

Figure F1. Wireline downhole log data, Hole M0077A. RLLS = shallow-reading resistivity, RLLD = deep-reading resistivity, Res from IL = resistivity from induction, IL = conductivity,  $V_p$  =  $P$ -wave velocity, MSUS = magnetic susceptibility, GR = total gamma ray,  $T^\circ(\text{fluid})$  = borehole fluid temperature, Cond(fluid) = borehole fluid conductivity, Magn.Field = local magnetic field, OBI = optical borehole image, ABI = acoustic borehole image, ABI TT = traveltime acoustic image, ACCAL-max = maximum acoustic borehole diameter, ABI TT cross section = traveltime cross section of the borehole. See Downhole logging in the Expedition 364 methods chapter (Gulick et al., 2017a) for tool descriptions.

Figure F2. Wireline downhole log data 77–81 m WSF, Hole M0077A. ACCAL-mean = mean acoustic borehole diameter.

Figure F3. Wireline downhole log data 472–478 m WSF, Hole M0077A.

Figure F4. VSP, Hole M0077A. A. Vertical component recorded on downhole receivers located between 47.5 and 500.0 m WSF. Noisy traces were removed. Data are stacked, and automatic gain control was applied to the stacked data. A top mute was applied to remove noise prior to the first breaks. R = first-arrival traveltime of a strong reflector from below 500 m WSF. B. One-way traveltime for first-break picks. C. Differential  $P$ -wave velocity.

Figure F5. VSP, Hole M0077A. Horizontal components recorded on downhole receivers located between 47.5 and 500 m WSF. A. Radial component. B. Azimuthal component. Noisy traces were removed. Data are stacked, and automatic gain control was applied to the stacked data. A top mute was applied to remove noise prior to the first breaks. S = potential  $S$ -wave arrivals.