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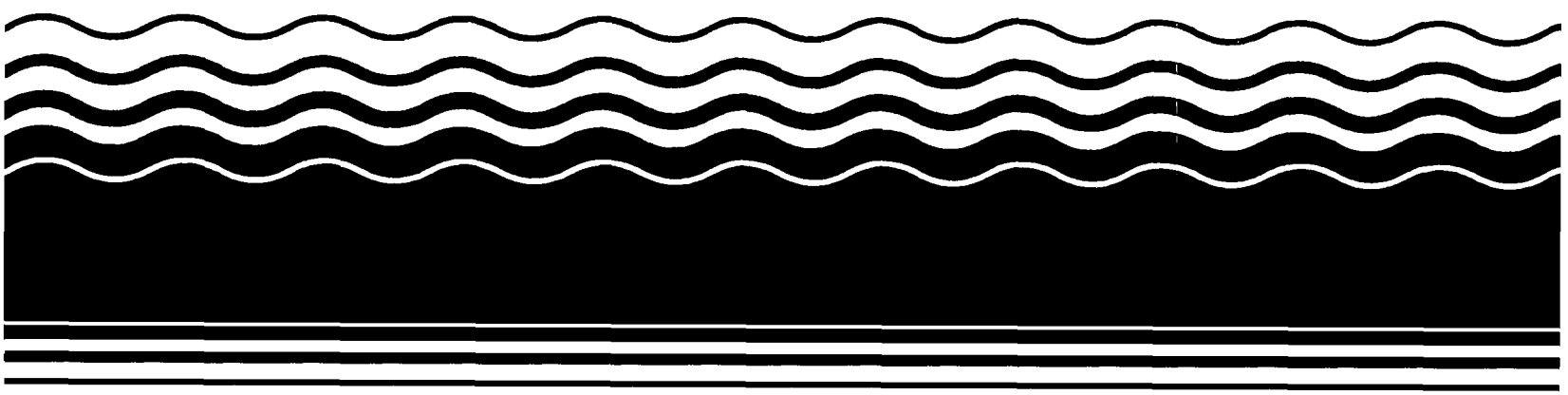
EPA/ROD/R03-93/164
March 1993

EPA

Superfund Record of Decision:

Ohio River Park
Neville Island, PA



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15. Supplementary Notes

PB94-963909

16. Abstract (Limit: 200 words)

The 32-acre Ohio River Park Neville Island site is located in the western end of Neville Island, which is situated in the Ohio River, roughly 10 miles downstream from Pittsburgh, Pennsylvania. The site is accessible via the Coraopolis Bridge. Land use in the area is mixed industrial, commercial, and residential. The closest residence is located approximately 450 feet from the site. The 1-acre bridge portion of the site is located almost completely within the 100-year floodplain. In 1929, the Pittsburgh Coke and Chemical Company (PC&C), which was located on the eastern end of Neville Island, produced coke and pig iron. In 1930, PC&C began cement operations, and between 1949 and 1955, the plant also manufactured pesticides. Records indicate that, although no formal documentation that waste disposal occurred directly in the Bridge portion of the site exists, it is possible that some of the waste may have still contaminated this area. In 1977, the land was donated to the county and construction of an onsite park began. During the construction phase, approximately 13,000 yd^3 of waste was excavated, then reburied. Park construction was then halted, and the site was returned to the Neville Land Company. EPA has divided the site into two operable units for remediation. This ROD addresses onsite soil contamination in the Bridge portion of the site, as OU2. A future ROD will address onsite ground water contamination, as OU1. Based on

(See Attached Page)

17. Document Analysis a. Descriptors

Record of Decision - Ohio River Park Neville Island, PA
First Remedial Action - Final
Contaminated Medium: None
Key Contaminants: None

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report) None	21. No. of Pages 38
	20. Security Class (This Page) None	22. Price

Abstract (Continued)

information obtained during the baseline risk assessment, EPA has determined that there is no exposure scenario which poses a risk above 10^{-4} level; and therefore, there are no contaminants of concern affecting this site.

The selected remedial action for this site is no further action, since the site no longer poses a threat to human health or the environment. There are no present worth or O&M costs associated with this no action remedy.

PERFORMANCE STANDARDS OR GOALS:

Not applicable.

RECORD OF DECISION

BRIDGE PORTION OF THE OHIO RIVER PARK SITE
OPERABLE UNIT TWO

NEVILLE ISLAND
ALLEGHENY COUNTY, PENNSYLVANIA

March 31, 1993

RECORD OF DECISION
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RECORD OF DECISION
BRIDGE PORTION OF THE OHIO RIVER PARK SITE

DECLARATION

SITE NAME AND LOCATION

Bridge Portion of the Ohio River Park Site
Operable Unit Two
Neville Island
Allegheny County, Pennsylvania

STATEMENT OF BASIS AND PURPOSE

This decision document presents a determination that no remedial action will be taken for the soil contamination in the Bridge Portion of the Ohio River Park Superfund Site in Allegheny County, Pennsylvania. The entire Ohio River Park Superfund Site of approximately 32-acres shall hereinafter be referred to as the "Site"; the approximately one-acre portion of the Site (as described in Section I of this Record of Decision) that is the subject of this Record of Decision shall hereinafter be referred to as the "Bridge Portion of the Site." The "No Action" determination was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. §§ 9601 et seq., and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300. This decision document explains the factual and legal basis for the determination that no remedial action will be taken for the soil contamination in the Bridge Portion of the Site. The information supporting this "No Action" decision is contained in the Administrative Record for the Site.

The Commonwealth of Pennsylvania, Department of Environmental Resources (PADER) agrees with the United States Environmental Protection Agency's (EPA's) choice of a "No Action" decision for the Bridge Portion of the Site, but has not concurred with the Record of Decision (ROD), as written, because of fundamental differences with the EPA interpretation of the NCP and CERCLA.

DESCRIPTION OF THE NO ACTION ALTERNATIVE

The selected alternative for the Bridge Portion of the Site is "No Action" with respect to the soil contamination. As specified in Section VI, Summary of Site Risk, there are no site-related

risks that warrant a remedial action of any kind with respect to soil contamination in the Bridge Portion of the Site.

Ground water contamination will be evaluated separately and addressed in the Remedial Investigation Report for the Site.

DECLARATION STATEMENT

No remedial action is necessary with respect to soil contamination in the Bridge Portion of the Site to ensure protection of human health and the environment. Although no remedial action will be taken to remediate the contamination of soil in the Bridge Portion of the Site, ground water quality on the Bridge Portion of the Site will be included in the Remedial Investigation of the Site to ensure that human health and the environment continue to be adequately protected.

for Stanley L. Laskowski
Acting Regional Administrator
Region III

3-31-93
Date

RECORD OF DECISION
BRIDGE PORTION OF THE OHIO RIVER PARK SITE

DECISION SUMMARY

I. SITE NAME, LOCATION AND DESCRIPTION

The Site consists of approximately 32 acres on the western end of Neville Island, which is located in the Ohio River, roughly 10 miles downstream from Pittsburgh, Pennsylvania (Figure 1). The Site is accessible from the Town of Coraopolis via the Coraopolis Bridge (a/k/a the Neville Island Bridge) linking Neville Island with the south bank of the Back Channel of the Ohio River. The Coraopolis Bridge is closed when the temperature drops below 32° F for more than 8 hours, which usually takes place from December through March. When the Coraopolis Bridge is closed, vehicular traffic must use the I-79 Bridge and the Sewickley Bridge located several miles away. Allegheny County intends to build a new bridge to replace the existing Coraopolis Bridge. The new abutments and approach roadway on Neville Island for the proposed new replacement bridge will be located on the southeast corner of the Site.

EPA has divided the Site into two components called Operable Units. Operable Unit One (OU-1) consists of the entire Site, other than soil contamination in the Bridge Portion of the Site. Operable Unit Two (OU-2) consists of soil contamination in the Bridge Portion of the Site.

The Bridge Portion of the Site is the area which will be affected by construction of the new abutments and approach roadway for the proposed new bridge. It consists of an approximately one-acre, grass-covered meadow which changes into a band of shrubs and trees along the Ohio River Back Channel. The Bridge Portion of the Site is bounded on the north and west sides by Grand Avenue, on the south side by the Ohio River Back Channel, and on the east side by a chain link fence (Figure 2). There are two commercial buildings located to the east.

Land use on Neville Island is generally industrial and/or commercial. The western portion of the island includes the Site; the middle section of the island, between the Site and the I-79 Highway, is mostly residential and commercial; the east end of the island is heavily industrialized. Most of the 930 Neville Island residents live in the area between the Coraopolis Bridge

and the I-79 Highway. The nearest residence is located approximately 450 feet from the Site. According to the 1990 census, the population of the surrounding communities located within an approximately 4-mile radius of the Site is 18,058 people.

There are no wetlands on the Bridge Portion of the Site. The 100-year flood elevation in the vicinity of the Coraopolis Bridge is 717.5 feet, which is 11 feet above the ordinary high water elevation of 706.5 feet. The Bridge Portion of the Site is located almost completely within the 100-year floodplain but above the ordinary high water elevation. There are no streams, rivers, lakes or other water resources on the Bridge Portion of the Site. In addition, no wildlife refuges, state forests, or state game lands are located on the Bridge Portion of the Site. The only threatened or endangered species recorded as occurring in the vicinity of the Site is the smooth softshell turtle. The record, however, dates back to before the turn of the century and recent river turtle surveys have failed to verify the presence of the smooth softshell turtle in Pennsylvania.

An Historic Structures survey was conducted to identify any buildings within the Bridge Portion of the Site which could be eligible for the National Register. The survey concluded that, except for the Coraopolis Bridge itself, there are no properties located in the Bridge Portion of the Site that are eligible for the National Register.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

HISTORY OF WASTE DISPOSAL

The predominant land use in the Bridge Portion of the Site was agricultural until 1929. In 1929, Pittsburgh Coke and Chemical Company (PC&C), located on the eastern end of Neville Island, produced coke and pig iron. One year later, PC&C opened its cement operations. Available information does not indicate that PC&C disposed of any waste in the Bridge Portion of the Site; however, PC&C disposed of coke oven by-products and cement by-products in areas of the Site other than the Bridge Portion of the Site. A gas station facility appears on the aerial photos of the Bridge Portion of the Site taken from 1936 to 1938. It was demolished to allow the construction of Navy barracks in 1943 on the Bridge Portion of the Site. In December 1970, the Navy barracks were demolished and removed. Between 1949 and 1955, PC&C's Agricultural Chemicals Division manufactured pesticides. PC&C disposed of pesticides and industrial wastes in trenches in areas of the Site other than the Bridge Portion of the Site. Even though none of the 54 trenches, identified by aerial photographs, was located in the Bridge Portion of the Site, some of the waste may have contaminated the Bridge Portion of the

Site. PC&C operations ceased in 1965-66.

