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# PHASE 2A ANALYTICAL RESULTS FOR SITE 4, BUILDING 360 REMEDIAL INVESTIGATION/FEASIBILITY STUDY NAVAL AIR STATION ALAMEDA ALAMEDA, CALIFORNIA

**ENCLOSURE 4**

Prepared for Western Division Naval Facilities Engineering Command

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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

86-018-1810

November 16, 1990

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 4, Building 360
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 4, Building 360, that were obtained as part of the Remedial Investigation/ Feasibility Study at Naval Air Station Alameda. Pertinent information provided with this report include a site plan showing the boring 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 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/gd

Enclosures

cc: J. Babcock, Canonie Environmental Services Corp.
R. Duffield, Canonie Environmental Services Corp.

# LIST OF TABLES


| TABLE NUMBER | TITLE |
|---|---|
| 1 | Summary Table of Analytical Results: Soil Site 4, Building 360 |
| 2 | Summary Table of Analytical Results: Water Site 4, Building 360 |
| 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 |

# LIST OF APPENDICES


| APPENDIX | TITLE |
|---|---|
| A | Certified Analytical Results |

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | MW360-1 2.5 - 3.0 | MW360-1 5.0 - 5.5 | MW360-1 8.5 - 9.0 | MW360-1 11.5 - 12.0 | MW360-1 14.5 - 15.0 | MW360-2 2.5 - 3.0 | MW360-2 7.0 - 7.5 | MW360-2 8.5 - 9.0 |
| Volatile Organics | | | | | | | | |
| Vinyl Chloride | | | | | | | | |
| Methylene Chloride | 9. | 12. | 10. | 7. | 7. | 7. | 7. | 7. |
| Acetone | 15. | 32. | 18. | 65. | 27. | | 16. | 19. |
| 1,4-Dichlorobenzene | | | | 8. | 7. | | | |
| 1,2-Dichlorobenzene | | | | 45. | 37. | | | |
| 1,1-Dichloroethene | | | | | | | 12. | 46. |
| 1,1-Dichloroethane | | | | | | | 14. | 31. |
| 1,2-Dichloroethene (total) | | | | 15. | 10. | | | |
| 1,1,1-Trichloroethane | | | | | | | 43. | 170. |
| Trichloroethene | | | 9. | 340. | 510. | | | 23. |
| 2-Butanone (MEK) | | | | | | | | |
| Toluene | | | | 8. | 23. | 83. | | 12. |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | MW360-2 | MW360-2 | MW360-3 | MW360-3 | MW360-3 | MW360-3 | MW360-4 | MW360-4 |
| Chemical Group/Analyte | 11.5 - 12.0 | 14.5 - 15.0 | 2.5 - 3.0 | 5.0 - 5.5 | 8.5 - 9.0 | 11.5 - 12.0 | 2.5 - 3.0 | 5.0 - 5.5 |
| Volatile Organics | | | | | | | | |
| Vinyl Chloride | | | | | | | | |
| Methylene Chloride | 7. | 8. | | | | | | |
| Acetone | 12. | | | 21. | | 19. | | 34. |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 1,1-Dichloroethene | 10. | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | |
| 1,1,1-Trichloroethane | 15. | | | | | | | |
| Trichloroethene | | | | | | | | |
| 2-Butanone (MEK) | | | | | | | | |
| Toluene | 8. | | 100. | 30. | 7. | | 11. | 78. |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | MW360-4 8.5 - 9.0 | MW360-4 11.5 - 12.0 | MW360-4 14.0 - 14.5 | B360-5 2.5 - 3.0 | B360-5 5.5 - 6.0 | B360-5 9.5 - 10.0 | B360-5 11.0 - 11.5 | B360-5 14.5 - 15.0 |
| Volatile Organics | | | | | | | | |
| Vinyl Chloride | 84. | | | | | | | |
| Methylene Chloride | | | | 7. | 7. | 7. | 7. | 7. |
| Acetone | | | | | | | | 12. |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | 90. | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | |
| 1,2-Dichloroethene (total) | 480. | 16. | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | |
| Trichloroethene | 1200. | 43. | 11. | | | | | |
