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FINAL REPORT

915140

VOLUME I OF II: FINAL REPORT

SOIL AND SEDIMENT SAMPLING RESULTS FROM A TRIBUTARY AND A BREACHED POND BETWEEN TENNESSEE GAS COMPRESSOR STATION 229 AND HIGHWAY 62 NEAR EDEN, NEW YORK DECEMBER 1994

Prepared for

Tennessee Gas Pipeline Company
Houston, Texas

and

New York Department of Environmental Conservation
Albany, New York

May 1995

WCC File 91B650C-A

Woodward-Clyde

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Baton Rouge, Louisiana

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TABLE OF CONTENTS

Section			Page
VOLUME I OF II: FINAL REPORT			
EXECUTIVE SUMMARY			ES-1
1.0	INTRODUCTION		1
2.0	SITE DESCRIPTION		2
	2.1	GENERAL SITE DESCRIPTION	2
	2.2	THE TRIBUTARY	3
	2.3	PREVIOUS OFF-SITE SEDIMENT/SOIL SAMPLING RESULTS	3
3.0	TECHNICAL APPROACH		5
	3.1	MAJOR CONSIDERATIONS	5
	3.2	TRIBUTARY DELINEATION AND MORPHOLOGY	7
	3.3	SAMPLING STRATEGY	11
4.0	METHODS		16
	4.1	SAMPLE COLLECTION	16
		4.1.1 Field Activities	16
		4.1.2 Tributary Sediment/Soil Samples	16
		4.1.3 Breached Pond Sediment Samples	17
	4.2	SAMPLE LABELING	19
	4.3	DECONTAMINATION PROCEDURES	20
	4.4	DOCUMENTATION AND CHAIN-OF-CUSTODY PROCEDURES	20
		4.4.1 Documentation of Sample Acquisition	20
		4.4.2 Chain-of-Custody	21
		4.4.3 Sampling Location Surveying	22
		4.4.4 Photodocumentation	22
	4.5	ANALYTICAL METHODS	22
		4.5.1 Soil and Sediment Analysis	22
		4.5.2 Data Validation	23
		4.5.3 Quality Assurance and Quality Control (QA/QC) Samples	25
5.0	QUALITY ASSURANCE/QUALITY CONTROL PROGRAM		27

TABLE OF CONTENTS

Section			Page
6.0	RESULTS		28
	6.1	SAMPLE COLLECTION	28
	6.2	ANALYTICAL RESULTS	29
		6.2.2 Soil And Sediment PCB Analysis	29
		6.2.2 Quality Assurance/Quality Control	35
7.0	SUMMARY AND CONCLUSIONS		36
8.0	REFERENCES		39

LIST OF TABLES

Table 1 PCB Analysis Summary For Soil and Sediment Samples Collected From A Tributary To Eighteenmile Creek And A Breached Pond Near Eden, New York, December 1994

Table 2 Mean PCB Concentrations And Related Statistics For Soil and Sediment Samples Associated With A Tributary And A Breached Pond Near Tennessee Gas Compressor Station 229 Near Eden, New York

LIST OF PLATES

Plate 1 PCB Concentrations (ppm) in Soils And Sediments Associated With A Tributary Near Eden, New York, December 1994 (Upstream Portion)

Plate 2 PCB Concentrations (ppm) in Soils And Sediments Associated With A Tributary Near Eden, New York, December 1994 (Downstream Portion)

LIST OF FIGURES

Figure 1 Site Vicinity Map Near Tennessee Gas Compressor Station 229 Near Eden, New York

Figure 2 Site Plan, Tennessee Gas Pipeline Company, Compressor Station 229, Eden, New York

TABLE OF CONTENTS

LIST OF FIGURES (Continued)

Figure 3	Property 010, December 1994, Before The Station Lake
Figure 4	Station 000, December 1994, The Splash Pool Immediately Below The Station Lake Outfall
Figure 5	Station 001, December 1994, Between Station Lake and The Bog; 50 Feet Downstream from Station 000
Figure 6	Station 005, December 1994, Between Station Lake and The Bog
Figure 7	Station 006, December 1994, Between Station Lake and The Bog
Figure 8	Station 008, December 1994, Between Station Lake and The Bog
Figure 9	Station 009, December 1994, Between Station Lake and The Bog
Figure 10	Station 010, December 1994, Between Station Lake and The Bog; Second Station Upstream From Bog
Figure 11	Station 011, December 1994, Between Station Lake and The Bog; First Station Upstream From Bog
Figure 12	Station 013, December 1994, Within The Bog; Upstream-Most Transect In Bog
Figure 13	Station 015, December 1994, Within The Bog; Upstream Half of Bog
Figure 14	Station 017, December 1994, Within The Bog; Upstream Half of Bog
Figure 15	Station 019, December 1994, Within The Bog; Downstream Half of Bog
Figure 16	Station 021, December 1994, Within The Bog; Downstream Half of Bog
Figure 17	Station 023, December 1994, Downstream End of Bog
Figure 18	Station 024, December 1994, Pool Sample Between The Bog and North Boston Road; Just Downstream from Culvert
Figure 19	Station 028, December 1994, Between The Bog and North Boston Road
Figure 20	Station 029, December 1994, Between The Bog and North Boston Road
Figure 21	Station 031, December 1994, Between The Bog and North Boston Road
Figure 22	Station 032, December 1994, Between The Bog and North Boston Road
Figure 23	Station 033, December 1994, Between The Bog and North Boston Road
Figure 24	Station 038, December 1994, Between The Bog and North Boston Road

TABLE OF CONTENTS

LIST OF FIGURES (Continued)

Figure 25	Station 039, December 1994, Between The Bog and North Boston Road
Figure 26	Station 042, December 1994, Between The Bog and North Boston Road
Figure 27	Station 043, December 1994, Between The Bog and North Boston Road
Figure 28	Property 001, December 1994, Between The Bog and North Boston Road
Figure 29	Property 002, December 1994, Between The Bog and North Boston Road
Figure 30	Property 003, December 1994, Between North Boston Road and The Breached Pond; East Side of Residential Driveway
Figure 31	Property 004, December 1994, Between North Boston Road and The Breached Pond
Figure 32	Station 046, December 1994, Pool Between North Boston Road and The Breached Pond
Figure 33	Station 048, December 1994, Between North Boston Road and The Breached Pond
Figure 34	Station 050, December 1994, Between North Boston Road and The Breached Pond
Figure 35	Station 054, December 1994, Between North Boston Road and The Breached Pond
Figure 36	Station 059, December 1994, In Woods Between North Boston Road and The Breached Pond
Figure 37	Station 062, December 1994, Between North Boston Road and The Breached Pond
Figure 38	Station 066, December 1994, Between North Boston Road and The Breached Pond
Figure 39	Station 070, December 1994, Between North Boston Road and The Breached Pond
Figure 40	Station 072, December 1994, Between North Boston Road and The Breached Pond; Immediately Downstream From the Confluence of Two Tributaries and Immediately Upstream From The Breached Pond
Figure 41	Breached Pond Location 1, December 1994, Breached Pond Samples
Figure 42	Breached Pond Location 2, December 1994, Breached Pond Samples

TABLE OF CONTENTS

LIST OF FIGURES (Continued)

Figure 43	Breached Pond Location 3, December 1994, Breached Pond Samples
Figure 44	Breached Pond Location 4, December 1994, Breached Pond Samples
Figure 45	Station 077, December 1994, Between The Breached Pond and Highway 75; Located Where Tributary Flows Around Northeastern Edge of Breached Pond
Figure 46	Station 080, December 1994, Between The Breached Pond and Highway 75
Figure 47	Station 081, December 1994, Between The Breached Pond and Highway 75
Figure 48	Station 082, December 1994, Between The Breached Pond and Highway 75; Just Upstream From Highway 75
Figure 49	Property 009, December 1994, Between The Breached Pond and Highway 75
Figure 50	Property 005, December 1994, Between The Breached Pond and Highway 75
Figure 51	Property 006, December 1994, Between The Breached Pond and Highway 75
Figure 52	Property 007, December 1994, Between Highway 75 and Hickman Road; In the Woods
Figure 53	Property 008, December 1994, Between Highway 75 and Hickman Road
Figure 54	Station 083, December 1994, Between Highway 75 and Hickman Road; First Station Downstream From Highway 75
Figure 55	Station 085, December 1994, Between Highway 75 and Hickman Road
Figure 56	Station 089, December 1994, Between Highway 75 and Hickman Road
Figure 57	Station 092, December 1994, Between Highway 75 and Hickman Road
Figure 58	Station 094, December 1994, Between Highway 75 and Hickman Road
Figure 59	Station 102, December 1994, Between Highway 75 and Hickman Road
Figure 60	Station 103, December 1994, Between Hickman Road and Highway 62; Pool Immediately Downstream (West) From Hickman Road

TABLE OF CONTENTS

LIST OF FIGURES (Continued)

Figure 61	Station 112, December 1994, Pool Sample Between Hickman Road and Highway 62; In the Main Tributary
Figure 62	Station 114, December 1994, Between Hickman Road and Highway 62
Figure 63	Station 118, December 1994, Between Hickman Road and Highway 62
Figure 64	Station 123, December 1994, Between Hickman Road and Highway 62
Figure 65	Station 125, December 1994, Between Hickman Road and Highway 62
Figure 66	Station 130, December 1994, Between Hickman Road and Highway 62
Figure 67	Station 134, December 1994, Between Hickman Road and Highway 62; First Transect Upstream From Highway 62

TABLE OF CONTENTS

VOLUME II OF II: APPENDIX A - QA/QC REPORTS AND DATA PACKAGE

LIST OF APPENDICES

Appendix A Analytical Data Packages And Quality Assurance/Quality Control Summaries For Soil and Sediment Samples Collected From A Tributary And A Breached Pond Near Tennessee Gas Compressor Station 229 Near Eden, New York During December 1994

EXECUTIVE SUMMARY

Soil and sediment samples associated with a tributary to the South Branch of Eighteenmile Creek near Eden, New York were collected during December 1994 and analyzed for their total PCB content. All collected samples were associated with the tributary and a breached pond between Tennessee Gas Compressor Station 229 and Highway 62. A total of 390 soil and sediment samples were collected during December 1994, including field duplicate samples but excluding equipment rinsate samples. Totals of 277 soil samples and 113 sediment samples were collected with two-thirds (66.4%) of soil samples and 46.9 percent of the sediment samples originating from the uppermost depth interval. Excluding the breached pond sediment samples, 62.3 percent of the soil and sediment samples were collected from the 0 to 2-inch depth interval, 21.4 percent were collected from the 2 to 12-inch depth interval, and 16.3 percent were collected from the 12 to 24-inch depth interval.

The total PCB concentrations in the 277 soil samples ranged from non-detected to 960 ppm. A total of 178 of these soil samples (64.3%) contained PCBs above the analytical reporting limit. The total PCB concentrations in the 113 sediment samples ranged from non-detected to 410 ppm. A total of 67 of these sediment samples (59.3%) contained PCBs above the analytical reporting limit. All twelve sediment samples collected between Hickman Road and Highway 62 (the most downstream reach sampled) were "non-detect" for PCBs. The three most downstream transects (Stations 125, 130, and 134) yielded a total of 20 soil and sediment samples; none of these samples contained PCBs.

Eleven soil samples and two sediment samples contained total PCB concentrations of 100 ppm or greater. An additional single soil sample and five sediment samples contained total PCB concentrations between 50 and 99 ppm. All 19 of these soil and sediment samples were collected between Station Lake and halfway through the bog (Stations 005 through 017).

Station 021 was a transect located in the downstream half of the bog. All soil and sediment samples collected from Station 021 and between Station 021 and Highway 62 contained less than 10 ppm total PCBs. The highest PCB concentration found in this reach was 8.6 ppm in a soil sample from Station 039. In general, the total PCB concentrations in both sediment and soil samples decreased as one moved downstream.

A total of 118 soil and sediment samples were collected upstream from Station 021 (excluding Station 021 samples). One hundred of these samples (84.7%) contained concentrations of PCBs above the analytical reporting limit. All soil and sediment samples collected between Property 010 (upstream from Station Lake) and Station 011 (both stations inclusive) contained PCBs.

The highest average PCB concentrations and highest maximum PCB concentrations for given reaches were found in the soils and sediments of two reaches of the tributary, one reach extending from Station Lake to the bog (Stations 000-011) and the second reach encompassing the upstream portion of the bog (Stations 013-019). The highest PCB averages and values were found in these reaches for both the previous and current sampling and for both soils and sediments. The soils in these two reaches tended to contain greater concentrations of PCBs than did the sediments.

PCB concentrations in the soils and sediments decline rapidly from the upper bog to all downstream reaches of the tributary. PCB levels in the reaches from Station Lake through the upper bog tend to reflect one, two, and three digit parts per million concentrations, while the lower reaches reflect single digit parts per million levels or less, including a high frequency of "non-detects".

Both average and maximum PCB concentrations decline with distance from the upper bog with all samples reflecting "non-detects" upstream from Highway 62. The PCB concentrations in sediment samples appear to decline and reach "non-detect" more rapidly in sediments than in soils.

The average PCB concentrations in soils and sediments from the current sampling are all less than the average values recorded during earlier sampling in the same reaches

from the lower bog to Highway 75 (inclusive) with one exception. The soils collected between the breached pond and Highway 75 during the current sampling activities contained slightly higher levels than during previous sampling. Nevertheless, these current values were all less than 1 ppm and included numerous "non-detects".

1.0 INTRODUCTION

Tennessee Gas Pipeline Company (TGPL) and the New York State Department of Environmental Conservation (NYSDEC) entered into Consent Order DO-004-8903 for TGPL Compressor Station 229 near Eden, New York. One requirement of this Consent Order involved conducting a Remedial Investigation (RI) at the compressor station. One component of the RI at Compressor Station 229 near Eden, New York involved sampling and analyzing for PCB presence in the off-site soils and sediment associated with an intermittent tributary to Hunt Creek and eventually to the South Branch of Eighteenmile Creek. This tributary originates from Station Lake on the Station 229 property and flows west-northwest for approximately 3 to 4 miles before discharging into Eighteenmile Creek. A total of 241 soil and sediment samples were collected along the tributary between Station Lake and Highway 75 during the autumn of 1990. A total of 99 of these samples (41%) contained polychlorinated biphenyls (PCBs) with most of these samples collected in the upstream-most reaches of the tributary. During July of 1994, an additional 60 sediment samples were collected from the tributary between Highway 75 and Highway 62. Only one of these samples (1.7%) contained PCBs. On August 27, 1994, a major storm occurred in the vicinity of Station 229, resulting in considerable flooding of the tributary. This major flood event raised questions about potential redistribution of PCBs in the tributary system. In addition, pending questions regarding a complete characterization of the tributary soil and sediment and other issues concerning the tributary provided additional purposes for resampling soils and sediments associated with the tributary. Consultations between TGPL and NYSDEC led to a decision to resample the soils and sediments of the tributary between Station Lake and Highway 62, which included all reaches which had been previously sampled. The resampling was conducted during December 1994, and this report presents the results of that work.

2.0
SITE DESCRIPTION

2.1 GENERAL SITE DESCRIPTION

TGPL Compressor Station 229 occupies 50.5 acres along and west of East Eden Road and south of North Boston Road, approximately 4 miles south of the village of Hamburg in the town of Eden in Erie County, New York (see Figures 1 and 2). Open woods lie to the west of the station. The station (Figure 2) is situated at an elevation of approximately 1,000 feet above mean sea level. The topography is flat in the immediate vicinity of the Compressor Building and the Auxiliary Building. In the northern portion of the station, the topography slopes steeply downward from south to north, with surface runoff flowing to the north. Two ditches run down the slope toward the road. In the southwestern portion of the station, the topography is moderately steep with surface runoff flowing to the west toward Station Lake. Drainage Ditch A runs south from the area which includes the Division Warehouse No. 2 and the Pipeline Warehouse and discharges into Drainage Ditch B. Drainage Ditch B runs from East Eden Road to the dehydration unit area and then west toward the separator pond and Station Lake. Another drainage ditch parallels the station road along the southern boundary of the facility and runs west toward the separator pond.

Soil in the area is composed primarily of glacial till with clay and shale. The depth to groundwater is approximately 5.5 feet. Most of the surface drainage from the site is received by Station Lake, which discharges to an unnamed tributary of the South Branch of Eighteenmile Creek. This tributary flows west-northwest for 1.5 to 2 miles before entering Hunt Creek which discharges into the South Branch of Eighteenmile Creek, which in turn flows approximately 5 miles before discharging into Lake Erie. Storm runoff from the northeast side of the facility discharges to a roadside culvert near North Boston Road, which eventually discharges to Hampton Brook.

Land use in the vicinity of the station is primarily agricultural and partly residential. Zoning laws are such that land use is not expected to change considerably in the near future. The unnamed tributary of Eighteenmile Creek is not used for recreational purposes.

2.2 THE TRIBUTARY

The draft RI for the Eden site concluded that "based on the field survey and exposure pathway information, the aquatic food chain represents a potential exposure pathway". Further, "based on PCB sampling data, it appears that potentially affected habitats include only Station Lake and portions of the tributary of Eighteenmile Creek. Hampton Brook does not appear to be in the PCB migration pathway based upon site topography and site drainage patterns". This conclusion led to the subsequent focus on the tributary to Eighteenmile Creek.

The tributary of the South Branch of Eighteenmile Creek receives the overflow from Station Lake near the southwestern corner of the station property; flows west through a wooded area that includes an area which has been described variously as a "bog", a "swamp", and a "marsh"; flows northwest through a farm field south of North Boston Road; crosses North Boston Road and flows through wooded property; flows into a pond with a breached dike east of Highway 75; flows from the breached pond back into the streambed and crosses Highway 75; flows southwest and then northwest where it crosses Hickman Drive and enters Hunt Creek; and flows on to the South Branch of Eighteenmile Creek after crossing Highway 62. The tributary is a small stream throughout its length ranging from a few feet in width to 25 feet in width northwest of Hickman Road and averaging only a few inches in depth.

2.3 PREVIOUS OFF-SITE SEDIMENT/SOIL SAMPLING RESULTS

A review of previous sediment/soil sampling results from the tributary system is useful when interpreting the results from the resampling during December 1994. Ecology and Environment (E&E) collected approximately 241 soil and sediment samples along the tributary from Station Lake to just west of Highway 75 during the autumn of 1990. Samples were collected in the reach of the tributary from below Station Lake to the

upper end of the farm field located south of North Boston Road. Samples collected from this reach contained concentrations of PCBs, with the highest concentration of 760 mg/kg. An additional 21 sediment/soil samples were collected in the reach of the tributary between North Boston Road and the upper end of the farm field south of that road. Of these 21 samples, six samples contained detectable quantities of PCBs. Five of the six samples contained less than 10 mg/kg and one sample contained 11 mg/kg. A total of thirty more samples were collected from the tributary from North Boston Road to the upper end of the breached pond east of Highway 75. Twenty of those thirty samples did not contain detectable quantities of PCBs with the remaining samples containing less than 5 mg/kg. Twenty samples were collected from the breached pond located east of Highway 75. Fifteen of those 20 samples contained PCBs at concentrations less than 10 mg/kg while the remaining samples did not contain detectable PCB concentrations. Several sediment/soil samples were collected from the tributary reach between the breached pond and Highway 75, but only two of the samples contained PCBs, both with less than 1 mg/kg concentrations. None of the sediment/soil samples collected downstream of Highway 75 contained PCBs.

During July 1994, a Woodward-Clyde field crew sampled fish tissues from the breached pond east of Highway 75 and from the tributary between Highway 75 and Highway 62. In conjunction with this fish tissue sampling, sediment samples were collected from the tributary and analyzed for PCBs at the locations where fish tissues were collected between Highways 75 and 62. A total of 60 sediment samples were collected from the tributary between Highways 75 and 62, with only one of these samples (1.7%) containing PCBs (0.186 ppm). The sample with PCBs was collected approximately halfway between Hickman Road and Highway 62.

3.0
TECHNICAL APPROACH

Any sampling program is developed on the basis of specific assumptions, criteria, and considerations. The factors which shaped the development of the sediment and soil resampling of the off-site tributary during December 1994 are described and discussed in this section.

3.1 MAJOR CONSIDERATIONS

The considerations which led to the resampling of soils and sediments associated with the tributary between Station Lake and Highway 62 were as follows:

- On August 27, 1994, a major storm occurred in the vicinity of Station 229, resulting in considerable flooding of the tributary. The primary purpose of the resampling was to determine the impact, if any, of this excess precipitation and stream flow on PCB distribution.

- The reach of the tributary between Station Lake and Highway 75 had been characterized during the autumn of 1990. Given the decision to resample as a result of the storm, an additional purpose of the resampling was to identify the effects, if any, weathering and normal precipitation and runoff had on the presence and distribution of PCBs during the years since the original sampling.

- TGPL was beginning to prepare a Feasibility Study (FS) for the off-site situation at Station 229 as a portion of the RI/FS process. The FS process entails the examination of potential alternatives for remediation tailored to existing conditions. Thus, an additional purpose of the resampling was to facilitate FS activities.

These considerations led to consultations between TGPL and NYSDEC, which in turn led to the decision to resample soils and sediments associated with the tributary between Station Lake and Highway 62.

In addition to the considerations described in the preceding paragraph which motivated the resampling, other considerations helped shape the final sampling plan, including the following:

- The 1990 original sampling resulted in the collection of soil and sediment samples in close proximity to the tributary (i.e., usually immediately adjacent to it). In certain reaches of the stream, the topography lateral to the tributary flattened and a floodplain existed. The resampling was intended to characterize such floodplains so samples were collected at the distal edges of the floodplains in most cases.

- Sampling intensity was directed toward areas of anticipated sediment or soil deposition.

- Sampling frequency was intended to be sufficient to characterize existing conditions from Station Lake to Highway 62 such that all reaches were included in the sampling.

- The same 0.1 ppm analytical reporting limits used on all previous sampling were used for the resampling.

- TGPL decided to survey the sampling locations as part of the resampling to provide precise locations for the samples. Such information was expected to aid in the preparation of the feasibility study.

- Some confusion existed from the 1990 sampling regarding the distinction between sediment and soil samples. Supporting

documentation was collected during the resampling to minimize such concerns.

- An effort was made during the resampling to characterize the potential distribution of PCBs both horizontally and vertically at each major sampling location.

3.2 TRIBUTARY DELINEATION AND MORPHOLOGY

Although the tributary from Station Lake to Highway 62 is small and intermittent, the characteristics of the stream change markedly from reach to reach. The resampling program was developed to account for such differences from reach to reach. During October 1994, personnel from Environ walked the tributary from Station Lake to Highway 62 noting the changes in stream morphology. One-hundred-foot segments were marked along the center of the tributary, starting 50 feet west of the dam for Station Lake. The starting point was labeled as Station 0, and subsequent locations were 100 feet apart. Thus, Station 4 was located 400 feet downstream from Station 0 (near Station Lake) and Station 60 was located 6,000 feet downstream from Station 0. Based on the Environ survey indicating distinctly changing stream conditions, the tributary was divided into nine major reaches or zones for sediment and soil sampling.

Station designations are provided in the description of the morphologic variations in the various reaches to aid in interpretation. Station designations are employed throughout this document to describe locations. The nine major sampling zones may be described as follows:

Zone 1

This zone begins at the discharge point of Station Lake, where water exits the drainage pipes that carry the overflow water from the lake. The tributary flows approximately 1,335 feet in this zone to the confluence with another small, unnamed tributary which joins this tributary from the north and marks the beginning of a large depositional area identified as a "bog."

As water exits the dam outlet pipes, a pool is present which drains directly into the tributary. The tributary then opens into a shale bed approximately 15 feet wide. During site reconnaissance (October 1994) performed in preparation of the work plan, water was observed to be flowing in only 6 feet of this width. From Station 0 to 3 (50 to 350 feet below the dam outlet), the tributary is fairly straight and the shale bedrock stream bottom is visible. This length of the tributary is considered an erosional zone where sediments are principally transported through without significant deposition.

From Station 4 through 12, the tributary changes from erosional to depositional, with more meanders and deposited gravel and sediment bars being present. The small tributary previously mentioned converges with the subject tributary from the northeast at a distance approximately 85 feet below Station 12. It is at this point that Zone 1 ends and a major depositional area identified as Zone 2 begins.

Zone 2

This zone includes approximately 1,100 feet of stream length through a major depositional area identified as a "bog." This zone encompasses Stations 13 through 24. The tributary divides into several smaller stream channels that meet and separate from Stations 13 through 16. The tributary reconverges into a single stream at Station 16. Sediments and soils cover the bedrock throughout this zone; sediment thicknesses in the stream range from 2 inches to over 2 feet thick.

The multi-channeled stream between Stations 13 and 16 flows through an area approximately 50 feet wide that is a shallow floodplain (shallow slope perpendicular to stream flow). Sediments deposited in this area are finer than the gravel and coarse sediments visible between Stations 4 and 12. During the October 1994 site reconnaissance, three to five channels were observed in this stretch of the bog, although this type of system typically fluctuates.

Just beyond Station 21, a small tributary joins the main tributary from the south. Just past Station 24, the stream is channelled through a culvert passing under a grass-covered road. This marks the end of Zone 2.

Zone 3

Zone 3 extends from the culvert to Station 33. This zone can be characterized as a relatively steep gradient with an exposed shale bed, indicating generally erosional behavior. Cobbles and gravel are present in depositional bars, but finer sediments were not present at the time of the stream reconnaissance.

Zone 4

From Station 33 to North Boston Road (Station 44) the stream flattens slightly, but exposed shale and shale deposits are apparent. This area, including 1,100 feet of tributary length, is identified as Zone 4. After Station 39, the stream appears to have been channelized and the banks are nearly vertical. The shale is terraced and covered only lightly with a thin film of algae. Little sediment is apparent in this area. As the stream approaches North Boston Road, it narrows from approximately 7 feet wide to approximately 2 feet wide.

Zone 5

This zone includes approximately 2,850 feet of tributary length from North Boston Road to the area immediately upstream from the breached pond (Station 46 to Station 72 + 50 feet). This area is characterized by submerged sediment with thicknesses from 0.5 feet to greater than 2 feet. The origin of the sediment appears to be varied. In some areas the sediment is clearly exposed cohesive clays, indicating that it is not of recent deposition, but rather exposed through erosion of the overlying soils. In other cases, however, sediments are less cohesive, indicating possible deposition from either upstream areas or adjacent sheet flow. The surrounding area is characterized by thick soils without exposed rock.

A concrete wall extends into the tributary from both banks near Station 68. The wall portions do not meet, but leave a gap approximately 6 feet wide through which the stream passes. However, the portions of wall that extend into the stream do act to slow the water, causing local sedimentation. At approximately Station 72 + 20 feet, a

tributary joins the stream from the south. The two tributaries converge and feed into the breached pond, 30 feet from this confluence.

Zone 6

Zone 6 extends through the breached pond to Route 75. The breached pond is approximately 380 feet long and 100 feet wide at its maximum width. The depth of the pond is unknown, but reported to be approximately 4 feet. This area is also depositional, with the pond acting primarily as a sediment settling area. The tributary enters the pond from the south, exits the pond to the east through a breach in the dike and flows around the north end of the pond on its way west to Route 75.

Zone 7

Zone 7 begins at Route 75 and encompasses approximately 2,000 feet of tributary length which passes under Hickman Road and ends approximately 10 feet below Hickman Road. Pools and riffles characterize this zone. Banks are primarily soils and cohesive, gray clay. Shale is exposed in areas as well as deposited in gravel bars. Cohesive clays underlie the gravel deposition in some areas. The tributary meanders in this section, eroding the outer banks of the meanders and depositing gravel and sediment on the insides of the curves.

A corrugated metal culvert, approximately 9 feet in diameter, channeled water under Hickman Road before the August 1994 storm event. It was washed out during the storm event and the road has collapsed. At the time of the October steam reconnaissance, the road was being rebuilt. The failure of the road indicates that large flows were experienced in this portion of the stream.

Zone 8

Zone 8 is a wide, steep area of the tributary that is characterized as exposed shale. It extends from Station 103 to approximately Station 114. The banks are incised shale a few feet to 25 feet high; the channel is approximately 25 feet wide. Generally, water flows shallowly and rapidly through this zone, although the washout of the culvert at

Hickman Road indicates that significant flows occurred in this area during the August 1994 storm event. There is almost no deposition in this area until Station 112, where cobble deposition occurs. Due to the steep gradient and rapid water flow, this zone is impassable to any fish swimming upstream. Therefore, this zone is referred to as an ecological barrier.

Zone 9

Zone 9 extends from Station 114 to Highway 62. Cobble, gravel,and finer sediments are deposited, becoming finer further down the tributary in this zone. Banks are steeply sloped soils. Pools and riffles are present.

3.3 SAMPLING STRATEGY

The resampling of soils and sediments associated with the tributary was intended to horizontally and vertically characterize the potential presence of PCBs from Station Lake to Highway 62 with special attention directed to areas of deposition. Sampling targeted both surface and deep sediments/deposited soils. Surface soils/sediments were collected from 0 to 2 inches to target soils/sediments considered most bioavailable. Soils/sediments at depth were collected from 2 to 12 inches and from 12 to 24 inches. Depth samples were collected in certain areas to determine historical deposition of PCBs, if any. Several techniques were employed to accomplish this characterization. Those techniques are presented in the following discussion in order of frequency of use.

Transects

Transects were the most frequently employed approach to sample sediments and soils. Each transect consisted of three to five points along a line perpendicular to the tributary. Under special circumstances, a sixth and even seventh point were added to a few transects. The distal ends of the transects were located at the lateral edges of the floodplain, whenever possible. The middle point of a given transect was usually targeted to the sediments in the main channel of the tributary. However, if the channel lay close to one edge of the floodplain, one of the other points on the transect was targeted to sediments.

Transects were established in locations throughout the length of the stream to define the width of tributary soils as well as to delineate PCB-containing sediments and soils, if any, longitudinally down the stream. The number of locations in a transect and the distance perpendicular to the stream between each location were determined based upon the stream morphology and the topography of the surrounding area. Where sufficient soil or sediment was present, deeper soil samples were collected. In locations with wide floodplains, a wider distribution of sampling locations was utilized. In some locations determined to have little sediment and steep slopes, it was possible to collect only a limited number of samples.

The number of locations in a transect generally varied from three to five. The width of the distribution varied from 10 feet between the edges of the transect to over 200 feet, depending on the topography of the land adjoining the tributary and the width of the floodplain based on visual evidence noted during the October 1994 stream reconnaissance. In each transect, one sample location was to be within the tributary channel. If sediments were available, the locations of the other samples were to be measured from this center sample, perpendicular to the local direction of the tributary.

The center location of each transect was to be sampled at all three depths (0 to 2 inches, 2 to 12 inches and 12 to 24 inches below the sediment surface) if there was sufficient sediment present. In some instances, sediment thicknesses did not exceed 2 inches. In these transects, only surface samples were collected.

The outer transect locations were to be sampled from 0 to 2 inches below ground surface (bgs). Samples were collected at depth from outer transect locations in Zones 2 and 5, the area identified as depositional, where historical deposition of sediments may have occurred. In Zone 2, all locations were to be sampled at the three depths. In Zone 5, the two locations nearest the stream (one on either side of the stream) were to be sampled at all three depths. Those farther from the stream were not frequently affected by stream flow and thus were not likely to show signs of deposition. They were to be sampled only from 0 to 2 inches below ground surface (bgs). Outer transect locations from the remaining zones were not believed to generally receive deposition of stream sediment. These locations were to be sampled only at the surface (0 to 2 inches).

Sediment Bars

The second most frequently applied approach was to sample sediment bars, which reflected known and identifiable areas of deposition. Sediment bars form on the inside of bends in a stream. The water on the outside of the curve flows quickly, often eroding the outside bank. The water on the inside of the curve generally slows, depositing its sediment load. This forms a depositional area that may contain sediments ranging in size from cobble to clays.

Two locations were to be sampled in each sediment bar: one in the upstream leading edge of the bar and one in the center of the bar. A shallow sample (0 to 2 inches) was to be collected from the upstream location. Three samples were to be collected from the center of the bar: 0 to 2 inches, 2 to 12 inches, and 12 to 24 inches. If bedrock was encountered or the bar was less than 24 inches thick, only the available depth samples were to be collected.

To be consistent with the transect sampling procedure, an additional three samples were to be collected as part of each sediment bar sampling. One sample was to be collected in the stream, one on the bank on the outside of the curve in the stream (on the opposite side of the stream from the bar) and one from the soils on the same side as the bar, further away from the stream. These three samples were to be approximately in line with the sample location in the center of the bar to form a transect of the stream.

These lateral samples were to be collected from 0 to 2 inches below the soil or sediment surface. If no soil or sediment was present within the approximate area that would satisfy the goal of defining a transect, this absence was to be noted and the area was not to be sampled.

Soil and sediment samples collected from sediment bars or along transects comprised over 90 percent of the samples collected during December 1994.

Pools

Specific sediment-containing pools were also targeted for sampling. These sampling locations consisted of a limited number of pools which were not located on transects or were not associated with sediment bars. The location of deepest sediment deposition in each pool was to be determined in the field and sampled. Samples were to be collected from 0 to 2 inches, 2 to 12 inches, and 12 to 24 inches below the sediment surface in each targeted pool, if sufficient sediment was present for sampling to depth. If insufficient sediment was present, only those depths for which sediment was available were to be sampled.

This approach was also to be applied to the breached pond. Four sample locations within the pond were to be targeted at each of the three depths. Locations were to be selected in the field to represent the sedimentation behavior of the pond. However, the approach to sample the breached pond was modified in the field to collect samples in 6-inch vertical intervals from the surface of the sediments to the depth of sampler refusal.

Specific Samples

In preparing the work plan for the December 1994 resampling event, it was recognized that certain areas of interest may not be addressed by transect, sediment bar, and pool sampling. That is, the field sampling crew may identify certain areas as logical targets for sampling, which were not a part of the original sampling plan. Provision was made to collect samples in such locations.

Sampling that targeted specific areas in the floodplain to the tributary were to be determined by the size and topography of the area that could have been affected by the stream in the past. These samples were to be either individual sampling points or composites of two to four samples. The samples to be combined for the composite were to be collected from 0 to 2 inches depth.

Field Judgment

A flowing tributary is a dynamic system. It was recognized that conditions present during the October 1994 site reconnaissance may have changed by the time field crews began collecting samples during December 1994. Intentions were for the field crews to collect samples as planned. However, field crews were allowed to exercise field judgment and select more optimal sampling locations during field sampling activities, if and when such locations existed. Such field judgment was exercised at two levels. First, the sample collection crews were preceded by personnel familiar with the tributary who selected and flagged the sampling locations and used field judgment in their tasks. Second, the sample collection crews were allowed to adjust sample locations, if appropriate.

The most common adjustment was caused by an inability to collect sediment samples or an inability to collect sediment/soil samples at depth due to underlying bedrock or sampler refusal. In general, the resampling program was conducted as planned with only a few minor modifications. For example, the work plan anticipated the collection of 387 soil and sediment samples. A total of 399 samples (not including duplicates) were actually collected. Although some of the individual samples collected differed from those anticipated in the work plan, the level of sampling effort met the plan objectives.

4.0 METHODS

4.1 SAMPLE COLLECTION

4.1.1 Field Activities

Soil and sediment sampling locations were identified, flagged, and labeled; soil and sediment samples were collected; and samples were processed and shipped with documentation to the analytical laboratory by two Woodward-Clyde field crews from December 6 through 13, 1994. The samples were received by the laboratory between December 10 and 14, 1994. All collected soil and sediment samples were associated with the tributary system between Station Lake and Highway 62.

4.1.2 Tributary Sediment/Soil Samples

Sediment and soil samples associated with the tributary were collected using either of two techniques. Hand trowels were used to collect surface samples for both sediments and soils whenever possible. Samples collected at depth were obtained using a bucket auger. A decontaminated trowel or bucket auger was used for each new sample, including depth intervals. Numerous hand trowels and bucket augers were carried by each sampling crew to enable the collection of several samples between each major decontamination activity. Vegetation and debris overlying any sampling locations were removed prior to the collection of the sample. Each collected sample was placed in a stainless steel bowl for thorough mixing prior to placement into a sample container. Labels were attached directly to the sample container which were then placed in individual Ziploc® plastic bags. Sediment samples were cooled with ice to approximately 4°C and were shipped on ice to the analytical laboratory, accompanied by a completed chain-of-custody document. The December 1994 soil and sediment sampling was accomplished during a period of subfreezing ambient temperatures (some days below 0°F) so the cooling of samples was not an issue.

4.1.3 Breached Pond Sediment Samples

Sediments were collected from the breached pond east of Highway 75 on December 9, 1994 using a boat, sampling equipment, and personnel provided by Blasland, Bouck, and Lee (BB&L). The following procedure was employed by BB&L personnel to collect sediment core samples from the breached pond:

- Clear, inert, Lexan plastic tubes, which were 8 feet in length and 2 inches in outside diameter, were used to collect and contain the sediment cores.

- At a selected sediment sampling location, the plastic tube was pressed by hand into the sediments in the bottom of the pond.

- A heavy, T-shaped metal device (resembling a steel post driver) was inserted over the top end of the inserted plastic tube. The metal driver was used to push the plastic tube into the sediment to the point of refusal.

- The metal driver was removed from the upper end of the plastic tube, and a hand operated vacuum pump was affixed to the top of the tube inserted in the sediment. The device was pumped by hand until a vacuum was created.

- The clear plastic tube was then pulled by hand from the sediments. The bottom portion of the tube contained the sediment core while the upper portion of the tube contained the overlying pond water.

- A plastic cap was placed over the bottom end of the tube to prevent any sediments from escaping.

- With the tube held vertically in the boat, a hack saw was used to cut part way through the tube just 1 to 2 inches above the top of the sediment core. The bulk of the water in the tube was allowed to drain.

- A hack saw was used to complete the cut through the plastic tube, and a plastic cap was placed on the top of the tube containing the sediment core.

- A sample number was marked on the cap on the top of the tube.

- The tubes containing the sediment cores were maintained in a vertical position in order to allow natural settling of the sediments and to maintain the integrity of the sample.

A total of four sediment cores were removed from well distributed locations in the breached pond. The water depths overlying the sampling locations ranged from 1.2 to 2.0 feet. The cores were stored vertically overnight to allow settling of the sediments.

On December 10, field personnel examined the sediment cores that were extracted from the breached pond on the previous day and measured the depth of the settled sediments in the cores. The results were as follows:

	Settled Core Length	
Sediment Core Number	Feet	Inches
1	1.3	15.6
2	1.85	22.2
3	2.55	30.6
4	2.05	24.6

The work plan specified that the sediment cores were to be subdivided into samples consisting of the 0- to 2-inch, 2- to 12-inch, and 12- to 24-inch intervals. Field judgement was exercised to modify the work plan for the breached pond sediment samples only and to subdivide the sediment cores into individual samples consisting of 6-inch increments from the sediment/water surface downward, such as 0 to 6 inches, 6 to 12 inches, 12 to 18 inches, 18 to 24 inches, 24 to 30 inches, and so forth. This decision was made for the following reasons:

1) The 0- to 6-inch interval is more reflective of the actual biozone in a lacustrine ecosystem, such as the breached pond, than is the 0- to 2-inch interval described in the work plan.

2) The 6-inch interval samples for the entire sediment column would likely allow for more detailed and precise interpretation of the analytical results and some correlation with the chronology of deposition, than the intervals described in the work plan.

The sediment core samples were cut into 6-inch intervals using a hack saw. New hack saw blades were used for each cut to avoid potential cross-contamination. The sediments from each 6-inch section of tube were placed in individual sample jars and labeled with unique sample numbers. The breached pond sediment sample bottles were wrapped in bubble-pack, placed in coolers, iced, and shipped to the analytical laboratory.

4.2 SAMPLE LABELING

Each soil or sediment sample collected as a part of the sampling effort was assigned a unique identification number. A typical identification number consisted of eleven to thirteen characters, such as 229-SD-021-102. The first three numbers represented the TGPL Compressor Station near where the samples were collected, in this case Station 229 near Eden. The next two letters represented the sample medium which was collected, either SD for sediment, SO for soil, or ER for an equipment rinsate quality control sample. The next three characters represented either the sampling location (e.g. 021 for a sample on the transect collected at Station 21, BP1 for a sediment core collected from the breached pond, PO1 for a discrete or composite sample collected from an area not associated with a sampling station) or the medium for a rinsate sample (e.g. SD1 for a rinsate sample from sediment sampling equipment, S01 for a rinsate sample from soil sampling equipment, or CT1 for a rinsate sample from composite sampling equipment). The next three numbers usually represented the sampling location within a sampling station plus the sampling interval. At a given sampling station, if one looked downstream, the sample locations were numbered from left to right with the furtherest left sample location being numbered 1. Thus, the first digit in

these three numbers represented the sample location. The last two of these three digits represented the sampling interval with 02 being the 0- to 2-inch depth interval, 12 being the 2- to 12-inch depth intervals, and 24 being the 12- to 24-inch depth interval. In the breached pond, the depth intervals were modified to reflect 6-inch intervals. In the case of equipment rinsate samples, these three numbers represented the date sampled, such as 210 for December 10 and 209 for December 9. In most cases, the sample identification number contained eleven characters. However, in the case of field duplicate samples, the letters FD were appended to the end of the sample identification number for a total of thirteen characters.

4.3 DECONTAMINATION PROCEDURES

All equipment utilized in both soil and sediment sample preparation was decontaminated before use and again after each sample was processed. The following procedures were employed:

1. Washing with a detergent solution (Alconox soap)
2. Rinsing with clean deionized water
3. Rinsing with methanol
4. Rinsing with clean deionized water

After each decontamination procedure, each piece of sampling equipment was placed in a plastic tub to dry and was wrapped in foil or plastic until its subsequent use. All wash fluids and disposable equipment were placed in containers for disposal by TGPL.

4.4 DOCUMENTATION AND CHAIN-OF-CUSTODY PROCEDURES

4.4.1 Documentation of Sample Acquisition

For documentation purposes, all pertinent field observations and sampling information were recorded in a field logbook. A logbook was designated for TGPL Compressor Station 229 and its related off-site activities. Sufficient information was recorded in each logbook to reconstruct sampling activities and conditions without relying on the collector's memory. Entries in the logbook included the following:

- Location and purpose of sampling activity
- Description of sampling point
- Date and time of sample collection
- Number and type of samples taken
- Sample identification number(s)
- Sample preservation and distribution
- Field observations and measurements

4.4.2 Chain-of-Custody

In addition to the field logbook, each sample sent off-site was recorded on a chain-of-custody form. Chain-of-custody forms are the permanent records of all sample handling and shipment. The person collecting a sample initiated the chain-of-custody documentation procedure. Chain-of-custody documentation included the following applicable data:

- Field sample number, site name and project number
- Date sample collected and processed
- Date sample submitted to the laboratory
- Field sampler's signature
- Sample source and description
- Number of shipping containers
- Signature of persons relinquishing and obtaining custody of samples
- Indication of sample disposition

To ensure safe and proper chain-of-custody for all field samples, sample coolers were closed with sample seals to prevent tampering. The seal number of each cooler was noted and recorded in the field logbook shipment of any samples. Samples were kept in a limited access or locked storage area at the proper temperature (approximately 4° C) until custody was relinquished from the site and formal documentation of the transfers completed. All soil and sediment samples for PCB analysis were transported on ice to Quanterra Laboratories in Arvada, Colorado under chain-of-custody.

4.4.3 Sampling Location Surveying

Sample locations were staked, flagged, and labeled prior to sampling. Concurrent with sampling efforts, a licensed surveyor surveyed in each point for the horizontal coordinates. Sample locations were referenced to a local benchmark, which was tied to the station coordinate system.

4.4.4 Photodocumentation

The location of each sampling point was photodocumented. Where practical, the labeled sample jar(s) containing the collected sample(s) at a location were placed or held next to the surveyor's flag labeled with the survey location and a photograph was taken. This procedure was followed at each sampling location to ensure that errors did not occur in sample location. Although the photodocumentation was performed as described, the exercise proved to have little, if any, value. A heavy snow cover was present during all field sampling and collection. As a result, the field photographs are virtually indistinguishable from each other due to the consistent white background. In addition, the reflected glare from the snow made many sample identification numbers difficult to read.

4.5 ANALYTICAL METHODS

4.5.1 Soil and Sediment Analysis

Soil and sediment samples were submitted to Quanterra Laboratories in Arvada, Colorado for PCB analysis including individual Aroclor analysis according to U.S. EPA Contract Laboratory Program Statement of Work for Organic Analysis Multi-media Multi-Concentration (Document Number of OLM01.0 with Revisions OLM01.1 through OLM01.8, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C. 1991) (SOW OLM01.0). This protocol was modified to include a concentrated sulfuric acid wash cleanup step of the solvent extracts to remove potential interferences for the analysis of PCBs. Additional Aroclor 1254 continuing calibration verification standards were analyzed periodically throughout the analytical run sequence. Aroclor 1254 was employed as a matrix spiking compound.

4.5.2 Data Validation

Validation of the analytical data was performed according to applicable criteria in the Quality Assurance Plan, Tennessee Gas Compressor Station Sites (Woodward-Clyde Consultants, Baton Rouge, Louisiana June 1989) and the draft Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses (Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C., 1990, Revised (June 1991) (a.k.a. QAP and Organic Functional Guidelines, respectively).

The following areas were reviewed during the data validation process:

- Blanks
- Surrogate recoveries
- Matrix spike/matrix spike duplicate recoveries
- Laboratory control sample recoveries
- Field duplicates
- Aroclor identification
- Aroclor quantitation and quantitation limits
- Overall assessment of data
- Documentation

All laboratory results were either accepted (unqualified), qualified or rejected. Accepted (unqualified) results are valid with respect to the specified procedures, and may be used without reservation. Qualified results are usable with the indicated limitation. Rejected results are unusable and the analyte may or may not be present. Resampling as determined to be necessary and reanalysis would be necessary for verification of the presence and/or concentration of the rejected analyte.

Qualified and rejected results were annotated according to Functional Guidelines conventions employing the following codes:

U The analyte was analyzed for, but was not detected above the associated numerical value.

J The associated numerical value was an estimated quantity.

R The data were unusable. The presence or absence of the analyte could not be verified from the existing data. Resampling as determined to be necessary and reanalysis would be necessary for verification of the presence and/or concentration of the rejected analyte.

N There was presumptive evidence to make a tentative identification.

NJ There was presumptive evidence to make a tentative identification, and the associated numerical value was an estimated quantity.

UJ The analyte was analyzed for, but was not detected above the reported value. The associated numerical value was an estimate.

Method blanks were processed at a frequency of 1 per 20 or fewer samples of a similar matrix or each time sample preparation was performed or each time a new batch of reagents or solvents was employed.

Surrogates were used, recovered and evaluated in terms of laboratory-quoted advisory control limits of 60 to 121 percent. Decachlorobiphenyl (DCB) was employed as a surrogate rather than the specified 2,4,5,6-tetrachloro-m-xylene (TMX) and dibutylchlorendate (DBC).

Matrix spike/matrix spike duplicate (MS/MSD) sample pairs were associated with the samples. MS/MSD percentage recoveries (%R) were to be within the laboratory-quoted 30 to 160 percent quality control limits.

Laboratory control samples (LCSs) were spiked with Aroclor 1254, and such samples were processed and analyzed at a frequency of 1 per 20 or fewer samples each time sample preparation was performed. The LCS percentage recoveries were to be within the laboratory-quoted 62 to 111 percent control limits.

A sample/field duplicate sample pair was associated with each 20 or fewer samples. Field duplicates were employed to assess the overall precision of the field sampling and laboratory analysis.

4.5.3 Quality Assurance and Quality Control (QA/QC) Samples

Field quality control samples for this investigation included equipment rinsates, field duplicates, and matrix spike/matrix spike duplicates. These are described below.

1. **Equipment Rinsates**

   These samples were prepared using analyte-free water supplied by either the laboratory or commercial sources that certify the quality of the water. The water was poured over decontaminated equipment that was used for sampling that day and collected in a glass jar to check decontamination procedures. The collected rinsate was shipped with the field samples. During sampling, a rinsate was collected and analyzed for each day of sampling or every 20 samples, whichever was greater.

2. **Field Duplicates**

   Samples collected from the same sampling location at the same time were analyzed to determine the analytical precision. Duplicates were homogenized. At least one duplicate sample was collected and analyzed for each group of samples of a similar matrix type.

3. **Matrix Spike/Matrix Spike Duplicate (MS/MSD)**

   MS/MSD samples were designated by the receiving laboratory. MS/MSD samples were spiked at the laboratory before extraction and analysis. The recoveries for spiked compounds were used to assess how well the method used for analysis recovered target compounds (i.e., a measure of matrix interference in the sample). At least one

MS/MSD analysis was performed on each group of samples of a similar matrix type and concentration for each batch of samples or for every 20 samples collected, whichever was more frequent.

5.0
QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

Woodward-Clyde has prepared a Quality Assurance Plan for all TGPL Compressor Station sites and activities associated with those sites. That plan was approved by TGPL on June 23, 1989, and applied to the activities described in this report.

Both soil and sediment sample analytical results were evaluated in terms of precision (the measure of variability of individual sample measurements), accuracy (a measure of the system bias), completeness (a measure of the amount of data meeting the data evaluation criteria obtained from a measurement system compared to the amount that was expected to be obtained), representativeness (the degree to which data accurately and precisely represent the concentration of target compounds in the samples), and comparability (the confidence with which one set of data can be compared with another). The QA/QC samples aid in addressing many of these data quality issues.

6.0
RESULTS

6.1 SAMPLE COLLECTION

The objectives of the work plan included the sampling and collection of soil and sediment samples from an unnamed tributary to the South Branch of Eighteenmile Creek near Eden, New York. The tributary was sampled between Station Lake on the TGPL Compressor Station 229 site and Highway 62 during December 1994.

The soil and sediment sampling locations were identified, located, flagged, labeled, and distances among sampling locations at a given sampling station were measured from Tuesday, December 6 through Friday, December 9, 1994. The two soil and sediment sampling crews arrived at the sampling site on Thursday afternoon, December 8, when the crew mobilized their sampling equipment and were briefed regarding the flagging and labeling of sampling locations. The actual collection of soil and sediment samples began on Friday, December 9, 1994 and continued through Monday, December 12, 1994, a total of four collection days. Soil and sediment samples were processed and shipped to the analytical laboratory from Saturday, December 10 through Tuesday, December 13, 1994. The field crews demobilized on Tuesday, December 13, 1994. The field survey crew responsible for surveying the soil and sediment sample locations and the tributary began work on Monday, December 5, 1994 and continued their tasks for the next two and one-half weeks. The analytical laboratory received soil and sediment samples from Sunday, December 11 through Wednesday, December 14, 1994.

The field crews collected a total of 390 soil and sediment samples during December 1994, including field duplicate samples but excluding equipment rinsate samples. Totals of 277 soil samples and 113 sediment samples were collected. Two-thirds (66.4%) of the soil samples and 46.9 percent of the sediment samples were collected from the uppermost depth interval (either 0 to 2 inches or 0 to 6 inches). The distribution of the collected soil and sediment samples is shown in the following table.

Sampling Depth Interval (Inches)	Soil Samples			Sediment Samples			Overall Totals
	Number of Samples	Number of Duplicate Samples	Total Number of Samples	Number of Samples	Number of Duplicate Samples	Total Number of Sample	
0 - 2	179	5	184	48	1	49	233
2 - 12	46	5	51	25	4	29	80
12 - 24	40	2	42	18	1	19	61
Breached Pond Only							
0 - 6				4	0	4	4
6 - 12				4	0	4	4
12 - 18				4	0	4	4
18 - 24				3	0	3	3
24 - 30				1	0	1	1
Overall Totals	265	12	277	107	6	113	390

Excluding the breached pond sediment samples, 62.3 percent of the soil and sediment samples were collected from the 0 to 2-inch depth interval, 21.4 percent were collected from the 2 to 12-inch depth interval, and 16.3 percent were collected from the 12 to 24-inch depth interval. The preponderance of samples collected from the uppermost sampling interval reflects both the deliberate effort of the sampling program to target surface samples and the inability to collect samples from deeper sampling intervals due to underlying rock layers.

6.2 ANALYTICAL RESULTS

6.2.1 Soil And Sediment PCB Analysis

Soil and sediment samples were submitted to Quanterra Laboratories in Arvada, Colorado for PCB analysis including individual Aroclor analysis according to U.S. EPA Contract Laboratory Program Statement of Work for Organic Analysis Multi-media Multi-Concentration (Document Number of OLM01.0 with Revisions OLM01.1 through OLM01.8, Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C. 1991) (SOW OLM01.0). This protocol was modified to

include a concentrated sulfuric acid wash cleanup step of the solvent extracts to remove potential interferences for the analysis of PCBs. Additional Aroclor 1254 continuing calibration verification standards were analyzed periodically throughout the analytical run sequence. Aroclor 1254 was employed as a matrix spiking compound. The analytical laboratory used quantitation limits of 0.1 ppm for the soil and sediment PCB analysis.

The laboratory data and documentation for the PCB analyses provided by the analytical subcontractor (Quanterra Laboratories) for the soil and sediment samples was voluminous. That documentation is stored in Woodward-Clyde's offices in Baton Rouge, Louisiana. For the purposes of providing this report, a summary of the laboratory data and documentation was prepared and is provided in Appendix A. This summary presents the individual PCB Aroclor concentrations for all samples and reports the total PCB concentrations as the arithmetic sum of the concentrations of the individual Aroclors present. This procedure provides a consistent, easily understood total PCB concentration for each sample where the compound was present. The vast majority of the soil and sediment samples which had PCBs detected in them contained only Aroclor 1254. However, a total of six sediment samples collected from three different locations (Station 000, Station 015, and the breached pond) contained, what appears to be, only Aroclor 1248. None of the soil and sediment samples contained both Aroclors 1248 and 1254.

Total PCB concentrations in soil and sediment samples presented in this report are the arithmetic sums of detected Aroclors, as discussed above. These arithmetic totals are reflected in the analysis summary presented in tables and figures referenced later. In the cases where analytical results were reported as "not detected", the results are reported as ND in the tables and figures.

The PCB analysis summary for soil and sediment samples collected from a tributary to Eighteenmile Creek and a breached pond near Eden, New York during December 1994 is presented in Table 1. That table lists the general sampling location for each sample, the sample identification number, the date the sample was collected, the sample matrix, the sampling depth interval, and the total PCB concentration in each sample (including Aroclor determination). The soil and sediment samples listed in Table 1 are presented

in the sequence in which they would be encountered if one walked the tributary from Station Lake to Highway 62.

The overall distribution of the soil and sediment samples collected during December 1994 along with the analytical results are provided in Plates 1 and 2. These large plates are color coded so that soil and sediment samples are easily distinguished from each other. All sample locations were surveyed by LaBella Associates of Rochester, New York. Plates 1 and 2 are intended to show the overall distribution of the samples along with the analytical results. The sample locations and the tributary (surveyed every 50 feet) were the only features on Plates 1 and 2 that were actually surveyed. All other information on the base map (including the tributary center line and contours between surveyed points) is estimated.

The soil and sediment sampling locations, the analytical results, and other details and characteristics of the individual samples are also provided in a series of figures, Figure 3 through Figure 67. Each figure represents a major sampling location such as a transect, a sediment bar, a pool, or a property sample (composite or discrete). Each figure depicts the locations and distribution of the individual samples within that major sampling location. In addition, the distances among samples (when appropriate), the physical composition of the samples, other detailed information about the samples (such as the depth to sampling equipment refusal), the analytical results, and other pertinent information are provided on these figures. All information on Figures 3 through 67, including sample locations and measured distances, was based on field notes. The information on these figures was not surveyed. Figures 3 through 67 are presented in the sequence in which the major soil and sediment sampling locations would be encountered if one walked along the tributary from immediately upstream of Station Lake (Figure 3 - Property 010) to Highway 62. The transect depicted in Figure 67 (Station 134) lies immediately upstream from Highway 62.

