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FINAL ANALYTICAL RESULTS DOCUMENT FORT STORY VA

8/1/1991

JAMES M. MONTGOMERY CONSULTING ENGINEERS

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U.S. Army Corps of Engineers
Missouri River Division,
Omaha District

Fort Story Final Analytical Results Document

Ft. Story. Virginia
August 1991

JMM James M. Montgomery

FORT STORY
FINAL ANALYTICAL RESULTS DOCUMENT

Attachment to

Site Investigation Report
for the
Fort Story Preliminary Assessment/Site Investigation
and
Fort Story NIKE Preliminary Assessment/Site Investigation

Fort Story
Virginia Beach, Virginia

Prepared for:

U.S. Army Corps of Engineers
Missouri River Division
Omaha District
Omaha, Nebraska

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FORT STORY
FINAL ANALYTICAL RESULTS DOCUMENT

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1.0 INTRODUCTION

James M. Montgomery, Consulting Engineers, Inc. (JMM) is the prime Architect-Engineer (A-E) contracted by the U.S. Army Corps of Engineers (USACE) Omaha District to perform environmental investigations of specific sites at the Fort Story Installation suspected to be contaminated with hazardous substances. Fort Story is located within the Hampton Roads region of southeastern Virginia.

JMM was retained by the USACE under Contract DACW45-89-D-0501 to perform investigations at Fort Eustis and Fort Story. Fort Story is a sub-installation of Fort Eustis. The work at these two installations was divided into four separate projects (i.e. Delivery Orders 0001, 0002, 0004 and 0006) as follows:

1. Delivery Order 0001 - A Preliminary Assessment/Site Investigation (PA/SI) project for both Fort Eustis and Fort Story covering eight sites at Fort Eustis and seven sites at Fort Story, as well as quarterly sampling of 24 wells at three additional sites.

2. Delivery Order 0002 - A Remedial Investigation/Feasibility Study (RI/FS) project for both Fort Eustis and Fort Story covering four sites at Fort Eustis and two sites at Fort Story.

3. Delivery Order 0004 - A PA/SI project for two former NIKE missile facilities. One NIKE site is located at Fort Story, and one, although not located at Fort Eustis, is located in Hampton Roads and is associated with the Fort Eustis Installation.

4. Delivery Order 0006 - A Site Investigation (SI) and Underground Storage Tank (UST) Removal Design project for Site 10, Block 600 at Fort Story.

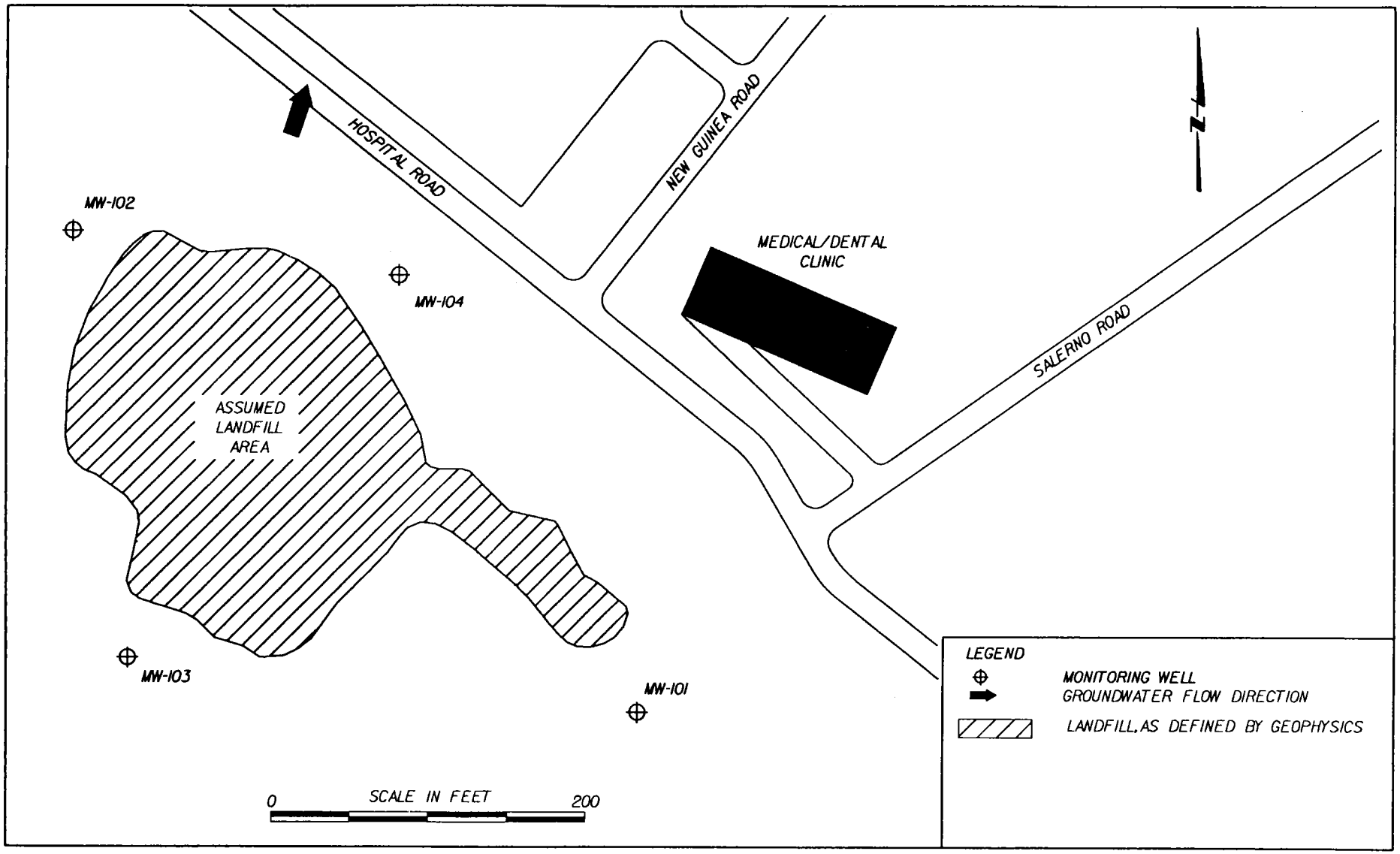
Field investigations for all delivery orders were done concurrently. This *Fort Story Final Analytical Results Document (FTSFARD)* specifically addresses only the PA/SI sites and NIKE PA/SI sites located at Fort Story. This document is associated with *Fort Story Preliminary Assessment/Site Investigation and Fort Story NIKE Preliminary Assessment/Site Investigation (PA/SI).*

Specific analytical results for each of the environmental media investigated at each site are presented in the *FTSFARD* along with a map showing sampling locations at each site. The following conventions apply to the presentation of the data of concern in the *FTSFARD*. Soil samples have the designation MW for samples associated with monitoring wells and SB for soil borings. Groundwater samples will have the designation GW and sediment samples will have the designation SD. For analytical data, any concentration greater than or equal to the trigger level is presented in bold type and underlined, e.g., **25**. The trigger level is presented in parentheses immediately next to the analytical concentration, e.g., (5).

The Method Report Levels used during the analysis of the samples for the PA/SI and NIKE PA/SI for Fort Story appear at the end of the report.

Site 1, Landfill 1

Fort Story, Virginia



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Site 1, Landfill 1
Fort Story, VA

TABLE 1-SS

SOIL SAMPLES - FORT STORY, SITE 1

Parameters	MW-101				MW-102		
	0	0(R)[a]	4	12	0	1	2
Pesticides/PCBs (mg/kg)							
p,p' DDD	ND[b]	NA[c]	ND	ND	ND	ND	ND
p,p' DDE	ND	NA	ND	ND	ND	ND	ND
p,p' DDT	ND	NA	ND	ND	ND	ND	ND
VOCs (mg/kg)							
Methylene Chloride	ND	ND	ND[d]	ND[d]	ND	ND	ND
BNAs (mg/kg)	ND	NA	ND	ND	ND	ND	ND
TFH-L (mg/kg)	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
Barium	ND	NA	ND	ND	ND	ND	ND
Chromium	1.9	NA	2.3	1.7	1.5	1.4	1.7
Copper	ND	NA	1.1	1.1	ND	ND	ND
Lead	ND	NA	1.0	1.0	5.0	1.5	3.0
Mercury	ND	NA	ND	ND	ND	ND	ND
Zinc	3.3	NA	2.8	2.7	3.0	2.6	2.8
EP Tox Metals (mg/l)							
Barium	ND	NA	ND	ND	ND	ND	ND
Cyanide (mg/kg)	ND	NA	ND	ND	ND	ND	ND
Total Solids (%)	96	NA	97	88	84	83	78

TABLE 1-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 1

Parameters	MW-103				
	0	0(R)	0-D	10	15
Pesticides/PCBs (mg/kg)					
p,p' DDD	ND	NA	ND	0.006	ND
p,p' DDE	ND	NA	ND	0.022	ND
p,p' DDT	ND	NA	ND	0.021	0.006
VOCs (mg/kg)					
Methylene Chloride	ND	NA	ND	ND	ND
BNAs (mg/kg)	ND	NA	ND	ND	ND
TFH-L (mg/kg)	NA	ND	NA	NA	NA
Metals (mg/kg)					
Barium	ND	NA	ND	ND	ND
Chromium	ND	NA	ND	ND	1.4
Copper	1.5	NA	1.2	ND	ND
Lead	1.8	NA	2.3	1.0	1.0
Mercury	ND	NA	ND	ND	ND
Zinc	2.8	NA	3.1	2.7	4.2
EP Tox Metals (mg/l)					
Barium	ND	NA	ND	ND	ND
Cyanide (mg/kg)	ND	NA	ND	ND	ND
Total Solids (%)	96	NA	96	98	96

TABLE 1-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 1

Parameters	MW-104			
	0	0(R)	4	10
Pesticides/PCBs (mg/kg)				
p,p' DDD	ND	NA	ND	ND
p,p' DDE	0.005	NA	ND	ND
p,p' DDT	ND	NA	ND	ND
VOCs (mg/kg)				
Methylene Chloride	ND	16	ND[d]	ND[d]
BNAs (mg/kg)	ND	NA	ND	ND
TFH-L (mg/kg)	NA	NA	NA	NA
Metals (mg/kg)				
Barium	ND	NA	29	ND
Chromium	ND	NA	3.7	1.0
Copper	2.7	NA	12	1.0
Lead	2.0	NA	39	ND
Mercury	ND	NA	0.05	ND
Zinc	4.1	NA	27	5.1
EP Tox Metals (mg/l)				
Barium	ND	NA	0.53	ND
Cyanide (mg/kg)	ND	NA	ND	ND
Total Solids (%)	98	NA	92	88

(a) Resampling.
(b) ND - Not detected.
(c) NA - Not analyzed.
(d) Analytical results considered estimated, but below the compound detection limit.

TABLE 1-GW

GROUNDWATER SAMPLES - FORT STORY, SITE 1

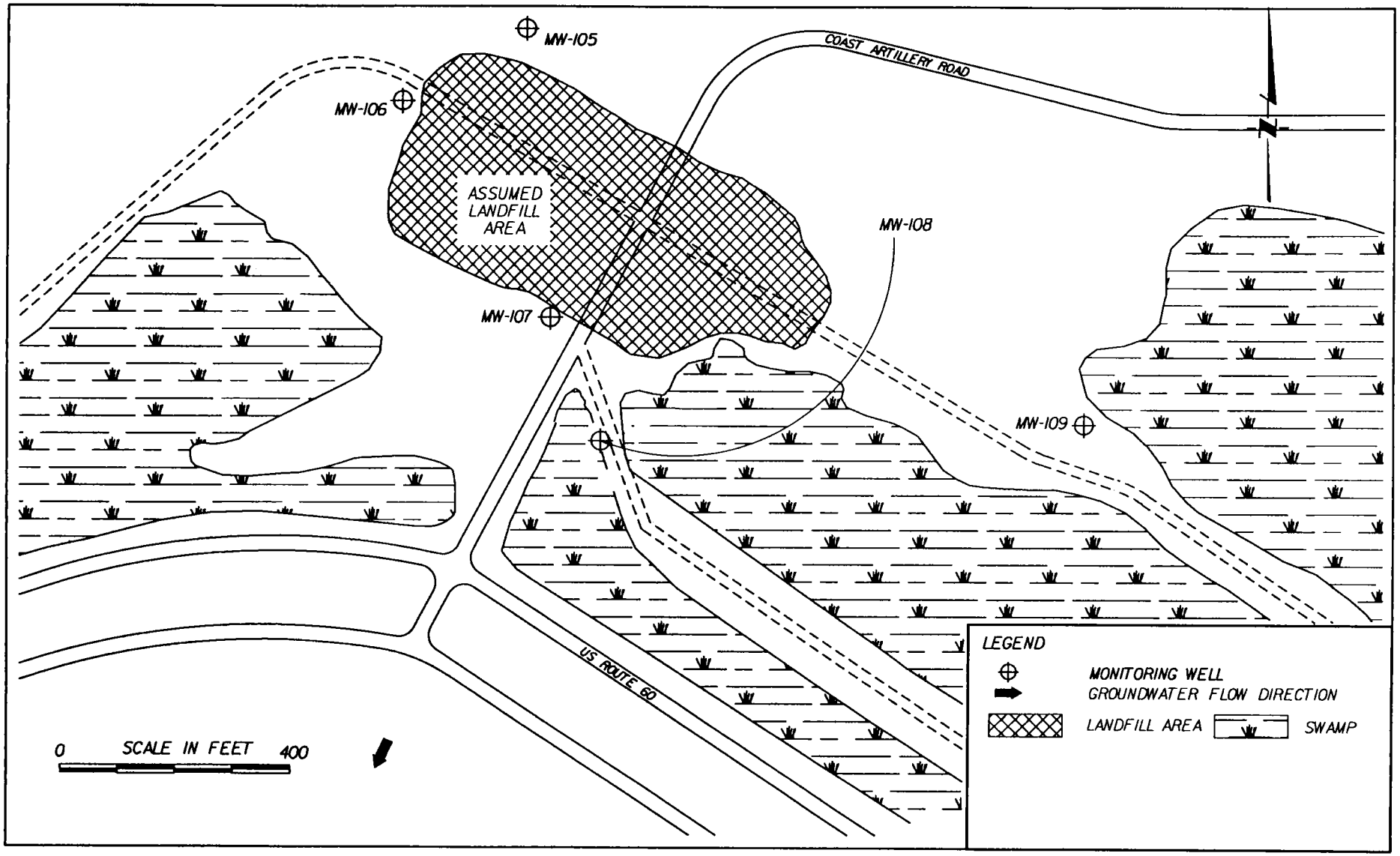
Parameters	GW-101	GW-101 D	GW-102	GW-103	GW-104
Pesticides/PCBs (µg/l)	ND[a]	ND	ND	ND	ND
VOCs (µg/l)					
Carbon Disulfide	25	10	15	5.7	0.6
BNAs (µg/l)					
Benzoic Acid	ND[b]	150	ND[b]	ND	120
Total Metals (mg/l)					
Chromium	0.046	0.033	0.012	ND	0.021
Copper	0.018[c]	0.022[c]	0.026[c]	0.013[c]	0.02[c]
Lead	0.020	0.020	0.05	0.002	0.040
Zinc	0.054	0.070	0.12	0.052	0.097
Dissolved Metals (mg/l)					
Lead	ND	ND	0.002	ND	ND
Zinc	ND	ND	0.045	0.041	0.021
Cyanide (mg/l)	ND	ND	ND	ND	ND
Inorganics (mg/l)					
Fluoride	ND	ND	ND	ND	0.13
Chloride	45.4	42.6	55.5	27.1	43.3
Sulfate	46.2	45.6	22.7	19.9	70.9
Field Parameters[d]					
Temperature (•C)	16.0	16.0	14.7	13.8	14.7
pH	6.6	6.6	5.9	5.5	6.7
Conductivity (µmho)	240	240	160	150	250
Turbidity (NTU)	326.7	326.7	149.6	66.0	801.6

