



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 2, 1999

Mr. Michael McClelland
Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, CA 94066-5006

Mr. Richard Powell
Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
900 Commodore Drive
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BILL

RE: EPA Review and Comment, Draft Technical Memorandum, Groundwater Classification and analysis of the A- and B- Aquifer Interconnections for Parcel D, Hunters Point Shipyard

Dear Messrs. McClelland and Powell:

EPA has completed its review of the above referenced document. EPA has a number of comments. In general, the Navy has all of the elements of the analysis in the report but the Navy needs to revise the document so that the analysis more clearly follows a logical series of steps. For example, the report should not begin with the premise that based on discussions it had with EPA, the Navy should divide Parcel D into Parcel D1 and Parcel D2. Instead, such a conclusion should be reached as appropriate as a logical outgrowth of the groundwater analysis. More detailed comments are provided as an attachment to this letter.

Should you have any questions, please contact me at 415-744-2409.

Sincerely,

A handwritten signature in cursive script that reads "Claire".

Claire Trombadore
Remedial Project Manager

cc: Bill Radzevich, EFA-West
Chein Kao, DTSC
David Leland, RWQCB
Jim Sickles, TtEMI
Amy Brownell, City of SF
Tom Huettelman, EPA

Review of the Draft Technical Memorandum, Groundwater Classification and Analysis of the A- and B-Aquifer Interconnections for Parcel D, Hunters Point Shipyard,

GENERAL COMMENTS

1. Section 3.3 of the Draft Technical Memorandum, Groundwater Classification and Analysis of the A- and B-Aquifer Interconnections for Parcel D, Hunters Point Shipyard, San Francisco, dated July 15, 1999 (the Report) concludes that the A-aquifer at Parcel D (the A-aquifer) is not a potential drinking water source, even though the total dissolved solids (TDS) and well yield data presented in the Report indicate that much of this aquifer falls within the U.S. EPA's definition of a potential drinking water source. The Report's conclusion is based upon consideration of "other site-specific factors" (SSFs).

Enclosure 5 - Application of Federal Criteria for Determining Beneficial Uses of Groundwater for CERCLA Cleanups of EPA's May 12, 1999 letter to the Navy (Enclosure 5) provided the Navy with specific recommendations on how to determine whether a contaminated aquifer should be considered a potential drinking water source for the purposes of making CERCLA cleanup decisions using the *Guidelines for Ground-Water Classification Under the EPA Ground-Water Protection Strategy* dated June 1988 (The 1988 EPA Guidelines). In Enclosure 5, EPA Region IX lists the following SSFs that can be considered in order to make this determination:

- Thickness of aquifer (size of groundwater resource impacted);
- Actual TDS levels (are they closer to 10,000 mg/l or closer to 3,000 mg/l);
- Actual groundwater yield;
- Proximity to salt water;
- Potential for salt water intrusion;
- Quality of underlying water bearing units;
- Determination of whether these water-bearing units are or are not current or potential drinking water sources;
- Existence of institutional controls on well construction or aquifer use;
- Information on current and historic use of the aquifer on the base or in the community surrounding the base (if available); and
- Cost of cleanup to maximum contaminant levels (MCLs).

The discussion of the SSFs in the Report contains many unsubstantiated statements which attempt to address U.S. EPA Region IX's SSFs. To address the issue of potential future use of the aquifer and the cost to cleanup to MCLs, the Report states that "Groundwater at HPS has never been and is unlikely to ever be used as a drinking water source because of its marginal quality and the need for expensive pretreatment prior to use". To address the issue of the potential for salt water intrusion, the Report states "the main source of recharge of the A-aquifer is saline water intrusion from San Francisco Bay". Either no data is presented in the Report to support these statements, or the data that is presented contradicts these statements. For example, the TDS and limited well yield data presented in the Report support the conclusion that the A-aquifer is a potential

drinking water source. These unsubstantiated statements should either be eliminated from the Report, or additional data should be presented in the Report which supports these statements.

