OFFSITE INVESTIGATION REPORT FOR HUDSON RIVER SEDIMENT

Operable Unit 2
BASF Rensselaer
Rensselaer, New York

August 27, 2004

Prepared for:

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1.0 INTRODUCTION

This Operable Unit 2 (OU-2) Investigation Report for Hudson River Sediment at outfall locations summarizes the approach and methods that were used to evaluate whether there are constituents of concern in the sediments adjacent to the BASF Corporation (BASF) Main Plant located in Rensselaer, New York (Figure 1). OU-2 was designated by the New York State Department of Environmental Conservation (NYSDEC) to include offsite areas not included in the Remedial Investigation of the BASF Rensselaer Main Plant (OU-1). BASF had directed Roux Associates, Inc. (Roux Associates) to perform the OU-2 investigation in accordance with the April 23, 2004 Revised Work Plan for Operable Unit 2 (OU-2) (OU-2 Work Plan). The OU-2 Work Plan included in its scope of work tasks for sampling of offsite soil gas and groundwater. The results of these two tasks will be provided in a separate report.

BASF was initially requested to submit a work plan for the investigation of all outfall locations, including the City of Rensselaer and Town of East Greenbush storm sewers, and industrial discharge points. BASF has used the information developed in the course of the Remedial Investigation (RI) to develop the scope of work presented in the OU-2 Work Plan. These data and historical maps and records indicated that there were three locations where either former BASF Main Plant sewer outfalls or storm drains existed, and two locations where municipal sewer outfalls currently exist. River sediment in the vicinity of the two municipal sewer locations was investigated because migration of impacted groundwater along the sewer bedding was identified during the RI as a potential offsite migration route.

1.1 Objectives

The objective of the scope of work summarized in this report was to perform a screening assessment of Hudson River sediment in the immediate vicinity of historical Plant sewer outfalls and municipal sewer outfalls to determine whether sediment was impacted at these locations. Additional sediment samples were recovered north ("upstream") and south ("downstream") of the site, plus, across the river to provide a general understanding of the sediment quality.

2.0 SCOPE OF WORK

The scope of work for the river sediment sampling program included obtaining sediment cores in the vicinity of current and abandoned sewer outfalls. These outfalls are located immediately west of the bulkhead that abuts the Hudson River adjacent to the Lagoon Area (Plate 1). The scope of work also included sampling of sediment from upstream, side stream and downstream locations.

Five outfall locations were identified in the Work Plan for this investigation (Plate 1). From north to south they are:

- a former sewer pipe west of Building 41 that discharged along the bulkhead line north of the north lagoon;
- an abandoned BASF Main Plant sewer pipe that was used temporarily during construction of the lagoons, and discharged along the bulkhead line north of the north lagoon;
- an abandoned BASF Main Plant sewer pipe that discharged along the bulkhead line adjacent to the north lagoon;
- the Town of East Greenbush storm sewer that discharges south of the southern end of the Lagoon Area; and
- the City of Rensselaer storm sewer that discharges south of the Lagoon Area along the Port of Rensselaer bulkhead.

Two sediment sampling locations were selected in the vicinity of each of the five outfall locations. One sample was recovered in each location for a total of ten samples:

Outfall Location	Samples Collected
Former storm sewer pipe west of Building 41	HR-SS-1, HR-SS-2
Abandoned BASF production sewer pipe used temporarily during lagoon construction	HR-SS-3, HR-SS-4
Abandoned BASF production sewer pipe used prior to lagoon construction	HR-SS-5, HR-SS-6
Town of East Greenbush storm sewer	HR-SS-7, HR-SS-8
City of Rensselaer storm sewer	HR-SS-9, HR-SS-10

In accordance with NYSDEC DER-10 "Technical Guidance for Site Investigation and Remediation," a minimum of five locations is required to statistically establish background sediment concentrations. Typically, background samples would be collected at upstream or cross-stream locations. However, the Hudson River in the vicinity of the Site is tidally-influenced. For at least a portion of the tidal cycle, flow velocities are to the north ("upstream"). In this report, "upstream" refers to background samples located to the north of the Site. Eight samples from three locations were recovered:

- three sediment samples were collected from upstream (i.e., north) locations (HR-SS-11 to HR-SS-13);
- two sediment samples were collected from side-stream (i.e., west) locations (HR-SS-14 and HR-SS-15); and
- three sediment samples were collected from downstream (i.e., south) locations (HR-SS-16 to HR-SS-18).

At each sewer outfall location, sediment cores were collected using a Vibracore system deployed from a boat. The Vibracore was driven to a depth of three feet below river bottom in each location. Each sample was characterized for lithology and then the zero to two-foot interval was homogenized and placed into sample containers. Sediment samples collected from the City of Rensselaer (HR-SS-9 and HR-SS-10) and Town of East Greenbush (HR-SS-7 and HR-SS-8) outfall locations were analyzed for total organic carbon (TOC), TAL Metals, and VOCs. All other samples included semivolatile organic compounds (SVOCs) in the analyte list.

Background sediment samples were collected with a Vibracore from the zero to one-foot interval below river bottom. The Vibracore sampler could not go deeper than one foot due to a swift current in the Hudson River. Each sample was characterized for lithology, homogenized and placed into sample containers. All background samples were analyzed for TCL VOCs, TCL SVOCs, TAL metals, and TOC.

In addition to sediment samples collected from the Hudson River, an attempt was made to collect sludge/sediment grab-samples from manholes in the Town of East Greenbush and City of Rensselaer storm sewers that run along the southern border of the Site and the Closed Landfill. There was no sediment in any of the manholes that access the Town of East Greenbush sewer.

Two sediment samples were collected from the City of Rensselaer storm sewer, one from the south of the Closed Landfill and one at the manhole closest to the Hudson River. Each sample was analyzed for VOCs, SVOCs, and metals.

