Map Unit Description (Brief, Tabular)

Benton County, Arkansas

[Absence of an entry indicates that the feature is not a concern or that data were not estimated. Data applies to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation]

BtC--Britwater gravelly silt loam, 3 to 8 percent slopes

Composition

- Britwater and similar soils: 90 to 100 percent of the map unit (RV=95 percent)
- Clarksville and similar soils: 0 to 5 percent of the map unit (RV=3 percent)
- Razort and similar soils: 0 to 5 percent of the map unit (RV=2 percent)

Setting

Landform(s): stream terraces on river valleys
Elevation: 1001 to 1401 feet
Precipitation: 35 to 52 inches
Slope gradient: 3 to 8 percent
Air temperature: 45 to 70 ºF
Frost-free period: 160 to 255 days

Characteristics of Britwater and similar soils

Average total avail. water in top five feet (in.): 9.4
Available water capacity class: High
Parent material: loamy alluvium derived from cherty limestone
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Runoff class: medium
Potential frost action: moderate

Saturated hydraulic conductivity class: Moderately High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 6	Gravelly silt loam	0.6 to 0.9	4.5 to 6.5	0.0	0
Bt1 -- 6 to 22	Gravelly silty clay loam	1.9 to 2.9	4.5 to 6.0	0.0	0
Bt2 -- 22 to 60	Very gravelly silty clay loam	3.0 to 6.0	4.5 to 6.0	0.0	0
Bt3 -- 60 to 80	Very gravelly silty clay	1.4 to 3.2	4.5 to 6.0	0.0	0

Ecological class(es): NRCS Forestland Site - Loamy Terrace Forest

BtD--Britwater gravelly silt loam, 8 to 12 percent slopes

Composition

- Britwater and similar soils: 90 to 100 percent of the map unit (RV=95 percent)
- Noark and similar soils: 0 to 5 percent of the map unit (RV=3 percent)
- Elsah and similar soils: 0 to 5 percent of the map unit (RV=2 percent)

Setting

Landform(s): stream terraces on river valleys
Elevation: 1001 to 1401 feet
Precipitation: 35 to 51 inches
Slope gradient: 8 to 12 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 255 days

Characteristics of Britwater and similar soils

Average total avail. water in top five feet (in.): 9.4
Available water capacity class: High
Parent material: loamy alluvium derived from cherty limestone
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Runoff class: medium
Potential frost action: moderate

Saturated hydraulic conductivity class: Moderately High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 6	Gravelly silt loam	0.6 to 0.9	4.5 to 6.5	0.0	0
Bt1 -- 6 to 22	Gravelly silty clay loam	1.9 to 2.9	4.5 to 6.0	0.0	0
Bt2 -- 22 to 60	Very gravelly silty clay loam	3.0 to 6.0	4.5 to 6.0	0.0	0
Bt3 -- 60 to 80	Very gravelly silty clay	1.4 to 3.2	4.5 to 6.0	0.0	0

Ecological class(es): NRCS Forestland Site - Loamy Terrace Forest

CeC--Cane loam, 3 to 8 percent slopes

Composition

- Cane and similar soils: 100 percent of the unit

Setting

Landform(s): hills, stream terraces
Elevation: 400 to 600 feet
Precipitation: 42 to 51 inches
Slope gradient: 3 to 8 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Cane and similar soils

Average total avail. water in top five feet (in.): 7.6
Available water capacity class: Moderate
Parent material: loamy colluvium derived from sandstone and shale
Restrictive feature(s): fragipan at 18 to 26 inches
Depth to Water table: 24 inches
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 3e
Hydric soil: no
Hydrologic group: C
Runoff class: high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 5	Loam	0.5 to 0.9	4.5 to 6.0	0.0	0
Bt -- 5 to 22	Loam	2.4 to 3.2	4.5 to 6.0	0.0	0
Btx -- 22 to 79	Clay loam	2.8 to 4.5	4.5 to 6.0	0.0	0

Ecological class(es):

CnB--Captina silt loam, 1 to 3 percent slopes

Composition

- Captina and similar soils: 85 to 96 percent of the map unit (RV=90 percent)
- Needleye and similar soils: 2 to 5 percent of the map unit (RV=5 percent)
- Nixa and similar soils: 2 to 10 percent of the map unit (RV=5 percent)

Setting

Landform(s): hills, interfluves
Elevation: 801 to 1588 feet
Precipitation: 39 to 49 inches
Slope gradient: 1 to 3 percent
Air temperature: 54 to 59 ºF
Frost-free period: 172 to 232 days

Characteristics of Captina and similar soils

Average total avail. water in top five feet (in.): 7.2
Available water capacity class: Moderate
Parent material: loess over pedisediment over residuum weathered from cherty limestone
Restrictive feature(s): fragipan at 20 to 36 inches
Depth to Water table: 21 inches
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 3s
Hydric soil: no
Hydrologic group: C/D
Runoff class: very low
Potential frost action: high

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 5	Silt loam	1.1 to 1.2	4.5 to 6.5	0.1 to 2.0	0
Bt1 -- 5 to 25	Silty clay loam	3.4 to 4.4	4.5 to 5.5	0.1 to 2.0	0
2Btx -- 25 to 50	Very gravelly silt loam	0.5 to 1.7	3.5 to 5.5	0.1 to 2.0	0
3Bt2 -- 50 to 79	Gravelly clay	1.1 to 3.7	3.5 to 5.5	0.1 to 2.0	0

Ecological class(es): NRCS Forestland Site - Fragipan Upland Woodland
Missouri Vegetative Classes - Mixed/Transitional

Co--Carytown silt loam

Composition

- Carytown and similar soils: 90 percent of the unit
- Aqualfs and similar soils: 5 percent of the unit
- Cherokee: 5 percent of the unit

Setting

Landform(s): hills, stream terraces
Elevation: 699 to 1099 feet
Precipitation: 42 to 51 inches
Slope gradient: 0 to 1 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Carytown and similar soils

Average total avail. water in top five feet (in.): 10.2
Available water capacity class: High
Parent material: sodium rich clayey residuum weathered from shale
Restrictive feature(s): natric at 16 to 20 inches
Depth to Water table: 6 inches
Drainage class: poorly drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately Low
Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: D
Runoff class: low
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 9	Silt loam	1.7 to 2.2	5.1 to 7.3	0.0	0
EBg -- 9 to 18	Silt loam	1.7 to 2.2	5.1 to 7.3	0.0	0
Btg -- 18 to 80	Clay	4.9 to 6.8	5.6 to 8.4	0.0	13 to 15

Ecological class(es):