In 1977, Neville Land Company donated the land comprising the Site to Allegheny County. Allegheny County began construction of a park on the Site in 1977. During the course of the work, approximately 13,000 cubic yards of various wastes were excavated at the Site, and some of these materials were reburied at the Site. Available data, as presented in Figure 3, identify disposal trench locations only in areas of the Site other than the Bridge Portion of the Site; however, some of the excavated material may have been spread on the ground surface and contaminated the Bridge Portion of the Site. When Allegheny County determined in 1979 that hazardous wastes were present at the Site, the County halted construction of the park and returned the land comprising the Site to Neville Land Company.

RESPONSE ACTIONS

EPA completed a Preliminary Assessment of the Site in January 1979. Following further assessments performed in 1980 and additional related studies, EPA proposed the Site for inclusion on the National Priorities List (NPL) of Superfund sites on October 16, 1989. EPA placed the Site on the NPL on August 30, 1990. In October 1991, EPA and Neville Land Company, the owner of the Site, entered into an Administrative Order by Consent. Neville Land Company agreed in the Order to conduct a Remedial Investigation/Feasibility Study, with EPA and PADER oversight, of the entire Site in accordance with CERCLA. In response to comments from Allegheny County, EPA carved out the investigation of soil contamination in the Bridge Portion of the Site as OU-2, in order to expedite the investigation of the area and help resolve issues related to the Coraopolis Bridge replacement project. EPA and Allegheny County entered into an Administrative Order by Consent on February 2, 1992 requiring Allegheny County to perform a Focused Remedial Investigation (Focused RI) of soil contamination in the Bridge Portion of the Site. The field work was completed in April 1992. Allegheny County submitted the results of this investigation to EPA as the Focused RI Report. EPA approved the Focused RI Report on November 30, 1992. Following this study, EPA completed the site-specific Focused Baseline Risk Assessment (BLRA).

III. HIGHLIGHTS OF COMMUNITY PARTICIPATION

In accordance with Sections 113(k)(2)(B), 117(a), and 121(f)(1)(G) of CERCLA, 42 U.S.C. §§ 9613(k)(2)(B), 9617(a), and 9621(f)(1)(G), EPA issued a Proposed Remedial Action Plan (Proposed Plan) on January 15, 1993 to present the preferred remedial alternative for addressing the soil contamination in the Bridge Portion of the Site. EPA prepared the Proposed Plan to facilitate public participation in the decision-making process

regarding remediation of the soils in the Bridge Portion of the Site. EPA made the Proposed Plan, Focused RI Report, BLRA, and other site-related documents available to the public by placing copies in the Administrative Record file. Copies of the Administrative Record file are located in the information repositories at the following locations:

Coraopolis Memorial Library
State and School Streets
Coraopolis, PA 15108
(412) 264 3505

U.S. EPA - Region III
Administrative Record Coordinator
Docket Room
841 Chestnut Building
Philadelphia, PA 19107
(215) 597-3037

An announcement of a public meeting, a comment period, and the availability of the Administrative Record file was published in the "Allegheny Times" and the "Coraopolis Record" on January 15, 1993.

EPA held a public comment period from January 15, 1993 to February 15, 1993. A public meeting was held on January 25, 1993 to present information, accept oral and written comments, and answer questions from the public regarding the Bridge Portion of the Site and the "No Action" Preferred Alternative. A transcript of the meeting was maintained in accordance with Section 117(a)(2) of CERCLA, 42 U.S.C. § 9617(a)(2). Responses to both the oral and written comments received during the public comment period are included in the attached Responsiveness Summary. This decision document presents the selected remedial action for the soil contamination in the Bridge Portion of the Site chosen in accordance with CERCLA and, to the extent practicable, the NCP.

All documents considered or relied upon in reaching the remedy selection decisions contained in this Record of Decision (ROD) are included in the Administrative Record for the Bridge Portion of the Site and can be reviewed at the information repositories.

IV. SCOPE AND ROLE OF OPERABLE UNIT

EPA's goal for the Focused RI was to determine the nature and extent of soil contamination in the Bridge Portion of the Site, to identify risks posed by the soil contamination in the Bridge Portion of the Site, and to develop remedial alternatives to address those risks. There were no principal threats identified with respect to the soil contamination in the Bridge

Portion of the Site. Principal threats are those source materials which are considered to be highly toxic or mobile, generally cannot be contained, or would present a significant risk to human health or the environment should exposure occur.

EPA divided the Site into two operable units. OU-1 consists of the entire Site, other than soil contamination in the Bridge Portion of the Site. This ROD addresses OU-2, which consists of soil contamination in the Bridge Portion of the Site. This ROD does not address groundwater contamination, which will be addressed by the OU-1 investigation.

V. PREVIOUS SITE INVESTIGATIONS

Four consulting firms have conducted investigations of the Site since the cessation of waste disposal activities in the mid-1960s. A summary of the work performed and sample results is presented below:

- **Pittsburgh Testing Laboratory**
The Pittsburgh Testing Laboratory conducted a study from 1972-73 which provided general information on physical parameters of soils at the Site.

- **Richardson, Gordon, and Associates, Inc. (RGA)**
RGA conducted two field programs in 1977. The first program resulted in a map of the Site showing conditions prior to construction of the park by Allegheny County. The second program included digging 69 test pits and collecting soil and waste samples for physical and chemical analyses. During this investigation, numerous disposal trenches were discovered in the central portion of the Site. No disposal trenches were found in the Bridge Portion of the Site. Figure 3 shows the locations of the disposal trenches as determined by RGA and other studies.

- **Fred C. Hart and Associates, Inc. (FCHA)**
FCHA conducted a survey in 1979 which included the collection and analysis of 28 waste samples from the surface or near surface of the Site to evaluate any threat to the general public. No samples were collected from the Bridge Portion of the Site.

- **Environmental Research and Technology, Inc. (ERT)**
ERT performed a study of the Site from 1979 to 1982. It was followed by a long-term monitoring program. ERT conducted geophysical surveys of the Site in May 1989 to determine the location of any curied debris. In 1990, ERT collected 458 soil and waste samples. Six sample locations were in the Bridge Portion of the Site. At one of these locations, the concentration of toluene was 8,000 parts per billion (ppb) in the first sample and 70 ppb in the second sample. The concentration of benzene at this location was 5,000 ppb and the concentration

of 2,4-D butyl ester (2,4-D) was 5.2 ppb. A sample from a different location indicated concentrations of toluene at 70 ppm and 2,4-D at 1.2 ppb. The above concentrations of soil contaminants are below EPA's oral Reference Doses (RfDs) for these chemicals. A RfD of a contaminant is the average daily lifetime dose believed to be without adverse effects in human populations.

VI. SUMMARY OF SITE CHARACTERISTICS

A. TOPOGRAPHIC SETTING

Neville Island is a detached portion of a river terrace deposited by an ancestral Ohio River. With the exception of the immediate shoreline, western portions of the Site were excavated and filled with soil, slag, foundry sand, and municipal and industrial waste. These dumping activities caused the highest elevation of the Site to rise 10 to 27 feet above the 1948 level of the river banks. The southern two-thirds of the Bridge Portion of the Site is a flat area previously occupied by Navy barracks. The highest level elevation on the Bridge Portion of the Site occurs at the existing Coraopolis Bridge abutment. There is a drainage swale between the existing Coraopolis Bridge abutment and the location selected for the new replacement bridge abutment. In the area of the Bridge Portion of the Site that is adjacent to the river, a steep slope exists where elevations abruptly change 20 feet. There is no evidence that the topographic setting of the Bridge Portion of the Site was artificially constructed in the same way as it was for the rest of the Site. Moreover, no trenches with fill material were found in the Bridge Portion of the Site.

B. HYDROGEOLOGICAL SETTING

The geology beneath the Bridge Portion of the Site is composed of approximately 60 feet of alluvium consisting of fine sand, silt, clay, coarse sand, and gravel. The river bottom is comprised of a less permeable silt underlain by coarse alluvium and is approximately 13 to 28 feet thick. The bedrock under the Bridge Portion of the Site is composed of micaceous fine sandstone and dark-gray shale (argilite).

The depth to ground water is approximately 20 to 25 feet below the ground surface. The saturated thickness of the alluvial aquifer beneath Neville Island is approximately 35 to 40 feet. The geometry of the water table surface is dominated by an elongated ground water mound. As a result, a ground water divide has developed that bisects the island. Therefore, groundwater flows radially from the central portion of the mound toward the Bridge Portion of the Site and to the Back Channel of the Ohio River. The groundwater flow gradient beneath the Bridge Portion

of the Site is 0.002 ft/ft.

Due to the surface topography and lack of drainage, the predominant recharge pathways for the surficial aquifer beneath the Bridge Portion of the Site are recharge from the Back Channel of the Ohio River and precipitation. No water supply receptors adjacent to the Bridge Portion of the Site were identified. There are three public water supplies in the vicinity of Neville Island: Coraopolis, Moon Township, and Sewickley. Contaminants identified at the Bridge Portion of the Site were not detected in the public water supplies.

Surface water runoff is conducted across the flat southern portion of the Bridge Portion of the Site in a southerly direction by sheet flows which discharge into the Back Channel of the Ohio River. Stormwater runoff from Grand Avenue is captured by a 15-inch sewer which discharges into the Back Channel of the Ohio River.

C. NATURE AND EXTENT OF CONTAMINATION

Allegheny County retained HDR Engineering, Inc. to conduct the Focused RI pursuant to the Administrative Order by Consent entered into by EPA and Allegheny County. The primary objective of the Focused RI was to complete the characterization of soils in the Bridge Portion of the Site that could potentially be disturbed or exposed during construction of the approach roadway and abutments for the new bridge. The Focused RI included: a buried drums investigation, a geophysical survey, and soil sampling and analysis. Some sections of the Focused RI Report, especially the geophysical survey, incorporated the results of the survey performed by ERT in 1989 and 1990.

