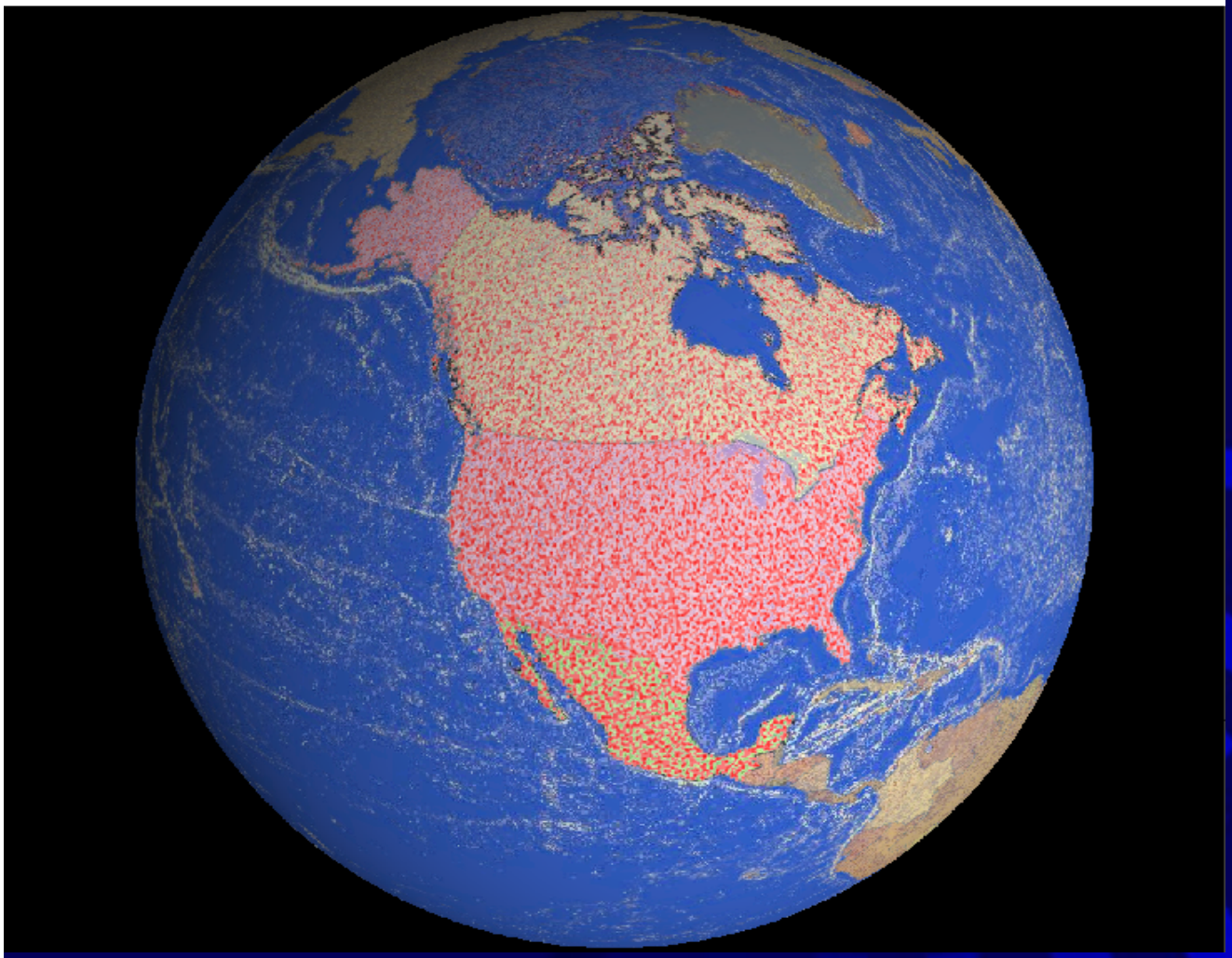


UNITED STATES FIELD SURVEYS FROM 2007

Laurel G. Woodruff
and
David B. Smith

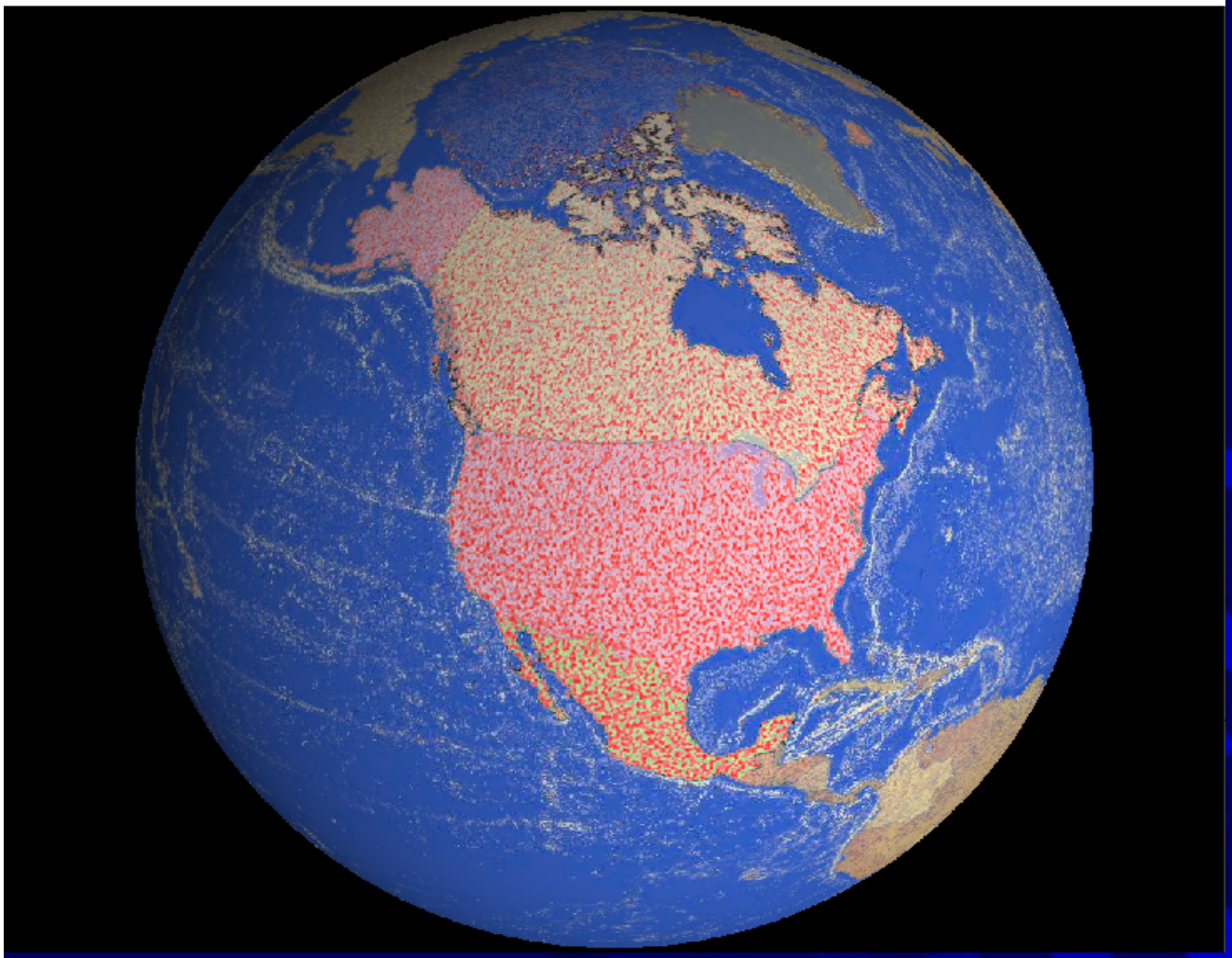
United States
Geological Survey

Servicio Geológico Mexicano

CANADA 1842 GEOLOGICAL SURVEY - COMMISSION GÉOLOGIQUE

USGS science for a changing world

A spatially balanced array of 13,215 sample sites