(a) ND - Not detected.
(b) Sample dilution increased reported detection limits.
(c) Analytical results considered suspect due to detection of compound in associated blank sample.
(d) Field parameters measured after purging, and prior to sampling.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

Site 2, Landfill 2

Fort Story, Virginia



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Site 2, Landfill 2
Fort Story, VA

TABLE 2-SS

SOIL SAMPLES - FORT STORY, SITE 2

Parameters	MW-105		MW-106		MW-107		
	0	8	0	2	0	0(R)[b]	2
Pesticides/PCBs (mg/kg)							
p,p'DDD	ND[a]	ND	ND	ND	ND	NA[c]	0.16
p,p'DDE	ND	ND	ND	ND	ND	NA	0.090
p,p'DDT	ND	0.13	ND	ND	ND	NA	0.024
Arochlor 1260	ND	0.43	ND	ND	ND	NA	ND
VOCs (mg/kg)	ND	ND	ND	ND	ND	ND	ND[d]
Methylene Chloride							
BNAs (mg/kg)	ND	ND	ND	ND	ND	NA	ND
Metals (mg/kg)							
Chromium	1.9	2.0	ND	ND	2.6	NA	2.6
Copper	ND	ND	2.2	2.2	19(14)	NA	17(14)
Lead	2.0	2.0	1.5	ND	14	NA	2.0
Zinc	3.2	10	2.7	2.8	22	NA	20
Barium	ND	ND	ND	ND	0.19	NA	0.12
EP TOX Metals (mg/l)							
Barium							
Cyanide (mg/kg)	ND	ND	ND	ND	2.0	NA	ND
Total Solids (%)	98	84	88	84	88	NA	82

TABLE 2-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 2

Parameters	MW-108					MW-109	
	0	0(R)	0-D	0-D(R)	2	0	2
Pesticides/PCBs (mg/kg)							
p,p'DDD	0.14	NA	0.07	NA	0.16	ND	ND
p,p'DDE	0.10	NA	0.038	NA	0.11	ND	0.064
p,p'DDT	ND	NA	0.021	NA	0.022	ND	0.004
Arochlor 1260	ND	NA	ND	NA	ND	ND	ND
VOCs (mg/kg)	ND	ND	ND	ND	ND	ND	ND[d]
Methylene Chloride	ND	ND	ND	0.056[e]	ND	ND	ND
BNAs (mg/kg)	ND	NA	ND	NA	ND	ND	ND
Metals (mg/kg)							
Barium	ND[d]	NA	ND[d]	NA	ND	ND	ND
Chromium	2.2[e]	NA	1.8[e]	NA	2.0	ND	ND
Copper	7.8[e]	NA	2.9[e]	NA	ND	1.9	1.7
Lead	9.5[e]	NA	7.0[e]	NA	4.5	2.0	2.3
Zinc	2.9[e]	NA	2.4[e]	NA	26	7.4	3.8
EP TOX Metals (mg/l)							
Barium	ND	NA	ND	NA	ND	ND	ND
Cyanide (mg/kg)	ND	NA	ND	NA	ND	ND	ND
Total Solids (%)	86	NA	87	NA	87	86	83

(a) ND - Not detected.
(b) Resampling.
(c) NA - Not analyzed.
(d) Analytical results considered estimated, but below the compound detection limit.
(e) Analytical results considered estimated, but above the compound detection limit.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

TABLE 2-GW

GROUNDWATER SAMPLES - FORT STORY, SITE 2

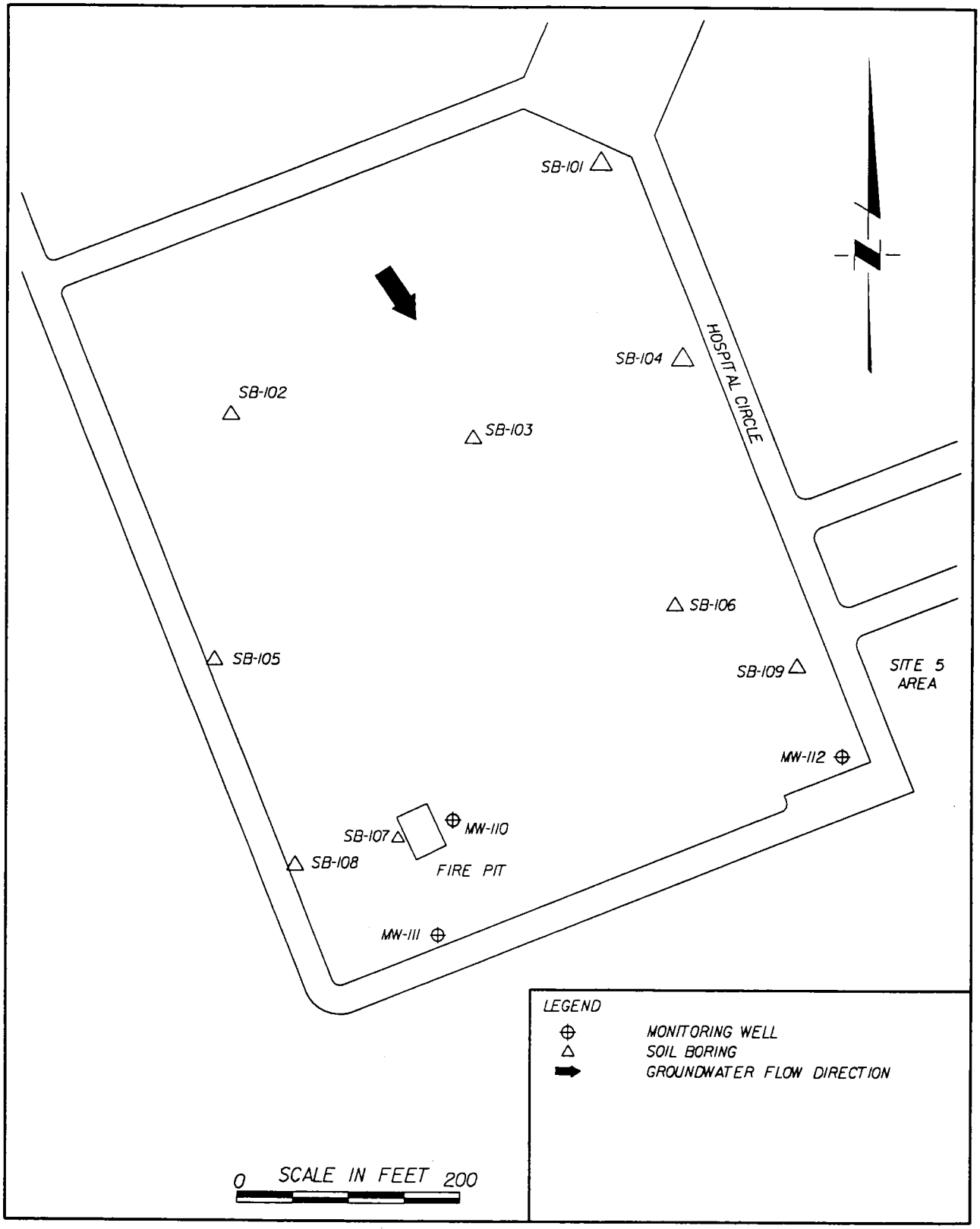
Parameters	GW-105	GW-105 D	GW-106	GW-107	GW-108	GW-109
Pesticides/PCBs (µg/l)	ND[a]	ND	ND	ND	ND	ND
VOCs (µg/l)						
Toluene	ND	NA[b]	ND	ND	ND	1.3
Carbon disulfide	2.8	NA	2.0	0.8	18	25
BNAs (µg/l)						
Benzoic Acid	ND[c,d]	ND[d]	ND[d]	ND	120	ND[d]
Total Metals (mg/l)						
Arsenic	ND	ND	ND	0.030	ND	0.03
Cadmium	ND	ND	0.17	ND	ND	0.14
Chromium	0.019	0.020	0.022	0.026	0.022	0.051
Copper	0.010[e]	0.011[e]	0.029[e]	0.097[e]	0.021[e]	0.036[e]
Mercury	ND	ND	ND	ND	ND	0.0002
Lead	0.010	ND	0.025	0.040	0.020	0.060
Zinc	ND	ND	0.13	0.16	0.097	0.10
Dissolved Metals (mg/l)						
Arsenic	ND	ND	ND	0.011	ND	0.008
Cadmium	ND	ND	ND	ND	ND	**0.087**(0.005)
Lead	ND	ND	0.003	ND	ND	0.005
Zinc	0.065	0.066	ND	0.029	0.066	0.066
Cyanide (mg/l)	ND	ND	ND	ND	ND	ND
Inorganics (mg/l)						
Barium	ND	ND	0.10	0.17	ND	0.14
Fluoride	ND	ND	ND	1.1	ND	ND
Chloride	13.7	13.6	3.4	7.8	31.9	17.4
Sulfate	15.0	15.0	5.4	3.2	ND	ND
Field Parameters[f]						
Temperature (°C)	12.8	12.8	12.3	11.8	6.4	7.8
pH	6.7	6.7	6.1	6.6	6.1	6.1
Conductivity (µmho)	200	200	40	260	300	190
Turbidity (NTU)	58.4	58.4	200.2	144.8	707.2	457.2

(a) ND - not detected.
(b) NA - not analyzed.
(c) Analytical results considered estimated, but below the compound detection limit.
(d) Sample dilution increased reported detection limits.
(e) Analytical results considered suspect due to detection of compound in associated blank sample.
(f) Field parameters measured after purging, and prior to sampling.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

Site 4, Firefighter Training Area

Fort Story, Virginia



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Site 4, Firefighter Training Area
Fort Story, VA

TABLE 4-SS

SOIL SAMPLES - FORT STORY, SITE 4

Parameters	MW-110		MW-111		MW-112	
	0	4	0	4	0	4
Pesticides/PCBs (mg/kg)						
Chlordane	ND[a]	ND	ND	ND	ND	ND
p,p' DDD	ND	ND	ND	ND	ND	0.011
p,p' DDE	ND	ND	ND	ND	ND	0.083
p,p' DDT	ND	ND	ND	0.008	ND	0.15
VOCs (mg/kg)						
m,p-Xylenes	ND	4.2	ND	ND	ND	ND
o-Xylene	ND	2.5	ND	ND	ND	ND
BNAs (mg/kg)						
Di-n-butylphthalate	ND	ND	ND	ND	ND	ND
Fluorene	ND	9.9	ND	ND	ND	ND
Naphthalene	ND	7.1	ND	ND	ND	ND
Phenanthrene	ND	24	ND	ND	ND	ND
Pyrene	ND	5.9	ND	ND	ND	ND
2-Methylnaphthalene	ND	53	ND	ND	ND	ND
TFH-L (mg/kg)	ND[b]	10,000(100)[c]	ND[b]	ND[b]	230(100)[c]	ND[b]
Metals (mg/kg)						
Barium	36	ND	ND	ND	12	ND
Chromium	4.5	1.2	2.9	2.3	2.8	4.0
Copper	7.5	2.3	6.2	3.2	10	5.1
Mercury	0.10	ND	ND	ND	ND	ND
Lead	7.5	1.0	27	1.0	12	1.0
Zinc	27	2.6	12	ND	12	ND
Total Solids (%)	95	87	96	86	95	85