BURIED DEBRIS

In May 1989, ERT conducted geophysical surveys of the Site to determine the location of any buried debris. An area of magnetic disturbance was identified for further investigation. Aerial photographs taken from 1936 to 1973 were then reviewed. No evidence of disposal activity was found in the Bridge Portion of the Site. In order to continue exploration for possible buried metal drums, ERT conducted a penetrating radar survey at the Bridge Portion of the Site, followed by hand auger borings, an organic vapor screening, and exploratory trench excavations. The survey did not indicate any buried materials at the Bridge Portion of the Site.

SOIL CONTAMINATION

- **Surficial Soil Samples**

To characterize the surface soil contamination and

determine the background levels, HDR performed two series of sample collections in August 1991 and April 1992 during the Focused RI. A total of 27 surficial soil borings were taken from eight locations in the Bridge Portion of the Site, specifically, in the areas where the abutments and approach roadway for the new bridge will be located. The locations were chosen in areas where workers involved in moving earth during construction of the new bridge and its approach roadway could potentially be exposed to soil contaminants. Background samples were collected from a location on the Duquesne Power and Light Company property located across the Back Channel from Neville Island and near the Pittsburgh and Lake Erie Railroad yard. This background location presented area usage conditions (industrial and residential) similar to those on Neville Island and was located outside of the possible influence of dumping activities which had been conducted on the island. A map showing the soil sampling locations is presented as Figure 4. Surficial samples were collected from the upper 1.5 feet of the soil in the proposed location for the new bridge approach roadway and the upper 3.0 feet of the soil in the proposed location for the new bridge abutments. Four samples were analyzed for Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), and substances included on the Target Compound List (TCL); one round of samples was analyzed for Herbicides/Pesticides and Dioxin; and two samples were analyzed for Toxicity Characteristic Leaching Procedures (TCLPs).

• <u>Surficial Soil Analysis Results and Discussion</u>

The surficial soil sample laboratory results revealed the possible presence of four VOCs in the soil in the Bridge Portion of the Site. For the purposes of this document, only the maximum detected concentration is presented. The detected VOCs were: methylene chloride, 13 ppb; acetone, 6000 ppb; 2-butanone (MEK), 7 ppb; and carbon disulfide, 13 ppb. Because the concentrations of methylene chloride and acetone were similar to the concentrations presented in the field blank sample, these compounds are regarded as non-detected. The other two VOCs, 2-butanone and carbon disulfide, are typical laboratory chemicals and their presence in low concentrations in the samples is considered to be laboratory contamination and is not an indication of soil contamination in the Bridge Portion of the Site.

SVOCs and their maximum concentrations detected at the Bridge Portion of the Site are: phenanthrene, 760 ppb; di-n-butyl phthalate, 1200 ppb; fluoranthene, 930 ppb; pyrene, 760 ppb; benzo[a]anthracene, 760 ppb; chrysene, 500 ppb; bis(2-ethylhexyl)phthalate, 240 ppb; benzo[b]fluoranthene, 480 ppb; and benzo[a]pyrene, 430 ppb. These concentrations of SVOCs indicate a pattern in which minor amounts of several polycyclic aromatic hydrocarbon (PAH) compounds occur at all locations where surface soils were sampled. The concentrations of SVOCs in the

surficial soil samples were within the limits of normal laboratory contamination or non-detected concentrations. The total SVOC concentrations found in the surface soils in the Bridge Portion of the Site ranged from 100 to 5,370 ppb; the concentration of SVOCs in the background sample was 72,240 ppb. Thus, the SVOC contamination in the surface soils in the Bridge Portion of the Site was typical for soils in urban industrialized settings and did not indicate a site-specific pattern.

The inorganic compounds found in the surface soils which are considered contaminants of potential concern are: arsenic, 8 parts per million (ppm); cadmium, 8.7 ppm; chromium, 22.1 ppm; cobalt, 15.2 ppm; lead, 301 ppm; mercury, 0.30 ppm; nickel, 22.6 ppm; and cyanide, 7.1 ppm. Apart from the inorganics specified above, the majority of detected inorganic compounds are naturally occurring rock and soil forming elements: aluminum, calcium, iron, magnesium, manganese, and sodium. The concentrations of Resource Conservation and Recovery Act (RCRA) metals (arsenic, barium, cadmium, chromium, lead, mercury, and selenium) and cyanide represented the same order of magnitude as background samples collected from the Duquesne Power and Light Company property near the Pittsburgh and Lake Erie Railroad yard located across the Back Channel. There are several possible explanations for the presence of RCRA metals and cyanide in the soil in the Bridge Portion of the Site; however, the most probable sources of these contaminants are combustion of leaded gasolines and stack emissions from blast furnaces, smelters and coking ovens.

Analysis of the surficial soil samples for polychlorinated biphenyls (PCBs) and pesticides indicates the presence of trace amounts of PCBs: aroclor 1254, 78 ppb; and aroclor 1242, 79 ppb; and traces of chlordane and two chlorinated herbicides: 2,4-D and 2,4,5-TP (silvex). PCBs are common contaminants in electrical and hydraulic equipment. The action level for PCBs for Superfund remediation ranges from 1 to 25 ppm. Chlorinated pesticides were present in quantities below the detection limit.

The background surface soil samples obtained from the Duquesne Power and Light Company property located across the Back Channel from the Site generally contained higher levels of soil contaminants than those found in the Bridge Portion of the Site. The higher levels in the background surface soil samples can be explained by the proximity of the location of the background samples to the Pittsburgh and Lake Erie Railroad yard, where fueling spills, dust suppression and other industrial-like activities can increase soil contamination. The soil in the Bridge Portion of the Site, on the other hand, has not been directly exposed to industrial use for more than thirty years.

- <u>Intermediate Depth Soil Samples</u>

Two sets of intermediate depth soil samples were collected

from a depth of 3.0 to 9.0 feet below grade at two of the proposed new bridge abutment locations. The samples were initially screened with portable trace gas analyzers (OVA). Since the instruments showed no response, only one set of SVOC Total Petroleum Hydrocarbons (TPH) was collected.

• **Intermediate Depth Soil Analysis and Discussion**

The laboratory analysis of the intermediate depth soil samples showed traces of phenanthrene, 78 ppb; and pyrene, 82 ppb. These are products of combustion, typically found in soils of urban industrialized settings. The trace levels in the intermediate depth soil samples are below the action levels for these contaminants for Superfund remediation.

• **Subsurface Soil Samples**

Subsurface soil samples were collected from a depth of 10.5 to 13.5 feet below grade. They were collected from the nine boring locations to evaluate the soil at the proposed new bridge abutment area where the maximum depth of the excavation is anticipated to be 13.0 feet below grade and also from the deep soils in the area proposed for the new approach roadway. This contamination could (1) serve as a contaminant source; (2) migrate into the ground water; or (3) be exposed during any type of bridge or road construction. Sample locations were the same as those selected for the surface soil samples. A total of 29 samples collected from nine locations have been analyzed: nine samples for VOCs and SVOCs; ten samples for Contract Laboratory Program (CLP) Target Analyte List (TAL) inorganics and cyanide; and ten samples for CLP pesticides, PCBs, TPH, chlorinated herbicides, organophosphorus pesticides, and dioxins.

• **Subsurface Soil Analysis Results and Discussion**

Subsurface soil contaminants and their maximum concentrations which were detected in the Bridge Portion of the Site and are considered contaminants of potential concern are: di-n-butyl phthalate, 870 ppb; arsenic, 7.7 ppm; chromium, 13.9 ppm; cobalt, 15.2 ppm; lead, 96.0 ppm, manganese, 1050 ppm; mercury, 0.14 ppm; nickel, 19.7 ppm; cyanide, 0.97 ppm; PCBs Aroclor 1254, 16 ppb; alpha chlordane, 13 ppb; gamma chlordane, 8.7 ppb; and petroleum hydrocarbons, 210 ppm.

Di-n-butyl phthlate is a common laboratory contaminant; the other contaminants are below Reference Doses (RfDs).

VII. SUMMARY OF SITE RISKS

Based on the Focused RI, EPA performed a Focused Baseline Risk Assessment (BLRA) to quantify human health risks associated

with contaminated soil in the Bridge Portion of the Site. The specific purpose of the BLRA was to determine whether the chemicals of potential concern associated with surface and subsurface soil in the Bridge Portion of the Site pose a current or future risk to human health.

Potential risks to human health were identified by calculating the risk level for carcinogenic chemicals and the hazard index (HI) for noncarcinogenic chemicals. Potential carcinogenic risk is identified by the risk level (e.g., a 1.0E-06 risk level indicates one additional chance in 1,000,000 that an individual will develop cancer). Remedial action is generally warranted at a site when the calculated carcinogenic risk level exceeds 1.0E-04. The HI identifies the potential for the most sensitive individuals to be adversely affected by the noncarcinogenic chemicals. If the HI exceeds one (1.0), there may be concern for potential noncarcinogenic effects. As a rule, the greater the value of the hazard index above 1.0, the greater the level of concern.

Because it is expected that excavation and construction will occur in the Bridge Portion of the Site, chemicals of potential concern were selected for soil, regardless of whether contaminants were found in surface or subsurface soil layers. Possible leaching and transport from contaminated subsurface soils to ground water was not assessed. The OU-1 Remedial Investigation of the entire Site will include an investigation of ground water at the Site, including ground water in the Bridge Portion of the Site.

Of the chemicals detected in the soil in the Bridge Portion of the Site, chemicals of potential concern, as specified in Table 1 and Table 2, were selected based on the following considerations:

1. frequency of detection (Table 1 and Table 2);
2. relative percent contribution to total risk;
3. toxicity to humans;
4. role as a human nutrient; and
5. background concentration.

In general, contaminants that were confidently detected in at least one sample and contributed 1 percent or more to the total risk were selected as contaminants of potential concern and evaluated in the BLRA. Exceptions were made when a reported chemical was found to have a low order of toxicity to humans, was an essential dietary nutrient or was detected at levels similar to ambient background concentrations; such chemicals were not selected as contaminants of potential concern.

Potentially exposed populations

For purposes of the BLRA, it was assumed that the potential future land use of the Bridge Portion of the Site may be occupational, commercial or residential. It should be noted, however, that in the near future, it is expected that an abutment and an approach roadway for the proposed new bridge will occupy the Bridge Portion of the Site.

