N00236.000800
ALAMEDA POINT
SSIC NO. 5090.3

November 1990 86-018-1810

PHASE 2A ANALYTICAL RESULTS FOR SITE 16, CANS C-2 REMEDIAL INVESTIGATION/FEASIBILITY STUDY NAVAL AIR STATION ALAMEDA ALAMEDA, CALIFORNIA

ENCLOSURE 10

Prepared for Western Division Naval Facilities Engineering Command

Copyright 1990, Canonie Environmental Services Corp.

CanonieEnvironmental

Canonie Environmental

Canonie Environmental Services Corp.
1825 South Grant Street
Suite 260
San Mateo, California 94402

Phone: 415-573-8012
FAX: 415-573-5654

November 28, 1990

86-018-1810

Ms. Bella Dizon (Code 1813BD)
Western Division Naval Facilities
Engineering Command
PO Box 727
San Bruno, CA 94066-0727

Phase 2A Analytical Results for Site 16, Cans C-2 Area
Remedial Investigation/Feasibility Study
Naval Air Station Alameda
Alameda, California

Dear Ms. Dizon:

Enclosed are three sets of the Phase 2A analytical results for Site 16, Cans C-2 Area, that were obtained as part of the Remedial Investigation/ Feasibility Study at Naval Air Station Alameda. Pertinent information provided with this report include site plans showing the boring and surface sampling locations, summary tables of the analytical results, a table showing the comparison of action levels for various chemical groups, and certified analytical reports.

The summary tables are prepared as part of the Data Management Plan to provide an efficient method of screening large amounts of analytical data that highlight site-specific areas of potential concern. Certified analytical reports include the raw laboratory data and detection limits for each chemical group analyzed.

If you have any questions regarding these results, please call me at (415) 573-8012.

Very truly yours,

Timothy G. Bodkin, R.G.
Senior Project Scientist

TGB/rr

Enclosures

cc: J. Babcock, Canonie Environmental Services Corp.
R. Cate, NAS Alameda Facilities Management Office
R. Duffield, Canonie Environmental Services Corp.

N00236.000800
ALAMEDA POINT
SSIC NO. 5090.3

REVISED
PHASE 1 AND 2A ANALYTICAL RESULTS FOR SITE 16, CANS C-2 AREA REMEDIAL INVESTIGATION/FEASIBILITY STUDY

DATED 01 JUNE 1992

IS ENTERED IN THE DATABASE AND FILED AT ADMINISTRATIVE RECORD NO. **N00236.000834** AND **N00236.000835**

LIST OF TABLES

TABLE NUMBER	TITLE
1A	Summary Table of Analytical Results: Soil Site 16, Cans C-2 Area
1B	Summary Table of Analytical Results: Soil Site 16, Cans C-2 Area, Other Analytical Tests
2	Summary Table of Analytical Results: Water Site 16, Cans C-2 Area
3	Comparison of Action Levels for Various Chemical Groups

LIST OF FIGURES

FIGURE NUMBER	DRAWING NUMBER	TITLE
1	86-018-E87	Phase 2A Monitoring Well and Soil Boring Locations
2	86-018-E98	Cans C-2 Area Site Plan

LIST OF APPENDICES

APPENDIX	TITLE
A	Certified Analytical Results

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	MWC2-1 2.0 - 2.5	MWC2-1 5.0 - 5.5	MWC2-1 8.0 - 8.5	MWC2-1 10.5 - 11.0	MWC2-1 11.5 - 12.0	MWC2-2 2.5 - 3.0	MWC2-2 5.5 - 6.0	MWC2-2 8.5 - 9.0
Volatile Organics								
1,2-Dichlorobenzene								
1,2-Dichloroethene (total)								
Acetone				23.	48.	39.	20.	31.
Carbon Disulfide					17.			
Methylene Chloride	8.	17.	15.	9.	16.	11.	23.	22.
Toluene	6.				60.			

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	MWC2-2 11.5 - 12.0	MWC2-2 14.0 - 14.5	MWC2-3 4.0 - 4.5	MWC2-3 6.5 - 7.0	MWC2-3 8.0 - 8.5	MWC2-3 9.5 - 10.0	MWC2-3 11.0 - 11.5	BC2-4 2.0 - 2.5
Volatile Organics								
1,2-Dichlorobenzene								
1,2-Dichloroethene (total)								
Acetone	60.	17.	28.			93.	16.	12.
Carbon Disulfide								
Methylene Chloride	11.	11.	13.	7.	9.	12.	8.	8.
Toluene						47.	10.	8.

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	BC2-4 5.5 - 6.0	BC2-4 8.5 - 9.0	BC2-4 11.5 - 12.0	BC2-4 14.0 - 14.5	BC2-5 2.5 - 3.0	BC2-5 5.5 - 6.0	BC2-5 8.5 - 9.0	BC2-5 11.5 - 12.0
Volatile Organics								
1,2-Dichlorobenzene	11.							
1,2-Dichloroethene (total)								
Acetone	38.	36.	18.	27.	50.	23.	25.	80.
Carbon Disulfide								
Methylene Chloride	11.	9.			7.	6.	8.	6.
Toluene		9.	20.	8.	21.	6.		

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	BC2-5 14.5 - 15.0	BC2-6 3.5 - 4.0	BC2-6 7.0 - 7.5	BC2-6 11.0 - 11.5	BC2-6 13.0 - 13.5	BC2-7 2.5 - 3.0	BC2-7 7.0 - 7.5	BC2-7 11.0 - 11.5
Volatile Organics								
1,2-Dichlorobenzene								
1,2-Dichloroethene (total)								
Acetone	14.	14.	21.		13.	32.	45.	17.
Carbon Disulfide								
Methylene Chloride	7.	12.	12.	10.		8.	10.	15.
Toluene		200.	41.	20.	17.			8.

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)								
Chemical Group/Analyte	BC2-7 13.5 - 14.0	BC2-8 3.5 - 4.0	BC2-8 7.0 - 7.5	BC2-8 11.0 - 11.5	BC2-8 14.0 - 14.5	BC2-9 3.5 - 4.0	BC2-9 7.0 - 7.5	BC2-9 11.0 - 11.5	BC2-9 13.0 - 13.5
Volatile Organics									
1,2-Dichlorobenzene									
1,2-Dichloroethene (total)				17.					
Acetone	110.			17.	16.			21.	17.
Carbon Disulfide									7.
Methylene Chloride	9.			7.	6.	7.	9.	10.	10.
Toluene		10.	11.	65.	36.	7.	18.	32.	32.

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	BC2-4 14.0 - 14.5	SSC2-1 0.0 - 0.5	SSC2-2 0.0 - 0.5	SSC2-9 0.0 - 0.5	SSC2-11 0.0 - 0.5	SSC2-15 0.0 - 0.5	SSC2-18 0.0 - 0.5	SSC2-21 0.0 - 0.5
Semivolatile Organics								
2,4-Dimethylphenol								
Benzo(a)anthracene	690.							
Benzo(a)pyrene	970.							
Benzo(b)fluoranthene	820.							
Benzo(g,h,i)perylene	650.							
bis(2-Ethylhexyl)phthalate		1900.	12000.	3300.	4400.	2700.	2400.	3200.
Chrysene	7300.							
Di-n-butylphthalate		3000.						
Fluoranthene	1300.							
Indeno(1,2,3-cd)pyrene	560.							
Phenanthrene	570.							
Pyrene	2200.							