Cs--Cherokee silt loam

Composition

- Cherokee and similar soils: 85 percent of the unit
- Aqualfs and similar soils: 5 percent of the unit
- Captina: 5 percent of the unit
- Carytown: 5 percent of the unit

Setting

Landform(s): depressions, hills, uplands
Elevation:
Precipitation: 42 to 51 inches
Slope gradient: 0 to 1 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Cherokee and similar soils

Average total avail. water in top five feet (in.): 12.6
Available water capacity class: High
Parent material: silty and clayey pedisediment
Restrictive feature(s): abrupt textural change at 11 to 17 inches
Depth to Water table: 12 inches
Drainage class: somewhat poorly drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrrigated: 3w
Hydric soil: no
Hydrologic group: D
Runoff class: low
Potential frost action: none

Saturated hydraulic conductivity class: Moderately Low

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 14	Silt loam	3.1 to 3.4	5.1 to 7.3	0.0	0
Btg1 -- 14 to 54	Clay	4.0 to 6.0	5.1 to 6.0	0.0	0
Btg2 -- 54 to 66	Silty clay loam	1.1 to 2.2	5.1 to 7.3	0.0	0
BC -- 66 to 84	Clay	1.6 to 3.2	5.1 to 7.3	0.0	0

Ecological class(es):

CvF--Clarksville extremely gravelly silt loam, 12 to 50 percent slopes

Composition

- Clarksville and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 699 to 1299 feet
Precipitation: 42 to 51 inches
Slope gradient: 12 to 50 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Clarksville and similar soils

Average total avail. water in top five feet (in.): 6.2
Available water capacity class: Moderate
Parent material: clayey residuum weathered from cherty limestone
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: excessively drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: High
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Land capability class, irrigated:
Land capability class, nonirrigated: 7s
Hydric soil: no
Hydrologic group: A
Runoff class: medium
Potential frost action: moderate

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 24	Extremely gravelly silt loam	1.7 to 2.9	4.5 to 6.0	0.0	0
Bt -- 24 to 72	Extremely gravelly silt loam	2.9 to 4.8	4.5 to 5.5	0.0	0

Ecological class(es): NRCS Forestland Site - Low-Base Chert Protected Backslope Woodland
NRCS Forestland Site - Low-Base Chert Exposed Backslope Woodland

Eg--Elsah soils, occasionally and frequently flooded

Composition

- Elsah, occasional and similar soils: 70 percent of the unit
- Elsah, frequent and similar soils: 25 percent of the unit
- Aquents and similar soils: 5 percent of the unit

Setting

Landform(s): flood plains, hills
Elevation: 341 to 1499 feet
Precipitation: 42 to 51 inches
Slope gradient: 0 to 3 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Elsah, occasional and similar soils

Average total avail. water in top five feet (in.): 5.4
Available water capacity class: Low
Parent material: gravelly alluvium
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: somewhat excessively drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Land capability class, irrigated:
Land capability class, nonirrigated: 3s
Hydric soil: no
Hydrologic group: B
Runoff class: low
Potential frost action: moderate

Saturated hydraulic conductivity class: Moderately High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 7	Extremely gravelly silt loam	0.9 to 1.3	5.6 to 7.3	0.0	0
C -- 7 to 60	Extremely gravelly silt loam	2.6 to 5.3	6.6 to 7.3	0.0	0

Ecological class(es): NRCS Forestland Site - Sandy/Gravelly Floodplain Forest

[Eg - Elsah soils, occasionally and frequently flooded]

Characteristics of Elsah, frequent and similar soils

Average total avail. water in top five feet (in.): 5.4
Available water capacity class: Low
Parent material: gravelly alluvium
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: somewhat excessively drained
Flooding hazard: none
Ponding hazard: none

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Land capability class, irrigated:
Land capability class, nonirrigated: 5w
Hydric soil: no
Hydrologic group: B
Runoff class: low
Potential frost action: moderate

Saturated hydraulic conductivity class: Moderately High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 7	Extremely gravelly silt loam	0.9 to 1.3	5.6 to 7.3	0.0	0
C -- 7 to 60	Extremely gravelly silt loam	2.6 to 5.3	6.6 to 7.3	0.0	0

Ecological class(es): NRCS Forestland Site - Sandy/Gravelly Floodplain Forest

EnD--Enders very gravelly loam, 3 to 12 percent slopes

Composition

- Enders and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 499 to 2500 feet
Precipitation: 42 to 51 inches
Slope gradient: 3 to 12 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Enders and similar soils

Average total avail. water in top five feet (in.): 6.6
Available water capacity class: Moderate
Parent material: clayey residuum weathered from acid shale
Restrictive feature(s): paralithic bedrock at 40 to 60 inches
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 4e
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action:

Saturated hydraulic conductivity class: Moderately Low

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 4	Very gravelly loam	0.3 to 0.4	4.5 to 5.5	0.0	0
E -- 4 to 7	Gravelly loam	0.2 to 0.6	4.5 to 5.5	0.0	0
BE -- 7 to 11	Silty clay loam	0.5 to 0.7	4.5 to 5.5	0.0	0
Bt -- 11 to 33	Clay	2.6 to 4.0	4.5 to 5.5	0.0	0
C -- 33 to 48	Extremely parachannery clay	1.2 to 2.5	4.5 to 5.5	0.0	0
Cr -- 48 to 60	Weathered bedrock			0.0	0

Ecological class(es):

EoD--Enders very stony loam, 3 to 12 percent slopes

Composition

- Enders and similar soils: 80 percent of the unit
- Mountainburg and similar soils: 10 percent of the unit
- Nella and similar soils: 5 percent of the unit
- Rock outcrop: 5 percent of the unit

Setting

Landform(s): hillslopes on hills
Elevation: 499 to 2500 feet
Precipitation: 39 to 54 inches
Slope gradient: 3 to 12 percent
Air temperature: 48 to 71 ºF
Frost-free period: 205 to 255 days

Characteristics of Enders and similar soils

Average total avail. water in top five feet (in.): 7.3
Available water capacity class: Moderate
Parent material: clayey residuum weathered from acid shale
Restrictive feature(s): paralithic bedrock at 44 to 59 inches
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 5s
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action: none

Saturated hydraulic conductivity class: Moderately Low

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 3	Very stony loam	0.2 to 0.3	4.5 to 5.5	0.0	0
E -- 3 to 8	Gravelly silt loam	0.3 to 0.5	3.6 to 5.5	0.0	0
Bt1 -- 8 to 40	Clay	3.9 to 5.8	3.6 to 5.5	0.0	0
Bt2 -- 40 to 54	Clay	1.1 to 2.3	3.6 to 5.5	0.0	0
Cr -- 54 to 58	Bedrock			0.0	0

