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CONSULTING ENGINEERS

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November 23, 1999

Steve Kaminski, P.E.
Supervisor, Corrective Action Section
Bureau of Radiation & Hazardous Site Management
Division of Solid and Hazardous Materials
NYS Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010

Re: Northrop Grumman Corporation
Remediation Plan - Plant 12
Bethpage, New York
D&B No. 1614

Dear Mr. Kaminski:

As a follow up to the meeting held on October 29, 1999, Dvirka and Bartilucci Consulting Engineers (D&B), on behalf of the Northrop Grumman Corporation (NGC), has prepared this letter in an attempt to clarify the endpoint sampling rationale presented in the Plant 12 Remediation Plan dated August 16, 1999.

By way of introduction, areas of concern (AOCs) at the Plant 12 site were first identified by either the Phase I/Phase II Environmental Baseline Study or the Phase I Environmental Site Assessment conducted in March 1996 and March 1997, respectively. AOCs were investigated by collecting and analyzing soil and/or groundwater samples for the constituents of concern likely to be associated with each AOC. These "initial" environmental samples were collected and analyzed as part of the Supplemental Phase II Site Assessment which was finalized in December 1997. The Supplemental Phase II report identified AOCs that exhibited exceedances of the Plant 12 action level values and recommended additional sampling to determine the horizontal and vertical extent of impacted soil. In general, to identify the horizontal extent of contamination, soil borings were advanced during the Delineation Phase II Site Assessment at increasing distances from the original soil boring in four directions: north, south, east and west. Soil samples were collected from each of these borings at the appropriate depth to identify the vertical extent of impacted soil. Therefore, the impacted horizontal area of a particular AOC was based on a "box" that encompassed the soil samples shown to have exceedances of the action level values.

Based on the delineation sampling and analysis described above, endpoint sampling was not proposed in the Plant 12 Remediation Plan for AOCs in which the horizontal and vertical extent

of soil contamination was determined. However, not all AOCs were fully delineated. Therefore, endpoint sampling and analysis was proposed for these AOCs in the Plant 12 Remediation Plan. A summary of the AOCs recommended for remediation in the Plant 12 Remediation Plan is provided in Table 1 of Attachment 1. Table 1 also includes a summary of the Phase II sampling conducted during the Supplemental and Delineation Site Assessments and provides the rationale for endpoint sampling based on whether delineation of impacted soil was achieved or not. Analytical results for the Supplemental and Delineation Phase II Site Assessments are provided for your reference in Attachments 2 and 3, respectively.

It is important to note that where endpoint sampling is proposed, the following approach will be followed: For an excavation of 0 to 5 feet deep, side wall samples will be collected at the mid-point of the sidewall (measured vertically). For excavations of 6 to 10 feet deep, two side wall samples (measured vertically) will be collected at two equally spaced intervals. Similarly, for excavations over 10 feet, three sidewall samples (measured vertically) will be collected at three equally spaced intervals. In all cases, sidewall samples will be collected at the specified depths at each excavation sidewall or every 20 linear feet (perimeter) of excavation, whichever is greater. In addition, an endpoint soil sample will be collected for every 200 square feet of excavated floor area. Along with the endpoint samples, quality assurance and quality control (QA/QC) samples will be collected at the rate of 3 for every 20 samples taken in the field. If less than 20 samples are taken in a given day, then 3 QA/QC samples shall be taken and analyzed for that day of sampling. These samples will consist of a field blank, matrix spike and matrix spike duplicate.

It is anticipated that this correspondence will clarify any concerns regarding the endpoint sampling rationale proposed as part of the August 16, 1999 Plant 12 Remediation Plan. If you have any questions or comments, please do not hesitate to contact Mr. Errol Kitt or me at (516) 364-9890.

Very truly yours,

Richard M. Walka
Vice President

RMW/ASPt/kd
Enclosure
cc: L. Leskovjan (NGC)
J. Cofman (NGC)
S. Farkas (NYSDEC)
B. Gilday (NYSDOH)
S. McCormick (NYSDEC)
H. Wilkie (NYSDEC)
E. Kitt (D&B)
♦1614/rmw99-27.ltr(R01)

ATTACHMENT 1

Table 1
Northrop Grumman Corporation
Plant 12 - Remediation Plan
SUMMARY OF REMEDIATION ENDPOINT RATIONALE

Areas of Concern (AOCs)	AOC Designation	Area of Excavation	Depth of Excavation	Supplemental Phase II Soil Samples Collected for Analysis in Vicinity of AOCs	Delineation Phase II Soil Samples Collected for Analysis in Vicinity of AOCs	Achieved Horizontal and Vertical Delineation	Endpoint Sample Analysis	Endpoint Analysis Method
Machine Pit Sump	MTL-B	15' x 20'	6' bpb	MTL-B (0-2') and MTL-B (2'-4')	N/A	No	STARS Table 2 total VOCs/SVOCs and by TCLP	8021/8270
Chemical Storage Area/Concrete Platform	B-17B	14' x 14' 14' x 14' 12' x 14'	2' bgs 6' bgs 8' bgs	B-17B (0-2') and B-17B (2'-4')	B-17BA (4'-6'), B-17BA (6'-8'), B-17BN7 (0-2'), B-17BN7 (2'-4'), B-17BS7 (0-2'), B-17BS7 (2'-4'), B-17BE7 (0-2') B-17BE7 (2'-4') B-17BW7 (0-2'), B-17BW7 (2'-4'), B-17BN14 (0-2'), B-17BN14 (2'-4'), B-17BN14 (4'-6'), B-17BS14 (0-2'), B-17BS14 (2'-4'), B-17BS14 (4'-6'), B-17BE14 (0-2'), B-17BE14 (2'-4'), and B-17BE14 (4'-6')	No	Arsenic PCBs	6010 8082
Former Fuel USTs East of Plant 12 [1]	B-18	30' x 35'	14' bgs	B-18A (4'-6'), B-18A (6'-8'), B-18B (0-2'), B-18B (2'-4')	N/A	No	STARS Table 2 total VOCs/SVOCs and by TCLP	8021/8270
Area Outside of Machine Shop	B-19A	16' x 12' 16' x 14'	4' bgs 2' bgs	B-19A (0-2'), B-19A (2'-4')	B-19AA (4'-6'), B-19AA (6'-8'), B-19AA (8'-10'), B-19AN12 (0-2'), B-19AN12 (2'-4'), B-19AN12 (4'-6'), B-19AN12 (6'-8'), B-19AN12 (8'-10'), B-19AE7 (0-2'), B-19AE7 (2'-4'),), B-19AW10 (0-2'), B-19AW10 (2'-4'), B-19AN14 (0-2'), B-19AN14 (2'-4'), B-19AN14 (4'-6'), B-19AN14 (6'-8'), B-19AN14 (8'-10'), B-19AW14 (0-2'), B-19AW14 (2'-4'), and B-19AW14 (4'-6'),	No	CaPAHs, RCRA Metals, and 1,1,1-TCA	8270 6010/8260
Sanitary Leaching Pools (North and South)	B-22F	12' diameter	9' - 12' bgs	B-22F (10'-12') and B-22F (18'-20')	B-22FA (8'-10'), B-22FA (12'-14'), B-22FA (14'-16'), and B-22FA (16'-18')	Yes	N/A	N/A

Table 1 (continued)
Northrop Grumman Corporation
Plant 12 - Remediation Plan
SUMMARY OF REMEDIATION ENDPOINT RATIONALE

Areas of Concern (AOCs)	AOC Designation	Area of Excavation	Depth of Excavation	Supplemental Phase II Soil Samples Collected for Analysis in Vicinity of AOCs	Delineation Phase II Soil Samples Collected for Analysis in Vicinity of AOCs	Achieved Horizontal and Vertical Delineation	Endpoint Sample Analysis	Endpoint Analysis Method
Anomalous Features/Unknown Buried Structures (North)	B-22G	16' x 30'	2' bgs	B-22G (0-2') and B-22G (4'-6')	B-22GA (0-2') , B-22GA (2-4'), B-22GN7 (0-2'), B-22GS7 (0-2'), B-22GE7 (0-2'), B-22GW7 (0-2'), B-22GN7 (2'-4'), B-22GN7 (4'-6'), B-22GE7 (2'-4'), B-22GE7 (4'-6'), B-22GW7 (2'-4'), B-22GW7 (4'-6'), B-22GE14 (0-2'), B-22GE14 (2'-4'), B-22GE14 (4'-6'), B-22GW14 (0-2'), B-22GW14 (2'-4'), and B-22GW14 (4'-6')	Yes	N/A	N/A
Anomalous Features/Unknown Buried Structures (North)	B-22H	28' x 27'	2' bgs	B-22H (0-2') and B-22H (12'-14')	B-22HA (2'-4'), B-22HA (4'-6'), B-22HA (6'-8'), B-22HN7 (0-2'), B-22HN7 (2'-4'), B-22HS7 (0-2'), B-22HS7 (2'-4'), B-22HE7 (0-2'), B-22HE7 (2'-4'), B-22HW7 (0-2'), B-22HW7 (2'-4'), B-22HS14 (0-2'), B-22HS14 (2'-4'), B-22HS14 (4'-6'), B-22HE14 (0-2'), B-22HE14 (2'-4'), B-22HE14 (4'-6')	Yes	N/A	N/A
Anomalous Features/Unknown Buried Structures (North)	B-22J	28' x 35'	2' bgs	B-22J (0-2'), B-22J (2'-4')	B-22JN7 (0-2'), B-22JN7 (2'-4'), B-22JS7 (0-2'), B-22JS7 (2'-4'), B-22JE7 (0-2'), B-22JE7 (2'-4'), B-22JW7 (0-2'), B-22JW7 (2'-4'), B-22JN14 (0-2'), B-22JN14 (2'-4'), B-22JN14 (4'-6'), B-22JS14 (0-2'), B-22JS14 (2'-4'), B-22JS14 (4'-6'), B-22JE14 (0-2'), B-22JE14 (2'-4'), B-22JE14 (4'-6'), B-22JW14 (0-2'), B-22JW14 (2'-4'), and B-22JW14 (4'-6')	Yes	N/A	N/A

Table 1 (continued)
Northrop Grumman Corporation
Plant 12 - Remediation Plan
SUMMARY OF REMEDIATION ENDPOINT RATIONALE

Areas of Concern (AOCs)	AOC Designation	Area of Excavation	Depth of Excavation	Supplemental Phase II Soil Samples Collected for Analysis in Vicinity of AOCs	Delineation Phase II Soil Samples Collected for Analysis in Vicinity of AOCs	Achieved Horizontal and Vertical Delineation	Endpoint Sample Analysis	Endpoint Analysis Method
Former Drainage Basin	B-37	8' x 11' ≈ 22' x 22' ≈ 29' x 29'	6' bgs 2' bgs 10' bgs	B-37A (4'-6'), B-37A (6'-8')	37AA (0-2'), 37AA (2'-4'), 37AN8 (0-2'), 37AN8 (2'-4'), 37AS8 (0-2'), 37AS8 (2'-4'), 37AE8 (0-2'), 37AE8 (2'-4'), 37AW8 (0-2'), 37AW8 (2'-4'), 37AA (0-2'), 37AA (2'-4'), 37AN8 (0-2'), 37AN8 (2'-4'), 37AN16 (0-2'), 37AN16 (2'-4'), 37AN16 (4'-6'), 37AS8 (0-2'), 37AS8 (2'-4'), 37AS8 (4'-6'), 37AS8 (6'-8'), 37AS16 (0-2'), 37AS16 (2'-4'), 37AS16 (4'-6'), 37AS16 (6'-8'), 37AE8 (0-2'), 37AE8 (2'-4'), 37AE16 (0-2'), 37AE16 (2'-4'), 37AE16 (4'-6'), 37AW8 (0-2'), 37AW8 (2'-4'), 37AW8 (4'-6'), 37AW8 (6'-8'), 37AW16 (0-2'), 37AW16 (2'-4'), 37AW16 (4'-6'), 37AW16 (6'-8'), 37AS32 (0-2'), 37AS32 (4'-6'), 37AS32 (8'-10'), 37AS32 (12'-14'), 37AS32 (16'-18'), 37AS32 (20'-22'), 37ASE8 (0-2'), 37ASE8 (4'-6'), 37ASE8 (8'-10'), 37ASE8 (12'-14'), 37ASE8 (16'-18'), 37ASE8 (20'-22'), 37ASE16 (0-2'), 37ASE16 (4'-6'), 37ASE16 (8'-10'), 37ASE16 (12'-14'), 37ASE16 (16'-18'), 37ASE16 (20'-22'), 37ASE32(0-2'), 37ASE32 (4'-6'), 37ASE32 (8'-10'), 37ASE32 (12'-14'), 37ASE32 (16'-18'), B-37ASE32 (20'-22'), B-37ANW8 (0-2'), 37ANW8 (4'-6'), 37ANW8 (8'-10'), 37ANW8 (12'-14'), 37ANW8 (16'-18'), 37ANW8 (20'-22'), 37ANW16 (0-2'), 37ANW16 (4'-6'), 37ANW16 (8'-10'), 37ANW16 (12'-14'), 37ANW16 (16'-18'), 37ANW16 (20'-22'), 37ANW24 (0-2'), 37ANW24 (4'-6'), 37ANW24 (8'-10'), 37ANW24 (12'-14'), 37ANW24 (16'-18'), and 37ANW24 (20'-22'),	No	PCBs	8082

Table 1 (continued)
Northrop Grumman Corporation
Plant 12 - Remediation Plan
SUMMARY OF REMEDIATION ENDPOINT RATIONALE

Areas of Concern (AOCs)	AOC Designation	Area of Excavation	Depth of Excavation	Supplemental Phase II Soil Samples Collected for Analysis in Vicinity of AOCs	Delineation Phase II Soil Samples Collected for Analysis in Vicinity of AOCs	Achieved Horizontal and Vertical Delineation	Endpoint Sample Analysis	Endpoint Analysis Method
Petroleum/Chemical Storage Areas	PCS-A	31' x 13' 17' x 10' 17' x 9' 17' x 10'	8' bgs 4' bgs 2' bgs 4' bgs	PCS-A (0-2') and PCS-A (2'-4')	PCS-AA (0-2'), PCS-AA (2'-4'), PCS-AA (4'-6'), PCS-AN8 (0-2'), PCS-AN8 (2'-4'), PCS-AN8 (4'-6'), PCS-AS8 (0-2'), PCS-AS8 (2'-4'), PCS-AS8 (4'-6'), PCS-AE8 (0-2'), PCS-AE8 (2'-4'), PCS-AE8 (4'-6'), PCS-AW8 (0-2'), PCS-AW8 (2'-4'), and PCS-AW8 (4'-6'),	No	STARS Table 2 total VOCs/SVOCs and by TCLP	8021/8270
Petroleum/Chemical Storage Areas	PCS-G	21' x 17' 11' x 7'	2' bgs 6' bgs	PCS-G (0-2') and PCS-G (2'-4')	PCS-GA (0-2'), PCS-GA (2'-4'), PCS-GA (4'-6'), PCS-GN8 (0-2'), PCS-GN8 (2'-4'), PCS-GN8 (4'-6'), PCS-GS8 (0-2'), PCS-GS8 (2'-4'), PCS-GS8 (4'-6'), PCS-GE8 (0-2'), PCS-GE8 (2'-4'), PCS-GE8 (4'-6'), PCS-GW8 (0-2'), PCS-GW8 (2'-4') and PCS-GW8 (4'-6')	No	STARS Table 2 total VOCs/SVOCs and by TCLP	8021/8270

Notes:
bpb: Below pit bottom.
bgs: Below ground surface.
CaPAHs: Carcinogenic Polycyclic Aromatic Hydrocarbons
N/A: Not Applicable

1. An underground storage tank closure will be conducted. The area will be excavated to determine whether abandoned USTs or remnants of USTs and/or associated structures are present below the surface. Any impacted soil and concrete will be excavated for proper off-site transportation and disposal.

2. Analytical results from the Supplemental and Delineation Phase II Site Assessments are included in Attachments 2 and 3, respectively.

ATTACHMENT 2

TABLE F-1
NORTHROP GRUMMAN CORPORATION
PLANT 12 - PRIMARY PRESSURE LABORATORY
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
MERCURY

LABORATORY	NEI	NEI	IEA	NEI	NEI	IEA	NEI	NEI	IEA	EASTERN USA BACKGROUND LEVEL
SAMPLE IDENTIFICATION	PPL-AC	PPL-2AC*	PPL-2AC*	PPL-A	PPL-2A1*	PPL-2A1*	PPL-A	PPL-2A2*	PPL-2A2*	
SAMPLE DEPTH	0 - 0.5'	0 - 0.5'	0 - 0.5'	0 - 2'	0 - 2'	0 - 2'	2' - 4'	2' - 4'	2' - 4'	
DATE OF COLLECTION	4/30/96	7/29/96	7/29/96	4/30/96	7/29/96	7/29/96	4/30/96	7/29/96	7/29/96	
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	97	94	97.8	93.6	92	94.5	97.5	99	98.8	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Mercury (Core)	U	U	1.0	--	--	--	--	--	--	--
Mercury (Soil)	--	--	--	1	U	U	2.1	U	U	0.001-0.2

QUALIFIERS
U: Constituent analyzed for but not detected.

NOTES
-- :Not applicable.
☐ :Value exceeds Eastern USA Background Level.
* : "Confirmatory mercury sampling" result.
NEI: Nytest Environmental, Inc.
IEA: IEA Laboratory, Inc.

TABLE F-1 (Continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - PRIMARY PRESSURE LABORATORY
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
MERCURY

LABORATORY	NEI	NEI	IEA	NEI	NEI	IEA	NEI	NEI	IEA	EASTERN
SAMPLE IDENTIFICATION	PPL-BC	PPL-2BC*	PPL-2BC*	PPL-B	PPL-2B1*	PPL-2B1*	PPL-B	PPL-2B2*	PPL-2B2*	USA
SAMPLE DEPTH	0 - 0.5'	0 - 0.5'	0 - 0.5'	0 - 2'	0 - 2'	0 - 2'	2' - 4'	2' - 4'	2' - 4'	BACKGROUND
DATE OF COLLECTION	4/30/96	7/29/96	7/29/96	4/30/96	7/29/96	7/29/96	4/30/96	7/29/96	7/29/96	LEVEL
DILUTION FACTOR	1	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	96.5	94	97.9	77.7	90	88.9	96.7	99	97.8	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Mercury (Core)	0.22	U	0.48	--	--	--	--	--	--	--
Mercury (Soil)	--	--	--	0.71	U	U	0.84	U	U	0.001-0.2

QUALIFIERS
U: Analyzed for but not detected.

NOTES
-- :Not applicable.
□ :Value exceeds Eastern USA Background Level.
* : "Confirmatory mercury sampling" result.
NEI: Nytest Environmental, Inc.
IEA: IEA Laboratory, Inc.

TABLE F-2
NORTHROP GRUMMAN CORPORATION
PLANT 12 - FLUID FLOW LABORATORY
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	FFL-AC	FFL-A	FFL-A	FFL-BC	FFL-B	FFL-B	CONTRACT REQUIRED DETECTION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 0.5'	0 - 2'	2' - 4'	0 - 0.5'	0 - 2'	2' - 4'		
DATE OF COLLECTION	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96	04/30/96		
DILUTION FACTOR	1	1	5	1	1	1		
PERCENT SOLIDS	96	93	93	97	87	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	1,800	600	U	U	U	U	330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	330	----
2-Chlorophenol	U	U	U	U	U	U	330	800
1,3-Dichlorobenzene	U	U	U	U	U	U	330	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	330	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	330	7,900
2-Methylphenol	U	U	U	U	U	U	330	100 OR MDL
2,2'-oxybis(1-chloropropane)	U	U	U	U	U	U	330	----
4-Methylphenol	U	U	U	U	U	U	330	900
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	330	----
Hexachloroethane	U	U	U	U	U	U	330	----
Nitrobenzene	U	U	U	U	U	U	330	200 OR MDL
Isophorone	U	U	U	U	U	U	330	4,400
2-Nitrophenol	U	U	U	U	U	U	330	330 OR MDL
2,4-Dimethylphenol	U	U	U	U	U	U	330	----
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	330	----
2,4-Dichlorophenol	U	U	U	U	U	U	330	400
1,2,4-Trichlorobenzene	U	U	U	U	U	U	330	3,400
Naphthalene	U	U	U	U	U	U	330	13,000
4-Chloroaniline	U	U	U	U	U	U	330	220 OR MDL
Hexachlorobutadiene	U	U	U	U	U	U	330	----
4-Chloro-3-methylphenol	U	U	U	U	U	U	330	240 OR MDL
2-Methylnaphthalene	U	U	U	U	U	U	330	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	330	----
2,4,6-Trichlorophenol	U	U	U	U	U	U	330	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	800	100
2-Chloronaphthalene	U	U	U	U	U	U	330	----
2-Nitroaniline	U	U	U	U	U	U	800	430 OR MDL
Dimethylphthalate	U	U	U	U	U	U	330	2,000
Acenaphthylene	U	U	U	U	U	U	330	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	330	1,000
3-Nitroaniline	U	U	U	U	U	U	800	500 OR MDL
Acenaphthene	U	U	U	U	U	U	330	50,000
2,4-Dinitrophenol	U	U	U	U	U	U	800	200 OR MDL
4-Nitrophenol	U	U	U	U	U	U	800	100 OR MDL

TABLE F-2 (Continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - FLUID FLOW LABORATORY
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	FFL-AC	FFL-A	FFL-A	FFL-BC	FFL-B	FFL-B	CONTRACT REQUIRED DETECTION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 0.5'	0 - 2'	2' - 4'	0 - 0.5'	0 - 2'	2' - 4'		
DATE OF COLLECTION	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96	04/30/96		
DILUTION FACTOR	1	1	5	1	1	1		
PERCENT SOLIDS	96	93	93	97	87	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Dibenzofuran	U	U	U	U	U	U	330	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	330	---
Diethylphthalate	U	U	U	U	93 J	U	330	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	330	---
Fluorene	U	U	U	U	U	U	330	50,000
4-Nitroaniline	U	U	U	U	U	U	800	---
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	800	---
N-Nitrosodiphenylamine	U	U	U	U	U	U	330	---
4-Bromophenyl-phenylether	U	U	U	U	U	U	330	---
Hexachlorobenzene	U	U	U	U	U	U	330	410
Pentachlorophenol	U	U	U	U	U	U	800	1,000 OR MDL
Phenanthrene	U	U	U	U	U	U	330	50,000
Anthracene	U	U	U	U	U	U	330	50,000
Carbazole	U	U	U	U	U	U	330	---
Di-n-butylphthalate	23,000 D	1,800	760 J	U	U	U	330	8,100
Fluoranthene	U	U	U	U	U	U	330	50,000
Pyrene	U	U	U	U	45 J	U	330	50,000
Butylbenzylphthalate	5,600 D	2,400	6,500	U	U	U	330	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	330	---
Benzo(a)anthracene	U	U	U	U	U	U	330	224 OR MDL
Chrysene	U	U	U	U	U	U	330	400
bis(2-Ethylhexyl)phthalate	U	50 J	U	U	U	U	330	50,000
Di-n-octylphthalate	U	U	U	U	U	U	330	50,000
Benzo(b)fluoranthene	U	U	U	U	U	U	330	1,100
Benzo(k)fluoranthene	U	U	U	U	U	U	330	1,100
Benzo(a)pyrene	U	U	U	U	U	U	330	61 OR MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	330	3,200
Dibenzo(a,h)anthracene	U	U	U	U	U	U	330	14 OR MDL
Benzo(g,h,i)perylene	U	U	U	U	U	U	330	50,000
TOTAL CaPAHs	0	0	0	0	0	0		10,000*
TOTAL SVOCs	30,400	4,850	7,260	0	138	0		500,000

QUALIFIERS
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
D: Result taken from the 1:10 dilution.

NOTES
---: Not established.
: Value exceeds TAGM 4046 Appendix A criteria.
MDL: Method Detection Limit.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE F-3
NORTHROP GRUMMAN CORPORATION
PLANT 12 - FLUID FLOW LABORATORY
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS & FUEL-RELATED CONSTITUENTS

SAMPLE IDENTIFICATION	FFL-AC	FFL-A	FFL-A	FFL-BC	FFL-B	FFL-B
SAMPLE DEPTH	0 - 0.5'	0 - 2'	2' - 4'	0 - 0.5'	0 - 2'	2' - 4'
DATE OF COLLECTION	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96
DILUTION FACTOR	1	1	1	1	1	1
PERCENT SOLIDS	96	93	93	97	87	93
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	52	42	130	66	U	U
Fuel-Related Constituents:						
TPH (as Gasoline)	U	U	U	U	U	U
TPH (as Kerosene)	U	U	U	U	U	U
TPH (as #2 Fuel Oil)	U	U	U	U	U	U
TPH (as #6 Fuel Oil)	U	U	U	U	U	U
TPH (as Lubricating Oil)	U	U	U	U	U	U
10W40 Motor Oil	7 J	8 J	35 J	85	27 J	U

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

TABLE F-4
NORTHROP GRUMMAN CORPORATION
PLANT 12 - PUMP ROOM
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

LABORATORY	NEI	NEI	IEA	NEI	NEI	IEA	NEI	NEI	IEA	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	PR-BC	PR-2BC*	PR-2BC*	PR-B	PR-2B1*	PR-2B1*	PR-B	PR-2B2*	PR-2B2*		
SAMPLE DEPTH	0 - 0.5'	0 - 0.5'	0 - 0.5'	0 - 2'	0 - 2'	0 - 2'	2' - 4'	2' - 4'	2' - 4'		
DATE OF COLLECTION	5/1/96	7/29/96	7/29/96	5/1/96	7/29/96	7/29/96	5/1/96	7/29/96	7/29/96		
DILUTION FACTOR	1	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	94	89	91.8	91	94	98.6	95	97	96.6		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	NA	NA	U	NA	NA	U	NA	NA	31	---
Arsenic	U	NA	NA	4.2	NA	NA	1.7 B	NA	NA	5	3-12**
Beryllium	U	NA	NA	U	NA	NA	U	NA	NA	4	0-1.75
Cadmium	0.26 B	NA	NA	U	NA	NA	U	NA	NA	2	0.1-1, (10****)
Chromium	17.9	NA	NA	10	NA	NA	4.7	NA	NA	4	1.5-40**, (50****)
Copper	21.8	NA	NA	24.3	NA	NA	25.7	NA	NA	10	1-50
Lead	2.7	NA	NA	6.9	NA	NA	4.3	NA	NA	35	200-500***
Mercury	0.27	U	U	0.37	U	U	0.46	U	U	0.2	0.001-0.2
Nickel	5.2 B	NA	NA	5.7 B	NA	NA	3.3 B	NA	NA	38	0.5-25
Selenium	U	NA	NA	1.4	NA	NA	U	NA	NA	5	0.1-3.9
Silver	0.53 B	NA	NA	0.4 B	NA	NA	U	NA	NA	7	---
Thallium	1.4 B	NA	NA	3.6	NA	NA	1.3 B	NA	NA	5	---
Zinc	54.5	NA	NA	22.3	NA	NA	16.7	NA	NA	12	9-50

QUALIFIERS
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

NOTES
NA : Not analyzed for.
--- : Not established.
* : "Confirmatory mercury sampling" results.
** : New York State Background.
*** : Background for metropolitan or suburban areas.
**** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
☐ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals..
NEI: Nytest Environmental, Inc.
IEA: IEA Laboratory, Inc.

TABLE F-5
NORTHROP GRUMMAN CORPORATION
PLANT 12 - PUMP ROOM
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE IDENTIFICATION	PR-BC	PR-B	PR-B
SAMPLE DEPTH	0 - 0.5'	0 - 2'	2' - 4'
DATE OF COLLECTION	5/1/96	5/1/96	5/1/96
DILUTION FACTOR	1	1	1
PERCENT SOLIDS	94	91	95
UNITS	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	280	U	U
Fuel-Related Constituents:			
TPH (as Gasoline)	U	U	U
TPH (as Kerosene)	U	U	U
TPH (as #2 Fuel Oil)	U	U	U
TPH (as #6 Fuel Oil)	U	U	U
TPH (as Lubricating Oil)	U	U	U
10W40 Motor Oil	U	390	U

QUALIFIERS
U: Compound analyzed for but not detected.

TABLE F-6
NORTHROP GRUMMAN CORPORATION
SUPPLEMENTAL PHASE II SITE ASSESSMENT
PLANT 12 - BASEMENT AREA
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	BA-A	BA-A	CONTRACT REQUIRED DETECTION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	16' - 18'	20' - 22'		
DATE OF COLLECTION	5/1/96	5/1/96		
DILUTION FACTOR	1	1		
PERCENT SOLIDS	96	91		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	10	----
Bromomethane	U	U	10	----
Vinyl Chloride	U	U	10	200
Chloroethane	U	U	10	1,900
Methylene Chloride	6 JB	12	10	100
Acetone	5 J	18 B	10	200
Carbon Disulfide	U	U	10	2,700
1,1-Dichloroethene	U	U	10	400
1,1-Dichloroethane	U	U	10	200
1,2-Dichloroethene (total)	U	U	10	300
Chloroform	U	U	10	300
1,2-Dichloroethane	U	U	10	100
2-Butanone	U	U	10	300
1,1,1-Trichloroethane	U	U	10	800
Carbon Tetrachloride	U	U	10	600
Bromodichloromethane	U	U	10	----
1,2-Dichloropropane	U	U	10	----
cis-1,3-Dichloropropene	U	U	10	----
Trichloroethene	U	U	10	700
Dibromochloromethane	U	U	10	----
1,1,2-Trichloroethane	U	U	10	----
Benzene	U	U	10	60
Trans-1,3-Dichloropropene	U	U	10	----
Bromoform	U	U	10	----
4-Methyl-2-Pentanone	U	U	10	1,000
2-Hexanone	U	U	10	----
Tetrachloroethene	U	U	10	1,400
1,1,2,2-Tetrachloroethane	U	U	10	600
Toluene	U	U	10	1,500
Chlorobenzene	U	U	10	1,700
Ethylbenzene	U	U	10	5,500
Styrene	U	U	10	----
Total Xylenes	U	U	10	1,200
Freon 113	U	U	10	6,000
Vinyl Acetate	U	U	10	----
TOTAL VOCs	11	30		10,000

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

NOTES
----: Not established.

TABLE F-7
NORTHROP GRUMMAN CORPORATION
SUPPLEMENTAL PHASE II SITE ASSESSMENT
PLANT 12 - BASEMENT AREA
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	BA-A	BA-A	CONTRACT REQUIRED DETECTION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	16' - 18'	20' - 22'		
DATE OF COLLECTION	5/1/96	5/1/96		
DILUTION FACTOR	1	1		
PERCENT SOLIDS	96	91		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	330	---
2-Chlorophenol	U	U	330	800
1,3-Dichlorobenzene	U	U	330	1,600
1,4-Dichlorobenzene	U	U	330	8,500
1,2-Dichlorobenzene	U	U	330	7,900
2-Methylphenol	U	U	330	100 OR MDL
2,2'-oxybis(1-chloropropane)	U	U	330	---
4-Methylphenol	U	U	330	900
N-Nitroso-di-n-propylamine	U	U	330	---
Hexachloroethane	U	U	330	---
Nitrobenzene	U	U	330	200 OR MDL
Isophorone	U	U	330	4,400
2-Nitrophenol	U	U	330	330 OR MDL
2,4-Dimethylphenol	U	U	330	---
bis(2-Chloroethoxy)methane	U	U	330	---
2,4-Dichlorophenol	U	U	330	400
1,2,4-Trichlorobenzene	U	U	330	3,400
Naphthalene	U	U	330	13,000
4-Chloroaniline	U	U	330	220 OR MDL
Hexachlorobutadiene	U	U	330	---
4-Chloro-3-methylphenol	U	U	330	240 OR MDL
2-Methylnaphthalene	U	U	330	36,400
Hexachlorocyclopentadiene	U	U	330	---
2,4,6-Trichlorophenol	U	U	330	---
2,4,5-Trichlorophenol	U	U	800	100
2-Chloronaphthalene	U	U	330	---
2-Nitroaniline	U	U	800	430 OR MDL
Dimethylphthalate	U	U	330	2,000
Acenaphthylene	U	U	330	41,000
2,6-Dinitrotoluene	U	U	330	1,000
3-Nitroaniline	U	U	800	500 OR MDL
Acenaphthene	U	U	330	50,000
2,4-Dinitrophenol	U	U	800	200 OR MDL
4-Nitrophenol	U	U	800	100 OR MDL

TABLE F-7 (Continued)
NORTHROP GRUMMAN CORPORATION
SUPPLEMENTAL PHASE II SITE ASSESSMENT
PLANT 12 - BASEMENT AREA
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	BA-A	BA-A	CONTRACT REQUIRED DETECTION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	16' - 18'	20' - 22'		
DATE OF COLLECTION	5/1/96	5/1/96		
DILUTION FACTOR	1	1		
PERCENT SOLIDS	96	91		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Dibenzofuran	U	U	330	6,200
2,4-Dinitrotoluene	U	U	330	---
Diethylphthalate	U	U	330	7,100
4-Chlorophenyl-phenylether	U	U	330	---
Fluorene	U	U	330	50,000
4-Nitroaniline	U	U	800	---
4,6-Dinitro-2-methylphenol	U	U	800	---
N-Nitrosodiphenylamine	U	U	330	---
4-Bromophenyl-phenylether	U	U	330	---
Hexachlorobenzene	U	U	330	410
Pentachlorophenol	U	U	800	1,000 OR MDL
Phenanthrene	U	U	330	50,000
Anthracene	U	U	330	50,000
Carbazole	U	U	330	---
Di-n-butylphthalate	U	99 J	330	8,100
Fluoranthene	U	U	330	50,000
Pyrene	U	U	330	50,000
Butylbenzylphthalate	U	U	330	50,000
3,3'-Dichlorobenzidine	U	U	330	---
Benzo(a)anthracene	U	U	330	224 OR MDL
Chrysene	U	U	330	400
bis(2-Ethylhexyl)phthalate	U	46 J	330	50,000
Di-n-octylphthalate	U	U	330	50,000
Benzo(b)fluoranthene	U	U	330	1,100
Benzo(k)fluoranthene	U	U	330	1,100
Benzo(a)pyrene	U	U	330	61 OR MDL
Indeno(1,2,3-cd)pyrene	U	U	330	3,200
Dibenzo(a,h)anthracene	U	U	330	14 OR MDL
Benzo(g,h,i)perylene	U	U	330	50,000
TOTAL CaPAHs	0	0		10,000*
TOTAL SVOCs	0	145		500,000

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

NOTES
---: Not established.
MDL: Method Detection Limit.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE F-8
NORHTROP GRUMMAN CORPORATION
PLANT 12 - BASEMENT AREA
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

LABORATORY	NEI	NEI	IEA	NEI	NEI	IEA	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	BA-A	BA2-A1*	BA2-A1*	BA-A	BA2-A2*	BA2-A2*		
SAMPLE DEPTH	16' - 18'	16' - 18'	16' - 18'	20' - 22'	20' - 22'	20' - 22'		
DATE OF COLLECTION	5/1/96	7/29/96	7/29/96	5/1/96	7/29/96	7/29/96		
DILUTION FACTOR	1	1	1	1	1	1		
PERCENT SOLIDS	96	97	96.2	91	97	97.2		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	NA	NA	U	NA	NA	31	----
Arsenic	0.41 B	NA	NA	2.4	NA	NA	5	3-12**
Beryllium	0.08 B	NA	NA	0.07 B	NA	NA	4	0-1.75
Cadmium	U	NA	NA	U	NA	NA	2	0.1-1, (10****)
Chromium	3.3	NA	NA	11.2	NA	NA	4	1.5-40**, (50****)
Copper	28	NA	NA	23.6	NA	NA	10	1-50
Lead	2.3	NA	NA	2.8	NA	NA	35	200-500***
Mercury	**1.9**	U	U	**0.35**	U	U	0.2	0.001-0.2
Nickel	2.1 B	NA	NA	2.9 B	NA	NA	38	0.5-25
Selenium	U	NA	NA	U	NA	NA	5	0.1-3.9
Silver	U	NA	NA	U	NA	NA	7	----
Thallium	1.5 B	NA	NA	1.8 B	NA	NA	5	----
Zinc	**55.4**	NA	NA	**67.2**	NA	NA	12	9-50

QUALIFIERS
U : Constituent analyzed for but not detected.
B : Constituent concentration is less than the CRDL, but greater than the IDL.

NOTES
NA :Not analyzed for.
---- : Not established.
[ ] : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* :"Confirmatory mercury sampling" results.
** : New York State Background.
*** : Background for metropolitan or suburban areas.
**** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
NEI: Nytest Environmental, Inc.
IEA: IEA Laboratory, Inc.

TABLE F-9
NORTHROP GRUMMAN CORPORATION
SUPPLEMENTAL PHASE II SITE ASSESSMENT
PLANT 12 - SUB-BASEMENT AREA
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	MSA-B	MSA-B	CONTRACT REQUIRED DETECTION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	22' - 24'	26' - 28'		
DATE OF COLLECTION	5/1/96	5/1/96		
DILUTION FACTOR	1	1		
PERCENT SOLIDS	85	91		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	10	----
Bromomethane	U	U	10	----
Vinyl Chloride	U	U	10	200
Chloroethane	U	U	10	1,900
Methylene Chloride	18	44	10	100
Acetone	22	26 B	10	200
Carbon Disulfide	U	U	10	2,700
1,1-Dichloroethene	U	U	10	400
1,1-Dichloroethane	U	U	10	200
1,2-Dichloroethene (total)	U	U	10	300
Chloroform	U	U	10	300
1,2-Dichloroethane	U	U	10	100
2-Butanone	U	U	10	300
1,1,1-Trichloroethane	U	U	10	800
Carbon Tetrachloride	U	U	10	600
Bromodichloromethane	U	U	10	----
1,2-Dichloropropane	U	U	10	----
cis-1,3-Dichloropropene	U	U	10	----
Trichloroethene	U	U	10	700
Dibromochloromethane	U	U	10	----
1,1,2-Trichloroethane	U	U	10	----
Benzene	U	U	10	60
Trans-1,3-Dichloropropene	U	U	10	----
Bromoform	U	U	10	----
4-Methyl-2-Pentanone	U	U	10	1,000
2-Hexanone	U	U	10	----
Tetrachloroethene	U	U	10	1,400
1,1,2,2-Tetrachloroethane	U	U	10	600
Toluene	U	U	10	1,500
Chlorobenzene	U	U	10	1,700
Ethylbenzene	U	U	10	5,500
Styrene	U	U	10	----
Total Xylenes	U	U	10	1,200
Freon 113	U	U	10	6,000
Vinyl Acetate	U	U	10	----
TOTAL VOCs	40	70		10,000

QUALIFIERS
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.

NOTES
—: Not established.

TABLE F-10
NORTHROP GRUMMAN CORPORATION
PLANT 12 - SUB-BASEMENT AREA
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	MSA-B	MSA-B	CONTRACT	NYSDEC
SAMPLE DEPTH	22' - 24'	26' - 28'	REQUIRED	TAGM 4046
DATE OF COLLECTION	5/1/96	5/1/96	DETECTION	APPENDIX A
DILUTION FACTOR	1	1	LIMITS	CRITERIA
PERCENT SOLIDS	85	91		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	330	30 OR MDL
bis(2-Chloroethyl)ether	U	U	330	----
2-Chlorophenol	U	U	330	800
1,3-Dichlorobenzene	U	U	330	1,600
1,4-Dichlorobenzene	U	U	330	8,500
1,2-Dichlorobenzene	U	U	330	7,900
2-Methylphenol	U	U	330	100 OR MDL
2,2'-oxybis(1-chloropropane)	U	U	330	----
4-Methylphenol	U	U	330	900
N-Nitroso-di-n-propylamine	U	U	330	----
Hexachloroethane	U	U	330	----
Nitrobenzene	U	U	330	200 OR MDL
Isophorone	U	U	330	4,400
2-Nitrophenol	U	U	330	330 OR MDL
2,4-Dimethylphenol	U	U	330	----
bis(2-Chloroethoxy)methane	U	U	330	----
2,4-Dichlorophenol	U	U	330	400
1,2,4-Trichlorobenzene	U	U	330	3,400
Naphthalene	U	U	330	13,000
4-Chloroaniline	U	U	330	220 OR MDL
Hexachlorobutadiene	U	U	330	----
4-Chloro-3-methylphenol	U	U	330	240 OR MDL
2-Methylnaphthalene	U	U	330	36,400
Hexachlorocyclopentadiene	U	U	330	----
2,4,6-Trichlorophenol	U	U	330	----
2,4,5-Trichlorophenol	U	U	800	100
2-Chloronaphthalene	U	U	330	----
2-Nitroaniline	U	U	800	430 OR MDL
Dimethylphthalate	U	U	330	2,000
Acenaphthylene	U	U	330	41,000
2,6-Dinitrotoluene	U	U	330	1,000
3-Nitroaniline	U	U	800	500 OR MDL
Acenaphthene	U	U	330	50,000
2,4-Dinitrophenol	U	U	800	200 OR MDL
4-Nitrophenol	U	U	800	100 OR MDL

TABLE F-10 (Continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - SUB-BASEMENT AREA
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	MSA-B		MSA-B		CONTRACT REQUIRED DETECTION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	22' - 24'		26' - 28'			
DATE OF COLLECTION	5/1/96		5/1/96			
DILUTION FACTOR	1		1			
PERCENT SOLIDS	85		91			
UNITS	(ug/kg)		(ug/kg)		(ug/kg)	(ug/kg)
Dibenzofuran		U		U	330	6,200
2,4-Dinitrotoluene		U		U	330	----
Diethylphthalate		U		U	330	7,100
4-Chlorophenyl-phenylether		U		U	330	----
Fluorene		U		U	330	50,000
4-Nitroaniline		U		U	800	----
4,6-Dinitro-2-methylphenol		U		U	800	----
N-Nitrosodiphenylamine		U		U	330	----
4-Bromophenyl-phenylether		U		U	330	----
Hexachlorobenzene		U		U	330	410
Pentachlorophenol		U		U	800	1,000 OR MDL
Phenanthrene		U		U	330	50,000
Anthracene		U		U	330	50,000
Carbazole		U		U	330	----
Di-n-butylphthalate		U		U	330	8,100
Fluoranthene		U		U	330	50,000
Pyrene		U		U	330	50,000
Butylbenzylphthalate		U		U	330	50,000
3,3'-Dichlorobenzidine		U		U	330	----
Benzo(a)anthracene		U		U	330	224 OR MDL
Chrysene		U		U	330	400
bis(2-Ethylhexyl)phthalate		U		U	330	50,000
Di-n-octylphthalate		U		U	330	50,000
Benzo(b)fluoranthene		U		U	330	1,100
Benzo(k)fluoranthene		U		U	330	1,100
Benzo(a)pyrene		U		U	330	61 OR MDL
Indeno(1,2,3-cd)pyrene		U		U	330	3,200
Dibenzo(a,h)anthracene		U		U	330	14 OR MDL
Benzo(g,h,i)perylene		U		U	330	50,000
TOTAL CaPAHs	0		0			10,000*
TOTAL SVOCs	0		0			500,000

QUALIFIERS
U: Compound analyzed for but not detected.

NOTES
---- : Not established.
MDL : Method Detection Limit.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE F-11
NORTHROP GRUMMAN CORPORATION
SUPPLEMENTAL PHASE II SITE ASSESSMENT
PLANT 12 - SUB-BASEMENT AREA
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

LABORATORY	NEI	NEI	IEA	NEI	NEI	IEA	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	MSA-B	MSA-2B1*	MSA-2B1*	MSA-B	MSA-2B2*	MSA-2B2*		
SAMPLE DEPTH	22' - 24'	22' - 24'	22' - 24'	26' - 28'	26' - 28'	26' - 28'		
DATE OF COLLECTION	5/1/96	7/29/96	7/29/96	5/1/96	7/29/96	7/29/96		
DILUTION FACTOR	1	1	1	1	1	1		
PERCENT SOLIDS	85	97	96.9	91	97	96.4		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	NA	NA	U	NA	NA	31	----
Arsenic	1.6 B	NA	NA	0.78 B	NA	NA	5	3-12**
Beryllium	0.03 B	NA	NA	0.06 B	NA	NA	4	0-1.75
Cadmium	U	NA	NA	U	NA	NA	2	0.1-1, (10****)
Chromium	3.3	NA	NA	2.5	NA	NA	4	1.5-40**, (50****)
Copper	14.8	NA	NA	14.9	NA	NA	10	1-50
Lead	1.4	NA	NA	1.1	NA	NA	35	200-500***
Mercury	U	U	U	0.19	U	U	0.2	0.001-0.2
Nickel	1.9 B	NA	NA	0.96 B	NA	NA	38	0.5-25
Selenium	U	NA	NA	U	NA	NA	5	0.1-3.9
Silver	U	NA	NA	U	NA	NA	7	----
Thallium	0.95 B	NA	NA	0.8 B	NA	NA	5	----
Zinc	15.7	NA	NA	8	NA	NA	12	9-50

QUALIFIERS
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

NOTES
NA : Not analyzed for.
---- : Not established.
* : "Confirmatory mercury sampling" results.
** : New York State Background.
*** : Background for metropolitan or suburban areas.
**** : Proposed revised criteria for cadmuim and chromium in TAGM 4046 Appendix A.
NEI: Nytest Environmental, Inc.
IEA: IEA Laboratory, Inc.

TABLE F-12
NORTHROP GRUMMAN CORPORATION
PLANT 12 - MEGAPOUND TEST LABORATORY
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

LABORATORY	NEI	NEI	IEA	NEI	IEA	NEI	NEI	NEI	IEA	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	MTL-BC	MTL-2BC*	MTL-2BC*	MTL-B	MTL-2B1*	MTL-2B1*	MTL-B	MTL-2B2*	MTL-2B2*		
SAMPLE DEPTH	0 - 0.5'	0 - 0.5'	0 - 0.5'	0 - 2'	0 - 2'	0 - 2'	2' - 4'	2' - 4'	2' - 4'		
DATE OF COLLECTION	4/30/96	7/29/96	7/29/96	4/30/96	7/29/96	7/29/96	4/30/96	7/29/96	7/29/96		
DILUTION FACTOR	1	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	95	95	97.3	96	98	98.0	96	98	97.5		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	NA	NA	U	NA	NA	U	NA	NA	31	—
Arsenic	7.2	NA	NA	1.7 B	NA	NA	1.2 B	NA	NA	5	3-12**
Beryllium	U	NA	NA	U	NA	NA	U	NA	NA	4	0-1.75
Cadmium	U	NA	NA	U	NA	NA	U	NA	NA	2	0.1-1, (10****)
Chromium	8	NA	NA	2.6	NA	NA	2.2	NA	NA	4	1.5-40**, (50****)
Copper	9.9	NA	NA	8.6	NA	NA	5.4	NA	NA	10	1-50
Lead	U	NA	NA	1.8	NA	NA	1.9	NA	NA	35	200-500***
Mercury	U	U	U	0.21	U	U	0.23	U	U	0.2	0.001-0.2
Nickel	6.9 B	NA	NA	1.3 B	NA	NA	1.2 B	NA	NA	38	0.5-25
Selenium	U	NA	NA	U	NA	NA	U	NA	NA	5	0.1-3.9
Silver	9.2	NA	NA	0.17 B	NA	NA	U	NA	NA	7	---
Thallium	U	NA	NA	U	NA	NA	U	NA	NA	5	---
Zinc	24.9	NA	NA	9.1	NA	NA	11.1	NA	NA	12	9-50

QUALIFIERS
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

NOTES
NA : Not analyzed for.
— : Not established.
☐ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : "Confirmatory mercury sampling" results.
** : New York State Background.
*** : Background for metropolitan or suburban areas.
**** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
NEI: Nytest Environmental, Inc.
IEA: IEA Laboratory, Inc.