The information presented in Table 1, Plates 1 and 2, and Figures 3 through 67 provides the results of the soil and sediment sampling conducted during December 1994. All analyses and interpretations presented in this report are based on that information. A review of the soil and sediment data presented in the table, plates, and figures yields the following key considerations:

- A total of 277 soil samples, including field duplicates, were collected between Compressor Station 229 and Highway 62 and were analyzed for total PCB content. The total PCB concentrations in these soil samples ranged from non-detected to 960 ppm. A total of 178 of these soil samples (64.3%) contained PCBs above the analytical reporting limit, while 98 soil samples (35.4%) were "non-detect" for PCBs. In addition, one soil sample (0.4%) was collected and appears on the chain-of-custody form, but the analytical laboratory could not account for the sample (229-SO-015-224).

- A total of 113 sediment samples, including field duplicates, were collected between Station Lake and Highway 62 and were analyzed for total PCB content. The total PCB concentrations in these sediment samples ranged from non-detect to 410 ppm. A total of 67 of these sediment samples (59.3%) contained PCBs above the analytical reporting limit, while 46 sediment samples (40.7%) were "non-detect" for PCBs. All twelve sediment samples collected between Hickman Road and Highway 62 (the most downstream reach sampled) were "non-detect" for PCBs. Only two of eight sediment samples collected between Highway 75 and Hickman Road contained PCBs; the other six samples were "non-detect" for PCBs.

- The three most downstream transects (Stations 125, 130, and 134) yielded a total of 20 soil and sediment samples. None of these samples contained PCBs.

- PCBs were detected in four of 23 soils samples (17.4%) collected between Hickman Road and Highway 62, but the total PCB concentrations were all less than 1 ppm. As noted earlier, PCBs were not detected in the sediments from this reach.

- Eleven soil samples and two sediment samples contained total PCB concentrations of 100 ppm or greater. An additional single soil sample and five sediment samples contained total PCB concentrations between

50 and 99 ppm. All 19 of these soil and sediment samples were collected between Station Lake and halfway through the bog (Stations 005 through 017).

- Station 021 was a transect located in the downstream half of the bog. All soil and sediment samples collected from Station 021 and between Station 021 and Highway 62 contained less than 10 ppm total PCBs. The highest PCB concentration found in this reach was 8.6 ppm in a soil sample from Station 039.

- A total of 118 soil and sediment samples were collected upstream from Station 021 (excluding Station 021 samples). One hundred of these samples (84.7%) contained concentrations of PCBs above the analytical reporting limit. All soil and sediment samples collected between Property 010 (upstream from Station Lake) and Station 011 (both stations inclusive) contained PCBs.

- In general, the total PCB concentrations in both sediment and soil samples decreased as one moved downstream.

The previous and current soil and sediment sample PCB data was assembled and then segregated by time (previous versus current sampling), by reach of the tributary, by sample matrix (soil versus sediment), and by sampling depth interval. Basic statistical parameters were calculated for the data base including sample sizes, means, standard deviations, minimum and maximum values, and 95 percent confidence intervals. The results of such computations are provided in Table 2. A perusal of the data in Table 2 suggests the following considerations:

- The PCB concentrations found in soil and sediment samples, both past and present, were highly variable even within the same reach of the tributary. A high concentration of PCBs may be found adjacent to a "non-detect" result. Such inconsistency in the data resulted in rather large standard deviation calculations. Such standard deviation and confidence interval values tend to mute the ability to distinguish

differences among subsets of the data base. Interpretations are necessarily limited.

- The highest average PCB concentrations and highest maximum PCB concentrations for given reaches were found in the soils and sediments of two reaches of the tributary, one reach extending from Station Lake to the bog (Stations 000-011) and the second reach encompassing the upstream portion of the bog (Stations 013-019). The highest PCB averages and values were found in these reaches for both the previous and current sampling and for both soils and sediments. The soils in these two reaches tended to contain greater concentrations of PCBs than did the sediments.

- PCB concentrations in the soils and sediments decline rapidly and drastically from the upper bog to all downstream reaches of the tributary. PCB levels in the reaches from Station Lake through the upper bog tend to reflect one, two, and three digit parts per million concentrations, while the lower reaches reflect single digit parts per million levels or less, including a high frequency of "non-detects".

- Both average and maximum PCB concentrations decline with distance from the upper bog with all samples reflecting "non-detects" upstream from Highway 62. The PCB concentrations in sediment samples seem to decline and reach "non-detect" more rapidly in sediments than in soils.

- The average PCB concentrations in soils and sediments from the current sampling are all less than the average values recorded during earlier sampling in the same reaches from the lower bog to Highway 75 (inclusive) with one exception. The soils collected between the breached pond and Highway 75 during the current sampling activities contained slightly higher levels than during previous sampling. Nevertheless, these current values were all less than 1 ppm and included numerous "non-detects".

6.2.2 Quality Assurance/Quality Control

Woodward-Clyde's data validation staff examined and evaluated the reports and data submittals prepared by Quanterra Laboratories regarding the analyses for the PCB content of the soil and sediment samples. Summaries of the quality assurance/quality control analysis of that laboratory data and documentation are provided in Appendix A along with the data summary. All of the data were acceptable and usable.

7.0
SUMMARY AND CONCLUSIONS

Soil and sediment samples associated with a tributary to the South Branch of Eighteenmile Creek near Eden, New York were collected during December 1994 and analyzed for their total PCB content. All collected samples were associated with the tributary and a breached pond between Tennessee Gas Compressor Station 229 and Highway 62. A total of 390 soil and sediment samples were collected during December 1994, including field duplicate samples but excluding equipment rinsate samples. Totals of 277 soil samples and 113 sediment samples were collected with two-thirds (66.4%) of the soil samples and 46.9 percent of the sediment samples originating from the uppermost depth interval. Excluding the breached pond sediment samples, 62.3 percent of the soil and sediment sample were collected from the 0 to 2-inch depth interval, 21.4 percent were collected from the 2 to 12-inch depth interval, and 16.3 percent were collected from the 12 to 24-inch depth interval.

The total PCB concentration in the 277 soil samples ranged from non-detected to 960 ppm. A total of 178 of these soil samples (64.3%) contained PCBs above the analytical reporting limit. The total PCB concentrations in the 113 sediment samples ranged from non-detected to 410 ppm. A total of 67 of these sediment samples (59.3%) contained PCBs above the analytical reporting limit. All twelve sediment samples collected between Hickman Road and Highway 62 (the most downstream reach sampled) were "non-detect" for PCBs. The three most downstream transects (Stations 125, 130, and 134) yielded a total of 20 soil and sediment samples; none of these samples contained PCBs.

Eleven soil samples and two sediment samples contained total PCB concentrations of 100 ppm or greater. An additional single soil sample and five sediment samples contained total PCB concentrations between 50 and 99 ppm. All 19of these soil and sediment samples were collected between Station Lake and halfway through the bog (Stations 005 through 017).

Station 021 was a transect located in the downstream half of the bog. All soil and sediment samples collected from Station 021 and between Station 021 and Highway 62 contained less than 10 ppm total PCBs. The highest PCB concentration found in this reach was 8.6 ppm in a soil sample from Station 039. In general, the total PCB concentrations in both sediment and soil samples decreased as one moved downstream.

A total of 118 soil and sediment samples were collected upstream from Station 021 (excluding Station 021 samples). One hundred of these samples (84.7%) contained concentrations of PCBs above the analytical reporting limit. All soil and sediment samples collected between Property 010 (upstream from Station Lake) and Station 011 (both stations inclusive) contained PCBs.

The highest average PCB concentrations and highest maximum PCB concentrations for given reaches were found in the soils and sediments of two reaches of the tributary, one reach extending from Station Lake to the bog (Stations 000-011) and the second reach encompassing the upstream portion of the bog (Stations 013-019). The highest PCB averages and values were found in these reaches for both the previous and current sampling and for both soils and sediments. The soils in these two reaches tended to contain greater concentrations of PCBs than did the sediments.

PCB concentrations in the soils and sediments decline rapidly from the upper bog to all downstream reaches of the tributary. PCB levels in the reaches from Station Lake through the upper bog tend to reflect one, two, and three digit parts per million concentrations, while the lower reaches reflect single digit parts per million levels or less, including a high frequency of "non-detects".

Both average and maximum PCB concentrations decline with distance from the upper bog with all samples reflecting "non-detects" upstream from Highway 62. The PCB concentrations in sediment samples appear to decline and reach "non-detect" more rapidly in sediments than in soils.

The average PCB concentrations in soils and sediments from the current sampling are all less than the average values recorded during earlier sampling in the same reaches from the lower bog to Highway 75 (inclusive) with one exception. The soils collected

between the breached pond and Highway 75 during the current sampling activities contained slightly higher levels than during previous sampling. Nevertheless, these current values were all less than 1 ppm and included numerous "non-detects".

8.0
REFERENCES

Ecology and Environment, Inc. (E&E). August 2, 1991. Remedial Investigation, Tennessee Gas Pipeline Company, Compressor Station 229 at Eden, New York, Volume II, Site Characterization.

Ecology and Environment, Inc. (E&E). February 1992. Addendum to the Remedial Investigation Volume II - Site Characterization Report Phase IIC - Soil and Sediment Sampling TGPL Compressor Station 229, Eden, New York.

Ecology and Environment, Inc. (E&E). May 1992. Second Addendum to the Remedial Investigation Volume II - Site Characterization Report Phase IIC - Soil and Sediment Sampling TGPL Compressor Station 229, Eden, New York.

Ecology and Environment, Inc. (E&E). July 1992. Third Addendum to the Remedial Investigation Volume II - Site Characterization Report Phase IIC - Soil and Sediment Sampling TGPL Compressor Station 229, Eden, New York.

ENVIRON, August 2, 1991. Draft Remedial Investigation, Tennessee Gas Pipeline Company, Compressor Station 229 at Eden, New York, Volume I, Introduction and Summary of Results.

ENVIRON, August 2, 1991. Draft Remedial Investigation, Tennessee Gas Pipeline Company, Compressor Station 229 at Eden, New York, Volume III, Evaluation of Results.

U.S. Environmental Protection Agency (USEPA). 1991. Contract Laboratory Program Statement of Work for Organic Analysis Multi-Media Multi-Concentration. (OLM01.0 with revisions OLM01.1 through OLM01.8).

Woodward-Clyde Consultants (WCC). June 1989. Quality Assurance Plan, Tennessee Gas Compressor Station Sites.

Woodward-Clyde Consultants (WCC). October 1993. Fish Sampling Results from Station Lake, the Breached Pond, and the Tributary Between the Ponds near Tennessee Gas Compressor Station 229, Eden, New York.

Woodward-Clyde Consultants (WCC). February 1995. Fish and Sediment Sampling Results From a Tributary and a Breached Pond Near Tennessee Gas Compressor Station 229 Near Eden, New York, July 1994.

TABLES

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Property 010	Off-site and Upstream From Station Lake	229-SO-P10-102	12/11/94	Soil	0-2	ND[1]	8.90	8.90
		229-SO-P10-202	12/11/94	Soil	0-2	ND	3.80	3.80
		229-SO-P10-302	12/11/94	Soil	0-2	ND	1.30	1.30
STATION LAKE								
Station 000	The Splash Pool Immediately Below The Station Lake Outfall	229-SD-000-102	12/9/94	Sediment	0-2	0.15	ND	0.15
		229-SD-000-112	12/9/94	Sediment	2-12	1.90	ND	1.90
		229-SD-000-124	12/9/94	Sediment	12-24	12.00	ND	12.00
Station 001	Between Station Lake and The Bog; 50 Feet Downstream From Station 000	229-SO-001-102	12/9/94	Soil	0-2	ND	0.36	0.36
		229-SD-001-202	12/9/94	Sediment	0-2	ND	18.00	18.00
		229-SO-001-302	12/9/94	Soil	0-2	ND	0.29	0.29
Station 005	Between Station Lake and The Bog	229-SO-005-102	12/9/94	Soil	0-2	ND	310.00	310.00
		229-SO-005-202	12/9/94	Soil	0-2	ND	2.90	2.90
		229-SO-005-212	12/9/94	Soil	2-12	ND	1.50	1.50
		229-SO-005-224	12/9/94	Soil	12-18	ND	6.80	6.80
		229-SO-005-302	12/9/94	Soil	0-2	ND	14.00	14.00
		229-SD-005-402	12/9/94	Sediment	0-2	ND	1.60	1.60
		229-SO-005-502	12/9/94	Soil	0-2	ND	15.00	15.00
Station 006	Between Station Lake and The Bog	229-SO-006-102	12/9/94	Soil	0-2	ND	0.67	0.67
		229-SD-006-202	12/9/94	Sediment	0-2	ND	2.20	2.20
		229-SD-006-212	12/9/94	Sediment	2-10	ND	1.80	1.80
		229-SO-006-302	12/9/94	Soil	0-2	ND	3.60	3.60
		229-SO-006-402	12/9/94	Soil	0-2	ND	8.50	8.50
		229-SO-006-502	12/9/94	Soil	0-2	ND	17.00	17.00
		229-SO-006-502FD	12/9/94	Soil	0-2	ND	16.00	16.00

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 011	Between Station Lake and The Bog; First Station Upstream from Bog	229-SO-011-102	12/10/94	Soil	0-2	ND	0.22	0.22
		229-SD-011-202	12/10/94	Sediment	0-2	ND	23.00	23.00
		229-SD-011-202FD	12/10/94	Sediment	0-2	ND	22.00	22.00
		229-SO-011-302	12/10/94	Soil	0-2	ND	12.00	12.00
		229-SO-011-402	12/10/94	Soil	0-2	ND	0.38	0.38
Station 013	Within The Bog; Upstream-most Transect In Bog	229-SO-013-102	12/10/94	Soil	0-2	ND	0.27	0.27
		229-SO-013-112	12/10/94	Soil	2-12	ND	ND	ND
		229-SO-013-124	12/10/94	Soil	12-18	ND	ND	ND
		229-SO-013-202	12/10/94	Soil	0-2	ND	40.00	40.00
		229-SO-013-212	12/10/94	Soil	2-12	ND	0.70	0.70
		229-SO-013-302	12/10/94	Soil	0-2	ND	100.00	100.00
		229-SO-013-312	12/10/94	Soil	2-12	ND	120.00	120.00
		229-SO-013-324	12/10/94	Soil	12-24	ND	1.50	1.50
		229-SD-013-402	12/10/94	Sediment	0-2	ND	12.00	12.00
		229-SD-013-412	12/10/94	Sediment	2-12	ND	59.00	59.00
		229-SD-013-424	12/10/94	Sediment	12-24	ND	410.00	410.00
		229-SD-013-424FD	12/10/94	Sediment	12-24	ND	340.00	340.00
		229-SO-013-502	12/10/94	Soil	0-2	ND	2.70	2.70
		229-SO-013-512	12/10/94	Soil	2-12	ND	0.60	0.60
		229-SO-013-512FD	12/10/94	Soil	2-12	ND	0.69	0.69
		229-SO-013-524	12/10/94	Soil	12-24	ND	ND	ND
Station 015	Within The Bog; Upstream Half of Bog	229-SO-015-102	12/10/94	Soil	0-2	ND	1.20	1.20
		229-SO-015-112	12/10/94	Soil	2-12	ND	ND	ND
		229-SO-015-124	12/10/94	Soil	12-24	ND	ND	ND
		229-SO-015-202	12/10/94	Soil	0-2	ND	61.00	61.00
		229-SO-015-212	12/10/94	Soil	2-12	ND	230.00	230.00
		229-SO-015-224	12/10/94	Soil	12-24	---[2]	---[2]	---[2]

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 008	Between Station Lake and The Bog	229-SO-008-102	12/9/94	Soil	0-2	ND	960.00	960.00
		229-SO-008-202	12/9/94	Soil	0-2	ND	27.00	27.00
		229-SO-008-212	12/9/94	Soil	2-12	ND	44.00	44.00
		229-SO-008-224	12/9/94	Soil	12-24	ND	26.00	26.00
		229-SO-008-302	12/9/94	Soil	0-2	ND	140.00	140.00
		229-SD-008-402	12/9/94	Sediment	0-2	ND	8.70	8.70
		229-SO-008-502	12/9/94	Soil	0-2	ND	580.00	580.00
		229-SO-008-602	12/9/94	Soil	0-2	ND	140.00	140.00
Station 009	Between Station Lake and The Bog	229-SO-009-102	12/9/94	Soil	0-2	ND	11.00	11.00
		229-SD-009-202	12/9/94	Sediment	0-2	ND	91.00	91.00
		229-SO-009-302	12/9/94	Soil	0-2	ND	18.00	18.00
		229-SO-009-312	12/9/94	Soil	2-12	ND	2.40	2.40
		229-SO-009-324	12/9/94	Soil	12-24	ND	0.32	0.32
		229-SO-009-402	12/9/94	Soil	0-2	ND	16.00	16.00
		229-SO-009-502	12/9/94	Soil	0-2	ND	55.00	55.00
		229-SO-009-602	12/9/94	Soil	0-2	ND	17.00	17.00
		229-SO-009-702	12/9/94	Soil	0-2	ND	5.50	5.50
Station 010	Between Station Lake and The Bog; Second Station Upstream From Bog	229-SO-010-102	12/9/94	Soil	0-2	ND	2.00	2.00
		229-SO-010-202	12/9/94	Soil	0-2	ND	110.00	110.00
		229-SD-010-302	12/9/94	Sediment	0-2	ND	14.00	14.00
		229-SD-010-312	12/9/94	Sediment	2-4	ND	12.00	12.00
		229-SO-010-402	12/9/94	Soil	0-2	ND	0.69	0.69
		229-SO-010-502	12/9/94	Soil	0-2	ND	3.50	3.50
		229-SO-010-512	12/9/94	Soil	2-12	ND	0.73	0.73

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TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 015	Within The Bog; Upstream Half of Bog	229-SD-015-302	12/10/94	Sediment	0-2	ND	68.00	68.00
		229-SD-015-312	12/10/94	Sediment	2-12	19.00	ND	19.00
		229-SD-015-312FD	12/10/94	Sediment	2-12	20.00	ND	20.00
		229-SD-015-324	12/10/94	Sediment	12-24	ND	1.50	1.50
		229-SO-015-402	12/10/94	Soil	0-2	ND	203.00	203.00
		229-SO-015-412	12/10/94	Soil	2-12	ND	29.00	29.00
		229-SO-015-424	12/10/94	Soil	12-24	ND	0.75	0.75
		229-SO-015-424FD	12/10/94	Soil	12-24	ND	0.71	0.71
		229-SO-015-502	12/10/94	Soil	0-2	ND	1.10	1.10
		229-SO-015-512	12/10/94	Soil	2-12	ND	0.12	0.12
		229-SO-015-524	12/10/94	Soil	12-24	ND	ND	ND
Station 017	Within The Bog; Upstream Half of Bog	229-SO-017-102	12/10/94	Soil	0-2	ND	0.37	0.37
		229-SO-017-112	12/10/94	Soil	2-12	ND	ND	ND
		229-SO-017-124	12/10/94	Soil	12-24	ND	ND	ND
		229-SO-017-202	12/10/94	Soil	0-2	ND	11.00	11.00
		229-SO-017-212	12/10/94	Soil	2-12	ND	0.99	0.99
		229-SO-017-224	12/10/94	Soil	12-24	ND	ND	ND
		229-SD-017-302	12/10/94	Sediment	0-2	ND	55.00	55.00
		229-SD-017-312	12/10/94	Sediment	2-12	ND	25.00	25.00
		229-SD-017-324	12/10/94	Sediment	12-24	ND	4.40	4.40
		229-SO-017-402	12/10/94	Soil	0-2	ND	62.00	62.00
		229-SO-017-412	12/10/94	Soil	2-12	ND	6.60	6.60
		229-SO-017-424	12/10/94	Soil	12-24	ND	0.78	0.78
		229-SO-017-502	12/10/94	Soil	0-2	ND	3.00	3.00
		229-SO-017-512	12/10/94	Soil	2-12	ND	0.18	0.18
		229-SO-017-512FD	12/10/94	Soil	2-12	ND	ND	ND
		229-SO-017-524	12/10/94	Soil	12-24	ND	ND	ND

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TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 019	Within The Bog; Downstream Half of Bog	229-SO-019-102	12/11/94	Soil	0-2	ND	1.30	1.30
		229-SO-019-112	12/11/94	Soil	2-12	ND	ND	ND
		229-SO-019-112FD	12/11/94	Soil	2-12	ND	ND	ND
		229-SO-019-124	12/11/94	Soil	12-24	ND	ND	ND
		229-SO-019-202	12/11/94	Soil	0-2	ND	48.00	48.00
		229-SO-019-212	12/11/94	Soil	2-12	ND	22.00	22.00
		229-SO-019-224	12/11/94	Soil	12-24	ND	0.60	0.60
		229-SD-019-302	12/11/94	Sediment	0-2	ND	ND	ND
		229-SD-019-312	12/11/94	Sediment	2-12	ND	ND	ND
		229-SD-019-312FD	12/11/94	Sediment	2-12	ND	ND	ND
		229-SD-019-324	12/11/94	Sediment	12-18	ND	ND	ND
		229-SO-019-402	12/11/94	Soil	0-2	ND	33.00	33.00
		229-SO-019-412	12/11/94	Soil	2-12	ND	4.90	4.90
		229-SO-019-424	12/11/94	Soil	12-24	ND	2.10	2.10
		229-SO-019-502	12/11/94	Soil	0-2	ND	2.90	2.90
		229-SO-019-512	12/11/94	Soil	2-12	ND	0.27	0.27
		229-SO-019-524	12/11/94	Soil	12-24	ND	ND	ND
Station 021	Within The Bog; Downstream Half of Bog	229-SO-021-102	12/9/94	Soil	0-2	ND	ND	ND
		229-SO-021-112	12/9/94	Soil	2-12	ND	ND	ND
		229-SO-021-124	12/9/94	Soil	12-15	ND	ND	ND
		229-SO-021-202	12/9/94	Soil	0-2	ND	ND	ND
		229-SO-021-212	12/9/94	Soil	2-12	ND	ND	ND
		229-SO-021-224	12/9/94	Soil	12-18	ND	ND	ND
		229-SO-021-302	12/9/94	Soil	0-2	ND	0.85	0.85
		229-SO-021-312	12/9/94	Soil	2-12	ND	0.14	0.14
		229-SO-021-312FD	12/9/94	Soil	2-12	ND	0.38	0.38
		229-SO-021-324	12/9/94	Soil	12-24	ND	ND	ND
		229-SD-021-402	12/9/94	Sediment	0-2	ND	0.22	0.22

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm)		
						Aroclor 1248	Aroclor 1254	Total Aroclors
Station 021	Within The Bog; Downstream Half of Bog	229-SO-021-502	12/9/94	Soil	0-2	ND	5.20	5.20
		229-SO-021-512	12/9/94	Soil	2-12	ND	1.20	1.20
Station 023	Within The Bog; Downstream Half of Bog	229-SO-023-102	12/9/94	Soil	0-2	ND	0.25	0.25
		229-SO-023-112	12/9/94	Soil	2-12	ND	ND	ND
		229-SO-023-124	12/9/94	Soil	12-18	ND	ND	ND
		229-SO-023-202	12/9/94	Soil	0-2	ND	3.50	3.50
		229-SO-023-212	12/9/94	Soil	2-9	ND	0.50	0.50
		229-SD-023-302	12/9/94	Sediment	0-2	ND	0.57	0.57
		229-SO-023-402	12/9/94	Soil	0-2	ND	4.00	4.00
		229-SO-023-412	12/9/94	Soil	2-9	ND	0.80	0.80
Station 024	Between The Bog and North Boston Road; Pool Just Downstream from Culvert	229-SD-024-102	12/9/94	Sediment	0-2	ND	1.80	1.80
Station 028	Between The Bog and North Boston Road	229-SO-028-102	12/9/94	Soil	0-2	ND	0.21	0.21
		229-SO-028-202	12/9/94	Soil	0-2	ND	0.35	0.35
		229-SO-028-402	12/9/94	Soil	0-2	ND	3.20	3.20
		229-SO-028-502	12/9/94	Soil	0-2	ND	0.62	0.62
Station 029	Between The Bog and North Boston Road	229-SO-029-102	12/9/94	Soil	0-2	ND	2.50	2.50
		229-SO-029-202	12/9/94	Soil	0-2	ND	2.00	2.00
		229-SO-029-212	12/9/94	Soil	2-12	ND	ND	ND
		229-SO-029-224	12/9/94	Soil	12-20	ND	0.12	0.12
		229-SO-029-302	12/9/94	Soil	0-2	ND	0.61	0.61
		229-SD-029-402	12/9/94	Sediment	0-2	ND	0.98	0.98
		229-SO-029-502	12/9/94	Soil	0-2	ND	0.63	0.63

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TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 031	Between The Bog and North Boston Road	229-SO-031-102	12/9/94	Soil	0-2	ND	0.46	0.46
		229-SD-031-202	12/9/94	Sediment	0-2	ND	0.30	0.30
		229-SO-031-302	12/9/94	Soil	0-2	ND	0.97	0.97
Station 032	Between The Bog and North Boston Road	229-SO-032-102	12/9/94	Soil	0-2	ND	ND	ND
		229-SO-032-302	12/9/94	Soil	0-2	ND	ND	ND
Station 033	Between The Bog and North Boston Road	229-SO-033-102	12/9/94	Soil	0-2	ND	0.78	0.78
		229-SO-033-302	12/9/94	Soil	0-2	ND	ND	ND
		229-SO-033-402	12/9/94	Soil	0-2	ND	0.44	0.44
Station 038	Between The Bog and North Boston Road	229-SO-038-102	12/9/94	Soil	0-2	ND	ND	ND
		229-SO-038-102FD	12/9/94	Soil	0-2	ND	ND	ND
		229-SD-038-202	12/9/94	Sediment	0-2	ND	0.49	0.49
		229-SO-038-302	12/9/94	Soil	0-2	ND	0.57	0.57
		229-SO-038-312	12/9/94	Soil	2-12	ND	0.32	0.32
		229-SO-038-324	12/9/94	Soil	12-20	ND	0.30	0.30
		229-SO-038-402	12/9/94	Soil	0-2	ND	ND	ND
		229-SO-038-502	12/9/94	Soil	0-2	ND	4.70	4.70
Station 039	Between The Bog and North Boston Road	229-SO-039-102	12/9/94	Soil	0-2	ND	8.60	8.60
		229-SD-039-202	12/9/94	Sediment	0-2	ND	1.10	1.10
		229-SO-039-302	12/9/94	Soil	0-2	ND	ND	ND
		229-SO-039-312	12/9/94	Soil	2-12	ND	5.30	5.30
		229-SO-039-324	12/9/94	Soil	12-18	ND	1.20	1.20
		229-SO-039-402	12/9/94	Soil	0-2	ND	0.71	0.71
		229-SO-039-502	12/9/94	Soil	0-2	ND	3.50	3.50

Woodward-Clyde

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 042	Between The Bog and North Boston Road	229-SO-042-102	12/9/94	Soil	0-2	ND	0.88	0.88
		229-SO-042-202	12/9/94	Soil	0-2	ND	2.30	2.30
		229-SD-042-302	12/9/94	Sediment	0-2	ND	0.41	0.41
		229-SO-042-402	12/9/94	Soil	0-2	ND	2.50	2.50
		229-SO-042-502	12/9/94	Soil	0-2	ND	3.70	3.70
Station 043	Between The Bog and North Boston Road	229-SO-043-102	12/9/94	Soil	0-2	ND	ND	ND
		229-SO-043-202	12/9/94	Soil	0-2	ND	1.40	1.40
		229-SD-043-302	12/9/94	Sediment	0-2	ND	0.60	0.60
		229-SO-043-402	12/9/94	Soil	0-2	ND	5.90	5.90
		229-SO-043-502	12/9/94	Soil	0-2	ND	2.70	2.70
Property 001	Between The Bog and North Boston Road; Composite Sample South of North Boston Road and East of Stream	229-SO-P01-102	12/9/94	Soil	0-2	ND	6.80	6.80
Property 002	Between The Bog and North Boston Road; Composite Sample South of North Boston Road and West of Stream	229-SO-P02-102	12/9/94	Soil	0-2	ND	1.40	1.40
NORTH BOSTON ROAD								
Property 003	Composite Sample Between North Boston Road and The Breached Pond; East Side of Residential Driveway	229-SO-P03-102	12/10/94	Soil	0-2	ND	0.32	0.32

Woodward-Clyde

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Property 004	Composite Sample Between North Boston Road and The Breached Pond; West Side of Residential Driveway	229-SO-P04-102	12/10/94	Soil	0-2	ND	1.40	1.40
Station 046	Between North Boston Road and The Breached Pond; Pool In North Road Ditch Along North Boston Road	229-SD-046-102	12/10/94	Sediment	0-2	ND	0.64	0.64
		229-SD-046-112	12/10/94	Sediment	2-12	ND	1.00	1.00
		229-SD-046-124	12/10/94	Sediment	12-20	ND	0.60	0.60
Station 048	Between North Boston Road and The Breached Pond	229-SO-048-102	12/10/94	Soil	0-2	ND	2.90	2.90
		229-SO-048-202	12/10/94	Soil	0-2	ND	4.20	4.20
		229-SO-048-212	12/10/94	Soil	2-12	ND	1.10	1.10
		229-SO-048-224	12/10/94	Soil	12-24	ND	0.92	0.92
		229-SD-048-302	12/10/94	Sediment	0-2	ND	1.70	1.70
		229-SD-048-312	12/10/94	Sediment	2-12	ND	0.17	0.17
		229-SO-048-402	12/10/94	Soil	0-2	ND	0.79	0.79
		229-SO-048-412	12/10/94	Soil	2-12	ND	ND	ND
		229-SO-048-424	12/10/94	Soil	12-24	ND	ND	ND
Station 050	Between North Boston Road and The Breached Pond	229-SO-050-102	12/10/94	Soil	0-2	ND	3.30	3.30
		229-SO-050-202	12/10/94	Soil	0-2	ND	2.20	2.20
		229-SO-050-212	12/10/94	Soil	2-12	ND	0.17	0.17
		229-SO-050-224	12/10/94	Soil	12-24	ND	ND	ND
		229-SD-050-302	12/10/94	Sediment	0-2	ND	0.89	0.89
		229-SD-050-312	12/10/94	Sediment	2-12	ND	ND	ND
		229-SD-050-324	12/10/94	Sediment	12-20	ND	ND	ND
		229-SO-050-402	12/10/94	Soil	0-2	ND	1.50	1.50
		229-SO-050-412	12/10/94	Soil	2-12	ND	0.55	0.55
		229-SO-050-424	12/10/94	Soil	12-18	ND	ND	ND
		229-SO-050-502	12/10/94	Soil	0-2	ND	0.33	0.33

Woodward-Clyde

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 054	Between North Boston Road and The Breached Pond	229-SO-054-102	12/10/94	Soil	0-2	ND	1.50	1.50
		229-SO-054-202	12/10/94	Soil	0-2	ND	6.90	6.90
		229-SO-054-212	12/10/94	Soil	2-12	ND	1.90	1.90
		229-SO-054-224	12/10/94	Soil	12-24	ND	0.46	0.46
		229-SD-054-302	12/10/94	Sediment	0-2	ND	1.20	1.20
		229-SD-054-312	12/10/94	Sediment	2-12	ND	0.73	0.73
		229-SD-054-324	12/10/94	Sediment	12-24	ND	ND	ND
		229-SO-054-402	12/10/94	Soil	0-2	ND	3.20	3.20
		229-SO-054-412	12/10/94	Soil	2-12	ND	3.70	3.70
		229-SO-054-424	12/10/94	Soil	12-24	ND	1.70	1.70
		229-SO-054-424FD	12/10/94	Soil	12-24	ND	3.40	3.40
		229-SO-054-502	12/10/94	Soil	0-2	ND	ND	ND
Station 059	Between North Boston Road and The Breached Pond	229-SO-059-102	12/10/94	Soil	0-2	ND	0.65	0.65
		229-SO-059-202	12/10/94	Soil	0-2	ND	ND	ND
		229-SO-059-212	12/10/94	Soil	2-12	ND	ND	ND
		229-SO-059-224	12/10/94	Soil	12-18	ND	ND	ND
		229-SD-059-302	12/10/94	Sediment	0-2	ND	2.20	2.20
		229-SD-059-312	12/10/94	Sediment	2-12	ND	3.00	3.00
		229-SD-059-324	12/10/94	Sediment	12-22	ND	2.00	2.00
		229-SO-059-402	12/10/94	Soil	0-2	ND	0.81	0.81
		229-SO-059-412	12/10/94	Soil	2-12	ND	0.52	0.52
		229-SO-059-424	12/10/94	Soil	12-24	ND	ND	ND
		229-SO-059-502	12/10/94	Soil	0-2	ND	ND	ND

Woodward-Clyde

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 062	Between North Boston Road and The Breached Pond	229-SO-062-102	12/11/94	Soil	0-2	ND	ND	ND
		229-SO-062-202	12/11/94	Soil	0-2	ND	0.15	0.15
		229-SO-062-212	12/11/94	Soil	2-12	ND	ND	ND
		229-SO-062-224	12/11/94	Soil	12-24	ND	ND	ND
		229-SD-062-302	12/11/94	Sediment	0-2	ND	ND	ND
		229-SD-062-312	12/11/94	Sediment	2-12	ND	ND	ND
		229-SD-062-324	12/11/94	Sediment	12-24	ND	ND	ND
		229-SO-062-402	12/11/94	Soil	0-2	ND	ND	ND
		229-SO-062-412	12/11/94	Soil	2-12	ND	ND	ND
		229-SO-062-424	12/11/94	Soil	12-20	ND	ND	ND
		229-SO-062-502	12/11/94	Soil	0-2	ND	ND	ND
Station 066	Between North Boston Road and The Breached Pond	229-SO-066-102	12/11/94	Soil	0-2	ND	ND	ND
		229-SO-066-202	12/11/94	Soil	0-2	ND	ND	ND
		229-SO-066-212	12/11/94	Soil	2-12	ND	ND	ND
		229-SO-066-224	12/11/94	Soil	12-24	ND	ND	ND
		229-SD-066-302	12/11/94	Sediment	0-2	ND	ND	ND
		229-SD-066-312	12/11/94	Sediment	2-12	ND	ND	ND
		229-SD-066-324	12/11/94	Sediment	12-20	ND	ND	ND
		229-SO-066-402	12/11/94	Soil	0-2	ND	ND	ND
		229-SO-066-412	12/11/94	Soil	2-12	ND	ND	ND
		229-SO-066-424	12/11/94	Soil	12-24	ND	ND	ND
		229-SO-066-502	12/11/94	Soil	0-2	ND	ND	ND
Station 070	Between North Boston Road and The Breached Pond	229-SO-070-102	12/11/94	Soil	0-2	ND	0.83	0.83
		229-SO-070-202	12/11/94	Soil	0-2	ND	2.80	2.80
		229-SO-070-212	12/11/94	Soil	2-12	ND	2.30	2.30
		229-SO-070-212FD	12/11/94	Soil	2-12	ND	1.90	1.90
		229-SO-070-224	12/11/94	Soil	12-24	ND	ND	ND

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 070	Between North Boston Road and The Breached Pond	229-SD-070-302	12/11/94	Sediment	0-2	ND	3.60	3.60
		229-SD-070-312	12/11/94	Sediment	2-12	ND	1.80	1.80
		229-SD-070-324	12/11/94	Sediment	12-24	ND	1.40	1.40
		229-SD-070-402	12/11/94	Sediment	0-2	ND	0.25	0.25
		229-SD-070-412	12/11/94	Sediment	2-12	ND	0.21	0.21
		229-SD-070-412FD	12/11/94	Sediment	2-12	ND	ND	ND
		229-SD-070-424	12/11/94	Sediment	12-24	ND	ND	ND
		229-SO-070-502	12/11/94	Soil	0-2	ND	0.94	0.94
		229-SO-070-512	12/11/94	Soil	2-12	ND	ND	ND
		229-SO-070-524	12/11/94	Soil	12-24	ND	ND	ND
Station 072	Between North Boston Road and The Breached Pond; Immediately Downstream From the Confluence of Two Tributaries and Immediately Between North Boston Road and The Upstream From Breached Pond	229-SO-072-102	12/11/94	Soil	0-2	ND	ND	ND
		229-SD-072-202	12/11/94	Sediment	0-2	ND	0.14	0.14
		229-SD-072-212	12/11/94	Sediment	2-12	ND	ND	ND
		229-SD-072-224	12/11/94	Sediment	12-24	ND	ND	ND
		229-SO-072-302	12/11/94	Soil	0-2	ND	1.80	1.80
BREACHED POND								
Breached Pond Location 1	Breached Pond Samples	229-SD-BP1-106	12/9/94	Sediment	0-6	ND	0.73	0.73
		229-SD-BP1-112	12/9/94	Sediment	6-12	ND	0.38	0.38
		229-SD-BP1-118	12/9/94	Sediment	12-18	ND	ND	ND
Breached Pond Location 2	Breached Pond Samples	229-SD-BP2-206	12/9/94	Sediment	0-6	ND	0.64	0.64
		229-SD-BP2-212	12/9/94	Sediment	6-12	ND	0.62	0.62
		229-SD-BP2-218	12/9/94	Sediment	12-18	ND	1.00	1.00
		229-SD-BP2-224	12/9/94	Sediment	18-24	ND	0.13	0.13

TABLE 1

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Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Breached Pond Location 3	Breached Pond Samples	229-SD-BP3-306	12/9/94	Sediment	0-6	ND	0.46	0.46
		229-SD-BP3-312	12/9/94	Sediment	6-12	ND	0.76	0.76
		229-SD-BP3-318	12/9/94	Sediment	12-18	ND	2.30	2.30
		229-SD-BP3-324	12/9/94	Sediment	18-24	ND	1.90	1.90
		229-SD-BP3-330	12/9/94	Sediment	24-30	ND	ND	ND
Breached Pond Location 4	Breached Pond Samples	229-SD-BP4-406	12/9/94	Sediment	0-6	ND	1.00	1.00
		229-SD-BP4-412	12/9/94	Sediment	6-12	ND	0.69	0.69
		229-SD-BP4-418	12/9/94	Sediment	12-18	ND	1.00	1.00
		229-SD-BP4-424	12/9/94	Sediment	18-24	0.19	ND	0.19
Station 077	Between The Breached Pond and Highway 75	229-SO-077-102	12/11/94	Soil	0-2	ND	0.40	0.40
		229-SD-077-202	12/11/94	Sediment	0-2	ND	ND	ND
		229-SD-077-212	12/11/94	Sediment	2-12	ND	ND	ND
		229-SD-077-212FD	12/11/94	Sediment	2-12	ND	ND	ND
		229-SO-077-302	12/11/94	Soil	0-2	ND	0.48	0.48
Station 080	Between The Breached Pond and Highway 75	229-SO-080-102	12/11/94	Soil	0-2	ND	0.68	0.68
		229-SD-080-202	12/11/94	Sediment	0-2	ND	ND	ND
		229-SD-080-212	12/11/94	Sediment	2-12	ND	ND	ND
		229-SO-080-302	12/11/94	Soil	0-2	ND	0.39	0.39
		229-SO-080-312	12/11/94	Soil	2-12	ND	0.14	0.14
		229-SO-080-324	12/11/94	Soil	12-24	ND	ND	ND
		229-SO-080-402	12/11/94	Soil	0-2	ND	0.88	0.88
Station 081	Between The Breached Pond and Highway 75	229-SO-081-102	12/11/94	Soil	0-2	ND	0.37	0.37
		229-SO-081-202	12/11/94	Soil	0-2	ND	0.54	0.54
		229-SD-081-302	12/11/94	Sediment	0-2	ND	ND	ND

Woodward-Clyde

TABLE 1

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Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 081	Between The Breached Pond and Highway 75	229-SD-081-312	12/11/94	Sediment	2-10	ND	0.12	0.12
		229-SO-081-402	12/11/94	Soil	0-2	ND	0.65	0.65
		229-SO-081-502	12/11/94	Soil	0-2	ND	0.80	0.80
Station 082	Between The Breached Pond and Highway 75; Just Upstream From Highway 75	229-SO-082-102	12/11/94	Soil	0-2	ND	0.24	0.24
		229-SO-082-202	12/11/94	Soil	0-2	ND	0.67	0.67
		229-SD-082-302	12/11/94	Sediment	0-2	ND	0.25	0.25
		229-SD-082-312	12/11/94	Sediment	2-12	ND	0.15	0.15
		229-SD-082-324	12/11/94	Sediment	12-24	ND	ND	ND
		229-SO-082-402	12/11/94	Soil	0-2	ND	0.22	0.22
		229-SO-082-502	12/11/94	Soil	0-2	ND	0.59	0.59
Property 009	Between The Breached Pond and Highway75; Composite Sample from Residential Property East of Highway 75 and North of Stream	229-SO-P09-102	12/11/94	Soil	0-2	ND	ND	ND
Property 005	Between The Breached Pond and Highway 75; Composite Sample East of Highway 75 and North of Stream	229-SO-P05-102	12/11/94	Soil	0-2	ND	0.19	0.19
Property 006	Between The Breached Pond and Highway 75; Composite Sample from Residential Property East of Highway 75 and South of Stream	229-SO-P06-102	12/11/94	Soil	0-2	ND	ND	ND

Woodward-Clyde

TABLE 1

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Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
HIGHWAY 75								
Property 007	Between Highway 75 and Hickman Road; In the Woods North of Stream and West of Highway 75	229-SO-P07-102	12/12/94	Soil	0-2	ND	0.24	0.24
Property 008	Between Highway 75 and Hickman Road; Residential Property South of Stream and West of Highway 75	229-SO-P08-102	12/12/94	Soil	0-2	ND	ND	ND
Station 083	Between Highway 75 and Hickman Road	229-SO-083-102	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-083-102FD	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-083-202	12/12/94	Soil	0-2	ND	ND	ND
		229-SD-083-302	12/12/94	Sediment	0-2	ND	ND	ND
		229-SD-083-312	12/12/94	Sediment	2-12	ND	ND	ND
		229-SD-083-324	12/12/94	Sediment	12-24	ND	ND	ND
		229-SO-083-402	12/12/94	Soil	0-2	ND	0.24	0.24
Station 085	Between Highway 75 and Hickman Road	229-SO-085-102	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-085-202	12/12/94	Soil	0-2	ND	0.26	0.26
		229-SD-085-302	12/12/94	Sediment	0-2	ND	ND	ND
		229-SO-085-402	12/12/94	Soil	0-2	ND	0.22	0.22
		229-SO-085-502	12/12/94	Soil	0-2	ND	ND	ND
Station 089	Between Highway 75 and Hickman Road	229-SO-089-102	12/11/94	Soil	0-2	ND	ND	ND
		229-SO-089-102FD	12/11/94	Soil	0-2	ND	ND	ND
		229-SO-089-202	12/11/94	Soil	0-2	ND	ND	ND
		229-SD-089-302	12/11/94	Sediment	0-2	ND	ND	ND
		229-SO-089-402	12/11/94	Soil	0-2	ND	0.19	0.19

Woodward-Clyde

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Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 089	Between Highway 75 and Hickman Road	229-SO-089-502	12/11/94	Soil	0-2	ND	0.48	0.48
Station 092	Between Highway 75 and Hickman Road	229-SO-092-102	12/11/94	Soil	0-2	ND	1.20	1.20
		229-SO-092-202	12/11/94	Soil	0-2	ND	0.86	0.86
		229-SD-092-302	12/11/94	Sediment	0-2	ND	1.40	1.40
		229-SO-092-402	12/11/94	Soil	0-2	ND	0.55	0.55
		229-SO-092-502	12/11/94	Soil	0-2	ND	ND	ND
Station 094	Between Highway 75 and Hickman Road	229-SO-094-102	12/11/94	Soil	0-2	ND	0.21	0.21
		229-SO-094-202	12/11/94	Soil	0-2	ND	ND	ND
		229-SD-094-302	12/11/94	Sediment	0-2	ND	1.80	1.80
		229-SO-094-402	12/11/94	Soil	0-2	ND	0.29	0.29
		229-SO-094-502	12/11/94	Soil	0-2	ND	ND	ND
Station 102	Between Highway 75 and Hickman Road	229-SO-102-102	12/11/94	Soil	0-2	ND	0.13	0.13
		229-SO-102-202	12/11/94	Soil	0-2	ND	ND	ND
		229-SD-102-302	12/11/94	Sediment	0-2	ND	ND	ND
		229-SO-102-402	12/11/94	Soil	0-2	ND	ND	ND
		229-SO-102-502	12/11/94	Soil	0-2	ND	0.23	0.23
HICKMAN ROAD								
Station 103	Between Hickman Road and Highway 62; First Pool Downstream from Hickman Road	229-SD-103-102	12/12/94	Sediment	0-2	ND	ND	ND
		229-SD-103-112	12/12/94	Sediment	2-8	ND	ND	ND

Woodward-Clyde

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm) Aroclor 1248	Aroclor 1254	Total Aroclors
Station 112	Between Hickman Road and Highway 62; In the Main Tributary	229-SD-112-102	12/12/94	Sediment	0-2	ND	ND	ND
Station 114	Between Hickman Road and Highway 62; Dry Pool on Floodplain Above and North of Tributary	229-SO-114-102	12/12/94	Soil	0-2	ND	0.98	0.98
		229-SO-114-112	12/12/94	Soil	2-12	ND	0.73	0.73
Station 118	Between Hickman Road and Highway 62	229-SO-118-102	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-118-202	12/12/94	Soil	0-2	ND	0.13	0.13
		229-SD-118-302	12/12/94	Sediment	0-2	ND	ND	ND
		229-SO-118-402	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-118-502	12/12/94	Soil	0-2	ND	ND	ND
Station 123	Between Hickman Road and Highway 62	229-SO-123-102	12/12/94	Soil	0-2	ND	0.14	0.14
		229-SO-123-202	12/12/94	Soil	0-2	ND	ND	ND
		229-SD-123-302	12/12/94	Sediment	0-2	ND	ND	ND
		229-SO-123-402	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-123-502	12/12/94	Soil	0-2	ND	ND	ND
Station 125	Between Hickman Road and Highway 62	229-SO-125-102	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-125-202	12/12/94	Soil	0-2	ND	ND	ND
		229-SD-125-302	12/12/94	Sediment	0-2	ND	ND	ND
		229-SD-125-312	12/12/94	Sediment	2-12	ND	ND	ND
		229-SD-125-324	12/12/94	Sediment	12-24	ND	ND	ND
		229-SO-125-402	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-125-502	12/12/94	Soil	0-2	ND	ND	ND

Woodward-Clyde

TABLE 1

PCB ANALYSIS SUMMARY FOR SOIL AND SEDIMENT SAMPLES COLLECTED FROM A TRIBUTARY TO EIGHTEENMILE CREEK AND A BREACHED POND NEAR EDEN, NEW YORK DECEMBER 1994

Sampling Station	Sampling Station Location (Reach)	Sample Identification Number	Date Collected	Sample Matrix	Sampling Depth (inches)	PCB Concentration (ppm)		
						Aroclor 1248	Aroclor 1254	Total Aroclors
Station 130	Between Hickman Road and Highway 62	229-SO-130-102	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-130-202	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-130-202FD	12/12/94	Soil	0-2	ND	ND	ND
		229-SD-130-302	12/12/94	Sediment	0-2	ND	ND	ND
		229-SD-130-312	12/12/94	Sediment	2-12	ND	ND	ND
		229-SD-130-324	12/12/94	Sediment	12-24	ND	ND	ND
		229-SO-130-402	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-130-502	12/12/94	Soil	0-2	ND	ND	ND
Station 134	Between Hickman Road and Highway 62; First Transect Upstream From Highway 62	229-SO-134-102	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-134-202	12/12/94	Soil	0-2	ND	ND	ND
		229-SD-134-302	12/12/94	Sediment	0-2	ND	ND	ND
		229-SO-134-402	12/12/94	Soil	0-2	ND	ND	ND
		229-SO-134-502	12/12/94	Soil	0-2	ND	ND	ND

HIGHWAY 62

Footnotes:

[1] PCBs not detected at analytical reporting limit.

[2] Sample was collected and sample appears on chain-of-custody form, but the analytical laboratory can not account for the sample.

Woodward-Clyde

TABLE 2

MEAN PCB CONCENTRATIONS AND RELATED STATISTICS FOR SOIL AND SEDIMENT SAMPLES ASSOCIATED WITH A TRIBUTARY AND A BREACHED POND NEAR TENNESSEE GAS COMPRESSOR STATION 229 NEAR EDEN, NEW YORK

			Previous Sampling[1] Total PCB Concentration (ppm)						Recent Sampling (December 1994) Total PCB Concentration (ppm)					
							95% Confidence Intervals						95% Confidence Intervals	
Reach/Location	Sample Matrix	Depth Interval (inches)	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit
Reach Before Station Lake (P010)	Soil	0-2							3	4.67 ± 3.87	1.3	8.9	-4.96	14.29
Station Lake To Bog (Stations 000 - 011)	Sediment	0-2							9	20.07 ± 28.00	0.15	91.0	-1.45	41.59
	Sediment	6-12 / 2-12	2	14.9 ± 10.04	7.8	22.0	-75.31	105.11	3	5.23 ± 5.86	1.8	12.0	-9.32	19.79
	Sediment	12-24	----	----	----	----	----	----	1	12 ± ----	12.0	12.0	----	----
Sediment Subtotals			2	14.9 ± 10.04	7.8	22.0	-75.31	105.11	13	16.03 ± 23.90	0.15	91.0	1.59	30.47
	Soil	0-6 / 0-2	27	39.87 ± 136.6	ND	710.0	-14.17	93.9	29	85.75 ± 206.86	0.22	960.0	7.06	164.43
	Soil	6-12 / 2-12	12	91.1 ± 226.19	ND	760.0	-52.61	234.81	4	12.16 ± 21.24	0.73	44.0	-21.64	45.95
	Soil	12-24	2	20.55 ± 26.09	2.1	39.0	-213.88	254.98	3	11.04 ± 13.35	0.32	26.0	-22.14	44.22
Soil Subtotals			41	53.92 ± 163.76	ND	760.0	2.23	105.61	36	71.34 ± 187.53	0.22	960.0	7.89	134.79
Upper Bog (Stations 013-019)	Sediment	0-2							4	33.77 ± 32.82	ND	68.0	-18.45	85.99
	Sediment	6-12 / 2-12	2	335.0 ± 247.49	160.0	510.0	-1888.6	2558.6	6	20.52 ± 21.63	ND	59.0	-2.17	43.22
	Sediment	12-24	----	----	----	----	----	----	5	51.19 ± 205.8	ND	410.0	-104.35	406.74
Sediment Subtotals			2	335.0 ± 247.49	160.0	510.0	-1888.6	2558.6	15	67.61 ± 127.56	ND	410.0	-3.03	138.25
	Soil	0-6 / 0-2	19	59.15 ± 57.43	ND	180.0	31.47	86.83	16	35.68 ± 53.88	0.27	203.0	6.97	64.39
	Soil	6-12 / 2-12	14	60.61 ± 48.38	ND	140.0	32.68	88.54	19	21.92 ± 57.53	ND	230.0	-5.81	49.65

TABLE 2
MEAN PCB CONCENTRATIONS AND RELATED STATISTICS FOR SOIL AND SEDIMENT SAMPLES ASSOCIATED WITH A TRIBUTARY AND A BREACHED POND NEAR TENNESSEE GAS COMPRESSOR STATION 229 NEAR EDEN, NEW YORK

			Previous Sampling [1] Total PCB Concentration (ppm)						Recent Sampling (December 1994) Total PCB Concentration (ppm)					
							95% Confidence Intervals						95% Confidence Intervals	
Reach/Location	Sample Matrix	Depth Interval (inches)	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit
	Soil	12-24	3	12.37 ± 162.8	8.1	300.0	-292.13	516.86	16	0.44 ± 0.81	ND	2.1	0.11	0.77
Soil Subtotals			36	64.15 ± 65.56	ND	300.0	41.97	86.33	51	19.50 ± 47.59	ND	230.0	6.11	32.88
Lower Bog (Stations 021-023)	Sediment	0-6 / 0-2	1	5.3 ± ----	5.3	5.3	----	----	2	0.40 ± 0.25	0.22	0.57	-1.83	2.62
	Soil	0-6 / 0-2	10	4.65 ± 4.16	ND	13.0	1.68	7.62	7	1.99 ± 2.17	ND	5.2	-0.012	4.00
	Soil	6-12 / 2-12	1	3.30 ± ----	3.3	3.3	----	----	8	0.40 ± 0.41	ND	1.2	0.058	0.75
	Soil	12-24	----	----	----	----	----	----	4	ND ± 0.0	ND	ND	----	----
Soil Subtotals			11	4.53 ± 3.97	ND	13.0	1.86	7.19	19	0.92 ± 1.54	ND	5.2	0.18	1.66
Reach Below Bog (Stations 024-029)	Sediment	0-2							2	1.39 ± 0.58	0.98	1.80	-3.82	6.60
	Soil	0-6 / 0-2	8	3.25 ± 1.67	ND	7.20	1.85	4.65	8	1.27 ± 1.13	0.21	3.20	0.32	2.21
	Soil	6-12 / 2-12	2	1.65 ± 0.35	1.40	1.90	-1.53	4.83	1	ND ± 0.0	ND	ND	----	----
	Soil	12-24	----	----	----	----	----	----	1	0.12 ± ----	0.12	0.12	----	----
Soil Subtotals			10	2.93 ± 1.63	ND	7.20	1.77	4.09	10	1.03 ± 1.12	ND	3.20	0.23	1.83
North Boston Road To Reach Below Bog (Station 031 - Property 054)	Sediment	0-6 / 0-2	2	4.05 ± 4.03	1.20	6.90	-32.16	40.26	5	0.58 ± 0.31	0.30	1.10	0.19	0.97
	Soil	0-6 / 0-2	46	3.43 ± 3.15	ND	11.0	2.49	4.36	26	1.88 ± 2.34	ND	8.6	0.93	2.83

TABLE 2
MEAN PCB CONCENTRATIONS AND RELATED STATISTICS FOR SOIL AND SEDIMENT SAMPLES ASSOCIATED WITH A TRIBUTARY AND A BREACHED POND NEAR TENNESSEE GAS COMPRESSOR STATION 229 NEAR EDEN, NEW YORK

			Previous Sampling [1] Total PCB Concentration (ppm)						Recent Sampling (December 1994) Total PCB Concentration (ppm)					
							95% Confidence Intervals						95% Confidence Intervals	
Reach/Location	Sample Matrix	Depth Interval (inches)	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit
	Soil	6-12 / 2-12	4	ND ± 0.0	ND	ND	----	----	2	2.81 ± 3.52	0.32	5.3	-28.83	34.45
	Soil	12-24	----	----	----	----	----	----	2	0.75 ± 0.64	0.30	1.20	-4.97	6.47
Soil Subtotals			50	3.19 ± 3.13	ND	11.0	2.31	4.08	30	1.87 ± 2.31	ND	8.6	1.01	3.74
North Boston Road to Halfway to Breached Pond (Property 003 - Station 054)	Sediment	0-6 / 0-2	8	1.01 ± 0.83	ND	2.40	0.32	1.71	4	1.11 ± 0.46	0.64	1.70	0.38	1.83
	Sediment	2-12							4	0.49 ± 0.45	ND	1.00	-0.22	1.20
	Sediment	12-24	----	----	----	----	----	----	3	0.25 ± 0.31	ND	0.60	-0.51	1.01
Sediment Subtotals			8	1.01 ± 0.83	0.29	2.40	0.32	1.71	11	0.65 ± 0.53	ND	1.70	0.29	1.01
	Soil	0-6 / 0-2	19	2.42 ± 2.63	ND	11.00	1.15	3.68	13	2.20 ± 1.91	ND	6.90	1.05	3.36
	Soil	6-12 / 2-12	1	2.00 ± ----	2.00	2.0	----	----	6	1.25 ± 1.38	ND	3.70	-0.20	2.69
	Soil	12-24	----	----	----	----	----	----	7	0.96 ± 1.23	ND	3.40	-0.18	2.10
Soil Subtotals			20	2.40 ± 2.56	ND	11.00	1.20	3.59	26	1.65 ± 1.68	ND	6.90	0.97	2.33
Halfway To Breached Pond To Breached Pond (Station 059 - 072)	Sediment	0-6 / 0-2	2	2.4 ± 1.27	1.5	3.3	-9.04	13.84	6	1.06 ± 1.50	ND	3.6	-0.51	2.63
	Sediment	2-12							7	0.76 ± 1.18	ND	3.0	-0.33	1.84
	Sediment	12-24	----	----	----	----	----	----	6	0.61 ± 0.86	ND	2.0	-0.29	1.52
Sediment Subtotals			2	2.4 ± 1.27	1.5	3.3	-9.04	13.84	19	0.81 ± 1.15	ND	3.6	0.25	1.36

TABLE 2
MEAN PCB CONCENTRATIONS AND RELATED STATISTICS FOR SOIL AND SEDIMENT SAMPLES ASSOCIATED WITH A TRIBUTARY AND A BREACHED POND NEAR TENNESSEE GAS COMPRESSOR STATION 229 NEAR EDEN, NEW YORK

			Previous Sampling [1] Total PCB Concentration (ppm)						Recent Sampling (December 1994) Total PCB Concentration (ppm)					
							95% Confidence Intervals						95% Confidence Intervals	
Reach/Location	Sample Matrix	Depth Interval (inches)	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit
	Soil	0-6 / 0-2	15	0.75 ± 0.98	ND	4.3	0.21	1.30	17	0.52 ± 0.76	ND	2.8	0.13	0.91
	Soil	2-12							9	0.57 ± 0.88	ND	2.3	-0.11	1.25
	Soil	12-24							8	ND ± 0.0	ND	ND	----	----
Soil Subtotals			15	0.75 ± 0.98	ND	4.3	0.21	1.30	34	0.43 ± 0.71	ND	2.8	0.18	0.68
Breached Pond	Sediment	0-6	19	0.51 ± 0.18	ND	0.93	0.42	0.60	4	0.71 ± 0.23	0.46	1.00	0.35	1.07
	Sediment	6-12							4	0.61 ± 0.17	0.38	0.76	0.35	0.88
	Sediment	12-18							4	1.09 ± 0.92	ND	2.30	-0.37	2.55
	Sediment	18-24							3	0.74 ± 1.01	0.13	1.90	-1.76	3.24
	Sediment	24-30							1	ND ± 0.0	ND	ND	----	----
Sediment Subtotals			19	0.51 ± 0.18	0.21	0.93	0.42	0.60	16	0.75 ± 0.62	ND	2.3	0.41	1.08
	Soil	0-6	6	ND ± 0.0	ND	ND								
Breached Pond To Highway 75 (Station 077 - 082)	Sediment	0-6 / 0-2	7	0.32 ± 0.32	ND	0.89	0.03	0.62	4	0.11 ± 0.09	ND	0.25	-0.04	0.26
	Sediment	2-12							5	0.09 ± 0.04	ND	0.15	0.04	0.14
	Sediment	12-24							1	0.06 ±	ND	ND	----	----
Sediment Subtotals			7	0.32 ± 0.32	0.05	0.89	0.03	0.62	10	0.10 ± 0.06	ND	0.25	0.05	0.14

TABLE 2
MEAN PCB CONCENTRATIONS AND RELATED STATISTICS FOR SOIL AND SEDIMENT SAMPLES ASSOCIATED WITH A TRIBUTARY AND A BREACHED POND NEAR TENNESSEE GAS COMPRESSOR STATION 229 NEAR EDEN, NEW YORK

			Previous Sampling [1] Total PCB Concentration (ppm)						Recent Sampling (December 1994) Total PCB Concentration (ppm)					
							95% Confidence Intervals						95% Confidence Intervals	
Reach/Location	Sample Matrix	Depth Interval (inches)	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit
	Soil	0-6 / 0-2	16	ND ± 0.0	ND	ND	0.45	1.30	16	0.45 ± 0.25	ND	0.88	0.32	0.59
	Soil	6-12 / 2-12	8	ND ± 0.0	ND	ND	0.50	0.50	1	0.14 ± ----	0.14	0.14	----	----
	Soil	12-24	----	----	----	----	----	----	1	ND ± 0.0	ND	ND	----	----
Soil Subtotals			24	ND ± 0.0	ND	ND	0.46	1.03	18	0.41 ± 0.26	ND	0.88	0.28	0.54
Highway 75 To Just West Of Hickman Road (Property 007 - Station 103)	Sediment	0-6 / 0-2	40	ND ± 0.0	ND	ND	----	----	7	0.51 ± 0.76	ND	1.80	-0.19	1.21
	Sediment	2-12							2	ND ± 0.0	ND	ND	----	----
	Sediment	12-24	----	----	----	----	----	----	1	ND ± 0.0	ND	ND	----	----
Sediment Subtotals			40	ND ± 0.0	ND	ND	----	----	10	0.37 ± 0.65	ND	1.80	-0.09	0.84
	Soil	0-6 / 0-2	3	ND ± 0.0	ND	ND	----	----	27	0.23 ± 0.27	ND	1.20	0.12	0.33
Upper Half of Hickman Road To Highway 62 (Station 112 - 123)	Sediment	0-6 / 0-2	27	0.06 ± 0.03	ND	0.186	0.04	0.07	3	ND ± 0.0	ND	ND	----	----
	Soil	0-2							9	0.19 ± 0.30	ND	0.98	-0.04	0.41
	Soil	2-12							1	0.73 ± ----	0.73	0.73	----	----
Soil Subtotals									10	0.24 ± 0.33	ND	0.98	0.007	0.48

TABLE 2
MEAN PCB CONCENTRATIONS AND RELATED STATISTICS FOR SOIL AND SEDIMENT SAMPLES ASSOCIATED WITH A TRIBUTARY AND A BREACHED POND NEAR TENNESSEE GAS COMPRESSOR STATION 229 NEAR EDEN, NEW YORK

			Previous Sampling [1] Total PCB Concentration (ppm)						Recent Sampling (December 1994) Total PCB Concentration (ppm)					
							95% Confidence Intervals						95% Confidence Intervals	
Reach/Location	Sample Matrix	Depth Interval (Inches)	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit	Sample Size	Mean ± Standard Deviation	Minimum Value	Maximum Value	Lower Limit	Upper Limit
Lower Half of Hickman Road To Highway 62 (Station 125 - 134)	Sediment	0-2							3	ND ± 0.0	ND	ND	----	----
	Sediment	2-12							2	ND ± 0.0	ND	ND	----	----
	Sediment	12-24							2	ND ± 0.0	ND	ND	----	----
Sediment Subtotals									7	ND ± 0.0	ND	ND	----	----
	Soil	0-2							13	ND ± 0.0	ND	ND	----	----
OVERALL	Sediment	All Intervals	110	6.77 ± 50.80	ND	510.0	-2.83	16.37	113	11.23 ± 51.10	ND	410.0	1.70	20.75
	Soil	All Intervals	216	22.42 ± 80.22	ND	760.0	11.66	33.18	277	13.48 ± 73.65	ND	960.0	4.77	22.19

NOTES: [1] Previous sampling was conducted between Station Lake and Highway 75 during 1989, 1990, and 1991, and was conducted between Highway 75 and Highway 62 during July 1994.