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)								
Chemical Group/Analyte	SSC2-23 0.0 - 0.5	SSC2-24 0.0 - 0.5	SSC2-27 0.0 - 0.5	SSC2-28 0.0 - 0.5	SSC2-33 0.0 - 0.5	SSC2-35 0.0 - 0.5	SSC2-36 0.0 - 0.5	SSC2-38 0.0 - 0.5	SSC2-40 0.0 - 0.5
Semivolatile Organics									
2,4-Dimethylphenol	1100.								
Benzo(a)anthracene									
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(g,h,i)perylene									
bis(2-Ethylhexyl)phthalate	8100.	1800.	5900.	90000.	1600.	1700.	2500.	3500.	3700.
Chrysene									
Di-n-butylphthalate	1300.								
Fluoranthene									
Indeno(1,2,3-cd)pyrene									
Phenanthrene									
Pyrene									

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	MWC2-1 0.5 - 1.0	MWC2-2 9.0 - 9.5	BC2-6R 1.0 - 1.5	BC2-6 9.5 - 10.0	BC2-8R 1.0 - 1.5	SSC2-12 0.0 - 0.5	SSC2-13 0.0 - 0.5	SSC2-21 0.0 - 0.5
Pesticides								
4,4'-DDD	6.	10.	4.	5.	11.			
4,4'-DDE			2.	3.	8.			
4,4'-DDT	14.		31.	69.	140.			
PCB-1248								
PCB-1254								
PCB-1260						2300.	1600.	1500.
alpha-BHC		3.	4.		2.			
beta-BHC					3.			
gamma-BHC			4.					

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)								
	SSC2-22	SSC2-23	SSC2-24	SSC2-25	SSC2-28	SSC2-31	SSC2-32	SSC2-38	SSC2-39
Chemical Group/Analyte	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5	0.0 - 0.5
Pesticides									
4,4'-DDD									
4,4'-DDE								49.	20.
4,4'-DDT				65.				180.	
PCB-1248			4600.						
PCB-1254		23000.			19000.				
PCB-1260	3500.					7300.	4000.		
alpha-BHC									
beta-BHC									
gamma-BHC									

Notes:

1. Analytical results are presented in micrograms/kilogram (ug/kg).

2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	MWC2-1 0.5 - 1.0	MWC2-1R 1.0 - 1.5	MWC2-1 2.5 - 3.0	MWC2-1 5.5 - 6.0	MWC2-1 8.5 - 9.0	MWC2-1 11.0 - 11.5	MWC2-1 12.5 - 13.0	MWC2-2 1.0 - 1.5
Metals								
Aluminum	4100.0	4090.0	3160.0	3440.0	4870.0	14900.0	7080.0	5310.0
Antimony								
Arsenic								
Barium	37.0	44.0	25.0		36.0	58.0	38.0	26.0
Beryllium								
Cadmium	2.5							
Calcium	2100.0	2300.0	1500.0	1400.0	1900.0	3900.0	2500.0	3200.0
Chromium	29.0	26.0	22.0	18.0	26.0	61.0	38.0	31.0
Cobalt						12.0		
Copper	22.0	16.0	10.0	6.5	8.8	36.0	13.0	18.0
Iron	7210.0	8200.0	6250.0	5920.0	8580.0	26900.0	12400.0	8360.0
Lead	9.0		35.0			14.0	6.8	8.8
Magnesium	1900.0	2100.0	1500.0	2100.0	2700.0	7600.0	3500.0	2300.0
Manganese	150.0	100.0	76.0	81.0	91.0	290.0	140.0	100.0
Molybdenum								
Nickel	25.0	21.0	20.0	21.0	28.0	67.0	35.0	26.0
Potassium					850.0	2700.0	1200.0	580.0
Selenium								
Silver								
Sodium						2700.0	1000.0	
Titanium	350.0	350.0	260.0	260.0	390.0	510.0	370.0	400.0
Vanadium	18.0	20.0	15.0	13.0	17.0	49.0	24.0	19.0
Zinc	65.0	21.0	17.0	17.0	22.0	71.0	31.0	27.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	MWC2-2 3.0 - 3.5	MWC2-2 6.0 - 6.5	MWC2-2 9.0 - 9.5	MWC2-2 12.0 - 12.5	MWC2-2 14.5 - 15.0	MWC2-3 1.0 - 1.5	MWC2-3 5.0 - 5.5	MWC2-3 7.0 - 7.5
Metals								
Aluminum	4780.0	4730.0	5190.0	5060.0	4790.0	5560.0	4500.0	4110.0
Antimony								
Arsenic								
Barium			38.0	26.0		55.0	25.0	25.0
Beryllium								
Cadmium								
Calcium	2400.0	1900.0	2200.0	1800.0	1400.0	3600.0	2200.0	1600.0
Chromium	28.0	24.0	27.0	28.0	23.0	14.0	25.0	23.0
Cobalt								
Copper		6.2	21.0	18.0	9.7	15.0		
Iron	7490.0	7060.0	8550.0	8830.0	8090.0	9250.0	7550.0	7460.0
Lead						7.4		
Magnesium	2300.0	2100.0	2800.0	2600.0	2200.0	2600.0	2400.0	2500.0
Manganese	100.0	93.0	100.0	100.0	90.0	160.0	93.0	95.0
Molybdenum								
Nickel	24.0	22.0	27.0	26.0	21.0	15.0	24.0	25.0
Potassium			920.0	800.0	870.0	1600.0	630.0	770.0
Selenium								
Silver								
Sodium					900.0			
Titanium	400.0	400.0	400.0	350.0	280.0	430.0	360.0	330.0
Vanadium	20.0	17.0	18.0	19.0	17.0	16.0	17.0	15.0
Zinc	17.0	17.0	27.0	24.0	22.0	32.0	17.0	19.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	MWC2-3 8.5 - 9.0	MWC2-3 10.0 - 10.5	MWC2-3 12.5 - 13.0	BC2-4 0.5 - 1.0	BC2-4 9.5 - 10.0	BC2-4 13.0 - 13.5	BC2-4 13.0 - 13.5	BC2-5 0.5 - 1.0
Metals								
Aluminum	3890.0	4160.0	5400.0	3910.0	5060.0	11000.0	3740.0	4480.0
Antimony								
Arsenic								
Barium		34.0	35.0		29.0	46.0	26.0	23.0
Beryllium								
Cadmium								
Calcium	1600.0	1500.0	2900.0	2200.0	2000.0	4200.0	2000.0	1700.0
Chromium	21.0	22.0	26.0	26.0	25.0	44.0	24.0	25.0
Cobalt						8.9		
Copper		17.0	14.0	5.3		68.0	8.9	6.9
Iron	7040.0	7590.0	9820.0	7360.0	8200.0	18700.0	6000.0	7740.0
Lead						23.0		
Magnesium	2300.0	2500.0	2900.0	2000.0	2600.0	5300.0	1800.0	2500.0
Manganese	91.0	88.0	110.0	76.0	92.0	240.0	86.0	84.0
Molybdenum								
Nickel	24.0	26.0	30.0	20.0	26.0	50.0	20.0	26.0
Potassium	700.0	830.0	1100.0	620.0	880.0	1800.0		740.0
Selenium								
Silver								
Sodium			710.0			1900.0		
Titanium	300.0	300.0	300.0	410.0	420.0	470.0	430.0	320.0
Vanadium	15.0	16.0	19.0	16.0	19.0	34.0	16.0	15.0
Zinc	17.0	23.0	25.0	15.0	19.0	75.0	17.0	18.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	BC2-5R 1.0 - 1.5	BC2-5 7.0 - 7.5	BC2-5 13.5 - 14.0	BC2-6 0.5 - 1.0	BC2-6R 1.0 - 1.5	BC2-6 5.0 - 5.5	BC2-6 9.5 - 10.0	BC2-6 14.0 - 14.5
Metals								
Aluminum	6630.0	4260.0	4250.0	3800.0	4820.0	3970.0	4280.0	7850.0
Antimony								
Arsenic								
Barium	45.0			23.0				36.0
Beryllium								
Cadmium								
Calcium	2400.0	1800.0	1300.0	1900.0	2000.0	1700.0	2500.0	6100.0
Chromium	31.0	22.0	22.0	21.0	24.0	25.0	25.0	34.0
Cobalt	7.0							
Copper	14.0	7.6	7.6	27.0	17.0	6.0	8.4	16.0
Iron	11000.0	7040.0	6850.0	6140.0	8240.0	7380.0	6890.0	12500.0
Lead	6.4					6.5		
Magnesium	3500.0	2300.0	1900.0	1700.0	2500.0	2000.0	2100.0	3400.0
Manganese	170.0	92.0	86.0	78.0	90.0	75.0	84.0	140.0
Molybdenum								
Nickel	39.0	23.0	18.0	19.0	26.0	24.0	20.0	35.0
Potassium	1100.0	690.0	900.0		630.0			1200.0
Selenium								
Silver								
Sodium								790.0
Titanium	320.0	350.0	270.0	360.0	360.0	300.0	360.0	430.0
Vanadium	22.0	15.0	15.0	15.0	17.0	17.0	17.0	25.0
Zinc	30.0	17.0	17.0	23.0	23.0	20.0	17.0	32.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	BC2-7 0.5 - 1.0	BC2-7 5.0 - 5.5	BC2-7 9.5 - 10.0	BC2-7 14.0 - 14.5	BC2-8 0.5 - 1.0	BC2-8R 1.0 - 1.5	BC2-8 5.0 - 5.5	BC2-8 9.5 - 10.0
Metals								
Aluminum	4880.0	4200.0	5380.0	4620.0	3120.0	3320.0	3150.0	5010.0
Antimony								
Arsenic								
Barium	27.0		35.0		27.0			26.0
Beryllium								
Cadmium								
Calcium	2100.0	2000.0	3200.0	5000.0	1300.0	1700.0	950.0	3800.0
Chromium	26.0	24.0	28.0	21.0	21.0	22.0	17.0	26.0
Cobalt								
Copper			14.0	10.0	10.0	9.2	7.5	9.4
Iron	7870.0	7430.0	9380.0	7760.0	5470.0	5610.0	5120.0	8220.0
Lead								
Magnesium	2400.0	2200.0	3000.0	2200.0	1700.0	1700.0	1700.0	2600.0
Manganese	100.0	96.0	120.0	92.0	68.0	71.0	71.0	110.0
Molybdenum								
Nickel	26.0	24.0	30.0	21.0	17.0	17.0	18.0	26.0
Potassium	640.0		840.0	910.0				800.0
Selenium								
Silver								
Sodium				660.0				
Titanium	390.0	390.0	390.0	280.0	270.0	320.0	230.0	350.0
Vanadium	16.0	18.0	20.0	15.0	12.0	14.0	12.0	18.0
Zinc	17.0	17.0	26.0	20.0	17.0	16.0	15.0	22.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	BC2-8 14.5 - 15.0	BC2-9 0.5 - 1.0	BC2-9 5.5 - 6.0	BC2-9 9.5 - 10.0	BC2-9 14.0 - 14.5	SSC2-1 0.0 - 0.5	SSC2-2 0.0 - 0.5	SSC2-3 0.0 - 0.5
Metals								
Aluminum	4880.0	3400.0	3380.0	4320.0	6100.0	4840.0	6040.0	6150.0
Antimony								
Arsenic								
Barium		39.0	30.0	27.0	38.0	66.0	77.0	100.0
Beryllium								
Cadmium						12.0	22.0	13.0
Calcium	2200.0	1900.0	1400.0	1800.0	2800.0	3400.0	3500.0	3200.0
Chromium	23.0	22.0	20.0	26.0	29.0	87.0	160.0	97.0
Cobalt						5.1	6.6	6.0
Copper	11.0	20.0	11.0	9.8	18.0	45.0	92.0	59.0
Iron	8690.0	5860.0	6020.0	8170.0	10300.0	12900.0	25700.0	21700.0
Lead						170.0	180.0	230.0
Magnesium	2400.0	1600.0	2000.0	2400.0	2700.0	3300.0	4500.0	3900.0
Manganese	96.0	76.0	86.0	96.0	85.0	190.0	230.0	220.0
Molybdenum								
Nickel	24.0	16.0	21.0	25.0	30.0	77.0	130.0	82.0
Potassium	920.0			780.0	1100.0	650.0	690.0	700.0
Selenium								
Silver							5.2	
Sodium	670.0				730.0			
Titanium	280.0	300.0	270.0	330.0	320.0	300.0	440.0	430.0
Vanadium	17.0	13.0	16.0	17.0	20.0	17.0	21.0	21.0
Zinc	23.0	20.0	21.0	22.0	30.0	320.0	470.0	370.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	SSC2-4 0.0 - 0.5	SSC2-5 0.0 - 0.5	SSC2-6 0.0 - 0.5	SSC2-7 0.0 - 0.5	SSC2-8 0.0 - 0.5	SSC2-9 0.0 - 0.5	SSC2-10 0.0 - 0.5	SSC2-11 0.0 - 0.5
Metals								
Aluminum	4680.0	4460.0	6230.0	5060.0	6550.0	4820.0	5360.0	4260.0
Antimony								
Arsenic			45.0					
Barium	110.0	84.0	71.0	98.0	110.0	74.0	300.0	52.0
Beryllium								
Cadmium	5.6	4.6	4.4	7.9	4.2	6.2	4.3	9.7
Calcium	4500.0	5100.0	5600.0	3400.0	9500.0	5700.0	6600.0	2000.0
Chromium	76.0	48.0	50.0	47.0	55.0	43.0	52.0	58.0
Cobalt	5.0		5.2	6.2	5.4			
Copper	38.0	35.0	110.0	1390.0	62.0	41.0	42.0	26.0
Iron	12000.0	9890.0	12400.0	13100.0	14100.0	12000.0	14400.0	13900.0
Lead	130.0	92.0	110.0	120.0	100.0	83.0	120.0	180.0
Magnesium	3800.0	2900.0	3500.0	2800.0	3700.0	2800.0	2900.0	2300.0
Manganese	150.0	140.0	160.0	200.0	180.0	140.0	160.0	150.0
Molybdenum						5.4		
Nickel	76.0	44.0	59.0	798.0	53.0	48.0	49.0	56.0
Potassium	640.0	560.0	750.0	740.0	690.0	640.0	700.0	690.0
Selenium								
Silver								
Sodium								
Titanium	310.0	320.0	420.0	350.0	400.0	350.0	500.0	290.0
Vanadium	16.0	15.0	20.0	17.0	20.0	16.0	19.0	16.0
Zinc	817.0	666.0	568.0	430.0	1020.0	554.0	460.0	618.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

