachlorobutadiene		600	--	1.1 U	1.4 U	7.9 U	1.2 U	1.6 U	--	0.99 U	1 U
Hexachloroethane			0.99 U	**0.74 J**	**0.38 J**	**4 J**	1 U	1 U	0.83 U	**0.38 J**	1 U
Methoxychlor			0.99 U	1.1 UJ	1.4 UJ	1.2 U	1 U	1.2 U	0.83 U	0.99 UJ	1 UJ
Mirex			0.99 U	1.1 UJ	1.4 U	1.2 U	**0.86 J**	1 U	0.83 U	0.99 U	1 U
Oxychlordane			0.99 U	1.1 U	1.4 U	1.2 U	1 U	1 U	0.83 U	0.99 U	1 U
Toxaphene			180 U	97 U	68 U	330 U	60 UJ	77 U	76 U	50 U	50 U
Herbicides (ug/kg)											
2,2-Dichloropropionic acid (Dalapon)			280 U	110 U	68 U	300 U	300 U	570 U	260 U	88 U	48 U
2,4-D (2,4-Dichlorophenoxyacetic acid)			280 U	110 UJ	68 U	300 U	300 U	570 U	260 U	**22 J**	48 U
2,4-DB (2,4-D derivative)			280 U	110 U	69 U	300 U	300 U	570 U	260 U	88 U	48 U
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)			280 U	110 U	68 U	300 U	300 U	570 U	260 U	88 U	48 U
2,4,5-TP (Silvex)			280 U	110 U	68 U	300 U	300 U	570 U	260 U	88 U	48 U
2,4,5-Trichlorophenol			--	11 U	14 UJ	--	12 U	11 U	--	8.5 U	9.6 U
2,4,6-Trichlorophenol			12 UJ	11 U	14 U	12 U	12 U	11 U	11 UJ	**0.3 J**	9.6 U
3,4-Dichlorophenol			--	--	--	--	24 U	--	--	--	--
3,5-Dichlorophenol			--	--	--	--	24 UJ	--	--	--	--
Dicamba			280 U	110 U	68 U	300 U	300 U	570 U	260 U	88 U	48 U
Dichlorprop			280 U	110 U	68 U	300 U	300 U	570 U	260 U	88 U	48 U
Dinoseb			280 U	110 U	68 U	300 U	300 U	570 U	260 U	88 U	48 U
MCPA			56000 U	22000 U	14000 U	60000 U	60000 UJ	120000 U	52000 U	18000 U	9600 U
Mecoprop (MCPP)			56000 U	22000 U	14000 UJ	60000 UJ	60000 U	120000 UJ	52000 U	18000 U	9600 UJ
Pentachlorophenol		1000	12 U	11 U	14 UJ	12 U	**1.9 J**	**3.8 J**	**3.8 J**	8.5 U	9.6 U
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		9	--	**0.289 J**	--	**0.355 J**	1.492 U	**0.217 J**	--	0.0478 U	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)			--	**0.741 J**	--	**0.728 J**	**0.322 J**	**0.592 J**	--	**0.285 J**	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			--	**1.02 J**	--	**1.32 J**	7.464 U	**0.452 J**	--	**0.492 J**	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			--	**4.62**	--	**5.42**	7.464 U	**2.712 J**	--	**2.52**	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)			--	**2.23 J**	--	**2.74**	7.464 U	**1.322 J**	--	**1.22 J**	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)			--	**121**	--	**134**	**11.086**	**63.224**	--	**56.5**	--
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)			--	**1120**	--	**1220**	**95.122**	**535.325**	--	**504**	--
2,3,7,8-Tetrachlorodibenzofuran (TCDF)			--	**12.3**	--	**12.4**	1.492 U	**6.635**	--	**7.89**	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)			--	**11.2**	--	**18.7**	**0.936 J**	**5.794 J**	--	**19.6**	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)			--	**6.3**	--	**12.7**	**0.355 J**	**5.826 J**	--	**8.59**	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)			--	**37**	--	**49.3**	**1.298 J**	**15.568**	--	**29**	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)			--	**9.66**	--	**11.5**	**0.653 J**	**3.362 J**	--	**6.86**	--

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1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)			--	**3.38**	--	**5.26**	7.464 U	**0.794 J**	--	**2.89**	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)			--	**2.73 J**	--	**3.53**	**0.305 J**	**1.89 J**	--	**2.29**	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)			--	**39.7**	--	**33.9**	**2.512 J**	**15.382**	--	**16.2**	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)			--	**9.52**	--	**5.68**	**0.403 J**	**2.294 J**	--	**3.17**	--
1,2,3,4,5,6,7,8-Octachlorodibenzofuran (OCDF)			--	**100**	--	**96.4**	**7.532 J**	**45.864**	--	**38**	--
Total Tetrachlorodibenzo-p-dioxin (TCDD)			--	**5.73**	--	**9.1 J**	**0.572**	**2.628**	--	**3.42**	--
Total Pentachlorodibenzo-p-dioxin (PeCDD)			--	**5.88**	--	**7.35 J**	**0.688**	**1.826**	--	**3.46**	--
Total Hexachlorodibenzo-p-dioxin (HxCDD)			--	**41.3**	--	**42.8 J**	**3.023**	**16.808**	--	**21.4**	--
Total Heptachlorodibenzo-p-dioxin (HpCDD)			--	**278**	--	**302**	**25.648**	**143.055**	--	**123**	--
Total Tetrachlorodibenzofuran (TCDF)			--	**41.5**	--	**43.7 J**	**0.891**	**45.797**	--	**20.9**	--
Total Pentachlorodibenzofuran (PeCDF)			--	**43.3**	--	**67.8**	**2.635**	**53.049**	--	**48.6**	--
Total Hexachlorodibenzofuran (HxCDF)			--	**84.8**	--	**105**	**4.046**	**38.989**	--	**57.2**	--
Total Heptachlorodibenzofuran (HpCDF)			--	**106**	--	**99.7**	**7.605**	**45.922**	--	**42.1**	--
Total Dioxin/Furan TEQ (Mammal) (U = 0)			--	**12.6182**	--	**16.7317**	**0.8529862**	**6.9874767**	--	**9.6875**	--
Total Petroleum Hydrocarbons (mg/kg)											
Diesel Range Hydrocarbons			**310**	**260**	**120**	**200**	**160**	**120**	**160**	**69**	**51**
Gasoline Range			11 U	11 U	18 UJ	**6.6 J**	12 U	**6.3**	11 U	8.8 U	12 UJ
Residual Range			**1000**	**840**	**660**	**780**	**500**	**350**	**500**	**240**	**270**

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 2 Event 2 PCM-14 PCM-14DS-081211 12/11/2008 0 - 3 cm	Year 0 Event 2 PCM-15 PCM-15DS-060818 8/18/2006 0 - 0.16 ft	Year 0 Event 3 PCM-15 PCM-15DS-061207 12/7/2006 0 - 0.03 ft	Year 1 Event 1 PCM-15 PCM-15DS-070914 9/14/2007 2 - 2 in	Year 1 Event 2 PCM-15 PCM-15DS-071106 11/6/2007 0 - 2 in	Year 1 Event 2 PCM-15 PCM-15DS-071106R 11/6/2007 2 - 2 in	Year 2 Event 1 PCM-15 PCM-15DS-080807 8/7/2008 0 - 3 in	Year 2 Event 2 PCM-15 PCM-15DS-081211 12/11/2008 0 - 3 cm	Year 0 Event 2 PCM-16 PCM-16DS-060818 8/18/2006 0 - 0.3 ft
Conventional Parameters (mg/kg)											
Ammonia			40.7	54.5	34.4	47.2	28	--	40.9	47.6	94.7
Cyanide			0.38 UJ	0.27 J	--	--	--	--	0.4 J	44 UJ	0.16 J
Sulfide			1.3 U	1 J	2.7	1.1 J	1 U	--	2.7	1.2 J	2.6
Conventional Parameters (su)											
pH			6.96	--	--	--	--	--	6.85	7.05	--
Conventional Parameters (pct)											
Total organic carbon			1.81	1.23	1.56	1.84	1.29 J	--	1.62 J	1.98	1.53
Total solids			43.1	52.2	49.6	41.9	50.4	--	44.4	42	52.3
Grain Size (pct)											
Gravel			0.57 J	0.15	2.63	--	2	--	0.88	4.64 J	0
Gravel, Medium			--	--	--	0	--	--	--	--	--
Gravel, Fine			--	--	--	1.22	--	--	--	--	--
Sand, Very Coarse			4.54	0.81	2.94	0.81	2.27	--	0.62	2.52	0.08
Sand, Coarse			6.79 J	9.14	8.38	2.56	6.39	--	4.94	5.38 J	0.43
Sand, Medium			24.6 J	44.6	27.2	24.7	17.9	--	28	23.6 J	1.24
Sand, Fine			7.86 J	5.01	10.03	3.69	8.65	--	7.5	7.72 J	6.7
Sand, Very Fine			6.98	2.34	5.69	4.18	3.58	--	8.5	6.19	37.6
Silt			47.6	35.9	33.6	--	--	--	53.8	50.1	46.2
Silt, Coarse			--	--	--	28.3	10.3	--	--	--	--
Silt, Medium			--	--	--	14.6	5.92	--	--	--	--
Silt, Fine			--	--	--	7.29	3.82	--	--	--	--
Silt, Very Fine			--	--	--	4.26	3.65	--	--	--	--
Clay			2.81 J	4.24	8.02	1.99	1.21	--	5.58	4.36 J	7.24
Clay, Fine			--	--	--	3.62	--	--	--	--	--
Clay, Very Fine			--	--	--	--	--	--	--	--	--
Metals (mg/kg)											
Aluminum			21500	16700	18500	26200	20600 J	--	23200	19300	24700
Antimony	10	64	0.19 J	0.07	0.1	0.12 UJ	0.07	--	0.13 J	0.13 J	0.07
Arsenic	4	33	3.8	3.19 J	2.87	3.21	2.7	--	4.4	3.5	3.35 J
Cadmium	0.003	4.98	0.184	0.132 J	0.124	0.184	0.134	--	0.162	0.188	0.21 J
Chromium	4200	11.1	25	15.2	27	30.3	28.3	--	25.2	24	23.3
Chromium VI			1.3 UJ	1.3 UJ	R	1.2 UJ	0.18 J	--	R	1.3 UJ	1.3 UJ
Copper	10	149	33.1	57.8	27.3	36.3	27.6	--	34.1	31.2	32.9
Iron			--	--	--	--	28500 J	--	--	--	--
Lead	128	128	11.4 J	9.51	8.28	12.9 J	8.53	--	11.4	11.1 J	10.3
Mercury		1.06	0.046	0.029	0.053	0.053	0.031 U	--	0.043	0.057	0.047
Nickel	316	48.6	22.3	16.1	19.5	24.4	18.4	--	23.8	20.9	23.7
Selenium	0.1	5	0.23	2.2 U	0.06	0.18	0.16	--	0.13	0.22	2.1 U
Silver		5	0.148	0.118	0.115	0.17	0.162	--	0.12	0.147	0.148
Zinc	3	459	103	78.9	81.8	102	75.1	--	97.2	89.4	90.4
Organometallic Compounds (ug/kg)											
Butyltin			--	1.6 J	0.45 J	1.4 J	0.77 J	--	1.4 J	--	1.2 J
Dibutyltin (ion)			1.3 J	1.7 J	9.7 J	2.4 J	2 J	--	1.6 J	1.3 J	2
n-Butyltin (ion)			1.1 J	--	--	--	--	--	--	1.2 J	--
Tetrabutyltin (ion)			2.3 U	2 U	2 UJ	2.4 U	2 U	--	2.3 U	2.4 U	2 U
Tributyltin (ion)	190		1.6 J	3.1	230 J	3.9	2.7	--	3.2	2.9	6.6
Volatile Organics (ug/kg)											

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1,1,1,2-Tetrachloroethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,2,4-Trichlorobenzene		9200	--	--	--	42 U	--	--	--	--	--
1,2-Dichlorobenzene		1700	--	--	--	2.1 U	--	--	--	--	--
1,3-Dichlorobenzene		300	--	--	--	2.1 U	--	--	--	--	--
1,4-Dichlorobenzene		300	2.3 U	--	--	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,1,1-Trichloroethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,1,2,2-Tetrachloroethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,1,2-Trichloroethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,1'-Dichloroethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,1'-Dichloroethene			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,2,3-Trichloropropane			12 U	2000 U	2 U	5.2 U	5.4 U	--	2.8 U	12 U	4.6 UJ
1,2-Dichloroethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,2-Dichloroethene, cis-			--	--	2 U	2.1 U	--	--	--	--	--
1,2-Dichloroethene, trans-			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,2-Dichloropropane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
1,3-Dichloropropene, cis-			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	9.2 U
1,3-Dichloropropene, trans-			5.7 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	5.9 U	4.6 U
2-Butanone (MEK)			23 UJ	7700 UJ	20 UJ	11 UJ	11 UJ	--	5.6 UJ	24 UJ	19 UJ
2-Chloroethylvinyl ether			5.7 U	3900 U	9.9 U	11 U	5.4 U	--	2.8 U	5.9 U	4.6 U
2-Hexanone (Methyl butyl ketone)			9.1 U	3900 UJ	9.9 U	11 U	22 U	--	12 U	9.4 U	9.2 UJ
Acetone			23 UJ	20000 UJ	**18 J**	21 U	43 UJ	--	23 UJ	24 UJ	**12 J**
Acrolein			9200 UJ	4800 UJ	200 UJ	210 UJ	14 UJ	--	14 UJ	9300 UJ	35 U
Acrylonitrile			4.6 U	3900 UJ	4 U	4.2 U	4.3 U	--	12 U	4.7 U	3.7 UJ
Benzene			**4.4 J**	**320 J**	2 U	2.1 U	**2.8**	--	**66**	2.4 U	1.9 U
Bromochloromethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
Bromodichloromethane			5.7 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	5.9 U	1.9 U
Bromoform			5.7 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	5.9 U	1.9 U
Bromomethane			5.7 UJ	2000 UJ	2 U	2.1 U	11 U	--	5.6 UJ	5.9 UJ	9.2 U
Carbon disulfide			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 UJ	2.4 U	1.9 U
Carbon tetrachloride			5.7 U	2000 U	2 UJ	2.1 U	2.2 U	--	1.2 U	5.9 U	1.9 U
Chlorobenzene			2.3 UJ	2000 U	2 U	2.1 U	2.2 U	--	**0.26 J**	2.4 U	1.9 U
Chloroethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	9.2 U
Chloroform			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
Chloromethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	9.2 U
Dibromochloromethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
Dibromomethane			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
Dichlorodifluoromethane			5.7 U	2000 U	2 UJ	2.1 U	2.2 U	--	1.2 U	5.9 U	4.6 UJ
Dichloromethane (Methylene chloride)			12 UJ	9600 U	9.9 U	11 U	11 U	--	**0.46 J**	12 UJ	9.2 U
Ethylbenzene			**1.5 J**	**80 J**	2 U	2.1 U	2.2 U	--	**0.77 J**	2.4 U	**1.7 J**
Ethylene dibromide (1,2-Dibromoethane)			2.3 U	2000 U	40 U	42 U	2.2 U	--	1.2 U	2.4 U	1.9 U
Hexachlorobutadiene		600	--	--	--	4.2 U	--	--	--	--	--
Iodomethane (Methyl iodide)			23 UJ	3900 U	20 U	21 U	43 U	--	5.6 U	24 UJ	9.2 UJ
Isopropylbenzene (Cumene)			**1.1 J**	**27 J**	2 U	2.1 U	2.2 U	--	**0.47 J**	2.4 U	4.6 U
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))			12 U	3900 UJ	4 U	4.2 U	4.3 U	--	2.3 U	12 U	37 U
Methyl tert-butyl ether (MTBE)			9.1 U	2000 U	2 U	2.1 U	2.2 U	--	2.3 U	9.4 U	1.9 U
m,p-Xylene			**1.7 J**	2000 U	4 U	2.1 U	2.2 U	--	**0.67 J**	4.7 U	**0.68 J**
Naphthalene		561	--	**24000**	**9.8**	--	--	--	--	--	--
o-Xylene			**5 J**	2000 U	2 U	2.1 U	2.2 U	--	**0.92 J**	2.4 U	**0.91 J**

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Styrene			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	4.6 U
Tetrachloroethene (PCE)		500	2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
Toluene			2.3 UJ	2000 U	2 U	2.1 U	2.2 U	--	**1.3**	2.4 U	1.9 U
trans-1,4-Dichloro-2-butene			**R**	3900 U	5 U	4.2 U	5.4 U	--	12 U	**R**	4.6 UJ
Trichloroethene (TCE)		2100	2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	1.9 U
Trichlorofluoromethane (Fluorotrichloromethane)			5.7 U	2000 U	2 UJ	2.1 U	2.2 U	--	1.2 U	5.9 U	4.6 U
Vinyl acetate			12 UJ	2000 UJ	5 UJ	5.2 UJ	5.4 UJ	--	2.8 UJ	12 UJ	4.6 UJ
Vinyl chloride			2.3 U	2000 U	2 U	2.1 U	2.2 U	--	1.2 U	2.4 U	9.2 U
Total Xylene (U = 0)			**6.7 J**	2000 U	4 U	2.1 U	2.2 U	--	**1.59 J**	4.7 U	**1.59 J**
Aromatic Hydrocarbons (ug/kg)											
2-Methylnaphthalene		200	**47**	**34**	**42**	--	**15**	--	--	**25**	**59**
Acenaphthene		300	**180**	**200**	**130**	**65 J**	**98**	--	**240**	**120**	**140**
Acenaphthylene		200	**65**	**42**	**66**	**32 J**	**28**	--	**150**	**47**	**42**
Anthracene		845	**140**	**100**	**290**	**140**	**190**	--	**200**	**91**	**200**
Benzo(a)anthracene		1050	**520**	**300**	**570**	**340**	**260**	--	**660**	**270**	**440**
Benzo(a)pyrene		1450	**840**	**460**	**950**	**590 J**	**430**	--	**1100**	**440**	**610**
Benzo(b)fluoranthene			**730**	**290**	**610**	**530 J**	**400**	--	**930**	**380**	**420**
Benzo(g,h,i)perylene		300	**660**	**370**	**710**	**550**	**410**	--	**840**	**400**	**460**
Benzo(k)fluoranthene		13000	**250**	**260**	**420**	**160 J**	**150**	--	**310**	**130**	**340**
Chrysene		1290	**570**	**430**	**790**	**430 J**	**360**	--	**860**	**310**	**570**
Dibenzo(a,h)anthracene		1300	**92**	**42**	**72**	**56**	**41**	--	**140**	**61**	**61**
Fluoranthene		2230	**860**	**550**	**1500**	**850 J**	**670**	--	**860**	**520**	**1100**
Fluorene		536	**69**	**77**	**73**	**36**	**110**	--	**130**	**99**	**94**
Indeno(1,2,3-c,d)pyrene		100	**610**	**330**	**630**	**510**	**380**	--	**770**	**340**	**430**
Naphthalene		561	**380**	--	--	**92 J**	**110**	--	**180**	**84**	**490**
Phenanthrene		1170	**480**	**270**	**760**	**390 J**	**460**	--	**600**	**430**	**620**
Pyrene		1520	**1000**	**800**	**1800**	**880 J**	**750**	--	**1200**	**660**	**1200**
Total Benzofluoranthenes (U = 0)			**980**	**550**	**1030**	**690 J**	**550**	--	**1240**	**510**	**760**
Total LPAH (U = 0)			**1314**	**24689**	**1328.8**	**755**	**996**	--	**1500**	**871**	**1586**
Total HPAH (U = 0)			**6132**	**3832**	**8052**	**4896**	**3851**	--	**7670**	**3511**	**5631**
Total PAH (U = 0)			**7446**	**28521**	**9380.8**	**5651**	**4847**	--	**9170**	**4382**	**7217**
Total cPAH TEF (7 minimum) (U = 0)			**1065.9**	**586.5**	**1188.1**	**753.9**	**556.7**	--	**1389.6**	**561.2**	**784.8**
Semi-Volatile Organics (ug/kg)											
1,2,4-Trichlorobenzene		9200	58 U	10 U	11 U	--	50 UJ	**R**	56 U	12 U	10 U
1,2-Dichlorobenzene		1700	58 UJ	**4.5 J**	11 U	--	50 UJ	**R**	56 U	12 UJ	10 U
1,3-Dichlorobenzene		300	58 UJ	10 U	11 U	--	50 UJ	**R**	56 U	12 UJ	10 U
1,4-Dichlorobenzene		300	--	10 U	11 U	--	50 UJ	**R**	56 U	--	--
2,3,4,5-Tetrachlorophenol			12 U	9.6 U	8.8 U	12 U	9.4 U	--	12 U	12 U	9.2 U
2,3,5,6-Tetrachlorophenol			12 U	9.6 U	8.8 U	12 UJ	9.4 U	--	12 U	12 U	9.2 U
2,4,5-Trichlorophenol			**R**	--	--	59 U	**R**	99 UJ	--	**R**	--
2,4,6-Trichlorophenol			--	--	--	--	**R**	99 UJ	--	--	--
2,4-Dichlorophenol			**R**	**13**	11 U	59 U	**R**	99 UJ	56 U	**R**	10 U
2,4-Dimethylphenol			**R**	20 U	21 U	**R**	**R**	500 UJ	280 UJ	**R**	20 U
2,4-Dinitrophenol			**R**	200 U	210 U	1200 UJ	**R**	2000 UJ	1200 U	**R**	200 U
2,4-Dinitrotoluene			58 U	10 U	11 U	59 U	50 U	**R**	56 U	12 U	10 U
2,6-Dinitrotoluene			58 U	10 U	11 U	59 U	50 U	**R**	56 U	12 U	10 U
2-Chloronaphthalene			58 U	10 U	11 U	120 UJ	50 UJ	**R**	56 U	12 U	10 U
2-Chlorophenol			**R**	10 U	11 U	59 U	**R**	99 UJ	56 U	**R**	10 U

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 2 Event 2 PCM-14 PCM-14DS-081211 12/11/2008 0 - 3 cm	Year 0 Event 2 PCM-15 PCM-15DS-060818 8/18/2006 0 - 0.16 ft	Year 0 Event 3 PCM-15 PCM-15DS-061207 12/7/2006 0 - 0.03 ft	Year 1 Event 1 PCM-15 PCM-15DS-070914 9/14/2007 2 - 2 in	Year 1 Event 2 PCM-15 PCM-15DS-071106 11/6/2007 0 - 2 in	Year 1 Event 2 PCM-15 PCM-15DS-071106R 11/6/2007 2 - 2 in	Year 2 Event 1 PCM-15 PCM-15DS-080807 8/7/2008 0 - 3 in	Year 2 Event 2 PCM-15 PCM-15DS-081211 12/11/2008 0 - 3 cm	Year 0 Event 2 PCM-16 PCM-16DS-060818 8/18/2006 0 - 0.3 ft
2-Methylphenol (o-Cresol)			R	10 U	11 U	59 UJ	R	99 UJ	56 U	R	10 U
2-Nitroaniline			120 U	20 U	21 U	120 U	99 U	R	120 U	24 U	20 U
2-Nitrophenol			R	10 U	11 U	59 U	R	99 UJ	56 U	R	10 U
3,3'-Dichlorobenzidine			580 U	100 U	110 U	R	500 UJ	R	560 U	120 U	R
3-Nitroaniline			120 U	20 U	21 U	120 U	99 UJ	R	120 U	24 U	20 U
4-Bromophenyl-phenyl ether			58 U	10 U	11 U	59 U	50 U	R	56 U	12 U	10 U
4-Chloro-3-methylphenol			R	10 U	11 U	59 U	R	99 UJ	56 U	R	10 U
4-Chloroaniline			58 U	10 U	11 U	R	50 UJ	R	56 U	12 U	10 U
4-Chlorophenyl phenyl ether			58 U	10 U	11 U	59 U	50 UJ	R	56 U	12 U	10 U
4-Methylphenol (p-Cresol)			R	**6.6 J**	**8.7 J**	59 UJ	R	99 UJ	56 U	R	**6.2 J**
4-Nitroaniline			120 U	20 U	21 U	120 U	99 UJ	R	120 U	24 U	20 U
4-Nitrophenol			R	100 U	110 U	590 U	R	990 UJ	560 U	R	100 U
Aniline			120 UJ	R	21 U	R	R	200 UJ	120 UJ	24 UJ	R
Azobenzene			58 U	10 U	11 U	59 U	50 UJ	R	56 U	12 U	10 U
Benzoic acid			R	200 U	210 UJ	R	R	2000 UJ	1200 UJ	R	200 U
Benzyl alcohol			120 U	10 U	11 U	120 U	99 UJ	R	120 U	24 U	10 U
bis(2-Chloroethoxy)methane			58 UJ	10 U	11 U	59 U	50 UJ	R	56 U	12 UJ	10 U
bis(2-Chloroethyl)ether			58 UJ	10 U	11 U	59 UJ	50 UJ	R	56 U	12 UJ	10 U
bis(2-Chloroisopropyl) ether			58 UJ	10 U	11 U	59 UJ	50 UJ	R	56 U	12 UJ	10 U
Bis(2-ethylhexyl) phthalate	330	800	580 U	**160**	**53**	**120 J**	**81 J**	R	**130 J**	**33 J**	**160**
Diethyl phthalate		600	58 U	**6.9 J**	11 U	59 U	50 U	R	56 U	12 U	10 U
Butylbenzyl phthalate			58 U	10 U	11 U	59 U	50 U	R	56 U	12 U	10 U
Dimethyl phthalate			58 U	10 U	11 U	59 U	50 U	R	56 U	12 U	10 U
Di-n-butyl phthalate		100	120 U	21 U	**9.5 J**	120 U	99 U	R	120 U	**11 J**	18 U
Carbazole		1600	**27 J**	**100**	**23**	**17 J**	**19 J**	R	**26 J**	**6.9 J**	**31**
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)			R	100 U	110 U	590 UJ	R	990 UJ	560 U	R	100 U
Di-n-octyl phthalate			58 U	10 U	11 U	300 U	50 U	R	56 U	12 U	10 U
Hexachlorobenzene		100	--	--	--	--	50 U	R	56 U	--	--
Hexachlorobutadiene		600	--	--	--	--	50 U	R	56 U	--	--
Dibenzofuran			**13 J**	--	**11**	**8.2**	**33**	--	**14 J**	**9.8**	--
Hexachlorocyclopentadiene		400	290 UJ	50 U	51 U	350 UJ	250 UJ	R	280 UJ	60 UJ	50 U
Hexachloroethane			--	--	--	--	50 UJ	R	56 U	--	--
Isophorone			58 U	10 U	11 U	59 U	50 UJ	R	56 U	12 U	10 U
Nitrobenzene			58 UJ	10 U	11 U	59 UJ	50 UJ	R	56 U	12 UJ	10 U
N-Nitrosodimethylamine			--	50 U	51 U	--	--	--	--	--	50 UJ
N-Nitrosodi-N-propylamine			58 UJ	10 U	11 U	59 UJ	50 UJ	R	56 U	12 UJ	10 U
N-Nitrosodiphenylamine			58 U	10 U	11 U	59 UJ	50 UJ	R	56 U	12 U	10 U
Pentachlorophenol		1000	--	--	--	--	R	990 UJ	--	--	--
Phenol		50	R	30 U	31 U	180 U	R	300 UJ	170 U	R	30 U
PCB Aroclors (ug/kg)											
Aroclor 1016	420	530	12 U	10 U	10 U	9.6 U	9.9 U	--	12 U	12 U	10 U
Aroclor 1221			49 U	20 U	20 U	20 U	20 U	--	23 U	35 U	20 U
Aroclor 1232			12 U	10 U	10 U	9.6 U	9.9 U	--	12 U	12 U	10 U
Aroclor 1242	2		12 U	10 U	10 U	9.6 U	9.9 U	--	12 U	12 U	10 U
Aroclor 1248	4	1500	12 U	10 U	10 U	9.6 U	9.9 U	--	12 U	12 U	10 U
Aroclor 1254	10	300	13 U	11 U	10 U	21 U	17 U	--	12 U	24 U	14 U
Aroclor 1260		200	12 U	10 U	10 U	9.6 U	9.9 U	--	12 U	12 U	11 U
Aroclor 1262			12 U	10 U	--	9.6 U	9.9 U	--	12 U	12 U	10 U

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Aroclor 1268			12 U	10 U	--	9.6 U	9.9 U	--	12 U	12 U	10 U
Total PCB (U = 0)		676	49 U	20 U	20 U	21 U	20 U	--	23 U	35 U	20 U
PCB Congeners (ng/kg)											
PCB-001			9.06 U	5.09 UJ	**8.25 J**	--	**5.17**	--	--	9.73 U	33.206 UJ
PCB-002			**8.44**	1.677 UJ	**9.75 J**	--	**5.66**	--	--	**11.8**	1.66 UJ
PCB-003			9.06 U	3.34 U	**8.2 J**	--	**5.83**	--	--	**10.8**	33.206 UJ
PCB-004			**22.8**	83.855 U	**28.13 J**	--	**17.4**	--	--	**31.6**	83.016 UJ
PCB-005			9.06 U	--	15.768 UJ	--	**0.415**	--	--	9.73 U	--
PCB-005/008			--	8.385 U	--	--	--	--	--	--	8.301 U
PCB-006			**9.26**	8.385 U	15.768 UJ	--	**6.19**	--	--	**12.3**	8.301 U
PCB-007			9.06 U	8.385 U	15.768 UJ	--	**0.921**	--	--	9.73 U	8.301 U
PCB-008			**36.5**	--	**29.24 J**	--	**26.1**	--	--	**49.7**	--
PCB-009			9.06 U	8.385 U	15.768 UJ	--	**2.15**	--	--	9.73 U	8.301 U
PCB-010			9.06 U	8.385 U	15.768 UJ	--	**0.655**	--	--	9.73 U	8.301 U
PCB-011			**146**	**118.77**	**191.12 J**	--	**114**	--	--	**160**	33.206 U
PCB-012/013			18.1 U	16.771 U	31.537 UJ	--	**4.14**	--	--	19.5 U	16.603 U
PCB-014			9.06 U	16.771 U	31.537 UJ	--	0.195 U	--	--	9.73 U	16.603 UJ
PCB-015			**41.4**	83.855 U	157.68 U	--	**41.7**	--	--	**49.1**	83.016 U
PCB-016			**25.4**	--	31.537 U	--	**26.2**	--	--	**29.6**	--
PCB-017			**35.2**	16.45 U	**27.32 J**	--	**34.9**	--	--	**41.6**	**47.12 J**
PCB-018/030			**67.7**	28.82 U	**41.99 J**	--	**62.9**	--	--	**80.1**	**88.68 J**
PCB-019			**23.7**	7.16 U	**18.61 J**	--	**24.9**	--	--	**25.7**	**19.57 J**
PCB-020/021/028/033			--	**67.71**	--	--	--	--	--	--	**211.43 J**
PCB-020/028			**170**	--	**91.21 J**	--	**134**	--	--	**167**	--
PCB-021			--	--	--	--	--	--	--	--	--
PCB-021/033			**60.9**	--	**36.04 J**	--	**42.9**	--	--	**61.2**	--
PCB-022			**45.8**	**10.83**	**23.46 J**	--	**35.3**	--	--	**44.3**	**35.53 J**
PCB-023			9.06 U	--	63.075 U	--	0.137 U	--	--	9.73 U	--
PCB-023/034			--	33.542 U	--	--	--	--	--	--	33.206 UJ
PCB-024			9.06 U	--	--	--	**0.584**	--	--	9.73 U	--
PCB-024/027			--	--	**17 J**	--	--	--	--	--	--
PCB-025			**16.1**	**4.04**	63.075 U	--	**11.8**	--	--	**15.5**	**12.3 J**
PCB-026/029			**28.1**	**10.41**	**19.76 J**	--	**20.4**	--	--	**29**	**32.71 J**
PCB-027			**10.5**	--	--	--	**8.48**	--	--	**10.3**	--
PCB-031			**126**	**39.7**	**83.4 J**	--	**87.1**	--	--	**123**	**139.69 J**
PCB-032			**27.1**	8.32 U	**17.84 J**	--	**21.2**	--	--	**30.7**	**25.45 J**
PCB-034			9.06 U	--	63.075 U	--	**0.924**	--	--	9.73 U	--
PCB-035			9.06 U	33.542 U	63.075 U	--	**3.68**	--	--	**5.86**	33.206 UJ
PCB-036			9.06 U	33.542 U	63.075 U	--	**0.47**	--	--	9.73 U	33.206 UJ
PCB-037			**52.9**	**12.42**	**25.59 J**	--	**58.6**	--	--	**53.7**	**35.82**
PCB-038			9.06 U	33.542 U	63.075 U	--	**0.3**	--	--	9.73 U	**11.5 J**
PCB-039			9.06 U	33.542 U	63.075 U	--	**1.27**	--	--	9.73 U	33.206 UJ
PCB-040/041/071			--	**21.9**	**40.6 J**	--	--	--	--	--	**65.4 J**
PCB-040/071			**106**	--	--	--	**83.9**	--	--	**104**	--
PCB-041			**16**	--	--	--	**13.5**	--	--	**18.5**	--
PCB-042			**61**	--	63.075 U	--	**53.6**	--	--	**63.3**	--
PCB-042/059/062/075			--	**9.15**	--	--	--	--	--	--	**27.06 J**
PCB-043			**8.54**	--	--	--	**7.03**	--	--	9.73 U	--

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PCB-043/052/073			--	**181.98**	**125.72 J**	--	--	--	--	--	**544.39 J**
PCB-044/047/065			**264**	**160.62**	**117.54 J**	--	**242**	--	--	**282**	**497.75 J**
PCB-045			**25.2 J**	--	--	--	**16.4**	--	--	**27.5**	--
PCB-045/051			--	**21.12**	**26.3 J**	--	--	--	--	--	**52.02 J**
PCB-046			**13.7**	**3.12**	63.075 U	--	**8.86**	--	--	**13.7**	**7.99 J**
PCB-048			**39.5**	33.542 U	63.075 U	--	**27.5**	--	--	**39.1**	33.206 UJ
PCB-049/069			**160**	**50.87**	**70.55 J**	--	**143**	--	--	**180**	**155.9 J**
PCB-050			--	--	--	--	--	--	--	--	--
PCB-050/053			**46.9**	**13.46**	**27.78 J**	--	**40.5**	--	--	**58**	**41.83 J**
PCB-051			**24.3**	--	--	--	**33.8**	--	--	**30.4**	--
PCB-052			**262**	--	--	--	**259**	--	--	**295**	--
PCB-054			**6.13**	**1.41**	157.68 U	--	**8.12**	--	--	**5.55**	**3.63 J**
PCB-055			9.06 U	--	157.68 U	--	**1.89**	--	--	9.73 U	--
PCB-055/066			--	83.855 U	--	--	--	--	--	--	**194.2 J**
PCB-056			**104**	--	**50.44 J**	--	**87.9**	--	--	**109**	--
PCB-056/060			--	**38.67**	--	--	--	--	--	--	**117.69 J**
PCB-057			9.06 U	**5.04**	157.68 U	--	**0.975**	--	--	9.73 U	**17.15 J**
PCB-058			9.06 U	--	157.68 U	--	**0.976**	--	--	9.73 U	--
PCB-058/067			--	83.855 U	--	--	--	--	--	--	**1.55 J**
PCB-059/062/075			**20.5**	--	63.075 U	--	**14.9**	--	--	**22.3**	--
PCB-060			**42.1**	--	**14.3 J**	--	**29.6**	--	--	**44.7**	--
PCB-061/070/074/076			**379**	**74.58**	**204.84**	--	**341**	--	--	**386**	**639.62 J**
PCB-063			**9.12 J**	**168.6**	157.68 U	--	**6.61**	--	--	**9.5**	**6.07 J**
PCB-064			**87.7**	**20.83**	**24.14 J**	--	**64.5**	--	--	**91.7**	**67.98 J**
PCB-066			**224**	--	**77.03 J**	--	**209**	--	--	**234**	--
PCB-067			9.06 U	--	157.68 U	--	**5.99**	--	--	**6.52**	--
PCB-068			9.06 U	**13.67**	157.68 U	--	**2.76**	--	--	9.73 U	**55.86 J**
PCB-072			9.06 U	83.855 U	157.68 U	--	**3.64**	--	--	9.73 U	83.016 UJ
PCB-073			**2.37**	--	--	--	**1.49**	--	--	9.73 U	--
PCB-077			**32.1**	**6.02**	**12.81 J**	--	**28.6**	--	--	**35.2**	**10.73 J**
PCB-078			9.06 U	83.855 U	157.68 U	--	0.434 U	--	--	9.73 U	83.016 UJ
PCB-079			9.06 U	83.855 U	157.68 U	--	**3.56**	--	--	9.73 U	**7.1 J**
PCB-080			9.06 U	**1.87**	157.68 U	--	0.379 U	--	--	9.73 U	**6.38 J**
PCB-081			9.06 U	83.855 U	157.68 U	--	**1.06**	--	--	9.73 U	83.016 U
PCB-082			**45.8**	**12.15**	**22.38 J**	--	**44**	--	--	**46.7 J**	**43.95**
PCB-083			9.06 U	--	--	--	**18.4**	--	--	**28.8**	--
PCB-083/099			--	--	**75.18 J**	--	--	--	--	--	--
PCB-083/099/112			--	**47.44**	--	--	--	--	--	--	**180.72**
PCB-084			**88.9**	83.855 U	**39.67 J**	--	**81.4**	--	--	**95.8**	**119.26**
PCB-085/116			**58.1**	--	--	--	**54.6**	--	--	**71.9**	--
PCB-085/116/117			--	**27.34**	**68.32**	--	--	--	--	--	**101.88**
PCB-086/087/097/108/119			--	--	**99.31 J**	--	--	--	--	--	--
PCB-086/087/097/108/119/125			**254**	**52.61**	--	--	**232**	--	--	**238**	**204.23**
PCB-088			9.06 U	--	--	--	0.399 U	--	--	9.73 U	--
PCB-088/091			--	**28.46**	**41.41 J**	--	--	--	--	--	**97.77**
PCB-089			9.06 U	**0.87**	157.68 U	--	**3.92**	--	--	**7.36 J**	**3.09**
PCB-090/101/113			**655**	**110.85**	**166.69 J**	--	**387**	--	--	**465**	**418.59**
PCB-091			**62.8**	--	--	--	**51.6**	--	--	**69.8**	--

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PCB-092			**110**	**23.38**	**50.22 J**	--	**85.9**	--	--	**94.2**	**85.53**
PCB-093/095/100			--	--	**177.05**	--	--	--	--	--	--
PCB-093/098/100/102			--	**120.71**	--	--	--	--	--	--	**464.65**
PCB-093/100			**16.3**	--	--	--	**15.2**	--	--	**19.2**	--
PCB-094			9.06 U	**0.94**	157.68 U	--	**4.39**	--	--	9.73 U	**3.26**
PCB-095			**377**	**31.74**	--	--	**257**	--	--	**323**	**80.07**
PCB-096			**7.72**	**1.5**	157.68 U	--	**5.47**	--	--	**7.66**	**2.94**
PCB-098			9.06 U	--	157.68 U	--	0.359 U	--	--	9.73 U	--
PCB-099			**204**	--	--	--	**182**	--	--	**182**	--
PCB-102			**17.4 J**	--	--	--	**13**	--	--	**14.9**	--
PCB-103			**10.8 J**	**2.61**	157.68 U	--	**8.95**	--	--	**10.4 J**	**7.98**
PCB-104			9.06 U	83.855 U	157.68 U	--	**1.38**	--	--	9.73 U	83.016 U
PCB-105			**135**	**26.11**	**43.59 J**	--	**134**	--	--	**128**	**90.53**
PCB-106			9.06 U	--	157.68 U	--	**0.418**	--	--	9.73 U	--
PCB-106/109/123			--	33.542 U	--	--	--	--	--	--	33.206 U
PCB-107/124			**14.3 J**	**6.44**	315.37 U	--	**12.4**	--	--	**15**	**13.98**
PCB-109			**27.4**	--	63.075 U	--	**23.8**	--	--	**26.2**	--
PCB-110			**450**	--	--	--	**416**	--	--	**412**	--
PCB-110/115			--	**119.55**	**213.37 J**	--	--	--	--	--	**463.88**
PCB-111			9.06 U	167.71 U	315.37 U	--	**0.56**	--	--	9.73 U	166.03 U
PCB-112			9.06 U	--	315.37 U	--	0.308 U	--	--	9.73 U	--
PCB-114			**8.57**	--	157.68 U	--	**7.86**	--	--	9.73 U	--
PCB-114/122			--	**1.09**	--	--	--	--	--	--	**3.78**
PCB-115			9.06 U	--	--	--	0.241 U	--	--	9.73 U	--
PCB-117			**13**	--	--	--	**5.71**	--	--	9.73 U	--
PCB-118			**381**	**69.73**	**119.98 J**	--	**342**	--	--	**338**	**254.94**
PCB-120			9.06 U	83.855 U	157.68 U	--	**2.71**	--	--	9.73 U	83.016 U
PCB-121			9.06 U	83.855 U	157.68 U	--	**0.671**	--	--	9.73 U	83.016 U
PCB-122			9.06 U	--	157.68 U	--	**4.38**	--	--	9.73 U	--
PCB-123			9.06 U	--	157.68 U	--	**6.31**	--	--	**5.5 J**	--
PCB-126			9.06 U	**1.45**	157.68 U	--	**2.32**	--	--	9.73 U	**3.49**
PCB-127			9.06 U	**1.65**	315.37 U	--	0.266 U	--	--	9.73 U	**4.6**
PCB-128/166			**174**	**13.64**	**55.75 J**	--	**75.8**	--	--	**99.3**	**39.44**
PCB-129/138/160/163			--	**129.13**	**225.51**	--	--	--	--	--	**400.99**
PCB-129/138/163			**1530**	--	--	--	**664**	--	--	**689**	--
PCB-130			**59.5**	--	157.68 U	--	**40.6**	--	--	**40.7**	--
PCB-130/137/164			--	**3.42**	--	--	--	--	--	--	**42.56**
PCB-131			**10.9**	--	--	--	**5.56**	--	--	9.73 U	--
PCB-131/142			--	83.855 U	157.68 U	--	--	--	--	--	**2.68**
PCB-132			**377**	**40.83**	**86.81 J**	--	**179**	--	--	**180**	**138.95**
PCB-133			**23.4**	83.855 U	157.68 U	--	**13.8**	--	--	**18.5**	**6.21**
PCB-134			**71.5**	--	--	--	**37.6**	--	--	**40.2**	--
PCB-134/147/149			--	**186.93**	**395.25**	--	--	--	--	--	**586.29**
PCB-135/151			**637**	--	--	--	**242**	--	--	**266**	--
PCB-135/151/154			--	**66.23**	**100.76 J**	--	--	--	--	--	**198.79**
PCB-136			**236**	**18.05**	**45.71 J**	--	**97.9**	--	--	**103**	**56.33**
PCB-137			**18.3**	--	315.37 U	--	**16.9**	--	--	**23.3**	--
PCB-139/140			**11.8**	83.855 U	157.68 U	--	**9.63**	--	--	**14.1**	**3.98**

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Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 2 Event 2 PCM-14 PCM-14DS-081211 12/11/2008 0 - 3 cm	Year 0 Event 2 PCM-15 PCM-15DS-060818 8/18/2006 0 - 0.16 ft	Year 0 Event 3 PCM-15 PCM-15DS-061207 12/7/2006 0 - 0.03 ft	Year 1 Event 1 PCM-15 PCM-15DS-070914 9/14/2007 2 - 2 in	Year 1 Event 2 PCM-15 PCM-15DS-071106 11/6/2007 0 - 2 in	Year 1 Event 2 PCM-15 PCM-15DS-071106R 11/6/2007 2 - 2 in	Year 2 Event 1 PCM-15 PCM-15DS-080807 8/7/2008 0 - 3 in	Year 2 Event 2 PCM-15 PCM-15DS-081211 12/11/2008 0 - 3 cm	Year 0 Event 2 PCM-16 PCM-16DS-060818 8/18/2006 0 - 0.3 ft
PCB-141			**355**	--	**58.84 J**	--	**113**	--	--	**116**	--
PCB-141/153/168			--	**161.84**	--	--	--	--	--	--	**462.73**
PCB-142			9.06 U	--	--	--	0.184 U	--	--	9.73 U	--
PCB-143			9.06 U	**3.2**	157.68 U	--	0.161 U	--	--	9.73 U	**10.21**
PCB-144			**95.5**	**8.62**	**5.94 J**	--	**30.2**	--	--	**35.3**	**35.25**
PCB-145			9.06 U	167.71 U	315.37 U	--	**0.177**	--	--	9.73 U	166.03 U
PCB-146			**224**	--	**29.73 J**	--	**126**	--	--	**120**	--
PCB-146/161			--	**19.14**	--	--	--	--	--	--	**60.91**
PCB-147/149			**1270**	--	--	--	**513**	--	--	**538**	--
PCB-148			9.06 U	167.71 U	315.37 U	--	**3.32**	--	--	9.73 U	**1.56**
PCB-150			9.06 U	--	--	--	**3.01**	--	--	**3.59 J**	--
PCB-150/152			--	167.71 U	315.37 U	--	--	--	--	--	**0.5**
PCB-152			9.06 U	--	--	--	**1.11**	--	--	9.73 U	--
PCB-153/168			**1530**	--	**354.68**	--	**580**	--	--	**577**	--
PCB-154			**18.3**	--	--	--	**16.1**	--	--	**17.7**	--
PCB-155			9.06 U	167.71 U	315.37 U	--	**0.352**	--	--	9.73 U	166.03 U
PCB-156/157			**116**	**10.33**	**26.77 J**	--	**62.9**	--	--	**61.7**	**25.25**
PCB-158			**141**	**8.66**	**17.6 J**	--	**57.8**	--	--	**63.1**	**20.28**
PCB-159			**32.5**	167.71 U	**16.78 J**	--	**8.28**	--	--	**9.57**	2.98 U
PCB-016/024/027			--	**4.7**	--	--	--	--	--	--	**12.66 J**
PCB-160			9.06 U	--	--	--	0.132 U	--	--	9.73 U	--
PCB-161			9.06 U	--	315.37 U	--	0.116 U	--	--	9.73 U	--
PCB-162			9.06 U	**1.8**	**9.52 J**	--	**1.5**	--	--	9.73 U	**2.61**
PCB-164			**108**	--	**44.38 J**	--	**41.5**	--	--	**44.7**	--
PCB-165			9.06 U	167.71 U	315.37 U	--	**0.877**	--	--	9.73 U	166.03 U
PCB-167			**51.4**	**4.42**	**8.94 J**	--	**22.3**	--	--	**22.6**	**10.63**
PCB-169			9.06 U	83.855 U	157.68 U	--	**2.4**	--	--	9.73 U	**3.68**
PCB-170			**665**	48.11 UJ	**248.83**	--	**187**	--	--	**191**	**117.88**
PCB-171/173			**210**	--	**67.72 J**	--	**66.7**	--	--	**63.4**	--
PCB-171/173/181			--	**17.59 J**	--	--	--	--	--	--	**35.17**
PCB-172			**111**	7.81 UJ	**45.18 J**	--	**34**	--	--	**38.1**	**19.71**
PCB-174			**734**	--	**651.97**	--	**238**	--	--	**213**	--
PCB-174/183/185			--	272.16 UJ	--	--	--	--	--	--	**822.67**
PCB-175			**32.5**	32.35 UJ	**331.21**	--	**9.94**	--	--	**10.6**	43.11 U
PCB-176			**99.6**	11.96 UJ	**29.88 J**	--	**22.4**	--	--	**27.3**	**28.57**
PCB-177			**396**	37.73 UJ	**214.22**	--	**142**	--	--	**122**	**98.03**
PCB-178			**142**	58.06 UJ	**189.43**	--	**44.3**	--	--	**53.1**	**152.38**
PCB-179			**341**	33.94 UJ	**163.5**	--	**104**	--	--	**113**	**86.67**
PCB-180			--	--	--	--	--	--	--	--	--
PCB-180/193			**1520**	155.35 UJ	**1622.07**	--	**450**	--	--	**444**	527.85 U
PCB-181			**6.71**	--	315.37 U	--	**5.21**	--	--	**6.67**	--
PCB-182			9.06 U	--	315.37 U	--	**1.38**	--	--	9.73 U	--
PCB-182/187			--	196.6 UJ	--	--	--	--	--	--	595.7 U
PCB-183			**428**	--	**266.25 J**	--	**114**	--	--	**118**	--
PCB-184			9.06 U	167.71 UJ	315.37 U	--	**0.402**	--	--	9.73 U	166.03 U
PCB-185			9.06 U	--	315.37 U	--	**17.3**	--	--	**21**	--
PCB-186			9.06 U	167.71 UJ	315.37 U	--	0.117 U	--	--	9.73 U	166.03 U
PCB-187			**850**	--	**1949.94**	--	**310**	--	--	**287**	--

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PCB-188			9.06 U	83.855 UJ	157.68 U	--	**0.741**	--	--	9.73 U	83.016 U
PCB-189			**26.7**	**1.97**	157.68 U	--	**7.76**	--	--	**8.25 J**	**4.31**
PCB-190			**177**	9.23 UJ	**130.06 J**	--	**43.6**	--	--	**48.6 J**	**31.06**
PCB-191			**32.6**	1.33 UJ	**10.06 J**	--	**8.3**	--	--	**9.61**	**6.91**
PCB-192			9.06 U	167.71 UJ	315.37 U	--	0.626 U	--	--	9.73 U	166.03 U
PCB-194			**403**	38.78 U	**1215.09**	--	**122**	--	--	**118**	228.54 U
PCB-195			**166**	13.46 U	**304.27 J**	--	**50.8**	--	--	**46.2**	78.85 U
PCB-196			**201**	--	**578.86**	--	**47.9**	--	--	**63.8**	--
PCB-196/203			--	111.87 U	--	--	--	--	--	--	577.09 U
PCB-197			**18**	--	--	--	**4.61**	--	--	**5.64 J**	--
PCB-197/200			--	8.85 U	**171.05 J**	--	--	--	--	--	37.96 U
PCB-198/199			**420**	69.39 U	**1366.74**	--	**143**	--	--	**147**	371.86 U
PCB-200			**63.7**	--	--	--	**16.3**	--	--	**19.6**	--
PCB-201			**61.4**	11.84 U	**156.52 J**	--	**16.2**	--	--	**19.9**	43.86 U
PCB-202			**71**	16.5 U	**235.86 J**	--	**24.5**	--	--	**29.7**	47.99 U
PCB-203			**260**	--	**1032.57**	--	**78.2**	--	--	**94.2**	--
PCB-204			9.06 U	167.71 U	315.37 U	--	0.343 U	--	--	9.73 U	6.93 U
PCB-205			**21.1**	2.13 U	**47.19 J**	--	**6.27**	--	--	9.73 U	**10.28**
PCB-206			**145**	42.05 UJ	**955.46 J**	--	**81.8**	--	--	**91.3**	**322.23 J**
PCB-207			**21.6**	5.8 U	**122.7 J**	--	**9.98**	--	--	**15.4**	32.86 U
PCB-208			**32.5**	10.98 U	**183.22 J**	--	**25.2**	--	--	**25.4**	**53.8**
PCB-209			**94.6**	**14.48**	**62.96 J**	--	**104**	--	--	**87**	**67.54**
Total PCB Congener (U=0)			**20667.16**	**2458.39**	**16421.91**	--	**10457.658**	--	--	**11319.38**	**9808.92**
Monochlorobiphenyls (total)			**8.44**	--	--	--	**16.7**	--	--	**22.6**	--
Dichlorobiphenyls (total)			**255**	--	--	--	**213**	--	--	**303**	--
Trichlorobiphenyls (total)			**689**	--	--	--	**576**	--	--	**718**	--
Tetrachlorobiphenyls (total)			**1940 J**	--	--	--	**1740**	--	--	**2060**	--
Pentachlorobiphenyls (total)			**2940 J**	--	--	--	**2410**	--	--	**2600 J**	--
Hexachlorobiphenyls (total)			**7090**	--	--	--	**2970**	--	--	**3080**	--
Heptachlorobiphenyls (total)			**5780**	--	--	--	**1810**	--	--	**1780 J**	--
Octachlorobiphenyls (total)			**1680**	--	--	--	**510**	--	--	**544 J**	--
Nonachlorobiphenyls (total)			**199**	--	--	--	**117**	--	--	**132**	--
Pesticides (ug/kg)											
2,4'-DDD (o,p'-DDD)			**3.1**	2.5 U	**2.1**	**4.4**	**3.8 J**	--	**2.5**	**7.9**	6.1 U
2,4'-DDE (o,p'-DDE)			1.2 U	1 U	1 U	0.96 U	0.99 UJ	--	1.2 U	1.2 U	5 U
2,4'-DDT (o,p'-DDT)			1.2 U	1 U	**0.9 J**	**0.89 J**	**1.4 J**	--	**0.57 J**	**1.2 J**	5 U
4,4'-DDD (p,p'-DDD)	0.3	28	**5.8**	1 U	**3.9**	**11**	**8**	--	**3.9 J**	**19**	**6.4**
4,4'-DDE (p,p'-DDE)	0.3	31.3	**2.9**	**1.4 J**	**2.7**	**3.5**	**2.7 J**	--	**2.4**	**3.6**	**2.1 J**
4,4'-DDT (p,p'-DDT)	0.3	62.9	**10 J**	**13**	**3.9**	**7.2**	**1.4**	--	**4.3 J**	**14**	**3.6 J**
Total DDT (U = 0)			**21.8**	**14.4**	**13.5**	**26.99**	**17.3**	--	**13.67**	**45.7**	**12.1**
Aldrin		40	1.2 UJ	1 U	1 U	**0.42 J**	0.99 UJ	--	1.2 U	1.2 UJ	5 U
alpha-BHC			1.2 UJ	1 U	1 U	0.96 U	0.99 U	--	1.2 UJ	1.2 UJ	5 U
beta-BHC			1.2 UJ	1 U	1.9 U	0.96 U	0.99 U	--	1.2 U	1.2 UJ	5 U
alpha-Chlordane (cis-Chlordane)			2.2 U	1 U	1 U	0.96 U	0.99 U	--	2.2 U	3 U	5 U
Chlordane		17.6	--	21 U	--	--	--	--	--	--	50 U
Chlordane (technical)			--	**0.86 J**	1 U	0.96 U	0.99 UJ	--	1.2 U	--	5 U
cis-Nonachlor			1.2 U	**0.29 J**	1 U	0.96 U	0.99 UJ	--	1.2 U	1.2 U	5 U
trans-Nonachlor			1.2 U	1 U	1 U	**0.48 J**	0.99 UJ	--	**0.15 J**	1.2 U	5 U

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delta-BHC			1.2 UJ	1 U	1 U	0.96 U	0.99 U	--	1.2 UJ	1.2 UJ	5 U
Dieldrin		61.8	1.2 U	1 U	1 U	0.96 U	0.99 UJ	--	1.2 UJ	1.2 U	5 U
Endosulfan-alpha (I)			1.2 U	1 U	1 U	0.96 U	0.99 U	--	1.2 U	1.2 U	5 U
Endosulfan-beta (II)			1.2 U	1 U	1 U	0.96 U	0.99 U	--	1.2 U	1.2 U	5 U
Endosulfan sulfate			1.2 U	1 U	1 U	0.96 U	0.99 U	--	1.2 UJ	1.2 U	5 U
Endrin		207	1.2 U	1 U	1 U	0.96 U	0.99 U	--	1.2 UJ	1.2 U	5 U
Endrin aldehyde			1.2 U	**0.45 J**	1 U	0.96 U	0.99 U	--	1.2 UJ	1.2 U	5 U
Endrin ketone			1.2 U	**0.28 J**	1 U	0.96 U	0.99 U	--	1.2 UJ	1.2 U	5 U
gamma-BHC (Lindane)		4.99	1.4 UJ	1 U	1.7 U	0.96 U	0.99 U	--	1.2 UJ	1.7 UJ	5 U
gamma-Chlordane			1.2 U	--	--	--	--	--	--	1.2 U	--
Heptachlor		10	1.2 UJ	1.1 U	**0.78 J**	**1 J**	0.99 U	--	1.2 UJ	1.2 UJ	5 U
Heptachlor epoxide		16	1.2 U	1 U	**0.35 J**	**0.5 J**	0.99 U	--	1.2 U	1.2 U	5 U
Hexachlorobenzene		100	**2 J**	**0.35 J**	**0.31 J**	0.96 U	**0.87 J**	--	**1 J**	**1.6 J**	**0.99 J**
Hexachlorobutadiene		600	1.2 U	1 U	1 UJ	--	0.99 U	--	1.2 U	1.2 U	5 U
Hexachloroethane			1.2 U	1 U	1 UJ	0.96 U	**0.83 J**	--	1.2 U	**0.99 J**	5 U
Methoxychlor			1.2 U	1.1 U	1 U	**0.78 J**	0.99 U	--	1.2 UJ	1.2 U	5 U
Mirex			1.2 U	1 U	1 U	0.96 U	0.99 UJ	--	1.2 U	1.2 U	5 U
Oxychlordane			1.2 U	2 U	1 UJ	0.96 U	0.99 U	--	1.2 U	1.2 U	5 U
Toxaphene			140 U	620 UJ	50 U	57 U	50 UJ	--	79 U	64 U	250 UJ
Herbicides (ug/kg)											
2,2-Dichloropropionic acid (Dalapon)			290 U	250 U	510 U	300 U	99 U	--	56 U	300 U	250 U
2,4-D (2,4-Dichlorophenoxyacetic acid)			290 U	250 U	510 U	300 U	99 UJ	--	56 U	300 U	250 U
2,4-DB (2,4-D derivative)			290 U	250 U	510 U	300 U	99 U	--	56 U	300 U	250 U
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)			290 U	250 U	510 U	300 U	99 U	--	56 U	300 U	250 U
2,4,5-TP (Silvex)			290 U	250 U	510 U	300 U	99 U	--	56 U	300 U	250 U
2,4,5-Trichlorophenol			--	9.6 U	8.8 U	--	9.4 U	--	12 U	--	9.2 U
2,4,6-Trichlorophenol			12 U	9.6 U	8.8 U	12 UJ	9.4 U	--	12 U	12 U	9.2 U
3,4-Dichlorophenol			--	20 U	--	--	--	--	--	--	19 U
3,5-Dichlorophenol			--	20 U	--	--	--	--	--	--	19 U
Dicamba			290 U	250 U	510 U	300 U	99 U	--	56 U	300 U	250 U
Dichlorprop			290 U	250 U	510 U	300 U	99 U	--	56 U	300 U	250 U
Dinoseb			290 U	250 U	510 U	300 U	99 U	--	56 U	300 U	250 U
MCPA			58000 U	50000 UJ	110000 U	60000 U	20000 U	--	12000 U	60000 U	50000 UJ
Mecoprop (MCPP)			58000 UJ	50000 U	110000 UJ	60000 U	20000 U	--	12000 UJ	60000 UJ	50000 U
Pentachlorophenol		1000	12 U	9.6 U	**1.5 J**	**0.75 J**	9.4 U	--	12 U	12 U	**0.38 J**
Dioxin Furans (ng/kg)											
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		9	**0.222 J**	1.254 U	**0.251 J**	--	0.112 U	--	--	**0.217 J**	1.168 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)			**0.546 J**	6.271 U	**0.263 J**	--	1.08 U	--	--	**0.544 J**	5.841 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			**1.15 J**	6.271 U	**0.407 J**	--	**0.765 J**	--	--	**0.879 J**	5.841 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			**5.56**	6.271 U	**2.235 J**	--	**3.41**	--	--	**3.6**	5.841 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)			**2.24 J**	6.271 U	**1.491 J**	--	**1.76 J**	--	--	**1.91 J**	5.841 U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)			**175**	**7.793 J**	**49.351**	--	**72.2**	--	--	**78.1**	**12.793 J**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)			**2410**	**89.453**	**451.632**	--	**647**	--	--	**726**	**168.975 J**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)			**6.31**	1.254 U	**3.695**	--	**9.44**	--	--	**5.77**	1.168 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)			**16.1**	**0.575 J**	**2.759 J**	--	**15.7**	--	--	**8.96**	**0.556 J**
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)			**5.91**	**0.364 J**	**1.588 J**	--	**7.53**	--	--	**4.47**	**0.265 J**
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)			**37.7**	**0.822 J**	**4.526 J**	--	**25.4**	--	--	**20.9**	**1.115 J**
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)			**10.8**	**0.331 J**	**1.32 J**	--	**5.89**	--	--	**5.94**	**0.296 J**

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1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)			**3.4**	6.271 U	6.177 U	--	**2.83**	--	--	**2.13 J**	5.841 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)			**2.94**	6.271 U	**0.706 J**	--	**2.37**	--	--	**2.07 J**	5.841 U
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)			**36.3**	**1.469 J**	**9.527**	--	**21.1**	--	--	**22.5**	**1.678 J**
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)			**6.92**	6.271 U	**1.049 J**	--	**4.74**	--	--	**4.07**	5.841 U
1,2,3,4,5,6,7,8-Octachlorodibenzofuran (OCDF)			**122**	**7.713 J**	**34.309**	--	**54.6**	--	--	**58.4**	**5.401 J**
Total Tetrachlorodibenzo-p-dioxin (TCDD)			**6.65 J**	**0.316**	**2.236**	--	**3.84**	--	--	**61.8 J**	1.168 U
Total Pentachlorodibenzo-p-dioxin (PeCDD)			**6.09 J**	**0.34**	**1.658**	--	**2.45**	--	--	**9.18 J**	5.841 U
Total Hexachlorodibenzo-p-dioxin (HxCDD)			**42.3 J**	**2.307**	**16.005**	--	**26.9**	--	--	**28.9 J**	**2.463**
Total Heptachlorodibenzo-p-dioxin (HpCDD)			**438**	**17.932**	**119.346**	--	**154**	--	--	**173**	**35.999**
Total Tetrachlorodibenzofuran (TCDF)			**23 J**	**1.787**	**8.429**	--	**26.5**	--	--	**22.9 J**	1.168 U
Total Pentachlorodibenzofuran (PeCDF)			**39.2**	**2.467**	**8.784**	--	**41.3**	--	--	**29.5 J**	**1.253**
Total Hexachlorodibenzofuran (HxCDF)			**86.1 J**	**2.489**	**16.141**	--	**54.7**	--	--	**52.2 J**	**3.186**
Total Heptachlorodibenzofuran (HpCDF)			**129**	**4.457**	**30.56**	--	**57.3**	--	--	**60.6**	**5.002**
Total Dioxin/Furan TEQ (Mammal) (U = 0)			**12.9758**	**0.3635198**	**3.2562223**	--	**9.1074**	--	--	**7.9727**	**0.4343028**
Total Petroleum Hydrocarbons (mg/kg)											
Diesel Range Hydrocarbons			**91**	**57**	**68**	**120**	**66**	--	**56 J**	**110**	**54**
Gasoline Range			**6.2 J**	**19**	5 U	12 U	9.9 U	--	15 UJ	15 U	9.4 U
Residual Range			**450**	**260**	**230**	**570**	**340**	--	**290**	**410**	**250**

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Conventional Parameters (mg/kg)					
Ammonia			**101**	**98.2**	**121**
Cyanide			**0.28 J**	**0.9**	0.41 UJ
Sulfide			1.3 U	1.5 U	**6.3**
Conventional Parameters (su)					
pH			--	**6.76**	**6.91**
Conventional Parameters (pct)					
Total organic carbon			**1.58**	**2.68 J**	**2.61**
Total solids			**51.8**	**37.8**	**40**
Grain Size (pct)					
Gravel			**0**	**0.94**	**2.58 J**
Gravel, Medium			--	--	--
Gravel, Fine			--	--	--
Sand, Very Coarse			**0.26**	**1.46**	**1.79**
Sand, Coarse			**0.91**	**2.34**	**2.13 J**
Sand, Medium			**4.92**	**4.9**	**4.24 J**
Sand, Fine			**15.5**	**6.29**	**3.65 J**
Sand, Very Fine			**30.2**	**10.9**	**10.5**
Silt			**42.4**	**73.2**	**73.1**
Silt, Coarse			--	--	--
Silt, Medium			--	--	--
Silt, Fine			--	--	--
Silt, Very Fine			--	--	--
Clay			**6.47**	**7.76**	**4.51 J**
Clay, Fine			--	--	--
Clay, Very Fine			--	--	--
Metals (mg/kg)					
Aluminum			**21700**	**28800**	**26400**
Antimony	10	64	**0.07**	**0.16 J**	**0.15 J**
Arsenic	4	33	**3.45 J**	**4.32**	**3.7**
Cadmium	0.003	4.98	**0.183 J**	**0.236**	**0.245**
Chromium	4200	11.1	**23**	**30.7**	**29.7**
Chromium VI			1.3 UJ	**R**	1.3 UJ
Copper	10	149	**30.3**	**42.4**	**39.6**
Iron			--	--	--
Lead	128	128	**11.9**	**13.5**	**15.5 J**
Mercury		1.06	**0.047**	**0.061**	**0.064**
Nickel	316	48.6	**21.6**	**25.4**	**23.1**
Selenium	0.1	5	2.2 U	**0.2**	**0.29**
Silver		5	**0.141**	**0.23**	**0.192**
Zinc	3	459	**88.9**	**107**	**108**
Organometallic Compounds (ug/kg)					
Butyltin			**1.4 J**	**1.1 J**	--
Dibutyltin (ion)			**1.5 J**	**2.2 J**	**1.7 J**
n-Butyltin (ion)			--	--	**2 J**
Tetrabutyltin (ion)			2 U	2.7 U	2.5 U
Tributyltin (ion)	190		**6.2**	**2.6 J**	**4.2**
Volatile Organics (ug/kg)					

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1,1,1,2-Tetrachloroethane			1.8 U	2700 U	2.5 U
1,2,4-Trichlorobenzene		9200	--	--	--
1,2-Dichlorobenzene		1700	--	--	--
1,3-Dichlorobenzene		300	--	--	--
1,4-Dichlorobenzene		300	1.8 U	2700 U	2.5 U
1,1,1-Trichloroethane			1.8 U	2700 U	2.5 U
1,1,2,2-Tetrachloroethane			1.8 U	2700 U	2.5 U
1,1,2-Trichloroethane			1.8 U	2700 U	2.5 U
1,1'-Dichloroethane			1.8 U	2700 U	2.5 U
1,1'-Dichloroethene			1.8 U	2700 U	2.5 U
1,2,3-Trichloropropane			4.4 UJ	2700 U	13 U
1,2-Dichloroethane			1.8 U	**32 J**	2.5 U
1,2-Dichloroethene, cis-			--	--	--
1,2-Dichloroethene, trans-			1.8 U	2700 U	2.5 U
1,2-Dichloropropane			1.8 U	2700 U	2.5 U
1,3-Dichloropropene, cis-			8.7 U	2700 U	2.5 U
1,3-Dichloropropene, trans-			4.4 U	2700 U	6.2 U
2-Butanone (MEK)			18 UJ	11000 UJ	25 UJ
2-Chloroethylvinyl ether			4.4 U	5300 UJ	6.2 U
2-Hexanone (Methyl butyl ketone)			8.7 UJ	5300 U	10 U
Acetone			35 UJ	27000 UJ	25 U
Acrolein			130 U	6600 UJ	9900 UJ
Acrylonitrile			3.5 UJ	5300 U	5 U
Benzene			1.8 U	**970 J**	**480**
Bromochloromethane			1.8 U	2700 U	2.5 U
Bromodichloromethane			1.8 U	2700 U	6.2 U
Bromoform			1.8 U	2700 U	6.2 U
Bromomethane			8.7 U	2700 U	6.2 UJ
Carbon disulfide			1.8 U	2700 UJ	2.5 U
Carbon tetrachloride			1.8 U	2700 UJ	6.2 U
Chlorobenzene			1.8 U	2700 U	2.5 U
Chloroethane			8.7 U	2700 U	2.5 U
Chloroform			1.8 U	2700 U	2.5 U
Chloromethane			8.7 U	2700 U	2.5 U
Dibromochloromethane			1.8 U	2700 U	2.5 U
Dibromomethane			1.8 U	2700 U	2.5 U
Dichlorodifluoromethane			4.4 UJ	2700 U	6.2 U
Dichloromethane (Methylene chloride)			8.7 U	**55 J**	13 U
Ethylbenzene			**2.1**	**250 J**	**2.5**
Ethylene dibromide (1,2-Dibromoethane)			1.8 U	2700 U	2.5 U
Hexachlorobutadiene		600	--	--	--
Iodomethane (Methyl iodide)			8.7 UJ	5300 U	25 UJ
Isopropylbenzene (Cumene)			**0.45 J**	2700 U	**6.4**
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))			35 U	5300 UJ	13 U
Methyl tert-butyl ether (MTBE)			1.8 U	2700 U	10 U
m,p-Xylene			**0.43 J**	2700 U	**32**
Naphthalene		561	**390 J**	--	--
o-Xylene			**1 J**	**58 J**	**35**

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Styrene			4.4 U	2700 U	2.5 U
Tetrachloroethene (PCE)		500	1.8 U	2700 U	2.5 U
Toluene			**0.4 J**	2700 U	**2.5**
trans-1,4-Dichloro-2-butene			4.4 UJ	5300 U	**R**
Trichloroethene (TCE)		2100	1.8 U	2700 U	2.5 U
Trichlorofluoromethane (Fluorotrichloromethane)			4.4 U	2700 UJ	6.2 U
Vinyl acetate			4.4 UJ	2700 UJ	13 UJ
Vinyl chloride			8.7 U	2700 U	2.5 U
Total Xylene (U = 0)			**1.43 J**	**58**	**67**
Aromatic Hydrocarbons (ug/kg)					
2-Methylnaphthalene		200	**75**	--	**67**
Acenaphthene		300	**330**	**650**	**240**
Acenaphthylene		200	**140**	**230**	**130**
Anthracene		845	**550**	**870**	**270**
Benzo(a)anthracene		1050	**1200**	**1400**	**830**
Benzo(a)pyrene		1450	**1700**	**2300**	**1500**
Benzo(b)fluoranthene			**1100**	**2000**	**1200**
Benzo(g,h,i)perylene		300	**1400**	**1800**	**1200**
Benzo(k)fluoranthene		13000	**1100**	**630**	**370**
Chrysene		1290	**1500**	**1800**	**940**
Dibenzo(a,h)anthracene		1300	**150**	**280**	**140**
Fluoranthene		2230	**2800**	**2900**	**2000**
Fluorene		536	**250**	**270**	**110**
Indeno(1,2,3-c,d)pyrene		100	**1200**	**1700**	**1100**
Naphthalene		561	--	**8500**	**1500**
Phenanthrene		1170	**1900**	**1600**	**830**
Pyrene		1520	**3400**	**3600**	**2100**
Total Benzofluoranthenes (U = 0)			**2200**	**2630**	**1570**
Total LPAH (U = 0)			**3560**	**12120**	**3080**
Total HPAH (U = 0)			**15550**	**18410**	**11380**
Total PAH (U = 0)			**19110**	**30530**	**14460**
Total cPAH TEF (7 minimum) (U = 0)			**2190**	**2919**	**1873.4**
Semi-Volatile Organics (ug/kg)					
1,2,4-Trichlorobenzene		9200	10 U	66 U	63 UJ
1,2-Dichlorobenzene		1700	10 U	66 U	63 UJ
1,3-Dichlorobenzene		300	10 U	66 U	63 UJ
1,4-Dichlorobenzene		300	--	66 U	--
2,3,4,5-Tetrachlorophenol			9.5 U	14 U	13 U
2,3,5,6-Tetrachlorophenol			**2.7 J**	14 U	13 U
2,4,5-Trichlorophenol			--	--	**R**
2,4,6-Trichlorophenol			--	--	--
2,4-Dichlorophenol			10 U	66 U	**R**
2,4-Dimethylphenol			20 U	330 UJ	**R**
2,4-Dinitrophenol			200 U	1400 U	**R**
2,4-Dinitrotoluene			10 U	66 U	63 U
2,6-Dinitrotoluene			10 U	66 U	63 U
2-Chloronaphthalene			10 U	66 U	63 U
2-Chlorophenol			10 U	66 U	**R**

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2-Methylphenol (o-Cresol)			10 U	66 U	**R**
2-Nitroaniline			20 U	140 U	130 U
2-Nitrophenol			10 U	66 U	**R**
3,3'-Dichlorobenzidine			100 U	660 U	630 U
3-Nitroaniline			20 U	140 U	130 U
4-Bromophenyl-phenyl ether			10 U	66 U	63 U
4-Chloro-3-methylphenol			10 U	66 U	**R**
4-Chloroaniline			10 U	66 U	63 U
4-Chlorophenyl phenyl ether			10 U	66 U	63 U
4-Methylphenol (p-Cresol)			**6.8 J**	66 U	**R**
4-Nitroaniline			20 U	140 U	130 U
4-Nitrophenol			100 U	660 U	**R**
Aniline			**R**	140 UJ	130 UJ
Azobenzene			10 U	66 U	63 U
Benzoic acid			200 U	1400 UJ	**R**
Benzyl alcohol			10 U	140 U	130 U
bis(2-Chloroethoxy)methane			10 U	66 U	63 UJ
bis(2-Chloroethyl)ether			10 U	66 U	63 UJ
bis(2-Chloroisopropyl) ether			10 U	66 U	63 UJ
Bis(2-ethylhexyl) phthalate	330	800	**88**	**170 J**	**68 J**
Diethyl phthalate		600	10 U	66 U	63 U
Butylbenzyl phthalate			10 U	66 U	63 U
Dimethyl phthalate			10 U	66 U	63 U
Di-n-butyl phthalate		100	17 U	140 U	130 U
Carbazole		1600	**69**	**110**	**47 J**
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)			100 U	660 U	**R**
Di-n-octyl phthalate			10 U	66 U	63 U
Hexachlorobenzene		100	--	66 U	--
Hexachlorobutadiene		600	--	66 U	--
Dibenzofuran			--	**49**	**17 J**
Hexachlorocyclopentadiene		400	50 U	330 UJ	320 UJ
Hexachloroethane			--	66 U	--
Isophorone			10 U	66 U	63 U
Nitrobenzene			10 U	66 U	63 UJ
N-Nitrosodimethylamine			50 U	--	--
N-Nitrosodi-N-propylamine			10 U	66 U	63 UJ
N-Nitrosodiphenylamine			10 U	66 U	63 U
Pentachlorophenol		1000	--	--	--
Phenol		50	30 U	200 U	**R**
PCB Aroclors (ug/kg)					
Aroclor 1016	420	530	10 U	14 U	13 U
Aroclor 1221			20 U	35 U	69 U
Aroclor 1232			10 U	14 U	20 U
Aroclor 1242	2		10 U	14 U	13 U
Aroclor 1248	4	1500	10 U	14 U	13 U
Aroclor 1254	10	300	22 U	14 U	21 U
Aroclor 1260		200	11 U	14 U	13 U
Aroclor 1262			10 U	14 U	13 U

