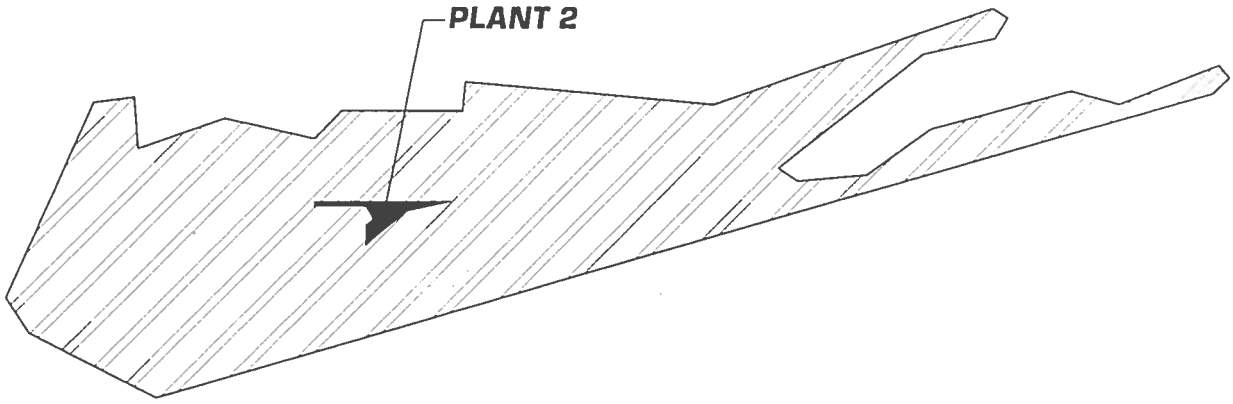
GRUMMAN AEROSPACE CORPORATION
BETHPAGE FACILITY



PLANT 2 - SUPPLEMENTAL PHASE II SITE ASSESSMENT

GRUMMAN AEROSPACE CORPORATION
BETHPAGE, NEW YORK

Dvirka and Bartilucci
Consulting Engineers

DECEMBER 1996

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SUPPLEMENTAL PHASE II SITE ASSESSMENT
GRUMMAN AEROSPACE CORPORATION
BETHPAGE, NEW YORK

PREPARED BY

DVIRKA AND BARTILUCCI
CONSULTING ENGINEERS
WOODBURY, NEW YORK

DECEMBER 1996

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GRUMMAN AEROSPACE CORPORATION
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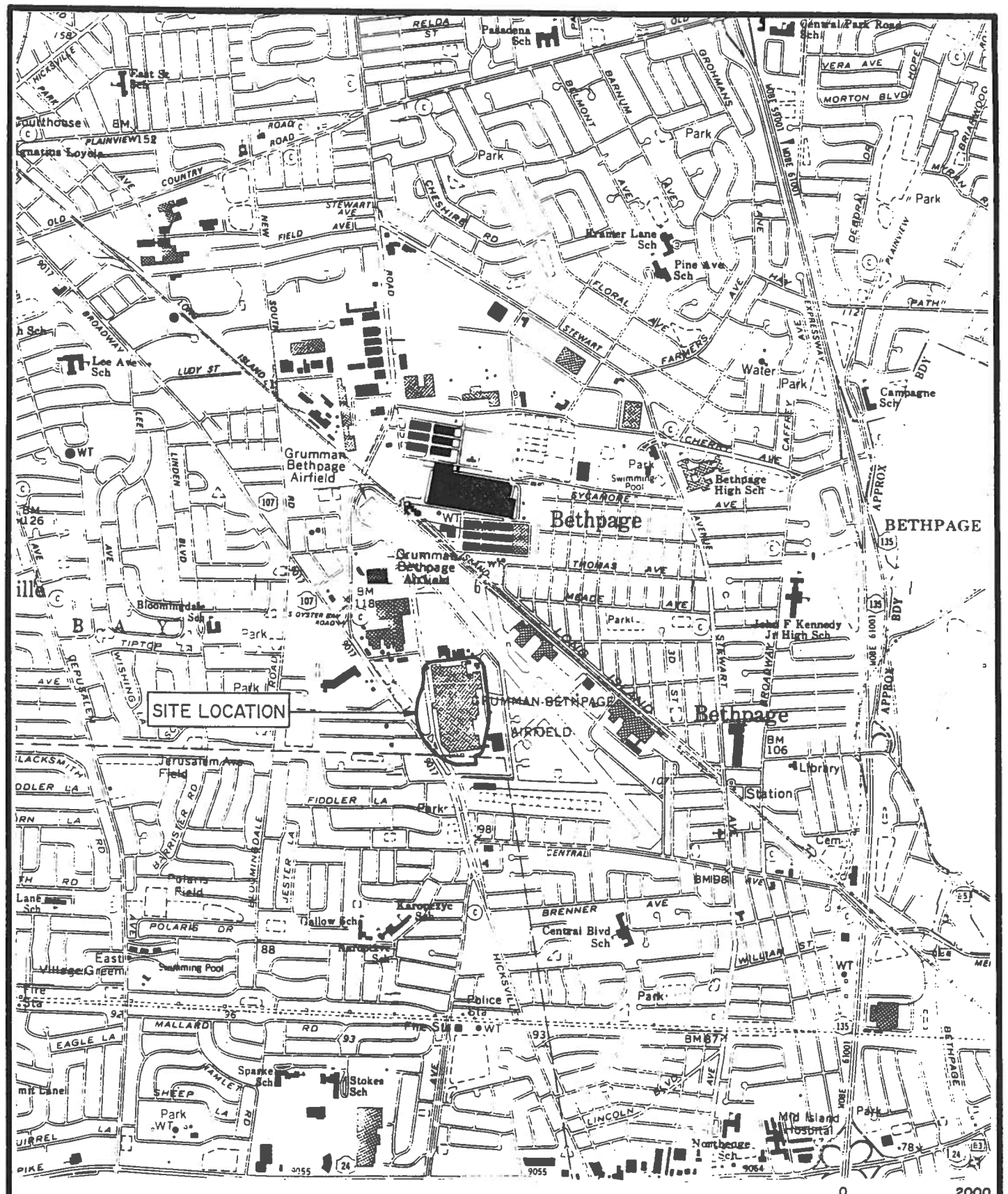
1.0 INTRODUCTION

This report documents the investigatory activities, findings, conclusions and recommendations of the Supplemental Phase II Site Assessment undertaken for Grumman Aerospace Corporation (GAC) at the Plant 2 property located in Bethpage, New York (see Figures 1-1 and 1-2). The primary purpose of the Supplemental Phase II Site Assessment is to identify any contaminated portions of the existing concrete slabs and soil at the site which would be classified as hazardous waste and, therefore, provide recommendations regarding the remedial activities necessary to delist the Plant 2 parcel from the New York State Registry of Inactive Hazardous Waste Disposal Sites. In correspondence dated June 11, 1996 (see Appendix A), NYSDEC has indicated to GAC that once any concrete and soil which would be classified as hazardous waste has been removed, the property can be delisted.

The Work Plan for the Supplemental Phase II Site Assessment was developed in conjunction with the NYSDEC and the New York State Department of Health (NYSDOH). The sample locations, depth intervals and analytical parameters were selected by NYSDEC. In accordance with NYSDEC's communications, the proposed Work Plan was outlined in correspondence from GAC to NYSDEC dated July 22, 1996 (see Appendix A). In correspondence to GAC from NYSDEC dated August 6, 1996, the Work Plan was approved by NYSDEC (see Appendix A).

In accordance with the Work Plan, concrete core samples were collected from 1 to 3 inches below the top of floor slabs and soil samples were collected from 0 to 2 feet beneath the bottom of floor slabs. The samples were analyzed for selected TCLP metals and PCBs in order to identify material which would be classified as characteristic or listed hazardous waste at the Plant 2 site.

Additionally, in accordance with the June 11, 1996 correspondence from NYSDEC referenced above, a secondary purpose of the Supplemental Phase II Site Assessment is to assess the levels of contamination in surface concrete at the Plant 2 site at select locations. Samples of

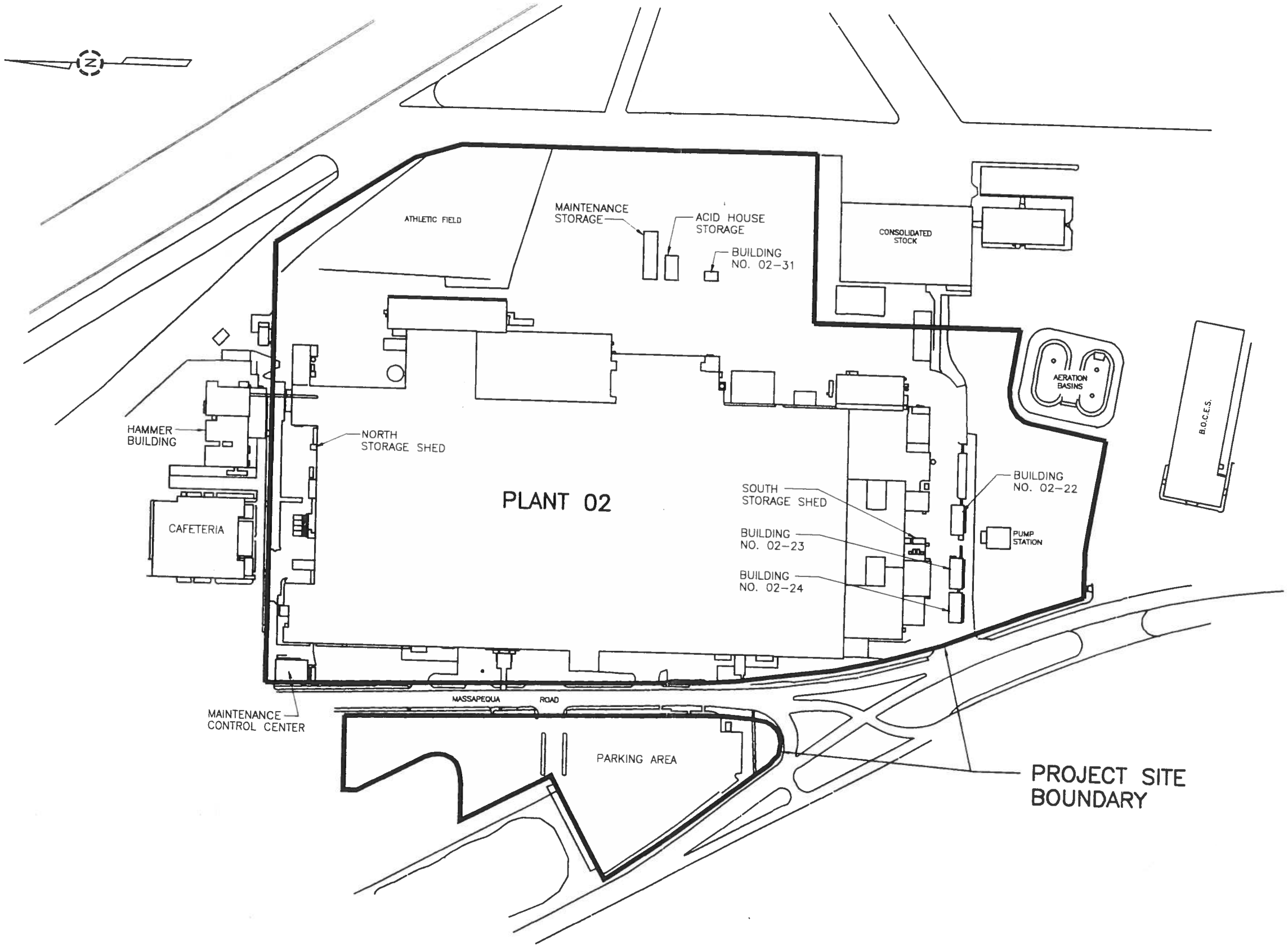


GRUMMAN AEROSPACE CORPORATION
BETHPAGE, NEW YORK

Dvirka and Bartilucci
Consulting Engineers
A Division of William F. Cosulich Associates, P.C.

PLANT 02
SITE LOCATION MAP

FIGURE 1-1



DIRECTORY: 1167
FILE NAME: 1167-02C
DATE: RDS-11/08/96

NO.	DATE	REVISION	INT.

PROJECT DIRECTOR	DRAWN BY:
R.M.W.	R.D.S.
PROJECT ENGINEER	CHECKED BY:
D.S.G.	B.M.V.

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CONSULTING ENGINEERS

GRUMMAN AEROSPACE CORPORATION
BETHPAGE FACILITY

PLANT 02
SUPPLEMENTAL PHASE II SITE ASSESSMENT

SITE PLAN

PROJECT NO.	FIGURE
1167-02	1-2
DATE: OCTOBER 1996	
SCALE:	

the top 1 inch of concrete, from seven locations, selected by NYSDEC and identified in the July 22, 1996 Work Plan, were collected and analyzed for certain total metals, semivolatile organic compounds or PCBs in accordance with the Work Plan. The results of these analyses are compared to the USEPA Generic Soil Screening Levels (SSLs), since these levels are health risk based and there are no NYSDEC or USEPA screening standards available for contamination in concrete.

The information presented in this report is based upon the results of the field activities conducted on August 26 through September 6, 1996 and laboratory analyses of the environmental samples. Section 2 documents the procedures followed in conducting the Supplemental Phase II Site Assessment. Presented in Section 3 are the findings of the assessment and interpretation of the findings with respect to appropriate standards, guidance values and criteria. Conclusions and recommendations are presented in Section 4.

Presented in Appendix B are the Daily Field Activity Reports which document the activities undertaken during each day of the Supplemental Phase II field program. Appendix C contains Air Monitoring Forms. Equipment Calibration Logs are presented in Appendix D. Sample Information Records and Soil Boring Logs are provided in Appendices E and F, respectively; and, the Supplemental Phase II Site Assessment analytical laboratory data are presented in Appendix G.

2.0 FIELD PROGRAM

This section of the report presents a description of the Supplemental Phase II Site Assessment field activities undertaken at Plant 2. Daily Field Activity Reports, provided in Appendix B, document the daily field program activities which were conducted. Inside the Plant 2 building, the field activities consisted of advancing concrete core/soil probes at 18 locations. Twelve concrete core samples and nine soil samples were collected from interior locations for chemical analysis. One concrete core sample and three soil samples from the Acid House Storage Facility were submitted for chemical analysis. Figure 2-1 illustrates the location of each Plant 2 interior sample. The location of the exterior samples, collected in the Acid House Storage Facility, are shown on Figure 2-2.

2.1 Air Monitoring and Sample Screening

During the advancing of concrete corings, monitoring for organic vapors in the breathing zone and at the probe holes was conducted utilizing either a photoionization detector (PID) or a flame ionization detector (FID). Monitoring results were recorded on Air Monitoring Forms, provided in Appendix C. Prior to use, the PID was calibrated using a 100 ppm concentration isobutylene gas and the FID was calibrated using a 95 ppm concentration methane gas. Completed Equipment Calibration Logs are presented in Appendix D. The instruments were also utilized to screen the soil samples collected. The sample screening results are presented on Sample Information Records and Soil Boring Logs in Appendices E and F, respectively.