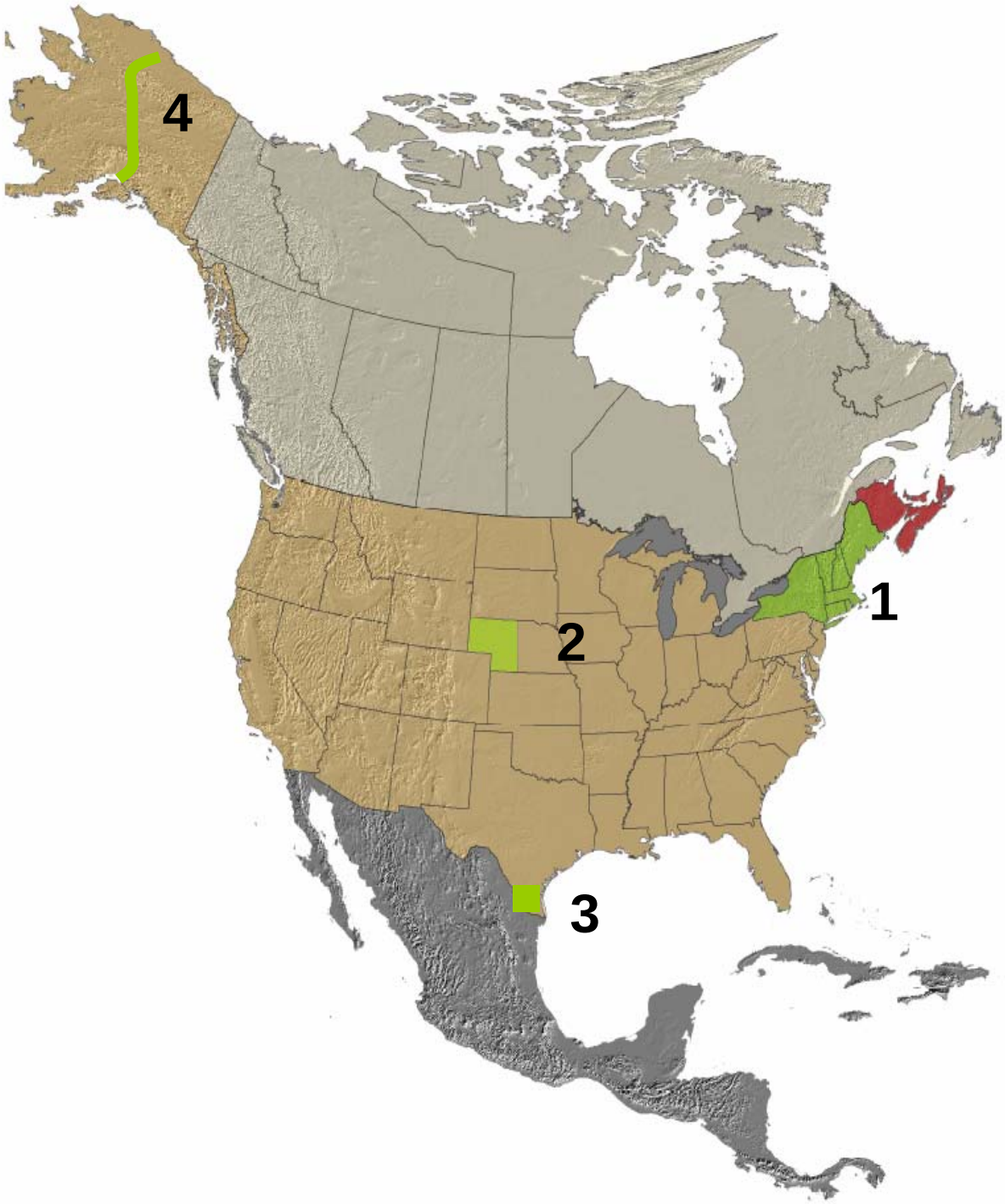


Canada	6,183
USA	5,602
Mexico	1,216

USGS

US field surveys in 2007

1. New England
2. Nebraska
3. Texas
4. Alaska Transect



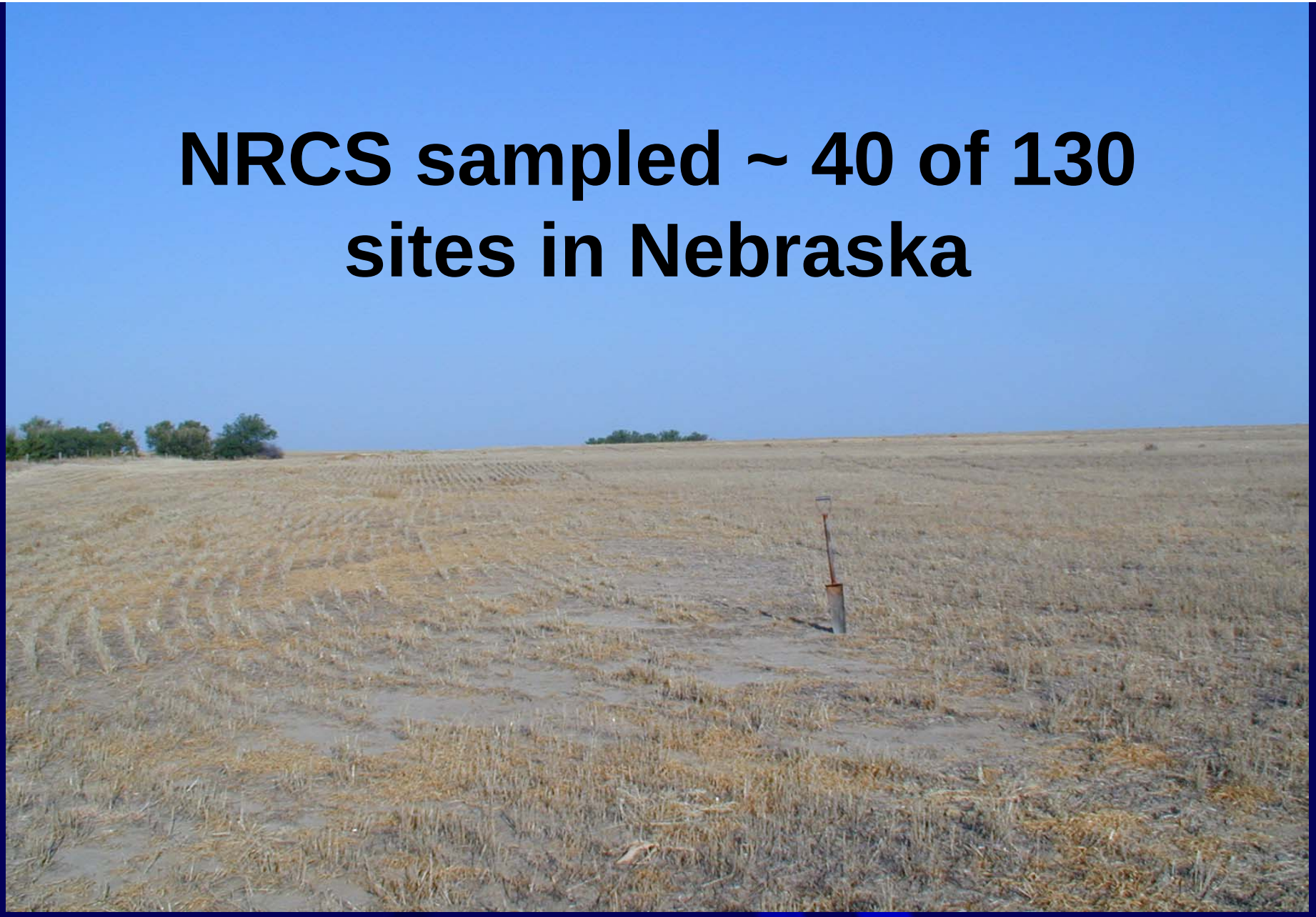
USGS

USGS sampled 161 sites in New England

Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, and New York

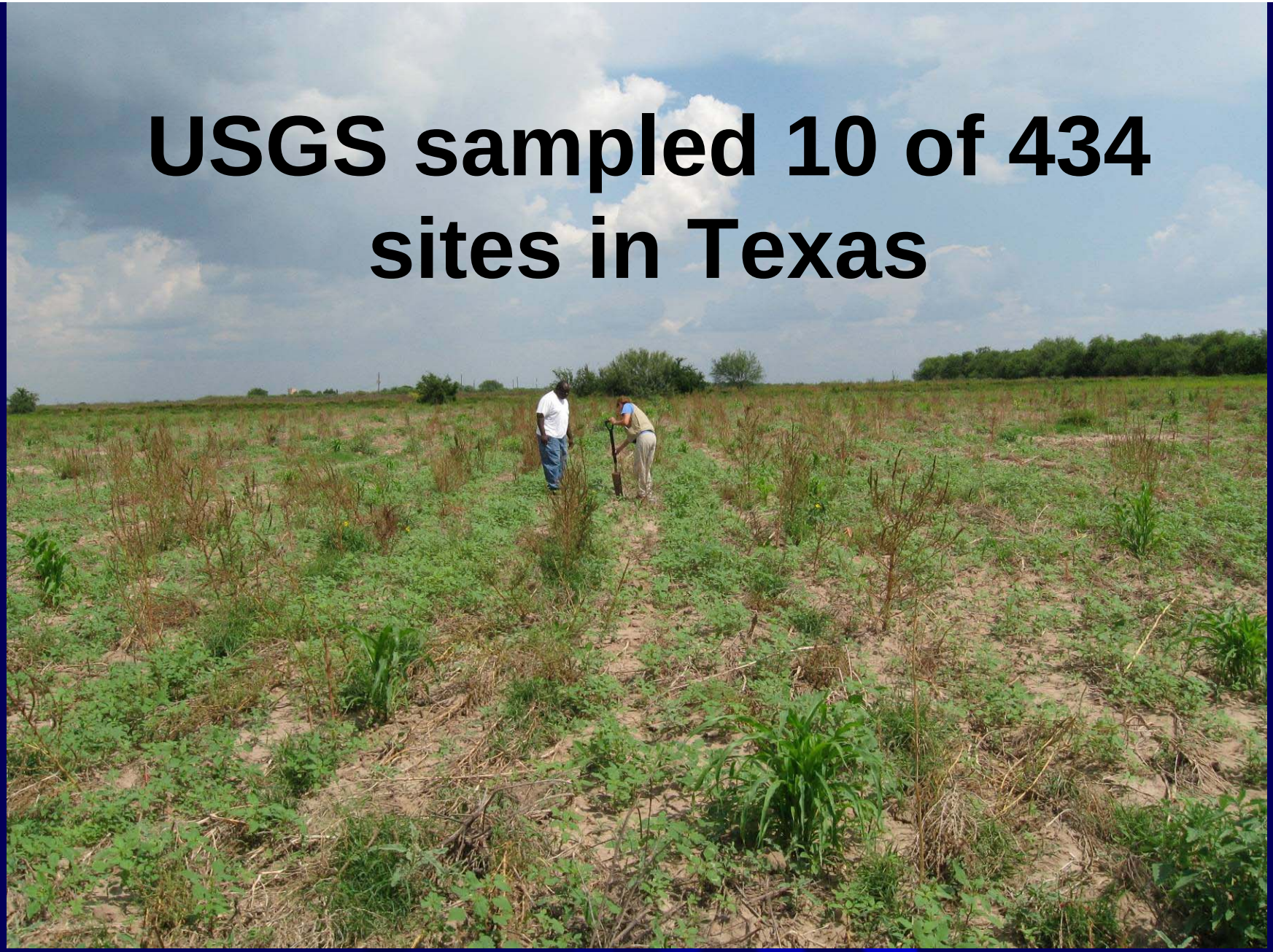
