

APPENDIX 2 Air photos of selected sites – source stereo-photos dated 1936 and 1937

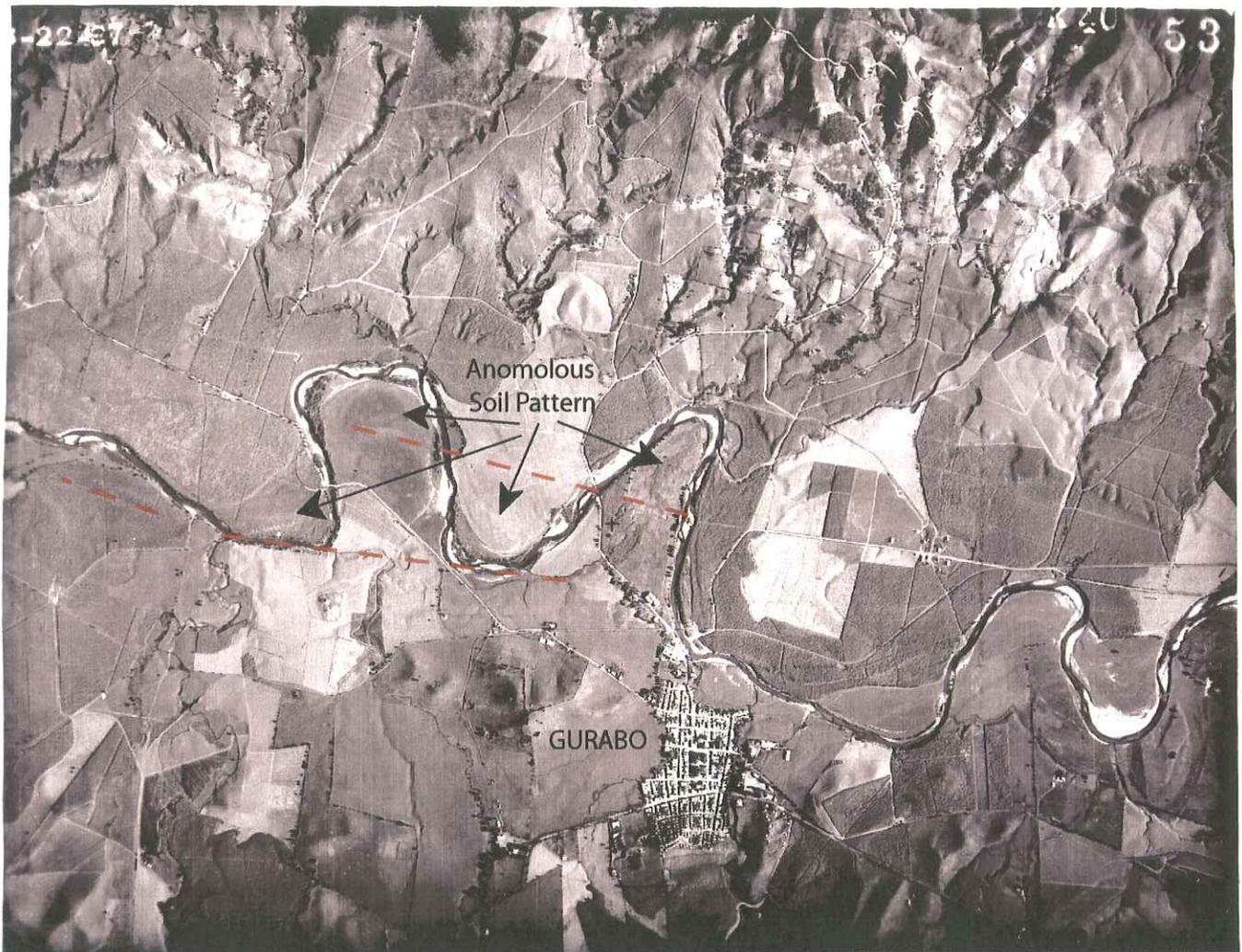


Figure A2a: Gurabo. Aerial photograph K40-53 taken in 1937 (scale: 1:18,000) shows anomalous soil pattern suggestive of sand blows and topographic lineaments across Quaternary deposits near Gurabo suggest that the Cerro Mula fault may be active.



