

TABLE 18.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

[The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" apply only to the surface layer. Absence of an entry indicates that the data were not available or were not estimated.]

| Map symbol and soil name | Depth | Permeability | Available water capacity | Reaction | Salinity | Shrink-swell potential | Risk of corrosion | | Erosion factors | | Wind erodibility group |
|--------------------------|---------------------------------|--|--|--|------------------------------|--|--|--|------------------------------|------------------|------------------------|
| | | | | | | | Uncoated steel | Concrete | K | T | |
| | In | In/hr | In/in | pH | Mmhos/cm | | | | | | |
| 1----- Arno | 0-60 | <0.06 | 0.01-0.10 | 7.9-8.4 | 4-16 | High----- | High----- | Low----- | 0.32 | 5 | 4 |
| 2: * Arno | 0-60 | <0.06 | 0.01-0.10 | 7.9-8.4 | 4-16 | High----- | High----- | Low----- | 0.32 | 5 | 4 |
| Pecos | 0-8 8-60 | 0.06-0.2 <0.06 | 0.01-0.15 0.01-0.15 | 7.9-8.4 7.9-8.4 | 4-16 4-16 | High----- High----- | High----- High----- | Low----- Low----- | 0.32 0.32 | 5 5 | 4 4 |
| Patrole | 0-32 32-45 45-60 | 0.6-2.0 <0.06 --- | 0.04-0.15 0.04-0.15 --- | 7.9-8. 7.9-8.4 --- | 4-16 4-16 --- | Low----- High----- High----- | High----- High----- High----- | Low----- Low----- Low----- | 0.43 0.28 --- | 3 3 | 4L 4L |
| 3----- Balmorhea | 0-18 18-28 28-34 34-60 | 0.2-0.6 0.2-0.6 0.2-0.6 0.6-2.0 | 0.15-0.22 0.15-0.22 0.14-0.20 0.14-0.20 | 7.9-8.4 7.9-8.4 7.9-8.4 7.9-8.4 | <4 <4 <4 <4 | Moderate Moderate Moderate Moderate | High----- High----- High----- High----- | Low----- Low----- Low----- Low----- | 0.15 0.15 0.15 0.15 | 5 5 5 5 | 4L 4L 4L 4L |
| 4*----- Balmorhea | 0-18 18-28 28-34 34-60 | 0.2-0.6 0.2-0.6 0.2-0.6 0.6-2.0 | 0.05-0.18 0.05-0.18 0.04-0.18 0.04-0.15 | 7.9-8.4 7.9-8.4 7.9-8.4 7.9-8.4 | 4-16 4-16 4-16 4-16 | Moderate Moderate Moderate Moderate | High----- High----- High----- High----- | Low----- Low----- Low----- Low----- | 0.15 0.15 0.15 0.15 | 5 5 5 5 | 4L 4L 4L 4L |
| 5*----- Bigetty | 0-28 28-60 | 0.2-0.6 0.6-2.0 | 0.19-0.21 0.16-0.21 | 7.9-8.4 7.9-8.4 | 2-4 2-4 | Moderate Low----- | High----- High----- | Low----- Low----- | 0.43 0.37 | 5 5 | 4L 4L |
| 6: * Bigetty | 0-60 | 0.2-0.6 | 0.19-0.21 | 7.9-8.4 | 2-4 | Moderate | High----- | Low----- | 0.43 | 5 | 4L |
| Hockhouse | 0-15 15-60 | 0.6-2.0 6.0-20 | 0.08-0.16 0.02-0.06 | 6.6-8.4 6.6-8.4 | <2 <2 | Low----- Low----- | Low----- Low----- | Low----- Low----- | 0.24 0.10 | 5 5 | 8 8 |
| 7: * Boracho | 0-12 12-20 20-60 | 0.6-2.0 --- --- | 0.08-0.12 --- --- | 7.9-8.4 --- --- | <2 --- --- | Low----- --- --- | High----- --- --- | Low----- --- --- | 0.17 --- --- | 1 1 1 | 8 8 8 |
| Espy | 0-17 17-24 24-60 | 0.6-2.0 --- --- | 0.08-0.16 --- --- | 7.4-8.4 --- --- | <2 --- --- | Moderate --- --- | High----- --- --- | Low----- --- --- | 0.10 --- --- | 1 1 1 | 8 8 8 |
| 8*----- Brewster | 0-6 6-12 | 0.6-2.0 --- | 0.05-0.14 --- | 6.1-7.8 --- | <2 --- | Low----- --- | Moderate --- | Low----- --- | 0.10 --- | 1 1 | 8 8 |
| 9: * Brewster | 0-10 10-17 | 0.6-2.0 --- | 0.05-0.14 --- | 6.1-7.8 --- | <2 --- | Low----- --- | Moderate --- | Low----- --- | 0.10 --- | 1 1 | 8 8 |
| Rock outcrop. | | | | | | | | | | | |
| 10: * Canutio | 0-60 | 2.0-6.0 | 0.04-0.08 | 7.9-8.4 | <2 | Low----- | High----- | Low----- | 0.10 | 5 | 8 |
| Delnorte | 0-11 11-20 20-60 | 0.6-2.0 --- --- | 0.06-0.12 --- --- | 7.9-8.4 --- --- | <2 --- --- | Very low --- --- | High----- --- --- | Low----- --- --- | 0.10 --- --- | 1 1 1 | 8 8 8 |
| 11----- Dalby | 0-26 26-60 | <0.06 0.06-0.2 | 0.12-0.17 0.10-0.17 | 7.9-8.4 7.9-8.4 | <8 4-16 | Very high Very high | High----- High----- | Low----- Low----- | 0.32 0.32 | 5 5 | 4 4 |
| 12: * Delnorte | 0-12 12-32 32-80 | 0.6-2.0 --- --- | 0.06-0.12 --- --- | 7.9-8.4 --- --- | <2 --- --- | Very low --- --- | High----- --- --- | Low----- --- --- | 0.10 --- --- | 1 1 1 | 8 8 8 |