3.0 RESULTS

This section provides a summary of the results of the sediment sampling in the vicinity of sewer outfall locations in the Hudson River and in the sewer sediment grab samples.

3.1 Regulatory Screening Criteria

Regulatory screening criteria for the sediment data were provided in the document "Technical Guidance for Screening Contaminated Sediments," Division of Fish, Wildlife and Marine Resources, NYSDEC, 1999.

- Metals Screening Criteria - Because the Site is located adjacent to a highly industrialized portion of the Hudson River in the vicinity of several urban and dense suburban areas (Albany, Troy and Rensselaer), sediment criteria for metals were based on the Severe Effect Level provided in the guidance document.
- VOC Screening Criteria - The screening criteria for VOCs in sediment were the Benthic Aquatic Life Acute Toxicity Criteria, normalized to the total organic carbon (TOC) content of the sediment.

3.2 Sediment Quality

The results of the sediment sample analyses are summarized in Tables 1 and 2 and on Plates 2 and 3.

3.2.1 Sediment Quality in the Vicinity of the Abandoned Main Plant Sewers

A review of the results for metals in sediment (Table 1) in the vicinity of the abandoned Main Plant Sewers indicated the following metals were detected at concentrations above the Screening Criteria (Plate 2):

Analyte	Screening Criteria (mg/kg)	Range in Concentrations (mg/kg)	Locations
Cadmium	9	12 – 14	HR-SS-2, HR-SS-4
Chromium	110	120 – 260	HR-SS-1 through HR-SS-6
Copper	110	120 – 230	HR-SS-2 through HR-SS-4
Lead	110	120 – 300	HR-SS-1 through HR-SS-4, HR-SS-6
Mercury	1.3	1.4 – 1.8	HR-SS-2 through HR-SS-4
Zinc	270	280 – 440	HR-SS-1 through HR-SS-4, HR-SS-6

mg/kg – milligrams per kilogram dry weight

The sample-specific total organic carbon (TOC) content is summarized in Table 2 for each sample. The following VOCS were detected at concentrations (normalized to TOC) above the Benthic Aquatic Life Acute Toxicity Criteria (Plate 3):

Analyte	Screening Criteria (µg/gOC)	Range in Concentrations (µg/gOC)	Locations
Benzene	103	216 – 323	HR-SS-1, HR-SS-2, HR-SS-5
Chlorobenzene	34.6	95 – 4,789	HR-SS-1 through HR-SS-6
1,2-dichlorobenzene	120	5,263	HR-SS-5
1,3-dichlorobenzene	120	484	HR-SS-5
1,4-dichlorobenzene	120	363	HR-SS-5

µg/gOC – micrograms per gram organic carbon

3.2.2 Sediment Quality in the Vicinity of Municipal Sewer Outfalls

A review of the results for metals in sediment (Table 1) in the vicinity of the Municipal sewer outfalls indicated the following metals were detected at concentrations above the Screening Criteria (Plate 2):

Analyte	Screening Criteria (mg/kg)	Range in Concentrations (mg/kg)	Locations
Chromium	110	150	HR-SS-8
Lead	110	150 – 160	HR-SS-8, HR-SS-10

mg/kg – milligrams per kilogram dry weight

No VOCs were detected in sediment in the vicinity of the Town of East Greenbush Storm Sewer outfall. Chlorobenzene was the only VOC detected above the screening criteria in sediment (Table 2) in the vicinity of the City of Rensselaer Storm Sewer Outfall (Plate 3):

Analyte	Screening Criteria (µg/gOC)	Range in Concentrations (µg/gOC)	Locations
Chlorobenzene	34.6	43 – 100	HR-SS-9 and HR-SS-10

µg/gOC – micrograms per gram organic carbon

3.2.3 Sediment Quality at Upstream, Side Stream and Downstream Locations

No VOCs were detected in sediment at any of the upstream, side stream or downstream sampling locations (HR-SS-11 through HR-SS-18). No metals were detected above screening criteria at upstream or side stream sampling locations. However, the following metals were detected above screening criteria at downstream sampling locations HR-SS-16 through HR-SS-18 (Plate 2):

Analyte	Screening Criteria (mg/kg)	Range in Concentrations (mg/kg)	Locations
Chromium	110	180 – 260	HR-SS-16 through HR-SS-18
Copper	110	130 – 170	HR-SS-16 through HR-SS-18
Lead	110	210 – 1,400	HR-SS-16 through HR-SS-18
Zinc	270	360 – 520	HR-SS-16 through HR-SS-18

mg/kg – milligrams per kilogram dry weight

3.2.4 Sediment Grab Samples Collected From Municipal Sewer Manholes

No metals, VOCs or SVOCs were detected above screening criteria in sediment grab samples from the City of Rensselaer storm sewer manhole in the southern portion of the Closed Landfill (LF-RST-4).

At City of Rensselaer storm sewer manhole location LG-RST-2, which is within 100 feet of the Hudson River, zinc and arsenic were detected above screening criteria in the sediment grab samples. Zinc was detected at 350 mg/kg compared to a screening criterion of 270 mg/kg. Arsenic was detected at 96 mg/kg, compared to a screening criterion of 33 mg/kg.

4.0 RECOMMENDATIONS

The initial sediment sampling consisted of a screening level evaluation in which two-foot sediment cores were collected, homogenized and analyzed. Further evaluation of the sediment is needed to better understand the horizontal and near surface vertical distribution of the COCs in the sediment, and the local conditions within the Hudson River.