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Aroclor 1268			10 U	14 U	13 U
Total PCB (U = 0)		676	22 U	35 U	69 U
PCB Congeners (ng/kg)					
PCB-001			8.53 UJ	--	9.57 U
PCB-002			**6.8 J**	--	**11.5**
PCB-003			9.13 U	--	**10.2**
PCB-004			89.586 U	--	**29.7**
PCB-005			--	--	9.57 U
PCB-005/008			106.73 U	--	--
PCB-006			8.958 U	--	**10.8**
PCB-007			8.958 U	--	9.57 U
PCB-008			--	--	**43.6**
PCB-009			8.958 U	--	9.57 U
PCB-010			8.958 U	--	9.57 U
PCB-011			**140.03**	--	**205**
PCB-012/013			17.917 U	--	**8.55**
PCB-014			17.917 U	--	9.57 U
PCB-015			**31.68**	--	**63.1**
PCB-016			--	--	**33.9**
PCB-017			**33.43**	--	**45**
PCB-018/030			**53.92**	--	**85**
PCB-019			17.917 U	--	**28.7**
PCB-020/021/028/033			**80.35**	--	--
PCB-020/028			--	--	**250**
PCB-021			--	--	--
PCB-021/033			--	--	**80.3**
PCB-022			**23.65**	--	**61.7**
PCB-023			--	--	9.57 U
PCB-023/034			35.834 U	--	--
PCB-024			--	--	9.57 U
PCB-024/027			--	--	--
PCB-025			**57.81**	--	**20.3**
PCB-026/029			**29.38**	--	**38.5**
PCB-027			--	--	**11.1**
PCB-031			**104.63**	--	**172**
PCB-032			**14.25**	--	**37.6**
PCB-034			--	--	9.57 U
PCB-035			35.834 U	--	**6.85**
PCB-036			35.834 U	--	9.57 U
PCB-037			**23.55**	--	**83**
PCB-038			35.834 U	--	9.57 U
PCB-039			35.834 U	--	9.57 U
PCB-040/041/071			**40.25**	--	--
PCB-040/071			--	--	**153**
PCB-041			--	--	**23**
PCB-042			--	--	**95.7**
PCB-042/059/062/075			35.834 U	--	--
PCB-043			--	--	**11.9**

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 2 PCM-17 PCM-17DS-060818 8/18/2006 0 - 0.26 ft	Year 2 Event 1 PCM-22 PCM-22DS-080807 8/7/2008 0 - 7 in	Year 2 Event 2 PCM-22 PCM-22DS-081211 12/11/2008 0 - 10 cm
PCB-043/052/073			**251.92**	--	--
PCB-044/047/065			**184.82**	--	**421**
PCB-045			--	--	**45.3**
PCB-045/051			**27.55**	--	--
PCB-046			**2.54**	--	**20.9**
PCB-048			35.834 U	--	**54.1**
PCB-049/069			**80.53**	--	**260**
PCB-050			--	--	--
PCB-050/053			**23.38**	--	**74.6**
PCB-051			--	--	**37.5**
PCB-052			--	--	**457**
PCB-054			89.586 U	--	**7.5**
PCB-055			--	--	**4.64**
PCB-055/066			**75.66**	--	--
PCB-056			--	--	**161**
PCB-056/060			**92.15**	--	--
PCB-057			89.586 U	--	9.57 U
PCB-058			--	--	9.57 U
PCB-058/067			89.586 U	--	--
PCB-059/062/075			--	--	**30.7**
PCB-060			--	--	**63.5**
PCB-061/070/074/076			**449.23**	--	**570**
PCB-063			89.586 U	--	**13.2**
PCB-064			**24.46**	--	**136**
PCB-066			--	--	**358**
PCB-067			--	--	**10.1**
PCB-068			**11.73**	--	**4.68**
PCB-072			89.586 U	--	**7.02**
PCB-073			--	--	**2.23 J**
PCB-077			**10.58**	--	**46.8**
PCB-078			89.586 U	--	9.57 U
PCB-079			89.586 U	--	9.57 U
PCB-080			89.586 U	--	9.57 U
PCB-081			89.586 U	--	9.57 U
PCB-082			**18.09**	--	**70.5**
PCB-083			--	--	9.57 U
PCB-083/099			--	--	--
PCB-083/099/112			**79.29**	--	--
PCB-084			89.586 U	--	**133**
PCB-085/116			--	--	**115**
PCB-085/116/117			35.834 U	--	--
PCB-086/087/097/108/119			--	--	--
PCB-086/087/097/108/119/125			**89.29**	--	**370**
PCB-088			--	--	9.57 U
PCB-088/091			**81.83**	--	--
PCB-089			89.586 U	--	**10.7**
PCB-090/101/113			**180.72**	--	**687**
PCB-091			--	--	**88.9**

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 2 PCM-17 PCM-17DS-060818 8/18/2006 0 - 0.26 ft	Year 2 Event 1 PCM-22 PCM-22DS-080807 8/7/2008 0 - 7 in	Year 2 Event 2 PCM-22 PCM-22DS-081211 12/11/2008 0 - 10 cm
PCB-092			**34.58**	--	**136**
PCB-093/095/100			--	--	--
PCB-093/098/100/102			89.586 U	--	--
PCB-093/100			--	--	**18.1**
PCB-094			89.586 U	--	**6.57**
PCB-095			**362.54**	--	**456**
PCB-096			**1.71**	--	**9.63**
PCB-098			--	--	9.57 U
PCB-099			--	--	**304**
PCB-102			--	--	**23.5**
PCB-103			89.586 U	--	**13.7**
PCB-104			89.586 U	--	**1.37**
PCB-105			**65.43**	--	**204**
PCB-106			--	--	9.57 U
PCB-106/109/123			35.834 U	--	--
PCB-107/124			**6.56**	--	**22.7**
PCB-109			--	--	**41.9**
PCB-110			--	--	**605**
PCB-110/115			**292.48**	--	--
PCB-111			179.17 U	--	9.57 U
PCB-112			--	--	9.57 U
PCB-114			--	--	**12.7**
PCB-114/122			89.586 U	--	--
PCB-115			--	--	9.57 U
PCB-117			--	--	9.57 U
PCB-118			**163.21**	--	**513**
PCB-120			89.586 U	--	**4.19**
PCB-121			89.586 U	--	9.57 U
PCB-122			--	--	**8.79**
PCB-123			--	--	**9.74**
PCB-126			89.586 U	--	9.57 U
PCB-127			**2.04**	--	9.57 U
PCB-128/166			**15.06**	--	**145**
PCB-129/138/160/163			**173.07**	--	--
PCB-129/138/163			--	--	**965**
PCB-130			--	--	**55.8**
PCB-130/137/164			**48.87**	--	--
PCB-131			--	--	**9.13**
PCB-131/142			89.586 U	--	--
PCB-132			**72.57**	--	**264**
PCB-133			89.586 U	--	**19.7**
PCB-134			--	--	**53.6**
PCB-134/147/149			**313.85**	--	--
PCB-135/151			--	--	**362**
PCB-135/151/154			**101.51**	--	--
PCB-136			**26.23**	--	**135**
PCB-137			--	--	**30**
PCB-139/140			89.586 U	--	**16.4**

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 2 PCM-17 PCM-17DS-060818 8/18/2006 0 - 0.26 ft	Year 2 Event 1 PCM-22 PCM-22DS-080807 8/7/2008 0 - 7 in	Year 2 Event 2 PCM-22 PCM-22DS-081211 12/11/2008 0 - 10 cm
PCB-141			--	--	**166**
PCB-141/153/168			**243.61**	--	--
PCB-142			--	--	9.57 U
PCB-143			89.586 U	--	9.57 U
PCB-144			89.586 U	--	**46.1**
PCB-145			179.17 U	--	9.57 U
PCB-146			--	--	**167**
PCB-146/161			89.586 U	--	--
PCB-147/149			--	--	**735**
PCB-148			**0.35**	--	9.57 U
PCB-150			--	--	**3.74**
PCB-150/152			179.17 U	--	--
PCB-152			--	--	**1.55 J**
PCB-153/168			--	--	**806**
PCB-154			--	--	**22.1**
PCB-155			179.17 U	--	9.57 U
PCB-156/157			**15.6**	--	**92.3**
PCB-158			**7.9**	--	**86**
PCB-159			179.17 U	--	**12.1**
PCB-016/024/027			**7.57**	--	--
PCB-160			--	--	9.57 U
PCB-161			--	--	9.57 U
PCB-162			179.17 U	--	**3.64**
PCB-164			--	--	**62.2**
PCB-165			179.17 U	--	9.57 U
PCB-167			**6.43**	--	**35.1**
PCB-169			89.586 U	--	**4.79**
PCB-170			**65.33 J**	--	**278**
PCB-171/173			--	--	**88**
PCB-171/173/181			**31.52 J**	--	--
PCB-172			14.59 UJ	--	**48.4**
PCB-174			--	--	**308**
PCB-174/183/185			351.96 UJ	--	--
PCB-175			84.56 UJ	--	**14.6**
PCB-176			15.84 UJ	--	**37.9**
PCB-177			**57.42 J**	--	**181**
PCB-178			67.04 UJ	--	**66.2**
PCB-179			43.37 UJ	--	**146**
PCB-180			--	--	--
PCB-180/193			184.71 UJ	--	**624**
PCB-181			--	--	**11.8**
PCB-182			--	--	**2.8 J**
PCB-182/187			207.82 UJ	--	--
PCB-183			--	--	**165**
PCB-184			179.17 UJ	--	9.57 U
PCB-185			--	--	**23.9**
PCB-186			179.17 UJ	--	9.57 U
PCB-187			--	--	**401**

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 2 PCM-17 PCM-17DS-060818 8/18/2006 0 - 0.26 ft	Year 2 Event 1 PCM-22 PCM-22DS-080807 8/7/2008 0 - 7 in	Year 2 Event 2 PCM-22 PCM-22DS-081211 12/11/2008 0 - 10 cm
PCB-188			89.586 UJ	--	**1.47**
PCB-189			89.586 U	--	**11.9**
PCB-190			12.74 UJ	--	**69.8**
PCB-191			179.17 UJ	--	**13.2**
PCB-192			179.17 UJ	--	9.57 U
PCB-194			27.61 UJ	--	**167**
PCB-195			13.93 UJ	--	**69.2**
PCB-196			--	--	**82.7**
PCB-196/203			74.85 UJ	--	--
PCB-197			--	--	**5.9**
PCB-197/200			6.88 UJ	--	--
PCB-198/199			53.1 UJ	--	**202**
PCB-200			--	--	**27.6**
PCB-201			10.1 UJ	--	**28**
PCB-202			14.29 UJ	--	**40.6**
PCB-203			--	--	**122**
PCB-204			3.76 UJ	--	9.57 U
PCB-205			1.96 U	--	**8.87 J**
PCB-206			35.57 UJ	--	**115**
PCB-207			6.87 U	--	**18.7**
PCB-208			10.49 U	--	**35.6**
PCB-209			**29.12**	--	**131**
Total PCB Congener (U=0)			**4468.06**	--	**16118.15**
Monochlorobiphenyls (total)			--	--	**21.7**
Dichlorobiphenyls (total)			--	--	**361**
Trichlorobiphenyls (total)			--	--	**954**
Tetrachlorobiphenyls (total)			--	--	**3070**
Pentachlorobiphenyls (total)			--	--	**3870**
Hexachlorobiphenyls (total)			--	--	**4300**
Heptachlorobiphenyls (total)			--	--	**2490**
Octachlorobiphenyls (total)			--	--	**755 J**
Nonachlorobiphenyls (total)			--	--	**170**
Pesticides (ug/kg)					
2,4'-DDD (o,p'-DDD)			**14**	**6.8**	**5.8**
2,4'-DDE (o,p'-DDE)			5 U	**0.73 J**	1.3 U
2,4'-DDT (o,p'-DDT)			5 U	**1.6**	1.3 U
4,4'-DDD (p,p'-DDD)	0.3	28	**19**	**13 J**	**11**
4,4'-DDE (p,p'-DDE)	0.3	31.3	**2.9 J**	**4.9**	**4.2**
4,4'-DDT (p,p'-DDT)	0.3	62.9	5 U	**9.2 J**	**17**
Total DDT (U = 0)			**35.9**	**36.23**	**38**
Aldrin		40	5 U	1.4 U	1.3 UJ
alpha-BHC			5 U	1.4 UJ	1.3 UJ
beta-BHC			8.7 U	1.4 U	1.3 UJ
alpha-Chlordane (cis-Chlordane)			5 U	2.3 U	4.1 U
Chlordane		17.6	50 U	--	--
Chlordane (technical)			5 U	1.4 U	--
cis-Nonachlor			5 U	1.4 U	1.8 U
trans-Nonachlor			5 U	1.4 U	1.3 U

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 2 PCM-17 PCM-17DS-060818 8/18/2006 0 - 0.26 ft	Year 2 Event 1 PCM-22 PCM-22DS-080807 8/7/2008 0 - 7 in	Year 2 Event 2 PCM-22 PCM-22DS-081211 12/11/2008 0 - 10 cm
delta-BHC			5 U	1.4 UJ	1.3 UJ
Dieldrin		61.8	5 U	1.4 UJ	1.3 U
Endosulfan-alpha (I)			5 U	1.4 U	1.3 U
Endosulfan-beta (II)			5 U	1.4 U	1.3 U
Endosulfan sulfate			5 U	1.4 UJ	1.3 U
Endrin		207	5 U	1.4 UJ	1.3 U
Endrin aldehyde			**1.2 J**	1.4 UJ	1.3 U
Endrin ketone			5 U	1.4 UJ	1.3 U
gamma-BHC (Lindane)		4.99	5 U	1.4 UJ	2.8 UJ
gamma-Chlordane			--	--	1.3 U
Heptachlor		10	5 U	1.4 UJ	**2.8 J**
Heptachlor epoxide		16	5 U	1.4 U	1.3 U
Hexachlorobenzene		100	5 U	**1.1 J**	**2.5 J**
Hexachlorobutadiene		600	5 U	1.4 U	1.3 U
Hexachloroethane			5 U	**0.38 J**	**3.1 J**
Methoxychlor			5 U	1.4 UJ	1.3 U
Mirex			5 U	1.4 U	1.3 U
Oxychlordane			5 U	1.4 U	1.3 U
Toxaphene			250 UJ	67 U	65 U
Herbicides (ug/kg)					
2,2-Dichloropropionic acid (Dalapon)			250 U	67 U	320 U
2,4-D (2,4-Dichlorophenoxyacetic acid)			250 U	67 U	320 U
2,4-DB (2,4-D derivative)			250 U	67 U	320 U
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)			250 U	67 U	320 U
2,4,5-TP (Silvex)			250 U	67 U	320 U
2,4,5-Trichlorophenol			9.5 U	14 U	--
2,4,6-Trichlorophenol			9.5 U	14 U	13 U
3,4-Dichlorophenol			19 U	--	--
3,5-Dichlorophenol			19 U	--	--
Dicamba			250 U	67 U	320 U
Dichlorprop			250 U	67 U	320 U
Dinoseb			250 U	67 U	320 U
MCPA			50000 UJ	14000 U	63000 U
Mecoprop (MCPP)			50000 U	14000 UJ	63000 UJ
Pentachlorophenol		1000	9.5 U	14 U	13 U
Dioxin Furans (ng/kg)					
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		9	1.286 U	--	**0.404 J**
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)			6.432 U	--	**0.831 J**
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			**0.34 J**	--	**1.43 J**
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)			**1.733 J**	--	**5.3**
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)			**0.715 J**	--	**2.72**
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)			**43.263**	--	**130**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)			**374.159**	--	**1190**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)			**4.42**	--	**13**
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)			**2.859 J**	--	**22.3**
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)			**1.511 J**	--	**11.9**
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)			**3.186 J**	--	**37**
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)			**1.051 J**	--	**10.5**

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event: Location ID: Sample ID: Sample Date: Depth:	ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)	MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs [(a)]	Year 0 Event 2 PCM-17 PCM-17DS-060818 8/18/2006 0 - 0.26 ft	Year 2 Event 1 PCM-22 PCM-22DS-080807 8/7/2008 0 - 7 in	Year 2 Event 2 PCM-22 PCM-22DS-081211 12/11/2008 0 - 10 cm
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)			6.432 U	--	**4.95**
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)			**0.298 J**	--	**3.86**
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)			**7.252**	--	**34.1**
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)			**0.875 J**	--	**7.32**
1,2,3,4,5,6,7,8-Octachlorodibenzofuran (OCDF)			**26.09**	--	**96.2**
Total Tetrachlorodibenzo-p-dioxin (TCDD)			**1.359**	--	**10.9 J**
Total Pentachlorodibenzo-p-dioxin (PeCDD)			**0.303**	--	**7.7 J**
Total Hexachlorodibenzo-p-dioxin (HxCDD)			**11.206**	--	**44.7**
Total Heptachlorodibenzo-p-dioxin (HpCDD)			**105.915**	--	**294**
Total Tetrachlorodibenzofuran (TCDF)			**15.703**	--	**42.4 J**
Total Pentachlorodibenzofuran (PeCDF)			**11.449**	--	**66.5**
Total Hexachlorodibenzofuran (HxCDF)			**14.109**	--	**90.8 J**
Total Heptachlorodibenzofuran (HpCDF)			**26.502**	--	**98.4**
Total Dioxin/Furan TEQ (Mammal) (U = 0)			**2.3473447**	--	**15.4501**
Total Petroleum Hydrocarbons (mg/kg)					
Diesel Range Hydrocarbons			**110**	**140**	**67**
Gasoline Range			9.6 U	**17 J**	**23**
Residual Range			**350**	**550**	**320**

Table 2
Depositional Surface Sediment Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Notes:

	Detected concentration is greater than ODEQ (2001) Bioaccumulative Level II Screening Level Values (SLV)
	Detected concentration is greater than MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs
	Non-detected concentration is above one or more identified screening levels
(a)	Detected concentration is greater than MacDonald et al. (2000) Consensus Based Toxicity Probable Effects Concentration (PEC) and other SQVs; Portland Harbor Joint Source Control Strategy, December 2005
--	Results not reported or not applicable
Bold	Detected result
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit
R	Rejected

Total LPAH (Low PAH) are the total of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, and Anthracene. 2-Methylnapthalene is not included in the sum of LPAHs.

Total HPAH (High PAH) are the total of Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzofluoranthenes, Benzo(a)pyrene, Indeno(1,2,3-c,d)pyrene, Dibenzo(a,h)anthracene and Benzo(g,h,i)perylene

Total PAH are the total of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzofluoranthenes, Benzo(a)pyrene, Indeno(1,2,3-c,d)pyrene, Dibenzo(a,h)anthracene, and Benzo(g,h,i)perylene. 2-Methylnapthalene is not included.

Benzo(j)fluoranthene is included in the total of benzo(b&k)fluoranthenes.

Total PCB does not include Aroclor 1262 and 1268.

Totals are calculated as the sum of all detected results. If all are undetcted results, the highest reporting limit value is reported as the sum.

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01	PCM-01
Sample ID:					PCM-01DSW-060502	PCM-01DSW-060901	PCM-01DSW-061208	PCM-01DSW-070914	PCM-01DSW-071109	PCM-01DSW-080807	PCM-1DSW-081211
Sample Date:					5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Conventional Parameters (mg/l)											
Amenable Cyanide					--	--	--	0.01 UJ	0.01 UJ	0.01 U	0.01 U
Cyanide (dissolved)					0.01 U	**0.04**	--	0.01 U	--	--	--
Cyanide					--	--	--	--	0.01 U	0.01 U	0.01 U
Free Cyanide		0.0052			--	--	0.01 UJ	0.01 U	0.01 U	0.01 UJ	**0.008 J**
Dissolved organic carbon					**2.4**	**1.6**	**2.1**	**2.8**	**1.9**	--	--
Sulfide					--	--	--	0.005 U	0.05 U	0.05 U	0.05 U
Total organic carbon					**1.6**	**1.6**	**2**	**1.7**	**1.9**	**1.6**	**1.6**
Total Suspended Solids					**8**	**13**	**8**	**9**	**6**	**8**	5 UJ
Metals (mg/l)											
Iron					--	--	--	**0.355**	**0.45**	**0.718**	**0.291**
Dissolved Metals (mg/l)											
Iron					--	--	--	0.0298 U	--	--	--
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	2 U	--	--	--	--
Toluene			9.8	720	0.5 U	0.5 U	0.5 U	**0.3 J**	**0.99**	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		--	--	--	**0.0036 J**	**0.004 J**	0.025 U	**0.0038 J**
Acenaphthene	520			370	**0.004 J**	**0.0068 J**	--	**0.0067 J**	**0.0062 J**	0.025 U	0.02 U
Acenaphthylene					0.021 U	**0.01 J**	--	0.023 U	0.021 U	0.025 U	0.02 U
Anthracene			0.73	1800	**0.0011 J**	0.021 U	--	0.023 U	0.021 U	0.025 U	0.02 U
Benzo(a)anthracene			0.027	0.092	0.021 U	**0.0044 J**	--	0.023 U	0.021 U	**0.0076 J**	**0.0028 J**
Benzo(a)pyrene			0.014	0.0092	0.021 U	0.021 U	--	0.023 U	0.021 U	0.025 U	0.02 U
Benzo(b)fluoranthene				0.092	0.021 U	**0.0049 J**	--	0.023 U	0.021 U	**0.0038 J**	0.02 U
Benzo(g,h,i)perylene					0.021 U	**0.0045 J**	--	0.023 U	0.021 U	0.025 U	0.02 U
Benzo(k)fluoranthene				0.92	0.021 U	0.021 U	--	0.023 U	0.021 U	0.025 U	0.02 U
Chrysene				9.2	**0.0016 J**	**0.0087 J**	--	0.023 U	0.021 U	**0.0051 J**	0.02 U
Dibenzo(a,h)anthracene				0.0092	0.021 U	0.021 U	--	0.023 U	0.021 U	0.025 U	0.02 U
Fluoranthene				1500	**0.0069 J**	**0.17**	--	0.023 U	**0.011 J**	**0.025 J**	**0.005 J**
Fluorene			3.9	240	0.021 U	**0.0058 J**	--	0.023 U	0.021 U	0.025 U	0.02 U
Indeno(1,2,3-c,d)pyrene				0.092	0.021 U	0.021 U	--	0.023 U	0.021 U	0.025 U	0.02 U
Naphthalene	620		12	6.2	0.021 U	**0.014 J**	--	**0.021 J**	0.021 U	**0.18**	0.02 U
Phenanthrene					**0.0052 J**	**0.021**	--	**0.012 J**	**0.0082 J**	0.025 U	0.02 U
Pyrene				180	**0.0069 J**	**0.047**	--	0.023 U	**0.0092 J**	**0.025 J**	**0.0039 J**
Total LPAH (U = 0)					**0.0103**	**0.0576**	2 U	**0.0397**	**0.0144**	**0.18**	0.02 U
Total HPAH (U = 0)					**0.0154**	**0.2395**	--	0.023 U	**0.0202**	**0.0665**	**0.0117**
Total PAH (U = 0)					**0.0257**	**0.2971**	2 U	**0.0397**	**0.0346**	**0.2465**	**0.0117**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	**0.014 J**	--	--	--	--
Acenaphthylene					--	--	**0.012 J**	--	--	--	--
Anthracene			0.73	1800	--	--	**0.0076 J**	--	--	--	--
Benzo(a)anthracene			0.027	0.092	--	--	**0.0043 J**	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-01 PCM-01DSW-060502 5/2/2006	PCM-01 PCM-01DSW-060901 9/1/2006	PCM-01 PCM-01DSW-061208 12/8/2006	PCM-01 PCM-01DSW-070914 9/14/2007	PCM-01 PCM-01DSW-071109 11/9/2007	PCM-01 PCM-01DSW-080807 8/7/2008	PCM-01 PCM-1DSW-081211 12/11/2008
Benzo(a)pyrene			0.014	0.0092	--	--	0.02 U	--	--	--	--
Benzo(b)fluoranthene				0.092	--	--	0.02 U	--	--	--	--
Benzo(g,h,i)perylene					--	--	0.02 U	--	--	--	--
Benzo(k)fluoranthene				0.92	--	--	0.02 U	--	--	--	--
Chrysene				9.2	--	--	0.02 U	--	--	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	0.02 U	--	--	--	--
Fluoranthene				1500	--	--	**0.024**	--	--	--	--
Fluorene			3.9	240	--	--	**0.0058 J**	--	--	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	0.02 U	--	--	--	--
Naphthalene	620		12	6.2	--	--	0.025 U	--	--	--	--
Phenanthrene					--	--	**0.086**	--	--	--	--
Pyrene				180	--	--	**0.025**	--	--	--	--
Total LPAH (U = 0)					--	--	**0.1254**	--	--	--	--
Total HPAH (U = 0)					--	--	**0.0533**	--	--	--	--
Total PAH (U = 0)					--	--	**0.1787**	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02
Sample ID:					PCM-02DSW-060502	PCM-02DSW-060901	PCM-02DSW-061208	PCM-02DSW-070914	PCM-02DSW-071109	PCM-02DSW-080807	PCM-02DSW-081211
Sample Date:					5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Conventional Parameters (mg/l)											
Amenable Cyanide					--	--	--	0.01 UJ	0.01 UJ	0.01 U	--
Cyanide (dissolved)					0.01 U	**0.003 J**	--	0.01 U	--	--	--
Cyanide					--	--	--	--	0.01 U	0.01 U	--
Free Cyanide		0.0052			--	--	0.01 UJ	0.01 U	0.01 U	0.01 UJ	--
Dissolved organic carbon					**2.3**	**1.7**	**2**	**2.1**	**2**	--	**1.6**
Sulfide					--	--	--	0.005 U	0.05 U	0.05 U	0.05 U
Total organic carbon					**1.6**	**1.7**	**2**	**1.6**	**2**	**1.7**	**1.9**
Total Suspended Solids					**5**	**14**	**8**	**11**	**7**	5 U	**5 J**
Metals (mg/l)											
Iron					--	--	--	**0.336**	**0.414**	**0.593**	**0.283**
Dissolved Metals (mg/l)											
Iron					--	--	--	0.0321 U	--	--	**0.0475**
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	**0.49 J**	0.5 U	0.5 U	0.5 U	**0.07 J**	**0.08 J**
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	2 U	--	--	--	--
Toluene			9.8	720	**0.16 J**	**0.19 J**	0.5 U	**0.2 J**	**0.12 J**	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		--	--	--	0.02 U	**0.0026 J**	0.022 U	**0.0046 J**
Acenaphthene	520			370	**0.0021 J**	**0.39**	--	0.02 U	0.021 U	**0.008 J**	**0.0064 J**
Acenaphthylene					0.02 U	**0.062**	--	0.02 U	0.021 U	0.022 U	0.022 U
Anthracene			0.73	1800	0.02 U	**0.075**	--	0.02 U	0.021 U	**0.0048 J**	0.022 U
Benzo(a)anthracene			0.027	0.092	0.02 U	**0.036**	--	0.02 U	0.021 U	**0.011 J**	**0.0074 J**
Benzo(a)pyrene			0.014	0.0092	0.02 U	**0.026**	--	0.02 U	0.021 U	**0.0049 J**	0.022 U
Benzo(b)fluoranthene				0.092	0.02 U	**0.025**	--	0.02 U	0.021 U	**0.011 J**	**0.0051 J**
Benzo(g,h,i)perylene					0.02 U	**0.031**	--	0.02 U	0.021 U	0.022 U	**0.0054 J**
Benzo(k)fluoranthene				0.92	0.02 U	**0.025**	--	0.02 U	0.021 U	**0.0032 J**	**0.0041 J**
Chrysene				9.2	0.02 U	**0.05**	--	0.02 U	0.021 U	**0.015 J**	**0.0046 J**
Dibenzo(a,h)anthracene				0.0092	0.02 U	0.02 U	--	0.02 U	0.021 U	0.022 U	**0.0039 J**
Fluoranthene				1500	0.02 U	**0.33**	--	0.02 U	**0.0076 J**	**0.038**	**0.0087 J**
Fluorene			3.9	240	0.02 U	**0.16**	--	0.02 U	0.021 U	**0.0051 J**	0.022 U
Indeno(1,2,3-c,d)pyrene				0.092	0.02 U	**0.023**	--	0.02 U	0.021 U	**0.0076 J**	**0.0047 J**
Naphthalene	620		12	6.2	0.02 U	**2.1**	--	**0.025**	0.021 U	0.12 U	**0.047**
Phenanthrene					**0.0039 J**	**0.55**	--	0.02 U	0.021 U	0.022 U	**0.0079 J**
Pyrene				180	0.02 U	**0.32**	--	0.02 U	**0.0041 J**	**0.04**	**0.0074 J**
Total LPAH (U = 0)					**0.006**	**3.337**	2 U	**0.025**	0.021 U	**0.0179**	**0.0613**
Total HPAH (U = 0)					0.02 U	**0.866**	--	0.02 U	**0.0117**	**0.1307**	**0.0513**
Total PAH (U = 0)					**0.006**	**4.203**	2 U	**0.025**	**0.0117**	**0.1486**	**0.1126**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	**0.0063 J**	--	--	--	--
Acenaphthylene					--	--	**0.0033 J**	--	--	--	--
Anthracene			0.73	1800	--	--	0.02 U	--	--	--	--
Benzo(a)anthracene			0.027	0.092	--	--	0.02 U	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02	PCM-02
Sample ID:					PCM-02DSW-060502	PCM-02DSW-060901	PCM-02DSW-061208	PCM-02DSW-070914	PCM-02DSW-071109	PCM-02DSW-080807	PCM-02DSW-081211
Sample Date:					5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Benzo(a)pyrene			0.014	0.0092	--	--	0.02 U	--	--	--	--
Benzo(b)fluoranthene				0.092	--	--	0.02 U	--	--	--	--
Benzo(g,h,i)perylene					--	--	0.02 U	--	--	--	--
Benzo(k)fluoranthene				0.92	--	--	0.02 U	--	--	--	--
Chrysene				9.2	--	--	0.02 U	--	--	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	0.02 U	--	--	--	--
Fluoranthene				1500	--	--	0.02 U	--	--	--	--
Fluorene			3.9	240	--	--	0.02 U	--	--	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	0.02 U	--	--	--	--
Naphthalene	620		12	6.2	--	--	0.024 U	--	--	--	--
Phenanthrene					--	--	**0.0063 J**	--	--	--	--
Pyrene				180	--	--	0.02 U	--	--	--	--
Total LPAH (U = 0)					--	--	**0.0159**	--	--	--	--
Total HPAH (U = 0)					--	--	0.02 U	--	--	--	--
Total PAH (U = 0)					--	--	**0.0159**	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03	PCM-03
Sample ID:					PCM-03DSW-060502	PCM-03DSW-060901	PCM-03DSW-061208	PCM-03DSW-070914	PCM-03DSW-071109	PCM-03DSW-080807	PCM-03DSW-081211
Sample Date:					5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Conventional Parameters (mg/l)											
Amenable Cyanide					--	--	--	0.01 UJ	0.01 UJ	0.01 U	0.01 U
Cyanide (dissolved)					0.01 U	**0.05**	--	0.01 U	--	--	--
Cyanide					--	--	--	--	0.01 U	0.01 U	0.01 U
Free Cyanide		0.0052			--	--	0.01 UJ	0.01 U	0.01 U	0.01 U	**0.004 J**
Dissolved organic carbon					**2.3**	**1.6**	**1.9**	**1.6**	**2**	--	**1.3**
Sulfide					--	--	--	0.005 U	0.05 U	0.05 U	0.05 U
Total organic carbon					**1.7**	**1.6**	**2**	**1.6**	**1.9**	**1.6**	**1.6**
Total Suspended Solids					**5**	**11**	**7**	**11**	**6**	**9**	**8 J**
Metals (mg/l)											
Iron					--	--	--	**0.312**	**0.434**	**0.387**	**0.317**
Dissolved Metals (mg/l)											
Iron					--	--	--	0.0373 U	--	--	**0.0474**
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	**0.47 J**	0.5 U	0.5 U	0.5 U	**0.05 J**	**0.06 J**
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	2 U	--	--	--	--
Toluene			9.8	720	**0.12 J**	**0.22 J**	0.5 U	**0.14 J**	**0.56**	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		--	--	--	**0.0029 J**	**0.0039 J**	0.022 U	**0.0057 J**
Acenaphthene	520			370	**0.002 J**	**0.32**	--	0.02 U	**0.0045 J**	**0.0081 J**	**0.0077 J**
Acenaphthylene					**0.002 J**	**0.051**	--	0.02 U	0.02 U	**0.0048 J**	0.021 U
Anthracene			0.73	1800	0.02 U	**0.03**	--	0.02 UJ	0.02 U	**0.0058 J**	0.021 U
Benzo(a)anthracene			0.027	0.092	0.02 U	**0.015 J**	--	0.02 U	0.02 U	**0.0081 J**	**0.0051 J**
Benzo(a)pyrene			0.014	0.0092	0.02 U	0.02 U	--	0.02 UJ	0.02 U	**0.0051 J**	0.021 U
Benzo(b)fluoranthene				0.092	0.02 U	**0.0093 J**	--	0.02 U	0.02 U	**0.0056 J**	**0.0025 J**
Benzo(g,h,i)perylene					0.02 U	**0.014 J**	--	0.02 U	0.02 U	0.022 U	0.021 U
Benzo(k)fluoranthene				0.92	0.02 U	**0.0083 J**	--	0.02 U	0.02 U	0.022 U	0.021 U
Chrysene				9.2	0.02 U	**0.031**	--	0.02 U	0.02 U	**0.014 J**	0.021 U
Dibenzo(a,h)anthracene				0.0092	0.02 U	0.02 U	--	0.02 U	0.02 U	0.022 U	0.021 U
Fluoranthene				1500	**0.0047 J**	**0.21**	--	0.02 U	**0.0064 J**	**0.031**	**0.007 J**
Fluorene			3.9	240	0.02 U	**0.13**	--	0.02 U	0.02 U	**0.0055 J**	0.021 U
Indeno(1,2,3-c,d)pyrene				0.092	0.02 U	**0.01 J**	--	0.02 U	0.02 U	**0.0031 J**	0.021 U
Naphthalene	620		12	6.2	0.02 U	**2**	--	**0.039**	**0.025**	0.096 U	**0.068**
Phenanthrene					**0.0037 J**	**0.44**	--	0.02 U	**0.0057 J**	0.022 U	**0.01 J**
Pyrene				180	**0.003 J**	**0.2**	--	0.02 U	**0.0046 J**	**0.031**	**0.0071 J**
Total LPAH (U = 0)					**0.0077**	**2.971**	2 U	**0.039**	**0.0352**	**0.0242**	**0.0857**
Total HPAH (U = 0)					**0.0077**	**0.4976**	--	0.02 U	**0.011**	**0.0979**	**0.0217**
Total PAH (U = 0)					**0.0154**	**3.4686**	2 U	**0.039**	**0.0462**	**0.1221**	**0.1074**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	**0.0044 J**	--	--	--	--
Acenaphthylene					--	--	**0.0035 J**	--	--	--	--
Anthracene			0.73	1800	--	--	0.02 U	--	--	--	--
Benzo(a)anthracene			0.027	0.092	--	--	0.02 U	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-03 PCM-03DSW-060502 5/2/2006	PCM-03 PCM-03DSW-060901 9/1/2006	PCM-03 PCM-03DSW-061208 12/8/2006	PCM-03 PCM-03DSW-070914 9/14/2007	PCM-03 PCM-03DSW-071109 11/9/2007	PCM-03 PCM-03DSW-080807 8/7/2008	PCM-03 PCM-03DSW-081211 12/11/2008
Benzo(a)pyrene			0.014	0.0092	--	--	0.02 U	--	--	--	--
Benzo(b)fluoranthene				0.092	--	--	0.02 U	--	--	--	--
Benzo(g,h,i)perylene					--	--	0.02 U	--	--	--	--
Benzo(k)fluoranthene				0.92	--	--	0.02 U	--	--	--	--
Chrysene				9.2	--	--	0.02 U	--	--	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	0.02 U	--	--	--	--
Fluoranthene				1500	--	--	0.02 U	--	--	--	--
Fluorene			3.9	240	--	--	0.02 U	--	--	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	0.02 U	--	--	--	--
Naphthalene	620		12	6.2	--	--	0.023 U	--	--	--	--
Phenanthrene					--	--	**0.005 J**	--	--	--	--
Pyrene				180	--	--	0.02 U	--	--	--	--
Total LPAH (U = 0)					--	--	**0.0129**	--	--	--	--
Total HPAH (U = 0)					--	--	0.02 U	--	--	--	--
Total PAH (U = 0)					--	--	**0.0129**	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-04	PCM-04	PCM-04	PCM-04	PCM-04	PCM-04	PCM-04
Sample ID:					PCM-04DSW-060502	PCM-04DSW-060901	PCM-04DSW-061208	PCM-04DSW-070914	PCM-04DSW-071109	PCM-04DSW-080807	PCM-04DSW-081211
Sample Date:					5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Conventional Parameters (mg/l)											
Amenable Cyanide					--	--	--	0.01 UJ	0.01 UJ	**0.007 J**	**0.003 J**
Cyanide (dissolved)					0.01 U	0.01 U	--	0.01 U	--	--	--
Cyanide					--	--	--	--	0.01 U	**0.01**	**0.003 J**
Free Cyanide		0.0052			--	--	0.01 UJ	0.01 U	0.01 U	0.01 U	**0.006 J**
Dissolved organic carbon					**2.7**	**1.7**	**1.9**	**1.6**	**1.9**	--	**1.9**
Sulfide					--	--	--	0.005 U	0.05 U	0.05 U	0.05 U
Total organic carbon					**1.6**	**1.6**	**2**	**1.6**	**1.9**	**1.7**	**2.1**
Total Suspended Solids					**4**	**13**	**9**	**12**	**5**	**11**	**6 J**
Metals (mg/l)											
Iron					--	--	--	**0.405**	**0.397**	**0.418**	**0.305**
Dissolved Metals (mg/l)											
Iron					--	--	--	0.0384 U	--	--	**0.0455**
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	**0.83**	0.5 U	**0.3 J**	**0.26 J**	**0.05 J**	**0.15 J**
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	**0.11 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	2 U	--	--	--	--
Toluene			9.8	720	**0.12 J**	**0.33 J**	0.5 U	**0.28 J**	**0.96**	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	**0.11**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		--	--	--	**0.0076 J**	**0.027**	0.025 U	**0.0068 J**
Acenaphthene	520			370	0.02 U	**0.2**	--	**0.12**	**0.026**	**0.015 J**	**0.011 J**
Acenaphthylene					**0.0022 J**	**0.1**	--	**0.0099 J**	0.02 U	0.025 U	0.02 U
Anthracene			0.73	1800	0.02 U	**0.079**	--	0.023 U	**0.0071 J**	**0.0085 J**	**0.005 J**
Benzo(a)anthracene			0.027	0.092	0.02 U	**0.047**	--	0.023 U	**0.008 J**	**0.011 J**	**0.0093 J**
Benzo(a)pyrene			0.014	0.0092	0.02 U	**0.018 J**	--	0.023 U	**0.0056 J**	**0.0098 J**	**0.0089 J**
Benzo(b)fluoranthene				0.092	0.02 U	**0.041**	--	0.023 U	**0.0067 J**	**0.011 J**	**0.01 J**
Benzo(g,h,i)perylene					0.02 U	**0.056**	--	0.023 U	**0.0079 J**	0.025 U	**0.0083 J**
Benzo(k)fluoranthene				0.92	0.02 U	**0.037**	--	0.023 U	**0.0039 J**	**0.0032 J**	**0.0029 J**
Chrysene				9.2	0.02 U	**0.14**	--	0.023 U	**0.012 J**	**0.016 J**	**0.0083 J**
Dibenzo(a,h)anthracene				0.0092	0.02 U	**0.0043 J**	--	0.023 U	**0.0026 J**	0.025 U	0.02 U
Fluoranthene				1500	**0.0025 J**	**0.3**	--	**0.0084 J**	**0.025**	**0.049**	**0.023**
Fluorene			3.9	240	0.02 U	**0.12**	--	**0.027**	**0.0094 J**	**0.006 J**	**0.0067 J**
Indeno(1,2,3-c,d)pyrene				0.092	0.02 U	**0.044**	--	0.023 U	**0.0081 J**	**0.0062 J**	**0.0073 J**
Naphthalene	620		12	6.2	0.02 U	**1.7**	--	**0.056**	**0.2**	0.14 U	**0.055**
Phenanthrene					**0.004 J**	**0.48**	--	**0.0096 J**	**0.029**	0.025 U	**0.016 J**
Pyrene				180	**0.0029 J**	**0.33**	--	0.023 U	**0.023**	**0.052**	**0.022**
Total LPAH (U = 0)					**0.0062**	**2.679**	2 U	**0.2225**	**0.2715**	**0.0295**	**0.0937**
Total HPAH (U = 0)					**0.0054**	**1.0173**	--	**0.0084**	**0.1028**	**0.1582**	**0.1**
Total PAH (U = 0)					**0.0116**	**3.6963**	2 U	**0.2309**	**0.3743**	**0.1877**	**0.1937**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	**0.0045 J**	--	--	--	--
Acenaphthylene					--	--	**0.0041 J**	--	--	--	--
Anthracene			0.73	1800	--	--	0.02 U	--	--	--	--
Benzo(a)anthracene			0.027	0.092	--	--	0.02 U	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-04 PCM-04DSW-060502 5/2/2006	PCM-04 PCM-04DSW-060901 9/1/2006	PCM-04 PCM-04DSW-061208 12/8/2006	PCM-04 PCM-04DSW-070914 9/14/2007	PCM-04 PCM-04DSW-071109 11/9/2007	PCM-04 PCM-04DSW-080807 8/7/2008	PCM-04 PCM-04DSW-081211 12/11/2008
Benzo(a)pyrene			0.014	0.0092	--	--	0.02 U	--	--	--	--
Benzo(b)fluoranthene				0.092	--	--	0.02 U	--	--	--	--
Benzo(g,h,i)perylene					--	--	0.02 U	--	--	--	--
Benzo(k)fluoranthene				0.92	--	--	0.02 U	--	--	--	--
Chrysene				9.2	--	--	0.02 U	--	--	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	0.02 U	--	--	--	--
Fluoranthene				1500	--	--	0.02 U	--	--	--	--
Fluorene			3.9	240	--	--	0.02 U	--	--	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	0.02 U	--	--	--	--
Naphthalene	620		12	6.2	--	--	0.026 U	--	--	--	--
Phenanthrene					--	--	**0.0058 J**	--	--	--	--
Pyrene				180	--	--	0.02 U	--	--	--	--
Total LPAH (U = 0)					--	--	**0.0144**	--	--	--	--
Total HPAH (U = 0)					--	--	0.02 U	--	--	--	--
Total PAH (U = 0)					--	--	**0.0144**	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05	PCM-05
Sample ID:					PCM-05DSW-060502	PCM-05DSW-060901	PCM-05DSW-061208	PCM-05DSW-070914	PCM-05DSW-071109	PCM-05DSW-080807	PCM-05DSW-081211
Sample Date:					5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Conventional Parameters (mg/l)											
Amenable Cyanide					--	--	--	0.01 UJ	0.01 UJ	0.01 U	0.01 U
Cyanide (dissolved)					0.01 U	0.01 U	--	0.01 U	--	--	--
Cyanide					--	--	--	--	0.01 U	0.01 U	0.01 U
Free Cyanide		0.0052			--	--	0.01 UJ	0.01 U	0.01 U	**0.003 J**	**0.005 J**
Dissolved organic carbon					**2.4**	**1.6**	**1.9**	**1.5**	**2**	--	**1.4**
Sulfide					--	--	--	0.005 U	0.05 U	0.05 U	0.05 U
Total organic carbon					**1.6**	**1.6**	**2**	**1.6**	**1.9**	**1.6**	**1.6**
Total Suspended Solids					**5**	**14**	**8**	**10**	**7**	**8**	**6 J**
Metals (mg/l)											
Iron					--	--	--	**0.43**	**0.368**	**0.463**	**0.286**
Dissolved Metals (mg/l)											
Iron					--	--	--	0.0404 U	--	--	**0.0488**
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	**0.31 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.05 J**
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	2 U	--	--	--	--
Toluene			9.8	720	**0.11 J**	**0.12 J**	0.5 U	**0.19 J**	**0.29 J**	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		--	--	--	0.02 U	**0.0025 J**	0.025 U	**0.0036 J**
Acenaphthene	520			370	**0.0042 J**	**0.23**	--	0.02 U	0.02 U	**0.0055 J**	0.022 U
Acenaphthylene					**0.0036 J**	**0.033**	--	0.02 U	0.02 U	0.025 U	0.022 U
Anthracene			0.73	1800	0.02 U	**0.057**	--	0.02 U	0.02 U	**0.0075 J**	0.022 U
Benzo(a)anthracene			0.027	0.092	0.02 U	**0.03**	--	0.02 U	0.02 U	**0.0091 J**	**0.0034 J**
Benzo(a)pyrene			0.014	0.0092	0.02 U	**0.032**	--	0.02 U	0.02 U	**0.0075 J**	0.022 U
Benzo(b)fluoranthene				0.092	0.02 U	**0.021**	--	0.02 U	0.02 U	**0.0081 J**	0.022 U
Benzo(g,h,i)perylene					0.02 U	**0.027**	--	0.02 U	0.02 U	0.025 U	0.022 U
Benzo(k)fluoranthene				0.92	0.02 U	**0.019 J**	--	0.02 U	0.02 U	**0.0031 J**	0.022 U
Chrysene				9.2	0.02 U	**0.041**	--	0.02 U	0.02 U	**0.015 J**	0.022 U
Dibenzo(a,h)anthracene				0.0092	0.02 U	0.02 U	--	0.02 U	0.02 U	0.025 U	0.022 U
Fluoranthene				1500	**0.0024 J**	**0.23**	--	0.02 U	**0.0063 J**	**0.029**	**0.0059 J**
Fluorene			3.9	240	0.02 U	**0.1**	--	0.02 U	0.02 U	0.025 U	0.022 U
Indeno(1,2,3-c,d)pyrene				0.092	0.02 U	**0.022**	--	0.02 U	0.02 U	**0.0048 J**	0.022 U
Naphthalene	620		12	6.2	**0.069**	**0.95**	--	**0.021**	0.02 U	0.11 U	0.022 U
Phenanthrene					**0.0054 J**	**0.39**	--	**0.0056 J**	**0.0059 J**	0.025 U	0.022 U
Pyrene				180	**0.0027 J**	**0.24**	--	0.02 U	**0.0046 J**	**0.032**	**0.0044 J**
Total LPAH (U = 0)					**0.0822**	**1.76**	2 U	**0.0266**	**0.0059**	**0.013**	0.022 U
Total HPAH (U = 0)					**0.0051**	**0.662**	--	0.02 U	**0.0109**	**0.1086**	**0.0137**
Total PAH (U = 0)					**0.0873**	**2.422**	2 U	**0.0266**	**0.0168**	**0.1216**	**0.0137**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	**0.0075 J**	--	--	--	--
Acenaphthylene					--	--	**0.0043 J**	--	--	--	--
Anthracene			0.73	1800	--	--	0.02 U	--	--	--	--
Benzo(a)anthracene			0.027	0.092	--	--	0.02 U	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-05 PCM-05DSW-060502 5/2/2006	PCM-05 PCM-05DSW-060901 9/1/2006	PCM-05 PCM-05DSW-061208 12/8/2006	PCM-05 PCM-05DSW-070914 9/14/2007	PCM-05 PCM-05DSW-071109 11/9/2007	PCM-05 PCM-05DSW-080807 8/7/2008	PCM-05 PCM-05DSW-081211 12/11/2008
Benzo(a)pyrene			0.014	0.0092	--	--	0.02 U	--	--	--	--
Benzo(b)fluoranthene				0.092	--	--	0.02 U	--	--	--	--
Benzo(g,h,i)perylene					--	--	0.02 U	--	--	--	--
Benzo(k)fluoranthene				0.92	--	--	0.02 U	--	--	--	--
Chrysene				9.2	--	--	0.02 U	--	--	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	0.02 U	--	--	--	--
Fluoranthene				1500	--	--	0.02 U	--	--	--	--
Fluorene			3.9	240	--	--	0.02 U	--	--	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	0.02 U	--	--	--	--
Naphthalene	620		12	6.2	--	--	**0.07**	--	--	--	--
Phenanthrene					--	--	**0.0043 J**	--	--	--	--
Pyrene				180	--	--	0.02 U	--	--	--	--
Total LPAH (U = 0)					--	--	**0.0861**	--	--	--	--
Total HPAH (U = 0)					--	--	0.02 U	--	--	--	--
Total PAH (U = 0)					--	--	**0.0861**	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-06	PCM-06	PCM-06	PCM-06	PCM-06	PCM-06	PCM-06
Sample ID:					PCM-06DSW-060502	PCM-06DSW-060901	PCM-06DSW-061208	PCM-06DSW-070914	PCM-06DSW-071109	PCM-06DSW-080807	PCM-06DSW-081211
Sample Date:					5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Conventional Parameters (mg/l)											
Amenable Cyanide					--	--	--	0.01 UJ	0.01 UJ	0.01 U	0.01 U
Cyanide (dissolved)					0.01 U	**0.007 J**	--	0.01 U	--	--	--
Cyanide					--	--	--	--	0.01 U	0.01 U	0.01 U
Free Cyanide		0.0052			--	--	0.01 UJ	0.01 U	0.01 U	**0.004 J**	**0.005 J**
Dissolved organic carbon					**2.4**	**1.7**	**1.9**	**1.6**	**1.9**	--	**1.2**
Sulfide					--	--	--	0.005 U	0.05 U	0.05 U	0.05 U
Total organic carbon					**1.4**	**1.5**	**1.9**	**1.5**	**1.9**	**1.6**	**1.6**
Total Suspended Solids					**4**	**13**	**7**	**13**	**7**	**12**	**7 J**
Metals (mg/l)											
Iron					--	--	--	**0.348**	**0.414**	**0.669**	**0.323**
Dissolved Metals (mg/l)											
Iron					--	--	--	0.0292 U	--	--	**0.0472**
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	**0.41 J**	0.5 U	**0.17 J**	0.5 U	**0.05 J**	**0.06 J**
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	2 U	--	--	--	--
Toluene			9.8	720	**0.35 J**	**0.14 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		--	--	--	0.022 U	**0.0061 J**	0.022 U	**0.0056 J**
Acenaphthene	520			370	**0.0028 J**	**0.31**	--	0.022 U	**0.013 J**	**0.015 J**	**0.006 J**
Acenaphthylene					**0.0024 J**	**0.047**	--	0.022 U	0.02 U	0.022 U	0.02 U
Anthracene			0.73	1800	0.023 U	**0.035**	--	0.022 U	**0.0047 J**	0.022 U	**0.005 J**
Benzo(a)anthracene			0.027	0.092	0.023 U	**0.02 J**	--	0.022 U	0.02 U	**0.0096 J**	**0.007 J**
Benzo(a)pyrene			0.014	0.0092	0.023 U	0.02 U	--	0.022 U	0.02 U	**0.0068 J**	**0.0057 J**
Benzo(b)fluoranthene				0.092	0.023 U	**0.013 J**	--	0.022 U	0.02 U	**0.0081 J**	**0.0054 J**
Benzo(g,h,i)perylene					0.023 U	**0.016 J**	--	0.022 U	0.02 U	0.022 U	**0.0047 J**
Benzo(k)fluoranthene				0.92	0.023 U	**0.013 J**	--	0.022 U	0.02 U	**0.0028 J**	0.02 U
Chrysene				9.2	0.023 U	**0.023**	--	0.022 U	0.02 U	**0.01 J**	**0.0062 J**
Dibenzo(a,h)anthracene				0.0092	0.023 U	0.02 U	--	0.022 U	0.02 U	0.022 U	0.02 U
Fluoranthene				1500	**0.0029 J**	**0.2**	--	0.022 U	**0.0083 J**	**0.036**	**0.015 J**
Fluorene			3.9	240	0.023 U	**0.12**	--	0.022 U	0.02 U	0.022 U	0.02 U
Indeno(1,2,3-c,d)pyrene				0.092	0.023 U	**0.012 J**	--	0.022 U	0.02 U	**0.0061 J**	**0.0041 J**
Naphthalene	620		12	6.2	0.023 U	**1.6**	--	**0.024**	**0.11**	0.1 U	**0.03**
Phenanthrene					**0.0053 J**	**0.43**	--	0.022 U	**0.011 J**	0.022 U	**0.015 J**
Pyrene				180	**0.0034 J**	**0.22**	--	0.022 U	**0.0067 J**	**0.04**	**0.017 J**
Total LPAH (U = 0)					**0.0105**	**2.542**	2 U	**0.024**	**0.1387**	**0.015**	**0.056**
Total HPAH (U = 0)					**0.0063**	**0.517**	--	0.022 U	**0.015**	**0.1194**	**0.0651**
Total PAH (U = 0)					**0.0168**	**3.059**	2 U	**0.024**	**0.1537**	**0.1344**	**0.1211**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	**0.0037 J**	--	--	--	--
Acenaphthylene					--	--	**0.0036 J**	--	--	--	--
Anthracene			0.73	1800	--	--	0.02 U	--	--	--	--
Benzo(a)anthracene			0.027	0.092	--	--	0.02 U	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-06 PCM-06DSW-060502 5/2/2006	PCM-06 PCM-06DSW-060901 9/1/2006	PCM-06 PCM-06DSW-061208 12/8/2006	PCM-06 PCM-06DSW-070914 9/14/2007	PCM-06 PCM-06DSW-071109 11/9/2007	PCM-06 PCM-06DSW-080807 8/7/2008	PCM-06 PCM-06DSW-081211 12/11/2008
Benzo(a)pyrene			0.014	0.0092	--	--	0.02 U	--	--	--	--
Benzo(b)fluoranthene				0.092	--	--	0.02 U	--	--	--	--
Benzo(g,h,i)perylene					--	--	0.02 U	--	--	--	--
Benzo(k)fluoranthene				0.92	--	--	0.02 U	--	--	--	--
Chrysene				9.2	--	--	0.02 U	--	--	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	0.02 U	--	--	--	--
Fluoranthene				1500	--	--	0.02 U	--	--	--	--
Fluorene			3.9	240	--	--	0.02 U	--	--	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	0.02 U	--	--	--	--
Naphthalene	620		12	6.2	--	--	0.022 U	--	--	--	--
Phenanthrene					--	--	**0.0047 J**	--	--	--	--
Pyrene				180	--	--	0.02 U	--	--	--	--
Total LPAH (U = 0)					--	--	**0.012**	--	--	--	--
Total HPAH (U = 0)					--	--	0.02 U	--	--	--	--
Total PAH (U = 0)					--	--	**0.012**	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-07	PCM-07	PCM-08	PCM-08	PCM-08	PCM-08	PCM-08
Sample ID:					PCM-07DSW-060502	PCM-18DSW-060901	PCM-08DSW-060502	PCM-08DSW-060901	PCM-08DSW-061208	PCM-08DSW-070914	PCM-08DSW-071109
Sample Date:					5/2/2006	9/1/2006	5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007
Conventional Parameters (mg/l)											
Amenable Cyanide					--	--	--	--	--	0.01 UJ	0.01 UJ
Cyanide (dissolved)					0.01 U	**0.005 J**	0.01 U	0.01 U	--	0.01 U	--
Cyanide					--	--	--	--	--	--	0.01 U
Free Cyanide		0.0052			--	--	--	--	0.01 UJ	0.01 U	0.01 U
Dissolved organic carbon					**2.2**	**1.6**	**2**	**1.6**	**1.9**	**1.7**	**1.9**
Sulfide					--	--	--	--	--	0.005 U	0.05 U
Total organic carbon					**1.6**	**1.6**	**1.6**	**1.6**	**2**	**1.5**	**1.9**
Total Suspended Solids					**4**	**13**	**4**	**12**	**8**	**13**	**7**
Metals (mg/l)											
Iron					--	--	--	--	--	**0.414**	**0.388**
Dissolved Metals (mg/l)											
Iron					--	--	--	--	--	0.0385 U	--
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	**0.84**	0.5 U	**0.15 J**	0.5 U	**0.14 J**	0.5 U
Ethylbenzene			7.3	1300	0.5 U	**0.14 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	**0.23 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	**0.11 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	--	--	2 U	--	--
Toluene			9.8	720	**0.38 J**	**0.31 J**	**0.24 J**	0.5 U	0.5 U	**0.17 J**	0.5 U
Total Xylene (U = 0)					0.5 U	**0.34 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		--	--	--	--	--	0.02 U	**0.0048 J**
Acenaphthene	520			370	0.021 U	**0.12**	**0.0034 J**	**0.24**	--	0.02 U	**0.01 J**
Acenaphthylene					0.021 U	**0.032**	**0.0019 J**	**0.022**	--	0.02 U	0.021 U
Anthracene			0.73	1800	**0.0016 J**	**0.0096 J**	**0.0014 J**	**0.05**	--	0.02 U	0.021 U
Benzo(a)anthracene			0.027	0.092	0.021 U	**0.0051 J**	0.02 U	**0.034**	--	0.02 U	**0.005 J**
Benzo(a)pyrene			0.014	0.0092	0.021 U	0.021 U	0.02 U	**0.028**	--	0.02 U	0.021 U
Benzo(b)fluoranthene				0.092	0.021 U	0.021 U	0.02 U	**0.024**	--	0.02 U	0.021 U
Benzo(g,h,i)perylene					0.021 U	0.021 U	0.02 U	**0.034**	--	0.02 U	0.021 U
Benzo(k)fluoranthene				0.92	0.021 U	0.021 U	0.02 U	**0.022**	--	0.02 U	0.021 U
Chrysene				9.2	0.021 U	**0.011 J**	**0.0014 J**	**0.049**	--	0.02 U	0.021 U
Dibenzo(a,h)anthracene				0.0092	0.021 U	0.021 U	0.02 U	0.02 U	--	0.02 U	0.021 U
Fluoranthene				1500	**0.0028 J**	**0.089**	**0.0058 J**	**0.21**	--	0.02 U	**0.012 J**
Fluorene			3.9	240	0.021 U	**0.043**	0.02 U	**0.095**	--	0.02 U	**0.0044 J**
Indeno(1,2,3-c,d)pyrene				0.092	0.021 U	0.021 U	0.02 U	**0.025**	--	0.02 U	0.021 U
Naphthalene	620		12	6.2	0.021 U	**1.5**	0.02 U	**0.94**	--	**0.022**	**0.052**
Phenanthrene					**0.0054 J**	**0.14**	**0.0052 J**	**0.36**	--	0.02 U	**0.012 J**
Pyrene				180	**0.0033 J**	**0.069**	**0.005 J**	**0.24**	--	0.02 U	**0.0091 J**
Total LPAH (U = 0)					**0.007**	**1.8446**	**0.0119**	**1.707**	2 U	**0.022**	**0.0784**
Total HPAH (U = 0)					**0.0061**	**0.1741**	**0.0122**	**0.666**	--	0.02 U	**0.0261**
Total PAH (U = 0)					**0.0131**	**2.0187**	**0.0241**	**2.373**	2 U	**0.022**	**0.1045**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	--	--	**0.0045 J**	--	--
Acenaphthylene					--	--	--	--	**0.0033 J**	--	--
Anthracene			0.73	1800	--	--	--	--	0.02 U	--	--
Benzo(a)anthracene			0.027	0.092	--	--	--	--	0.02 U	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-07 PCM-07DSW-060502 5/2/2006	PCM-07 PCM-18DSW-060901 9/1/2006	PCM-08 PCM-08DSW-060502 5/2/2006	PCM-08 PCM-08DSW-060901 9/1/2006	PCM-08 PCM-08DSW-061208 12/8/2006	PCM-08 PCM-08DSW-070914 9/14/2007	PCM-08 PCM-08DSW-071109 11/9/2007
Benzo(a)pyrene			0.014	0.0092	--	--	--	--	0.02 U	--	--
Benzo(b)fluoranthene				0.092	--	--	--	--	0.02 U	--	--
Benzo(g,h,i)perylene					--	--	--	--	0.02 U	--	--
Benzo(k)fluoranthene				0.92	--	--	--	--	0.02 U	--	--
Chrysene				9.2	--	--	--	--	0.02 U	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	--	--	0.02 U	--	--
Fluoranthene				1500	--	--	--	--	0.02 U	--	--
Fluorene			3.9	240	--	--	--	--	0.02 U	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	--	--	0.02 U	--	--
Naphthalene	620		12	6.2	--	--	--	--	0.025 U	--	--
Phenanthrene					--	--	--	--	**0.0051 J**	--	--
Pyrene				180	--	--	--	--	0.02 U	--	--
Total LPAH (U = 0)					--	--	--	--	**0.0129**	--	--
Total HPAH (U = 0)					--	--	--	--	0.02 U	--	--
Total PAH (U = 0)					--	--	--	--	**0.0129**	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 2 Event 1	Year 2 Event 2	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-08	PCM-08	PCM-09	PCM-09	PCM-09	PCM-09	PCM-09
Sample ID:					PCM-08DSW-080807	PCM-08DSW-081211	PCM-09DSW-060502	PCM-09DSW-060901	PCM-09DSW-061208	PCM-09DSW-070914	PCM-09DSW-071109
Sample Date:					8/7/2008	12/11/2008	5/2/2006	9/1/2006	12/8/2006	9/14/2007	11/9/2007
Conventional Parameters (mg/l)											
Amenable Cyanide					0.01 U	0.01 U	--	--	--	0.01 UJ	0.01 UJ
Cyanide (dissolved)					--	--	0.01 U	**0.003 J**	--	0.01 U	--
Cyanide					0.01 U	0.01 U	--	--	--	--	0.01 U
Free Cyanide		0.0052			0.01 U	**0.006 J**	--	--	0.01 UJ	0.01 U	0.01 U
Dissolved organic carbon					--	**1.6**	**1.8**	**1.6**	**1.9**	**1.6**	**1.9**
Sulfide					0.05 U	0.05 U	--	--	--	0.005 U	0.05 U
Total organic carbon					**1.7**	**2.1**	**1.6**	**1.7**	**2**	**1.6**	**1.9**
Total Suspended Solids					**14**	**7 J**	**4**	**14**	**8**	**13**	**6**
Metals (mg/l)											
Iron					**0.589**	**0.298**	--	--	--	**0.336**	**0.403**
Dissolved Metals (mg/l)											
Iron					--	**0.0459**	--	--	--	0.03 U	--
Volatile Organics (ug/l)											
Benzene			130	0.35	**0.09 J**	**0.08 J**	0.5 U	**0.29 J**	**0.14 J**	**0.26 J**	**0.17 J**
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	--	--	2 U	--	--
Toluene			9.8	720	0.5 U	0.5 U	**0.33 J**	**0.13 J**	0.5 U	**0.29 J**	**0.14 J**
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		0.025 U	**0.0053 J**	--	--	--	**0.0074 J**	**0.0091 J**
Acenaphthene	520			370	**0.0078 J**	**0.0065 J**	0.02 U	**0.05**	--	**0.024**	**0.02**
Acenaphthylene					0.025 U	0.024 U	**0.0019 J**	**0.011 J**	--	0.022 U	0.019 U
Anthracene			0.73	1800	0.025 U	0.024 U	0.02 U	**0.013 J**	--	0.022 U	**0.0077 J**
Benzo(a)anthracene			0.027	0.092	**0.009 J**	**0.0057 J**	0.02 U	**0.012 J**	--	0.022 U	**0.0067 J**
Benzo(a)pyrene			0.014	0.0092	**0.0054 J**	0.024 U	0.02 U	**0.0061 J**	--	0.022 U	0.019 U
Benzo(b)fluoranthene				0.092	**0.0068 J**	**0.0042 J**	0.02 U	**0.0086 J**	--	0.022 U	**0.0042 J**
Benzo(g,h,i)perylene					0.025 U	**0.0036 J**	0.02 U	**0.01 J**	--	0.022 U	**0.0039 J**
Benzo(k)fluoranthene				0.92	0.025 U	0.024 U	0.02 U	**0.0068 J**	--	0.022 U	0.019 U
Chrysene				9.2	**0.0078 J**	**0.0046 J**	0.02 U	**0.023**	--	0.022 U	**0.012 J**
Dibenzo(a,h)anthracene				0.0092	0.025 U	0.024 U	0.02 U	0.02 U	--	0.022 U	0.019 U
Fluoranthene				1500	**0.026**	**0.012 J**	**0.0029 J**	**0.077**	--	0.022 U	**0.021**
Fluorene			3.9	240	0.025 U	0.024 U	0.02 U	**0.018 J**	--	**0.01 J**	**0.0065 J**
Indeno(1,2,3-c,d)pyrene				0.092	**0.0046 J**	**0.0031 J**	0.02 U	**0.0074 J**	--	0.022 U	0.019 U
Naphthalene	620		12	6.2	**0.18**	**0.028**	0.02 U	**0.31**	--	**0.13**	**0.11**
Phenanthrene					0.025 U	**0.012 J**	**0.0034 J**	**0.075**	--	**0.014 J**	**0.019**
Pyrene				180	**0.033**	**0.012 J**	**0.0035 J**	**0.067**	--	0.022 U	**0.019 J**
Total LPAH (U = 0)					**0.1878**	**0.0465**	**0.0053**	**0.477**	2 U	**0.178**	**0.1632**
Total HPAH (U = 0)					**0.0926**	**0.0452**	**0.0064**	**0.2179**	--	0.022 U	**0.0668**
Total PAH (U = 0)					**0.2804**	**0.0917**	**0.0117**	**0.6949**	2 U	**0.178**	**0.23**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	--	--	**0.0073 J**	--	--
Acenaphthylene					--	--	--	--	**0.0036 J**	--	--
Anthracene			0.73	1800	--	--	--	--	0.02 U	--	--
Benzo(a)anthracene			0.027	0.092	--	--	--	--	0.02 U	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 2 Event 1	Year 2 Event 2	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 2
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-08 PCM-08DSW-080807 8/7/2008	PCM-08 PCM-08DSW-081211 12/11/2008	PCM-09 PCM-09DSW-060502 5/2/2006	PCM-09 PCM-09DSW-060901 9/1/2006	PCM-09 PCM-09DSW-061208 12/8/2006	PCM-09 PCM-09DSW-070914 9/14/2007	PCM-09 PCM-09DSW-071109 11/9/2007
Benzo(a)pyrene			0.014	0.0092	--	--	--	--	0.02 U	--	--
Benzo(b)fluoranthene				0.092	--	--	--	--	0.02 U	--	--
Benzo(g,h,i)perylene					--	--	--	--	0.02 U	--	--
Benzo(k)fluoranthene				0.92	--	--	--	--	0.02 U	--	--
Chrysene				9.2	--	--	--	--	0.02 U	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	--	--	0.02 U	--	--
Fluoranthene				1500	--	--	--	--	0.02 U	--	--
Fluorene			3.9	240	--	--	--	--	0.02 U	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	--	--	0.02 U	--	--
Naphthalene	620		12	6.2	--	--	--	--	**0.096**	--	--
Phenanthrene					--	--	--	--	**0.0055 J**	--	--
Pyrene				180	--	--	--	--	0.02 U	--	--
Total LPAH (U = 0)					--	--	--	--	**0.1124**	--	--
Total HPAH (U = 0)					--	--	--	--	0.02 U	--	--
Total PAH (U = 0)					--	--	--	--	**0.1124**	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 2 Event 1	Year 2 Event 2	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 1
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-09	PCM-09	PCM-10	PCM-10	PCM-10	PCM-10	PCM-10
Sample ID:					PCM-09DSW-080807	PCM-09DSW-081211	PCM-10DSW-060502	PCM-10DSW-060901	PCM-10DSW-061208	PCM-10DSW-070914	PCM-60DSW-070914
Sample Date:					8/7/2008	12/11/2008	5/2/2006	9/1/2006	12/8/2006	9/14/2007	9/14/2007
Conventional Parameters (mg/l)											
Amenable Cyanide					0.01 U	0.01 U	--	--	--	0.01 UJ	0.01 UJ
Cyanide (dissolved)					--	--	0.01 U	**0.02**	--	0.01 U	0.01 U
Cyanide					0.01 U	0.01 U	--	--	--	--	--
Free Cyanide		0.0052			**0.003 J**	**0.004 J**	--	--	0.01 UJ	0.01 U	0.01 U
Dissolved organic carbon					--	**1.4**	**2.4**	**1.7**	**1.9**	**1.7**	**1.8**
Sulfide					0.05 U	0.05 U	--	--	--	0.005 U	0.005 U
Total organic carbon					**1.7**	**2**	**1.5**	**1.6**	**2**	**1.6**	**1.5**
Total Suspended Solids					**9**	**6 J**	**4**	**19**	**7**	**13**	**14**
Metals (mg/l)											
Iron					**0.426**	**0.286**	--	--	--	**0.379**	**0.511**
Dissolved Metals (mg/l)											
Iron					--	0.0515 U	--	--	--	0.0344 U	0.0335 U
Volatile Organics (ug/l)											
Benzene			130	0.35	**0.06 J**	**0.08 J**	0.5 U	**0.51**	0.5 U	**0.34 J**	**0.24 J**
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	--	--	2 U	--	--
Toluene			9.8	720	0.5 U	0.5 U	**0.36 J**	**0.15 J**	0.5 U	**0.23 J**	**0.14 J**
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		0.021 U	**0.011 J**	--	--	--	**0.024**	**0.0044 J**
Acenaphthene	520			370	**0.014 J**	**0.023**	0.02 U	**0.059**	--	**0.029**	**0.014 J**
Acenaphthylene					0.021 U	**0.0091 J**	**0.0019 J**	**0.015 J**	--	**0.0043 J**	0.023 U
Anthracene			0.73	1800	**0.0095 J**	**0.011 J**	0.02 U	**0.0099 J**	--	0.023 U	0.023 U
Benzo(a)anthracene			0.027	0.092	**0.012 J**	**0.018 J**	0.02 U	**0.0096 J**	--	0.023 U	0.023 U
Benzo(a)pyrene			0.014	0.0092	**0.0082 J**	**0.019 J**	0.02 U	**0.0063 J**	--	0.023 U	0.023 U
Benzo(b)fluoranthene				0.092	**0.015 J**	**0.019 J**	0.02 U	**0.005 J**	--	0.023 U	0.023 U
Benzo(g,h,i)perylene					0.021 U	**0.018 J**	0.02 U	**0.0064 J**	--	0.023 U	0.023 U
Benzo(k)fluoranthene				0.92	**0.0058 J**	**0.0066 J**	0.02 U	0.02 U	--	0.023 U	0.023 U
Chrysene				9.2	**0.022**	**0.02**	0.02 U	**0.011 J**	--	0.023 U	0.023 U
Dibenzo(a,h)anthracene				0.0092	0.021 U	0.02 U	0.02 U	0.02 U	--	0.023 U	0.023 U
Fluoranthene				1500	**0.056**	**0.052**	**0.0048 J**	**0.065**	--	**0.0068 J**	0.023 U
Fluorene			3.9	240	**0.0059 J**	**0.011 J**	0.02 U	**0.02 J**	--	**0.028**	**0.0062 J**
Indeno(1,2,3-c,d)pyrene				0.092	**0.0092 J**	**0.015 J**	0.02 U	**0.0046 J**	--	0.023 U	0.023 U
Naphthalene	620		12	6.2	0.027 U	**0.092**	0.02 U	**0.4**	--	**0.34**	**0.064**
Phenanthrene					0.021 U	**0.042**	**0.0035 J**	**0.08**	--	**0.046**	**0.011 J**
Pyrene				180	**0.061**	**0.056**	**0.0031 J**	**0.065**	--	0.023 U	0.023 U
Total LPAH (U = 0)					**0.0294**	**0.1881**	**0.0054**	**0.5839**	2 U	**0.4473**	**0.0952**
Total HPAH (U = 0)					**0.1892**	**0.2236**	**0.0079**	**0.1729**	--	**0.0068**	0.023 U
Total PAH (U = 0)					**0.2186**	**0.4117**	**0.0133**	**0.7568**	2 U	**0.4541**	**0.0952**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	--	--	**0.0036 J**	--	--
Acenaphthylene					--	--	--	--	**0.0042 J**	--	--
Anthracene			0.73	1800	--	--	--	--	0.02 U	--	--
Benzo(a)anthracene			0.027	0.092	--	--	--	--	0.02 U	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 2 Event 1	Year 2 Event 2	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1	Year 1 Event 1
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-09 PCM-09DSW-080807 8/7/2008	PCM-09 PCM-09DSW-081211 12/11/2008	PCM-10 PCM-10DSW-060502 5/2/2006	PCM-10 PCM-10DSW-060901 9/1/2006	PCM-10 PCM-10DSW-061208 12/8/2006	PCM-10 PCM-10DSW-070914 9/14/2007	PCM-10 PCM-60DSW-070914 9/14/2007
Benzo(a)pyrene			0.014	0.0092	--	--	--	--	0.02 U	--	--
Benzo(b)fluoranthene				0.092	--	--	--	--	0.02 U	--	--
Benzo(g,h,i)perylene					--	--	--	--	0.02 U	--	--
Benzo(k)fluoranthene				0.92	--	--	--	--	0.02 U	--	--
Chrysene				9.2	--	--	--	--	0.02 U	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	--	--	0.02 U	--	--
Fluoranthene				1500	--	--	--	--	0.02 U	--	--
Fluorene			3.9	240	--	--	--	--	0.02 U	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	--	--	0.02 U	--	--
Naphthalene	620		12	6.2	--	--	--	--	**0.041**	--	--
Phenanthrene					--	--	--	--	**0.0043 J**	--	--
Pyrene				180	--	--	--	--	0.02 U	--	--
Total LPAH (U = 0)					--	--	--	--	**0.0531**	--	--
Total HPAH (U = 0)					--	--	--	--	0.02 U	--	--
Total PAH (U = 0)					--	--	--	--	**0.0531**	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-10	PCM-10	PCM-10	PCM-13	PCM-13	PCM-13	PCM-13
Sample ID:					PCM-10DSW-071109	PCM-10DSW-080807	PCM-10DSW-081211	PCM-13DSW-060502	PCM-13DSW-060901	PCM-13DSW-061208	PCM-13DSW-070914
Sample Date:					11/9/2007	8/7/2008	12/11/2008	5/2/2006	9/1/2006	12/8/2006	9/14/2007
Conventional Parameters (mg/l)											
Amenable Cyanide					0.01 UJ	**0.002 J**	0.01 UJ	--	--	--	0.01 UJ
Cyanide (dissolved)					--	--	--	**0.004 J**	**0.006 J**	--	0.01 U
Cyanide					0.01 U	**0.002 J**	**0.004 J**	--	--	--	--
Free Cyanide		0.0052			0.01 U	0.01 U	**0.007 J**	--	--	0.01 UJ	0.01 U
Dissolved organic carbon					**1.8**	--	**1.4**	**2.1**	**1.7**	**1.9**	**1.6**
Sulfide					0.05 U	0.05 U	0.05 U	--	--	--	0.005 U
Total organic carbon					**1.9**	**1.8**	**1.5**	**1.6**	**1.6**	**1.9**	**1.6**
Total Suspended Solids					**7**	**10**	**9 J**	**8**	**13**	**9**	**11**
Metals (mg/l)											
Iron					**0.437**	**0.73**	**0.452**	--	--	--	**0.403**
Dissolved Metals (mg/l)											
Iron					--	--	0.0529 U	--	--	--	0.0279 U
Volatile Organics (ug/l)											
Benzene			130	0.35	**0.34 J**	**0.08 J**	**0.08 J**	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	--	--	--	2 U	--
Toluene			9.8	720	**0.23 J**	**0.07 J**	0.5 U	**0.18 J**	0.5 U	0.5 U	**0.21 J**
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		**0.018 J**	0.023 U	**0.027**	--	--	--	0.02 U
Acenaphthene	520			370	**0.051**	**0.051**	**0.08**	0.02 U	**0.0077 J**	--	0.02 U
Acenaphthylene					0.021 U	**0.0078 J**	**0.027**	0.02 U	**0.0066 J**	--	0.02 U
Anthracene			0.73	1800	**0.016 J**	**0.02 J**	**0.058**	0.02 U	0.02 U	--	0.02 U
Benzo(a)anthracene			0.027	0.092	**0.029**	**0.024**	**0.058**	0.02 U	0.02 U	--	0.02 U
Benzo(a)pyrene			0.014	0.0092	**0.031**	**0.028**	**0.079**	0.02 U	0.02 U	--	0.02 U
Benzo(b)fluoranthene				0.092	**0.033**	**0.033**	**0.076**	0.02 U	0.02 U	--	0.02 U
Benzo(g,h,i)perylene					**0.03**	**0.029**	**0.075**	0.02 U	0.02 U	--	0.02 U
Benzo(k)fluoranthene				0.92	**0.016 J**	**0.012 J**	**0.026**	0.02 U	0.02 U	--	0.02 U
Chrysene				9.2	**0.035**	**0.049**	**0.11**	0.02 U	0.02 U	--	0.02 U
Dibenzo(a,h)anthracene				0.0092	0.021 U	0.023 U	**0.0066 J**	0.02 U	0.02 U	--	0.02 U
Fluoranthene				1500	**0.094**	**0.11**	**0.18**	**0.0045 J**	**0.038**	--	0.02 U
Fluorene			3.9	240	**0.015 J**	**0.012 J**	**0.028**	0.02 U	**0.0058 J**	--	0.02 U
Indeno(1,2,3-c,d)pyrene				0.092	**0.022**	**0.024**	**0.059**	0.02 U	0.02 U	--	0.02 U
Naphthalene	620		12	6.2	**0.11**	0.1 U	**0.24**	0.02 U	**0.014 J**	--	0.02 U
Phenanthrene					**0.055**	**0.027**	**0.11**	**0.0033 J**	**0.022**	--	0.02 U
Pyrene				180	**0.097**	**0.11**	**0.2**	**0.0033 J**	**0.019 J**	--	0.02 U
Total LPAH (U = 0)					**0.247**	**0.1178**	**0.543**	**0.0033**	**0.0561**	2 U	0.02 U
Total HPAH (U = 0)					**0.387**	**0.419**	**0.8696**	**0.0078**	**0.057**	--	0.02 U
Total PAH (U = 0)					**0.634**	**0.5368**	**1.4126**	**0.0111**	**0.1131**	2 U	0.02 U
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	--	--	--	**0.014 J**	--
Acenaphthylene					--	--	--	--	--	**0.01 J**	--
Anthracene			0.73	1800	--	--	--	--	--	**0.011 J**	--
Benzo(a)anthracene			0.027	0.092	--	--	--	--	--	0.02 U	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2	Year 0 Event 1b	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-10 PCM-10DSW-071109 11/9/2007	PCM-10 PCM-10DSW-080807 8/7/2008	PCM-10 PCM-10DSW-081211 12/11/2008	PCM-13 PCM-13DSW-060502 5/2/2006	PCM-13 PCM-13DSW-060901 9/1/2006	PCM-13 PCM-13DSW-061208 12/8/2006	PCM-13 PCM-13DSW-070914 9/14/2007
Benzo(a)pyrene			0.014	0.0092	--	--	--	--	--	0.02 U	--
Benzo(b)fluoranthene				0.092	--	--	--	--	--	0.02 U	--
Benzo(g,h,i)perylene					--	--	--	--	--	0.02 U	--
Benzo(k)fluoranthene				0.92	--	--	--	--	--	0.02 U	--
Chrysene				9.2	--	--	--	--	--	0.02 U	--
Dibenzo(a,h)anthracene				0.0092	--	--	--	--	--	0.02 U	--
Fluoranthene				1500	--	--	--	--	--	**0.036**	--
Fluorene			3.9	240	--	--	--	--	--	**0.0099 J**	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	--	--	--	0.02 U	--
Naphthalene	620		12	6.2	--	--	--	--	--	0.021 U	--
Phenanthrene					--	--	--	--	--	**0.22**	--
Pyrene				180	--	--	--	--	--	**0.039**	--
Total LPAH (U = 0)					--	--	--	--	--	**0.2649**	--
Total HPAH (U = 0)					--	--	--	--	--	**0.075**	--
Total PAH (U = 0)					--	--	--	--	--	**0.3399**	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2	Year 0 Event 3	Year 0 Event 3	Year 0 Event 2	Year 0 Event 3
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-13	PCM-13	PCM-13	PCM-18	PCM-18	PCM-19	PCM-19
Sample ID:					PCM-13DSW-071109	PCM-13DSW-080807	PCM-13DSW-081211	PCM-18DSW-061208	PCM-68DSW-061208	PCM-19DSW-060901	PCM-19DSW-061208
Sample Date:					11/9/2007	8/7/2008	12/11/2008	12/8/2006	12/8/2006	9/1/2006	12/8/2006
Conventional Parameters (mg/l)											
Amenable Cyanide					0.01 UJ	0.01 U	0.01 U	--	--	--	--
Cyanide (dissolved)					--	--	--	--	--	0.01 U	--
Cyanide					0.01 U	0.01 U	0.01 U	--	--	--	--
Free Cyanide		0.0052			0.01 U	0.01 UJ	**0.006 J**	0.01 UJ	0.01 UJ	--	0.01 UJ
Dissolved organic carbon					**1.9**	--	**1.4**	**1.9**	**1.9**	**1.7**	**1.8**
Sulfide					0.05 U	0.05 U	0.05 U	--	--	--	--
Total organic carbon					**2**	**1.7**	**1.7**	**2**	**2**	**1.6**	**1.9**
Total Suspended Solids					**7**	**13**	**6 J**	**14**	**8**	**9**	**8**
Metals (mg/l)											
Iron					**0.445**	**0.681**	**0.27**	--	--	--	--
Dissolved Metals (mg/l)											
Iron					--	--	0.0449 U	--	--	--	--
Volatile Organics (ug/l)											
Benzene			130	0.35	**0.16 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	--	2 U	2 U	--	2 U
Toluene			9.8	720	**0.28 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		0.02 U	0.023 U	**0.0036 J**	--	--	--	--
Acenaphthene	520			370	0.02 U	**0.009 J**	0.02 U	--	--	**0.09**	--
Acenaphthylene					0.02 U	0.023 U	0.02 U	--	--	**0.0032 J**	--
Anthracene			0.73	1800	0.02 U	0.023 U	0.02 U	--	--	**0.01 J**	--
Benzo(a)anthracene			0.027	0.092	0.02 U	**0.009 J**	**0.0028 J**	--	--	**0.0069 J**	--
Benzo(a)pyrene			0.014	0.0092	0.02 U	**0.005 J**	0.02 U	--	--	0.02 U	--
Benzo(b)fluoranthene				0.092	0.02 U	**0.0069 J**	0.02 U	--	--	0.02 U	--
Benzo(g,h,i)perylene					0.02 U	0.023 U	0.02 U	--	--	**0.0082 J**	--
Benzo(k)fluoranthene				0.92	0.02 U	0.023 U	0.02 U	--	--	0.02 U	--
Chrysene				9.2	0.02 U	**0.011 J**	0.02 U	--	--	**0.007 J**	--
Dibenzo(a,h)anthracene				0.0092	0.02 U	0.023 U	0.02 U	--	--	**0.0047 J**	--
Fluoranthene				1500	0.02 U	**0.034**	0.02 U	--	--	**0.054**	--
Fluorene			3.9	240	0.02 U	0.023 U	0.02 U	--	--	**0.049**	--
Indeno(1,2,3-c,d)pyrene				0.092	0.02 U	**0.0042 J**	0.02 U	--	--	**0.0064 J**	--
Naphthalene	620		12	6.2	0.02 U	**0.15**	0.02 U	--	--	**0.11**	--
Phenanthrene					0.02 U	0.023 U	0.02 U	--	--	**0.13**	--
Pyrene				180	0.02 U	**0.038**	0.02 U	--	--	**0.055**	--
Total LPAH (U = 0)					0.02 U	**0.159**	0.02 U	2 U	2 U	**0.3922**	2 U
Total HPAH (U = 0)					0.02 U	**0.1081**	**0.0028**	--	--	**0.1422**	--
Total PAH (U = 0)					0.02 U	**0.2671**	**0.0028**	2 U	2 U	**0.5344**	2 U
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	--	**0.0043 J**	**0.0046 J**	--	0.02 U
Acenaphthylene					--	--	--	**0.0033 J**	**0.0036 J**	--	**0.0034 J**
Anthracene			0.73	1800	--	--	--	0.02 U	0.02 U	--	0.02 U
Benzo(a)anthracene			0.027	0.092	--	--	--	0.02 U	0.02 U	--	0.02 U