CanonieEnvironmental

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	SSC2-12 0.0 - 0.5	SSC2-13 0.0 - 0.5	SSC2-14 0.0 - 0.5	SSC2-15 0.0 - 0.5	SSC2-16 0.0 - 0.5	SSC2-17 0.0 - 0.5	SSC2-18 0.0 - 0.5	SSC2-19 0.0 - 0.5
Metals								
Aluminum	7210.0	4710.0	4330.0	4900.0	6340.0	5420.0	4110.0	4150.0
Antimony								
Arsenic								
Barium	61.0	75.0	66.0	59.0	74.0	99.0	43.0	140.0
Beryllium								
Cadmium	18.0	15.0	16.0	34.0	10.0	11.0	6.5	13.0
Calcium	4900.0	1800.0	2300.0	2200.0	3100.0	3000.0	2200.0	2600.0
Chromium	130.0	150.0	554.0	110.0	47.0	60.0	38.0	75.0
Cobalt	7.9	6.1	9.0	10.0	6.6	6.6		5.4
Copper	120.0	75.0	78.0	170.0	53.0	43.0	22.0	57.0
Iron	25400.0	35900.0	117000.0	93000.0	21100.0	21600.0	11200.0	18800.0
Lead	320.0	420.0	320.0	380.0	180.0	140.0	70.0	200.0
Magnesium	3100.0	2600.0	2100.0	2300.0	2900.0	2600.0	2000.0	2400.0
Manganese	270.0	230.0	470.0	450.0	330.0	250.0	110.0	180.0
Molybdenum			12.0	21.0				5.4
Nickel	130.0	59.0	80.0	150.0	45.0	53.0	32.0	130.0
Potassium	780.0	560.0	630.0	770.0	720.0	620.0	570.0	530.0
Selenium	19.0	26.0	74.0	64.0	14.0	16.0		14.0
Silver								
Sodium								
Titanium	380.0	200.0	310.0	330.0	390.0	340.0	340.0	280.0
Vanadium	30.0	16.0	17.0	20.0	25.0	18.0	17.0	14.0
Zinc	260.0	290.0	260.0	320.0	230.0	360.0	95.0	230.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	SSC2-20 0.0 - 0.5	SSC2-21 0.0 - 0.5	SSC2-22 0.0 - 0.5	SSC2-23 0.0 - 0.5	SSC2-24 0.0 - 0.5	SSC2-25 0.0 - 0.5	SSC2-26 0.0 - 0.5	SSC2-27 0.0 - 0.5
Metals								
Aluminum	4890.0	6690.0	6440.0	6840.0	5000.0	8270.0	9400.0	6080.0
Antimony								
Arsenic								
Barium	77.0	61.0	59.0	78.0	66.0	62.0	64.0	64.0
Beryllium								
Cadmium	14.0	8.0	14.0	19.0	19.0	18.0	12.0	9.8
Calcium	2700.0	3400.0	3100.0	3500.0	2500.0	2300.0	4700.0	3700.0
Chromium	96.0	78.0	110.0	190.0	99.0	120.0	45.0	42.0
Cobalt	6.0	6.4	9.4	8.5	5.7	9.6	6.2	6.9
Copper	70.0	46.0	120.0	83.0	64.0	519.0	60.0	63.0
Iron	18200.0	22000.0	37400.0	48400.0	36200.0	60200.0	21000.0	24500.0
Lead	210.0	220.0	230.0	360.0	340.0	330.0	160.0	130.0
Magnesium	2700.0	3200.0	2700.0	3100.0	2100.0	2200.0	3000.0	2900.0
Manganese	200.0	180.0	260.0	290.0	190.0	310.0	310.0	330.0
Molybdenum	6.0		7.1	7.3	5.5	9.0	9.4	
Nickel	78.0	110.0	83.0	98.0	59.0	90.0	83.0	130.0
Potassium	670.0	760.0	880.0	840.0	620.0	690.0	780.0	590.0
Selenium	14.0	15.0	28.0	35.0	26.0	43.0	16.0	18.0
Silver				8.3				
Sodium							550.0	
Titanium	380.0	420.0	330.0	460.0	300.0	330.0	450.0	290.0
Vanadium	17.0	24.0	24.0	25.0	22.0	24.0	27.0	24.0
Zinc	300.0	440.0	290.0	240.0	210.0	310.0	290.0	210.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	SSC2-28 0.0 - 0.5	SSC2-29 0.0 - 0.5	SSC2-30 0.0 - 0.5	SSC2-31 0.0 - 0.5	SSC2-32 0.0 - 0.5	SSC2-33 0.0 - 0.5	SSC2-34 0.0 - 0.5	SSC2-35 0.0 - 0.5
Metals								
Aluminum	4660.0	4290.0	5450.0	7460.0	6110.0	6200.0	7580.0	6470.0
Antimony	31.0							
Arsenic							17.0	
Barium	80.0	53.0	82.0	130.0	74.0	81.0	66.0	73.0
Beryllium								
Cadmium	15.0	12.0	18.0	15.0	9.6	8.0	7.8	12.0
Calcium	3700.0	2100.0	3000.0	3600.0	2900.0	2700.0	3600.0	3500.0
Chromium	63.0	63.0	77.0	110.0	71.0	63.0	40.0	43.0
Cobalt	6.1	5.0	6.5	8.3	8.1		6.4	5.7
Copper	65.0	190.0	46.0	83.0	56.0	43.0	190.0	44.0
Iron	23200.0	22200.0	16400.0	25000.0	73600.0	16800.0	25400.0	21000.0
Lead	310.0	300.0	420.0	230.0	280.0	240.0	220.0	160.0
Magnesium	2400.0	2100.0	2500.0	3900.0	2700.0	2800.0	3400.0	2900.0
Manganese	290.0	160.0	140.0	450.0	420.0	220.0	410.0	260.0
Molybdenum	6.1			6.0	5.9			
Nickel	80.0	45.0	64.0	78.0	67.0	55.0	33.0	51.0
Potassium	540.0		720.0	730.0	820.0	610.0	740.0	670.0
Selenium	18.0	14.0	12.0	17.0	29.0		12.0	
Silver								
Sodium								
Titanium	300.0	330.0	500.0	400.0	360.0	320.0	250.0	410.0
Vanadium	16.0	17.0	25.0	24.0	22.0	17.0	29.0	22.0
Zinc	320.0	180.0	240.0	230.0	150.0	160.0	250.0	160.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	SSC2-36 0.0 - 0.5	SSC2-37 0.0 - 0.5	SSC2-38 0.0 - 0.5	SSC2-39 0.0 - 0.5	SSC2-40 0.0 - 0.5	SSC2-41 0.0 - 0.5	SSC2-42 0.0 - 0.5	SSC2-43 0.0 - 0.5
Metals								
Aluminum	5170.0	4940.0	5150.0	6620.0	7080.0	12700.0	13500.0	8820.0
Antimony						5.6	6.8	2.9
Arsenic						6.1	6.7	5.7
Barium	74.0	45.0	52.0	68.0	63.0	149.0	163.0	96.1
Beryllium						0.6	0.6	0.3
Cadmium	8.6	12.0	8.1	21.0	16.0	0.7	0.7	1.0
Calcium	3000.0	2700.0	3200.0	3600.0	6500.0	14600.0	13900.0	5940.0
Chromium	39.0	69.0	64.0	85.0	62.0	24.9	25.4	30.6
Cobalt	5.4	5.0	6.6	8.8	8.2	11.7	11.7	7.7
Copper	42.0	30.0	66.0	68.0	66.0	32.7	43.9	24.0
Iron	19900.0	15100.0	27100.0	29300.0	29600.0	23600.0	23800.0	16500.0
Lead	180.0	380.0	220.0	500.0	310.0	13.4	16.4	22.6
Magnesium	2800.0	2300.0	3100.0	3800.0	3900.0	7420.0	7600.0	5180.0
Manganese	260.0	120.0	200.0	220.0	230.0	417.0	480.0	357.0
Molybdenum			7.2	6.7	6.5		1.1	
Nickel	53.0	50.0	56.0	96.0	79.0	38.2	37.2	39.6
Potassium	580.0	630.0	530.0	650.0	650.0	2320.0	2400.0	1300.0
Selenium			12.0	12.0	13.0			
Silver								
Sodium						274.0	280.0	253.0
Titanium	270.0	440.0	260.0	360.0	440.0	1110.0	1372.0	708.0
Vanadium	20.0	19.0	19.0	24.0	25.0	26.2	28.8	31.9
Zinc	150.0	170.0	190.0	320.0	300.0	79.3	83.1	174.9