TABLE 4-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 4

Parameters	SB-101		SB-102		SB-103	
	0	8	0	8	0	8
Pesticides/PCBs (mg/kg)						
Chlordane	ND	ND	ND	ND	0.06	ND
p,p' DDD	ND	ND	ND	ND	ND	ND
p,p' DDE	0.004	ND	0.008	ND	0.007	ND
p,p' DDT	ND	ND	0.013	ND	0.009	ND
VOCs (mg/kg)						
m,p-Xylenes	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND
BNAs (mg/kg)						
Di-n-butylphthalate	2.3	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND
TFH-L (mg/kg)	ND	ND	ND	ND	ND	ND
Metals (mg/kg)						
Barium	ND	ND	ND	ND	ND	ND
Chromium	4.6	1.4	2.9	1.3	3.0	2.6
Copper	2.2	ND	1.6	ND	4.9	ND
Mercury	0.04	ND	ND	ND	ND	ND
Lead	93(71)	ND	17	2.0	9.0	1.0
Zinc	22	ND	2.3	2.2	6.2	2.1
Total Solids (%)	91	86	90	81	92	85

TABLE 4-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 4

Parameters	SB-104		SB-105		SB-106	
	0	4	0	4	0	4
Pesticides/PCBs (mg/kg)						
Chlordane	ND	ND	ND	ND	0.06	ND
p,p' DDD	ND	ND	ND	ND	ND	ND
p,p' DDE	0.005	ND	0.032	ND	0.03	ND
p,p' DDT	ND	ND	0.083	ND	0.04	ND
VOCs (mg/kg)						
m,p-Xylenes	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND
BNAs (mg/kg)						
Di-n-butylphthalate	ND	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND
TFH-L (mg/kg)	ND	ND	ND	ND	ND	ND
Metals (mg/kg)						
Barium	ND	ND	ND	ND	19	ND
Chromium	2.3	2.9	3.6	1.2	3.1	2.6
Copper	14(14)	ND	3.5	ND	5.0	ND
Mercury	ND	ND	ND	ND	0.099	ND
Lead	12	1.0	36	1.0	28	1.5
Zinc	13	5.5	14	3.2	32	2.0
Total Solids (%)	92	85	93	81	95	85

TABLE 4-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 4

Parameters	SB-107			SB-108		SB-109	
	0	4	0	0	4	0	15
Pesticides/PCBs (mg/kg)							
Chlordane	ND	ND	ND	ND	ND	ND	ND
p,p' DDD	ND	ND	ND	0.005	ND	ND	ND
p,p' DDE	ND	ND	ND	0.026	ND	ND	ND
p,p' DDT	0.005	ND	ND	ND	ND	ND	ND
VOCs (mg/kg)							
m,p-Xylenes	ND	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND	ND
BNAs (mg/kg)							
Di-n-butylphthalate	ND	ND	ND	ND[b]	ND	ND	ND
Fluorene	ND	ND	ND	ND[b]	ND	ND	ND
Naphthalene	ND	ND	ND	ND[b]	ND	ND	ND
Phenanthrene	ND	ND	ND	ND[b]	ND	ND	ND
Pyrene	ND	ND	ND	ND[b]	ND	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND[b]	ND	ND	ND
TFH-L (mg/kg)	ND	ND	ND	ND	ND	ND	ND
Metals (mg/kg)							
Barium	41	ND	ND	ND	ND	35	ND
Chromium	4.9	2.0	3.2	2.3	ND	4.0	ND
Copper	4.8	1.5	ND	ND	ND	5.0	ND
Mercury	ND	ND	ND	ND	ND	ND	ND
Lead	5.8	ND	ND	12	ND	12	1.0
Zinc	20	ND	ND	5.7	ND	45	2.0
Total Solids (%)	92	84	87	95	83	95	90

(a) ND - not detected.
(b) Analytical results considered estimated, but below the compound detection limit.
(c) Analytical results considered estimated, but above the compound detection limit.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

TABLE 4-GW

GROUNDWATER SAMPLES - FORT STORY, SITE 4

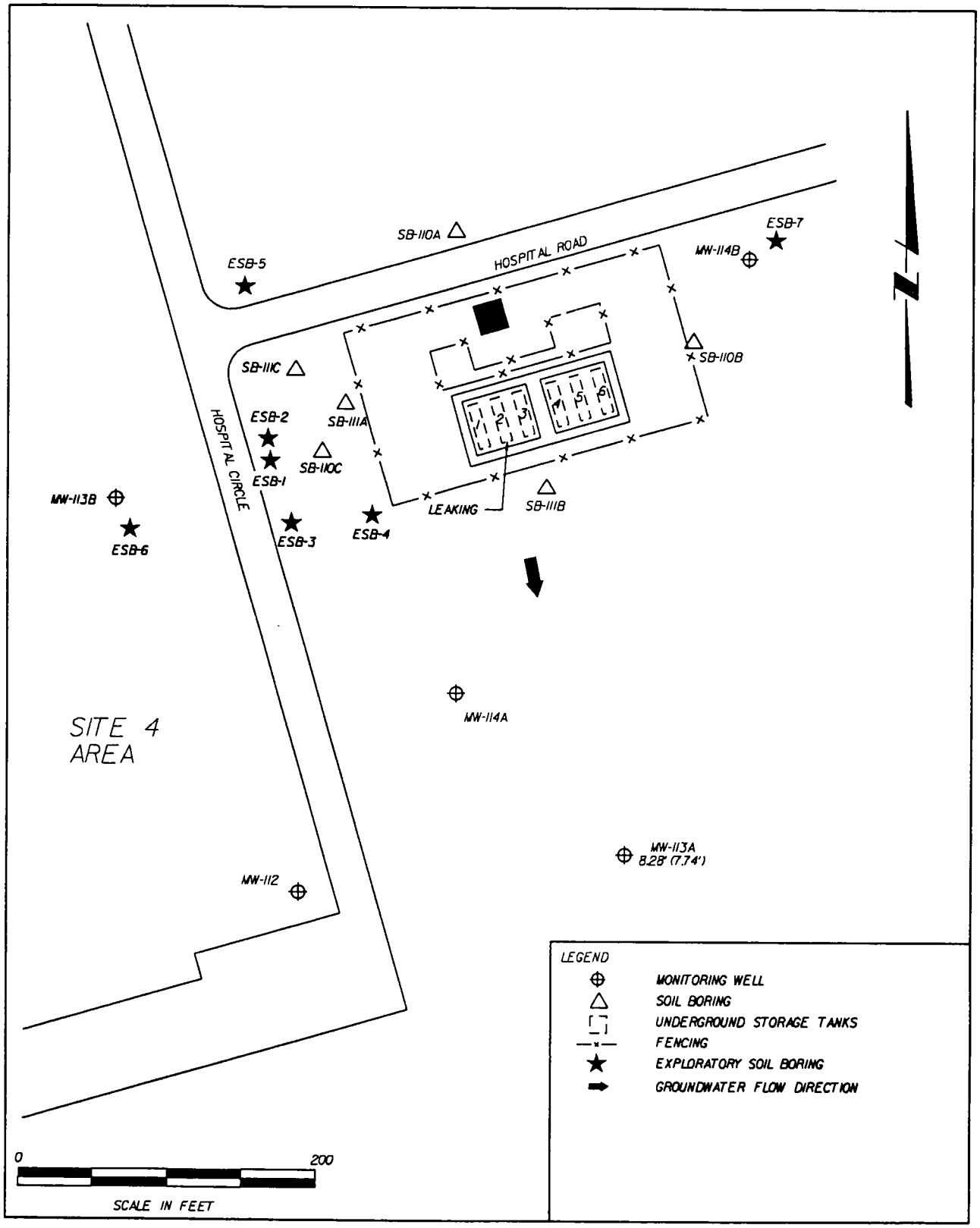
Parameters	GW-110	GW-110 D	GW-111	GW-112
Pesticides/PCBs (µg/l)	ND[a]	ND[b]	ND	ND
VOCs (µg/l)				
Benzene	**8.9**(5.0)	**9.2**(5.0)	ND[b]	ND[b]
Carbon disulfide	13	26	ND[b]	ND[b]
1,1-Dichloroethane	ND[b]	ND[b]	ND[b]	180
1,2-Dichloroethane	ND[b]	ND[b]	ND[b]	**69**(5)
1,1-Dichloroethene	ND[b]	ND[b]	ND[b]	**230**(7)
Toluene	16	13	ND[b]	ND[b]
1,1,1-Trichloroethane	ND[b]	ND[b]	ND[b]	**430**(200)
m,p-Xylenes	25	16	ND[b]	ND[b]
o-Xylene	29	19	ND[b]	ND[b]
BNAs (µg/l)				
Anthracene	140	45	ND	ND[b]
bis (2-Ethylhexyl) phthalate	15[c]	13[c]	ND	ND[b]
Naphthalene	160	160	ND	ND[b]
Phenanthrene	ND[b]	110	ND	ND[b]
Pyrene	36	ND[b]	ND	ND[b]
Phenol	**23**(1)	**23**(1)	ND	ND[b]
2-Methylnaphthalene	230	150	ND	ND[b]
Dibenzofuran	28	ND[b]	ND	ND[b]
TFH-L (mg/l)	**18**(1)	**13**(1)	ND	0.4
Total Metals (mg/l)				
Arsenic	0.040	0.040	ND	ND
Barium	0.26	0.20	ND	ND
Cadmium	0.016	0.008	0.018	0.008
Chromium	0.061	0.038	0.019	0.019
Copper	0.052[b]	0.034[b]	0.017[b]	0.023[b]
Lead	0.11	0.11	0.015	0.020
Zinc	0.56	0.30	0.033	0.088
Dissolved Metals (mg/l)				
Arsenic	0.020	0.021	ND	ND
Barium	0.10	0.10	ND	ND
Lead	0.003	0.002	ND	ND
Zinc	ND	0.025	ND	0.045
Field Parameters[d]				
Temperature (°C)	26.2	26.2	22.0	22.3
pH	6.6	6.6	6.8	6.3
Conductivity (µmho)	600	600	190	220
Turbidity (NTU)	693.6	693.6	118.2	120.4

(a) ND - not detected.
(b) Sample dilution increased reported detection limits.
(c) Analytical results considered suspect due to detection of compound in associated blank sample.
(d) Field parameters measured after purging, and prior to sampling.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

Site 5, Underground Storage Tank Farm

Fort Story, Virginia



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Site 5, Underground Fuel Storage Tank Farm
Fort Story, VA

TABLE 5-SS

SOIL SAMPLES - FORT STORY, SITE 5

Parameters	MW-113A				MW-113B		MW-114A	
	0	0(R)[a]	5	5(R)	0	4	0	6
BETX (mg/kg)								
m,p-Xylenes	ND[b]	NA[c]	ND	ND	ND	ND	ND	ND
o-Xylene	ND	NA	ND	NA	ND	ND	ND	ND
Toluene	ND	NA	ND	NA	ND	ND	ND	ND
TFH-L (mg/kg)	NA	NA	NA	NA	ND	ND	ND	ND
TFH-H (mg/kg)	NA	ND[d]	NA	ND[d]	NA	NA	NA	NA
Total Lead (mg/kg)	10	NA	ND	NA	14	1.0	ND	160(71)
Total Solids (%)	97	NA	96	NA	93	86	91	86

TABLE 5-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 5

Parameters	MW-114B				SB-110A		SB-110B	
	0	0(R)	8	8(R)	12	14	2	6
BETX (mg/kg)								
m,p-Xylenes	ND	NA	ND	NA	ND	ND	ND	ND
o-Xylene	ND	NA	ND	NA	ND	ND	ND	ND
Toluene	ND	NA	ND	NA	0.01	ND	0.02	0.01
TFH-L (mg/kg)	NA	NA	NA	NA	ND	ND	ND	ND
TFH-H (mg/kg)	NA	ND[d]	NA	ND[d]	NA	NA	NA	NA
Total Lead (mg/kg)	9.5	NA	1.0	NA	1.0	1.0	3.0	ND
Total Solids (%)	94	NA	86	NA	86	87	98	95

TABLE 5-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 5

Parameters	SB-110C		SB-111A		
	4	18	12	14	14-D
BETX (mg/kg)					
m,p-Xylenes	ND	ND	0.19	ND	ND
o-Xylene	ND	ND	0.06	ND	ND
Toluene	ND	ND	0.06	ND	ND
TFH-L (mg/kg)	ND	ND	880(100)	35	130(100)
TFH-H (mg/kg)	NA	NA	NA	NA	NA
Total Lead (mg/kg)	14	15	2.0	14	2.0
Total Solids (%)	98	79	84	85	85

TABLE 5-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 5

Parameters	SB-111B		SB-111C	
	0	2	0	18
BETX (mg/kg)				
m,p-Xylenes	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND
Toluene	0.06	0.12	ND	ND
TFH-L (mg/kg)	ND	ND	ND	ND
TFH-H (mg/kg)	NA	NA	NA	NA
Total Lead (mg/kg)	10	7.0	14	ND
Total Solids (%)	98	97	96	84

(a) Resampling.
(b) ND - not detected.
(c) NA - not analyzed.
(d) Analytical results considered estimated, but below the compound detection limit.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