Figure A2b: Gurabo-Loiza. Aerial photograph K46-25 taken on April 18, 1937 (scale: 1:18,000) shows aligned linear river segments and topographic lineaments across Quaternary deposits near the confluence of Rio Gurabo and Rio Loiza suggest that the Cerro Mula fault may be active.

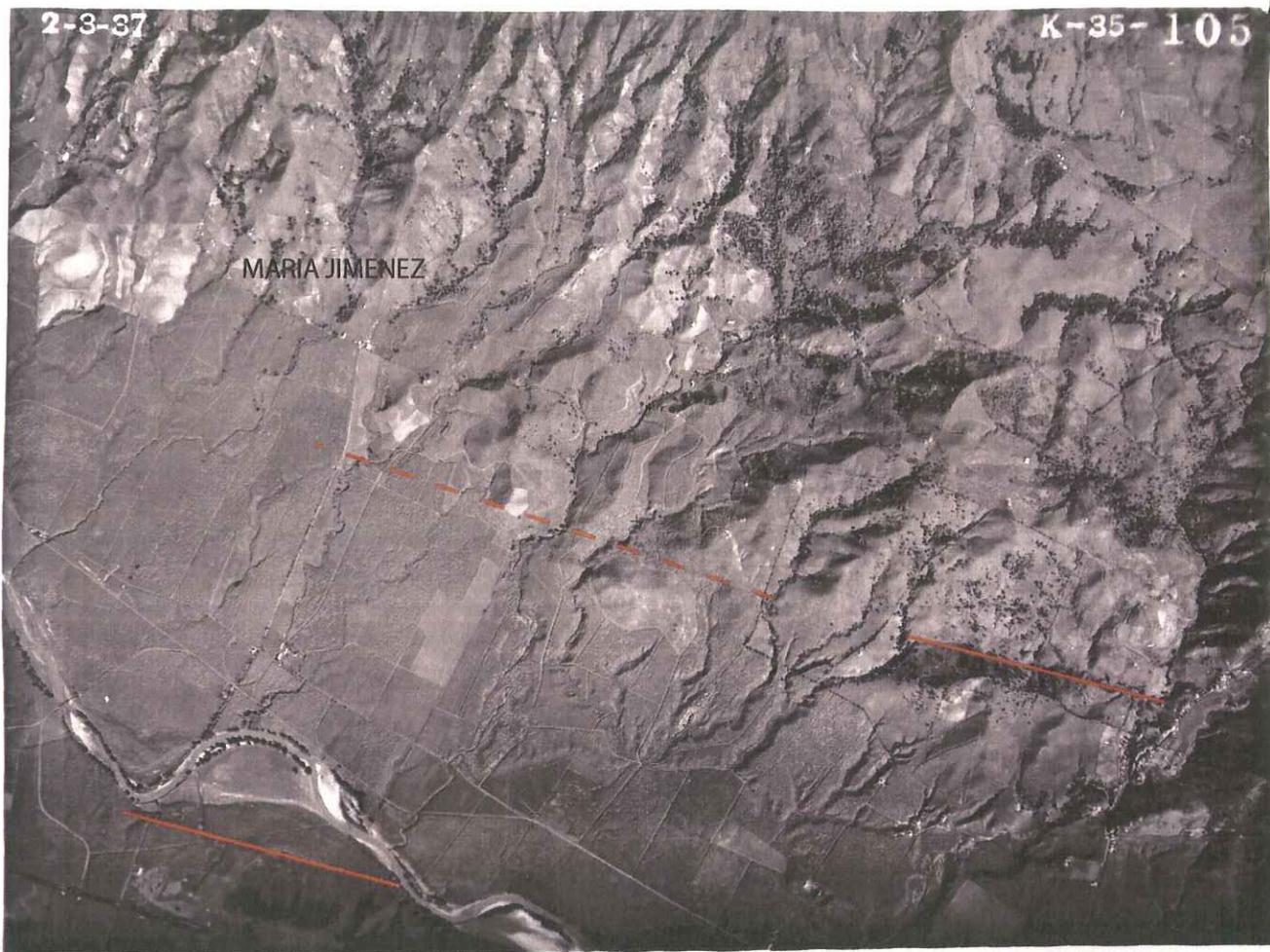


Figure A2c Maria Jimenez. Aerial photo K35-105 taken on February 3, 1937 (scale: 1:18,000) shows aligned topographic lineaments through saddles, along lateral valleys, and across stream deflections.

(continued in file "Valenciano-flt-A2.2.doc")

APPENDIX 2 cont'd Air photos of selected sites – source stereo-photos dated 1936 and 1937



Figure A2d: Valenciano. Aerial photograph K-35-57 taken on February 3, 1937 (scale: 1:18,000) shows aligned linear river segments and topographic lineaments (shown in red) coincident with unnamed fault and other aligned topographic lineaments probably related to bedrock joints (shown in yellow).