While many potentially exposed populations can exist at a site, only those populations that may be significantly exposed were evaluated (Table 3). Under the current land-use scenario, exposure of young trespassers was assessed. For future potential land-use, exposure to residents, long-term workers, and short-term workers was evaluated. It should be noted that (1) the residential and long-term occupational exposure scenarios are not expected to occur in the Bridge Portion of the Site, and (2) the short-term occupational exposure scenario is thought to be representative of that which may be incurred by construction workers involved in construction of the new bridge.

Methodology of Risk Assessment

The primary routes of exposure at the Bridge Portion of the Site involve inhalation and ingestion of surface and subsurface soils. The dermal route of exposure is considered to represent a negligible risk, as compared to other pathways; therefore, it was not assessed. With regard to a contact rate, a total exposure was assumed, i.e., contact with contaminated soil via the ingestion and inhalation routes were evaluated concurrently and presented as a single factor. Exposure estimates and toxicity criteria for the contaminants of potential concern were combined to estimate potential carcinogenic risks and noncarcinogenic effects for the exposure pathway and routes identified for the Bridge Portion of the Site. These estimates characterize the potential human health impacts associated with the soil contamination in the Bridge Portion of the Site, and are summarized in Tables 4 through 7. Soil is the only exposure pathway of concern for OU-2. Because the exposure was evaluated as one unit (ingestion plus inhalation), risks across exposure routes were combined, thereby providing total risk estimates.

Risk Characterization

A. Potential Risks to Trespassers

The contaminants of concern include the following Probable Human Carcinogens: benzo[a]pyrene equivalents and beryllium detected in surface and subsurface soil. The total carcinogenic risk to trespassers posed by soil contamination in the Bridge Portion of the Site is 2.71E-06 (Table 4). This is equivalent to approximately 3 additional cancers per 1 million exposed

individuals. This calculated risk level is within the acceptable risk range for carcinogens of 1.0E-06 to 1.0E-04.

Potential noncarcinogenic hazards to trespassers who come into direct contact with contaminated soil in the Bridge Portion of the Site are presented in Table 4. The estimated Hazard Index, which indicates the likelihood of a noncancer threat, is less than unity (1) for trespassers; therefore, noncarcinogenic effects are not expected to occur.

B. Potential Risks to Future Residents

The contaminants of concern include the following Probable Human Carcinogens: benzo[a]pyrene equivalents and beryllium detected in surface and subsurface soil. The total carcinogenic risk posed by soil contamination to potential future residents of the Bridge Portion of the Site is 4.83E-05 (Table 5). This is equivalent to approximately 48 additional cancers per 1 million exposed individuals. This calculated risk level is within the acceptable risk range for carcinogens of 1.0E-06 to 1.0E-04.

Potential noncarcinogenic hazards to potential future residents who come into direct contact with contaminated soil in the Bridge Portion of the Site are presented in Table 5. The estimated Hazard Index, which indicates the likelihood of a noncancer threat, is less than unity (1) for potential future residents; therefore, noncarcinogenic effects are not expected to occur.

C. Potential Risks to Long-term Workers

The contaminants of concern include the following Probable Human Carcinogens: benzo[a]pyrene equivalents and beryllium detected in surface and subsurface soil. The total carcinogenic risk to potential future long-term workers posed by soil contamination in the Bridge Portion of the Site is 4.04E-05 (Table 6). This is equivalent to approximately 40 additional cancers per 1 million exposed individuals. This calculated risk level is within the acceptable risk range for carcinogens of 1.0E-06 to 1.0E-04.

Potential noncarcinogenic hazards to potential future long-term workers who come into direct contact with contaminated soil in the Bridge Portion of the Site are presented in Table 6. The estimated Hazard Index, which indicates the likelihood of a noncancer threat, is less than unity (1) for long-term workers; therefore, noncarcinogenic effects are not expected to occur.

D. Potential Risks to Short-term Workers

This exposure represents that which construction workers associated with the construction of the abutment and an approach

roadway for the proposed new bridge are expected to encounter.

The contaminants of concern include the following Probable Human Carcinogens: benzo[a]pyrene equivalents and beryllium detected in surface and subsurface soil. The total carcinogenic risk to potential future short-term workers posed by soil contamination in the Bridge Portion of the Site is 2.77E-07. This is equivalent to approximately 0.3 additional cancers per 1 million exposed individuals. This calculated risk is less than EPA's acceptable risk range for carcinogens of 1.0E-06 to 1.0E-04.

Potential noncarcinogenic hazards to potential future short-term workers who come into direct contact with contaminated soil at the Bridge Portion of the Site are presented in Table 7. The estimated Hazard Index, which indicates the likelihood of a noncancer threat, is less than unity (1) for short-term workers; therefore, noncarcinogenic effects are not expected to occur.

VIII. DESCRIPTION OF THE "NO ACTION" ALTERNATIVE

EPA has selected the "No Action" Alternative for soil contamination in the Bridge Portion of the Site. Under the "No Action" Alternative, EPA will not undertake any type of remedial action with respect to the soil contamination in the Bridge Portion of the Site since there are no site-related risks to human health and the environment associated with such soil contamination which would warrant EPA to implement a remedial action. In light of EPA's decision not to select a remedial action, the requirements of Section 121 of CERCLA, 42 U.S.C. § 9621, including the provisions of Section 121(d)(2) concerning applicable or relevant and appropriate requirements (ARARs), are not triggered; that section applies only in those cases where a remedial action is selected.

EPA created OU-2 in order to expedite the investigation of soil contamination in the Bridge Portion of the Site and completion of the related Focused Baseline Risk Assessment, thereby providing information relevant to the proposed construction of a new bridge to replace the existing Coraopolis Bridge. The risk of exposure to the contaminants of concern was assessed for potentially exposed populations: young trespassers, future residents, long-time workers and short-time workers. It is expected that, after the new bridge abutments and the new approach roadway are constructed, there will be no reason to employ workers in the Bridge Portion of the Site and there will not be enough space in the Bridge Portion of the Site between the new approach roadway and the Back Channel for future residential development. Also, trespassers' exposure is very sporadic and time-limited; therefore, it may be overestimated in the BLRA by using "typical" exposure criteria. Even using the very

conservative BLRA approach, the risk level for each of the theoretically exposed populations is still within EPA's acceptable risk range for carcinogens of 1.0E-06 to 1.0E-04. The only population that will definitely be exposed to the soil contaminants in the Bridge Portion of the Site are short-term workers involved in construction of the new bridge. Their exposure is significantly less than a 1.0E-06 risk level.

Based on the BLRA, there is no exposure scenario which poses an increased cancer risk above a 1.0E-04 risk level. This is the level of increased cancer risk which EPA considers to be unacceptable and would therefore warrant some type of remediation to lower or eliminate the risk posed. In addition, based on the BLRA, there is no exposure scenario which indicates increased noncarcinogenic effects. EPA has selected the "No Action" Alternative with respect to soil contamination in the Bridge Portion of the Site. Contamination of media other than soil in the Bridge Portion of the Site, including contamination of ground water at the entire Site (including in the Bridge Portion of the Site), will be addressed during the Remedial Investigation/ Feasibility Study of the entire Site.

IX. EXPLANATION OF SIGNIFICANT CHANGES

The Proposed Plan for the soil contamination in the Bridge Portion of the Site was released for public comment on January 15, 1993. The Proposed Plan identified "No Action" as the EPA preferred alternative. EPA reviewed all written and oral comments submitted during the public comment period. A summary of the comments received during the public comment period is included in the Responsiveness Summary section of this Record of Decision. Based on the review of these comments, it was determined that no significant changes to the preferred alternative, as it was originally identified in the Proposed Plan, were necessary.

RECORD OF DECISION
BRIDGE PORTION OF THE OHIO RIVER PARK SITE

RESPONSIVENESS SUMMARY

EPA established a public comment period from January 15, 1993 to February 15, 1993, on the Focused RI, BLRA, the Proposed Remedial Action Plan (which describes the "No Action" Preferred Alternative), and other site-related information for the Bridge Portion of the Ohio River Park Site, Allegheny County, Pennsylvania. The Focused RI and other site-related documents used by EPA to select the "No Action" Preferred Alternative are included in the Administrative Record file and have been available to the public since the beginning of the public comment period. A public meeting was held on January 25, 1993 and approximately 40 people were in attendance. In addition, EPA received one written statement and two written comments during the public comment period.

The purpose of this Responsiveness Summary is to summarize significant comments, criticisms and new data received during the public meeting or in writing, and to provide EPA's responses to the comments.

This community relations Responsiveness Summary is divided into the following sections:

Section I. Overview: A discussion of the public's response to the "No Action" Alternative.

Section II. Background of Community Involvement and Concerns: A discussion of the history of community interest and concerns raised during remedial planning activities at the Bridge Portion of the Site.

Section III. Summary of Significant Comments Received during the Public Comment Period and Agency Responses: A summary of comments and responses categorized by topics.

Section I. Overview

Comments received from the public suggest that area residents support the "No Action" Alternative. The residents consider the approval of this alternative as a necessary

condition to starting the construction of the new bridge that will replace the existing Coraopolis Bridge. Their main concerns were: to shorten the formal procedures, to be assured that the decision will be final, and to be informed of the results of the RI at the Site. The residents also wanted some assurance that the contaminants found during the RI of the entire Site will be cleaned up. They also wanted to know whether PADER shares EPA's position on the "No Action" Alternative.

Section II. Background of Community Involvement and Concerns

Since February 1988, when restrictions were imposed on using the Coraopolis Bridge in winter, the Neville Island residents have been very active with respect to replacement of the bridge. A group of residents established the "Coraopolis-Neville Island Bridge Committee," which has held bimonthly meetings and published newsletters and public announcements concerning replacement of the bridge. The meetings were attended by interested residents and representatives of PADER, Allegheny County, the Pennsylvania Department of Transportation, EPA, and other public officials. The public was continually updated by the Allegheny County Department of Engineering and Construction on the status of the bridge replacement project. The primary goal of Neville Island residents has been to provide a replacement bridge as soon as possible.

Section III. Summary of Major Comments Received During the Public Comment Period and Agency Responses

Except as specifically noted, the following questions and comments were raised at the public meeting held on January 25, 1993.

1. The schedule for the next action

A question was asked at the public meeting about the length of time needed to start the construction of the new bridge that will replace the Coraopolis Bridge.

