APPLIED ENVIRONMENTAL TECHNOLOGIES INC.
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April 9, 2009
Ref. No. 0062-22O

U. S. Army Corps of Engineers
Los Angeles Regulatory Branch
P.O. Box 532711
Los Angeles, California 90053-2325

Attention: Ms. Phuong Trinh

California Regional Water
Quality Control Board
Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Mr. Michael Lyons

U. S. Environmental Protection Agency
Wetlands Regulatory Office (WR-8)
75 Hawthorne Street
San Francisco, CA 94105-3901

Attention: Mr. Alan Ota

Final Report
Sampling and Analysis
Ventura Harbor Sediment Investigation, Ventura, California

INTRODUCTION

The Ventura Harbor requires periodic maintenance dredging to keep the channel and berthing areas open to private and commercial vessels (Plate 1). The Ventura Port District is proposing to conduct maintenance dredging of the inner harbor in the future. This report includes the results of the sampling and analysis conducted, according to the workplan dated January 22, 2009, on the sediments within the Ventura Harbor waterways.

The dredging will be conducted under the requirements and conditions of the Los Angeles District U. S. Army Corps of Engineers, Department of the Army Permit 200601735-PHT and the Regional Water Quality Control Board, Los Angeles Region Order Number R4-2006-0087 (File No. 76-59). In order to confirm that the deposition sites authorized by the above referenced permits

continue to be appropriate sites for the dredged material from the harbor, the Ventura Port District had this sampling and analysis of the harbor sediments conducted.

The volumes of proposed dredging in each of the areas of the harbor are shown below:

	Dredge Volume/Dredge Depth (CuYd)	(Ft - MLLW)	Volume with 2-foot over-dredge (CuYd)
Area A	32,446	-18	72,218
Area B	15,024	-18	37,575
Area C	13,837	-18	43,004
Area D	2,470	-15	13,156
Area E	6,708	-12	9,875
Area F	33,238	-28	40,917

Previous Sediment Sampling

Sediment sampling was conducted in the Ventura Harbor during February 1994, March 1997, November 1998, May 2002 and July 2005. Analysis for chemical compounds and physical parameters were conducted during all surveys. In summary, it was the conclusion of all reports that the chemical concentrations measured in the Ventura Harbor sediments are not environmentally significant. Additionally, it was the opinion of the reports that no significant impact would occur from the disposal of Ventura Harbor sediments to waters offshore the Santa Clara River mouth. A description of the individual sampling episodes is contained in Appendix B, Addendums 1 through 5.

It was also the conclusion of all reports that the sediment in the Ventura Harbor is comparable with sediments regularly discharged by the Santa Clara River. Additionally, it was the conclusion of the reports that the sediments dredged from the Ventura Harbor could be placed near the river mouth without causing a long-term alteration of the grain size distributions in the area of the river mouth.

Previous Intertidal Infaunal Sampling

In addition to sediment sampling of potential dredge areas, the Ventura Port District has in the past conducted Intertidal Infaunal Biological Characterizations for the State of California Department of Parks & Recreation, Channel Coast District on the McGrath State Park Sandy Beach, adjacent to the southeast during Ventura Harbor's annual dredging and beach replenishment. The dredged sediment is discharged onto the intertidal sandy beach of McGrath State Beach. The biological characterization is conducted at the point of discharge and at a control site down coast.

The sediment disposal site was similar to the control site in both species composition and abundance over 10 survey episodes from 1996 to 2001. Based on numerous research documentations, the variability of the beach's fauna is correlated with season, substrate, and the

organism's own productivity. Based on AET's observations over 10 survey episodes (5 years), no impact to the beach fauna was attributed to the dredge discharge to marine waters.

In 2002, the State agreed that additional surveys of infaunal biota would not be expected to generate any substantial new information. Based on this premise, the State Parks and Recreation Department decided to modify the characterization at this beach. The modified characterization stresses the observation of infauna used as a food source for shore birds.

Based on our observations for the years 2002 to 2005, the discharge of dredged materials onto the McGrath State Beach has had no impact on the presence or absence of invertebrate organisms in the substrate.

Current Sampling and Analysis Methodology

Task 1: Sediment Collection

Core Samples in Proposed Dredging Areas

The collection of sediment cores was conducted in six (6) discrete sample areas (Areas A through F) in Ventura Harbor (see Plates 2A through D). Within Areas A through D, 4 sediment samples were collected (Plates 2A through 2D). In Areas E and F, single discrete samples were collected (Plates 2B and 2C).

The cores were collected using an electric vibracore from a barge. The depth of the samples within Areas A, B and C will be to approximately a maximum depth of -20 feet MLLW (design depth is –18 feet MLLW). In Area D, the maximum depth of dredging will be -17 feet MLLW (design depth is –15 feet MLLW). Area E (vicinity of the small boat ramp) will be sampled to a depth of approximately -14 feet (design depth of -12 feet). The Area E is an addition to previous dredging plans and has not been sampled or dredged in over 20 years. Area F will be extended to a maximum depth of -30 feet MLLW (design depth is -28 feet MLLW). This area was a natural depression previously used to contain minor quantities of inner harbor sediments. The material in this area is a composite of dredged sediments previously sampled within the inner harbor and do not represent externally developed fill.

Each area (with the exception of E and F with a single discrete sample) had a composite sample (from 4 samples) analyzed for the constituents described on Table 1. The sample collected from each sample location within a particular sampling area was extruded from the liner, photographed and placed in a bucket for mixing. The samples collected from each sampling area (A, B, C, D, E and F) were mixed to get a representative sample. Each discrete sample was archived pending results. The samples for chemical analyses were placed in appropriate glassware, labeled and stored on blue ice pending transport to an analytical laboratory certified by the state for the analyses proposed. Strict chain-of-custody documentation was followed, and normal quality

control/quality assurance protocols were followed. Grain size samples were separated into plastic bags.

Task 2: Sample Analysis

The objective of the sediment chemical analyses is to characterize the composition of sediment to be dredged from Ventura Harbor, and identify any compounds that may potentially be released as dissolved constituents to potential receiving water.

A composite sample was collected at each sample area. The composite sample will be analyzed for grain size, and total organic carbon (TOC). Grain size analyses to determine general size classes that make up sediment (gravel, sand, silt, clay) will be measured using nested sieves. TOC, consisting of volatile and non-volatile organic compounds, will be determined.

The samples were analyzed for constituents generally accepted for determination of hazardous or toxic conditions within the sediments. The analysis of each sample included the constituents shown on Table 1.

Findings

In summary, the sediments investigated in the Ventura Harbor consisted generally of saturated silty clay. Fine to coarse grain sand were encountered at all locations sampled in the areas investigated. Photographs of the cores with descriptions are contained in Appendix A.

The grain sizes of the inner Ventura Harbor samples are shown in Table 2 and Appendix B. The percent of the individual grain sizes (i.e., gravel, sand, and silt/clay) of the Ventura Harbor samples are shown on Table 2. The percentages retained on a 200 sieve are approximately 42.7% for Area A, 53.8% for Area B, 62.8% for Area C, 39.1% for Area D, 47.2% for Area E and 63.3% for Area F.

The sediment samples were measured for total percent solids. The range of solids measured for the core samples was 66.9 (Area D) to 74.7 (Area C) percent (see Laboratory Results in Appendix C).

The sediment samples were analyzed for total organic carbon (TOC). The results showed that between 0.51 and 0.80 percent of the samples in the core samples contained organic carbon (see Laboratory Results in Appendix C).

The samples contained concentrations of volatile organics as acetone. Concentrations ranged from 34 to 146 μg/kg (see Laboratory results in Appendix C)

The sediment samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs). Three constituents were identified. Bis(2-ethylhexyl) phthalate was identified above the method

detection limit and below the practical quantification limit (marked with a J) in areas A, B and C. Chrysene and fluorene were also identified below there practical quantification limits in Area B. The concentrations of constituents measured are shown on Table 3 and contained in the Laboratory Results in Appendix C).

The chemical analyses conducted on the samples resulted in no detectable concentrations of polychlorinated biphenyls (PCBs), phenols, or cyanide. The laboratory results are attached in Appendix B. The volatile organic, acetone, was measured in all samples ranging from 34.0J (Area E) to 146 μg/kg (Area C).

Organochlorine pesticides were detected in all samples (see Table 4 and Laboratory Results in Appendix C). DDD ranged from 1.06J in the Area A sample to 15.7 μg/kg in the Area D sample. DDE ranged from not detected in areas A, B and E samples to 13.8 μg/kg in the Area D sample. DDT was detected in Areas C and D at 0.450J and 0.980J μg/kg, respectively.

No detectable concentrations of Monobutyltin or Dibutyltin were measured (see laboratory results in Appendix C). Tributyltin was detected in all samples ranging from 1.03 μg/kg in Area A to 7.20 μg/kg in Area E.

Metals analyses were conducted on the sediment samples. No silver concentrations were detected in the samples. A summary of the concentrations of metals measured is shown on Table 5. A complete copy of the metal analyses is shown in Appendix C. No concentrations were measured that exceed the total threshold limit concentration (TTLC) which identifies the material as hazardous (see Table 5). No concentrations were measured that were 10 times the soluble threshold limit concentration (STLC), which would infer that the sediments do not contain hazardous levels of a metal (see Table 5).

Discussion and Conclusions

No detectable concentrations of polychlorinated biphenyls (PCBs), phenols or cyanide were measured in the samples collected. The total organic carbon components of the samples are considered to be within normal conditions.

The samples contained concentrations of volatile organics as acetone. Concentrations ranged from 34 to 146 μg/kg. The preliminary remediation goal (PRG) for acetone in residential soils is 61,000 mg/kg (61,000,000 μg/kg). No impact is expected from these concentrations.

Organochlorine pesticides (DDT and its metabolites) were detected in several samples. The concentrations are below action limits and are considered below environmental risk levels.

Minor concentrations of PAHs were measured in several samples from the Ventura Harbor. The concentrations are considered insignificant and not deemed an environmental concern. Insufficient data are available to permit EPA to define criteria to prevent damage to aquatic life or

harm to humans. Primary maximum limit concentrations (MCL) have not been set except for a few of the constituents. Chrysene has a proposed MCL of 0.2 μg/l for drinking water. Chrysene was measured at approximately 15 μg/kg in the sediments of Area A. Chrysene is insoluble in water and is not considered an environmental hazard to the marine environment. No significant levels of semivolatile organics were identified.

Organic tin was detected as Tributyltin at concentrations ranging from 1.03 to 7.20 μg/kg. The EPA has set a PRG of 18,000 μg/kg. A permissible ambient goal of 1,100 μg/l has been set for tap water. Based on the low volume of sediment to be discharged to the marine environment, it is our opinion that no significant environmental hazard is present from organic tin.

Various metals were detected in the Ventura Harbor and offshore area samples. None of the concentrations detected exceed Title 22 standards (see Table 5). It is our opinion that no impacts due to metals would occur from discharge of dredged materials from the Ventura Harbor to the marine environment offshore the Santa Clara River.

It is the conclusion of this report that the chemical concentrations measured in the Ventura Harbor sediments are not environmentally significant. Additionally, it is our opinion that no significant impact would occur from the disposal of Ventura Harbor sediments to waters offshore the Santa Clara River mouth or to authorized depressions on the harbor bottom.

The results of the sampling during this period and previous sampling episodes discussed at the beginning of this report are consistent. No significant changes have been observed between this sampling period and previous ones. The permits currently in effect are adequate to protect the waters along the Ventura Coast.

Sediment grain size remains consistent with the river discharge. The grain size is predominantly silts and clays, however, based on previous studies of the Santa Clara River Mouth area, the grain size remains consistent with that discharged by the river. The Santa Clara River discharges approximately 78 percent of their sediment volume as silts and clays, whereas, the sediment volume consisting of silts and clays from this Ventura Harbor sampling episode is an average of approximately 48.5% (ranging from 36.7 to 60.9%).

Based on studies conducted by R. P. Williams (1978, "Sediment Discharge in the Santa Clara River Basin, Ventura County, California", USGS Water Resources Investigation 79-78), the sediment grain sizes discharged by the Santa Clara River range from clays and silts to gravel. Particle size measurements were collected during the years 1969 to 1975. Silts and clays comprised a majority (over 79 percent) of the sediments discharged by the Santa Clara River during these years. The river has discharged between 0.4 and 40,200,000 tons per day (estimated to be between 0.3 and 30,000,000 cubic yards) from the river mouth into the marine environment. The estimated mean daily total sediment discharge during the period 1950 to 1975 for the Santa Clara River was 9,720 tons (estimated at approximately 7,200 cubic yards). This can be estimated to consist of over 2.5 million cubic yards of sediment per year. The discharge of sediments is highly variable depending

on rainfall and flooding, and it is our opinion that the dispersement of harbor sediments in the vicinity of the river mouth would not affect the marine ecosystem significantly.

In addition the previous studies conducted on the sediments offshore the Santa Clara River mouth show the materials present in the Ventura Harbor are comparable to those discharged from the Santa Clara River (See Addendums 1 through 3). No apparent environmental concerns were observed during previous placement of Ventura Harbor sediments to the surf zone of the beaches near the Santa Clara River mouth. In the last 23 years (1982 to 2005), 15 years of dredging saw the disposal of 792,746 cubic yards (ranging from 2,000 to 149,000 cubic yards per year) of inner harbor sediment to the area of the Santa Clara River mouth. The average yearly discharge is calculated at 52,850 cubic yards per disposal year. No adverse impacts were recorded.

This estimated dredge volume is well within the parameters that have been released to the river mouth area in the past. The estimated average dredge volume of 52,850 cubic yards is considered to be an insignificant volume when compared to the annual discharge from the Santa Clara River (2.5 million cubic yards per year). No affect to the marine environment would be expected from the placement of the Harbor sediments to the area near the Santa Clara River mouth.

It is the conclusion of this report that the sediment in the Ventura Harbor (approximately 48.5 percent silts and clays) is considered insignificant with sediments regularly discharged by the Santa Clara River (79 percent silts and clays). Additionally, it is the conclusion of the report that the sediments dredged from the Ventura Harbor could be placed near the river mouth without causing a long-term alteration of the grain size distributions in the area of the river mouth. It is our opinion, that weather; wave action and the Santa Clara River have significantly more impact on the beaches than dredging activities

Limitations

This report has been prepared as a field assessment of sediment conditions in Ventura Harbor. In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the standard of practice measured on the date of this report and in the locale of the project site for similar type studies. Applied Environmental Technologies, Inc., makes no warranty, expressed or implied, in fact or by law, whether of merchantability, fitness for any particular purpose, or otherwise, concerning any of the materials or "services" furnished by Applied Environmental Technologies, Inc., to the client.

The results of this report have been developed based on a limited number of sediment sample analyses from discrete locations in the Ventura Harbor. It should be recognized that sediment conditions could vary laterally and with depth below a given location.

Should you have any questions or comments concerning this report, please contact us.

Very truly yours,
Applied Environmental
Technologies, Inc.

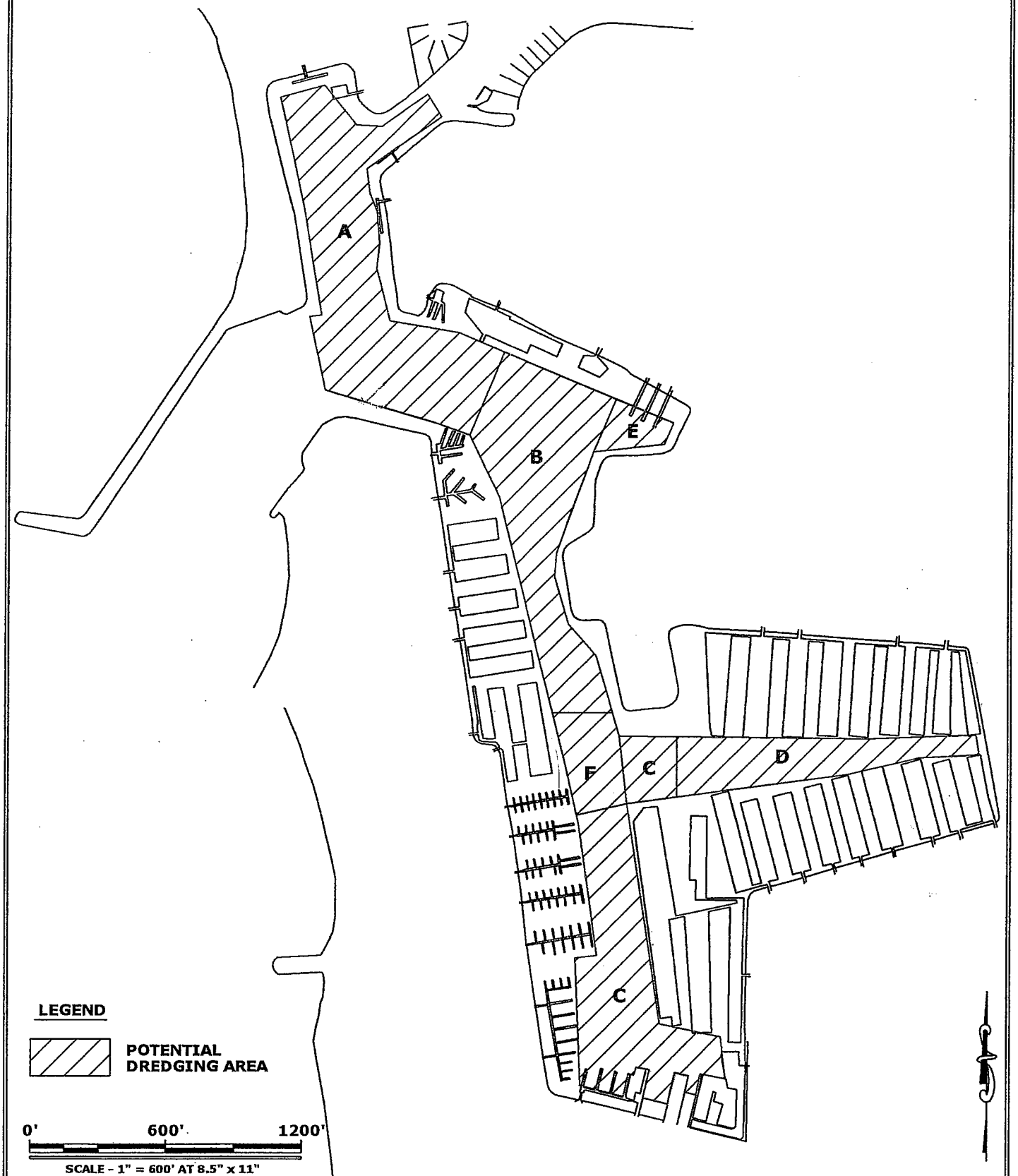
Harry C. Finney, REA
Senior Marine Ecologist

HCF/wp

Appendices: Appendix A – Photographs of Sediment Cores
Appendix B - Grain Size Analyses
Appendix C - Laboratory Results

Addendums: Addendum 1 – February 1994 Sediment Investigation
Addendum 2 – March 1997 Sediment Investigation
Addendum 3 – November 1998 Sediment Investigation
Addendum 4 – May 2002 Sediment Investigation

cc: Mr. Richard Parsons, Ventura Port District, Dredging Program Manager



LEGEND

POTENTIAL DREDGING AREA

0' 600' 1200'

SCALE - 1" = 600' AT 8.5" x 11"

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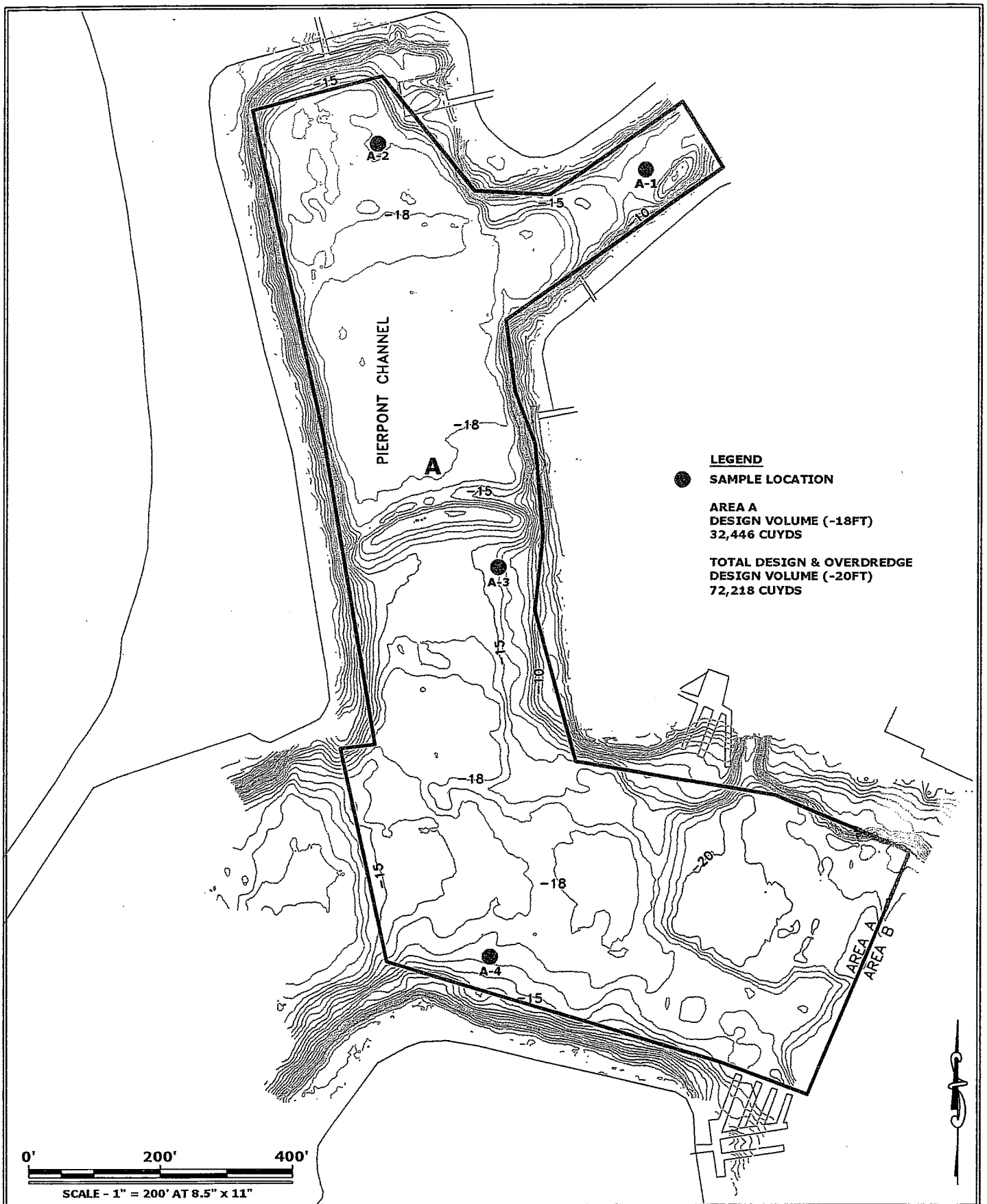
VENTURA PORT DISTRICT DREDGING AREAS

