NONTECHNICAL SOIL DESCRIPTIONS
Rolette County, North Dakota

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units, shown in the NonTechnical Descriptions report. These descriptions are written in terminology that Non-technical users of soil survey information can understand. Nontechnical soil descriptions are a powerful tool for creating reports. These high quality, easy to read reports can be generated by conservation planners and other NRCS employees for distribution to land users. Soil map unit descriptions and National Soil Information System records are the basis for these descriptions.

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17 Aberdeen-Nahon Silt Loams

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Clayey range site. It is in the nonirrigated land capability class 2s.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is very slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Claypan range site. It is in the nonirrigated land capability class 4s.

64 Arveson Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. This soil does not have a salinity problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 2w.

66 Arveson Loam, Wet

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is very poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. This soil does not have a salinity problem. This soil is in the Wetland range site. It is in the nonirrigated land capability class 3w.

76 Arvilla Sandy Loam, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Shallow To Gravel range site. It is in the nonirrigated land capability class 3e.

118 Barnes-Buse Loams, 3 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

120 Barnes-Buse Loams, 6 To 9 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 3e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 4e.

135 Barnes-Cresbard Loams, 3 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 60 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Clayey range site. It is in the nonirrigated land capability class 2e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

137 Barnes-Hamerly Loams, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

167 Bearden Silt Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

169 Bearden Silt Loam, Saline, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

268 Bottineau Loam, 3 To 9 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 3e.

271 Bottineau Loam, 9 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 6e.

314 Buse-Barnes Loams, 9 To 15 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 6e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 4e.

318 Buse-Barnes Loams, 15 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 7e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 6e.

389 Cathay-Larson Loams, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. This soil contains a slightly saline horizon. This soil is in the Clayey range site. It is in the nonirrigated land capability class 3e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Claypan range site. It is in the nonirrigated land capability class 4s.

392 Cavour-Cresbard Loams, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 60 inches. This soil contains a moderately saline horizon. This soil is in the Claypan range site. It is in the nonirrigated land capability class 4s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 60 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Clayey range site. It is in the nonirrigated land capability class 2e.

430 Claire-Lohnes Complex, 6 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Thin Sands range site. It is in the nonirrigated land capability class 7e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 6e.

450 Colvin Silt Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 9 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 2w.

451 Colvin Silt Loam, Channeled

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 9 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 6w.

452 Colvin Silt Loam, Saline

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 9 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

453 Colvin Silt Loam, Wet

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is very poorly drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Wetland range site. It is in the nonirrigated land capability class 3w.

470 Cresbard-Barnes Loams, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 60 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Clayey range site. It is in the nonirrigated land capability class 2s.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

501 Dickey-Esmond Complex, 3 To 9 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 6e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 4e.

502 Dickey-Esmond-Maddock Complex, 9 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 7e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 7e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 7e.

510 Divide Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2s.

532 Eckman Silt Loam, 1 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

548 Egeland Fine Sandy Loam, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

569 Embden Fine Sandy Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

601 Eramosh Peat

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is very poorly drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. This soil does not have a salinity problem. This soil is in the Wetland range site. It is in the nonirrigated land capability class 5w.

602 Eramosh Peat, Ponded

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is very poorly drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. This soil does not have a salinity problem. It is in the nonirrigated land capability class 8w.

605 Esmond-Heimdal Loams, 9 To 15 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 6e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 4e.

607 Esmond-Heimdal Loams, 15 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 7e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 6e.

768 Gardena Silt Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a very high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

800 Glyndon Silt Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

846 Great Bend-Overly Silt Loams, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Silty range site. It is in the nonirrigated land capability class 2c.

863 Hamerly Loam, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

864 Hamerly Loam, Saline, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 3s.

883 Hamerly-Tonka-Parnell Complex, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 2e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Wet Meadow range site. It is in the nonirrigated land capability class 2w.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is very poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 3 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Wetland range site. It is in the nonirrigated land capability class 3w.