TABLE F-13
NORTHROP GRUMMAN CORPORATION
PLANT 12 - MEGAPOUND TEST LABORATORY
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

LABORATORY	NEI	NEI	IEA	NEI	NEI	IEA	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	MTL-A	MTL-2A1*	MTL-2A1*	MTL-A	MTL-2A2*	MTL-2A2*		
SAMPLE DEPTH	0 - 2'	0 - 2'	0 - 2'	2' - 4'	2' - 4'	2' - 4'		
DATE OF COLLECTION	4/30/96	7/29/96	7/29/96	4/30/96	7/29/96	7/29/96		
DILUTION FACTOR	1	1	1	1	1	1		
PERCENT SOLIDS	95	94	91.3	87	97	97.9		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	NA	NA	U	NA	NA	31	---
Arsenic	3.2	NA	NA	1.1 B	NA	NA	5	3-12**
Beryllium	U	NA	NA	U	NA	NA	4	0-1.75
Cadmium	U	NA	NA	U	NA	NA	2	0.1-1, (10****)
Chromium	7.9	NA	NA	1.4 B	NA	NA	4	1.5-40**, (50****)
Copper	6.3	NA	NA	2.3 B	NA	NA	10	1-50
Lead	4	NA	NA	1.2	NA	NA	35	200-500***
Mercury	0.11	U	U	1.1	U	U	0.2	0.001-0.2
Nickel	5.6 B	NA	NA	1.1 B	NA	NA	38	0.5-25
Selenium	U	NA	NA	U	NA	NA	5	0.1-3.9
Silver	U	NA	NA	U	NA	NA	7	---
Thallium	U	NA	NA	U	NA	NA	5	---
Zinc	17.1	NA	NA	9.5	NA	NA	12	9-50

QUALIFIERS
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

NOTES
NA : Not analyzed for.
--- : Not established.
☐ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.
* : "Confirmatory mercury sampling" results.
** : New York State Background.
*** : Background for metropolitan or suburban areas.
**** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
NEI: Nytest Environmental, Inc.
IEA: IEA Laboratory, Inc.

TABLE F-14
NORTHROP GRUMMAN CORPORATION
PLANT 12 - MEGAPOUND TEST LABORATORY
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE CORE AND SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE IDENTIFICATION	MTL-A	MTL-A	MTL-BC	MTL-B	MTL-B
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 0.5'	0 - 2'	2' - 4'
DATE OF COLLECTION	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96
DILUTION FACTOR	1	1	1	1	1
PERCENT SOLIDS	95	87	95	96	96
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	U	U	16,000	7,700	10,000
Fuel-Related Constituents:					
TPH (as Gasoline)	U	U	U	U	U
TPH (as Kerosene)	U	U	U	U	U
TPH (as #2 Fuel Oil)	U	U	U	U	U
TPH (as #6 Fuel Oil)	U	U	U	U	U
TPH (as Lubricating Oil)	U	U	U	U	U
10W40 Motor Oil	U	U	2,800	12,000 *	15,000 **

QUALIFIERS
U: Compound analyzed for but not detected.

NOTES
* : Result taken from the 1:5 dilution.
** : Result taken from the 1:10 dilution.

TABLE F-15
NORTHROP GRUMMAN CORPORATION
PLANT 12 - PETROLEUM/CHEMICAL STORAGE AREAS
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	PCS-A	PCS-A	PCS-B	PCS-C	PCS-C	PCS-D	PCS-D	CONTRACT REQUIRED DETECTION LIMIT	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96		
DILUTION FACTOR	1	1	1	1	1	1	1		
PERCENT SOLIDS	91	97	92	94	93	94	86		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	10	----
Bromomethane	U	U	U	U	U	U	U	10	----
Vinyl Chloride	U	U	U	U	U	U	U	10	200
Chloroethane	U	U	U	U	U	U	U	10	1,900
Methylene Chloride	8 JB	5 JB	9 JB	5 J	6 J	5 J	48	10	100
Acetone	U	U	12	U	U	U	U	10	200
Carbon Disulfide	U	U	U	U	U	U	U	10	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	10	400
1,1-Dichloroethane	U	U	U	U	U	U	U	10	200
1,2-Dichloroethene (total)	U	U	U	U	U	U	U	10	300
Chloroform	U	U	U	U	U	U	U	10	300
1,2-Dichloroethane	U	U	U	U	U	U	U	10	100
2-Butanone	U	U	U	U	U	U	U	10	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	10	800
Carbon Tetrachloride	U	U	U	U	U	U	U	10	600
Bromodichloromethane	U	U	U	U	U	U	U	10	----
1,2-Dichloropropane	U	U	U	U	U	U	15	10	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	10	----
Trichloroethene	U	U	U	U	U	U	9 J	10	700
Dibromochloromethane	U	U	U	U	U	U	U	10	----
1,1,2-Trichloroethane	U	U	U	U	U	U	U	10	----
Benzene	U	U	U	U	U	U	6 J	10	60
Trans-1,3-Dichloropropene	U	U	U	U	U	U	U	10	----
Bromoform	U	U	U	U	U	U	U	10	----
4-Methyl-2-Pentanone	U	U	U	U	U	U	U	10	1,000
2-Hexanone	U	U	U	U	U	U	U	10	----
Tetrachloroethene	U	U	U	U	U	U	11 J	10	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	10	600
Toluene	U	U	U	U	U	U	32	10	1,500
Chlorobenzene	U	U	U	U	U	U	U	10	1,700
Ethylbenzene	U	U	U	U	U	U	U	10	5,500
Styrene	U	U	U	U	U	U	U	10	----
Total Xylenes	U	U	U	U	U	U	U	10	1,200
Freon 113	U	U	U	U	U	U	U	10	6,000
Vinyl Acetate	U	U	U	U	U	U	U	10	----
TOTAL VOCs	8	5	21	5	6	5	121		10,000

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

NOTES
----: Not established.

TABLE F-15 (Continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - PETROLEUM/CHEMICAL STORAGE AREAS
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	PCS-E	PCS-E	PCS-F	PCS-F	PCS-G	PCS-G	CONTRACT REQUIRED DETECTION LIMIT	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/1/96	5/1/96	5/1/96	5/1/96	5/1/96	5/1/96		
DILUTION FACTOR	1	1	1	1	1	1		
PERCENT SOLIDS	86	88	88	97	89	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	10	----
Bromomethane	U	U	U	U	U	U	10	----
Vinyl Chloride	U	U	U	U	U	U	10	200
Chloroethane	U	U	U	U	U	U	10	1,900
Methylene Chloride	7 JB	6 JB	5 JB	5 JB	8 JB	7 JB	10	100
Acetone	U	U	U	U	U	U	10	200
Carbon Disulfide	U	U	U	U	U	U	10	2,700
1,1-Dichloroethene	U	U	U	U	U	U	10	400
1,1-Dichloroethane	U	U	U	U	U	U	10	200
1,2-Dichloroethene (total)	U	U	U	U	U	U	10	300
Chloroform	U	U	U	U	U	U	10	300
1,2-Dichloroethane	U	U	U	U	U	U	10	100
2-Butanone	U	U	U	U	U	U	10	300
1,1,1-Trichloroethane	U	U	U	U	U	U	10	800
Carbon Tetrachloride	U	U	U	U	U	U	10	600
Bromodichloromethane	U	U	U	U	U	U	10	----
1,2-Dichloropropane	U	U	U	U	U	U	10	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	10	----
Trichloroethene	U	U	U	U	U	U	10	700
Dibromochloromethane	U	U	U	U	U	U	10	----
1,1,2-Trichloroethane	U	U	U	U	U	U	10	----
Benzene	U	U	U	U	U	U	10	60
Trans-1,3-Dichloropropene	U	U	U	U	U	U	10	----
Bromoform	U	U	U	U	U	U	10	----
4-Methyl-2-Pentanone	U	U	U	U	U	U	10	1,000
2-Hexanone	U	U	U	U	U	U	10	----
Tetrachloroethene	U	U	U	U	U	U	10	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	10	600
Toluene	U	U	U	U	U	U	10	1,500
Chlorobenzene	U	U	U	U	U	U	10	1,700
Ethylbenzene	U	U	U	U	U	U	10	5,500
Styrene	U	U	U	U	U	U	10	----
Total Xylenes	U	U	U	U	U	U	10	1,200
Freon 113	U	U	U	U	U	U	10	6,000
Vinyl Acetate	U	U	U	U	U	U	10	----
TOTAL VOCs	7	6	5	5	8	7		10,000

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

NOTES
----: Not established.

TABLE F-16
NORTHROP GRUMMAN CORPORATION
PLANT 12 - PETROLEUM/CHEMICAL STORAGE AREAS
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE IDENTIFICATION	PCS-A	PCS-A	PCS-B	PCS-C	PCS-C	PCS-D	PCS-D
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	0 - 2'	2' - 4'	0 - 2'	2' - 4'
DATE OF COLLECTION	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96	4/30/96
DILUTION FACTOR	1	1	1	1	1	1	1
PERCENT SOLIDS	91	97	92	94	93	94	86
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	U	290	24	U	45	32	63
Fuel-Related Constituents:							
TPH (as Gasoline)	U	U	U	U	U	U	U
TPH (as Kerosene)	U	U	U	U	U	U	U
TPH (as #2 Fuel Oil)	U	U	U	U	U	U	U
TPH (as #6 Fuel Oil)	U	U	U	U	U	U	U
TPH (as Lubricating Oil)	U	U	U	U	U	U	U
10W40 Motor Oil	170	7 J	18 J	U	48 J	24 J	200

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

TABLE F-16 (Continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - PETROLEUM/CHEMICAL STORAGE AREAS
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE IDENTIFICATION	PCS-E	PCS-E	PCS-F	PCS-F	PCS-G	PCS-G
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'
DATE OF COLLECTION	5/1/96	5/1/96	5/1/96	5/1/96	5/1/96	5/1/96
DILUTION FACTOR	1	1	1	1	1	1
PERCENT SOLIDS	86	88	88	97	89	93
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	U	12	U	16	290	2,400
Fuel-Related Constituents:						
TPH (as Gasoline)	U	U	U	U	U	U
TPH (as Kerosene)	U	U	U	U	U	U
TPH (as #2 Fuel Oil)	U	U	U	U	U	U
TPH (as #6 Fuel Oil)	U	U	U	U	U	U
TPH (as Lubricating Oil)	U	U	U	U	U	U
10W40 Motor Oil	U	U	27 J	28 J	25 J	18 J

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

TABLE G-1
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Fluid Calibration (Fluid Flow) Lab		Liquid Flow Lab		Machine Shop		Tank Room		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-1A	B-1A	B-2A	B-2A	B-3A	B-3A	B-4A	B-4A		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	6' - 7'		
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97		
DILUTION FACTOR	1	1	1	1	5	1	1	1		
PERCENT SOLIDS	90	88	88	97	90	92	90	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	----
Bromomethane	U	U	U	U	U	U	U	U	1.0	----
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	2.4 B	1.7 B	2.8 B	1.2 B	67 B	2.1 B	9.6 B	8.7 B	1.0	100
Acetone	30	4.2 J	5 J	5.5	87	18	U	10	5.2	200
Carbon Disulfide	U	U	U	U	4.2 J	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	8.2	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	13	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	----
Chloroform	U	U	U	U	3.7 J	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	1.7 J	5.2	300
1,1,1-Trichloroethane	1.4	U	1.3	U	200	U	0.6 J	1.7	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	----
Trichloroethene	U	U	U	U	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	----
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	----
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	----
Bromoform	U	U	U	U	U	U	U	U	1.0	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	----
Tetrachloroethene	U	U	U	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	----
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	33.8	5.9	9.1	6.7	383.1	20.1	10.2	22.1		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
---- : Not established.

TABLE G-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Comp Saw Room			Trench in EMT Lab No. 1		Trench in Staffed Machine Shop			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-5A	B-5B	B-5B	B-7A	B-7A	B-8A	B-8A	B-8B		
SAMPLE DEPTH	0 - 2'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	5/02/97	5/05/97	5/05/97	5/05/97	5/05/97	5/02/97	5/02/97	5/02/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	92	92	99	98	98	98	97	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	----
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	1.3 B	9.5 B	7.8 B	8.4 B	8.3 B	9.5 B	1.5 B	13 B	1.0	100
Acetone	61	U	U	U	6.4	6.1	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	----
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	6.3	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	U	U	0.8 J	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	----
Trichloroethene	U	U	U	U	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	----
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	----
Bromoform	U	U	U	U	U	U	U	U	1.0	----
4-Methyl-2-pentanone	4.7 J	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	----
Tetrachloroethene	U	U	U	U	U	0.8 J	1.1	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	0.8 J	U	U	1.0	—
Xylene (total)	2.3	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	75.6	9.5	7.8	8.4	14.7	17.2	3.4	13		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Trench in Staffed Machine Shop	Trench in Repair Lab No. 2		Autoclave Room (Pump Room)		Resin Transfer Molding Lab (Autoclave Lay-up Area)		External Pump House	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-8B	B-10A	B-10A	B-11A	B-11A	B-12A	B-12A	B-13A		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/05/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	97	99	99	99	99	98	96	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	----
Bromomethane	U	U	U	U	U	U	U	U	1.0	----
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	1.5 B	2.8 B	2.5 B	7.6 B	2.2 B	2.3 B	11 B	14 B	1.0	100
Acetone	U	8.4	7.4	4.9 J	4.1 J	U	11	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	----
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	5.1 J	U	5.2	300
1,1,1-Trichloroethane	1.1	0.6 J	U	U	1.3	U	U	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	----
Trichloroethene	U	U	U	U	U	U	U	0.7 J	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	----
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	----
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	----
Bromoform	U	U	U	U	U	U	U	U	1.0	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	----
Tetrachloroethene	U	0.9 J	U	0.6 J	2.3	U	U	1.0 J	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	0.5 J	U	U	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	1.9	1 J	U	1.2	U	U	U	1.0	----
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	2.6	15.1	10.9	13.1	11.1	2.3	27.1	15.7		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
---- : Not established.

TABLE G-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	External Pump House			Leaching Chamber Beneath Carpentry Shop		Sanitary Leaching Pool (South) Beneath Megapound		Basement/Sub-basement Areas		
SAMPLE IDENTIFICATION	B-13A	B-13B	B-13B	B-15A	B-15A	B-22D	B-22D	B-23A	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	8' - 10'	12' - 14'	12' - 14'	18' - 20'	1.5' - 3.5'		
DATE OF COLLECTION	5/05/97	5/05/97	5/05/97	5/14/97	5/14/97	5/06/97	5/06/97	5/01/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	94	94	95	96	94	95	96	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	15 B	11 B	7.7 B	3.0 B	U	11 B	10 B	4.3 B	1.0	100
Acetone	U	8.8	U	6.5	U	7.4	6.2	6.4	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	U	U	U	U	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	—
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	U	U	U	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	0.8 J	U	0.6 J	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	U	U	U	2.4	U	U	1.0	1,200
TOTAL VOCs	15	19.8	7.7	10.3	0	21.4	16.2	10.7		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Basement/Sub-basement Areas	Pt. of Gen /Haz. Wste Accu Area	Dry Wells Beneath Lobby/Loading Area, Facilities Maintenance Room and Carpentry Shop						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-23A	B-25A	B-26A	B-26A	B-26B	B-26B	B-26C	B-26C		
SAMPLE DEPTH	5.5' - 7.5'	4' - 6'	5' - 7'	7' - 9'	5' - 7'	7' - 9'	5' - 7'	9' - 11'		
DATE OF COLLECTION	5/01/97	4/29/97	4/29/97	4/29/97	4/29/97	4/29/97	4/30/97	4/30/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	96	89	92	85	96	97	93	99		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	2 B	3.0 B	5.6 B	7.4 B	4.9 B	6.1 B	3.8 B	3.2 B	1.0	100
Acetone	6.3	U	U	U	U	U	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	U	2.5	U	U	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	—
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	U	0.8 J	U	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	8.3	6.3	5.6	7.4	4.9	6.1	3.8	3.2		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Leaching Pool Beneath Megapound		Sump Pit/Trenches		Former Fuel Tanks at Carpentry Shop					
SAMPLE IDENTIFICATION	B-32A	B-32A	B-33A	B-33A	B-40A	B-40A	Field Blank	Field Blank	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	10' - 12'	12' - 14'	20' - 22'	24' - 26'	6' - 8'	8' - 10'	--	--		
DATE OF COLLECTION	4/30/97	4/30/97	4/23/97	4/23/97	5/14/97	5/14/97	4/23/97	5/02/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	89	86	97	97	99	99	--	--		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	---
Bromomethane	U	U	U	U	U	U	U	U	1.0	---
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	4.1 B	3.6 B	4.0 B	3.3 B	2.1 B	2 B	1.5	1.4	1.0	100
Acetone	16	10	U	U	29	U	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	5.6	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	1.5	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	---
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	1.2 J	U	U	U	2.3 J	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	1.8	U	U	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	---
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	---
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	---
Trichloroethene	U	U	U	U	1.6	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	---
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	---
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	---
Bromoform	U	U	U	U	U	U	U	U	1.0	---
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	---
Tetrachloroethene	U	U	U	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	1 J	1.3	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	---
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	21.3	13.6	4	3.3	39.3	3.3	1.5	7		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
-- : Not applicable.
--- : Not established.

TABLE G-2
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Liquid Flow Lab		Machine Shop		Tank Room		Comp Saw Room			
SAMPLE IDENTIFICATION	B-2A	B-2A	B-3A	B-3A	B-4A	B-4A	B-5A	B-5B	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	6' - 7'	0 - 2'	0 - 2'		
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/02/97	5/05/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	88	97	90	92	90	95	92	92		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	18 J	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	440	U	U	U	9.1 J	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	120 J	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	51	21	45	120	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	U	U	48 J	12 J	33 J	50 J	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	8 J	U	9.1 J	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Liquid Flow Lab		Machine Shop		Tank Room		Comp Saw Room		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-2A	B-2A	B-3A	B-3A	B-4A	B-4A	B-5A	B-5B		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	6' - 7'	0 - 2'	0 - 2'		
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/02/97	5/05/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	88	97	90	92	90	95	92	92		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	85	30	290	240	U	U	18	50,000
Dibenzofuran	U	U	52 J	21 J	120 J	120 J	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	U	U	96	40	280	210	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	61	39	910	470	2,100	1,300	U	U	18	50,000
Anthracene	20	U	220	150	570	370	U	U	18	50,000
Carbazole	U	U	78 J	22 J	260 J	180 J	U	U	360	----
Di-n-butylphthalate	U	U	350 J	U	220 J	U	U	U	360	8,100
Fluoranthene	420	45	1,200	850	2,700	1,400	U	U	18	50,000
Pyrene	320	32	910	660	2,100	1,000	U	U	18	50,000
Butylbenzylphthalate	820	370	290 J	U	1,400	U	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	400	24 U	530	440	1,200	570	U	U	18	224 or MDL
Chrysene	490	17 J	600	440	1,200	570	U	U	18	400
bis(2-Ethylhexyl)phthalate	U	95 J	84 J	U	77 J	U	88 J	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	620	16 J	680	530	1,500	600	U	U	18	1,100
Benzo(k)fluoranthene	260	U	310	210	620	280	U	U	18	1,100
Benzo(a)pyrene	440	13 J	500	440	1,200	490	U	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	280	7.3 J	290	250	820	290	U	U	18	3,200
Dibenzo(a,h)anthracene	67	U	75	58	210	77	U	U	18	14 or MDL
Benzo(g,h,i)perylene	270	7.6 J	300	240	800	270	U	U	18	50,000
TOTAL CaPAHs	2,557	77	2,985	2,368	6,750	2,877	0	0		10,000*
TOTAL SVOCs	4,468	666	8,245	4,884	17,754.1	8,137	97.1	0		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
—— : Not established.
MDL: Method Detection Limit.
[ ]: Value exceeds TAGM 4046 Appendix A Criteria.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Comp Saw Room	Trench in EMT Lab No. 1		Trench in Staffed Machine Shop				Trench in Repair Lab No. 2	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-5B	B-7A	B-7A	B-8A	B-8A	B-8B	B-8B	B-10A		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	5/05/97	5/05/97	5/05/97	5/02/97	5/02/97	5/02/97	5/02/97	5/02/97		
DILUTION FACTOR	1	5	2	1	1	10	10	1		
PERCENT SOLIDS	99	98	98	98	97	97	97	99		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	---
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	---
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	---
Pentachlorophenol	U	U	U	40 J	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	---
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	---
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	---
Hexachloroethane	U	U	U	U	U	4,800	U	U	360	---
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	---
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	U	U	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	420 J	U	U	360	---
2-Methylnaphthalene	U	U	U	U	U	U	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	---
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	---
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Comp Saw Room	Trench in EMT Lab No. 1		Trench in Staffed Machine Shop				Trench in Repair Lab No. 2	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-5B	B-7A	B-7A	B-8A	B-8A	B-8B	B-8B	B-10A		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	5/05/97	5/05/97	5/05/97	5/02/97	5/02/97	5/02/97	5/02/97	5/02/97		
DILUTION FACTOR	1	5	2	1	1	10	10	1		
PERCENT SOLIDS	99	98	98	98	97	97	97	99		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	U	40	U	U	U	18	50,000
Dibenzofuran	U	U	U	U	16 J	U	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	U	U	U	U	21	U	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	52 J	180 J	U	480	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	U	U	U	10 J	350	U	U	23	18	50,000
Anthracene	U	U	U	U	91	U	U	U	18	50,000
Carbazole	U	U	U	U	67 J	U	U	U	360	—
Di-n-butylphthalate	U	U	U	3,300	8,100	66,000	4,400	2,600	360	8,100
Fluoranthene	U	U	U	20	780	U	U	30	18	50,000
Pyrene	U	U	U	18	610	U	U	22	18	50,000
Butylbenzylphthalate	U	U	U	U	270 J	4,500	U	460	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	U	U	U	20	340	U	U	20	18	224 or MDL
Chrysene	U	U	U	13 J	440	U	U	13 J	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	160 J	990	1,500 J	U	1,200	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	U	U	U	16 J	450	U	U	14 J	18	1,100
Benzo(k)fluoranthene	U	U	U	8.8 J	180	U	U	U	18	1,100
Benzo(a)pyrene	U	U	U	9.3 J	270	U	U	9.7 J	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	150	U	U	U	18	3,200
Dibenzo(a,h)anthracene	U	U	U	U	47	U	U	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	U	U	130	U	U	U	18	50,000
TOTAL CaPAHs	0	0	0	67.1	1,877	0	0	56.7		10,000*
TOTAL SVOCs	0	0	0	3,615.1	13,394	77,400	4,400	4,871.7		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A Criteria.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Trench in Repair Lab No. 2	Autoclave Room (Pump Room)		Resin Transfer Molding Lab (Autoclave Lay-up Area)		External Pump House			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-10A	B-11A	B-11A	B-12A	B-12A	B-13A	B-13A	B-13B		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/05/97	5/05/97	5/05/97		
DILUTION FACTOR	1	1	1	10	1	2	5	1		
PERCENT SOLIDS	99	98	99	98	96	97	94	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	---
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	---
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	---
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	---
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	---
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	---
Hexachloroethane	U	U	U	U	U	U	U	U	360	---
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	---
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	U	U	U	41	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	---
2-Methylnaphthalene	U	U	U	U	U	19 J	39 J	36 J	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	---
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	---
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	63	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Trench in Repair Lab No. 2	Autoclave Room (Pump Room)		Resin Transfer Molding Lab (Autoclave Lay-up Area)		External Pump House			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-10A	B-11A	B-11A	B-12A	B-12A	B-13A	B-13A	B-13B		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/05/97	5/05/97	5/05/97		
DILUTION FACTOR	1	1	1	10	1	2	5	1		
PERCENT SOLIDS	99	98	99	98	96	97	94	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	9.6 J	U	U	U	U	22 J	280	240	18	50,000
Dibenzofuran	U	U	U	U	U	U	110 J	140 J	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	7.4 J	U	U	U	U	15 J	260	280	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	1,200	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	100	U	18	U	U	270	2,700	2,800	18	50,000
Anthracene	17	U	U	U	U	70	690	730	18	50,000
Carbazole	19 J	U	U	U	U	U	260 J	320 J	360	—
Di-n-butylphthalate	4,900	8,800	2,900	U	U	580 J	U	U	360	8,100
Fluoranthene	160	U	32	U	U	540	4,200	4,400	18	50,000
Pyrene	120	32 J	30	U	U	410	3,100	3,700	18	50,000
Butylbenzylphthalate	680	U	140 J	1,000 J	U	200 J	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	71	U	16 J	U	U	240	1,700	1,800	18	224 or MDL
Chrysene	77	U	U	U	U	270	1,700	2,100	18	400
bis(2-Ethylhexyl)phthalate	110 J	U	180 J	U	U	U	U	300 J	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	83	32 J	15 J	U	U	330	2,100	300	18	1,100
Benzo(k)fluoranthene	35	U	U	U	U	120	900	1,100	18	1,100
Benzo(a)pyrene	64	U	9.1 J	U	U	240	1,600	2,200	18	61 or MDL
Indeno(1,2,3-cd)pyrene	34	U	U	U	U	150	960	1,400	18	3,200
Dibenzo(a,h)anthracene	7.4 J	U	U	U	U	36	270	290	18	14 or MDL
Benzo(g,h,i)perylene	32	U	U	U	U	120	800	1,100	18	50,000
TOTAL CaPAHs	371.4	32	40.1	0	0	1,386	9,230	9,190		10,000*
TOTAL SVOCs	7,726.4	8,864	3,340.1	1,000	0	3,632	21,669	23,340		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A Criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	External Pump House	Leaching Chamber Beneath Carpentry Shop		Sanitary Leaching Pool (South) Beneath Megapound		Basement/Sub-basement Areas		Pt. of Gen./Haz. Wste. Accu. Area	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-13B	B-15A	B-15A	B-22D	B-22D	B-23A	B-23A	B-25A		
SAMPLE DEPTH	2' - 4'	8' - 10'	12' - 14'	12' - 14'	18' - 20'	1.5' - 3.5'	5.5' - 7.5'	4' - 6'		
DATE OF COLLECTION	5/05/97	5/14/97	5/14/97	5/06/97	5/06/97	5/01/97	5/01/97	4/29/97		
DILUTION FACTOR	1	1	5	1	1	1	1	1		
PERCENT SOLIDS	95	96	94	95	96	97	96	89		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	---
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	---
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	---
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	---
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	---
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	---
Hexachloroethane	U	U	U	U	U	U	U	U	360	---
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	---
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	520	360	3,400
Naphthalene	200	U	U	160	U	U	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	---
2-Methylnaphthalene	90 J	U	U	61 J	U	U	U	8.0 J	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	---
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	---
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	11 J	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	External Pump House	Leaching Chamber Beneath Carpentry Shop		Sanitary Leaching Pool (South) Beneath Megapound		Basement/Sub-basement Areas		Pt. of Gen./Haz. Wste. Accu. Area	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-13B	B-15A	B-15A	B-22D	B-22D	B-23A	B-23A	B-25A		
SAMPLE DEPTH	2' - 4'	8' - 10'	12' - 14'	12' - 14'	18' - 20'	1.5' - 3.5'	5.5' - 7.5'	4' - 6'		
DATE OF COLLECTION	5/05/97	5/14/97	5/14/97	5/06/97	5/06/97	5/01/97	5/01/97	4/29/97		
DILUTION FACTOR	1	1	5	1	1	1	1	1		
PERCENT SOLIDS	95	96	94	95	96	97	96	89		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	420	U	U	190	U	U	U	7.8 J	18	50,000
Dibenzofuran	230 J	U	U	85 J	U	U	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	390	U	U	120	U	U	U	8.5 J	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	2,500	33	100	970	U	U	U	130	18	50,000
Anthracene	740	7.2 J	U	260	U	U	U	26	18	50,000
Carbazole	320 J	U	U	170 J	U	U	U	U	360	----
Di-n-butylphthalate	U	U	U	U	U	U	U	U	360	8,100
Fluoranthene	2,500	45	130	870	U	U	U	210	18	50,000
Pyrene	1,800	41	130	810	U	U	U	160	18	50,000
Butylbenzylphthalate	U	83 J	U	100 J	U	U	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	1,000	31	100	400	U	U	U	110	18	224 or MDL
Chrysene	1,000	23	71 J	440	U	U	U	100	18	400
bis(2-Ethylhexyl)phthalate	78 J	80 J	U	U	U	U	U	110 J	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	1,200	22	U	450	U	U	U	130	18	1,100
Benzo(k)fluoranthene	500	U	U	170	U	U	U	49	18	1,100
Benzo(a)pyrene	970	15 J	U	340	U	U	U	96	18	61 or MDL
Indeno(1,2,3-cd)pyrene	570	7 J	U	200	U	U	U	41	18	3,200
Dibenzo(a,h)anthracene	140	U	U	69	U	U	U	12 J	18	14 or MDL
Benzo(g,h,i)perylene	470	7.6 J	U	210	U	U	U	40	18	50,000
TOTAL CaPAHs	5,380	98	171	2,069	0	0	0	538		10,000*
TOTAL SVOCs	15,129	394.8	531	6,075	0	0	0	1,758.3		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
—— : Not established.
MDL: Method Detection Limit.
[ ]: Value exceeds TAGM 4046 Appendix A Criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Dry Wells Beneath Lobby/Loading Area, Facilities Maintenance Room and Carpentry Shop						Former Leaching Pool Beneath Megapound		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-26A	B-26A	B-26B	B-26B	B-26C	B-26C	B-32A	B-32A		
SAMPLE DEPTH	5' - 7'	7' - 9'	5' - 7'	7' - 9'	5' - 7'	9' - 11'	10' - 12'	12' - 14'		
DATE OF COLLECTION	4/29/97	4/29/97	4/29/97	4/29/97	4/30/97	4/30/97	4/30/97	4/30/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	92	85	96	97	93	99	89	86		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	17 J	U	49 J	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	14 J	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	---
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	---
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	---
Hexachloroethane	U	U	U	U	U	U	U	U	360	---
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	U	U	34	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	U	U	8.6 J	U	U	U	18 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	8.9 J	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Dry Wells Beneath Lobby/Loading Area, Facilities Maintenance Room and Carpentry Shop						Former Leaching Pool Beneath Megapound		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-26A	B-26A	B-26B	B-26B	B-26C	B-26C	B-32A	B-32A		
SAMPLE DEPTH	5' - 7'	7' - 9'	5' - 7'	7' - 9'	5' - 7'	9' - 11'	10' - 12'	12' - 14'		
DATE OF COLLECTION	4/29/97	4/29/97	4/29/97	4/29/97	4/30/97	4/30/97	4/30/97	4/30/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	92	85	96	97	93	99	89	86		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	11 J	U	U	U	U	83	U	18	50,000
Dibenzofuran	U	U	U	U	U	U	27 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	U	U	U	U	U	U	48	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	9.9 J	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	27	130	29	U	37	U	380	26	18	50,000
Anthracene	U	35	11 J	U	7.2 J	U	96	U	18	50,000
Carbazole	U	9.9 J	U	U	U	U	55 J	U	360	—
Di-n-butylphthalate	85 J	U	210 J	U	170 J	U	U	U	360	8,100
Fluoranthene	56	150	35	U	49	U	520	38	18	50,000
Pyrene	47	140	28	U	52	U	410	28	18	50,000
Butylbenzylphthalate	330 J	87 J	350	U	150 J	U	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	45	100	17 J	10 J	41	U	240	26	18	224 or MDL
Chrysene	36	99	19	U	35	U	220	13 J	18	400
bis(2-Ethylhexyl)phthalate	1,500	150 J	130 J	U	350 J	U	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	62	120	39	U	42	U	270	U	18	1,100
Benzo(k)fluoranthene	26	48	18	U	14 J	U	110	U	18	1,100
Benzo(a)pyrene	41	99	20	U	28	U	220	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	38	61	23	U	16 J	U	120	U	18	3,200
Dibenzo(a,h)anthracene	8.7 J	15 J	U	U	U	U	39	U	18	14 or MDL
Benzo(g,h,i)perylene	35	63	23	U	16 J	U	100	U	18	50,000
TOTAL CaPAHs	256.7	542	136	10	176	0	1,219	39		10,000*
TOTAL SVOCs	2,363.6	1,317.9	1,032.5	10	1,007.2	0	2,990	131		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A Criteria.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Sump Pit/Trenches		Former Fuel Tanks at Carpentry Shop							
SAMPLE IDENTIFICATION	B-33A	B-33A	B-40A	B-40A	Field Blank	Field Blank			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	20' - 22'	24' - 26'	6' - 8'	8' - 10'	--	--				
DATE OF COLLECTION	4/23/97	4/23/97	5/14/97	5/14/97	4/23/97	5/02/97				
DILUTION FACTOR	1	1	1	1	1	1				
PERCENT SOLIDS	97	97	99	99	--	--				
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)			(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U			360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U			360	800
2-Methylphenol	U	U	U	U	U	U			360	100 or MDL
4-Methylphenol	U	U	U	U	U	U			360	900
2-Nitrophenol	U	U	U	U	U	U			360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U			360	---
2,4-Dichlorophenol	U	U	U	U	U	U			360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U			360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U			360	---
2,4,5-Trichlorophenol	U	U	U	U	U	U			360	100
2,4-Dinitrophenol	U	U	U	U	U	U			720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U			720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U			720	---
Pentachlorophenol	U	U	U	U	U	U			720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U			360	---
1,3-Dichlorobenzene	U	U	U	U	U	U			360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U			360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U			360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U			360	---
N-Nitroso-di-n-propylamine	U	U	U	U	U	U			360	---
Hexachloroethane	U	U	U	U	U	U			360	---
Nitrobenzene	U	U	U	U	U	U			360	200 or MDL
Isophorone	U	U	U	U	U	U			360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U			360	---
1,2,4-Trichlorobenzene	U	U	U	U	U	U			360	3,400
Naphthalene	U	U	U	U	U	U			18	13,000
4-Chloroaniline	U	U	U	U	U	U			360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U			360	---
2-Methylnaphthalene	U	U	U	U	U	U			360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U			360	---
2-Chloronaphthalene	U	U	U	U	U	U			360	---
2-Nitroaniline	U	U	U	U	U	U			360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U			360	2,000
Acenaphthylene	U	U	U	U	U	U			18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U			360	1,000

TABLE G-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Sump Pit/Trenches		Former Fuel Tanks at Carpentry Shop						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-33A	B-33A	B-40A	B-40A	Field Blank	Field Blank				
SAMPLE DEPTH	20' - 22'	24' - 26'	6' - 8'	8' - 10'	--	--				
DATE OF COLLECTION	4/23/97	4/23/97	5/14/97	5/14/97	4/23/97	5/02/97				
DILUTION FACTOR	1	1	1	1	1	1				
PERCENT SOLIDS	97	97	99	99	--	--				
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)			(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U			360	500 or MDL
Acenaphthene	U	U	U	U	U	U			18	50,000
Dibenzofuran	U	U	U	U	U	U			360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U			360	—
Diethylphthalate	U	U	U	U	U	U			360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U			360	—
Fluorene	U	U	U	U	U	U			18	50,000
4-Nitroaniline	U	U	U	U	U	U			360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U			360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U			360	—
Hexachlorobenzene	U	U	U	U	U	U			360	410
Phenanthrene	15 J	U	U	U	U	U			18	50,000
Anthracene	U	U	U	U	U	U			18	50,000
Carbazole	U	U	U	U	U	U			360	—
Di-n-butylphthalate	U	U	U	U	U	U			360	8,100
Fluoranthene	17 J	U	U	U	U	U			18	50,000
Pyrene	15 J	U	U	U	U	U			18	50,000
Butylbenzylphthalate	U	U	U	U	U	U			360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U			720	—
Benzo(a)anthracene	13 J	U	U	U	U	U			18	224 or MDL
Chrysene	U	U	U	U	U	U			18	400
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U			360	50,000
Di-n-octylphthalate	U	U	U	U	U	U			360	50,000
Benzo(b)fluoranthene	U	U	U	U	U	U			18	1,100
Benzo(k)fluoranthene	U	U	U	U	U	U			18	1,100
Benzo(a)pyrene	U	U	7.8 J	U	U	U			18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U			18	3,200
Dibenzo(a,h)anthracene	U	U	U	U	U	U			18	14 or MDL
Benzo(g,h,i)perylene	U	U	U	U	U	U			18	50,000
TOTAL CaPAHs	13	0	7.8	0	0	0				10,000*
TOTAL SVOCs	60	0	7.8	0	0	0				500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
-- : Not applicable.
— : Not established.
MDL: Method Detection Limit.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-3
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Liquid Flow Lab		Machine Shop		Tank Room		Comp Saw Room		
SAMPLE IDENTIFICATION	B-2A	B-2A	B-3A	B-3A	B-4A	B-4A	B-5A	B-5B	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	6' - 7'	0 - 2'	0 - 2'	
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/02/97	5/05/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	87.5	96.9	90.0	91.8	90.2	94.9	92.4	91.5	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	U	34.1	54.0	28.1	52.9	29.7	31.5	U	25.0
JP-5 Jet Fuel	N/A	U	U	U	U	U	U	N/A	6.6
#2 Fuel Oil	N/A	U	U	U	U	U	U	N/A	6.6
#4 Fuel Oil	N/A	U	U	U	U	U	U	N/A	6.6
#6 Fuel Oil	N/A	U	U	U	U	U	U	N/A	6.6
Gasoline	N/A	U	U	U	U	U	U	N/A	---
Kerosene	N/A	U	U	U	U	U	U	N/A	---
Lubricating Oil	N/A	U	Present	Present	U	U	Present	N/A	---

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
--- : Not established.

TABLE G-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Comp Saw Room	Trench in EMT Lab No. 1		Trench in Staffed Machine Shop				Trench in Repair Lab No. 2	
SAMPLE IDENTIFICATION	B-5B	B-7A	B-7A	B-8A	B-8A	B-8B	B-8B	B-10A	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	
DATE OF COLLECTION	5/05/97	5/05/97	5/05/97	5/02/97	5/02/97	5/02/97	5/02/97	5/02/97	
DILUTION FACTOR	1	5	1	1	1	1	1	1	
PERCENT SOLIDS	99.3	98.2	98.4	98.0	97.4	96.6	97.4	99.0	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	U	1,440	365	U	83.4	72.3	U	U	25.0
JP-5 Jet Fuel	N/A	U	U	N/A	U	U	N/A	N/A	6.6
#2 Fuel Oil	N/A	U	U	N/A	U	U	N/A	N/A	6.6
#4 Fuel Oil	N/A	U	U	N/A	U	U	N/A	N/A	6.6
#6 Fuel Oil	N/A	U	U	N/A	U	U	N/A	N/A	6.6
Gasoline	N/A	U	U	N/A	U	U	N/A	N/A	---
Kerosene	N/A	U	U	N/A	U	U	N/A	N/A	---
Lubricating Oil	N/A	Present	Present	N/A	Present	Present	N/A	N/A	---

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
---- : Not established.

TABLE G-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Trench in Repair Lab No. 2	Autoclave Room (Pump Room)		Resin Transfer Molding Lab (Autoclave Lay-up Area)		External Pump House			
SAMPLE IDENTIFICATION	B-10A	B-11A	B-11A	B-12A	B-12A	B-13A	B-13A	B-13B	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/05/97	5/05/97	5/05/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	98.9	99.0	98.8	97.6	96.3	96.8	93.8	94.4	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	32.2	29.7	41.4	45.0	U	149	106	140	25.0
JP-5 Jet Fuel	U	U	U	U	N/A	U	U	U	6.6
#2 Fuel Oil	U	U	U	U	N/A	U	U	U	6.6
#4 Fuel Oil	U	U	U	U	N/A	U	U	U	6.6
#6 Fuel Oil	U	U	U	U	N/A	U	U	U	6.6
Gasoline	U	U	U	U	N/A	U	U	U	----
Kerosene	U	U	U	U	N/A	U	U	U	----
Lubricating Oil	Present	Present	Present	Present	N/A	Present	Present	Present	----

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	External Pump House	Leaching Chamber Beneath Carpentry Shop		Sanitary Leaching Pool (South) Beneath Megapound		Basement/Sub-basement Areas		Pt. of Gen./Haz. Wste. Accu. Area	
SAMPLE IDENTIFICATION	B-13B	B-15A	B-15A	B-22D	B-22D	B-23A	B-23A	B-25A	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	2' - 4'	8' - 10'	12' - 14'	12' - 14'	18' - 20'	1.5' - 3.5'	5.5' - 7.5'	4' - 6'	
DATE OF COLLECTION	5/05/97	5/14/97	5/14/97	5/06/97	5/06/97	5/01/97	5/01/97	4/29/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	94.7	95.9	93.6	95.3	95.8	97.1	96.1	89.1	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	42.7	73.5	U	373	U	U	U	183	25.0
JP-5 Jet Fuel	U	U	N/A	U	N/A	N/A	N/A	U	6.6
#2 Fuel Oil	U	U	N/A	U	N/A	N/A	N/A	U	6.6
#4 Fuel Oil	U	U	N/A	U	N/A	N/A	N/A	U	6.6
#6 Fuel Oil	U	U	N/A	U	N/A	N/A	N/A	U	6.6
Gasoline	U	U	N/A	U	N/A	N/A	N/A	U	----
Kerosene	U	U	N/A	U	N/A	N/A	N/A	U	—
Lubricating Oil	Present	U	N/A	Present	N/A	N/A	N/A	Present	----

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Dry Wells Beneath Lobby/Loading Area, Facilities Maintenance Room and Carpentry Shop						Former Leaching Pool Beneath Megapound		
SAMPLE IDENTIFICATION	B-26A	B-26A	B-26B	B-26B	B-26C	B-26C	B-32A	B-32A	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	5' - 7'	7' - 9'	5' - 7'	7' - 9'	5' - 7'	9' - 11'	10' - 12'	12' - 14'	
DATE OF COLLECTION	4/29/97	4/29/97	4/29/97	4/29/97	4/30/97	4/30/97	4/30/97	4/30/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	92.2	85.0	96.2	97.2	93.4	98.8	89.1	85.5	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	232	27.2	226	82.6	29.0	U	777	93.3	25.0
JP-5 Jet Fuel	U	U	U	U	U	N/A	U	U	6.6
#2 Fuel Oil	U	U	U	U	U	N/A	U	U	6.6
#4 Fuel Oil	U	U	U	U	U	N/A	U	U	6.6
#6 Fuel Oil	U	U	U	U	U	N/A	U	U	6.6
Gasoline	U	U	U	U	U	N/A	U	U	----
Kerosene	U	U	U	U	U	N/A	U	U	----
Lubricating Oil	Present	Present	Present	Present	Present	N/A	Present	Present	----

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Sump Pit/Trenches		Former Fuel Tanks at Carpentry Shop						
SAMPLE IDENTIFICATION	B-33A	B-33A	B-40A	B-40A	Field Blank	Field Blank			LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	20' - 22'	24' - 26'	6' - 8'	8' - 10'	--	--			
DATE OF COLLECTION	4/23/97	4/23/97	5/14/97	5/14/97	4/23/97	05/02/97			
DILUTION FACTOR	1	1	1	1	1.1	1.1			
PERCENT SOLIDS	96.6	97.1	98.8	98.9	--	--			
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)			(mg/kg)
Total Petroleum Hydrocarbons	U	U	U	U	U	U			25.0
JP-5 Jet Fuel	N/A	N/A	N/A	N/A	U	U			6.6
#2 Fuel Oil	N/A	N/A	N/A	N/A	U	U			6.6
#4 Fuel Oil	N/A	N/A	N/A	N/A	U	U			6.6
#6 Fuel Oil	N/A	N/A	N/A	N/A	U	U			6.6
Gasoline	N/A	N/A	N/A	N/A	U	U			---
Kerosene	N/A	N/A	N/A	N/A	U	U			----
Lubricating Oil	N/A	N/A	N/A	N/A	U	U			----

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
-- : Not applicable.
--- : Not established.

