



The Lasalle soil and similar inclusions make up more than 85 percent of the map unit, and contrasting inclusions make up the rest. Included in mapping are small areas of soils that are like the Lasalle soil but are nonsaline to a depth of 20 inches or more. Also included are small areas of Lasalle soils that have slopes of 1 to 3 percent.

The contrasting inclusions occur as small areas of Brundage, Cotulla, Imogene, Maverick, Moglia, Montell, and Viboras soils. Brundage, Cotulla, Montell, and Viboras soils are in landscape positions similar to those of the Lasalle soil. Maverick and Moglia soils are in the higher positions. Imogene soils are in the lower positions.

The Lasalle soil is used mainly as cropland. Some areas are used as rangeland, wildlife habitat, or pasture.

Rangeland productivity is medium. Under a grazing system that includes proper grazing use and timely deferment of grazing, areas of native vegetation produce a variety of forage for livestock and wildlife. These areas are used by deer, quail, dove, and turkey, but they are not preferred sites.

This soil is poorly suited to nonirrigated crops and moderately suited to irrigated crops. The main crops are grain sorghum and forage sorghum. The alkaline reaction in the surface layer and the salinity in the subsoil limit the choice of suitable crops. The main management concerns are the low available water capacity, the salinity in the subsoil, the very slow permeability, and the hazard of wind erosion. Crop residue management, timely seedbed preparation, conservation tillage, cover crops, diversions, grassed waterways, or crop rotations that include high-residue or soil-improving crops may be needed to control erosion, conserve moisture, reduce the salinity, and maintain tilth.

This soil is poorly suited to irrigated pasture. Suitable pasture grasses include kleingrass, blue panicum, and improved bermudagrasses. The salinity of the soil can be increased by irrigation.

This soil is poorly suited to most urban uses. Properly designing septic tank absorption fields helps to overcome the restricted permeability. The salinity and excess sodium in the subsoil inhibit the growth of vegetation in areas used for lawns and landscaping. Because of the clayey texture, the soil can be worked by earth-moving equipment only within a narrow range in moisture content. Properly designing building foundations and paved roads helps to prevent the structural or road damage caused by shrinking and swelling. Because of low soil strength, suitable base material is needed on sites for local roads and streets.

This soil is moderately suited to most recreational uses. Because of the very slow permeability and the clayey surface layer, special surfacing material may be needed in areas that are subject to heavy foot traffic during wet periods. The salinity and excess sodium in the subsoil inhibit the growth of vegetation in areas that are subject to heavy foot traffic.

The land capability classification is IVs, nonirrigated, and IIIs, irrigated. The range site is Saline Clay.

LAB—Lasalle clay, gently undulating. This very deep, saline, clayey soil is on smooth plains. Slopes range from 0 to 3 percent. The shape of the slopes is linear or concave. Individual areas are irregular in shape and range from about 20 to 2,000 acres in size.

The typical sequence, depth, and composition of the layers of this soil are—

Surface layer:

0 to 5 inches, brown clay, nonsaline, moderately alkaline

5 to 24 inches, brown clay, slightly saline, moderately alkaline

Subsoil:

24 to 58 inches, light reddish brown clay, moderately saline, moderately alkaline

58 to 72 inches or more, reddish brown clay, moderately saline, moderately alkaline

Important soil properties—

Drainage: moderately well drained

Permeability: very slow

Available water capacity: low

Root zone: very deep; however, the clayey subsoil restricts the movement of air and water and root development

Shrink-swell potential: very high (the soil shrinks and forms wide, deep cracks as it dries and swells as it becomes moist)

Surface runoff: slow or medium

Flooding: none

Hazard of water erosion: moderate

Hazard of wind erosion: moderate

The Lasalle soil and similar inclusions make up more than 80 percent of the map unit, and contrasting inclusions make up the rest. More than 35 percent of the map unit consists of Lasalle soil that has slopes of 0 to 1 percent, and 45 percent consists of Lasalle soil that has slopes of 1 to 3 percent. Included in mapping are small areas of soils that are like the Lasalle soil but are nonsaline to a depth of 20 inches or more.

