To: BLM-SCI CASO Atlas
MLB
Rm. 3529

United States Department of the Interior

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IN REPLY
REFER TO:

1703 (CA-013.12)
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FEB 3 1988

Ms. Jennifer Decker
Atlas Remedial Project Manager
Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

Dear Ms. Decker:

Thank you for sending a copy of the Draft Stream Water Sampling Data Report for our review. The following are our comments at this time. We would like another opportunity to comment when the report becomes part of the final Remedial Investigation.

We will begin by reiterating a few of your objectives, will then provide our observations on the results and will conclude with conclusions that we believe can be drawn from the data.

The Water Sampling and Analysis Plan for the Atlas and Coalinga Sites (2-4-87) states one of your objectives as wanting to characterize the sources and in-stream transport of asbestos and heavy metals (p. 1-1). You state the results of sampling are needed to conclusively demonstrate that the Atlas and Coalinga sites are (or are not) contributing or could potentially contribute asbestos fibers to the California Aqueduct and to assess the magnitude of any site contributions. (p. 2-1) The report goes on to state that most sampling stations are located on or in the vicinity of the Atlas and Coalinga sites where intensive sampling efforts are required to differentiate between contaminant loadings originating from the Atlas and Coalinga sites and the surrounding, asbestos bearing, New Idria formation.

We agree that a sampling program is needed to answer these questions, but the results of your sampling are unable to do so. In fact, the conclusions drawn are limited to general inferences which fit strictly within the original described objectives. Considering your position, this is understandable. However, we will be suggesting our own conclusions that seem apparent from the data.

There were no particular flaws in your sampling plan; it was ambitious and well intended. You were faced with the same difficulty that others have faced and that is that it rarely rains enough to produce runoff in the upper reaches of the watershed. Your plan was to sample four rainfall events but only one suitable event occurred. You originally stated that the minimum significant storm required would deliver 0.5" of precipitation in 12 hours. You later

said that was probably too low since this storm of approximately 24 hours duration delivered over two inches and yet there wasn't enough flow to sample some locations. You also recognized there were extremely low runoff coefficients indicating much of the delivered rainfall infiltrates into porous soil materials and doesn't travel to the lower reaches in surface stream flow. We request the final report include an approximate return period on this storm. In addition, if it's possible from the stream gaging data, please include a stream flow duration curve which shows the percent of time flow meets or exceeds certain levels. The point we are making here is that runoff producing events are fairly rare and this limits the contributions from this area to the aqueduct. In addition, the results from a single sampling event cannot show the range of variability that occurs in time and space and it weakens the conclusions that can be drawn from the results. We do not, by any means, propose that you attempt to do more sampling. We are only suggesting that the natural world does not cooperate to make it possible to conclusively answer the questions you have asked. With less than conclusive data it may be difficult to use the results to support hydrologic contaminant transport evaluation methods and to have adequate input for the public health evaluation/risk assessment.

Your results were also unexpected. The Water Sampling Plan states "Data collected at Station S16 will be used to determine if water leaving the New Idria formation represents a significant source of asbestos and heavy metals relative to non-formation materials". Asbestos levels at Station S16, which does not drain the Coalinga site nor the New Idria formation were only slightly less than levels at S15 immediately below the Coalinga site (S16 - 2.2×10^7MFL vs. S15 - 3.3×10^7MFL). This indicates that significant asbestos levels could be transported from outside the area of initial concern.

Results at S15 and S16 were an order of magnitude less than at S20 which is above the Coalinga site. In fact, you admit that the three highest levels of asbestos measured were above the Atlas and Coalinga sites. Your explanations for this are threefold. First, you state it could be releases from other disturbed areas above the sites although at S12, above Atlas, there is no other disturbance. Secondly, you state it could be heavy historic airfall and yet the air sampling plan indicates prevailing winds are in the opposite direction. Third, you say it could be natural releases. This may well be the best explanation.

Low concentrations were expected at S02 and S04 because their watersheds do not include the New Idria formation and yet significant, although lower, amounts occurred there (4.4×10^3MFL and 8.6×10^3MFL).

Finally, you acknowledged the Atlas site does not appear to be a major source of heavy metals.

In conclusion, runoff from the mine sites probably occurs more rarely than expected so that contributions to the Aqueduct would be very infrequent occurrences. In addition, significant quantities of asbestos are originating from other locations within and outside of the New Idria formation and these are

also infrequently contributing asbestos to the aqueduct. We feel these results support our premise that corrective actions at the mines alone will not solve the asbestos transport problem and that the problem needs to be solved on an area-wide basis.

Thank you for requesting our comments.

Sincerely,

David E. Howell

Dave Howell
Area Manager

cc: CA-930.7
CA-010
WO-509, Room 3061