TABLE 5-GW

GROUNDWATER SAMPLES - FORT STORY, SITE 5

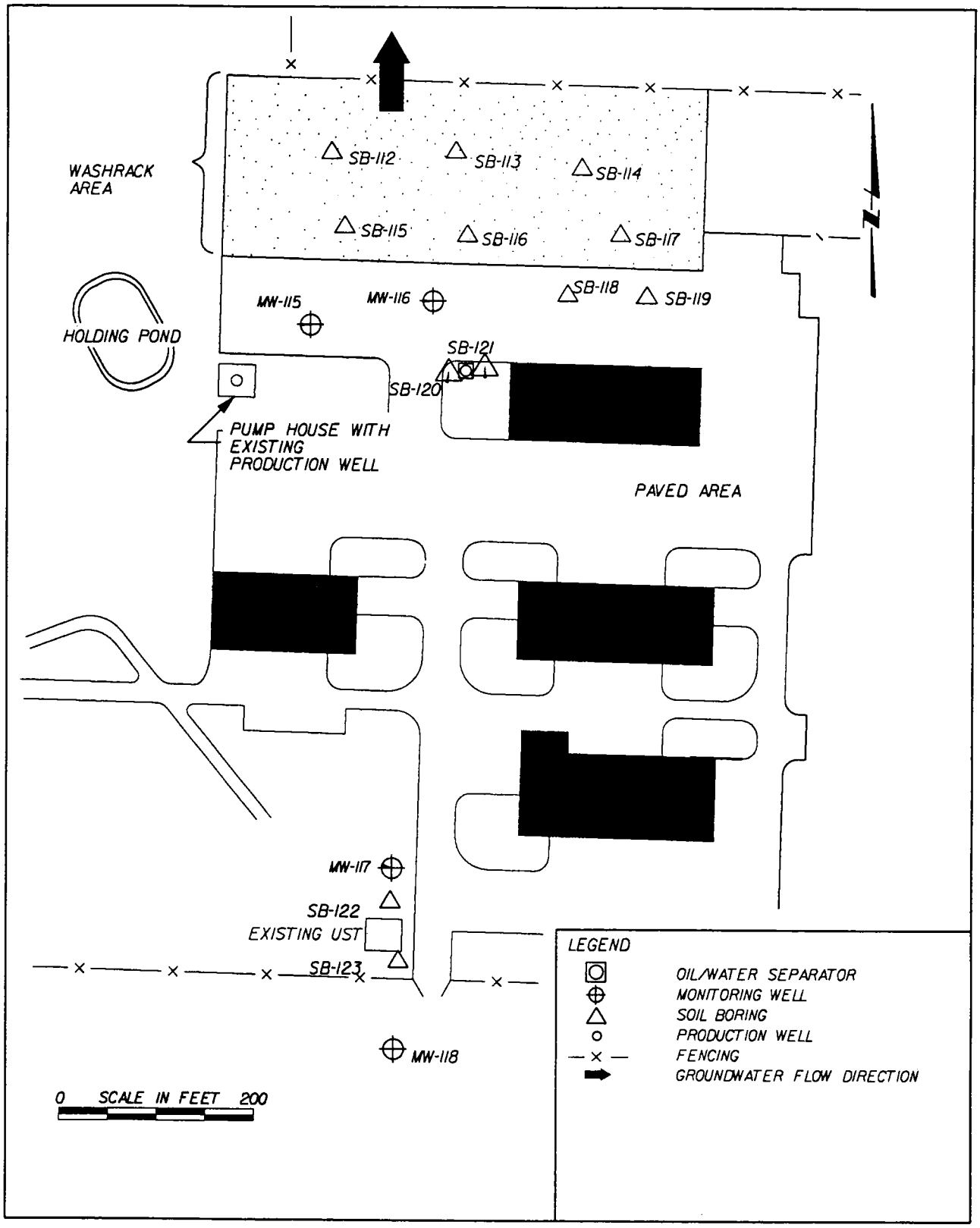
Parameters	GW-113A	GW-113A D	GW-113B	GW-114A	GW-114B
BETX (µg/l)					
Benzene	ND[a]	ND	ND	**8.5**(5)	ND
TFH-L (mg/l)	0.2	0.08	0.1	0.1	ND
Dissolved Metals (mg/l)	ND	ND	ND	ND	ND
Total Lead (mg/l)	0.025	0.030	0.055	0.010	0.045
Field Parameters[b]					
Temperature (°C)	15.0	15.0	16.0	18.0	16.0
pH	5.5	5.5	6.2	5.6	5.4
Conductivity (µmho)	120	120	100	185	50
Turbidity (NTU)	522.8	522.8	1190.4	488.8	470.4

(a) ND - not detected.
(b) Field parameters measured after purging, and prior to sampling.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

Site 6, LARC Maintenance Area

Fort Story, Virginia



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Site 6, LARC Maintenance Area
Fort Story, VA

TABLE 6-SS

SOIL SAMPLES - FORT STORY, SITE 6

Parameters	MW-115		MW-116		MW-117	
	1.5	3.5	1.5	3.5	0	5
Pesticides/PCBs (mg/kg)						
Chlordane	ND[a]	ND	ND	ND	ND	ND
p,p' DDD	0.011	ND	ND	ND	ND	ND
p,p' DDE	ND	ND	ND	ND	ND	ND
p,p' DDT	ND	ND	ND	ND	ND	ND
VOCs (mg/kg)						
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.02	ND	ND	ND	ND	ND
Tetrachloroethene	0.01	ND	ND	ND	ND	ND
m,p-Xylenes	0.07	ND	ND	ND	ND	ND
o-Xylene	0.05	ND	ND	ND	ND	ND
BNAs (mg/kg)						
Fluorene	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	3.3
Phenanthrene	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	3.1	ND	ND	ND	ND	4.7
TFH-H (mg/kg)	11,200(100)	ND	160(100)	35	ND	1,500(100)
Metals (mg/kg)						
Barium	18	ND	ND	12	12	ND
Cadmium	ND	ND	ND	ND	ND	ND
Chromium	8.2	1.7	4.1	14	6.2	5.5
Copper	5.0	ND	ND	ND	5.1	ND
Mercury	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND
Lead	5.0	ND	1.5	1.5	6.5	ND
Zinc	13	ND	9.1	12	12	2.1
Total Solids (%)	95	85	96	95	98	72

TABLE 6-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 6

Parameters	MW-118		SB-112	
	1.5	8	0	8
Pesticides/PCBs (mg/kg)				
Chlordane	ND	ND	ND	ND
p,p' DDD	ND	ND	0.054	ND
p,p' DDE	ND	ND	0.017	ND
p,p' DDT	ND	ND	ND	ND
VOCs (mg/kg)				
1,2-Dichlorobenzene	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
m,p-Xylenes	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND
BNAs (mg/kg)				
Fluorene	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND
TFH-H (mg/kg)	ND	ND	230(100)	28
Metals (mg/kg)				
Barium	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND
Chromium	5.9	3.7	3.1	2.9
Copper	1.0	ND	9.4	ND
Mercury	ND	ND	ND	ND
Nickel	ND	ND	ND	ND
Lead	3.5	4.0	16	3.5
Zinc	5.9	2.9	16	3.2
Total Solids (%)	99	95	92	81

TABLE 6-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 6

Parameters	SB-113			SB-114	
	0	0-D	8	0	8
Pesticides/PCBs (mg/kg)					
Chlordane	ND	ND	ND	0.73	ND
p,p' DDD	0.047	0.023	ND	2.9	ND
p,p' DDE	0.006	0.005	ND	0.081	ND
p,p' DDT	0.094	0.051	ND	0.029	ND
VOCs (mg/kg)					
1,2-Dichlorobenzene	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND
m,p-Xylenes	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND
BNAs (mg/kg)					
Fluorene	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	ND	ND	ND
TFH-H (mg/kg)	290(100)	610(100)	ND	340(100)	ND
Metals (mg/kg)					
Barium	ND	10	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND
Chromium	4.3	5.0	1.4	6.7	1.0
Copper	12	15(14)	ND	25(14)	ND
Mercury	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND
Lead	28	33	1.0	40	ND
Zinc	17	47	4.3	20	ND
Total Solids (%)	96	96	83	92	81

TABLE 6-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 6

Parameters	SB-115			SB-116	
	0	0-D	8	0	8
Pesticides/PCBs (mg/kg)					
Chlordane	ND	ND	ND	ND	ND
p,p' DDD	ND	0.018	ND	ND	ND
p,p' DDE	ND	ND	ND	ND	ND
p,p' DDT	ND	0.017	ND	ND	ND
VOCs (mg/kg)					
1,2-Dichlorobenzene	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	0.05	ND
Tetrachloroethene	ND	ND	ND	0.20	ND
m,p-Xylenes	ND	ND	ND	0.20	ND
o-Xylene	ND	ND	ND	0.10	ND
BNAs (mg/kg)					
Fluorene	ND	ND[b]	ND	ND[b]	ND
Naphthalene	ND	ND[b]	ND	ND[b]	ND
Phenanthrene	ND	ND[b]	ND	ND[b]	ND
2-Methylnaphthalene	ND	ND[b]	ND	ND[b]	ND
TFH-H (mg/kg)	960(100)	1,700(100)	19	3,700(100)	ND
Metals (mg/kg)					
Barium	ND[c]	ND[c]	ND	20	ND
Cadmium	ND[c]	ND[c]	ND	1.1	1.2
Chromium	11[d]	3.9[d]	1.5	9.7	ND
Copper	5.3[d]	8.1[d]	ND	1.4	ND
Mercury	0.04[d]	ND[c]	ND	ND	ND
Nickel	ND[c]	ND[c]	ND	ND	ND
Lead	72(71)[d]	20[d]	1.0	110(71)	1.3
Zinc	13[d]	14[d]	ND	85(57)	ND
Total Solids (%)	98	97	82	95	83

TABLE 6-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 6

Parameters	SB-117		SB-118		SB-119	
	0	8	1.5	8	0	8
Pesticides/PCBs (mg/kg)						
Chlordane	ND	ND	ND	ND	ND	ND
p,p' DDD	0.064	ND	ND	ND	ND	ND
p,p' DDE	0.009	ND	0.012	ND	ND	ND
p,p' DDT	ND	ND	ND	ND	ND	ND
VOCs (mg/kg)						
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND
m,p-Xylenes	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND
BNAs (mg/kg)						
Fluorene	ND[b]	ND	ND	ND	ND	ND
Naphthalene	ND[b]	ND	ND	ND	ND	ND
Phenanthrene	ND[b]	ND	ND	ND	ND	ND
2-Methylnaphthalene	ND[b]	ND	ND	ND	ND	ND
TFH-H (mg/kg)	13,000(100)	ND	ND	ND	ND	ND
Metals (mg/kg)						
Barium	38	ND	ND	ND	ND	ND
Cadmium	6.4	ND	ND	ND	ND	ND
Chromium	22	1.7	2.6	2.0	1.7	1.3
Copper	94(14)	ND	1.8	ND	ND	ND
Mercury	ND	ND	ND	ND	ND	ND
Nickel	29	ND	ND	ND	ND	ND
Lead	160(71)	1.0	1.5	ND	1.5	1.0
Zinc	390(57)	ND	14	2.8	ND	ND
Total Solids (%)	94	83	98	83	95	83

TABLE 6-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 6

Parameters	SB-120		SB-121	
	0	9.5	0	9.5
Pesticides/PCBs (mg/kg)				
Chlordane	ND	ND	ND	ND
p,p' DDD	ND	ND	ND	ND
p,p' DDE	ND	ND	ND	ND
p,p' DDT	0.008	ND	ND	ND
VOCs (mg/kg)				
1,2-Dichlorobenzene	ND	0.02	ND	ND
Ethylbenzene	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
m,p-Xylenes	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND
BNAs (mg/kg)				
Fluorene	ND	ND	2.4	ND
Naphthalene	ND	ND	ND[c]	ND
Phenanthrene	ND	ND	7.4	ND
2-Methylnaphthalene	ND	ND	ND[c]	ND
TFH-H (mg/kg)	520(100)	120(100)	7,800(100)	11
Metals (mg/kg)				
Barium	ND	ND	ND	ND
Cadmium	ND	ND	0.9	ND
Chromium	2.8	1.7	7.6	1.1
Copper	4.8	ND	16(14)	ND
Mercury	ND	ND	ND	ND
Nickel	ND	ND	ND	ND
Lead	12	6.0	44	1.5
Zinc	13	7.4	24	4.4
Total Solids (%)	95	84	94	84

TABLE 6-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 6

Parameters	SB-122			SB-123	
	0[c]	0-D[c]	10	0	12
Pesticides/PCBs (mg/kg)					
Chlordane	ND	ND	ND	ND	ND
p,p' DDD	ND	ND	ND	ND	ND
p,p' DDE	ND	ND	ND	ND	ND
p,p' DDT	ND	ND	ND	0.006	ND
VOCs (mg/kg)					
1,2-Dichlorobenzene	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	0.04	ND
m,p-Xylenes	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND
BNAs (mg/kg)					
Fluorene	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND
2-Methylnaphthalene	ND	ND	1.3	ND	ND
TFH-H (mg/kg)	ND	ND	**370**(100)	**1,900**(100)	ND
Metals (mg/kg)					
Barium	22	21	ND	10	ND
Cadmium	ND	ND	ND	ND	ND
Chromium	8.7	7.2	2.1	5.4	2.2
Copper	2.3	2.0	ND	3.5	ND
Mercury	ND	0.02	ND	ND	ND
Nickel	ND	ND	ND	ND	ND
Lead	8.0	4.5	ND	15	ND
Zinc	9.5	10	2.1	25	2.9
Total Solids (%)	92	91	84	97	83

(a) ND - not detected.
(b) Sample dilution increased reported detection limits.
(c) Analytical results considered estimated, but below the compound detection limit.
(d) Analytical results considered estimated, but above the compound detection limit.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

