

Feature ID	Survey Date	Start MP	End MP	County	State	Survey Type	Habitat Quality	Suitable T&E Habitat?
TDH1SDMI002	9/16/2006	358.5	359.9	Miner	SD	Drive By	Low	No

Site Summary: A pasture of introduced grasses that has blue grass (*Poa* spp.) and smooth brome (*Bromus inermis*) as dominants and crested wheatgrass (*Agropyron cristatum*) in spots. Wet areas have prairie cordgrass (*Spartina pectinata*), smartweed (*Polygonum*), and Indian hemp (*Apocynum cannabinum*).

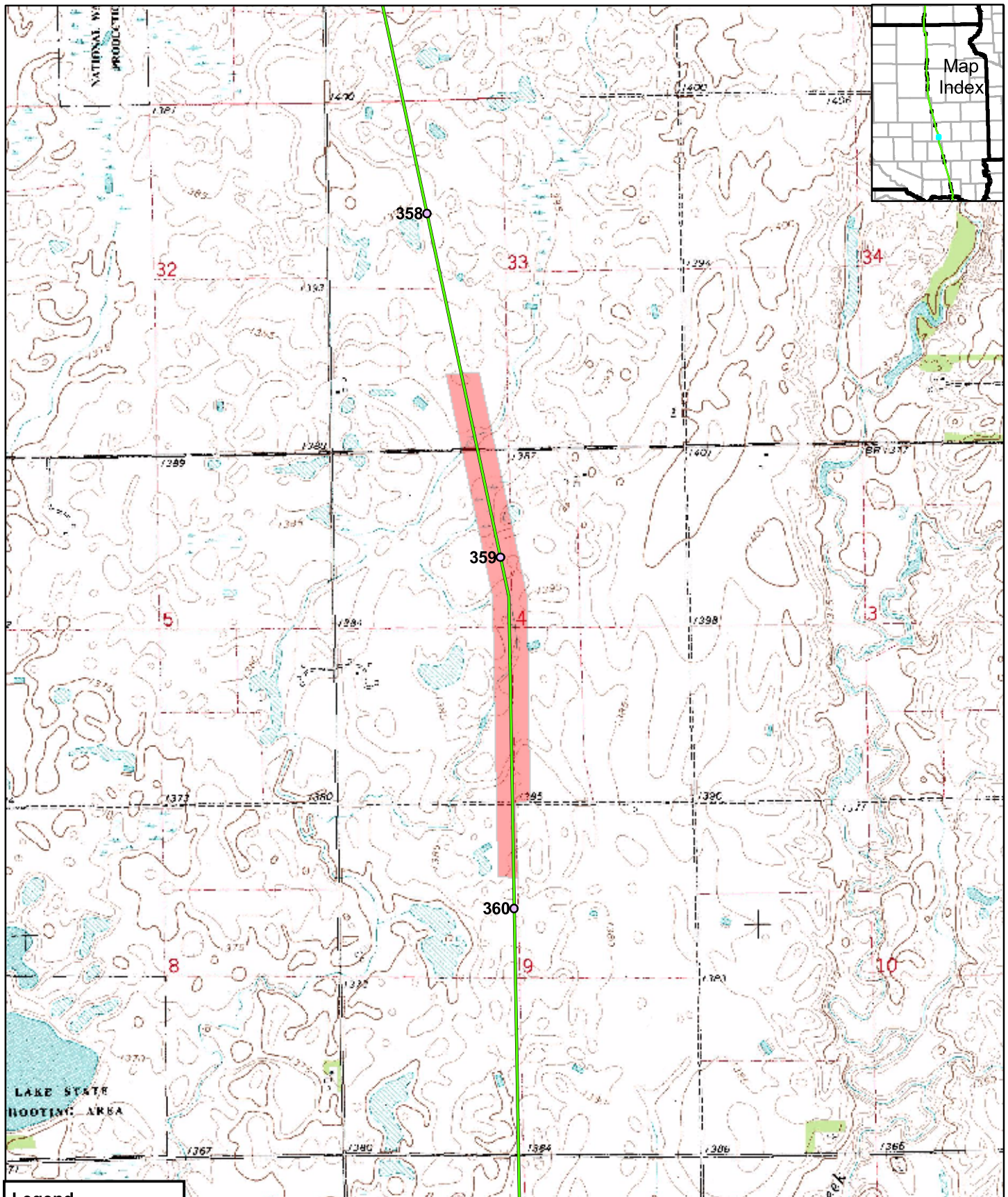


Feature TDH1SDMI002: Overview of pasture north from the road.