An EPA representative at the public meeting explained that the Agency must follow the procedures required under CERCLA for issuance of a formal decision on the Proposed Plan. CERCLA requires a 30 day public comment period following the issuance of the Proposed Plan. EPA explained that any comments submitted during the public comment period will be incorporated in the Responsiveness Summary which is a part of the final decision document. EPA stated that the Agency hoped to issue a final decision on the Proposed Plan 30 to 60 days from the date of the Public Meeting.

2. Schedule and budgeting for the construction of the new bridge that will replace the Coraopolis Bridge

A question was asked at the public meeting about the schedule, funds, and the position on the priority list for the new bridge construction project.

Since the question related to the bridge construction project and not to Operable Unit Two, EPA referred the question to a representative of Allegheny County at the public meeting. The representative of Allegheny County stated that funding was currently available for the new bridge construction project.

3. The schedule for the bridge construction project

Someone at the public meeting asked why, if soil contamination in the Bridge Portion of the Site does not have to be cleaned up, it will take 60 days to start the bridge construction project.

An EPA representative explained that EPA cannot issue a final decision on the preferred alternative described in the Proposed Plan until the 30 day public comment period is over. In addition, EPA must address any comments received during the public comment period and at the public meting in a Responsiveness Summary which will be part of EPA's final decision document. EPA must prepare the final decision document on remediation of soil contamination in the Bridge Portion of the Site, and coordinate with the Commonwealth of Pennsylvania, which must review the decision. EPA estimated that it would issue its formal decision approximately 30 to 60 days from the date of the public meeting.

4. Final decision

Someone at the public meeting asked who makes the final decision on the "No Action" Preferred Alternative for the Bridge Portion of the Site.

The decision will be made by the EPA Region III Regional Administrator in Philadelphia.

5. The organization of the EPA office

A citizen of Neville Island asked whether EPA had a representative in Pittsburgh who could handle matters relating to the Bridge Portion of the Site, instead of having the EPA office in Philadelphia making the decisions relating to the Bridge Portion of the Site.

An EPA representative explained that the Agency has ten

regional offices nationwide and its headquarters in Washington, D.C. The EPA regional office that handles matters in Pennsylvania is located in Philadelphia. It would be too difficult for EPA to manage offices in every community; however, the EPA office in Philadelphia works closely with PADER, which has an office in Pittsburgh. In addition, the EPA Remedial Project Manager from the Philadelphia office has visited the Site often and worked closely with the community.

6. <u>The effect of the Remedial Investigation of the Site on the Ohio River</u>

Someone at the public meeting asked whether the remedial investigation of the Site has any effect on the quality of water in the Ohio River.

An EPA representative explained that the remedial investigation currently being conducted on the entire Site, which is called OU-1, is being conducted to evaluate the type and location of any contamination on the entire Site. The final answer to this question will be possible when the Remedial Investigation Report for OU-1, which will contain the results of the remedial investigation, is approved by EPA. EPA expects to have the results of the remedial investigation of the entire Site by the end of 1993.

7. Following EPA's response to Question #6, the same person asked whether, by the end of 1993, EPA will be able to tell residents whether the remainder of the Site is clean enough so that the Site can be opened as a park.

EPA will be able to answer this question after the remedial investigation, including the Risk Assessment, of the entire Site (OU-1) is completed.

8. <u>Statement in the newspapers concerning clean-up of the Site</u>

A resident of Neville Island at the public meeting asked whether EPA knew that Mr. Hillman made a statement to the newspapers that his company will take care of the drums and contamination that are at the Site.

An EPA representative answered that the Agency is aware of Mr. Hillman's statement to the newspapers. Neville Land Company is currently conducting a remedial investigation of the entire Site. After the remedial investigation and feasibility study are completed, EPA expects to negotiate with the company concerning the clean-up of the entire Site.

9. The role of PADER and PADER's position on the "No Action" Preferred Alternative

A resident of Neville Island asked about the role of PADER and the position of PADER on the "No Action" Preferred Alternative.

A PADER representative explained that the role of the Commonwealth is to provide EPA with technical assistance on the Superfund project and "input so that the project can move smoothly." The PADER representative stated that PADER "agree[s] with EPA's -- on their No Action Proposal. . .". The PADER representative also stated that there are "a few more stringent State requirements, but the State won't stop the bridge replacement project."

10. The decision-making process

A resident of Neville Island asked whether PADER's regulations supersede EPA's regulations and whether the project can be delayed by additional decision-making.

An EPA representative responded that EPA administers the Superfund Program and will issue the Record of Decision; however, EPA works with the Commonwealth and will be seeking PADER's concurrence on this document. EPA will seek PADER's concurrence by the end of the public comment period.

11. Statement on behalf of Allegheny County

At the end of the public meeting, Mr. Higginbotham, the representative of Allegheny County, presented, on behalf of Allegheny County, a written statement expressing appreciation to EPA for "the expeditious manner in which [EPA]. . .carried out this investigation. . .". Mr. Higginbotham stated that Allegheny County supports a No-Action Record of Decision and its timely promulgation so that construction of the new bridge may proceed. He also stated that replacement of the Coraopolis Bridge will continue to be the highest priority bridge project for the Allegheny County Department of Engineering and Construction until they are able to issue a notice to proceed for construction.

No response required from EPA.

12. Coraopolis-Neville Island Bridge Committee Letter

The Committee sent a letter to EPA requesting "a speedy review of the E.P.A. documents pertinent to the final approval of the bridge site."

EPA responded in writing to the letter, and stated that the work on the Record of Decision for the Bridge Portion of the Site has been proceeding in accordance with the approved schedule.

13. Commonwealth of Pennsylvania Department of Environmental Resources Letter

PADER sent EPA a letter expressing concern over the Record of Decision, and stated that although PADER "agrees with the EPA's choice of a "No Action" decision for this site," PADER "cannot concur with the Record of Decision, as written, because of fundamental differences with the EPA interpretation of the NCP and CERCLA." PADER believes the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) requires that "the risk range level point of departure for remedial analysis is 1 x 10E-6." EPA disagrees with PADER's analysis of this requirement as set forth in the NCP. Section 300.430(e)(i)(A)(2) of the NCP, 40 C.F.R. § 300.430(e)(i)(A)(2), clearly states that "[f]or known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between 10^{-4} and 10^{-6}...". The risk level for the Bridge Portion of the Site is, in its worst scenario, 4.83 x 10E-5 and, therefore, within the acceptable risk range.

PADER's second concern is EPA's failure to provide an analysis in the ROD of applicable or relevant and appropriate requirements (ARARs). EPA has selected a "No Action" alternative with regard to soil contamination in the Bridge Portion of the Site which it finds to be protective of human health and the environment. In light of EPA's decision not to select a remedial action, the requirements of Section 121 of CERCLA, 42 U.S.C. § 9621, including the provisions of Section 121(d)(2) concerning ARARs, are not triggered; that section applies only in those cases where a remedial action is selected. As a result, the subject of ARARs need not be addressed in the OU-2 ROD.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
SOUTHWEST REGION - FIELD OPERATIONS
ENVIRONMENTAL CLEANUP PROGRAM
400 Waterfront Drive
Pittsburgh, Pennsylvania 15222-4745
(412) 442-4000 (answers 24 hrs.)

March 15, 1993

Mr. Romuald A. Roman, CIH
Remedial Project Manager
U.S. EPA, Region III
841 Chestnut Building
Philadelphia, PA 19107

RE: Record of Decision (ROD)
Non-Concurrence
Coraopolis Bridge Replacement Project
Ohio River Park Site
Neville Township
Allegheny County

Dear Mr. Roman:

The Record of Decision received by this office on March 5, 1993 for the Coraopolis Bridge Replacement Project at Ohio River Park in Neville Township, Allegheny County has been reviewed by the Department.

Although the Department agrees with the EPA's choice of a "No Action" decision for this site, we cannot concur with the Record of Decision, as written, because of fundamental differences with the EPA interpretation of the NCP and CERCLA.

The EPA has used 1 x 10E-4 as the acceptable risk range in this Record of Decision, contrary to the language of the NCP Sections 300.430 (e) and (f), which require that the risk range level point of departure for remedial analysis be 1 x 10E-6. Section 300.430 (f) further states: "overall protection of human health and the environmental and compliance with ARARs (unless a specific ARAR is waived) are threshold requirements that each alternative must meet in order to be eligible for selection." Based upon this language, it is the Commonwealth's position that in this circumstance EPA must use 1 x 10E-6 as the initial protectiveness goal and EPA must justify, in writing, why a 1 x 10E-4 final remediation goal is appropriate for the bridge portion of the Ohio River Park Site. Note that three exposure scenarios applicable to this site - trespassers, potential future residents, and potential long-term workers - have cancer risks above 1 x 10E-6.

The EPA has failed to provide an ARAR analysis. The Pennsylvania's ARAR of Groundwater Protection Criteria for Virgin Fuel Contaminated Soil should be considered. As indicated in the Focused Remedial Investigation Report, the soils at the bridge portion of the Ohio River Park Site were contaminated with petroleum hydrocarbons at levels up to 1,500 ppm. The no action alternative in this Proposed Plan fails to meet Pennsylvania's ARAR of Groundwater Protection Criteria for Virgin Fuel Contaminated Soil. As stated above, the NCP requires

that for an alternative to be selected, it must meet two threshold requirements, one of which requires compliance with ARARs. In the event EPA determines that waiver of an ARAR is appropriate, it must publish such findings together with an explanation and appropriate documentation pursuant to CERCLA Section 121 (d)(4).

The Pennsylvania non-concurrence with this Record of Decision does not waive the following rights of the Department which we hereby reserve and request:

> The Department reserves its rights and responsibilities to take independent enforcement actions pursuant to state and federal law. Under Pennsylvania law, persons responsible for pollution or soil and groundwater contamination have a legal duty to abate all pollution on the site notwithstanding the EPA's decision to take no action under CERCLA. Pennsylvania specifically reserves its right to take enforcement action against any responsible person to remediate any contamination on the site.
>
> The Department also reserves its right to require responsible persons to comply with ARARs under CERCLA, consistent with the legal requirements of 40 CFR 300.430 and CERCLA §121.
>
> EPA will assure that the Department is provided an opportunity to fully participate in any negotiations with the responsible parties and we request that EPA provide us with an opportunity to do so.

We request that the comments contained in this letter be made part of the Administrative Record for the Coraopolis Bridge Replacement Project. Further, we expect that the final ROD will reflect that the Commonwealth does not concur with EPA's selected remedy.