TABLE 1

FISH CATCH COMPOSITION FROM STATION LAKE, THE BREACHED POND, AND THE TRIBUTARY BETWEEN THE PONDS ON AND WEST OF TENNESSEE GAS COMPRESSOR STATION 229 NEAR EDEN, NEW YORK DURING OCTOBER 1993

Fish Family/Common Name	Scientific Name	Station Lake[1]		Tributary[2]		Breached Pond[3]		Overall Totals	
		Number Caught	%	Number Caught	%	Number Caught	%	Number Caught	Percentage of Total Catch
Family Cyprinidae - minnows and carps									
Blacknose dace	Rhinichthys atratulus			20	33.3			20	21.1
Creek chub	Semotilus atromaculatus			34	56.7			34	35.8
	Family Subtotal			54	90.0			54	56.9
Family Centrarchidae - sunfishes									
Pumpkinseed	Lepomis gibbosus	2	6.25	1	1.7			3	3.2
Bluegill	Lepomis macrochirus	11	34.38	4	6.7			15	15.8
Largemouth bass	Micropterus salmoides	19	59.38	1	1.7	3	100.0	23	24.2
	Family Subtotal	32	100.0	6	10.0	3	100.0	41	43.2
Overall Totals		32	100.0	60	100.0	3	100.0	95	100.0
Percentage of Total Catch		33.68		63.16		3.16		100.0	

NOTE:

1 Level of effort includes 6 electrofishing runs, 2 days of gillnetting, and 1 day of angling.
2 Level of effort includes 3 electrofishing runs.
3 Level of effort includes 3 electrofishing runs and 1 day of gillnetting.

TABLE 2

PCB ANALYSIS SUMMARY FOR DISCRETE FISH FILET SAMPLES
COLLECTED FROM STATION LAKE AT STATION 229
NEAR EDEN, NEW YORK
OCTOBER 1993

Species	Sample Number	Collection Date	Age (yrs)	Weight (gms)	Total Length (mm)	Condition Factor (K-TL)	Lipid Content (% wet wt)	PCB Concentration (ppm)		
								Aroclor 1254	Aroclor 1260	Total Aroclors
Largemouth Bass	229-SL-F-D-LB-001	10/28/93	2	305	296	1.18	0.88	3.50	ND	3.50
Largemouth Bass	229-SL-F-D-LB-002	10/28/93	2	329	300	1.22	0.99	3.50	ND	3.50
Largemouth Bass	229-SL-F-D-LB-003	10/28/93	2	360	302	1.31	0.86	2.60	ND	2.60
Largemouth Bass	229-SL-F-D-LB-004A	10/29/93	8	946	424	1.24	0.47	4.10	ND	4.10
Largemouth Bass	229-SL-F-D-LB-004B	10/29/93	8	946	424	1.24	0.52	4.20	ND	4.20
Largemouth Bass	229-SL-F-D-LB-005	10/29/93	6	804	412	1.15	0.27	14.00	2.3	16.00
Largemouth Bass	229-SL-F-D-LB-006	10/29/93	4	665	370	1.31	0.59	3.80	ND	3.80
Largemouth Bass	229-SL-F-D-LB-007	10/29/93	2	393	306	1.37	0.84	1.80	ND	1.80
Largemouth Bass	229-SL-F-D-LB-008	10/29/93	3	556	358	1.21	0.56	2.70	0.62	3.30
Largemouth Bass	229-SL-F-D-LB-009	10/29/93	3	498	348	1.18	0.72	2.00	ND	2.00
Largemouth Bass	229-SL-F-D-LB-010	10/29/93	3	391	307	1.35	0.94	3.00	ND	3.00
Bluegill	229-SL-F-D-BG-001	10/28/93	5	334	241	2.39	1.40	4.60	ND	4.60
Bluegill	229-SL-F-D-BG-002	10/28/93	5	238	229	1.98	2.04	6.20	ND	6.20
Bluegill	229-SL-F-D-BG-003	10/29/93	7	305	236	2.32	0.98	6.20	ND	6.20
Bluegill	229-SL-F-D-BG-004	10/29/93	4	261	226	2.26	1.22	2.20	ND	2.20
Bluegill	229-SL-F-D-BG-005	10/30/93	5	280	229	2.33	2.28	7.00	ND	7.00

TABLE 2

PCB ANALYSIS SUMMARY FOR DISCRETE FISH FILET SAMPLES
COLLECTED FROM STATION LAKE AT STATION 229
NEAR EDEN, NEW YORK
OCTOBER 1993

Species	Sample Number	Collection Date	Age (yrs)	Weight (gms)	Total Length (mm)	Condition Factor (K-TL)	Lipid Content (% wet wt)	PCB Concentration (ppm)		
								Aroclor 1254	Aroclor 1260	Total Aroclors
Bluegill	229-SL-F-D-BG-006	10/30/93	5	234	221	2.17	1.40	1.40	ND	1.40
Bluegill	229-SL-F-D-BG-007	10/30/93	8	349	243	2.43	0.30	2.30	ND	2.30
Bluegill	229-SL-F-D-BG-008	10/30/93	7	380	248	2.49	1.02	4.50	ND	4.50
Bluegill	229-SL-F-D-BG-009	10/30/93	5	314	239	2.30	1.31	6.10	ND	6.10
Bluegill	229-SL-F-D-BG-010	10/30/93	8	363	244	2.50	0.96	5.80	ND	5.80

TABLE 3

PCB ANALYSIS SUMMARY FOR FILET AND WHOLE BODY FISH SAMPLES
COLLECTED FROM STATION LAKE AT STATION 229
NEAR EDEN, NEW YORK
OCTOBER 1993

Species	Sample Number	Filet Weight (gms)	Filet Lipid Content (% wet wt)	Filet Total PCB Concentration (ppm)	Remains Weight (gms)	Remains Lipid Content (% wet wt)	Remains Total PCB Concentration (ppm)	Reconstituted Whole Body Lipid Content (% wet wt)	Reconstituted Whole Body Total PCB Concentration (ppm)
Largemouth Bass	LB-001	49	0.88	3.50	126	2.09	13.00	1.75	10.34
Largemouth Bass	LB-002	50	0.99	3.50	152	3.80	24.00	3.10	18.93
Largemouth Bass	LB-003	55	0.86	2.60	173	2.96	18.00	2.45	14.29
Largemouth Bass	LB-004A	78	0.47	4.10	336	0.99	16.00	0.89	13.76
Largemouth Bass	LB-004B	70	0.52	4.20	336	0.99	16.00	0.91	13.97
Largemouth Bass	LB-005	76	0.27	16.00	353	0.69	55.00	0.62	48.06
Largemouth Bass	LB-006	85	0.59	3.80	296	1.32	22.00	1.16	17.94
Largemouth Bass	LB-007	55	0.84	1.80	174	3.36	19.00	2.76	14.87
Largemouth Bass	LB-008	56	0.56	3.30	292	1.24	11.00	1.13	9.76
Largemouth Bass	LB-009	70	0.72	2.00	233	2.26	14.00	1.90	11.23
Largemouth Bass	LB-010	54	0.94	3.00	167	2.51	17.00	2.13	13.58
Bluegill	BG-001	46	1.40	4.60	149	7.70	38.00	6.21	30.13
Bluegill	BG-002	51	2.04	6.20	88	7.88	31.00	5.74	21.89
Bluegill	BG-003	57	0.98	6.20	101	3.03	32.00	2.29	22.70
Bluegill	BG-004	51	1.22	2.20	118	10.02	31.00	7.36	22.31
Bluegill	BG-005	52	2.28	7.00	95	11.03	43.00	7.94	30.27
Bluegill	BG-006	55	1.40	1.40	98	7.90	18.00	5.75	12.44

TABLE 3

PCB ANALYSIS SUMMARY FOR FILET AND WHOLE BODY FISH SAMPLES
COLLECTED FROM STATION LAKE AT STATION 229
NEAR EDEN, NEW YORK
OCTOBER 1993

Species	Sample Number	Filet Weight (gms)	Filet Lipid Content (% wet wt)	Filet Total PCB Concentration (ppm)	Remains Weight (gms)	Remains Lipid Content (% wet wt)	Remains Total PCB Concentration (ppm)	Reconstituted Whole Body Lipid Content (% wet wt)	Reconstituted Whole Body Total PCB Concentration (ppm)
Bluegill	BG-007	66	0.30	2.30	101	1.13	17.00	0.80	11.19
Bluegill	BG-008	77	1.02	4.50	130	3.61	13.00	2.65	9.83
Bluegill	BG-009	56	1.31	6.10	108	3.40	24.00	2.69	17.88
Bluegill	BG-010	59	0.96	5.80	136	2.60	35.00	2.10	26.16

TABLE 4

CORRELATION COEFFICIENTS AMONG SEVERAL VARIABLES FOR LARGEMOUTH BASS FILETS COLLECTED FROM STATION LAKE, NEW YORK DURING OCTOBER 1993

	Age (years)	Total Weight (grams)	Total Length (mm)	Condition Factor (K-TL)	Percentage Lipid Content
Total PCBs (Filets)	r=0.42 n=11 p=0.20	r=0.44 n=11 p=0.18	r=0.50 n=11 p=0.12	r=-0.50 n=11 p=0.12	**r=-0.68 n=11 p=0.02***
Age (years)		**r=0.97 n=10 p=0.0001***	**r=0.94 n=10 p=0.0001***	r=-0.25 n=10 p=0.46	**r=-0.78 n=11 p=0.005***
Total Weight (grams)			**r=0.99 n=10 p=0.0001***	r=-0.26 n=10 p=0.45	**r=-0.87 n=11 p=0.0004***
Total Length (mm)				r=-0.36 n=10 p=0.27	**r=-0.92 n=11 p=0.0001***
Condition Factor (K-TL)					r=0.44 n=11 p=0.18

NOTES:

r = correlation coefficient (rho)
n = sample size
p = probability of statistical significance. If p is <0.05, the correlation is statistically significant at the 95 percent level. Statistically significant correlations are marked with an asterisk (*).

TABLE 5

CORRELATION COEFFICIENTS AMONG SEVERAL VARIABLES FOR BLUEGILL FILETS COLLECTED FROM STATION LAKE, NEW YORK DURING OCTOBER 1993

	Age (years)	Total Weight (grams)	Total Length (mm)	Condition Factor (K-TL)	Percentage Lipid Content
Total PCBs (Filets)	r=0.07 n=10 p=0.85	r=0.15 n=10 p=0.68	r=0.26 n=10 p=0.48	r=0.007 n=10 p=0.98	r=0.48 n=10 p=0.16
Age (years)		r=0.73 n=10 p=0.016*	r=0.71 n=10 p=0.021*	r=0.64 n=10 p=0.048*	r=-0.69 n=10 p=0.03*
Total Weight (grams)			r=0.97 n=10 p=0.0001*	r=0.90 n=10 p=0.0003*	r=-0.61 n=10 p=0.06
Total Length (mm)				r=0.77 n=10 p=0.009*	r=-0.56 n=10 p=0.09
Condition Factor (K-TL)					r=-0.59 n=10 p=0.07

NOTES:

r = correlation coefficient (rho)
n = sample size
p = probability of statistical significance. If p is <0.05, the correlation is statistically significant at the 95 percent level. Statistically significant correlations are marked with an asterisk (*).

TABLE 6

CORRELATION COEFFICIENTS AMONG SEVERAL VARIABLES FOR LARGEMOUTH BASS WHOLE BODIES COLLECTED FROM STATION LAKE, NEW YORK DURING OCTOBER 1993

	Age (years)	Total Weight (grams)	Total Length (mm)	Condition Factor (K-TL)	Percentage Lipid Content
Total PCBs (Whole Body)	r=0.29 n=11 p=0.39	r=0.32 n=11 p=0.33	r=0.37 n=11 p=0.26	r=-0.34 n=11 p=0.31	r=-0.33 n=11 p=0.32
Age (years)		**r=0.97 n=10 p=0.0001***	**r=0.94 n=10 p=0.0001***	r=-0.25 n=10 p=0.46	**r=-0.78 n=11 p=0.005***
Total Weight (grams)			**r=0.99 n=10 p=0.0001***	r=-0.26 n=10 p=0.45	**r=-0.83 n=11 p=0.001***
Total Length (mm)				r=-0.36 n=10 p=0.27	**r=-0.87 n=11 p=0.0005***
Condition Factor (K-TL)					r=0.44 n=11 p=0.17

NOTES:

r = correlation coefficient (rho)
n = sample size
p = probability of statistical significance. If p is <0.05, the correlation is statistically significant at the 95 percent level. Statistically significant correlations are marked with an asterisk (*).

TABLE 7

CORRELATION COEFFICIENTS AMONG SEVERAL VARIABLES FOR BLUEGILL WHOLE BODIES COLLECTED FROM STATION LAKE, NEW YORK DURING OCTOBER 1993

	Age (years)	Total Weight (grams)	Total Length (mm)	Condition Factor (K-TL)	Percentage Lipid Content
Total PCBs (Whole Body)	r=-0.30 n=10 p=0.40	r=-0.14 n=10 p=0.71	r=-0.14 n=10 p=0.70	r=-0.03 n=10 p=0.92	r=0.52 n=10 p=0.13
Age (years)		r=0.73 n=10 p=0.016*	r=0.71 n=10 p=0.021*	r=0.64 n=10 p=0.048*	r=-0.85 n=10 p=0.002*
Total Weight (grams)			r=0.97 n=10 p=0.0001*	r=0.90 n=10 p=0.0003*	r=-0.68 n=10 p=0.03*
Total Length (mm)				r=0.77 n=10 p=0.009*	r=-0.72 n=10 p=0.019*
Condition Factor (K-TL)					r=-0.49 n=10 p=0.14

NOTES:

r = correlation coefficient (rho)
n = sample size
p = probability of statistical significance. If p is <0.05, the correlation is statistically significant at the 95 percent level. Statistically significant correlations are marked with an asterisk (*).

TABLE 8

ANALYSIS OF VARIANCE FOR TOTAL PCB CONCENTRATIONS
IN DISCRETE FILET FISH TISSUE SAMPLES FROM
STATION LAKE, NEW YORK, OCTOBER 1993

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Probability Less Than F
FISH SPECIES Largemouth Bass vs. Bluegill	1	0.4241082	0.42410823	0.04	0.8396
ERROR	19	191.42827273	10.07517225		
CORRECTED TOTAL	20	191.85238095			

TABLE 9

ANALYSIS OF VARIANCE FOR TOTAL PCB CONCENTRATIONS IN WHOLE BODY FISH TISSUE SAMPLES FROM STATION LAKE, NEW YORK, OCTOBER 1993

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F Value	Probability Less Than F
FISH SPECIES Largemouth Bass vs. Bluegill	1	64.33344156	64.33344156	0.74	0.3995
ERROR	19	1645.27007273	86.59316172		
CORRECTED TOTAL	20	1709.60351429			

TABLE 1

FISH CATCH COMPOSITION FROM ELECTROFISHING A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK NEAR EDEN, NEW YORK DURING LATE JULY 1994

Chronology of Pools West of Highway 75	Fish Sampling Location	Fish Tissue Samples Collected	Fish Species Collected					Total Number of Fish
			Creek Chub	Blacknose Dace	Shiner sp.	Bluegill	Largemouth Bass	
Highway 75 Bridge								
1	–	No	1	0	0	0	0	1
2	Pool 1	Yes	4	0	0	0	0	4
3	Pool 2	No	2	3	0	0	0	5
4	–	No	0	0	0	0	0	0
5	–	No	0	0	0	0	0	0
6	–	No	0	1	0	0	0	1
7	–	No	0	0	0	0	0	0
8	Pool 3	Yes	3	2	0	0	0	5
9	–	No	2	1	0	0	0	3
10	Pool 4	Yes	8	3	0	0	0	11
11	Pool 5	Yes	6	0	0	2	0	8
12	Pool 6	Yes	4	1	0	0	1	6
13	–	No	0	2	0	0	0	2
14	Pool 7	Yes	9	5	0	0	0	14
15	Pool 8	Yes	7	12	0	0	0	19
16	Pool 9	Yes	4	9	0	0	0	13
17	Pool 10	Yes	16	3	0	0	0	19
18	Pool 11	Yes	6	7	0	0	0	13
Hickman Road Bridge								
19	Pool 12	Yes	37	11	0	0	0	57
20	Pool 13	Yes	6	11	0	0	0	17
21	Pool 14	Yes	10	9	0	0	0	19
22	Pool 15	Yes	95	20	0	0	0	116
23	Pool 16	Yes	36	12	0	0	0	51

TABLE 1 (Continued)

FISH CATCH COMPOSITION FROM ELECTROFISHING A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK NEAR EDEN, NEW YORK DURING LATE JULY 1994

Chronology of Pools West of Highway 75	Fish Sampling Location	Fish Tissue Samples Collected	Fish Species Collected					Total Number of Fish
			Creek Chub	Blacknose Dace	Shiner sp.	Bluegill	Largemouth Bass	
24	Pool 17	Yes	30	5	0	0	0	35
25	Pool 18	Yes	44	0	0	2	0	46
26	Pool 19	Yes	23	5	0	2	0	30
27	Pool 20	Yes	55	14	0	2	0	71
28	--	No	15	0	0	0	0	15
29	Pool 21	Yes	95	14	4	14	0	127
One-quarter Mile Highway 62 Bridge								
Totals			518	150	4	35	1	708
Percentage of Total Catch			73.2%	21.2%	0.56%	4.94%	0.14%	

TABLE 2

SUMMARY OF FISH SAMPLING (WHOLE BODY SAMPLES) OF BREACHED POND AND TRIBUTARY NEAR TENNESSEE GAS COMPRESSOR STATION 229 NEAR EDEN, NEW YORK DURING LATE JULY 1994

Location/Fish Species	Number of Fish Used For Tissue Samples	Number of Tissue Samples		Weight of Fish (grams)			
		Discrete	Composite	Average	Standard Deviation	Minimum	Maximum
Breached Pond							
Creek Chub	14	1	4	16.14	4.50	11	28
Blacknose Dace	0	0	0	0	0	0	0
Bluegill	26	0	3	6.5	2.06	4	14
Largemouth Bass	2	2	0	19.0	0.0	19	19
Subtotals	42	3	7				
Tributary							
Creek Chub	113	22	20	17.88	11.59	3	60
Blacknose Dace	120	0	11	4.53	0.99	2	10
Bluegill	23	0	2	2.9	1.06	2	5
Largemouth Bass	0	0	0	0	0	0	0
Subtotals	256	22	33				
Overall Totals	298	25	40				

65 total samples

TABLE 3

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
BREACHED POND												
229-BP-W-D-LB-001	Breached Pond	Largemouth Bass	Discrete	07-20-94	Gill Net	108	19	1.51	2.19	1.50	ND[2]	1.50
229-BP-W-D-LB-002	Breached Pond	Largemouth Bass	Discrete	07-20-94	Gill Net	108	19	1.51	2.56	5.80	ND	5.80
229-BP-W-C-BG-001	Breached Pond	Bluegill	Composite	07-20-94	Gill Net	67	6	1.99	3.62	1.20	ND	1.20
		Pumpkinseed	Composite	07-20-94	Gill Net	85	14	2.28				
		Bluegill	Composite	07-20-94	Gill Net	69	7	2.13				
		Bluegill	Composite	07-20-94	Gill Net	69	6	1.83				
		Bluegill	Composite	07-20-94	Gill Net	64	5	1.91				
		Bluegill	Composite	07-20-94	Gill Net	65	5	1.82				
		Bluegill	Composite	07-20-94	Gill Net	63	5	2.00				
229-BP-W-C-BG-002	Breached Pond	Bluegill	Composite	07-20-94	Gill Net	63	6	2.40	4.07	1.50	ND	1.50
229-BP-W-C-BG-002A		Bluegill	Composite	07-20-94	Gill Net	71	8	2.24	3.92	1.40	ND	1.40
		Bluegill	Composite	07-20-94	Gill Net	67	7	2.33				
		Bluegill	Composite	07-20-94	Gill Net	65	6	2.18				
		Bluegill	Composite	07-20-94	Gill Net	70	7	2.04				
		Bluegill	Composite	07-20-94	Gill Net	66	6	2.09				
		Bluegill	Composite	07-20-94	Gill Net	65	6	2.18				
		Bluegill	Composite	07-20-94	Gill Net	63	6	2.40				
		Bluegill	Composite	07-20-94	Gill Net	65	6	2.18				
		Bluegill	Composite	07-20-94	Gill Net	64	6	2.29				
229-BP-W-C-BG-003	Breached Pond	Bluegill	Composite	07-20-94	Gill Net	84	12	2.02	3.50	2.20	ND	2.20
		Bluegill	Composite	07-20-94	Gill Net	67	7	2.33				
		Bluegill	Composite	07-20-94	Gill Net	63	5	2.00				
		Bluegill	Composite	07-20-94	Gill Net	60	4	1.85				
		Bluegill	Composite	07-20-94	Gill Net	65	6	2.18				
		Bluegill	Composite	07-20-94	Gill Net	65	6	2.18				
		Bluegill	Composite	07-20-94	Gill Net	65	6	2.18				

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-BP-W-C-BG-003	Breached Pond	Bluegill	Composite	07-20-94	Gill Net	66	6	2.09				
		Bluegill	Composite	07-20-94	Gill Net	63	5	2.00				
229-BP-W-D-CB-001	Breached Pond	Creek Chub	Discrete	07-20-94	Gill Net	135	28	1.14	3.67	0.80	ND	0.80
229-BP-W-C-CB-002	Breached Pond	Creek Chub	Composite	07-20-94	Gill Net	112	18	1.28	4.91	1.30	ND	1.30
		Creek Chub	Composite	07-20-94	Gill Net	106	17	1.43				
		Creek Chub	Composite	07-20-94	Gill Net	111	17	1.24				
		Creek Chub	Composite	07-20-94	Gill Net	104	13	1.16				
229-BP-W-C-CB-003	Breached Pond	Creek Chub	Composite	07-20-94	Gill Net	113	20	1.39	5.98	1.90	ND	1.90
		Creek Chub	Composite	07-20-94	Gill Net	116	20	1.28				
		Creek Chub	Composite	07-20-94	Gill Net	104	15	1.33				
229-BP-W-C-CB-004	Breached Pond	Creek Chub	Composite	07-20-94	Gill Net	95	11	1.28	6.31	2.10	ND	2.10
		Creek Chub	Composite	07-20-94	Gill Net	105	16	1.38				
		Creek Chub	Composite	07-20-94	Gill Net	92	11	1.41				
		Creek Chub	Composite	07-20-94	Gill Net	100	11	1.10				
229-BP-W-C-CB-005	Breached Pond	Creek Chub	Composite	07-21-94	Gill Net	113	17	1.18	6.22	1.70	ND	1.70
	Breached Pond	Creek Chub	Composite	07-21-94	Gill Net	95	12	1.40				
TRIBUTARY												
220-TR-W-C-CB-001	Pool 1	Creek Chub	Composite	07-20-94	Electrofishing	119	18	1.07	5.6	1.70	ND	1.70
		Creek Chub	Composite	07-20-94	Electrofishing	96	11	1.24				
		Creek Chub	Composite	07-20-94	Electrofishing	83	8	1.40				
		Creek Chub	Composite	07-20-94	Electrofishing	79	6	1.22				
229-TR-W-C-CB-002	Pool 3	Creek Chub	Composite	07-20-94	Electrofishing	103	15	1.37	7.08	1.60	ND	1.60
		Creek Chub	Composite	07-20-94	Electrofishing	87	10	1.52				
		Creek Chub	Composite	07-20-94	Electrofishing	76	5	1.14				
229-TR-W-D-CB-003	Pool 4	Creek Chub	Discrete	07-20-94	Electrofishing	154	49	1.34	4.86	1.90	ND	1.90
229-TR-W-C-CB-004	Pool 4	Creek Chub	Composite	07-20-94	Electrofishing	122	22	1.21	7.13	2.10	ND	2.10

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-C-CB-004	Pool 4	Creek Chub	Composite	07-20-94	Electrofishing	111	16	1.17				
		Creek Chub	Composite	07-20-94	Electrofishing	102	12	1.13				
		Creek Chub	Composite	07-20-94	Electrofishing	110	16	1.20				
		Creek Chub	Composite	07-20-94	Electrofishing	93	9	1.12				
		Creek Chub	Composite	07-20-94	Electrofishing	93	9	1.12				
		Creek Chub	Composite	07-20-94	Electrofishing	74	4	0.99				
229-TR-W-D-CB-005	Pool 5	Creek Chub	Discrete	07-20-94	Electrofishing	145	39	1.28	9.07	1.60	ND	1.60
229-TR-W-D-CB-006	Pool 5	Creek Chub	Discrete	07-20-94	Electrofishing	139	35	1.30	4.64	1.40	ND	1.40
229-TR-W-C-CB-007	Pool 5	Creek Chub	Composite	07-20-94	Electrofishing	127	25	1.22	5.75	1.10	ND	1.10
229-TR-W-C-CB-007A		Creek Chub	Composite	07-20-94	Electrofishing	121	21	1.19	5.72	1.10	ND	1.10
		Creek Chub	Composite	07-20-94	Electrofishing	111	20	1.46				
		Creek Chub	Composite	07-20-94	Electrofishing	99	13	1.34				
229-TR-W-C-CB-008	Pool 6	Creek Chub	Composite	07-20-94	Electrofishing	100	12	1.20	7.26	2.30	ND	2.30
		Creek Chub	Composite	07-20-94	Electrofishing	95	10	1.17				
		Creek Chub	Composite	07-20-94	Electrofishing	80	6	1.17				
		Creek Chub	Composite	07-20-94	Electrofishing	67	4	1.33				
229-TR-W-D-CB-009	Pool 7	Creek Chub	Discrete	07-20-94	Electrofishing	131	32	1.42	6.21	1.50	ND	1.50
229-TR-W-C-CB-010	Pool 7	Creek Chub	Composite	07-20-94	Electrofishing	99	12	1.24	8.06	2.30	ND	2.30
		Creek Chub	Composite	07-20-94	Electrofishing	110	17	1.28				
		Creek Chub	Composite	07-20-94	Electrofishing	107	14	1.14				
		Creek Chub	Composite	07-20-94	Electrofishing	101	10	0.97				
		Creek Chub	Composite	07-20-94	Electrofishing	83	6	1.05				
		Creek Chub	Composite	07-20-94	Electrofishing	77	5	1.10				
		Creek Chub	Composite	07-20-94	Electrofishing	74	5	1.23				
		Creek Chub	Composite	07-20-94	Electrofishing	71	4	1.12				
229-TR-W-C-CB-011	Pool 8	Creek Chub	Composite	07-20-94	Electrofishing	104	12	1.07	7.37	2.30	ND	2.30
		Creek Chub	Composite	07-20-94	Electrofishing	107	14	1.14				

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-C-CB-011	Pool 8	Creek Chub	Composite	07-20-94	Electrofishing	95	10	1.17				
		Creek Chub	Composite	07-20-94	Electrofishing	88	8	1.17				
		Creek Chub	Composite	07-20-94	Electrofishing	84	7	1.18				
		Creek Chub	Composite	07-20-94	Electrofishing	87	7	1.06				
		Creek Chub	Composite	07-20-94	Electrofishing	77	6	1.31				
229-TR-W-C-CB-012	Pool 9	Creek Chub	Composite	07-20-94	Electrofishing	103	13	1.19	7.47	1.70	ND	1.70
		Creek Chub	Composite	07-20-94	Electrofishing	101	11	1.07				
		Creek Chub	Composite	07-20-94	Electrofishing	90	8	1.10				
		Creek Chub	Composite	07-20-94	Electrofishing	72	4	1.07				
		Creek Chub	Composite	07-20-94	Electrofishing	65	3	1.09				
229-TR-W-D-CB-013	Pool 10	Creek Chub	Discrete	07-20-94	Electrofishing	131	28	1.25	5.85	0.88	ND	0.88
229-TR-W-D-CB-014	Pool 10	Creek Chub	Discrete	07-20-94	Electrofishing	142	41	1.43	5.53	2.90	ND	2.90
229-TR-W-D-CB-015	Pool 10	Creek Chub	Discrete	07-20-94	Electrofishing	147	39	1.23	3.26	1.40	ND	1.40
229-TR-W-D-CB-016	Pool 10	Creek Chub	Discrete	07-20-94	Electrofishing	150	42	1.24	5.61	1.60	ND	1.60
229-TR-W-C-CB-017	Pool 11	Creek Chub	Composite	07-20-94	Electrofishing	122	22	1.21	7.55	1.80	ND	1.80
		Creek Chub	Composite	07-20-94	Electrofishing	95	10	1.17				
		Creek Chub	Composite	07-20-94	Electrofishing	106	15	1.26				
		Creek Chub	Composite	07-20-94	Electrofishing	110	16	1.20				
		Creek Chub	Composite	07-20-94	Electrofishing	117	19	1.19				
		Creek Chub	Composite	07-20-94	Electrofishing	106	13	1.09				
229-TR-W-D-CB-018	Pool 12	Creek Chub	Discrete	07-20-94	Electrofishing	145	36	1.18	6.64	1.60	ND	1.60
229-TR-W-D-CB-019	Pool 12	Creek Chub	Discrete	07-20-94	Electrofishing	137	33	1.28	5.87	1.10	ND	1.10
229-TR-W-C-CB-020	Pool 12	Creek Chub	Composite	07-20-94	Electrofishing	125	25	1.28	7.3	1.90	ND	1.90
		Creek Chub	Composite	07-20-94	Electrofishing	129	25	1.16				
		Creek Chub	Composite	07-20-94	Electrofishing	115	20	1.32				
		Creek Chub	Composite	07-20-94	Electrofishing	128	24	1.14				
229-TR-W-D-CB-021	Pool 12	Creek Chub	Discrete	07-20-94	Electrofishing	139	29	1.08	6.95	1.50	ND	1.50

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-D-CB-022	Pool 13	Creek Chub	Discrete	07-20-94	Electrofishing	137	31	1.21	5.58	1.80	ND	1.80
229-TR-W-C-CB-023	Pool 13	Creek Chub	Composite	07-20-94	Electrofishing	105	15	1.30	6.82	0.75	ND	0.75
		Creek Chub	Composite	07-20-94	Electrofishing	82	7	1.27				
		Creek Chub	Composite	07-20-94	Electrofishing	80	7	1.37				
		Creek Chub	Composite	07-20-94	Electrofishing	76	6	1.37				
		Creek Chub	Composite	07-20-94	Electrofishing	71	4	1.12				
229-TR-W-C-CB-024	Pool 14	Creek Chub	Composite	07-20-94	Electrofishing	112	18	1.28	5.68	1.80	ND	1.80
		Creek Chub	Composite	07-20-94	Electrofishing	117	20	1.25				
		Creek Chub	Composite	07-20-94	Electrofishing	111	17	1.24				
229-TR-W-C-CB-025	Pool 14	Creek Chub	Composite	07-20-94	Electrofishing	103	13	1.19	5.77	0.56	ND	0.56
229-TR-W-C-CB-025A		Creek Chub	Composite	07-20-94	Electrofishing	80	6	1.17	5.80	0.60	ND	0.60
		Creek Chub	Composite	07-20-94	Electrofishing	100	11	1.10				
		Creek Chub	Composite	07-20-94	Electrofishing	85	7	1.14				
		Creek Chub	Composite	07-20-94	Electrofishing	96	10	1.13				
		Creek Chub	Composite	07-20-94	Electrofishing	102	12	1.13				
229-TR-W-D-CB-026	Pool 15	Creek Chub	Discrete	07-20-94	Electrofishing	138	32	1.22	6.81	0.46	ND	0.46
229-TR-W-D-CB-027	Pool 15	Creek Chub	Discrete	07-20-94	Electrofishing	140	32	1.17	4.11	0.74	ND	0.74
229-TR-W-D-CB-028	Pool 15	Creek Chub	Discrete	07-20-94	Electrofishing	141	31	1.11	5.17	0.48	ND	0.48
229-TR-W-D-CB-029	Pool 16	Creek Chub	Discrete	07-20-94	Electrofishing	140	33	1.20	6.14	1.00	ND	1.00
229-TR-W-C-CB-030	Pool 16	Creek Chub	Composite	07-20-94	Electrofishing	129	27	1.26	5.66	1.10	ND	1.10
		Creek Chub	Composite	07-20-94	Electrofishing	122	20	1.10				
		Creek Chub	Composite	07-20-94	Electrofishing	126	20	1.00				
229-TR-W-C-CB-031	Pool 17	Creek Chub	Composite	07-20-94	Electrofishing	111	14	1.02	6.74	0.55	ND	0.55
		Creek Chub	Composite	07-20-94	Electrofishing	110	16	1.20				
		Creek Chub	Composite	07-20-94	Electrofishing	106	14	1.18				
		Creek Chub	Composite	07-20-94	Electrofishing	123	19	1.02				
229-TR-W-C-CB-032	Pool 17	Creek Chub	Composite	07-20-94	Electrofishing	115	18	1.18	5.88	0.80	ND	0.80

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-C-CB-032	Pool 17	Creek Chub	Composite	07-20-94	Electrofishing	123	20	1.07				
		Creek Chub	Composite	07-20-94	Electrofishing	122	18	0.99				
		Creek Chub	Composite	07-20-94	Electrofishing	124	22	1.15				
229-TR-W-D-CB-033	Pool 18	Creek Chub	Discrete	07-20-94	Electrofishing	135	30	1.22	6.57	0.57	ND	0.57
229-TR-W-D-CB-034	Pool 18	Creek Chub	Discrete	07-20-94	Electrofishing	141	35	1.25	6.14	0.55	ND	0.55
229-TR-W-C-CB-035	Pool 19	Creek Chub	Composite	07-20-94	Electrofishing	92	9	1.16	8.35	0.61	ND	0.61
		Creek Chub	Composite	07-20-94	Electrofishing	100	11	1.10				
		Creek Chub	Composite	07-20-94	Electrofishing	98	11	1.17				
		Creek Chub	Composite	07-20-94	Electrofishing	99	11	1.13				
		Creek Chub	Composite	07-20-94	Electrofishing	91	7	0.93				
		Creek Chub	Composite	07-20-94	Electrofishing	92	8	1.03				
		Creek Chub	Composite	07-20-94	Electrofishing	93	9	1.12				
229-TR-W-C-CB-036	Pool 19	Creek Chub	Composite	07-20-94	Electrofishing	112	15	1.07	5.49	0.69	ND	0.69
		Creek Chub	Composite	07-20-94	Electrofishing	121	16	0.90				
		Creek Chub	Composite	07-20-94	Electrofishing	115	18	1.18				
229-TR-W-D-CB-037	Pool 20	Creek Chub	Discrete	07-20-94	Electrofishing	136	28	1.11	6.21	0.71	ND	0.71
229-TR-W-C-CB-038	Pool 20	Creek Chub	Composite	07-20-94	Electrofishing	123	24	1.23	5.52	1.00	ND	1.00
		Creek Chub	Composite	07-20-94	Electrofishing	125	23	1.18				
		Creek Chub	Composite	07-20-94	Electrofishing	130	22	1.00				
		Creek Chub	Composite	07-20-94	Electrofishing	126	22	1.10				
229-TR-W-D-CB-039	Pool 21	Creek Chub	Discrete	07-20-94	Electrofishing	165	52	1.16	6.25	1.20	ND	1.20
229-TR-W-D-CB-040	Pool 21	Creek Chub	Discrete	07-20-94	Electrofishing	168	50	1.05	5.71	1.20	ND	1.20
229-TR-W-D-CB-041	Pool 21	Creek Chub	Discrete	07-20-94	Electrofishing	174	60	1.14	2.30	0.72	ND	0.72
229-TR-W-C-BD-001	Pool 8	Blacknose Dace	Composite	07-20-94	Electrofishing	87	6	0.91	6.46	2.60	ND	2.60
		Blacknose Dace	Composite	07-20-94	Electrofishing	82	6	1.09				
		Blacknose Dace	Composite	07-20-94	Electrofishing	80	5	0.98				
		Blacknose Dace	Composite	07-20-94	Electrofishing	71	4	1.12				

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-C-BD-001	Pool 8	Blacknose Dace	Composite	07-20-94	Electrofishing	70	3	0.87				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	71	4	1.12				
		Blacknose Dace	Composite	07-20-94	Electrofishing	67	3	1.00				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	4	0.95				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	3	0.77				
		Blacknose Dace	Composite	07-20-94	Electrofishing	70	4	1.17				
229-TR-W-C-BD-002	Pool 9	Blacknose Dace	Composite	07-20-94	Electrofishing	75	4	0.95	7.51	2.60	ND	2.60
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	3	0.71				
		Blacknose Dace	Composite	07-20-94	Electrofishing	80	5	0.98				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	4	1.03				
		Blacknose Dace	Composite	07-20-94	Electrofishing	74	4	0.99				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	3	0.77				
		Blacknose Dace	Composite	07-20-94	Electrofishing	67	3	1.00				
		Blacknose Dace	Composite	07-20-94	Electrofishing	70	3	0.87				
229-TR-W-C-BD-003	Pool 11	Blacknose Dace	Composite	07-20-94	Electrofishing	86	6	0.94	5.31	3.10	ND	3.10
		Blacknose Dace	Composite	07-20-94	Electrofishing	79	5	1.01				
		Blacknose Dace	Composite	07-20-94	Electrofishing	78	5	1.05				
		Blacknose Dace	Composite	07-20-94	Electrofishing	80	6	1.17				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	4	0.95				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	4	0.88				
229-TR-W-C-BD-004	Pool 12	Blacknose Dace	Composite	07-20-94	Electrofishing	73	4	1.03	9.81	2.90	ND	2.90
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				
		Blacknose Dace	Composite	07-20-94	Electrofishing	70	4	1.17				

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-C-BD-004	Pool 12	Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	5	1.19				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				
		Blacknose Dace	Composite	07-20-94	Electrofishing	74	5	1.23				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	5	1.19				
		Blacknose Dace	Composite	07-20-94	Electrofishing	86	7	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	78	6	1.26				
229-TR-W-C-BD-005	Pool 13	Blacknose Dace	Composite	07-20-94	Electrofishing	80	6	1.17	6.39	2.00	ND	2.00
		Blacknose Dace	Composite	07-20-94	Electrofishing	71	5	1.40				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	5	1.29				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	5	1.29				
		Blacknose Dace	Composite	07-20-94	Electrofishing	94	10	1.20				
229-TR-W-C-BD-006	Pool 13	Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14	7.70	1.60	ND	1.60
		Blacknose Dace	Composite	07-20-94	Electrofishing	65	4	1.46				
		Blacknose Dace	Composite	07-20-94	Electrofishing	70	4	1.17				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	5	1.29				
		Blacknose Dace	Composite	07-20-94	Electrofishing	80	6	1.17				
		Blacknose Dace	Composite	07-20-94	Electrofishing	81	7	1.32				
229-TR-W-C-BD-007	Pool 14	Blacknose Dace	Composite	07-20-94	Electrofishing	63	3	1.20	8.96	1.50	ND	1.50
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	4	1.03				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	71	4	1.12				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Date Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
Z29-TR-W-C-BD-007	Pool 14	Blacknose Dace	Composite	07-20-94	Electrofishing	75	5	1.19				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	4	1.03				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				
		Blacknose Dace	Composite	07-20-94	Electrofishing	71	5	1.40				
Z29-TR-W-C-BD-008	Pool 15	Blacknose Dace	Composite	07-20-94	Electrofishing	75	4	0.95	10.5	2.00	ND	2.00
Z29-TR-W-C-BD-008A		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07	8.83	1.70	ND	1.70
		Blacknose Dace	Composite	07-20-94	Electrofishing	78	5	1.05				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	5	1.29				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	4	0.95				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	69	4	1.22				
		Blacknose Dace	Composite	07-20-94	Electrofishing	71	4	1.12				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	61	3	1.32				
		Blacknose Dace	Composite	07-20-94	Electrofishing	74	5	1.23				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	78	5	1.05				
		Blacknose Dace	Composite	07-20-94	Electrofishing	70	4	1.17				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	60	2	0.93				
Z29-TR-W-C-BD-009	Pool 16	Blacknose Dace	Composite	07-20-94	Electrofishing	72	3	0.80	8.13	2.00	ND	2.00
		Blacknose Dace	Composite	07-20-94	Electrofishing	70	4	1.17				
		Blacknose Dace	Composite	07-20-94	Electrofishing	70	4	1.17				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-C-BD-009	Pool 16	Blacknose Dace	Composite	07-20-94	Electrofishing	70	3	0.87				
		Blacknose Dace	Composite	07-20-94	Electrofishing	77	5	1.10				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	4	0.95				
		Blacknose Dace	Composite	07-20-94	Electrofishing	81	6	1.13				
		Blacknose Dace	Composite	07-20-94	Electrofishing	66	3	1.04				
		Blacknose Dace	Composite	07-20-94	Electrofishing	78	5	1.05				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	4	1.03				
229-TR-W-C-BD-010	Pool 20	Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07	9.63	1.90	ND	1.90
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	71	4	1.12				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	5	1.19				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	5	1.19				
		Blacknose Dace	Composite	07-20-94	Electrofishing	75	5	1.19				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	86	5	0.79				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	4	0.91				
		Blacknose Dace	Composite	07-20-94	Electrofishing	80	5	0.98				
		Blacknose Dace	Composite	07-20-94	Electrofishing	74	5	1.23				
229-TR-W-C-BD-011	Pool 21	Blacknose Dace	Composite	07-20-94	Electrofishing	80	5	0.98	8.95	2.40	ND	2.40
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	5	1.14				

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-C-BD-011	Pool 21	Blacknose Dace	Composite	07-20-94	Electrofishing	75	4	0.95				
		Blacknose Dace	Composite	07-20-94	Electrofishing	80	5	0.98				
		Blacknose Dace	Composite	07-20-94	Electrofishing	73	4	1.03				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	4	0.91				
		Blacknose Dace	Composite	07-20-94	Electrofishing	76	4	0.91				
		Blacknose Dace	Composite	07-20-94	Electrofishing	74	5	1.23				
		Blacknose Dace	Composite	07-20-94	Electrofishing	72	4	1.07				
		Blacknose Dace	Composite	07-20-94	Electrofishing	79	5	1.01				
229-TR-W-C-BG-001	Pool 12	Bluegill	Composite	07-20-94	Electrofishing	55	4	2.40	4.08	0.95	ND	0.95
		Bluegill	Composite	07-20-94	Electrofishing	55	4	2.40				
		Bluegill	Composite	07-20-94	Electrofishing	58	4	2.05				
		Bluegill	Composite	07-20-94	Electrofishing	49	2	1.70				
		Bluegill	Composite	07-20-94	Electrofishing	54	3	1.91				
		Bluegill	Composite	07-20-94	Electrofishing	47	2	1.93				
		Bluegill	Composite	07-20-94	Electrofishing	47	2	1.93				
		Bluegill	Composite	07-20-94	Electrofishing	48	2	1.81				
		Bluegill	Composite	07-20-94	Electrofishing	48	3	2.71				
229-TR-W-C-BG-002	Pool 21	Bluegill	Composite	07-20-94	Electrofishing	54	2	1.27	4.03	0.74	ND	0.74
		Bluegill	Composite	07-20-94	Electrofishing	63	5	2.00				
		Bluegill	Composite	07-20-94	Electrofishing	42	2	2.70				
		Bluegill	Composite	07-20-94	Electrofishing	50	2	1.60				
		Bluegill	Composite	07-20-94	Electrofishing	61	5	2.20				
		Bluegill	Composite	07-20-94	Electrofishing	63	5	2.00				
		Bluegill	Composite	07-20-94	Electrofishing	51	3	2.26				
		Bluegill	Composite	07-20-94	Electrofishing	50	3	2.40				
		Bluegill	Composite	07-20-94	Electrofishing	47	2	1.93				
		Bluegill	Composite	07-20-94	Electrofishing	50	3	2.40				

TABLE 3 (Continued)

PCB AND PERCENTAGE LIPID CONTENT OF WHOLE BODY FISH SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Fish Sample I.D. Number	Sampling Location	Fish Species	Sample Type	Data Collected	Method of Collection	Total Length (mm)	Total Weight (gr)	Condition Factor (K-TL)	Percentage Lipid Content (% wet wt.)	PCB Concentration (ppm) [1]		
										Aroclor 1254	Aroclor 1260	Total PCBs
229-TR-W-C-BG-002	Pool 21	Bluegill	Composite	07-20-94	Electrofishing	53	3	2.02				
		Bluegill	Composite	07-20-94	Electrofishing	43	2	2.52				
		Bluegill	Composite	07-20-94	Electrofishing	50	2	1.60				
		Bluegill	Composite	07-20-94	Electrofishing	51	2	1.51				

NOTES:

[1] The analytical detection limit for PCBs was 0.02 ppm.
[2] PCBs were not detected in the sample at a detection limit of 0.02 ppm.

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TABLE 4

SUMMARY OF TOTAL PCB CONTENT OF WHOLE BODY FISH SAMPLES
FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK AND
FROM A BREACHED POND NEAR EDEN, NEW YORK DURING LATE JULY 1994

Sampling Location/Fish Species	Sample Size (Including Duplicates)	Total PCB Concentration (ppm) Mean	Minimum	Maximum	Percentage of Observations Between 1 and 3 ppm
BREACHED POND					
Largemouth Bass	2	3.65	1.50	5.80	0/2 = 0%
Bluegill	4	1.57	1.20	2.20	4/4 = 100%
Creek Chub	5	1.48	0.80	2.10	4/5 = 80%
Pond Subtotals	11	1.94	0.80	5.80	8/11 = 72.7%
TRIBUTARY (DOWNSTREAM FROM HIGHWAY 75)					
Creek Chub	43	1.27	0.46	2.90	28/43 = 65.1%
Blacknose Dace	12	2.19	1.50	3.10	11/12 = 91.7%
Bluegill	2	0.85	0.74	0.95	0/2 = 0%
Tributary Subtotals	57	1.45	0.46	3.10	39/57 = 68.4%
OVERALL TOTALS	68[1]	1.53	0.46	5.80	47/68 = 69.1%

NOTES: [1] Includes 4 duplicate samples.

Woodward-Clyde

TABLE 5

PCB CONCENTRATIONS AND TOTAL ORGANIC CARBON CONTENT OF SEDIMENT SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK NEAR EDEN, NEW YORK DURING LATE JULY 1994

Sampling Location	Location of Sample on Transect	Sediment Sample I.D. Number	Total PCB Concentration (ppm)[1]	Total Organic Carbon Content (%)[2]
HIGHWAY75 BRIDGE				
Pool 1	North	229-SD-PCB-001	< 0.1	1.21, 1.34
	Middle	229-SD-PCB-002	< 0.1	1.92, 2.20
	South	229-SD-PCB-003	< 0.1	1.34, 1.71
Pool 3	North	229-SD-PCB-004	< 0.1	1.02, 0.88
	Middle	229-SD-PCB-005	< 0.1	1.03, 1.18
	South	229-SD-PCB-006	< 0.1	1.81, 1.51
Pool 4	North	229-SD-PCB-007	< 0.1	1.23, 0.71
	Middle	229-SD-PCB-008	< 0.1	1.03, 0.86
	South	229-SD-PCB-009	< 0.1	1.35, 0.10
Pool 5	North	229-SD-PCB-010	< 0.1	0.81, 0.84
	Middle	229-SD-PCB-011	< 0.1	1.15, 0.90
	South	229-SD-PCB-012	< 0.1	1.11, 1.08
Pool 6	North	229-SD-PCB-013	< 0.1	1.04, 0.071
	Middle	229-SD-PCB-014	< 0.1	2.11, 1.68
	Middle	229-SD-PCB-014A	< 0.1	2.30, 1.73
	South	229-SD-PCB-015	< 0.1	0.87, 0.99
Pool 7	North	229-SD-PCB-016	< 0.1	0.77, 1.29
	Middle	229-SD-PCB-017	< 0.1	0.90, 1.01
	South	229-SD-PCB-018	< 0.1	0.73, 0.42
Pool 8	North	229-SD-PCB-019	< 0.1	1.11, 0.50
	Middle	229-SD-PCB-020	< 0.1	1.63, 1.70
	South	229-SD-PCB-021	< 0.1	1.20, 1.74
Pool 9	North	229-SD-PCB-022	< 0.1	1.11, 1.17
	Middle	229-SD-PCB-023	< 0.1	2.72, 1.35
	South	229-SD-PCB-024	< 0.1	0.96, 1.14
Pool 10	North	229-SD-PCB-025	< 0.1	1.58, 1.66
	Middle	229-SD-PCB-026	< 0.1	1.22, 0.75
	South	229-SD-PCB-027	< 0.1	1.71, 0.95
Pool 11	North	229-SD-PCB-028	< 0.1	2.17, 0.36
	Middle	229-SD-PCB-029	< 0.1	1.22, 1.00
	South	229-SD-PCB-030	< 0.1	0.30, 0.12
Pool 12	North	229-SD-PCB-031	< 0.1	0.50, 1.15
	Middle	229-SD-PCB-032	< 0.1	1.99, 1.73
	South	229-SD-PCB-033	< 0.1	1.20, 1.00

TABLE 5 (Continued)

PCB CONCENTRATIONS AND TOTAL ORGANIC CARBON CONTENT OF SEDIMENT SAMPLES FROM A REACH OF AN UNNAMED TRIBUTARY OF EIGHTEENMILE CREEK NEAR EDEN, NEW YORK DURING LATE JULY 1994

Sampling Location	Location of Sample on Transect	Sediment Sample I.D. Number	Total PCB Concentration (ppm)[1]	Total Organic Carbon Content (%)[2]
HIGHWAY75 BRIDGE				
Pool 13	North	229-SD-PCB-034	< 0.1	1.03, 1.02
	Middle	229-SD-PCB-035	< 0.1	0.90, 0.91
	South	229-SD-PCB-036	< 0.1	1.09, 1.04
	South	229-SD-PCB-036A	< 0.1[3]	———
Pool 15	North	229-SD-PCB-037	< 0.1	1.19, 1.08
	Middle	229-SD-PCB-038	< 0.1	1.02, 1.48
	Middle	229-SD-PCB-038A	—	1.36, 1.12[3]
	South	229-SD-PCB-039	< 0.1	1.26, 1.21
Pool 16	North	229-SD-PCB-040	< 0.1	1.39, 1.37
	Middle	229-SD-PCB-041	< 0.1	1.12, 1.04
	South	229-SD-PCB-042	< 0.1	1.78, 1.17
Pool 17	North	229-SD-PCB-043	< 0.1	1.13, 1.25
	Middle	229-SD-PCB-044	< 0.1	0.88, 0.67
	South	229-SD-PCB-045	< 0.1	1.57, 1.64
	South	229-SD-PCB-045A	< 0.1[4]	1.67, 1.72
Pool 18	North	229-SD-PCB-046	< 0.1	1.29, 0.95
	Middle	229-SD-PCB-047	< 0.1	1.74, 0.85
	South	229-SD-PCB-048	< 0.1	1.15, 0.79
Pool 19	North	229-SD-PCB-049	< 0.1[4]	1.27, 1.00
	Middle	229-SD-PCB-050	< 0.1	0.96, 1.32
	South	229-SD-PCB-051	< 0.1	1.97, 2.33
Pool 20	North	229-SD-PCB-052	0.186	2.08, 1.89
	Middle	229-SD-PCB-053	< 0.1	1.40, 2.87
	South	229-SD-PCB-054	< 0.1	1.50, 2.21
Pool 21	North	229-SD-PCB-055	< 0.1	2.81, 1.34
	Middle	229-SD-PCB-056	< 0.1	1.37, 1.61
	South	229-SD-PCB-057	< 0.1	1.90, 0.88
HIGHWAY62 BRIDGE				

NOTES:
[1] The analytical reporting limit for PCBs was 0.1 ppm wet weight.
[2] Two separate analyses were performed on each sample.
[3] Duplicate analyses.
[4] Estimated concentration due to low surrogate recoveries.