TABLE 6-GW

GROUNDWATER SAMPLES - FORT STORY, SITE 6

Parameters	GW-115	GW-115 (R)[a]	GW-115-D	GW-115-D (R)
Pesticides/PCBs (µg/l)	ND[b]	NA[c]	ND	NA
VOCs (µg/l)				
Benzene	ND[d]	NA	ND[d]	NA
1,1-Dichloroethane	ND[d]	NA	5.9[d]	NA
1,1-Dichloroethene	ND[d]	NA	ND[d]	NA
Ethylbenzene	ND[d]	NA	ND[d]	NA
Methylene Chloride	ND[d]	NA	11[d]	NA
Tetrachloroethene	ND[d]	NA	ND[d]	NA
Toluene	ND[d]	NA	ND[d]	NA
Vinyl Chloride	ND[d]	NA	ND[d]	NA
Total Xylenes	ND[d]	NA	ND[d]	NA
Carbon Disulfide	24[d]	NA	75[d]	NA
BNAs (µg/l)				
Naphthalene	7.2	NA	8.3	NA
2-Methylnaphthalene	7.6	NA	12	NA
TFH-H (mg/l)	ND[e]	1.2(1)	2.6(1)[e]	1.5 (1)
Total Metals (mg/l)				
Cadmium	0.009	NA	ND	NA
Chromium	0.030	NA	0.022	NA
Copper	0.023[e]	NA	0.021[e]	NA
Mercury	ND	NA	ND	NA
Lead	0.050	NA	0.040	NA
Zinc	0.096	NA	0.065	NA
Dissolved Metals (mg/l)				
Arsenic	0.012	NA	0.011	NA
Lead	0.004	NA	0.003	NA
Zinc	0.032	NA	0.026	NA
Inorganics (mg/l)	ND	NA	ND	NA
Field Parameters[f]				
Temperature (°C)	22.3	NA	22.3	NA
pH	6.4	NA	6.4	NA
Conductivity (µmho)	290	NA	290	NA
Turbidity (NTU)	239.6	NA	239.6	NA

TABLE 6-GW
(Continued)

GROUNDWATER SAMPLES - FORT STORY, SITE 6

Parameters	GW-116	GW-116 (R)	GW-117	GW-117 (R)	GW-118
Pesticides/PCBs (µg/l)	ND	NA	ND	NA	ND
VOCs (µg/l)					
Benzene	ND[d]	NA	8.2(5)[e]	NA	ND[d,g]
1,1-Dichloroethane	ND[d]	NA	7.0	NA	ND[d,g]
1,1-Dichloroethene	ND[d]	NA	12(7)	NA	ND[d,g]
Ethylbenzene	ND[d]	NA	160	NA	ND[d,g]
Methylene Chloride	ND[d]	NA	18	NA	ND[d,g]
Tetrachloroethene	ND[d]	NA	2.9	NA	ND[d,g]
Toluene	ND[d]	NA	190	NA	ND[d,g]
Vinyl Chloride	6.4(2)[d]	NA	ND[d]	NA	ND[d,g]
Total Xylenes	ND[d]	NA	970	NA	ND[d,g]
Carbon Disulfide	12[d]	NA	16	NA	ND[d,g]
BNAs (µg/l)					
Naphthalene	ND	NA	ND	NA	ND
2-Methylnaphthalene	ND	NA	ND	NA	ND
TFH-H (mg/l)	0.7[e,h]	1.0(1)	4.0(1)[e,h]	NP[i]	ND[e]
Total Metals (mg/l)					
Cadmium	0.012	NA	ND	NA	ND
Chromium	0.027	NA	0.016	NA	0.040
Copper	0.020[e]	NA	ND	NA	0.032[e]
Mercury	ND	NA	ND	NA	0.0002
Lead	0.030	NA	0.020	NA	0.035[e]
Zinc	0.14	NA	0.046	NA	0.077
Dissolved Metals (mg/l)					
Arsenic	0.031	NA	0.019	NA	ND
Lead	ND	NA	ND	NA	ND
Zinc	0.060	NA	ND	NA	0.029
Inorganics (mg/l)	ND	NA	ND	NA	ND
Field Parameters[f]					
Temperature (°C)	23.6	NA	19.6	NA	20.0
pH	6.3	NA	6.6	NA	5.9
Conductivity (µmho)	600	NA	140	NA	200
Turbidity (NTU)	131.7	NA	67.6	NA	544.4

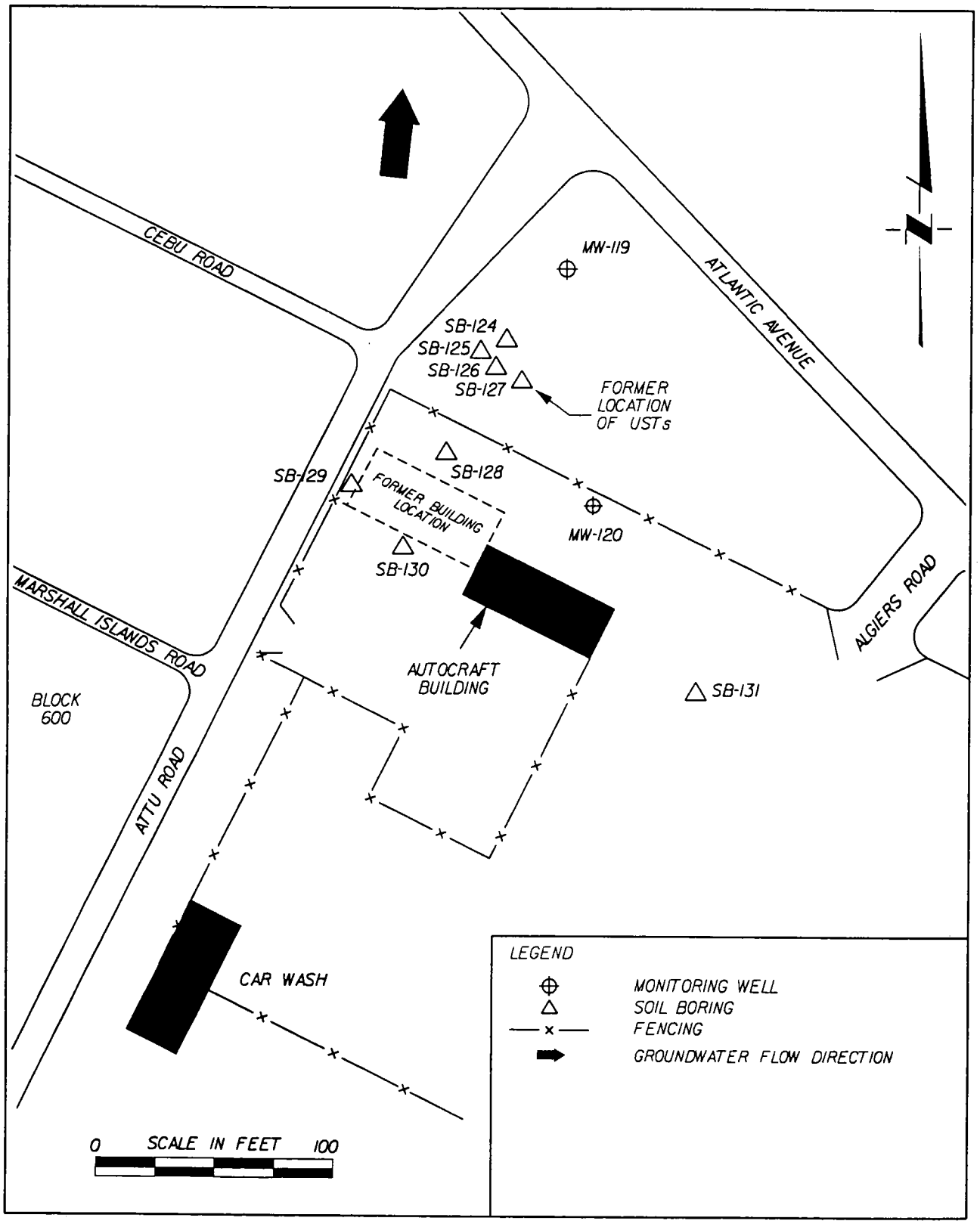
(a) Resampling.
(b) ND - not detected.
(c) NA - not analyzed.
(d) Sample dilution increased reported detection limits.
(e) Analytical results considered suspect due to detection of compound in associated blank sample.
(f) Field parameters measured after purging, and prior to sampling.
(g) Analytical results considered estimated, but below the compound detection limit.
(h) Analytical results considered estimated, but above the compound detection limit.

(i) NP - not performed (sample extract evaporated).

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

Site 7, Autocraft Building Area

Fort Story, Virginia



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Site 7, Auto Craft Building
Fort Story, VA

TABLE 7-SS

SOIL SAMPLES - FORT STORY, SITE 7

Parameters	MW-119		MW-120		SB-124		
	0	2	0.5	9	0	0(R)[c]	9.5
Pesticides/PCBs (mg/kg)							
p,p' DDD	0.007	ND	ND[a]	ND	ND	NA[d]	0.025
p,p' DDE	0.038	ND	ND	ND	ND	NA	ND
p,p' DDT	ND	0.011[b]	ND	ND	ND	NA	ND
VOCs (mg/kg)							
Methylene Chloride	ND	ND	ND	ND	ND	0.010	ND[e]
Chloroform	ND	ND	ND	ND	ND	NA	ND[e]
BNAs (mg/kg)	ND	ND	ND	ND	ND	NA	ND
TFH-H (mg/kg)	ND	ND	37	ND	ND	NA	ND
Metals (mg/kg)							
Arsenic	ND	ND	3.0	ND	ND	NA	ND
Barium	26	ND	34	ND	10	NA	ND
Cadmium	ND	ND	ND	ND	ND	NA	ND
Chromium	6.8	4.0	9.5	ND	3.3	NA	ND
Copper	6.2	3.0	2.8	ND	7.0	NA	ND
Mercury	0.03	ND	ND	ND	ND	NA	ND
Nickel	ND	ND	5.8	ND	ND	NA	ND
Lead	19	4.5	7.5	1.5	53	NA	3.8
Zinc	31	6.0	16	ND	19	NA	7.1
Total Solids (%)	90	94	96	84	96	NA	85

TABLE 7-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 7

Parameters	SB-125			SB-126			
	0	0(R)	9.5	0	0(R)	9.5	9.5-D
Pesticides/PCBs (mg/kg)							
p,p' DDD	ND	NA	ND	ND	NA	ND	ND
p,p' DDE	0.004	NA	ND	ND	NA	ND	ND
p,p' DDT	0.014	NA	ND	ND	NA	0.029	ND
VOCs (mg/kg)							
Methylene Chloride	ND	0.087	ND[e]	ND	ND	ND[e]	ND[e]
Chloroform	ND	ND	ND[e]	ND	6.0	ND[e]	ND[e]
BNAs (mg/kg)	ND[f]	NA	ND	ND	NA	ND	ND
TFH-H (mg/kg)	42	NA	160(100)	ND	NA	ND	ND
Metals (mg/kg)							
Arsenic	ND	NA	ND	ND	NA	ND	ND
Barium	21	NA	ND	ND	NA	ND	ND
Cadmium	ND	NA	ND	ND	NA	ND	ND
Chromium	5.2	NA	1.4	1.8	NA	ND	1.2
Copper	4.3	NA	ND	2.7	NA	1.1	ND
Mercury	0.02	NA	ND	ND	NA	ND	ND
Nickel	ND	NA	ND	ND	NA	ND	ND
Lead	20	NA	1.5	6.0	NA	2.0	1.5
Zinc	15	NA	ND	11	NA	4.2	ND
Total Solids (%)	91	NA	86	96	NA	85	82

TABLE 7-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 7

Parameters	SB-127		SB-128		SB-129	
	0	9.5	0	8	0.5	10
Pesticides/PCBs (mg/kg)						
p,p' DDD	ND	ND	ND	ND	0.11	ND
p,p' DDE	ND	ND	ND	ND	0.030	ND
p,p' DDT	ND	ND	ND	ND	0.14	0.020
VOCs (mg/kg)						
Methylene Chloride	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND	ND	ND	ND	ND
TFH-H (mg/kg)	470(100)	ND	200(100)	ND	2,400(100)	22
Metals (mg/kg)						
Arsenic	ND	ND	ND	ND	2.5	ND
Barium	ND	ND	ND	ND	100	ND
Cadmium	ND	ND	ND	ND	1.4	ND
Chromium	2.2	1.2	2.0	5.5	18	6.6
Copper	9.5	ND	2.0	ND	12	1.7
Mercury	ND	ND	ND	ND	0.03	ND
Nickel	ND	ND	ND	ND	4.0	ND
Lead	18	1.0	6.0	1.5	530(71)	44
Zinc	15	2.8	8.4	3.2	870(57)	93(57)
Total Solids (%)	96	83	96	91	90	94

TABLE 7-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 7

Parameters	SB-130			SB-131	
	0.5	0.5-D	8	0.5	8
Pesticides/PCBs (mg/kg)					
p,p' DDD	ND	ND	ND	ND	ND
p,p' DDE	ND	ND	ND	ND	ND
p,p' DDT	ND	ND	ND	ND	ND
VOCs (mg/kg)					
Methylene Chloride	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND(f)	ND(f)	ND(f)	ND
TFH-H (mg/kg)	43	15	ND	13	ND
Metals (mg/kg)					
Arsenic	ND	ND	ND	2.5	ND
Barium	ND	ND	ND	28	ND
Cadmium	ND	ND	ND	ND	ND
Chromium	3.2	3.1	2.3	11	1.6
Copper	1.4	1.3	1.6	2.6	ND
Mercury	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	4.9	ND
Lead	4.5	6.0	1.5	6.0	1.0
Zinc	5.8	6.0	3.9	13	2.4
Total Solids (%)	95	96	88	91	92