TABLE G-4
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Liquid Flow Lab		Machine Shop		Tank Room		Comp Saw Room			
SAMPLE IDENTIFICATION	B-2A	B-2A	B-3A	B-3A	B-4A	B-4A	B-5A	B-5B	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	6' - 7'	0 - 2'	0 - 2'		
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/02/97	5/05/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	87.5	96.9	90.0	91.8	90.2	94.9	92.4	91.5		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	U	U	U	U	U	0.48	---
Arsenic	2.2	0.66 B	**13.2**	3.9	6	3.3	4	3.5	0.32	3 - 12*
Beryllium	0.32 B	0.09 B	0.56 B	0.25 B	0.27 B	0.2 B	0.26 B	0.24 B	0.021	0 - 1.75
Cadmium	U	U	U	U	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	9.8	2.9	**59.9**	16.3	10.2	8.9	14.8	8.4	0.11	1.5 - 40*, (50***)
Copper	6.5	2.1 B	13.6	6.4	9.2	5.9	6.5	6.1	0.43	1 - 50
Lead	4.6	0.99 B	10.2	5.8	12	6.4	5.1	10.6	0.18	200 - 500**
Mercury	0.06 B	U	0.2	U	U	U	U	U	0.053	0.001 - 0.2
Nickel	8.6 B	2 B	**32**	6.8 B	6.7 B	4.6 B	14.9	5.5 B	0.17	0.5 - 25
Selenium	U	U	2.8	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	U	U	U	U	1.3 B	U	0.095	----
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	18.9	5.3 B	19.7	14.4	**63.7**	21.3	16.6	16	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
[ ] : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Comp Saw Room	Trench in EMT Lab No. 1		Trench in Staffed Machine Shop				Trench in Repair Lab No. 2	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-5B	B-7A	B-7A	B-8A	B-8A	B-8B	B-8B	B-10A		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	5/05/97	5/05/97	5/05/97	5/05/97	5/02/97	5/02/97	5/02/97	5/02/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	99.3	98.2	98.0	98.0	97.4	96.6	97.4	99.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	U	0.99 B	1.7 B	U	U	0.48	----
Arsenic	1.1	1.8 1	2	1	O.79 B	0.8 B	0.51 B	0.61 B	0.32	3 - 12*
Beryllium	0.09 B	0.17 B	0.18 B	0.13 B	0.11 B	0.11 B	0.09 B	0.09 B	0.021	0 - 1.75
Cadmium	U	0.16 B	U	U	0.41 B	U	U	U	0.042	0.1 - 1, (10***)
Chromium	3.7	9.9	7.4	3.5	10.6	13	1.6 B	6.9	0.11	1.5 - 40*, (50***)
Copper	2 B	5.1	4.9 B	17.9	23	17.8	9.5	6.7	0.43	1 - 50
Lead	1	14	9.9	11.8	214	189	0.96 B	1.3	0.18	200 - 500**
Mercury	U	**1.2**	**1.2**	0.12	**1.8**	**2.3**	U	U	0.053	0.001 - 0.2
Nickel	1.1 B	5.1 B	4.1 B	3 B	4.2 B	2.7 B	1.3 B	2 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	U	U	2.8	0.76 B	U	4	0.095	----
Thallium	U	U	U	U	U	U	U	U	0.46	----
Zinc	5.7 B	14.6	14.4	23.4	**50.9**	45.4	9.3	24.6	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
☐ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Trench in Repair Lab No. 2	Autoclave Room (Pump Room)		Resin Transfer Molding Lab (Autoclave Lay-up Area)		Leaching Chamber Beneath Carpentry Shop		Sani.L.P. Megapound	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-10A	B-11A	B-11A	B-12A	B-12A	B-15A	B-15A	B-22D		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	8' - 10'	12' - 14'	12' - 14'		
DATE OF COLLECTION	5/02/97	5/02/97	5/02/97	5/05/97	5/05/97	5/14/97	5/14/97	5/06/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	98.9	99.0	98.8	97.6	96.3	95.9	93.6	95.3		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	U	U	U	U	U	0.48	---
Arsenic	1.1	1.6	1.2	0.93 B	2.9	U	1.0 B	4.8	0.32	3 - 12*
Beryllium	0.08 B	0.11 B	0.09 B	0.06 B	0.28 B	0.18 B	0.19 B	0.09 B	0.021	0 - 1.75
Cadmium	U	U	U	U	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	8.4	7.9	5.3	2.8	8.7	6.2	5.7	6.9	0.11	1.5 - 40*, (50***)
Copper	8.2	17.7	4.7 B	3.2 B	5 B	8.1	6.6	25.4	0.43	1 - 50
Lead	2.6	13.1	4	**3,140**	**2,770**	4.0		18.7	0.18	200 - 500**
Mercury	U	0.09 B	U	0.06 B	U	U	U	0.15	0.053	0.001 - 0.2
Nickel	2.6 B	7.5 B	1.4 B	1.9 B	4.5 B	2.7 B	2.6 B	22.5	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	4.9	U	U	0.65 B	U	U	U	U	0.095	---
Thallium	U	U	U	U	U	U	U	U	0.46	---
Zinc	39.3	49.5	12.8	6.5	12	10.5	12.2	35.6	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
☐ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Sani.L.P. Megapound	Basement/Sub-basement Areas		Pt. of Gen./Haz. Wste. Accu. Area	Dry Wells Beneath Lobby/Loading Area, Facilities Maintenance Room and Carpentry Shop				INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22D	B-23A	B-23A	B-25A	B-26A	B-26A	B-26B	B-26B		
SAMPLE DEPTH	18' - 20'	1.5' - 3.5'	5.5' - 7.5'	4' - 6'	5' - 7'	7' - 9'	5' - 7'	7' - 9'		
DATE OF COLLECTION	5/06/97	5/01/97	5/01/97	4/29/97	4/29/97	4/29/97	4/29/97	4/29/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	95.8	97.1	96.1	89.1	92.2	85.0	96.2	97.2		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	U	U	U	U	U	0.48	—
Arsenic	1 B	1.1	0.99 B	2.0	9.4	1.2 B	3.6	1.0 B	0.32	3 - 12*
Beryllium	0.18 B	0.11 B	0.1 B	0.19 B	0.13 B	U	0.07 B	0.07 B	0.021	0 - 1.75
Cadmium	U	U	U	2.0	2.9	0.40 B	1.1	0.42 B	0.042	0.1 - 1, (10***)
Chromium	3	5	6.2	8.5	37.0	7.9	43.6	15.8	0.11	1.5 - 40*, (50***)
Copper	3.6 B	1.6 B	1.8 B	20.5	42.8	8.2	34.7	22.6	0.43	1 - 50
Lead	0.95 B	0.85 B	3.4	23.2	60.5	11.6	75.7	21.9	0.18	200 - 500**
Mercury	U	U	U	U	0.19	**3.3**	0.05 B	U	0.053	0.001 - 0.2
Nickel	0.59 B	1.2 B	2.1 B	4.9 B	9.8	2.1 B	6.2 B	4.5 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	U	U	0.39 B	U	U	U	0.095	----
Thallium	U	U	U	U	U	U	U	U	0.46	----
Zinc	7.2	3.2 B	4.9 B	**84.3**	**271**	43.8	**160**	**54.2**	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
Bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	DW Beneath Lobby/Load. Area, Fac .Maint. Rm. & Carp. Shop		Former Leaching Pool Beneath Megapound		Sump Pit/Trenches		Former Fuel Tanks at Carpentry Shop		INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-26C	B-26C	B-32A	B-32A	B-33A	B-33A	B-40A	B-40A		
SAMPLE DEPTH	5' - 7'	9' - 11'	10' - 12'	12' - 14'	20' - 22'	24' - 26'	6' - 8'	8' - 10'		
DATE OF COLLECTION	4/30/97	4/30/97	4/30/97	4/30/97	4/23/97	4/23/97	5/14/97	5/14/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	93.4	98.8	89.1	85.5	96.6	97.1	98.8	99.9		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	U	U	U	U	0.36 B	0.48	---
Arsenic	3.1	0.91 B	1.9	3.4	U	U	1.4	U	0.32	3 - 12*
Beryllium	0.2 B	0.08 B	0.16 B	0.18 B	0.11 B	0.05 B	0.16 B	0.13 B	0.021	0 - 1.75
Cadmium	1.35	U	U	U	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	10.4	2.4	5.8	9	1.9 B	1.0 B	9.6	7.3	0.11	1.5 - 40*, (50***)
Copper	42.9	2.2 B	3.8 B	5 B	5.6	1.5 B	3.8	4.0	0.43	1 - 50
Lead	18.1	0.88 B	4.3	5.1	1.8	0.97 B	1.9	1.1	0.18	200 - 500**
Mercury	0.07 B	U	U	U	U	U	U	U	0.053	0.001 - 0.2
Nickel	5.6 B	1.4 B	15.2	21.6	2.5 B	0.88 B	5.5	2.4 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	0.51	U	0.49	0.1 - 3.9
Silver	1.82 B	U	U	U	U	U	0.17 B	U	0.095	---
Thallium	U	U	U	U	U	U	U	U	0.46	---
Zinc	67.5	3.4 B	14	15.9	8.4	3.6 B	11.2	7.7	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
☐ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE IDENTIFICATION	Field Blank	Field Blank							INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE DEPTH	--	--								
DATE OF COLLECTION	4/23/97	5/02/97								
DILUTION FACTOR	2	2								
PERCENT SOLIDS	--	--								
UNITS	(ug/L)	(ug/L)							(mg/kg)	(mg/kg)
Antimony	U	U							0.48	—
Arsenic	U	U							0.32	3 - 12*
Beryllium	U	U							0.021	0 - 1.75
Cadmium	U	U							0.042	0.1 - 1, (10***)
Chromium	U	U							0.11	1.5 - 40*, (50***)
Copper	U	U							0.43	1 - 50
Lead	U	U							0.18	200 - 500**
Mercury	U	U							0.053	0.001 - 0.2
Nickel	U	U							0.17	0.5 - 25
Selenium	U	U							0.49	0.1 - 3.9
Silver	U	U							0.095	----
Thallium	U								0.46	----
Zinc	6.2 B	1.5 B							0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
– : Not applicable.
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

TABLE G-5
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Autoclave Room (Pump Room)		Resin Transfer Molding Lab (Autoclave Lay-up Area)		Leaching Chamber Beneath Carpentry Shop		Sanitary Leaching Pool (South) Beneath Megapound		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-11A	B-11A	B-12A	B-12A	B-15A	B-15A	B-22D	B-22D		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	8' - 10'	12' - 14'	12' - 14'	18' - 20'		
DATE OF COLLECTION	5/02/97	5/02/97	5/05/97	5/05/97	5/14/97	5/14/97	5/06/97	5/06/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	99	99	98	96	96	94	95	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	120	U	U	U	71	---
Aroclor-1221	U	U	U	U	U	U	U	U	71	---
Aroclor-1232	U	U	U	U	U	U	U	U	71	---
Aroclor-1242	U	U	U	U	U	U	U	U	71	---
Aroclor-1248	U	U	U	U	200	U	82	U	71	---
Aroclor-1254	U	U	U	U	U	U	77	U	71	---
Aroclor-1260	U	U	U	U	26 J	U	U	U	71	---
TOTAL PCBs	0	0	0	0	346	0	159	0		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
--- : Not established.
* : Criteria is for total PCBs in subsurface soils.

TABLE G-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Base/Sub-basement Areas		Pt. of Gen./Haz. Wste. Accu. Area	Former Leaching Pool Beneath Megapound					LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-23A	B-23A	B-25A	B-32A	B-32A	Field Blank				
SAMPLE DEPTH	1.5' - 3.5'	5.5' - 7.5'	4' - 6'	10' - 12'	12' - 14'	--				
DATE OF COLLECTION	5/01/97	5/01/97	4/29/97	4/30/97	4/30/97	4/23/97				
DILUTION FACTOR	1	1	25	1	1	1				
PERCENT SOLIDS	97	96	89	89	86	--				
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)			(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U			71	----
Aroclor-1221	U	U	U	U	U	U			71	----
Aroclor-1232	U	U	U	U	U	U			71	----
Aroclor-1242	U	U	U	U	U	U			71	----
Aroclor-1248	U	U	U	510	96	U			71	----
Aroclor-1254	U	U	11,000	U	U	U			71	----
Aroclor-1260	U	U	U	U	U	U			71	----
TOTAL PCBs	0	0	11,000	510	96	0				10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
-- : Not applicable.
---- : Not established.
* : Criteria is for total PCBs in subsurface soil.
[ ] : Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils..

TABLE G-6
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Northern Leaching Chambers				Leaching Chamber North of Carpentry Shop		Chemical Storage Area/ Concrete Platform		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-14A	B-14A	B-14B	B-14B	B-16A	B-16A	B-17A	B-17A		
SAMPLE DEPTH	11' - 13'	17' - 19'	6' - 8'	12' - 14'	12' - 14'	18' - 20'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/01/97	5/01/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	4/25/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	80	87	60	73	70	94	94	82		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	----
Bromomethane	U	U	U	U	U	U	U	U	1.0	----
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	4.3 B	4.0 B	3.4 B	2.5 B	11 B	1.7 B	2.2 B	3.0 B	1.0	100
Acetone	U	U	U	U	U	7.2	U	U	5.2	200
Carbon Disulfide	U	1.4	1.0 J	3.8	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	1.5	0.7 J	U	U	U	1.0	----
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	3.2	U	U	2.0	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	----
Trichloroethene	U	U	1.4 J	4.6	5.5	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	----
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	----
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	----
Bromoform	U	U	U	U	U	U	U	U	1.0	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	----
Tetrachloroethene	U	U	3.6	21	15	U	U	1.0 J	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	1.2 J	10	U	U	U	1.2 J	1.0	1,500
Chlorobenzene	U	U	U	0.7 J	U	U	U	U	1.0	1,700
Ethylbenzene	U	1.0 J	U	27	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	----
Xylene (total)	U	0.8 J	U	13	U	U	U	0.8 J	1.0	1,200
TOTAL VOCs	4.3	7.2	10.6	84.1	35.4	8.9	2.2	8		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Chemical Storage Area/Concrete Platform				Former Fuel USTs East of Plant 12				LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-17B	B-17B	B-17C	B-17C	B-18A	B-18A	B-18B	B-18B		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	4' - 6'		
DATE OF COLLECTION	4/25/97	4/25/97	4/25/97	4/25/97	5/07/97	5/07/97	5/08/97	5/08/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	83	92	95	94	87	88	81	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	2.2 B	1.6 B	2.1 B	2.1 B	4.1 B	12 B	4.5 B	2.1 B	1.0	100
Acetone	U	U	U	U	12	U	U	6.3	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	0.6 J	U	U	1.1	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	1.6	0.7 J	U	1.8	5.9	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	U	U	U	U	U	U	2.2	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	—
Benzene	U	U	U	U	U	U	U	1.4	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	U	U	U	U	U	U	3.7	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	3.4	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	U	U	U	4.0 J	U	U	1.0	1,200
TOTAL VOCs	2.2	1.6	2.1	3.7	20.8	16	12.2	16.8		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Area Outside of Machine Shop		Tank Room Leaching Pool		Sanitary Leaching Pools (West)				LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-19A	B-19A	B-20A	B-20A	B-21A	B-21A	B-21B	B-21B		
SAMPLE DEPTH	0 - 2'	2' - 4'	10' - 12'	18' - 20'	10' - 12'	14' - 16'	12' - 14'	16' - 18'		
DATE OF COLLECTION	5/01/97	5/01/97	5/13/97	5/13/97	5/08/97	5/08/97	5/12/97	5/12/97		
DILUTION FACTOR	1	125	1	1	1	2	1	1		
PERCENT SOLIDS	86	95	94	96	91	87	97	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	4.0 B	U	0.8 J	U	3.4 B	7.8 B	1.7 B	1.3 B	1.0	100
Acetone	U	U	U	U	16	36	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	2.1 J	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	0.6 J	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	7.6	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	1.8 J	2.3 J	U	U	5.2	300
1,1,1-Trichloroethane	33	3,600	0.7 J	U	U	U	U	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	15	190	U	U	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	3.3	U	U	U	U	U	U	U	1.0	—
Benzene	U	U	U	U	0.6 J	8.1	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	1.2	120 J	0.6 J	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	1.0 J	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	1.4	23	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	1.8	U	U	U	U	U	1.0	1,200
TOTAL VOCs	64.7	3,910	3.9	1	23.2	79.3	1.7	1.3		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
☐ : Value exceeds NYSDEC TAGM 4046 Appendix A criteria.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22A	B-22A	B-22B	B-22B	B-22C	B-22C	B-22E	B-22E	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	10' - 12'	14' - 16'	10' - 12'	12' - 14'	10' - 12'	12' - 14'	4' - 6'	10' - 12'		
DATE OF COLLECTION	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/09/97	5/13/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	95	97	97	97	94	95	96	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	1.3 B	1.2 B	1.2 B	1.0 JB	1.1 B	1.4 B	U	U	1.0	1,900
Methylene Chloride	U	U	U	U	U	U	5.6 B	0.7 J	1.0	100
Acetone	U	U	U	U	U	U	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	1.0 J	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	U	U	7.5	2.8	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	U	U	0.5 J	U	U	0.5 J	1.8	1.3	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	0.9 J	0.8 J	1.0	—
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	U	U	U	U	U	U	0.6 J	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	0.8 J	0.7 J	0.9 J	0.8 J	1.2	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	1.3	1.2	2.5	1.7	2	2.7	18.6	5.6		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22E	B-22F	B-22F	B-22K	B-22K	B-22K	B-22L	B-22L	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	20' - 22'	10' - 12'	18' - 20'	10' - 12'	12' - 14'	18' - 20'	12' - 14'	16' - 18'		
DATE OF COLLECTION	5/09/97	5/09/97	5/09/97	5/14/97	5/14/97	5/14/97	5/14/97	5/14/97		
DILUTION FACTOR	1	1	1	125	625	1	1	1		
PERCENT SOLIDS	90	90	96	75	87	93	95	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	4.9 B	5.7 B	3.6 U	U	U	1.5 B	1.2 B	1.5 B	1.0	100
Acetone	U	U	U	U	U	10	U	5.5	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	0.6 J	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	1.2	U	U	1,200	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	1.7 J	U	U	5.2	300
1,1,1-Trichloroethane	11	14	U	6,400	7,100	1.1	5.6	0.7 J	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	4.4	1.4	U	170	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	1.5	U	U	U	U	U	U	U	1.0	—
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	0.6 J	U	U	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	0.9 J	U	U	1,400	1,800	0.9 J	0.9 J	0.9 J	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	110 J	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	U	1,100	U	U	U	U	1.0	1,200
TOTAL VOCs	25.1	21.1	3.6	10,380	8,900	15.2	7.7	8.6		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
□ : Value exceeds NYSDEC TAGM 4046 Appendix A criteria.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)									
SAMPLE IDENTIFICATION	B-22G	B-22G	B-22H	B-22H	B-22I	B-22I	B-22J	B-22J	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 2'	4' - 6'	0 - 2'	12' - 14'	6' - 8'	10' - 12'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/09/97	5/09/97	5/12/97	5/12/97	5/08/97	5/08/97	5/09/97	5/09/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	92	96	90	96	98	96	88	89		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	---
Bromomethane	U	U	U	U	U	U	U	U	1.0	---
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	2.8 B	1.4 B	1.7 B	1.2 B	3.3 B	1.5 B	5.0 B	5.3 B	1.0	100
Acetone	U	U	U	U	U	U	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	0.7 J	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	---
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	U	U	0.8 J	20	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	---
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	---
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	---
Trichloroethene	U	U	U	U	U	U	1.1 J	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	---
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	---
Benzene	U	U	U	U	U	5.5	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	---
Bromoform	U	U	U	U	U	U	U	U	1.0	---
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	---
Tetrachloroethene	U	U	U	U	U	U	U	2.3	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	0.7 J	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	8.6	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	1.3	U	3.6	1.0	---
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	2.8	1.4	1.7	1.2	4	16.9	7.6	31.2		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Dry Well/Manhole West of Carpentry Shop		Center Courtyard Area		Dry Well South of Plant 12A		Drainage Chamber North of Lobby/Loading Area		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-27A	B-27A	B-28A	B-28A	B-29A	B-29A	B-30A	B-30A		
SAMPLE DEPTH	6' - 8'	8' - 10'	4' - 6'	6' - 8'	5' - 7'	9' - 11'	4' - 6'	10' - 12'		
DATE OF COLLECTION	5/01/97	5/01/97	4/29/97	4/29/97	5/13/97	5/13/97	4/30/97	4/30/97		
DILUTION FACTOR	1	1	1	1	1	1	125	1		
PERCENT SOLIDS	97	96	75	96	92	96	86	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	---
Bromomethane	U	U	U	U	U	U	U	U	1.0	---
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	4.4 B	4.0 B	3.6 B	2.9 B	0.9 JB	0.6 JB	U	3.2 B	1.0	100
Acetone	U	U	U	U	U	U	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	---
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	U	U	540	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	---
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	---
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	---
Trichloroethene	U	U	U	U	U	U	210	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	---
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	---
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	---
Bromoform	U	U	U	U	U	U	U	U	1.0	---
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	---
Tetrachloroethene	U	U	U	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	---
Xylene (total)	U	U	U	U	U	U	110 J	U	1.0	1,200
TOTAL VOCs	4.4	4	3.6	2.9	0.9	0.6	860	3.2		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Dry Well in Stairwell Between Megapound and Plant 12A		Leaching Pools West of Boiler House		Southern Parking Lot		Adjacent to Former Recharge Basin		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-31A	B-31A	B-34A	B-34A	B-35A	B-35A	B-36A	B-36A		
SAMPLE DEPTH	1' - 3'	5' - 7'	12' - 14'	18' - 20'	0 - 2'	2' - 4'	24' - 26'	34' - 36'		
DATE OF COLLECTION	5/05/97	5/05/97	4/23/97	4/23/97	6/3/97	6/3/97	5/06/97	5/06/97		
DILUTION FACTOR	1	1	1	1	125	1	1	1		
PERCENT SOLIDS	90	94	88	95	80	94	93	92		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	10 B	10 B	9.0 B	4.2 B	U	U	2.9 B	11 B	1.0	100
Acetone	44	9.7	U	U	U	U	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	U	U	U	U	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	—
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	U	U	5.9	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	54	19.7	14.9	4.2	0	0	2.9	11		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.

Notes:
— : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Adj. to Former Recharge Basin	Within Existing Recharge Basin			Former Drainage Basin		Former Drainage Trench East of Plant 12A			
SAMPLE IDENTIFICATION	B-36A	B-36B	B-36B	B-36B	B-37A	B-37A	B-38A	B-38A	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	40' - 42'	0 - 2'	12' - 14'	18' - 20'	4' - 6'	6' - 8'	4' - 6'	6' - 8'		
DATE OF COLLECTION	5/06/97	5/07/97	5/07/97	5/07/97	4/23/97	4/23/97	4/23/97	4/23/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	89	96	93	93	94	90	94	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	2.2 B	3.6 B	3.3 B	3.1 B	5.3 B	7.8 B	4.4 B	11 B	1.0	100
Acetone	U	U	U	U	U	U	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	---
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	U	U	180	200	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	---
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	U	U	U	U	0.6 J	U	2.9	2.1 J	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	---
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	U	U	U	U	0.6 J	U	3.4	3.3	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	2.7	1.0	—
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	2.2	3.6	3.3	3.1	6.5	7.8	190.7	219.1		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Drainage Trench East of Plant 12A		Dry Wells East of Plant 12A						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-38B	B-38B	B-39A	B-39A	B-39B	B-39B	B-39C	B-39C		
SAMPLE DEPTH	1' - 3'	3' - 5'	6' - 8'	10' - 12'	3' - 5'	13' - 15'	8' - 10'	14' - 16'		
DATE OF COLLECTION	4/23/97	4/23/97	5/01/97	5/01/97	5/01/97	5/01/97	4/28/97	4/28/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	84	94	81	92	89	92	92	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	7.4 B	5.2 B	6.2 B	5.0 B	11 B	6.2 B	6.4 B	1.8 B	1.0	100
Acetone	7.0	U	U	U	U	U	U	U	5.2	200
Carbon Disulfide	U	U	1.2 J	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	U	U	U	U	2.6	28	210	27	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	U	U	U	U	0.7 J	0.7 J	6.1	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	—
Benzene	U	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	1.2	U	U	U	1.9	7.2	6.4	4.0	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	U	U	1.9 J	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	15.6	5.2	7.4	5	16.2	42.1	230.8	32.8		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Sump No. 2				Former Pit East of Sump No. 2		Former Trenches to Resin Waste Pit (Sump No. 1)			
SAMPLE IDENTIFICATION	B-41A	B-41A	B-41B	B-41B	B-42A	B-42A	B-43A	B-43A	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	2' - 4'	10' - 12'	8' - 10'	14' - 16'	2' - 4'	10' - 12'	0 - 2'	4' - 6'		
DATE OF COLLECTION	5/12/97	5/12/97	5/13/97	5/13/97	5/12/97	5/12/97	4/25/97	4/25/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	99	95	86	88	93	95	90	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	1.8 B	1.5 B	1.6 B	1.3 B	1.5 B	1.3 B	12 B	1.8 B	1.0	100
Acetone	U	U	80	U	7.4	U	U	U	5.2	200
Carbon Disulfide	U	U	0.7 J	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	1.6	0.6 J	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	16	28	U	U	U	U	5.2	300
1,1,1-Trichloroethane	2.7	U	3.3	U	U	U	U	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	7.4	U	U	U	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	—
Benzene	U	U	1.3	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	18	U	U	2.4	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	1.1 J	0.8 J	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	U	U	U	U	U	U	U	U	1.0	—
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	29.9	1.5	105.6	33.1	8.9	1.3	12	1.8		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump No. 1)		Former Dry Well in Vicinity of Trenches		Dry Well Northeast of Plant 12					
SAMPLE IDENTIFICATION	B-43B	B-43B	B-44A	B-44A	B-45A	B-45A	Field Blank	Field Blank	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	4' - 6'	8' - 10'	16' - 18'	18' - 20'	4' - 6'	6' - 8'	--	--		
DATE OF COLLECTION	4/25/97	4/25/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	5/01/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	93	93	95	97	92	89	--	--		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	1.0	—
Bromomethane	U	U	U	U	U	U	U	U	1.0	—
Vinyl Chloride	U	U	U	U	U	U	U	U	1.0	200
Chloroethane	U	U	U	U	U	U	U	U	1.0	1,900
Methylene Chloride	3.4 B	2.2 B	8.1 B	2.6 B	3.0 B	14 B	U	1.4	1.0	100
Acetone	U	U	U	U	U	U	U	U	5.2	200
Carbon Disulfide	U	U	U	U	U	U	U	U	1.0	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	1.0	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	1.0	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	1.0	—
Chloroform	U	U	U	U	U	U	U	U	1.0	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	1.0	100
2-Butanone	U	U	U	U	U	U	U	U	5.2	300
1,1,1-Trichloroethane	8.9	12	U	U	U	U	U	U	1.0	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	1.0	600
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	—
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	—
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Trichloroethene	U	U	U	U	U	U	U	U	1.0	700
Dibromochloromethane	U	U	U	U	U	U	U	U	1.0	—
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	1.0	—
Benzene	0.6 J	U	U	U	U	U	U	U	1.0	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	1.0	—
Bromoform	U	U	U	U	U	U	U	U	1.0	—
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	5.2	1,000
2-Hexanone	U	U	U	U	U	U	U	U	5.2	—
Tetrachloroethene	3.1	7.8	U	U	U	U	U	U	1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	600
Toluene	U	U	U	U	U	U	U	U	1.0	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1.0	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	1.0	5,500
Styrene	1.1	2.2	U	0.5 J	U	U	U	U	1.0	—
Xylene (total)	U	U	U	U	U	U	U	U	1.0	1,200
TOTAL VOCs	17.1	24.2	8.1	3.1	3	14	0	1.4		10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.

Notes:
-- : Not applicable.
— : Not established.

TABLE G-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	Field Blank	Field Blank	Field Blank						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	--	--	--							
DATE OF COLLECTION	5/06/97	5/08/97	5/09/97							
DILUTION FACTOR	1	1	1							
PERCENT SOLIDS	--	--	--							
UNITS	(ug/L)	(ug/L)	(ug/L)						(ug/kg)	(ug/kg)
Chloromethane	U	U	U						1.0	---
Bromomethane	U	U	U						1.0	---
Vinyl Chloride	U	U	U						1.0	200
Chloroethane	U	U	U						1.0	1,900
Methylene Chloride	U	U	U						1.0	100
Acetone	U	U	U						5.2	200
Carbon Disulfide	U	U	U						1.0	2,700
1,1-Dichloroethene	U	U	U						1.0	400
1,1-Dichloroethane	U	U	U						1.0	200
trans-1,2-Dichloroethene	U	U	U						1.0	300
cis-1,2-Dichloroethene	U	U	U						1.0	---
Chloroform	U	U	U						1.0	300
1,2-Dichloroethane	U	U	U						1.0	100
2-Butanone	U	U	U						5.2	300
1,1,1-Trichloroethane	U	U	U						1.0	800
Carbon Tetrachloride	U	U	U						1.0	600
Bromodichloromethane	U	U	U						1.0	---
1,2-Dichloropropane	U	U	U						1.0	---
cis-1,3-Dichloropropene	U	U	U						1.0	---
Trichloroethene	U	U	U						1.0	700
Dibromochloromethane	U	U	U						1.0	---
1,1,2-Trichloroethane	U	U	U						1.0	---
Benzene	U	U	U						1.0	60
trans-1,3-Dichloropropene	U	U	U						1.0	---
Bromoform	U	U	U						1.0	---
4-Methyl-2-pentanone	U	U	U						5.2	1,000
2-Hexanone	U	U	U						5.2	---
Tetrachloroethene	U	U	U						1.0	1,400
1,1,2,2-Tetrachloroethane	U	U	U						1.0	600
Toluene	U	U	U						1.0	1,500
Chlorobenzene	U	U	U						1.0	1,700
Ethylbenzene	U	U	U						1.0	5,500
Styrene	U	U	U						1.0	---
Xylene (total)	U	U	U						1.0	1,200
TOTAL VOCs	0	0	0							10,000

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
-- : Not applicable.
--- : Not established.

TABLE G-7
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Northern Leaching Chambers				Leaching Chamber North of Carpentry Shop		Chemical Storage Area/ Concrete Platform		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-14A	B-14A	B-14B	B-14B	B-16A	B-16A	B-17A	B-17A		
SAMPLE DEPTH	11' - 13'	17' - 19'	6' - 8'	12' - 14'	12' - 14'	18' - 20'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/01/97	5/01/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	4/25/97		
DILUTION FACTOR	5	10	5	1	1	1	1	10		
PERCENT SOLIDS	80	87	60	73	70	94	94	82		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	320 J	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	120 J	U	U	U	360	100 or MDL
4-Methylphenol	120 J	U	U	47 J	260 J	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	76 J	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	160	1,600	U	490	110	U	12 J	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	260 J	2,400 J	U	160 J	220 J	U	23 J	240 J	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	16 J	24	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Northern Leaching Chambers				Leaching Chamber North of Carpentry Shop		Chemical Storage Area/ Concrete Platform		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-14A	B-14A	B-14B	B-14B	B-16A	B-16A	B-17A	B-17A		
SAMPLE DEPTH	11' - 13'	17' - 19'	6' - 8'	12' - 14'	12' - 14'	18' - 20'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/01/97	5/01/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	4/25/97		
DILUTION FACTOR	5	10	5	1	1	1	1	10		
PERCENT SOLIDS	80	87	60	73	70	94	94	82		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	360	500 or MDL
Acenaphthene	140	3,700	5 U	150	190	1 U	16 J	630	18	50,000
Dibenzofuran	5 U	2,400 J	5 U	110 J	120 J	1 U	10 J	240 J	360	6,200
2,4-Dinitrotoluene	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	360	—
Diethylphthalate	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	360	7,100
4-Chlorophenyl-phenylether	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	360	—
Fluorene	120	3,300	5 U	180	160	1 U	1 U	10 U	18	50,000
4-Nitroaniline	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	360	—
N-Nitrosodiphenylamine	5 U	10 U	33,000	240 J	3,300	40 J	29 J	580 J	360	—
4-Bromophenyl-phenylether	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	360	—
Hexachlorobenzene	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	360	410
Phenanthrene	760	21,000	260	1,400	1,400	18	76	10 U	18	50,000
Anthracene	180	5,200	66 J	390	390	1 U	11 J	10 U	18	50,000
Carbazole	5 U	2,800 J	5 U	52 J	110 J	1 U	1 U	10 U	360	—
Di-n-butylphthalate	5 U	1,400 J	5 U	8,100	790	380	3,800	110,000	360	8,100
Fluoranthene	1,600	18,000	300	1,800	2,300	34	110	260 J	18	50,000
Pyrene	1,300	15,000	260	2,000	2,300	32	91	240 J	18	50,000
Butylbenzylphthalate	1,000 J	77,000	1,300 J	1,300	3,900	170 J	6,100	190,000	360	50,000
3,3'-Dichlorobenzidine	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	720	—
Benzo(a)anthracene	860	7,100	200	1,100	1,200	1 U	52	10 U	18	224 or MDL
Chrysene	1,100	7,700	160	1,100	1,200	1 U	75	10 U	18	400
bis(2-Ethylhexyl)phthalate	1,900 J	10 U	2,000 J	9,300	6,400	300 J	760	14,000	360	50,000
Di-n-octylphthalate	5 U	10 U	5 U	1 U	1 U	1 U	1 U	10 U	360	50,000
Benzo(b)fluoranthene	1,400	7,500	5 U	1,100	1,400	27	80	10 U	18	1,100
Benzo(k)fluoranthene	550	2,900	5 U	460	550	1 U	34	10 U	18	1,100
Benzo(a)pyrene	800	6,200	5 U	950	1,000	1 U	46	10 U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	530	3,600	5 U	430	500	1 U	30	10 U	18	3,200
Dibenzo(a,h)anthracene	140	1,200	5 U	150	170	1 U	1 U	10 U	18	14 or MDL
Benzo(g,h,i)perylene	490	3,400	5 U	530	450	1 U	28	10 U	18	50,000
TOTAL CaPAHs	5,380	36,200	360	5,290	6,020	27	317	0		10,000*
TOTAL SVOCs	13,410	193,400	37,546	31,875	28,640	1,001	11,383	316,190		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Chemical Storage Area/Concrete Platform				Former Fuel USTs East of Plant 12					
SAMPLE IDENTIFICATION	B-17B	B-17B	B-17C	B-17C	B-18A	B-18A	B-18B	B-18B	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	4' - 6'		
DATE OF COLLECTION	4/25/97	4/25/97	4/25/97	4/25/97	5/07/97	5/07/97	5/08/97	5/08/97		
DILUTION FACTOR	2	5	2	1	2	2	1	5		
PERCENT SOLIDS	83	92	95	94	87	88	81	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	430	700	54	170	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	U	U	U	U	2,400	4,800	79 J	990 J	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Chemical Storage Area/Concrete Platform				Former Fuel USTs East of Plant 12				LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-17B	B-17B	B-17C	B-17C	B-18A	B-18A	B-18B	B-18B		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	2' - 4'		
DATE OF COLLECTION	4/25/97	4/25/97	4/25/97	4/25/97	5/07/97	5/07/97	5/08/97	5/08/97		
DILUTION FACTOR	2	5	2	1	2	2	1	5		
PERCENT SOLIDS	83	92	95	94	87	88	81	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	U	250	360	50	180	18	50,000
Dibenzofuran	U	U	U	U	U	U	36 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	U	U	U	U	260	440	45	290	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	25 J	U	U	120 J	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	280	U	81	U	910	1,200	430	1,400	18	50,000
Anthracene	54 J	U	18 J	U	130	140	100	270	18	50,000
Carbazole	U	U	U	U	80 J	U	55 J	U	360	—
Di-n-butylphthalate	U	4,300	880	99 J	830	200 J	350 J	U	360	8,100
Fluoranthene	500	120	130	7.4 J	560	470	680	1,000	18	50,000
Pyrene	540	110	100	7.1 J	420	350	510	740	18	50,000
Butylbenzylphthalate	430 J	21,000	10,000	3,300	15,000	2,800	5,600	3,400	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	400	U	72	U	230	180	300	440	18	224 or MDL
Chrysene	420	U	64	U	230	190	340	500	18	400
bis(2-Ethylhexyl)phthalate	760 J	520 J	210 J	U	170 J	U	190 J	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	540	110	74	U	300	240	410	600	18	1,100
Benzo(k)fluoranthene	U	U	U	U	100	110	160	240	18	1,100
Benzo(a)pyrene	370	U	48	U	220	180	310	440	18	61 or MDL
Indeno(1,2,3-cd)pyrene	180	U	U	U	120	100	180	270	18	3,200
Dibenzo(a,h)anthracene	U	U	U	U	U	U	51	76 J	18	14 or MDL
Benzo(g,h,i)perylene	180	U	U	U	120	84	180	290	18	50,000
TOTAL CaPAHs	1,910	110	258	0	1,200	1,000	1,751	2,566		10,000*
TOTAL SVOCs	4,654	26,160	11,677	3,438.5	22,760	12,544	10,230	11,296		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Area Outside of Machine Shop		Tank Room Leaching Pool		Sanitary Leaching Pools (West)				LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-19A	B-19A	B-20A	B-20A	B-21A	B-21A	B-21B	B-21B		
SAMPLE DEPTH	0 - 2'	2' - 4'	10' - 12'	18' - 20'	10' - 12'	14' - 16'	12' - 14'	16' - 18'		
DATE OF COLLECTION	5/01/97	5/01/97	5/13/97	5/13/97	5/08/97	5/08/97	5/12/97	5/12/97		
DILUTION FACTOR	5	1	1	1	100	5	1	1		
PERCENT SOLIDS	86	95	94	96	91	87	97	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	140 J	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	730 J	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	79	U	U	U	22	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	U	U	43 J	U	U	U	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	160	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Area Outside of Machine Shop		Tank Room Leaching Pool		Sanitary Leaching Pools (West)				LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-19A	B-19A	B-20A	B-20A	B-21A	B-21A	B-21B	B-21B		
SAMPLE DEPTH	0 - 2'	2' - 4'	10' - 12'	18' - 20'	10' - 12'	14' - 16'	12' - 14'	16' - 18'		
DATE OF COLLECTION	5/01/97	5/01/97	5/13/97	5/13/97	5/08/97	5/08/97	5/12/97	5/12/97		
DILUTION FACTOR	5	1	1	1	100	5	1	1		
PERCENT SOLIDS	86	95	94	96	91	87	97	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	160	U	U	U	74	U	18	50,000
Dibenzofuran	U	U	59 J	U	U	U	45 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	87 J	U	110	U	U	U	76	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	810	U	910	33	U	380	720	74	18	50,000
Anthracene	490	U	240	12 J	U	110	200	18	18	50,000
Carbazole	85 J	U	100 J	U	U	U	88 J	6.9 J	360	—
Di-n-butylphthalate	U	U	140 J	U	U	U	U	U	360	8,100
Fluoranthene	2,100	29	1,300	53	U	470	740	81	18	50,000
Pyrene	1,900	39	1,000	50	U	350	660	61	18	50,000
Butylbenzylphthalate	U	U	330 J	U	U	U	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	1,500	U	640	42	U	180	310	44	18	224 or MDL
Chrysene	2,300	U	510	36	U	210	330	34	18	400
bis(2-Ethylhexyl)phthalate	1,800 J	360	U	U	U	U	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	5,800	180	720	56	U	200	350	37	18	1,100
Benzo(k)fluoranthene	1,900	63	320	U	U	U	120	U	18	1,100
Benzo(a)pyrene	3,900	130	550	21	U	160	260	29	18	61 or MDL
Indeno(1,2,3-cd)pyrene	6,200	130	310	U	U	U	200	U	18	3,200
Dibenzo(a,h)anthracene	1,200	32	81	U	U	U	53	U	18	14 or MDL
Benzo(g,h,i)perylene	8,000	120	350	U	U	U	190	U	18	50,000
TOTAL CaPAHs	22,800	535	3,131	155	0	750	1,623	144		10,000*
TOTAL SVOCs	38,372	1,083	7,952	303	0	2,790	4,438	384.9		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22A	B-22A	B-22B	B-22B	B-22C	B-22C	B-22E	B-22E	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	10' - 12'	14' - 16'	10' - 12'	12' - 14'	10' - 12'	12' - 14'	4' - 6'	10' - 12'		
DATE OF COLLECTION	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/09/97	5/13/97		
DILUTION FACTOR	2	5	1	1	1	1	1	1		
PERCENT SOLIDS	95	97	97	97	94	95	96	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	26 J	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	30 J	U	U	U	U	38	37	30	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	87 J	U	U	U	U	72 J	20 J	31 J	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22A	B-22A	B-22B	B-22B	B-22C	B-22C	B-22E	B-22E	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	10' - 12'	14' - 16'	10' - 12'	12' - 14'	10' - 12'	12' - 14'	4' - 6'	10' - 12'		
DATE OF COLLECTION	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/09/97	5/13/97		
DILUTION FACTOR	2	5	1	1	1	1	1	1		
PERCENT SOLIDS	95	97	97	97	94	95	96	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	U	U	U	160	130	18	50,000
Dibenzofuran	U	U	U	U	U	10 J	65 J	51 J	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	U	U	U	U	U	7.8 J	120	100	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	57	U	23	9.9 J	34	68	1,100	980	18	50,000
Anthracene	U	U	U	U	U	10 J	280	260	18	50,000
Carbazole	U	U	U	U	U	9.6 J	130 J	100 J	360	—
Di-n-butylphthalate	U	U	U	U	150 J	U	U	150 J	360	8,100
Fluoranthene	37	U	31	13 J	55	78	1,400	1,700	18	50,000
Pyrene	36	U	32	14 J	49	95	1,200	1,500	18	50,000
Butylbenzylphthalate	U	U	U	U	860	450	160 J	630	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	48	U	29	16 J	41	69	640	990	18	224 or MDL
Chrysene	43	U	24	8.5 J	41	54	660	990	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	U	740	130 J	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	26 J	U	44	10 J	68	52	700	1,200	18	1,100
Benzo(k)fluoranthene	U	U	U	U	U	36	320	570	18	1,100
Benzo(a)pyrene	28 J	U	24	U	38	45	560	900	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	28	390	580	18	3,200
Dibenzo(a,h)anthracene	U	U	U	U	U	U	120	140	18	14 or MDL
Benzo(g,h,i)perylene	U	U	16 J	U	U	28	340	580	18	50,000
TOTAL CaPAHs	145	0	121	34.5	188	284	3,390	5,370		10,000*
TOTAL SVOCs	392	0	223	71.4	2,102	1,280.4	8,402	11,612		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22E	B-22F	B-22F	B-22K	B-22K	B-22K	B-22L	B-22L	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	20' - 22'	10' - 12'	18' - 20'	10' - 12'	12' - 14'	18' - 20'	12' - 14'	16' - 18'		
DATE OF COLLECTION	5/09/97	5/09/97	5/09/97	5/14/97	5/14/97	5/14/97	5/14/97	5/14/97		
DILUTION FACTOR	1	5	1	12.5	5	1	1	1		
PERCENT SOLIDS	90	90	96	75	87	93	95	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	2,400 J	1,500 J	U	770	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	130 J	200 J	U	33,000	31,000	U	50 J	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	51 J	140 J	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	81 J	90 J	U	40,000	17,000	40 J	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	61	200	U	240 J	820	U	44	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	44 J	160 J	U	U	370 J	U	53 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	57 J	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22E	B-22F	B-22F	B-22K	B-22K	B-22K	B-22L	B-22L	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	20' - 22'	10' - 12'	18' - 20'	10' - 12'	12' - 14'	18' - 20'	12' - 14'	16' - 18'		
DATE OF COLLECTION	5/09/97	5/09/97	5/09/97	5/14/97	5/14/97	5/14/97	5/14/97	5/14/97		
DILUTION FACTOR	1	5	1	12.5	5	1	1	1		
PERCENT SOLIDS	90	90	96	75	87	93	95	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	500 or MDL
Acenaphthene	68	1,200	18 U	240 J	1,600	18 U	190	18 U	18	50,000
Dibenzofuran	27 J	340 J	18 U	140 J	770 J	18 U	42 J	18 U	360	6,200
2,4-Dinitrotoluene	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	—
Diethylphthalate	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	7,100
4-Chlorophenyl-phenylether	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	—
Fluorene	52	670	18 U	1,500 U	1,300	18 U	100	18 U	18	50,000
4-Nitroaniline	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	—
N-Nitrosodiphenylamine	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	—
4-Bromophenyl-phenylether	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	—
Hexachlorobenzene	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	410
Phenanthrene	430	6,700	18 U	1,400	8,400	11 J	1,300	18 U	18	50,000
Anthracene	130	1,800	18 U	270 J	2,400	18 U	320	18 U	18	50,000
Carbazole	58 J	730 J	18 U	150 J	970 J	18 U	140 J	18 U	360	—
Di-n-butylphthalate	360 U	2,600	18 U	1,500 U	470 J	18 U	1,900	190 J	360	8,100
Fluoranthene	640	11,000	18 U	1,300	7,700	14 J	3,200	18 U	18	50,000
Pyrene	510	8,600	9 J	1,200	7,000	16 J	2,900	7.1 J	18	50,000
Butylbenzylphthalate	370	4,800	18 U	1,500 U	420 J	18 U	4,100	18 U	360	50,000
3,3'-Dichlorobenzidine	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	720	—
Benzo(a)anthracene	360	4,800	11 J	810	3,900	18	1,400	14 J	18	224 or MDL
Chrysene	440	5,200	18 U	610	3,300	8.8 J	1,600	18 U	18	400
bis(2-Ethylhexyl)phthalate	380	1,600 J	18 U	1,500 U	1,800 U	360 U	1,800	910	360	50,000
Di-n-octylphthalate	360 U	1,800 U	360 U	1,500 U	1,800 U	360 U	1,800 U	360 U	360	50,000
Benzo(b)fluoranthene	530	6,200	18 U	620	3,300	18 U	2,000	8.2 J	18	1,100
Benzo(k)fluoranthene	230	2,200	18 U	1,500 U	1,500	18 U	750	18 U	18	1,100
Benzo(a)pyrene	320	4,500	18 U	400	3,000	18 U	1,500	18 U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	260	2,900	18 U	1,500 U	1,600	18 U	950	18 U	18	3,200
Dibenzo(a,h)anthracene	58	830	18 U	1,500 U	530	18 U	230	18 U	18	14 or MDL
Benzo(g,h,i)perylene	280	2,400	18 U	1,500 U	1,600	18 U	940	18 U	18	50,000
TOTAL CaPAHs	2,198	26,630	11	2,440	17,130	26.8	8,430	22.2		10,000*
TOTAL SVOCs	5,510	69,860	20	82,780	100,507	107.8	26,279	1,129.3		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)									
SAMPLE IDENTIFICATION	B-22G	B-22G	B-22H	B-22H	B-22I	B-22I	B-22J	B-22J	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 2'	4' - 6'	0 - 2'	12' - 14'	6' - 8'	10' - 12'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/09/97	5/09/97	5/12/97	5/12/97	5/08/97	5/08/97	5/09/97	5/09/97		
DILUTION FACTOR	1	1	5	1	1	2	2	20		
PERCENT SOLIDS	92	96	90	96	98	96	88	89		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	21 J	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	---
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	62	U	2,000	U	U	84	77	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	29 J	U	800 J	U	U	100 J	69 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	65 J	U	U	24 J	29 J	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U		360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)									
SAMPLE IDENTIFICATION	B-22G	B-22G	B-22H	B-22H	B-22I	B-22I	B-22J	B-22J	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	0 - 2'	4' - 6'	0 - 2'	12' - 14'	6' - 8'	10' - 12'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/09/97	5/09/97	5/12/97	5/12/97	5/08/97	5/08/97	5/09/97	5/09/97		
DILUTION FACTOR	1	1	5	1	1	2	2	20		
PERCENT SOLIDS	92	96	90	96	98	96	88	89		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	120	U	3,200	U	U	150	530	U	18	50,000
Dibenzofuran	59 J	U	2,000	U	U	160 J	170 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	100	U	3,000	U	U	160	360	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	850	U	23,000	U	U	280	4,400	U	18	50,000
Anthracene	210	U	6,200	U	U	71	880	U	18	50,000
Carbazole	120 J	U	3,000	U	U	U	610 J	U	360	—
Di-n-butylphthalate	U	U	U	U	U	U	200 J	6,300 J	360	8,100
Fluoranthene	1,100	U	22,000	U	U	260	6,600	920	18	50,000
Pyrene	870	U	17,000	U	U	190	5,700	2,300	18	50,000
Butylbenzylphthalate	U	U	660 J	U	720	9,000	1,300	100,000	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	590	U	9,100	U	U	83	2,700	1,000	18	224 or MDL
Chrysene	560	U	8,400	U	U	77	3,200	880	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	750	U	9,100	U	U	66	3,500	1,800	18	1,100
Benzo(k)fluoranthene	270	U	4,000	U	U	U	1,200	980	18	1,100
Benzo(a)pyrene	540	U	7,700	U	U	U	2,500	1,100	18	61 or MDL
Indeno(1,2,3-cd)pyrene	400	U	4,500	U	U	U	1,500	420	18	3,200
Dibenzo(a,h)anthracene	130	U	1,200	U	U	U	420	U	18	14 or MDL
Benzo(g,h,i)perylene	380	U	4,300	U	U	U	1,400	U	18	50,000
TOTAL CaPAHs	3,240	0	44,000	0	0	226	15,020	6,180		10,000*
TOTAL SVOCs	7,161	0	131,225	0	720	10,705	37,345	115,700		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
☐: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Dry Well/Manhole West of Carpentry Shop		Center Courtyard Area		Dry Well South of Plant 12A		Drainage Chamber North of Lobby/Loading Area		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-27A	B-27A	B-28A	B-28A	B-29A	B-29A	B-30A	B-30A		
SAMPLE DEPTH	6' - 8'	8' - 10'	4' - 6'	6' - 8'	5' - 7'	9' - 11'	4' - 6'	10' - 12'		
DATE OF COLLECTION	5/01/97	5/01/97	4/29/97	4/29/97	5/13/97	5/13/97	4/30/97	4/30/97		
DILUTION FACTOR	1	1	1	1	1	1	2	1		
PERCENT SOLIDS	97	96	75	96	92	96	86	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	63 J	U	U	U	270 J	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	55 J	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	40	U	U	U	390	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	U	U	23 J	U	U	U	1,200	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	23	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Dry Well/Manhole West of Carpentry Shop		Center Courtyard Area		Dry Well South of Plant 12A		Drainage Chamber North of Lobby/Loading Area		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-27A	B-27A	B-28A	B-28A	B-29A	B-29A	B-30A	B-30A		
SAMPLE DEPTH	6' - 8'	8' - 10'	4' - 6'	6' - 8'	5' - 7'	9' - 11'	4' - 6'	10' - 12'		
DATE OF COLLECTION	5/01/97	5/01/97	4/29/97	4/29/97	5/13/97	5/13/97	4/30/97	4/30/97		
DILUTION FACTOR	1	1	1	1	1	1	2	1		
PERCENT SOLIDS	97	96	75	96	92	96	86	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	82	U	U	U	810	U	18	50,000
Dibenzofuran	U	U	50 J	U	U	U	470 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	U	U	93	U	U	U	700	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	U	U	1,200	U	U	U	6,500	U	18	50,000
Anthracene	U	U	180	U	U	U	640	U	18	50,000
Carbazole	U	U	87 J	U	U	U	440 J	U	360	—
Di-n-butylphthalate	U	U	U	U	U	U	870	U	360	8,100
Fluoranthene	U	U	1,900	U	U	U	5,800	U	18	50,000
Pyrene	U	U	1,800	U	U	U	290	U	18	50,000
Butylbenzylphthalate	U	U	380 J	U	U	U	4,900	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	U	U	750	U	U	U	1,400	U	18	224 or MDL
Chrysene	U	U	1,000	U	U	U	3,200	U	18	400
bis(2-Ethylhexyl)phthalate	U	U	3,800	72 J	U	U	15,000	U	360	50,000
Di-n-octylphthalate	U	U	300 J	U	U	U	380	U	360	50,000
Benzo(b)fluoranthene	U	U	1,400	U	U	U	2,900	U	18	1,100
Benzo(k)fluoranthene	U	U	560	U	U	U	1,200	U	18	1,100
Benzo(a)pyrene	U	U	820	U	U	U	380	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	320	U	U	U	730	U	18	3,200
Dibenzo(a,h)anthracene	U	U	85	U	U	U	260	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	290	U	U	U	890	U	18	50,000
TOTAL CaPAHs	0	0	4,935	0	0	0	10,070	0		10,000*
TOTAL SVOCs	0	0	15,246	72	0	0	49,675	0		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Dry Well in Stairwell Between Megapound and Plant 12A		Leaching Pools West of Boiler House		Southern Parking Lot		Adjacent to Former Recharge Basin		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-31A	B-31A	B-34A	B-34A	B-35A	B-35A	B-36A	B-36A		
SAMPLE DEPTH	1' - 3'	5' - 7'	12' - 14'	18' - 20'	0 - 2'	2' - 4'	24' - 26'	34' - 36'		
DATE OF COLLECTION	5/05/97	5/05/97	4/23/97	4/23/97	4/28/97	4/28/97	5/06/97	5/06/97		
DILUTION FACTOR	1	1	1	1	10	2	1	1		
PERCENT SOLIDS	90	94	88	95	89	94	93	92		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	15 J	U	U	U	7.5 J	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	8.1 J	U	11 J	U	6,100	1,700	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Dry Well in Stairwell Between Megapound and Plant 12A		Leaching Pools West of Boiler House		Southern Parking Lot		Adjacent to Former Recharge Basin			
SAMPLE IDENTIFICATION	B-31A	B-31A	B-34A	B-34A	B-35A	B-35A	B-36A	B-36A	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	1' - 3'	5' - 7'	12' - 14'	18' - 20'	0 - 2'	2' - 4'	24' - 26'	34' - 36'		
DATE OF COLLECTION	5/05/97	5/05/97	4/23/97	4/23/97	4/28/97	4/28/97	5/06/97	5/06/97		
DILUTION FACTOR	1	1	1	1	10	2	1	1		
PERCENT SOLIDS	90	94	88	95	89	94	93	92		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	24	U	U	U	1,400	U	23	U	18	50,000
Dibenzofuran	10 J	U	U	U	U	U	11 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	20	U	U	U	2,100	560	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	200	U	120	U	4,300	1,100	220	34	18	50,000
Anthracene	35	U	75	U	U	U	48	U	18	50,000
Carbazole	27 J	U	U	U	U	U	31 J	U	360	—
Di-n-butylphthalate	U	U	U	U	U	U	U	U	360	8,100
Fluoranthene	340	U	180	U	U	U	330	44	18	50,000
Pyrene	250	U	210	U	640	150	320	44	18	50,000
Butylbenzylphthalate	250 J	U	U	U	U	U	120 J	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	130	U	88	U	U	U	160	29	18	224 or MDL
Chrysene	170	U	130	U	U	U	200	22	18	400
bis(2-Ethylhexyl)phthalate	950	U	660	U	U	U	110 J	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	220	U	170	U	U	U	240	28	18	1,100
Benzo(k)fluoranthene	88	U	57	U	U	U	76	10 J	18	1,100
Benzo(a)pyrene	140	U	87	U	U	U	160	18	18	61 or MDL
Indeno(1,2,3-cd)pyrene	110	U	U	U	U	U	120	U	18	3,200
Dibenzo(a,h)anthracene	27	U	U	U	U	U	34	U	18	14 or MDL
Benzo(g,h,i)perylene	98	U	72	U	U	U	110	U	18	50,000
TOTAL CaPAHs	885	0	532	0	0	0	990	106.5		10,000*
TOTAL SVOCs	3,097.1	0	1,875	0	14,540	3,510	2,320.5	228.5		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
[ ]: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Adj. to Former Recharge Basin	Within Existing Recharge Basin			Former Drainage Basin		Former Drainage Trench East of Plant 12A			
SAMPLE IDENTIFICATION	B-36A	B-36B	B-36B	B-36B	B-37A	B-37A	B-38A	B-38A	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	40' - 42'	0 - 2'	12' - 14'	18' - 20'	4' - 6'	6' - 8'	4' - 6'	6' - 8'		
DATE OF COLLECTION	5/06/97	5/07/97	5/07/97	5/07/97	4/23/97	4/23/97	4/23/97	4/23/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	89	96	93	93	94	90	94	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	12 J	U	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	U	U	U	U	11 J	U	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Adj. to Former Recharge Basin	Within Existing Recharge Basin			Former Drainage Basin		Former Drainage Trench East of Plant 12A		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-36A	B-36B	B-36B	B-36B	B-37A	B-37A	B-38A	B-38A		
SAMPLE DEPTH	40' - 42'	0 - 2'	12' - 14'	18' - 20'	4' - 6'	6' - 8'	4' - 6'	6' - 8'		
DATE OF COLLECTION	5/06/97	5/07/97	5/07/97	5/07/97	4/23/97	4/23/97	4/23/97	4/23/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	89	96	93	93	94	90	94	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	U	34	24	U	U	18	50,000
Dibenzofuran	U	U	U	U	13 J	16 J	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	U	U	U	U	22	41	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	10 J	U	U	U	270	280	U	15 J	18	50,000
Anthracene	U	U	U	U	59	78	U	U	18	50,000
Carbazole	U	U	U	U	22 J	11 J	U	U	360	—
Di-n-butylphthalate	U	U	U	U	U	U	8,100	4,700	360	8,100
Fluoranthene	19	U	U	U	390	250	U	19	18	50,000
Pyrene	19	U	U	U	350	220	U	16 J	18	50,000
Butylbenzylphthalate	U	120 J	U	U	150 J	U	2,200	7,900	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	17 J	U	U	U	190	130	U	U	18	224 or MDL
Chrysene	9.8 J	U	U	U	220	140	U	U	18	400
bis(2-Ethylhexyl)phthalate	78 J	U	U	U	140 J	U	1,300	720	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	U	U	U	U	280	120	U	U	18	1,100
Benzo(k)fluoranthene	U	U	U	U	110	47	U	U	18	1,100
Benzo(a)pyrene	7.8 J	U	U	U	210	87	U	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	130	44	U	U	18	3,200
Dibenzo(a,h)anthracene	U	U	U	U	37	17 J	U	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	U	U	120	37	U	U	18	50,000
TOTAL CaPAHs	34.6	0	0	0	1,177	585	0	0		10,000*
TOTAL SVOCs	160.6	120	0	0	2,770	1,542	11,600	13,370		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Drainage Trench East of Plant 12A		Dry Wells East of Plant 12A						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-38B	B-38B	B-39A	B-39A	B-39B	B-39B	B-39C	B-39C		
SAMPLE DEPTH	1' - 3'	3' - 5'	6' - 8'	10' - 12'	3' - 5'	13' - 15'	8' - 10'	14' - 16'		
DATE OF COLLECTION	4/23/97	4/23/97	5/01/97	5/01/97	5/01/97	5/01/97	4/28/97	4/28/97		
DILUTION FACTOR	10	1	2.5	1	1	1	1	1		
PERCENT SOLIDS	84	94	81	92	11	92	92	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	68	U	U	U	16 J	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	870 J	U	82 J	U	U	U	10 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Drainage Trench East of Plant 12A		Dry Wells East of Plant 12A						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-38B	B-38B	B-39A	B-39A	B-39B	B-39B	B-39C	B-39C		
SAMPLE DEPTH	1' - 3'	3' - 5'	6' - 8'	10' - 12'	3' - 5'	13' - 15'	8' - 10'	14' - 16'		
DATE OF COLLECTION	4/23/97	4/23/97	5/01/97	5/01/97	5/01/97	5/01/97	4/28/97	4/28/97		
DILUTION FACTOR	10	1	2.5	1	1	1	1	1		
PERCENT SOLIDS	84	94	81	92	11	92	92	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	170	U	21	U	13 J	U	18	50,000
Dibenzofuran	U	U	120 J	U	U	U	13 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	U	U	200	U	14 J	U	13 J	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	840	U	1,700	U	210	U	110	U	18	50,000
Anthracene	280	U	220	U	39	U	26	U	18	50,000
Carbazole	U	U	200 J	U	30 J	U	U	U	360	—
Di-n-butylphthalate	U	U	U	U	180 J	2,700	5,000	3,500	360	8,100
Fluoranthene	320	U	1,900	7.4 J	370	U	79	U	18	50,000
Pyrene	570	U	1,200	9.2 J	270	U	74	U	18	50,000
Butylbenzylphthalate	1,300 J	U	4,000	120 J	970	U	3,500	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	280	U	690	U	160	U	47	U	18	224 or MDL
Chrysene	220	U	910	U	170	U	35	U	18	400
bis(2-Ethylhexyl)phthalate	U	U	10,000	U	1,400	160 J	200 J	U	360	50,000
Di-n-octylphthalate	U	U	430 J	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	160 J	U	1,000	U	310	U	43	U	18	1,100
Benzo(k)fluoranthene	U	U	430	U	110	U	U	U	18	1,100
Benzo(a)pyrene	U	U	650	U	170	U	32	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	490	U	130	U	13 J	U	18	3,200
Dibenzo(a,h)anthracene	U	U	130	U	36	U	U	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	500	U	140	U	16 J	U	18	50,000
TOTAL CaPAHs	660	0	4,300	0	1,086	0	170	0		10,000*
TOTAL SVOCs	4,840	0	25,090	136.6	4,730	2,860	9,240	3,500		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Sump No. 2				Former Pit East of Sump No. 2		Former Trenches to Resin Waste Pit (Sump No. 1)			
SAMPLE IDENTIFICATION	B-41A	B-41A	B-41B	B-41B	B-42A	B-42A	B-43A	B-43A	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	2' - 4'	10' - 12'	8' - 10'	14' - 16'	2' - 4'	10' - 12'	0 - 2'	4' - 6'		
DATE OF COLLECTION	5/12/97	5/12/97	5/13/97	5/13/97	5/12/97	5/12/97	4/25/97	4/25/97		
DILUTION FACTOR	5	1	5	50	1	1	1	1		
PERCENT SOLIDS	91	95	86	88	93	95	90	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	U	U	14 J	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	U	U	41 J	U	U	U	28 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Sump No. 2				Former Pit East of Sump No. 2		Former Trenches to Resin Waste Pit (Sump No. 1)		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-41A	B-41A	B-41B	B-41B	B-42A	B-42A	B-43A	B-43A		
SAMPLE DEPTH	2' - 4'	10' - 12'	8' - 10'	14' - 16'	2' - 4'	10' - 12'	0 - 2'	4' - 6'		
DATE OF COLLECTION	5/12/97	5/12/97	5/13/97	5/13/97	5/12/97	5/12/97	4/25/97	4/25/97		
DILUTION FACTOR	5	1	5	50	1	1	1	1		
PERCENT SOLIDS	91	95	86	88	93	95	90	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	U	U	U	22	U	18	50,000
Dibenzofuran	U	U	U	U	U	U	15 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	U	U	U	U	U	U	13 J	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	740 J	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	U	U	U	U	U	U	200	U	18	50,000
Anthracene	U	U	U	U	U	U	40	U	18	50,000
Carbazole	U	U	U	U	U	U	11 J	U	360	—
Di-n-butylphthalate	420 J	U	U	U	U	U	210 J	U	360	8,100
Fluoranthene	U	U	U	U	U	U	340	U	18	50,000
Pyrene	U	U	U	U	U	U	300	U	18	50,000
Butylbenzylphthalate	31,000	U	35,000	**410,000**	U	U	520	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	U	U	U	U	U	U	180	U	18	224 or MDL
Chrysene	U	U	U	U	U	U	190	U	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	91 J	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	U	U	U	U	U	U	230	U	18	1,100
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	18	1,100
Benzo(a)pyrene	U	U	U	U	U	U	**170**	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	100	U	18	3,200
Dibenzo(a,h)anthracene	U	U	U	U	U	U	**36**	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	U	U	U	U	100	U	18	50,000
TOTAL CaPAHs	0	0	0	0	0	0	906	0		10,000*
TOTAL SVOCs	32,160	0	35,041	410,000	0	0	2,810	0		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
— : Not established.
MDL: Method Detection Limit.
[box]: Value exceeds TAGM 4046 Appendix A criteria.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump No. 1)		Former Dry Well in Vicinity of Trenches		Dry Well Northeast of Plant 12				LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-43B	B-43B	B-44A	B-44A	B-45A	B-45A	Field Blank	Field Blank		
SAMPLE DEPTH	4' - 6'	8' - 10'	16' - 18'	18' - 20'	4' - 6'	6' - 8'	--	--		
DATE OF COLLECTION	4/25/97	4/25/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	5/01/97		
DILUTION FACTOR	5	2	1	1	1	1	1	1		
PERCENT SOLIDS	93	93	95	97	92	89	--	--		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)	(ug/kg)	(ug/kg)
Phenol	U	U	45 J	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	18 J	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	—
2,4-Dichlorophenol	U	U	20 J	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	—
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	—
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	—
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-Chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	—
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	—
Hexachloroethane	U	U	U	U	U	U	U	U	360	—
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	—
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	49	50	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	—
2-Methylnaphthalene	U	U	U	U	62 J	78 J	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	—
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	—
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump No. 1)		Former Dry Well in Vicinity of Trenches		Dry Well Northeast of Plant 12					
SAMPLE IDENTIFICATION	B-43B	B-43B	B-44A	B-44A	B-45A	B-45A	Field Blank	Field Blank	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	4' - 6'	8' - 10'	16' - 18'	18' - 20'	4' - 6'	6' - 8'	--	--		
DATE OF COLLECTION	4/25/97	4/25/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	5/01/97		
DILUTION FACTOR	5	2	1	1	1	1	1	1		
PERCENT SOLIDS	93	93	95	97	92	89	--	--		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	14 J	U	64	140	U	U	18	50,000
Dibenzofuran	U	U	18 J	U	42 J	74 J	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	—
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Fluorene	U	U	U	U	59	99	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	—
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	—
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	—
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	U	U	63	U	420	710	U	U	18	50,000
Anthracene	U	U	12 J	U	100	150	U	U	18	50,000
Carbazole	U	U	U	U	27 J	48 J	U	U	360	—
Di-n-butylphthalate	20,000	8,600	220 J	91 J	280 J	750	U	U	360	8,100
Fluoranthene	U	U	98	16 J	510	1,100	U	U	18	50,000
Pyrene	41 J	U	88	11 J	430	950	U	U	18	50,000
Butylbenzylphthalate	16,000	10,000	1,600	620	800	2,300	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	—
Benzo(a)anthracene	U	U	47	U	230	480	U	U	18	224 or MDL
Chrysene	U	U	42	U	300	550	U	U	18	400
bis(2-Ethylhexyl)phthalate	1,200 J	1,200	650	420	1,300	1,600	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	U	U	43	U	360	690	U	U	18	1,100
Benzo(k)fluoranthene	U	U	U	U	160	290	U	U	18	1,100
Benzo(a)pyrene	U	U	38	U	230	460	U	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	150	260	U	U	18	3,200
Dibenzo(a,h)anthracene	U	U	U	U	46	74	U	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	U	U	130	230	U	U	18	50,000
TOTAL CaPAHs	0	0	170	0	1,476	2,804	0	0		10,000*
TOTAL SVOCs	37,241	19,800	3,016	1,158	5,749	11,083	0	0		500,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
-- : Not applicable.
— : Not established.
MDL: Method Detection Limit.
□: Value exceeds TAGM 4046 Appendix A criteria.
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	Field Blank	Field Blank	Field Blank						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	--	--	--							
DATE OF COLLECTION	5/06/97	5/08/97	5/09/97							
DILUTION FACTOR	1	1	1							
PERCENT SOLIDS	--	--	--							
UNITS	(ug/L)	(ug/L)	(ug/L)						(ug/kg)	(ug/kg)
Phenol	U	U	U						360	30 or MDL
2-Chlorophenol	U	U	U						360	800
2-Methylphenol	U	U	U						360	100 or MDL
4-Methylphenol	U	U	U						360	900
2-Nitrophenol	U	U	U						360	330 or MDL
2,4-Dimethylphenol	U	U	U						360	—
2,4-Dichlorophenol	U	U	U						360	400
4-Chloro-3-methylphenol	U	U	U						360	240 or MDL
2,4,6-Trichlorophenol	U	U	U						360	—
2,4,5-Trichlorophenol	U	U	U						360	100
2,4-Dinitrophenol	U	U	U						720	200 or MDL
4-Nitrophenol	U	U	U						720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U						720	—
Pentachlorophenol	U	U	U						720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U						360	—
1,3-Dichlorobenzene	U	U	U						360	1,600
1,4-Dichlorobenzene	U	U	U						360	8,500
1,2-Dichlorobenzene	U	U	U						360	7,900
bis(2-Chloroisopropyl)ether	U	U	U						360	—
N-Nitroso-di-n-propylamine	U	U	U						360	—
Hexachloroethane	U	U	U						360	—
Nitrobenzene	U	U	U						360	200 or MDL
Isophorone	U	U	U						360	4,400
bis(2-Chloroethoxy)methane	U	U	U						360	—
1,2,4-Trichlorobenzene	U	U	U						360	3,400
Naphthalene	U	U	U						18	13,000
4-Chloroaniline	U	U	U						360	220 or MDL
Hexachlorobutadiene	U	U	U						360	—
2-Methylnaphthalene	U	U	U						360	36,400
Hexachlorocyclopentadiene	U	U	U						360	—
2-Chloronaphthalene	U	U	U						360	—
2-Nitroaniline	U	U	U						360	430 or MDL
Dimethylphthalate	U	U	U						360	2,000
Acenaphthylene	U	U	U						18	41,000
2,6-Dinitrotoluene	U	U	U						360	1,000