| 2-Butanone (MEK) | | | | | | | | |
| Toluene | | 7. | | 160. | | 7. | | 6. |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | B360-6 2.0 - 2.5 | B360-6 5.0 - 5.5 | B360-6 8.5 - 9.0 | B360-6 11.5 - 12.0 | B360-6 13.0 - 13.5 | B360-7 2.5 - 3.0 | B360-7 5.0 - 5.5 | B360-7 8.5 - 9.0 |
| Volatile Organics | | | | | | | | |
| Vinyl Chloride | | | | | | | | |
| Methylene Chloride | 32. | 35. | 71. | 35. | 32. | 38. | 28. | 27. |
| Acetone | | | | | | | 23. | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | |
| 1,1,1-Trichloroethane | 8. | | | | 6. | | | |
| Trichloroethene | | | | | | | | |
| 2-Butanone (MEK) | 19. | | | | | | | |
| Toluene | | | | | | 77. | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | B360-7 11.0 - 11.5 | B360-7 14.5 - 15.0 | B360-8 2.5 - 3.0 | B360-8 5.0 - 5.5 | B360-8 8.5 - 9.0 | B360-8 11.5 - 12.0 | B360-8 14.5 - 15.0 | B360-9 2.0 - 2.5 |
| Volatile Organics | | | | | | | | |
| Vinyl Chloride | | | | | | | | |
| Methylene Chloride | 36. | 28. | | 6. | | 6. | 6. | 6. |
| Acetone | | | 92. | 15. | | | | |
| 1,4-Dichlorobenzene | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | |
| Trichloroethene | | | | | | | | |
| 2-Butanone (MEK) | | | 28. | | | | | |
| Toluene | | 21. | 95. | 6. | 31. | 14. | | 240. |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | |
|---|---|---|---|
| | B360-9 | B360-9 | B360-9 |
| Chemical Group/Analyte | 9.0 - 9.5 | 11.5 - 12.0 | 15.0 - 15.5 |
| Volatile Organics | | | |
| Vinyl Chloride | | | |
| Methylene Chloride | 7. | 7. | 7. |
| Acetone | | | |
| 1,4-Dichlorobenzene | | | |
| 1,2-Dichlorobenzene | | | |
| 1,1-Dichloroethene | | | |
| 1,1-Dichloroethane | | | |
| 1,2-Dichloroethene (total) | | | |
| 1,1,1-Trichloroethane | | | |
| Trichloroethene | | | |
| 2-Butanone (MEK) | | | |
| Toluene | 8. | 7. | 7. |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | |
|---|---|---|---|---|
| Chemical Group/Analyte | MW360-4 4.5 - 5.0 | B360-8 9.0 - 9.5 | B360-9 0.5 - 1.0 | B360-9 15.5 - 16.0 |
| Semivolatile Organics | | | | |
| bis(2-Ethylhexyl)phthalate | | 2400. | 1800. | 630. |
| Fluoranthene | 1400. | | | |
| Pyrene | 1700. | | | |
| Benzo(a)anthracene | 550. | | | |
| Chrysene | 680. | | | |
| Benzo(b)fluoranthene | 590. | | | |
| Benzo(k)fluoranthene | 760. | | | |
| Benzo(a)pyrene | 900. | | | |
| Indeno(1,2,3)pyrene | 570. | | | |
| Benzo(g,h,i)perylene | 640. | | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | MW360-1 0.5 - 1.0 | MW360-1 3.0 - 3.5 | MW360-1 5.5 - 6.0 | MW360-1 9.0 - 9.5 | MW360-1 12.0 - 12.5 | MW360-1 15.0 - 15.5 | MW360-2 1.0 - 1.5 | MW360-2 3.0 - 3.5 |
| Metals | | | | | | | | |
| Aluminum | 7560. | 3570. | 6050. | 5410. | 9777. | 8027. | 5782. | 5882. |
| Arsenic | | | 4. | | 3. | 5. | | |
| Barium | 46. | 70. | 72. | 38. | 26. | 110. | 63. | 62. |
| Beryllium | | | | | | | | |
| Calcium | 2230. | 2430. | 25000. | 1070. | 1540. | 1484. | 4377. | 2263. |
| Chromium | 63. | 27. | 35. | 28. | 38. | 38. | 33. | 33. |
| Cobalt | 7. | 3. | 4. | 4. | 7. | 9. | 5. | 6. |
| Copper | 11. | 4. | 18. | 8. | 19. | 14. | 13. | 9. |
| Iron | 11800. | 6030. | 8000. | 8870. | 14070. | 14660. | 8855. | 103. |
| Lead | | | 22. | | | | 7. | |
| Magnesium | 2780. | 1800. | 2100. | 2310. | 2929. | 3208. | 2333. | 3173. |
| Manganese | 125. | 72. | 117. | 135. | 127. | 145. | 128. | 127. |
| Nickel | 45. | 24. | 19. | 25. | 45. | 60. | 26. | 37. |
| Potassium | 965. | 523. | 1160. | 550. | 834. | 1012. | 822. | 1070. |
| Sodium | 575. | 385. | 688. | 765. | 1368. | 1407. | 233. | 265. |