TABLE 1

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE REPORT
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

FISH SAMPLING AND ANALYTICAL RESULTS [1]
1998 STATION LAKE TRIBUTARY [2]
(Collection Dates: 9/30/98 - 10/1/98)

Species/Sample #	Fish per Sample	Length-range (cm)	Weight-range (g)	Sample Weight (g)	Lipid (%)	Total PCB [3,4] (mg/kg)	Lipid-Normalized PCB [4] (mg/kg-lipid)
Blacknose Dace							
SLT-001	10	6.3-8.1	2.4-5.5	36.6	4.09	2.00	48.9
SLT-002	10	6.2-8.2	2.2-5.4	34.5	4.32	1.50	34.7
SLT-003	9	6.0-8.0	1.8-4.8	26.4	3.51	2.10	59.8
SLT-004	9	6.0-7.3	2.0-4.5	26.5	3.68	2.60	70.7
SLT-005	9	6.0-7.5	2.1-4.0	28.1	3.43	1.90	55.4
SLT-006	8	6.7-7.8	2.4-4.6	26.9	4.15	1.20	28.9
SLT-007	8	6.0-8.3	2.2-5.5	26.8	3.25	1.50	46.2
SLT-008	7	6.0-8.5	2.2-5.8	28.3	3.95	2.50	63.3
Mean [5]	NA	NA	NA	29.3	3.80	1.91	51.0
Standard Deviation	NA	NA	NA	4.0	0.36	0.49	14.2
Creek Chub							
SLT-009	5	8.7-12.0	6.4-17.1	62.4	2.36	0.66	28.0
SLT-010	5	7.6-12.3	4.5-17.5	52.8	3.08	1.10	35.7
SLT-011	5	9.4-11.6	7.9-16.8	62.3	2.73	1.10	40.3
SLT-012	5	7.8-12.1	5.0-20.3	47.9	2.79	0.78	28.0
SLT-013	5	9.4-11.7	8.5-17.0	54.5	2.68	0.89	33.2
SLT-014	5	8.1-12.5	5.6-19.4	60.6	5.14	1.90	37.0
SLT-015	5	8.3-11.0	5.8-13.0	43.0	2.23	0.77	34.5
SLT-016	5	10.4-11.3	10.9-14.9	63.2	3.28	1.90	57.9
Mean [5]	NA	NA	NA	55.8	3.04	1.14	36.8
Standard Deviation	NA	NA	NA	7.6	0.92	0.50	9.5

Notes:

[1] Fish samples prepared as whole-body composites

[2] 1998 fish sampling also targeted breached pond and Station Lake Tributary. Breached pond did not support a resident fish population at the time of sampling.

[3] Total PCBs represented by Aroclor 1254

[4] Total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.

[5] Arithmetic mean concentration

cm = centimeters
g = grams
mg/kg = milligram per kilogram (ppm - parts per million)
NA = not applicable

TABLE 2

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE REPORT
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

COMPARISON OF MEAN PCB CONCENTRATIONS IN STATION LAKE TRIBUTARY FISH TISSUES [1,2]
(Collection Dates: 7/19/94 - 7/21/94 and 9/30/98 - 10/1/98)

Species/Year	Sample Size	Lipid (%)	Total PCB [3,4] (mg/kg)	Lipid-Normalized PCB [4] (mg/kg-lipid)
Blacknose Dace				
1994	3	6.43 (1.10)	2.77 (0.29)	44.4 (12.4)
1998	8	3.80 (0.38)	1.91 (0.49)	51.0 (14.2)
Creek Chub				
1994	9	7.03 (0.82)	1.88 (0.41)	26.6 (4.6)
1998	8	3.04 (0.92)	1.14 (0.50)	36.8 (9.5)

Notes:

[1] Arithmetic mean concentrations (and standard deviation) for whole-body composite samples collected from Station Lake Tributary between Highway 75 and Hickman Road.

[2] 1998 fish tissue PCB concentrations are unavailable for breached pond (since breached pond did not support a fish population at the time the 1998 fish collections were completed), and as such, an assessment of breached pond fish tissue PCB concentration trends was not performed at this time.

[3] Total PCBs represented by Aroclor 1254.

[4] Mean total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.

mg/kg = milligram per kilogram (ppm - parts per million)

TABLE 1

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE ACTIVITIES
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

FISH SAMPLING AND ANALYTICAL RESULTS [1]
2000 STATION LAKE TRIBUTARY AND BREACHED POND
(Collection Dates: 10/05/00 - 10/06/00)

Species/Sample #	Fish per Sample	Length-range (cm)	Weight-range (g)	Analytical Sample Weight (g)	Lipid (%)	Total PCB [2,3] (mg/kg)	Lipid-Normalized PCB [3] (mg/kg-lipid)
Station Lake Tributary - Blacknose Dace							
SLT-017	8	7.4 - 8.3	4.9 - 7.0	10.2	7.1	0.84	11.8
SLT-018	8	7.1 - 8.3	4.4 - 6.6	10.2	6.9	0.81	11.7
SLT-019	8	6.5 - 8.1	2.8 - 6.7	10.3	6.2	0.68	11.0
SLT-020	8	6.3 - 8.3	2.5 - 6.8	10.2	5.4	0.55	10.2
SLT-021	8	6.7 - 8.4	3.3 - 7.0	10.2	5.8	0.35	6.0
SLT-022	8	7.2 - 8.3	3.4 - 5.6	10.2	6.3	0.66	10.5
SLT-023	8	6.5 - 8.2	3.1 - 6.5	10.3	6.7	0.60	9.0
SLT-024	8	7.2 - 8.5	3.9 - 7.2	10.0	6.8	0.51	7.5
Mean [4]	NA	NA	NA	10.2	6.40	0.63	9.71
Standard Deviation	NA	NA	NA	0.09	0.59	0.16	2.07
Station Lake Tributary - Creek Chub							
SLT-025	5	6.1 - 12.5	2.6 - 22.2	10.4	3.7	0.23	6.2
SLT-026	5	6.6 - 12.5	3.1 - 24.4	10.3	5.5	0.41	7.5
SLT-027	5	7.2 - 11.2	4.0 - 17.3	10.3	3.6	0.23	6.4
SLT-028	5	6.8 - 10.5	3.3 - 13.8	10.3	3.5	0.24	6.9
SLT-029	5	6.5 - 12.9	2.5 - 23.3	10.4	6.2	0.49	7.9
SLT-030	5	7.1 - 12.3	3.8 - 19.7	10.1	3.9	0.22	5.6
SLT-031	5	6.7 - 12.6	2.8 - 25.0	10.2	4.1	0.25	6.1
SLT-032	5	7.6 - 12.5	4.3 - 23.4	10.2	3.1	0.29	9.4
Mean [4]	NA	NA	NA	10.3	4.20	0.30	6.99
Standard Deviation	NA	NA	NA	0.10	1.08	0.10	1.21
Breached Pond - Creek Chub							
BP-001	5	10.2 - 14.2	12.2 - 35.6	10.1	4.7	0.56	11.9
BP-002	5	9.2 - 13.2	8.4 - 32.3	10.1	4.9	0.36	7.3
BP-003	5	9.9 - 13.6	9.8 - 32.5	10.0	5.3	0.52	9.8
BP-004	5	10.3 - 13.3	11.8 - 25.4	10.2	5.1	0.48	9.4
BP-005	5	9.8 - 13.9	9.8 - 36.5	10.3	4.9	0.42	8.6
BP-006	5	10.3 - 12.2	12.5 - 23.5	10.1	4.7	0.40	8.5
BP-007	5	11.3 - 12.3	15.1 - 21.6	10.1	4.9	0.54	11.0
BP-008	5	10.7 - 12.4	13.9 - 21.6	10.1	4.3	0.87	20.2
Mean [4]	NA	NA	NA	10.1	4.85	0.52	10.9
Standard Deviation	NA	NA	NA	0.09	0.30	0.15	4.06

See Notes on Page 2

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Prepared By
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TABLE 1

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON TEXAS

OPERATIONS AND MAINTENANCE ACTIVITIES
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

FISH SAMPLING AND ANALYTICAL RESULTS [1]
2000 STATION LAKE TRIBUTARY AND BREACHED POND
(Collection Dates: 10/05/00 - 10/06/00)

Species/Sample #	Fish per Sample	Length-range (cm)	Weight-range (g)	Analytical Sample Weight (g)	Lipid (%)	Total PCB [2,3] (mg/kg)	Lipid-Normalized PCB [3] (mg/kg-lipid)
BP-009	5	7.6 - 9.6	6.0 - 12.2	10.0	3.9	0.81	20.8
BP-010	5	5.0 - 13.7	2.0 - 10.6	10.3	3.2	0.69	21.6
BP-011	5	5.3 - 12.3	2.0 - 29.7	10.1	3.3	0.42	12.7
BP-012	5	8.0 - 11.0	6.0 - 19.5	10.1	3.8	0.50	13.2
BP-013	5	7.5 - 9.9	6.1 - 14.6	10.1	4.4	0.43	9.8
BP-014	5	8.6 - 9.1	8.7 - 10.9	10.2	4.1	0.42	10.2
BP-015	5	6.3 - 9.2	3.5 - 11.4	10.1	3.8	0.75	19.7
Mean [4]	NA	NA	NA	10.1	3.79	0.57	15.4
Standard Deviation	NA	NA	NA	0.10	0.42	0.17	5.10
Breached Pond - Bluegill							
BP-016	5	5.4 - 6.3	2.6 - 4.1	10.1	3.5	6.40	182.9
BP-017	5	4.6 - 8.9	1.6 - 10.8	10.3	3.5	5.70	162.9
BP-018	5	4.7 - 9.1	1.6 - 13.5	10.0	4.6	2.20	47.8
BP-019	5	5.4 - 8.4	2.2 - 9.9	10.2	4.6	3.60	78.3
BP-020	5	5.0 - 8.2	2.0 - 8.9	10.1	4.1	5.40	131.7
BP-021	5	5.1 - 8.3	2.0 - 8.8	10.1	3.1	3.80	122.6
BP-022	5	5.0 - 7.7	2.0 - 7.6	10.1	3.8	4.90	128.9
Mean [4]	NA	NA	NA	10.1	3.89	4.57	122.1
Standard Deviation	NA	NA	NA	0.10	0.58	1.45	46.4
Breached Pond - Pumpkin Seed							
BP-023	5	5.6 - 8.7	3.3 - 13.3	10.2	4.7	0.37	7.9
BP-024	5	5.6 - 7.9	3.3 - 9.9	10.1	4.7	0.36	7.7
BP-025	5	5.7 - 7.4	3.6 - 7.5	10.1	4.5	0.30	6.7
BP-026	5	5.6 - 8.0	3.4 - 9.8	7.1	2.8	0.24	8.6
Mean [4]	NA	NA	NA	9.38	4.18	0.32	7.69
Standard Deviation	NA	NA	NA	1.52	0.92	0.06	0.79

Notes:

[1] Fish samples prepared as whole-body composites.

[2] Total PCBs represented by Aroclor 1254

[3] Total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.

[4] Arithmetic mean concentration.

cm = centimeters

g = grams

mg/kg = milligram per kilogram (ppm - parts per million)

NA = not applicable

2/28/01
07811550

Prepared By
Blasland Bouck Lee, Inc.

TABLE 2

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE REPORT
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

COMPARISON OF MEAN PCB CONCENTRATIONS IN FISH TISSUES [1,2]
(Collection Dates: 7/19/94 - 7/21/94, 9/30/98 - 10/01/98, and 10/05/00 - 10/06/00)

Species/Year	Sample Size	Lipid (%)	Total PCB [3,4] (mg/kg)	Lipid-Normalized PCB [4] (mg/kg-lipid)
STATION LAKE TRIBUTARY				
Blacknose Dace				
1994	3	6.43 (1.10)	2.77 (0.29)	44.4 (12.4)
1998	8	3.80 (0.38)	1.91 (0.49)	51.0 (14.2)
2000	8	6.40 (0.59)	0.63 (0.16)	9.71 (2.07)
Creek Chub				
1994	9	7.03 (0.82)	1.88 (0.41)	26.6 (4.6)
1998	8	3.04 (0.92)	1.14 (0.50)	36.8 (9.5)
2000	8	4.20 (1.08)	0.30 (0.10)	6.99 (1.21)
BREACHED POND				
Creek Chub				
1994	4	5.86 (0.65)	1.65 (0.34)	28.0 (3.61)
1998	NA	NA	NA	NA
2000	8	4.85 (0.30)	0.52 (0.16)	10.9 (4.06)
Largemouth Bass				
1994	2	2.38 (0.26)	3.65 (3.04)	147.5 (111.8)
1998	NA	NA	NA	NA
2000	7	3.79 (0.42)	0.57 (0.17)	15.4 (5.10)
Bluegill [5]				
1994	3	3.73 (0.30)	1.63 (0.51)	44.3 (16.2)
1998	NA	NA	NA	NA
2000	7	3.89 (0.58)	4.57 (1.45)	122.1 (46.4)
Pumpkin Seed [5]				
1994	NA	NA	NA	NA
1998	NA	NA	NA	NA
2000	4	4.18 (0.92)	0.32 (0.06)	7.69 (0.79)

Notes:

[1] Arithmetic mean concentrations (and standard deviation) for whole-body composite samples collected from Station Lake Tributary between Highway 75 and Hickman Road.

[2] 1998 fish tissue PCB concentrations are unavailable for breached pond (since breached pond did not) support a fish population at the time of the 1998 fish collections were completed), and as such, an assessment of breached pond fish tissue PCB concentration trends was not performed for 1998.

[3] Total PCBs represented by Aroclor 1254.

[4] Mean total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.

[5] 1994 data for bluegill incorporated one pumpkin seed within the calculations for percent lipids, mean total PCB concentration, and mean lipid-normalized PCB concentration.

mg/kg = milligram per kilogram (ppm - parts per million)
NA = not available

TABLE 1

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE ACTIVITIES
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

FISH SAMPLING AND ANALYTICAL RESULTS [1]
2002 STATION LAKE TRIBUTARY [2]
(Collection Date: 9/05/02 - 9/06/02)

Species/Sample #	Fish per Sample	Length-range (cm)	Weight-range (g)	Sample Weight [3] (g)	Lipid (%)	Total PCB [4,5] (mg/kg)	Lipid-Normalized PCB [5] (mg/kg-lipid)
Station Lake Tributary - Blacknose Dace							
SLT-033	6	7.2-8.7	3.3-6.3	31.1	6.7	0.68	10.1
SLT-034	6	6.9-8.2	2.8-5.4	23.3	5.3	0.52 EJ	9.8 EJ
SLT-035	6	6.8-8.8	2.9-7.4	28.7	7.7	0.82 EJ	10.6 EJ
SLT-036	6	6.8-8.2	2.9-5.2	26.3	8.4	0.79	9.4
SLT-037	6	6.6-7.8	2.3-5.0	24.4	6.3	0.54 EJ	8.6 EJ
SLT-038	6	6.7-8.3	2.7-5.6	24.5	6.0	0.66	11.0
SLT-039	6	6.4-8.1	2.3-5.3	24.0	7.0	0.77	11.0
SLT-040	6	6.3-7.6	2.4-4.3	22.3	7.2	0.67	9.3
Mean [6]	6	NA	NA	25.6	6.4	0.68	10.0
Standard Deviation	NA	NA	NA	3.0	1.0	0.11	0.9
Station Lake Tributary - Creek Chub							
SLT-041	3	11.2-13.6	13.2-27.1	58.3	4.2	0.33	7.9
SLT-042	3	11.3-13.0	16.8-25.4	59.4	4.0	0.24	6.0
SLT-043	3	10.9-13.4	12.4-26.0	55.0	5.0	0.28	5.6
SLT-044	3	10.8-13.2	13.7-23.6	51.7	7.3	0.37	5.1
SLT-045	3	10.3-12.9	11.2-22.2	52.1	5.4	0.38	7.0
SLT-046	5	6.5-7.2	2.9-3.6	15.8	2.5	0.13	5.2
SLT-047	5	6.3-7.9	2.5-3.7	16.3	2.4	0.12	5.0
SLT-048	5	6.6-7.5	2.2-4.0	15.0	2.2	0.08	3.4
Mean [6]	4	NA	NA	40.5	4.13	0.24	5.6
Standard Deviation	1	NA	NA	20.7	1.77	0.12	1.4

Notes:

[1] Fish samples prepared as whole-body composites

[2] 2002 fish sampling targeted Breached Pond and Station Lake Tributary. Breached Pond did not support a resident fish population at the time of sampling.

[3] Total weight of composite sample.

[4] Total PCBs represented by Aroclor 1254

[5] Total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.

[6] Arithmetic mean concentration

cm = centimeters

g = grams

E = indicates compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

J = indicates an estimated value

mg/kg = milligram per kilogram (ppm - parts per million)

NA = not applicable

TABLE 2

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE REPORT
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

COMPARISON OF MEAN PCB CONCENTRATIONS IN FISH TISSUES [1,2]
(Collection Dates: 7/19/94 - 7/21/94, 9/30/98 - 10/01/98, 10/05/00 - 10/06/00, and 9/05/02 - 9/06/02)

Species/Year	Average Sample Size	Lipid (%)	Total PCB [3,4] (mg/kg)	Lipid-Normalized PCB [4] (mg/kg-lipid)
STATION LAKE TRIBUTARY				
Blacknose Dace				
1994	3	6.43 (1.10)	2.77 (0.29)	44.4 (12.4)
1998	8	3.80 (0.38)	1.91 (0.49)	51.0 (14.2)
2000	8	6.40 (0.59)	0.63 (0.16)	9.71 (2.07)
2002	6	6.40 (1.00)	0.68 (0.11)	10.0 (0.9)
Creek Chub				
1994	9	7.03 (0.82)	1.88 (0.41)	26.6 (4.6)
1998	8	3.04 (0.92)	1.14 (0.50)	36.8 (9.5)
2000	5	4.20 (1.08)	0.30 (0.10)	6.99 (1.21)
2002	4	4.13 (1.77)	0.24 (0.12)	5.6 (1.4)
BREACHED POND				
Creek Chub				
1994	4	5.86 (0.65)	2.77 (0.29)	44.4 (12.4)
1998	NA	NA	NA	NA
2000	8	4.85 (0.30)	0.52 (0.16)	10.9 (4.06)
2002	NA	NA	NA	NA
Largemouth Bass				
1994	2	2.38 (0.26)	3.65 (3.04)	147.5 (11.8)
1998	NA	NA	NA	NA
2000	7	3.79 (0.42)	0.52 (0.17)	15.4 (5.10)
2002	NA	NA	NA	NA
Bluegill [5]				
1994	3	3.73 (0.30)	1.63 (0.51)	44.3 (16.2)
1998	NA	NA	NA	NA
2000	7	3.89 (0.58)	4.57 (1.45)	122.1 (46.4)
2002	NA	NA	NA	NA
Pumpkin Seed				
1994	NA	NA	NA	NA
1998	NA	NA	NA	NA
2000	4	4.18 (0.92)	0.32 (0.06)	7.69 (0.79)
2002	NA	NA	NA	NA

Notes:

[1] Arithmetic mean concentrations (and standard deviation) for whole-body composite samples collected from Station Lake Tributary between Highway 75 and Hickman Road.

[2] 1998 and 2002 fish tissue PCB concentrations are unavailable for Breached Pond (since Breached Pond did not support a fish population at the time fish collections were completed), as such, an assessment of Breached Pond fish tissue PCB concentration trends was not performed for 1998 or 2002.

[3] Total PCBs represented by Aroclor 1254.

[4] Mean total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.

[5] 1994 data for bluegill incorporated one pumpkin seed within the calculations for percent lipids, mean total PCB concentration, and mean lipid-normalized PCB concentration.

mg/kg = milligram per kilogram (ppm - parts per million)
NA = not available

TABLE 1

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE ACTIVITIES
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

FISH SAMPLING AND ANALYTICAL RESULTS
2004 STATION LAKE TRIBUTARY AND BREACHED POND
(Collection Date: 5/13/04)

Location/Species/ Sample #	Number of Fish [1]	Length Range (min-max, cm)	Sample Weight [2] (g)	Lipid (%)	Total PCB [3,4] (mg/kg)	Lipid-Normalized PCB [4] (mg/kg-lipid)
Station Lake Tributary - Blacknose Dace						
SLT-049	5	7.2 - 8.2	28.9	7.88	0.79	10
SLT-050	5	7.4 - 7.7	27.0	7.64	0.74	10
SLT-051	5	7.4 - 8.3	29.4	7.38	0.75	10
SLT-052	5	7.3 - 8.0	29.1	6.08	0.62	10
SLT-053	5	7.3 - 7.7	24.2	6.74	0.85	13
SLT-054	5	7.4 - 8.2	27.7	7.41	0.79	11
SLT-055	5	6.8 - 8.0	26.2	7.42	0.90	12
SLT-056	5	7.2 - 7.9	27.0	8.14	0.69	8.5
Mean [5]	NA	NA	27.4	7.34	0.77	10
Standard Deviation	NA	NA	1.7	0.65	0.09	1.3
Station Lake Tributary - Creek Chub						
SLT-057	6	11.1 - 12.2	133.7	10.50	0.59	5.6
SLT-058	3	11.4 - 12.0	62.5	7.02	0.59	8.4
SLT-059	3	12.4 - 13.2	80.0	7.49	0.61	8.1
SLT-060	5	6.5 - 7.5	23.9	7.44	0.36	4.8
SLT-061	5	9.8 - 10.4	68.3	8.65	0.74	8.6
SLT-062	5	10.7 - 11.3	83.5	8.24	0.74	9.0
SLT-063	5	10.3 - 11.2	76.4	7.74	0.90	12
SLT-064	5	9.3 - 11.5	65.7	7.32	1.4	19
Mean [5]	NA	NA	74.3	8.05	0.74	9.4
Standard Deviation	NA	NA	30.3	1.12	0.31	4.4
Breached Pond - Pumpkinseed						
BP-027	5	5.1 - 5.4	13.3	4.17	0.16	3.8
BP-028	5	5.1 - 5.7	14.9	3.58	0.11	3.1
BP-029	5	5.0 - 5.4	12.8	3.60	0.15	4.2
BP-030	5	5.3 - 5.6	15.0	3.88	0.11	2.8
BP-031	5	5.2 - 5.3	12.0	3.26	0.13	4.0
BP-032	5	5.3 - 5.7	12.8	4.27	0.10	2.3
BP-033	5	5.1 - 5.8	12.7	4.22	0.14	3.3
BP-034	5	4.9 - 5.6	13.3	3.98	0.15	3.8
BP-035	5	5.3 - 5.7	14.6	3.89	0.11	2.8
BP-036	5	4.7 - 5.5	12.7	4.01	0.13	3.2
BP-037	15	5.7 - 6.7	70.1	3.31	0.10	3.0
Mean [5]	NA	NA	18.6	3.83	0.13	3.3
Standard Deviation	NA	NA	17.1	0.35	0.02	0.6

TABLE 1

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE ACTIVITIES
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

FISH SAMPLING AND ANALYTICAL RESULTS
2004 STATION LAKE TRIBUTARY AND BREACHED POND
(Collection Date: 5/13/04)

Location/Species/ Sample #	Number of Fish [1]	Length Range (min-max, cm)	Sample Weight [2] (g)	Lipid (%)	Total PCB [3,4] (mg/kg)	Lipid-Normalized PCB [4] (mg/kg-lipid)
Breached Pond - Creek Chub						
BP-038	3	10.8 - 11.7	49.6	4.63	0.54	12
BP-039	2	10.3 - 11.4	31.9	4.71	1.6	34
BP-040	7	4.6 - 7.0	13.0	6.21	2.4	39
BP-041	7	4.5 - 6.0	12.3	5.75	2.5	43
Mean [5]	NA	NA	26.7	5.33	1.8	32
Standard Deviation	NA	NA	17.8	0.78	0.91	14

Notes:

[1] Fish samples prepared as whole-body composites.

[2] Total weight of composite sample.

[3] Total PCBs represented by Aroclors 1248 and 1254.

[4] Total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.

[5] Arithmetic mean concentration.

cm = centimeters

g = grams

mg/kg = milligram per kilogram (ppm - parts per million)

NA = not applicable

TABLE 2

TENNESSEE GAS PIPELINE COMPANY - AN EL PASO ENERGY COMPANY
HOUSTON, TEXAS

OPERATIONS AND MAINTENANCE REPORT
COMPRESSOR STATION 229 - ERIE COUNTY, NEW YORK

COMPARISON OF MEAN PCB CONCENTRATIONS IN FISH TISSUES FROM STATION LAKE TRIBUTARY AND BREACHED POND
(Collection Dates: 7/19/94 - 7/21/94, 9/30/98 - 10/01/98, 10/05/00 - 10/06/00, 9/05/02 - 9/06/02, and 5/13/04)

Location/ Species/ Year	Number of Samples [1,2]	Lipid (%)	Total PCB [3,4] (mg/kg)	Lipid-Normalized PCB [4] (mg/kg-lipid)
STATION LAKE TRIBUTARY				
Blacknose Dace				
1994	--	6.43 (1.10)	2.77 (0.29)	44.4 (12.4)
1998	8	3.80 (0.38)	1.91 (0.49)	51.0 (14.2)
2000	8	6.40 (0.59)	0.63 (0.16)	9.71 (2.07)
2002	8	6.40 (1.00)	0.68 (0.11)	10.0 (0.9)
2004	8	7.34 (0.65)	0.77 (0.09)	10.0 (1.3)
Creek Chub				
1994	--	7.03 (0.82)	1.88 (0.41)	26.6 (4.6)
1998	8	3.04 (0.92)	1.14 (0.50)	36.8 (9.5)
2000	8	4.20 (1.08)	0.30 (0.10)	6.99 (1.21)
2002	8	4.13 (1.77)	0.24 (0.12)	5.6 (1.4)
2004	8	8.05 (1.12)	0.74 (0.31)	9.4 (4.4)
BREACHED POND				
Pumpkinseed				
1994	--	--	--	--
1998	--	--	--	--
2000	4	4.18 (0.92)	0.32 (0.06)	7.69 (0.79)
2002	--	--	--	--
2004	11	3.83 (0.35)	0.13 (0.02)	3.3 (0.6)
Creek Chub				
1994	--	5.86 (0.65)	2.77 (0.29)	44.4 (12.4)
1998	--	--	--	--
2000	8	4.85 (0.30)	0.52 (0.16)	10.9 (4.06)
2002	--	--	--	--
2004	4	5.33 (0.78)	1.8 (0.91)	32 (14)
Largemouth Bass				
1994	--	2.38 (0.26)	3.65 (3.04)	147.5 (11.8)
1998	--	--	--	--
2000	7	3.79 (0.42)	0.52 (0.17)	15.4 (5.10)
2002	--	--	--	--
2004	--	--	--	--
Bluegill [5]				
1994	--	3.73 (0.30)	1.63 (0.51)	44.3 (16.2)
1998	--	--	--	--
2000	7	3.89 (0.58)	4.57 (1.45)	122.1 (46.4)
2002	--	--	--	--
2004	--	--	--	--

Notes:

[1] Arithmetic mean concentrations (and standard deviation) for whole-body fish composite samples (the mean number of fish per sample is approximately five).

[2] 1998 and 2002 fish tissue PCB concentrations are unavailable for Breached Pond since Breached Pond did not support a fish population at the time fish collections were completed.

[3] Total PCBs represented by Aroclor 1254 for 1994, 1998, 2000, and 2002. In 2004, total PCBs were represented by Aroclors 1248 and 1254.

[4] Mean total PCB and lipid-normalized PCB concentrations reported on a wet-weight basis.

[5] 1994 data for bluegill incorporates one pumpkinseed sample in the calculation of percent lipid, mean total PCB, and mean lipid-normalized PCB.

mg/kg = milligram per kilogram (ppm - parts per million)

-- = not available

Woodward-Clyde

Engineering & science applied to the earth & its environment

May 26, 1995

Mr. Andrew English
New York State Department of Environmental Conservation
Bureau of Western Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, New York 12233-7010

Re: Tennessee Gas Pipeline Company
Final Report: Soil and Sediment Sampling Results
From A Tributary And A Breached Pond Between
Tennessee Gas Compressor Station 229 and Highway 62
Near Eden, New York, December 1994
Document Control Number WCC-NY-179
WCC File No. 91B650C-A

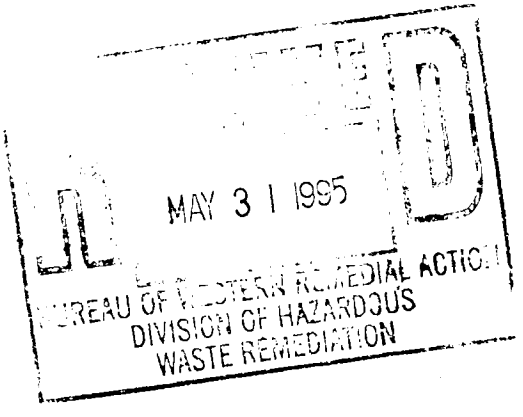
Dear Mr. English:

At the request of Mr. Ed Schaper of Tennessee Gas Pipeline Company, I am enclosing four copies of the above-referenced final report. This two-volume document reports the results from soil and sediment sampling associated with a tributary and a breached pond between Tennessee Gas Compressor Station 229 and Highway 62 near Eden, New York. The field work was performed during December 1994. If you have any questions regarding this document, please contact either of the undersigned at 504/751-1873 or Ed Schaper of Tennessee Gas at 713/757-2753.

Very truly yours,

Douglas R. Hahn, Ph.D.

William A. Beal



WAB:tal
Enclosure

91B650C\SSSR-FIN.LTR TG

cc: Mr. Ed Schaper, Tennessee Gas
Ms. Suzanne L. Bissonette, Town of Eden

Woodward-Clyde Consultants — A Subsidiary of Woodward-Clyde Group, Inc.
2822 O'Neal Lane (70816) • P.O. Box 66317 (70896) • Baton Rouge, Louisiana
(504) 751-1873 • Fax (504) 753-3616

PLATES

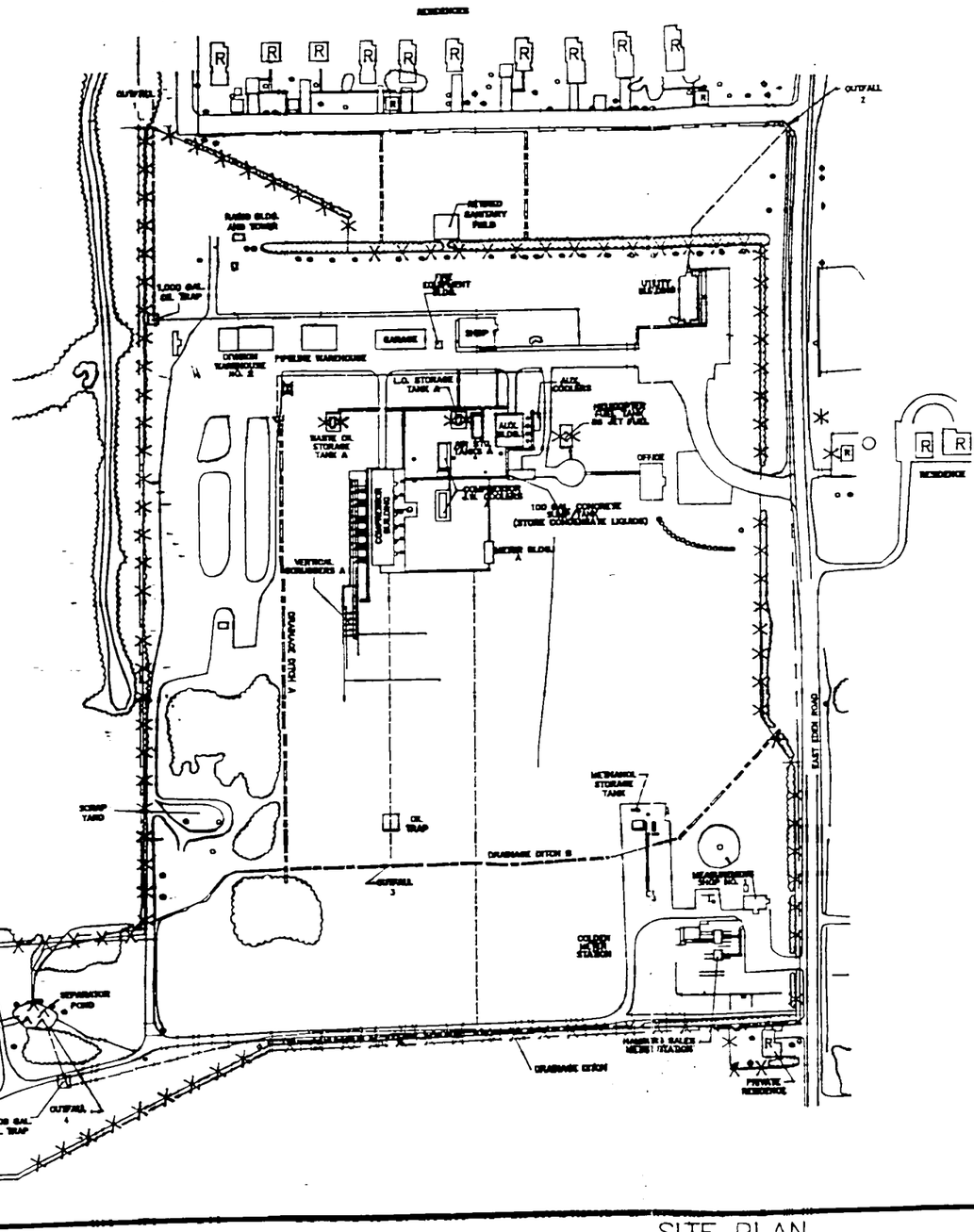
FIGURES

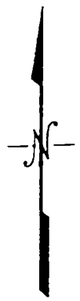
FIGURE 1

APPROX. SCALE : 1" = 533'

SITE VICINITY MAP NEAR
TENNESSEE GAS COMPRESSOR STATION 229
NEAR EDEN, NEW YORK

NORTH BOSTON ROAD





0 250 500

Scale in Feet

PROPERTY BOUNDARY

SITE FENCE

WATER BODY

DRAIN

DRAINAGE DITCH

R RESIDENCE

F:\021119A\1119AB01 08/02/91 JWH

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

ENVIRON
Counsel in Health and Environmental Science

SITE PLAN
TENNESSEE GAS PIPELINE COMPANY, COMPRESSOR STATION 229
EDEN, NEW YORK

Figure 2

TGPL Compressor Station 229

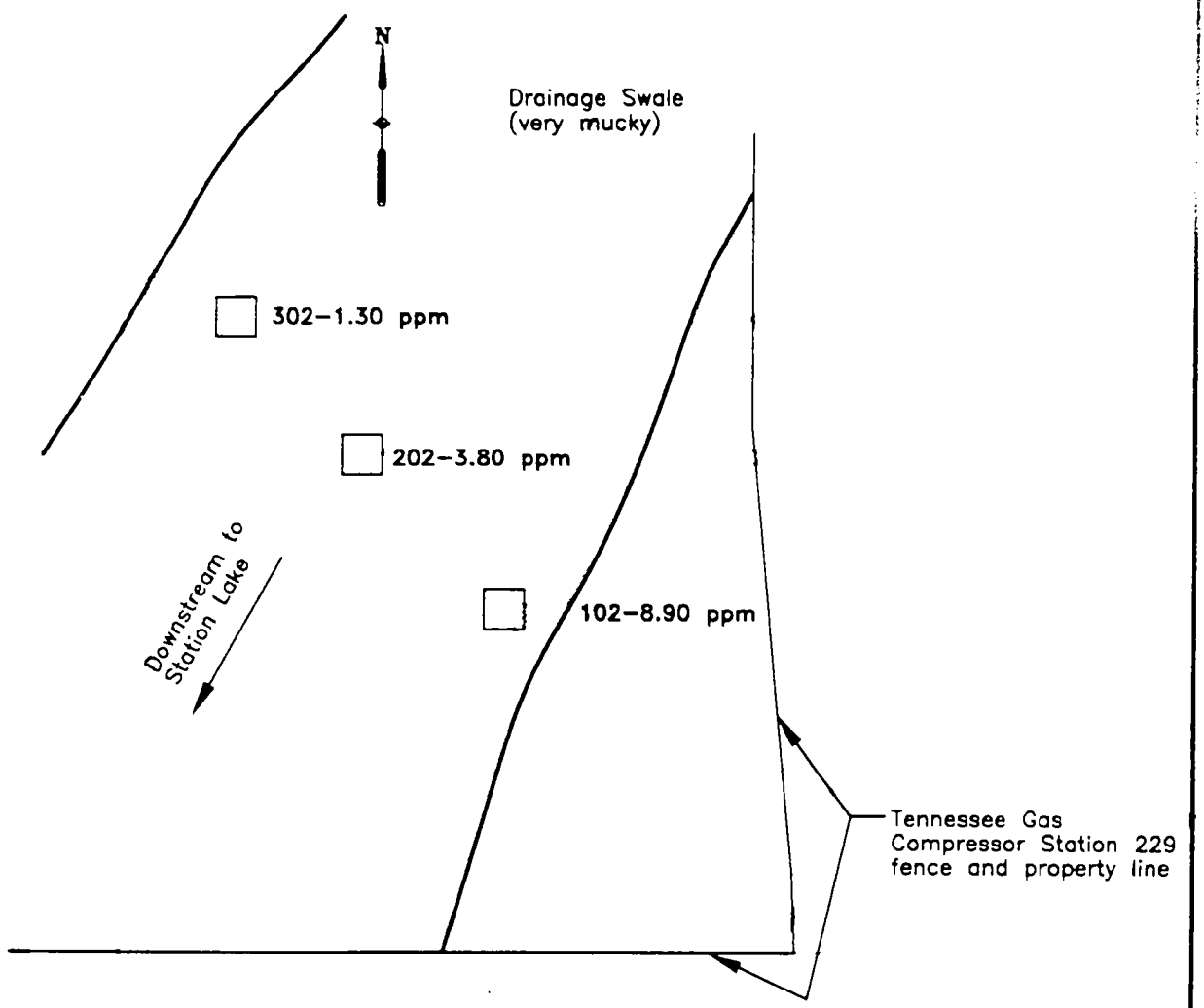
Property 010

December 1994

Before The Station Lake

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P10-102	Soil	0-2	Black very moist silt with heavy organics	8.90
229-SO-P10-202	Soil	0-2	Black very moist silt with heavy organics	3.80
229-SO-P10-302	Soil	0-2	Black very moist silt with heavy organics	1.30



Property Samples from Property A, Off-Site North of Station Lake

Location: Baton Rouge File name: K:\DRWG\TGP\229\P010.DWG Last edited: 03/29/95 @ 16:12

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 3

TGPL Compressor Station 229

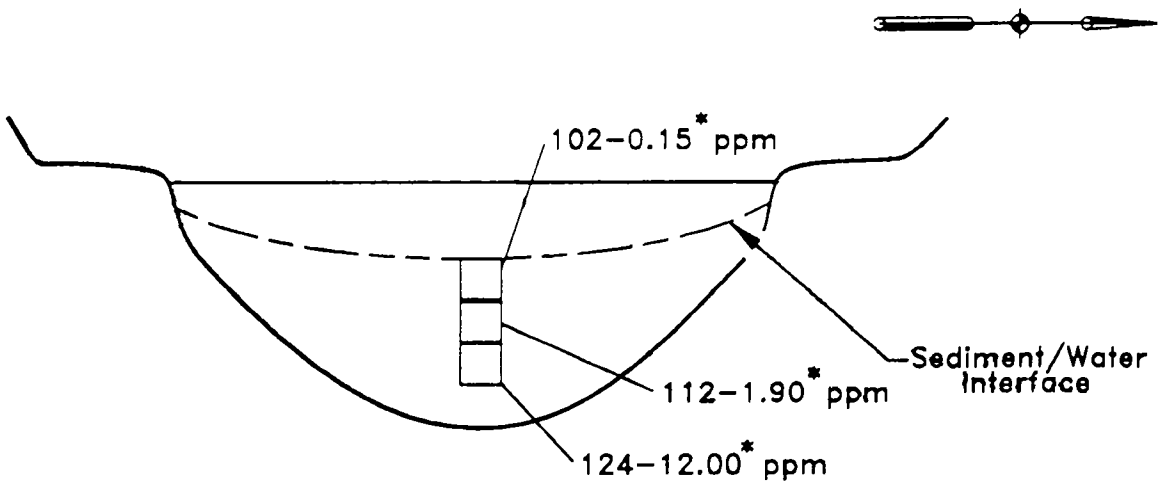
Station 000

December 1994

The Splash Pool Immediately Below The Station Lake Outfall

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SD-000-102	Sediment	0-2	Small gravel with organic matter; grayish tan silty clay	0.15
229-SD-000-112	Sediment	2-12	Pea size gravel; silty clay; grayish tan color; sediment very soft; Material falling from top of boring hole (2-12 inches deep); Pool bottom comprised of small rocks, gravel. Old stump on right side (north) of pool.	1.90
229-SD-000-124	Sediment	12-24	Dark gray to black organic matter with small gravel; sediment has slight odor. Viscous and dark substance.	12.00



POOL

* ALL AROCLOR 1248

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA000.DWG Last edited: 03/27/95 @ 10:12

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 4
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

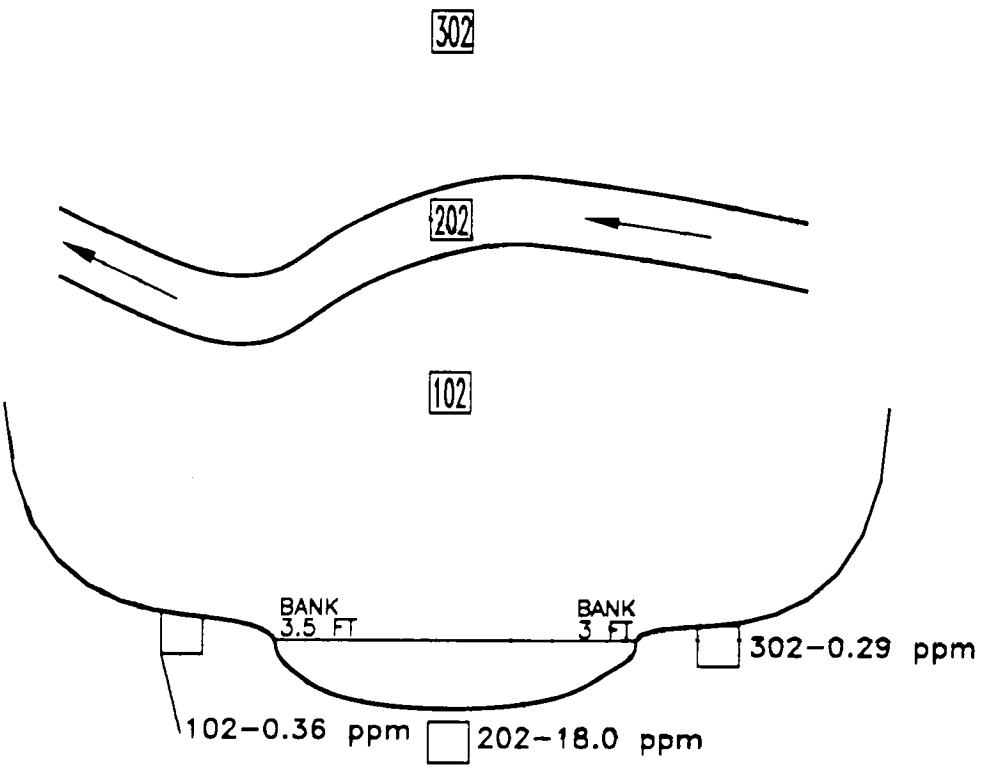
Station 001

December 1994

Between Station Lake and The Bog; 50 Feet Downstream from Station 000

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-001-102	Soil	0-2	Grayish brown organic matter (left (south) bank)	0.36
229-SD-001-202	Sediment	0-2	Medium brown silt with gravel	18.0
229-SO-001-302	Soil	0-2	Light to dark brown silty clay with small gravel and root matter, (right (north) bank)	0.29



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA001.DWG Last edited: 03/29/95 @ 12:21

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 5
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

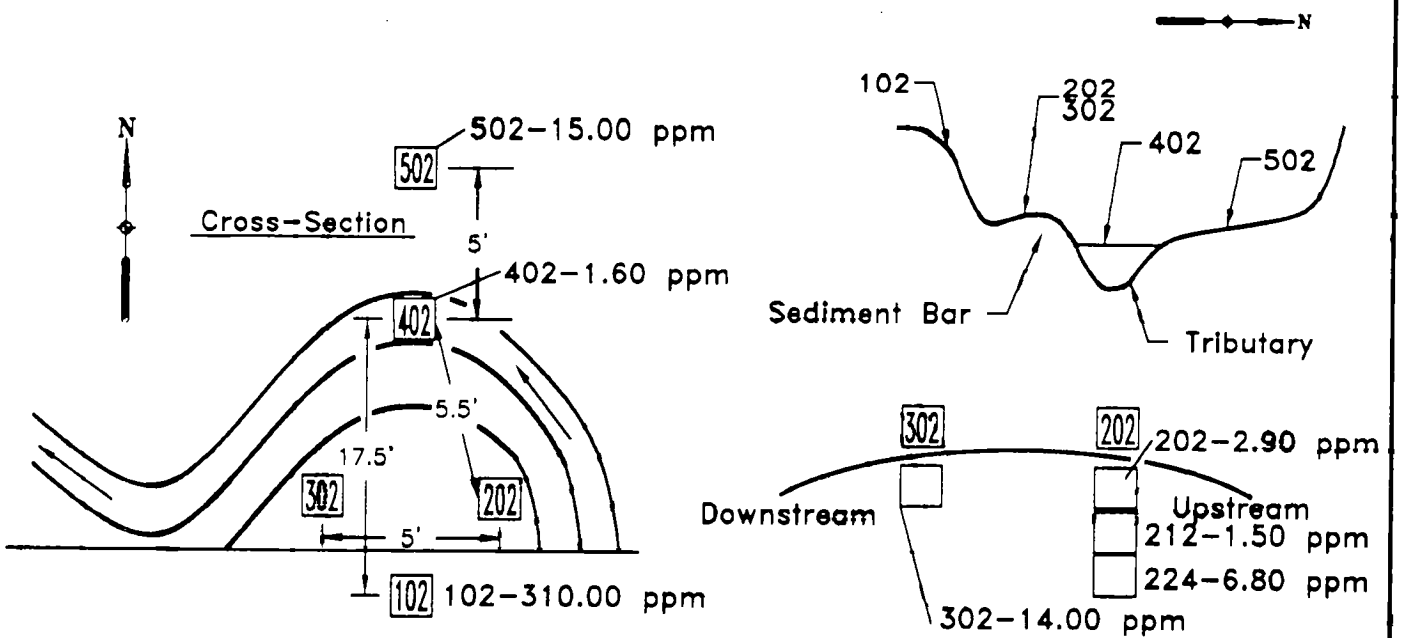
Station 005

December 1994

Between Station Lake and The Bag

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-005-102	Soil	0-2	Light layer of leaf litter; silty and organic matter	310.0
229-SO-005-202	Soil	0-2	Very coarse sand, tan to dark brown with some gravel	2.9
229-SO-005-212	Soil	2-12	Rocky with some organic matter	1.5
229-SO-005-224	Soil	12-18	Refusal at 18 inches; dark brown silty clay with gravel	6.8
229-SO-005-302	Soil	0-2	Dark brown silty organic with small gravel	14.0
229-SD-005-402	Sediment	0-2	Leaf litter on top of sediment; sediment consists of small gravel	1.6
229-SO-005-502	Soil	0-2	Medium brown silty clay; high organics (moist); little gravel with little organic matter	15.0



LONGITUDINAL SECTION OF SEDIMENT BAR

SEDIMENT BAR

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA005.DWG Last edited: 04/03/95 @ 14:39

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 6
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

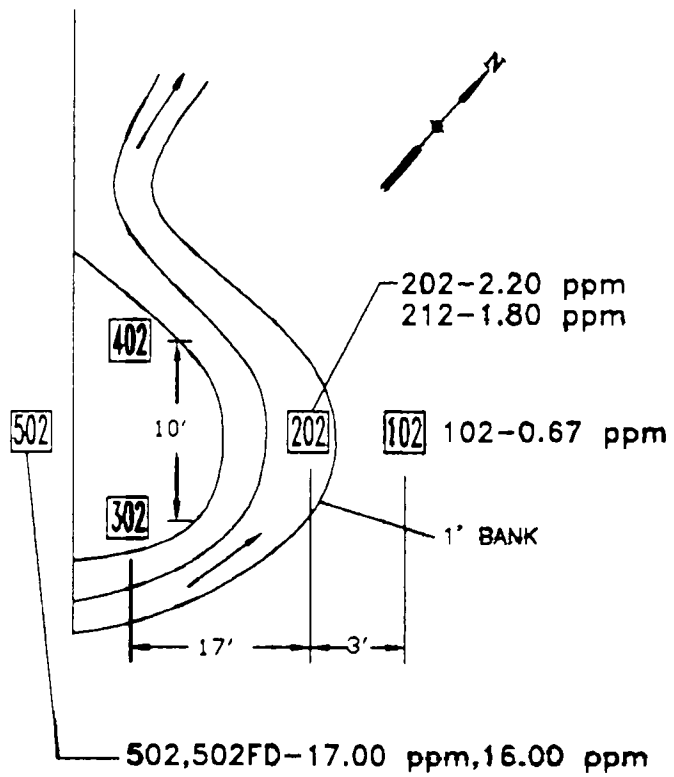
Station 006

December 1994

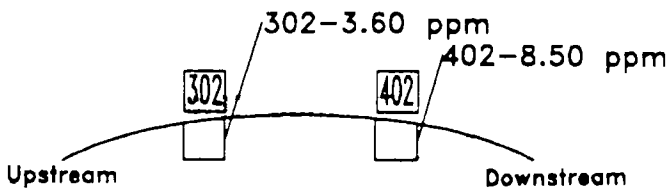
Between Station Lake and The Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-006-102	Soil	0-2	Covered with light layer of leaf litter; light brown silty clay with root matter	0.67
229-SD-006-202	Sediment	0-2	Very rocky and gravelly; very little organic matter	2.20
229-SD-006-212	Sediment	2-10	Small gravel; moist; light brown silty clay with a little organic matter; refusal at about 10 inches	1.80
229-SO-006-302	Soil	0-2	Coarse sand with gravel; dark brown	3.60
229-SO-006-402	Soil	0-2	Dark brown organic matter with small gravel	8.50
229-SO-006-502	Soil	0-2	Coarse sand and silt with small gravel; light to dark brown	17.00
229-SO-006-502	Soil	0-2	Coarse silt and sand; light gray to brown with gravel	16.00



SEDIMENT BAR



Longitudinal Section of Sediment Bar

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SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 7
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

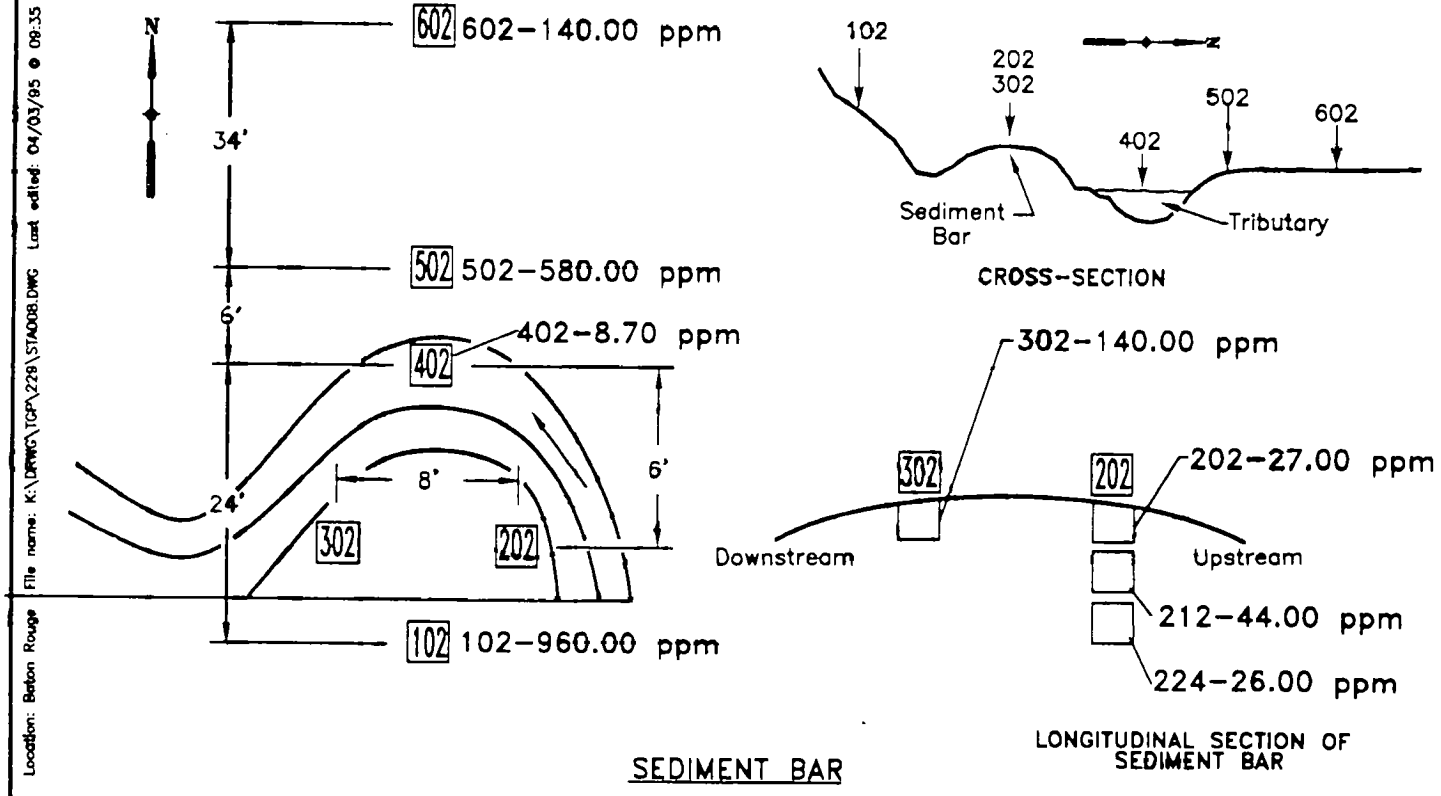
Station 008

December 1994

Between Station Lake and The Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-008-102	Soil	0-2	Dark brown silty clay, high organics	960.0
229-SO-008-202	Soil	0-2	Gravel with high organic matter; dark brown; coarse sand	27.0
229-SO-008-212	Soil	2-12	Coarse pea gravel with rock, dark brown	44.0
229-SO-008-224	Soil	12-24	Dark brown silty large pea gravel with little organic matter	26.0
229-SO-008-302	Soil	0-2	Light brown silty clay, organic matter; light brown to dark gray, predominantly gray	140.0
229-SD-008-402	Sediment	0-2	Dark brown with little organic matter and lots of rock	8.7
229-SO-008-502	Soil	0-2	Light brown silty clay with root matter and organic matter; light brown to dark gray	580.0
229-SO-008-602	Soil	0-2	Dark gray silty clay with lots of roots	140.0