TABLE G-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	Field Blank	Field Blank	Field Blank						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	–	–	–							
DATE OF COLLECTION	5/06/97	5/08/97	5/09/97							
DILUTION FACTOR	1	1	1							
PERCENT SOLIDS	–	–	–							
UNITS	(ug/L)	(ug/L)	(ug/L)						(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U						360	500 or MDL
Acenaphthene	U	U	U						18	50,000
Dibenzofuran	U	U	U						360	6,200
2,4-Dinitrotoluene	U	U	U						360	—
Diethylphthalate	U	U	U						360	7,100
4-Chlorophenyl-phenylether	U	U	U						360	—
Fluorene	U	U	U						18	50,000
4-Nitroaniline	U	U	U						360	—
N-Nitrosodiphenylamine	U	U	U						360	—
4-Bromophenyl-phenylether	U	U	U						360	—
Hexachlorobenzene	U	U	U						360	410
Phenanthrene	U	U	U						18	50,000
Anthracene	U	U	U						18	50,000
Carbazole	U	U	U						360	—
Di-n-butylphthalate	U	U	U						360	8,100
Fluoranthene	U	U	U						18	50,000
Pyrene	U	U	U						18	50,000
Butylbenzylphthalate	U	U	U						360	50,000
3,3'-Dichlorobenzidine	U	U	U						720	—
Benzo(a)anthracene	U	U	U						18	224 or MDL
Chrysene	U	U	U						18	400
bis(2-Ethylhexyl)phthalate	U	U	U						360	50,000
Di-n-octylphthalate	U	U	U						360	50,000
Benzo(b)fluoranthene	U	U	U						18	1,100
Benzo(k)fluoranthene	U	U	U						18	1,100
Benzo(a)pyrene	U	U	U						18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U						18	3,200
Dibenzo(a,h)anthracene	U	U	U						18	14 or MDL
Benzo(g,h,i)perylene	U	U	U						18	50,000
TOTAL CaPAHs	0	0	0							10,000*
TOTAL SVOCs	0	0	0							500,000

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
– : Not applicable.
— : Not established.
MDL: Method Detection Limit.
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A.

TABLE G-8
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Northern Leaching Chambers				Leaching Chamber North of Carpentry Shop		Chemical Storage Area/ Concrete Platform		
SAMPLE IDENTIFICATION	B-14A	B-14A	B-14B	B-14B	B-16A	B-16A	B-17A	B-17A	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	11' - 13'	17' - 19'	6' - 8'	12' - 14'	12' - 14'	18' - 20'	0 - 2'	2' - 4'	
DATE OF COLLECTION	5/01/97	5/01/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	4/25/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	79.9	86.8	60.1	73.2	69.5	94.0	93.8	82.1	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	990	59.1	127	59.1	117	U	48.9	251	25.0
JP-5 Jet Fuel	U	U	U	U	U	N/A	U	U	6.6
#2 Fuel Oil	U	U	U	U	U	N/A	U	U	6.6
#4 Fuel Oil	U	U	U	U	U	N/A	U	U	6.6
#6 Fuel Oil	U	U	U	U	U	N/A	U	U	6.6
Gasoline	U	U	U	U	U	N/A	U	U	—
Kerosene	U	U	U	U	U	N/A	U	U	—
Lubricating Oil	Present	U	Present	Present	Present	N/A	Present	U	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Chemical Storage Area/Concrete Platform				Former Fuel USTs East of Plant 12				LABORATORY QUANTITATION LIMITS
SAMPLE IDENTIFICATION	B-17B	B-17B	B-17C	B-17C	B-18A	B-18A	B-18B	B-18B	
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	4' - 6'	
DATE OF COLLECTION	4/25/97	4/25/97	4/25/97	4/25/97	5/07/97	5/07/97	5/08/97	5/08/97	
DILUTION FACTOR	5	1	1	1	1	1	1	1	
PERCENT SOLIDS	83.4	92.3	95.0	94.3	86.6	87.7	81.1	94.5	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	4,200	114	81.2	U	198	649	101	252	25.0
JP-5 Jet Fuel	U	U	U	N/A	U	U	U	U	6.6
#2 Fuel Oil	U	U	U	N/A	193	667	U	602	6.6
#4 Fuel Oil	U	U	U	N/A	U	U	U	U	6.6
#6 Fuel Oil	U	U	U	N/A	U	U	U	U	6.6
Gasoline	U	U	U	N/A	U	U	U	U	—
Kerosene	U	U	U	N/A	U	U	U	U	—
Lubricating Oil	Present	Present	Present	N/A	U	U	Present	U	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Area Outside of Machine Shop		Tank Room Leaching Pool		Sanitary Leaching Pools (West)				
SAMPLE IDENTIFICATION	B-19A	B-19A	B-20A	B-20A	B-21A	B-21A	B-21B	B-21B	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	0 - 2'	2' - 4'	10' - 12'	18' - 20'	10' - 12'	14' - 16'	12' - 14'	16' - 18'	
DATE OF COLLECTION	5/01/97	5/01/97	5/13/97	5/13/97	5/08/97	5/08/97	5/12/97	5/12/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	86.1	94.6	94.1	95.6	90.8	87.4	96.9	97.7	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	1,470	202	26.9	76.6	25.5	U	42.1	U	25.0
JP-5 Jet Fuel	U	U	U	U	U	N/A	U	N/A	6.6
#2 Fuel Oil	U	U	U	U	U	N/A	U	N/A	6.6
#4 Fuel Oil	U	U	U	U	U	N/A	U	N/A	6.6
#6 Fuel Oil	U	U	U	U	U	N/A	U	N/A	6.6
Gasoline	U	U	U	U	U	N/A	U	N/A	—
Kerosene	U	U	U	U	U	N/A	U	N/A	—
Lubricating Oil	U	U	U	Present	Present	N/A	Present	N/A	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)								
SAMPLE IDENTIFICATION	B-22A	B-22A	B-22B	B-22B	B-22C	B-22C	B-22E	B-22E	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	10' - 12'	14' - 16'	10' - 12'	12' - 14'	10' - 12'	12' - 14'	4' - 6'	10' - 12'	
DATE OF COLLECTION	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/09/97	5/13/97	
DILUTION FACTOR	5	1	1	1	1	1	1	1	
PERCENT SOLIDS	95.4	96.6	96.9	96.8	93.8	95.2	96.3	92.8	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	3,480	30.6	253	124	572	499	44.2	50.3	25.0
JP-5 Jet Fuel	U	U	U	U	U	U	U	U	6.6
#2 Fuel Oil	U	U	U	U	U	U	U	U	6.6
#4 Fuel Oil	U	U	U	U	U	U	U	U	6.6
#6 Fuel Oil	U	U	U	U	U	U	U	U	6.6
Gasoline	U	U	U	U	U	U	U	U	—
Kerosene	U	U	U	U	U	U	U	U	—
Lubricating Oil	Present	U	Present	Present	Present	Present	U	Present	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)								
SAMPLE IDENTIFICATION	B-22E	B-22F	B-22F	B-22K	B-22K	B-22K	B-22L	B-22L	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	20' - 22'	10' - 12'	18' - 20'	10' - 12'	12' - 14'	18' - 20'	12' - 14'	16' - 18'	
DATE OF COLLECTION	5/09/97	5/09/97	5/09/97	5/14/97	5/14/97	5/14/97	5/14/97	5/14/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	89.6	89.7	95.6	75.4	87.4	92.9	94.8	96.3	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	134	126	U	837	557	25.0	35.9	U	25.0
JP-5 Jet Fuel	U	U	N/A	U	U	U	U	N/A	6.6
#2 Fuel Oil	U	U	N/A	U	U	U	U	N/A	6.6
#4 Fuel Oil	U	U	N/A	U	U	U	U	N/A	6.6
#6 Fuel Oil	U	U	N/A	U	U	U	U	N/A	6.6
Gasoline	U	U	N/A	U	U	U	U	N/A	—
Kerosene	U	U	N/A	U	U	U	U	N/A	—
Lubricating Oil	Present	Present	N/A	Present	Present	U	Present	N/A	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								
SAMPLE IDENTIFICATION	B-22G	B-22G	B-22H	B-22H	B-22I	B-22I	B-22J	B-22J	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	0 - 2'	4' - 6'	0 - 2'	12' - 14'	6' - 8'	10' - 12'	0 - 2'	2' - 4'	
DATE OF COLLECTION	5/09/97	5/09/97	5/12/97	5/12/97	5/08/97	5/08/97	5/09/97	5/09/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	92.4	96.5	90.2	96.2	97.7	96.2	88.1	88.9	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	U	U	97.3	U	U	U	138	104	25.0
JP-5 Jet Fuel	N/A	N/A	U	N/A	N/A	N/A	U	U	6.6
#2 Fuel Oil	N/A	N/A	U	N/A	N/A	N/A	U	U	6.6
#4 Fuel Oil	N/A	N/A	U	N/A	N/A	N/A	U	U	6.6
#6 Fuel Oil	N/A	N/A	U	N/A	N/A	N/A	U	U	6.6
Gasoline	N/A	N/A	U	N/A	N/A	N/A	U	U	—
Kerosene	N/A	N/A	U	N/A	N/A	N/A	U	U	—
Lubricating Oil	N/A	N/A	U	N/A	N/A	N/A	Present	Present	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Dry Well/Manhole West of Carpentry Shop		Center Courtyard Area		Dry Well South of Plant 12A		Drainage Chamber North of Lobby/Loading Area		
SAMPLE IDENTIFICATION	B-27A	B-27A	B-28A	B-28A	B-29A	B-29A	B-30A	B-30A	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	6' - 8'	8' - 10'	4' - 6'	6' - 8'	5' - 7'	9' - 11'	4' - 6'	10' - 12'	
DATE OF COLLECTION	5/01/97	5/01/97	4/29/97	4/29/97	5/13/97	5/13/97	4/30/97	4/30/97	
DILUTION FACTOR	1	1	1	1	1	1	12.5	1	
PERCENT SOLIDS	97.2	96.5	74.7	95.6	92.3	96.3	86.2	95.0	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	U	51.9	824	U	U	U	4,290	U	25.0
JP-5 Jet Fuel	N/A	U	U	N/A	N/A	N/A	U	N/A	6.6
#2 Fuel Oil	N/A	U	U	N/A	N/A	N/A	U	N/A	6.6
#4 Fuel Oil	N/A	U	U	N/A	N/A	N/A	U	N/A	6.6
#6 Fuel Oil	N/A	U	U	N/A	N/A	N/A	U	N/A	6.6
Gasoline	N/A	U	U	N/A	N/A	N/A	U	N/A	---
Kerosene	N/A	U	U	N/A	N/A	N/A	U	N/A	---
Lubricating Oil	N/A	Present	Present	N/A	N/A	N/A	Present	N/A	---

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
--- : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Dry Well in Stairwell Between Megapound and Plant 12A		Leaching Pools West of Boiler House		Southern Parking Lot		Adjacent to Former Recharge Basin		
SAMPLE IDENTIFICATION	B-31A	B-31A	B-34A	B-34A	B-35A	B-35A	B-36A	B-36A	
SAMPLE DEPTH	1' - 3'	5' - 7'	12' - 14'	18' - 20'	0 - 2'	2' - 4'	24' - 26'	34' - 36'	LABORATORY QUANTITATION LIMITS
DATE OF COLLECTION	5/05/97	5/05/97	4/23/97	4/23/97	4/28/97	4/28/97	5/06/97	5/06/97	
DILUTION FACTOR	1	1	5	1	5	1	1	1	
PERCENT SOLIDS	89.9	94.2	88.2	95.0	88.6	94.0	92.8	92.5	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	138	U	2,460	U	3,860	713	56.3	U	25.0
JP-5 Jet Fuel	U	N/A	U	N/A	N/A	N/A	U	N/A	6.6
#2 Fuel Oil	U	N/A	U	N/A	N/A	N/A	U	N/A	6.6
#4 Fuel Oil	U	N/A	U	N/A	6,240 D	1,070 D*	U	N/A	6.6
#6 Fuel Oil	U	N/A	U	N/A	N/A	N/A	U	N/A	6.6
Gasoline	U	N/A	U	N/A	N/A	N/A	U	N/A	—
Kerosene	U	N/A	U	N/A	N/A	N/A	U	N/A	—
Lubricating Oil	Present	N/A	Present	N/A	N/A	N/A	Present	N/A	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.
D: Compound analyzed at a dilution factor of 50.
D*: Compound analyzed at a dilution factor of 10.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Adj. to Former Recharge Basin	Within Existing Recharge Basin			Former Drainage Basin		Former Drainage Trench East of Plant 12A		
SAMPLE IDENTIFICATION	B-36A	B-36B	B-36B	B-36B	B-37A	B-37A	B-38A	B-38A	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	40' - 42'	0 - 2'	12' - 14'	18' - 20'	4' - 6'	6' - 8'	4' - 6'	6' - 8'	
DATE OF COLLECTION	5/06/97	5/07/97	5/07/97	5/07/97	4/23/97	4/23/97	4/23/97	4/23/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	89.0	96.2	93.1	93.1	94.0	89.8	93.5	93.6	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	U	U	U	U	138	U	U	U	25.0
JP-5 Jet Fuel	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	6.6
#2 Fuel Oil	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	6.6
#4 Fuel Oil	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	6.6
#6 Fuel Oil	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	6.6
Gasoline	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	—
Kerosene	N/A	N/A	N/A	N/A	U	N/A	N/A	N/A	—
Lubricating Oil	N/A	N/A	N/A	N/A	Present	N/A	N/A	N/A	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Former Drainage Trench East of Plant 12A		Dry Wells East of Plant 12A						
SAMPLE IDENTIFICATION	B-38B	B-38B	B-39A	B-39A	B-39B	B-39B	B-39C	B-39C	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	1' - 3'	3' - 5'	6' - 8'	10' - 12'	3' - 5'	13' - 15'	8' - 10'	14' - 16'	
DATE OF COLLECTION	4/23/97	4/23/97	5/01/97	5/01/97	5/01/97	5/01/97	4/28/97	4/28/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	83.7	94.5	80.6	91.8	89.4	91.8	92.4	93.0	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	915	U	521	U	173	U	U	U	25.0
JP-5 Jet Fuel	U	N/A	U	N/A	U	N/A	N/A	N/A	6.6
#2 Fuel Oil	U	N/A	U	N/A	U	N/A	N/A	N/A	6.6
#4 Fuel Oil	U	N/A	U	N/A	U	N/A	N/A	N/A	6.6
#6 Fuel Oil	U	N/A	U	N/A	U	N/A	N/A	N/A	6.6
Gasoline	U	N/A	U	N/A	U	N/A	N/A	N/A	—
Kerosene	U	N/A	U	N/A	U	N/A	N/A	N/A	—
Lubricating Oil	Present	N/A	Present	N/A	Present	N/A	N/A	N/A	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Former Sump No. 2				Former Pit East of Sump No. 2		Former Trenches to Resin Waste Pit (Sump No. 1)		
SAMPLE IDENTIFICATION	B-41A	B-41A	B-41B	B-41B	B-42A	B-42A	B-43A	B-43A	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	2' - 4'	10' - 12'	8' - 10'	14' - 16'	2' - 4'	10' - 12'	0 - 2'	4' - 6'	
DATE OF COLLECTION	5/12/97	5/12/97	5/13/97	5/13/97	5/12/97	5/12/97	4/25/97	4/25/97	
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	91.4	95.4	85.7	88.2	92.6	94.6	90.1	97.1	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	50.8	U	55.2	48.3	U	U	431	125	25.0
JP-5 Jet Fuel	U	N/A	U	U	N/A	N/A	U	U	6.6
#2 Fuel Oil	U	N/A	U	U	N/A	N/A	U	U	6.6
#4 Fuel Oil	U	N/A	U	U	N/A	N/A	U	U	6.6
#6 Fuel Oil	U	N/A	U	U	N/A	N/A	U	U	6.6
Gasoline	U	N/A	U	U	N/A	N/A	U	U	—
Kerosene	U	N/A	U	U	N/A	N/A	U	U	—
Lubricating Oil	Present	N/A	Present	U	N/A	N/A	Present	Present	—

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
— : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump No. 1)		Former Dry Well in Vicinity of Trenches		Dry Well Northeast of Plant 12				
SAMPLE IDENTIFICATION	B-43B	B-43B	B-44A	B-44A	B-45A	B-45A	Field Blank	Field Blank	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	4' - 6'	8' - 10'	16' - 18'	18' - 20'	4' - 6'	6' - 8'	--	--	
DATE OF COLLECTION	4/25/97	4/25/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	5/01/97	
DILUTION FACTOR	1	1	1	1	1	1	1.1	1	
PERCENT SOLIDS	92.7	92.6	94.6	96.7	92.1	88.6	--	--	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/L)	(mg/L)	(mg/kg)
Total Petroleum Hydrocarbons	60.6	51.1	99.4	U	325	727	U	U	25.0
JP-5 Jet Fuel	U	U	U	N/A	U	U	U	U	6.6
#2 Fuel Oil	U	U	U	N/A	U	U	U	U	6.6
#4 Fuel Oil	U	U	U	N/A	U	U	U	U	6.6
#6 Fuel Oil	U	U	U	N/A	U	U	U	U	6.6
Gasoline	U	U	U	N/A	U	U	U	U	---
Kerosene	U	U	U	N/A	U	U	U	U	---
Lubricating Oil	Present	Present	Present	N/A	Present	Present	U	U	---

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
-- : Not applicable.
--- : Not established.

TABLE G-8 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS AND FUEL-RELATED CONSTITUENTS

SAMPLE IDENTIFICATION	Field Blank	Field Blank	Field Blank						LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	--	--	--						
DATE OF COLLECTION	5/06/97	5/08/97	5/09/97						
DILUTION FACTOR	1	1	1						
PERCENT SOLIDS	--	--	--						
UNITS	(mg/L)	(mg/L)	(mg/L)						(mg/kg)
Total Petroleum Hydrocarbons	U	U	U						25.0
JP-5 Jet Fuel	U	U	U						6.6
#2 Fuel Oil	U	U	U						6.6
#4 Fuel Oil	U	U	U						6.6
#6 Fuel Oil	U	U	U						6.6
Gasoline	U	U	U						---
Kerosene	U	U	U						---
Lubricating Oil	U	U	U						---

Qualifiers:
U: Compound analyzed for but not detected.
N/A: Compound not analyzed for.

Notes:
-- : Not applicable.
--- : Not established.

TABLE G-9
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Northern Leaching Chambers				Leaching Chamber North of Carpentry Shop		Chemical Storage Area/ Concrete Platform		INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-14A	B-14A	B-14B	B-14B	B-16A	B-16A	B-17A	B-17A		
SAMPLE DEPTH	11' - 13'	17' - 19'	6' - 8'	12' - 14'	12' - 14'	18' - 20'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/01/97	5/01/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	4/25/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	79.9	86.8	60.1	73.2	69.5	94.0	93.8	82.1		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	21.7	4.3 B	U	U	0.72 B	0.48	—
Arsenic	6.8	10.0	2.7	2.0	7.8	1.3	2.1	2.7	0.32	3 - 12*
Beryllium	0.15 B	0.12 B	U	0.19 B	0.33 B	U	0.11 B	0.13 B	0.021	0 - 1.75
Cadmium	1.2 B	0.30 B	1.4 B	U	2.4	0.18 B	0.68 B	U	0.042	0.1 - 1, (10***)
Chromium	23.7	34.3	35.1	24.5	**84.5**	3.6	6.9	15.0	0.11	1.5 - 40*, (50***)
Copper	**50.3**	**72.0**	**83.7**	15.7	**58.3**	3.1 B	9.8	11.3	0.43	1 - 50
Lead	99.5	28.1	22.8	12.8	40.1	0.94 B	7.2	12.7	0.18	200 - 500**
Mercury	**0.90**	0.18	**0.23**	U	**0.24**	U	0.13	0.15	0.053	0.001 - 0.2
Nickel	9.7 B	3.2 B	14.5	2.7 B	15.7	1.6 B	5.2 B	3.5 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	0.84 B	U	0.32 B	U	0.43 B	U	0.64 B	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	**94.5**	**76.5**	**214**	**109**	**129**	14.7	**65.2**	31.3	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
Bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Chemical Storage Area/Concrete Platform				Former Fuel USTs East of Plant 12				INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-17B	B-17B	B-17C	B-17C	B-18A	B-18A	B-18B	B-18B		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	4' - 6'		
DATE OF COLLECTION	4/25/97	4/25/97	4/25/97	4/25/97	5/07/97	5/07/97	5/08/97	5/08/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	83.4	92.3	95.0	94.3	86.6	87.7	81.1	94.5		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	0.89 B	0.69 B	0.88 B	U	0.65 B		1.9 B	0.74 B	0.48	—
Arsenic	**33.9**	**13.7**	1.6	0.52 B	8.5	6.4	**20.3**	**19.4**	0.32	3 - 12*
Beryllium	0.19 B	0.04 B	0.20 B	0.14 B	0.47 B	0.41 B	0.60	0.40 B	0.021	0 - 1.75
Cadmium	**15.9**	1.6	0.58 B	U	0.78	0.94	1.3	1.0	0.042	0.1 - 1, (10***)
Chromium	**95.4**	11.9	6.0	3.5	28.6	18.1	33.5	21.1	0.11	1.5 - 40*, (50***)
Copper	**411**	11.7	13.4	3.7 B	21.7	14.4	29.2	19.1	0.43	1 - 50
Lead	220	16.4	14.9	3.7	34.9	28.0	404	22.5	0.18	200 - 500**
Mercury	**2.8**	**0.23**	U	U	U	U	0.18	0.11 U	0.053	0.001 - 0.2
Nickel	**57.3**	6.3 B	4.0 B	2.0 B	9.6	8.1	14.6	9.3	0.17	0.5 - 25
Selenium	2.0 B	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	9.7	0.30 B	U	U	1.8	1.5	2.6	1.8	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	**1,550**	**147**	**262**	22.4	**53.2**	35.2	**70.5**	42.9	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
Bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Area Outside of Machine Shop		Tank Room Leaching Pool		Sanitary Leaching Pools (West)				INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-19A	B-19A	B-20A	B-20A	B-21A	B-21A	B-21B	B-21B		
SAMPLE DEPTH	0 - 2'	2' - 4'	10' - 12'	18' - 20'	10' - 12'	14' - 16'	12' - 14'	16' - 18'		
DATE OF COLLECTION	5/01/97	5/01/97	5/13/97	5/13/97	5/08/97	5/08/97	5/12/97	5/12/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	86.1	94.5	94.1	95.6	90.8	87.4	96.9	97.7		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	6.9 B	B	0.34 B	0.35 B	U	U	U	U	0.48	—
Arsenic	23.0	3.9	2.8	1.1	0.87 B	2.1	0.97 B	1.2	0.32	3 - 12*
Beryllium	0.33 B	0.33 B	0.26 B	0.27 B	0.22 B	0.28 B	0.27 B	0.21 B	0.021	0 - 1.75
Cadmium	1.4	U	U	U	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	60.2	15.3	8.9	26.1	4.3	7.7	6.1	4.8	0.11	1.5 - 40*, (50***)
Copper	38.4	8.2	10.2	19.7	6.9	38.2	17.2	6.4	0.43	1 - 50
Lead	2,400	4.5	10.1	5.7	3.2	19.1	5.3	2.3	0.18	200 - 500**
Mercury	1.1	U	U	U	0.12	U	U	U	0.053	0.001 - 0.2
Nickel	9.5	9.3	3.5 B	1.5 B	3.5 B	6.1	2.8 B	1.5 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	U	U	U	0.89 B	U	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	137	21.0	17.3	9.0	6.6	18.0	26.3	9.0	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
□ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22A	B-22A	B-22B	B-22B	B-22C	B-22C	B-22E	B-22E	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE DEPTH	10' - 12'	14' - 16'	10' - 12'	12' - 14'	10' - 12'	12' - 14'	4' - 6'	10' - 12'		
DATE OF COLLECTION	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/09/97	5/13/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	95.4	96.6	96.9	96.8	93.8	95.2	96.3	92.8		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	0.34 B	0.86 B	1.3 B		0.90 B	0.91 B	0.34 B	U	0.48	—
Arsenic	3.8	1.6	2.6	1.3	0.71 B	2.5	3.5	3.5	0.32	3 - 12*
Beryllium	0.27 B	0.21 B	0.25 B	0.19 B	0.19 B	0.25 B	0.30 B	0.30 B	0.021	0 - 1.75
Cadmium	U	U	0.83	0.20 B	1.1	1.8	U	U	0.042	0.1 - 1, (10***)
Chromium	5.9	10.5	**108**	33.2	**54.6**	**70.9**	9.1	8.2	0.11	1.5 - 40*, (50***)
Copper	6.5	3.4	**121**	45.3	**959**	**104**	7.2	9.5	0.43	1 - 50
Lead	7.7	1.7	23.3	7.3	19.8	27.4	5.7	20.7	0.18	200 - 500**
Mercury	U	U	U	U	**2.1**	U	U	0.14	0.053	0.001 - 0.2
Nickel	4.4	1.8 B	5.1	2.5 B	4.1 B	6.3	5.1	4.4	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	0.18 B	U	29.6	8.1	16.9	22.9	U	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	22.1	8.1	20.5	13.4	**96.1**	23.9	14.2	20.7	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
Bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22E	B-22F	B-22F	B-22K	B-22K	B-22K	B-22L	B-22L	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE DEPTH	20' - 22'	10' - 12'	18' - 20'	10' - 12'	12' - 14'	18' - 20'	12' - 14'	16' - 18'		
DATE OF COLLECTION	5/09/97	5/09/97	5/09/97	5/14/97	5/14/97	5/14/97	5/14/97	5/14/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	89.6	89.7	95.6	75.4	87.4	92.9	94.8	96.3		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	1.4 B	0.96 B	0.34 B	0.52 B	0.51 B	U	4.6 B	U	0.48	—
Arsenic	6.3	9.6	U	3.6	2.5	U	9.2	U	0.32	3 - 12*
Beryllium	0.37 B	0.53 B	0.18 B	0.18 B	0.25 B	0.11 B	0.31 B	0.18 B	0.021	0 - 1.75
Cadmium	1.5	U	0.15 B	0.28 B	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	39.6	22.8	3.8	8.9	8.1	4.6	20.0	4.2	0.11	1.5 - 40*, (50***)
Copper	**102**	31.5	7.8	29.2	17.2	3.8	10.9	5.2	0.43	1 - 50
Lead	25.4	22.5	2.1	7.1	5.9	1.6	10.8	1.9	0.18	200 - 500**
Mercury	**4.1**	U	U	**0.69**	**0.45**	U	0.15	U	0.053	0.001 - 0.2
Nickel	6.4	7.7	0.98 B	6.7	3.2 B	1.4 B	4.6	3.1 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	0.5 B	U	0.49	0.1 - 3.9
Silver	0.28 B	0.23 B	U	7.7	0.22 B	U	U	U	0.095	—
Thallium	U	0.81 B	U	U	U	U	U	U	0.46	—
Zinc	**205**	33.5	6.7	**66.8**	33.1	8.3	18.5	11.4	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
□ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)									
SAMPLE IDENTIFICATION	B-22G	B-22G	B-22H	B-22H	B-22I	B-22I	B-22J	B-22J	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE DEPTH	0 - 2'	4' - 6'	0 - 2'	12' - 14'	6' - 8'	10' - 12'	0 - 2'	2' - 4'		
DATE OF COLLECTION	5/09/97	5/09/97	5/12/97	5/12/97	5/08/97	5/08/97	5/09/97	5/09/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	92.4	96.5	90.2	96.2	97.7	96.2	88.1	88.9		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U		0.52 B	U	U	U	1.6 B	2.1 B	0.48	—
Arsenic	19.4	1.3	35.7	1.6	U	2.3	17.0	3.0	0.32	3 - 12*
Beryllium	0.28 B	0.20 B	0.44 B	0.28 B	0.16 B	0.22 B	0.59	0.34 B	0.021	0 - 1.75
Cadmium	U	U	U	U	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	8.5	3.2	11.8	14.1	4.0	17.5	20.4	11.9	0.11	1.5 - 40*, (50***)
Copper	8.1	4.8	13.3	3.6	4.2	5.7	22.5	53.0	0.43	1 - 50
Lead	10.2	1.4	20.0	2.0	0.96	1.8	49.3	10.7	0.18	200 - 500**
Mercury	0.79	U	U	U	U	U	0.29	U	0.053	0.001 - 0.2
Nickel	5.8	1.8 B	8.2	2.1 B	5.7	4.9	13.0	6.1	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	U	U	U	U	0.19 B	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	25.9	6.1	54.0	7.9	8.2	8.8	60.8	24.0	0.38	9 - 50