The specific objectives of the additional sampling and analysis are:

- determine the concentrations of COCs in the biotic zone, considered to be the upper six inches of the sediment;
- define the western extent to which COCs may be present in the sediment at concentrations greater than the screening criteria;
- develop a vertical profile of the concentrations of COCs in the sediment within the upper two feet;
- obtain a better understanding of the physical characteristics of the sediment, including total organic carbon (TOC) levels and grain sizes; and
- obtain an initial understanding of the characteristics of the river in this area, including depth and flow rate.

This phase of the sediment investigation will consist of collecting sediment samples from discrete depths and measuring the depth and flow rate of the river at various locations.

Hudson River Depth and Flow Measurements

The first task that will be performed is the measurement of the physical characteristics of the Hudson River immediately adjacent to the BASF Site and at locations extending west from the riverbank. Depth measurements will be obtained to develop a profile of the river bottom. Velocity measurements will be obtained to determine relative river flow rates at eight locations and three depths per location. A still well will be installed to allow tidal fluctuation to be measured over a one-month period.

A series of river depth measurements will be collected beginning at the river bank adjacent to the BASF site, progressing west into the river and terminating at approximately 200 – 250 feet (one-quarter to one-third of the river width) from the river bank (Plate 4), where it is expected that the river will reach its maximum depth. Measurements will be obtained from a series of

transects spaced approximately 200 feet apart, beginning at the BASF property line north of Building 41 to the north and extending to BASF's southern property line, with the measurement locations corresponding to the extent possible with the outfall locations. Measurements will then be obtained at approximately 25-foot intervals extending into the river from the original location at the river bank.

Water velocity measurements will be obtained at eight of the locations at which a depth measurement is collected (Plate 4). The velocity will be measured at the bottom of the river, at a depth corresponding to approximately two-thirds of the depth of the river, and at the surface. The velocity will be measured at high tide, low tide and half way between. Water characterization samples will be taken at eight location and all three depths at high tide, low tide and half way between (Plate 4). The samples will be analyzed for salinity, sediment load, and density.

Sediment Sampling

Sediment cores will be collected from locations along the river bank adjacent to the BASF site and from a series of locations extending west from the river bank (Plate 4). Cores will be collected from the original out fall locations (HR-SS-1/2/3/4, HR-SS-5/6 and HR-SS-7/8) at which COCs were found at levels greater than screening criteria. Additionally, cores will be obtained from a location approximately 100 feet north of HR-SS-1/2 and a location approximately midway between HR-SS-5/6 and HR-SS-7/8.

Additional cores will be obtained at intervals of approximately 25 – 30 feet extending into the river from each original sampling location. It is currently anticipated that the sample collection will extend 100 – 125 feet into the river, for a total of 20 – 25 locations from which sediment cores will be collected. This may, however, be modified based on the bottom profile and river velocity data that will be obtained.

Two-foot cores will be collected from each location. Discrete samples will be obtained from the 0 – 6 inch interval corresponding to the biotic zone, and from the 18 – 24 inch interval to provide an assessment of the vertical profile of the COCs at each location. The samples will be analyzed

for VOCs, metals, TOC, and acid volatile sulfides. A particle size analysis will be conducted on approximately one-third of the samples from each interval.

This work will commence upon approval from the NYSDEC.

Respectfully submitted,

ROUX ASSOCIATES, INC.

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Table 1. Summary of Metals Detected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Lowest Effect Level mg/kg	Severe Effect Level mg/kg	Location Identification:	HR-SS-1	HR-SS-2	HR-SS-3	HR-SS-4	HR-SS-5
			Sample Depth:	0-2	0-2	0-2	0-2	0-2
			Sample Date:	5/24/04	5/24/04	5/24/04	5/24/04	5/24/04
			Sample Identification:	B11-27-24	B11-27-07	B11-26-16	B11-26-02	B11-25-07
Aluminum	--	--		8,700	12,000	11,000	12,000	12,000
Antimony	2.0	25		3.3 U	3.4 U	3 U	3.1 U	3.3 U
Arsenic	6.0	33		26	13	17	16	6.7
Barium	--	--		110	200	100	160	110
Beryllium	--	--		1 U	1 U	0.91 U	0.92 U	1 U
Cadmium	0.6	9		5.1	**14**	3.7	**12**	6
Calcium	--	--		7,300	5,800	7,300	14,000	9,500
Chromium	26	110		**180**	**230**	**120**	**260**	**120**
Cobalt	--	--		11	12	12	13	12
Copper	16	110		110	**150**	**120**	**230**	80
Iron	20,000	40,000		21,000	22,000	24,000	26,000	26,000
Lead	31	110		**190**	**300**	**130**	**290**	97
Magnesium	--	--		5,100	5,000	5,800	6,700	6,100
Manganese	460	1,100		280	310	400	480	790
Mercury	0.15	1.3		0.78	**1.4**	**1.8**	**1.4**	0.41
Nickel	16	50		23	29	41	37	29
Potassium	--	--		1,200	1,400	1,500	1,400	1,700
Selenium	--	--		3 U	3.1 U	2.7 U	2.8 U	3 U
Silver	1	2.2		4.2 U	4.2 U	3.8 U	3.8 U	4.2 U
Sodium	--	--		830 U	850 U	760 U	770 U	830 U
Thallium	--	--		2 U	2 U	1.8 U	1.8 U	2 U
Vanadium	--	--		25	31	26	30	25
Zinc	120	270		**290**	**390**	**280**	**440**	230

Notes:

mg/kg - Milligrams per kilogram

U - Analyte not detected at reported detection limit.

-- - No Lowest and Severe Effect Level standard available

bold - Concentrations highlighted in bold represent detections that exceed the Severe Effect Level.

