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NCBC GULFPORT
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LETTER AND COMMENTS FROM MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL
QUALITY REGARDING FINAL DRAFT FREE PHASE PRODUCT ASSESSMENT REPORT
SITE 6 NCBC GULFPORT MS
10/4/1994
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY



39501-IRP
18.01.06.0005

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
JAMES I. PALMER, JR.
EXECUTIVE DIRECTOR

October 4, 1994

Mr. Gordon Crane
Environmental Coordinator
Naval Construction Battalion Center
Gulfport, Ms

RE: Comments on the Final Draft Free Phase Product Assessment
Report Site 6, Fire-Fighting Training Area

The MS DEQ has completed the review of the referenced report. The following comments should be addressed before the report is final. Most comments are general and do not address the true objectives of this report but are designed to point out incorrect assumptions regarding the site description and hydrogeology. These comments are intended to remove any unsubstantiated assumptions from this report and future reports concerning the general hydrogeologic setting which forms the basis for the design of future monitoring and sampling strategies that ascertain the extent of groundwater contamination of all affected aquifers. This office concurs with the basic conceptual model for remediation at the site. It is my opinion that these issues should be resolved before the October 27 meeting. This office is available for a teleconference to discuss these comments.

COMMENTS

1. Executive Summary; third paragraph; last sentence; The extent of groundwater contamination has not been adequately defined. More importantly, the extent of the surficial aquifer has not been defined. With so little relief on site, should it be assumed that the clay layer at 35 feet is the same clay at 47 feet? This would indicate that the clays encountered in the borings do not conform with regional or local structural trends. A vertical displacement of 19.7 feet would have had to occur over a distance of approximately 35 feet between borings 6-1 and 6-7.
2. Page 1-1; Section 1.1; second paragraph; It should be assumed that additional investigations and actions will be required.
3. Page 1-7; Section 1.3; last paragraph; second sentence; The Citronelle is not part of the Miocene Aquifer. The Citronelle

aquifer is hydraulically connected with the intervals under consideration in the report, and should be included in the Surficial Aquifer.

4. Figures 1-6, 1-7, 4-3 and 4-4; These cross sections show a clay below the total depths of the borings. Provide cross sections showing clay occurrences in all borings at the proper elevations relative to sea level. If the actual boring depths are greater than shown on these figures, then the figures should be modified for proper representation.

The clay layer at the base of the cross section should not be described or shown as a laterally continuous aquitard separating the surficial aquifer from the Citronelle and Miocene aquifers. The elevation of the top of the clay varies by 15 feet asl. in borings GPT 6-5 and GPT 6-7 (see table below). On page 6-1, third paragraph, these borings are described as penetrating "a clay layer" which may be locally confining. The elevation of the top of the "clay bed" is given for occurrences described in boring logs for each well in the table below.

Ground surface elevations given on cross sections for borings GPT 6-1 and GPT 6-2 differ by 0.5 and 0.4 feet asl. respectively, from elevations determined from monitor well construction logs (shown in table below).

WELL NUMBER	TOTAL DEPTH	ELEV CASING	RISER CASING HT.	ELEV GROUND	DEPTH TO TOP CLAY	ELEV CLAY
GPT6-1	29.5	31.17	2.5	28.67	27.5	+1.17
GPT6-2	23.0	31.35	2.5	28.85	23.0	+6.27
GPT6-3	24.0	27.59	2.1	25.49	22.0	+3.49
GPT6-4	13.0	31.94	2.09	29.85		
GPT6-5	34.0	31.79	2.1	29.69	33.0	-3.31
GPT6-6	13.0	29.60	1.72	27.88		
GPT6-7	47.0?	30.94	2.62	28.32	46.8	-18.5
GPT6-8	13.0	30.98	2.07	28.91		
GPT6-RW	26.0	31.74	2.59	29.15		

On Figure 1-7, free product is shown to extend under the ditch. Is this correct?

5. Page 1-11; second complete paragraph; third sentence; As stated in the comments from the RI Work Plan, we request that specific data be supplied to support the claim that a clay layer ranging from 28 to 197 feet thick exists under the facility. If this data cannot be supplied, delete this statement from the text and all implications that the zone of interest lies within the upper 47 feet and that the "surficial aquifer" described in the report is not hydraulically connected to the underlying Citronelle aquifer.
6. Page 1-11; third complete paragraph; next to last and last sentence; Figure 1-6 shows the boring to terminate before reaching the clay layer. The statement that a saturated silty clay unit underlies the sand unit to an undetermined depth seems to be a little presumptuous when only two inches of clay was encountered in boring GPT 6-7.
7. Page 1-12; Figure 1-8; No horizontal scale is given. Please make sure that all site figures in this report have a scale.
8. Page 2-5; Section 2.2.2; second paragraph; last sentence; How was the top of the clay layer determined if M-18 and K-15 were completed at 22 to 27 feet.
9. Page 2-5; Section 2.3; second paragraph; first sentence; According to Figures 1-6 and 1-7, GPT 6-5 and GPT 6-7 do not encounter the clay layer.
10. Page 2-6; Section 2.3.1; fifth sentence; See comment 9.
11. Page 2-6; last paragraph; According to the boring log in Appendix A only two inches of clay was encountered in boring GPT 6-7. See comment 6.
12. Page 2-7; Table 2-2; The total depths given do not match the data from Figures 1-6 and 1-7. How were these depths determined?
13. Page 4-17; Section 4.5.5; second paragraph; last sentence; The presence or lack of VOC contamination has not been adequately determined.
14. Page 4-18; Table 4-8; The estimated concentrations of trichloroethene and tetrachloroethene are above their MCLs.
15. Page 6-1; third paragraph; first sentence; From the available data GPT 6-4 and GPT 6-6 do not appear to be near the alleged clay layer.

Mr. Crane
October 5, 1994

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16. Page 6-1; sixth paragraph; See comment 14.
17. Appendix B; page B-15, number 8; Well construction details concerning total depth of boring does not match the depth given on the well log on page B-17.

If you have any questions or comments regarding these comments please call Bob Merrill at 601-961-5049.

Sincerely,



Phillip Weathersby
CERCLA Section