

RESPONSE TO USGS REVIEW AND COMMENTS
DRAFT FINAL RI REPORT
SITE 29 - CRASH CREW BURN PIT
MARINE CORPS AUXILIARY LANDING FIELD (MCALF)
BOGUE, NORTH CAROLINA

10/92

The following is a response to the technical review of the Draft Final RI Report that was conducted by USGS and detailed in a letter dated September 9, 1992. The comment letter is included as an attachment to this document for reference purposes. A general response is provided to address the major points of the USGS comments, rather than providing a response to every comment, which all relate to the major points.

The objectives of the Remedial Investigation (RI) that was conducted at Bogue Field was established in the RI planning documents and at historic TRC meetings. All required regulatory authorities were given an opportunity to provide comment and input during the initial planning stages. The intent of the RI was to further define site contamination and not to study in detail site hydrogeology and geology. The objective of the TRC meeting was to review the results of the RI in concert with the appropriate interested parties.

The RI that was conducted at Bogue Field was driven by the requirement to determine if contamination exists in site media (soil, groundwater, surface water and sediment), that could potentially affect site environmental and human receptors. The approach that was conducted by Halliburton NUS as set forth by the USEPA was to collect samples of site media and perform laboratory analyses to determine if contamination exists. If contamination existed, the data was input into a risk assessment to determine if the levels under various exposure scenarios exceed regulatory criteria.

The risk assessment identified media specific contaminants of concern that exceed the regulatory criteria. Further RI investigation will subsequently be conducted that will further define the extent of contamination in the media for the specific chemicals of concern. The RI investigation and risk calculations will be continued until the extent of contamination in media of concern is determined.

The investigation then will proceed to the conduct of a Feasibility Study (FS). The Feasibility Study will evaluate several remedial alternatives ranging from the no action alternative upwards to more elaborate remedial action scenarios such as removal or treatment of the contaminated media. One or a combination of the alternatives that is protective of human health and the environment will be selected for implementation.

Most of the data that has been collected to date is chemical specific data. Other types of data such as geology and/or hydrogeology were collected primarily to supplement the chemical data base and support the risk assessment. When the risk assessment indicated that a particular media does not need to be studied further, then investigation of that media stopped. This regulatory approve RI that is being conducted at Bogue Field is designed to collect the minimal amount of Geology/Hydrogeology data that is necessary to support the risk assessment. This approach will provide a cost effective study without collecting geology and/or hydrogeology data that may not be needed in light of the possibility that a particular media may not require corrective action. If the results of the risk assessment and subsequent FS activities indicate that a particular media requires corrective action; then the necessary chemical, geological, and geophysical, hydrogeological data will be collected at that time to support the selected corrective action. It would be premature at this time to collect additional geology/hydrogeology data without the benefit of knowing which media requires corrective action and what type of corrective will be implemented.

The risk assessment calculations that have been performed to date have used only the chemical data from the RI report for input parameters and EPA recommended input parameters from published references. The statement that was made by Halliburton NUS during the TRC meeting to the effect that " some hydrogeology data (such as seepage velocity calculations) collected during the RI were input into risk assessment calculations" was incorrect. It should be noted that the risk assessment calculations have numerous safety factors that yield highly conservative results.

Many of the USGS recommendations focus on the collection of Hydrogeology/Geology data that is beyond the scope of this investigation. The use and limitations of the RI data base without this additional data is understood.

Gran Size analyses were performed on unsaturated zone materials which were similar. (Based on visual observation) to the saturated zone materials that the well screens were installed.

The slug tests were performed according to EPA and state standards and met the intention of providing a general estimate of hydraulic conductivity.

It appears, based on the present data base, that the vertical extent of groundwater contamination has been determined. The deep monitoring well, 29GW07, had no detections for site related contamination. Therefore, it is not necessary to install additional deep monitoring wells and/or drill to the top of a confining layer, if present.

Halliburton NUS performed all slug test calculations by hand which is contrary to the USGS comment that Halliburton NUS performed evaluation of questionable slug test data with a computer.