| Thallium | | | | | | | | |
| Titanium | 365. | 302. | 424. | 247. | 472. | 386. | 377. | 330. |
| Vanadium | 27. | 16. | 21. | 20. | 26. | 30. | 19. | 20. |
| Zinc | 31. | 19. | 39. | 21. | 40. | 37. | 31. | 35. |
| Cyanide | | | | | | | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | MW360-2 7.5 - 8.0 | MW360-2 9.0 - 9.5 | MW360-2 12.0 - 12.5 | MW360-2 15.0 - 158.5 | MW360-3 1.0 - 1.5 | MW360-3 3.0 - 3.5 | MW360-3 5.5 - 6.0 | MW360-3 9.0 - 9.5 |
| Metals | | | | | | | | |
| Aluminum | 14470. | 13900. | 8260. | 10910. | 3920. | 7460. | 4100. | 10800. |
| Arsenic | | 3. | | 6. | | | | |
| Barium | 78. | 80. | 89. | 102. | 36. | 59. | 40. | 75. |
| Beryllium | | | | | | | | |
| Calcium | 2316. | 2440. | 1839. | 2508. | 2900. | 3100. | 980. | 1900. |
| Chromium | 57. | 56. | 37. | 57. | 23. | 40. | 22. | 38. |
| Cobalt | 6. | 7. | 7. | 10. | | 8. | | 8. |
| Copper | 12. | 11. | 10. | 15. | 7. | 14. | 15. | 10. |
| Iron | 15860. | 15900. | 13000. | 19000. | 6640. | 12800. | 7770. | 15700. |
| Lead | | | | | | | | |
| Magnesium | 3670. | 3800. | 2340. | 4415. | 2000. | 4200. | 1500. | 3500. |
| Manganese | 161. | 167. | 135. | 227. | 80. | 130. | 130. | 240. |
| Nickel | 49. | 47. | 44. | 65. | 23. | 47. | 17. | 52. |
| Potassium | 1108. | 1110. | 722. | 1086. | 600. | 1200. | | 970. |
| Sodium | 366. | 380. | 378. | 446. | | | | 720. |
| Thallium | | | | | | | | |
| Titanium | 597. | 603. | 452. | 532. | 320. | 460. | 320. | 470. |
| Vanadium | 35. | 35. | 25. | 36. | 16. | 28. | 18. | 29. |
| Zinc | 33. | 33. | 29. | 38. | 18. | 33. | 20. | 31. |
| Cyanide | | | | | | | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | MW360-3 12.0 - 12.5 | MW360-3 15.0 - 15.5 | MW360-4 1.0 - 1.5 | MW360-4 3.0 - 3.5 | MW360-4 4.5 - 5.0 | MW360-4 5.5 - 6.0 | MW360-4 9.0 - 9.5 | MW360-4 12.0 - 12.5 |
| Metals | | | | | | | | |
| Aluminum | 9580. | 8970. | 4510. | 2870. | 3420. | 4590. | 10500. | 12400. |
| Arsenic | | | | | | | | |
| Barium | 66. | 70. | 25. | 46. | | 65. | 76. | 79. |
| Beryllium | | | | | | | | |
| Calcium | 1700. | 2000. | 2200. | 1000. | 1300. | 1400. | 1300. | 1900. |
| Chromium | 35. | 42. | 28. | 22. | 21. | 23. | 40. | 42. |
| Cobalt | 8. | 7. | | | | | 7. | 7. |
| Copper | 15. | 13. | 8. | | 27. | 7. | 12. | 12. |
| Iron | 15500. | 14900. | 7890. | 5450. | 6040. | 8360. | 17500. | 16600. |
| Lead | | | 12. | | | | | |
| Magnesium | 3800. | 3500. | 1900. | 1500. | 1700. | 1500. | 3700. | 3800. |
| Manganese | 190. | 170. | 120. | 73. | 76. | 150. | 220. | 220. |
| Nickel | 54. | 46. | 24. | 22. | 21. | 20. | 45. | 53. |
| Potassium | 790. | 840. | 590. | | | 670. | | 840. |
| Sodium | 660. | | | | | | | |
| Thallium | | | | | | | | |
| Titanium | 430. | 420. | 330. | 250. | 270. | 320. | 390. | 550. |
| Vanadium | 28. | 29. | 19. | 13. | 14. | 19. | 36. | 31. |
| Zinc | 32. | 32. | 22. | 14. | 24. | 19. | 27. | 34. |
| Cyanide | | | | | | | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | MW360-4 14.5 - 15.0 | B360-5 1.0 - 1.5 | B360-5 3.0 - 3.5 | B360-5 6.0 - 6.5 | B360-5 10.0 - 10.5 | B360-5 11.5 - 12.0 | B360-5 15.0 - 15.5 | B360-6 0.5 - 1.0 |
| Metals | | | | | | | | |
| Aluminum | 11200. | 5230. | 4610. | 4640. | 8660. | 13000. | 7890. | 6920. |
| Arsenic | | | | | | | 4. | |
| Barium | 81. | 35. | 45. | 26. | 49. | 80. | 73. | 56. |
| Beryllium | | 0.2 | | | | | | |
| Calcium | 2200. | 3410. | 3840. | 2250. | 1780. | 1970. | 1940. | 7900. |
| Chromium | 42. | 33. | 28. | 222. | 45. | 66. | 46. | 34. |
