STATE OF M E

DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN R. McKERNAN, JR.
GOVERNOR

DEAN C. MARRIOTT
COMMISSIONER

DEBRAH RICHARD
DEPUTY COMMISSIONER

October 6, 1994

Lt. Jim Conroy
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop #82
Lester, PA 19113

RE: **Revised Corrective Measures Study Proposal for Portsmouth Naval Shipyard Kittery, Maine, dated July 1994.**

Dear Jim:

The Department has received and reviewed the Revised Corrective Measures Study (CMS) Proposal. The Department's comments are provided below.

General Comments

Until this point in time there has not been a clear presentation of the investigative data for the work conducted at the Shipyard. We have all agreed that the RFI Report is very difficult to use. In our review of the revised CMS Report, it became apparent that prior to making decisions on any corrective measures, the data must be presented in a logical, usable, format.

The Department suggests that the soils and groundwater data for each SWMU be shown on a figure and in table form. Separate figures should be included for soils and groundwater showing; the sampling locations, frequency of sampling, concentrations detected, and the sample recoveries (EXAMPLES ATTACHED). There should then be a description of compounds targeted for each SWMU and an evaluation of the effectiveness of the sampling. The results should be expressed in tabular form.

If the data is presented in this way we will have a much stronger foundation on which to base our corrective measures decisions. A presentation of the data in this format would also show which areas require further investigation and which areas are ready to move forward into the correction action phase.

After much thought and effort, this approach seems to be the most reasonable one to take. It may be possible to put the data into this format in conjunction with the RFI Data Gap results.

AUGUSTA
STATE HOUSE STATION 17
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
OFFICE LOCATED AT: RAY BUILDING, HOSPITAL STREET

PORTLAND
312 CANCO ROAD
PORTLAND, ME 04103
(207) 879-6300 FAX: (207) 879-6303

BANGOR
106 HOGAN ROAD
BANGOR, ME 04401
(207) 941-4570 FAX: (207) 941-4584

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, ME 04769
(207) 764-0477 FAX: (207) 764-1507

Staff has spent many hours putting the RFI groundwater and soils analytical information together, so that at least now the analytical data is grouped together by SWMU. Our staff does not, however, have the resources to tabulate all of this information. I will provide those reports to anyone who is interested (they're lengthy).

Specific Comments

1. p. 1-1, ¶ 3: The Department's recommendations must not only be acknowledged, but must be addressed. At what stage of this process will they be addressed? The writing in this paragraph is very confusing and should probably be re-written

2. p 1-2, ¶ 2: An explanation concerning the Preliminary seep sampling data must be included in this paragraph. A more complete reference for the Preliminary Seep Sampling Report must be included.

3. p 1-9, ¶ 2: Were the surface soil samples analyzed for pesticides and PCBs? Conversely, were all the boring samples analyzed for pesticides and PCBs?

4. p. 1-10, ¶ 1: Recent literature disproves the theory that filtered groundwater represents dissolved metal concentrations. Consider removing this statement form the text.

5. p. 1-11, ¶ 2: It is possible that low to moderate soil contamination was found across the JILF because hot spots were not targeted or sampled in the landfill.

6. p.1-11, ¶ 3: Consider removing the comments about filtered sampled and dissolved groundwater concentrations. See comment #4.

7. p. 1-13,¶ 4: It is not clear where Mercury Burial Site II is located or if it even exists. What is the plan for future investigations for MB II? The groundwater data concerning Mercury Burial Site I should be clearly presented with sampling locations, number of times sampled, and contaminant concentrations detected. It is not sufficient to present conclusions about the source of the mercury without clearly presenting the data that formed that conclusion. This data should have been presented the RFI Report.

8. p. 1-14, ¶ 3: DEP personnel at the sight during the tank removal do not agree that there was no evidence of releases to the soil. Soils results show that releases occurred. Only a fraction of the contaminated soil was removed during/after the tank removal. Soil removal was halted by DEP due to health and safety considerations. Is there any additional information that can be provided on the tightness tests?

9. p 1-14, ¶ 1: Provide, if possible, more information or a copy of the MEDEP statement that no clean-up action was required.

10. p 1-14, ¶ 2: The noted concentration for lead is for average concentrations. The word "average" should be included in the text. Consider including a statement that poor soil recovery was a problem at this site.