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2	Year 0 Event 3	Year 0 Event 3	Year 0 Event 2	Year 0 Event 3
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-13	PCM-13	PCM-13	PCM-18	PCM-18	PCM-19	PCM-19
Sample ID:					PCM-13DSW-071109	PCM-13DSW-080807	PCM-13DSW-081211	PCM-18DSW-061208	PCM-68DSW-061208	PCM-19DSW-060901	PCM-19DSW-061208
Sample Date:					11/9/2007	8/7/2008	12/11/2008	12/8/2006	12/8/2006	9/1/2006	12/8/2006
Benzo(a)pyrene			0.014	0.0092	--	--	--	0.02 U	0.02 U	--	0.02 U
Benzo(b)fluoranthene				0.092	--	--	--	0.02 U	0.02 U	--	0.02 U
Benzo(g,h,i)perylene					--	--	--	0.02 U	0.02 U	--	0.02 U
Benzo(k)fluoranthene				0.92	--	--	--	0.02 U	0.02 U	--	0.02 U
Chrysene				9.2	--	--	--	0.02 U	0.02 U	--	0.02 U
Dibenzo(a,h)anthracene				0.0092	--	--	--	0.02 U	0.02 U	--	0.02 U
Fluoranthene				1500	--	--	--	0.02 U	0.02 U	--	0.02 U
Fluorene			3.9	240	--	--	--	0.02 U	0.02 U	--	0.02 U
Indeno(1,2,3-c,d)pyrene				0.092	--	--	--	0.02 U	0.02 U	--	0.02 U
Naphthalene	620		12	6.2	--	--	--	0.03 U	0.032 U	--	0.022 U
Phenanthrene					--	--	--	**0.0049 J**	**0.0058 J**	--	**0.0058 J**
Pyrene				180	--	--	--	0.02 U	0.02 U	--	0.02 U
Total LPAH (U = 0)					--	--	--	**0.0125**	**0.014**	--	**0.0092**
Total HPAH (U = 0)					--	--	--	0.02 U	0.02 U	--	0.02 U
Total PAH (U = 0)					--	--	--	**0.0125**	**0.014**	--	**0.0092**

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-19	PCM-19	PCM-19	PCM-19	PCM-20	PCM-20	PCM-20
Sample ID:					PCM-19DSW-070914	PCM-19DSW-071109	PCM-19DSW-080807	PCM-19DSW-081211	PCM-20DSW-060901	PCM-20DSW-061208	PCM-20DSW-070914
Sample Date:					9/14/2007	11/9/2007	8/7/2008	12/11/2008	9/1/2006	12/8/2006	9/14/2007
Conventional Parameters (mg/l)											
Amenable Cyanide					0.01 UJ	0.01 UJ	**0.008 J**	0.01 U	--	--	0.01 UJ
Cyanide (dissolved)					0.01 U	--	--	--	**0.06**	--	0.01 U
Cyanide					--	0.01 U	**0.01**	0.01 U	--	--	--
Free Cyanide		0.0052			0.01 U	0.01 U	**0.003 J**	**0.005 J**	--	**0.007 J**	0.01 U
Dissolved organic carbon					**1.8**	**1.8**	--	**1.5**	**1.6**	**1.9**	**1.7**
Sulfide					0.005 U	0.05 U	0.05 U	0.05 U	--	--	0.005 U
Total organic carbon					**1.7**	**1.9**	**1.7**	**1.9**	**1.6**	**1.9**	**1.6**
Total Suspended Solids					**7**	**6**	**8**	5 UJ	**19**	**8**	**16**
Metals (mg/l)											
Iron					**0.309**	**0.423**	**0.246**	**0.28**	--	--	**0.648**
Dissolved Metals (mg/l)											
Iron					0.0337 U	--	--	0.0494 U	--	--	0.0296 U
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	0.5 U	0.5 U	**0.05 J**	0.5 U	0.5 U	0.5 U
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	--	--	--	2 U	--
Toluene			9.8	720	**0.2 J**	**0.29 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		**0.0028 J**	**0.0043 J**	0.022 U	**0.003 J**	--	--	0.022 U
Acenaphthene	520			370	0.023 U	**0.0067 J**	**0.0057 J**	0.022 U	**0.005 J**	--	0.022 U
Acenaphthylene					0.023 U	0.021 U	0.022 U	0.022 U	0.02 U	--	0.022 U
Anthracene			0.73	1800	0.023 U	0.021 U	0.022 U	0.022 U	0.02 U	--	0.022 U
Benzo(a)anthracene			0.027	0.092	0.023 U	0.021 U	**0.0095 J**	0.022 U	0.02 U	--	0.022 U
Benzo(a)pyrene			0.014	0.0092	0.023 U	0.021 U	**0.0052 J**	0.022 U	0.02 U	--	0.022 U
Benzo(b)fluoranthene				0.092	0.023 U	0.021 U	**0.0073 J**	0.022 U	0.02 U	--	0.022 U
Benzo(g,h,i)perylene					0.023 U	0.021 U	0.022 U	0.022 U	0.02 U	--	0.022 U
Benzo(k)fluoranthene				0.92	0.023 U	0.021 U	0.022 U	0.022 U	0.02 U	--	0.022 U
Chrysene				9.2	0.023 U	0.021 U	**0.0096 J**	0.022 U	0.02 U	--	0.022 U
Dibenzo(a,h)anthracene				0.0092	0.023 U	0.021 U	0.022 U	0.022 U	0.02 U	--	0.022 U
Fluoranthene				1500	0.023 U	0.021 U	**0.032**	0.022 U	**0.032**	--	0.022 U
Fluorene			3.9	240	0.023 U	0.021 U	0.022 U	**0.0041 J**	**0.0038 J**	--	0.022 U
Indeno(1,2,3-c,d)pyrene				0.092	0.023 U	0.021 U	**0.0033 J**	0.022 U	0.02 U	--	0.022 U
Naphthalene	620		12	6.2	**0.021 J**	**0.023**	0.059 U	0.022 U	0.02 U	--	**0.17**
Phenanthrene					0.023 U	**0.013 J**	0.022 U	0.022 U	0.02 U	--	0.022 U
Pyrene				180	0.023 U	0.021 U	**0.033**	0.022 U	**0.017 J**	--	0.022 U
Total LPAH (U = 0)					**0.021**	**0.0427**	**0.0057**	**0.0041**	**0.0088**	2 U	**0.17**
Total HPAH (U = 0)					0.023 U	0.021 U	**0.0999**	0.022 U	**0.049**	--	0.022 U
Total PAH (U = 0)					**0.021**	**0.0427**	**0.1056**	**0.0041**	**0.0578**	2 U	**0.17**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	--	--	--	0.02 U	--
Acenaphthylene					--	--	--	--	--	**0.01 J**	--
Anthracene			0.73	1800	--	--	--	--	--	0.02 U	--
Benzo(a)anthracene			0.027	0.092	--	--	--	--	--	**0.0085 J**	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2	Year 0 Event 2	Year 0 Event 3	Year 1 Event 1
Location ID: Sample ID: Sample Date:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-19 PCM-19DSW-070914 9/14/2007	PCM-19 PCM-19DSW-071109 11/9/2007	PCM-19 PCM-19DSW-080807 8/7/2008	PCM-19 PCM-19DSW-081211 12/11/2008	PCM-20 PCM-20DSW-060901 9/1/2006	PCM-20 PCM-20DSW-061208 12/8/2006	PCM-20 PCM-20DSW-070914 9/14/2007
Benzo(a)pyrene			0.014	0.0092	--	--	--	--	--	**0.0055 J**	--
Benzo(b)fluoranthene				0.092	--	--	--	--	--	**0.006 J**	--
Benzo(g,h,i)perylene					--	--	--	--	--	**0.0045 J**	--
Benzo(k)fluoranthene				0.92	--	--	--	--	--	**0.0067 J**	--
Chrysene				9.2	--	--	--	--	--	**0.012 J**	--
Dibenzo(a,h)anthracene				0.0092	--	--	--	--	--	0.02 U	--
Fluoranthene				1500	--	--	--	--	--	**0.018 J**	--
Fluorene			3.9	240	--	--	--	--	--	0.02 U	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	--	--	--	**0.0037 J**	--
Naphthalene	620		12	6.2	--	--	--	--	--	0.029 U	--
Phenanthrene					--	--	--	--	--	**0.0094 J**	--
Pyrene				180	--	--	--	--	--	**0.022**	--
Total LPAH (U = 0)					--	--	--	--	--	**0.0194**	--
Total HPAH (U = 0)					--	--	--	--	--	**0.0869**	--
Total PAH (U = 0)					--	--	--	--	--	**0.1063**	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-20	PCM-20	PCM-20	PCM-21	PCM-21	PCM-21	PCM-21
Sample ID:					PCM-20DSW-071109	PCM-20DSW-080807	PCM-20DSW-081211	PCM-21DSW-070914	PCM-21DSW-071109	PCM-21DSW-080807	PCM-21DSW-081211
Sample Date:					11/9/2007	8/7/2008	12/11/2008	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Conventional Parameters (mg/l)											
Amenable Cyanide					0.01 UJ	**0.006 J**	0.01 U	0.01 UJ	0.01 UJ	0.01 U	0.01 U
Cyanide (dissolved)					--	--	--	0.01 U	--	--	--
Cyanide					0.01 U	**0.01**	0.01 U	--	0.01 U	0.01 U	0.01 U
Free Cyanide		0.0052			0.01 U	**0.003 J**	**0.005 J**	0.01 U	0.01 U	0.01 U	**0.005 J**
Dissolved organic carbon					**1.9**	--	**1.3**	**1.5**	**2**	--	**1.6**
Sulfide					0.05 U	0.05 U	--	0.005 U	0.05 U	0.05 U	0.05 U
Total organic carbon					**1.9**	**1.6**	**1.7**	**1.6**	**1.9**	**1.6**	**2**
Total Suspended Solids					**8**	**6**	**11 J**	**9**	**6**	**10**	**10 J**
Metals (mg/l)											
Iron					**0.372**	**0.327**	**0.336**	**0.304**	**0.396**	**0.493**	**0.389**
Dissolved Metals (mg/l)											
Iron					--	--	0.0666 U	0.0297 U	--	--	**0.0528**
Volatile Organics (ug/l)											
Benzene			130	0.35	0.5 U	0.5 U	0.5 U	**0.15 J**	**0.16 J**	**0.06 J**	**0.08 J**
Ethylbenzene			7.3	1300	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m,p-Xylene			1.8		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene			13		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	620		12	6.2	--	--	--	--	--	--	--
Toluene			9.8	720	**0.18 J**	0.5 U	0.5 U	**0.23 J**	**0.19 J**	0.5 U	0.5 U
Total Xylene (U = 0)					0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aromatic Hydrocarbons (ug/l)											
2-Methylnaphthalene			2.1		**0.0034 J**	0.021 U	**0.0026 J**	0.023 U	**0.011 J**	0.023 U	**0.022 J**
Acenaphthene	520			370	0.021 U	0.021 U	0.02 U	**0.0068 J**	**0.02 J**	**0.01 J**	**0.053**
Acenaphthylene					0.021 U	0.021 U	0.02 U	0.023 U	0.021 U	**0.0042 J**	**0.02 J**
Anthracene			0.73	1800	0.021 U	0.021 U	0.02 U	0.023 U	**0.0062 J**	**0.0044 J**	**0.032**
Benzo(a)anthracene			0.027	0.092	0.021 U	**0.0038 J**	**0.0031 J**	0.023 U	**0.0075 J**	**0.0092 J**	**0.041**
Benzo(a)pyrene			0.014	0.0092	0.021 U	0.021 U	0.02 U	0.023 U	**0.0062 J**	**0.0055 J**	**0.056**
Benzo(b)fluoranthene				0.092	0.021 U	0.021 U	0.02 U	0.023 U	**0.0056 J**	**0.0074 J**	**0.053**
Benzo(g,h,i)perylene					0.021 U	0.021 U	0.02 U	0.023 U	**0.0041 J**	0.023 U	**0.054**
Benzo(k)fluoranthene				0.92	0.021 U	0.021 U	0.02 U	0.023 U	**0.0027 J**	0.023 U	**0.019 J**
Chrysene				9.2	0.021 U	**0.0046 J**	0.02 U	0.023 U	**0.0068 J**	**0.0099 J**	**0.07**
Dibenzo(a,h)anthracene				0.0092	0.021 U	0.021 U	0.02 U	0.023 U	0.021 U	0.023 U	**0.0049 J**
Fluoranthene				1500	0.021 U	**0.013 J**	**0.0044 J**	0.023 U	**0.024**	**0.038**	**0.13**
Fluorene			3.9	240	0.021 U	**0.0048 J**	0.02 U	0.023 U	**0.008 J**	0.023 U	**0.021 J**
Indeno(1,2,3-c,d)pyrene				0.092	0.021 U	0.021 U	0.02 U	0.023 U	**0.0047 J**	**0.0049 J**	**0.043**
Naphthalene	620		12	6.2	0.021 U	0.021 U	0.02 U	**0.028**	**0.11**	0.071 U	**0.15**
Phenanthrene					0.021 U	0.021 U	**0.0057 J**	0.023 U	**0.024**	0.023 U	**0.093**
Pyrene				180	0.021 U	**0.014 J**	0.02 U	0.023 U	**0.021**	**0.044**	**0.15**
Total LPAH (U = 0)					0.021 U	**0.0048**	**0.0057**	**0.0348**	**0.1682**	**0.0186**	**0.369**
Total HPAH (U = 0)					0.021 U	**0.0354**	**0.0075**	0.023 U	**0.0826**	**0.1189**	**0.6209**
Total PAH (U = 0)					0.021 U	**0.0402**	**0.0132**	**0.0348**	**0.2508**	**0.1375**	**0.9899**
Dissolved Aromatic Hydrocarbons (ug/l)											
Acenaphthene	520			370	--	--	--	--	--	--	--
Acenaphthylene					--	--	--	--	--	--	--
Anthracene			0.73	1800	--	--	--	--	--	--	--
Benzo(a)anthracene			0.027	0.092	--	--	--	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Monitoring Event:	Ecological			Human Health	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2	Year 1 Event 1	Year 1 Event 2	Year 2 Event 1	Year 2 Event 2
Location ID:	ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)	EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)	Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)	EPA 2004 Drinking Water Region 9 PRGs	PCM-20	PCM-20	PCM-20	PCM-21	PCM-21	PCM-21	PCM-21
Sample ID:					PCM-20DSW-071109	PCM-20DSW-080807	PCM-20DSW-081211	PCM-21DSW-070914	PCM-21DSW-071109	PCM-21DSW-080807	PCM-21DSW-081211
Sample Date:					11/9/2007	8/7/2008	12/11/2008	9/14/2007	11/9/2007	8/7/2008	12/11/2008
Benzo(a)pyrene			0.014	0.0092	--	--	--	--	--	--	--
Benzo(b)fluoranthene				0.092	--	--	--	--	--	--	--
Benzo(g,h,i)perylene					--	--	--	--	--	--	--
Benzo(k)fluoranthene				0.92	--	--	--	--	--	--	--
Chrysene				9.2	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene				0.0092	--	--	--	--	--	--	--
Fluoranthene				1500	--	--	--	--	--	--	--
Fluorene			3.9	240	--	--	--	--	--	--	--
Indeno(1,2,3-c,d)pyrene				0.092	--	--	--	--	--	--	--
Naphthalene	620		12	6.2	--	--	--	--	--	--	--
Phenanthrene					--	--	--	--	--	--	--
Pyrene				180	--	--	--	--	--	--	--
Total LPAH (U = 0)					--	--	--	--	--	--	--
Total HPAH (U = 0)					--	--	--	--	--	--	--
Total PAH (U = 0)					--	--	--	--	--	--	--

Table 3
Discrete Near-Bottom Surface Water Analytical Results—Year 0, Year 1, and Year 2 Monitoring Events

Notes:

	Detected concentration is greater than ODEQ 2004 Chronic Ambient Water Quality Criteria (AWQC)
	Detected concentration is greater than EPA 2004 National Recommended Water Quality Criteria (NRWQC) Criterion Continous Concentration (CCC)
	Detected concentration is greater than Oakridge Nat. Lab 1996 Tier II Sediment Concentration Values (SCV)
	Detected concentration is greater than EPA 2004 Drinking Water Region 9 PRGs
	Non-detected concentration is above one or more identified screening levels
--	Results not reported or not applicable
Bold	Detected result
J	Estimated value
U	Compound analyzed, but not detected above detection limit
UJ	Compound analyzed, but not detected above estimated detection limit

Total LPAH (Low PAH) are the total of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene and Anthracene. 2-Methylnapthalene is not included in the sum of LPAHs

Total HPAH (High PAH) are the total of Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzofluoranthenes, Benzo(a)pyrene, Indeno(1,2,3-c,d)pyrene, Dibenzo(a,h)anthracene and Benzo(g,h,i)perylene.

Total PAH are the total of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzofluoranthenes, Benzo(a)pyrene, Indeno(1,2,3-c,d)pyrene, Dibenzo(a,h)anthracene and Benzo(g,h,i)perylene. 2-Methylnapthalene is not included.

Totals are calculated as the sum of all detected results. If all are undetcted results, the highest reporting limit value is reported as the sum.

Table 4a
Quality Assurance/Quality Control Analytical Results—Year 2 Event 1 Long-Term Monitoring

Sample ID Sample Date	PCM-DRB-080808 8/8/2008 Discrete Near Bottom Surface Water Rinsate Blank	PCM-DSRB-080808 8/8/2008	PCM-FB-080808 8/8/2008	TRIP BLANK-080807 8/7/2008
Conventional Parameters (mg/L)				
Amenable Cyanide	0.01 U	0.01 U	0.01 U	--
Free Cyanide	0.01 U	0.01 U	0.01 U	--
Cyanide	0.01 U	0.01 U	0.01 U	--
Sulfide	0.05 U	0.05 U	0.05 U	--
Metals (µg/L)				
Aluminum	1.2 U	2.4 U	1.5 U	--
Antimony	0.05 U	0.05 U	0.05 U	--
Arsenic	**0.08**	0.5 U	**0.13**	--
Cadmium	0.02 U	0.02 U	0.02 U	--
Chromium	0.07 U	0.09 U	0.13 U	--
Copper	0.1 U	0.1 U	0.1 U	--
Iron	20 U	6.3 U	20 U	--
Lead	**0.204**	0.009 U	0.008 U	--
Nickel	0.2 U	0.2 U	0.2 U	--
Silver	0.005 U	0.009 U	0.008 U	--
Zinc	1.51 U	**1.86**	**9.61**	--
Organometallic Compounds (µg/L)				
Butyltin	--	0.05 U	0.05 U	--
Dibutyltin	--	0.12 U	0.15 U	--
Tributyltin	--	0.05 U	0.05 U	--
Tetrabutyltin	--	0.05 U	0.05 U	--
Aromatic Hydrocarbons (µg/L)				
Total LPAH	**0.07**	0.23 U	**0.052**	--
Naphthalene	**0.07 J**	0.23 U	**0.052 J**	--
Acenaphthylene	0.22 U	0.23 U	0.23 U	--
Acenaphthene	0.22 U	0.23 U	0.23 U	--
Fluorene	0.22 U	0.23 U	0.23 U	--
Phenanthrene	0.22 U	0.23 U	0.23 U	--
Anthracene	0.22 U	0.23 U	0.23 U	--
Total HPAH	0.22 U	0.23 U	0.23 U	--
Fluoranthene	0.22 U	0.23 U	0.23 U	--
Pyrene	0.22 U	0.23 U	0.23 U	--
Benzo(a)anthracene	0.22 U	0.23 U	0.23 U	--
Chrysene	0.22 U	0.23 U	0.23 U	--
Benzo(b)fluoranthene	0.22 U	0.23 U	0.23 U	--
Benzo(k)fluoranthene	0.22 U	0.23 U	0.23 U	--
Total Benzofluoranthenes (b, j, k)	0.22 U	0.23 U	0.23 U	--
Benzo(a)pyrene	0.22 U	0.23 U	0.23 U	--
Indeno(1,2,3-c,d)pyrene	0.22 U	0.23 U	0.23 U	--
Dibenzo(a,h)anthracene	0.22 U	0.23 U	0.23 U	--
Benzo(g,h,i)perylene	0.22 U	0.23 U	0.23 U	--
Total PAH	**0.07**	0.23 U	**0.052**	--
PCB Aroclors (µg/L)				
Aroclor 1016	--	0.22 U	0.2 U	--
Aroclor 1221	--	0.43 U	0.4 U	--
Aroclor 1232	--	0.22 U	0.2 U	--
Aroclor 1242	--	0.22 UJ	0.2 UJ	--
Aroclor 1248	--	0.22 UJ	0.2 UJ	--
Aroclor 1254	--	0.22 UJ	0.2 UJ	--
Aroclor 1260	--	0.22 UJ	0.2 UJ	--
Total PCB	--	0.43 U	0.4 U	--
Pesticides (µg/L)				
2,2-Dichloropropionic acid (Dalapon)	--	0.46 U	0.44 U	--
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	--	0.23 U	0.22 U	--
2,4,5-TP (Silvex)	--	0.23 U	0.22 U	--
2,4-D (2,4-Dichlorophenoxyacetic acid)	--	0.46 U	0.44 U	--
2,4-DB (2,4-D derivative)	--	0.46 U	0.44 U	--
2,4'-DDD (o,p'-DDD)	--	0.011 U	0.01 U	--
2,4'-DDE (o,p'-DDE)	--	0.011 U	0.01 U	--
2,4'-DDT (o,p'-DDT)	--	0.011 U	0.01 U	--
4,4'-DDD (p,p'-DDD)	--	0.011 U	**0.0094 J**	--
4,4'-DDE (p,p'-DDE)	--	0.011 U	0.01 U	--
4,4'-DDT (p,p'-DDT)	--	0.011 U	0.01 U	--
Total DDT	--	0.011 U	**0.0094**	--
Aldrin	--	0.011 U	0.01 U	--
alpha-BHC	--	0.011 U	0.01 U	--
beta-BHC	--	0.011 U	0.01 U	--

Table 4a
Quality Assurance/Quality Control Analytical Results—Year 2 Event 1 Long-Term Monitoring

Sample ID Sample Date	PCM-DRB-080808 8/8/2008 Discrete Near Bottom Surface Water Rinsate Blank	PCM-DSRB-080808 8/8/2008	PCM-FB-080808 8/8/2008	TRIP BLANK-080807 8/7/2008
alpha-Chlordane (cis-Chlordane)	--	0.011 U	0.01 U	--
Chlordane (technical)	--	0.011 U	0.01 U	--
cis-Nonachlor	--	0.011 U	0.01 U	--
trans-Nonachlor	--	0.011 U	0.01 U	--
delta-BHC	--	0.011 U	0.01 U	--
Dicamba	--	0.23 U	0.22 U	--
Dichlorprop	--	0.46 U	0.44 U	--
Dieldrin	--	0.011 U	0.01 U	--
Dinoseb	--	0.23 U	0.22 U	--
Endosulfan-alpha (I)	--	0.011 U	0.01 U	--
Endosulfan-beta (II)	--	0.011 U	0.01 U	--
Endosulfan sulfate	--	0.011 U	0.01 U	--
Endrin	--	0.011 U	0.01 U	--
Endrin aldehyde	--	0.011 U	0.01 U	--
Endrin ketone	--	0.011 U	0.01 U	--
gamma-BHC (Lindane)	--	0.011 U	0.01 U	--
Heptachlor	--	0.011 U	0.01 U	--
Heptachlor epoxide	--	0.011 U	0.01 U	--
Hexachlorobenzene	--	0.011 UJ	0.01 UJ	--
Hexachlorobutadiene	--	0.011 U	0.01 U	--
Hexachloroethane	--	0.011 U	0.01 U	--
MCPA	--	120 U	110 U	--
MCPP	--	120 U	110 U	--
Methoxychlor	--	0.011 U	0.01 U	--
Mirex	--	0.011 U	0.01 U	--
Oxychlordane	--	0.011 U	0.01 U	--
Toxaphene	--	0.53 U	0.5 U	--
Semi-Volatile Organics (µg/L)				
1,2,4-Trichlorobenzene	0.22 UJ	0.23 UJ	0.23 UJ	--
1,2-Dichlorobenzene	0.22 UJ	0.23 UJ	0.23 UJ	--
1,3-Dichlorobenzene	0.22 UJ	0.23 UJ	0.23 UJ	--
1,4-Dichlorobenzene	**0.056 J**	0.23 UJ	**0.47 J**	--
2,3,4,5-Tetrachlorophenol	--	0.5 U	0.5 U	--
2,3,5,6-Tetrachlorophenol	--	0.5 U	0.5 U	--
2,4,5-Trichlorophenol	0.53 U	0.57 U	0.56 U	--
2,4,6-Trichlorophenol	0.53 U	0.57 U	0.56 U	--
2,4-Dichlorophenol	0.53 U	0.57 U	0.56 U	--
2,4-Dimethylphenol	**R**	**R**	**R**	--
2,4-Dinitrophenol	4.3 UJ	4.6 UJ	4.5 UJ	--
2,4-Dinitrotoluene	0.22 U	0.23 U	0.23 U	--
2,6-Dinitrotoluene	0.22 U	0.23 U	0.23 U	--
2-Chloronaphthalene	0.22 U	0.23 U	0.23 U	--
2-Chlorophenol	0.53 U	0.57 U	0.56 U	--
2-Methylphenol (o-Cresol)	0.53 UJ	0.57 UJ	0.56 UJ	--
2-Nitroaniline	0.22 U	0.23 U	0.23 U	--
2-Nitrophenol	0.53 U	0.57 U	0.56 U	--
3,3'-Dichlorobenzidine	2.2 U	2.3 U	2.3 U	--
3-Nitroaniline	1.1 U	1.2 U	1.2 U	--
4-Bromophenyl-phenyl ether	0.22 U	0.23 U	0.23 U	--
4-Chloro-3-methylphenol	0.53 U	0.57 U	0.56 U	--
4-Chloroaniline	0.22 U	0.23 U	0.23 U	--
4-Chlorophenyl phenyl ether	0.22 U	0.23 U	0.23 U	--
4-Methylphenol (p-Cresol)	0.53 UJ	0.57 UJ	0.56 UJ	--
4-Nitroaniline	1.1 U	1.2 U	1.2 U	--
4-Nitrophenol	2.2 U	2.3 U	2.3 U	--
Aniline	**R**	**R**	**R**	--
Azobenzene	0.22 U	0.23 U	0.23 U	--
Benzoic acid	5.3 UJ	5.7 UJ	5.6 UJ	--
Benzyl alcohol	0.53 U	0.57 U	**0.4 J**	--
bis(2-Chloroethoxy)methane	0.22 U	0.23 U	0.23 U	--
bis(2-Chloroethyl)ether	0.22 U	0.23 U	0.23 U	--
bis(2-Chloroisopropyl) ether	0.22 U	0.23 U	0.23 U	--
Bis(2-ethylhexyl) phthalate	**0.37 J**	**0.28 J**	1.2 U	--
Butylbenzyl phthalate	0.22 U	0.23 U	0.23 U	--
Carbazole	0.22 U	0.23 U	0.23 U	--
Dibenzofuran	0.22 U	0.23 U	0.23 U	--
Diethyl phthalate	**0.04 J**	0.23 U	**1.9**	--
Dimethyl phthalate	0.22 U	0.23 U	**0.037 J**	--

Table 4a
Quality Assurance/Quality Control Analytical Results—Year 2 Event 1 Long-Term Monitoring

Sample ID Sample Date	PCM-DRB-080808 8/8/2008 Discrete Near Bottom Surface Water Rinsate Blank	PCM-DSRB-080808 8/8/2008	PCM-FB-080808 8/8/2008	TRIP BLANK-080807 8/7/2008
Di-n-butyl phthalate	0.22 U	0.23 U	0.36 U	--
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	2.2 U	2.3 U	2.3 U	--
Di-n-octyl phthalate	0.22 U	0.23 U	0.23 U	--
Hexachlorobenzene	0.22 U	0.23 U	0.23 U	--
Hexachlorobutadiene	0.22 UJ	0.23 UJ	0.23 UJ	--
Hexachlorocyclopentadiene	1.1 UJ	1.2 UJ	1.2 UJ	--
Hexachloroethane	0.22 UJ	0.23 UJ	0.23 UJ	--
Isophorone	0.22 U	0.23 U	0.23 U	--
Nitrobenzene	0.22 U	0.23 U	0.23 U	--
N-Nitrosodi-N-propylamine	0.22 U	0.23 U	0.23 U	--
N-Nitrosodiphenylamine	0.22 U	0.23 U	0.23 U	--
Pentachlorophenol	--	0.5 U	0.5 U	--
Phenol	0.53 U	0.57 U	0.56 U	--
Volatile Organics (µg/L)				
Benzene	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	0.5 U	0.5 U	**0.19 J**	0.5 U
m,p-Xylene	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U
Total Xylene	0.5 U	0.5 U	0.5 U	0.5 U

Notes:
Bold Detected result
J Estimated value
U Compound analyzed, but not detected above detection limit
UJ Compound analyzed, but not detected above estimated detection limit
R Rejected

Table 4b
Quality Assurance/Quality Control Analytical Results—Year 2 Event 2 Long-Term Monitoring

Sample ID: Sample Date:	PCM-FB-081212 12/12/2008 Field Blank	PCM-DRB-081212 12/12/2008 Discrete Near-Bottom Surface Water Rinsate Blank	PCM-DSRB-081212 12/12/2008 Depositional Sediment Rinsate Blank	TRIP BLANK-081211 12/11/2008 Trip Blank
Conventional Parameters (mg/L)				
Amenable Cyanide	0.01 UJ	0.01 UJ	--	--
Free Cyanide	0.01 U	0.01 U	--	--
Cyanide	0.01 UJ	0.01 UJ	--	--
Metals (ug/L)				
Aluminum	**0.9**	--	**0.9**	--
Antimony	0.05 U	--	0.05 U	--
Arsenic	0.5 U	--	0.5 U	--
Cadmium	0.02 U	--	0.02 U	--
Chromium	0.2 U	--	0.2 U	--
Copper	0.1 U	--	0.1 U	--
Iron	20 U	20 U	20 U	--
Lead	**0.005**	--	**0.004**	--
Mercury	0.2 UJ	--	0.2 UJ	--
Nickel	0.2 U	--	0.2 U	--
Selenium	1 U	--	1 U	--
Silver	0.02 U	--	0.02 U	--
Zinc	**0.4**	--	**1.8**	--
Organometallic Compounds (ug/L)				
n-Butyltin	0.05 U	--	0.05 U	--
Dibutyltin	0.05 U	--	0.05 U	--
Tetrabutyltin	0.05 U	--	0.05 U	--
Tri-n-Butyltin - synonym with Tributyltin	0.05 U	--	0.05 U	--
Aromatic Hydrocarbons (ug/L)				
Total LPAH	0.2 U	0.022 U	0.24 U	--
Naphthalene	0.2 U	0.022 U	0.24 U	--
Acenaphthylene	0.2 U	0.022 U	0.24 U	--
Acenaphthene	0.2 U	0.022 U	0.24 U	--
Fluorene	0.2 U	0.022 U	0.24 U	--
Phenanthrene	0.2 U	0.022 U	0.24 U	--
Anthracene	0.2 U	0.022 U	0.24 U	--
Total HPAH	0.2 U	0.022 U	0.24 U	--
Fluoranthene	0.2 U	0.022 U	0.24 U	--
Pyrene	0.2 U	0.022 U	0.24 U	--
Benzo(a)anthracene	0.2 U	0.022 U	0.24 U	--
Chrysene	0.2 U	0.022 U	0.24 U	--
Benzo(b)fluoranthene	0.2 U	0.022 U	0.24 U	--
Benzo(k)fluoranthene	0.2 U	0.022 U	0.24 U	--
Total Benzofluoranthenes (b, j, k)	0.2 U	0.022 U	0.24 U	--
Benzo(a)pyrene	0.2 U	0.022 U	0.24 U	--
Indeno(1,2,3-c,d)pyrene	0.2 U	0.022 U	0.24 U	--
Dibenzo(a,h)anthracene	0.2 U	0.022 U	0.24 U	--
Benzo(g,h,i)perylene	0.2 U	0.022 U	0.24 U	--
Total PAH	0.2 U	0.022 U	0.24 U	--
2-Methylnaphthalene	--	**0.0038 J**	--	--
PCB Aroclors (ug/L)				
Aroclor 1016	0.2 U	--	0.23 U	--
Aroclor 1221	0.4 U	--	0.45 U	--
Aroclor 1232	0.2 U	--	0.23 U	--
Aroclor 1242	0.2 U	--	0.23 U	--
Aroclor 1248	0.2 U	--	0.23 U	--
Aroclor 1254	0.2 U	--	0.23 U	--
Aroclor 1260	0.2 U	--	0.23 U	--
Aroclor 1262	0.2 U	--	0.23 U	--
Aroclor 1268	0.2 U	--	0.23 U	--
Total PCB	0.4 U	--	0.45 U	--
Pesticides (ug/L)				
2,2-Dichloropropionic acid (Dalapon)	0.41 U	--	0.44 U	--
2,4'-DDD (o,p'-DDD)	0.01 U	--	0.012 U	--
2,4'-DDE (o,p'-DDE)	0.01 U	--	0.012 U	--
2,4'-DDT (o,p'-DDT)	0.01 U	--	0.012 U	--
4,4'-DDD (p,p'-DDD)	0.01 U	--	0.012 U	--
4,4'-DDE (p,p'-DDE)	0.01 U	--	0.012 U	--
4,4'-DDT (p,p'-DDT)	0.01 U	--	0.012 U	--
Total DDT	0.01 U	--	0.012 U	--
Aldrin	0.01 U	--	0.012 U	--
alpha-BHC	0.01 U	--	0.012 U	--
beta-BHC	0.01 U	--	0.012 U	--

Table 4b
Quality Assurance/Quality Control Analytical Results—Year 2 Event 2 Long-Term Monitoring

Sample ID: Sample Date:	PCM-FB-081212 12/12/2008 Field Blank	PCM-DRB-081212 12/12/2008 Discrete Near-Bottom Surface Water Rinsate Blank	PCM-DSRB-081212 12/12/2008 Depositional Sediment Rinsate Blank	TRIP BLANK-081211 12/11/2008 Trip Blank
alpha-Chlordane (cis-Chlordane)	0.01 U	--	0.012 U	--
cis-Nonachlor	0.01 U	--	0.012 U	--
trans-Nonachlor	0.01 U	--	0.012 U	--
delta-BHC	0.01 U	--	0.012 U	--
Dicamba	0.21 U	--	0.22 U	--
Dichlorprop	0.41 U	--	0.44 U	--
Dieldrin	0.01 U	--	0.012 U	--
Dinoseb	0.21 U	--	0.22 U	--
Endosulfan-alpha (I)	0.01 U	--	0.012 U	--
Endosulfan-beta (II)	0.01 U	--	0.012 U	--
Endosulfan sulfate	0.01 U	--	0.012 U	--
Endrin	0.01 U	--	0.012 U	--
Endrin aldehyde	0.01 U	--	0.012 U	--
Endrin ketone	0.01 U	--	0.012 U	--
gamma-Chlordane	0.01 U	--	0.012 U	--
gamma-BHC (Lindane)	0.01 U	--	0.012 U	--
Heptachlor	0.01 U	--	0.012 U	--
Heptachlor epoxide	0.01 U	--	0.012 U	--
Hexachlorobenzene	0.01 U	--	0.012 U	--
Hexachlorobutadiene	0.01 U	--	0.012 U	--
Hexachloroethane	0.01 U	--	0.012 U	--
MCPA	110 U	--	110 U	--
Mecoprop (MCPP)	110 U	--	110 U	--
Methoxychlor	0.01 U	--	0.012 U	--
Mirex	0.01 U	--	0.012 U	--
Oxychlordane	0.01 U	--	0.012 U	--
Toxaphene	0.5 U	--	0.56 U	--
Herbicides (ug/L)				
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.41 U	--	0.44 U	--
2,4-DB (2,4-D derivative)	0.41 U	--	0.44 U	--
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)	0.21 U	--	0.22 U	--
2,4,5-TP (Silvex)	0.21 U	--	0.22 U	--
Semi-Volatile Organics (ug/L)				
1,2,4-Trichlorobenzene	0.2 U	--	0.24 U	--
1,2-Dichlorobenzene	0.2 U	--	0.24 U	--
1,3-Dichlorobenzene	0.2 U	--	0.24 U	--
1,4-Dichlorobenzene	0.2 U	--	0.24 U	--
2,3,4,5-Tetrachlorophenol	0.5 UJ	--	0.5 UJ	--
2,3,5,6-Tetrachlorophenol	0.5 UJ	--	0.5 UJ	--
2,4,5-Trichlorophenol	0.5 U	--	0.6 U	--
2,4,6-Trichlorophenol	0.5 U	--	0.5 U	--
2,4-Dichlorophenol	0.5 U	--	0.6 U	--
2,4-Dimethylphenol	4 U	--	4.8 U	--
2,4-Dinitrophenol	4 UJ	--	4.8 UJ	--
2,4-Dinitrotoluene	0.2 U	--	0.24 U	--
2,6-Dinitrotoluene	0.2 U	--	0.24 U	--
2-Chloronaphthalene	0.2 U	--	0.24 U	--
2-Chlorophenol	0.5 U	--	0.6 U	--
2-Methylphenol (o-Cresol)	0.5 U	--	0.6 U	--
2-Nitroaniline	0.2 U	--	0.24 U	--
2-Nitrophenol	0.5 U	--	0.6 U	--
3,3'-Dichlorobenzidine	2 U	--	2.4 U	--
3-Nitroaniline	1 U	--	1.2 U	--
4-Bromophenyl-phenyl ether	0.2 U	--	0.24 U	--
4-Chloro-3-methylphenol	0.5 U	--	0.6 U	--
4-Chloroaniline	0.2 U	--	0.24 U	--
4-Chlorophenyl phenyl ether	0.2 U	--	0.24 U	--
4-Methylphenol (p-Cresol)	0.5 U	--	0.6 U	--
4-Nitroaniline	1 U	--	1.2 U	--
4-Nitrophenol	2 U	--	2.4 U	--
Aniline	1 U	--	1.2 U	--
Azobenzene	0.2 U	--	0.24 U	--
Benzoic acid	5 U	--	6 U	--
Benzyl alcohol	**0.077 J**	--	**0.12 J**	--
bis(2-Chloroethoxy)methane	0.2 U	--	0.24 U	--
bis(2-Chloroethyl)ether	0.2 U	--	0.24 U	--
bis(2-Chloroisopropyl) ether	0.2 U	--	0.24 U	--
Carbazole	0.2 U	--	0.24 U	--

Table 4b
Quality Assurance/Quality Control Analytical Results—Year 2 Event 2 Long-Term Monitoring

Sample ID: Sample Date:	PCM-FB-081212 12/12/2008 Field Blank	PCM-DRB-081212 12/12/2008 Discrete Near-Bottom Surface Water Rinsate Blank	PCM-DSRB-081212 12/12/2008 Depositional Sediment Rinsate Blank	TRIP BLANK-081211 12/11/2008 Trip Blank
Dibenzofuran	0.2 U	--	0.24 U	--
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	2 U	--	2.4 U	--
Hexachlorocyclopentadiene	1 U	--	1.2 U	--
Isophorone	0.2 U	--	0.24 U	--
Nitrobenzene	0.2 U	--	0.24 U	--
N-Nitrosodi-N-propylamine	0.2 U	--	0.24 U	--
N-Nitrosodiphenylamine	0.2 U	--	0.24 U	--
Pentachlorophenol	0.5 UJ	--	0.5 UJ	--
Phenol	0.5 U	--	0.6 U	--
Phthalates (ug/L)				
Bis(2-ethylhexyl) phthalate	1 U	--	1.2 U	--
Butylbenzyl phthalate	0.2 U	--	**0.19 J**	--
Diethyl phthalate	**0.18 J**	--	**0.2 J**	--
Dimethyl phthalate	0.2 U	--	0.24 U	--
Di-n-butyl phthalate	0.44 U	--	0.5 U	--
Di-n-octyl phthalate	0.2 U	--	0.24 U	--
Volatile Organics (ug/L)				
1,1,1,2-Tetrachloroethane	0.5 U	--	0.5 U	--
1,1,1-Trichloroethane	0.5 U	--	0.5 U	--
1,1,2,2-Tetrachloroethane	0.5 U	--	0.5 U	--
1,1,2-Trichloroethane	0.5 U	--	0.5 U	--
1,1'-Dichloroethane	0.5 U	--	0.5 U	--
1,1'-Dichloroethene	0.5 U	--	0.5 U	--
1,2,3-Trichloropropane	0.5 U	--	0.5 U	--
Ethylene dibromide (1,2-Dibromoethane)	2 U	--	2 U	--
1,2-Dichloroethane	0.5 U	--	0.5 U	--
1,2-Dichloroethene, trans-	0.5 U	--	0.5 U	--
1,2-Dichloropropane	0.5 U	--	0.5 U	--
1,3-Dichloropropene, cis-	0.5 U	--	0.5 U	--
1,3-Dichloropropene, trans-	0.5 U	--	0.5 U	--
2-Butanone (MEK)	20 UJ	--	20 UJ	--
2-Chloroethylvinyl ether	5 UJ	--	5 UJ	--
2-Hexanone (Methyl butyl ketone)	20 U	--	20 U	--
Acetone	20 U	--	20 U	--
Acrolein	20 UJ	--	20 UJ	--
Acrylonitrile	5 U	--	5 U	--
Benzene	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	0.5 U	--	0.5 U	--
Bromodichloromethane	0.5 U	--	0.5 U	--
Bromoform	0.5 U	--	0.5 U	--
Bromomethane	0.5 U	--	0.5 U	--
Carbon disulfide	0.5 U	--	0.5 U	--
Carbon tetrachloride	0.5 U	--	0.5 U	--
Chlorobenzene	0.5 U	--	0.5 U	--
Chloroethane	0.5 U	--	0.5 U	--
Chloroform	**0.33 J**	--	**0.36 J**	--
Chloromethane	0.5 U	--	0.5 U	--
Dibromochloromethane	0.5 U	--	0.5 U	--
Dibromomethane	0.5 U	--	0.5 U	--
Dichlorodifluoromethane	0.5 U	--	0.5 U	--
Dichloromethane (Methylene chloride)	**0.4 J**	--	**0.91 J**	--
Ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U
Iodomethane (Methyl iodide)	5 U	--	5 U	--
Isopropylbenzene (Cumene)	2 U	--	2 U	--
Methyl isobutyl ketone (4-Methyl-2-pentanone or (MIBK))	20 U	--	20 U	--
Methyl tert-butyl ether	0.5 U	--	0.5 U	--
Styrene	0.5 U	--	0.5 U	--
Tetrachloroethene	0.5 U	--	0.5 U	--
Toluene	**0.21 J**	0.5 U	**0.15 J**	0.5 U
trans-1,4-Dichloro-2-butene	10 U	--	10 U	--
Trichloroethene	0.5 U	--	0.5 U	--
Trichlorofluoromethane (Fluorotrichloromethane)	0.5 U	--	0.5 U	--
Vinyl acetate	5 UJ	--	5 UJ	--
Vinyl chloride	0.5 U	--	0.5 U	--
m,p-Xylene	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	0.5 U	0.5 U	0.5 U	0.5 U
Total Xylene	0.5 U	0.5 U	0.5 U	0.5 U

Table 4b
Quality Assurance/Quality Control Analytical Results—Year 2 Event 2 Long-Term Monitoring

Notes:

Bold Detected result

J Estimated value.

U Compound analyzed, but not detected above detection limit.

UJ Compound analyzed, but not detected above estimated detection limit.

Total LPAH (Low PAH) are the total of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene and Anthracene. 2-Methylnapthalene is not included in the sum of LPAHs.

Total HPAH (High PAH) are the total of Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzofluoranthenes, Benzo(a)pyrene, Indeno(1,2,3-c,d)pyrene, Dibenzo(a,h)anthracene and Benzo(g,h,i)perylene.

Benzo(j)fluoranthene is included in the total of benzo(b&k)fluoranthenes.

Total PCB does not include Aroclor 1262 and 1268.

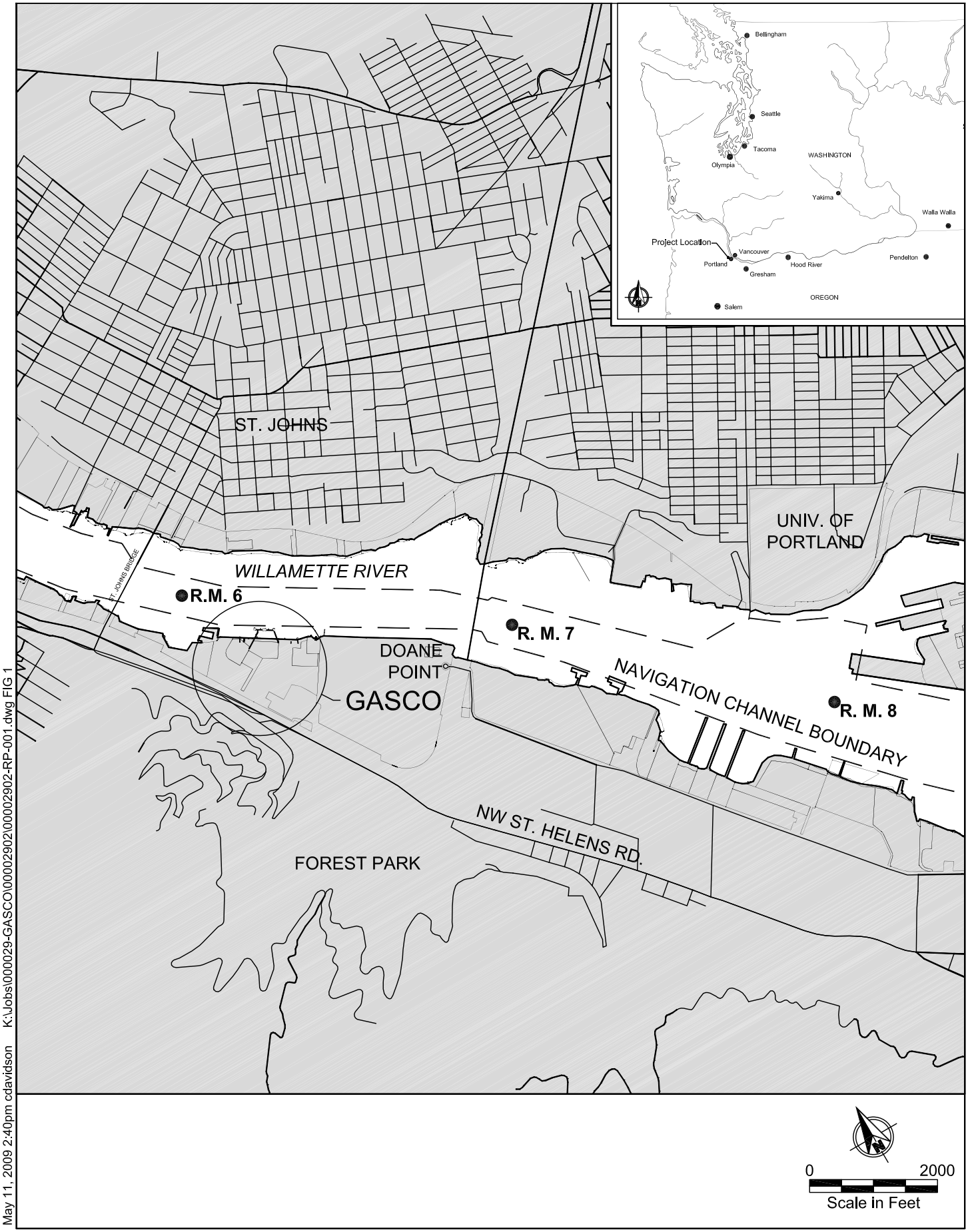
Total DDT consists of the sum of 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT.

Total xylene is the sum of o-, m-, p- isomers.

Totals are calculated as the sum of all detected results. If all are undetcted results, the highest reporting limit value is reported as the sum.

Data received a level III validation.

FIGURES



May 11, 2009 2:40pm cdavidson K:\Jobs\000029-GASCO\00002902\00002902-RP-001.dwg FIG 1

ANCHOR QEA

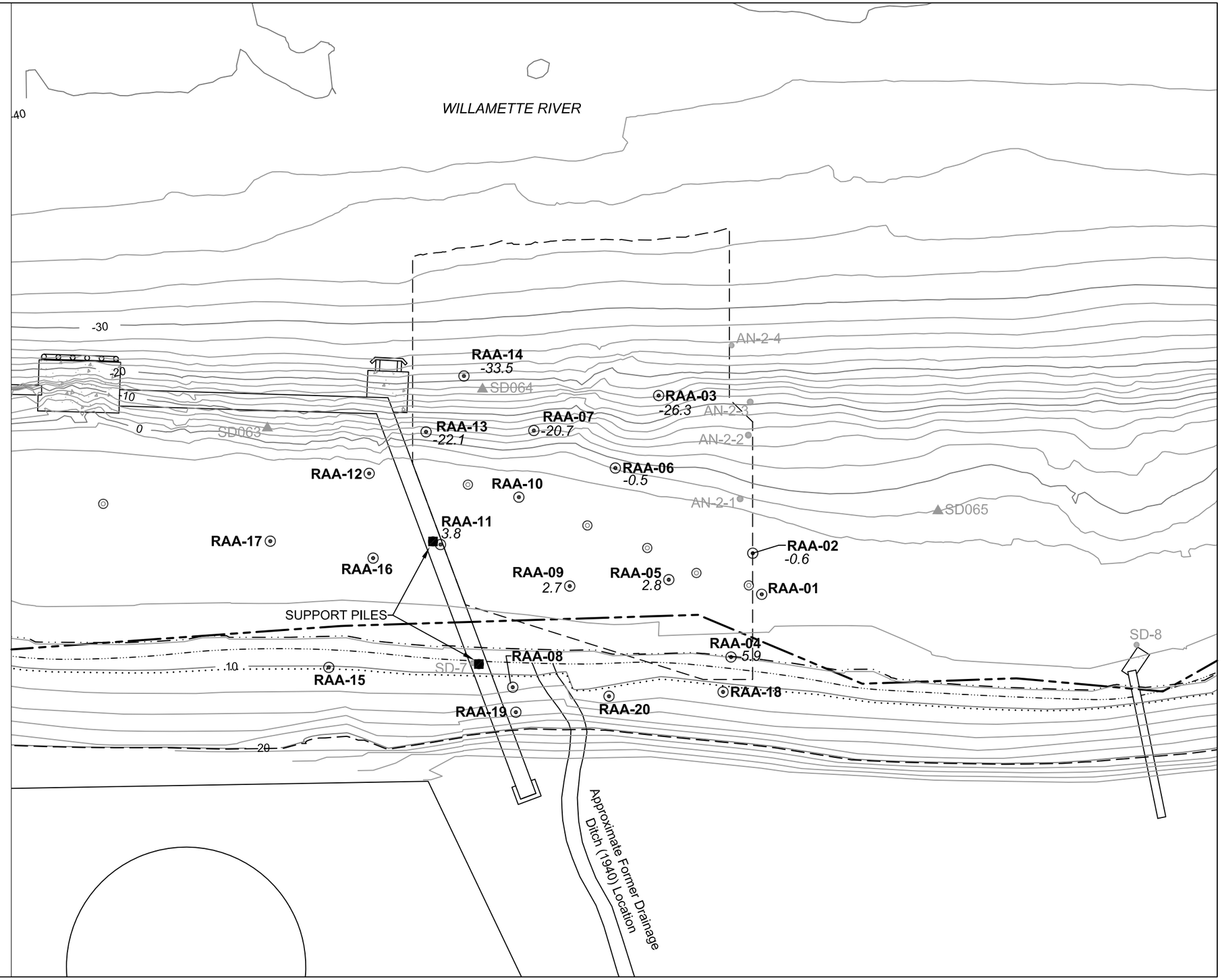
Figure 1
Vicinity Map
NW Natural "Gasco" Site

Legend:

- Lateral Extents of Suface Tar Body in Removal Action Area
- RAA-01 Design Characterization Sediment Core Location (Anchor 2004)
- -33.5 Bottom Elevation of Surface Tar Body in Removal Action Area (ft NAVD 88)
- Pile Location (surveyed August 2004)
- AN-2-1 Previous Sediment Core Location (Anchor 2002)
- SD063 Previous Sediment Core Location (Weston 1998)
- SD-7 Previous Sediment Core Location (HAI 1996)
- Support Pile Locations (to be protected during dredging)
- Property Line
- OHW = 20.41 ft NAVD 88
- OLW = 7.91 ft NAVD 88
- 50% River Stage Elevation = 10.23 ft NAVD 88
- Topographic and Bathymetric Contours (2 ft. Interval)

0 50
Scale in Feet

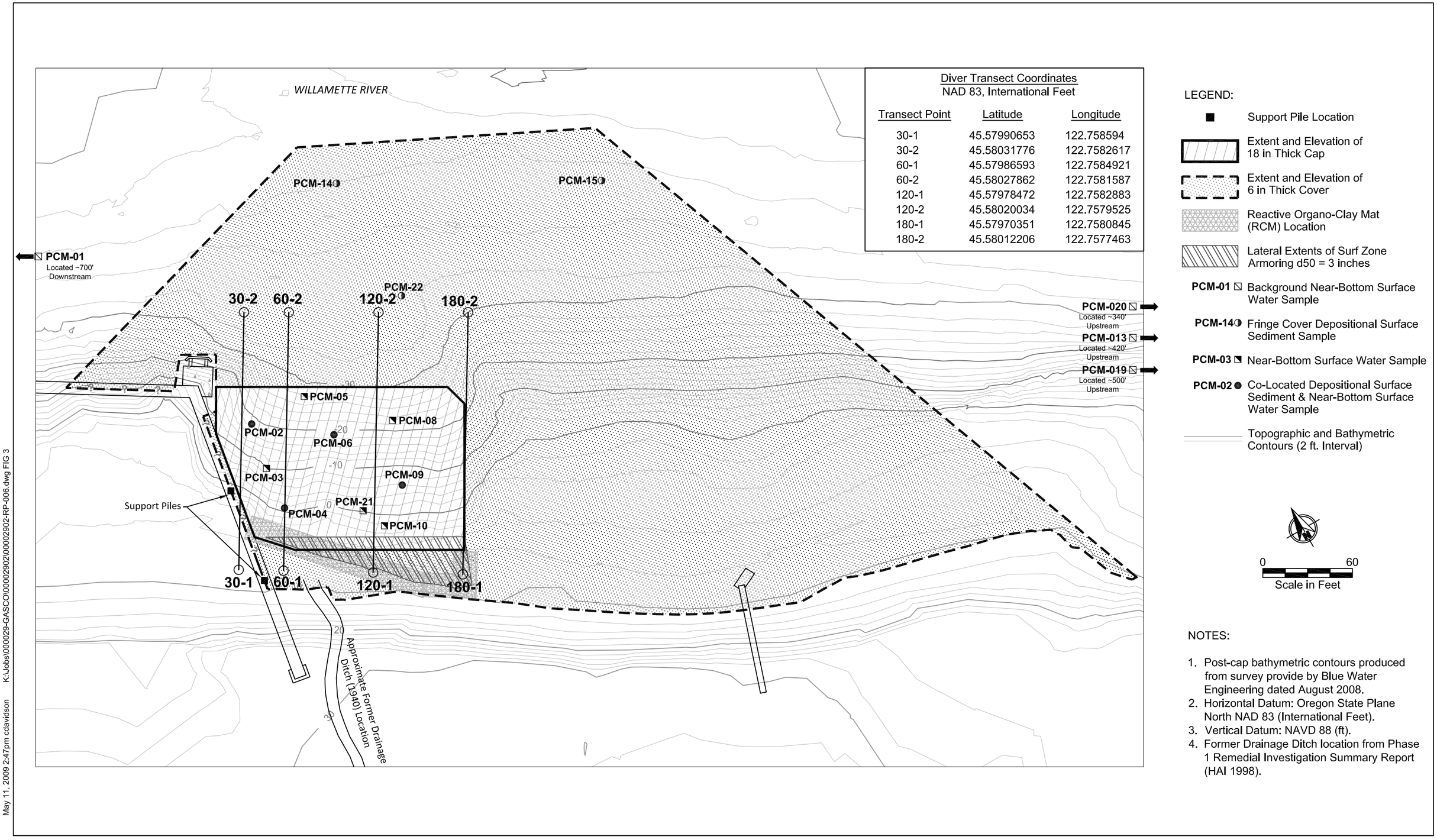
Notes:
1. Bathymetric contours provided by the Lower Willamette Group as part of the Portland Harbor Superfund Site study (2003).
2. Horizontal Datum: Oregon State Plane North NAD 83 (International Feet).
3. Vertical Datum: NAVD 88 (ft).
4. Former Drainage Ditch location from Phase 1 Remedial Investigation Summary Report (HAI 1998).



May 11, 2009 2:42pm cdavidson K:\Jobs\000029-GASCO\00002902\00002902-RP-002.dwg FIG 2

ANCHOR QEA

Figure 2
Former Pre-Removal Lateral and Vertical Extents of Surface Tar Body
NW Natural "Gasco" Site



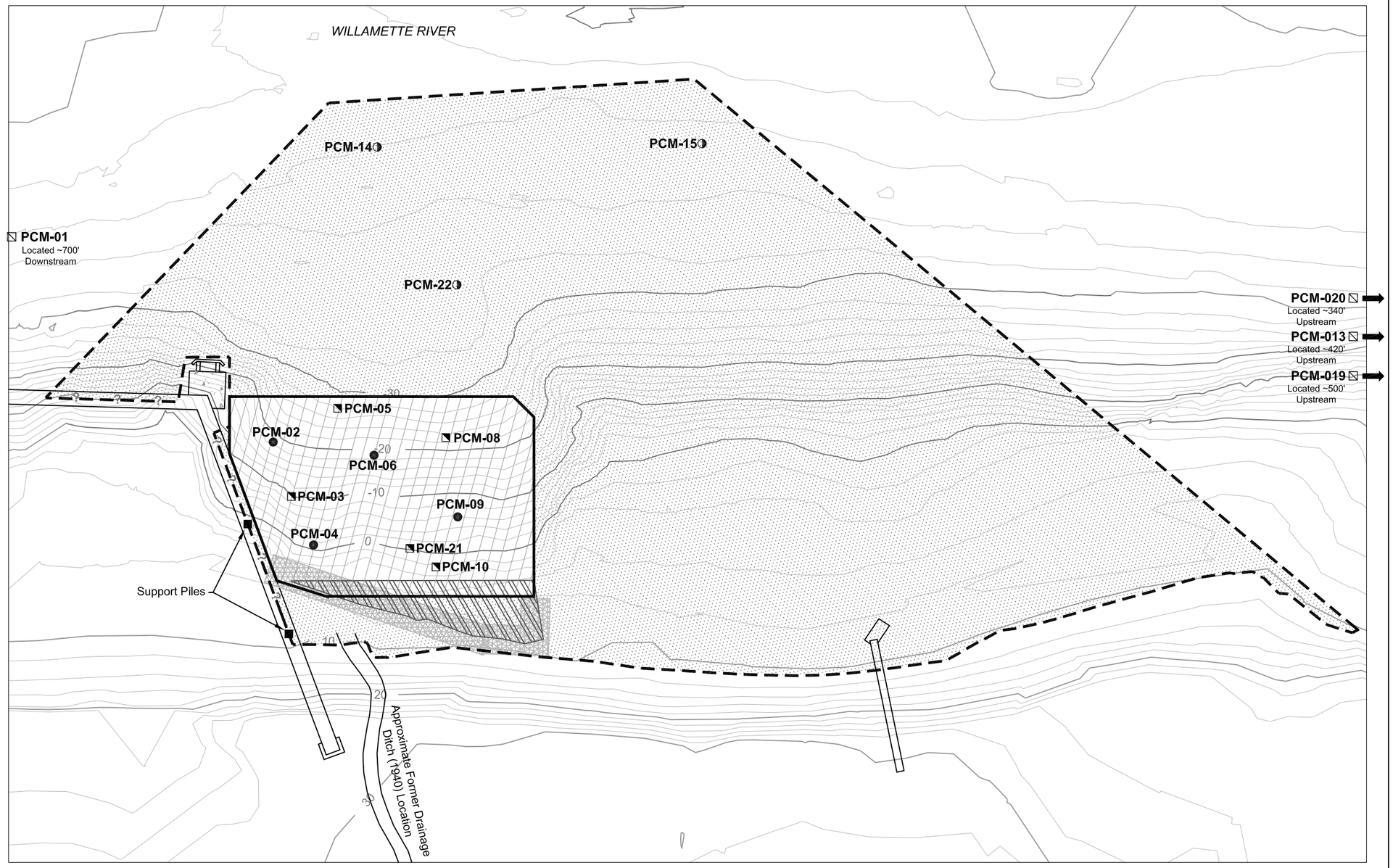
NOTES:

1. Post-cap bathymetric contours produced from survey provide by Blue Water Engineering dated August 2008.
2. Horizontal Datum: Oregon State Plane North NAD 83 (International Feet).
3. Vertical Datum: NAVD 88 (ft).
4. Former Drainage Ditch location from Phase 1 Remedial Investigation Summary Report (HAI 1998).

May 11, 2009 2:47pm cdavidson K:\Jobs\000029-GASCO\00002902\00002902-RP-006.dwg FIG 3

ANCHOR QEA

Figure 3
Actual Year 2 Event 1 Diver Transect Surveys
NW Natural "Gasco" Site



Legend:

- Support Pile Location
- Extent and Elevation of 18 in Thick Cap
- Extent and Elevation of 6 in Thick Cover
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring d50 = 3 inches
- **PCM-01** Background Near-Bottom Surface Water Sample
- **PCM-14** Fringe Cover Depositional Surface Sediment Sample
- **PCM-03** Near-Bottom Surface Water Sample
- **PCM-02** Co-Located Depositional Surface Sediment & Near-Bottom Surface Water Sample
- Topographic and Bathymetric Contours (2 ft. Interval)

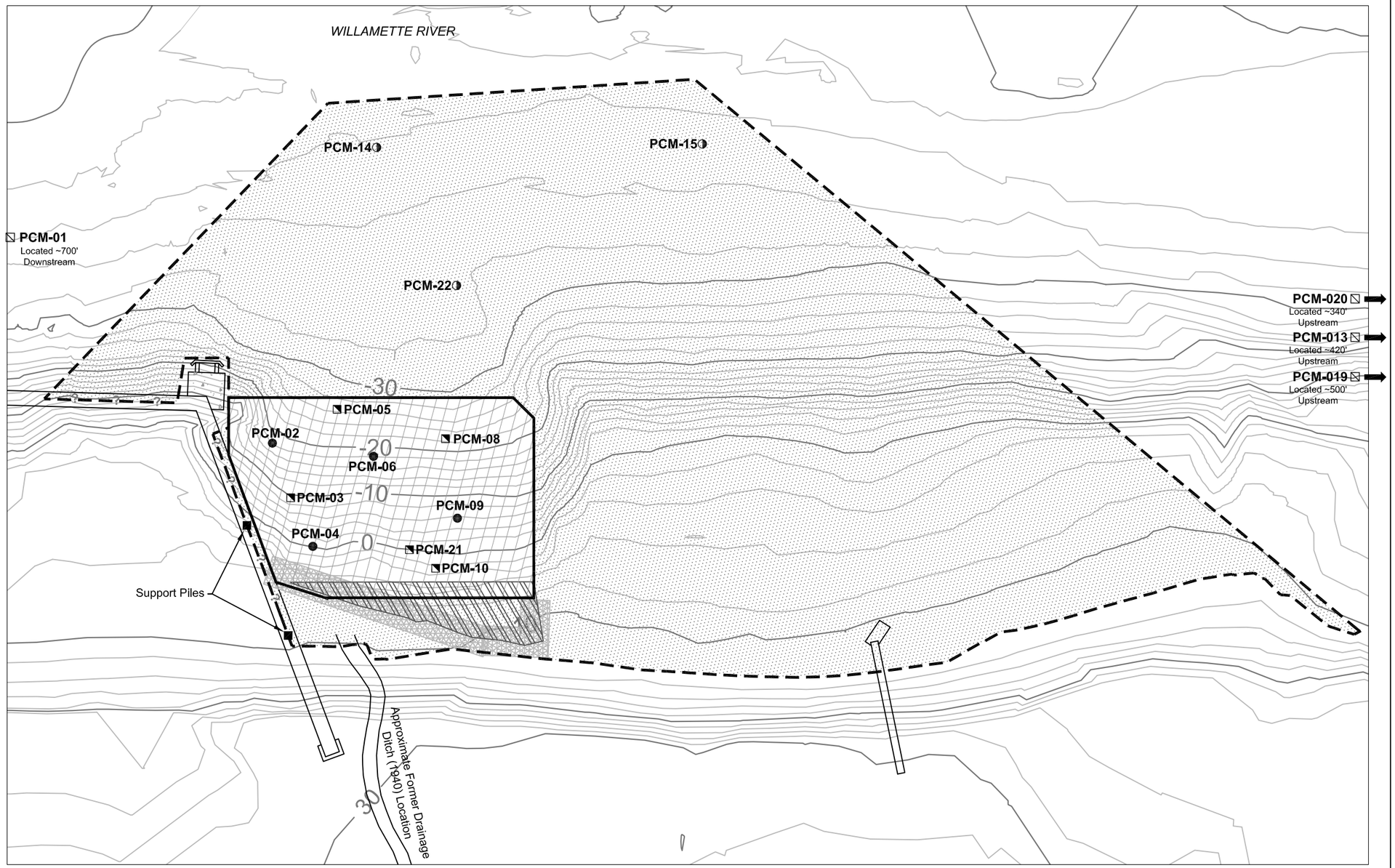
0 60
Scale in Feet

Notes:
1. Post-cap bathymetric contours produced from survey provide by Blue Water Engineering dated August 2008.
2. Horizontal Datum: Oregon State Plane North NAD 83 (International Feet).
3. Vertical Datum: NAVD 88 (ft).
4. Former Drainage Ditch location from Phase 1 Remedial Investigation Summary Report (HAI 1998).