| Cobalt | 7. | 5. | 5. | 3. | 11. | 7. | 7. | 12. |
| Copper | 16. | 17. | 15. | 10. | 20. | 20. | 32. | 11. |
| Iron | 15500. | 8400. | 7390. | 6950. | 11800. | 17200. | 13500. | 10500. |
| Lead | | | | | | | | 37. |
| Magnesium | 3600. | 2500. | 2900. | 1860. | 2560. | 3640. | 3300. | 2800. |
| Manganese | 190. | 107. | 139. | 80. | 231. | 149. | 161. | 160. |
| Nickel | 52. | 28. | 26. | 24. | 32. | 61. | 49. | 28. |
| Potassium | 1000. | 850. | 625. | 580. | 870. | 750. | 530. | 1100. |
| Sodium | | 589. | 660. | 191. | 611. | 1440. | 1100. | |
| Thallium | | | | | | | | |
| Titanium | 550. | 729. | 364. | 323. | 401. | 594. | 297. | 490. |
| Vanadium | 29. | 20. | 18. | 17. | 27. | 35. | 24. | 24. |
| Zinc | 32. | 27. | 24. | 25. | 27. | 37. | 40. | 34. |
| Cyanide | | | | | | | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | B360-6 1.0 - 1.5 | B360-6 2.5 - 3.0 | B360-6 5.5 - 6.0 | B360-6 9.0 - 9.5 | B360-6 12.0 - 12.5 | B360-6 13.5 - 14.0 | B360-7 1.0 - 1.5 | B360-7 3.0 - 3.5 |
| Metals | | | | | | | | |
| Aluminum | 5600. | 6460. | 5680. | 16200. | 10700. | 10900. | 6630. | 5800. |
| Arsenic | | | | 17. | 15. | 15. | | |
| Barium | 51. | 56. | 55. | 83. | 80. | 89. | 68. | 46. |
| Beryllium | | | | | | | | |
| Calcium | 3300. | 3400. | 3800. | 1800. | 2000. | 2400. | 2600. | 3900. |
| Chromium | 29. | 31. | 120. | 51. | 40. | 45. | 30. | 30. |
| Cobalt | | | | | 7. | 8. | | |
| Copper | 15. | 14. | 10. | 17. | 11. | 11. | 8. | 16. |
| Iron | 8850. | 9910. | 8530. | 17900. | 15500. | 16900. | 9520. | 8930. |
| Lead | 14. | 17. | 13. | 9. | 8. | 7. | 9. | 9. |
| Magnesium | 2200. | 2100. | 2100. | 4000. | 3600. | 4000. | 2200. | 2500. |
| Manganese | 130. | 160. | 150. | 140. | 180. | 230. | 140. | 120. |
| Nickel | 23. | 22. | 21. | 46. | 48. | 55. | 25. | 28. |
| Potassium | 790. | 860. | 700. | 710. | 840. | 1000. | 970. | 920. |
| Sodium | | | | | | | | |
| Thallium | | | | | | | | |
| Titanium | 400. | 440. | 450. | 550. | 510. | 520. | 450. | 450. |
| Vanadium | 21. | 22. | 22. | 36. | 30. | 31. | 23. | 21. |
| Zinc | 29. | 34. | 27. | 30. | 29. | 31. | 21. | 24. |
| Cyanide | | | | | | | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | B360-7 5.5 - 6.0 | B360-7 9.0 - 9.5 | B360-7 9.5 - 10.0 | B360-7 11.5 - 12.0 | B360-7 15.0 - 15.5 | B360-8 1.0 - 1.5 | B360-8 3.0 - 3.5 | B360-8 5.5 - 6.0 |
| Metals | | | | | | | | |
| Aluminum | 6610. | 14400. | 14000. | 13800. | 10900. | 7030. | 7100. | 4410. |
| Arsenic | | 15. | | | | | | |
| Barium | 47. | 70. | 90. | 90. | 87. | 63. | 124. | 38. |
| Beryllium | | | | | | | | |
| Calcium | 2400. | 1900. | 1700. | 2100. | 2400. | 2810. | 2930. | 1160. |
| Chromium | 31. | 48. | 41. | 38. | 50. | 37. | 33. | 30. |
| Cobalt | | 8. | | 7. | 8. | 5. | 6. | 5. |
| Copper | 9. | 12. | 12. | 27. | 15. | 13. | 30. | 14. |
| Iron | 10200. | 18500. | 16000. | 17800. | 16600. | 9360. | 10300. | 7580. |
| Lead | 8. | 9. | 9. | | | 8. | 51. | |
| Magnesium | 2900. | 4000. | 3800. | 4100. | 4400. | 1960. | 2210. | 1420. |
| Manganese | 120. | 220. | 170. | 170. | 180. | 175. | 300. | 138. |
| Nickel | 31. | 51. | 50. | 58. | 55. | 26. | 25. | 16. |
| Potassium | 1100. | 750. | 820. | 1100. | 920. | 942. | 1190. | 629. |
| Sodium | | | | | | 150. | 208. | 168. |
| Thallium | | | | | | | | |
| Titanium | 530. | 530. | 510. | 611. | 450. | 439. | 408. | 318. |
| Vanadium | 24. | 38. | 30. | 33. | 28. | 23. | 23. | 19. |
| Zinc | 24. | 30. | 30. | 38. | 33. | 29. | 82. | 21. |
| Cyanide | | | | | | 0.72 | 0.59 | 0.58 |

