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M E M O R A N D U M

TO: R. L. STAMETS, TECHNICAL SUPPORT CHIEF

FROM: D. G. BOYER, HYDROGEOLOGIST

SUBJECT: CASE 8292, POLLUTION CONTROL
AMENDMENT TO DIVISION ORDER NO. R-3725

1. My main question of Mr. Tim Kelly of Geohydrology Associates, Inc., was directed at clarifying the statement made in Mr. Kelly's report that Laguna Gatuna is a natural groundwater discharge point (P.29, 30). However, the Figure 3 (P.25) water-table contour map could be interpreted as showing groundwater flow from Laguna Gatuna northwest towards Laguna Plata, which would appear to contradict the first statement. Both statements may in fact be correct given the information presented in Figure 2 (P.4). Briny groundwater associated with the collapse features discharges into the lake where it almost always evaporates. These springs are at a higher topographic elevation than the lake. Regional water levels indicate flow (including perhaps some subsurface spring contribution) to the northwest. In other words, a closed contour line (about 3500 feet) might have been drawn around Laguna Gatuna indicating local flow into the lake from springs on the bank walls while regional flow outside this boundary but near the lake is to the north and west. Springs flowing into Laguna Plata from the southeast (from the direction of Laguna Gatuna) are also naturally highly mineralized (in excess of 10,000 mg/l TDS) indicating that subsurface seepage (if any) from additional discharges to Laguna Gatuna would not impact the poor existing water quality in and around Laguna Plata.

2. Since the windmill at the well in the NW/2 of Section 21, Township 20 South, Range 33 East, was inoperative, Kelly could not get a sample. However, if a conductivity probe with a long lead (50 feet or so) was available,

an indication of current water quality in that area could have been obtained. This measurement (and any made at other inoperative windmills near the site) would be useful for comparison with future samples taken after the site has been in operation for some length of time.

3. Regarding the TDS level at which water is protected under WQCC Regulations, if the existing level is between 1,000 and 10,000 TDS, that is the level of protection.

With exception of the clarifying comments and suggestions given above, I support Mr. Kelly's conclusions given in his report on pages 30 to 31.

August 10, 1984
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