

STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



JOHN ELIAS BALDACCI  
GOVERNOR

DAWN R. GALLAGHER  
COMMISSIONER

January 6, 2005

Mr. Orlando Monaco  
Department of Navy  
Engineering Field Activity-Northeast  
Code 1823/OM  
10 Industrial Highway, Mailstop 82  
Lester, PA 19113-2090

Re: Site 9, Monitoring Event 24 Report Response to Comments  
Naval Air Station, Brunswick, Maine

Dear Mr. Monaco:

The Maine Department of Environmental Protection (MEDEP) has reviewed the response to comments (RTC) for the draft final Monitoring Event 24 Report for Site 9-April 2004, dated December 3, 2004, prepared by Environmental Chemical Corporation. Based on that review MEDEP has the remaining following comments and issues.

The follow-up comments retain the original numbering given in Navy's Responses.

- 2: **MEDEP original comment-** A minor detail concerning Figure 3 is that the relatively high potentiometric elevation at MW-NASB-074 is highly likely to be caused by the well screen resting on top of the underlying clay, in comparison to the screens at nearby wells MW-NASB-072 and MW-NASB-075 that are significantly above the clay surface. The groundwater discharge environment near the pond edge should cause the head in MW-NASB-074 to be tenths of a foot higher than if the screen were placed in the middle of the sand layer. MEDEP recommends drawing the 42-foot contour through MW-NASB-074 on this figure (a 0.3 foot reduction in head), and adding a note explaining the locally biased contouring. (ED)

**Navy's Response:** Noted. MEDEP has presented a possible explanation for an anomalous water table elevation reading at MW-NASB-074; however, the deflection of the 42 foot contour does not present any misleading assumptions with regard to flow direction and is consistent with actual field readings. In cases where a reading is not representing the interpretation of flow dynamics, Navy would identify it by dashing the iso-contour and adding an explanation.

**MEDEP Follow Up Comment:** Since the Navy is reluctant to recontour the figure, MEDEP requests that a note be added to figure 3 explaining the biased contouring.

4. **MEDEP Original Comment-**Page 1-2, Section 1.3 2<sup>nd</sup> paragraph: "The draft Diffusion Sampler Proposal contained specific information on the location and placement of each aqueous diffusion sampler in individual monitoring wells..."

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688  
RAY BLDG., HOSPITAL ST.

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

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769-2094  
(207) 764-0477 FAX: 764-1507

The Navy and regulators still need to finalize this document. MEDEP requests that the Navy set a time table for the finalization of this document. (RR)

**Navy's Response:** Noted. This item should be discussed at the upcoming technical meeting (December 13-15, 2004).

**MEDEP Follow Up Comment:** If this item was addressed at the December meeting please provide the resolution; if not, please provide a response for the record.

5. **MEDEP Original Comment** -Page 1-3, Section 1.4 2<sup>nd</sup> Bullet: "This variation may be due to seasonal changes in water temperature."

Another seasonal factor influencing dissolved oxygen levels, the recharge of oxygenated water prior to spring sampling events, could have a greater impact to shallow groundwater. This also needs to be discussed in this bullet. (ED)

**Navy's Response:** Concur. The 2<sup>nd</sup> bullet will discuss the recharge of oxygenated water as a possible impact to the variation found in these results.

**MEDEP Follow Up Comment**-Please provide the proposed language.

7. **MEDEP Original Comment**-Page 1-5, Section 1.8, Last Sentence: "The data represented in this report were found to meet the specified acceptance criteria, with the exception discussed in Appendix D.1."

These exceptions must be named or summarized in this section. (ED)

**Navy's Response**-Non-Concur. This last sentence will read "A summary of the analytical data quality review is provided in Appendix D." Any exceptions are discussed in this Appendix and do not need to be repeated in the main body of the report.

**MEDEP Follow Up Comment**-MEDEP is not requesting the detail described in Appendix D.1 be provided in text. However readers must be alerted to any problems with the data quality so they will look in the Appendix for further details. MEDEP stands by its original comment.

13. **MEDEP Original Comment**- Page 2-3, Section 2.2.2.1, 1<sup>st</sup> Paragraph: "...however, the close spacing of wells suggests that the monitoring wells in the long-term monitoring network appears to be well positioned to assess changes in vinyl chloride."

"...the existing monitoring well network is likely to effectively track changes in groundwater concentrations of VOCs."

MEDEP cannot currently endorse this assessment, due to the finding of vinyl chloride in direct-push S9-B8 in 2003 and trichloroethene in S9-B9 in 2004. These locations represent two likely exit pathways that are not currently monitored.

Because the hydraulic gradient in the lower portion of Site 9 is moderate to steep (0.013 ft/ft), contaminant plume widths are expected to be relatively narrow if source areas other than the suspected ash landfill are small (considered likely). Given this expectation, adequate groundwater monitoring in the current interpreted discharge area in the S9-B8/MW-NASB-076 locality appears lacking. The basis for this conclusion is that the 10-foot

screen in MW-NASB-076 intercepts the water table, leaving over 10 feet of sand above the clay unsampled (see Figure 5 of the October 2003 direct-push report). S9-B8 found 7 ug/L of vinyl chloride in two depth intervals: (1) at an elevation comparable to the bottom of the MW-NASB-076 screen and, (2) 8 feet deeper. However, the May and October 2003 long-term monitoring results showed no VOC detection in MW-NASB-076, which apparently was within the plume in the past. In summary, there are no monitoring wells that are positioned to intercept the center of the downgradient part of the VOC plume. (ED & RR)

**Navy's Response-** Noted. These two sentences will be modified to include the new information.

**MEDEP Follow-Up Response-** Please provide the proposed language and MEDEP still needs a formal response regarding the adequacy of groundwater monitoring in the downgradient (S9-B8) and center (MW-NASB-076) of the plume.

15. **MEDEP Original Comment-**Page 3-2, Section 3.2, 1<sup>st</sup> Bullet: "Based on available site groundwater data from the long-term monitoring network, the extent of the vinyl chloride plume is well delineated (both upgradient and downgradient of Site 9), and no additional monitoring points are required."

This statement has two themes that are not necessarily closely related. MEDEP agrees that the vinyl chloride plume has been delineated, with the reasonable assumption that the plume discharges into the Site 9 retention ponds. With the 2004 finding of TCE at the MCL/MEG at S9-B10, the VOC plume is arguably not fully delineated. Also MW-NASB-076 should be replaced with a deeper screen at a location close to S9-B8. Thus, two new monitoring wells should be installed at Site 9. The December 13-15 Technical Meeting will provide an opportunity to resolve this concern. (MTG & RR)

**Navy's Response-** Noted.

**MEDEP Follow Up Comment-**A formal response to this comment is needed for the record.

If you have any questions or comments please call me at (207) 287-7713 or email me at [claudia.b.sait@maine.gov](mailto:claudia.b.sait@maine.gov).

Respectfully,



Claudia Sait  
Project Manager-Federal Facilities  
Bureau of Remediation & Waste Management

Cf: File  
Larry Dearborn-MEDEP  
Lisa Joy-BNAS  
Christine Williams-EPA  
Carolyn Lepage-Lepage Environmental  
Al Easterday-EA (email only)  
Darren Gainer -ECC  
Ed Benedikt