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

BLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Chemical Group/Analyte | B360-8 9.0 - 9.5 | B360-8 12.0 - 12.5 | B360-8 15.0 - 15.5 | B360-9 0.5 - 1.0 | B360-9 1.0 - 1.5 | B360-9 2.5 - 3.0 | B360-9 3.0 - 3.5 | B360-9 5.5 - 6.0 |
| Metals | | | | | | | | |
| Aluminum | 1080. | 9430. | 7080. | 5050. | 5230. | 4310. | 4610. | 5170. |
| Arsenic | | 4. | 4. | | | 4. | | 4. |
| Barium | 75. | 75. | 72. | 43. | 35. | 173. | 45. | 49. |
| Beryllium | | | | | | | | |
| Calcium | 2210. | 2220. | 1810. | 4970. | 3410. | 9640. | 3840. | 1800. |
| Chromium | 47. | 43. | 38. | 32. | 33. | 20. | 28. | 32. |
| Cobalt | 7. | 7. | 7. | 18. | 5. | 4. | 5. | 4. |
| Copper | 44. | 12. | 11. | 15. | 17. | 56. | 15. | 22. |
| Iron | 15100. | 15200. | 12300. | 8490. | 8400. | 13500. | 7390. | 8890. |
| Lead | | | | 7. | | 1460. | | |
| Magnesium | 3520. | 3640. | 3240. | 2430. | 2500. | 1660. | 2900. | 1670. |
| Manganese | 188. | 174. | 172. | 119. | 107. | 200. | 139. | 361. |
| Nickel | 55. | 51. | 44. | 27. | 28. | 17. | 26. | 20. |
| Potassium | 646. | 901. | 569. | 785. | 850. | 840. | 625. | 800. |
| Sodium | 512. | 337. | 311. | 295. | 589. | 618. | 660. | 285. |
| Thallium | | | 3. | | | | | |
| Titanium | 464. | 482. | 353. | 322. | 729. | 197. | 364. | 345. |
| Vanadium | 27. | 28. | 23. | 19. | 20. | 15. | 18. | 19. |
| Zinc | 43. | 31. | 30. | 35. | 27. | 118. | 24. | 27. |
| Cyanide | 0.74 | 1.11 | | 0.55 | | | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOI
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| | Boring Number/Sample Depth (feet) | | | |
|---|---|---|---|---|
| Chemical Group/Analyte | B360-9 6.0 - 6.5 | B360-9 9.5 - 10.0 | B360-9 12.0 - 12.5 | B360-9 15.5 - 16.0 |
| Metals | | | | |
| Aluminum | 4640. | 8370. | 12700. | 6210. |
| Arsenic | | | 4. | 3. |
| Barium | 26. | 53. | 87. | 70. |
| Beryllium | | | | |
| Calcium | 2250. | 1750. | 2070. | 1540. |
| Chromium | 222. | 42. | 63. | 34. |
| Cobalt | 3. | 5. | 7. | 7. |
| Copper | 10. | 22. | 14. | 10. |
| Iron | 6950. | 12100. | 17200. | 11300. |
| Lead | | | | |
| Magnesium | 1860. | 2930. | 3950. | 3010. |
| Manganese | 80. | 141. | 141. | 177. |
| Nickel | 24. | 36. | 56. | 43. |
| Potassium | 580. | 695. | 852. | 690. |
| Sodium | 191. | 338. | 424. | 316. |
| Thallium | | | | |
| Titanium | 323. | 391. | 637. | 331. |
| Vanadium | 17. | 25. | 35. | 21. |
| Zinc | 25. | 38. | 36. | 25. |
| Cyanide | | | | |