2.2 Concrete and Soil Sampling Program

2.2.1 Concrete Core Sampling

A total of 22 cores were advanced through building interior and exterior floor slabs. Twelve interior concrete cores and one exterior concrete core were submitted for chemical

analysis, Both 0" to 1" deep and 1" to 3" deep concrete cores were collected for analysis. Figures 2-1 and 2-2 present the concrete core sampling locations in the Plant 2 building interior and the Acid House Storage Facility, respectively.

Concrete coring was performed utilizing a Drillco Coring Machine or a Hilti Coring Machine equipped with a 3-inch diameter by 16-inch long concrete coring bit and cooling water hose connection. Potable water was utilized to cool the coring bit during coring operations and was collected and contained within 55-gallon drums for proper disposal.

The depths of interior and exterior concrete floor slabs varied from location to location. Concrete coring was performed to a maximum depth of 13 1/2 inches to obtain probe samples of soils beneath the floor slabs.

Seven 0" to 1" deep concrete core samples were collected for chemical analysis. Table 2-1 presents the location and sample identification number as well as the analytical parameters completed for each 0" to 1" concrete core sample. Six 1" to 3" concrete core samples were collected for chemical analysis. Table 2-2 presents the location and sample identification number as well as the analytical parameters completed for each 1" to 3" concrete core sample.

The concrete cores submitted for laboratory analysis were first broken apart on clean plastic sheeting utilizing a hammer and chisel, and subsequently placed in laboratory prelabeled sample jars. Concrete core sample information records are presented in Appendix E.

During the interior concrete coring activities, one backfilled pit was investigated. The backfilled pit, formerly an Anodize/Magnaform pit (located in Area 27) which extended to a depth of approximately 4' below the existing floor slab, had been backfilled with soil and covered with a concrete floor slab to grade. Concrete core sampling was conducted at the location of the former backfilled pit. The procedure consisted of coring through the existing floor slab and subsequently hand augering through the soil in the backfilled pit. To maintain a void through the backfill material, a PVC pipe was installed into the hand-augered borehole.

Table 2-1
Grumman Aerospace Corporation
Plant 2 -Supplemental Phase II Site Assessment
Summary of 0" - 1" Concrete Core Locations and Sample Analyses

Area	Sample Identification No.	PCBs (Method 8080)	Total Chromium (Method 6010)	Total Cadmium (Method 6010)	Semivolatile Organic Compounds (Method 8270)
3	3C-C (0"-1")		■	■	
	3SA-C (0"-1")				■
12	12SA-C (0"-1")				■
13	13SA-C (0"-1")				■
25	25SA-C (0"-1")				■
27	27A-C (0"-1")		■		
X11D	X11D-C (0"-1")	■			

Table 2-2
Grumman Aerospace Corporation
Plant 2 -Supplemental Phase II Site Assessment
Summary of 1" - 3" Concrete Core Locations and Sample Analyses

Area	Sample Identification No.	Chromium TCLP (Methods 1311 and 6010)	Cadmium TCLP (Methods 1311 and 6010)	1,2 TCE TCLP (Methods 1311 and 8240)
3	3C-C (1"-3")	■	■	
12	12C-C (1"-3")	■		
	12G-C (1"-3")	■		
14	14A-C (1"-3")			■
16	16E-C (1"-3")	■		
27	27A-C (1"-3")	■		

Once the borehole was advanced to the top elevation of the subslab, the Drillco Coring Machine and 3" diameter concrete core bit, along with a core bit extension were utilized to core through the concrete "subslab." The subslab concrete core was broken apart on clean plastic sheeting utilizing a hammer and chisel, and subsequently placed in prelabeled jars for laboratory analysis.

The concrete core bit was decontaminated between each sample location. Decontamination procedures consisted of an alconox wash followed by a distilled/deionized water rinse. The decontamination water was secured in a 55-gallon drum on-site provided by GAC.

2.2.2 Soil Sampling

A total of 12 soil samples were collected at the Plant 2 site for chemical analysis. Nine soil samples were collected from Plant 2 interior locations and three soil samples were collected from within the Acid House Storage Facility. All soil samples were collected at 0 to 2 feet below the concrete floor slabs. The location and sample identification number as well as the analytical parameters which each soil sample was tested for are presented on Table 2-3.

Soil samples were secured by manually driving the split spoon sampler to the bottom of the desired sample depth interval. Upon retrieving the soil sample, the sample was screened for volatile organic vapors using either a photoionization detector (PID) or a flame ionization detector (FID). All soil samples were physically and visually characterized and inspected for the presence of staining or discoloration. Soil samples collected for chemical analysis were transferred directly into prelabeled laboratory sample containers and placed on ice in a cooler for shipment to the laboratory.

The split spoon, drill rod and other ancillary sampling equipment were thoroughly decontaminated prior to use at each sample location. Decontamination procedures consisted of an external alconox wash followed by a distilled/deionized water rinse. The decontamination water was secured in a 55-gallon drum on-site provided by GAC.

Table 2-3
Grumman Aerospace Corporation
Plant 2 -Supplemental Phase II Site Assessment
Summary of Soil Sample Locations and Sample Analyses

Area	Sample Identification No.	Chromium TCLP (Methods 1311 and 6010)	Cadmium TCLP (Methods 1311 and 6010)	1,2 DCA TCLP (Methods 1311and 8240)	PCBs (Method 8080)
3	3A-S (0'-2')	■			
	3B-S (0'-2')		■		
4	4F-S (0'-2')	■			
12	12G-S (0'-2')	■			
13	13A-S (0'-2')	■			
	13B-S (0'-2')	■			
	13C-S (0'-2')	■			
22	22A-S (0'-2')	■			
25	25E-S (0'-2')			■	
X11D	X11D-S1 (0'-2')				■
	X11D-S2 (0'-2')				■
	X11D-S3 (0'-2')				■

3.0 FINDINGS

This section presents the analytical results for the environmental samples collected at the Plant 2 site. Zero to 1-inch deep concrete core sample results are compared to the USEPA Generic Soil Screening Levels (SSLs) and 1" to 3" deep concrete core sample results are compared to toxicity characteristic leaching procedure (TCLP) regulatory limits. The TCLP soil sample results are compared to the regulatory limits and the results of analyses of soil samples for PCBs are compared to the recommended soil cleanup objectives identified in the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046 dated January 24, 1994 and the 50 ppm regulatory limit.

3.1 Concrete Core Samples

3.1.1 0" to 1" Concrete Core Samples

The analytical test results for the 0" to 1" concrete core samples are presented in Tables 3-1, 3-2 and 3-3. As the tables indicate, the 0" to 1" concrete core samples collected inside the Plant 2 building were analyzed for semivolatile organic compounds and total cadmium and total chromium. The 0" to 1" concrete core sample collected in the Acid House Storage Facility was analyzed for polychlorinated biphenyls (PCBs).

As shown in Table 3-1, concrete core samples 3SA-C (0"-1"), 12SA-C (0"-1"), 13SA-C (0"-1") and 25SA-C (0"-1") were analyzed for semivolatile compounds. There are no recommended cleanup objectives for semivolatile organic compounds in concrete. However, if a comparison of the semivolatile organic compounds detected in 0" to 1" concrete core samples is made to the USEPA Generic SSLs, none of the semivolatile organic compounds were detected at levels above the SSLs. It should be noted that comparison of Plant 2 concrete contaminant concentrations to the Generic SSLs represents a "conservative comparison" since, in general, the potential exposure routes/contaminant pathways associated with soils are more significant

TABLE 3-1
GRUMMAN AEROSPACE CORPORATION - PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
ZERO TO ONE INCH CONCRETE CORE SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	3SA-C (0"-1")	12SA-C(0"-1")	13SA-C (0"-1")	25SA-C(0"-1")	FBCS04	CONTRACT	Generic SSLs	
SAMPLE DEPTH	0"-1"	0"-1"	0"-1"	0"-1"	FIELD BLANK	REQUIRED		
DATE OF COLLECTION	09/06/96	08/26/96	08/26/96	08/29/96	08/29/96	DETECTION	Ingestion	Inhalation
DILUTION FACTOR	1	1	1	1	1	LIMIT		
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	330	47,000,000	----
bis(2-Chloroethyl)ether	U	U	U	U	U	330	600	200
2-Chlorophenol	U	U	U	U	U	330	390,000	53,000,000
1,3-Dichlorobenzene	U	U	U	U	U	330	----	----
1,4-Dichlorobenzene	U	U	U	U	U	330	27,000	----
1,2-Dichlorobenzene	U	U	U	U	U	330	7,000,000	560,000
2-Methylphenol	U	U	U	U	U	330	3,900,000	----
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	330	----	----
4-Methylphenol	U	U	U	U	U	330	----	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	330	90	----
Hexachloroethane	U	U	U	U	U	330	46,000	55,000
Nitrobenzene	U	U	U	U	U	330	39,000	92,000
Isophorone	U	U	U	U	U	330	670,000	4,600,000
2-Nitrophenol	U	U	U	U	U	330	----	----
2,4-Dimethylphenol	U	U	U	U	U	330	1,600,000	----
2,4-Dichlorophenol	U	U	U	U	U	330	230,000	----
1,2,4-Trichlorobenzene	U	U	U	U	U	330	780,000	3,200,000
Naphthalene	U	U	U	2,800 D	U	330	3,100,000	----
4-Chloroaniline	U	U	U	U	U	330	310,000	----
Hexachlorobutadiene	U	U	U	U	U	330	----	----
bis(2-Chloroethoxy)methane	U	U	U	U	U	330	----	----
4-Chloro-3-methylphenol	U	U	U	U	U	330	----	----
2-Methylnaphthalene	U	U	U	200 J	U	330	----	----
Hexachlorocyclopentadiene	U	U	U	U	U	330	550,000	10,000
2,4,6-Trichlorophenol	U	U	U	U	U	330	58,000	200,000
2,4,5-Trichlorophenol	U	U	U	U	U	800	7,800,000	----
2-Chloronaphthalene	U	U	U	U	U	330	----	----
2-Nitroaniline	U	U	U	U	U	800	----	----
Dimethylphthalate	U	U	U	U	U	330	----	----
Acenaphthylene	U	U	U	U	U	330	----	----
2,6-Dinitrotoluene	U	U	U	U	U	330	900	----
3-Nitroaniline	U	U	U	U	U	800	----	----
Acenaphthene	58 J	48 J	U	U	U	330	4,700,000	----

TABLE 3 (Continued)
GRUMMAN AEROSPACE CORPORATION - PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
ZERO TO ONE INCH CONCRETE CORE SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	3SA-C (0"-1")	12SA-C(0"-1")	13SA-C (0"-1")	25SA-C(0"-1")	FBCS04	CONTRACT	Generic SSLs	
SAMPLE DEPTH	0"-1"	0"-1"	0"-1"	0"-1"	FIELD BLANK	REQUIRED		
DATE OF COLLECTION	09/06/96	08/26/96	08/26/96	08/29/96	08/29/96	DETECTION	Ingestion	Inhalation
DILUTION FACTOR	1	1	1	1	1	LIMIT		
SEMIVOLATILE ORGANIC COMPOUNDS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/l)	(ug/kg)	(ug/kg)	(ug/kg)
2,4-Dinitrophenol	U	U	U	U	U	800	160,000	----
4-Nitrophenol	U	U	U	U	U	800	----	----
Dibenzofuran	79 J	84 J	U	U	U	84	----	----
2,4-Dinitrotoluene	U	U	U	U	U	330	900	----
Diethylphthalate	U	U	U	U	U	330	63,000,000	2,000,000
4-Chlorophenyl-phenylether	U	U	U	U	U	330	----	----
Fluorene	100 J	53 J	U	U	U	53	3,100,000	----
4-Nitroaniline	U	U	U	U	U	1,700	----	----
4,6-Dinitro-2-methylphenol	U	U	U	U	U	1,700	----	----
N-Nitrosodiphenylamine	U	U	U	U	U	330	130,000	----
4-Bromophenyl-phenylether	U	U	U	U	U	330	----	----
Hexachlorobenzene	U	U	U	U	U	330	400	1,000
Pentachlorophenol	U	U	U	U	U	1,700	3,000	----
Phenanthrene	530	420	83 J	U	U	83	----	----
Anthracene	120 J	U	U	U	U	330	23,000,000	----
Di-n-butyl phthalate	U	U	59 J	U	U	59	7,800,000	2,300,000
Fluoranthene	250 J	100 J	43 J	U	U	43	3,100,000	----
Pyrene	190 J	U	U	U	U	330	2,300,000	----
Butylbenzylphthalate	400	U	U	230 J	U	670	16,000,000	930,000
3,3'-Dichlorobenzidine	U	U	U	U	U	330	1,000	----
Benzo(a)anthracene	39 J	U	U	U	U	330	900	----
Chrysene	47 J	44 J	U	U	U	44	88,000	----
bis(2-Ethylhexyl)phthalate	150 J	170 J	550	180 J	U	330	46,000	31,000,000
Di-n-octylphthalate	U	U	U	U	U	330	1,600,000	10,000,000
Benzo(b)fluoranthene	U	U	U	U	U	330	900	----
Benzo(k)fluoranthene	U	U	U	U	U	330	9,000	----
Benzo(a)pyrene	U	U	U	U	U	330	90	----
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	330	900	----
Dibenz(a,h)anthracene	U	U	U	U	U	330	90	----
Benzo(g,h,i)perylene	U	U	U	U	U	330	----	----
Benzyl Alcohol	U	U	U	U	U	330	----	----
Benzoic Acid	U	U	U	U	U	1,700	310,000,000	----
TOTAL PAHs	1,334	665	126	2,800	0		----	----
TOTAL CARCINOGEN PAHs	86	44	0	0	0		----	----
TOTAL SVOCs	1,963	919	735	3,410	0		----	----

QUALIFIERS
J: Compound found at a concentration below the CRDL, value estimated.
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
D: Result taken from the diluted run, at 1:2 .

NOTES
---- : Not established.
MDL: Method detection limit.
USEPA Soil Screening Limits presented for comparison purposes.

TABLE 3-2
GRUMMAN AEROSPACE CORPORATION - PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
ZERO TO ONE INCH CONCRETE CORE SAMPLING RESULTS
TOTAL CADMIUM AND CHROMIUM

SAMPLE IDENTIFICATION	3C-C(0"-1")	27A-C(0"-1")	FB1	INSTRUMENT	Generic SSLs	
SAMPLE DEPTH	0"- 1"	0"- 1"	FIELD BLANK	DETECTION	Ingestion	Inhalation
DATE OF COLLECTION	09/05/96	08/28/96	09/05/96	LIMIT		
ANALYTICAL RESULTS	(mg/kg)	(mg/kg)	(mg/l)	(ug/l)	(mg/kg)	(mg/kg)
Cadmium	70.1	NA	0.0099	8.3	78	1,800
Chromium	24.3	4,480	U	4.7	390	270

QUALIFIERS
U: Compound analyzed for but not detected
NA: Not Analyzed

NOTES
NA: Not Analyzed for.
USEPA Soil Screening Limits presented for comparison purposes.