(a) ND - not detected.
(b) Analytical results considered estimated, but above the compound detection limit.
(c) Resampling.
(d) NA - not analyzed.
(e) Analytical results considered estimated, but below the compound detection limit.
(f) Sample dilution increased reporting detection limts.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

TABLE 7-GW

GROUNDWATER SAMPLES - FORT STORY, SITE 7

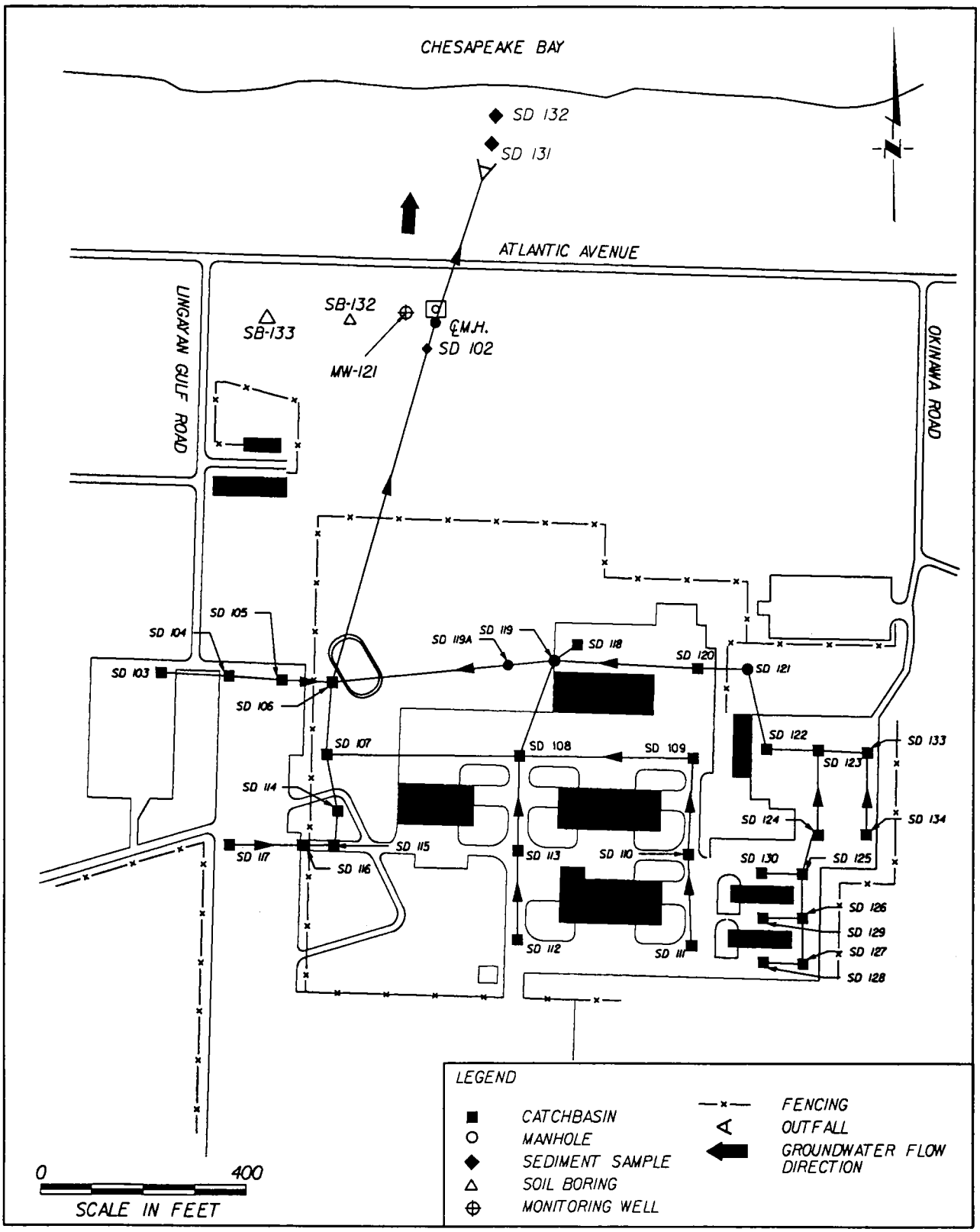
Parameters	GW-119	GW-119(R)[a]	GW-119-D	GW-119-D(R)	GW-120
Pesticides/PCBs (µg/l)	ND[b]	NA[c]	ND	NA	ND
VOCs (µg/l)					
Tetrachloroethene	4.3[d]	NA	ND[e]	NA	ND[e]
BNAs (µg/l)	ND	NA	ND	NA	ND
TFH-H (mg/l)	**3.6**(1)[d,f]	0.7	0.1	**1.4**(1)	ND
Total Metals (mg/l)					
Chromium	0.028	NA	0.020	NA	0.013
Copper	ND	NA	ND	NA	0.023[f]
Lead	0.020[f]	NA	0.015[f]	NA	0.010[f]
Zinc	0.34	NA	0.20	NA	0.077
Dissolved Metals (mg/l)					
Zinc	0.14	NA	0.14	NA	0.056
Inorganics (mg/l)	ND	NA	ND	NA	ND
Field Parameters					
Temperature (°C)	24.1	NA	24.1	NA	22.2
pH	6.1	NA	6.1	NA	5.8
Conductivity (µmho)	400	NA	400	NA	700
Turbidity (NTU)	425.2	NA	425.2	NA	89.6

(a) Resampling.
(b) ND - not detected.
(c) NA - not analyzed.
(d) Analytical results considered estimated, but above the compound detection limit.
(e) Sample dilution increased reported detection limits.
(f) Analytical results considered suspect due to detection of compound in associated blank sample.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

Site 8, Drainage Outfall

Fort Story, Virginia



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Site 8, Drainage Outfall Line
Fort Story, VA

TABLE 8-SS

SOIL SAMPLES - FORT STORY, SITE 8

Parameters	SB-132 COMP	SB-133 COMP
Pesticides/PCBs (mg/kg)	ND[a]	ND
VOCs (mg/kg)	ND	ND
BNAs (mg/kg)	ND	ND
TFH-H (mg/kg)	ND	ND
Metals (mg/kg)		
Chromium	1.1	ND
Lead	1.0	1.0
Zinc	4.8	3.8
Inorganics		
Total Solids (%)	79	81

(a) ND - not detected.

TABLE 8-GW

GROUNDWATER SAMPLES - FORT STORY, SITE 8

Parameters	GW-121	GW-121-D
Pesticides/PCBs (µg/l)	ND[a]	ND
VOCs (µg/l)		
Methylene Chloride	ND[b]	22[b,c]
BNAs (µg/l)	ND	ND
TFH-H (mg/l)	ND	ND[c]
Total Metals (mg/l)		
Copper	0.016[c]	0.012[c]
Lead	0.015[c]	0.015[c]
Zinc	0.051	0.036
Dissolved Metals (mg/l)		
Zinc	0.033	0.037
Inorganics (mg/l)	ND	ND
Field Parameters[d]		
Temperature (°C)	25.6	25.6
pH	5.9	5.9
Conductivity (µmho)	170	170
Turbidity (NTU)	82.2	82.2

(a) ND - not detected.
(b) Sample dilution increased reported detection limits.
(c) Analytical results considered suspect due to detection of compound in associated blank sample.
(d) Field parameters measured after purging, and prior to sampling.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

TABLE 8-SD

SEDIMENT SAMPLES - FORT STORY, SITE 8[c]

Parameters	SD-102	SD-102-D	SD-103	SD-104	SD-105
Pesticides/PCBs (mg/kg)					
p,p' DDD	ND[a]	ND	ND	0.026	ND
p,p' DDE	ND	ND	ND	0.008	ND
p,p' DDT	ND	ND	ND	ND	ND
Arochlor 1254	ND	ND	ND	ND	ND
Arochlor 1260	ND	ND	ND	ND	ND
VOCs (mg/kg)					
1,2-Dichloroethane	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	0.25	ND	ND
Toluene	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	0.02	ND	ND
cis-1,2-Dichloroethene	ND	ND	0.15	ND	ND
m,p-Xylenes	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND	ND[b]	ND[b]	ND[b]
TFH-H (mg/kg)	760(100)	200(100)	110(100)	5,300(100)	230(100)
Metals (mg/kg)					
Arsenic	ND	ND	ND	ND	ND
Barium	ND	ND	ND	41	ND
Cadmium	ND	ND	ND	2.3	0.9
Chromium	2.5	2.6	4.7	19	5.9
Copper	15(14)	3.6	36(14)	9.8	11
Mercury	ND	ND	ND	0.02	ND
Nickel	ND	ND	ND	ND	ND
Lead	8.3	8.0	150(71)	120(71)	31
Zinc	18	17	47	65(57)	46
Total Solids (%)	83	85	82	90	84

TABLE 8-SD
(Continued)

SEDIMENT SAMPLES - FORT STORY, SITE 8[c]

Parameters	SD-106	SD-107	SD-108	SD-109	SD-110
Pesticides/PCBs (mg/kg)					
p,p' DDD	ND	ND	ND	0.05	0.038
p,p' DDE	ND	ND	ND	ND	ND
p,p' DDT	ND	ND	ND	ND	ND
Arochlor 1254	ND	ND	ND	ND	0.17
Arochlor 1260	ND	ND	ND	ND	0.097
VOCs (mg/kg)					
1,2-Dichloroethane	ND	ND	ND	ND	ND[b]
Ethylbenzene	ND	ND	ND	ND	ND[b]
Tetrachloroethene	ND	ND	ND	ND	ND[b]
Toluene	ND	ND	ND	ND	ND[b]
1,1,1-Trichloroethane	ND	ND	ND	ND	ND[b]
Trichloroethene	ND	ND	ND	ND	ND[b]
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND[b]
m,p-Xylenes	ND	ND	ND	ND	ND[b]
1,2-Dichlorobenzene	ND	ND	ND	ND	ND[b]
1,3-Dichlorobenzene	ND	ND	ND	ND	ND[b]
1,4-Dichlorobenzene	ND	ND	ND	ND	ND[b]
o-Xylene	ND	ND	ND	ND	ND[b]
BNAs (mg/kg)	ND	ND	ND[b]	ND[b]	ND[b]
TFH-H (mg/kg)	32	25	470(100)	420(100)	4,700(100)
Metals (mg/kg)					
Arsenic	ND	ND	ND	ND	ND
Barium	ND	ND	11	28	44
Cadmium	ND	ND	0.7	1.5	3.0
Chromium	1.3	1.6	7.1	31(28)	52(28)
Copper	2.3	2.1	21(14)	40(14)	34(14)
Mercury	ND	ND	ND	0.13	0.02
Nickel	ND	ND	ND	ND	ND
Lead	3.0	3.0	31	140(71)	170(71)
Zinc	11	13	23	80(57)	120(57)
Total Solids (%)	84	86	79	75	68

TABLE 8-SD
(Continued)

SEDIMENT SAMPLES - FORT STORY, SITE 8[c]

Parameters	SD-111	SD-112	SD-113	SD-114	SD-115	SD-115-D
Pesticides/PCBs (mg/kg)						
p,p' DDD	ND	ND	ND	ND	ND	ND
p,p' DDE	ND	ND	ND	ND	ND	ND
p,p' DDT	ND	ND	ND	ND	ND	0.006
Arochlor 1254	ND	ND	ND	ND	ND	ND
Arochlor 1260	ND	ND	ND	ND	ND	ND
VOCs (mg/kg)						
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND
m,p-Xylenes	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND
BNAs (mg/kg)	ND[b]	ND[b]	ND[b]	ND	ND	ND
TFH-H (mg/kg)	330(100)	5,500(100)	670(100)	33	ND	ND
Metals (mg/kg)						
Arsenic	ND	ND	ND	ND	ND	ND
Barium	ND	ND	10	ND	ND	ND
Cadmium	1.7	0.7	0.7	ND	ND	ND
Chromium	7.6	3.6	5.2	2.2	ND	1.0
Copper	9.2	7.5	15(14)	1.2	ND	ND
Mercury	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND
Lead	29	17	28	2.5	2.0	2.0
Zinc	37	24	33	12	5.5	8.6
Total Solids (%)	78	76	82	85	87	83

TABLE 8-SD
(Continued)

SEDIMENT SAMPLES - FORT STORY, SITE 8[c]