May 13, 2009 4:07pm cdavidson K:\Jobs\000029-GASCO\00002902\00002902-RP-005.dwg FIG 4a

ANCHOR QEA

Figure 4a
Actual Year 2 Event 1 Long-Term Monitoring Stations
NW Natural "Gasco" Site



Legend:

- Support Pile Location
- Extent and Elevation of 18 in Thick Cap
- Extent and Elevation of 6 in Thick Cover
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring d50 = 3 inches
- PCM-01 Background Near-Bottom Surface Water Sample
- PCM-14 Fringe Cover Depositional Surface Sediment Sample
- PCM-03 Near-Bottom Surface Water Sample
- PCM-02 Co-Located Depositional Surface Sediment & Near-Bottom Surface Water Sample
- Topographic and Bathymetric Contours (2 ft. Interval)

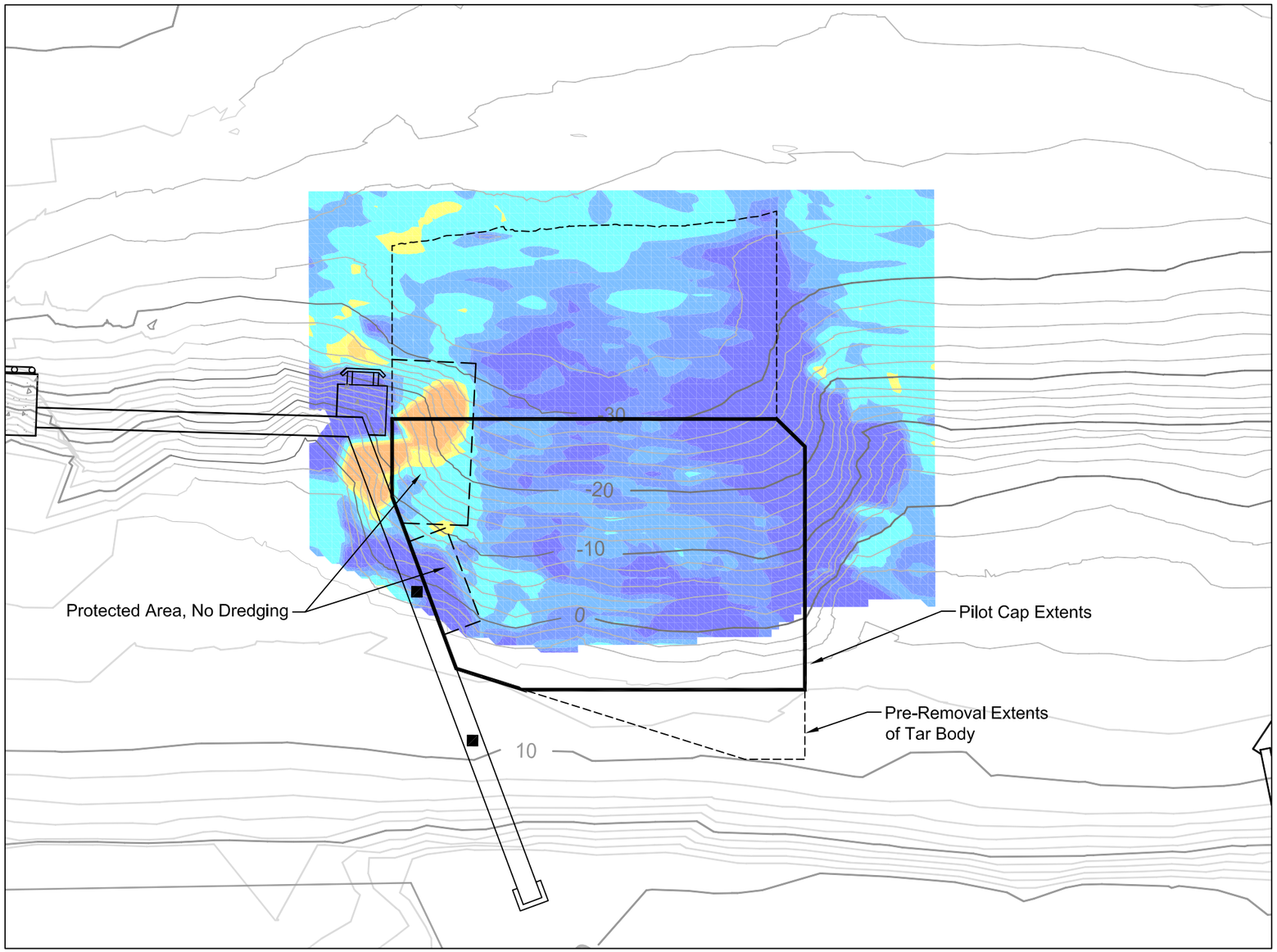
0 60
Scale in Feet

Notes:
1. Post-cap bathymetric contours produced from survey provided by Blue Water Engineering dated January 2009.
2. Horizontal Datum: Oregon State Plane North NAD 83 (International Feet).
3. Vertical Datum: NAVD 88 (ft).
4. Former Drainage Ditch location from Phase 1 Remedial Investigation Summary Report (HAI 1998).

May 13, 2009 4:08pm cdavidson K:\Jobs\000029-GASCO\0000290\2\0000290\2-RP-023.dwg FIG 4b

ANCHOR QEA

Figure 4b
Actual Year 2 Event 2 Long-Term Monitoring Stations
NW Natural "Gasco" Site



Legend:

Topographic and Bathymetric Contours
(2 ft. Interval)

Color	Range Beg.	Range End
	<-2.00	-1.50
	-1.50	-1.00
	-1.00	-0.50
	-0.50	0.50
	0.50	1.00
	1.00	1.50
	1.50	>2.00

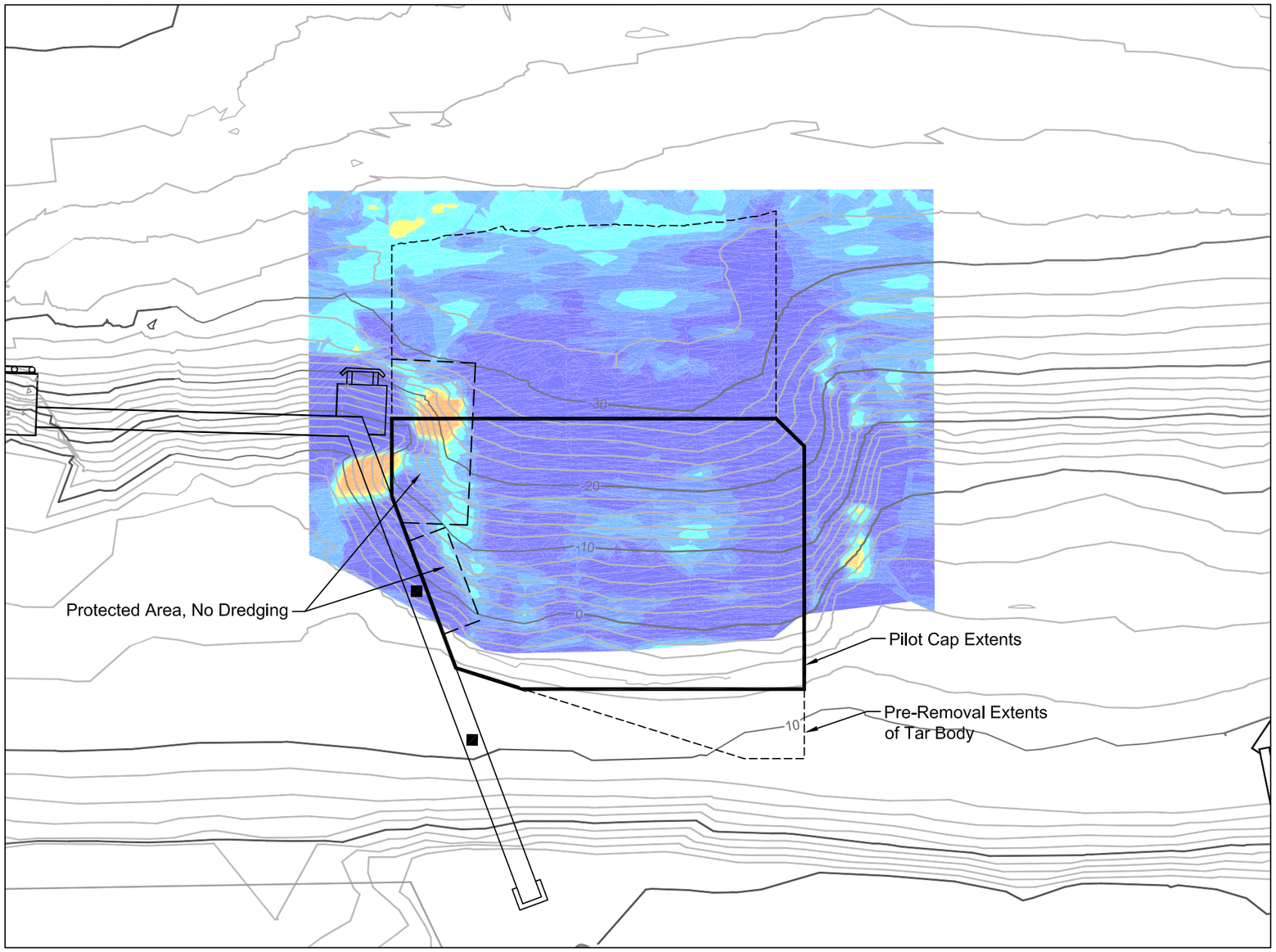
0 50
Scale in Feet

NOTES:
1. Post-cap bathymetric contours produced from surveys provided by Blue Water Engineering dated October 2005 and August 2008.
2. Horizontal Datum: Oregon State Plane North NAD 83 (International Feet).
3. Vertical Datum: NAVD 88 (ft).

May 13, 2009 4:04pm cdavidson K:\Jobs\000029-GASCO\00002902\00002902-RP-003.dwg FIG 5a

ANCHOR QEA

Figure 5a
Isopach Comparing Post-Cap October 2005 and August 2008 Bathymetry Surveys
NW Natural "Gasco" Site



Legend:

Topographic and Bathymetric Contours
(2 ft. Interval)

Color	Range Beg.	Range End
	<-2.00	-1.50
	-1.50	-1.00
	-1.00	-0.50
	-0.50	0.50
	0.50	1.00
	1.00	1.50
	1.50	>2.00

0 50
Scale in Feet

Notes:
1. Post-cap bathymetric contours produced from surveys provided by Blue Water Engineering dated October 2005 and January 2009.
2. Horizontal Datum: Oregon State Plane North NAD 83 (International Feet).
3. Vertical Datum: NAVD 88 (ft).

May 13, 2009 4:05pm cdavidson K:\Jobs\000029-GASCO\00002902\00002902-RP-025.dwg FIG 5b

ANCHOR QEA

Figure 5b
Isopach Comparing Post-Cap October 2005 and January 2009 Bathymetry Surveys
NW Natural "Gasco" Site

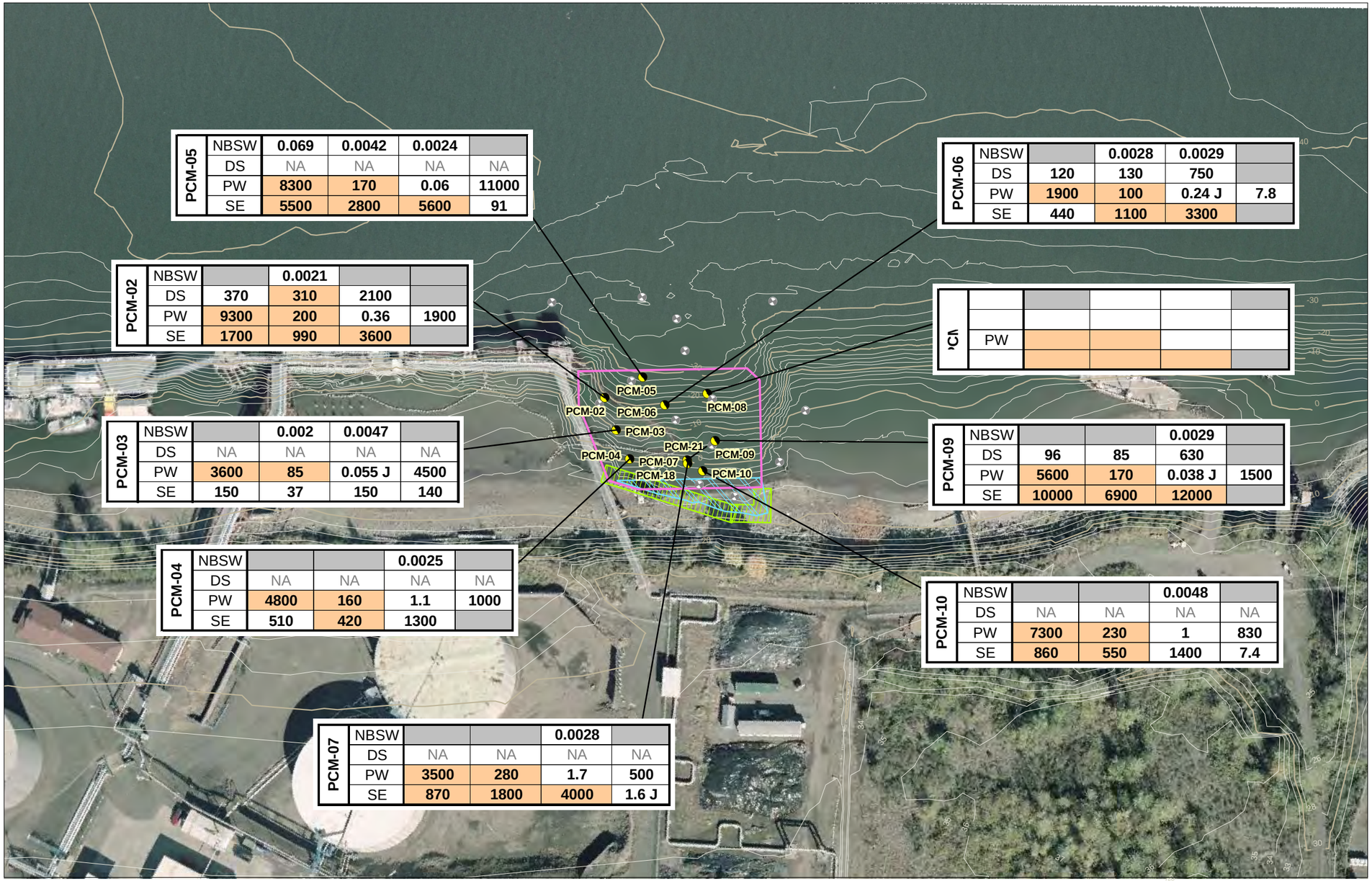
Legend

- Pilot Cap Monitoring Stations
- Post-Dredge Surface Sediment Samples
- Extent of 18-inch Thick Cap
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-08	NBSW		0.0034	0.0058	
	DS	NA	NA	NA	NA
	PW	7100	410	1.7	230
	SE	3400	2100	6000	

- Non-Detect
- NA — Not Applicable
- Detection less than screening level, if available
- Detection greater than screening level, if available

NBSW - Discrete Near-Bottom Surface Water Sample (µg/L)
DS - Depositional Surface Sediment Sample (µg/kg)
PW - Pilot Cap Porewater Sample (µg/L)
SE - Pilot Cap Sediment Sample (µg/kg)



Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-05	NBSW	0.069	0.0042	0.0024	
	DS	NA	NA	NA	NA
	PW	8300	170	0.06	11000
	SE	5500	2800	5600	91

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-06	NBSW		0.0028	0.0029	
	DS	120	130	750	
	PW	1900	100	0.24 J	7.8
	SE	440	1100	3300	

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-02	NBSW		0.0021		
	DS	370	310	2100	
	PW	9300	200	0.36	1900
	SE	1700	990	3600	

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-01					
	PW				

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-03	NBSW		0.002	0.0047	
	DS	NA	NA	NA	NA
	PW	3600	85	0.055 J	4500
	SE	150	37	150	140

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-09	NBSW			0.0029	
	DS	96	85	630	
	PW	5600	170	0.038 J	1500
	SE	10000	6900	12000	

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-04	NBSW			0.0025	
	DS	NA	NA	NA	NA
	PW	4800	160	1.1	1000
	SE	510	420	1300	

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-10	NBSW			0.0048	
	DS	NA	NA	NA	NA
	PW	7300	230	1	830
	SE	860	550	1400	7.4

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-07	NBSW			0.0028	
	DS	NA	NA	NA	NA
	PW	3500	280	1.7	500
	SE	870	1800	4000	1.6 J

Notes:
1. Post-cap bathymetric contours produced from survey provided by Blue Water Engineering dated March 2006.
2. Upland topography directed by Anchor Environmental as part of upland investigation (2002).
3. Horizontal Datum: Oregon State Plane North NAD 83 (International feet).
4. Vertical Datum: NAVD88 (ft).
5. PCM-18 and PCM-21 were not sampled during this monitoring event.

0 100
Scale in Feet

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ANCHOR QEA

Figure 6A
Year 0 Event 1 Long-Term Monitoring Media Concentrations
NW Natural "Gasco" Site

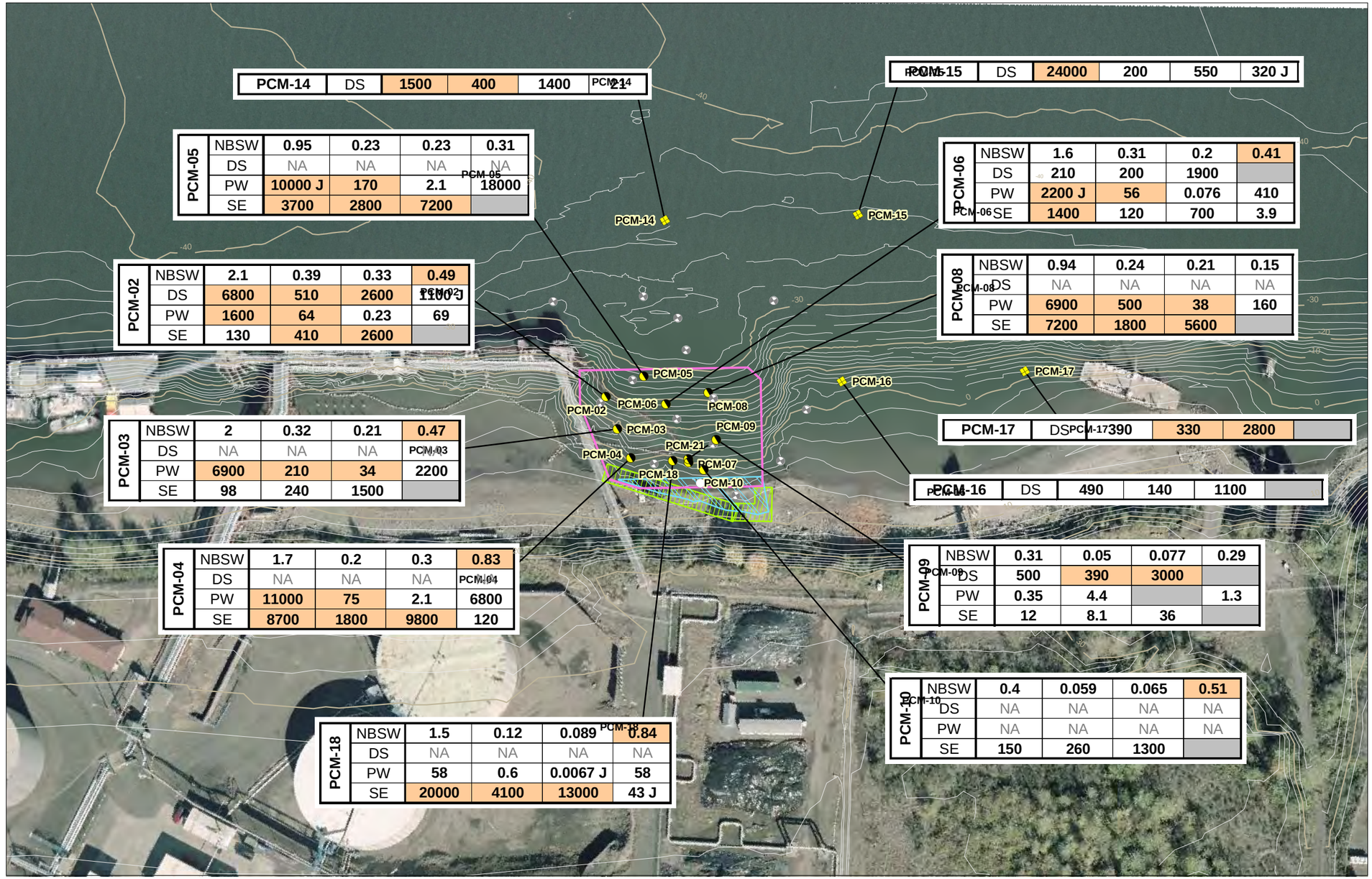
Legend

- Pilot Cap Monitoring Stations
- Fringe Cover Stations
- Post-Dredge Surface Sediment Samples
- Extent of 18-inch Thick Cap
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-08	NBSW		0.0034	0.0058	
	DS	NA	NA	NA	NA
	PW	7100	410	1.7	230
	SE	3400	2100	6000	

- Non-Detect
- NA — Not Applicable
- Detection less than screening level, if available
- Detection greater than screening level, if available

NBSW - Discrete Near-Bottom Surface Water Sample (µg/L)
DS - Depositional Surface Sediment Sample (µg/kg)
PW - Pilot Cap Porewater Sample (µg/L)
SE - Pilot Cap Sediment Sample (µg/kg)



Notes:
1. Post-cap bathymetric contours produced from survey provided by Blue Water Engineering dated August 2006.
2. Upland topography directed by Anchor Environmental as part of upland investigation (2002).
3. Horizontal Datum: Oregon State Plane North NAD 83 (International feet).
4. Vertical Datum: NAVD88 (ft).
5. PCM-07 and PCM-21 were not sampled during this monitoring event.

0 100
Scale in Feet

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ANCHOR QEA

Figure 6B
Year 0 Event 2 Long-Term Monitoring Media Concentrations
NW Natural "Gasco" Site

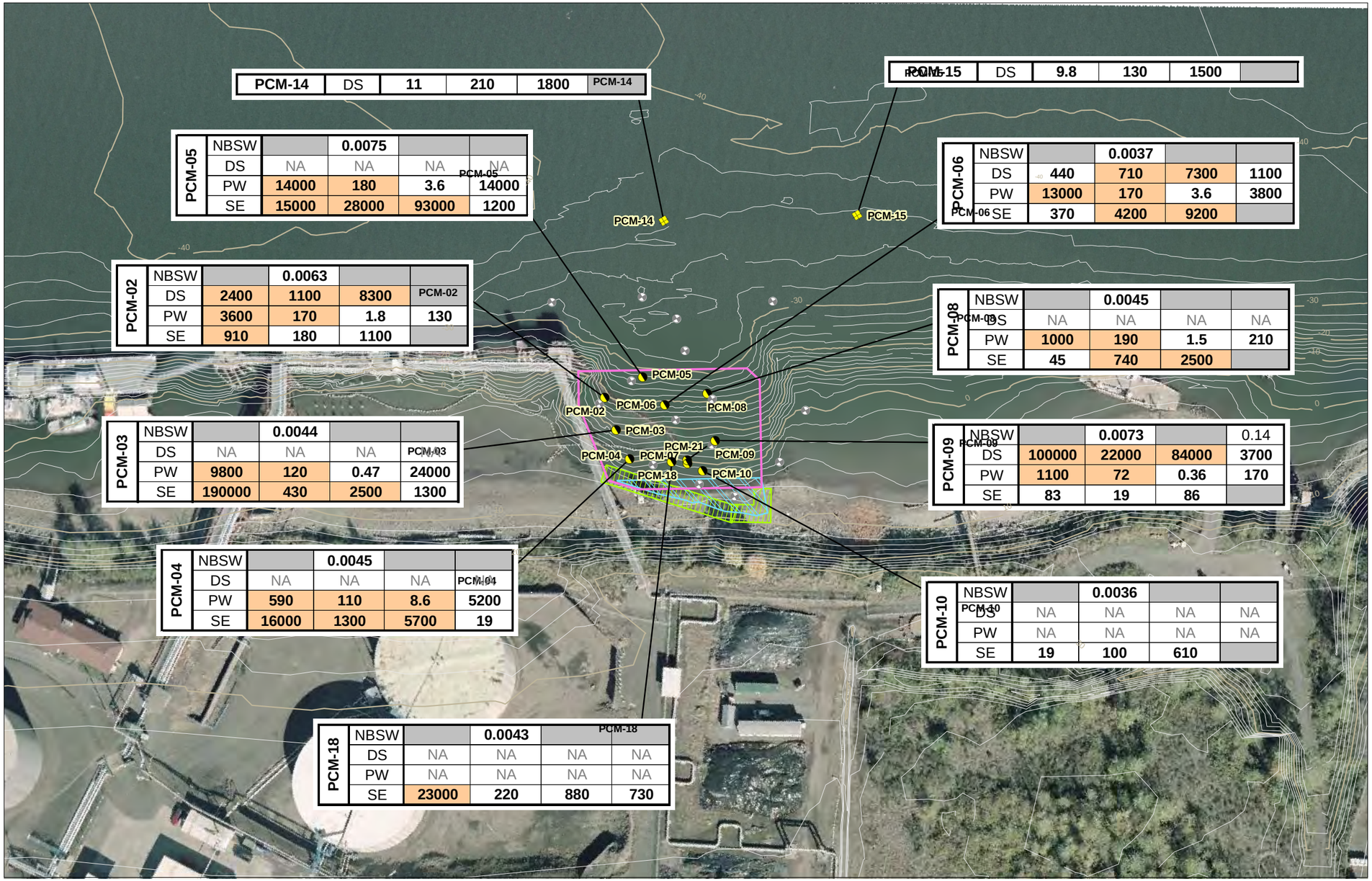
Legend

- Pilot Cap Monitoring Stations
- Fringe Cover Stations
- Post-Dredge Surface Sediment Samples
- Extent of 18-inch Thick Cap
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-08	NBSW		0.0034	0.0058	
	DS	NA	NA	NA	NA
	PW	7100	410	1.7	230
	SE	3400	2100	6000	

- Non-Detect
- NA — Not Applicable
- Detection less than screening level, if available
- Detection greater than screening level, if available

NBSW - Discrete Near-Bottom Surface Water Sample (µg/L)
DS - Depositional Surface Sediment Sample (µg/kg)
PW - Pilot Cap Porewater Sample (µg/L)
SE - Pilot Cap Sediment Sample (µg/kg)



Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-14	DS	11	210	1800	
PCM-15	DS	9.8	130	1500	
PCM-05	NBSW		0.0075		
	DS	NA	NA	NA	NA
	PW	14000	180	3.6	14000
	SE	15000	28000	93000	1200
PCM-06	NBSW		0.0037		
	DS	440	710	7300	1100
	PW	13000	170	3.6	3800
	SE	370	4200	9200	
PCM-02	NBSW		0.0063		
	DS	2400	1100	8300	
	PW	3600	170	1.8	130
	SE	910	180	1100	
PCM-08	NBSW		0.0045		
	DS	NA	NA	NA	NA
	PW	1000	190	1.5	210
	SE	45	740	2500	
PCM-03	NBSW		0.0044		
	DS	NA	NA	NA	
	PW	9800	120	0.47	24000
	SE	190000	430	2500	1300
PCM-09	NBSW		0.0073		0.14
	DS	100000	22000	84000	3700
	PW	1100	72	0.36	170
	SE	83	19	86	
PCM-04	NBSW		0.0045		
	DS	NA	NA	NA	
	PW	590	110	8.6	5200
	SE	16000	1300	5700	19
PCM-10	NBSW		0.0036		
	DS	NA	NA	NA	NA
	PW	NA	NA	NA	NA
	SE	19	100	610	
PCM-18	NBSW		0.0043		
	DS	NA	NA	NA	NA
	PW	NA	NA	NA	NA
	SE	23000	220	880	730

Notes:
1. Post-cap bathymetric contours produced from survey provided by Blue Water Engineering dated December 2006.
2. Upland topography directed by Anchor Environmental as part of upland investigation (2002).
3. Horizontal Datum: Oregon State Plane North NAD 83 (International feet).
4. Vertical Datum: NAVD88 (ft).
5. PCM-07 and PCM-21 were not sampled during this monitoring event.

0 100
Scale in Feet

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ANCHOR QEA

Figure 6C
Year 0 Event 3 Long-Term Monitoring Media Concentrations
NW Natural "Gasco" Site

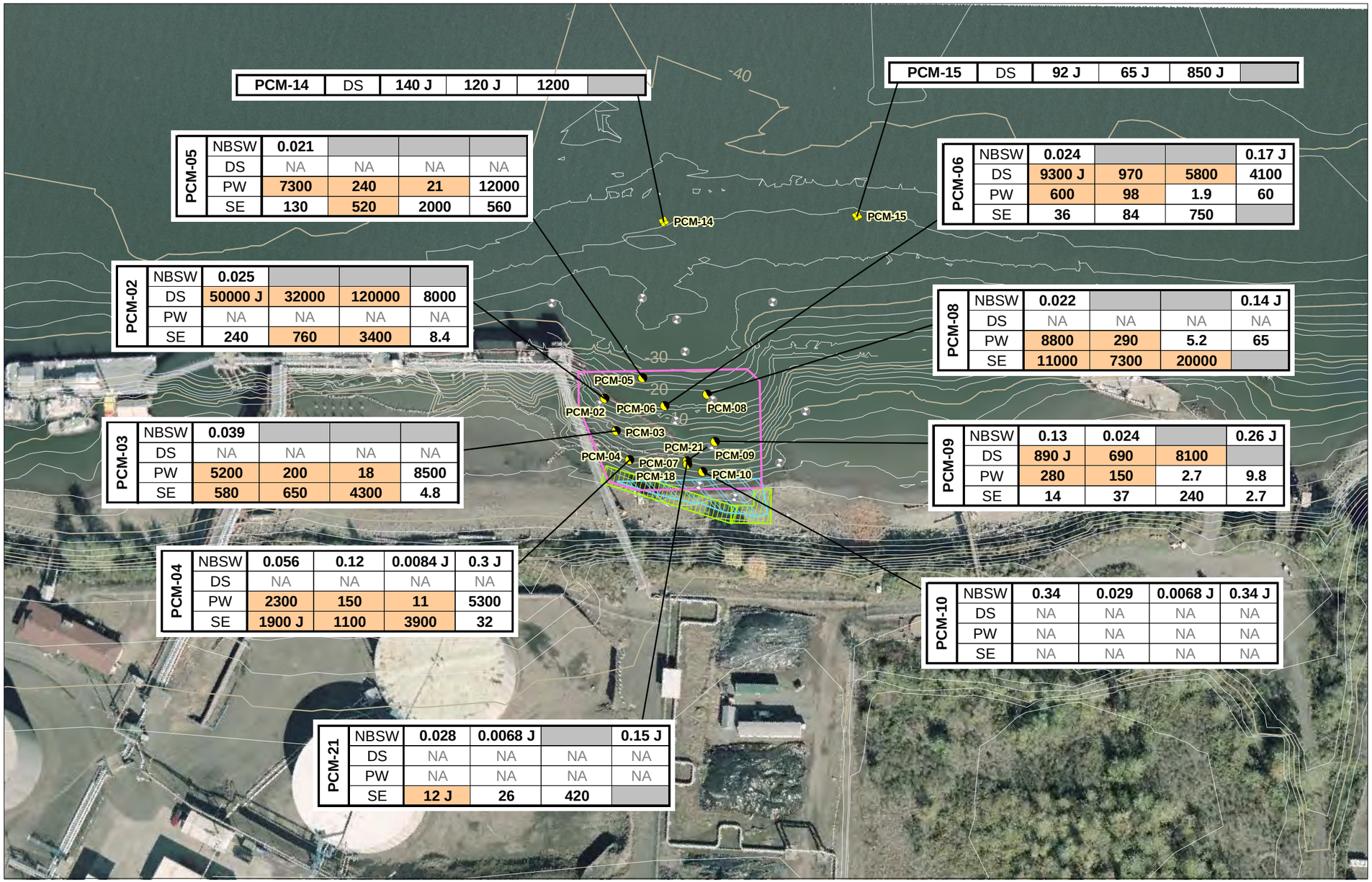
Legend

- Pilot Cap Monitoring Stations
- Fringe Cover Stations
- Post-Dredge Surface Sediment Samples
- Extent of 18-inch Thick Cap
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-08	NBSW		0.0034	0.0058	
	DS	NA	NA	NA	NA
	PW	7100	410	1.7	230
	SE	3400	2100	6000	

- Non-Detect
- NA — Not Applicable
- Detection less than screening level, if available
- Detection greater than screening level, if available

NBSW - Discrete Near-Bottom Surface Water Sample (µg/L)
DS - Depositional Surface Sediment Sample (µg/kg)
PW - Pilot Cap Porewater Sample (µg/L)
SE - Pilot Cap Sediment Sample (µg/kg)



Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-14	DS	140 J	120 J	1200	

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-15	DS	92 J	65 J	850 J	

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-05	NBSW	0.021			
	DS	NA	NA	NA	NA
	PW	7300	240	21	12000
	SE	130	520	2000	560

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-06	NBSW	0.024			0.17 J
	DS	9300 J	970	5800	4100
	PW	600	98	1.9	60
	SE	36	84	750	

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-02	NBSW	0.025			
	DS	50000 J	32000	120000	8000
	PW	NA	NA	NA	NA
	SE	240	760	3400	8.4

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-08	NBSW	0.022			0.14 J
	DS	NA	NA	NA	NA
	PW	8800	290	5.2	65
	SE	11000	7300	20000	

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-03	NBSW	0.039			
	DS	NA	NA	NA	NA
	PW	5200	200	18	8500
	SE	580	650	4300	4.8

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-09	NBSW	0.13	0.024		0.26 J
	DS	890 J	690	8100	
	PW	280	150	2.7	9.8
	SE	14	37	240	2.7

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-04	NBSW	0.056	0.12	0.0084 J	0.3 J
	DS	NA	NA	NA	NA
	PW	2300	150	11	5300
	SE	1900 J	1100	3900	32

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-10	NBSW	0.34	0.029	0.0068 J	0.34 J
	DS	NA	NA	NA	NA
	PW	NA	NA	NA	NA
	SE	NA	NA	NA	NA

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-21	NBSW	0.028	0.0068 J		0.15 J
	DS	NA	NA	NA	NA
	PW	NA	NA	NA	NA
	SE	12 J	26	420	

Notes:
1. Post-cap bathymetric contours produced from survey provided by Blue Water Engineering dated August 2007.
2. Upland topography directed by Anchor Environmental as part of upland investigation (2002).
3. Horizontal Datum: Oregon State Plane North NAD 83 (International feet).
4. Vertical Datum: NAVD88 (ft).
5. PCM-07 and PCM-18 were not sampled during this monitoring event.

0 100
Scale in Feet

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ANCHOR QEA

Figure 7A
Year 1 Event 1 Long-Term Monitoring Media Concentrations
NW Natural "Gasco" Site

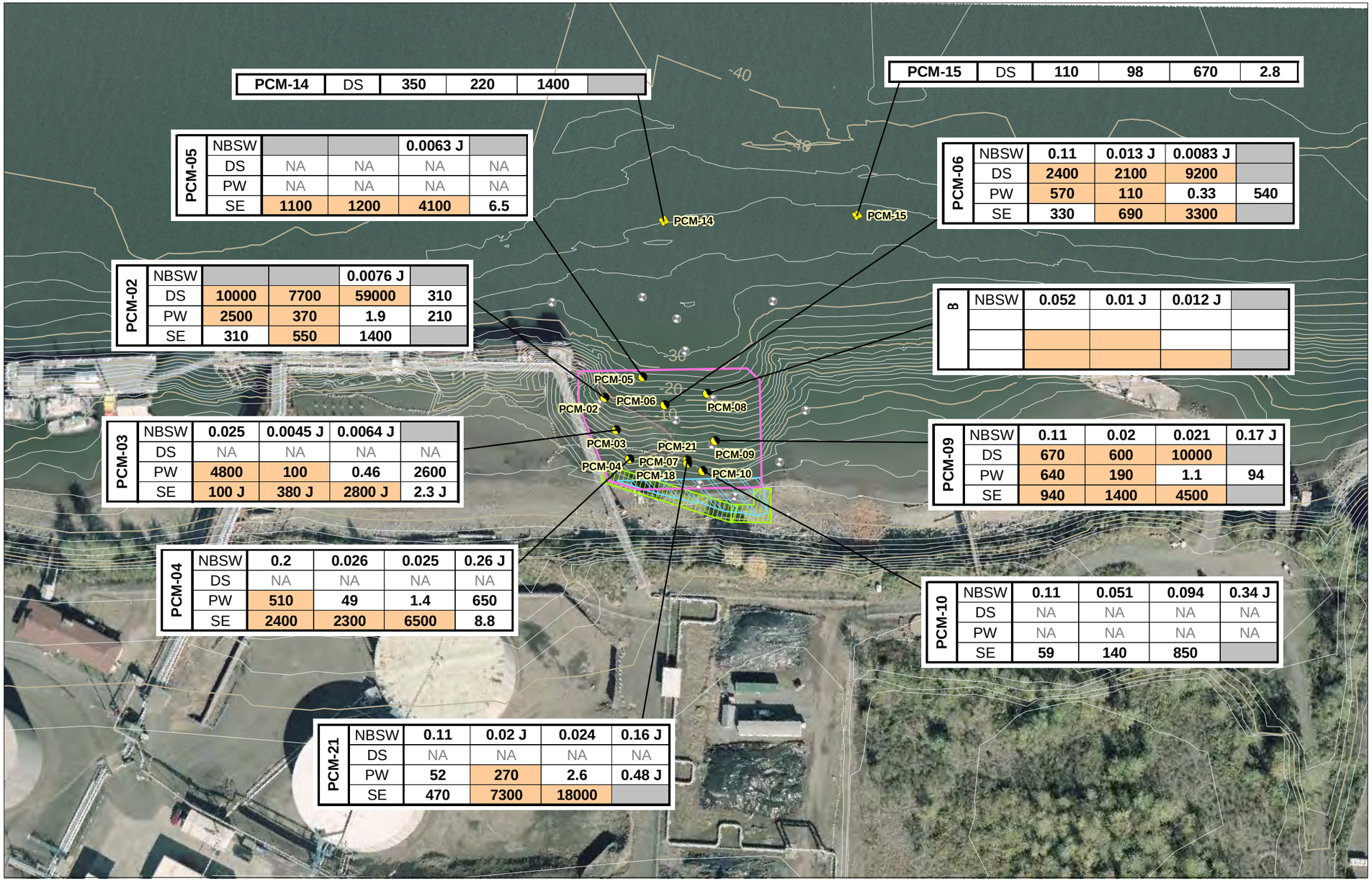
Legend

- Pilot Cap Monitoring Stations
- Fringe Cover Stations
- Post-Dredge Surface Sediment Samples
- Extent of 18-inch Thick Cap
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-08	NBSW		0.0034	0.0058	
	DS	NA	NA	NA	NA
	PW	7100	410	1.7	230
	SE	3400	2100	6000	

- Non-Detect
- NA — Not Applicable
- Detection less than screening level, if available
- Detection greater than screening level, if available

NBSW - Discrete Near-Bottom Surface Water Sample (µg/L)
DS - Depositional Surface Sediment Sample (µg/kg)
PW - Pilot Cap Porewater Sample (µg/L)
SE - Pilot Cap Sediment Sample (µg/kg)



PCM-14	DS	350	220	1400	

PCM-15	DS	110	98	670	2.8

PCM-05					
	NBSW			0.0063 J	
	DS	NA	NA	NA	NA
	PW	NA	NA	NA	NA
	SE	1100	1200	4100	6.5

PCM-06					
	NBSW	0.11	0.013 J	0.0083 J	
	DS	2400	2100	9200	
	PW	570	110	0.33	540
	SE	330	690	3300	

PCM-02					
	NBSW			0.0076 J	
	DS	10000	7700	59000	310
	PW	2500	370	1.9	210
	SE	310	550	1400	

B					
	NBSW	0.052	0.01 J	0.012 J	

PCM-03					
	NBSW	0.025	0.0045 J	0.0064 J	
	DS	NA	NA	NA	NA
	PW	4800	100	0.46	2600
	SE	100 J	380 J	2800 J	2.3 J

PCM-09					
	NBSW	0.11	0.02	0.021	0.17 J
	DS	670	600	10000	
	PW	640	190	1.1	94
	SE	940	1400	4500	

PCM-04					
	NBSW	0.2	0.026	0.025	0.26 J
	DS	NA	NA	NA	NA
	PW	510	49	1.4	650
	SE	2400	2300	6500	8.8

PCM-10					
	NBSW	0.11	0.051	0.094	0.34 J
	DS	NA	NA	NA	NA
	PW	NA	NA	NA	NA
	SE	59	140	850	

PCM-21					
	NBSW	0.11	0.02 J	0.024	0.16 J
	DS	NA	NA	NA	NA
	PW	52	270	2.6	0.48 J
	SE	470	7300	18000	

Notes:
1. Post-cap bathymetric contours produced from survey provided by Blue Water Engineering dated October 2007.
2. Upland topography directed by Anchor Environmental as part of upland investigation (2002).
3. Horizontal Datum: Oregon State Plane North NAD 83 (International feet).
4. Vertical Datum: NAVD88 (ft).
5. PCM-07 and PCM-18 were not sampled during this monitoring event.

0 100
Scale in Feet

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ANCHOR QEA

Figure 7B
Year 1 Event 2 Long-Term Monitoring Media Concentrations
NW Natural "Gasco" Site

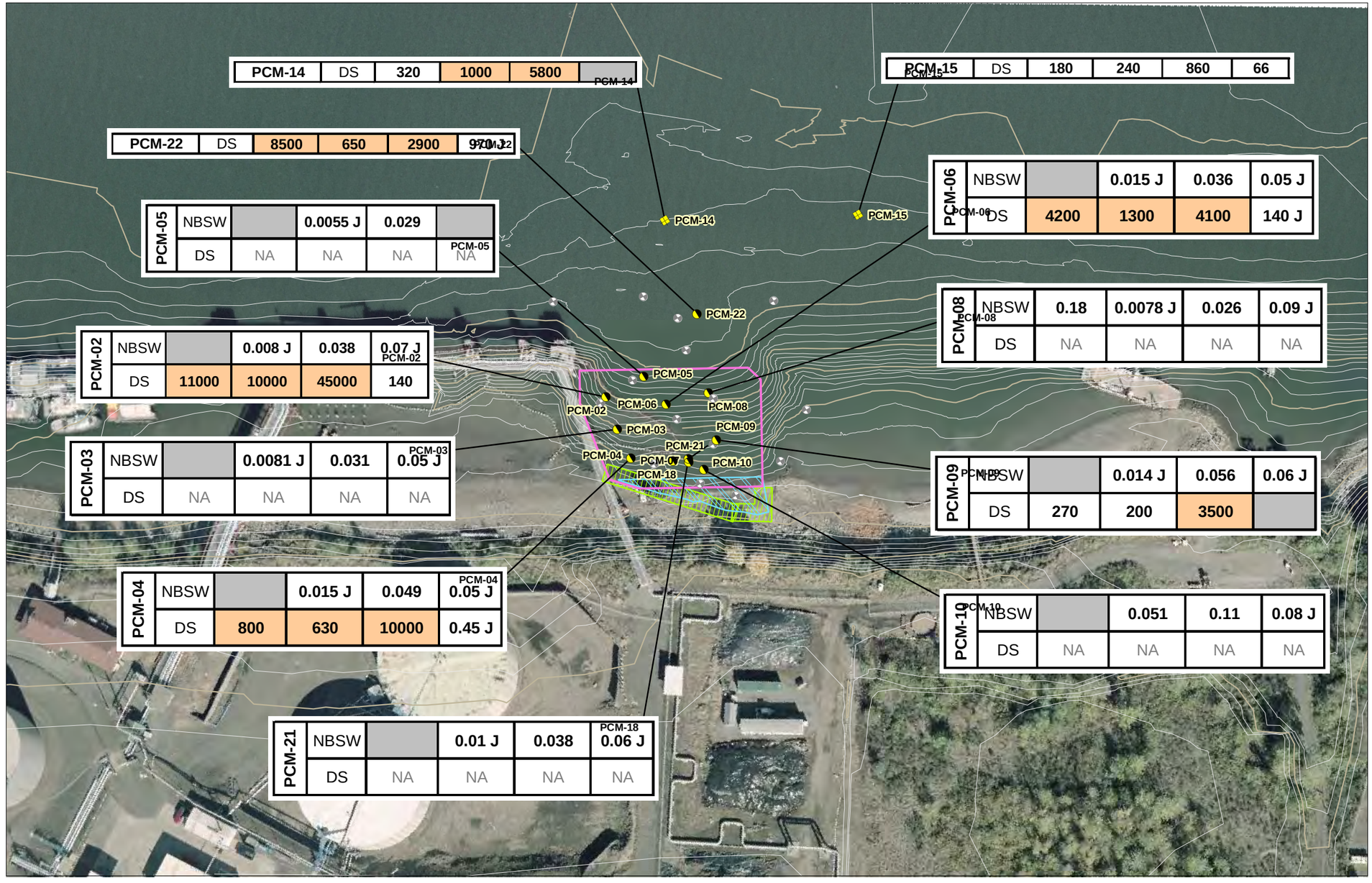
Legend

- Pilot Cap Monitoring Stations
- Fringe Cover Stations
- Post-Dredge Surface Sediment Samples
- Extent of 18-inch Thick Cap
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-04	NBSW		0.015 J	0.049	0.05 J
	DS	800	630	10000	0.45 J

- Non-Detect
- NA — Not Applicable
- Detection less than screening level, if available
- Detection greater than screening level, if available

NBSW - Discrete Near-Bottom Surface Water Sample (µg/L)
DS - Depositional Surface Sediment Sample (µg/kg)
PW - Pilot Cap Porewater Sample (µg/L)
SE - Pilot Cap Sediment Sample (µg/kg)



Notes:
1. Post-cap bathymetric contours produced from survey provided by Blue Water Engineering dated August 2008.
2. Upland topography directed by Anchor Environmental as part of upland investigation (2002).
3. Horizontal Datum: Oregon State Plane North NAD 83 (International feet).
4. Vertical Datum: NAVD88 (ft).
5. PCM-07 and PCM-18 were not sampled during this monitoring event.

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ANCHOR QEA

Figure 8A
Year 2 Event 1 Long-Term Monitoring Media Concentrations
NW Natural "Gasco" Site

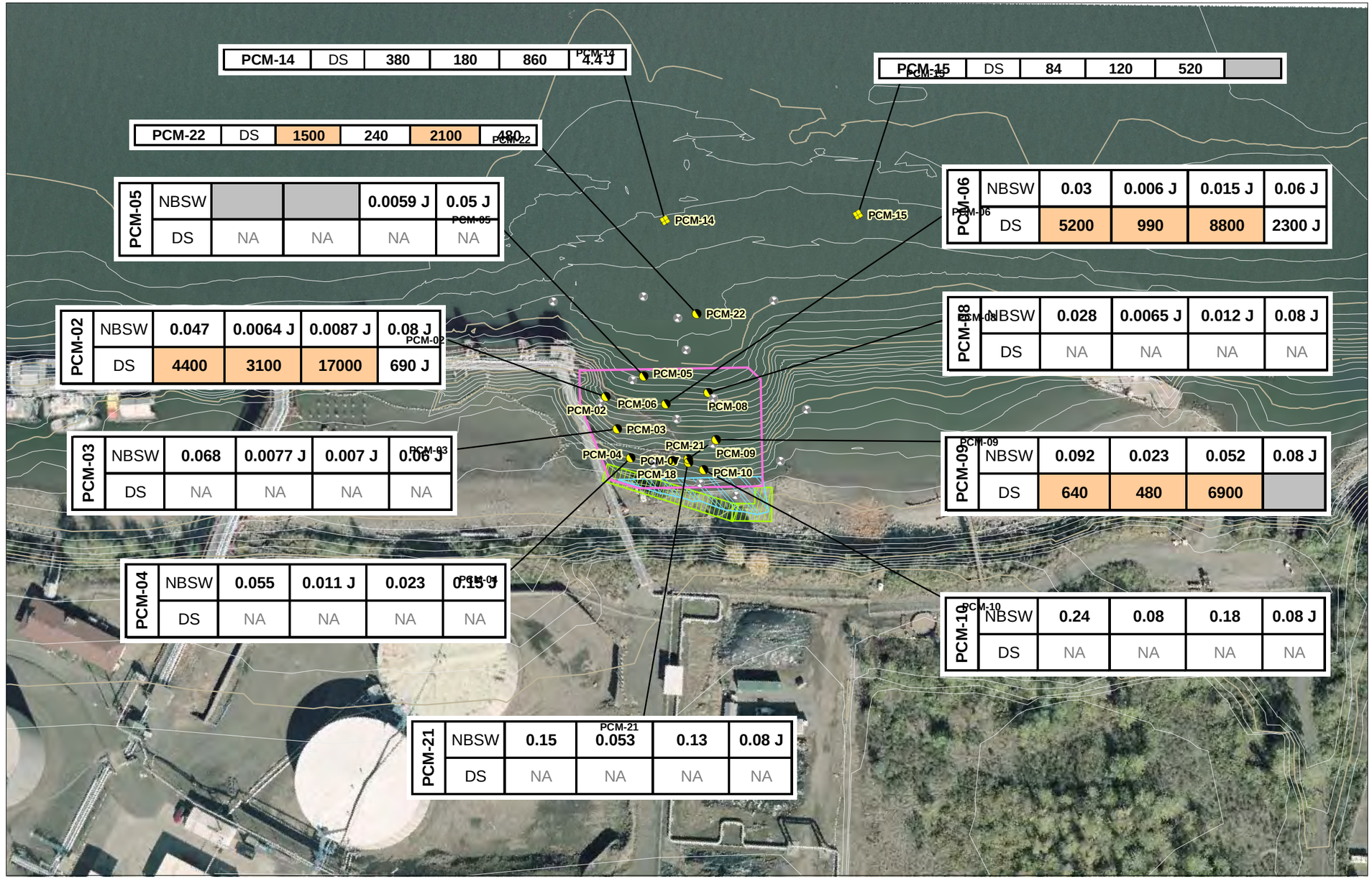
Legend

- Pilot Cap Monitoring Stations
- Fringe Cover Stations
- Post-Dredge Surface Sediment Samples
- Extent of 18-inch Thick Cap
- Reactive Organo-Clay Mat (RCM) Location
- Lateral Extents of Surf Zone Armoring

Location ID	Matrix	Naphthalene	Acenaphthene	Fluoranthene	Benzene
PCM-04	NBSW		0.015 J	0.049	0.05 J
	DS	800	630	10000	0.45 J

- Non-Detect
- NA — Not Applicable
- Detection less than screening level, if available
- Detection greater than screening level, if available

NBSW - Discrete Near-Bottom Surface Water Sample (µg/L)
DS - Depositional Surface Sediment Sample (µg/kg)
PW - Pilot Cap Porewater Sample (µg/L)
SE - Pilot Cap Sediment Sample (µg/kg)



PCM-14	DS	380	180	860	4.4 J

PCM-15	DS	84	120	520	

PCM-22	DS	1500	240	2100	480

PCM-05	NBSW			0.0059 J	0.05 J
	DS	NA	NA	NA	NA

PCM-06	NBSW	0.03	0.006 J	0.015 J	0.06 J
	DS	5200	990	8800	2300 J

PCM-02	NBSW	0.047	0.0064 J	0.0087 J	0.08 J
	DS	4400	3100	17000	690 J

PCM-08	NBSW	0.028	0.0065 J	0.012 J	0.08 J
	DS	NA	NA	NA	NA

PCM-03	NBSW	0.068	0.0077 J	0.007 J	0.06 J
	DS	NA	NA	NA	NA

PCM-09	NBSW	0.092	0.023	0.052	0.08 J
	DS	640	480	6900	

PCM-04	NBSW	0.055	0.011 J	0.023	0.15 J
	DS	NA	NA	NA	NA

PCM-10	NBSW	0.24	0.08	0.18	0.08 J
	DS	NA	NA	NA	NA

PCM-21	NBSW	0.15	0.053	0.13	0.08 J
	DS	NA	NA	NA	NA

Notes:
1. Post-cap bathymetric contours produced from survey provided by Blue Water Engineering dated January 2009.
2. Upland topography directed by Anchor Environmental as part of upland investigation (2002).
3. Horizontal Datum: Oregon State Plane North NAD 83 (International feet).
4. Vertical Datum: NAVD88 (ft).
5. PCM-07 and PCM-18 were not sampled during this monitoring event.

0 100
Scale in Feet

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ANCHOR QEA

Figure 8B
Year 2 Event 2 Long-Term Monitoring Media Concentrations
NW Natural "Gasco" Site

APPENDIX A
EPA COMMENTS ON THE PROPOSED REVISED LONG-TERM PILOT CAP MONITORING APPROACH

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

April 30, 2008

Reply To
Attn Of: ECL-110

Robert Wyatt
NW Natural
220 NW 2nd Avenue
Portland OR 97209

Subject: GASCO Removal Action; EPA Comments on the Proposed Revised Long-Term Pilot Cap Monitoring Approach. March 26, 2008, Data Summary Report, Year 1 Event 1 Long-Term Monitoring. February 2008, and Data Summary Report, Year 1 Event 2 Long-Term Monitoring. April 2008.

Dear Bob:

This letter transmits EPA comments on the subject reports. These reports along with the Offshore Investigation Report, February 2008, were reviewed for supporting information to ensure that the requested revisions to the pilot cap monitoring are consistent with the monitoring data. EPA comments to the Data Summary Reports will be incorporated into a comment set for the Annual Evaluation Report (expected submittal to EPA in May 2008). The following sections summarize our comments on the proposed revised pilot cap monitoring approach.

BACKGROUND

The following information was used to evaluate the request for modifying the pilot cap monitoring approach.

- The Agreed Order requires long-term monitoring to evaluate performance of the interim remedy with respect to the remedial action objectives (RAOs). EPA approved the Monitoring and Reporting Plan – Post Construction (MARP) in March 2006. The MARP includes bathymetric and diver reconnaissance surveys, pilot cap porewater and sediment samples, and near-bottom surface water sampling.

- Five monitoring events have been completed over two years following the removal action in October 2005 (March, August, and December 2006 and September and November 2007). Based on the five monitoring events, the following general conclusions were identified:

    - The pilot cap layer and armor layer appear to have been stable throughout all river conditions identified. Depositional sediment has been observed throughout the cap area.

    - Pilot cap sediment and porewater sampling indicate that the pilot cap has been impacted by chemical constituents. The impact to the pilot cap occurred relatively quickly and indicates that the pilot cap was not effective at isolating chemical concentrations found in underlying sediments. Polynuclear aromatic hydrocarbons (PAHs) have been detected above screening levels for all media (porewater, sediment, and near-bottom surface

samples). Benzene, toluene, ethylbenzene, and xylenes (BTEX) have also been detected above screening levels for the near-bottom surface water samples.

- It appears that the contamination is the result of groundwater advection through underlying contaminated sediments and/or migration from upland groundwater sources. Based on recent seepage monitoring data, groundwater velocity in the pilot cap area is higher than in other areas of the site.

- NW Natural is evaluating an upland source control action under guidance from the Oregon DEQ. It is expected that the upland source control will at least consist of a groundwater barrier wall and extraction system. This is expected to reduce groundwater advection rates to the offshore sediments and capture dissolved-phase chemical groundwater discharges migrating from uplands.

Proposed Pilot Cap Monitoring Approach – Physical Isolation and Stability

NW Natural has requested the following modifications (in italics) to the current pilot cap monitoring approach related to physical performance of the cap.

Pilot cap monitoring should be continued over the next two years, through Year 3, 2009.

EPA agrees that pilot cap monitoring should continue for at least two more years. The pilot cap monitoring data should be reviewed at the end of the two year period to determine future pilot cap monitoring.

Diver reconnaissance surveys should be completed once per summer during low river elevations. No diver reconnaissance surveys are recommended in the winter due to high flow conditions.

EPA agrees with the modification to the diver reconnaissance surveys. The MARP indicates that two diver surveys per year should be completed. Based on the information collected during the previous diver surveys, the cap appears to be relatively stable. At this time, one diver reconnaissance event per year (during low river elevations) is adequate to continue monitoring the stability of the pilot cap. However, if observations indicate that the pilot cap stability has been compromised, EPA could re-evaluate the necessity of more frequent monitoring. EPA acknowledges that high river flows in the winter can lead to difficult conditions for divers.

No changes to the bathymetric survey requirements are proposed.

The MARP requires two bathymetric surveys per year, one during the low river elevations and one during high river elevations. EPA agrees that no changes to the bathymetric survey requirements are necessary.

NW Natural proposes to continue to monitor for product seepage in the hydraulic low spot created by the removal action. However, the product seepage monitoring will be completed concurrent with the diver reconnaissance surveys (i.e. once per year in low river flow period).

EPA agrees that the product seepage monitoring should be completed concurrent with the diver reconnaissance surveys. However, if product seepage is observed, EPA could re-evaluate the need for additional monitoring.

NW Natural proposes to continue to collect long-term remedy information.

The stability of the pilot cap armor and fringe will be monitored through the semi-annual bathymetry surveys and annual diver reconnaissance survey. EPA agrees with this approach to collect long-term remedy information.

Proposed Pilot Cap Monitoring – Media Sampling

NW Natural has requested the following modifications (in italics) to the current pilot cap monitoring approach related to sampling of the various media.

NW Natural proposes no additional monitoring to support an evaluation of the magnitude of groundwater discharge through the pilot cap area.

It is our understanding that groundwater advection was investigated site-wide under DEQ oversight (primarily through seepage meters). Data indicated that higher flow rates were observed in the removal action area. NW Natural indicated that the historic presence of a drainage feature, the removal action activities, and placement of the pilot cap could have influence on seepage rates. NW Natural indicates that the pilot cap chemical concentrations should not be indicative of concentrations expected in other capped areas elsewhere at the site. While EPA does not necessarily agree with this last statement, further monitoring of groundwater discharge as part of the pilot cap monitoring program is not warranted. However, additional monitoring may be required by the DEQ or EPA as part of the upland investigations.

NW Natural proposes no additional monitoring to determine the mechanism for pilot cap concentrations.

It is expected that concentrations observed in porewater and sediment in the pilot cap are the result of groundwater advection through underlying contaminated sediments and/or migration from upland groundwater sources. EPA has not identified validated sampling techniques to differentiate between these two mechanisms. Therefore, EPA agrees that no specific additional monitoring to differentiate between advection or migration is warranted at this time.

NW Natural proposes no additional monitoring to evaluate the spatial and temporal trends for pilot cap sediment and porewater.

As discussed above, five monitoring events have been completed since the removal action was completed in October 2005. The sampling data from these events indicated relatively high concentrations in pilot cap porewater and sediment in a short time period (less than 6 months). This suggests that the pilot cap did not perform to expectations and was not effective at isolating chemical constituents. In addition, the porewater and sediment data has been relatively consistent throughout the five sampling events. Further monitoring of pilot cap porewater and sediment concentrations would not result in any additional understanding of the effectiveness (or lack thereof) of the pilot cap. Therefore, EPA agrees that porewater and sediment monitoring of the pilot cap can be discontinued at this time.

NW Natural proposes no additional monitoring to evaluate the mixing of contaminated sediment and pilot cap material during placement.

As discussed above, the data from the post-removal action sampling suggests that the pilot cap was not effective at isolating chemical concentrations. NW Natural has indicated that mixing of contaminated

sediment with the pilot cap during placement may have contributed to the short time in which the pilot cap failed. EPA agrees that this may be a contributing factor, but likely not the sole reason for the ineffectiveness of the pilot cap. However, at this time, continued evaluation of the effect of mixing is not warranted. It should be noted that sampling of the pilot cap or underlying materials requires significant physical impact to the pilot cap material (i.e. mudmole sampling or other methods).

NW Natural proposes to continue monitoring the depositional sediments in the pilot cap and fringe area at stations PCM-02, PCM-06, PCM-09, PCM-14, and PCM-15. In addition, NW Natural proposes to add two locations to the sampling events (PCM-04 and at diver transect 120-2). Depositional sediments will be monitored twice per year consistent with low and high river levels.

EPA agrees that depositional sediments should continue to be monitored. The proposed plan to incorporate two additional monitoring locations and sample depositional sediments twice per year appears reasonable.

NW Natural proposes to continue monitoring of the near-bottom surface water samples. The near-bottom surface water samples will be monitored twice per year consistent with low and high river levels. However, NW Natural recommends that the semi-permeable membrane devices (SPMD) samples be discontinued.

EPA agrees that the near-bottom surface water samples should be continued to be collected twice per year. These samples are important in evaluating the effect of the removal action and pilot cap concentrations on overlying water quality. Based on a review of the sampling data, it appears that with few exceptions, the discrete near-bottom surface water samples and SPMD samples have been relatively consistent. In cases of significant differences, the discrete samples have generally indicated higher concentrations (i.e. more conservative). Given this information and the difficulty in the SPMD sampling and evaluation (see NW Natural Memo dated March 26, 2008), it appears that reducing the near-bottom surface water sampling effort to only include discrete samples is warranted.

Please contact me at (206) 553-1220 or Sheldrake.sean@epa.gov with questions or concerns.

Sincerely,

Sean Sheldrake, RPM

Cc:
Audie Huber, Umatilla Tribe *via email only*
Brian Cunninghame, Warm Springs Tribe
Erin Madden, Nez Perce Tribe
Shelia Fleming, Ridolfi
Rose Longoria, Yakama Nation
Jeff Baker, GrandeRonde Tribe
Jennifer Peers, Stratus
Tom Downey, Siletz Tribe
Rob Neely, NOAA
Jeremy Buck, USFW
Greg Smith, USFW

Jim Anderson, DEQ
Matt McClincy, DEQ
Mike Poulsen, DEQ
Jennifer Peterson, DEQ
Rick Kepler, ODFW
Cyril Young, DSL
Lori Cora, EPA
Chip Humphrey, EPA
Eric Blischke, EPA
Kristine Koch, EPA
Rene Fuentes, EPA
Dana Davoli, EPA
Nancy Munn, NOAA-NMFS
Preston Sleeger, USDOI

APPENDIX B
VISUAL MONITORING REPORTS

Visual Observations Log Form

Date	April 9, 2009		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG21 T4
Monitoring Period:	Monthly (Year 3)—April 2009		
Time Observations Started:	April 9, 2009 @ 1430	**Time Observation Concluded:**	April 9, 2009 @1700
Weather Conditions:	Cloudy, low 50s (degrees F), light wind from the east		
Wave Action Observations:	Light wind generating waves (0.0-0.1 feet in height) with numerous larger waves generated by recreational watercraft (0.5-1.5 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 4/9/09 ranged from 6.64 to 9.41 ft; and approximately 7.10 feet during observations (City of Portland Datum)

The water level elevation allowed visual observation of the shoreward extent the pilot cap.

Observations of Erosion/Deposition:

No erosion/deposition is evident along the shoreline; however, the organo-clay mat material and associated staking is visible at multiple locations along the shoreward extent of the cap area (Photo 1 and Photo 2). A portion of the exposed mat appears to be floating in approximately 1-3 feet of water.

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the Monitoring event, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). Buoys that identify the cap area to mariners were in place as installed with the exception of the downriver buoy which had moved to behind the ship bumper on the upriver corner of the FAMM ship dock (Photo 3). The position of the boom and a general overview of the site shoreline are shown in Photo 4.

Other Comments:
No sheen is evident in the vicinity of the cap area. Photo 5 shows the water surface immediately upriver of the FAMM dock structure.

Recorded by: **Timothy Stone**

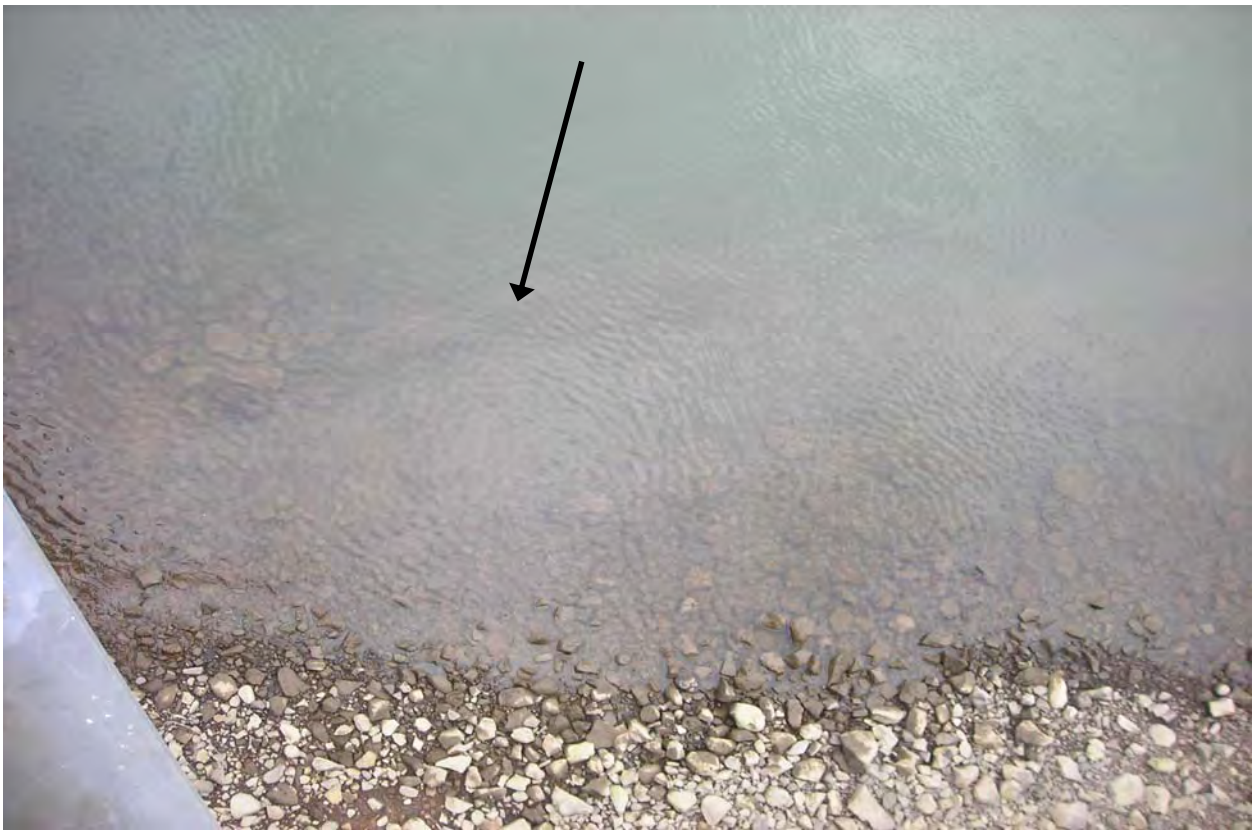


Photo 1—*exposed segments of the organo-clay mat material (4/9/09)*

Photo 2— *exposed segments of the organo-clay mat material (4/9/09)*

Photo 3— *downriver marker buoy out-of-position/behind dock bumper (4/9/09)*

Photo 4— *overview of cap area from shoreline (4/9/09)*

Photo 5 — *overview of area immediately downriver of cap (4/9/09)*

Visual Observations Log Form

Date	March 23, 2009		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 2)—March 2009		
Time Observations Started:	March 23, 2009 @ 1500	**Time Observation Concluded:**	March 23, 2009 @1700
Weather Conditions:	Cloudy/rain, low 40s (degrees F), moderate wind from the east		
Wave Action Observations:	Moderate wind and marine traffic generating waves (0.3-0.6 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 3/23/09 ranged from 2.40 to 4.84 ft; and approximately 4.70 feet during observation (City of Portland Datum)

The water level elevation allowed visual observation of the shoreward extent the pilot cap.

Observations of Erosion/Deposition:

No erosion/deposition is evident along the shoreline; however, the organo-clay mat material and associated staking is visible at multiple locations along the shoreward extent of the cap area (Photo 1 and Photo 2). A portion of the exposed mat appears to be floating in approximately 1 foot of water.

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the Monitoring event, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). Buoys that identify the cap area to mariners were in place as installed. The position of the boom, warning buoys, and a general overview of the site shoreline are shown in Photo 3.

Other Comments:
No sheen is evident in the vicinity of the cap area. Photo 4 shows the water surface immediately upriver of the FAMM dock structure.

Recorded by: **Doug Laffoon**

Photo 1—*exposed segments of the organo-clay mat material (3/23/09)*

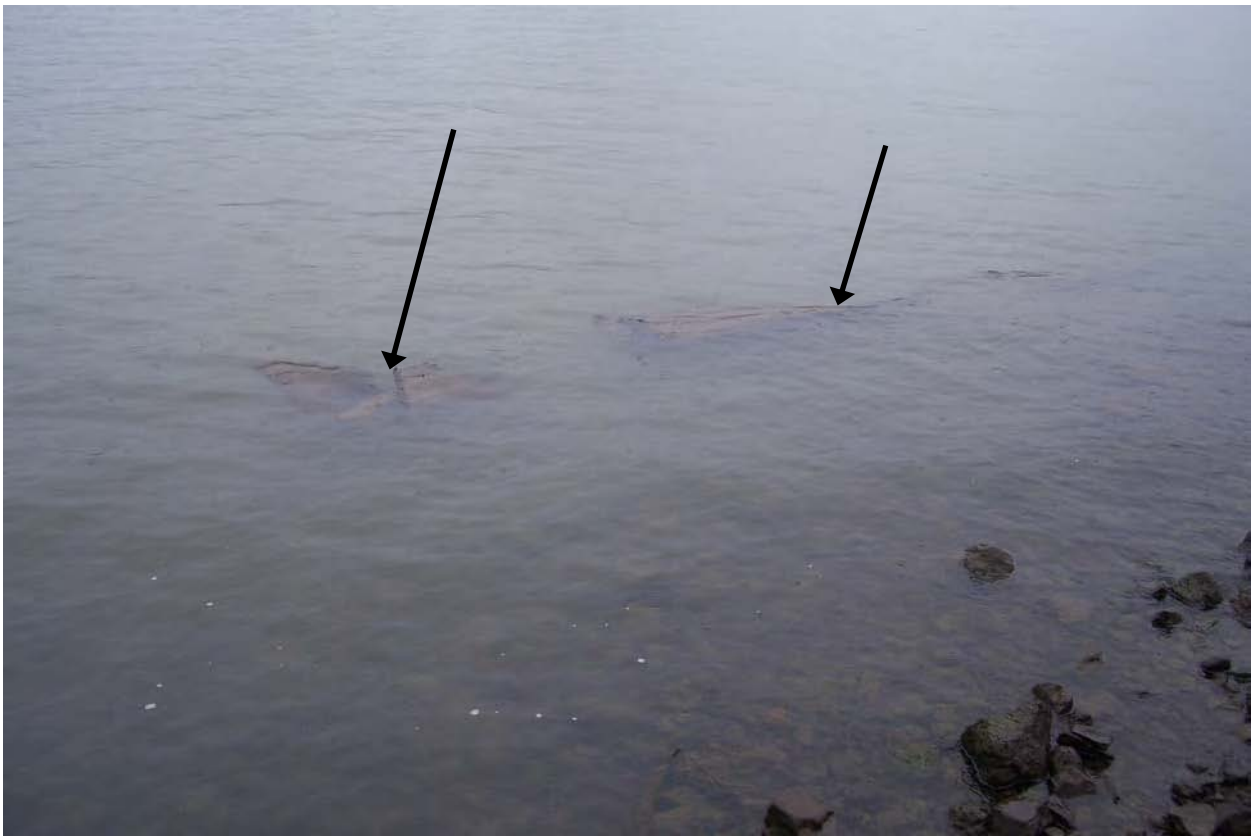


Photo 2— *exposed segments of the organo-clay mat material (3/23/09)*

Photo 3—*overview of cap area from shoreline (3/23/09)*

Photo 4—*conditions at cap area (3/23/09)*

Visual Observations Log Form

Date	February 11, 2009		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 2)—February 2009		
Time Observations Started:	February 11, 2009 @ 0830	**Time Observation Concluded:**	February 11, 2009 @1330
Weather Conditions:	Partly cloudy, high 30s degrees F, light wind from the west		
Wave Action Observations:	Calm with small wind-generated waves (0.0-0.3 feet in height), moderate boat traffic causing occasional larger wakes.		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 2/11/09 ranged from 2.53 to 6.32 ft (City of Portland Datum)

The water level elevation allowed visual observation of the shoreward extent the pilot cap.

Observations of Erosion/Deposition:

No erosion/deposition is evident along the shoreline; however, the organo-clay mat material and associated staking is visible at multiple locations along the shoreward extent of the cap area (Photo 1 and Photo 2). Exposed mat appears to be slightly more exposed as compared to January's observation.

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the Monitoring event, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). Buoys that identify the area to mariners have been installed to protect the sediment cap from prop wash and other disturbances (anchors) that may be caused by marine traffic in the cap vicinity. The position of the boom, warning buoys, and a general overview of the site shoreline are shown in Photo 3.

Other Comments:
No sheen is evident in the vicinity of the cap area. Photo 4 shows the water surface immediately upriver of the FAMM dock structure.

Recorded by: **Doug Laffoon**

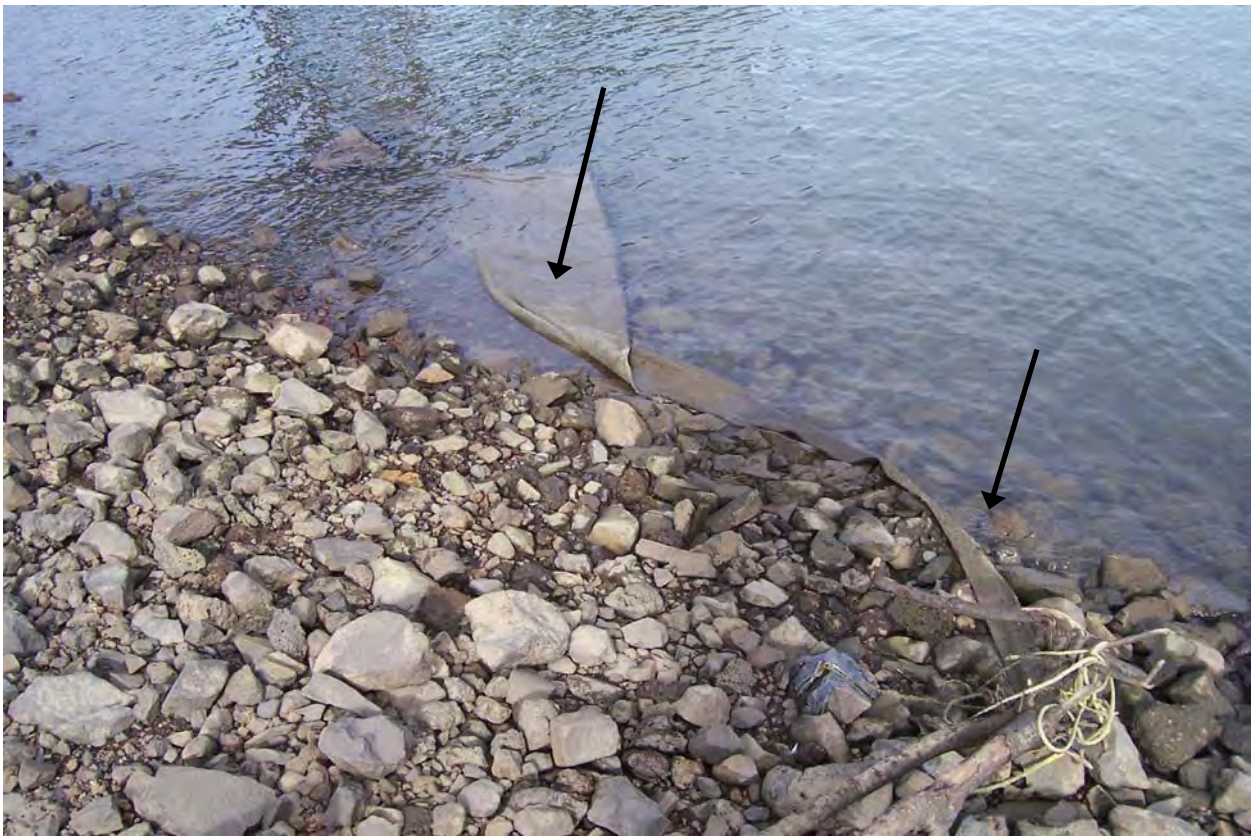


Photo 1—*exposed segments of the organo-clay mat material (2/11/09)*

Photo 2— *exposed segments of the organo-clay mat material (2/11/09)*

Photo 3—*overview of cap area from shoreline (2/11/09*

Photo 4—*conditions at cap area (2/11/09)*

Visual Observations Log Form

Date	January 28, 2009		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 2)—January 2009		
Time Observations Started:	January 26, 2009 @ 1000	**Time Observation Concluded:**	January 26, 2009 @ 1100
Weather Conditions:	Clear, approx. 32 degrees F, light wind from the east		
Wave Action Observations:	Calm with small wind-generated waves (0.0-0.1 feet in height), limited boat traffic		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 1/26/09 ranged from 4.82 to 7.07 ft (City of Portland Datum)

The water level elevation allowed visual observation of the shoreward extent the pilot cap.