TABLE 3-3
GRUMMAN AEROSPACE CORPORATION - PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
ZERO TO ONE INCH CONCRETE CORE SAMPLING RESULTS
PCBs

SAMPLE IDENTIFICATION	X11D-C (0"-1")	FBCS03		Generic SSLs	
SAMPLE DEPTH	0"-1"	FIELD BLANK	CONTRACT REQUIRED		
DATE OF COLLECTION	08/28/96	08/29/96			
DILUTION FACTOR	1	1	DETECTION	Ingestion	Inhalation
PERCENT SOLIDS	NA	NA	LIMIT		
ANALYTICAL RESULTS	ug/kg	ug/l	ug/kg	(ug/kg)	(ug/kg)
Aroclor 1016	U	U	80	----	----
Aroclor 1221	U	U	80	----	----
Aroclor 1232	U	U	80	----	----
Aroclor 1242	U	U	80	----	----
Aroclor 1248	U	U	80	----	----
Aroclor 1254	U	U	80	----	----
Aroclor 1260	U	U	80	----	----
PCB TOTAL	0	0		1,000*	----

QUALIFIERS
J: Compound found at a concentration below the CRDL, value estimated.
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.

NOTES
----: Not established.
USEPA Soil Screening Limits presented for comparison purposes.
* : Criteria is for total PCBs

than those for concrete; and, the SSLs were developed based on potential exposure pathways in a residential setting.

Table 3-2 presents the results of the analyses of the 0"-1" concrete core samples for total cadmium and chromium. By reviewing the analytical results presented on Table 3-2, it can be seen that the chromium concentration of 24.3 mg/kg detected in sample 3C-C (0"-1") is below the Generic SSLs, and the cadmium concentration of 70.1 mg/kg in concrete core sample 3C-C (0"-1") is below the Generic SSLs as well, however, the chromium concentration of 4,480 mg/kg in concrete core sample 27A-C (0"-1") is above the corresponding Generic SSLs for ingestion and inhalation.

The results of the analysis of the concrete core sample X11D-C (0"-1") for polychlorinated biphenyls (PCBs) is presented in Table 3-3. As indicated in the table, PCBs were not detected in the sample.

3.1.2 1" to 3" Concrete Core Samples

A total of six 1" to 3" concrete corings were collected from Plant 2 building interior floor slabs for chemical analysis. As shown in Table 3-4, one 1" to 3" concrete core sample was analyzed for TCLP cadmium and chromium, four samples were analyzed for TCLP chromium alone and one sample was analyzed for TCLP trichloroethene.

As shown in the table, the TCLP chromium result for sample 27A-C (1"-3") of 43.8 mg/l exceeds the TCLP limit of 5.0 mg/l. As discussed earlier, this sample was collected from a pit "subslab". None of the other 1"-3" samples exceeded the corresponding TCLP limits.

3.2 Soil Samples

As discussed in Section 2.2.2, 12 soil samples were collected for analysis and tested for the parameters listed on Table 2-3.

TABLE 3-4
GRUMMAN AEROSPACE CORPORATION - PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
1 TO 3 INCH CONCRETE CORE SAMPLING RESULTS
TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

SAMPLE IDENTIFICATION	3C-C(1"-3")	12C-C (1"-3")	12G-C (1"-3")	14A-C (1"-3")	16E-C (1"-3")	27A-C(1"-3")	FB1	CONTRACT	REGULATORY
SAMPLE DEPTH	1"-3"	1"-3"	1"-3"	1"-3"	1"-3"	1"-3"	FIELD BLANK	REQUIRED	LEVEL
DATE OF COLLECTION	09/05/96	08/26/96	08/26/96	08/27/96	08/29/96	08/28/96	09/05/96	DETECTION	
ANALYTICAL RESULTS	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	LIMIT (mg/l)	(mg/l)
Cadmium	U	NA	NA	NA	NA	NA	U	0.0044	1.0 mg/l
Chromium	0.023	0.12	U	NA	0.25	43.8	U	0.0047	5.0 mg/l
Trichloroethene	NA	NA	NA	0.29	NA	NA	NA	0.05	0.5 mg/l

QUALIFIERS
J: Compound found at a concentration below the CRDL, value estimated
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample

NOTES
NA: Not analyzed for
: Exceeds Regulatory Limit

TABLE 3-6
GRUMMAN AEROSPACE CORPORATION - PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PCBs

SAMPLE IDENTIFICATION	X11D-S1 (0'-2')	X11D-S2 (0'-2')	X11D-S3 (0'-2')	FBSS-03 FIELD BLANK	CONTRACT REQUIRED DETECTION LIMIT	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0'-2'	0'-2'	0'-2'	08/29/96		
DATE OF COLLECTION	08/28/96	08/28/96	08/28/96	1		
DILUTION FACTOR	1	1	1	NA		
PERCENT SOLIDS	86	88	89	ug/l	ug/kg	ug/kg
ANALYTICAL RESULTS	ug/kg	ug/kg	ug/kg			
Aroclor 1016	U	U	U	U	80	----
Aroclor 1221	U	U	U	U	80	----
Aroclor 1232	U	U	U	U	80	----
Aroclor 1242	U	U	U	U	80	----
Aroclor 1248	1400	760	540	U	80	----
Aroclor 1254	U	U	U	U	80	----
Aroclor 1260	300	160	190	U	80	----
TOTAL PCBs	1700	920	730	0		10000 *

QUALIFIERS
J: Compound found at a concentration below the CRDL, value estimated
U: Compound analyzed for but not detected
B: Compound found in the method blank as well as the sample

NOTES
---- : Not Established
* : Criteria is for total PCBs in subsurface soil

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the Supplemental Phase II Site Assessment field program discussed in Section 3.0, area-by-area conclusions are presented in this section, and recommendations are provided for further investigation and remediation.

In support of providing conclusions and making technical recommendations with respect to the primary objective of this phase of the site assessment program, which is to provide a determination of the remedial activities necessary to delist the Plant 2 parcel from the New York State Registry of Inactive Hazardous Waste Disposal Sites, the sample analytical results are compared to regulatory limits, as appropriate. As stated in the introduction to this report, NYSDEC has indicated that after GAC has remediated any media identified during this investigation which exceeds regulatory TCLP and PCB limits, the property can be delisted.

In support of the secondary purpose of the Supplemental Phase II Site Assessment, which is to assess the levels of contamination in surface concrete at select locations at the site, comparisons of the results of the 0" to 1" concrete core samples are made to USEPA Generic Soil Screening Levels (SSLs).

Specific recommendations are presented below for additional investigation and remedial activities to delist the property.

4.1 Area 3 - Former North Plating Room

Conclusions

Five samples were collected for chemical analysis from the former North Plating Room. Sample 3SA-C (0"-1") was collected in a stained area and tested for semivolatile organic compounds. As stated in Section 3.1.1, when compared to the USEPA Generic SSLs, none of the SVOCs detected in sample 3SA-C (0"-1") were above the corresponding limits.

Samples 3C-C (0"-1") and 3C-C (1"-3") were collected in the area of a trench drain where elevated concentrations of cadmium and chromium had previously been detected in a 1"-3" deep concrete core sample collected under the initial Phase II Site Assessment program. Sample 3C-C (0"-1") was analyzed for total cadmium and chromium, and sample 3C-C (1"-3") was analyzed for TCLP chromium and cadmium. The total chromium result for sample 3C-C (0"-1") of 24.3 mg/kg is below the USEPA Generic SSLs for chromium. The total cadmium concentration of 70.1 mg/kg detected in 3C-C (0"-1") is also below the Generic SSLs for ingestion and inhalation for cadmium of 78 mg/kg and 1,800 mg/kg, respectively. The TCLP chromium result for sample 3C-C (1"-3") of 0.023 mg/l is below the regulatory limit of 5 mg/l and cadmium was not detected in the sample extract.

Soil samples 3A-S (0'-2') and 3B-S (0'-2') were each collected from beneath one of the two sumps in the pit of the former North Plating Room. Sample 3A-S (0'-2') was analyzed for TCLP chromium and sample 3B-S (0'-2') was analyzed for TCLP cadmium based upon the results of total metal analyses at locations 3A and 3B under the initial Phase II Site Assessment program. The chromium concentration of 0.028 mg/l detected in the 3A-S (0'-2') sample extract is below the regulatory limit of 5 mg/l. The cadmium concentration of 2.2 mg/l detected in the 3B-S (0'-2') sample extract is above the regulatory limit of 1 mg/l.

Recommendations

In summary, in the former North Plating Room, the results for surface concrete samples 3SA-C (0"-1") and 3C-C (0"-1") are below the Generic SSLs. Moreover, the concentrations detected in the extracts for samples 3C-C (1"-3") and 3A-S (0'-2') are below regulatory limits. However, exceedance of the regulatory limit was detected in the extract of soil sample 3B-S (0'-2').

Therefore, removal of the sump at location 3B in the former North Plating Room, as well as underlying soil, is recommended in support of delisting. The soil sampling conducted 0' to 2'

and 2' to 4' beneath the sump under the initial Phase II Site Assessment indicated total cadmium concentrations of 103 mg/kg and 23.8 mg/kg, respectively, at location 3B. Therefore, removal of 5' of underlying soil is recommended. Endpoint sampling and analysis for TCLP cadmium should be conducted after excavation of the concrete sump and soil.

4.2 Area 4 - Former North Painting Room

Conclusions and Recommendations

One sample, 4F-S (0'-2'), was collected in the former North Painting Room at a location where elevated concentrations of total chromium were previously detected. Sample 4F-S (0'-2') was analyzed for TCLP chromium. The chromium concentration of 0.56 mg/l detected in sample 4F-S (0'-2') is below the TCLP regulatory limit. Therefore, no further action is expected to be required in the former North Painting Room in support of delisting.

4.3 Area 12 - Former Central Paint Room

Conclusions and Recommendations

Three samples were collected for chemical analysis in the former Central Paint Room. Sample 12SA-C (0"-1") was collected in a location where staining was observed and analyzed for SVOCs. As stated in Section 3.1.1, when compared to the Generic SSLs, none of the SVOCs detected in 12SA-C (0"-1") were above the corresponding limits.

Samples 12C-C (1"-3"), 12G-C (1"-3") and 12G-S (0'-2') were collected in the location of former paint spray booths and tested for TCLP chromium. Elevated concentrations of chromium were detected in concrete at location 12C and in soil (0' to 2' deep) at location 12G under the initial Phase II Site Assessment. The chromium concentration of 0.12 mg/l detected in the extract from sample 12C-C (1"-3") is below the regulatory limit; chromium was not detected

in the extract from sample 12G-C (1"-3"); and, the chromium concentration of 0.23 mg/l detected in the extract from sample 12G-S (0'-2') is below the regulatory limit.

As a result, no further action is expected to be required in the former Central Paint Room in support of delisting.

4.4 Area 13 - Former Alodine/Anodize Room

Conclusions

Four samples were collected for analysis in the former Alodine/Anodize Room. Sample 13SA-C (0"-1") was collected at a location where concrete staining was observed and analyzed for SVOCs. As stated in Section 3.1.1, when compared to the USEPA Generic SSLs, none of the SVOCs detected in 13SA-C (0"-1") were above the corresponding limits.

Samples 13A-S (0'-2'), 13B-S (0'-2') and 13C-S (0'-2'), which were each analyzed for TCLP chromium, were collected in the location of a former tank line where elevated concentrations of chromium were detected in soil samples (0'-2' and 2'-4' deep) under the initial Phase II Site Assessment. The chromium concentration of 8.1 mg/l detected in sample 13A-S (0'-2') extract exceeds the regulatory limit of 5 mg/l. The concentrations of chromium detected in the extracts from samples 13B-S (0'-2') and 13C-S (0'-2') were both below the regulatory limit.

Recommendations

Based on the TCLP chromium results for sample 13A-S (0'-2'), excavation and removal of concrete and soil is recommended in this area. Under the initial Phase II Site Assessment total chromium concentrations of 596 mg/kg and 575 mg/kg were detected in 0' to 2' and 2' to 4' deep soil samples collected at location 13A, respectively. Therefore, removal of soil to a minimum of 5' in this area is recommended. In addition, endpoint sampling and analysis for

TCLP chromium should be conducted to verify removal of the characteristically hazardous soil in support of delisting.

4.5 Area 14 - Former Degreaser Pit

Conclusions and Recommendations

One sample was collected in the sump of the former Degreaser Pit identified as Area 14. Elevated concentrations of trichloroethene were formerly detected in the concrete at this location. Sample 14A-C (1"-3") was collected in the sump of the degreaser pit and analyzed for TCLP trichloroethene. The concentration of TCE detected in the TCLP extract is below the regulatory limit. Therefore, no further action is expected to be required in the former Degreaser Pit in support of delisting.

4.6 Area 16 - Former Final Paint Rooms

Conclusions and Recommendations

During the initial Phase II Site Assessment, elevated concentrations of chromium were detected at location 16E which is located in a trench drain in the Final Paint Rooms. Accordingly, sample 16E-C (1"-3") was collected and analyzed for TCLP chromium. The result of the analysis for chromium of the TCLP extract for sample 16E-C (1"-3") is below the regulatory limit. Therefore, no further action is expected to be required in the former Final Paint Rooms in support of delisting.

4.7 Area 22 - Former Descale Pit

Conclusions and Recommendations

Sample 22A-S (0'-2') was collected in the former Descale Pit at a location where elevated concentrations of chromium had been detected in the 0' to 2' deep and 2' to 4' deep samples collected under the initial Phase II Site Assessment. The chromium concentration detected in the TCLP extract for sample 22A-S (0'-2') is below the regulatory limit. Therefore, no further action is expected to be required in the former Descale Pit in support of delisting.

4.8 Area 25 - Former Paint Storage, Mixing and Stripping Room

Conclusions and Recommendations

Two samples were collected in the former Paint Storage, Mixing and Stripping Rooms. Sample 25SA-C (0"-1") was collected at a location where concrete staining was observed and analyzed for SVOCs. As stated in Section 3.1.1, when compared to the USEPA Generic SSLs, none of the SVOCs detected in 25SA-C (0"-1") were above the corresponding limits.

Sample 25E-S (0'-2') was collected at a location where elevated concentrations of volatile organic compounds, including 1,2-dichloroethane, had been detected in 0' to 2' deep soil samples collected under the initial Phase II Site Assessment program. Accordingly, sample 25E-S (0'-2') was analyzed for TCLP 1,2-dichloroethane. As stated in Section 3.2, 1,2-dichloroethane was not detected in the sample extract. Therefore, no further action is expected to be required in the former Paint Storage, Mixing and Stripping Room in support of delisting.

4.9 Area 27 - Former Anodizing/Magnaform Pit

Conclusions

Under the initial Phase II Site Assessment program, elevated concentrations of chromium were detected in a sample of the concrete "subslab" (at 5,670 mg/kg) and 0' to 2' deep (at 714 mg/kg) and 2' to 4' deep (at 371 mg/kg) soil samples collected from below the "subslab" in the backfilled pit identified as Area 27. Under the Supplemental Phase II Site Assessment, two samples were collected for analysis at this location. Sample 27A-C (0"-1") was analyzed for total chromium and sample 27A-C (1"-3") was analyzed for TCLP chromium.