USGS

NRCS sampled ~ 40 of 130 sites in Nebraska



USGS

USGS sampled 10 of 434 sites in Texas



USGS

2007 USGS Field Protocols
(driven by time and money constraints)

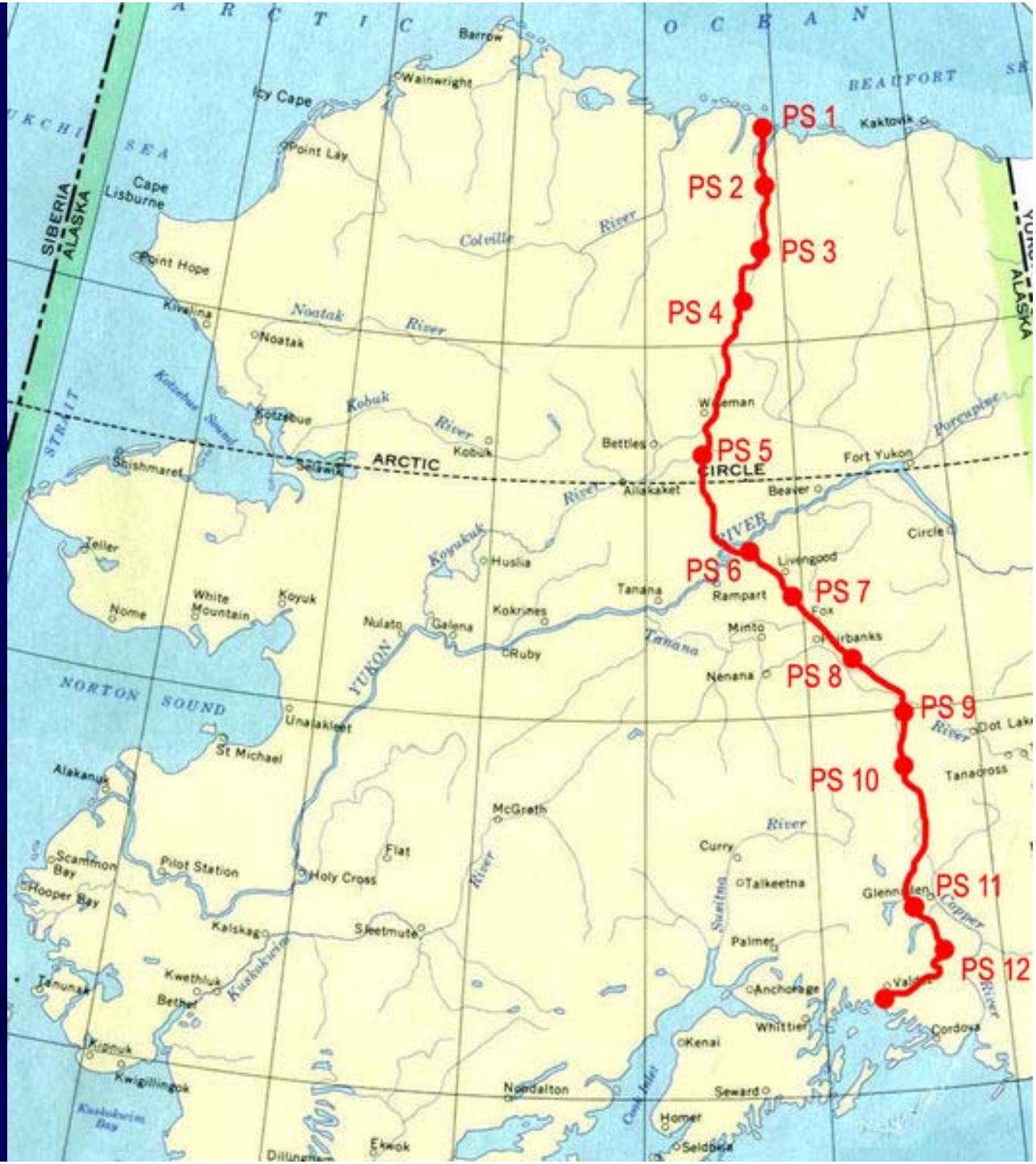
- Sample density at 1 per 40 km^2 – single density
- 'Core' samples collected
  1) A horizon
  2) C horizon or closest equivalent
  3) 0-5 cm depth interval
- Split of 0-5 cm sample collected for anthrax
- No field duplicates

USGS

2007 Alaska Transect Project

Help develop permafrost - cold regions protocols

180 sites along a 635 mile N-S transect



USGS

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Barrow
Wainwright
Icy Cape
Point Lay
Cape Lisburne
Point Hope
Kivalina
Noatak
Kotzebue
Kobuk
Shishmaret
Selawik
Bettles
Wiseman
CIRCLE
Alaska
Beaver
Fort Yukon
Livengood
Rampart
Tanana
Minto
Nenana
Huslia
Koyukuk
Kokrines
Galena
Ruby
Nulato
Koyuk
Nome
White Mountain
Teller
NORTON SOUND
Unalakleet
St Michael
Alakanuk
Scammon Bay
Hooper Bay
Pilot Station
Holy Cross
Flat
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Kuskokwim
Porcupine