Observations of Erosion/Deposition:

No erosion/deposition is evident along the shoreline; however, the organo-clay mat material and associated staking is visible at multiple locations along the shoreward extent of the cap area (Photo 1 and Photo 2). Exposed mat appears to be in similar condition to December's observation.

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the Monitoring event, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). Buoys that identify the area to mariners have been installed to protect the sediment cap from prop wash and other disturbances (anchors) that may be caused by marine traffic in the cap vicinity. The position of the boom, warning buoys, and a general overview of the site shoreline are shown in Photo 3.

Other Comments:
No sheen is evident in the vicinity of the cap area. Photo 4 shows the water surface and shoreline immediately upriver of the FAMM dock structure.

Recorded by: **Timothy Stone**

Photo 1—*exposed segments of the organo-clay mat material (1/26/09)*

Photo 2— *exposed segments of the organo-clay mat material (1/26/09)*

Photo3—*overview of cap area from shoreline (1/26/09*

Photo4—*conditions immediately downriver of cap area (1/26/09)*

Visual Observations Log Form

Date	December 16, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—December 2008		
Time Observations Started:	December 16, 2008 @ 1430	**Time Observation Concluded:**	December 16, 2008 @ 1700
Weather Conditions:	Clear, approx. 27 degrees F, light wind from the northwest		
Wave Action Observations:	Calm with small wind-generated waves (0.0-0.2 feet in height), no boat traffic		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 12/16/08 ranged from 2.76 to 5.54 ft (City of Portland Datum)

The water level elevation allowed visual observation of the shoreward extent the pilot cap.

Observations of Erosion/Deposition:

No erosion/deposition is evident along the shoreline; however, the organo-clay mat material and associated staking is visible at multiple locations along the shoreward extent of the cap area (Photo 1). Exposed mat appears to be in similar condition to October's observation.

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the Monitoring event, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). Buoys that identify the area to mariners have been installed to protect the sediment cap from prop wash and other disturbances (anchors) that may be caused by marine traffic in the cap vicinity. The position of the boom, the newly installed buoys, and a general overview of the site shoreline are shown in Photo 2.

Other Comments:
No sheen is evident in the vicinity of the cap area. Photo 3 shows the water surface and shoreline immediately upriver of the FAMM dock structure.

Recorded by: **Doug Laffoon**

Photo 1—*exposed segments of the organo-clay mat material (12/16/08)*

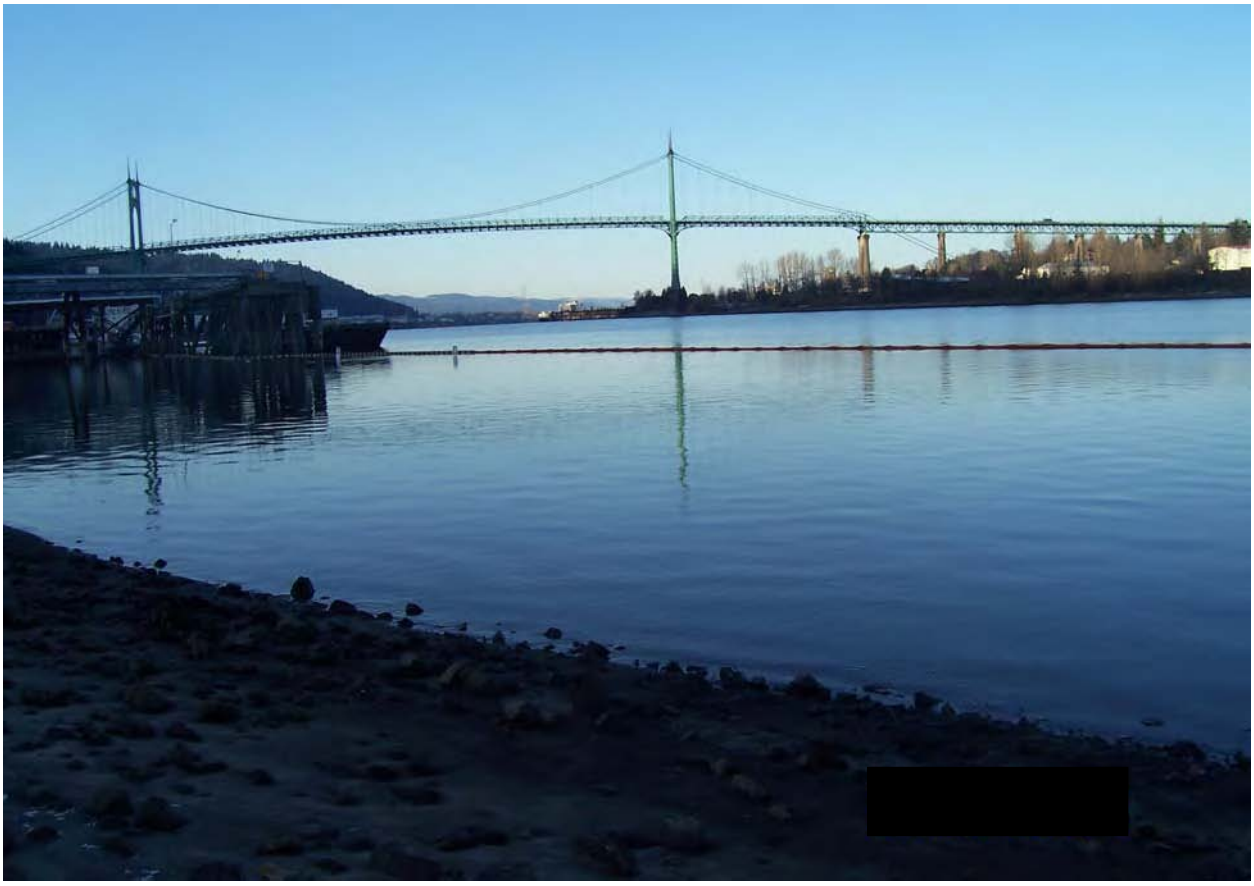


Photo 2—*general overview of site shoreline and position of FAMM oil boom (12/16/08)*

Photo 3—*view of shoreline condition immediately upriver from FAMM dock (12/16/08)*

Visual Observations Log Form

Date	November 10, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—November 2008		
Time Observations Started:	November 10, 2008 @ 1330	**Time Observation Concluded:**	November 10, 2008 @ 1630
Weather Conditions:	Cloudy, 50-55 degrees F, little to no wind		
Wave Action Observations:	Calm no waves (<0.1 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 11/10/08 ranged from 5.60 to 8.80 ft (City of Portland Datum)

Observations of Erosion/Deposition:

The water level elevation did not allow visual observation of the shoreward extent the pilot cap (Photo 1).

No erosion/deposition is evident along the shoreline.

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the inspection, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). The position of the boom, mariner-notification buoys and a general overview of the site shoreline are shown in Photo 2.

Other Comments:
No sheen was evident in the vicinity of the cap area. Photo 3 shows the water surface and shoreline immediately upriver of the FAMM dock structure.

Recorded by: **Timothy Stone/Doug Laffoon**

Photo 1—shoreline and water level conditions at pilot cap *(11/10/08)*

Photo 2—*general overview of site shoreline and position of FAMM oil boom (11/10/08)*

Photo 3—*view of shoreline condition immediately upriver from FAMM dock (11/10/08)*

Visual Observations Log Form

Date	October 16, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—October 2008		
Time Observations Started:	October 16, 2008 @ 0800	**Time Observation Concluded:**	October 16, 2008 @ 1600
Weather Conditions:	Partly Cloudy, 68 degrees F, light wind from the northwest		
Wave Action Observations:	Calm with small wind-generated waves (0.1-0.2 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 10/16/08 ranged from 4.43 to 8.29 ft (City of Portland Datum)

The water level elevation allowed visual observation of the shoreward extent the pilot cap.

Observations of Erosion/Deposition:

No erosion/deposition is evident along the shoreline; however, the organo-clay mat material and associated staking is visible at multiple locations along the shoreward extent of the cap area (Photo 1)

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the inspection, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). Buoys that identify the area to mariners have been installed to protect the sediment cap from prop wash and other disturbances that may be caused by marine traffic in the cap vicinity. The position of the boom, the newly installed buoys, and a general overview of the site shoreline are shown in Photo 2.

Other Comments:
No sheen is evident in the vicinity of the cap area. Photo 3 shows the water surface and shoreline immediately upriver of the FAMM dock structure.

Recorded by: **Timothy Stone/Doug Laffoon**

Photo 1—*exposed segments of the organo-clay mat material (10/16/08)*

Photo 2—*general overview of site shoreline and position of FAMM oil boom (10/16/08)*

Photo 3—*close-up view of shoreline condition immediately upriver from FAMM dock (10/16/08)*

Visual Observations Log Form

Date	September 15, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—September 2008		
Time Observations Started:	September 15, 2008 @ 1500	**Time Observation Concluded:**	September 15, 2008 @ 1630
Weather Conditions:	Partly Cloudy, 75 degrees F, light wind from the northwest		
Wave Action Observations:	Calm with small wind-generated waves (0.0-0.1 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 9/15/08 ranged from 3.37 to 7.05 ft (City of Portland Datum)

The water level elevation allows visual observation of the shoreward extent the pilot cap.

Observations of Erosion/Deposition:

No erosion/deposition is evident along the shoreline; however, the organo-clay mat material and associated staking is visible at multiple locations along the shoreward extent of the cap area (Photo 1 and Photo 2)

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the inspection, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). The position of the boom and a general overview of the site shoreline are shown in Photo 3.

Other Comments:
No sheen is evident in the vicinity of the cap area; however, exposed tar body is visible above and below the waterline at/near the shoreline immediately downriver of the pilot cap. Photo 4 shows the water surface and shoreline immediately downriver of the cap area.

Recorded by: **Timothy Stone**

Photo 1—*exposed segments of the organo-clay mat material (9/15/08)*

Photo 2—*exposed segments of the organo-clay mat material (9/15/08)*

Photo 3—*general overview of site shoreline and position of FAMM oil boom (9/15/08)*

Photo 4—*shoreline condition immediately downriver of cap area (9/15/08)*

Visual Observations Log Form

Date	August 20, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—July 2008		
Time Observations Started:	August 20, 2008 @ 1600	**Time Observation Concluded:**	August 20, 2008 @ 1700
Weather Conditions:	Partly Cloudy, 70 degrees F, moderate wind from the east		
Wave Action Observations:	Moderate wind-generated waves (0.1-0.4 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 8/20/08 ranged from 5.09 to 8.98 ft (City of Portland Datum)

The water level elevation allows visual observation of the shoreward extent the pilot cap.

Observations of Erosion/Deposition:

No erosion/deposition is evident along the shoreline; however, The organo-clay mat material and associated staking is visible at multiple locations along the shoreward extents of the cap area (Photos 1, 2, 3, and 4)

Observations of Long-term Controls (i.e., oil booms, organo-clay mat, etc.)

During the inspection, the Fuel and Marine Marketing (FAMM) oil boom was positioned across the cap area, between the upriver corner of the ship dock and the wooden dolphin (near the upriver extent of the site and near the Siltronic Corporation outfall). The position of the boom is shown in Photo 6.

Other Comments:
No sheen or exposed tar body was observed in the vicinity of the cap area. Photo 5 shows the water surface and shoreline immediately downriver of the cap area.

Recorded by: **Timothy Stone**

Photo 1—*overview of cap area shoreline (8/20/08)*

Photo 2—*exposed segments of the organo-clay mat material (8/20/08)*

Photo 3—*exposed segments of the organo-clay mat material (8/20/08)*

Photo 4—*exposed segments of the organo-clay mat material (8/20/08)*

Photo 5—*shoreline condition immediately downriver of cap area (8/20/08)*

Photo 6—*FAMM containment boom location during inspection (8/20/08)*

Visual Observations Log Form

Date	July 14, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—July 2008		
Time Observations Started:	July 14, 2008 @ 1300	**Time Observation Concluded:**	July 14, 2008 @ 1500
Weather Conditions:	Partly Cloudy, 80-85 degrees F, moderate wind from the northwest		
Wave Action Observations:	Moderate to heavy wind-generated waves (0.1-0.5 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 7/14/08 ranged from 6.45 to 9.08 ft (City of Portland Datum)

Observations of Erosion/Deposition:

No erosion/deposition was evident along the shoreline.
The water level elevation allowed for visual observation of the shoreward extent the pilot cap (Photo 1).

Observations of Longterm Controls (i.e., oil booms, organo-clay mat, etc.)

During the inspection, the Fuel and Marine Marketing (FAMM) oil boom was positioned between the upriver corner of the ship dock and the wooden dolphin near the loading dock structure that is no longer in operation (Photo 2).

The organo-clay mat material was visible at four locations along the shoreward extent of the cap area (Photos 1, 3, and 4)

Other Comments:
No sheen or exposed tar body was observed in the vicinity of the cap area. Photo 5 shows the water surface and shoreline immediately downriver of the cap area.

Recorded by: **Timothy Stone**

Photo 1—*overview of cap area shoreline (7/14/08)*

Photo 2—*FAMM containment boom location during inspection (7/14/08)*

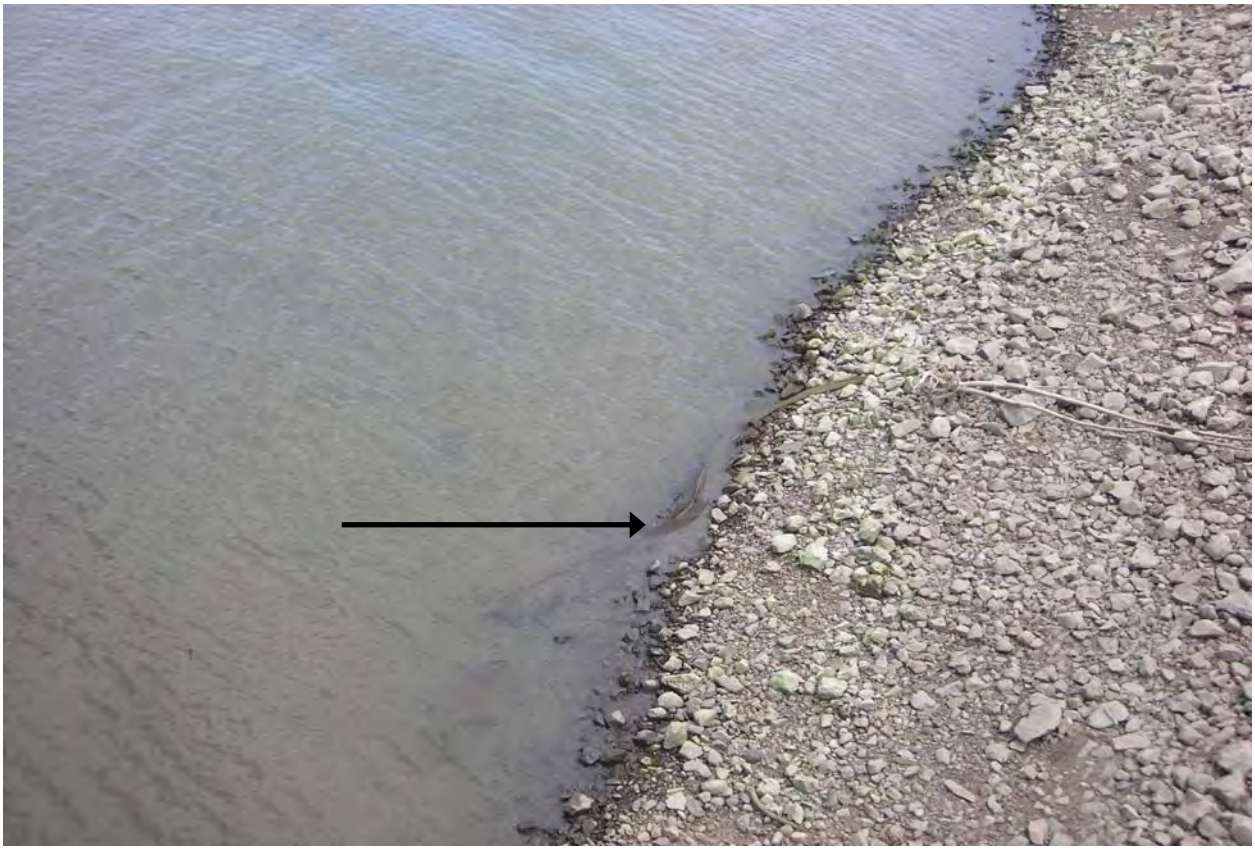


Photo 3—*exposed segments of the organo-clay mat material (7/14/08)*

Photo 4—*exposed segments of the organo-clay mat material (7/14/08)*

Photo 5—*shoreline condition immediately downriver of cap area (7/14/08)*

Visual Observations Log Form

Date	June 11, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—June 2008		
Time Observations Started:	June 11, 2008 @ 1400	**Time Observation Concluded:**	June 11, 2008 @ 1700
Weather Conditions:	Cloudy, 55-60 degrees F, light wind from the northwest		
Wave Action Observations:	light wind-generated ripple (0.1-0.3 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions: River level elevation on 6/11/08 ranged from 14.15 to 15.04 ft (City of Portland Datum)

Observations of Erosion/Deposition: No erosion/deposition was evident along the shoreline.
The water level elevation was shoreward of the pilot cap extents for the duration of the observation period (Photo 1).

Observations of Longterm Controls (i.e., oil booms, organo-clay mat, etc.) During the inspection, the Fuel and Marine Marketing (FAMM) oil boom was in use as secondary containment for fueling operations (Photo 2).

Other Comments:
No sheen or exposed tar body was observed in the vicinity of the cap area. Photo 3 shows the water surface immediately downriver of the cap area.

Recorded by: **Timothy Stone**

Photo 1—*overview of cap area (6/11/08)*

Photo 2—*FAMM containment boom location during inspection (6/11/08)*

Photo 3—*overview of shoreline area immediately downriver of the cap area (6/11/08)*

Visual Observations Log Form

Date	May 14, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—May 2008		
Time Observations Started:	May 14, 2008 @ 1300	**Time Observation Concluded:**	May 14, 2008 @ 1500
Weather Conditions:	Sunny, 60-65 degrees F, light wind from the northwest		
Wave Action Observations:	light wind-generated ripple (0.0-0.1 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions: River level elevation on 5/14/08 ranged from 9.94 to 11.66 ft (City of Portland Datum)

Observations of Erosion/Deposition: No erosion/deposition was evident along the shoreline.
The water level elevation was shoreward of the pilot cap extents for the duration of the observation period (Photo 1).

Observations of Longterm Controls (i.e., oil booms, organo-clay mat, etc.) The Fuel and Marine Marketing (FAMM) oil boom was positioned across the face of the Site from the upstream extent of the ship dock to a wooden dolphin at the upstream edge of the Site during the inspection (Photo 2).

Other Comments:
No sheen or exposed tar body was observed in the vicinity of the cap area. Photo 3 shows the water surface immediately downriver of the cap area.

Recorded by: **Timothy Stone**

Photo 1—*overview of cap area (5/14/08)*

Photo 2—Site *shoreline overview showing FAMM oil boom location (5/14/08)*

Photo 3—*overview of area immediately downriver of the cap area (5/14/08)*

Visual Observations Log Form

Date	April 11, 2008		
Location:	NW Natural "Gasco" Site		
Project Name:	NW Natural – Gasco	**Project Number:**	000029-02 BG17 T4
Monitoring Period:	Monthly (Year 1)—April 2008		
Time Observations Started:	April 11, 2008 @ 1300	**Time Observation Concluded:**	April 11, 2008 @ 1500
Weather Conditions:	Partly Cloudy, 50-55 degrees F, light wind from the west		
Wave Action Observations:	Very light wind-generated ripple (0.0-0.1 feet in height)		
Photographs Taken:	(Yes) No		

Tidal Conditions:

River level elevation on 4/11/08 ranged from 5.95 to 8.59 ft (City of Portland Datum)

Observations of Erosion/Deposition:

No erosion/deposition was evident along the shoreline.
The water levels elevation was at or near the shoreward extent of the pilot cap extents for the duration of the observation period (Photo 1).

Observations of Longterm Controls (i.e., oil booms, organo-clay mat, etc.)

The Fuel and Marine Marketing (FAMM) oil boom was positioned across the face of the Site from the upstream extent of the ship dock to a wooden dolphin at the upstream edge of the Site during the inspection (Photo 2).

Three small sections of the organoclay mat material were visible just below the water surface within approximately 2-4 feet of the water's edge. (Photos 3-5)

Other Comments:
No sheen or exposed tar body was observed in the vicinity of the cap area. Photo 6 shows the water surface immediately downriver of the cap area.

Recorded by: **Timothy Stone**

Photo 1—*overview of cap area (4/11/08)*

Photo 2—Site *shoreline overview showing FAMM oil boom location (4/11/08)*

Photo 3—*close-up view of cap area with remnants of organoclay mat material exposed (4/11/08)*

Photo 4—*exposed organoclay mat at upriver extent of cap area (4/11/08)*

Photo 5— *exposed organoclay mat at downriver extent of cap area (4/11/08)*

Photo 6— *conditions immediately downriver of cap extent (4/11/08)*

APPENDIX C
YEAR 1 EVENT 1 DIVER RECONNAISSANCE SURVEYS (ON DVD)

APPENDIX D
YEAR 2 MONITORING DEPOSITIONAL SURFACE SEDIMENT COLLECTION FORMS

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E1 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-02

Sampling Crew: R. Barth and R. Pickering
Sample Date: 7-Aug-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: Sunny, 85°, No breeze
Station Coordinates: N / Lat. on STN
E / W / Long. on STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-02DS-080807 Full Portland Harbor list
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other:
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:
REJECTED ⇒ Collected from sidewall of dredge prism & no underlying armor present.

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble larger (2"x1") tar ball	D.O.	none	H2S	none	likely not dep. sediment
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong Mothball		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 2
↳ moved ~ 2 ft upstream from Grab #1
Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:
REJECTED ⇒ winnowing upon collection & insufficient volume

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel → on bottom of silt	gray	slight mothball	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: 3
↳ moved ~ 2ft upstream from Grab #2
Water Depth: — Grab Recovery: 7cm cm Time: 1710
Tide Level: — Sample Interval: 6cm cm
Bioassay / Chemistry Depth MLLW: —

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none few	
gravel → underlying sl. sandy silt	gray	slight marine organic	Petroleum	slight bubbles	
sand C M F <10%.	black	moderate	other:	moderate on	
silt clay Some fishing	brown	strong		heavy surface	
organic matter line on surface	brown surface	overwhelming		upon mixing	

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

R Barth

Date/Time Lab Drop Off: Friday August 8 @ 1330 Hand Delivered

Recorded by: Ryan Batt

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E1 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-04

Sampling Crew: R. Barth and R. Pickering
Sample Date: 7-Aug-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: 85°, sunny, no wind
Station Coordinates: N / Lat. ON STN
E / W / Long. ON STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-04DS-080807 Portland Harbor list
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses)
Other:
Other:

Grab Number: 1 Water Depth: — Grab Recovery: 7cm cm Time: 1725
Tide Level: — Sample Interval: 6cm cm
Bioassay / Chemistry Depth MLLW: —

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble No armor captured	D.O.	none	H2S	none few scattered blebs upon mixing	Undisturbed good grab
gravel but felt by diver underneath sampler	gray	slight marine organic	Petroleum	slight	
sand C M F <5%	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter scattered fibrous	brown surface ~1mm	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off: Friday Aug. 8 @ 1330 Hand Delivered

Recorded by: Ryan Batt

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E1 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-06

Sampling Crew: R. Barth and R. Pickering
Sample Date: 7-Aug-08 Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services Weather: Sunny, 80°, no breeze
Station Coordinates: N / Lat. ON STN
E / W / Long. ON STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-06DS-080807
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Portland Harbor List Other:
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — Grab Recovery: 7cm cm Time: 1800
Tide Level: — Sample Interval: 6cm cm
Bioassay / Chemistry Depth MLLW: —

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble No gravel sampled but divot felt underneath	D.O.	none	H2S	none	Some overlying H2O captured incr. H2O content of sample, good grab
gravel	gray	slight mothball	Petroleum	slight	
sand C M F <5% on bottom	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter scattered Fibrous	brown surface ~1mm	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off: Hand delivered on Friday Aug. 8 @ 1330

Recorded by: Ryan Barth

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E1 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-[redacted] 09

Sampling Crew: R. Barth and R. Pickering
Sample Date: 7-Aug-08 Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services Weather: 85°, sunny, no breeze
Station Coordinates: N / Lat.
E / W / Long.
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-08DS-080807 Portland Harbor list
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other:
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — Grab Recovery: 10 cm Time: 1745
Tide Level: — Sample Interval: 10 cm
Bioassay / Chemistry Depth MLLW: —

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble No gravel sampled but divot felt underneath	D.O.	none	H2S	none	Undisturbed, good grab
gravel	gray	slight marine organic	Petroleum	slight	
sand C M F <5%	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter sl. fibrous scattered	brown surface 1/mm	overwhelming			

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off: Hand Delivered on Friday Aug. 8 @ 1330

Recorded by: Ryan Burt

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E1 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-14

Sampling Crew: R. Barth and R. Pickering
Sample Date: 7-Aug-08 Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services Weather: Sunny 75°
Station Coordinates: N / Lat. ON STN
E / W / Long. ON STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-14DS-080807 Portland Harbor list
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other:
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — Grab Recovery: 8 cm Time: 1900
Tide Level: — Sample Interval: 3 cm
Bioassay / Chemistry Depth MLLW: —

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Good grab. Insuff. volume so 2ND grab directly adj. collected
gravel	gray fringe cover	slight	Petroleum	slight	
sand C M F fringe cover overlying	black	moderate	other:	moderate	
silt clay	brown silt	strong		heavy	
organic matter	brown surface 1mm	overwhelming			

Grab Number: 2 Water Depth: — Grab Recovery: 8 cm Time: 1910
Tide Level: — Sample Interval: 3 cm
Bioassay / Chemistry Depth MLLW: —

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

SAME AS ABOVE - ADJACENT SAMPLES

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

R. Barth

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off: Hand delivered on Friday Aug. 8TH @ 1330

Recorded by: Ryan Bart

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E1 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-15

Sampling Crew: R. Barth and R. Pickering
Sample Date: 7-Aug-08 Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services Weather: Sunny, 70°, Lt. breeze
Station Coordinates: N / Lat. on STN
E / W / Long. on STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-15DS-080807 Full Portland Harbor list
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other:
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1	Water Depth: —	Grab Recovery: 8 cm	Time: 1930	
	Tide Level: —	Sample Interval: 3 cm		
Bioassay / Chemistry	Depth MLLW: —			
Sediment Type:	**Sediment Color:**	**Sediment Odor:**	**Sheen:**	**Comments:**
cobble	D.O.	none / H2S	none	Good grab. Insuff. vol. so adj grab collected
gravel	gray fringe cover	slight / Petroleum	slight	
sand C M F fringe cover	black	moderate / other:	moderate	
silt clay overlying	brown silt	strong	heavy	
organic matter	brown surface 1mm	overwhelming		

Grab Number: 2	Water Depth: —	Grab Recovery: 9 cm	Time: 1945	
	Tide Level: —	Sample Interval: 3 cm		
Bioassay / Chemistry	Depth MLLW: —			
Sediment Type:	**Sediment Color:**	**Sediment Odor:**	**Sheen:**	**Comments:**
cobble	D.O.	none / H2S	none	Good grab.
gravel	gray	slight / Petroleum	slight	
sand C M F fringe cove	black SAME	moderate / other:	moderate	
silt clay overlying	brown	strong	heavy	
organic matter	brown surface	overwhelming		

Grab Number:	Water Depth:	Grab Recovery: cm	Time:	
	Tide Level:	Sample Interval: cm		
Bioassay / Chemistry	Depth MLLW:			
Sediment Type:	**Sediment Color:**	**Sediment Odor:**	**Sheen:**	**Comments:**
cobble	D.O.	none / H2S	none	
gravel	gray	slight / Petroleum	slight	
sand C M F	black	moderate / other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface	overwhelming		

Grab Number:	Water Depth:	Grab Recovery: cm	Time:	
	Tide Level:	Sample Interval: cm		
Bioassay / Chemistry	Depth MLLW:			
Sediment Type:	**Sediment Color:**	**Sediment Odor:**	**Sheen:**	**Comments:**
cobble	D.O.	none / H2S	none	
gravel	gray	slight / Petroleum	slight	
sand C M F	black	moderate / other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface	overwhelming		

R. Barth

Date/Time Lab Drop Off: Hand delivered on Friday Aug. 8TH @ 1330.

Recorded by: Ryan Barth

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E1 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-22

Sampling Crew: R. Barth and R. Pickering
Sample Date: 7-Aug-08 Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services Weather: Sunny 85°, no breeze
Station Coordinates: N / Lat. ON STN
E / W / Long. ON STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-22DS-080807 Full Portland Harbor List
Analysis: Metals / SVOCs / VOCs / PCBs / Pest Other:
TS / Grain Size / TOC / Ammonia / Sulfides Other:
(Circle Appropriate Analyses)

Grab Number: 1 Water Depth: — Grab Recovery: 10 cm Time: 1830
Tide Level: — Sample Interval: 7cm cm
Bioassay / Chemistry Depth MLLW: —

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Good grab, undisturbed
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface ~1mm	overwhelming			

silt overlying fringe cover sand; fringe cover; silt; mothball

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: _____ Water Depth: _____ Grab Recovery: _____ cm Time: _____
Tide Level: _____ Sample Interval: _____ cm
Bioassay / Chemistry Depth MLLW: _____

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

R Barth

Date/Time Lab Drop Off: Hand delivered on Friday Aug. 8 @ 1330

Recorded by: Ryan Barth

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E2 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-02DS

Sampling Crew: R. Barth and R. Pickering
Sample Date: 11-Dec-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: Overcast, Sl. breeze, river looks to be flowing upstream
Station Coordinates: N / Lat. on STN
E / W / Long. on STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-02DS-081211
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses) Full Portland Harbor List
Other:
Other:

Grab Number: 1 Water Depth: 29 ft Grab Recovery: 8 cm Time: 1350
Tide Level: Sample Interval: 8 cm cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none 1 sheen	No R.B. 12/11/08
gravel	gray	slight	Petroleum	slight spot	Good grab.
sand C M (F) <10%	black	moderate	other:	moderate on	
silt clay	brown	strong		heavy surface	
organic matter some scattered twigs, leaves	brown surface ~1mm	overwhelming	Mothball		

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Ryan Barth

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E2 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-04

Sampling Crew: R. Barth and R. Pickering
Sample Date: 11-Dec-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: Overcast, no breeze
Station Coordinates: N / Lat. on STN
E / W / Long. on STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-04DS-081211
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses) Full Portland Harbor List
Other:
Other:

Grab Number: 1 Water Depth: - Grab Recovery: 9 cm Time: 1410
Tide Level: - Sample Interval: 3 cm
Bioassay / Chemistry Depth MLLW: -

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Insuff. material to sample overlying dep. sed. w/out also sampling underlying fringe-sand
gravel	gray	slight	Petroleum	slight spotty on surface	
sand C M F Bottom 7cm	black	moderate	other:	moderate	
silt clay Surface 1cm	brown	strong mothball		heavy	
organic matter	brown surface ~1mm	overwhelming			

Grab Number: 2 Water Depth: - Grab Recovery: 9 cm Time:
Tide Level: - Sample Interval: 3 cm
Bioassay / Chemistry Depth MLLW: -

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	2ND sample identical so abandoned sample due to insuff. material
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

SAME AS ABOVE

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

R. Barth

Grab Number: Water Depth: Grab Recovery: cm Time:
Tide Level: Sample Interval: cm
Bioassay / Chemistry Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Regan Barth

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E2 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-06

Sampling Crew: R. Barth and R. Pickering
Sample Date: 11-Dec-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: Overcast, no breeze
Station Coordinates: N / Lat. on STN
E / W / Long. on STN
Datum: NAD 83 / WGS 84
Zone:

Sample ID: PCM-06DS-081211
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses) Full Portland Harbor List
Other:
Other:

Grab Number: 1 | Water Depth: 27 ft | Grab Recovery: 7 cm | Time: 1420
Tide Level: | Sample Interval: 7 cm
Bioassay / Chemistry | Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none spotty	No fringe cover layer/sand encountered
gravel	gray	slight	Petroleum	slight upon	
sand C M F ~35%	black	moderate	other:	moderate mixing	
silt clay	brown	strong → mothball		heavy	
organic matter <5% turgo	brown surface ~1mm	overwhelming			

Grab Number: | Water Depth: | Grab Recovery: cm | Time:
Tide Level: | Sample Interval: cm
Bioassay / Chemistry | Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: | Water Depth: | Grab Recovery: cm | Time:
Tide Level: | Sample Interval: cm
Bioassay / Chemistry | Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number: | Water Depth: | Grab Recovery: cm | Time:
Tide Level: | Sample Interval: cm
Bioassay / Chemistry | Depth MLLW:

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by: Ryan Bart

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E2 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-09

Sampling Crew: R. Barth and R. Pickering
Sample Date: 11-Dec-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: St. overcast, no breeze
Station Coordinates: N / Lat. ON STN
E / W / Long. ON STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-09DS-081201
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses) Full Portland Harbor list
Other:
Other:

Grab Number: 1	Water Depth: —	Grab Recovery: 9cm cm	Time: 1440
	Tide Level: —	Sample Interval: 9cm cm	
Bioassay / Chemistry	Depth MLLW: —		

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	Good grab. No fringe cover Sand concentrated in grab.
gravel	gray	slight mothball	Petroleum	slight	
sand C M F ~20% grained, not layers	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface ~1mm	overwhelming			

Grab Number:	Water Depth:	Grab Recovery: cm	Time:
	Tide Level:	Sample Interval: cm	
Bioassay / Chemistry	Depth MLLW:		

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number:	Water Depth:	Grab Recovery: cm	Time:
	Tide Level:	Sample Interval: cm	
Bioassay / Chemistry	Depth MLLW:		

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number:	Water Depth:	Grab Recovery: cm	Time:
	Tide Level:	Sample Interval: cm	
Bioassay / Chemistry	Depth MLLW:		

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

R. Barth

Date/Time Lab Drop Off:

Recorded by: Ryan Brunt

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E2 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-14

Sampling Crew: R. Barth and R. Pickering
Sample Date: 11-Dec-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: Overcast, no breeze
Station Coordinates: N / Lat. ON STN
E / W / Long. ON STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-14DS-081211
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses) Full Portland Harbor List
Other:
Other:

Grab Number: 1	Water Depth: -	Grab Recovery: 4 cm	Time: 1520	
	Tide Level: -	Sample Interval: 3 cm		
Bioassay / Chemistry	Depth MLLW: -			
Sediment Type:	Sediment Color:	Sediment Odor:	Sheen:	Comments:
cobble	D.O.	none H2S	none	good grab but insuff vol. so 2nd adj. grab collected
gravel	gray	slight Petroleum	slight	
sand C M F - fringe cover	black	moderate other:	moderate	
silt clay overlying	brown silt	strong	heavy	
organic matter	brown surface 1/min	overwhelming		

Grab Number: 2	Water Depth: -	Grab Recovery: 8 cm	Time: 1535	
	Tide Level: -	Sample Interval: 3 cm		
Bioassay / Chemistry	Depth MLLW: -			
Sediment Type:	Sediment Color:	Sediment Odor:	Sheen:	Comments:
cobble	D.O.	none H2S	none	
gravel	gray	slight Petroleum	slight	
sand C M F	black	moderate other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface	overwhelming		

SAME AS ABOVE

Grab Number:	Water Depth:	Grab Recovery: cm	Time:	
	Tide Level:	Sample Interval: cm		
Bioassay / Chemistry	Depth MLLW:			
Sediment Type:	Sediment Color:	Sediment Odor:	Sheen:	Comments:
cobble	D.O.	none H2S	none	
gravel	gray	slight Petroleum	slight	
sand C M F	black	moderate other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface	overwhelming		

Grab Number:	Water Depth:	Grab Recovery: cm	Time:	
	Tide Level:	Sample Interval: cm		
Bioassay / Chemistry	Depth MLLW:			
Sediment Type:	Sediment Color:	Sediment Odor:	Sheen:	Comments:
cobble	D.O.	none H2S	none	
gravel	gray	slight Petroleum	slight	
sand C M F	black	moderate other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface	overwhelming		

R. Pickering

Date/Time Lab Drop Off:

Recorded by: Ryan Barth

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E2 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-15

Sampling Crew: R. Barth and R. Pickering
Sample Date: 11-Dec-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: overcast, no breeze
Station Coordinates: N / Lat. ON STN.
E / W / Long. On Stn.
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-15DS-081211
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses) Full Portland Harbor List
Other:
Other:

Grab Number: 1	Water Depth: -	Grab Recovery: 8 cm	Time: 1545
	Tide Level: -	Sample Interval: 3 cm	
Bioassay / Chemistry	Depth MLLW: -		

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	good grab, but runoff [illegible] so 2nd sediment grab collected
gravel	gray fringe cover	slight	Petroleum	slight	
sand C M F fringe cover	black	moderate	other:	moderate	
silt clay overlying	brown silt	strong		heavy	
organic matter	brown surface 1mm	overwhelming			

Grab Number: 2	Water Depth: -	Grab Recovery: 8 cm	Time: 1555
	Tide Level: -	Sample Interval: 3 cm	
Bioassay / Chemistry	Depth MLLW: -		

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

SAME AS ABOVE

Grab Number:	Water Depth:	Grab Recovery: cm	Time:
	Tide Level:	Sample Interval: cm	
Bioassay / Chemistry	Depth MLLW:		

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Grab Number:	Water Depth:	Grab Recovery: cm	Time:
	Tide Level:	Sample Interval: cm	
Bioassay / Chemistry	Depth MLLW:		

Sediment Type:	Sediment Color:	Sediment Odor:		Sheen:	Comments:
cobble	D.O.	none	H2S	none	
gravel	gray	slight	Petroleum	slight	
sand C M F	black	moderate	other:	moderate	
silt clay	brown	strong		heavy	
organic matter	brown surface	overwhelming			

Date/Time Lab Drop Off:

Recorded by:

ANCHOR ENVIRONMENTAL, L.L.C.

Surface Sediment Field Sample Record

Project Name: Gasco Y2E2 LT Cap Monitoring Project No: 000029-02 BG17 **Station ID:** PCM-22

Sampling Crew: R. Barth and R. Pickering
Sample Date: 11-Dec-08
Sampling Method: Diver slide sampler
Sampling Vessel: RSS 36' Aluminum boat
Subcontractor(s): Research Support Services
Weather: Overcast, sl. breeze, 40s
Station Coordinates: N / Lat. on STN
E / W / Long. on STN
Datum: NAD 83 / WGS 84 Zone:

Sample ID: PCM-22DS-081211
Analysis: Metals / SVOCs / VOCs / PCBs / Pest
TS / Grain Size / TOC / Ammonia / Sulfides
(Circle Appropriate Analyses) Full Portland Harbor List
Other:
Other:

Grab Number: 1	Water Depth: –	Grab Recovery: 10 cm	Time: 1530	
	Tide Level: –	Sample Interval: 10 cm		
Bioassay / Chemistry	Depth MLLW: –			
Sediment Type:	Sediment Color:	Sediment Odor:	Sheen:	Comments:
cobble	D.O.	none / H2S	none	No fringe cover sand encountered
gravel	gray	slight mothball / Petroleum	slight	
sand C M F <10% interm	black	moderate / other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface ~2mm	overwhelming		

Grab Number: _____	Water Depth: _____	Grab Recovery: _____ cm	Time: _____	
	Tide Level: _____	Sample Interval: _____ cm		
Bioassay / Chemistry	Depth MLLW: _____			
Sediment Type:	Sediment Color:	Sediment Odor:	Sheen:	Comments:
cobble	D.O.	none / H2S	none	
gravel	gray	slight / Petroleum	slight	
sand C M F	black	moderate / other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface	overwhelming		

Grab Number: _____	Water Depth: _____	Grab Recovery: _____ cm	Time: _____	
	Tide Level: _____	Sample Interval: _____ cm		
Bioassay / Chemistry	Depth MLLW: _____			
Sediment Type:	Sediment Color:	Sediment Odor:	Sheen:	Comments:
cobble	D.O.	none / H2S	none	
gravel	gray	slight / Petroleum	slight	
sand C M F	black	moderate / other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface	overwhelming		

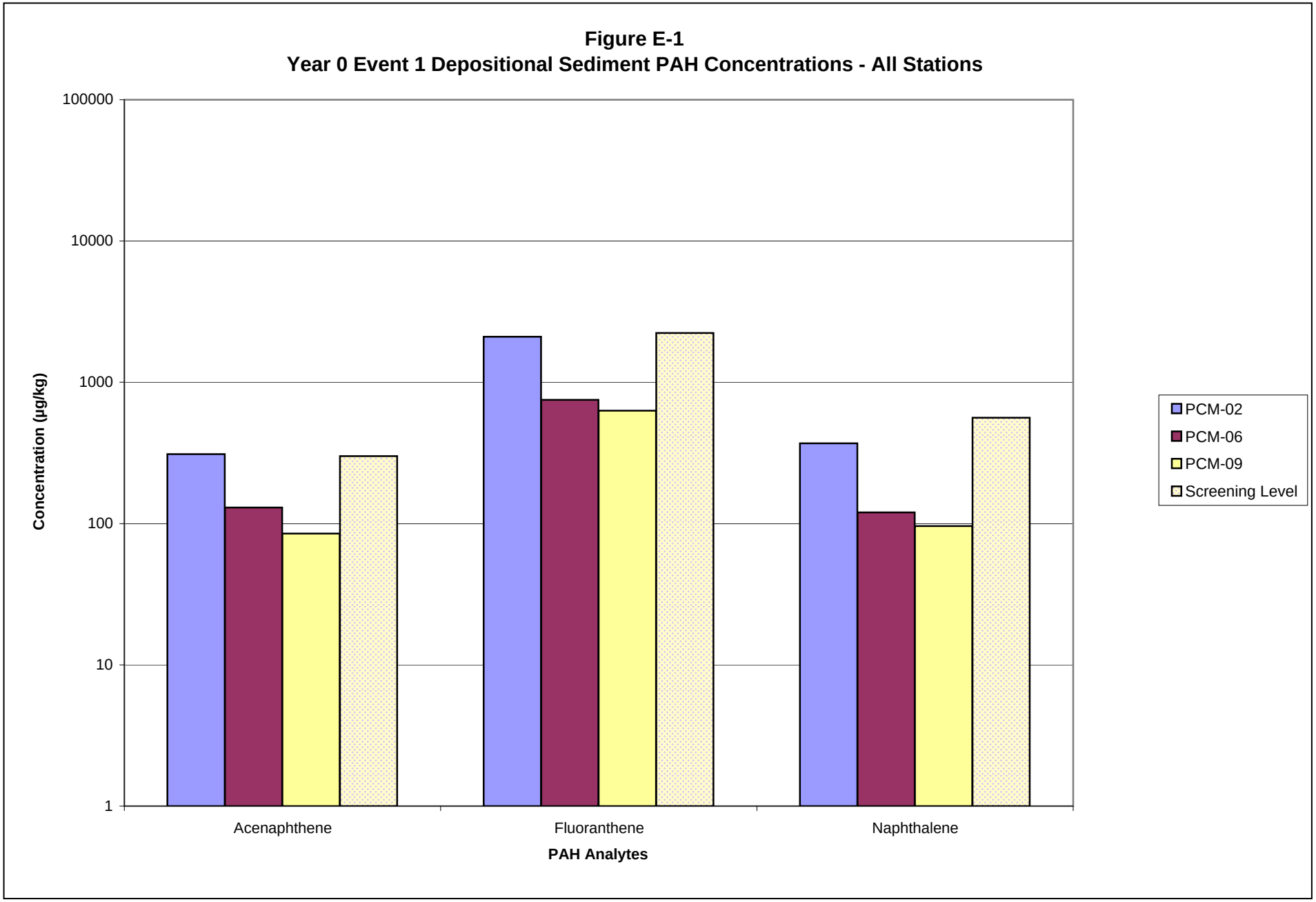
Grab Number: _____	Water Depth: _____	Grab Recovery: _____ cm	Time: _____	
	Tide Level: _____	Sample Interval: _____ cm		
Bioassay / Chemistry	Depth MLLW: _____			
Sediment Type:	Sediment Color:	Sediment Odor:	Sheen:	Comments:
cobble	D.O.	none / H2S	none	
gravel	gray	slight / Petroleum	slight	
sand C M F	black	moderate / other:	moderate	
silt clay	brown	strong	heavy	
organic matter	brown surface	overwhelming		

R. B.

Date/Time Lab Drop Off:

Recorded by: Ryan Barth

APPENDIX E
YEAR 0, YEAR 1, AND YEAR 2 DEPOSITIONAL SEDIMENT CONCENTRATION PLOTS



ANCHOR QEA

Figure E-1
Year 0 Event 1 Depositional Sediment PAH Concentrations - All Stations
NW Natural "Gasco" Site

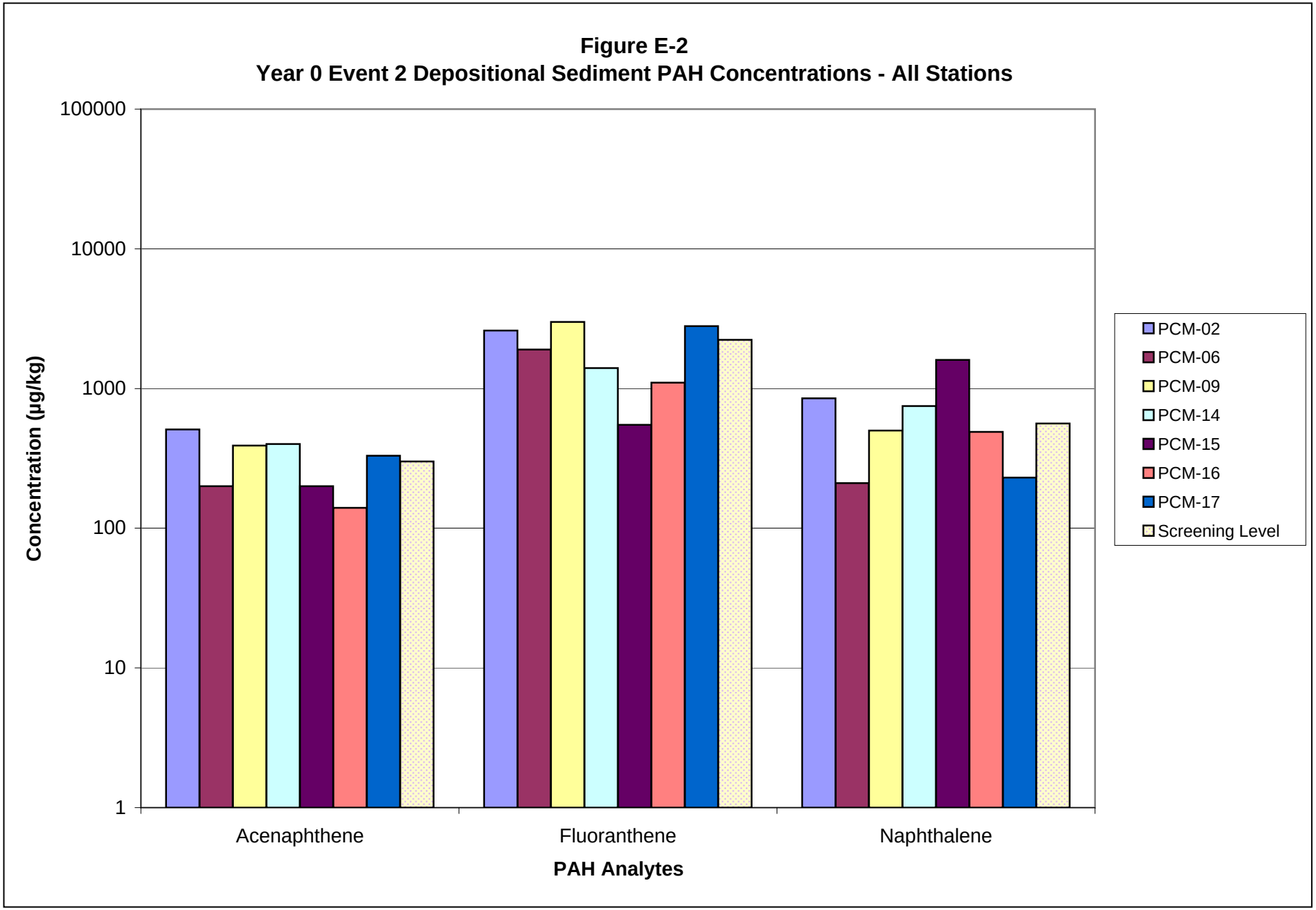


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Figure E-2
Year 0 Event 2 Depositional Sediment PAH Concentrations - All Stations
NW Natural "Gasco" Site

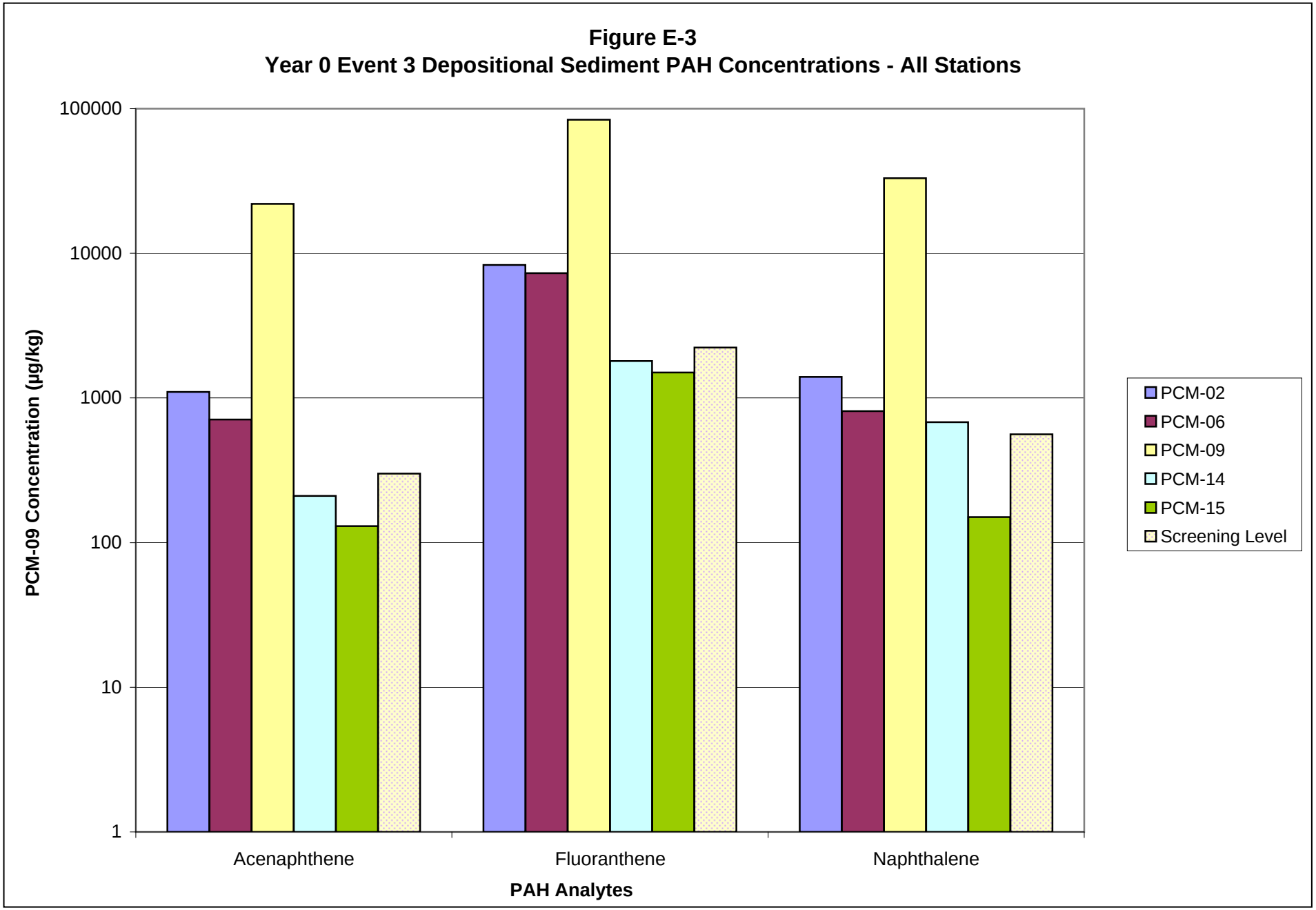

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Figure E-3
Year 0 Event 3 Depositional Sediment PAH Concentrations - All Stations
NW Natural "Gasco" Site

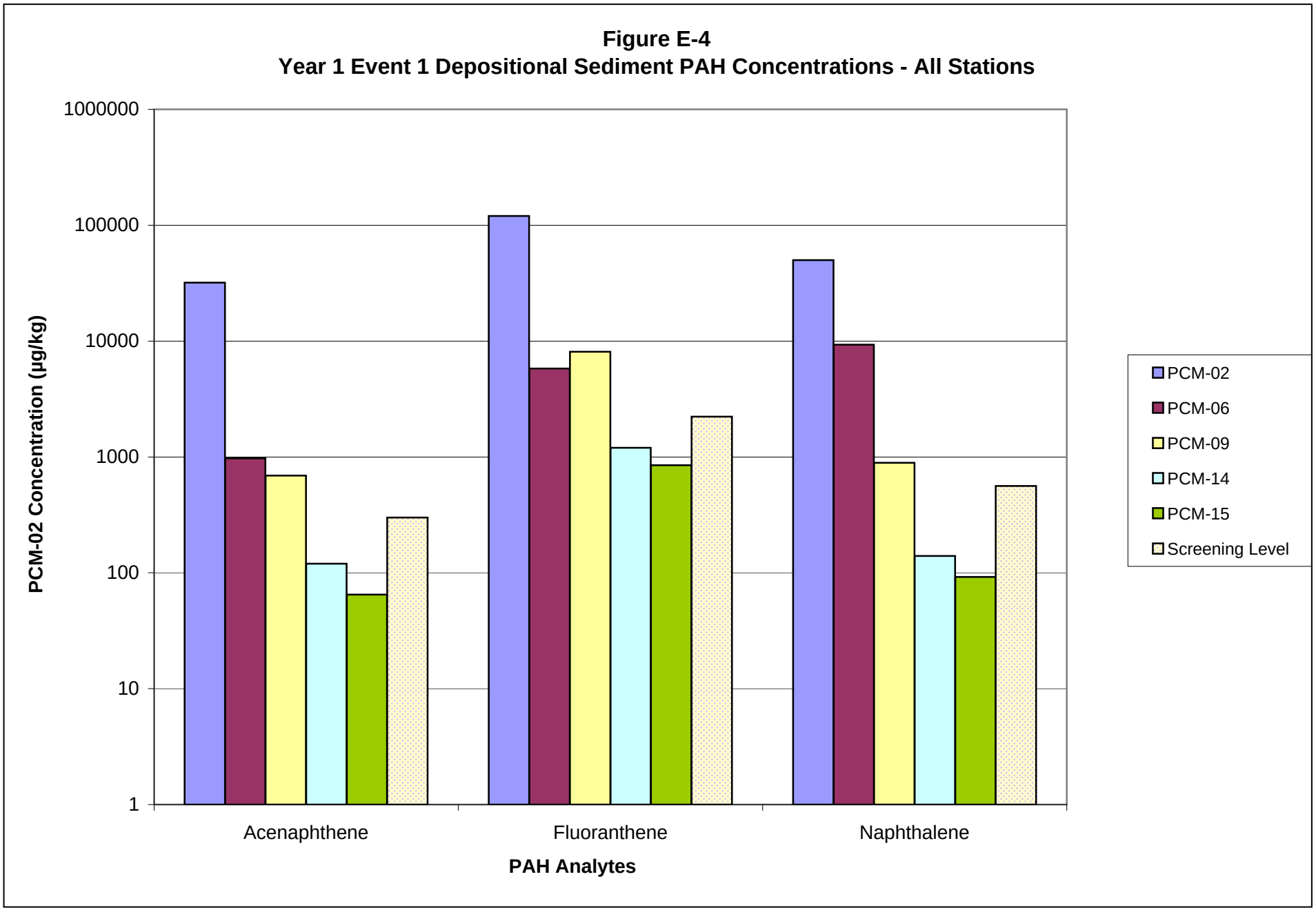

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Figure E-4
Year 1 Event 1 Depositional Sediment PAH Concentrations - All Stations
NW Natural "Gasco" Site

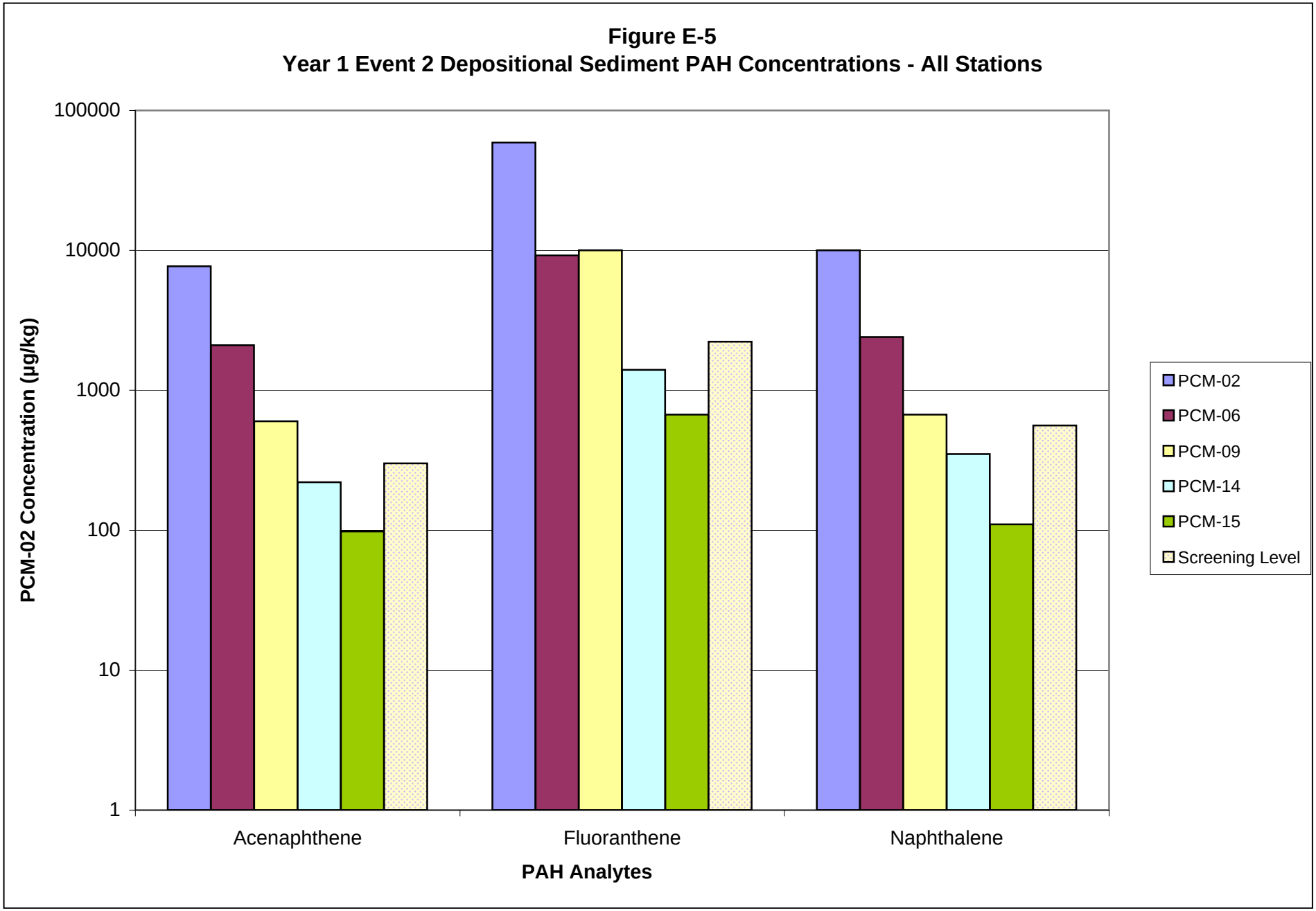

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Figure E-5
Year 1 Event 2 Depositional Sediment PAH Concentrations - All Stations
NW Natural "Gasco" Site

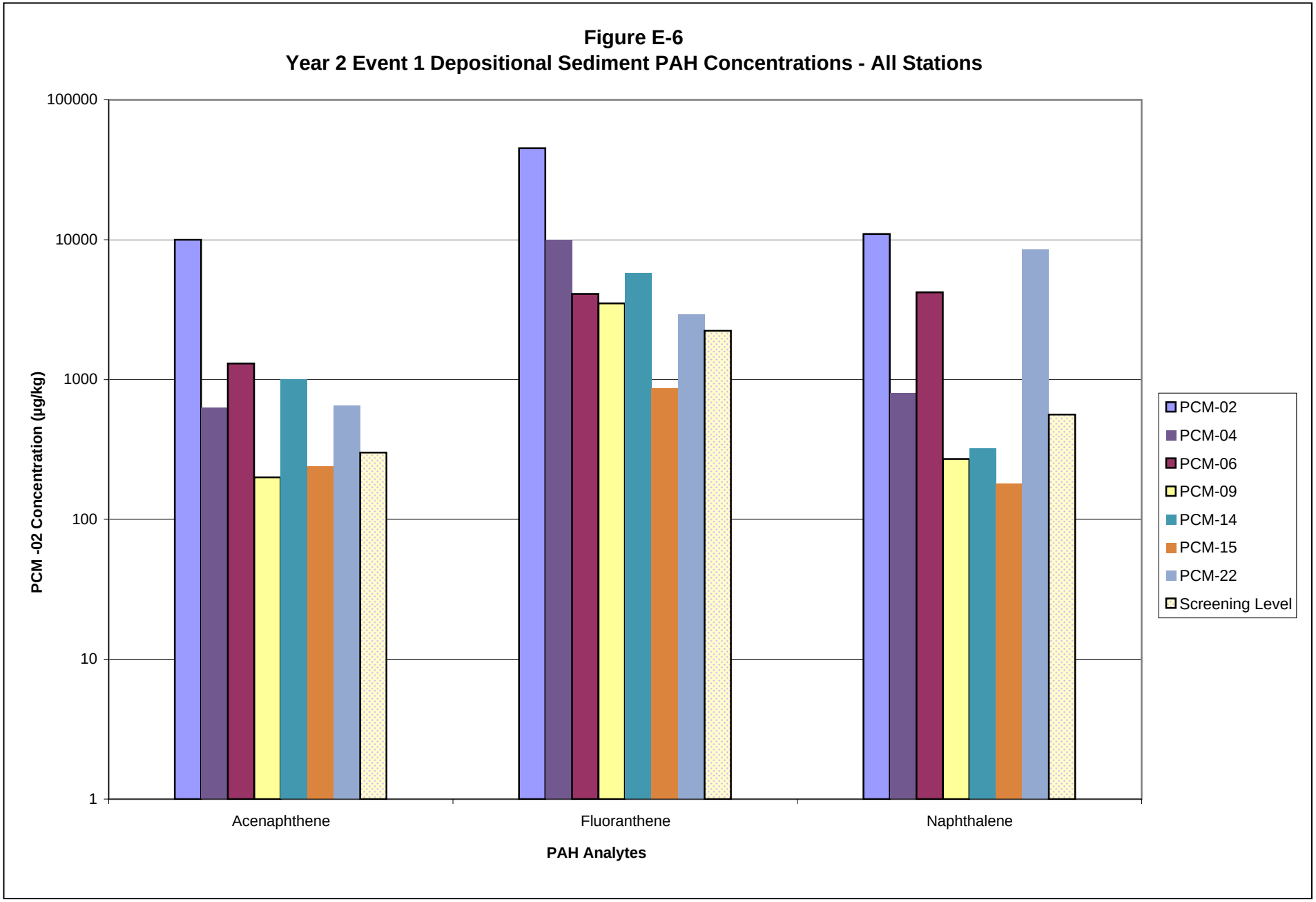

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Figure E-6
Year 2 Event 1 Depositional Sediment PAH Concentrations - All Stations
NW Natural "Gasco" Site

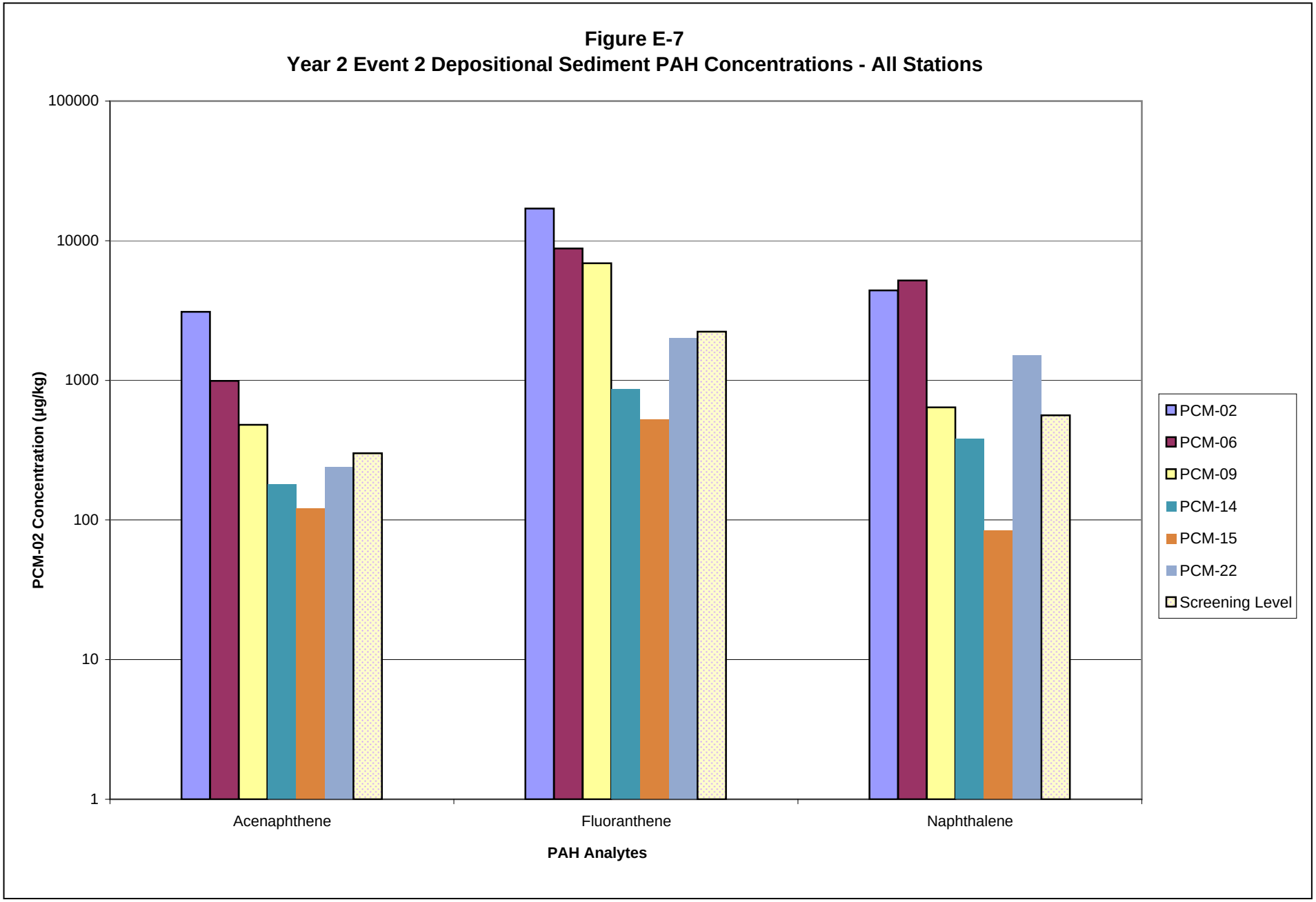

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Figure E-7
Year 2 Event 2 Depositional Sediment PAH Concentrations - All Stations
NW Natural "Gasco" Site

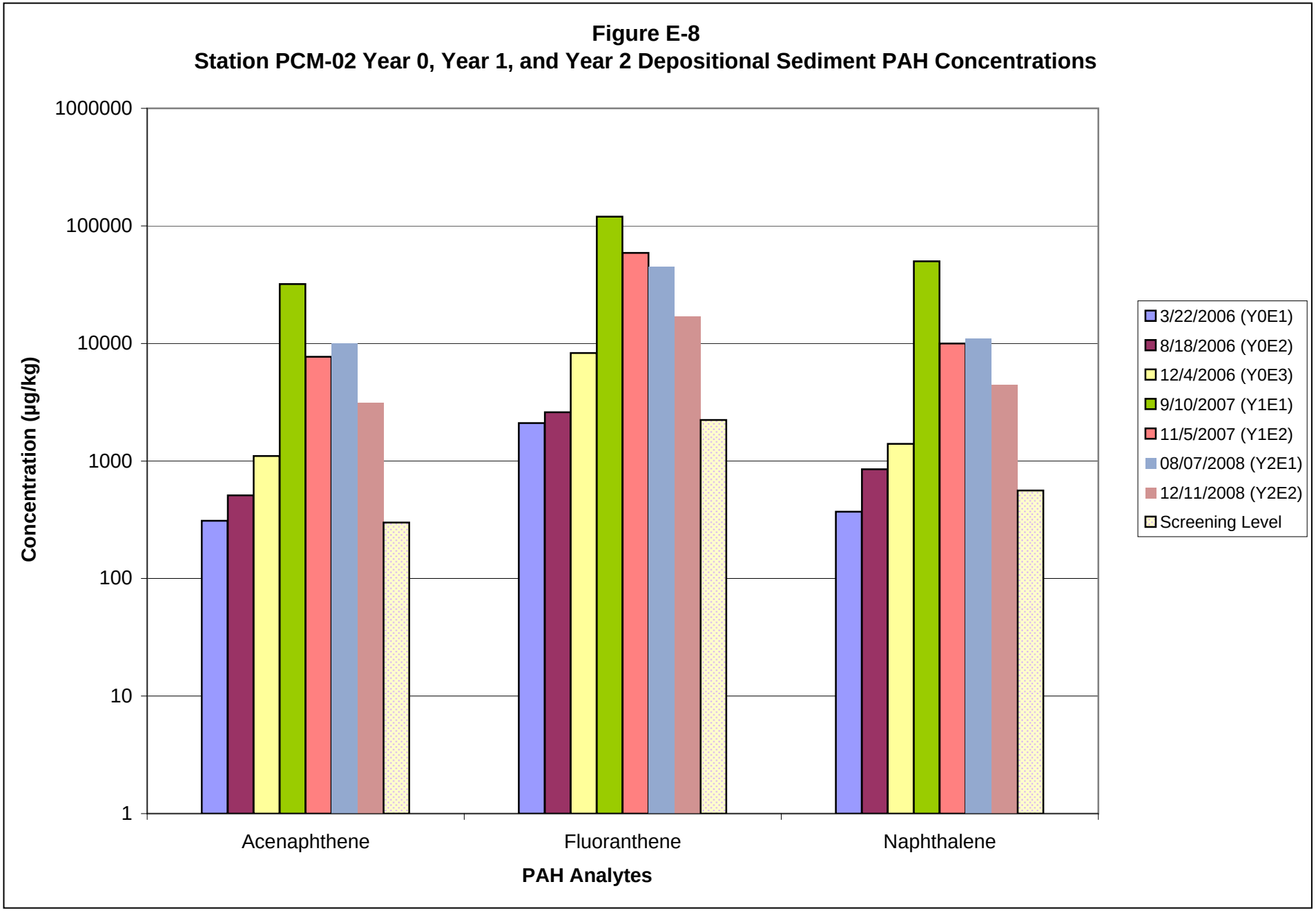

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Figure E-8
Station PCM-02 Year 0, Year 1, and Year 2 Depositional Sediment PAH Concentrations
NW Natural "Gasco" Site

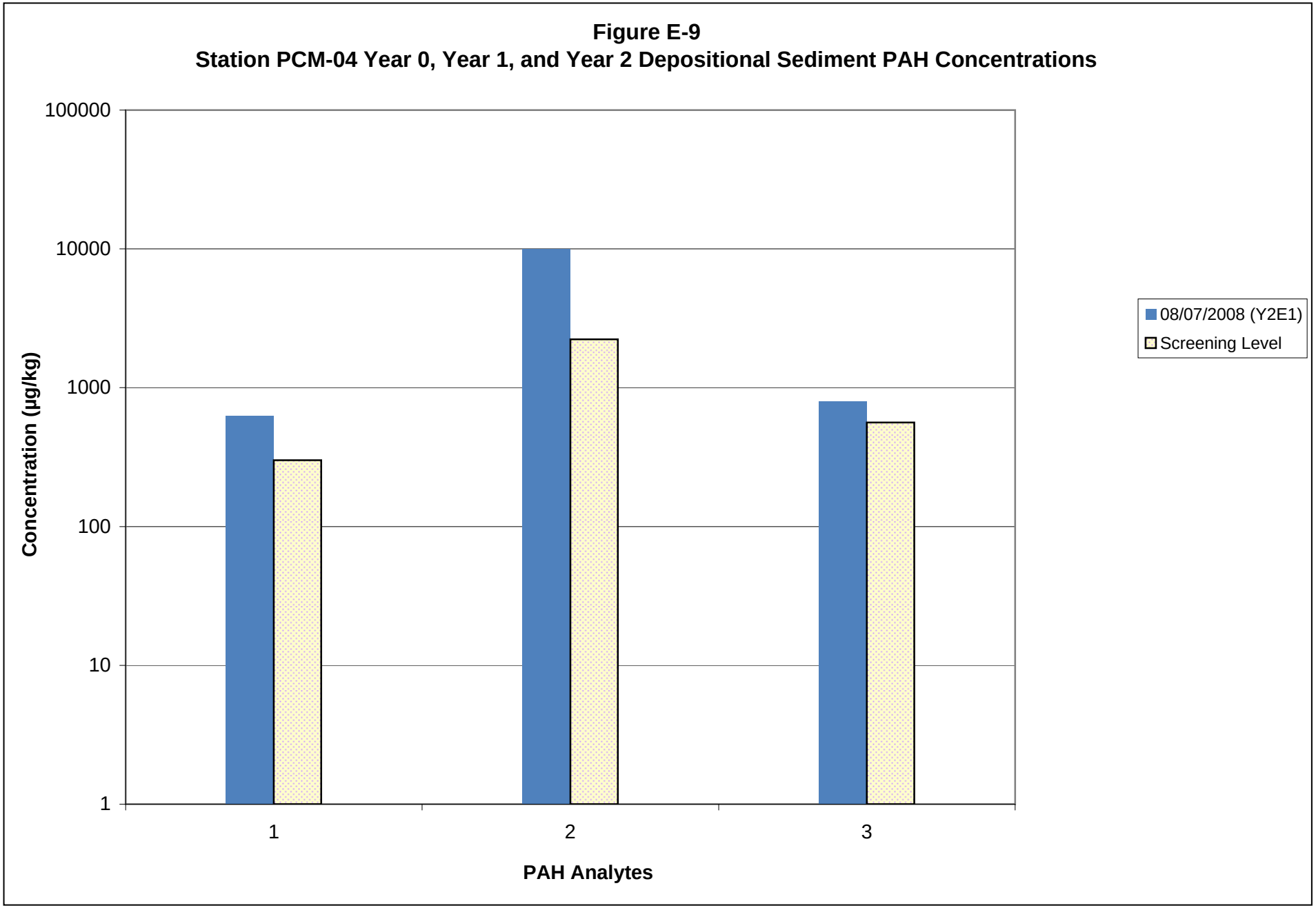

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Figure E-9
Station PCM-02 Year 0, Year 1, and Year 2 Depositional Sediment PAH Concentrations
NW Natural "Gasco" Site