The total chromium result of 4,480 mg/kg for sample 27A-C (0"-1") exceeds the USEPA Generic SSLs for ingestion and inhalation. Additionally, the result for sample 27A-C (1"-3") of 43.8 mg/l exceeds the TCLP regulatory limit for chromium.

Recommendations

Based on the elevated concentrations of chromium detected at location 27A, additional investigation and remediation is required in this area in support of delisting. Presently, there is no information available regarding the dimensions of the backfilled pit or the extent of contamination in this area. Based on review of historical drawings, however, the former Anodize/Magnaform process area was approximately 40' by 75'.

A 20' by 20' sampling grid resulting in 12 sample locations would identify the extent of contamination in the area. Based on the results of previous sampling results, collection of one concrete core sample and a 0'-2', 2'-4' and 4'-6' deep soil sample below the "subslab" at each sampling grid location is recommended. Each concrete and soil sample should be analyzed for TCLP chromium. It should be noted that if a "subslab" is not detected at a grid sampling location, sample collection would not be required. After the extent of the "subslab" chromium

contamination is determined, remediation would be required in support of delisting to address soil and concrete which exceeds the TCLP regulatory limits.

4.10 Area X11 - Former Acid House Storage Facility

Conclusions and Recommendations

Four samples were collected for chemical analysis in the former Acid House Storage Facility at a location where PCBs were detected in a 1" to 3" deep concrete core sample collected during the initial Phase II Site Assessment. Concrete sample X11D-C (0"-1") was analyzed for PCBs, and none were detected.

Soil samples X11D-S1 (0'-2'), X11D-S2 (0'-2') and X11D-S3 (0'-2') were collected at a 5' radius around X11D. As stated in Section 3.2, the concentrations of PCBs detected in the soil samples are below the New York State limit of 50 ppm for listed hazardous waste as well as the NYSDEC recommended soil cleanup objective for PCBs of 10 mg/kg.

Therefore, no further action is expected to be required in the former Acid House Storage Facility in support of delisting.

A summary of the conclusions and recommendations is presented in tabular form on Table 4-1.

4.11 Additional Recommendations for Investigation

In addition to the conclusions and recommendations presented above, review of the initial Phase II Site Assessment results was undertaken in order to identify locations, in addition to the locations targeted under this Supplemental Phase II Site Assessment, in which TCLP regulated constituents were detected in soils or concrete at greater than 20 times the TCLP regulatory limit. The purpose of this review was to identify any additional areas for which investigation may be

Table 4-1

GRUMMAN AEROSPACE CORPORATION - PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SUMMARY OF FINDINGS AND RECOMMENDATIONS

Area	Sample ID	Location	Analytical Results	Findings	Recommendations
3-Former North Plating Room	3SA-C (0"-1") 3C-C (0"-1") 3C-C (1"-3") 3A-S (0'-2') 3B-S (0'-2')	Stained Area Trench Drain Trench Drain Sump Sump	SVOCs Cadmium Chromium TCLP Cd TCLP Cr TCLP Cr TCLP Cd	<SSLs <SSLs <SSLs <Regulatory Limit <Regulatory Limit <Regulatory Limit >Regulatory Limit	No action. No action. No action. No action. No action. No action. Remove sump & 5' of soil.
4-Former North Painting Room	4F-S (0'-2')	Former Paint Booth Drain	TCLP Cr	<Regulatory Limit	No action.
12-Former Central Paint Room	12SA-C (0"-1") 12C-C (1"-3") 12G-C (1"-3") 12G-S (0'-2')	Stained Area Former Paint Booth Former Paint Booth Former Paint Booth	SVOCs TCLP Cr TCLP Cr TCLP Cr	<SSLs <Regulatory Limit <Regulatory Limit <Regulatory Limit	No action. No action. No action. No action.
13-Former Alodine/Anodize Room	13SA-C (0"-1") 13A-S (0'-2') 13B-S (0'-2') 13C-S (0'-2')	Stained Area Former Tank Line Former Tank Line Former Tank Line	SVOCs TCLP Cr TCLP Cr TCLP Cr	<SSLs >Regulatory Limit <Regulatory Limit <Regulatory Limit	No action. Remove concrete & 5' of soil. No action. No action.
14-Former Degreaser Pit	14A-C (1"-3")	Sump	TCLP TCE	<Regulatory Limit	No action.
16-Former Final Paint Rooms	16E-C (1"-3")	Trench Drain	TCLP Cr	<Regulatory Limit	No action.

Table 4-1 (continued)

GRUMMAN AEROSPACE CORPORATION - PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SUMMARY OF FINDINGS AND RECOMMENDATIONS

Area	Sample ID	Location	Analytical Results	Findings	Recommendations
22-Former Descale Pit	22A-S (0'-2')	Former Descale Pit	TCLP Cr	<Regulatory Limit	No action.
25-Former Paint Storage, Mixing and Stripping Room	25SA-C (0"-1") 25E-S (0'-2')	Stained Area Former Storage Area	SVOCs 1,2-DCA	<SSLs <Regulatory Limit	No action. No action.
27-Former Anodizing/Magnaform Pit	27A-C (0"-1") 27A-C (1"-3")	"Subslab" "Subslab"	Chromium TCLP Cr	>SSLs >Regulatory Limit	Investigate extent and remediate. Investigate extent and remediate.
X11-Former Acid House Storage Facility	X11D-C (0"-1") X11D-S1 (0'-2') X11D-S2 (0'-2') X11D-S3 (0'-2')	Floor Slab 5' from X11D-C 5' from X11D-C 5' from X11D-C	PCBs PCBs PCBs PCBs	<SSLs <SSLs <SSLs <SSLs	No action. No action. No action. No action.

Notes:
SVOCs - Semivolatile organic compounds
1,2-DCA - Dichloroethane
TCE - Trichloroethene
SSLs - USEPA Generic Soil Screening Limits

warranted in order to delist the Plant 2 site based on the results of the Supplemental Phase II Site Assessment. A summary of the results of this review is presented in Table 4-2.

The initial approach was to compare the initial Phase II Site Assessment total concentration results with the Supplemental Phase II Site Assessment TCLP results as indicated in Table 4-3. The purpose of this comparison was to develop a semi-empirical relationship between total concentration and TCLP results to determine the total concentration above which exceedance of TCLP regulatory limits is expected. As can be seen in Table 4-3, however, there is no correlation.

Therefore, in order to address the necessity for potential additional sampling, a conservative approach was followed. First, the minimum total to TCLP results ratios in Table 4-3 were identified for both soil and concrete matrices. Among the samples which exceeded TCLP regulatory limits, the lowest total to TCLP ratio is 129 for concrete and 47 for soil, as can be seen in Table 4-3.

Next, using these ratios and the TCLP regulatory limits, upper total concentration limits for concrete and soil were calculated. Values of 129 for cadmium and 645 for chromium and lead (i.e., the regulatory limit of 1 of 5, respectively, multiplied by the minimum ratio of 129) were obtained for concrete. The upper total concentration limits calculated for soil are 47 for cadmium and 235 for lead and chromium.

The totals concentrations in Table 4-2 were then screened utilizing the upper limit values. The foregoing approach resulted in selecting the following locations for additional TCLP testing:

- Sample 23BS-1(0'-2') located in the former Clean Line Tank Pit. Chromium was detected at a concentration of 316 mg/kg in this soil sample.
- Sample 32CS-1(0'-2') located in the former Plating Room Pit. Cadmium was detected at a concentration of 70.1 mg/kg in this soil sample.
- Sample 37AS-1(0'-2') located in the area of a former plating operation. Lead was detected at a concentration of 555 mg/kg in this soil sample.

TABLE 4-2
GRUMMAN AEROSPACE CORPORATION
PLANT 2 SUPPLEMENTAL PHASE II SITE ASSESSMENT
INITIAL PHASE II SITE ASSESSMENT CONCRETE CORE AND SOIL SAMPLING RESULTS WHICH EXCEED TCLP REGULATORY LEVELS BY 20 FOLD OR GREATER

	Sample Identification	Contaminant	Concentration (mg/kg)	TCLP Regulatory Levels (mg/L)	Analyzed During Supplemental Phase II
Concrete	1B (1"-3")	Chromium	123	5.0	
	3C (1"-3")	Cadmium	474	1.0	✓
	3C (1"-3")	Chromium	280	5.0	✓
	12C (1"-3")	Chromium	115	5.0	✓
	16E (1"-3")	Chromium	264	5.0	✓
	27ASS (1"-3")	Chromium	5670	5.0	✓
	43A (1"-3")	Chromium	335	5.0	
	43A (1"-3")	Lead	108	5.0	
Soil	1AS-1 (0'-2')	Lead	204	5.0	
	3AS-2 (2'-4')	Chromium	102	5.0	
	3BS-1 (0'-2')	Cadmium	103	1.0	✓
	3BS-2 (2'-4')	Cadmium	23.8	1.0	
	3CS-1 (0'-2')	Cadmium	30.3	1.0	
	4DS-1 (0'-2')	Chromium	190	5.0	
	4FS-1 (0'-2')	Chromium	4580	5.0	✓
	4FS-2 (2'-4')	Chromium	213	5.0	
	12FS-1 (0'-2')	Chromium	145	5.0	
	12GS-1 (0'-2')	Chromium	141	5.0	✓
	13AS-1 (0'-2')	Chromium	596	5.0	✓
	13AS-2 (2'-4')	Chromium	575	5.0	
	13CS-1 (0'-2')	Chromium	109	5.0	✓
	22AS-1 (0'-2')	Chromium	608	5.0	✓
	22AS-2 (2'-4')	Chromium	114	5.0	
	23BS-1 (0'-2')	Chromium	316	5.0	
	27ASSS-1 (0'-2')	Chromium	714	5.0	
	27ASSS-2 (2'-4')	Chromium	371	5.0	
	32CS-1 (0'-2')	Cadmium	70.1	1.0	
	37AS-1 (0'-2')	Lead	555	5.0	
	43AS-1 (0'-2')	Chromium	127	5.0	
	43BS-1 (0'-2')	Chromium	233	5.0	
	43BS-2 (2'-4')	Chromium	188	5.0	

Table 4-3
GRUMMAN AEROSPACE CORPORATION
PLANT 2 SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
COMPARISON OF INITIAL PHASE II TOTAL AND SUPPLEMENTAL PHASE II TCLP RESULTS

	Sample Identification			Phase II Total Result (mg/kg)		Supplemental Phase II TCLP Result (mg/L)		Ratio of Total Result to TCLP Result
	Initial Phase II	Supplemental Phase II	Parameter					
Concrete	3C	3C-C (1"-3")	Cadmium	474			U	----
	3C	3C-C (1"-3")	Chromium	280		0.023		12,174
	12C	12C-C (1"-3")	Chromium	115		0.12		958
	NA	12G-C (1"-3")	Chromium	NA			U	----
	14A	14A-C (1"-3")	Trichloroethene	9.5		0.29		33
	16E	16E-C (1"-3")	Chromium	264		0.25		1,056
	27ASS	27A-C (1"-3")	Chromium	5670		43.8		129
Soil	3AS-1	3A-S (0'-2')	Chromium	42.5		0.028		1,518
	3BS-1	3B-S (0'-2')	Cadmium	103		2.2		47
	4FS-1	4F-S (0'-2')	Chromium	4580		0.56		8,179
	12GS-1	12G-S (0'-2')	Chromium	141		0.23		613
	13AS-1	13A-S (0'-2')	Chromium	596		8.1		74
	13BS-1	13B-S (0'-2')	Chromium	88.9		0.016		5,556
	13CS-1	13C-S (0'-2')	Chromium	109		0.024		4,542
	22AS-1	22A-S (0'-2')	Chromium	608		0.12		5,067
	25ES-1	25E-S (0'-2')	1,2-Dichloroethane	1.1	J		U	----

QUALIFIERS
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the CRDL.

NOTES
---- : Not applicable.
NA : Not analyzed.
: Value exceeds TCLP Regulatory Level.

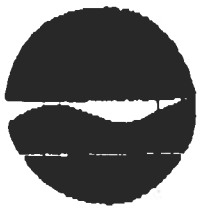
Collection of 0 to 2 foot deep soil samples and testing for the corresponding TCLP metal is recommended in the three areas identified above. It should be noted that TCLP testing is not warranted for soils recommended for remediation in Sections 4.1 through 4.10. Additionally, based on the approach described above, additional TCLP testing of concrete does not appear to be warranted.

APPENDIX A

CORRESPONDENCE DOCUMENTING

NYSDEC APPROVAL OF WORK PLAN

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233



June 11, 1996

Michael D. Zagata
nissioner

Mr. John Ohlmann, P.E.
Northrop-Grumman Corporation
Bethpage, NY 11714-3582

Dear Mr. Ohlmann:

RE: Grumman Corporation
Site Number: 130003A

This is in response to the April 1996 Phase II Assessment Report for Plant 2 which was prepared by Dvirka and Bartilucci, and John Cofman's letter of May 2, 1996 in which your proposed clean-up goals for Plant 2 were presented.

The clean-up goals presented in Mr. Cofman's letter are not acceptable to the State of New York for the following reasons:

1. Materials containing Cd, Cr, Hg, and Se at concentrations at or approaching the proposed clean-up goals would probably be classified as characteristic hazardous wastes. As long as hazardous wastes remain at the facility, the facility would not be delisted from the Registry of Inactive Hazardous Waste Disposal Sites. If the wastes are adequately contained, we would likely only downgrade the site classification.

2. The bases for the clean-up levels provided for the states of Connecticut, Massachusetts, and New Jersey were not provided, nor were the bases by which these clean-up levels are used by the respective states. For example, what are the definitions for industrial, commercial, or residential properties as used by the respective states? Without this information, we cannot accept this data. It should be noted that the clean-up levels presented for the NJDEP are guidance values, not standards.

3. The process used to select the proposed clean-up goals (last column of Table 1) appears to be arbitrary in nature.

NOTE: The NYSDEC's clean-up goals for soils contaminated with cadmium is 10 ppm and for chromium 50 ppm. The values presented in Table 1 are incorrect.

The clean-up goals for the Plant 2 facility must be based upon the foreseeable future risks considering the potential exposure scenarios. In order to assess these risks, additional data is required. Specifically, samples of the surface and the top 1" of the concrete floor in impacted areas must be collected and analyzed. Wipe samples would be appropriate for the surface sampling exercises. Once this data is collected, then the risks can be determined, followed by the selection of

clean-up goals and remedial actions (if required). Chemical analyses for metals, VOCs, and total petroleum hydrocarbons (TPH) must be conducted using the previous data as a guide for determining which analyses would be required in each area investigated.

Additionally, areas where cadmium concentrations are in excess of 20 ppm and/or chromium concentrations are in excess of 100 ppm must be resampled and analyzed pursuant to the Toxicity Characteristic Leaching Parameter (TCLP) test. Due to the number of samples involved, we would recommend that a statistical approach be used to limit the cost of this program. For example, a simple empirical equation could be developed to equate sample concentration (total basis) to the TCLP value. Using this type of an approach, you might be able to get by with a sample set consisting of 10 or fewer samples.

In order to minimize any future confusion in this matter, we urge you to submit a work plan in which the sampling and analytical protocols are presented. This work plan can be in letter form. We would be willing to meet with you at your convenience to discuss these matters. We suggest that such a meeting be held at your offices and be combined with a walk through at Plant 2. I will contact you in the near future to arrange such a meeting. If you have any questions regarding this matter, please feel free to contact me at (518) 457-3395.

