

Laboratory Key #4 - Geologic Surface Processes in Dry Lands

1. TX, AZ, CA (and many others possible)
2. CA, AZ, NM (and others possible)
3. Mid-latitude (rain shadow) deserts
4. Upland (intermittent) streams (bajadas, alluvial fans, playa lakes...etc.... see Figure 3)
5. Sand dunes, pedestal rock, desert pavement, ventifacts (see Figure 2)
6. 36° 15' N, 117° 5' W
7. Mid-latitude (rain shadow) deserts
8. Death Valley is early stage
9. Death Valley will become late stage
10. Mountain Ranges
11. around the upland streams and the playa lake (sources of water)
12. Streams carry all of their load (including chemicals in the dissolved load) to the valleys where they evaporate and leave the chemicals behind in the playas.
13. Playa Lake
14. they are Intermittent
15. an alluvial fan
16. Southeast
17. small brown dots
18. < 5 %, and the words 'sand dunes' do NOT appear in the definition of a desert
19. a bajada
20. -282 ft
21. 14 miles

22. $(9064 \text{ ft} - 282 \text{ ft}) / 14 \text{ miles} = 667.57 \text{ ft/mile}$
23. Inselbergs
24. Pediment - the flat, sediment-filled, region between inselbergs
25. Late Stage
26. $(3690 \text{ ft} - 2200 \text{ ft}) / 21.5 \text{ miles} = 69 \text{ ft/mile}$
27. the Rio Grande is a lowland river
 - wide, permanent channel
 - meanders
 - adjacent floodplain
28. the intermittent streams are upland streams
 - small channels
 - relatively straight
 - no floodplains
29. NOT eolian, no sand dunes or desert features on the map
30. Fluvial, lowland river and upland streams are the dominate features on this map