11. p. 1-17, ¶ 2: Typo in last sentence, "medial" should be changed to "media".

12. p. 2-1, ¶ 1: The results of the Data Gap work and of the soils leachability study may result in the addition of media protection standards. A statement to that effect should be added to the text.

13. p 2-13, Table 2-3: The table should indicate where the samples were collected and should include a plan showing the sampling locations. Section 2-3 of the text should show which wells were sampled, a description of the sampling method, dates of sampling, frequency, etc.

14. p. p 2-18, ¶ 2: First sentence should read, "The proposed Corrective Measures Objectives for soil..."

15. p. 2-1: What are the corrective measures objectives? They should be clearly spelled out at the beginning of this section.

16. p.2-2, Table 2-1, #16 Rinse Water Tank: Soils have not been sufficiently characterized at SWMU #16, Rinse Water Tank No. 34. The RFI soil sample data indicates that contamination is present in the soils at this site. Total SVOC concentrations range from 8,132 ppb to 48, 690 ppb. The RFI Report does not include the TICs for the SVOC analyses. However, the text does state that TICs indicate the presence of hydrocarbon contamination. The Navy must analyze soils using an approved total petroleum hydrocarbon analyses.

8 to 50 ppm

SWMU # 23

17. p. 2-2, Table 2-1, Chemical Cleaning Facility Tank: The conclusion that SWMU requires no action is not supported by the data. The RFI soil sample data indicates that contamination is present in the soils at this site. Total SVOC concentrations range from 1,756 ppb to 16, 598 ppb. The RFI does not include the TICs for the SVOC analyses. However, the text states that the TICs indicate the presence of hydrocarbon contamination. The Navy must analyze the soils for total hydrocarbons to determine the amount of contamination present.

2 to 17 ppm

18. p. 2-2, Table 2-1, SWMU 13, Rinse Water Tank No. 27: The recommendation for no action at this SWMU is not supported due to insufficient characterization. The RFI soils sample data indicates that contamination is present in the soils at this site. Total SVOC concentrations range from 5,420 ppb to 15,770 ppb. The RFI report does not include the TICs for the SVOC analyses. However, the text states that TICs indicate the presence of hydrocarbon contamination. The Navy must analyze the soils for total hydrocarbons to determine the amount of contamination present.

5 to 15 ppm

19. p. 2-18, Section 2.2.1: Leachability of soils has not been investigated. The results of the leachability studies may change the existing MPS.

20. p. 3-5, SWMU #11: Were the sidewall samples used to calculate risk? How were the sampling results from SWMU #11 used in the onshore human health risk assessment?

21. p. 5-1, Section 5.2: The argument for not completing borings in the DRMO contradicts the plans for an additional monitoring well installation at the DRMO as part of the Data Gap Workplan, see page 1-23.

22. p. 2-28, ¶ 3: The Jamaica Island Landfill has not been capped. The dredge spoils that were placed in the landfill were contaminated and for that reason only the contaminated dredge spoils were covered with clay. A clay barrier wall was also supposed to have been placed between the dredge spoils and Clarks Cove. Engineering details are not available for the clay cover that was placed on the dredge spoils or for the clay barrier wall.

23. p. 2-29, ¶ 4: Control of leachate should also be considered for the DRMO.

24. p. 4-1, Section 4.1.1: The existing cap at the DRMO was installed as a interim corrective measure. Two additional capping alternatives should be proposed for study in addition to the proposed alternative to utilize the existing cap. Including other alternatives would provide alternative cap comparison and capping alternatives in the event the existing cap does not meet the corrective measures objectives. If the existing cap is proposed as the final cap, a detailed assessment of how the existing cap meets the corrective measures objectives should be provided.

25. p. 4-2, JILF: The solid waste boundary must be delineated before corrective measures can be evaluated. It appears that the asphalt areas would remain in place within the area of the cap. An alternative should be proposed to study the compatibility of asphalt areas with a conventional ca[where the asphalt is placed above the conventional cap.

26. p. 4-2, Waste Oil Tanks: A more complete evaluation can be assessed when the Data Gap results become available. Is SWMU #11 believed to located within the landfilled material of SWMU #8?

27. p.4-3, Mercury Burial Sites: What is the plan of action for MBII?

