

AD-A159 649 OCEAN DUMPING REPORT FOR CALENDAR YEAR 1984 DREDGED
MATERIAL(U) CORPS OF ENGINEERS FORT BELVOIR VA WATER
RESOURCES SUPPORT CENTER JUL 85 WRSC-85-SR-4

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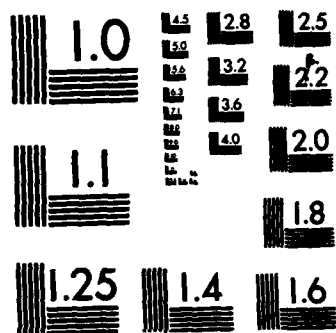
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US Army Corps
of Engineers
Water Resources
Support Center

Summary Report 85-SR-4

JULY 1985

UNITED STATES OF AMERICA

AD-A159 649

Ocean Dumping Report for Calendar Year

1984

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Disposal from Federal Projects; Disposal Under Section 103; Ocean Disposal Site Designation; Regulatory Activities. ← This report		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		
The following Summary Report contains 99 International Maritime Organization (IMO) reports. These reports were prepared by numerous Corps of Engineers employees in 20 Corps districts and divisions which have coastal boundaries. There are 49 reports which represent the CY 1984 permitted dredged material ocean disposal activities conducted under authority of Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. The remaining 50 reports represent the CY 1984 Corps of Engineers dredged material disposal activities as authorized by the United States Congress. <i>Keywords:</i>		

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UNITED STATES OF AMERICA

OCEAN DUMPING

REPORT FOR

CALENDAR YEAR

1984

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Prepared by the U. S. Army Corps of Engineers

Water Resources Support Center

Casey Building

Ft. Belvoir, VA 22060-5586

July 1985

Summary Report 85-SR-4

Copies may be purchased from:

National Technical Information Service
U. S. Department of Commerce
Springfield, Virginia 22161

This report is not to be construed as necessarily representing the views
of the Federal Government nor of the U. S. Army Corps of Engineers.

Background

Under the authority of the International Maritime Organization (IMO), the United States and all other contracting nations to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter are required to submit an annual report for each ocean disposal operation. The U. S. Army Corps of Engineers has been tasked with preparing the dredged material portion of these IMO Ocean Dumping Reports.

Reports Numbering System

This document contains all 99 U. S. prepared CY 1984 IMO Dredged Material Ocean Disposal Reports. They are numbered as follows:

(1) Reports P-1 through P-49 represent the 49 CY 1984 permitted dredged material ocean disposal activities conducted under authority of Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972.

(2) Reports C-1 through C-50 represent the 50 Corps of Engineers dredged material ocean disposal activities as authorized by the United States Congress.

Summary of Data

During CY 1984, the U. S. ocean disposed 49,298,600 cubic meters of dredged material of which: 6,444,425 cubic meters were disposed of under Section 103 authority, and 42,854,175 cubic meters were disposed of under Corps authority.

Geographical distribution of the U. S. CY 1984 ocean disposal of dredged material was as follows:

<u>Area</u>	<u>Cubic Meters</u>	<u>IMO Report References</u>
Atlantic Ocean	11,704,847	P-1 through P-40, C-1 through C-21
Gulf of Mexico	26,122,133	C-22 through C-36
Pacific Ocean	11,471,620	P-41 through P-49, C-37 through C-50

Authorship

The enclosed 99 IMO Ocean Dumping Reports were prepared by numerous Corps of Engineers employees in 20 Corps districts and divisions which have coastal boundaries. For additional information concerning this report, the central point of contact in the United States is:

Water Resources Support Center (WRSC-D)
Corps of Engineers
Casey Building
Ft. Belvoir, VA 22060-5586

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Massachusetts Dept. of Environmental Management Division of Waterways

Date issued: 16 Aug. 1984 Permit No. MA-HULL-84-210

Start Date: 16 Aug. 1984 Expiry Date: 6 Aug. 1987

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Winthrop Harbor, Massachusetts

4. Specification of dredged material and process from which derived:

- a. Description: Primarily clay, some silt and sand
- b. Mode of dredging: Clamshell and/or dragline equipment
- c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): ³ 47329m (61900 c.y.)

7. Expected frequency of dumping (for reporting period):

- a. One trip per day
- b. Actual start: 14 Nov. 1984
- c. Actual completion: 26 Nov. 1984

1. Chemical composition:

BULK SEDIMENT ANALYSIS (mg/kg dry weight)

June 1983

May 1984

	mooring basin	outer channel	Yacht club	site 3	site 5
arsenic	6.3	13	15	7.5	6.5
cadmium	2.7	3.3	2.2	.19	.37
chromium	114	61	130	22	28
copper	146	65	130	19	34
nickel	32	17	25	8.8	7.9
lead	74	33	64	38	21
mercury	0.5	.16	.25	.25	.33
manganese	300	220	300	30	27
zinc	180	66	140	46	62

ND means non detectable)

ORGANICS

Oil & Grease	.057	.036	.056	.051	.097
pl. solids	3.34	2.77	3.24	3.9	9.6
benzols	<1.8	<1.4	<1.8	.93	.93
CB (total)	.057	.034	.011	<1	<1
DT	.016	ND	.220	.12	.01
DE	.004	.011	.018	.19	.09
DD	ND	.018	.002	.19	.06

ELUTRIATE ANALYSIS (ug/L)

June 1983

arsenic	<10	<10	<20
cadmium	<.05	<.05	<.05
chromium	<.015	<.015	<.015
mercury	<1	<1	<1
zinc	<.005	<.005	<.005
lead	<.01	<.01	<.01
nickel	<.225	<.225	<.225
CB	ND	ND	ND
DD	ND	ND	ND
DE	ND	ND	ND
DT	ND	ND	ND

9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand	<u>9.4</u>	% silt	<u>30.7</u>	% clay	<u>59.9</u>	(mooring basin)
	57.8		15.6		26.6	(outer channel)
	22.7		8.0		69.3	(yacht club)
	92.3		4.7		3.0	(site 3)
	80.3		11.8		7.9	(site 5)

10. Method of packaging: see 4c

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11. Method of release: The scow releases the dredged material through hydraulically operated doors upon coming to a halt at the dumping point.

12. Procedure and site for tank washing: Normally, scows are washed down at either the dredge or dump site.

13. Approved dumping site: Foul Area

a. Geographical position (latitude and longitude):

°
42 25.7'N

°
70 34.0'W

b. Depth of Water (meters): 49-91m (160'-300')

c. Distance from nearest coast (kilometers): 17.6km(9.5NM)

14. Additional information:

Liquid Phase Bioassays: N/A

Suspended Particulate Phase Bioassays: N/A

Solid Phase Bioassays: No significant mortalities

Bioaccumulation: Only the test sandworms (Nereis virens) with 0.182 ppm PCB's and grass shrimp (Palaemonetes pugio) with <0.106 ppm Cd showed bioaccumulation potential. The levels were considered to be qualitatively insignificant.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program is designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal.

LONDON DUMPING CONVENTION

P-2 1.57

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: City of Gloucester

Date issued: 14 Sept 1984 Permit No. MA-GLOU-84-239

Start Date: 14 Sept 1984 Expiry Date: 14 Sept 1987

3. Country of origin of wastes and port of loading:

a. United States of America

b. Gloucester Inner Harbor, Gloucester, Massachusetts

4. Specification of dredged material and process from which derived:

a. Description: Primarily silt with some sand and clay.

b. Mode of dredging: Clamshell and/or dragline

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 3746.5m³ (4,900 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 11 Dec 1984

c. Actual completion: 23 Dec 1984

8. Chemical composition: See Attached Sheets

9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand _____ % silt _____ % clay _____
(see attached sheets)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: Foul Area

a. Geographical position (latitude and longitude):

[°]
42 25.7'N

[°]
70 34.0'W

b. Depth of Water (meters): 49-91m (160'-300')

c. Distance from nearest coast (kilometers): 17.6km
(9.5NM)

14. Additional information:

Liquid Phase Bioassays: Not performed

Suspended Particulate Phase Bioassays: Not performed

Solid Phase Bioassays: No significant mortalities.

Bioaccumulation: The tested constituents were Hg, Cd, DDT, PCB, and Petroleum hydrocarbons (PHC). Statistically significant uptake in test organisms is outlined below:

Harbor Cove B - Cd in sandworms (Nereis virens), mean test value 0.23 ppm, otherwise no uptake potential.

Smith Cove - PAH's in sandworms, mean test value 6.2 ppm, otherwise no uptake potential.

Inner Harbor - PAH's in sandworms, mean test value 6.6 ppm. PCB's in sandworms, mean test value 0.021 ppm, otherwise no uptake potential.

Harbor Cove A - No uptake potential.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

SUMMARY OF TEST RESULTS

TABLE 1

Chemical Constituents	#18B 308095	#7 308096	#16 308097	#13 308098	#3 308099	#14B 308100	#21 308101	#2 308102	#20 308103
Metals									
Arsenic	3.8	1.4	<1.0	3.0	<1.0	4.6	1.6	<1.0	3.6
Cadmium	0.04	0.19	0.49	0.34	1.40	2.74	0.81	2.10	0.84
Chromium	26	25	34	32	37	69	13	38	34
Copper	86	21	60	33	37	282*	275*	364*	280*
Mercury	0.09	0.03	0.07	0.11	0.03	1.95*	1.51*	0.33	0.50*
Nickel	23	35	29	29	289*	41	16	23	21
Lead	63	6	48	21	20	1920*	720*	1351*	974*
Zinc	169	98	133	106	678*	2174*	538*	374	351*
PCB's	0.061	0.019	0.014	0.02	0.013	0.25	0.11	0.026	0.085
Petroleum HC	740	160	205	160	130	830	350	400	430
Physical									
% Moisture	23.3	22.5	34.8	24.5	30.2	60.9 _B	39.2	52.2	38.5
% Volatile Solids	1.8	1.3	3.0	3.0	1.9	5.1 _B	4.4	3.8	3.4
Oil & Grease	2370	220	7580 _B	7400 _B	7620 _B	6900 _B	19200 _C	16500 _C	9060 _B
Physical classification by soil type	B	B	C	B	B	B	A	B	B
Chemical Classification	1	1	1	1	3	3	3	3	3
Overall physical classification	B	B	C	B	B	B	C	C	B

Notes:

All chemical constituent and oil & grease concentrations in mg/kg, dry weight

* Chemical constituents greater than Category 1 levels

** 60.9_B Subscript B notes physical category if Category A values are exceeded

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SUMMARY OF TEST RESULTS (page two)

Chemical Constituents	#17B 308104	#12 308105	#9 308106	#10 308107	#23 308108	#5 308109	#14A 308110	#17D 308111	#19 308112	#11 308113
Metals										
Arsenic	19.5*	3.8	<1	5.6	5.5	3.9	12.1*	14.1*	4.7	9.
Cadmium	0.90	1.33	2.40	2.18	0.45	0.30	1.84	2.84	1.34	0.6
Chromium	38	25	33	31	21	20	53	59	15	2
Copper	96	108	253*	151	83	44	337*	289*	25	8
Mercury	0.34	<0.02	1.83*	0.53*	0.16	0.07	1.17*	0.46	0.15	0.2
Nickel	25	19	70	22	14	25	27	28	14	1
Lead	81	27	207*	215*	67	25	345*	412*	32	111
Zinc	222*	105	290*	433*	83	89	381*	690*	31	11
PCE's	.042	0.006	0.015	0.019	0.103	0.023	0.087	0.93*	0.094	0.02
Petroleum HC	540	40	620	520	670	80	620	2030	230	20
Physical										
% Moisture	55.4 _B	52.5 _B	70.0 _C	64.2 _C	37.6	29.0	58.8 _B	60.9 _C	28.4	33.
% Volatile Solids	3.4	3.4	3.4	3.5	2.4	1.4	4.5	5.2 _B	1.9	1.
Oil & Grease	4840	6820 _B	20360 _C	34890 _C	4130	4210	5800 _B	26040 _C	5990 _B	7010
Physical classification	B	B	C	C	A	A	C	C	B	
Chemical Classification	2	1	3	3	1	1	3	3	1	
Overall physical classification	B	B	C	C	A	A	C	C	B	

Notes:

1. All chemical constituents are in mg/kg unless otherwise noted.
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98. All chemical constituents are in mg/kg unless otherwise noted.
99. All chemical constituents are in mg/kg unless otherwise noted.
100. All chemical constituents are in mg/kg unless otherwise noted.

SEDIMENT SIZE ANALYSIS

TABLE 2

Physical Character- istics	#18B 308095	#7 308096	#16 308097	#13 308098	#3 308099	#14B 308100	#21 308101	#2 308102	#20 308103
% Gravel	2.96	4.67	0.01	9.21	0.22	15.81	36.74	11.28	14.77
% Sand	20.11	7.20	6.02	26.29	5.66	20.79	35.70	18.03	33.49
% Silt	57.73	57.80	70.09	38.41	76.65	49.70	19.76	47.11	25.87
% Clay	19.19	30.32	23.88	26.08	17.46	13.67	7.80	23.57	25.87
% Moisture	23.3	22.5	34.8	24.5	30.2	60.9	39.2	52.2	38.5
% Volatile Solids	1.8	1.3	3.0	3.0	1.9	5.1	4.4	3.8	3.4
Physical Classification	B	B	C	B	B	B	C	B	B

SEDIMENT SIZE ANALYSIS (page two)

TABLE 2

Physical Character- istics	#17B 308104	#12 308105	#9 308106	#10 308107	#23 308108	#5 308109	#14A 308110	#17D 308111	#19 308112	#11 3081
% Gravel	14.82	0.34	5.59	10.27	10.10	4.76	0.77	0.54	4.94	0.
% Sand	16.40	35.95	23.19	45.10	21.01	18.50	5.15	3.64	17.27	7.
% Silt	53.96	33.44	48.00	29.44	43.14	71.45	39.16	64.98	77.30	91.
% Clay	14.82	30.27	23.21	15.16	25.74	5.29	54.92	30.28	0.47	0.
% Moisture	55.4	52.5	70.0	64.2	37.6	29.0	58.8	60.9	28.4	33
% Volatile Solid	3.4	3.4	3.4	3.5	2.4	1.4	4.5	5.2	1.9	1
Physical Classification	B	B	C	C	A	A	C	C	B	

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Massachusetts Dept. of Environmental Quality
Engineering Division of WaterwaysDate issued: 21 Sept 1982 Permit No. MA-BOSS-82-301Start Date: 21 Sept 1982 Expiry Date: 21 SEPT 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Neponset River, Milton/Boston, Massachusetts

4. Specification of dredged material and process from which derived:

a. Description: Primarily silt and clay

b. Mode of dredging: Clamshell and/or dragline

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Cohesive & non-cohesive saturated material6. Total quantity (cubic meters): ³ 8,487m (11010 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 3 Dec 1984c. Actual completion: 11 Dec 1984

8. Chemical composition: N/A

9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand N/A % silt N/A % clay N/A

10. Method of packaging: See 4c

11. Method of release: Six bottom doors operated hydraulically, material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washings: The washing of the scow is done either at dredge or disposal site.

13. Approved dumping site: Foul Area

a. Geographical position (latitude and longitude):

°
42 25.7'N

°
70 34.0'W

b. Depth of Water (meters): 49m-91m (160'-300')

c. Distance from nearest coast (kilometers): 17.6km
(9.5 NM)

14. Additional information: Note: The testing lab did not utilize any reference sediment for the bioassay tests. Only control and test sediment was used. The project was permitted under a special condition that the material be covered by a cleaner project.

Liquid Phase Bioassay: No significant mortalities

Suspended Particulate Phase Bioassay: No significant mortalities

Solid Phase Bioassay: Significant mortalities were shown for the composite test population (Neomysis americanus, Mercenaria mercenaria, Nereis succinea, and Crangon septemspinosa). The difference between test and control survival rate was 11.6%.

Bioaccumulation: Nereis (.217 ppm) and Crangon (.530 ppm) assimilated significant values of PCB's compared to the controls.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Colwell Brothers, Inc.

Date issued: 2 Feb 1984 Permit No. ME-DEER-84-031

Start Date: 2 Feb 1984 Expiry Date: 2 Feb 1987

3. Country of origin of wastes and port of loading:

a. United States of America

b. Stonington Harbor, Maine

4. Specification of dredged material and process from which derived:

a. Description: Primarily silt, sand and gravel.

b. Mode of dredging: Clamshell and/or dragline equipment

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): ³ 382m (500 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 27 Feb 1984

c. Actual completion: 27 Feb 1984

8. Chemical composition:

BULK SEDIMENT (ppm, dry weight)

Metals

Arsenic	11	
Cadmium	1.1	
Chromium	19	
Copper	410, 17	(two sites tested)
Lead	1960, 19	(two sites tested)
Mercury	1	
Nickel	20	

Organics

% Oil and Grease	.41
% Volatile Solids	4.8
PCB's (ppm)	<1.0

9. Properties of dredged material:

- a. Solubility (% water) N/A
- b. Density (gm/cc) N/A
- c. pH N/A
- d. % sand 95% % silt 5% % clay 0

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: St. Helena Island

a. Geographical position (latitude and longitude):

⁰
44 08.1'N

⁰
68 39.1'W

b. Depth of Water (meters): 24m (80')

c. Distance from nearest coast (kilometers): .81km (6 NM)

14. Additional information: This project utilized the bioassay and bioaccumulation information from the Stonington Federal project to assess its suitability for ocean disposal. In addition, a portion of a contaminated area of the project material was covered by a cleaner area to insure compliance with the criteria.

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Pearl E. Billings Jr.

Date issued: 30 Jan 1984 Permit No. ME-DEER-84-027

Start Date: 30 Jan 1984 Expiry Date: 30 Jan 1987

3. Country of origin of wastes and port of loading:

a. United States of America

b. Stonington Harbor, Maine

4. Specification of dredged material and process from which derived:

a. Description: Mud and Silt.

b. Mode of dredging: Clamshell and/or dragline

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): ³153m (200 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip

b. Actual start: 16 March 1984

c. Actual completion: 16 March 1984

8. Chemical composition: Utilized test data from the Stonington Harbor Federal project.

9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand _____ % silt _____ % clay _____
(see federal project data)

10. Method of packaging: (see 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: St. Helena Island

a. Geographical position (latitude and longitude):

⁰
44 0.1'N

⁰
68 39.1'W

b. Depth of Water (meters): 24m (80')

c. Distance from nearest coast (kilometers): .81km
(.5 miles)

14. Additional information: Project utilized bioassay and bioaccumulation test results to determine suitability for ocean disposal. See information from Stonington Harbor Federal project.

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Maine Department of Transportation

Date issued: 9 March 1983 Permit No. ME-DEER-83-042

Start Date: 9 March 1983 Expiry Date: 31 Dec. 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. Deer Island Thorofare, Stonington, Maine

4. Specification of dredged material and process from which derived:

a. Description: Primarily sandy clay.

b. Mode of dredging: Clamshell and/or dragline equipment

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 382m^3 (500 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 1 May 1984

c. Actual completion: 3 May 1984

8. Chemical composition:

Project utilized test data from the Stonington Harbor Federal project.

9. Properties of dredged material:

- a. Solubility (% water) N/A
- b. Density (gm/cc) N/A
- c. pH N/A
- d. % sand _____ % silt _____ % clay _____
(See comment in paragraph 8)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: St. Helena Island Disposal Site.

a. Geographical position (latitude and longitude):

[□]
44 0.1'N

[□]
68 39.1'W

b. Depth of Water (meters): 24m (80')

c. Distance from nearest coast (kilometers): .8km (.5 miles)

14. Additional information: Project utilized test data from the Stonington Federal project to determine suitability for ocean disposal.

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Merrill Industries, Inc.

Date issued: 13 May 1981 Permit No. ME-PDR-81-157

Start Date: 13 May 1981 Expiry Date: 31 Dec. 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Fore River, Portland, Maine

4. Specification of dredged material and process from which derived:

a. Description: Primarily gray organic sandy silt. Some clay.

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 994m³ (1,300 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip

b. Actual start: 3 June 1984

c. Actual completion: 3 June 1984

8. Chemical composition:

BULK CHEMICAL ANALYSIS (ppm, dry wt.)
(average of 3 sites)

Metals	May 1981	Jan 1980
Zn	92.2	62.5
Pb	9.9	23.0
Hg	.2	<1.0
Cr	18.6	19.0
Cu	34.0	29.5
Ni	29.2	19.0
Cd	.06	<1.4
As	20.3	<1.0
V	22.2	72.5

Organics

% Oil and Grease	.008	.00175
% Vol. Solids	.7	3.2

9. Properties of dredged material:

- a. Solubility (% water) 24%
- b. Density (gm/cc) N/A
- c. pH N/A
- d. % sand N/A % silt (10% fines)
% clay

10. Method of packaging: (see 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: Portland

a. Geographical position (latitude and longitude):

[°]
43 34.1'N

[°]
70 01.8'W

b. Depth of Water (meters): 41-69m (135'-225')c. Distance from nearest coast (kilometers): 11.1km
(6 NM from Cape Elizabeth)

14. Additional information: Bioassay and bioaccumulation test results from the adjacent Federal project were utilized to determine suitability for ocean disposal. See Federal project results for details. The material was determined to be similar by bulk sediment testing performed.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Massachusetts Department of Environmental
Quality Engineering

Date Issued: 15 Dec 1982 Permit No. MA-8088-82-371

Start Date: 15 Dec 1982 Expiry Date: 15 Dec 1985

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Neponset River, Milton/Boston, Massachusetts

4. Specification of dredged material and process from which derived:

- a. Description: Primarily silt and sand.
- b. Mode of dredging: Clamshell
- c. Mode of transportation: Scow

**5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material**

6. Total quantity (cubic meters): 10,437³m (13,450 c.y.)

7. Expected frequency of dumping (for reporting period):

- a. 1 trip per day
- b. Actual start: 5 Jan 1984
- c. Actual completion: 28 Nov 1984

8. Chemical composition:

<u>Elutriate (mg/L)</u>	Station 1	Station 2	Station 3
<u>Nutrients:</u>			
TKN	2.35	2.48	1.97
COD	190.3	202.6	301.3
<u>Metals:</u>			
Cd	0.006	0.006	0.006
Cr	0.04	0.02	0.02
Cu	0.01	0.01	0.76
Hg (ug/L)	0.02	0.02	0.05
Zn	0.01	0.15	0.08
Pb	0.05	0.05	0.05
V	0.05	0.05	0.05
As	0.035	0.032	0.023
Ni	0.02	0.02	0.02
<u>Organics:</u>			
Oil and Grease	2.1	72.0	72.0
% Vol. Solids	17.8	17.9	18.1
Chlorinated Hydrocarbon			
Pesticides (ppb)	5	5	5
PCB's (ppb)	3	3	3
<u>BULK SEDIMENT (ppm, dry wt)</u>			
<u>Metals</u>			
Cd	1.72	8.04	9.56
Cr	249.20	233.50	258.71
Cu	179.38	165.18	172.05
Pb	13.96	40.65	38.23
Hg (ppb)	0.782	0.388	0.353
Zn	397.43	366.68	407.82
V	160	139	178
As	0.009	0.056	0.028
Ni	32.22	35.46	25.49
<u>Organics:</u>			
Oil & Grease	10,839.04	6695.18	8096.20
COD	177,369.2	203,381.8	200,553.20
% Vol. Solids	12.22	8.62	13.19
PCB's (ppb)	3	3	3
Chlorinated Hydrocarbon	5	5	3
(Pesticides) (ppb)			
<u>Other</u>			
% Solids	35.13	34.92	33.50
TKN	4502.7	3807.5	4502.7

9. Properties of dredged materials:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand 25.7 % silt 55 % clay 19.3
 (average of 3 sites)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: Foul Area

a. Geographical position (latitude and longitude):

42° 25.7' N

70° 34.0' W

b. Depth of Water (meters): 49-91m (160'-300')

c. Distance from nearest coast (kilometers): 17.6km
(9.5 NM)

14. Additional information:

No potential for significant effects indicated by bioassay or bioaccumulation tests.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance efficiency of field observations and logistics.

This program was designated to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

P-9 M. 10f3

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: City of Lynn

Date issued: 23 Nov 1983 Permit No. MA-LYNN-83-252

Start Date: 23 Nov 1983 Expiry Date: 31 Dec. 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. Lynn Harbor, Massachusetts

4. Specification of dredged material and process from which derived:

a. Description: Silty material.

b. Mode of dredging: Clamshell and/or dragline equipment.