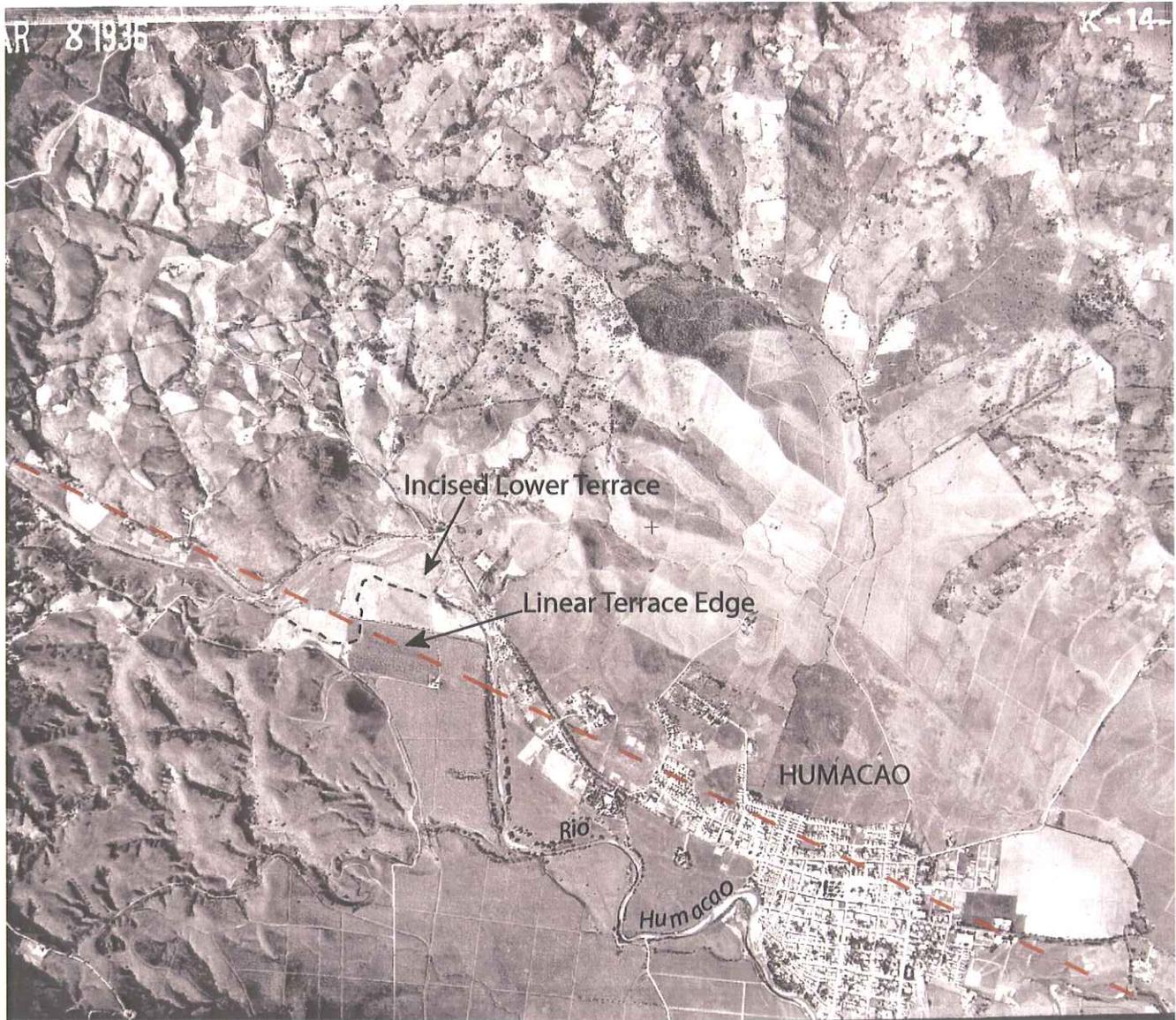


Figure A2e: Humacao. Aerial photograph K14-1407 taken on March 8, 1936 (scale: 1:18,000) shows aligned linear river valley and topographic lineaments across Quaternary deposits near Humacao.