VENTURA HARBOR
VENTURA, CALIFORNIA

PLATE REFERENCE 0062-22_01 | MARCH 2009 | PROJECT NUMBER 0062-22

PLATE 1



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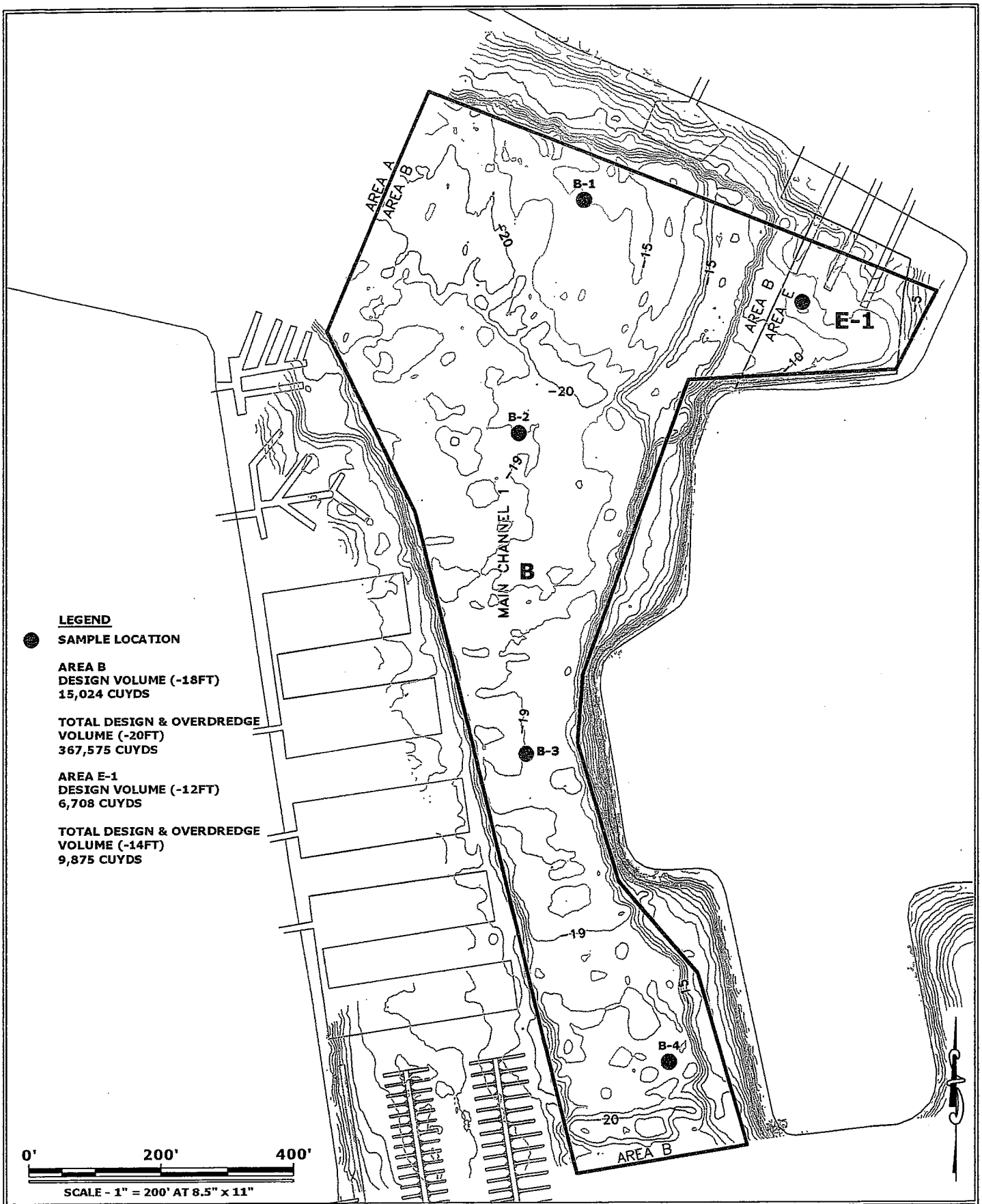
SAMPLE LOCATIONS "A"

VENTURA HARBOR
VENTURA, CALIFORNIA
SOURCE: FUGRO AUGUST 2008 (APPENDIX B)

PLATE REFERENCE 0062-22_02A	MARCH 2009	PROJECT NUMBER 0062-22

PLATE 2A



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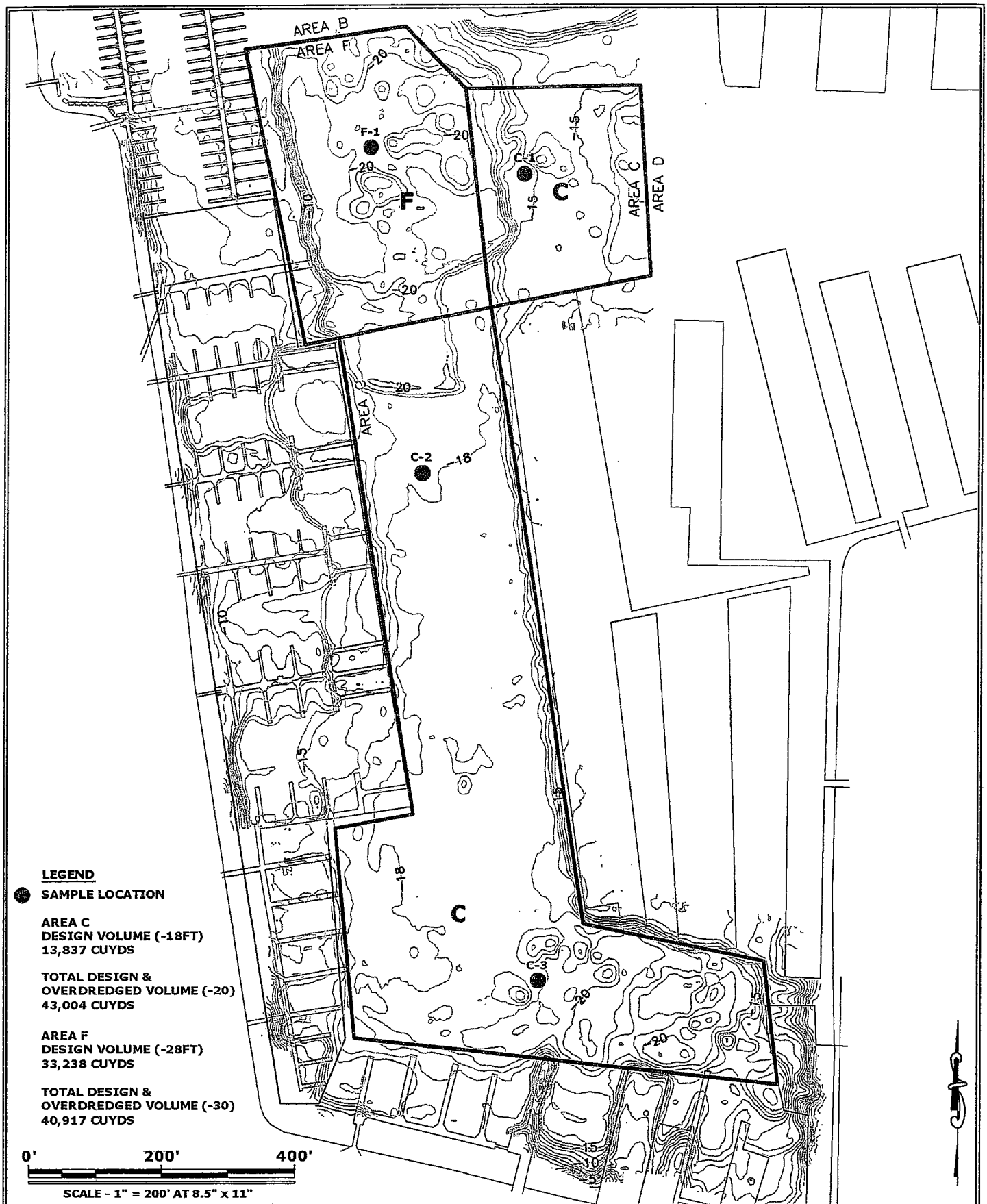
SAMPLE LOCATIONS "B" & "E"

VENTURA HARBOR
VENTURA, CALIFORNIA
SOURCE: FUGRO AUGUST 2008 (APPENDIX B)

PLATE REFERENCE 0062-22_02B	MARCH 2009	PROJECT NUMBER 0062-22

PLATE 2B



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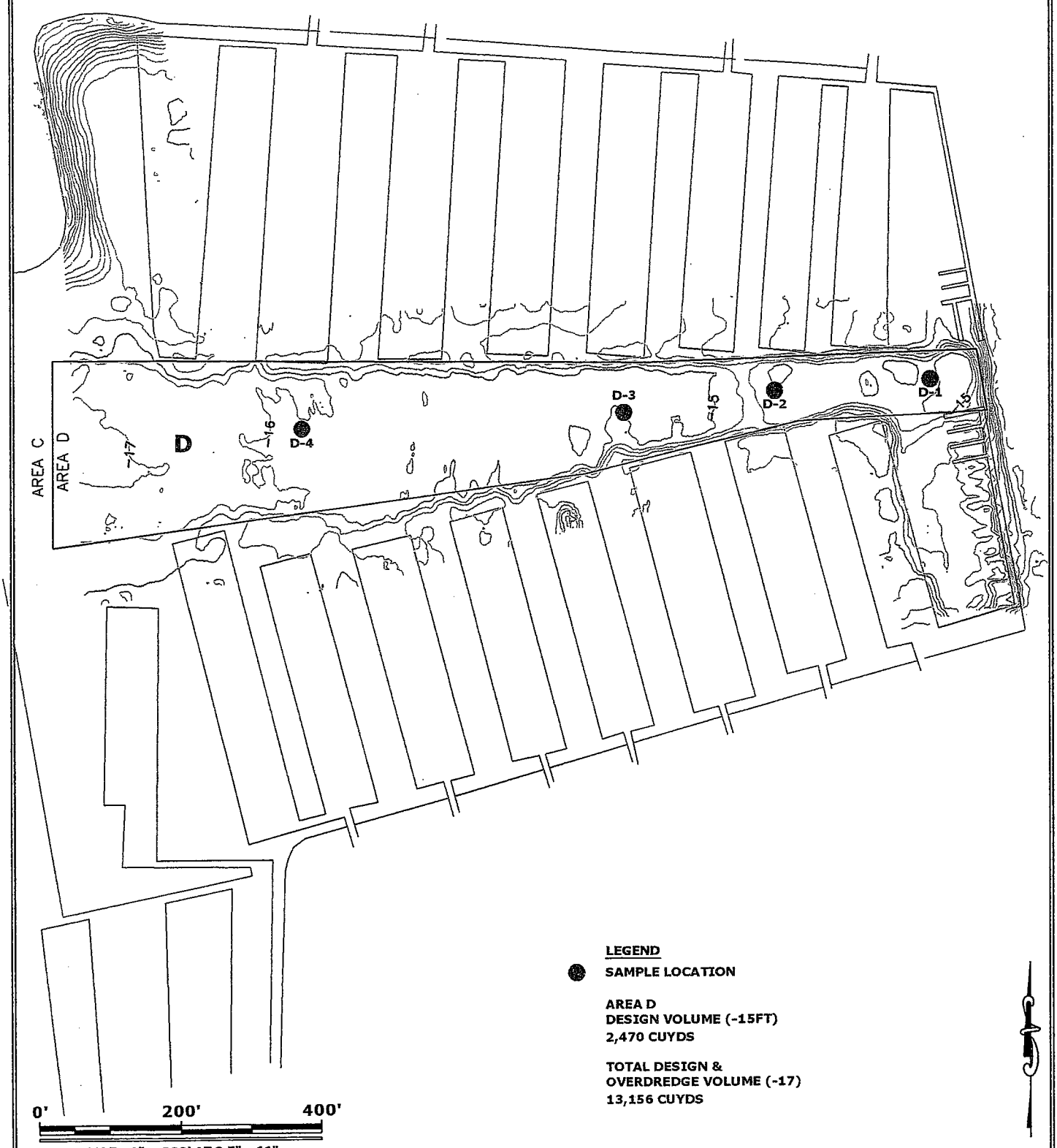
SAMPLE LOCATIONS "C" & "F"

VENTURA HARBOR
VENTURA, CALIFORNIA
SOURCE: FUGRO AUGUST 2008 (APPENDIX B)

PLATE REFERENCE 0062-22_02C	MARCH 2009	PROJECT NUMBER 0062-22

PLATE 2C



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SAMPLE LOCATIONS "D"

VENTURA HARBOR
VENTURA, CALIFORNIA
SOURCE: FUGRO AUGUST 2008 (APPENDIX B)

PLATE REFERENCE 0062-22_02D	MARCH 2009	PROJECT NUMBER 0062-22

PLATE 2D

Table 1.
Chemical Constituents Analyzed
Ventura Harbor Dredge Investigation

		Detection Limits
1.	Metals	
	Cadmium	0.1 mg/kg
	Chromium	0.1 mg/kg
	Copper	0.1 mg/kg
	Lead	0.1 mg/kg
	Mercury	0.02 mg/kg
	Nickel	0.1 mg/kg
	Selenium	0.1 mg/kg
	Silver	0.1 mg/kg
	Zinc	2.0 mg/kg
2.	Non-Metals	
	Arsenic	0.1 mg/kg
	Total Cyanide	1 mg/kg
3.	Pesticides	
	Aldrin	0.5-2.0 ug/kg
	Alpha, beta, delta & gamma (Lindane) hexachlorocyclohexane	2.0 ug/kg
	Alpha & gamma Chlordane	2.0 ug/kg
	Dieldrin	4.0 ug/kg
	DDT and Derivatives (DDE & DDD)	4.0 ug/kg
	Endrin and Derivatives	4.0 ug/kg
	Endosulfan I	2.0 ug/kg
	Endosulfan II	4.0 ug/kg
	Endosulfan Sulfate	4.0 ug/kg
	Heptachlor	2.0 ug/kg
	Heptachlor epoxide	2.0 ug/kg
	Methoxychlor	17.0 ug/kg
	Toxaphene	170.0 ug/kg
4.	Organics	
	Organotin Compounds (Mono, Di, Tributyltin)	1.0 ug/kg (reported separately)
	Total Organic Volatiles	20.0 mg/kg
	Total Phenols	20-100 ug/kg
	Polychlorinated Biphenyls (including total PCBs, and Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260)	20 µg/kg
	Polynuclear Aromatic Hydrocarbons	20 µg/kg

Including: Total PAHs

Acenaphthene	Acenaphthylene
Anthracene	Benzo(a)anthracene
Benzo(a,e)Pyrene	Benzo(g,h)perylene
Benzoic acid	Benzyl alcohol
Benzo(k)fluoranthene	Benzo(b)fluoranthene
Bis(2-chloroethoxy)methane	Bis(2-chloroethyl)ether
Bis(2-chloroisopropyl)ether	Bis(2-ethylhexyl)phthalate
4-Bromophenyl phenyl ether	Butyl benzyl phthalate
4-Chloro-3-methylphenol	4-Chloroaniline
2-Chloronaphthalene	2-Chlorophenol
4-Chlorophenyl phenyl ether	Chrysene
Di-n-butyl phthalate	Dibenzo(a,h)anthracene Fluoranthene
Di-n-octyl phthalate	Dibenz(a,h)anthracene
Dibenzofuran	1,3-Dichlorobenzene
1,2-dichlorobenzene	1,4-Dichlorobenzene
3,3-Dichlorobenzidine	2,4-Dichlorophenol
Diethyl phthalate	2,4-Dimethylphenol
Dimethyl phthalate	2,4-Dinitrophenol
2,4-Dinitrotoluene	2,6-Dinitrotoluene
Fluoranthene	Fluorene
Hexachlorobenzene	Hexachlorobutadiene
Hexachlorocyclopentadiene	Hexachloroethane
Indeno(1,2,3,-c,d)Pyrene	Isophorone
2-methyl-4,6-Dinitrophenol	2-Methylnapthalene
2-Methlyphenol	4-Methylphenol
N-Nitroso-Di-n-propylamine	N-Nitrosodiphenylamine
Naphthalene	2-Nitroaniline
3-Nitrolaniline	4-Nitrolaniline
Nitrobenzene	2-Nitrophenol
4-Nitrophenol	Pentachlorophenol
Phenanthrene	Phenol
Pyrene	1,2,4-Trichlorobenzene
2,4,5-Trichlorobenzene	

Total Phthalates	10.0 ug/kg
Total Organic Carbon	0.1 %
Total Solids	

Table 2.
Sediment Grain Sizes
Ventura Harbor Dredge Investigation
March 2009

Grain Size	Area A	Area B	Area C	Area D	Area E	Area F
Gravel	1.0%	1.0%	6.0%	1.0%	3.0%	3.0%
Sand	41.7%	52.8%	56.8%	38.1%	44.2%	60.3%
Silt & Clay	57.3%	46.2%	37.2%	60.9%	52.8%	36.7%
Percent Retained on 200 Sieve	42.7%	53.8%	62.8%	39.1%	47.2%	63.3%

Table 3.
Semivolatile Organic Concentrations, Sediment Sampling Investigation March 2009
in μg/kg

Constituent	Area A	Area B	Area C	Area D	Area E	Area F	Water Quality Goals Maximum Contaminant Level (MCL)
Bis(2-Ethylhexyl)phthalate	42.0J	18.0J	27.0J	ND	ND	ND	None
Chrysene	15.0J	ND	ND	ND	ND	ND	0.2[1]
Fluorene	35.0J	ND	ND	ND	ND	ND	None

ND = not detected
[1] Proposed

Table 4.
Pesticide Concentrations, Sediment Sample Investigation March 2009
in μg/kg

							Regulatory Limits	
Constituents	Area A	Area B	Area C	Area D	Area E	Area F	TTLC	STLC*
4,4'-DDD	1.06J	2.48J	3.38J	15.7	1.26J	2.29J	1000	1000
4,4'-DDE	ND	ND	10.4	13.8	ND	10.3	1000	1000
4,4'-DDT	ND	ND	0.450J0.980J	ND	ND	ND	1000	1000
Other pesticides	ND	ND	ND	ND	ND	ND		

ND = not detected
J = Below the practical quantification limit (PQL) but above the method detection level.

* Incorporates a 10 times dilution to correlate to sample concentrations shown above.

Table 5

Metals Concentrations, Sediment Sampling Investigation March 2009

In mg/kg

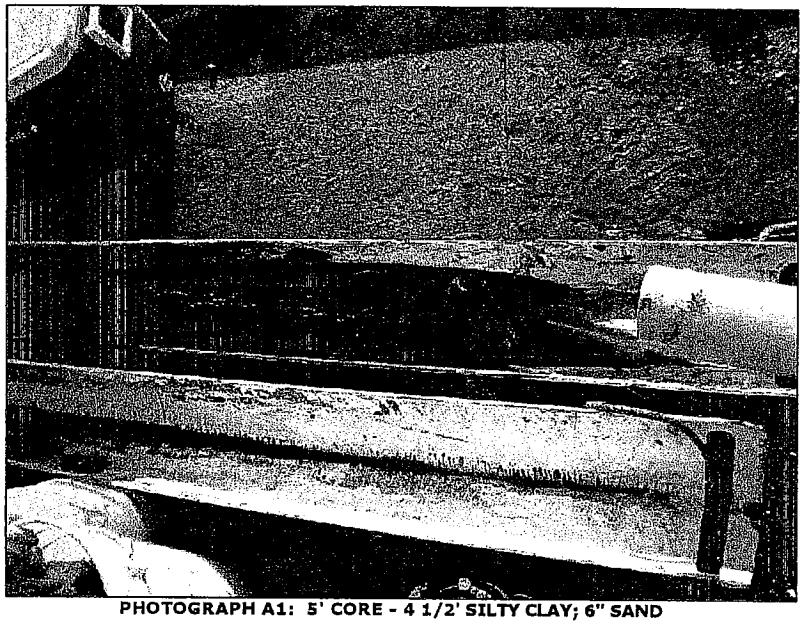
Constituent	Area A	Area B	Area C	Area D	Area E	Area F	TTLC	STLC*
Arsenic	2.62	2.88	2.77	2.94	3.36	3.11	500	50
Cadmium	0.267	0.344	0.383	0.353	0.384	0.333	500	50
Chromium	10.4	11.5	10.9	11.4	12.7	11.5	500	50
Copper	10.6	12.4	13.9	15.2	22.1	26.0	2500	250
Lead	3.69	6.40	4.89	7.14	9.97	7.94	1000	50
Mercury	0.0355	0.0231	0.0608	0.0293	0.0427	0.0335	20	2
Nickel	9.15	10.0	9.10	9.52	9.93	9.49	2000	200
Selenium	1.02	0.961	0.940	1.09	1.16	1.10	100	10
Silver	ND	ND	ND	ND	ND	ND	500	50
Zinc	28.6	30.0	29.5	34.7	41.8	41.2	5000	2500

ND = not detected at detection limit of 0.2 mg/kg
J = Below the practical quantification limit (PQL) but above the method detection level.

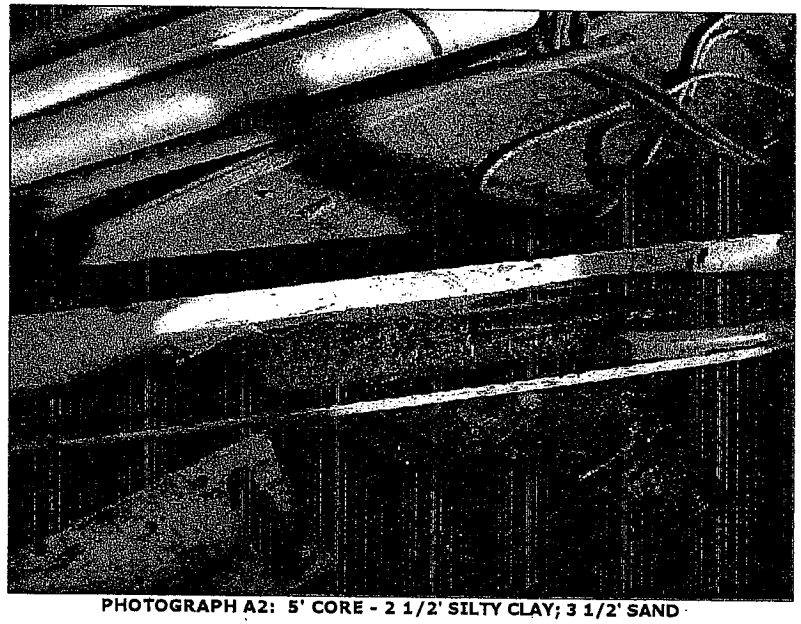
* Incorporates a 10 times dilution to correlate to sample concentrations shown above.

APPENDIX A

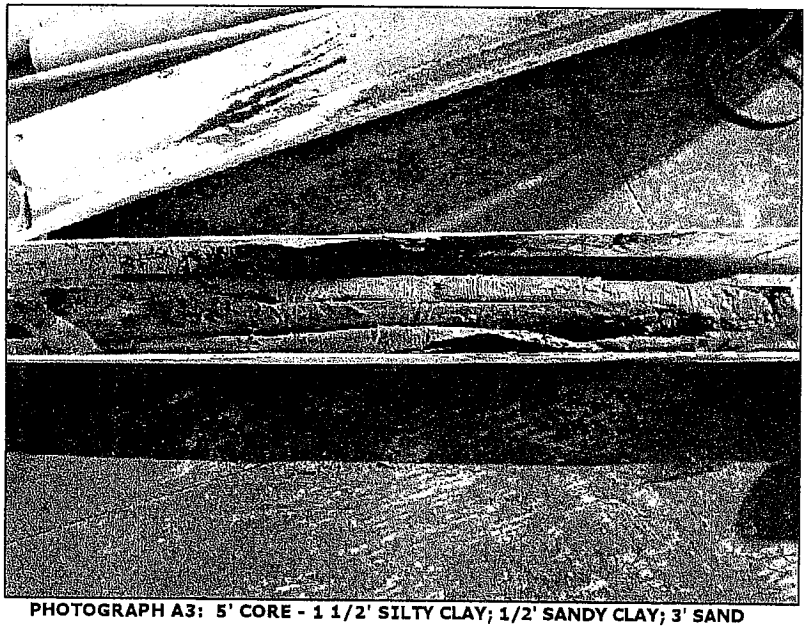
Photographs of Sediment Cores



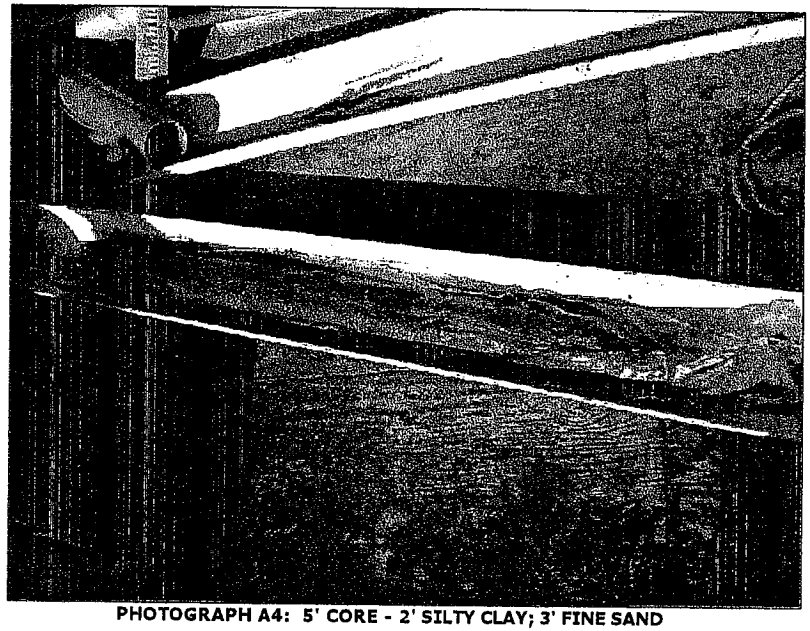
PHOTOGRAPH A1: 5' CORE - 4 1/2' SILTY CLAY; 6" SAND