Very truly yours,

John D. Barnes

John D. Barnes, P.E.
Environmental Engineer 2
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation

cc: S. Ervolina
S. McCormick
J. Harrington
T. Vickerson (NYSDOH)

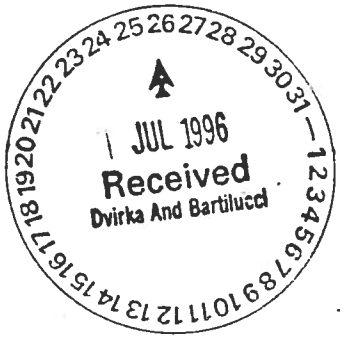
END

NORTHROP GRUMMAN

Grumman Aerospace Corporation
Electronics & Systems Integration Division
A Subsidiary of Northrop Grumman
South Oyster Bay Road
Bethpage, New York 11714

July 22, 1996
ETC96-236

John D. Barnes, P.E.
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233



Subject: **Plant 2, Bethpage, NY**
Supplemental Phase II Site Assessment

Dear Mr. Barnes:

The purpose of this letter is to provide a work plan for completing the above referenced site assessment for your review and comment. This work plan is based on the site inspection conducted on June 19, 1996, and our subsequent telephone conversation on June 27, 1996.

The locations, matrices and analyses of the samples to be collected as part of this supplemental assessment are provided on the attached table. The sample collection and analytical methods, except for TCLP (which was not performed under the original Phase II program), will be the same as contained in the Phase II Site Assessment Report dated April 1996. TCLP extraction will be performed using USEPA SW846 Method 1311, with analysis on the extract being performed using USEPA SW846 Methods 6010 and 8240.

We do not plan to conduct this supplemental site assessment until we receive your approval.

Also enclosed, as requested in your letter dated June 11, 1996, is the basis for the cleanup levels for the states of Connecticut, Massachusetts and New Jersey, together with USEPA Soil Screening Guidance.

If you have any questions with regard to this work plan or require additional information, please do not hesitate to contact me at (516) 575-4680 or our consultant, John Ohlmann at (516) 575-2385.

Very truly yours,

GRUMMAN AEROSPACE CORPORATION

John Cofman, Manager
Environmental Technology & Compliance
M/S: D08-001

TFM/tam(cc)

Enclosures
cc: T. Maher (D&B)
R. Walka (D&B)
0801/T0701601.LTR

GRUMMAN AEROSPACE CORPORATION PLANT 2
SUPPLEMENTAL PHASE II SITE ASSESSMENT
WORK PLAN

Sample Location	Sample Matrix	Sample Analysis
3A	Soil (0-2′)	Cr TCLP
3B	Soil (0-2′)	Cd TCLP
3C	Concrete Core (1"-3")	Cr & Cd TCLP
4F	Soil (0-2′)	Cr TCLP
12C	Concrete Core (1"-3")	Cr TCLP
12F or G	Concrete Core (1"-3") & Soil (0-2')	Cr TCLP
13A, B & C	Soil (0-2′)	Cr TCLP
16E	Concrete Core (1"-3")	Cr TCLP
22A	Soil (0-2′)	Cr TCLP
27A	Concrete Core (1"-3")	Cr TCLP
14A	Concrete Core (1"-3")	TCE TCLP
25ES-1	Soil (0-2′)	1,2-DCA TCLP
X11D	3 Soil (0-2′)[1]	PCB (Total)
3C	Concrete (0-1″)	Cr & Cd (Total)
X11D	Concrete (0-1″)	PCB (Total)
27A	Concrete (0-1″)	Cr (Total)
3 (Stained Area)	Concrete (0-1″)	SVOC (Total)
12 (Stained Area)	Concrete (0-1″)	SVOC (Total)
13 (Stained Area)	Concrete (0-1″)	SVOC (Total)
25 (Stained Area)	Concrete (0-1″)	SVOC (Total)

Notes:

1. Three samples located at a 5′ radius around X11D.

2. Quality Control samples will be collected as follows:

Number/Type	Sample Matrix	Sample Analysis
1 Matrix Spike	Concrete	SVOC Total, Cd, Cr, PCB
1 Matrix Spike Duplicate	Concrete	SVOC Total, Cd, Cr, PCB
1 Matrix Spike	Soil	Cd TCLP, Cr TLCP, DCE TCLP, TCE TCLP
1 Matrix Spike Duplicate	Soil	Cd TCLP, Cr TCLP, DCE TCLP, TCE TCLP
1 Field Blank	Soil Sampling Equipment Rinsate	Cd TCLP, Cr TCLP, PCB, TCE TCLP, DCE TCLP
1 Field Blank	Concrete Sampling Equipment Rinsate	Cd, Cr, PCB, SVOC

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Michael D. Zagata
Commissioner

August 6, 1996

Mr. John Ohlmann, P.E.
Northrop-Grumman Corporation
Bethpage, NY 11714-3582

Dear Mr. Ohlmann:

RE: Grumman Corporation
Site Number: 130003A

The New York State Departments of Environmental Conservation and Health have reviewed the letter work plan for the additional investigation at Plant 2 which was developed by Dvirka and Bartiluuci, Inc. Please be advised that this work plan is hereby approved.

The clean-up goals for Plant 2 will be based upon the risks posed at the plant. The State of New York is not bound to accept the clean-up goals which are used by the states of New Jersey, Connecticut, or Massuchussetts.

If you have any questions regarding this matter, please feel free to contact me at (518) 457-3395.

Very truly yours,

John D. Barnes

John D. Barnes, P.E.
Environmental Engineer 2
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation

cc: S. Ervolina
S. McCormick
J. Harrington
T. Vickerson (NYSDOH)

APPENDIX B

DAILY FIELD ACTIVITY REPORTS

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: 1 Project Number: 1167-02 Date: 08-26-96

Field Log Book Page Number: 93-97

Project: Grumman Bethpage Plant 2 Supp. Phase II

Address: Plant 2

Weather: (AM) Warm + Humid (PM): _____ Rainfall: (AM) NA Inches (PM) NA Inches

Temperature: (AM) 85 °F (PM) 85 °F Wind Speed: (AM) NA MPH (PM) NA MPH Wind Direction: (AM) _____ (PM) _____

Site Condition: _____

Personnel On Site:

Name	Affiliation	Arrival Time	Departure Time
Keith Klaus	D&B	1700	0015
Joe Susco	GAC	1705	1830
Kevin McGourty	LAWES	1700	0015
Carl Pedersen	LAWES	1700	0015
John Mayo	Pinkerton Security	1700	0015

Subcontractor Work Commencement: (AM) _____ (PM) 1825

Subcontractor Work Completion: (AM) 0015 (PM) _____

DVIRKA AND BARTILUCCI

DATE: 08-26-96

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: Inspect concrete coring and soil sampling at locations 12-G, 12-C, area 12, 13-A, 13-B.
- 1-samples total 3-soil samples 0-2' @ 12GS, 13A, 13B
2-concrete samples 1-3" @ 12GC, 12CC
2-concrete samples 0-1" @ 12C-SC, 13SC
- Calibrate PID (microtip)

List specific inspection(s) performed and results (include problems and corrective actions):
- Inspection of site accessibility
- Inspection of site restoration

List type and location of tests performed and results (include equipment used and monitoring results):
- obtain PID (Microtip) readings from soil samples and boreholes.

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action): NA

Prepared by: _____ Reviewed by: _____

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 8-26-96

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

on site 1400

1855 - Begin coring concrete @ 12G.
1915 - Core complete sample 1-3"
- obtain split spoon 0-2'
2000 - Location 12-C - Concrete Core 1-3"
2040 - Concrete core 12 (stained area) 0-1"
2125 - Area 13 stained area concrete core 0-1" @ location 13-A
2135 - 0-2' split spoon @ 13-A
2147 - 13B soil sample 0-2'
2300 - Attempt to sample 13-C 0-2' -
rebar obstructing split spoon.
2330 - LAWES will attempt sample tomorrow
2335 - Secure area, seal all boreholes with concrete.
0015 - Security escort off site

* Note - Decon performed at each sample location
For concrete coring bit and split spoon.

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: 2 Project Number: 1167-02 Date: 8-27-96

Field Log Book Page Number: 98-101

Project: GAC Plant 2 Supplemental phase II

Address: Bethpage

Weather: (AM) _____ (PM): Warm and Humid

Rainfall: (AM) NA Inches (PM) NA Inches

Temperature: (AM) _____ °F (PM) 80 °F

Wind Speed: (AM) NA MPH (PM) NA MPH

Wind Direction: (AM) NA (PM) NA

Site Condition: _____

Personnel On Site:

Name	Affiliation	Arrival Time	Departure Time
Keith Klaus	D+B	1700	0030
Joe Susko	GAC	1700	1735
Kevin McGarry	LAWES	1700	0030
Chris O'Shea	"	1700	0030
John Hayes	Security	1700	0030

Subcontractor Work Commencement: (AM) _____ (PM) 1700

Subcontractor Work Completion: (AM) 0030 (PM) _____

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 8-27-96

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: - Calibrate Microtip PID
- Inspect decontamination activities
- Observe sample collection
- Secure and deliver samples

List specific inspection(s) performed and results (include problems and corrective actions):

- Inspect site access
- Inspect site restoration

List type and location of tests performed and results (include equipment used and monitoring results):

Obtain PID measurements from samples and boreholes

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action):

- Insufficient equipment to core through subfloor concrete slab. at location 27-A, result is to backfill borehole and obtain additional extension rod to achieve proper length, 4'9" minimum

pared by: [signature] Reviewed by: _____

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 8-27-96

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

On Site 1700

1740 - Prepare to take soil sample (0-2') @ 13-C
- experience some difficulty with reinforcement bar in concrete

1900 - soil sample obtained

1910 - Mobilize to location 27-A

2015 - Drill 12" diameter hole through concrete floor to set 4" ID casing to obtain sub slab core, begin to excavate (hand auger 3¼") borehole.

2100 - LAWES measures bit and extensions on site, complete lengths insufficient to obtain sub slab core
- backfill borehole and secure for evening

2115 - Begin to core at location 4-F

2225 - Complete coring 4-F (concrete 6" thck and very hard).
- obtain soil sample 0-2'

2250 - Mobilize to location 14-A to obtain 1-3" concrete core.

0015 - Sample core obtained
- begin to demobilize for shift

0030 - Escort (security) off site

* Note: Decontamination performed on apparatus before work at new locations

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: 3 Project Number: 1167-02 Date: 8-28-96

Field Log Book Page Number: 102 - 105

Project: Grumman Supp. Phase II

Address: Plant 2

Weather: (AM) _____ (PM): Warm + Humid

Rainfall: (AM) 0 Inches (PM) 0 Inches

Temperature: (AM) _____ °F (PM) 80 °F

Wind Speed: (AM) NA MPH (PM) _____ MPH

Wind Direction: (AM) NA (PM) _____

Site Condition: _____

Personnel On Site:

Name	Affiliation	Arrival Time	Departure Time
Keith Klauc	DoB	1650	2400
Kevin McGourty	LAWES	1745	2400
Chris O'Shea	LAWES	1745	2400
John Hayes	Security	1745	2400

Subcontractor Work Commencement: (AM) _____ (PM) 1715

Subcontractor Work Completion: (AM) _____ (PM) 2400

DVIRKA AND BARTILUCCI

DATE: 8-28-96

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: - Calibrate Microtip
- Collect various soil and concrete samples
- Observe sample techniques
- observe decontamination procedures
- Secure and deliver samples

List specific inspection(s) performed and results (include problems and corrective actions):

Inspect site access
Inspect site restoration

List type and location of tests performed and results (include equipment used and monitoring results):

Obtain PID Readings from samples and boreholes

Verbal comments received from subcontractor (include construction and testing problems. and recommendations/resulting action): NA

pared by: Keith Klaus Reviewed by:

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 8-28-96

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

1745 - LAWES on site
1800 LAWES mobilizes to location 27-A to obtain sub slab concrete core, excavate borehole, set 4" ID casing (PVC)
1915 - Begin to core sub slab
1945 - 6" core recovered (concrete). * note: entire concrete core is green in color due to contamination (Cr).
- begin to secure site. concrete sealed (both sub slab and surface).
2030 - Area 27-A secure
2100 - Prepare to sample at location 11 (Acid house).
2120 - core @ location X-11-D-53
2145 - split spoon sample @ X11D-53
2150 - core @ X-11D52
2155 - Surface concrete sample taken X-11D-C (0-1")
2230 soil sample X-11D52 obtained
2240 - core location X-11D51
2310 X11D51 soil sample obtained
2320 - Secure site demobilize for night
2400 - security escort offsite

* Note: Decontamination performed before all sample events

DB-DFAR

DVIRKA AND BARTILUCCI

DAILY FIELD ACTIVITY REPORT

Report Number: 4 Project Number: 1167-02 Date: 8-29-96

Field Log Book Page Number: 106-107

Project: Grumman Plant 2, Supp. Phase II

Address: Plant 2, Bethpage

Weather: (AM) Warm (PM): Warm

Rainfall: (AM) _____ Inches (PM) _____ Inches

Temperature: (AM) _____ °F (PM) 78 °F

Wind Speed: (AM) NA MPH (PM) NA MPH

Wind Direction: (AM) _____ (PM) _____

Site Condition: _____

Personnel On Site:

Name	Affiliation	Arrival Time	Departure Time
Keith Kluss	D+B	1650	2100
Kevin McGourty	LAWES	1700	2100
Chris Ogles	LAWES	1700	2100
John Hayes	Security	1700	2100

Subcontractor Work Commencement: (AM) _____ (PM) 1700

Subcontractor Work Completion: (AM) _____ (PM) 2100

DVIRKA AND BARTILUCCI

DATE: 8-29-96

DAILY FIELD ACTIVITY REPORT

General work performed today by D&B: - Calibrate Microtip PID
- Secure samples
- Observe sample collection
- Observe sample decon
- obtain field blank samples
- Secure and deliver samples

List specific inspection(s) performed and results (include problems and corrective actions):

Inspect Site restoration

List type and location of tests performed and results (include equipment used and monitoring results):

Obtain PID Measurements of soil samples

Verbal comments received from subcontractor (include construction and testing problems, and recommendations/resulting action): NA

Prepared by: Keith Klas Reviewed by: _____

DB-DFAR

DVIRKA AND BARTILUCCI

DATE: 8-29-96

DAILY FIELD ACTIVITY REPORT

Work performed today by subcontractor(s) (includes equipment and labor breakdown):

1700 - on site
1730 - Prepare to core @ 16-E
1805 - Concrete core obtained
1815 - Prepare to obtain soil sample @ 25E S-1
1850 - Soil sample secure
1920 - Concrete surface stain 0-1" sample obtained
1940 - Obtain split spoon field blanks
2000 - obtain core barrel field blank samples
- Secure site, restore site
2100 - Escort off site

APPENDIX C

AIR MONITORING FORMS

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: GAC Supp Phase II DATE: 8/26/96