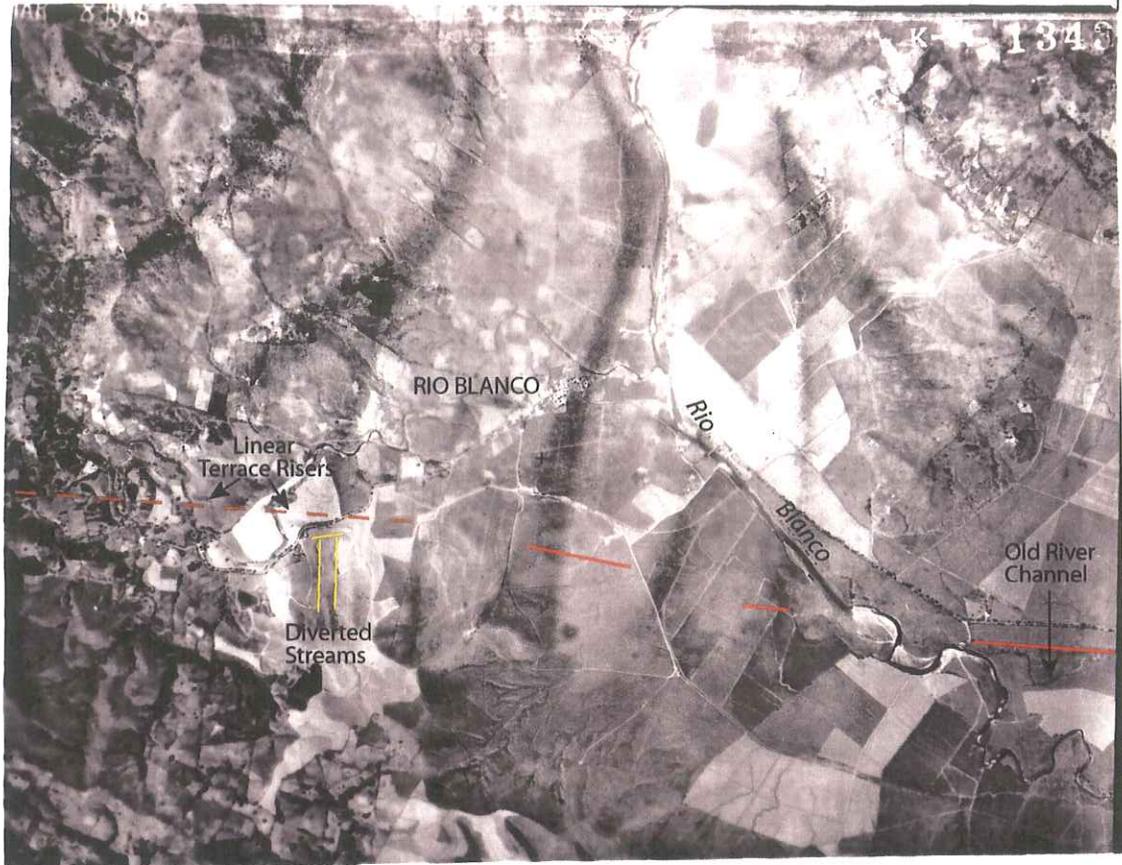


Figure A2f: Rio Blanco. Aerial photograph K14-1343 taken on March 8, 1936 (scale: 1:18,000) shows aligned linear terrace risers and topographic lineaments across Quaternary deposits near Rio Blanco coincident with mapped trace of Pena Pobre fault. The sinuosity of Rio Blanco changes where crossed by the fault. In addition, the river channel changed to a more southerly course sometime during the Holocene.

APPENDIX 3 Lidar views of Caguas–Gurabo site, lower Valenciano Valley, loer Humacao gorge, Rio Blanco site.



Figure A3a. Lidar of view of area from northern Caguas to western Gurabo. North is up. Width of image 5.5 km. Area of the image is delineated in Figure 3. Linear