Ecological class(es):

EoF--Enders very stony loam, 12 to 30 percent slopes

Composition

- Enders and similar soils: 80 percent of the unit
- Mountainburg and similar soils: 10 percent of the unit
- Nella and similar soils: 5 percent of the unit
- Rock outcrop: 5 percent of the unit

Setting

Landform(s): hillslopes on hills
Elevation: 499 to 2500 feet
Precipitation: 39 to 54 inches
Slope gradient: 12 to 30 percent
Air temperature: 48 to 71 ºF
Frost-free period: 205 to 255 days

Characteristics of Enders and similar soils

Average total avail. water in top five feet (in.): 7.3
Available water capacity class: Moderate
Parent material: clayey residuum weathered from acid shale
Restrictive feature(s): paralithic bedrock at 40 to 60 inches
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 7s
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action: none

Saturated hydraulic conductivity class: Moderately Low

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 3	Very stony loam	0.2 to 0.3	4.5 to 5.5	0.0	0
E -- 3 to 8	Gravelly silt loam	0.3 to 0.5	3.6 to 5.5	0.0	0
Bt1 -- 8 to 40	Clay	3.9 to 5.8	3.6 to 5.5	0.0	0
Bt2 -- 40 to 54	Clay	1.1 to 2.3	3.6 to 5.5	0.0	0
Cr -- 54 to 58	Bedrock			0.0	0

Ecological class(es):

Ft--Fatima silt loam, occasionally flooded

Composition

- Fatima and similar soils: 95 percent of the unit
- Aquents and similar soils: 5 percent of the unit

Setting

Landform(s): flood plains, hills
Elevation: 600 to 899 feet
Precipitation: 42 to 51 inches
Slope gradient: 0 to 1 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Fatima and similar soils

Average total avail. water in top five feet (in.): 15.4
Available water capacity class: High
Parent material: alluvium
Restrictive feature(s): none
Depth to Water table: 48 inches
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Land capability class, irrigated:
Land capability class, nonirrigated: 2w
Hydric soil: no
Hydrologic group: B
Runoff class: negligible
Potential frost action: high

Saturated hydraulic conductivity class: Moderately High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 12	Silt loam	2.6 to 2.8	6.1 to 7.3	0.0	0
Btg -- 12 to 48	Silt loam	7.2 to 8.0	5.6 to 7.3	0.0	0
Bt -- 48 to 72	Silt loam	4.8 to 5.3	6.1 to 7.3	0.0	0

Ecological class(es):

He--Healing silt loam, rarely flooded

Composition

- Healing and similar soils: 95 percent of the unit
- Aquents and similar soils: 5 percent of the unit

Setting

Landform(s): hills, stream terraces
Elevation: 499 to 1001 feet
Precipitation: 42 to 51 inches
Slope gradient: 0 to 2 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Healing and similar soils

Average total avail. water in top five feet (in.): 13.5
Available water capacity class: High
Parent material: alluvium
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Runoff class: low
Potential frost action: none

Saturated hydraulic conductivity class: Moderately High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 15	Silt loam	2.4 to 3.6	5.6 to 6.5	0.0	0
Bt1 -- 15 to 50	Silt loam	5.6 to 8.4	5.6 to 6.5	0.0	0
Bt2 -- 50 to 72	Gravelly silt loam	2.9 to 4.2	5.6 to 6.5	0.0	0

Ecological class(es): NRCS Forestland Site - Loamy Terrace Forest

Hf--Healing silt loam, 0 to 3 percent slopes, occasionally flooded

Composition

- Healing and similar soils: 90 to 100 percent of the map unit (RV=95 percent)
- Unnamed, hydric and similar soils: 0 to 10 percent of the map unit (RV=5 percent)

Setting

Landform(s): flood plains on river valleys
Elevation: 499 to 1001 feet
Precipitation: 40 to 51 inches
Slope gradient: 0 to 3 percent
Air temperature: 46 to 71 ºF
Frost-free period: 179 to 232 days

Characteristics of Healing and similar soils

Average total avail. water in top five feet (in.): 13.6
Available water capacity class: High
Parent material: silty alluvium
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 2w
Hydric soil: no
Hydrologic group: B
Runoff class: low
Potential frost action: high

Saturated hydraulic conductivity class: Moderately High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 14	Silt loam	2.3 to 3.4	5.6 to 6.5	0.0	0
Bt1 -- 14 to 50	Silt loam	5.7 to 8.6	5.6 to 6.5	0.0	0
Bt2 -- 50 to 80	Gravelly silt loam	2.4 to 5.4	5.6 to 6.5	0.0	0

Ecological class(es): NRCS Forestland Site - Loamy Terrace Forest

JaB--Jay silt loam, 1 to 3 percent slopes

Composition

- Jay and similar soils: 80 to 100 percent of the map unit (RV=90 percent)
- Taloka and similar soils: 0 to 10 percent of the map unit (RV=5 percent)
- Captina and similar soils: 0 to 5 percent of the map unit (RV=2 percent)
- Pickwick and similar soils: 0 to 5 percent of the map unit (RV=2 percent)
- Mayes and similar soils: 0 to 2 percent of the map unit (RV=1 percent)

Setting

Landform(s): hillslopes on hills
Elevation: 554 to 1404 feet
Precipitation: 41 to 53 inches
Slope gradient: 1 to 3 percent
Air temperature: 55 to 59 ºF
Frost-free period: 180 to 210 days

Characteristics of Jay and similar soils

Average total avail. water in top five feet (in.): 12.4
Available water capacity class: High
Parent material: fine-silty loess over silty pedisediment
Restrictive feature(s): fragipan at 18 to 30 inches
Depth to Water table: 29 inches
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 2e
Hydric soil: no
Hydrologic group: C
Runoff class: low
Potential frost action: none

Saturated hydraulic conductivity class: Moderately Low

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 9	Silt loam	1.7 to 2.2	5.1 to 6.5	0.1 to 0.4	0
A -- 9 to 16	Silt loam	1.3 to 1.7	5.1 to 6.5	0.1 to 0.4	0
Bt -- 16 to 25	Silt loam	1.6 to 1.9	4.5 to 6.0	0.1 to 0.4	0
2Btx1 -- 25 to 29	Silt loam	0.5 to 0.7	4.5 to 6.0	0.1 to 0.4	0
2Btx2 -- 29 to 46	Silt loam	2.0 to 3.0	4.5 to 6.0	0.1 to 0.4	0
2Btx3 -- 46 to 80	Silty clay loam	3.4 to 5.4	5.1 to 6.5	0.1 to 0.4	0

