

REPORT DOCUMENTATION PAGE

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QUARTERLY WATER-LEVEL MONITORING REPORT
OTHER CONTAMINATION SOURCES
INTERIM RESPONSE ACTION
SOUTH TANK FARM PLUME



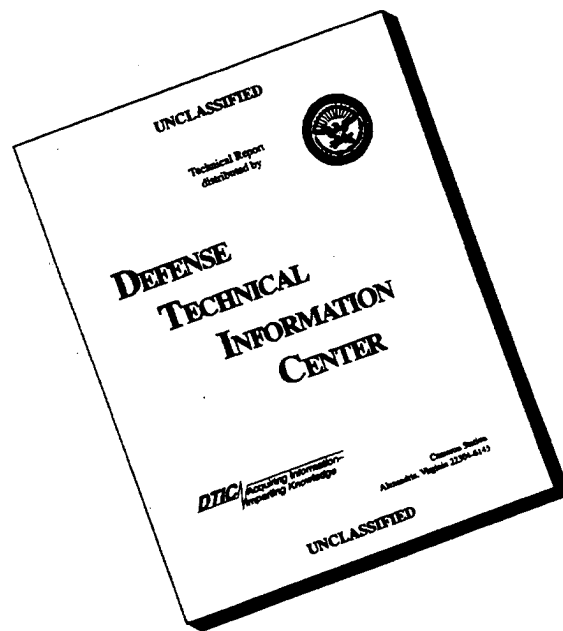
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July 1992

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INTRODUCTION

As outlined in the Final Implementation Document for the South Tank Farm Plume (STFP) Interim Response Action (IRA) (Shell 1991), quarterly water levels will be measured in and beyond the STFP area. The objective of the water level measurement program is to collect sufficient information to monitor what, if any, temporal hydrogeologic changes may be occurring and what effect they may have on the STFP. This report provides the results of the most recent monitoring event, completed June 26, 1992, and includes water levels in the South Plants area which will be measured semi-annually.

RESULTS

The results of the June 25-26, 1992 water level measurements are illustrated by the water table contour map shown by Figure 1. The lake elevations shown on Figure 1 are those measured from the staff gages on the eastern shore of Lake Ladora and the Army's staff gage on Lower Derby Lake.

The general groundwater hydrology shows a decrease in elevation since March, 1992 (Figure 2). This is shown on Figure 3 which indicates the rise in water level for each well (a negative number indicates a drop in water level). Water levels in the tank farm have also decreased since last quarter in addition to those wells adjacent to Lower Derby Lake. Wells adjacent to Lake Ladora show a decrease in water table elevation.

Water levels nearest Lake Ladora were measured on June 25, 1992. These levels exhibit a reverse gradient with respect to the lake in most instances (Figures 4 through 10). In fact, the reverse gradient has steepened somewhat since the last quarter. Figure 11 shows that the Army has generally been maintaining the level of Lake Ladora at an elevation of approximately 5220 feet or above.

CONCLUSIONS

Water levels have decreased since last quarter throughout the STFP area. These levels are indicative of long term hydrogeologic conditions within and around the STFP area. There are no hydrologic effects which indicate the STFP will impact Lake Ladora. Therefore, regular monitoring, as outlined in the Implementation Document, remains the appropriate course of action for this IRA.

REFERENCES

Shell Oil Company, August 1991, Final Implementation Document,
Other Contamination Sources Interim Response Action, South
Tank Farm Plume.