edge on northern margin of prominent ridge extends to a pattern of slope breaks along similar trends to east. A topographic profile is inset across terrace feature to east. Features closely associated with mapped location of branch of Cerro Mula fault.

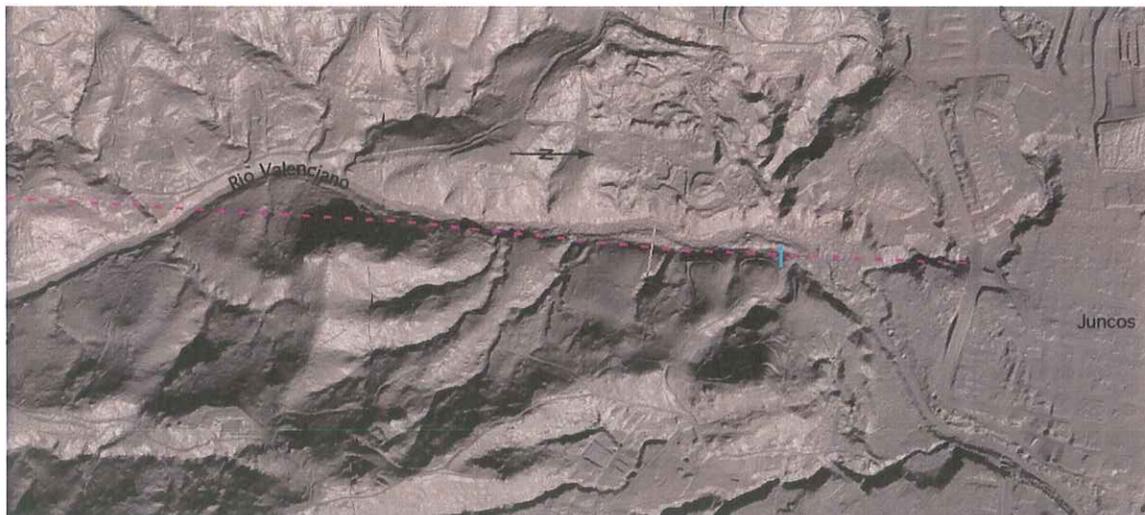


Figure A3b. Lidar of view of northwestern extent of Valenciano Valley. North is to right. Width of image 2.5 km. Area of the image is delineated in Figure 3. Middle section of Rio Valenciano (north trending) projects to gully containing shear indicators in bedrock (J. Joyce pers. comm.). Note linear pattern of eastern slope margin is suggestive of structural control. Blue line indicates site for further field examination.