28. p. A-1, Poor Soil Recoveries at DRMO: The range and number of samples does not address soil recoveries. Split-spoon samples recovered 43% (0.86' of a 2' sampler) of the soils above the water table. Split-spoon recoveries between two feet below land surface and the water-table declined to 24% (o.48' of a 2' sampler). Four analytical samples were analyzed from 0-2 feet and the water table. Therefore, the unsaturated subsurface soils remain un-characterized. The text states that it is the unsaturated subsurface soils that were targeted for characterization. Does the text mean to imply that knowing where the

water table exists fully characterizes the soils? The soils that were not recovered remain un-characterized.

29. p. A-2, SWMU #8: Split spoon samples recovered 62% (1.2' of a 2' sampler) of the soils above the water table. Split spoon recoveries between two feet below land surface and the water table declined to 70% (1.4' of a 2' sampler). Five analytical samples were analyzed from 0-2 feet. Three samples were analyzed from between two feet and the water table. Due to the presence of the dredge soil and clay cover material (1978) sold samples shallower that 2 feet do not target the landfill material. Therefore, the landfill material in unsaturated subsurface soils remain un-characterized. The text states that it is the unsaturated subsurface soils that were targeted fro characterization.

30. p. A-3, SWMU #9: Split spoon samples recovered 61% (1.2' of a 2' sampler) of the soils above the water table. Split-spoon recoveries between two feet below land surface and the water table declined to 52% (1.04' of a 2' sampler). One analytical sample was analyzed from 0-2 feet. No samples were analyzed between two feet and the water table. Therefore, the unsaturated soils remain un-characterized. The text states that it is the unsaturated subsurface soils that were targeted fro characterization.

31. p. A-3, SWMU #27: No samples were recovered from above the water table. Only 42% of the samples were recovered in the split-spoon sampler. This area has not been fully characterized.

Please call me with any questions.