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 2,905³m (3,800 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 15 Feb 1984

c. Actual completion: 7 March 1984

8. Chemical composition:

BULK CHEMICAL ANALYSIS, 1980

	Station 1	Station 2	Station 3
Metals*			
Arsenic	4.76	2.59	1.78
Cadmium	4.56	4.42	4.64
Chromium	61.92	28.84	35.71
Copper	73.98	80.87	93.91
Lead	25.10	5.24	4.64
Mercury**	328.00	1,272.00	337.00
Nickel	32.59	33.12	39.28
Vanadium	66.81	16.84	5.00
Zinc	153.18	248.14	242.81
Total Phosphorus*	8.80	40.20	18.60
% Oil & Grease	.535320	.486410	.468770
% Vol. Solids	9.27	10.37	8.26
% Solids	38.67	49.85	35.00
Phenol*	0.58	0.860	0.776
PCB's, DDT and Analogues**	<5.0	<5.0	<5.0

*ppm, dry weight

**ppb, dry weight

9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand 0 % silt 80.7 % clay 19.3
(average of 3 sites)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping sites: Foul Area

a. Geographical position (latitude and longitude):

°
42 25.7'N

°
70 34.0'W

b. Depth of Water (meters): 49-91m (160'-300')c. Distance from nearest coast (kilometers): 17.6km
(9.5NM)

14. Additional information: Utilized Bioassay test results from adjacent Lynn Harbor Federal project to determine suitability for ocean disposal. The results showed no significant mortalities in any of the three phases tested and no bioaccumulation potential for any species or constituents analyzed.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:
 Division New England District N/A
2. Permit start date/expiry date:
 Permittee: Massachusetts Port Authority
 Date issued: 3 July 1984 Permit No. MA-BOSS-84-179
 Start Date: 3 July 1984 Expiry Date: 3 July 1987
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Boston Inner Harbor, Boston, Massachusetts
4. Specification of dredged material and process from which derived:
 - a. Description: Primarily sand and silt
 - b. Mode of dredging: Clamshell
 - c. Mode of transportation: Scow
5. Form in which dredged material is presented for disposal:
 Saturated cohesive & non-cohesive material
6. Total quantity (cubic meters): ³ 64,914m (84,899 c.y.)
7. Expected frequency of dumping (for reporting period):
 - a. 1 trip per day
 - b. Actual start: 4 July 1984
 - c. Actual completion: 31 August 1984

B. Chemical composition:

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Bulk Chemical Analysis (ppm dry weight)
May 1981 August 1982

As	16.0	9
Cd	3.8	.8
Cr	210.3	23
Cu	194.3	28.5
Hg	1.13	2
Ni	32	9.5
Pb	241.6	45.0
V	70.3	19.8
Zn	292.3	69.5

(average of 3 test sites)

ELUTRIATE

	May 1981	August 1982 (ppb)
As	N/A	<5
Cd	N/A	<20
Cr	N/A	<4
Cu	N/A	<2
Hg	N/A	<10
Ni	N/A	<5.7
Pb	N/A	<100
V	N/A	<6.3
Zn	N/A	509

9. Properties of dredged material:

a. Solubility (% water): N/A

b. Density (gm/cc) N/A

c. pH: N/A

d. % sand 20 % silt 80 % clay 0
(average of 3 sites)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: Normally, scows are washed down at either the disposal or dredge site.

13. Approved dumping site: Foul Area

a. Geographical position (latitude and longitude):

42° 25.7'N

70° 34.0'W

b. Depth of Water (meters): 49m-91m (160'-300')

c. Distance from nearest coast (kilometers): 17.6km
(9.5 NM)

14. Additional information:

Liquid Phase Bioassay: N/A

Suspended Particulate Phase Bioassays: N/A

Solid Phase Bioassays: No significant mortalities

Bioaccumulation: Elevated levels of Hg (0.61 ppm) in the test shrimp (Palaeomonetes pugio) and Petroleum Hydrocarbons (3.22 ppm) in the test worms (Nereis virens) were shown but the concentrations were determined to be qualitatively insignificant.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at the designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Hog Island Associates Limited Partnership

Date issued: 8 Aug 1984 Permit No. MA-HULL-84-213

Start Date: 8 Aug 1984 Expiry Date: 8 Aug 1987

3. Country of origin of wastes and port of loading:

a. United States of America

b. Hull Bay, Hull, Massachusetts

4. Specification of dredged material and process from which derived:

a. Description: Primarily sand, silt and some clay

b. Mode of dredging: Clamshell and/or dragline

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): ³ 8,487m (11,110 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 21 Aug 1984

c. Actual completion: 21 Sept 1984

8. Chemical composition:**Bulk Chemical Analysis**(ppm, dry weight)
(average of 5 sites)

Mercury	<.11
Cadmium	<.98
Chromium	13.4
Copper	22.4
Lead	17.6

Organics

Phenol (ppm)	<1.2
% Oil & Grease	.016
% Volatile Solids	2.29
PCB (ppm)	<.1

9. Properties of dredged material:

a. Solubility (% water): N/A

b. Density (gm/cc) N/A

c. pH: N/A

d. % sand 54 % silt 36 % clay 8
(average of 7 sites)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: Normally, scows are washed down at either the disposal or dredge site.

13. Approved dumping sites: Foul Area

a. Geographical position (latitude and longitude):

42° 25.7'N

70° 34.0'W

b. Depth of Water (meters): 49m-91m (160'-300')

c. Distance from nearest coast (kilometers): 17.6km
(9.5 NM)

14. Additional information:

Bioassay or Bioaccumulation testing not required due to the exclusionary criteria 227.13(b)(3) being satisfied.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at the designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Gibbs Oil Division of B.P. Oil Inc.

Date issued: 6 July 1984 Permit No. MA-BOSN-84-181

Start Date: 6 July 1984 Expiry Date: 31 Dec 1987

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Chelsea River, Revere, Massachusetts

4. Specification of dredged material and process from which derived:

- a. Description: Primarily sand, some silt and clay.
- b. Mode of dredging: Clamshell and/or dragline
- c. Mode of transportation: Scow

**5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material**

6. Total quantity (cubic meters): 7,646³m (10,000 c.y.)

7. Expected frequency of dumping (for reporting period):

- a. 1 trip per day
- b. Actual start: 12 Nov 1984
- c. Actual completion: 14 Nov 1984

B. Chemical composition:**BULK SEDIMENT ANALYSIS (ppm, dry weight)**

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	<u>North Berth</u>	<u>South Berth</u>
Mercury	1.1	2.1
Cadmium	2.1	2.8
Lead	110	182
Chromium	593	666
Copper	73.8	104
Zinc	285	371
Arsenic	6.7	9.7
Nickel	17.3	19.0
PCB	ND	ND
Kjeldahl Nitrogen	889	2,987

ND means not detectable

Organics

% Vol. Solids	2.9	7.0
% Oil and Grease	.4933	.7292

9. Properties of dredged material:

- a. Solubility (% water) N/A
- b. Density (gm/cc) N/A
- c. pH N/A
- d. % sand 80 % silt 18 % clay 2

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: Foul Area

a. Geographical position (latitude and longitude):

42° 25.7'N

70° 34.0'W

b. Depth of Water (meters): 49-91m (160'-300')

c. Distance from nearest coast (kilometers): 17.6km (9.5NM)

14. Additional information: No potential for significant effects indicated by Bioassay or Bioaccumulation tests.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Clyde Conary, Inc.

Date issued: 13 Jan 1984 Permit No. ME-DEER-84-004

Start Date: 13 Jan 1984 Expiry Date: 31 Dec. 1987

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Stonington Harbor, Stonington, ME.

4. Specification of dredged material and process from which derived:

- a. Description: Mud , sand and granite ledge.
- b. Mode of dredging: Clamshell
- c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 764.6m³ (1,000 c.y.)

7. Expected frequency of dumping (for reporting period):

- a. 1 trip per day
- b. Actual start: 26 March 1984
- c. Actual completion: 26 March 1984

8. Chemical composition: Utilized chemical test data from the Stonington Harbor Federal Project.

9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand _____ % silt _____ % clay _____
(see Federal project data)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: St. Helena Island

a. Geographical position (latitude and longitude):

44° 08.1'N

68° 39.1'W

b. Depth of Water (meters): 24m (80')

c. Distance from nearest coast (kilometers): .81km (.5

mi)

14. Additional information: Utilized bioassay and bioaccumulation information from the Stonington Federal project to determine acceptability for ocean disposal.

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Atlantic Fisheries Co., Inc.

Date issued: 20 April 1982 Permit No. ME-PORW-82-128

Start Date: 20 April 1982 Expiry Date: 31 Dec. 1985

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Portland Harbor, Portland, Maine

4. Specification of dredged material and process from which derived:

a. Description: River sediments, high water content, highly organic silt & clay.

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 2,250³ (1,720 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 4 Jan 1984

c. Actual completion: 21 April 1984

8. Chemical composition:

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BULK CHEMICAL ANALYSIS (ppm, dry weight)

	<u>West</u>	<u>East</u>
Cd	6.2	9.2
Zn	376.0	495.0
Cu	161.5	381
Hg	.74	2.1
Pb	520	762

Organic

% Oil and Grease .55 1.51

9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand N/A % silt N/A % clay N/A

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: Portland

a. Geographical position (latitude and longitude):

43° 34.1'N

70° 01.8'W

b. Depth of Water (meters): 41-69m (135'-225')

c. Distance from nearest coast (kilometers): 11.1km
(6 NM from Cape Elizabeth)

14. Additional information: The data from the adjacent Portland Harbor Federal project was used along with the applicants bulk sediment test results to determine suitability for disposal at this site.

Liquid Phase Bioassay: N/A

Solid Phase Bioassay: N/A

Bioaccumulation: N/A

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies that reflect on the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: Citgo Petroleum Corp.

Date issued: 20 Dec. 83

Permit No. 13104

Start Date: 20 Dec. 83

Expiration Date 20 Dec. 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Arthur Kill

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 33,400 cy = 25,384 m³

7. Expected frequency of dumping (for reporting period):

a. trips/day average

b. Actual start: 11 Jan 84

c. Actual completion: 16 Oct 84

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | | | |
|----------------|---------------|-----|---------------|-----|
| Petrol. Hydro. | < 50.0 | (-) | < 50.0 | (-) |
| PCB | < 0.10 | (-) | < 0.10 | (-) |
| Hg | < 0.2 | (-) | < 0.2 | (-) |
| Cd | < 0.2 | (-) | < 0.2 | (-) |
| DDT | < 0.05 | (-) | < 0.05 | (-) |
| Pb | Not available | | Not available | |
9. Properties of dredged material:
- Solubility (% water) 74.2
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 14.6 % silt 43.4 % clay 42.0
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or splithull scow
12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	17.0%
<u>Mysidopsis bahia</u>	>100.0%
<u>Menidia menidia</u>	>100.0%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	70.0%
<u>Mysidopsis bahia</u>	>100.0%
<u>Menidia menidia</u>	88.0%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	-1.00
<u>Mercenaria mercenaria</u>	0.0
<u>Nereis virens</u>	0.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any of the test species shown for the Solid phase Bioassay.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
Division North Atlantic District New York
2. Permittee: Amerada Hess
Date issued: 7 Feb. 84 Permit No. 13150
Start Date: 7 Feb. 84 Expiration Date 7 Feb. 87
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Amerada Hess
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Weeks Dredging Co.
 - c. Mode of transportation: towed barge; 4000cy capacity average
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 2,000 cy = 1520 m³
7. Expected frequency of dumping (for reporting period):
 - a. trips/day average
 - b. Actual start: 7 Feb 84
 - c. Actual completion: 16 March 84

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8. Chemical composition: in ppb	<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
Petrol. Hydro.	<50.0 (-)	<50.0 (-)
PCB	<0.10 (-)	<0.10 (-)
Hg	< 0.2 (-)	< 0.2 (-)
Cd	< 0.1 (-)	< 0.1 (-)
DDT	No available	Not available
Pb	Not available	Not available

9. Properties of dredged material:

- a. Solubility (% water) 65.0
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 38.6 % silt 44.8 % clay 16.6

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithull scow

12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	44.5%
<u>Mysidopsis bahia</u>	> 100.0%
<u>Menidia menidia</u>	> 100.0%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	17.5%
<u>Mysidopsis bahia</u>	> 100.0%
<u>Menidia menidia</u>	> 100.0%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	2.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	9.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any of the test species shown for the Solid Phase Bioassay.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
Division North Atlantic District New York
2. Permittee: Tenneco Oil Co.
Date issued: 12 Nov. 82 Permit No. 12676
Start Date: 12 Nov. 82 Expiration Date 12 Nov. 85
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Passaic River
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Weeks Dredging Co.
 - c. Mode of transportation: towed barge; 4000cy capacity average
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 16,400 cy = 12,464 m³
7. Expected frequency of dumping (for reporting period):
 - a. trips/day average
 - b. Actual start: 24 Feb 84
 - c. Actual completion: 29 Feb 84

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | |
|----------------|---------------|-------------------------|
| Petrol. Hydro. | Not available | $< 0.2 \times 10^3$ (-) |
| PCB | Not available | < 0.1 (-) |
| Hg | Not available | < 0.2 (-) |
| Cd | Not available | < 0.5 (-) |
| DDT | Not available | < 0.05 (-) |
| Pb | Not available | Not available |
9. Properties of dredged material:
- Solubility (% water) 68.0
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 11.4 silt 50.4 % clay 38.2
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or
 splithull scow
12. Procedure and site for tank washing: scow/s flushed at authorized
 disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	87.0%
<u>Mysidopsis bahia</u>	70.0%
<u>Menidia menidia</u>	62.0%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	67.0%
<u>Mysidopsis bahia</u>	50.0%
<u>Menidia menidia</u>	61.0%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	2.0
<u>Mercenaria mercenaria</u>	4.0
<u>Nereis virens</u>	3.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any of the test species shown for the Solid Phase Bioassay.

Note: All Bioassay and Bioaccumulation data is for sediment at the Texaco Inc. project, Permit #9162. Due to the close proximity of the project and the chemical similarity of the sediment, this data was used to characterize the sediment being dredge for Tenneco Oil Co. under Permit #12676.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
 Division North Atlantic District New York
2. Permittee: Union Dry Dock & Repair Co.
 Date issued: 3 Dec. 82 Permit No. 12695
 Start Date: 3 Dec. 82 Expiration Date 3 Dec. 85
3. Country of origin of wastes and port of loading:
 a. United States of America
 b. Hudson River
4. Specification of dredged material and process from which derived:
 a. Description: silty clay
 b. Mode of dredging: clamshell dredge; Weeks Dredging Co.
 c. Mode of transportation: towed barge; 4000cy capacity average
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 77,600 cy = 58976 m³
7. Expected frequency of dumping (for reporting period):
 a. trips/day average
 b. Actual start: 8 Feb 84 c. Actual completion: 21 Nov 84

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8. Chemical composition: in ppb	<u>Site Water (S.D.)</u>		<u>Elutriate (S.D.)</u>	
Petrol. Hydro.	50.0	(-)	50.0	(-)
PCB	< 0.10	(-)	< 0.10	(-)
Hg	< 0.2	(-)	< 0.2	(-)
Cd	< 0.1	(-)	< 0.1	(-)
DDT	< 0.05	(-)	< 0.05	(-)
Pb	Not available		Not available	

9. Properties of dredged material:

- a. Solubility (% water) 52.2
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 19.8 % silt 64.2 % clay 16.0

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithull scow

12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	37%
<u>Mysidopsis bahia</u>	49%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	> 100%
<u>Mysidopsis bahia</u>	48%
<u>Menidia menidia</u>	31%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	-0.7
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	-1.1

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in Nereis (0.322 ppm).

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: Perth Amboy Dry Dock

Date issued: 5 June 81

Permit No. 11945

Start Date: 4 June 81

Expiration Date 5 June 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. Arthur Kill

4. Specification of dredged material and process from which derived:

a. Description: silty sand

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

. Form in which dredged material is presented for disposal: slurry-noncohesive character.

. Total quantity (cubic meters): 21,600 cy = 16,416 m³

. Expected frequency of dumping (for reporting period):

a. trips/day average

b. Actual start: 1 March 84

c. Actual completion: 31 Mar 84

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8. Chemical composition: in ppb	<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
Petrol. Hydro.	< 01.10 ³ (-)	< 01.10 ³ (-)
PCB	< 0.10 (-)	< 0.01 (-)
Hg	< 0.2 (-)	< 0.2 (-)
Cd	< 0.10 (-)	< 0.10 (-)
DDT	< 0.05 (-)	< 0.05 (-)
Pb	Not available	Not available

9. Properties of dredged material:

- a. Solubility (% water) 64.2
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 44.2 % silt 40.8 % clay 15.0

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithull scow

12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	82%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	34%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	4.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	1.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in Nereis (1.98 ppm).

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: Consolidated Edison Co of NY Inc.

Date issued: 5 July 83

Permit No. 12911

Start Date: 5 July 83

Expiration Date 6 June 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Hudson River

4. Specification of dredged material and process from which derived:

a. Description: silty sand

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 82,800 cy = 62,928 m³

7. Expected frequency of dumping (for reporting period):

a. trips/day average

b. Actual start: 7 March 84

c. Actual completion: 7 April 84

8. Chemical composition: in ppb
- | | <u>Site Water (S.D.)</u> | <u>Elutriate (S.D.)</u> |
|----------------|--------------------------|-------------------------|
| Petrol. Hydro. | <50.0 (-) | 10,400.0 (6,023.) |
| PCB | <0.10 (-) | < 2.20 (1.49) |
| Hg | <0.20 (-) | < 0.23 (0.06) |
| Cd | 0.13 (0.01) | 1.48 (0.58) |
| DDT | <0.05 (-) | < 0.05 (-) |
| Pb | Not available | Not available |
9. Properties of dredged material:
- Solubility (% water) 53.73
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 11.3 % silt 88.4 % clay 0.0 %gravel 0.3
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or splithull scow
12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	20%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	0
<u>Mercenaria mercenaria</u>	-2.00
<u>Nereis virens</u>	1.00

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum hydrocarbons were statistically significant in Nereis (22.30 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
Division North Atlantic District New York
2. Permittee: Port Authority of NY/NJ
Date issued: 13 Aug. 75 Permit No. 9372
Start Date: 13 Aug. 75 Expiration Date 13 Aug. 85
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Hudson River
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock
 - c. Mode of transportation: towed barge; 4000cy capacity average
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 572,800 cy = 435,328 m³
7. Expected frequency of dumping (for reporting period):
 - a. trips/day average
 - b. Actual start: 11 March 84
 - c. Actual completion: 4 Aug. 84

8. Chemical composition: in ppb	<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
Petrol. Hydro.	- (-)	- (-)
PCB	- (-)	< 0.1 (-)
Hg	- (-)	< 0.2 (-)
Cd	- (-)	< 0.1 (-)
DDT	- (-)	< 0.05 (-)
Pb	Not available	Not available

9. Properties of dredged material:

- a. Solubility (% water) 63.8
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 11.26 % silt 63.03 % clay 25.71

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithall scow

12. Procedure and site for tank washing: scowls flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	87%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	27%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	-0.5
<u>Mercenaria mercenaria</u>	-1.0
<u>Nereis virens</u>	2.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum hydrocarbons were statistically significant in Mercenaria (0.27 ppm), Nereis (0.23 ppm). PCB's were statistically significant in Mercenaria (0.09 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: U.S. Gypsum

Date issued: 11 Mar. 80

Permit No. 11323

Start Date: 11 Mar. 80

Expiration Date 4 June 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. Hudson River

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredge Co.

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 156,600 cy = 119,016 m³

7. Expected frequency of dumping (for reporting period):

a. trips/day average

b. Actual start: 16 Mar 84

c. Actual completion: 30 April 84

3. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
in ppb

Petrol. Hydro.	Not available	Not available
PCB	Not available	Not available
Hg	Not available	Not available
Cd	Not available	Not available
DDT	Not available	Not available
Pb	Not available	Not available

9. Properties of dredged material:

- a. Solubility (% water) 65.0
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 11.6 % silt 18.0 % clay 10.4

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithull scow.

12. Procedure and site for tank washing: Scow/s flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	61%
<u>Mysidopsis bahia</u>	60%
<u>Menidia menidia</u>	>100 %

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	Not Available
<u>Mysidopsis bahia</u>	45%
<u>Menidia menidia</u>	>100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	0
<u>Mercenaria mercenaria</u>	1.0%
<u>Nereis virens</u>	Not Available

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum hydrocarbons were statistically significant in Mercenaria (2.1 ppm) and Nereis (13.6 ppm), PCB's were statistically significant in Nereis (0.29 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
Division North Atlantic District New York
2. Permittee: Refined suraps and Sugars (CPC International Inc.)
Date issued: 13 Dec. 74 Permit No. 9104
Start Date: 13 Dec. 74 Expiration Date 13 Dec. 1984
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Hudson River
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Weeks Dredging Co.
 - c. Mode of transportation: towed barge; 4000cy capacity average
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 56,000 cy = 42,560 m³
7. Expected frequency of dumping (for reporting period):
 - a. trips/day average
 - b. Actual start: 23 April 84
 - c. Actual completion: 30 April 84

Chemical composition: in ppb	Site Water (S.D.)	Elutriate (S.D.)
Petrol. Hydro.	<0.2 x 10 ³ (-)	Not available
PCB	<0.1 (-)	Not available
Hg	<0.2 (-)	Not available
Cd	<0.2 (-)	Not available
DDT	<0.05 (-)	Not available
Pb	Not available	Not available

Properties of dredged material:

- a. Solubility (% water) 59.1
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 7.12 % silt 43.74 % clay 49.14

Method of packing: None

Method of release: Immediate release from bottom opening doors, or
spilthull scow

Procedure and site for tank washing: Scow/s flushed at authorized
disposal site.

Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	62%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	52%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	3.0
<u>Mercenaria mercenaria</u>	-1.0
<u>Nereis virens</u>	-1.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was not statistically significant bioaccumulation of contaminants in any of the test species shown for the Solid Phase Bioassay.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: Consolidated Edison Co. of N.Y. Inc.

Date issued: 5 July 83

Permit No. 12947

Start Date: 5 July 83

Expiration Date 5 July 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. East River

4. Specification of dredged material and process from which derived:

a. Description: sand

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 7,200 cy = 5,472 m³

7. Expected frequency of dumping (for reporting period):

a. trips/day average

b. Actual start: 26 Apr. 84

c. Actual completion: 27 Apr. 84

8. Chemical composition: in ppb	<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
Petrol. Hydro.	< 50.0 (-)	< 50.0 (-)
PCB	0.05 (0.010)	0.043 (0.006)
Hg	< 0.20 (-)	< 0.20 (-)
Cd	8.67 (0.577)	12.00 (1.000)
DDT	< 0.02 (-)	< 0.02 (-)
Pb	Not available	Not available

9. Properties of dredged material:

- a. Solubility (% water) 40.75
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 93.5 % silt 4.0 % clay 2.5

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithull scow

12. Procedure and site for tank washing: Scow/s flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	68%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	90%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	-2.0
<u>Mercenaria mercenaria</u>	0
<u>Nereis virens</u>	6.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: petroleum hydrocarbons were statistically significant in Mercenaria (26.54 ppm) and Nereis (54.60 ppm). PCB's were statistically significant in Palamonetes (0.15 ppm) and Mercenaria (0.19 ppm).

P-2512.1 of 3

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
Division North Atlantic District New York
2. Permittee: El Dorado Terminals Inc.
Date issued: 15 Sept. 78 Permit No. 10713
Start Date: 15 Sept. 78 Expiration Date 15 Sept. 88
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Kill Van Kull
4. Specification of dredged material and process from which derived:
 - a. Description: silty clay
 - b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock
 - c. Mode of transportation: towed barge; 4000cy Capacity Average
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 9,000 cy = 6,840 m³
7. Expected frequency of dumping (for reporting period):
 - a. trips/day average
 - b. Actual start: 17 May 84
 - c. Actual completion: 4 Oct. 84

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | |
|----------------|---------------|---------------|
| Petrol. Hydro. | Not available | Not available |
| PCB | Not available | Not available |
| Hg | Not available | Not available |
| Cd | Not available | Not available |
| DDT | Not available | Not available |
| Pb | Not available | Not available |
9. Properties of dredged material: Not available
- a. Solubility (% water)
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 20 % silt 64 % clay 15
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or
 splithull scow
12. Procedure and site for tank washing: Scow/s flushed at authorized
 disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	50%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	Not available
<u>Mysidopsis bahia</u>	67.5%
<u>Menidia menidia</u>	95.0%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	Not available
<u>Mercenaria mercenaria</u>	0
<u>Nereis virens</u>	0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Not available

LONDON DUMPING CONVENTION

P-264 1.43

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: Port Authority of N.Y. and N.J.

Date issued: 22 April 75

Permit No. 9232

Start Date: 22 April 75

Expiration Date

3. Country of origin of wastes and port of loading:

a. United States of America

b. Newark Bay

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 104,600 cy = 79,496 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 17 May 84

c. Actual completion: 25 Sept. 84

8. Chemical composition:
in ppb

Site Water (S.D.)

Elutriate (S.D.)

Petrol. Hydro.
$$< 0.2 \times 10^3 \quad (-)$$
 0.2×10^3 (-)

PCB

<0.01 (-)

<0.01 (-)

Hg

<0.2 **(-)**

<0.2 (-)

Cd

<0.1 (-)

<0.1 (-)

DDT

<0.05 **(-)**

<0.05 **(-)**

Pb

Not available

Not available

9. Properties of dredged material:

a. Solubility (% water) 66.5

b. Density (gm/cc)	Not Available
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c. pH **Not Available**

d.	% sand	15.74	% silt	66.02	% clay	18.23
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10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithull Scow.

12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude: 40° 22'N; 73° 51'W)

b. Depth of water (meters): 20 m.

c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	Not available
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	-1.0
<u>Mercenaria mercenaria</u>	3.0
<u>Nereis virens</u>	4.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum hydrocarbons were statistically significant in Palaemonetes (0.14 ppm). Mercenaria (0.25 ppm), and Nereis (0.31 ppm). PCB's were statistically significant in Mercenaria (0.05 ppm).

LONDON DUMPING CONVENTION

P-27 1.83

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: U.S. Military Traffic Management Command

Date issued: 9 Nov. 83

Permit No. 13078

Start Date: 9 Nov. 83

Expiry Date 9 Nov. 86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Upper New York Harbor

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000cy capacity average

i. Form in which dredged material is presented for disposal: slurry-noncohesive character.

j. Total quantity (cubic meters): 1,949,500 cy = 1,481,620 m³

7. Expected frequency of dumping (for reporting period):

a. trips/day average

b. Actual start: 21 May 84

c. Actual completion: 18 Dec. 84

8. Chemical composition: in ppb	<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
Petrol. Hydro.	< 50.0 (-)	< 50.0 (-)
PCB	< 0.10 (-)	< 0.10 (-)
Hg	< 0.2 (-)	< 0.2 (-)
Cd	< 0.1 (-)	< 0.1 (-)
DDT	Not available	Not available
Pb	Not available	Not available

9. Properties of dredged material:

a. Solubility (% water) 58.4

b. Density (gm/cc) Not Available

c. pH Not Available

d. % sand 12.0 % silt 72.6 % clay 15.3

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithull scow.