Qualifiers:
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B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
□ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Dry Well/Manhole West of Carpentry Shop		Center Courtyard Area		Dry Well South of Plant 12A		Drainage Chamber North of Lobby/Loading Area		INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-27A	B-27A	B-28A	B-28A	B-29A	B-29A	B-30A	B-30A		
SAMPLE DEPTH	6' - 8'	8' - 10'	4' - 6'	6' - 8'	5' - 7'	9' - 11'	4' - 6'	10' - 12'		
DATE OF COLLECTION	5/01/97	5/01/97	4/29/97	4/29/97	5/13/97	5/13/97	4/30/97	4/30/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	97.2	96.5	74.7	95.6	92.3	96.3	86.2	95.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	2.7 B	U	0.63 B	0.46 B	1.5 B	U	0.48	—
Arsenic	1.5	1.1	6.6	U	3.2	2.1	10.6	0.68 B	0.32	3 - 12*
Beryllium	0.07 B	0.08 B	0.17 B	U	0.32 B	0.26 B	0.22 B	0.11 B	0.021	0 - 1.75
Cadmium	U	U	8.2	0.47 B	U	U	**14.8**	U	0.042	0.1 - 1, (10***)
Chromium	27.2	5.5	37.6	1.9 B	6.6	21.6	**76.7**	4.0	0.11	1.5 - 40*, (50***)
Copper	3.0 B	2.5 B	**167**	1.6 B	5.0	6.2	**171**	1.9 B	0.43	1 - 50
Lead	1.6	1.0 B	208	0.82 B	4.9	2.0	151	1.2	0.18	200 - 500**
Mercury	U	U	**0.39**	U	U	U	**2.7**	U	0.053	0.001 - 0.2
Nickel	2.2 B	1.8 B	23.8	1.0 B	4.2	1.7 B	**27.0**	1.6 B	0.17	0.5 - 25
Selenium	U	U	1.3 B	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	0.32 B	U	0.14 B	U	1.1 B	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	19.2	23.9	**1,340**	20.8	25.2	6.2	**741**	7.5	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
Bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Dry Well in Stairwell Between Megapound and Plant 12A		Leaching Pools West of Boiler House		Southern Parking Lot		Adjacent to Former Recharge Basin		INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-31A	B-31A	B-34A	B-34A	B-35A	B-35A	B-36A	B-36A		
SAMPLE DEPTH	1' - 3'	5' - 7'	12' - 14'	18' - 20'	0' - 2'	2' - 4'	24' - 26'	34' - 36'		
DATE OF COLLECTION	5/05/97	5/05/97	4/23/97	4/23/97	4/28/97	4/28/97	5/06/97	5/06/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	89.9	94.2	88.2	95.0	88.6	94.0	92.8	92.5		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	U	U	U	U	U	0.48	—
Arsenic	20.9	2.7	2.1	U	3.8	2.2	3.7	6.3	0.32	3 - 12*
Beryllium	0.13 B	0.06 B	0.10 B	0.07 B	0.15 B	0.14	0.24 B	0.24 B	0.021	0 - 1.75
Cadmium	4.8	0.18 B	2.0	U	U	U	0.26 B	U	0.042	0.1 - 1, (10***)
Chromium	98.6	17.2	12.9	1.8 B	5.2	5.6	22.0	21.9	0.11	1.5 - 40*, (50***)
Copper	89.5	4.2 B	985	3.1 B	7.1	3.2	35.3	12.3	0.43	1 - 50
Lead	225	9.3	115	1.2	9.7	2.8	22.2	5.2	0.18	200 - 500**
Mercury	1.1	U	3.9	U	U	U	U	U	0.053	0.001 - 0.2
Nickel	33.7	3.5 B	78.4	2.5 B	4.4	3.6	5.9 B	2.7 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	0.6 B	U	0.89 B	U	U	U	3.2	0.56 B	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	884	78.7	394	7.8	34.1	8.8	27.7	17.8	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
□ : Value exceeds TAGM 4046 criteria for cadmium or chromium

or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Adj. to Former Recharge Basin	Within Existing Recharge Basin			Former Drainage Basin		Former Drainage Trench East of Plant 12A		INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-36A	B-36B	B-36B	B-36B	B-37A	B-37A	B-38A	B-38A		
SAMPLE DEPTH	40' - 42'	0 - 2'	12' - 14'	18' - 20'	4' - 6'	6' - 8'	4' - 6'	6' - 8'		
DATE OF COLLECTION	5/06/97	5/07/97	5/07/97	5/07/97	4/23/97	4/23/97	4/23/97	4/23/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	89.0	96.2	93.1	93.1	94.0	89.8	93.5	93.6		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	0.36 B	0.33 B	U	U	U	U	U	0.48	—
Arsenic	9.0	1.4	5.1	1.9	2.6	3.1	2.1	2.5	0.32	3 - 12*
Beryllium	0.2 B	0.23 B	0.30 B	0.13 B	0.13 B	0.21 B	0.11 B	0.15 B	0.021	0 - 1.75
Cadmium	0.12 B	U	U	U	0.41 B	U	U	U	0.042	0.1 - 1, (10***)
Chromium	27.1	4.7	14.8	4.2	36.3	6.2	6.0	5.6	0.11	1.5 - 40*, (50***)
Copper	10.3	88.5	20.2	8.1	125	5.6 B	5.6	5.3 B	0.43	1 - 50
Lead	4.4	2.6	1.8	1.0	31.7	65.3	42.1	15.4	0.18	200 - 500**
Mercury	U	U	U	U	U	U	U	U	0.053	0.001 - 0.2
Nickel	1.7 B	2.6 B	3.5 B	2.1 B	3.1 B	3.6 B	1.6 B	2.2 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	0.67 B	U	U	0.18 B	3.2	U	U	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	16.6	20.4	22.9	8.6	54.7	24.9	12.4	13.9	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
□ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Drainage Trench East of Plant 12A		Dry Wells East of Plant 12A						INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-38B	B-38B	B-39A	B-39A	B-39B	B-39B	B-39C	B-39C		
SAMPLE DEPTH	1' - 3'	3' - 5'	6' - 8'	10' - 12'	3' - 5'	13' - 15'	8' - 10'	14' - 16'		
DATE OF COLLECTION	4/23/97	4/23/97	5/01/97	5/01/97	5/01/97	5/01/97	4/28/97	4/28/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	83.7	94.5	80.6	91.8	89.4	91.8	92.4	93.0		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	U	U	U	U	U	0.48	—
Arsenic	10.2	1.1	3.6	0.83 B	4.7	1.2	2.4	U	0.32	3 - 12*
Beryllium	0.60	0.10 B	0.11 B	0.09 B	0.21 B	0.12 B	0.12 B	0.12 B	0.021	0 - 1.75
Cadmium	0.35 B	U	2.1	U	1.8	U	U	U	0.042	0.1 - 1, (10***)
Chromium	11.2	2.0 B	46.2	2.8	38.9	3.8	4.4	2.8	0.11	1.5 - 40*, (50***)
Copper	22.8	1.6 B	**50.6**	2.7 B	**348**	7.0	3.5 B	2.0 B	0.43	1 - 50
Lead	65.2	1.8	97.4	3.3	54.7	1.9	2.9	0.99 B	0.18	200 - 500**
Mercury	0.08 B	U	**0.65**	U	U	U	U	U	0.053	0.001 - 0.2
Nickel	10.3	2.5 B	23.0	5.0 B	**31.8**	2.9 B	1.8 B	1.6 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	0.94 B	U	U	U	U	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	**217**	23.4	**447**	12.1	**360**	25.9	6.8	6.1 B	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Sump No. 2				Former Pit East of Sump No. 2		Former Trenches to Resin Waste Pit (Sump No. 1)		INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-41A	B-41A	B-41B	B-41B	B-42A	B-42A	B-43A	B-43A		
SAMPLE DEPTH	2' - 4'	10' - 12'	8' - 10'	14' - 16'	2' - 4'	10' - 12'	0 - 2'	4' - 6'		
DATE OF COLLECTION	5/12/97	5/12/97	5/13/97	5/13/97	5/12/97	5/12/97	4/25/97	4/25/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	91.4	95.4	85.7	88.2	92.6	94.6	90.1	97.1		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	0.4 B	0.45 B	0.34 B	0.36 B	U	U	0.48	—
Arsenic	1.4	1.2	4.2	3.4	6.0	1.5	3.0	U	0.32	3 - 12*
Beryllium	0.20 B	0.29 B	0.40 B	0.42 B	0.42 B	0.28 B	0.17 B	0.04 B	0.021	0 - 1.75
Cadmium	U	0.12 B	U	U	U	U	0.85 B	U	0.042	0.1 - 1, (10***)
Chromium	3.4	3.6	11.9	21.5	14.2	5.7	12.9	5.5	0.11	1.5 - 40*, (50***)
Copper	4.1	5.5	9.2	7.0	7.5	4.3	10.5	0.94 B	0.43	1 - 50
Lead	1.9	1.6	12.4	7.5	5.4	2.7	16.4	0.54	0.18	200 - 500**
Mercury	U	U	U	U	0.21	0.72	0.13	U	0.053	0.001 - 0.2
Nickel	1.8 B	2.4 B	6.9	4.6	7.4	2.8 B	5.4 B	0.44 B	0.17	0.5 - 25
Selenium	U	U	U	U	1.0	U	U	U	0.49	0.1 - 3.9
Silver	U	U	U	U	U	U	U	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	7.5 B	13.4	30.8	30.7	25.1	8.4	33.1	1.5 B	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
□ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump No. 1)		Former Dry Well in Vicinity of Trenches		Dry Well Northeast of Plant 12				INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-43B	B-43B	B-44A	B-44A	B-45A	B-45A	Field Blank	Field Blank		
SAMPLE DEPTH	4' - 6'	8' - 10'	16' - 18'	18' - 20'	4' - 6'	6' - 8'	--	--		
DATE OF COLLECTION	4/25/97	4/25/97	4/23/97	4/23/97	4/23/97	4/23/97	4/25/97	5/01/97		
DILUTION FACTOR	2	2	2	2	2	2	2	2		
PERCENT SOLIDS	92.7	92.6	94.6	96.7	92.1	88.6	--	--		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(ug/L)	(mg/kg)	(mg/kg)
Antimony	U	U	6.4 B	U	U	1.7 B	U	U	0.48	—
Arsenic	U	U	1.9	0.94 B	3.7	5.0	U	U	0.32	3 - 12*
Beryllium	0.11 B	0.11 B	0.15 B	0.07 B	0.05 B	0.12 B	U	U	0.021	0 - 1.75
Cadmium	U	U	2.3	U	0.29 B	0.33 B	U	1.1 B	0.042	0.1 - 1, (10***)
Chromium	2.8	9.1	19.1	6.6	4.5	3.6	U	U	0.11	1.5 - 40*, (50***)
Copper	8.2	9.0	24.4	2.9 B	8.3	8.0	U	U	0.43	1 - 50
Lead	2.4	2.3	10.4	0.96 B	10.7	47.4	U	U	0.18	200 - 500**
Mercury	U	U	0.32	U	0.13	0.08 B	U	U	0.053	0.001 - 0.2
Nickel	0.88 B	2.1 B	2.9 B	1.2 B	3.4 B	3.3 B	U	U	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	0.20 B	U	U	U	U	U	0.095	—
Thallium	U	U	U	U	U	U	U	U	0.46	—
Zinc	9.6	10.6	95.5	10.3	66.2	31.4	7.0 B	6.1 B	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
– : Not applicable.
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
□ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE G-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE IDENTIFICATION	Field Blank	Field Blank	Field Blank						INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE DEPTH	--	--	--							
DATE OF COLLECTION	5/06/97	5/08/97	5/09/97							
DILUTION FACTOR	2	2	2							
PERCENT SOLIDS	--	--	--							
UNITS	(ug/L)	(ug/L)	(ug/L)						(mg/kg)	(mg/kg)
Antimony	U	U	3.1 B						0.48	—
Arsenic	U	U	U						0.32	3 - 12*
Beryllium	U	U	U						0.021	0 - 1.75
Cadmium	U	U	U						0.042	0.1 - 1, (10***)
Chromium	U	U	U						0.11	1.5 - 40*, (50***)
Copper	4.4 B	U	U						0.43	1 - 50
Lead	U	U	U						0.18	200 - 500**
Mercury	U	U	U						0.053	0.001 - 0.2
Nickel	U	U	U						0.17	0.5 - 25
Selenium	U	U	U						0.49	0.1 - 3.9
Silver	U	U	U						0.095	—
Thallium	U	U	U						0.46	—
Zinc	13.6 B	U	U						0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
-- : Not applicable.
— : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

TABLE G-10
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Northern Leaching Chambers				Leaching Chamber North of Carpentry Shop		Sanitary Leaching Pools (West)		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-14A	B-14A	B-14B	B-14B	B-16A	B-16A	B-21A	B-21A		
SAMPLE DEPTH	11' - 13'	17' - 19'	6' - 8'	12' - 14'	12' - 14'	18' - 20'	10' - 12'	14' - 16'		
DATE OF COLLECTION	5/01/97	5/01/97	4/23/97	4/23/97	4/23/97	4/23/97	5/08/97	5/08/97		
DILUTION FACTOR	100	2	25	5	1	1	1	1		
PERCENT SOLIDS	80	87	60	73	70	94	91	87		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	—
Aroclor-1221	U	U	U	U	U	U	U	U	71	—
Aroclor-1232	100,000	1,700	U	U	U	U	U	U	71	—
Aroclor-1242	U	U	U	U	U	U	U	U	71	—
Aroclor-1248	U	U	15,000	U	370	U	U	120	71	—
Aroclor-1254	U	U	U	U	360	U	U	U	71	—
Aroclor-1260	U	190	U	2,400	1,100	U	U	U	71	—
TOTAL PCBs	**100,000**	1,890	**15,000**	2,400	1,830	0	0	120		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
— : Not established.
* : Criteria is for total PCBs in subsurface soils.
[ ] : Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils.

TABLE G-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Sanitary Leaching Pools (West)		Sanitary Leaching Pools (North and South)						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-21B	B-21B	B-22A	B-22A	B-22B	B-22B	B-22C	B-22C		
SAMPLE DEPTH	12' - 14'	16' - 18'	10' - 12'	14' - 16'	10' - 12'	12' - 14'	10' - 12'	12' - 14'		
DATE OF COLLECTION	5/12/97	5/12/97	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97	5/13/97		
DILUTION FACTOR	1	1	1	1	2	1	2	1		
PERCENT SOLIDS	97	98	95	97	97	97	94	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	—
Aroclor-1221	U	U	U	U	U	U	U	U	71	—
Aroclor-1232	U	U	U	U	U	U	U	U	71	—
Aroclor-1242	U	U	U	U	U	U	U	U	71	—
Aroclor-1248	U	U	U	U	960	440	920	370	71	—
Aroclor-1254	U	U	U	U	U	U	U	U	71	—
Aroclor-1260	U	U	U	U	U	U	U	U	71	—
TOTAL PCBs	0	0	0	0	960	440	920	370		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
— : Not established.
* : Criteria is for total PCBs in subsurface soils.

TABLE G-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)									
SAMPLE IDENTIFICATION	B-22E	B-22E	B-22E	B-22F	B-22F	B-22K	B-22K	B-22K	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	4' - 6'	10' - 12'	20' - 22'	10' - 12'	18' - 20'	10' - 12'	12' - 14'	18' - 20'		
DATE OF COLLECTION	5/09/97	5/13/97	5/09/97	5/09/97	5/09/97	5/14/97	5/14/97	5/14/97		
DILUTION FACTOR	10	20	25	50	1	5	10	2		
PERCENT SOLIDS	96	93	90	90	96	75	87	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	—
Aroclor-1221	U	U	U	U	U	U	U	U	71	—
Aroclor-1232	U	U	U	U	U	U	U	U	71	—
Aroclor-1242	U	U	U	U	U	U	U	270	71	—
Aroclor-1248	5,100	15,000	12,000	27,000	U	5,000	6,400	U	71	—
Aroclor-1254	U	U	U	U	U	U	U	980	71	—
Aroclor-1260	U	U	U	U	U	U	U	620	71	—
TOTAL PCBs	5,100	15,000	12,000	27,000	0	5,000	6,400	1,870		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
— : Not established.
* : Criteria is for total PCBs in subsurface soils.
☐ : Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils.

TABLE G-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)		Anomalous Features/Unknown Buried Structures (North)						LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22L	B-22L	B-22G	B-22G	B-22H	B-22H	B-22I	B-22I		
SAMPLE DEPTH	12' - 14'	16' - 18'	0 - 2'	4' - 6'	0 - 2'	12' - 14'	6' - 8'	10' - 12'		
DATE OF COLLECTION	5/14/97	5/14/97	5/09/97	5/09/97	5/12/97	5/12/97	5/08/97	5/08/97		
DILUTION FACTOR	2	1	5	1	1	1	1	1		
PERCENT SOLIDS	95	96	92	96	90	96	98	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	—
Aroclor-1221	U	U	U	U	U	U	U	U	71	—
Aroclor-1232	U	U	U	U	U	U	U	U	71	—
Aroclor-1242	U	U	U	U	U	U	U	U	71	—
Aroclor-1248	1,700	U	1,700	U	U	U	U	99	71	—
Aroclor-1254	U	U	U	U	U	U	U	U	71	—
Aroclor-1260	U	U	U	U	U	U	U	U	71	—
TOTAL PCBs	1,700	0	1,700	0	0	0	0	99		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
— : Not established.
* : Criteria is for total PCBs in subsurface soils.

TABLE G-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)		Dry Well/Manhole West of Carpentry Shop		Center Courtyard Area		Dry Well South of Plant 12A		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22J	B-22J	B-27A	B-27A	B-28A	B-28A	B-29A	B-29A		
SAMPLE DEPTH	0 - 2'	2' - 4'	6' - 8'	8' - 10'	4' - 6'	6' - 8'	5' - 7'	9' - 11'		
DATE OF COLLECTION	5/09/97	5/09/97	5/01/97	5/01/97	4/29/97	4/29/97	5/13/97	5/13/97		
DILUTION FACTOR	100	1	1	1	1	1	1	1		
PERCENT SOLIDS	88	89	97	96	75	96	92	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	---
Aroclor-1221	U	U	U	U	U	U	U	U	71	---
Aroclor-1232	U	U	U	U	U	U	U	U	71	---
Aroclor-1242	U	U	U	U	U	U	U	U	71	---
Aroclor-1248	74,000	82	U	U	U	U	U	U	71	---
Aroclor-1254	U	U	U	U	350	U	U	U	71	---
Aroclor-1260	U	U	U	U	350	U	U	U	71	---
TOTAL PCBs	74,000	82	0	0	700	0	0	0		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
--- : Not established.
* : Criteria is for total PCBs in subsurface soils.
☐ : Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils.

TABLE G-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Adjacent to Former Recharge Basin			Within Existing Recharge Basin			Former Drainage Basin		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-36A	B-36A	B-36A	B-36B	B-36B	B-36B	B-37A	B-37A		
SAMPLE DEPTH	24' - 26'	34' - 36'	40' - 42'	0 - 2'	12' - 14'	18' - 20'	4' - 6'	6' - 8'		
DATE OF COLLECTION	5/06/97	5/06/97	5/06/97	5/07/97	5/07/97	5/07/97	4/23/97	4/23/97		
DILUTION FACTOR	25	5	1	1	1	1	100	1		
PERCENT SOLIDS	93	92	89	96	93	93	94	90		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	—
Aroclor-1221	U	U	U	U	U	U	U	U	71	—
Aroclor-1232	U	U	U	U	U	U	U	U	71	—
Aroclor-1242	U	U	U	U	U	U	U	U	71	—
Aroclor-1248	11,000	2,200	710	77	U	U	82,000	600	71	—
Aroclor-1254	U	U	U	U	U	U	U	U	71	—
Aroclor-1260	U	U	U	U	U	U	U	U	71	—
TOTAL PCBs	11,000	2,200	710	77	0	0	82,000	600		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
— : Not established.
* : Criteria is for total PCBs in subsurface soils.
□ : Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils.

TABLE G-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Trench East of Plant 12A				Former Sump No. 2					
SAMPLE IDENTIFICATION	B-38A	B-38A	B-38B	B-38B	B-41A	B-41A	B-41B	B-41B	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	4' - 6'	6' - 8'	1' - 3'	3' - 5'	2' - 4'	10' - 12'	8' - 10'	14' - 16'		
DATE OF COLLECTION	4/23/97	4/23/97	4/23/97	4/23/97	5/12/97	5/12/97	5/13/97	5/13/97		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	94	94	84	94	91	95	86	88		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	—
Aroclor-1221	U	U	U	U	U	U	U	U	71	—
Aroclor-1232	U	U	U	U	U	U	U	U	71	—
Aroclor-1242	U	U	U	U	U	U	U	U	71	—
Aroclor-1248	U	U	570	U	680	U	U	U	71	—
Aroclor-1254	U	U	770	U	310	U	U	U	71	—
Aroclor-1260	U	U	U	U	U	U	U	U	71	—
TOTAL PCBs	0	0	1,340	0	990	0	0	0		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
— : Not established.
* : Criteria is for total PCBs in subsurface soils.

TABLE G-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Pit East of Sump No. 2		Former Trenches to Resin Waste Pit (Sump No. 1)				Former Dry Well in Vicinity of Trenches		LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-42A	B-42A	B-43A	B-43A	B-43B	B-43B	B-44A	B-44A		
SAMPLE DEPTH	2' - 4'	10' - 12'	0 - 2'	4' - 6'	4' - 6'	8' - 10'	16' - 18'	18' - 20'		
DATE OF COLLECTION	5/12/97	5/12/97	4/25/97	4/25/97	4/25/97	4/25/97	4/23/97	4/23/97		
DILUTION FACTOR	1	1	50	1	1	1	1	1		
PERCENT SOLIDS	93	95	90	97	93	93	95	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	—
Aroclor-1221	U	U	U	U	U	U	U	U	71	—
Aroclor-1232	U	U	U	U	U	U	U	U	71	—
Aroclor-1242	U	U	U	U	U	U	U	U	71	—
Aroclor-1248	U	U	18,000	160	U	U	580	U	71	—
Aroclor-1254	U	U	U	U	U	U	U	U	71	—
Aroclor-1260	U	U	U	U	U	U	U	U	71	—
TOTAL PCBs	0	0	18,000	160	0	0	580	0		10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
— : Not established.
* : Criteria is for total PCBs in subsurface soils.
□ : Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils.

TABLE G-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING EXTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Dry Well Northeast of Plant 12									
SAMPLE IDENTIFICATION	B-45A	B-45A	Field Blank	Field Blank	Field Blank				LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	4' - 6'	6' - 8'	--	--	--					
DATE OF COLLECTION	4/23/97	4/23/97	4/25/97	5/01/97	5/06/97					
DILUTION FACTOR	25	10	1	1	1					
PERCENT SOLIDS	92	89	--	--	--					
UNITS	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)	(ug/L)				(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U				71	—
Aroclor-1221	U	U	U	U	U				71	—
Aroclor-1232	U	U	U	U	U				71	—
Aroclor-1242	U	U	U	U	U				71	—
Aroclor-1248	16,000	7,700	U	U	U				71	—
Aroclor-1254	U	1,900	U	U	U				71	—
Aroclor-1260	U	U	U	U	U				71	—
TOTAL PCBs	16,000	9,600	0	0	0					10,000*

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
-- : Not applicable.
— : Not established.
* : Criteria is for total PCBs in subsurface soils.
[ ] : Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils.

TABLE G-11
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Liquid Flow Lab		Machine Shop		
SAMPLE IDENTIFICATION	B-2A (C-1)		B-3A (C-1)		
SAMPLE DEPTH	0 - 0.5'		0 - 0.5'		LABORATORY QUANTITATION LIMITS
DATE OF COLLECTION	5/02/97		5/02/97		
DILUTION FACTOR	5		10		
PERCENT SOLIDS	95		96		
UNITS	(ug/kg)		(ug/kg)		(ug/kg)
Phenol	150	J		U	360
2-Chlorophenol		U		U	360
2-Methylphenol		U		U	360
4-Methylphenol	530	J	2,100	J	360
2-Nitrophenol		U		U	360
2,4-Dimethylphenol		U		U	360
2,4-Dichlorophenol		U		U	360
4-Chloro-3-methylphenol		U		U	360
2,4,6-Trichlorophenol		U		U	360
2,4,5-Trichlorophenol		U		U	360
2,4-Dinitrophenol		U		U	720
4-Nitrophenol		U		U	720
4,6-Dinitro-2-methylphenol		U		U	720
Pentachlorophenol		U		U	720
bis(2-Chloroethyl)ether		U		U	360
1,3-Dichlorobenzene		U		U	360
1,4-Dichlorobenzene		U		U	360
1,2-Dichlorobenzene		U		U	360
bis(2-Chloroisopropyl)ether		U		U	360
N-Nitroso-di-n-propylamine		U		U	360
Hexachloroethane		U		U	360
Nitrobenzene		U		U	360
Isophorone		U		U	360
bis(2-Chloroethoxy)methane		U		U	360
1,2,4-Trichlorobenzene		U		U	360
Naphthalene		U		U	18
4-Chloroaniline		U		U	360
Hexachlorobutadiene		U		U	360
2-Methylnaphthalene		U		U	360
Hexachlorocyclopentadiene		U		U	360
2-Chloronaphthalene		U		U	360
2-Nitroaniline		U		U	360
Dimethylphthalate		U		U	360
Acenaphthylene		U		U	18
2,6-Dinitrotoluene		U		U	360

TABLE G-11 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Liquid Flow Lab	Machine Shop	
SAMPLE IDENTIFICATION	B-2A (C-1)	B-3A (C-1)	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	0 - 0.5'	0 - 0.5'	
DATE OF COLLECTION	5/02/97	5/02/97	
DILUTION FACTOR	5	10	
PERCENT SOLIDS	95	96	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	360
Acenaphthene	U	U	18
Dibenzofuran	U	U	360
2,4-Dinitrotoluene	U	U	360
Diethylphthalate	U	U	360
4-Chlorophenyl-phenylether	U	U	360
Fluorene	U	U	18
4-Nitroaniline	U	U	360
N-Nitrosodiphenylamine	U	U	360
4-Bromophenyl-phenylether	U	U	360
Hexachlorobenzene	U	U	360
Phenanthrene	U	U	18
Anthracene	U	U	18
Carbazole	U	U	360
Di-n-butylphthalate	U	U	360
Fluoranthene	U	U	18
Pyrene	U	U	18
Butylbenzylphthalate	U	U	360
3,3'-Dichlorobenzidine	U	U	720
Benzo(a)anthracene	U	U	18
Chrysene	U	U	18
bis(2-Ethylhexyl)phthalate	U	U	360
Di-n-octylphthalate	U	U	360
Benzo(b)fluoranthene	U	U	18
Benzo(k)fluoranthene	U	U	18
Benzo(a)pyrene	U	88 J	18
Indeno(1,2,3-cd)pyrene	U	U	18
Dibenzo(a,h)anthracene	U	U	18
Benzo(g,h,i)perylene	U	U	18
TOTAL CaPAHs	0	88	
TOTAL SVOCs	680	2,188	

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

TABLE G-12
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE SAMPLING RESULTS
TOTAL PETROLEUM HYDROCARBONS
AND FUEL-RELATED CONSTITUENTS

SAMPLE LOCATION	Liquid Flow Lab	Machine Shop	
SAMPLE IDENTIFICATION	B-2A (C-1)	B-3A (C-1)	LABORATORY QUANTITATION LIMITS
SAMPLE DEPTH	0 - 0.5'	0 - 0.5'	
DATE OF COLLECTION	5/02/97	5/02/97	
DILUTION FACTOR	1	1	
PERCENT SOLIDS	94.7	96.4	
UNITS	(mg/kg)	(mg/kg)	(mg/kg)
Total Petroleum Hydrocarbons	89.7	888	25.0
JP - 5 Jet Fuel	U	U	4.4
#2 Fuel Oil	U	U	4.4
#4 Fuel Oil	U	U	4.4
#6 Fuel Oil	U	U	4.4
Gasoline	U	U	----
Kerosene	U	U	----
Lubricating Oil	U	U	----

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
----: Not established.

TABLE G-13
NORTHROP GRUMMAN CORPORATION
PLANT 12 - BUILDING INTERIOR
SUPPLEMENTAL PHASE II SITE ASSESSMENT
CONCRETE SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Liquid Flow Lab		Machine Shop		
SAMPLE IDENTIFICATION	B-2A (C-1)		B-3A (C-1)		INSTRUMENT DETECTION LIMITS
SAMPLE DEPTH	0 - 0.5'		0 - 0.5'		
DATE OF COLLECTION	5/02/97		5/02/97		
DILUTION FACTOR	2		2		
PERCENT SOLIDS	94.7		96.4		
UNITS	(mg/kg)		(mg/kg)		(mg/kg)
Antimony		U		U	0.48
Arsenic	1.4		2.9		0.32
Beryllium	0.17	B	0.16	B	0.021
Cadmium		U		U	0.042
Chromium	17.6		3.9		0.11
Copper	4.8	B	2.1	B	0.43
Lead	3.1		0.98	B	0.18
Mercury		U		U	0.053
Nickel	4.4	B	2.7	B	0.17
Selenium		U		U	0.49
Silver		U		U	0.095
Thallium		U		U	0.46
Zinc	12.5		9.3		0.38

Qualifiers:
U : Compound analyzed for but not detected.
B : Compound concentration is less than the CRDL, but greater than the IDL.

ATTACHMENT 3

TABLE C-1
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Leaching Chamber North of Carpentry Shop	Area Outside of Machine Shop							NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-16AA	B-19AA	B-19AA	B-19AA	B-19AN12	B-19AN12	B-19AE7	B-19AE7	
SAMPLE DEPTH	10' - 12'	4' - 6'	6' - 8'	8' - 10'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	
DATE OF COLLECTION	8/14/98	8/07/98	8/07/98	8/07/98	8/07/98	8/07/98	8/07/98	8/07/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	50	
PERCENT SOLIDS	84	98	97	97	95	97	93	88	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	----
Bromomethane	U	U	U	U	U	U	U	U	----
Vinyl Chloride	U	U	U	U	U	U	U	U	200
Chloroethane	U	U	U	U	U	U	U	U	1,900
Methylene Chloride	4.8 B	1.8 JB	1.5 JB	1.8 JB	2.2 JB	1.1 JB	2.1 JB	U	100
Acetone	160	16	11	17	29	U	47	U	200
Carbon Disulfide	2.2 J	U	U	U	U	U	U	U	2,700
1,1-Dichloroethene	U	U	U	U	2.5	1.6 J	U	U	400
1,1-Dichloroethane	5.6 J	U	U	U	9.6	6.4	1.2 J	U	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	300
cis-1,2-Dichloroethene	0.9 J	U	U	U	1.1 J	0.6 J	U	U	----
Chloroform	2.4 J	U	U	U	U	U	U	U	300
1,2-Dichloroethane	U	U	U	U	3.7	1.7 J	U	U	100
2-Butanone	39	U	U	U	U	U	U	U	300
1,1,1-Trichloroethane	30	3.8 J	6.7	4.1 J	190	120	49	750	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	600
Bromodichloromethane	U	U	U	U	U	U	U	U	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Trichloroethene	32	0.7 J	0.8 J	0.5 J	86	42	0.7 J	U	700
Dibromochloromethane	U	U	U	U	U	U	U	U	----
1,1,2-Trichloroethane	U	U	U	U	2.5 J	0.8 J	U	U	----
Benzene	1.7	U	U	U	U	U	U	U	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Bromoform	U	U	U	U	U	U	U	U	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	1,000
2-Hexanone	U	U	U	U	U	U	U	U	----
Tetrachloroethene	57	U	U	U	3.0	0.9 J	U	U	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	600
Toluene	2.8 J	0.5 J	U	0.7 J	1.2 J	U	1.0 J	U	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1,700
Ethylbenzene	1.0 J	U	U	U	U	U	U	U	5,500
Styrene	3.0 J	1.8 J	U	4.0 J	U	U	U	U	----
Xylene (total)	2.9 J	U	U	U	U	U	2.1 J	U	1,200
MTBE	NA	NA	NA	NA	U	U	U	120 J	----
Naphthalene	NA	NA	NA	NA	U	U	U	170 J	13,000
1,2,4-Trimethylbenzene	NA	NA	NA	NA	U	U	5.4 J	710	----
1,3,5-Trimethylbenzene	NA	NA	NA	NA	U	U	6.1	790	----
Isopropylbenzene	NA	NA	NA	NA	U	U	U	U	----
n-Butylbenzene	NA	NA	NA	NA	U	U	U	U	----
n-Propylbenezene	NA	NA	NA	NA	U	U	U	U	----
p-Isopropyltoluene	NA	NA	NA	NA	U	U	U	U	----
sec-Butylbenzene	NA	NA	NA	NA	U	U	U	U	----
TOTAL VOCs	345.3	24.6	20	28.1	330.8	175.1	114.6	2540	10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.
NA : Compound not analyzed for.

Notes:
---- : Not established.

TABLE C-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Area Outside of Machine Shop		Sanitary Leaching Pools (North and South)						NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-19AW10	B-19AW10	B-22AA	B-22BA	B-22CA	B-22FA	B-22LA	B-22LA	
SAMPLE DEPTH	0 - 2'	2' - 4'	8' - 10'	8' - 10'	8' - 10'	8' - 10'	8' - 10'	10' - 12'	
DATE OF COLLECTION	8/07/98	8/07/98	8/18/98	8/18/98	8/18/98	8/19/98	8/19/98	8/19/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	91	94	97	90	94	93	95	96	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	----
Bromomethane	U	U	U	U	U	U	U	U	----
Vinyl Chloride	U	U	U	U	U	U	U	U	200
Chloroethane	U	U	U	U	U	U	U	U	1,900
Methylene Chloride	1.7 JB	1.4 JB	3.0 B	3.4 B	2.5 JB	3.3 B	2.4 JB	2.5 JB	100
Acetone	35	29	26	82	30	40	19	U	200
Carbon Disulfide	U	U	U	U	U	U	U	U	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	400
1,1-Dichloroethane	U	0.8 J	U	U	U	U	U	U	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	----
Chloroform	U	U	U	U	U	U	U	U	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	100
2-Butanone	U	U	U	U	U	U	U	U	300
1,1,1-Trichloroethane	4.6 J	130	1.1 J	2.4 J	0.8 J	11	10	0.9 J	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	600
Bromodichloromethane	U	U	U	U	U	U	U	U	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Trichloroethene	1.5	9.5	3.0	1.8	0.6 J	U	U	U	700
Dibromochloromethane	U	U	U	U	U	U	U	U	----
1,1,2-Trichloroethane	U	0.8 J	U	U	U	U	U	U	----
Benzene	U	U	U	U	U	U	U	U	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Bromoform	U	U	U	U	U	U	U	U	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	1,000
2-Hexanone	U	U	U	U	U	U	U	U	----
Tetrachloroethene	U	U	U	3.3	0.5 J	1.7	U	U	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	600
Toluene	U	U	0.7 J	1.0 J	0.6 J	0.7 J	U	U	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	5,500
Styrene	U	U	U	U	U	0.6 J	U	U	----
Xylene (total)	U	U	U	U	U	U	U	U	1,200
MTBE	U	U	U	U	U	NA	NA	NA	----
Naphthalene	U	U	U	U	U	NA	NA	NA	13,000
1,2,4-Trimethylbenzene	U	U	U	U	U	NA	NA	NA	----
1,3,5-Trimethylbenzene	U	U	U	U	U	NA	NA	NA	----
Isopropylbenzene	U	U	U	U	U	NA	NA	NA	----
n-Butylbenzene	U	U	U	U	U	NA	NA	NA	----
n-Propylbenezene	U	U	U	U	U	NA	NA	NA	----
p-Isopropyltoluene	U	U	U	U	U	NA	NA	NA	----
sec-Butylbenzene	U	U	U	U	U	NA	NA	NA	----
TOTAL VOCs	42.8	171.5	33.8	93.9	35	57.3	31.4	3.4	10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.
NA : Compound not analyzed for.

Notes:
---- : Not established.

TABLE C-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Drainage Chamber North of Lobby/Loading Area		Former Drainage Basin						NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-30AA	B-30AA	B-37AA	B-37AA	B-37AN8	B-37AN8	B-37AS8	B-37AS8	
SAMPLE DEPTH	6' - 8'	8' - 10'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	
DATE OF COLLECTION	8/14/98	8/14/98	8/07/98	8/07/98	8/07/98	8/07/98	8/07/98	8/07/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	94	94	89	96	94	93	97	96	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	----
Bromomethane	U	U	U	U	U	U	U	U	----
Vinyl Chloride	U	U	U	U	U	U	U	U	200
Chloroethane	U	U	U	U	U	U	U	U	1,900
Methylene Chloride	U	U	1.7 JB	1.8 JB	1.6 JB	1.7 JB	1.3 JB	1.2 JB	100
Acetone	U	U	28	22	41	29	24	20	200
Carbon Disulfide	U	U	U	U	U	U	U	U	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	----
Chloroform	U	U	U	U	U	U	U	U	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	100
2-Butanone	U	U	U	U	U	2.0 J	U	U	300
1,1,1-Trichloroethane	U	U	1.0 J	1.1 J	0.8 J	0.8 J	1.3 J	3.0 J	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	600
Bromodichloromethane	U	U	U	U	U	U	U	U	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Trichloroethene	U	U	2.2	2.0	1.1	U	1.8	2.9	700
Dibromochloromethane	U	U	U	U	U	U	U	U	----
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	----
Benzene	U	U	U	U	U	U	U	U	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Bromoform	U	U	U	U	U	U	U	U	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	1,000
2-Hexanone	U	U	U	U	U	U	U	U	----
Tetrachloroethene	U	U	2.4	1.7	1.1	1.4	1.4	2.8	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	600
Toluene	1.2 J	0.8 J	0.8 J	1.0 J	0.6 J	0.5 J	0.6 J	0.8 J	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	5,500
Styrene	U	U	U	U	U	U	U	U	----
Xylene (total)	0.8 J	U	U	0.7 J	U	U	0.6 J	U	1,200
MTBE	U	U	NA	NA	NA	NA	NA	NA	----
Naphthalene	U	U	NA	NA	NA	NA	NA	NA	13,000
1,2,4-Trimethylbenzene	U	U	NA	NA	NA	NA	NA	NA	----
1,3,5-Trimethylbenzene	U	U	NA	NA	NA	NA	NA	NA	----
Isopropylbenzene	U	U	NA	NA	NA	NA	NA	NA	----
n-Butylbenzene	U	U	NA	NA	NA	NA	NA	NA	----
n-Propylbenezene	U	U	NA	NA	NA	NA	NA	NA	----
p-Isopropyltoluene	U	U	NA	NA	NA	NA	NA	NA	----
sec-Butylbenzene	U	U	NA	NA	NA	NA	NA	NA	----
TOTAL VOCs	2	0.8	36.1	30.3	46.2	35.4	31	30.7	10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.
NA : Compound not analyzed for.

Notes:
---- : Not established.

TABLE C-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Drainage Basin				Former Trenches to Resin Waste Pit (Sump #1)				NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37AE8	B-37AE8	B-37AW8	B-37AW8	B-43AA	B-43AN7	B-43AN7	B-43AS7	
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	
DATE OF COLLECTION	8/07/98	8/07/98	8/07/98	8/07/98	8/05/98	8/05/98	8/05/98	8/05/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	96	97	95	92	97	93	92	98	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	----
Bromomethane	U	U	U	U	U	U	U	U	----
Vinyl Chloride	U	U	U	U	U	U	U	U	200
Chloroethane	U	U	U	U	U	U	U	U	1,900
Methylene Chloride	1.7 JB	1.3 JB	1.6 JB	1.6 JB	2.1 JB	1.6 JB	3.2 JB	2.7 JB	100
Acetone	54	17	19	17	18	22	63	69	200
Carbon Disulfide	U	U	U	U	U	U	1.2 J	1.7 J	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	----
Chloroform	U	U	U	U	U	U	U	U	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	100
2-Butanone	11	U	U	U	U	U	18	19	300
1,1,1-Trichloroethane	3.0 J	0.7 J	0.9 J	0.9 J	0.9 J	0.9 J	1.8 J	3.6 J	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	600
Bromodichloromethane	U	U	U	U	U	U	U	U	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Trichloroethene	14	0.6 J	0.9 J	0.9 J	U	0.7 J	1.9	9.7	700
Dibromochloromethane	U	U	U	U	U	U	U	U	----
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	----
Benzene	U	U	U	U	U	U	0.8 J	U	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Bromoform	U	U	U	U	U	U	U	U	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	1,000
2-Hexanone	U	U	U	U	U	U	U	U	----
Tetrachloroethene	8.5	U	0.7 J	0.8 J	U	U	1.4 J	2.6	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	600
Toluene	2.9 J	0.5 J	0.6 J	U	0.6 J	0.7 J	2 J	3.7 J	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1,700
Ethylbenzene	U	U	U	U	U	U	0.6 J	U	5,500
Styrene	U	U	U	U	U	U	0.9 J	U	----
Xylene (total)	U	U	U	U	1.3 J	U	2.5 J	2.6 J	1,200
MBTE	NA	NA	NA	NA	U	U	U	U	----
Naphthalene	NA	NA	NA	NA	U	U	U	U	13,000
1,2,4-Trimethylbenzene	NA	NA	NA	NA	U	U	U	U	----
1,3,5-Trimethylbenzene	NA	NA	NA	NA	U	U	U	U	----
Isopropylbenzene	NA	NA	NA	NA	U	U	U	U	----
n-Butylbenzene	NA	NA	NA	NA	U	U	U	U	----
n-Propylbenezene	NA	NA	NA	NA	U	U	U	U	----
p-Isopropyltoluene	NA	NA	NA	NA	U	U	U	U	----
sec-Butylbenzene	NA	NA	NA	NA	U	U	U	U	----
TOTAL VOCs	95.1	20.1	23.7	21.2	22.9	25.9	97.3	114.6	10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.
NA : Compound not analyzed for.

Notes:
---- : Not established.

TABLE C-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump #1)					Resin Waste Pit (Sump #1)			NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-43AS7	B-43AE5	B-43AE5	B-43AW7	B-43AW7	RWP-1	RWP-1	RWP-1	
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	12' - 14'	14' - 16'	16' - 18'	
DATE OF COLLECTION	8/05/98	8/05/98	8/05/98	8/05/98	8/05/98	8/13/98	8/13/98	8/13/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	50	1	1	
PERCENT SOLIDS	99	94	97	96	97	93	96	97	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	----
Bromomethane	U	U	U	U	U	U	U	U	----
Vinyl Chloride	U	U	U	U	U	U	U	U	200
Chloroethane	U	U	U	U	U	U	U	U	1,900
Methylene Chloride	2.2 JB	2.3 JB	2.4 JB	2.1 JB	1.9 JB	U	2.4 JB	1.2 JB	100
Acetone	22	14	25	23	17	U	27	22	200
Carbon Disulfide	U	U	1.1 J	U	U	U	U	U	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	----
Chloroform	U	U	U	U	U	U	U	U	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	100
2-Butanone	U	U	U	U	U	U	U	U	300
1,1,1-Trichloroethane	1.0 J	0.9 J	1.2 J	U	0.6 J	1,100	160	52	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	600
Bromodichloromethane	U	U	U	U	U	U	U	U	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Trichloroethene	U	U	1 J	U	U	U	1.3	U	700
Dibromochloromethane	U	U	U	U	U	U	U	U	----
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	----
Benzene	U	U	U	U	U	U	U	U	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Bromoform	U	U	U	U	U	U	U	U	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	1,000
2-Hexanone	U	U	U	U	U	U	U	U	----
Tetrachloroethene	U	U	U	U	U	U	5.6	1.2	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	600
Toluene	1.6 J	0.8 J	1 J	0.7 J	U	U	0.6 J	U	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1,700
Ethylbenzene	U	U	U	U	U	U	U	U	5,500
Styrene	U	U	U	U	U	U	2.1 J	1.1 J	----
Xylene (total)	0.7 J	0.7 J	1.4 J	U	U	U	0.6 J	U	1,200
MBTE	U	U	U	U	U	NA	NA	NA	----
Naphthalene	U	U	U	U	U	NA	NA	NA	13,000
1,2,4-Trimethylbenzene	U	U	U	U	U	NA	NA	NA	----
1,3,5-Trimethylbenzene	U	U	U	U	U	NA	NA	NA	----
Isopropylbenzene	U	U	U	U	U	NA	NA	NA	----
n-Butylbenzene	U	U	U	U	U	NA	NA	NA	----
n-Propylbenezene	U	U	U	U	U	NA	NA	NA	----
p-Isopropyltoluene	U	U	U	U	U	NA	NA	NA	----
sec-Butylbenzene	U	U	U	U	U	NA	NA	NA	----
TOTAL VOCs	27.5	18.7	33.1	25.8	19.5	1,100	199.6	77.5	10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.
NA : Compound not analyzed for.

Notes:
---- : Not established.
☐ : Value exceeds NYSDEC TAGM 4046 Appendix A cntena.

TABLE C-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	RWP-1	RWP-2	RWP-2	RWP-2	RWP-2	RWP-3	RWP-3	RWP-3	
SAMPLE DEPTH	18' - 20'	14' - 16'	16' - 18'	18' - 20'	20' - 22'	8' - 10'	10' - 12'	12' - 14'	
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	96	95	96	96	96	93	94	94	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	----
Bromomethane	U	U	U	U	U	U	U	U	----
Vinyl Chloride	U	U	U	U	U	U	U	U	200
Chloroethane	U	U	U	U	U	U	U	U	1,900
Methylene Chloride	2.9 JB	2.6 JB	1.4 JB	1.9 JB	2.2 JB	1.8 JB	2.8 JB	4.8 B	100
Acetone	36	30	36	31	20	59	70	72	200
Carbon Disulfide	U	U	U	U	U	U	0.9 J	U	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	400
1,1-Dichloroethane	U	U	2.4 J	2.0 J	U	U	U	U	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	----
Chloroform	U	U	U	U	U	U	U	U	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	100
2-Butanone	U	U	U	U	U	U	U	U	300
1,1,1-Trichloroethane	72	1.6 J	78	190	43	62	120	130	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	600
Bromodichloromethane	U	U	U	U	U	U	U	U	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Trichloroethene	0.5 J	U	U	0.6 J	U	16	42	21	700
Dibromochloromethane	U	U	U	U	U	U	U	U	----
1,1,2-Trichloroethane	U	U	U	U	1.2 J	U	U	U	----
Benzene	0.7 J	U	U	1.3	1.1	U	1.1	U	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Bromoform	U	U	U	U	U	U	U	U	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	1,000
2-Hexanone	U	U	U	U	U	U	U	U	----
Tetrachloroethene	4.9	U	3.4	13	4.2	3.5	13	16	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	600
Toluene	0.9 J	0.6 J	0.6 J	1.1 J	1.4 J	0.6 J	1.2 J	0.7 J	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1,700
Ethylbenzene	U	U	U	U	1.1 J	U	U	U	5,500
Styrene	3.2 J	U	1.2 J	8.9	23	1.6 J	3.8 J	1.3 J	----
Xylene (total)	0.7 J	U	0.7 J	0.9 J	0.9 J	0.7 J	1.1 J	0.9 J	1,200
MBTE	NA	NA	NA	NA	NA	NA	NA	NA	----
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	13,000
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
n-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
n-Propylbenezene	NA	NA	NA	NA	NA	NA	NA	NA	----
p-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	----
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
TOTAL VOCs	121.8	34.8	123.7	250.7	98.1	145.2	255.9	246.7	10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.
NA : Compound not analyzed for.

Notes:
---- : Not established.

TABLE C-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	RWP-3	RWP-4	RWP-4	RWP-4	RWP-4	RWP-5	RWP-5	RWP-5	
SAMPLE DEPTH	14' - 16'	15' - 17'	17' - 19'	21' - 23'	23' - 25'	6' - 8'	8' - 10'	10' - 12'	
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/14/98	8/14/98	8/14/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOLIDS	96	91	96	97	95	82	95	95	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Chloromethane	U	U	U	U	U	U	U	U	----
Bromomethane	U	U	U	U	U	U	U	U	----
Vinyl Chloride	U	U	U	U	U	U	U	U	200
Chloroethane	U	U	U	U	U	U	U	U	1,900
Methylene Chloride	3.2 B	5.7 B	1.8 JB	1.8 JB	2.6 JB	4.5 B	7.6 B	5.4 B	100
Acetone	38	80	21	U	22	73	41	26	200
Carbon Disulfide	U	U	U	U	U	U	U	0.7 J	2,700
1,1-Dichloroethene	U	U	U	U	U	U	U	U	400
1,1-Dichloroethane	U	U	U	U	U	U	U	U	200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	----
Chloroform	U	0.7 J	U	U	U	U	U	U	300
1,2-Dichloroethane	U	U	U	U	U	U	U	U	100
2-Butanone	U	U	U	U	U	U	U	U	300
1,1,1-Trichloroethane	77	58	5.4	6.5	6.9	16	74	56	800
Carbon Tetrachloride	U	U	U	U	U	U	U	U	600
Bromodichloromethane	U	U	U	U	U	U	U	U	----
1,2-Dichloropropane	U	U	U	U	U	U	U	U	----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Trichloroethene	11	U	U	U	U	1.4	U	1.4	700
Dibromochloromethane	U	U	U	U	U	U	U	U	----
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	----
Benzene	0.9 J	U	U	U	U	2.6	1.2	0.9 J	60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	----
Bromoform	U	U	U	U	U	U	U	U	----
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	1,000
2-Hexanone	U	U	U	U	U	U	U	U	----
Tetrachloroethene	28	U	0.6 J	0.8 J	2.0	5.6	5.6	7.5	1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	600
Toluene	1.1 J	0.9 J	0.7 J	U	0.9 J	2.4 J	1.3 J	4.1 J	1,500
Chlorobenzene	U	U	U	U	U	U	U	U	1,700
Ethylbenzene	U	U	U	U	0.5 J	U	U	U	5,500
Styrene	4.2 J	U	3.7 J	3.8 J	7.0	1.0 J	1.3 J	3.0 J	----
Xylene (total)	1.0 J	1.5 J	0.6 J	U	0.9 J	1.9 J	U	1.9 J	1,200
MBTE	NA	NA	NA	NA	NA	NA	NA	NA	----
Naphthalene	NA	NA	NA	NA	NA	NA	NA	NA	13,000
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
n-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
n-Propylbenezene	NA	NA	NA	NA	NA	NA	NA	NA	----
p-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	----
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	----
TOTAL VOCs	164.4	146.8	33.8	12.9	42.8	108.4	132	106.9	10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.
NA : Compound not analyzed for.

Notes:
---- : Not established.