The contrasting inclusions occur as small areas of Brundage, Cotulla, Imogene, Maverick, Moglia, Montell, and Viboras soils. Brundage, Cotulla, Montell, and Viboras soils are in landscape positions similar to those of the Lasalle soil. Maverick and Moglia soils are in the higher positions. Imogene soils are in the lower positions.

This map unit was designed primarily for extensive land uses, such as rangeland. Fewer soil examinations were made in areas of this map unit than in areas of map units designed for more intensive uses. Also, the mapped areas and the areas of inclusions in this map unit are generally larger. The map unit purity is adequate for the anticipated land use.

The Lasalle soil is used mainly as rangeland and wildlife habitat. Some areas are used as cropland.

Rangeland productivity is medium. Under a grazing system that includes proper grazing use and timely deferment of grazing, areas of native vegetation produce a variety of forage for livestock and wildlife. These areas are used by deer, quail, dove, and turkey, but they are not preferred sites.

This soil is poorly suited to cropland. Suitable crops include grain sorghum, forage sorghum, corn, cotton, oats, and wheat. The alkaline reaction in the surface layer and the salinity in the subsoil limit the choice of suitable crops. The main management concerns are the low available water capacity, the salinity in the subsoil, the very slow permeability, and the hazards of water erosion and wind erosion. Crop residue management, timely seedbed preparation, conservation tillage, cover crops, contour or field stripcropping, terraces, diversions, grassed waterways, contour farming, or crop rotations that include high-residue or soil-improving crops may be needed to control erosion, conserve moisture, reduce the salinity, and maintain tilth.

This soil is poorly suited to irrigated pasture. Suitable pasture grasses include kleingrass, blue panicum, and improved bermudagrasses. The salinity of the soil can be increased by irrigation.

This soil is poorly suited to most urban uses. Properly designing septic tank absorption fields helps to overcome the restricted permeability. The salinity and excess sodium in the subsoil inhibit the growth of vegetation in areas used for lawns and landscaping. Because of the clayey texture, the soil can be worked by earth-moving equipment only within a narrow range in moisture content. Properly designing

building foundations and paved roads helps to prevent the structural or road damage caused by shrinking and swelling. Because of low soil strength, suitable base material is needed on sites for local roads and streets.

This soil is moderately suited to most recreational uses. Because of the very slow permeability and the clayey surface layer, special surfacing material may be needed in areas that are subject to heavy foot traffic during wet periods. The salinity and excess sodium in the subsoil inhibit the growth of vegetation in areas that are subject to heavy foot traffic.

The land capability classification is IVe, nonirrigated and irrigated. The range site is Saline Clay.

MAC—Mata gravelly sandy clay loam, gently undulating. This deep, gravelly loamy soil is on smooth plains high on the landscape. Slopes range from 0 to 5 percent. The shape of the slopes is convex or linear. Individual areas are irregular in shape and range from 20 to several thousand acres in size.

The typical sequence, depth, and composition of the layers of this soil are—

Surface layer:

0 to 7 inches, pale brown gravelly sandy clay loam, nonsaline, mildly alkaline

Subsoil:

7 to 16 inches, pale brown very gravelly clay loam, nonsaline, mildly alkaline

16 to 25 inches, light yellowish brown extremely gravelly clay loam, slightly saline, mildly alkaline

25 to 42 inches, very pale brown fine sandy loam, moderately saline, moderately alkaline

42 to 54 inches, very pale brown gravelly sandy loam, moderately saline, moderately alkaline

Substratum:

54 to 72 inches or more, white, fractured, soft shale intermingled with clay, moderately saline, moderately alkaline

Important soil properties—

Drainage: well drained

Permeability: moderate above the substratum

Available water capacity: low

Root zone: deep

Shrink-swell potential: low

Surface runoff: medium

Flooding: none

Hazard of water erosion: moderate

Hazard of wind erosion: slight

The Mata soil and similar inclusions make up more than 75 percent of the map unit, and contrasting inclusions make up the rest. The similar inclusions occur as small areas of soils that are like the Mata soil but have a dark surface layer. Also included are areas of Mata soils that have a surface layer of clay loam, gravelly clay loam, or sandy clay loam.

