McPherson County, South Dakota
Nontechnical Soil Descriptions

3A – Bowdle Loam, 0 To 3 Percent Slopes

3A BOWDLE LOAM, 0 TO 3 PERCENT SLOPES – The Bowdle series consists of well drained soils moderately deep over sand and gravel and formed in loamy alluvium underlain by sand and gravel on outwash plains and stream terraces. Permeability is moderate in the solum and rapid in the underlying material. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

3B – Bowdle Loam, 3 To 6 Percent Slopes

3B BOWDLE LOAM, 3 TO 6 PERCENT SLOPES – The Bowdle series consists of well drained soils moderately deep over sand and gravel and formed in loamy alluvium underlain by sand and gravel on outwash plains and stream terraces. Permeability is moderate in the solum and rapid in the underlying material. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

5A – Bowbells Loam, 0 To 2 Percent Slopes

5A BOWBELLS LOAM, 0 TO 2 PERCENT SLOPES – The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and high organic matter content. Flooding is NONE.

5B – Bowbells Loam, 2 To 6 Percent Slopes

5B BOWBELLS LOAM, 2 TO 6 PERCENT SLOPES – The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

6 – Arnegard Loam

6 ARNEGARD LOAM – The Arnegard series consists of very deep, well or moderately well drained soils that formed in calcareous loamy alluvium on upland swales, terraces, fans and foot slopes. Permeability is moderate. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

7 – Bearden Silt Loam

7 BEARDEN SILT LOAM – The Bearden series consists of very deep, somewhat poorly and moderately well drained, moderately to slowly permeable soils that formed in calcareous silt loam and silty clay loam lacustrine sediments. These soils are on glacial lake plains. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

8 – Rentill Loam

8 RENTILL LOAM – The Rentill series consists of deep, well drained soils formed in loamy outwash sediments over clayey glacial till on uplands. Permeability is moderate to rapid in the upper part and moderately slow or slow in the underlying glacial till. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

9A – Bearpaw Loam, 0 To 3 Percent Slopes

9A BEARPAW LOAM, 0 TO 3 PERCENT SLOPES – The Bearpaw series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

9B – Bearpaw Loam, 3 To 6 Percent Slopes

9B BEARPAW LOAM, 3 TO 6 PERCENT SLOPES – The Bearpaw series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

9C – Bearpaw Loam, 6 To 9 Percent Slopes

9C BEARPAW LOAM, 6 TO 9 PERCENT SLOPES – The Bearpaw series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

10 – Brantford Loam

10 BRANTFORD LOAM – The Brantford series consists of very deep, well drained soils that formed in loamy material underlain by beds of glaciofluvial sand and gravel containing appreciable amounts of shale. Permeability is moderate in the upper part and very rapid in the substratum. These soils are on outwash plains, beach ridges, eskers and terraces. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

11A − Bearpaw−Greenway Loams, 0 To 3 Percent Slopes

11A BEARPAW−GREENWAY LOAMS, 0 TO 3 PERCENT SLOPES − The Greenway series consists of deep, well drained soils formed in loamy sediments and the underlying firm clay loam glacial till. Permeability is moderate in the upper part of the soil and slow in the lower part. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
11A BEARPAW−GREENWAY LOAMS, 0 TO 3 PERCENT SLOPES − The Bearpaw series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

11B − Bearpaw−Greenway Loams, 3 To 6 Percent Slopes

11B BEARPAW−GREENWAY LOAMS, 3 TO 6 PERCENT SLOPES − The Greenway series consists of deep, well drained soils formed in loamy sediments and the underlying firm clay loam glacial till. Permeability is moderate in the upper part of the soil and slow in the lower part. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
11B BEARPAW−GREENWAY LOAMS, 3 TO 6 PERCENT SLOPES − The Bearpaw series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