SEDIMENT BAR

File name: K:\DRWG\TGP\229\STA008.DWG Last edited: 04/03/95 @ 09:35

Location: Baton Rouge

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SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 8

TGPL Compressor Station 229

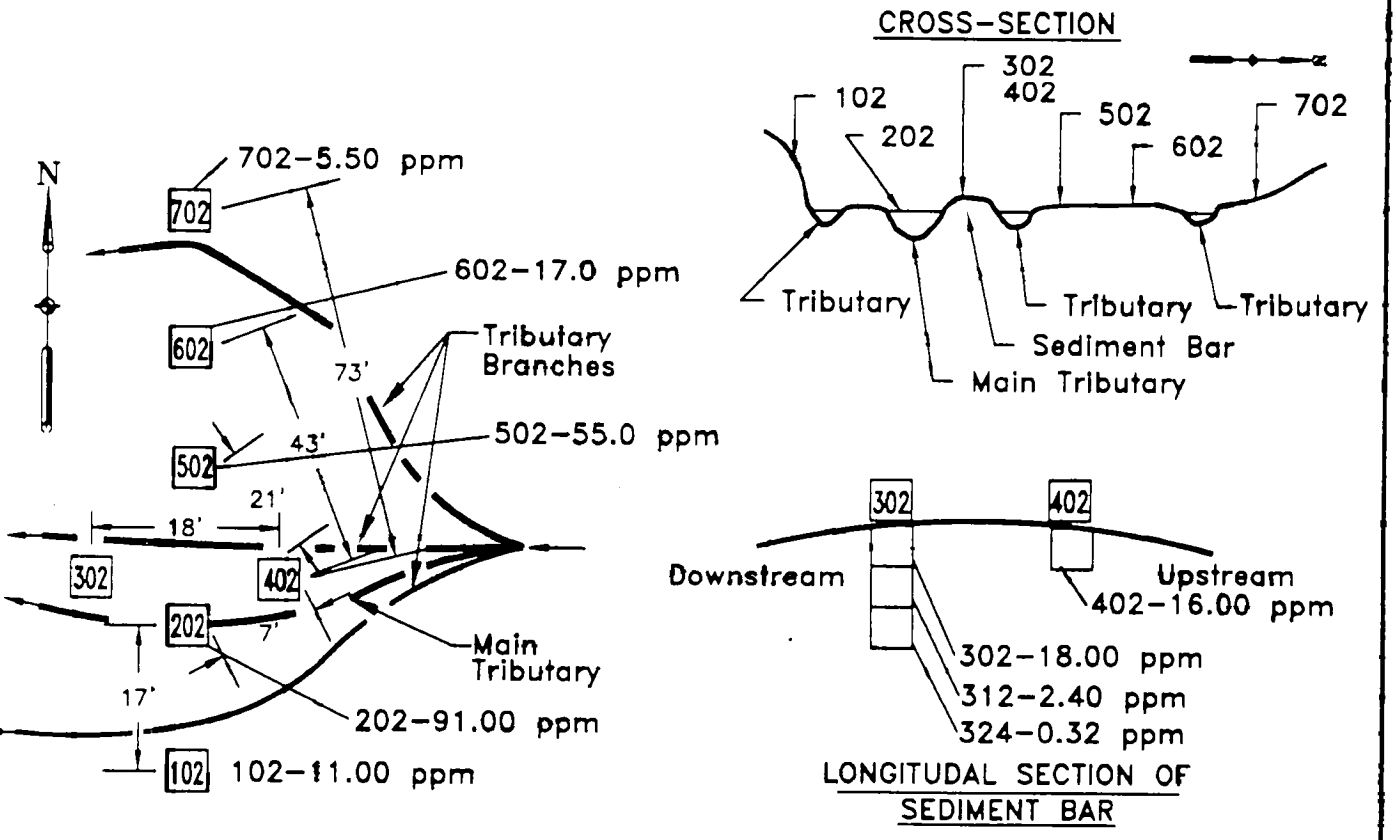
Station 009

December 1994

Between Station Lake and The Bag

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-009-102	Soil	0-2	Dark brown organic matter	11.0
229-SD-009-202	Sediment	0-2	Coarse gravel and small gravel with little organic matter	91.0
229-SO-009-302	Soil	0-2	Medium to dark brown light organics with some roots silty clay	18.0
229-SO-009-312	Soil	2-12	Dark brown and gray silty clay; soft and moist with some roots	2.4
229-SO-009-324	Soil	12-24	Dark gray to dark brown silty clay with roots and very moist	0.32
229-SO-009-402	Soil	0-2	Coarse gravel and small gravel	16.0
229-SO-009-502	Soil	0-2	Dark brown with abundant organic matter; coarse grained sand	55.0
229-SO-009-602	Soil	0-2	Dark brown organic matter; lots of roots; light silt	17.0
229-SO-009-702	Soil	0-2	Silty clay; tan colored	5.5



TRANSECT WITH SEDIMENT BAR

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA009.DWG Last edited: 04/03/95 @ 14:37

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 9
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

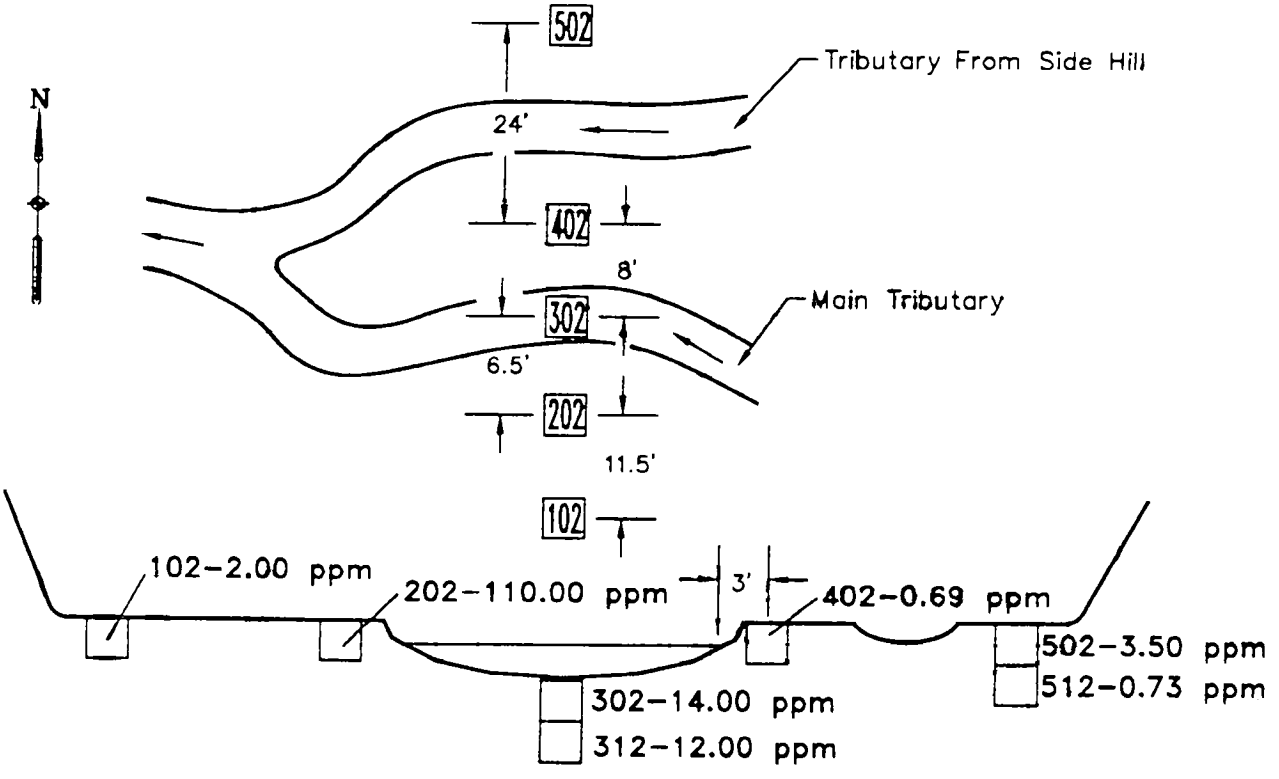
Station 010

December 1994

Between Station Lake and The Bog; Second Station Upstream From Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-010-102	Soil	0-2	Dark brown organic with roots	2.0
229-SO-010-202	Soil	0-2	Dark brown organic with roots	110.0
229-SD-010-302	Sediment	0-2	Mostly coarse grained sand and larger rock; some organic matter	14.0
229-SD-010-312	Sediment	2-4	Refusal at 4 inches; mostly coarse grained sand and little organic matter	12.0
229-SO-010-402	Soil	0-2	Medium tan; dark brown mottled silty clay with organics and roots	0.69
229-SO-010-502	Soil	0-2	Tan and dark brown silty clay with organic matter	3.5
229-SO-010-512	Soil	2-12	Tan-dark brown silty clay	0.73



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA010.DWG Last edited: 04/03/95 @ 14:02

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SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 10

TGPL Compressor Station 229

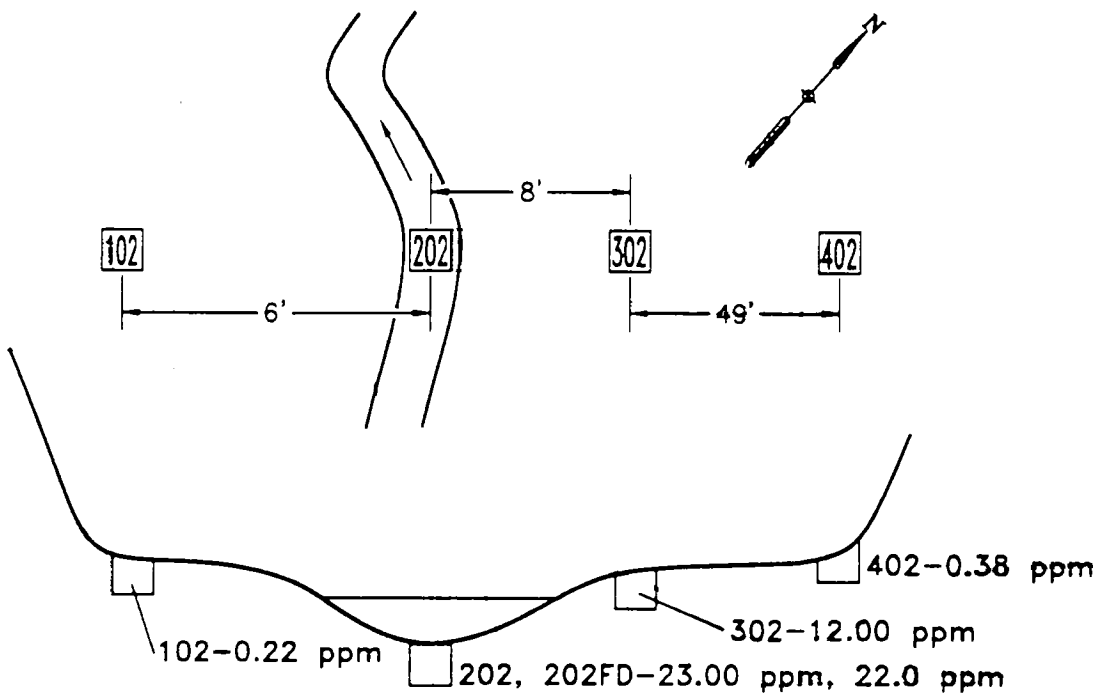
Station 011

December 1994

Between Station Lake and The Bog; First Station Upstream From Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-011-102	Soil	0-2	Black to medium brown mottled silty clay with roots and organics; good leaf layer	0.22
229-SD-011-202	Sediment	0-2	Collected near left bank of creek; coarse sand mixed with small gravel, silt and some organics; refusal at 2 inches	23.0
229-SD-011-202FD	Sediment	0-2	Coarse sand mixed with small gravel, silt and some organics; refusal at 2 inches	22.0
229-SO-011-302	Soil	0-2	Medium to dark brown silty clay with organics and roots	12.0
229-SO-011-402	Soil	0-2	Black silty rich with organics; lots of roots	0.38



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA011.DWG Last edited: 04/03/95 @ 12:36

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	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 11

TGPL Compressor Station 229

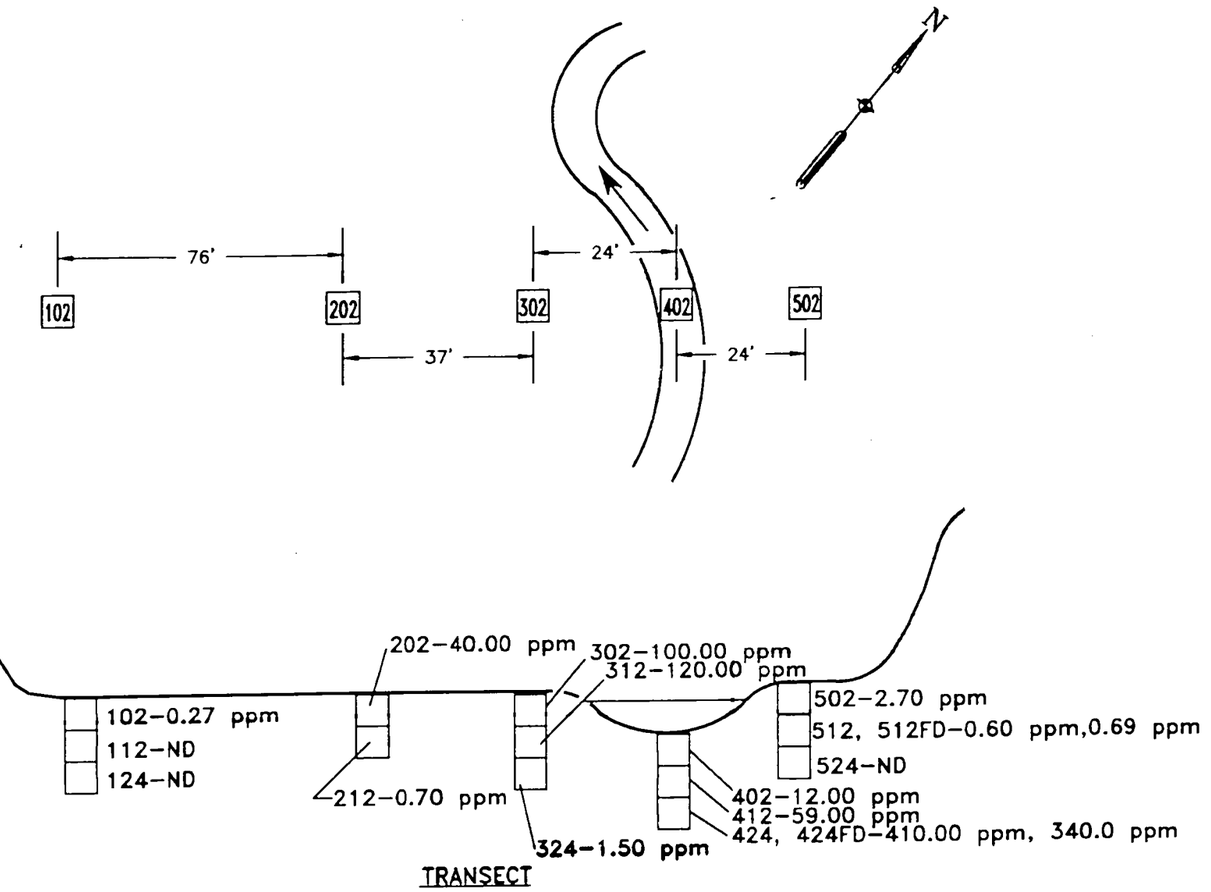
Station 013

December 1994

Within The Bog; Upstream-Most Transect In Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-013-102	Soil	0-2	Light brown to dark brown silty clay with many roots	0.27
229-SO-013-112	Soil	2-12	Medium brown light gray, mottled silty clay potential ferrous deposits; sticky	ND
229-SO-013-124	Soil	12-18	Silty clay to clay; medium stiff with some ferrous deposits; refusal at 18 inches	ND
229-SO-013-202	Soil	0-2	Light brown to dark brown silty clay with many roots	40.0
229-SO-013-212	Soil	2-12	Refusal at about 12 inches; medium stiff tan and brown and gray mottled with some ferrous deposits; moist; lightly stiff silty clay	0.70
229-SO-013-302	Soil	0-2	Medium to dark brown coarse grained sands with some gravel and heavy roots and organics	100.0
229-SO-013-312	Soil	2-12	Dark brown to black mottled clay silt with organics and roots	120.0
229-SO-013-324	Soil	12-24	Dark brown and black mottled clay silt to silty clay with some rocks and moist	1.50
229-SD-013-402	Sediment	0-2	Coarse grained sand, small gravel with some rock and some organics	12.0
229-SD-013-412	Sediment	2-12	Some cave in; dark brown clay silt mottled with some organics and roots	59.0
229-SD-013-424	Sediment	12-24	Dark brown and black mottled with some organics and roots; silty clay to clay silt	410.0
229-SD-013-424FD	Sediment	12-24	Dark brown and black mottled with some organics and roots; silty clay to clay silt	340.0
229-SO-013-502	Soil	0-2	Organic, rooty, brown to black silty clay; heavy leaf litter on surface	2.70
229-SO-013-512	Soil	2-12	Medium brown mottled with tan organic nodules; moist silty clay with roots	0.60
229-SO-013-512FD	Soil	2-12	Medium brown mottled with tan and organic nodules; moist; silty clay with roots	0.69
229-SO-013-524	Soil	12-24	Tan moderately stiff silty clay; some ferrous deposits with roots; moist	ND



Main Channel Flows Along Right (North) Side of Bog Area

Woodward-Clyde Consultants
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Baton Rouge, Louisiana

SCALE:	MADE BY: KH	DATE: 3/95	FILE NO. 91B650C
	CHECKED BY: DH	DATE: 3/95	

FIGURE 12

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA013.DWG Last edited: 03/29/95 @ 12:15

TGPL Compressor Station 229

Station 015

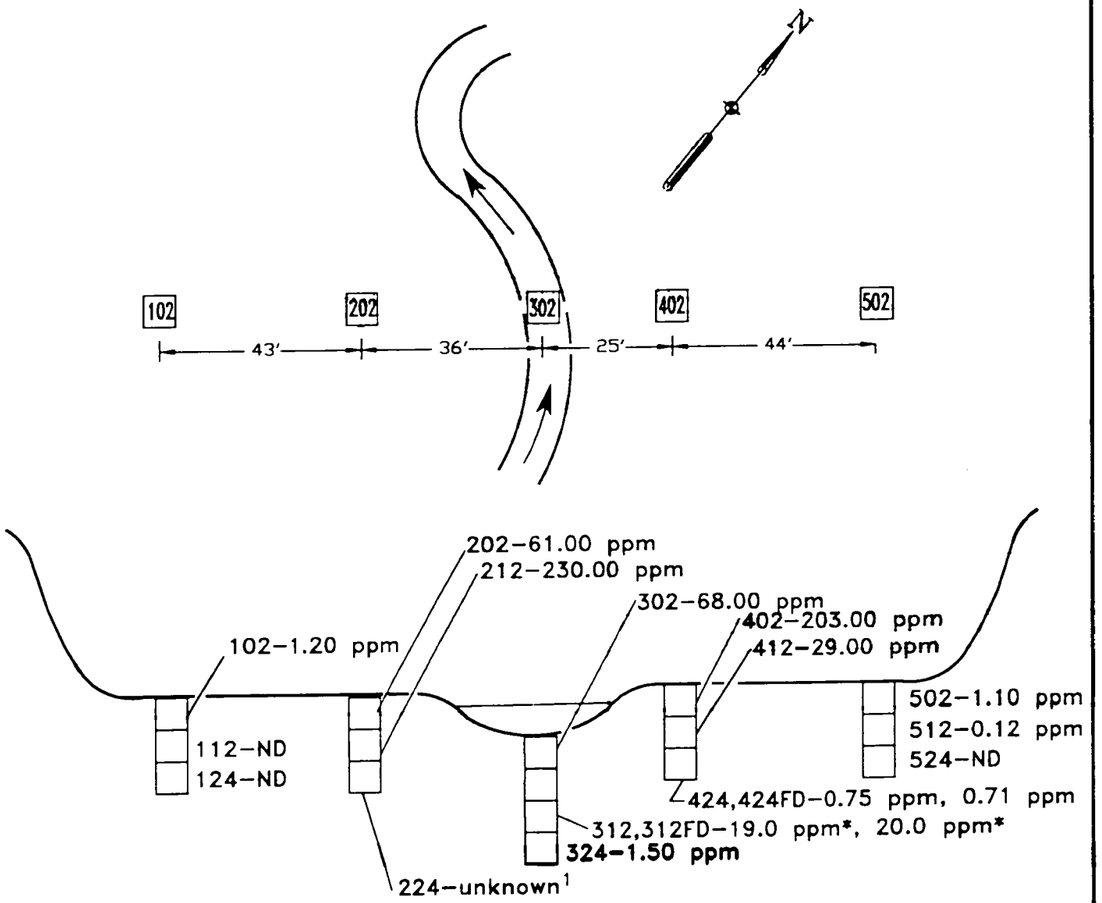
December 1994

Within The Bog;

Upstream Half of Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-015-102	Soil	0-2	Light gray/brown mottled silty clay with ferrous deposits with some organics and roots	1.20
229-SO-015-112	Soil	2-12	Silty clay;dark brown/tan and black mottled with ferrous deposits with organics and roots; moist and moderately stiff	ND
229-SO-015-124	Soil	12-24	Tan/gray mottled silty clay moderately stiff with ferrous deposits and some rocks	ND
229-SO-015-202	Soil	0-2	Dark brown, silty clay with roots and organics; moist	61.0
229-SO-015-212	Soil	2-12	Dark brown to tan reddish mottled clay silt with iron nodules with some organics	230.0
229-SO-015-224	Soil	12-24	To about 18 inches have clay silt with red/black and tan mottled; Soft from 18-24" Have moderately stiff silty clay; gray mottled with iron deposits	UNKNOWN[1]
229-SD-015-302	Sediment	0-2	Silty clay; heavy organic matter; light brown to dark brown	68.0
229-SD-015-312	Sediment	2-12	Dark brown/dark gray mottled silty clay; very moist with root and some ferrous deposits	19.0*
229-SD-015-312FD	Sediment	2-12	Dark brown/dark gray mottled silty clay; very moist	20.0*
229-SD-015-324	**Sediment**	**12-24**	**Dark brown/tan/pale green mottled moderately stiff silty clay; moist with some roots**	1.50
229-SO-015-402	Soil	0-2	Dark brown clay silt with organics and roots; very moist	203.0
229-SO-015-412	Soil	2-12	Top 6 inches clay silt dark brown/light gray mottled; remaining is silty clay dark gray/brown mottled; moist with roots	29.0
229-SO-015-424	**Soil**	**12-24**	**Dark gray/tan mottled silty clay with roots and moist**	0.75
229-SO-015-424FD	Soil	12-24	Dark gray/tan mottled silty clay with roots and moist	**0.71**
229-SO-015-502	Soil	0-2	Dark brown clay silt with heavy organics and roots	1.10
229-SO-015-512	Soil	2-12	Tan/light gray silty clay with ferrous deposits, some roots and a few rocks	0.12
229-SO-015-524	Soil	12-24	Gray/green/tan mottled clay silt to silty clay with a few roots and some rocks; very moist	ND



TRANSECT

Main Channel Flows ALong Right (North) Side of Bog Area

* All Aroclor 1248

[1] Sample was collected but analytical laboratory cannot account for it.

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Baton Rouge, Louisiana

SCALE:	MADE BY: KH	DATE: 3/95	FILE NO. 91B850C
	CHECKED BY: DH	DATE: 3/95	FIGURE 13

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA15.DWG Last edited: 03/29/95 @ 11:01

TGPL Compressor Station 229

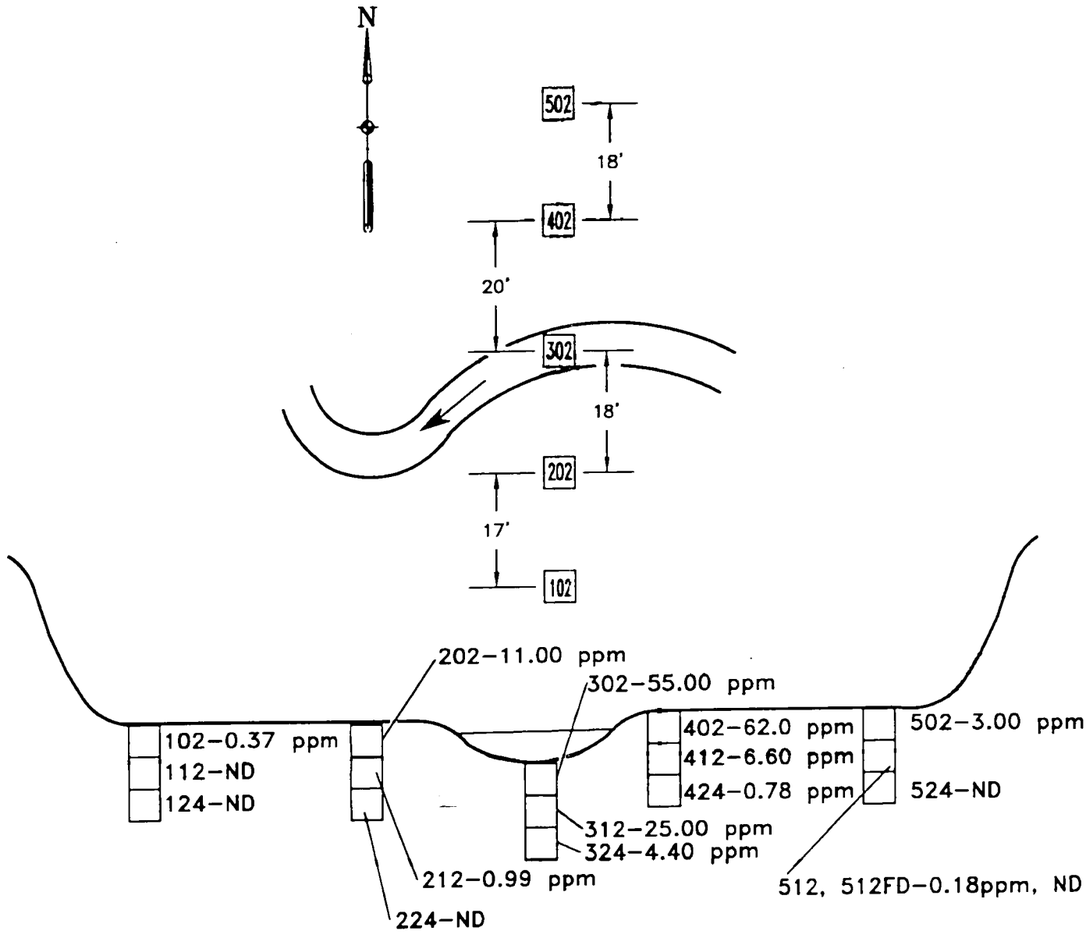
Station 017

December 1994

Within The Bog;
Upstream Half of Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-017-102	Soil	0-2	Dark brown silty clay with roots and organics; moist	0.37
229-SO-017-112	Soil	2-12	Tan/medium brown/gray mottled silty clay; stiff with some roots and ferrous nodules	ND
229-SO-017-124	Soil	12-24	Tan/light gray/light red mottled silty clay, moderately stiff; moist with a few roots	ND
229-SO-017-202	Soil	0-2	Medium bawn silty clay to clay silt; moist with some roots and organic deposits	11.0
229-SO-017-212	Soil	2-12	Brown/tan mottled silty clay with some roots; moist	0.99
229-SO-017-224	Soil	12-24	Tan/brown/gray mottled moist silty clay with some roots; slightly stiff	ND
229-SD-017-302	Sediment	0-2	Very silty organic matter with large coarse grained sand, small pea gravel and some roots	55.0
229-SD-017-312	Sediment	2-12	Black/dark gray clay silt to silty clay with roots, a few rocks and heavy organic matter	25.0
229-SD-017-324	Sediment	12-24	Brown/gray/pale green silty clay with some roots and some organic deposits and some rocks	4.40
229-SO-017-402	Soil	0-2	Dark brown clay silt with lots of organic deposits and some roots	62.0
229-SO-017-412	Soil	2-12	Top 5 inches dark brown/light gray clay silt; moist with some organic deposits and roots; remaining silty clay dark gray mottled with tan; moist with ferrous deposits	6.60
229-SO-017-424	Soil	12-24	Moderately stiff light gray/tan/pale green silty clay with roots, some organics and ferrous deposits	0.78
229-SO-017-502	Soil	0-2	Medium to dark brown silty clay with some roots and organic deposits	3.00
229-SO-017-512	Soil	2-12	Medium brown/light gray mottled silty clay slightly stiff; roots and organic and ferrous deposits	0.18
229-SO-017-512FD	Soil	2-12	Medium brown/light gray mottled silty clay slightly stiff; roots and organic and ferrous deposits	ND
229-SO-017-524	Soil	12-24	Medium brown/light gray/pale green moderately stiff mottled silty clay with ferrous deposits	ND



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA017.DWG Last edited: 04/03/95 @ 08:37

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	CHECKED BY: DH	DATE: 3/95	91B650C

FIGURE 14

TGPL Compressor Station 229

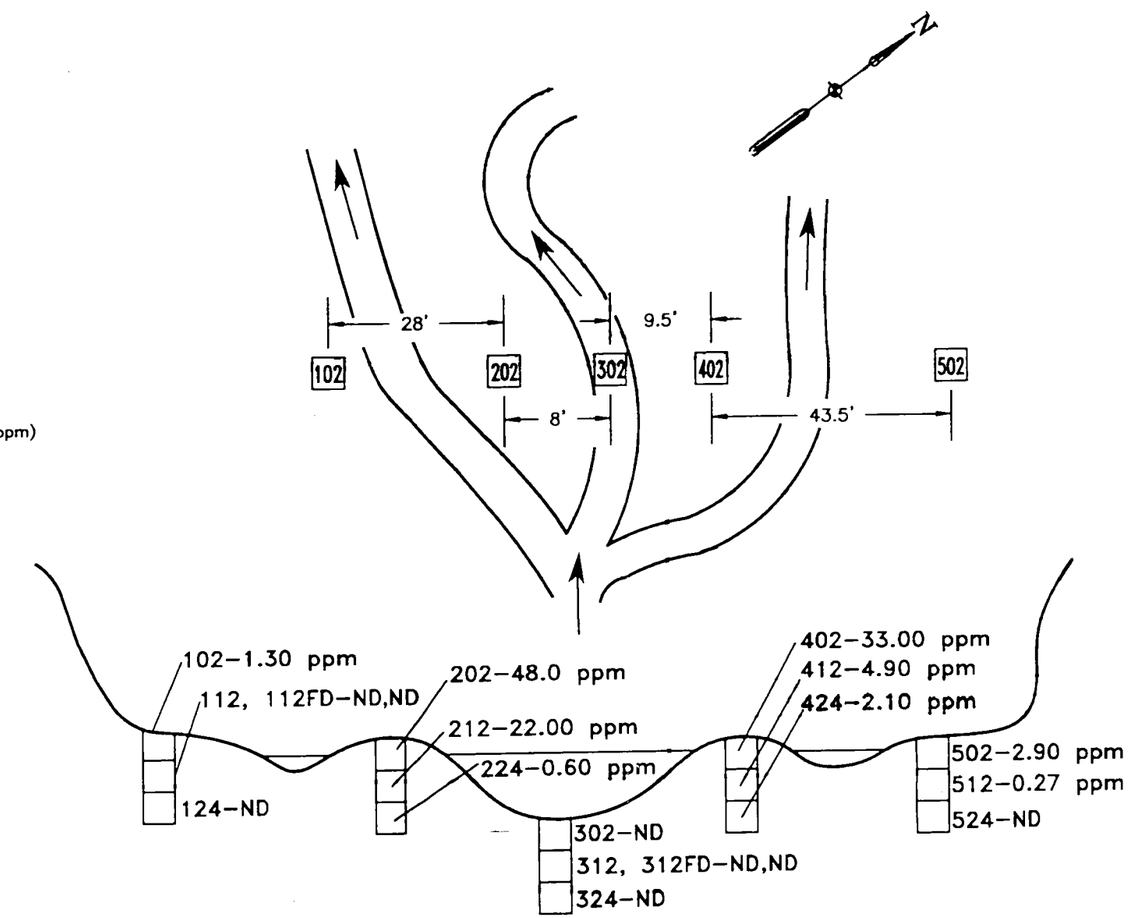
Station 019

December 1994

Within The Bog; Downstream Half of Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-019-102	Soil	0-2	Dark brown clay silt with lots of roots and organics	1.30
229-SO-019-112	Soil	2-12	Dark brown/tan mottled silty clay with some roots, some ferrous deposits, some organics; moist	ND
229-SO-019-112FD	Soil	2-12	Dark brown/tan mottled silty clay with some roots, some ferrous deposits, some organics; moist	ND
229-SO-019-124	Soil	12-24	Tan/gray mottled moist slightly stiff silty clay with some roots and ferrous deposits	ND
229-SO-019-202	Soil	0-2	Dark brown moist with mainly clay silt with heavy organic deposits and some roots	48.0
229-SO-019-212	Soil	2-12	Top 5 inches - clay silt dark brown moist with some roots; remaining silty clay gray/tan mottled with some roots and ferrous deposits	22.0
229-SO-019-224	Soil	12-24	Silty clay gray/tan mottled with roots and ferrous deposits	0.60
229-SD-019-302	Sediment	0-2	Tan/gray mottled clay silt with some organic matter	ND
229-SD-019-312	Sediment	2-12	Light and dark gray/tan mottled moist silty clay with some roots	ND
229-SD-019-312FD	Sediment	2-12	Light and dark gray/tan mottled moist silty clay with some roots	ND
229-SD-019-324	Sediment	12-18	Pale green/gray/black mottled silty clay with some roots; hit refusal at 18 inches	ND
229-SO-019-402	Soil	0-2	Dark brown clay silt with heavy organics and roots; very moist	33.00
229-SO-019-412	Soil	2-12	Brown/tan/gray mottled silty clay with roots and ferrous deposits	4.90
229-SO-019-424	Soil	12-24	Brown/tan/gray mottled silty clay with ferrous deposits	2.10
229-SO-019-502	Soil	0-2	Dark brown silty clay with abundant organics and roots	2.90
229-SO-019-512	Soil	2-12	Tan/light gray/pale green mottled slightly stiff silty clay with some roots and ferrous nodules; moist	0.27
229-SO-019-524	Soil	12-24	Top 6 inches tan/gray mottled silty clay with roots and ferrous deposits; remaining tan/light gray silty clay to clay; low moisture content	ND



TRANSECT

Divided Tributary

Main Channel In Center, With a Smaller Right And Left Branch

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA019.DWG Last edited: 03/31/95 @ 14:49

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SCALE:	MADE BY: KH	DATE: 3/95	FILE NO. 91B650C
	CHECKED BY: DH	DATE: 3/95	

FIGURE 15

TGPL Compressor Station 229

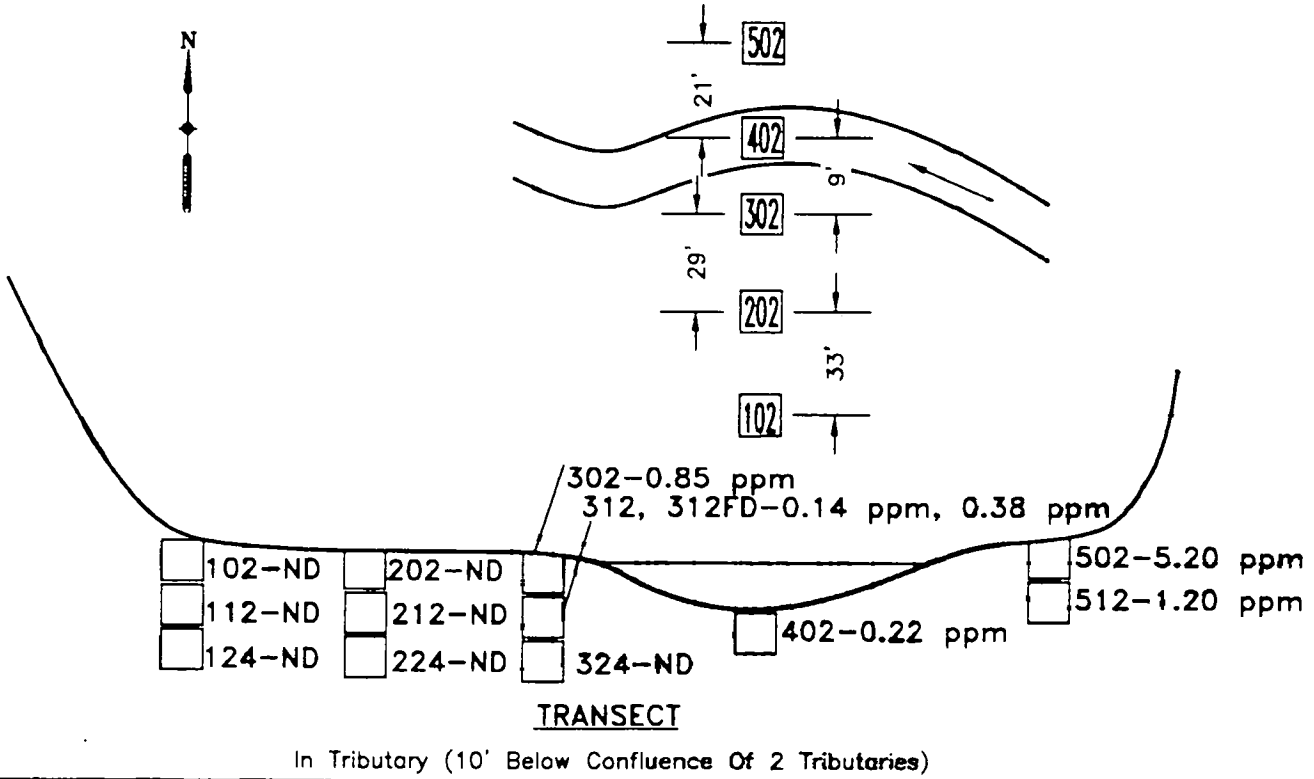
Station 021

December 1994

Within The Bog; Downstream End of Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-021-102	Soil	0-2	Dark brown loam	ND
229-SO-021-112	Soil	2-12	Medium/light brown (mauve) loam with clay	ND
229-SO-021-124	Soil	12-15	Light brown loam with clay; refusal at 15 inches - hard clay at 15 inches	ND
229-SO-021-202	Soil	0-2	Sandy-loam; brown	ND
229-SO-021-212	Soil	2-12	Sandy-loam; brown	ND
229-SO-021-224	Soil	12-18	Clay; refusal at 18 inches	ND
229-SO-021-302	Soil	0-2	Clay-loam; brown	0.85
229-SO-021-312	Soil	2-12	Clay-loam; brown	0.14
229-SO-021-312FD	Soil	2-12	Clay-loam; brown	0.38
229-SO-021-324	Soil	12-24	Clay-loam; brown	ND
229-SD-021-402	Sediment	0-2	Silt and gravel	0.22
229-SO-021-502	Soil	0-2	Grayish-brown loam	5.20
229-SO-021-512	Soil	2-12	Grayish-brown loam; refusal at 12 inches	1.20



TRANSECT

In Tributary (10' Below Confluence Of 2 Tributaries)

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA021.DWG Last edited: 04/01/95 @ 11:18

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 16

TGPL Compressor Station 229

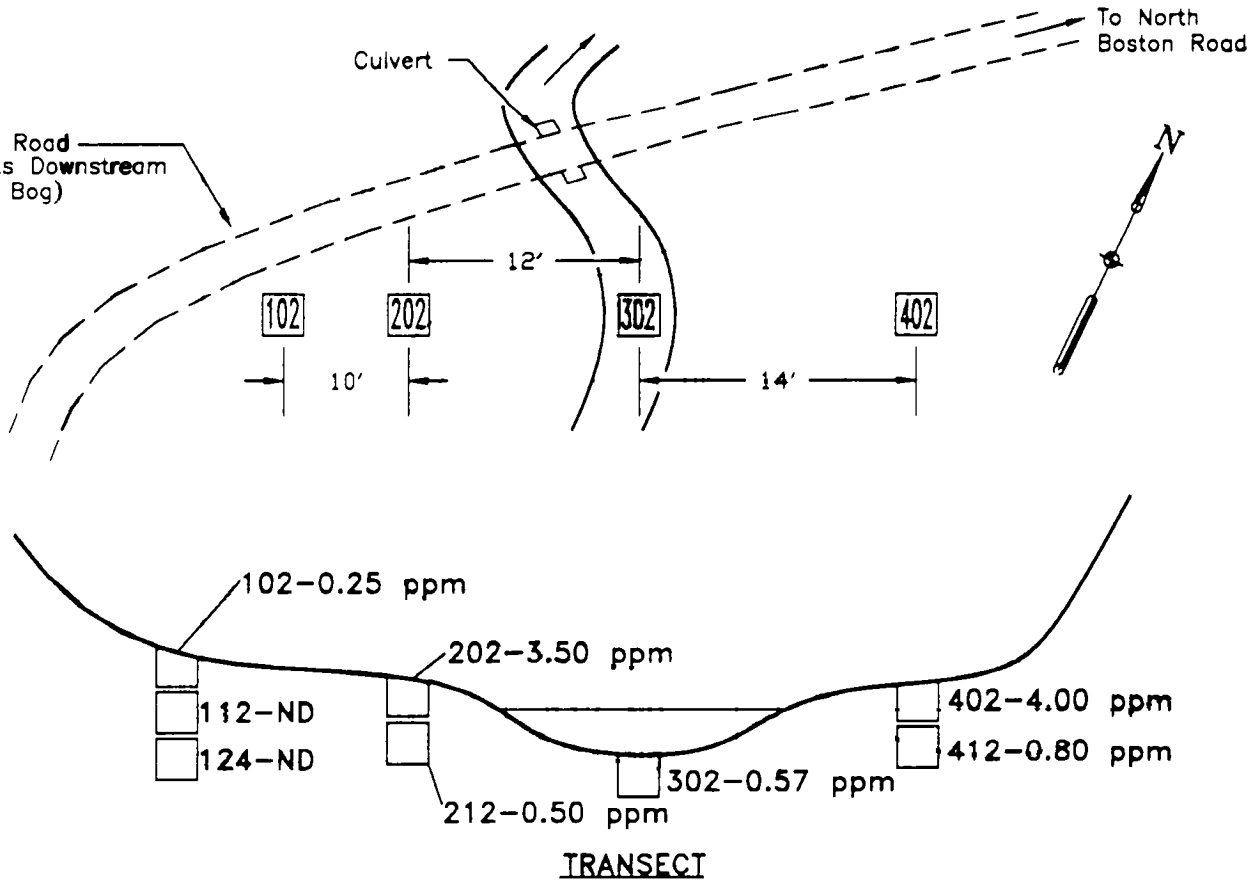
Station 023

December 1994

Downstream End of Bog

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-023-102	Soil	0-2	Sandy loam	0.25
229-SO-023-112	Soil	2-12	Sandy loam	ND
229-SO-023-124	Soil	12-18	Sandy-clay-loam; refusal at 18 inches because of tree roots	ND
229-SO-023-202	Soil	0-2	Medium brown loam	3.50
229-SO-023-212	Soil	2-9	Medium brown loam; refusal at 9 inches because of rock	0.50
229-SD-023-302	Sediment	0-2	Gravel	0.57
229-SO-023-402	Soil	0-2	Gray clay	4.00
229-SO-023-412	Soil	2-9	Gray clay; refusal at 9 inches	0.80



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA023.DWG Last edited: 03/29/95 @ 12:08

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 17

TGPL Compressor Station 229

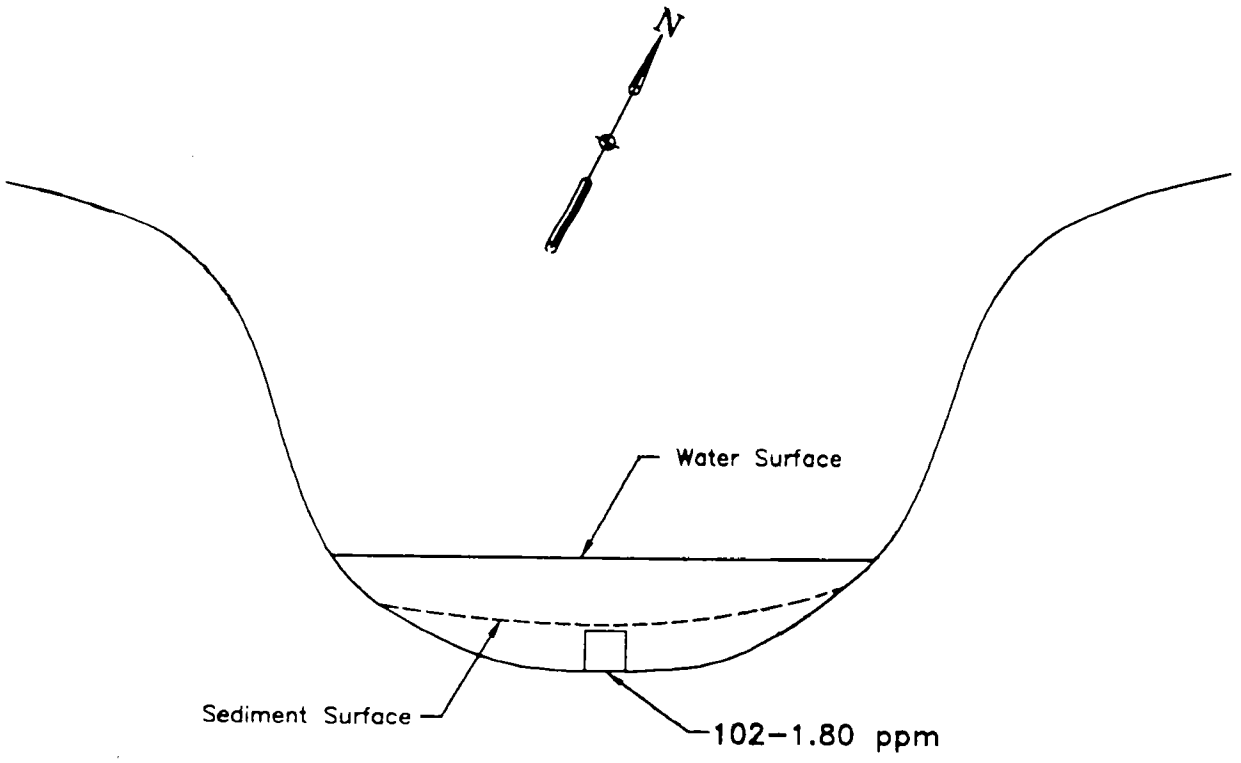
Station 024

December 1994

Pool Sample Between The Bog and North Boston Road; Just Downstream from Culvert

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SD-024-102	Sediment	0-2	Gravel; hit refusal at 2 inches because of bedrock	1.80



Single Point Approximately 25' Below Culvert;
First Sample Downstream From Bog

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA024.DWG Last edited: 03/27/95 @ 14:57

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 18

TGPL Compressor Station 229

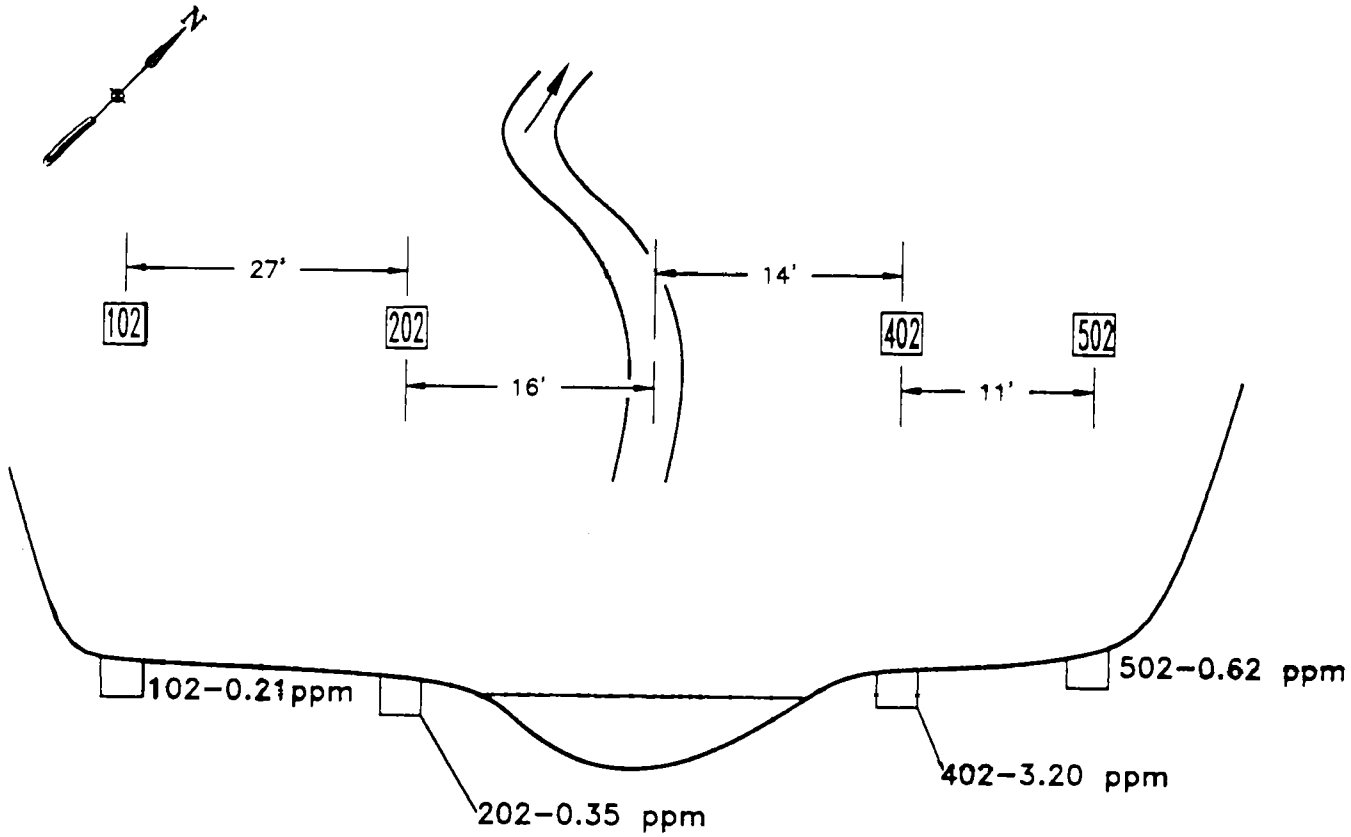
Station 028

December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-028-102	Soil	0-2	Medium brown loam	0.21
229-SO-028-202	Soil	0-2	Medium brown loam	0.35
229-SO-028-402	Soil	0-2	Medium brown loam	3.20
229-SO-028-502	Soil	0-2	Medium brown loam	0.62



TRANSECT

Note: Sediment sample could not be taken due to presence rock and leaves and absence of sediment

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA028.DWG Last edited: 03/31/95 @ 15:09

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 19

TGPL Compressor Station 229

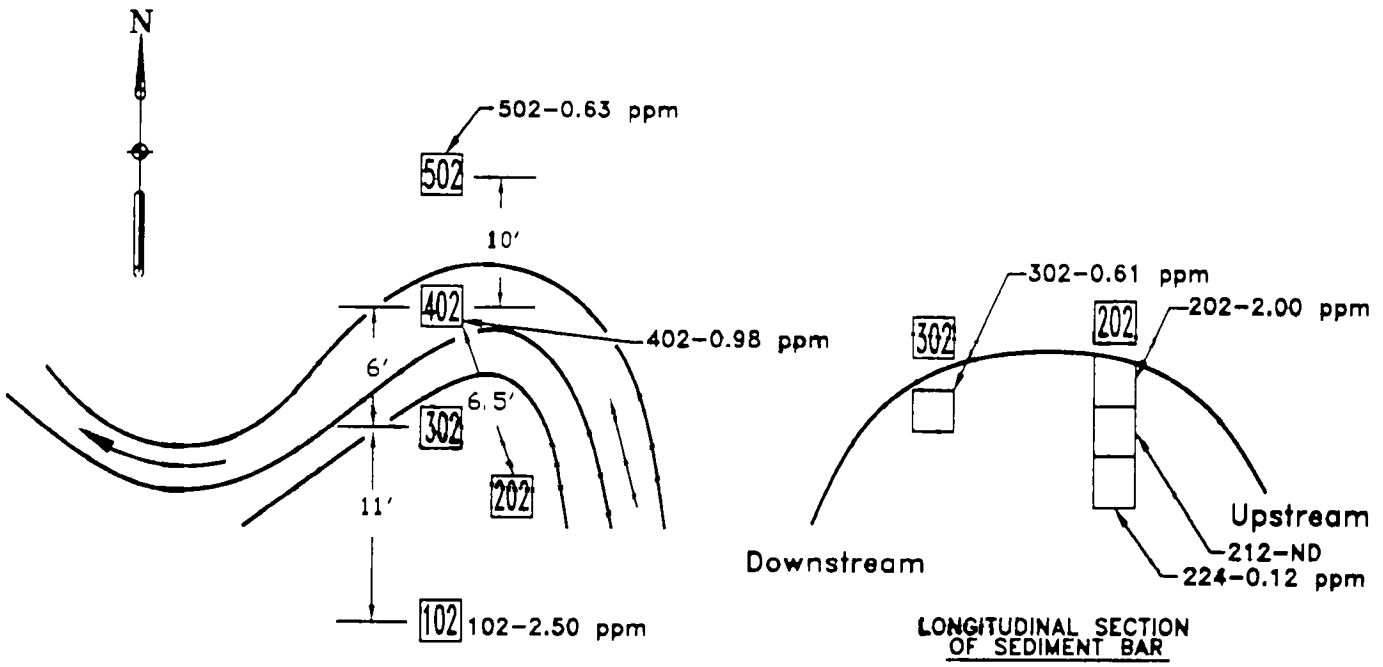
Station 029

December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-029-102	Soil	0-2	Medium brown loam	2.50
229-SO-029-202	Soil	0-2	Medium brown loam	2.00
229-SO-029-212	Soil	2-12	Gravel with loam; brownish/gray color	ND
229-SO-029-224	Soil	12-20	Clay-loam, brownish-gray; refusal at 20 inches	0.12
229-SO-029-302	Soil	0-2	Coarse gravel with clay-loam and dry silt	0.61
229-SD-029-402	Sediment	0-2	Coarse sand and silt	0.98
229-SO-029-502	Soil	0-2	Medium brown loam	0.63



LONGITUDINAL SECTION OF SEDIMENT BAR

*Pool on bend of the river was was one of the deepest pools on the entire tributary.