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Feature TDH1SDMI002: Overview of the pasture (wetland in foreground) south from the road.



Legend

- Mileposts
- Proposed Centerline
- Surveyed Grasslands
- State Boundary
- County Boundary

Keystone Pipeline Project



0 1,000 2,000
Feet

Map 16 of 21
Surveyed
Grasslands

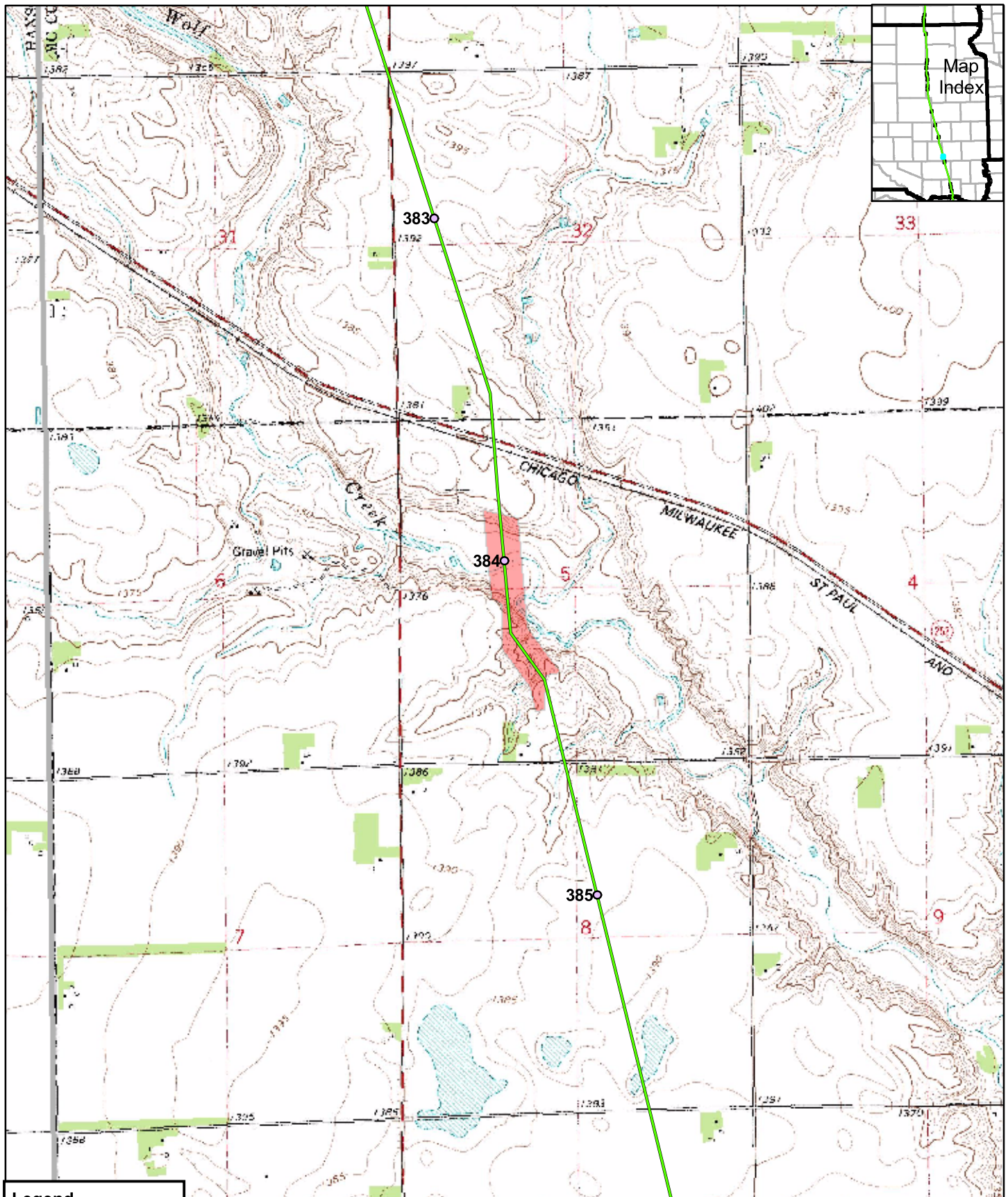
CONFIDENTIAL

Feature ID	Survey Date	Start MP	End MP	County	State	Survey Type	Habitat Quality	Suitable T&E Habitat?
TDH1SDMC001	9/16/2006	383.9	384.5	McCook	SD	Drive By	Medium – High	Yes, prairie fringed orchid

Site Summary: A pasture of introduced grasses that has smooth brome (*Bromus inermis*) as the dominant in low spots and cattails (*Typha*) in wet spots. Native grasses such as blue grass (*Bouteloua gracilis*) and prairie dropseed (*Sporobolus heterolepis*) on hillsides. Due to these higher quality grassland slopes it is medium to high quality grassland with possible orchid habitat.



Feature TDH1SDMC001: Overview of area with creek in the distance.



Legend

- Mileposts
- Proposed Centerline
- Surveyed Grasslands
- State Boundary
- County Boundary

Keystone Pipeline Project



0 1,000 2,000 Feet

Map 17 of 21
Surveyed
Grasslands

Feature ID	Survey Date	Start MP	End MP	County	State	Survey Type	Habitat Quality	Suitable T&E Habitat?
TDH1SDHU001	9/16/2006	389.7	390.6	Hutchinson	SD	Drive By	Low	No