PHOTOGRAPH A2: 5' CORE - 2 1/2' SILTY CLAY; 3 1/2' SAND



PHOTOGRAPH A3: 5' CORE - 1 1/2' SILTY CLAY; 1/2' SANDY CLAY; 3' SAND



PHOTOGRAPH A4: 5' CORE - 2' SILTY CLAY; 3' FINE SAND

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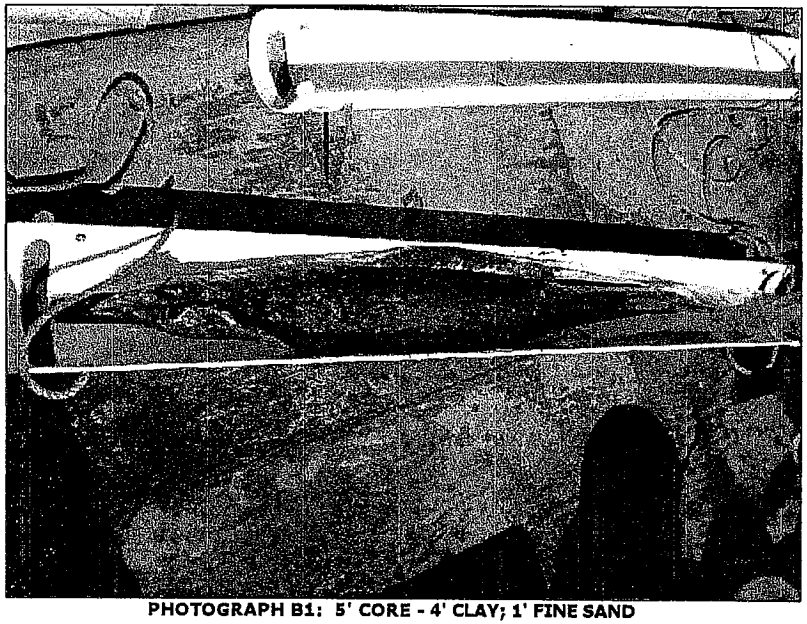
REPRESENTATIVE PHOTOGRAPHS

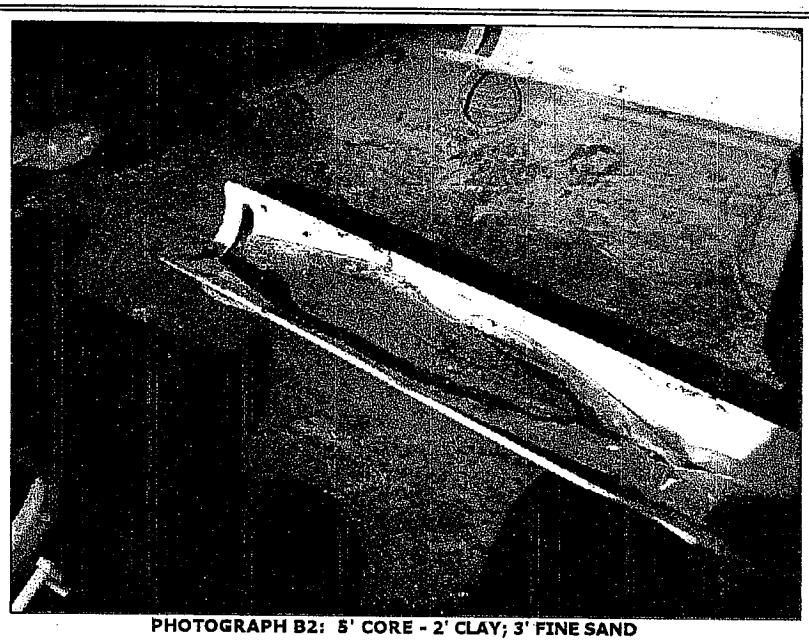
MARCH - 2009
VENTURA HARBOR SEDIMENT SAMPLING
VENTURA, CALIFORNIA

PLATE REFERENCE 0062-22_QA	APRIL 9, 2009	PROJECT NUMBER 0062-22

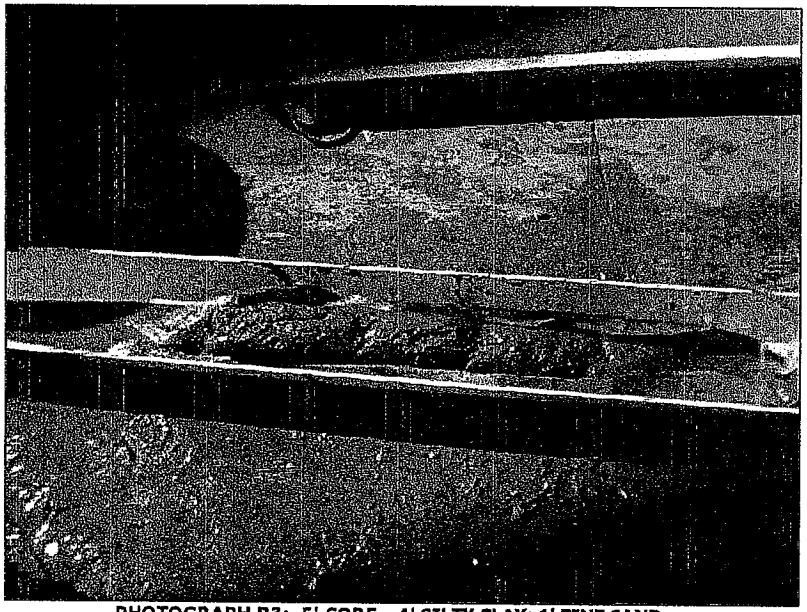
A



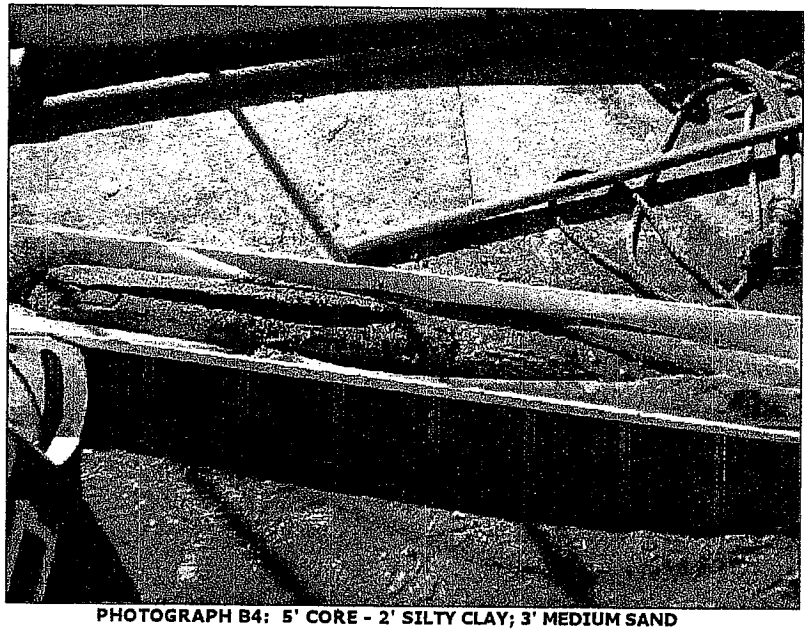
PHOTOGRAPH B1: 5' CORE - 4' CLAY; 1' FINE SAND



PHOTOGRAPH B2: 5' CORE - 2' CLAY; 3' FINE SAND



PHOTOGRAPH B3: 5' CORE - 4' SILTY CLAY; 1' FINE SAND



PHOTOGRAPH B4: 5' CORE - 2' SILTY CLAY; 3' MEDIUM SAND

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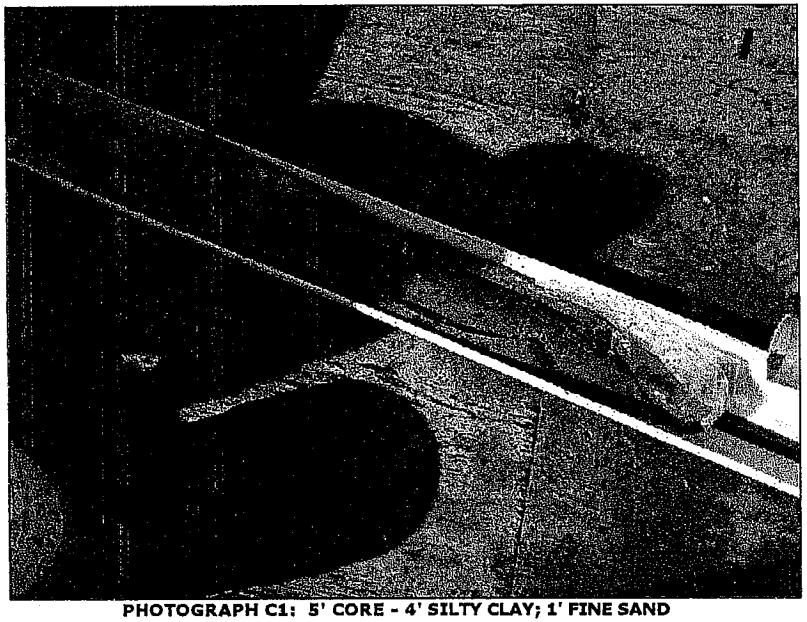
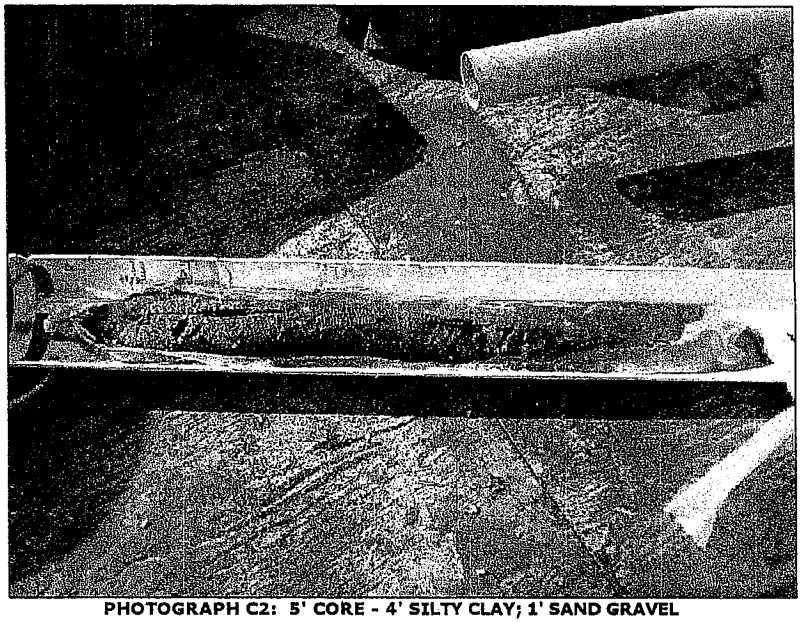
VENTURA HARBOR SEDIMENT SAMPLING
VENTURA, CALIFORNIA

PLATE REFERENCE 0062-22_QB	APRIL 9, 2009	PROJECT NUMBER 0062-22

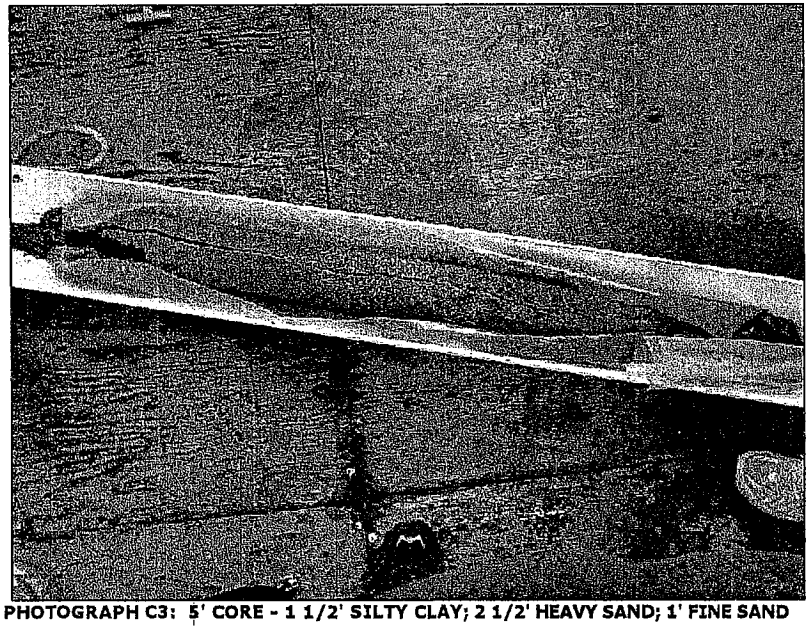
B



PHOTOGRAPH C1: 5' CORE - 4' SILTY CLAY; 1' FINE SAND



PHOTOGRAPH C2: 5' CORE - 4' SILTY CLAY; 1' SAND GRAVEL



PHOTOGRAPH C3: 5' CORE - 1 1/2' SILTY CLAY; 2 1/2' HEAVY SAND; 1' FINE SAND

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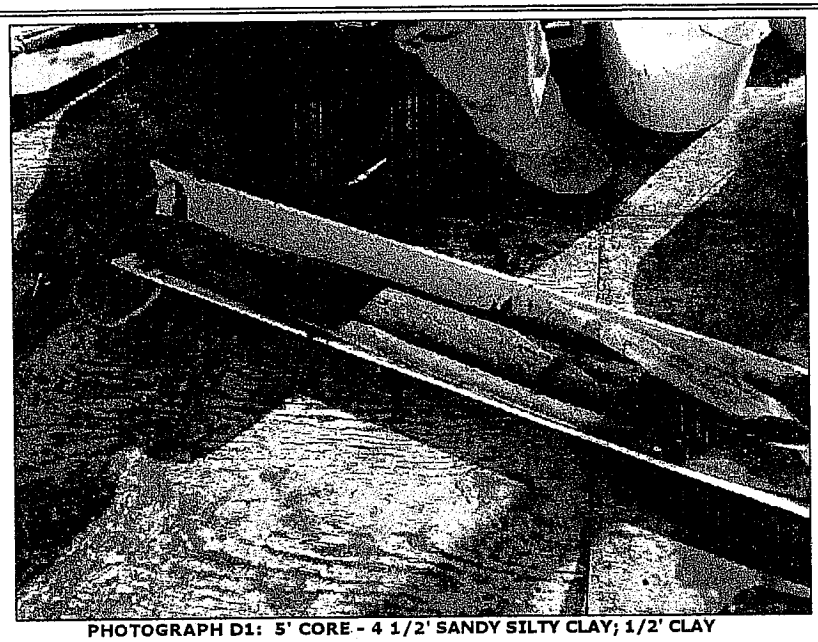
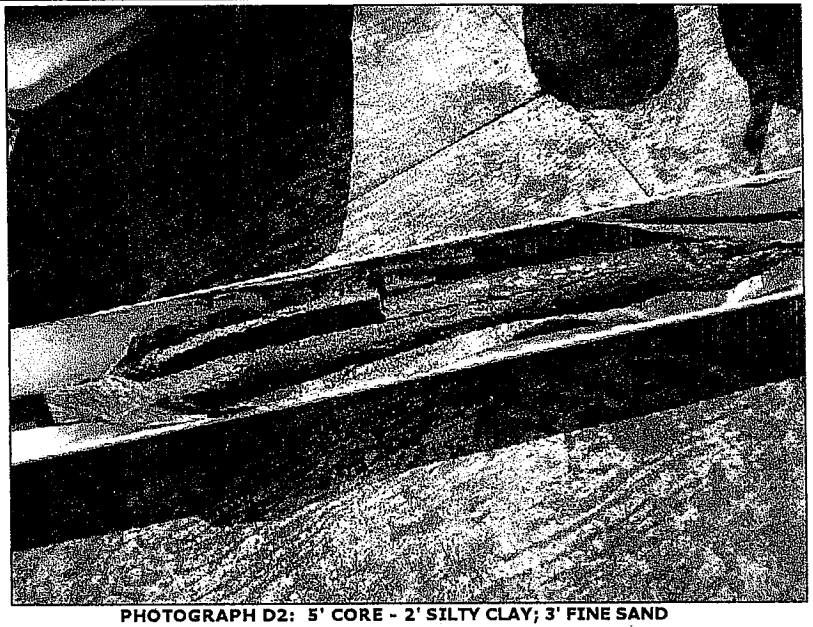
VENTURA, CALIFORNIA

PLATE REFERENCE 0062-22_QC	APRIL 9, 2009	PROJECT NUMBER 0062-22

C

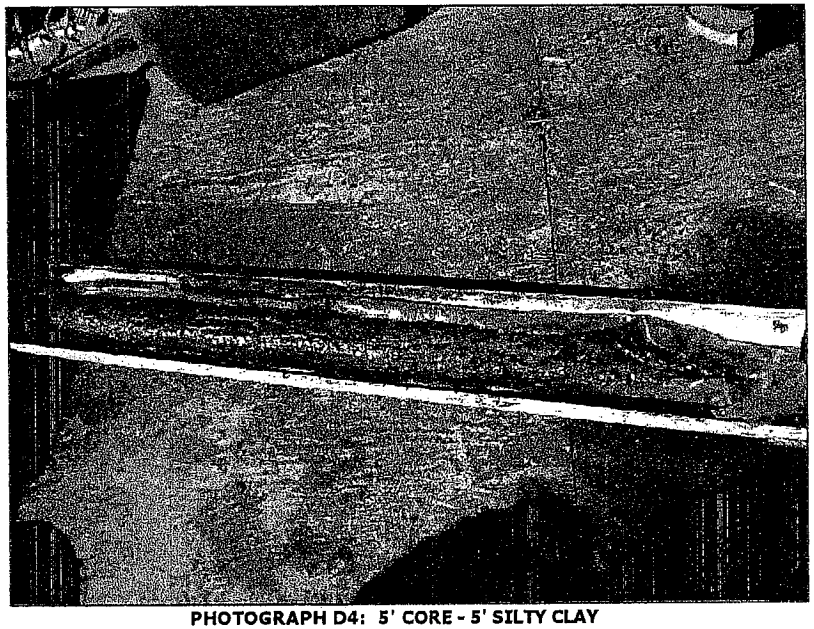


PHOTOGRAPH D1: 5' CORE - 4 1/2' SANDY SILTY CLAY; 1/2' CLAY



PHOTOGRAPH D2: 5' CORE - 2' SILTY CLAY; 3' FINE SAND

PHOTOGRAPH D3: 5' CORE - 2 1/2' SILTY CLAY; 2 1/2' FINE SAND



PHOTOGRAPH D4: 5' CORE - 5' SILTY CLAY

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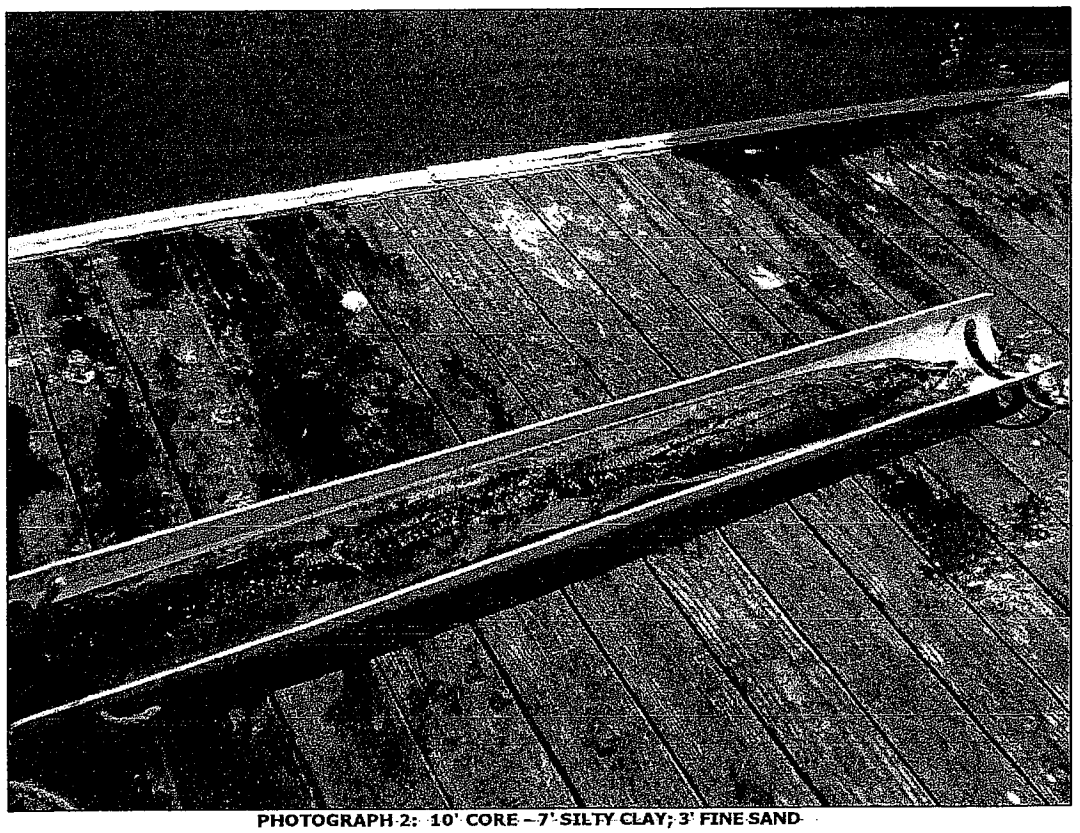
VENTURA, CALIFORNIA

PLATE REFERENCE 0062-22_QD	APRIL 9, 2009	PROJECT NUMBER 0062-22

D

PHOTOGRAPH 1: 10' CORE - 7' SILTY CLAY; 3' FINE SAND



PHOTOGRAPH 2: 10' CORE – 7' SILTY CLAY; 3' FINE SAND

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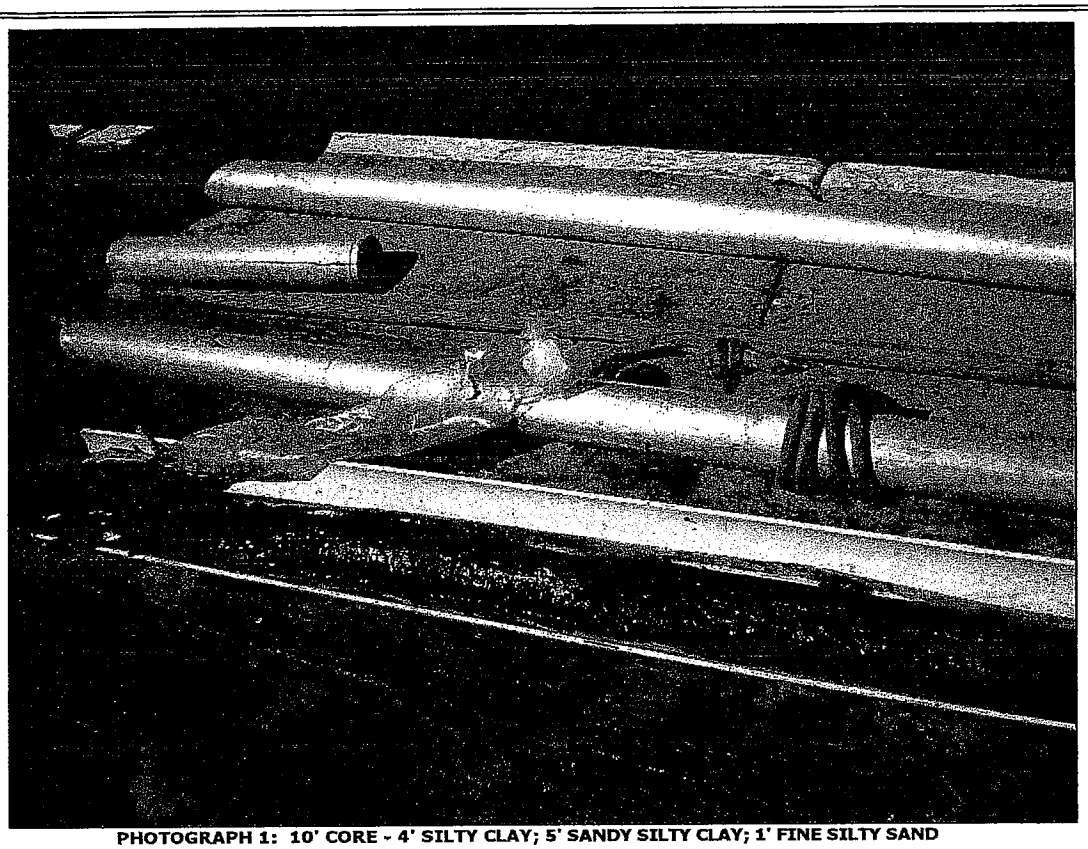
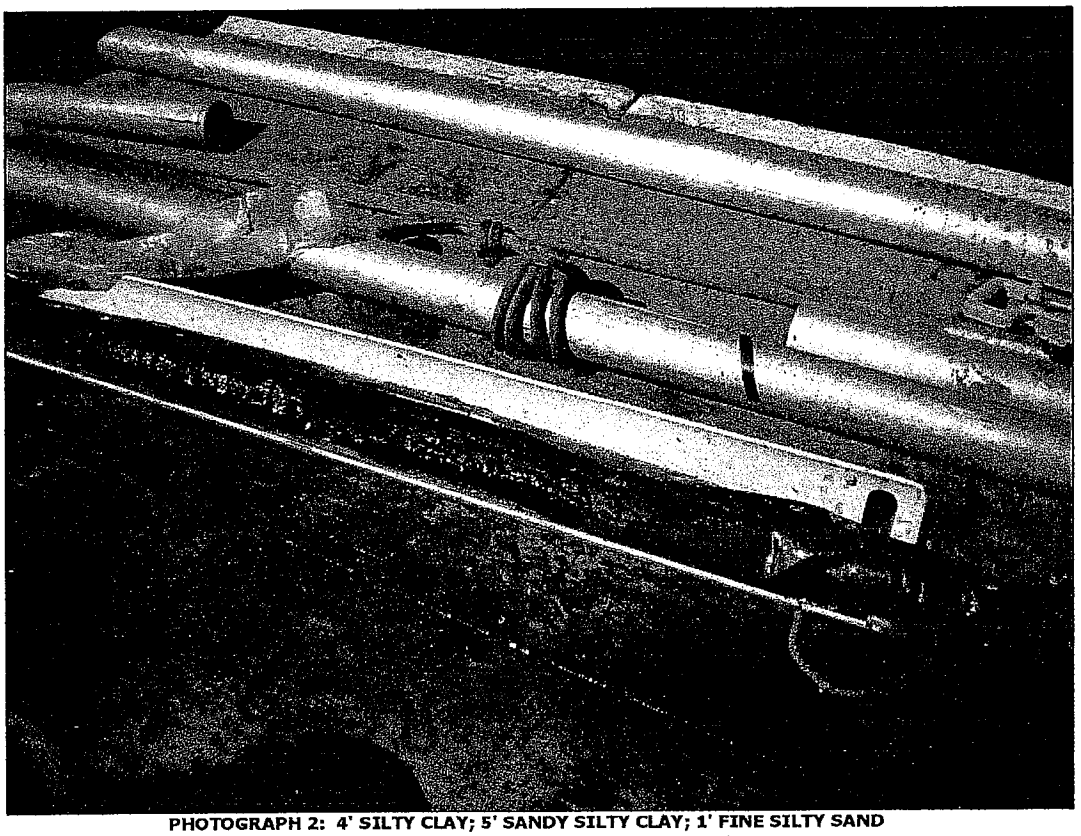
MARCH - 2009
VENTURA, CALIFORNIA

PLATE REFERENCE 0062-22_QE	APRIL 9, 2009	PROJECT NUMBER 0062-22

E



PHOTOGRAPH 1: 10' CORE - 4' SILTY CLAY; 5' SANDY SILTY CLAY; 1' FINE SILTY SAND



PHOTOGRAPH 2: 4' SILTY CLAY; 5' SANDY SILTY CLAY; 1' FINE SILTY SAND

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REPRESENTATIVE PHOTOGRAPHS
VENTURA HARBOR SEDIMENT SAMPLING
MARCH - 2009
VENTURA, CALIFORNIA

PLATE REFERENCE 0062-22_QF	APRIL 9, 2009	PROJECT NUMBER 0062-22

F

APPENDIX B

Grain Size Analyses

CONSTRUCTION TESTING & ENGINEERING, INC.