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

TABLE 1

SUMMARY TABLE OF ANALYTICAL RESULTS: SOIL
SITE 4 - BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OTHER ANALYTICAL TESTS

| BORING LOCATION/DEPTH | Cation Exchange (meq/HG) | TOC (mg/kg) | pH |
|---|---|---|---|
| MW360-1 1.0'-1.5' | | 243. | |
| MW360-1 3.0'-3.5' | | | 9.7 |
| MW360-2 1.5'-2.0' | | 2050. | |
| MW360-2 3.0'-3.5' | | | 9.0 |
| MW360-3 1.0'-1.5' | | 390. | |
| MW360-3 3.0'-3.5' | | | 8.8 |
| MW360-4 1.0'-1.5' | 4.16 | 1070. | |
| MW360-4 3.0'-3.5' | | | 7.8 |
| B360-5 1.5'-2.0' | 4.40 | 436. | |
| B360-5 3.0'-3.5' | | | 10.0 |
| B360-6R 1.0'-1.5' | | | 8.4 |
| B360-6R 1.5'-2.0' | 4.64 | 2740. | |
| B360-6 3.5'-4.0' | 5.28 | 2890. | 8.3 |
| B360-7 1.5'-2.0' | | 1900. | |
| B360-7 3.0'-3.5' | | | 8.3 |
| B360-8 1.5'-2.0' | | 243. | |
| B360-8 3.0'-3.5' | | | 8.1 |
| B360-9 1.5'-2.0' | | 292. | |
| B360-9 2.5'-3.0' | | | 9.0 |

Notes:
1. Analytical results are presented in units as shown.
2. Detection limits are presented in the certified analytical results.
3. Boring depths are presented in feet.

TABLE 2

SUMMARY TABLE OF ANALYTICAL RESULTS: WATER
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| Chemical Group/Analyte | Units | Well Number MW360-1 | MW360-2 | MW360-3 | MW360-4 |
|---|---|---|---|---|---|
| Volatile Organics | | | | | |
| 1,1,1-Trichloroethane | ug/l | | 920. | | |
| 1,1-Dichloroethane | ug/l | | 230. | | |
| 1,1-Dichloroethene | ug/l | | 320. | | |
| 1,2-Dichloroethene (total) | ug/l | | | | 680. |
| Methylene Chloride | ug/l | 1300. | 520. | 15. | 190. |
| Trichloroethene | ug/l | 4900. | 120. | | 2100. |
| Vinyl Chloride | ug/l | | | | 140. |
| Semivolatile Organics | | | | | |
| 1,2-Dichlorobenzene | ug/l | | 51. | | 120. |
| 1,4-Dichlorobenzene | ug/l | | 15. | | 21. |
| Total Petroleum Hydrocarbons | mg/l | 0.22 | 1.28 | 0.14 | 0.09 |
| Metals | | | | | |
| Aluminum | mg/l | 165 | 15 | 2.3 | 397 |
| Arsenic | mg/l | 0.17 | | | 0.12 |
| Barium | mg/l | 1.1 | 0.43 | | 1.6 |
| Beryllium | mg/l | | | | 0.008 |
| Calcium | mg/l | 27 | 63 | 9.7 | 55 |
| Chromium | mg/l | 0.44 | 0.032 | | 1.1 |
| Cobalt | mg/l | 0.088 | | | 0.19 |
| Copper | mg/l | 0.15 | | | 0.28 |
| Iron | mg/l | 184 | 13 | 1.9 | 461 |
| Lead | mg/l | 0.082 | | | 0.09 |
| Magnesium | mg/l | 55 | 22 | 8.3 | 119 |
| Manganese | mg/l | 2.4 | 0.63 | 0.47 | 5.4 |
| Nickel | mg/l | 1.7 | 0.067 | | 1.4 |
| Potassium | mg/l | 18 | | | 29 |
| Selenium | mg/l | | | | 0.11 |
| Silver | mg/l | | | | 0.011 |
| Sodium | mg/l | 842 | 177 | 125 | 199 |
| Titanium | mg/l | 4.3 | 0.37 | | 8.6 |
| Vanadium | mg/l | 0.37 | 0.055 | | 0.8 |
| Zinc | mg/l | 0.36 | 0.08 | 0.025 | 0.79 |