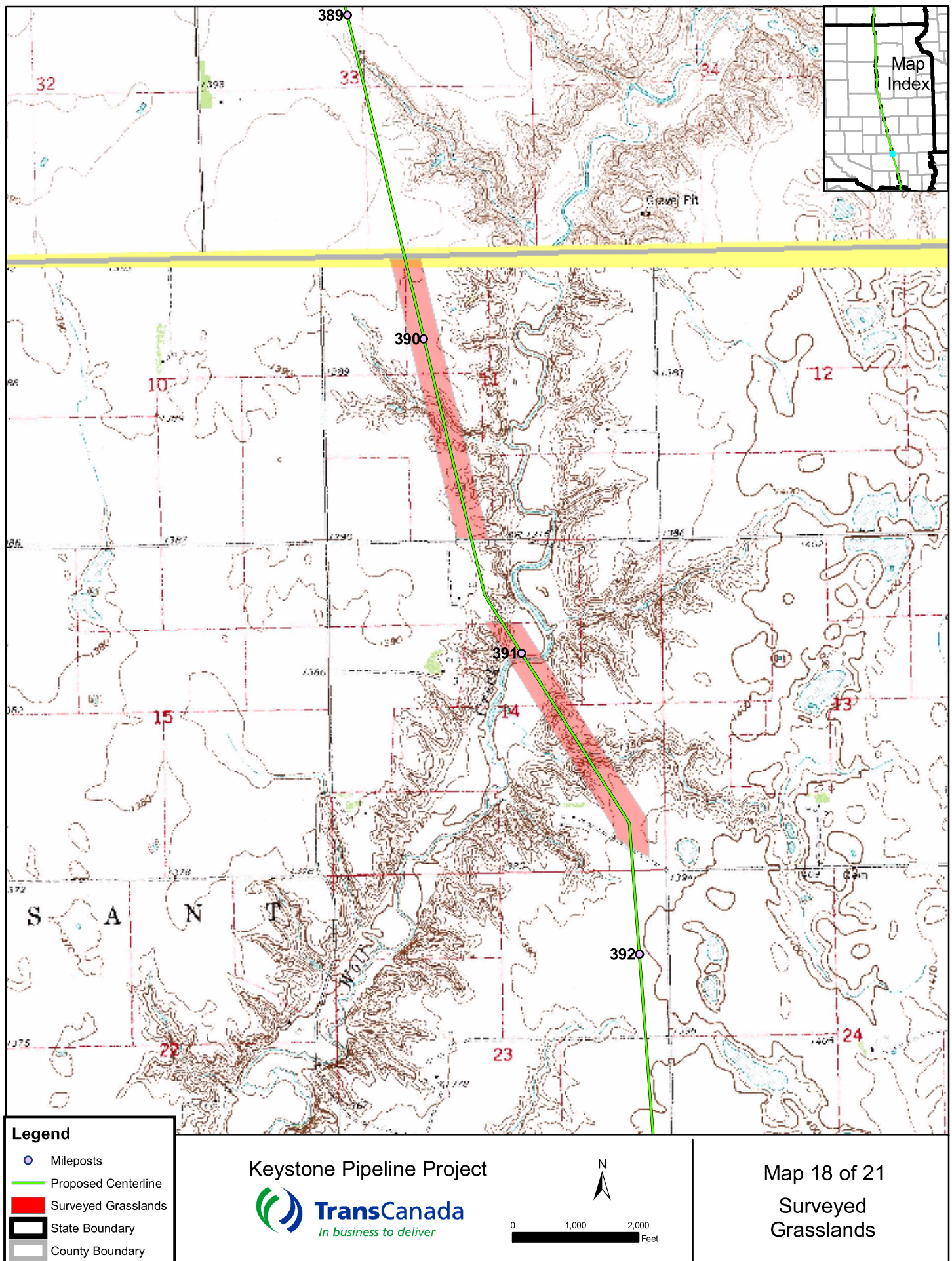
Site Summary: A pasture of introduced grasses that has blue grass (*Poa* spp.) and smooth brome (*Bromus inermis*) as dominants and crested wheatgrass (*Agropyron cristatum*) in spots. Wet areas have prairie cordgrass (*Spartina pectinata*). Site also contained smartweed (*Polygonum spp.*), and Indian hemp (*Apocynum cannabinum*).



TDH1SDHU001. Overview of pasture.



Feature TDH1SDHU001. Close-up of a dense stand of smooth brome (*Bromus inermis*).



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Feature ID	Survey Date	Start MP	End MP	County	State	Survey Type	Habitat Quality	Suitable T&E Habitat?
TDH1SDHU002	9/16/2006	390.9	391.7	Hutchinson	SD	Site Visit	High	Yes, Dakota skipper, prairie fringed orchid

Site Summary. This site is along Wolf Creek. Near the creek, in the ox-bow floodplain is sand dropseed (*Sporobolus* sp.) and prairie cordgrass (*Spartina pectinata*). On the hills are very high quality Dakota skipper habitat with little blue stem (*Schizachyrium scoparium*), black Sampson (*Echinacea angustifolia*), leadplant (*Amorpha canescens*), etc. Other native plants that occur at this site that were not seen elsewhere in South Dakota during the survey were hairy grama (*Bouteloua hirsuta*) and milkwort (*Polygala alba*). Both north and south of Wolf Creek, the hills contain native plants, but as the terrain levels brome grass (*Bromus inermis*) becomes more common. Note the photograph of this area with grazed pasture to the north and a lesser grazed pasture to the south of a fence.



Feature TDH1SDHU002: Overview of high quality grassland around Wolf Creek (in background)



Feature TDH1SDHU002: Native hillside with little blue stem (*Schizachyrium scoparium*) and blazing star (*Liatris* sp.)



Feature TDH1SDHU002: Little blue stem (*Schizachyrium scoparium*), blazing star (*Liatris* sp.) and Black Sampson (*Echinacea angustifolia*).