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DATE: 31 August 95 TIME: 3:50
FROM: Michelle King PAGES (including cover sheet): 4
PROJECT: Sybase, Inc. PROJECT #: 9400LR-08

TO THE FOLLOWING:

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- REPORT
- LETTER/MEMORANDUM
- SPECIFICATIONS:
- OTHER:
- AS REQUESTED
- FOR APPROVAL
- FOR REVIEW & COMMENTS
- FOR INFORMATION & COORDINATION

MESSAGE: Changes to the Final Report, pursuant to our meeting on 8/29.
Please call me if you have any additional comments or suggestions

Michelle

Final Site Investigation Report
for the 64th and 65th Street Properties
Emeryville, California

Sybase, Inc., Emeryville, California
(EKI 940018.08)

EXECUTIVE SUMMARY

Results of the investigations on the properties at 1410 and 1450 64th Street and 1465 65th Street ("the Site") in Emeryville, California indicate that chemicals in soil and groundwater are manageable in a manner that is consistent with the planned use of the Site and current Regional Water Quality Control Board, San Francisco Bay Region ("RWQCB") policies. ←

Overall, chemical concentrations detected in soil samples collected from the Site are very low and should not present a significant incremental human health risk to construction personnel involved in the development of the Site or to future occupants of the Site.

- Metals concentrations in soil samples collected from the Site are low or not detected.
- The highest concentrations of petroleum hydrocarbons in soil (i.e., up to 3,400 mg/kg) are likely associated with the former oil refinery present on the Site more than 50 years ago. The petroleum hydrocarbons are of low toxicity and are relatively immobile.
- Sybase, Inc.'s proposed redevelopment plan for the Site should (1) restrict further downward migration of petroleum hydrocarbons to groundwater by preventing infiltration of rainwater and (2) prevent or minimize direct contact with the soil by future building occupants and maintenance personnel.
- Volatile organic chemicals ("VOCs") were not detected in 30 of 31 soil samples collected from the Site. The VOC concentrations detected in the one soil sample are low (i.e., less than 1 mg/kg).
- Polychlorinated biphenyls ("PCBs") were not detected in 26 of 27 soil samples collected from the Site. The PCBs were present in one sample at a concentration 0.032 mg/kg.

work with RWQCB and ACDEH staff to develop a risk management plan for the Site to address identified short-term and long-term risks. The objective of the risk management plan is to provide a framework to manage residual chemical occurrence in soil and groundwater on the Site in a manner that is consistent with a commercial/industrial land use and is protective of human health and water quality. The general components of the risk management plan are outlined in the sections below.

6.3.1 Short-Term Risk Management

The short-term risk management plan will address precautions that will be undertaken to ensure that human health and the environment are protected during construction for Sybase, Inc.'s planned redevelopment of the Site. Typical precautions are as follows:




- use appropriate level of personal protective equipment by earthwork construction personnel (e.g., workers who may directly contact soil containing chemicals of concern during Site preparation, grading, and foundation construction) who are health and safety trained to ensure that human health is protected during construction;
- pre-establish procedure(s) for earthwork construction personnel to manage soil that is obviously contaminated, as identified by visual observation or elevated OVM readings; and
- provide a narrative description of how the bay mud minimizes the risks to the deeper aquifer when piles are driven through shallow soil and groundwater containing chemicals of concern.

6.3.2 Long-Term Risk Management

The long-term risk-management plan will address precautions that will be undertaken to ensure that human health and the environment are protected after construction and redevelopment of the Site are complete. Any future construction that may affect potentially contaminated soil, the clean soil cap, building foundations, or pavement will be completed in a manner that is consistent with the risk management plan. Components of the long-term risk management plan are as follows:

- minimize or prevent exposure of future Site occupants to contaminated soil by capping such soil with

buildings or pavement and installing clean soil cover in landscaped areas;

- confirm that under relevant exposure scenarios, the potential risk to future on-site personnel by inhalation of chemicals volatilizing from soil or groundwater is negligible; 
- establish protocols for future on-site personnel engaged in subsurface excavation activities (e.g., utility repairs, changes in Site configuration) to define adequate protective measures; 
- assert that Sybase, Inc. will not use groundwater beneath the Site for potable or non-potable uses without first securing approval from RWQCB and ACDEH staff; 
- establish perimeter groundwater monitoring wells to confirm that groundwater quality is stable or improving; and
- describe the hydrogeology of the Site and its vicinity to assess the site-specific factors restricting migration of chemicals in the shallow aquifer zone to the deeper aquifer zone.

The groundwater monitoring plan will recommend the approximate location and number of wells to be installed, the chemical analyses to be performed on groundwater samples, the frequency of monitoring, contingency options if chemical concentration trends significantly increase, and procedures to terminate monitoring once it is shown that conditions are stable or improving.

7.0 REFERENCES

American Society for Testing and Materials, July 1994, *Emergency Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites*, ASTM Designation ES 38-94.

Blymyer Engineers, Inc., 13 February 1995, *Quarterly Groundwater Monitoring*, 1301 65th Street, Emeryville, California.

California Code of Regulations, Title 22, Section 64431, Revised 9 September 1994.