2. The *Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy* (June 1988) require that where a contaminated aquifer is potentially interconnected with an uncontaminated aquifer, the classification of the uncontaminated aquifer also needs to be determined for setting cleanup levels in the contaminated aquifer. As indicated on page 2 of the Report, "The B-aquifer is designated as a potential drinking water source under both the State and the federal Guidelines." Additionally, as indicated in the Report there are data gaps regarding potential interconnections between the A- and the B-aquifers. As indicated in General Comment 1, the Enclosure indicates that one of the SSFS to be considered when determining whether all or portions of an aquifer should be considered a potential drinking water source for making a CERCLA cleanup decision is the water quality of underlying water bearing units and whether these units are or are not current or potential drinking water sources. Because the underlying (B) aquifer is considered a potential drinking water source and contamination from the A-aquifer has the potential to impact this drinking water source, the A-aquifer may be considered a potential drinking water source for the purposes of a CERCLA cleanup, and MCLs may be set as cleanup goals for the A-aquifer. In other words, these two aquifers should effectively be viewed as one aquifer. EPA does not agree that where the bay mud aquitard is absent, the Navy can continue to argue that there are separate A- and a B-aquifers. Applying both state and Federal criteria, there is just one aquifer beneath the portion of Parcel D where the bay mud is absent. Further, it appears that much of this portion meets the definition of a potential drinking water source. The IR-sites in this area which have MCL exceedances are IR-9 and IR-33N. It may be reasonable to establish MCLs as CERCLA cleanup goals for the aquifer beneath these sites. The Navy should discuss these issues in the revised report. Further, it would be reasonable for the Navy to finalize plans to fill the so-called B-aquifer data gaps as soon as possible and probably before the FS addendum is completed.
3. Page 1, Section 1, Introduction and Background. The purpose of the Report is not to "address issues related to groundwater at Hunters Point Shipyard (HPS) that were raised during development of the Parcel D draft Record of Decision (ROD)." The purpose of the Report is to determine which portions, if any, of the A-aquifer are considered potential drinking water sources for a CERCLA cleanup decision. To accomplish this, the Report needs to apply state and Federal criteria for determining potential drinking water sources and then assess whether site specific factors should also be used to modify the determinations made. Only IR sites where contaminant concentrations in groundwater above background exceed MCLs need be part of this analysis.
4. In order to complete its evaluation, the Navy must follow a series of steps. The Report does not logically follow a series of steps. Instead, the Navy has taken pieces of the various steps and applied them somewhat arbitrarily. For example, per page 2, last paragraph. The Navy states that EPA recommended that Parcel D be divided into D1 and

D2. This is not exactly correct. We indicated that after performing our own informal review of the Parcel D groundwater using Federal criteria for TDS and yield, it appeared that the portion of Parcel D that met the criteria and had MCL exceedances and was further threatened due to the absence of bay mud was in the area of Parcel D where IR-9 and IR-33N are located. Therefore, it might make sense to separate D into two areas one of which being this area which includes IR-9 and IR-33N. However, the purpose of the Report was for the Navy to do its own, more in-depth analysis of Parcel D groundwater with respect to the Federal criteria not to start with the premise that EPA recommended from the start that the Navy separate Parcel D into two areas. The Navy should complete the analysis and after it is completed one of the conclusions the Navy may reach is that it makes sense to carve Parcel D into D1 and D2.

5. As EPA has stated in earlier correspondence (5/12/99 and 6/98), the Navy must evaluate the Hunters Point Shipyard groundwater (at Parcel D in this case) using a series of steps. Step 1: the Navy should apply the "Guidelines for Groundwater Classification under the EPA Groundwater Protection strategy" ("Federal criteria") to determine what portions of the A-aquifer on Parcel D meet the criteria of less than 10,000 TDS and 150 gallons per day (gpd) yield thereby making it a drinking water source per that criteria. Step 2: Determine the groundwater classification using the TDS and yield data and document by map the portions of the aquifer that meet the Federal criteria for a class II aquifer. Step 3: For the portions that meet the definition of a class II aquifer, determine whether or not there are MCL exceedances above background. Step 4: evaluate whether or not these areas where there are MCL exceedances warrant CERCLA cleanup by determining if the exceedances pose a threat to underlying potential drinking water aquifers (e.g. areas where there is no bay mud aquitard between the contaminated A-aquifer and the B- and/or bedrock- aquifers). The Navy should also consider whether contaminant concentrations are in excess of the acceptable risk range (the Navy can use the tap-water PRGs presented in Appendix A to determine this). If the Navy determines that a contaminant concentration is greater than the MCL but in the risk range, the Navy should then determine whether or not the concentration of that contaminant is acceptable and provide justification if the Navy determines the concentration is acceptable. Step 5: apply other specific factors to determine that the A aquifer is or is not a drinking water source for a CERCLA cleanup (e.g. thickness of the aquifer, proximity to salt water, etc. - per Enclosure 5 of EPA's May 12, 1999 letter). As a separate analysis, the state criteria should also be applied to Parcel D groundwater to determine which portions of Parcel D groundwater meet the state criteria.
6. Section 3.2. EPA is confused by "step 3" as discussed on page 8 and on page 10 under Section 3.2.3 by which the Navy is evaluating technical and economic treatability. Is the Navy referring to the analysis per EPA guidance: *Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy* (June 1988), specifically Chapter 6? If yes, then the Navy should explicitly state this in the revised document and follow the guidance in greater detail. If no, then the Navy should delete "step3" discussion from the revised report.