TABLE C-1 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								
SAMPLE IDENTIFICATION	RWP-5	RWP-6	RWP-6	RWP-6	RWP-6	FB-1	FB-2		NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	12' - 14'	6' - 8'	8' - 10'	12' - 14'	16' - 18'	--	--		
DATE OF COLLECTION	8/14/98	8/18/98	8/18/98	8/18/98	8/18/98	8/19/98	8/19/98		
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	50	1	1	1	1		
PERCENT SOLIDS	96	90	96	88	97	--	--		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)		(ug/kg)
Chloromethane	U	U	U	U	U	U	U		----
Bromomethane	U	U	U	U	U	U	U		----
Vinyl Chloride	U	U	U	U	U	U	U		200
Chloroethane	U	U	U	U	U	U	U		1,900
Methylene Chloride	4.6 B	5.2 B	U	1.8 JB	2.3 JB	1.7 JB	1.4 JB		100
Acetone	36	62	U	16	24	U	U		200
Carbon Disulfide	U	2.3 J	U	U	U	U	U		2,700
1,1-Dichloroethene	U	U	U	U	U	U	U		400
1,1-Dichloroethane	U	3.8 J	U	U	U	U	U		200
trans-1,2-Dichloroethene	U	U	U	U	U	U	U		300
cis-1,2-Dichloroethene	U	U	U	U	U	U	U		----
Chloroform	U	U	U	U	U	U	U		300
1,2-Dichloroethane	U	U	U	U	U	U	U		100
2-Butanone	U	U	U	U	U	U	U		300
1,1,1-Trichloroethane	23	170	U	4.0 J	26	U	U		800
Carbon Tetrachloride	U	U	U	U	U	U	U		600
Bromodichloromethane	U	U	U	U	U	U	U		----
1,2-Dichloropropane	U	U	U	U	U	U	U		----
cis-1,3-Dichloropropene	U	U	U	U	U	U	U		----
Trichloroethene	U	U	U	U	U	U	U		700
Dibromochloromethane	U	U	U	U	U	U	U		----
1,1,2-Trichloroethane	U	U	U	U	U	U	U		----
Benzene	U	1.0 J	U	U	U	U	U		60
trans-1,3-Dichloropropene	U	U	U	U	U	U	U		----
Bromoform	U	U	U	U	U	U	U		----
4-Methyl-2-pentanone	U	U	U	U	U	U	U		1,000
2-Hexanone	U	U	U	U	U	U	U		----
Tetrachloroethene	3.4	4.2	U	U	6.7	U	U		1,400
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U		600
Toluene	2.4 J	U	U	U	0.6 J	U	U		1,500
Chlorobenzene	U	U	U	U	U	U	U		1,700
Ethylbenzene	0.5 J	0.9 J	3,800	U	1.9 J	U	U		5,500
Styrene	3.4 J	2.9 J	U	U	1.0 J	U	U		----
Xylene (total)	1.7 J	U	680	U	U	U	U		1,200
MBTE	NA	NA	NA	NA	NA	NA	NA		----
Naphthalene	NA	NA	NA	NA	NA	NA	NA		13,000
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA		----
1,3,5-Trimethylbenzene	NA	NA	NA	NA	NA	NA	NA		----
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA		----
n-Butylbenzene	NA	NA	NA	NA	NA	NA	NA		----
n-Propylbenezene	NA	NA	NA	NA	NA	NA	NA		----
p-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA		----
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA		----
TOTAL VOCs	75	252.3	4,480	21.8	62.5	1.7	1.4	0	10,000

Qualifiers:
U: Compound analyzed for but not detected.
B: Compound found in the method blank as well as the sample.
J: Compound found at a concentration below the detection limit.
NA : Compound not analyzed for.

Notes:
---- : Not established.

TABLE C-2
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Trench in EMT Lab No. 1		Chemical Storage Area/Concrete Platform						STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-7AA	B-7AA	B-17BA	B-17BA	B-17BN7	B-17BN7	B-17BS7	B-17BS7	
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	
DATE OF COLLECTION	8/5/98	8/5/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOILDS	98	99	96	95	93	97	96	98	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	U	U	U	0.7 J	U	U	U	U	24,000
Toluene	U	1.1 J	0.8 J	0.9 J	U	U	0.7 J	U	20,000,000
Ethylbenzene	U	U	U	U	U	U	0.6 J	U	8,000,000
Isopropylbenzene	U	U	U	U	U	U	U	U	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	U	3.1 J	U	U	U	U	U	U	200,000,000
Naphthalene	U	U	U	U	U	U	U	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Chemical Storage Area/Concrete Platform				Sanitary Leaching Pools (North and South)				STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-17BE7	B-17BE7	B-17BW7	B-17BW7	B-22AA	B-22BA	B-22CA	B-22CA	
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	10' - 12'	10' - 12'	14' - 16'	16' - 18'	
DATE OF COLLECTION	8/6/98	8/6/98	8/6/98	8/6/98	8/18/98	8/18/98	8/18/98	8/18/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOILDS	94	94	95	96	98	94	96	96	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	U	U	U	U	U	U	U	U	24,000
Toluene	0.6 J	0.7 J	U	0.7 J	U	0.6 J	0.6 J	0.5 J	20,000,000
Ethylbenzene	U	U	U	U	U	U	U	U	8,000,000
Isopropylbenzene	U	U	U	0.6 J	U	U	U	U	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	U	U	U	U	U	U	0.6 J	0.5 J	200,000,000
Naphthalene	U	U	U	U	U	U	U	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Sanitary Leaching Pool (South) Beneath Megapound		Former Leaching Pool Beneath Megapound	Southern Parking Lot					STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-22DA	B-22DA	B-32AA	B-35AA	B-35AA	B-35AA	B-35AA	B-35AN7	
SAMPLE DEPTH	12' - 14'	14' - 16'	10' - 12'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	
DATE OF COLLECTION	8/10/98	8/10/98	8/10/98	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOILDS	98	97	98	90	98	98	98	86	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	U	U	U	U	U	U	U	U	24,000
Toluene	0.7 J	0.6 J	0.5 J	U	U	U	U	U	20,000,000
Ethylbenzene	U	0.5 J	U	U	U	U	U	U	8,000,000
Isopropylbenzene	U	U	U	U	U	U	U	U	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	0.6 J	U	U	U	U	U	U	U	200,000,000
Naphthalene	U	U	U	U	U	U	U	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Southern Parking Lot					Former Drainage Trench East of Plant 12A			STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-35AN7	B-35AS7	B-35AS7	B-35AE7	B-35AE7	B-38BA	B-38BN7	B-38BN7	
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	1' - 3'	1' - 3'	3' - 5'	
DATE OF COLLECTION	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	8/12/98	8/12/98	8/12/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOILDS	98	91	98	91	92	93	83	96	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	U	U	U	U	U	U	U	U	24,000
Toluene	U	U	U	U	U	0.7 J	U	U	20,000,000
Ethylbenzene	U	U	U	U	U	U	U	U	8,000,000
Isopropylbenzene	U	U	U	U	U	U	U	U	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	U	U	U	U	U	U	U	0.6 J	200,000,000
Naphthalene	U	U	U	U	U	U	U	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Former Drainage Trench East of Plant 12A						Former Trenches to Resin Pit		STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-38BS7	B-38BS7	B-38BE7	B-38BE7	B-38BW7	B-38BW7	B-43AA	B-43AN7	
SAMPLE DEPTH	1' - 3'	3' - 5'	1' - 3'	3' - 5'	1' - 3'	3' - 5'	2' - 4'	0 - 2'	
DATE OF COLLECTION	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/5/98	8/5/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOILDS	90	96	97	97	94	97	97	93	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	U	U	U	U	U	U	U	U	24,000
Toluene	0.6 J	U	U	U	U	U	0.8 J	0.7 J	20,000,000
Ethylbenzene	U	U	U	U	U	U	U	U	8,000,000
Isopropylbenzene	U	U	U	U	U	U	U	U	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	1.0 J	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	0.7 J	0.7 J	U	0.6 J	U	U	U	U	200,000,000
Naphthalene	1.2 J	1.4 J	U	U	U	U	U	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump #1)							Dry Well Northeast of Plant 12	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-43AN7	B-43AS7	B-43AS7	B-43AE5	B-43AE5	B-43AW7	B-43AW7	B-45AA	
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	6' - 8'	
DATE OF COLLECTION	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98	8/14/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	92	
PERCENT SOILDS	92	98	99	94	97	96	97	93	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	0.8 J	0.6 J	U	U	U	U	U	U	24,000
Toluene	2	3.7	1.6 J	0.8 J	1 J	0.7 J	U	5.9	20,000,000
Ethylbenzene	U	U	U	U	U	U	U	U	8,000,000
Isopropylbenzene	U	U	U	U	U	U	U	3.0 J	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	U	U	U	U	U	U	U	U	200,000,000
Naphthalene	U	U	U	U	U	U	U	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Dry Well Northeast of Plant 12		Petroleum/Chemical Storage Area						STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-45AA	B-45AA	PCS-AA	PCS-AA	PCS-AA	PCS-AN8	PCS-AN8	PCS-AN8	
SAMPLE DEPTH	8' - 10'	10' - 12'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	
DATE OF COLLECTION	8/14/98	8/14/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	
LABORATORY	Envirotech								
DILUTION FACTOR	92	96	1	1	1	1	1	1	
PERCENT SOILDS	92	96	92	98	97	95	95	97	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	0.7 J	U	U	U	U	U	U	U	24,000
Toluene	12	8.0	U	U	U	0.6 J	U	U	20,000,000
Ethylbenzene	1.0 J	0.7 J	U	U	U	U	U	U	8,000,000
Isopropylbenzene	U	U	U	U	U	U	U	U	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	4.1 J	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	6.0	3.9 J	U	U	U	U	U	U	200,000,000
Naphthalene	U	U	46	1.8 J	0.8 J	4.9 J	18	0.9 J	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Petroleum/Chemical Storage Area								
SAMPLE IDENTIFICATION	PCS-AS8	PCS-AS8	PCS-AS8	PCS-AE8	PCS-AE8	PCS-AE8	PCS-AW8	PCS-AW8	
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
DATE OF COLLECTION	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOILDS	93	98	98	92	97	97	91	98	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	0.9 J	U	U	U	U	U	U	U	24,000
Toluene	0.8 J	U	U	U	U	U	U	U	20,000,000
Ethylbenzene	U	U	U	U	U	U	U	U	8,000,000
Isopropylbenzene	U	U	U	U	U	U	U	U	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	8.6	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	8.2	U	U	3.7 J	U	U	3.6 J	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	1.0 J	U	U	U	U	U	0.6 J	U	200,000,000
Naphthalene	3.5 J	0.7 J	0.8 J	110	6.0	4.7 J	1.3 J	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Petroleum/Chemical Storage Area								
SAMPLE IDENTIFICATION	PCS-AW8	PCS-GA	PCS-GA	PCS-GA	PCS-GN8	PCS-GN8	PCS-GN8	PCS-GS8	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE DEPTH	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	
DATE OF COLLECTION	8/12/98	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOILDS	96	96	94	98	94	91	98	94	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	U	U	U	U	U	U	U	U	24,000
Toluene	U	0.9 J	U	U	U	U	U	1.5 J	20,000,000
Ethylbenzene	U	U	U	U	U	U	U	U	8,000,000
Isopropylbenzene	U	0.6 J	U	U	U	U	U	1.8 J	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	U	U	U	U	U	U	U	U	200,000,000
Naphthalene	U	U	U	U	U	U	U	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-2 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS VOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Petroleum/Chemical Storage Area								
SAMPLE IDENTIFICATION	PCS-GS8	PCS-GS8	PCS-GE8	PCS-GE8	PCS-GE8	PCS-GW8	PCS-GW8	PCS-GW8	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	
DATE OF COLLECTION	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	08/11/98	
LABORATORY	Envirotech								
DILUTION FACTOR	1	1	1	1	1	1	1	1	
PERCENT SOILDS	93	91	93	90	98	93	94	98	
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
VOLATILE COMPOUNDS									
Benzene	U	U	U	U	U	U	U	U	24,000
Toluene	1.1 J	U	U	U	U	U	U	U	20,000,000
Ethylbenzene	U	U	U	U	U	U	U	U	8,000,000
Isopropylbenzene	2.6 J	U	U	U	U	U	U	U	---
n-Propylbenzene	U	U	U	U	U	U	U	U	---
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	---
tert-Butylbenzene	U	U	U	U	U	U	U	U	---
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	---
sec-Butylbenzene	U	U	U	U	U	U	U	U	---
p-Isopropyltoluene	U	U	U	U	U	U	U	U	---
n-Butylbenzene	U	U	U	U	U	U	U	U	---
MTBE	U	U	U	U	U	U	U	U	---
Xylene (total)	U	U	U	U	U	U	U	U	200,000,000
Naphthalene	U	U	U	U	U	U	U	U	300,000

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
--- : Not established.

TABLE C-3
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Leaching Chamber North of Carpentry Shop			Area Outside of Machine Shop					LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-16AA	B-16AA	B-16AA	B-19AN12	B-19AN12	B-19AN12	B-19AN12	B-19AN12		
SAMPLE DEPTH	10' - 12'	14' - 16'	16' - 18'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'		
DATE OF COLLECTION	8/14/98	8/14/98	8/14/98	08/07/98	08/07/98	8/07/98	8/07/98	8/07/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	5	1	1	1		
PERCENT SOLIDS	84	92	94	95	97	97	96	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	64 J	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	66 J	U	U	24 J	130 J	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	10 J	65 J	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	36 J	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	64 J	U	U	26 J	2,400	U	22 J	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	63 J	U	U	32 J	940 J	11 J	23 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	34 J	U	U	19 J	37 J	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Leaching Chamber North of Carpentry Shop			Area Outside of Machine Shop					LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-16AA	B-16AA	B-16AA	B-19AN12	B-19AN12	B-19AN12	B-19AN12	B-19AN12		
SAMPLE DEPTH	10' - 12'	14' - 16'	16' - 18'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'		
DATE OF COLLECTION	8/14/98	8/14/98	8/14/98	08/07/98	08/07/98	8/07/98	8/07/98	8/07/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	5	1	1	1		
PERCENT SOLIDS	84	92	94	95	97	97	96	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	110 J	U	U	130 J	3,800	76 J	140 J	U	18	50,000
Dibenzofuran	60 J	U	U	48 J	1,600 J	24 J	38 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	100 J	U	U	110 J	3,100	61 J	87 J	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	43 J	U	U	U	U	U	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	780 J	U	U	1,100	20,000	530	750	U	18	50,000
Anthracene	210 J	U	U	290 J	5,700	140 J	180 J	U	18	50,000
Carbazole	110 J	U	U	120 J	2,700	42 J	66 J	U	360	----
Di-n-butylphthalate	4,400	470	580	80 J	U	U	U	U	360	8,100
Fluoranthene	1,100	U	10 J	2,000	22,000	990 J	1,400	18 J	18	50,000
Pyrene	1,100	U	10 J	1,700	17,000	800	1,100	17 J	18	50,000
Butylbenzylphthalate	3,000	83 J	87 J	210 J	U	110 J	89 J	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	**550**	U	12 J	**1,100**	**11,000**	**470**	**650**	U	18	224 or MDL
Chrysene	**730**	U	U	**1,200**	**10,000**	**490**	**690**	U	18	400
bis(2-Ethylhexyl)phthalate	4,500	2,000	2,200	350 J	U	U	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	950	U	U	**1,700**	**11,000**	560	840	U	18	1,100
Benzo(k)fluoranthene	380	U	U	660	**4,600**	220	400	U	18	1,100
Benzo(a)pyrene	**560**	U	U	**1,100**	**8,600**	**430**	**620**	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	180	U	U	730	**4,700**	270	390	U	18	3,200
Dibenz(a,h)anthracene	**52**	U	U	**190**	**1,200**	**54**	**90**	U	18	14 or MDL
Benzo(g,h,i)perylene	140 J	U	U	640	3,500	240 J	340 J	U	18	50,000
TOTAL CaPAHs	3,402	0	12	6,680	**51,100**	2,494	3,680	0		10,000*
TOTAL SVOCS	19,382	2,553	2,899	13,569	134,072	5,518	7,915	35		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Area Outside of Machine Shop								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-19AN14	B-19AN14	B-19AN14	B-19AN14	B-19AN14	B-19AE7	B-19AE7	B-19AW10		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/20/98	8/20/98	8/20/98	8/20/98	8/20/98	08/07/98	08/07/98	08/07/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	5		
PERCENT SOLIDS	95	94	95	99	96	93	88	91		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	34 J	U	U	U	U	75 J	U	350 J	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	33 J	U	U	U	U	28 J	170 J	120 J	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	59 J	U	U	U	U	28 J	72	71 J	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	67 J	U	U	U	U	19 J	U	93 J	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	16 J	U	U	U	U	12 J	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Area Outside of Machine Shop								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-19AN14	B-19AN14	B-19AN14	B-19AN14	B-19AN14	B-19AE7	B-19AE7	B-19AW10		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/20/98	8/20/98	8/20/98	8/20/98	8/20/98	08/07/98	08/07/98	08/07/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	5		
PERCENT SOLIDS	95	94	95	99	96	93	88	91		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	190 J	U	U	U	U	73 J	U	U	18	50,000
Dibenzofuran	61 J	U	U	U	U	28 J	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	120 J	U	U	U	U	62 J	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	1,100	U	U	U	24 J	600	39 J	140 J	18	50,000
Anthracene	270 J	U	U	U	U	160 J	8 J	U	18	50,000
Carbazole	130 J	U	U	U	U	64 J	U	U	360	----
Di-n-butylphthalate	U	U	U	U	U	100 J	U	U	360	8,100
Fluoranthene	2,000	U	13 J	U	48 J	1,200	50 J	180 J	18	50,000
Pyrene	1,700	U	11 J	U	41 J	980	43 J	170 J	18	50,000
Butylbenzylphthalate	160 J	U	U	U	U	180 J	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	**960**	U	U	U	36	**670**	34 J	U	18	224 or MDL
Chrysene	**1,100**	U	U	U	24 J	**690**	21 J	U	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	200 J	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	**1,400**	U	U	U	30 J	790	33 J	690	18	1,100
Benzo(k)fluoranthene	500	U	U	U	11 J	330	13 J	220	18	1,100
Benzo(a)pyrene	**990**	U	U	U	22 J	**580**	14 J	**110 J**	18	61 or MDL
Indeno(1,2,3-cd)pyrene	790	U	U	U	12 J	440	25 J	350	18	3,200
Dibenz(a,h)anthracene	**160**	U	U	U	U	**110**	U	**92 J**	18	14 or MDL
Benzo(g,h,i)perylene	850	U	U	U	16 J	430	38 J	360 J	18	50,000
TOTAL CaPAHs	5,900	0	0	0	135	3,610	140	1,462		10,000*
TOTAL SVOCS	12,690	0	24	0	264	7,849	560	2,946		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Area Outside of Machine Shop	Sanitary Leaching Pools (North and South)							LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-19AW10	B-22AA	B-22BA	B-22CA	B-22FA	B-22FA	B-22FA	B-22FA		
SAMPLE DEPTH	2' - 4'	8' - 10'	8' - 10'	8' - 10'	8' - 10'	12' - 14'	14' - 16'	16' - 18'		
DATE OF COLLECTION	08/07/98	8/18/98	8/18/98	8/18/98	8/19/98	8/19/98	8/19/98	8/19/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	94	97	90	94	93	94	94	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	14 J	8.7 J	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	64 J	16 J	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	U	U	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	U	20 J	50 J	U	U	U	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Area Outside of Machine Shop	Sanitary Leaching Pools (North and South)							LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-19AW10	B-22AA	B-22BA	B-22CA	B-22FA	B-22FA	B-22FA	B-22FA		
SAMPLE DEPTH	2' - 4'	8' - 10'	8' - 10'	8' - 10'	8' - 10'	12' - 14'	14' - 16'	16' - 18'		
DATE OF COLLECTION	08/07/98	8/18/98	8/18/98	8/18/98	8/19/98	8/19/98	8/19/98	8/19/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	94	97	90	94	93	94	94	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	U	U	U	U	U	18	50,000
Dibenzofuran	U	U	U	U	U	U	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	U	U	U	U	U	U	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	U	22 J	51 J	U	U	U	U	U	18	50,000
Anthracene	U	U	U	U	U	U	U	U	18	50,000
Carbazole	U	U	U	U	U	U	U	U	360	----
Di-n-butylphthalate	U	U	U	U	U	U	U	U	360	8,100
Fluoranthene	U	10 J	61 J	69 J	12 J	U	U	U	18	50,000
Pyrene	U	13 J	66 J	84 J	14 J	U	U	U	18	50,000
Butylbenzylphthalate	U	92 J	200 J	1,100 J	U	U	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	U	19 J	30 J	U	22 J	U	U	U	18	224 or MDL
Chrysene	U	13 J	43 J	U	U	U	U	U	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	860 J	310 J	140 J	80 J	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	22 J	U	89 J	U	28 J	12 J	U	U	18	1,100
Benzo(k)fluoranthene	8.6 J	U	U	U	U	U	U	U	18	1,100
Benzo(a)pyrene	U	U	U	U	8.0 J	U	U	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	10 J	U	U	U	U	U	U	U	18	3,200
Dibenz(a,h)anthracene	U	U	U	U	U	U	U	U	18	14 or MDL
Benzo(g,h,i)perylene	11 J	U	U	U	U	U	U	U	18	50,000
TOTAL CaPAHs	41	32	162	0	58	12	0	0		10,000*
TOTAL SVOCS	52	189	590	2,113	472	177	80	0		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
☐: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22HA	B-22HA	B-22HA	B-22HN7	B-22HN7	B-22HS7	B-22HS7	B-22HS14		
SAMPLE DEPTH	2' - 4'	4' - 6'	6' - 8'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98	8/20/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	2	1	1		
PERCENT SOLIDS	94	90	98	93	84	93	98	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	9.1 J	U	U	U	130 J	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	53 J	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	7.6 J	U	7.8 J	U	570 J	98 J	44 J	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	U	U	U	11 J	U	280 J	43 J	49 J	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	7.4 J	U	40 J	U	9.0 J	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22HA	B-22HA	B-22HA	B-22HN7	B-22HN7	B-22HS7	B-22HS7	B-22HS14		
SAMPLE DEPTH	2' - 4'	4' - 6'	6' - 8'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98	8/20/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	2	1	1		
PERCENT SOLIDS	94	90	98	93	84	93	98	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	25 J	29 J	U	29 J	U	2,700	240 J	310 J	18	50,000
Dibenzofuran	8.8 J	12 J	U	9.5 J	U	800	120 J	89 J	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	22 J	26 J	U	24 J	U	1,700	240 J	210 J	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	18 J	U	U	360	410
Phenanthrene	190 J	220 J	U	330 J	U	9,600	1,600	2,200	18	50,000
Anthracene	52 J	60 J	U	71 J	U	3,200	490	550	18	50,000
Carbazole	22 J	26 J	U	36 J	U	1,300	200 J	210 J	360	----
Di-n-butylphthalate	U	U	U	U	U	U	U	720	360	8,100
Fluoranthene	280 J	310 J	U	750	U	12,000	2,000	4,400	18	50,000
Pyrene	220 J	240 J	U	610	U	12,000	1,700	3,300	18	50,000
Butylbenzylphthalate	U	U	U	120 J	U	210 J	U	480	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	140	160	U	**390**	U	**7,400**	**1,100**	**1,900**	18	224 or MDL
Chrysene	120 J	140 J	U	**420**	U	**6,800**	**1,000**	**2,100**	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	1,100	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	120	130	U	450	U	**6,900**	870	**2,300**	18	1,100
Benzo(k)fluoranthene	51	54	U	190	U	**2,600**	390	980	18	1,100
Benzo(a)pyrene	**97**	**100**	U	**340**	U	**5,400**	**750**	**1,800**	18	61 or MDL
Indeno(1,2,3-cd)pyrene	54	58	U	220	U	2,700	410	1,100	18	3,200
Dibenz(a,h)anthracene	**16 J**	**16 J**	U	**52**	U	**700**	**110**	**250**	18	14 or MDL
Benzo(g,h,i)perylene	53 J	60 J	U	220 J	U	2,400	390	1,100	18	50,000
TOTAL CaPAHs	598	658	0	2,062	0	**32,500**	4,630	**10,430**		10,000*
TOTAL SVOCS	1,471	1,649	0	4,297	0	79,318	11,751	25,384		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22HS14	B-22HS14	B-22HE7	B-22HE7	B-22HW7	B-22HW7	B-22JN7	B-22JN7		
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/20/98	8/20/98	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	5.0	5.0		
PERCENT SOLIDS	96	96	96	91	95	99	96	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	19 J	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	150 J	U	36 J	140 J	20 J	U	120 J	36 J	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	74 J	U	55 J	73 J	24 J	U	330 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	9.1 J	U	19 J	9.4 J	18 J	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22HS14	B-22HS14	B-22HE7	B-22HE7	B-22HW7	B-22HW7	B-22JN7	B-22JN7		
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/20/98	8/20/98	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98	08/06/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	5	5		
PERCENT SOLIDS	96	96	96	91	95	99	96	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	340 J	U	130 J	520	80 J	U	41 J	U	18	50,000
Dibenzofuran	170 J	U	41 J	200 J	31 J	U	53 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	290 J	U	96 J	450	71 J	U	46 J	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	42 J	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	2,500	26 J	1,100	3,000	690	U	470 J	190 J	18	50,000
Anthracene	650	U	280 J	960	180 J	U	90 J	49 J	18	50,000
Carbazole	280 J	U	130 J	370	78 J	U	U	U	360	----
Di-n-butylphthalate	U	U	260 J	U	180 J	U	U	4,400	360	8,100
Fluoranthene	3,300	27 J	2,300	3,700	1,200	U	600 J	220 J	18	50,000
Pyrene	3,000	20 J	2,100	3,200	1,000	U	510 J	170 J	18	50,000
Butylbenzylphthalate	500	U	870	U	2,300	U	U	24,000	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	**1,500**	U	**1,300**	**2,200**	**640**	U	**310**	130 J	18	224 or MDL
Chrysene	**1,400**	U	**1,400**	**1,900**	**680**	U	340 J	97 J	18	400
bis(2-Ethylhexyl)phthalate	U	U	340 J	U	160 J	U	U	2,700	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	1,200 J	360	50,000
Benzo(b)fluoranthene	**1,500**	U	**1,600**	**1,700**	700	U	380	110 J	18	1,100
Benzo(k)fluoranthene	820	U	640	840	250	U	150 J	42 J	18	1,100
Benzo(a)pyrene	**1,400**	U	**1,200**	**1,500**	**510**	U	**210**	**81 J**	18	61 or MDL
Indeno(1,2,3-cd)pyrene	530	U	660	750	310	U	92 J	53 J	18	3,200
Dibenz(a,h)anthracene	**130**	U	**170**	**210**	**80**	U	U	U	18	14 or MDL
Benzo(g,h,i)perylene	450	U	610	670	320 J	U	92 J	51 J	18	50,000
TOTAL CaPAHs	7,280	0	6,970	9,100	3,170	0	1,482	513		10,000*
TOTAL SVOCS	19,012	73	15,337	22,392	9,522	0	3,834	33,571		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22JS7	B-22JS7	B-22JS14	B-22JS14	B-22JS14	B-22JE7	B-22JE7	B-22JW7		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	08/06/98	08/06/98	8/20/98	8/20/98	8/20/98	08/06/98	08/06/98	08/06/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	20	1	1	5	5	10	1		
PERCENT SOLIDS	94	96	92	91	57	95	93	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	**380 J**	U	U	U	U	**1,200 J**	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	**340 J**	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	79 J	**8,700**	U	U	14 J	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	20 J	9,100	U	U	9.2 J	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	150 J	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	140 J	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	770	U	U	U	360	3,400
Naphthalene	98 J	U	U	U	240 J	U	U	34 J	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	190 J	U	U	45 J	260 J	38 J	U	65 J	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	320 J	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	24 J	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22JS7	B-22JS7	B-22JS14	B-22JS14	B-22JS14	B-22JE7	B-22JE7	B-22JW7		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	08/06/98	08/06/98	8/20/98	8/20/98	8/20/98	08/06/98	08/06/98	08/06/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	20	1	1	5	5	10	1		
PERCENT SOLIDS	94	96	92	91	57	95	93	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	310 J	U	U	53 J	120 J	160 J	U	83 J	18	50,000
Dibenzofuran	98 J	U	U	23 J	82 J	47 J	U	35 J	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	2,100 J	U	U	650 J	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	190 J	U	U	43 J	130 J	94 J	U	70 J	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	67 J	U	U	21 J	U	65 J	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	1,900	U	28 J	420	890 J	910 J	760 J	860	18	50,000
Anthracene	440 J	U	7.8 J	110 J	160 J	200 J	200 J	190 J	18	50,000
Carbazole	230 J	U	U	43 J	94 J	110 J	U	96 J	360	----
Di-n-butylphthalate	U	**130,000**	U	900	4,400	490 J	**80,000**	320 J	360	8,100
Fluoranthene	4,300	160 J	29 J	720	610 J	1,500 J	1,000 J	1,700	18	50,000
Pyrene	3,600	150 J	28 J	710	520 J	1,200 J	920 J	1,400	18	50,000
Butylbenzylphthalate	2,500	25,000	U	3,600	32	11,000	**78,000**	440	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	**2,400**	U	16 J	**380**	**270 J**	**760**	**680 J**	**920**	18	224 or MDL
Chrysene	**2,400**	U	14 J	**460**	280 J	**780 J**	**630 J**	**1,000**	18	400
bis(2-Ethylhexyl)phthalate	U	1,800 J	U	180 J	18,000	U	10,000	200 J	360	50,000
Di-n-octylphthalate	U	U	U	U	6,500	U	U	U	360	50,000
Benzo(b)fluoranthene	**2,800**	U	U	560	260 J	700	870 J	1,100	18	1,100
Benzo(k)fluoranthene	1,100	U	U	260	130 J	280	330 J	410	18	1,100
Benzo(a)pyrene	**1,900**	U	U	**380**	**180 J**	**540**	**470 J**	**780**	18	61 or MDL
Indeno(1,2,3-cd)pyrene	1,200	U	U	180	62 J	290	U	480	18	3,200
Dibenz(a,h)anthracene	**320**	U	U	**81**	U	**86 J**	U	**130**	18	14 or MDL
Benzo(g,h,i)perylene	1,200 J	U	U	150 J	65 J	300 J	U	470	18	50,000
TOTAL CaPAHs	**12,120**	0	30	2,301	1,182	3,436	2,980	4,820		10,000*
TOTAL SVOCS	27,243	159,590	123	9,418	53,455	19,550	175,060	10,830		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/ Unknown Buried Structures (North)	Sanitary Leaching Pools (North and South)		Drainage Chamber North of Lobby/Loading Area		Former Drainage Basin			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22JW7	B-22LA	B-22LA	B-30AA	B-30AA	B-37AA	B-37AA	B-37AN8		
SAMPLE DEPTH	2' - 4'	8' - 10'	10' - 12'	6' - 8'	8' - 10'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	08/06/98	8/19/98	8/19/98	8/14/98	8/14/98	08/07/98	08/07/98	08/07/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	1	1	1	1	2	2	5		
PERCENT SOLIDS	92	95	96	94	94	89	96	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	**370**	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	38 J	U	16 J	9.2 J	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	65 J	U	21 J	14 J	28 J	61 J	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	U	54 J	U	54 J	33 J	51 J	46 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	38 J	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	39 J	8.0 J	U	U	U	16 J	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Anomalous Features/ Unknown Buried Structures (North)	Sanitary Leaching Pools (North and South)		Drainage Chamber North of Lobby/Loading Area		Former Drainage Basin			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22JW7	B-22LA	B-22LA	B-30AA	B-30AA	B-37AA	B-37AA	B-37AN8		
SAMPLE DEPTH	2' - 4'	8' - 10'	10' - 12'	6' - 8'	8' - 10'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	08/06/98	8/19/98	8/19/98	8/14/98	8/14/98	08/07/98	08/07/98	08/07/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	1	1	1	1	2	2	5		
PERCENT SOLIDS	92	95	96	94	94	89	96	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	66 J	180 J	U	20 J	14 J	20 J	150 J	U	18	50,000
Dibenzofuran	U	73 J	U	15 J	12 J	19 J	65 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	67 J	140 J	U	21 J	16 J	16 J	110 J	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	93 J	U	U	U	18 J	U	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	580 J	1,300	U	130 J	110 J	200 J	940	110 J	18	50,000
Anthracene	180 J	310 J	U	28 J	29 J	39 J	190 J	U	18	50,000
Carbazole	50 J	140 J	U	30 J	18 J	32 J	120 J	U	360	----
Di-n-butylphthalate	3,500	450	130 J	78 J	U	U	U	U	360	8,100
Fluoranthene	920 J	2,200	U	160 J	160 J	420 J	1,300	180 J	18	50,000
Pyrene	800 J	1,800	U	140 J	150 J	350 J	1,100	160 J	18	50,000
Butylbenzylphthalate	12,000	4,000	U	210 J	92 J	170 J	U	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	**600**	**960**	U	80	92	210	**560**	120 J	18	224 or MDL
Chrysene	**580 J**	**1,200**	U	140 J	130 J	320 J	**620 J**	150 J	18	400
bis(2-Ethylhexyl)phthalate	1,400 J	1,200	390	400	230 J	1,100	460 J	390 J	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	630	**1,200**	U	160	150	520	760	220	18	1,100
Benzo(k)fluoranthene	240	580	U	U	U	180	300	100 J	18	1,100
Benzo(a)pyrene	**440**	**950**	U	**69**	52	**250**	**520**	**110 J**	18	61 or MDL
Indeno(1,2,3-cd)pyrene	200	560	U	60	60	240	360	130 J	18	3,200
Dibenz(a,h)anthracene	U	**130**	U	U	U	**57 J**	**83**	**38 J**	18	14 or MDL
Benzo(g,h,i)perylene	160 J	580	U	59 J	58 J	240 J	340 J	120 J	18	50,000
TOTAL CaPAHs	2,690	5,580	0	509	484	1,777	3,203	868		10,000*
TOTAL SVOCS	22,583	18,488	520	1,891	1,447	4,478	8,085	1,828		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Drainage Basin							Resin Waste Pit (Sump #1)	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37AN8	B-37AS8	B-37AS8	B-37AE8	B-37AE8	B-37AW8	B-37AW8	RWP-1		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	12' - 14'		
DATE OF COLLECTION	08/07/98	08/07/98	08/07/98	08/07/98	08/07/98	08/07/98	08/07/98	8/13/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	2	1	1	1	1	20		
PERCENT SOLIDS	93	97	96	96	97	92	92.6	92.6		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	10 J	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	19 J	U	7.5 J	18 J	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	U	U	15 J	35 J	U	15 J	25 J	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	7.8 J	U	U	8.7 J	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Former Drainage Basin							Resin Waste Pit (Sump #1)	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37AN8	B-37AS8	B-37AS8	B-37AE8	B-37AE8	B-37AW8	B-37AW8	RWP-1		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	12' - 14'		
DATE OF COLLECTION	08/07/98	08/07/98	08/07/98	08/07/98	08/07/98	08/07/98	08/07/98	8/13/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	2	1	1	1	1	20		
PERCENT SOLIDS	93	97	96	96	97	92	92.6	92.6		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	11 J	U	U	30 J	U	18	50,000
Dibenzofuran	U	U	U	12 J	U	U	17 J	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	U	U	U	10 J	U	U	25 J	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	620 J	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	U	22 J	94 J	120 J	40 J	61 J	260 J	U	18	50,000
Anthracene	U	U	18 J	20 J	7.7 J	13 J	51 J	U	18	50,000
Carbazole	U	U	16 J	17 J	U	U	39 J	U	360	----
Di-n-butylphthalate	U	U	U	U	U	180 J	U	U	360	8,100
Fluoranthene	14 J	52 J	170 J	230 J	76 J	140 J	490	U	18	50,000
Pyrene	12 J	46 J	150 J	200 J	58 J	130 J	400	U	18	50,000
Butylbenzylphthalate	U	U	U	91 J	U	240 J	U	**94,000**	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	16 J	30 J	96	120	41	82	**240**	U	18	224 or MDL
Chrysene	8.2 J	31 J	94 J	170 J	48 J	96 J	290 J	U	18	400
bis(2-Ethylhexyl)phthalate	U	U	230 J	210 J	U	130 J	360 J	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	10 J	50	210	260	52	110	450	U	18	1,100
Benzo(k)fluoranthene	U	20 J	83	95	18 J	47	160	U	18	1,100
Benzo(a)pyrene	7.7 J	28 J	**110**	**140**	29 J	**78**	**260**	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	25 J	89	110	27 J	54	180	U	18	3,200
Dibenz(a,h)anthracene	U	8.3 J	**23 J**	**28 J**	7.9 J	13 J	**49**	U	18	14 or MDL
Benzo(g,h,i)perylene	U	27 J	84 J	100 J	24 J	54 J	180 J	U	18	50,000
TOTAL CaPAHs	42	192	705	923	223	480	1,629	0		10,000*
TOTAL SVOCS	68	339	1,482	2,006	429	1,451	3,543	94,620		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold value: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	RWP-1	RWP-1	RWP-1	RWP-2	RWP-2	RWP-2	RWP-2	RWP-3		
SAMPLE DEPTH	14' - 16'	16' - 18'	18' - 20'	14' - 16'	16' - 18'	18' - 20'	20' - 22'	8' - 10'		
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	2	2	20	5	5	5	50		
PERCENT SOLIDS	96	97	96.2	95	96	96	96	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	U	U	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	U	U	U	U	U	U	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	RWP-1	RWP-1	RWP-1	RWP-2	RWP-2	RWP-2	RWP-2	RWP-3		
SAMPLE DEPTH	14' - 16'	16' - 18'	18' - 20'	14' - 16'	16' - 18'	18' - 20'	20' - 22'	8' - 10'		
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	2	2	20	5	5	5	50		
PERCENT SOLIDS	96	97	96.2	95	96	96	96	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	U	U	U	U	U	18	50,000
Dibenzofuran	U	U	U	U	U	U	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	U	U	U	U	U	U	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	U	U	U	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	U	U	U	U	U	U	U	U	18	50,000
Anthracene	U	U	U	U	U	U	U	U	18	50,000
Carbazole	U	U	U	U	U	U	U	U	360	----
Di-n-butylphthalate	U	U	U	U	U	U	U	**11,000 J**	360	8,100
Fluoranthene	U	U	U	U	U	U	U	U	18	50,000
Pyrene	U	U	U	U	U	U	U	U	18	50,000
Butylbenzylphthalate	18,000	9,700	10,000	**84,000**	14,000	20,000	16,000	**160,000**	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	U	U	U	U	U	U	U	U	18	224 or MDL
Chrysene	U	U	U	U	U	U	U	U	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	18	1,100
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	18	1,100
Benzo(a)pyrene	U	U	U	U	U	U	U	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	18	3,200
Dibenz(a,h)anthracene	U	U	U	U	U	U	U	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	18	50,000
TOTAL CaPAHs	0	0	0	0	0	0	0	0		10,000*
TOTAL SVOCS	18,000	9,700	10,000	84,000	14,000	20,000	16,000	171,000		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	RWP-3	RWP-3	RWP-3	RWP-4	RWP-4	RWP-4	RWP-4	RWP-5		
SAMPLE DEPTH	10' - 12'	12' - 14'	14' - 16'	15' - 17'	17' - 19'	21' - 23'	23' - 25'	6' - 8'		
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/14/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	5	2	50	1	2	1	25		
PERCENT SOLIDS	94	94	96	91	96	97	95	81.5		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	22 J	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	U	U	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	U	U	U	U	U	U	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	RWP-3	RWP-3	RWP-3	RWP-4	RWP-4	RWP-4	RWP-4	RWP-5		
SAMPLE DEPTH	10' - 12'	12' - 14'	14' - 16'	15' - 17'	17' - 19'	21' - 23'	23' - 25'	6' - 8'		
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/14/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	5	2	50	1	2	1	25		
PERCENT SOLIDS	94	94	96	91	96	97	95	81.5		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	U	U	U	U	U	18	50,000
Dibenzofuran	U	U	U	U	U	U	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	U	U	U	U	U	U	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	520 J	8.2 J	36 J	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	72 J	U	U	U	U	U	U	U	18	50,000
Anthracene	U	U	U	U	U	U	U	U	18	50,000
Carbazole	U	U	U	U	U	U	U	U	360	----
Di-n-butylphthalate	2,900	1,600 J	290 J	U	U	U	78 J	U	360	8,100
Fluoranthene	69 J	U	U	U	U	U	U	U	18	50,000
Pyrene	66 J	U	U	U	U	U	U	U	18	50,000
Butylbenzylphthalate	22,000	16,000	9,200	**160,000**	3,600	6,700	4,200	**160,000**	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	U	U	U	U	U	U	U	U	18	224 or MDL
Chrysene	U	U	U	U	U	U	U	U	18	400
bis(2-Ethylhexyl)phthalate	1,200 J	1,200 J	660 J	U	U	U	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	18	1,100
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	18	1,100
Benzo(a)pyrene	U	U	U	U	U	U	U	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	18	3,200
Dibenz(a,h)anthracene	U	U	U	U	U	U	U	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	18	50,000
TOTAL CaPAHs	0	0	0	0	0	0	0	0		10,000*
TOTAL SVOCS	26,307	18,800	10,172	160,520	3,608	6,736	4,278	160,000		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
----: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)									
SAMPLE IDENTIFICATION	RWP-5	RWP-5	RWP-5	RWP-6	RWP-6	RWP-6	RWP-6	FB-1		
SAMPLE DEPTH	8' - 10'	10' - 12'	12' - 14'	6' - 8'	8' - 10'	12' - 14'	16' - 18'	--		
DATE OF COLLECTION	8/14/98	8/14/98	8/14/98	8/18/98	8/18/98	8/18/98	8/18/98	8/19/98	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
LABORATORY	Envirotech									
DILUTION FACTOR	5	2	5	50	25	5	1	1		
PERCENT SOLIDS	95	95	96	89.6	96	88	97	--		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/kg)	(ug/kg)
Phenol	U	U	U	U	U	U	U	U	360	30 or MDL
2-Chlorophenol	U	U	U	U	U	U	U	U	360	800
2-Methylphenol	U	U	U	U	U	U	U	U	360	100 or MDL
4-Methylphenol	U	U	U	U	U	U	U	U	360	900
2-Nitrophenol	U	U	U	U	U	U	U	U	360	330 or MDL
2,4-Dimethylphenol	U	U	U	U	U	U	U	U	360	----
2,4-Dichlorophenol	U	U	U	U	U	U	U	U	360	400
4-Chloro-3-methylphenol	U	U	U	U	U	U	U	U	360	240 or MDL
2,4,6-Trichlorophenol	U	U	U	U	U	U	U	U	360	----
2,4,5-Trichlorophenol	U	U	U	U	U	U	U	U	360	100
2,4-Dinitrophenol	U	U	U	U	U	U	U	U	720	200 or MDL
4-Nitrophenol	U	U	U	U	U	U	U	U	720	100 or MDL
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	U	U	720	----
Pentachlorophenol	U	U	U	U	U	U	U	U	720	1,000 or MDL
bis(2-Chloroethyl)ether	U	U	U	U	U	U	U	U	360	----
1,3-Dichlorobenzene	U	U	U	U	U	U	U	U	360	1,600
1,4-Dichlorobenzene	U	U	U	U	U	U	U	U	360	8,500
1,2-Dichlorobenzene	U	U	U	U	U	U	U	U	360	7,900
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	U	U	360	----
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	U	U	360	----
Hexachloroethane	U	U	U	U	U	U	U	U	360	----
Nitrobenzene	U	U	U	U	U	U	U	U	360	200 or MDL
Isophorone	U	U	U	U	U	U	U	U	360	4,400
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	U	U	360	----
1,2,4-Trichlorobenzene	U	U	U	U	U	U	U	U	360	3,400
Naphthalene	U	U	U	U	1,100 J	71 J	U	U	18	13,000
4-Chloroaniline	U	U	U	U	U	U	U	U	360	220 or MDL
Hexachlorobutadiene	U	U	U	U	U	U	U	U	360	----
2-Methylnaphthalene	U	U	U	2,400 J	3,000 J	350 J	U	U	360	36,400
Hexachlorocyclopentadiene	U	U	U	U	U	U	U	U	360	----
2-Chloronaphthalene	U	U	U	U	U	U	U	U	360	----
2-Nitroaniline	U	U	U	U	U	U	U	U	360	430 or MDL
Dimethylphthalate	U	U	U	U	U	U	U	U	360	2,000
Acenaphthylene	U	U	U	U	U	U	U	U	18	41,000
2,6-Dinitrotoluene	U	U	U	U	U	U	U	U	360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)									
SAMPLE IDENTIFICATION	RWP-5	RWP-5	RWP-5	RWP-6	RWP-6	RWP-6	RWP-6	FB-1	LABORATORY	NYSDEC TAGM 4046
SAMPLE DEPTH	8' - 10'	10' - 12'	12' - 14'	6' - 8'	8' - 10'	12' - 14'	16' - 18'	--	QUANTITATION	APPENDIX A
DATE OF COLLECTION	8/14/98	8/14/98	8/14/98	8/18/98	8/18/98	8/18/98	8/18/98	8/19/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	2	5	50	25	5	1	1	LIMITS	CRITERIA
PERCENT SOLIDS	95	95	96	89.6	96	88	97	--		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/kg)	(ug/kg)
3-Nitroaniline	U	U	U	U	U	U	U	U	360	500 or MDL
Acenaphthene	U	U	U	640 J	940 J	93 J	U	U	18	50,000
Dibenzofuran	U	U	U	380 J	600 J	53 J	U	U	360	6,200
2,4-Dinitrotoluene	U	U	U	U	U	U	U	U	360	----
Diethylphthalate	U	U	U	U	U	U	U	U	360	7,100
4-Chlorophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Fluorene	U	U	U	U	U	U	U	U	18	50,000
4-Nitroaniline	U	U	U	U	U	U	U	U	360	----
N-Nitrosodiphenylamine	U	U	U	620 J	1,000 J	64 J	U	U	360	----
4-Bromophenyl-phenylether	U	U	U	U	U	U	U	U	360	----
Hexachlorobenzene	U	U	U	U	U	U	U	U	360	410
Phenanthrene	U	U	U	U	U	U	U	U	18	50,000
Anthracene	U	U	U	U	U	U	U	U	18	50,000
Carbazole	U	U	U	U	U	U	U	U	360	----
Di-n-butylphthalate	U	U	U	U	U	450 J	U	U	360	8,100
Fluoranthene	U	U	U	U	U	U	U	U	18	50,000
Pyrene	U	U	U	U	U	U	U	U	18	50,000
Butylbenzylphthalate	27,000	9,800	15,000	**190,000**	**110,000**	20,000	2,600	U	360	50,000
3,3'-Dichlorobenzidine	U	U	U	U	U	U	U	U	720	----
Benzo(a)anthracene	U	U	U	U	U	U	U	U	18	224 or MDL
Chrysene	U	U	U	U	U	U	U	U	18	400
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	U	U	360	50,000
Di-n-octylphthalate	U	U	U	U	U	U	U	U	360	50,000
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	18	1,100
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	18	1,100
Benzo(a)pyrene	U	U	U	U	U	U	U	U	18	61 or MDL
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	18	3,200
Dibenz(a,h)anthracene	U	U	U	U	U	U	U	U	18	14 or MDL
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	18	50,000
TOTAL CaPAHs	0	0	0	0	0	0	0	0		10,000*
TOTAL SVOCS	27,000	9,800	15,000	194,040	116,640	21,081	2,600	0		500,000

Qualifiers
U: Compound analyzed for but not detected
J: Compound found at a concentration below the detection limit

Notes
---: Not established
MDL: Method Detection Limit
Bold: Value exceeds TAGM 4046 Appendix A criteria
*: Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	FB-2								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	--									
DATE OF COLLECTION	8/19/98									
LABORATORY	Envirotech									
DILUTION FACTOR	1									
PERCENT SOLIDS	--									
UNITS	(ug/L)								(ug/kg)	(ug/kg)
Phenol	U								360	30 or MDL
2-Chlorophenol	U								360	800
2-Methylphenol	U								360	100 or MDL
4-Methylphenol	U								360	900
2-Nitrophenol	U								360	330 or MDL
2,4-Dimethylphenol	U								360	----
2,4-Dichlorophenol	U								360	400
4-Chloro-3-methylphenol	U								360	240 or MDL
2,4,6-Trichlorophenol	U								360	----
2,4,5-Trichlorophenol	U								360	100
2,4-Dinitrophenol	U								720	200 or MDL
4-Nitrophenol	U								720	100 or MDL
4,6-Dinitro-2-methylphenol	U								720	----
Pentachlorophenol	U								720	1,000 or MDL
bis(2-Chloroethyl)ether	U								360	----
1,3-Dichlorobenzene	U								360	1,600
1,4-Dichlorobenzene	U								360	8,500
1,2-Dichlorobenzene	U								360	7,900
bis(2-chloroisopropyl)ether	U								360	----
N-Nitroso-di-n-propylamine	U								360	----
Hexachloroethane	U								360	----
Nitrobenzene	U								360	200 or MDL
Isophorone	U								360	4,400
bis(2-Chloroethoxy)methane	U								360	----
1,2,4-Trichlorobenzene	U								360	3,400
Naphthalene	U								18	13,000
4-Chloroaniline	U								360	220 or MDL
Hexachlorobutadiene	U								360	----
2-Methylnaphthalene	U								360	36,400
Hexachlorocyclopentadiene	U								360	----
2-Chloronaphthalene	U								360	----
2-Nitroaniline	U								360	430 or MDL
Dimethylphthalate	U								360	2,000
Acenaphthylene	U								18	41,000
2,6-Dinitrotoluene	U								360	1,000