12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'Wb. Depth of water (meters): 20 m.c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	15%
<u>Mysidopsis bahia</u>	35%
<u>Menidia menidia</u>	58%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	28%
<u>Mysidopsis bahia</u>	24%
<u>Menidia menidia</u>	71%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	-3.0
<u>Mercenaria mercenaria</u>	0
<u>Nereis virens</u>	-2.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum hydrocarbons were statistically significant in mercenaria (0.376 ppm) and Nereis (0.238 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: Bayonne Industries

Date issued: 7 July 83

Permit No. 12953

Start Date: 7 July 83

Expiration Date: 7 July 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. Kill Van Kull

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 281,600 cy = 214,016 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 23 May 84

c. Actual completion: 15 Sept. 84

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | |
|----------------|---------------|---------------|
| Petrol. Hydro. | Not available | Not available |
| PCB | < 0.10 (-) | < 0.10 (-) |
| Hg | < 0.20 (-) | < 0.20 (-) |
| Cd | < 0.10 (-) | < 0.10 (-) |
| DDT | < 0.05 (-) | < 0.05 (-) |
| Pb | Not available | Not available |
9. Properties of dredged material:
- Solubility (% water) 38.0
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 16.3 % silt 61.4 % clay 22.3
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or
 splithull Scow
12. Procedure and site for tank washing: scow/s flushed at authorized
 disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	40%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	Not available
<u>Mysidopsis bahia</u>	68%
<u>Menidia menidia</u>	58%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	2.0
<u>Mercenaria mercenaria</u>	0
<u>Nereis virens</u>	0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any of the test species shown for the Solid Phase Bioassay.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: EDO Corp.

Date issued: 28 Feb. 84

Permit No. 13175

Start Date: 28 Feb. 84

Expiration Date 28 Feb. 87

3. Country of origin of wastes and port of loading:

a. United States of America

b. Flushing Bay

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4,000 cy capacity average

. Form in which dredged material is presented for disposal: slurry-noncohesive character.

. Total quantity (cubic meters): 7,200 cy = 5,472 m³

. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 20 July 84

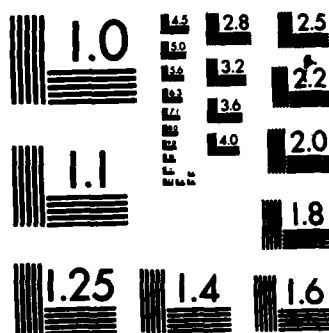
c. Actual completion: 27 July 84

OCEAN DUMPING REPORT FOR CALENDAR YEAR 1984 DREDGED
MATERIAL(U) CORPS OF ENGINEERS FORT BELVOIR VA WATER
RESOURCES SUPPORT CENTER JUL 85 WRSC-85-SR-4

NL

F/G 13/2

A 10x10 grid of squares, each containing a small black dot in the center. The grid is composed of 10 rows and 10 columns, totaling 100 squares. Each square has a white background and a single black dot positioned exactly in the middle. The dots are uniform in size and color, and the grid lines are thin and black.



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

8. Chemical composition: in ppb		<u>Site Water (S.D.)</u>	<u>Elutriate (S.D.)</u>
Petrol. Hydro.		<0.2 x 10 ³ (-)	<0.2 x 10 ³ (-)
PCB 0.1	(-)	<0.1 (-)	<0.1
Hg 0.2	(-)	<0.2 (-)	<0.2
Cd 0.1	(-)	<0.1 (-)	<0.1
DDT 0.05	(-)	<0.05 (-)	<0.05
Pb 10	(-)	<10 (-)	<10

9. Properties of dredged material:

- a. Solubility (% water) 68.7
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 23.6 % silt 47.4 % clay 29.0

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors or splithull scow

12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	48%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	42%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	1.0
<u>Mercenaria mercenaria</u>	-1.0
<u>Nereis virens</u>	-1.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum hydrocarbons were statistically significant in Mytilus (412 ppm). PCB's were statistically significant in Nereis (0.05 ppm).

Note: All Bioassay and Bioaccumulation Data is that for sediment at Federal Project #9 Flushing Bay. Due to the close proximity of the projects and the chemical similarity of the sediment, this data was used to characterize the sediment being dredged for EDO Corp under Permit #13175.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: United States Lines Inc.

Date issued: 2 April 84

Permit No. 13218

Start Date: 2 April 84

Expiration Date 2 April 87

3. Country of origin of wastes and port of loading:

a. United States of America

b. Arthur kill

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 117,000 cy = 88,920 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 9 June 84

c. Actual completion: 24 Sept. 84

8. Chemical composition: in ppb	<u>Site Water (S.D.)</u>		<u>Elutriate (S.D.)</u>	
Petrol. Hydro.	< 50.0	(-)	<50.0	(-)
PCB	< 0.10	(-)	<0.10	(-)
Hg	< 0.2	(-)	<0.2	(-)
Cd	< 0.10	(-)	<0.10	(-)
DDT	< 0.05	(-)	<0.05	(-)
Pb	Not available		Not available	

9. Properties of dredged material:

a. Solubility (% water) 60.3

b. Density (gm/cc) Not Available

c. pH Not Available

d. % sand 38.8 % silt 41.5 % clay 19.7

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors, or splithull scow.

12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'Wb. Depth of water (meters): 20 m.c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a.
- Liquid Phase Bioassay
- (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	27%
<u>Mysidopsis bahia</u>	80%
<u>Menidia menidia</u>	80%

- b.
- Suspended Particulate Phase Bioassay
- (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	25%
<u>Mysidopsis bahia</u>	24%
<u>Menidia menidia</u>	21%

- c.
- Solid Phase Bioassay
- (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	3.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	-3.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data:

Note: All Bioassay and Bioaccumulation Data is that for sediment at the Gulf Refining and Marketing Co., project, Permit #12597. Due to the close proximity of the projects and the chemical similarity of the sediment, this data was used to characterize the sediment being dredged for United States Lines Inc. under permit number #13218.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: Revere Sugar Corp.

Date issued: 5 Oct. 81

Permit No. 12102

Start Date: 5 Oct. 84

Expiration Date 5 Oct. 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. Erie Basin

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 16,000 cy = 12,160 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 1 Sept. 84

c. Actual completion: 6 Sept. 1984

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | |
|----------------|---------------|---------------|
| Petrol. Hydro. | Not available | Not available |
| PCB | < 0.01 (-) | < 0.01 (-) |
| Hg | < 0.3 (-) | < 0.3 (-) |
| Cd | < 0.17 (-) | < 0.15 (-) |
| DDT | < 0.05 (-) | < 0.05 (-) |
| Pb | Not available | Not available |
9. Properties of dredged material:
- Solubility (% water) 67.5%
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 27.3 % silt 61.5 % clay 11.2
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or splithull scow.
12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	64%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	66%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	0
<u>Mercenaria mercenaria</u>	-1.0
<u>Nereis virens</u>	6.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in Mercenaria (0.13 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
Division North Atlantic District New York
2. Permittee: N.Y.C. Dept. of Sanitation
Date issued: 25 Sept. 81 Permit No. 12094
Start Date: 25 Sept. 81 Expiration Date 25 Sept. 83
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Newton Creek
4. Specification of dredged material and process from which derived:
 - a. Description: silty sand
 - b. Mode of dredging: clamshell dredge; Weeks Dredging Co.
 - c. Mode of transportation: towed barge; 4000cy capacity average
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 4,000 cy = 3,040 m³
7. Expected frequency of dumping (for reporting period):
 - a. 2 trips/day average
 - b. Actual start: 10 Sept. 84
 - c. Actual completion: 22 Sept. 84

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | | |
|----------------|---------------|------------------------|-----|
| Petrol. Hydro. | Not available | < 01 x 10 ³ | (-) |
| PCB | Not available | < 0.1 | (-) |
| Hg | Not Available | < 0.5 | (-) |
| Cd | Not available | < 0.5 | (-) |
| DDT | Not available | < 0.05 | (-) |
| Pb | Not available | Not available | |
9. Properties of dredged material:
- Solubility (% water) 69.0%
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 43 % silt 40 % clay 17
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or splithull scow.
12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	76%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	42%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	63%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	4.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	4.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: PCB's were statistically significant in *Mercenaria* (0.07 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: Port Authority of N.Y. and N.J.

Date issued: 15 Oct. 75

Permit No. 9466

Start Date: 15 Oct. 75

Expiry Date 15 Oct. 85

3. Country of origin of wastes and port of loading:

a. United States of America

b. Buttermilk Channel

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 7,200 cy = 5472 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 24 Oct. 84

c. Actual completion: 24 Oct. 84

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | | | |
|----------------|---------------|-----|---------------|-----|
| Petrol. Hydro. | < 50 | (-) | < 50 | (-) |
| PCB | < 0.10 | (-) | < 0.10 | (-) |
| Hg | < 0.2 | (-) | < 0.2 | (-) |
| Cd | < 0.1 | (-) | < 0.1 | (-) |
| DDT | < 0.05 | (-) | < 0.05 | (-) |
| Pb. | Not available | | Not available | |
9. Properties of dredged material:
- Solubility (% water) 63.2
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 29.8 % silt 52.2 % clay 18.0
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or splithull scow.
12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	72%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	75%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	1.0
<u>Mercenaria mercenaria</u>	-2.0
<u>Nereis virens</u>	0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum hydrocarbons were statistically significant in Mercenaria (0.49 ppm) and Nereis (0.838).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: Coastal Dry Dock Co.

Date issued: 30 Oct. 84

Permit No. 13403

Start Date: 30 Oct. 84

Expiration Date 5 Nov. 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. East River

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 18,000 cu. yd. = 13,763 cu. m.

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 30 Oct. 84

c. Actual completion: 4 Nov. 84

8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb
- | | | |
|----------------|------------------------------------|------------------------------------|
| Petrol. Hydro. | Not available | Not available |
| PCB | < 0.1 (-) | < 0.15 (0.03) |
| Hg | < 0.37 (0.06) | < 0.2 (-) |
| Cd | < 7.80 (0.89) | < 3.17 (0.29) |
| DDT | < 0.05 (-) | < 0.05 (-) |
| Pb | Not available | Not available |
9. Properties of dredged material:
- Solubility (% water) 56.0
 - Density (gm/cc) Not Available
 - pH Not Available
 - % sand 5.3 % silt 68.5 % clay 27.2
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors, or splithull scow.
12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.
13. Approved dumping site:
- Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - Depth of water (meters): 20 m.
 - Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	68%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	40%
<u>Mysidopsis bahia</u>	68%
<u>Menidia menidia</u>	> 100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	2.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	1.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in palaemonetes (12.77 ppm), Mercenaria (1.49 ppm), Nereis (30.35 ppm) PCB's were statistically significant, in Nereis (0.39 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

. Issuing authority:

Division South Atlantic

District Jacksonville

. Permit start date/expire date:

Permittee: U.S. Navy

Date issued: 29 June 1984

Permit no. 84J-2681

Start date: 29 June 1984

Expire date: 6 September 1984

. Country of origin of wastes and port of loading:

a. United States of America

b. Mayport, Florida; U. S. Naval Base

. Specification of dredged material and process from which derived:

a. Description: Gray and black organic, silty and clay sizes

b. Mode of dredging: Hopper dredge - suction

c. Mode of transportation: Hopper dredge

. Form in which dredged material is presented for disposal: Slurry, oncohesive

. Total quantity (cubic meters): 238,090 M³

. Expected frequency of dumping (for reported period):

a. Daily

b. Actual start: 26 July 1984

c. Actual completion: 6 September 1984

. Chemical composition: See attached

. Properties of dredged material:

a. Solubility (% water): Not available

b. Density (gm/cc): 2600 (Absolute)

c. pH: Not available

d. % sand _____ % silt _____ % clay _____: Not available

10. Method of packaging: Not applicable
11. Method of release: Bottom dump
12. Procedure and site for tank washing: Flushed at disposal site
13. Approved dumping site:
 - a. Geographical position (latitude and longitude):
30° 21' 30", 81° 17' 26"; 30° 20' 30", 81° 17' 26"
30° 20' 30", 81° 18' 34"; 30° 21' 30", 81° 18' 34"
 - b. Depth of water (meters): 15 meters
 - c. Distance from nearest coast (kilometers): 9 km
14. Additional information:

U. S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC CORPS OF ENGINEERS MARIETTA, GEORGIA	DISTRICT Jacksonville
	PROJECT Mayport Turning Basin
	CONTRACT NO. --
GENERAL TEST REPORT (SEDIMENT)	DATE REPORTED 7 March 1977
	WORK ORDER NO. 0374
DESCRIPTION Sediment Samples	REQ. NO. 123-225-55-1 Ref. Recon. ED-77-36
SOURCE	BASE UNIT COSY --
FOR USE AS:	DATE SAMPLE RECEIVED 28 January 1977
TESTED FOR: Chemical Analysis (See below)	LAB NO. See below



MEETS
SPECIFICATIONS

N/A



FAILS
SPECIFICATIONS (See below)

Lab. No.	3S 308	3S 309	3S 310	3S 311
Field Sample No.	Mayport 1	Mayport 2	Mayport 3	Mayport
Date	1-17-77	1-17-77	1-17-77	1-17-77
Volatile Solids	8.14	17.17	13.52	0.37
T.V.S. Formula EC	8.45	16.84	14.60	1.44
Total Organic Carbon	1.24	3.00	2.62	< 0.10
C.O.D.	7.28	15.84	13.55	0.12
Nitrogen, Kjeldahl	0.212	0.578	0.318	0.014
Ammonia Nitrogen as NH ₃	0.008	0.022	0.020	0.002
Nitrite Nitrogen as NO ₂	0.000014	0.000022	0.000022	0.000025
Nitrate Nitrogen as NO ₃	0.00012	0.00041	0.00036	0.00012
Oil and Grease	0.20	0.36	0.64	0.06
Lead	0.0014	0.0026	0.0070	0.0004
Zinc	0.0030	0.0052	0.0152	0.0003
Mercury	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Soluble Phosphorus as PO ₄	0.0010	0.0023	0.0030	0.0002
Total Phosphorus as PO ₄	0.274	0.358	0.275	0.114
Iron	1.2	2.0	1.9	0.042
Cadmium	0.00008	0.00010	0.00016	0.00006
Arsenic	0.00038	0.00080	0.00040	0.00006
Chromium	0.0020	0.0025	0.0045	< 0.0005
Nickel	0.0012	0.0019	0.0019	< 0.0005
Copper	0.00065	0.00092	0.00360	0.00032
Beryllium	0.00007	0.00011	0.00010	< 0.00005
Selenium	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Vanadium	0.0029	0.0039	0.0036	< 0.0005

REMARKS:

REPORTED BY:	☐ PHONE	☐ WIRE	TESTED BY JL, JH	CHECKED BY DW
DATE			SAMPLED BY	

LABORATORY

Description: Sediment Samples
 Tested For: Chemical Analysis (see below)
 Date Received: 29 Sept. 1977
 Date Tested: 10 thru 23 October 1977
 Date Reported: 4 November 1977

Location: Jacksonville
 Project: Mayport Turning Basin
 Reqn No. 03-120-ENG-35-77
 Work Order No. 0374
 Ref. Reqn ED-77-36

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY CORPS OF ENGINEERS, 611 SOUTH CUBB DR., WAREHOUSING, GA. 30061

PERCENT BY WEIGHT (DRY BASIS)

Lab. No.	35-993	35-994	35-995	35-996
Field Sample No.	1	2	3	4
Date	0924	0924	0940	0900
Volatiles Solids	9-27-77	9-27-77	9-27-77	9-27-77
T.V.S. Formula EC	6.32	17.30	9.61	4.48
Total Organic Carbon	5.71	14.71	9.35	4.59
C.C.D.	2.29	3.84	2.11	1.33
Nitrogen, Kjeldahl	5.50	13.66	8.20	3.54
Ammonia Nitrogen as NH ₃	0.130	0.435	0.205	0.104
Nitrite Nitrogen as NO ₂	0.0130	0.0436	0.0238	0.0147
Nitrate Nitrogen as NO ₃	0.00010	0.00024	0.00013	0.00009
Oil and Grease	0.00002	0.00006	0.00008	0.00002
Lead	0.00	0.21	0.09	0.04
Zinc	0.0061	0.00201	0.0201	0.0061
Mercury	0.0032	0.0088	0.0078	0.0026
Soluble Phosphorus as PO ₄	<0.00002	<0.00002	<0.00002	<0.00002
Total Phosphorus as PO ₄	0.00103	0.00962	0.00217	0.00219
Iron	0.423	0.417	0.459	0.344
Cadmium	9.5	1.7	1.7	0.74
Artenic	<0.00003	<0.00003	<0.00003	<0.00003
Chromium	0.0026	0.00100	0.00070	0.0016
Nickel	0.00215	0.0015	0.0015	0.00165
Copper	0.0007	0.0010	0.0012	0.0006
Beryllium	0.00059	0.00280	0.00190	0.00110
Selenium	0.00007	0.00015	0.00013	0.00005
Vanadium	<0.00005	<0.00005	<0.00005	<0.00005
	0.0011	0.0010	0.0013	0.0010

Tested By: JX. MH
 Checked By: E.

P35 N. 4 of 4

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing authority:

Division South Atlantic

District Jacksonville

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers (U. S. Navy)

Date issued: 28 July 1983

Permit no. 83J-0492

Start date: 28 July 1983

Expire date: 28 July 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. Canaveral Harbor, Florida

4. Specification of dredged material and process from which derived:

a. Description: Material is poorly graded sand with a trace of gravel size shell fragments

b. Mode of dredging: Hopper dredge

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal: Slurry, noncohesive

6. Total quantity (cubic meters): 550,090 M³

7. Expected frequency of dumping (for reported period):

a. Daily

b. Actual start: 5 December 1984

c. Actual completion: 25 January 1985

8. Chemical composition:

a. Elutriate test results:

(1) Nutrients:

Nitrogen, Ammonia, mg/l
Ortho Phosphorus, mg/l

Range
0.47-4.77
<0.005-0.40

(2) Metals: mg/l

	<u>Range</u>
Lead	1.1-2.8
Zinc	18-77
Iron	1.6-16
Nickel	1.0-2.7
Copper	1.2-25
Manganese	0.5-7.5
Silver	<0.5
Mercury	<0.5-5.0
Selenium	<5

Organics:

	<u>Range</u>
Oil & Grease	0.2-9
PCB's, mg/l	<2

9. Properties of dredged material:

- a. Solubility (% water): Not available
- b. Density (gm/cc): .2514 (Absolute)
- c. pH: Not available
- d. % sand _____ % silt _____ % clay _____: Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hopper flushed at disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude):

28° 19' 53", 80° 31' 08"; 28° 18' 50", 80° 29' 40"
 28° 17' 35", 80° 30' 52"; 28° 18' 38", 80° 32' 20"

b. Depth of water (meters): 12 meters

c. Distance from nearest coast (kilometers): 6.7 km

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South AtlanticDistrict Jacksonville

2. Permit start date/expire date:

Permittee: Jacksonville ShipyardsDate issued: 8/14/80Permit No. 80H-1161

Start Date: _____

Expiry Date: 8/14/86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Jacksonville Harbor

4. Specification of dredged material and process from which derived:

a. Description: River Siltb. Mode of dredging: Bucketc. Mode of transportation: Bottom Dump Barge

5. Form in which dredged material is presented for disposal:

6. Total quantity (cubic meters): 44,240

7. Expected frequency of dumping (for reporting period):

a.

b. Actual start: _____

c. Actual completion: _____

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Open doors of bottom dump barge

12. Procedure and site for tank washing:

13. Approved dumping site:

a. Geographical position (latitude and longitude): Lat. 30°21'45" N
Long. 81°18'00" Wb. Depth of water (meters): 12.80c. Distance from nearest coast (kilometers): 9.15

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South Atlantic District Jacksonville

2. Permit start date/expire date:

Permittee: Jacksonville Shipyards

Date issued: 8/14/80 Permit No. 80H-1162

Start Date: _____ Expiry Date: 8/14/86

3. Country of origin of wastes and port of loading:

a. United States of America

b.

4. Specification of dredged material and process from which derived:

a. Description: River Silt

b. Mode of dredging: Bucket

c. Mode of transportation: Bottom Dump Barge

5. Form in which dredged material is presented for disposal:

6. Total quantity (cubic meters): 80,130

7. Expected frequency of dumping (for reporting period):

a.

b. Actual start: _____ c. Actual completion: _____

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Open doors of bottom dump barge

12. Procedure and site for tank washing:

13. Approved dumping site:

a. Geographical position (latitude and longitude): Lat. 30°21'45"N
Long. 81°18'00" Wb. Depth of water (meters): 12.80c. Distance from nearest coast (kilometers): 9.15

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South AtlanticDistrict Jacksonville

2. Permit start date/expire date:

Permittee: Jacksonville Port AuthorityDate issued: 5/31/83Permit No. 82J-0030

Start Date: _____

Expiry Date: 5/31/86

3. Country of origin of wastes and port of loading:

a. United States of America

b. Jacksonville Harbor

4. Specification of dredged material and process from which derived:

a. Description: River Siltb. Mode of dredging: Bucketc. Mode of transportation: Bottom Dump Barge

5. Form in which dredged material is presented for disposal:

6. Total quantity (cubic meters): 42,894

7. Expected frequency of dumping (for reporting period):

a.

b. Actual start: 12/4/84c. Actual completion: 1/7/85

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Open doors of bottom dump barge

12. Procedure and site for tank washing:

13. Approved dumping site:

a. Geographical position (latitude and longitude): Lat. 30°21'45"N
Long. 81°18'00"Wb. Depth of water (meters): 12.80c. Distance from nearest coast (kilometers): 9.15

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South Atlantic District Jacksonville

2. Permit start date/expire date:

Permittee: Puerto Rico Port AuthorityDate issued: May 5, 1984 Permit No. 84J-0678Start Date: May 25, 1984 Expiry Date: March 5, 1987

3. Country of origin of wastes and port of loading:

a. United States of America

b.