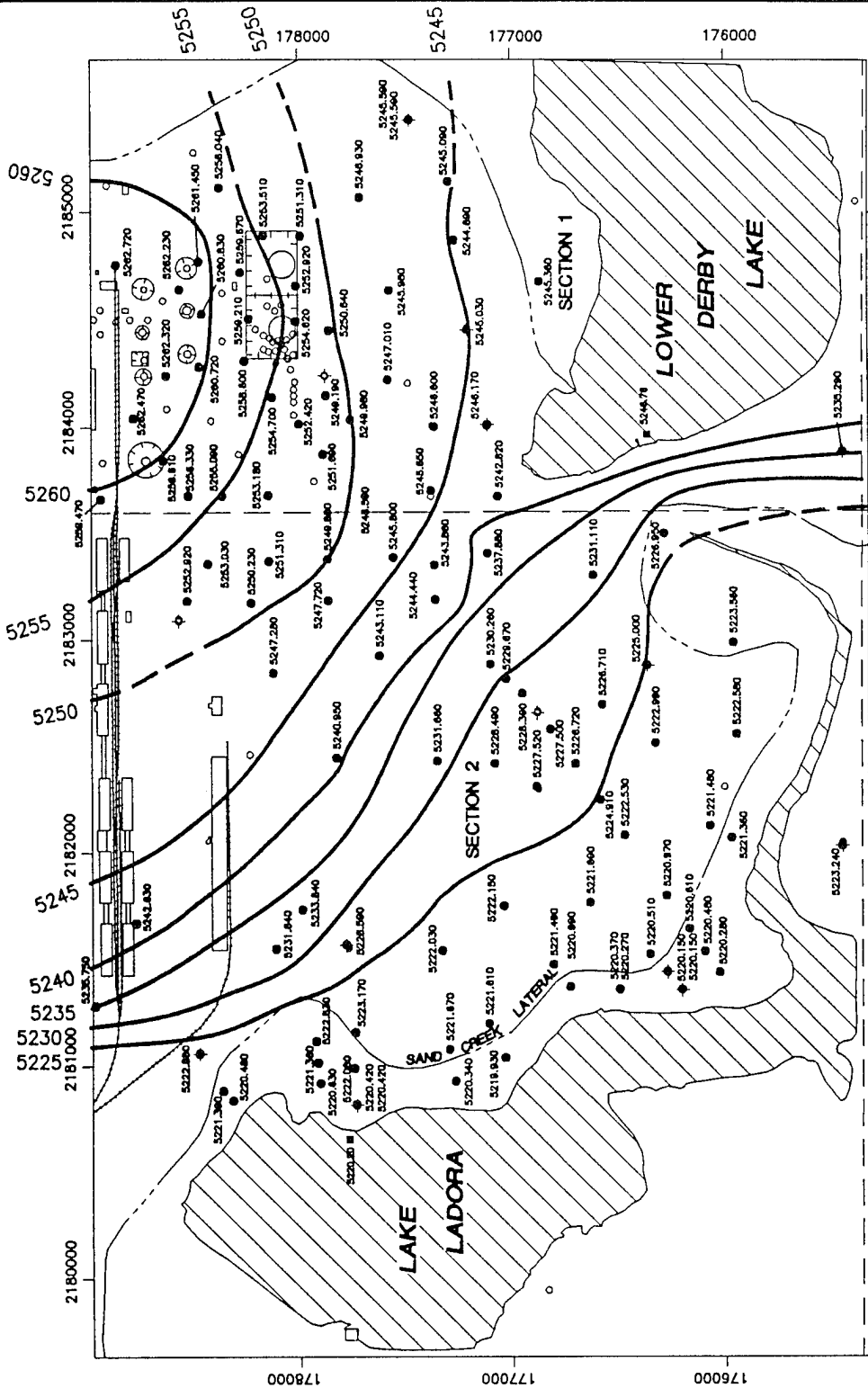
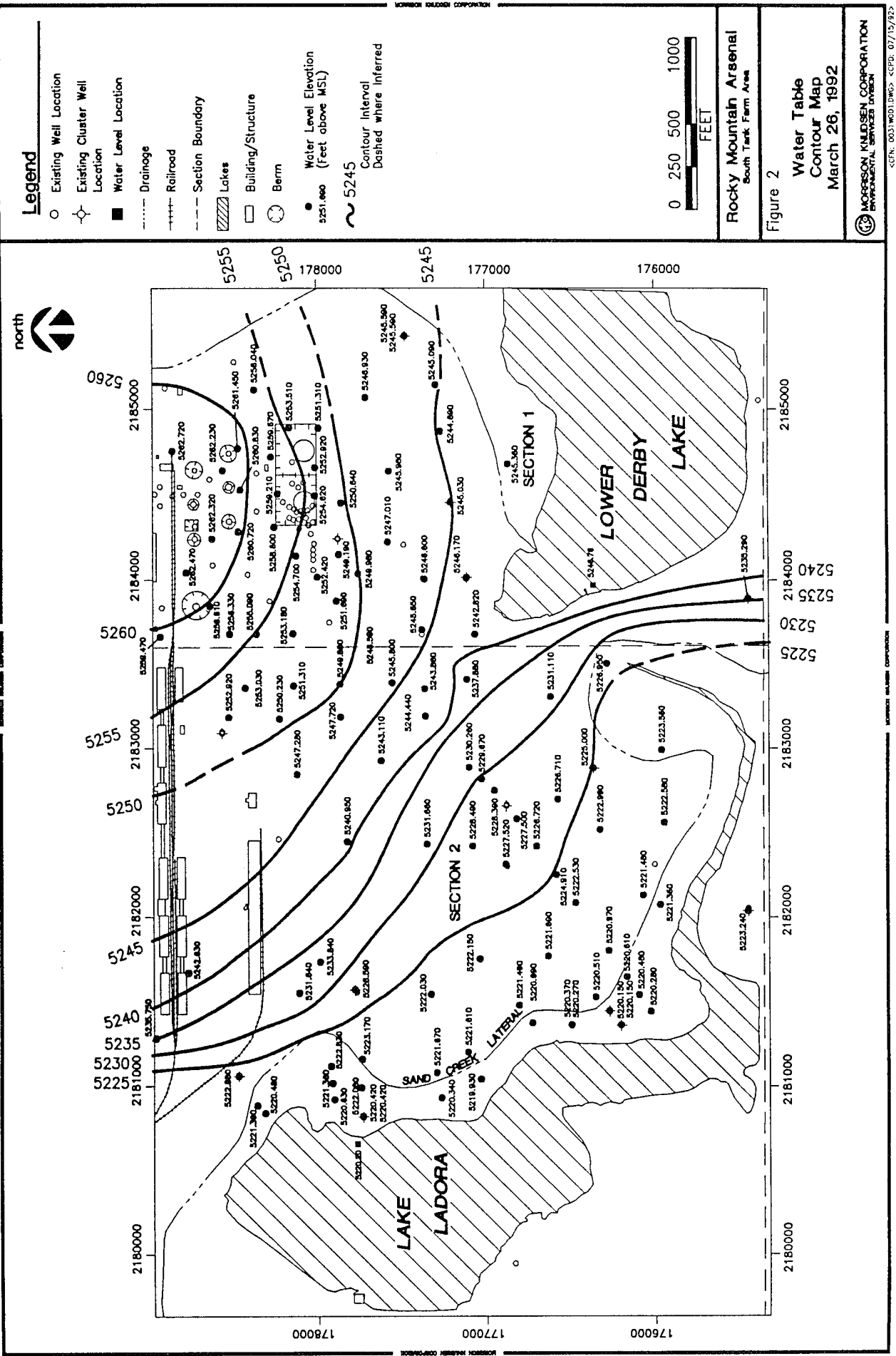