Table 1. Summary of Metals Detected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Lowest Effect Level mg/kg	Severe Effect Level mg/kg	Location Identification:	HR-SS-6	HR-SS-7	HR-SS-8	HR-SS-9	HR-SS-10
			Sample Depth:	0-2	0-2	0-2	0-2	0-2
			Sample Date:	5/24/04	5/24/04	5/24/04	5/24/04	5/24/04
			Sample Identification:	B11-24-05	B11-28-14	B11-29-02	B11-29-18	B11-30-06
Aluminum	--	--		15,000	10,000	9,800	9,000	9,100
Antimony	2.0	25		3.5 U	3.3 U	3 U	3.1 U	2.7 U
Arsenic	6.0	33		11	4.6	10	5.1	6.1
Barium	--	--		140	100	110	61	92
Beryllium	--	--		1.1 U	1 U	0.91 U	0.92 U	0.81 U
Cadmium	0.6	9		3.2	1 U	4.6	0.92 U	1.8
Calcium	--	--		9,500	8,300	7,800	20,000	12,000
Chromium	26	110		**160**	40	**150**	23	66
Cobalt	--	--		18	12	11	7.8	9.8
Copper	16	110		100	57	78	37	77
Iron	20,000	40,000		28,000	23,000	21,000	24,000	22,000
Lead	31	110		**120**	49	**150**	99	**160**
Magnesium	--	--		6,600	5,500	5,200	5,000	4,800
Manganese	460	1,100		710	930	460	380	490
Mercury	0.15	1.3		0.91	0.15	0.49	0.13 U	0.36
Nickel	16	50		35	26	24	22	24
Potassium	--	--		1,900	1,200	1,100	1,100	1,100
Selenium	--	--		3.2 U	3.1	2.7 U	2.8 U	2.4 U
Silver	1	2.2		4.4 U	4.2 U	3.8 U	3.8 U	3.4 U
Sodium	--	--		880 U	830 U	760 U	770 U	680 U
Thallium	--	--		2.1 U	2 U	1.8 U	1.8 U	1.6 U
Vanadium	--	--		33	21	22	15 U	18
Zinc	120	270		**310**	180	250	170	210

Notes:

mg/kg - Milligrams per kilogram

U - Analyte not detected at reported detection limit.

-- - No Lowest and Severe Effect Level standard available

bold - Concentrations highlighted in bold represent detections that exceed the Severe Effect Level.

Table 1. Summary of Metals Detected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Lowest Effect Level mg/kg	Severe Effect Level mg/kg	Location Identification:	HR-SS-11	HR-SS-12	HR-SS-13	HR-SS-14	HR-SS-15
			Sample Depth:	0-2	0-2	0-2	0-2	0-2
			Sample Date:	5/25/04	5/25/04	5/25/04	5/25/04	5/25/04
			Sample Identification:	B11-34-10	B11-34-21	B11-35-10	B11-36-10	B11-35-20
Aluminum	--	--		3,600	4,200	4,600	4,400	5,300
Antimony	2.0	25		2.3 U	2.4 U	2.4 U	2.3 U	2.4 U
Arsenic	6.0	33		2.3 U	2.4 U	2.4 U	3	16
Barium	--	--		21	17	26	27	54
Beryllium	--	--		0.69 U	0.71 U	0.72 U	0.7 U	0.71 U
Cadmium	0.6	9		0.69 U	0.71 U	0.72 U	0.7 U	0.71 U
Calcium	--	--		1,200	1,200	15,000	2,800	2,100
Chromium	26	110		5.7 U	6 U	6.5	7.9	8.6
Cobalt	--	--		4.1	4.6	5.8	4.2	5.7
Copper	16	110		5.7 U	6 U	6 U	7.5	15
Iron	20,000	40,000		9,700	10,000	14,000	14,000	17,000
Lead	31	110		5.7 U	6 U	6 U	20	16
Magnesium	--	--		1,900	2,100	2,400	3,000	3,000
Manganese	460	1,100		240	190	320	210	340
Mercury	0.15	1.3		0.096 U	0.099 U	0.1 U	0.097 U	0.099 U
Nickel	16	50		8	9.3	11	8.7	13
Potassium	--	--		570 U	600 U	600 U	590	700
Selenium	--	--		2.1 U	2.1 U	2.2 U	2.1 U	2.1 U
Silver	1	2.2		2.9 U	3 U	3 U	2.9 U	3 U
Sodium	--	--		570 U	600 U	600 U	580 U	600 U
Thallium	--	--		1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Vanadium	--	--		11 U	12 U	12 U	12 U	12 U
Zinc	120	270		44	42	53	49	73

Notes:

mg/kg - Milligrams per kilogram

U - Analyte not detected at reported detection limit.

-- - No Lowest and Severe Effect Level standard available

bold - Concentrations highlighted in bold represent detections that exceed the Severe Effect Level.

Table 1. Summary of Metals Detected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Lowest Effect Level mg/kg	Severe Effect Level mg/kg	Location Identification:	HR-SS-16	HR-SS-17	HR-SS-18	LF-RST-4	LG-RST-2
			Sample Depth:	0-2	0-2	0-2	0-0.5	0-0.5
			Sample Date:	5/25/04	5/25/04	5/25/04	6/15/04	6/15/04
			Sample Identification:	B11-33-22	B11-33-14	B11-32-16	B12-50-18	B12-51-07
Aluminum	--	--		17,000	14,000	14,000	6,400	7,000
Antimony	2.0	25		3.6 U	3.4 U	3.9 U	3.1 U	2.7 U
Arsenic	6.0	33		14	8.5	5.5	9.2	**96**
Barium	--	--		220	210	140	100	140
Beryllium	--	--		1.1 U	1 U	1.2 U	0.92 U	0.81 U
Cadmium	0.6	9		7.5	7.9	4.1	0.92 U	0.81 U
Calcium	--	--		7,900	7,900	5,100	53,000	28,000
Chromium	26	110		**240**	**260**	**180**	31	25
Cobalt	--	--		14	11	12	7.6	8.5
Copper	16	110		**170**	**160**	**130**	47	63
Iron	20,000	40,000		33,000	27,000	26,000	20,000	29,000
Lead	31	110		**250**	**1,400**	**210**	120	130
Magnesium	--	--		7,600	6,300	5,700	5,000	4,900
Manganese	460	1,100		560	420	370	970	740
Mercury	0.15	1.3		0.93	0.74	0.91	0.3	0.12
Nickel	16	50		40	31	29	19	31
Potassium	--	--		2,600	2,000	2,200	1,400	910
Selenium	--	--		3.3 U	3.1 U	3.5 U	2.8 U	2.4 U
Silver	1	2.2		4.5 U	4.3 U	4.9 U	3.8 U	3.4 U
Sodium	--	--		910 U	860 U	980 U	770 U	680 U
Thallium	--	--		2.2 U	2.1 U	2.4 U	1.8 U	1.6 U
Vanadium	--	--		35	34	29	17	20
Zinc	120	270		**500**	**520**	**360**	230	**350**