4. Specification of dredged material and process from which derived:

a. Description: Mostly Silt with some sandsb. Mode of dredging: Bucketc. Mode of transportation: Bottom dump barge

5. Form in which dredged material is presented for disposal:

6. Total quantity (cubic meters): 241,570

7. Expected frequency of dumping (for reporting period):

a.

b. Actual start: May 25, 1984 c. Actual completion: August 16, 1984

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand _____ % silt _____ % clay _____

10. Method of packaging:

11. Method of release: Open doors of bottom dump barge

12. Procedure and site for tank washing:

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____

Lat. 18°30'40", Long. 66°9'00"

b. Depth of water (meters): _____

c. Distance from nearest coast (kilometers): _____

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

P-41/152

1. Issuing Authority:

Division: South Pacific

District: Los Angeles

2. Permit start date/expire date:

Permittee: Port of Los Angeles

Date issued: 21 Nov 83

Permit No. 83-045

Start Date: 21 Nov 83

Expiry Date: 21 Nov 86

3. Country of Origin of wastes and port of loading:

a. United States of America, California

b. Port of Los Angeles

4. Specification of dredged material and process from which derived:

a. Description:

b. Mode of dredging: Clamshell dredge

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 93,281

7. Expected frequency of dumping (for reported period):

a. Daily during dredging period

b. Actual start: May 1984

c. Actual completion: April 1984

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH:

d. % sand: % silt: % clay

10. Method of packaging:

11. Method of release: Bottom dumping from barge

12. Procedure and site for tank washing: Hosing down at approved dump site

13. Approved dump site:

a. Geographical position (latitude and longitude): 33° 37' 06" N
118° 17' 24" W

b. Depth of water (meters): 183

c. Distance from nearest coast (kilometers): 10

14. Additional information: None

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

P-42 n. 1 of 2

1. Issuing Authority:

Division: South Pacific

District: Los Angeles

2. Permit start date/expire date:

Permittee: US Air Force

Date issued: 17 Feb 1984

Permit No. 84-025

Start Date: 17 Feb 1984

Expiry Date: 17 Feb 1987

3. Country of Origin of wastes and port of loading:

a. United States of America, California

b. Vandenberg AFB

4. Specification of dredged material and process from which derived:

a. Description: Fine sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 41,823

7. Expected frequency of dumping (for reported period):

a. Daily during dredging period

b. Actual start: April 1984

c. Actual completion: May 1984

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a. Solubility (% water):

c. pH:

10. Method of packaging:

12. Procedure and site for tank washing: Hosing down at approved dump site

a. Geographical position (latitude and longitude): 34° 30' 25" N
120° 51' 09" W

b. Depth of water (meters): 300

o. Distance from nearest coast (kilometers): 20

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division: South Pacific

District: Los Angeles

2. Permit start date/expire date:

Permittee: US Navy

Date issued: 22 March 84

Permit No. 84-26

Start Date: 22 March 84

Expiry Date: 22 March 87

3. Country of Origin of wastes and port of loading:

a. United States of America, California

b. Port of San Diego

4. Specification of dredged material and process from which derived:

a. Description: Sand and Silt

b. Mode of dredging: Clamshell

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 331,800 CUBIC YARDS!!!!!! = 253,694 m³

7. Expected frequency of dumping (for reported period):

a. Daily during dredging period

b. Actual start: April 84

c. Actual completion: May 84

8. Chemical composition:

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9. Properties of dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH:

d. % sand: % silt: % clay

10. Method of packaging:

11. Method of release: Bottom dumping from barge

12. Procedure and site for tank washing: Hosing down at approved dump site

13. Approved dump site:

a. Geographical position (latitude and longitude): 32° 36' 50" N
117° 20' 40" W

b. Depth of water (meters): 183

c. Distance from nearest coast (kilometers): 10

14. Additional information: None

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

P-44 B 1.f2

1. Issuing Authority:

Division: South Pacific

District: Los Angeles

2. Permit start date/expire date:

Permittee: US Navy

Date issued: 02 Oct 84

Permit No. 84-162

Start Date: 02 Oct 84

Expiry Date: 02 Oct 87

3. Country of Origin of wastes and port of loading:

a. United States of America, California

b. Port of San Diego

4. Specification of dredged material and process from which derived:

a. Description: Bay mud, silty-clay, and sand

b. Mode of dredging: Clamshell

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 45,876

7. Expected frequency of dumping (for reported period):

a. Daily during dredging period

b. Actual start: 26 Nov 1984

c. Actual completion: 05 Dec 1984

8. Chemical composition:

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9. Properties of dredged material:

- a. Solubility (% water): 25%
- b. Density (gm/cc):
- c. pH: 7
- d. % sand: 30 % silt: 30 % clay 40

10. Method of packaging:

11. Method of release: Soow

12. Procedure and site for tank washing: Circle dumpsite with soow open for 5 minutes

13. Approved dump site:

- a. Geographical position (latitude and longitude): 32° 36' 50" N
117° 20' 40" W
- b. Depth of water (meters): 183
- c. Distance from nearest coast (kilometers): 10

14. Additional information: None

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

P 45 Pg 1 of 2

1. Issuing Authority:

Division: South Pacific

District: Los Angeles

2. Permit start date/expire date:

Permittee: City of Newport

Date issued: 28 Jan 83

Permit No. 82-112

Start Date: 28 Jan 83

Expiry Date: 28 Jan 86

3. Country of Origin of wastes and port of loading:

a. United States of America, California

b. Newport Harbor

4. Specification of dredged material and process from which derived:

a. Description: Sand and silt

b. Mode of dredging: Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 7,047

7. Expected frequency of dumping (for reported period):

a. Once per month

b. Actual start: 28 March 1984

c. Actual completion: 30 December 1984

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a. Solubility (% water):

c. pH:

10. Method of packaging:

12. Procedure and site for tank washing: Hosing down at approved dump site

a. Geographical position (latitude and longitude): 33° 31' 42" N
117° 54' 48" W

c. Distance from nearest coast (kilometers): 4.2

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

P-46 1 of 2

1. Issuing Authority:

Division: South Pacific

District: Los Angeles

2. Permit start date/expire date:

Permittee: Dover Shores

Date issued: 12 Nov 82

Permit No. 81-197

Start Date: 12 Nov 82

Expiry Date: 12 Nov 85

3. Country of Origin of wastes and port of loading:

a. United States of America, California

b. Newport Harbor

4. Specification of dredged material and process from which derived:

a. Description: Silt

b. Mode of dredging: Suction

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 15,292

7. Expected frequency of dumping (for reported period):

a. Daily during dredging period

b. Actual start: 1 Jan 84

c. Actual completion: 30 Dec 84

8. Chemical composition:

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9. Properties of dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH:

d. % sand: % silt: % clay

10. Method of packaging:

11. Method of release: Bottom dumping from barge

12. Procedure and site for tank washing: Hosing down at approved dump site

13. Approved dump site:

a. Geographical position (latitude and longitude): 33° 31' 42" N
117° 54' 48" W

b. Depth of water (meters): 450

c. Distance from nearest coast (kilometers): 7

14. Additional information: None

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

P-47 1.f2

1. Issuing Authority:

Division: South Pacific

District: Los Angeles

2. Permit start date/expire date:

Permittee: Port of Los Angeles

Date issued: 4 June 82

Permit No. 81-090

Start Date: 4 June 82

Expiry Date: 4 June 87

3. Country of Origin of wastes and port of loading:

a. United States of America, California

b. Port of Los Angeles

4. Specification of dredged material and process from which derived:

a. Description: Sand and Silt

b. Mode of dredging: Bucket and/or dragline

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry

6. Total quantity (cubic meters): 4,282

7. Expected frequency of dumping (for reported period):

a. Daily during dredging period

b. Actual start: 1 Jan 84

c. Actual completion: 30 Dec 84

8. Chemical composition:

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9. Properties of dredged material:

a. Solubility (% water):

b. Density (gm/cc):

c. pH:

d. % sand: % silt: % clay

10. Method of packaging:

11. Method of release: Bottom dumping from barge

12. Procedure and site for tank washing: Hosing down at approved dump site

13. Approved dump site:

a. Geographical position (latitude and longitude): 33° 37' 06" N
118° 17' 24" W

b. Depth of water (meters): 183

c. Distance from nearest coast (kilometers): 10

14. Additional information: None

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division Pacific Ocean District Honolulu

2. Permit start date/expire date:

Permittee: U.S. NavyDate issued: Nov. 21, 1983 Permit No. PODCO-O 1751-DStart Date: Feb. 18, 1984 Expiry Date: Dec. 31, 1986

3. Country of origin of wastes and port of loading:

a. United States of America

b. Pearl Harbor, Hawaii

4. Specification of dredged material and process from which derived:

a. Description: silt, sand, coral

b. Mode of dredging: Hopper Dredge ESSAYONS

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled silt

6. Total quantity (cubic meters): 1,890,000 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 5-7 times/day, 7 days/week.

b. Actual start: Feb. 18, 1984 c. Actual completion: May 12, 1984

8. Chemical composition:

RANGES

1. percent organic: 5.9 - 25.9
2. " carbonate: 11.5 - 86.1
3. Phenol (mg/kg): 0.17 - 1.00
4. Oil and grease: (g/kg): 0.26 - 6.23

9. Properties of dredged material:

- a. Solubility (% water) N/A
- b. Density (gm/cc) N/A
- c. pH 7.92 - 8.23
- d. % sand 10-40 % silt 60-90 % clay _____
and clay

10. Method of packaging:

11. Method of release: Bottom release - immediate.

12. Procedure and site for tank washing: Hoppers washed at dump site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 21°15'10"N
157°56'50"W
- b. Depth of water (meters): 500
- c. Distance from nearest coast (kilometers): 7.4

14. Additional information:

P-4/9 1st

IMCO Report on Ocean Dumping - CY 1984

1. Issuing authority:

Division Pacific Ocean District Honolulu

2. Date issued: 8 Nov. 1983 State of Hawaii

3. Country of origin of dredged material or other matter:

United States of America, Hawaii

Port of Loading (Activity location): Honolulu Harbor

4. General description of dredged material, dredging, and transportation made:

a. Description: Soft Gray black mud and clay

b. Mode of dredging: Clamshell

c. Mode of transportation: Dump Scow

5. Form in which dredged material is presented for disposal:

Slurry-noncohesive character

6. Material quantity of material dumped in the ocean and dates of actual disposal during reporting calendar year:

46,376 cubic meters

19 July thru 14 August 1984

7. Period for which permit is valid or project is scheduled:

Valid to 12/31/86: Dredging schedule - 45 days

8. Expected frequency of dumping:

4 times daily, 5 days per week

9. Chemical composition of the dredged material as reported in elutriate test concentrations or "bulk" or "total" analyses as appropriate:
- a. Elutriate test results:
- Not Available.
10. Properties of the dredged material:
- a. Solubility (% water): Not Available.
- b. Density (gm/cc): " "
- c. pH: " "
11. Method of packaging: Not applicable.
12. Method of release:
- Bottom release.
- Time to release:
- Immediate.
13. Procedure and site for subsequent barre and bonnet washing:
- Scow flushed at authorized disposal site.
14. Approved dumping site:
- a. Geographical position(latitude and longitude):
- 21°15'18"N (Lat), 157°56'50"W (Long)
- b. Depth of water (meters): 452 meters
- c. Distance (kilometers) from nearest coast:
- 2 kilometers
15. Additional information-relevant factors listed in Annex III of the Convention, e.g., toxicity, other biological properties:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Stonington Harbor Federal ProjectDate issued: N/A Permit No. N/AStart Date: N/A Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Stonington, Maine

4. Specification of dredged material and process from which derived:

a. Description: Primarily sand, silt and clay.

b. Mode of dredging: Dragline

c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material6. Total quantity (cubic meters): 44,775³m (58,560 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 1 trip per day

b. Actual start: 3 Jan 1984c. Actual completion: 17 May 1984

B. Chemical composition:

BULK SEDIMENT ANALYSIS (ppm, dry weight)
(average of 5 sites)

Metals

Hg	10.43
Pb	184.05
Zn	161.94
As	5.61
Cd	4
Cr	61.27
Cu	113.95
Ni	37.29
Ag	13.39
V	211.67

Organics

% Oil & Grease	.02331
% Vol. Solids	17.9
(ppb) DDT	3.33 (average of 2 sites)
(ppb) Polychlorinated biphenyls	.88 (average of 2 sites)

Nutrients

Kjeldahl Nitrogen 1522.6

Other

COD 32,495.8

SUMMARY OF ELUTRIATE TEST RESULTS (ppb, unless
otherwise noted)

	1980 Drudge Site Water (average of 2 sites)	1980 Sediment Elutriate (average of 6 sites)
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Metals

Mercury	<.20	.205
Lead	.010	<.010
Zinc	.013	.012
Arsenic	<.005	.123
Chromium	<.010	<.010
Copper	.047	.040
Nickel	<.020	<.020
Ammonia	<.1	<.1
Vanadium	<.010	<.010

C-1 17. 3.44

Organics

Total PCB, (ppt)	<.1	5.3
Total DDT, (ppt)	<.1	<.1

Other

Nitrite Nitrogen	.02	.241
Nitrate Nitrogen	.33	.64

Sulfate (SO ₄) (PPM)	2665	2587
----------------------------------	------	------

Oil & Grease (PPM)	<5.	<.5
Phosphorus-Ortho (PPM)	<.010	<.605
Phosphorus-Total (PPM)	.43	1.01

9. Properties of dredged material:

- Solubility (% water) N/A
- Density (gm/cc) N/A
- pH N/A
- % sand 21 % silt 59 % clay 20
(average of 7 values)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: St. Helena Island

a. Geographical position (latitude and longitude):

44° 08.1' N

68° 39.1' W

C-1 p. 4.f4

b. Depth of Water (meters): 24m (80')

c. Distance from nearest coast (kilometers): .81m (.5 Miles)

14. Additional information:

Liquid Phase Bioassay: No significant mortalities

Suspended Particulate Phase Bioassay: No significant mortalities

Solid Phase Bioassays: No significant mortalities

Bioaccumulation: Constituents analyzed were Cadmium, Mercury, Polychlorinated biphenyls (PCB's), the dichloro-diphenyl-trichloroethane (DDT) family and petroleum hydrocarbons - only one test - Cd in hard clams (.176 ppm) - demonstrated a statistical potential for bioaccumulation. However, this was determined to have negligible effects on the marine environment and the Human food chain. The material was considered acceptable for ocean disposal.

C-2 1.54

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Portland Harbor Federal Project

Date issued: N/A Permit No. N/A

Start Date: N/A Expiry Date: N/A

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Portland Harbor, Portland, Maine

4. Specification of dredged material and process from which derived:

- a. Description: Primarily silt, clay and fine sand.
- b. Mode of dredging: Clamshell
- c. Mode of transportation: Scow

5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material

6. Total quantity (cubic meters): 12,807m³ (16,750 c.y.)

7. Expected frequency of dumping (for reporting period):

- a. 1 trip per day
- b. Actual start: 21 Aug 1984
- c. Actual completion: 23 Sept 1984

8. Chemical composition: See Attached Sheet

9. Properties of dredged material:

a. Solubility (% water) 18%

b. Density (gm/cc) .976

c. pH 7.4

d. % sand 80.25 % silt 7.43 % clay 12.32
(average of 3 values)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while the scow is held at a complete halt.

12. Procedure and site for tank washing: Hopper is washed at an authorized disposal area.

13. Approved dumping site: Portland

a. Geographical position (latitude and longitude):

⁰
43 34.1'N

⁰
70 01.8'W

b. Depth of Water (meters): 41-69m (135'-225')c. Distance from nearest coast (kilometers): 11.1km
(6 NM)

14. Additional information:

Liquid Phase Bioassay: No significant mortality rates

Suspend Particulate Phase Bioassay: One species of Zooplankton Acetia tonsa did have significant mortalities; all other organisms in this test did not have any significant mortalities.

Solid Phase Bioassay: No significant mortality rates.

Bioaccumulation: None performed

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

BULK SEDIMENT ANALYSIS
FORE RIVER -- HEAVY METALS

CATEGORIES	MEAN (PPM)		RANGE (PPM)	
	depth (ft) (0.0-0.25)	depth (ft) (below 0.25)	depth (ft) (0.0-0.25)	depth (ft) (below 0.25)
Mercury	0.4652	0.1234	0.059-1.4	0.0-0.35
Lead	90.166	49.06	20-212	20-77
Zinc	150.166	97.66	20-350	50-156
Arsenic	9.35	3.22	1.1-21	1.0-2.0
Cadmium	3.488	2.42	1.0-7.0	1.0-5.9
Chromium	56.333	53.2	10-95	20-113
Copper	41.44	31.26	11-84	10-47
Nickel	50.166	43.66	10-93	20-67
Vanadium	91.111	73.86	45-156	37-121

Organics

% Oil and Grease (mean) .230
% Total Vol. Sol-EPA (mean) 12.0

LONDON DUMPING CONVENTION

C-3 13.1.85

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division New England District N/A

2. Permit start date/expiry date:

Permittee: Chelsea River Federal Project

Date issued: N/A Permit No. N/A

Start Date: N/A Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Chelsea River, Boston, MA

4. Specification of dredged material and process from which derived:

a. Description: Dark green organic fine sandy clay, dark green to black organic fine sandy clay.

b. Mode of dredging: Clamshell- Bucket

c. Mode of transportation: Scow

**5. Form in which dredged material is presented for disposal:
Saturated cohesive & non-cohesive material**

6. Total quantity (cubic meters): 4,358³ (5700 c.y.)

7. Expected frequency of dumping (for reporting period):

a. 2 scows per day

b. Actual start: 22 July 1984

c. Actual completion: 30 July 1984

8. Chemical composition:

BULK SEDIMENT ANALYSIS

1. Metals (Avg) PPM, dry weight

Hg	0.7
Pb	54.7
Zn	137.3
As	8.4
Cd	3.9
Cr	110.7
Cu	38.8
Ni	32.8
Ag	127.2
V	41.7

2. Organics

% Oil and Grease 0.3125

% vol. solids 4.7

3. Other

COD (chemical oxygen demand) PPM 70,107

LIQUID PHASE TEST RESULTS

1. Nutrients (PPM)	site A	Dredge Site Water	site C	Dredge Site Water	site D	Dredge Site Water
Nitrite	<.005	<.005	<.005	<.005	<.005	<.005
Nitrogen						
Nitrate	.10	.17	.02	.09	.02	.12
Nitrogen						
Ammonia	10.0	1.2	7.23	<.5	1.03	.5
Nitrogen						
Ortho	.01	.06	.02	.06	.01	.06
Phosphorus						
Total	.01	.06	.03	.06	.01	.06
Phosphorus						

2. Metals (ppb)

Hg	<.005	<.005	<.005	<.005	.37	<.5
Pb	14.7	14.0	15.0	14	15	10
Zn	56.7	100	28.3	2	26.7	1.0
As	<1.8	<1.0	3.2	<1.0	<1.0	<1.0
Cd	<.5	13.0	<.5	16.5	4.83	9.0
Cr	<4.0	<4.0	<4.0	<4.0	4.7	<4.0
Cu	<2.0	5.0	<4.3	<2.0	2.7	11.0
Ni	<5.0	30.0	16.7	10.0	20.0	10.0
Ag	-	-	-	-	<90.0	<80.0
V	<80.0	<80.0	<97.0	<80.0	<40.0	<40.0

Organics (ppm)

Oil and Grease (PPM)	<.5	<.5	.7	<.5	<.5	.6
Total PCB (PPM)	.5	<.001	-	-	.08	.001
Total DDT (ppb)	<.001	<.001	-	-	<.001	<.001

4. Other

Sulfate (PPM)	2,550	3,230	2,380	3,260	2,627	3,360
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9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH 7.48 (average of 4 values)

d. % sand 14.0 % silt 32.5 % clay 53.5
(average of 10 values)

10. Method of packaging: (See 4c)

11. Method of release: Six bottom doors operated hydraulically. Material is released intermittently while scow is held at a complete halt.

12. Procedure and site for tank washing: Scows are washed either at the dredge or disposal site.

13. Approved dumping site: Foul Area

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a. Geographical position (latitude and longitude):

[°]
42 25.7'N

[°]
70 34.0'W

b. Depth of Water (meters): 49m-91m (160'-300')

c. Distance from nearest coast (kilometers): 17.6km
(9.5 NM)

14. Additional information:

Liquid Phase Bioassay: No significant effect

Suspended Particulate Phase Bioassay: No significant effect

Solid Phase Bioassay: No significant effect

Bioaccumulation: Uptake potential was shown for the following constituents and test organisms:

<u>Constituent</u>	<u>Test Organism</u>	<u>Accumulated Test Levels</u>
Cd	sand worm (<u>Nereis virens</u>)	0.088 & 0.094ppm, wet wt
Hg	hard clam (<u>Mercenaria mercenaria</u>)	0.011 ppm, wet wt
Petroleum	grass shrimp (<u>Palaemonetes pugio</u>)	12.3 ppm, wet wt
Hydrocarbons		
Petroleum	hard clam (<u>Mercenaria mercenaria</u>)	5.4, 5.1, and 6.6
Hydrocarbons		ppm, wet wt

The overall assessment on bioaccumulation potential was that the accumulated values were qualitatively insignificant.

This dumpsite is subject to monitoring studies under the disposal area monitoring system (DAMOS) program. The program is designed to identify and evaluate impacts resulting from the disposal of dredged materials at designated dump sites. The DAMOS program continually contributes to the development of new monitoring methodologies to enhance the efficiency of field observations and logistics.

This program was designed to comply with sections 228.9 and 228.10 of the Ocean Dumping Regulations relative to dump site monitoring and the evaluation of disposal impacts.

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: New York District

Adopted 1962
Date Permitted: 4 Aug 81Permit No. Fed. Proj.#9
Flushing Bay and Creek

Start Date: 4 Aug 81

Expiration Date: completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Flushing Bay and Creek

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000 cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 178,000 cy = 135,280 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 1 Jan 84

c. Actual completion: 1 Feb 84

8. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

Petrol. Hydro.

<0.2x10³ (-)<0.2x10³ (-)

PCB

<0.1 (-)

<0.1 (-)

Hg

<0.2 (-)

<0.2 (-)

Cd

<0.1 (-)

<0.1 (-)

DDT

<0.05 (-)

<0.05 (-)

Pb

<10 (-)

<10 (-)

9. Properties of dredged material:
- a. Solubility (% water) Not available
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand Not available % silt Not available % clay Not available
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors or splithull scow.
12. Procedure and site for tank washing: scow flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a.
- Liquid Phase Bioassay
- (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	>100
<u>Mysidopsis bahia</u>	>100
<u>Menidia menidia</u>	> 48

- b.
- Suspended Particulate Phase Bioassay
- (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	>100
<u>Mysidopsis bahia</u>	>100
<u>Menidia menidia</u>	42

- c.
- Solid Phase Bioassay
- (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	1.0
<u>Mercenaria mercenaria</u>	-1.0
<u>Nereis virens</u>	-1.0

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in *Mytilus* (4.12 ppm) and PCB's were statistically significant in *Nereis* (0.05 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: New York District

Date Permitted: 27 Feb. 84

Permit No. Morris Canal

Start Date: 27 Feb 84

Expiration Date completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Morris Canal

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Weeks Dredging Co.

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 36,000 cy = 27,360 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 6 Mar 84

c. Actual completion: 22 Mar 84

8. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

Petrol. Hydro.

Not available (-)

Not available (-)

PCB

" (-)

" (-)

Hg

" (-)

" (-)

Cd

" (-)

" (-)

DDT

" (-)

" (-)

Pb

" (-)

" (-)

9. Properties of dredged material: Not available
- a. Solubility (% water) Not available
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand Not available % silt Not available % clay Not available
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors or splithull scow
12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: None

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: New York District

Adopted 1922
Date Permitted: 13 Jan 84

Permit No. Fed. Proj. #63 N.Y.
and N.J. channels

Start Date: 13 Jan 84

Expiration Date completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. South of Shooters Island Channel

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 481,800 cy = 366,168 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 15 Feb 84

c. Actual completion: 3 Apr 84

8. Chemical composition:
in ppb

Site Water (S.D.)

Elutriate (S.D.)

Petrol. Hydro.

< 50.0

(-)

< 50.0

(-)

PCB

< 0.1

(-)

< 0.1

(-)

Hg

< 0.2

(-)

< 0.2

(-)

Cd

< 0.1

(-)

< 0.1

(-)

DDT

< 00.5

(-)

< 00.5

(-)

Pb

< 0.1

(-)

< 0.1

(-)

9. Properties of dredged material:

- a. Solubility (% water) 60.5
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 20.5 % silt 33.8 % clay 45.8

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors or splithull scow

12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude: 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	not available
<u>Mysidopsis bahia</u>	28.090
<u>Menidia menidia</u>	30.090

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	26.090
<u>Mysidopsis bahia</u>	28.090
<u>Menidia menidia</u>	30.090

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	1.0	
<u>Mercenaria mercenaria</u>	0.0	negative number indicates
<u>Nereis virens</u>	6.0	greater mortality in control

(* statistical significance, 95% confidence

level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any of the test species shown for the Solid Phase Bioassay.

LONDON DUMPING CONVENTION

C-7 N. 1.43

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: New York District

Adopted 1899
Date Permitted: 11 Oct 84

Permit No. Fed. Proj. #34 Bay Ridge and Red
and Red Hook channels

Start Date: 11 Oct 84

Expiration Date completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Bay Ridge and Red Hook Channels

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000cy capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 402,200 cy.= 305,672 m³

7. Expected frequency of dumping (for reporting period):

a. trips/day average

b. Actual start: 3 Apr 84

c. Actual completion: 15 Apr 84

8. Chemical composition:
in ppb

Site Water (S.D.)

Elutriate (S.D.)

Petrol. Hydro.

<50

(-)

< 50

(-)

PCB

<0.1

(-)

< 0.1

(-)

Hg

<0.05

(-)

< 0.05

(-)

Cd

<0.2

(-)

< 0.2

(-)

DDT

<0.05

(-)

< 0.05

(-)

Pb

<15

(-)

< 15

(-)

9. Properties of dredged material:

- a. Solubility (% water) 52.76
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 33.22 % silt 28.7 % clay 52.76

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors or splithull scow

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	>100
<u>Mysidopsis bahia</u>	>100
<u>Menidia menidia</u>	> 87

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	72
<u>Mysidopsis bahia</u>	>100
<u>Menidia menidia</u>	>100

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	-1.0 (2.91)
<u>Mercenaria mercenaria</u>	1.0 (1.58)
<u>Nereis virens</u>	1.0 (1.00)

(* statistical significance, 95% confidence

level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in Mercenaria (1.70 ppm) and Nereis (0.55 ppm).

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New York

2. Permittee: New York District

Adopted 1922
Date Permitted: 8 Jun 81Permit No. Fed. Proj.#63 N.Y. and N.J.
channels

Start Date: 8 Jun 81

Expiration Date: completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Seguin Point Bend and Red Bank Reach

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: hopper dredge; C.O.E. Dredge McFairland

c. Mode of transportation: hopper dredge; 3140 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 180,387cy = 137,094.12 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 7 Apr 84

c. Actual completion: 1 May 84

8. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

Petrol. Hydro.

Not available (-)

Not available (-)

PCB

<0.1 (-)

<0.1 (-)

Hg

<0.2 (-)

<0.2 (-)

Cd

<0.25 (-)

<0.25 (-)

DDT

<0.05 (-)

<0.05 (-)

Pb

Not available (-)

Not available (-)

9. Properties of dredged material:
- a. Solubility (% water) Not available
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 19.7 % silt 42.5 % clay 37.8
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors or splithull scow
12. Procedure and site for tank washing: Scow/s flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

1 Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	58%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	Not available
<u>Mysidopsis bahia</u>	>100 %
<u>Menidia menidia</u>	31%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaeomonetes sp.</u>	3.4	
<u>Mercenaria mercenaria</u>	1.7	negative number indicates
<u>Nereis virens</u>	3.3	greater mortality in control

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in Palaeomonetes (22.10 ppm), Mercenaria (28.21 ppm), Nereis (28.3 ppm).

LONDON DUMPING CONVENTION

C-9 ¹/₂

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
 Division North Atlantic District New York
2. Permittee: New York District
 Adopted 1889 Permit No. Fed. Proj. #62 N.Y. Harbor
 Date Permitted: 31 July 80
 Start Date: 31 July 80 Expiration Date completed
3. Country of origin of wastes and port of loading:
 a. United States of America
 b. Ambrose Channel
4. Specification of dredged material and process from which derived:
 a. Description: sand
 b. Mode of dredging: Hopper dredge; C.O.E. Dredge McFarland
 c. Mode of transportation: Hopper dredge; 3140 cy capacity
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 284,640 cy = 216,326.4 m³
7. Expected frequency of dumping (for reporting period):
 a. 2 trips/day average
 b. Actual start: 1 May 84 c. Actual completion: 29 June 84
8. Chemical composition: Site Water (S.D.) Elutriate (S.D.)
 in ppb

Petrol. Hydro.	Not available	Not available
PCB	" (-)	" (-)
Hg	" (-)	" (-)
Cd	" (-)	" (-)
DDT	" (-)	" (-)
Pb	" (-)	" (-)

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9. Properties of dredged material:

- a. Solubility (% water) Not Available
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 100 % silt 0 % clay 0

10. Method of packing: None

11. Method of release: Immediate release from bottom opening doors.

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
- b. Depth of water (meters): 20 m.
- c. Distance from nearest coast (kilometers): 9 Km.