7. Section 5 on the groundwater Point of Compliance should be deleted. This discussion is outside the scope of the Report which is looking at the analysis of and issues related to Parcel D groundwater as a potential drinking water source. The point of compliance issue discussed in Section 5 concerns groundwater contamination threats to the Bay. Further, EPA disagrees with the statements in this section. Section 6.3 should also be deleted.
8. Figure 1 and 3. Figure 3 appears to be redundant. All of the MCL exceedances are posted on Figure 1. Is Figure 3 needed?
9. Figure 2. EPA disagrees with the steps of the Navy's analysis as presented in Figure 2. Please see EPA comments above. This figure should be revised or deleted.
10. Information pertaining to IR-36 should be deleted from the report. IR-36 is part of Parcel E not Parcel D.

SPECIFIC COMMENTS

1. **Section 1.1, page 1, second paragraph.** The Report should not assume that the A-Aquifer is not a potential drinking water source under State criteria since there is no written concurrence to that for the Hunters Point Shipyard by the State RWQCB. Such written concurrence must be obtained before any part of the A-aquifer can be considered **not** a potential drinking water source.
2. **Section 1.1, page 2, second paragraph.** It is incorrect to assume that pumping of the B-Aquifer would have to be restricted if it is threatened by contamination in the A-Aquifer. This document should not discuss remedies. In fact, pumping restrictions by themselves would be an acceptable remedy for the B-zone since it is currently considered a potential drinking water source.
3. **Section 1.1, page 2, second paragraph, last sentence.** It does not appear that objective 3 is addressed in the Report.
4. **Section 1.1, page 2, last sentence.** Delete "IR-09 and IR-33 North because, at these sites," and replace with: "where". The Report needs to present the analysis and then conclude which sites, if any, should be carried into a Parcel D2.
5. **Section 1.1, page 3, second paragraph.** Contaminant concentration summaries allow the analysis of the potential drinking water sources to focus on areas where there is a potentially an unacceptable impact if the aquifer or portions of it, are a potential drinking water source, and it should be used to address the points made by EPA in the last two paragraphs of Enclosure 5.
6. **Section 2, second paragraph.** Please state the thickness of the A-Aquifer.

7. **Section 2, page 5, second paragraph.** In last sentence, delete “consists of IR-09 and IR-33 North and is the portion of Parcel D”. The Report needs to present the analysis and then conclude which sites, if any, should be carried into a Parcel D2.
8. **Section 3.1.2, page 7, Site Specific Factors.** These factors are being used to make a site specific determination as to whether the aquifer should be considered a potential drinking water source for CERCLA cleanup purposes.
9. **Section 3.2, page 8, first paragraph, Step 3 discussion.** See EPA general comment 6 above.
10. **Section 3.2.2, page 8-9, Site Specific Factors.** Site specific factors, need to be used wherever either (not both) state or Federal criteria are met and there is a release to groundwater that is above background and MCLs. When there is not a release above background and MCLs, the analysis is unnecessary. Please list the IR-sites where this further analysis is being applied. It is also helpful to note which IR sites have concentrations exceeding the risk range for the drinking water exposure scenario. IR sites within the risk range may not require cleanup even if the groundwater is a potential drinking water source.
11. **Section 3.2.2, page 9, Historic, Current, and Potential Future Groundwater Uses:** This section states that “Groundwater at HPS has never been and is unlikely to ever be used as a drinking water source because of its marginal quality and the need for expensive pretreatment prior to use”. However, no supporting information is provided for this statement. The Report should be revised to explain what is meant by “marginal quality”, and should be revised to provide the names of individuals interviewed or documents, files or records that were reviewed to provide substantiation for this statement. Further, the Navy should look at historic use of shallow groundwater within the area of HPS not just on the Shipyard. Regarding the statement “the City currently prohibits the installation of domestic use wells” - this is not entirely correct. It is EPA’s understanding that this prohibition applies to shallow groundwater to a specific depth. Please clarify.
12. **Section 3.2.2, page 9, Historic, Current, and Potential Future Groundwater Uses:** Due to ever-increasing demands on urban water supply, explain why it is reasonable to expect that the City and County of San Francisco will rely solely on the Hetch Hetchy watershed as a source of drinking water.
13. **Section 3.2.2, page 9, Conceptual Groundwater Extraction and Treatment Scenarios:** This section states that Total Dissolved Solids (TDS) “values in the A-aquifer at Parcel D vary from 214 to 29,000 mg/l and average 7,300 mg/l, indicating that fresh water is limited.” A TDS concentration range of 214 to 29,000 mg/l with an approximate average TDS value of 7,300 mg/l does not necessarily indicate that fresh water is limited. Furthermore, TDS concentrations in 33 of the 73 wells sampled were below 3,000 mg/l and TDS concentrations in 20 wells were between 3,000 and 10,000 mg/l, indicating that most of the A-aquifer groundwater would be considered by the U.S.