Notes:

mg/kg - Milligrams per kilogram

U - Analyte not detected at reported detection limit.

-- - No Lowest and Severe Effect Level standard available

bold - Concentrations highlighted in bold represent detections that exceed the Severe Effect Level.

Table 2. Summary of Volatile Organic CompoundsDetected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Benthic Aquatic Life		Location Identification:	HR-SS-1	HR-SS-1	HR-SS-2	HR-SS-2	HR-SS-3	HR-SS-3	HR-SS-4	HR-SS-4
			Sample Depth:	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
			Sample Date:	05/24/04	05/24/04	05/24/04	05/24/04	05/24/04	05/24/04	05/24/04	05/24/04
			Sample Identification:	B11-27-24	B11-27-24	B11-27-07	B11-27-07	B11-26-16	B11-26-16	B11-26-02	B11-26-02
	Acute	Chronic	Sample TOC (g/kg):	13	13	23	23	20	20	18	18
	µg/gOC	µg/gOC	Units:	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/gOC
1,1,1-Trichloroethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,1,2,2-Tetrachloroethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,1,2-Trichloroethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,1-Dichloroethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,1-Dichloroethene	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,2,4-Trichlorobenzene	910	91		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,2-Dichlorobenzene	120	12		610 J	47 J	750 J	33 J	38 U	1.9 U	670 J	37 J
1,2-Dichloroethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,2-Dichloropropane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,3-Dichlorobenzene	120	12		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
1,4-Dichlorobenzene	120	12		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
2-Butanone	--	--		5,200 U	400 U	5,300 U	230 U	190 U	10 U	4,800 U	267 U
2-Hexanone	--	--		4,200 U	323 U	4,200 U	183 U	150 U	7.5 U	3,800 U	211 U
4-Methyl-2-Pentanone	--	--		4,200 U	323 U	4,200 U	183 U	150 U	7.5 U	3,800 U	211 U
Acetone	--	--		5,200 U	400 U	5,300 U	230 U	190 U	10 U	4,800 U	267 U
Benzene	103	28		4,200	**323**	5,700	**248**	270	14	410	23
Bromodichloromethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Bromoform	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Bromomethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Carbon disulfide	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Carbon tetrachloride	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Chlorobenzene	34.6	3.5		14,000	**1,077**	27,000	**1,174**	1,900	**95**	7,700	**428**
Chloroethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Chloroform	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Chloromethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Cis-1,2-Dichloroethene	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Cis-1,3-Dichloropropene	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Dibromochloromethane	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Ethylbenzene	212	24		210 U	16 U	210 U	9.1 U	38 U	1.9 U	190 U	11 U
M&p-Xylenes	833	92		410 J	32 J	360 J	16 J	11 J	0.6 J	380 U	21 U
Methylene chloride	--	--		260 J	20 J	240 J	10 J	54 B	2.7 B	220 J	12 J
O-Xylene	833	92		210 U	16 U	210 U	9.1 U	11 J	0.6 J	190 U	11 U
Styrene	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Tetrachloroethene	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Toluene	235	49		270	21	540	23	330	17	190 U	11 U
Trans-1,2-Dichloroethene	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Trans-1,3-Dichloropropene	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Trichloroethene	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U
Vinyl chloride	--	--		1,000 U	77 U	1,100 U	48 U	38 U	1.9 U	960 U	53 U

Notes:

µg/gOC - Micrograms per gram of organic carbon

µg/kg - Micrograms per kilogram

g/kg - grams per kilogram

U - Analyte not detected at reported detection limit

J - Estimated concentraion

-- - No Benthic Aquatic Life standard available

bold - Concentrations highlighted in bold represent detections that exceed Acute Benthic Aquatic Life standards