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)							
Chemical Group/Analyte	SSC2-44 0.0 - 0.5	SSC2-45 0.0 - 0.5	SSC2-46 0.0 - 0.5	SSC2-47 0.0 - 0.5	SSC2-48 0.0 - 0.5	SSC2-49 0.0 - 0.5	SSC2-50 0.0 - 0.5	SSC2-51 0.0 - 0.5
Metals								
Aluminum	7930.0	7990.0	4510.0	15000.0	11800.0	14000.0	17300.0	12800.0
Antimony	4.5	5.8		6.7	5.3	7.3	6.6	4.0
Arsenic	13.2	14.0		7.8	8.3	6.7	11.1	6.2
Barium	80.3	81.6	94.4	286.0	145.0	196.0	241.0	138.0
Beryllium		0.2		0.5	0.5	0.5	0.7	0.5
Cadmium	4.0	4.5	1.3	0.7	0.6	0.8	0.8	0.6
Calcium	4530.0	7080.0	3900.0	14600.0	13200.0	16000.0	19900.0	15000.0
Chromium	40.5	27.8	26.8	27.0	20.9	24.2	30.0	24.5
Cobalt	6.3	7.8	5.0	15.0	11.4	14.2	15.4	9.7
Copper	43.4	33.3	18.5	69.6	34.8	49.3	69.0	33.8
Iron	24900.0	34300.0	9430.0	28400.0	23900.0	26200.0	30300.0	22100.0
Lead	137.0	144.0	28.5	13.9	12.3	16.7	18.2	14.7
Magnesium	3980.0	4260.0	2740.0	9460.0	7360.0	8610.0	9770.0	7480.0
Manganese	424.0	473.0	145.0	515.0	396.0	473.0	544.0	409.0
Molybdenum	3.2	1.8			1.1			
Nickel	49.4	26.0	25.1	46.1	35.9	41.2	46.9	36.1
Potassium	970.0	1100.0	830.0	2010.0	2000.0	1800.0	2600.0	2100.0
Selenium								
Silver	1.0	1.3						
Sodium	414.0	454.0	181.0	388.0	235.0	478.0	427.0	307.0
Titanium	348.0	418.0	289.0	997.0	830.0	893.0	1780.0	1300.0
Vanadium	29.1	32.7	14.6	34.8	23.4	29.6	37.3	28.1
Zinc	131.0	132.0	50.9	91.6	76.6	79.1	89.9	69.9

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1A

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

	Boring Number/Sample Depth (feet)			
Chemical Group/Analyte	SSC2-52 0.0 - 0.5	SSC2-53 0.0 - 0.5	SSC2-54 0.0 - 0.5	SSC2-55 0.0 - 0.5
Metals				
Aluminum	15400.0	13300.0	14600.0	14600.0
Antimony	6.9	5.9	5.7	6.8
Arsenic	8.2	8.7	7.6	7.6
Barium	271.0	242.0	316.0	228.0
Beryllium	0.6	0.5	0.7	0.7
Cadmium	0.7	0.6	0.8	0.7
Calcium	18300.0	16400.0	18600.0	17200.0
Chromium	28.7	23.5	24.2	28.5
Cobalt	14.9	13.5	14.0	1500.0
Copper	65.0	40.2	39.0	95.9
Iron	27500.0	25300.0	27000.0	27800.0
Lead	18.1	11.3	12.1	17.4
Magnesium	9170.0	7940.0	8200.0	8790.0
Manganese	583.0	480.0	504.0	507.0
Molybdenum				
Nickel	44.8	38.9	39.3	42.3
Potassium	2240.0	2300.0	2300.0	2300.0
Selenium				
Silver				0.6
Sodium	330.0	291.0	297.0	269.0
Titanium	1460.0	1100.0	1450.0	1360.0
Vanadium	35.4	27.6	29.8	39.2
Zinc	86.9	79.0	89.8	122.0

Notes:
1. Analytical results are presented in milligrams/kilogram (mg/kg).
2. Blank spaces indicate that the analyte was not detected.

TABLE 1B

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OTHER ANALYTICAL TESTS

Boring Location/Depth	Total Cyanide (mg/kg)	Glyphosate (ug/kg)	pH	Ash (%)
MWC2-1 0.5'-1.0'				
MWC2-1 2.5'-3.0'			8.1	
MWC2-1 4.0'-4.5'				99.3
MWC2-2 3.0'-3.5'			8.3	
MWC2-2 4.0'-4.5'				99.2
MWC2-3 1.0'-1.5'				
MWC2-3 3.5'-4.0'				99.3
MWC2-3 5.0'-5.5'			9.2	
BC2-4 3.5'-4.0'			8.6	99.3
BC2-4 4.0'-4.5'			7.3	
BC2-4 13.0'-13.5'			8.5	
BC2-5 2.5'-3.0'			8.0	
BC2-5 4.0'-4.5'				99.3
BC2-6 3.5'-4.0'			7.8	
BC2-6 4.0'-4.5'				99.2
BC2-7 2.5'-3.0'			8.5	
BC2-7 4.0'-4.5'			8.2	99.4
BC2-8 3.5'-4.0'			7.1	
BC2-8 4.0'-4.5'				99.3
BC2-9 3.5'-4.0'			8.6	
BC2-9 4.0'-4.5'				
SSC2-2 0.0'-0.5'	5.4			
SSC2-8 0.0'-0.5'	2.1			
SSC2-11 0.0'-0.5'	1.1			
SSC2-12 0.0'-0.5'	1.8			
SSC2-13 0.0'-0.5'	1.0			
SSC2-14 0.0'-0.5'	1.5			
SSC2-15 0.0'-0.5'		0.8		
SSC2-20 0.0'-0.5'	1.2			
SSC2-21 0.0'-0.5'	1.2			
SSC2-22 0.0'-0.5'	1.7			
SSC2-23 0.0'-0.5'	7.8			
SSC2-24 0.0'-0.5'	1.1			
SSC2-25 0.0'-0.5'	1.8			
SSC2-26 0.0'-0.5'	1.1			
SSC2-31 0.0'-0.5'	1.4			

TABLE 1B

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OTHER ANALYTICAL TESTS

Boring Location/Depth	Total Cyanide (mg/kg)	Glyphosate (ug/kg)	pH	Ash (%)
SSC2-33 0.0'-0.5'	1.1			
SSC2-34 0.0'-0.5'	1.1			
SSC2-35 0.0'-0.5'		1.0		
SSC2-38 0.0'-0.5'	1.6			
SSC2-39 0.0'-0.5'	1.4			

Notes:
1. Analytical results are presented in units shown.

2. Sample depths are presented in feet.

TABLE 1B

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C 2
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OTHER ANALYTICAL TESTS

Boring Location/Depth	Cation Exchange Capacity (meq/HG)	Total Organic Carbon (mg/kg)	Total Phosphorus (mg/kg)	Total Kjeldahl Nitrogen (mg/kg)
MWC2-1 0.5'-1.0'	3.20			
MWC2-1 2.5'-3.0'				
MWC2-1 4.0'-4.5'	3.28	218	285	67.2
MWC2-2 3.0'-3.5'				
MWC2-2 4.0'-4.5'	2.88	273	338	61.6
MWC2-3 1.0'-1.5'	5.04			
MWC2-3 3.5'-4.0'	2.32	273	409	72.8
MWC2-3 5.0'-5.5'				
BC2-4 3.5'-4.0'	2.00	328	453	84.0
BC2-4 4.0'-4.5'		164		
BC2-4 13.0'-13.5'				
BC2-5 2.5'-3.0'				
BC2-5 4.0'-4.5'	3.36	328	497	67.2
BC2-6 3.5'-4.0'				
BC2-6 4.0'-4.5'	3.60	218	312	84.0
BC2-7 2.5'-3.0'				
BC2-7 4.0'-4.5'	3.12	273	648	67.2
BC2-8 3.5'-4.0'				
BC2-8 4.0'-4.5'	2.96	273	648	67.2
BC2-9 3.5'-4.0'				
BC2-9 4.0'-4.5'	6.96	382	382	101.0

TABLE 1B

SUMMARY TABLE OF ANALYTICAL RESULTS FOR
SITE 16, CANS C & A
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OTHER ANALYTICAL TESTS

Boring Location/Depth	Cation Exchange Capacity (meq/HG)	Total Organic Carbon (mg/kg)	Total Phosphorus (mg/kg)	Total Kjeldahl Nitrogen (mg/kg)
SSC2-33 0.0'-0.0'				
SSC2-34 0.0'-0.0'				
SSC2-35 0.0'-0.0'				
SSC2-38 0.0'-0.0'				
SSC2-39 0.0'-0.0'				

Notes:
1. Analytical results are presented in units shown.