See footnote at end of table.

TABLE 18.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

| Map symbol and soil name | Depth | Permeability | Available water capacity | Reaction | Salinity | Shrink-swell potential | Risk of corrosion | | Erosion factors | | Wind erodibility group |
|--------------------------|---------------------------------|--------------|-------------------------------------|-------------------------------|-------------------|----------------------------------|-------------------------------------|-----------------------------------|-----------------|-----|------------------------|
| | | | | | | | Uncoated steel | Concrete | K | T | |
| | In | In/hr | In/in | pH | Mmos/cm | | | | | | |
| 12:* | | | | | | | | | | | |
| Nickel----- | 0-60 | 2.0-6.0 | 0.07-0.09 | 7.9-8.4 | <2 | Low----- | High----- | Low----- | 0.17 | 5 | 8 |
| 13* | | | | | | | | | | | |
| Ector----- | 0-9 9-25 | 0.6-2.0 | 0.05-0.10 | 7.9-8.4 | <2 | Very low | High----- | Low----- | 0.28 | 1 | 8 |
| 14----- | | | | | | | | | | | |
| Gila----- | 0-11 11-60 | 0.6-2.0 | 0.10-0.14 0.14-0.16 | 7.9-8.4 7.9-8.4 | 4-16 8-16 | Low----- Low----- | High----- High----- | High----- High----- | --- | --- | 3 |
| 15:* | | | | | | | | | | | |
| Gila----- | 0-21 21-60 | 0.6-2.0 | 0.10-0.14 0.14-0.16 | 7.9-8.4 7.9-8.4 | 4-16 8-16 | Low----- Low----- | High----- High----- | High----- High----- | --- | --- | 3 |
| Patrole----- | 0-32 32-45 45-60 | 0.6-2.0 | 0.04-0.15 0.04-0.15 | 7.9-8.4 7.9-8.4 | 4-16 4-16 | Low----- High----- | High----- High----- | Low----- Low----- | 0.43 0.28 | 3 | 4L |
| 16----- | | | | | | | | | | | |
| Hoban----- | 0-46 46-72 | 0.6-2.0 | 0.14-0.20 0.06-0.14 | 7.9-8.4 7.9-8.4 | 2-4 2-8 | Moderate Low----- | High----- High----- | Low----- Moderate | 0.37 0.37 | 3 | 4L |
| 17:* | | | | | | | | | | | |
| Hoban----- | 0-46 46-72 | 0.6-2.0 | 0.14-0.20 0.06-0.14 | 7.9-8.4 7.9-8.4 | 2-4 2-8 | Moderate Low----- | High----- High----- | Low----- Moderate | 0.37 0.37 | 3 | 4L |
| Reeves----- | 0-6 6-36 36-60 | 0.6-2.0 | 0.16-0.18 0.19-0.21 0.02-0.10 | 7.4-8.4 7.4-8.4 7.9-8.4 | 2-8 2-8 4-8 | Moderate Moderate Low----- | High----- High----- High----- | Low----- Low----- High----- | 0.49 0.37 | 2 | 4L |
| Holloman----- | 0-15 15-25 | 0.6-2.0 | 0.12-0.14 | 7.4-8.4 | 4-16 | Low----- | High----- | High----- | 0.49 | 1 | 4L |
| 18----- | | | | | | | | | | | |
| Hodgins----- | 0-8 8-60 | 0.6-2.0 | 0.15-0.20 0.12-0.18 | 7.9-8.4 7.9-8.4 | <2 <2 | Moderate Moderate | Moderate Moderate | Low----- Low----- | 0.32 0.32 | 5 | 4L |
| 19* | | | | | | | | | | | |
| Hodgins----- | 0-7 7-60 | 0.6-2.0 | 0.15-0.20 0.12-0.18 | 7.9-8.4 7.9-8.4 | 0-4 0-4 | Moderate Moderate | Moderate Moderate | Low----- Low----- | 0.32 0.32 | 5 | 4L |
| 20:* | | | | | | | | | | | |
| Holloman----- | 0-6 6-60 | 0.6-2.0 | 0.12-0.14 | 7.4-8.4 | 4-16 | Low----- | High----- | High----- | 0.49 | 1 | 4L |
| Reeves----- | 0-7 7-28 28-60 | 0.6-2.0 | 0.16-0.18 0.19-0.21 0.02-0.10 | 7.4-8.4 7.4-8.4 7.9-8.4 | 2-8 2-8 4-8 | Low----- Moderate Low----- | High----- High----- High----- | Low----- Low----- High----- | 0.49 0.37 | 2 | 4L |
| 21:* | | | | | | | | | | | |
| Limpia----- | 0-10 10-57 | 0.6-2.0 | 0.05-0.14 0.04-0.12 | 6.6-8.4 6.6-8.4 | <2 <2 | Low----- Moderate | High----- High----- | Low----- Low----- | 0.10 0.10 | 5 | 8 |
| Mitre----- | 0-4 4-10 10-20 | 0.6-2.0 | 0.05-0.12 0.05-0.12 | 6.6-7.8 6.6-7.8 | <2 <2 | Low----- Low----- | High----- High----- | Low----- Low----- | 0.10 0.10 | 1 | 8 |
| 22* | | | | | | | | | | | |
| Lozier----- | 0-11 11-25 | 0.6-2.0 | 0.05-0.10 | 7.9-8.4 | <2 | Very low | High----- | Low----- | 0.28 | 1 | 8 |
| 23:* | | | | | | | | | | | |
| Lozier----- | 0-5 5-20 | 0.6-2.0 | 0.05-0.10 | 7.9-8.4 | <2 | Very low | High----- | Low----- | 0.28 | 1 | 8 |
| Rock outcrop. | | | | | | | | | | | |
| 24* | | | | | | | | | | | |
| Mierhill----- | 0-10 10-18 18-24 24-40 | 0.6-2.0 | 0.08-0.12 0.05-0.10 | 6.6-7.3 7.9-8.4 | <2 <2 | Low----- Low----- | High----- High----- | Low----- Low----- | 0.17 0.17 | 1 | 8 |

See footnote at end of table.