EPA Region IX as freshwater. Additional information such as the spatial distribution of monitoring wells in the A-aquifer, the associated TDS concentrations of the wells and the method of averaging the TDS values should be evaluated before it can be determined that fresh water is limited. The Report should be revised to omit the phrase "indicating that fresh water is limited". Alternatively, the Report should be revised to provide more detailed information in support of this statement.

14. **Section 3.2.2, page 9, Conceptual Groundwater Extraction and Treatment Scenarios:** This section further states that "Due to the limited volume and area for recharge of the A-aquifer, it is unlikely that the few areas of the A-aquifer with TDS concentrations below 10,000 mg/l would yield volumes sufficient to supply public drinking water." Well yield data presented in Table 2 indicate yields of 1,080, 12,816, and 129,600 gallons per day (gpd) for different Parcel D wells. The 1988 EPA Guidelines (page 6-5) state that an aquifer must be capable of yielding 150 gal/day to be considered a potential drinking water source. The State of California guidelines (State Water Quality Control Board Resolution 88-63) state that an aquifer must be capable of yielding at least 200 gal/day to be considered a drinking water source. The well yield data presented in the Report indicate that the A-aquifer is capable of yielding a volume of water that would be sufficient for public drinking water. The Report should be revised to explain the reasoning behind the conclusion that this aquifer will not yield a volume of water sufficient to supply drinking water to the public. Additionally, the Report should be revised to explain the reasoning behind the assumption that the volume and area for recharge in the A-aquifer is limited.
15. **Section 3.2.2, page 9: Impact of Groundwater on Surface Water Replenishment:** This section states that "the main source of recharge of the A-aquifer is saline water intrusion from San Francisco Bay." The data presented in the Report indicates that some areas in the A-aquifer show TDS levels as low as 214 mg/l and 45% of the wells sampled had TDS values below 3,000 mg/l suggesting that the main source of recharge to some areas of the A-aquifer is freshwater. The Report should be revised to provide justification for this statement. Additionally, the Navy may want to evaluate the possibility of installing groundwater production wells in freshwater "pockets" in order to utilize the A-aquifer as a drinking water source.
16. **Section 3.2.2, page 10: Impact of Consolidation of Soils and Damage to Existing Structures Through Subsidence:** This section states that "long-term groundwater extraction from the A-aquifer would likely result in land surface settling and subsidence, which might potentially damage existing structures, as the aquifer is dewatered at a faster rate than it can be replenished by Bay water recharge." No data is provided in the Report to substantiate this statement. The Report should be revised to provide information such as the recharge rate from the Bay to groundwater, the radius of influence / drawdown from groundwater extraction in A-aquifer groundwater monitoring wells and calculations demonstrating at what extraction rate the aquifer would be dewatered.
17. **Section 3.2.3, page 10.** See EPA general comment 6 above.