SEDIMENT BAR

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA029.DWG Last edited: 04/03/95 @ 12:35

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 20
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

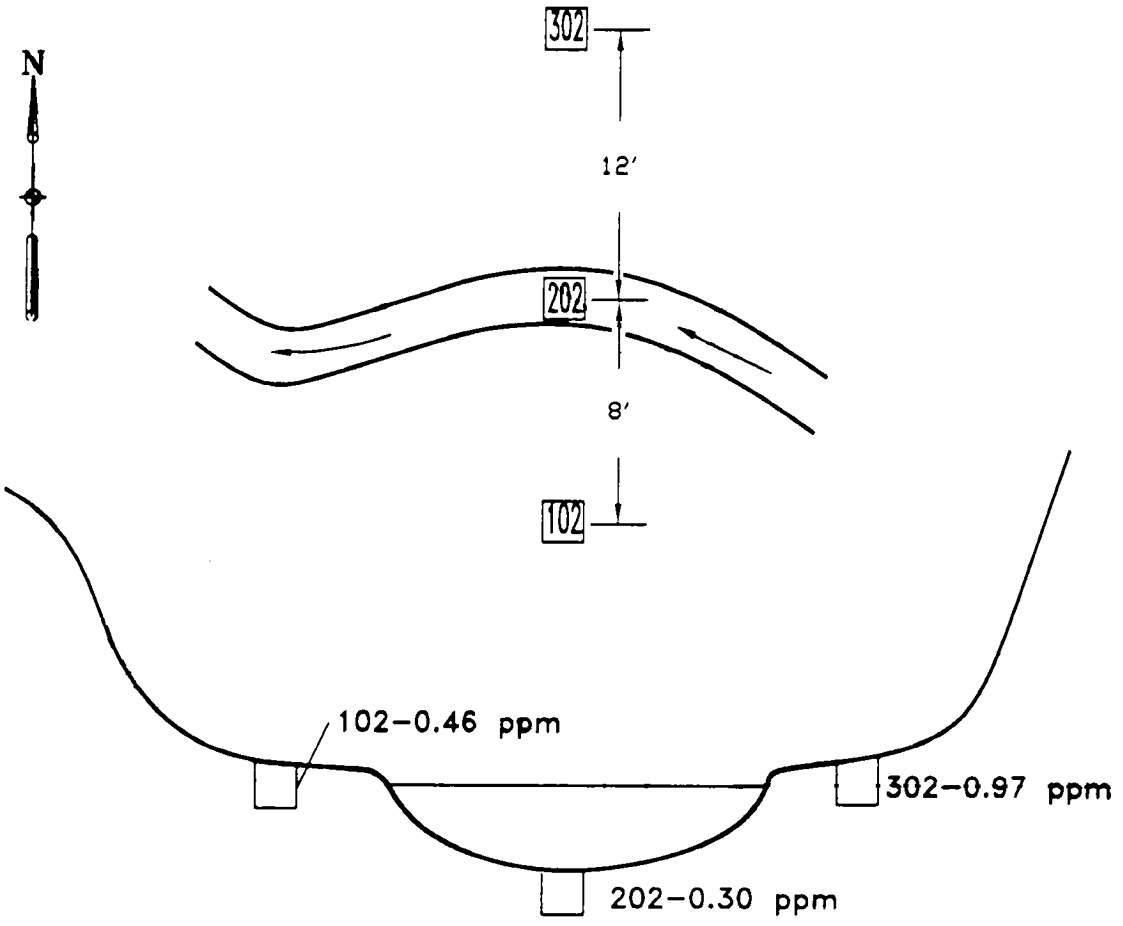
Station 031

December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-031-102	Soil	0-2	Medium brown loam	0.46
229-SD-031-202	Sediment	0-2	Coarse gravel, fine sand	0.30
229-SO-031-302	Soil	0-2	Medium brown loam	0.97



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA031.DWG Last edited: 04/03/95 @ 14:46

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 21

TGPL Compressor Station 229

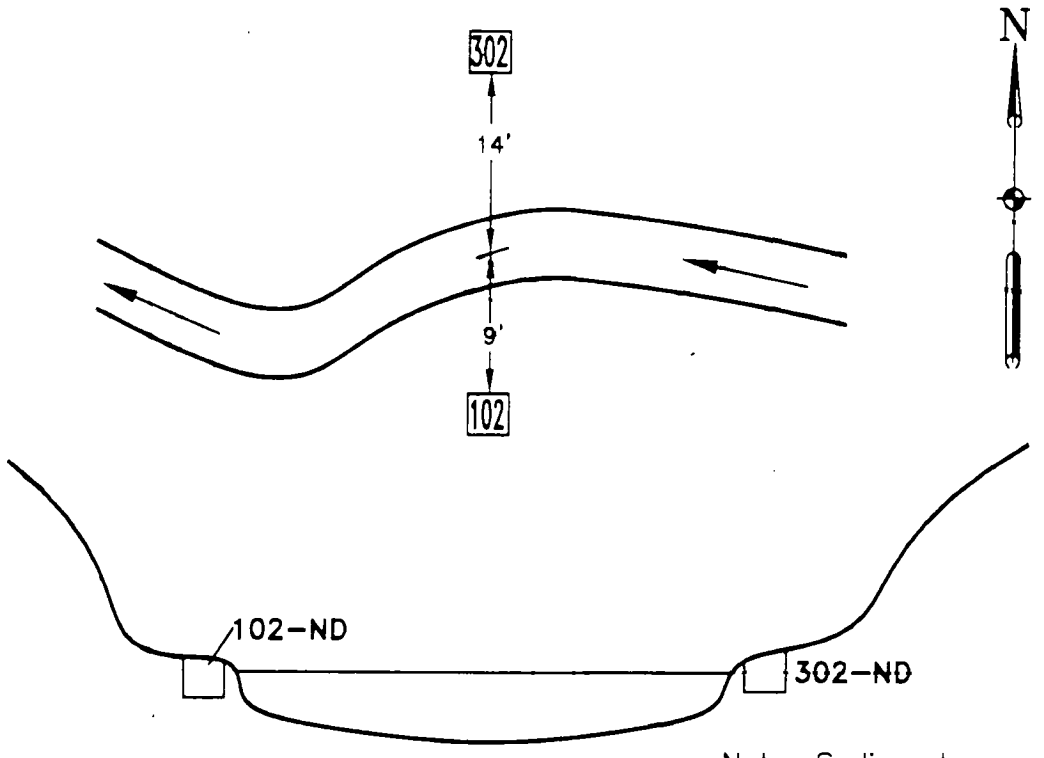
Station 032

December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (Inches)	Description	Total PCB Concentration (ppm)
229-SO-032-102	Soil	0-2	Medium brown loam	ND
229-SO-032-302	Soil	0-2	Light loam with humus; light brown	ND



TRANSECT

Note: Sediment sample not taken because stream lacked sediment. Bedrock ran length of creek.

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA32.DWG Last edited: 03/29/95 @ 11:56

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 22
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

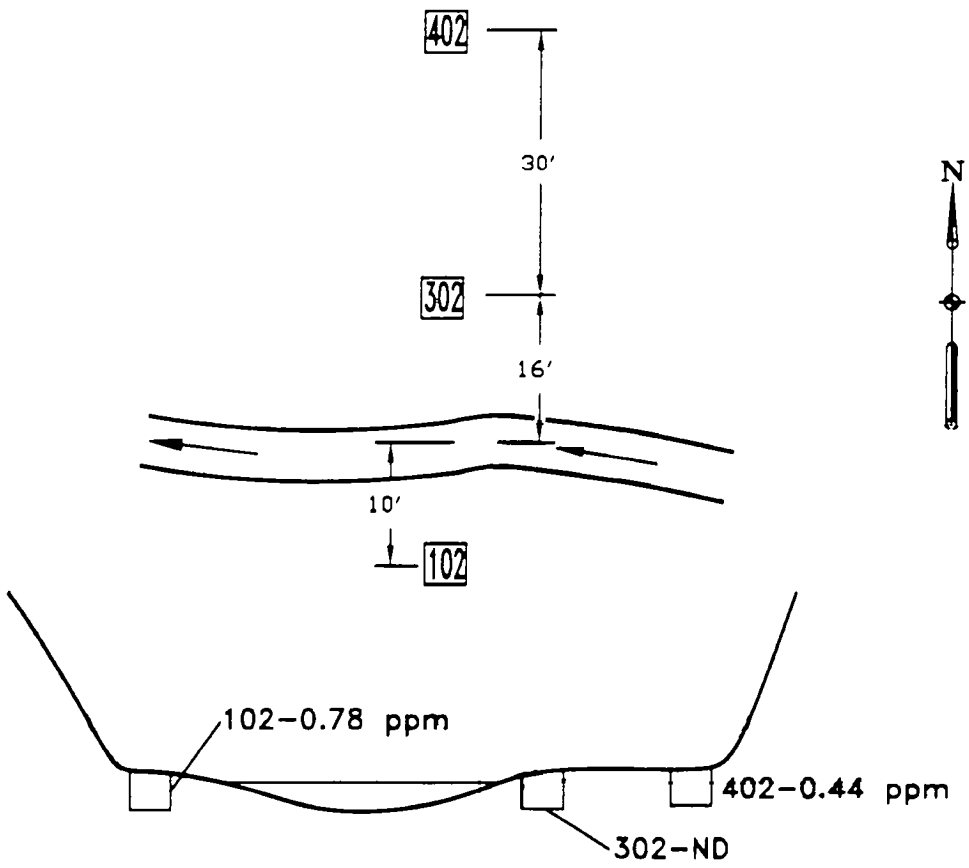
Station 033

December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-033-102	Soil	0-2	Medium brown loam	0.78
229-SO-033-302	Soil	0-2	Dark brown humus and loam	ND
229-SO-033-402	Soil	0-2	Dark brown humus and loam with roots	0.44



TRANSECT

Small Flat Area On Right (To The North) Extends Approximately 50' To Sharp Rise

Note: A Sediment Sample Was Not Taken In The Middle Of Stream Due To Bedrock

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA033.DWG Last edited: 04/03/95 @ 13:33

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 23
	CHKD. BY: DH	DATE: 3/95	

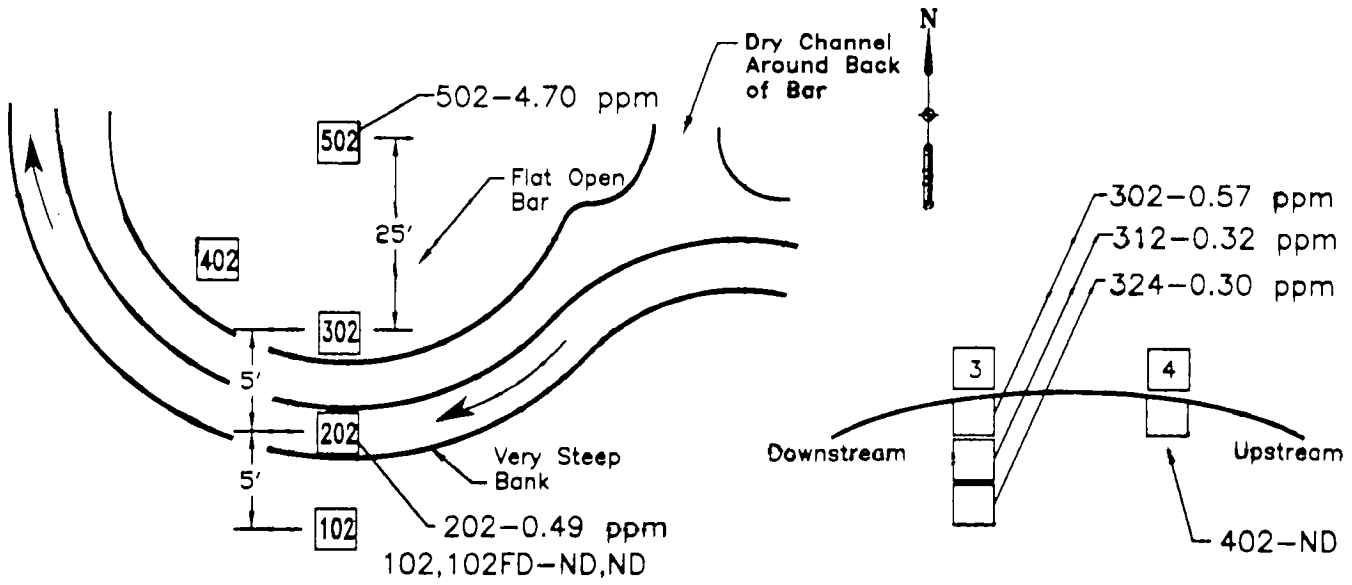
TGPL Compressor Station 229

Station 038

December 1994

Between The Bog and North Boston Road
(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-038-102	Soil	0-2	Sand and gravel; brown	ND
229-SO-038-102FD	Soil	0-2	Sand and gravel; brown	ND
229-SD-038-202	Sediment	0-2	Coarse gravel and sand; brown	0.49
229-SO-038-302	Soil	0-2	Coarse sand and gravel; brown	0.57
229-SO-038-312	Soil	2-12	Coarse gravel with sand; brown	0.32
229-SO-038-324	Soil	12-20	Coarse gravel with sand; grayish brown; hit refusal at 20 inches	0.30
229-SO-038-402	Soil	0-2	Coarse gravel and silt; brown	ND
229-SO-038-502	Soil	0-2	Loam; brown	4.70



Longitudinal Section of Sediment Bar

SEDIMENT BAR

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA038.DWG Last edited: 03/31/95 @ 12:47

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 24
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

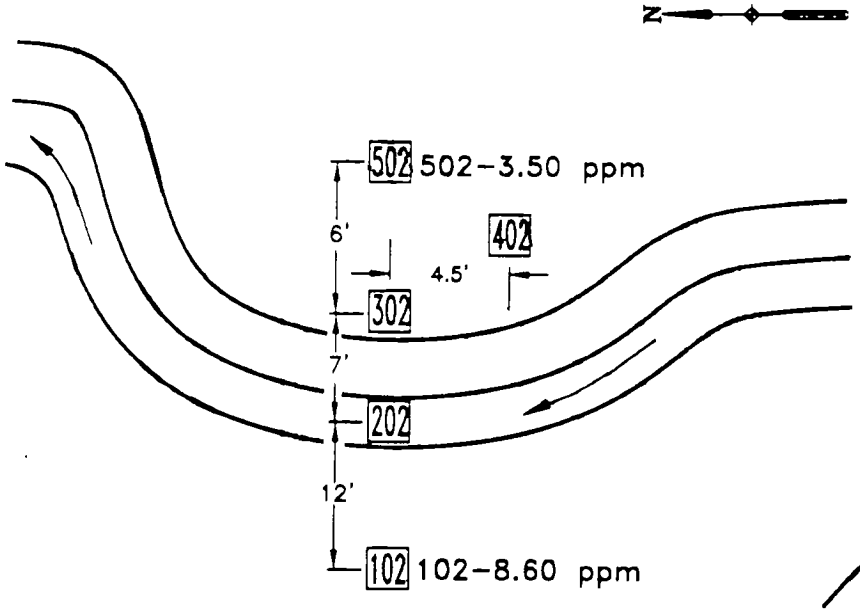
Station 039

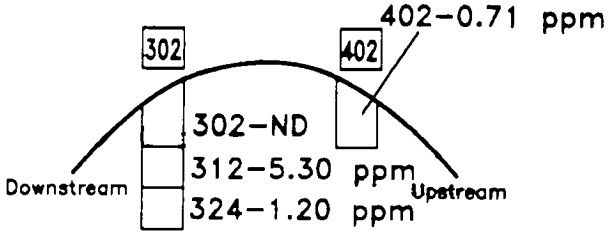
December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-039-102	Soil	0-2	Fine silty loam; brown with manure odor	8.60
229-SD-039-202	Sediment	0-2	Sand with some gravel	1.10
229-SO-039-302	Soil	0-2	Coarse sand with gravel; brown	ND
229-SO-039-312	Soil	2-12	Dark clay, silt and gravel	5.30
229-SO-039-324	Soil	12-18	Coarse gravel and clay; Hit refusal at 18 inches because of bedrock; order of material encountered was sand-gravel-clay	1.20
229-SO-039-402	Soil	0-2	Coarse sand, fine gravel, brown	0.71
229-SO-039-502	Soil	0-2	Loam mixed with coarse sands and gravel; brown	3.50





LONGITUDINAL SECTION OF SEDIMENT BAR

SEDIMENT BAR

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA039.DWG Last edited: 04/03/95 @ 14:36

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 25

TGPL Compressor Station 229

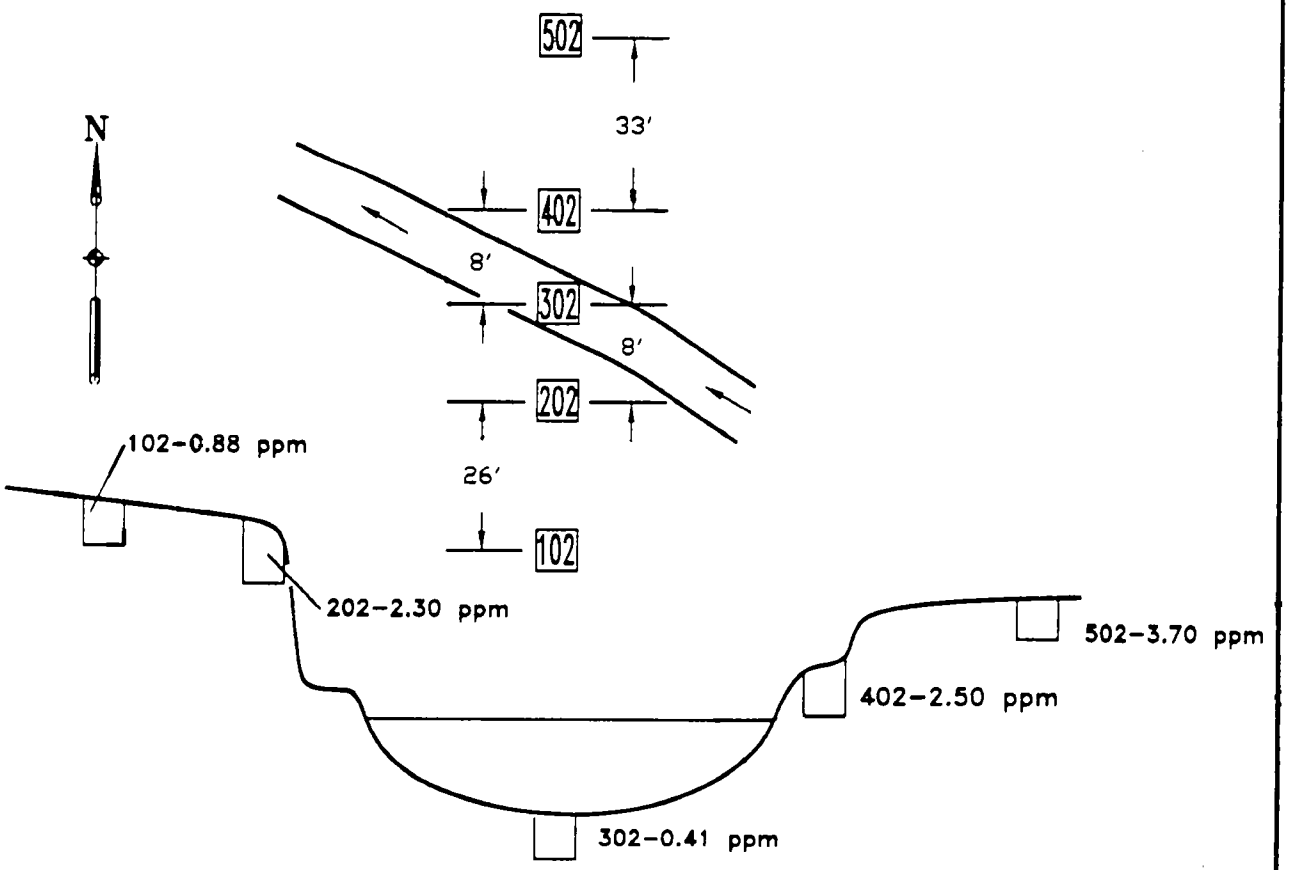
Station 042

December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-042-102	Soil	0-2	Medium brown loam with vegetation	0.88
229-SO-042-202	Soil	0-2	Medium brown loam with vegetation	2.30
229-SD-042-302	Sediment	0-2	Coarse gravel and silt; brown	0.41
229-SO-042-402	Soil	0-2	Medium brown loam	2.50
229-SO-042-502	Soil	0-2	Medium brown loam	3.70



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA042.DWG Last edited: 03/29/95 @ 09:47

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana		FILE NO. 91B650C
SCALE:	DRAWN BY: KH DATE: 3/95 CHKD. BY: DH DATE: 3/95	FIG. NO. 26

TGPL Compressor Station 229

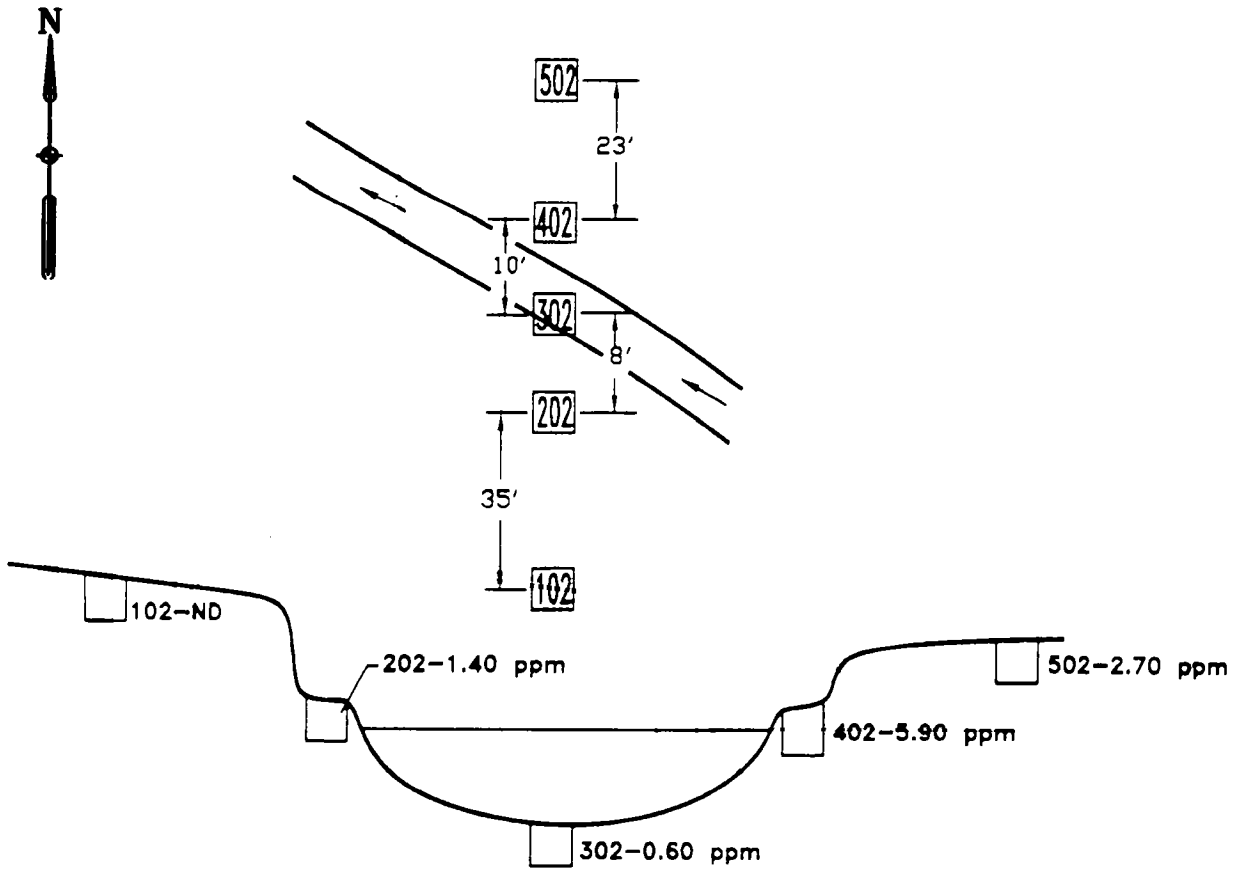
Station 043

December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-043-102	Soil	0-2	Medium brown loam	ND
229-SO-043-202	Soil	0-2	Medium brown loam	1.40
229-SD-043-302	Sediment	0-2	Fine gravel and silt; brown	0.60
229-SO-043-402	Soil	0-2	Medium brown loam	5.90
229-SO-043-502	Soil	0-2	Medium brown loam	2.70



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA043.DWG Last edited: 03/31/95 @ 09:38

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 27
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

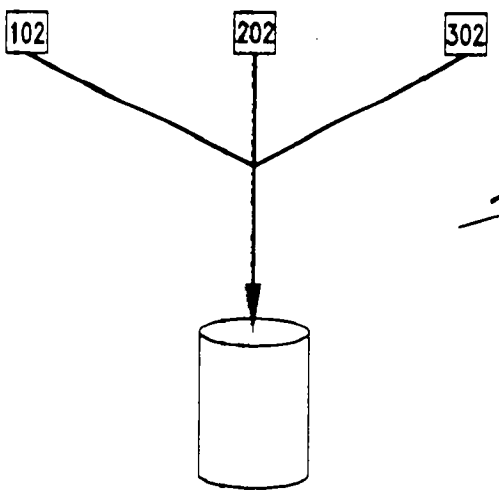
Property 001

December 1994

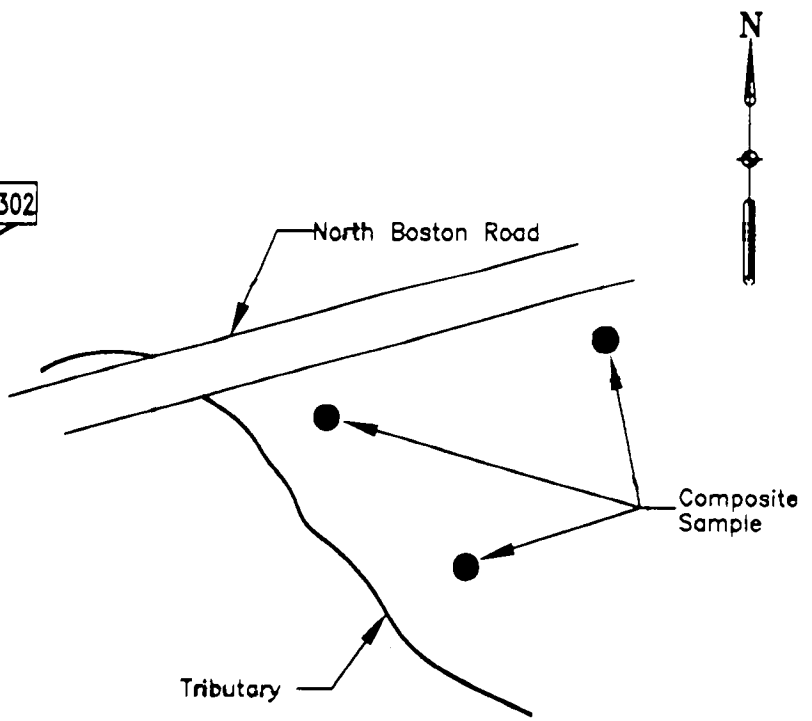
Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P01-102	Soil	0-2	Medium brown loam; submerged loam with decaying vegetation; brown (composite)	6.8



P01-102-6.80 ppm



COMPOSITE SOIL

Property Composite From Property North And East Of Tributary And South Of North Boston Road

Location: Baton Rouge File name: K:\DRWG\TGP\229\P001.DWG Last edited: 03/31/95 @ 09:28

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 28
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

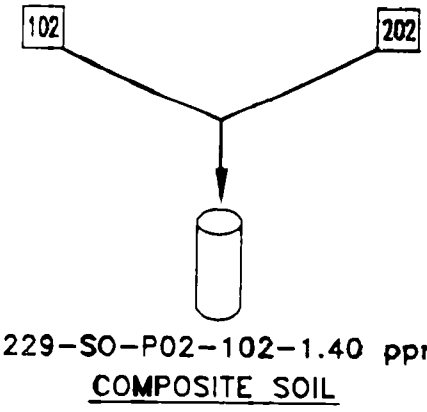
Property 002

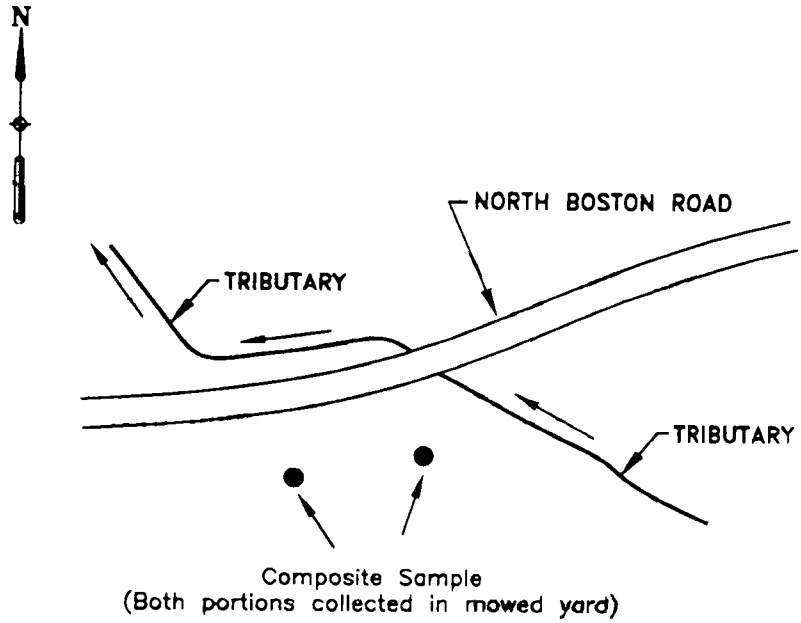
December 1994

Between The Bog and North Boston Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P02-102	Soil	0-2	Medium brown loam	1.40





Property Composite Sample from Property South and West of Tributary and South of North Boston Road

Location: Baton Rouge File name: K:\DRWG\TGP\229\P002.DWG Last edited: 04/03/95 @ 12:44

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 29
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

Property 003

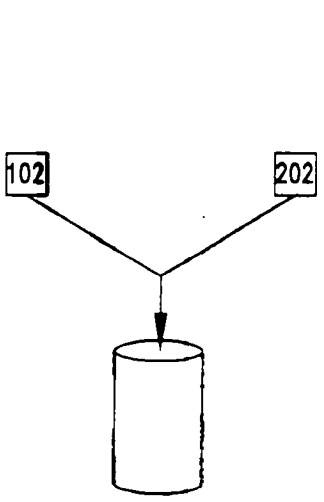
December 1994

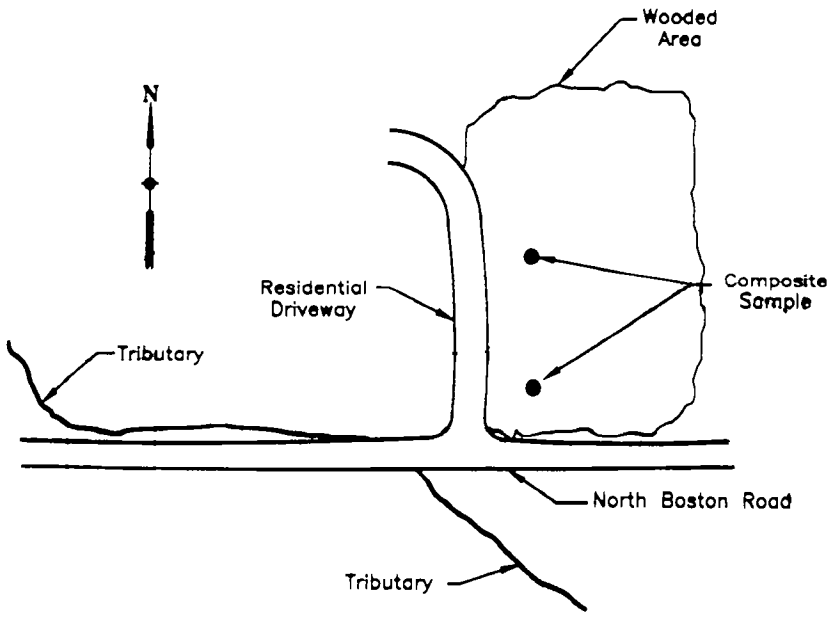
Between North Boston Road and The Breached Pond;

East Side of Residential Driveway

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P03-102	Soil	0-2	Medium gray loam; both parts of sample in standing water	0.32





229-SO-P03-102-0.32 ppm

COMPOSITE SOIL

Property Composite From East Side Of Driveway, Which Is North Of Tributary And North Of North Boston Road

Location: Baton Rouge File name: K:\DRWG\TGP\229\P003.DWG Last edited: 04/03/95 @ 13:22

	Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana		FILE NO. 91B650C
SCALE:	DRAWN BY: KH DATE: 3/95		FIG. NO. 30
	CHKD. BY: DH DATE: 3/95		

TGPL Compressor Station 229

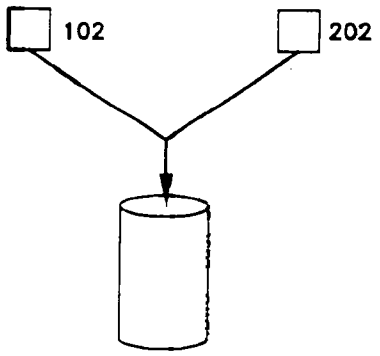
Property 004

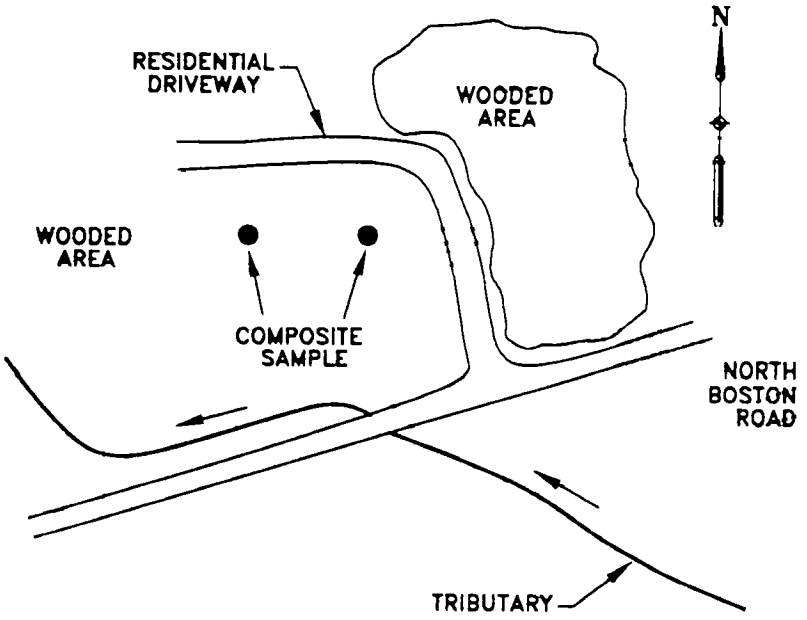
December 1994

Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P04-102	Soil	0-2	Medium brown loam	1.40





229-SO-P04-102-1.40 ppm

COMPOSITE SOIL

Property Composite from West Side of Residential Driveway and South of Residence, Which is North of Tributary and North of North Boston Road

Location: Baton Rouge File name: K:\DRWG\TGP\229\P004.DWG Last edited: 04/03/95 @ 12:45

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 31
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

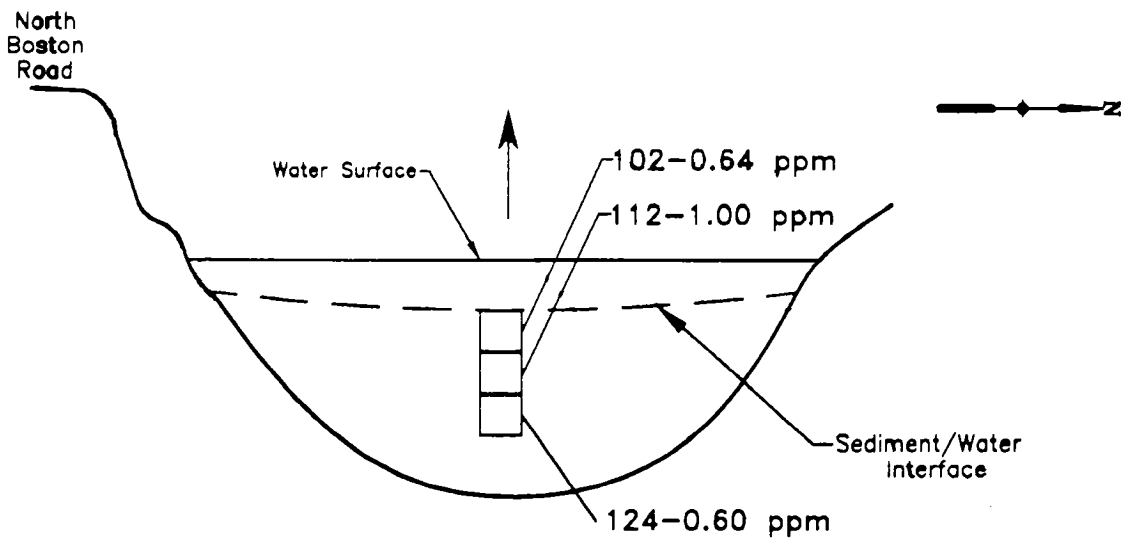
Station 046

December 1994

Pool Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Location	Sample (inches)	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SD-046-102	Sediment	0-2	Gravel with some silt	0.64
229-SD-046-112	Sediment	2-12	Silt mixed with gravel	1.00
229-SD-046-124	Sediment	12-18	Silt mixed with gravel; refusal at 18-20 inches; there was a lot of collapse on the side of the sampling location when taking the sediment sample in the stream.	0.60



Note: Pool in ditch on north side of North Boston Road just before the tributary flows into the woods.

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA046.DWG Last edited: 03/31/95 @ 09:35

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 32
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

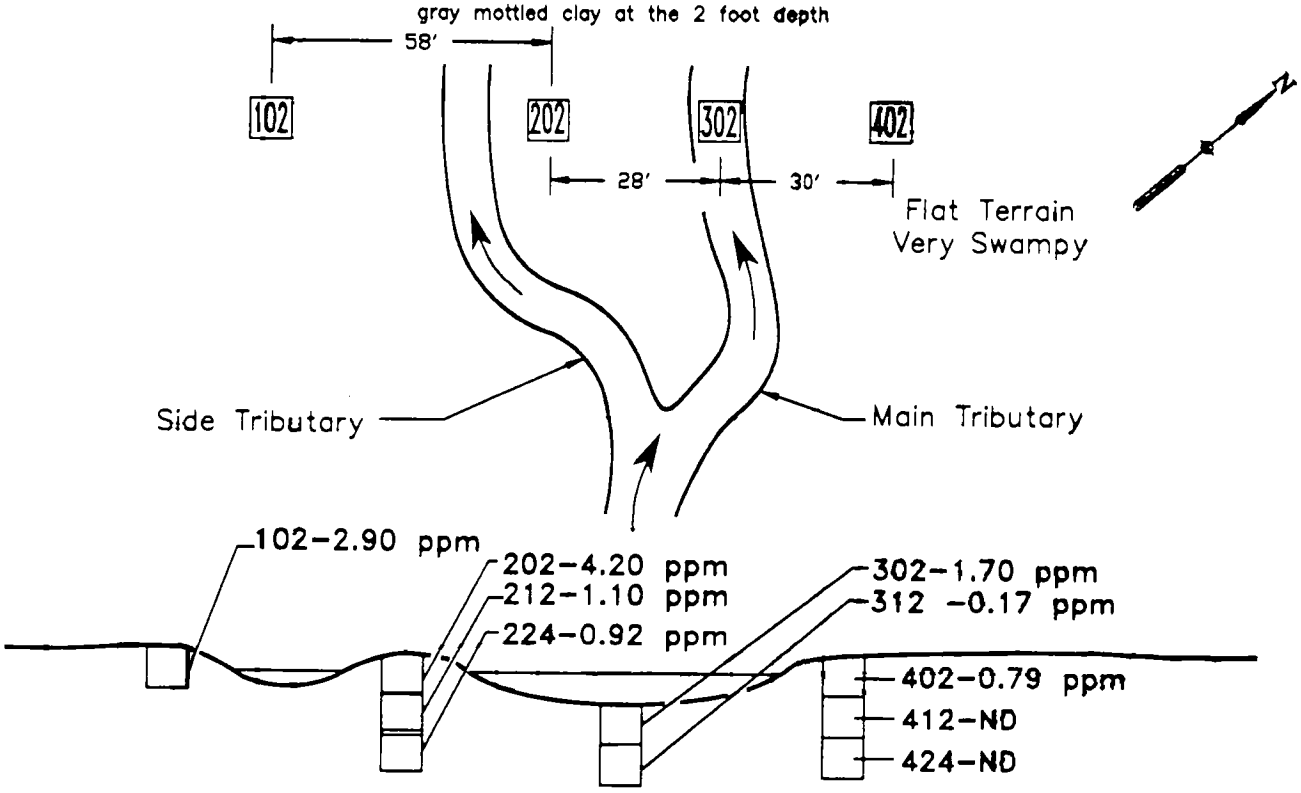
Station 048

December 1994

Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-048-102	Soil	0-2	Medium brown loam	2.90
229-SO-048-202	Soil	0-2	Very rich loam; dark brown	4.20
229-SO-048-212	Soil	2-12	Very rich loam; dark brown	1.10
229-SO-048-224	Soil	12-24	Mostly clay with loam; brown/gray	0.92
229-SD-048-302	Sediment	0-2	Clay loam; gray/brown	1.70
229-SD-048-312	Sediment	2-12	Clay gravel; gray/brown; hit refusal at 12 inches	0.17
229-SO-048-402	Soil	0-2	Brown clay loam	0.79
229-SO-048-412	Soil	2-12	Brown clay loam	ND
229-SO-048-424	Soil	12-24	Mostly clay (brown) with some loam; picking up a reddish-gray mottled clay at the 2 foot depth	ND



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA48.DWG Last edited: 03/29/95 @ 09:44

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SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 33

TGPL Compressor Station 229

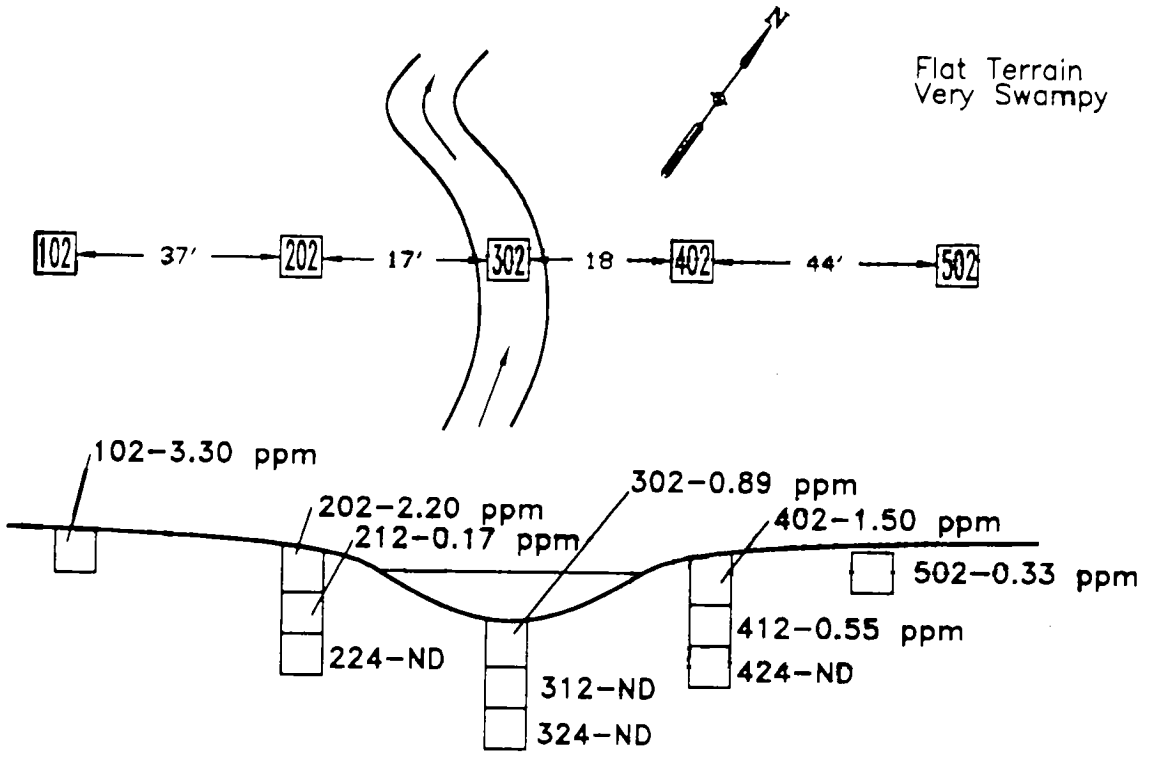
Station 050

December 1994

Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-050-102	Soil	0-2	Loam; brown	3.30
229-SO-050-202	Soil	0-2	Loam; brown	2.20
229-SO-050-212	Soil	2-12	Loam; brown	0.17
229-SO-050-224	Soil	12-24	Loam (alluvial deposits); brown	ND
229-SD-050-302	Sediment	0-2	Loam with lots of roots; gray/brown	0.89
229-SD-050-312	Sediment	2-12	Clay mixed with gravel; brown	ND
229-SD-050-324	Sediment	12-20	Clay mixed with gravel; brown; refusal at 20 inches because of root mass	ND
229-SO-050-402	Soil	0-2	Loam; dark brown	1.50
229-SO-050-412	Soil	2-12	Medium brown loam	0.55
229-SO-050-424	Soil	12-18	Tan clay; refusal at 18 inches because of roots	ND
229-SO-050-502	Soil	0-2	Brown loam	0.33



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA050.DWG Last edited: 04/03/95 @ 08:14

Woodward-Clyde Consultants
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Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 34

TGPL Compressor Station 229

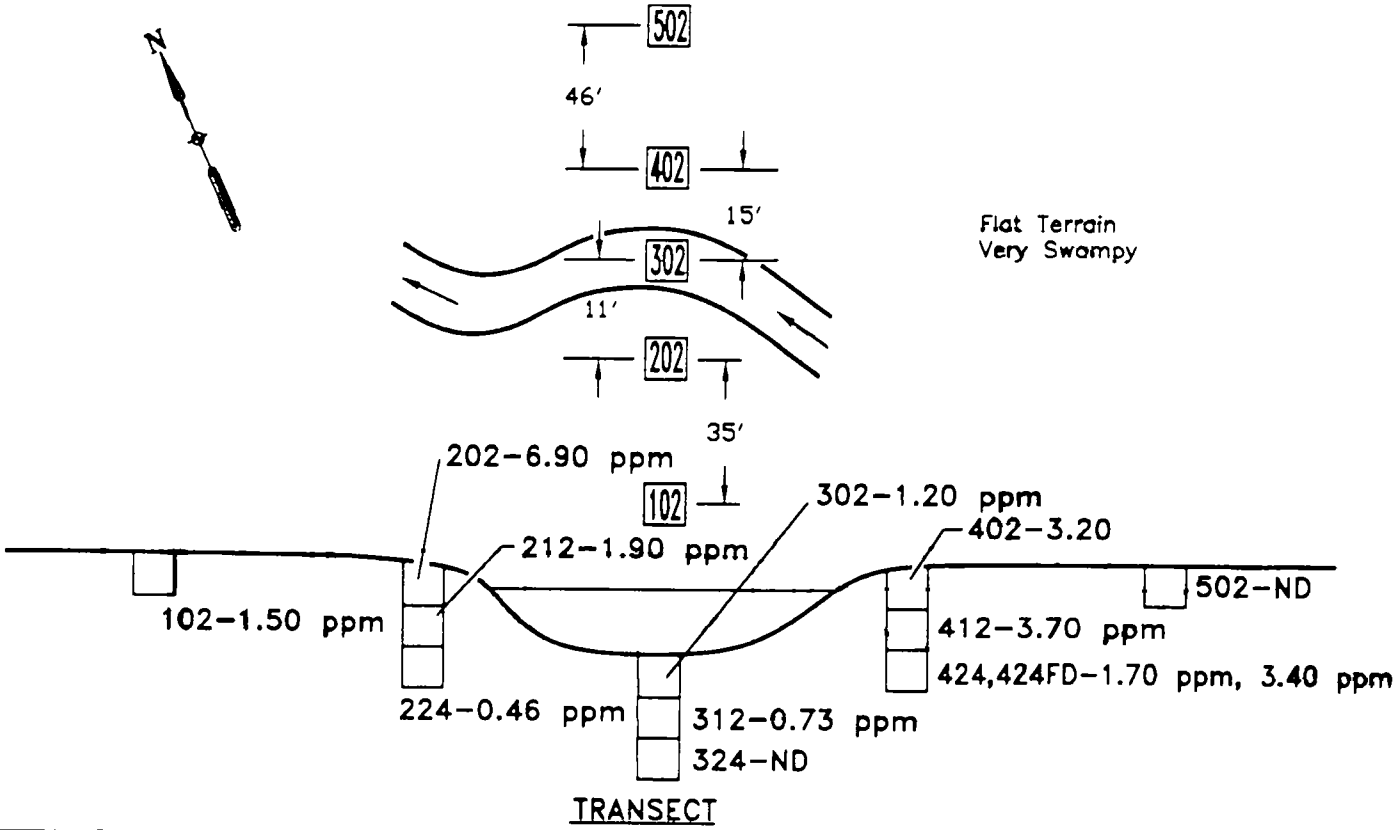
Station 054

December 1994

Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-054-102	Soil	0-2	Medium brown loam	1.50
229-SO-054-202	Soil	0-2	Clay with loam; brownish gray	6.90
229-SO-054-212	Soil	2-12	Clay; brownish gray	1.90
229-SO-054-224	Soil	12-24	Red and gray mottled clay	0.46
229-SD-054-302	Sediment	0-2	Silt/clay; light yellow/gray	1.20
229-SD-054-312	Sediment	2-12	Clay with some silt; medium gray	0.73
229-SD-054-324	Sediment	12-24	Yellow gray clay, with mixed red, yellow and gray mottled clay	ND
229-SO-054-402	Soil	0-2	Medium brown loam	3.20
229-SO-054-412	Soil	2-12	Medium brown loam	3.70
229-SO-054-424	Soil	12-24	Clay with loam; dark brown; hard clay at 24 inches	1.70
229-SO-054-424FD	Soil	12-24	Clay/hard clay; dark brown/gray	3.40
229-SO-054-502	Soil	0-2	Medium brown loam	ND



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Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 35
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

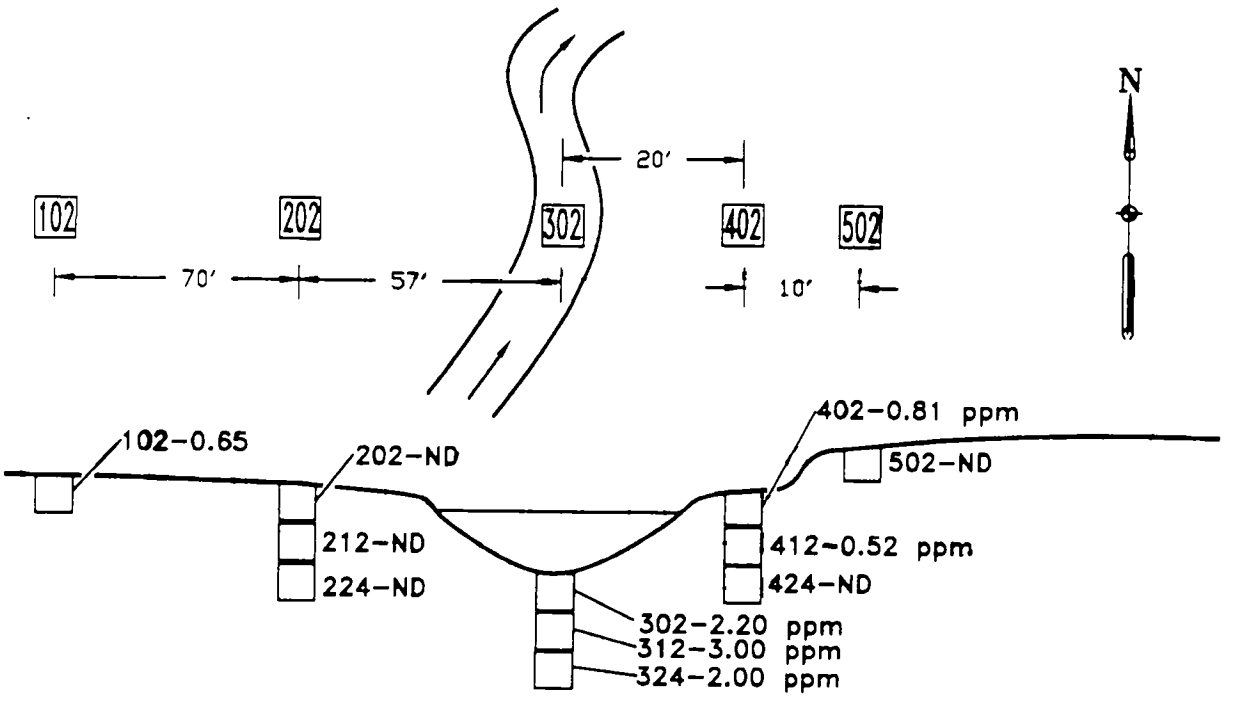
Station 059

December 1994

In Woods Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-059-102	Soil	0-2	Medium brown loam	0.65
229-SO-059-202	Soil	0-2	Medium brown loam	ND
229-SO-059-212	Soil	2-12	Medium brown clay began at 6 inches depth, yellow/brown gray clay	ND
229-SO-059-224	Soil	12-18	Light yellow/brown clay; refusal at 18 inches possibly because of rock	ND
229-SD-059-302	Sediment	0-2	Medium brown clay and silt	2.20
229-SD-059-312	Sediment	2-12	Medium brown clay and silt	3.00
229-SD-059-324	Sediment	12-22	Medium brown clay; refusal at 22 inches	2.00
229-SO-059-402	Soil	0-2	Sandy loam, brown; (located 2 feet up the right hand (east) bank from water line)	0.81
229-SO-059-412	Soil	2-12	Light brown loam	0.52
229-SO-059-424	Soil	12-24	Medium brown clay with mixed coarse sand and fine gravel	ND
229-SO-059-502	Soil	0-2	Light brown loam	ND



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA059.DWG Last edited: 03/29/95 @ 10:58

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Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 36