14. Additional information: none

LONDON DUMPING CONVENTION

C-10 g. 1.43

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North AtlanticDistrict New YorkPermittee: New York DistrictDate Permitted: Adopted 1965
30 Jul 81Permit No. Fed. Proj. #62 N.Y.
HarborStart Date: 30 Jul 81Expiration Date completed

3. Country of origin of wastes and port of loading:

a. United States of Americab. Gravesend Bay Anchorage

4. Specification of dredged material and process from which derived:

a. Description: sandb. Mode of dredging: hopper dredge; C.O.E. Dredge McFarlandc. Mode of transportation: hopper dredge; cy 3140 capacity5. Form in which dredged material is presented for disposal: slurry-noncohesive character.6. Total quantity (cubic meters): 300,362 cy = 228,275. m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day averageb. Actual start: 30 June 84c. Actual completion: 21 Aug. 848. Chemical composition:
in ppbSite Water (S.D.)Elutriate (S.D.)

Petrol. Hydro.

Not available (-)

Not available (-)

PCB

< 0.1 (-)

< 0.1 (-)

Hg

< 0.2 (-)

< 0.2 (-)

Cd

< 0.35 (-)

< 0.35 (-)

DDT

< 0.05 (-)

< 0.05 (-)

Pb

Not available (-)

Not available (-)

9. Properties of dredged material:

- a. Solubility (% water) Not Available
- b. Density (gm/cc) Not Available
- c. pH Not Available
- d. % sand 86.4 % silt 6.6 % clay 6.3

10. Method of packing: None

- 1. Method of release: Immediate release from bottom opening doors.
- 2. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
- 3. Approved dumping site:
 - a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
- 4. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	> 100%
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	Not available
<u>Mysidopsis bahia</u>	> 100%
<u>Menidia menidia</u>	> 100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	-2.0
<u>Mercenaria mercenaria</u>	2.5
<u>Nereis virens</u>	-5.8

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: There was no statistically significant bioaccumulation of contaminants in any of the test species shown for the Solid Phase Bioassay.

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: New York District

Adopted 1884
Date Permitted: 8 March 84

Permit No. Fed. Proj. #62 N.Y. Harbor

Start Date: 8 March 84

Expiration Date completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Sandy Hook Channel

4. Specification of dredged material and process from which derived:

a. Description: sand

b. Mode of dredging: hopper dredge; C.O.E. Dredge McFarland

c. Mode of transportation: hopper dredge; 3140 cy capacity

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

5. Total quantity (cubic meters): 91,433 cy = 69,489.08 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 21 Aug 84

c. Actual completion: 3 Sept 84

3. Chemical composition:
in ppb

Site Water (S.D.)

Elutriate (S.D.)

Petrol. Hydro.

Not Available

Not Available

PCB

"

"

Hg

"

"

Cd

"

"

9. Properties of dredged material:
- a. Solubility (% water) Not available
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 95.7 % silt 0 % clay 0% gravel 4.3
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: None

LONDON DUMPING CONVENTION

C-12 of 1.3

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Atlantic

District New York

2. Permittee: New York District

Adopted 1922
Date Permitted: 12 Feb 82

Permit No. Fed. Proj. #64 Newark Bay

Start Date: 12 Feb 82

Expiration Date completed

3. Country of origin of wastes and port of loading:

a. United States of America

b. Newark Bay Channel

4. Specification of dredged material and process from which derived:

a. Description: silty clay

b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock

c. Mode of transportation: towed barge; 4000 capacity average

5. Form in which dredged material is presented for disposal: slurry-noncohesive character.

6. Total quantity (cubic meters): 877,400 cy = 666,824 m³

7. Expected frequency of dumping (for reporting period):

a. 2 trips/day average

b. Actual start: 14 Aug 84

c. Actual completion: 1 Dec 84

8. Chemical composition:
in ppb

Site Water (S.D.)

Elutriate (S.D.)

Petrol. Hydro.

Not available (-)

Not available (-)

PCB

< 0.01 (-)

< 0.01 (-)

Hg

< 0.2 (-)

< 0.2 (-)

Cd

< 0.1 (-)

< 0.1 (-)

DDT

< 0.05 (-)

< 0.05 (-)

Pb

< 10 (-)

< 10 (-)

9. Properties of dredged material:
- a. Solubility (% water) Not Available
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 3.5 % silt 46.3 % clay 50.2
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors or splithull scow
12. Procedure and site for tank washing: scow/s flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	64%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palaemonetes sp.</u>	6.0
<u>Mercenaria mercenaria</u>	1.0
<u>Nereis virens</u>	-1.0

(* statistical significance, 95% confidence

level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons are statistically significant in Palaemonetes (0.16 ppm), Mercenaria (1.27 ppm), Nereis (1.68 ppm), and Mytilus (1.10 ppm). PCB's were statistically significant in Nereis (0.11 ppm) and Mytilus (0.06 ppm). Lead was statistically significant in Mytilus (0.46 ppm).

C-130.1.15

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:
 Division North Atlantic District New York
2. Permittee: New York District
 Adopted 1933 Permit No. Fed. Proj. #63 N.Y. and N.J.
 Date Permitted: 1 July 83 channels
 Start Date: 1 July 83 Expiration Date completed
3. Country of origin of wastes and port of loading:
 a. United States of America
 b. Arthur Kill North & South
4. Specification of dredged material and process from which derived:
 a. Description: sand
 b. Mode of dredging: clamshell dredge; Great Lakes Dredge & Dock
 c. Mode of transportation: towed barge; 4000cy capacity average
5. Form in which dredged material is presented for disposal: slurry-noncohesive character.
6. Total quantity (cubic meters): 820,800 cy = 623,808 m³
7. Expected frequency of dumping (for reporting period):
 a. 2 trips/day average
 b. Actual start: 13 Jan 84 c. Actual completion: 4 Dec 84
8. Chemical composition: Arthur Kill No. Site Water (S.D.) Elutriate (S.D.)
 in ppb

Petrol. Hydro.	< 50.0	(-)	< 50.0	(-)
PCB	< 0.1	(-)	< 0.1	(-)
Hg	< 0.2	(-)	< 0.2	(-)
Cd	< 0.1	(-)	< 0.1	(-)
DDT	< 0.05	(-)	< 0.05	(-)
Pb	< 10.0	(-)	< 10.0	(-)

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9. Properties of dredged material: Arthur Kill North
- a. Solubility (% water) 55.0
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 46.0 % silt 36.4 % clay 17.6
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors or splithull scow
12. Procedure and site for tank washing: Scow/s flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluations

- a. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	>100%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

- b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species)@ 96 hrs.

<u>Acartia tonsa</u>	90%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	>100%

- c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	8.0	
<u>Mercenaria mercenaria</u>	4.0	negative number indicates
<u>Nereis virens</u>	1.0	greater mortality in control

(* statistical significance, 95% confidence

level)

10-day Bioaccumulation Test Data: Petroleum Hydrocarbons were statistically significant in Nereis (0.788 ppm) and Mytilus (3.923*).

9. Properties of dredged material: Arthur Kill South
- a. Solubility (% water) 32.4
 - b. Density (gm/cc) Not Available
 - c. pH Not Available
 - d. % sand 66.9 % silt 27.3 % clay 5.8
10. Method of packing: None
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: scows flushed at authorized disposal site.
13. Approved dumping site:
- a. Geographical position (latitude and longitude): 40° 22'N; 73° 51'W
 - b. Depth of water (meters): 20 m.
 - c. Distance from nearest coast (kilometers): 9 Km.
14. Additional information: See attached.

Bioassays and Bioassessment Evaluationsa. Liquid Phase Bioassay (EC50 or LC50 for each test species) @ 96 hrs.

<u>Skeletonema costatum</u>	57%
<u>Mysidopsis bahia</u>	>100%
<u>Menidia menidia</u>	67%

b. Suspended Particulate Phase Bioassay (EC50 or LC 50 per test species) @ 96 hrs.

<u>Acartia tonsa</u>	38%
<u>Mysidopsis bahia</u>	61%
<u>Menidia menidia</u>	>100%

c. Solid Phase Bioassay (% mortality difference with respect to control)

<u>Palamonetes sp.</u>	4.8	
<u>Mercenaria mercenaria</u>	2.0	negative number indicates
<u>Nereis virens</u>	3.0	greater mortality control

(* statistical significance, 95% confidence level)

10-day Bioaccumulation Test Data: PCB's were statistically significant Nereis (0.059 ppm) and Mytilus (0.227 ppm).

Chemical composition: Arthur Kill So. Site Water (S.D.O) Elutriate (S.D.)
in ppb

Petrol. Hydro.	<50.0	(-)	<50.0	(-)
PCB	<0.1	(-)	<0.1	(-)
Hg	<0.2	(-)	<0.2	(-)
Cd	<0.1	(-)	<0.1	(-)
DDT	<0.05	(-)	<0.05	(-)
Pb	<10.0	(-)	<10.0	(-)

C-14 p. 1 of 2

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division North Atlantic District Norfolk

2. Permit start date/expire date:

Permittee: N/A, Federal Project

Date issued: N/A Permit No. N/A

Start Date: N/A Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Chincoteague, Virginia

4. Specification of dredged material and process from which derived:

a. Description: clean, medium sand

b. Mode of dredging: hydraulic, Trailing Suction Hopper Dredge, MERMENTAU

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: solid

6. Total quantity (cubic meters): 162,800

7. Expected frequency of dumping (for reporting period):

a. 24 dumps per day; total of 72 minutes per day

b. Actual start: 13 May 1984 c. Actual completion: 24 June 1984

8. Chemical composition:

N/A

9. Properties of dredged material:

a. Solubility (% water) N/A

b. Density (gm/cc) N/A

c. pH N/A

d. % sand 98 (est) % silt 2 % clay 0

10. Method of packaging: N/A

11. Method of release: Bottom release from split hull hopper dredge.

12. Procedure and site for tank washing: Hopper washed with water at the dump site if necessary.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 37°51'30"N, 75°25'30"Wb. Depth of water (meters): 6c. Distance from nearest coast (kilometers): 1

14. Additional information:

N/A

G-15, 1 of 2

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South Atlantic District Wilmington

2. Permit start date/expire date:

Permittee: Non-Permit, Wilmington District

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Morehead City Harbor

4. Specification of dredged material and process from which derived:

a. Description: Sand, Water Slurry, Maintenance Dredged Material

b. Mode of dredging: Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

6. Total quantity (cubic meters): 841,500 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 10 dumps/day, Seven day/week

b. Actual start: 1 Sep 84 c. Actual completion: 27 Sep 84

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water) Unknown

b. Density (gm/cc) 1500 to 1950

c. pH Unknown

d. % sand 45 % silt 35 % clay 20

10. Method of packaging:

11. Method of release: Bottom Dump Hopper

12. Procedure and site for tank washing:

13. Approved dumping site:

a. Geographical position (latitude and longitude): 33° - 48' - 30" Nb. Depth of water (meters):13 mc. Distance from nearest coast (kilometers):5 km

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South Atlantic District Wilmington

2. Permit start date/expire date:

Permittee: Non-Permit Wilmington District

Date issued: _____ Permit No. _____

Start Date: _____ Expiry Date: _____

3. Country of origin of wastes and port of loading:

a. United States of America

b. Wilmington Harbor

4. Specification of dredged material and process from which derived:

a. Description: Sand, Silt, Clay Slurry

b. Mode of dredging: Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal:

5. Total quantity (cubic meters): 991,841 cubic meters

7. Expected frequency of dumping (for reporting period):

a. 17 loads per day/seven days per week

b. Actual start: 10 Sep 84 c. Actual completion: 9 Dec 84

AD-A159 649

OCEAN DUMPING REPORT FOR CALENDAR YEAR 1984 DREDGED
MATERIAL(U) CORPS OF ENGINEERS FORT BELVOIR VA WATER
RESOURCES SUPPORT CENTER JUL 85 WRSC-85-SR-4

3/3

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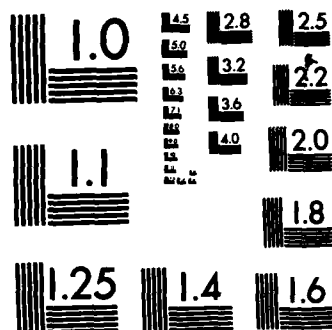
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

8. Chemical composition:

Not available.

9. Properties of dredged material:

a. Solubility (% water) Unknown

b. Density (gm/cc) 1,900

c. pH Unknown

d. % sand 95 % silt 3 % clay 2

10. Method of packaging:

11. Method of release: Bottom Dump Hopper Dredge

12. Procedure and site for tank washing:

13. Approved dumping site:

a. Geographical position (latitude and longitude):34° -37.2'4
76 -43.0'Wb. Depth of water (meters):13 mc. Distance from nearest coast (kilometers):4.9 km

14. Additional information:

C-17, p. 1 of 13

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division SOUTH ATLANTIC

District CHARLESTON

2. Permit start date/expire date:

Permittee: None required for US Army Corps of Engineers

Date issued: N/A

Permit No. N/A

Start Date: N/A

Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America, South Carolina

b. Georgetown, SC

4. Specification of dredged material and process from which derived:

a. Description: See attached pages 46, 48 and 50

b. Mode of dredging: Hopper Dredging

c. Mode of transportation: Hopper Dredge (MERMENTAU)

i. Form in which dredged material is presented for disposal: Slurry, Non-cohesive

j. Total quantity (cubic meters): 224,942

5. Expected frequency of dumping (for reporting period):

a. Average 17 loads daily, seven days per week.

b. Actual start: 10 April 1984 c. Actual completion: 2 May 1984

8. Chemical composition:

Examination of chemical constituents of the dredged material was pursuant to EPA's Ocean Dumping Regulations and Criteria, and to the joint Corps/EPA "implementation Manual for Section 103, PL 92-532. An elutriate was obtained, filtered, and the liquid phase was chemically analyzed for comparison with water standards. See attached pages A21 & A22.

9. Properties of dredged material:

- a. Solubility (% water)
- b. Density (gm/cc)
- c. pH 7.3 to 7.8
- d. % sand _____ % silt _____ % clay _____

See attached pages 46, 48 and 50.

10. Method of packaging: N/A

11. Method of release: Direct release from Hopper into water

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

- a. Geographical position (latitude and longitude): See attached
- b. Depth of water (meters): 7.0 - 10.0 meters
- c. Distance from nearest coast (kilometers): 5.5 kilometers

14. Additional information:

Bioassays and bioaccumulation tests were conducted in accordance with the EPA Ocean Dumping Regulation and the Corps/EPA implementation manual. Summaries are attached as page 1 and Figure 1.

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Approved Dumping Site

Geographical Position

Charleston Harbor

Lat. 32°40'42"N Lat. 32°38'06"N
Long 79°47'30"W Long. 79°41'57"W

Lat. 32°39'04"N Lat. 32°36'28"N
Long 79°49'21"W Long. 79°43'48"W

Georgetown Harbor

Lat. 33°11'18"N Lat. 33°11'18"N
Long. 79°07'20"W Long. 79°05'23"W

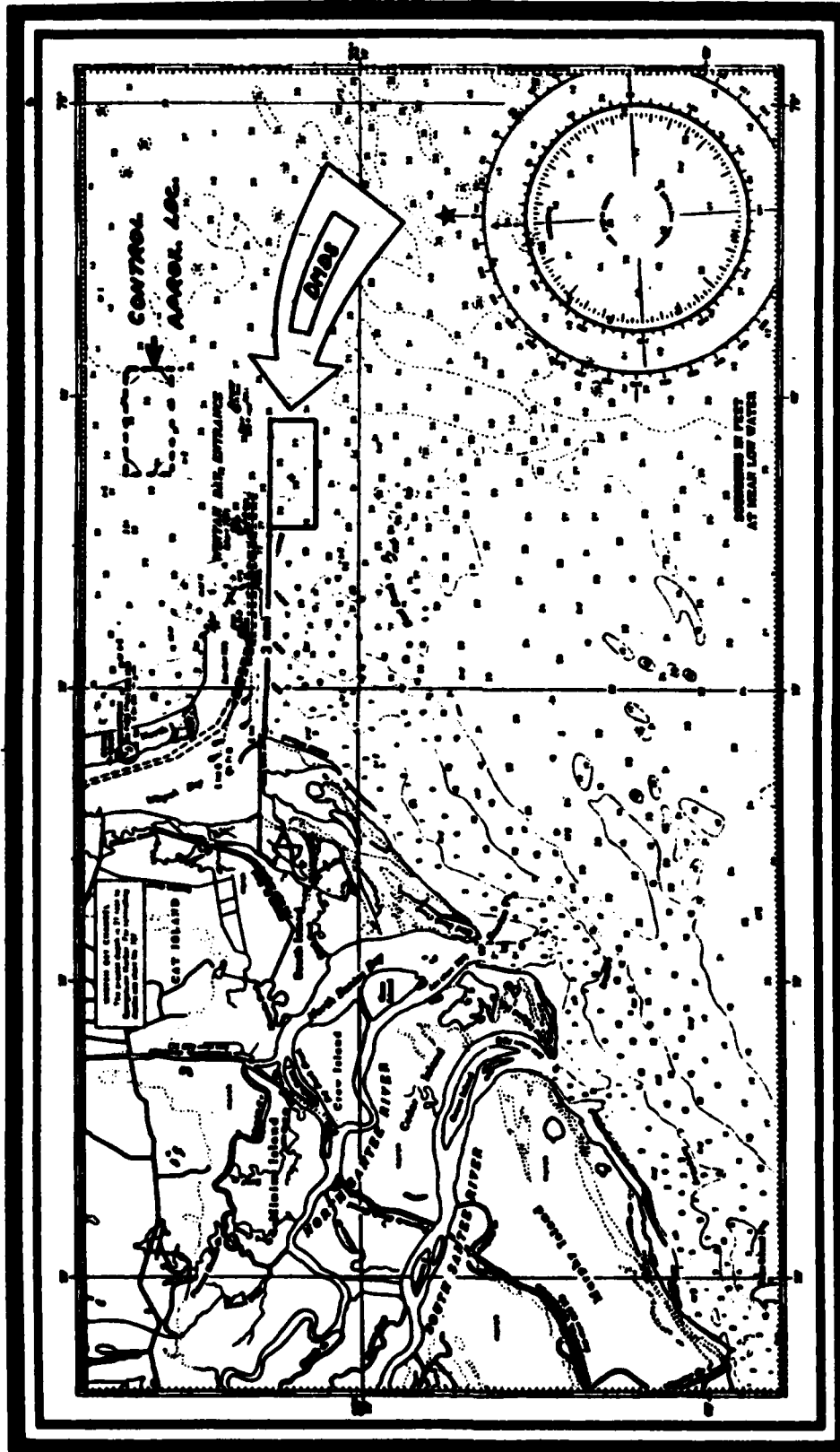
Lat. 33°10'38"N Lat. 33°10'38"N
Long. 79°07'21"W Long. 79°05'24"W

Port Royal

Lat. 32°10'10"N Lat. 32°08'41"N
Long. 80°36'00"W Long. 80°35'49"W

Lat. 32°10'06"N Lat. 32°08'38"N
Long. 80°36'35"W Long. 80°36'23"W

C-17 N. 4813



Nautical Chart No. 1409 11531
 Area 1.04 Square Nautical Miles
 Local Navigational Aids: Aeronautics, 100, Radar
 Material Type: Dredged Material

Boundary Coordinates: 33°11'N, 79°07'W
 33°11'N, 79°07'W
 33°11'N, 79°07'W
 33°11'N, 79°07'W
 33°11'N, 79°07'W

September 1980

Charleston Harbor, SC

Figure 2

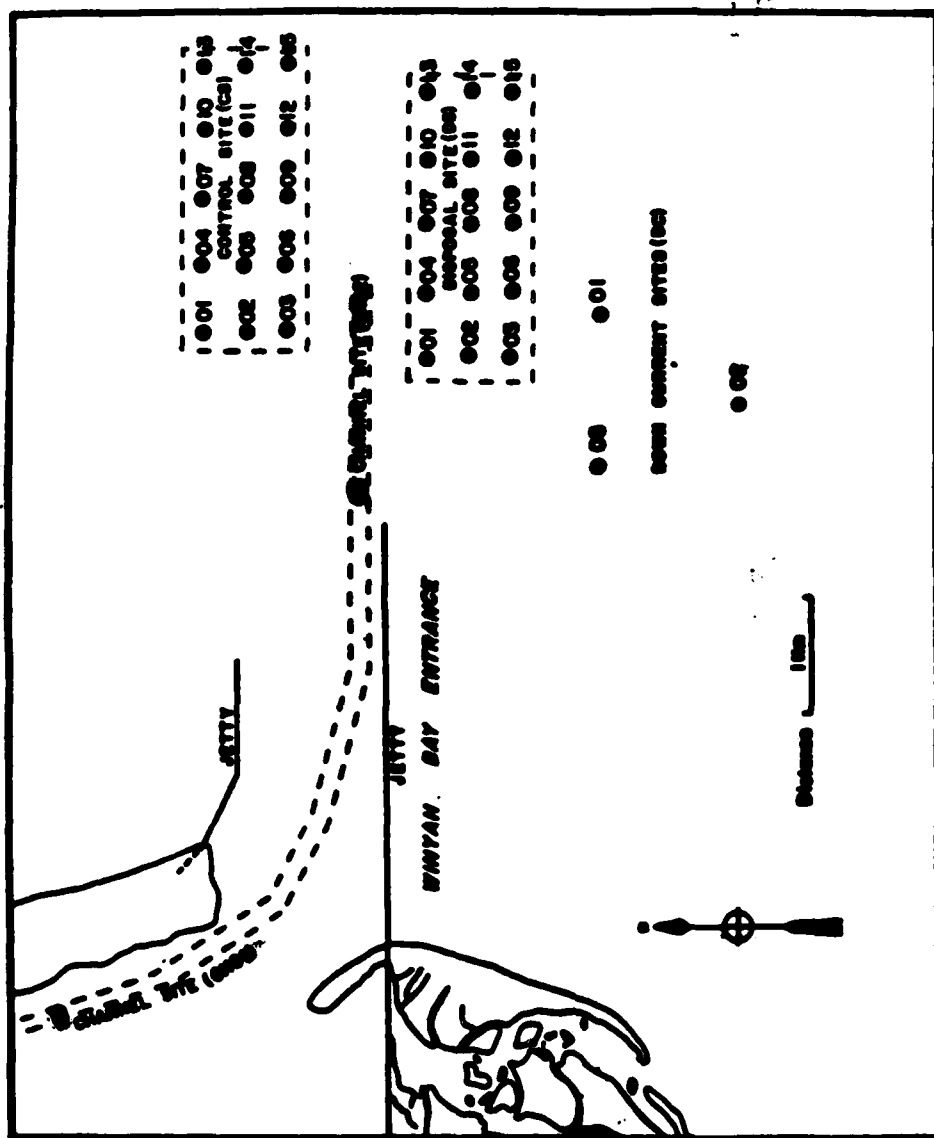


Figure 8. Map showing location of the 15 possible sampling locations in the control and DMS sites, as well as the location of "down current" and channel sampling locations.

Table 5. Statistical analysis of the grain size distribution for sediments from the Georgetown DMS and vicinity. Data presented in ϕ units.

STATIONS	MEAN	MEDIAN	STANDARD DEVIATION	SKEWNESS	KURTOSIS
DS03	0.16	0.90	1.41	-0.56	0.83
DS06	0.91	1.10	0.83	-0.32	1.24
DS08	0.86	1.15	1.05	-0.45	0.94
DS10	0.80	1.10	0.78	-0.50	0.75
DS13	0.84	1.08	0.79	-0.39	1.04
CS02	0.83	1.15	0.83	-0.52	1.20
CS05	0.78	1.15	0.85	-0.58	1.34
CS09	0.60	0.70	1.00	-0.15	1.06
CS11	1.13	0.45	2.52	+0.48	2.12
CS13	0.83	1.08	0.95	-0.36	0.85
DC01	1.89	2.00	0.65	-0.39	1.27
DC02	1.03	1.20	0.85	-0.42	1.81
DC03	4.59	4.60	2.56	+0.05	0.83
CH01	1.58	1.50	0.83	-0.05	1.89
CH02	3.73	3.10	1.88	+0.53	1.82

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Table 6. Percentages of sand, silt and clay in sediments from the Georgetown DMDS and vicinity. Estimates represent percent by weight.

STATIONS	SAND	SILT	-	CLAY
DS03	99.74		0.26	
DS06	99.96		0.04	
DS08	99.33		0.67	
DS10	100		trace	
DS13	100		trace	
CS02	99.40		0.60	
CS05	99.98		0.02	
CS09	99.46		0.54	
CS11	83.66	6.42		9.92
CS13	99.85		0.15	
DC01	99.11		0.89	
DC02	99.88		0.12	
DC03	37.89	27.39		34.72
CH01	99.94		0.06	
CH02	94.72	20.09		25.19

Table 7. Calcium carbonate content of sediments from the Georgetown DMS and vicinity. Estimates represent percent by weight.