13E − Zahl−Kloten Loams, 9 To 35 Percent Slopes

13E ZAHL−KLOTEN LOAMS, 9 TO 35 PERCENT SLOPES − The Kloten series consists of shallow, well drained, moderately permeable soils that formed in glacial till overlying shale bedrock or material weathered from shale bedrock. These soils are on gently sloping to very steep valley side slopes and upland. This soil has very low available water capacity and moderate organic matter content. Flooding is NONE.
13E ZAHL−KLOTEN LOAMS, 9 TO 35 PERCENT SLOPES − The Zahl series consists of very deep, well drained, moderately slow or slowly permeable soils that formed in calcareous glacial till. These soils are on glacial till plains, moraines and valley side slopes. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

14D − Vida Extremely Stony Loam, 3 To 15 Percent Slopes

14D VIDA EXTREMELY STONY LOAM, 3 TO 15 PERCENT SLOPES − The Vida series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

15A − Williams−Bowbells Loams, 0 To 3 Percent Slopes

15A WILLIAMS−BOWBELLS LOAMS, 0 TO 3 PERCENT SLOPES − The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
15A WILLIAMS−BOWBELLS LOAMS, 0 TO 3 PERCENT SLOPES − The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and high organic matter content. Flooding is NONE.

15B − Williams−Bowbells Loams, 1 To 6 Percent Slopes

15B WILLIAMS−BOWBELLS LOAMS, 1 TO 6 PERCENT SLOPES − The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and high organic matter content. Flooding is NONE.
15B WILLIAMS−BOWBELLS LOAMS, 1 TO 6 PERCENT SLOPES − The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

15C − Williams−Bowbells Loams, 2 To 9 Percent Slopes

15C WILLIAMS−BOWBELLS LOAMS, 2 TO 9 PERCENT SLOPES − The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
15C WILLIAMS−BOWBELLS LOAMS, 2 TO 9 PERCENT SLOPES − The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and high organic matter content. Flooding is NONE.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

16A – Williams–Bowbells–Tonka Complex, 0 To 3 Percent Slopes
16A WILLIAMS–BOWBELLS–TONKA COMPLEX, 0 TO 3 PERCENT SLOPES – The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
16A WILLIAMS–BOWBELLS–TONKA COMPLEX, 0 TO 3 PERCENT SLOPES – The Tonka series consists of very deep, poorly drained, slowly permeable soils that formed in local alluvium over glacial till or glaciolacustrine deposits. These soils are in closed basins and depressions on glacial till and glacial lake plains. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.
16A WILLIAMS–BOWBELLS–TONKA COMPLEX, 0 TO 3 PERCENT SLOPES – The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and high organic matter content. Flooding is NONE.

16B – Williams–Bowbells–Tonka Complex, 1 To 6 Percent Slopes

16B WILLIAMS–BOWBELLS–TONKA COMPLEX, 1 TO 6 PERCENT SLOPES – The Tonka series consists of very deep, poorly drained, slowly permeable soils that formed in local alluvium over glacial till or glaciolacustrine deposits. These soils are in closed basins and depressions on glacial till and glacial lake plains. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.
16B WILLIAMS–BOWBELLS–TONKA COMPLEX, 1 TO 6 PERCENT SLOPES – The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and high organic matter content. Flooding is NONE.
16B WILLIAMS–BOWBELLS–TONKA COMPLEX, 1 TO 6 PERCENT SLOPES – The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

16C – Williams–Bowbells–Parnell Complex, 1 To 9 Percent Slopes

16C WILLIAMS–BOWBELLS–PARNELL COMPLEX, 1 TO 9 PERCENT SLOPES – The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
16C WILLIAMS–BOWBELLS–PARNELL COMPLEX, 1 TO 9 PERCENT SLOPES – The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and high organic matter content. Flooding is NONE.
16C WILLIAMS–BOWBELLS–PARNELL COMPLEX, 1 TO 9 PERCENT SLOPES – The Parnell series consists of very deep, very poorly drained and poorly drained soils that formed in clayey water–sorted sediments from glacial drift in depressions, swales and drainageways on glacial moraines. These soils have slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.