TABLE C-3 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE IDENTIFICATION	FB-2								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	--									
DATE OF COLLECTION	8/19/98									
DILUTION FACTOR	1									
PERCENT SOLIDS	--									
UNITS	(ug/L)								(ug/kg)	(ug/kg)
3-Nitroaniline	U								360	500 or MDL
Acenaphthene	U								18	50,000
Dibenzofuran	U								360	6,200
2,4-Dinitrotoluene	U								360	----
Diethylphthalate	U								360	7,100
4-Chlorophenyl-phenylether	U								360	----
Fluorene	U								18	50,000
4-Nitroaniline	U								360	----
N-Nitrosodiphenylamine	U								360	----
4-Bromophenyl-phenylether	U								360	----
Hexachlorobenzene	U								360	410
Phenanthrene	U								18	50,000
Anthracene	U								18	50,000
Carbazole	U								360	----
Di-n-butylphthalate	U								360	8,100
Fluoranthene	U								18	50,000
Pyrene	U								18	50,000
Butylbenzylphthalate	U								360	50,000
3,3'-Dichlorobenzidine	U								720	----
Benzo(a)anthracene	U								18	224 or MDL
Chrysene	U								18	400
bis(2-Ethylhexyl)phthalate	U								360	50,000
Di-n-octylphthalate	U								360	50,000
Benzo(b)fluoranthene	U								18	1,100
Benzo(k)fluoranthene	U								18	1,100
Benzo(a)pyrene	U								18	61 or MDL
Indeno(1,2,3-cd)pyrene	U								18	3,200
Dibenz(a,h)anthracene	U								18	14 or MDL
Benzo(g,h,i)perylene	U								18	50,000
TOTAL CaPAHs	0									10,000*
TOTAL SVOCS	0									500,000

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
MDL: Method Detection Limit
* : Proposed criterion for total CaPAHs in TAGM 4046 Appendix A

TABLE C-4
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Trench in EMT Lab No. 1		Chemical Storage Area/ Concrete Platform						CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-7AA	B-7AA	B-17BA	B-17BA	B-17BN7	B-17BN7	B-17BS7	B-17BS7		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/11/98	8/11/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	5	1	1	1	1	1	1	1		
PERCENT SOLIDS	98	99	96	95	93	97	96	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	13 J	U	18 J	U	9.1 J	U	10	300,000
Acenaphthene	U	U	59 J	U	150 J	U	51 J	9.3 J	10	5,000,000
Fluorene	U	U	8.7 J	U	110 J	U	41 J	8.7 J	10	3,000,000
Phenanthrene	U	U	44 J	U	1,200	U	500	84 J	10	----
Anthracene	U	U	11 J	U	280 J	U	97 J	22 J	10	20,000,000
Fluoranthene	U	U	130 J	14 J	1,900	U	880	160 J	10	3,000,000
Pyrene	U	U	150 J	16 J	1,800	U	750	140 J	10	2,000,000
Benzo(a)anthracene	U	U	52	U	**1,000**	U	**470**	89	10	220
Chrysene	U	U	77 J	U	1,000	U	460	66 J	10	----
Benzo(b)fluoranthene	U	U	87	7.6 J	**1,400**	U	**460**	73	10	220
Benzo(k)fluoranthene	U	U	31 J	U	**510**	U	190	28 J	10	220
Benzo(a)pyrene	U	U	46	U	**860**	U	**360**	58	10	61
Indeno(1,2,3-cd)pyrene	U	U	43	U	270	U	190	30 J	10	----
Dibenzo(a,h)anthracene	U	U	11 J	U	**71**	U	**52**	U	10	14
Benzo(g,h,i)perylene	U	U	43 J	U	220 J	U	180 J	29 J	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
Bold : Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Chemical Storage Area/ Concrete Platform				Sanitary Leaching Pools (North and South)				CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-17BE7	B-17BE7	B-17BW7	B-17BW7	B-22AA	B-22BA	B-22CA	B-22CA		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	10' - 12'	10' - 12'	14' - 16'	16' - 18'		
DATE OF COLLECTION	8/6/98	8/6/98	8/6/98	8/6/98	8/18/98	8/18/98	8/18/98	8/18/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	94	94	95	96	98	97	96	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	16 J	U	U	U	U	U	10	300,000
Acenaphthene	U	U	43 J	U	U	U	U	U	10	5,000,000
Fluorene	U	U	8.3 J	U	U	U	U	U	10	3,000,000
Phenanthrene	130 J	66 J	48 J	U	U	17 J	U	U	10	----
Anthracene	U	18 J	11 J	U	U	U	U	U	10	20,000,000
Fluoranthene	280 J	66 J	76 J	U	U	15 J	U	U	10	3,000,000
Pyrene	240 J	58 J	69 J	U	U	20 J	U	U	10	2,000,000
Benzo(a)anthracene	170 J	54 J	45	U	U	U	U	U	10	220
Chrysene	140 J	28 J	52 J	U	U	10 J	U	U	10	----
Benzo(b)fluoranthene	220	29 J	49	U	U	18 J	U	U	10	220
Benzo(k)fluoranthene	88 J	U	16 J	U	U	6.4 J	U	U	10	220
Benzo(a)pyrene	**130 J**	20 J	35 J	U	U	U	U	U	10	61
Indeno(1,2,3-cd)pyrene	52 J	U	22 J	U	U	U	U	U	10	----
Dibenzo(a,h)anthracene	U	U	8.6 J	U	U	U	U	U	10	14
Benzo(g,h,i)perylene	66 J	U	23 J	U	U	U	U	U	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
☐: Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Sanitary Leaching Pools (South) Beneath Megapound		Former Leaching Pool Beneath Megapound	Southern Parking Lot					CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-22DA	B-22DA	B-32AA	B-35AA	B-35AA	B-35AA	B-35AA	B-35AN7		
SAMPLE DEPTH	12' - 14'	14' - 16'	10' - 12'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'		
DATE OF COLLECTION	8/10/98	8/10/98	8/10/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	20	1	1	2	1	1		
PERCENT SOLIDS	98	97	98	90	98	98	98	86		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	76 J	U	U	10	300,000
Acenaphthene	U	U	U	U	U	100 J	U	U	10	5,000,000
Fluorene	U	U	U	U	U	210 J	U	U	10	3,000,000
Phenanthrene	U	U	U	U	U	240 J	U	U	10	----
Anthracene	U	U	U	U	U	U	U	U	10	20,000,000
Fluoranthene	U	U	U	U	U	U	U	U	10	3,000,000
Pyrene	U	U	U	U	U	67 J	U	U	10	2,000,000
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	220
Chrysene	U	U	U	U	U	U	U	U	10	----
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	220
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	220
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	61
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	----
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	14
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Southern Parking Lot					Former Drainage Trench East of Plant 12A			CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-35AN7	B-35AS7	B-35AS7	B-35AE7	B-35AE7	B-38BA	B-38BN7	B-38BN7		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	1' - 3'	1' - 3'	3' - 5'		
DATE OF COLLECTION	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/12/98	8/12/98	8/12/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	98	91	98	91	92	93	83	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	40 J	160 J	U	10	300,000
Acenaphthene	U	U	U	U	U	U	38 J	U	10	5,000,000
Fluorene	U	U	U	U	U	U	20 J	U	10	3,000,000
Phenanthrene	U	U	U	U	U	93 J	290 J	U	10	----
Anthracene	U	U	U	U	U	17 J	90 J	9.8 J	10	20,000,000
Fluoranthene	U	U	U	U	U	74 J	210 J	U	10	3,000,000
Pyrene	U	U	U	U	U	65 J	37 J	U	10	2,000,000
Benzo(a)anthracene	U	U	U	U	U	47	130	U	10	220
Chrysene	U	U	U	U	U	38 J	120 J	U	10	----
Benzo(b)fluoranthene	U	U	U	U	U	43	130	U	10	220
Benzo(k)fluoranthene	U	U	U	U	U	18 J	55 J	U	10	220
Benzo(a)pyrene	U	U	U	U	U	31 J	**96**	U	10	61
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	21 J	62 J	U	10	----
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	14
Benzo(g,h,i)perylene	U	U	U	U	U	20 J	80 J	U	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
[ ]: Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Former Drainage Trench East of Plant 12A						Former Trenches to Resin Waste Pit (Sump #1)		CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-38BS7	B-38BS7	B-38BE7	B-38BE7	B-38BW7	B-38BW7	B-43AA	B-43AN7		
SAMPLE DEPTH	1' - 3'	3' - 5'	1' - 3'	3' - 5'	1' - 3'	3' - 5'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/5/98	8/5/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	90	96	97	97	94	97	97	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	1,400 J	U	U	U	U	U	U	21 J	10	300,000
Acenaphthene	2,600 J	U	U	U	U	U	U	17 J	10	5,000,000
Fluorene	2,900 J	U	U	U	U	U	U	U	10	3,000,000
Phenanthrene	6,200	10 J	U	U	7.7 J	U	26 J	91 J	10	----
Anthracene	600 J	12 J	U	U	U	U	U	11 J	10	20,000,000
Fluoranthene	620 J	U	U	U	U	U	36 J	120 J	10	3,000,000
Pyrene	740 J	U	U	U	U	U	30 J	110 J	10	2,000,000
Benzo(a)anthracene	**300 J**	U	U	U	U	U	26 J	74	10	220
Chrysene	240 J	U	U	U	U	U	16 J	130 J	10	----
Benzo(b)fluoranthene	**300 J**	U	U	U	U	U	16 J	160	10	220
Benzo(k)fluoranthene	120 J	U	U	U	U	U	7.4 J	52	10	220
Benzo(a)pyrene	**200 J**	U	U	U	U	U	12 J	**69**	10	61
Indeno(1,2,3-cd)pyrene	120 J	U	U	U	U	U	U	62	10	----
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	**16 J**	10	14
Benzo(g,h,i)perylene	120 J	U	U	U	U	U	U	50 J	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
Bold : Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump #1)							Dry Well Northeast of Plant 12A	CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-43AN7	B-43AS7	B-43AS7	B-43AE5	B-43AE5	B-43AW7	B-43AW7	B-45AA		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	6' - 8'		
DATE OF COLLECTION	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98	8/14/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	2	1	1	1	1	1	93		
PERCENT SOLIDS	92	98	99	94	97	96	97	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	58 J	U	U	U	U	U	100 J	10	300,000
Acenaphthene	U	24 J	U	7.1 J	13 J	29 J	U	260 J	10	5,000,000
Fluorene	U	U	U	U	U	33 J	U	220 J	10	3,000,000
Phenanthrene	U	140 J	12 J	75 J	80 J	280 J	12 J	2,000	10	----
Anthracene	U	28 J	U	16 J	19 J	48 J	U	550	10	20,000,000
Fluoranthene	U	220 J	20 J	100 J	120 J	270 J	20 J	3,400	10	3,000,000
Pyrene	U	210 J	20 J	97 J	110 J	220 J	18 J	2,900	10	2,000,000
Benzo(a)anthracene	U	150	14 J	56	63	120	21 J	**1,600**	10	220
Chrysene	U	170 J	10 J	59 J	55 J	140 J	12 J	1,800	10	----
Benzo(b)fluoranthene	U	**270**	15 J	63	71	120	13 J	**2,600**	10	220
Benzo(k)fluoranthene	U	75	7.6 J	30 J	32 J	49	U	**990**	10	220
Benzo(a)pyrene	U	**170**	U	44	52	**77**	8.3 J	**1,600**	10	61
Indeno(1,2,3-cd)pyrene	U	85	U	25 J	28 J	U	U	530	10	----
Dibenzo(a,h)anthracene	U	**23 J**	U	U	U	U	U	**110**	10	14
Benzo(g,h,i)perylene	U	69 J	U	20 J	26 J	33 J	U	440	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
Bold: Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Dry Well Northeast of Plant 12A		Petroleum/ Chemical Storage Areas						CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-45AA	B-45AA	PCS-AA	PCS-AA	PCS-AA	PCS-AN8	PCS-AN8	PCS-AN8		
SAMPLE DEPTH	8' - 10'	10' - 12'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'		
DATE OF COLLECTION	8/14/98	8/14/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	5	1	1	10	2	1		
PERCENT SOLIDS	92	96	92	98	97	95	95	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	110 J	U	360 J	U	U	1,800 J	320 J	580	10	300,000
Acenaphthene	240 J	U	2,200	U	10 J	7,800	1,400	1,100	10	5,000,000
Fluorene	210 J	U	1,900	U	U	4,800	1,000	1,000	10	3,000,000
Phenanthrene	1,900	9.6 J	17,000	18 J	71 J	38,000	9,000	7,900	10	----
Anthracene	500	U	4,700	U	19 J	10,000	2,400	2,200	10	20,000,000
Fluoranthene	3,100	U	27,000	22 J	120 J	57,000	13,000	7,700	10	3,000,000
Pyrene	2,800	13 J	22,000	20 J	96 J	46,000	10,000	6,300	10	2,000,000
Benzo(a)anthracene	**1,500**	U	**12,000**	18 J	56	**26,000**	**6,000**	**3,500**	10	220
Chrysene	1,800	U	11,000	8.9 J	48 J	26,000	5,900	3,200	10	----
Benzo(b)fluoranthene	**2,600**	U	**12,000**	11 J	56	**27,000**	**6,200**	**3,300**	10	220
Benzo(k)fluoranthene	**1,100**	U	**5,200**	U	23 J	**10,000**	**2,400**	**1,400**	10	220
Benzo(a)pyrene	**1,700**	U	**10,000**	7.5 J	48	**22,000**	**5,200**	**2,700**	10	61
Indeno(1,2,3-cd)pyrene	500	U	6,700	U	27 J	15,000	3,300	1,400	10	----
Dibenzo(a,h)anthracene	**120**	U	**1,800**	U	U	**3,400**	**510**	**350**	10	14
Benzo(g,h,i)perylene	410	U	6,800	U	23 J	13,000	2,900	1,100	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
bold : Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Petroleum/ Chemical Storage Areas								CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE IDENTIFICATION	PCS-AS8	PCS-AS8	PCS-AS8	PCS-AE8	PCS-AE8	PCS-AE8	PCS-AW8	PCS-AW8		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	5	1	1	1	1		
PERCENT SOLIDS	93	98	98	92	97	97	91	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	160 J	U	U	210 J	86 J	U	500 J	41 J	10	300,000
Acenaphthene	820	U	U	1,500 J	290 J	12 J	2,800	380	10	5,000,000
Fluorene	750	U	U	950 J	260 J	U	2,200	260 J	10	3,000,000
Phenanthrene	7,000	11 J	U	9,200	2,000	62 J	22,000	2,900	10	----
Anthracene	2,000	U	U	2,600	560	22 J	5,500	760	10	20,000,000
Fluoranthene	11,000	21 J	U	17,000	2,700	130 J	36,000	5,800	10	3,000,000
Pyrene	9,100	18 J	U	18,000	2,300	110 J	32,000	4,700	10	2,000,000
Benzo(a)anthracene	**5,000**	18 J	U	**8,500**	**1,300**	67	**18,000**	**2,700**	10	220
Chrysene	4,700	8.2 J	U	9,200	1,200	58 J	18,000	2,800	10	----
Benzo(b)fluoranthene	**5,000**	10 J	U	**10,000**	**1,300**	68	**20,000**	**3,100**	10	220
Benzo(k)fluoranthene	**1,900**	U	U	**4,400**	**520**	30 J	**8,100**	**1,200**	10	220
Benzo(a)pyrene	**4,200**	7.5 J	U	**8,300**	**1,100**	55	**17,000**	**2,500**	10	61
Indeno(1,2,3-cd)pyrene	2,600	U	U	5,900	580	28 J	10,000	1,600	10	----
Dibenzo(a,h)anthracene	**680**	U	U	**1,400**	**160**	U	**2,500**	**380**	10	14
Benzo(g,h,i)perylene	2,200	U	U	5,100	450	22 J	9,200	1,300	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
bold: Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Petroleum/ Chemical Storage Areas									
SAMPLE IDENTIFICATION	PCS-AW8	PCS-GA	PCS-GA	PCS-GA	PCS-GN8	PCS-GN8	PCS-GN8	PCS-GS8		
SAMPLE DEPTH	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
DATE OF COLLECTION	8/12/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	2	1	1	1	1	1	1		
PERCENT SOLIDS	96	96	94	98	94	91	98	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	230 J	U	U	49 J	U	U	13 J	10	300,000
Acenaphthene	U	1,100	U	U	270 J	U	U	11 J	10	5,000,000
Fluorene	U	1,200	U	U	250 J	U	U	11 J	10	3,000,000
Phenanthrene	U	7,800	9 J	U	2,400	U	U	130 J	10	----
Anthracene	U	2,300	U	U	740	U	U	30 J	10	20,000,000
Fluoranthene	U	9,200	22 J	U	3,400	U	U	210 J	10	3,000,000
Pyrene	U	8,900	19 J	U	3,300	U	U	170 J	10	2,000,000
Benzo(a)anthracene	U	**5,400**	14 J	U	**2,000**	U	U	100	10	220
Chrysene	U	5,100	11 J	U	2,000	U	U	110 J	10	----
Benzo(b)fluoranthene	U	**5,000**	U	U	**2,000**	U	U	110	10	220
Benzo(k)fluoranthene	U	**2,100**	U	U	**780**	U	U	48	10	220
Benzo(a)pyrene	U	**4,300**	U	U	**1,700**	U	U	**85**	10	61
Indeno(1,2,3-cd)pyrene	U	2,600	U	U	1,000	U	U	50	10	----
Dibenzo(a,h)anthracene	U	**830**	U	U	**240**	U	U	13 J	10	14
Benzo(g,h,i)perylene	U	2,100	U	U	870	U	U	53 J	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
Bold: Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-4 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TOTAL ANALYSIS

SAMPLE LOCATION	Petroleum/ Chemical Storage Areas									
SAMPLE IDENTIFICATION	PCS-GS8	PCS-GS8	PCS-GE8	PCS-GE8	PCS-GE8	PCS-GW8	PCS-GW8	PCS-GW8	CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 HUMAN HEALTH GUIDANCE VALUES
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'		
DATE OF COLLECTION	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	93	91	93	90	98	93	94	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SEMIVOLATILE COMPOUNDS										
Naphthalene	14 J	U	U	U	U	U	U	U	10	300,000
Acenaphthene	14 J	350 J	120 J	U	U	U	U	U	10	5,000,000
Fluorene	14 J	350 J	120 J	U	U	U	U	U	10	3,000,000
Phenanthrene	150 J	4,400	1,000	33 J	U	40 J	33 J	U	10	----
Anthracene	38 J	940	260 J	U	U	U	U	U	10	20,000,000
Fluoranthene	220 J	5,200	1,300	42 J	U	59 J	65 J	U	10	3,000,000
Pyrene	200 J	6,200	1,200	36 J	U	49 J	64 J	U	10	2,000,000
Benzo(a)anthracene	110	**3,200**	**670**	26 J	U	34 J	38	U	10	220
Chrysene	120 J	3,400	650	16 J	U	35 J	42 J	U	10	----
Benzo(b)fluoranthene	140	**2,300**	**660**	12 J	U	40	43	U	10	220
Benzo(k)fluoranthene	52	**1,100**	**280**	U	U	12 J	16 J	U	10	220
Benzo(a)pyrene	**99**	**1,700**	**570**	14 J	U	26 J	30 J	U	10	61
Indeno(1,2,3-cd)pyrene	63	930	340	U	U	U	15 J	U	10	----
Dibenzo(a,h)anthracene	U	**260**	**81**	U	U	U	U	U	10	14
Benzo(g,h,i)perylene	56 J	770	320 J	U	U	U	U	U	10	----

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the contract required detection limit.

Notes:
---- : Not established
bold: Value exceeds STARS Tables 1 and 2 Human Health Guidance Value

TABLE C-5
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Trench in EMT Lab No.1		Chemical Storage Area/ Concrete Platform						CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-7AA	B-7AA	B-17BA	B-17BA	B-17BN7	B-17BN7	B-17BS7	B-17BS7		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	6' - 8'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/11/98	8/11/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	U	U	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	U	U	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Chemical Storage Area/ Concrete Platform				Area Outside of Machine Shop				CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-17BE7	B-17BE7	B-17BW7	B-17BW7	B-19AN12	B-19AN12	B-19AE7	B-19AE7		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/6/98	8/6/98	8/6/98	8/6/98	8/7/98	8/7/98	8/7/98	8/7/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	U	U	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	U	1.3 J	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Area Outside of Machine Shop		Sanitary Leaching Pools (North and South)						CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-19AW10	B-19AW10	B-22AA	B-22AA	B-22BA	B-22BA	B-22CA	B-22CA		
SAMPLE DEPTH	0 - 2'	2'-4'	8' - 10'	10' - 12'	8' - 10'	10' - 12'	8' - 10'	14' - 16'		
DATE OF COLLECTION	8/7/98	8/7/98	8/18/98	8/18/98	8/18/98	8/18/98	8/18/98	8/18/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	U	U	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	U	U	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)	Sanitary Leaching Pool (South) Beneath Megapound		Drainage Chamber North of Lobby/ Loading Area		Former Leaching Pool Beneath Megapound	Southern Parking Lot		CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-22CA	B-22DA	B-22DA	B-30AA	B-30AA	B-32AA	B-35AA	B-35AA		
SAMPLE DEPTH	16' - 18'	12' - 14'	14' - 16'	6' - 8'	8' - 10'	10' - 12'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/18/98	8/10/98	8/10/98	8/14/98	8/14/98	8/10/98	8/11/98	8/11/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	U	U	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	U	U	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Southern Parking Lot								CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-35AA	B-35AA	B-35AN7	B-35AN7	B-35AS7	B-35AS7	B-35AE7	B-35AE7		
SAMPLE DEPTH	4' - 6'	6' - 8'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	U	U	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	U	U	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Former Drainage Pit East of Plant 12A								CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-38BA	B-38BN7	B-38N7	B-38BS7	B-38BS7	B-38BE7	B-38BE7	B-38BW7		
SAMPLE DEPTH	1' - 3'	1' - 3'	3' - 5'	1' - 3'	3' - 5'	1' - 3'	3' - 5'	1' - 3'		
DATE OF COLLECTION	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	U	U	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	U	U	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Former Drainage Pit East of Plant 12A	Former Trenches to Resin Waste Pit (Sump #1)							CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-38BW7	B-43AA	B-43AN7	B-43AN7	B-43AS7	B-43AS7	B-43AE5	B-43AE5		
SAMPLE DEPTH	3' - 5'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/12/98	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	10 J	U	U	U	6.2 J	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	U	U	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump #1)		Dry Well Northeast of Plant 12A			Petroleum/ Chemical Storage Areas			CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	B-43AW7	B-43AW7	B-45AA	B-45AA	B-45AA	PCS-AA	PCS-AA	PCS-AA		
SAMPLE DEPTH	0 - 2'	2' - 4'	6 - 8'	8' - 10'	10' - 12'	0 - 2'	2' - 4'	4' - 6'		
DATE OF COLLECTION	8/5/98	8/5/98	8/14/98	8/14/98	8/14/98	8/12/98	8/12/98	8/12/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	0.02 J	U	10	10
Acenaphthene	U	U	U	U	U	0.98 J	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	1.8 J	U	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Petroleum/ Chemical Storage Areas								CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	PCS-AN8	PCS-AN8	PCS-AN8	PCS-AS8	PCS-AS8	PCS-AS8	PCS-AE8	PCS-AE8		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98	8/12/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	5.6 J	U	4.3 J	U	U	0.03 J	U	U	10	10
Acenaphthene	8.1 J	1.3 J	2.4 J	U	U	U	U	1.1 J	10	20
Fluorene	1.6 J	U	U	U	U	U	U	U	10	50
Phenanthrene	4 J	2 J	3.6 J	U	U	2.3 J	U	6 J	10	50
Anthracene	U	U	0.49 J	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	2.3 J	10	50
Pyrene	U	U	U	U	U	U	U	1.6 J	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Petroleum/ Chemical Storage Areas								CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	PCS-AE8	PCS-AW8	PCS-AW8	PCS-AW8	PCS-GA	PCS-GA	PCS-GA	PCS-GN8		
SAMPLE DEPTH	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'		
DATE OF COLLECTION	8/12/98	8/12/98	8/12/98	8/12/98	8/11/98	8/11/98	8/11/98	8/11/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	U	U	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	U	10	50
Phenanthrene	U	U	U	U	U	U	U	U	10	50
Anthracene	U	U	U	U	U	U	U	U	10	50
Fluoranthene	U	U	U	U	U	U	U	U	10	50
Pyrene	U	U	U	U	U	U	U	U	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Petroleum/ Chemical Storage Areas								CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	PCS-GN8	PCS-GN8	PCS-GS8	PCS-GS8	PCS-GS8	PCS-GE8	PCS-GE8	PCS-GE8		
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'		
DATE OF COLLECTION	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98	8/11/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U	U	U	U	U	120	10	10
Acenaphthene	U	U	U	U	U	U	U	U	10	20
Fluorene	U	U	U	U	U	U	U	4.1 J	10	50
Phenanthrene	U	U	U	U	U	1.3 J	U	8.4 J	10	50
Anthracene	U	U	U	U	U	U	U	1.5 J	10	50
Fluoranthene	U	U	U	U	U	U	U	0.9 J	10	50
Pyrene	U	U	U	U	U	U	U	1.3 J	10	50
Benzo(a)anthracene	U	U	U	U	U	U	U	U	10	0.002
Chrysene	U	U	U	U	U	U	U	U	10	0.002
Benzo(b)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(k)fluoranthene	U	U	U	U	U	U	U	U	10	0.002
Benzo(a)pyrene	U	U	U	U	U	U	U	U	10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	U	U	10	0.002
Dibenzo(a,h)anthracene	U	U	U	U	U	U	U	U	10	50
Benzo(g,h,i)perylene	U	U	U	U	U	U	U	U	10	0.002

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
☐: Value exceeds STARS Tables 1 and 2 TCLP Extraction Guidance Value

TABLE C-5 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
STARS SEMIVOLATILE ORGANIC COMPOUNDS - TCLP ANALYSIS

SAMPLE LOCATION	Petroleum/ Chemical Storage Areas								CONTRACT REQUIRED DETECTION LIMITS	STARS TABLES 1 and 2 TCLP EXTRACTION GUIDANCE VALUES
SAMPLE IDENTIFICATION	PCS-GW8	PCS-GW8	PCS-GW8							
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'							
DATE OF COLLECTION	8/11/98	8/11/98	8/11/98							
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1							
UNITS	(ug/L)	(ug/L)	(ug/L)						(ug/L)	(ug/L)
SEMIVOLATILE COMPOUNDS										
Naphthalene	U	U	U						10	10
Acenaphthene	U	U	U						10	20
Fluorene	U	U	U						10	50
Phenanthrene	U	U	U						10	50
Anthracene	U	U	U						10	50
Fluoranthene	U	U	U						10	50
Pyrene	U	U	U						10	50
Benzo(a)anthracene	U	U	U						10	0.002
Chrysene	U	U	U						10	0.002
Benzo(b)fluoranthene	U	U	U						10	0.002
Benzo(k)fluoranthene	U	U	U						10	0.002
Benzo(a)pyrene	U	U	U						10	0.002
Indeno(1,2,3-cd)pyrene	U	U	U						10	0.002
Dibenzo(a,h)anthracene	U	U	U						10	50
Benzo(g,h,i)perylene	U	U	U						10	0.002

Qualifiers:
U: Compound analyzed for but not detected.

TABLE C-6
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Leaching Chamber North of Carpentry Shop			Chemical Storage Area/Concrete Platform					LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-16AA	B-16AA	B-16AA	B-17BA	B-17BA	B-17BN7	B-17BN7	B-17BS7		
SAMPLE DEPTH	10' - 12'	14' - 16'	16' - 18'	4 '- 6'	6' - 8'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/14/98	8/14/98	8/14/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	100	10	2	1	1		
PERCENT SOILDS	84	92	94	96	95	93	97	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	1,700	U	U	130,000	12,000	2,200	U	690	71	----
Aroclor-1254	940	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	2,640	0	0	**130,000**	**12,000**	2,200	0	690		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Chemical Storage Area/Concrete Platform					Sanitary Leaching Pools (North and South)			LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-17BS7	B-17BE7	B-17BE7	B-17BW7	B-17BW7	B-22AA	B-22BA	B-22CA		
SAMPLE DEPTH	2' - 4'	0 - 2'	2'-4'	0 - 2'	2 '- 4'	8' - 10'	8' - 10'	8' - 10'		
DATE OF COLLECTION	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98	8/18/98	8/18/98	8/18/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	2	1	1	1	1	1	1		
PERCENT SOILDS	98	94	94	95	96	97	90	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	U	2,100	U	U	U	U	510	740	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	150	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	0	2,100	0	0	0	0	660	740		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22EA	B-22EA	B-22EA	B-22EA	B-22FA	B-22FA	B-22FA	B-22FA		
SAMPLE DEPTH	8' - 10'	22' - 24'	24' - 26'	26' - 28'	8' - 10'	12' - 14'	14' - 16'	16' - 18'		
DATE OF COLLECTION	8/19/98	8/19/98	8/19/98	8/19/98	8/19/98	8/19/98	8/19/98	8/19/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOILDS	94	97	98	94	93	94	94	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	U	240	U	U	180	U	U	U	71	----
Aroclor-1254	320	U	U	U	120	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	350	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	320	240	0	0	300	350	0	0		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22JN7	B-22JN7	B-22JN14	B-22JN14	B-22JN14	B-22JS7	B-22JS7	B-22JS14		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/6/98	8/6/98	8/20/98	8/20/98	8/20/98	8/6/98	8/6/98	8/20/98		
LABORATORY	Envirotech									
DILUTION FACTOR	200	1	5	1	1	100	1	5		
PERCENT SOILDS	96	96	90	96	98	94	94	92		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	200,000	490	4,700	U	1,300	91,000	U	6,300	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	430	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	**200,000**	490	4,700	0	1,300	**91,000**	0	6730		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22JS14	B-22JS14	B-22JE7	B-22JE7	B-22JE14	B-22JE14	B-22JE14	B-22JW7		
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'		
DATE OF COLLECTION	8/20/98	8/20/98	8/6/98	8/6/98	8/20/98	8/20/98	8/20/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	20	1	1	1	1	5		
PERCENT SOILDS	91	57	95	95	85	91	96	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	760	590	24,000	720	490	340	U	3,900	71	----
Aroclor-1254	630	1,800	U	U	U	100	88	U	71	----
Aroclor-1260	93	470	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	1,483	2,860	**24,000**	720	490	440	88	3,900		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Anomalous Features/ Unknown Buried Structures (North)	Sanitary Leaching Pools (North and South)		Drainage Chamber North of Lobby/ Loading Area		Existing and Former Recharge Basins		Former Drainage Basin	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-22JW7	B-22LA	B-22LA	B-30AA	B-30AA	B-36AA	B-36AA	B-37AA		
SAMPLE DEPTH	2' - 4'	8' - 10'	10' - 12'	6' - 8'	8' - 10'	24' - 26'	24' - 26'	0 - 2'		
DATE OF COLLECTION	8/6/98	8/19/98	8/19/98	8/14/98	8/14/98	8/18/98	8/18/98	8/7/98		
LABORATORY		Envirotech					Mitkem	Envirotech		
DILUTION FACTOR	5	1	1	5	5	1	1	200		
PERCENT SOILDS	92	95	96	94	94	96	96	89		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	2,700	9,600	U	1,600	1,600	U	39 P	150,000	71	----
Aroclor-1254	5,500	U	U	2,800	2,800	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	8,200	9,600	0	4,400	4,400	0	39	**150,000**		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
*: Criteria is for total PCBs in subsurface soils
☐:Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37AA	B-37AN8	B-37AN8	B-37AN16	B-37AN16	B-37AN16	B-37ANW8	B-37ANW8		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0' - 2'	4' - 6'		
DATE OF COLLECTION	8/7/98	8/7/98	8/7/98	8/21/98	8/21/98	8/21/98	1/06/99	1/06/99		
LABORATORY	Envirotech						Mitkem			
DILUTION FACTOR	100	200	1	1	1	1	20	1		
PERCENT SOILDS	96	95	93	95	96	98	97	73		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	88,000	210,000	670	U	120	U	24,000 D	810	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	NA	NA	71	----
Aroclor-1268	U	U	U	U	U	U	NA	NA	71	----
TOTAL PCBs	**88,000**	**210,000**	670	0	120	0	**24,000**	810		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
D: Results obtained from a diluted analysis.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37ANW8	B-37ANW8	B-37ANW8	B-37ANW8	B-37ANW16	B-37ANW16	B-37ANW16	B-37ANW16		
SAMPLE DEPTH	8' - 10'	12' - 14'	16' - 18'	20' - 22'	0' - 2'	4' - 6'	8' - 10'	12' - 14'		
DATE OF COLLECTION	1/06/99	1/06/99	1/06/99	1/06/99	1/06/99	1/06/99	1/06/99	1/06/99		
LABORATORY	Mitkem									
DILUTION FACTOR	1	1	1	1	10	1	1	1		
PERCENT SOILDS	95	96	96	96	94	88	96	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	1,300	430	U	U	12,000 D	400	1,600	U	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	NA	NA	NA	NA	NA	NA	NA	NA	71	----
Aroclor-1268	NA	NA	NA	NA	NA	NA	NA	NA	71	----
TOTAL PCBs	1,300	430	0	0	**12,000**	400	1,600	0		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
D: Results obtained from a diluted analysis.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37ANW16	B-37ANW16	B-37ANW24	B-37ANW24	B-37ANW24	B-37ANW24	B-37ANW24	B-37ANW24		
SAMPLE DEPTH	16' - 18'	20' - 22'	0' - 2'	4' - 6'	8' - 10'	12' - 14'	16' - 18'	20' - 22'		
DATE OF COLLECTION	1/06/99	1/06/99	1/07/99	1/07/99	1/07/99	1/07/99	1/07/99	1/07/99		
LABORATORY	Mitkem									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOILDS	92	95	97	99	97	89	99	98		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	U	U	240 P	160 P	U	U	U	U	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	66 P	U	U	U	71	----
Aroclor-1262	NA	NA	NA	NA	NA	NA	NA	NA	71	----
Aroclor-1268	NA	NA	NA	NA	NA	NA	NA	NA	71	----
TOTAL PCBs	0	0	240	160	66	0	0	0		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
P: Concentration between primary and confirmatory columns had a percent difference greater than 25%. Therefore, the lower value was reported.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin									
SAMPLE IDENTIFICATION	B-37AS8	B-37AS8	B-37AS8	B-37AS8	B-37AS8A	B-37AS8A	B-37AS8A	B-37AS8A		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	12' - 14'	16' - 18'	20' - 22'		
DATE OF COLLECTION	8/7/98	8/7/98	8/7/98	8/7/98	1/05/99	1/05/99	1/05/99	1/05/99	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
LABORATORY	Envirotech				Mitkem					
DILUTION FACTOR	5	200	100	200	93	1	10	1		
PERCENT SOILDS	97	96	97	91	10	94	93	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	4,300	170,000	83,000	210,000	3,800 DP	370 P	3,100 D	44 P	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	NA	NA	NA	NA	71	----
Aroclor-1268	U	U	U	U	NA	NA	NA	NA	71	----
TOTAL PCBs	4,300	**170,000**	**83,000**	**210,000**	3,800	370	3,100	44		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
D: Results obtained from a diluted analysis.
P: Concentration between primary and confirmatory columns had a percent difference greater than 25%. Therefore, the lower value was reported.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37AS16	B-37AS16	B-37AS16	B-37AS16	B-37AS16A	B-37AS16A	B-37AS16A	B-37AS16A		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'	12' - 14'	16' - 18'	20' - 22'		
DATE OF COLLECTION	8/21/98	8/21/98	8/21/98	8/21/98	1/05/99	1/05/99	1/05/99	1/05/99		
LABORATORY	Envirotech				Mitkem					
DILUTION FACTOR	2	20	50	100	1000	1	1	10		
PERCENT SOILDS	97	95	94	96	87	96	96	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	1,400	25,000	59,000	120,000	410,000 D	640 P	U	6,000 D	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	NA	NA	NA	NA	71	----
Aroclor-1268	U	U	U	U	NA	NA	NA	NA	71	----
TOTAL PCBs	1,400	**25,000**	**59,000**	**120,000**	**410,000**	640	0	6,000		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
D: Results obtained from a diluted analysis.
P: Concentration between primary and confirmatory columns had a percent difference greater than 25%. Therefore, the lower value was reported.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37AS32	B-37AS32	B-37AS32	B-37AS32	B-37AS32	B-37AS32	B-37ASE8	B-37ASE8		
SAMPLE DEPTH	0' - 2'	4' - 6'	8' - 10'	12' - 14'	16' - 18'	20' - 22'	0' - 2'	4' -6'		
DATE OF COLLECTION	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99		
LABORATORY	Mitkem									
DILUTION FACTOR	10	10	100	1	1	1	100	100		
PERCENT SOILDS	94	93	94	96	94	95	95	94		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	9,700 D	5,800 D	44,000 D	U	U	U	130,000 DP	20,000 DP	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	NA	NA	NA	NA	NA	NA	NA	NA	71	----
Aroclor-1268	NA	NA	NA	NA	NA	NA	NA	NA	71	----
TOTAL PCBs	9,700	5,800	**44,000**	0	0	0	**130,000**	**20,000**		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
D: Results obtained from a diluted analysis.
P: Concentration between primary and confirmatory columns had a percent difference greater than 25%. Therefore, the lower value was reported.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37ASE8	B-37ASE8	B-37ASE8	B-37ASE8	B-37ASE16	B-37ASE16	B-37ASE16	B-37ASE16		
SAMPLE DEPTH	8' - 10'	12' - 14'	16' - 18'	20' - 22'	0' - 2'	4' - 6'	8' - 10'	12' - 14'		
DATE OF COLLECTION	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99		
LABORATORY	Mitkem									
DILUTION FACTOR	100	1	1	1	100	1	1	1		
PERCENT SOILDS	94	87	94	97	95	96	92	95		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	9,600 D	770	530	U	100,000 D	410	U	260	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	NA	NA	NA	NA	NA	NA	NA	NA	71	----
Aroclor-1268	NA	NA	NA	NA	NA	NA	NA	NA	71	----
TOTAL PCBs	9,600	770	530	0	100,000	410	0	260		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
D: Results obtained from a diluted analysis.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37ASE16	B-37ASE16	B-37ASE32	B-37ASE32	B-37ASE32	B-37ASE32	B-37ASE32	B-37ASE32		
SAMPLE DEPTH	16' - 18'	20' - 22'	0' - 2'	4' - 6'	8' - 10'	12' - 14'	16' - 18'	20' - 22'		
DATE OF COLLECTION	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99		
LABORATORY	Mitkem									
DILUTION FACTOR	1	1	100	1	1	1	1	1		
PERCENT SOILDS	94	93	93	92	96	93	92	96		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	1,600	U	19,000 D	U	U	U	U	U	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	NA	NA	NA	NA	NA	NA	NA	NA	71	----
Aroclor-1268	NA	NA	NA	NA	NA	NA	NA	NA	71	----
TOTAL PCBs	1,600	0	**19,000**	0	0	0	0	0		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
D: Results obtained from a diluted analysis.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37AE8	B-37AE8	B-37AE16	B-37AE16	B-37AE16	B-37AW8	B-37AW8	B-37AW8		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'		
DATE OF COLLECTION	8/7/98	8/7/98	8/21/98	8/21/98	8/21/98	8/7/98	8/7/98	8/7/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	10	1	1	1	100	5		
PERCENT SOILDS	96	97	96	98	92	92	92.6	88		
UNITS	(ug/kg)	(ug/kg)	(ug/L)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	38,000	1,100	7,200	580	U	1,600	120,000	2,900	71	----
Aroclor-1254	U	340	U	U	U	400	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	**38,000**	1,440	7,200	580	0	2,000	**120,000**	2,900		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
bold: Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin									
SAMPLE IDENTIFICATION	B-37AW8	B-37AW8A	B-37AW8A	B-37AW8A	B-37AW8A	B-37AW16	B-37AW16	B-37AW16	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	6' - 8'	8' - 10'	12' - 14'	16' - 18'	20' - 22'	0 - 2'	2' - 4'	4' - 6'		
DATE OF COLLECTION	8/7/98	1/06/99	1/06/99	1/06/99	1/06/99	8/21/98	8/21/98	8/21/98		
LABORATORY	Mitkem					Envirotech				
DILUTION FACTOR	500	1	1	20	1	2	1	1		
PERCENT SOILDS	94	96	94	93	96	94	96	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	230,000	290	1,600	19,000 D	U	2,200	430	970	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	NA	NA	NA	NA	U	U	U	71	----
Aroclor-1268	U	NA	NA	NA	NA	U	U	U	71	----
TOTAL PCBs	**230,000**	290	1,600	**19,000**	0	2,200	430	970		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
D: Results obtained from a diluted analysis.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐:Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin									
SAMPLE IDENTIFICATION	B-37AW16	B-37AW16A	B-37AW16A	B-37AW16A	B-37AW16A	B-37AW24	B-37AW24	B-37AW24	LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	6' - 8'	8' - 10'	12' - 14'	16' - 18'	20' - 22'	0' - 2'	4' - 6'	8' - 10'		
DATE OF COLLECTION	8/21/98	1/06/99	1/06/99	1/06/99	1/06/99	1/06/99	1/06/99	1/06/99		
LABORATORY	Mitkem									
DILUTION FACTOR	100	1	1	1	1	1	1	1		
PERCENT SOILDS	94	93	92	95	94	95	93	93		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	110,000	71	140	210	52 P	1,300	30,000	130 P	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	NA	NA	NA	NA	NA	NA	NA	71	----
Aroclor-1268	U	NA	NA	NA	NA	NA	NA	NA	71	----
TOTAL PCBs	**110,000**	71	140	210	52	1,300	**30,000**	130		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.
P: Concentration between primary and confirmatory columns had a percent difference greater than 25%. Therefore, the lower value was reported.

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils
☐ :Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Drainage Basin			Former Trenches to Resin Waste Pit (Sump#1)					LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-37AW24	B-37AW24	B-37AW24	B-43AA	B-43AN7	B-43AN7	B-43AS7	B-43AS7		
SAMPLE DEPTH	12' - 14'	16' - 18'	20' - 22'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	1/06/99	1/06/99	1/06/99	8/5/98	8/5/98	8/5/98	8/5/98	8/5/98		
LABORATORY	Mitkem			Envirotech						
DILUTION FACTOR	1	1	1	1	5	5	10	10		
PERCENT SOILDS	91	95	96	97	93	92	98	99		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	220	1,100	U	410	4,400	2,700	11,000	7,800	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	NA	NA	NA	U	U	U	U	U	71	----
Aroclor-1268	NA	NA	NA	U	U	U	U	U	71	----
TOTAL PCBs	220	1,100	0	410	4,400	2,700	**11,000**	7,800		10,000*

Qualifiers
U: Compound analyzed for but not detected
NA : Compound not analyzed for.