* - TOC not measured

Table 2. Summary of Volatile Organic CompoundsDetected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Benthic Aquatic Life		Location Identification:	HR-SS-5	HR-SS-5	HR-SS-6	HR-SS-6	HR-SS-7	HR-SS-7	HR-SS-8	HR-SS-8
			Sample Depth:	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
			Sample Date:	05/24/04	05/24/04	05/24/04	05/24/04	05/24/04	05/24/04	05/24/04	05/24/04
			Sample Identification:	B11-25-07	B11-25-07	B11-24-05	B11-24-05	B11-28-14	B11-28-14	B11-29-02	B11-29-02
	Acute	Chronic	Sample TOC (g/kg):	19	19	14	14	15	15	13	13
	µg/gOC	µg/gOC	Units:	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/gOC
1,1,1-Trichloroethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,1,2,2-Tetrachloroethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,1,2-Trichloroethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,1-Dichloroethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,1-Dichloroethene	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,2,4-Trichlorobenzene	910	91		1,300	68	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,2-Dichlorobenzene	120	12		100,000	**5,263**	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,2-Dichloroethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,2-Dichloropropane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,3-Dichlorobenzene	120	12		9,200	**484**	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
1,4-Dichlorobenzene	120	12		6,900	**363**	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
2-Butanone	--	--		5,200 U	274 U	5,500 U	393 U	43 U	2.9 U	40 U	3.1 U
2-Hexanone	--	--		4,200 U	221 U	4,400 U	314 U	34 U	2.3 U	32 U	2.5 U
4-Methyl-2-Pentanone	--	--		4,200 U	221 U	4,400 U	314 U	34 U	2.3 U	32 U	2.5 U
Acetone	--	--		5,200 U	274 U	5,500 U	393 U	43 U	2.9 U	40 U	3.1 U
Benzene	103	28		4,100	**216**	350	25	8.6 U	0.6 U	8.1 U	0.6 U
Bromodichloromethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Bromoform	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Bromomethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Carbon disulfide	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Carbon tetrachloride	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Chlorobenzene	34.6	3.5		91,000	**4,789**	16,000	**1,143**	8.6 U	0.6 U	8.1 U	0.6 U
Chloroethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Chloroform	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Chloromethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Cis-1,2-Dichloroethene	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Cis-1,3-Dichloropropene	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Dibromochloromethane	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Ethylbenzene	212	24		290	15	220 U	16 U	8.6 U	0.6 U	8.1 U	0.6 U
M&p-Xylenes	833	92		920	48	440 U	31 U	17 U	1.1 U	16 U	1.2 U
Methylene chloride	--	--		210 J	11 J	1,100 U	79 U	9.7 B	0.6 B	8.8 B	0.7 B
O-Xylene	833	92		260	14	220 U	16 U	8.6 U	0.6 U	8.1 U	0.6 U
Styrene	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Tetrachloroethene	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Toluene	235	49		1,700	89	220 U	16 U	2.8 J	0.2 J	8.1 U	0.6 U
Trans-1,2-Dichloroethene	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Trans-1,3-Dichloropropene	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Trichloroethene	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U
Vinyl chloride	--	--		1,000 U	53 U	1,100 U	79 U	8.6 U	0.6 U	8.1 U	0.6 U

Notes:
µg/gOC - Micrograms per gram of organic carbon
µg/kg - Micrograms per kilogram
g/kg - grams per kilogram
U - Analyte not detected at reported detection limit
J - Estimated concentraion
-- - No Benthic Aquatic Life standard available
bold - Concentrations highlighted in bold represent detections that exceed Acute Benthic Aquatic Life standards
* - TOC not measured

Table 2. Summary of Volatile Organic CompoundsDetected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Benthic Aquatic Life		Location Identification:	HR-SS-9	HR-SS-9	HR-SS-10	HR-SS-10	HR-SS-11	HR-SS-11	HR-SS-12	HR-SS-12
			Sample Depth:	0-2	0-2	0-2	0-2	0-1	0-1	0-1	0-1
			Sample Date:	05/24/04	05/24/04	05/24/04	05/24/04	05/25/04	05/25/04	05/25/04	05/25/04
			Sample Identification:	B11-29-18	B11-29-18	B11-30-06	B11-30-06	B11-34-10	B11-34-10	B11-34-21	B11-34-21
	Acute	Chronic	Sample TOC (g/kg):	17	17	7	7	0.29 U	0.29 U	0.36	0.36
	µg/gOC	µg/gOC	Units:	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/gOC
1,1,1-Trichloroethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,1,2,2-Tetrachloroethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,1,2-Trichloroethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,1-Dichloroethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,1-Dichloroethene	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,2,4-Trichlorobenzene	910	91		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,2-Dichlorobenzene	120	12		110	6.5	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,2-Dichloroethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,2-Dichloropropane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,3-Dichlorobenzene	120	12		22 J	1.3 J	33 U	4.7 U	5.7 U	20 U	6 U	17 U
1,4-Dichlorobenzene	120	12		180	11	33 U	4.7 U	5.7 U	20 U	6 U	17 U
2-Butanone	--	--		210 U	12 U	170 U	24 U	29 U	100 U	30 U	83 U
2-Hexanone	--	--		170 U	10 U	130 U	19 U	23 U	79 U	24 U	67 U
4-Methyl-2-Pentanone	--	--		170 U	10 U	130 U	19 U	23 U	79 U	24 U	67 U
Acetone	--	--		210 U	12 U	170 U	24 U	29 U	100 U	30 U	83 U
Benzene	103	28		210	12	15 J	2.1 J	5.7 U	20 U	6 U	17 U
Bromodichloromethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Bromoform	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Bromomethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Carbon disulfide	--	--		9.2 J	0.5 J	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Carbon tetrachloride	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Chlorobenzene	34.6	3.5		1,700	**100**	300	**43**	5.7 U	20 U	6 U	17 U
Chloroethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Chloroform	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Chloromethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Cis-1,2-Dichloroethene	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Cis-1,3-Dichloropropene	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Dibromochloromethane	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Ethylbenzene	212	24		8.9 J	0.5 J	33 U	4.7 U	5.7 U	20 U	6 U	17 U
M&p-Xylenes	833	92		22 J	1.3 J	67 U	10 U	11 U	38 U	12 U	33 U
Methylene chloride	--	--		57 B	3.4 B	46 B	6.6 B	7.7 B	27 B	7.9 B	22 B
O-Xylene	833	92		23 J	1.4 J	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Styrene	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Tetrachloroethene	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Toluene	235	49		150	8.8	190	27	1.7 J	5.9 J	6 U	17 U
Trans-1,2-Dichloroethene	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Trans-1,3-Dichloropropene	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Trichloroethene	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U
Vinyl chloride	--	--		42 U	2.5 U	33 U	4.7 U	5.7 U	20 U	6 U	17 U

