FINAL MARINE GEOPHYSICAL SURVEY
SAN FRANCISCO-OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT

VOLUME 2 - MAPS

Prepared for
CALIFORNIA DEPARTMENT OF TRANSPORTATION

March 2001
March 5, 2001  
Project No. 98-42-0054  

California Department of Transportation  
Engineering Service Center  
Office of Structural Foundations  
5900 Folsom Boulevard  
Sacramento, California 95819-0128  

Attention: Mr. Mark Willian  
Contract Manager  

**Final Marine Geophysical Survey**  
**SFOBB East Span Seismic Safety Project**  

Dear Mr. Willian:  

The geologic and geotechnical studies for the San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project are being conducted by Fugro-Earth Mechanics (a joint venture of Fugro West, Inc., and Earth Mechanics, Inc.) under California Department of Transportation (Caltrans) Contract 59A0053. The two-dimensional (2-D) and three-dimensional (3-D) marine geophysical surveys were conducted over the entire survey corridor specified by Caltrans as part of Task 1 (initial site characterization, geophysical survey phase) of the referenced contract. A supplemental 2-D geophysical survey was conducted in the area around Yerba Buena Island as a part of the Task 5 final site characterization studies. The marine exploration borings were conducted in 1998 as part of the Task 3 preliminary site exploration and testing (Phase 1) and Task 5 final site characterization studies (Phases 2) of the referenced contract. Additionally, cone penetration test (CPT) soundings, multi-beam bathymetric surveys, and a tidal flat bathymetric survey were conducted in 2000 as part of Task 5.  

Previous geophysical reports and maps produced by Fugro-Earth Mechanics (Fugro-EM) include the preliminary report, supplementary report, and final report of the 1998 Phase 1 2-D marine geophysical survey and the draft final report for the 1998 Phase 1 3-D survey. The preliminary findings of the 2000 Phase 3 marine geophysical survey were reported in a memorandum.  

This Final Marine Geophysical Survey report presents the results of the data acquisition, processing, and interpretation of the data from the three marine geophysical surveys. The interpretations integrate all of the geophysical, geotechnical, bathymetry, and geological data collected by Fugro-EM from 1998 to 2000 and pre-1998 geotechnical data provided by Caltrans. The report is a stand-alone submittal and the data and interpretations presented in this report supersede all those presented in the previous reports.  

The report is physically bound in two volumes. Volume 1 contains the main text, plates, and appendices, and Volume 2 contains the maps. Data and supporting information are presented on 16 large-scale maps, 2 large-scale cross sections, 120 plates, 9 tables, and 5 appendices. The latter address the field operations for the surveys and data processing of the navigation, bathymetric, and seismic reflection data.
On behalf of the project team, we appreciate the opportunity to contribute to Caltrans' design of the new bridge to replace the existing SFOBB East Span. Please call if we can answer any questions relative to the information presented in the enclosed report.

Sincerely,

FUGRO-EARTH MECHANICS, A Joint Venture

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