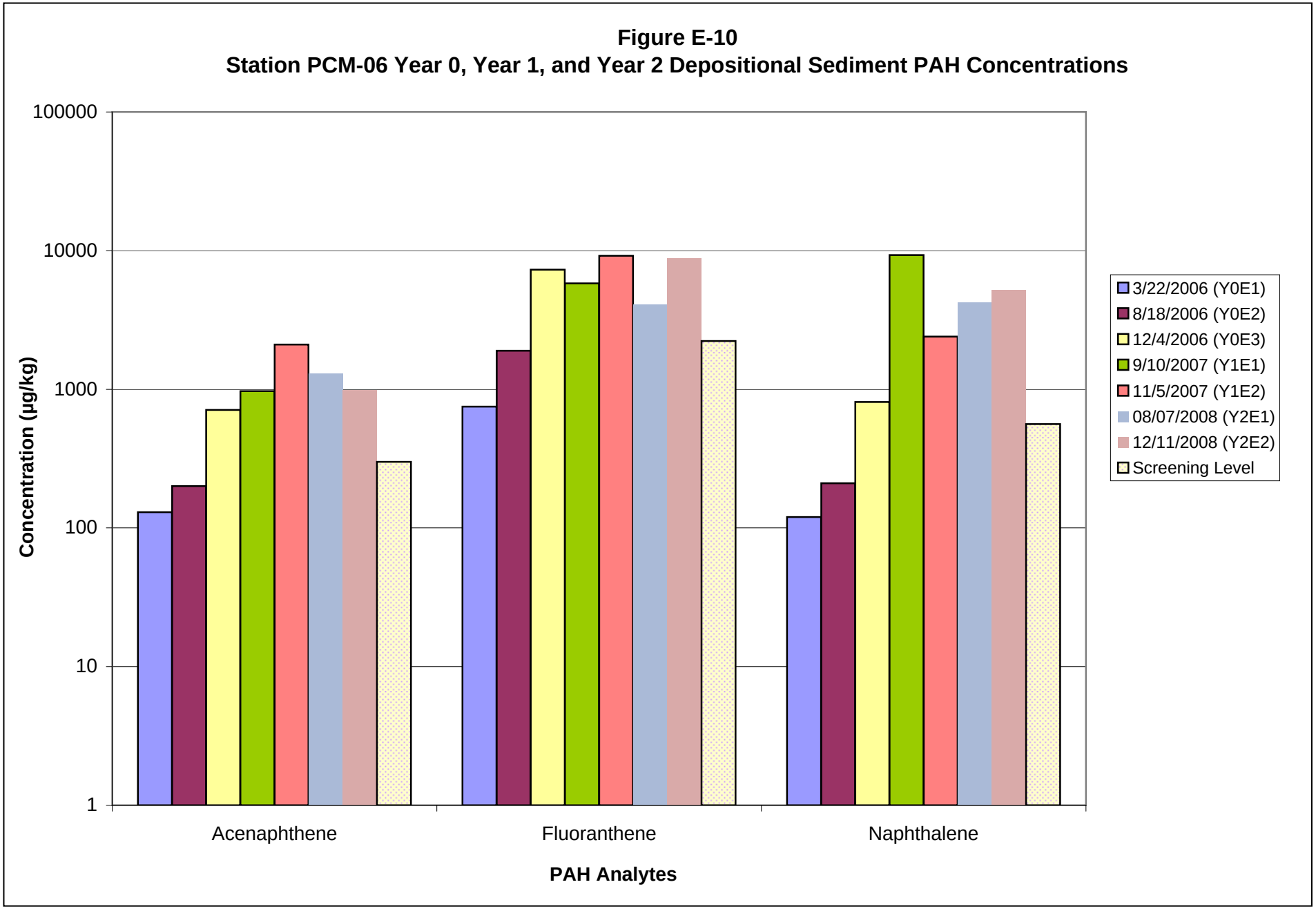

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Figure E-10
Station PCM-06 Year 0, Year 1, and Year 2 Depositional Sediment PAH Concentrations
NW Natural "Gasco" Site

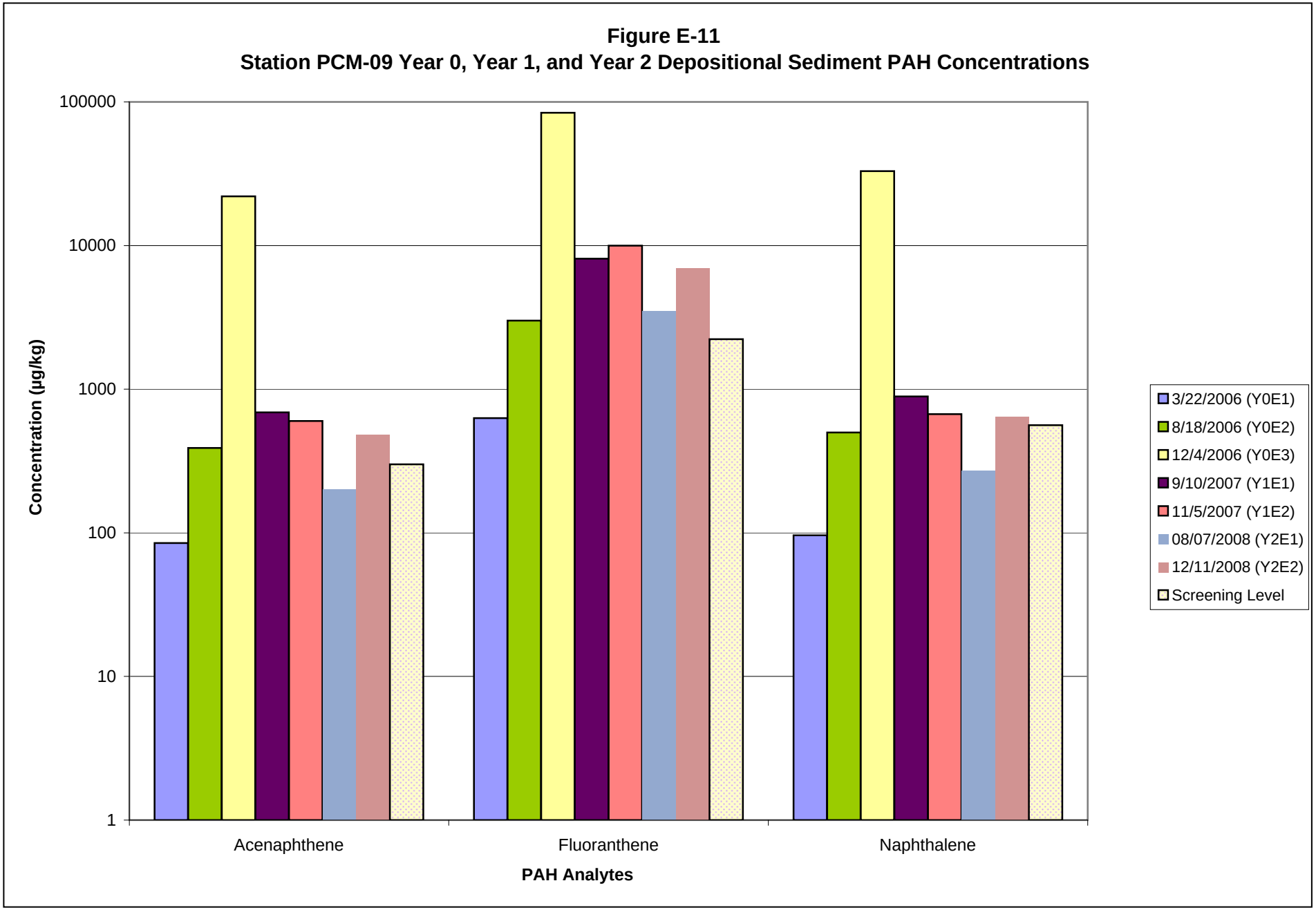

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Figure E-11
Station PCM-09 Year 0, Year 1, and Year 2 Depositional Sediment PAH Concentrations
NW Natural "Gasco" Site

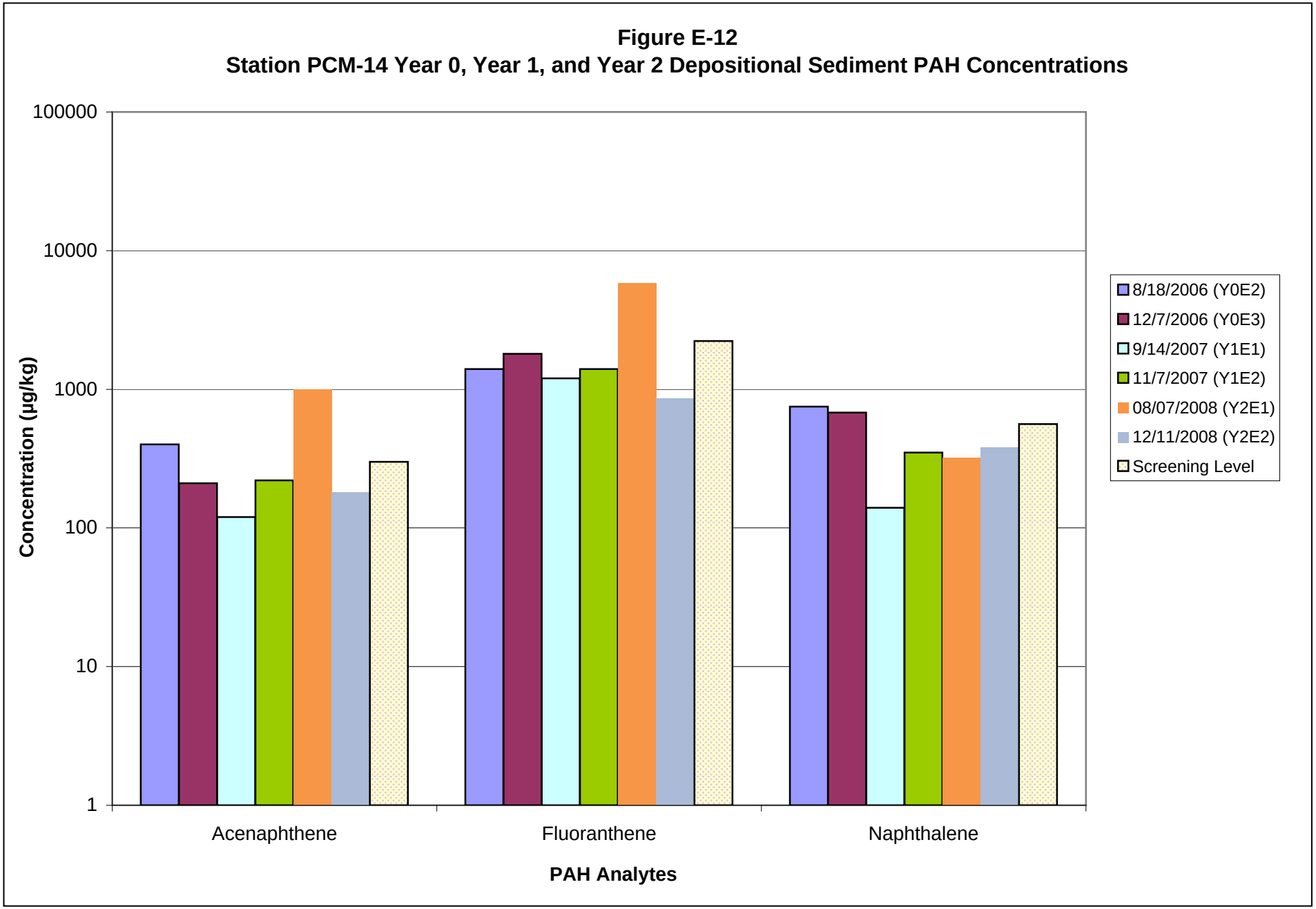

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Figure E-12
Station PCM-14 Year 0, Year 1, and Year 2 Depositional Sediment PAH Concentrations
NW Natural "Gasco" Site

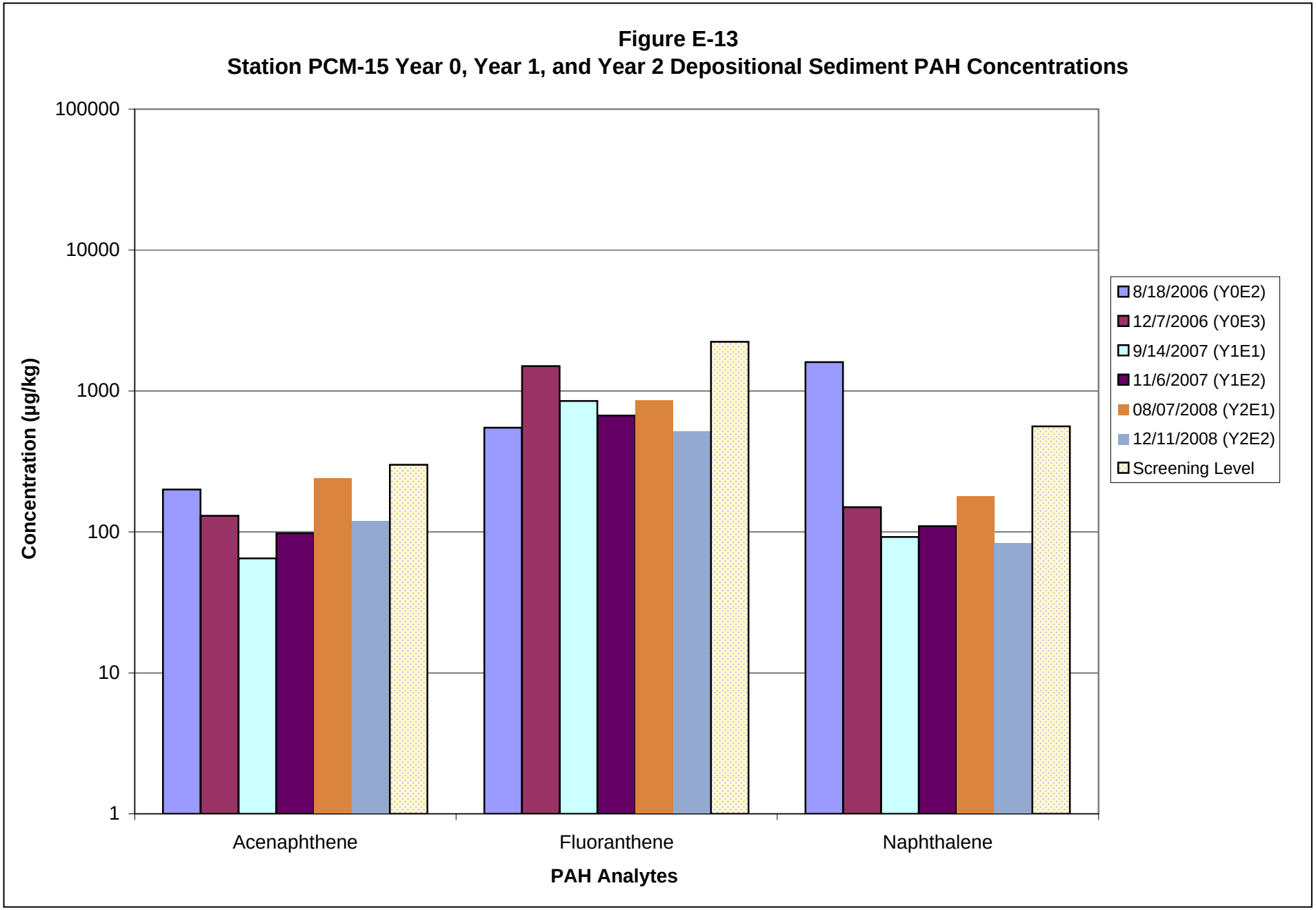

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Figure E-13
Station PCM-15 Year 0, Year 1, and Year 2 Depositional Sediment PAH Concentrations
NW Natural "Gasco" Site

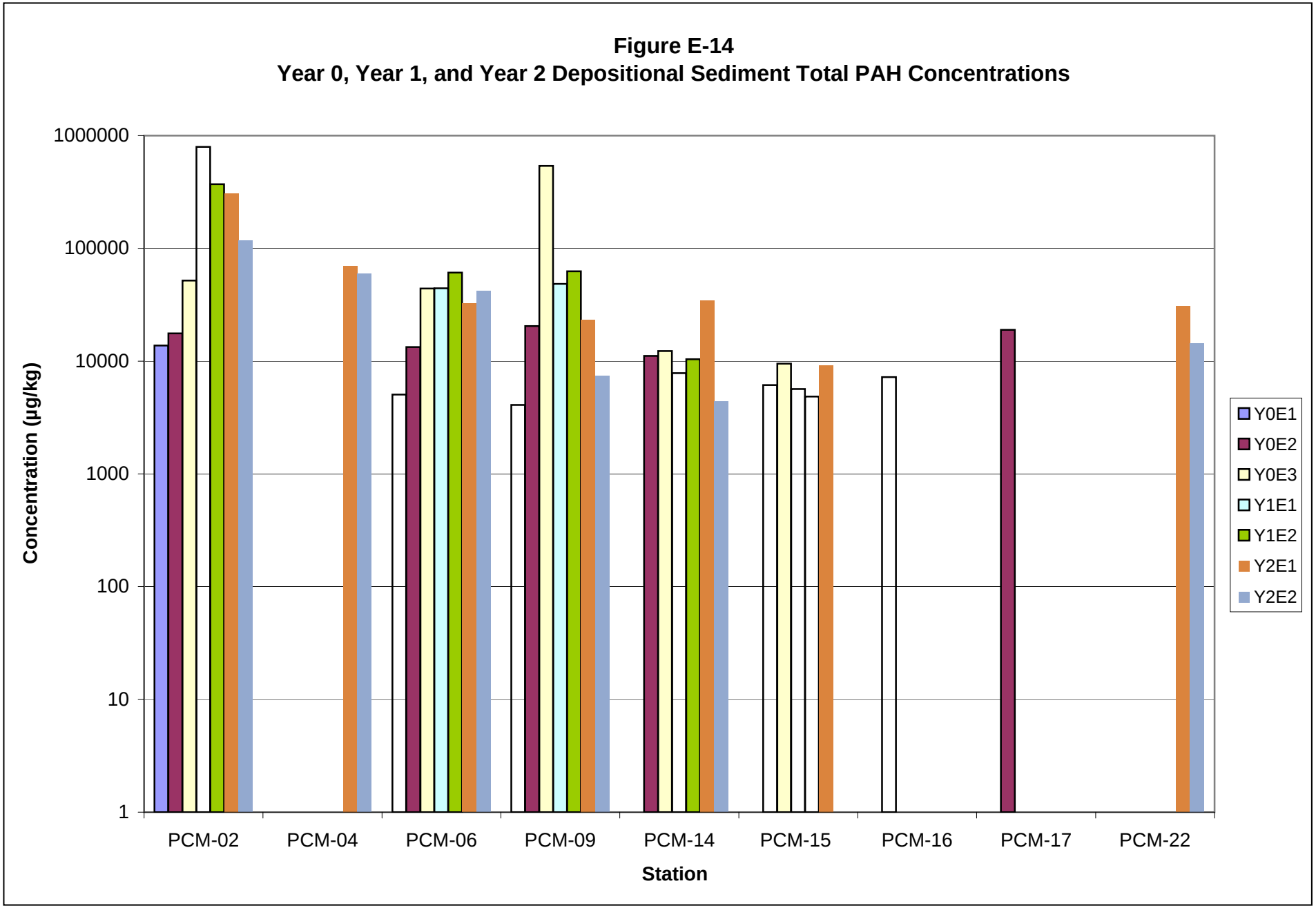

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Figure E-14
Year 0, Year 1, and Year 2 Depositional Sediment Total PAH Concentrations
NW Natural "Gasco" Site

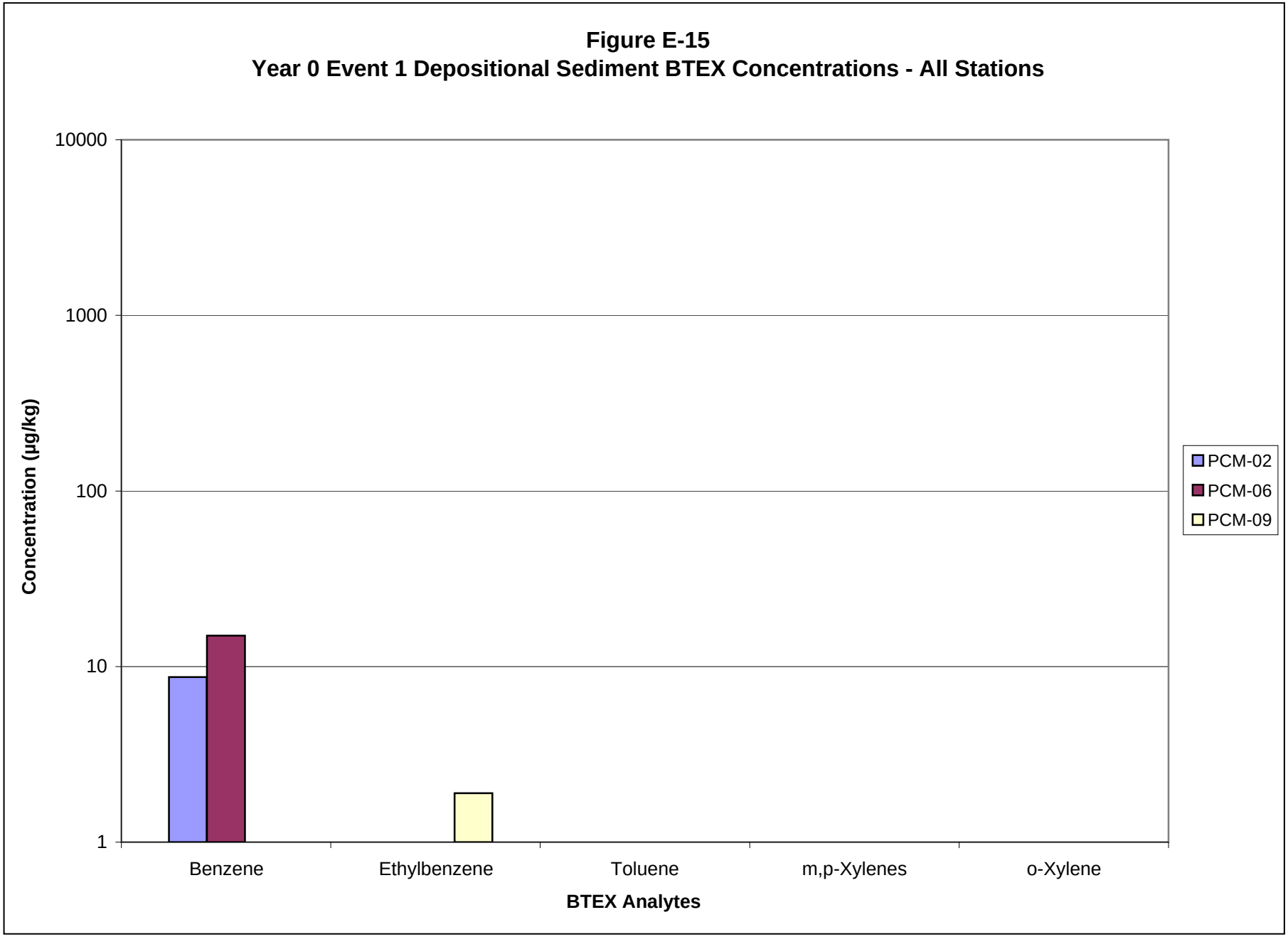

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Figure E-15
Year 0 Event 1 Depositional Sediment BTEX Concentrations - All Stations
NW Natural "Gasco" Site

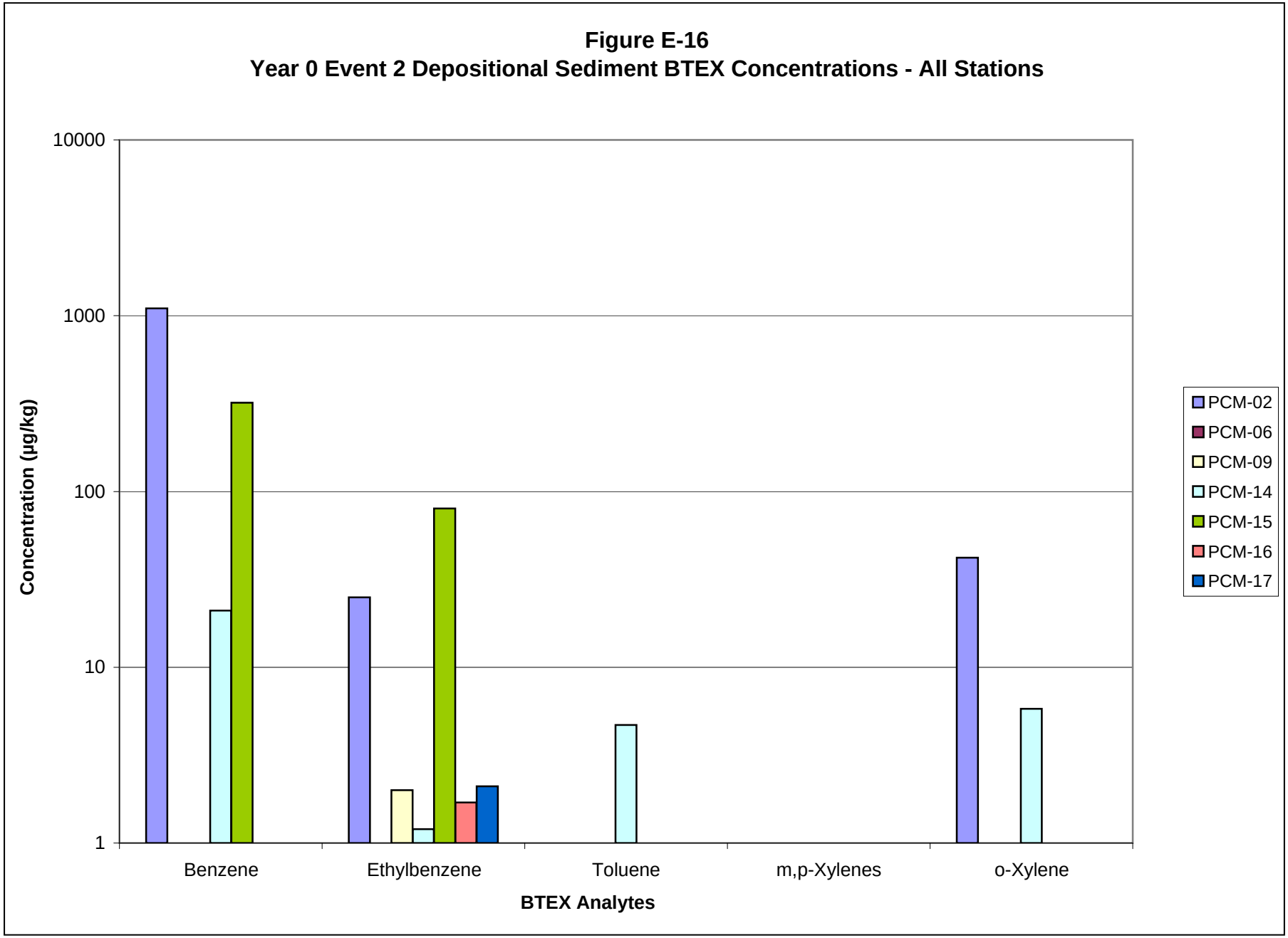

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Figure E-16
Year 0 Event 2 Depositional Sediment BTEX Concentrations - All Stations
NW Natural "Gasco" Site

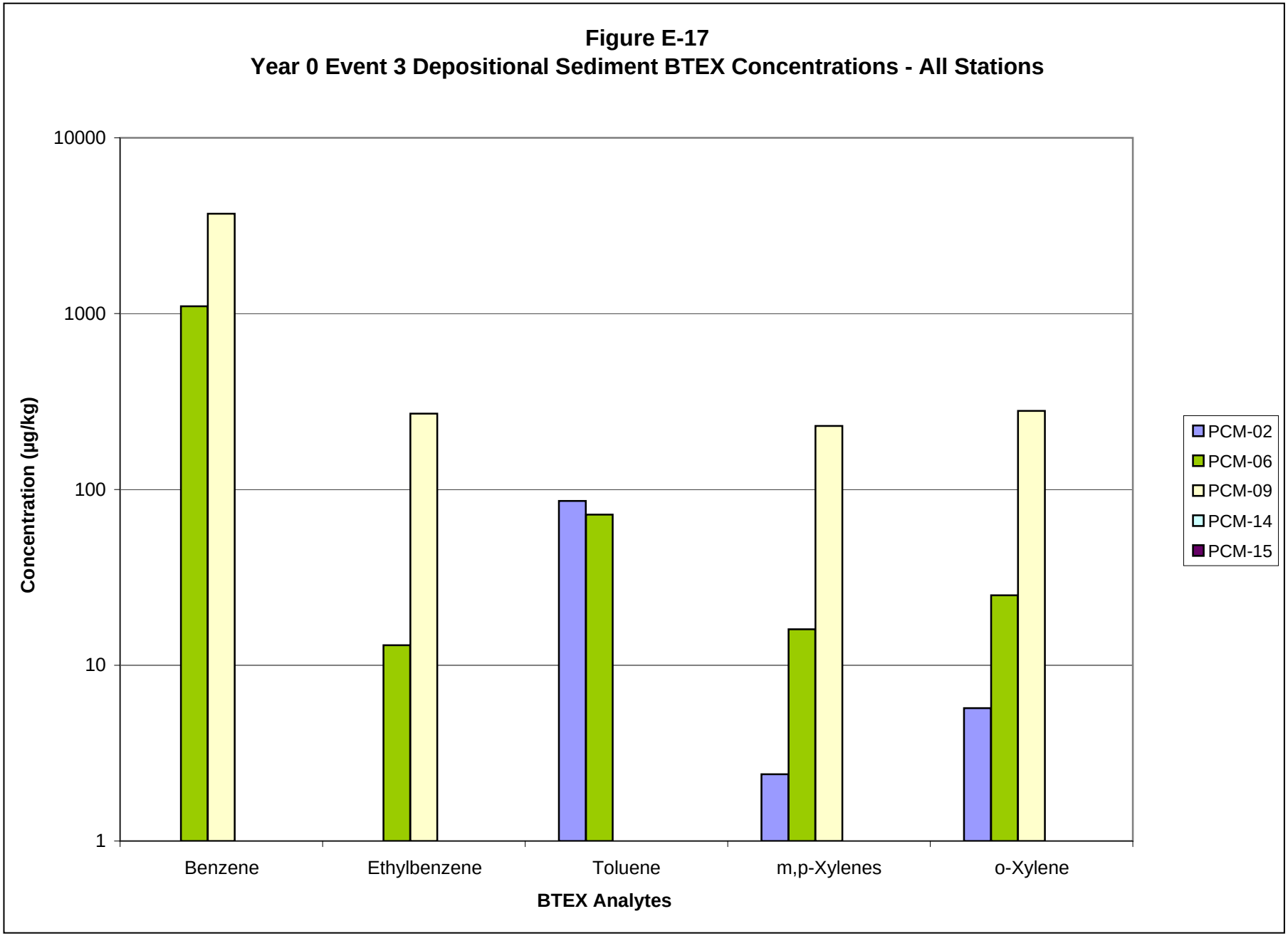

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Figure E-17
Year 0 Event 3 Depositional Sediment BTEX Concentrations - All Stations
NW Natural "Gasco" Site

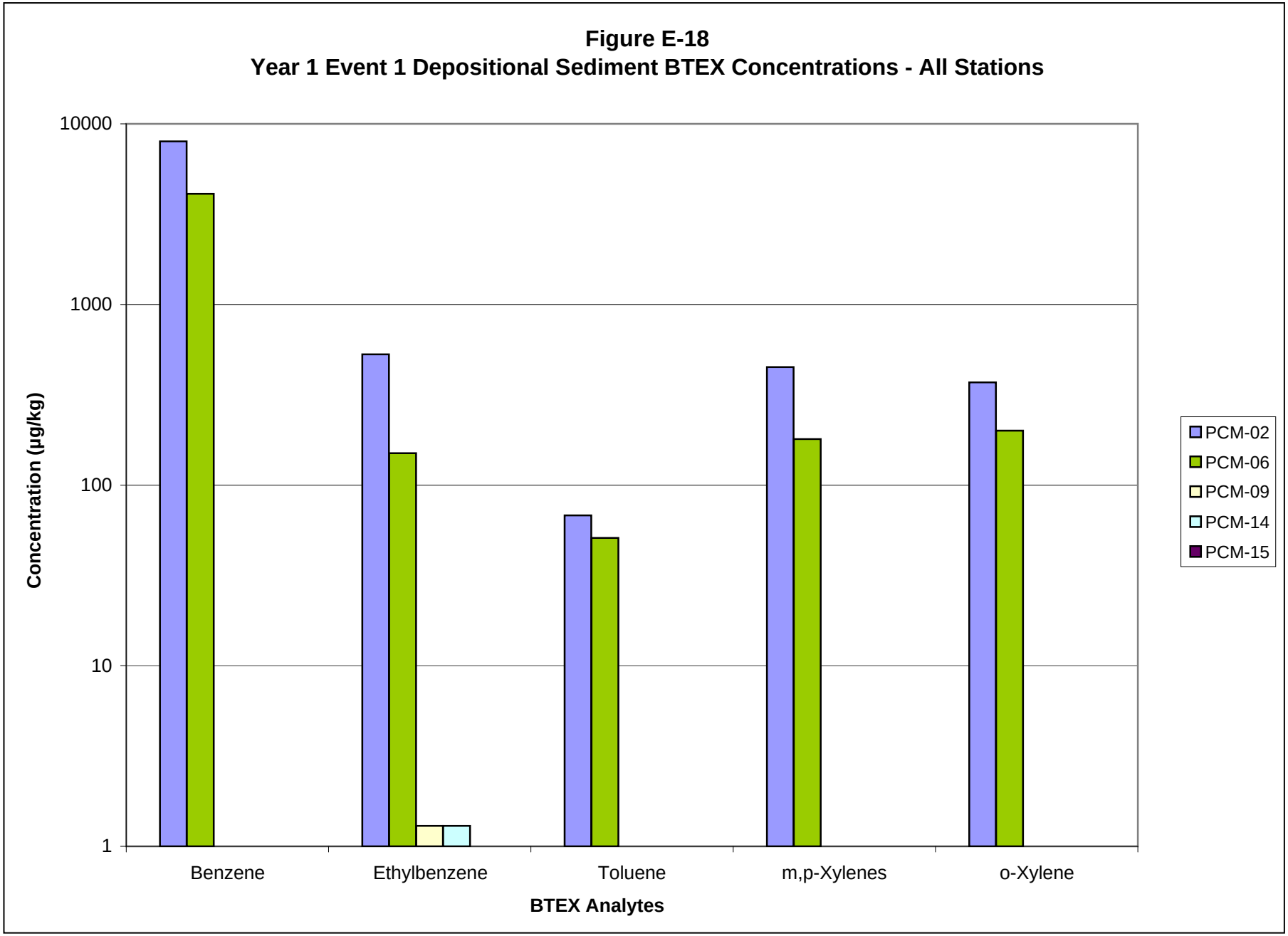

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Figure E-18
Year 1 Event 1 Depositional Sediment BTEX Concentrations - All Stations
NW Natural "Gasco" Site

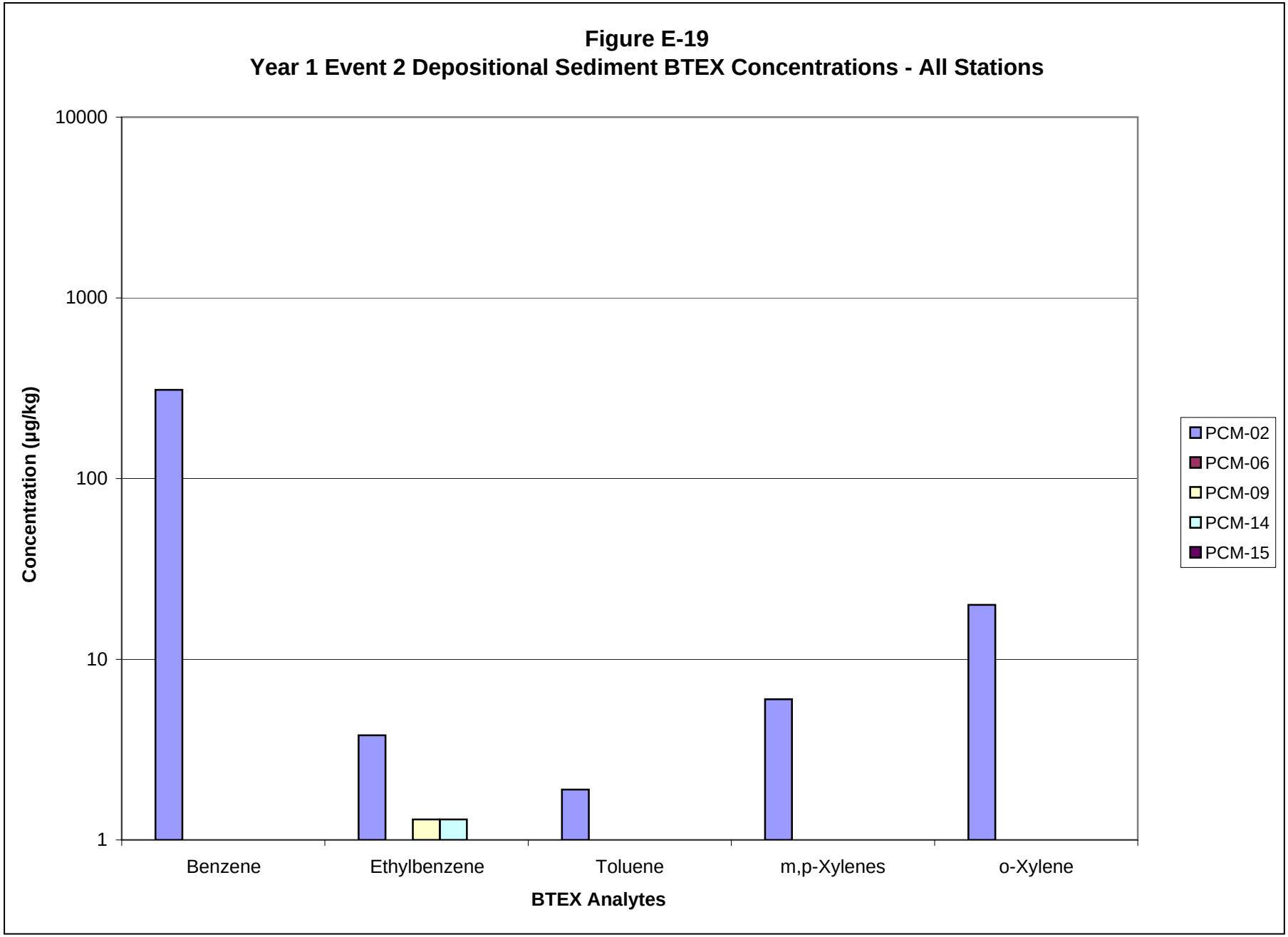

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Figure E-19
Year 1 Event 2 Depositional Sediment BTEX Concentrations - All Stations
NW Natural "Gasco" Site

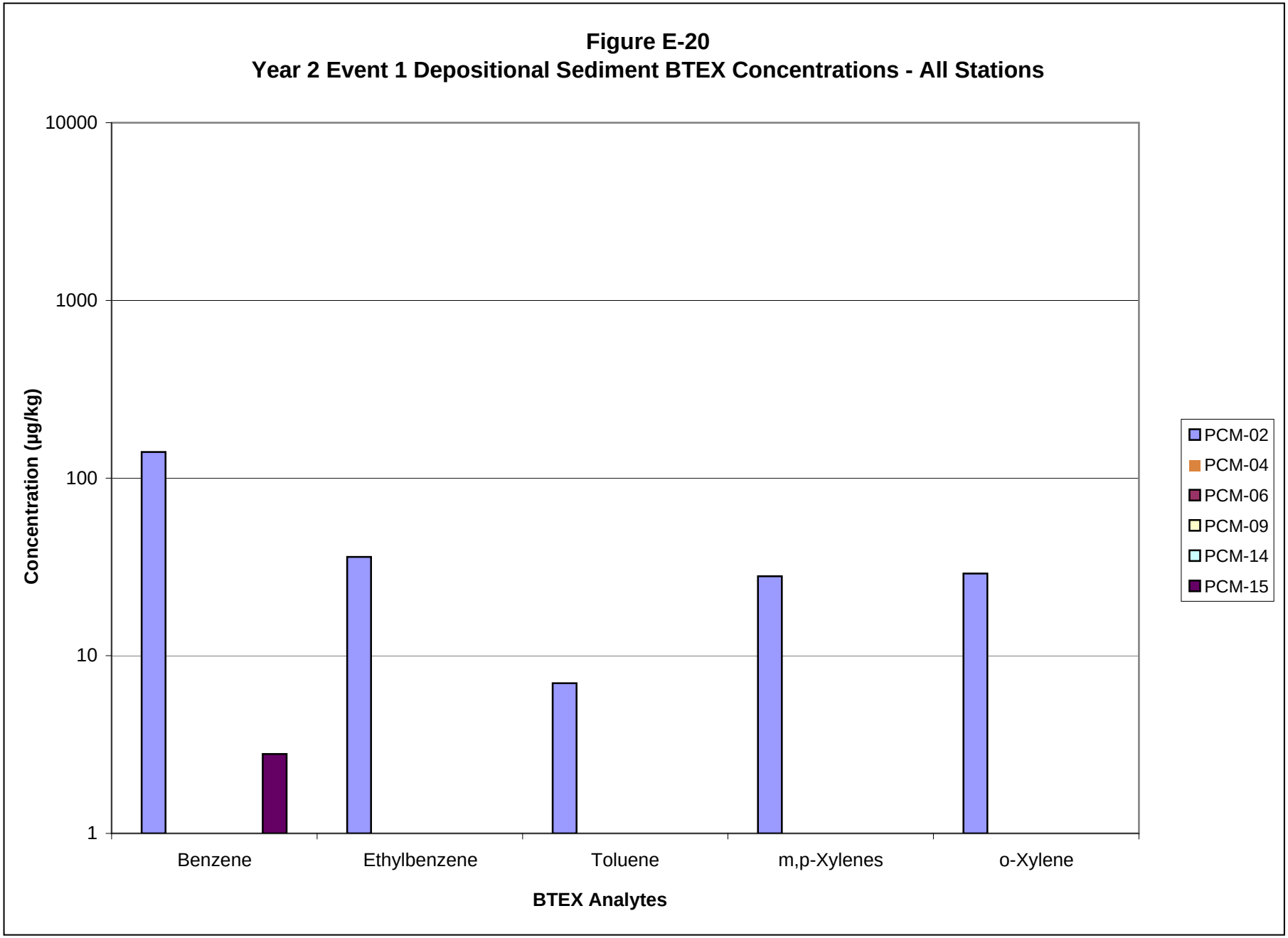

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Figure E-20
Year 2 Event 1 Depositional Sediment BTEX Concentrations - All Stations
NW Natural "Gasco" Site

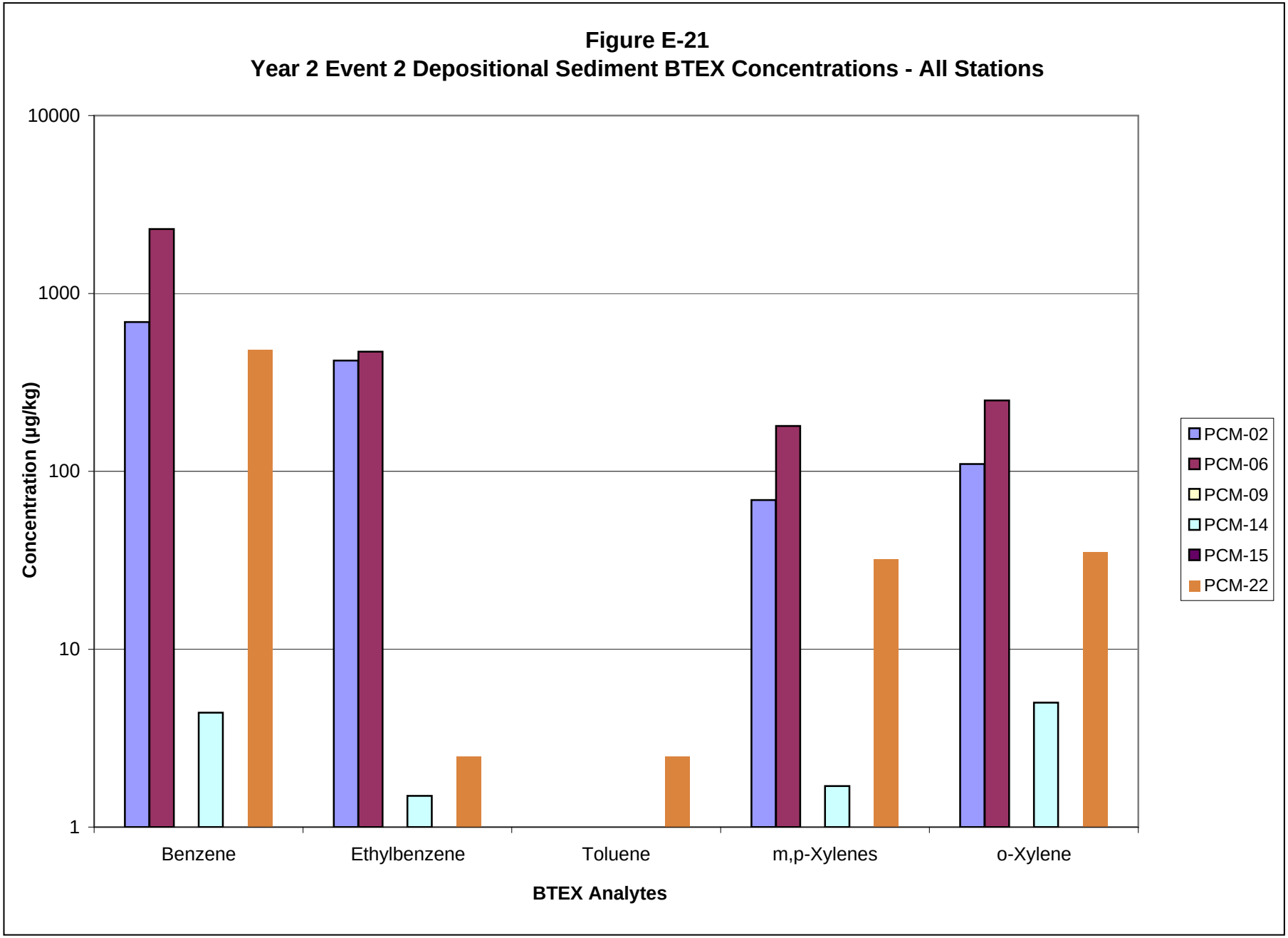

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Figure E-21
Year 2 Event 2 Depositional Sediment BTEX Concentrations - All Stations
NW Natural "Gasco" Site

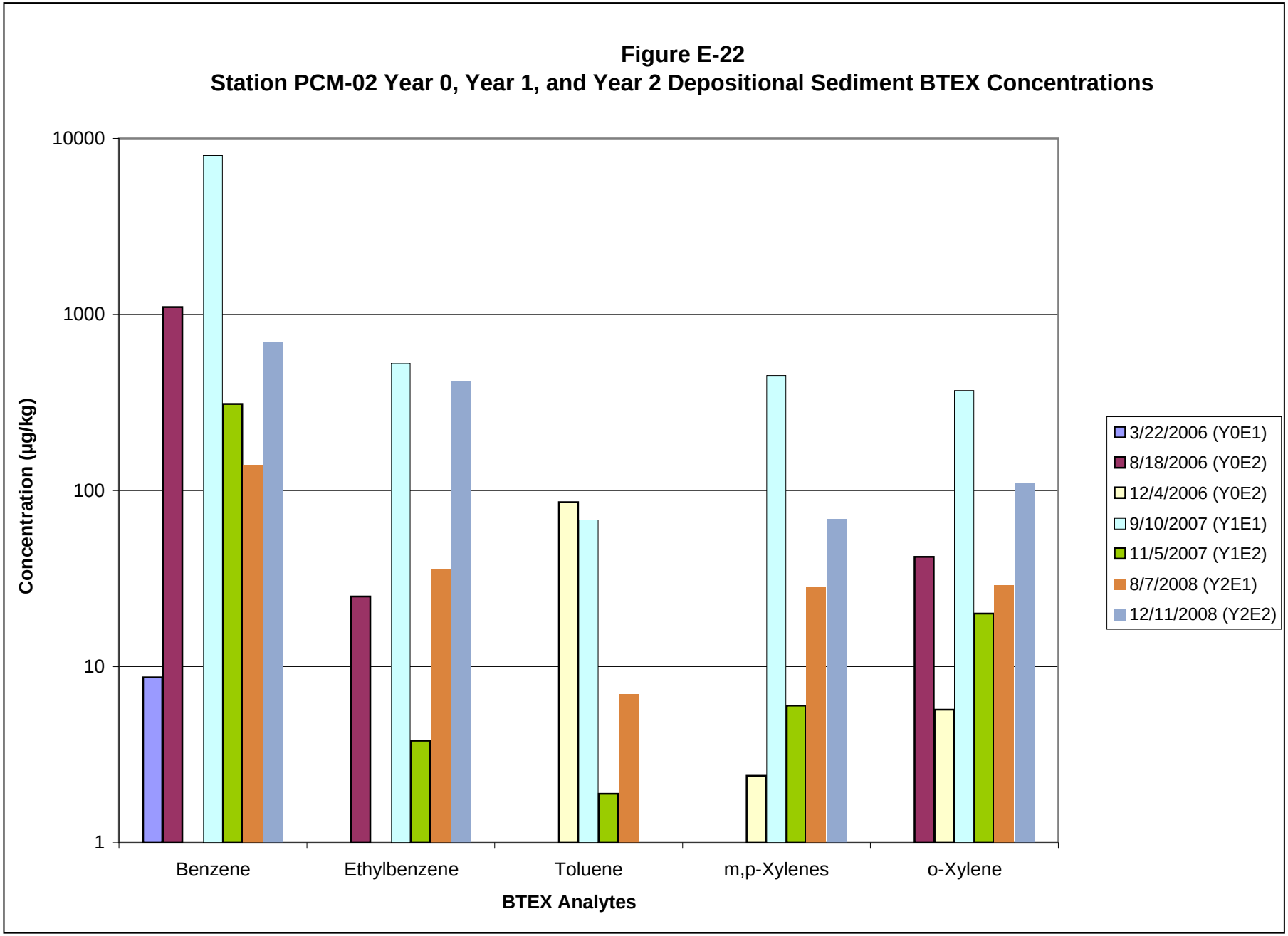

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Figure E-22
Station PCM-02 Year 0, Year 1, and Year 2 Depositional Sediment BTEX Concentrations
NW Natural "Gasco" Site

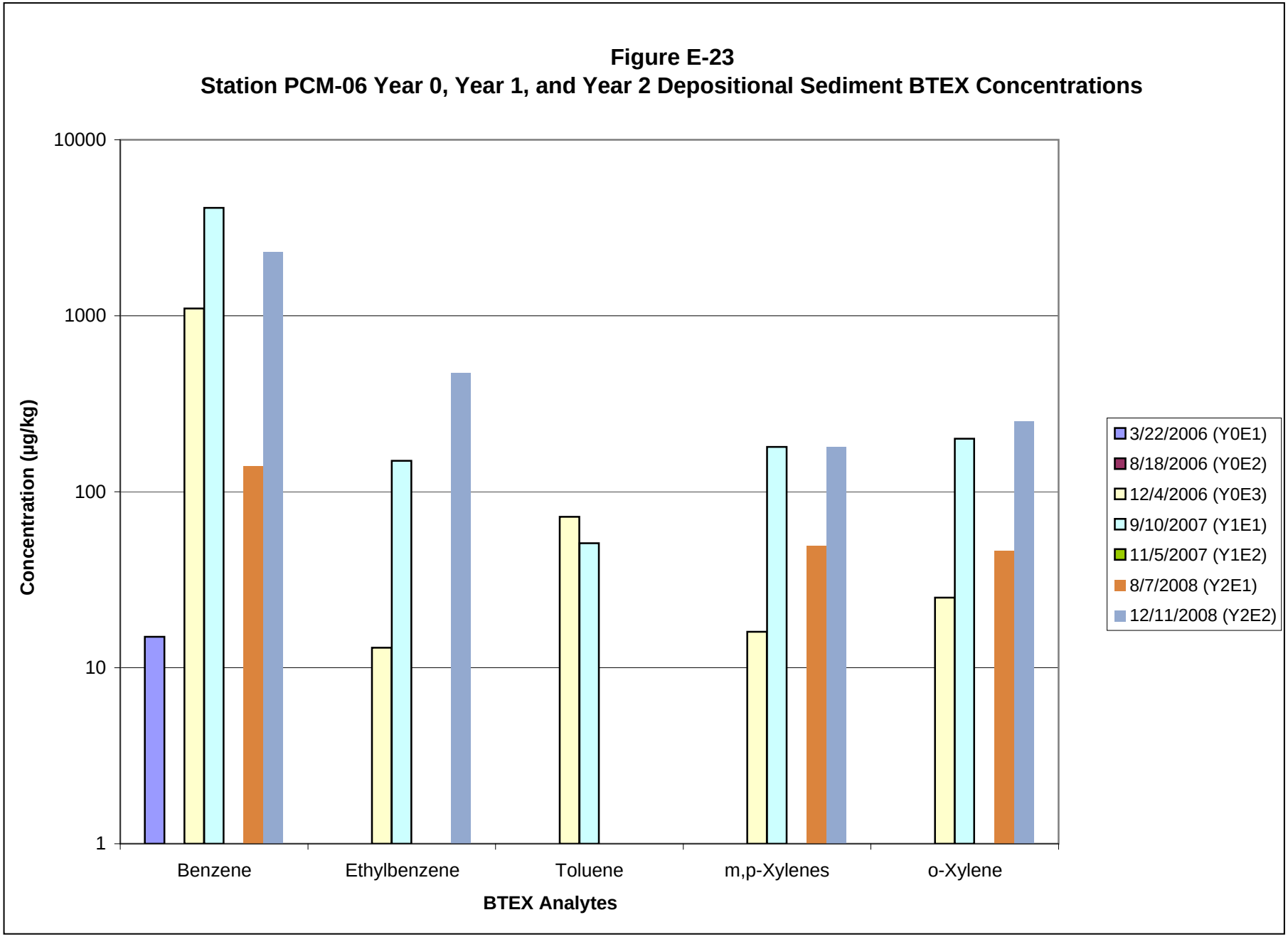

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Figure E-23
Station PCM-06 Year 0, Year 1, and Year 2 Depositional Sediment BTEX Concentrations
NW Natural "Gasco" Site

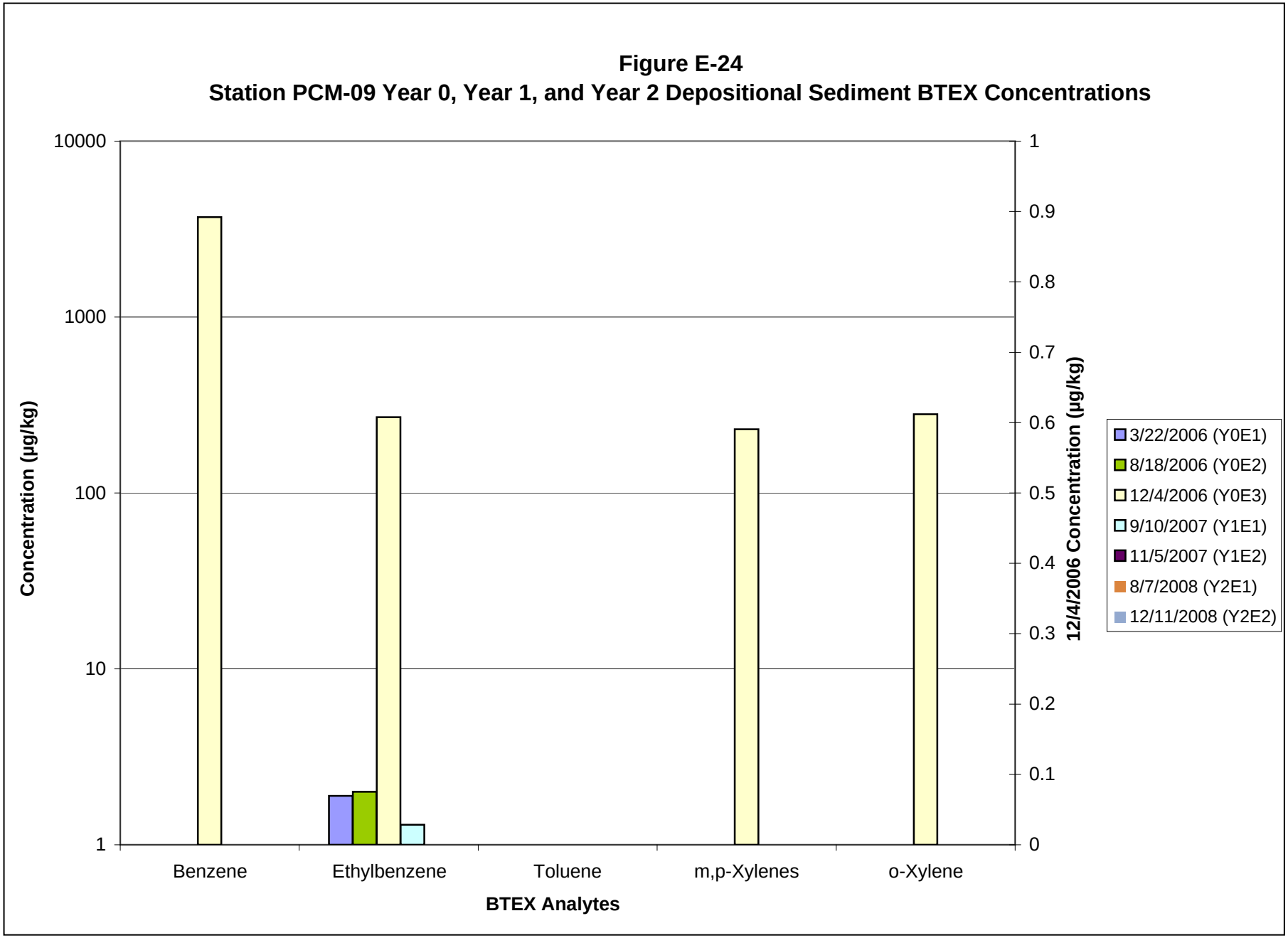

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Figure E-24
Station PCM-09 Year 0, Year 1, and Year 2 Depositional Sediment BTEX Concentrations
NW Natural "Gasco" Site

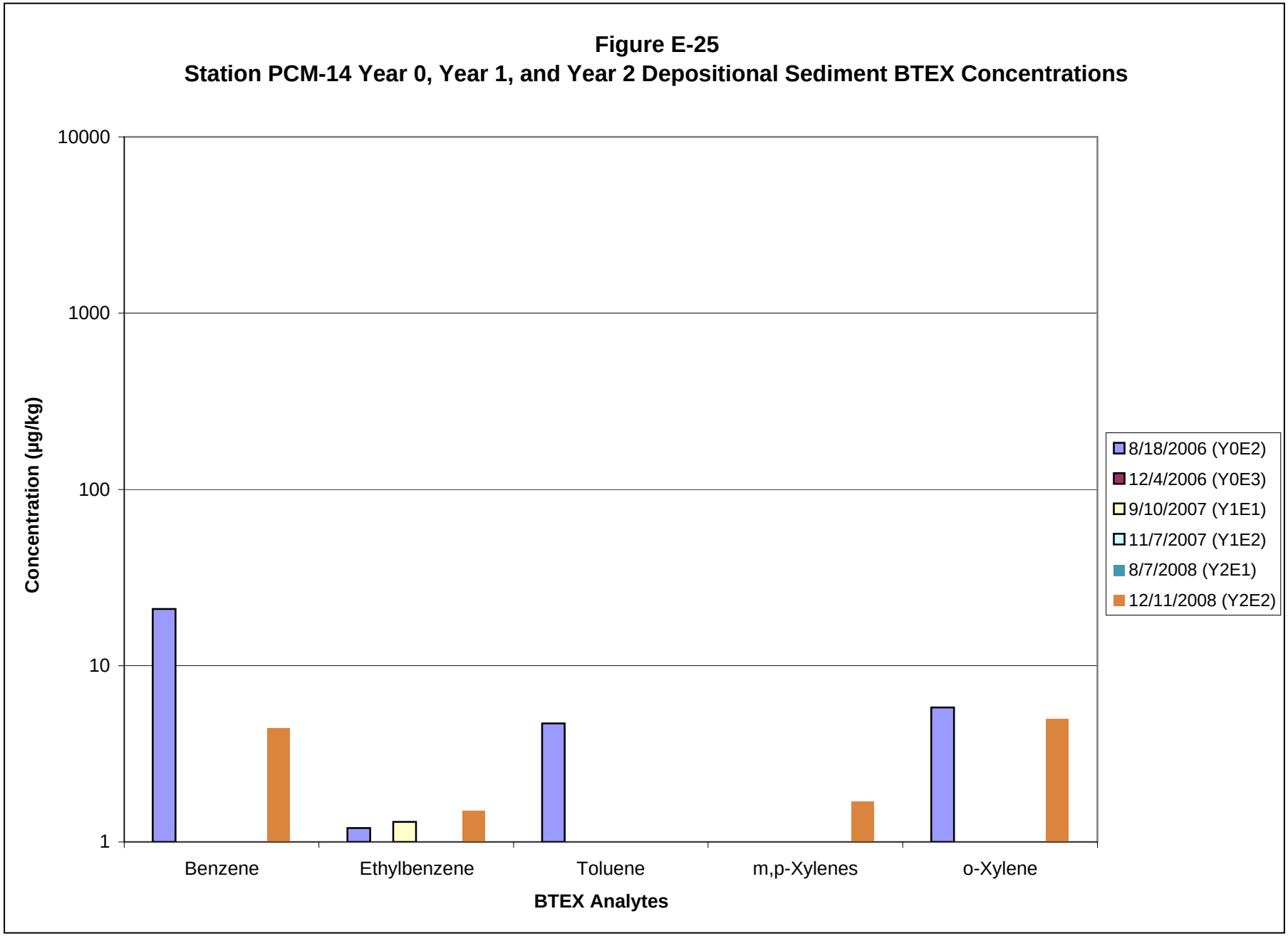

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Figure E-25
Station PCM-14 Year 0, Year 1, and Year 2 Depositional Sediment BTEX Concentrations
NW Natural "Gasco" Site

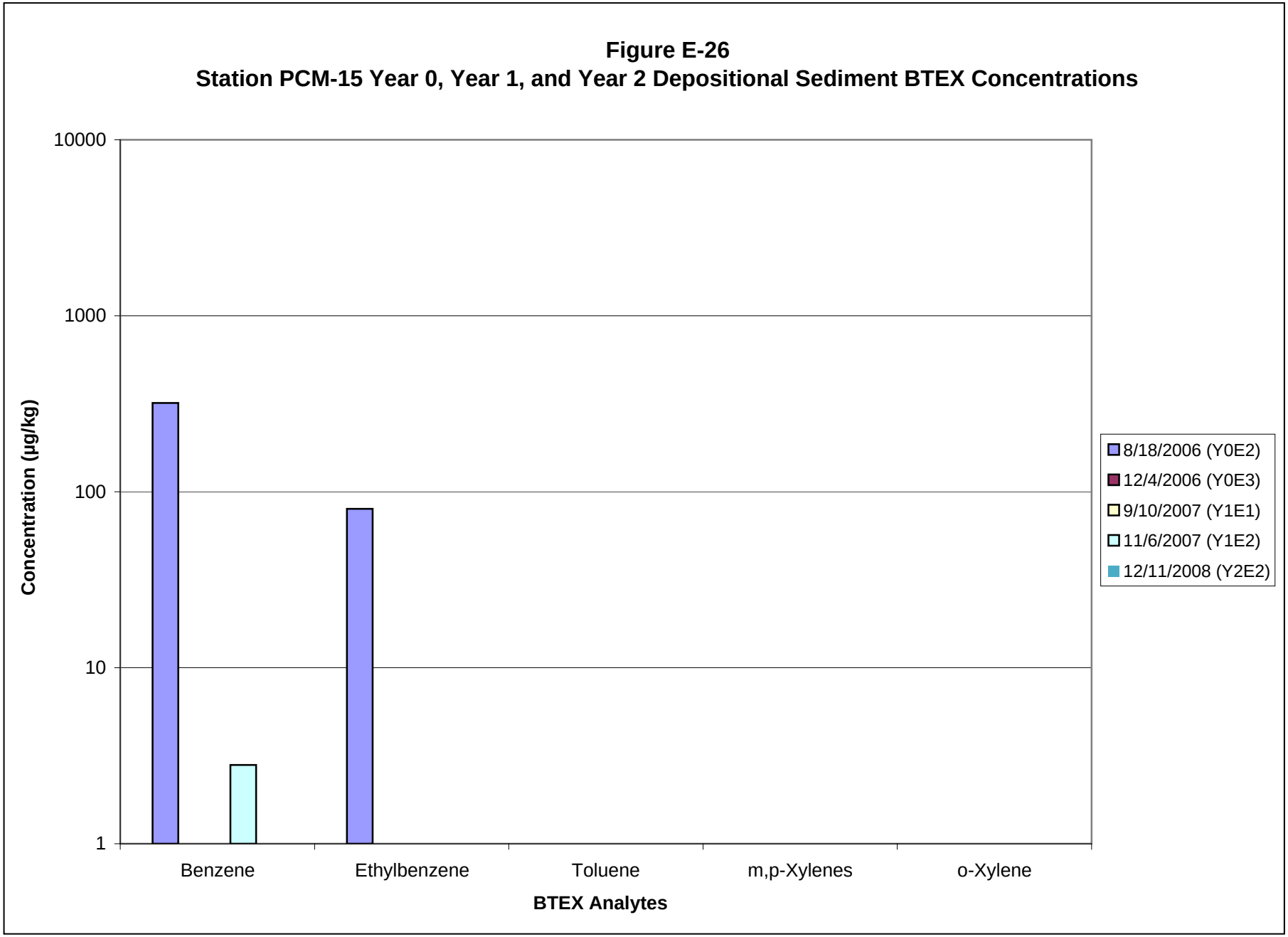

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Figure E-26
Station PCM-15 Year 0, Year 1, and Year 2 Depositional Sediment BTEX Concentrations
NW Natural "Gasco" Site

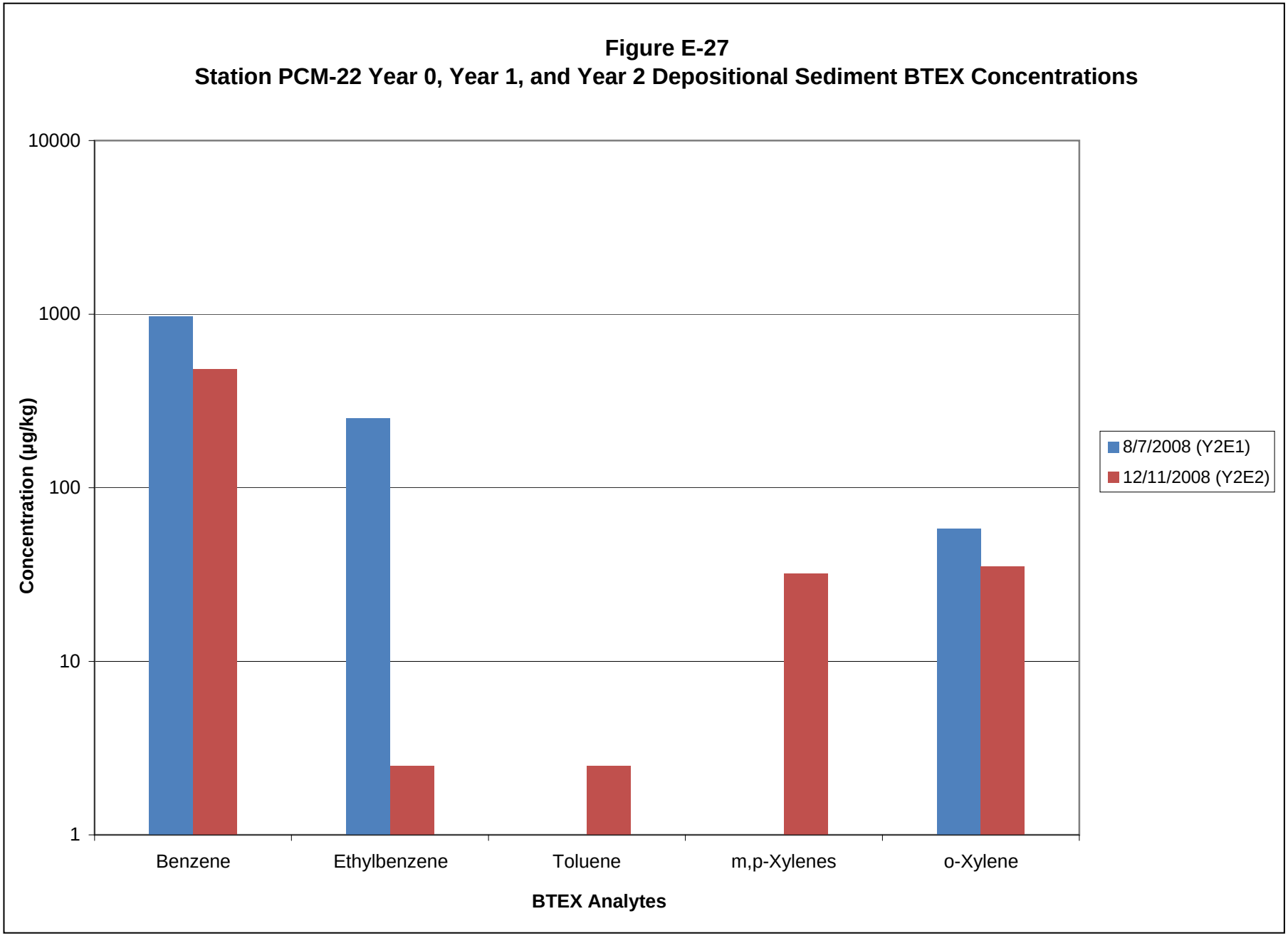

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Figure E-27
Station PCM-15 Year 0, Year 1, and Year 2 Depositional Sediment BTEX Concentrations
NW Natural "Gasco" Site

APPENDIX F
YEAR 0, YEAR 1, AND YEAR 2 DISCRETE NEAR-BOTTOM SURFACE WATER CONCENTRATION PLOTS

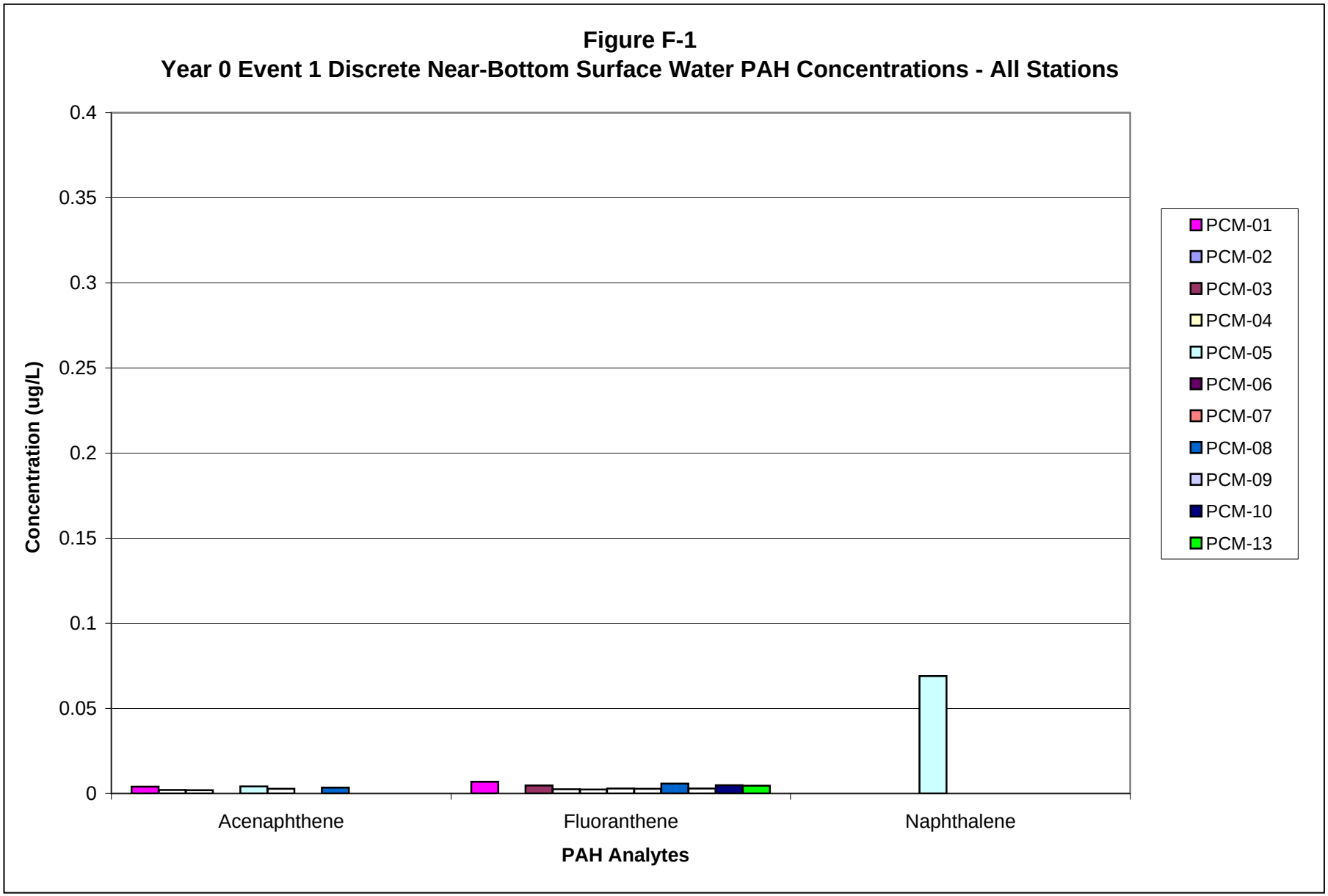

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Figure F-1
Year 0 Event 1 Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site

