

KEYSTONE XL PIPELINE PROJECT - STEELE CITY SEGMENT PIPELINE ROUTE VARIATION FORM			
1	<b>VARIATION TYPE:</b>		
	Refinement: <input type="checkbox"/>	<input checked="" type="checkbox"/>	Reroute: <input type="checkbox"/>
	Centerline: <input checked="" type="checkbox"/>	Valve Site: <input type="checkbox"/>	Pump Station: <input type="checkbox"/>
2	<b>LOCATION:</b>		
	Sketch: <input type="checkbox"/>	<input checked="" type="checkbox"/> Attached	Pictures: <input type="checkbox"/>
	State: <input type="checkbox"/>	<input type="checkbox"/> SD	County: <input type="checkbox"/>
	Township: <input type="checkbox"/>	<input type="checkbox"/> 2N	Range: <input type="checkbox"/>
	Section: <input type="checkbox"/>	<input type="checkbox"/> 23, 24	Centerline: <input type="checkbox"/>
		<input type="checkbox"/> 3/26/2010	MP: <input type="checkbox"/>
		<input type="checkbox"/>	to <input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/> 470.59 to <input type="checkbox"/> 471.48
3	<b>REASON FOR ROUTE VARIATION</b> (Please include reason for route variation):		
<p>This reroute is proposed to accommodate landowner's (ML-SD-HK-01460, Edwin &amp; Becky Heeb) request to avoid any construction impacts to the side slope of a pond on the landowner's property.</p>			
<b>DETAIL ROUTE VARIATION</b> (Please describe route variation in detail):			
<p>The proposed reroute starts at the PI near MP 470.6 and deviates slightly (~3") away from the centerline towards the southeast. It continues in this direction for 2,210 ft towards until it completely avoids having any construction impacts to the pond to its northeast. From here, the centerline turns toward the east and continues for ~2,490 ft to rejoin the current centerline at ~MP 471.5.</p> <p>The proposed reroute is civil surveyed by consulting with the landowner.</p>			
<b>ADDITIONAL IMPACTS</b> (Please include any additional impacts which may affect cost; crossings, induction bends, etc.):			
<p>The proposed reroute is ~5 ft longer than the current route.</p>			
Is there an increase/decrease in the number of crossings? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
If yes, please list: <input type="text"/>			
<b>COST ANALYSIS</b> (costs incurred or saved from the route variation)			
Additional length of route realignment:	<input type="text"/>	ft.	\$ <input type="text"/>
Additional length of side-hill construction:	<input type="text"/>	ft.	\$ <input type="text"/>
Additional length of wetland construction:	<input type="text"/>	ft.	\$ <input type="text"/>
Additional bore length (Road, RR):	<input type="text"/>	ft.	\$ <input type="text"/>
Additional foreign line/pipeline crossings:	<input type="text"/>	EA	\$ <input type="text"/>
Additional water body crossing (streams, ponds, etc.):			
	35 - 65' +	<input type="text"/>	EA \$ <input type="text"/>
	10' - 19'	<input type="text"/>	EA \$ <input type="text"/>
	Less than 10'	<input type="text"/>	EA \$ <input type="text"/>
Additional survey required:			
	Civil:	<input type="text"/>	mile \$ <input type="text"/>
	Cultural:	<input type="text"/>	mile \$ <input type="text"/>
	Biological:	<input type="text"/>	mile \$ <input type="text"/>
Miscellaneous costs saved or added due to route variation from <b>ADDITIONAL IMPACTS</b> listed above: <input type="text"/>			
Overall estimated costs of the route variation: \$ <input type="text"/> 1,170 (See "Additional Impacts" above)			

4  
**LAND / UNIVERSAL FIELD** *Doug Reichley*

a) Is a new landowner affected by the proposed variation? Yes  No

b) Is proposed realignment outside the easement/workspace? Yes  No

c) Is realignment proposed to satisfy landowner request? Yes  No

-If yes, name of landowner(s)/track number(s): ML-SD-HK-01460 (Edwin & Becky Heeb)

d) Has all the evaluation criteria been examined/provided for this specific discipline? Yes  No