SAN DIEGO, CA
1441 Montiel Road
Suite 115
Escondido, CA 92026
(760) 746-4955
(760) 746-9806 FAX

RIVERSIDE, CA
14538 Meridian Parkway
Suite A
Riverside, CA 92518
(951) 571-4081
(951) 571-4188 FAX

VENTURA, CA
1645 Pacific Avenue
Suite 107
Oxnard, CA 93033
(805) 486-6475
(805) 486-9016 FAX

TRACY, CA
242 W. Larch
Suite F
Tracy, CA 95376
(209) 839-2890
(209) 839-2895 FAX

SACRAMENTO, CA
3628 Madison Avenue
Suite 22
N. Highlands, CA 95660
(916) 331-6030
(916) 331-6037 FAX

Applied Environmental Technologies, Inc. Date: 04/02/09
4561 Market Street, Suite B
Ventura, CA 93003
Subject: Sieve analysis of soil samples.

Attention: Harry Finney

Gentleman:

Attached please find the results of the soil samples named A, B, C, D, E, F and CC which were brought over to our firm by a representative of Applied Environmental Technologies on March 11, 2009. As indicated on the table, these results were determined by using ASTM C-136 standard specifications.

If you have any questions regarding these results, please feel free to contact our Company at your earliest convenience.

Respectfully submitted,

Werner Velasco
Operations Manager/Laboratory Manager
Construction Testing and Engineering, Inc.
1645 Pacific Ave. Suite 107
Oxnard, CA 93033
Telephone: 805-486-6475
Fax: 805-486-9016
e-mail: werner@cte-inc.net

Sieve Analysis (ASTM C-136)

Percent Passing

Sieve Size	A	B	C	D	E	F
3/8"	100	100	100	100	100	100
No.4	99	100	98	100	98	99
No.8	99	99	94	99	97	97
No.10	99	98	93	99	97	97
No.16	99	96	89	98	95	96
No.30	97	88	81	96	93	93
No.40	95	84	74	95	90	85
No.50	90	80	64	92	83	78
No.100	70	61	44	78	59	55
No.200	57.3	46.2	37.2	60.9	52.8	36.7

APPENDIX C

Laboratory Results

AMERICAN SCIENTIFIC LABORATORIES, LLC
Environmental Testing Services
2520 N. San Fernando Rd., Los Angeles, CA 90065 Tel: (323) 223-9700 Fax: (323) 223-9500

Ordered By

Applied Enviro. Technologies, Inc.
4561 Market St., Suite B
Ventura, CA 93003

Telephone (805) 650-1400
Attn Harry Finney

Number of Pages 31
Date Received 03/04/2009
Date Reported 03/23/2009

Job Number	Ordered	Client
41139	03/04/2009	AET

Project ID: 0062-220
Project Name: Ventura Port District

Enclosed are the results of analyses on 6 samples analyzed as specified on attached chain of custody.

Amolk MOLKY Brar
Laboratory Manager

Rojert G. Araghi
Laboratory Director

CHAIN OF CUSTODY RECORD

Applied Environmental Technologies, Inc.

(805) 650-1400 • FAX (805) 650-1576 • 4561 MARKET ST., SUITE B, VENTURA, CA 93003

ASL JOB # 41139

JOB NO.	PROJECT NAME	PROJECT MANAGER	SAMPLER	LABORATORY	GLOBAL I.D.
0062-220	Ventura Port District	HCF	SMR	ASL	Not. Required

	Sample Identification	Date	Time	Sample Container (Size/Material)	Sample Type (Liquid, Soil, etc.)	Preservative	A	B	C	D	E	F	Laboratory ID#	Comments
1	A	3/3/09		2 - 4oz Jar	solid		X	X	X	X	X	X	232909	See attached
2	B	↓		"	"		X	X	X	X	X	X	232910	
3	C	↓		"	"		X	X	X	X	X	X	232911	
4	D	↓		"	"		X	X	X	X	X	X	232912	
5	E	↓		"	"		X	X	X	X	X	X	232913	
6	F	↓		"	"		X	X	X	X	X	X	232914	

Relinquished By (Signature)	Date	Time	Received By (Signature)
[illegible]	3/3/09	5:00pm	
[illegible]	3/4/09	12:00	Alex

Analyses:

A Rcra metals (see attch)
B Total cyanide
C 8080 (Pesticides & PCBs)
D 8270
E Organo Tin
F Total Phenols
Total organic volitiles
Total phthalates.

Total 7

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ANALYTICAL RESULTS

Ordered By

Applied Enviro. Technologies, Inc.
4561 Market St., Suite B
Ventura, CA 93003

Telephone: (805)650-1400
Attn: Harry Finney

Page: 2

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 6010B/7471A, CCR Title 22 Metals (TTLC)

QC Batch No: 030509-2

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/05/2009	03/05/2009	03/05/2009	03/05/2009	03/05/2009
Preparation Method							
Date Analyzed			03/09/2009	03/09/2009	03/09/2009	03/09/2009	03/09/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
AA Metals							
Mercury	0.0100	0.0100	0.0355	0.0231	0.0608	0.0293	0.0427
ICP Metals							
Nickel	0.100	0.100	9.15	10.0	9.10	9.52	9.93
Arsenic	0.0500	0.0500	2.62	2.88	2.77	2.94	3.36
Cadmium	0.100	0.100	0.267	0.344	0.383	0.353	0.384
Chromium	0.100	0.100	10.4	11.5	10.9	11.4	12.7
Copper	0.100	0.100	10.6	12.4	13.9	15.2	22.1
Lead	0.0500	0.0500	3.69	6.40	4.89	7.14	9.97
Selenium	0.100	0.100	1.02	0.961	0.940	1.09	1.16
Silver	0.100	0.100	ND	ND	ND	ND	ND
Zinc	0.100	0.100	28.6	30.0	29.5	34.7	41.8

Comment(s):
note

QUALITY CONTROL REPORT

QC Batch No: 030509-2

Analytes	LCS %REC	LCS/LCSD % Limit								
AA Metals										
Mercury	107	80-120								
ICP Metals										
Nickel	91									
Arsenic	93	80-120								
Cadmium	93	80-120								
Chromium	96	80-120								
Copper	99	80-120								
Lead	89	80-120								
Selenium	91	80-120								

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 6010B/7471A, CCR Title 22 Metals (TTLC)
QUALITY CONTROL REPORT

QC Batch No: 030509-2

Analytes	LCS % REC	LCS/LCSD % Limit								
ICP Metals										
Silver	96	80-120								
Zinc	98	80-120								

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ANALYTICAL RESULTS

Ordered By

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Ventura, CA 93003

Telephone: (805)650-1400
Attn: Harry Finney

Page: **4**

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 6010B/7471A, CCR Title 22 Metals (TTLC)

QC Batch No: 030509-2

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/05/2009				
Preparation Method							
Date Analyzed			03/09/2009				
Matrix			Solid				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
AA Metals							
Mercury	0.0100	0.0100	0.0335				
ICP Metals							
Nickel	0.100	0.100	9.49				
Arsenic	0.0500	0.0500	3.11				
Cadmium	0.100	0.100	0.333				
Chromium	0.100	0.100	11.5				
Copper	0.100	0.100	26.0				
Lead	0.0500	0.0500	7.94				
Selenium	0.100	0.100	1.10				
Silver	0.100	0.100	ND				
Zinc	0.100	0.100	41.2				

Comment(s):
note

QUALITY CONTROL REPORT

QC Batch No: 030509-2

Analytes	LCS % REC	LCS/LCSD % Limit								
AA Metals										
Mercury	107	80-120								
ICP Metals										
Nickel	91									
Arsenic	93	80-120								
Cadmium	93	80-120								
Chromium	96	80-120								
Copper	99	80-120								
Lead	89	80-120								
Selenium	91	80-120								

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 6010B/7471A, CCR Title 22 Metals (TTLC)
QUALITY CONTROL REPORT

QC Batch No: 030509-2

Analytes	LCS % REC	LCS/LCSD % Limit								
ICP Metals										
Silver	96	80-120								
Zinc	98	80-120								

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8081A, Organochlorine Pesticides

QC Batch No: 030909-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/04/2009	03/04/2009	03/04/2009	03/04/2009	03/04/2009
Preparation Method							
Date Analyzed			03/09/2009	03/09/2009	03/09/2009	03/09/2009	03/09/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Aldrin	0.230	2.00	ND	ND	ND	ND	ND
alpha-Hexachlorocyclohexane (Alpha-BHC)	0.270	2.00	ND	ND	ND	ND	ND
Beta-Hexachlorocyclohexane (Beta-BHC)	0.370	2.00	ND	ND	ND	ND	ND
Gamma-Chlordane	0.190	2.00	ND	ND	ND	ND	ND
alpha-Chlordane	0.200	2.00	ND	ND	ND	ND	ND
4,4'-DDD (DDD)	0.270	4.00	1.06J	2.48J	3.38J	15.7	1.26J
4,4'-DDE (DDE)	0.220	4.00	ND	ND	10.4	13.8	ND
4,4'-DDT (DDT)	0.220	4.00	ND	ND	0.450J	0.980J	ND
delta-Hexachlorocyclohexane (Delta-BHC)	0.150	2.00	ND	ND	ND	ND	ND
Dieldrin	0.200	4.00	ND	ND	ND	ND	ND
Endosulfan 1	0.200	2.00	ND	ND	ND	ND	ND
Endosulfan 11	0.240	4.00	ND	ND	ND	ND	ND
Endosulfan sulfate	0.270	4.00	ND	ND	ND	ND	ND
Endrin	0.250	4.00	ND	ND	ND	ND	ND
Endrin aldehyde	0.440	4.00	ND	ND	ND	ND	ND
Endrin ketone	0.300	4.00	ND	ND	ND	ND	ND
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.210	2.00	ND	ND	ND	ND	ND
Heptachlor	0.230	2.00	ND	ND	ND	ND	ND
Heptachlor epoxide	0.230	2.00	ND	ND	ND	ND	ND
Methoxychlor	0.390	17.0	ND	ND	ND	ND	ND
Toxaphene	17.0	170	ND	ND	ND	ND	ND

Our Lab I.D.			232909	232910	232911	232912	232913
Surrogates	**% Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Surrogate Percent Recovery							
Decachlorobiphenyl	43-169		78	79	79	85	80

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8081A, Organochlorine Pesticides
QUALITY CONTROL REPORT

QC Batch No: 030909-1

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit					
Aldrin	50	52	3.9	42-122	<30					
4,4'-DDT (DDT)	26	26	<1	25-160	<30					
Dieldrin	45	36	22.2	36-146	<30					
Endrin	39	39	<1	30-147	<30					
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	34	34	<1	32-127	<30					
Heptachlor	47	47	<1	34-111	<30					

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ANALYTICAL RESULTS

Ordered By

Applied Enviro. Technologies, Inc.
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Telephone: (805)650-1400
Attn: Harry Finney

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8081A, Organochlorine Pesticides

QC Batch No: 030909-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/04/2009				
Preparation Method							
Date Analyzed			03/09/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Aldrin	0.230	2.00	ND				
alpha-Hexachlorocyclohexane (Alpha-BHC)	0.270	2.00	ND				
Beta-Hexachlorocyclohexane (Beta-BHC)	0.370	2.00	ND				
Gamma-Chlordane	0.190	2.00	ND				
alpha-Chlordane	0.200	2.00	ND				
4,4'-DDD (DDD)	0.270	4.00	2.29J				
4,4'-DDE (DDE)	0.220	4.00	10.3				
4,4'-DDT (DDT)	0.220	4.00	ND				
delta-Hexachlorocyclohexane (Delta-BHC)	0.150	2.00	ND				
Dieldrin	0.200	4.00	ND				
Endosulfan 1	0.200	2.00	ND				
Endosulfan 11	0.240	4.00	ND				
Endosulfan sulfate	0.270	4.00	ND				
Endrin	0.250	4.00	ND				
Endrin aldehyde	0.440	4.00	ND				
Endrin ketone	0.300	4.00	ND				
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	0.210	2.00	ND				
Heptachlor	0.230	2.00	ND				
Heptachlor epoxide	0.230	2.00	ND				
Methoxychlor	0.390	17.0	ND				
Toxaphene	17.0	170	ND				

Our Lab I.D.			232914				
Surrogates	**% Rec.Limit**		**% Rec.**				
Surrogate Percent Recovery							
Decachlorobiphenyl	43-169		84				

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8081A, Organochlorine Pesticides
QUALITY CONTROL REPORT

QC Batch No: 030909-1

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit					
Aldrin	50	52	3.9	42-122	<30					
4,4'-DDT (DDT)	26	26	<1	25-160	<30					
Dieldrin	45	36	22.2	36-146	<30					
Endrin	39	39	<1	30-147	<30					
gamma-Hexachlorocyclohexane (Gamma-BHC, Lindane)	34	34	<1	32-127	<30					
Heptachlor	47	47	<1	34-111	<30					

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ANALYTICAL RESULTS

Ordered By

Applied Enviro. Technologies, Inc.
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Telephone: (805)650-1400
Attn: Harry Finney

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8082, Polychlorinated Biphenyls(PCBs) by Gas Chromatography

QC Batch No: 030909-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/04/2009	03/04/2009	03/04/2009	03/04/2009	03/04/2009
Preparation Method							
Date Analyzed			03/09/2009	03/09/2009	03/09/2009	03/09/2009	03/09/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Aroclor-1016 (PCB-1016)	3.60	33.0	ND	ND	ND	ND	ND
Aroclor-1221 (PCB-1221)	4.20	67.0	ND	ND	ND	ND	ND
Aroclor-1232 (PCB-1232)	2.10	33.0	ND	ND	ND	ND	ND
Aroclor-1242 (PCB-1242)	2.10	33.0	ND	ND	ND	ND	ND
Aroclor-1248 (PCB-1248)	2.10	33.0	ND	ND	ND	ND	ND
Aroclor-1254 (PCB-1254)	2.10	33.0	ND	ND	ND	ND	ND
Aroclor-1260 (PCB-1260)	2.10	33.0	ND	ND	ND	ND	ND

Our Lab I.D.			232909	232910	232911	232912	232913
Surrogates	**% Rec.Limit**		**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**	**% Rec.**
Surrogate Percent Recovery							
Decachlorobiphenyl	43-169		78	79	79	85	80

QUALITY CONTROL REPORT

QC Batch No: 030909-1

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit					
Aroclor-1260 (PCB-1260)	110	114	3.6	39-150	<30					

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8082, Polychlorinated Biphenyls(PCBs) by Gas Chromatography

QC Batch No: 030909-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/04/2009				
Preparation Method							
Date Analyzed			03/09/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Aroclor-1016 (PCB-1016)	3.60	33.0	ND				
Aroclor-1221 (PCB-1221)	4.20	67.0	ND				
Aroclor-1232 (PCB-1232)	2.10	33.0	ND				
Aroclor-1242 (PCB-1242)	2.10	33.0	ND				
Aroclor-1248 (PCB-1248)	2.10	33.0	ND				
Aroclor-1254 (PCB-1254)	2.10	33.0	ND				
Aroclor-1260 (PCB-1260)	2.10	33.0	ND				

Our Lab I.D.			232914				
Surrogates	**% Rec.Limit**		**% Rec.**				
Surrogate Percent Recovery							
Decachlorobiphenyl	43-169		84				

QUALITY CONTROL REPORT

QC Batch No: 030909-1

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit					
Aroclor-1260 (PCB-1260)	110	114	3.6	39-150	<30					

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8260B, Volatile Organic Compounds

QC Batch No: 030609-1C

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/06/2009	03/06/2009	03/06/2009	03/06/2009	03/06/2009
Preparation Method							
Date Analyzed			03/06/2009	03/06/2009	03/06/2009	03/06/2009	03/06/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	MDL	PQL	Results	Results	Results	Results	Results
Acetone	12.7	50.0	75.8	129	146	60.2	34.0J
Benzene	0.930	2.00	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	3.39	10.0	ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	0.380	10.0	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	0.630	10.0	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	3.39	50.0	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	2.75	30.0	ND	ND	ND	ND	ND
2-Butanone (MEK, Methyl ethyl ketone)	5.83	50.0	ND	ND	ND	ND	ND
n-Butylbenzene	2.05	10.0	ND	ND	ND	ND	ND
sec-Butylbenzene	3.04	10.0	ND	ND	ND	ND	ND
tert-Butylbenzene	1.34	10.0	ND	ND	ND	ND	ND
Carbon disulfide	5.53	10.0	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	2.48	10.0	ND	ND	ND	ND	ND
Chlorobenzene	0.890	10.0	ND	ND	ND	ND	ND
Chloroethane	2.15	30.0	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	5.53	50.0	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	1.24	10.0	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	1.74	30.0	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	1.34	10.0	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	2.35	10.0	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	2.69	50.0	ND	ND	ND	ND	ND
Dibromochloromethane	0.650	10.0	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	2.75	10.0	ND	ND	ND	ND	ND
Dibromomethane	2.30	10.0	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	1.03	10.0	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	1.65	10.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8260B, Volatile Organic Compounds

QC Batch No: 030609-1C

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/06/2009	03/06/2009	03/06/2009	03/06/2009	03/06/2009
Preparation Method							
Date Analyzed			03/06/2009	03/06/2009	03/06/2009	03/06/2009	03/06/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	MDL	PQL	Results	Results	Results	Results	Results
1,4-Dichlorobenzene (p-Dichlorobenzene)	2.23	10.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	2.07	30.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.30	10.0	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.57	10.0	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	2.60	10.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.60	10.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2.16	10.0	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.660	10.0	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.920	10.0	ND	ND	ND	ND	ND
2,2-Dichloropropane	1.36	10.0	ND	ND	ND	ND	ND
1,1-Dichloropropene	1.12	10.0	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.980	10.0	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.960	10.0	ND	ND	ND	ND	ND
Ethylbenzene	1.00	2.00	ND	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	2.77	30.0	ND	ND	ND	ND	ND
2-Hexanone	3.18	50.0	ND	ND	ND	ND	ND
Isopropylbenzene	1.42	10.0	ND	ND	ND	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	3.86	10.0	ND	ND	ND	ND	ND
MTBE	2.90	5.00	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	3.14	50.0	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane, DCM)	3.31	50.0	ND	ND	ND	ND	ND
Naphthalene	1.14	10.0	ND	ND	ND	ND	ND
n-Propylbenzene	1.14	10.0	ND	ND	ND	ND	ND
Styrene	0.800	10.0	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.28	10.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3.25	10.0	ND	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene)	0.930	10.0	ND	ND	ND	ND	ND
Toluene (Methyl benzene)	1.00	2.00	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	1.23	10.0	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	2.82	10.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2.03	10.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.74	10.0	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8260B, Volatile Organic Compounds

QC Batch No: 030609-1C

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/06/2009	03/06/2009	03/06/2009	03/06/2009	03/06/2009
Preparation Method							
Date Analyzed			03/06/2009	03/06/2009	03/06/2009	03/06/2009	03/06/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	MDL	PQL	Results	Results	Results	Results	Results
Trichloroethene (TCE)	1.15	10.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	3.15	10.0	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	1.74	10.0	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.19	10.0	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	1.23	10.0	ND	ND	ND	ND	ND
Vinyl acetate	10.8	50.0	ND	ND	ND	ND	ND
Vinyl chloride (Chloroethene)	2.79	30.0	ND	ND	ND	ND	ND
o-Xylene	1.00	2.00	ND	ND	ND	ND	ND
m- & p-Xylenes	1.80	4.00	ND	ND	ND	ND	ND

Our Lab I.D.			232909	232910	232911	232912	232913
Surrogates	% Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Surrogate Percent Recovery							
Bromofluorobenzene	70-120		96	98	100	94	97
Dibromofluoromethane	70-120		93	94	95	95	92
Toluene-d8	70-120		88	89	89	90	90

QUALITY CONTROL REPORT

QC Batch No: 030609-1C

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit					
Benzene	88	89	1.1	75-120	15					
Chlorobenzene	103	105	1.9	75-120	15					
1,1-Dichloroethene (1,1-Dichloroethylene)	82	86	4.8	75-120	15					
MTBE	110	104	5.6	75-120	15					
Toluene (Methyl benzene)	91	92	1.1	75-120	15					
Trichloroethene (TCE)	104	104	<1	75-120	15					

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ANALYTICAL RESULTS

Ordered By

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Attn: Harry Finney

Page: 15

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8260B, Volatile Organic Compounds

QC Batch No: 030609-1C

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/06/2009				
Preparation Method							
Date Analyzed			03/06/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Acetone	12.7	50.0	39.9J				
Benzene	0.930	2.00	ND				
Bromobenzene (Phenyl bromide)	3.39	10.0	ND				
Bromochloromethane (Chlorobromomethane)	0.380	10.0	ND				
Bromodichloromethane (Dichlorobromomethane)	0.630	10.0	ND				
Bromoform (Tribromomethane)	3.39	50.0	ND				
Bromomethane (Methyl bromide)	2.75	30.0	ND				
2-Butanone (MEK, Methyl ethyl ketone)	5.83	50.0	ND				
n-Butylbenzene	2.05	10.0	ND				
sec-Butylbenzene	3.04	10.0	ND				
tert-Butylbenzene	1.34	10.0	ND				
Carbon disulfide	5.53	10.0	ND				
Carbon tetrachloride (Tetrachloromethane)	2.48	10.0	ND				
Chlorobenzene	0.890	10.0	ND				
Chloroethane	2.15	30.0	ND				
2-Chloroethyl vinyl ether	5.53	50.0	ND				
Chloroform (Trichloromethane)	1.24	10.0	ND				
Chloromethane (Methyl chloride)	1.74	30.0	ND				
4-Chlorotoluene (p-Chlorotoluene)	1.34	10.0	ND				
2-Chlorotoluene (o-Chlorotoluene)	2.35	10.0	ND				
1,2-Dibromo-3-chloropropane (DBCP)	2.69	50.0	ND				
Dibromochloromethane	0.650	10.0	ND				
1,2-Dibromoethane (EDB, Ethylene dibromide)	2.75	10.0	ND				
Dibromomethane	2.30	10.0	ND				
1,2-Dichlorobenzene (o-Dichlorobenzene)	1.03	10.0	ND				
1,3-Dichlorobenzene (m-Dichlorobenzene)	1.65	10.0	ND				

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8260B, Volatile Organic Compounds