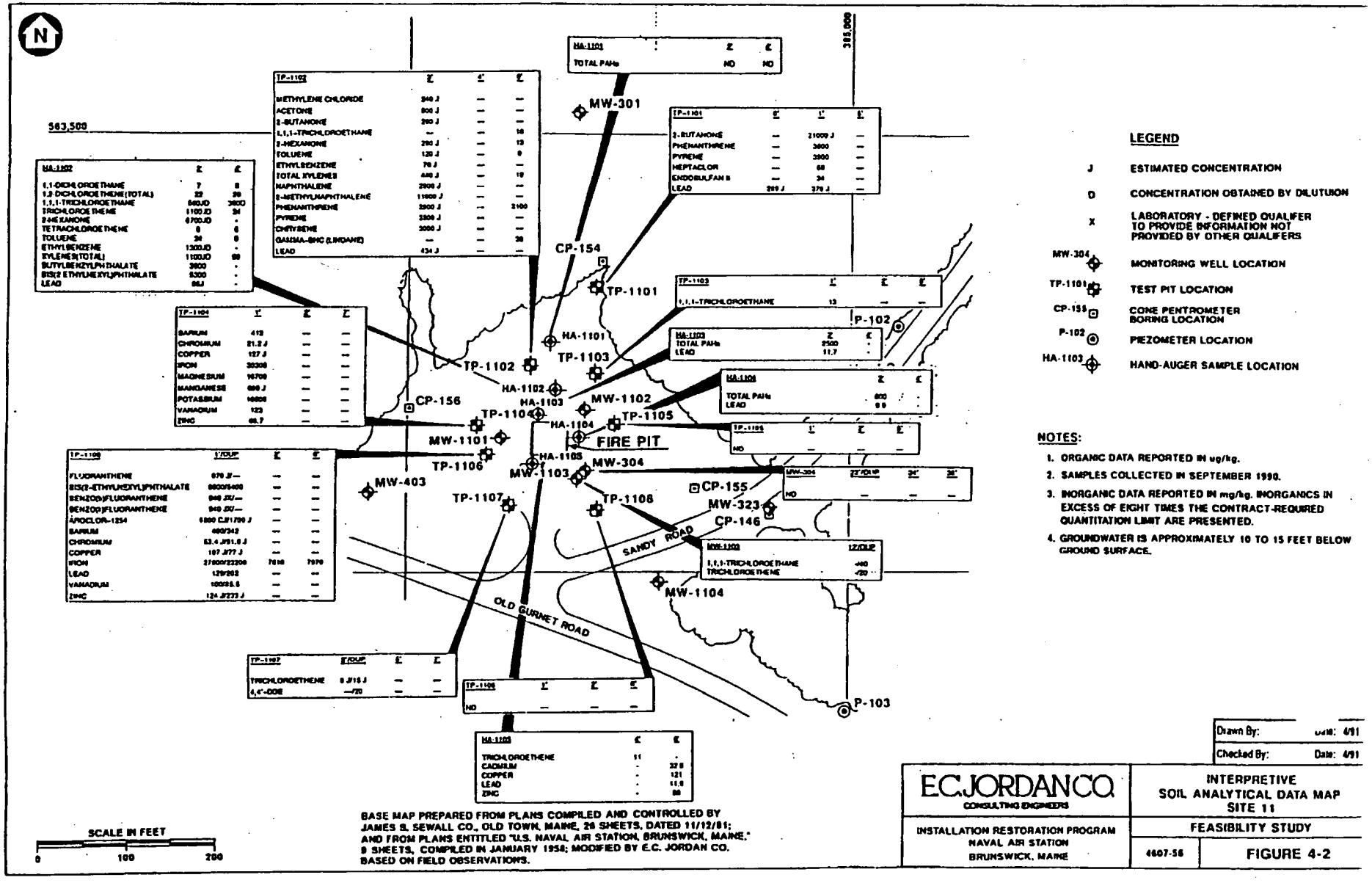
Sincerely,

Nancy Beardsley

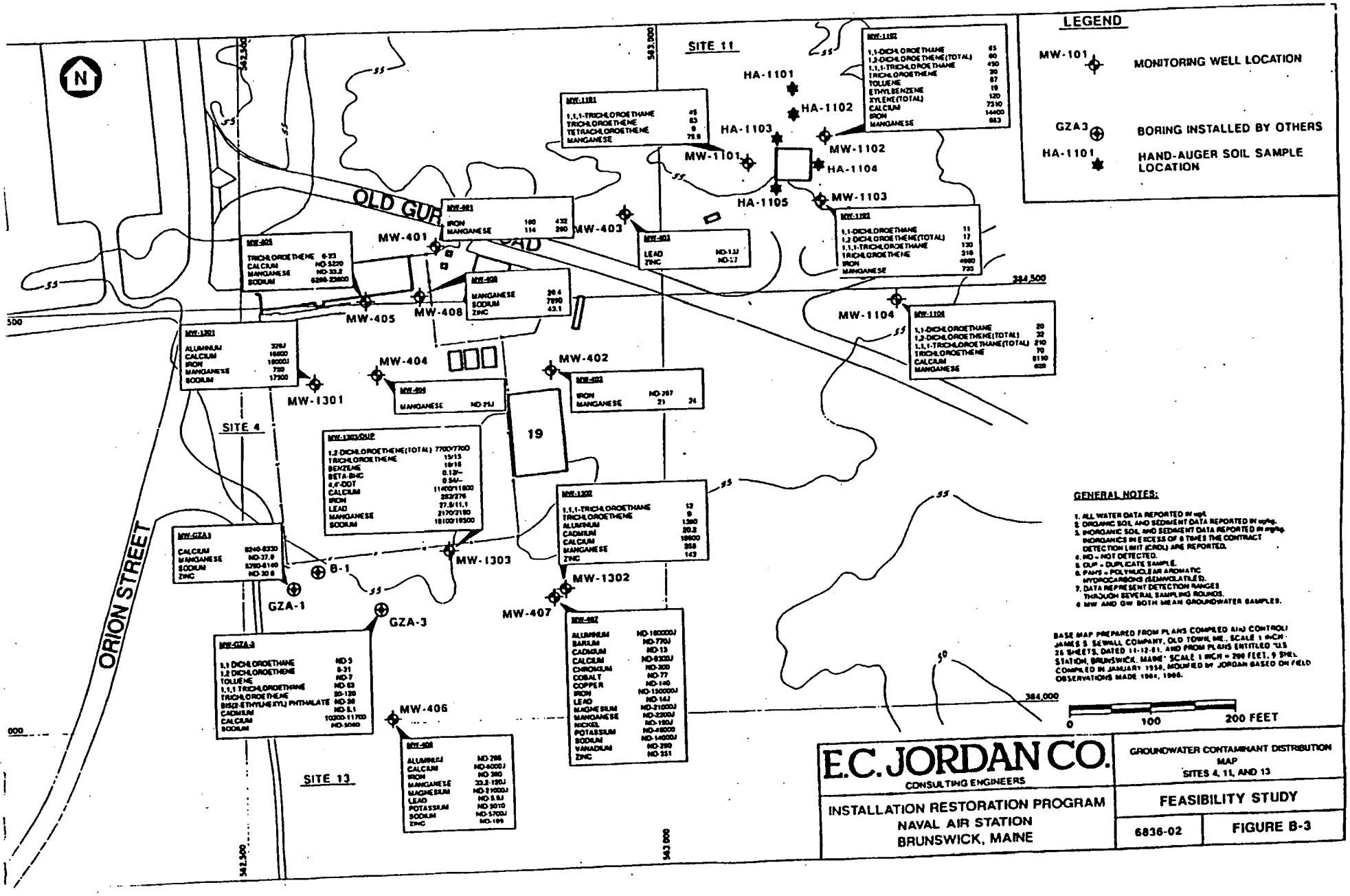
Nancy Beardsley
Remedial Project Manager
Office of the Commissioner