<u>STATIONS</u>	<u>CaCO₃</u> <u>(Shell)</u>	<u>QUARTZ</u> <u>(Non-carbonates)</u>
DS03	14.97	85.03
DS06	6.18	93.82
DS08	8.39	91.61
DS10	5.26	94.74
DS13	4.66	95.34
CS02	6.00	94.00
CS05	7.33	92.67
CS09	10.88	89.12
CS11	10.65	89.35
CS13	10.09	89.91
BC01	9.65	90.35
BC02	6.33	93.67
BC03	27.69	72.31
CH01	3.46	96.54
CH02	18.38	81.62

Table 2. Comparison of geochemical analyses of sediments for Georgetown and Charleston Harbor areas.

	G E O R G E T O W N D M D S				ISC * CHARLESTON HARBOR CONDS	SCORP 25 CHARLESTON HARBOR CONDS
	CHANNEL	CUTTING	DISPOSAL	BOUN CURRENT		
PCBs Averler 1254 ug/g	ND	ND	ND	ND	0.000492	NA
DDT ug/g	ND	ND	ND	ND	0.000027 - 0.00005	NA
YOC 2	0.0046 - 0.0049	0.0017 - 0.0029	0.0057 - 0.0120	0.0060 - 0.010	0.05 - 12.5	< 1.0
Oil and grease ug/g	< 6 - 0.007	0 - 206	< 6 - 105	< 10 - 507	9 - 63	< 10 - 22
Nitrate as NO ₃ ug/g	59.99 - 270.57	15.44 - 533.33	17.55 - 32.46	50.77 - 392.0	NA	0.2 - 1.9
Nitrite as NO ₂ ug/g	30.0 - 300.20	0.34 - 0.04	0.21 - 01.31	3.96 - 27.45	NA	0.1 - 0.2
Total Kjeldahl Nitrogen ug/g	40 - 340	29 - 246	30 - 007	31 - 994	NA	< 100 - < 1000
Soluble Phosphorus as PO ₄ ug/g	2.20 - 2.00	0.231 - 1.01	0.049 - 1.72	0.304 - 1.20	NA	< 0.1 - 2.2
Total Phosphorus as PO ₄ ug/g	0.40 - 24.20	0.11 - 15.44	5.02 - 11.26	5.92 - 53.13	NA	700 - 13000
Cadmium ug/g	< 0.1	< 0.1	< 0.1	< 0.1	0.002 - 0.116	< 0.1 - 0.4
Arsonic ug/g	0.20 - 2.44	0.41 - 1.47	.36 - 1.36	1.07 - 1.30	NA	1.1 - 10.0
Chromium ug/g	< 0.1	< 0.1	< 0.1	< 0.1	NA	7.0 - 30.0
Nickel ug/g	< 0.1	< 0.1	< 0.1	< 0.1	NA	< .5 - 7.3
Copper ug/g	< 0.1 - 0.20	< 0.1 - 1.00	< 0.1	< 0.1	NA	0.0 - 27.0
Iron ug/g	1,300 - 2,000	645 - 1,350	600 - 1,120	822 - 1,156	NA	1,000-6,000
Lead ug/g	< 0.5 - 4.0	< 0.5	< 0.5	< 0.5	1.2 - 2.0	< 0.5 - 2.5
Mercury ug/g	0.27 - 0.20	0.11 - 0.30	0.08 - 0.61	0.21 - 0.55	0.001 - 0.005	.06 - 1.13
Zinc ug/g	0.40 - 0.00	2.77 - 10.13	2.55 - 3.07	2.21 - 5.35	NA	6.0 - 20.0

* Interstate Electronics Corp. (IEC), 1982)
 as South Carolina Wildlife and Marine Resources Dept. (1979)
 NA - Not Analyzed
 ND - Not Detected; Detection Limit is 50 ppb.

PART I. SUMMARY AND CONCLUSIONS

1. Sediments from four sites (Fig. 1) in the entrance to Georgetown Harbor, South Carolina, were bioassayed following Federal guidelines as outlined in the EPA/CE Manual*. All four sediments fully comply with regulations for safe ocean disposal.

2. The undiluted suspended particulate (SPP) and liquid phases (LP) did not exceed the 96 hr LC_{50} for any species tested. Ocean disposal of these sediments would not cause the limiting permissible concentration (LPC) to be approached for either the SPP or the LP.

3. The LPC for solid phase will not be exceeded during ocean disposal of the four sediments tested. Only mysids in G4 (89%) showed statistically lower survival than controls (98%), but the difference was only 9%.

4. Chemical analyses of the liquid phase found no constituents to be greatly elevated over seawater controls, and no LPC will be approached except that for cadmium. Seawater and the liquid phases had similar cadmium levels, but the seawater content is twenty-two times the LPC.

5. Laboratory experiments found no tendencies for any bioaccumulation of mercury, cadmium, petroleum hydrocarbons or chlorinated hydrocarbons in clams exposed to test sediments.

6. The disposal vessel, traveling at 1.5 m/sec, will require 800 seconds to empty a full capacity load of 1600 m^3 . The median water depth of the disposal site is 8.5 m (7 - 10 m). These figures yield a calculated dilution factor of 0.00048 or 0.048% after the 4 hour initial mixing period.

* Environmental Protection Agency/Corps of Engineers Technical Committee on Criteria for Dredged and Fill Material, "Ecological Evaluation of Proposed Discharge of Dredged Material into Ocean Waters; Implementation Manual for Section 103 of Public Law 92-532 (Marine Protection, Research, and Sanctuaries Act of 1972)," July 1977, Environmental Effects Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

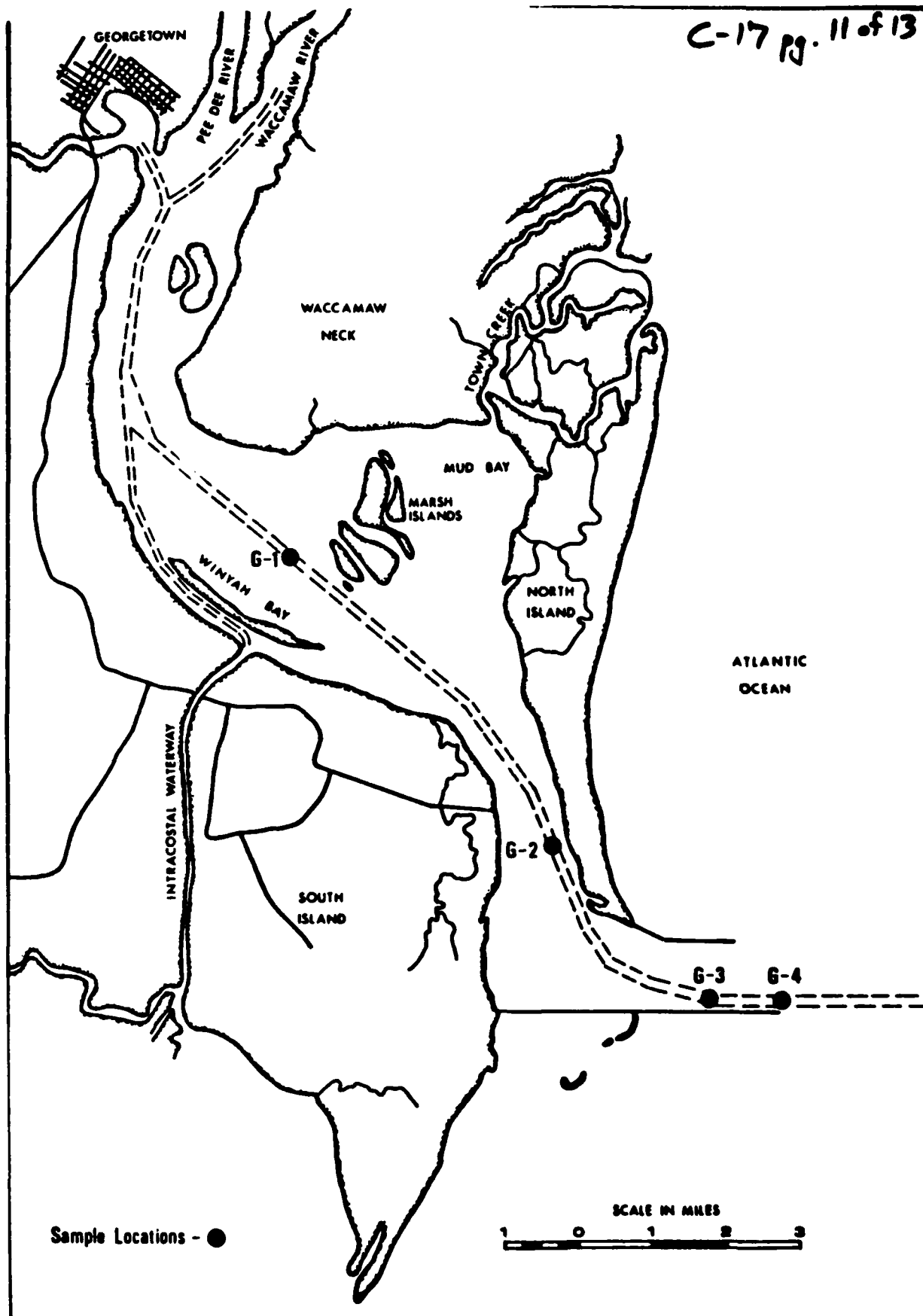


FIGURE 1. Sample locations for sediments used in tests.

Table A-7

Metals and Nutrients Analyses of Liquid Phase Samples

(Values are in milligrams per litre [= ppm] except as noted.)

<u>Constituent</u>	<u>Disposal Site Water</u>	G-1	G-2	G-3	G-4
NO ₂ -N ¹	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
NO ₃ -N ¹	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
NH ₃ -N ¹	< 0.1	0.1	3.1	< 0.1	0.5
TKN-N ¹	< 0.3	< 0.3	< 0.3	< 0.3	1.5
OP-PO ₄ ¹	< 0.2	0.2	< 0.2	< 0.2	0.3
TP-PO ₄ ¹	< 0.2	0.3	0.3	0.4	0.5
Oil and Grease ²	27	28	22	29	20
As ¹	< 0.01	< 0.01	< 0.01	< 0.01	0.03
Be ¹	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Cd ³	0.11	0.13	0.14	0.15	0.14
Cr ¹	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Cu ⁴	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hg ⁵ micrograms per litre	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Ni ⁶	0.71	0.64	0.76	0.61	0.60
Pb ⁶	1.4	1.1	1.1	1.6	1.4
Se ⁶ micrograms per litre	< 2	< 2	< 2	< 2	< 2
Zn ⁶	0.14	0.14	0.24	0.18	0.16

Marine standards suggested by U.S. EPA 1976 Quality Standards for Water (EPA-440/9/76/023) are: ¹none suggested; ²0.01 times the 96 hour LC₅₀ in flowing water bioassays; ³5.0 µg/litre; ⁴0.1 times the 96 hour LC₅₀; ⁵0.10 µg/litre; ⁶0.01 times the 96 hour LC₅₀.

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Table A-8

Pesticide and PCB Analyses of Liquid Phase Samples

<u>Constituent</u>	<u>Disposal</u>				
	<u>Site Water</u>	<u>G-1</u>	<u>G-2</u>	<u>G-3</u>	<u>G-4</u>
Salinity PPT	31.6	32.2	31.6	29.6	29.6
pH	7.9	7.3	7.5	7.8	7.4

No pesticides or PCB's were detectable in any of the samples. Detection limits in micrograms per litre (= ppb) are:

PCB's (as Arochlor 1254)	< 1
Heptachlor	< .05
DDE	< .05
DDD	< 0.2
DDT	< 0.2
Endrin	< 0.2
Dieldrin	< 0.1
BHC	< .05
Mitrex	< 0.3
Methoxychlor	< 1
Chlordane	< 0.5
Toxaphene	< 5

LONDON DUMPING CONVENTION
Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division: South AtlanticDistrict: Savannah

2. Permit start date/expire date:

Permittee: U.S. Army Engineer District, (Brunswick Harbor), SavannahDate Issued: - Permit No.: (DACW21-84-C-0010)Start Date: - Expire Date: -

3. Country of origin of wastes and port of loading:

a. United States of America

b. Brunswick Harbor

4. Specification of dredged material and process from which derived:

a. Description: sand, predominantly.

b. Mode of Dredging: Trailing hopper dredge (authorized Federal navigation channel maintenance).

c. Mode of Transportation: Hopper Dredges "DODGE ISLAND" and "MERMENTAV"

5. Form in which dredged material is presented for disposal: sludge

6. Total quantity (cubic meters): 1,280,530m³ (1,674,771 CY)

7. Expected frequency of dumping (for reporting period):

a. 10 loads/day - 7 days/week for 34 days.

b. Actual start: 27 January 1984c. Actual completion: 1 April 1984

8. Chemical composition: N/A

9. Properties of dredged material:

a. Solubility (% water): N/A

b. Density (gm/cc): 1.8 gm/cc

c. pH: N/A

d. % sand N/A % silt N/A % clay N/A

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10. Method of packaging: Hydraulic dredging - hopper.
11. Method of release: Immediate release from bottom opening doors.
12. Procedure and site for tank washing: At site.
13. Approved dumping site: For Brunswick Harbor.
 - a. Geographical position (latitude and longitude): 31°01'33" N
81°17'05" W
 - b. Depth of water (meters): -8.5 to -12/2m (-28 to -40 feet) at mlw.
 - c. Distance from nearest coast (kilometers): 10.65 km (5.75mi)
14. Additional information: N/A

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing authority:

Division South AtlanticDistrict Jacksonville

2. Permit start date/expire date:

Permittee: U.S. Army Corps of EngineersDate issued: 11 July 1980Permit no. 16-27215Start date: 11 July 1980Expire date: 1 July 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Jacksonville Harbor, Florida

4. Specification of dredged material and process from which derived:

a. Description: Sand with shell and silt

b. Mode of dredging: Hopper dredge - suction

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal: Slurry, noncohesive

6. Total quantity (cubic meters): 333,923 M³

7. Expected frequency of dumping (for reported period):

a. Daily

b. Actual start: 2 February 1984c. Actual completion: 1 March 1984

8. Chemical composition:

a. Elutriate test results:(1) Nutrients:

	<u>Receiving Waters</u>	<u>Elutriate</u>
Nitrogen, Ammonia, ppm	0.13-0.16	0.04-0.08
Soluble Ortho Phosphorus, ppm	0.02-0.04	<0.01

Total phosphorus, mg/l 0.08-0.13 0.06-0.28

(2) Metals: mg/l

	<u>Receiving Waters</u>	<u>Elutriate</u>
Mercury	0.0002-0.0004	0.0002-0.00041
Manganese	0.0095-0.017	0.011-0.043
Lead	0.002-0.018	0.012-0.015
Zinc	0.016-0.018	0.024-0.216
Iron	0.222-0.302	0.09-0.276
Copper	0.020-0.080	0.034-0.045
Nickel	0.020-0.080	0.010-0.025
Selenium	<0.01	<0.01
Silver	0.0045-0.0084	0.0045-0.0084

9. Properties of dredged material:

- a. Solubility (% water): Not available
- b. Density (gm/cc): 2500 (Absolute)
- c. pH: Not available
- d. % sand _____ % silt _____ % clay _____: Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hoppers flushed at disposal site

13. Approved dumping site:

- a. Geographical position (latitude and longitude):

30° 21' 30", 81° 17' 26"; 30° 20' 30", 81° 17' 26";
30° 20' 30", 81° 18' 34"; 30° 21' 30", 81° 18' 34"

- b. Depth of water (meters): 15 meters

- c. Distance from nearest coast (kilometers): 9 km

14. Additional information:

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 84

1. Issuing authority:

Division South Atlantic

District Jacksonville

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 9 July 1982

Permit no. 450389679

Start date: 9 July 1982

Expire date: 25 June 1987

3. Country of origin of wastes and port of loading:

a. United States of America

b. Fernandina, Florida

4. Specification of dredged material and process from which derived:

a. Description: Gray and black organic - silty and clay sizes

b. Mode of dredging: Hopper dredge - suction

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal: Slurry, noncohesive

6. Total quantity (cubic meters): 197,997 M³

7. Expected frequency of dumping (for reported period):

a. Daily

b. Actual start: September 1984

c. Actual completion: November 1984

8. Chemical composition:

a. Elutriate test results:

(1) Nutrients:

Range

Nitrogen, Ammonia, mg/l

0.25-0.26

Ortho Phosphorus, mg/l

0.04-0.08

(2) Metals:

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	<u>Range</u>
Lead	<0.0002
Zinc	0.035-0.061
Iron	0.0080-0.0180
Nickel	0.0238-0.0450
Copper	0.0003-0.0004
Manganese	0.0008-0.0080
Silver	<0.0002
Mercury	<0.0001
Selenium	<0.0002-0.0004
Cadmium	0.155-0.325

(3) Organics:

	<u>Range</u>
Oil & Grease	0.2-0.6
PCG	None detected

9. Properties of dredged material:

- a. Solubility (% water): Not available
- b. Density (gm/cc): .2590 (Absolute)
- c. pH: Not available
- d. % sand _____ % silt _____ % clay _____: Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hoppers flushed at disposal site

13. Approved dumping site:

- a. Geographical position (latitude and longitude):

30° 42' 00", 81° 19' 05"; 30° 42' 00", 81° 17' 55"
30° 41' 00", 81° 17' 55"; 30° 41' 00", 81° 19' 05"

- b. Depth of water (meters): 10.7 meters

- c. Distance from nearest coast (kilometers): 10.5 km

14. Additional information:

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing authority:

Division South Atlantic

District Jacksonville

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: November 1982

Permit no. 05-22308

Start date: 30 November 1982

Expire date: 1 February 1985

3. Country of origin of wastes and port of loading:

a. United States of America

b. Canaveral Harbor, Florida

4. Specification of dredged material and process from which derived:

a. Description: Material is poorly graded sand with a trace of gravel size shell fragments

b. Mode of dredging: Hopper dredge - suction

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal: Slurry, noncohesive

6. Total quantity (cubic meters): 786,324 M³

7. Expected frequency of dumping (for reported period):

a. Daily

b. Actual start: 23 October 1984

c. Actual completion: 31 January 1985

8. Chemical composition:

a. Elutriate test results:

(1) Nutrients:

Range

Nitrogen, Ammonia, mg/l

0.47-4.77

Ortho Phosphorus, mg/l

<0.005-0.40

(2) Metals: mg/l

	<u>Range</u>
Lead	1.1-2.8
Zinc	18-77
Iron	1.6-16
Nickel	1.0-2.7
Copper	1.2-25
Manganese	0.5-7.5
Silver	<0.5
Mercury	<0.5-5.0
Selenium	<5

(3) Organics:

	<u>Range</u>
Oil & Grease	0.2-9.4
PCB's, mg/l	<2

9. Properties of dredged material:

- a. Solubility (% water): Not available
- b. Density (gm/cc): .2514 (Absolute)
- c. pH: Not available
- d. % sand _____ % silt _____ % clay _____: Not available

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hopper flushed at disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude):

28° 19' 53", 80° 31' 08"; 28° 18' 50", 80° 29' 40"
 28° 17' 35", 80° 30' 52"; 28° 18' 38", 80° 32' 20"

b. Depth of water (meters): 12 metersc. Distance from nearest coast (kilometers): 6.7 km

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing authority:

Division South AtlanticDistrict Jacksonville

2. Permit start date/expire date:

Permittee: U.S. Army Corps of EngineersDate issued: 21 August 1981Permit no. 36-35610Start date: 21 August 1981Expire date: 1 December 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Charlotte Harbor, Florida

4. Specification of dredged material and process from which derived:

a. Description: Sand, fine, quartz shelly, clayey, sticky gray, silty

b. Mode of dredging: Clamshell with barge

c. Mode of transportation: Barge

5. Form in which dredged material is presented for disposal: Slurry, noncohesive

6. Total quantity (cubic meters): 131,893 M³

7. Expected frequency of dumping (for reported period):

a. Daily

b. Actual start: 26 December 1984c. Actual completion: 21 February 1985

8. Chemical composition:

a. Elutriate test results:(1) Nutrients:

	<u>Receiving Waters</u>	<u>Elutriate</u>
Nitrogen, Ammonia, mg/l	0.02-0.04	0.39-0.55

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Ortho Phosphorus, mg/l 0.02 0.10-0.12

(2) Metals: mg/l

	<u>Receiving Waters</u>	<u>Elutriate</u>
Lead	1.9-4.0	3.3-3.7
Zinc	11-22	32-36
Iron	4.0-5.0	4.0-7.5
Nickel	0.6-0.7	3.5-3.6
Copper	0.7-1.0	1.6
Manganese	1.4-1.5	4.2-39.4
Silver	<0.5	<0.5
Mercury	<0.5	<0.8
Selenium	<5.0	<5.0

9. Properties of dredged material:

- a. Solubility (% water)
- b. Density (gm/cc)
- c. pH
- d. % sand _____ % silt _____ % clay _____

10. Method of packaging: Not applicable

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Flushed at disposal site

13. Approved dumping site:

- a. Geographical position (latitude and longitude):

26° 37' 36", 82° 19' 55"; 26° 37' 36", 82° 18' 47";
26° 36' 36", 82° 18' 47"; 26° 36' 36", 82° 19' 55"

- b. Depth of water (meters): 12 meters

- c. Distance from nearest coast (kilometers): 8 km

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing authority:

Division South AtlanticDistrict Jacksonville

2. Permit start date/expire date: authorized prior to permit requirement

Permittee: NoneDate issued: N/APermit no. N/AStart date: N/AExpire date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Tampa Harbor, Florida

4. Specification of dredged material and process from which derived:

a. Description: Gray, silty sand, limerock, clay

b. Mode of dredging: Bucket dredge

c. Mode of transportation: Dump scow (3,000 C.Y.)

5. Form in which dredged material is presented for disposal: Slurry, noncohesive

6. Total quantity (cubic meters): 1,108,402 M³

7. Expected frequency of dumping (for reported period):

a. Daily

b. Actual start: 26 May 1984c. Actual completion: Est. 23 December 1985

8. Chemical composition:

a. Elutriate test results:(1) Nutrients:Dissolved

Nitrogen, mg/l	0.29
Organic carbon, mg/l	3.5

(2) Metals:

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Dissolved

Arsenic, mg/l	<0.02
Zinc, mg/l	0.06
Iron, mg/l	<0.05
Copper, mg/l	0.06
Mercury, mg/l	0.0004
Cadmium, mg/l	<0.005
Chromium, mg/l	0.11
Lead, mg/l	0.03

(3) Other:Dissolved

TKN-N, mg/l	0.4
NH ₄ -N, mg/l	<0.1
NO ₃ -N, mg/l	<0.1
NO ₂ -N, mg/l	<0.01
PO ₄ -P, mg/l	0.8
O-PO ₄ -P, mg/l	0.6
0.14 Grease, mg/l	<0.10

9. Properties of dredged material:

a. Solubility (% water)

b. Density (gm/cc)

c. pH

d. % sand 4 % silt 16 % clay 50 % limerock 30

10. Method of packaging: Not applicable

11. Method of release: Immediate

12. Procedure and site for tank washing: Flushed at disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude):

27° 31' 17", 83° 04' 26"; 27° 31' 17", 83° 05' 22"; 27° 31' 11", 83° 05' 22";
 27° 31' 11", 83° 04' 26"

b. Depth of water (meters): 15 metersc. Distance from nearest coast (kilometers): 25 km

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:
Division South Atlantic District Mobile
2. Permit start date/expire date:
Permittee: Corps of Engineers (Not 103)
Date issued: Jan 11, 1977 Permit No. 40 CRF 228.12 (A) (III) (H)
Start Date: Jan 11, 1977 Expiry Date: Indefinite
3. Country of origin of wastes and port of loading:
 - a. United States of America
 - b. Pensacola Harbor, Florida, Entrance Channel
4. Specification of dredged material and process from which derived:
 - a. Description: Maintenance dredged material, sand.
 - b. Mode of dredging: Hopper, Dragarms, Suction
 - c. Mode of transportation: Hopper on board dredge
5. Form in which dredged material is presented for disposal: Liquid, % insoluble compounds not available
6. Total quantity (cubic meters): 701,027
7. Expected frequency of dumping (for reporting period):
 - a. 12 times daily
 - b. Actual start: 30 Jun 84 c. Actual completion: 15 Aug 84

8. Chemical composition:

9. Properties of dredged material: not obtained

a. Solubility (% water) not obtained

b. Density (gm/cc) not obtained

c. pH

d. % sand 93 % silt 3 % clay 4

10. Method of packaging: Not packaged

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Dredge hopper is flushed at authorized disposal site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 30⁰16'N, 87⁰19'W

b. Depth of water (meters): 9.5

c. Distance from nearest coast (kilometers): 4.6

14. Additional information:

8. Chemical Composition

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BULK ANALYSES OF ENTRANCE CHANNEL SEDIMENT
SAMPLES COLLECTED FROM PENSACOLA HARBOR, FLORIDA

Sample Number	TOC (mg/kg P)	Total Phosphate (mg/kg N)	Ammonia Nitrogen (mg/kg N)	Oil and Grease (mg/g)	Trace Metals (mg/kg)								
					Hg	As	Cu	Zn	Cd	Pb	Ni	Cr	Fe ⁺
PB-1	1.66	67.00	9.0	0.41	0.12	0.5	4.9	128.4	<0.1	<0.5	<0.5	43.5	<0.1
PB-2	0.36	7.00	27.4	0.36	0.10	0.5	<0.3	1.0	<0.1	<0.5	<0.5	1.0	<0.1
PB-3	1.44	11.25	75.00	0.31	0.18	1.1	<0.3	32.4	<0.1	<0.5	4.3	5.9	<0.1