QC Batch No: 030609-1C

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/06/2009				
Preparation Method							
Date Analyzed			03/06/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	MDL	PQL	Results				
1,4-Dichlorobenzene (p-Dichlorobenzene)	2.23	10.0	ND				
Dichlorodifluoromethane	2.07	30.0	ND				
1,1-Dichloroethane	1.30	10.0	ND				
1,2-Dichloroethane	1.57	10.0	ND				
1,1-Dichloroethene (1,1-Dichloroethylene)	2.60	10.0	ND				
cis-1,2-Dichloroethene	1.60	10.0	ND				
trans-1,2-Dichloroethene	2.16	10.0	ND				
1,2-Dichloropropane	0.660	10.0	ND				
1,3-Dichloropropane	0.920	10.0	ND				
2,2-Dichloropropane	1.36	10.0	ND				
1,1-Dichloropropene	1.12	10.0	ND				
cis-1,3-Dichloropropene	0.980	10.0	ND				
trans-1,3-Dichloropropene	0.960	10.0	ND				
Ethylbenzene	1.00	2.00	ND				
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	2.77	30.0	ND				
2-Hexanone	3.18	50.0	ND				
Isopropylbenzene	1.42	10.0	ND				
p-Isopropyltoluene (4-Isopropyltoluene)	3.86	10.0	ND				
MTBE	2.90	5.00	ND				
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	3.14	50.0	ND				
Methylene chloride (Dichloromethane, DCM)	3.31	50.0	ND				
Naphthalene	1.14	10.0	ND				
n-Propylbenzene	1.14	10.0	ND				
Styrene	0.800	10.0	ND				
1,1,1,2-Tetrachloroethane	1.28	10.0	ND				
1,1,2,2-Tetrachloroethane	3.25	10.0	ND				
Tetrachloroethene (Tetrachloroethylene)	0.930	10.0	ND				
Toluene (Methyl benzene)	1.00	2.00	ND				
1,2,3-Trichlorobenzene	1.23	10.0	ND				
1,2,4-Trichlorobenzene	2.82	10.0	ND				
1,1,1-Trichloroethane	2.03	10.0	ND				
1,1,2-Trichloroethane	1.74	10.0	ND				

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8260B, Volatile Organic Compounds

QC Batch No: 030609-1C

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/06/2009				
Preparation Method							
Date Analyzed			03/06/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	MDL	PQL	Results				
Trichloroethene (TCE)	1.15	10.0	ND				
Trichlorofluoromethane	3.15	10.0	ND				
1,2,3-Trichloropropane	1.74	10.0	ND				
1,2,4-Trimethylbenzene	3.19	10.0	ND				
1,3,5-Trimethylbenzene	1.23	10.0	ND				
Vinyl acetate	10.8	50.0	ND				
Vinyl chloride (Chloroethene)	2.79	30.0	ND				
o-Xylene	1.00	2.00	ND				
m- & p-Xylenes	1.80	4.00	ND				

Our Lab I.D.			232914				
Surrogates	% Rec.Limit		% Rec.				
Surrogate Percent Recovery							
Bromofluorobenzene	70-120		100				
Dibromofluoromethane	70-120		92				
Toluene-d8	70-120		87				

QUALITY CONTROL REPORT

QC Batch No: 030609-1C

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit					
Benzene	88	89	1.1	75-120	15					
Chlorobenzene	103	105	1.9	75-120	15					
1,1-Dichloroethene (1,1-Dichloroethylene)	82	86	4.8	75-120	15					
MTBE	110	104	5.6	75-120	15					
Toluene (Methyl benzene)	91	92	1.1	75-120	15					
Trichloroethene (TCE)	104	104	<1	75-120	15					

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ANALYTICAL RESULTS

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Attn: Harry Finney

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8270C, Semivolatile Organics

QC Batch No: 030509-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/04/2009	03/04/2009	03/04/2009	03/04/2009	03/04/2009
Preparation Method							
Date Analyzed			03/05/2009	03/05/2009	03/05/2009	03/05/2009	03/05/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	MDL	PQL	Results	Results	Results	Results	Results
Acenaphthene	6.90	165	ND	ND	ND	ND	ND
Acenaphthylene	8.05	165	ND	ND	ND	ND	ND
Anthracene	4.92	165	ND	ND	ND	ND	ND
Benz(a)anthracene (Benzo(a)anthracene)	6.40	165	ND	ND	ND	ND	ND
Benzo(a)pyrene	9.45	165	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	10.9	165	ND	ND	ND	ND	ND
Benzo(ghi)perylene	9.20	165	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	9.50	165	ND	ND	ND	ND	ND
Benzoic acid	18.4	850	ND	ND	ND	ND	ND
Benzyl alcohol	11.3	165	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	9.80	165	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	10.2	165	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl) ether	8.65	165	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	5.55	165	42.0J	18.0J	27.0J	ND	ND
4-Bromophenyl phenyl ether	7.30	165	ND	ND	ND	ND	ND
Butyl benzyl phthalate (Benzyl butyl phthalate)	6.65	165	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	11.6	165	ND	ND	ND	ND	ND
4-Chloroaniline	10.0	165	ND	ND	ND	ND	ND
2-Chloronaphthalene	9.75	165	ND	ND	ND	ND	ND
2-Chlorophenol (o-Chlorophenol)	9.40	165	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	8.60	165	ND	ND	ND	ND	ND
Chrysene	7.20	165	15.0J	ND	ND	ND	ND
Di-n-butyl phthalate	5.05	165	ND	ND	ND	ND	ND
Di-n-octyl phthalate (Dioctyl ester)	7.35	165	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	8.05	165	ND	ND	ND	ND	ND
Dibenzofuran	7.85	165	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	12.1	165	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8270C, Semivolatile Organics

QC Batch No: 030509-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/04/2009	03/04/2009	03/04/2009	03/04/2009	03/04/2009
Preparation Method							
Date Analyzed			03/05/2009	03/05/2009	03/05/2009	03/05/2009	03/05/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	MDL	PQL	Results	Results	Results	Results	Results
1,2-Dichlorobenzene (o-Dichlorobenzene)	8.90	165	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	9.20	165	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	7.30	165	ND	ND	ND	ND	ND
2,4-Dichlorophenol	12.0	165	ND	ND	ND	ND	ND
Diethyl phthalate (Diethyl ester)	6.95	165	ND	ND	ND	ND	ND
2,4-Dimethylphenol	11.2	165	ND	ND	ND	ND	ND
Dimethyl phthalate (Dimethyl ester)	7.75	165	ND	ND	ND	ND	ND
2,4-Dinitrophenol	64.0	850	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	8.65	165	ND	ND	ND	ND	ND
2,6-Dinitrotoluene (2,6-DNT)	8.00	165	ND	ND	ND	ND	ND
Fluoranthene	4.00	165	ND	ND	ND	ND	ND
Fluorene	7.10	165	35.0J	ND	ND	ND	ND
Hexachlorobenzene	4.85	165	ND	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	7.95	165	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	8.25	165	ND	ND	ND	ND	ND
Hexachloroethane	11.3	165	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	8.40	165	ND	ND	ND	ND	ND
Isophorone	10.0	165	ND	ND	ND	ND	ND
2-methyl-4,6-Dinitrophenol	15.6	850	ND	ND	ND	ND	ND
2-Methylnaphthalene	9.55	165	ND	ND	ND	ND	ND
2-Methylphenol (o-Cresol, 2-Cresol)	10.6	165	ND	ND	ND	ND	ND
4-Methylphenol (p-Cresol, 4-Cresol)	11.2	165	ND	ND	ND	ND	ND
N-Nitroso-Di-n-propylamine	11.3	165	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	5.70	165	ND	ND	ND	ND	ND
Naphthalene	9.45	165	ND	ND	ND	ND	ND
2-Nitroaniline	8.35	850	ND	ND	ND	ND	ND
3-Nitroaniline	8.75	850	ND	ND	ND	ND	ND
4-Nitroaniline	6.45	850	ND	ND	ND	ND	ND
Nitrobenzene (NB)	9.35	165	ND	ND	ND	ND	ND
2-Nitrophenol (o-Nitrophenol)	13.0	850	ND	ND	ND	ND	ND
4-Nitrophenol	13.0	850	ND	ND	ND	ND	ND
Pentachlorophenol	11.4	850	ND	ND	ND	ND	ND
Phenanthrene	5.45	165	ND	ND	ND	ND	ND
Phenol	8.45	165	ND	ND	ND	ND	ND

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8270C, Semivolatile Organics

QC Batch No: 030509-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/04/2009	03/04/2009	03/04/2009	03/04/2009	03/04/2009
Preparation Method							
Date Analyzed			03/05/2009	03/05/2009	03/05/2009	03/05/2009	03/05/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	MDL	PQL	Results	Results	Results	Results	Results
Pyrene	4.10	165	31.0J	ND	ND	ND	ND
1,2,4-Trichlorobenzene	8.30	165	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	11.8	165	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	9.70	165	ND	ND	ND	ND	ND

Our Lab I.D.			232909	232910	232911	232912	232913
Surrogates	% Rec.Limit		% Rec.	% Rec.	% Rec.	% Rec.	% Rec.
Surrogate Percent Recovery							
2-Fluorophenol	21-105		39	51	43	41	43
Phenol-d6	10-107		40	53	44	40	42
2,4,6-Tribromophenol	10-123		81	78	73	52	45
Nitrobenzene-d5	35-114		36	44	41	41	38
2-Fluorobiphenyl	18-116		48	59	55	49	47
Terphenyl-d14	33-141		84	92	94	61	53

QUALITY CONTROL REPORT

QC Batch No: 030509-1

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit					
Acenaphthene	64	62	3.2	43-118	<30					
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	77	77	<1	23-117	<30					
2-Chlorophenol (o-Chlorophenol)	56	54	3.6	27-113	<30					
1,4-Dichlorobenzene	54	54	<1	36-105	<30					
2,4-Dinitrotoluene	57	57	<1	24-120	<30					
N-Nitroso-Di-n-propylamine	57	55	3.6	41-116	<30					
4-Nitrophenol	62	66	6.3	10-133	<30					
Pentachlorophenol	78	80	2.5	9-118	<30					
Phenol	51	50	2.0	12-110	<30					
Pyrene	73	76	4.0	26-127	<30					
1,2,4-Trichlorobenzene	62	60	3.3	39-98	<30					

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8270C, Semivolatile Organics

QC Batch No: 030509-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/04/2009				
Preparation Method							
Date Analyzed			03/05/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Acenaphthene	6.90	165	ND				
Acenaphthylene	8.05	165	ND				
Anthracene	4.92	165	ND				
Benz(a)anthracene (Benzo(a)anthracene)	6.40	165	ND				
Benzo(a)pyrene	9.45	165	ND				
Benzo(b)fluoranthene	10.9	165	ND				
Benzo(ghi)perylene	9.20	165	ND				
Benzo(k)fluoranthene	9.50	165	ND				
Benzoic acid	18.4	850	ND				
Benzyl alcohol	11.3	165	ND				
Bis(2-chloroethoxy)methane	9.80	165	ND				
Bis(2-chloroethyl)ether	10.2	165	ND				
Bis(2-chloroisopropyl) ether	8.65	165	ND				
Bis(2-ethylhexyl) phthalate	5.55	165	ND				
4-Bromophenyl phenyl ether	7.30	165	ND				
Butyl benzyl phthalate (Benzyl butyl phthalate)	6.65	165	ND				
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	11.6	165	ND				
4-Chloroaniline	10.0	165	ND				
2-Chloronaphthalene	9.75	165	ND				
2-Chlorophenol (o-Chlorophenol)	9.40	165	ND				
4-Chlorophenyl phenyl ether	8.60	165	ND				
Chrysene	7.20	165	ND				
Di-n-butyl phthalate	5.05	165	ND				
Di-n-octyl phthalate (Dioctyl ester)	7.35	165	ND				
Dibenz(a,h)anthracene	8.05	165	ND				
Dibenzofuran	7.85	165	ND				
1,3-Dichlorobenzene (m-Dichlorobenzene)	12.1	165	ND				

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ANALYTICAL RESULTS

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8270C, Semivolatile Organics

QC Batch No: 030509-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/04/2009				
Preparation Method							
Date Analyzed			03/05/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	MDL	PQL	Results				
1,2-Dichlorobenzene (o-Dichlorobenzene)	8.90	165	ND				
1,4-Dichlorobenzene	9.20	165	ND				
3,3'-Dichlorobenzidine	7.30	165	ND				
2,4-Dichlorophenol	12.0	165	ND				
Diethyl phthalate (Diethyl ester)	6.95	165	ND				
2,4-Dimethylphenol	11.2	165	ND				
Dimethyl phthalate (Dimethyl ester)	7.75	165	ND				
2,4-Dinitrophenol	64.0	850	ND				
2,4-Dinitrotoluene	8.65	165	ND				
2,6-Dinitrotoluene (2,6-DNT)	8.00	165	ND				
Fluoranthene	4.00	165	ND				
Fluorene	7.10	165	ND				
Hexachlorobenzene	4.85	165	ND				
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	7.95	165	ND				
Hexachlorocyclopentadiene	8.25	165	ND				
Hexachloroethane	11.3	165	ND				
Indeno(1,2,3-cd)pyrene	8.40	165	ND				
Isophorone	10.0	165	ND				
2-methyl-4,6-Dinitrophenol	15.6	850	ND				
2-Methylnaphthalene	9.55	165	ND				
2-Methylphenol (o-Cresol, 2-Cresol)	10.6	165	ND				
4-Methylphenol (p-Cresol, 4-Cresol)	11.2	165	ND				
N-Nitroso-Di-n-propylamine	11.3	165	ND				
N-Nitrosodiphenylamine	5.70	165	ND				
Naphthalene	9.45	165	ND				
2-Nitroaniline	8.35	850	ND				
3-Nitroaniline	8.75	850	ND				
4-Nitroaniline	6.45	850	ND				
Nitrobenzene (NB)	9.35	165	ND				
2-Nitrophenol (o-Nitrophenol)	13.0	850	ND				
4-Nitrophenol	13.0	850	ND				
Pentachlorophenol	11.4	850	ND				
Phenanthrene	5.45	165	ND				
Phenol	8.45	165	ND				

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 8270C, Semivolatile Organics

QC Batch No: 030509-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/04/2009				
Preparation Method							
Date Analyzed			03/05/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	MDL	PQL	Results				
Pyrene	4.10	165	ND				
1,2,4-Trichlorobenzene	8.30	165	ND				
2,4,5-Trichlorophenol	11.8	165	ND				
2,4,6-Trichlorophenol	9.70	165	ND				

Our Lab I.D.			232914				
Surrogates	% Rec.Limit		% Rec.				
Surrogate Percent Recovery							
2-Fluorophenol	21-105		38				
Phenol-d6	10-107		41				
2,4,6-Tribromophenol	10-123		55				
Nitrobenzene-d5	35-114		37				
2-Fluorobiphenyl	18-116		46				
Terphenyl-d14	33-141		66				

QUALITY CONTROL REPORT

QC Batch No: 030509-1

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit					
Acenaphthene	64	62	3.2	43-118	<30					
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	77	77	<1	23-117	<30					
2-Chlorophenol (o-Chlorophenol)	56	54	3.6	27-113	<30					
1,4-Dichlorobenzene	54	54	<1	36-105	<30					
2,4-Dinitrotoluene	57	57	<1	24-120	<30					
N-Nitroso-Di-n-propylamine	57	55	3.6	41-116	<30					
4-Nitrophenol	62	66	6.3	10-133	<30					
Pentachlorophenol	78	80	2.5	9-118	<30					
Phenol	51	50	2.0	12-110	<30					
Pyrene	73	76	4.0	26-127	<30					
1,2,4-Trichlorobenzene	62	60	3.3	39-98	<30					

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 9014, Cyanide, Total

QC Batch No: 030909-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/09/2009	03/09/2009	03/09/2009	03/09/2009	03/09/2009
Preparation Method							
Date Analyzed			03/09/2009	03/09/2009	03/09/2009	03/09/2009	03/09/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Conventionals							
Cyanide	1.00	2.50	ND	ND	ND	ND	ND

QUALITY CONTROL REPORT

QC Batch No: 030909-1

Analytes	LCS % REC	LCS/LCSD % Limit								
Conventionals										
Cyanide	94	80-120								

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 9014, Cyanide, Total

QC Batch No: 030909-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/09/2009				
Preparation Method							
Date Analyzed			03/09/2009				
Matrix			Solid				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Conventionals							
Cyanide	1.00	2.50	ND				

QUALITY CONTROL REPORT

QC Batch No: 030909-1

Analytes	LCS % REC	LCS/LCSD % Limit								
Conventionals										
Cyanide	94	80-120								

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 9060, Total Organic Carbon (TOC)

QC Batch No: 031309-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/11/2009	03/11/2009	03/11/2009	03/11/2009	03/11/2009
Preparation Method							
Date Analyzed			03/18/2009	03/18/2009	03/18/2009	03/18/2009	03/18/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Carbon, Total Organic (TOC)	1.00	1.00	8000	5400	5100	5880	7420

QUALITY CONTROL REPORT

QC Batch No: 031309-1

Analytes	LCS % REC	LCS/LCSD % Limit								
Carbon, Total Organic (TOC)	101	80-120								

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ANALYTICAL RESULTS

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Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: 9060, Total Organic Carbon (TOC)

QC Batch No: 031309-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/11/2009				
Preparation Method							
Date Analyzed			03/18/2009				
Matrix			Solid				
Units			mg/Kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Carbon, Total Organic (TOC)	1.00	1.00	7820				

QUALITY CONTROL REPORT

QC Batch No: 031309-1

Analytes	LCS % REC	LCS/LCSD % Limit								
Carbon, Total Organic (TOC)	101	80-120								

AMERICAN SCIENTIFIC LABORATORIES, LLC
Environmental Testing Services
2520 N. San Fernando Rd., Los Angeles, CA 90065 Tel: (323) 223-9700 Fax: (323) 223-9500

ANALYTICAL RESULTS

Ordered By

Applied Enviro. Technologies, Inc.
4561 Market St., Suite B
Ventura, CA 93003

Telephone: (805)650-1400
Attn: Harry Finney

Page: 28

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: GC/FPD, Organo Tin Compounds

QC Batch No: 031809-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/11/2009	03/11/2009	03/11/2009	03/11/2009	03/11/2009
Preparation Method							
Date Analyzed			03/18/2009	03/18/2009	03/18/2009	03/18/2009	03/18/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor			1	1	1	1	1
Analytes	**MDL**	**PQL**	**Results**	**Results**	**Results**	**Results**	**Results**
Dibutyl Tin	1.00	1.00	ND	ND	ND	ND	ND
Monobutyl Tin	1.00	1.00	ND	ND	ND	ND	ND
Tributyl Tin	1.00	1.00	1.03	2.52	1.34	3.26	7.20

QUALITY CONTROL REPORT

QC Batch No: 031809-1

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS RPD % Limit						
Tributyl Tin	89	86	3.4							

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ANALYTICAL RESULTS

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Telephone: (805)650-1400
Attn: Harry Finney

Page: 29

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: GC/FPD, Organo Tin Compounds

QC Batch No: 031809-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/11/2009				
Preparation Method							
Date Analyzed			03/18/2009				
Matrix			Solid				
Units			ug/kg				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Dibutyl Tin	1.00	1.00	ND				
Monobutyl Tin	1.00	1.00	ND				
Tributyl Tin	1.00	1.00	1.73				

QUALITY CONTROL REPORT

QC Batch No: 031809-1

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS RPD % Limit						
Tributyl Tin	89	86	3.4							

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Environmental Testing Services
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ANALYTICAL RESULTS

Ordered By

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Telephone: (805)650-1400
Attn: Harry Finney

Page: 30

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: SM2540-G, Percent Solids

QC Batch No: 030409-1

Our Lab I.D.			232909	232910	232911	232912	232913
Client Sample I.D.			A	B	C	D	E
Date Sampled			03/03/2009	03/03/2009	03/03/2009	03/03/2009	03/03/2009
Date Prepared			03/04/2009	03/04/2009	03/04/2009	03/04/2009	03/04/2009
Preparation Method							
Date Analyzed			03/04/2009	03/04/2009	03/04/2009	03/04/2009	03/04/2009
Matrix			Solid	Solid	Solid	Solid	Solid
Units			percent(%)	percent(%)	percent(%)	percent(%)	percent(%)
Dilution Factor			1	1	1	1	1
Analytes	MDL	PQL	Results	Results	Results	Results	Results
Conventionals							
% Solids	1.00	1.00	69.4	69.0	74.7	66.9	67.8

QUALITY CONTROL REPORT

QC Batch No: 030409-1

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit						
Conventionals										
% Solids	69.4	70.3	1.3	20						

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Environmental Testing Services
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ANALYTICAL RESULTS

Ordered By

Applied Enviro. Technologies, Inc.
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Ventura, CA 93003

Telephone: (805)650-1400
Attn: Harry Finney

Project ID: 0062-220
Project Name: Ventura Port District

ASL Job Number	Submitted	Client
41139	03/04/2009	AET

Method: SM2540-G, Percent Solids

QC Batch No: 030409-1

Our Lab I.D.			232914				
Client Sample I.D.			F				
Date Sampled			03/03/2009				
Date Prepared			03/04/2009				
Preparation Method							
Date Analyzed			03/04/2009				
Matrix			Solid				
Units			percent(%)				
Dilution Factor			1				
Analytes	**MDL**	**PQL**	**Results**				
Conventionals							
% Solids	1.00	1.00	67.2				

QUALITY CONTROL REPORT

QC Batch No: 030409-1

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit						
Conventionals										
% Solids	69.4	70.3	1.3	20						

ADDENDUMS

Addendum 1

February 1994 Sediment Investigation

February 1994 Sediment Investigation

The sampling included the collection of sediment cores from 4 locations in the area of the inner harbor that was proposed for maintenance dredging (Plate 2). In addition, three samples were collected offshore the Santa Clara River mouth at depths of 45 to 47 feet (Plate 3). At each location within the harbor, a core of sediment was collected. The 3 offshore samples were composited into a single offshore sample.

The core samples from the inner harbor and the composite sample from offshore were analyzed for grain size, total organic carbon (TOC), and total solids. The grain sizes of the individual inner harbor samples and the composite offshore sample are:

Grain Size	Percent Inner Harbor	Percent Offshore
Gravel	0.135	0.000
Sand	36.870	29.926
Silt	42.162	64.794
Clay	20.832	5.280

The average percent that passes the 200-sieve (silt and clay) was calculated to be 62.994% for the inner harbor and 70.044% for offshore.

The sediment grain size results from the inner harbor and offshore reference areas were similar. The sediment that could pass the 200 sieve was approximately 63 percent for the inner harbor and 70 percent for the waters offshore the Santa Clara River mouth. Therefore, the waters, offshore the Santa Clara River mouth, have a greater percentage of the smaller sediment fractions.

The estimated discharge was calculated to be well within the parameters that have been discharged in the past. The estimated maximum discharge of 85,000 cubic yards per year is considered to be an insignificant volume when compared to the annual discharge from the Santa Clara River (2.5 million cubic yards per year). No affect to the marine environment would be expected from the discharge of the Harbor sediments to the area near the Santa Clara River mouth.

It was the conclusion of the 1994 report that the sediment in the Ventura Harbor was comparable with sediments regularly discharged by the Santa Clara River. Additionally, it was the conclusion of the report that the sediments dredged from the Ventura Harbor could be discharged near the river mouth without causing a long-term alteration of the grain size distributions in the area of the river mouth.

The percent by weight for total organic carbon was measured on the individual inner harbor and composite offshore samples. The percents on the inner harbor ranged from 0.42 to 0.47 percent. The offshore sample contained 0.18 percent total organic carbon. The percent by weight for total solids was measured on the individual inner harbor and composite offshore samples. The percents

on the inner harbor samples ranged from 62 to 69 percent. The offshore sample contained 69 percent total solids. The analysis for total solids and total organic carbon are comparable for both the inner harbor and offshore areas.

In summary, no detectable concentrations of Polynuclear Aromatic Hydrocarbons (PAHs) including total Phthalates, Pesticides, Polychlorinated Biphenyls (PCBs), total recoverable petroleum hydrocarbons (TRPH), Phenols, or oil and grease were observed.