FIGURE 4
WATER LEVELS NEAR LAKE LADORA

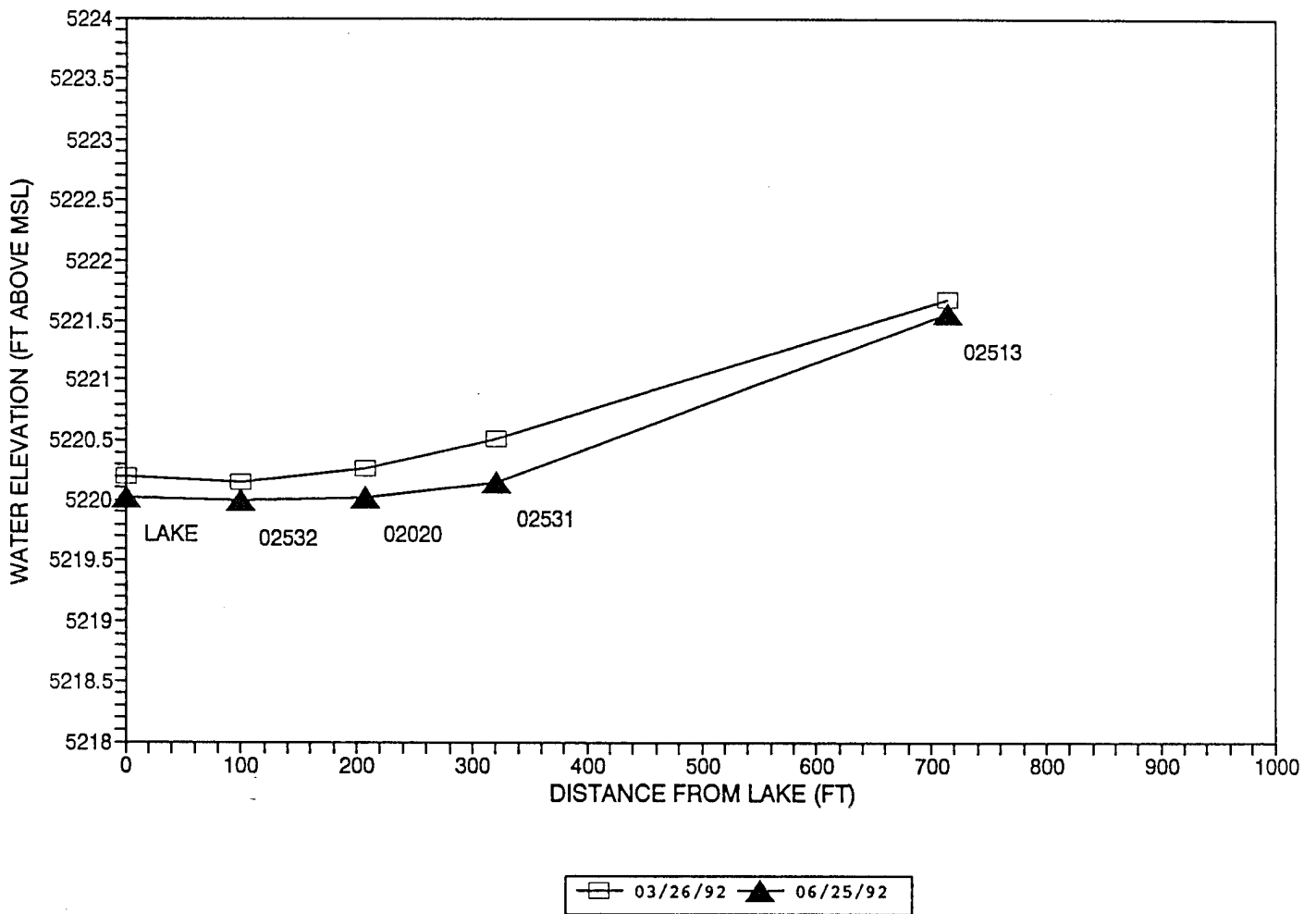


FIGURE 5