Notes:

µg/gOC - Micrograms per gram of organic carbon

µg/kg - Micrograms per kilogram

g/kg - grams per kilogram

U - Analyte not detected at reported detection limit

J - Estimated concentraion

-- - No Benthic Aquatic Life standard available

bold - Concentrations highlighted in bold represent detections that exceed Acute Benthic Aquatic Life standards

* - TOC not measured

Table 2. Summary of Volatile Organic CompoundsDetected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Benthic Aquatic Life		Location Identification:	HR-SS-13	HR-SS-13	HR-SS-14	HR-SS-14	HR-SS-15	HR-SS-15	HR-SS-16	HR-SS-16
			Sample Depth:	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
			Sample Date:	05/25/04	05/25/04	05/25/04	05/25/04	05/25/04	05/25/04	05/25/04	05/25/04
			Sample Identification:	B11-35-10	B11-35-10	B11-36-10	B11-36-10	B11-35-20	B11-35-20	B11-33-22	B11-33-22
	Acute	Chronic	Sample TOC (g/kg):	0.30 U	0.30 U	0.48	0.48	1.3	1.3	21	21
	µg/gOC	µg/gOC	Units:	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/gOC
1,1,1-Trichloroethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,1,2,2-Tetrachloroethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,1,2-Trichloroethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,1-Dichloroethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,1-Dichloroethene	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,2,4-Trichlorobenzene	910	91		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,2-Dichlorobenzene	120	12		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,2-Dichloroethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,2-Dichloropropane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,3-Dichlorobenzene	120	12		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
1,4-Dichlorobenzene	120	12		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
2-Butanone	--	--		30 U	100 U	29 U	60 U	30 U	23 U	230 U	11 U
2-Hexanone	--	--		24 U	80 U	23 U	48 U	24 U	18 U	180 U	8.6 U
4-Methyl-2-Pentanone	--	--		24 U	80 U	23 U	48 U	24 U	18 U	180 U	8.6 U
Acetone	--	--		30 U	100 U	29 U	60 U	30 U	23 U	230 U	11 U
Benzene	103	28		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Bromodichloromethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Bromoform	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Bromomethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Carbon disulfide	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Carbon tetrachloride	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Chlorobenzene	34.6	3.5		6 U	20 U	5.8 U	12 U	6 U	4.6 U	16 J	0.8 J
Chloroethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Chloroform	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Chloromethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Cis-1,2-Dichloroethene	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Cis-1,3-Dichloropropene	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Dibromochloromethane	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Ethylbenzene	212	24		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
M&p-Xylenes	833	92		12 U	40 U	12 U	25 U	12 U	9.2 U	11 J	0.5 J
Methylene chloride	--	--		7.6 B	25 B	7.7 B	16 B	14 B	11 B	59 B	2.8 B
O-Xylene	833	92		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Styrene	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Tetrachloroethene	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Toluene	235	49		6 U	20 U	5.8 U	12 U	6 U	4.6 U	370	18
Trans-1,2-Dichloroethene	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Trans-1,3-Dichloropropene	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Trichloroethene	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U
Vinyl chloride	--	--		6 U	20 U	5.8 U	12 U	6 U	4.6 U	45 U	2.1 U

Notes:
µg/gOC - Micrograms per gram of organic carbon
µg/kg - Micrograms per kilogram
g/kg - grams per kilogram
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Table 2. Summary of Volatile Organic CompoundsDetected in Sediment, BASF Corporation, OU-2 Investigation, Rensselaer, New York

	Benthic Aquatic Life		Location Identification:	HR-SS-17	HR-SS-17	HR-SS-18	HR-SS-18	LF-RST-4	LG-RST-2
			Sample Depth:	0-1	0-1	0-1	0-1	0-0.5	0-0.5
			Sample Date:	05/25/04	05/25/04	05/25/04	05/25/04	06/15/04	06/15/04
	Acute	Chronic	Sample Identification:	B11-33-14	B11-33-14	B11-32-16	B11-32-16	B12-50-18	B12-51-07
			Sample TOC (g/kg):	20	20	17	17	*	*
	µg/gOC	µg/gOC	Units:	µg/kg	µg/gOC	µg/kg	µg/gOC	µg/kg	µg/kg
1,1,1-Trichloroethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,1,2,2-Tetrachloroethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,1,2-Trichloroethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,1-Dichloroethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,1-Dichloroethene	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,2,4-Trichlorobenzene	910	91		43 U	2.2 U	9.8 U	0.6 U	3.1	1.4 U
1,2-Dichlorobenzene	120	12		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,2-Dichloroethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,2-Dichloropropane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,3-Dichlorobenzene	120	12		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
1,4-Dichlorobenzene	120	12		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
2-Butanone	--	--		220 U	11 U	49 U	2.9 U	38 U	34 U
2-Hexanone	--	--		170 U	8.5 U	39 U	2.3 U	31 U	27 U
4-Methyl-2-Pentanone	--	--		170 U	8.5 U	39 U	2.3 U	31 U	27 U
Acetone	--	--		220 U	11 U	49 U	2.9 U	31 U	27 U
Benzene	103	28		43 U	2.2 U	9.8 U	0.6 U	1.5 U	1.4 U
Bromodichloromethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Bromoform	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Bromomethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Carbon disulfide	--	--		9.1 J	0.5 J	9.8 U	0.6 U	7.7 U	6.8 U
Carbon tetrachloride	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Chlorobenzene	34.6	3.5		14 J	0.7 J	9.8 U	0.6 U	7.7 U	6.8 U
Chloroethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Chloroform	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Chloromethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Cis-1,2-Dichloroethene	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Cis-1,3-Dichloropropene	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Dibromochloromethane	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Ethylbenzene	212	24		43 U	2.2 U	9.8 U	0.6 U	1.5 U	1.4 U
M&p-Xylenes	833	92		10 J	0.5 J	20 U	1.2 U	3.1 U	2.7 U
Methylene chloride	--	--		55 B	2.8 B	11 B	0.6 B	37 B	18 B
O-Xylene	833	92		43 U	2.2 U	9.8 U	0.6 U	1.5 U	1.4 U
Styrene	--	--		43 U	2.2 U	9.8 U	0.6 U	1.5 U	1.4 U
Tetrachloroethene	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Toluene	235	49		220	11	9.8 U	0.6 U	1.5 U	1.4 U
Trans-1,2-Dichloroethene	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Trans-1,3-Dichloropropene	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Trichloroethene	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U
Vinyl chloride	--	--		43 U	2.2 U	9.8 U	0.6 U	7.7 U	6.8 U