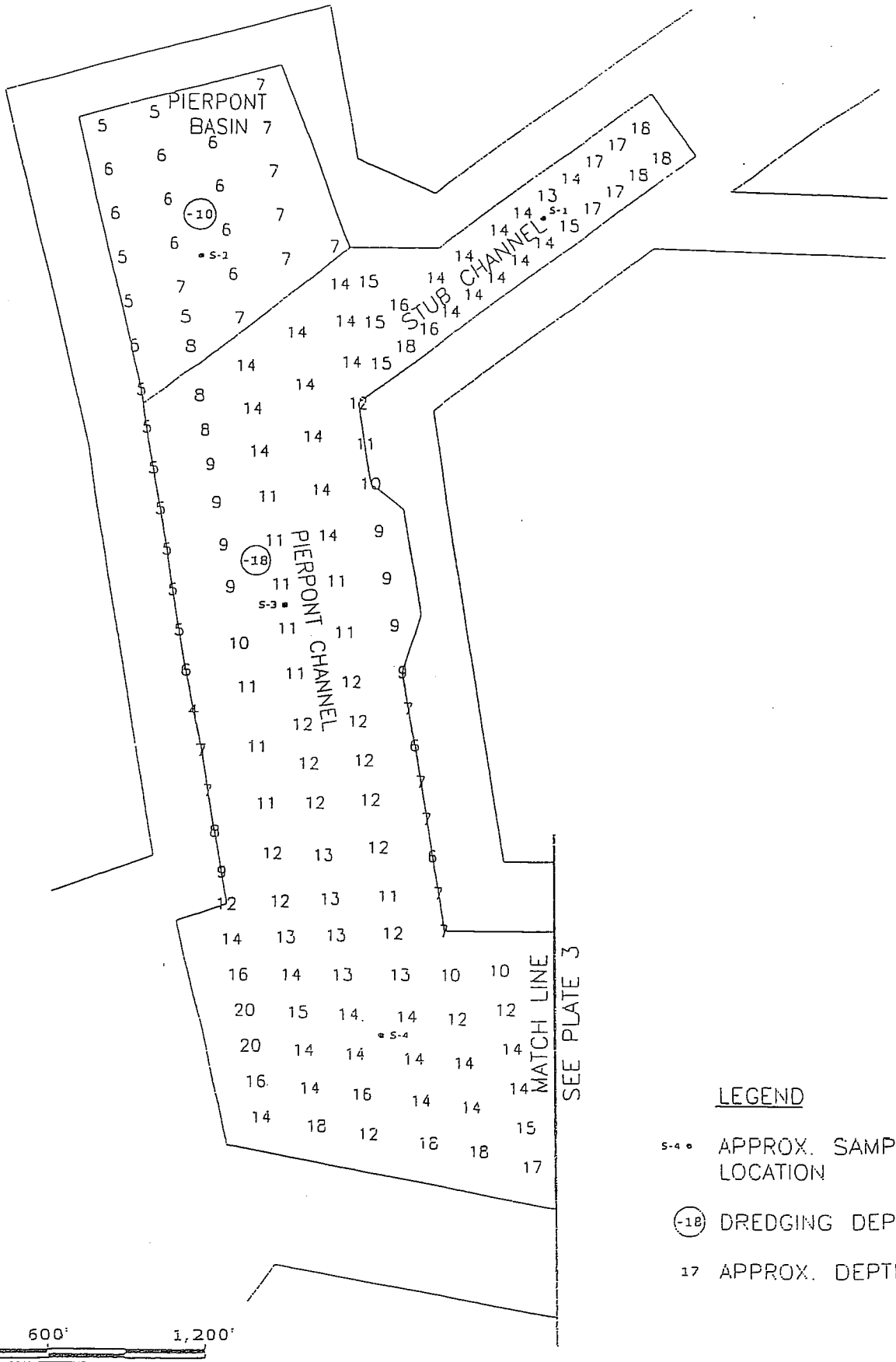
Sulfides were measured in both the inner harbor and offshore samples at 720 and 47 milligrams per kilogram (mg/kg), respectively. Although the levels were greater for the inner harbor samples, it was our opinion that the levels are not significant. The sulfides in the harbor were expected to result from naturally occurring organic materials.

Five metals (Chromium, Copper, Lead, Nickel, and Zinc) were detected in the inner harbor sample at 11.6, 13.8, 17.7, 15.4, and 46.6 mg/kg, respectively. Four of the 5 metals were also detected in the offshore sample. Lead was not detected in the offshore sample. Chromium, Copper, Nickel and Zinc were detected at 8.40, 6.55, 8.45, and 30.4 mg/kg. The non-metal Arsenic was measured in both the inner harbor and offshore samples at 5.9 and 4.3 mg/kg, respectively.

Various metals and the non-metal Arsenic were detected in the inner harbor and offshore area samples. None of the concentrations detected exceed Title 22 standards. It was our opinion that no impacts due to metals would occur from discharge of dredged materials from the inner harbor to the marine environment offshore the Santa Clara River.

The inner harbor and offshore samples were analyzed for organic tin. Dibutyltin and Tributyltin were detected at 3 micrograms per kilogram (ug/kg) in the inner harbor sample. No detectable concentrations of monobutyltin or tetrabutyltin were measured in the inner harbor sample. No organic tin was detected in the offshore sample. No EPA Water Quality Criteria have been set for organic tin. The concentrations of organic tin identified in the inner harbor sediments are considered insignificant.

It was the conclusion of the 1994 report that the chemical concentrations measured in the inner harbor sediments were comparable to the concentrations detected in offshore samples. Additionally, it was our opinion that no significant impact would occur from the disposal of inner harbor sediments to waters offshore the Santa Clara River mouth.



LEGEND

S-4 • APPROX. SAMPLE LOCATION

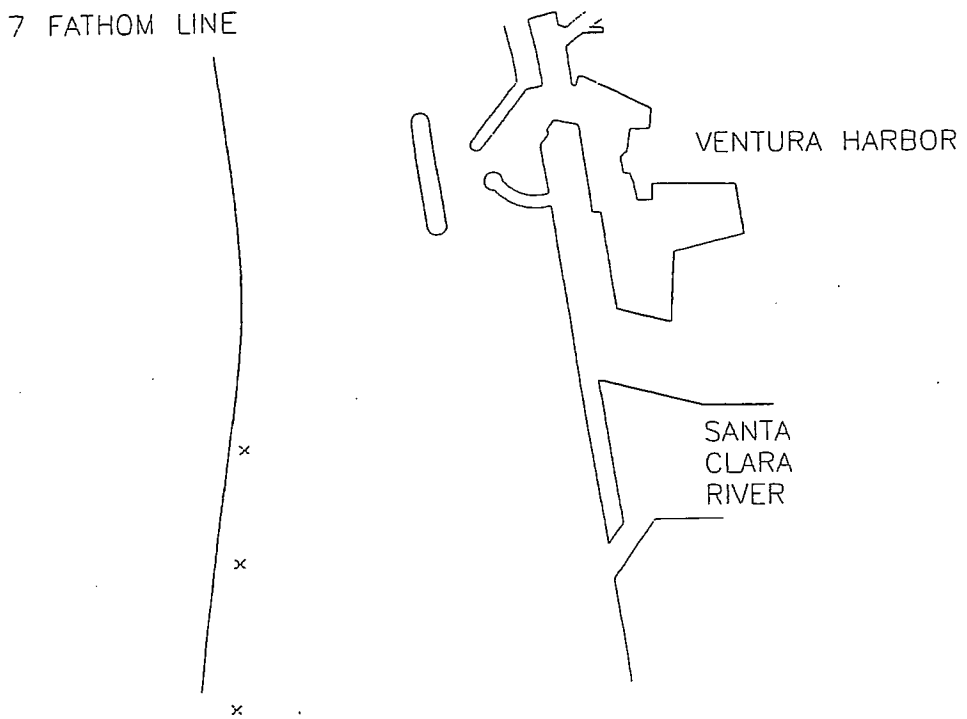
(-18) DREDGING DEPTH

17 APPROX. DEPTH

Applied Environmental Technologies, Inc.

1994 SAMPLING LOCATIONS
PIERPONT BASIN, PIERPONT CHANNEL AND STUB CHANNEL
VENTURA, CALIFORNIA

PLATE 2



× OFFSHORE SAMPLE LOCATION

0' 3,000' 6,000'

SCALE - 1" = 3,000'

Applied Environmental Technologies, Inc.

1994 OFFSHORE SAMPLE LOCATIONS
VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

PLATE 3

Addendum 2

March 1997 Sediment Investigation

March 1997 Sediment Investigation

The sampling included the collection of sediment cores from 11 locations in the Ventura Harbor shown on Plates 4A, 4B and 4C. Approximate volumes to be dredged are also shown. The cores were collected using a vibracore mounted on a 36-foot workboat.

AET collected sediment samples from the areas of proposed dredging within the Ventura Harbor waterways and in the Santa Clara River mouth. A total of four (4) composite samples, for analyses, were removed from the areas to be investigated. One composite sample was collected in each of the 3 Ventura Harbor areas (see Plate 4A, B & C), and 1 composite samples was collected within the Santa Clara River mouth (Plate 5).

The depth of the samples was approximately -20 feet MLLW (proposed dredge depth was -18 ft MLLW) in the Stub Channel (see Plate 4A), -19 feet MLLW (proposed dredge depth was -17 feet MLLW) in the Main Channel (see Plate 4B), and -14 feet MLLW (proposed dredge depth was -12 feet MLLW) in the Basin Channel (see Plate 4C).

The composite sample from the river mouth was collected by grab sampling that sample the top 10 cm of the sediment. Three samples were collected within the river mouth (see Plate 5) and handled as discussed above.

During this sediment investigation, the sediments of the Ventura Harbor consisted generally of silty clay up to 6.5 feet thick, followed generally by very fine-to-fine sand to total depth. Gravel layers were encountered at various locations around the Ventura Harbor. Organic debris was encountered in the Stub Channel near the north end.

The percent of the individual grain sizes (i.e., gravel, sand, silt and clay) of the Ventura Harbor and the river mouth are shown on Table 1. The percentages retained on a 200 sieve are approximately 47% for the Stub Channel, 31% for the Main channel and 45% for the Basin Channel. The river mouth contained less than 24% that would be retained on the 200-sieve.

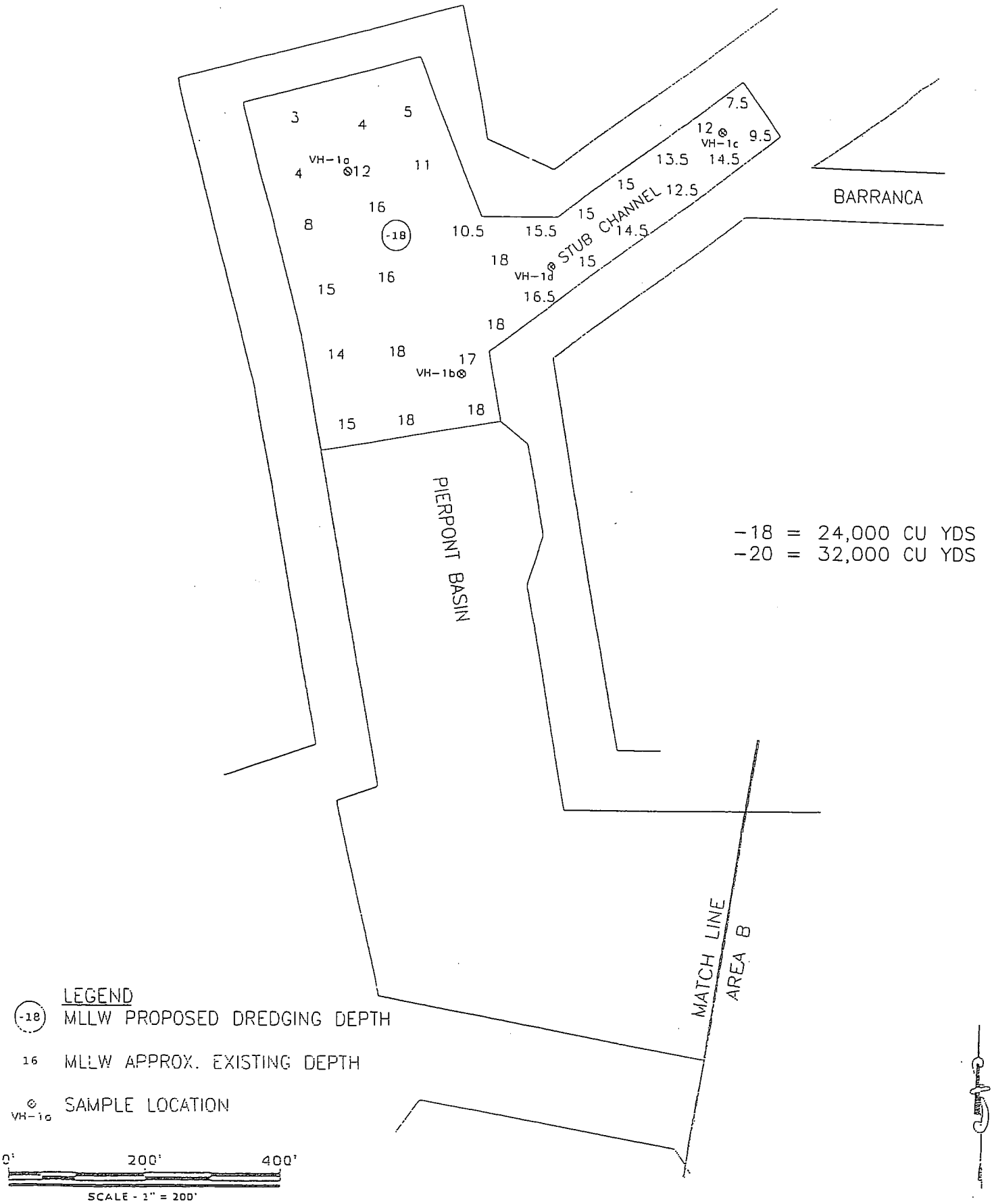
The sediment samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs). Samples VH-1 contained minor concentrations of some of the constituents. Sample VH-1 contained 0.06 mg/kg Benzo(a)anthracene, 0.15 mg/kg Benzo(b)fluoranthene, 0.21 mg/kg Benzo(k)fluoranthene, 0.08 mg/kg Fluoranthene, 0.04 Phenanthrene, and 0.12 mg/kg Pyrene (see Appendix C). Sample VH-2 contained 0.05 mg/kg Benzo(b)fluoranthene, and 0.03 mg/kg Phenanthrene. Sample VH-3 contained only 0.02 mg/kg Fluoranthene. No other detection of PAHs was measured.

The chemical analyses conducted on the samples resulted in no detectable concentrations of volatile organic compounds, polychlorinated biphenyls (PCBs), organochlorine pesticides, phenols, phthalate esters, organotin compounds, and cyanide.

Metals analyses were conducted on the sediment samples. No Arsenic, Selenium or Silver concentrations were detected in the samples. A summary of the concentrations of metals measured is shown on Table 2. No concentrations were measured that exceed the total threshold limit concentration (TTLC) which identifies the material as hazardous (see Table 2). No concentrations were measured that were 10 times the soluble threshold limit concentration (STLC), which would infer that the sediments do not contain hazardous levels of a metal (see Table 2).

It was the conclusion of the 1997 report that the chemical concentrations measured in the Ventura Harbor sediments were not environmentally significant and were comparable to the concentrations detected in offshore samples. It was our opinion that no significant impact would occur from the disposal of Ventura Harbor sediments to waters offshore the Santa Clara River mouth or to waters along the coast near Ventura Harbor.

It was also the conclusion of the 1997 report that the sediment in the Ventura Harbor was comparable with sediments regularly discharged by the Santa Clara River. Additionally, it was the conclusion of the report that the sediments dredged from the Ventura Harbor could be discharged near the river mouth without causing a long-term alteration of the grain size distributions in the area of the river mouth.



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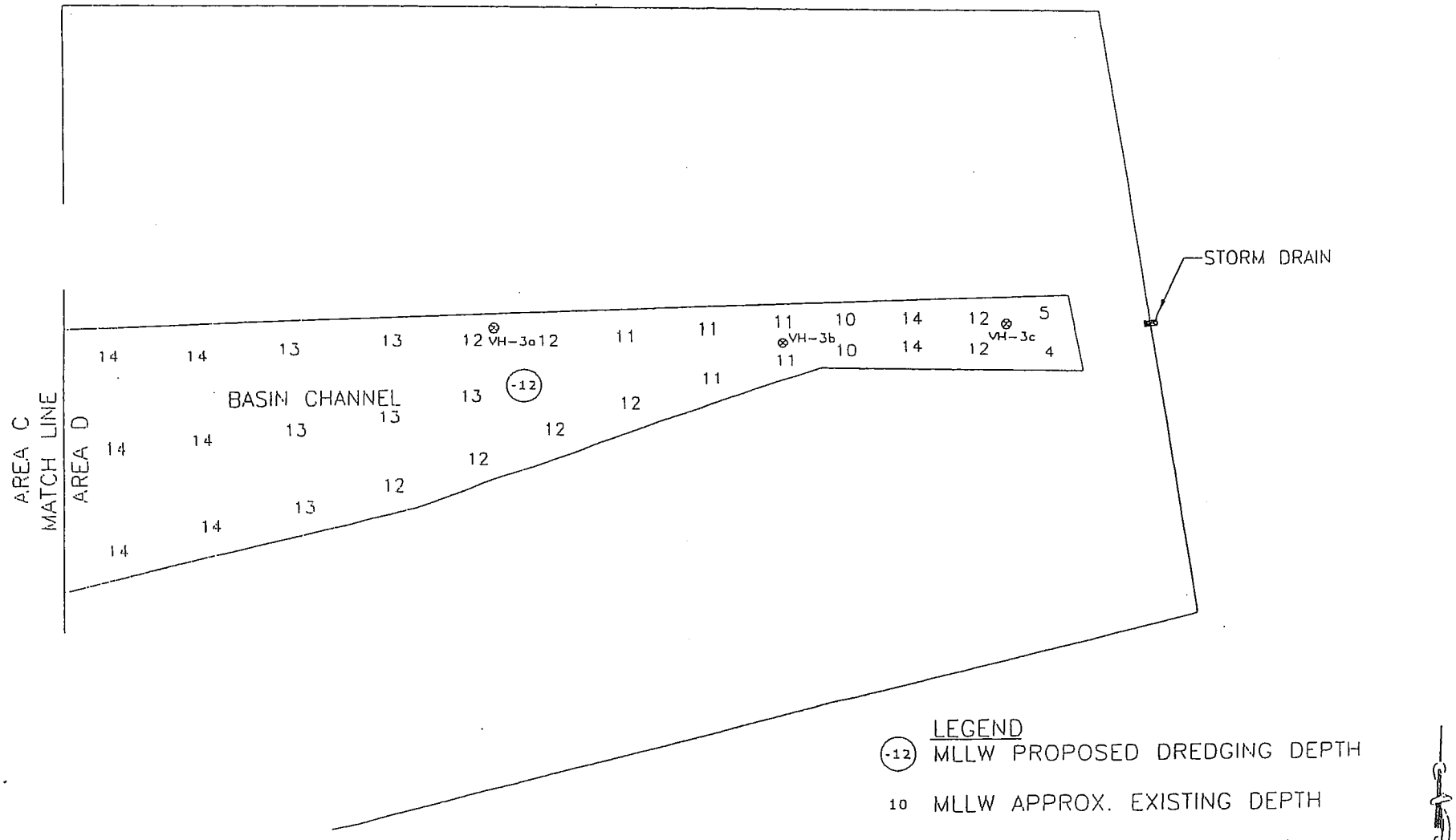
1997 SAMPLE LOCATIONS AREA A
VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

PLATE 4A



Applied Environmental Technologies, Inc.

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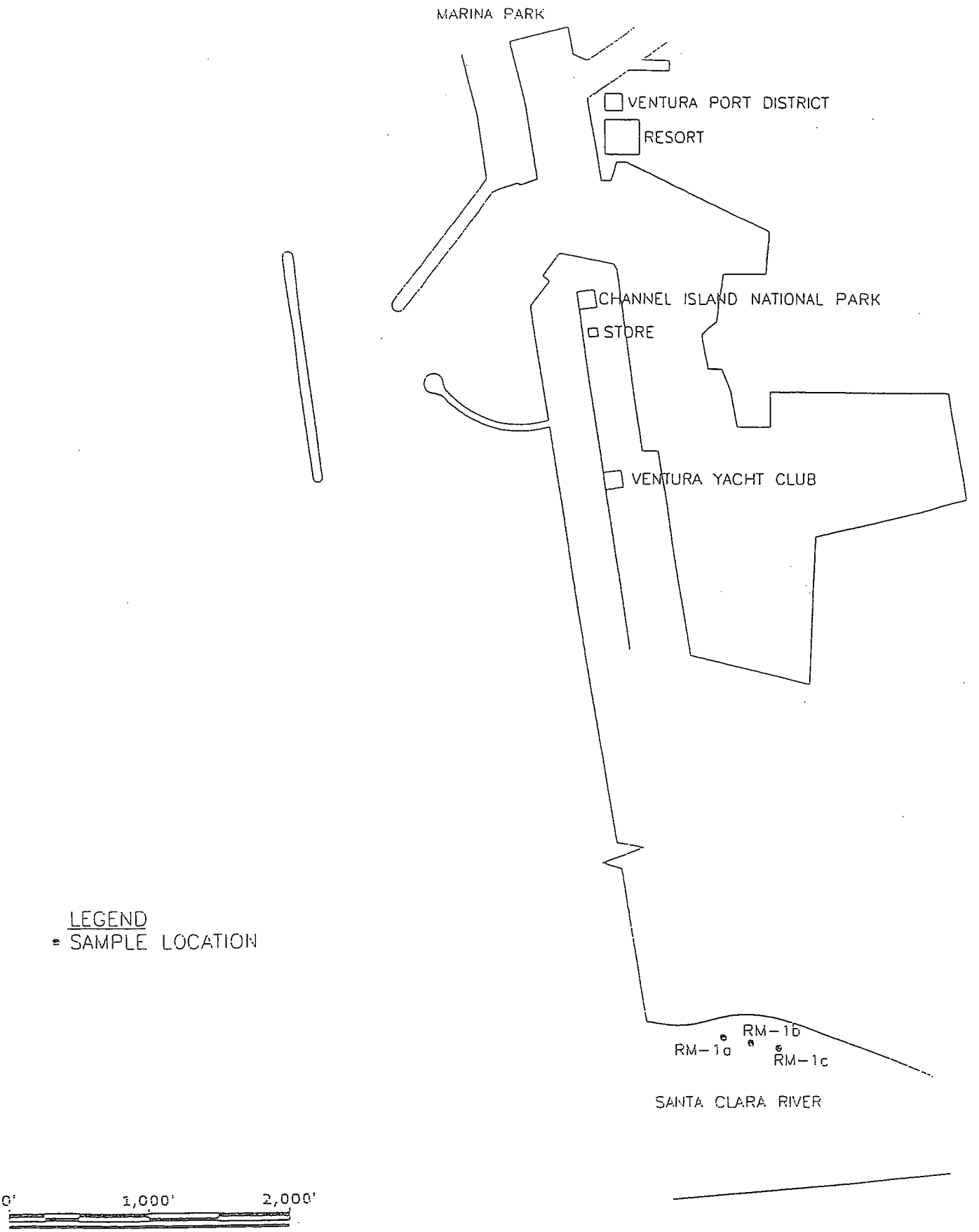
1997 SAMPLE LOCATIONS

VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

SEPTEMBER 17, 2001

PROJECT NUMBER 0062-22

PLATE 4C



Applied Environmental Technologies, Inc.

1997 SAMPLE LOCATIONS (RIVER MOUTH)
VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

PLATE 5

Table 1.
Sediment Grain Sizes
Ventura Harbor Dredge Investigation
March 1997

	Stub Channel Sample VH-1	Main Channel Sample VH-2	Basin Channel Sample VH-3	River Mouth Sample RM-1
Grain Size				
Gravel	5.629%	0.450%	2.931%	0.159%
Sand	41.039%	30.358%	42.528%	23.498%
Silt	36.102%	44.664%	29.333%	61.545%
Clay	17.231%	24.528%	25.208%	14.797%
Percent Retained on 200 Sieve	46.668	30.808	45.459	23.657

Table 2.
Metals Concentrations
in mg/kg
March 1997

	Sample ID			Regulatory Limits		
Constituent	Stub Channel Sample VH-1	Main Channel Sample VH-2	Basin Channel Sample VH-3	TTLC	STLC*	ERL
Cadmium	0.38	0.41	0.53	500	50	1.2
Chromium	4.77	5.20	8.85	500	50	81
Copper	17.6	18.1	35.4	2500	250	34
Lead	11.8	9.41	11.6	1000	50	46.7
Mercury	0.04	0.05	0.04	20	2	0.15
Nickel	10.6	9.84	14.2	2000	200	20.9
Zinc	117	39.8	67.5	5000	2500	150

ND = not detected at detection limit of 0.02 mg/kg

* Incorporates a 10 times dilution to correlate to sample concentrations shown above.

Addendum 3

November 1998 Sediment Investigation

November 1998 Sediment Investigation

In November 1998, sediment cores were collected from 8 locations in the Ventura Harbor (Plates 6A and 6B). AET collected sediment samples from the areas of proposed dredging within the Ventura Harbor. AET used a pneumatic vibracore system to collect the sediment samples.

A total of two (2) composite samples, for analyses, were removed from the areas investigated. The depth of the samples within the individual areas was approximately -20 feet MLLW for the Pierpont Basin, and -19 feet MLLW for Main Channel ll.

One composite grab sample was collected offshore the Santa Clara River mouth (Plate 3). To achieve a representative sample, 3 samples were collected along the range of the expected beach disposal area at water depths of approximately 45 feet (Plate 7). The 3 samples were composited into a single sample for analysis.

The sediments investigated in the Ventura Harbor consisted generally of saturated silty clay in the first 2 feet followed by silty sand or silty clay to the total depth. Fine to coarse grain sand with occasional gravels were encountered at various locations around the Ventura Harbor in the areas investigated.

