PipeLine Movement Listing

Client: Enbridge Energy Limited Partnership
Project: NPS 20 GEOPIG Geometry Inspection
Run Date: July 30, 2013
Location: Line 5 Straights of Mackinac - West Loop
Projection: UTM
Datum: WGS 84
Zone: 16
C.M.: -87

BAKER HUGHES

Feature Identifier	Absolute Chainage (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	115.11	16.31	4.91	.05	4.91	-4.90	-.06	4.90	9.02	-11.02	75.79	223.10	147.31	5,078,865.97	674,354.99	143.03	Pipe replacement

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