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MCB CAMP LEJUENE  
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U S NAVY RESPONSES TO NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND  
NATURAL RESOURCES AND U S EPA REGION IV COMMENTS ON THE EVALUATION OF  
POST DETONATION SAMPLING RESULTS AT MCB CAMP LEJEUNE NC

01/30/2015  
CH2M HILL

## Response to Comments

### Evaluation of Post-Detonation Sampling Results at MCIEAST-MCB CAMLEJ MCIEAST-MCB CAMLEJ, North Carolina

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#### Introduction

The purpose of this document is to address comments on the Draft Evaluation of Post-Detonation Sampling Results at Marine Corps Installations East - Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ), North Carolina. North Carolina Department of Environment and Natural Resources (NCDENR) and United States Environmental Protection Agency (EPA) Region 4 had the following comments listed below. The response to these comments are provided in bold.

#### NCDENR Comments (dated November 6, 2014)

- 1) The Superfund Section of the Division of Waste Management has completed its review of the Draft Technical Memorandum for Evaluation of Post-Detonation Sampling Results and we concur with the conclusions and recommendations. Specifically Section 5, Recommendations, states that future post-detonation soil sampling will be conducted on soils from inside the detonation craters and analysis will be for explosives residues. If there are explosives residue exceedances in soil samples collected from inside the craters, soil samples from outside of the detonation craters may need to be collected for analysis of explosive residues. This determination may be made on a site specific basis.
  - a. **Comment has been noted.**

#### NCDENR Comments (dated October 16, 2014)

- 1) In general the NC Superfund Section concurs with the Conclusions and Recommendation of the Draft Technical Memorandum. Since explosives residues are not found in exceedance of the State or EPA screening levels inside the craters from the blasts at any of the sites, the probability of an explosives residues exceedance outside of the crater is very low. Therefore, it is likely that where the metals concentrations exceeded state or federal screening levels outside the blast craters, they likely resulted from natural high background concentrations not from the explosion.
  - a. **Comment has been noted.**

- 2) Since perchlorate was not detected in any soil samples at concentrations exceeding screening criteria, future sampling and testing for perchlorate in controlled detonation areas should not be required. For reasons described in the Tech. Memo arsenic is not considered to occur as a result of the explosives detonations. In general the NC Superfund Section concurs with the Conclusions and Recommendation of the Draft Technical Memorandum. Since explosives residues are not found in exceedance of the State or EPA screening levels inside the craters from the blasts at any of the sites, the probability of an explosives residues exceedance outside of the crater is very low. Therefore, it is likely that where the metals concentrations exceeded state or federal screening levels outside the blast craters, they likely resulted from natural high background concentrations not from the explosion.
  - a. **Comment has been noted.**
- 3) The discussions of metals concentrations in Section 3.2, on pages 7-10, do not add up correctly. For instance the 230 cobalt detections of 263 samples should be 227 detections out of 260 samples based on the detailed discussion. It appears that all of the metals detections and samples are off by 3 detections/samples. If this is not the case please clarify throughout the Tech. Memo. Please make appropriate corrections throughout the Tech. Memo.
  - a. **Correct, there are 3 additional surface soil samples which were not part of a decision unit (DU) but were collected for explosives residues and metals from Multiple Items/Multiple Detonations locations. These 3 samples have been incorporated in Sections 3.1 and 3.2, as well as in Table 10.**
- 4) Since risk screening beyond step 1 was not required, our Risk Manager David Lilley with the Division of Waste Management will not provide a review of this Technical Memorandum.
  - a. **Comment has been noted.**

#### USEPA Comments (dated October 21, 2014)

- 1) The purpose of this evaluation was to determine the overall impacts of controlled detonations to the environment and to provide recommendations for future post-detonation sampling. However, Section 4, Conclusions does not include a discussion of the environmental impacts of the controlled detonations. Information should be included that discusses the potential environmental impact or the lack of and/or under what circumstances would a high probability of environmental impact be created (increase in quantity, size, etc.). EPA cannot accept the recommendations as stated in this document until the above comment has been addressed.
  - a. **Section 1.2.4 and the conclusions in Section 4 were revised to include additional discussion regarding potential impacts to the environment from the detonations.**