18. **Section 3.3, page 10, Conclusions of Groundwater Classification Analysis.** It needs to be stated that the conclusions of the groundwater classification analysis are specifically for making CERCLA cleanup decisions. The conclusions also need to clearly state that although Federal and state criteria are met over large portions of the A-Aquifer, because of the other site specific factors discussed, for CERCLA cleanup decisions, the Navy does not consider the A-Aquifer to be a potential drinking water source. The state of California (RWQCB) needs to concur and the Report should not be finalized until such concurrence is obtained. Once obtained, the Report should be revised to state that State of California concurrence has been obtained and that a copy of the concurrence letter is provided as an attachment to the revised Report.
19. **Section 4.1, page 11, Locations Where the Bay Mud is Absent.** This section describes the depositional history around Parcel D and locations of areas where the Bay Mud is absent. Please provide geologic cross-sections and a map showing the location of the 1935 shoreline to support the statements made in this section or reference where this information can be found in the RI or FS reports.
20. **Section 4.2, page 12: A-Aquifer Contaminants of Potential Concern in Areas with A- and B-Aquifer Interconnections.** The first two sentences of this section provide a definition of the groundwater chemicals of potential concern (COPCs). Please provide information/references on where this definition came from, for example a previous agreement with U.S. EPA Region IX. If no agreement exists with the regulatory agencies regarding this definition, then the definition of groundwater COPCs may need to be broadened to include "recent, isolated actual or potential detections of hazardous substances exceeding the MCLs". Additionally, according to the data presented in Appendix A of the Report, during several sampling events the method reporting limits (actually listed by the Navy as the method detection limits) for several analytes were higher than the MCLs, and therefore the analyte concentrations may have actually exceeded the MCLs but were reported as non-detects. In these situations, one exceedance of the MCL should not be considered as an "isolated detection of (a) hazardous substance", since there may have only been two rounds of sampling where the analytical method reporting limit was below the MCL for a target analyte.
21. **Section 4.2, page 12, A-Aquifer Contaminants of Potential Concern in Areas with A- and B-Aquifer Interconnections, IR Sites Impacted.** This text should be revised to discuss all IR-sites with A/B-Aquifer interconnection and then state clearly why only IR-9 and IR-33N are a concern.
22. **Section 4.2, page 12: A-Aquifer Contaminants of Potential Concern in Areas with A- and B-Aquifer Interconnections:** The second paragraph states that "because the A-aquifer has not been classified as a drinking water source, no direct human health exposure pathways to A-aquifer COPCs exist" and "The groundwater COPCs discussed in this section do not pose risk to human health". As stated in Enclosure 5 of EPA's May 12, 1999 letter, even if a class II aquifer is not treated as a potential drinking water source,

source control and mass removal of contaminants, the potential for substantial long-term future degradation of the groundwater resource through the continued spread of contamination and the potential for significant health threats from unanticipated use of the groundwater have to be considered. The Report should be revised to address these issues. Also, see EPA general comment 2 above.

23. **Section 4.4, Conclusions for Areas of Interconnection.** The Report should clearly state here which IR-sites are a concern.
24. **Section 5, page 14.** This section should be deleted per EPA general comment 7 above.
25. **Section 6.1, page 15, first sentence.** Please add that the Navy has concluded that the A-Aquifer is not a potential drinking water source for a CERCLA cleanup.
26. **Section 6.2, page 15.** As stated in several earlier comments, the Report should clearly conclude which IR-sites are a concern.
27. **Section 6.3, page 15.** This section should be deleted per EPA general comment 7 above
28. **Figure 1 (Total Dissolved Solids, Salinity, Well Yield, and MCL Exceedances, Parcel D, Hunters Point Shipyard, San Francisco, CA):** The contour lines presented in Figure 1 appear to have mistakes in the following areas, and should be revised:
 - in the vicinity of IR22 / IR 35, where federal and/or state criteria are met,
 - the area inside the 3,000 mg/l contour around PA36MW01A, IR39MW36A and PA39MW01A, and
 - the 3,000 mg/l contour around PA36MW04A.
11. **Table 3: Maximum Contaminant Level Exceedances in Groundwater in Areas Where A- and B-Aquifers are Interconnected:** Figure 1 lists the maximum concentration for arsenic detected in groundwater samples collected from well IR33MW61A as 70.15 ug/l, which exceeds the MCL (50 ug/l) and the HGAL (27.34 ug/l) for arsenic. This exceedance is not listed in Table 3. Please correct this discrepancy.
12. **Table 3: Maximum Contaminant Level Exceedances in Groundwater in Areas Where A- and B-Aquifers are Interconnected:** The date for Sampling Event 2 for IR09MW35A for chromium is listed as 1/2/96, while the date for the same sampling event for nickel is listed as 1/2/91. Please correct this discrepancy.
13. **Appendix A, Section 2.1, page A-2: Metals that Exceed a Maximum Contaminant Level:** This section states "Antimony and thallium have HGAL values that are greater than the MCL and PRG values for those metals", and that "Arsenic, barium, chromium, and nickel have HGAL values that are below the MCL and the PRG values." One of the tables presented on page A-2 indicates that a tap water preliminary remediation goal (PRG) has not been established for thallium or chromium, and that the HGAL value for

arsenic is 27.34 ug/l, which is above the PRG of 0.04 ug/l. Please correct these discrepancies.