TGPL Compressor Station 229

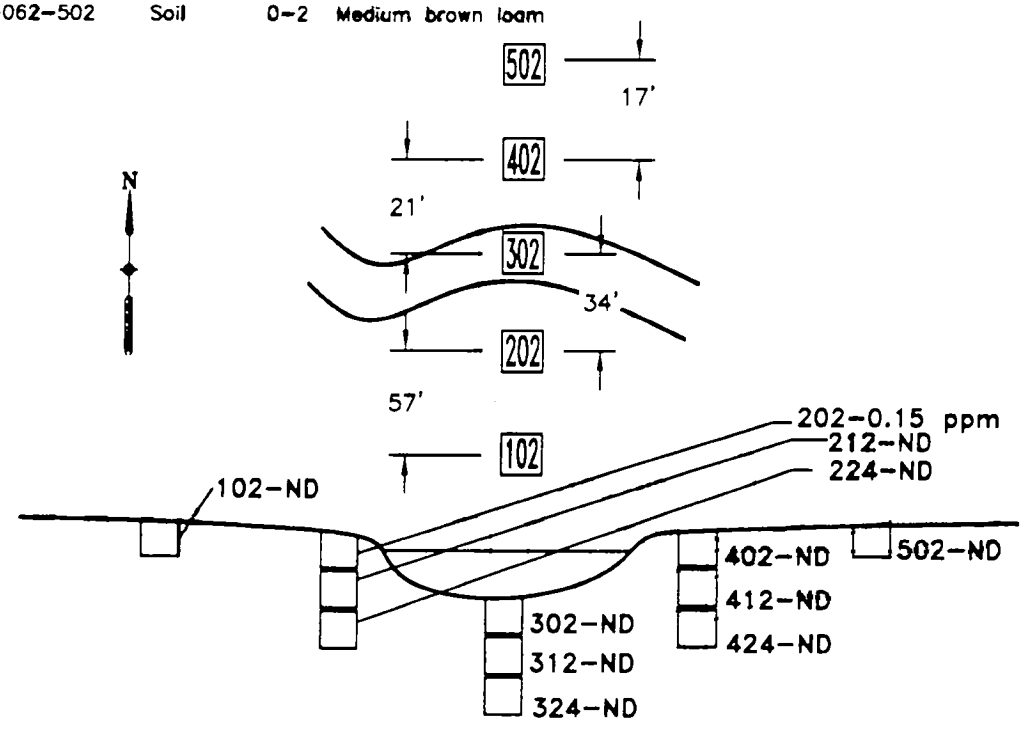
Station 062

December 1994

Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-062-102	Soil	0-2	Medium brown loam	ND
229-SO-062-202	Soil	0-2	Brown loam	0.15
229-SO-062-212	Soil	2-12	Loam mixed with clay; began to encounter clay at 6 inches; hard clay encountered at 12 inches	ND
229-SO-062-224	Soil	12-24	Light tan/ light brown hard clay (solid clay; all dry); at 24 inches encountered light gray/tan clay	ND
229-SD-062-302	Sediment	0-2	Medium brown silty loam	ND
229-SD-062-312	Sediment	2-12	Medium brown silty loam	ND
229-SD-062-324	Sediment	12-24	Brownish gray silty loam	ND
229-SO-062-402	Soil	0-2	Medium brown loam	ND
229-SO-062-412	Soil	2-12	Medium brown loam (alluvial deposits)	ND
229-SO-062-424	Soil	12-20	Medium brown loam; very wet, some dark gray clay stopped augering at 20 inches because of water suction with the auger	ND
229-SO-062-502	Soil	0-2	Medium brown loam	ND



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA062.DWG Last edited: 03/21/95 @ 10:44

Woodward-Clyde Consultants
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Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 37

TGPL Compressor Station 229

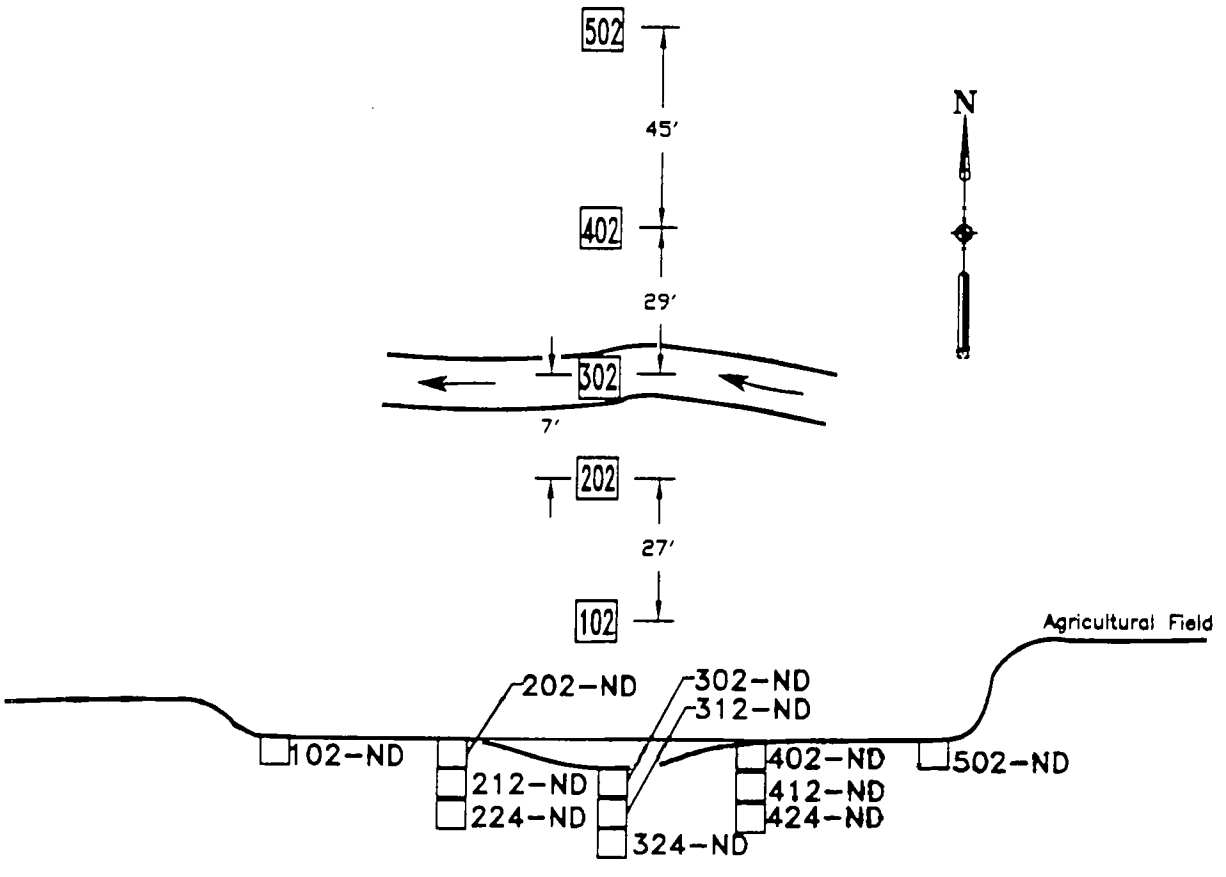
Station 066

December 1994

Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-066-102	Soil	0-2	Brown Loam	ND
229-SO-066-202	Soil	0-2	Sandy loam; brown	ND
229-SO-066-212	Soil	2-12	Sandy loam with a little clay; gray-brown	ND
229-SO-066-224	Soil	12-24	Gray clay	ND
229-SD-066-302	Sediment	0-2	Silty muck; dark brown	ND
229-SD-066-312	Sediment	2-12	Silty muck; dark brown	ND
229-SD-066-324	Sediment	12-24	Silty muck; dark brown; sample collected at 20 inches due to water/auger suction	ND
229-SO-066-402	Soil	0-2	Medium brown loam	ND
229-SO-066-412	Soil	2-12	Medium brown loam	ND
229-SO-066-424	Soil	12-24	Medium brown loam	ND
229-SO-066-502	Soil	0-2	Brown loam with vegetation (decaying vegetation)	ND



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA066.DWG Last edited: 03/29/95 @ 11:28

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Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 38

TGPL Compressor Station 229

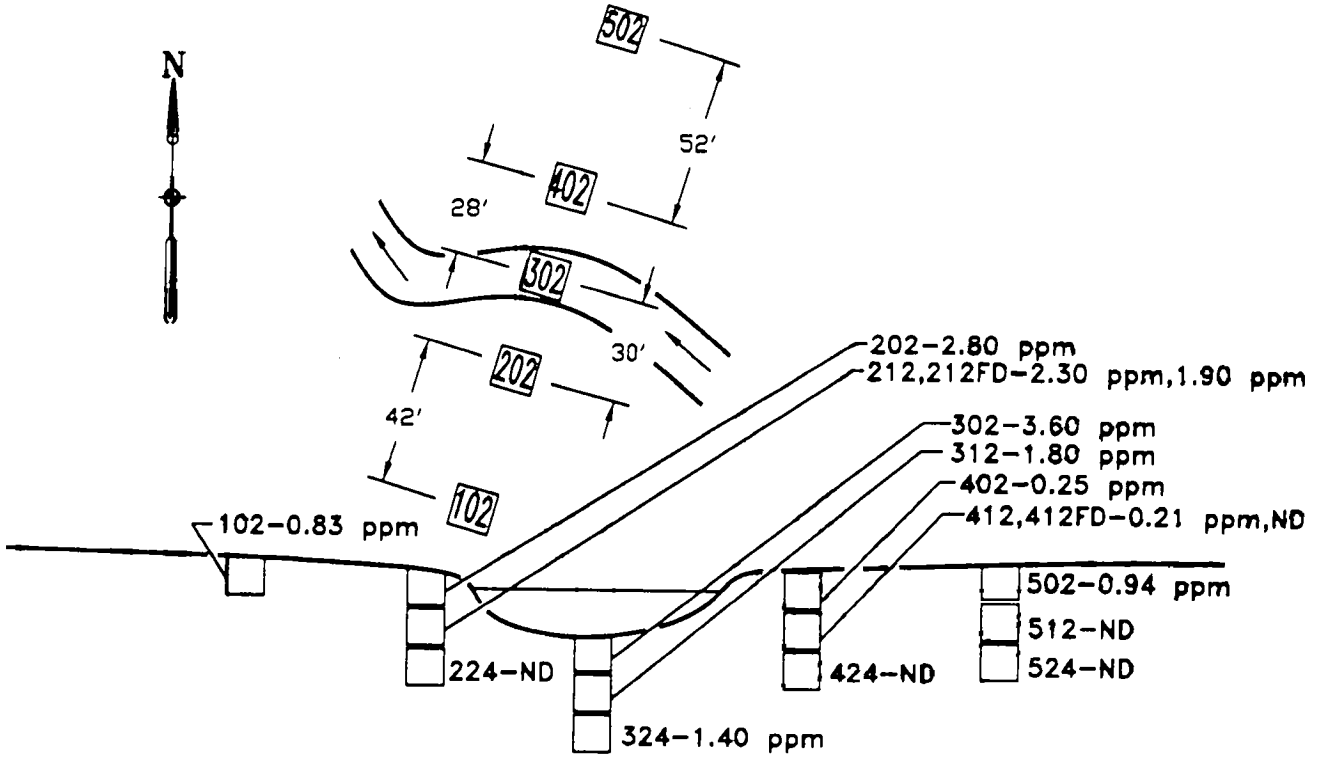
Station 070

December 1994

Between North Boston Road and The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-070-102	Soil	0-2	Silt, brown	0.83
229-SO-070-202	Soil	0-2	Brown Loam	2.80
229-SO-070-212	Soil	2-12	Brown loam; oil sheen present in sample hole	2.30
229-SO-070-212FD	Soil	2-12	Brown loam	1.90
229-SO-070-224	Soil	12-24	Loam with very little clay	ND
229-SD-070-302	Sediment	0-2	Brown silt	3.60
229-SD-070-312	Sediment	2-12	Brown silt and loam	1.80
229-SD-070-324	Sediment	12-24	Brown silt and loam	1.40
229-SD-070-402	Sediment	0-2	Light colored loam	0.25
229-SD-070-412	Sediment	2-12	Mainly clay; some loam, medium brown	0.21
229-SD-070-412FD	Sediment	2-12	Mainly clay; some loam, medium brown	ND
229-SD-070-424	Sediment	12-24	Wet medium brown clay	ND
229-SO-070-502	Soil	0-2	Medium brown clay/loam	0.94
229-SO-070-512	Soil	2-12	Yellow clay; pure clay at 12 inches	ND
229-SO-070-524	Soil	12-24	Hard, dry yellow clay	ND



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA070.DWG Last edited: 03/29/95 @ 10:08

Woodward-Clyde Consultants
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Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 39

TGPL Compressor Station 229

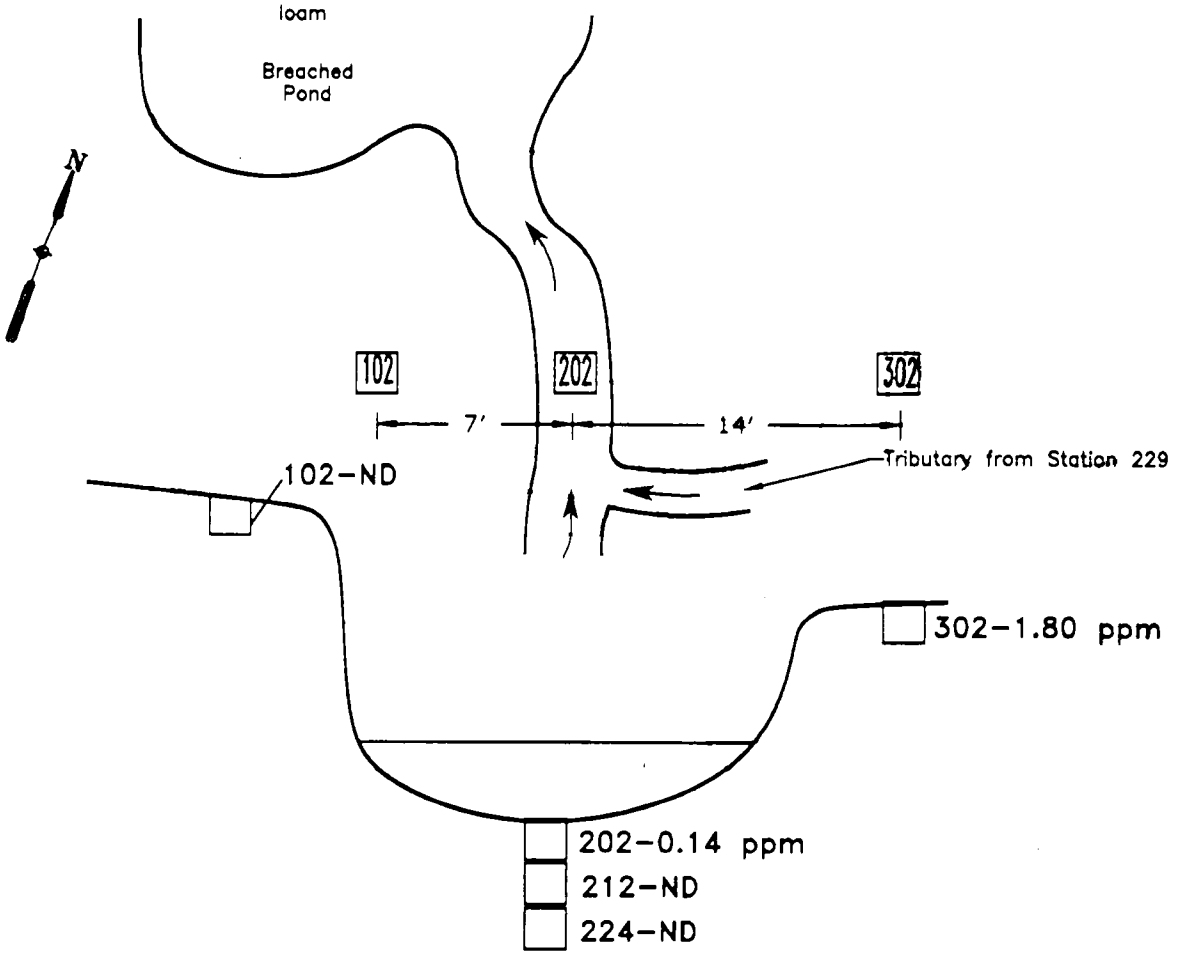
Station 072

December 1994

Between North Boston Road and The Breached Pond; Immediately Downstream From the Confluence of Two Tributaries and Immediately Upstream From The Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-072-102	Soil	0-2	Medium brown loam	ND
229-SD-072-202	Sediment	0-2	Gray brown silt-sand-clay	0.14
229-SD-072-212	Sediment	2-12	Brown/black/gray sand-clay	ND
229-SD-072-224	Sediment	12-24	Sandy clay mix, brown/black	ND
229-SO-072-302	Soil	0-2	Sample was broken in shipment but was analyzed; medium brown loam	1.80



Location: Baton Rouge File name: K:\DRWG\TGP\229\STA072.DWG Last edited: 03/29/95 @ 09:14

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Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 40

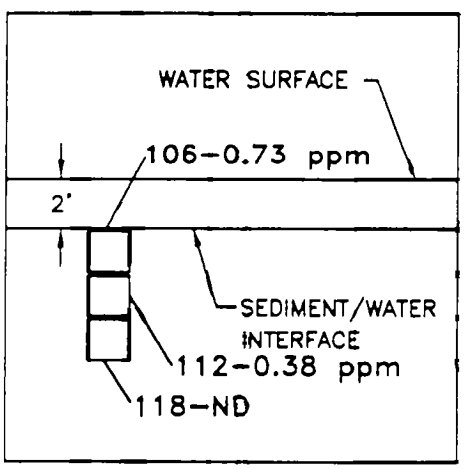
TGPL Compressor Station 229

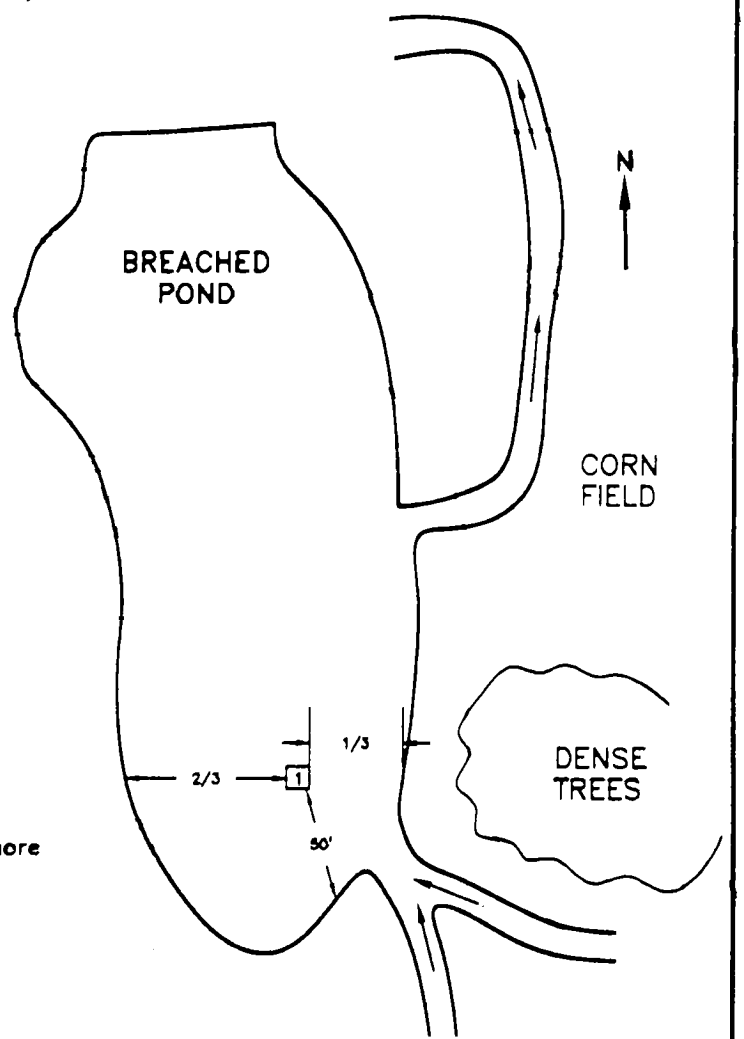
Breached Pond Location 1

December 1994

Breached Pond Samples

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SD-BP1-106	Sediment	0-6		0.73
229-SD-BP1-112	Sediment	6-12		0.38
229-SD-BP1-118	Sediment	12-18	Encountered a clay layer at refusal	ND





LOCATION 1

- 50 feet from south end of pond
- 1/3 of distance across pond from east shore
- Water depth: 2 feet
- Sediment thickness: 5 feet
- Sediment recovery: 1.7 feet

Location: Baton Rouge File name: K:\DRWG\TGP\229\BP1.DWG Last edited: 03/27/95 @ 10:40

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana				FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95		FIG. NO. 41
	CHKD. BY: DH	DATE: 3/95		

TGPL Compressor Station 229

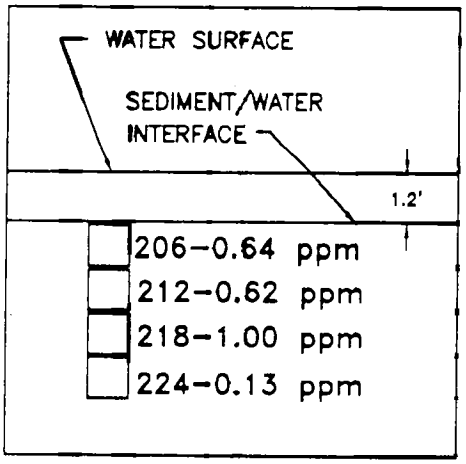
Breached Pond Location 2

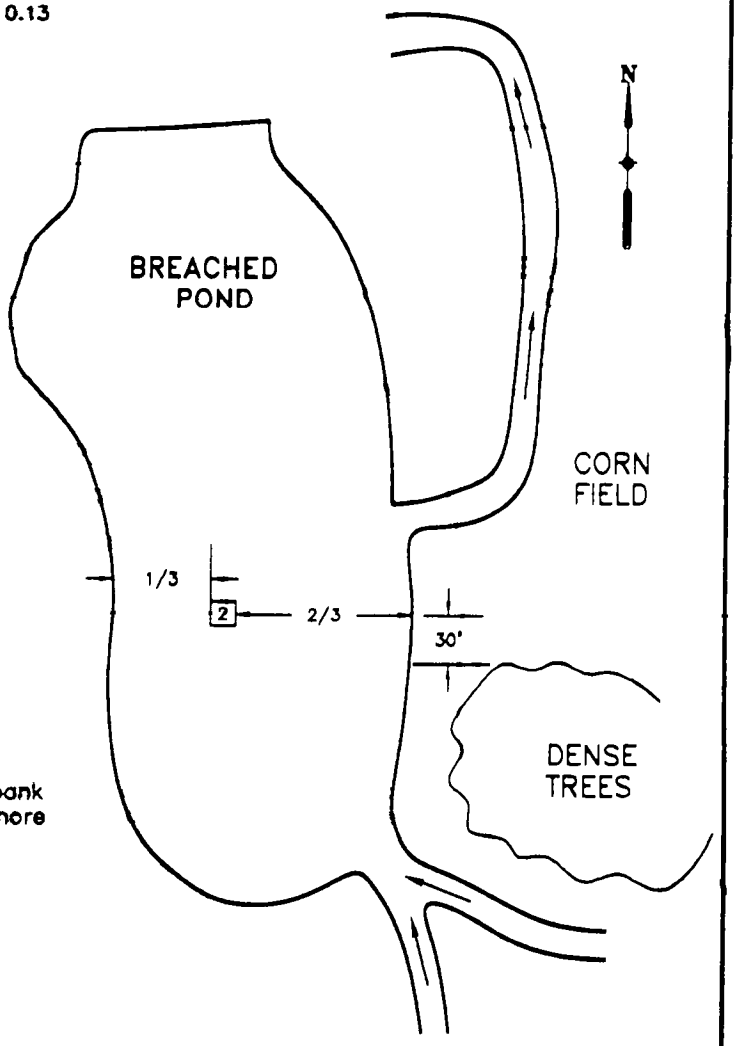
December 1994

Breached Pond Samples

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Total PCB Concentration (ppm)
229-SD-BP2-206	Sediment	0-6	0.64
229-SD-BP2-212	Sediment	6-12	0.62
229-SD-BP2-218	Sediment	12-18	1.00
229-SD-BP2-224	Sediment	18-24	0.13





LOCATION 2

* 30 feet north of edge of trees on east bank
* 1/3 of disance across pond from west shore
* Water depth: 1.2 feet
* Sediment thickness: 5.2 feet
* Sediment recovery: 1.8 feet

Location: Baton Rouge File name: K:\DRWG\TGP\229\BP2.DWG Last edited: 03/27/95 @ 10:34

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 42
	CHKD. BY: DH	DATE: 3/95	

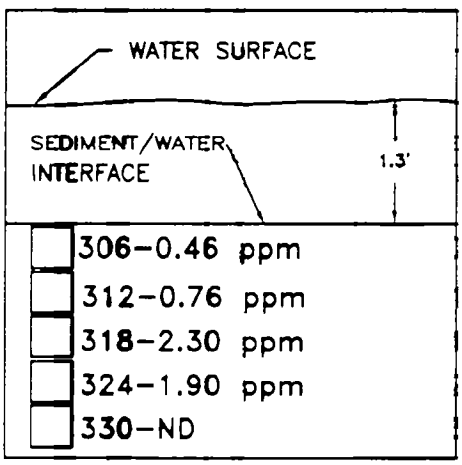
TGPL Compressor Station 229

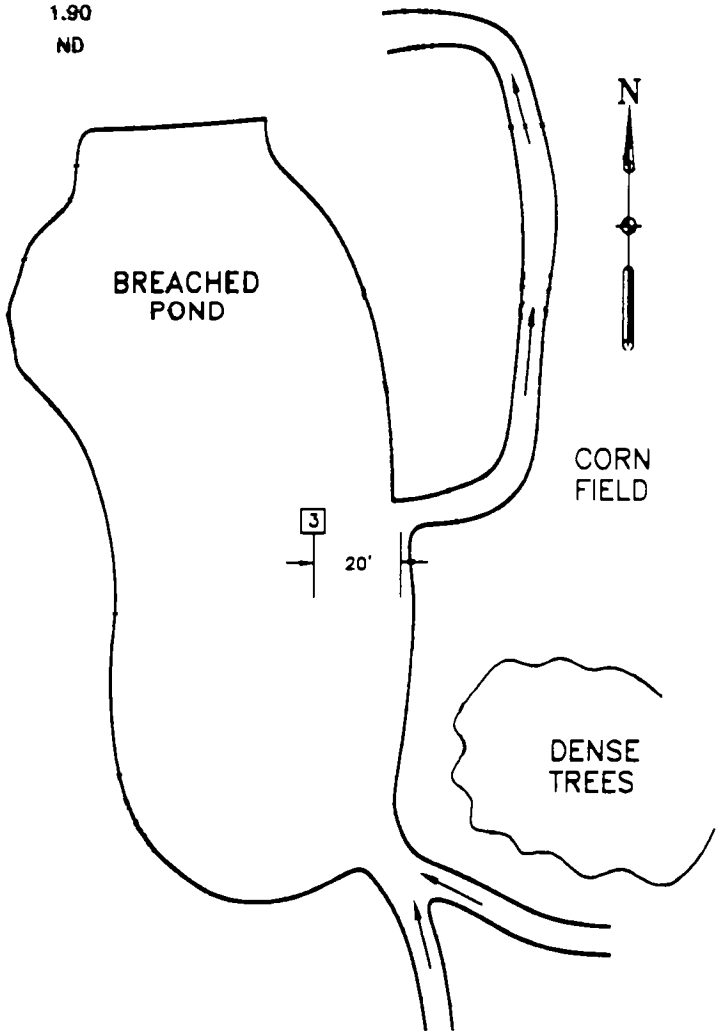
Breached Pond Location 3

December 1994

Breached Pond Samples

Sample Number	Sample Matrix	Depth (inches)	Total PCB Concentration (ppm)
229-SD-BP3-306	Sediment	0-6	0.46
229-SD-BP3-312	Sediment	6-12	0.76
229-SD-BP3-318	Sediment	12-18	2.30
229-SD-BP3-324	Sediment	18-24	1.90
229-SD-BP3-330	Sediment	24-30	ND





LOCATION 3

* 20 feet due west from breach
* Water depth: 1.3 feet
* Sediment thickness: 4.8 feet
* Sediment recovery: 2.6 feet

Location: Baton Rouge File name: K:\DRWG\TGP\229\BP3.DWG Last edited: 03/27/95 @ 10:28

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 43
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

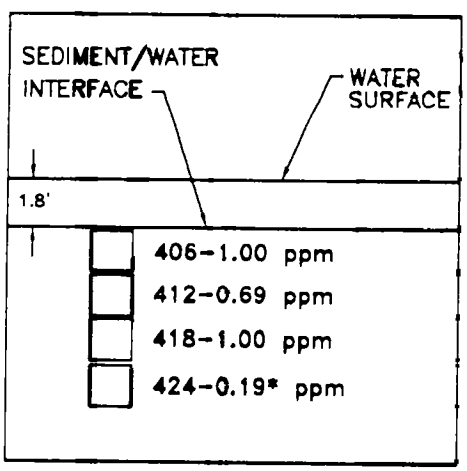
Breached Pond Location 4

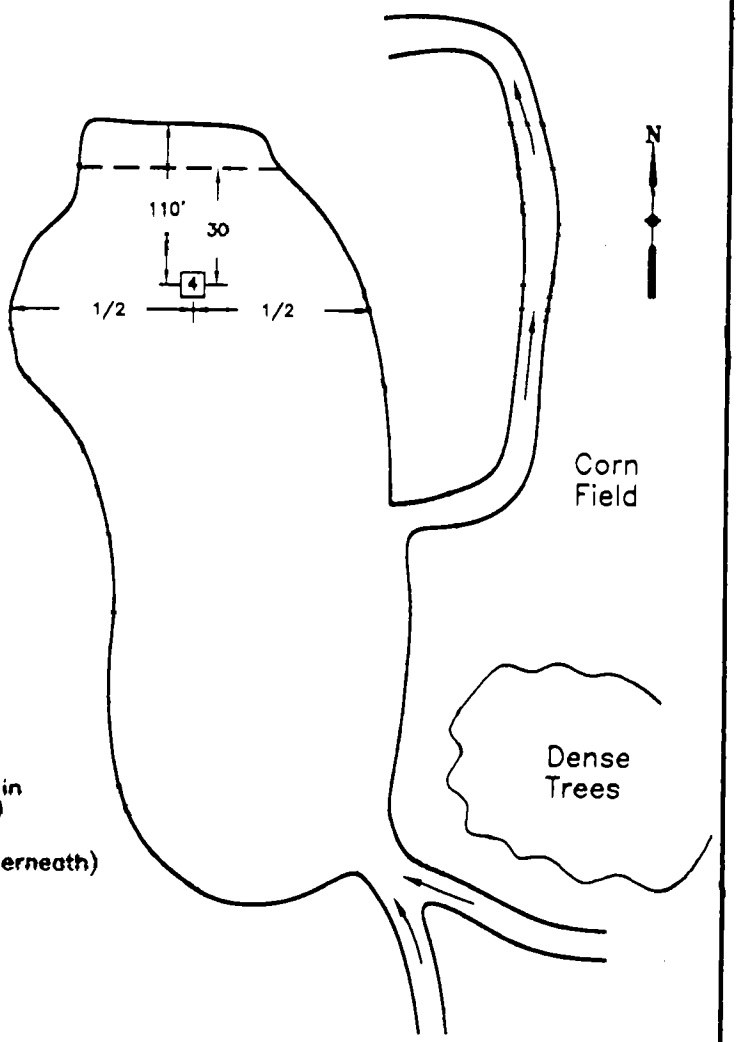
December 1994

Breached Pond Samples

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SD-BP4-406	Sediment	0-6		1.00
229-SD-BP4-412	Sediment	6-12		0.69
229-SD-BP4-418	Sediment	12-18		1.00
229-SD-BP4-424	Sediment	18-24	Hit refusal on what may have been bedrock from the old tributary channel	0.19





LOCATION 4

- 30 feet south of north neck of pond, in center (110 feet south of north shore)
- Water depth: 1.8 feet
- Sediment thickness: 2.8 feet (solid underneath)
- Sediment recovery: 2.0 feet

* All Aroclor 1248

Location: Baton Rouge File name: K:\DRWG\TGP\229\BP4.DWG Last edited: 04/03/95 @ 10:20

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 44
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

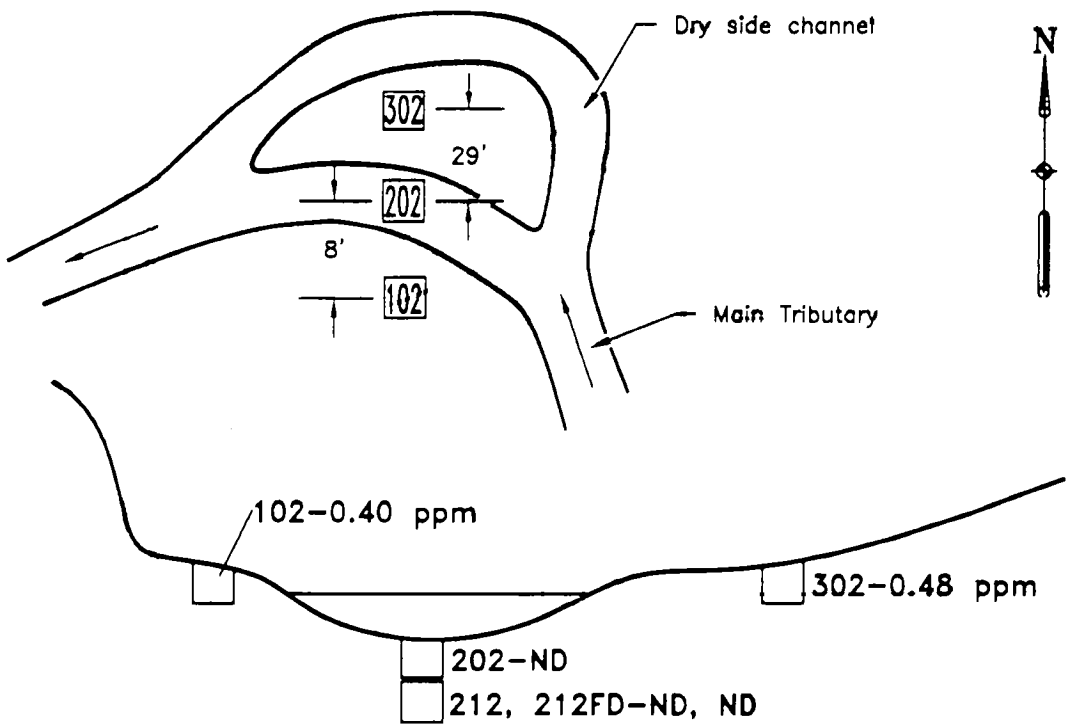
Station 077

December 1994

Between The Breached Pond and Highway 75; Located Where Tributary Flows Around Northeastern Edge of Breached Pond

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-077-102	Soil	0-2	Dark brown moist silty clay with organics and some roots	0.40
229-SD-077-202	Sediment	0-2	Tan/gray mottled clayey silt with some rock	ND
229-SD-077-212	Sediment	2-12	Tan/gray mottled clayey silt; refusal at 12 inches	ND
229-SD-077-212FD	Sediment	2-12	Tan/gray mottled clayey silt; refusal at 12 inches	ND
229-SO-077-302	Soil	0-2	Dark brown moist clay silt with organics and roots	0.48



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA077.DWG Last edited: 03/29/95 @ 11:52

	Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana		FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 45
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

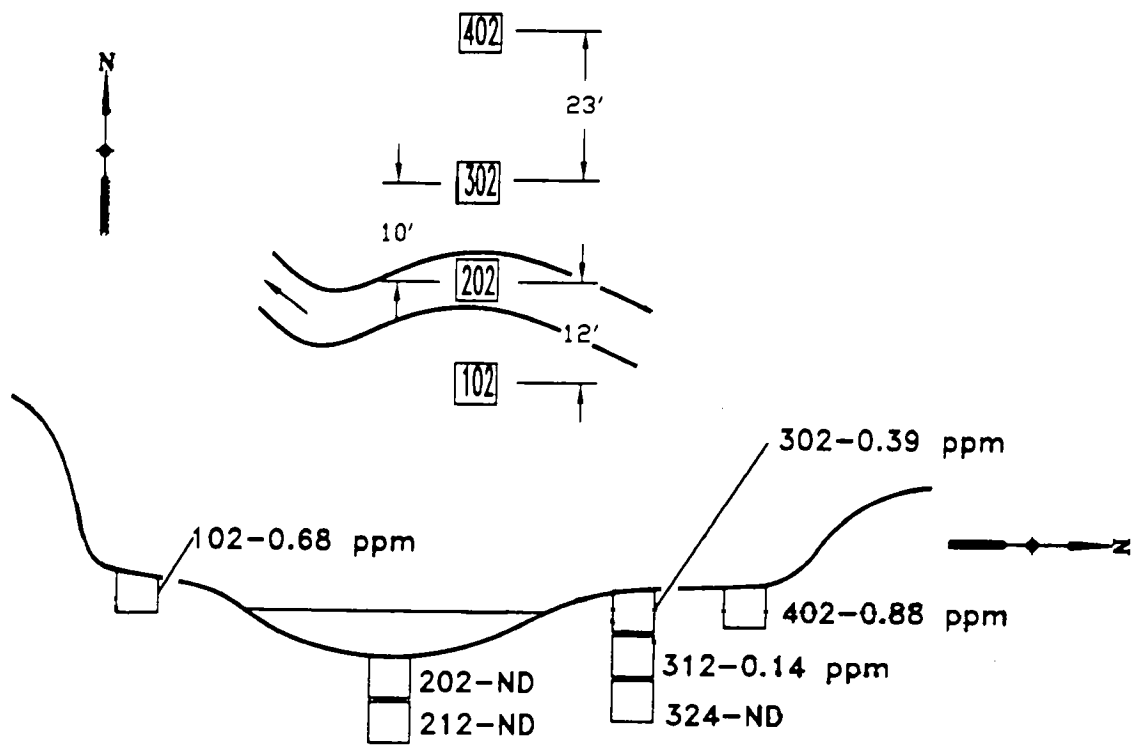
Station 080

December 1994

Between The Breached Pond and Highway 75

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-080-102	Soil	0-2	Tan to dark brown clayey silt with lots of sticks and roots	0.68
229-SD-080-202	Sediment	0-2	Rocky, coarse silt and sand; tan to light brown	ND
229-SD-080-212	Sediment	2-12	Dark gray/tan clayey silt with small gravel and organics; very moist; refusal at 12 inches	ND
229-SO-080-302	Soil	0-2	Clayey silt with lots of organics and roots	0.39
229-SO-080-312	Soil	2-12	Dark brown/tan mottled clayey silt; some roots with a few organic deposits and some ferrous deposits	0.14
229-SO-080-324	Soil	12-24	Dark brown/gray/tan mottled silty clay with some ferrous deposits	ND
229-SO-080-402	Soil	0-2	Clayey silt with organics and roots	0.88



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA080.DWG Last edited: 03/31/95 @ 12:49

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 46

TGPL Compressor Station 229

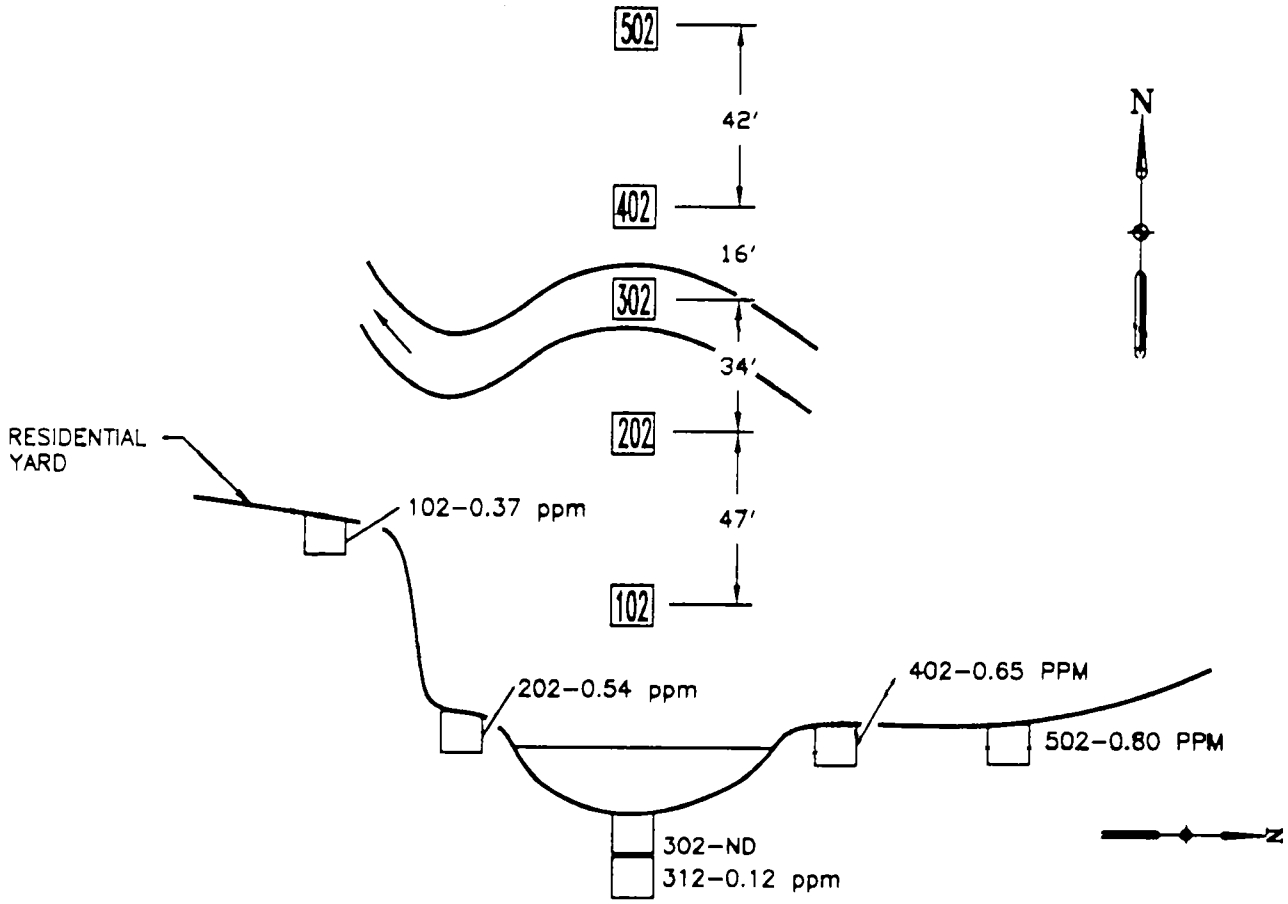
Station 081

December 1994

Between The Breached Pond and Highway 75

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-081-102	Soil	0-2	Dark brown clay silt with some roots and organics; in residential yard	0.37
229-SO-081-202	Soil	0-2	Dark brown clay silt with some roots and organic matter	0.54
229-SD-081-302	Sediment	0-2	Dark brown silt with organics	ND
229-SD-081-312	Sediment	2-10	Dark brown to black rocky silty with some organic; refusal at 10 inches	0.12
229-SO-081-402	Soil	0-2	Dark brown clayey silt with some roots	0.65
229-SO-081-502	Soil	0-2	Dark brown clayey silt with some roots	0.80



Location: Baton Rouge File name: K:\DRWG\TGP\229\STA081.DWG Last edited: 03/29/95 @ 10:44

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 47

TGPL Compressor Station 229

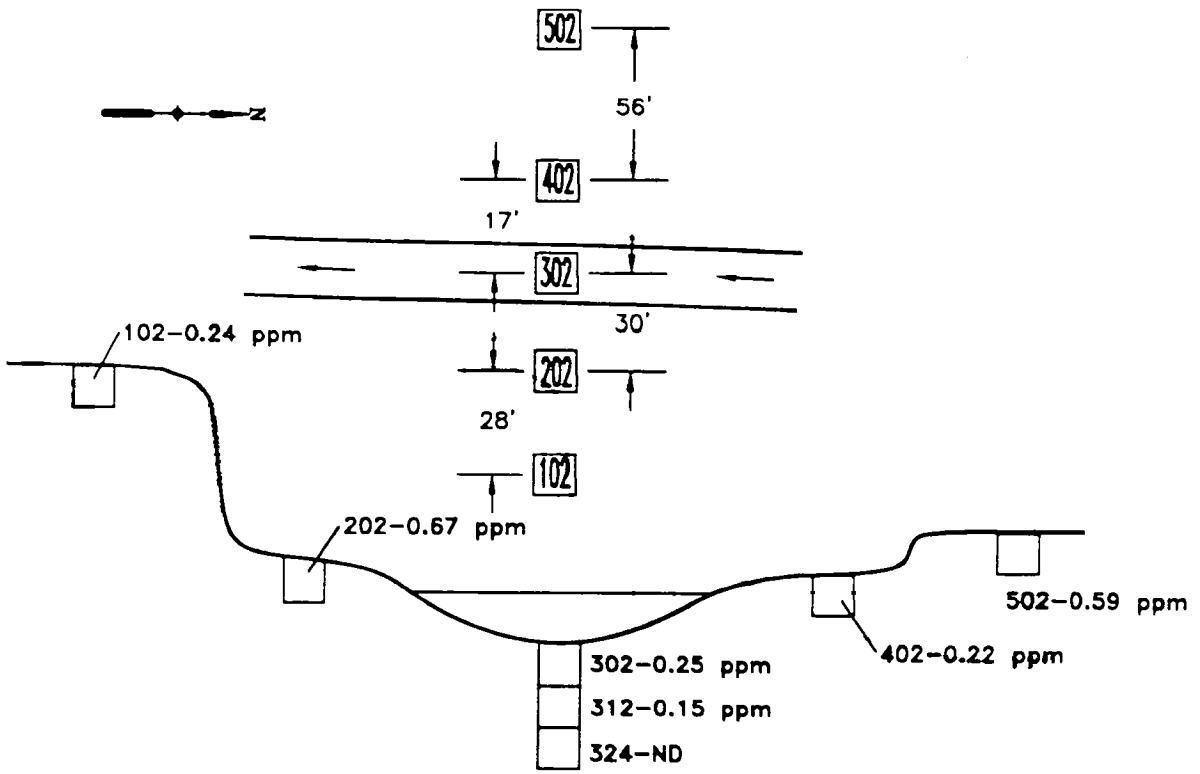
Station 082

December 1994

Between The Breached Pond and Highway 75; Just Upstream From Highway 75

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-082-102	Soil	0-2	Dark brown heavy silt with lots of organics and roots	0.24
229-SO-082-202	Soil	0-2	Dark brown and black mottled heavy silt with heavy organic deposits and some roots	0.67
229-SD-082-302	Sediment	0-2	Dark brown clayey silt with heavy organics and roots	0.25
229-SD-082-312	Sediment	2-12	Dark brown clayey silt; very moist with roots, small gravel and some organic deposits	0.15
229-SD-082-324	Sediment	12-24	Dark brown/black heavy silt mixed with some clay, heavy organic deposits and roots, with some gravel with slight odor	ND
229-SO-082-402	Soil	0-2	Dark brown clayey silt with heavy roots and organics	0.22
229-SO-082-502	Soil	0-2	Dark brown/black heavy silt with a lot of organic matter	0.59



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA082.DWG Last edited: 04/03/95 @ 13:52

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 48

TGPL Compressor Station 229

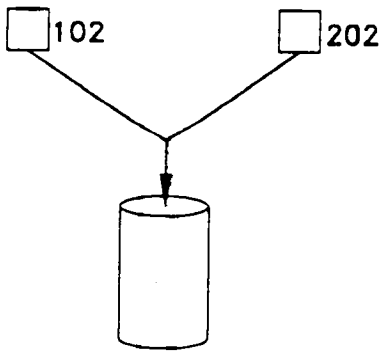
Property 009

December 1994

Between The Breached Pond and Highway 75

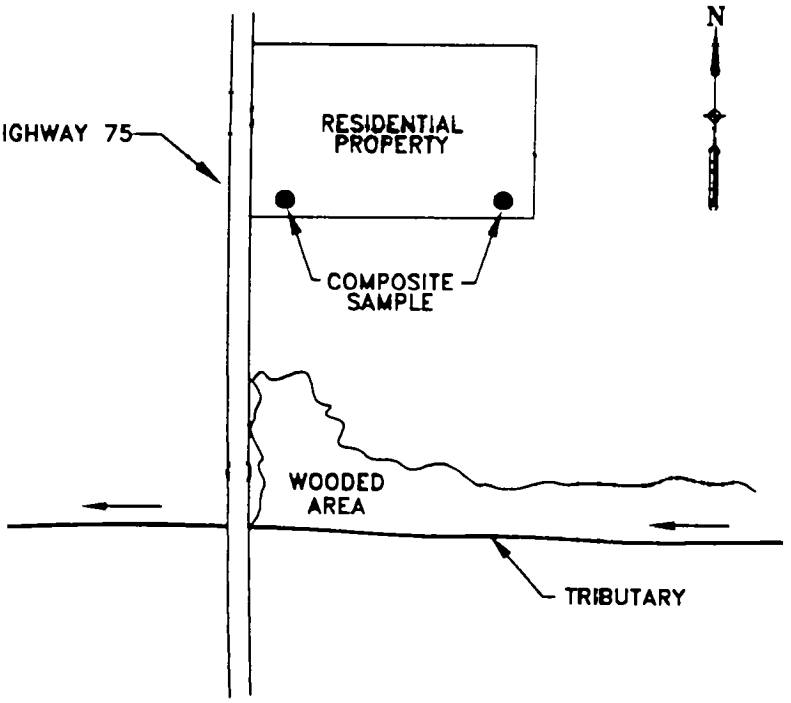
(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P09-102	Soil	0-2	Dark brown clayey silt; heavy roots and organics	ND



229-SO-P09-102-ND

COMPOSITE SOIL



* Property composite from southwest and southeast corners of first residential property north of tributary and east of Highway 75

Location: Baton Rouge File name: K:\DRWG\TGP\229\P009.DWG Last edited: 04/03/95 @ 09:07

Woodward-Clyde Consultants
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Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/85

FILE NO. 91B650C

FIG. NO. 49

TGPL Compressor Station 229

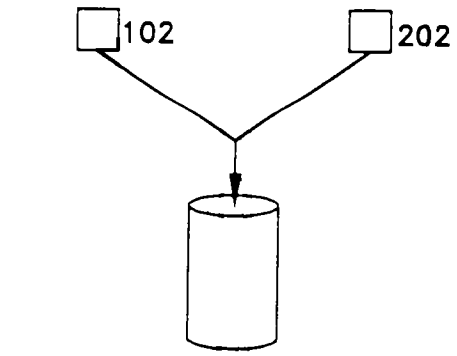
Property 005

December 1994

Between The Breached Pond and Highway 75

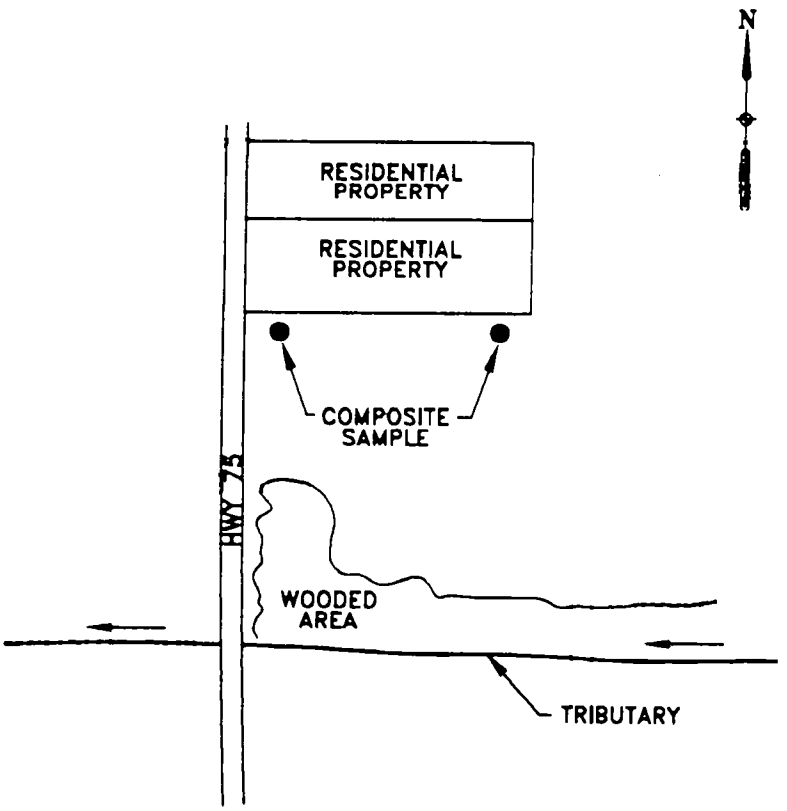
(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P05-102	Soil	0-2	Dark brown silty clay with heavy organic deposits and roots	0.19



229-SO-P05-102-0.19 ppm

COMPOSITE SOIL



* Property composite, on south side of first property, north of the tributary and along east side of Highway 75

Location: Baton Rouge File name: K:\DRWG\TGP\229\P005.DWG Last edited: 04/01/95 @ 11:30

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 50
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

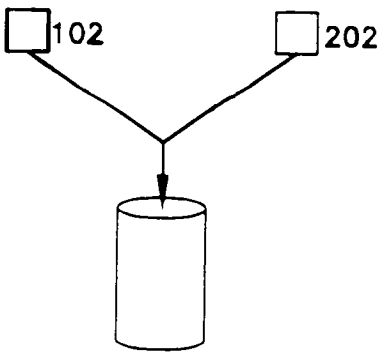
Property 006

December 1994

Between The Breached Pond and Highway 75

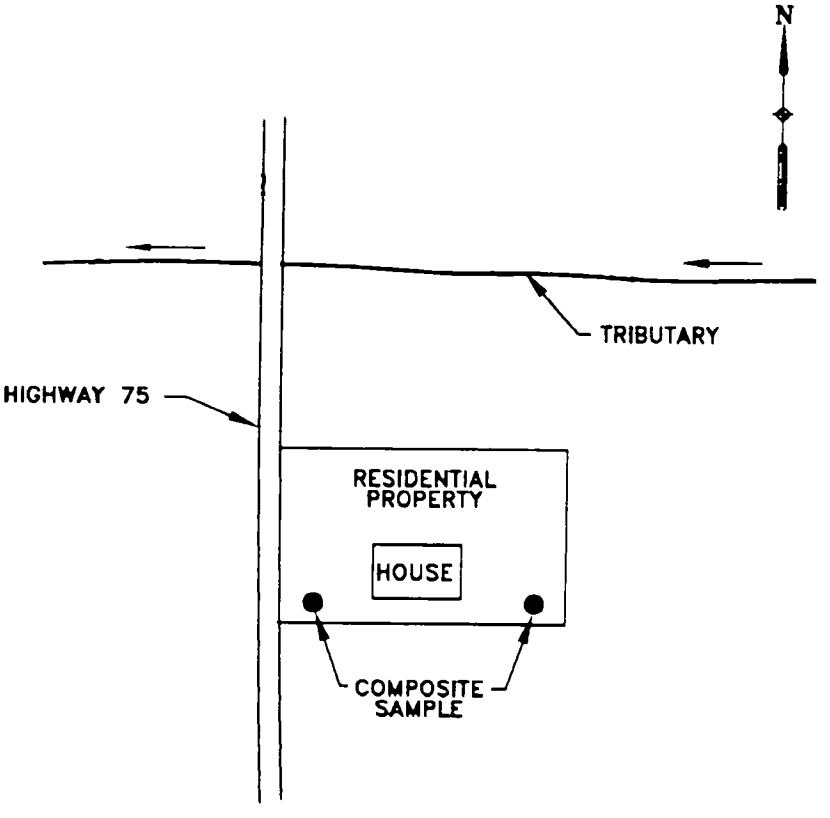
(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P06-102	Soil	0-2	Dark brown silty with heavy roots and organic deposits	ND



229-SO-P06-102-ND

COMPOSITE SOIL



* Property composite on first residential property south of the tributary and on the east side of Highway 75

Location: Baton Rouge File name: K:\DRWG\TGP\229\P006.DWG Last edited: 04/03/95 @ 09:54

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 51
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

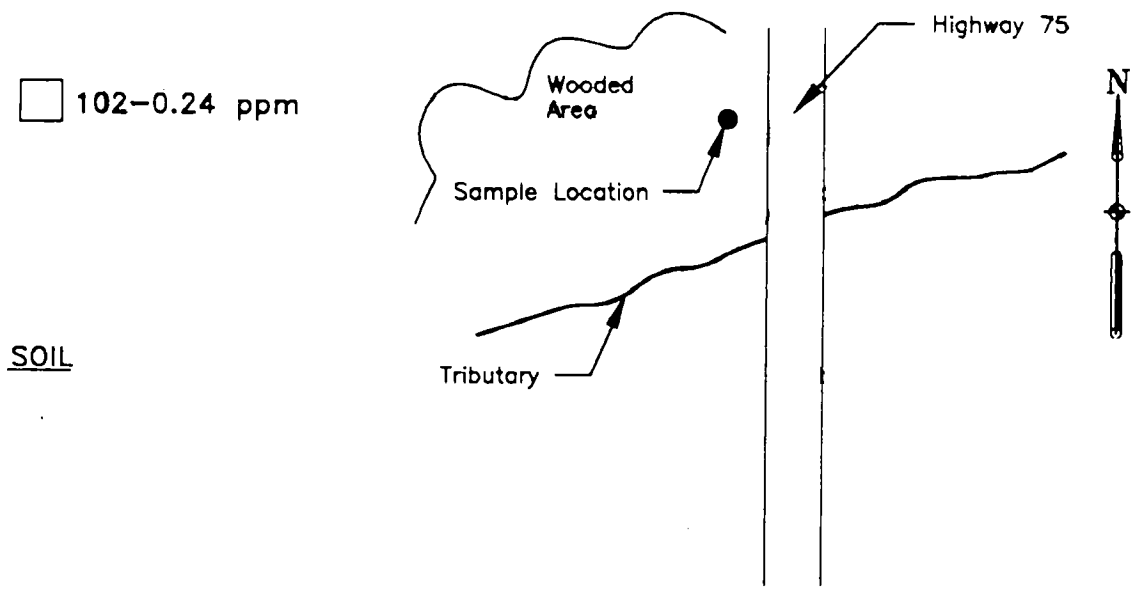
Property 007

December 1994

Between Highway 75 and Hickman Road; In the Woods

(Looking Downstream)

Sample Number	Sample Matrix	Depth (Inches)	Description	Total PCB Concentration (ppm)
229-SO-P07-102	Soil	0-2	In the floodplain adjacent to farm field; black silty loam moist with heavy organic deposits and roots	0.24



Single Point North Of Tributary, West Of Highway 75.