Parameters	SD-117	SD-118	SD-119	SD-119A	SD-120
Pesticides/PCBs (mg/kg)					
p,p' DDD	0.008	0.012	0.014	ND	ND
p,p' DDE	ND	ND	ND	ND	ND
p,p' DDT	ND	0.015	ND	ND	ND
Arochlor 1254	ND	ND	0.08	ND	ND
Arochlor 1260	ND	ND	ND	ND	ND
VOCs (mg/kg)					
1,2-Dichloroethane	ND[b]	ND	ND	3.0	ND
Ethylbenzene	ND[b]	ND	ND	2.7	ND
Tetrachloroethene	ND[b]	ND	ND	ND[b]	ND
Toluene	ND[b]	ND	ND	5.5	ND
1,1,1-Trichloroethane	ND[b]	ND	ND	10	ND
Trichloroethene	ND[b]	ND	ND	ND[b]	ND
cis-1,2-Dichloroethene	ND[b]	ND	ND	ND[b]	ND
m,p-Xylenes	ND[b]	ND	ND	11	ND
1,2-Dichlorobenzene	ND[b]	ND	ND	15	ND
1,3-Dichlorobenzene	ND[b]	ND	ND	ND[b]	ND
1,4-Dichlorobenzene	ND[b]	ND	ND	ND[b]	ND
o-Xylene	ND[b]	ND	ND	ND[b]	ND
BNAs (mg/kg)	ND	ND[b]	ND[b]	ND[b]	ND[b]
TFH-H (mg/kg)	4,800(100)	13,000(100)	360(100)	23,000(100)	160(100)
Metals (mg/kg)					
Arsenic	ND	ND	ND	ND	ND
Barium	ND	11	46	31	ND
Cadmium	1.2	1.2	1.7	2.2	ND
Chromium	7.0	12	19	96(28)	2.2
Copper	4.5	74(14)	24(14)	88(14)	2.8
Mercury	ND	ND	0.03	0.03	ND
Nickel	ND	ND	4.1	ND	ND
Lead	35	67	94(71)	320(71)	7.3
Zinc	52	65(57)	82(57)	320(57)	11
Total Solids (%)	72	81	69	78	78

TABLE 8-SD
(Continued)

SEDIMENT SAMPLES - FORT STORY, SITE 8[c]

Parameters	SD-121	SD-122	SD-123	SD-124	SD-124-D	SD-125
Pesticides/PCBs (mg/kg)						
p,p' DDD	ND	ND	ND	0.005	ND	0.009
p,p' DDE	ND	ND	ND	ND	ND	ND
p,p' DDT	ND	ND	0.004	ND	ND	ND
Arochlor 1254	ND	0.72	ND	ND	ND	ND
Arochlor 1260	ND	0.31	ND	ND	ND	ND
VOCs (mg/kg)						
1,2-Dichloroethane	ND	ND[b]	ND	ND[b]	ND[b]	ND
Ethylbenzene	ND	ND[b]	ND	ND[b]	ND[b]	0.1
Tetrachloroethene	ND	ND[b]	ND	ND[b]	ND[b]	ND
Toluene	ND	ND[b]	ND	ND[b]	ND[b]	0.09
1,1,1-Trichloroethane	ND	ND[b]	ND	ND[b]	ND[b]	ND
Trichloroethene	ND	ND[b]	ND	ND[b]	ND[b]	ND
cis-1,2-Dichloroethene	ND	ND[b]	ND	ND[b]	ND[b]	ND
m,p-Xylenes	ND	ND[b]	ND	ND[b]	ND[b]	0.4
1,2-Dichlorobenzene	ND	ND[b]	ND	ND[b]	ND[b]	ND
1,3-Dichlorobenzene	ND	ND[b]	ND	ND[b]	ND[b]	ND
1,4-Dichlorobenzene	ND	ND[b]	ND	ND[b]	ND[b]	ND
o-Xylene	ND	ND[b]	ND	ND[b]	ND[b]	0.2
BNAs (mg/kg)	ND[b]	ND[b]	ND[b]	ND[b]	ND[b]	ND[b]
TFH-H (mg/kg)	270(100)	630(100)	170(100)	2,500(100)	2,100(100)	2,900(100)
Metals (mg/kg)						
Arsenic	ND	ND	ND	3.0	2.8	ND
Barium	ND	10	ND	ND	ND	12
Cadmium	0.7	1.3	ND	ND	1.1	2.4
Chromium	5.0	6.5	1.5	2.9	7.5	9.3
Copper	6.9	12	1.5	5.8	20(14)	28(14)
Mercury	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND
Lead	18	32	7.0	13	29	54
Zinc	24	54	9.1	32	66(57)	83(57)
Total Solids (%)	82	87	88	84	81	82

TABLE 8-SD
(Continued)

SEDIMENT SAMPLES - FORT STORY, SITE 8[c]

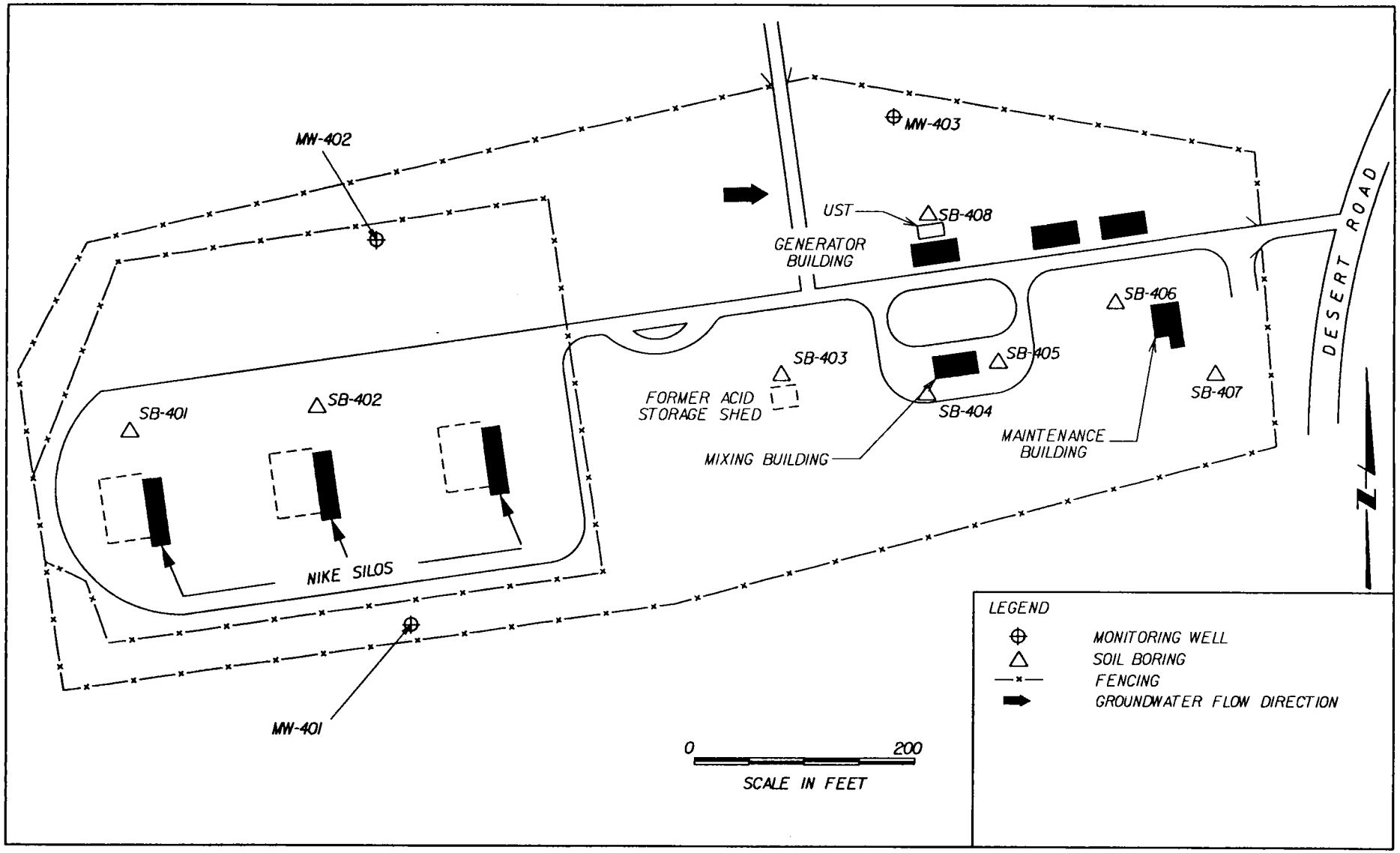
Parameters	SD-131	SD-132	SD-133	SD-134	SD-135
Pesticides/PCBs (mg/kg)					
p,p' DDD	ND	ND	0.007	0.055	0.009
p,p' DDE	ND	ND	ND	ND	ND
p,p' DDT	ND	ND	ND	ND	ND
Arochlor 1254	ND	ND	ND	ND	ND
Arochlor 1260	ND	ND	ND	ND	ND
VOCs (mg/kg)					
1,2-Dichloroethane	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	0.4
1,1,1-Trichloroethane	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND
m,p-Xylenes	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	1.5
1,3-Dichlorobenzene	ND	ND	ND	ND	0.1
1,4-Dichlorobenzene	ND	ND	ND	ND	0.2
o-Xylene	ND	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND	ND[b]	ND[b]	ND[b]
TFH-H (mg/kg)	ND	ND	**410**(100)	**3,300**(100)	ND
Metals (mg/kg)					
Arsenic	ND	ND	ND	ND	ND
Barium	ND	ND	12	26	12
Cadmium	ND	ND	ND	1.3	1.2
Chromium	ND	1.1	6.2	**34**(28)	24
Copper	ND	ND	3.0	**26**(14)	**57**(14)
Mercury	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	4.5	8.8
Lead	ND	2.5	25	**220**(71)	70
Zinc	2.1	3.6	35	**69**(57)	**72**(57)
Total Solids (%)	86	88	84	67	83

(a) ND - not detected.
(b) Sample dilution increased reported detection limits.
(c) Note that only SD-131 and SD-132 relate to in situ sediment samples. All other samples were collected inside the storm sewer system.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

Site 9, NIKE Missile Facility

Fort Story, Virginia



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Site 9, Fort Story NIKE Facility
Fort Story, VA

TABLE 9-SS

SOIL SAMPLES - FORT STORY, SITE 9

Parameters	MW-401			
	0	0-D	20	40
Pesticides/PCBs (mg/kg)				
p,p' DDE	ND[a]	ND	ND[b]	ND[b]
p,p' DDT	ND	ND	ND[b]	ND[b]
VOCs (mg/kg)	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND	ND	ND
TFH-H (mg/kg)	ND	ND	ND	ND
Metals (mg/kg)				
Arsenic	ND	ND	ND	ND
Barium	ND	ND	ND	ND
Chromium	2.4	2.3	1.1	1.0
Copper	1.4	ND	ND	ND
Mercury	ND	ND	ND	ND
Lead	3.3	3.7	ND	1.0
Zinc	11	9.4	6.1	ND
Total Solids (%)	94	92	97	83

TABLE 9-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 9

Parameters	MW-402			MW-403	
	0	15	25	0	35
Pesticides/PCBs (mg/kg)					
p,p' DDE	0.011	ND	ND	ND	ND
p,p' DDT	0.011	ND	ND	ND	ND
VOCs (mg/kg)	ND	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND	ND	ND	ND
TFH-H (mg/kg)	ND	ND	ND	ND	ND
Metals (mg/kg)					
Arsenic	ND	ND	ND	3.0	ND
Barium	14	ND	ND	23	ND
Chromium	5.3	1.4	1.2	5.3	1.8
Copper	1.7	ND	ND	2.4	ND
Mercury	ND	ND	ND	ND	ND
Lead	7.8	ND	ND	6.5	1.0
Zinc	73(57)	6.5	2.1	12	2.3
Total Solids (%)	92	97	88	92	91

TABLE 9-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 9

Parameters	SB-401 COMP	SB-402 COMP	SB-403 COMP	SB-404 COMP	SB-405 COMP
Pesticides/PCBs (mg/kg)					
p,p' DDE	ND	ND	ND	ND[b]	ND
p,p' DDT	0.011	ND	ND	ND[b]	ND
VOCs (mg/kg)	ND	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND	ND	ND	ND
TFH-H (mg/kg)	ND	ND	ND	ND	ND
Metals (mg/kg)					
Arsenic	ND	ND	3.8	ND	ND
Barium	ND	12	15	ND	ND
Chromium	3.2	5.2	3.8	3.3	1.7
Copper	ND	2.0	2.3	1.4	ND
Mercury	ND	ND	0.02	ND	ND
Lead	1.5	5.0	4.5	1.0	1.0
Zinc	4.1	9.5	8.8	8.0	2.1
Total Solids (%)	99	99	96	97	97

TABLE 9-SS
(Continued)

SOIL SAMPLES - FORT STORY, SITE 9

Parameters	SB-406 COMP	SB-407 COMP	SB-408 COMP	SB-408-D COMP
Pesticides/PCBs (mg/kg)				
p,p' DDE	ND	ND	ND	ND
p,p' DDT	ND	ND	ND	ND
VOCs (mg/kg)	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND	ND	ND
TFH-H (mg/kg)	ND	ND	ND	ND
Metals (mg/kg)				
Arsenic	ND	ND	ND	ND
Barium	ND	ND	ND	ND
Chromium	3.3	2.2	2.4	2.4
Copper	ND	ND	1.1	ND
Mercury	ND	ND	ND	ND
Lead	1.8	1.5	3.8	3.0
Zinc	4.3	3.7	5.9	5.2
Total Solids (%)	97	96	92	93

(a) ND - not detected.
(b) Analytical results considered estimated, but below the compound detection limit.

A bold, underlined, **0**, number meets or exceeds the trigger level for the parameter in question.
A bracketed number, (0), is the trigger level for the parameter in question.

