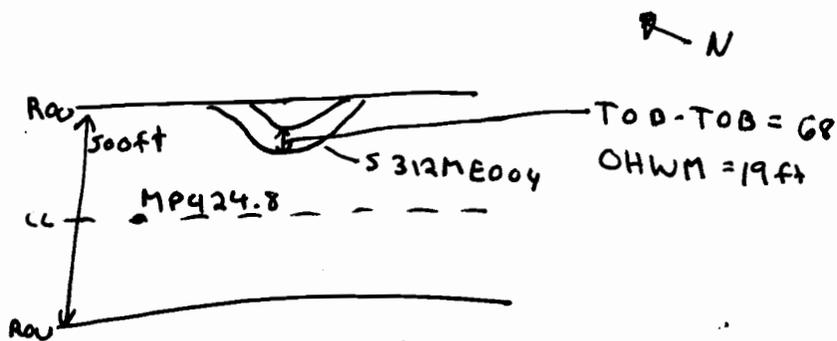


## Waterbody Data Form

Centerline  
  Re-Route  
  Access Road  
  Ancillary Facility  
  Transmission Line  
  Other

Centerline ID: <b>5312ME004</b>		Project Designated Name: <b>Morrelle Creek</b>	
Date: <b>10-5-12</b>	Client/Project Name: <b>Keystone XL</b>	Milepost Enter/Exit: <b>424.8</b>	
Team: <b>312</b>	State/County: <b>SD/ME</b>	Quad Name:	
Logbook No.: <b>1</b>	Logbook Page No.:	Tract No.: <b>ML-SD-ME-01175.000</b>	

Drawing (Please provide orientation arrow, all features identified, location to centerline, etc.)



Waterbody Type:	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Borrow Pit <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ag. Ditch <input type="checkbox"/> Other
Stream Flow:	<input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Very Slow <input checked="" type="checkbox"/> None
Flow Type:	<input type="checkbox"/> Perennial (Flows year round) <input checked="" type="checkbox"/> Intermittent (Flows <3 month) <input type="checkbox"/> None <input type="checkbox"/> Seasonal (Continuous flow ≥ 3 months) <input type="checkbox"/> Ephemeral (Flows only in response to rainfall)
Direction of Flow:	<input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/> E <input type="checkbox"/> SE <input checked="" type="checkbox"/> S <input type="checkbox"/> SW <input type="checkbox"/> W <input type="checkbox"/> NW <input type="checkbox"/> No Flow
OHWM Width (ft.):	<b>19 ft</b>
Sinuosity:	<input type="checkbox"/> Braided <input checked="" type="checkbox"/> Meandering <input type="checkbox"/> Straight <input type="checkbox"/> N/A
Stream Width (ft.):	<b>68 ft</b> Water Surface (At Crossing Location) <input type="checkbox"/> <del>  </del>
Stream Depth (ft.):	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1-3 <input type="checkbox"/> 3-6 <input type="checkbox"/> 6-12 <input type="checkbox"/> 12-18 <input type="checkbox"/> 18-24 <input type="checkbox"/> 24-36 <input type="checkbox"/> 36-48 <input type="checkbox"/> 48-60 <input type="checkbox"/> 60+
OHWM Indicators:	<b>bare banks</b>
Bank Height (ft.): (Looking Downstream)	Left: <input type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input checked="" type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+
	Right: <input type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input checked="" type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+
Bank Slope: (Looking Downstream)	Left: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input checked="" type="checkbox"/> 1:1 <input type="checkbox"/> Vertical
	Right: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input checked="" type="checkbox"/> Vertical

**Qualitative Attributes**

**Water Appearance:**  
 Clear       Turbid       Sheen on Surface       Floating Algal Mats  
 Slightly Turbid       Very Turbid       Greenish Color       Obvious Surface Scum  
 No Flow       Other:

**Stream Substrate %:**

**Aquatic Habitats:**  
 Sand Bar       Gravel Riffle       In-stream Emergent Plant      % Cover:  
 Gravel Bar       Deep Pools       In-stream Submerged Plant      % Cover:  
 Mud Bar       Bank Root Systems       Fringing Wetlands      Characteristics:  
 Undercut Banks       Overhanging Trees/Shrubs       None

**Aquatic Organisms Observed:**

**Riparian Zone:**  
Width of Natural Vegetation Zone from Edge of Active Channel out to Flood Plain (ft): Left - 50+      Right - 50+  
Vegetative Layers:  Herbs       Shrubs       Trees       Multiple  
Significant Bare Areas Within Riparian Zone       Yes       No       Unknown  
Evidence Of Non-Buffered Concentrated Flows:  Yes       No       Unknown

**Tributary Condition:**       Natural       Artificial (Man-Made)       Manipulated

**Channel Condition:**       Channelization/Braiding       Unnatural Straightening       Downcutting  
                                  Dikes/Berms       Excessive Bank Erosion       N/A

**Disturbances:**       Livestock Access to Riparian Zone       Manure In Stream or On Banks  
                                  Waste Discharge Pipes Present  
                                  Other:

**Habitat Characteristics, Aquatic, and Terrestrial Diversity Description:**  
Habitat ID Number:  
  
- rangeland

**Comments:**  
  
- some water present in pools - less than 6 inches in depth & stagnant

**Stream Quality:**       High       Moderate       Low  
  
- cattle access