If no, please explain why: \_\_\_\_\_

5  
**ENGINEERING/CONSTRUCTION / STATE PM** *David Guien*

a) Maximum deviation perpendicular to proposed alignment: 100 ft.

b) Has the centerline been staked for construction? Yes  No

c) Does route variation affect HDD crossing alignment? Yes  No

d) Is realignment proposed for engineering/construction reasons? Yes  No

e) Will the route variation require the relocation of a pump station? Yes  No

f) Has all the evaluation criteria been examined/provided for this specific discipline? Yes  No

If no, please explain why: \_\_\_\_\_

6  
**ENVIRONMENTAL / TROW** *Jonathan Minton*

a) Has the corridor been environmentally surveyed? Yes  No

b) Has the proposed variation been environmentally surveyed? Yes  No

c) Was variation proposed to satisfy environmental issues? Yes  No

d) Was realignment proposed to satisfy agency request? Yes  No

-If yes, name of agency(s): \_\_\_\_\_

e) Environmental features:

Added (+): None  Subtracted (-): None

Wetland ID # for newly impacted wetlands: \_\_\_\_\_

f) Has all the evaluation criteria been examined/provided for this specific discipline? Yes  No

If no, please explain why: \_\_\_\_\_

7  
**ENGINEERING / FACILITIES AND HYDRAULICS** *Sandra Gigovic*

a) Will the route variation require the relocation of a pump station? Yes  No

b) Will route variation impact hydraulics? Yes  No

c) Are additional valves required at HCA's or water crossing? **N/A to PS Engineer** Yes  No

d) Has all the evaluation criteria been examined/provided for this specific discipline? Yes  No

If no, please explain why: \_\_\_\_\_

8  
**STAKEHOLDER RELATIONS / TCPL** *Bud Andersen*

a) Does the variation result in any new stakeholders? Yes  No

b) Does the variation require follow-up with specific stakeholder groups? Yes  No

c) Was the variation proposed to satisfy stakeholder request? Yes  No

-If yes, please specify issue type (as it aligns to stakeholder database): \_\_\_\_\_

d) Has all the evaluation criteria been examined/provided for this specific discipline? Yes  No

If no, please explain why: \_\_\_\_\_

9

Originator: Land

Date: 11/9/2010

10

Received by: \_\_\_\_\_

Date: 11/9/2010

Fax to: ?