17B – Vida–Williams Loams, 3 To 6 Percent Slopes

17B VIDA–WILLIAMS LOAMS, 3 TO 6 PERCENT SLOPES – The Vida series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
17B VIDA–WILLIAMS LOAMS, 3 TO 6 PERCENT SLOPES – The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

17C – Vida–Williams–Bowbells Loams, 2 To 15 Percent Slopes

17C VIDA–WILLIAMS–BOWBELLS LOAMS, 2 TO 15 PERCENT SLOPES – The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
17C VIDA–WILLIAMS–BOWBELLS LOAMS, 2 TO 15 PERCENT SLOPES – The Bowbells series consists of very deep, well and moderately well drained soils formed in glacial till and alluvium from glacial till on glacial till plains and moraines. These soils have moderate permeability in the upper part and moderately slow or slow in the substratum. This soil has high available water capacity and high organic matter content. Flooding is NONE.
17C VIDA–WILLIAMS–BOWBELLS LOAMS, 2 TO 15 PERCENT SLOPES – The Vida series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

17D – Vida–Zahl Loams, 6 To 15 Percent Slopes

17D VIDA–ZAHL LOAMS, 6 TO 15 PERCENT SLOPES – The Zahl series consists of very deep, well drained, moderately slow or slowly permeable soils that formed in calcareous glacial till. These soils are on glacial till plains, moraines and valley side slopes. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
17D VIDA–ZAHL LOAMS, 6 TO 15 PERCENT SLOPES – The Vida series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

17E – Vida–Zahill Loams, 15 To 25 Percent Slopes

17E VIDA–ZAHILL LOAMS, 15 TO 25 PERCENT SLOPES – The Vida series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
17E VIDA–ZAHILL LOAMS, 15 TO 25 PERCENT SLOPES – The Zahill series consists of very deep, well drained soils that formed in till. These soils are on till plains, hills, moraines, and escarpments. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

18A – Williams–Niobell Loams, 0 To 3 Percent Slopes

18A WILLIAMS–NIOBELL LOAMS, 0 TO 3 PERCENT SLOPES – The Williams series consists of very deep, well drained, moderately slow or slowly permeable soils formed in calcareous glacial till. These soils are on glacial till plains and moraines. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
18A WILLIAMS–NIOBELL LOAMS, 0 TO 3 PERCENT SLOPES – The Niobell series consists of very deep, well drained or moderately well drained, slowly permeable soils that formed in glacial till. These soils are on glacial till plains and uplands. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

20A – Lehr Loam, 0 To 3 Percent Slopes

20A LEHR LOAM, 0 TO 3 PERCENT SLOPES – The Lehr series consists of very deep, somewhat excessively drained soils shallow to sand and gravel. They formed in loamy alluvium over sand and gravel. Permeability is moderately rapid in the upper part and rapid and very rapid in the substratum. These soils are on outwash plains and stream valley terraces. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

20B – Lehr Loam, 3 To 6 Percent Slopes

20B LEHR LOAM, 3 TO 6 PERCENT SLOPES – The Lehr series consists of very deep, somewhat excessively drained soils shallow to sand and gravel. They formed in loamy alluvium over sand and gravel. Permeability is moderately rapid in the upper part and rapid and very rapid in the substratum. These soils are on outwash plains and stream valley terraces. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

21A – Cavour–Miranda Loams, 1 To 5 Percent Slopes

21A CAVOUR–MIRANDA LOAMS, 1 TO 5 PERCENT SLOPES – The Miranda series consists of deep, moderately well and somewhat poorly drained soils formed in glacial till on uplands. Permeability is very slow. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
21A CAVOUR–MIRANDA LOAMS, 1 TO 5 PERCENT SLOPES – The Cavour series consists of very deep, moderately well and well drained soils formed in glacial till on uplands. The soils have slow or very slow permeability. This soil has moderate available water capacity and high organic matter content. Flooding is NONE.