TABLE 2

SUMMARY TABLE OF ANALYTICAL RESULTS: WATER
SITE 4, BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| Chemical Group/Analyte | Units | Well Number MW360-1 | MW360-2 | MW360-3 | MW360-4 |
|---|---|---|---|---|---|
| Total Organic Carbon | mg/l | 27.3 | 24.5 | 38.8 | 14.1 |
| General Minerals | | | | | |
| Alkalinity, bicarb (as CaCO3) | mg/l | 1000. | 390. | 732. | 340. |
| Alkalinity, total (as CaCO3) | mg/l | 1000. | 390. | 732. | 340. |
| Total Hardness | mg/l | 398. | 466. | 483. | 627. |
| Chloride | mg/l | 546. | 125. | 54. | 125. |
| Sulfate | mg/l | 175. | 47. | 72. | 83. |
| Total Dissolved Solids | mg/l | 3180. | 980. | 1510. | 1110. |
| Specific Conductance | umhos/c | 3950 | 1210 | 1590 | 1140 |
| pH | - | 7.3 | 7.3 | 7.4 | 7.6 |
| Calcium | mg/l | 34. | 78. | 43. | 55. |
| Copper | mg/l | | 0.15 | 0.25 | 0.28 |
| Iron | mg/l | 304. | 243. | 371. | 461. |
| Magnesium | mg/l | 76. | 66. | 91. | 119. |
| Manganese | mg/l | 3.2 | 2.5 | 4.0 | 5.4 |
| Sodium | mg/l | 837. | 181. | 365. | 199. |
| Zinc | mg/l | 0.55 | 0.43 | 0.61 | 0.79 |

Notes:

1. Shaded concentrations denote concentrations in excess of the Maximum Contaminant Levels or the Applied Action Levels.

TABLE 2

SUMMARY TABLE OF ANALYTICAL RESULTS: WATER
SITE 4 -BUILDING 360
NAS ALAMEDA
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

| CHEMICAL GROUP/ANALYTE | UNITS | WELL NUMBER MW360-1 | MW360-2 | MW360-3 | MW360-4 |
|---|---|---|---|---|---|
| VOLATILE ORGANICS | | | | | |
| 1,1,1-Trichloroethane | ug/L | | 920. | | |
| 1,1-Dichloroethane | ug/L | | 230. | | |
| 1,1-Dichloroethene | ug/L | | 320. | | |
| 1,2-Dichloroethene (total) | ug/L | | | | 680. |
| Methylene Chloride | ug/L | 1300. | 520. | 15. | 190. |
| Trichloroethene | ug/L | 4900. | 120. | | 2100. |
| Vinyl Chloride | ug/L | | | | 140. |
| SEMIVOLATILE ORGANICS | | | | | |
| 1,2-Dichlorobenzene | ug/L | | 51. | | 120. |
| 1,4-Dichlorobenzene | ug/L | | 15. | | 21. |
| Total Organic Carbon | mg/L | 27.3 | 24.5 | 38.8 | 14.1 |
| Total Petroleum Hydrocarbons | mg/L | 0.22 | 1.28 | 0.14 | 0.09 |

Notes:
1. mg/L refers to milligrams/liter.
2. ug/L refers to micrograms/liter.
3. umhos/c refers to micromhos/centimeter.
4. Detection limits are presented in the certified analytical results.

'LE 3

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

| CHEMICAL GROUP | MCL (water) (mg/L) | Biological Receptor | AAL (water) (ug/L) | AAL (air) (ug/m3) | AAL (soil) (mg/kg) | STLC (mg/L) | TTLC (wet weight) (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 | Human | 7 | 7 | | 204. | 2,040 |
| Vinyl Chloride | 0.0005 | Human | 0.5 | 0.1 | | | |
| Xylene | | Freshwater | 40 | | | | |
| Xylene | | Saltwater | 70 | | | | |
| Xylene (all isomers) | 1.75 | Human | 2,000 | 400 | 30,000 | | |

BLE 3

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

| CHEMICAL GROUP | MCL (water) (mg/L) | Biological Receptor | AAL (water) (ug/L) | AAL (air) (ug/m3) | AAL (soil) (mg/kg) | STLC (mg/L) | TTLC (wet weight) (mg/kg) |
|---|---|---|---|---|---|---|---|
| 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 | | Human | 2 | 0.2 | | 1.7 | 17 |
| Pentachlorophenol | | Freshwater | 5 | | | | |
| Pentachlorophenol | | Saltwater | 10 | | | | |
| Phenanthrene | | Human | 20 | 2 | 100 | | |
| Pyrene | | Human | 20 | 2 | | | |
| PESTICIDES/PCB's | | | | | | | |
| 2,4,5-TP Silvex | 0.01 | | | | | 1. | 10 |
| 2,4-D | 0.1 | Human | 40 | 4 | | 10. | 100 |
| Aldicarb | | Human | 20 | 2 | | | |
| 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 |