WATER LEVELS NEAR LAKE LADORA

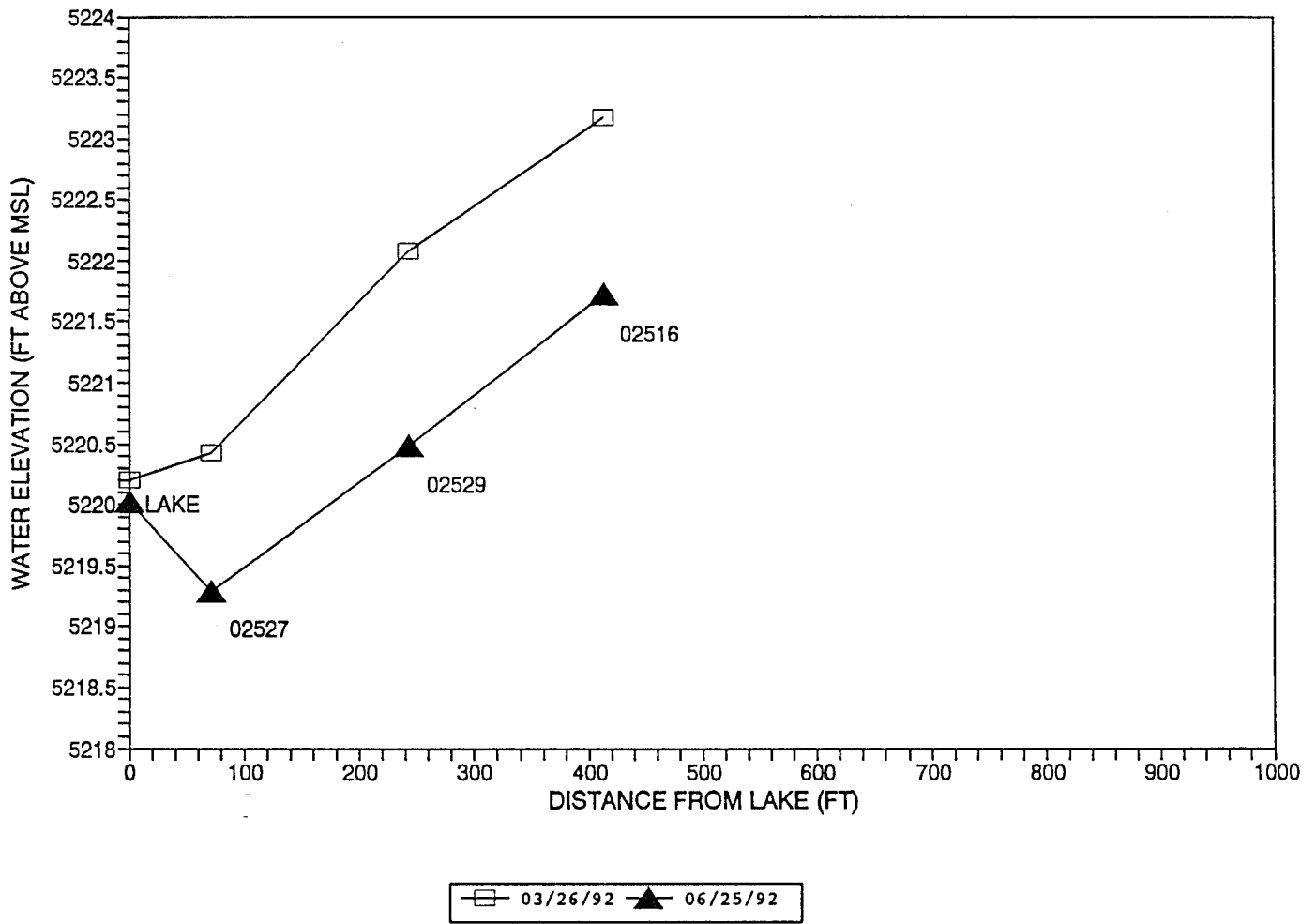


FIGURE 6
WATER LEVELS NEAR LAKE LADORA