TABLE 18.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

| Map symbol and soil name | Depth In | Permeability In/hr | Available water capacity In/in | Reaction pH | Salinity Mmhos/cm | Shrink-swell potential | Risk of corrosion | | Erosion factors | | Wind erodibility group |
|--------------------------|-------------|-----------------------|-----------------------------------|----------------|----------------------|------------------------|-------------------|----------|-----------------|---|------------------------|
| | | | | | | | Uncoated steel | Concrete | K | T | |
| 25* Monahans | 0-4 | 2.0-6.0 | 0.09-0.15 | 7.9-8.4 | <2 | Low | Moderate | Moderate | 0.24 | 3 | 3 |
| | 4-24 | 0.6-2.0 | 0.10-0.16 | 7.9-8.4 | <2 | Low | Moderate | Moderate | 0.26 | | |
| | 24-60 | 0.6-2.0 | 0.07-0.14 | 7.9-8.4 | <4 | Low | High | Moderate | 0.28 | | |
| 26 Orla | 0-15 | 0.6-2.0 | 0.10-0.16 | 7.9-8.4 | 4-16 | Moderate | High | Low | 0.32 | 1 | 4L |
| | 15-60 | 0.6-6.0 | 0.02-0.10 | 7.9-8.4 | 4-16 | Low | High | High | --- | | |
| 27* Orla | 0-5 | 0.6-2.0 | 0.10-0.16 | 7.9-8.4 | 4-16 | Moderate | High | Low | 0.32 | 1 | 4L |
| | 5-60 | 0.6-6.0 | 0.02-0.10 | 7.9-8.4 | 4-16 | Low | High | High | --- | | |
| 28 Patrole | 0-24 | 0.6-2.0 | 0.04-0.15 | 7.9-8.4 | 4-16 | Low | High | Low | 0.43 | 3 | 4L |
| | 24-60 | <0.06 | 0.04-0.15 | 7.9-8.4 | 4-16 | High | High | Low | 0.26 | | |
| 29 Pecos | 0-16 | 0.06-0.2 | 0.01-0.15 | 7.9-8.4 | 4-16 | High | High | Low | 0.32 | 5 | 4 |
| | 16-60 | <0.06 | 0.01-0.15 | 7.9-8.4 | >4 | High | High | Low | 0.32 | | |
| 30* Phantom | 0-60 | 0.2-0.6 | 0.15-0.20 | 7.9-8.4 | <2 | High | High | Low | 0.32 | 5 | 4L |
| 31 Reakor | 0-10 | 0.6-2.0 | 0.16-0.20 | 7.4-8.4 | 2-4 | Moderate | High | Low | 0.49 | 5 | 4L |
| | 10-60 | 0.6-2.0 | 0.16-0.21 | 7.9-8.4 | 2-4 | Moderate | High | Low | 0.43 | | |
| 32* Reakor | 0-8 | 0.6-2.0 | 0.16-0.20 | 7.4-8.4 | 2-4 | Low | High | Low | 0.49 | 5 | 4L |
| | 8-60 | 0.6-2.0 | 0.16-0.21 | 7.9-8.4 | 2-4 | Moderate | High | Low | 0.43 | | |
| 33* Reakor | 0-4 | 0.6-2.0 | 0.16-0.20 | 7.4-8.4 | 2-4 | Low | High | Low | 0.49 | 5 | 4L |