PROJECT NUMBER: 1167-02 INSTRUMENT: Microtip

RECORDED BY: Keith Klaus CALIBRATION DATE: 8/26/96

WEATHER CONDITIONS: Warm and Humid

TIME	LOCATION	WIND SPEED AND DIRECTION	Borehole / READING ppm	OBSERVATIONS
2000	12-G	NA	6.7	in borehole
2055	12-Concrete	NA	0.0	
2145	13-A	NA	9.0	borehole
2146	13-A	NA	0.1	Floor level
2225	13-B	NA	9.5	Borehole
2226	13-B	NA	0.7	Floor level

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA
AND
BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: GAC, Supp Phase II Plant 2 DATE: 8-27-96

PROJECT NUMBER: 1167-02 INSTRUMENT: MicroTIP

RECORDED BY: Keith Klaus CALIBRATION DATE: _____

WEATHER CONDITIONS: Warm Humid

TIME	LOCATION	WIND SPEED AND DIRECTION	READING ppm	OBSERVATIONS
1910	13C	NA	2.7	Borehole
2035	41-F	NA	6.8	Borehole

RECORDING PROCEDURES/REMARKS: _____

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: GAC Supp Phase II, Plant 2 DATE: 8-28-96

PROJECT NUMBER: 1167.02 INSTRUMENT: Microtip PID

RECORDED BY: Keith Klaus CALIBRATION DATE: _____

WEATHER CONDITIONS: NA

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
1945 ~~2157~~	27-A	NA	0.0	
2151	XIID-53		19.5	Borehole
2236	XIID 52		141.5	Borehole
2314	XIID 51		141.9	Borehole

CORDING PROCEDURES/REMARKS: _____

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: Grumman Plant 2 DATE: 5-29-96

PROJECT NUMBER: 1167.02 INSTRUMENT: Microtip PID

RECORDED BY: K. Klaus CALIBRATION DATE: _____

WEATHER CONDITIONS: Warm / Clear

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
1906	25ES1	NA	14.7	Borehole
1907	25ES1	NA	0.0	Breathing zone

RECORDING PROCEDURES/REMARKS: _____

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: Grumman Plant 2 DATE: 9/5/96

PROJECT NUMBER: 1867-02 INSTRUMENT: OVM-128

RECORDED BY: Keith Robins CALIBRATION DATE: 9/5/96

WEATHER CONDITIONS: Sunny/cool

TIME	LOCATION	WIND SPEED AND DIRECTION	OVM Hn READING	OBSERVATIONS
800 pm.	3A	calm	0.0 ppm	In soil (0-2)
930 pm	3B	calm	0.0 ppm	In soil (0-2)
650 pm	3C	calm	0.0 ppm	Concrete (1"-3")
700 pm	3 stained area	calm	0.0 ppm	In area of stained concrete

RECORDING PROCEDURES/REMARKS: OVA/128 utilized to conduct air monitoring. No volatile organic compounds detected during drilling/sampling activities.

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: Grumman Plant 2 DATE: 9/9/96

PROJECT NUMBER: 1167-02 INSTRUMENT: OVA/128

RECORDED BY: Keith Robins CALIBRATION DATE: 9/9/96

WEATHER CONDITIONS: Cool

TIME	LOCATION	WIND SPEED AND DIRECTION	OVA ppm READING	OBSERVATIONS
430pm	22A	Calm	0.0 ppm	In soil (0-2)

RECORDING PROCEDURES/REMARKS: ND VOCs detected during drilling and sampling activities.

APPENDIX D

EQUIPMENT CALIBRATION LOGS

DVIRKA AND BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: Grumman Plant 2 Date: 8-26

oject Number: 1167-02 Calibrated By: ~~M. Rauber~~ K. Klus

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
Century 128 OVA	95 ppm CH_4 Gas	NA	
Photovac Microtip	100 ppm Isobutlyne	1845	100 ppm

DECL

DVIRKA AND BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: GAC Plant 2 Date: 08-27-96

Project Number: 1167-02 Calibrated By: ~~M. Rauber~~ R. Klug

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
Century 128 OVA	95 ppm CH_4 Gas	~~1735~~	NA
photovac Microtip	100 ppm Isobutylene	1735	100

DECL

DVIRKA AND BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

oject Name: Grumman Plant 2 Date: 8-28-96

oject Number: 1167-02 Calibrated By: ~~M. Rauber~~ Keith Kluge

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations
Century 128 OVA	95 ppm CH_4 Gas	NP	
Photovac Microtip	100 ppm Isobutylene	1800	100

ECL

DVIRKA AND BARTILUCCI

DAILY EQUIPMENT CALIBRATION LOG

Project Name: Grumman Plant 2 Date: 9/5/96, 9/9/96

Project Number: _____ Calibrated By Keith Robins

Instrument Name and Model Number	Calibration Method	Time	Readings and Observations	
OVA/128 (40085)	95 ppm Methane	430pm	Calibrated to 90 ppm	9/5/96
OVA/128 (40085	95 ppm Methane	330pm	Calibrated to 88 ppm	9/9/96

DECL

APPENDIX E

SAMPLE INFORMATION RECORDS

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 12 G

FIELD SAMPLE I.D. NUMBER 12GC DATE 8-26-96

TIME 1945 WEATHER indoors TEMPERATURE 85

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) concrete core

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Gray pH NA ODOR NA

TEMPERATURE (°F) NA SPECIFIC CONDUCTANCE (umhos/cm) NA

OTHER (OVA, Methane meter, etc.) NA

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: Core 6" Thick, sample interval 1-3"

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 12-C

FIELD SAMPLE I.D. NUMBER 12CC DATE 8-26-96

TIME 2030 WEATHER indoors TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete Core

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Gray pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: Core 6" Thick, sample interval 1-3"

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 12C

FIELD SAMPLE I.D. NUMBER 12C SC (Surface Concrete) DATE 8-26-92

TIME 2055 WEATHER Indoors TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete core

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Gray pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: Sample interval 0-1"

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 13

FIELD SAMPLE I.D. NUMBER 13-SC DATE 8-26-96

TIME 2125 WEATHER indoor TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete core

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Gray pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: Sample interval 0-1"

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 13-A

FIELD SAMPLE I.D. NUMBER 13A DATE 8-26-96

TIME 2145 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Brown pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: 26 Blows, 24" Penetration, 12" recovery, Brown silty medium sand and gravel

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 13B

FIELD SAMPLE I.D. NUMBER 13 B DATE 8-26-96

TIME 2215 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Tan pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: 21 Blows, 24" penetration, 24" recovery, Top 17" poorly sorted Fine-medium sand with trace medium gravel, Lower 7" Tan/Gray sandy clay

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 13-C

FIELD SAMPLE I.D. NUMBER 13-C-S DATE 8-27-96

TIME 1900 WEATHER Indoor TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: 50 blows, 18" penetration, 18" recovery, lower 6" gray fine sand and silt, trace gravel, upper 12" tan fine to medium sand trace silt and gravel

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 14F

FIELD SAMPLE I.D. NUMBER 14F-S DATE 8-27-96

TIME 2225 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

REMARKS: 6 blows, 24" penetration, 10" recovery. Tan poorly sorted sand and gravel

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 14A

FIELD SAMPLE I.D. NUMBER 14A-C DATE 8-28-96

TIME 0915 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete Core

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

REMARKS: Sample interval 1-3", Gray concrete

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAVES

SAMPLE LOCATION/WELLNO. 27-A

FIELD SAMPLE I.D. NUMBER 27A C ϕ-1 DATE 5-28

TIME 1945 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete Core

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR GREEN pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: Subslab core 6" Thick, Entire length green in color Darker at the top surface lighter green at bottom of sample Top surface rusty colored layer. Sample interval 0-1"

WELL CASING VOLUMES

GAL/FT			
1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 27-A

FIELD SAMPLE I.D. NUMBER 27-A-C1-3 DATE 8/28/92

TIME 1915 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete Core

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR GREEN pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: Concrete core is green in color Dark shade on top, gradually turning lighter green on bottom, Sample interval is 1-3"

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. X-11-D

FIELD SAMPLE I.D. NUMBER X-11D S-3 DATE 8/28/96

TIME 2316 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

REMARKS: Sample interval 0-2' 50 blows, 24" penetration, 13" recovery
Black/Dark Brown silty (Loamy) sand trace gravel

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

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SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAVES

SAMPLE LOCATION/WELLNO. X-11-D

FIELD SAMPLE I.D. NUMBER X-11D S2 DATE 8/28/96

TIME 2235 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples): N A

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

REMARKS: Sample interval 0-2', 21 blows, 24" penetration, 13" recovery
Black/Dark Brown silty Loamy Sand trace gravel

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

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SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. X-11D

FIELD SAMPLE I.D. NUMBER X-11D S1 DATE 8/28/96

TIME 2145 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

REMARKS: Sample interval 0-2' 22 blows, 24" penetration, 12" recovery
Black loamy sand trace gravel

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

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SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAVES

SAMPLE LOCATION/WELLNO. X-11D

FIELD SAMPLE I.D. NUMBER X-11D C (concrete) DATE 8-25-96

TIME 2155 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete Core

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Gray pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

REMARKS: 0-1" Sample Interval

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 16E

FIELD SAMPLE I.D. NUMBER 16ECI-3 DATE 8-29-96

TIME 1805 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete Core

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Gray pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: Sample interval 1-3"

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 25ES-1

FIELD SAMPLE I.D. NUMBER 25ES-1 DATE 8-29-96

TIME 1905 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

REMARKS: 26 blows; 24" Penetration, 14" recovery, top 9" Black loamy sand trace gravel, lower 5" Brown poorly sorted sand with trace gravel

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. 25

FIELD SAMPLE I.D. NUMBER 25C0-1 DATE 8-29-96

TIME 1920 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) Concrete core

WELL INFORMATION (fill out for groundwater samples): NA

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Gray pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: Sample interval 0-1" in stained area, approximately 8' in from back door see attached drawing

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW Keith Robins

SAMPLE LOCATION/WELLNO. 3 (0-1")

FIELD SAMPLE I.D. NUMBER 3(Stained) DATE 9/5/96

TIME 2:00 p.m. WEATHER cool TEMPERATURE 65°F

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER _____ AIR _____

SOIL _____ OTHER (Describe, e.g., septage, leachate) Concrete

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR gray/black pH _____ ODOR None

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

TURBIDITY _____

PID/FID READING 0.0 ppm VISUAL DESCRIPTION Concrete

CONSTITUENTS TO BE ANALYZED: (SVOCs Total)

REMARKS: Sample collected with concrete corer.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794.PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW Keith Robins

SAMPLE LOCATION/WELLNO. 3C

FIELD SAMPLE I.D. NUMBER 3C (1'-3') DATE 9/5/96

TIME 650 pm WEATHER Cool TEMPERATURE 65°F

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER _____ AIR _____

SOIL _____ OTHER (Describe, e.g., septage,leachate) X Concrete

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Gray pH _____ ODOR None

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

TURBIDITY _____

PID/(FID) READING 0.0 ppm VISUAL DESCRIPTION Concrete

CONSTITUENTS TO BE ANALYZED: Cr, cd total

REMARKS: Collected with concrete core barrel

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794.PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW K. Th Robin

SAMPLE LOCATION/WELLNO. 3B

FIELD SAMPLE I.D. NUMBER 3B (0-2') DATE 9/5/91

TIME 930 pm WEATHER Cool TEMPERATURE 65 °F

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER _____ AIR _____

SOIL X OTHER (Describe, e.g., septage,leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Tan pH _____ ODOR None

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

TURBIDITY _____

PID/FID READING 0.0 ppm VISUAL DESCRIPTION Tan course Sand, some gravel, dry

CONSTITUENTS TO BE ANALYZED: Cd TCLP

REMARKS: Sample collected (0-2')

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794.PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW Keith Robins

SAMPLE LOCATION/WELLNO. 3A

FIELD SAMPLE I.D. NUMBER 3A (0-2') DATE 9/5/96

TIME 800 p.m. WEATHER cool TEMPERATURE 65°F

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER _____ AIR _____

SOIL X OTHER (Describe, e.g., septage,leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Brown pH _____ ODOR None

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

TURBIDITY _____

PID/(FID) READING 0.0 ppm VISUAL DESCRIPTION Sand coarse, gravel, dry

CONSTITUENTS TO BE ANALYZED: Cr. TCLP

REMARKS: Sample collected (0-2')

WELL CASING VOLUMES				
GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794.PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE Grumman Plant 2 SAMPLE CREW Keith Robins

SAMPLE LOCATION/WELLNO. 22A

FIELD SAMPLE I.D. NUMBER 22A (0-2) DATE 9/9/96

TIME 430pm WEATHER Sunny TEMPERATURE 70°F

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER _____ AIR _____

SOIL X OTHER (Describe, e.g., septage,leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR Dark Brown pH _____ ODOR None

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

TURBIDITY _____

PID/(FID) READING 0.0 ppm VISUAL DESCRIPTION Dark Brown sand and gravel / wet

CONSTITUENTS TO BE ANALYZED: Cr TCLP

REMARKS: Sample collected 4' (0-2') below concrete floor.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-8784.PM4

DVIRKA AND BARTILUCCI

Project No.: 1167-02
Project Name: Grumman Supplimental Phase II Plant 2

Well/Boring No.: 12-G
Sheet 1 of ____
By: K. Klaus Date: 8/26/96
Chk'd: ____ Date: ____

Drilling Contractor: Land Air Water Environmental Services
Driller: Kevin McGourty
Geologist: Keith Klaus
Drill Rig: NA
Drilling Method: hand
Sample Spoon I.D.: 2½"
Drive Hammer Wt.: 90 lbs
Date Started: 8-26-96
Date Completed: 8-26-96

Borehole Completion Depth: 2'
Borehole Diameter: 2"
Ground Surface El.: —

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-	1265	0-2'	12"	3,3,3,3	6.7	Brown silty medium sand with coarse gravel
-1-						
-2-						
-3-						
-4-						
-5-						
-6-						
-7-						
-8-						
-9-						
-10						

Remarks:

Water Level Measurement ____ Date ____
____ Date ____
____ Date ____
____ Date ____

BL

DVIRKA AND BARTILUCCI

Project No.: 1167-02
Project Name: Grumman Supplimental Phase II Plant 2

Well/Boring No.: 13A
Sheet 1 of ____
By: K. Klaus Date: 8-26-96
Chk'd: ____ Date: ____

Drilling Contractor: Land Air Water Environmental Services
Driller: Kevin McGourty
Drill Rig: NA
Sample Spoon I.D.: 1 1/2"
Date Started: 8-26-96
Geologist: Keith Klaus
Drilling Method: hand
Drive Hammer Wt.: 90 lbs
Date Completed: 8-26 96

Borehole Completion Depth: 2'
Borehole Diameter: 2"
Ground Surface El.: ____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-	13A	0-2'	12"	26	0	Brown silty medium sand and gravel
-1-						
-2-						
-3-						
-4-						
-5-						
-6-						
-7-						
-8-						
-9-						
-10						

Remarks:

Water Level Measurement ____ Date ____
____ Date ____
____ Date ____
____ Date ____