Note: Stations located from inner portion of channel near Santa Rosa Island (PB-3) to outer portion (seaward) of channel (PB-1); mg/kg = ppm

ELUTRIATE ANALYSES OF SEDIMENT AND
WATER SAMPLES FOR CHEMICAL AND HEAVY METALS
CONSTITUENTS COLLECTED FROM PENSACOLA HARBOR, FLORIDA

Parameter	Dilution	Standard Elutriate
Total organic carbon (ppm)	11.2	20.6
Ammonia nitrogen (ppm)	1.08	0.21
Phosphorus (ppm)	0.025	0.123
pH	8.28	8.13
Mercury (ppb)	<0.3	<0.3
Arsenic (ppb)	21.0	21.0
Copper (ppb)	<0.2	<0.2
Zinc (ppb)	32.0	40.0
Cadmium (ppb)	0.2	<0.2
Lead (ppb)	<0.5	<0.5
Nickel (ppb)	<0.5	<0.5
Chromium (ppb)	<0.5	<0.5
Iron (ppb)	<10.0	<10.0

ppm = mg/liter

ppb = ug/liter

Note: Sediment sample number: PB-2; Water sample number:
PB-2; Collected: 21 August 1974

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division South Atlantic District Mobile

2. Permit start date/expire date:

Permittee: Corps of Engineers (Not 103).Date issued: 11 Jan 77 Permit No. 40 CRF 228.12 (A) (III) (H)Start Date: 11 Jan 77 Expiry Date: Indefinite

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Mobile Harbor, Alabama - Bar Channel

4. Specification of dredged material and process from which derived:

- a. Description: Maintenance dredged material, sand.
- b. Mode of dredging: Hopper, Dragarms, Suction
- c. Mode of transportation: Hopper on board dredge

5. Form in which dredged material is presented for disposal: Liquid, % insoluble compounds not available

6. Total quantity (cubic meters): 167,197

7. Expected frequency of dumping (for reporting period):

- a. 20 times daily
- b. Actual start: 1 Jan 84
- c. Actual completion: 23 Jan 84

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) 1.983

c. pH not obtained

d. % sand 86 % silt 9 % clay 5

10. Method of packaging: Not packaged

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Dredge hopper is flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 30⁰ 09' N, 88⁰ 07' Wb. Depth of water (meters): 10c. Distance from nearest coast (kilometers): 6.7

14. Additional information:

2. Chemical Composition

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BULK ANALYSES OF ENTRANCE CHANNEL SEDIMENT
SAMPLES COLLECTED FROM MOBILE HARBOR, ALABAMA

Sample Number	TOC (mg/g)	Total Phosphate (mg/kg P)	Ammonia Nitrogen (mg/kg N)	Oil and Grease (mg/g)	Trace Metals (mg/kg)								
					Hg	As	Cu	Zn	Cd	Pb	Ni	Cr	Fe ⁺⁺
MB-1	0.76	18.25	39.8	0.44	0.24	0.8	4.5	14.2	<0.1	<0.5	5.4	4.5	1.0
MB-2	1.18	60.00	33.6	0.51	1.11	1.3	2.6	1.1	<0.1	<0.5	5.3	22.7	<0.1
MB-3	8.61	34.50	44.8	0.74	0.31	1.8	7.0	5.57	<0.1	<0.5	4.0	17.0	0.8

Note: Stations located from inner portion of channel within Mobile Bay (MB-3) to outer portion (seaward) of channel (MB-1); mg/kg = ppm

ELUTRIATE ANALYSES OF SEDIMENT AND
WATER SAMPLES FOR CHEMICAL AND HEAVY METALS
CONSTITUENTS COLLECTED FROM MOBILE HARBOR, ALABAMA

Parameter	Dilution Water	Standard Elutriate
Total Organic carbon (ppm)	7.2	16.5
Ammonia nitrogen (ppm)	0.04	1.05
Phosphorus (ppm)	0.085	0.340
pH	7.50	7.82
Mercury (ppb)	<0.3	<0.3
Arsenic (ppb)	<10.0	10.0
Copper (ppb)	0.9	1.0
Zinc (ppb)	25.1	22.4
Cadmium (ppb)	0.2	0.2
Lead (ppb)	2.9	2.3
Nickel (ppb)	2.8	3.1
Chromium (ppb)	<0.5	<0.5
Iron (ppb)	22.0	22.0

ppm = mg/liter

ppb = ug/liter

Note: Sediment sample number: MB-2; water sample number:
MB-2; collected 28 July 1974

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division South Atlantic District Mobile

2. Permit start date/expire date:

Permittee: Corps of Engineers (Not 103).

Date issued: 11 Jan 77 Permit No. 40 CFR 228.12 (A) (III) (H)

Start Date: 11 Jan 77 Expiry Date: Indefinite

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Mobile Harbor, Alabama - Bar Channel

4. Specification of dredged material and process from which derived:

a. Description: Maintenance dredged material, sand.

b. Mode of dredging: Hopper, Dragarms, Suction

c. Mode of transportation: Hopper on board dredge

5. Form in which dredged material is presented for disposal: Liquid & insoluble compounds not available.

6. Total quantity (cubic meters): 260,679

7. Expected frequency of dumping (for reporting period):

a. 20 times daily

b. Actual start: 21 Oct 84 c. Actual completion: 1 Nov 84

8. Chemical composition: See attached

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) 1.983

c. pH not obtained

d. % sand 86 % silt 9 % clay 5

10. Method of packaging: Not packaged

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Dredge hopper is flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 30⁰ 09' N, 88⁰ 07' W

b. Depth of water (meters): 10

c. Distance from nearest coast (kilometers): 6.7

14. Additional information:

8. Chemical Composition

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BULK ANALYSES OF ENTRANCE CHANNEL SEDIMENT
SAMPLES COLLECTED FROM MOBILE HARBOR, ALABAMA

Sample Number	TOC (mg/g)	Total Phosphate (mg/kg P)	Ammonia Nitrogen (mg/kg N)	Oil and Grease (mg/g)	Trace Metals (mg/kg)								
					Hg	As	Cu	Zn	Cd	Pb	Ni	Cr	Fe ⁺⁺
MB-1	0.76	18.25	39.8	0.44	0.24	0.8	4.5	14.2	<0.1	<0.5	5.4	4.5	1.0
MB-2	1.18	60.00	33.6	0.51	1.11	1.3	2.6	1.1	<0.1	<0.5	5.3	22.7	<0.1
MB-3	8.61	34.50	44.8	0.74	0.31	1.8	7.0	5.57	<0.1	<0.5	4.0	17.0	0.5

Note: Stations located from inner portion of channel within Mobile Bay (MB-3) to outer portion (seaward) of channel (MB-1); mg/kg = ppm

ELUTRIATE ANALYSES OF SEDIMENT AND
WATER SAMPLES FOR CHEMICAL AND HEAVY METALS
CONSTITUENTS COLLECTED FROM MOBILE HARBOR, ALABAMA

Parameter	Dilution Water	Standard Elutriate
Total Organic carbon (ppm)	7.2	16.5
Ammonia nitrogen (ppm)	0.04	1.05
Phosphorus (ppm)	0.085	0.340
pH	7.50	7.82
Mercury (ppb)	<0.3	<0.3
Arsenic (ppb)	<10.0	10.0
Copper (ppb)	0.9	1.0
Zinc (ppb)	25.1	22.4
Cadmium (ppb)	0.2	0.2
Lead (ppb)	2.9	2.3
Nickel (ppb)	2.8	3.1
Chromium (ppb)	<0.5	<0.5
Iron (ppb)	22.0	22.0

ppm = mg/liter

ppb = ug/liter

Note: Sediment sample number: MB-2; water sample number:
MB-2; collected 28 July 1974

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division South AtlanticDistrict Mobile

2. Permit start date/expire date:

Permittee: Corps of Engineers (Not 103)Date issued: 11 Jan 77Permit No. 40 CFR 228.12(A) (III)(H)Start Date: 11 Jan 77Expiry Date: Indefinite

3. Country of origin of wastes and port of loading:

a. United States of America

b. Gulfport Harbor, Mississippi

4. Specification of dredged material and process from which derived:

a. Description: Maintenance dredged material, soft gray silt.

b. Mode of dredging: Hopper, Dragarms, Suction.

c. Mode of transportation: Hopper on board dredge

5. Form in which dredged material is presented for disposal: Liquid, % insoluble compounds not available.

6. Total quantity (cubic meters): 762,227

7. Expected frequency of dumping (for reporting period):

a. 20 times daily

b. Actual start: 21 May 84c. Actual completion: 28 Jun 84

8. Chemical composition:

9. Properties of dredged material:

a. Solubility (% water) Not available

b. Density (gm/cc) Not available

c. pH Not available

d. % sand 0 % silt 53 % clay 11
% colloids 36

10. Method of packaging: Not packaged.

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Dredge hopper is flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 30⁰ 10' N, 89⁰ 00' Wb. Depth of water (meters): 8c. Distance from nearest coast (kilometers): 13.1.4 kilometers
from offshore island

14. Additional information:

C-27 m. 3.3

CHEMICAL COMPOSITION BULK ANALYSIS
ANALYSES OF SHIP CHANNEL SEDIMENT
SAMPLES COLLECTED FROM GULFPORT HARBOR, MISSISSIPPI

Sample Number	TOC	PO4 (mg/kg P)	NH ₃ N	Oil & grease (mg/g)	Trace Metals (mg/kg)								
					Hg	As	Cu	Zn	Cd	Pb	Ni	Cr	Fe ⁺⁺
GP-12	23.94	65.50	80.1	0.40	0.43	5.0	12.3	95.8	0.53	19.6	12.7	44.5	0.3
GP-13	26.73	57.50	51.5	0.16	0.56	4.5	3.7	46.8	0.42	10.8	6.4	23.3	0.3
GP-14	9.00	43.25	106.4	0.17	0.03	1.4	0.3	2.8	0.1	3.0	1.7	0.6	0.3
GP-15	1.61	48.25	33.6	0.35	0.03	4.1	11.0	49.8	0.33	18.9	17.9	23.5	0.3
GP-16	9.73	45.75	83.4	0.34	0.30	6.3	14.3	84.5	0.60	26.9	15.1	47.1	0.3
GP-17	11.75	57.50	101.9	0.45	0.61	7.0	12.2	83.9	0.48	28.5	12.9	40.4	0.3
GP-18	8.73	62.50	125.4	0.52	0.51	4.0	13.4	87.9	0.53	32.7	16.9	39.8	0.3
GP-19	15.27	51.25	41.4	0.71	0.32	2.6	22.8	55.9	0.57	21.0	4.8	19.7	0.3
GP-20	8.82	51.25	70.6	0.47	0.68	4.5	10.6	73.7	0.1	20.1	16.6	29.6	0.3
GP-17*					0.02								

* Sediment sample recollected and analyzed for mercury only

Note: Stations located from inner portion of Ship Island Channel near Ship Island (GP-12) to outer portion (seaward) of channel (GP-20); mg/kg = ppm

Source: Davis, 1978

CHEMICAL COMPOSITION ELUTRIATE ANALYSES
ELUTRIATE ANALYSES OF SEDIMENT AND WATER SAMPLES FOR CHEMICAL AND HEAVY METALS
CONSTITUENTS COLLECTED FROM GULFPORT HARBOR, MISSISSIPPI

Parameter	Dilution Water	Standard Elutriate
Total organic carbon (ppm)	11.1	15.8
Ammonia nitrogen (ppm)	0.04	0.32
Phosphorus (ppm)	0.002	0.417
PH	7.95	7.92
Mercury (ppb)	0.2*	0.2*
Arsenic (ppb)	17.0	21.0
Copper (ppb)	7.4	7.0
Zinc (ppb)	0.2	0.2
Cadmium (ppb)	0.3	0.6
Lead (ppb)	2.3	1.0
Nickel (ppb)	1.5	1.8
Chromium (ppb)	1.0	0.8
Iron (ppb)	10.0	10.0

ppm = mg/liter

ppb = ug/liter

* Sample collected 21 January 1976

Note: Sediment sample number: GP-17; water sample number: GP-17;
collected 17 July 1974.

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division Lower Miss. Valley District New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of Engineers

DACW29-84-C-0076

Date issued: N/A Permit No. DACW29-84-C-0135

Start Date: 14 Apr 84 Expiry Date: N/A
5 Aug 84

3. Country of origin of wastes and port of loading:

a. United States of America

b. Calcasieu River and Pass, LA (Gulf Approach Channel)

4. Specification of dredged material and process from which derived:

a. Description: Fine grain sand, silt and organic material

b. Mode of dredging: Hopper dredge

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal: Semicohesive slurry

3,210,468M³

6. Total quantity (cubic meters):

6,488,770M³

9,699,238M³

7. Expected frequency of dumping (for reporting period):

a. 10 dumps per day, 7 days per week

14 Apr 84

b. Actual start: 5 Aug 84

c. Actual completion: 7 Jul 84
30 Sep 84

8. Chemical composition: (Elutriates)

a. Nutrients: (mg/l)

Nitrogen (dissolved NH₄) 1.3

Nitrogen (KJD) 1.8

c. Organics: (ug/l)

Diazinon 0.04

2,4-D 0.9

b. Metals: (ug/l)

As 5.0 Hg 0.1

Cd 1.0 Mn 540

Cr 2.0

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8. Chemical composition: (Sediments)

a. <u>Metals</u> : (ug/g)	b. <u>Organics</u> : (ug/l)	c. <u>Other</u> :
Cr 4.0	Phenol 2.0	Carbon (tot. organic) 2.5 mg/l
Cu 3.0	DDD 0.2	COD 14,000 mg/kg
Mn 190.0	DDE 0.2	Nitrogen (KJD) 2,600 mg/kg
Hg .01	PCB 3.0	Phosphorus (tot. PO ₄) 0.09 mg/l
Zn 10.0		
Cd 0.02		

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.4
- c. pH not measured
- d. % sand 65 % silt 15 % clay 20

10. Method of packaging: N/A

11. Method of release: Bottom dump.

12. Procedure and site for tank washing: Hopper flushed twice daily with seawater at disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 29° 42' 06" N, 93° 20' 39" W
- b. Depth of water (meters): 8
- c. Distance from nearest coast (kilometers): 5

14. Additional information: Ocean dumping criteria waived.

LONDON DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division Lower Miss. Valley District New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of Engineers

Date issued: N/A Permit No. DACW29-84-C-0154

Start Date: 18 Sep 84 Expiry Date: N/A

3. Country of origin of wastes and port of loading:

- a. United States of America
- b. Houma Navigation Canal, LA (Cat Island Pass)

4. Specification of dredged material and process from which derived:

- a. Description: Medium to fine sand, silt and clay
- b. Mode of dredging: Hydraulic cutterhead dredge
- c. Mode of transportation: Floating pipeline

5. Form in which dredged material is presented for disposal: Noncohesive slurry

6. Total quantity (cubic meters): 553,145M³

7. Expected frequency of dumping (for reporting period):

- a. Continuous, averaging approximately 22 hours per day, 7 days per week
- b. Actual start: 18 Sep 84 c. Actual completion: 22 Oct 84

8. Chemical composition: (Elutriates)

a. <u>Nutrients:</u> (mg/l)		c. <u>Organics:</u> (ug/l)	
Nitrogen (KJD)	1.3	Phenols	6.0
Nitrogen (dissolved NH ₄)	.84	2,4-D	.0
b. <u>Metals:</u> (ug/l)			
As	.0	Hg	.2
Cd	.0	Mn	50
Cr	.0		

8. Chemical composition: (Sediments)

a. <u>Metals</u> : (mg/kg)		b. <u>Organics</u> : (mg/kg)	c. <u>Other</u> : (mg/kg)		
As	5.0	Hg .07	Phenols .0	COD	14,000
Cd	1.0	Ni	10.0	Oil and Grease	1.0
Cr	6.0	Zn	37.0		
Cu	12.0				
Pb	20.0				

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.8
- c. pH not measured
- d. % sand 95 % silt 2 % clay 3

10. Method of packaging: N/A

11. Method of release: Floating pipeline

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

- a. Geographical position (latitude and longitude): _____
29° 02' 45" N, 90° 34' 40" W
- b. Depth of water (meters): _____ 6
- c. Distance from nearest coast (kilometers): _____ 18

14. Additional information:

- a. Liquid Phase Bioassay: No effect
- b. Suspended Particulate Phase Bioassay: No effect
- c. Solid Phase Bioassay: No effect

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

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1. Issuing Authority:

Division Lower Miss. ValleyDistrict New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of EngineersDate issued: N/A

DACW29-84-C-0076

Permit No. DACW29-85-C-0012

14 Apr 84

Start Date: 3 Dec 84Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Mississippi River, Baton Rouge to the Gulf of Mexico, LA (Southwest Pass)

4. Specification of dredged material and process from which derived:

a. Description: Medium to fine grain sand, silt and clay

b. Mode of dredging: Hopper dredge

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal: Semicohesive slurry

6. Total quantity (cubic meters): $\frac{461,873M^3}{1,282,771M^3}$ $\frac{1,744,644M^3}{1,744,644M^3}$

7. Expected frequency of dumping (for reporting period):

a. 12 dumps per day, 7 days per week

14 Apr 84

b. Actual start: 3 Dec 84

1 Jul 84

c. Actual completion: 30 Dec 84

8. Chemical composition: (Elutriates)

a. Nutrients: (mg/l)

Nitrogen (KJD) 2.5

Nitrogen (NH₄ dissolved) 2.2c. Organics: (ug/l)

Phenols 14.0

Diazinon 0.02

2,4-D 0.01

b. Metals: (ug/l)

As 3.0 Ni 3.0

Cr 12.0 Zn 20.0

Mn 2,200

Hg .01

8. Chemical composition: (Sediments)

a. Metals: (ug/l)

As	9.0	Ni	15.0
Cr	10.0	Zn	45.0
Cu	14.0	Hg	0.05
Pb	20.0	Mn	500.0

b. Organics: (ug/l)

Phenols 5.0

c. Other: (mg/kg)

Cod	32,000
Oil and Grease	.0

9. Properties of dredged material:

a. Solubility (% water) 60

b. Density (gm/cc) 1.651

c. pH not measured

d. % sand 70 % silt 15 % clay 15

10. Method of packaging: N/A

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Hopper flushed with seawater twice daily at disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____

28° 53' 15" N, 89° 26' 30" W

b. Depth of water (meters): _____

18

c. Distance from nearest coast (kilometers): _____

7.5

14. Additional information:

a. Liquid Phase Bioassay: No effectb. Suspended Particulate Phase Bioassay: No effectc. Solid Phase Bioassay: No effect

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

C-317.10f2

1. Issuing Authority:

Division Lower Miss. Valley District New Orleans

2. Permit start date/expire date:

Permittee: New Orleans District, Corps of Engineers

Date issued: N/A Permit No. DACW29-83-C-0164

Start Date: 1 Jan 84 Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Mississippi River-Gulf Outlet, LA (Gulf Approach Channel)

4. Specification of dredged material and process from which derived:

a. Description: Medium to fine grain sand and silt

b. Mode of dredging: Hopper dredge

c. Mode of transportation: Hopper dredge

5. Form in which dredged material is presented for disposal: Semicohesive slurry

6. Total quantity (cubic meters): 574,548M³

7. Expected frequency of dumping (for reporting period):

a. 10 dumps per day, 7 days per week

b. Actual start: 1 Jan 84 c. Actual completion: 21 Jan 84

8. Chemical composition: (Elutriates)

a. Nutrients: (mg/l)

KJD 3.8

NH₄ 3.7

COD 630

c. Organics: (ug/l)

Diazinon 0.17

2,4-D 0.02

b. Metals: (ug/l)

As 3.0 Hg 0.1

Cd 1.0 Zn 20.0

Mn 690

229

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8. Chemical composition: (Sediments)

a. <u>Metals</u> (ug/l)		b. <u>Organics</u> : (mg/kg)		c. <u>Other</u> :
As	6.0	Zn	40.0	KJD 4810
Cr	9.0	Ni	16.0	Oil and Grease 0.0
Pb	20.0	Hg	0.03	Chlorodane 10.0
Mn	570		PCB	3.0
Cu	14.0			

9. Properties of dredged material:

a. Solubility (% water) 80

b. Density (gm/cc) 1.543

c. pH not measured

d. % sand 85 % silt 7 % clay 8

10. Method of packaging: N/A

11. Method of release: Bottom dump

12. Procedure and site for tank washing: Wash with seawater at disposal site once each day.

13. Approved dumping site:

a. Geographical position (latitude and longitude): _____
29° 24' 55" N, 88° 59' 30" W

b. Depth of water (meters): 12

c. Distance from nearest coast (kilometers): 27

14. Additional information:

a. Liquid Phase Bioassay: No effect

b. Suspended Particulate Phase Bioassay: No effect

c. Solid Phase Bioassay: No effect

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division SouthwesternDistrict Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: 1 August 1984

Permit No. _____

Start Date: 15 August 1984Expire Date: 12 October 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Corpus Christi Ship Channel, Texas

4. Specification of dredged material and process from which derived:

a. Description: Silty sand from channel maintenance.

b. Mode of dredging: Hopper Dredge "WHEELER"

c. Mode of transportation: Hopper Dredge "WHEELER"

5. Form in which dredged material is presented for disposal:

Slurry-sand and silt in suspension.

6. Total quantity (cubic meters): 924,248

7. Expected frequency of dumping (for reporting period):

a. 10 Daily 7 Days/Week

b. Actual start: 15 August 1984c. Actual completion: 12 October 1984

8. Chemical composition:

<u>Metals (mg/kg)</u>		<u>Pesticides/PCB (ug/kg)</u>	
Arsenic	- 2.5	Aldrin	- < 0.2
Cadmium	- < 0.5	Chlordane	- < 1
Chromium	- < 5	DDD	- < 0.5
Copper	- < 5	DDE	- < 0.5
Lead	- < 5	DDT	- < 0.5
Mercury	- < 0.1	Dieldrin	- < 0.5
Nickel	- < 5	Heptachlor	- < 0.5
Zinc	- < 5	Lindane	- < 0.5
		Toxaphene	- < 10
		PCB	- < 10

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 2.0
- c. pH NA
- d. % sand 78.4 % silt 21.6 % clay _____

10. Method of packaging:

1. Method of release: Bottom Release
2. Procedure and site for tank washing:

Hoppers flushed at authorized Disposal Site.

3. Approved dumping site:

- a. Geographical position (latitude and longitude):

27°49'34"N, 97°01'51"W; 27°48'28"N, 96°59'49"W;

27°48'18"N, 96°59'56"W; 27°49'23"N, 97°01'58"W.

- b. Depth of water (meters):

12

- c. Distance from nearest coast (kilometers):

1.85

4. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division SouthwesternDistrict Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: 20 September 1984

Permit No. _____

Start Date: 5 October 1984Expire Date: 29 November 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Freeport Harbor, Texas

4. Specification of dredged material and process from which derived:

a. Description: Fine silt and clay from channel maintenance.

b. Mode of dredging: Hopper Dredge "DODGE ISLAND"

c. Mode of transportation: Hopper Dredge "DODGE ISLAND"

5. Form in which dredged material is presented for disposal:

Slurry-silt and clay in suspension.

6. Total quantity (cubic meters): 907,301

7. Expected frequency of dumping (for reporting period):

a. 5 Daily 7 Days/Week

b. Actual start: 5 October 1984c. Actual completion: 29 November 1984

8. Chemical composition:

<u>Metals (mg/kg)</u>		<u>Pesticides/PCB (ug/kg)</u>	
Arsenic	- 1.1	Aldrin	- < 0.2
Cadmium	- 0.9	Chlordane	- < 1
Chromium	- 10	DDD	- < 0.5
Copper	- 5.6	DDE	- < 0.5
Lead	- 9.1	DDT	- < 0.5
Mercury	- 0.4	Dieldrin	- < 0.5
Nickel	- 7.9	Heptachlor	- < 0.5
Zinc	- 26.5	Lindane	- < 0.5
		Toxaphene	- < 10
		PCB	- < 10

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.5
- c. pH NA
- d. % sand 4.3 % silt 95.7 % clay

10. Method of packaging:

11. Method of release: Bottom Release

12. Procedure and site for tank washing:

Hoppers flushed at authorized Disposal Site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

28°54'42"N, 95°17'38"W; 28°54'03"N, 95°16'54"W;

28°53'48"N, 95°17'27"W; 28°54'21"N, 95°18'03"W.

b. Depth of water (meters):

9

c. Distance from nearest coast (kilometers):

2.32

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division SouthwesternDistrict Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: 28 February 1984

Permit No. _____

Start Date: 5 March 1984Expire Date: 25 July 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Galveston Harbor & Channel, Texas

4. Specification of dredged material and process from which derived:

a. Description: Silt and clay from channel maintenance.

b. Mode of dredging: Hopper Dredge "STUYVESANT"

c. Mode of transportation: Hopper Dredge "STUYVESANT"

5. Form in which dredged material is presented for disposal:

Slurry-sand and silt in suspension.