If you have any questions regarding this non-concurrence letter, please do not hesitate to call me.

Sincerely,

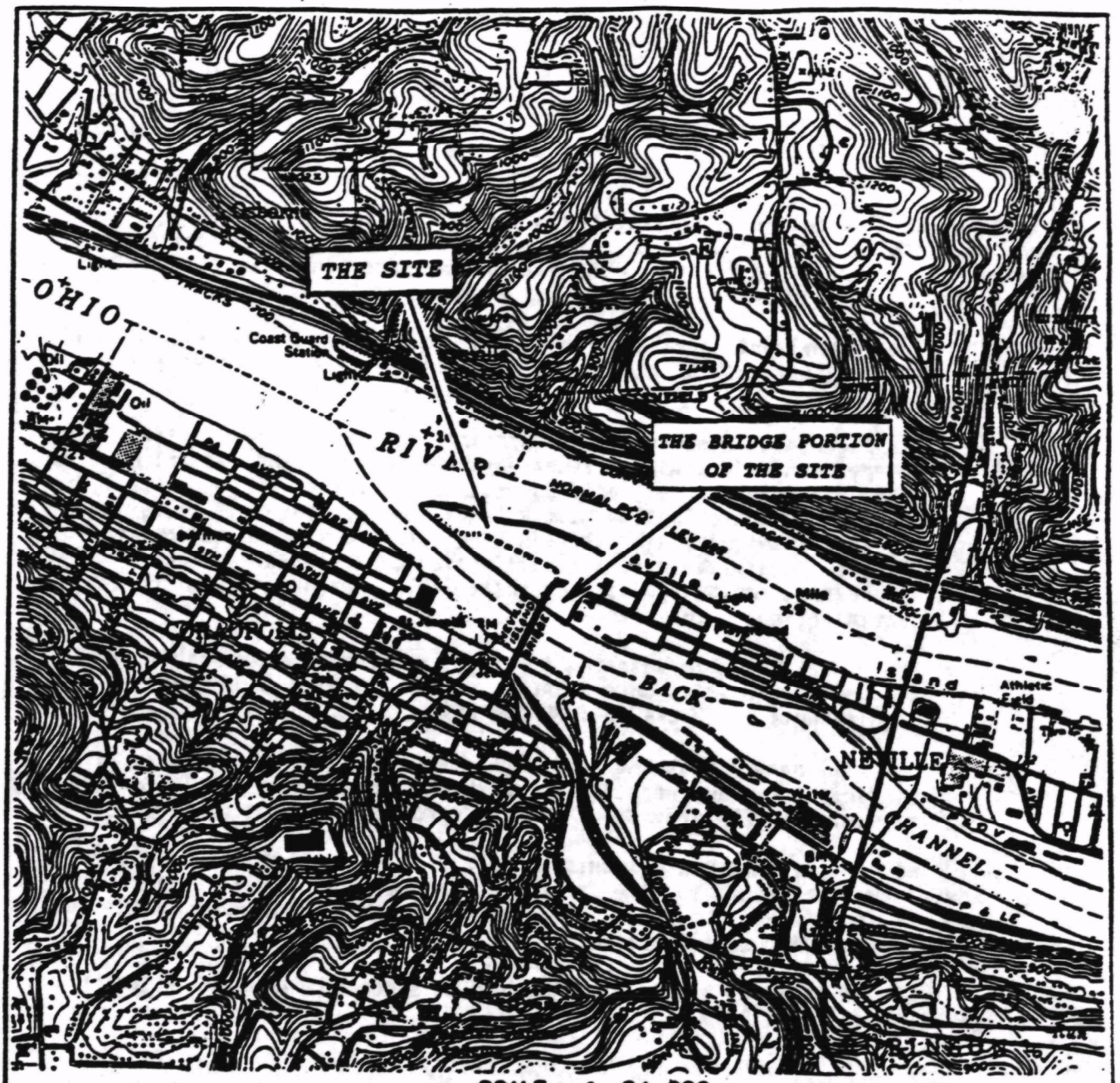
Richard H. Baehr

Richard H. Baehr
Solid Waste Specialist

RHB:jc

cc: Region
Chron
Central

bc: J. Haluszczak
J. Shack
R. Baehr
E. Stokan



REFERENCE:
Ambridge, Pennsylvania
USGS 7.5 Minute Quadrangle

FIGURE 1
SITE LOCATION MAP

Base map from RI Report prepared by ENSR

wp19

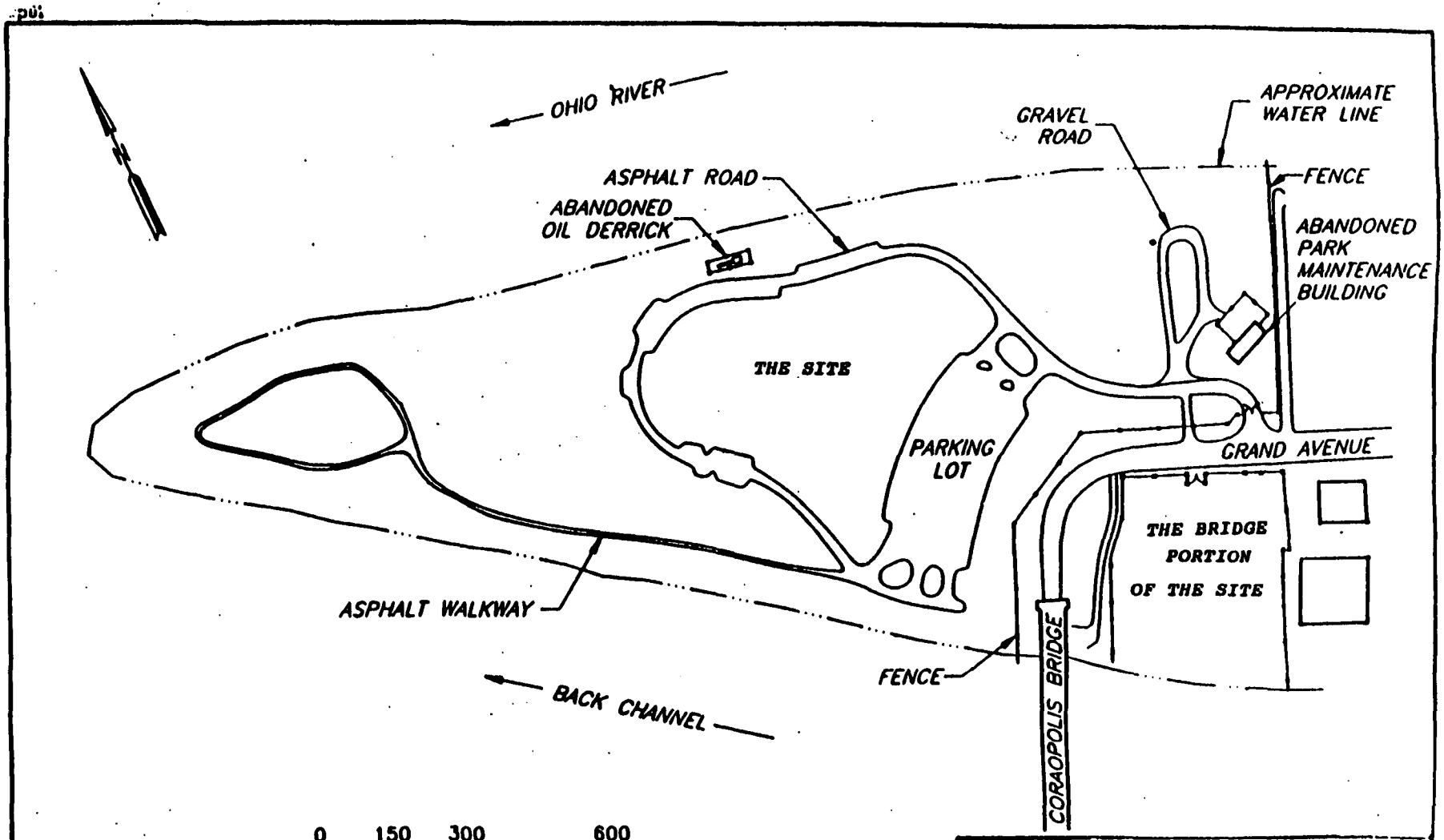
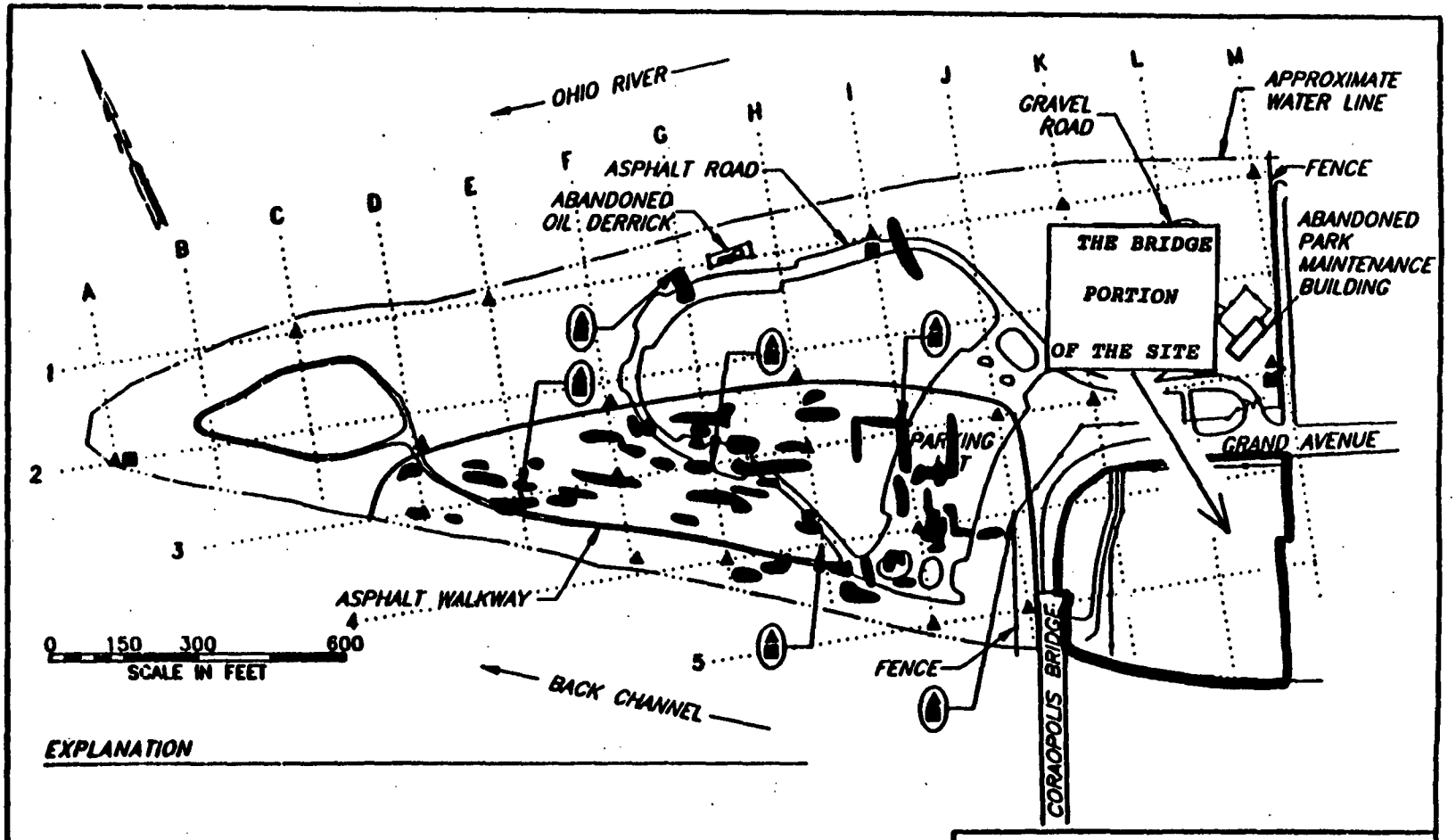