BLE 3

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

| CHEMICAL GROUP | MCL (water) (mg/L) | Biological Receptor | AAL (water) (ug/L) | AAL (air) (ug/m3) | AAL (soil) (mg/kg) | STLC (mg/L) | TTLC (wet weight) (mg/kg) |
|---|---|---|---|---|---|---|---|
| PESTICIDES/PCB's | | | | | | | |
| Heptachlor | | Human | 0.1 | 0.01 | | 0.47 | 4.7 |
| Heptachlor Epoxide | | Human | 0.02 | 0.002 | | | |
| Kepone | | | | | | 2.1 | 21 |
| Lead Compounds, Organic | | | | | | | 13 |
| Lindane | 0.004 | Human | 0.2 | 0.02 | | 0.4 | 4 |
| 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 (PCB's) | | | | | | 5. | 50 |
| Simazine | 0.01 | | | | | | |
| Thiobencarb | 0.07 | | | | | | |
| Toxaphene | 0.005 | | | | | 0.5 | 5 |
| INORGANICS | | | | | | | |
| Aluminum | 1.0 | | | | | | |
| Antimony | | | | | | 15. | 500 |
| Arsenic | 0.05 | Freshwater | 70 | | | 5.0 | 500 |
| Arsenic | | Saltwater | 20 | | | | |
| Asbestos | | | | | | | 1.0 |
| Barium | 1.0 | Human | 350 | 5 | | 100. | 10,000 |
| Beryllium | | | | | | 0.75 | 75 |
| Cadmium | 0.01 | Freshwater | 0.2 | | | 1.0 | 100 |
| Cadmium | | Saltwater | 5 | | | | |
| Chromium | 0.05 | Freshwater | 50 | | | | |
| Chromium | | Saltwater | 2 | | | | |
| Chromium III | | Human | 50,000 | 50 | | 560. | 2,500 |

.BLE 3

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

| CHEMICAL GROUP | MCL (water) (mg/L) | Biological Receptor | AAL (water) (ug/L) | AAL (air) (ug/m3) | AAL (soil) (mg/kg) | STLC (mg/L) | TTLC (wet weight) (mg/kg) |
|---|---|---|---|---|---|---|---|
| INORGANICS | | | | | | | |
| Chromium VI | | | | | | 5. | 500 |
| Cobalt | | | | | | 80. | 8,000 |
| Copper | | Human | 4,000 | 200 | | 25. | 2,500 |
| 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 | Freshwater | 10 | | | 5.0 | 1,000 |
| Lead | | Saltwater | 4 | | | | |
| Mercury (inorganic) | 0.002 | Human | 70 | 0.07 | | 0.2 | 20 |
| Molybdenum | | | | | | 350. | 3,500 |
| Nickel | | Human | 400 | 0.1 | | 20. | 2,000 |
| Nickel | | Freshwater | 1 | | | | |
| Nickel | | Saltwater | 8 | | | | |
| Nitrate | 45.0 | Saltwater | 10 | | | | |
| Selenium | 0.01 | | | | | 1.0 | 100 |
| Silver | 0.05 | Human | 200 | 2 | | 5. | 500 |
| Silver | | Freshwater | 1 | | | | |
| Silver | | Saltwater | 6 | | | | |
| Thallium | | | | | | 7.0 | 700 |
| Vanadium | | | | | | 24. | 2,400 |
| Zinc | | Human | 8,000 | 800 | | 250. | 5,000 |
| Zinc | | Freshwater | 30 | | | | |
| Zinc | | Saltwater | 10 | | | | |

'LE 3

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

| CHEMICAL GROUP | MCL (water) (mg/L) | Biological Receptor | AAL (water) (ug/L) | AAL (air) (ug/m3) | AAL (soil) (mg/kg) | STLC (mg/L) | TTLC (wet weight) (mg/kg) |
|---|---|---|---|---|---|---|---|
| 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 | | | | | | |
| MINERALIZATION | | | | | | | |
| Total Dissolved Solids | 500 | | | | | | |
| or | | | | | | | |
| Specific Conductance | 900 umhos | | | | | | |
| Chloride | 250 | | | | | | |
| Sulfate | 250 | | | | | | |

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

DRAWING NUMBER 86-018-E87

**LEGEND:**

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

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**

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

| 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 | 2 |
| SCALE: AS SHOWN | | | |

# APPENDIX A

# CERTIFIED ANALYTICAL RESULTS

# APPENDIX A – CERTIFIED ANALYTICAL RESULTS

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

DUE TO EXTENSIVE VOLUME, 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**