

Supplementary Materials: The following supporting information can be downloaded at: Figure S1: (a) Location of wells drilled in the study area in two distinctive periods: 1936-1943 (TRA\_1 to 44) and 1958-1959 (TRA\_45), represented on a geological map enlarged from Fig. 5; (b) reinterpretation of the well logs.

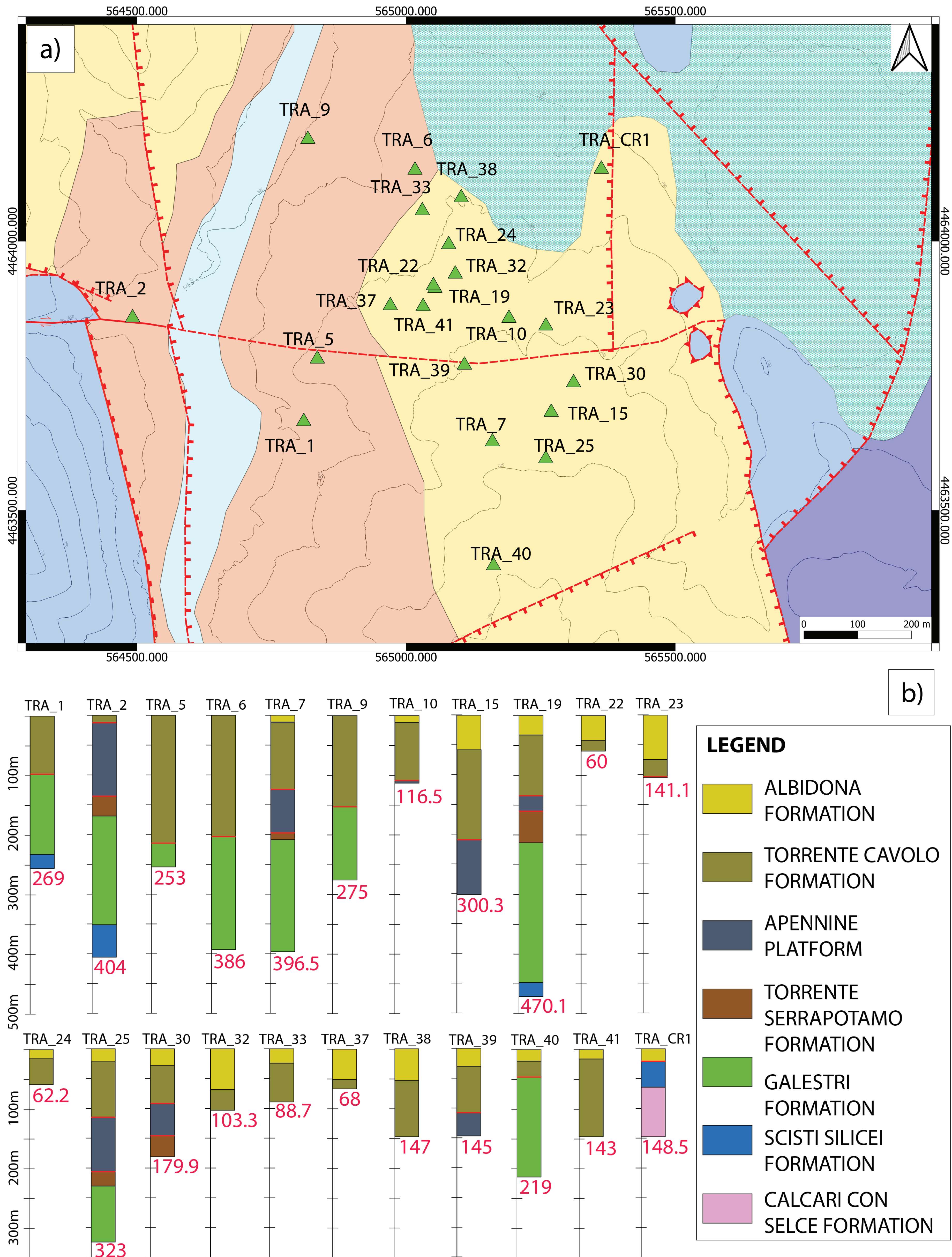




Figure S2: Example of interpreted Logs in the Tramutola area (TRA\_2, 9, 19 and 30). The different colours of the boxes identify the interpreted formations. Yellow: Albidona Formation, Olive Green: Torrente Cavolo Formation, Dark Blue: Apennine Platform Unit, Brown: Torrente Serrapotamo Formation, Green: Galestri Formation, Light Blue: Scisti Silicei Formation. Tectonic contacts are traced with red lines. Text in the boxes shows the translation of the original log descriptions in Italian.