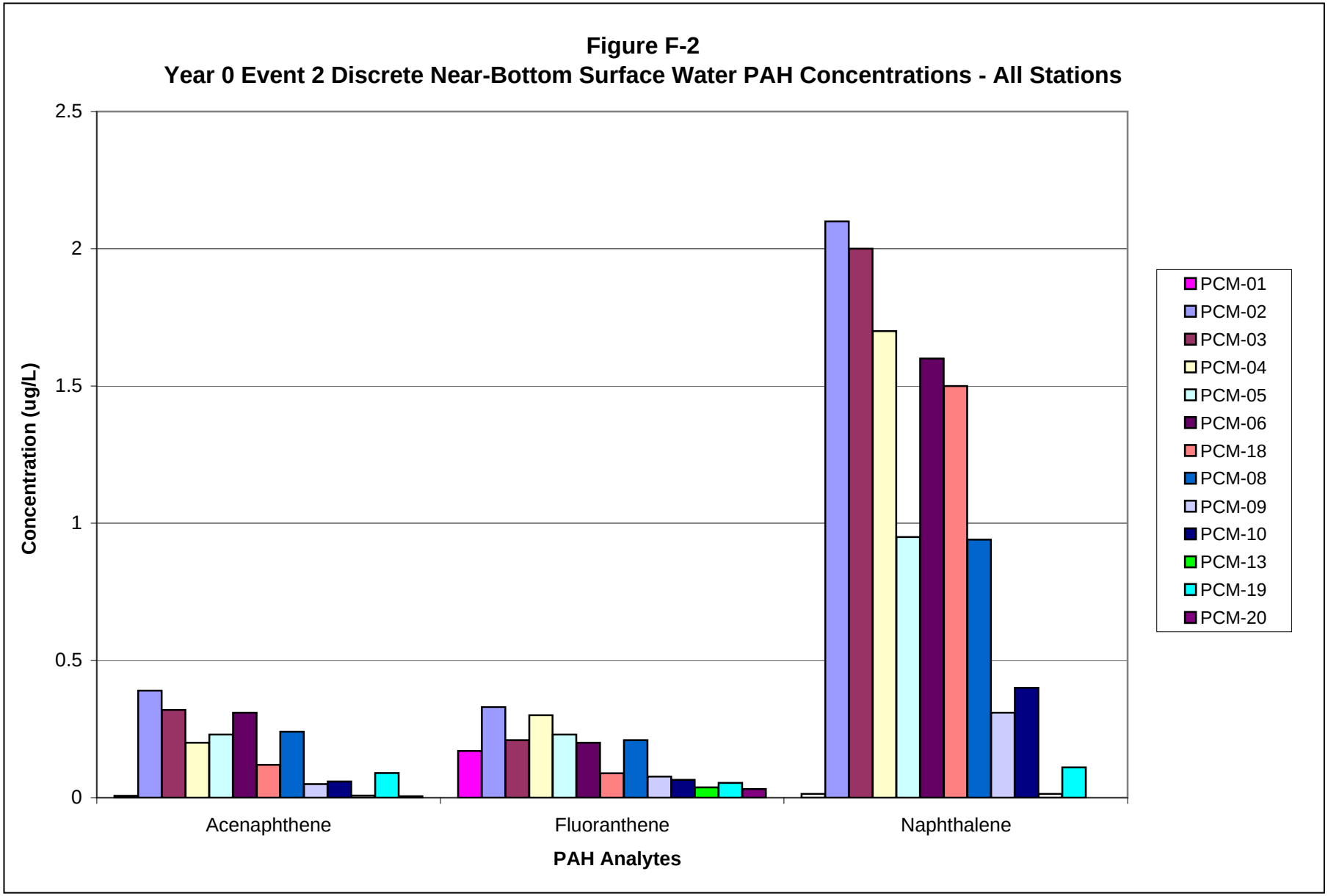

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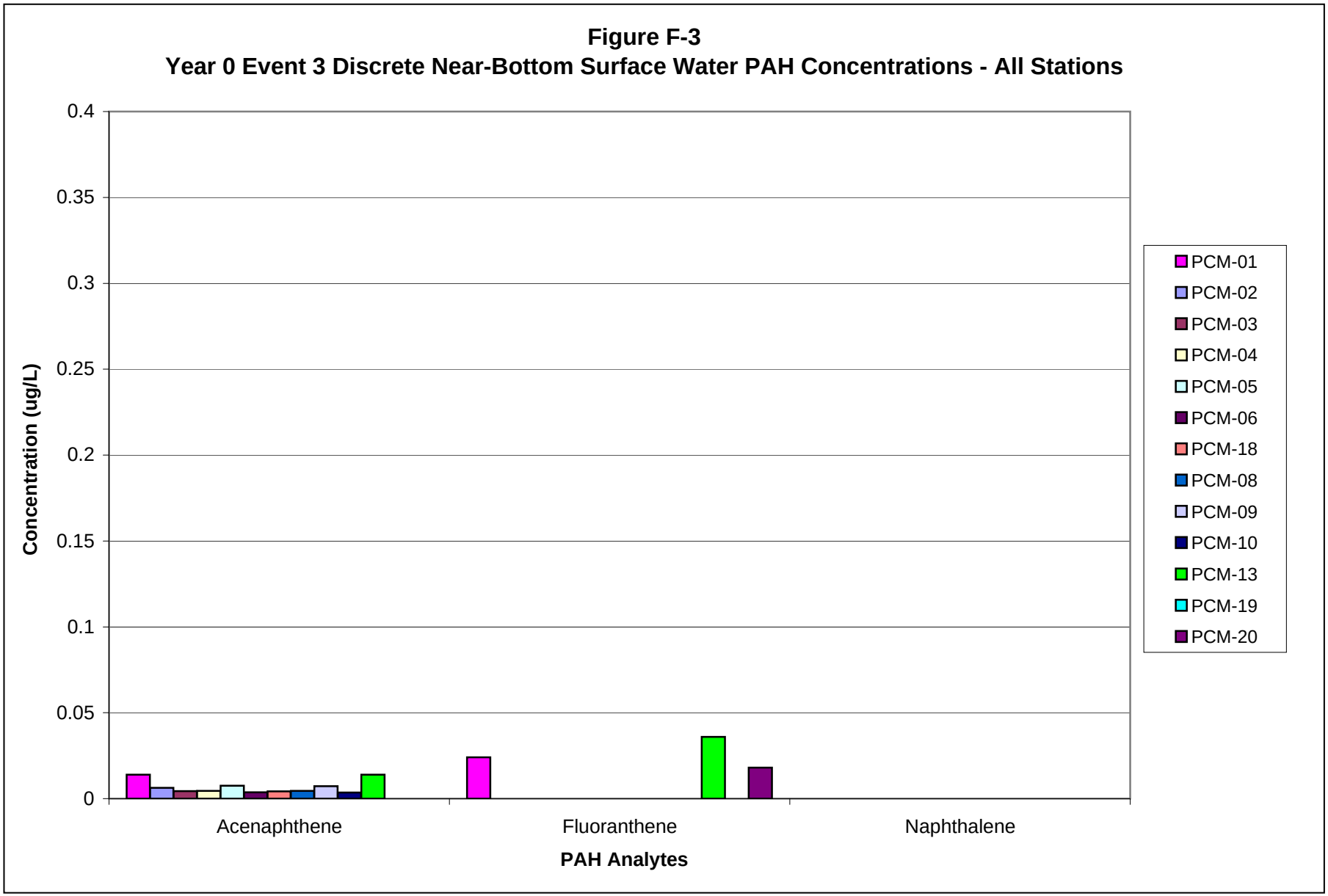
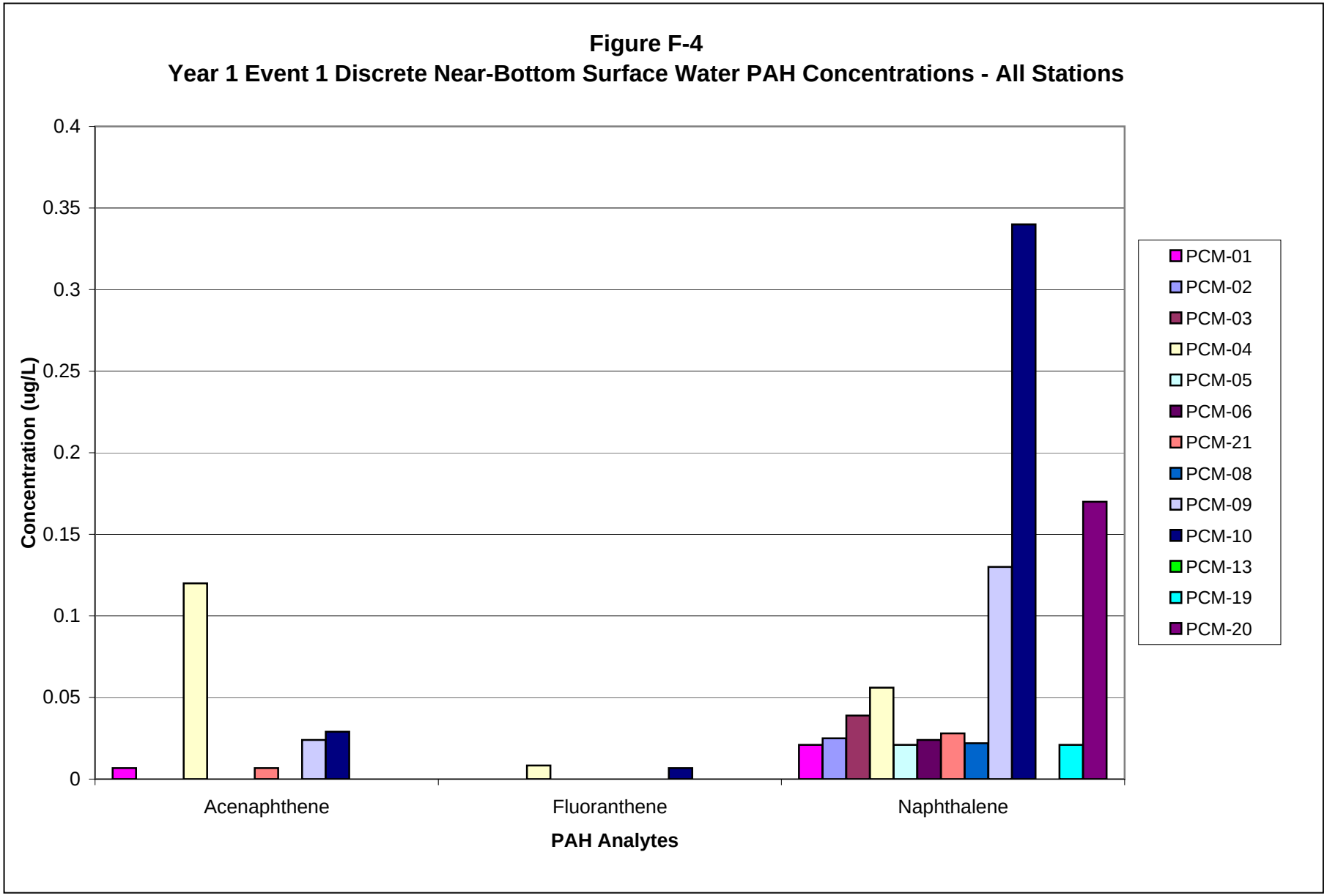
Figure F-2
Year 0 Event 2 Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site



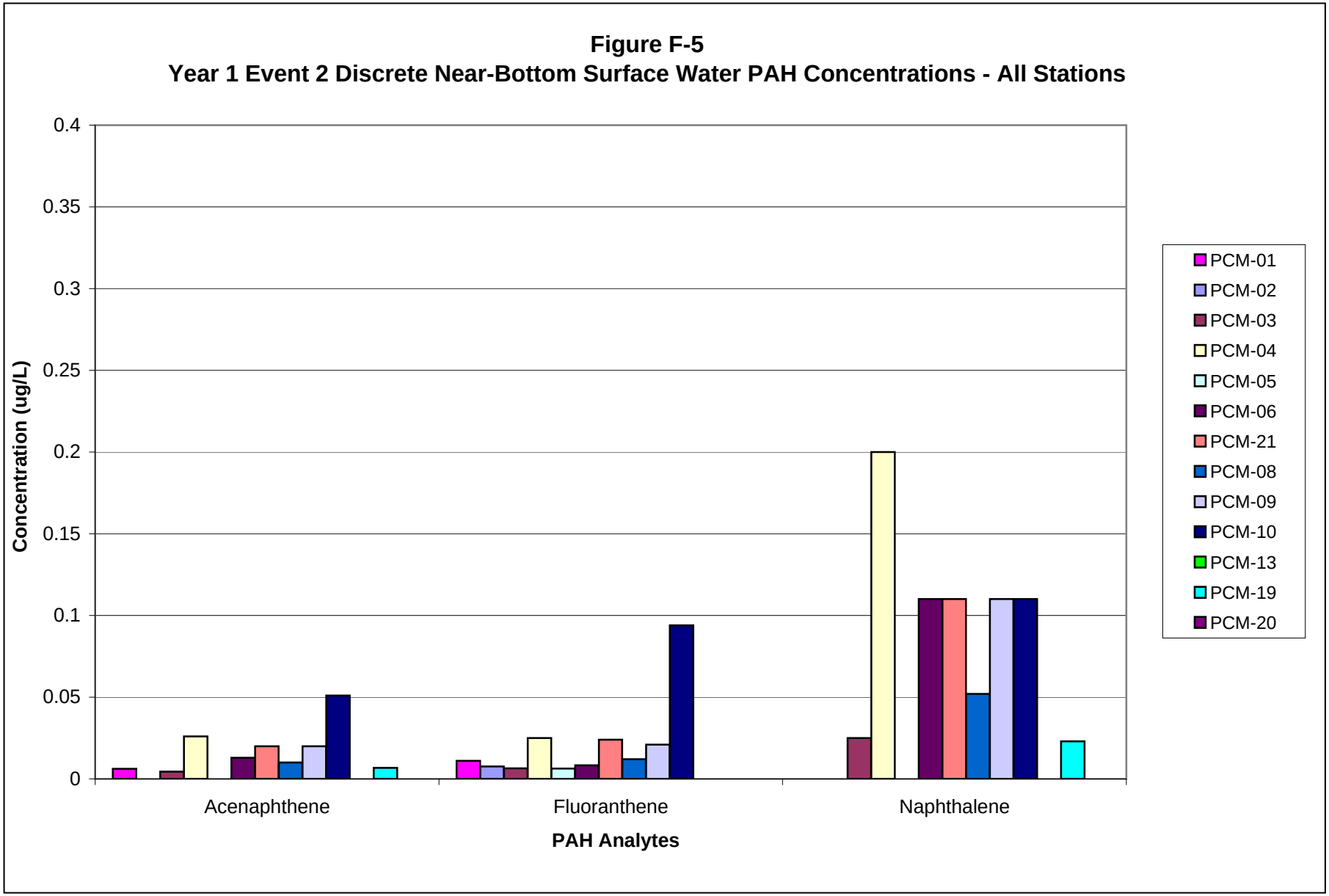
ANCHOR QEA

Figure F-3
Year 0 Event 3 Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site



ANCHOR QEA

Figure F-4
Year 1 Event 1 Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site



ANCHOR QEA

Figure F-5
Year 1 Event 2 Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site

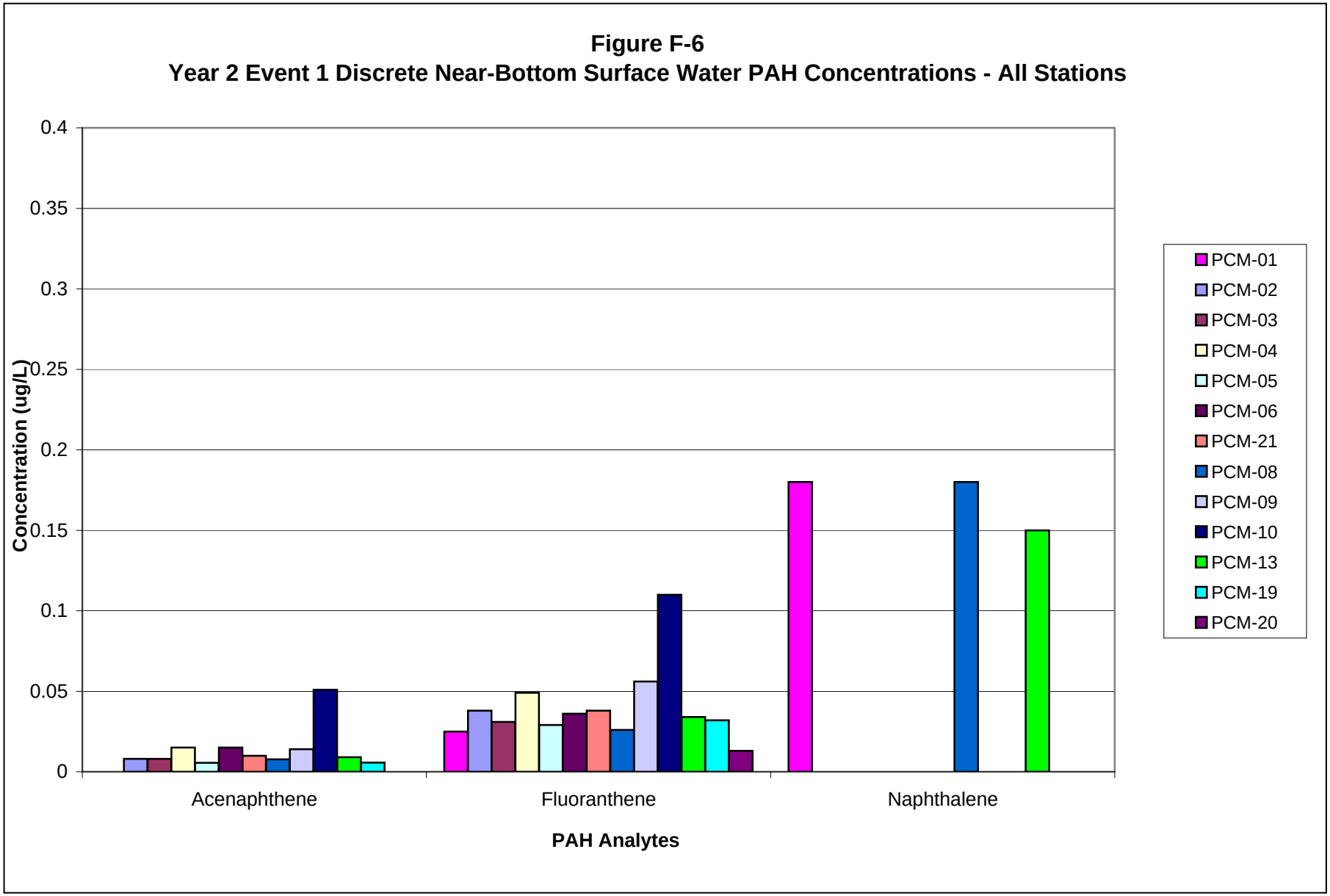


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Figure F-6
Year 2 Event 1 Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site

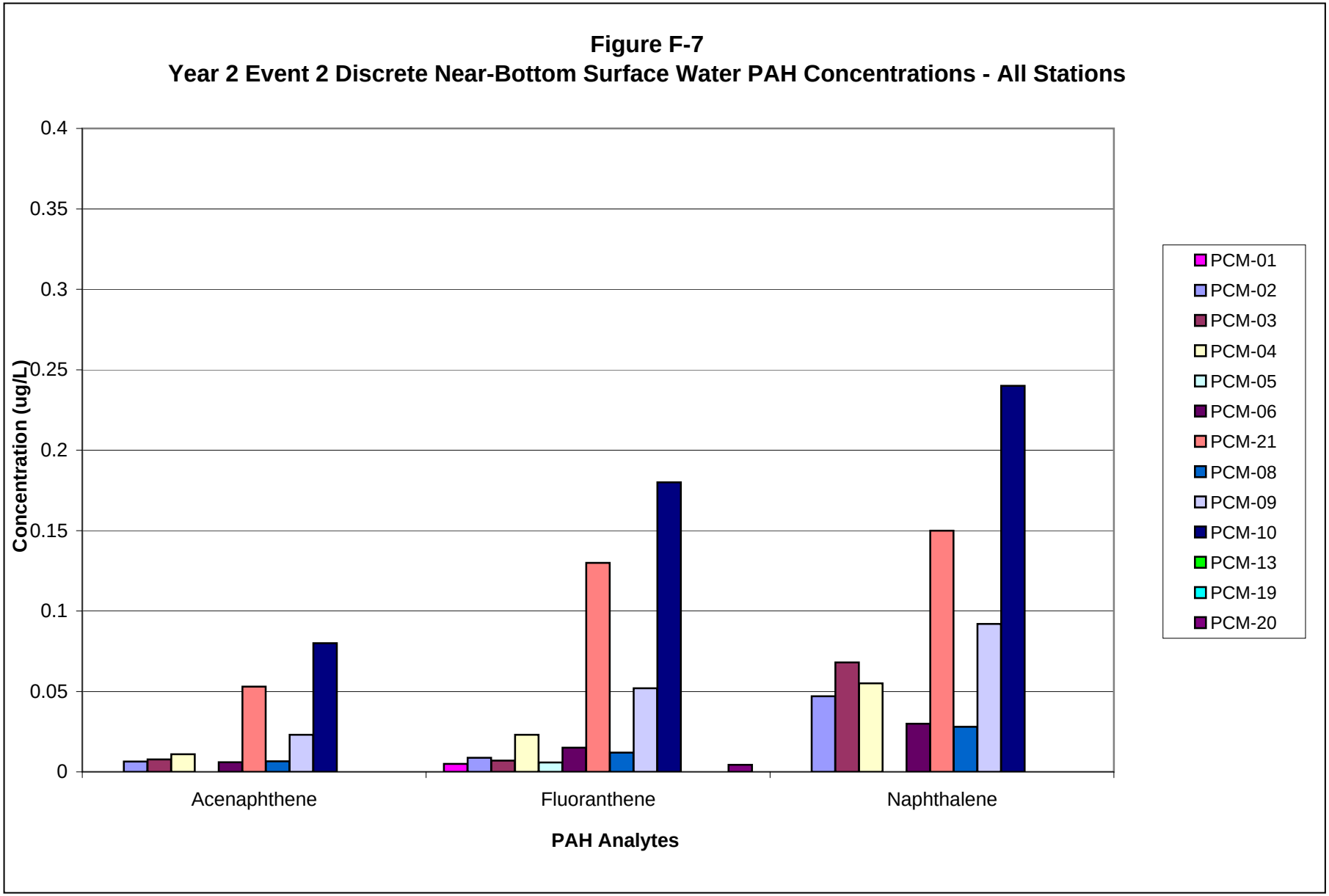

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Figure F-7
Year 2 Event 2 Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site

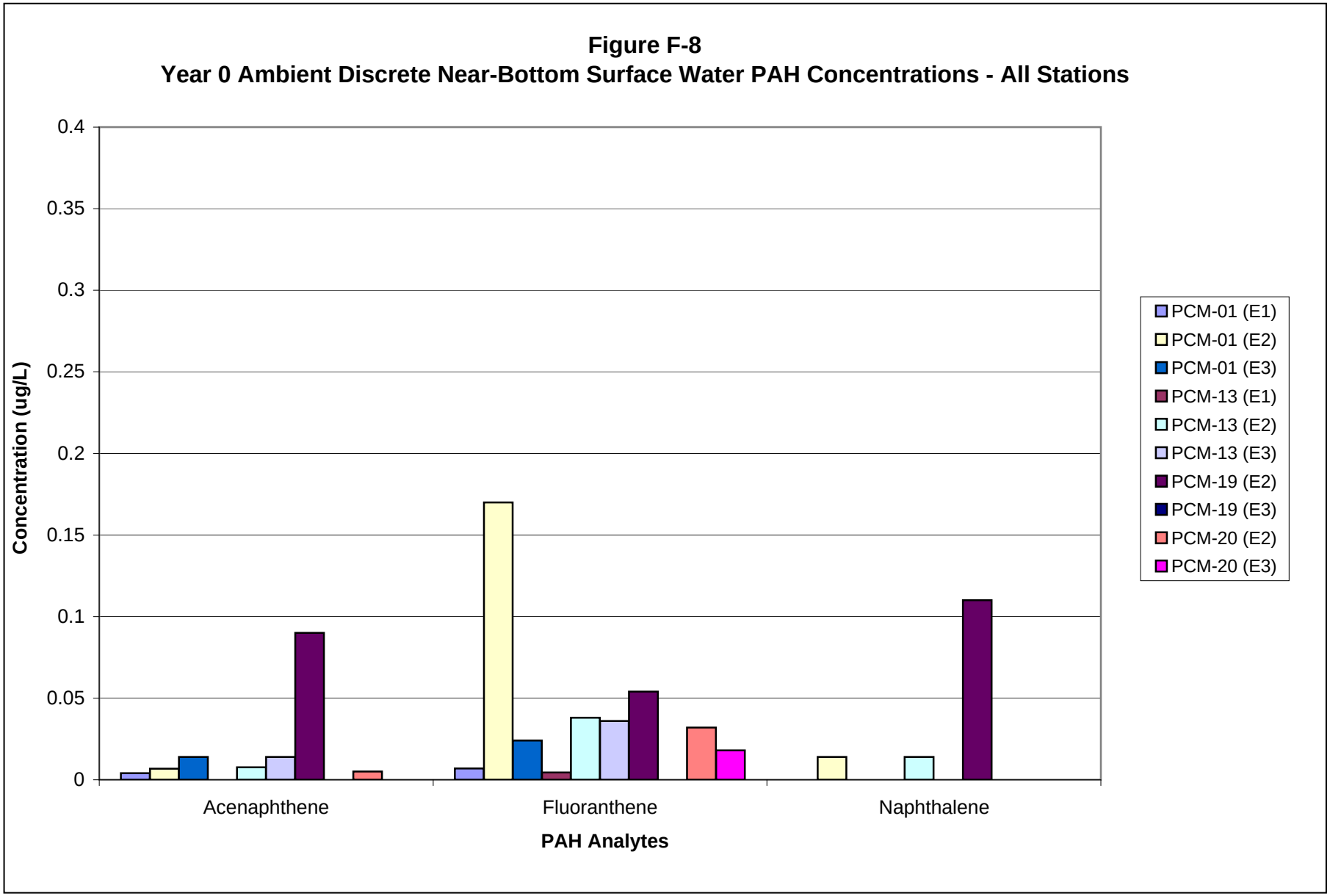

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Figure F-8
Year 0 Ambient Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site

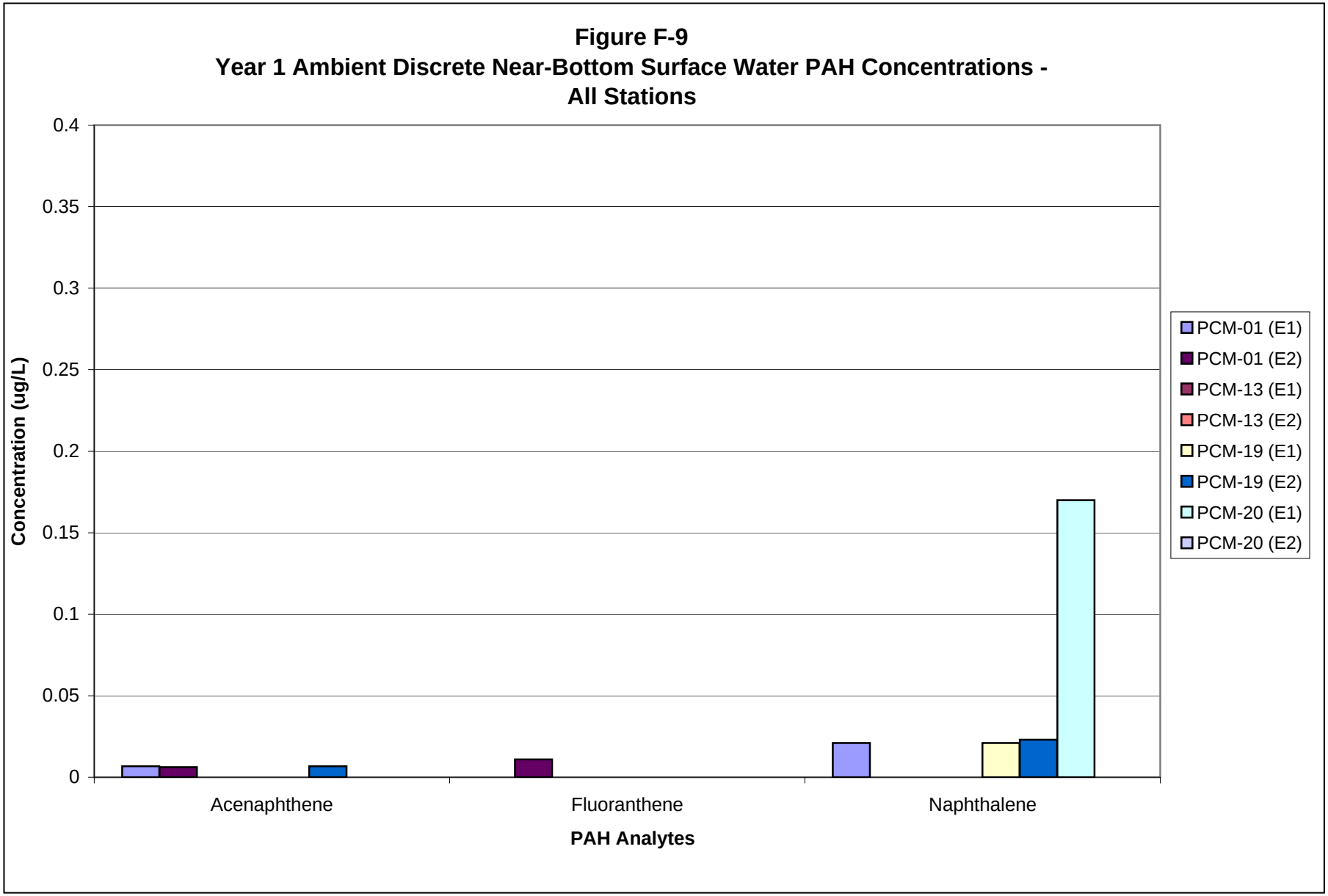

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Figure F-9

Year 1 Event 1 Ambient Discrete Near-Bottom Surface Water PAH Concentrations - All Stations

NW Natural "Gasco" Site

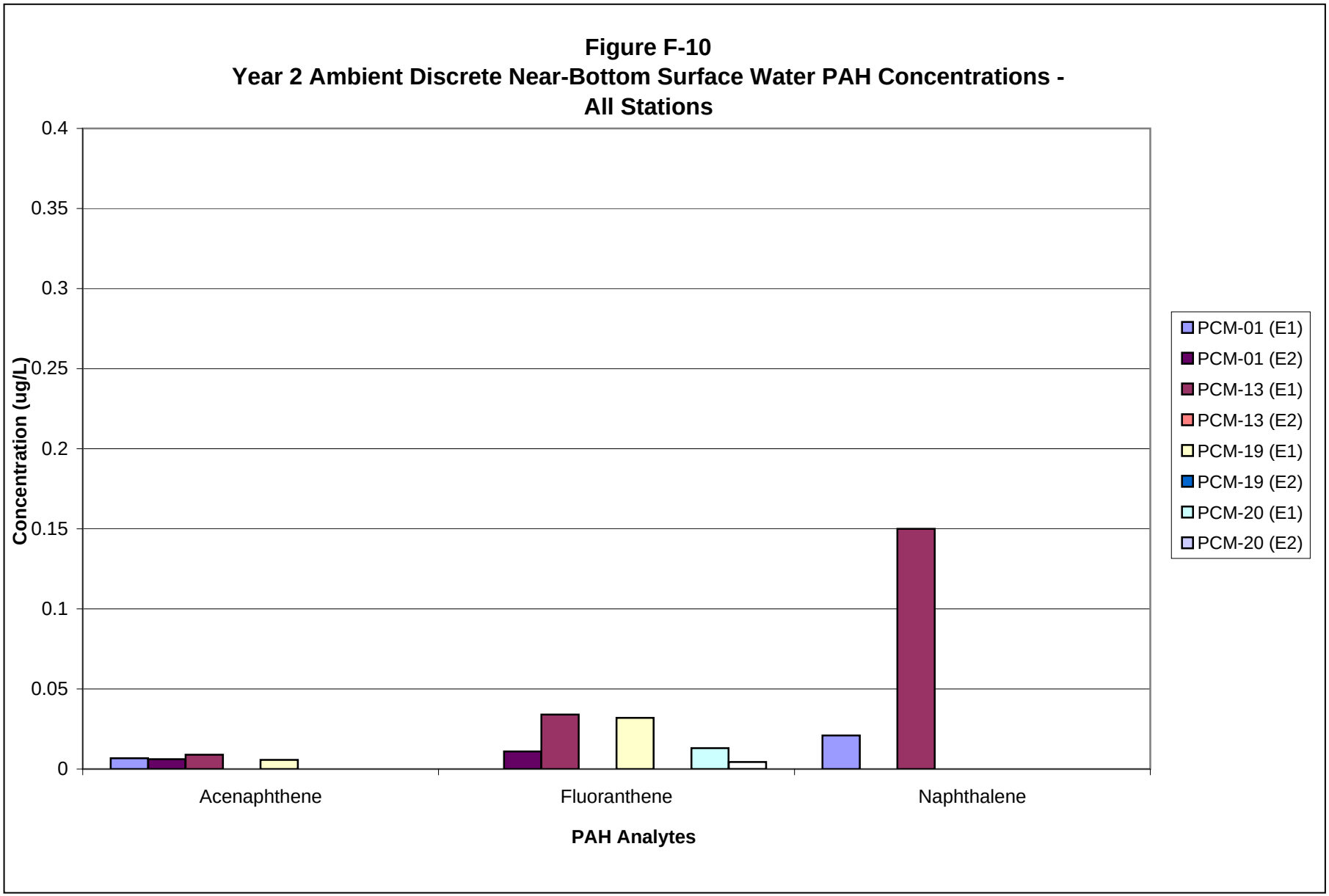

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Figure F-10
Year 2 Ambient Discrete Near-Bottom Surface Water PAH Concentrations - All Stations
NW Natural "Gasco" Site

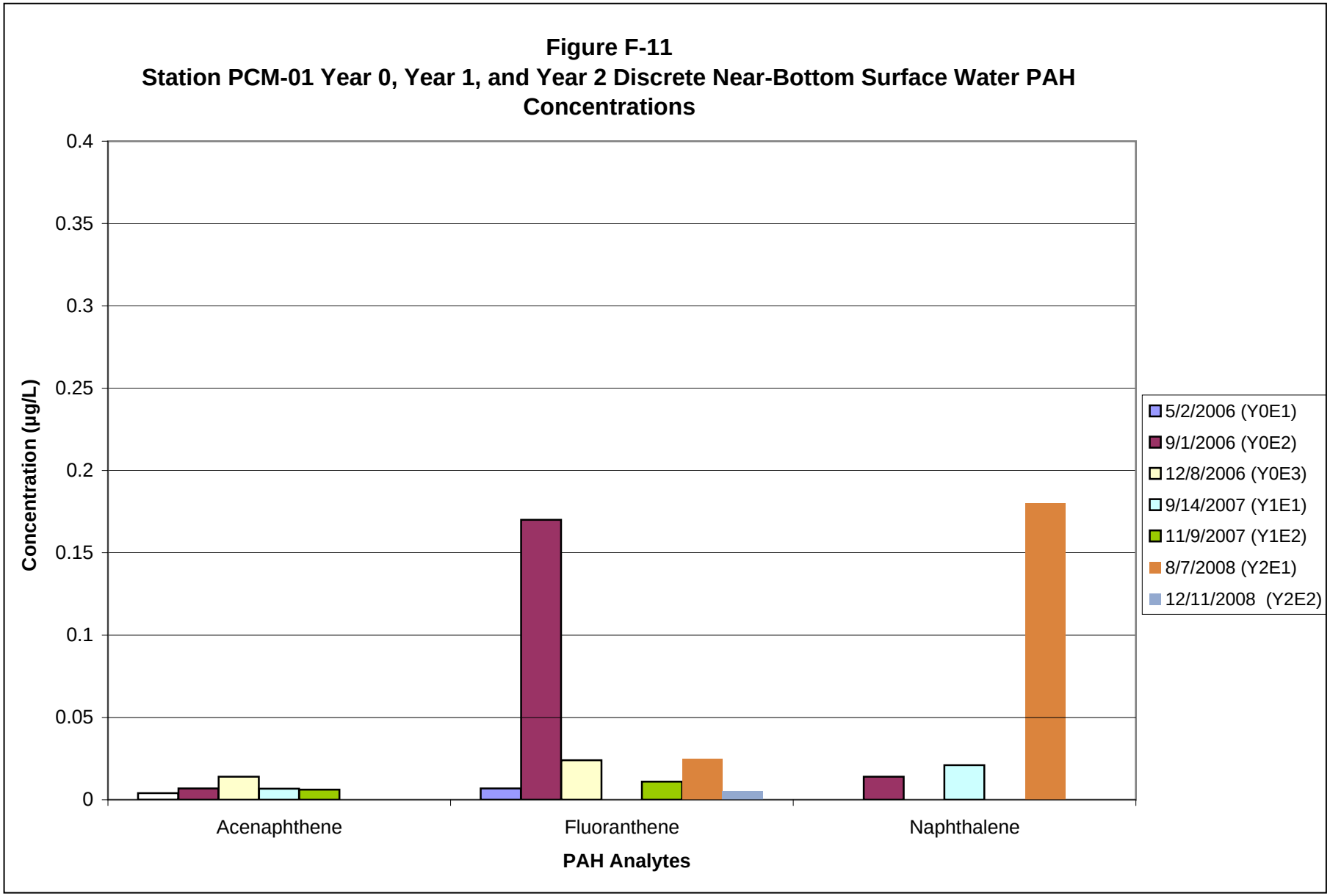

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Figure F-11

Station PCM-01 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

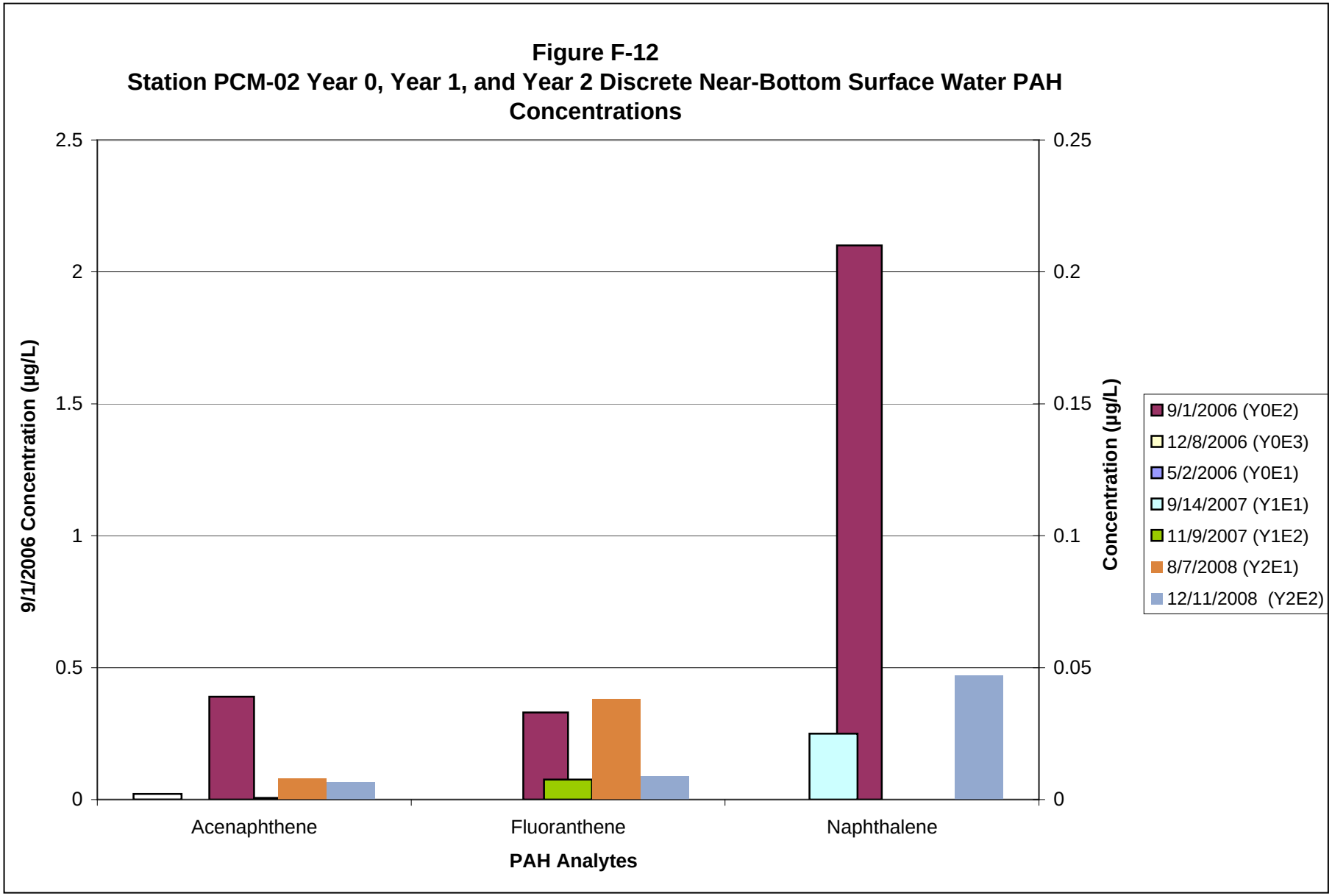

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Figure F-12

Station PCM-02 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

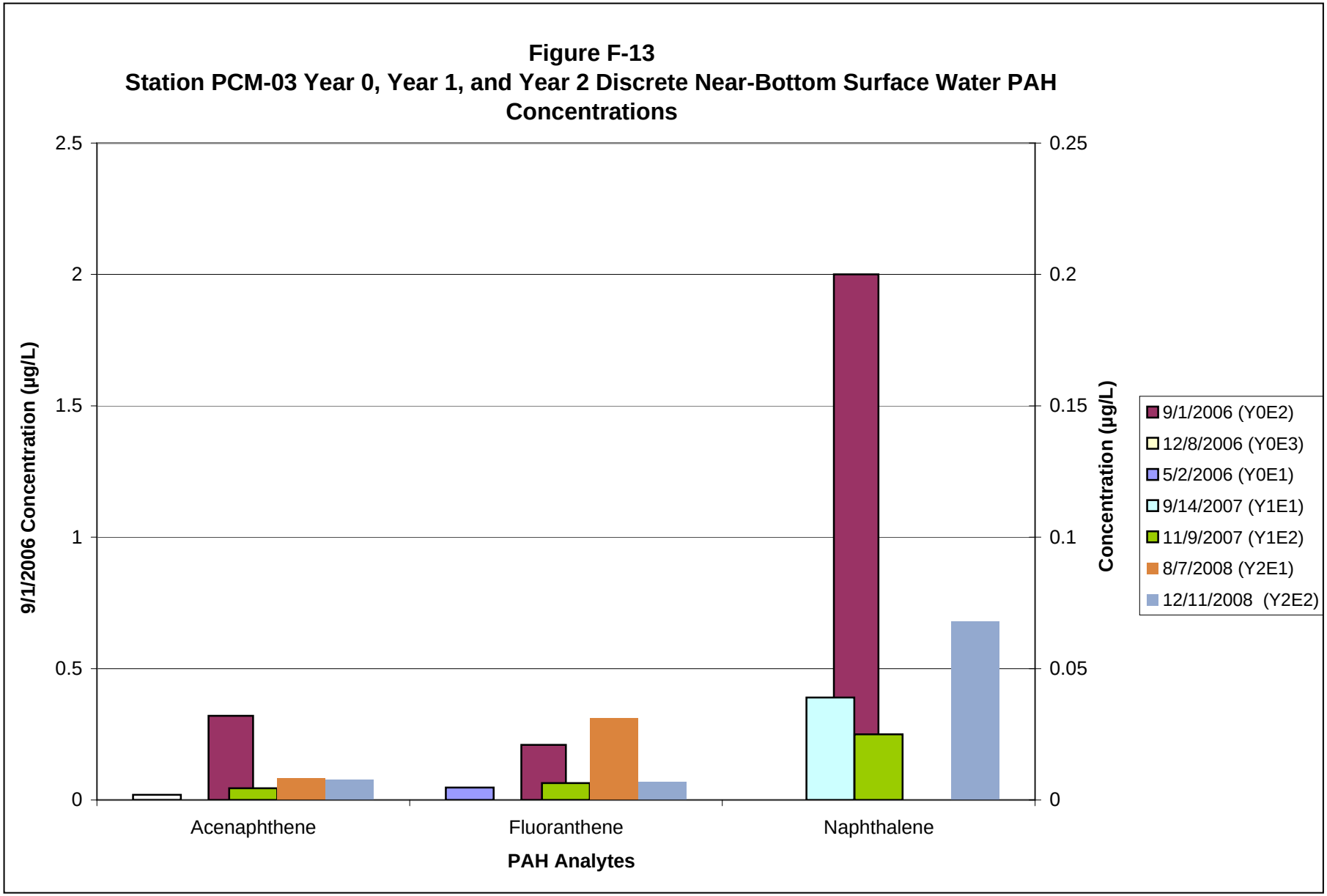

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Figure F-13

Station PCM-03 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

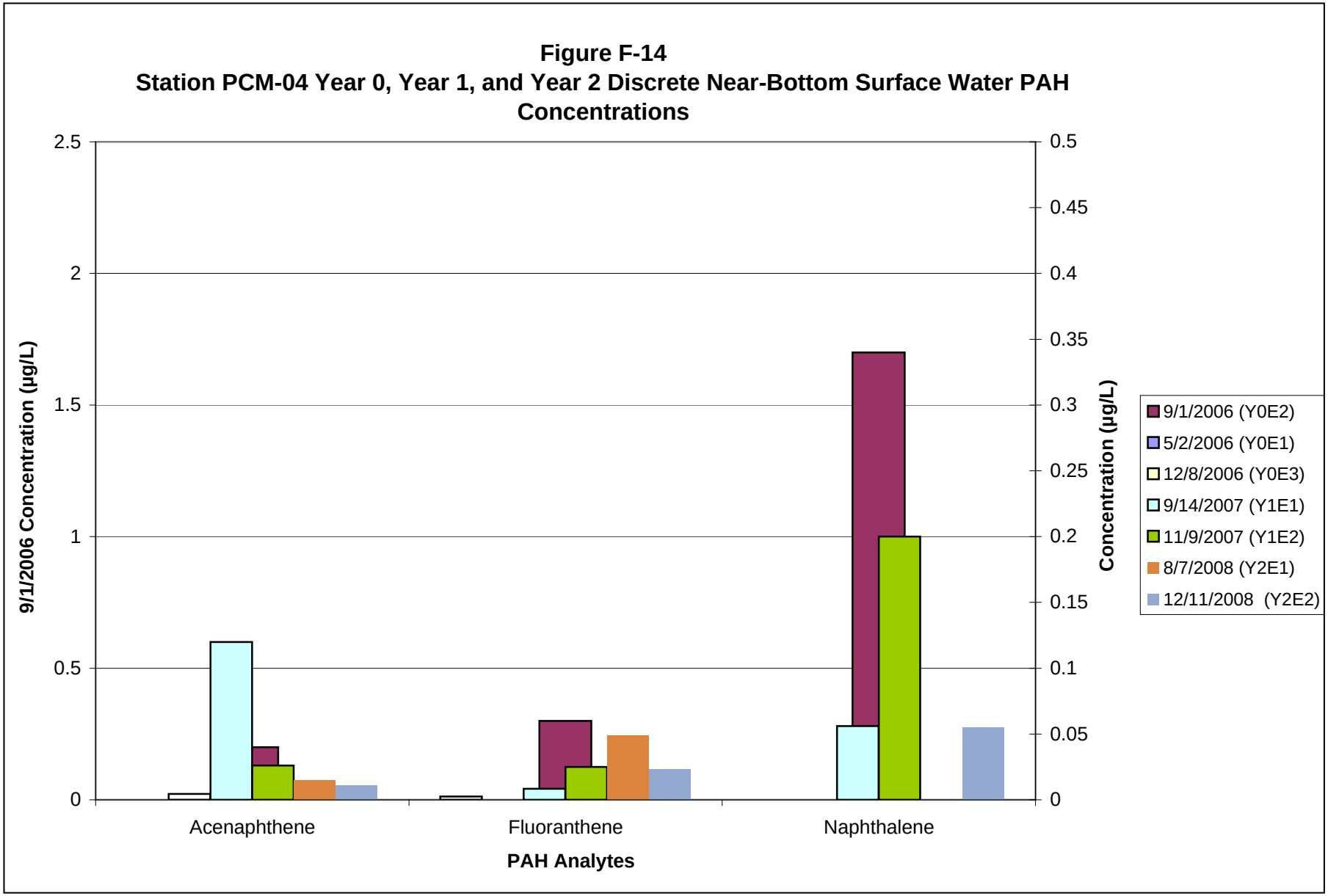

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Figure F-14

Station PCM-04 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

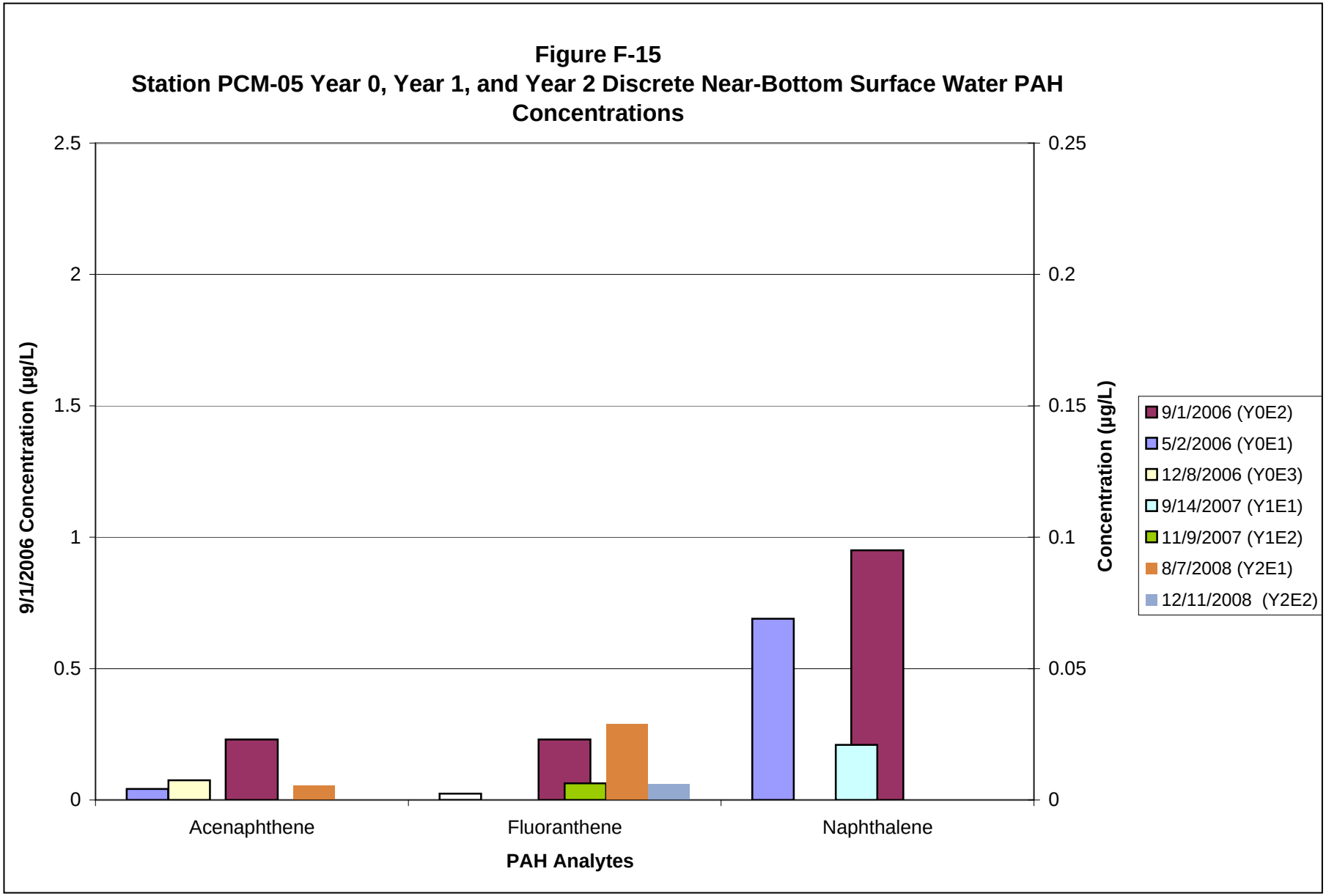

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Figure F-15

Station PCM-05 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

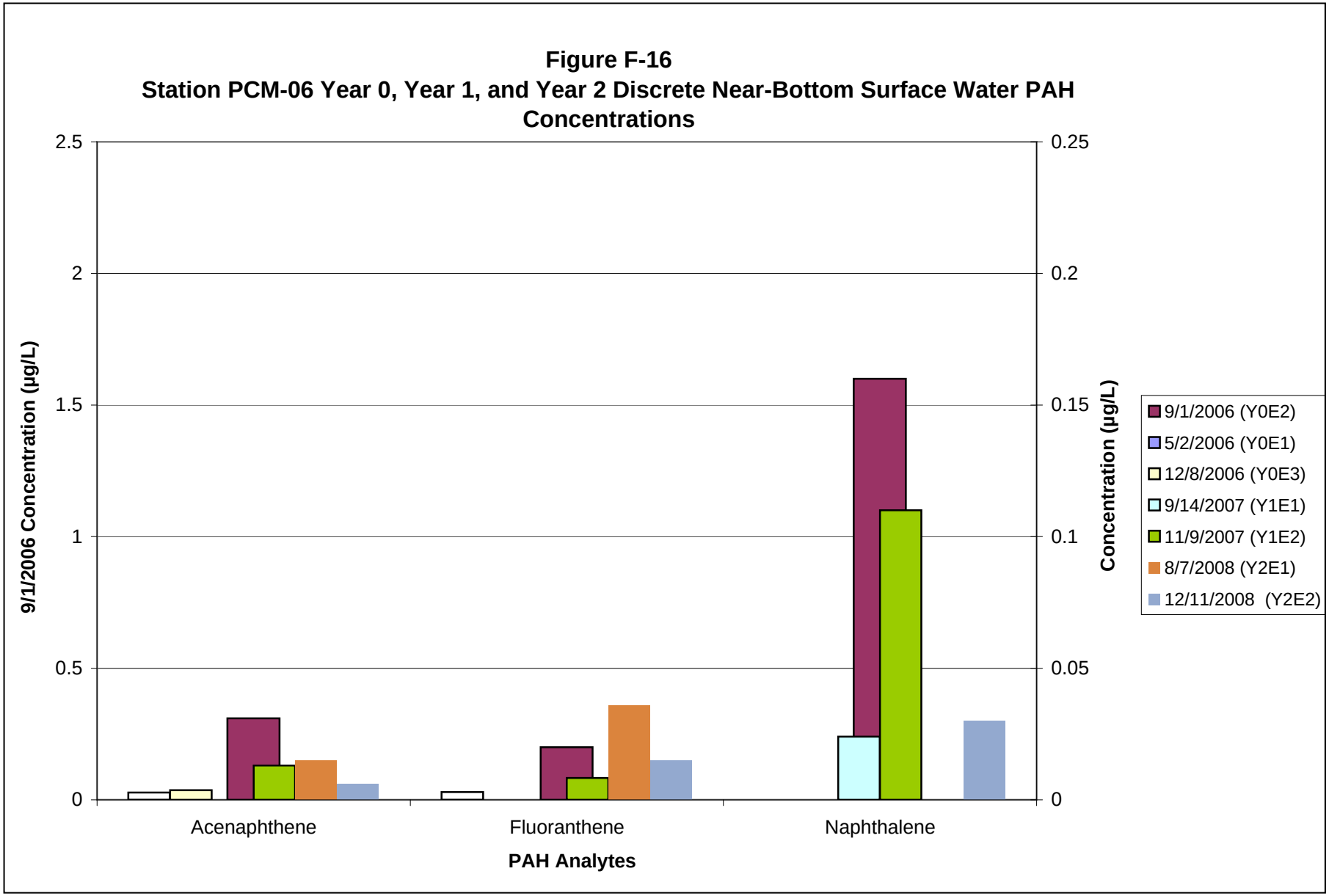

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Figure F-16

Station PCM-06 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

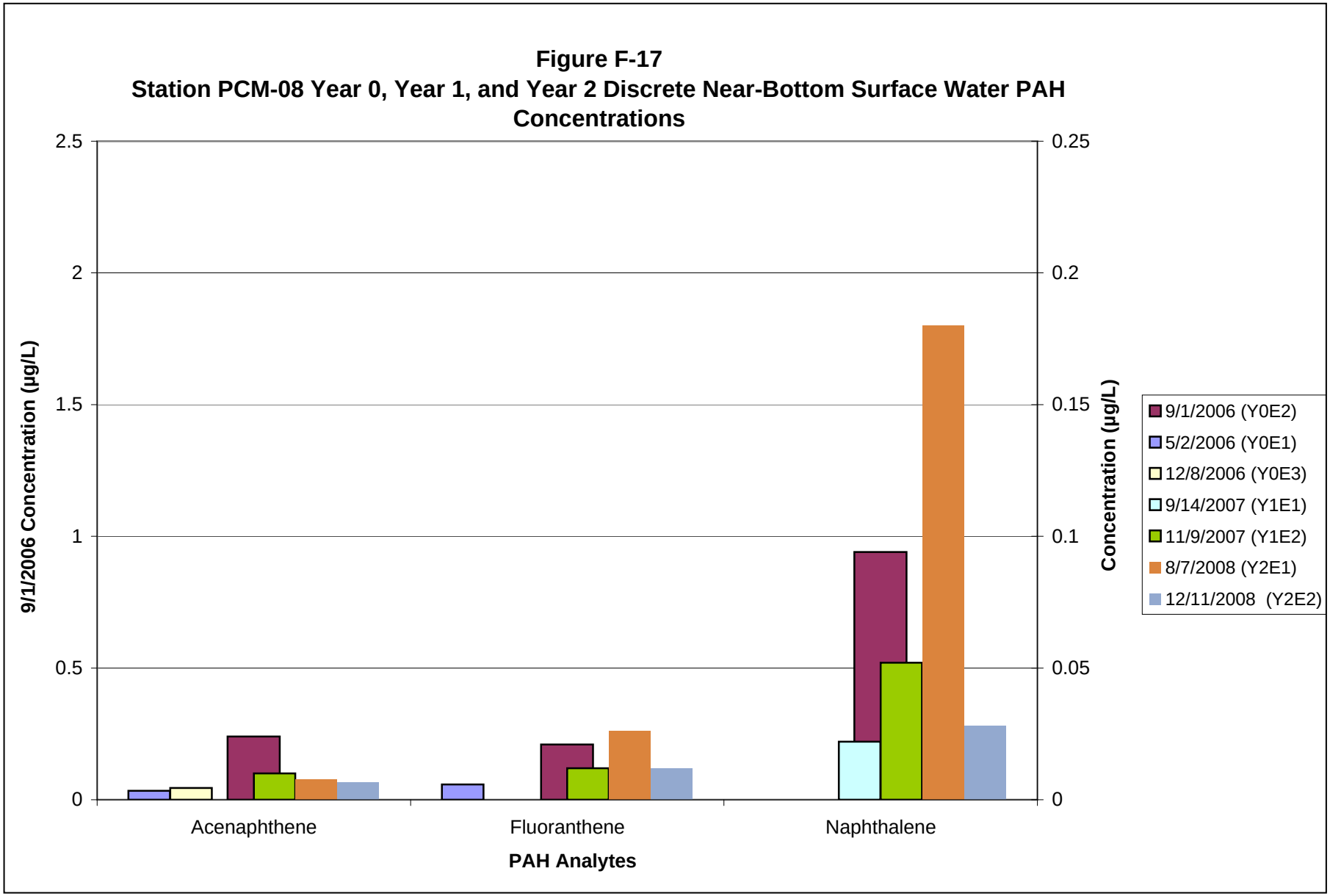

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Figure F-17
Station PCM-08 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations
NW Natural "Gasco" Site

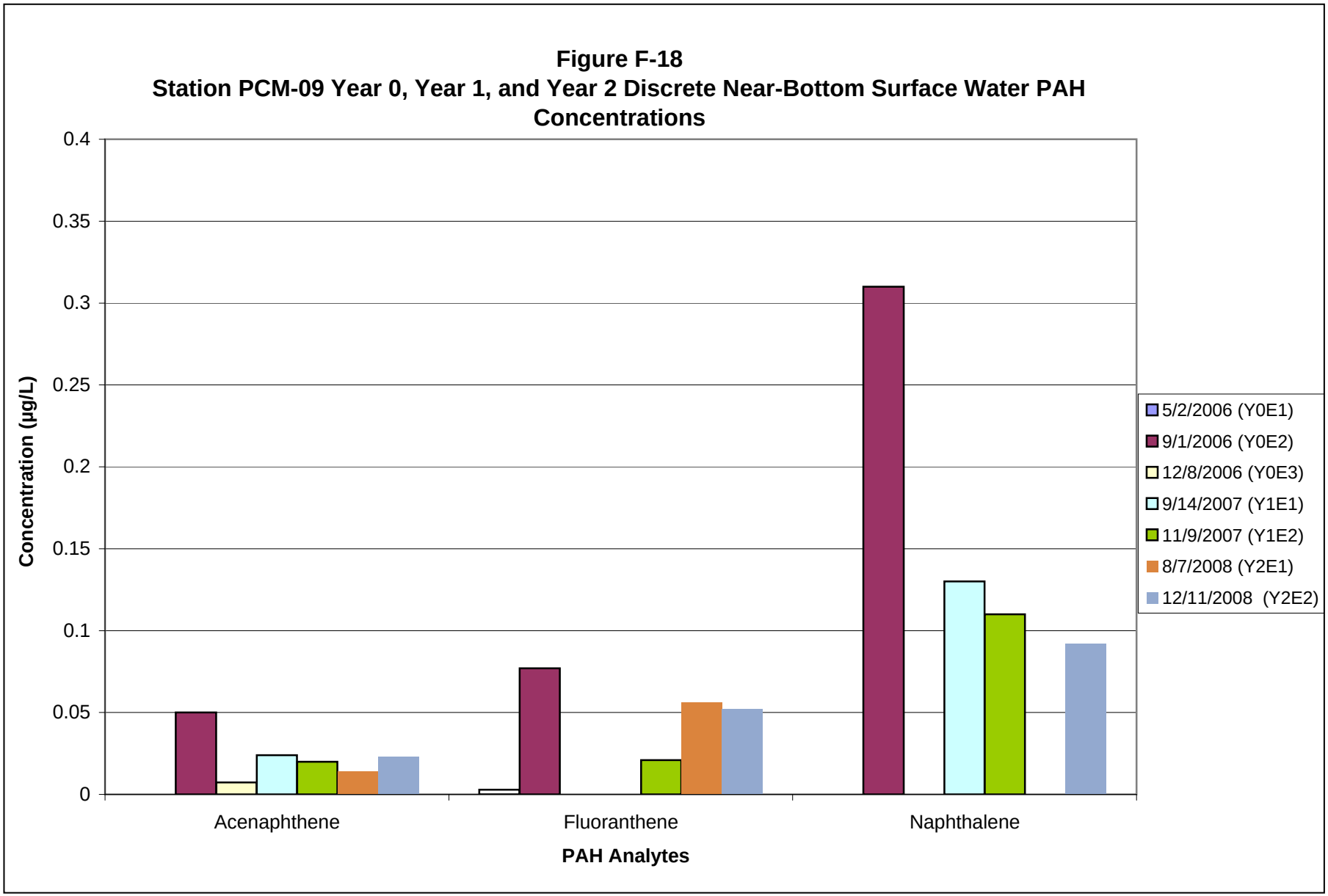

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Figure F-18

Station PCM-09 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

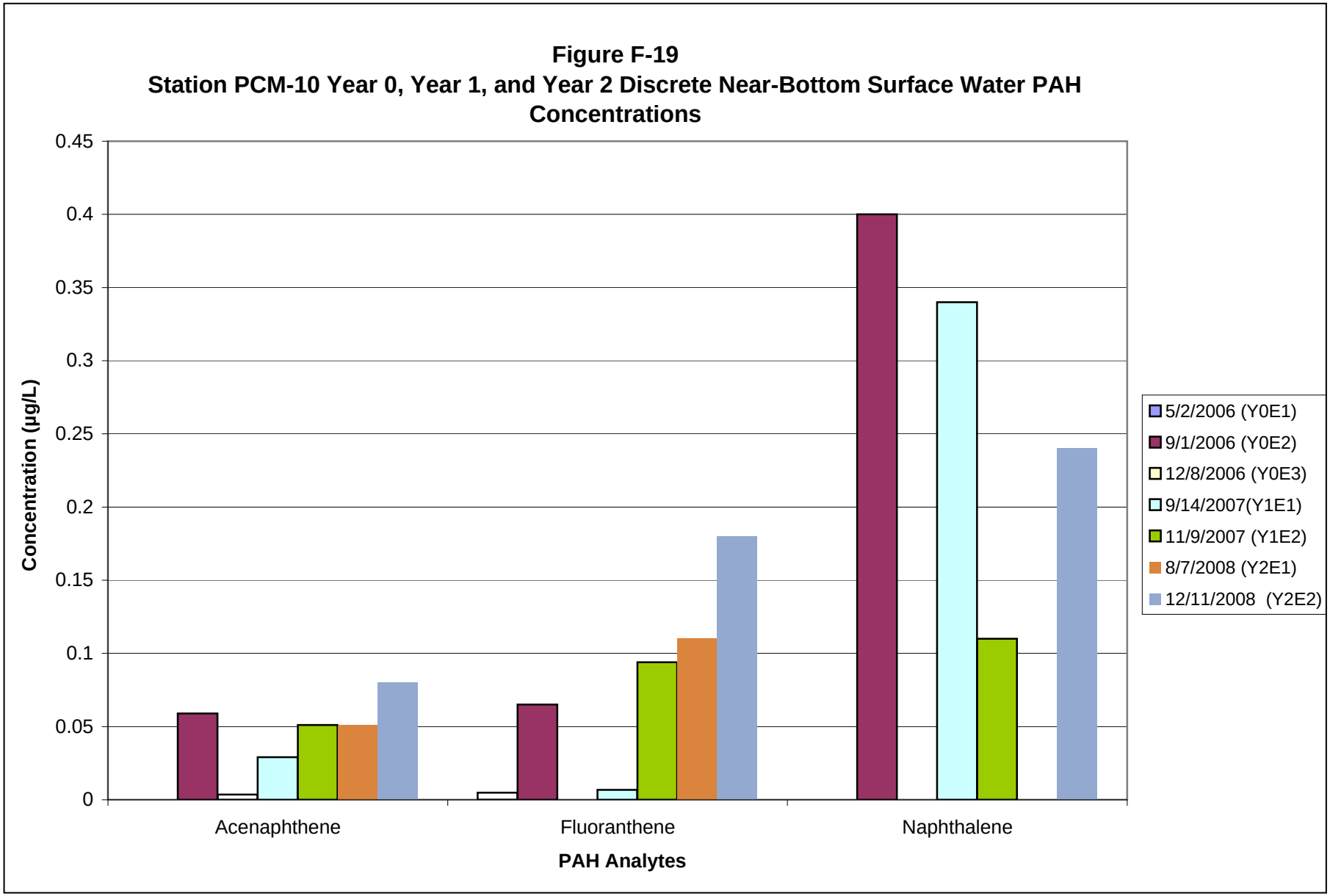

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Figure F-19
Station PCM-10 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations
NW Natural "Gasco" Site

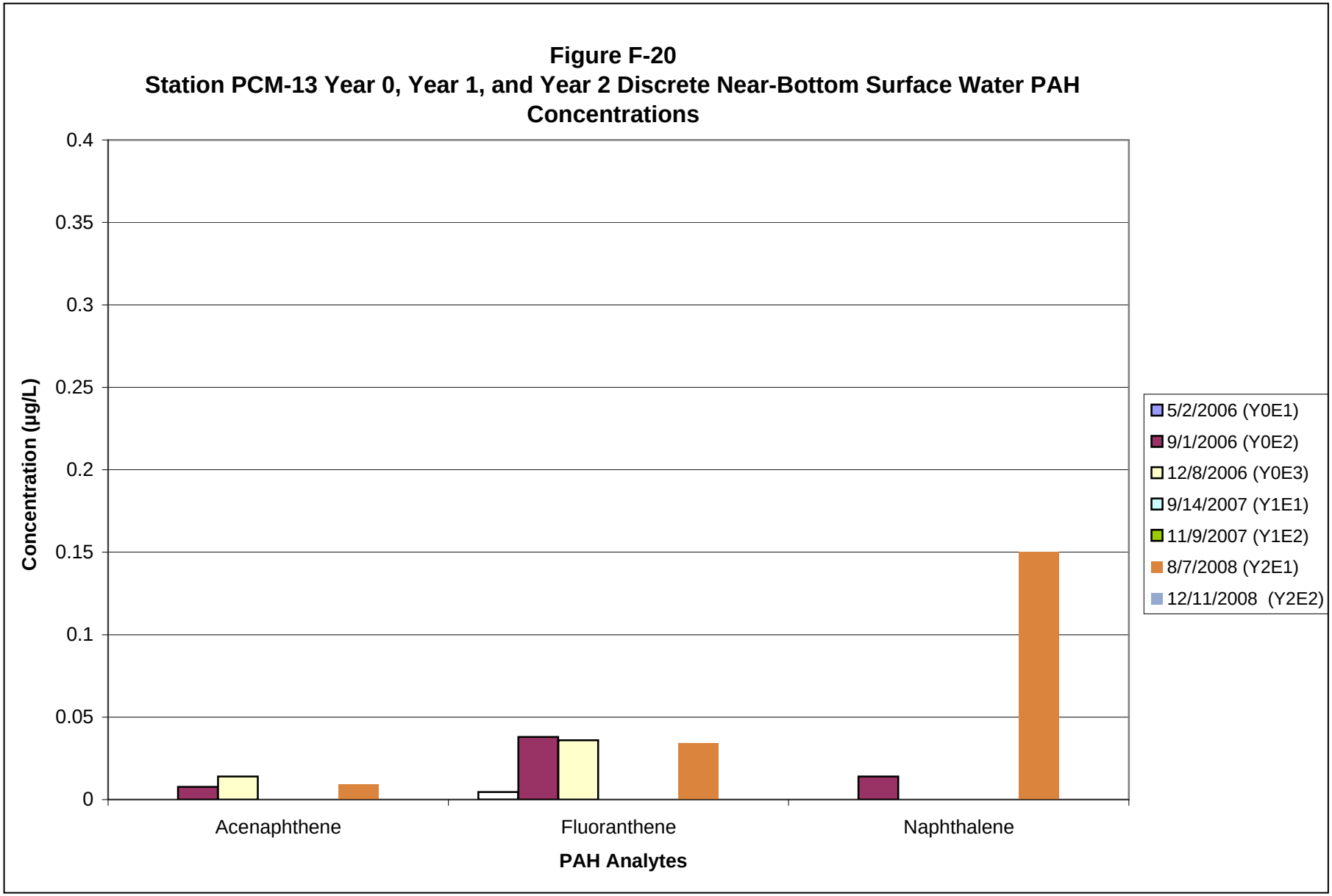

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Figure F-20

Station PCM-13 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

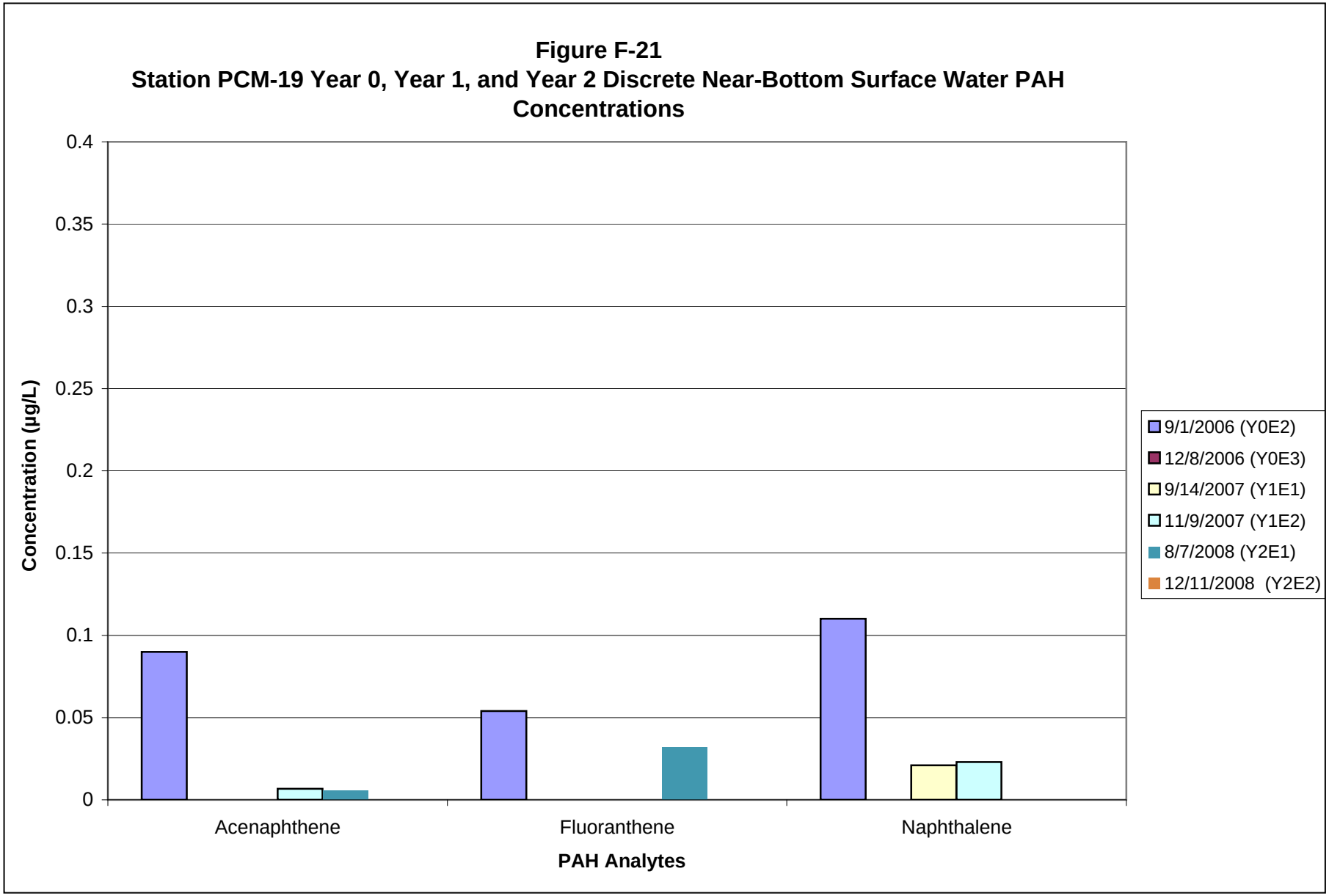

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Figure F-21

Station PCM-19 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

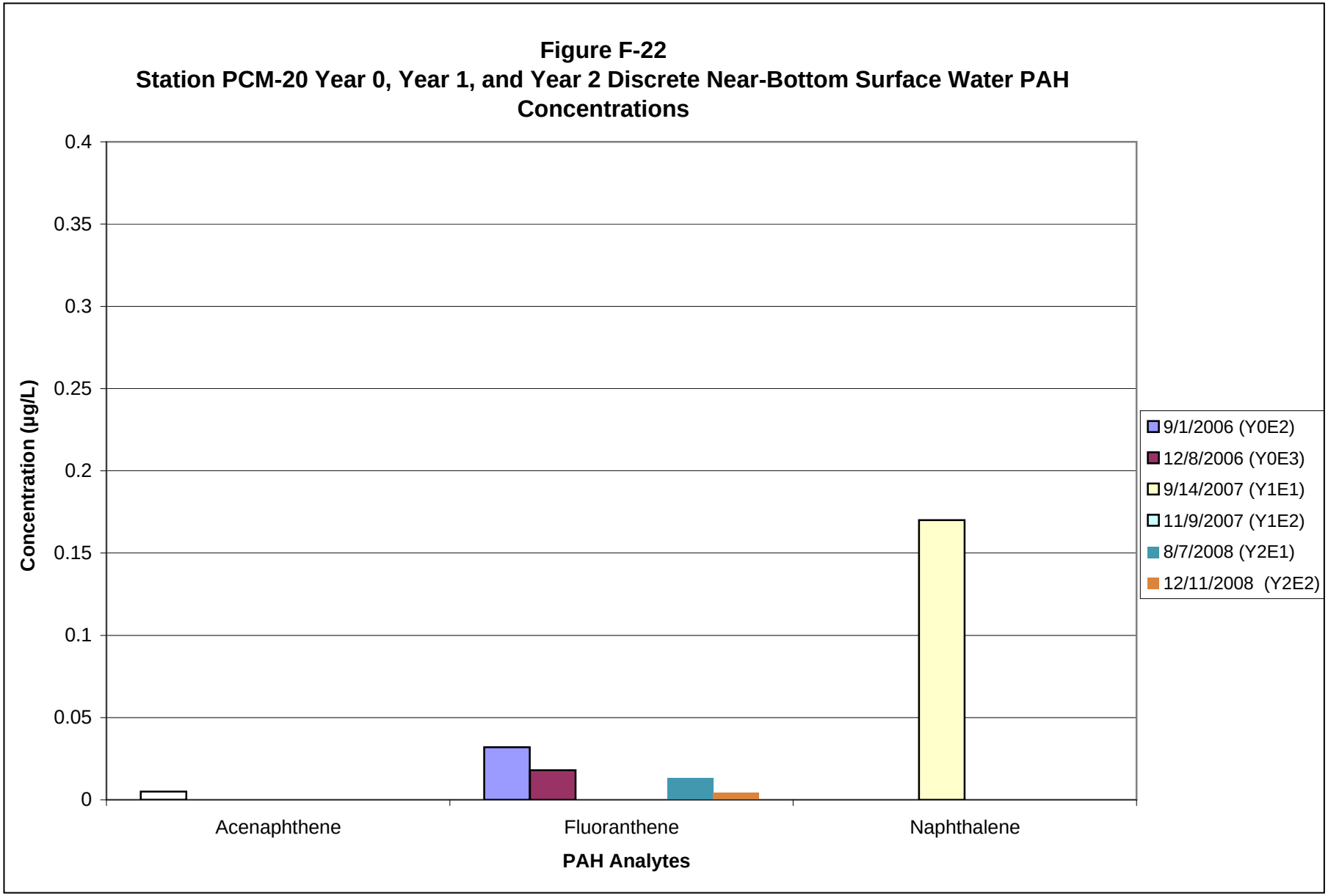

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Figure F-22

Station PCM-20 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations

NW Natural "Gasco" Site

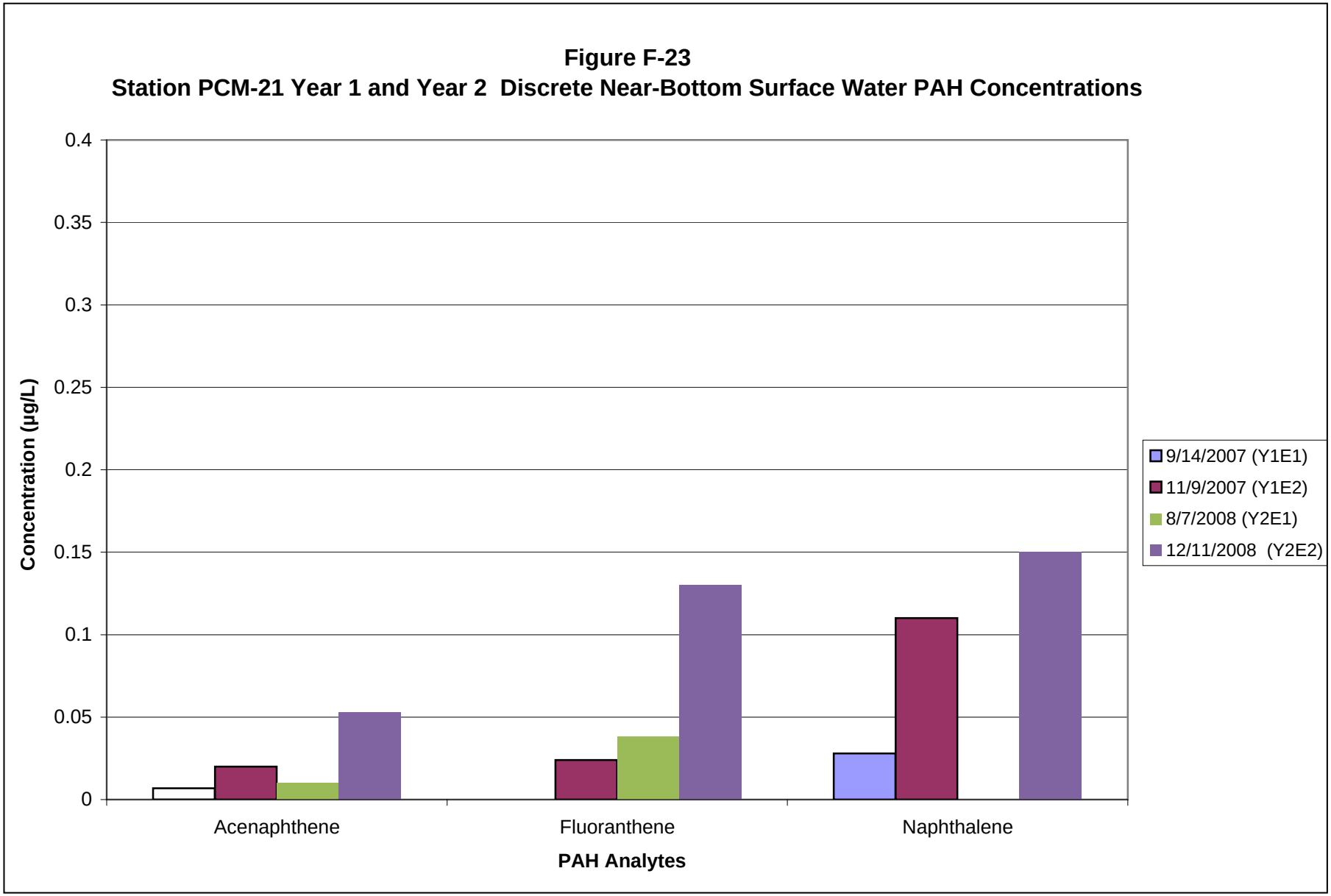

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Figure F-23
Station PCM-21 Year 1 and Year 2 Discrete Near-Bottom Surface Water PAH Concentrations
NW Natural "Gasco" Site