11

Assigned Tracking Number: 0188-SD-P2-470.6-471.5-I

12

Filed by: \_\_\_\_\_

Date: \_\_\_\_\_

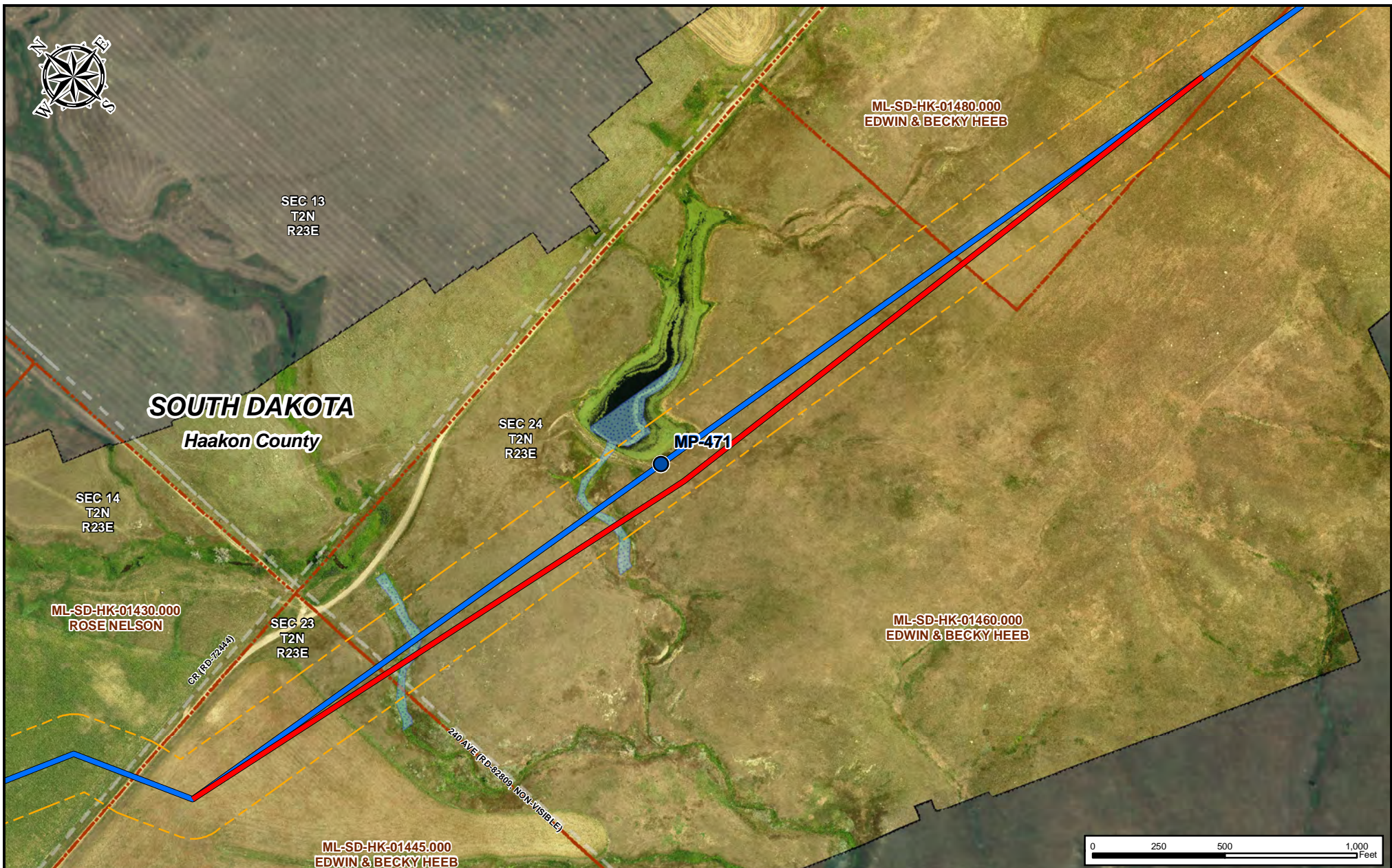
Fax to: ?

0188-SD-P2-470.6-471.5-I

KEYSTONE PIPELINE PROJECT - U.S. PHASE IV (STEELE CITY SEGMENT)