TABLE 9-GW

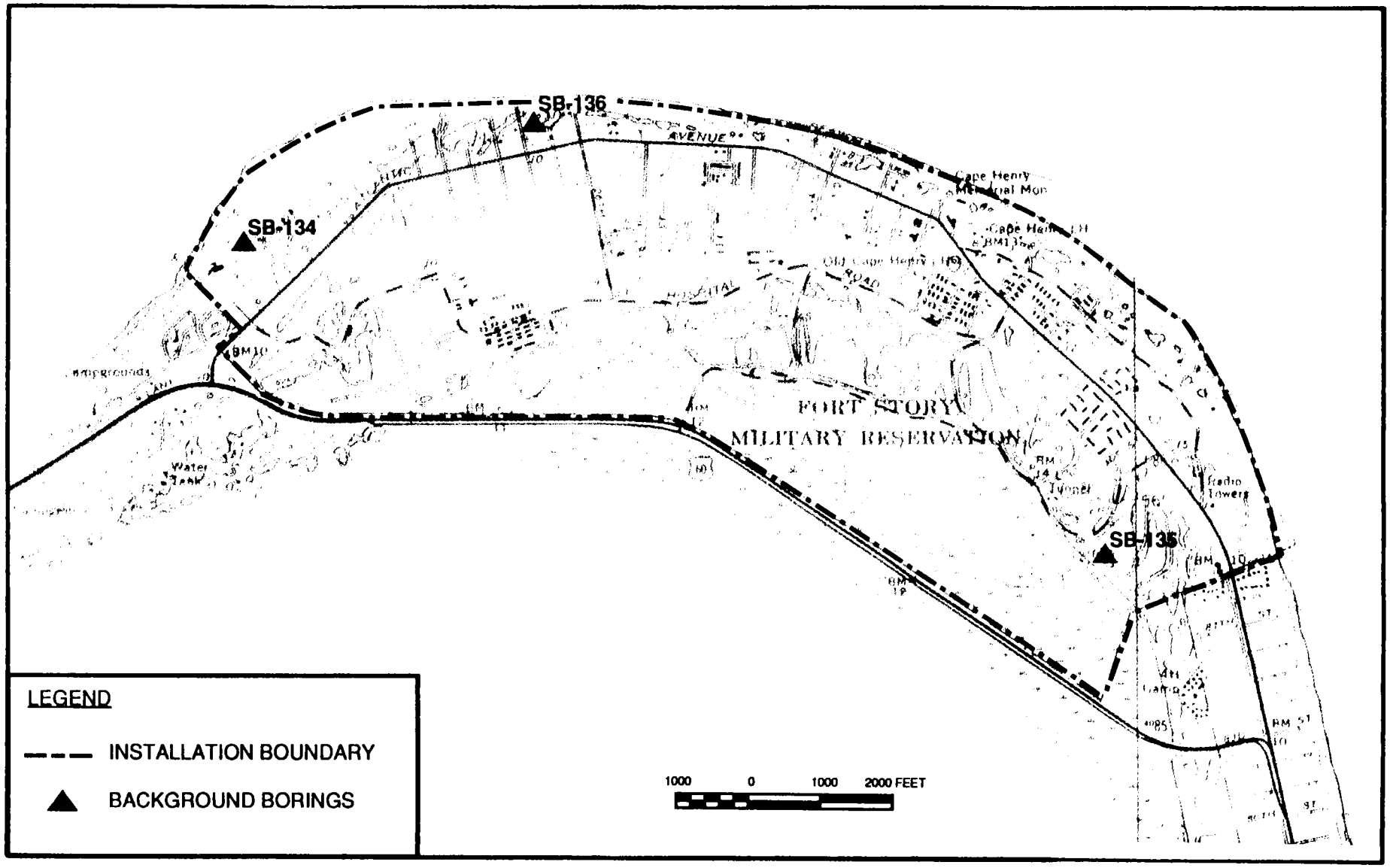
GROUNDWATER SAMPLES - FORT STORY, SITE 9

Parameters	GW-401	GW-401-D	GW-402	GW-403
Pesticides/PCBs (µg/l)	ND[a]	ND	ND	ND
VOCs (µg/l)				
Chloroform	12[b]	ND[c]	ND[c]	ND[c]
Carbon Disulfide	16	130	71	ND
BNAs (µg/l)	ND	ND	ND	ND
TFH-H (mg/l)	ND	ND	0.20	ND
Total Metals (mg/l)				
Lead	ND	0.010	0.010	0.010
Zinc	0.029[b]	0.10[b]	0.14[b]	0.056[b]
Dissolved Metals (mg/l)				
Zinc	0.019	0.026	0.16	0.11
Inorganics (mg/l)	ND	ND	ND	ND
Field Parameters [d]				
Temperature (°C)	27.0	27.0	22.0	23.6
pH	6.0	6.0	6.1	5.3
Conductivity (µmho)	70	70	100	140
Turbidity (NTU)	103.7	103.7	91.6	11.9

(a) ND - not detected.
(b) Analytical results considered suspect due to detection of compound in associated blank sample.
(c) Sample dilution increased reported detection limits.
(d) Field parameters measured after purging, and prior to sampling.

Background Borings

Fort Story, Virginia



JMM

Background Boring Locations
Ft. Story, VA

TABLE BB

SOIL SAMPLES - FORT STORY, BACKGROUND BORINGS

Parameters	SB-134		SB-135			SB-136	
	0	13	0	0-D	40	0	20
Pesticides/PCBs (mg/kg)							
p,p' DDT	ND[a]	ND	0.005	0.005	ND	ND	ND
VOCs (mg/kg)	ND	ND	ND	ND	ND	ND	ND
BNAs (mg/kg)	ND	ND	ND	ND	ND	ND	ND
Metals (mg/kg)							
Arsenic	ND	ND	ND	2.5	ND	ND	ND
Chromium	1.3	2.9	2.4	2.9	2.3	1.2	2.1
Copper	1.5	ND	ND	ND	ND	1.2	1.8
Lead	2.5	2.0	2.3	6.5	11	ND	1.0
Zinc	ND	ND	3.0	2.7	8.9	ND	3.7
EP Tox Metals (mg/l)	ND	ND	ND	ND	ND	ND	ND
Total Solids (%)	96	83	94	94	99	81	94

(a) ND - not detected.

Method Reporting Levels (MRLs)

Fort Story, Virginia

METHOD REPORTING LEVEL FOR VOCS

METHOD 8240

Analyte	Water Matrix µg/L	Soil Matrix mg/kg
Acetone	10	0.25
Acrolein	1	0.025
Acrylonitrile	1	0.025
Benzene	0.5	0.01
Bromoform	0.5	0.01
2-Butanone (MEK)	1	0.025
Carbon Disulfide	0.5	0.01
Carbon Tetrachloride	0.5	0.01
Chlorobenzene	0.5	0.01
Chloroethane	1	0.025
2-Chloroethylvinylether	1	0.025
Chloroform	0.5	0.01
Dibromochloromethane	0.5	0.01
1,2-Dichlorobenzene	0.5	0.01
1,3-Dichlorobenzene	0.5	0.01
1,4-Dichloroethene	0.5	0.01
Dichlorobromomethane	0.5	0.01
1,1-Dichloroethane	0.5	0.01
1,2-Dichloroethane	0.5	0.01
1,1-Dichloroethene	0.5	0.01
cis-1,2-Dichloroethene	0.5	0.01
trans-1,2-Dichloroethene	0.5	0.01
1,2-Dichloropropane	0.5	0.01
cis-1,3-Dichloropropene	0.5	0.01
trans-1,3-Dichloropropene	0.5	0.01
Ethylbenzene	0.5	0.01
2-Hexanone	1	0.025
Methyl Bromide	1	0.025
Methyl Chloride	1	0.025
4-Methyl-2-Pentanone (MIBK)	1	0.025
Methylene Chloride	5	0.1
Styrene	0.5	0.01
1,1,2,2-Tetrachloroethane	0.5	0.01
Tetrachloroethene	0.5	0.01
Tetrahydrofuran	10	0.25
Toluene	0.5	0.01
1,1,1-Trichloroethane	0.5	0.01
1,1,2-Trichloroethane	0.5	0.01
Trichloroethene	0.5	0.01
Trichlorofluoromethane	1	0.025
Vinyl Acetate	5	0.1
Vinyl Chloride	1	0.025
m,p-Xylenes	0.5	0.01
o-Xylene	0.5	0.01

METHOD REPORTING LEVEL FOR BNA EXTRACTABLE ORGANICS

METHOD 8270

Analyte	Water Matrix µg/L	Soil Matrix mg/kg
Acenaphthene	5	1
Acenaphthylene	5	1
Aniline	5	1
Anthracene	5	1
Benzidine	50	10
Benzo(a)anthracene	5	1
Benzo(a)pyrene	5	1
Benzo(b)fluoranthene	5	1
Benzo(g,h,i)perylene	10	2
Benzo(k)fluoranthene	5	1
Benzoic Acid	50	10
Benzyl Alcohol	5	1
bis(2-Chloroethoxy)methane	10	2
bis(2-Chloroisopropyl)ether	10	2
bix(2-Choroethyl)ether	10	2
bis(2-Ethylhexyl)phthalate	20	4
4-Bromophenylphenylether	5	1
Butylbenzylphthalate	5	1
4-Chloroaniline	5	1
2-Chloronaphthalene	5	1
2-Chlorophenol	5	1
4-Chlorophenylphenylether	5	1
Chrysene	5	1
Di-n-butylphthalate	10	2
Di-n-octylphthalate	10	2
Dibenzo(a,h)anthracene	10	2
Dibenzofuran	5	1
1,2-Dichlorobenzene	5	1
1,3-Dichlorobenzene	5	1
1,4-Dichlorobenzene	5	1
3,3-Dichlorbenzidine	50	10
2,4-Dichlorophenol	5	1
Diethylphthalate	5	1
2,4-Dimethylphenol	5	1
Dimethylphthalate	5	1
4,6-Dinitro-o-cresol	50	10
2,4-Dinitrophenol	50	10
2,4-Dinitrotoluene	5	1
2,6-Dinitrotoluene	5	1
Diphenylhydrazine	10	2
Fluoranthene	5	1
Fluorene	5	1
Hexachlorobenzene	5	1
Hexachlorobutadiene	10	2
Hexachlorocyclopentadiene	10	2
Hexachloroethane	5	1
Indeno (1,2,3-c,d) pyrene	10	2
Isophorone	5	1
2-Methylnaphthalene	5	1
2-Methylphenol	5	1

METHOD REPORTING LEVEL FOR BNA EXTRACTABLE ORGANICS

METHOD 8270
(Continued)

Analyte	Water Matrix µg/L	Soil Matrix mg/kg
4-Methylphenol	5	1
N-Nitrosodi-N-propylamine	5	1
N-Nitrosodimethylamine	5	1
N-Nitrosodiphenylamine	5	1
Naphthalene	5	1
2-Nitroaniline	10	2
3-Nitroaniline	20	4
4-Nitroaniline	20	4
Nitrobenzene	5	1
2-Nitrophenol	5	1
4-Nitrophenol	10	2
p-Chloro-m-cresol	5	1
Pentachlorophenol	10	2
Phenanthrene	5	1
Phenol	5	1
Pyrene	5	1
1,2,4-Trichlorobenzene	5	1
2,4,5-Trichlorophenol	5	1
2,4,6-Trichlorophenol	5	1

METHOD REPORTING LEVEL
ORGANOCHLORINE PESTICIDES/PCBS

METHOD 8080

Analyte	Water Matrix µg/L	Soil Matrix mg/kg
Aldrin	0.02	0.02
Arochlor 1016[a]	0.1	0.02
Arochlor 1221[b]	0.2	0.04
Arochlor 1232[a]	0.1	0.02
Arochlor 1242[a]	0.1	0.02
Arochlor 1248[a]	0.1	0.02
Arochlor 1254[a]	0.1	0.02
Arochlor 1260[a]	0.1	0.02
BHC, alpha-	0.02	0.02
BHC, gamma- (Lindane)	0.02	0.02
BHC, beta-	0.02	0.02
BHC, delta-	0.02	0.02
Chlordane	0.2	0.04
DDD• p,p'-	0.02	0.02
DDE• p,p'-	0.02	0.02
DDT• p,p'-	0.02	0.02
Dieldrin	0.02	0.02
Encosulfan I (alpha)	0.02	0.02
Endosulfan II (beta)	0.02	0.02
Endosulfan sulfate	0.02	0.02
Endrin	0.01	0.01
Endrin Aldehyde	0.02	0.02
Endrin ketone	0.02	0.02
Heptachlor	0.01	0.01
Heptachlor Epoxide	0.01	0.01
Methoxychlor	0.5	0.5
Toxaphene	0.5	0.5
Kepone	0.5	0.5

(a) Detection limit in oil is 2 mg/kg.
(b) Detection limit for Arochlor 1221 in oil is 4 mg/kg.

METHOD REPORTING LEVELS

METALS

Method Technique	Analyte	Water Matrix µg/L	Soil Matrix mg/kg
ICP			
6010	Silver	10	1.0
6010	Barium	100	10
6010	Beryllium	5	0.5
6010	Cadmium	5	0.5
6010	Chromium	10	1.0
6010	Copper	10	1.0
6010	Nickel	40	4.0
6010	Antimony	50	5.0
6010	Zinc	20	2.0
Cold Vapor AA			
7470/7471	Mercury	0.2	0.02
Furnace AA			
7060	Arsenic	5	0.5
7421	Lead	2	0.2
7740	Selenium	5	0.5
7841	Thallium	10	1

METHOD REPORTING LEVELS

MISCELLANEOUS METHODS

Analyte	Water Matrix mg/L	Soil Matrix mg/kg
Cyanide	0.005	0.1
Anions		
Chloride	1	NA[a]
Fluoride	0.1	NA
Nitrate	0.25	NA
Nitrite	0.15	NA
Sulfate	2	NA
TOC	0.5	NA
TOX in waste	NA	20
Modified 8015		
TFH-Light	0.050	0.20
Benzene	0.020	0.080
Toluene	0.020	0.080
Ethylbenzene	0.020	0.080
Xylenes	0.020	0.080
TFH-Heavy	0.1	10

(a) NA- not applicable.