FIGURE 2
DETAILED SITE LOCATION MAP

Base map from RI Report prepared by ENSR



NOTE:

THIS FIGURE WAS PREPARED USING THE REPORT ENTITLED: "DETAILED DESCRIPTION OF THE NEVILLE ISLAND SITE," AUGUST, 1981, ERT, INCORPORATED.

FIGURE 3

DISPOSAL TRENCH LOCATION

Base map from RI Report prepared by ENSR

Drawn	MSH	Date 1/29/92	Project Number	Rev.
Appr'd	CPS	Revised 7/29/92	4920-003	0

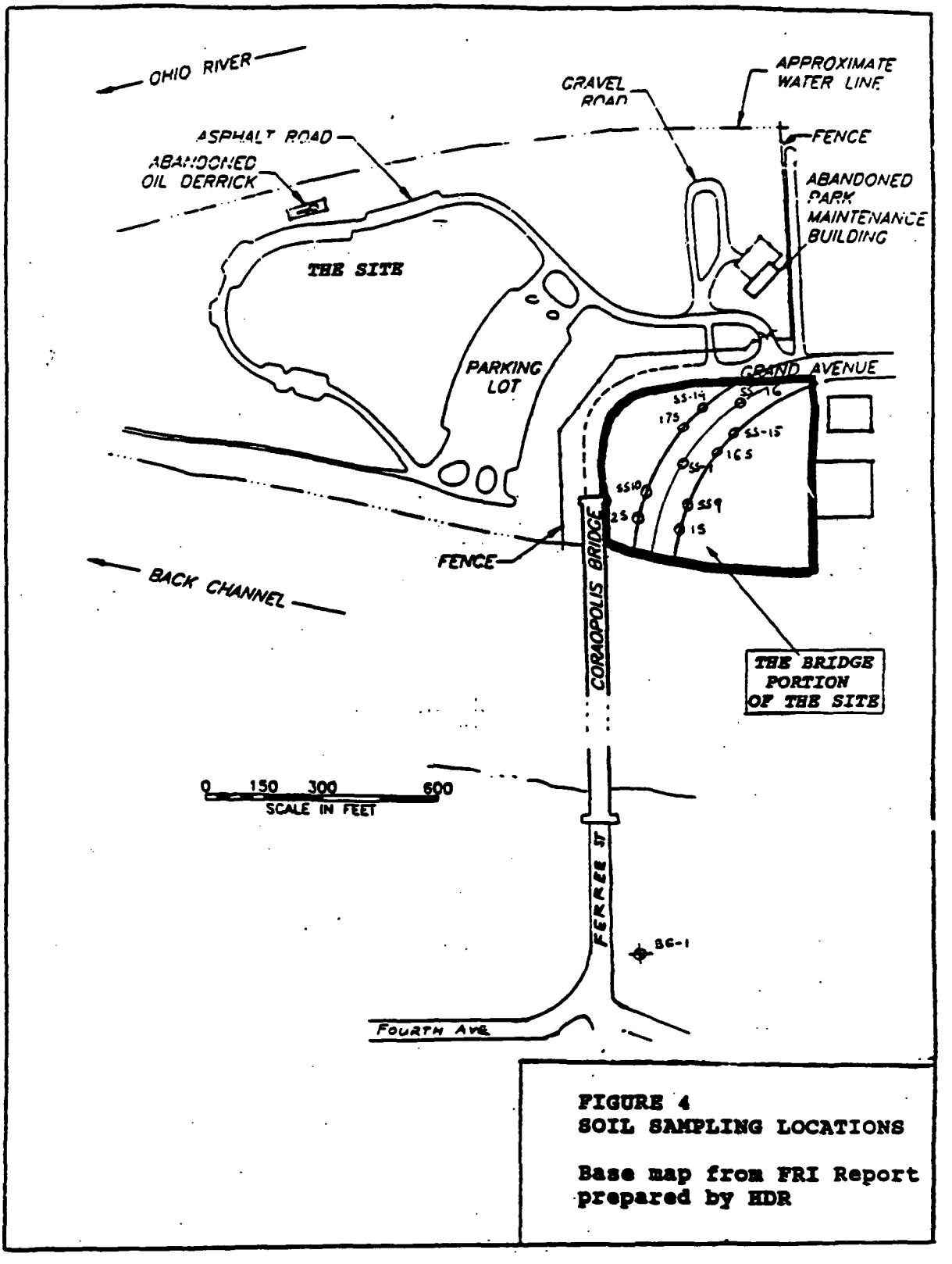


FIGURE 4
SOIL SAMPLING LOCATIONS

Base map from FRI Report prepared by HDR

TABLE 1

SUMMARY OF ORGANIC CHEMICALS DETECTED IN SOIL
CORAOPOLIS BRIDGE PROJECT

CONTAMINANT	Number of Samples	Degrees of Freedom	Arithmetic Mean (ug/kg)	Variance	Standard Deviation	t Value (1 Tail)	Maximum Concentration (ug/kg)	95% UCL (ug/kg)	Frequency of Detection	Background Concentration (ug/kg)
Carbon Disulfide	21.00	20.00	5.14	2.90	1.73	1.73	8.00	5.79	1/20	7.00
Naphthalene	17.00	16.00	388.82	142.28	11.93	1.75	410.00	393.88	0/17	640.00
2-Methyl Naphthalene	17.00	16.00	388.82	142.28	11.93	1.75	410.00	393.88	0/17	960.00
Acenaphthylene	17.00	16.00	388.82	142.28	11.93	1.75	410.00	393.88	0/17	1400.00
Acenaphthene	17.00	16.00	388.82	142.28	11.93	1.75	410.00	393.88	0/17	1300.00
Dibenzofuran	17.00	16.00	388.82	142.28	11.93	1.75	410.00	393.88	0/17	650.00
Fluorene	17.00	16.00	388.82	142.28	11.93	1.75	410.00	393.88	0/17	820.00
Phenanthrene	17.00	16.00	363.82	27265.90	165.12	1.75	760.00	433.90	6/17	8500.00
Anthracene	17.00	16.00	374.41	4096.51	64.00	1.75	410.00	401.57	1/17	2400.00
Carbazole	17.00	16.00	388.82	142.28	11.93	1.75	410.00	393.88	0/17	770.00
Di-n-Butylphthalate	17.00	16.00	501.18	10861.61	317.18	1.75	1200.00	635.81	15/17	660.00
Fluoranthene	17.00	16.00	400.59	29118.16	170.64	1.75	930.00	473.02	6/17	14000.00
Pyrene	17.00	16.00	366.59	25939.82	161.05	1.75	760.00	434.95	6/17	8500.00
Benzo(a)Anthracene	17.00	16.00	366.35	7723.59	87.88	1.75	470.00	403.65	4/17	5300.00
Chrysene	17.00	16.00	372.06	7162.64	84.63	1.75	500.00	407.98	4/17	5000.00
Bis(2-Ethylhexyl)Phthalate	17.00	16.00	389.88	1396.58	37.37	1.75	410.00	396.74	3/17	1300.00
Benzo(b)fluoranthene	17.00	16.00	368.65	7320.47	85.56	1.75	480.00	404.97	4/17	5200.00
Benzo(k)fluoranthene	17.00	16.00	370.29	7635.82	87.38	1.75	530.00	407.38	4/17	5200.00
Benzo(a)Pyrene	17.00	16.00	361.71	7080.87	84.16	1.75	430.00	397.42	3/17	5200.00
Indeno(1,2,3-cd)Pyrene	17.00	16.00	385.00	503.13	22.43	1.75	410.00	394.52	1/17	3400.00
Dibenz(a,h)Anthracene	17.00	16.00	388.82	142.28	11.93	1.75	410.00	393.88	0/17	1500.00
Benzo(g,h,i)Perylene	17.00	16.00	384.41	543.38	23.74	1.75	410.00	394.49	1/17	1300.00
PCB Arochlor 1254	15.00	14.00	23.43	229.21	15.14	1.76	78.00	30.32	2/15	22.00
PCB Arochlor 1242	15.00	14.00	23.57	235.36	15.34	1.76	79.00	30.55	1/15	22.00
Alpha Chlordane	15.00	14.00	1.00	9.61	3.10	1.76	13.00	3.21	1/15	21.00
Gamma Chlordane	15.00	14.00	0.91	3.96	1.99	1.76	8.70	2.42	1/15	21.00
2,4-D	4.00	3.00	NA	NA	NA	NA	NA	NA	1/4	120.00
2,4,5-TP(Silvex)	4.00	3.00	NA	NA	NA	NA	NA	NA	1/4	17.00

For statistical purposes, all non-detected analytes are given a concentration value equal to one-half the sample detection limit.