Ecological class(es):

Jo--Johnsburg silt loam, 0 to 2 percent slopes

Composition

- Johnsburg and similar soils: 80 to 100 percent of the map unit (RV=81 percent)
- Aquults and similar soils: 0 to 5 percent of the map unit (RV=5 percent)
- Cherokee and similar soils: 0 to 5 percent of the map unit (RV=5 percent)
- Leaf and similar soils: 0 to 5 percent of the map unit (RV=5 percent)
- Captina and similar soils: 0 to 3 percent of the map unit (RV=3 percent)
- Mayes and similar soils: 0 to 2 percent of the map unit (RV=1 percent)

Setting

Landform(s): hillslopes on hills
Elevation: 919 to 2287 feet
Precipitation: 43 to 53 inches
Slope gradient: 0 to 2 percent
Air temperature: 55 to 59 ºF
Frost-free period: 180 to 210 days

Characteristics of Johnsburg and similar soils

Average total avail. water in top five feet (in.): 9.8
Available water capacity class: High
Parent material: fine-silty loess over silty and clayey pedisediment over silty and clayey residuum weathered from sedimentary rock
Restrictive feature(s): fragipan at 18 to 28 inches
Depth to Water table: 14 inches
Drainage class: somewhat poorly drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 2w
Hydric soil: no
Hydrologic group: D
Runoff class: medium
Potential frost action: high

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 8	Silt loam	1.5 to 1.7	4.5 to 5.5	0.1 to 0.4	0
Bt -- 8 to 22	Silty clay loam	2.7 to 3.0	4.5 to 5.5	0.1 to 0.4	0
2Btgx1 -- 22 to 31	Silty clay loam	0.6 to 1.4	4.2 to 5.5	0.1 to 0.4	0
2Btgx2 -- 31 to 43	Silty clay loam	0.6 to 1.9	4.2 to 5.5	0.1 to 0.4	0
2Btgx3 -- 43 to 56	Silty clay loam	0.6 to 1.9	4.2 to 5.5	0.1 to 0.4	0
3Bt -- 56 to 80	Gravelly silty clay loam	2.4 to 2.9	4.2 to 5.5	0.2 to 0.6	0

Ecological class(es): NRCS Forestland Site - Fragipan Upland Woodland

Lm--Rock outcrop, limestone

Composition

- Rock outcrop: 100 percent of the unit

Setting

Landform(s): hills
Elevation:
Precipitation: 42 to 51 inches
Slope gradient: 12 to 40 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Rock outcrop

Average total avail. water in top five feet (in.):
Available water capacity class: NA
Parent material:
Restrictive feature(s):
Depth to Water table:
Drainage class:
Flooding hazard:
Ponding hazard:
Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Land capability class, irrigated:
Land capability class, nonirrigated:
Hydric soil: no
Hydrologic group:
Runoff class:
Potential frost action:

Saturated hydraulic conductivity class: NA

Ecological class(es):

LrC--Linker fine sandy loam, 3 to 8 percent slopes

Composition

- Linker and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hillsides or mountainsides
Elevation: 499 to 2799 feet
Precipitation: 42 to 51 inches
Slope gradient: 3 to 8 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Linker and similar soils

Average total avail. water in top five feet (in.): 3.5
Available water capacity class: Low
Parent material: loamy residuum weathered from sandstone and siltstone
Restrictive feature(s): lithic bedrock at 20 to 40 inches
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Land capability class, irrigated:
Land capability class, nonirrigated: 3e
Hydric soil: no
Hydrologic group: C
Runoff class: high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 6	Fine sandy loam	0.6 to 0.7	4.5 to 6.0	0.0	0
Bt -- 6 to 19	Loam	1.3 to 2.3	4.5 to 5.5	0.0	0
BCt -- 19 to 26	Very gravelly sandy clay loam	0.7 to 1.3	4.5 to 5.5	0.0	0
R -- 26 to 30	Unweathered bedrock			0.0	0

Ecological class(es):

Me--Mayes silty clay loam

Composition

- Mayes and similar soils: 95 percent of the unit
- Aquents and similar soils: 5 percent of the unit

Setting

Landform(s): hills, stream terraces
Elevation:
Precipitation: 42 to 51 inches
Slope gradient: 0 to 1 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Mayes and similar soils

Average total avail. water in top five feet (in.): 11.2
Available water capacity class: High
Parent material: clayey pedisediment
Restrictive feature(s): none
Depth to Water table: 18 inches
Drainage class: somewhat poorly drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Land capability class, irrigated:
Land capability class, nonirrigated: 2w
Hydric soil: no
Hydrologic group: D
Runoff class: low
Potential frost action: none

Saturated hydraulic conductivity class: Moderately Low

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 11	Silty clay loam	1.7 to 2.4	5.1 to 7.3	0.0	0
Bt -- 11 to 19	Clay	0.8 to 1.6	5.6 to 7.8	0.0	0
Btg -- 19 to 72	Clay	5.3 to 10.6	5.6 to 7.8	0.0	0

Ecological class(es):

MPI--Pits, mine

Composition

- Pits: 100 percent of the unit

Setting

Landform(s): hills
Elevation:
Precipitation: 42 to 51 inches
Slope gradient: 3 to 60 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Pits

Average total avail. water in top five feet (in.):
Available water capacity class: NA
Parent material:
Restrictive feature(s):
Depth to Water table:
Drainage class:
Flooding hazard:
Ponding hazard:

Saturated hydraulic conductivity class: NA

Ecological class(es):

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Land capability class, irrigated:
Land capability class, nonirrigated: 7e
Hydric soil:
Hydrologic group:
Runoff class:
Potential frost action:

MuD--Mountainburg very stony sandy loam, 3 to 12 percent slopes

Composition

- Mountainburg and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 499 to 2799 feet
Precipitation: 42 to 51 inches
Slope gradient: 3 to 12 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Mountainburg and similar soils

Average total avail. water in top five feet (in.): 1.5
Available water capacity class: Very low
Parent material: stony loamy residuum weathered from sandstone
Restrictive feature(s): lithic bedrock at 12 to 20 inches
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Land capability class, irrigated:
Land capability class, nonirrigated: 6s
Hydric soil: no
Hydrologic group: D
Runoff class: high
Potential frost action:

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 3	Very stony sandy loam	0.2 to 0.3	4.5 to 6.0	0.0	0
E -- 3 to 6	Very cobbly sandy loam	0.1 to 0.3	4.5 to 6.0	0.0	0
Bt -- 6 to 19	Very cobbly sandy loam	0.6 to 1.3	4.5 to 5.5	0.0	0
R -- 19 to 20	Unweathered bedrock			0.0	0

Ecological class(es): NRCS Rangeland Site - Sandstone Ledge

MuE--Mountainburg very stony sandy loam, 12 to 40 percent slopes

Composition

- Mountainburg and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hillsides or mountainsides
Elevation: 499 to 2799 feet
Precipitation: 42 to 51 inches
Slope gradient: 12 to 40 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Mountainburg and similar soils

Average total avail. water in top five feet (in.): 1.5
Available water capacity class: Very low
Parent material: stony loamy residuum weathered from sandstone
Restrictive feature(s): lithic bedrock at 12 to 20 inches
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Land capability class, irrigated:
Land capability class, nonirrigated: 7s
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action:

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 3	Very stony sandy loam	0.2 to 0.3	4.5 to 6.0	0.0	0
E -- 3 to 6	Very cobbly sandy loam	0.1 to 0.3	4.5 to 6.0	0.0	0
Bt -- 6 to 19	Very cobbly sandy loam	0.6 to 1.3	4.5 to 5.5	0.0	0
R -- 19 to 20	Unweathered bedrock			0.0	0

Ecological class(es): NRCS Rangeland Site - Sandstone Ridge

NeB--Newtonia silt loam, 1 to 3 percent slopes

Composition

- Newtonia and similar soils: 85 to 100 percent of the map unit (RV=92 percent)
- Dennis and similar soils: 0 to 5 percent of the map unit (RV=3 percent)
- Peridge and similar soils: 0 to 5 percent of the map unit (RV=3 percent)
- Okemah and similar soils: 0 to 5 percent of the map unit (RV=2 percent)

Setting

Landform(s): hillslopes on hills, hillslopes, hillslopes
Elevation: 499 to 1201 feet
Precipitation: 41 to 51 inches
Slope gradient: 1 to 3 percent
Air temperature: 50 to 61 ºF
Frost-free period: 183 to 239 days

Characteristics of Newtonia and similar soils

Average total avail. water in top five feet (in.): 13.8
Available water capacity class: High
Parent material: loess over residuum weathered from cherty limestone
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately Low
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Runoff class: low
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 12	Silt loam	1.8 to 2.8	5.6 to 6.5	0.0 to 2.0	0
BA -- 12 to 16	Silt loam	0.7 to 1.0	5.1 to 6.5	0.0 to 2.0	0
Bt1 -- 16 to 26	Silty clay loam	1.8 to 2.2	5.1 to 6.0	0.0 to 2.0	0
Bt2 -- 26 to 54	Silty clay loam	3.4 to 5.6	5.1 to 6.0	0.0	0
2Bt3 -- 54 to 80	Silty clay	3.1 to 5.2	5.1 to 7.3	0.0 to 2.0	0

Ecological class(es): Missouri Vegetative Classes - Grass/Prairie

NfC--Nixa very gravelly silt loam, 3 to 8 percent slopes

Composition

- Nixa and similar soils: 85 to 95 percent of the map unit (RV=90 percent)
- Bendavis and similar soils: 5 to 15 percent of the map unit (RV=10 percent)

Setting

Landform(s): hills, hillslopes
Elevation: 919 to 1532 feet
Precipitation: 39 to 49 inches
Slope gradient: 3 to 8 percent
Air temperature: 54 to 59 ºF
Frost-free period: 172 to 232 days

Characteristics of Nixa and similar soils

Average total avail. water in top five feet (in.): 4.6
Available water capacity class: Low
Parent material: slope alluvium over pedisediment over residuum weathered from limestone
Restrictive feature(s): fragipan at 11 to 30 inches
Depth to Water table: 19 inches
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately Low
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 4s
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action: moderate

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Oi -- 0 to 1	Slightly decomposed plant material	0.0 to 0.0		0.1 to 2.0	0
A -- 1 to 3	Very gravelly silt loam	0.2 to 0.3	3.9 to 6.0	0.1 to 2.0	0
E -- 3 to 10	Very gravelly silt loam	0.5 to 1.1	4.5 to 6.0	0.1 to 2.0	0
BE -- 10 to 20	Very gravelly silt loam	0.7 to 1.2	4.2 to 5.5	0.1 to 2.0	0
2Btx -- 20 to 43	Very gravelly silt loam	0.7 to 1.9	4.3 to 5.5	0.1 to 2.0	0
3Bt -- 43 to 80	Very gravelly clay	1.1 to 3.7	4.1 to 5.0	0.1 to 2.0	0

Ecological class(es): NRCS Forestland Site - Low-Base Chert Upland Woodland
NRCS Forestland Site - Low-Base Chert Upland Woodland
Missouri Vegetative Classes - Trees/Timber

NfD--Nixa very gravelly silt loam, 8 to 12 percent slopes

Composition

- Nixa and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 801 to 1499 feet
Precipitation: 42 to 51 inches
Slope gradient: 8 to 12 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Nixa and similar soils

Average total avail. water in top five feet (in.): 6.1
Available water capacity class: Moderate
Parent material: loamy residuum weathered from cherty limestone
Restrictive feature(s): fragipan at 13 to 21 inches
Depth to Water table: none within the soil profile
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately Low
Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 4s
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 3	Very gravelly silt loam	0.3 to 0.5	4.5 to 5.5	0.0	0
BE -- 3 to 17	Very gravelly silt loam	1.0 to 1.7	4.5 to 5.5	0.0	0
Btx -- 17 to 30	Extremely gravelly silt loam	0.9 to 1.6	4.5 to 5.5	0.0	0
C/Bt -- 30 to 60	Mixed extremely gravelly clay	2.1 to 3.6	4.5 to 5.5	0.0	0

Ecological class(es): NRCS Forestland Site - Low-Base Chert Upland Woodland

NoD--Noark very gravelly silt loam, 8 to 12 percent slopes

Composition

- Noark and similar soils: 90 to 97 percent of the map unit (RV=95 percent)
- Bendavis and similar soils: 3 to 10 percent of the map unit (RV=5 percent)

Setting

Landform(s): hills, hillslopes
Elevation: 328 to 1640 feet
Precipitation: 39 to 49 inches
Slope gradient: 8 to 12 percent
Air temperature: 55 to 59 ºF
Frost-free period: 172 to 232 days