USGS

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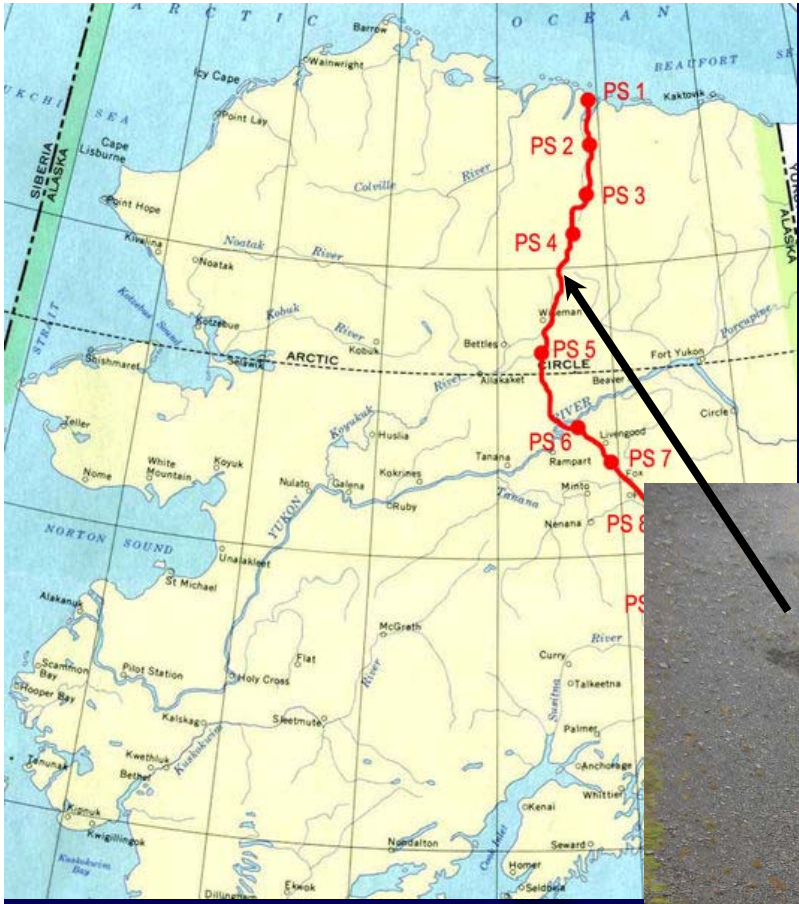
Tanana River
Susitna River
Kuskokwim Bay
Cook Inlet