14. **Appendix A, Sections 3.1 through 3.21:** Many of the analyses for groundwater samples collected from Parcel D had method reporting limits that exceeded MCLs, and therefore these data are not useful in evaluating if concentrations of specific analytes in groundwater samples exceeded the MCLs for those analytes. Sections 3.1 through 3.21 in Appendix A, which discuss MCL exceedances in groundwater samples for the different IR sites, do not indicate when the analytical method reporting limits exceeded the MCLs. These discussions imply that if a sample was non-detect for a given analyte, it was below the MCL for that analyte. In many of the cases, it cannot be determined if the analyte was below the MCL because the method reporting limit was above the MCL. The following sections of Appendix A should be revised to discuss when the method reporting limits exceeded the MCLs:
 - Section 3.1, IR-08
 - Section 3.2, IR-09
 - Section 3.4, IR-17
 - Section 3.8, IR-33 South
 - Section 3.19, IR-67
 - Section 3.21, IR-71
19. **Appendix A, Section 3.1, page A-4, IR-08:** In the second paragraph, change the sentence: "Concentrations of antimony in groundwater collected from **four** of the six A-aquifer monitoring wells exceeded the MCL for antimony" to "Concentrations of antimony in groundwater collected from **five** of the six A-aquifer monitoring wells exceeded the MCL for antimony".
20. **Appendix A, Section 3.1, page A-4, IR-08:** In the second paragraph, it is unclear whether the fourth sentence refers to antimony concentrations, to thallium concentrations or to both. Please clarify this sentence.
21. **Appendix A, page A-6, Section 3.5, IR-22:** The first sentence in the second paragraph and the second-to-last sentence in this section should be revised to also mention the HGAL exceedances.
22. **Appendix A, page A-7, Section 3.7, IR-33 North:** Please change the second sentence in the second paragraph from: "The arsenic concentration exceeded the MCL and HGAL (27.3 ug/l) in one of three sampling events" to "The arsenic concentration exceeded the MCL in one and the HGAL (27.3 ug/l) in two of three sampling events.
23. **Appendix A, page A-8, Section 3.8, IR-33 South:** Change the last sentence from: "The thallium concentration exceeded the MCL in one of three sampling events..." to "The thallium concentration exceeded the MCL in one of two sampling events..." since thallium was not analyzed in the third sampling event and, as such, the actual number of

sampling events with regard to thallium was only two.

24. **Appendix A, Table A-1 and Table A-2:** Please reference the source for the U.S. EPA and the State of California MCLs for bis(2-ethylhexyl)phthalate and methylene chloride, since these compounds are not listed in EPA document 822-B-96-002 "Drinking Water Regulations and Health Advisories" dated October 1996.
25. **Appendix A, Table A-1:** Please, change the U.S. EPA MCL for Heptachlor Epoxide to "0.2 ug/l" on page 3 of 5: Site IR36S, well PA36MW07A.
26. **Appendix A, Table A-2:** There are many discrepancies between the data presented in Table A-2 and the data presented in Tables A-5 through A-26, particularly in the columns entitled "Maximum Results", "Number of Times Exceeding a MCL", and "Number of Times Sampled". Please review these tables carefully to correct these discrepancies.
27. **Appendix A, Table A-2:** Footnote the column entitled "Number of Times Exceeding a MCL" for the following:
 - Site IR33S, well IR09P040A for benzo(a)pyrene (page 2 of 5). The footnote should say: "the concentration of benzo(a)pyrene in one additional sample was detected at the MCL of 0.2 ug/l";
 - Site IR55, well IR55MW02A for thallium (page 4 of 5). The footnote should say: "the detected concentration was at the MCL of 2.0 ug/l".
28. **Appendix A, Table A-3 and A-4:** The word "Maximum" should be removed from the column entitled "Maximum Result" as hydropunch and grab groundwater samples are collected on a one-time basis and concentrations detected in these samples do not represent maximum values. This comment will also affect Figures 1 and 3 (unless figure 3 is deleted per EPA general comment 8 above).