attachments: BNAS interpretive maps

pc: Ernie Waterman, USEPA
Jim Tayon, PNS
Mark Hyland, MEDEP
Harrison Bispham, MEDEP
Troy Smith, MEDEP


N
563,500
MW-301
CP-154
TP-1101
HA-1101
TP-1102
TP-1103
HA-1102
HA-1103
MW-1102
CP-156
TP-1104
TP-1105
HA-1104
MW-1101
FIRE PIT
HA-1105
TP-1106
MW-1103
MW-304
MW-403
CP-155
TP-1107
TP-1108
MW-323
CP-146
SANDY ROAD
MW-1104
OLD GURNET ROAD
P-102
P-103
LEGEND
J ESTIMATED CONCENTRATION
D CONCENTRATION OBTAINED BY DILUTION
X LABORATORY - DEFINED QUALIFER TO PROVIDE INFORMATION NOT PROVIDED BY OTHER QUALIFERS
MW-304 MONITORING WELL LOCATION
TP-1101 TEST PIT LOCATION
CP-155 CONE PENTROMETER BORING LOCATION
P-102 PIEZOMETER LOCATION
HA-1103 HAND-AUGER SAMPLE LOCATION
NOTES:
1. ORGANIC DATA REPORTED IN ug/kg.
2. SAMPLES COLLECTED IN SEPTEMBER 1990.
3. INORGANIC DATA REPORTED IN mg/kg. INORGANICS IN EXCESS OF EIGHT TIMES THE CONTRACT-REQUIRED QUANTITATION LIMIT ARE PRESENTED.
4. GROUNDWATER IS APPROXIMATELY 10 TO 15 FEET BELOW GROUND SURFACE.
SCALE IN FEET
0
100
200
BASE MAP PREPARED FROM PLANS COMPILED AND CONTROLLED BY JAMES S. SEWALL CO., OLD TOWN, MAINE, 26 SHEETS, DATED 11/12/81; AND FROM PLANS ENTITLED "U.S. NAVAL AIR STATION, BRUNSWICK, MAINE," 9 SHEETS, COMPILED IN JANUARY 1958; MODIFIED BY E.C. JORDAN CO. BASED ON FIELD OBSERVATIONS.
Drawn By:
Checked By:
Date: 4/91
E.C. JORDAN CO.
CONSULTING ENGINEERS
INTERPRETIVE SOIL ANALYTICAL DATA MAP SITE 11
INSTALLATION RESTORATION PROGRAM
NAVAL AIR STATION
BRUNSWICK, MAINE
FEASIBILITY STUDY
4607-56
FIGURE 4-2

APPENDIX B



E.C. JORDAN CO.
CONSULTING ENGINEERS

INSTALLATION RESTORATION PROGRAM
NAVAL AIR STATION
BRUNSWICK, MAINE

GROUNDWATER CONTAMINANT DISTRIBUTION MAP
SITES 4, 11, AND 13

FEASIBILITY STUDY

6836-02 | FIGURE B-3