USGS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Kuskokwim Bay
Norton Sound
Cook Inlet
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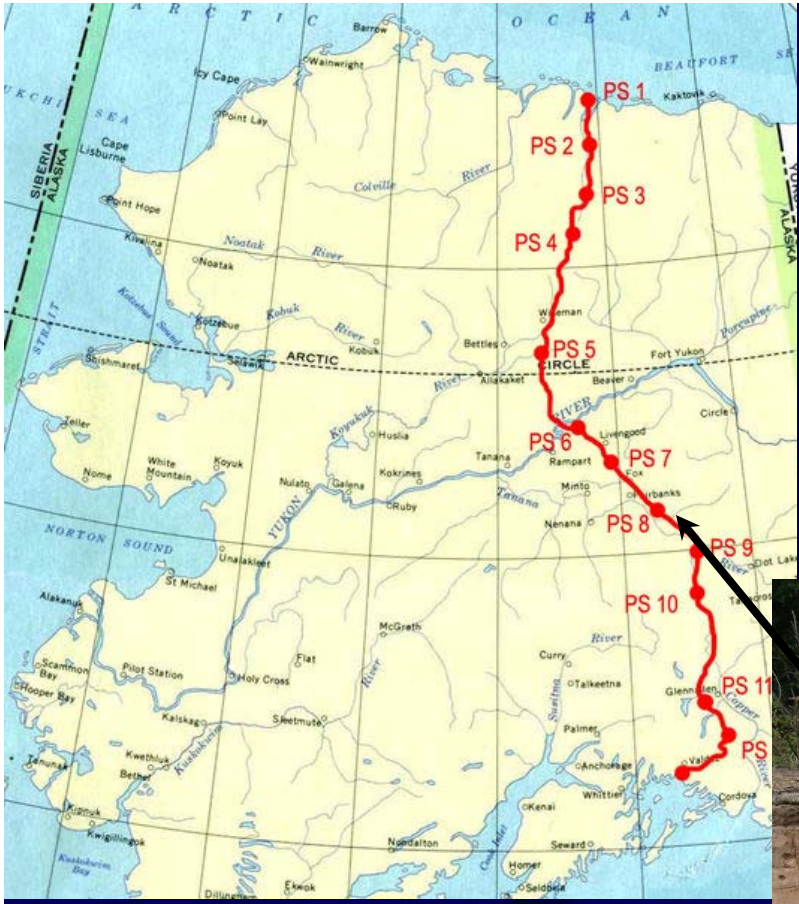
USGS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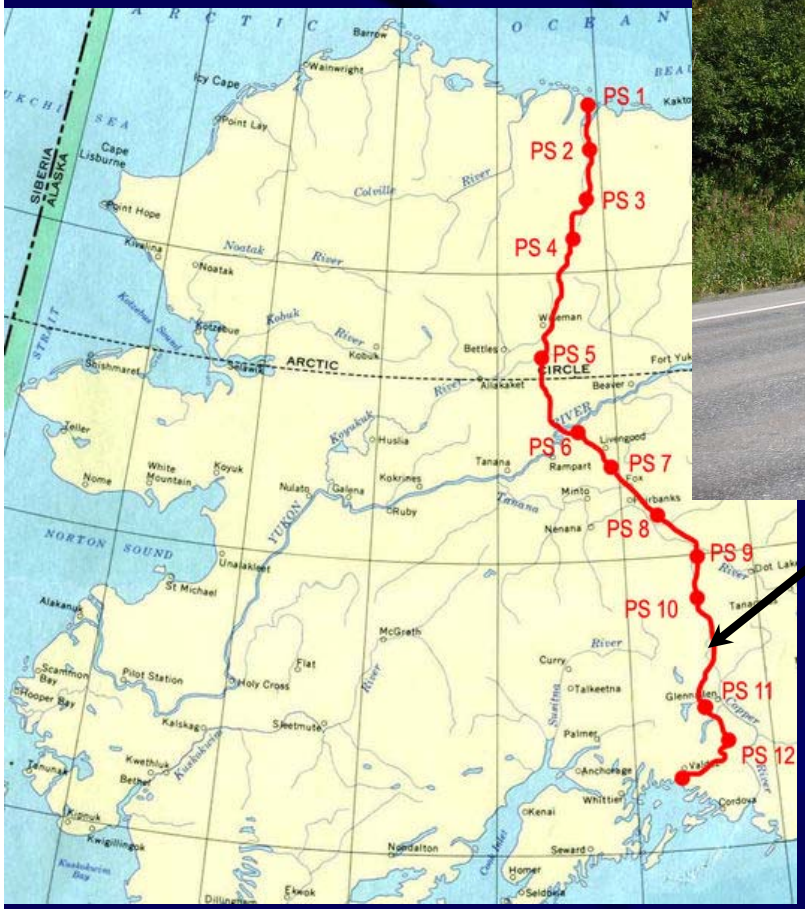
Cordova
Valdez
Kaktovik

USGS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Copper River
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SIBERIA
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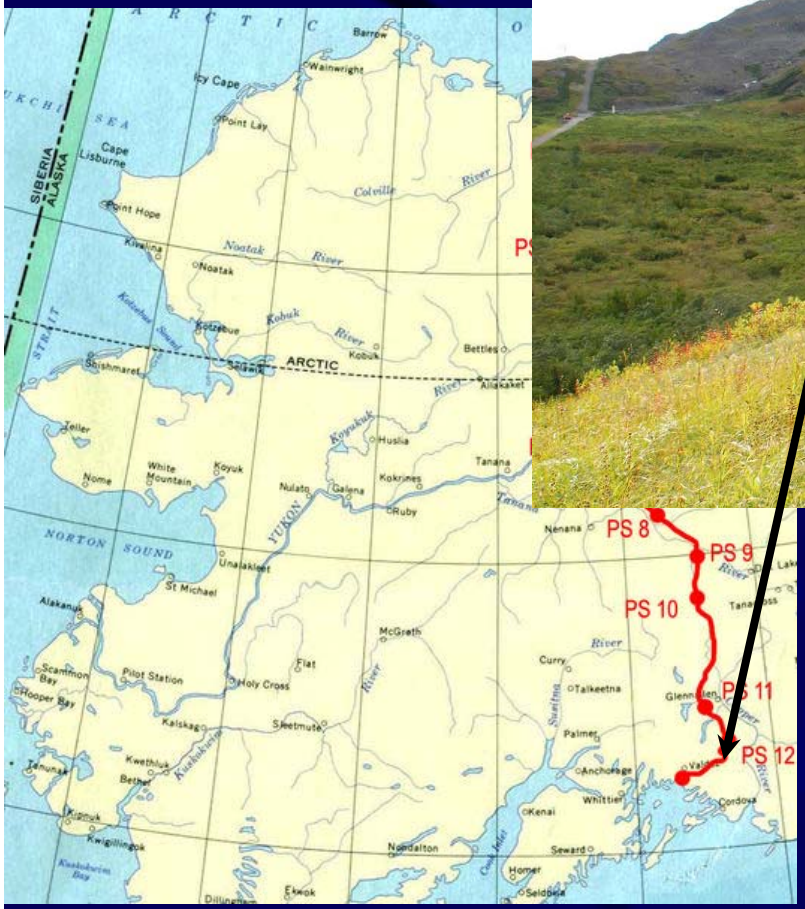
USGS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Kenai
Seward
Homer
Seldovia