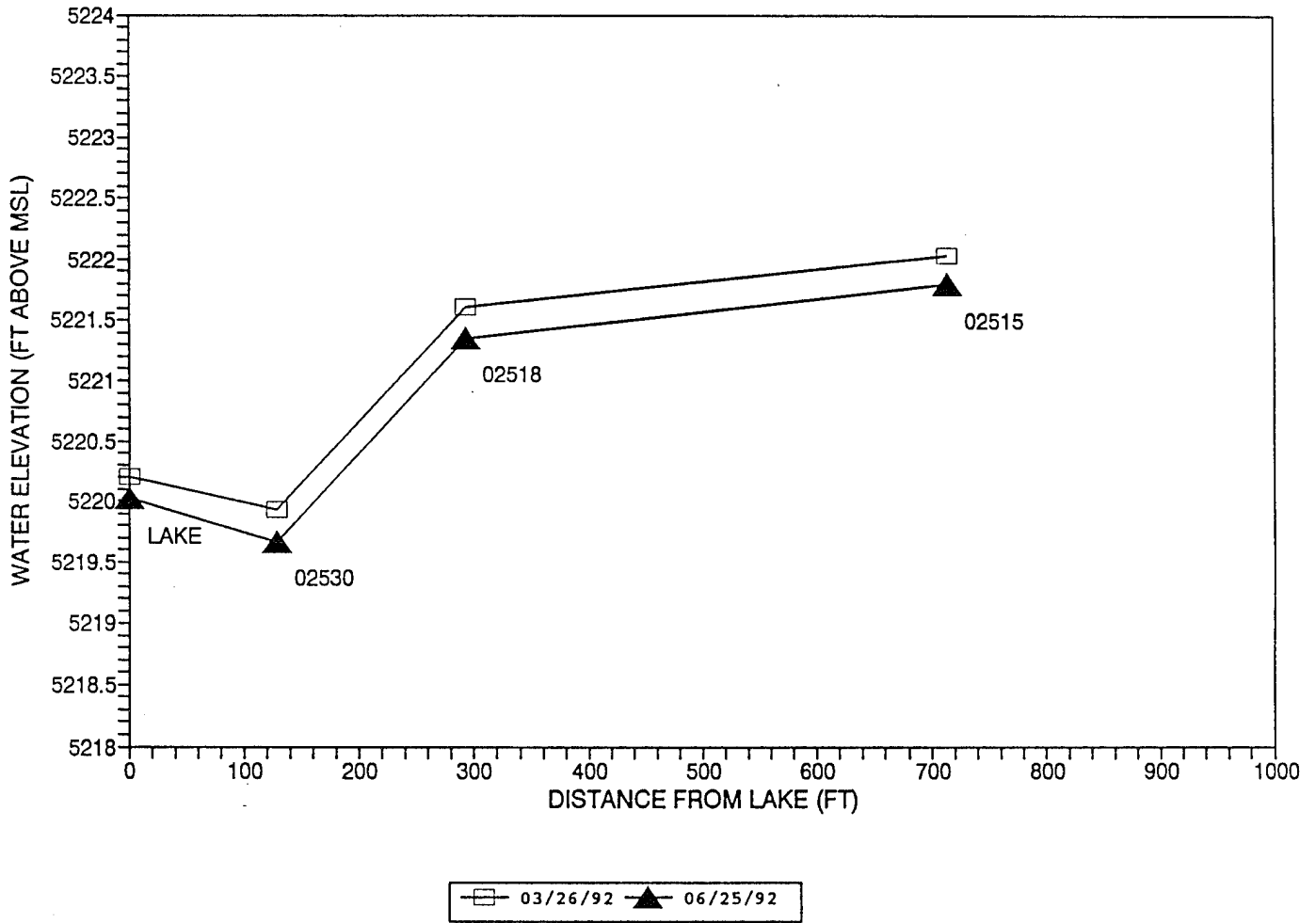


FIGURE 7
WATER LEVELS NEAR LAKE LADORA

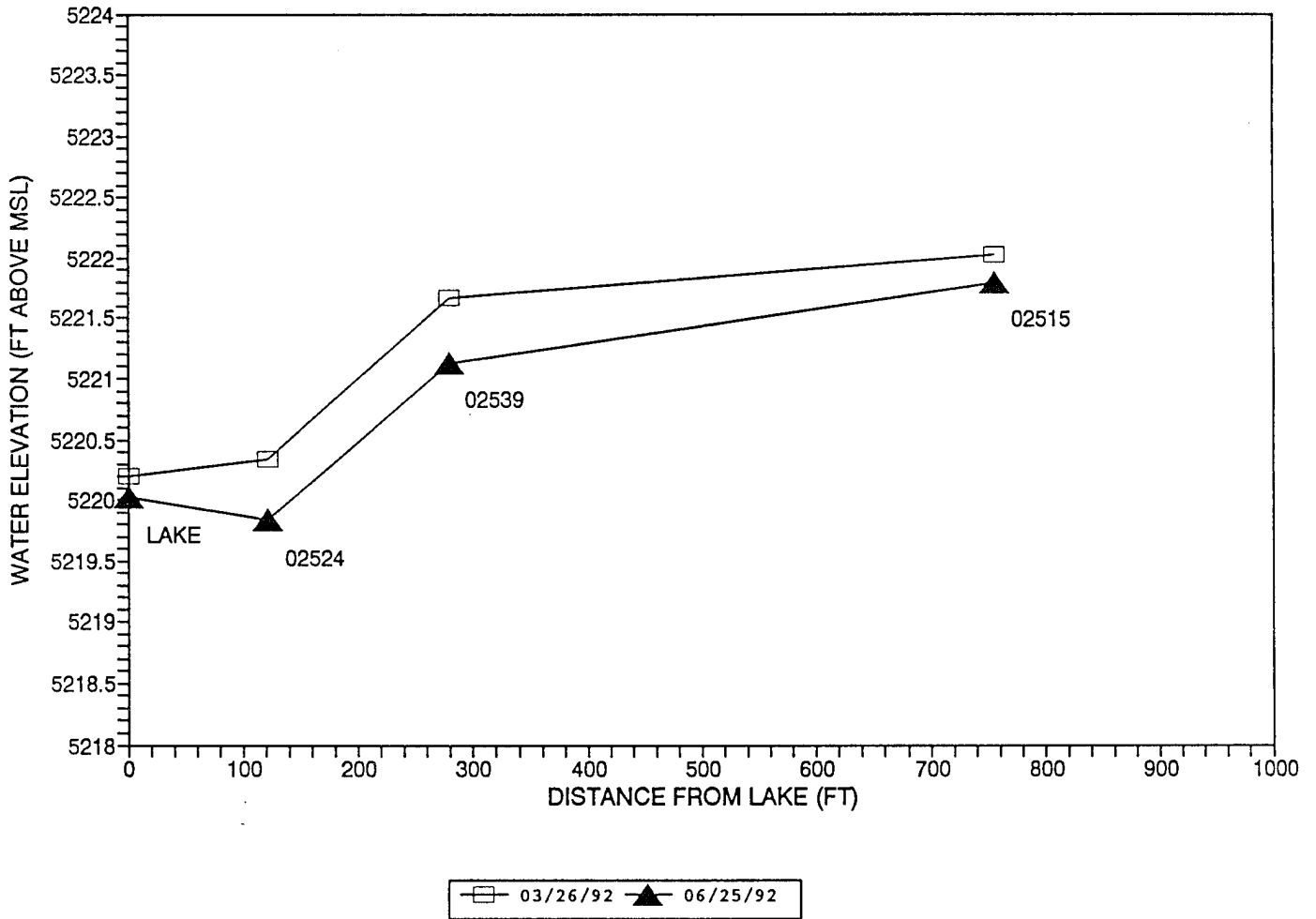