Notes:
µg/gOC - Micrograms per gram of organic carbon
µg/kg - Micrograms per kilogram
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bold - Concentrations highlighted in bold represent detections that exceed Acute Benthic Aquatic Life standards
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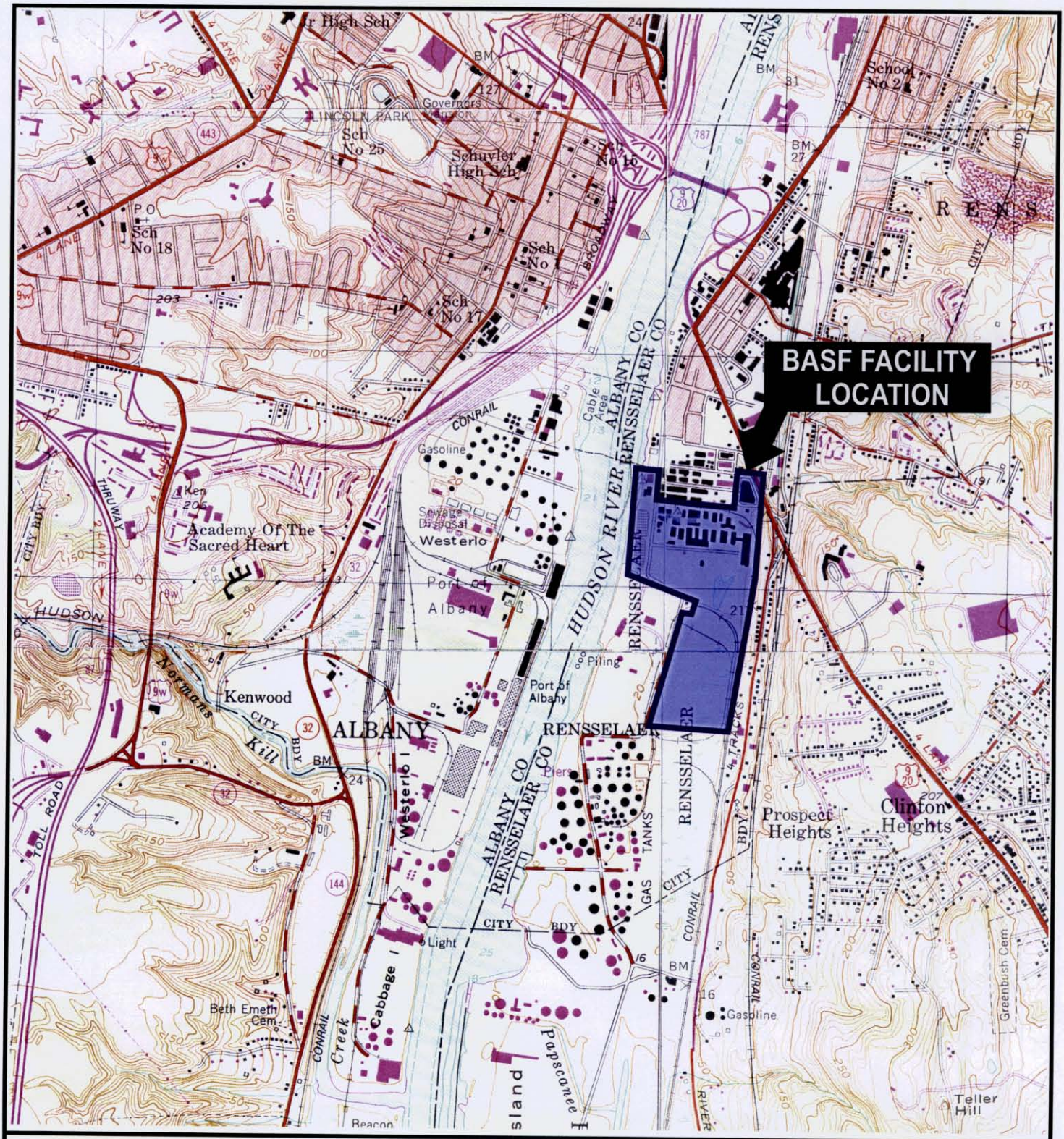

QUADRANGLE LOCATION

SOURCE:
USGS; 1980. Albany, New York;
USGS; 1980. Troy South, New York
USGS; 1980. Delmar, New York
USGS; 1980. East Greenbush, New York
7.5 Minute Topographic Quadrangles

N

0 2000'

Title:

SITE LOCATION MAP

RENSSELAER, NEW YORK FACILITY

Prepared for:
BASF CORPORATION
MOUNT OLIVE, NEW JERSEY

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: M.R.		Date: 8/16/04	FIGURE
Prepared by: G.M.		Scale: AS SHOWN	1
Project Mgr.: N.E.		Office: NY	
File No.: BF1138803.CDR		Project No.: 25111Y24	

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