6. Total quantity (cubic meters): 3,431,070

7. Expected frequency of dumping (for reporting period):

a. 15 Daily 7 Days/Week

b. Actual start: 5 March 1984c. Actual completion: 25 July 1984

8. Chemical composition:

<u>Metals (mg/kg)</u>		<u>Pesticides/PCB (ug/kg)</u>	
Arsenic	- 5.3	Aldrin	- <0.2
Cadmium	- <0.5	Chlordane	- <1
Chromium	- <5	DDD	- <0.5
Copper	- 5.7	DDE	- <0.5
Lead	- <5	DDT	- <0.5
Mercury	- <0.1	Dieldrin	- <0.5
Nickel	- 6.1	Heptachlor	- <0.5
Zinc	- 22.3	Lindane	- <0.5
		Toxaphene	- <10
		PCB	- <10

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.8
- c. pH NA
- d. % sand 39.5 % silt 60.5 % clay _____

10. Method of packaging:

11. Method of release: Bottom Release

12. Procedure and site for tank washing:

Hoppers flushed at authorized Disposal Site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

29°18'00"N, 94°39'30"W; 29°15'54"N, 94°37'06"W;

29°14'24"N, 94°38'42"W; 29°16'54"N, 94°41'30"W.

b. Depth of water (meters):

12.5

c. Distance from nearest coast (kilometers):

6.86

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division SouthwesternDistrict Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: 12 January 1984

Permit No. _____

Start Date: 26 January 1984Expire Date: 7 March 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Matagorda Ship Channel, Texas

4. Specification of dredged material and process from which derived:

a. Description: Sand and silt from channel maintenance.

b. Mode of dredging: Hopper Dredge "EAGLE I"

c. Mode of transportation: Hopper Dredge "EAGLE I"

5. Form in which dredged material is presented for disposal:

Slurry-sand and silt in suspension.

6. Total quantity (cubic meters): 694,970

7. Expected frequency of dumping (for reporting period):

a. 10 Daily 7 Days/Week

b. Actual start: 26 January 1984c. Actual completion: 7 March 1984

8. Chemical composition:

<u>Metals (mg/kg)</u>		<u>Pesticides/PCB (ug/kg)</u>	
Arsenic	- 3.1	Aldrin	- < 0.2
Cadmium	- 0.7	Chlordane	- < 1
Chromium	- 12.6	DDD	- < 0.5
Copper	- 6.1	DDE	- < 0.5
Lead	- 17	DDT	- < 0.5
Mercury	- < 0.1	Dieldrin	- < 0.5
Nickel	- 7.6	Heptachlor	- < 0.5
Zinc	- 30.8	Lindane	- < 0.5
		Toxaphene	- < 10
		PCB	- < 10

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 2.0
- c. pH NA
- d. % sand 11.5 % silt 88.5 % clay

10. Method of packaging:

11. Method of release: Bottom Release

12. Procedure and site for tank washing:

Hoppers flushed at authorized Disposal Site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

28°24'31"N, 96°18'48"W; 28°23'27"N, 96°17'38"W;

28°23'15"N, 96°17'54"W; 28°24'18"N, 96°19'03"W.

b. Depth of water (meters):

9

c. Distance from nearest coast (kilometers):

2.41

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division SouthwesternDistrict Galveston

2. Permit start date/expire date:

Permittee: _____

Date issued: 13 July 1984

Permit No. _____

Start Date: 22 July 1984Expire Date: 22 September 1984

3. Country of origin of wastes and port of loading:

a. United States of America

b. Sabine-Neches Waterway, Texas

4. Specification of dredged material and process from which derived:

a. Description: Silt and clay from channel maintenance.

b. Mode of dredging: Hopper Dredge "EAGLE I"

c. Mode of transportation: Hopper Dredge "EAGLE I"

5. Form in which dredged material is presented for disposal:

Slurry-silt and clay in suspension.

6. Total quantity (cubic meters): 4,461,544

7. Expected frequency of dumping (for reporting period):

a. 6 Daily 7 Days/Week

b. Actual start: 22 July 1984c. Actual completion: 22 September 1984

8. Chemical composition:

<u>Metals (mg/kg)</u>		<u>Pesticides/PCB (ug/kg)</u>	
Arsenic	- 1.5	Aldrin	- < 0.2
Cadmium	- 1.1	Chlordane	- < 1
Chromium	- 6.0	DDD	- < 0.5
Copper	- 9.1	DDE	- < 0.5
Lead	- < 5	DDT	- < 0.5
Mercury	- < 0.1	Dieldrin	- < 0.5
Nickel	- 5.8	Heptachlor	- < 0.5
Zinc	- 22.3	Lindane	- < 0.5
		Toxaphene	- < 10
		PCB	- < 10

9. Properties of dredged material:

- a. Solubility (% water) 80
- b. Density (gm/cc) 1.5
- c. pH NA
- d. % sand 1.8 % silt 98.2 % clay _____

10. Method of packaging:

11. Method of release: Bottom Release

12. Procedure and site for tank washing:

Hoppers flushed at authorized Disposal Site.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

29°38'09"N, 93°49'23"W; 29°35'53"N, 93°48'18"W;

29°35'06"N, 93°50'24"W; 29°36'37"N, 93°51'09"W;

29°37'00"N, 93°50'06"W; 29°37'46"N, 93°50'26"W.

b. Depth of water (meters): 6.7

c. Distance from nearest coast (kilometers): 5.2

14. Additional information:

OCEAN DUMPING CONVENTION

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Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South Pacific

District San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 22 June 1984

Permit No. -----

Start Date: 26 June 1984

Expiry Date: 22 Jul 1984

3. Country of origin of wastes and port of loading:

a. United States of America . California

b. San Francisco Harbor, Mainship Channel

4. Specification of dredged material and process from which derived:

a. Description: Fine Sand with Trace of Silt
Sand 95%
Silt 5%

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled Sand

6. Total quantity (cubic meters): 59,600

7. Expected frequency of dumping (for reporting period):

a. 12 Loads Per Day

b. Actual start: 26 Jun 84

c. Actual completion: 01 Jul 84

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8. Chemical composition: Not tested, meets criteria of Section 227.13 (6) (1), Ocean Dumping Rules and Regulations F.R. VOL 42, NO. 7, 11 Jan 77.

9. Properties of dredged material:

- a. Solubility (% water) 57%
- b. Density (gm/cc) 1.752
- c. pH Not tested
- d. % sand 95 % silt 05 % clay 00

10. Method of packaging: Free Flowing from Open Hopper

11. Method of release: Bottom Dump

12. Procedure and site for tank washing: Hoppers flushed at authorized Disposal Site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 37° 45' 06"N
122° 35' 45"W

b. Depth of water (meters): 12.2

c. Distance from nearest coast (kilometers): 5.2

14. Additional information: None

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South PacificDistrict San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of EngineersDate issued: 26 Jun 84Permit No. -----Start Date: 1 Jul 84Expiry Date: 15 Jul 84

3. Country of origin of wastes and port of loading:

a. United States of America, California

b. Humboldt Harbor, Bar & Entrance Channel

4. Specification of dredged material and process from which derived:

a. Description: Fine Sand with Trace of Silt
98% Sand
02% Silt

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled Sand

6. Total quantity (cubic meters): 52,715

7. Expected frequency of dumping (for reporting period):

a. 21 Loads Per Day

b. Actual start: 1 Jul 84c. Actual completion: 12 Jul 84

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8. Chemical composition: Not Tested, Meets Criteria of Section 227.13 (6)(1),
Ocean Dumping Rules and Regulations F.R. VOL 42, NO. 7, 11 Jan 77

9. Properties of dredged material:

- a. Solubility (% water) 45
- b. Density (gm/cc) 1.938
- c. pH Not Tested
- d. % sand 98 % silt 02 % clay 00

10. Method of packaging: Free Flowing from Open Hopper Dredge

11. Method of release: Bottom Pump

12. Procedure and site for tank washing: Hopper Flushed at Authorized
Disposal Site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 40° 45' 44" N
124° 15' 42" W

b. Depth of water (meters): 26.0

c. Distance from nearest coast (kilometers): 2.6

14. Additional information: None

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South Pacific District San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of Engineers

Date issued: 26 Jun 84 Permit No. - - - - -

Start Date: 10 Jul 84 Expiry Date: 20 Jul 84

3. Country of origin of wastes and port of loading:

a. United States of America , California

b. Humboldt Harbor, Field's Landing Channel

4. Specification of dredged material and process from which derived:

a. Description: Fine Sand and Gravel
85% Sand
7% Gravel
7% Silt

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled Sand

6. Total quantity (cubic meters): 9,550

7. Expected frequency of dumping (for reporting period):

a. 14 Loads

b. Actual start: 12 Jul 84 c. Actual completion: 19 Jul 84

Chemical composition: Not Tested, Meets Criteria of Section 227.13 (b)(1)
Ocean Dumping Rules and Regulations, F.R. VOL 24, NO. 7, 11 Jan 77

Properties of dredged material:

- a. Solubility (% water) 64
- b. Density (gm/cc) 1.619
- c. pH Not Tested
- d. % sand 86 % silt 07 ^{Gravel}
% clay 07

- . Method of packaging: Free Flowing from Open Hopper Dredge
- . Method of release: Bottom Pump
- . Procedure and site for tank washing: Hopper Flushed at Authorized Disposal Site
- . Approved dumping site:

a. Geographical position (latitude and longitude): 40° 45' 44" N
124° 15' 42" W

b. Depth of water (meters): 26.0

c. Distance from nearest coast (kilometers): 2.6

i. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South PacificDistrict San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of EngineersDate issued: 27 Feb 84Permit No. - - - -Start Date: 20 Mar 84Expiry Date: 22 Apr 84

3. Country of origin of wastes and port of loading:

a. United States of America, California

b. Humboldt Harbor, Bay & Entrance

4. Specification of dredged material and process from which derived:

a. Description: Fine Sand with Trace of Silt
98% Sand
02% Silt

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled Sand

6. Total quantity (cubic meters): 325,000

7. Expected frequency of dumping (for reporting period):

a. 21 Loads Per Day

b. Actual start: 28 Mar 84c. Actual completion: 15 Apr 84

8. Chemical composition: Not Tested, Meets Criteria of Section 227.13 (6)(1),
Ocean Dumping Rules and Regulations, F.R. VOL 42, NO. 7, 11 Jan 77.

9. Properties of dredged material:

- a. Solubility (% water) 45
b. Density (gm/cc) 1.938
c. pH Not Tested
d. % sand 98 % silt 02 % clay 00

10. Method of packaging: Free Flowing from Open Hopper Dredge

11. Method of release: Bottom Pump

12. Procedure and site for tank washing: Hopper Flushed at Authorized
Disposal Site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 40° 45' 44" N
124° 15' 42" W

b. Depth of water (meters): 26.0

c. Distance from nearest coast (kilometers): 2.6

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South PacificDistrict San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of EngineersDate issued: 03 Oct 84Permit No. -Start Date: 19 Oct 84Expiry Date: 23 Nov 84

3. Country of origin of wastes and port of loading:

a. United States of America , California

b. Humboldt Harbor, Bay & Entrance

4. Specification of dredged material and process from which derived:

a. Description: Fine Sand with Trace of Silt
98% Sand
02% Silt

b. Mode of dredging: Trailing Hopper Dredge

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Settled Sand

6. Total quantity (cubic meters): 189,800

7. Expected frequency of dumping (for reporting period):

a. 21 Load per Day

b. Actual start: 20 Oct 84 c. Actual completion: 22 Nov 84

8. Chemical composition: Not tested, Meets Criteria of Section 227.13 (6)(1), Ocean Dumping Rules and Regulations F.R. Vol 42, No. 7, 11 Jan 77.

9. Properties of dredged material:

- a. Solubility (% water) 45
- b. Density (gm/cc) 1.938
- c. pH Not Tested
- d. % sand 98 % silt 02 % clay 00

10. Method of packaging: Free Flowing From Open Hopper Dredge

11. Method of release: Bottom-Dump

12. Procedure and site for tank washing: Hopper Flushed at Authorized Disposal Site

13. Approved dumping site:

a. Geographical position (latitude and longitude): 45° 45' 44" N
124° 15' 42" W

b. Depth of water (meters): 26.0

c. Distance from nearest coast (kilometers): 2.6

14. Additional information:

LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division South PacificDistrict San Francisco

2. Permit start date/expire date:

Permittee: U.S. Army Corps of EngineersDate issued: 03 Oct 84Permit No. ---Start Date: 19 Oct 84Expiry Date: 23 Nov 84

3. Country of origin of wastes and port of loading:

a. United States of America , California

b. Humboldt Harbor, North Bay Channel

4. Specification of dredged material and process from which derived:

a. Description:

SAND AND GRAVEL

90% Sand

8% Gravel

2% Silt

b. Mode of dredging:

Trailing Hopper Dredge

c. Mode of transportation: Hopper

5. Form in which dredged material is presented for disposal: Settled Sand & Gravel

6. Total quantity (cubic meters): 82,430

7. Expected frequency of dumping (for reporting period):

a. 10 Loads Per Day

b. Actual start: 20 Oct 84c. Actual completion: 22 Nov 84

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8. Chemical composition: Not tested, Meets Criteria of Section 227.13 (6)(1), Ocean Dumping Rules and Regulations F.R. VOL 42, NO. 7, 11 Jan 77

9. Properties of dredged material:

- a. Solubility (% water) 62
b. Density (gm/cc) 1.659
c. pH Not Tested
d. % sand 90 % silt 02 % Gravel 08

10. Method of packaging: Free Flowing From Open Hopper Dredge

11. Method of release: Bottom Pump

12. Procedure and site for tank washing: Hopper Flushed at Authorized Disposal Site

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 40° 45' 44" N
124° 15' 42" W

- b. Depth of water (meters): 26.0

- c. Distance from nearest coast (kilometers): 2.6

14. Additional information:

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division North Pacific

District Portland

2. Permit start date/expire date:

Permittee: Portland District, Corps of Engineers

Date issued: N/A

Permit No. N/A

Start Date: N/A

Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Chetco River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA and Contract Hopper Dredge

WESTPORT

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry,
non-cohesive-51% sand, 49% water

6. Total quantity (cubic meters): 24,371 c.m.

7. Expected frequency of dumping (for reporting period):

a. Intermittent dredging; 8 loads daily, 7 days per week

b. Actual start: 20 May 84

c. Actual completion: 23 Aug 84

8. Chemical composition:

Bulk Sediment Analysis:

Metals (mg/l):

Mercury - 0.16

Lead - 14.4

Cadmium - 3.3

Zinc - 183

Volatile Solids % - 4.2

C.O.D., mg/l - 15,466

Elutriate Analysis:

Metals (mg/l):

Mercury - .00001

Lead - .008

Cadmium - .001

Zinc - .14

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9. Properties of dredged material:
 - a. Solubility (% water) 49%
 - b. Density (gm/cc) 2.06
 - c. pH 7.6
 - d. % sand 90 % silt % clay % gravel 10
10. Method of packaging: N/A
11. Method of release: Bottom release
12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.
13. Approved dumping site:
 - a. Geographical position (latitude and longitude): 42° - 01' - 47" N
124° - 16' - 21" W
 - b. Depth of water (meters): 21.3 meters
 - c. Distance from nearest coast (kilometers): 1.6 kilometers
14. Additional information:

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:
 Division North Pacific District Portland
2. Permit start date/expire date:
 Permittee: Portland District, Corps of Engineers
 Date issued: N/A Permit No. N/A
 Start Date: N/A Expiry Date: N/A
3. Country of origin of wastes and port of loading:
 a. United States of America
 b. Coos Bay, Oregon
4. Specification of dredged material and process from which derived:
 a. Description: Sand (SP)
 b. Mode of dredging: Hopper Dredges ESSAYONS and YAQUINA
 c. Mode of transportation: Hopper Dredge
5. Form in which dredged material is presented for disposal: Slurry,
 non-cohesive-68% sand, 32% water
6. Total quantity (cubic meters): 590,459 c.m.
7. Expected frequency of dumping (for reporting period):
 a. 11 loads per day, 7 days per week
 b. Actual start: 24 Jul 84 c. Actual completion: 12 Aug 84
8. Chemical composition:

<u>Bulk Sediment Analysis:</u> <u>Metals (mg/kg):</u> Mercury - .088 Lead - 10.44 Cadmium - 6.96 Zinc - 69.6 Volatile Solids % - .95 C.O.D., mg/kg - 573	<u>Elutriate Analysis:</u> <u>Metals (mg/l):</u> Mercury - .00005 Lead - .004 Cadmium - .001 Zinc - .25
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9. Properties of dredged material:

- a. Solubility (% water) 32%
- b. Density (gm/cc) 2.03
- c. pH 7.1
- d. % sand 100 % silt % clay

10. Method of packaging: N/A

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal sites.

13. Approved dumping site:

- a. Geographical position (latitude and longitude):

This project has two authorized disposal sites. Both sites were used in CY 1984 (see #14 below).

- b. Depth of water (meters): See below

- c. Distance from nearest coast (kilometers): See below

14. Additional information:

<u>Disposal Area</u>	<u>Lat. - Long.</u>	<u>Water Depth</u>	<u>Dist. from Coast</u>
Area E	43° - 21' - 47" N 124° - 22' - 25" W	18.3 m	2.4 kilometers
Area F	43° - 22' - 30" N 124° - 22' - 00" W	24.4 m	2.4 kilometers

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division North Pacific

District Portland

2. Permit start date/expire date:

Permittee: Portland District, Corps of Engineers

Date issued: N/A

Permit No. N/A

Start Date: N/A

Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Coquille River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry,
non-cohesive-53% sand, 47% water

6. Total quantity (cubic meters): 16,353 c.m.

7. Expected frequency of dumping (for reporting period):

a. Intermittent dredging; 9 loads daily, 7 days per week

b. Actual start: 28 May 84

c. Actual completion: 28 Jun 84

8. Chemical composition:

Bulk Sediment Analysis:

Metals:

Mercury, ppm - .037

Lead - mg/kg, dry - 5.46

Cadmium - mg/kg, dry - 1.82

Zinc - mg/kg, dry - 7.28

Volatile Solids % - 4.45

C.O.D., gm/kg, dry - 1.71

Elutriate Analysis:

Metals (mg/l):

Zinc - .16

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9. Properties of dredged material:

- a. Solubility (% water) 47%
- b. Density (gm/cc) 2.06
- c. pH unknown
- d. % sand 100 % silt % clay

10. Method of packaging: N/A

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

- a. Geographical position (latitude and longitude): 43° - 07' - 36" N
124° - 26' - 52" W
- b. Depth of water (meters): 18.3 meters
- c. Distance from nearest coast (kilometers): 1.6 kilometers

14. Additional information:

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division North Pacific

District Portland

2. Permit start date/expire date:

Permittee: Portland District, Corps of Engineers

Date issued: N/A

Permit No. N/A

Start Date: N/A

Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Columbia River @ Mouth, Oregon & Washington

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge ESSAYONS and Contract Hopper Dredges

PADRE ISLAND and MANHATTAN ISLAND

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry,
non-cohesive-57% sand, 43% water

6. Total quantity (cubic meters): 6,833,489 c.m.

7. Expected frequency of dumping (for reporting period):

a. 12 loads daily, 7 days per week

b. Actual start: 2 May 84

c. Actual completion: 19 Oct 84

8. Chemical composition:

Bulk Sediment Analysis:

Metals:

Mercury, ppm, dry - 0.038

Lead, mg/kg, dry - 6.950

Zinc, mg/kg, dry - 9.0

Cadmium, mg/kg, dry - 0.64

C.O.D., gm/kg, dry - 1.73

Volatile Solids - 0.72

Elutriate Analysis:

Zinc, mg/l - .19

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9. Properties of dredged material:

a. Solubility (% water) 43%

b. Density (gm/cc) 1.93

c. pH 7.0

d. % sand 100 % silt % clay

10. Method of packaging: N/A

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal sites.

13. Approved dumping site:

a. Geographical position (latitude and longitude):

This project has five authorized disposal sites. Three were used in 1984 (see #14 below).

b. Depth of water (meters): See below

c. Distance from nearest coast (kilometers): See below

14. Additional information:

<u>Disposal Area</u>	<u>Lat. - Long.</u>	<u>Water Depth</u>	<u>Dist. from Coast</u>
Area A	46° - 12' - 38" N 124° - 06' - 30" W	18.3 meters	4.0 kilometers
Area B	46° - 14' - 10" N 124° - 10' - 30" W	39.6 meters	6.4 kilometers
Area E	46° - 15' - 27" N 124° - 05' - 37" W	21.3 meters	0.8 kilometers

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division North Pacific

District Portland

2. Permit start date/expire date:

Permittee: Portland District, Corps of Engineers

Date issued: N/A

Permit No. N/A

Start Date: N/A

Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Siuslaw River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA and Contract Hopper Dredge
WESTPORT

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry,
non-cohesive-78% sand, 22% water

6. Total quantity (cubic meters): 241,408 c.m.

7. Expected frequency of dumping (for reporting period):

a. 12 loads daily, 7 days per week

b. Actual start: 3 Jun 84 c. Actual completion: 3 Oct 84

8. Chemical composition:

Elutriate Test

Mercury, ppm - .0010

Chemical Oxygen Demand, mg/l - 77.16

Total Kjeldahl Nitrogen, mg/l - 1.54

Volatile Solids, % - 21.12

Total Organic Carbon, mg/l - 1.6

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9. Properties of dredged material:

a. Solubility (% water) 22%

b. Density (gm/cc) 2.17

c. pH 7.0

d. % sand 100 % silt _____ % clay _____ % gravel 10

10. Method of packaging: N/A

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 44° - 01' - 23" N

124° - 09' - 22" W

b. Depth of water (meters): 21.3 meters

c. Distance from nearest coast (kilometers): 1.9 kilometers

14. Additional information:

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division North Pacific

District Portland

2. Permit start date/expire date:

Permittee: Portland District, Corps of Engineers

Date issued: N/A

Permit No. N/A

Start Date: N/A

Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Umpqua River, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry,
non-cohesive-89% sand, 11% water

6. Total quantity (cubic meters): 124,279 c.m.

7. Expected frequency of dumping (for reporting period):

a. Intermittent dredging; 16 loads daily, 7 days per week

b. Actual start: 25 May 84

c. Actual completion: 27 Aug 84

8. Chemical composition:

Elutriate Test on Receiving Water:

Metals (ug/l):

Other (ug/l):

Barium - 300

Cadmium - 3

Copper - 5

Iron - 120

Lead - 2

Manganese - 30

Zinc - 30

Phosphorus - 122

Orthophosphate - 95

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9. Properties of dredged material:

a. Solubility (% water) 11%

b. Density (gm/cc) 2.05

c. pH 8.0

d. % sand 100 % silt % clay % gravel 10

10. Method of packaging: N/A

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 43° - 40' - 00" N

124° - 14' - 00" W

b. Depth of water (meters):

27.4 meters

c. Distance from nearest coast (kilometers):

0.8 kilometers

14. Additional information:

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 1984

1. Issuing Authority:

Division North Pacific

District Portland

2. Permit start date/expire date:

Permittee: Portland District, Corps of Engineers

Date issued: N/A

Permit No. N/A

Start Date: N/A

Expiry Date: N/A

3. Country of origin of wastes and port of loading:

a. United States of America

b. Yaquina Bay and Harbor, Oregon

4. Specification of dredged material and process from which derived:

a. Description: Sand (SP)

b. Mode of dredging: Hopper Dredge YAQUINA and Contract Hopper Dredge
WESTPORT

c. Mode of transportation: Hopper Dredge

5. Form in which dredged material is presented for disposal: Slurry,
non-cohesive-72% sand, 28% water

6. Total quantity (cubic meters): 512,873 c.m.

7. Expected frequency of dumping (for reporting period):

a. Intermittent - 8 loads daily, 7 days per week

b. Actual start: 15 Apr 84

c. Actual completion: 18 Sep 84

8. Chemical composition:

Elutriate Test (Ocean Receiving Water):

Metals (ug/l):

Cadmium - 1.3

Copper - 2

Iron - 100

Lead - 2
Manganese - 30

Zinc - 11

Other

Arsenic, ug/l - 1

Organic Carbon, mg/l - 6.4

Cyanide, ug/l - 1

Phosphorus, ug/l - 33
Orthophosphate, ug/l - 14

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9. Properties of dredged material:

a. Solubility (% water) 28%

b. Density (gm/cc) 2.05

c. pH 8.2

d. % sand 100 % silt % clay % gravel 10

10. Method of packaging: N/A

11. Method of release: Bottom release

12. Procedure and site for tank washing: Hoppers flushed at authorized disposal site.

13. Approved dumping site:

a. Geographical position (latitude and longitude): 44° - 36' - 24" N

124° - 05' - 40" W

b. Depth of water (meters): 18.3 meters

c. Distance from nearest coast (kilometers): 1.6 kilometers

14. Additional information:

C-50

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LONDON DUMPING CONVENTION

Report of Ocean Dumping Permits - CY 84

1. Issuing Authority:

Division North Pacific

District Alaska

2. Permit start date/expire date:

Permittee: _____

Date Issued: _____

Permit No.: _____

Start Date: _____

Expiry Date: _____

3. Country of origin of wastes and port of lodging:

a. United States of America

b. Nome, Alaska

4. Specification of dredged material and process from which derived:

a. Description: Gravelly, Silty, Sand

b. Mode of Dredging: Cutter Suction

c. Mode of Transportation: Pipeline

5. Form in which dredged material is presented for disposal: Suspended

6. Total quantity (cubic meters): 15,200 cy: 11,622 m³

7. Expected frequency of dumping (for reporting period):

a. Continuous

b. Actual Start: 1 June 1984

c. Actual Completion: 6 September 1984

8. Chemical Composition: N/A

9. Properties of dredged material:

a. Solubility (percent water) 10 percent

b. Density (gm/cc): 1.6 sm/cc

c. pH N/A

d. % sand 75 % silt 15 % clay 0

10. Method of packaging: Suction

11. Method of release: Pipeline

12. Procedure and site for tank washing: N/A

13. Approved dumping site:

Center Coordinates	
East Side	West Side
64° 29' 26"N	64° 29' 37"N
65° 24' 00"W	165° 25' 31"W

a. Geographical position (latitude and longitude): _____

b. Depth of Water (meters): 3-5m

c. Distance from nearest coast (kilometers): 0.6km

14. Additional information:

This is an annual Corps of Engineers Maintenance Dredging Project

END

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