| | 4-60 | 0.6-2.0 | 0.16-0.21 | 7.9-8.4 | 2-4 | Moderate | High | Low | 0.43 | | |
| Lozier | 0-8 | 0.6-2.0 | 0.05-0.10 | 7.9-8.4 | <2 | Very low | High | Low | 0.10 | 1 | 6 |
| | 8-25 | --- | --- | --- | --- | --- | --- | --- | --- | | |
| 34 Keeves | 0-11 | 0.6-2.0 | 0.16-0.18 | 7.4-8.4 | 2-8 | Moderate | High | Low | 0.49 | 2 | 4L |
| | 11-33 | 0.6-2.0 | 0.19-0.21 | 7.4-8.4 | 2-8 | Moderate | High | Low | 0.37 | | |
| | 33-60 | 0.6-6.0 | 0.02-0.10 | 7.9-8.4 | 4-8 | Low | High | High | --- | | |
| 35* Rockhouse | 0-14 | 0.6-2.0 | 0.05-0.16 | 6.6-8.4 | <2 | Low | Low | Low | 0.10 | 5 | 6 |
| | 14-60 | 0.6-2.0 | 0.02-0.06 | 6.6-8.4 | <2 | Low | Low | Low | 0.10 | | |
| 36* Sanderson | 0-17 | 0.6-2.0 | 0.06-0.14 | 7.9-8.4 | <4 | Low | Moderate | Low | 0.10 | 5 | 6 |
| | 17-60 | 0.6-2.0 | 0.05-0.14 | 7.9-8.4 | <4 | Low | Moderate | Low | 0.10 | | |
| Upton | 0-18 | 0.6-2.0 | 0.08-0.14 | 7.9-8.4 | <2 | Low | High | Low | 0.26 | 2 | 6 |
| | 18-23 | --- | --- | 7.9-8.4 | <2 | Very low | High | Low | --- | | |
| | 23-30 | --- | --- | --- | --- | --- | --- | --- | --- | | |
| 37* Saragosa | 0-4 | 0.6-2.0 | 0.00-0.00 | 7.9-8.4 | >32 | Moderate | High | High | 0.32 | 1 | 4L |
| | 4-60 | 0.6-6.0 | 0.00-0.00 | 7.9-8.4 | >32 | Low | High | High | --- | | |
| 38, 39 Toyah | 0-16 | 0.6-2.0 | 0.14-0.20 | 7.9-8.4 | 2-4 | Moderate | High | Low | 0.28 | 5 | 4L |
| | 16-60 | 0.6-2.0 | 0.12-0.18 | 7.9-8.4 | 2-4 | Moderate | High | Low | 0.26 | | |
| 40 Toyah | 0-16 | 0.6-2.0 | 0.06-0.15 | 7.9-8.4 | 4-16 | Moderate | High | Low | 0.28 | 5 | 4L |
| | 16-60 | 0.6-2.0 | 0.05-0.14 | 7.9-8.4 | 4-16 | Moderate | High | Low | 0.28 | | |
| 41 Upton | 0-18 | 0.6-2.0 | 0.08-0.14 | 7.9-8.4 | <2 | Low | High | Low | 0.26 | 2 | 6 |
| | 18-23 | --- | --- | 7.9-8.4 | <2 | Very low | High | Low | --- | | |
| | 23-30 | --- | --- | --- | --- | --- | --- | --- | --- | | |
| 42* Upton | 0-12 | 0.6-2.0 | 0.08-0.14 | 7.9-8.4 | <2 | Low | High | Low | 0.26 | 2 | 6 |
| | 12-23 | --- | --- | 7.9-8.4 | <2 | Very low | High | Low | --- | | |
| | 23-30 | --- | --- | --- | --- | --- | --- | --- | --- | | |