22A – Niobell–Miranda Loams, 0 To 3 Percent Slopes

22A NIOBELL–MIRANDA LOAMS, 0 TO 3 PERCENT SLOPES – The Niobell series consists of very deep, well drained or moderately well drained, slowly permeable soils that formed in glacial till. These soils are on glacial till plains and uplands. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
22A NIOBELL–MIRANDA LOAMS, 0 TO 3 PERCENT SLOPES – The Miranda series consists of deep, moderately well and somewhat poorly drained soils formed in glacial till on uplands. Permeability is very slow. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

23A – Noonan Variant Loam, 0 To 2 Percent Slopes

23A NOONAN VARIANT LOAM, 0 TO 2 PERCENT SLOPES – The Noonan Variant consists of very deep, moderately well drained soils formed in loamy over sandy glacial sediments on uplands. This soil has moderate available water capacity and low organic matter content. Flooding is NONE.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

24A – Niobell–Noonan Loams, 1 To 5 Percent Slopes
24A NIOBELL–NOONAN LOAMS, 1 TO 5 PERCENT SLOPES – The Noonan series consists of very deep, well drained or moderately well drained, slowly permeable soils formed in till. These soils are on till plains and uplands. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.
24A NIOBELL–NOONAN LOAMS, 1 TO 5 PERCENT SLOPES – The Niobell series consists of very deep, well drained or moderately well drained, slowly permeable soils that formed in glacial till. These soils are on glacial till plains and uplands. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

25 – Miranda–Heil Complex

25 MIRANDA–HEIL COMPLEX – The Heil series consists of very deep, poorly drained, very slowly permeable soils that formed in clayey, calcareous alluvium. This soil has high available water capacity and moderate organic matter content. Flooding is NONE. Ponding duration is LONG.
25 MIRANDA–HEIL COMPLEX – The Miranda series consists of deep, moderately well and somewhat poorly drained soils formed in glacial till on uplands. Permeability is very slow. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

26 – Cresbard–Cavour Loams

26 CRESBARD–CAVOUR LOAMS – The Cavour series consists of very deep, moderately well and well drained soils formed in glacial till on uplands. The soils have slow or very slow permeability. This soil has moderate available water capacity and high organic matter content. Flooding is NONE.
26 CRESBARD–CAVOUR LOAMS – The Cresbard series consists of very deep, moderately well and well drained soils formed in glacial till, or local alluvium over glacial till in lower backslopes, footslopes, depressions, and flats on uplands. Permeability is slow or moderately slow. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

27B – Lehr–Bowdle Loams, 0 To 6 Percent Slopes

27B LEHR–BOWDLE LOAMS, 0 TO 6 PERCENT SLOPES – The Bowdle series consists of well drained soils moderately deep over sand and gravel and formed in loamy alluvium underlain by sand and gravel on outwash plains and stream terraces. Permeability is moderate in the solum and rapid in the underlying material. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.
27B LEHR–BOWDLE LOAMS, 0 TO 6 PERCENT SLOPES – The Lehr series consists of very deep, somewhat excessively drained soils shallow to sand and gravel. They formed in loamy alluvium over sand and gravel. Permeability is moderately rapid in the upper part and rapid and very rapid in the substratum. These soils are on outwash plains and stream valley terraces. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.

29 – Exline–Harmony Complex

29 EXLINE–HARMONY COMPLEX – The Harmony series consists of very deep, moderately well drained soils formed in lacustrine sediments on lake plains. Permeability is moderately slow in the solum and slow to moderate in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is NONE.
29 EXLINE–HARMONY COMPLEX – The Exline series consists of very deep, somewhat poorly drained or moderately well drained soils formed in lacustrine and alluvial deposits on lake plains and terraces. These soils have very slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

30 – Letcher–Parshall Loams, 0 To 4 Percent Slopes

30 LETCHER–PARSHALL LOAMS, 0 TO 4 PERCENT SLOPES – The Letcher series consists of deep, somewhat poorly or moderately well drained soils formed in glacial outwash sediments and in loamy glacial till on uplands. Permeability is slow in the solum and moderate or moderately rapid in the underlying material. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.
30 LETCHER–PARSHALL LOAMS, 0 TO 4 PERCENT SLOPES – The Parshall series consists of very deep, well or moderately well drained, moderately rapid permeable soils formed in alluvium. These soils are on terraces, outwash plains and upland swales. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

31 – Harmony Silty Clay Loam

31 HARMONY SILTY CLAY LOAM – The Harmony series consists of very deep, moderately well drained soils formed in lacustrine sediments on lake plains. Permeability is moderately slow in the solum and slow to moderate in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is NONE.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