The contrasting inclusions occur as small areas of Altita, Brundage, Charco, Chacon, Cochina, Cotulla, Imogene, Lasalle, Moglia, Maverick, and Montell soils. Altita, Chacon, Charco, and Moglia soils are in landscape positions similar to those of the Mata soil or are in the slightly lower positions. The other contrasting soils are in the lower positions.

This map unit was designed primarily for extensive land uses, such as rangeland. Fewer soil examinations were made in areas of this map unit than in areas of map

units designed for more intensive uses. Also, the mapped areas and the areas of inclusions in this map unit are generally larger. The map unit purity is adequate for the anticipated land use.

The Mata soil is used as rangeland and wildlife habitat. Rangeland productivity is low. Under a grazing system that includes proper grazing use and timely deferment of grazing, areas of native vegetation produce a wide variety of grasses, forbs, and browse plants for livestock and wildlife. These areas are preferred sites for deer, are good sites for quail, and are used by dove and turkey.

This soil is not suited to cropland. The main management concerns are the salinity in the subsoil, the low available water capacity, and the hazard of water erosion.

This soil is moderately suited to irrigated pasture. The salinity of the soil can be increased by irrigation.

This soil is moderately suited to most urban uses. Properly designing septic tank absorption fields helps to overcome the restricted permeability and the depth to soft shale bedrock. The low available water capacity inhibits the growth of vegetation in areas used for lawns and landscaping.

This soil is moderately suited to most recreational uses. Because of the gravelly surface layer, special surfacing material or additions of topsoil may be needed in areas that are subject to heavy foot traffic. The low available water capacity inhibits the growth of vegetation in these areas.

The land capability classification is VIs, nonirrigated. The range site is Saline Clay Loam.

MCC—Maverick clay, gently undulating. This moderately deep, saline, clayey soil is on smooth plains. Slopes range from 1 to 5 percent. The shape of the slopes is convex or linear. Individual areas are irregular in shape and range from 20 to several thousand acres in size.

The typical sequence, depth, and composition of the layers of this soil are—

Surface layer:

0 to 8 inches, grayish brown clay, slightly saline, moderately alkaline

Subsoil:

8 to 16 inches, light brownish gray clay, moderately saline, moderately alkaline

16 to 28 inches, pale brown clay, moderately saline, moderately alkaline

Substratum:

28 to 60 inches or more, light gray, fractured, soft shale bedrock that has pale yellow mottles, moderately saline, moderately alkaline

Important soil properties—

Drainage: well drained

Permeability: slow above the substratum

Available water capacity: very low

Root zone: moderately deep; however, the clayey subsoil restricts the movement of air and water and root development

Shrink-swell potential: high (the soil shrinks as it dries and swells as it becomes moist)

Surface runoff: rapid

Flooding: none

Hazard of water erosion: severe

Hazard of wind erosion: moderate

The Maverick soil and similar inclusions make up more than 75 percent of the map unit, and contrasting inclusions make up the rest. The similar inclusions occur as

small areas of soils that are like the Maverick soil but have soft shale bedrock at a depth of 15 to 20 or 40 to 45 inches. Also included are small areas of Maverick soils that have a surface layer of clay loam, gravelly clay loam, or gravelly clay or that have slopes of 5 to 8 percent.

The contrasting inclusions in this map unit include small areas of Brundage, Catarina, Copita, Cotulla, Imogene, Lasalle, Moglia, Montell, and Viboras soils. Copita and Viboras soils are in landscape positions similar to those of the Maverick soil or are in the slightly lower positions, and Moglia soils are in the higher positions. The other contrasting soils are in the lower positions.

This map unit was designed primarily for extensive land uses, such as rangeland. Fewer soil examinations were made in areas of this map unit than in areas of map units designed for more intensive uses. Also, the mapped areas and the areas of inclusions in this map unit are generally larger. The map unit purity is adequate for the anticipated land use.