Location: Baton Rouge File name: K:\DRWG\TGP\229\P007.DWG Last edited: 04/03/95 @ 09:01

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 52
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

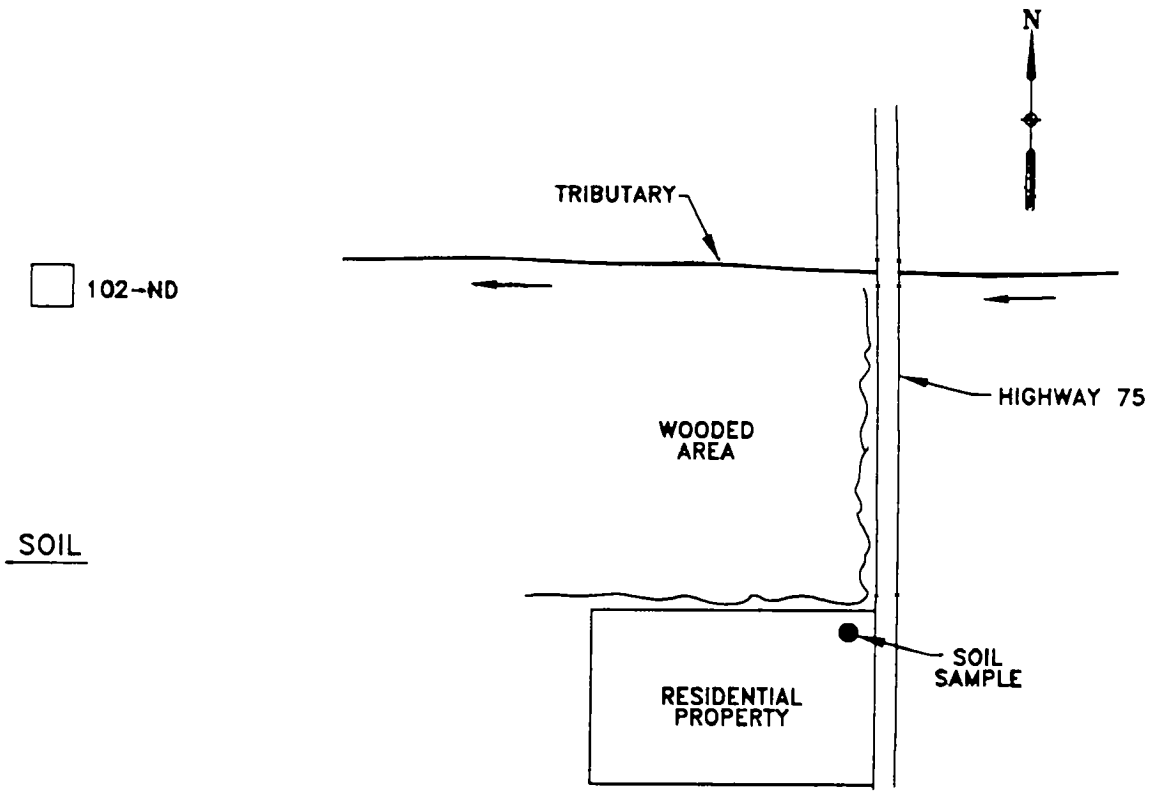
Property 008

December 1994

Between Highway 75 and Hickman Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-P08-102	Soil	0-2	Sample in northeast corner of property near Highway 75, (in the yard) dark brown silty loam with organic deposits and roots; moist (on the terrace)	ND



* Single point on northeast corner of first residential property, south of the tributary and west of Highway 75

Location: Baton Rouge File name: K:\DRWG\TGP\229\P008.DWG Last edited: 04/01/95 @ 11:25

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 53
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

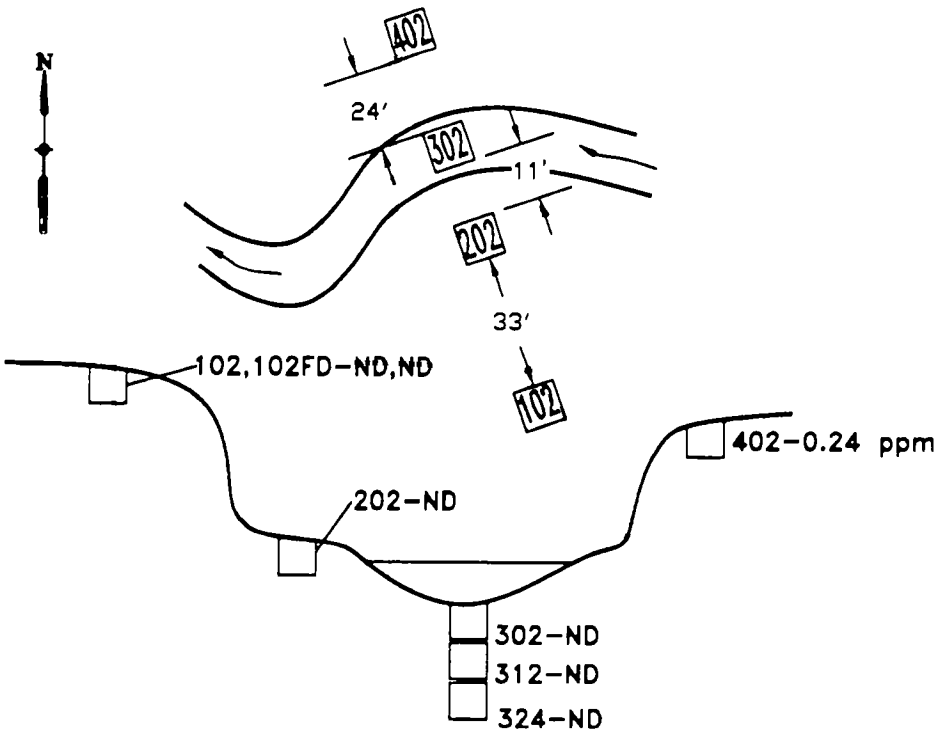
Station 083

December 1994

Between Highway 75 and Hickman Road; First Station Downstream From Highway 75

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-083-102	Soil	0-2	Floodplain on south bank; dark brown moist silty loam with organic deposits and roots	ND
229-SO-083-102FD	Soil	0-2	Floodplain on south bank; dark brown moist silty loam with organic deposits and roots	ND
229-SO-083-202	Soil	0-2	On south bank at edge of stream; dark brown silty loam with organic deposits	ND
229-SD-083-302	Sediment	0-2	In stream on the south bank just downstream of a pool at Highway 75; coarse silty sand with roots and organics	ND
229-SD-083-312	Sediment	2-12	Dark brown/tan mottled clayey silt with some rocks	ND
229-SD-083-324	Sediment	12-24	Top 6 inches dark brown loam to clay silt; very moist with organic deposits; remaining dark brown/gray mottled moist silty clay; slightly stiff	ND
229-SO-083-402	Soil	0-2	Right (north) bank adjacent to creek; dark brown clayey silt; very dry with heavy roots	0.24



TRANSECT

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 54

TGPL Compressor Station 229

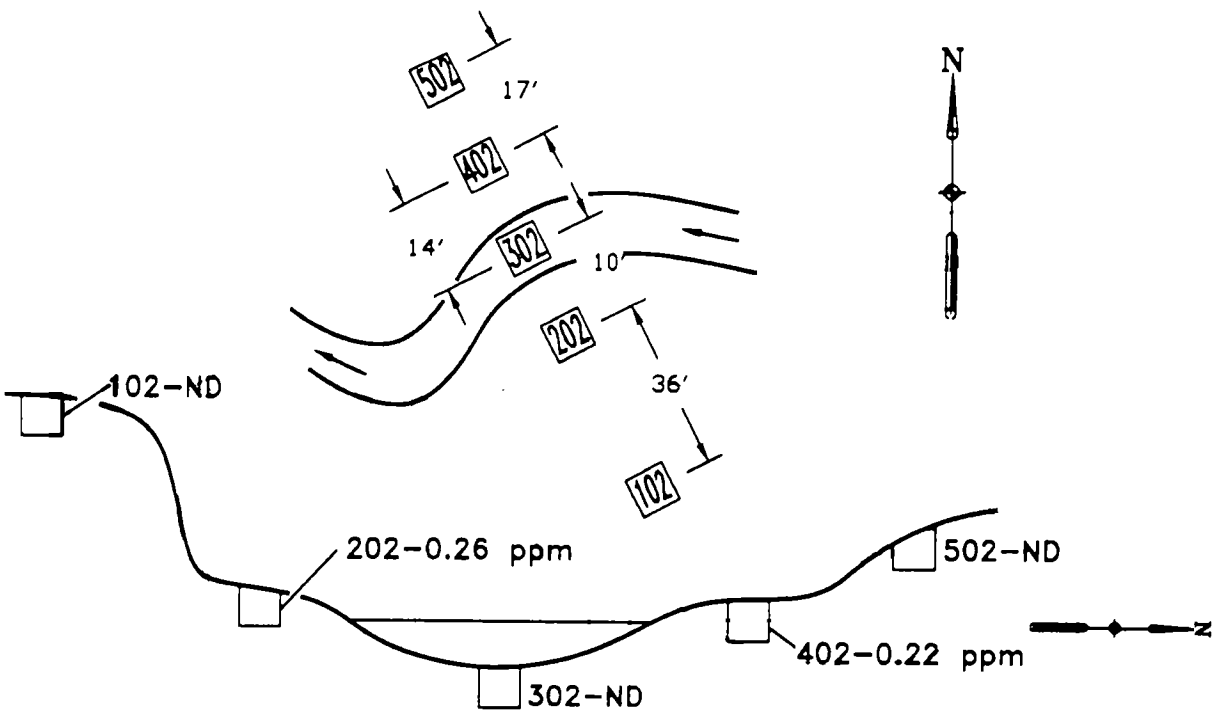
Station 085

December 1994

Between Highway 75 and Hickman Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-085-102	Soil	0-2	On the left (south) floodplain (about 3 feet higher than the stream level); dark brown silty loam; moist; some organic deposits and roots	ND
229-SO-085-102	Soil	0-2	On the left (south) floodplain adjacent to the bank; dark brown clayey silt with heavy roots and some organics	0.26
229-SD-085-302	Sediment	0-2	Just downstream of a riffle area; moved location marker about 2' toward the bank (to the left-south); Coarse sand and silt with heavy rocks (appears to be in small depositional area)	ND
229-SO-085-402	Soil	0-2	On the right (north) bank adjacent to the creek; dark brown silty loam; moist with organic deposits	0.22
229-SO-085-502	Soil	0-2	On the right (north) floodplain with slight slope higher than the bank; dark brown silty loam with heavy organics and roots	ND



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA085.DWG Last edited: 03/29/95 @ 11:03

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 55
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

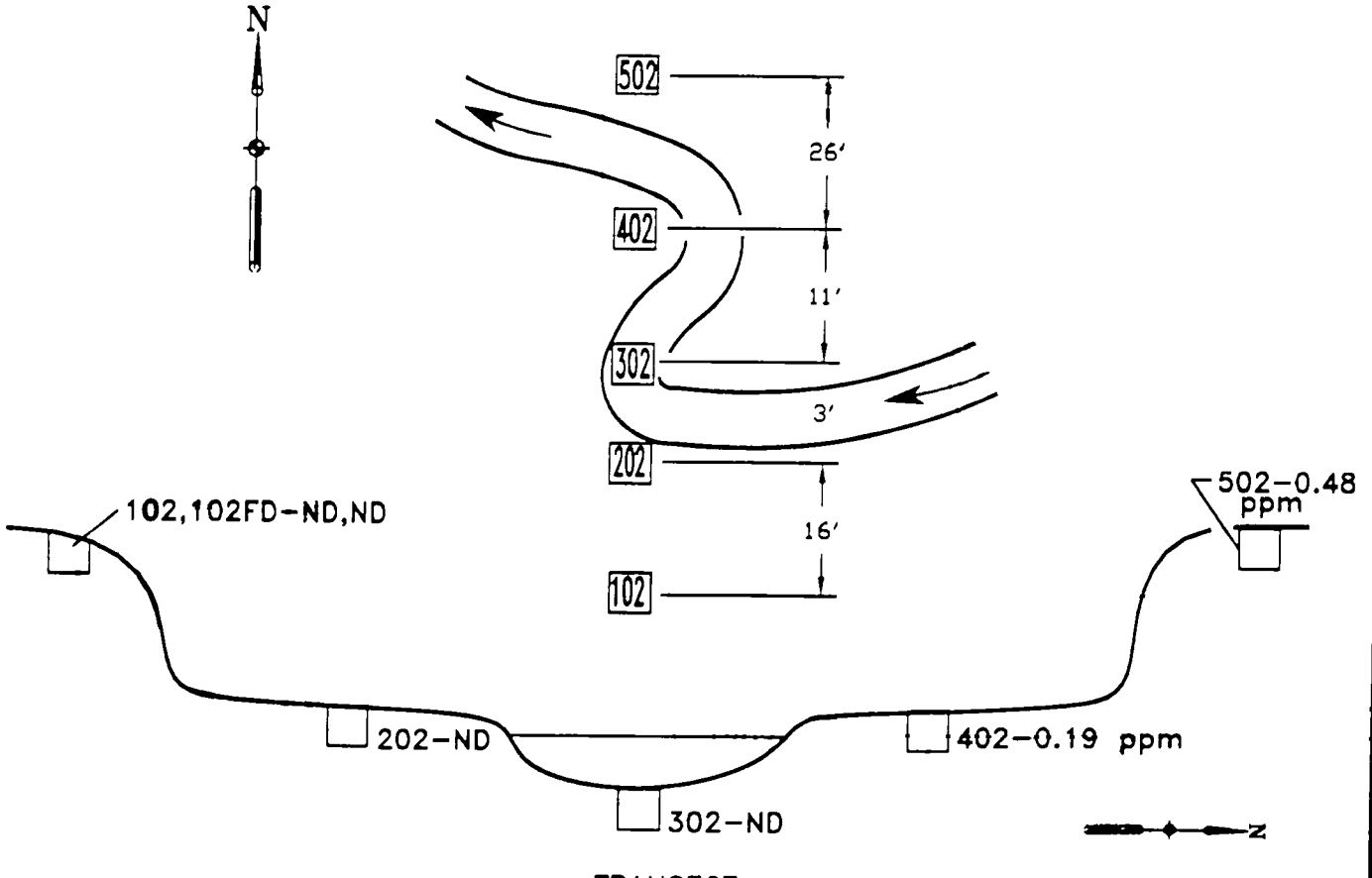
Station 089

December 1994

Between Highway 75 and Hickman Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-089-102	Soil	0-2	Medium brown loam	ND
229-SO-089-102FD	Soil	0-2	Medium brown loam	ND
229-SO-089-202	Soil	0-2	Yellow clay	ND
229-SD-089-302	Sediment	0-2	Mainly clay; light brown	ND
229-SO-089-402	Soil	0-2	Gravel with silt; gray/brown	0.19
229-SO-089-502	Soil	0-2	Sand and gravel; dark brown	0.48



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA089.DWG Last edited: 03/29/95 @ 10:37

Woodward-Clyde Consultants
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Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 56

TGPL Compressor Station 229

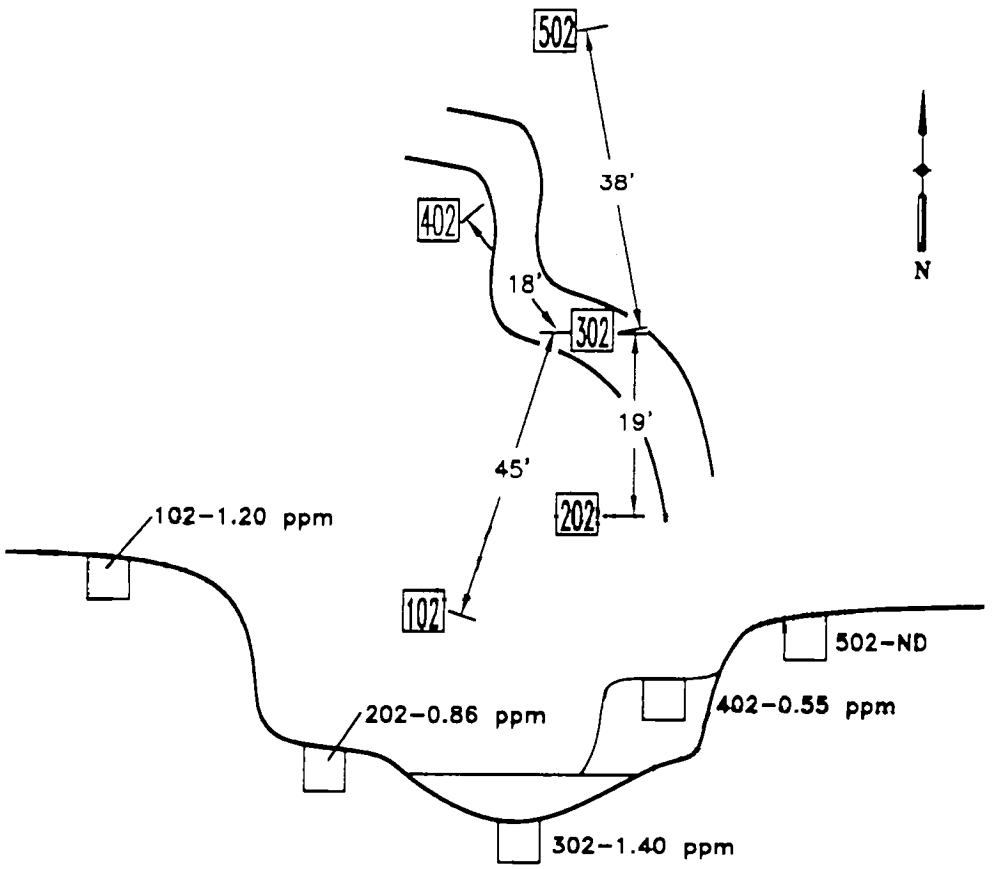
Station 092

December 1994

Between Highway 75 and Hickman Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-092-102	Soil	0-2	Dark brown loam	1.20
229-SO-092-202	Soil	0-2	Sand and coarse gravel	0.86
229-SD-092-302	Sediment	0-2	Sand and silt; brown	1.40
229-SO-092-402	Soil	0-2	Sand; dark brown	0.55
229-SO-092-502	Soil	0-2	Dark brown loam	ND



MODIFIED TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA092.DWG Last edited: 04/03/95 @ 14:22

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 57

TGPL Compressor Station 229

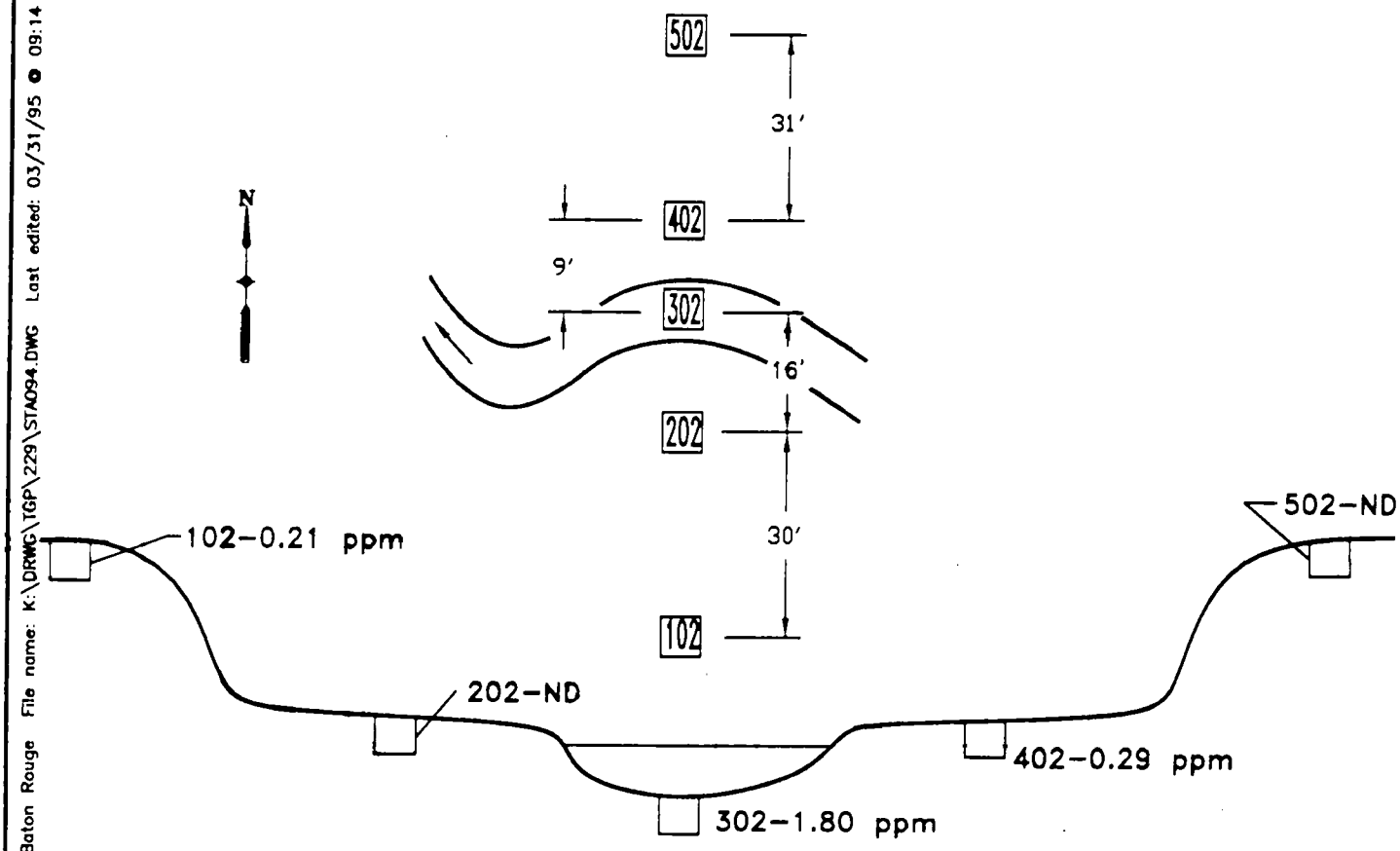
Station 094

December 1994

Between Highway 75 and Hickman Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-094-102	Soil	0-2	Dark brown loam	0.21
229-SO-094-202	Soil	0-2	Mostly sand, brown	ND
229-SD-094-302	Sediment	0-2	Silt; brown and roots	1.80
229-SO-094-402	Soil	0-2	Loam; brown	0.29
229-SO-094-502	Soil	0-2	Loam; dark brown	ND



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA094.DWG Last edited: 03/31/95 @ 09:14

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 58

TGPL Compressor Station 229

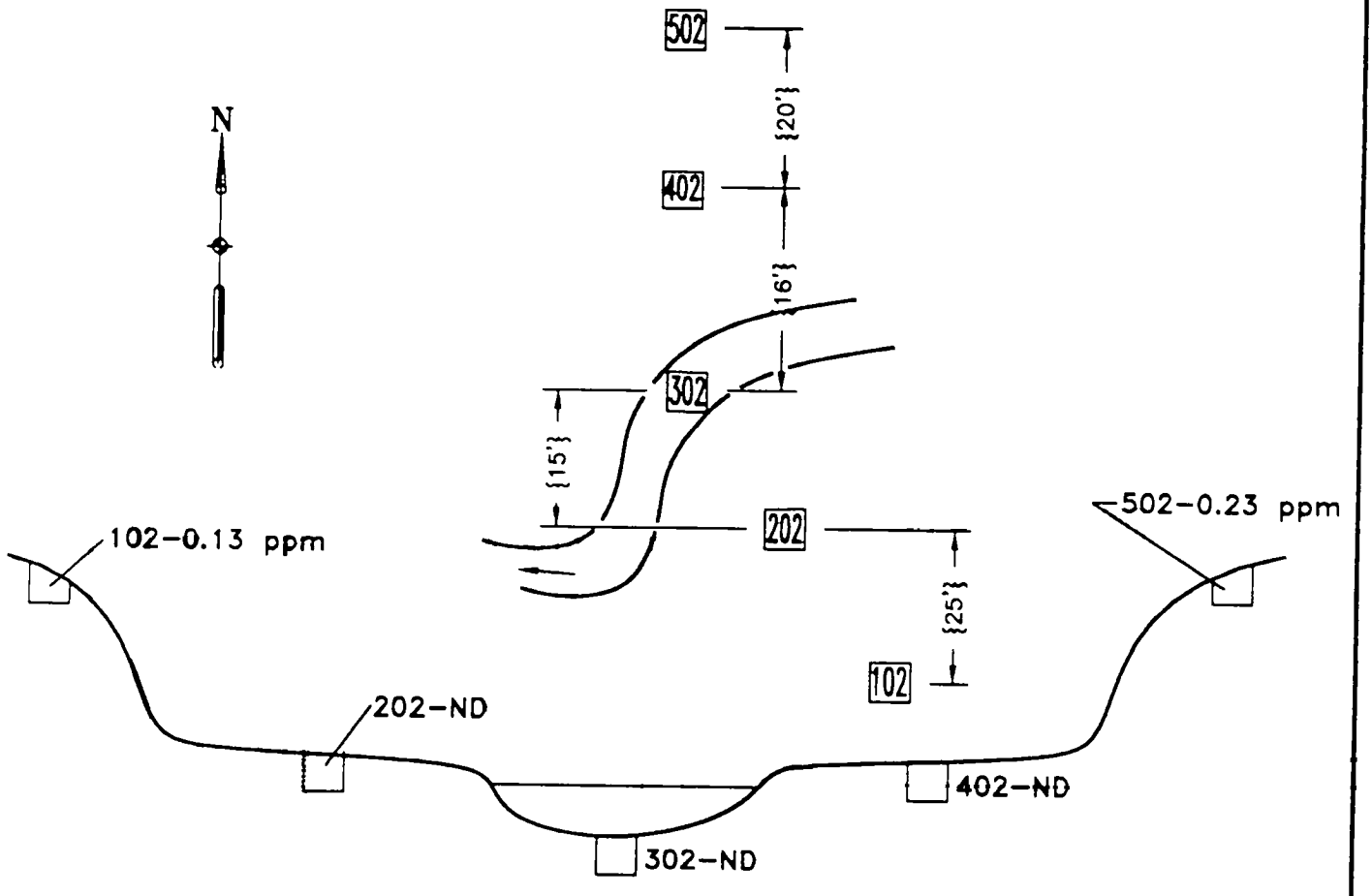
Station 102

December 1994

Between Highway 75 and Hickman Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-102-102	Soil	0-2	Sand and fine gravel with chunks of asphalt	0.13
229-SO-102-202	Soil	0-2	Sand and fine gravel; dark brown	ND
229-SD-102-302	Sediment	0-2	River cobbles and coarse gravel (clean gravel and sand)	ND
229-SO-102-402	Soil	0-2	Gravel, sand and root mass; dark brown/black	ND
229-SO-102-502	Soil	0-2	Gravel and sand; gray/brown/black	0.23



TRANSECT

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA102.DWG Last edited: 04/03/95 @ 12:58

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Baton Rouge, Louisiana

SCALE:	DRAWN BY: KH	DATE: 3/95
	CHKD. BY: DH	DATE: 3/95

FILE NO. 91B650C

FIG. NO. 59

TGPL Compressor Station 229

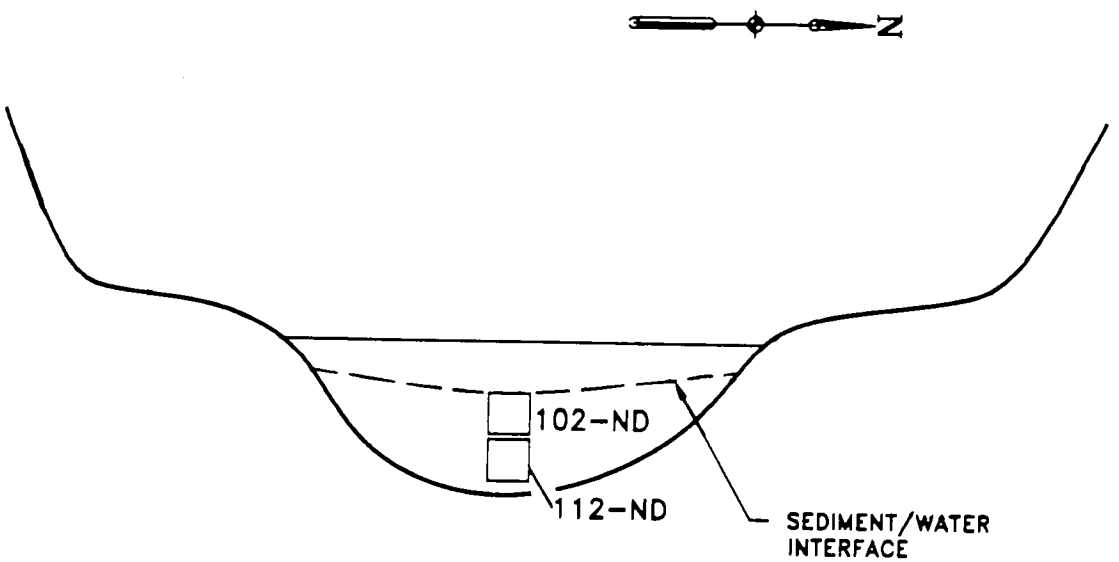
Station 103

December 1994

Between Hickman Road and Highway 62; Pool Immediately Downstream (West) From Hickman Road

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SD-103-102	Sediment	0-2	Silt and sand; brown; instream, below culvert	ND
229-SD-103-112	Sediment	2-8	Silt and sand; brown; hit refusal at 8 inches	ND



* In former pool below Hickman Road
* Pool is deepening again now that the road is reconstructed
* Hickman Road culvert diameter: approximately 9 feet.

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 60
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

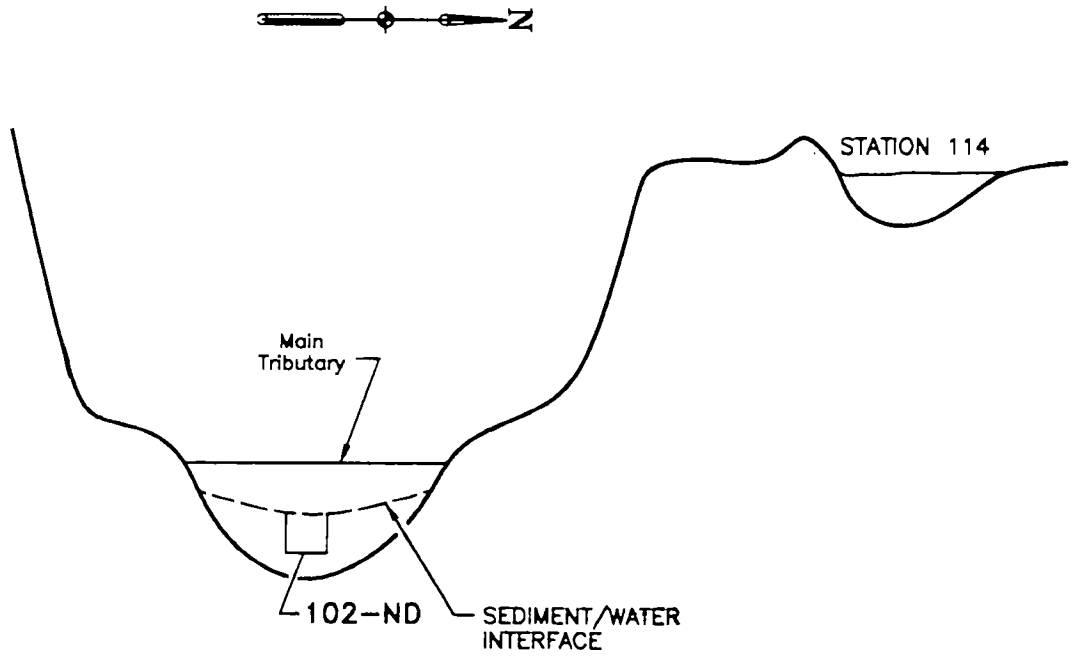
Station 112

December 1994

Pool Sample Between Hickman Road and Highway 62;
In the Main Tributary

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SD-112-102	Sediment	0-2	Gravel and sand; brown	ND



* Station 114 is an overflow pond on a terrace several feet above and to the north of Station 112

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA112.DWG Last edited: 04/03/95 @ 13:00

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 61
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

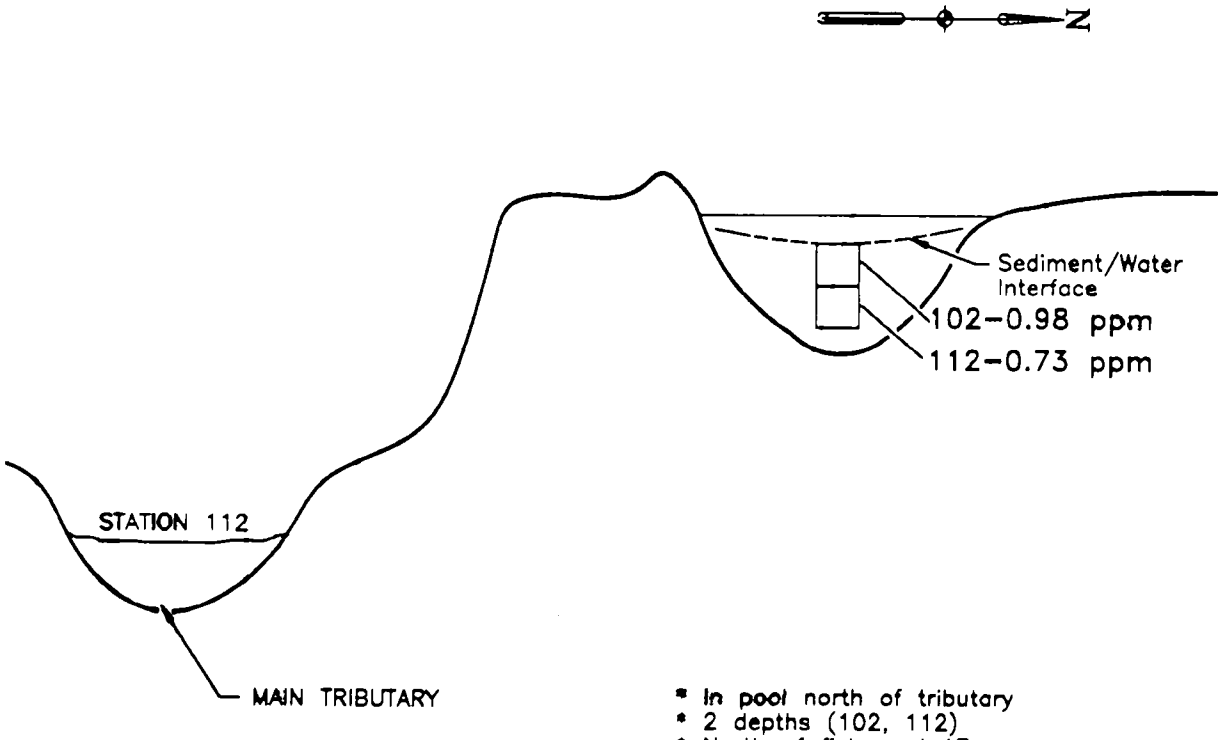
Station 114

December 1994

Between Hickman Road and Highway 62

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-114-102	Soil	0-2	Fine loam with rotting vegetation; dark brown; east end of standing water of the pond; upland pond off of an old terrace; off right (north) bank of creek	0.98
229-SO-114-112	Soil	2-12	Fine loam with rotting vegetation	0.73



* In pool north of tributary
* 2 depths (102, 112)
* North of fish pool 17
* Located in an overflow pond on a terrace several feet above and to the north of station 112

Location: Baton Rouge File name: K:\DRWG\TGP\229\STA114.DWG Last edited: 04/03/95 @ 09:33

Woodward-Clyde Consultants Consulting Engineers, Geologists and Environmental Scientists Baton Rouge, Louisiana			FILE NO. 91B650C
SCALE:	DRAWN BY: KH	DATE: 3/95	FIG. NO. 62
	CHKD. BY: DH	DATE: 3/95	

TGPL Compressor Station 229

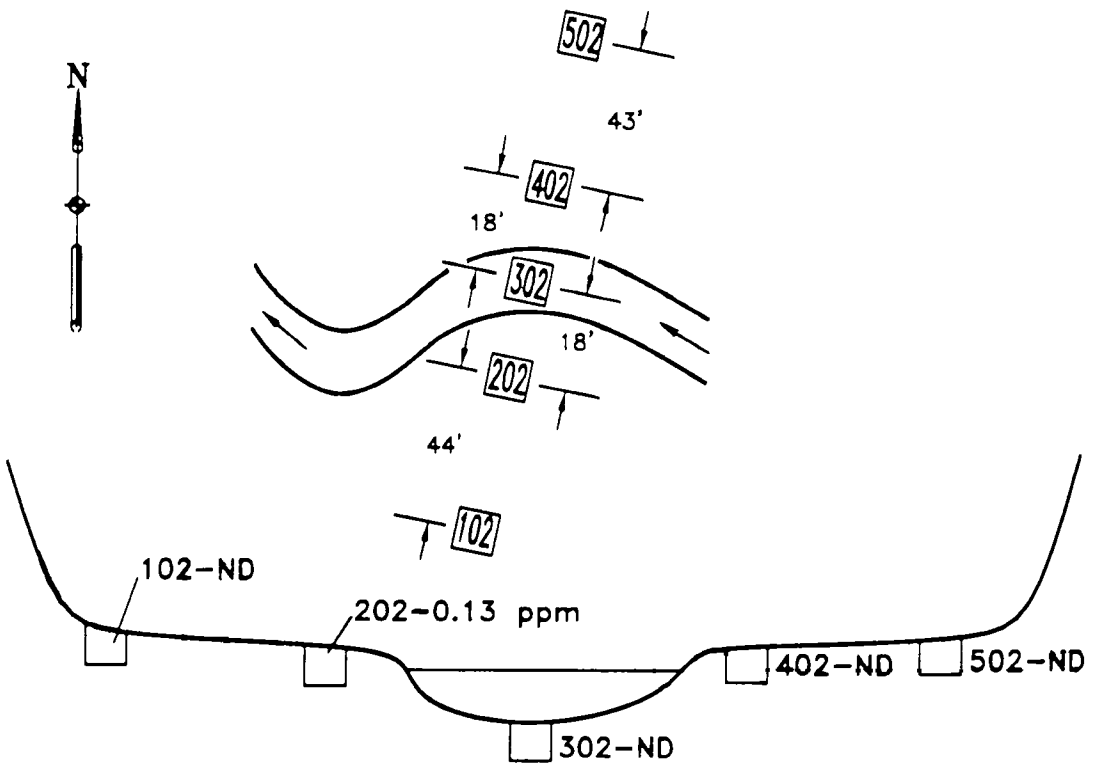
Station 118

December 1994

Between Hickman Road and Highway 62

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-118-102	Soil	0-2	Coarse sand, fine gravel, brown; same sand bar as sample 202, adjacent to a smaller stream, in flood plain	ND
229-SO-118-202	Soil	0-2	Pure brown sand	0.13
229-SD-118-302	Sediment	0-2	Gravel and coarse sand; brown; left side of creek is gravels, in creek; No depth samples due to gravel and rock	ND
229-SO-118-402	Soil	0-2	Coarse sand, fine gravel, brown	ND
229-SO-118-502	Soil	0-2	Rich brown loam with organics. Site is at the right side of the stream at the base or edge of the old flood plain	ND



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TGPL Compressor Station 229

Station 123

December 1994

Between Hickman Road and Highway 62

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-123-102	Soil	0-2	Dark loam on terrace, before entering uplands	0.14
229-SO-123-202	Soil	0-2	Coarse sand and gravel; brown; on gravel bar on active terrace	ND
229-SD-123-302	Sediment	0-2	Coarse sand and gravel; brown; No depth sample due to rock and bedrock	ND
229-SO-123-402	Soil	0-2	Dark brown humus and loam; drainage from valley enters main stream at this sample location	ND
229-SO-123-502	Soil	0-2	Dark brown humus and loam; set in a valley drainage with a small stream south of the sample location. Sample in a boggy drainage	ND

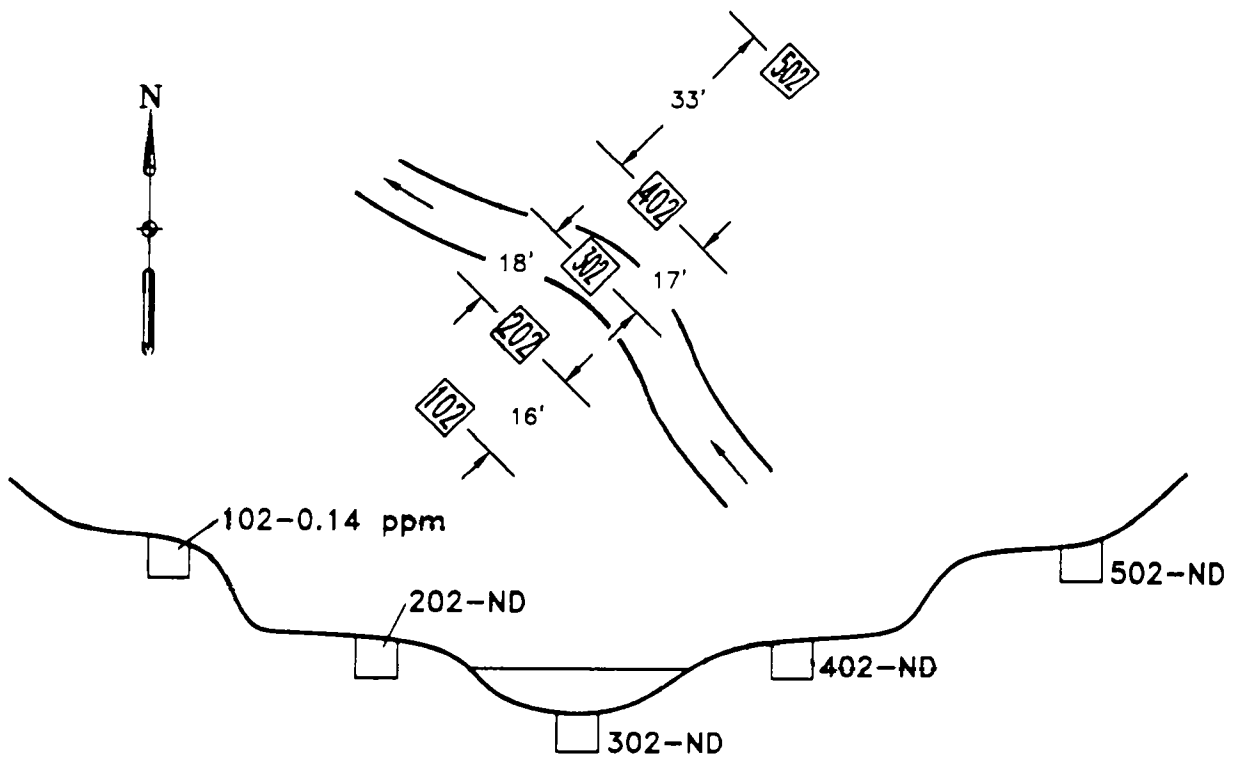

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FIG. NO. 64

TGPL Compressor Station 229

Station 125

December 1994

Between Hickman Road and Highway 62

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-125-102	Soil	0-2	Brown sandy loam; located up the steep incline slope	ND
229-SO-125-202	Soil	0-2	Silt sand with a little gravel; brown; 1 foot from the edge of water on left bank	ND
229-SD-125-302	Sediment	0-2	Gray clay in stream	ND
229-SD-125-312	Sediment	2-12	Gray clay	ND
229-SD-125-324	Sediment	12-24	Gray clay	ND
229-SO-125-402	Soil	0-2	Silt/sand; brown; on the bank, 8 inches from the bank	ND
229-SO-125-502	Soil	0-2	Dark Loam; incised valley (stream has a cut) narrow flood plain - on the flood plain	ND

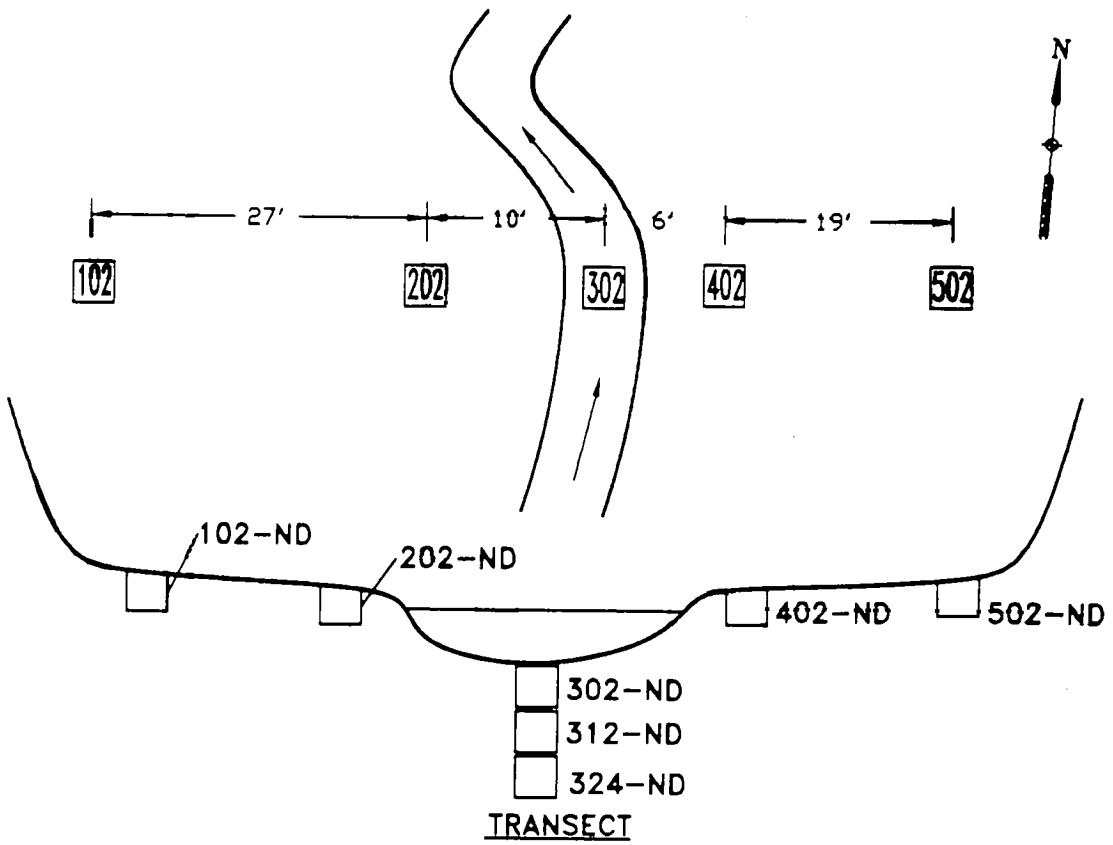

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FIG. NO. 65

TGPL Compressor Station 229

Station 130

December 1994

Between Hickman Road and Highway 62

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-130-102	Soil	0-2	On left (west) bank above stream edge; dark brown clayey silt; some organics	ND
229-SO-130-202	Soil	0-2	On left (west) stream edge currently wet; dark black mottled silty loam with large coarse grained sands with organic deposits	ND
229-SO-130-202FD	Soil	0-2	On left (west) stream edge currently wet; dark black mottled silty loam with large coarse grained sands with organic deposits	ND
229-SD-130-302	Sediment	0-2	Gravel bar in center of stream; pea gravel; very coarse silt and sand with rocks light to dark brown	ND
229-SD-130-312	Sediment	2-12	Pea gravel; very coarse silt and sand	ND
229-SD-130-324	Sediment	12-24	Very coarse sand and silt with some gravel and rocks with some organic deposits	ND
229-SO-130-402	Soil	0-2	On right (east) shore adjacent to stream; silty coarse sand; some organics and some rocks dark brown	ND
229-SO-130-502	Soil	0-2	On ridge above right (east) bank; dark brown silty loam with heavy roots and organics	ND

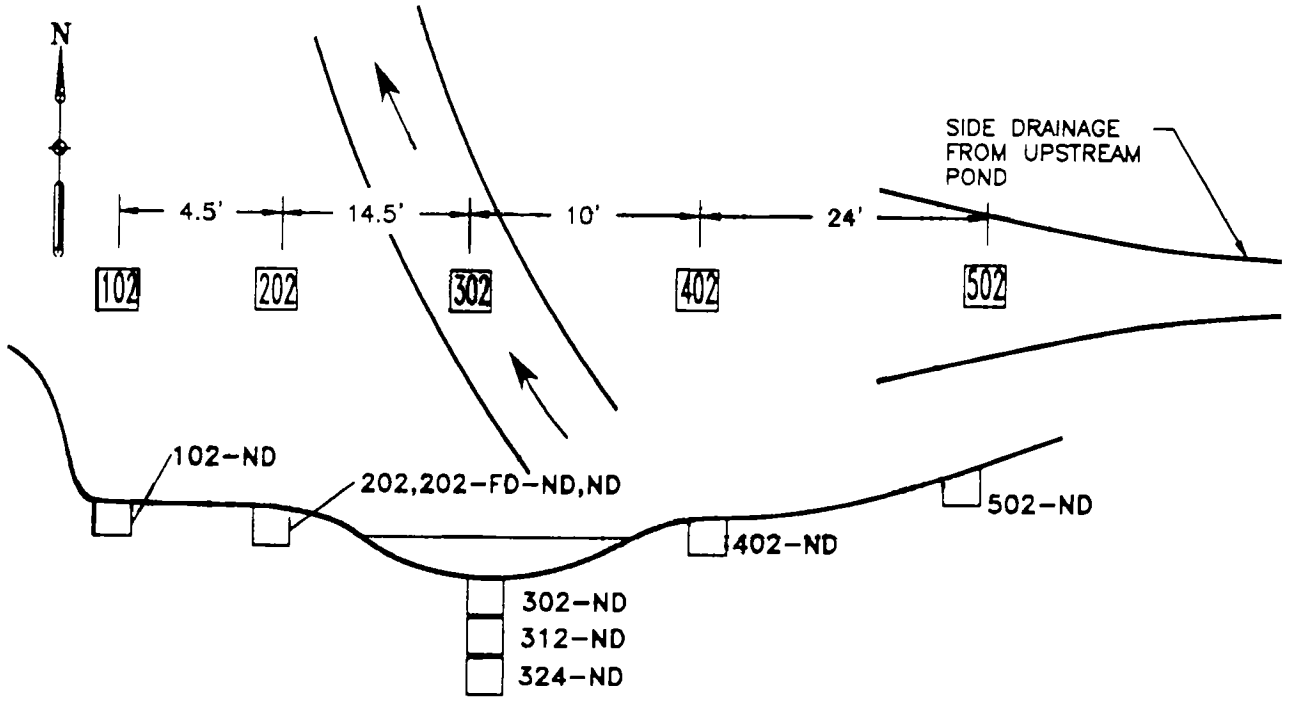

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FIG. NO. 66

TGPL Compressor Station 229

Station 134

December 1994

Between Hickman Road and Highway 62; First Transect Upstream From Highway 62

(Looking Downstream)

Sample Number	Sample Matrix	Depth (inches)	Description	Total PCB Concentration (ppm)
229-SO-134-102	Soil	0-2	On west slope above the streambank; clayey silt with heavy silt and rocks	ND
229-SO-134-202	Soil	0-2	Along west bank (appears to be gravel deposits) location may be inundated in high water; some silt; large grained sand with pea gravel and rocks	ND
229-SO-134-302	Sediment	0-2	Near right (east) bank in small eddy area; coarse silt and sand with heavy rock; refusal at 2 inches	ND
229-SO-134-402	Soil	0-2	On right (east) bank; dark brown clayey silt	ND
229-SO-134-502	Soil	0-2	Black rich silty loam moist with organic deposits on right (east) bank up slope from sample 229-SO-134-402	ND

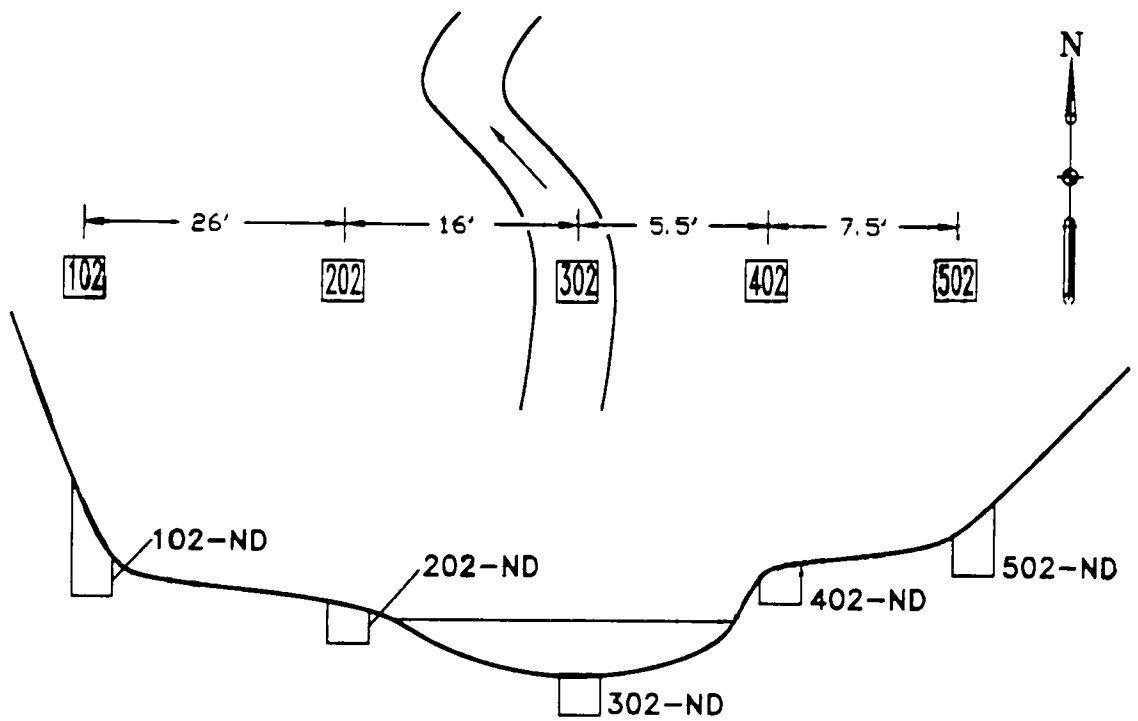

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FIG. NO. 67