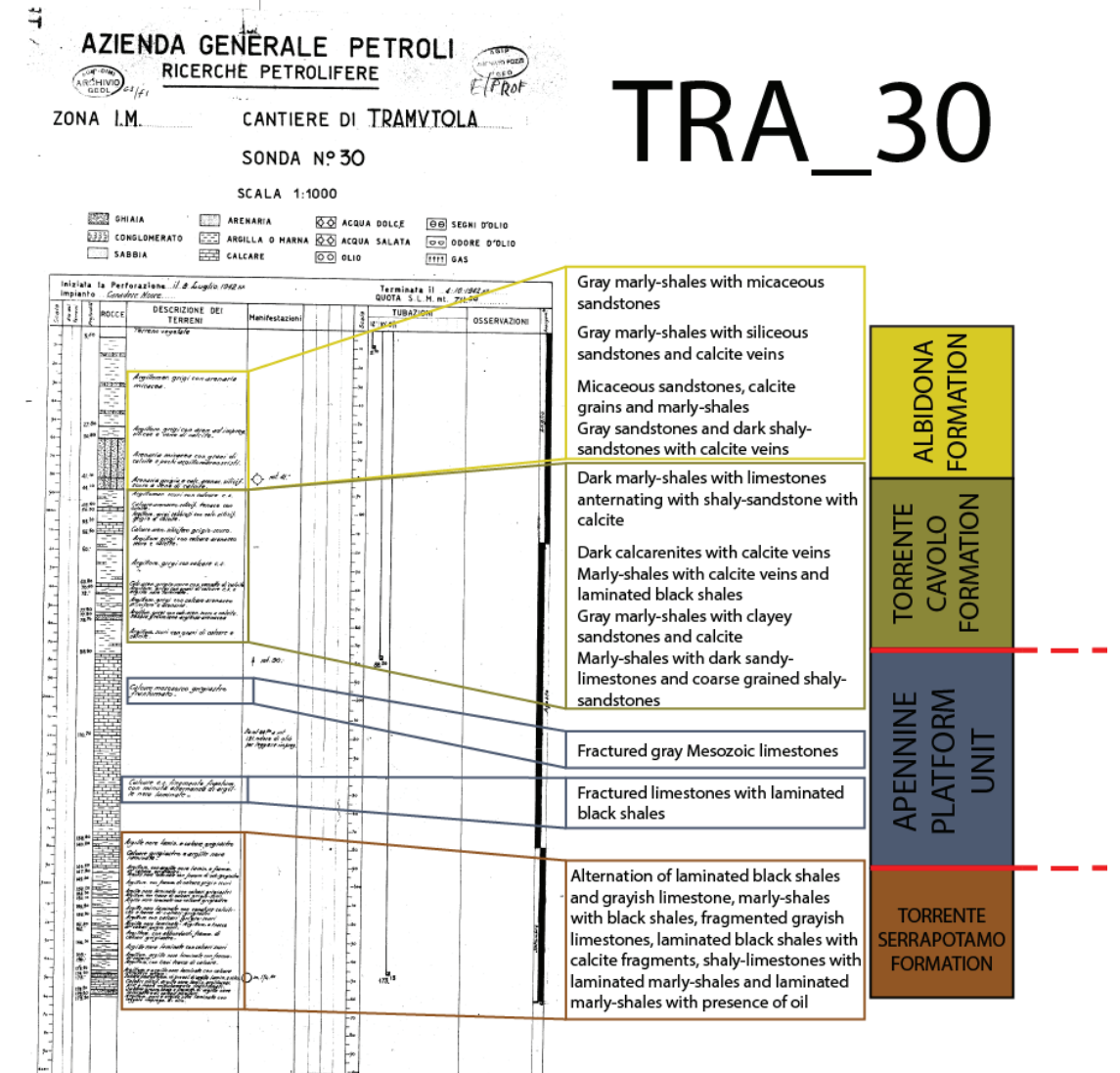
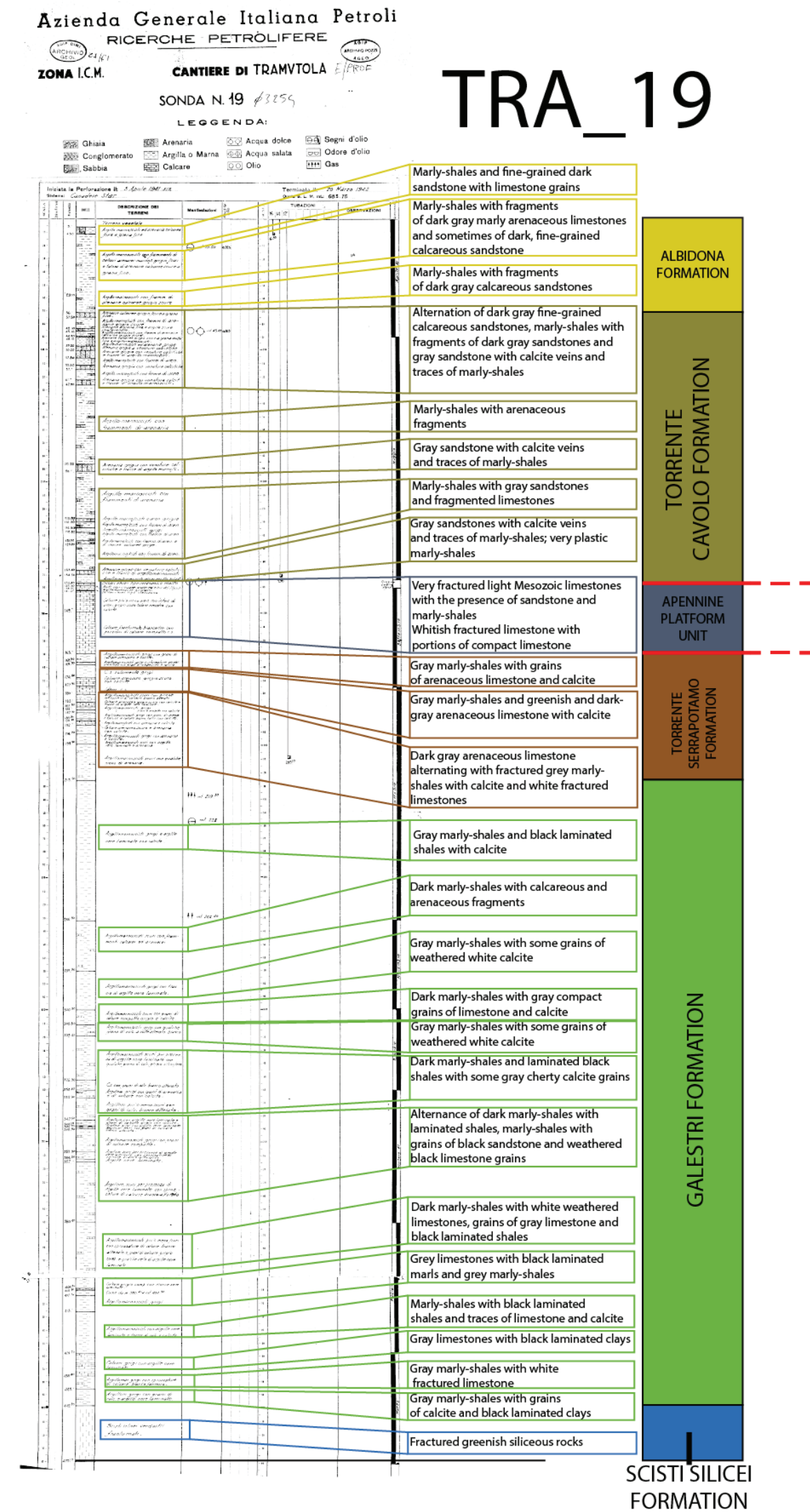