FIGURE 8
WATER LEVELS NEAR LAKE LADORA

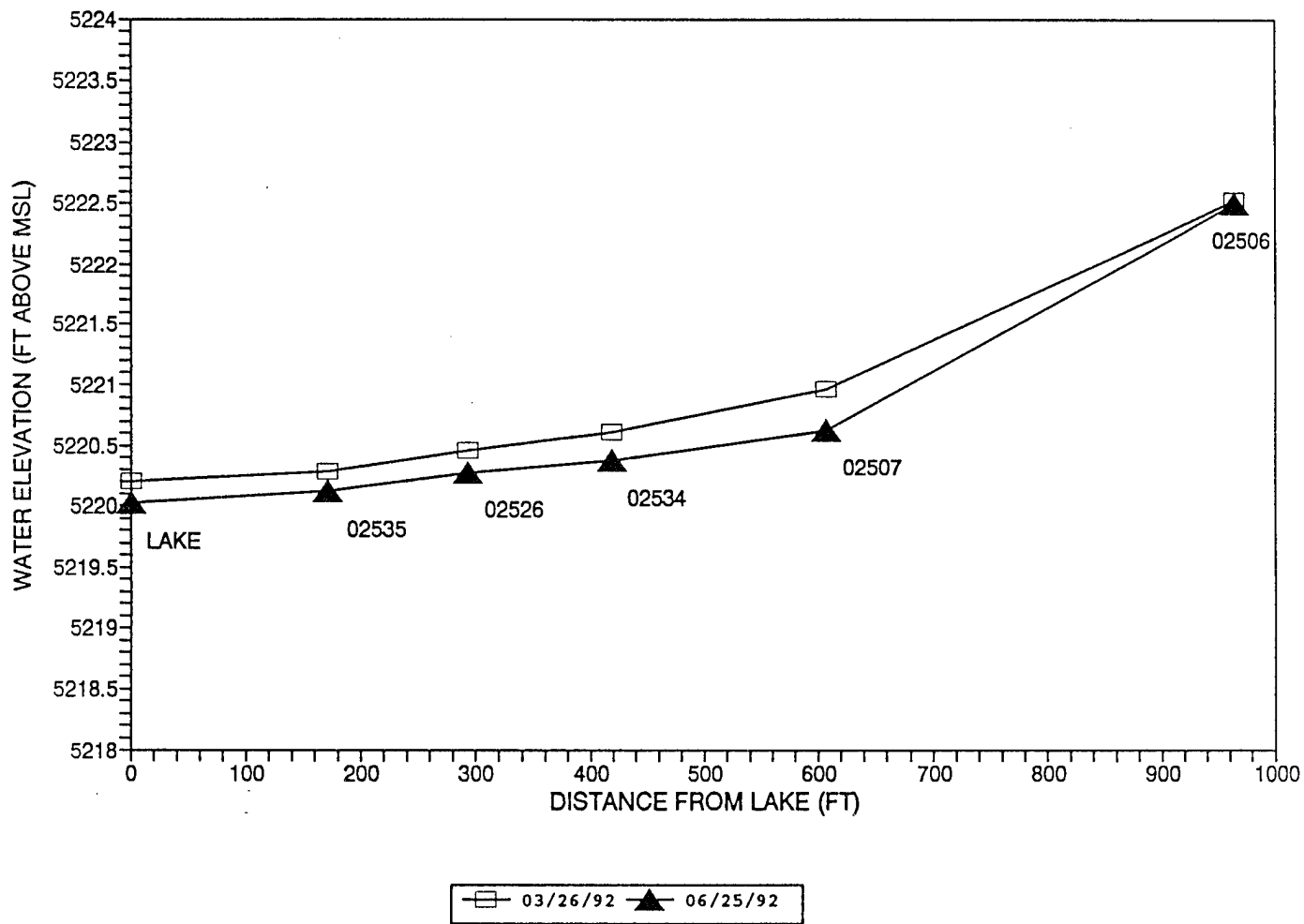