Elevated background concentrations of several chemicals are thought to be attributable to industrial sources in the vicinity of the site.

TABLE 2

SUMMARY OF INORGANIC CHEMICALS DETECTED IN SOIL
CORAOPOLIS BRIDGE PROJECT

CONTAMINANT	Number of Samples	Degrees of Freedom	Arithmetic Mean (mg/kg)	Variance	Standard Deviation	t Value (1 tail)	Maximum Concentration (mg/kg)	95% UCL (mg/kg)	Frequency of Detection	Background Concentration (mg/kg)
Arsenic	21.00	20.00	5.73	2.96	1.72	1.73	8.70	6.38	21/21	20.00
Barium	21.00	20.00	214.89	17204.38	131.17	1.73	611.00	264.40	21/21	137.00
Beryllium	21.00	20.00	1.43	2.02	1.42	1.73	5.40	1.97	21/21	1.10
Cadmium	21.00	20.00	1.44	3.83	1.96	1.73	8.70	2.18	9/21	1.70
Chromium	21.00	20.00	14.20	11.11	3.33	1.73	22.10	15.46	21/21	61.10
Cobalt	21.00	20.00	11.40	13.09	3.62	1.73	15.20	12.77	21/21	7.60
Copper	21.00	20.00	18.72	64.87	8.05	1.73	34.90	21.76	21/21	131.00
Lead	23.00	22.00	54.70	4390.93	66.26	1.72	301.00	78.46	23/23	852.00
Mercury	21.00	20.00	0.11	0.00	0.07	1.73	0.30	0.14	10/21	1.10
Nickel	21.00	20.00	16.87	25.29	5.03	1.73	23.80	18.77	21/21	95.40
Selenium	21.00	20.00	0.38	0.20	0.44	1.73	2.00	0.55	12/21	0.78
Vanadium	21.00	20.00	19.54	13.12	3.62	1.73	25.00	20.91	21/21	14.10
Zinc	21.00	20.00	183.93	19342.00	183.66	1.73	525.00	142.69	21/21	576.00
Cyanide	21.00	20.00	1.40	6.82	2.61	1.73	9.20	2.39	10/21	3.20

For statistical purposes, all non-detected analytes are given a concentration value equal to one-half the sample detection limit.

Elevated background concentrations of several chemicals are thought to be attributable to industrial sources in the vicinity of the site.

TABLE 3

EXPOSURE PARAMETERS
CORAOPOLIS BRIDGE PROJECT

Receptor	Parameter	Value
Trespasser	Contact Rate	300 mg/day
	Conversion Factor	1E-06 kg/mg
	Exposure Frequency	50 days/year
	Exposure Duration	10 years
	Body Weight*	50 kg
	Averaging Time	
	carcinogens	25550 days
	noncarcinogens	3650 days
Resident	Contact Rate	300 mg/day
	Conversion Factor	1E-06 kg/mg
	Exposure Frequency	350 days/year
	Exposure Duration	30 years
	Body Weight**	59 kg
	Averaging Time	
	carcinogens	25550 days
	noncarcinogens	10950 days
Long-Term Worker	Contact Rate	500 mg/day
	Conversion Factor	1E-06 kg/mg
	Exposure Frequency	250 days/year
	Exposure Duration	25 years
	Body Weight	70 kg
	Averaging Time	
	carcinogens	25550 days
	noncarcinogens	9125 days
Short-Term Worker***	Contact Rate	1000 mg/day
	Conversion Factor	1E-06 kg/mg
	Exposure Frequency	10 hours/day
		6 days/week
	Conversion Factor	1 week/168 hours
	Exposure Duration****	60 days
	Body Weight	70 kg
	Averaging Time	
	carcinogens	25550 days
	noncarcinogens	60 days

*The average body weight of a child, from 9 years old to 18 years old, was used.

**The average body weight of a person, from 1 year old to 30 years old, was used.

***This exposure scenario is thought to be representative of the proposed bridge construction project.

****The expected maximum duration of worker contact with potentially contaminated soils during the proposed bridge construction project was provided by HDR Engineering.

TABLE 4

POTENTIAL CARCINOGENIC RISKS AND NONCARCINOGENIC THREATS TO TRESPASSERS
CORADPOLIS BRIDGE PROJECT

CONTAMINANT	95% UCL (mg/kg)	CARCINOGENIC INTAKE (mg/kg/day)	NONCARCINOGENIC INTAKE (mg/kg/day)	CARCINOGENIC RISK	NONCARCINOGENIC THREAT (HAZARD QUOTIENT)
Benzo(a)Anthracene	0.40	4.74E-08	3.32E-07	4.19E-08	NA
Benzo(b)Fluoranthene	0.40	4.76E-08	3.33E-07	3.56E-08	NA
Benzo(k)Fluoranthene	0.41	4.78E-08	3.35E-07	1.55E-08	NA
Benzo(a)Pyrene	0.40	4.67E-08	3.27E-07	2.85E-07	NA
Indeno(1,2,3-cd)Pyrene	0.39	4.63E-08	3.24E-07	7.87E-08	NA
Dibenz(a,h)Anthracene	0.39	4.62E-08	3.24E-07	3.13E-07	NA
Beryllium	1.97	2.31E-07	1.62E-06	1.94E-06	3.24E-04
			CUMULATIVE:	2.71E-06	3.24E-04

The Cancer Potency Factors and RfDs used to calculate carcinogenic risks and noncarcinogenic threats can be found in Table 3.

When available, inhalation toxicity criteria were applied to risk calculations, since inhalation represents the primary route of exposure at this site.

PAHs were evaluated in terms of benzo(a)pyrene equivalents.

NA = Not Applicable

TABLE 5

POTENTIAL CARCINOGENIC RISKS AND NONCARCINOGENIC THREATS TO FUTURE ON-SITE RESIDENTS
CORAOPOLIS BRIDGE PROJECT

CONTAMINANT	95% UCL (mg/kg)	CARCINOGENIC INTAKE (mg/kg/day)	NONCARCINOGENIC INTAKE (mg/kg/day)	CARCINOGENIC RISK	NONCARCINOGENIC THREAT (HAZARD QUOTIENT)
Benzo(a)Anthracene	0.40	8.43E-07	1.97E-06	7.46E-07	NA
Benzo(b)Fluoranthene	0.40	8.46E-07	1.97E-06	6.34E-07	NA
Benzo(k)Fluoranthene	0.41	8.51E-07	1.99E-06	2.77E-07	NA
Benzo(a)Pyrene	0.40	8.30E-07	1.94E-06	5.07E-06	NA
Indeno(1,2,3-cd)Pyrene	0.39	8.24E-07	1.92E-06	1.40E-06	NA
Dibenz(a,h)Anthracene	0.39	8.23E-07	1.92E-06	5.57E-06	NA
Beryllium	1.97	4.12E-06	9.61E-06	3.46E-05	1.92E-03
			CUMULATIVE:	4.83E-05	1.92E-03

The Cancer Potency Factors and RfDs used to calculate carcinogenic risks and noncarcinogenic threats can be found in Table 3.

When available, inhalation toxicity criteria were applied to risk calculations, since inhalation represents the primary route of exposure at this site.

PAHs were evaluated in terms of benzo(a)pyrene equivalents.

NA = Not Applicable

TABLE 6

POTENTIAL CARCINOGENIC RISKS AND NONCARCINOGENIC THREATS TO LONG-TERM WORKERS
CORADPOLIS BRIDGE PROJECT

CONTAMINANT	95% UCL (mg/kg)	CARCINOGENIC INTAKE (mg/kg/day)	NONCARCINOGENIC INTAKE (mg/kg/day)	CARCINOGENIC RISK	NONCARCINOGENIC THREAT (HAZARD QUOTIENT)
Benzo(a)Anthracene	0.40	7.05E-07	1.97E-06	6.24E-07	NA
Benzo(b)Fluoranthene	0.40	7.08E-07	1.98E-06	5.30E-07	NA
Benzo(k)Fluoranthene	0.41	7.12E-07	1.99E-06	2.31E-07	NA
Benzo(a)Pyrene	0.40	6.94E-07	1.94E-06	4.24E-06	NA
Indeno(1,2,3-cd)Pyrene	0.39	6.89E-07	1.93E-06	1.17E-06	NA
Dibenz(a,h)Anthracene	0.39	6.88E-07	1.93E-06	4.66E-06	NA
Beryllium	1.97	3.44E-06	9.64E-06	2.89E-05	1.93E-03
			CUMULATIVE:	4.04E-05	1.93E-03

The Cancer Potency Factors and RfDs used to calculate carcinogenic risks and noncarcinogenic threats can be found in Table 3.

When available, inhalation toxicity criteria were applied to risk calculations, since inhalation represents the primary route of exposure at this site.

PAHs were evaluated in terms of benzo(a)pyrene equivalents.

NA = Not Applicable

TABLE 7

POTENTIAL CARCINOGENIC RISKS AND NONCARCINOGENIC THREATS TO SHORT-TERM WORKERS
CORAOPOLIS BRIDGE PROJECT

CONTAMINANT	95% UCL (mg/kg)	CARCINOGENIC INTAKE (mg/kg/day)	NONCARCINOGENIC INTAKE (mg/kg/day)	CARCINOGENIC RISK	NONCARCINOGENIC THREAT (HAZARD QUOTIENT)
Benzo(a)Anthracene	0.40	4.84E-09	2.06E-06	4.28E-09	NA
Benzo(b)Fluoranthene	0.40	4.85E-09	2.07E-06	3.63E-09	NA
Benzo(k)Fluoranthene	0.41	4.88E-09	2.08E-06	1.59E-09	NA
Benzo(a)Pyrene	0.40	4.76E-09	2.03E-06	2.90E-08	NA
Indeno(1,2,3-cd)Pyrene	0.39	4.73E-09	2.01E-06	8.04E-09	NA
Dibenz(a,h)Anthracene	0.39	4.72E-09	2.01E-06	3.19E-08	NA
Beryllium	1.97	2.36E-08	1.01E-05	1.98E-07	2.01E-03
			CUMULATIVE:	2.77E-07	2.01E-03

The Cancer Potency Factors and RfDs used to calculate carcinogenic risks and noncarcinogenic threats can be found in Table 3.

When available, inhalation toxicity criteria were applied to risk calculations, since inhalation represents the primary route of exposure at this site.

PAHs were evaluated in terms of benzo(a)pyrene equivalents.

NA = Not Applicable