2. Sample depths are presented in feet.

TABLE 1B

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C-2
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OTHER ANALYTICAL TESTS

Boring Location/Depth	Chloride (mg/kg)	Sulfate (mg/kg)	Nitrate as N (mg/kg)
MWC2-1 0.5'-1.0'			
MWC2-1 2.5'-3.0'			
MWC2-1 4.0'-4.5'	9.9	3.5	
MWC2-2 3.0'-3.5'			
MWC2-2 4.0'-4.5'	6.1	5.9	
MWC2-3 1.0'-1.5'			
MWC2-3 3.5'-4.0'	6.6	7.5	
MWC2-3 5.0'-5.5'			
BC2-4 3.5'-4.0'	5.2	2.4	0.39
BC2-4 4.0'-4.5'			
BC2-4 13.0'-13.5'			
BC2-5 2.5'-3.0'			
BC2-5 4.0'-4.5'	5.5	15.7	
BC2-6 3.5'-4.0'			
BC2-6 4.0'-4.5'	6.2	26.0	0.23
BC2-7 2.5'-3.0'			
BC2-7 4.0'-4.5'	5.7	6.7	0.20
BC2-8 3.5'-4.0'			
BC2-8 4.0'-4.5'	8.2	8.5	0.24
BC2-9 3.5'-4.0'			
BC2-9 4.0'-4.5'	6.7	16.4	

TABLE 1B

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 16, CANS C 2
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OTHER ANALYTICAL TESTS

Boring Location/Depth	Chloride (mg/kg)	Sulfate (mg/kg)	Nitrate as N (mg/kg)
SSC2-33 0.0'-0.0'			
SSC2-34 0.0'-0.0'			
SSC2-35 0.0'-0.0'			
SSC2-38 0.0'-0.0'			
SSC2-39 0.0'-0.0'			

Notes:
1. Analytical results are presented in units shown.

2. Sample depths are presented in feet.

TABLE 2

SUMMARY TABLE OF ANALYTICAL RESULTS: WATER
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Chemical Group/Analyte	Units	Well Number MWC2-1	MWC2-2	MWC2-3
Volatile Organics				
Methylene Chloride	ug/l	6.	7.	
Trichloroethene	ug/l		7.	
Metals				
Aluminum	mg/l	78	64	86
Barium	mg/l	0.41	0.31	0.49
Calcium	mg/l	30	61	40
Chromium	mg/l	0.27	0.2	0.34
Cobalt	mg/l	0.05		0.057
Copper	mg/l	0.14	0.095	0.12
Iron	mg/l	116	90	136
Lead	mg/l			0.05
Magnesium	mg/l	33	41	39
Manganese	mg/l	1.1	0.95	1.2
Nickel	mg/l	0.31	0.23	0.36
Potassium	mg/l	20	28	21
Selenium	mg/l			0.1
Sodium	mg/l	129	56	28
Titanium	mg/l	2.4	1.9	3
Vanadium	mg/l	0.22	0.16	0.25
Zinc	mg/l	0.31	0.23	0.28
Total Organic Carbon	mg/l	10.3	9.7	10.7
General Minerals				
Alkalinity, bicarb (as CaCO3)	mg/l	220.	240.	110.
Alkalinity, carb (as CaCO3)	mg/l	20.		
Alkalinity, total (as CaCO3)	mg/l	240.	240.	110.
Cyanide, total	mg/l		0.19	
Total Hardness	mg/l	211.	321.	260.
Chloride	mg/l	47.	28.	9.1
Sulfate	mg/l	39.	54.	20.
Total Dissolved Solids	mg/l	780.	460.	350.
Specific Conductance	umhos/c	810	700	290
pH	-	8.4	7.8	8.4

TABLE 2

SUMMARY TABLE OF ANALYTICAL RESULTS: WATER
SITE 16, CANS C-2 AREA
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Chemical Group/Analyte	Units	Well Number		
		MWC2-1	MWC2-2	MWC2-3
General Minerals				
Calcium	mg/l	30.	61.	40.
Copper	mg/l	0.14	0.095	0.12
Iron	mg/l	116.	90.	136.
Magnesium	mg/l	33.	41.	39.
Manganese	mg/l	1.1	0.95	1.2
Sodium	mg/l	129.	56.	28.
Zinc	mg/l	0.31	0.23	0.28

TABLE 3

COMPARISON OF ACTION LEVELS FOR VARIOUS CHEMICAL GROUPS
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Chemical Group/Analyte	MCL (mg/l)	STLC (mg/l)	TTLC (mg/kg)	AAI Biological Receptor	AAI Water (ug/l)	AAI Air (ug/m3)	AAI Soil (mg/kg)
Volatile Organics							
1,1,1-Trichloroethane	0.2			Human	300	300	
1,1,2,2-Tetrachloroethane	0.001						
1,1,2-Trichloroethane	0.032						
1,1-Dichloroethylene	0.006						
1,2-Dichloroethane	0.0005						
1,3-Dichloropropene	0.0005						
1,4-Dichlorobenzene	0.005						
2-Butanone				Human	2,000	300	
Benzene	0.001			Human	0.2	0.07	
Benzene				Freshwater	1		
Benzene				Saltwater	1		
Carbon Tetrachloride	0.0005						
Chloroform				Human	6	0.6	
Dibromochloropropane	0.0002						
Ethylbenzene	0.68			Human	2,000	100	
Ethylene Dibromide	0.00002						
Monochlorobenzene	0.03						
n-Hexane				Human	100	200	
Tetrachloroethylene	0.005						
Toluene				Human	2,000	200	
Toluene				Freshwater	90		
Toluene				Saltwater	20		
Trichloroethylene	0.005	204.	2,040	Human	7	7	
Vinyl Chloride	0.0005			Human	0.5	0.1	
Xylene				Freshwater	40		

TABLE 3

COMPARISON OF ACTION LEVELS FOR VARIOUS CHEMICAL GROUPS
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Chemical Group/Analyte	MCL (mg/l)	STLC (mg/l)	TTLC (mg/kg)	AAL Biological Receptor	AAL Water (ug/L)	AAL Air (ug/m3)	AAL Soil (mg/kg)
Volatile Organics							
Xylene				Saltwater	70		
Xylene (all isomers)	1.75			Human	2,000	400	30,000
Semivolatile Organics							
Acenaphthene				Human	20	2	
Acenaphthylene				Human	20	2	
Anthracene				Human	20	2	100
Atrazine	0.003						
Bentazon	0.018						
Benzo(a)pyrene				Human	0.09	0.009	
Fluoranthene				Human	20	2	
Fluorene				Human	20	2	
Naphthalene				Human	20	2	
Naphthalene				Freshwater	600		
Naphthalene				Saltwater	700		
Pentachlorophenol		1.7	17	Human	2	0.2	
Pentachlorophenol				Freshwater	5		
Pentachlorophenol				Saltwater	10		
Phenanthrene				Human	20	2	100
Pyrene				Human	20	2	
Pesticides/PCBs							
2,4,5-TP Silvex	0.01	1.	10				
2,4-D	0.1	10.	100	Human	40	4	
Aldicarb				Human	20	2	