BL

DVIRKA AND BARTILUCCI

Project No.: 1167-02
Project Name: Grumman Supplimental Phase II Plant 2

Well/Boring No.: 13B
Sheet 1 of ____
By: K. Klaus Date: 8-26
Chk'd: ____ Date: ____

Drilling Contractor: Land Air Water Environmental Services
Driller: Kevin McGourty
Drill Rig: NA
Sample Spoon I.D.: 1 1/2"
Date Started: 8-26-96
Geologist: Keith Klaus
Drilling Method: hand
Drive Hammer Wt.: 90 lbs
Date Completed: 8-26-96

Borehole Completion Depth: 2'
Borehole Diameter: 2"
Ground Surface El.: ____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-	13B	0-2'	24"	21	9.5	0-7" Tan poorly sorted sand with gray clay
-1-						7"-24" Tan poorly sorted Fine-medium sand with rare medium gravel
-2-						
-3-						
-4-						
-5-						
-6-						
-7-						
-8-						
-9-						
-10						

Remarks:

Water Level Measurement ____ Date ____
____ Date ____
____ Date ____
____ Date ____

BL

DVIRKA AND BARTILUCCI

Project No.: 1167-02
Project Name: Grumman Supplimental Phase II Plant 7

Well/Boring No.: 13-C
Sheet 1 of ____
By: K. Klaus Date: 5-27-96
Chk'd: ____ Date: ____

Drilling Contractor: Land Air Water Environmental Services
Driller: Kevin McGourty
Drill Rig: NA
Sample Spoon I.D.: 1 1/2"
Date Started: 5-26 96
Geologist: Keith Klaus
Drilling Method: hand
Drive Hammer Wt.: 90 lbs
Date Completed: 5-27-96

Borehole Completion Depth: 2'
Borehole Diameter: 2"
Ground Surface El.: ____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-	13-C S	0-2'	18"	50	2.7	0-12" Tan Fine to medium sand trace silt and gravel
-1-						12"-18" - gray Fine sand and silt with Trace gravel
-2-						
-3-						
-4-						
-5-						
-6-						
-7-						
-8-						
-9-						
-10						

Remarks:

Water Level Measurement ____ Date ____
____ Date ____
____ Date ____
____ Date ____

BL

DVIRKA AND BARTILUCCI

Project No.: 1167-02
Project Name: Grumman Supplimental Phase II Plant 7

Well/Boring No.: 4F
Sheet 1 of ____
By: K. Klaus Date: 8-27-96
Chk'd: ____ Date: ____

Drilling Contractor: Land Air Water Environmental Services
Driller: Kevin McGourty
Drill Rig: NA
Sample Spoon I.D.: 1 1/2"
Date Started: 8-27-96
Geologist: Keith Klaus
Drilling Method: hand
Drive Hammer Wt.: 90 lbs
Date Completed: 8-27-96

Borehole Completion Depth: 2'
Borehole Diameter: 2"
Ground Surface El.: ____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-	4F-S	0-2'	10"	6	6.8	Tan Poorly sorted sand and gravel
-1-						
-2-						
-3-						
-4-						
-5-						
-6-						
-7-						
-8-						
-9-						
-10						

Remarks:

Water Level Measurement ____ Date ____
____ Date ____
____ Date ____
____ Date ____

BL

DVIRKA AND BARTILUCCI

Project No.: 1167-02
Project Name: Grumman Supplimental Phase II Plant 2

Well/Boring No.: X11D S1
Sheet 1 of ____
By: K. Klaus Date: 5-28-96
Chk'd: ____ Date: ____

Drilling Contractor: Land Air Water Environmental Services
Driller: Kevin McGourty
Drill Rig: NA
Sample Spoon I.D.: 1/2"
Date Started: 5-25-96
Geologist: Keith Klaus
Drilling Method: hand
Drive Hammer Wt.: 90 lbs
Date Completed: 5-25-96

Borehole Completion Depth: 2'
Borehole Diameter: 2"
Ground Surface El.: ____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-	X11D S1	0-2'	12	22	14.9	Black silty (Loamy) sand with trace gravel
-1-						
-2-						
-3-						
-4-						
-5-						
-6-						
-7-						
-8-						
-9-						
-10						

Remarks:

Water Level Measurement ____ Date ____
____ Date ____
____ Date ____
____ Date ____

BL

DVIRKA AND BARTILUCCI

Project No.: 1167-02
Project Name: Grumman Supplimental Phase II Plant 2

Well/Boring No.: XIID S-2
Sheet 1 of ____
By: K. Klaus Date: 8-28-96
Chk'd: ____ Date: ____

Drilling Contractor: Land Air Water Environmental Services
Driller: Kevin McGourty
Drill Rig: NA
Sample Spoon I.D.: 1/2"
Date Started: 8-28-96
Geologist: Keith Klaus
Drilling Method: hand
Drive Hammer Wt.: 90 lbs
Date Completed: 8-28-96

Borehole Completion Depth: 2'
Borehole Diameter: 2"
Ground Surface El.: ____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-	XIID S2	0-2'	13"	21	14.5	Black/dark brown silty (loamy) sand with trace gravel
-1-						
-2-						
-3-						
-4-						
-5-						
-6-						
-7-						
-8-						
-9-						
-10						

Remarks:

Water Level Measurement ____ Date ____
____ Date ____
____ Date ____
____ Date ____

BL

DVIRKA AND BARTILUCCI

Project No.: 1167-02
Project Name: Grumman Supplimental Phase II Plant 2

Well/Boring No.: XIII) S-3
Sheet 1 of ____
By: K. Klaus Date: 8-28-96
Chk'd: ____ Date: ____

Drilling Contractor: Land Air Water Environmental Services
Driller: Kevin McGourty
Drill Rig: NA
Sample Spoon I.D.: 1" 2"
Date Started: 8-28-96
Geologist: Keith Klaus
Drilling Method: hand
Drive Hammer Wt.: 90 lbs
Date Completed: 8-28-96

Borehole Completion Depth: 2'
Borehole Diameter: 2"
Ground Surface El.: ____

DEPTH (FT.)	SAMPLE NO.	SAMPLING INTERVAL	RECOVERY/ RQD	BLOWS/6"	HEADSPACE (PPM)	SAMPLE DESCRIPTION
-0-	XIII) S3	0-2'	13"	50	19.5	Black/Dark brown silty (Loamy) sand with trace gravel
-1-						
-2-						
-3-						
-4-						
-5-						
-6-						
-7-						
-8-						
-9-						
-10						

Remarks:

Water Level Measurement ____ Date ____
____ Date ____
____ Date ____
____ Date ____

BL

APPENDIX G

ANALYTICAL LABORATORY DATA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

14A-C

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28798 SAS No.: SDG No.: AERO1

Matrix: (soil/water) WATER Lab Sample ID: 2879803

Sample wt/vol: 1.0 (g/mL) ML Lab File ID: P2325.D

Level: (low/med) LOW Date Received: 08/28/96

% Moisture: not dec. _____ Date Analyzed: 09/09/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) MG/L	Q
79-01-6	Trichloroethene	0.29	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25ES1

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28798 SAS No.: SDG No.: AERO1

Matrix: (soil/water) WATER Lab Sample ID: 2887902

Sample wt/vol: 1.0 (g/mL) ML Lab File ID: P2330.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. _____ Date Analyzed: 09/09/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) MG/L	Q
107-06-2	1,2-Dichloroethane	0.05	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBSS04

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28798 SAS No.: SDG No.: AERO1

Matrix: (soil/water) WATER Lab Sample ID: 2887909

Sample wt/vol: 1.0 (g/mL) ML Lab File ID: P2329.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. _____ Date Analyzed: 09/09/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) MG/L	Q
107-06-2	1,2-Dichloroethane	0.05	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

301

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966 SAS No.: SDG No.: AERO2

Matrix: (soil/water) SOIL Lab Sample ID: 2896606

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3640.D

Level: (low/med) LOW Date Received: 09/06/96

% Moisture: not dec. 0 dec. Date Extracted:09/07/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	58	J

-Methylphenol is being reported as the combination of 3 + 4 Methylphenol

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

301

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966 SAS No.: SDG No.: AERO2

Matrix: (soil/water) SOIL Lab Sample ID: 2896606

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3640.D

Level: (low/med) LOW Date Received: 09/06/96

% Moisture: not dec. 0 dec. Date Extracted: 09/07/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	79	J
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	100	J
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	530	
120-12-7	Anthracene	120	J
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	250	J
129-00-0	Pyrene	190	J
85-68-7	Butylbenzylphthalate	400	
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo(a)anthracene	39	J
218-01-9	Chrysene	47	J
117-81-7	bis(2-Ethylhexyl)phthalate	150	J
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
100-51-6	Benzyl Alcohol	330	U
65-85-0	Benzoic Acid	1700	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

301

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966 SAS No.: SDG No.: AERO2

Matrix: (soil/water) SOIL Lab Sample ID: 2896606

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3640.D

Level: (low/med) LOW Date Received: 09/06/96

% Moisture: not dec. 0 dec. Date Extracted:09/07/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

Number TICs found: 21

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN HYDROCARBON	3.050	6000	J
2.		UNKNOWN	3.207	100	J
3.		UNKNOWN ALDOL	3.538	96000	AJ
4.		UNKNOWN	3.782	100	J
5.		UNKNOWN	3.922	3100	J
6.		UNKNOWN	4.427	510	J
7.		UNKNOWN	5.717	1000	J
8.		UNKNOWN	5.996	100	J
9.		UNKNOWN	6.170	2800	J
10.		UNKNOWN AROMATIC	13.613	74	J
11.		UNKNOWN AROMATIC	13.962	83	J
12.		UNKNOWN	14.520	160	J
13.		UNKNOWN AROMATIC	15.008	97	J
14.		UNKNOWN	16.141	80	J
15.		UNKNOWN	16.995	120	J
16.		UNKNOWN HYDROCARBON	17.239	85	J
17.		UNKNOWN	17.553	80	J
18.		UNKNOWN HYDROCARBON	18.128	110	J
19.		UNKNOWN AROMATIC	24.020	130	J
20.		UNKNOWN AROMATIC	25.449	98	J
21.		UNKNOWN AROMATIC	27.558	81	J
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966 SAS No.: SDG No.: AERO2

Matrix: (soil/water) WATER Lab Sample ID: 2896601

Sample wt/vol: 1000 (g/mL) ML Lab File ID: Q3645.D

Level: (low/med) LOW Date Received: 09/06/96

% Moisture: not dec. 0 dec. Date Extracted:09/09/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U

1-Methylphenol is being reported as the combination of 3 + 4 Methylphenol

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966 SAS No.: SDG No.: AERO2

Matrix: (soil/water) WATER Lab Sample ID: 2896601

Sample wt/vol: 1000 (g/mL) ML Lab File ID: Q3645.D

Level: (low/med) LOW Date Received: 09/06/96

% Moisture: not dec. 0 dec. Date Extracted: 09/09/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U
100-51-6	Benzyl Alcohol	10	U
65-85-0	Benzoic Acid	50	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966 SAS No.: SDG No.: AERO2

Matrix: (soil/water) WATER Lab Sample ID: 2896601

Sample wt/vol: 1000 (g/mL) ML Lab File ID: Q3645.D

Level: (low/med) LOW Date Received: 09/06/96

% Moisture: not dec. 0 dec. Date Extracted:09/09/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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16.					
17.					
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21.					
22.					
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27.					
28.					
29.					
30.					

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

12C-SC

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2877806

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3500.D

Level: (low/med) LOW Date Received: 08/27/96

% Moisture: not dec. 0 dec. Date Extracted: 08/30/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/03/96

GPC Cleanup: (Y/N) N pH: 7.7 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	84	J
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	53	J
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	420	
120-12-7	Anthracene	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	100	J
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	44	J
117-81-7	bis(2-Ethylhexyl)phthalate	170	J
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
100-51-6	Benzyl Alcohol	330	U
65-85-0	Benzoic Acid	1700	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13-SC

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2877807

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3501.D

Level: (low/med) LOW Date Received: 08/27/96

% Moisture: not dec. 0 dec. Date Extracted: 08/30/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/03/96

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	330	U

4-Methylphenol is being reported as the combination of 3 + 4 Methylphenol

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13-SC

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2877807

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3501.D

Level: (low/med) LOW Date Received: 08/27/96

% Moisture: not dec. 0 dec. Date Extracted: 08/30/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/03/96

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	83	J
120-12-7	Anthracene	330	U
84-74-2	Di-n-butylphthalate	59	J
206-44-0	Fluoranthene	43	J
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	550	
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
100-51-6	Benzyl Alcohol	330	U
65-85-0	Benzoic Acid	1700	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

13-SC

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2877807

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3501.D

Level: (low/med) LOW Date Received: 08/27/96

% Moisture: not dec. 0 dec. Date Extracted:08/30/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/03/96

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.0

Number TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALDOL	3.739	91000	AJ
2.		UNKNOWN	3.782	15000	JB
3.		UNKNOWN	4.094	350	J
4.		UNKNOWN	4.191	2000	JB
5.		UNKNOWN	4.298	77	J
6.		UNKNOWN	4.717	240	JB
7.		UNKNOWN	4.878	180	J
8.		UNKNOWN	6.049	270	JB
9.		UNKNOWN	6.500	1800	J
10.		UNKNOWN AROMATIC	7.209	72	J
11.		UNKNOWN	7.456	190	J
12.		UNKNOWN	8.251	82	J
13.		UNKNOWN AROMATIC	12.311	70	J
14.		UNKNOWN AROMATIC	13.127	160	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4699.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/03/96

Extraction: (SepF,'Cont/Sonc) SONC Date Analyzed: 09/06/96

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	2700	E
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	200	J
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	330	U

-Methylphenol is being reported as the combination of 3 + 4 Methylphenol

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966 SAS No.: SDG No.: AERO2

Matrix (soil/water): WATER Lab Sample ID: 896601

Level (low/med): LOW Date Received: 09/06/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	9.9			P
7440-47-3	Chromium	8.3	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

FB-1

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB-1

Lab Name: NYTEST_ENV_INC_____ Contract: 9622729___

Lab Code: NYTEST Case No.: 28966_ SAS No.: _____ SDG No.: AERO2_

Matrix (soil/water): WATER

Lab Sample ID: T896601

Level (low/med): LOW__

Date Received: 09/06/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L_

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	0.0044	U		P
7440-47-3	Chromium	0.0047	U		P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

4_____TCLP_____

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4699.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/03/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/06/96

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	230	J
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	180	J
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
100-51-6	Benzyl Alcohol	330	U
65-85-0	Benzoic Acid	1700	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4699.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted:09/03/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/06/96

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.0

Number TICs found: 11

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.071	600	J
2.		ALDOL	3.615	14000	AJ
3.		UNKNOWN HYDROCARBON	4.352	670	J
4.		UNKNOWN HYDROCARBON	4.510	460	J
5.		UNKNOWN HYDROCARBON	4.686	670	J
6.		UNKNOWN	4.861	440	J
7.		UNKNOWN HYDROCARBON	5.089	2000	J
8.		UNKNOWN AROMATIC	5.405	810	J
9.		UNKNOWN	5.546	2200	J
10.		UNKNOWN HYDROCARBON	5.897	1100	J
11.		UNKNOWN	5.967	1400	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1DL