The grain sizes of the inner Ventura Harbor samples and the offshore sample are shown on Table 3. The percentages retained on a 200 sieve are approximately 56% for the Pierpont Basin and 64.5% for the Main Channel core samples. The offshore sample was approximately 46%.

The sediment samples were analyzed for total organic carbon (TOC). The results showed that between 0.3 and 0.5 percent of the samples in the core samples contained organic carbon. The offshore sample contained 0.25 percent TOC.

The sediment samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs). Samples V-1 and V-2 contained minor concentrations of some of the constituents. Sample V-1 contained 12 µg/kg (parts per billion) Chrysene and 14 µg/kg Pyrene. Sample V-2 contained 22 µg/kg Pyrene. No other detection of PAHs was measured.

The chemical analyses conducted on the samples resulted in no detectable concentrations of volatile organic compounds, polychlorinated biphenyls (PCBs), phenols, or cyanide.

Organochlorine pesticides were detected in all samples. Sample V-1 contained 2.28 and 3.69 µg/kg 4,4' DDD and 4,4'DDE, respectively. Sample V-2 contained 4.26, 7.39 and 3.54 µg/kg 4,4' DDD, 4,4'DDE and 4,4' DDT, respectively. The offshore sample, OS-1, contained 0.68 µg/kg 4,4' DDE.

All samples contained minor concentrations of phthalate esters. Table 4 shows the concentrations of the various phthalate esters measured in the samples. All samples contained concentrations of Bis(2-Ethylhexyl)phthalate, Di-n-butylphthalate, and Diethylphthalate. Sample V-1 also contained Butyl benzyl phthalate.

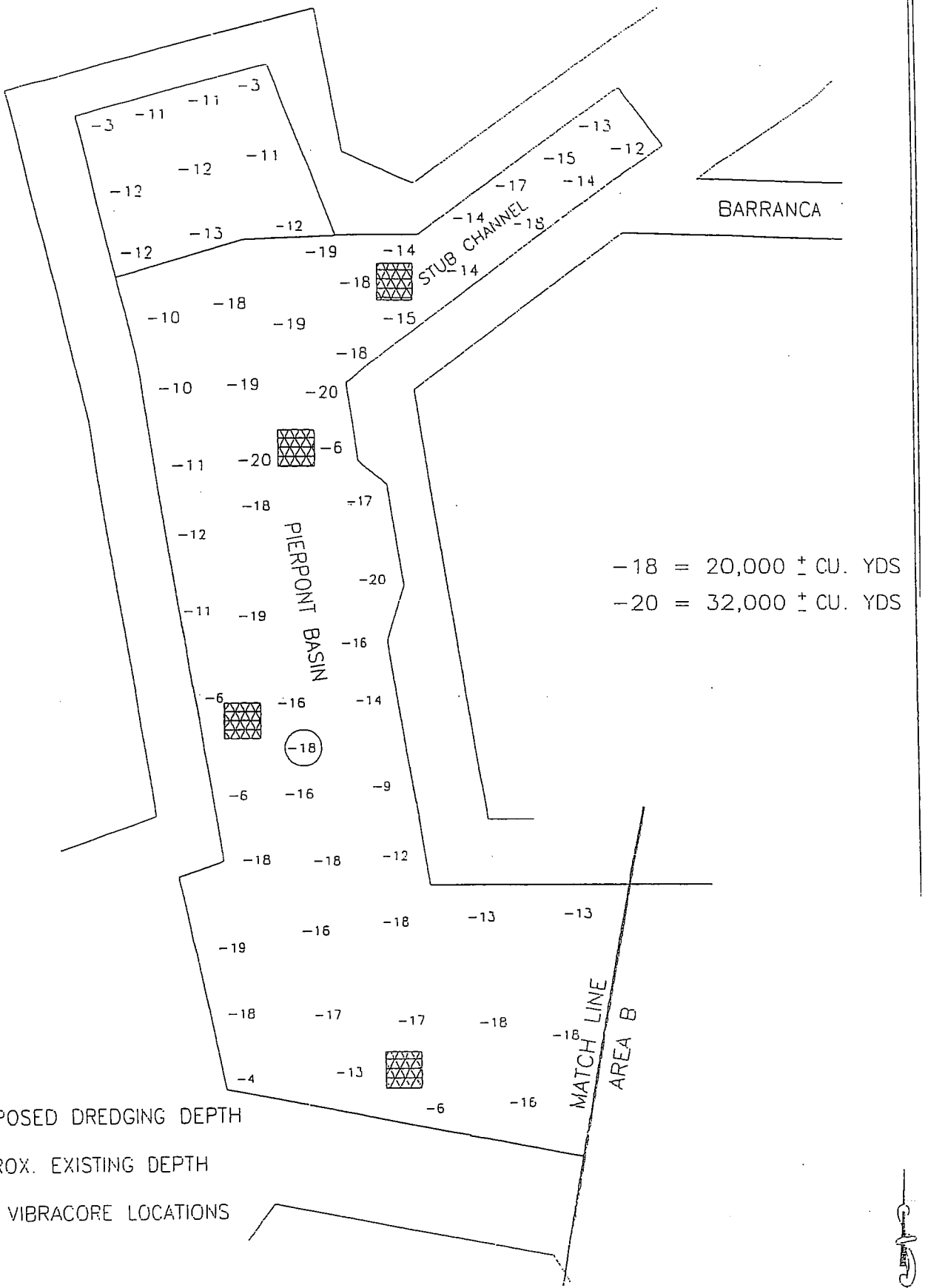
With the exception of Sample V-2, no detectable concentrations of organotin compounds were measured. Tributyltin was detected at 1 µg/kg in Sample V-2.

Metals analyses were conducted on the sediment samples. No silver concentrations were detected in the samples. A summary of the concentrations of metals measured is shown on Table 5. No concentrations were measured that exceed the total threshold limit concentration (TTLC) which identifies the material as hazardous (see Table 5). No concentrations were measured that were 10 times the soluble threshold limit concentration (STLC), which would infer that the sediments do not contain hazardous levels of a metal (see Table 5).

It was the conclusion of the 1998 report that the chemical concentrations measured in the Ventura Harbor sediments are not environmentally significant and are comparable to the concentrations detected in offshore samples. Additionally, it was the opinion of the 1998 sampling report that no significant impact would occur from the disposal of Ventura Harbor sediments to waters offshore the Santa Clara River mouth or to waters along the coast near Ventura Harbor.

The sediment grain size results from the Ventura Harbor showed that an average of approximately 60 percent of the material in the core samples would be retained on the 200-sieve. The sample collected from offshore the Santa Clara River mouth, showed a sediment grain size of approximately 46 percent that would be retained on the 200-sieve. The percentage measured in the harbor was greater than observed in the offshore sample.

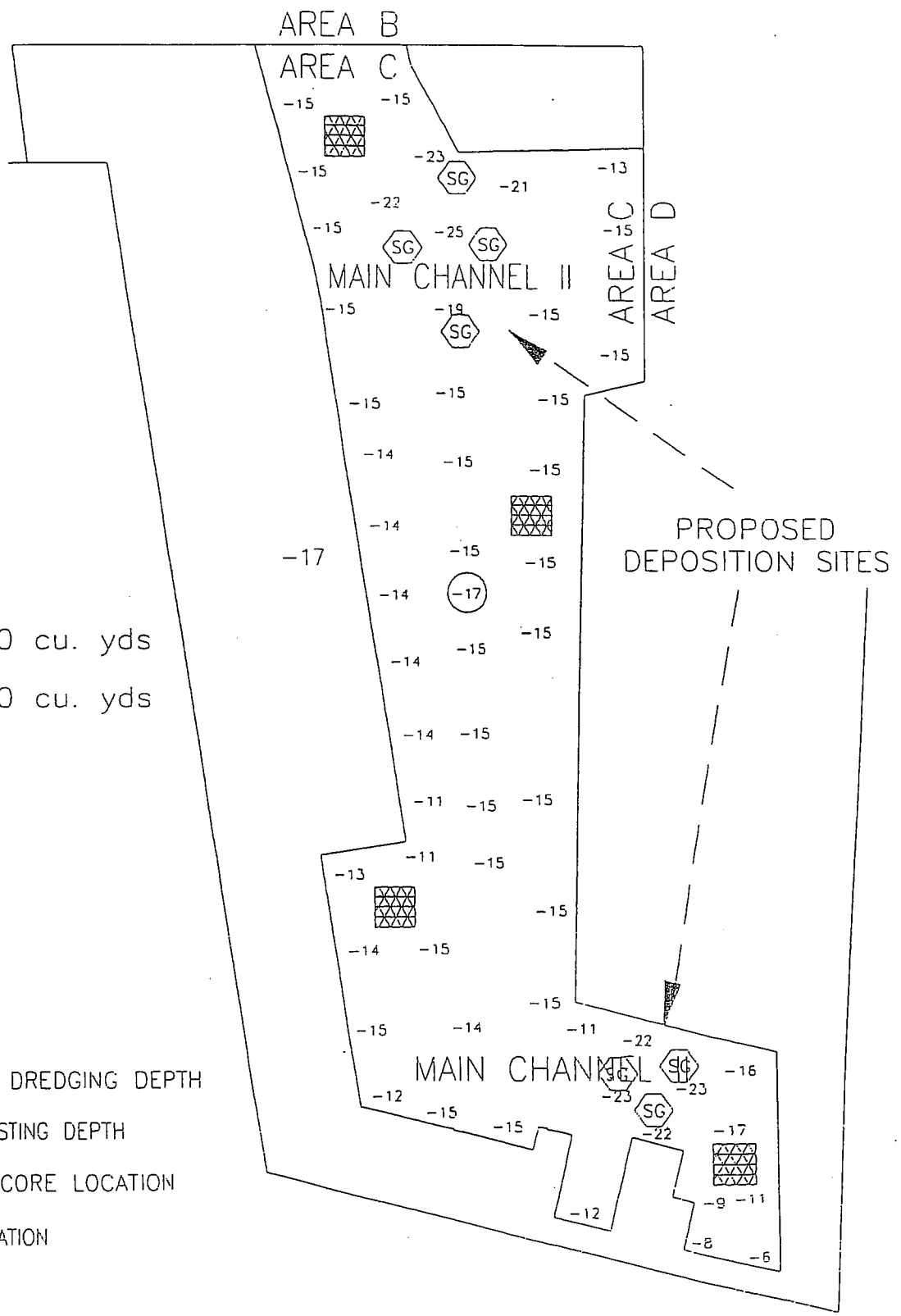
It was the conclusion of the 1998 report that the sediment in the Ventura Harbor was comparable with sediments regularly discharged by the Santa Clara River. Additionally, it was the conclusion of the report that the sediments dredged from the Ventura Harbor could be discharged near the river mouth without causing a long-term alteration of the grain size distributions in the area of the river mouth.



Applied Environmental Technologies, Inc.

1998 SAMPLE LOCATIONS (PIERPONT BASIN)
VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

PLATE 6A



-17 = 28,000 cu. yds

-19 = 46,000 cu. yds

LEGEND

(-17) MLLW PROPOSED DREDGING DEPTH

15 MLLW APPROX. EXISTING DEPTH

PROPOSED VIBRACORE LOCATION

(SG) GRAB SAMPLE LOCATION

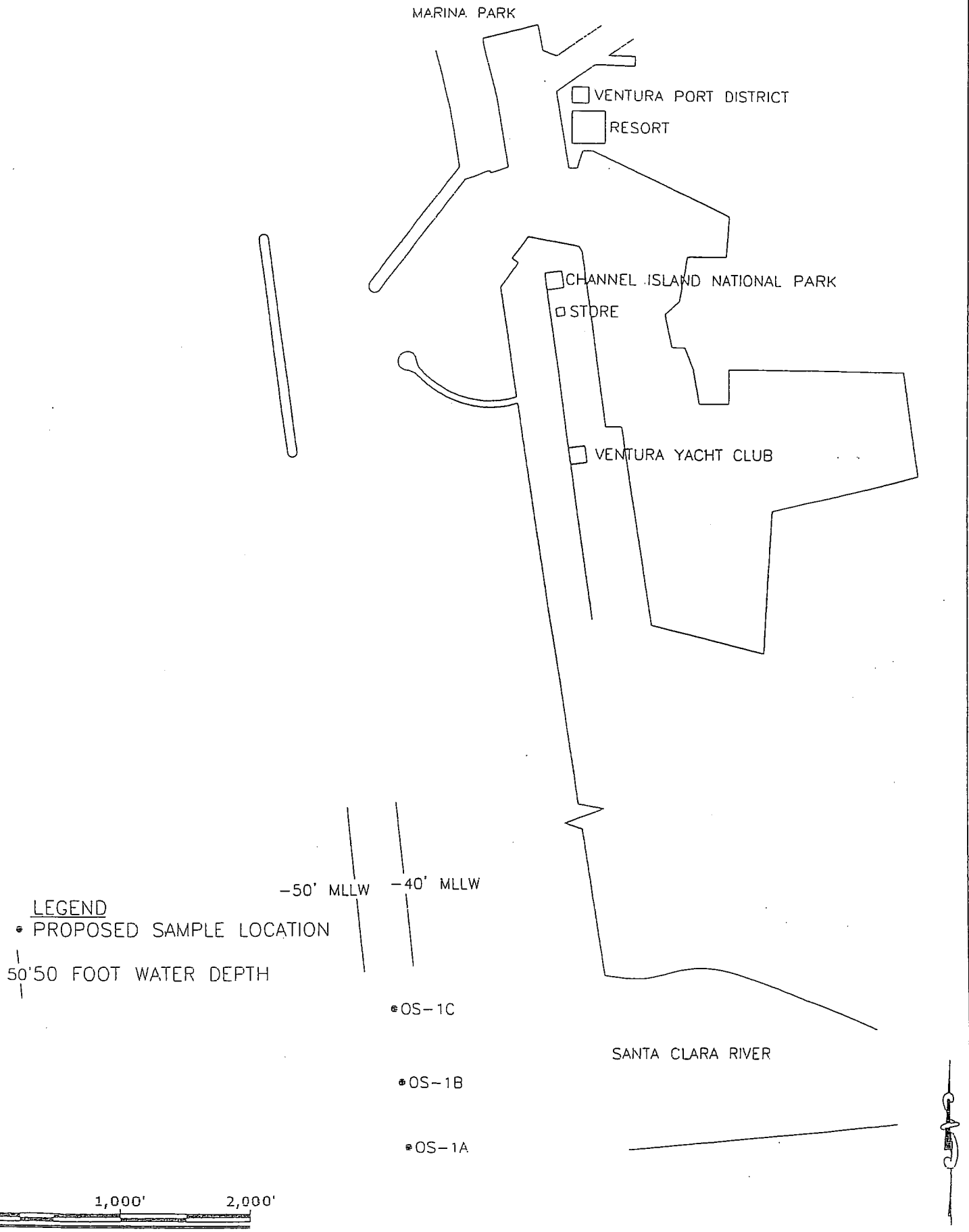
0' 200' 400'

SCALE - 1" = 200'

Applied Environmental Technologies, Inc.

1998 SAMPLE LOCATIONS (MAIN CHANNEL II)
VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

PLATE 6B



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Phone (805)650-1400 Fax (805)650-1576

1998 OFFSHORE SAMPLING LOCATIONS

VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

PLATE REFERENCE 00622201M | SEPTEMBER 18, 2001 | PROJECT NUMBER 0062-22

PLATE 7

Table 2.
Sediment Grain Sizes
Ventura Harbor Dredge Investigation
November 1998

	Pierpont Basin Sample V-1	Main Channel Sample V-2	Main Channel Sample SG-1	Main Channel Sample SG-2	Offshore Sample OS-1
Grain Size					
Gravel	0.135%	10.008%	0.000%	0.000%	2.498%
Sand	56.132%	54.502%	0.907%	2.821%	43.218%
Silt	30.211%	15.637%	47.822%	37.266%	32.714%
Clay	13.523%	19.853%	51.271%	59.913%	21.570%
Percent Retained on 200 Sieve	56.267	64.510	0.907	2.821	45.716

Table 4.
Phthalate Ester Concentrations
in µg/kg

Constituent	Pierpont Basin Sample V-1	Main Channel Sample V-2	Main Channel Sample SG-1	Main Channel Sample SG-2	Offshore Sample OS-1
Bis(2-Ethylhexyl)phthalate	265	158	127	98.4	116
Butyl benzyl phthalate	36.0	ND	ND	ND	ND
Di-n-butylphthalate	94.9	203	253	189	131
Di-n-octylphthalate	ND	ND	ND	ND	ND
Diethylphthalate	40.3	41.2	34.1	23.8	53.6
Dimethylphthalate	ND	ND	ND	ND	ND

ND = not detected at detection limit of 10 µg/kg

Table 5.
Metals Concentrations
in mg/kg

Constituent	Pierpont Basin Sample V-1	Main Channel Sample V-2	Main Channel Sample SG-1	Main Channel Sample SG-2	Offshore Sample OS-1	Regulatory Limits TTLC	Regulatory Limits STLC*
Arsenic	1.47	1.45	2.46	2.43	1.69	500	50
Cadmium	0.13	0.13	0.38	0.24	ND	500	50
Chromium	10.1	14.7	24.2	16.8	7.86	500	50
Copper	11.4	22.4	32.1	30.4	9.65	2500	250
Lead	7.43	8.32	9.89	7.39	6.24	1000	50
Mercury	0.03	0.02	0.07	ND	ND	20	2
Nickel	12.8	18.3	34.9	22.3	9.50	2000	200
Selenium	0.39	0.57	1.00	0.41	0.41	100	10
Silver	ND	ND	ND	ND	ND	500	50
Zinc	36.8	55.0	84.7	62.2	27.9	5000	2500

ND = not detected at detection limit of 0.02 mg/kg

* Incorporates a 10 times dilution to correlate to sample concentrations shown above.

Addendum 4

May 2002 Sediment Investigation

May 2002 Sediment Sampling

The collection of sediment cores occurred at (4) discrete sample areas (Areas A through D) in Ventura Harbor (see Plates 8A and B) in May 2002. Within each area, 4 sediment samples were collected (Plate 8A and B).

The cores were collected using a gravity core suspended from a work barge on May 10, 2002. The cores were collected to a maximum depth of -20 feet MLLW in Areas A, B and part of C. The cores from Area D were collected to a maximum depth of -17 or -14 feet MLLW. The design depth for the harbor ranges from -12 to -18 feet MLLW however, some over dredging (maximum of 2 feet) may occur.

In summary, the sediments investigated in the Ventura Harbor consisted generally of saturated silty clay in the first 2 feet followed by silty sand or silty clay to the total depth. Fine to coarse grain sand with occasional gravels were encountered at various locations around the Ventura Harbor in the areas investigated.

The percent of the individual grain sizes (i.e., gravel, sand, silt and clay) of the Ventura Harbor samples are shown on Table 2. The percentages retained on a 200 sieve are approximately 43% for Area A, 25.3% for Area B, 38.2% for Area C and 18.9% for Area D.

The sediment samples were measured for total percent solids. The range of solids measured for the core samples was 59 to 70.7 percent. The sediment samples were analyzed for total organic carbon (TOC). The results showed that between 0.6 and 0.7 percent of the samples in the core samples contained organic carbon.

The sediment samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs). All samples contained minor concentrations of some of the constituents. The concentrations of constituents measured are shown on Table 3.

The chemical analyses conducted on the samples resulted in no detectable concentrations of volatile organic compounds, polychlorinated biphenyls (PCBs), phenols, or cyanide.

Organochlorine pesticides were detected in all samples (see Table 4). DDD ranged from not detected in the Area A sample to 9.0 µg/kg in the Area C sample. DDE ranged from 6.1 µg/kg in the Area A sample to 160 µg/kg in the Area D sample. DDT ranged from 3.9 µg/kg in the Area A sample to 17.3 µg/kg in the Area D sample.

With the exception of Sample from Area C, no detectable concentrations of organotin compounds were measured. Tributyltin was detected at 3.0 µg/kg and Dibutyltin Tin was measured at 1.38 µg/kg in the sample from Area C.

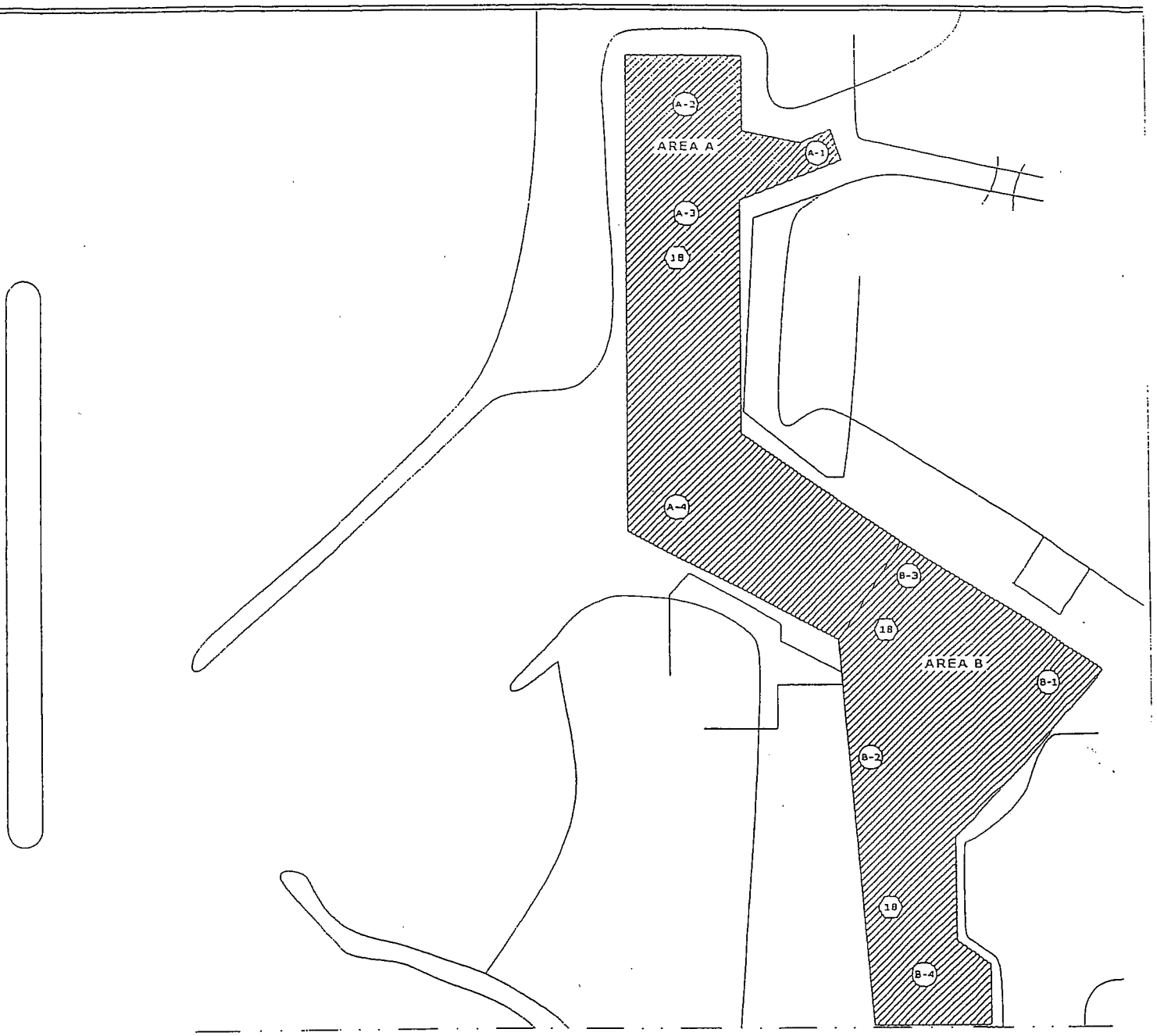
Metals analyses were conducted on the sediment samples. No mercury concentrations were detected in the samples. A summary of the concentrations of metals measured is shown on Table 5. No concentrations were measured that exceed the total threshold limit concentration (TTLC) which

identifies the material as hazardous (see Table 5). No concentrations were measured that were 10 times the soluble threshold limit concentration (STLC), which would infer that the sediments do not contain hazardous levels of a metal (see Table 5).

It was the conclusion of the report that the chemical concentrations measured in the Ventura Harbor sediments are not environmentally significant. Additionally, it is our opinion that no significant impact would occur from the disposal of Ventura Harbor sediments to waters offshore the Santa Clara River mouth or to authorized depressions on the harbor bottom.

Sediment grain size was finer than in past surveys (approximately 68 percent silts and clays). The grain size is predominantly silts and clays, however, based on previous studies of the Santa Clara River Mouth area, the grain size remains consistent with that discharged by the river.