TABLE 3

COMPARISON OF ACTION LEVELS FOR VARIOUS CHEMICAL GROUPS
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Chemical Group/Analyte	MCL (mg/l)	STLC (mg/l)	TTLC (mg/kg)	AAL Biological Receptor	AAL Water (ug/L)	AAL Air (ug/m3)	AAL Soil (mg/kg)
Pesticides/PCBs							
Aldrin		0.14	1.4				
Chlordan		0.25	2.5				
DDD,DDE,DDT		0.1	1.0				
Diazinon				Human	30	3	
Dicofol				Human	1	0.1	
Dieldrin		0.8	8				
Dioxin (2,3,7,8-TCCD)		0.001	0.01				
Endrin	0.0002	0.02	0.2				
Heptachlor		0.47	4.7	Human	0.1	0.01	
Heptachlor Epoxide				Human	0.02	0.002	
Kepone		2.1	21				
Lead Compounds, Organic			13				
Lindane	0.004	0.4	4	Human	0.2	0.02	
Malathion				Human	800	80	
Methoxychlor	0.1	10.	100				
Mirex		2.1	21				
Molinate	0.02						
Paraquat				Human	200	4	
Parathion, Ethyl				Human	40	0.2	
Polychlorinated Biphenyls (PCBs)		5.	50				
Simazine	0.01						
Thiobencarb	0.07						
Toxaphene	0.005	0.5	5				

TABLE 3

COMPARISON OF ACTION LEVELS FOR VARIOUS CHEMICAL GROUPS
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Chemical Group/Analyte	MCL (mg/l)	STLC (mg/l)	TTLC (mg/kg)	AAI Biological Receptor	AAI Water (ug/L)	AAI Air (ug/m3)	AAI Soil (mg/kg)
Inorganics							
Aluminum	1.0						
Antimony		15.	500				
Arsenic	0.05	5.0	500	Freshwater	70		
Arsenic				Saltwater	20		
Asbestos			1.0				
Barium	1.0	100.	10,000	Human	350	5	
Beryllium		0.75	75				
Cadmium	0.01	1.0	100	Freshwater	0.2		
Cadmium				Saltwater	5		
Chromium	0.05			Freshwater	50		
Chromium				Saltwater	2		
Chromium III		560.	2,500	Human	50,000	50	
Chromium VI		5.	500				
Cobalt		80.	8,000				
Copper		25.	2,500	Human	4,000	200	
Copper				Freshwater	4		
Copper				Saltwater	6		
Cyanide				Human	1,000	50	
Fluoride (temperature dependent)	1.4 to 2.4						
Fluoride Salts		180.	18,000				
Lead	0.05	5.0	1,000	Freshwater	10		
Lead				Saltwater	4		
Mercury (inorganic)	0.002	0.2	20	Human	70	0.07	
Molybdenum		350.	3,500				
Nickel		20.	2,000	Human	400	0.1	

TABLE 3

COMPARISON OF ACTION LEVELS FOR VARIOUS CHEMICAL GROUPS
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Chemical Group/Analyte	MCL (mg/l)	STLC (mg/l)	TTLC (mg/kg)	AAL Biological Receptor	AAL Water (ug/L)	AAL Air (ug/m3)	AAL Soil (mg/kg)
Inorganics							
Nickel				Freshwater	1		
Nickel				Saltwater	8		
Nitrate	45.0			Saltwater	10		
Selenium	0.01	1.0	100				
Silver	0.05	5.	500	Human	200	2	
Silver				Freshwater	1		
Silver				Saltwater	6		
Thallium		7.0	700				
Vanadium		24.	2,400				
Zinc		250.	5,000	Human	8,000	800	
Zinc				Freshwater	30		
Zinc				Saltwater	10		
Consumer Acceptance Limits							
Color	15 units						
Copper	1.0						
Corrosivity	Relatively Low						
Odor - Threshold	3 units						
Foaming Agents (MBAs)	0.5						
Iron	0.3						
Manganese	0.05						
Thiobencarb	0.001						
Turbidity	5 units						
Zinc	5.0						

TABLE 3

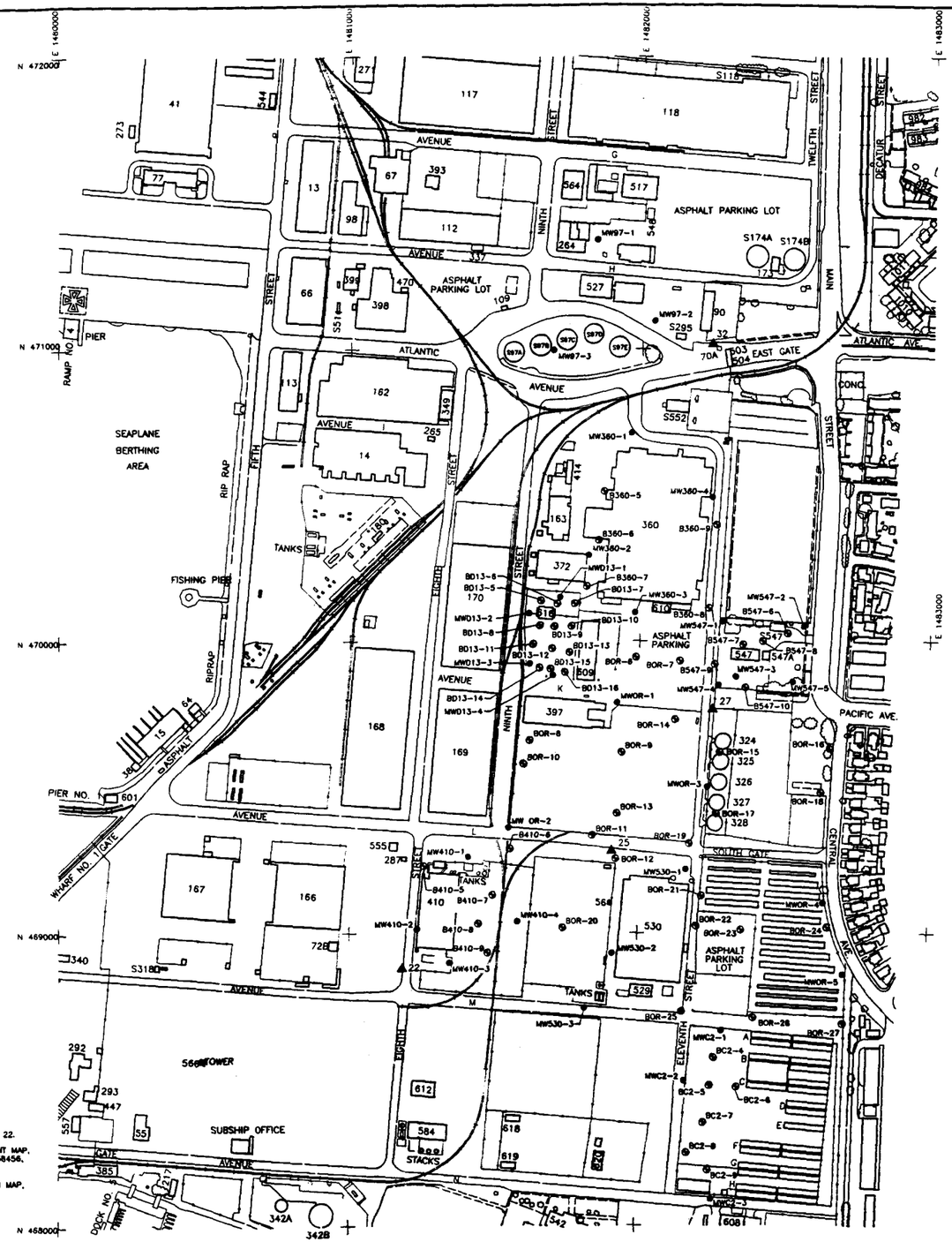
COMPARISON OF ACTION LEVELS FOR VARIOUS CHEMICAL GROUPS
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

Chemical Group/Analyte	MCL (mg/l)	STLC (mg/l)	TTLC (mg/kg)	AAL Biological Receptor	AAL Water (ug/l)	AAL Air (ug/m3)	AAL Soil (mg/kg)
Mineralization							
Total Dissolved Solids	500						
or							
Specific Conductance	900 umhos						
Chloride	250						
Sulfate	250						

Notes:

1. MCLs are Maximum Contaminant Levels.
2. AALs are Applied Action Levels.
3. STLCs are Soluble Threshold Limit Concentrations.
4. TTLCs are Total Threshold Limit Concentrations.
5. MCLs, STLCs, and TTLCs were referenced in Barclay's California Code of Regulations, Title 22, Social Security, Division 4 , Environmental Health, updated June 22, 1990.
6. AALs were referenced from the California Department of Health Services AAL List 90-1, dated June 29, 1990, which supersedes all previous AAL lists.
7. MCLs for the constituents listed under Consumer Acceptance Limits and Mineralization apply to Secondary Drinking Water Standards.
8. State of California recommended MCLs are listed for Mineralization under the Secondary Drinking Water Standards.
9. Freshwater and saltwater biological receptors for the listed AALs apply to aquatic life.