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4719.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/03/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/09/96

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	670	U
111-44-4	bis(2-Chloroethyl)Ether	670	U
95-57-8	2-Chlorophenol	670	U
541-73-1	1,3-Dichlorobenzene	670	U
106-46-7	1,4-Dichlorobenzene	670	U
95-50-1	1,2-Dichlorobenzene	670	U
95-48-7	2-Methylphenol	670	U
108-60-1	2,2'-oxybis(1-Chloropropane)	670	U
106-44-5	4-Methylphenol	670	U
621-64-7	N-Nitroso-di-n-propylamine	670	U
67-72-1	Hexachloroethane	670	U
98-95-3	Nitrobenzene	670	U
78-59-1	Isophorone	670	U
88-75-5	2-Nitrophenol	670	U
105-67-9	2,4-Dimethylphenol	670	U
120-83-2	2,4-Dichlorophenol	670	U
120-82-1	1,2,4-Trichlorobenzene	670	U
91-20-3	Naphthalene	2800	D
106-47-8	4-Chloroaniline	670	U
87-68-3	Hexachlorobutadiene	670	U
111-91-1	bis(2-Chloroethoxy)methane	670	U
59-50-7	4-Chloro-3-Methylphenol	670	U
91-57-6	2-Methylnaphthalene	200	JD
77-47-4	Hexachlorocyclopentadiene	670	U
88-06-2	2,4,6-Trichlorophenol	670	U
95-95-4	2,4,5-Trichlorophenol	3300	U
91-58-7	2-Chloronaphthalene	670	U
88-74-4	2-Nitroaniline	3300	U
131-11-3	Dimethylphthalate	670	U
208-96-8	Acenaphthylene	670	U
606-20-2	2,6-Dinitrotoluene	670	U
99-09-2	3-Nitroaniline	3300	U
83-32-9	Acenaphthene	670	U

-Methylphenol is being reported as the combination of 3 + 4 Methylphenol

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1DL

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4719.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/03/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/09/96

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	3300	U
100-02-7	4-Nitrophenol	3300	U
132-64-9	Dibenzofuran	670	U
121-14-2	2,4-Dinitrotoluene	670	U
84-66-2	Diethylphthalate	71	JD
7005-72-3	4-Chlorophenyl-phenylether	670	U
86-73-7	Fluorene	670	U
100-01-6	4-Nitroaniline	3300	U
534-52-1	4,6-Dinitro-2-methylphenol	3300	U
86-30-6	N-Nitrosodiphenylamine (1)	670	U
101-55-3	4-Bromophenyl-phenylether	670	U
118-74-1	Hexachlorobenzene	670	U
87-86-5	Pentachlorophenol	3300	U
85-01-8	Phenanthrene	670	U
120-12-7	Anthracene	670	U
84-74-2	Di-n-butylphthalate	670	U
206-44-0	Fluoranthene	670	U
129-00-0	Pyrene	670	U
85-68-7	Butylbenzylphthalate	200	JD
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	670	U
218-01-9	Chrysene	670	U
117-81-7	bis(2-Ethylhexyl)phthalate	160	JD
117-84-0	Di-n-octylphthalate	670	U
205-99-2	Benzo(b)fluoranthene	670	U
207-08-9	Benzo(k)fluoranthene	670	U
50-32-8	Benzo(a)pyrene	670	U
193-39-5	Indeno(1,2,3-cd)pyrene	670	U
53-70-3	Dibenz(a,h)anthracene	670	U
191-24-2	Benzo(g,h,i)perylene	670	U
100-51-6	Benzyl Alcohol	670	U
65-85-0	Benzoic Acid	3300	U

(1) - Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1DL

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: S4719.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/03/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/09/96

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 2.0

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.055	910	JD
2.		UNKNOWN ALDOL	3.669	30000	AJD
3.		UNKNOWN HYDROCARBON	4.336	1100	JD
4.		UNKNOWN HYDROCARBON	5.073	3200	JD
5.		UNKNOWN	5.512	2400	JD
6.		UNKNOWN HYDROCARBON	5.880	1700	JD
7.		UNKNOWN	5.951	1300	JD
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1RE

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3657.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/11/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	2300	
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	250	J
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	330	U

4-Methylphenol is being reported as the combination of 3 + 4 Methylphenol

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1RE

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3657.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/11/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	82	J
91-94-1	3,3'-Dichlorobenzidine	670	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	86	J
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U
100-51-6	Benzyl Alcohol	330	U
65-85-0	Benzoic Acid	1700	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

25C0-1RE

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) SOIL Lab Sample ID: 2887905

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q3657.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted:09/11/96

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.050	1900	J
2.		UNKNOWN	4.026	1200	J
3.		UNKNOWN HYDROCARBON	4.165	280	J
4.		UNKNOWN HYDROCARBON	4.444	1000	J
5.		UNKNOWN	4.671	240	J
6.		UNKNOWN	4.810	800	J
7.		UNKNOWN HYDROCARBON	4.880	420	J
8.		UNKNOWN AROMATIC	5.019	1500	J
9.		UNKNOWN AROMATIC	5.124	500	J
10.		UNKNOWN HYDROCARBON	5.229	2700	J
11.		UNKNOWN AROMATIC	5.281	680	J
12.		UNKNOWN HYDROCARBON	5.473	900	J
13.		UNKNOWN AROMATIC	5.577	400	J
14.		UNKNOWN AROMATIC	5.612	390	J
15.		UNKNOWN HYDROCARBON	5.682	620	J
16.		UNKNOWN	5.734	1200	J
17.		UNKNOWN AROMATIC	5.839	300	J
18.		UNKNOWN AROMATIC	5.943	520	J
19.		UNKNOWN HYDROCARBON	6.100	650	J
20.		UNKNOWN	6.205	1400	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBCS04

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) WATER Lab Sample ID: 2887913

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4688.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/03/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/06/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U

5-Methylphenol is being reported as the combination of 3 + 4 Methylphenol

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBCS04

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) WATER Lab Sample ID: 2887913

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4688.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted: 09/03/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/06/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U
100-51-6	Benzyl Alcohol	10	U
65-85-0	Benzoic Acid	50	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBCS04

Lab Name: NYTEST ENV INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix: (soil/water) WATER Lab Sample ID: 2887913

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S4688.D

Level: (low/med) LOW Date Received: 08/30/96

% Moisture: not dec. 0 dec. Date Extracted:09/03/96

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/06/96

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.352	9	J
2.		UNKNOWN	14.479	3	J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
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18.					
19.					
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29.					
30.					

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3C01

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966_ SAS No.: _____ SDG No.: AERO2_

Matrix (soil/water): SOIL_ Lab Sample ID: 896603

Level (low/med): LOW__ Date Received: 09/06/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	70.1		*	P
7440-47-3	Chromium	24.3		N*	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

3C01 CONCRETE

RESULTS_IN_MG/KG_AS_RECEIVED

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

27AC01

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28779_ SAS No.: _____ SDG No.: AERO1_

Matrix (soil/water): SOIL_ Lab Sample ID: 884901

Level (low/med): LOW__ Date Received: 08/29/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium_	4480			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

27AC01___CONCRETE

RESULT_IN_MG/KG_AS_RECEIVED

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3A02

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28966 SAS No.: SDG No.: AERO2

Matrix (soil/water): WATER Lab Sample ID: T896609

Level (low/med): LOW Date Received: 09/06/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium				NR
7440-47-3	Chromium	0.028			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

A02 TCLP

000025

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3B02

Lab Name: NYTEST_ENV_INC_____ Contract: 9622729___

Lab Code: NYTEST Case No.: 28966_ SAS No.: _____ SDG No.: AERO2_

Matrix (soil/water): WATER Lab Sample ID: T896612

Level (low/med): LOW__ Date Received: 09/06/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L_

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium	2.2			P
7440-47-3	Chromium				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

B02_____TCLP_____

000026

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3C13

Lab Name: NYTEST_ENV_INC_____ Contract: 9622729___

Lab Code: NYTEST Case No.: 28966_ SAS No.: _____ SDG No.: AERO2_

Matrix (soil/water): WATER Lab Sample ID: T896602

Level (low/med): LOW__ Date Received: 09/06/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L_

CAS No.	Analyte	Concentration	C	Q	M
7440-43-9	Cadmium__	0.0044	U		P_
7440-47-3	Chromium_	0.023	_		P_

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

3C13_____TCLP_____

000291

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

4F-S

ab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778_ SAS No.: _____ SDG No.: AERO1_

Matrix (soil/water): WATER Lab Sample ID: T879802

Level (low/med): LOW Date Received: 08/28/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L_

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	0.56			P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

4F-S TCLP

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

12C-C

ab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778_ SAS No.: _____ SDG No.: AERO1_

Matrix (soil/water): WATER Lab Sample ID: T877805

evel (low/med): LOW Date Received: 08/27/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L_

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	0.12			P

olor Before: _____ Clarity Before: _____ Texture: _____

olor After: _____ Clarity After: _____ Artifacts: _____

omments:

12C-C TCLP

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

12GC

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778_ SAS No.: _____ SDG No.: AERO1_

Matrix (soil/water): WATER Lab Sample ID: T877804

Level (low/med): LOW Date Received: 08/27/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L_

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	0.0047	U		P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

12GC TCLP

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

12GS

ab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix (soil/water): WATER Lab Sample ID: T877801

Level (low/med): LOW Date Received: 08/27/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	0.23			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

12GS TCLP

FORM I - IN ILM03.0

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

13A

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix (soil/water): WATER Lab Sample ID: T877802

Level (low/med): LOW Date Received: 08/27/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	8.1			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

13A TCLP

FORM I - IN ILM03.0

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

13B

ab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix (soil/water): WATER Lab Sample ID: T877803

Level (low/med): LOW Date Received: 08/27/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	0.016			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

13B TCLP

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

13C-S

Lab Name: NYTEST_ENV_INC_____ Contract: 9622729___

Lab Code: NYTEST Case No.: 28778_ SAS No.: _____ SDG No.: AERO1_

Matrix (soil/water): WATER Lab Sample ID: T879801

Level (low/med): LOW__ Date Received: 08/28/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L_

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium_	0.024			P_

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

13C-S_____TCLP_____

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

16EC13

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix (soil/water): WATER Lab Sample ID: T887901

Level (low/med): LOW Date Received: 08/30/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	0.25			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

16EC13 TCLP

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

22A02

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28998 SAS No.: SDG No.: 28998

Matrix (soil/water): WATER Lab Sample ID: T899801

Level (low/med): LOW Date Received: 09/10/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	0.12			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

22A02 TCLP

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

27AC13

Lab Name: NYTEST_ENV_INC Contract: 9622729

Lab Code: NYTEST Case No.: 28778 SAS No.: SDG No.: AERO1

Matrix (soil/water): WATER Lab Sample ID: T884902

Level (low/med): LOW Date Received: 08/29/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-47-3	Chromium	43.8			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

27AC13 TCLP

FORM I - IN ILM03.0

8080PCB - FORM 1

NYTEST ENVIRONMENTAL INC.

TCL PCB ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX:	SOIL	SAMPLE ID:	X11DS1
CONC. LEVEL:	LOW	LAB SAMPLE ID:	2884903
EXTRACTION DATE:	08/30/96	DIL FACTOR:	1.00
ANALYSIS DATE:	09/04/96	% MOISTURE:	14

CMPD #	CAS Number	PCB COMPOUND	UG/KG (DRY BASIS)
1	12674-11-2	Aroclor-1016	92 U
2	11104-28-2	Aroclor-1221	92 U
3	11141-16-5	Aroclor-1232	92 U
4	53469-21-9	Aroclor-1242	92 U
5	12672-29-6	Aroclor-1248	1400
6	11097-69-1	Aroclor-1254	92 U
7	11096-82-5	Aroclor-1260	300

8080PCB - FORM 1

NYTEST ENVIRONMENTAL INC.

TCL PCB ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX:	SOIL	SAMPLE ID:	X11DS2
CONC. LEVEL:	LOW	LAB SAMPLE ID:	2884904
EXTRACTION DATE:	08/30/96	DIL FACTOR:	1.00
ANALYSIS DATE:	09/04/96	% MOISTURE:	12

CMPD #	CAS Number	PCB COMPOUND	UG/KG (DRY BASIS)
1	12674-11-2	Aroclor-1016	91 U
2	11104-28-2	Aroclor-1221	91 U
3	11141-16-5	Aroclor-1232	91 U
4	53469-21-9	Aroclor-1242	91 U
5	12672-29-6	Aroclor-1248	760
6	11097-69-1	Aroclor-1254	91 U
7	11096-82-5	Aroclor-1260	160

8080PCB - FORM 1

NYTEST ENVIRONMENTAL INC.

TCL PCB ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX:	SOIL	SAMPLE ID:	X11DS3
CONC. LEVEL:	LOW	LAB SAMPLE ID:	2884905
EXTRACTION DATE:	08/30/96	DIL FACTOR:	1.00
ANALYSIS DATE:	09/04/96	% MOISTURE:	11

CMPD #	CAS Number	PCB COMPOUND	UG/KG (DRY BASIS)
1	12674-11-2	Aroclor-1016	90 U
2	11104-28-2	Aroclor-1221	90 U
3	11141-16-5	Aroclor-1232	90 U
4	53469-21-9	Aroclor-1242	90 U
5	12672-29-6	Aroclor-1248	540
6	11097-69-1	Aroclor-1254	90 U
7	11096-82-5	Aroclor-1260	190

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TCL PCB ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX:	WATER	SAMPLE ID:	FBSS03
CONC. LEVEL:	LOW	LAB SAMPLE ID:	2887908
EXTRACTION DATE:	09/04/96	DIL FACTOR:	1.00
ANALYSIS DATE:	09/07/96	% MOISTURE:	NA
		INITIAL VOL (ML):	950

CMPD #	CAS Number	PCB COMPOUND	UG/L
1	12674-11-2	Aroclor-1016	1.1 U
2	11104-28-2	Aroclor-1221	2.1 U
3	11141-16-5	Aroclor-1232	1.1 U
4	53469-21-9	Aroclor-1242	1.1 U
5	12672-29-6	Aroclor-1248	1.1 U
6	11097-69-1	Aroclor-1254	1.1 U
7	11096-82-5	Aroclor-1260	1.1 U

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TCL PCB ORGANICS ANALYSIS DATA SHEET

SAMPLE MATRIX:	WATER	SAMPLE ID:	FBCS03
CONC. LEVEL:	LOW	LAB SAMPLE ID:	2887912
EXTRACTION DATE:	09/04/96	DIL FACTOR:	1.00
ANALYSIS DATE:	09/07/96	% MOISTURE:	NA
		INITIAL VOL (ML):	825

CMPD #	CAS Number	PCB COMPOUND	UG/L
1	12674-11-2	Aroclor-1016	1.2 U
2	11104-28-2	Aroclor-1221	2.4 U
3	11141-16-5	Aroclor-1232	1.2 U
4	53469-21-9	Aroclor-1242	1.2 U
5	12672-29-6	Aroclor-1248	1.2 U
6	11097-69-1	Aroclor-1254	1.2 U
7	11096-82-5	Aroclor-1260	1.2 U