Characteristics of Noark and similar soils

Average total avail. water in top five feet (in.): 5.8
Available water capacity class: Low
Parent material: slope alluvium over residuum weathered from limestone
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately Low
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 4e
Hydric soil: no
Hydrologic group: C
Runoff class: medium
Potential frost action: moderate

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Oi -- 0 to 1	Slightly decomposed plant material	0.0 to 0.0		0.1 to 2.0	0
A -- 1 to 4	Very gravelly silt loam	0.3 to 0.5	4.5 to 5.5	0.1 to 2.0	0
E -- 4 to 12	Very gravelly silt loam	0.6 to 1.5	4.5 to 5.5	0.1 to 2.0	0
BE -- 12 to 22	Very gravelly silty clay loam	0.7 to 1.5	4.5 to 5.5	0.1 to 2.0	0
2Bt -- 22 to 80	Very gravelly silty clay	1.7 to 5.2	4.5 to 5.5	0.1 to 2.0	0

Ecological class(es): NRCS Forestland Site - Low-Base Chert Protected Backslope Woodland
NRCS Forestland Site - Low-Base Chert Upland Woodland
NRCS Forestland Site - Low-Base Chert Exposed Backslope Woodland
Missouri Vegetative Classes - Trees/Timber

NoE--Noark very gravelly silt loam, 12 to 20 percent slopes

Composition

- Noark and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 801 to 1499 feet
Precipitation: 42 to 51 inches
Slope gradient: 12 to 20 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Noark and similar soils

Average total avail. water in top five feet (in.): 7.1
Available water capacity class: Moderate
Parent material: clayey residuum weathered from cherty limestone
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 6e
Hydric soil: no
Hydrologic group: B
Runoff class: high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 2	Very gravelly silt loam	0.2 to 0.2	4.5 to 6.0	0.0	0
E -- 2 to 10	Very gravelly silt loam	0.8 to 1.3	4.5 to 6.0	0.0	0
BE -- 10 to 17	Very gravelly silty clay loam	0.7 to 0.9	4.5 to 5.5	0.0	0
Bt1 -- 17 to 30	Very gravelly clay	1.0 to 1.6	4.5 to 5.5	0.0	0
Bt2 -- 30 to 72	Extremely gravelly clay	2.5 to 5.1	4.5 to 5.5	0.0	0

Ecological class(es): NRCS Forestland Site - Chert Protected Backslope Forest
NRCS Forestland Site - Chert Exposed Backslope Woodland

NoF--Noark very gravelly silt loam, 20 to 40 percent slopes

Composition

- Noark and similar soils: 88 to 98 percent of the map unit (RV=90 percent)
- Bendavis and similar soils: 2 to 12 percent of the map unit (RV=10 percent)

Setting

Landform(s): hills, hillslopes
Elevation: 479 to 1680 feet
Precipitation: 39 to 49 inches
Slope gradient: 20 to 40 percent
Air temperature: 54 to 59 ºF
Frost-free period: 172 to 232 days

Characteristics of Noark and similar soils

Average total avail. water in top five feet (in.): 5.8
Available water capacity class: Low
Parent material: slope alluvium over residuum weathered from limestone
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately Low
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 7e
Hydric soil: no
Hydrologic group: C
Runoff class: high
Potential frost action: moderate

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Oi -- 0 to 1	Slightly decomposed plant material	0.0 to 0.0		0.1 to 2.0	0
A -- 1 to 4	Very gravelly silt loam	0.3 to 0.5	4.5 to 5.5	0.1 to 2.0	0
E -- 4 to 12	Very gravelly silt loam	0.6 to 1.5	4.5 to 5.5	0.1 to 2.0	0
BE -- 12 to 22	Very gravelly silty clay loam	0.7 to 1.5	4.5 to 5.5	0.1 to 2.0	0
2Bt -- 22 to 80	Very gravelly silty clay	1.7 to 5.2	4.5 to 5.5	0.1 to 2.0	0

Ecological class(es): NRCS Forestland Site - Low-Base Chert Protected Backslope Woodland
NRCS Forestland Site - Low-Base Chert Protected Backslope Woodland
NRCS Forestland Site - Low-Base Chert Exposed Backslope Woodland
NRCS Forestland Site - Low-Base Chert Exposed Backslope Woodland
Missouri Vegetative Classes - Trees/Timber

PeB--Peridge silt loam, 1 to 3 percent slopes

Composition

- Peridge and similar soils: 100 percent of the unit

Setting

Landform(s): hills, stream terraces, uplands
Elevation: 1001 to 1499 feet
Precipitation: 42 to 51 inches
Slope gradient: 1 to 3 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Peridge and similar soils

Average total avail. water in top five feet (in.): 12.4
Available water capacity class: High
Parent material: residuum weathered from limestone, sandstone, and shale
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Runoff class: low
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 9	Silt loam	1.4 to 1.8	4.5 to 6.0	0.0	0
Bt1 -- 9 to 42	Silty clay loam	5.3 to 6.6	4.5 to 6.0	0.0	0
Bt2 -- 42 to 54	Gravelly silty clay loam	1.2 to 2.4	4.5 to 6.0	0.0	0
Bt3 -- 54 to 60	Gravelly silty clay	0.5 to 1.2	4.5 to 6.0	0.0	0
Bt4 -- 60 to 74	Silty clay	1.3 to 2.8	4.5 to 6.0	0.0	0

Ecological class(es): NRCS Forestland Site - Loamy Footslope Forest

PeC--Peridge silt loam, 3 to 8 percent slopes

Composition

- Peridge and similar soils: 100 percent of the unit

Setting

Landform(s): hills, stream terraces, uplands
Elevation: 1001 to 1499 feet
Precipitation: 42 to 51 inches
Slope gradient: 3 to 8 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Peridge and similar soils

Average total avail. water in top five feet (in.): 12.4
Available water capacity class: High
Parent material: residuum weathered from limestone, sandstone, and shale
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Land capability class, irrigated:
Land capability class, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Runoff class: low
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 9	Silt loam	1.4 to 1.8	4.5 to 6.0	0.0	0
Bt1 -- 9 to 42	Silty clay loam	5.3 to 6.6	4.5 to 6.0	0.0	0
Bt2 -- 42 to 54	Gravelly silty clay loam	1.2 to 2.4	4.5 to 6.0	0.0	0
Bt3 -- 54 to 60	Gravelly silty clay	0.5 to 1.2	4.5 to 6.0	0.0	0
Bt4 -- 60 to 74	Silty clay	1.3 to 2.8	4.5 to 6.0	0.0	0

Ecological class(es): NRCS Forestland Site - Loamy Footslope Forest

Se--Secesh gravelly silt loam, occasionally flooded

Composition

- Secesh and similar soils: 95 percent of the unit
- Aqualfs and similar soils: 5 percent of the unit