893 Harriet Silt Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is very slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 6 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 6s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

926 Hecla Loamy Fine Sand, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

939 Hecla-Hamar Loamy Fine Sands, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. The soil contains a maximum amount of 2 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 4e.

987 Heimdal-Emrick Loams, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Overflow range site. It is in the nonirrigated land capability class 2e.

992 Heimdal-Emrick-Esmond Loams, 3 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 2e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 3e.

998 Heimdal-Esmond Loams, 6 To 9 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Silty range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. This soil is in the Thin Upland range site. It is in the nonirrigated land capability class 4e.

1013 Kelvin Loam, 3 To 9 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 3e.

1014 Kelvin Loam, 9 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 6e.

1104 Lanona-Swenoda Fine Sandy Loams, 1 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil does not have a sodium problem. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

1140 Letcher Fine Sandy Loam, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. The soil contains a maximum amount of 20 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Sandy Claypan range site. It is in the nonirrigated land capability class 4s.

1182 Lohnes Loamy Sand, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 6e.

1206 Maddock Loamy Fine Sand, 6 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 7e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

1221 Maddock-Hecla Loamy Fine Sands, 1 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

1269 Marysland Silt Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 9 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 2w.

1291 Metigoshe Sandy Loam, 3 To 9 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 4e.

1292 Metigoshe Sandy Loam, 9 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 6e.

1300 Miranda-Cavour Loams

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is very slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 36 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is strongly sodic. This soil is in the Thin Claypan range site. It is in the nonirrigated land capability class 6s.

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 60 inches. This soil contains a moderately saline horizon. This soil is in the Claypan range site. It is in the nonirrigated land capability class 4s.

1426 Parnell Silt Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is very poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 3 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Wetland range site. It is in the nonirrigated land capability class 3w.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

1523 Renshaw Loam, 0 To 3 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat excessively drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Shallow To Gravel range site. It is in the nonirrigated land capability class 3s.

1571 Rolla Silty Clay, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 2e.

1572 Rolla Silty Clay, 6 To 15 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. This soil does not have a salinity problem. It is in the nonirrigated land capability class 4e.

1687 Sioux Loam, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is excessively drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Very Shallow range site. It is in the nonirrigated land capability class 6s.

1691 Sioux Loam, 6 To 25 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is excessively drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The water table depth is greater than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Very Shallow range site. It is in the nonirrigated land capability class 6s.

1709 Southam Silt Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is very poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a slightly saline horizon. This soil has a horizon that is slightly sodic. It is in the nonirrigated land capability class 8w.

1727 Stirum Fine Sandy Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 45 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is moderately sodic. This soil is in the Subirrigated range site. It is in the nonirrigated land capability class 6s.

1780 Swenoda Fine Sandy Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil contains a very slightly saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Sandy range site. It is in the nonirrigated land capability class 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Rolette County, North Dakota

1843 Towner Loamy Fine Sand, 0 To 6 Percent Slopes

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is moderately well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Sands range site. It is in the nonirrigated land capability class 4e.

1859 Ulen Fine Sandy Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 51 inches. This soil contains a very slightly saline horizon. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

1871 Vallers Loam, Saline

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 9 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil contains a moderately saline horizon. This soil has a horizon that is slightly sodic. This soil is in the Saline Lowland range site. It is in the nonirrigated land capability class 2w.

2046 Wyndmere Fine Sandy Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 35 percent calcium carbonate. This soil does not have a salinity problem. This soil has a horizon that is slightly sodic. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.

2059 Wyrene Sandy Loam

This map unit is in the Northern Black Glaciated Plains Major Land Resource Area. It is somewhat poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 30 percent calcium carbonate. This soil does not have a salinity problem. This soil does not have a sodium problem. This soil is in the Limy Subirrigated range site. It is in the nonirrigated land capability class 3e.