The Maverick soil is used as rangeland and wildlife habitat. Rangeland productivity is low. Under a grazing system that includes proper grazing use and timely deferment of grazing, areas of native vegetation produce a variety of forage for livestock and wildlife. These areas are used by deer, quail, dove, and turkey, but they are not preferred sites.

This soil is not suited to nonirrigated crops and is poorly suited to irrigated crops. The alkaline reaction in the surface layer and the salinity in the subsoil limit the choice of suitable crops. The main management concerns are the very low available water capacity, the hazards of water erosion and wind erosion, the slow permeability, and the salinity in the subsoil. Crop residue management, timely seedbed preparation, conservation tillage, cover crops, vegetative windstrips, wind stripcropping, contour or field stripcropping, terraces, diversions, grassed waterways, contour farming, reduced tillage, or crop rotations that include high-residue or soil-improving crops may be needed to control erosion, conserve moisture, reduce the salinity, and maintain tilth.

This soil is not suited to irrigated pasture. The salinity of the soil can be increased by irrigation.

This soil is poorly suited to most urban uses. Properly designing septic tank absorption fields helps to overcome the restricted permeability and the depth to soft shale bedrock. The salinity inhibits the growth of vegetation in areas used for lawns and landscaping. Because of the clayey texture, the soil can be worked by earth-moving equipment only within a narrow range in moisture content. Properly designing building foundations and paved roads helps to prevent the structural or road damage caused by shrinking and swelling. Because of low soil strength, suitable base material is needed on sites for local roads and streets.

This soil is moderately suited to most recreational uses. Because of the very slow permeability and the clayey surface layer, special surfacing material may be needed in areas that are subject to heavy foot traffic during wet periods. The salinity inhibits the growth of vegetation in areas that are subject to heavy foot traffic.

The land capability classification is V1e, nonirrigated, and IVe, irrigated. The range site is Rolling Hardland.

MGC—Moglia clay loam, gently undulating. This very deep, loamy soil is on smooth plains high on the landscape. Slopes range from 0 to 3 percent. The shape of the slopes is convex or linear. Individual areas are irregular in shape and range from 8 to several hundred acres in size.

The typical sequence, depth, and composition of the layers of this soil are—

Surface layer:

0 to 12 inches, grayish brown clay loam, nonsaline, mildly alkaline

Subsoil:

- 12 to 20 inches, very pale brown clay loam, nonsaline, mildly alkaline
- 20 to 32 inches, very pale brown clay loam, moderately saline, mildly alkaline
- 32 to 64 inches, very pale brown clay loam, moderately saline, moderately alkaline
- 64 to 72 inches or more, very pale brown clay loam, moderately saline, moderately alkaline

Important soil properties—

Drainage: well drained*Permeability:* moderately slow*Available water capacity:* low*Root zone:* very deep; however, the subsoil restricts the movement of air and water and root development*Shrink-swell potential:* moderate (the soil shrinks as it dries and swells as it becomes moist)*Surface runoff:* medium*Flooding:* none*Hazard of water erosion:* moderate*Hazard of wind erosion:* moderate

The Moglia soil and similar inclusions make up more than 75 percent of the map unit, and contrasting inclusions make up the rest. The similar inclusions occur as small areas of soils that are like the Moglia soil but have a dark surface layer. Also included are small areas of Moglia soils that have a surface layer of sandy clay loam or have slopes of 3 to 5 percent.

The contrasting inclusions occur as small areas of Aguilares, Altita, Brundage, Brystal, Charco, Chacon, Cochina, Cotulla, Imogene, Lasalle, Mata, Maverick, Montell, and Monteola soils. Aguilares, Altita, Chacon, Charco, and Mata soils are in landscape positions similar to those of the Moglia soil. The other contrasting soils are in the lower positions.

