REVISED SOIL TO SEDIMENT CORRELATIONS IN FALL RIVER AND OGLALA LAKOTA COUNTIES, SOUTH DAKOTA

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INTRODUCTION

Pine Ridge Reservation Irrigable Soils

Legend
- Shannon_Irrigation_Need (in/year)
  - 0
  - 25
  - 35
- Bennett_Irrigation_Need
  - 0
  - 25
  - 35
- Jackson_Irrigation_Need
  - 0
  - 25
  - 35

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PREVIOUS WORK

Pre-2004 Soil Surveys
- Soils mapped A-Bk-C
- Volcaniclastic
- Inconsistent with climate
- Review covered NE & SD

2004 Petrocalcic Soils Tour
- A = loess and residuum
- Bk = relict from bedrock
- C = soft bedrock
- Volcaniclastic from bedrock

Follow up after 2004
- Describe relict soil features
- Soil to bedrock correlations
- Revise soil descriptions
- Reclassify affected soils
- Remap region
GEOLOGY ALONG TRANSECTS 1 & 2

EXPLANATION

A  alluvial land
12  pale brown siltstone
13  green silty claystone
14  olive/red claystone
15  black shale
16  orange/gray chalk
Kyle-Pierre-Samsil Association
Figure 5.—Pattern of soils in the Pierre-Samsil association.
Kadoka-Keith-Mitchell Association
Figure 3.—Typical pattern of soils and parent material in the Kadoka-Keith-Mitchell association.
SUMMARY

SOILS ALONG TRANSECTS 1 (DAWES/FALL RIVER COS) AND 2 (DAWES/OGLALA LAKOTA COS) HAVE RELICT SOIL FEATURES FIRST RECOGNIZED BY 2004 PETROCALCIC SOILS TOUR

NEBRASKA AND SOUTH DAKOTA SOIL SERIES PROPOSED FOR REVISION:

- Badlands
- Alliance
- Norrest
- Orella
- Epping
- Bufton
- Sarben
- Keota
- Kyle
- Kadoka
- Samsil
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