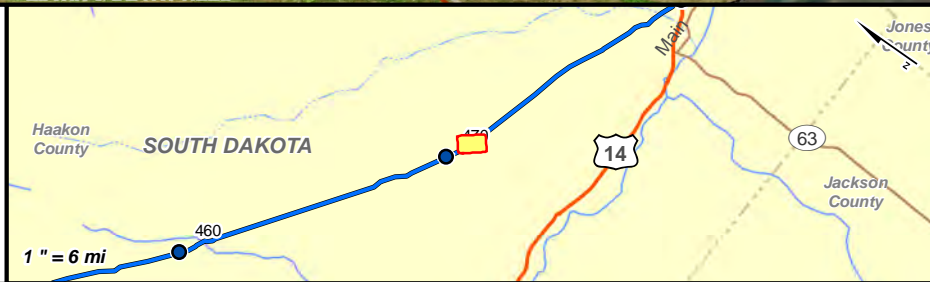
0188-SD-P2-470.6-471.5-1

KEYSTONE PIPELINE PROJECT - U.S. PHASE IV (STEELE CITY SEGMENT) ROUTE VARIATION AUTHORIZATION FORM			
Date: <input type="text" value="11/9/2010"/> Description: <input type="text" value="Reroute to avoid side slope of a pond."/>	Tracking Number: <input type="text" value="0188-SD-P2-470.6-471.5-1"/> MP: <input type="text" value="470.6"/> to <input type="text" value="471.5"/> Originated By: <input type="text" value="Land"/> Variation Form Attached: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
<b>Universal Field - Land</b> Doug Reichley Comments: <input type="text"/>	Variation: Approved <input checked="" type="checkbox"/> Rejected <input type="checkbox"/> <i>Doug Reichley</i> Date: <input type="text" value="11/9/2010"/> If Rejected Why? <input type="text"/>		
<b>State PM - Construction / Eng.</b> David Guien Comments: <input type="text"/>	Variation: Approved <input checked="" type="checkbox"/> Rejected <input type="checkbox"/> <i>David Guien</i> Date: <input type="text" value="11/9/2010"/> If Rejected Why? <input type="text"/>		
<b>Trow - Environmental</b> Jonathan Minton Comments: <input type="text"/>	Variation: Approved <input checked="" type="checkbox"/> Rejected <input type="checkbox"/> <i>Jonathan Minton</i> Date: <input type="text" value="11/10/2010"/> If Rejected Why? <input type="text"/>		
<b>AECOM -Risk Assesment</b> Heidi Tillquist Comments: <input type="text" value="This reroute does not significantly alter risk to HCAs and is therefore acceptable from a risk perspective."/>	Variation: Approved <input checked="" type="checkbox"/> Rejected <input type="checkbox"/> <i>Heidi Tillquist</i> Date: <input type="text" value="11/15/2010"/> If Rejected Why? <input type="text"/>		
<b>Project Management</b> Butch Wallace Comments: <input type="text"/>	Variation: Approved <input checked="" type="checkbox"/> Rejected <input type="checkbox"/> <i>R.E. Wallace</i> Date: <input type="text" value="11/16/2010"/> If Rejected Why? <input type="text"/>		
<b>Stakeholder Relations</b> Bud Andersen Comments: <input type="text"/>	Variation: Approved <input type="checkbox"/> Rejected <input type="checkbox"/> _____ Date: _____ If Rejected Why? <input type="text"/>		
<b>Facilities:</b> Sandra Gigovic Comments: <input type="text"/>	Variation: Approved <input checked="" type="checkbox"/> Rejected <input type="checkbox"/> <i>Sandra Gigovic</i> Date: <input type="text" value="11/15/2010"/> If Rejected Why? <input type="text"/>		
<b>TransCanada:</b> Alan Lietz Comments: <input type="text"/>	Variation: Approved <input checked="" type="checkbox"/> Rejected <input type="checkbox"/> <i>Alan Lietz</i> Date: <input type="text" value="11/16/2010"/> If Rejected Why? <input type="text"/>		
Forward to: Butch Wallace <input checked="" type="checkbox"/> Jonathan Minton <input checked="" type="checkbox"/> Heidi Tillquist <input checked="" type="checkbox"/> David Guien <input checked="" type="checkbox"/> Bud Andersen <input checked="" type="checkbox"/> Alan Lietz <input checked="" type="checkbox"/> Doug Reichley <input checked="" type="checkbox"/> Sandra Gigovic <input checked="" type="checkbox"/>			
<b>Dispute Resolution, if Required:</b> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: <input type="text"/>	Teleconference Required: Yes <input type="checkbox"/> No <input type="checkbox"/> Decision: <input type="text"/>		
<b>Database -</b> <input type="text"/> Filed By: <input type="text"/> Date: <input type="text"/> Fax to: ?	<b>Database -</b> <input type="text"/> Filed By: <input type="text"/> Date: <input type="text"/> Fax to: ?		



**Legend**

- Milepost
- Centerline (2010-03-26)
- Revised Route Variation
- 300ft Corridor
- Waterbody
- Wetland
- Parcel Boundary
- Section Line
- County Boundary
- State Boundary



KEYSTONE US - PHASE IV PIPELINE PROJECT PROPOSED ROUTE VARIATION 0188 HAAKON COUNTY, SD					
	DATE	PROJECT	MAP PARAMETERS		
	Nov. 1, 2010	50388X	PROJECTION: UTM 14, NAD83, US FT SCALE: 1" = 500', 1:6,000		
DRAWN BY	CHECKED BY	APPROVED BY	ROUTE VARIATION NUMBER	SHEET	REV.
ACB	CPA	WSF	0188-SD-P2-470.6-471.5-1	001	0