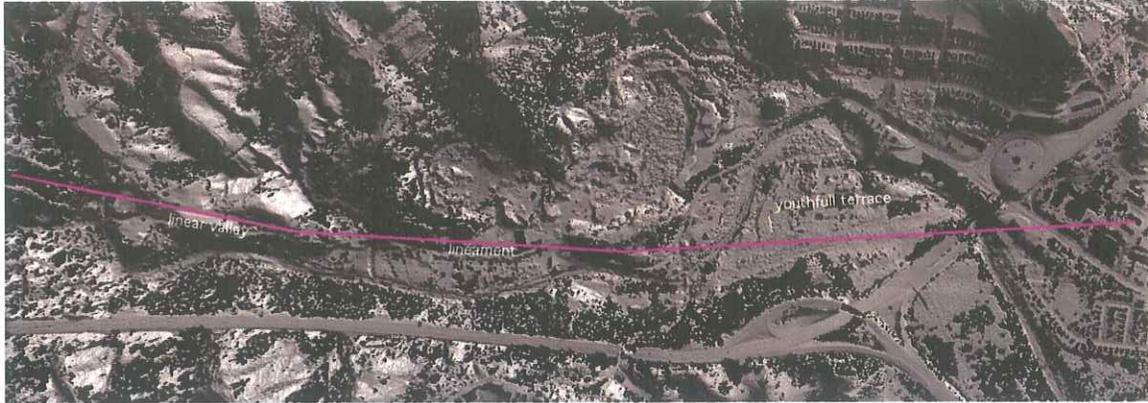


Figure A3c. Lidar of view of lower area of Rio Humacao gorge and western Humacao (source USGS). Width of image 2.7 km. WNW to left. The area of the image is delineated in Figure 3. Pink line is derived from alignment of bedrock features on north side of gorge. Bedrock normal fault is mapped through gorge by published Humacao quadrangle geological map.

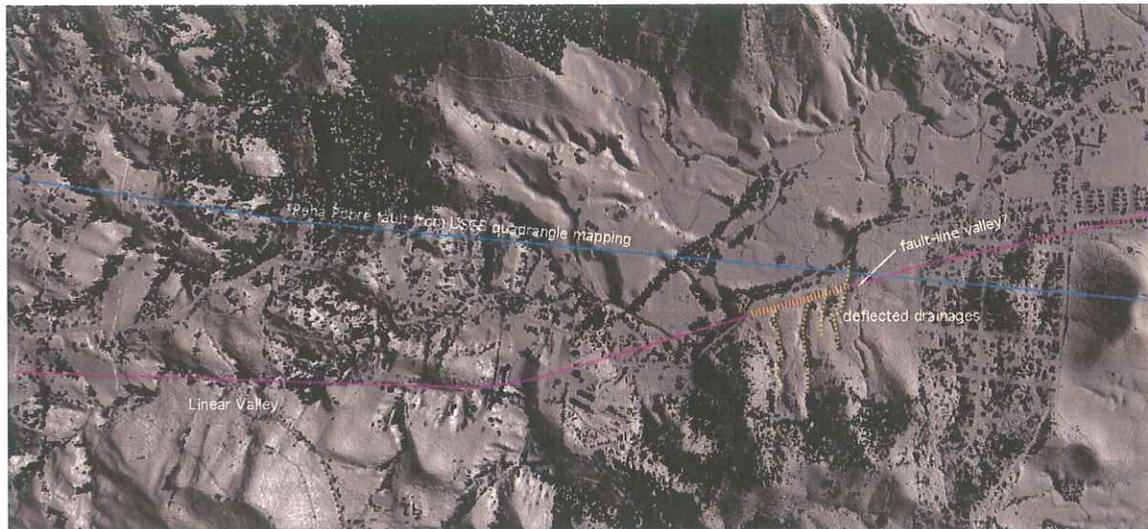


Figure A3d. Lidar of view of area from Rio Blanco to Pena Pobre (source USGS). North is at top. Width of image 2.9 km. The area of the image is delineated in Figure 3. Deflection of several streams by linear ridge west of Rio Blanco indicates faulting or bedrock control. Upper thickness of ridge is exposed along Rte 31, and is comprised of old alluvium. This feature projects to linear valleys to west and younger terrace surfaces immediately to east and west. Trend of features is proximate to but  $\sim 20^\circ$  oblique to Pena Pobre bedrock fault as mapped.