Notes
----: Not established
*: Criteria is for total PCBs in subsurface soils
☐:Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump#1)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-43AS14	B-43AS14	B-43AS14	B-43AE5	B-43AE5	B-43AE5	B-43AE14	B-43AE14		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/20/98	8/20/98	8/20/98	8/5/98	8/5/98	8/05/98	8/20/98	8/20/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	20	1	1	1		
PERCENT SOILDS	99	99	98	94	97	96	92	97		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	ug/kg	ug/kg	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	120	U	U	390	19,000	2,000	U	U	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	120	0	0	390	**19,000**	2,000	0	0		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
*: Criteria is for total PCBs in subsurface soils
☐:Value exceeds TAGM 4046 Appendix A criteria for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Former Trenches to Resin Waste Pit (Sump#1)			Resin Waste Pit (Sump#1)					LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	B-43AE14	B-43AW7	B-43AW7	RWP-1	RWP-1	RWP-1	RWP-1	RWP-2		
SAMPLE DEPTH	4' - 6'	0 - 2'	2' - 4'	12' - 14'	14' - 16'	16' - 18'	18' - 20'	14' - 16'		
DATE OF COLLECTION	8/20/98	8/5/98	8/5/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	5	1	1	1	1	1	1		
PERCENT SOILDS	97	96	97	92.6	96	97	96	95		
UNITS	(ug/kg)	ug/kg	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	U	2,500	200	U	130	U	U	77	71	----
Aroclor-1254	U	U	U	U	120	U	U	U	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	0	2,500	200	0	250	0	0	77		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Resin Waste Pit (Sump#1)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	RWP-2	RWP-2	RWP-2	RWP-3	RWP-3	RWP-3	RWP-3	RWP-4		
SAMPLE DEPTH	16' - 18'	18' - 20'	20' - 22'	8' - 10'	10' - 12'	12' - 14'	14' - 16'	15' - 17'		
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOILDS	96	96	96	93	94	94	96	91		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	U	U	U	560	400	U	U	U	71	----
Aroclor-1254	U	U	U	U	U	U	U	U	71	----
Aroclor-1260	U	U	U	U	95	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	0	0	0	560	495	0	0	0		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Resin Waste Pit (Sump#1)								LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE IDENTIFICATION	RWP-4	RWP-4	RWP-4	RWP-5	RWP-5	RWP-5	RWP-5	RWP-6		
SAMPLE DEPTH	17' - 19'	21' - 23'	23' - 25'	6' - 8'	8' - 10'	10' - 12'	12' - 14'	6' - 8'		
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/14/98	8/14/98	8/14/98	8/14/98	8/18/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOILDS	96	97	95	82	95	95	96	90		
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U	U	U	U	71	----
Aroclor-1221	U	U	U	U	U	U	U	U	71	----
Aroclor-1232	U	U	U	U	U	U	U	U	71	----
Aroclor-1242	U	U	U	U	U	U	U	U	71	----
Aroclor-1248	U	U	U	U	U	U	U	97	71	----
Aroclor-1254	U	U	U	U	U	U	U	92	71	----
Aroclor-1260	U	U	U	U	U	U	U	U	71	----
Aroclor-1262	U	U	U	U	U	U	U	U	71	----
Aroclor-1268	U	U	U	U	U	U	U	U	71	----
TOTAL PCBs	0	0	0	0	0	0	0	189		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
* : Criteria is for total PCBs in subsurface soils

TABLE C-6 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
SOIL SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Resin Waste Pit (Sump#1)									
SAMPLE IDENTIFICATION	RWP-6	RWP-6	RWP-6	FB-1	FB-2				LABORATORY QUANTITATION LIMITS	NYSDEC TAGM 4046 APPENDIX A CRITERIA
SAMPLE DEPTH	8' - 10'	12' - 14'	16' - 18'	--	--					
DATE OF COLLECTION	8/18/98	8/18/98	8/18/98	8/19/98	8/19/98					
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1					
PERCENT SOILDS	96	88	97	--	--					
UNITS	(ug/kg)	(ug/kg)	(ug/kg)	(ug/L)	(ug/L)				(ug/kg)	(ug/kg)
Aroclor-1016	U	U	U	U	U				71	----
Aroclor-1221	U	U	U	U	U				71	----
Aroclor-1232	U	U	U	U	U				71	----
Aroclor-1242	U	U	U	U	U				71	----
Aroclor-1248	810	180	U	U	U				71	----
Aroclor-1254	U	U	U	U	U				71	----
Aroclor-1260	U	U	U	U	U				71	----
Aroclor-1262	U	U	U	U	U				71	----
Aroclor-1268	U	U	U	U	U				71	----
TOTAL PCBs	810	180	0	0	0	0	0	0		10,000*

Qualifiers
U: Compound analyzed for but not detected

Notes
----: Not established
--: Not applicable
* : Criteria is for total PCBs in subsurface soils

TABLE C-7
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Machine Shop	Trench In EMT Lab No 1							INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-3AA	B-7AA	B-7AA	B-7AN7	B-7AN7	B-7AS7	B-7AS7	B-7AE7		
SAMPLE DEPTH	0 - 2'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/11/98	8/11/98	8/11/98	8/21/98	8/21/98	8/21/98	8/21/98	8/21/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	89.5	98	99	96	99.2	98	99.3	99.7		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(ug/L)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	5.6	NA	NA	NA	NA	NA	NA	NA	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	NA	**1.1**	0.09	**10.6**	0.14	U	U	U	0.053	0.001 - 0.2
Nickel	13.7 B	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Trench In EMT Lab No 1			Trench In Staffed Machine Shop EMT Lab No 1				Resin Transfer Molding Lab	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-7AE7	B-7AW7	B-7AW7	B-8AA	B-8AA	B-8BA	B-8BA	B-12AA		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	2' - 4'	2' - 4'	0 - 2'	0 - 2'	4' - 6'		
DATE OF COLLECTION	8/21/98	8/21/98	8/21/98	8/19/98	8/19/98	8/19/98	8/19/98	8/10/98		
LABORATORY	Envirotech				Mitkem	Envirotech	Mitkem	Envirotech		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	99.2	95.3	99	97.5	97	98.8	98.8	98		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	1.5	0.18	200 - 500**
Mercury	U	0.05	U	**1.1**	**0.9**	**1.1**	**0.63**	NA	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Resin Transfer Molding Lab								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-12AA	B-12AA	B-12AN7	B-12AN7	B-12AS7	B-12AS7	B-12AE5	B-12AE5		
SAMPLE DEPTH	6' - 8'	8' - 10'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/10/98	8/10/98	8/10/98	8/10/98	8/10/98	8/10/98	8/10/98	8/10/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	100	99.6	96	98.5	96	96	97.5	97.4		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	U	1.1	4.4	2.4 B	3.3	3.2	4.3	4.3	0.18	200 - 500**
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Resin Transfer Molding Lab		Leaching Chamber North of Carpentry Shop				Chemical Storage Area/Concrete Platform		INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-12AW7	B-12AW7	B-16AA	B-16AA	B-16AA	B-16AA	B-17BA	B-17BA		
SAMPLE DEPTH	0 - 2'	2' - 4'	10' - 12'	12' - 14'	14' - 16'	16' - 18'	4' - 6'	6' - 8'		
DATE OF COLLECTION	8/10/98	8/10/98	8/14/98	8/14/98	8/14/98	8/14/98	8/6/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	91	99	84	86	92	94	96	95		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	U	NA	U	0.91 B	NA	NA	0.48	----
Arsenic	NA	NA	7.4	NA	2.1	7.1	10.5	3.5	0.32	3 - 12*
Beryllium	NA	NA	0.34 B	NA	0.09 B	0.34 B	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	1.9	NA	0.74 B	0.55 B	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	14.4	19.7	3.2	30.7	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	29.9	NA	3.6 B	36.8	NA	NA	0.43	1 - 50
Lead	3.1	3.4	23.8	NA	3.1	102	NA	NA	0.18	200 - 500**
Mercury	NA	NA	0.08	0.07	U	0.2	0.16	0.02 B	0.053	0.001 - 0.2
Nickel	NA	NA	10.1	NA	2.0 B	**67.9**	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	0.99 B	NA	U	1.1	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	U	NA	U	U	NA	NA	0.095	----
Thallium	NA	NA	U	NA	U	U	NA	NA	0.46	----
Zinc	NA	NA	**142**	NA	23.3	**98.9**	NA	NA	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
☐ : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Chemical Storage Area/Conrete Platform								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-17BN7	B-17BN7	B-17BN14	B-17BN14	B-17BN14	B-17BS7	B-17BS7	B-17BS14		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/6/98	8/6/98	8/20/98	8/20/98	8/20/98	8/6/98	8/6/98	8/20/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	93	97	93	98	98	96	98	92		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	NA	NA	NA	U	U	NA	0.48	----
Arsenic	**83.6**	10.9	**55.5**	**12.4**	**22.5**	**49.6**	1.1	**26.6**	0.32	3 - 12*
Beryllium	0.19 B	0.13 B	NA	NA	NA	0.06 B	0.05 B	NA	0.021	0 - 1.75
Cadmium	6.3	2.9	NA	NA	NA	0.84 B	0.11 B	NA	0.042	0.1 - 1, (10***)
Chromium	34	7.3	NA	NA	NA	12.5	3.7	NA	0.11	1.5 - 40*, (50***)
Copper	48.8	8.3	NA	NA	NA	16.1	2.9 B	NA	0.43	1 - 50
Lead	84.2	3.3	NA	NA	NA	21.4	1.5	NA	0.18	200 - 500**
Mercury	**0.50**	0.07	**0.36**	U	0.05	0.06	0.02 U	NA	0.053	0.001 - 0.2
Nickel	16.4	15	NA	NA	NA	5.3 B	2.2 B	NA	0.17	0.5 - 25
Selenium	U	U	NA	NA	NA	U	U	NA	0.49	0.1 - 3.9
Silver	2.8	U	NA	NA	NA	U	U	NA	0.095	----
Thallium	U	U	NA	NA	NA	U	U	NA	0.46	----
Zinc	**681**	**80.5**	**194**	7.9 B	**59.5**	34.1	7.9	NA	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Chemical Storage Area/Conrete Platform								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-17BS14	B-17BS14	B-17BE7	B-17BE7	B-17BE14	B-17BE14	B-17BE14	B-17BW7		
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'		
DATE OF COLLECTION	8/20/98	8/20/98	8/6/98	8/6/98	8/20/98	8/20/98	8/20/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	89	96	94	94	96	90	92	95		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	U	U	NA	NA	NA	U	0.48	----
Arsenic	**14.8**	2.5	**14.5**	4.5	2.5	2.0	2.0	2.3	0.32	3 - 12*
Beryllium	NA	NA	0.11 B	0.3 B	NA	NA	NA	0.13 B	0.021	0 - 1.75
Cadmium	NA	NA	4.4	0.88 B	NA	NA	NA	U	0.042	0.1 - 1, (10***)
Chromium	NA	NA	39.8	8.8	NA	NA	NA	4.7	0.11	1.5 - 40*, (50***)
Copper	NA	NA	31.1	9.4	NA	NA	NA	7.4	0.43	1 - 50
Lead	NA	NA	57.2	10	NA	NA	NA	10.6	0.18	200 - 500**
Mercury	NA	NA	**1.90**	0.03 B	U	0.03 B	U	0.03 B	0.053	0.001 - 0.2
Nickel	NA	NA	14.9	7.5 B	NA	NA	NA	2.8 B	0.17	0.5 - 25
Selenium	NA	NA	U	U	NA	NA	NA	U	0.49	0.1 - 3.9
Silver	NA	NA	1.8 B	U	NA	NA	NA	U	0.095	----
Thallium	NA	NA	U	U	NA	NA	NA	U	0.46	----
Zinc	NA	NA	**183**	20.2	NA	NA	NA	34.3	0.38	9 - 50

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TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Chemical Storage Area/Concrete Platform	Area Outside of Machine Shop							INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-17BW7	B-19AN12	B-19AN12	B-19AN14	B-19AN14	B-19AN14	B-19AE7	B-19AE7		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/6/98	8/7/98	8/7/98	8/20/98	8/20/98	8/20/98	8/7/98	8/7/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	96	95	97	95	94	95	93	88		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	NA	NA	NA	U	U	0.48	----
Arsenic	1.3	6	7.0	NA	NA	NA	6.0	2.3	0.32	3 - 12*
Beryllium	0.09 B	0.32 B	0.2 B	NA	NA	NA	0.24 B	0.43 B	0.021	0 - 1.75
Cadmium	U	0.75 B	0.14 B	NA	NA	NA	0.48 B	U	0.042	0.1 - 1, (10***)
Chromium	3.8	10.9	6.9	NA	NA	NA	11.2	10.3	0.11	1.5 - 40*, (50***)
Copper	7.3	20	5.8	NA	NA	NA	**60.3**	4.9 B	0.43	1 - 50
Lead	5.1	28.4	9.4	NA	NA	NA	55.4	4.4	0.18	200 - 500**
Mercury	0.04	**0.24**	0.10	0.16	U	U	0.17	U	0.053	0.001 - 0.2
Nickel	1.7 B	5.9 B	3.1 B	NA	NA	NA	6.3 B	5.4 B	0.17	0.5 - 25
Selenium	U	U	U	NA	NA	NA	U	U	0.49	0.1 - 3.9
Silver	U	U	U	NA	NA	NA	U	U	0.095	----
Thallium	U	U	U	NA	NA	NA	U	U	0.46	----
Zinc	8	**78.7**	13.4	NA	NA	NA	**59.3**	17.4	0.38	9 - 50

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TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Area Outside of Machine Shop					Sanitary Leaching Pools (North and South)			INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-19AW10	B-19AW10	B-19AW14	B-19AW14	B-19AW14	B-22AA	B-22BA	B-22CA		
SAMPLE DEPTH	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	8' - 10'	8' - 10'	8' - 10'		
DATE OF COLLECTION	8/7/98	8/7/98	8/20/98	8/20/98	8/20/98	8/18/98	8/18/98	8/18/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	91	94	87	96	97	97	90	94		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	NA	NA	NA	U	U	1.2 B	0.48	----
Arsenic	**40.6**	1.6	**14.7**	4.6	5.2	1.7	4.5	U	0.32	3 - 12*
Beryllium	0.54	0.16 B	NA	NA	NA	0.13 B	0.14 B	U	0.021	0 - 1.75
Cadmium	U	U	NA	NA	NA	U	0.59 B	0.45 B	0.042	0.1 - 1, (10***)
Chromium	**97.2**	5.2	38.7	30.0	3.0 B	11.1	19.3	15.1	0.11	1.5 - 40*, (50***)
Copper	**56.3**	3.4 B	NA	NA	NA	5.0	**149**	**283**	0.43	1 - 50
Lead	60.8	2.0	NA	NA	NA	3.5	23.4	9.9	0.18	200 - 500**
Mercury	**10.2**	U	NA	NA	NA	U	**0.4**	**0.65**	0.053	0.001 - 0.2
Nickel	9.6	3.1 B	NA	NA	NA	3.8 B	6.1 B	1.5 B	0.17	0.5 - 25
Selenium	**7**	U	NA	NA	NA	U	U	U	0.49	0.1 - 3.9
Silver	U	U	NA	NA	NA	U	3.0	3.2	0.095	----
Thallium	5.4 B	U	NA	NA	NA	U	U	U	0.46	----
Zinc	**90**	9.8	NA	NA	NA	18.2	33.3	28.0	0.38	9 - 50

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bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Sanitary Leaching Pools (North and South)				Anomalous Features/Unknown Buried Structures (North)				INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22EA	B-22EA	B-22EA	B-22FA	B-22GA	B-22GA	B-22GA	B-22GN7		
SAMPLE DEPTH	22' - 24'	24' - 26'	26' - 28'	8' - 10'	0 - 2'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/19/98	8/19/98	8/19/98	8/19/98	8/10/98	8/10/98	8/10/98	8/7/98		
LABORATORY	Envirotech					Mitkem	Envirotech			
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	97	98	94	93	96.7	92	98.5	94		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	U	NA	NA	NA	NA	0.48	----
Arsenic	NA	NA	NA	0.82 B	**22.4**	NA	U	**17.1**	0.32	3 - 12*
Beryllium	NA	NA	NA	U	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	U	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	4.5	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	15.1	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	5.5	NA	NA	NA	NA	0.18	200 - 500**
Mercury	0.03 B	U	U	0.10	0.14	U	U	**0.25**	0.053	0.001 - 0.2
Nickel	NA	NA	NA	1.0 B	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	U	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	U	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	U	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	4.6 B	NA	NA	NA	NA	0.38	9 - 50

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TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22GN7	B-22GN7	B-22GS7	B-22GE7	B-22GE7	B-22GE7	B-22GE14	B-22GE14		
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/07/98	8/07/98	8/7/98	8/7/98	8/07/98	8/07/98	8/20/98	8/20/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	98	98	96	95	92	92	94	99.7		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	0.70 B	1.5	11.6	**50.5**	4.7	4.1	6.2	1.5 B	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	U	U	0.11	**0.62**	U	U	0.04	U	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

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TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22GE14	B-22GW7	B22-GW7	B-22GW7	B-22GW14	B-22GW14	B-22GW14	B-22HA		
SAMPLE DEPTH	4' - 6'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	4' - 6'	2' - 4'		
DATE OF COLLECTION	8/20/98	8/7/98	8/07/98	8/07/98	8/20/98	8/20/98	8/20/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	98.7	96	83	87	90.8	98.5	95.7	94		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NR	NA	NA	NA	NA	0.48	----
Arsenic	1.4 B	**21.6**	4.0	3.6	**14.2**	1.2 B	2.2	1.5	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	U	**0.34**	U	U	0.13	U	U	NA	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

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TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22HA	B-22HA	B-22HN7	B-22HN7	B-22HS7	B-22HS7	B-22HE7	B-22HE7		
SAMPLE DEPTH	4' - 6'	6' - 8'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	90	98	93	84	93	98	96	91		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	1.6	1.4	**45.8**	4	10.1	1.3	**32**	7.1	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

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TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22HE14	B-22HE14	B-22HE14	B-22HW7	B-22HW7	B-22JN7	B-22JN7	B-22JN14		
SAMPLE DEPTH	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	0 - 2'		
DATE OF COLLECTION	8/20/98	8/20/98	8/20/98	8/6/98	8/6/98	8/6/98	8/6/98	8/20/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	91.7	98.4	98	95	99	96	96	90		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	**23.4**	U	2.8	**14.6**	1.5	**15.1**	7.4	6.8	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	NA	NA	NA	NA	NA	**0.21**	0.05	0.03 B	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

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TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22JN14	B-22JN14	B-22JS7	B-22JS7	B-22JS14	B-22JS14	B-22JS14	B-22JE7		
SAMPLE DEPTH	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'		
DATE OF COLLECTION	8/20/98	8/20/98	8/6/98	8/6/98	8/20/98	8/20/98	8/20/98	8/6/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	96	98	94	96	91.5	91	57	92		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	2.0	1.5	**12.5**	1 B	9.6	7.6	8.0	9.7	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	U	U	**0.21**	0.03	0.04	0.03 B	**15.7**	0.16	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
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NA: Constituent not analyzed for.

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TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Anomalous Features/Unknown Buried Structures (North)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22JE7	B-22JE14	B-22JE14	B-22JE14	B-22JW7	B-22JW7	B-22JW14	B-22JW14		
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	4' - 6'	0 - 2'	2' - 4'	0 - 2'	2' - 4'		
DATE OF COLLECTION	8/6/98	8/20/98	8/20/98	8/20/98	8/6/98	8/6/98	8/20/98	8/20/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	91	85	91	96	95	92	90.1	95.4		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	11.8	NA	NA	NA	**27.4**	8.9	**24.5**	3.4	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	**0.28**	0.11	**0.24**	0.07	**0.21**	**0.51**	**0.33**	0.07	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Anomalous Features/ Unknown Buried Structures (North)	Sanitary Leaching Pools (North and South)		Dry Wells Beneath Lobby/Loading Area, Facilities Maintenance Room and Carpentry Shop		Drainage Chamber North of Lobby/Loading Area		Former Drainage Basin	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-22JW14	B-22LA	B-22LA	B-26AA	B-26AA	B-30AA	B-30AA	B-37AA		
SAMPLE DEPTH	4' - 6'	8' - 10'	10' - 12'	7' - 9'	7' - 9'	6' - 8'	8' - 10'	0 - 2'		
DATE OF COLLECTION	8/20/98	8/19/98	8/19/98	8/5/98	8/5/98	8/14/98	8/14/98	8/7/98		
LABORATORY	Envirotech				Mitkem	Envirotech				
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	97	95	96	97.6	76	94	94	89		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	U	U	NA	NA	U	U	U	0.48	----
Arsenic	3.3	6.6	1.3	NA	NA	9.2	2.1	4.7	0.32	3 - 12*
Beryllium	NA	0.16 B	0.12 B	NA	NA	0.20 B	0.15 B	0.35 B	0.021	0 - 1.75
Cadmium	NA	U	U	NA	NA	3.0	1.0 B	1.2	0.042	0.1 - 1, (10***)
Chromium	NA	11.9	3.9	NA	NA	25.4	9.9	**192**	0.11	1.5 - 40*, (50***)
Copper	NA	7.7	4.3 B	NA	NA	**53.7**	18.2	**712**	0.43	1 - 50
Lead	NA	9.6	0.67 B	NA	NA	23.2	15.4	163	0.18	200 - 500**
Mercury	U	0.08	U	U	U	0.15	0.17	**0.21**	0.053	0.001 - 0.2
Nickel	NA	2.9 B	1.5 B	NA	NA	10.9	3.3 B	6.6 B	0.17	0.5 - 25
Selenium	NA	U	U	NA	NA	U	U	1.1 B	0.49	0.1 - 3.9
Silver	NA	U	U	NA	NA	U	U	14.2	0.095	----
Thallium	NA	U	U	NA	NA	U	U	U	0.46	----
Zinc	NA	11.1	5.5 B	NA	NA	**280**	**109**	**144**	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
Bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Drainage Basin									
SAMPLE IDENTIFICATION	B-37AA	B-37AN8	B-37AN8	B-37AS8	B-37AS8	B-37AS8	B-37AS8	B-37AS8A	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE DEPTH	2' - 4'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'		
DATE OF COLLECTION	8/7/98	8/7/98	8/7/98	8/7/98	8/7/98	8/07/98	8/07/98	1/05/99		
LABORATORY	Envirotech							Mitkem		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	96	94	93	97	96	96	91	95		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	1.1 B	U	U	U	NA	NA	NA	0.48	----
Arsenic	3.5	3.7	2.4	2.6	1.9	NA	NA	NA	0.32	3 - 12*
Beryllium	0.22 B	0.25 B	0.18 B	0.15 B	0.18 B	NA	NA	NA	0.021	0 - 1.75
Cadmium	0.83 B	0.41 B	U	0.082 U	0.45 B	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	**72.8**	44.8	5.4	10.2	**50.3**	**84.1**	**100.0**	25.0	0.11	1.5 - 40*, (50***)
Copper	**327**	**153**	3.8 B	23.8	**249**	NA	NA	NA	0.43	1 - 50
Lead	70.7	67.6	29.6	11.1	55.3	NA	NA	NA	0.18	200 - 500**
Mercury	0.10	0.08	0.04	0.03 B	0.07	NA	NA	NA	0.053	0.001 - 0.2
Nickel	4.3 B	8.6	2.8 B	2.6 B	3.6 B	NA	NA	NA	0.17	0.5 - 25
Selenium	U	U	U	U	U	NA	NA	NA	0.49	0.1 - 3.9
Silver	6.6	3.4	U	1.9 B	4.6	NA	NA	NA	0.095	----
Thallium	U	U	U	U	U	NA	NA	NA	0.46	----
Zinc	**80.0**	**54.8**	15.8	13.6	**56**	NA	NA	NA	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
Bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Drainage Basin								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-37AS8A	B-37AS8A	B-37AS8A	B-37AS16	B-37AS16	B-37AS16	B-37AS16	B-37AS16A		
SAMPLE DEPTH	12' - 14'	16' - 18'	20' - 22'	0 - 2'	2' - 4'	4' - 6'	6' - 8'	8' - 10'		
DATE OF COLLECTION	1/05/99	1/05/99	1/05/99	8/21/98	8/21/98	8/21/98	8/21/98	1/05/99		
LABORATORY	Mitkem			Envirotech				Mitkem		
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	93	93	97	97	95	94	96	86		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	13.4	11.6	4.4	9.3	**80.4**	33.1	**90.2**	**268**	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
Bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Drainage Basin								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-37AS16A	B-37AS16A	B-37AS16A	B-37AS32	B-37AS32	B-37AS32	B-37AS32	B-37AS32		
SAMPLE DEPTH	12' - 14'	16' - 18'	20' - 22'	0' - 2'	4' - 6'	8' - 10'	12' - 14'	16' - 18'		
DATE OF COLLECTION	1/05/99	1/05/99	01/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99		
LABORATORY	Mitkem									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	95	96	96	95	94	95	95	94		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	6.6	3.6	8.6	22.3	26.9	**67.6**	4.2	5.9	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
67.6: Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Drainage Basin								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-37AS32	B-37ASE8	B-37ASE8	B-37ASE8	B-37ASE8	B-37ASE8	B-37ASE8	B-37ASE16		
SAMPLE DEPTH	20' - 22'	0' - 2'	4' - 6'	8' - 10'	12' - 14'	16' - 18'	20' - 22'	0' - 2'		
DATE OF COLLECTION	1/05/99	1/05/99	01/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99		
LABORATORY	Mitkem									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	96	94	92	94	88	95	96	95		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	4.8	**67.9**	**67.1**	17.4	9.0	9.4	9.3	**79.3**	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Drainage Basin								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-37ASE16	B-37ASE16	B-37ASE16	B-37ASE16	B-37ASE16	B-37ASE32	B-37ASE32	B-37ASE32		
SAMPLE DEPTH	4' - 6'	8' - 10'	12' - 14'	16' - 18'	20' - 22'	0' - 2'	4' - 6'	8' - 10'		
DATE OF COLLECTION	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99	1/05/99		
LABORATORY	Mitkem									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	96	92	96	94	94	94	94	97		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	NA	NA	NA	NA	NA	0.48	----
Arsenic	NA	NA	NA	NA	NA	NA	NA	NA	0.32	3 - 12*
Beryllium	NA	NA	NA	NA	NA	NA	NA	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA	0.042	0.1 - 1, (10***)
Chromium	24.1	4.9	4.4	6.0	1.9	**161**	6.3	2.5	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	NA	NA	NA	NA	NA	0.43	1 - 50
Lead	NA	NA	NA	NA	NA	NA	NA	NA	0.18	200 - 500**
Mercury	NA	NA	NA	NA	NA	NA	NA	NA	0.053	0.001 - 0.2
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	NA	NA	NA	NA	NA	0.095	----
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	0.46	----
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	0.38	9 - 50

Qualifiers:
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
161: Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Drainage Basin							Former Pit East of Sump # 2	INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-37ASE32	B-37ASE32	B-37ASE32	B-37AE8	B-37AE8	B-37AW8	B-37AW8	B-42AA		
SAMPLE DEPTH	12' - 14'	16' - 18'	20' - 22'	0 - 2'	2' - 4'	0 - 2'	2' - 4'	2' - 4'		
DATE OF COLLECTION	1/05/99	1/05/99	01/05/99	8/7/98	8/7/98	8/7/98	8/7/98	8/5/98		
LABORATORY	Mitkem			Envirotech						
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	92	93	96	96	97	92	92.6	97.2		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	U	U	U	U	NA	0.48	----
Arsenic	NA	NA	NA	3.3	1.4	4.8	1.6	NA	0.32	3 - 12*
Beryllium	NA	NA	NA	0.36 B	0.1 B	0.24 B	0.14 B	NA	0.021	0 - 1.75
Cadmium	NA	NA	NA	0.27 B	0.1 B	0.95 B	0.44 B	NA	0.042	0.1 - 1, (10***)
Chromium	2.1	5.0	3.1	45.5	33.5	27	45.8	NA	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	**163**	**75.2**	23.1	**207**	NA	0.43	1 - 50
Lead	NA	NA	NA	47	21.5	32.9	49.8	NA	0.18	200 - 500**
Mercury	NA	NA	NA	0.06	0.04	0.03 B	0.07	U	0.053	0.001 - 0.2
Nickel	NA	NA	NA	5 B	2.1 B	5.6 B	2.9 B	NA	0.17	0.5 - 25
Selenium	NA	NA	NA	U	U	U	U	NA	0.49	0.1 - 3.9
Silver	NA	NA	NA	6.1	3.4	3.3	5	NA	0.095	----
Thallium	NA	NA	NA	U	U	U	U	NA	0.46	----
Zinc	NA	NA	NA	46.5	13.9	32.3	41.2	NA	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
bold : Value exceeds TAGM 4046 criteria for cadmium or chromium or Eastern USA Background Levels for all other metals.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Former Pit East of Sump # 2			Resin Waste Pit (Sump #1)					INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	B-42AA	B-42AA	B-42AA	RWP-1	RWP-1	RWP-1	RWP-1	RWP-2		
SAMPLE DEPTH	2' - 4'	10' - 12'	10' - 12'	12' - 14'	14' - 16'	16' - 18'	18' - 20'	14' - 16'		
DATE OF COLLECTION	8/5/98	8/5/98	8/5/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98		
LABORATORY	Mitkem	Envirotech	Mitkem	Envirotech						
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	98	95.6	72	92.6	96	97	96	95	(mg/kg)	(mg/kg)
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	NA	NA	NA	U	U	U	1.2 B	U	0.48	----
Arsenic	NA	NA	NA	1.2	U	U	U	0.72 B	0.32	3 - 12*
Beryllium	NA	NA	NA	0.10 B	0.09 B	U	U	0.06 B	0.021	0 - 1.75
Cadmium	NA	NA	NA	U	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	NA	NA	NA	17.6	7.0	2.5	3.0	2.7	0.11	1.5 - 40*, (50***)
Copper	NA	NA	NA	5.6	3.4 B	1.9 B	2.4 B	2.8 B	0.43	1 - 50
Lead	NA	NA	NA	3.8	0.94 B	U	U	2.8	0.18	200 - 500**
Mercury	U	U	U	0.02 B	U	U	U	U	0.053	0.001 - 0.2
Nickel	NA	NA	NA	1.6 B	2.2 B	1.0 B	1.1 B	1.3 B	0.17	0.5 - 25
Selenium	NA	NA	NA	U	U	U	U	U	0.49	0.1 - 3.9
Silver	NA	NA	NA	U	U	U	0.30 B	U	0.095	----
Thallium	NA	NA	NA	U	U	U	U	U	0.46	----
Zinc	NA	NA	NA	6.4	7.3	3.5 B	3.8 B	9.6	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NA: Constituent not analyzed for.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	RWP-2	RWP-2	RWP-2	RWP-3	RWP-3	RWP-3	RWP-3	RWP-4		
SAMPLE DEPTH	16' - 18'	18' - 20'	20' - 22'	8' - 10'	10' - 12'	12' - 14'	14' - 16'	15' - 17'		
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98	8/13/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	96	96	96	93	94	94	96	91		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	1.1 B	1.1 B	U	1.0 B	0.98 B	0.48	----
Arsenic	0.65 B	1.0	0.92 B	1.8	1.3	U	U	0.76 B	0.32	3 - 12*
Beryllium	0.07 B	U	U	0.09 B	0.09 B	0.05 B	0.05 B	0.09 B	0.021	0 - 1.75
Cadmium	U	U	U	U	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	3.7	3.7	5.1	11.4	9.5	5.1	4.3	6.4	0.11	1.5 - 40*, (50***)
Copper	4.3 B	2.1 B	2.1 B	8.2	5.7	3.8 B	2.3 B	4.7 B	0.43	1 - 50
Lead	3.3	4.4	5.5	8.4	4.6	1.2	0.86 B	6.1	0.18	200 - 500**
Mercury	0.02 B	U	U	0.03 B	0.02 B	U	U	0.10	0.053	0.001 - 0.2
Nickel	1.8 B	1.4 B	1.0 B	2.5 B	2.9 B	1.5 B	1.0 B	3.8 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	U	U	U	U	U	U	0.095	----
Thallium	U	U	U	U	U	U	U	U	0.46	----
Zinc	6.3	3.7 B	3.0 B	12.9	12.0	6.7	4.8 B	18.0	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	RWP-4	RWP-4	RWP-4	RWP-5	RWP-5	RWP-5	RWP-5	RWP-6		
SAMPLE DEPTH	17' - 19'	21' - 23'	23' - 25'	6' - 8'	8' - 10'	10' - 12'	12' - 14'	6' - 8'		
DATE OF COLLECTION	8/13/98	8/13/98	8/13/98	8/14/98	8/14/98	8/14/98	8/14/98	8/18/98		
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1	1	1	1		
PERCENT SOLIDS	96	97	95	82	95	95	96	90		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	U	U	U	U	U	U	U	1.1 B	0.48	----
Arsenic	U	1.3	U	2.8	U	0.61 B	U	1.9	0.32	3 - 12*
Beryllium	U	U	U	0.13 B	0.10 B	0.14 B	0.11 B	0.15 B	0.021	0 - 1.75
Cadmium	U	U	U	0.12 B	U	U	U	U	0.042	0.1 - 1, (10***)
Chromium	3.0	6.7	1.8 B	7.6	3.6	5.8	2.9	7.7	0.11	1.5 - 40*, (50***)
Copper	1.7 B	2.6 B	1.3 B	5.8 B	2.5 B	2.6 B	1.7 B	5.7	0.43	1 - 50
Lead	1.2	5.8	U	5.8	0.95 B	1.1	0.66 B	8.0	0.18	200 - 500**
Mercury	U	U	U	0.02 B	U	U	U	0.03 B	0.053	0.001 - 0.2
Nickel	1.0 B	1.3 B	0.55 B	2.1 B	1.0 B	1.5 B	1.0 B	2.9 B	0.17	0.5 - 25
Selenium	U	U	U	U	U	U	U	U	0.49	0.1 - 3.9
Silver	U	U	U	U	U	U	U	U	0.095	----
Thallium	U	U	U	U	U	U	U	U	0.46	----
Zinc	4.2 B	8.7	3.6 B	6.9 B	3.4 B	5.2 B	5.8 B	29.1	0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
---- : Not established.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

TABLE C-7 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Resin Waste Pit (Sump #1)								INSTRUMENT DETECTION LIMITS	EASTERN USA BACKGROUND LEVELS
SAMPLE IDENTIFICATION	RWP-6	RWP-6	RWP-6	FB-1	FB-2					
SAMPLE DEPTH	8' - 10'	12' - 14'	16' - 18'	--	--					
DATE OF COLLECTION	8/18/98	8/18/98	8/18/98	8/19/98	8/19/98					
LABORATORY	Envirotech									
DILUTION FACTOR	1	1	1	1	1					
PERCENT SOLIDS	96	88	97	--	--					
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(ug/L)				(mg/kg)	(mg/kg)
Antimony	U	U	U	U	U				0.48	----
Arsenic	1.6	2.3	0.99 B	U	U				0.32	3 - 12*
Beryllium	0.14 B	0.26 B	0.07 B	U	U				0.021	0 - 1.75
Cadmium	U	U	U	U	U				0.042	0.1 - 1, (10***)
Chromium	7.1	7.3	4.3	U	U				0.11	1.5 - 40*, (50***)
Copper	4.2 B	6.2	2.0 B	U	U				0.43	1 - 50
Lead	6.7	31.3	0.94 B	U	U				0.18	200 - 500**
Mercury	0.02 B	0.02 B	U	U	U				0.053	0.001 - 0.2
Nickel	2.4 B	5.7 B	1.5 B	U	U				0.17	0.5 - 25
Selenium	U	U	U	U	U				0.49	0.1 - 3.9
Silver	U	U	U	U	U				0.095	----
Thallium	U	U	U	U	U				0.46	----
Zinc	18.5	30.8	6.1 B	10.7 B	11.5 B				0.38	9 - 50

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
---- : Not established.
-- : Not applicable.
* : New York State Background.
** : Background for metropolitan or suburban areas.
*** : Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

TABLE C-8
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
SOIL SAMPLING RESULTS
HEXAVALENT CHROMIUM

SAMPLE LOCATION	Machine Shop	Sanitary Leaching Pools (North and South)			INSTRUMENT DETECTION LIMITS	COMPARISON VALUE
SAMPLE IDENTIFICATION	B-3AA	B-22BA	B-22CA	B-22CA		
SAMPLE DEPTH	0 - 2'	10' - 12'	14' - 16'	16' - 18'		
DATE OF COLLECTION	8/11/98	8/18/98	8/18/98	8/18/98		
LABORATORY	Envirotech					
DILUTION FACTOR	1	1	1	1		
PERCENT SOLIDS	89.5	94	96	96		
UNITS	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Hexavalent Chromium	3.0	2.5	2.3	U	0.11	50*

Qualifiers:
U: Constituent analyzed for but not detected.

Notes:
*: NYSDEC Guidance Value

TABLE C-9
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
GROUNDWATER SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Monitoring Well P12MW-1	Monitoring Well P12MW-2		Monitoring Well P12MW-3	Monitoring Well P12MW-4	Monitoring Well GM-10S (P-5)	Trip Blank	Trip Blank	QUANTITATION LIMITS	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
SAMPLE IDENTIFICATION	P-12 MW-1	P-12 MW-2	P-12 MW-2	P-12 MW-3	P-12 MW-4	GM-10S	TB-1	Trip Blank		
DATE OF COLLECTION	01/21/99	08/31/98	01/14/99	01/14/99	01/21/99	01/21/99	08/31/98	01/14/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Chloromethane	U	U	U	U	U	U	U	U	5.0	5 ST
Bromomethane	U	U	U	U	U	U	U	U	5.0	5 ST
Vinyl Chloride	U	U	U	U	U	U	U	U	5.0	2 ST
Chloroethane	U	U	U	U	U	U	U	U	5.0	5 ST
Methylene Chloride	U	U	U	3 J	1 J	1 J	1.6 B	4	3.0	5 ST
Acetone	9	U	6	U	7	4 J	U	U	5.0	50 GV
Carbon Disulfide	U	U	U	U	U	U	U	U	5.0	---
1,1-Dichloroethene	U	U	U	U	U	U	U	U	2.0	5 ST
1,1-Dichloroethane	U	1.4 J	U	6	U	U	U	U	5.0	5 ST
trans-1,2-Dichloroethene	U	U	U	U	U	U	U	U	5.0	5 ST
cis-1,2-Dichloroethene	U	U	U	U	U	U	U	U	5.0	5 ST
Chloroform	U	U	U	U	U	U	U	u	5.0	7 ST
1,2-Dichloroethane	U	U	U	U	U	U	U	U	2.0	5 ST
2-Butanone	1 J	U	U	U	3 J	1 J	U	U	5.0	50 GV
1,1,1-Trichloroethane	U	12	14	25	U	U	U	U	5.0	5 ST
Carbon Tetrachloride	U	U	U	U	U	U	U	U	2.0	5 ST
Bromodichloromethane	U	U	U	U	U	U	U	U	1.0	50 GV
1,2-Dichloropropane	U	U	U	U	U	U	U	U	1.0	1 ST
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	5.0	.4 ST
Trichloroethene	U	1.1	1.0 J	U	U	U	U	U	1.0	5 ST
Dibromochloromethane	U	U	U	U	U	U	U	U	5.0	50 GV
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	3.0	1 ST
Benzene	U	U	U	U	U	U	U	U	1.0	1 ST
trans-1,3-Dichloropropene	U	U	U	U	U	U	U	U	5.0	.4 ST
Bromoform	U	U	U	U	U	U	U	U	4.0	50 GV
4-Methyl-2-pentanone	U	U	U	U	1 J	U	U	U	5.0	---
2-Hexanone	U	U	U	U	1 J	U	U	U	5.0	50 GV
Tetrachloroethene	U	0.7 J	U	U	U	U	U	U	1.0	5 ST
1,1,2,2-Tetrachloroethane	U	U	U	U	U	U	U	U	1.0	5 ST
Toluene	U	0.6 J	U	U	U	U	U	U	5.0	5 ST
Chlorobenzene	U	U	U	U	U	U	U	U	5.0	5 ST
Ethylbenzene	U	U	U	U	U	U	U	U	4.0	5 ST
Styrene	U	U	U	U	U	U	U	U	5.0	5 ST
Xylene (total)	U	U	U	U	U	U	U	U	5.0	5 ST *
TOTAL VOCs	10	15.8	20	34	13	6	1.6	4		---

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.
B: Compound found in the method blank as well as the sample.

Notes:
ST : Standard
GV : Guidance Value
--- : Not established.
* : Applies to each isomer individually.
☐ :Value exceeds NYSDEC Class GA Groundwater Standards/Guidelines.

TABLE C-9 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
GROUNDWATER SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Trip Blank								QUANTITATION LIMITS	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
SAMPLE IDENTIFICATION	Trip Blank									
DATE OF COLLECTION	01/21/99									
DILUTION FACTOR	1.0									
UNITS	(ug/L)								(ug/L)	(ug/L)
Chloromethane	U								5.0	5 ST
Bromomethane	U								5.0	5 ST
Vinyl Chloride	U								5.0	2 ST
Chloroethane	U								5.0	5 ST
Methylene Chloride	2 J								3.0	5 ST
Acetone	5								5.0	50 GV
Carbon Disulfide	U								5.0	---
1,1-Dichloroethene	U								2.0	5 ST
1,1-Dichloroethane	U								5.0	5 ST
trans-1,2-Dichloroethene	U								5.0	5 ST
cis-1,2-Dichloroethene	U								5.0	5 ST
Chloroform	U								5.0	7 ST
1,2-Dichloroethane	U								2.0	5 ST
2-Butanone	U								5.0	50 GV
1,1,1-Trichloroethane	U								5.0	5 ST
Carbon Tetrachloride	U								2.0	5 ST
Bromodichloromethane	U								1.0	50 GV
1,2-Dichloropropane	U								1.0	1 ST
cis-1,3-Dichloropropene	U								5.0	.4 ST
Trichloroethene	U								1.0	5 ST
Dibromochloromethane	U								5.0	50 GV
1,1,2-Trichloroethane	U								3.0	1 ST
Benzene	U								1.0	1 ST
trans-1,3-Dichloropropene	U								5.0	.4 ST
Bromoform	U								4.0	50 GV
4-Methyl-2-pentanone	U								5.0	---
2-Hexanone	U								5.0	50 GV
Tetrachloroethene	U								1.0	5 ST
1,1,2,2-Tetrachloroethane	U								1.0	5 ST
Toluene	U								5.0	5 ST
Chlorobenzene	U								5.0	5 ST
Ethylbenzene	U								4.0	5 ST
Styrene	U								5.0	5 ST
Xylene (total)	U								5.0	5 ST *
TOTAL VOCs	7									---

Qualifiers:
U: Compound analyzed for but not detected.
J: Compound found at a concentration below the detection limit.

Notes:
ST : Standard
GV : Guidance Value
--- : Not established.
* : Applies to each isomer individually.

TABLE C-10
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
GROUNDWATER SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Monitoring Well P12MW-1	Monitoring Well P12MW-2		Monitoring Well P12MW-3	Monitoring Well P12MW-4	Monitoring Well GM-10S (P-5)	QUANTITATION LIMITS	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
SAMPLE IDENTIFICATION	P-12 MW-1	P-12 MW-2	P-12 MW-2	P-12 MW-3	P-12 MW-4	GM-10S		
DATE OF COLLECTION	01/21/99	08/31/98	01/14/99	01/14/99	01/21/99	01/21/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Phenol	U	U	U	U	U	U	10	1 ST *
2-Chlorophenol	U	U	U	U	U	U	10	1 ST *
2-Methylphenol	U	U	U	U	U	U	10	1 ST *
4-Methylphenol	U	U	U	U	U	U	10	1 ST *
2-Nitrophenol	U	U	U	U	U	U	10	1 ST *
2,4-Dimethylphenol	U	U	U	U	U	U	10	1 ST *
2,4-Dichlorophenol	U	U	U	U	U	U	10	1 ST *
4-Chloro-3-methylphenol	U	U	U	U	U	U	10	1 ST *
2,4,6-Trichlorophenol	U	U	U	U	U	U	10	1 ST *
2,4,5-Trichlorophenol	U	U	U	U	U	U	10	1 ST *
2,4-Dinitrophenol	U	U	U	U	U	U	10	1 ST *
4-Nitrophenol	U	U	U	U	U	U	10	1 ST *
4,6-Dinitro-2-methylphenol	U	U	U	U	U	U	10	1 ST *
Pentachlorophenol	U	U	U	U	U	U	10	1 ST *
bis(2-Chloroethyl)ether	U	U	U	U	U	U	10	1 ST
1,3-Dichlorobenzene	U	U	U	U	U	U	10	3 ST **
1,4-Dichlorobenzene	U	U	U	U	U	U	10	3 ST **
1,2-Dichlorobenzene	U	U	U	U	U	U	10	3 ST **
bis(2-chloroisopropyl)ether	U	U	U	U	U	U	10	---
N-Nitroso-di-n-propylamine	U	U	U	U	U	U	10	---
Hexachloroethane	U	U	U	U	U	U	10	5 ST
Nitrobenzene	U	U	U	U	U	U	10	0.4 ST
Isophorone	U	U	U	U	U	U	10	50 GV
bis(2-Chloroethoxy)methane	U	U	U	U	U	U	10	5 ST
1,2,4-Trichlorobenzene	U	U	U	U	U	U	10	5 ST
Naphthalene	U	U	U	U	U	U	10	10 GV
4-Chloroaniline	U	U	U	U	U	U	10	5 ST
Hexachlorobutadiene	U	U	U	U	U	U	10	0.5 ST
2-Methylnaphthalene	U	U	U	U	U	U	10	---
Hexachlorocyclopentadiene	U	U	U	U	U	U	10	5 ST
2-Chloronaphthalene	U	U	U	U	U	U	10	10 GV
2-Nitroaniline	U	U	U	U	U	U	10	5 ST
Dimethylphthalate	U	U	U	U	U	U	10	50 GV
Acenaphthylene	U	U	U	U	U	U	10	---
2,6-Dinitrotoluene	U	U	U	U	U	U	10	5 ST

TABLE C-10 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
GROUNDWATER SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE LOCATION	Monitoring Well P12MW-1	Monitoring Well P12MW-2		Monitoring Well P12MW-3	Monitoring Well P12MW-4	Monitoring Well GM-10S (P-5)	QUANTITATION LIMITS	NYSDEC CLASS GA GROUNDWATER STANDARDS/GUIDELINES
SAMPLE IDENTIFICATION	P-12 MW-1	P-12 MW-2	P-12 MW-2	P-12 MW-3	P-12 MW-4	GM-10S		
DATE OF COLLECTION	01/21/99	08/31/98	01/14/99	01/14/99	01/21/99	01/21/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
3-Nitroaniline	U	U	U	U	U	U	10	5 ST
Acenaphthene	U	U	U	U	U	U	10	20 GV
Dibenzofuran	U	U	U	U	U	U	10	---
2,4-Dinitrotoluene	U	U	U	U	U	U	10	5 ST
Diethylphthalate	U	U	U	U	U	U	10	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	U	10	---
Fluorene	U	U	U	U	U	U	10	50 GV
4-Nitroaniline	U	U	U	U	U	U	10	5 ST
N-Nitrosodiphenylamine	U	U	U	U	U	U	10	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	U	10	---
Hexachlorobenzene	U	U	U	U	U	U	10	0.4 ST
Phenanthrene	U	U	U	U	U	U	10	50 GV
Anthracene	U	U	U	U	U	U	10	50 GV
Carbazole	U	U	U	U	U	U	10	---
Di-n-butylphthalate	U	U	U	U	U	U	10	50 ST
Fluoranthene	U	U	U	U	U	U	10	50 GV
Pyrene	U	U	U	U	U	U	10	50 GV
Butylbenzylphthalate	U	U	U	U	U	U	10	50 GV
3,3'-Dichlorobenzidine	U	U	U	U	U	U	10	5 ST
Benzo(a)anthracene	U	U	U	U	U	U	10	0.002 GV
Chrysene	U	U	U	U	U	U	10	0.002 GV
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	U	10	5 ST
Di-n-octylphthalate	U	U	U	U	U	U	10	50 GV
Benzo(b)fluoranthene	U	U	U	U	U	U	10	0.002 GV
Benzo(k)fluoranthene	U	U	U	U	U	U	10	0.002 GV
Benzo(a)pyrene	U	U	U	U	U	U	10	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	U	10	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	U	10	---
Benzo(g,h,i)perylene	U	U	U	U	U	U	10	---
TOTAL CaPAHs	0	0	0	0	0	0		---
TOTAL SVOCS	0	0	0	0	0	0		---

Qualifiers:
U: Compound analyzed for but not detected.

Notes:
ST : Standard.
GV : Guidance Value.
ND ST: Standard is for not detection.
--- : Not established.
* : Value is for total Phenols.
** : Applies to each isomer individually.

TABLE C-11
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINIATION PROGRAM
GROUNDWATER SAMPLING RESULTS
POLYCHLORINATED BIPHENYLS

SAMPLE LOCATION	Monitoring Well P12MW-1	Monitoring Well P12MW-2		Monitoring Well P12MW-3	Monitoring Well P12MW-4	Monitoring Well GM-10S (P-5)	QUANTITATION LIMITS	NYSDEC CLASS GA GROUNDWATER STANDARDS/ GUIDELINES
SAMPLE IDENTIFICATION	P-12 MW-1	P-12 MW-2	P-12 MW-2	P-12 MW-3	P-12 MW-4	GM-10S		
DATE OF COLLECTION	01/21/99	08/31/98	01/14/99	01/14/99	01/21/99	01/21/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Aroclor-1016	U	U	U	U	U	U	0.50	---
Aroclor-1221	U	U	U	U	U	U	0.50	---
Aroclor-1232	U	U	U	U	U	U	0.50	---
Aroclor-1242	U	U	U	U	U	U	0.50	---
Aroclor-1248	U	U	U	U	U	U	0.50	---
Aroclor-1254	U	U	U	U	U	U	0.50	---
Aroclor-1260	U	0.94	U	U	U	U	0.50	---
Aroclor-1262	U	U	U	U	U	U	0.50	---
Aroclor-1268	U	U	U	U	U	U	0.50	---
TOTAL PCBs	0	**0.94**	0	0	0	0		.09 ST *

Qualifiers
U: Compound analyzed for but not detected.

Notes:
ST : Standard
--- : Not established.
* : Standard is for total PCBs.
[ ] : Value exceeds NYSDEC Class GA Groundwater Standard for total PCBs.

TABLE C-12
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
GROUNDWATER SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Monitoring Well P12MW-1		Monitoring Well P12MW-2				Monitoring Well P12MW-3		INSTRUMENT DETECTION LIMITS	NYSDEC CLASS GA GROUNDWATER STANDARDS/ GUIDELINES
SAMPLE IDENTIFICATION	P-12 MW-1	P-12 MW-1-Dis	P-12 MW-2	P-12 MW-2-Dis	P-12 MW-2	P-12 MW-2-Dis	P-12 MW-3	P-12 MW-3-Dis		
DATE OF COLLECTION	01/21/99	01/21/99	08/31/98	08/31/98	01/14/99	01/14/99	01/14/99	01/14/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Antimony	U	U	U	U	U	U	U	U	4.6	3 ST
Arsenic	U	U	10.6	5.4	U	U	U	U	3.8	25 ST
Beryllium	U	U	1.8 B	U	U	U	U	U	0.2	3 ST
Cadmium	U	U	0.77 B	1.8	U	U	U	U	0.4	5 ST
Chromium	U	U	2.7 B	2.8	2.4 B	U	2.1 B	U	1.0	50 ST
Copper	U	U	51.3	5.7 B	U	U	U	U	3.5	200 ST
Lead	U	0.01	7.7	U	4.6 B	U	2.7 B	U	2.5	25 ST
Mercury	U	U	0.45	0.36	U	U	U	U	0.10	0.7 ST
Nickel	U	U	5.8 B	3.5	3.0 B	1.3 B	2.1 B	U	2.1	100 ST
Selenium	U	U	U	U	U	U	U	U	4.8	10 ST
Silver	U	U	U	U	2.6 B	1.4 B	1.3 B	U	1.4	50 ST
Thallium	U	U	U	U	U	U	U	U	4.8	0.5 GV
Zinc	0.05	0.06	128	49.9	25.9 B	22.3 B	16.2 B	12.9 B	4.5	2,000 GV

Qualifiers:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
ST : Standard
GV : Guidance Value

TABLE C-12 (continued)
NORTHROP GRUMMAN CORPORATION
PLANT 12
PHASE II DELINEATION PROGRAM
GROUNDWATER SAMPLING RESULTS
PRIORITY POLLUTANT METALS

SAMPLE LOCATION	Monitoring Well P12MW-4		Monitoring Well GM-10S (P-5)						INSTRUMENT DETECTION LIMITS	NYSDEC CLASS GA GROUNDWATER STANDARDS/ GUIDELINES
SAMPLE IDENTIFICATION	P-12 MW-4	P-12 MW-4-Dis	GM-10S	GM-10S-Dis						
DATE OF COLLECTION	01/21/99	01/21/99	01/21/99	01/21/99						
DILUTION FACTOR	1.0	1.0	1.0	1.0						
UNITS	(ug/L)	(ug/L)	(ug/L)	(ug/L)					(ug/L)	(ug/L)
Antimony	U	U	U	U					4.6	3 ST
Arsenic	U	U	U	U					3.8	25 ST
Beryllium	U	U	U	U					0.2	3 ST
Cadmium	U	U	U	U					0.4	5 ST
Chromium	U	U	U	U					1.0	50 ST
Copper	U	U	U	U					3.5	200 ST
Lead	U	U	U	U					2.5	25 ST
Mercury	U	U	U	U					0.10	0.7 ST
Nickel	U	U	U	U					2.1	100 ST
Selenium	U	U	U	U					4.8	10 ST
Silver	U	U	U	U					1.4	50 ST
Thallium	U	U	U	U					4.8	0.5 GV
Zinc	U	U	U	U					4.5	2,000 GV

Qualifiers:
U: Constituent analyzed for but not detected.

Notes:
ST : Standard
GV : Guidance Value