This map unit was designed primarily for extensive land uses, such as rangeland. Fewer soil examinations were made in areas of this map unit than in areas of map units designed for more intensive uses. Also, the mapped areas and the areas of inclusions in this map unit are generally larger. The map unit purity is adequate for the anticipated land use.

The Moglia soil is used as rangeland and wildlife habitat. Rangeland productivity is medium. Under a grazing system that includes proper grazing use and timely deferment of grazing, areas of native vegetation produce a wide variety of grasses, forbs, and browse plants for livestock and wildlife. These areas are preferred sites for deer, are good sites for quail, and are used by dove and turkey.

This soil is not suited to nonirrigated crops and is poorly suited to irrigated crops. The alkaline reaction in the surface layer limits the choice of suitable crops. The main management concerns are the low available water capacity, the hazards of water erosion and wind erosion, and the salinity in the subsoil. Crop residue management, timely seedbed preparation, conservation tillage, cover crops, wind stripcropping, contour or field stripcropping, terraces, diversions, grassed waterways, contour farming, or crop rotations that include high-residue or soil-improving crops may be needed to control erosion, conserve moisture, reduce the salinity, and maintain tilth.

This soil is moderately suited to irrigated pasture. The salinity of the soil can be increased by irrigation.

This soil is poorly suited to most urban uses.

Properly designing septic tank absorption fields helps to overcome the restricted permeability. Properly designing building foundations helps to prevent the structural

damage caused by shrinking and swelling. Because of low soil strength, suitable base material is needed on sites for local roads and streets.

This soil is moderately suited to most recreational uses. The salinity inhibits the growth of vegetation in areas used for golf fairways.

The land capability classification is V1e, nonirrigated, and 11e, irrigated. The range site is Saline Clay Loam.

MNA—Montell clay, saline, nearly level. This very deep, saline, clayey soil is on smooth plains on stream terraces. Slopes range from 0 to 2 percent. The shape of the slopes is linear or concave. Individual areas are elongated or irregularly shaped and range from 8 to 200 acres in size.

The typical sequence, depth, and composition of the layers of this soil are—

Surface layer:

0 to 12 inches, gray clay, nonsaline, moderately alkaline

Subsoil:

12 to 28 inches, gray clay, moderately saline, moderately alkaline

28 to 38 inches, pale brown clay, moderately saline, moderately alkaline

38 to 60 inches or more, pale brown clay, moderately saline, moderately alkaline

Important soil properties—

Drainage: moderately well drained

Permeability: very slow

Available water capacity: low

Root zone: very deep; however, the clayey subsoil restricts the movement of air and water and root development

Shrink-swell potential: very high (the soil shrinks and forms wide, deep cracks as it dries and swells as it becomes moist)

Surface runoff: slow

Flooding: none

Hazard of water erosion: slight

Hazard of wind erosion: moderate

The Montell soil and similar inclusions make up more than 85 percent of the map unit, and contrasting inclusions make up the rest. The similar inclusions occur as small areas of Montell soils that are occasionally flooded or that are nonsaline to a depth of 20 inches or more.

The contrasting inclusions occur as small areas of Aguilares, Brundage, Catarina, Cotulla, Imogene, Maverick, Moglia, and Viboras soils. Brundage, Catarina, Cotulla, and Viboras soils are in landscape positions similar to those of the Montell soil. Aguilares, Maverick, and Moglia soils are in the higher positions. Imogene soils are in the lower positions.

This map unit was designed primarily for extensive land uses, such as rangeland. Fewer soil examinations were made in areas of this map unit than in areas of map units designed for more intensive uses. Also, the mapped areas and the areas of inclusions in this map unit are generally larger. The map unit purity is adequate for the anticipated land use.

The Montell soil is used as rangeland and wildlife habitat. Rangeland productivity is medium. Under a grazing system that includes proper grazing use and timely deferment of grazing, areas of native vegetation produce a variety of forage for livestock and wildlife. These areas are used by deer, quail, dove, and turkey, but they are not preferred sites.

This soil is not suited to cropland. The main management concerns are the low available water capacity, the very slow permeability, the salinity in the subsoil, and the hazard of wind erosion.