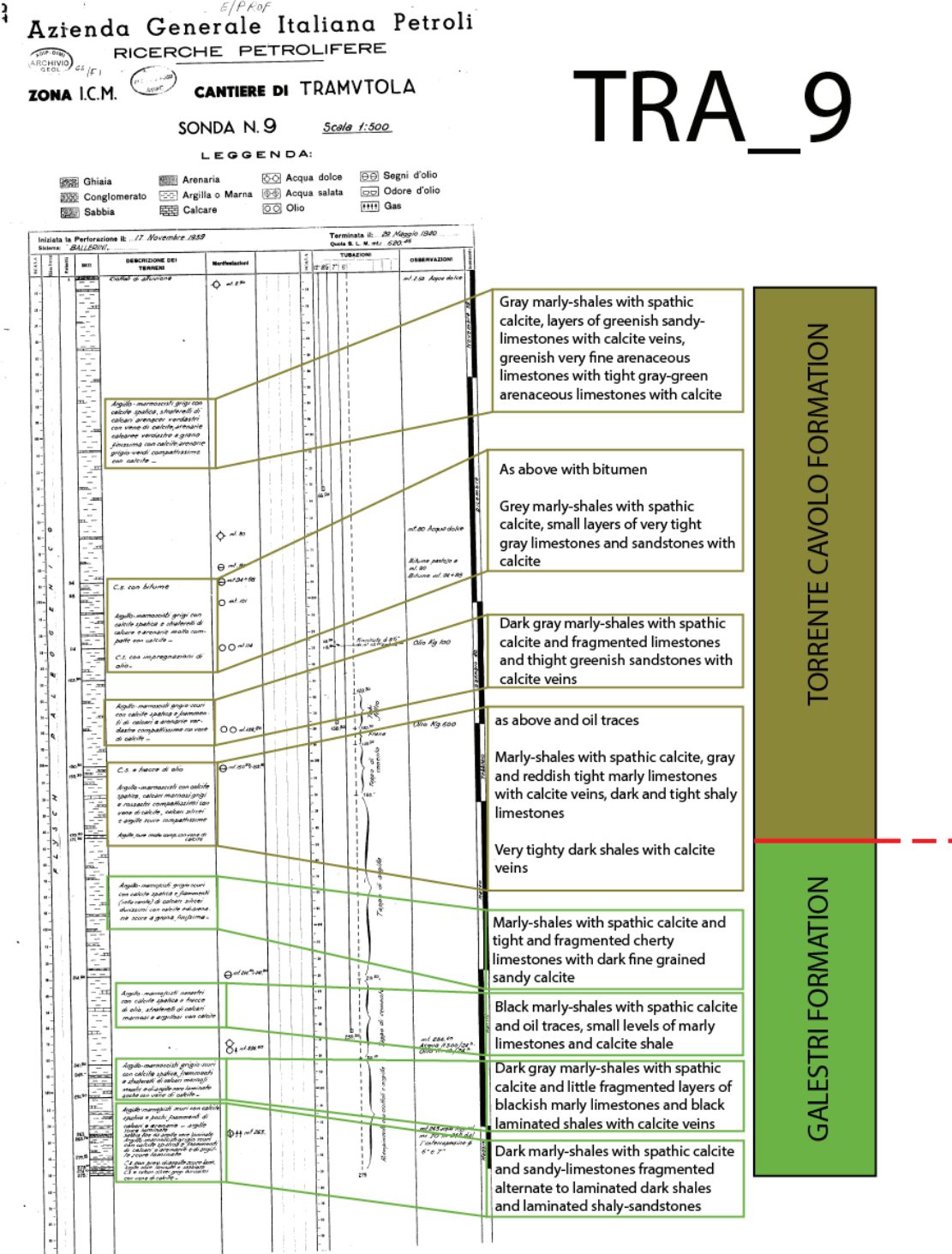
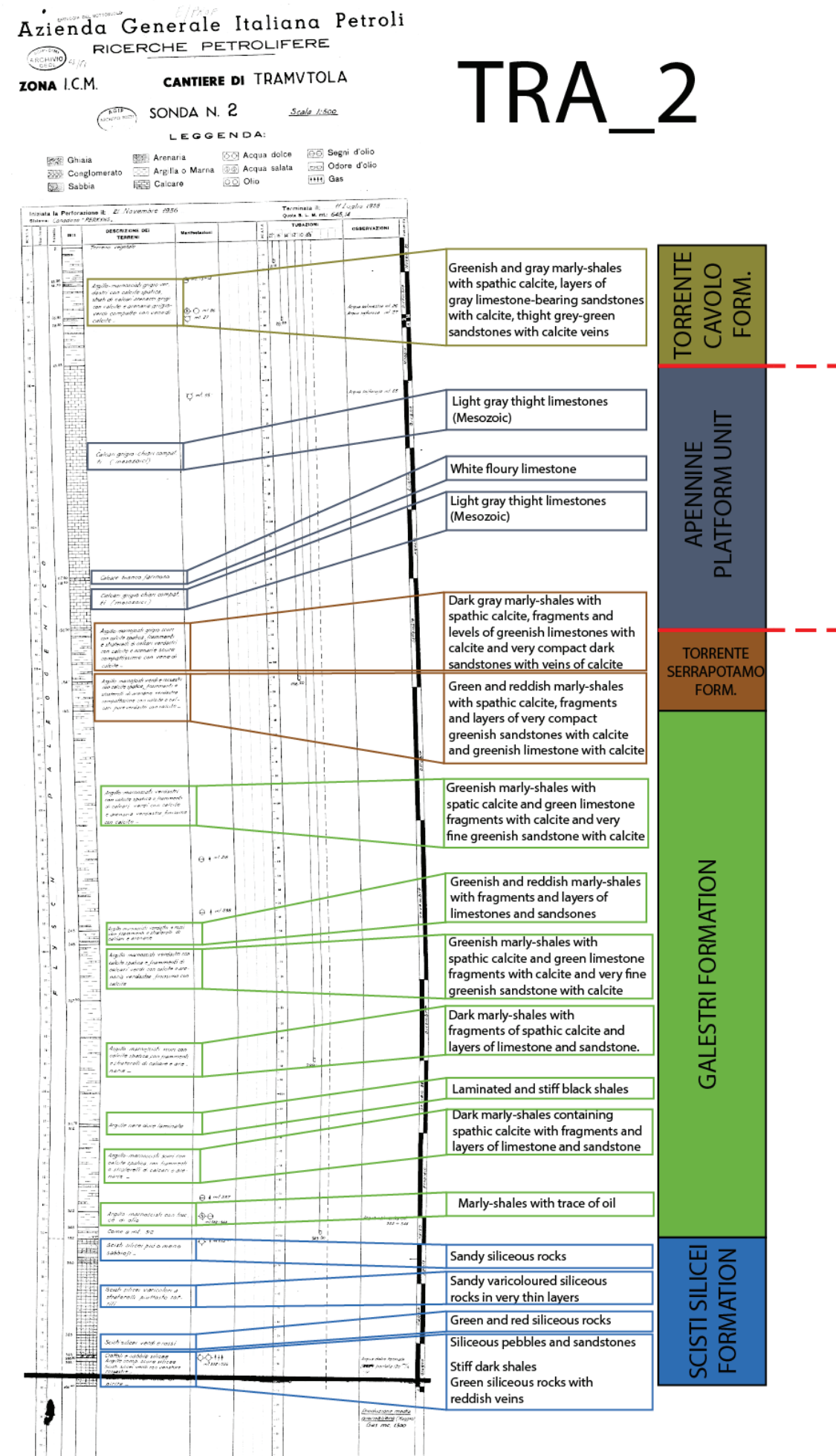




Figure S3: (a) DERT results. Black lines are faults, black dashed lines are low angles tectonic contacts (1-4); (b) Well log data of the TRA\_45, 2 and 9 wells, located in proximity of the DERT profile.