32 − Harmony−Exline Complex

32 HARMONY−EXLINE COMPLEX − The Harmony series consists of very deep, moderately well drained soils formed in lacustrine sediments on lake plains. Permeability is moderately slow in the solum and slow to moderate in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is NONE.
32 HARMONY−EXLINE COMPLEX − The Exline series consists of very deep, somewhat poorly drained or moderately well drained soils formed in lacustrine and alluvial deposits on lake plains and terraces. These soils have very slow permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

37 − Straw Loam, Channeled

37 STRAW LOAM, CHANNELED − The Straw series consists of very deep, well drained soils that formed in alluvium. These soils are on floodplains and drainageways. Slopes are 0 to 8 percent. This soil has moderate available water capacity and moderate organic matter content. Flooding is FREQ.

38 − Regan Silt Loam

38 REGAN SILT LOAM − The Regan series consists of deep, poorly or very poorly drained, moderately or moderately slow permeable soils that formed in silty alluvium overlying stratified coarser alluvium. These soils are on upland swales, low terraces, and bottom lands in stream valleys and outwash channels. This soil has high available water capacity and moderate organic matter content. Flooding is OCCAS.

40A − Mondamin Silty Clay Loam, 0 To 3 Percent Slopes

40A MONDAMIN SILTY CLAY LOAM, 0 TO 3 PERCENT SLOPES − The Mondamin series consists of very deep, well drained or moderately well drained soils formed in glaciolacustrine sediments on uplands. Permeability is moderately slow or slow. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

40B − Mondamin Silty Clay Loam, 3 To 6 Percent Slopes

40B MONDAMIN SILTY CLAY LOAM, 3 TO 6 PERCENT SLOPES − The Mondamin series consists of very deep, well drained or moderately well drained soils formed in glaciolacustrine sediments on uplands. Permeability is moderately slow or slow. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

43C − Wabek−Bowdle Complex, 3 To 15 Percent Slopes

43C WABEK−BOWDLE COMPLEX, 3 TO 15 PERCENT SLOPES − The Wabek series consists of very deep, excessively drained, rapidly and very rapidly permeable soils formed in sand and gravel glaciofluvial deposits. These soils are on outwash plains, beach ridges, terraces and terrace escarpments. This soil has very low available water capacity and low organic matter content. Flooding is NONE.
43C WABEK−BOWDLE COMPLEX, 3 TO 15 PERCENT SLOPES − The Bowdle series consists of well drained soils moderately deep over sand and gravel and formed in loamy alluvium underlain by sand and gravel on outwash plains and stream terraces. Permeability is moderate in the solum and rapid in the underlying material. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

44D − Wabek Gravelly Loam, 6 To 20 Percent Slopes

44D WABEK GRAVELLY LOAM, 6 TO 20 PERCENT SLOPES − The Wabek series consists of very deep, excessively drained, rapidly and very rapidly permeable soils formed in sand and gravel glaciofluvial deposits. These soils are on outwash plains, beach ridges, terraces and terrace escarpments. This soil has very low available water capacity and low organic matter content. Flooding is NONE.

45B − Wabek−Lehr Complex, 2 To 9 Percent Slopes

45B WABEK−LEHR COMPLEX, 2 TO 9 PERCENT SLOPES − The Lehr series consists of very deep, somewhat excessively drained soils shallow to sand and gravel. They formed in loamy alluvium over sand and gravel. Permeability is moderately rapid in the upper part and rapid and very rapid in the substratum. These soils are on outwash plains and stream valley terraces. This soil has low available water capacity and moderate organic matter content. Flooding is NONE.
45B WABEK−LEHR COMPLEX, 2 TO 9 PERCENT SLOPES − The Wabek series consists of very deep, excessively drained, rapidly and very rapidly permeable soils formed in sand and gravel glaciofluvial deposits. These soils are on outwash plains, beach ridges, terraces and terrace escarpments. This soil has very low available water capacity and low organic matter content. Flooding is NONE.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