DRAWING NUMBER 86-018-E87



LEGEND:

- B360-5 SOIL BORING LOCATION
- MW97-2 MONITORING WELL LOCATION
- 22 SURVEY MONUMENT

REFERENCES:

1. NAVAL AIR STATION ALAMEDA GENERAL DEVELOPMENT MAP, SHEETS 18 & 22.
2. NAVAL AIR STATION ALAMEDA, ALAMEDA, CALIFORNIA GENERAL DEVELOPMENT MAP, STATION MAP WITH SURVEY MONUMENTS ADDED, NAVFAC DRAWING NO. 638456, REVISION 8, DATED SEPTEMBER 15, 1986.
3. NAVAL AIR STATION, ALAMEDA, CALIFORNIA, STATION BENCHMARK LOCATION MAP, PWC DRAWING NO. 25144, DATED JANUARY 1985

SCALE
200 0 200 400 FEET

PHASE 2A
MONITORING WELL AND
SOIL BORING LOCATIONS
NAVAL AIR STATION
ALAMEDA, CALIFORNIA

PREPARED FOR

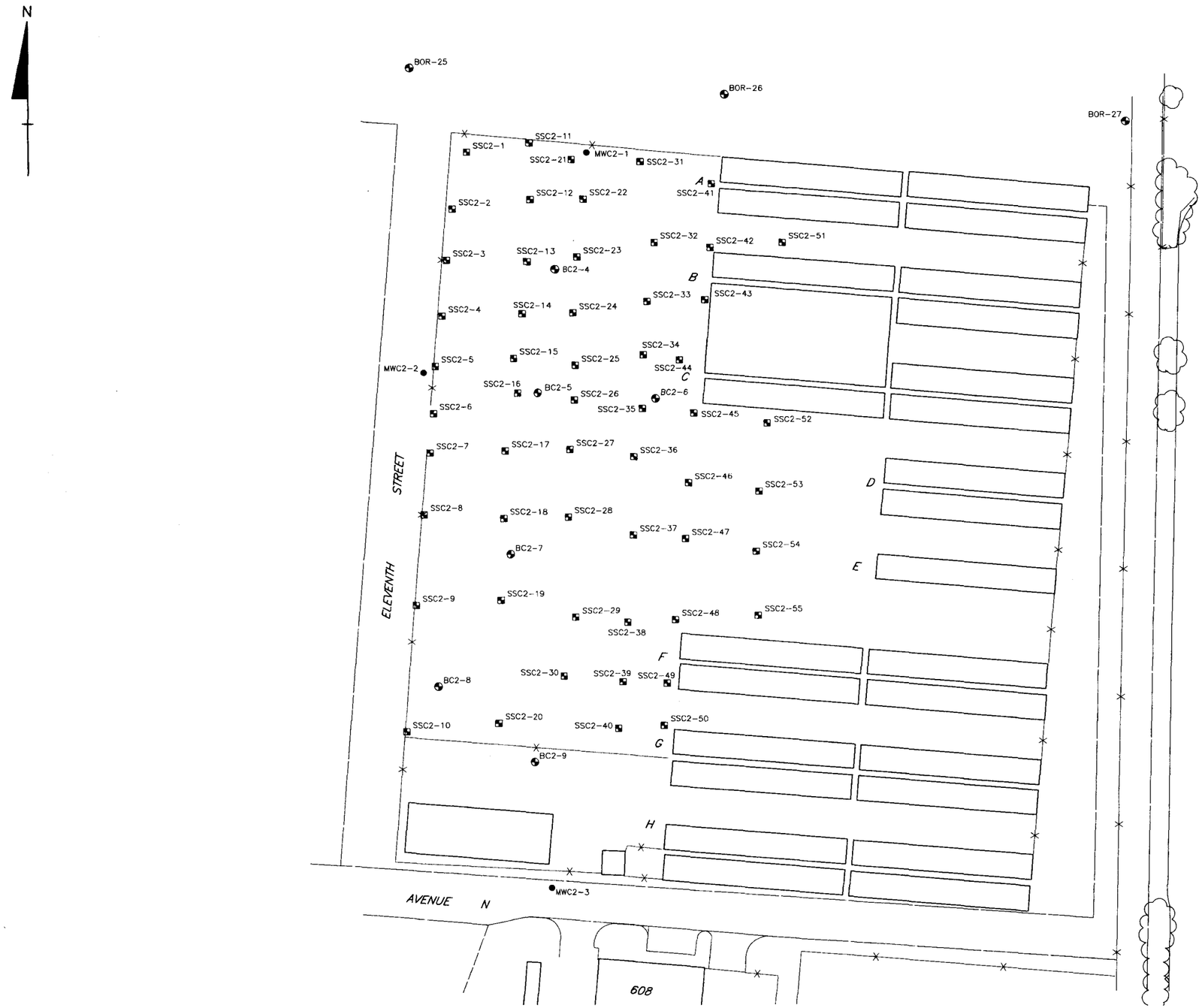
WESTERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN BRUNO, CALIFORNIA

Canonie Environmental

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
2	11-9-90	ISSUED FOR PHASE 2A SURVEY DATA REPORT	VZC	TGB	RJG
1	10-17-90	ISSUED FOR ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT PERMIT NO. 90385	VZC	TGB	RJG

DATE:	10-9-90	FIGURE 1	DRAWING NUMBER 86-018-E87
SCALE:	AS SHOWN		2

DRAWING NUMBER 86-018-E98



LEGEND:

- BOR-26 SOIL BORING LOCATION
- MWC2-1 MONITORING WELL LOCATION
- SSC2-51 SURFACE SOIL SAMPLE LOCATION

SCALE
40 0 40 80 FEET

CANS C-2 AREA
SITE PLAN
NAVAL AIR STATION
ALAMEDA, CALIFORNIA
PREPARED FOR

WESTERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
SAN BRUNO, CALIFORNIA

CanonieEnvironmental

REFERENCES:

1. NAVAL AIR STATION ALAMEDA GENERAL DEVELOPMENT MAP, SHEET 18 & 22.
2. NAVAL AIR STATION ALAMEDA, ALAMEDA, CALIFORNIA GENERAL DEVELOPMENT MAP, STATION MAP WITH SURVEY MONUMENTS ADDED, NAVFAC DRAWING NO. 638456, REVISION 8, DATED SEPTEMBER 15, 1986.

No.	DATE	ISSUE / REVISION	DWN. BY	CK'D BY	AP'D BY
1	11-9-90	ISSUED FOR PHASE 2A SURVEY DATA REPORT	KCH	-5	[illegible]

DATE: 10-23-90	FIGURE 2	DRAWING NUMBER	1
SCALE: AS SHOWN		86-018-E98	

APPENDIX A

CERTIFIED ANALYTICAL RESULTS

N00236.000800
ALAMEDA POINT
SSIC NO. 5090.3

APPENDIX A – CERTIFIED ANALYTICAL RESULTS

THIS RECORD CONTAINS ANALYTICAL DATA AND IS NOT REQUIRED TO BE PHYSICALLY LOCATED WITH THE ADMINISTRATIVE RECORD DOCUMENT.

THIS DATA WILL NOT BE IMAGED.

TO VIEW THE DATA, CONTACT:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676