Setting

Landform(s): flood plains, hills
Elevation:
Precipitation: 42 to 51 inches
Slope gradient: 0 to 2 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Secesh and similar soils

Average total avail. water in top five feet (in.): 8.9
Available water capacity class: Moderate
Parent material: gravelly loamy alluvium
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Land capability class, irrigated:
Land capability class, nonirrigated: 2w
Hydric soil: no
Hydrologic group: B
Runoff class: low
Potential frost action: moderate

Saturated hydraulic conductivity class: Moderately High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 10	Silt loam	1.6 to 2.0	4.5 to 6.0	0.0	0
Bt1 -- 10 to 24	Gravelly silt loam	1.8 to 2.7	4.5 to 6.0	0.0	0
Bt2 -- 24 to 55	Very gravelly silt loam	2.8 to 4.4	4.5 to 6.0	0.0	0
Bt3 -- 55 to 74	Extremely gravelly silt loam	0.6 to 1.5	4.5 to 6.0	0.0	0

Ecological class(es): NRCS Forestland Site - Loamy Terrace Forest

SoF--Sogn very cobbly silt loam, 12 to 40 percent slopes, very rocky (moko)

Composition

- Sogn and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 499 to 1499 feet
Precipitation: 42 to 51 inches
Slope gradient: 12 to 40 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Sogn and similar soils

Average total avail. water in top five feet (in.): 0.9
Available water capacity class: Very low
Parent material: loamy residuum weathered from limestone and dolomite
Restrictive feature(s): lithic bedrock at 6 to 20 inches
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Land capability class, irrigated:
Land capability class, nonirrigated: 7s
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A1 -- 0 to 2	Very cobbly silt loam	0.2 to 0.3	6.6 to 7.8	0.0	0
A2 -- 2 to 8	Very cobbly silt loam	0.5 to 0.8	6.6 to 7.8	0.0	0
R -- 8 to 10	Unweathered bedrock			0.0	0

Ecological class(es): NRCS Rangeland Site - Shallow Dolomite Upland Glade/Woodland

SrE--Sogn-Clareson complex, 8 to 20 percent slopes, rubbly (moko, arkana)

Composition

- Sogn and similar soils: 65 percent of the unit
- Clareson and similar soils: 35 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 499 to 1499 feet
Precipitation: 42 to 51 inches
Slope gradient: 8 to 20 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Sogn and similar soils

Average total avail. water in top five feet (in.): 0.9
Available water capacity class: Very low
Parent material: loamy residuum weathered from limestone and dolomite
Restrictive feature(s): lithic bedrock at 6 to 20 inches
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Land capability class, irrigated:
Land capability class, nonirrigated: 7s
Hydric soil: no
Hydrologic group: D
Runoff class: high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A1 -- 0 to 2	Very stony silt loam	0.2 to 0.3	6.6 to 7.8	0.0	0
A2 -- 2 to 8	Very stony silt loam	0.5 to 0.8	6.6 to 7.8	0.0	0
R -- 8 to 12	Unweathered bedrock			0.0	0

Ecological class(es): NRCS Rangeland Site - Shallow Dolomite Upland Glade/Woodland

[SrE - Sogn-Clareson complex, 8 to 20 percent slopes, rubbly (moko, arkana)]

Characteristics of Clareson and similar soils

Average total avail. water in top five feet (in.): 2.6

Available water capacity class: Very low

Parent material: loamy residuum weathered from limestone and dolomite

Restrictive feature(s): lithic bedrock at 20 to 40 inches

Depth to Water table: none within the soil profile

Drainage class: well drained

Flooding hazard: none

Ponding hazard: none

Saturated hydraulic conductivity class: Moderately Low

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Land capability class, irrigated:

Land capability class, nonirrigated: 6e

Hydric soil: no

Hydrologic group: D

Runoff class: very high

Potential frost action: moderate

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 9	Very stony silt loam	0.7 to 1.1	5.6 to 7.3	0.0	0
Bt -- 9 to 26	Very stony clay	1.2 to 2.0	4.5 to 7.3	0.0	0
R -- 26 to 30	Unweathered bedrock			0.0	0

Ecological class(es): NRCS Forestland Site - Calcareous Dolomite Upland Woodland

SsD2--Summit silty clay, 3 to 15 percent slopes, eroded

Composition

- Summit and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 1001 to 2001 feet
Precipitation: 42 to 51 inches
Slope gradient: 3 to 15 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Summit and similar soils

Average total avail. water in top five feet (in.): 10.5
Available water capacity class: High
Parent material: clayey residuum weathered from limestone and shale
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4
Wind erodibility index (WEI): 86
Land capability class, irrigated:
Land capability class, nonirrigated: 4e
Hydric soil: no
Hydrologic group: C
Runoff class: high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 11	Silty clay	1.8 to 2.2	5.6 to 7.3	0.0	0
Bt1 -- 11 to 26	Silty clay	1.5 to 2.7	5.6 to 7.3	0.0	0
Bt2 -- 26 to 72	Clay	4.6 to 8.3	5.6 to 8.4	0.0	0

Ecological class(es):

ToA--Taloka silt loam, 0 to 1 percent slopes

Composition

- Taloka and similar soils: 84 to 100 percent of the map unit (RV=89 percent)
- Parsons and similar soils: 0 to 5 percent of the map unit (RV=4 percent)
- Aquolls and similar soils: 0 to 4 percent of the map unit (RV=3 percent)
- Okemah and similar soils: 0 to 3 percent of the map unit (RV=2 percent)
- Carytown and similar soils: 0 to 2 percent of the map unit (RV=1 percent)
- Jay and similar soils: 0 to 2 percent of the map unit (RV=1 percent)

Setting

Landform(s): paleoterraces on plains
Elevation: 499 to 1201 feet
Precipitation: 42 to 46 inches
Slope gradient: 0 to 1 percent
Air temperature: 58 to 60 ºF
Frost-free period: 190 to 220 days

Characteristics of Taloka and similar soils

Average total avail. water in top five feet (in.): 12.4
Available water capacity class: High
Parent material: loamy and clayey alluvium and/or colluvium derived from sandstone and shale
Restrictive feature(s): none
Depth to Water table: 15 inches
Drainage class: somewhat poorly drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately Low
Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Land capability class, irrigated:
Land capability class, nonirrigated: 3w
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 12	Silt loam	1.9 to 2.8	5.1 to 6.5	0.0	0
E -- 12 to 22	Silt loam	1.6 to 2.5	5.1 to 6.5	0.0	0
Bt1 -- 22 to 38	Clay	1.4 to 3.5	5.1 to 7.8	0.0	0
Bt2 -- 38 to 49	Silty clay loam	1.0 to 2.4	5.1 to 7.8	0.0	0
BC -- 49 to 79	Silty clay loam	2.7 to 6.6	5.1 to 7.8	0.0	0