52B − Lihen−Parshall Fine Sandy Loams, 0 To 6 Percent Slopes

52B LIHEN−PARSHALL FINE SANDY LOAMS, 0 TO 6 PERCENT SLOPES − The Lihen series consists of very deep, somewhat excessively or well drained soils that formed in sandy alluvium, glaciofluvial, and eolian deposits that are in places over till or sedimentary bedrock. These soils are on stream terraces, dunes, and till plains. This soil has low available water capacity and low organic matter content. Flooding is NONE.
52B LIHEN−PARSHALL FINE SANDY LOAMS, 0 TO 6 PERCENT SLOPES − The Parshall series consists of very deep, well or moderately well drained, moderately rapid permeable soils formed in alluvium. These soils are on terraces, outwash plains and upland swales. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

52D − Lihen Loamy Fine Sand, 6 To 20 Percent Slopes

52D LIHEN LOAMY FINE SAND, 6 TO 20 PERCENT SLOPES − The Lihen series consists of very deep, somewhat excessively or well drained soils that formed in sandy alluvium, glaciofluvial, and eolian deposits that are in places over till or sedimentary bedrock. These soils are on stream terraces, dunes, and till plains. This soil has low available water capacity and low organic matter content. Flooding is NONE.

54B − Tansem−Roseglen Loams, 2 To 6 Percent Slopes

54B TANSEM−ROSEGLEN LOAMS, 2 TO 6 PERCENT SLOPES − The Roseglen series consists of very deep, well or moderately well drained, moderately permeable soils that formed in calcareous loamy glaciolacustrine sediments. These soils are on glacial lake plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.
54B TANSEM−ROSEGLEN LOAMS, 2 TO 6 PERCENT SLOPES − The Tansem series consists of deep, well drained, moderately permeable soils formed in glacial lake sediments. These soils are on glacial lake plains. This soil has very high available water capacity and moderate organic matter content. Flooding is NONE.

55A − Parshall−Tally Fine Sandy Loams, 0 To 3 Percent Slopes

55A PARSHALL−TALLY FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES − The Tally series consists of very deep, well drained soils that formed in material derived from eolian deposits, alluvium, or glaciofluvial deposits. These soils are on stream terraces, alluvial fans, till plains, drainageways, and outwash plains. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.
55A PARSHALL−TALLY FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES − The Parshall series consists of very deep, well or moderately well drained, moderately rapid permeable soils formed in alluvium. These soils are on terraces, outwash plains and upland swales. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

55B − Tally Fine Sandy Loam, 2 To 6 Percent Slopes

55B TALLY FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES − The Tally series consists of very deep, well drained soils that formed in material derived from eolian deposits, alluvium, or glaciofluvial deposits. These soils are on stream terraces, alluvial fans, till plains, drainageways, and outwash plains. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

56D − Tansem Variant Loam, 9 To 15 Percent Slopes

56D TANSEM VARIANT LOAM, 9 TO 15 PERCENT SLOPES − The Tansem Variant consists of deep, well drained soils formed in lacustrine sediments on glacial lake plains. This soil has high available water capacity and low organic matter content. Flooding is NONE.

57A − Bryant−Grassna Silt Loams, 0 To 3 Percent Slopes

57A BRYANT−GRASSNA SILT LOAMS, 0 TO 3 PERCENT SLOPES − The Grassna series consists of deep, well or moderately well drained soils formed in silty sediments in swales and on fans and on foot slopes. Permeability is moderate. This soil has very high available water capacity and high organic matter content. Flooding is NONE.
57A BRYANT−GRASSNA SILT LOAMS, 0 TO 3 PERCENT SLOPES − The Bryant series consists of deep, well drained soils formed in calcareous silty glacial drift or loess on uplands. The soils have moderate permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

57B − Bryant−Grassna Silt Loams, 1 To 6 Percent Slopes

57B BRYANT−GRASSNA SILT LOAMS, 1 TO 6 PERCENT SLOPES − The Grassna series consists of deep, well or moderately well drained soils formed in silty sediments in swales and on fans and on foot slopes. Permeability is moderate. This soil has very high available water capacity and high organic matter content. Flooding is NONE.
57B BRYANT−GRASSNA SILT LOAMS, 1 TO 6 PERCENT SLOPES − The Bryant series consists of deep, well drained soils formed in calcareous silty glacial drift or loess on uplands. The soils have moderate permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

57C – Bryant Silt Loam, 6 To 9 Percent Slopes
57C BRYANT SILT LOAM, 6 TO 9 PERCENT SLOPES – The Bryant series consists of deep, well drained soils formed in calcareous silty glacial drift or loess on uplands. The soils have moderate permeability. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.

