



# FAULT HAZARD ASSESSMENT STUDY for the Proposed La Jovita LNG Terminal Site Baja California, Mexico

## PROJECT DESCRIPTION

*Earth Consultants International (ECI)* was asked to assess the potential for surface faulting and construct a regional seismic source model for a proposed liquefied natural gas (LNG) facility at La Jovita, in Baja California, Mexico (Figure 1). The proposed LNG site lies ~20 miles south of the US-Mexico border on the actively deforming Salsipuedes headlands (Figure 2). The most significant potential seismic source in the site vicinity is the Agua Blanca-Descanso fault zone, which lies 5 to 12 kilometers offshore. With a slip rate of 4-5 mm/yr, this zone has the greatest likelihood and potential of producing strong ground shaking at the site. All other known significant (active) faults within 100 km of the site were assessed and summarized to compile the seismic source model.



Figure 1. Location map; box shows location of Figure 2

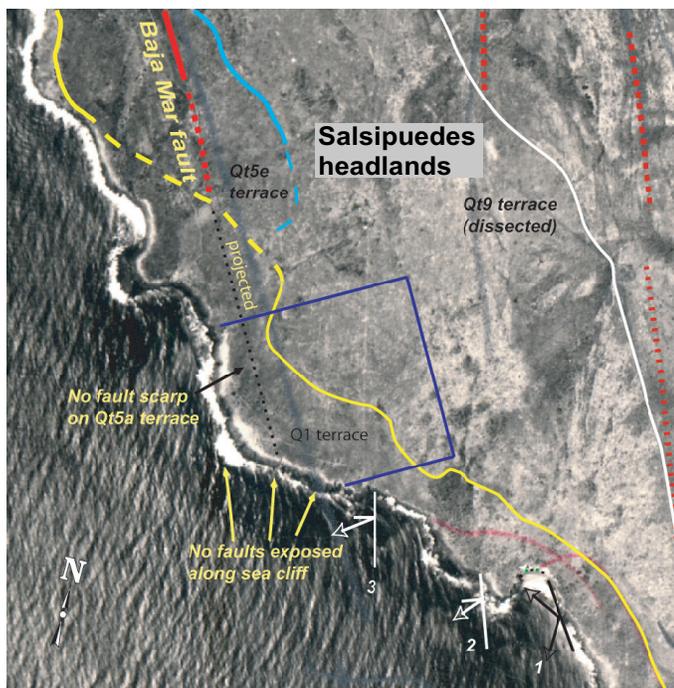


Figure 2. Aerial photograph of the site (outlined in dark blue). The lowest mapped paleo-shorelines are shown in yellow, light blue, and white. Faults are shown in red. Note the absence of a scarp along the projected trace of the Baja Mar fault.

## SOLUTION

*ECI* found several minor faults (in red) within the project area (Figure 2). Based on our field mapping and assessment of the ages of the marine terraces, none of the faults onsite appear to have been active in the past 80,000 years, although all of these faults have been active in the Quaternary. *ECI* found no onshore active faults or major slope failures on the proposed La Jovita LNG site. As a result, the primary geologic hazard at the site is the possibility of strong seismic shaking from the nearby Agua Blanca-Descanso fault zone. Rupture of one of the faults associated with uplift of the Salsipuedes headlands (e.g., Baja Mar fault) is also possible, although not as likely, due to its low slip rate.