See footnote at end of table.

TABLE 18.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

| Map symbol and soil name | Depth | Permeability | Available water capacity | Reaction | Salinity | Shrink-swell potential | Risk of corrosion | | Erosion/wind factors/erodibility | | |
|--------------------------|-------|--------------|--------------------------|----------|----------|------------------------|-------------------|----------|----------------------------------|-----|-------|
| | | | | | | | Uncoated steel | Concrete | K | I | group |
| | In | In/hr | In/in | pH | Mmhos/cm | | | | | | |
| 42:* | | | | | | | | | | | |
| Delnorte----- | 0-6 | 0.6-2.0 | 0.06-0.12 | 7.9-8.4 | <2 | Very low | High---- | Low----- | 0.10 | 1 | 8 |
| | 6-20 | --- | --- | --- | --- | --- | ----- | ----- | --- | --- | --- |
| | 20-60 | --- | --- | --- | --- | --- | ----- | ----- | --- | --- | --- |
| 43----- | 0-60 | <0.06 | 0.12-0.17 | 7.4-8.4 | 1-4 | Very high | High---- | Low----- | 0.32 | 5 | 4 |
| Vernalen | | | | | | | | | | | |
| 44*----- | 0-8 | 0.2-0.6 | 0.05-0.12 | 7.4-8.4 | 1-4 | High----- | High----- | Low----- | 0.17 | 5 | 8 |
| | 8-60 | <0.06 | 0.12-0.17 | 7.4-8.4 | 1-12 | Very high | High----- | Low----- | 0.32 | | |

* See description of the map unit for the composition and behavior characteristics of the map unit.