PipeLine Movement Listing

Client: Enbridge Energy Limited Partnership | Run Date: July 31, 2013 | Projection: UTM | Zone: 16

Project: NPS 20 GEOPIG Geometry Inspection | Location: Line 5 Straights of Mackinac-East Loop | Datum: WGS 84 | C.M.: -87

BAKER HUGHES

Feature Identifier	Absolute Distance (ft)	Enbridge Chainage (ft)	Largest Strain Difference			Strain Value at Largest Diff.			Pipeline Movement		Start Chainage (ft)	End Chainage (ft)	Length (ft)	Northing (m)	Easting (m)	Height (m)	Comments
			Vert. (%)	Horz. (%)	Total (%)	Vert. (%)	Horz. (%)	Total (%)	Vert. (ft)	Horz. (ft)							
STR 1	32.13	125.2	.18	.28	.33	-.13	-.16	.21	6.99	25.26	19.01	167.36	148.35	5,078,850.01	674,442.28	138.76	Pipe Rerouted

Note (1) Chainage and coordinates refer to the location of the peak total strain difference
(2) Peak vert mvmt, peak horz mvmt peak total strain diff may not be at the same location
(3) Positive vertical movements mean the pipe has moved up
(4) Positive horizontal movements mean the pipe has moved left