FIGURE 9
WATER LEVELS NEAR LAKE LADORA

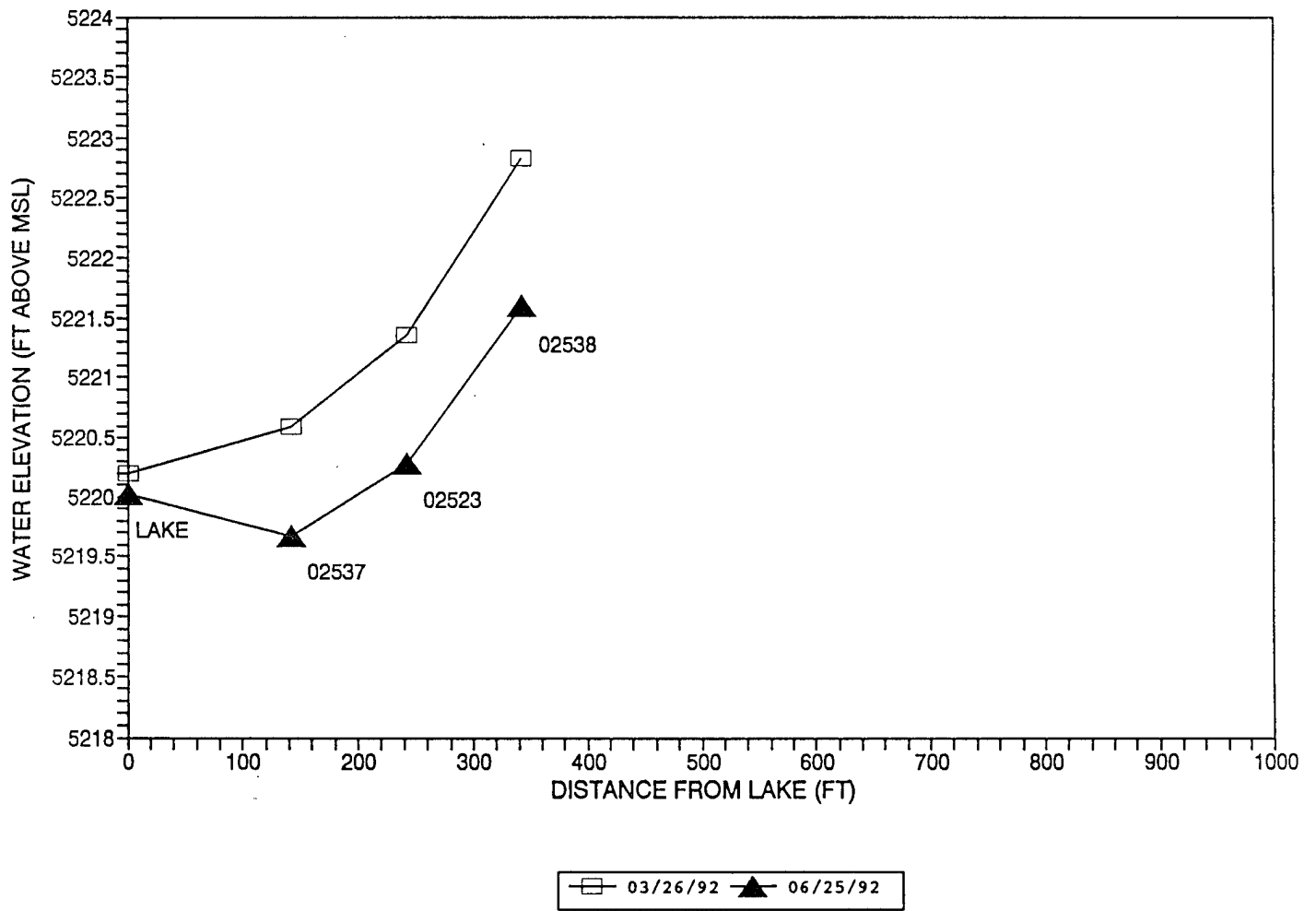


FIGURE 10