USGS

US field plans for 2008

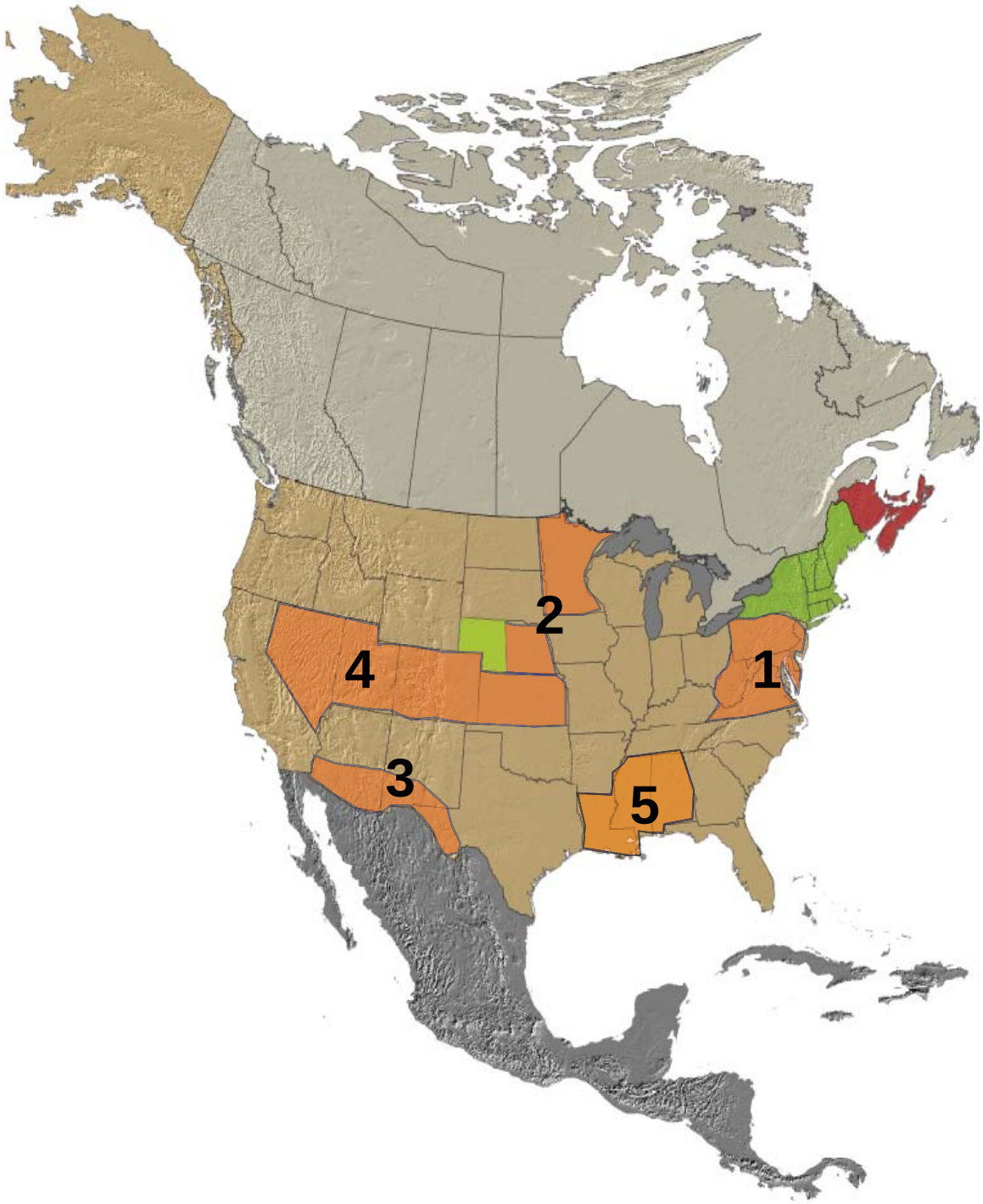
1. USGS completes northeastern region – PA and VA by State Surveys

2. NRCS finishes NE; MN by state survey

3. USGS cross-border project with SGM

4. USGS starts in NV and moves east through UT, CO, KS

5. USGS sampling along Gulf Coast?



Additional items for 2008

- Finalize peat protocols – issue for Minnesota this year
- Cooperate with GSC on developing permafrost protocols
- Co-sponsor special session on Tri-national Geochemical Landscapes Project at 2008 Joint Annual Meeting of Geological Society of America and Soil Science Society of America in Houston, October 2008

USGS

Abbreviations Used

USGS – United States Geological Survey
SGM – Servizio Geologico Mexicano
NRCS – Natural Resources Conservation Service

PA – Pennsylvania
VA – Virginia
NE – Nebraska
MN – Minnesota
NV – Nevada
UT – Utah
CO – Colorado
KS – Kansas

USGS