Ecological class(es): NRCS Rangeland Site - Loamy prairie (Northeast) PE 62-80
Forage Suitability Groups - Unnamed

TsC--Tonti gravelly silt loam, 3 to 8 percent slopes

Composition

- Tonti and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation:
Precipitation: 42 to 51 inches
Slope gradient: 3 to 8 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Tonti and similar soils

Average total avail. water in top five feet (in.): 4.6
Available water capacity class: Low
Parent material: loamy residuum weathered from cherty limestone
Restrictive feature(s): fragipan at 15 to 23 inches
lithic bedrock at 40 to 60 inches
Depth to Water table: none within the soil profile
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Saturated hydraulic conductivity class: Moderately High
Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Land capability class, irrigated:
Land capability class, nonirrigated: 3e
Hydric soil: no
Hydrologic group: D
Runoff class: high
Potential frost action: none

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
Ap -- 0 to 6	Gravelly silt loam	0.9 to 1.2	4.5 to 6.0	0.0	0
Bt -- 6 to 19	Gravelly silty clay loam	1.8 to 2.5	4.5 to 5.5	0.0	0
Btx1 -- 19 to 29	Gravelly silty clay loam	0.5 to 1.0	4.5 to 5.5	0.0	0
Btx2 -- 29 to 42	Extremely gravelly silty clay loam	0.3 to 0.8	4.5 to 5.5	0.0	0
R -- 42 to 44	Unweathered bedrock			0.0	0

Ecological class(es): NRCS Forestland Site - Fragipan Upland Woodland

VsF--Ventris very gravelly silt loam, 15 to 40 percent slopes, rubbly

Composition

- Ventris and similar soils: 100 percent of the unit

Setting

Landform(s): hills, hills
Elevation: 801 to 1299 feet
Precipitation: 42 to 51 inches
Slope gradient: 15 to 40 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Ventris and similar soils

Average total avail. water in top five feet (in.): 5.1
Available water capacity class: Low
Parent material: residuum weathered from limestone and shale
Restrictive feature(s): lithic bedrock at 24 to 40 inches
Depth to Water table: none within the soil profile
Drainage class: moderately well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Land capability class, irrigated:
Land capability class, nonirrigated: 7s
Hydric soil: no
Hydrologic group: D
Runoff class: very high
Potential frost action: none

Saturated hydraulic conductivity class: Moderately Low

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 4	Very gravelly silt loam	0.4 to 0.8	5.6 to 7.3	0.0	0
Bt -- 4 to 14	Gravelly clay	1.0 to 1.8	6.1 to 7.8	0.0	0
Btss -- 14 to 36	Silty clay	2.2 to 3.9	6.1 to 7.8	0.0	0
R -- 36 to 40	Unweathered bedrock			0.0	0

Ecological class(es): NRCS Forestland Site - Chert Dolomite Protected Backslope Forest
NRCS Forestland Site - Chert Dolomite Exposed Backslope Woodland

W--Water

Composition

- Water: 100 percent of the unit

Setting

Landform(s): hills
Elevation:
Precipitation:
Slope gradient:
Air temperature:
Frost-free period:

Characteristics of Water

Average total avail. water in top five feet (in.):
Available water capacity class: NA
Parent material:
Restrictive feature(s):
Depth to Water table:
Drainage class:
Flooding hazard:
Ponding hazard:
Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Land capability class, irrigated:
Land capability class, nonirrigated:
Hydric soil:
Hydrologic group:
Runoff class:
Potential frost action:

Saturated hydraulic conductivity class: NA

Ecological class(es):

WeC--Waben very gravelly silt loam, 3 to 8 percent slopes

Composition

- Waben and similar soils: 100 percent of the unit

Setting

Landform(s): alluvial fans, hills
Elevation: 1001 to 1401 feet
Precipitation: 42 to 51 inches
Slope gradient: 3 to 8 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Waben and similar soils

Average total avail. water in top five feet (in.): 6.6
Available water capacity class: Moderate
Parent material: very cherty alluvium and/or colluvium
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Runoff class: very low
Potential frost action:

Saturated hydraulic conductivity class: High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 5	Very gravelly silt loam	0.5 to 0.7	5.1 to 6.5	0.0	0
E -- 5 to 15	Very gravelly silt loam	0.5 to 1.3	5.1 to 6.5	0.0	0
Bt -- 15 to 40	Very gravelly silt loam	1.3 to 3.8	5.1 to 6.5	0.0	0
BCt -- 40 to 66	Extremely gravelly silt loam	1.3 to 3.9	5.1 to 6.5	0.0	0

Ecological class(es): NRCS Forestland Site - Dry Footslope Forest

WeD--Waben very gravelly silt loam, 8 to 12 percent slopes

Composition

- Waben and similar soils: 100 percent of the unit

Setting

Landform(s): alluvial fans, hills
Elevation: 1001 to 1401 feet
Precipitation: 42 to 51 inches
Slope gradient: 8 to 12 percent
Air temperature: 47 to 70 ºF
Frost-free period: 183 to 239 days

Characteristics of Waben and similar soils

Average total avail. water in top five feet (in.): 6.6
Available water capacity class: Moderate
Parent material: very cherty alluvium and/or colluvium
Restrictive feature(s): none
Depth to Water table: none within the soil profile
Drainage class: well drained
Flooding hazard: none
Ponding hazard: none
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 7
Wind erodibility index (WEI): 38
Land capability class, irrigated:
Land capability class, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Runoff class: low
Potential frost action:

Saturated hydraulic conductivity class: High

Representative soil profile:

Horizon -- Depth (inches)	Texture	Available water capacity (inches)	pH	Salinity (mmhos/cm)	SAR
A -- 0 to 5	Very gravelly silt loam	0.5 to 0.7	5.1 to 6.5	0.0	0
E -- 5 to 15	Very gravelly silt loam	0.5 to 1.3	5.1 to 6.5	0.0	0
Bt -- 15 to 40	Very gravelly silt loam	1.3 to 3.8	5.1 to 6.5	0.0	0
BCt -- 40 to 66	Extremely gravelly silt loam	1.3 to 3.9	5.1 to 6.5	0.0	0

Ecological class(es): NRCS Forestland Site - Dry Footslope Forest