WATER LEVELS NEAR LAKE LADORA

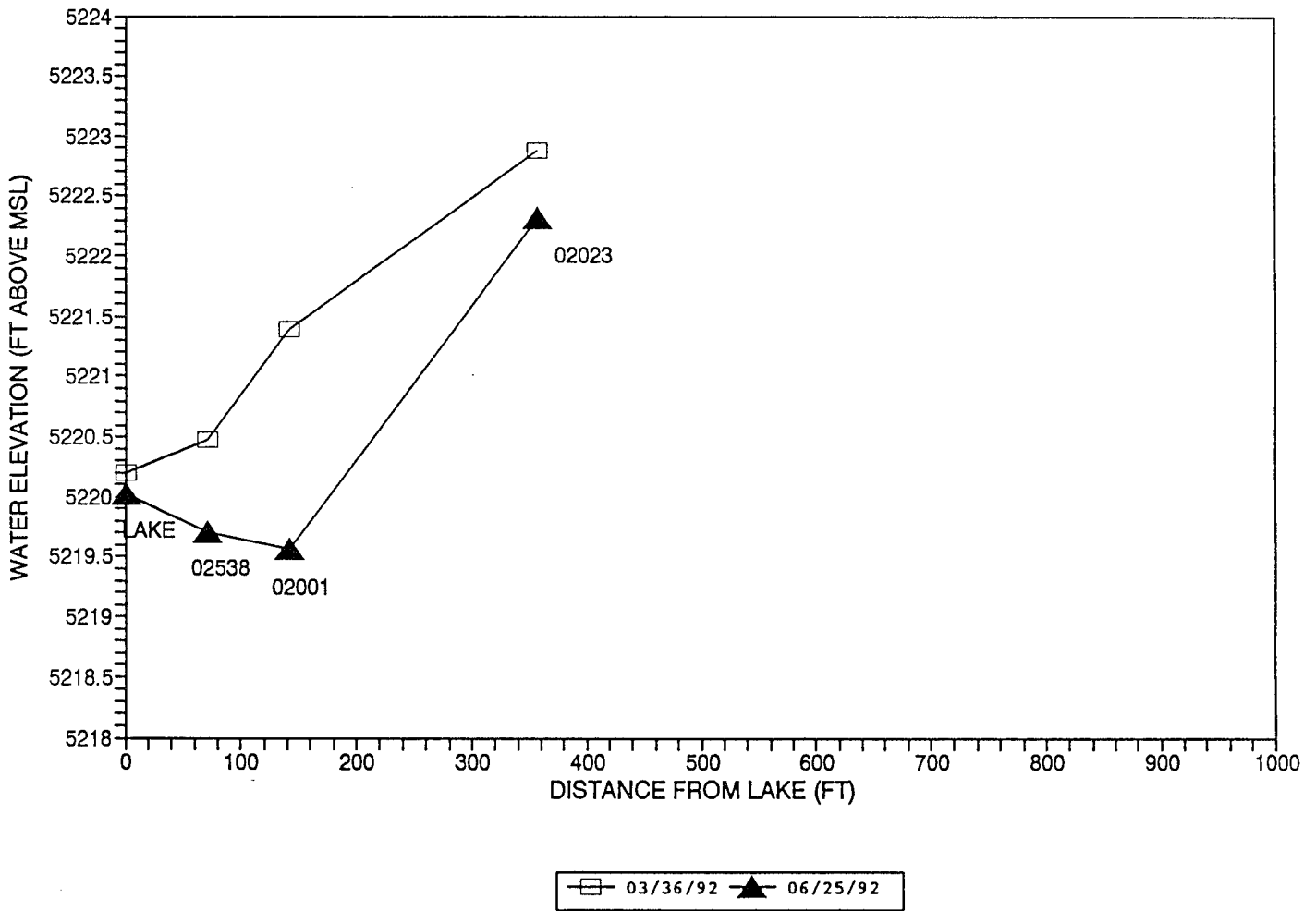


FIGURE 11
LAKE LADORA SURFACE ELEVATIONS