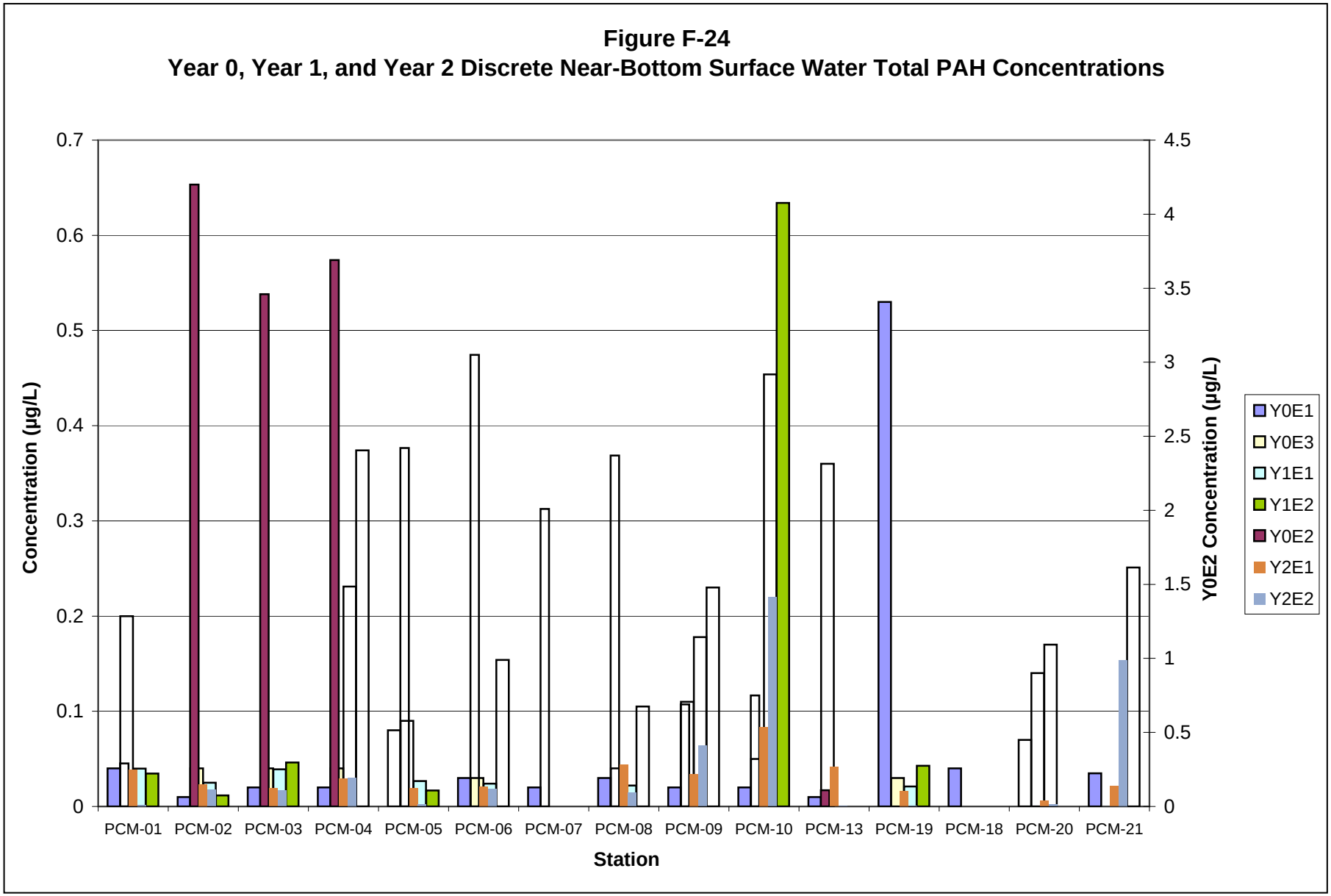

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Figure F-24

Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water Total PAH Concentrations

NW Natural "Gasco" Site

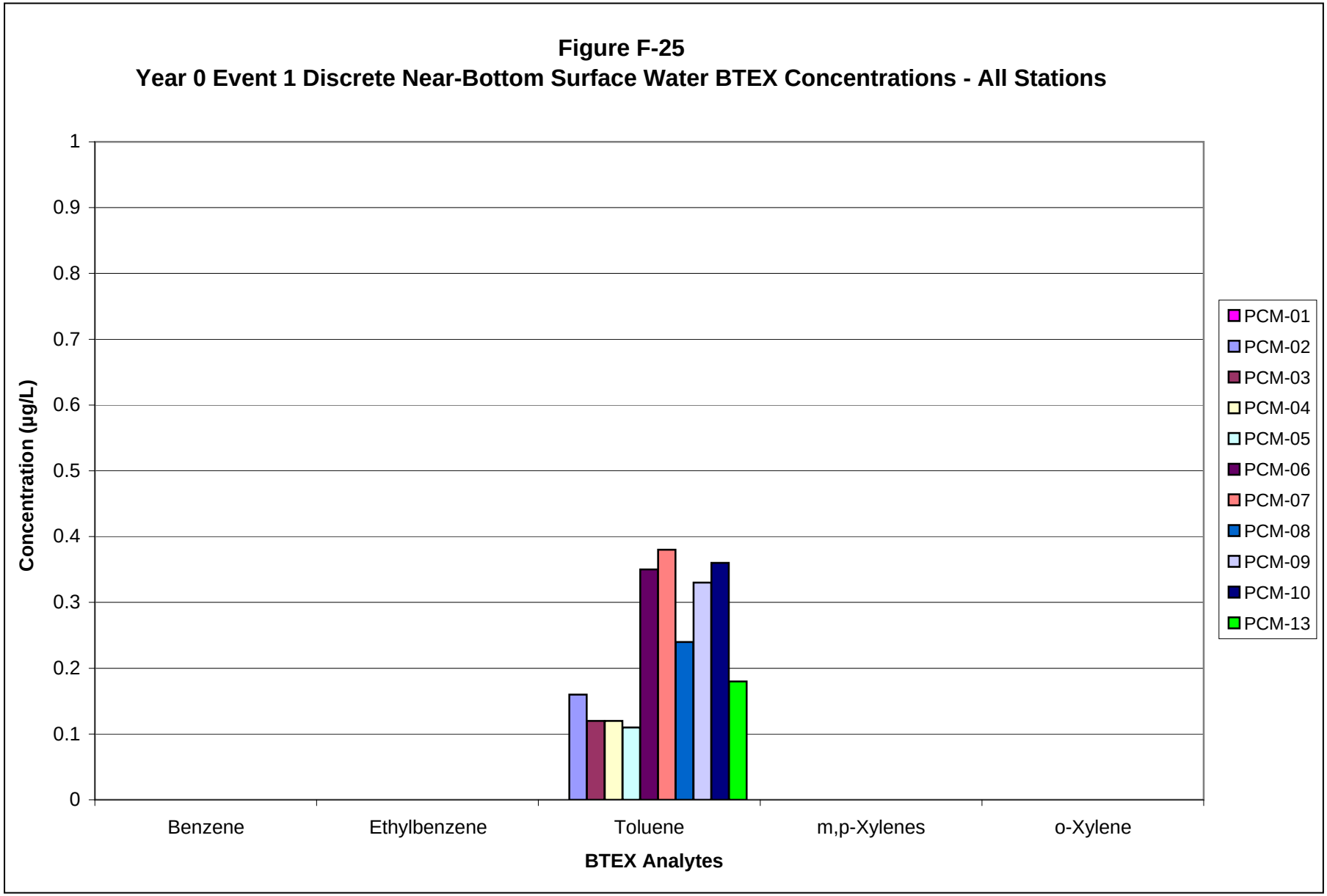

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Figure F-25
Year 0 Event 1 Discrete Near-Bottom Surface Water BTEX Concentrations - All Stations
NW Natural "Gasco" Site

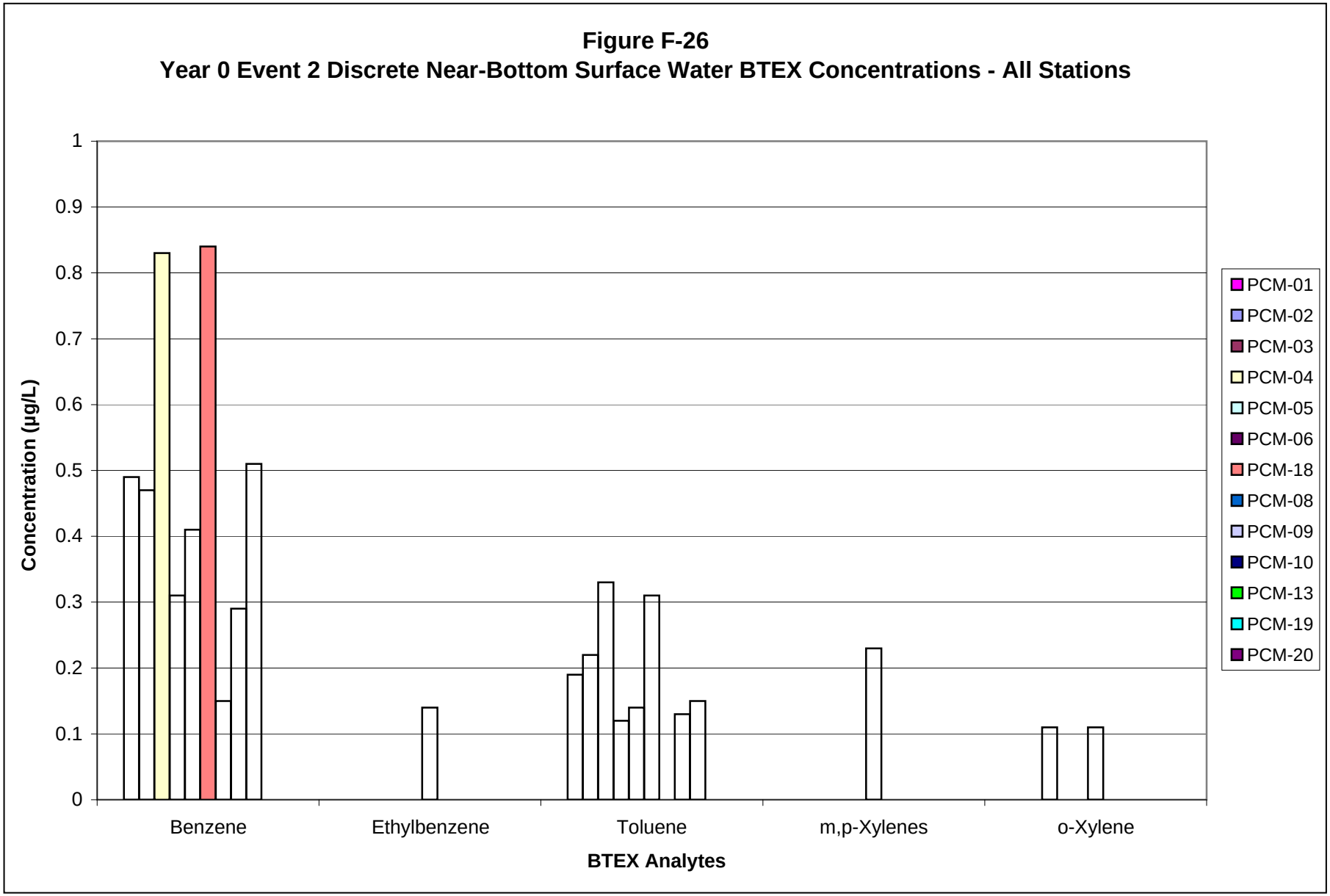

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Figure F-26
Year 0 Event 2 Discrete Near-Bottom Surface Water BTEX Concentrations - All Stations
NW Natural "Gasco" Site

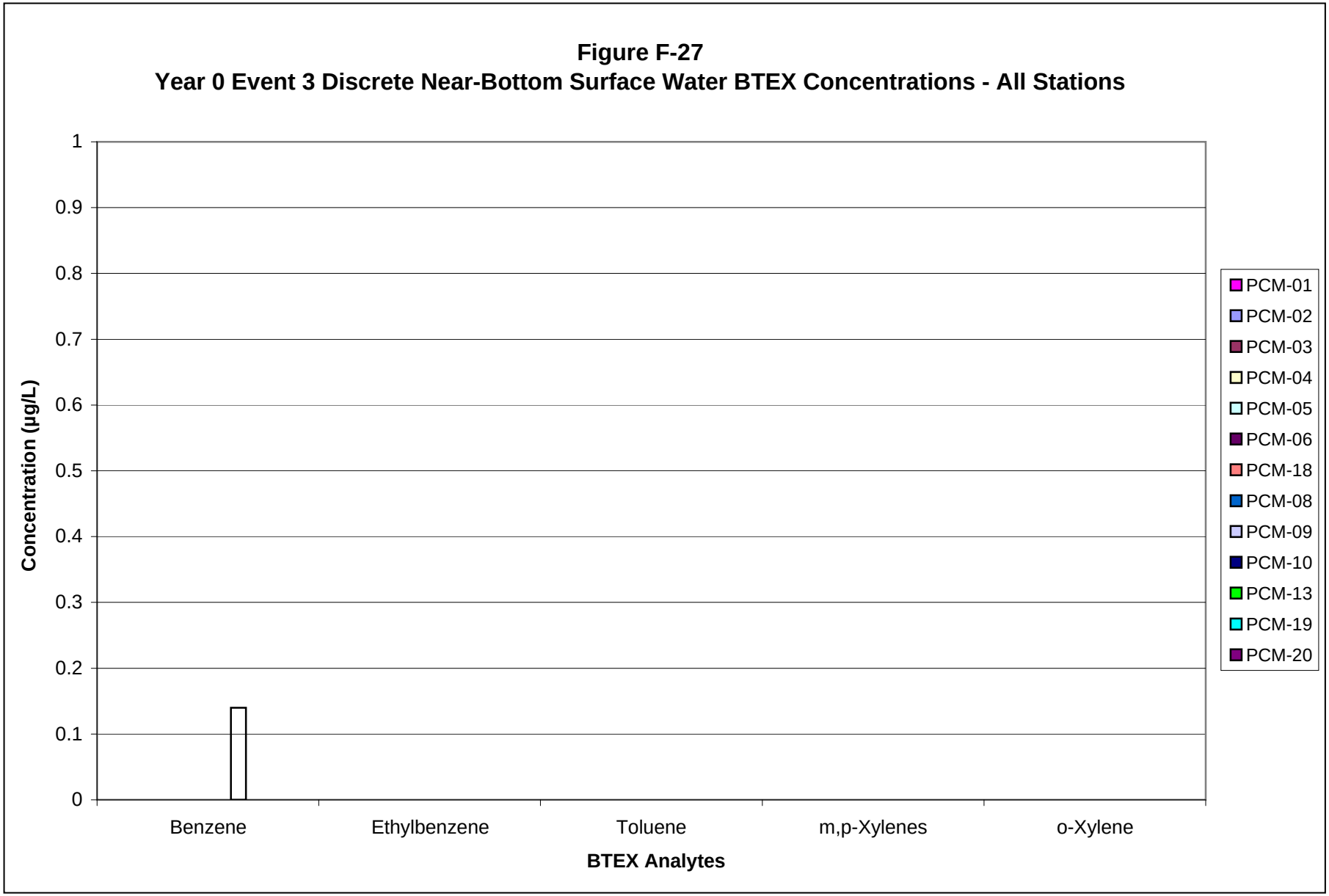

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Figure F-27
Year 0 Event 3 Discrete Near-Bottom Surface Water BTEX Concentrations - All Stations
NW Natural "Gasco" Site

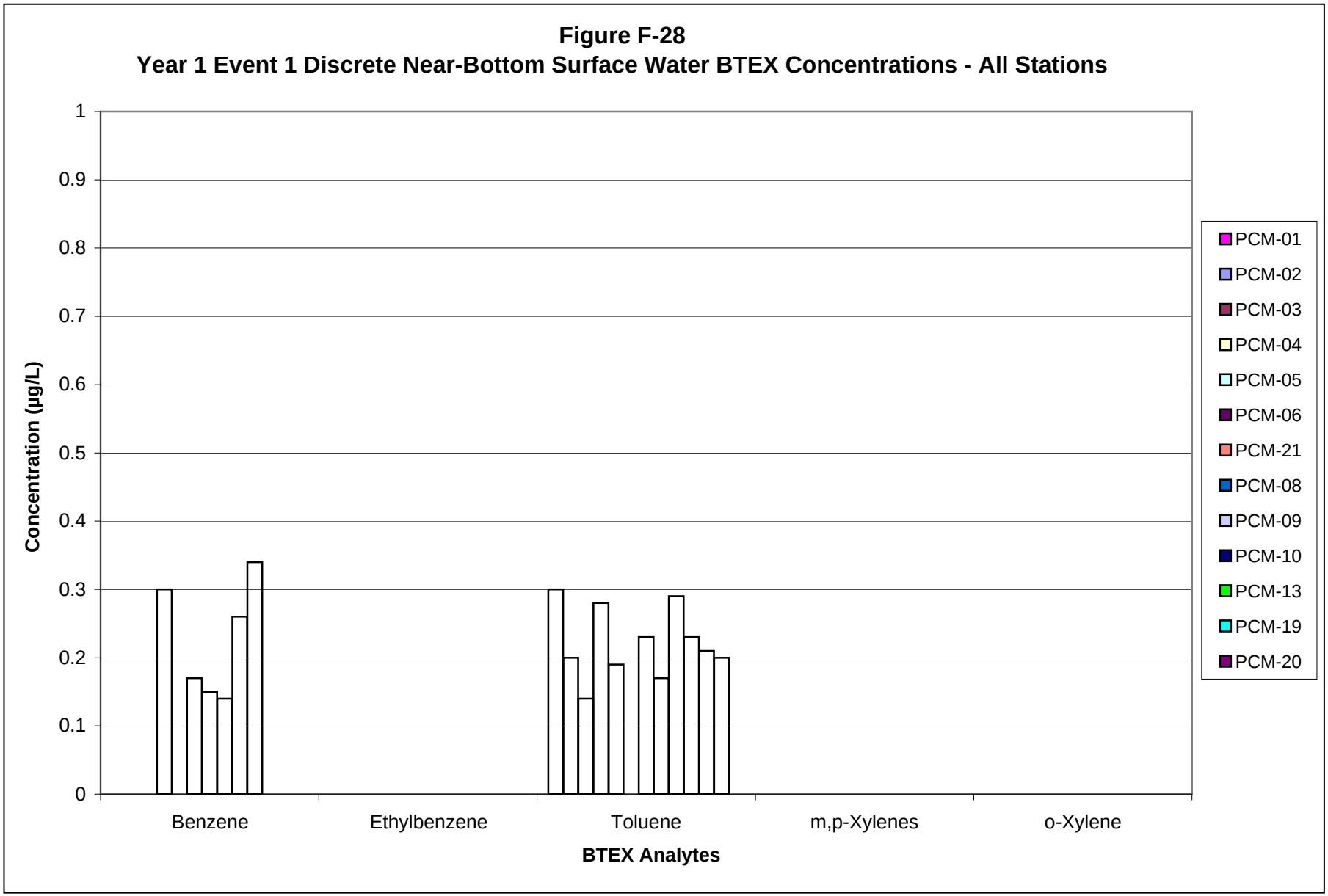

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Figure F-28
Year 1 Event 1 Discrete Near-Bottom Surface Water BTEX Concentrations - All Stations
NW Natural "Gasco" Site

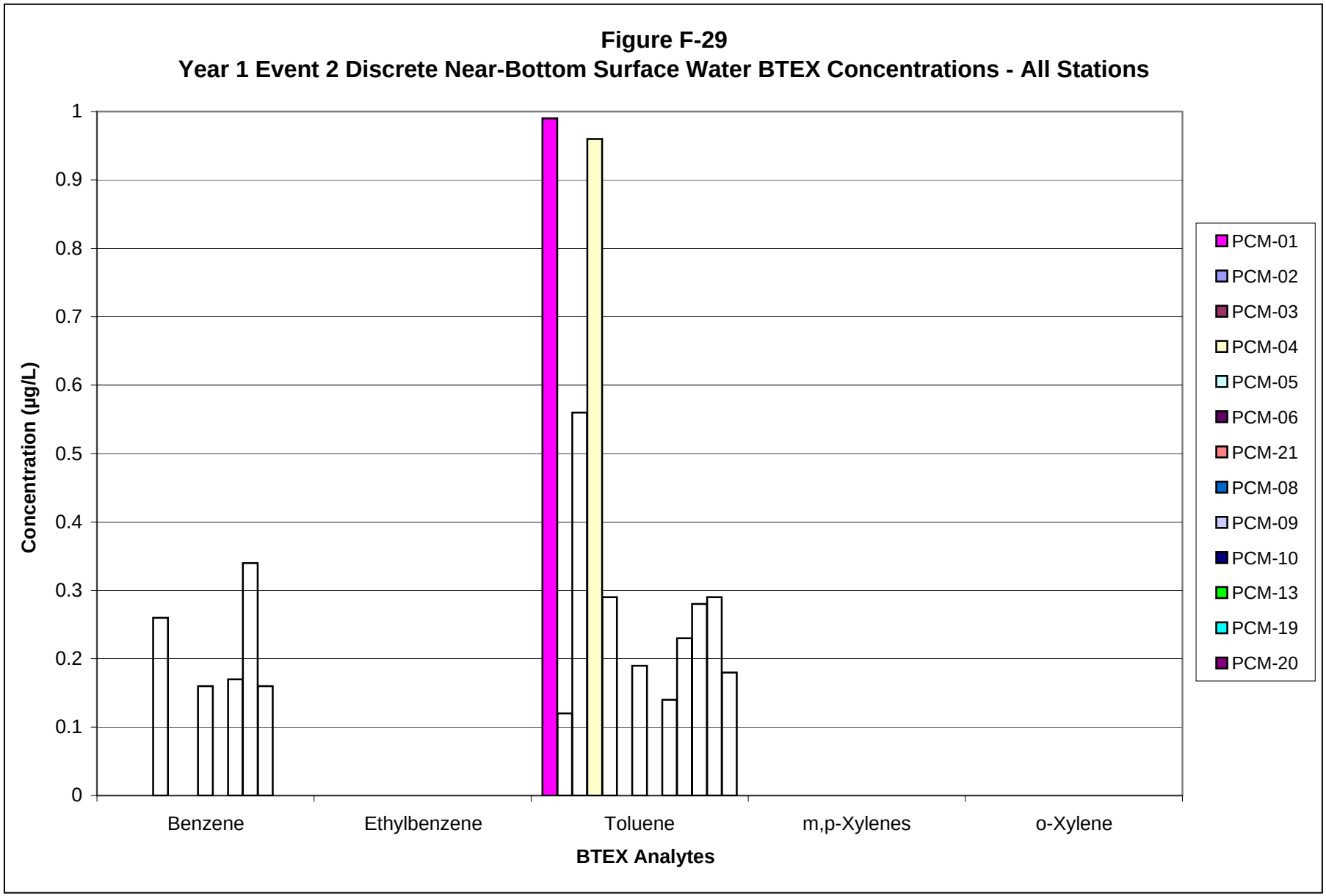

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Figure F-29
Year 1 Event 2 Discrete Near-Bottom Surface Water BTEX Concentrations - All Stations
NW Natural "Gasco" Site

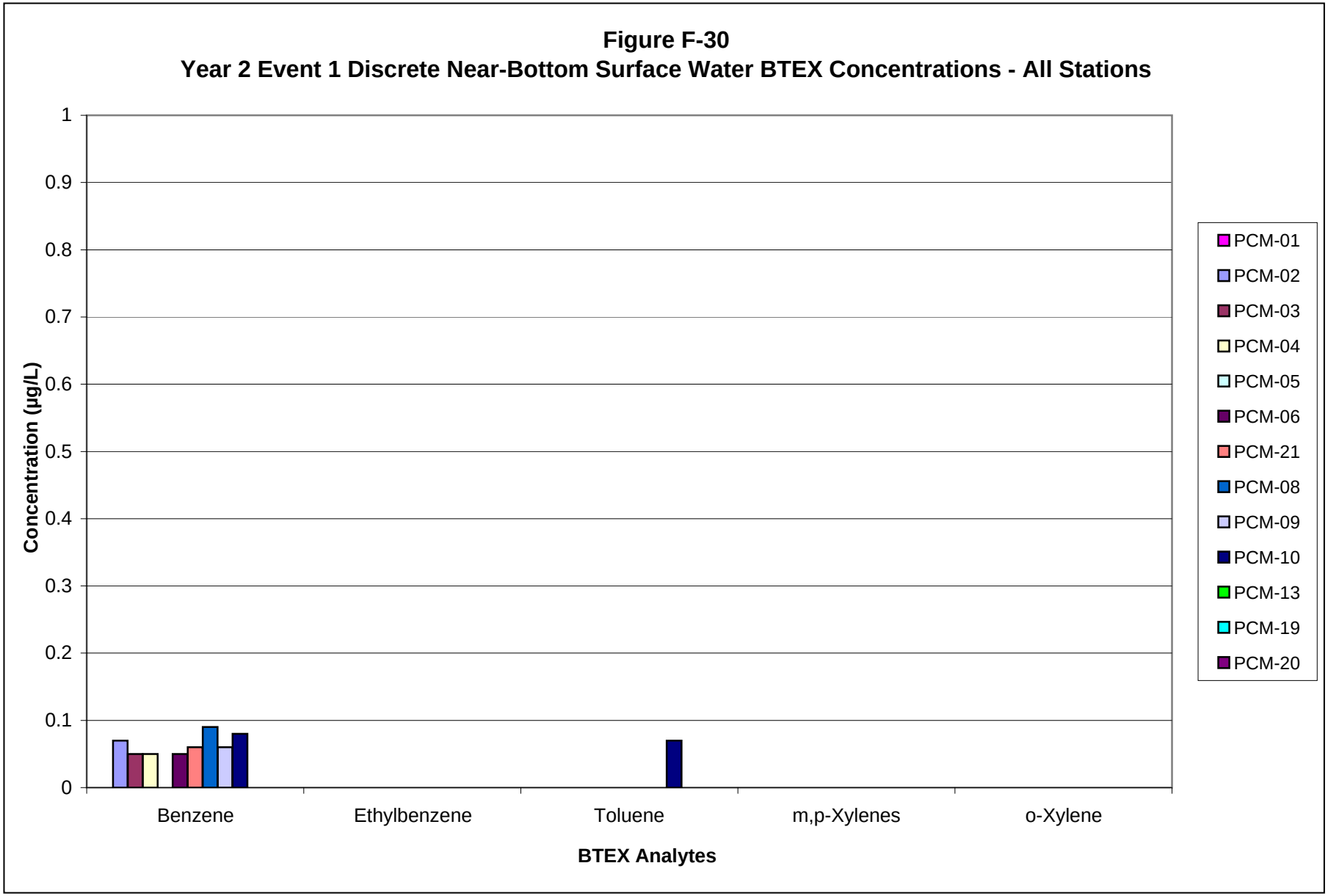

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Figure F-30
Year 2 Event 1 Discrete Near-Bottom Surface Water BTEX Concentrations - All Stations
NW Natural "Gasco" Site

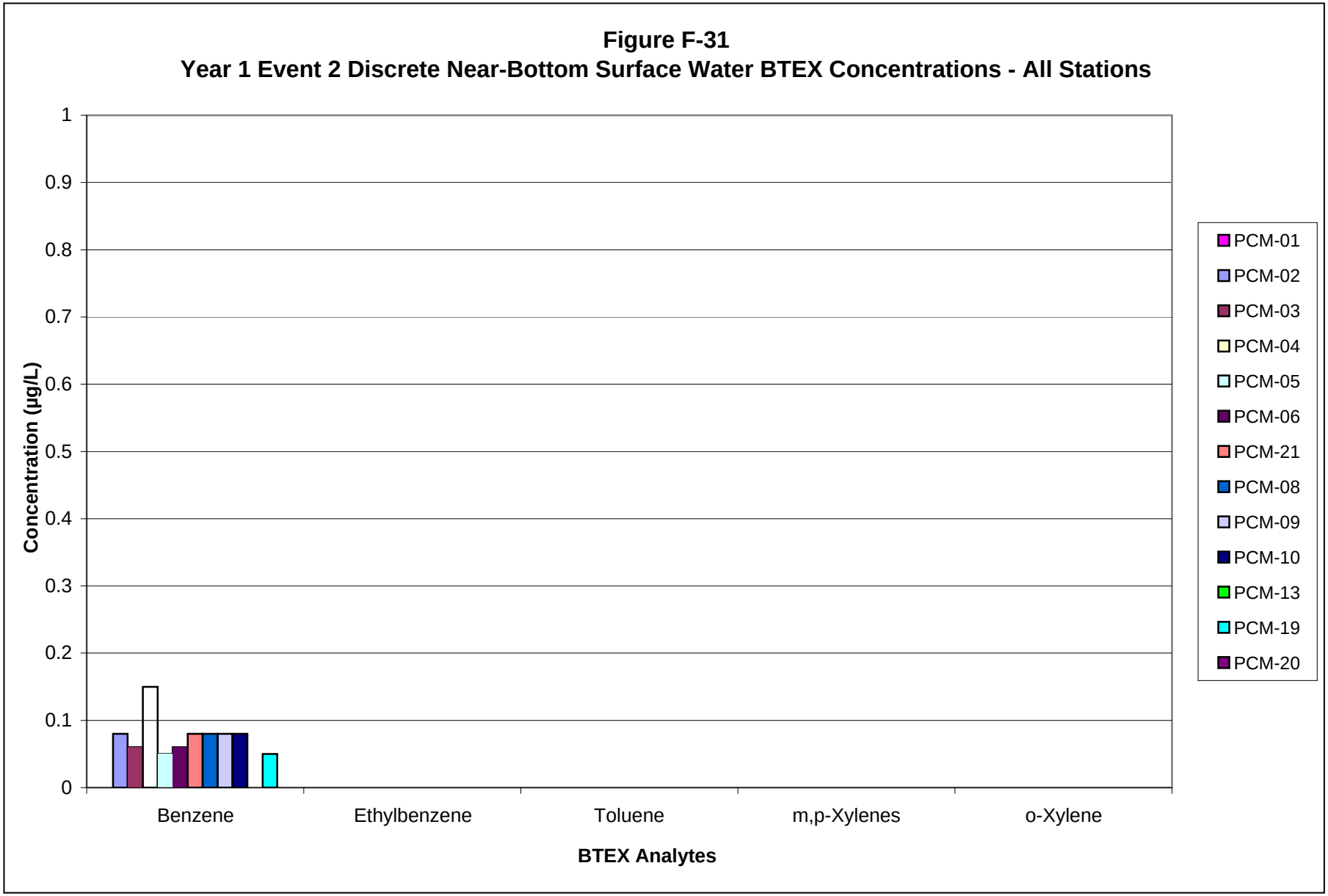

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Figure F-31
Year 1 Event 2 Discrete Near-Bottom Surface Water BTEX Concentrations - All Stations
NW Natural "Gasco" Site

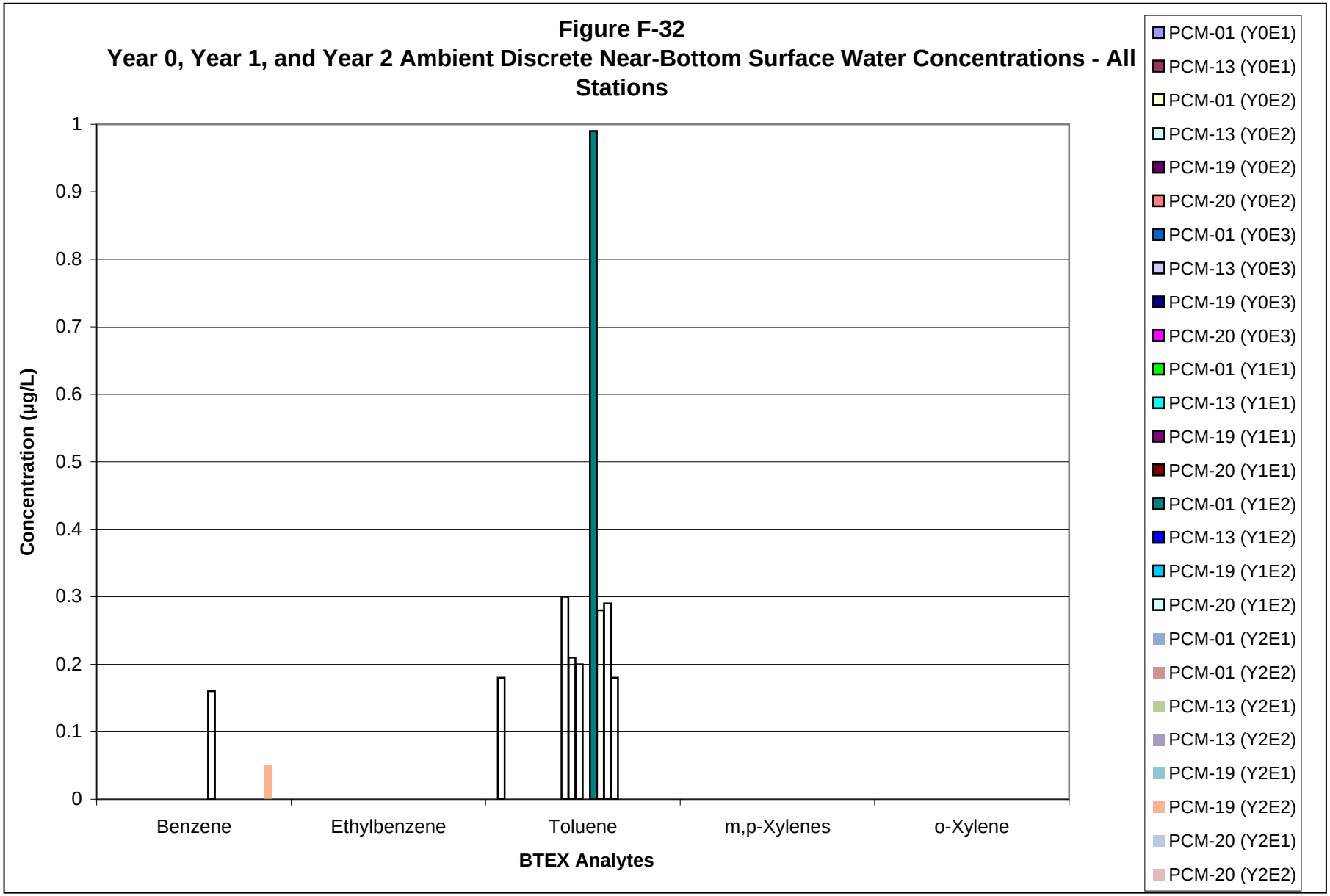

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Figure F-32

Year 0, Year 1, and Year 2 Ambient Discrete Near-Bottom Surface Water Concentrations - All Stations

NW Natural "Gasco" Site

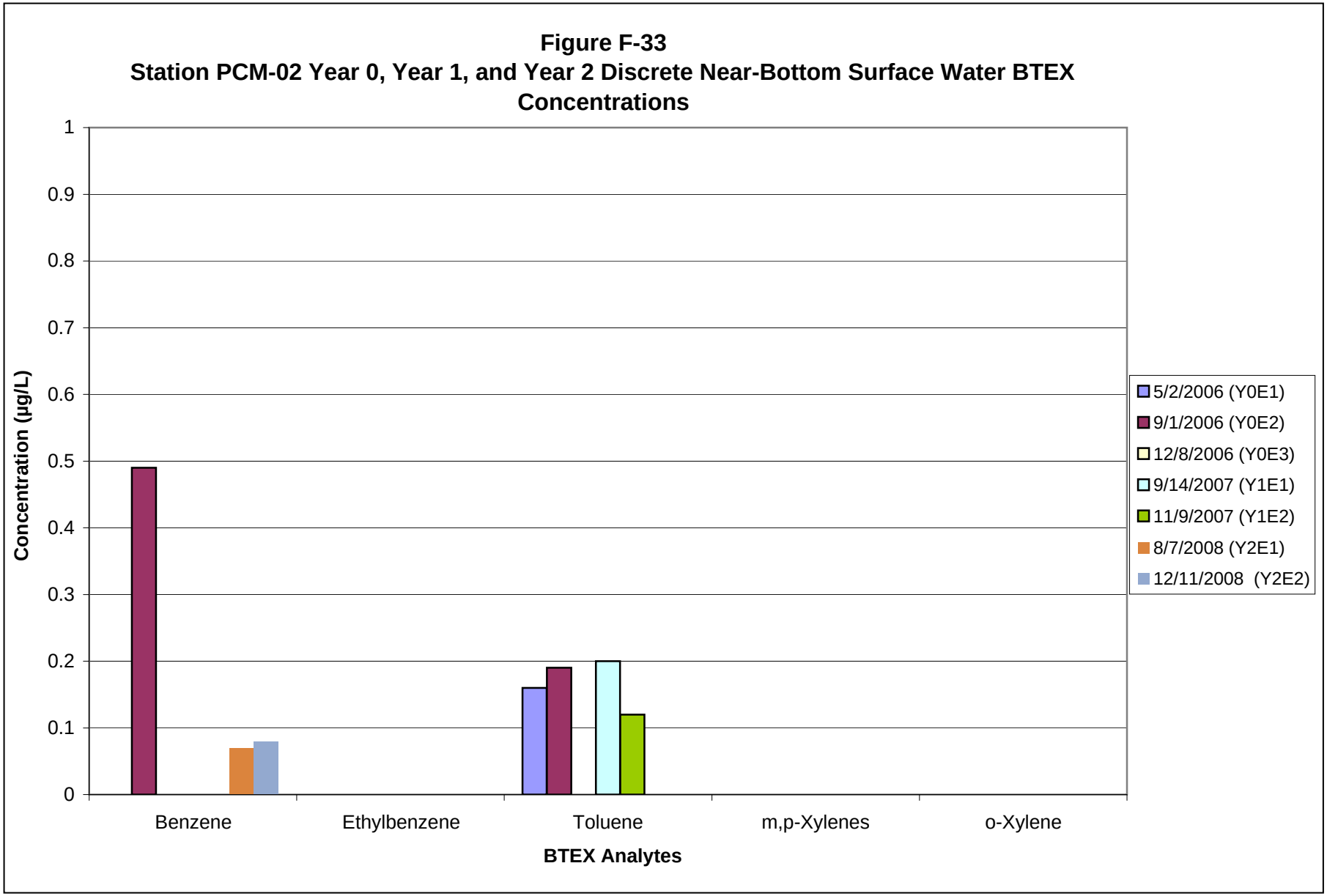

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Figure F-33

Station PCM-02 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations

NW Natural "Gasco" Site

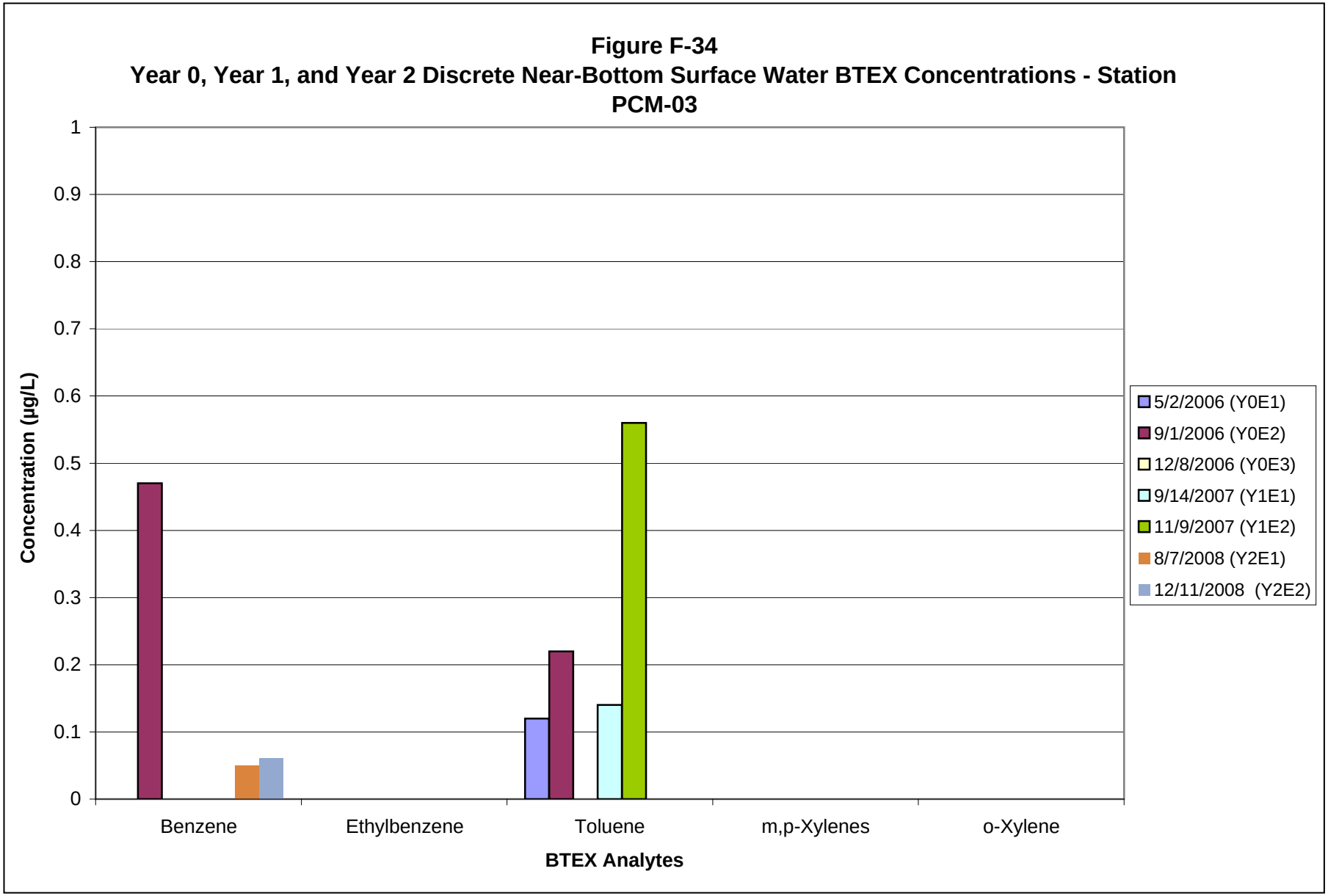

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Figure F-34

Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations - Station PCM-03

NW Natural "Gasco" Site

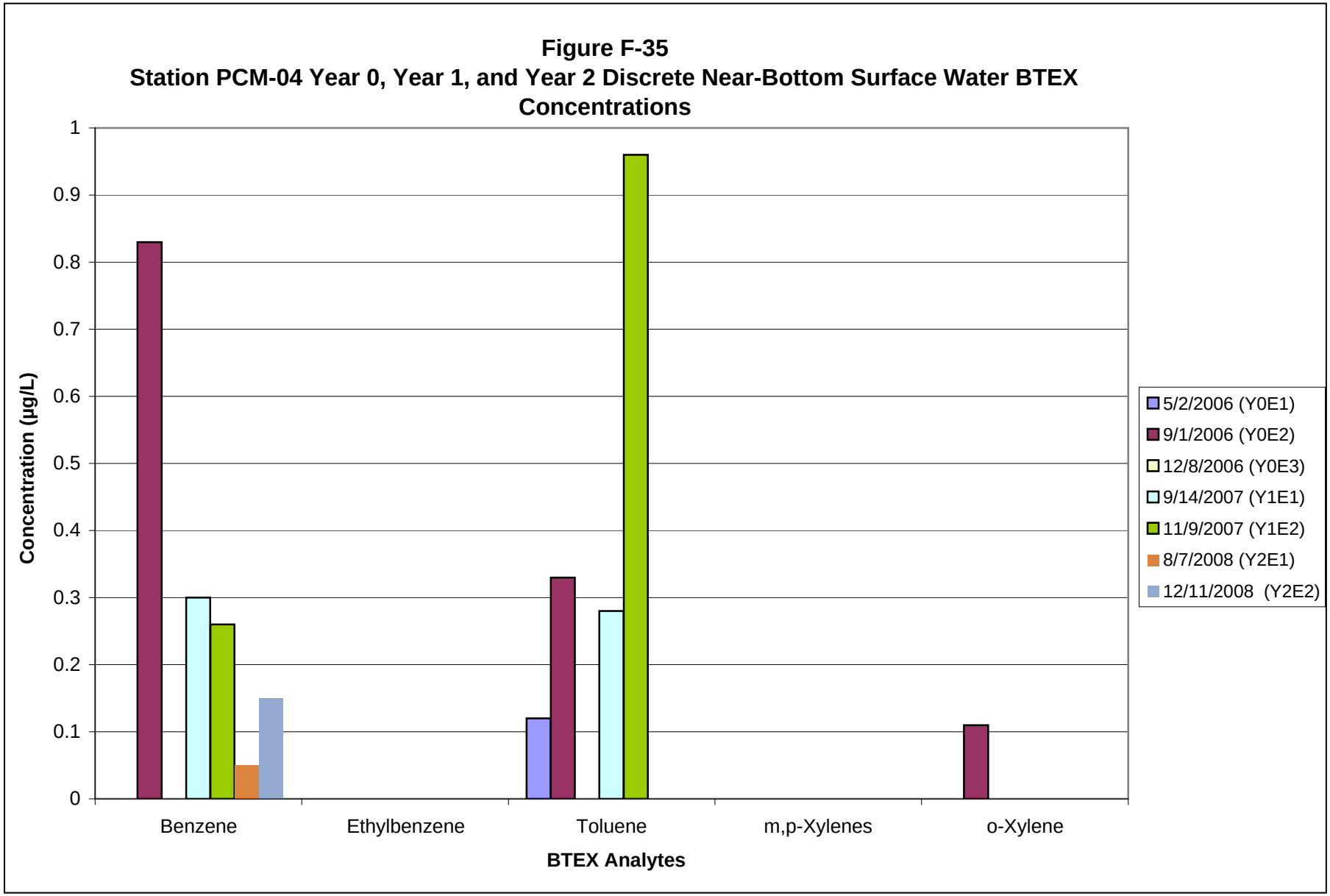

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Figure F-35

Station PCM-04 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations

NW Natural "Gasco" Site

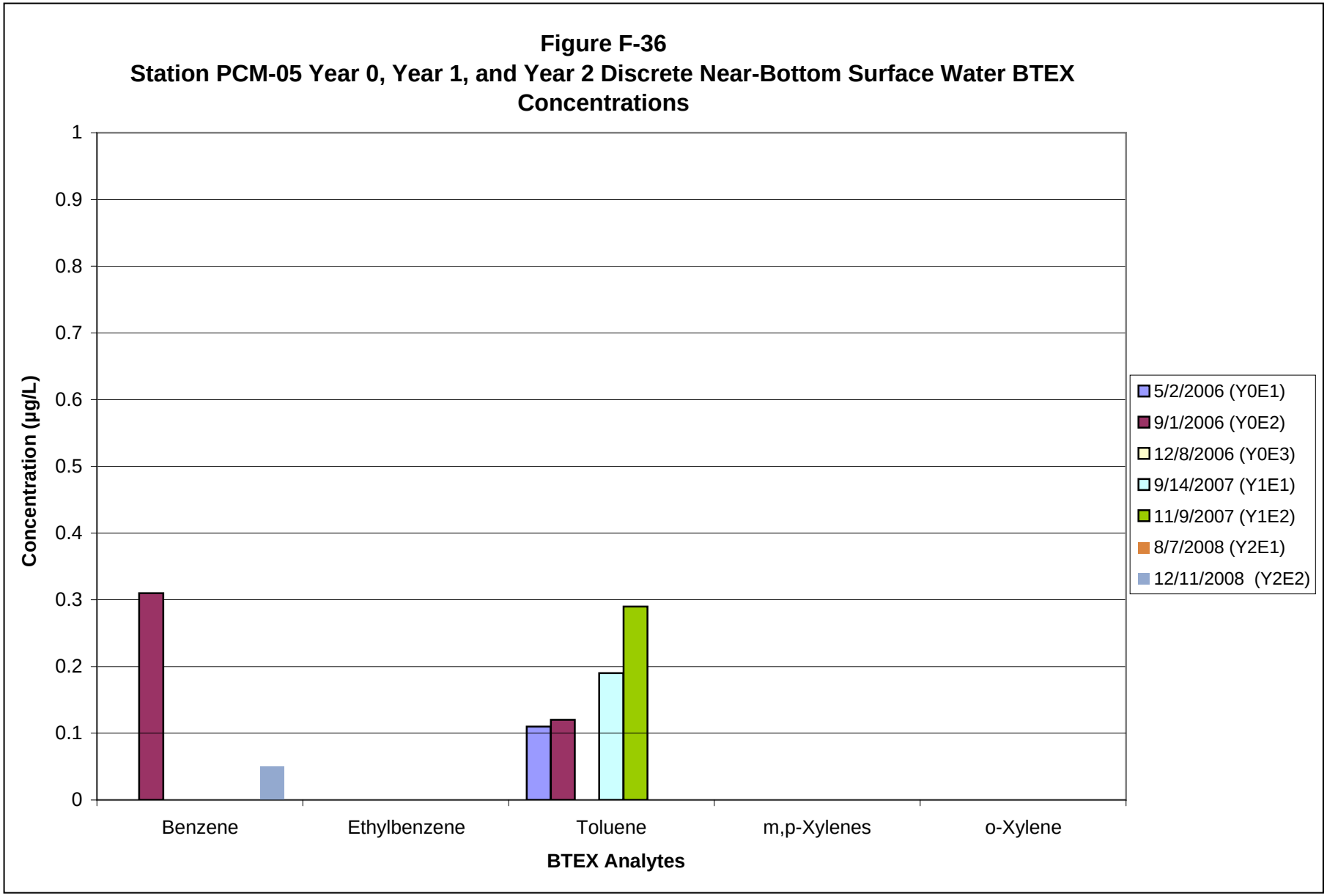

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Figure F-36

Station PCM-05 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations

NW Natural "Gasco" Site

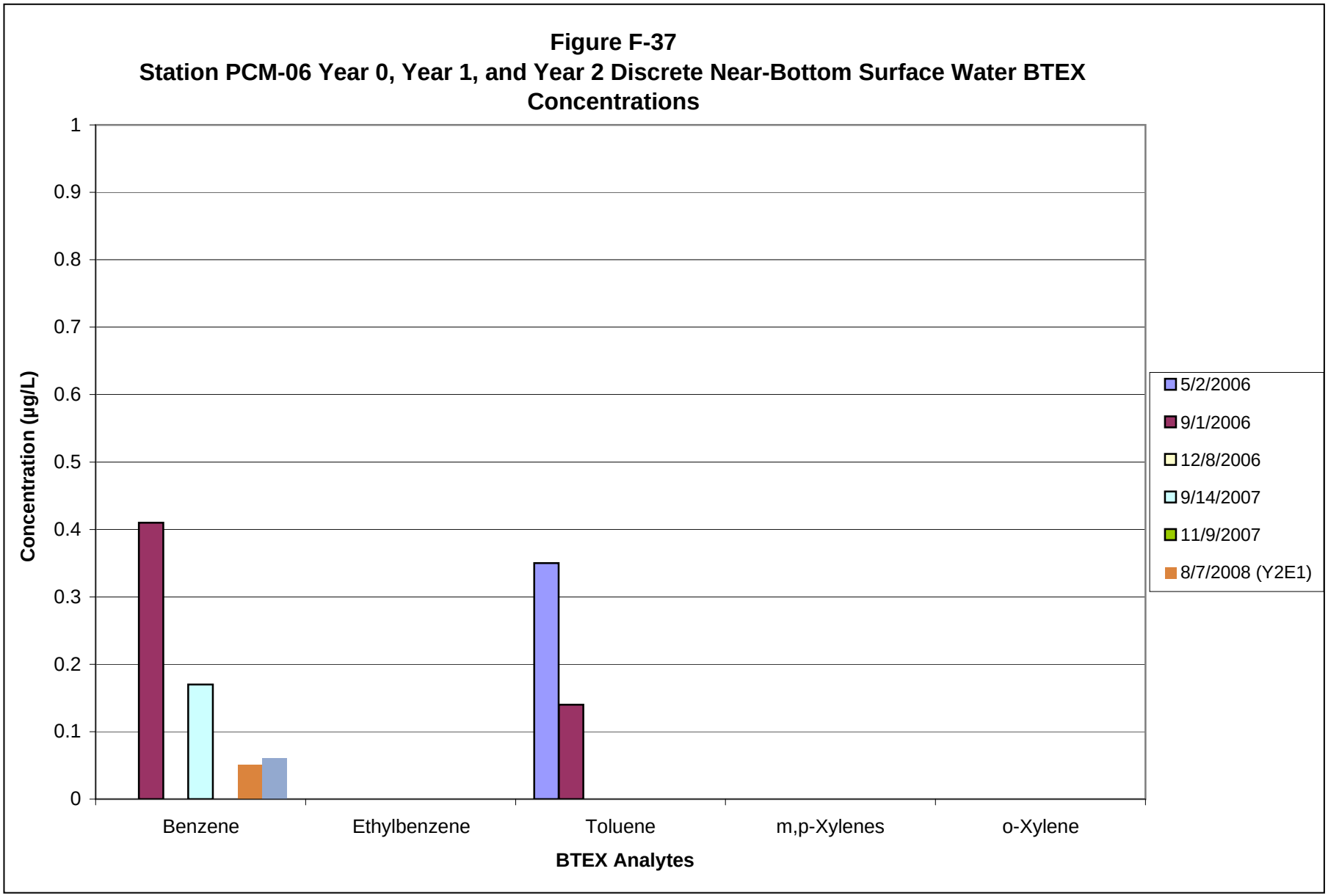

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Figure F-37
Station PCM-06 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations
NW Natural "Gasco" Site

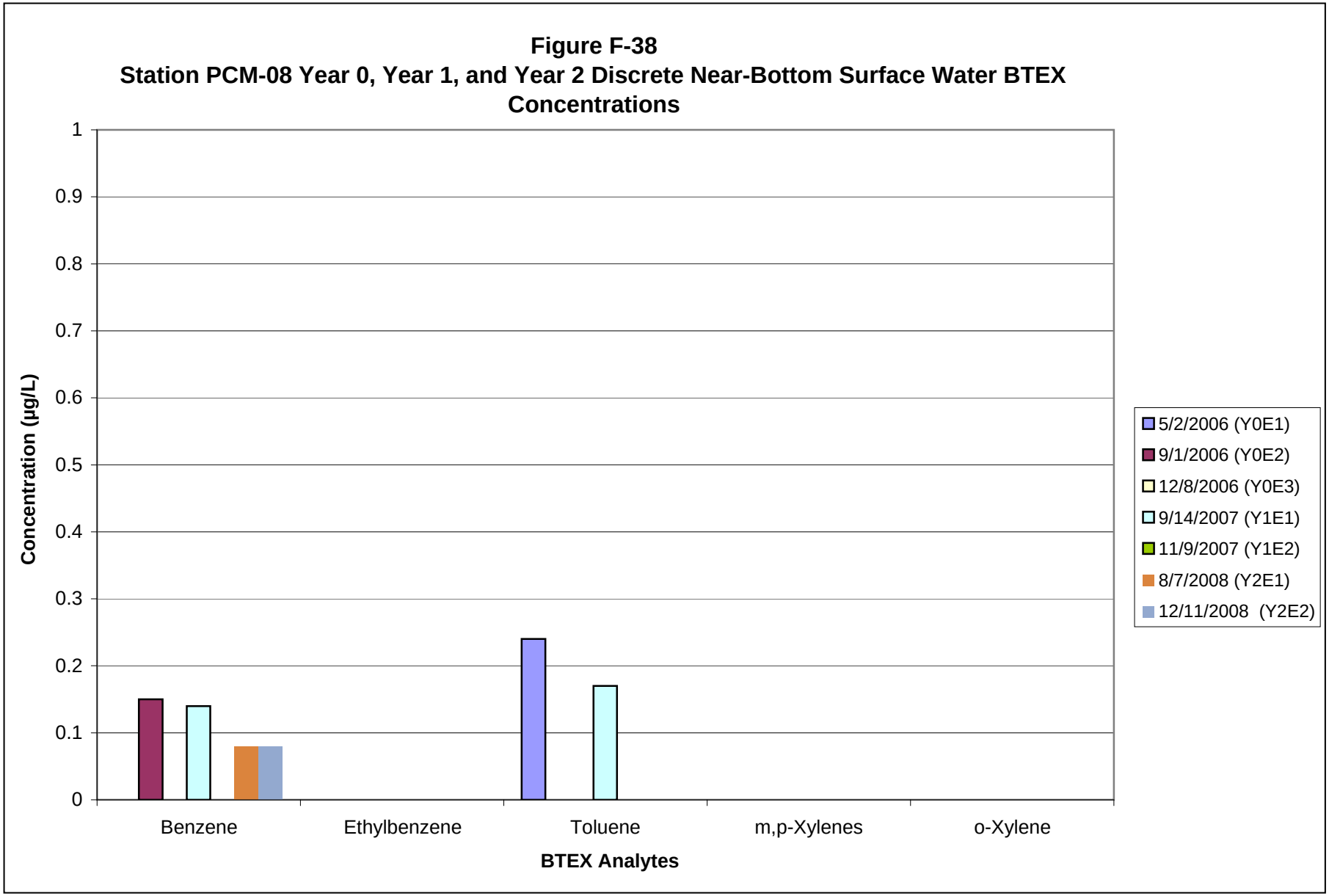

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Figure F-38

Station PCM-08 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations

NW Natural "Gasco" Site

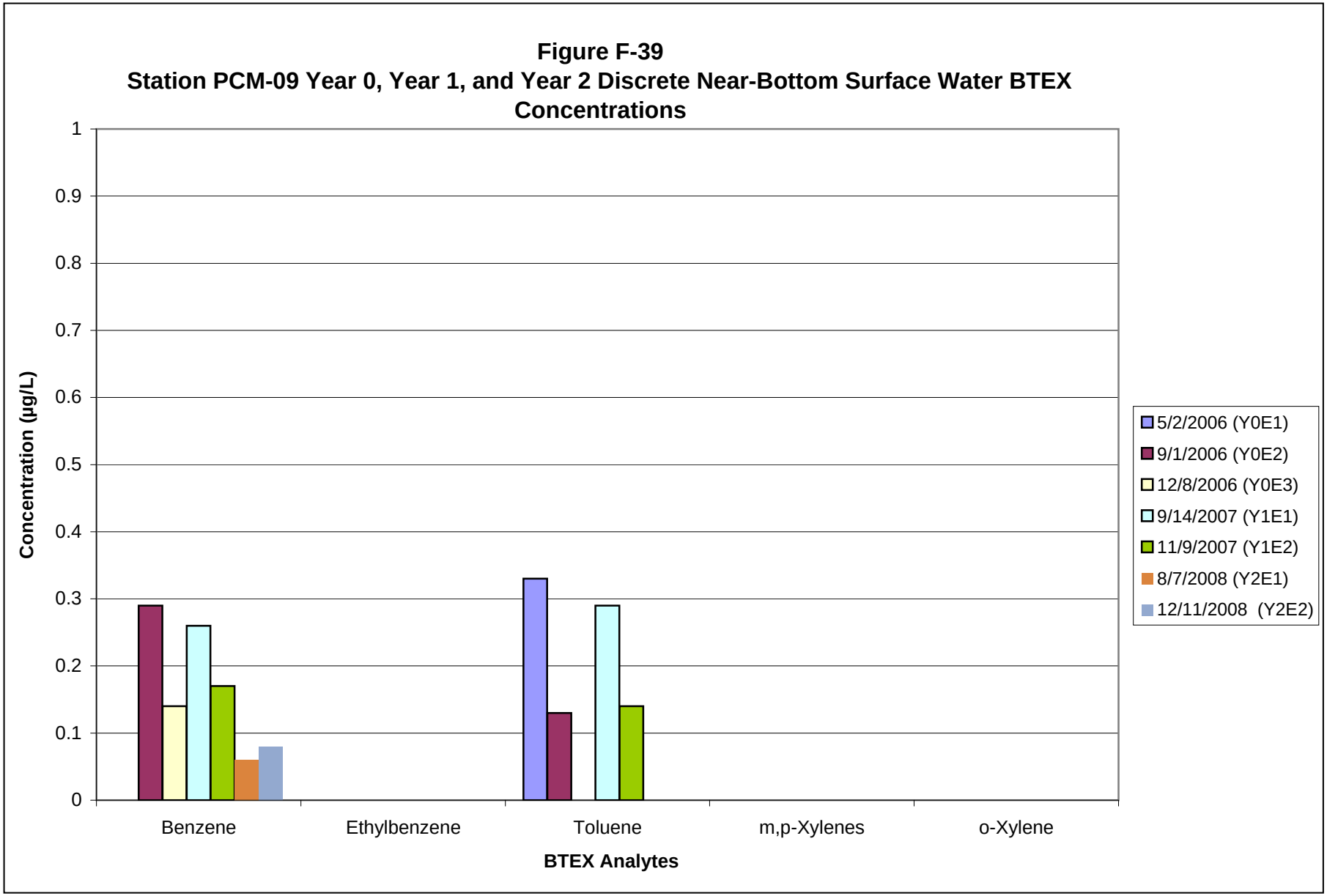

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Figure F-39

Station PCM-09 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations

NW Natural "Gasco" Site

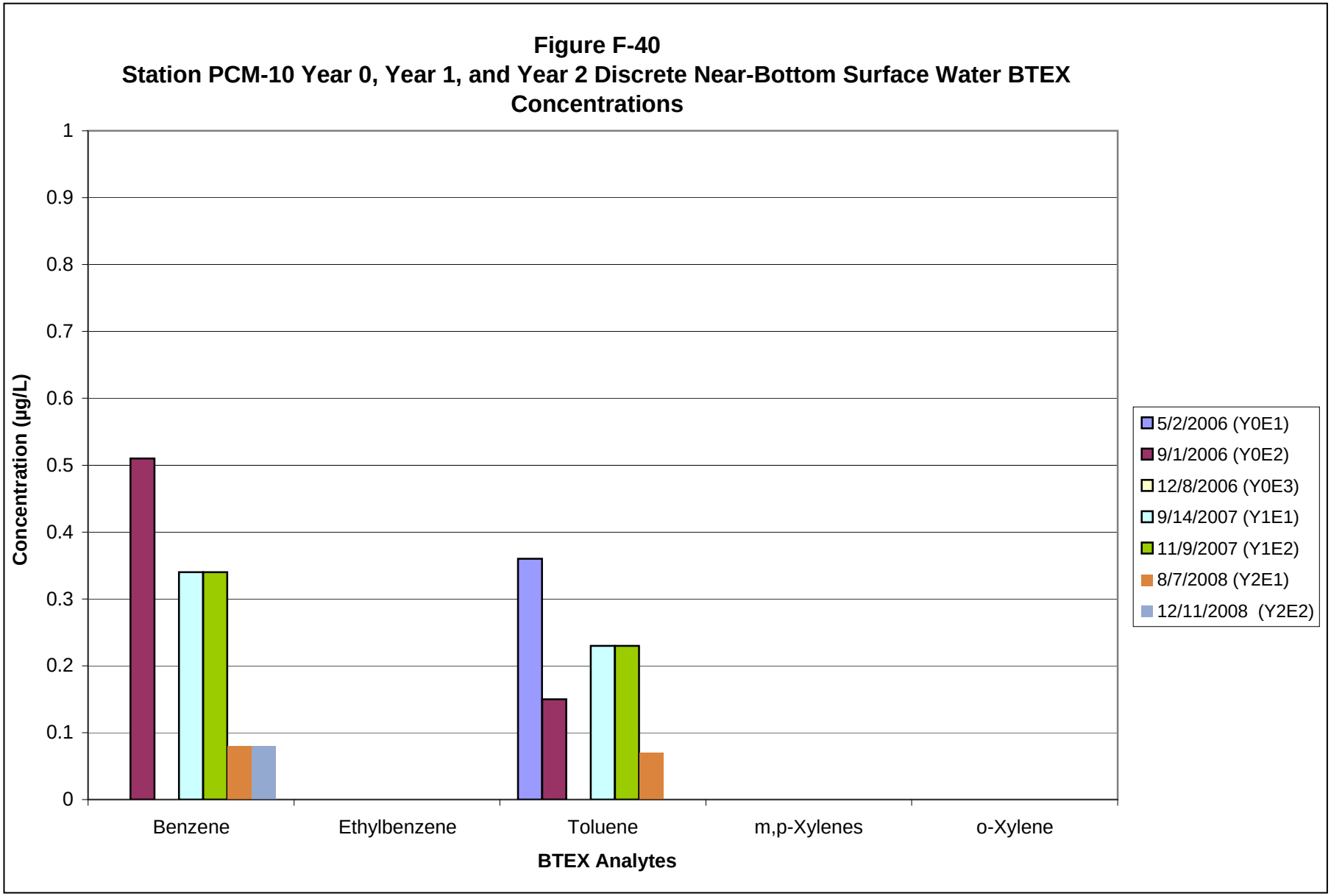

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Figure F-40

Station PCM-10 Year 0, Year 1, and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations

NW Natural "Gasco" Site

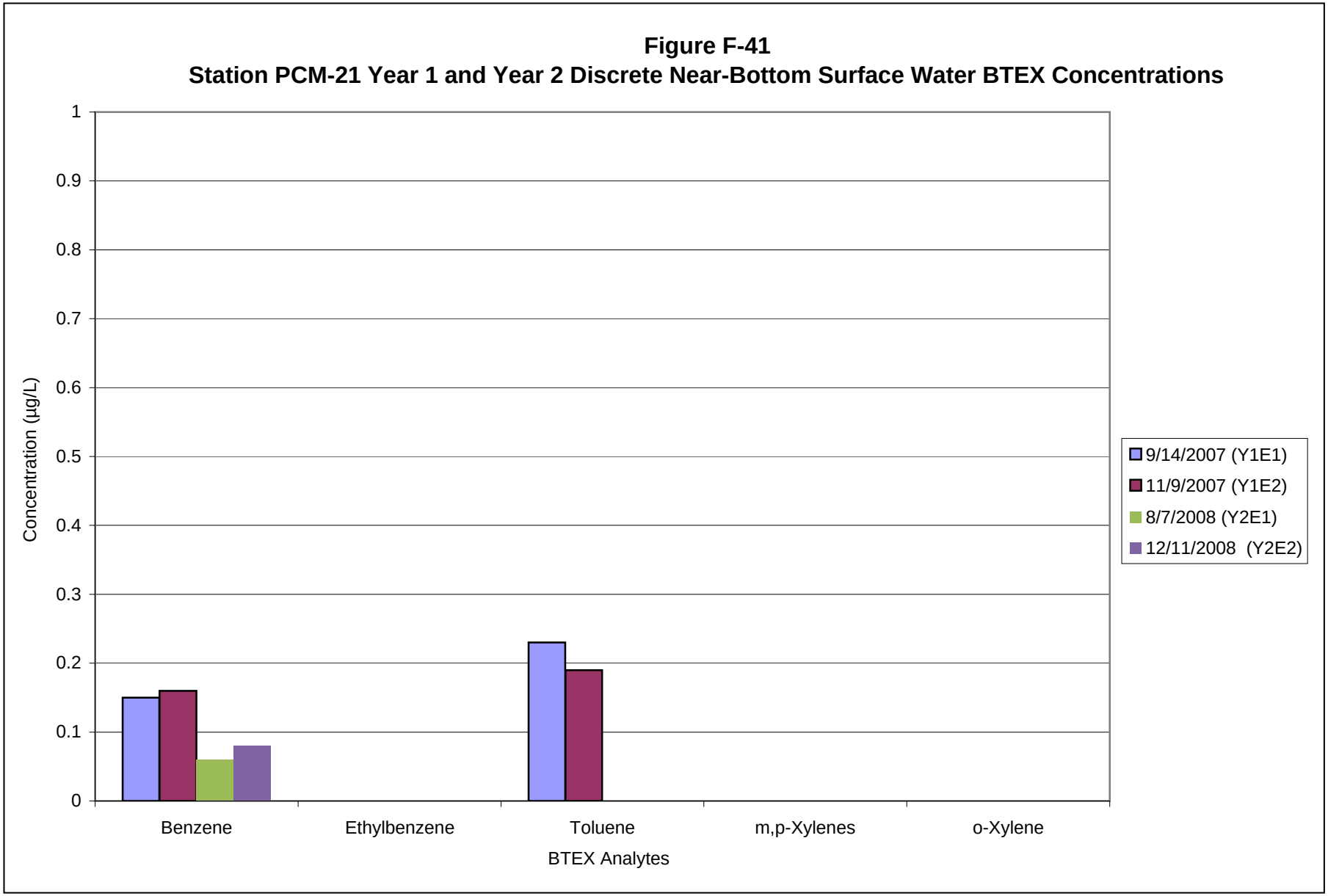

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Figure F-41
Station PCM-21 Year 1 and Year 2 Discrete Near-Bottom Surface Water BTEX Concentrations
NW Natural "Gasco" Site