58B – Temvik–Grassna–Bearpaw Complex, 1 To 6 Percent Slopes

58B TEMVIK–GRASSNA–BEARPAW COMPLEX, 1 TO 6 PERCENT SLOPES – The Temvik series consists of deep, well drained soils that formed in a silty mantle overlying glacial till. Permeability is moderate in the silty mantle and moderately slow in the glacial till. These soils are on upland plains. This soil has high available water capacity and moderate organic matter content. Flooding is NONE.
58B TEMVIK–GRASSNA–BEARPAW COMPLEX, 1 TO 6 PERCENT SLOPES – The Grassna series consists of deep, well or moderately well drained soils formed in silty sediments in swales and on fans and on foot slopes. Permeability is moderate. This soil has very high available water capacity and high organic matter content. Flooding is NONE.
58B TEMVIK–GRASSNA–BEARPAW COMPLEX, 1 TO 6 PERCENT SLOPES – The Bearpaw series consists of very deep, well drained soils that formed in till. These soils are on till plains and hills. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

62 – Hamerly Loam

62 HAMERLY LOAM – The Hamerly series consists of very deep, somewhat poorly or moderately well drained soils that formed in calcareous loamy glacial till. Permeability is moderate in the upper horizons and moderate or moderately slow in the lower horizons. These soils are on flats on till–floored lake plains and on convex slopes surrounding shallow depressions and on slight rises on till plains. This soil has high available water capacity and high organic matter content. Flooding is NONE.

64 – Grassna Silt Loam

64 GRASSNA SILT LOAM – The Grassna series consists of deep, well or moderately well drained soils formed in silty sediments in swales and on fans and on foot slopes. Permeability is moderate. This soil has very high available water capacity and high organic matter content. Flooding is NONE.

65 – Grail Silty Clay Loam

65 GRAIL SILTY CLAY LOAM – The Grail series consists of deep and very deep, well or moderately well drained, moderately slow or slowly permeable soils that formed in alluvium. These soils are on terraces, fans, swales and foot slopes on uplands. This soil has high available water capacity and high organic matter content. Flooding is NONE.

72 – Ranslo–Harriet Loams

72 RANSLO–HARRIET LOAMS – The Harriet series consists of very deep, poorly drained, slowly and very slowly permeable soils that formed in calcareous alluvium. These soils are on low lying flats, terraces, drainageways and bottom lands. This soil has moderate available water capacity and moderate organic matter content. Flooding is OCCAS.
72 RANSLO–HARRIET LOAMS – The Ranslo series consists of deep, somewhat poorly drained soils formed in clayey alluvium. These soils are on stream terraces and flood plains. Permeability is slow in the solum and slow to moderate in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is OCCAS.

75 – Tonka–Nishon Silt Loams

75 TONKA–NISHON SILT LOAMS – The Tonka series consists of very deep, poorly drained, slowly permeable soils that formed in local alluvium over glacial till or glaciolacustrine deposits. These soils are in closed basins and depressions on glacial till and glacial lake plains. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.
75 TONKA–NISHON SILT LOAMS – The Nishon series consists of very deep, poorly drained clayey soils that formed in alluvium. These soils are in closed depressions on the till plains. This soil has high available water capacity and organic matter content. Flooding is NONE. Ponding duration is LONG.

76 – Parnell Silty Clay Loam

76 PARNELL SILTY CLAY LOAM – The Parnell series consists of very deep, very poorly drained and poorly drained soils that formed in clayey water–sorted sediments from glacial drift in depressions, swales and drainageways on glacial moraines. These soils have slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

77 – Nishon–Heil Silt Loam

77 NISHON–HEIL SILT LOAM – The Nishon series consists of very deep, poorly drained clayey soils that formed in alluvium. These soils are in closed depressions on the till plains. This soil has high available water capacity and organic matter content. Flooding is NONE. Ponding duration is LONG.
77 NISHON–HEIL SILT LOAM – The Heil series consists of very deep, poorly drained, very slowly permeable soils that formed in clayey, calcareous alluvium. This soil has high available water capacity and moderate organic matter content. Flooding is NONE. Ponding duration is LONG.

