



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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NAS BRUNSWICK
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COMMISSIONER

March 9, 2001

Mr. Orlando J. Monaco
Code 1821 LM
Department of the Navy, Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, PA 19113-2090

Re: Eastern Plume & Site 11 Direct-Push Investigation
Naval Air Station, Brunswick, Maine

Dear Mr. Monaco:

The Maine Department of Environmental Protection (MEDEP or Department) has reviewed the draft work plan entitled Letter Work Plan for the Direct-Push Investigation of the Southern Boundary and near Site 11, dated 8 February 2001, prepared by EA Engineering, Science and Technology. Based on that review the Department has the following comments and issues.

Comments:

1. The number of direct pushes (10 total) for the southern boundary investigation seems too small for the quarter-mile-square area of concern as shown on Figure 1, with which DEP concurs. Our estimate is that between 15 and 20 direct-push locations will ultimately be appropriate. (RR)
2. The direct-push probe should be driven to refusal (bedrock) on every other hole to develop a bedrock profile. MEDEP found that during the DEP boundary investigation that the clay was penetrated rapidly, perhaps requiring 20 to 30 minutes more per hole round-trip. Because the clay will squeeze shut after the probe is removed, the concern of cross contamination is minimal. It may turn out that this information was not needed, but if it is pertinent to the Southern Boundary situation, we could be much farther ahead in interpretations. It would be good to collect more data to show that the Presumpscot Clay is a basal protective layer. (RR)
3. On page 3, the installation of two piezometers near CP-118 and CP-142 is mentioned. The Work Plan does not discuss these piezometers again, regarding screen lengths and diameters. Also, no round of water levels was proposed after all piezometers are developed, so the potentiometric surface can be mapped in more detail. (ED)
4. Upon studying Figure 2, the Department feels strongly that while the piezometer installation equipment is available during this field effort two additional piezometers should be installed. One ought to be at MIP 1 and the other at a location about 300 feet southwest of MW-231A. Having four new piezometers in this area should greatly improve the contouring of the deep potentiometric surface. (RR)

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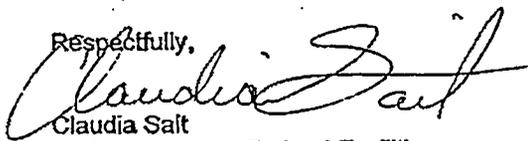
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5. It is unclear from Figure 2 which of the 5 EC locations are to be initially completed and it seems that the 5 additional points have already been selected. Please revise the map to match the text. (ED)
6. Even with a detection limit as low as 100 µg/L total VOCs, the MIP concentration data must be backed up by direct sampling and laboratory analysis in critical areas that become evident during the program. The objective should be to define the plume edge at the MCLs/MEGs, and not the 100µg/L isopleth. (RR)
7. While the proposed direct push work achieves the stated objective it may not be adequate to satisfy MEDEP that the groundwater contamination in bedrock has not occurred. It may still be necessary to perform seismic work and/or install several bedrock wells. (RR)
8. Please add the presently delineated bedrock knob to Figure 3. (ED)
9. MEDEP requests that top of bedrock soil samples be obtained at the four perimeter direct-push locations at Site 11. These samples will make it possible to generally characterize the grain-size composition, relative density, saturation, and plasticity of the geologic material directly overlying bedrock. The EC logs can not be interpreted sufficiently to adequately characterize this targeted depth zone. Also, samples of the direct-push cores can be tested for VOC content, perhaps by the EPA's mobile laboratory. DEP found that such sampling to be very useful for the southern boundary investigation last year. (RR)

Thank you for the opportunity to review this report. If you have any questions or comments please call me at (207) 287-7713.

Respectfully,



Claudia Salt
Project Manager-Federal Facilities
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