It was the conclusion of the report that the sediment in the Ventura Harbor (68 percent silts and clays) is comparable with sediments regularly discharged by the Santa Clara River (79 percent silts and clays). Additionally, it is the conclusion of the report that the sediments dredged from the Ventura Harbor could be placed near the river mouth without causing a long-term alteration of the grain size distributions in the area of the river mouth



LEGEND

- DREDGING LIMITS
- (18) PROJECT DEPTH (MLLW)
- (A-4) SOIL SAMPLE LOCATION

0' 400' 800'

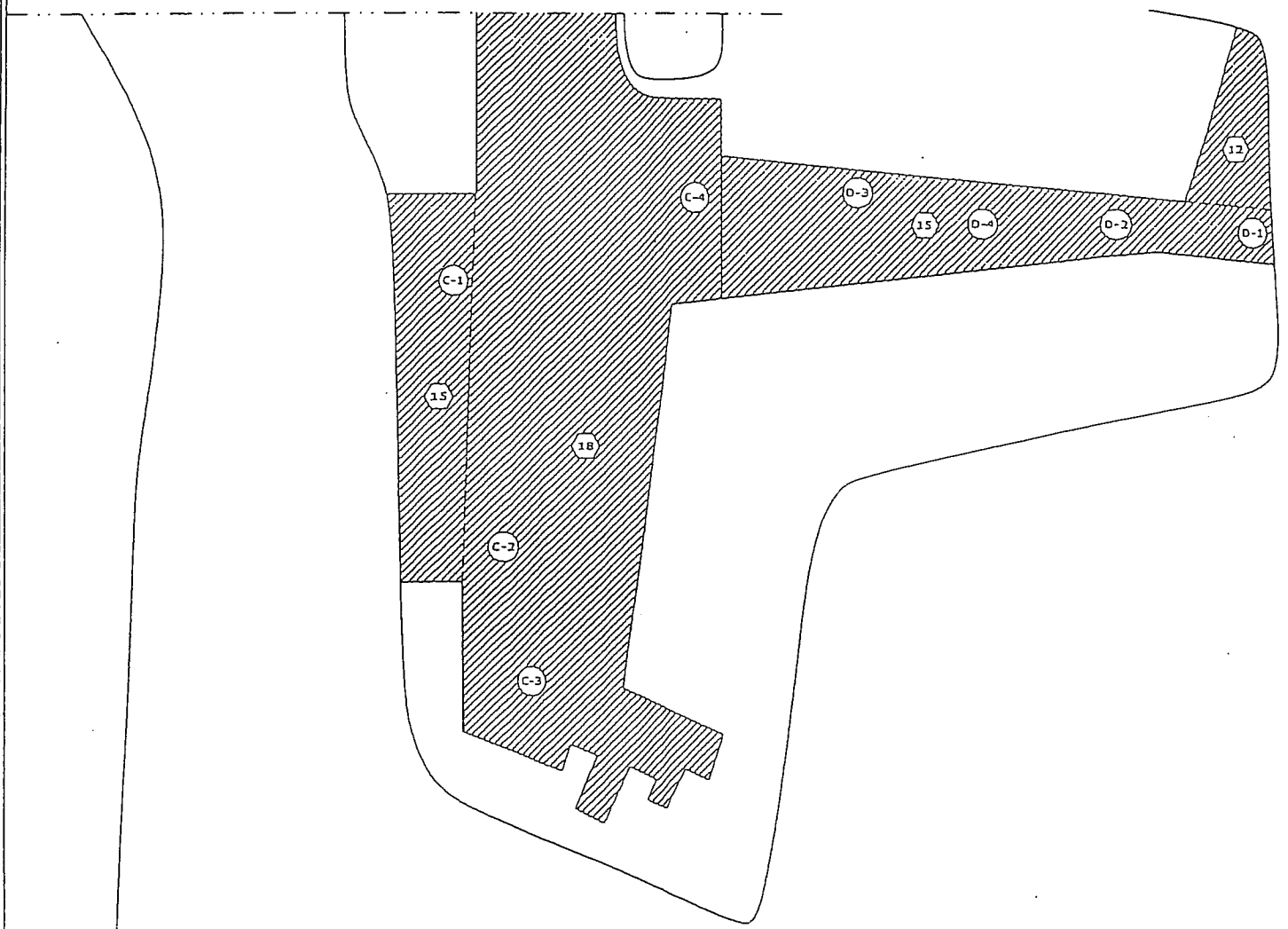
SCALE - 1" = APPROXIMATELY 400'

Applied Environmental Technologies, Inc.

PROPOSED SEDIMENT SAMPLING LOCATIONS

VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

PLATE 8A



LEGEND

INNER HARBOR DREDGING LIMITS

(18) PROJECT DEPTH (MLLW)

0' 400' 800'

SCALE - 1" = APPROXIMATELY 400'

Applied Environmental Technologies, Inc.

PROPOSED SEDIMENT SAMPLING LOCATIONS

VENTURA PORT DISTRICT
VENTURA, CALIFORNIA

PLATE 8B

Table 2.
Sediment Grain Sizes
Ventura Harbor Dredge Investigation
May 2002

	Area A	Area B	Area C	Area D
Grain Size				
Gravel	2.6%	5.8%	13.9%	4.7%
Sand	40.4%	19.5%	24.3%	14.2%
Silt & Clay	57.0%	74.7%	61.8%	81.1%
Percent Retained on 200 Sieve	43.0	25.3	38.2	18.9

Table 3.
Semivolatile Organic Concentrations
in μg/kg

Constituent	Area A	Area B	Area C	Area D	Water Quality Goals Maximum Contaminant Level (MCL)
Bis(2-Ethylhexyl)phthalate	120	95.7	ND	77.2	None
Butyl benzyl phthalate	ND	ND	51.4	24.3	100[1]
Diethylphthalate	ND	ND	ND	18.6	5000[2]
Fluoranthene	38.8	ND	ND	ND	None
Pyrene	33.6	ND	23.6	ND	None

ND = not detected

[1] Primary MCL
[2] MCL goal (no primary or secondary MCLs set)

Table 5.
Metals Concentrations
in mg/kg

Constituent	Area A	Area B	Area C	Area D	Regulatory Limits TTLC	Regulatory Limits STLC*
Arsenic	2.35	2.93	2.81	3.89	500	50
Cadmium	0.38	0.47	0.32	0.46	500	50
Chromium	13.4	20.3	16.4	21.3	500	50
Copper	18.4	41.4	41.4	49.7	2500	250
Lead	6.44	9.77	10.7	16.0	1000	50
Mercury	ND	ND	ND	ND	20	2
Nickel	22.5	31.6	25.3	33.7	2000	200
Selenium	0.44	0.42	0.32	0.27	100	10
Silver	0.40	0.26	0.36	0.42	500	50
Zinc	82.3	137	110	124	5000	2500

ND = not detected at detection limit of 0.2 mg/kg

* Incorporates a 10 times dilution to correlate to sample concentrations shown above.

Addendum 5

July 2005 Sediment Sampling

July 2005 Sediment Sampling

The collection of sediment cores occurred at four (4) discrete sample areas (Areas A through D) in Ventura Harbor (see Plates 2A through 2D). Within each area, 4 sediment samples were collected (Plate 2A through 2D) for compositing into a single sample for analysis.

The cores were collected using a vibracore suspended from the vessel Zypher on July 29, 2005. The cores were collected to a maximum depth of -20 feet MLLW in Areas A, B and part of C. The cores from Area D and part of Area C were collected to a maximum depth of -17 MLLW. The design depth for the harbor ranges from -15 to -18 feet MLLW however, some over dredging (maximum of 2 feet) may occur.

In summary, the sediments investigated in the Ventura Harbor consisted generally of saturated silty clay. Fine to coarse grain sand were encountered at all locations sampled in the areas investigated.

The percent of the individual grain sizes (i.e., gravel, sand, silt and clay) of the Ventura Harbor samples are shown on Table 2. The percentages retained on a 200 sieve are approximately 17.6% for Area A, 44.7% for Area B, 42.6% for Area C and 23.5% for Area D.

The sediment samples were measured for total percent solids. The range of solids measured for the core samples was 58.9 (Area D) to 68.3 (Area B) percent.

The sediment samples were analyzed for total organic carbon (TOC). The results showed that between 0.53 and 0.70 percent of the samples in the core samples contained organic carbon.

The sediment samples were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs). All samples contained minor concentrations of pyrene and diethyl phthalate. In addition, 3 areas (A, C & D) contained bis(2-ethylhexyl) phthalate above the method detection limit and below the practical quantification limit. Benzo(a)pyrene, Benzo(b)fluoranthene and Benzo(k)fluoranthene were also found in areas A and D. The concentrations of constituents measured are shown on Table 3.

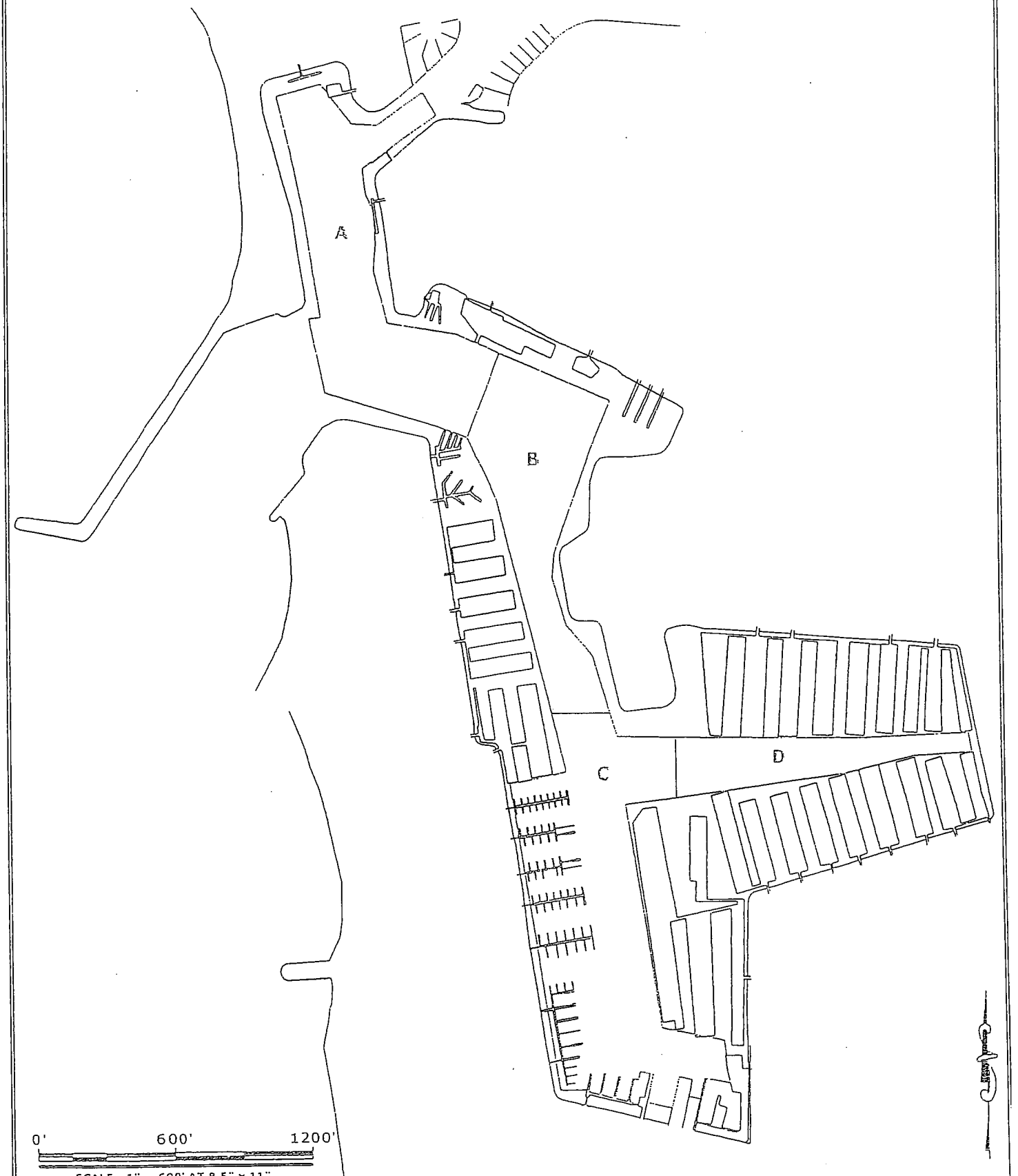
The chemical analyses conducted on the samples resulted in no detectable concentrations of volatile organic compounds, polychlorinated biphenyls (PCBs), phenols, or cyanide.

Organochlorine pesticides were detected in all samples (see Table 4). DDD ranged from not detected in the Area A sample to 8.16 µg/kg in the Area D sample. DDE ranged from 0.83 µg/kg in the Area A sample to 29.1 µg/kg in the Area D sample. DDT ranged from not detected in the Area A sample to 6.40 µg/kg in the Area D sample.

No detectable concentrations of Monobutyltin or Dibutyltin were measured (see laboratory results in Appendix B). Tributyltin was detected in all samples at 22.0 µg/kg (A), 4.0 µg/kg (B), 15.0 µg/kg (C) and 10.0 µg/kg (D).

Metals analyses were conducted on the sediment samples. No selenium concentrations were detected in the samples. A summary of the concentrations of metals measured is shown on Table 5. No concentrations were measured that exceed the total threshold limit concentrations (TTLC), which identify the material as hazardous (see Table 5). No concentrations were measured that were 10 times the soluble threshold limit concentration (STLC), which would infer that the sediments do not contain hazardous levels of a metal (see Table 5).

It was the conclusion of the report that the chemical concentrations measured in the Ventura Harbor sediments were not environmentally significant. Additionally, it was our opinion that no significant impact would occur from the disposal of Ventura Harbor sediments to waters offshore the Santa Clara River mouth or to authorized depressions on the harbor bottom.



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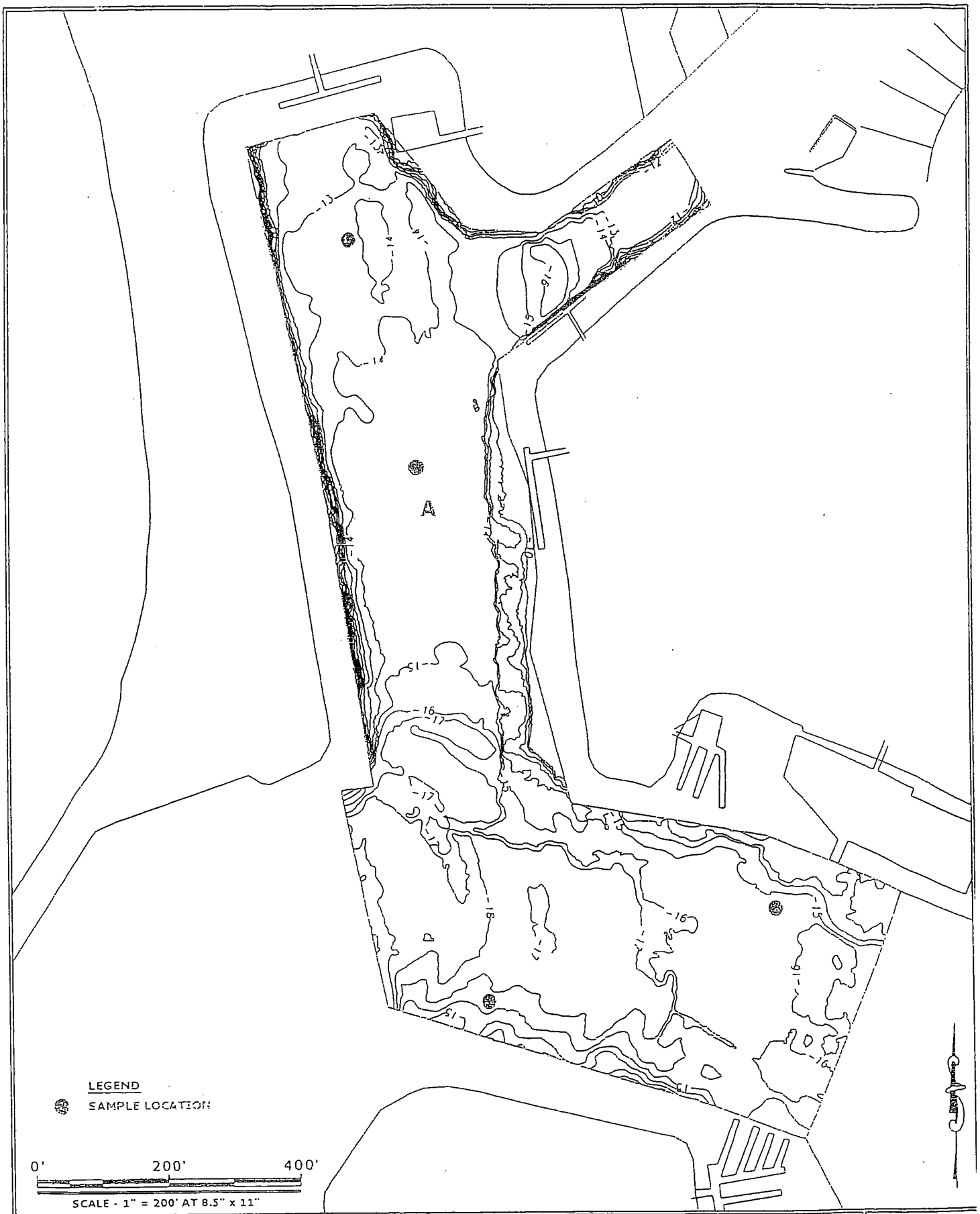
VENTURA PORT DISTRICT DREDGING AREAS

VENTURA HARBOR
VENTURA, CALIFORNIA

PLATE REFERENCE 005222O3A | JUNE 28, 2005 | PROJECT NUMBER 0062-22

PLATE 1



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DETAIL OF DREDGING AREA "A"
VENTURA HARBOR
VENTURA, CALIFORNIA

PLATE 2A

PLATE REFERENCE 00622203C	JUNE 28, 2005	PROJECT NUMBER 0062-22

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DETAIL OF DREDGING AREA "B"

VENTURA HARBOR
VENTURA, CALIFORNIA

PLATE 2B

PLATE REFERENCE 00622203D	JUNE 28, 2005	PROJECT NUMBER 0062-22

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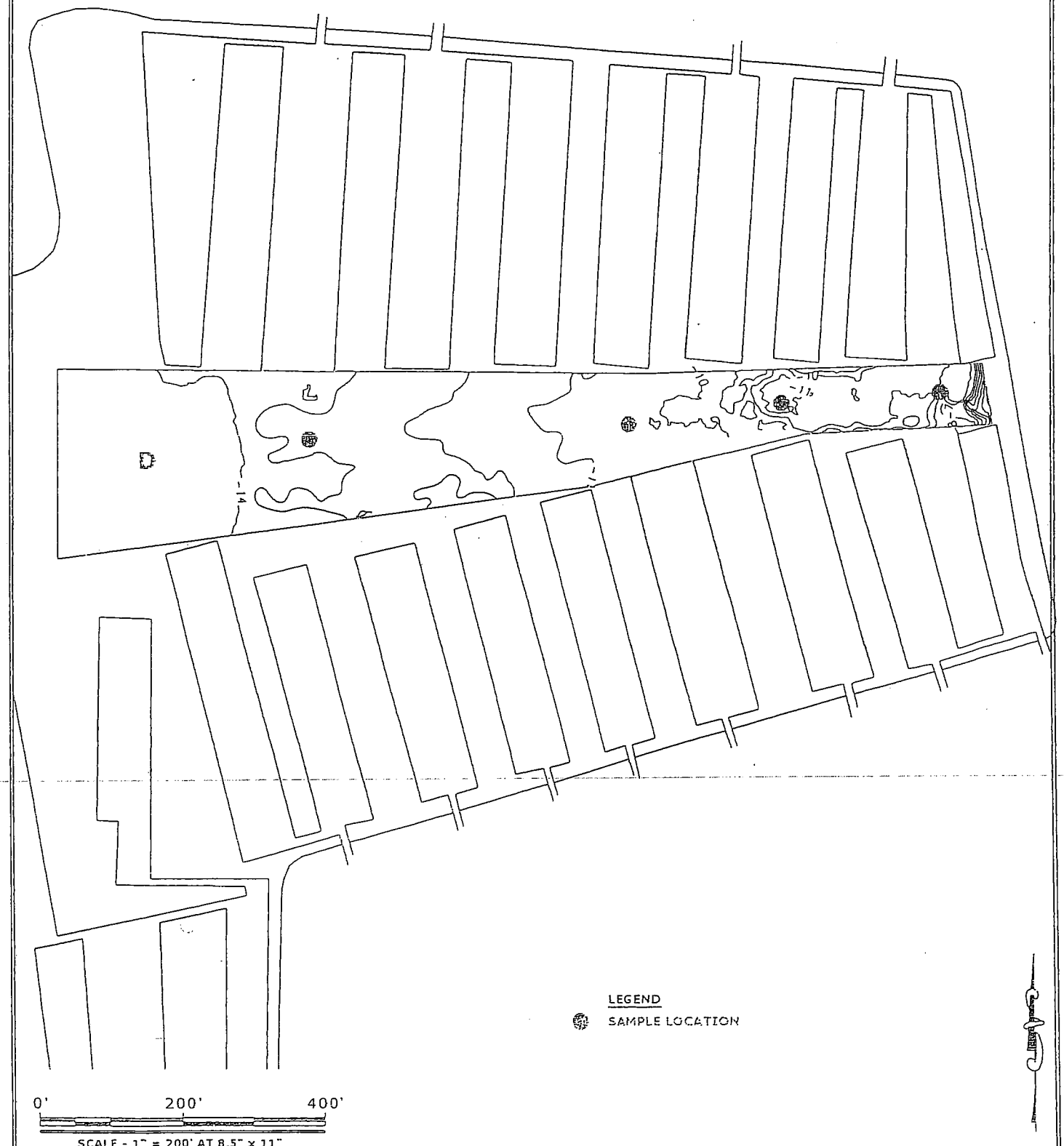
DETAIL OF DREDGING AREA "C"

VENTURA HARBOR
VENTURA, CALIFORNIA

PLATE 2C

PLATE REFERENCE 00622203E	JUNE 28, 2005	PROJECT NUMBER 0062-22



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DETAIL OF DREDGING AREA "D"
VENTURA HARBOR
VENTURA, CALIFORNIA

PLATE 2D

PLATE REFERENCE 00622203F	JUNE 28, 2005	PROJECT NUMBER 0062-22

Table 2.
Sediment Grain Sizes
Ventura Harbor Dredge Investigation
July 2005

Grain Size	Area A	Area B	Area C	Area D
Gravel	0.0%	0.0%	0.0%	0.0%
Sand	17.6%	44.7%	42.6%	23.5%
Silt & Clay	82.4%	55.3%	57.4%	76.5%
Percent Retained on 200 Sieve	17.6	44.7	42.6	23.5

Table 3.
Semivolatile Organic Concentrations. Dredge Investigation July 2005
in $\mu g/kg$

Constituent	Area A	Area B	Area C	Area D	Water Quality Goals Maximum Contaminant Level (MCL)
Benzo(a)pyrene	2.0J	ND	ND	ND	None
Benzo(b)fluoranthene	2.0	ND	ND	4.0	200
Benzo(k)fluoranthene	5.9	ND	ND	1.0J	200
Pyrene	30.0	33.0	28.0	23.0	None
Bis(2-Ethylhexyl)phthalate	23.0J	ND	23.0J	59.0J	None
Diethylphthalate	42.0J	26.0J	73.0J	33.0J	5000[2]

ND = not detected

[1] Primary MCL
[2] MCL goal (no primary or secondary MCLs set)

Table 4.
Pesticide Concentrations, Dredge Investigation July 2005
in μg/kg

Constituent	Area A	Area B	Area C	Area D	Regulatory Limits TTLC	STLC*
4,4'-DDD	ND	2.30J	2.71J	8.16	1,000	1,000
4,4'-DDE	0.83J	5.12	7.50	29.1	1,000	1,000
4,4'-DDT	ND	1.05J	1.51J	6.40	1,000	1,000

ND = not detected
J = Below the practical quantification limit (PQL) but above the method detection level.

* Incorporates a 10 times dilution to correlate to sample concentrations shown above.

Table 5.
Metals Concentrations, Dredge Investigation July 2005
in mg/kg

					Regulatory Limits	
Constituent	Area A	Area B	Area C	Area D	TTLC	STLC*
Arsenic	0.86	0.18J	2.23	ND	500	50
Cadmium	0.32J	0.35J	0.52	0.37J	500	50
Chromium	13.3	11.5	14.7	13.0	500	50
Copper	19.0	17.8	22.1	30.9	2500	250
Lead	6.99	6.23	4.90	9.78	1000	50
Mercury	0.02J	0.02J	0.05J	0.02J	20	2
Nickel	24.0	20.6	19.1	22.6	2000	200
Selenium	ND	ND	ND	ND	100	10
Silver	1.57	1.22	1.01	1.18	500	50
Zinc	58.5	48.9	51.4	70.4	5000	2500

ND = not detected at detection limit of 0.2 mg/kg
J = Below the practical quantification limit (PQL) but above the method detection level.

* Incorporates a 10 times dilution to correlate to sample concentrations shown above.