80 – Heil Silt Loam

80 HEIL SILT LOAM – The Heil series consists of very deep, poorly drained, very slowly permeable soils that formed in clayey, calcareous alluvium. This soil has high available water capacity and moderate organic matter content. Flooding is NONE. Ponding duration is LONG.

82 – Stirum Loam

82 STIRUM LOAM – The Stirum series consists of very deep, poorly drained and very poorly drained soils on outwash plains, deltas, lake plains, floodplains and adjacent to current lakes. Permeability is moderately slow in the Btn horizon and moderate to rapid below the Btn horizon. These soils formed in glaciofluvial deposits, glaciolacustrine deposits or alluvium. This soil has moderate available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.

85 – Ranslo Loam

85 RANSLO LOAM – The Ranslo series consists of deep, somewhat poorly drained soils formed in clayey alluvium. These soils are on stream terraces and flood plains. Permeability is slow in the solum and slow to moderate in the underlying material. This soil has high available water capacity and high organic matter content. Flooding is OCCAS.

86 – Harriet Loam

86 HARRIET LOAM – The Harriet series consists of very deep, poorly drained, slowly and very slowly permeable soils that formed in calcareous alluvium. These soils are on low lying flats, terraces, drainageways and bottom lands. This soil has moderate available water capacity and moderate organic matter content. Flooding is OCCAS.

87 – Marysland Loam

87 MARYSLAND LOAM – The Marysland series consists of very deep, poorly and very poorly drained soils that formed in glacial lacustrine or outwash sediments which consists of a 20 to 40 inch loamy mantle over sandy or sandy–skeletal sediments. These soils are on stream terraces, outwash channels, outwash plains, and lacustrine plains. They have moderate permeability in the upper part and rapid permeability in the underlying material. This soil has moderate available water capacity and high organic matter content. Flooding is NONE.

88 – Divide Loam

88 DIVIDE LOAM – The Divide series consists of very deep, somewhat poorly or moderately well drained soils that formed in loamy sediment over sand and gravel. Permeability is moderate over rapid or very rapid. These soils are on slightly depressed areas in outwash plains, terraces and interbeach areas. This soil has moderate available water capacity and moderate organic matter content. Flooding is NONE.

97 – Regan Silt Loam, Wet

97 REGAN SILT LOAM, WET – The Regan series consists of deep, poorly or very poorly drained, moderately or moderately slow permeable soils that formed in silty alluvium overlying stratified coarser alluvium. These soils are on upland swales, low terraces, and bottom lands in stream valleys and outwash channels. This soil has high available water capacity and moderate organic matter content. Flooding is FREQ.

98 – Vallers Silty Clay Loam

98 VALLERS SILTY CLAY LOAM – The Vallers series consists of deep, poorly drained soils that formed in calcareous loamy glacial till on glacial moraines. These soils have moderately slow permeability. This soil has high available water capacity and high organic matter content. Flooding is RARE.

99 – Pits, Gravel

99 PITS, GRAVEL – Orthents, gravelly consists of areas where gravel has been excavated and removed. Some areas have been smoothed and 8 to 14 inches of loamy overburden has been replaced. This soil has low available water capacity and organic matter content. Flooding is NONE.

McPherson County, South Dakota
Non Technical Soil Descriptions--Continued

100 − Parnell Silty Clay Loam, Ponded

100 PARNELL SILTY CLAY LOAM, PONDED − The Parnell series consists of very deep, very poorly drained and poorly drained soils that formed in clayey water−sorted sediments from glacial drift in depressions, swales and drainageways on glacial moraines. These soils have slow permeability. This soil has high available water capacity and high organic matter content. Flooding is NONE. Ponding duration is LONG.

w − Water (less Than 40 Acres In Size)

w WATER (LESS THAN 40 ACRES IN SIZE) − These are areas of water that are normally less than 40 acres in size. This soil has available water capacity and organic matter content.